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The RADIO-ELECTRONIC MASTER

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EQUIPMENT
Sold through
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THE RADIO-ELECTRONIC MASTER

GUIDE TO PRODUCT SECTIONS

As publishers of The Radio-Electronic MASTER, we take great pride in the fact that this publication has reflected the progress and growth of the electronic industry for more than 30 years.

The 33 Product Sections listed below broadly categorize related electronic products and services so that you can quickly compare similar items within the sections. However, to locate specific products, always refer to the General Index. NOTE: Catalog pages are arranged alphabetically by manufacturers' names within each section.

Sec. 1200 Pages 21 thru 49	Antennas & Accessories
Sec. 1300 Pages 50 thru 91	Audio: High Fidelity Tuners, Amplifiers, Sound Systems, Intercoms, Kits
Sec. 1320 Pages 92 thru 146	Audio: Speakers & Systems, Enclosures, Microphones, Headphones, Accessories
Sec. 1340 Pages 147 thru 175	Audio: Recording & Playback Equipment, Accessories
Sec. 1400 Pages 176 thru 294	Cabinets, Chassis, Racks, Boxes, etc.
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Sec. 2600 Pages 818, 819	Fans, Blowers, Cooling Equipment
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Sec. 5100 Pages 1260 thru 1327	Switches, Circuit Breakers, Fuses, Counters
Sec. 5400 Pages 1328 thru 1375	Tools (Hand & Power), Soldering Tools, Solder Supplies
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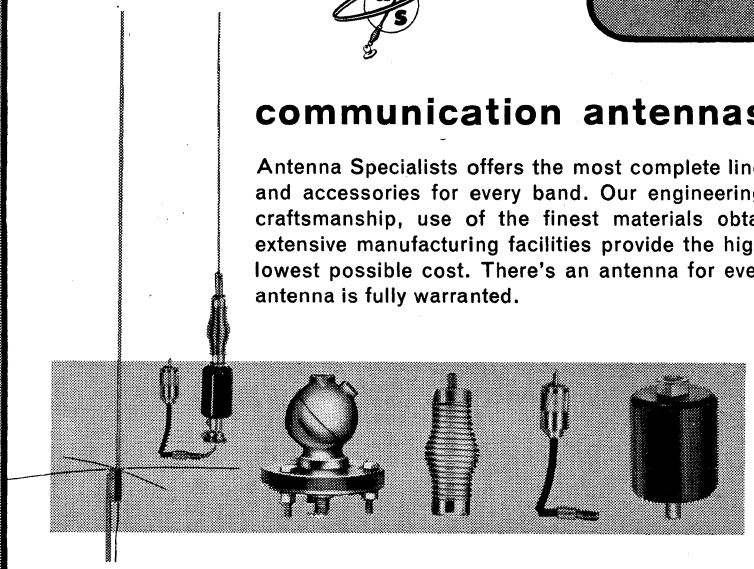

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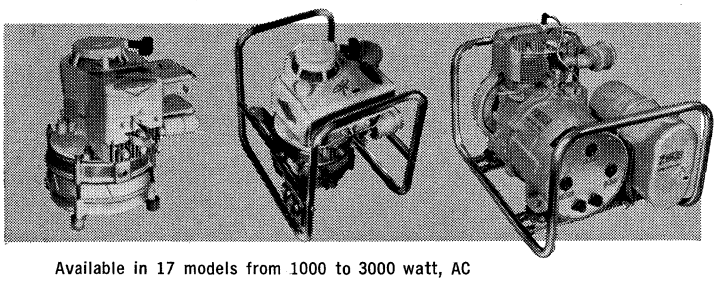

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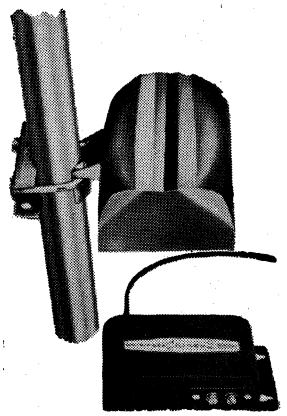

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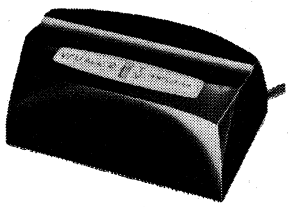
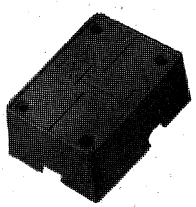
VU-ALL 2, WORLD'S FIRST INDOOR UHF/VHF AMPLIFIER Installs easily anywhere in the home. Unique two-transistor circuit design achieves excellent gain, low noise figure for superior reception on up to two TV sets. For 2-set operation it provides an excellent impedance match, necessary isolation between sets, plus an increase in the antenna signal power. Single 300 ohm input accepts combined UHF/VHF twinlead. Low noise 2-transistor circuit provides gain to bring in weak channels and minimize overloading on strong local station. Built in FM filter prevents overload from strong local FM Stations. 300 ohm stripless terminals. Net **$29.15**

Coloramp U/V Same as U/Vamp-2 except that it has a combined UHF/VHF input designed for use with single 300 ohm downlead with all-channel antennas like the Blonder-Tongue Color Ranger/U-Ranger combination. Net. **$33.25**



Patent Pending

ALL-CHANNEL ACCESSORIES

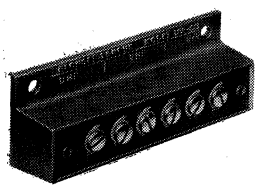


300-OHM, 2-WAY UHF/VHF/FM COUPLER, TV-2—Compact, economy indoor coupler for connecting 2 sets to single twin-lead cable. Recommended only for strong signal areas. Net **$1.30**

DELUXE, 300-OHM, 2-WAY, UHF/VHF/FM COUPLER, A-102 U/V—Weatherproof coupler for connecting 2 sets to single twin-lead cable, or coupling 2 antennas together. High isolation between sets with extremely low insertion loss. Backmatched to increase picture sharpness. Net **$2.40**

300-OHM 4-WAY, UHF/VHF/FM COUPLER, A-104 U/V—Similar to A-102 U/V, but for connecting 4 sets to single twin-lead cable. (An A-102 U/V and 2 A-104 U/V's can be used together to provide 8-set operation.) Net **$3.70**

75-OHM 2-WAY, INDOOR UHF/VHF/FM COUPLER, MDC-2 VU—Professional-quality. Connects single coaxial cables from 2 sets. May also be used as antenna combiner with baluns and coaxial cable. High isolation on VHF and UHF with very low insertion loss. Net **$15.55**



300-OHM HIGH-LOW VHF COMBINER/SPLITTER, A-105—Weatherproof. Couples high- and low-band VHF antennas to single downlead. Net **$4.10**

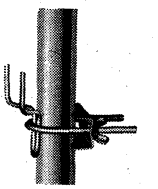
UHF/VHF COMBINER/SPLITTER, UV-C/S—Indoor unit provides separate UHF and VHF outs from single 300-ohm cable carrying both signals, for connection to converter or all-channel TV set with separate UHF and VHF inputs. Low loss, high isolation. Net **$2.25**

DELUXE UHF/VHF COMBINER/SPLITTER, A107—Weatherproof unit combines the outputs of separate UHF and VHF antennas to feed single 300-ohm downlead. Also provides separate UHF and VHF outputs from single cable carrying both types of signals. Low loss, high isolation. Net **$3.60**

UHF/VHF/FM COMBINER/SPLITTER, UVF-C/S—Weatherproof. Connects separate UHF, VHF, and FM antennas to feed single 300-ohm downlead. Also provides separate UHF, VHF and FM outputs from single cable carrying all three types of signals. Low loss, high isolation. Net **$3.75**

DELUXE UHF/VHF/FM COMBINER/SPLITTER, UVF-1—Weatherproof. Features extremely low loss. Provides separate UHF, VHF, and FM outputs from a single cable carrying all three types of signal and also enables a single down lead to be fed from separate UHF, VHF and FM antennas. Excellent isolation between UHF, VHF and FM sections. Net **$9.00**

JIFFY-MOUNT—Easily installed, heavy-duty mast-mount for Blonder-Tongue combiner/splitters, couplers, baluns, etc. Accommodates both small (A-102 U/V etc.) and Large (UVF-1, etc) size cases. For masts of up to 1½" O.D. Net **$.45**



UHF/VHF SPLITTER, XFMR, CO-MATCH II—For use with separate UHF and VHF antennas where 75 ohm coax is used. Performs as a combination matching transformer and UHF/VHF splitter at set. Weatherproof. BTF connector with male connector supplies. Accepts 75-ohm coax at its input and provides separate 300 ohm U and V outputs at terminal of the all-channel set. Net **$5.60**

UHF/VHF/FM MATCHING TRANSFORMER, MT-283—High-quality indoor/outdoor network. Matches 300- to 75-ohm or 75- to 300-ohm impedance. Ideal for matching all-band antennas to coaxial downlead. Can also be used to match 300-ohm set impedance to 75-ohm downlead. Mast-Mounting hardware and male connector supplied. Net **$4.75**

UHF/VHF/FM INDOOR MATCHING TRANSFORMER, 3370 CABLEMATCH U/V—Matches 75- to 300-ohm impedance. Especially suited for matching TV or FM sets inputs to a coax distribution system. Male connector supplied. Net **$3.20**

VHF/FM INDOOR MATCHING TRANSFORMER, 3334 CABLEMATCH—Similar to the model 3370 except for VHF and FM only. Male connector supplied. Net **$2.00**

ALL-CHANNEL 300 OHM OUTLET PLATE, TF-331—All-channel, COLOR APPROVED outlet fits standard AC receptacles. Designed to allow 300 ohm distribution systems to terminate at wall outlets for easy connect-disconnect functions, 300 ohm stripless screw output. Net **$2.10**

Net

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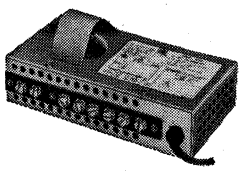
BLONDER-TONGUE

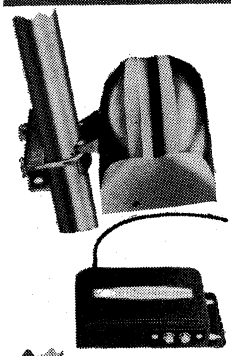
IN-THE-HOME VHF/FM SIGNAL AMPLIFIERS

TRANSISTOR 4-SET TV/FM BOOSTER, MODEL IT-4—Inexpensive to operate and requires almost no maintenance. Specially designed for weak signal areas. Provides crisp, brilliant pictures for as many as four TV or FM sets from a single antenna. Used for one set it increases signal strength 4 to 8 times. Used for two, three or four sets, it has power to spare and necessary isolation between sets. Net **$21.15**

4-SET TV/FM BOOSTER, MODEL B-24c Triples signal power to one set. Also acts as an amplified coupler to operate up to 4 TV or FM sets. Provides proper impedance match and isolation between sets and increases picture power when used with 2 or 3 sets. With 4 sets it insures that each TV or FM set receives more than 90% of the signal power picked up by the antenna. Net **$18.30**

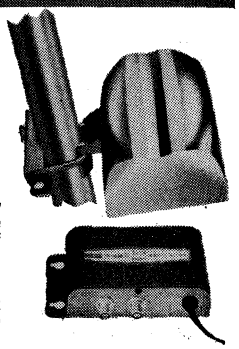


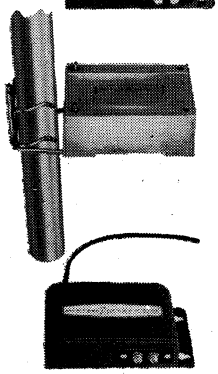
MAST MOUNTED VHF AMPLIFIERS



VAMP-2, 2-TRANSISTOR, 2-SET VHF/FM AMPLIFIER Deluxe home TV amplifier. Costs a few dollars more than most all-transistor amplifiers, but outperforms them all. Powerful 2-transistor circuit brings in weak, distant channels with sparkling clarity. All new circuit minimizes overload from strong local TV or FM stations. When used with one set—amplifier increases signals five times. Convenient splitter at the power supply, provides connections to 2 sets. Excellent for color. Easy installation on the mast in seconds. The remote power supply can be installed anywhere indoors, sends a safe 15 volts to the amplifier on the same twinlead that brings the signal down. The amplifier is housed in a rugged weather-proof aluminum cast housing. Stripless 300 ohm screws. Net **$27.40**

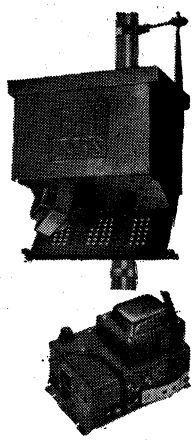
VAMP-2-75 75 OHM VHF/FM AMPLIFIER Powerful, low-noise 2-transistor TV amplifier is ideal as the heart of the small professional system in the home, TV showroom or service shop. Delivers all the signal power to bring in the weak signals, will not overload due to strong local TV or FM stations. Excellent for color. Most important, it is equipped for use with 75 ohm coax cable. Single 75 ohm output can be split to deliver signals to as many as 8 TV sets. Input is 300 ohm, eliminating the need for a separate balun. Rugged, weatherproof cast aluminum amplifier housing. Can be mounted on mast in seconds. Remote AC power supply, which can be installed anywhere indoors, sends a safe 15 volts to amplifier on the same coax cable that brings the signal down. Net **$31.30**



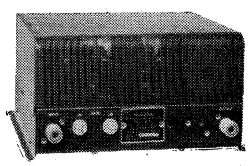


VAMP-1 TRANSISTOR VHF/FM AMPLIFIER Has a lower noise figure than any tubed booster on the market, lower than most transistor boosters. Designed for mast mounting to take advantage of best signal-to-noise ratio and provides clean snow-free reception. Especially designed transistor circuit increases antenna signals up to five times. Especially designed FM trap — reduces overload from strong local FM stations. Easy installation on any antenna mast in seconds. Separate remote power supply can be installed at set. Patented 300 ohm stripless terminals. Complete with mounting hardware. Net **$18.15**

DELUXE TV/FM AMPLIFIER (with remote power supply)—MODEL AB-3—Low-noise amplifier virtually eliminates snow. Can be used in a fringe area home installation, or as a pre-amplifier in a master TV system. The remote power supply sends AC power up to the mast-mounted amplifier on the same down-lead that carries the antenna signal down. It provides the correct power to the amplifier for any length of connecting cable up to one mile (when open twin-lead is used). Amplifier uses low noise frame-grid tubes. Provides 25 db minimum gain on all VHF-TV and FM stations. Choice of 300 ohm or 75 ohm output. Stripless terminals for 300 ohm twinlead; solderless "quick-disconnect" terminals for 75 ohm coax. No balun is needed because the input is matched to 300 ohm antennas. Net **$91.15**



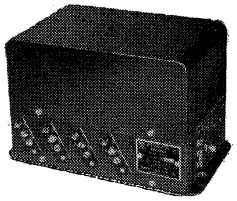
LARGE HOME AND SMALL MATV SYSTEMS



INDOOR BROADBAND VHF/FM AMPLIFIER, MLA-FM High-output broadband amplifier for continuous use in TV/FM systems of up to 200 outlets. Has independent high- and low-band amplifying sections with individual gain controls. In addition, the unit has a control for tilting the bandpass to compensate for cable low. Gain: channel 2-6 & FM, 33 db; channel 7-13, 40db. Net **$113.95**

BROADBAND VHF/FM AMPLIFIER, MODEL HAB For use in master, community and home TV systems. 25 db min. gain. Both 300 and 75 ohm inputs and outputs. Separate hi and lo band gain controls. Uses frame grid tubes. Max. Output (across 75 ohms): 0.9 volts for less than 1% cross modulation (low band); 0.6 volts for less than 1% cross modulation (high band): 2.5 volts for less than 3% cross modulation (low band); 1.0 volts for less than 3% cross modulation (high band). Net **$52.65**

8 OUTLET VHF DISTRIBUTION AMPLIFIER, MODEL DA8-B, Ideal for garden apartments, motels, TV showrooms, deluxe home installation and other small TV systems. Provides 8 amplified, isolated TV outlets from one input. Choice of 75 ohm or 300 ohm input and output. 10 db minimum gain on all channels at each outlet. 22 db isolation. Low noise, all triode circuitry. Prevents overload through 10:1 gain control range. Net **$68.85**



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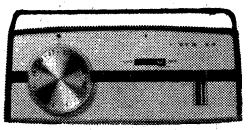
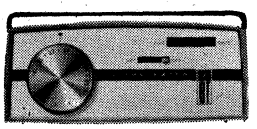
BLONDER-TONGUE

UHF CONVERTERS

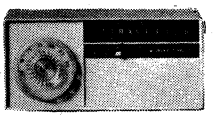


ALL-CHANNEL, ALL TRANSISTOR UHF CONVERTER BTX-99B Adds all UHF channels (14 to 83) to any TV set. The ideal converter for prime signal areas. In many of these areas, it performs well with an indoor antenna. The many quality features that made the original '99' America's best selling converter are incorporated in this unit. The all-transistor circuit enhances the performance of the BTX-99 by providing maximum signal power and drift-free, distortion free performance. UL approved. Net **$19.85**



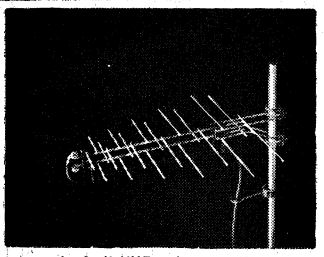
DELUXE ALL-CHANNEL, ALL TRANSISTOR UHF CONVERTER/AMPLIFIER, MODEL BTX-11A Adds all UHF channels (14 to 83) to any TV set. The most powerful and stable UHF converter ever engineered for the home. It is the perfect selection almost anywhere within the range of a UHF station producing superlative TV pictures even in weak signal areas.

The BTX-11 features easy pinpoint tuning with a dual-speed channel selector and vernier tuning. This deluxe converter also incorporates a powerful low-noise signal amplifier as well. It triples TV signal strength. The result: sharp, clear black and white pictures, full fidelity, brilliant color TV—no ghosts, no snow. UL approved Net **$31.20**



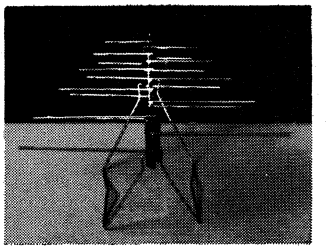
ALL-CHANNEL TUNNEL DIODE UHF CONVERTER, MODEL BTD-44 Adds UHF channels (14 to 83) to any TV set. Especially recommended for prime signal areas as the most economical quality converter available today. Utilizes tunnel diode for maximum reliability. Uses penny pinching modern cordless power for convenience and economy of operation. Operates on ordinary flashlight battery which lasts from 6 to 9 months. Net **$13.20**

UHF ANTENNAS



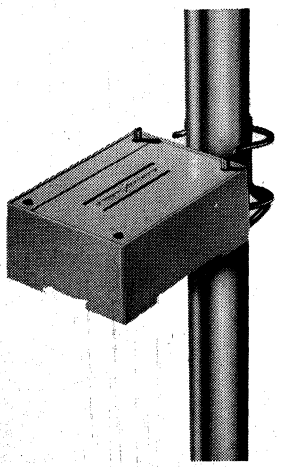
Blonder-Tongue UHF antennas are designed to match the high performance standards on all UHF channels of its famed UHF converters. They employ the well-known Periodic principle.

GOLDEN DART OUTDOOR UHF ANTENNA The unique use of the Periodic principle contributes to a uniform, high gain across the entire UHF spectrum for sharp, ghost-free pictures. Full bandwidth — makes the Golden Dart excellent for color and black & white TV. Completely pre-assembled — nothing to snap out, no screws to tighten, the Dart mounts to the mast in seconds. Smallest and most compact of all UHF antennas, it's easy to piggyback with any VHF antenna. Rugged, unitized and welded construction means no moveable joints to cause trouble. For deep fringe area reception, two Darts can be stacked with sturdy, easy-to-use stacking bars (model 3519). Dart Net **$4.15** Stacking bars Net **$1.00**



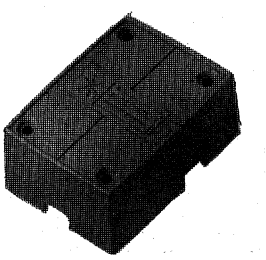
GOLDEN ARROW INDOOR UHF ANTENNA Outperforms other available indoor UHF antennas by providing peak performance on all UHF channels 14-83. The Golden Arrow employs 10 working elements to provide constant high gain and matched impedance on all channels. The excellent design minimizes ghosts and other interference. Full bandwidth, flat response means sharp black and white reception and true fidelity color picture. Sturdily built. Net **$3.95**

UHF AMPLIFIERS AND COUPLERS



CHANNEL 14 to 83 MAST-MOUNTED UHF AMPLIFIER ABLE-U2, Where black and white pictures are fuzzy, where color pictures lack brilliance, the addition of the Able-U2 will produce a dramatic improvement. The Able-U2 uses a 2 transistor circuit to proved maximum gain, excellent impedance match and assure low-noise, snow-free reception. Remote AC power supply sends a safe 15 volts to the mast mounted amplifier on the same down lead that delivers the signals to the set. 300 ohm stripless screws at terminals. Mast mounting hardware supplied. Net **$29.65**

2-WAY UHF/VHF/FM COUPLER, A-102 U/V—This COLOR APPROVED channel 2 to 83 coupler is capable of delivering full power signals to 2 all-channel sets, or 2 VHF sets or a VHF and an all-channel receiver operating on the same antenna. Can be used to couple two antennas. Couples FM sets too. Excellent interest isolation, low loss. Patented 300 ohm stainless steel stripless terminals. Net **$2.40**



4-WAY UHF/VHF/FM COUPLER, A-104 U/V—This channel 2 to 83 COLOR APPROVED coupler has flat response from 54-216 mc, 470-890 mc. Feeds 4 all-channel receivers, or any mixture of all-channel, VHF or FM sets up to 4 from a single antenna. Excellent interset isolation. Patented 300 ohm stainless steel stripless terminals. Net **$3.70**

DELUXE UHF-VHF COMBINER/SPLITTER A-107 Combines UHF and VHF antennas, or provides separate VHF and UHF output from a single antenna. Isolation 15db. 300 ohm. Net **$3.60**

Net

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BLONDER-TONGUE

COLOR RANGER UHF/VHF/FM LOG PERIODIC ANTENNAS

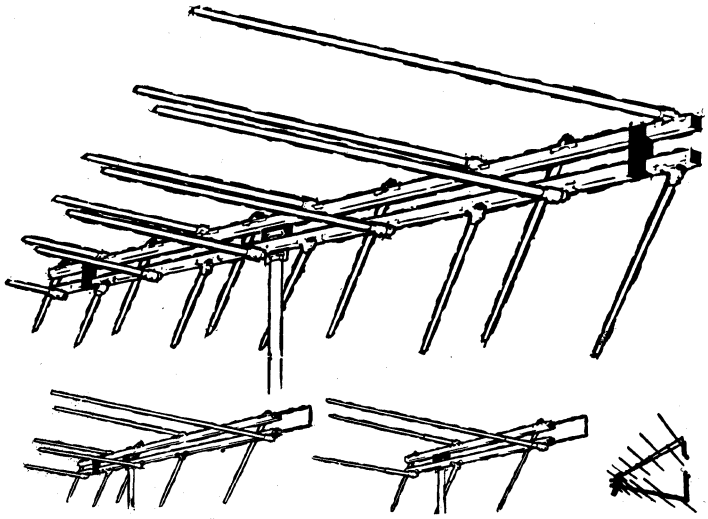
The first TRUE log periodic antenna, . . . the new Color Ranger, outperforms other antennas in any reception area. It is particularly effective for color or where ghosting is a problem because it has:

1. **Uniform gain across entire band for brilliant color reception.**
2. **Best front to back ratio in the industry for outstanding reception in weak signal areas and positive ghost-killing power.**
3. **Uniform impedance across entire band.**

It's convertible, too! The Color Ranger VHF antennas converts to UHF/VHF instantly and at any time, now or as needed for new UHF stations coming on the air, with the U-Ranger add-on. No couplers, no extra downlead required! One lead carries VHF/FM and UHF signals.

CONSTRUCTED TO MAINTAIN THEIR HIGH STANDARD OF PERFORMANCE FOR MANY YEARS

• Double boom construction. • Boom serves as transmission line — no wires to corrode or break • Elements reinforced with 6-inch tubing • Perma-Gold conductive coating • Heavy-duty 7/16 inch elements (CR-10, CR-7 and CR-5 only) • Spring-loaded knife edge contact points maintain continuity of signal • Stainless steel stripless screws for 300-ohm twin-lead connection • Snapout elements for fastest assembly • Riveted polypropelene end caps on boom maintain shape under all conditions • U-bolt mounting for easy assembly and extra ruggedness.



COLOR RANGER-10—10-element log-periodic. Color TV and FM stereo. All areas—prime & fringe—especially where ghosts are a problem. Net **$22.95**

COLOR RANGER-5—5-element log-periodic. Color TV and FM stereo. Strong-to-medium signal areas. Net **$13.47**

COLOR RANGER-3—3-element log-periodic. Color TV and FM stereo. Strong signal areas where there are no ghost problems. Net **$8.10**

U-RANGER—11-element UHF log-periodic add on to any VHF Color Range for channels 2 to 83—one downlead for UHF/VHF/FM. Net **$5.37**

FM STEREO RANGER-8—8-element log-periodic featuring exceptionally flat response over the entire FM band. Net **$23.25**

FM STEREO RANGER-5—5-element log-periodic with exceptionally flat response over the entire FM band. Net **$13.47**

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Net

BLONDER-TONGUE

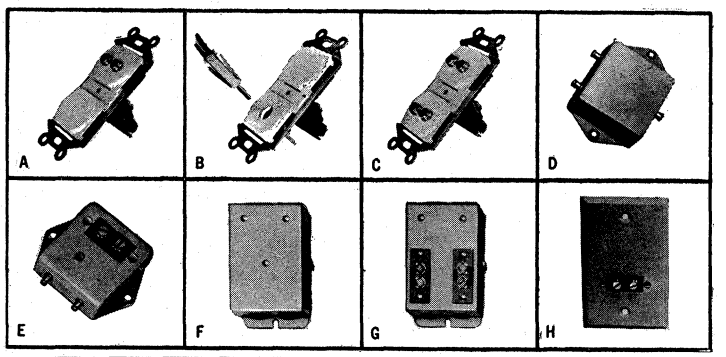
SPLITTERS, TAPOFFS, FEED-THRUS, BALUNS, CONNECTORS

TAPOFFS AND FEED-THROUGHS

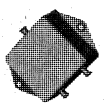
Quality components and special care in design and manufacture are the hallmarks of all Blonder-Tongue tapoffs and feed-throughs, which are available with and without built-in matching transformers. Two basic types—flush- and surface-mounted—are available. Use the chart below to choose the tapoffs and feed-throughs to meet your system requirements.

Model	Fig.	Type	Input Impedance	Output Impedance	No. of Outlets	Output† Connector	Isolation in db	Thru-line Loss in db	Mounting	Channels Passed	Net Price
V-1S12-X	A	Tapoff	75	300	1	Stripless Screws	12	1.2	Flush	2-13+FM	$2.10
V-1S17-X	A	Tapoff	75	300	1	Stripless Screws	17	0.7	Flush	2-13+FM	2.10
V-1P12	B	Tapoff	75	75	1	Solderless Autoplug	12	1.2	Flush	2-13+FM	2.30
V-1P17	B	Tapoff	75	75	1	Solderless Autoplug	17	0.7	Flush	2-13+FM	2.30
V-2S-12X	C	Tapoff	75	300	2	Stripless Screws	12	1.2	Flush	2-13+FM*	3.45
V-2S-17X	C	Tapoff	75	300	2	Stripless Screws	17	0.7	Flush	2-13+FM*	3.45
TE-771B	D	Tapoff	75	75	1	QD‡	17	0.7	Surface	2-13+FM	2.05
TS-731B	E	Tapoff	75	300	1	Stripless Screws	17	0.7	Surface	2-13+FM	2.90
TO-2-75	F	Tapoff	75	75	2	Solderless Autoplug	17	0.7	Surfcae	2-13+FM*	5.10
TO-2-300	G	Tapoff	75	300	2	Stripless Screws	17	0.7	Surface	2-13+FM*	5.10
V-1P17-VU	B	Tapoff	75	75	1	Solderless Autoplug	17	0.6V 0.9U	Flush	2-83+FM	3.05
V-1S17-VUX	A	Tapoff	75	300	1	Stripless Screws	17	0.6V 1.0U	Flush	2-83+FM	3.35
V-3170-17	C	Tapoff	75	300	2	Stripless Screws	17	0.8V 1.1U	Flush	2-83+FM**	4.60
TF-331-U/V	H	Feed thru	300	300	1	Stripless Screws	None	1.5V 1.5U	Flush	2-83+FM	2.10
V-1PFT	B	Feed thru	75	75	1	Solderless Autoplug	None	NA	Flush	2-13+FM	1.80

*Loss per outlet used **One outlet VHF/FM—one outlet UHF
†"Stripless Screws" are covered by U.S. Pat. No. 3,016,510 and foreign patents
‡QD connector attaches directly to RG-59-type cables without making connector



SPLITTERS



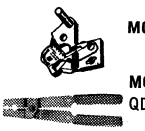
MODEL TS-772. Indoor surface mounted 2-way Hybrid Splitter. Splits or combines two 75 ohm cables. QD connectors. Net **$4.50**

MODEL TS-772F with F connector. Net **$5.40**

MODEL TSb-774. Indoor surface mounted 4-way splitter. Splits four 75 ohm cables. QD connectors. Net **$5.30**

MODEL TS774F with F connector. Net **$8.45**

TOOLS



MODEL S-1 Rotary coax Cutter and Stripper. Net **$3.65**

MODEL CR-2. Crimping tool and cutting pliers for QD connectors. Net **$8.40**

CABLE CONNECTORS

P-11T	"UHF" type solderless male plug for RG-11/U cable.	Net **$1.15**
P-59T	"UHF" type solderless male plug for RG-59U cable.	Net **1.15**
MC	"UHF" type cable connector. Connects two male plugs or one plug and an MPT-75 terminator.	Net **1.90**
CL-1111	Couples two RG-11/U cables together.	Net **2.00**
CL-1159	Couples RG-11U cable to RG-59/U cable.	Net **2.00**
CL-5959	Couples two RG-59/U cables together.	Net **2.00**
AC-1000	Feed-thru bushing. Use with CL-5959, CL-1159.	Net **2.55**
AD-1	Adapts. Q.D. to UHF SO-239 connectors.	Net **2.70**
AD-2	Type BT-"F" to SO-239 adaptor	Net **4.10**
P-75T	Male solderless auto type plug	Net **.45**
POU-59	Push-on UHF plug for RG-59/u.	Net **2.40**
POB-59	Push-on Type BT-"F" plug for RG-59/u.	Net **1.55**
QDP	Solderless "Quick-Disconnect" plug	Net **.25**
BTF-590	F-type connector mates with BTF-100 and other F-type jacks. Solderless connector for RG-59 type cables. Silver plated.	Net **.35**
BTF-591	F-type connector—similar to BTF-590, except that it has swivel which allows threaded section of connector to turn independently of connector ferrule.	Net **.45**

MATCHING TRANSFORMERS

MBb	Outdoor balun matches 75 ohms to 300 ohms or vice versa.	Net **$6.50**
Cablematch	Indoor, 75 ohm to 300 ohm. VHF and FM	Net **2.00**
Cablematch F	Indoor. 75 to 300 ohm. VHF and FM. Type F. socket.	Net **2.05**
Cablematch U/V	Indoor. 75 to 300 ohm. VHF and FM.	Net **3.20**
TS-731	Indoor, surface mounted. Matches 75 ohms to 300 ohms or vice versa.	Net **3.30**
TF-731	Indoor, flush mounted. Matches 75 ohms to 300 ohms or vice versa.	Net **3.00**
MT-283	UHF/VHF indoor/outdoor. Matches 300 ohms to 75 ohms or vice versa.	Net **4.75**
V-1SMT	Flush-mounted. Versatap design. Matches 75-ohm (RG-11/u or RG-59u) cable to 300-ohm TV set. 300 ohm stripless output.	Net **3.30**

75 OHM TRAPS & ATTENUATORS

MODEL MWT-2 LO-BAND/FM TRAP. Can be tuned to attenuate any frequency from 54 thru 180 mc. Less than 0.25 db loss. Net **$41.25**

MODEL MWT-3 HI-BAND TRAP. Can be tuned to attenuate any frequency from 135 thru 216 mc. Less than 0.25 db loss. Net **$42.25**

MODEL SA-3 VARIABLE ATTENUATOR. 0 to 38 db. Lab. accuracy. Steps of 6 db, 12 db and 20 db. 75 ohm input and output. QD. connectors. Net **$12.00**

MODEL 4121 VARIABLE ATTENUATOR. 0 to 62 db in steps of 1 db. Lab accuracy. 75 ohm input and output. "UHF" SO-239 type connectors. DC-900 mc. Net **$42.00**

Net

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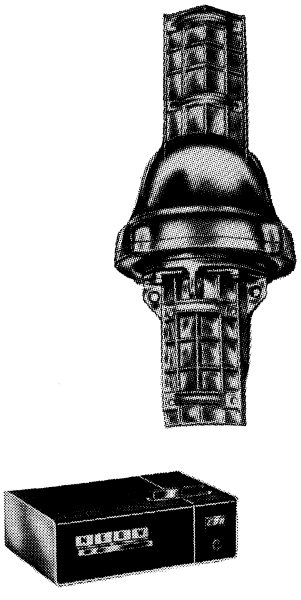
CDE CORNELL-DUBILIER

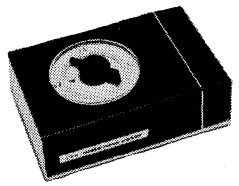
Antenna Rotor Systems

TELEVISION & FM ROTORS



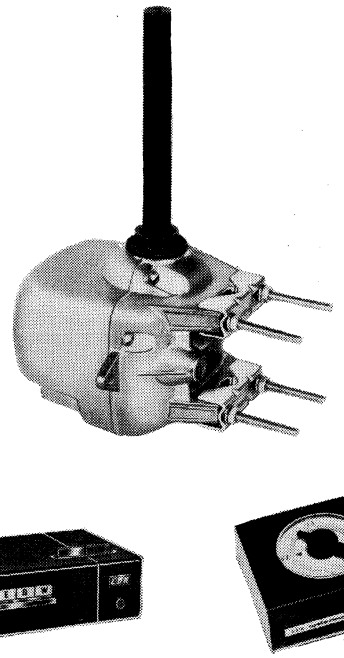
TR2C
Manual Control
Coupled with the CDE heavy duty 'Bell' rotor. Reception can be tuned to perfection while viewing or listening to the reception.

Uses 8 wire cable



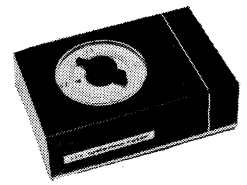
AR22R
Fully Automatic Control
Coupled with the CDE heavy duty 'Bell' rotor. The knob is turned to the desired direction and the antenna rotates and stops precisely at the desired point. The dial is easily marked with channel numbers or call letters.

Uses 4 wire cable



TR10
Manual Control
Designed specifically for the antenna requirements of metropolitan and suburban areas. The built in mounting mast of this rotor prevents the installation of antennas above the capability of the rotor. The control unit is identical to that of model TR2C.

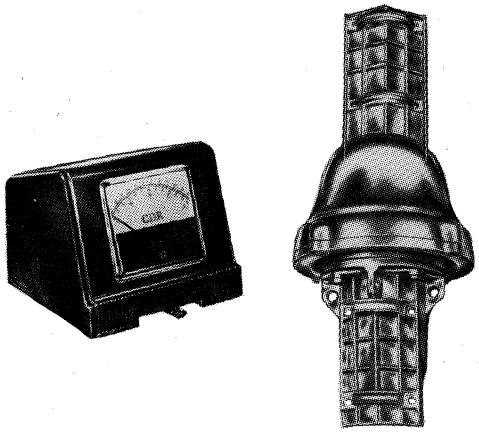
Uses 8 wire cable



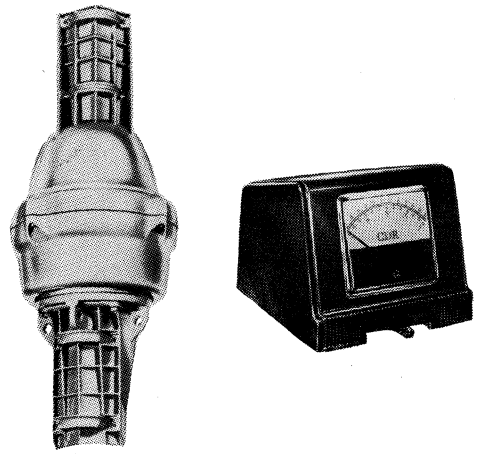
AR10
Fully Automatic Control
The precision and convenience of automatic control, identical to that of model AR22R, coupled with this rotor designed to accommodate 'In-Line' and low-silhouette antennas makes this an excellent selection where non-stacked, non-crossbraced antennas are used.

Uses 4 wire cable

ROTORS FOR AMATEUR APPLICATIONS



TR44
Designed specifically for amateur applications. Surpasses all TV/FM antenna rotors in wind resistance, torque and dead weight load carrying capability. Provided with precisely calibrated meter control unit.



HAM-M
Most widely accepted and highly regarded antenna rotor available to amateurs. The HAM-M is a rugged design intended for the most severe amateur antenna applications. It will support 1000 pounds dead weight . . . more than ample for the largest antenna arrays in use. Provided with precisely calibrated meter control unit.

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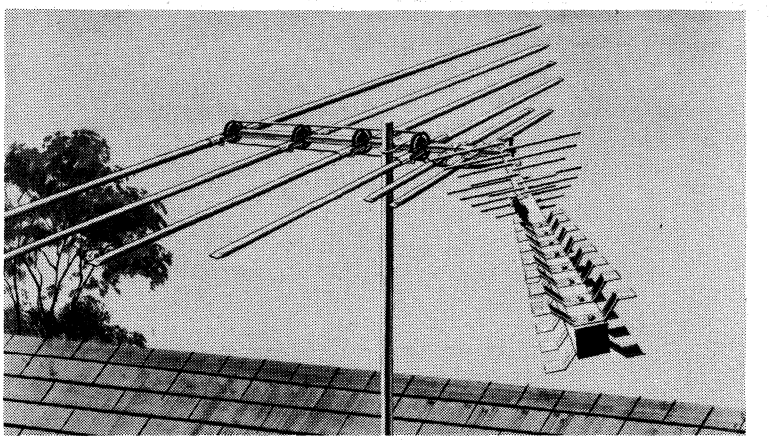
JERROLD Coloraxial WORLD'S FINEST TV ANTENNAS

ALL-CHANNEL UHF • VHF • FM

Coloraxial Pathfinder™ ANTENNA

Individual orientation of the VHF and UHF sections

Pathfinder is a unique combination of a cascaded-periodic VHF antenna plus an advanced-design UHF section—with 75-ohm and 300 ohm outputs. Pathfinder eliminates the splitters needed to couple separate antennas with a common downlead. Finished with Golden Armor coating to resist corrosion.



PXB-50

PXB-30—VHF section: two driven and one parasitic element. UHF section: eleven driven elements. List Price **$18.50**

PXB-30K—Coloraxial Kit: PXB-30 antenna, 799 tri-mount, 5′ mast, 50′ of 82-Channel Coloraxial cable, T380 matching transformer/splitter and miscellaneous hardware. List Price **$39.95**

PAB-30K—300 Ohm Kit: PAB-30 antenna for 300-ohm twinlead, 1460B UHF-VHF splitter, 799 tri-mount, 5′ mast, 50′ of twinlead, and miscellaneous hardware. List Price **$31.95**

PXB-45—VHF section: two driven elements and three parasitic elements. UHF section: 11 driven elements and eight parasitic directors. List Price **$26.50**

PXB-45K—Coloraxial Kit: PXB-45 antenna, 799 tri-mount, 5′ mast, 50′ of 82-Channel Coloraxial cable, T-380 matching transformer/splitter, miscellaneous hardware. List Price **$46.95**

PAB-45K—300 Ohm Kit: PAB-45 antenna for 300-ohm twinlead, 1460B UHF-VHF splitter, 799 tri-mount, 5′ mast, 50′ of twinlead and miscellaneous hardware. List Price **$38.95**

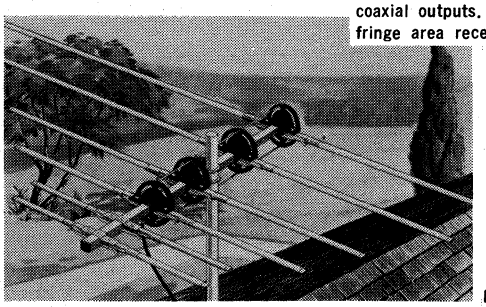
PXB-50—VHF section: four driven elements and two parasitic elements. UHF: 11 driven elements and 16 parasitic directors. List Price **$36.50**

PXB-70—VHF section: six driven elements and two parasitic elements. UHF section: 11 driven elements and 24 parasitic directors. List Price **$56.50**

PXB-90—VHF section: eight driven elements and two parasitic elements. UHF section: 11 driven elements and 80 parasitic directors. List Price **$66.50**

Coloraxial VHF PARALOG

For superb color and black-and-white TV, channels 2 thru 13. High gain, log periodic design with both 300 and 75-ohm coaxial outputs. For suburban to extreme fringe area reception.



PAX-40

PAX-40 — 4 driven elements and 2 parasitic elements. List Price **$21.50**

PAX-60 — 6 driven elements and 2 parasitic elements. List Price **$31.50**

PAX-100— 8 driven elements and 3 parasitic elements. List Price **$41.50**

PAX-130—10 driven elements and 5 parasitic elements. List Price **$51.50**

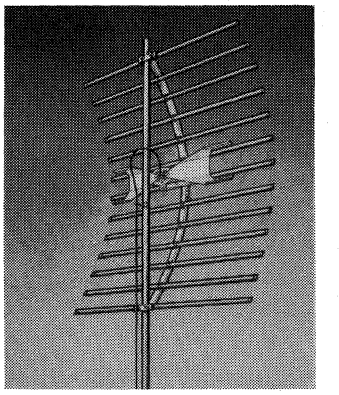
PAX-160—10 driven elements and 8 parasitic elements. List Price **$61.50**

PAX-190—10 driven elements and 11 parasitic elements. List Price **$71.50**

PAX-220—10 driven elements and 14 parasitic elements. List Price **$81.50**

UHF PARACYL

Covers every UHF-TV reception requirement from close to station to far out locations. Cylindrical parabola design for large interception area. Finished with protective Golden Armor coating.



JUP-21

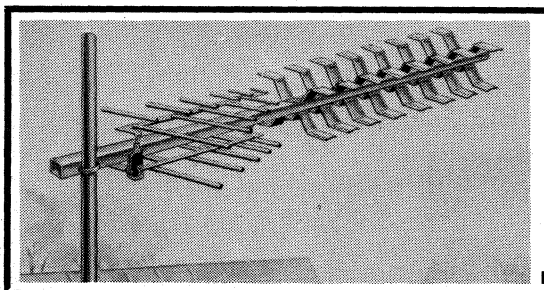
JUP-1—For local to suburban reception areas. List Price **$ 6.95**

JUP-2—For difficult local to suburban areas. List Price **$10.95**

JUP-3—For suburban to medium fringe areas. List Price **$29.95**

JUP-4—For difficult suburban to fringe areas. List Price **$39.95**

JUP-5—For fringe to deep fringe areas. List Price **$54.50**



PUX-500

Coloraxial UHF PARAPRO

Easily added to any existing VHF antenna without mixer. High gain log periodic design ● Flat across entire UHF band ● 300 and 75-ohm coaxial outputs ● Golden Armor finish.

PUX-300—Eleven driven elements. List Price **$ 7.95**

PUX-450—Eleven driven elements, plus 8 parasitic directors. List price **$10.95**

PUX-500—Eleven driven elements, plus 16 parasitic directors. List Price **$13.95**

PUX-700—Eleven driven elements, plus 24 parasitic directors. List Price **$25.95**

PUX-900—Eleven driven elements, plus 80 parasitic directors. List Price **$33.95**

Prices and specifications subject to change without notice.

Trade Discount Applies To List Prices Only

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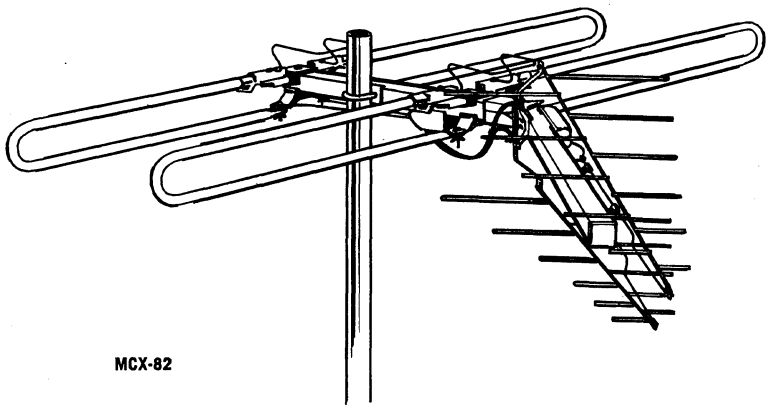
JERROLD Coloraxial WORLD'S FINEST TV ANTENNAS

ALL-CHANNEL FOR METROPOLITAN AREAS

METROCOLOR™

RECEIVES ALL UHF • VHF • FM

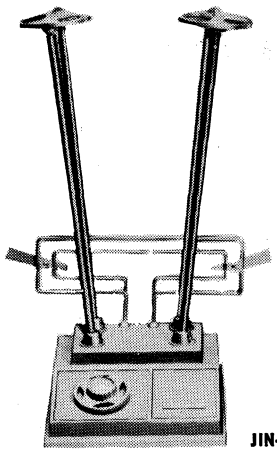


MCX-82

MODEL MCX-82 ALL CHANNEL especially recommended for metropolitan areas because it rejects reflected signals. Special circuitry provides ghost-killing power. Includes both 300 and 75-ohm Coloraxial outputs. Both dipoles are true 300 ohm folded dipoles and at high VHF band frequencies, they are a full wavelength long, resulting in a narrower lobe and more gain. The UHF section is a high gain periodic type, with excellent front-to-back ratio.
List Price **$29.95**

MODEL MCX-13 VHF ONLY similar to MCX-82, but does not include a UHF section.
List Price **$16.95**

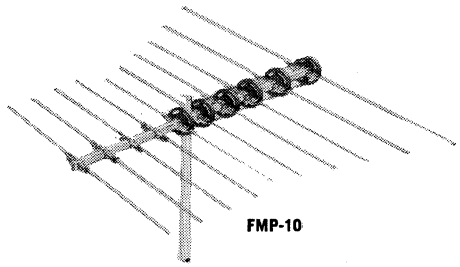
82-CHANNEL INDOOR ANTENNAS



JIN-4

MODEL JIN-4 utilizes a true 300 ohm folded dipole delivering more signal to the TV set. It minimizes standing waves and ghosts. Brings in all UHF-VHF and FM stations —color and black-and-white. Packaged in 4-color see-through carton. List Price **$17.95**

MODEL JIN-3 similar to JIN-4, but does not utilize 300 ohm folded dipole. Brings in all UHF-VHF and FM stations. Packaged in 4-color display carton. List Price **$11.95**



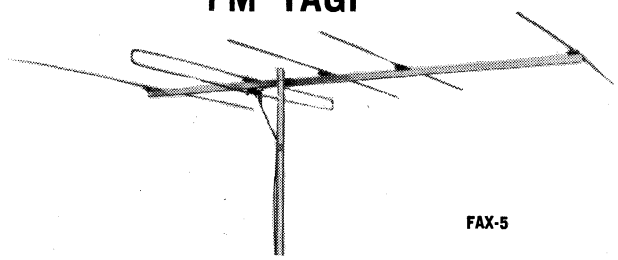
FMP-10

DIRECTIONAL FM PARALOG

Includes all the features of the Coloraxial Paralog line, but especially designed for the FM band of frequencies. High gain and narrow forward lobe eliminate multi-path problems —the bugaboo of stereo reception.

FMP-8 —For fringe areas. List Price **$29.95**
FMP-10—For deep fringe areas. List Price **$39.95**
FMP-16—For the toughest areas. List Price **$59.95**

FM YAGI

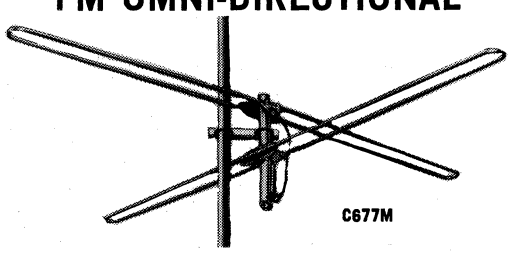


FAX-5

Features: high gain, high front-to-back ratio ● minimize multipath distortion ● rugged square boom construction ● special Golden Armor finish.

FAX-5 COLORAXIAL—5 elements with 72 ohm coaxial output. Flat response and gain of 6 db across entire FM band. List Price **$13.50**
FAX-5K COLORAXIAL KIT—FAX-5 antenna, 799 tri-mount, 5′ mast, 50′ of Coloraxial cable, T-378 matching transformer, hardware. List Price **$31.95**
FM-5 YAGI—5 elements with balanced 300 ohm twinlead output. Flat response and gain of 6 db across entire FM band. List Price **$11.50**
FM-10 YAGI—10 elements with balanced 300 ohm twinlead output. Flat response and gain of 9 db across entire FM band. List Price **$19.95**

FM OMNI-DIRECTIONAL



C677M

TURNSTILE MODEL C677M—Brings in FM stereo and monaural signals equally well from all directions over a full 360 degrees. Range up to 35 miles. Comes completely pre-assembled with snap-into-place elements.
List Price **$10.95**

S-TYPES
G626-A—"S" configuration of the dipole makes it sensitive to FM signals from all directions to 25 miles. Gold anodized finish. List Price **$6.95**
G-626-AK—Kit contains G626-A antenna, 50′ of lead-in, 1 snap-on standoff and 3 screw-eye standoff insulators. Installs on existing mast.
List Price **$8.95**
C677MK—Kit contains C677M turnstile antenna, 5′ mast, base mount, 50′ of lead-in, guy anchor, mast standoffs, wood screw type insulated standoffs, guy wire with hooks. List Price **$17.95**

Prices and specifications subject to change without notice.

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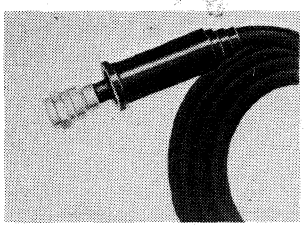
JERROLD Coloraxial CABLE AND ACCESSORIES

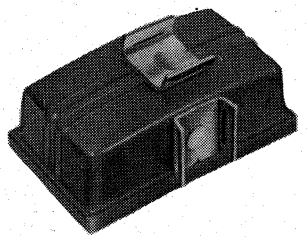
SHIELDED COLORAXIAL CABLE



Coloraxial cable assures the best possible pictures on all TV channels. Factory swept, with coaxial fittings attached. Fittings mate securely with Jerrold antennas, matching transformers and preamplifiers. Regular cable is recommended for VHF installations; 82 channel cable is recommended for UHF-VHF installations.

CAB-50 — 50′ of regular cable with fittings. List Price **$ 8.55**
CAB-75 — 75′ of regular cable with fittings. List Price **$10.35**
CAC-50 — 50′ of 82-channel cable with fittings. List Price **$10.30**
CAC-75 — 75′ of 82-channel cable with fittings. List Price **$13.95**
CAC-100—100′ of 82-channel cable with fittings. List Price **$17.45**

ANTENNA TRAPS



1435* — Jerrold-TACO multi-section, wide-band, sharp cut-off trap will attenuate a specific VHF channel a minimum of 20 db to cut out TV interference. Mounts directly on antenna crossarm. For amplified and non- amplified antennas. *Specify desired channel.

1435FM—Traps out strong FM radio signals which can cause TV picture and sound. Weatherproof housing mounts directly on antenna crossarm. For use with mast-mounted amplifier or TV sets. List Price **$7.95**

82 CHANNEL COLORAXIAL HYBRID SPLITTER

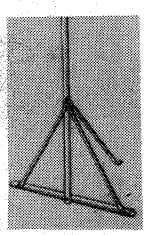
1596—Provides two coaxial outputs from single Coloraxial cable. Can be used to serve two sets from single Pathfinder antenna or to provide extra outlets in Colorcast-4 system. List Price **$23.80**

WALL OUTLETS

FL-82 SURFACE MOUNTED WALL OUTLETS—For use with TAC-4 or TC-88. Provides Coloraxial plug-in wall outlet for TV or FM set. Passes all 82 channels and FM. List Price **$3.25**

UT-18 FLUSH MOUNTED WALL OUTLETS—Similar to FL-82, but for flush wall installation. List Price **$3.50**

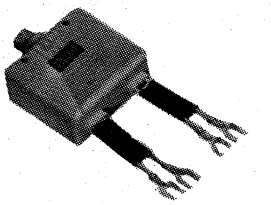
ANTENNA MOUNTS



799—Tri-mount with self-supporting 5′ mast. A rugged mount adaptable to any roof. List Price **$5.35**

799K—Tri-mount with self-supporting 5′ mast, plus CAB-50 and T-378. Can be used on any roof with any 300 ohm antenna. List Price **$17.95**

UHF-VHF MATCHING TRANSFORMER/SPLITTER

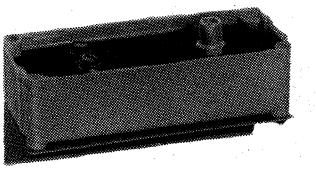


T-380A—For use in all channel coaxial antenna systems. Matches 75 ohm cable to 300 ohm TV sets and splits signals providing separate UHF and VHF antenna inputs. List Price **$7.95**

1460B UHF/VHF Splitter/Mixer—Weatherproof unit combines the signals from separate VHF and UHF antennas into a single 82 transmission line. Has highly efficient low-loss bifilar coil circuit. List Price **$4.95**

CAT-2 VHF Coloraxial Conversion Kit—Converts any VHF antenna to Coloraxial. Includes: TO-374A mast-mounting matching transformer for any 300 ohm antenna, T-378 set-mounting matching transformer, bracket and mounting strap for the outdoor transformer. List Price **$8.20**

MATCHING TRANSFORMER



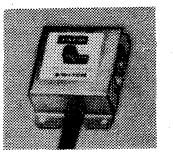
TO-374A VHF OUTDOOR—Mast-mounted, matches 300 ohm VHF antenna to 75 ohm coaxial cable. Complete with weatherproof mounting bracket and stainless steel strap. List Price **$4.95**

MVU-374—82 Channel Outdoor—Mast-mounted, matches 300 ohm all-channel (UHF and VHF antenna) to 75 ohm coaxial cable. Complete with weatherproof mounting bracket and stainless steel strap. List Price **$5.95**

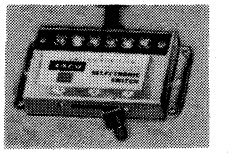
T-379—82 Channel Indoor—Matches 75 ohm coaxial cable to 300 ohm twinlead. List Price **$3.95**

T-378—VHF Indoor—Set-mounted, matches 75 ohm coaxial cable to 300 ohm TV set. List Price **$3.25**

ANTENNA SWITCHES

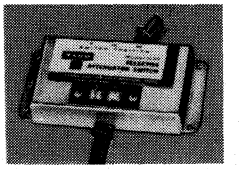


823 — Two-position positive-action slide switch for switching between two antennas for one set. List Price **$2.20**



873 — Three-position low-loss antenna switch for switching between three antennas or three sets. Smooth lever action. List Price **$3.95**

ANTENNA ATTENUATOR



835—Three-position switch is adjustable to 0-15-30 db settings. Designed for locations where signal overloading is a problem. List Price **$5.05**

Prices and specifications subject to change without notice.

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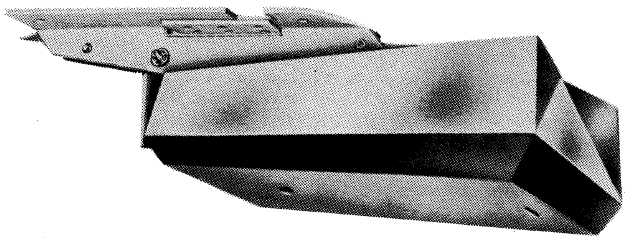
JERROLD Coloraxial POWER AMPLIFIERS

TV-FM POWERMATE PREAMPLIFIERS



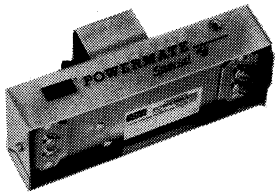
COLORAXIAL VHF SPC-132A—The most powerful of all Powermates. Combines a two-transistor mast mounted preamplifier in a non-corrosive cycolac case with a three transistor post amplifier/power supply. Input is 300 ohms and there is a choice of 300 or 75 ohms output. For difficult signal areas and MATV systems. List Price **$99.50**

COLORAXIAL VHF SPC-107—Two transistor unit providing high gain (11 to 15 db) with excellent overload capabilities. Input is 300 ohms, downlead is 75 ohms. Choice of 300 or 75 ohm output. Includes filter circuit to block FM, cycolac case. List Price **$47.95**

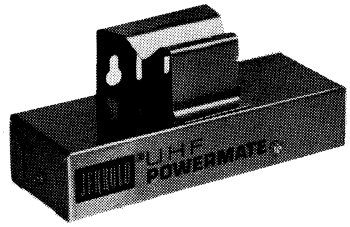
VHF SPM-106—300 ohm version of SPC-107. List Price **$44.95**

VHF APM-106—Single transistor 300 ohm Powermate. High gain (13 to 17 db) Recommended for areas more than 15 miles from nearest TV or FM transmitter. Cycolac case. List Price **$39.95**

LPM-102—High gain (11.5 db av.) Powermate Special for areas where overloading is no problem to provide the extra gain necessary for clear pictures and noise-free FM. Comprises a universal-mounting transistorized antenna amplifier Model LPM and remote power supply Model 102. Complete with all hardware. List Price **$29.95**



UHF POWERMATES



UPC-105 COLORAXIAL POWERMATE—Super gain (13.7 db). Inputs for both 300 ohm twinlead and 75 ohm coaxial cable. Output for 75 ohm coax cable comprises a two-transistor mast-mounted preamplifier and indoor power supply. List Price **$73.25**

ULP-104 POWERMATE SPECIAL — Comprises a transistorized antenna amplifier Model ULP and a remote power supply Model 104. Hi-gain (4.7 db av.) for fringe areas. Mounts on mast or antenna screen. Complete with hardware. List Price **$34.95**

UPM-104 POWERMATE — Twin-transistor antenna amplifier and remote power supply Model 104. Super gain (13.7 db av.) for fringe and deep-fringe areas. Mounts on mast or antenna screen. Complete with hardware. List Price **$49.95**

SOLID STATE UHF CONVERTERS

TELE-MATE

TINY • TUNNEL DIODE • CORDLESS

UTM-1—Battery operated it is the most compact, efficient and highly-styled converter in its price range. Converts any UHF channel (14 thru 83) to either of two VHF channels (5 or 6). List Price **$19.95**

ULTRA VISTA II

TWO-STAGE CONVERTER/AMPLIFIER

UVC-82—Smartly styled solid state two-stage converter. Not only converts any UHF channel (14 to 83) to VHF channel 5 or 6, but amplifies signal as well. Excellent even in weak-signal areas. AC convenience outlet. List Price **$39.95**

Prices and specifications subject to change without notice.

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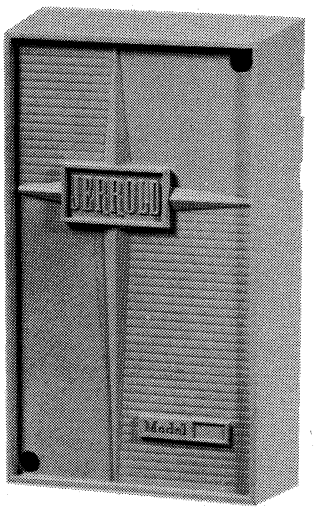
JERROLD Coloraxial HOME MATV SYSTEMS

TAC-4 COLORCASTER-4 82-CHANNEL AMPLIFIER



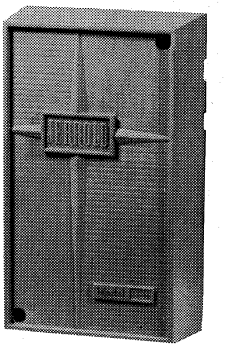
Handles all UHF and VHF channels as well as FM stations. Because it's solid state and used with Coloraxial cable, it is reliable and trouble-free. Frequency range is 54 to 890 MHz. Total gain is 10 db, with a flatness of + 2 db across any 100 MHz, and it provides a full 3 db gain to each of four outputs. Overload capability is excellent. List Price **$72.50**

TC-88 COLORAXIAL VHF AMPLIFIER

Similar to the Colorcaster-4, but covers VHF (channels 2 thru 13) TV and FM only. Solid state, uses a silicon transistor in an inverse feedback circuit. Hybrid splitter provides four outputs. Gain 3 db per outlet. List Price **$39.95**

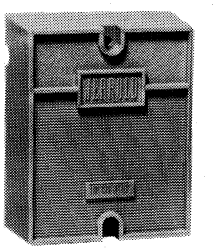
TV-FM AMPLIFIED COUPLERS

TA-66 INDOOR SUPER-POWERMATE



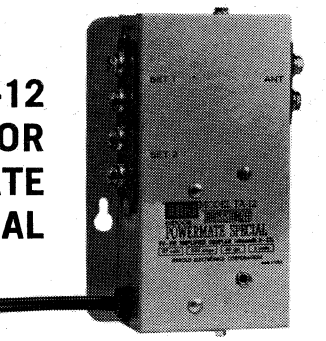
Four-set 2-transistor amplified TV coupler with gain-overload to all outputs. Greatly improves reception of weak fringe-area stations without cross-modulation due to stronger local signals. Four-set terminals are so arranged that two or three sets may be connected instead of four, and increased gain is attained with each reduction in the number of sets utilized.
List Price **$34.95**

TA-24 INDOOR POWERMATE



Provides sufficient gain (3.2 db av. lo-band, 4.5 db av. hi-band) to adequately supply each of four sets from a single antenna. If less than four sets are connected, increased gain is attained with each reduction in number of sets connected.
List Price **$24.95**

TA-12 INDOOR POWERMATE SPECIAL



Transistorized 2-set coupler provides sufficient gain (3 db av. lo-band, 4.5 db hi-band) to more than adequately supply each of two sets from a single antenna. Mounts on any flat surface. List Price **$17.95**

VU-2 82 CHANNEL 300 OHM COUPLER

Serves two sets from single antenna. For use with 300 ohm twinlead. Handles both UHF and VHF. Resistive-hybrid circuit provides excellent isolation. List Price **$3.75**

Prices and specifications subject to change without notice.

JERROLD **Distributor Sales Division • THE JERROLD CORPORATION**

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JERROLD

TV/FM DISTRIBUTION SYSTEMS EQUIPMENT

for motels, hotels, apartment houses, schools, TV dealer showrooms

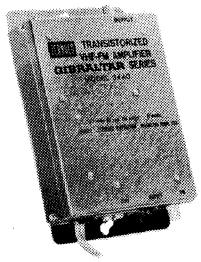
There is a growing profit opportunity for TV technicians in the installation and maintenance of small and large master antenna systems. To meet the increased demand for clear, reliable color, UHF, and FM stereo reception in commercial installations, Jerrold presents a complete line of easy-to-install "All-Channel" systems equipment.
Headed by the new "Gibraltar" series of solid-state VHF and UHF system amplifiers, this new expanded line is the result of Jerrold's long-standing superiority in TV signal distribution, and unmatched experience in solid-state amplifier design.

— — — —

A newly-revised edition of Jerrold's Split-Page Handbook of TV/FM Systems Design contains over 100 typical system layouts with the equipment recommended for each. Ask your distributor for your free copy of this extremely useful $1-value handbook.

VHF AND UHF SYSTEM AMPLIFIERS

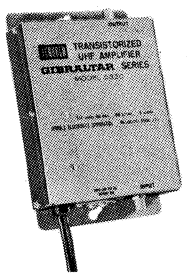
GIBRALTAR SOLID-STATE VHF AMPLIFIER, Model 3440



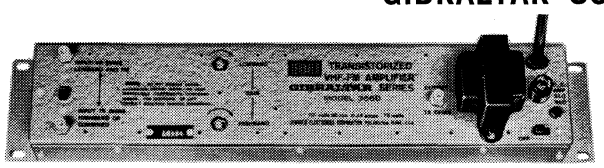
Jerrold's solid-state "Gibraltar" Model 3440 broadband amplifier for small systems of up to 40 outlets. Capable of 12-channel operation. Flat response across both TV and FM bands insures excellent color and FM stereo performance. GAIN — TV 22 db, FM 19 db. OUTPUT — Lo-Band 45 dbmv, Hi-Band 43 dbmv at 0.5% cross-modulation. IMPEDANCE — Input 300 or 75 ohms, Output 75 ohms. Net **$53.70**

GIBRALTAR SOLID-STATE UHF AMPLIFIER, Model 5330

"Gibraltar" Model 5330 is the first in Jerrold's new line of solid-state UHF high-gain broadband amplifiers. This UHF companion to Model 3440, is ideal for all-channel TV distribution systems. The transistorized circuitry exhibits low noise figure, high signal capability, and excellent VHF signal rejection. The power supply portion also provides low-voltage AC for an antenna-mounted preamplifier (when required). GAIN —21 db. OUTPUT —50 dbmv for 1-ch., 43 dbmv for 3-ch., 35 dbmv for 5-ch. (per channel). IMPEDANCE — 75 ohms ..... Net **$114.00**



GIBRALTAR SOLID-STATE VHF AMPLIFIER, Model 3660



Jerrold's solid-state "Gibraltar" Model 3600 is a high-gain broadband VHF amplifier for large television distribution systems such as those in hotels, apartment houses and schools. It can easily handle over 100 sets, and has a capability of 12-channel operation. Unsurpassed performance for MATV systems. Flat response across both TV and FM bands for "Color Perfect" TV. and FM stereo performance. GAIN — TV and FM 40 db. OUTPUT — 52 dbmv for 3-ch., 50 dbmv for 7 ch. (per channel). IMPEDANCE — 75 ohms. ..... Net **$130.00**

VHF AMPLIFIER, Model 2880

For large systems — provides one full volt output per channel, gain of 41 db (lo-band) and 44 db (hi-band), plug-in cable equalizer, and dual manual gain control with 14 db range ..... Net **$225.75**

SYSTEM PREAMPLIFIERS

SINGLE-CHANNEL DE-SNOWER, Model DSS-*

Jerrold's new "De-Snower" Model DSS-* is a single-channel VHF preamplifier of solid-state design. The unit features 30 db gain and ½ db max. sync. compression on any single TV channel, or for the entire FM band. Remote power supply Model 105. Impedance 75 ohms. Indoor or outdoor mounting.

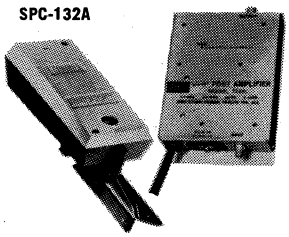
Net DSS-* (lo, FM) **$75.00** DSS-* (hi) **$85.00**
*specify channel or FM

BROADBAND DE-SNOWER, Model SPC-107

High gain (lo-band 16 db, hi-band 13.5 db) and flat response of this solid-state (2 transistor) De-Snower brings in those distant stations sharp and clear. Remote power supply Model 107. Impedance 300 or 75 ohms, switchable. This is an improved weatherized version of the famous SPC-103. ..... Net **$31.97**

BROADBAND DE-SNOWER, Model SPC-132A

SPC-132A



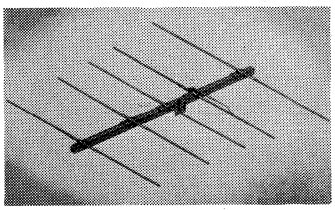
Combined five-transistor VHF preamplifier and post-amplifier/power supply provides highest gain (lo-band 25.2 db, hi-band 29.6 db) for toughest MATV systems applications. Flat response. Impedance 75 ohms. Can also be used as a small distribution system. This is an improved version of famous SPC-132.

Net **$65.50**

For other Jerrold preamplifier models see page 31.

SYSTEM ANTENNAS

J-SERIES RUGGEDIZED ANTENNAS



Jerrold ruggedized antennas, Models J55 and J105, are high-gain directional yagis for systems applications. These built-to-last antennas are available in cut-to-channel and broadband models.

CUT-TO-CHANNEL MODELS (specify channel or FM)

J55- (lo-band 2-6, FM); J105- (hi-band 7-13) ..... Net **$37.50**

BROADBAND MODELS (specify channel)

J55-Lo; J105-Hi ..... Net **$74.25**

STACKING KITS (specify channel)

JSS1 (2-bay vert); JSS2 (2-bay hor) ..... Net **$17.97**
JSS3 (quad array); JSS4 (4-bay vert) ..... Net **$53.91**

For other Jerrold antenna models see pages 28, 29.

Prices and specifications subject to change without notice.

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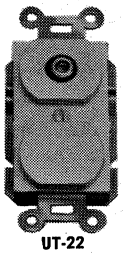
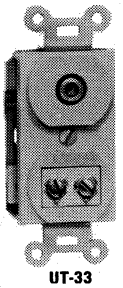
JERROLD

TV/FM DISTRIBUTION SYSTEMS EQUIPMENT

for motels, hotels, apartment houses, schools, TV dealer showrooms



UT-22



UT-33

TV DISTRIBUTION TAP-OFFS

ULTRA-TAP, MODELS UT-22, UT-33, UT-82, UT-12, UT-13, UT-18, FL-82

MODEL UT-22, COMBINED VHF/FM TAP-OFF. Provides a choice of units with three isolation values. Simple crimp-on bushing and new positive-gripping clutch provides fast solderless connection to the feeder. Flush or surface mounting. Unit accepts G-59, PG-59 and G-56 push-on connectors. Net **$2.70**

MODEL UT-33, SEPARATE VHF AND FM TAP-OFF. Same specs and isolation values as UT-22. Net **$3.30**

MODEL UT-82-CAC AND UT-82-59, ALL-CHANNEL TAP-OFF. Provides a choice of three isolation values, covers the full UHF/VHF/FM frequency bands, and available in models for either "CAC" or RG-59 type coaxial cable. Net **$3.60**

MODEL UT-12, VHF/TV WALL TERMINAL UNIT. Provides outlet from remote mounted isolation taps such as G-1404, 1401 or PT-1461. Net **$2.10**

MODEL UT-13, SEPARATE VHF AND FM WALL TERMINAL UNIT. Same as UT-12 except provides separate VHF and FM output terminals. Net **$2.86**

MODEL UT-18, ALL-CHANNEL TERMINAL UNIT. Provides outlet from a remote all-channel isolation tap such as 1405. Net **$2.10**

MODEL FL-82, ALL-CHANNEL TERMINAL UNIT. Similar to UT-82 except surface-mounted in its own housing. Net **$1.95**

ULTRA-TAP COVER PLATES.

MODEL UT-P1, single outlet, sturdy molded plastic, ivory color. Net **$ .21**

MODEL UT-PS, single outlet, brushed stainless steel. Net **$ .60**

MODEL UT-SH, surface-mounting box, sturdy molded plastic, ivory color. Net **$ .30**

ISOLATION AND FEED THRU CHART

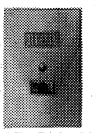
A—Isolation B—Feed-Thru Values in db

FREQUENCY	CHANNEL NO.		WHITE	RED	YELLOW
ULTRA-TAP MODELS UT-22 AND UT-33					
54 MHz	2	A	35	27	22.5
		B	0.2	0.4	0.2
88 MHz	6	A	34	25	19
		B	0.2	0.4	0.3
174 MHz	7	A	31	21	13
		B	0.25	0.5	0.4
216 MHz	13	A	30	20	11.5
		B	0.25	0.5	1.0
ULTRA-TAP MODELS UT-82-CAC AND UT-82-59					
54 MHz	2	A	34	26.5	22
		B	0.5	1.0	1.25
216 MHz	13	A	29.5	21	20.5
		B	0.5	1.0	1.25
470 MHz	14	A	29.5	25.5	17
		B	0.5	1.0	1.25
890 MHz	83	A	29.5	24	14
		B	0.5	1.0	1.25

FREQUENCY	CHANNEL NO.		RED	YELLOW	GREEN
VARIABLE TAP MODEL VT-75					
54 MHz	2	A	27	22	19
		B	0.1	0.1	0.1
88 MHz	6	A	23	19	16
		B	0.1	0.2	0.2
174 MHz	7	A	17	13	11
		B	0.3	0.5	1.0
216 MHz	13	A	15	11	9
		B	0.4	0.8	1.5
VARIABLE TAP MODEL VT-300					
54 MHz	2	A	27	22	19
		B	0.1	0.1	0.1
88 MHz	6	A	23	19	16
		B	0.2	0.2	0.2
174 MHz	7	A	17	13	11
		B	0.5	0.4	0.5
216 MHz	13	A	15	11	9
		B	0.5	0.4	0.5

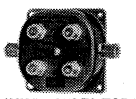
MULTI-TAP MODELS 1405, 1406, 1407

MULTI-TAP MODEL	1405	1406	1407
IMPEDANCE	75 ohms at all terminals		
TAP ATTENUATION			
DC-216 MHz	27 ±1 db	20 ±1 db	13 ±1 db
470-890 MHz	25 ±2 db	19.5±2.5 db	13 ±1 db
NOM. FEED-THRU LOSS			
DC-216 MHz	0.8 db	1.8 db	NA
470-890 MHz	1.0 db	2.2 db	NA



VARIABLE TAP MODELS VT-75 AND VT-300

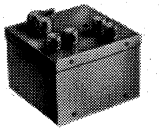
Variable Taps are flush mounted units with a single outlet providing all three isolation values through a unique designed printed circuit and isolation positioning screw. A solderless quick-clamp cable connector and single binder screw for center conductor makes fast, reliable feeder-cable connections. Available in two models, VT-75 for 75 ohm and VT-300 for 300 ohm use. Attractive cover plate fits both models. VT-75 Net **$2.35** VT-300 Net **$2.15**



UHF/VHF MULTI-TAPS, MODELS 1405, 1406, 1407

Jerrold's new all-channel surface - mounted line taps for small distribution systems. Each unit feeds up to four receivers. Models 1405 and 1406 are feed - thru units; Model 1407 a terminal tap for the end of the feeder line. Unused 1405 and 1406 feed-thru's and 1407 terminals should use TR-75UF or ST-1203 terminations. Net **$14.00**

ANTENNA MIXING NETWORKS



UMN-3

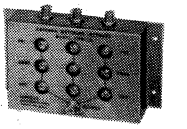
UHF 75-OHM MODEL UMN-3. New Jerrold exclusive low-loss mixing network for combining 3 UHF single-channel antennas or amplifiers into a single broadband output. Also used as a UHF 3-way frequency separator. Unit has 3 factory-set cavity-type, double-tuned filter networks. Bandwidth 6 MHz. Max. VSWR 1.8:1. Impedance 75 ohms. Attenuation Loss 1 db. Out-of-Band Rejection 19 db. Net **$64.28**

VHF 75-OHM MODELS AMN-HI AND AMN-LO. Tunable splitter/mixer networks; AMN-HI up to 4 non-adjacent channels, AMN-LO up to 3 non-adjacent channels. Insertion Loss hi-band 1 db, Lo-band ½ db. Net **$18.15**

VHF MODEL LHS-76. VHF Hi/Lo mixer. Insertion Loss 0.6 db. Isolation 30 db. Net **$12.50**

UHF-VHF FCO-320. All-channel separator/mixer. Insertion Loss — VHF 0.5 db, UHF 1 db. Isolation 25 db. Net **$15.00**

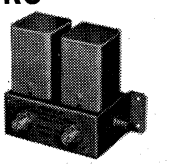
VHF MODEL TX-* (*specify channel) Single channel splitter/mixer Net **$4.11**



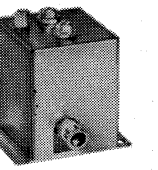
AMN-40

For other Jerrold mixing network models see page 73.

TRAPS & FILTERS



HIGH-Q TRAPS, Model TLB-1, TFM--1, THB-1. Each with 2 screwdriver tunable L-C circuits which when adjusted to interfering signal provides 40 db rejection, with 1 db insertion loss. TLB-1 (59.75—83.75 MHz); TFM-1 (88 — 108 MHz); THB-1 (179.75 — 211.25 MHz). Net **$38.55**



UHF SINGLE-CHANNEL FILTER, Model UCF-*. Jerrold's exclusive factory-set high-Q, cavity-tuned filter network for single-channel use of Model 5330 UHF Amplifier. Insertion Loss 2 db. Out-of-Band Rejection 20 db. Net **$21.43**

UHF TO VHF CONVERTERS

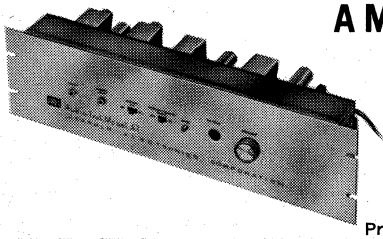
MODEL U4V

Jerrold's Model U4V is a solid-state mast-mounted unit for converting any specified UHF channel to a VHF channel. Crystal controlled with high-Q temperature-stable tuned cavities. Conversion gain 7 db min. lo-band, 5 db min. hi-band. Impedance — input 75 or 300 ohms, output 75 ohms. Noise Figure 14 db max. Bandwidth 8 MHz. Uses indoor-mounted remote oscillator power supply Model 463. Net **$135.00**

MODEL U3V. Similar to U4V but without solid-state amplifier. Conversion loss 12 db max. Net **$105.00**

MODEL U5V. All solid-state including built-in oscillator/power supply. Indoor mounting. Same specs as U4V. Net **$121.45**

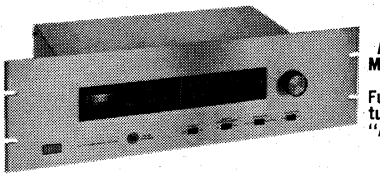
AM/FM AUDIO EQUIPMENT



AUDIO-TROL, Model AT-*

Audio sources such as from an FM tuner, AM radio, records, tape, and microphone can be distributed over an unused TV channel with this Jerrold audio modulator.

* Specify Channel. Net **$204.75**



AM/FM TUNER, Model AFT-2000.

Fully solid-state drift-free tuner for use with Jerrold "Audio-trol." Net **$197.25**

Prices and specifications subject to change without notice.

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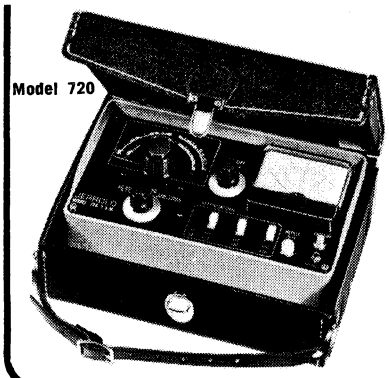
JERROLD

TV/FM DISTRIBUTION SYSTEMS EQUIPMENT

for motels, hotels, apartment houses, schools, TV dealer showrooms


Model 720

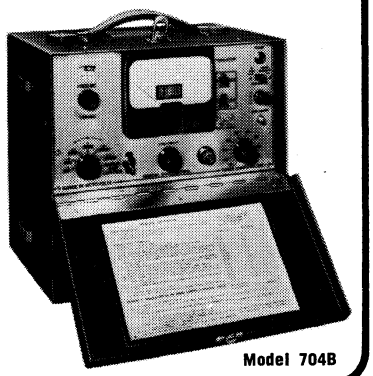
FIELD STRENGTH METERS

MODEL 720. Jerrold's new battery-operated solid-state unit. Ideal for field applications. Accuracy ±1.75 db. Four sensitivity ranges, 10 microvolts to 1 volt, —33 to +60 db. Frequency range 54-108, 174-220 MHz, extended with UF-720 Adapter to 470-890 MHz. Net **$295.00**

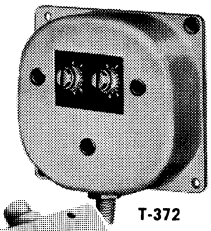
MODEL UF-720 UHF ADAPTER. Built-in power supply and plug-in UHF Antenna. Can be used with any FSM. Net **$120.00**

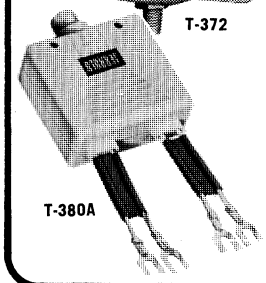
MODEL 704B. Jerrold's VHF highly accurate FSM. Reads 6 microvolts to 3 volts. Net **$395.00**

MODEL AIM-718. Solid-state all-channel (VHF/UHF/FM) direct-reading meter specially designed for the antenna installer. Net **$199.50**


Model 704B

MATCHING TRANSFORMERS, 300 to 75 OHMS


T-372


T-380A

MODEL T-372. Surface mounted unit, provides AC-DC isolation. Flat response at VHF. VSWR 1.26:1. Net **$3.00**

MODEL T-373. Flush mounted version of T-372. Net **$3.00**

MODEL TO-374A. VHF mast mounted unit allowing replacement of twin-lead with coaxial cable. By-passes low-frequency AC and DC current. Net **$2.95**

MODEL T-378. VHF receiver-mounted transformer with built-in isolation. Net **$1.95**

MODEL T-379. All-channel (UHF and VHF) version of the T-378. Net **$2.37**

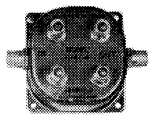
MODEL T-380A. All-channel, indoor, 75 ohm input — dual 300 ohm outputs. Net **$4.77**

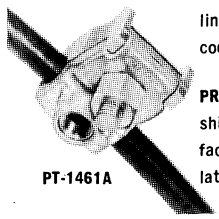
MODELS MTU-372 (indoor) AND MTUO-374 (outdoor). UHF matching transformer units with flat response across full band. Insertion Loss 0.6 db at 470 MHz to 1.2 db at 890 MHz. MTU-372 Net **$3.60** MTUO-374 Net **$6.00**

MODEL MVU-374. All-channel UHF outdoor matching transformer. Net **$3.57**

MODEL ST-1203. All-channel line-terminating unit and 75 to 300-ohm matching transformer. Net **$2.50**

ISOLATION NETWORKS


G-1404

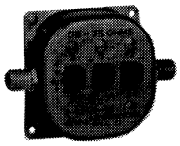

PT-1461A

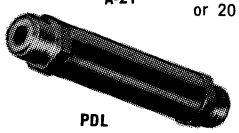
MODEL G-1404. Four outlet, surface mouted VHF tap-off with high isolation (ch. 2 — 22 db; ch. 13 — 13 db) and low insertion loss (.25 — 1.4). Net **$10.39**

MODEL 1401. Surface mounted, capacitive line tap for RG-59/U cable. Three color-coded values, R, Y, or GR. Net **$3.75**

PRESSURE TAPS, MODELS PT-1461A (single shield) **AND PT-1462A** (double shield). Surface mounted. Removable color-coded isolation units. For RG-IVU cable. Net **$3.25**

ATTENUATORS, COUPLERS, SPLITTERS

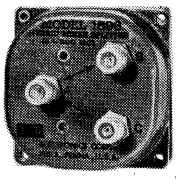

A-21


PDL

MODEL A-21 ATTENUATOR. VHF precision switch-type. 75 ohms. VSWR 1.05. Power handling up to 500 milliwatts. 0-21 db in 3 db steps. Net **$12.87**

PDL- IN-LINE ATTENUATORS. Available in 1, 3, 6, 10 or 20 db. Models -1, -3, and -6 are all-channel. Net **$3.50**

VHF DIRECTIONAL COUPLERS, MODELS DC-8, DC-12, DC-16. Model DC-8 (Insertion Loss 1.5 db — Tap Loss 8 db), DC-12 (1 db — 12 db), DC-16 (¾ db — 15 db) Net **$8.47**


1596

HYBRID SPLITTERS, 75 OHMS

Model 1562. VHF 2-way	Net **$ 5.20**
Model 1592. VHF 2-way	Net **$ 7.81**
Model 1502. VHF 2-way	Net **$ 6.45**
Model 1594. UHF 2-way	Net **$12.80**
Model 1596. All-channel 2-way	Net **$14.30**
Model 1514. VHF 4-way	Net **$ 9.14**
Model 1584. VHF 4-way	Net **$10.55**
Model G-1518. VHF 8-way	Net **$18.58**

ACCESSORIES

G-SERIES SOLDERLESS COAXIAL CABLE FITTINGS. Simple, fast, reliable push-on type connectors.
G-59. Male cable connector for RG-59/U cable. Net **$ .48**
PG-59. Push-on G-59 connector with solid center connector. Net **$1.00**
G-56. Male cable connector for CAC or RG-6 cable. Net **$ .42**
G-300. 75-300 ohm adapter, mates with G-61. Net **$ .60**

F AND C-SERIES
F-59. Male connector for RG-59, Mates with F-61, F-81, A-61, AF-101 and AF-201. Separate ferrule. Net **$ .48**
F-59A. Male cable connector. Like F-59 with attached ferrule. Net **$ .36**
F-56. Male, for RG-6, Mates with F-61A, F-81, A-61, AF-101 and AF-201. Net **$ .62**
AF-101. Adapta-Fit Male, for RG-11/U Mates with F-81, F-61, and A-61. Net **$1.26**
AF-201. Same as AF-101, but for RG-11 Poly Foam. Net **$1.26**
F-61A. Female Chassis Fitting. Accepts F-59, F-56, TR-72F, AF-101 and AF-201. Net **$ .43**
A-61. Adapts C-61 female to F-59 or F-56 Male. Net **$1.88/25**
C-61. Female Chassis Fitting. Accepts C-52 or A-61. Net **$ .48**
C-81. Female Coupling, ¼". Accepts 2 C-52 or A-61. Net **$ .48**
F-81. Female Coupling, ⅜". Accepts F-59 or F-56. Net **$ .60**
F-71. Male Coupling Adapter. Mates F-61, F-81, F-101-59 or A-61. Net **$1.00**
PF-59. Adapts F-59 for push-on use. Net **$1.70**

FERRULES.
1026 — For use with RG-6/U type cables. Net **$2.86.C**
1051 — For use with RG-59/U type cables. Net **$1.43.C**
1095 — For use with RG-11/U type cables. Net **$4.29.C**

TERMINATORS.
TR-72. VHF 75 ohm. Mates with C-61 or C-81. Net **$ .90**
TR-72F. VHF 75 ohm. Mates with F-61, F-81, A-61 or F-101-59. Net **$ .90**
TR-72B. Use with B-59 bushings. Terminates Ultra-Tap Units UT-22 or UT-33. Net **$ .90**
TR-75G. VHF 75 ohm. Mates with G type chassis fittings. Net **$ .90**
TR-75UF. UHF, VHF, All-channel 75 ohm. Mates F-61A or F-81. Net **$1.00**

TOOLS.
PL-602. Crimping Tool. Ferrules 1051, 1026 and 1095 for F-59, C-52, F-101-59, AF-101 or B-59. Net **$5.39**
CD-11. Cable Cutting Tool. Cuts "doughnut" holes in coax cable for pressure taps. Net **$2.16**
CT-2. Cutting Tip. Replacement for CD-11. Net **$1.10**

Prices and specifications subject to change without notice.

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Net

JONTZ MFG. CO.

SELF-SUPPORTING

Super Kwick-Climb

TOWERS

SELF-SUPPORTING UP TO 60 FEET HIGH
HOT DIP GALVANIZED HEAVY DUTY MODELS
ZINC ELECTROPLATED ECONOMY MODELS
NO LOST TOWER FOOTAGE
FAST, EASY SECTIONAL ERECTING

TOWER SECTIONS AVAILABLE AS ILLUSTRATED

SECTION 300A or 500A
11½"x10'
7 Crossbraces

SECTION 300B or 500B
11½"x10'
8 Crossbraces

SECTION 300C or 500C
11½"—16"x10'
8 Crossbraces

SECTION 300D or 500D
16"x10'
8 Crossbraces

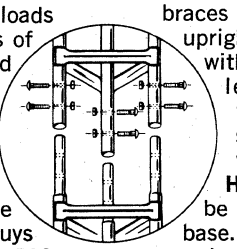
SECTION 300E or 500E
16"—20¼"x10'
8 Crossbraces

SECTION 300F or 500F
20¼"x10'
9 Crossbraces

With these two Jontz Tower models you can fill any tower needs... from small suburban to heavy-duty commercial installations. Sectional construction and special drive-in bases make erection fast and simple. The Zinc Electroplated Economy Model No. 300 will easily withstand high wind loads normally encountered in most parts of the country. The Hot Dip Galvanized Heavy Duty Model No. 500 will withstand hurricane force winds having been tested at wind loads of 80 mph.

Model No. 500 is self-supporting up to 60 feet high. Model 300 can be extended to 200 ft. by use of guys every 20 feet and Model 500 up to 500 ft. by use of guys every 20 feet. There is no lost tower footage when mounting in either concrete or the special drive-in base. Since the tower is separate from the base, it may be moved to another location without impairing strength.

Both towers are fabricated in 10'0" sections and can be erected in one piece or by sections. Model 300 is made from 1¼"x18 ga. tubular uprights and is zinc electroplated and dipped in clear Butyrate lacquer. The Model 500 is made from 1¼" x 16 ga. tubular uprights and is hot dip galvanized.



New, extra-wide corrugated crossbraces give 75% more weld contact with uprights. Tower sections lock together with 2 self-locking ⅜" bolts in each leg. The splined bolts prevent thread damage and stop hole stretch when tower moves in the wind.

HOW TO ORDER: 1. Specify if to be mounted in concrete or drive-in base. 2. Order by specific sections, starting at the base. See illustration for section numbers.

SHIPPING: For best freight rates, 40 ft. and over towers will be shipped in section combinations permitting 2 telescoped bundles, unless otherwise specified. (Example: a 60 ft. tower will consist of section A, C, D, E, and 2 F's.)

ZINC ELECTROPLATED ECONOMY MODEL NO. 300

Size	Net	Ship Wt.
40'0"	$ 63.95	130 lbs.
50'0"	82.50	172 lbs.
60'0"	99.95	215 lbs.
70'0"	115.95	245 lbs.
80'0"	134.25	292 lbs.

HOT DIP GALVANIZED HEAVY-DUTY MODEL NO. 500

Size	Net	Ship Wt.
40'0"	$ 93.00	160 lbs.
50'0"	117.00	211 lbs.
60'0"	141.00	262 lbs.
70'0"	164.00	302 lbs.
80'0"	188.00	357 lbs.

Add 15 lbs. per Tower for hardware.
Add approximately 3 lbs. per section for galvanized No. 300 Towers.

DRIVE IN TEMPLATE

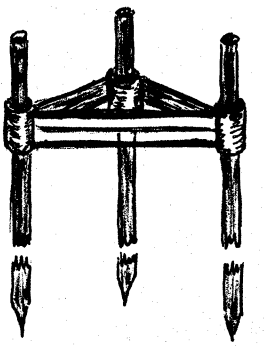
For Jontz self-supporting towers

Specifications:

1—Drive-in legs: 1¼" x 16 gauge x 36".

2—Template: 18" triangle for 40' towers — 22" triangle for 50' or higher — state tower height.

3—Driving cap: 2" x 1¼" to drive individual legs.



2—TEMPLATE: 18" triangle for 40'

Net

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Mosley

Mosley

LANCER 1000

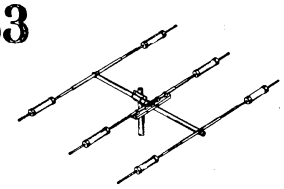
AMATEUR MOBILE ANTENNA

Mobile antenna for 1 KW AM/2 KW PEP SSB input to final on 10, 15, 20, 40 and 75/80 meters. Maximum overall length, 9 ft. 7 in.; minimum length, 8 ft.; radiation pattern, omni directional: matching, 52 ohm, Length of coax not critical. Interchangeable coils. Operates on 10 meters without coils. Hinge within lower antenna section. Coil caddy made of strong, rugged, black canvas cloth FREE when antenna and 5 coils are purchased. Reversible lower antenna section allows hinge use on trunk or bumper. Peaking adjustment within whip. Utilizes corona shield (ring in tip) which minimizes corona effect.

ML-10C . . . (antenna, coils & caddy) . . . Net $72.37

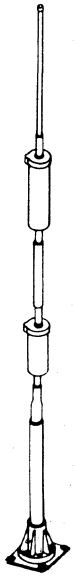
The Classic 33

10, 15, & 20 Meter TRAP MASTER Beam



New Tri-Band Beam with "Broad Band Capacitive Matching" (patent pending) . . . for 10, 15 and 20 meters. Rated for 1 KW AM/CW and 2 KW PEP SSB input to the final. Element clamping same as used on TA-36. Feed with 52 ohm RG-8/U coax. Fits up to two inch mast. Gain FULL 8 db. compared to ref. dipole or 10.1 db. over isotropic source on all 3 bands. Front-to-back, 20 db. or better on 15 and 20; 15 db. on 10 meters. SWR 1.5/1 or better. Maximum element length, 29 ft.; Boom length, 18 ft.; turning radius, 16 ft.; wind surface, 6 sq ft.; assembled weight, 60 lbs. Incorporates famous Trap-Master traps. Three element.

CL-33 . . . . Amateur Net . . . . (beam with ss hw) $119.95



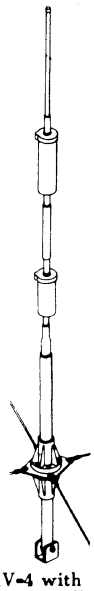
RV-4

RV-4 VERTICAL ANTENNA

A pace setter in 10, 15, 20 and 40 meters is the Mosley RV-4 Vertical Antenna. Operate as 1 quarter wave on all four bands. This antenna features Trap-Master traps, Automatic band switching on all four bands, Self supporting and completely factory pretuned to maintain low SWR over entire range.

The RV-4RK kit for roof mounting includes radial wire, mast and hinged mounting. No radials required for ground mounting if a good ground connection can be provided within a few inches of the antenna base. Maximum power rating 750 watts on AM phone, final amplifier, Uses single 52 ohm coax line. Antenna height 20' 8-5/8" above insulator, with roof mount 25' 2-5/8". Weight of antenna 10 lbs., with roof mount 14½ lbs.

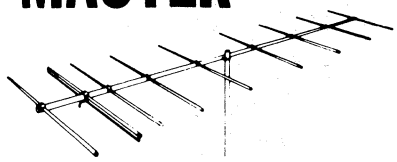
Mosley RV-4 . . . . . $31.94
Mosley RV-4RK $17.60



RV-4 with RV-4RK Kit

SCOTCH · MASTER

2 & 6 Meter Antennas



MOSLEY Model A-92-S ·····**Amateur Net** $16.90
New Mosley SCOTCH-MASTER two meter beam is a nine element antenna. May be mounted vertically or horizontally, will handle maximum legal power, amplitude modulated or 2,000 watts P.E.P. SSB. Mounting bracket fits masts up to 1½" OD. Antenna is matched for 300 ohm balanced line. Boom is of sturdy medium weight wall 1¼" OD aluminum tubing to achieve maximum strength with minimum weight and wind loading characteristics. Stacked arrays feature 300 or 75 ohm balanced feed.

SPECIFICATIONS AND PERFORMANCE DATA: Forward gain, 14 Db. Front-to-back 20 Db. SWR, 1.5 to 1 or less at resonant frequencies. Maximum element length, 41 inches. Boom length, 12 feet. Turning radius, 6.5 feet. Assembled weight, 4 pounds. Maximum wind surface area, 1.25 square feet. Wind load, 25 pounds. Antenna is shipped in kit form.

MOSLEY Model A-76-S·····**Amateur Net** $36.16
The Mosley SCOTCH-MASTER six meter beam has seven elements. Provides maximum forward gain and excellent directivity. SCOTCH-MASTER will handle the full legal power, amplitude modulated. Mounting bracket fits up to 1½ inch OD mast. Antenna is "Gamma" matched for 52 ohm unbalanced line. Boom is of heavy gauge 1¼"OD aluminum. Easily rotated with TV rotor and can be mounted vertically or horizontally.

SPECIFICATIONS AND PERFORMANCE DATA: Forward gain, 12 Db. Front-to-back, 20 Db. Boom length, 24 feet. Turning radius, 13 feet. Assembled weight, 12.5 pounds. Maximum wind surface area. 2.5 square feet. Wind load, 51 pounds. Antenna is shipped in kit form, complete with detailed instructions.

MOSLEY Model A-56-S ·····**Amateur Net** $29.01
The New Mosley SCOTCH-MASTER six meter beam features five elements, maximum forward gain and excellent directivity. This gamma matched beam will handle the full legal power amplitude modulated. Can be mounted vertically or horizontally. Feed with 52 or 75 ohm line.

SPECIFICATIONS AND PERFORMANCE DATA: Forward gain, 10 Db. Front-to-back, 20 Db. or better. SWR, 1.5 to 1 or less at resonant frequencies. Maximum element length, 118 inches. Boom length, 12 feet. Turning radius, 7 feet 8¾ inches. Assembled weight, 6.5 pounds. Wind load, 32 pounds horizontally, 56 pounds vertically. Antenna is shipped in kit form, complete with detailed instructions.

··Mosley SCOTCH·MASTER Stacking Kits··

MOSLEY Model A-92-S-SK1 ·····**Amateur Net** $3.24
A kit for stacking two horizontally polarized A-92 SCOTCH-MASTER beams, one above the other. Comes complete with matching transformer, insulator, complete instructions and phasing line. Feed point impedance - 300 ohm balanced line. This stacked array will attain 3 Db additional gain over single horizontally mounted beam.

MOSLEY Model A-92-S-SK2H ·····**Amateur Net** $45.67
A kit for stacking four horizontally polarized A-92 SCOTCH-MASTER beams, two over two. Complete with support members, mounting plates, phasing line, insulators, hardware and instructions. Feed point impedance - 75 ohm balanced line. This stacked array will attain 6 Db additional gain over a single horizontally mounted beam.

MOSLEY Model A-92-S-SK2V·····**Amateur Net** $45.67
A kit for stacking four A-92 SCOTCH-MASTER beams, two over two, in the vertical plane. Comes complete with support members, mounting plates, insulators, phasing line, hardware and instructions. Feed point impedance - 75 ohm balanced line. This stacked array will attain 6 Db additional gain over a single vertically mounted beam.

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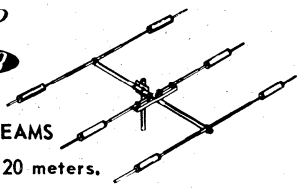
Net

Mosley

Mosley

TRAP MASTER



3 BAND BEAMS
10 – 15 – 20 meters.

3 element beam rated to 1 KW provides outstanding performance on 10, 15 and 20. Up to 8 db forward gain. 20 db or better front-to-back. 1.5/1 or less SWR at resonance.
MODEL TA-33 . . . . Amateur Net $109.99

2 element version of famed TRAP-MASTER Beam rated to a full KW., 5.5 db forward gain with a 20 db front-to-back. 7 ft. boom and 28 ft. maximum element length.
MODEL TA-32 . . . . Amateur Net $76.64

3-BAND DIPOLE is rated to 1 KW. For the Ham who wants to begin with an inexpensive three band dipole and in two additional steps have the Famous TA-33 Trap Master Beam.

Model TA-31 . . . . . Amateur Net, $28.49

Conversion kit to make the TA-31 a TA-32.
Model TA-31-32 . . . . Amateur Net, $46.75

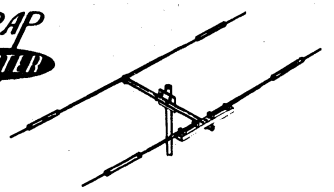
Conversion Kit to make the TA-32 a TA-33
Model TA-32-33 Amateur Net, $42.51

"JR" FOR 300 WATTS or LESS
10 – 15 – 20 meter bands.

Trap-Master "Junior" Beams provide the same fine performance as the world famous Model TA-33. Traps are rated to 300 watts (AM).
3 ELEMENT "JUNIOR" Beams provide 8db forward gain and 20 db front-to-back. SWR is usually less than 1.5/1 at resonant frequencies. Aluminum boom is 1¼ OD. x 12'. Maximum element length, 26' 8". Turning radius is 14' 9". Wind load, 86 pounds. Assembled weight, 29 pounds. Recommended feed-line, RG-8/U.

Model TA-33 Jr. . . . . Amateur Net, $76.64

TRAP MASTER



2 ELEMENT "JUNIOR" with 5 db forward gain with approximately 20 db front-to-back. Aluminum boom is 6' long and maximum element length is 26' 8". Has turning radius of just 13' 9". Assembled weight, 14 pounds. Wind load, 62 pounds.

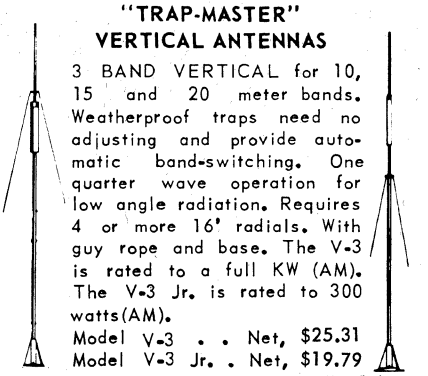
Model TA-32 Jr. . . . Amateur Net, $54.58

3 BAND DIPOLE rated to 300 watts. For the Ham who wants to begin with an inexpensive three band dipole and in two additional steps have the famous TA-33 Jr. "Trap-Master" Beam.

Model TA-31 Jr. . . . Amateur Net, $25.04

Conversion Kit to make the TA-31 Jr. a TA-32 Jr.
Model TA-31-32 Jr. . Amateur Net, $31.87
Conversion Kit to make the TA-32 Jr. a TA-33 Jr.
Model TA-32-33 Jr. . Amateur Net, $27.69

"TRAP-MASTER" VERTICAL ANTENNAS



3 BAND VERTICAL for 10, 15 and 20 meter bands. Weatherproof traps need no adjusting and provide automatic band-switching. One quarter wave operation for low angle radiation. Requires 4 or more 16' radials. With guy rope and base. The V-3 is rated to a full KW (AM). The V-3 Jr. is rated to 300 watts (AM).
Model V-3 . . Net, $25.31
Model V-3 Jr. . Net, $19.79

10 thru 40 meters

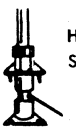
Automatic bandswitching with this vertical. Electrical ¼ wavelength each band with low angle radiation makes this an excellent low cost DX antenna. Low SWR with exceptionally flat response over full bandwidth. Traps are weather and dirt proof for long, reliable service. Will handle full KW (AM). Sturdy aluminum construction. Requires 4 radial wires, 30' each. With guy rope and base.

Model V-4-6. Amateur Net, $29.94 .

80 Meter BASE LOADING COIL. Base loading coil for operating V-4-6 Vertical on 75 and 80 meter bands. Space wound on heavy ceramic form. Handles full KW (AM). Mounts on base section of vertical. Comes with coax connector. Shipping weight 3 lbs.
Model D-4BCA Amateur Net $17.27

5 BANDS!

Work 10, 15, 20, 40 and 80 with one antenna . . . one RG-8/U feed line. Designed and built to meet United States Air Force electrical and structural specifications. The V-5 is 100% rust proof and performs brillantly on each of the 5 bands. It is capable of handling power of 1 KW to the antenna! Weather proof trap assemblies are used throughout . . . no external loading coil needed. Maximum length of antenna is 43 ft., 8 in. Supplied complete with polyethylene guy rope, heavy duty base with internal coax fitting and all necessary hardware.
Model V-5 . . Amateur Net, $130.66



HEAVY DUTY BASE MOUNT
Supplied with the V-5 and V-4-8 Antennas.

2 BANDS!

For 40 and 80 meter bands. ¼ wavelength vertical on each band. Oversize trap assembly handles 1 KW (AM). Maximum overall length of antenna is 52' 3". Requires 12 radials each 64' in length. Complete with base mount (heavy duty)' Polyethylene guy rope and hardware.
Model V-4-8 . Amateur Net, $93.72

. . . the 3 BAND BEAM that will give your signal that DX punch.

This wide spaced six element configuration employs 4 operating elements on 10 meters, 3 operating elements on 15 meters and 3 operating elements on 20 meters. Automatic bandswitching built for operation at maximum legal amateur power. Forward gain on 10 meters is 9 db., on 15 meters is 8.5 db. on 20 meters is 8 db. Front-to-back is 20 db or better on all 3 bands. SWR is 1.5/1 or better at resonance. Maximum element length is 29'. Boom is 24'. Turning radius is 19' 3". Assembled weight is 69 lbs. Just one coaxial feed line needed. 52 ohm RG-8/U is recommended.

Model TA-36 . . . Amateur Net, $138.72

TRAP MASTER

MODEL "MP-33"
3 BAND MEDIUM POWER BEAM

3 ELEMENT BEAM for 10, 15, and 20 meters. Tig-Array has capacity of 750 watts AM and 2000 watts PEP on SSB. Antenna made under same rigid Mosley standards of quality and excellence. Element center sections made of double thickness aluminum to reduce sag. Antenna is fed with RG8/U, 52 ohm coax. Antenna element length, 25'; Boom feed accomplished through direct line connection to open center of radiator, achieving sturdy match over entire bandwidth. Maximum element length, 24'; Boom length, 12'; Wind load, 96 lbs., Turning radius, 15'; VSWR, 1.5/1 or better; Feed Point, 50 ohms; Forward Gain, up to 8 db; Front-to-back, 20 db.

Model MP-33 . . . . . Amateur Net, $87.12

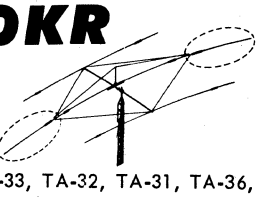
CONVERSION KIT FOR TA-33 JUNIOR

Addition of kit converts TA-33 Jr. into essentially MP-33 (750 watts AM/CW; 2000 watts PEP SSB). Does not change the electrical characteristics of original beam.

Model MPK-3 . . . . . Amateur Net $25.96

TA-40KR

40 METER OPERATION



Hams owning a TA-33, TA-32, TA-31, TA-36, or MP-33 beam may work 40 meters in addition to 10, 15, and 20 meters by adding a TA-40KR kit. Installs on driven element to exhibit a typical figure 8 pattern obtained from a half wave antenna. Convert Jr. beams to MP-33 before adding kit. Trap assemblies, Hardware, Mast and line for guying supplied. Extra feed-line not necessary.

Model TA-40KR $47.01

Net

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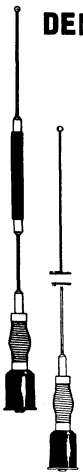
Mosley

Mosley

DEMON CB MOBILE ANTENNA



A compact CB mobile antenna that stands a mere 17" tall. Stainless steel whip. Adjustment for antenna peaking at desired frequency. Center loaded. VSWR 1.5/1 or better. 24' coax, chrome plated spring and hw. supplied.

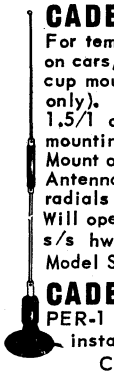
DA-27 CB Net $11.99

DEPUTY CB MOBILE ANTENNA

Mobile antenna with overall length of 43 ¾". Simple whip adjustment allows antenna peaking at desired frequency. VSWR 1.5/1 or better. Easy to disconnect. Roof top mount supplied. Complete with s/s whip, 24' of coax, chrome plated spring and hardware.

DP-27 CB Net $15.99

CADET FOR MOBILE



For temporary mobile installations on cars, boats . . . Utilizes suction cup mount (use with suction mount only). Omni-directional. VSWR, 1.5/1 or better. Length 3 ft. from mounting surface to antenna tip. Mount on car roof top recommended. Antenna center loaded. Ground radials or systems eliminated. Will operate on fiberglass surfaces. s/s hw.

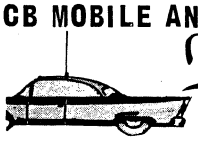
Model SUC-1 . . . . CB Net $20.84

CADET FOR MOBILE

PER-1 is designed for permanent installations.

CB Net $24.24

CB MOBILE ANTENNA



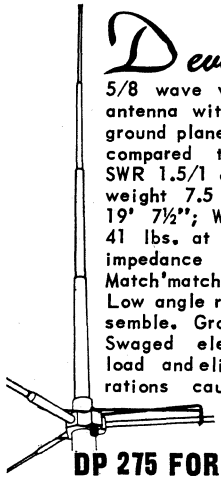
Devant "2"

Devant 2 mobile antenna, companion to the Devant 1 and Devant Special. This stainless steel mobile antenna has World Famous Mosley performance. A slim line beauty with built-in durability.

DEVANT 2 - - - - - - - - - CB NET $ 14.50

CB ANTENNA

Devant "1"



5/8 wave vertical base station antenna with gain over standard ground plane of 3.4 db. or 5.9 db. compared to isotropic source. SWR 1.5/1 or better. Assembled weight 7.5 lbs. Overall height, 19' 7½"; Wind Load (EIA Std) 41 lbs. at 80 MPH. Feed point impedance through 'Induct-O-Match'matching system, 52 ohms. Low angle radiation. Easy to assemble. Grounded for lightning. Swaged elements reduce wind load and eliminate element vibrations causing metal fatigue.

CB Net $22.76

DP 275 FOR BUSINESS BAND

Similar to Devant 1. Tuned to 27.230 Mcs., but instructions included detail tuning to other frequencies from 27.230 Mc. to 50 Mc. Available cut to specified frequency at a slightly extra charge. Maximum power input 1 KW AM

Net $29.05

CB ANTENNA

Devant "Special"

Similar to Devant 1 and Dispatcher 275. Additional gain of 4.0 db. over std. ground plane or 6.5 db. compared to isotropic source possible, due to top hat included. VSWR 1.5/1. Three Year Parts Warranty. Overall height 20' 5"; Weight, 7½ lbs. Complete with stainless steel hardware.

DEVANT SPECIAL - - - - CB NET $ 29.63

CB MARINE ANTENNA

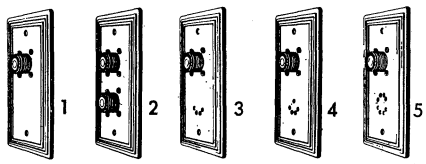
A most versatile CB antenna. Mount on boat . . . use on car . . . secure temporarily to building window ledge for uninterrupted communications. Use for CB communications while camping, fishing etc. Requires no ground system or ground radials. Performs on all types of boats even wood and fiberglass. Hinged for quick break over. Salt water protected and tested. Brass parts chrome plated. Anodized aluminum sections for rust and corrosion protection. s/s whip. Complete with s/s hardware. Measures 8 ft. 5 in. Center loaded. Easy to load. Proven performance. Use with Swiv-L-Mount (extra) for angle mounting. For clamping to building window ledge use universal clamp accessory, U-1.

Silver Dolphin . . . . . CB Net $29.63
Swiv-L-Mount . . . . . CB Net $4.95
U-1 Clamp accessory . . . . CB Net $6.17

COAX TERMINATION OUTLETS

For a neat, convenient termination of unsightly coax leads, install Mosley coax termination outlets. Easy-to-install. Terminate antenna coax and rotor leads inconspicuously within wall.

1. C1-PK . . $2.11
2. C2-PK . . $3.78
3. CR4-PK . $3.13
4. CR5-PK . . $3.40
5. CR8-PK . . $3.73



AD-311 BEAM

Deluxe CB Base Station Beam

Deluxe 3-element CB beam. Gamma Matched. Wide spaced. Gain of 8 db. over reference dipole or 10.5 db. compared to isotropic source. Wind Surface (vertical), 4.7 sq. ft.; Horizontal wind surface 3.2 sq. ft. Front-to-Back, 25 db.; SWR 1.5/1 or better. Wind Load (EIA std.) - - 95 lbs. vertical and 65 lbs. Horizontal at 80 MPH. Stainless steel hardware. Assembled Weight, 12 lbs.; Shipping Weight, 16 lbs. Stack for additional gain with A-311-SK stacking kit.

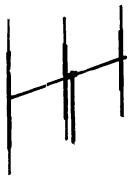
CB Net $43.92

HARDWARE KIT FOR STACKING MOSLEY CB BEAMS

Mosley hardware kit is especially designed to stack Mosley AD-311 A-311-S, A-411-S, and A-511-S beams. Contains complete hardware less stacking boom and transmission lines. Instructions are complete and detailed. Stacking two beams will usually result in added 3 db. gain.

MODEL H-CB-SK - - - - - CB NET $ 21.70

CB ANTENNA MODEL A-311-S



3-element beam is designed for economy minded CB enthusiasts who want the utmost in dependable 2-way communications.

SPECIFICATIONS AND PERFORMANCE DATA:

Antenna Wt., 12.5 lbs.; Boom length, 12 ft.; Max. el. length, 18' 8¾". Front-to-back, 20 db.; Vertical Wind Load, 65 lbs.; Horizontal Wind Load, 35 lbs.; Gain, 8 db. compared to reference dipole, 10.5 compared to isotropic source. Feed point impedance, 52 ohms.

MODEL A-311-S - - - - - - CB NET $ 35.00

CB ANTENNA MODEL A-411-S

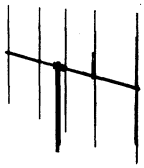
4-element performance proven beam. Newest beam in the Scotch-Master beam line.

SPECIFICATIONS AND PERFORMANCE DATA:

Shipping Wt., 18 lbs.; Assembled Wt., 15 lbs; Boom length, 15 ft.; Maximum el. length, 18' 8¾"; Front-to-back, 20 db.; Wind Load (80 MPH EIA Std.) 59.69 lbs.; Gain, 8.7 db. over reference dipole or 11.2 db. compared to isotropic source; Feed Point Impedance, 52 ohms.

Model A-411-S - - - - - - - - - - - - $45.00

CB ANTENNA MODEL A-511-S



The ultimate in the Scotch-Master line of rugged, economical beams. Five elements.

SPECIFICATIONS AND PERFORMANCE DATA:

Antenna Wt., 16.5 lbs.; Boom Length, 24 ft.; Max. el. length, 18' 8¾"; Front-to-back, 20 db.; Vertical Wind Load, 112 lbs.; Horizontal Wind Load, 62 lbs.; Gain, 9.5 db. compared to ref. Dipole or 12.0 compared to isotropic source; Feed point impedance 52 ohms. CB Net $55.00

NEW STACKED BEAMS

For additional gain over single beams, Stack'it phased beams point the signal even sharper.

Stack'it 3 (two 3-el) . . . . CB Net $72.95
11 db. gain over ref. dipole, 13.5 db. compared to isotropic source.

Stack'it 4 (two 4-el) . . . . CB Net $84.95
11.2 db. gain over ref. dipole, 14.2 compared to isotropic source.

Stack'it 5 (two 5-el) . . . . CB Net $99.95
12.5 db. gain over ref. dipole, 15.0 db. compared to isotropic source.

© U.C.P., Inc.

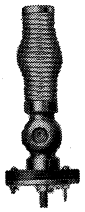
Net

ANTENNAS MOUNTS

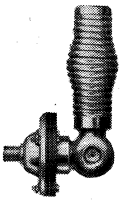
Master Mobile

Master Mobile Mounts
Division of Whitehall Electronics

All products are for Universal Use — Mobile, Home, Marine, C.A.P., Civil Defense, Emergency, etc.

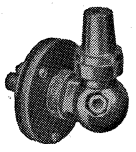


MODEL 232



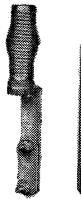
MODEL 232C (COAXIAL TYPE)

MODEL 232C (Coaxial Type Base Mounts Optional)



MODEL 321C

232 SERIES



MODEL 140

MODEL 142

SEPARATE SPRINGS FOR UNIVERSAL MOUNTS

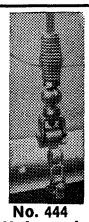
100 SERIES

	Net
100 — Regular	$4.50
100-X — Heavy Duty	5.50
100SS — Stainless Steel	6.95
100XSS — Heavy Duty Stainless Steel	7.95
100WX — Heavy Duty w/Male stud	5.50
100XX — Extra Heavy Duty Spring	6.50
100WXX — Extra Heavy Duty Spring — Male Stud on one end	6.50
100XXSS — Extra Heavy Duty Spring — Stainless Steel	8.95

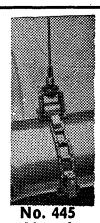
MOUNT SPECIFICATIONS

(All types are tapped for 3/8" Stud Fitting on Antenna End. Shipping Weight Approx. 3 lbs.)

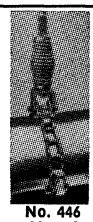
232	Base Mount—Double Tapered Spring—Swivel Base	$ 8.75
232C	Base Mount—Double Tapered Spring—Swivel Base Coax Conn.	8.75
232SS	Base Mount—Double Tapered Spring—Spec. Stainless	12.95
232SSC	Base Mount—Double Tapered Spring—Spec. Stainless—Coax. Conn.	12.95
232X	Base Mount—Heavy Duty—Double Tapered Spring—Swivel Base	9.85
232XC	Base Mount—Heavy Duty—Double Tapered Spring—Coax. Conn.	9.85
232XSSC	Base Mount—Heavy Duty—Double Tapered Spring— Spec. Stainless—Coax Conn.	14.95
232XSS	Base Mount—Heavy Duty—Double Tapered Spring—Spec. Stainless	14.95
232XX	Base Mount—Extra Heavy Duty Spring	10.85
232XXC	Base Mount—Extra Heavy Duty Spring—Double Tapered Spring—Coax Conn.	10.85
232XXSS	Base Mount—Extra Heavy Duty Spring—Double Tapered—Spec. Stainless	15.95
232XXSSC	Base Mount—Extra Heavy Duty Spring—Double Tapered—Spec. Stainless—Coax Conn.	15.95
321 or 321C	Base Mount—Where no spring desired—with spec. rigid type ball joint	7.95
140	Universal Mount—Double Tapered Spring	6.95
140X	Universal Mount—Heavy Duty—Double Tapered Spring	7.95
140SS	Universal Mount—Special Stainless	9.65
140XSS	Universal Mount—Special Heavy Duty Stainless	10.95
140XX	Universal Mount—Extra Heavy Duty—Double Tapered Spring	8.95
140XXSS	Univresal Mount—Extra Heavy Duty—Stainless Steel	11.95
142	Universal Mount—Less Spring, with Insulators for Direct Mounting by Series 100 Ant. or or 92 Ext. and 106 Antenna	3.95
446SS	Universal Mount—Special Stainless—Chain Mount	14.90
446XSS	Universal Mount—Heavy Duty—Special Stainless—Chain Mount	15.90
446XXSS	Universal Mount—Extra Heavy Duty—Special Stainless—Chain Mount	16.90
446	Universal Mount—Heavy Duty Spring—Chain Mount	13.45
446L	Universal Mount—Double Tapered Spring—Chain Mount	12.45
446XX	Universal Mount—Extra Heavy Duty Doubled Tapered Spring—Chain Mount	14.45
444	Universal Mount—Heavy Duty Spring—Swivel Base—Chain Mount	17.80
444L	Universal Mount—Double Tapered Spring—Swivel Base—Chain Mount	16.70
444XX	Universal Mount—Extra Heavy Duty Spring—Swivel Base—Chain Mount	18.80
444SS	Universal Mount—Special Stainless—Swivel Base—Double Tapered Spring—Chain Mount	20.90
444XSS	Universal Mount—Special Stainless—Heavy Duty—Swivel Base—Chain Mount	22.90
444XXSS	Universal Mount—Extra Heavy Duty—Special Stainless—Swivel Base—Chain Mount	23.90
445	Universal Mount—Threaded, 3/8"-24—Chain Mount	7.95



No. 444 Universal $17.80



No. 445 Mount $7.95



No. 446 Mount $13.45

VERTICAL 3-ELEMENT BEAM CB-51

27 MC

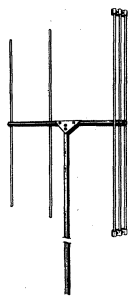
Triple reflectors provide higher front to back ratio than normally provided on a 3 element beam.
Maximum in . . .

- **Range**
- **Efficiency**
- **Performance**

Vertical 3-element beam giving an 8 Db forward gain with an expanded beam width in the forward direction, and by use of a reflector screen, the front to back is greatly improved. The increase of front to back will give the effect of a greater forward gain.

SPECIFICATIONS:

Gain—8 Db expanded width forward
Front to back—20 Db
Feed—50 Ohm unbalanced
Longest Element—9'3"
Boom Length—9'3"
Turning Radius—10'4"



NET $39.95

WHIP ANTENNA SPECIFICATIONS

MODEL St. Steel	Overall Length	Base Specifications	Net Price
100-60S	60"	Threaded 3/8" Stud to fit all Mounts	$4.95
100-72S	72"	Threaded 3/8" Stud to fit all Mounts	4.95
100-78S	78"	Threaded 3/8" Stud to fit all Mounts	5.00
100-86S	86"	Threaded 3/8" Stud to fit all Mounts	5.15
100-90S	90"	Threaded 3/8" Stud to fit all Mounts	5.20
100-96S	96"	Threaded 3/8" Stud to fit all Mounts	5.25
100-103S	103''	Threaded 3/8" Stud to fit all Mounts	6.95
106-60S		Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.15
106-72S	72"	Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.15
106-78S	78"	Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.20
106-86S	86"	Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.35
106-90S	90"	Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.40
106-96S	96"	Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.50
106-103S	103''	Pl. End 1/4" Dia. (Fits Mod. 92 Ext.)	6.45

Comb. 106-96" whip with #92 Ext. (18") gives up to 112" adj. ..... **Net $8.00**

Retractable CB Antenna CG-275 GUTTER MOUNT

This new precision-built mobile antenna mount enables you to achieve maximum gain and coverage with a car roof level antenna—WITHOUT DRILLING HOLES IN YOUR CAR TOP!

$7.95
NET

POSITIVE LOCK — positively locks antenna in position.
RETRACTABLE — won't dip even at high speed!
ADAPTABLE — attaches easily and quickly to your car's rain gutter. Any standard 3/8" 24-thread whip mounts in just seconds.
RUGGED — steel and aluminum construction, ruggedly built to take a tremendous beating!

TMI UNIVERSAL MOUNT

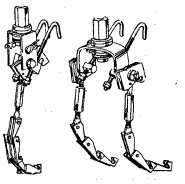
For use with any antenna having 3/8" 24-thread. Entire assembly of alloy steel, chrome plated.

$4.45
NET

UNIVERSAL MOUNT MMM-75

For Trunk Lid, Cowl Mounting. Adjustable to fit any curved or flat surface. Special fiberglass insulation. Equipped with coaxial connector.

$7.95 NET



UNIVERSAL MOUNTINGS

Unique shaped links adjustable to fit any width surface. For use with spring and or whip. (3/8"-24 thread). Easily attaches in minutes.

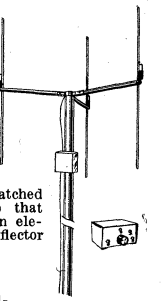
MM530	Deluxe Double Mount Stain. Steel	Net $21.95
MM531	Deluxe Single Mount Stain. Steel	Net 11.95
MM520	Double Mount S-Cad. Plated	Net 7.95
MM519	Single Mount S-Cad. Plated	Net 4.95

SPECIFICATIONS

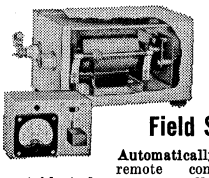
Relays—3 relays operated at control box position.
Power Supply—24 volts from 115 volts.
3—17½' gamma matched dipoles mounted in a radius of less than 2½', 120° apart.
Weight—18.2 lbs.
Wind Rating—100 M.P.H.
Booms—1" tubing.
Wiring—4 conductor cable and RG-58U feedline line.
Gain—7.75 Db.
Front to Back—23 Db.
Empedence—50 ohm unbalanced.
Electronic Rotation—can also be used as an OMNI-DIRECTIONAL antenna.

PUT YOUR SIGNAL INTO ORBIT WITH THE ORBITEER CB-47

A phasing and beam type antenna that actually is 3 beams in one. Direction is selected immediately by a twist of the wrist at the control box and without the use of costly, slow moving rotators. Elements can be used individually or all at the same time for OMNI-DIRECTIONAL reception.
Consists of 3 half wave, gamma matched dipoles, electronically constructed so that any dipole can be selected as a driven element while the other 2 become a reflector screen. 27 Mcs.



NET $71.95



MASTER MATCHER with Field Strength Meter

Automatically tunes Band by remote control Motor-driven variable inductance controlled by a switch from the operating position. Makes possible tuning the antenna to the exact resonant frequency. QSY in any particular band without moving to adjust antenna loading coil. All guess work is eliminated, and the field strength meter, with automatic panel light indicator, shows when roller is at minimum inductance position. With the Master Matcher maximum efficiency is possible with minimum effort.

For 6 volts: Model 2495-6
For 12 volts: Model 2495-12

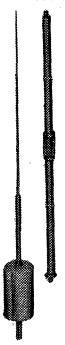
Amateur Net $24.95 Complete

CB MARINE Antenna CBM-16

New top-loaded "Ocean Sentry" design for greater radiation efficiency, less wind resistance, perfect match to transceiver, operation independently of ground. 72" high with ½ wave end fed fiberglass antenna with EZ-off quick disconnect. 1.5 db gain. SWR at resonance 1.5:1. 50 ohms input. Complete with cable, mounting and antenna.

$19.95
NET

DARTLINE FOLD-OVER ANTENNA WITH COIL



Power Rating: AM-dc input, 250 watts — SSB dc input, 500 watts.
AM-29: 36" Stain. Steel Laydown Ext. breaks at 18" for fender or deck mount. $11.95
AM-35: 48" Stain. Steel Laydown Ext. breaks at 36" for bumper mount. $14.25

COIL & WHIP

AM-30	80 Meter	$9.95
AM-31	40 Meter	8.95
AM-32	20 Meter	7.95
AM-33	15 Meter	6.95
AM-34	10 Meter	5.95

Net

© U.C.P., Inc.

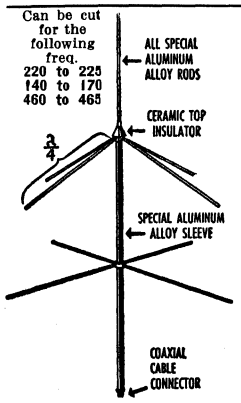
ANTENNAS MOUNTS

Master Mobile

Master Mobile Mounts
Division of Whitehall Electronics

All products are for Universal Use — Mobile, Home, Marine, C.A.P., Civil Defense, Emergency, etc.

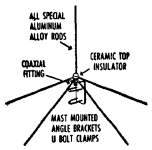
2 METER ANTENNAS — FIXED • MOBILE



GROUND PLANE ANTENNA

Model 300 — Master DeLuxe . . . NEW! . . . brings in that DX. Outperforms any type of vertical dipole. "Drooping" Type Ground Plane plus four straight radials to give a low angle of radiation for general coverage, an almost perfect circle radiation pattern. Ideal for CD and defense nets. Covers complete Amateur and with Broad and char. Matches 52 ohm coax cable through threaded coax fitting at end. Straight radials are adjustable (up or down) to eliminate standing waves on trans. lines. For medium or low-powered trans. Sturdily built of finest alloys to withstand corrosion, high winds and extreme icing. With 36" length of ¾" pipe for mounting purposes.

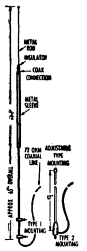
Model 300 Amateur's ..... **Net $12.95**
MB-1 — Mounting Bracket ..... **Net 1.00**



Model GP-4 — Four "Drooping" Radials for perfect match to 52 ohm coax cable. Complete amateur band coverage. Specify other frequencies. Attaches to Mast with U-Bolts. (U-Bolts and Mounting Brackets furnished). Also attachable to side of building. Sturdy, with special alloys, to withstand corrosion and extreme weather.

MODEL GP-4 Amateur's Net $5.95

TWO METER COAX ANTENNAS



No. 214—MASTER DE-LUXE . . . ruggedly constructed, vertically polarized, frequency range 140 to 170 MC. Completely waterproofed. Highly polished chrome enhances appearance of any vehicle. Furnished with 10 ft. of 72 Ohm Coax Cable.

Type 1—On side with 2 brackets furnished. **$15.95**
Type 2 — Master Mount (No. 232X or 140X)— Mounts sold separately. **Complete $17.45**
Adjustable mtg.—adjusts to 17".

2 METER STANDARD MODEL

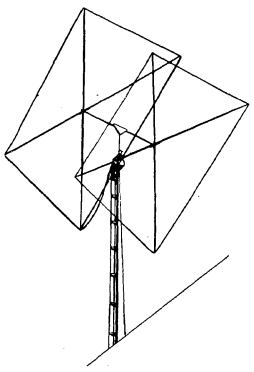
No. 114 COAX VHF ANTENNA — At a popular price! For OPEN TYPE VEHICLES using 140 MC to 165 MC. Mounts any convenient place with standard Master Mounts. Baked enamel finish. With 10 ft. Coax Cable and 18" Adjustable Section.

Net, Only $9.95

No. 613

No. 613 — NEW IMPROVED MASTER VHF ROOF TOP ANTENNA. This new high performance antenna features an improved type positive-lock coaxial connector. Designed for police, fire, taxi cabs and amateurs using 140 MC to 165 MC. Stainless steel wire with threaded fitting. Easily changed without disturbing mounting. Comes with 10 ft. coax cable ..... **Net $4.95**

No. 113 — ROOF TOP ANTENNA without De Luxe Connections ..... **Net 3.96**
No. 117 — Extra Antenna for No. 113 and No. 114 ..... **Net .97**
No. 116 — Extra Antenna for No. 214 and No. 613 ..... **Net 1.70**



The GIANT CUBICAL QUAD

. . . a giant in CB performance!

INCREASES RANGE — The Q-11 was designed specifically for Citizens Band use, and is particularly effective in increasing communications range with the power limitations on this band.

HEAVY DUTY but LIGHT WEIGHT — Beam element clamps are constructed of heavy-duty cad-plated steel treated to resist corrosion while the elements are made of rigid aluminum and fiberglas tubing to give maximum service. Its light weight enables it to be used with most TV-type rotors.

RUGGED — The Quad Antenna is a square loop beam which is light weight and still rugged enough to withstand high winds.

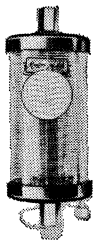
EASILY ASSEMBLED — It can be assembled on the ground and lifted into place, or assembled on the tower.

SPECIFICATIONS: Forward Gain, 8 db; Front to Back, Up to 40 db; Type of Feed, 52 ohm coax; Polarization, Horizontal or Vertical; Longest Element, 9'3"; Boom Length, 65½".

For class D, 27-mc operation

MODEL Q-11 $39.95 Net

MULTI-BAND TRANS. ANTENNA COILS



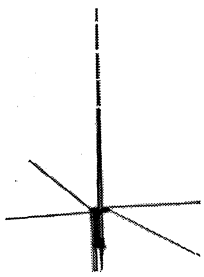
New Plug-In Coils! Just plug into desired pair of jacks and presto! . . . your coil is ready for operation on the desired band. No switches, no sliding contacts, no loose connections. Built and tested for maximum resonance.

- Rigidly tested and engineered — found to have a "Q" of 525.
- Operates into a 25-ohm cable.
- Positive contact—noise-free, trouble-free operation.
- Weathersealed.
- Ruggedized construction.
- Factory pre-tuned — no adjustment is
- necessary.
- Higher efficiency — lower loss.

THE VICTORY No. 999 10-15-20 METERS ONLY

MODEL SSB 156 75 & 40 METERS ONLY

YOUR CHOICE . . . $14.95



DYNA-MASTER DYNAMIC CO-LINEAR

Compare these BASE STATION GROUND PLANE features • Up to 20 db signal to noise improvement • Linear impedance matching insures maximum signal transfer from antenna to receiver without the losses of conventional matching transformer • Completely weather-sealed in epoxy • Lower angle of radiation gives increased range • Built-in lightening protection • On SSB radiated power will be doubled • Antenna is equally effective on upper, lower or double sideband • Terminates in SO-239 connector • Elements are heavy wall aluminum with tightly swedged telescoping sections.

ABR-365	1½ Wave, adjustable, (144-174 mcs), 5.8 db gain	**$34.95**
AM-106	¾ Wave, (50-54 mcs), 3.7 db gain	34.95
CR-133	¾ Wave, (30-35 mc), 3.7 db gain	34.95
CR-137	¾ Wave, (35-40 mc), 3.7 db gain	34.95
CR-145	¾ Wave, (40-50 mc), 3.7 db gain	34.95
CB-5	¾ Wave, Class D, 27 mc, 3.7 db gain	24.95

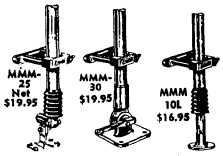
MASTER MARINE MARVEL MARINE ANTENNA

Designed, built and tested in Master Mobile's own floating laboratory, the new center-loaded Master Marine Antenna is the latest result of many years of experience in producing the finest in Antennas used throughout the world! The Marine Marvel, seasure and powerful, provides maximum power radiation on all marine frequencies from 2 to 3 megacycles. Here is the Antenna that was made for your boat! . . . engineered to withstand the most severe type of marine service, with long life assurance by being fabricated of the highest quality material available.

- 10½ Ft. Overall Length.
- Capacity 4 Ft. Stainless Steel Plastic-Coated Whip.
- 18" Center-Loaded Impregnated Coil.
- 5 Ft. Anodized Base Section.
- Absolutely Waterproof - Weather-proof.
- No Electrolysis.
- Rugged Insulators.
- Adjustable Antenna Lead.

COLORS AVAILABLE:
WHIP — Yellow, Blue or Black.
COIL — Yellow, Blue or Black.
BASE — Gold (Spec. Saltwater Anodized).

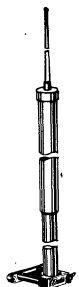
No. MMM-2710 Antenna & Solid Mounts—5 Ft. Base.. **$29.95**
No. MMM-2715 Antenna & Solid Mounts—10 Ft. Base **$35.95**
No. MMM-2700 Antenna — 5 Ft. Base (less Mounts).... **$27.95**
No. MMM-2705 Antenna — 10 Ft. Base (less Mounts).. **$33.95**
MMM-10 SOLID MOUNTS— per set **$5.50**



MARINE LAYDOWN MOUNTS

Additional Brackets Available

New deluxe series. Can be mounted on side of cabin or upright on deck. Mounts swivel, and are adjustable to any position. Chrome-plated brass with high impact waterproof-weatherproof phenolic insulator.



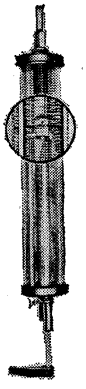
MARINE MOUNTING BRACKETS

MM-1 for 1" mast..... **$5.95**
MM-15 for 1½" mast..... **$6.75**

MASTER SUPER MARINE ANTENNA No. MMM-2750

The Master Super-Deluxe Marine Antenna in 12 ft. anodized 1⅜" tubing. Coil section is 35" long. Impregnated coil covered with phenolic tubing. 8' fiberglas whip. Here is the ultimate in Marine Antennas!

MMM-2750 Antenna & Solid Mounts..... **$49.95**
Without Mounts..... **$47.95**



ULTRA HI "Q" COILS

No. 750 MASTER DELUXE ALL-BANDER

Covers 10 thru 75 and all intermediate frequencies. Silverplated single turn contact, positive spring. Eccentric cam contact, easy selection of turn. Automatic lock prevents damage to coil.

NET $14.95

FOR 80-40-20 & 15, METERS
After many years of experimentation, here is the coil with the highest "Q" ever obtained. Tested and found to have a "Q" of well over 515. Use with 36" base section. 60" whip.

- **Ruggedized construction.**
- **Greater effeciency.**
- **Ruggedized construction.**
- **Precision made.**
- 2¾" Diameter.

ANY BAND . . . AMATEUR Net Ea. $5.25

DELUXE ULTRA HIGH "Q" COILS

Extremely efficient for SSB operation and with power units. New design for higher "Q", top efficiency and lighter weight. No arcing with high power transmitters. For use with 3 ft. base section and 60" whip.

15 meter	$ 6.95	2374 Kc.	$15.95
20 meter	6.95	2738 Kc.	15.95
40 meter	8.95	2768 Kc.	15.95
75/80 meter	9.95	4507.5 Kc.	10.95
160 meter	14.95	4585 Kc.	10.95
2251 Kc.	15.95	4325 Kc.	10.95

ULTRA HY "Q" C.A.P. COILS

Additional HY "Q" C.A.P. Coils to be used with HY "Q" C.A.P. Antennas according to frequency desired. These coils are interchangeable. Other freq. coils priced upon request.

	Net		Net
UH "Q" 2374 Kc.	$ 8.95	UH "Q" 4585 Kc	$ 7.95
UH "Q" 2738 Kc.	8.95	UH "Q" 4325 Kc	7.95
UH "Q" 2768 Kc.	8.95	UH "Q" 160 Meters	12.95
UH "Q" 4507.5 Kc.	7.95	UH "Q" 2251 Kc.	12.95

© U.C.P., Inc.

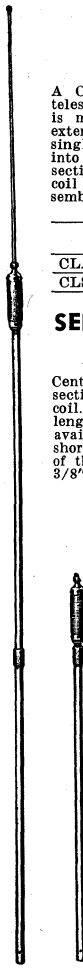
Net

PREMAX ANTENNAS--MOUNTINGS--ACCESSORIES

SERIES C CENTER-LOADED MARINE ANTENNAS

A Center-Loaded Collapsible type Antenna, consisting of two telescoping, adjustable base sections on which the loading coil is mounted, with a tapered top whip section, giving a total extended length of about 19 feet. This Antenna collapses to a single unit with the whip section telescoping through the coil into the lower section, making a collapsed length of 7 feet. The sections are of seamless aluminum, or stainless steel and the coil is wound on low-loss bakelite tubing and treated after assembly with weatherproof coating.

No.	Type	Base O.D.	Base I.D.	Wt. Lbs.	List Price
CLA-619	Aluminum	1.000"	.834"	5	$55.00
CLS-1119	Stainless	1.000"	.900"	7	110.00



SERIES C

SERIES B CENTER-LOADED ANTENNAS FOR MOBILE & MARINE USE

Center-Loaded Whip-Type Antennas consist of a standard base section or spring-type on which is mounted a special Premax coil. The top is a taper-ground stainless steel whip 6 ft. in length, giving a total overall height of 9 ft. Various coils are available or the standard 75-meter coil can be adapted by shorting out turns on the coil. Antennas can be used with any of the Standard Premax Mountings shown below, or will fit any 3/8" x 24-thread mounting.

NO.	FREQ.	PRICE
BXS-14	14,000 kc. (20M.)	$24.00
BXS-23	2374 kc. (CAP)	24.75
BXS-31	3105 kc. (APT)	24.75
BXS-38	3800 kc. (75M)	24.75
BXS-43	4325 kc. (CAP)	24.75
BXS-46	4585 kc. (CAP)	24.75
BXM-25	2000 to 3000 kc. (Marine)	24.75
	(Same as BXS but with Spring)	
BSS-14	14,000 kc. (20M.)	39.75
BSS-23	2374 kc. (CAP)	41.25
BSS-31	3105 kc. (APT)	41.25
BSS-38	3800 kc. (75M.)	41.25
BSS-43	4325 kc. (CAP)	41.25
BSS-46	4585 kc. (CAP)	41.25
BSM-25	2000 to 3000 kc. (Marine)	41.25

SERIES B COILS

Premax also supplies the Series "B" coils in the standard frequencies above. Special frequencies available on request.

List Price .....$13.50 ea.

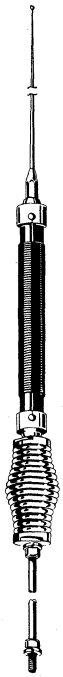
MAST EXTENSIONS

Polished Stainless Mast Extensions—threaded 3/8"-24 on both ends and supplied with stainless nuts and lockwashers. Available in 12", 18", 24", 30" and 36" lengths.

Prices range from $6.00 to $12.00 list each

Style B Coil

BX Mast Extension



Type BXS

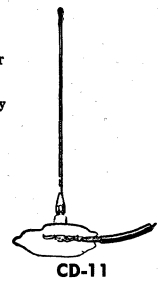
Type BSS

MOBILE VHF WHIPS

Style CD-11 Series—Permanent type. Porcelain insulator mounts thru 1/2" hole in rooftop.

Style CD-21 Series—Emergency type. Attaches by heavy duty suction cup.

NO.	FREQ.	PRICE
CD-112	108 to 120 mc.	$6.00
CD-114	144 mc.	6.00
CD-115	152 to 162 mc.	6.00
CD-212	108 to 120 mc.	4.20
CD-214	144 mc.	4.20
CD-215	152 to 162 mc.	4.20



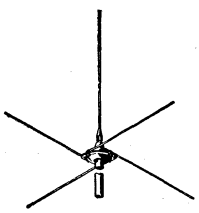
CD-11

CD-21

GROUND PLANE ANTENNAS FOR POINT-TO-POINT USE

For point-to-point installations, Premax has two VHF Antennas: The Style GP-3 which has elements of heavily-plated spring steel with skirt wires that can be bent down to any angle to match coax cable. Mounting is within a water-proof housing that fits standard 1/2" pipe. Cable carries down thru pipe.

NO.	FREQ.	USE	PRICE
GP-312	120 mc.	For aircraft and CAP.	$12.00
GP-314	140 mc.	For 2 meter and CD.	12.00
GP-315	150 mc.	For police and taxi	12.00

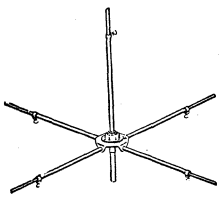


GP-3

PREMAX ADJUSTABLE GROUND PLANE ANTENNAS 20-60 mc

Another low-cost type Ground Plane Antenna is adjustable from 20 to 40 mc. or 40 to 60 mc. Standing wave ratio matching to 52-ohm line is 1.07 to 1.13 and to 72-ohm line is 1.27 to 1.23 depending on type of transformer cable. All-aluminum construction employing adjustable tubular elements.

GP-430	Adjustable 20-40 mc.	$75.00
GP-450	Adjustable 40-60 mc.	60.00



GP-400 Series

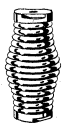
MOBILE MOUNTINGS FOR USE WITH WHIPS WITH 3/8"—24 MALE THREAD

Type CA

CA BUMPER MOUNTING

"Chain Style — clamps on any bumper with 1" clearance; no drilling; theft-proof.

Price $15.00



Type SA-2

SA-2 SPRING ADAPTOR

Stainless steel Spring Adaptor—can be attached to types R-2, R-3, L-1, CA and NA-1 to provide greater flexibility. Height 4 1/4", diameter 2 3/8".

Price $15.00

Type R-2

R-2 UNIVERSAL COAX TYPE MOUNTING

Solid Polished Aluminum split-ball can be adjusted to any angle. Has shielded coax connection and stainless hardware.

Price $18.00

Type R-3

R-3 UNIVERSAL MOUNTING

Solid Polished Aluminum Swivel Ball. Heavy stainless steel back-up plate with grounding screws. Stainless steel hardware.

Price $22.50

Type NA-1

TYPE NA-1

Bumper mounting with ceramic cone insulator and steel bracket.

Price $12.75

Type L-1

TYPE L-1

Bumper mounting, 2 pairs ceramic cone insulators with steel bracket. 10" adjustment.

Price $21.00

Type RS-2

TYPE RS-2 COMBINATION

Similar to R-2 except has spring as shown under SA-2.

Price $37.50

Type F

TYPE F

30° adjustable mounting for fender, cowl or gravel pan. Chrome-plated brass with phenolic insulation.

Price $21.75

Type V

TYPE V

Thru-deck mounting designed for Style BX and BS Center-Loaded Marine Antennas. White porcelain cones with a maximum opening for 1-1/2" deck. Stud threaded 7/16"-24.

Price $13.00

PREMAX PRODUCTS, DIV. CHISHOLM-RYDER CO., INC.

Trade Discount Applies to List Prices Only.

© U.C.P., Inc.

PREMAX ANTENNAS--MOUNTINGS--ACCESSORIES

VERTICAL TELESCOPING ANTENNAS
PREMAX STAINLESS STEEL ANTENNAS

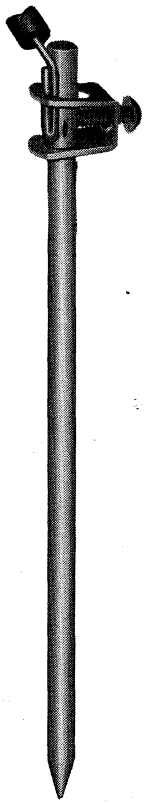
Premax stainless steel antennas, fully telescoping and adjustable, have a locking device that holds the sections firmly at any desired point insuring a perfect electrical contact. Made of a high grade polished stainless steel tubing, hard-drawn to an extremely high tensile and yield strength, they are well suited for the most severe strains from high seas or winds.

PREMAX ALUMINUM ANTENNAS

Premax aluminum antennas are lightweight, corrosion resistant and have adequate strength to meet practically all needs for marine, commercial and mobile installations that demand convenience in erecting and dependable performance. They are constructed of highly polished, specially tempered aluminum tubing engineered to withstand wind velocities up to 60 miles per hour.

SPECIFICATIONS & DESCRIPTIONS OF TELESCOPING VERTICALS

NO.	DESCRIPTION	EXTD.	COLL.	BASE O.D.	BASE I.D.	WGT.	LIST PRICE
SS-1118	3-Sec. Stainless	18'4"	6'3"	.750"	.680"	6	$ 90.00
SS-1124	4-Sec. Stainless	24'3"	6'3"	1.000"	.900"	9	135.00
SS-1130	5-Sec. Stainless	30'0"	6'4"	1.250"	1.120"	13	185.00
SS-1135	6-Sec. Stainless	35'7"	6'4"	1.500"	1.370"	19	255.00
AL-312	2-Sec. Aluminum	12'4"	6'4"	.500"	.334"	1½	15.00
AL-518	3-Sec. Aluminum	18'5"	6'4"	.750"	.584"	3	25.00
AL-324	4-Sec. Aluminum	24'4"	6'4"	1.000"	.834"	5	35.00
AL-530	5-Sec. Aluminum	30'0"	6'5"	1.250"	1.084"	7	55.00
AL-535	6-Sec. Aluminum	35'8"	6'5"	1.500"	1.310"	12	75.00



GET POSITIVE PROTECTION FOR YOUR EQUIPMENT WITH A PREMAX GROUND ROD

High quality, low cost Premax Ground Rods make it impractical to fuss with makeshift grounding methods. Made of smooth drawn steel with newly designed pencil-point tip for easier driving. Heavy copper plate prevents rust and assures sensitive electrical contact. Available in 4 ft. to 8 ft. lengths; ⅜", ½" and ⅝" diameters. Styles J and G have simple clamp with set-screw for attaching ground lead. Style H has a ⅛" hole drilled in rod through which ground lead can be fastened. Style X is a plain rod to which ground lead can be clamped or soldered.

Size	Weight per 100 Pieces	STYLE J & G Screw Clamp No.	List	STYLE H With Hole No.	List	STYLE X Plain No.	List
⅜"x4'	160	J-64T	1.25				
⅜"x6'	230	J-66T	1.65				
⅜"x8'	320	J-68T	2.00				
½"x6'	400	G-86T	2.90	H-86T	2.95	X-86T	2.70
½"x8'	540	G-88T	3.50	H-88T	3.55	X-88T	3.25
⅝"x6'	630	G-106T	4.25	H-106T	4.30	X-106T	4.10
⅝"x8'	840	G-108T	5.25	H-108T	5.30	X-108T	5.10

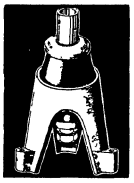
GALVANIZED RODS QUOTED ON REQUEST

Freight Allowance of up to $2.00 per cwt. granted on all Ground Rods based on lowest rail freight rate.

STANDARD PACKAGING

All ⅜" x 4' Rods — 25 per carton
All ⅜" x 6' and ⅜" x 8' Rods — 25 per bundle
All ½" Dia. Rods — 20 per bundle
All ⅝" Dia. Rods — 10 per bundle

BASE MOUNTINGS FOR VERTICALS



TYPE 1 BASE INSULATOR

Heavy-duty type Base Mounting Insulator with compression rating up to 10,000 lbs. Has wet-process brown-glazed porcelain cones. Available in galvanized malleable iron, and chrome-plated brass, in rigid-post, hinged-post. Ht. to post base, 7 to 9 inches. Wt. 8 lbs.

List Price ..... $52.00 to $105.00

TYPE 6 BASE INSULATOR

For marine, mobile unit, roof-top or tower. Lead-thru construction permits connections below deck. Flanges 6" in diameter with 6 bolts on a 5" circle. For ½" to 3" deck. Available in galvanized malleable iron, and chrome-plated brass. Rigid post, and hinged post styles. Ht. from flange to post base, 3" to 5". Wt., 11½ lbs.

List Price ..... $78.00 to $170.00

STANDOFF INSULATORS

TYPE 10-S

A heavy-duty Insulator with chrome-plated brass base and head caps—regular or hinged clamps. Insulator is brown-glazed porcelain in extra heavy style. Ht. to center of clamp, about 4½". Wt., 3 lbs.

List Price ..... $60.00 to $102.50

TYPE 13-S

Heavy, rugged cast caps and base plates in aluminum, or chrome-plated brass. Heavy brown-glazed porcelain insulator, 3 inches in diameter. Ht. to center of clamp, 4¾". Wt., 2½ lbs.

List Price ..... $17.50 to $55.00

MOBILE WHIP ANTENNAS

HEAVY DUTY TAPERED STAINLESS—TYPE ES

Solid one-piece taper-ground whips, ¼" at base tapering to 3/32" at tip with top ball. High-tensile stainless steel fabricated by special formula, comparing favorably with the best spring steel, yet having excellent corrosion-resistant properties.

HEAVY DUTY TAPERED CHROME-SILICON—TYPE EC

Same as above only fabricated from chrome-silicon steel of exceptionally high-tensile strength and uniformity of temper, with high fatigue values developed by special heat treatment during fabrication.

STANDARD WEIGHT TAPERED STAINLESS WHIP WITH NON-REMOVABLE ADAPTOR—TYPE TS

Stainless steel whips of extremely high tensile strength with a permanent type stainless adaptor, with ⅜" male thread.

STANDARD WEIGHT WHIP WITH REMOVABLE ADAPTOR—TYPE VS

Same whip as above except supplied with a removable adaptor locked in place by dual set screws.

NO.	LENGTH	PRICE
ES-760	60"	$10.50
ES-772	72"	10.50
ES-784	84"	12.00
ES-796	96"	12.00
EC-660	60"	8.25
EC-672	72"	8.25
EC-684	84"	9.75
EC-696	96"	9.75

AD-700 — Separate Stainless Adaptor with ⅜" male thread for ES and ES series whips. $3.40

NO.	LENGTH	PRICE
TS-860	60"	$10.50
TS-872	72"	10.50
TS-884	84"	11.25
TS-896	96"	11.25
TS-8108	108"	12.00
VS-960	60"	12.00
VS-972	72"	12.00
VS-984	84"	12.75
VS-996	96"	12.75
VS-9108	108"	13.50

AD-900 Same as AD-700 except drilled for VS series whips. $3.40

ALL PRICES SHOWN ARE LIST PRICES SUBJECT TO USUAL COMMERCIAL DISCOUNTS.

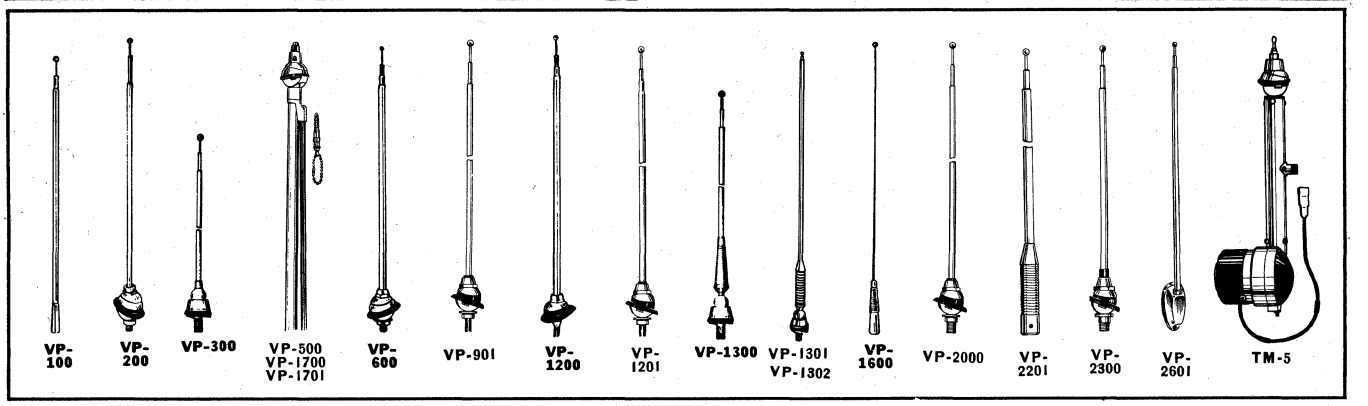
PRICES EFFECTIVE AT TIME OF PRINTING AND ARE SUBJECT TO CHANGE WITHOUT NOTICE.

PREMAX PRODUCTS, DIV. CHISHOLM-RYDER CO., INC.

TENNA Auto Antennas and Mounts

THE TENNA MANUFACTURING COMPANY, INC., CLEVELAND, OHIO

World's largest maker of Auto Aerials



2 SECTION TOP MOUNTS

LEADER

Split-Washer Base. Extends to 39" from 22". 48" Fixed Copper Lead Cable. Triple Chrome Plating.

Model VP-1200 ..... Net **$2.04**

STANDARD TOP MOUNT

Ball and Steel Stamped Rocker Base Extends to 39" from 22". 48" Radar Type Fixed Copper Lead Cable. Triple Chrome Plating.

Model VP-1201 ..... Net **$2.04**

DELUXE TOP MOUNT

"Ball and Diecast Rocker" Base. Extends to 39" from 22". 48" Radar type copper lead cable. Triple Chrome Plating.

Model VP-600 ..... Net **$2.48**

3 SECTION TOP MOUNTS

SATELLITE 3 SECTION SWIVEL BALL

Rotates Full 360°. Top, Side or Angle Mount—3 sections extend to 57" from 23". 48" Radar type copper lead cable. Triple Chrome Plating.

Model VP-300 ..... Net **$2.87**

STANDARD 3 SECTION TOP MOUNT

Ball & Steel Stamped Rocker Base. Fixed Lead. Extends to 57" from 23". 48" Radar Type Fixed Lead Cable. Triple Chrome Mast.

Model VP-901 ..... Net **$2.25**

SPECIAL DELUXE 3 SECTION TOP MOUNT

Deluxe Dome Nut Ball and Die Cast Rocker Base. Extends to 57" from 23". 54" Radar type copper lead cable. Triple Chrome Plating.

Model VP-2300 ..... Net **$2.55**

ALL POPULAR 3 SECTION TOP MOUNT

Ball and Die Cast Rocker Base. Extends to 57" from 23". 54" Radar Type copper lead cable. Triple Chrome Plating.

Model VP-2000 ..... Net **$2.66**

SUPER DELUXE 3 SECTION TOP MOUNT

Ball and Die Cast Rocker Base with all-chrome top. 3 Sections extend to 57" from 23". 48" Radar type copper lead cable. Triple Chrome Plating.

Model VP-200 ..... Net **$2.85**

POWER HOUSE TOP MOUNT

With Built-in Coil equivalent to a 125" antenna. 3 Sections extend to 57". Universal mount and 48" lead cable.

Model VP-3800 ..... Net **$4.85**

SPRING TOP MOUNTS

SATELLITE FLEX-O-MAST WITH TAPERED STAINLESS STEEL SPRING-TOP MOUNT

Spring keeps mast from breaking off on impact—snaps back. Rotates a full 360°. Can be locked at any angle 3 Sections. Extends to 57" from 23". 48" Radar type copper lead cable. Triple Chrome Plated.

Model VP-1300 ..... Net **$3.95**

HEAVY DUTY STAINLESS STEEL FLEX-O-MAST SPRING TOP MOUNT

Heavy duty stainless spring resists impact better than any other spring antenna. 3 Sections. Extends to 57" from 23". 48" Radar type copper lead cable. Triple Chrome Plating.

Model VP-1301 ..... Net **$4.40**

Same as above except spring is chrome plated—oil tempered steel.

Model VP-1302 ..... Net **$3.95**

4 Section Heavy Duty Stainless Steel Spring Top Mount. Same as above except 4 section mast extends to 55" from 18½". 54" Radar type copper lead cable. Triple Chrome Plated.

Model VP-3000 ..... Net **$4.61**

SIDE MOUNTS

DELUXE 2 STANCHION SIDE MOUNT

3 Sections. Extends to 57" from 23". Black tenite insulators with chrome caps. 48" Radar type copper lead cable.

Model VP-400 ..... Net **$3.41**

LEADER 2 STANCHION SIDE MOUNT

3 Sections—same as VP-400 except grey insulators without chrome caps. 48" Radar type copper lead cable. Triple Chrome Plating.

Model VP-1000 ..... Net **$2.90**

DELUXE SINGLE STANCHION SIDE MOUNT

For Volkswagens, trucks and other foreign cars. All chrome base adapts to most curved surfaces. 36" Radar type copper lead cable. Triple Chrome Plating. Mast extends to 57" from 23".

Model VP-2601 ..... Net **$3.60**

LEADER SINGLE STANCHION SIDE MOUNT

Same as above except base is black polypropylene.

Model VP-2600 ..... Net **$3.60**

REPLACEMENT MASTS

UNIVERSAL REPLACEMENT MAST

3 Section. Extends to 57" from 23". Installs instantly over any 3 section broken mast or stud of mast. Allen wrench with 2 set screws furnished. Triple Chrome Plating.

Model VP-100 ..... Net **$1.55**

SINGLE SECTION FLEX-O-MAST REPLACEMENT MAST

26" high chrome plated flexing mast snaps back. Polished stainless steel spring with set screws and Allen wrench furnished.

Model VP-1600 ..... Net **$1.29**

HEAVY DUTY SPRING REPLACEMENT MAST STAINLESS STEEL

3 Section. Heavy spring that bends. Same as VP-1301 antenna. Extends to 57" from 23" with set screws and Allen wrench furnished.

Model VP-2201 ..... Net **$2.99**

***NOTE: Prices shown are for Skin Pack—VP**
Available in box (X suffix) .05 decrease.
Available in bulk (A suffix) .08 decrease.
Specify on order VP, X or A.

TENNAMATIC ELECTRIC ANTENNA

Universal design approved by all major auto manufacturers. Unconditionally guaranteed for one year. For 12-volt systems only. Mast extends 39"; collapses to less than 1". Patented motor design can't "burn out"; give positive 15 lb. thrust for free action in sub-zero weather. Comes with switch and bracket, 54" radar cable (copper shielded), 72" electric harness, cable clips, anchor brackets, metal screws and installation instructions.

Model TM-1—Front mount. ..... Net **$25.32**
Model TM-2—Rear mount. ..... Net **$27.66**

With 18' cable and 20' electric harness. Extra clips supplied. Rear mount adapter pad for crown rear fenders.

Model TM-3—Rear mount kit of 15' cable extension, 14' harness extension and rear mount adapter pad. Converts TM-1 to TM-2 ..... Net **$4.64**

NEW TENNAMATIC

New Electric Antenna patterned after TM-1 but designed to fit more cars. New dress parts—4 section mast extends to 35" from 1¼". Includes same hardware as above models.

TM-5—Front Mount 54" lead ..... Net **$26.51**
TM-6—Rear Mount 216" lead ..... Net **$28.82**

RADAR TYPE LEAD CABLES

Radar type ultra high "Q" coaxial cables with polyethylene insulation and 100 per cent shielding. **Type L** has aircraft connector to antenna and pin plug. Extension **Type LE** has male and female pin plug fittings.

Model	Length	Model	Length
LE-12	12"	L-72	72"
LE-18	18"	LE-48	48"
LE-24	24"	LE-108	108"
LE-36	36"	LE-144	144"
L-36	36"	LE-180	180"
L-48	48"	LM-144*	144"
L-54	54"	LM-180*	180"
L-60	60"	MRC-54†	54"

*Communication lead. †Universal replacement cable. Equipped with three different mounting nuts for all or any assemblies.

NEW TOP MOUNT CONCEALED SAF-KEY AUTO ANTENNAS

MOUNT COMPLETELY FROM THE TOP—Fits standard 1" hole. The 3 in 1 antenna with disappearing mast—collapses to "0" out of the reach of vandals. SAF-KEY releases it when needed. Simply insert key and pull up. Mast extends to full height.

MODEL VP-1700—3 sections—extend to 50" disappear to 0". Deluxe with key and chain. 48" radar copper lead cable. Triple Chrome plating. Net **$4.05** Shipping wt. 1¼ lbs.

MODEL VP-1701—3 sections—extend to 39"—disappear to 0"". With flat key and 18" copper lead cable. Triple Chrome plating. Net ... **$3.54** Shipping wt. 1¼ lbs.

MODEL VP-500—Deluxe-Concealed Antenna (No Key) 3 sections extend to 50". Disappear to 0". 48" Copper lead cable. Triple Chrome plating. Net ..... **$3.54** Shipping wt. 1¼ lbs.

WHERE PROGRESS IS A HABIT AND SALES LEADERSHIP AN ESTABLISHED FACT

Net

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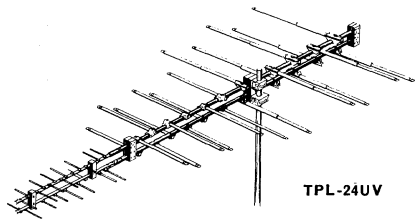
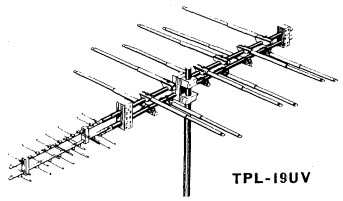
TENNA TRU-COLOR TV ANTENNAS • UHF-VHF-FM


TPL-24UV

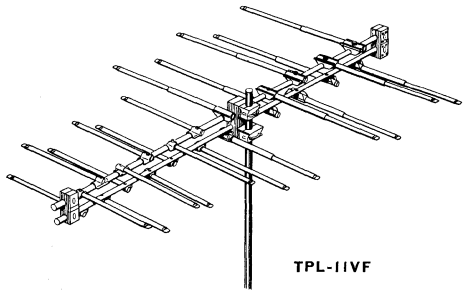
UHF-VHF-FM

Color and black and white. Range up to 90 miles — 24 elements, 13 UHF channels — 14 thru 83 11 VHF elements, channels 2 thru 13. Monaural and stereo. Gold alodized finish, double boom construction. Heavy duty insulators — preassembled, quick rig.
Model TPL-24UV.....**List....$49.95**
Wt. 13 lbs.


TPL-19UV

Range up to 70 miles. 21 elements. 13 UHF, Channels 14 thru 83. 8 VHF elements, channels 2 thru 13. FM monaural and stereo. Gold alodized finish, double boom construction. Heavy duty insulators — preassembled, quick rig.
Model TPL-21UV.....**List....$39.95**
Wt. 10 lbs.

Range up to 50 miles. 19 elements, 13 UHF and 6 VHF. FM monaural and stereo. Gold alodized finish, double boom and heavy duty insulators — preassembled, quick rig.
Model TPL-19UV.....**List $29.95**
Wt. 9 lbs.

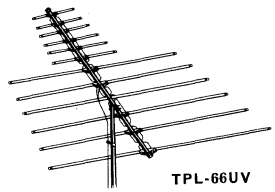

TPL-11VF

VHF ONLY

Color and black and white. Range up to 90 miles. 11 elements, channels 2 thru 13. Gold alodized finish — double boom and heavy duty insulators — preassembled, quick rig.
Model TPL-11VF.....**List....$21.95**
Wt. 12 lbs.

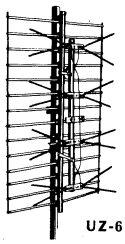
Range up to 70 miles. 8 elements, channels 2 thru 13. Gold alodized finish, double boom, heavy duty insulators — preassembled, quick rig.
Model TPL-8VF.....**List....$19.95**
Wt. 9 lbs.

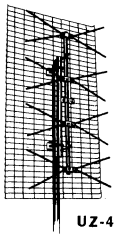
Range up to 50 miles. 6 elements, channels 2 thru to 13. Gold alodized finish, double boom heavy duty insulators — preassembled, quick rig.
Model TPL-6VF.....**List....$19.95**
Wt. 8 lbs.


TPL-66UV

COMPLETE KIT UHF-VHF-FM

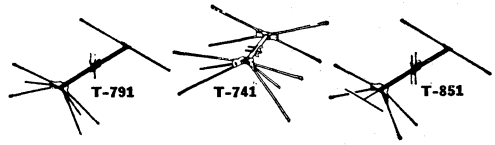
Includes boom, mast, tripod roof mount, coupler splitter, 60 ft. lead wire. Range up to 70 miles. 12 elements, 6 UHF, 6 VHF-FM, stereo and monaural. Gold alodized finish, heavy duty construction — preassembled, quick rig.
Model TPL-66UV.....**List....$19.95**
Wt. 6 lbs.


UZ-6


UZ-4

UHF ONLY BOW TIES

4 bay, color and black and white. UZ-6 exclusive TRU-color, gold alodized all aluminum reflector screen, light weight, positive rust proof, mounting bracket included — preassembled.
Model UZ-6A Wt. 3 lbs.....**List....$8.95**
Model UZ-1A 1 bay bow tie steel screen. Wt. 1½ lbs.....**List....$2.25**
Model UZ-2A 2 bay bow tie, steel screen. Wt. 2 lbs.....**List....$5.50**
Model UZ-4A 4 bay bow tie, steel screen. Wt. 3 lbs.....**List....$8.95**


T-791 T-741 T-851

CONICAL ARRAYS

Full size, all aluminum antennas cover all channels 2 through 13. Available with high-channel Director Bar for greatly improved reception on upper channels. Choice of four or six forward elements and two or four reflector elements. Stacked arrays consist of two bays with connecting bars for stacking. Completely preassembled with Instant Mount Assembly. Includes high impact molded polystyrene insulator.

SINGLE ARRAYS

Tenna Model	Forward Elements	Refl. Elements	HF Stubs	Director Bar	Shpg. Lbs.
T-751	4	4	.....	1	3
T-801	4	2	.....	.....	2½
T-811	4	4	.....	.....	2⅞
T-741	4	4	2	.....	3
T-851	4	2	.....	1	2⅞
T-791	4	2	2	.....	2⅝
T-771	6	2	.....	.....	2⅞
T-781	6	2	.....	1	3⅛

STACKED ARRAYS

T-752†	8	8	.....	2	6⅜
T-802†	8	4	.....	.....	5¼
T-812†	8	8	.....	.....	6
T-742†	8	8	4	.....	6⅛
T-852†	8	4	.....	2	5½
T-792†	8	4	4	.....	5¼
T-772†	12	4	.....	.....	5½
T-782†	12	4	.....	2	6

*Bulk-packed 6 per master carton; for individually boxed antennas, packed four per master carton, add suffix **A** to number (example: T-751**A**). †Bulk-packed three per master carton; for individually boxed units, packed four per master, add suffix **A**.

CONICAL ANTENNA KITS

Contain conical arrays, mount, masts, cable and all necessary hardware. "Do-It-Yourself" kits.

CHIMNEY MOUNT KITS

Tenna Model	Array Type	Shpg. Lbs.	Tenna Model	Array Type	Shpg. Lbs.
DK-801	T801A	8½	DK-741	T741A	9
DK-802	T802A	13	DK-742	T742A	13¾
DK-811	T811A	8⅞	DK-751	T751A	9
DK-812	T812A	13¾	DK-752	T752A	14
DK-791	T791A	8⅝	DK-851	T851A	8⅞
DK-792	T792A	13¼	DK-852	T852A	13¼
DK-771	T771A	8⅞	DK-781	T781A	9⅛
DK-772	T772A	13¼	DK-782	T782A	13¾

SWIVEL MOUNT

DK-801-3	T801A	6½	DK-741-3	T741A	7
DK-802-4	T802A	11¼	DK-742-4	T742A	12
DK-811-3	T811A	6⅞	DK-751-3	T751A	7
DK-812-4	T812A	12	DK-752-4	T752A	12½
DK-791-3	T791A	6⅝	DK-851-3	T851A	6⅞
DK-792-4	T792A	11½	DK-852-4	T852A	11½
DK-771-3	T771A	6⅞	DK-781-3	T781A	7⅛
DK-772-4	T772A	11½	DK-782-4	T782A	12

CUT-CHANNEL YAGIS

Cut-to-channel Yagis available upon request. Specify channels and number of elements (5 or 10).

MOBILE COMMUNICATION ANTENNAS

MB-6

MB-1

BM-1

RG-58-U-1

MM-102

COMMUNICATION GEAR

BASES

Black phenolic base with black swivel ball or chrome ball.

MB-1—Swivel base cad. plated.....**Net**.....**$2.92**
MB-2—Swivel base and spring, chrome-finish....**Net**.....**$4.25**
MB-4—Swivel base (heavy duty) chrome ball....**Net**.....**$4.02**
MB-5—Swivel base (heavy duty) black base and ball.....**Net**.....**$3.52**
MB-6—Swivel base (heavy duty) cad. plated base and ball.....**Net**.....**$3.03**
MB-9—Same as MB-4 with CAK-1 adapter kit.....**Net**.....**$5.43**

SPRINGS

MBS-1—Regular spring (cad. plated).....**Net**.....**$1.48**
MBS-2—Heavy duty spring (chrome plated)....**Net**.....**$2.11**
SP-1 —Stainless steel (heavy duty) spring.....**Net**.....**$4.04**
SP-3 —Cad. plated (heavy duty) spring.....**Net**.....**$2.04**

WHIPS

MM-96-A—96" stainless steel whip with non-removable adapter.....**Net**.....**$3.77**
MM-102-A—102" stainless steel whip with non-removable adapter.....**Net**.....**$3.84**

BUMPER MOUNTS

BM-1—Single chain, chrome plated bumper mount.....**Net**.....**$4.85**
BM-2—Double chain, chrome plated bumper mount.....**Net**.....**$6.14**

WHIP, BASE AND SPRING COMBINATIONS

PB-1 —Cad. plated ombination LM-144 lead cable, MB-2 spring and base and MM-96A whip.....**Net**.....**$10.02**
PB-1C—Chrome plated combination LM-144 lead cable, MB-2C spring and base and MM-96A whip.....**Net**.....**$10.19**
PB-2 —Cad. plated complete with longer lead —LM-180 lead cable MB-2 spring and base and MM-96A whip.....**Net**.....**$10.28**
PB-2C—Chrome plated combination with longer lead LM-180 lead cable, MB-2C spring and base and MM-96A whip....**Net**.....**$10.46**

THE TENNA MANUFACTURING CO. INC.

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Trade Discount Applies To List Prices Only

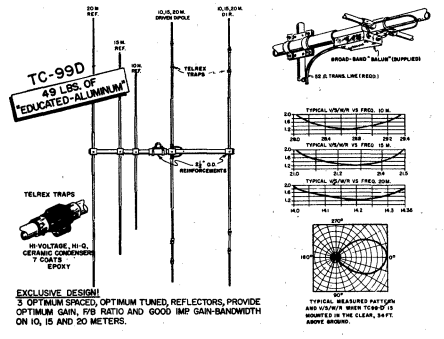
telrex "The-performance-line" WITH A MATERIAL DIFFERENCE!

"BEAMED-POWER" — "BALANCED-PATTERN" — "PERFECT-MATCH" ARRAYS

LABORATORY TUNED, MATCHED, & CALIBRATED TO ASSURE PROPER AND EXACT ASSEMBLY

*for "TOP-MAN"-ON-THE-FREQUENCY-RESULTS, AT YOUR SITE!**

10, 15 and 20 Meter MODEL TC-99D Amateur net price $298.00



TC-99D SPECIFICATIONS

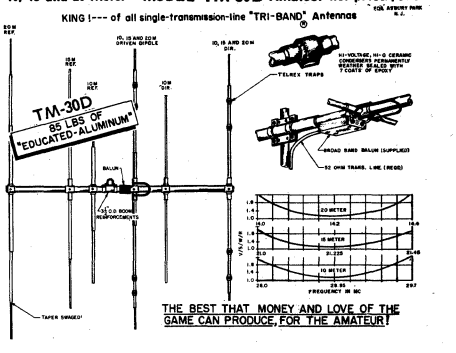
FREQ. RANGE	POLARIZATION	GAIN - MEASURED
10, 15 and 20 METERS	LINEAR, HORIZONTAL	8.5 DB+ AVERAGE
SIDE NULLS	F/B RATIO	V.S.W.R.
35 DB	28 DB+	1.3/1 AT RESONANCE, 3 BANDS
WEIGHT	ENVIRONMENTAL	BEAMWIDTH TO 1/2 PWR. PT.
49 LBS.	95 MPH	60°- 3 BANDS
SHIPPING WT.	WIND SURFACE AREA	WIND LOAD AT 100 M.P.H.
60 LBS	6.6 SQ/FT	210 LBS
LONGEST EL. LGTH.	TURNING RADIUS	RECOMMENDED SUPPORT MAST
36 FT.	21 FT.	2" O.D.
POWER RATING	CONSTRUCTION	RECOMMENDED ROTATOR
2 KW P.E.P.	ALUMINUM DURAL, MICARTA INSULATION, STAINLESS STEEL ELEC. HDWR. HEAVY-DUTY CAD. PLT. STEEL GUSSET PLT. MOUNTING.	75 MPH AREAS — GOOD TV ROTATOR
BOOM		120 MPH AREAS — TELREX MODEL A1312 RIS
ALUM. 2" O.D. X 18' LONG		

TM-30D SPECIFICATIONS

FREQ. RANGE	POLARIZATION	GAIN-MEASURED
10, 15 AND 20 METERS	LINEAR, HORIZONTAL	10 DB, AVERAGE
SIDE NULLS	F/B RATIO	V. S. W. R.
35 DB	30 DB	1.3/1 AT RESONANCE, 3 BANDS
WEIGHT	ENVIRONMENTAL	BEAMWIDTH TO 1/2 PWR. PT.
85 LBS	95 MPH	59°- 3 BANDS
SHIPPING WT.	WIND SURFACE AREA	RECOMMENDED SUPPORT MAST
114 LBS	9.5 SQ. FT.	2"O.D.
LONGEST EL. LGTH.	TURNING RADIUS	WIND LOAD AT 100 MPH.
36 FT	28 FT	300 LBS
POWER RATING	CONSTRUCTION	RECOMMENDED ROTATOR
3 KW P.E.P.	ALUMINUM DURAL, MICARTA INSULATION, STAINLESS STEEL ELEC. HDWR. HEAVY-DUTY CAD. PL. STEEL GUSSET PLATE MOUNTING.	TELREX MODEL A1822 RIS OR TELREX MODEL BA1514 RIHS
BOOM		
ALUM. 3" O.D. X 26' LONG		

10, 15 and 20 Meter MODEL TM-30D Amateur net price $398.00

KING!--- of all single-transmission-line "TRI-BAND" Antennas



ALSO AVAILABLE "TRI-BAND©" MODEL TC88D.....$175.00
4 BAND SINGLE TRANS-LINE ARRAY.
4 EL on 10, 4 EL on 15, 3 EL on 20 & 3 EL on 40.....$999.99

"DUO-BAND" MODEL DC-105, 3 EL on 10 & 3 EL on 15M.....$265.00
"DUO-BAND" MODEL DB-99D, 3 EL on 15 & 3 EL on 20M..... 298.00
"DUO-BAND" MODEL DB-30D, 4 EL on 15 & 3 EL on 20M..... 398.00

telrex OPTIMUM SPACED "MONARCH" MONO-BAND ARRAYS

"BALUN"-FED, LABORATORY TUNED, MATCHED AND CALIBRATED TO PROVIDE OPTIMUM PERFORMANCE & BANDWIDTH PER ELEMENT, PER DOLLAR

"BALUN"-FED ("BALUN" SUPPLIED) "HAIRPIN" RESONATED

$135.00

RATING - 110 MPH 1.5 KW RAIN or SHINE

10 METER 3 EL. OPTIMUM-SPACED "SUPER-DELUXE" MODEL 10M-313B

AN OPTIMUM 3 EL. PERFORMER AND VALUE--- USED BY ALL THE "BIG-BOYS"

FED WITH 52 OHM COAX.

GAIN IN DB	10.0	BOOM LGTH. & DIA	14'x2"
F/B RATIO IN DB	24	LONGEST ELEM. LGTH.	18'-0"
1/2 POWER BEAMWIDTH	57°	TURNING RADIUS	12'-0"
WIND AREA SQ. FT.	2.75	NET WEIGHT LBS	21
WIND LOAD, 100 MPH LBS	82	SHIPPING WEIGHT LBS	28

"BALUN"-FED ("BALUN" SUPPLIED) "HAIRPIN" RESONATED

$175.00

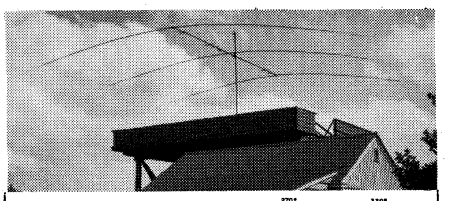
RATING - 120 MPH 1.5 KW RAIN or SHINE

15 METER 3 EL. OPTIMUM-SPACED "SUPER-DELUXE" MODEL 15M-317B

AN OPTIMUM 3 EL. PERFORMER AND VALUE--- USED BY ALL THE "BIG-BOYS"

FED WITH 52 OHM COAX.

GAIN IN DB	10.0	BOOM LGTH. & DIA	17'x2.5"
F/B RATIO IN DB	24	LONGEST ELEM. LGTH.	24'-0"
1/2 POWER BEAMWIDTH	58°	TURNING RADIUS	14'-6"
WIND AREA SQ. FT.	3.55	NET WEIGHT LBS	37
WIND LOAD, 100 MPH LBS	107	SHIPPING WEIGHT LBS	48



"BALUN"-FED ("BALUN" SUPPLIED) "HAIRPIN" RESONATED

$295.00

RATING 120 MPH 4 KW RAIN OR SHINE

20 METER 3 EL. OPTIMUM-SPACED "MONARCH" MODEL 20M-326B

AN OPTIMUM PERFORMANCE 3 ELEMENT USED BY THE "BIG-GUNS"

FED WITH 52 OHM COAX.

GAIN IN DB	10	BOOM LGTH. & DIA.	26'x 3"
F/B RATIO IN DB	28	LONGEST ELEM. LGTH.	38'
1/2 POWER BEAMWIDTH	58°	TURNING RADIUS	24'
WIND AREA SQ. FT.	9.55	NET WEIGHT LBS	71
WIND LOAD, 100 MPH LBS	266	SHIPPING WEIGHT LBS.	85

ALSO AVAILABLE

10	METER	5	ELEMENT	MODEL 10M-518B....	$185.00
10	"	5	"	" 10M-523	285.00
10	"	6	"	" 10M-636	445.00
15	"	5	"	" 15M-525	315.00
15	"	5	"	" 15M-532	455.00
20	"	5	"	" 20M-536	395.00
20	"	5	"	" 20M-546	675.00
40	"	3	"	" 40M-335	745.00

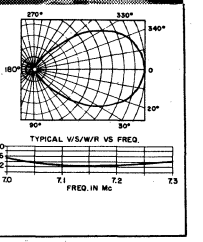
MANY MORE — WRITE FOR SPEC & PRICE LIST PL67

MODEL 40M-346

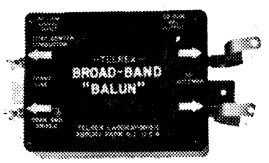
$895.00 FOB ASBURY PARK N.J.

CUSTOM-BUILT TO ORDER

SPECIFICATIONS	
GAIN IN DB OVER WAVE DIPOLE	9.0
F/B RATIO IN DB	30
BEAMWIDTH TO PWR. POINT	59°
WIND AREA IN SQ. FT.	1350
WIND LOAD AT 100 M.P.H. IN LBS.	427
BOOM LGTH. & DIA. approx.	46'x 3½"
LONGEST ELEM. LGTH. approx.	64'
TURNING RADIUS approx.	40'
NET WEIGHT LBS. approx.	177
SHIPPING WT. LBS approx.	222



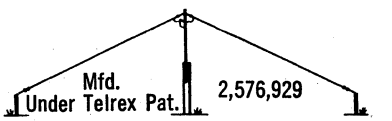
telrex "BALUN" FED INVERTED "V" ANTENNA KITS



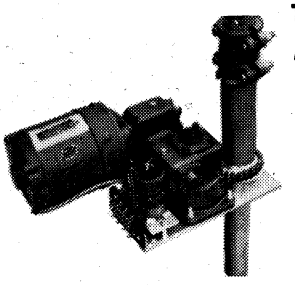
SIMPLE-TO-INSTALL, HI-PERFORMANCE ANTENNA SYSTEMS:

1 KW P.E.P. Mono-Band Kit.....$23.95*
2 KW P.E.P. Mono-Band Kit.....$28.95*
Duo-Band Models — 1 KW.....$38.00 2 KW.....$49.95
"TRAPPED" Duo-Band Models—1 KW..$38.00 2 KW..$49.95

*Kit comprises, encapsulated, "Balun," copperweld, insulators. plus installation and adjustment instructions for any Mono-band 80 thru 10 Meters. Also available 3, 4, 5 Band "TRAPPED" Models.



1 KW P.E.P. "BALUN" Only.....$19.95
2 KW P.E.P. "BALUN" Only.....$23.95



TELREX ROTATOR SELSYN INDICATOR System MODEL A1312RIS

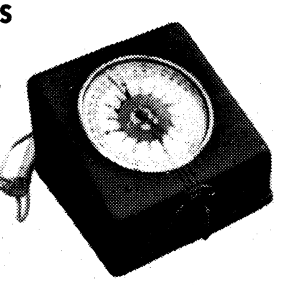
Mast, Feeds Thru Rotator For Safe, Easier, Installation

- 1200 IN/LBS ROTATION TORQUE
- SELF LOCKING BY STURDY WORM GEARS
- SELSYN AZIMUTH INDICATION
- ACCOMMODATES 2" O.D. MASTING
- MALLEABLE CAST MASTING CLAMP SUPPLIED
- OUTPUT SPEED APPROX. 1 RPM

Really Sturdy CUSTOM-BUILT "FEED-THRU" ROTATOR—SELSYN—INDICATOR SYSTEM 3 Stage reduction chain driven final stage.

$325.00 f.o.b. A. P.

ALSO
A1822RIS..$415.00
A2140RIS..$495.00
A2675RIS..$595.00
A2695RIS..$695.00
AND MORE!



TELREX COMMUNICATION ENGINEERING LABS.

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COMMUNICATION ANTENNAS by ward

for every mobile frequency and application

CBI B ANTENNA

This is a low priced Mobile Communications Antenna

- **Black Painted Swivel Base**
- **Cadmium Steel Spring**
- **102" Cadmium Whip**

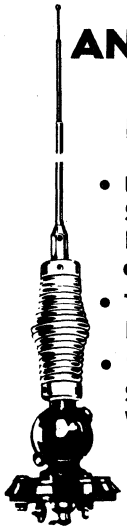
CBIA ANTENNA

A Deluxe Mobile Communications Antenna

- **Chrome Swivel Base**
- **Chrome Spring**
- **Stainless Steel 102" Whip**

May be adapted for citizen band

CBII ANTENNA



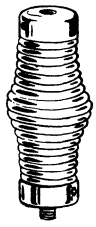
FEATURES

- **Universal Swivel Base Heavily Plated and Painted**
- **Triple Cadmium Plated Spring**
- **102" Stainless Steel Tapered Whip**

CBIII ANTENNA

FEATURES

- **Chrome Plated Swivel Base With Stainless Steel Hardware**
- **Triple Chrome Plated, Barrel Type Spring Bends Through 100 Degrees**
- **102" Stainless Steel Tapered Whip**



SPRINGS

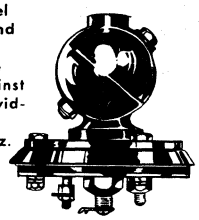
WCA-301
Stainless steel spring and mounts. Deluxe model for that high quality appearance and extremely high corrosion conditions. Lockwasher included.

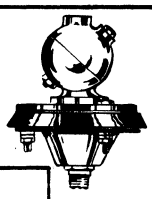
WCA-3ACH
Heavily Chrome Plated for extra protection in areas where corrosion is a greater problem. Lockwasher included.

WCA-3A
Heavily Cadmium Plated with lockwasher included.

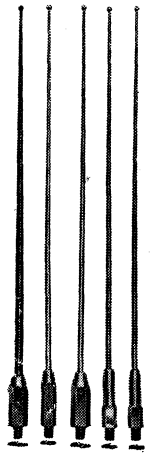
BASES

WCA-310
Universal swivel base plated and painted parts provide double protection against corrosion. Individually packed.
Wt. 1 lb., 8 oz.





WCA-315
CHROME PLATED SWIVEL BASE
With external hardware of stainless steel. For smarter, dressed-up appearance and added protection Individually packed.
Wt. 1 lb., 8 oz.



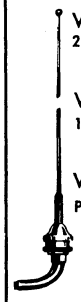
HEAVY DUTY MASTS

Finest stainless steel: heavy-duty performance. 84½" mast bends to bring tip and base 30" apart without distortion. All base studs ⅜-24 threads. All taper ground with ball tip. WCA-320 series — 60" long, choice of adapters: Chrome press fit, cadmium plated press fit, ⅝" hex steel, cadmium plated with set screws; ½" hex stainless steel with set screws.

WCA-321 series — 72", same choices.
WCA-322 series — 84", same choices.
WCA-323 series — 96", same choices.
WCA-324 series — Fiberglass in all 4 lengths.

ROOF TOP ANTENNAS

3 efficient models



WCA-250
2 Meter whip
143-149 mc.

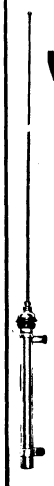
WCA-252
1¼ Meter whip
220-225 mc.

WCA-254
Plug in 2 Meter whip
143-149 mc

Model WCAB-71

Completely Disguised Mast and Base

Looks exactly like ordinary 3-section car radio aerial. Uses triple chrome plated brass tubing and stainless steel tip rod. Length is fixed at 55½" by permanent connections at the telescopic joints. Model includes mast and base only.



Model WCA-143

Partially Disguised

Same as WCAB-71 except mast is made of 55½" type 17-7 PH stainless steel tapered rod. Use where exceptionally high strength is a necessity. Model includes mast and base only.
Shipping Weight
2 lbs. 8 oz.

THE FOLLOWING CABLES ARE AVAILABLE

SPECIFY NO. 85-187 . . .
15' Lead for Deluxe Hot Rod Antenna.

SPECIFY NO. 85-189 . . .
15' Coaxial Lead for Citizen Band Antenna.

SPECIFY NO. 85-180 . . .
17' Communication Lead for Citizen Band Antenna.

SPECIFY NO. 85-11 . . .
20' Communication Lead for Citizen Band Antenna.

REPLACEMENT BASES, SPRINGS AND WHIPS ALSO AVAILABLE FOR THE ABOVE.

SEE OUR CURRENT COMMUNICATION CATALOG

ward PRODUCTS CORPORATION

© U.C.P., Inc.

DELCO MODELS #535 AND #545

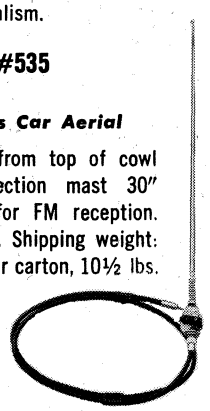
Feature the New Spring Mount

Chrome plated tempered steel spring, internally reinforced and damped with piano wire. Resists shocks and vandalism.

DELCO MODEL #535

FM or Sports Car Aerial

Spring mounting from top of cowl or fender. 2 section mast 30" optimum length for FM reception. 48" coaxial cable. Shipping weight: Boxed 12 to master carton, 10½ lbs.

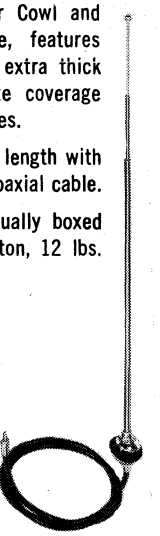


DELCO MODEL #532

Universal top mount for Cowl and Fender. Split ball base, features large oversize ball and extra thick rubber pad for complete coverage of original mounting holes.

3 section, 56" extended length with 54" low loss high "Q" coaxial cable.

Shipping weight: Individually boxed 1 lb.; 12 to master carton, 12 lbs.



DELCO MODEL #516

Fenderwell disappearing type aerial, completely shielded waterproof construction. Split-ball mount, adjustable bottom mounting brace.

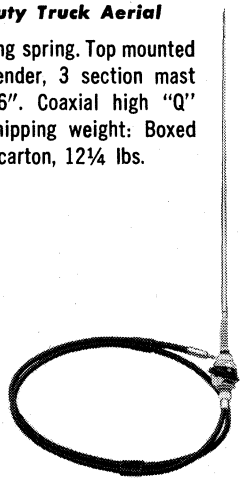
Three sections, 54" extended, 4½" collapsed, 54" high "Q" lead-in cable.

Shipping weight: Individually boxed 2 lbs. 12 to master carton, 24 lbs.

DELCO MODEL #545

Heavy Duty Truck Aerial

Shock absorbing spring. Top mounted on cowl or fender, 3 section mast extends to 56". Coaxial high "Q" cable 54". Shipping weight: Boxed 12 to master carton, 12¼ lbs.

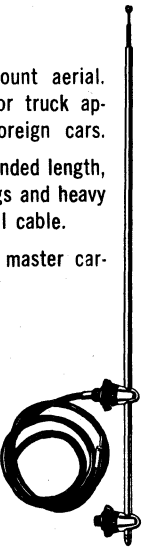


DELCO MODEL #549

Two hole side cowl mount aerial. Ruggedly constructed for truck applications and small foreign cars.

3 section mast 58" extended length, with speedy screw fittings and heavy rubber pads, 54" coaxial cable.

Shipping weight: 12 to master carton, 10 lbs.

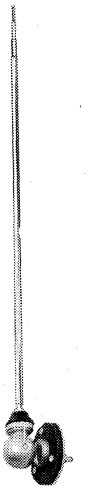


DELCO MODEL #550

Citizens Band Communication Aerial

108" sturdy 4 section heavy chrome plated mast, telescopes down to 38" for convenient garage parking.

Includes #850 base, 15' RG58U coaxial cable. Shipping weight: Boxed 3 lbs.

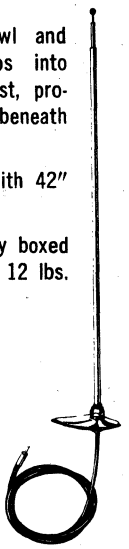


DELCO MODEL #838

Top mount aerial for Cowl and Fender. Split washer slips into position with a simple twist, provides minimum interference beneath fenders.

56" extended 3 sections with 42" coaxial cable.

Shipping weight: Individually boxed 1 lb.; 12 to master carton, 12 lbs.

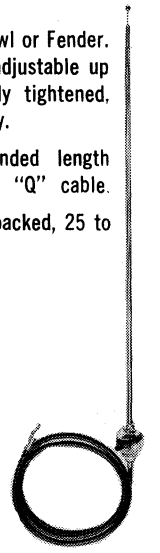


DELCO MODEL #500

Top Mount Aerial for Cowl or Fender. Ball and rocker base, adjustable up to 35 degrees, securely tightened, holds angle permanently.

3 sections, 50" extended length with 54" coaxial high "Q" cable.

Shipping weight: Bulk packed, 25 to master carton, 25 lbs.



STAINLESS STEEL COMMUNICATION MASTS

Stainless steel taper ground masts of exceptionally high tensile strength.

Length	Part No.	Pkg. Qty.	Shpg. Wgt.
72"	857	10	7¼ lbs.
84"	858	10	9¼ lbs.
96"	859	10	10 lbs.

Above masts supplied with ⅜" threaded fitting for all standard bases or springs.

96"	866*	10	10 lbs.

*Rod only — no threaded fitting — use with No. 865 Collet. Mast can be cut to any desired length.

COLLET #865

Locks mast with two Allen set screws, ⅜" threaded stud mounts on any standard base or spring.

Shipping weight: 12 to master carton, 1 lb.

© U.C.P., Inc.

AERIALS (Cont'd)

DELCO EXTENSION LEADS

High "Q" type coaxial cable with polyethylene insulation, heavy shielded copper braid, weatherproof covering for low noise, maximum signal pick up.

Length Max.	Part No.	Pkg. Qty.	Shpg. Wgt.
12″	821	50	3½ lbs.
18″	829	30	3 lbs.
24″	826	30	3¼ lbs.
36″	827	10	2 lbs.
48″	511	10	2¼ lbs.
108″	828	5	2¾ lbs.
144″	822*	4	2 lbs.
180″	512*	3	2¼ lbs.

*Includes built-in Impedance matching device.

SERVICE LEAD & NUTS

54″ — 915 — 5 — 1 lb.

515 Coupling Nut (Use with 505, 516)

814 Coupling Nut (Use with other Delco aerials)

Electric Aerial Lift Motors

Part No.	Application
5044303	1957-8 Lincoln
5044304	1957-9 Edsel, Mercury
5044308	1957-9 Cadillac
5047998	1957-9 Cadillac, 1958 Pontiac

BASE SPRING

Tightly coiled oil tempered steel, tough and ready to withstand shock and vibration.

Model No. 853 standard spring.

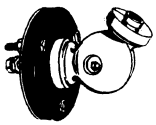
Shipping weight: 12 to master carton, 20 lbs.

SWIVEL BASE

Positive locking feature maintains vertical alignment regardless of body coutours. Hex head locking screw wrench furnished with each base. Heavy steel back plate reinforces the black bakelite mounting plate.

Model No. 850 base.

Shipping weight: 12 to master carton, 8½ lbs.



REPLACEMENT PARTS

Universal Replacement Mast No. 510

Quickly installs on old aerial base, locks on with two allen set screws. Supplied with allen set screw wrench.

3 Section 58″ extended.

Shipping weight: 12 per master carton,

"T" Connector No. 823

Triple lead connector.

Shipping weight: 12 per master carton, ½ lb.

COMMUNICATION LEADS (53.5 OHMS)

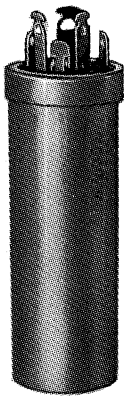
Length	Part No.	Pkg. Qty.	Shpg. Wgt.
144″	860	12	4 lbs.
180″	513	12	8 lbs.

CAPACITORS

ELECTROLYTIC

TWIST-PRONG BASE ELECTROLYTICS

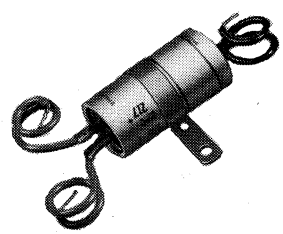
Used as original equipment in millions of GM auto radios. Designed for operation at temperatures up to 185°F.



Part No.	Capacity Mfd.	D.C.W.V.	Size Dia.	Size Lgth.
DUAL SECTION				
7270691	500-1000	16-16	1 1/64	2 5/16
7273775	1000-500	16-16	1 13/32	2 1/16
TRIPLE SECTION				
6319	20-20-20	400-400-25	1 1/32	2 5/16
6322	20-20-20	450-450-25	1 1/32	3 1/16
7269719	20-500-1000	16-16-16	1½	2
7273730	850-400-2.2	16-16-32	1 1/32	2 5/16
7273810	1000-500-4	16-16-32	1 1/32	2 5/16
7280383	850-400-12	16-16-11.5 RMS	1	2 5/32
7280385	850-400-8	16-16-11.5 RMS	1	2 5/32
7282272	850-400-4	16-16-11.5 RMS	1	2 5/32
7283675	1000-500-4	16-16-11.5 RMS	1	2 5/32
7291356	100-500-15	16-16-11.5 RMS	1 1/32	2 5/16
7292083	1000-500-4	16-16-11.5 RMS	1 1/32	2 5/16
QUADRUPLE SECTION				
7273847	750-750-350-4	16-16-16-4	1 13/32	2 1/16
7291786	850-400-100-15	16-16-16-11.5 RMS	1 13/32	2 1/16
7292515	850-400-100-4	16-16-4-11.5 RMS	1 13/32	2 5/16

ELECTROLYTIC

Designed for operation at temperatures up to 185°F.



DUAL SECTION

Part No.	Capacity Mfd.	D.C.W.V.	Size Dia.	Size Lgth.
TUBULAR ELECTROLYTICS				
6320	25	50	1 1/16	1⅜
6321	50	50	1 3/16	1¾
6328	10	450	1 3/16	1¾
6329	20	450	1 1/16	2⅜
6330	30	450	1 1/16	2¾
6331	40	450	1 1/16	2¾
7279888	100	3	11/32	⅞
7279896	30	6	11/32	⅞
7282789	1000	1	13/16	2⅛
7285035	1000	1	13/16	2⅛
7290898	150	4	½	1 3/32
7291785	100	4	½	1 3/32
7291860	3	12	⅜	¾
7292738	10	12	⅜	¾
6304	50-30	150-150	1	2½
7274108	100-100-65	8-8-8	⅝	1 5/16
VERTICAL ELECTROLYTICS				
7271256	100-100-60	8-8-8	½	1¼
7286539	100-100	4-4	½	1¼
7291810	100-100	4-4	⅜	5/16

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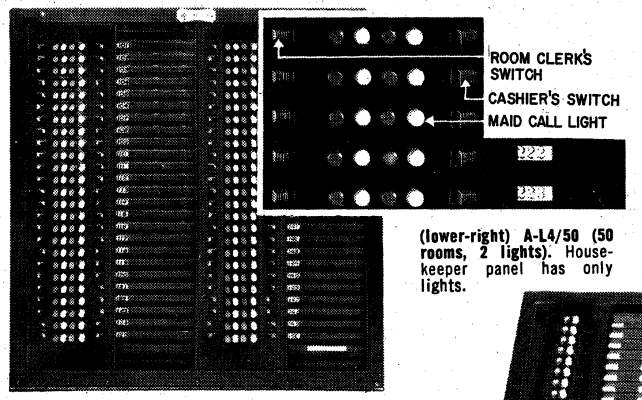
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

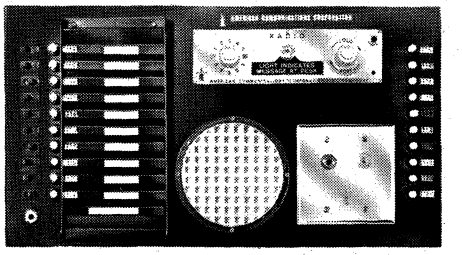
ROOM STATUS CONTROLS

ONLY ONE CONTROL WIRE REQUIRED PER ROOM!
LITERATURE AVAILABLE (SPECIFY NUMBER OF ROOMS).



(left) A-L3/50 (50 rooms, 4 lights). Switches: left row, Room Clerk; right, Cashier.
(upper-right) A-L5/10 (10 rooms, 1 light). Demonstration Panel. Shows Room Speaker, two types of Room, Units; Housekeeper lights are at right.

(lower-right) A-L4/50 (50 rooms, 2 lights). Housekeeper panel has only lights.



ROOM STATUS CONTROLS, originated by AMERICAN COMMUNICATIONS CORPORATION, are now considered an essential facility in the efficient and economical operation of hotels and motels; 4 basic designs now make this electronic aid available to occupancies of all sizes, to instantly signal to Front Office and Housekeeper the changing rental status of all guest rooms.

In addition, such instantaneous sequential control and monitoring is adaptable to 1) hospitals, for bed status ("available", "occupied", "on change") control between Admitting Office, Cashier, and Floor Supervisor, 2) restaurants, for table reservation control between Reservation Desk, Maitre d', and Waiter, and 3) Schools, Factories, Laboratories, Missile Centers, etc.

OPERATION — Operating procedures depend upon the particular model. All, however, utilize switches and lamps for maximum reliability — relays are NOT used in **AMERICAN'S** room status controls systems.

No. A-LI-2 (2 board), A-LI-3 (3 board); 3 lights. (No Maid Light, and does not connect to guest rooms.) When guest has registered, Room Clerk switches color from Green — Room Available, to Amber — Room Rented. When guest checks out, Cashier switches signal to Red — Room on Change. Housekeeper signals when room is ready for occupancy by switching from Red to Green.

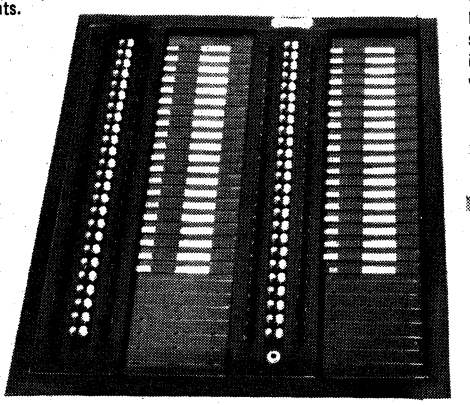
(†) Net: *A-LI-2/—, $25.00; *A-LI-3/—, $30.00.

FOLLOWING SYSTEMS CONNECT TO GUEST ROOMS
No. A-L3-2 (2 board), A-L3-3 (3 board); 4 lights. Room Unit has jack **and** light. Maid lights, the 4th row of lamps on the status board, show white, and start to pulse on and off, or "blink", when maid plugs into room jack; at the same time a maid paging circuit is connected, and a special Maid Light on guest-room Room Unit lights, and blinks in unison. When room has been serviced, maid removes plug. The Maid Lights on the control boards now change to steady white, and remain on until Housekeeper switches them off and changes the status lights on all the control boards from Red to Green — Room Available; the special Maid Light on the Room Unit goes out automatically when maid removes plug.

(†) Net: *A-L3-2/—, $40.50; *A-L3-3/—, $45.50.

No. A-L5-2 (2 board); 1 light. This Room Checkout system is the ultimate in design economy! One light on Front Office board lights to show Room Available; No Light, Rented. When guest checks out, front office clerk moves status switch so light starts to blink — room On Change. Upon instruction from Housekeeper, or upon noting blinking light on a hall signal unit, maid enters room and plugs into Room Unit. This connects Maid Call circuit (even if room is not on change). Upon completing room, maid removes plug, which **automatically** changes Front Office and Housekeeper lights to steady — Room Available.

(†) Net: *A-L5-2/—, $15.00.



No. A-L4-2 (2 board); 2 lights. For reasons of economy, this Room Checkout model, especially designed to meet the needs of the smaller occupancies, such as motels and motor inns, permits maid to **automatically** change status indication directly from guest room! Also, it has only 2 status lights (one Green, one White) on Front Office board, and 1 (White) light on Housekeeper panel. "Green", signals Room Available; No Light, Rented. Green and White, blinking, indicates Maid in Room and that Maid Call circuit is connected. White (steady) indicates room On Change.
(†) Net: *A-L4-2/—, $25.00.

(†) Priced per room, up to 100 rooms; less cable, Room Unit (where required).* All switching, signalling systems in these pages protected by Patent Nos. 3,214,747 & 3,230,520.

NEW MINIATURIZED GUEST ROOM STATUS CONTROLS, Only 25% the size of any previous designs — or of any other system made today. Solid state and plug-in module construction. Guaranteed 10 years against any defects. Costs less than other systems to install.

The Model A-L6 is a 2-light system using miniature lamps with automatic control of room status directly from room by maid. Miniaturized, and requiring only 25% of the office space of any other system, Front Office control module and housekeeper monitor position show room status as — available/ occupied/ on change/ and whether maid or other house personnel have started or completed work in room by a flashing light system. Housekeeper or Front Desk can see where maid is working and can talk directly with maid in room. (Maid Call is an optional feature).

A-L6-2 2 light, 2 boards $21.95 per room

GENERAL INFORMATION — In a 2-board system. Front Office board includes switching facilities and lights for Room Clerk, Cashier; a 3-board installation provides separate panels for these offices. All front office boards include standard guest Room Rack. Controls may be on wall panels, flush or surface mounted, or in desk consoles, depending upon size. Monitor boards (lights only) can be supplied for supervisory personnel.

(†) Priced per room, up to 100 rooms; less cable, Room Unit (where required).* Protected by Pending Patents.

MAID CALL SYSTEMS

No. A-MC-A/- is visual type. Maid plugs into room jack, which lights a lamp on a Light Panel in Housekeeper's office. Can then be paged if paging circuit is connected. Light goes out when Maid removes plug from jack. This system includes room jacks, Maid Plugs, **A-MC** Light Panel (lights only), Power Supply.

No. A-MC-B/- *Blink Light type. This newest design makes room recovery extremely rapid, through its Maid Monitor/Housekeeper "blink lights".

Soon as Maid enters guest room she plugs into Maid Jack on Room Unit. Immediately a tiny light under the jack slowly blinks on and off; at the same time, a second light blinks on Housekeeper's Light Panel, indicating "Maid in Room". Housekeeper can now page Maid if paging is provided.

When Maid has readied room, she plugs all the way into room jack, then removes plug. Maid's light now goes out but Housekeeper's light changes to steady-on —"Room Ready"; she can now switch light off at her convenience.

Installation includes Room Jacks, Maid Plugs, an **A-MC1/-** Light Panel (with lamps and switches), Power Supply, Blinker Unit.

A-P5-A Room Unit, includes jack and light for "blink light" Room Status and Maid Call. **Net $15.00.**

Room Clerk can use a **No. A-MC** Light Panel to monitor room status shown on Housekeeper panel.

SPECIFICATIONS
Maid Call Light Panels are built for Desk, Flush, or Surface mounting, in sizes to suit needs. Material: steel; standard finish: gray Hammertone enamel. Designation strips identify rooms. Lamps have long operating life, on 24 V. circuit.
Net Prices (Discounts on larger units.)

No. A-MC-A/- Maid Call System, w/**No. A-MC** Light Panel, Power Supply, and 1 Maid Plug per 10 rooms, but less Room Unit, **$5.00 per room.**

No. A-MC-B/- Maid Call System, w/**No. A-MC-1** Light Panel. Power Supply, Blinker Unit, and 1 Maid Plug per 10 rooms, but less Room Unit, **$8.50 per room.**
Prices are for up to 100 rooms.

AMERICAN COMMUNICATIONS CORPORATION

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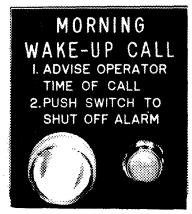
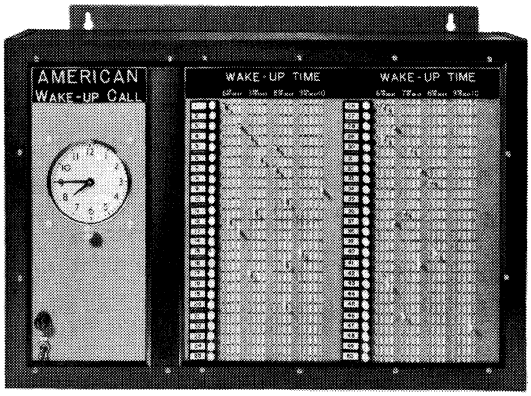
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

REQUIRES ONLY ONE CONTROL WIRE PER GUEST ROOM

AUTOMATIC WAKE-UP CALL*



No. A-P8-A Wake-up Call room unit.



No. A-WA1/50 Automatic Wake-up Call.

AMERICAN'S No. A-WA-1/- Automatic Wake-up Call is a tremendous time-saver for occupancies of any size. **Model A-WA-1/50** here illustrated is for a 50-room hotel or motel.

Master Control Panel has for each guest room a room designation strip, lamp, and 17 Time Jacks — one for each quarter-hour from 6 to 10 AM. When telephone Operator receives guest's wake-up call time, she inserts a plug into the respective Time Jack. Operation now is fully automatic: Wake-up Call "remembers" calling time and sends an insistent to the room, at the proper calling time.

This calling signal is both visible and audible: (a) at 2-second intervals a light blinks at both the office control panel, and in guest room; and, (b) in one model a recording advises guests to "shut me off" and in another a buzzer sounds loudly, when guest pushes a button (at blink light on Room Unit), signal light goes out in guest room and on office panel, and audio signal stops.

GENERAL SPECIFICATIONS

No. A-WA-1/- System includes Master Control Panel with Time Clock for 4-hour timing (up to 6 hours can be supplied); complete set of Time-set Plugs; either an **AMERICAN No. A-TD** continuous-play Tape Deck and pre-recorded Tape (not sold separately) or a Buzz Generator; 2-second Timer; and, guest-room Unit. Long-life, low-current signal lamps are used. Fuse holder, Off-On Power Switch, are front-mounted. Satin-black steel case is approx. 31 x 21 (plus 2″ mtg. skirt at top) x 4″ deep (50-room unit, illustrated); wgt. approx. 100 lbs. Operates on 115 V., 60 cy. A-C.

Net $20.00 per room, less room units; materials only. **Room Unit** (light, switch, wired and assembled on lettered metal plate, to mount on 2-gang outlet box). **Net $8.75 ea.** Cable extra.

*This system protected by pending patents.

SIGNAL MAIL RACK & MESSAGE-AT-DESK

REQUIRES ONLY ONE CONTROL WIRE PER GUEST ROOM

AMERICAN COMMUNICATIONS manufactures two signal systems, either of which may be used to expedite message and/or mail handling in hotels, motels, schools, factories, hospitals, and other institutions.

The **Mail (and Message) Rack Signal System** is comprised of numbered pockets, one for each room with a push button light switch, or light and switch for each pocket. Each pocket is wired to a guest-room. When clerk files mail (or message) in pocket, he lights corresponding lamp; simultaneously, a duplicate lamp in the guest room lights, and advises guest he has a message at main desk.

A new **2-Way model, No. A-MR2,** with access from either side and lamps and switches on both, enables Mail Clerk to insert mail from one side and silently signal guest and for Telephone Operator to insert messages from the opposite side (and also signal the guest).

The **Message-at-Desk Signal** is identical with the Mail Rack System, except that there are no pockets — only lamps and switches mounted on a control panel. Message clerk — usually the telephone operator — signals to guest that there is a message (or mail) by moving a switch as above described. **Model A-MD1/85** (illus.), for example, is a desk-top model for 85 guest rooms.

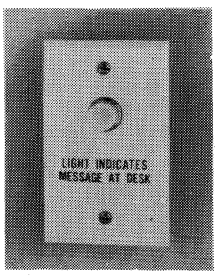
The Racks and Panels are available in a variety of constructions to suit individual requirements as to location and number of rooms, and in standard or special finishes as decor dictates. The Mail Rack is available with shelf at top of each pocket for room key.

If guest room is not wired for radio, a separate wall plate, **A-P20-3-A,** is provided for the signal lamp; otherwise, it can be included on the radio control panel (See Room Unit on facing page).

Long-life lamps in Signal Mail Racks and Message-at-Desk units are easily replaced from front. A metal stop strip across the back of each row of pockets, in the standard or **A-MR3 Mail/Message Rack,** permits insertions only from front. **Model A-MR3/100** (illus.), is for 100 rooms, but units can be built to 1,000 or more.

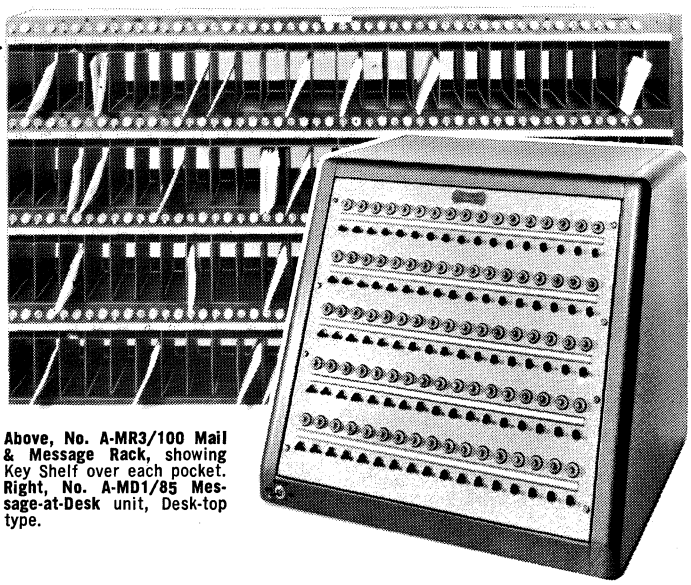
They may be made for Flush-wall recessed), Surface-wall or Desk (table-top) mounting. An easily removable end cover plate permits access to writing. Power Supply unit (included) is controlled by a switch. House signal wiring carries only low, safe voltage.

AMERICAN'S No. A-22X/- Multi-conductor Cable is used for connection to distribution point, and A-19/1 or A-19/2 wire for runs to Room Units.



No. A-P20-3-A Signal Plate, in guest room, mounts on standard 1-gang outlet box.

KEY SHELF →



Above, No. A-MR3/100 Mail & Message Rack, showing Key Shelf over each pocket. **Right, No. A-MD1/85 Message-at-Desk** unit, Desk-top type.

SPECIFICATIONS — Signal Mail/Message Racks

Standard finish, velvet black enamel. Material is steel. Standard pocket measurements: approx. 8″ deep x 7¾″ high (incl. 1⅛″ for Key Shelf, where used) x 2″ wide. Specify whether wiring termination board is to be placed at left or right end of Rack. **NET PRICES**

A-MR2/- Signal Mail Rack System, 2-way type, * **$15.00.**
A-MR3/- Signal Mail Rack System, 1-way type, standard, ***$12.50.** For push button lights, add $1.00 each.

***Per pocket**

The foregoing **Net Prices** are less connecting wire and Room Unit, but including Power Supply for up to 100 rooms. Discounts apply on larger installations.

SPECIFICATIONS — Message-at-Desk

Standard finish, Flush or Surface mounting type, velvet black or gray enamel; Desk-top type, gray enamel. Other colors to suit decor are special. Material is steel. **NET PRICE**

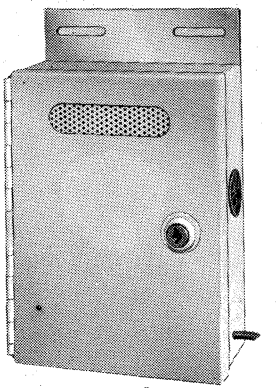
A-MD1/- Message-at-Desk System, Desk type; and, **A-MD2/- Message-at-Desk System,** Flush Panel type, **$7.50 per room** for up to 100 rooms. Above **Net Price** is less connecting wire and Room Unit, but including Power Supply.

AMERICAN COMMUNICATIONS CORPORATION

AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

AMERICAN'S New TV-set THEFT ALARMS*

A-TA-B/50 TV-set Theft Alarm for Hotels.



TV-3, SELF-CONTAINED TV THEFT ALARM.

AMERICAN'S TV-set Theft Alarm is now available in designs that meet the needs of occupancies of any size; in addition to the **Model B,** for hotels of 50 rooms or more, there is the new **Model C,** for motels of under 50 room units.

Both models operate to signal any attempt to steal the television set it protects.

In addition, **AMERICAN'S** Theft Alarm has other uses:

In Apartment Houses, to signal doorman of any attempt to illegally enter an apartment.

In Apartment Houses, so tenant can alert superintendent or doorman, in an emergency, without sounding an alarm. (A "panic button" is provided in each apartment.)

In Stores, Factories, Churches, etc., to signal any attempt to steal valuable electric appliances, tools, money boxes, etc.

Installation may be made by any electrician, following detailed instructions supplied with each System (Control Panel or Console, and Room Units). **Requires only one control wire per guest room.**

Operation: Equipment under protection (TV-set, appliance, etc.) is electronically "booby trapped" during the process of being plugged into the wall outlet. Any attempt by unauthorized persons to remove connection from wall outlet, or cut power cord, starts alarm signal This signal is indicated at the Front Office as a flashing light, loud buzz or both.

Note that the flashing light can be an existing signal system, such as **AMERICAN'S** Message-at-Desk.

There is no alarm in the guest room to alert the thief, but the Front Office signal, once triggered, cannot be stopped until Front Office attendant has operated a Reset switch (which cancels buzz and flashing light); a room indicator lamp remains lit, however, until house personnel has checked the guest room and restored the circuit to its normal alert condition.

Apartment House owners can now offer their tenants maximum security at negligible cost. Tenant is protected against an unlawful entry going undetected, can signal for help in an emergency.

SPECIFICATIONS

No. A-TA-B/- TV-set Theft Alarm, including Front Office Control Console, complete w/room lights, loud-sounding buzzer, bright alarm light, flasher, alarm reset and power on-off switches and bullseye, solid state devices, and power supply; and, Room Kit (Conversion Cord, Conversion Outlet, one each per room). Control Console (A-TA-B/50) measures approx. 15″ x 7¾″ x 9″ deep; wt., approx. 30 lbs.; finish, gray crackle enameled steel. Operates on 115 V., 60 cy. A-C. **Net Price, A-TA-B/-, $12.00/room,** incl. Room Kit; minimum 50 rooms. Cable not included.

NEW SELF-CONTAINED TV THEFT ALARM. The TV-3 Theft Alarm mounts on the back of each TV set. Should anyone attempt to cut the power line, pull out the power plug or remove the Theft Alarm, an extremely shrill piercing alarm is set off. The alarm, which is audible throughout the entire building, will run for about an hour. Two options are available to the owner. Option 1 requires the management's presence to shut the alarm off. Option 2 — If the plug is re-inserted in the receptacle, the alarm will shut off by itself. This option allows for a test of the alarm.

The TV-3 is held in place by the screws that are used to hold the cover at the back of the TV set. No internal connections have to be made to the set. All that's required is to plug the TV set's power cord into the TV-3 and then plug the TV-3 into any power receptacle.

NOTE: If Power goes off, Alarm will not be set off.

Net: TV-3, from $13.50 to $10.00 depending upon quantity.

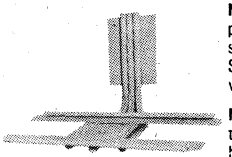
*Protected by Pending Patents.

TV TABLE

No. A-TVT-B Table. For TV sets. Control panel and speaker **(A-BW4/-** Baffle Cabinet, equipped) will fit underneath (illus.). Black, or color to suit. Metal legs. **Net $10.14.**

No. A-TVT-B Table. Room Unit (A-BW4/-, equipped) fits below.

TV MOUNTS



No. A-TVB1 Bracket (left). Swivel wall-mounted support for 19″ TV sets, particularly the Designer series, or equivalent, for hospitals, hotels, etc. Saves floor space. Set easily positioned for best viewing. **Net $6.78.** (Other sizes to order.)

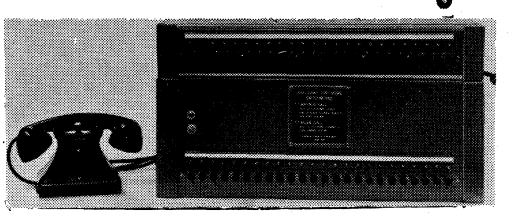
No. A-TVS Roll-away TV Stand (right). Easily positioned under, for example, a hospital bed. Shelf holds set over bed. Hard-rubber casters, bolted ⅞-in. diam. steel tubing. Shipped KD. Bar holds pillow speaker cord or, as shown, TV Remote Control Cord. **Net $25.49.**

MOTEL-O-PHONE SYSTEM

AMERICAN developed this interior telephone System specially for Motels, Motor Inns, and small Hotels. This Multiple Telephone Switchboard is described as "selective ringing, common talking." Unit illustrated is for 48 telephones, add units for each 24 telephones.

You increase the basic Interior Telephone System from a maximum of 24 stations by adding 24-station units on top (illus.).

Net Prices: No. A-MTS Basic Unit, for 24 phones, w/115 V. A-C Power Supply, **$350.00; No. A-MTS-A Add-A-Board,** for 24 phones, **$150.00; A-FP** French-style Desk Phones, **$25.00.**



AMERICAN'S Interior Telephone, 48 stations.

AMERICAN COMMUNICATIONS CORPORATION

Net

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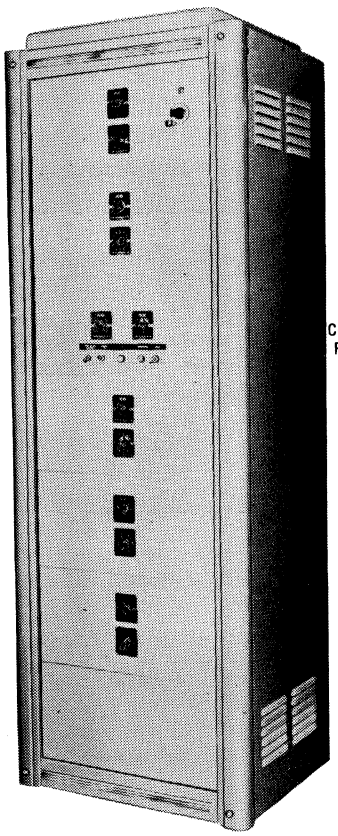
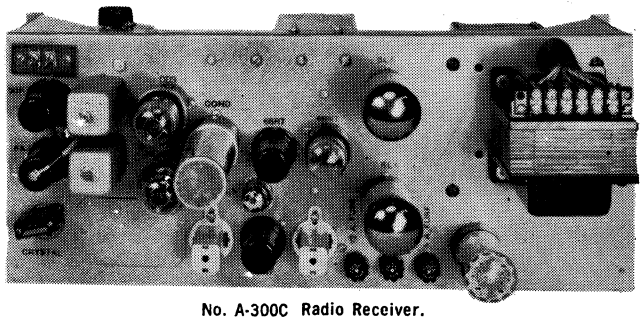
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS



CENTRALIZED RADIO SYSTEM

No. A-CR Centralized Radio Rack, complete.



No. A-300C Radio Receiver.

The **control center** of **AMERICAN COMMUNICATIONS'** "Channelized" Radio System is the **No. A-CR Rack Unit** shown here. Signals from the Antenna System are fed to the Rack-and-Panel assembly, and then to remote speakers (guest rooms, public areas, etc.) through a system of properly selected cable and matching components as specified by the Supervising Engineer.

No. A-CR Rack can be modified to suit requirements. The standard Rack, however, is comprised of 4 **AMERICAN** No. A-300C AM Crystal-controlled Radio Receivers, 1 No. A-300T AM Tunable Radio Receiver, a panel-controlled No. A-P/M Preamplifier/Mixer (for mixing a high-impedance microphone and phonograph), Monitor Speaker, power supplies and controls, and Timer. The Radio Receivers deliver 50 watts audio power. (Additional amplification, if needed, is incorporated in a second Rack.)

If the tunable receiver is a No. A-300F (for FM reception), the house manager may tune it, like the A-300A AM Radio Receiver, to a continuous-music station for background music, available to guest when he switches to this channel — within the operating hours automatically controlled by the Timer.

The Monitor Speaker (optional), hinged to Rack, has same response as room speakers for true check of programs as received in guest rooms. Switching permits its use on background-music, P.A., etc.

If Rack is to be used with **AMERICAN'S** Patented Emergency Alert System, the standard model will include all necessary equipment and circuitry incluing a booster amplifier for the off channel. These enable remote Emergency Alert equipment to assume control and deliver to all the loudspeakers a suitably high signal whenever needed, regardless of off-on status of Rack, room speaker channel-selector switch. or P.A. system.

All 5 channel receivers are designed with a 5 position switch so that any of 5 input sources may be used. These inputs normally include a background music source, phonograph, tape deck, microphone line pick-up, short wave, etc.

Receivers are high-fidelity type, with push-pull output. The No. A-300C Radio Receiver is shown here; No. A-300T, and -F, have same physical dimensions and general appearance. Several features make these receivers exceptionally reliable and efficient: (A) the single electrolytic capacitor is plug-in type for servicing convenience; (B) circuits are triple-fused (one each for power line, filament supply, high-voltage supply); and, (C) voltage regulator tubes limit surge potentials to safe values. For trouble-free performance over long periods of continuous operation in commercial service, only close-tolerance, high-quality components are used, and operated within wide safety margins, in a ruggedized receiver design.

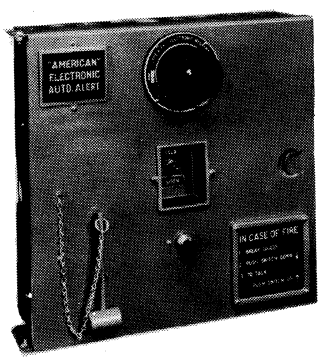
SPECIFICATIONS

Radio Receivers
Tuning range, 540-1,720 kc.; sets have 1 RF and 2 IF stages. Output transformer has taps that present balanced load impedances to the following lines: 8, 16, 32, 250 (70 V.), and 500 ohms. Rated audio output, 40 W. Each Receiver has a Selector Switch, knob-controlled from front of panel, for selection of (1) Radio; (2) Microphone; (3) Phonograph; (4) Tape Deck; and (5) Short Wave.

Rack
The **No. A-CR Centralized Radio Rack** is made of cold-rolled steel 1/16" thick; panels are aluminum, 3/32" thick. Standard finishes, Rack and Panels, slate gray or black ripple enamel. Rack amply ventilated by louvers on 3 sides. Easy-access rear door has slip-joint hinges. Rack measures approx. 68 x 22 x 18" deep. Fully fused; use on 20 A. mains service, operates from 115 V., 60 cps; 220 V., 50 cps, or as required.

Supplied completely equipped as described.
No. A-CR, complete, incl. Time Clock. **Net Price $250.00 per channel. (Monitor Speaker, extra.)**

EMERGENCY ALERT SYSTEM



No. A-EA Emergency Alert signal box has electronic siren with warble sound.

The undulating, siren-like tone of **AMERICAN'S** (patented) automatic electronic Emergency Alert System commands instant attention in an emergency.

The control center of the system is a conveniently located Emergency Alert unit resembling a Fire Box. In operation, operator breaks glass covering switch, and moves switch to SIREN or TALK. In either case, remote relays (usually about 7 in number) take over the amplifiers and loudspeakers in the related radio and P.A. systems, and the priority electronic siren or emergency instructions are heard at high level in guest rooms and public areas, regardless of the sound program previously being received, and even if set is off.

Mounted on the front of the steel Emergency Alert box are the SIREN-OFF-TALK switch in a glass-covered recess, a chained hammer, red pilot light, dynamic microphone (for issuing emergency instructions), and an instruction card. Within box are the electronic siren, audio power amplifier, spare tube, power supply, connecting strip, and a relay.

GENERAL SPECIFICATIONS

No. A-EA Emergency Alert unit. Steel signal box, enameled in Chinese Red, measures approx. 15 x 15 x 5" deep; has knockouts for conduit. Supplied equipped as described. Fully fused at 5 A. Operates on 115 V., 60 cy. A-C.

No. A-EAR Relays, for Emergency Alert installations. Multipole, to suit audio circuits into which they connect. Coils operate on 24 V. D-C. Heavy contacts. Hermetically sealed. **Prices upon request.**

APARTMENT BUILDING ALERT SYSTEM

AMERICA'S No. A-EAB automatic and electronic Apartment Building Alert System (not illustrated) is an application of the No. A-EA Emergency Alert unit, and is particularly suited to apartment building complexes.

The **No. A-EA Emergency Alert** unit is connected to control boxes, an amplifier, and one or more weatherproof outdoor speakers. Upon sounding of alarm, distinctive, warbling-tone electronic siren can be heard by patrolman on beat.

GENERAL SPECIFICATIONS

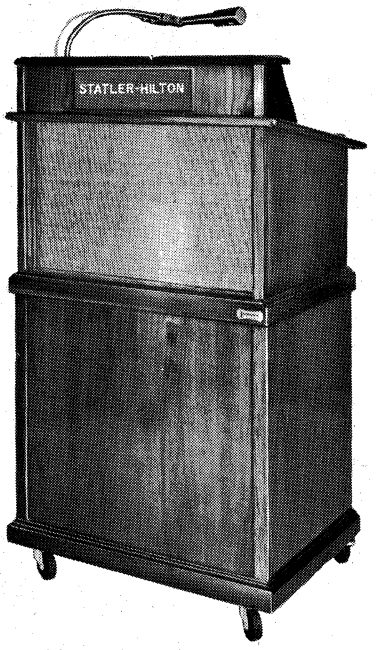
No. A-EAB Apartment Building Alert System includes control boxes, No. A-EA Emergency Alert unit, 100 W, audio amplifier, weatherproof outdoor siren speaker(s), and wiring. Installation can include annunciator panel to show location of actuated alarm box.

System quotation and apparatus prices upon request.

AMERICAN COMMUNICATIONS CORPORATION

AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS – MOTELS – INSTITUTIONS

NEW PORTABLE ELECTRONIC LECTERN



UNQUESTIONABLY THE BEST HEAVY-DUTY ELECTRONIC LECTERN MADE

- **The greatest advance in Lecterns — anechoic speaker system!**
- Completely self-contained. Demountable Base is optional!
- Use anywhere. More built-in features than any other make!
- Most RUGGED, RELIABLE Portable Electronic Lectern on the market!
- **IDEAL** for banquets, conventions, auctions, sales meetings, dances, at Churches, Schools, Hospitals, etc.

AMERICAN'S improved No. A-203 Electronic Lectern is efficient, portable and **unified** — nothing else to buy (includes microphone, amplifier, anechoic speaker system and reading light, with provision for optional equipment). When combined with Base, it constitutes a Podium. High-quality cardiod microphone, w/Off-On switch, is adjustable in height and position; side mounted for maximum desk room. Amplifier is high-quality, reliable, high-fidelity type, w/separate Bass and Treble controls to suit any acoustic situation of speaker or audience, and for maximum voice fidelity and minimum feedback. Lectern (top section) lifts off Base (bottom section) for table top use, and has space for reference material under sloped reading desk. Base folds for easy, convenient storage!

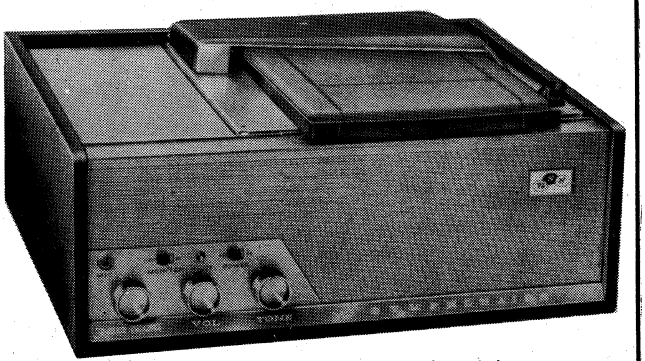
Optional equipment: (1) jack with extra speaker for covering large audiences, (2) tape machine for background music or recording; (3) jack for patching into existing P.A. system; (4) jack, and neck microphone with long lead, for speaking away from Lectern (as for audience participation, etc.); (5) built-in or remote timer, and signal light. Engraved bakelite Nameplate is extra, **Net $10.00.**

SPECIFICATIONS

No. A-203A Lectern (only) is fully equipped, ready to use, as described. **A-203B** is above Lectern, plus Base; latter has quiet, ball-bearing casters. Made of selected hard wood, in rich walnut. A-203B, overall: 28″ x 19″ x 50″ high. Approx. weights: A-203A, 75 lbs.; A-203B, 105 lbs. Microphone has gooseneck stand. Amplifier audio output, 20 watts. Junction box for A-C linecord; specify cord length required. Operates on 115 V., 60 cy. **No. A-203C** is **A-203B** w/jack for second, auxiliary speaker (supplied).

Net Prices: A-203A, $305.00; A-203B, $405.00; A-203C, $435.00.

BACKGROUND MUSIC MAKER



When the first scintillating strains of life-like music begin to create a mood of your choosing, you will know that the Symphonaire is the background music system which puts the choice of musical mood at your fingertips. The Symphonaire needs no attention . . . it plays continuously. The tape reels itself and will play over and over until changed. Simple to operate . . . pulling lever stops tape drive and allows you to change cartridge. Just pull out and replace. Your hand never touches the tape. Versatile . . . it can be used for background music plus a paging system, sales training, sales presentations, plus many additional applications. Over 10,000 selections available in comprehensive library which includes continentals, dance, show tunes, chapel (all faiths), dinner, general, local color (Hawaiian, Italian, etc.), special holiday, industrial, etc.

SPECIFICATIONS

No. SBMM Symphonaire Background Music Maker, oiled walnut cabinet, brushed aluminum facade, 17″ w x 7½″ h x 12⅝″ deep. **Net $300.00.** Supplied with one 4 hour tape reel, your choice. Extra 4 hour reels, **$59.50 ea.**

APARTMENT "ANNUNCITEL"

AMERICAN'S new **No. A-AA/- "Annuncitel"** solves many problems of Apartment House owners and architects. It is a low-cost, combination multiple station 2-way telephone and transistorized annunciator, for intercommunication and signaling between apartments and lobby, service entrance, garage, etc.

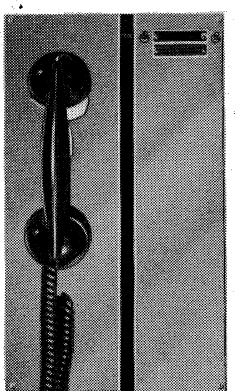
WITH ANNUNCITEL —

1) House manager can tell which apartment called his office in his absence.
2) Tenants can be signaled from service entrance when a package arrives.
3) Service attendant can handle all apartment calls that arrive simultaneously, without neglecting any call.
4) Arriving visitors can have immediate contact with tenants.
5) Tenants can reach doorman or superintendent immediately, in an emergency.
6) Attendant can contact garage or other in-building locations, or automatically leave signal to be called.

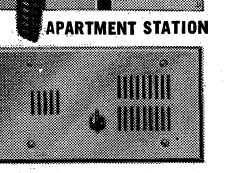
The Master Station or lobby unit has hanger-type telephone handset, and 25-name apartment designation strip. Apartment Station is a wall-mount panel that fits a 3-gang outlet box. Both available in stainless steel or color-anodized aluminum.

The annunciator, a transistorized design employing new solid-state techniques, can be built into either unit, or both, to show which station is calling and which is being called. The transistorized design virtually eliminates service problems.

Net Price, Master and 25 Apartment Stations, **$30.00 per apartment.**



MASTER STATION



APARTMENT STATION

MASTER RADIO OR TV ANTENNA SYSTEM

SPECIFICATIONS

No. A-CH/- TV Channel Amplifier. Bandwidth, 6 mc.; gain, 45 db. Low-noise cascode input. Output, 1 V. per ea. two outputs.

No. A-BA Weatherproof Broadband TV Booster Amplifier, w/No. A-BAP Power Supply. **Net $125.00.**
No. A-U/V-C Converter, w/UHF Mixer Head. Specify UHF and VHF channels. **Net $175.00.**
No. A-CH/- Channel Amplifier. Specify which of channels 2 to 13. **Net $75.00.**

For Community Antenna TV (CATV). Please contact our Engineering Dept. for complete engineering and design services. **For Coaxial Fittings,** see **last two pages.**

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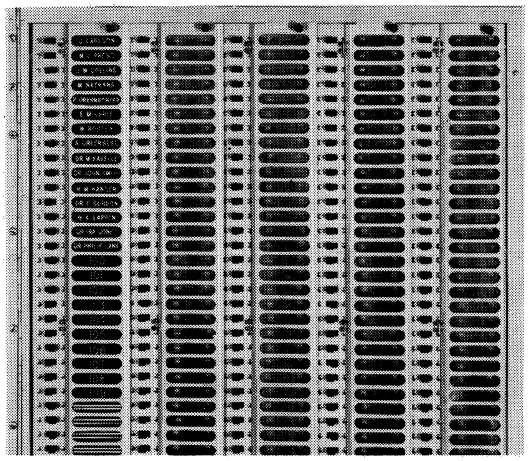
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

DOCTORS CALL BOARDS

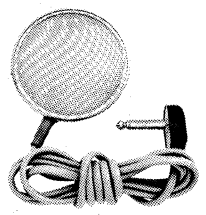


No. A-DCB/- Doctors "IN" or Call Board. Also available w/Message Signal, Intercom, etc.

No. A-DCB/- Doctors "IN" and "OUT" Call Board shows on-duty status of doctors at all times. **AMERICAN** also can supply this Call Board with Message Signal, Intercom, etc.; in double-sided construction (names on both sides, switches one side); and, less switches (for monitoring). Doctor may receive message (shown by blinking light), and leave special instructions (via intercom) with front desk — usually remote from exit — where these facilities are provided. Flush-mounting type shown. Steel panel is hinged, as are the illuminated nameplate panels.

Net Price, A-DCB/100 Doctors Call Board, basic unit for 100 rooms, **$8.00 per room, per Board,** less connecting wire but w/Power Supply for 115 V., 60 cy. AC. Other quotations upon request.

PILLOW SPEAKER/"MIKE"

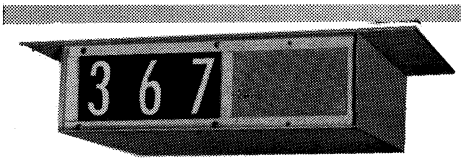


No. A-S/M Pillow Speaker, may serve also as Microphone! Ideal for hospital use: waterproof (may be sterilized), stainless steel case, rugged construction, exceptional fidelity, has bedclothes clip and chain (not shown), and special flat-to-wall plug. Alnico magnet; available voice coil impedances: 3.2, 2,000, 5,000 and 10,000 ohms. Measures ⅞" x 3" dia. Cord is 10 ft. long (other lengths to order). **Net Price, $8.25.** Quantity discounts.

CLOSED-CIRCUIT TELEVISION

AMERICAN COMMUNICATIONS will design your **CCTV System** for Monitoring, Surveillance, Hotel Guest Auto Registration, Elevator Passenger Protection, Inspection or other uses.

AUDIO/VISUAL (SILENT) PAGING SYSTEM



No. A-A/VP-D Decoder. Has 4" numerals. Also available without speaker.

No. A-A/VP-E/3 3-bank Encoder, for Audio/Visual (silent) Paging System.

Designed for use with a Call Board, **AMERICAN'S** Audio/Visual Paging System presents an efficient means of personnel paging in hospitals, department stores, schools, hotels, factories, offices, etc.

In operation, a designated person (Telephone Operator, for instance, in a hospital) sets up on a desk-top Encoder, the call number assigned to a person (doctor or nurse) whose attention is wanted. This can be any number from 1 to 999 per bank of pushbuttons. This number then instantly appears in the window of remote readout indicators or Decoders, wherever located. The called person can acknowledge the call in a variety of ways — house phone, Intercom, etc.

Encoder No. A-A/VP-E/3 shown here has two additional banks of buttons which permit two additional calls to be set up at the same time, and by automatic switching, each will be signaled, in sequence, 20 seconds after the preceding one. Or, by operating a switch, any one of the three sets of numbers can be held in view and shown steadily until acknowledged.

A jack on the front skirt, for microphone, permits audio paging, emergency instructions, etc. A pilot light indicates the "ON" condition. Encoders may be located in several offices, and Decoders at any number of remote points.

SPECIFICATIONS

Encoder No. A-A/VP-E/3, 3-bank, is a desk-top unit in metal housing. Dimen., approx. 11 x 5¾ x 14" deep. Operates on 115 V., 60 cy. A-C.

Decoder No. A-A/VP-D is a signal/speaker assembly in metal housing approx. 25 (incl. flanges) x 5¾ x 15½" deep. This unit is surface-ceiling mount type; other types of mounting can be supplied. Speaker is 5" PM type in an acoustic chamber designed for maximum intelligibility. Readout unit displays numerals 4" high that are readable at over 60 ft. Available without speaker.
Standard finishes: Encoder, buff enamel; Decoder, flat polar white enamel.

Net Prices:

Encoders: A-A/VP-E/1, **$450.00;** A-A/VP-E/2, **$550.00;** A-A/VP-E/3 (3 digits, as illus.), **$650.00.** Priced per # of digits, as below.

Decoders: A-A/VP-D/1, **$125.40;** A-A/VP-D2, **$234.40;** A-A/VP-D3 (3 lights, as illus.), **$354.40.** Priced per number of lights.

Auxiliary Equipment (for Paging) — A-PS Paging Set (Microphone and Amplifier, 1 each for paging — not illustrated), **Net $75.00/set.**

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AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

AUDIO/VISUAL NURSE CALL SYSTEM

The A-NCS is an audio-visual nurse call system which allows the patient to signal the nurse and communicate with her. When a patient wants attention at his bedside, he pulls the cord/switch. This switch turns on a white light in the corridor outside his room and also at the nurse's control station. She presses the indicated station switch to carry on a 2-way conversation with the patient. A switch mounted in the bathroom activates a red light in the corridor and at the nurse's control station. An optional feature allows the patient to have remote control of his radio and/or TV from his bedside station. All face plates are stainless steel.

The system units are:

1. No. A-PBS-2 Patient's Bedside Station-dual, to register normal calls (available with optional status switch to register emergency calls). Net Price **A-PBS-1**, single patient station (not shown) **$17.50; A-PBS-2** dual patient station **$25.00.** Remote radio or TV control, per patient **$12.50.**

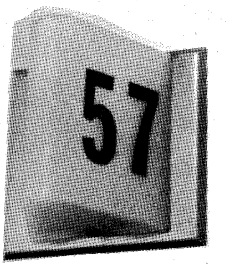
2. Bathroom switch to register emergency calls from the bathroom (available in water proof model). **A-EBS-1 $5.95.**

3. Single, Double or Triple Light, Corridor Dome Light equipped with white light for normal bedside calls, red light for emergency bathroom calls and a flashing red light for emergency bedside calls. **Net: Single, A-EDL-1 $5.00; Double, A-EDL-2 $7.50; Triple, A-EDL-3 $10.00.**

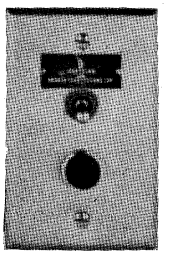
4. Duty Stations to provide intercommunications with other nursing departments. **Net: A-NDS-1 $17.50.**

5. Nurse's Audio-Visual Control Station with 2-light annunciator system, (1 white and 1 red light for each station), plus intercommunication to each station and All Call facilities. Basic Nurses Control Station to include power supply for 17 stations.

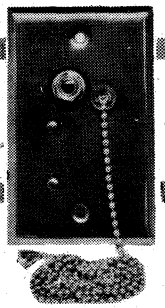
Net: A-NCS-17 $275;17 Station Add-on Module for use with A-NCS-17 Basic Nurse's Control Station A-NCS-17M $75.00



A-EDL-2 Corridor Dome Light



A-EBS-1 Emergency Bathroom Switch



No. A-RW1 Radio Wall-plate.

PATIENT'S RADIO WALL-PLATE

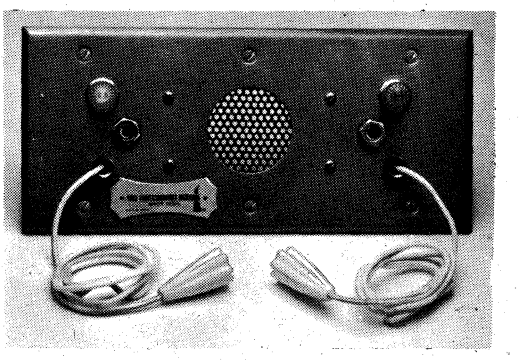
Although designed for use by patients in hospitals, the No. A-RW1 Radio Wall-plate shown here, is a convenience wherever used. Operates by pull chain or Nylon cord.

Has stepper switch and a jack. Switch has continuous rotation through "Off", 5 positions for selection of radio programs, and back to "Off", and so-on. Jack provides connection for pillow speaker.

SPECIFICATIONS

No. A-RW1 Radio Wall-plate. Switch is pull-chain actuated, continuous rotation, single-pole. 5 positions and "Off". Either single-circuit or seize-type jack can be supplied, for PL-55 plug; specify which desired. Plate is brushed steel, approx. 2¾ x 4½" high; overall depth, from front of plate, 2¼". Fits standard outlet box. Bead chain is steel. 3 ft. long; cut to desired length. Brass plate and chain optional. **Net Price, $7.35**

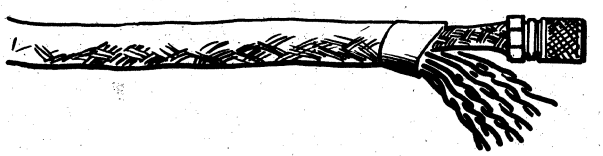
No. A-RW2 Radio Wall-plate. Placed between two beds for two patients' use. Size: 4⅝" x 4⅝". **Net Price, $12.85.**



A-PBS-2 dual patient station

CABLE & WIRE

Special Wire and Cable combinations can be fabricated on quantity orders. Types here listed meet all specifications for the respective types, and are those used in making **AMERICAN'S** Systems installations. Specification sheets supplied upon request.



TV COAXIAL CABLE

	Net Per ft.
A-TV92-S (RG-59/U w/2 shields)	.06

TV & RADIO COMBINATION CABLE

A-TV/R92-S/- (combo.: A-TV92-S w/4 to 7 twisted pr.)
Net/ft.: -4/11¢; -5/12¢; -6/13¢; -7/14¢

*Request quotations for -91-S, -61-S, -62-S; or more pairs.

MULTI-CONDUCTOR STATUS BOARD & MESSAGE CABLE

(16) A-22X/27 (No. 22 — also No. 24 or No. 26 — twisted pr. w/plastic jacket over 27 prs.) ..... †*
(17/20) (Ditto as No. 16, except 101, 201, 301 or 401 prs.).... †*

(†) Not illustrated

***Prices on request.**
Prices subject to change without notice.

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Net

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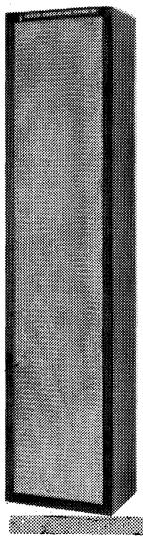
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

COLUMN SPEAKERS

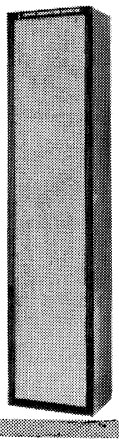
"MULTICOUSTIC" COLUMN SPEAKERS

Due to the narrow vertical and wide horizontal dispersion pattern of these in-line speaker arrays, approx. 90% of the sound is beamed more effectively.

Nominal line match, 8 ohms or 70 volts. Standard finish; walnut, on ¾-in. hardwood, except **A-S3D** (five 4-in. speakers), ½-in. Interior specially designed in accordance with **AMERICAN'S** famous Acoustical Labyrinth.

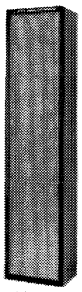


No. A-S3A — 8, 8-in. Hi-Fi, 80 watts, 72 x 12 x 8″, 50 lbs., **Net $95.95.**

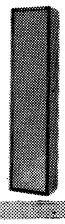


No. A-S3B — 6, 8-in., Hi-Fi, 60 watts, 53 x 12 x 7″, 35 lbs., **Net $85.95.**

No. A-S3C — 6, 6-in., Wide-range, 30 watts, 40 x 9 x 5½″, 20 lbs., **Net $64.95.**



No. A-S3D — 5, 4-in., Budget, 20 watts, 27 x 7½ x 4″, 12 lbs., **Net $29.95.**

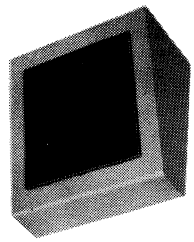


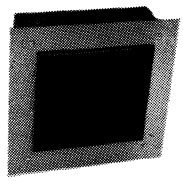
(No. A-S3E, not illus., 8, 6-in., Wide-range, 48 watts, 52 x 10 x 6″, 25 lbs., **Net $74.95.)**

BAFFLES

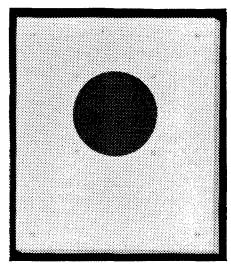
(NOTE: All Baffles, both wood and metal [A-B4/-], priced less escutcheon, controls, etc., unless otherwise specified.)

WALL MOUNT STEEL BAFFLE — For 8″ speaker, metallic beige, black mesh, other colors available. 10½″ wide x 11″ high, tapered from top of 6″ depth to bottom of 2″ depth. Heavy duty, 1/16″ welded steel, approved for schools. **Net $5.25.**

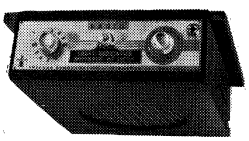




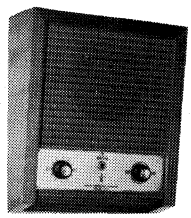
CEILING MOUNT STEEL BAFFLE — For 8″ speaker. Complete with rustproof ceiling enclosure with ½″ and ¾″ knockouts. Metallic beige, black mesh, other colors available. 12″ x 12″ exterior, ceiling box 10″ x 10″ x 4″ deep. **Net $8.50.** Ceiling box, sold separately, **Net $4.75.**



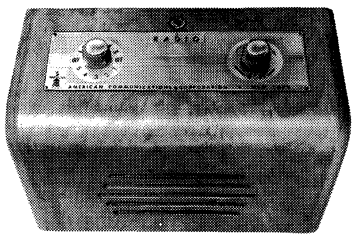
FLUSH MOUNT BAFFLE A-BM-1/6 Steel with baked enamel finish in any color. Silk screen legend as required on quantity orders. **Net ABM-1/6 $4.95**



UNDER-TABLE BAFFLE — No. A-BW4- Baffle mounts under table, has pressure-release vents on sides, projects sound downward. Metal baffle is dull black. Cable opening in rear. Grille cloth backed by wire mesh. Mounting holes in flanges. For 6″ or 8″ speaker. Baffle only: **A-BM-4/6 Net $4.95 A-BM-6/8 Net $5.45.**

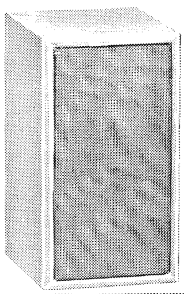


SLANTING FRONT — No. A-BW3/- Bafffle, surface mount, slanting front. Hardwood, light mahogany. Choice of grille cloth. A general-purpose design, for 6″ or 8″ speaker. Baffle only, for either size speaker, **A-BW3/-, Net $12.75.**



BUDGET BAFFLE — No. A-BW5/6 Bentwood Baffle. Solidly constructed Danish maple, standard finish, other finishes to order. Louvered, slanting surface allows baffle to be wall or under-table mounted; louvered ends contribute to voice intelligibility. Sound projection and pressure-release areas grille cloth covered. For speakers only. Dimen.: approx. 11½″ w. x 8″ h. (max.) x 4″ d. at base and 4⅞″ at top. Baffle only, for 6″ speaker, **A-BW5/6, Net $7.85;** w/escutcheon, controls, knobs, jacks, 6″ speaker (illus.), **A-BW5-A/6, Net $12.75.**

NEW! 50 W. AUDITORIUM SPEAKER

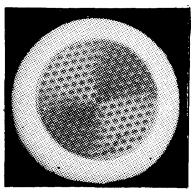


No. A-S5/50 High-power Speaker, 50 watts, for large-auditorium use. Newest addition to **AMERICAN'S** line of advanced sound equipment. Specially designed to meet the growing needs of hotels and other institutions for a speaker that will reproduce **all** the sound within hearing capability, and at adequate volume. This is the type of service required, for example, by the newest **Discotheque** technique (pioneered by **AMERICAN** in the first such sound installation — the famous Shepheard's room, The Drake Hotel, New York).

Its unsurpassed sound quality results from a careful choice of woofer, tweeter and crossover network, combined with an acoustic system comprised of an L.F. labyrinth and H.F. multi-cellular projector assembled in a functional housing suitable for any type of decorative enclosure.

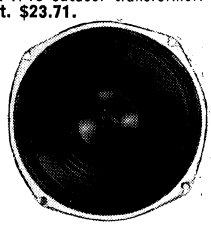
Approx. 30″ wide x 54″ high x 24″ deep; approx. wt., 180 lbs.; finish, slate gray. Grille cloth covers front area. Frequency range: approx. 30-20,000 cps. Power rating, up to 50 W. **A-S5/50, Net $160.00.**

LOUDSPEAKERS

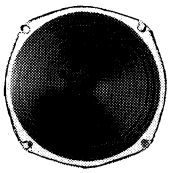


No. A-PAS-1 Indoor P.A. Speaker, surface mount type, 8″ (only). Metal is enamel finished. Supplied less speaker. **Net. $5.81.**

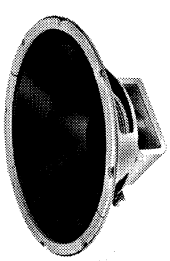
No. A-PAS-0 Outdoor P.A. Speaker (not illus.), on swivel mount, w/weatherproof housing and A-T3 outdoor transformer. **Net. $23.71.**



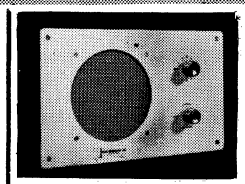
No. A-S1/- High-fidelity Speaker, with dual cones for wide frequency response. 6″, **A-S1/6, Net $4.27; A-S1/8** (illus.), **$6.05.**

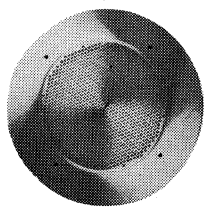


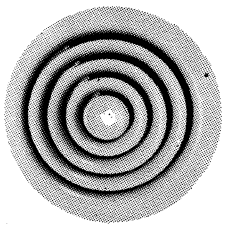
No. A-S2/- Wide-range Speaker, 6″ (illus.), **A-S2/6, Net $3.08; A-S2/8, Net $4.86.**

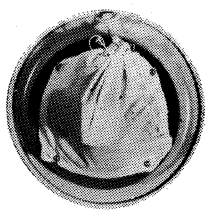


No. A-S4/12 High-fidelity Speaker, 12″. Power rating, 25 W.; frequency response, approx. 35-15,000 cy.; voice coil 1½″ diam., impedance 8 ohms. Mtg. centers 11⅝″. **A-S4/12, Net $21.15.**









METAL BAFFLES

"DECORATOR" BAFFLE (top) — No. A-B4/- Baffle, Decorator style. Brushed aluminum (standard finish); gold anodized available. For 6″ or 8″ speaker, as specified. Baffle only, **A-B4A/6-8** (illus.), **Net $11.23; A-B4G, Net $16.18.**

CEILING BAFFLE, STANDARD — No. A-B2/- Baffle, standard model. Brushed aluminum (standard finish), or gold anodized. **A-B2/6,** for 6″ speaker, **Net $2.55 (A-PR/6** Plaster Ring, **Net $1.19); A-B2/8, Net $2.67 (A-PR/8, Net $1.49).**

CEILING BAFFLE. LOUVERED — No. A-B3/- Baffle, louvered type. Enameled iron, white; colors to order. **A-B3/6,** for 6″ speaker, **Net $4.15**
A-B3/8..... Net $5.25
(A-PR/8..... Net $1.49);
A-B3/12.... Net $7.43
(A-PR/12.... Net $2.06).

DUST BAG

No. A-D/- Speaker Dust Bag. Fungus, vermin proofed. 6″, **A-D/6, Net 45¢, A-D/8** (illus.), **57¢, A-D/12, 59¢.**

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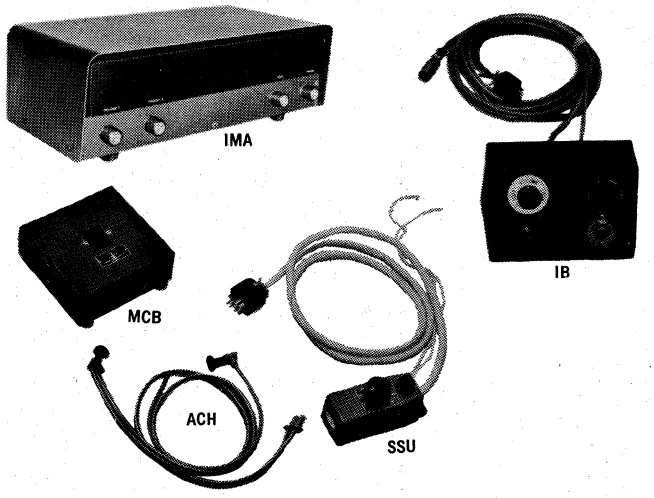
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

PUBLIC ADDRESS PARTS & ACCESSORIES



INSTANTANEOUS OR SIMULTANEOUS INTERPRETATION & TRANSLATION SYSTEMS

These systems are used wherever foreign groups assemble for meetings, conventions or governmental business. The system is similar to that used at the United Nations and other international conference halls.

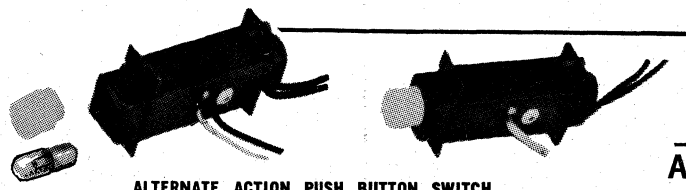
There are usually five languages spoken for the purpose of interpretation.

The system comprises:

1. The initial pickup of the person addressing the audience.
2. Simultaneous transmission to the interpreters through headsets.
3. Each of the five interpreters, in his own language, translates what the speaker has said simultaneously to each separate seat in the auditorium.
4. At each seat there is a special switching device and air conduction head sets for the occupant, allowing him to hear either original address or any of the five interpretations.
5. The switching unit is installed in the seat arm or in the case of a temporary installation, tied to the lower arm.
6. Whenever portable equipment is used, the wires from the switching device are plugged into a specially designed floor molding, that is placed directly under and through the seats.

The system consists of the following equipment:

The Interpreter's Box, Model IB	$ 35.00
Interpreter's Mixer-Amplifier, 25 W. solid state, Model IMA	160.00
Interpreter's Microphone, lavalier type, Model IM (not shown)	55.00
Seat Switching Unit, Model SSU	18.55
Air Conduction Headset, Model ACH	5.75
Molding Connection Box, built-in short circuit-proof networks, Model MCB	23.85
Special Wired Molding, lies flat on floor, with male and female plugs, 8 ft. section. Other lengths available (8 ft.)	12.50



ALTERNATE ACTION PUSH BUTTON SWITCH

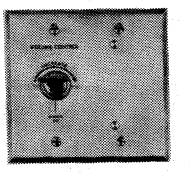
Uses standard bayonet type lamps of any voltage from 6 V. to 110 V. A-C or D-C, either incandescent or neon. Switch and lamp are each on separate circuits. Switch can be supplied with either SPST or SPDT. Switching is UL Approved. Lamps can be replaced from front. Lamp does not move when button is pressed, avoiding lamp burnout due to vibration. Normally supplied with SPST and 28 V., 40 Ma. bayonet lamp. **Net** 1 to 25, **$2.00**; 25 to 100, **$1.75**; 100 to 500, **$1.50**; 500 to 1M, **$1.35.** Other quantities write.

TAPPED TRANSFORMER VOLUME CONTROL

Mounted on 2-gang S. S. plate. Handles up to 10 watts. Can be used for either 25 V. or 70 V. circuit to voice coils. Heavy duty selector switch taps any of 6 positions. For perfectly balanced impedance matching. **Model TTVC, $12.50.**

ALL NEW — KEY LOCK CONTROLS P.A. VOLUME

No. AKTVC/1 Complete transformer volume control. Step-less locks at any position. Handles 10 watts. Net **$15.60.**



MICROPHONE MIXERS

No. A-6M
6-channel Portable
Microphone Mixer

AMERICAN'S A-6M Portable Microphone Mixer has 200-ohm inputs for 6 microphones, individual gain controls (mixers) for each of the 6 microphones, master gain control, Cue Jack for headphone monitoring of broadcast-quality program material, pilot light, and "Off-On" switches for Service and Standby power supplies; separate Bass, Treble electronic tone controls available.

The 6 mixers work from individual low-noise preamplifiers into the master gain control; gain is adequate for remote operation.

Output is +15 dbm; gain, 55 db; frequency range, 30-15,000 cy./sec. ±1. db. Output is universal (50-600 ohms impedance). Operates on 115-120 V., 60 cy. A-C.

No. A-10M Portable Microphone Mixer (not shown) for 10 microphones is similar in construction.

SPECIFICATIONS

Slope-front metal cabinet (A-6M) measures approx: 22" x 7" x 8" high. Gray crackle finish. Carrying handle. Fused power supplies. Terminations at rear of cabinet. Instrument furnished w/Hubbell or Cannon connectors. **Net Prices,** No. A-6M, **$495.00;** No. A-10M, **$825.00.**

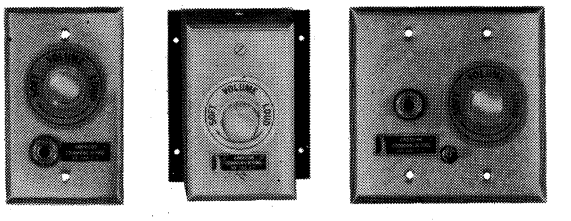
Stereo Microphone Mixers available, on order, for 2 or 4 outputs.

WEATHERPROOF MICROPHONE

No. A-WM Weatherproof Microphone. New! Rugged, high-fidelity dynamic microphone in diecast aluminum housing. Supplied complete w/coupling to fit all standard stands and with neoprene cable gland, and gland nut. Grille opening protected by metallic screen and non-resonant, waterproof covering. Waterproof push-to-talk button permits talk-back for intercom use; signal light indicates "Microphone in Use". Available without switch or light. Impedance 35-50 ohms; can be supplied w/built-in matching transformer tapped for 200/600 ohm lines (other impedances to order). Frequency response 40-15,000 cps. Approx. 3⅜" x 6¼" x 2¾" deep, overall, (less fittings); approx. wt. 3 lbs. **Net $45.85.**

NEW P.A. CONTROL UNITS

These new Control Units by **AMERICAN** meet the everyday needs of the Public Address technician. Each includes a 4-watt, wire-wound volume control for 70 volt line, or **AMERICAN'S** patented, continuous-rotation voice coil control. Seize jacks are circuit-opening type, for regular phone plug. Standard plates are brushed stainless steel; also available in white enamel, and brushed or bright brass finish.



No. A-CU1/- Speaker Control w/Seize Jack — With 70 volt **(A-CU1/1)** or voice coil **(A-CU1/2)** control, dial, knob; seize jack. Plugging into jack disconnects speaker from its feed line, connects speaker to plug circuit (paging assembly, etc.). Plate mounts on std. 1-gang outlet box. **Net $8.55.**

No. A-CU2/- Speaker Volume Control. — A surface-mount, general purpose unit. With 70 volt **(A-CU-2/1)** or voice coil **(A-CU2/2)** control, dial, knob. Metal case 1" deep has ½" flange on sides, black finish (std.); plate is single gang. Metal-bushed holes for wire entry through top or bottom. **Net $7.25.**

No. A-CU3/- Speaker Volume Control w/ Seize Jack, Master TV Antenna Connection. — Used in conference rooms, etc. With 70 volt **(A-CU-3/1)** or voice coil **(A-CU3/2)** control, dial, knob; seize jack; A-1601-G TV-set line tap (75 ohms). Other tapoffs available. Plate mounts on 2-gang outlet box. **Net $10.95.**

AMERICAN COMMUNICATIONS CORPORATION

Net

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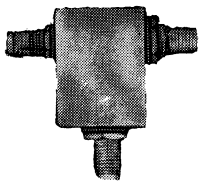
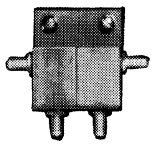
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS – MOTELS – INSTITUTIONS

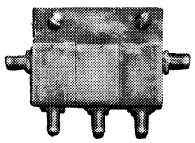
C.A.T.V. AND MASTER ANTENNA SYSTEM COMPONENTS



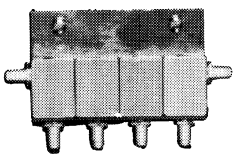
(1) No. A-1601-1 Isolation Unit. A Single-unit TV line tap. Attenuation color codes per Note 1. Outdoor housing; 75 ohms. **Net $1.80.**



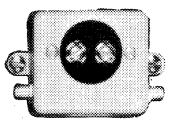
(2) No. A-1602-1 Double-unit Line Tap, for 2 TV sets. (Notes 1, 2) **Net $3.20.**



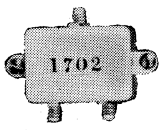
(3) No. A-1603-1 Triple-unit Line Tap. (Notes 1, 2) **Net $4.60.**



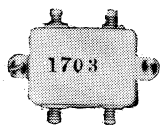
(4) No. A-1604-1 Quad-unit Line Tap. (Notes 1, 2) **Net $6.00.**



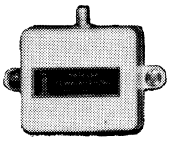
(5) A-1601-3 Single-unit Line Tap, 75 ohms, screw terminals. (Note 3) **Net $1.60.**



(6) No. A-1702 Resistive Line Splitter, 2-way, T-network. Has 6 db forward attenuation. (Note 5) **Net $1.80.**

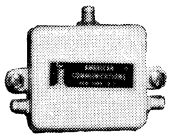


(7) No. A-1703 Resistive Line Splitters, 3-way, T-network. Has 10 db forward attenuation. (Note 5) **Net $2.80.**

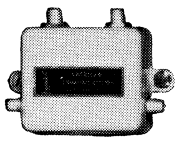


(8) No. A-CTVB Convenience TV Box, w/connector A-CH61. (Note 3) **Net 77¢.**

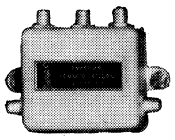
(9) No. A-MT Matching Transformer, 75 to 300 ohms. Solderless connector for RG-59/U one end, 3-in. leads w/lugs other end. Up to 6 db voltage step-up. **Net $ .87.**



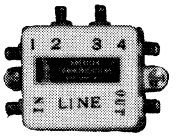
(10) No. A-1601-2 Single-unit Line Tap, 75 ohms (Notes 1, 3) Indoor housing. **Net $1.80.**



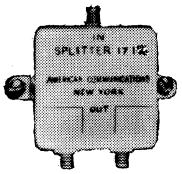
(11) No. A-1602-2 Double-unit Line Tap, for 2 TV sets. (Notes 1, 3) **Net $3.20.**



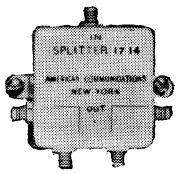
(12) No. A-1603-2 Triple-unit Line Tap. (Notes 1, 3) **Net $4.60.**



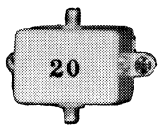
(13) No. A-1604-2 Quad-unit Line Tap. (Notes 1, 3) **Net $3.00.**



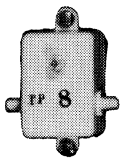
(14) No. A-1712 Line Splitter, hybrid 2-way. Has 3 db forward attenuation. (Note 3) **Net $2.15.**



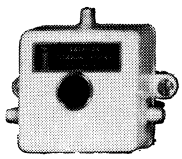
(15) No. A-1714 Line Splitter, hybrid 4-way. Has 6 db forward attenuation. (Note 3) **Net $3.95.**



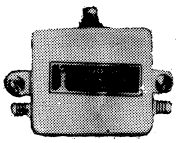
(16) No. A-T/R-T Trunk/ Riser Tap. Various db values of isolation. Creates Risers form Trunk Line. (Note 5) **Net $1.80.**



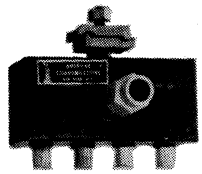
(17) No. A-DBLA DB Line Attenuator Pad. 3-6-10-20-30. (Note) 5) **Net $1.77.**



(18) No. A-1601/R-FT Combination Unit. Combination TV room tap with bushed box for centralized radio cable feed-through. (Note 1) **Net $2.80.**



FM TAP OFF
American's FM TAP is used to connect an FM set to trunk line with minimum insert loss. The unit consists of a band pass filter for the FM band only, but allows TV spectrum to pass through. Supplied with three, **C** or **F** Fittings. **Net $2.25.**

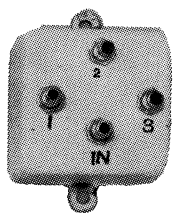


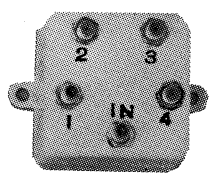
BACK MATCHED DIRECTIONAL COUPLERS WITH UP TO 6 HOUSE TAP-OFFS

A-C or D-C **feed through,** with complete tap isolation. 100% weatherproof, designed to mount on the strand. Low insulation loss and excellent response over entire 50 to 220 MC spectrum. Uses F61 house tap connectors. Input and output connectors are designed for up to ¾" cables (per your order). Tap values available in 10-12-15-18-22--26 and 30 dB attenuation. VSWR 1.2:1 max. with up to 20 db or better return loss.

(Net Prices)

Type	No. of House Tap-offs	F. or .308 Connectors	.412 Cable Connectors	.500 Cable Connectors	.750 Cable Connectors
DC2T	2	$7.95	$10.80	$13.10	$15.10
DC4T	4	9.50	12.10	15.08	17.08
DC6T	6	11.10	13.05	16.15	18.15





BACK MATCHED HYBRID DIRECTIONAL SPLITTERS

From 2-way to 6-way with VSWR of 1.2:1 max. and with either C or F fittings. Frequency Range of 50 to 220 MC @ 72 ohms impedance.

		Net			Net
SP2	— 2-way	$2.65	SP4	— 4-way	$4.45
SP3	— 3-way	3.55	SP6	— 6-way	6.75

ADDITIONAL PARTS
(not illustrated)

No. A-WN Porcelain Wire Nut. Net 2¢. No. A-CC Cable Clamp, insulated. Net 6¢. No. A-RP Plastic Rawl Plugs. For mounting various radio and TV boxes; 5 per strip. **Net 5¢,** per strip of 5. **No. A-P8-A Plate.** "Morning Wake-up Call" control assembly. **Net $7.50. No. A-P10-P Plate,** punched. (Note 6) **Net 61¢. No. A-R-BP Radio Plate,** bushed. (Note 6) **Net 77¢. No. A-TV/R-P TV or Radio Plate,** blank. (Note 6) **Net 61¢. No. A-CT-1 Crimping Tool,** light duty. For **A-F59** ferrules. **Net $4.50. No. A-CT-2 Crimping Tool,** heavy duty. For **A-F59** and **A-F6** ferrules. **Net $7.75.**

(Note 1) Attenuation coded red, yellow, green, Blue.
(Note 2) On mounting bracket.
(Note 3) Surface mount, in **A-BCI** Accessory Box.
(Note 4) Flush mount, on single-gang wall plate **A-P10.**
(Note 5) Surface mount.
(Note 6) Single or double gang, flush mount.
(Note 7) Gem flush-mount, 75 ohms.
(Note 8) GL is G type, plus 8-in. (standard. length) coax. lead from 2nd tap, for back-to-back mounting.

AMERICAN COMMUNICATIONS CORPORATION

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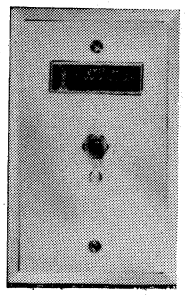
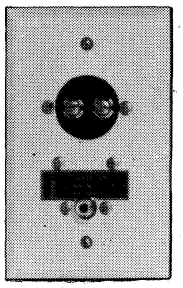
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS – MOTELS – INSTITUTIONS

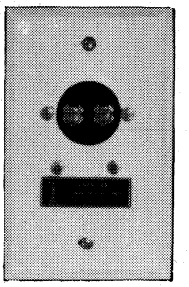
MASTER ANTENNA SYSTEM COMPONENTS



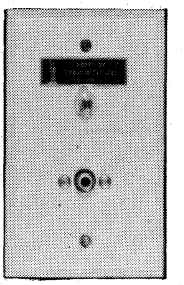
No. A-1601-4 Single-unit Line Tap. TV outlet, 75 ohms. (Note 4) **Net $1.90.**



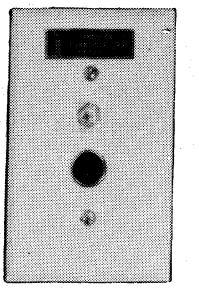
No. A-1601-5 TV Outlet, 300 ohms, screw terminals. (Note 4) **Net $2.70.**



No. A-1601-6 TV Outlet, 300 ohms, screw terminals, FM outlet. (Note 4) **Net $4.05.**

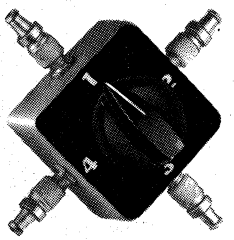


No. A-1601-7 Outlet, 75-ohm Tap, w/FM outlet. (Note 4) **Net $4.05.**



No. A-1601/R, 1601 & Radio Plate. Wall plate grommeted for cable. **Net $2.80.**

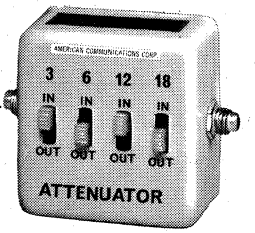
NEW! COAX. SWITCHES



No. A-SW/4 Coaxial Switch. Inexpensive, functional equivalent of lab.-type switching units, for general-purpose use.

No. A-SW/- Coaxial Switch. Low-cost, small-space, light-weight coaxial switch; with positive detent action; C, F or BN connectors for coax. cable. Illustrated is a 1-pole, 4-position unit for switching one input to four circuits (antennas, transmitters, exciters, receivers, test equipment, etc.). Almost any number of circuits can be switched with 72Ω terminations on all unused circuits. Power rating up to 1 kw., amplitude modulated; impedance, 52-75 ohms. Approx. 2″ x 2″ diam. Supplied w/hardware (pointer knob, mounting bushing, and C, F or BN connectors w/ferrules). **ASW/2,** 1-pole 2-position, **Net $5.75. ASW/4** (illus.), **Net $6.50** (with C connectors others extra).

DB ATTENUATORS



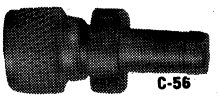
No. A-DB/39 Attenuator. Pays for itself in the time it saves determining loss required for best TV picture, etc. Slide switches are used.

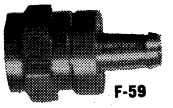
AMERICAN'S No. A-DB/39 and **No. A-DB/59 Attenuators** (the latter not illustrated) provide at low cost, quick and convenient means for determining losses in a number of essential tests in TV installations. These include: measurement of amplifier gain, and equipment losses.

SPECIFICATIONS:
Insertion loss of **A-DB/39** is in fixed steps of 3 to 39 db, and, of the **A-DB/59,** 3 to 59 db, for TV frequencies, when used in 75-ohm circuits. Two **A-CH61** solderless TV connectors afford connection to 75-ohm coaxial connectors. Housing is steel, ecru enameled; overall, 2″ x 2″ x 1″ deep **(A-DB/39).**
Net: A-DB-39, $7.75; A-DB/59, $19.90.

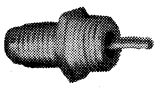
TV COAXIAL CONNECTORS

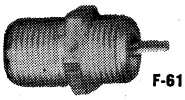
A-61

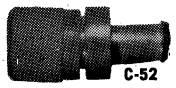

C-56

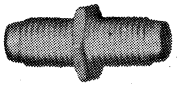

F-59

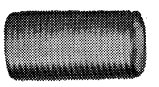
C-51

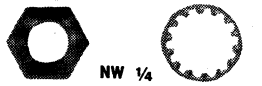

C-61


F-61

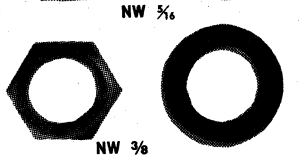

C-52

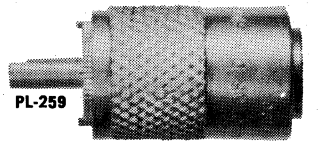

C-81


F-81


NW ¼

NW 5/16


NW ⅜


PL-259

CTR-72 C

6U

59U

Multiple prices listed are for quantity orders . . . **1st price,** 1-25 units; **2nd price,** 26-100; **3rd price,** 101-500.

A-61 Adapter. ¼″-32 inside, ⅜″-32 outside. Changes "C" fitting to "F" fitting. **Net $1.75 for 25.**
C-51 Connector, to be swaged for **RG-59/U** coax. **Net 15¢, 12¢, 10¢.**
C-52 Solderless TV Connector for **RG-59/U** coax. **Net 19¢, 15¢ 13¢.**
C-56 Solderless TV Connector for **RG-6/U** coax. **Net 29¢, 20¢, 18¢.**
C-61 Convenience Connector, chassis mount, for **C-52** connector, with ¼″-32 front nut and 5/16″-32 rear. **Net 35¢, 30¢, 22¢.**
C-81 Solderless Cable Connector, or TV convenience connector with ¼″-32 nut. **Net 38¢ 33¢, 26¢.**
F-59 Solderless TV Connector for "F" fitting and RG-59/U coax. **Net 29¢, 20¢, 18¢.**
F-61 Convenience Connector, chassis mount for **F-59** connector, with ⅜″-32 front nut and ⅜″-32 rear. **Net 38¢, 35¢, 30¢.**
F-81 Solderless Cable Connector, or TV convenience connector with ⅜″-32 nut. **Net 49¢, 43¢, 38¢.**
NW ¼ Nut and Washer, ¼″-32 for "C"" fittings. **Net 3¢.**
NW 5/16 Nut and Washer, 5/16″-32 for **C-61. Net 3¢.**
NW ⅜ Nut and Washer, ⅜″-32 for "F" fittings. **Net 3¢.**
PL-259 Connector, for **RG-11/U** or **RG-8/U,** or double shielded equivalents. **Net 45¢, 40¢, 37¢.**
CTR-72 C Terminator, 72 ohms. **Net 42¢, 35¢, 28¢.**
FTR-72 F Terminator, 72 ohms. **Net 42¢, 35¢, 28¢.**
6U Ferrule, crimping ring for **RG-6/U** coax. **Net $1.65** per C.
59U Ferrule, crimping ring for **RG-59/U** coax. **Net $1.65** per C.

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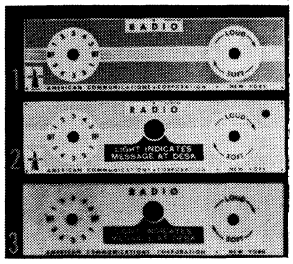
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS
RADIO PARTS & ASSEMBLIES



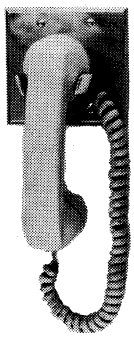
BLANK (UNASSEMBLED) ESCUTCHEON PLATES

Measurements: No. 1 — No. 3, 9 x 2½″; No. 4, 2⅛″ x 5¾₁₆″; No. 5, No. 6 (dials), 2″ diam. (hole in latter is ⅜″ diam.). No. 7, 2¾″ x 4½″. No. 8, 4⅝″ sq.

(1) **No. A-P1 Radio Escutcheon.** Patterned bronze, clear lacquered. Lettered: Off — 1 (through) 5 — Off and Loud-Soft. **Net $2.15.**
No. A-P2 Radio/Maid Call Escutcheon (not shown). Same as **A-P1,** except w/hole, centered between controls, for jack. **Net $2.18.**
No. A-P3 Radio/Message Escutcheon (not shown). Same as **A-P1,** except w/added hole in center for lamp socket, and wording: Light indicates Message-at-Desk. **Net $2.23.**

(2) **No. A-P4 Radio/Message/Maid Call Escutcheon.** Same as **A-P3,** except w/added hole at upper-right for jack. **Net $2.27.**
No. A-P5 Radio/Message/Maid Call/Status Escutcheon (not shown). Same as A-P4, except w/added hole, below hole for jack, for Status Maid Light. **Net $2.67.**

(3) **No. A-P3P Radio Escutcheon, plastic.** Same as **A-P3,** except material is translucent plastic. For use with incandescent or luminescent light source. **Net $1.90.**

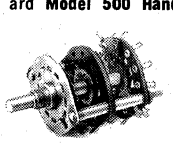


TELEPHONE HANDSET

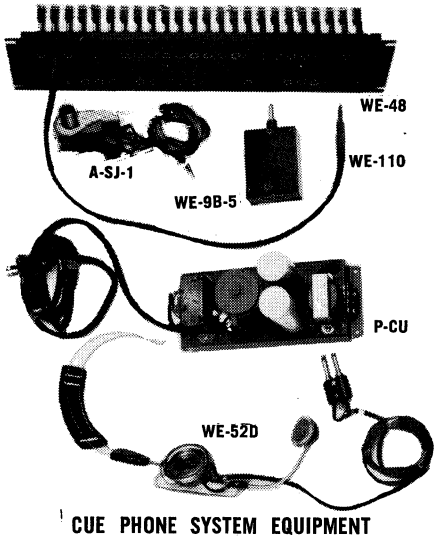
No. SH-500 Standard Telephone Handset Model 500 is complete with carbon microphone and receiver, plus 6 ft. length coiled cord (other lengths available). **Net $14.75.**

UNIVERSAL HANDSET HOLDER

No. UHH can be obtained with spring action for double pole, double throw or other switch configurations as required. Stainless steel double gang plate, heavy duty die cast switch mechanism chrome plated. Other finishes available. For use with standard **Model 500 Handset** and others. **Net $7.85.**



No. A-CS-A/5 Radio/Alert Selector Switch. AMERICAN'S 360°, continuous-rotation radio channel selector switch, is equipped with extra circuit wafer for **AMERICAN'S** patented emergency alert system. **Net $4.98.**



CUE PHONE SYSTEM EQUIPMENT

P-CU Power Supply. As many as 10 head sets can be powered simultaneously by this supply. Supply has proper retard coil for phone operation. Used extensively in hotel ball rooms and other large public areas for communications between control room and personnel. **P-CU** is supplied with a dust cover.
Net: P-CU $48.75.

Type WE-52D Operator's Head Set for intercommunication. Signals can be transmitted over extremely long distances on an ordinary pair of wires when used with P-CU Cue Phone Power Supply.
Net: WE-52D $38.75.

Not Shown — **WE-52 DLS, 15′ coiled cord, including integral switch for mike and 289B plug. Net $54.40.**

Type WE-9B-5 Adapter. Adapts the WE-289-B Plug to a Cue Phone A-SJ-1 Seize Jack.
Net: WE-9B-5 $15.40.

Type WE-238-A Jack Panel WE-48. Uses 48 type WE-238-A open circuited telephone jacks with tip ring and sleeve connections. Can be supplied with double-circuited type WE-239-A at additional cost of $1.25 per jack. Size 3½″ x 19″ for standard rack panel. ⅝″ designation strip with ⅜″ exposure for proper labelling.
Net: WE-48 with type **WE-238-A** jacks **$123.50.**

Type WE-110 Telephone Patch Cord. Uses tip ring and sleeve plug. Designed for use with type WE-238-A jack as used in WE-48 Jack Panel. Supplied in 2 ft. lengths. Other lengths to 10 ft. available.
Net: Type WE-110, 2 ft. $7.10.

A-SJ-1 Seize Jack (circuit opening), wired, **Net $2.70.**

PANEL ASSEMBLIES

(18) **No. A-P1-A Radio Control Panel.** This is **A-P1** Escutcheon assembled with Radio Selector Switch and Volume Control. **Net $9.15.**

(19) **No. A-P2-A Radio/Maid Call Panel.** Same assembly as **A-P1-A,** except w/**A-MJ** Maid Call jack added, on **A-P2** Escutcheon. **Net $10.50.**

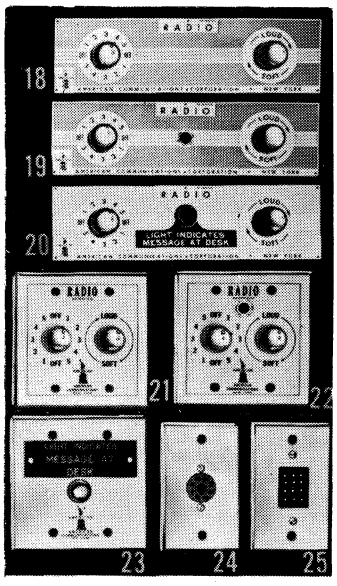
(20) **No. A-P3-A Radio/Message Panel.** Switch, Control, and Message light, on **A-P3** Escutcheon. **Net $10.80.**
No. A-P4-A Radio/Message/Maid Call Panel (not shown). Same items as on **A-P3-A** panel, plus Maid Call jack, all on **A-P4** Escutcheon. **Net $12.15.**

(21) **No. A-P20-1-A Radio Wall Plate** assembly, w/Switch and Volume Control. On aluminum 2-gang plate. **Net $9.15.**

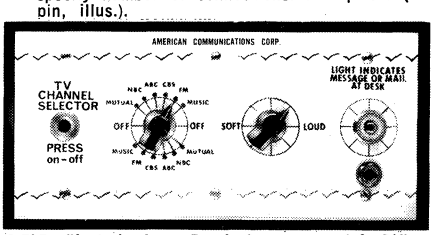
(22) **No. A-P20-2-A Radio/Maid Call** assembly. Same as **A-P20-1-A,** but w/Maid Call jack added. On aluminum 2-gang plate. **Net $10.50.**

(23) **No. A-P20-3-A Message-at-Desk Wall Plate** assembly, w/instructions and lamp. On aluminum 2-gang plate. **Net $3.50.**

(24) **No. A-P10-TV-A TV Remote Plate** assembly. On 1-gang plate, w/octal socket. **Net $1.05.**

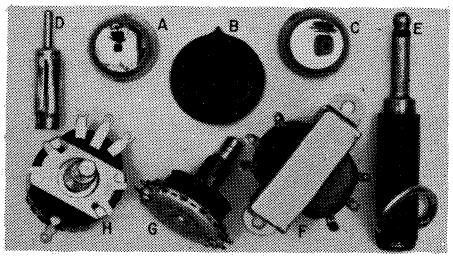


(25) **No. A-P10-C-A Connector Plate** assembly. On aluminum 1-gang plate. Has Jones connector; specify number of connections. **Net $2.61.** (12-pin, illus.).



A-ELP1 Electroluminous Panel. Operates on A-C. Diffuses a night-light glow in room. Mounts on standard outlet box. **Manufactured to order.**

PARTS



(A) **No. A-K1 Knob,** clear plastic. Silver insert, short short pointer, 1 screw. **Net 22¢.**

(B) **No. A-K3 Pointer Knob,** black plastic. Has 1 screw. **Net 24¢.**

(C) **No. A-K2 Knob,** beige plastic. Gold insert, short pointer, 1 screw. **Net 22¢.**

(D) **No. A-MP Plug,** quick-disconnect type. **Net 18¢.**

(E) **No. A-MSP Maid Call Plug,** w/belt ring. **Net $1.44.**

(F) **No. A-T1 Transformer,** 70 volts to 3.2 ohms. **Net $1.03.**

(G) **No. A-CS Radio Selector Switch.** Ceramic wafer, dual wiper, 5 positions, center off, 360° continuous rotation. **Net $2.30.**

(H) **No. A-VC Volume Control.** A patented potentiometer with 360° continuous rotation. Standard resistance 12.5 ohms. **Net $2.30.**

(Items G and H for Centralized Radio use.)

AMERICAN COMMUNICATIONS CORPORATION

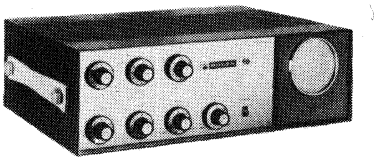
BOGEN SOUND SYSTEMS

FLEX-PAK® PA AMPLIFIERS

Combining operational flexibility, sound quality and dependability, Bogen professional amplifiers offer functions and features unmatched at any price, by any maker. Adaptable to a wide variety of applications once served only by custom designed, custom fabricated equipment, these amplifiers will accommodate virtually any audio signal source, providing a degree of intelligibility and control not previously obtainable in a single chassis amplifier. They include facilities for a host of accessories, engineered to satisfy specific requirements: two and four channel remote controllers, peak limiters, standby controllers for microphone or music channels; optional monitor and speaker units to allow checking of sound levels by both ear and eye; 600-ohm balanced line transformers; high-fidelity phono tops; plug-in microphone transformers, control locking plates, wall mounting kits and many more. All models include output jacks for driving tape recorders and booster amplifiers.

MX60A/MX30A/ MTX30B Shown with MMS-1

M330A/M60A Shown with MSK-1



M120

	*MTX30B All Transistor	MX60A	MX30A	M330A	M60A	M120
POWER OUTPUT	30 w. @ 2% (Full pwr: 30 - 20,000 cps)	60 w. @ 2% (Full pwr: 21 - 30,000 cps ±1 db)	30 w. @ 2% (Full pwr: 21-40,000 cps ±1½ db)	30 w. @ 2%	60 w. @ 3%	120 w. @ 3%
PEAK POWER	50 watts	85 watts	50 watts	50 watts	100 watts	200 watts
POWER CONSUM.	60 watts	180 watts	125 watts	120 watts	160 watts	320 watts
FREQ. RESPONSE	±1 db, 15-25,000 cps	±1½ db, 10-38,000 cps	±2 db, 10 - 40,000 cps	±2 db, 20-20,000 cps	±2 db, 20-20,000 cps	±1 db, 20-20,000 cps
SENSITIVITY	**Mic.:** 2 MV (high imp); **Mag.:** 3 MV; **Aux.:** 0.3-v	**Mic.:** 3.5 MV (high imp); **Mag.:** 2 MV; **Aux.:** 0.15-v	**Mic.:** 3.5 MV (high imp); **Mag.:** 2 MV; **Aux.:** 0.15-v	**Mic.:** 6 MV; **Mag.:** 50 MV; **Aux.:** 0.3-v	**Mic.:** 9 MV **Mag.:** 24 MV; **Aux.:** 0.4-v	**Mic.:** 9 MV; **Mag.:** 24 MV; **Aux.:** 0.4-v
GAIN	**Mic.:** 125 db; **Mag.:** 120 db; **Aux.:** 95 db	**Mic.:** 125 db; **Mag.:** 120 db; **Aux.:** 85 db	**Mic.:** 125 db; **Mag.:** 120 db; **Aux.:** 85 db	**Mic.:** 120 db; **Mag.:** 105 db; **Aux.** 95 db	**Mic.:** 122 db; **Mag.:** 115 db; **Aux.:** 96 db	**Mic.:** 125 db; **Mag.:** 118 db; **Aux.** 99 db
HUM and NOISE (below rated output)	**Mic.** — 70 db; **Mag.** —65 db; **Aux.** — 85 db.	**Mic.** — 70 db	**Mic.** — 70 db	**Mic.** — 65 db; **Aux.** — 80 db	**Mic.:** — 65 db; **Aux.** — 80 db	**Mic.** —65 db; **Mag.** — 65 db; **Aux.** — 80 db
INPUTS	4 mic. (convert to low impedance, with T200, T500 or T50 transformer); 2 mic. (high imp.); 2 mag. phono or tape playback heads; 2 aux. (high imp., high level); 1 600-ohm balanced telephone line with WMT1 transformer; 2 bridging. Note: 4 mics. and any two of the other nine inputs may be simultaneously mixed and faded.	4 mic. (convert to low impedance with T200, T500 or T50 transformer); 1 mic. (high imp. or mag. tape); 2 aux. (high imp. high level/fader); 1 600-ohm balanced telephone line with WMT1 transformer; 1 bridging input/output. Note: 6 inputs can be simultaneously mixed and faded.	4 mic. (convert to low impedance with T200, T500 or T50 transformer); 1 mic. (high imp. or mag. tape); 2 aux. (high imp. high level/fader); 1 600-ohm balanced telephone line with WMT1 transformer; 1 bridging input/output. Note: 6 inputs can be simultaneously mixed and faded.	3 mic. (convert to low impedance with T200, T500 or T50 transformer or 2 convert to mag.); 1 aux. channel (2 inputs/fader control); 1 600-ohm balanced telephone line with WMT1 transformer. Note: 4 inputs can be simultaneously mixed and faded.	3 mic. (convert to low impedance with T200, T500 or T50 transformer or 2 convert to mag.); 1 aux. channel (2 inputs/fader control); 1 600-ohm balanced telephone line with WMT1 transformer. Note: 4 inputs can be simultaneously mixed and faded.	3 mic. (convert to low impedance with T200, T500 or T50 transformer or 2 convert to mag.); 1 aux. channel (2 inputs/fader control); 1 600-ohm balanced telephone line with WMT1 transformer. Note: 4 inputs can be simultaneously mixed and faded.
OUTPUT IMPEDANCE	4, 8, 16 ohms, tape and booster jack, 25-v, balanced (21 ohms), 70-v. balanced (163 ohms)	4, 8, 16 and 83 ohms, balanced 25-v. line, balanced 70-v. line; tape/booster jack	4, 8, 16 and 163 ohms, balanced 25-v. line, balanced 70-v. line; tape/booster jack	4, 8, 16 ohms, balanced 25-v (16 ohms), 70-v (163 ohms); tape/booster jack	4, 8, 16 ohms, balanced 25-v (16 ohms), balanced 70-v (82 ohms); tape/booster jack	8, 16 ohms, bal'd 25-v (5 ohms), bal'd 70-v (41 ohms), bal'd 25-v center tap (1.25 ohms); tape/booster jack
CONTROLS	4 individual mic. (each with speech filter or wide-range switch) • 1 high imp. mic./mag. phono/tape head/aux.-fader control with speech filter switch • 1 high imp. mic./mag. phono/tape head/aux.-600 ohm line fader control with speech filter switch • master vol. • bass • treble • power switch • calibrated low freq. filter (variable) determines low freq. cut-off of any of 6 inputs • provision for remote control or precedence of all six inputs and master vol.	4 individual mic. (each with speech filter switch) • 1 mic./mag./tape with speech filter switch • aux. 1/aux. 2 • master vol. • bass • treble • power switch • calibrated low freq. filter (variable) determines low freq. cut-off of all inputs • provision for remote control or precedence of all six inputs and master vol.	4 individual mic. (each with speech filter switch) • 1 mic./mag./tape with speech filter switch • aux. 1/aux. 2 • master vol. • bass • treble • power switch • calibrated low freq. filter (variable) determines low freq. cut-off of all inputs • provision for remote control or precedence of all six inputs and master vol.	3 mic. • aux. 1/2 • master vol. • bass • treble • power switch • provision for remote control or precedence for mic.	3 mic. • aux. 1/2 • master vol. • bass • treble • power switch • provision for remote control or precedence for mic.	3 mic. • aux. 1/2 • master vol. • bass • treble • power switch • provision for remote control or precedence for mic.
TONE CONTROL ACTION	Treble (10 kc) +12 db to −14 db; Bass (50 c) + 15 db to −9 db	Treble (10 kc) +13 db to −15 db; Bass (50 c) +15 db to −10 db	Treble (10 kc) +13 db to −15 db; Bass (60 c) +15 db to −10 db	Treble (10 kc) +10.5 db to −14.5 db; Bass (50 c) +13.5 db to −9 db	Treble (10 kc) +12 db to −15.5 db; Bass (50 c) +15 db to −9.5 db	Treble (10 kc) +12 db to −14.5 db; Bass (50 c) +15 db to −9.5 db
TRANSISTORS or TUBES	All Silicon 32-transistors, 3-diodes, 2-zener diodes	8 tubes: 3—12AX7A, 3—7247, 2—8417 plus 5-silicon rectifiers	8 tubes: 3—12AX7A, 3—7247, 2—7868 plus 5-silicon rectifiers	5 tubes: 2—7868, 1—7247, 2—6EU7 plus 2-silicon rectifiers and 1-bias silicon diode	5 tubes: 2—8417, 1—7247, 2—6EU7 plus 2-silicon rectifiers and 1-bias silicon diode	7 tubes: 4-8417, 1-7247, 2-6EU7 plus 3-silicon rectifiers
DIMENSIONS	16½" W, 12" D, 4¾" H	16½" W, 12" D, 4¾" H	16½" W, 12" D, 4¾" H	14⅞" W, 9⅞" D, 5¾" H	14⅞" W, 9⅞" D, 5¾" H	16½" W, 12" D, 4¾" H
SHIP. WEIGHT	24 lbs.	40 lbs.	34 lbs.	20 lbs.	28 lbs.	42 lbs.
NET EACH	$239.25 (Zone 2: $241.80)	$194.65 (Zone 2: $197.60)	$157.45 (Zone 2: $160.05)	$113.25 (Zone 2: $115.05)	$138.75 (Zone 2: $141.25)	$194.90 (Zone 2: $197.25)

* Operates on 105-125 VAC or 12-15 VDC — from −20°C to +70°C (158°F)

(SOLID STATE)

LEAR SIEGLER, INC. / ISi® *BOGEN COMMUNICATIONS DIVISION*

Net

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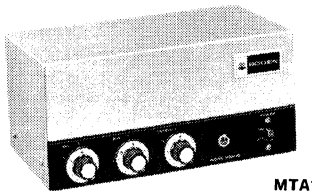
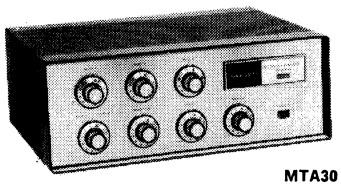
BOGEN SOUND SYSTEMS

"MTA" SOLID STATE AMPLIFIERS

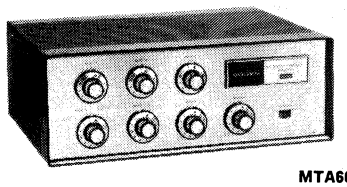
First packaged amplifier line of its kind in commercial sound. Advanced solid state circuitry (**all-silicon** except MTA10 output stage) provides consistent performance over a lifetime of use. Plug-in circuit boards allow for highest possible quality control. Chimney-type heat sinks and heat-sensing "thermo-guards" permit safe continuous operation to 158°F. Tantalum capacitors in all critical circuits; built-in protection against shorted or open speaker lines. Complete line of accessories.



MTA10



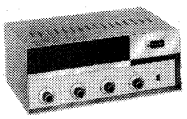
MTA30



MTA60

	MTA10	MTA30	MTA60
POWER OUTPUT	10 w. rms @ less than 3% distortion	30 w. rms @ less than 3% distortion	60 w. rms @ less than 3% distortion
PEAK POWER	20 w.	60 w.	110 w.
POWER RESPONSE	±2 db, 50-16,000 cps @ 10 w. with less than 5% distortion	±2 db, 40-12,000 cps @ 30 w. with less than 5% distortion	±2 db, 40-10,000 cps @ 60 w. with less than 5% distortion
FREQUENCY RESPONSE	±2 db, 50-20,000 cps	±1 db, 30-20,000 cps	±1 db, 7-20,000 cps
GAIN	**Mic:** 105 db **Aux:** 95 db	**Mic:** 125 db **Aux:** 110 db	**Mic:** 125 db **Aux:** 110 db
HUM & NOISE (below rated output)	**Mic:** −60 db (weighted) **Aux:** −80 db (weighted)	**Mic:** −58 db **Aux:** −70 db	**Mic:** −60 db **Aux:** −72 db
SENSITIVITY	**Mic:** 0.4 mV **Aux:** 0.2 V	**Mic:** 0.33 mV **Aux:** 0.15 V	**Mic:** 0.38 mV **Aux:** 0.15 V
TONE CONTROLS	Treble (10kc) −23 db	Treble (10 kc) +10.5 db to −10 db Bass (50 cps) +10 db to −10.5 db	Treble (10 kc) +9 db to −11 db Bass (50 cps) +12 db to −10 db
INPUTS	**1 mic.** (low-imp), **1 aux.** (hi-imp, hi-level) 1 for optional WMT-1 (500/600 ohms) transformer 1 bridging	**3 mic.** (200 ohm unbal.) converts to 200 ohm bal. with T525U or to mag phono/tape head with plug-in PMC-1 **2 aux.** on fader	**3 mic.** (200 ohm unbal.) converts to 200 ohm bal. with T525U or to mag phono/tape head with plug-in PMC-1 **2 aux.** on fader
OUTPUT IMPEDANCE	4 and 8 ohms; 16 ohms bal; 25 VC.T. (62 ohms) bal; 70 V (500 ohms) bal; tape/booster jack	(Bal.) 4, 8, 16 ohms; 25 VC.T. (16 ohms) bal; 70 V (163 ohms) bal; tape/booster jack	(Bal.) 2.6, 8 and 16 ohms; 25 VC.T. (10.4 ohms) bal; 70 V (82 ohms) bal; tape/booster jack
PRINTED CIRCUIT BOARDS	2 plug-in	5 plug-in	5 plug-in
SEMI-CONDUCTORS	3 silicon; 2 germanium; 2 silicon diode rectifiers	13 All silicon transistors; 6 diodes	13 All silicon transistors; 7 diodes
POWER REQUIRED	30 w., 120 VAC, 50/60 cps	75 w., 105-125 VAC, 50/60 cps or 24-30 VDC	115 w., 105-125 VAC, 50/60 cps
DIMENSIONS	10⅝″ W, 6½″ D, 5″ H	12½″ W, 9¾″ D, 4½″ H	12½″ W, 9¾″ D, 4½″ H
SHIPPING WEIGHT	10 lbs.	16 lbs.	18¾ lbs.
NET EACH:	**$74.95** (Zone 2: $75.85)	**$119.90** (Zone 2: $121.45)	**$149.95** (Zone 2: ($151.75)

BACKGROUND MUSIC AMPLIFIERS



MU130 - 30w.
AMPLIFIER 1 MIC. INPUT

A handsomely styled 30-watt amplifier featuring one microphone input and provision for playing records, tapes, and adding an additional booster amplifier. Accessories include matching phono top, control-guard locking plate, rack panel mounting kit, carrying case, remote volume controls . . . and more (see pages 8 and 9). **Power Output:** 30 w. at less than 2% distortion. **Peak Power:** 50 watts. **Power Consumption:** 120 w. **Freq. Response:** ±2 db 20 to 20,000 cps. **Gain:** Mic. 122 db; Aux. 95 db. **Hum and Noise (below rated output):** Mic. −65 db; Aux. −80 db. **Output Imped.:** 4, 8 and 16 ohms (16 ohms Bal.); 25 V. Bal. (use 16 ohm tap), 70 V. 163 ohms; tape/booster jack. **Inputs:** 1 mic. (hi-imped. converts to low-imped. with T200, T500 or T50 transformers); 1 aux. (hi-imped., hi-level). **Tubes:** Total of 4 and silicon rectifiers. **Tone Controls:** Treble (10 KC) +12 db to −14 db; Bass (50 cps) +15 db to −9 db. **Dimen.:** 15¾″ W, 10″ D, 6¾″ H. **Ship. Wt.:** 20 lbs. **Net Each: $89.95** (Zone 2: $91.75)

RP150-BM - 15w.
TUNER/AMPLIFIER 1 MIC. INPUT

A 15-watt, high-fidelity, AM-FM radio/amplifier. Can power from 1 to 60 loudspeakers . . . and more by addition of a Bogen auxiliary booster amplifier. For paging and announcements, a touch of a button silences music and amplifies voice. Provision for playing records, tapes, and automatic tape. **Radio Frequency Range:** FM: 88-108 MC; AM: 530-1640 KC. **Power Output:** 15 watts at less than 2% distortion; 30 watts peak. **Inputs:** Mic. Phono (Mag.), Phono (Xtal-ceramic), Aux. **Audio Frequency Response:** FM: 20-20,000 cps ± 1 db; AM: 20-4,500 cps ± 1 db; Phono, Aux: 20-20,000 cps ± 1 db; Mic: 50-12,000 cps ± 3 db. **Sensitivity:** FM: 1.25 uv for 20 db quieting; I.H.F.: 3 uv; AM: Loop Sensitivity – 120 uv/m for 20 db s/n; Terminal Sensitivity - 5 uv for 20 db s/n. **Selectivity:** FM: 180 KC, 3 db down; AM: 8 KC, 3 db down. **Audio Sensitivity:** Phono: mag.-.005 v, crystal-.25 v; Aux: .5 v; Mic: .04 v. **Hum and Noise:** −55 db. **Controls:** Power, Program Vol, Mic. Vol, Mic. Selector, Program Selector, Bass, Treble, Tuning. **Outputs: Speaker** – 8 ohms, 16 ohms, 25 v line for matching line transformers; tape output, multiplex output. **Tubes:** 13 plus 3 crystal diodes. **Power Requirements:** .85 amps, @ 117 v, 60 cycles AC. **Dimensions:** 15″ x 4¾″ x 11⅝″. **Weight:** 21 lbs. **Prices: Model RP150-BM** (less enclosure), **Net: $179.95** (Zone 2: $181.95). Model EN12 vinyl-clad Metal Enclosure, **Net: $14.95** (Zone 2: $15.55). Microphone Assembly, Transcription Player, and Rack Panel Kit are available.

(▨ SOLID STATE)

All prices and specifications subject to change without notice. Zone 2 includes the states of Ariz., Ark., Cal., Col., Ida., La., Miss., Mont., Nev., N.M., Okla., Oreg., Tex., Utah, Wash. and Wyo. Alaska and Hawaii run slightly higher.

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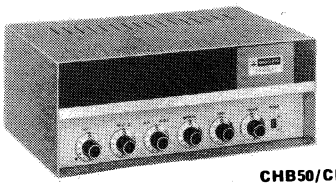
"CHB" SERIES PA AMPLIFIERS

BOGEN SOUND SYSTEMS

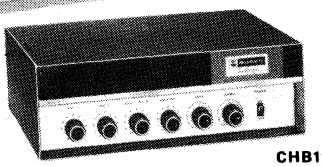
Models CHB100, CHB50 and CHB35A share these outstanding features: systems-tested circuitry for continuous, heavy-duty operation; protected against circuit damage caused by accidental shorting or disconnecting of loudspeaker lines; no "double duty" control devices; built-in remote control circuit permits volume adjustment from up to 2,000 feet away; Memory Level Markers; tape output/booster jack.

CHB100 Shown with phono-top



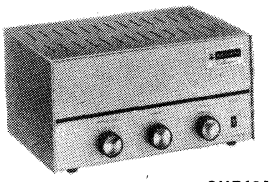
CHB50/CHB35A

CHB20A



CHB1225

CHB14A



CHB10A

	CHB100	CHB50	CHB35A	CHB1225*	CHB20A	CHB14A	CHB10A
POWER OUTPUT	100 w. at 5% distortion	50 w. at 5% distortion	35 w. at 5% distortion	20 w. at 10% continuous	20 w. at 5% distortion	14 w. at 5% distortion	10 w.
FREQUENCY RESPONSE	±2 db, 20 to 20,000 cps	±2 db, 20 to 20,000 cps	±2 db, 20 to 20,000 cps	±2 db, 60 to 20,000 cps	±2 db, 20 to 20,000 cps	±2 db, 20 to 20,000 cps	±2 db, 40 to 12,000 cps
INPUTS	**2 Mic.** (hi-imped.) **1 Mag. Phono 2 Aux.** (hi-imped. hi-level) Provision for WMT-1	**2 Mic.** (hi-imped.) **1 Mag. Phono 2 Aux.** (hi-imped. hi-level) Provision for WMT-1	**2 Mic.** (hi-imped.) **1 Mag. Phono 2 Aux.** (hi-imped. hi-level) Provision for WMT-1	**2 Mic.** (hi or low imped.) **2 Aux.** (hi-imped., hi-level)	**1 Mic.** (hi-imped.) **2 Aux.** (hi-imped. hi-level) Provision for WMT-1	**1 Mic.** (hi-imped.) **2 Aux.** (hi-imped. hi-level) Provision for WMT-1	**1 Mic.** (hi-imped) **1 Phono** (hi-imped. hi-level) Provision for WMT-1
HUM & NOISE (below rated output)	**Mic.** −70 db **Aux.** −80 db	**Mic.** −70 db **Aux.** −80 db	**Mic.** −65 db **Aux.** −80 db	**Mic.** −65 db **Aux.** −70 db	**Mic.** −65 db **Aux.** −80 db	**Mic.** −55 db **Aux.** −80 db	**Mic.** −60 db **Phono** −75 db
SENSITIVITY	**Mic.** 5 mv **Aux.** .3-v **Mag. Phono** 15 mv	**Mic.** 5 mv **Aux.** .3-v **Mag. Phono** 15 mv	**Mic.** 4 mv **Aux.** .2-v **Mag. Phono** 12 mv	**Mic.** 3 mv (hi-imped.) **Mic.** 2 mv (low imped.) **Aux.** 0.5-v	**Mic.** 3 mv **Aux.** .5-v	**Mic.** 4 mv **Aux.** .4-v	**Mic.** 6 mv **Phono** .2-v
GAIN	**Mic.** 125 db **Aux.** 100 db **Mag. Phono** 115 db	**Mic.** 120 db **Aux.** 95 db **Mag. Phono** 110 db	**Mic.** 125 db **Aux.** 100 db **Mag. Phono** 115 db	**Mic.** 120 db **Aux.** 90 db	**Mic.** 125 db **Aux.** 100 db	**Mic.** 120 db **Aux.** 95 db	**Mic.** 110 db **Phono** 90 db
OUTPUT IMPEDANCE	4, 8 and 16 ohms, 25-v line bal., (6 ohms) 70-v line (50 ohms) 2 speaker sockets, screw terminals; tape/booster jack	4, 8 and 16 ohms, 25-v line (12 ohms) 70-v line (100 ohms) 2 speaker sockets, screw terminals; tape/booster jack	4, 8 and 16 ohms, 25-v line (18 ohms) 70-v line (143 ohms) 2 speaker sockets, screw terminals; tape/booster jack	4, 8 and 16 ohms, 25-v (25 ohms) balanced, 70-v (196 ohms) balanced	4, 8 and 16 ohms, 25-v line balanced (31 ohms), 70-v line (250 ohms) 2 speaker sockets, screw terminals; tape/booster jack	4, 8 and 16 ohms, 25-v line (45 ohms) 70-v (355 ohms) 2 speaker sockets, screw terminals; tape/booster jack	4, 8 and 16 ohms, 25-v line (62 ohms), 70-v (500 ohms) 1-speaker socket and screw terminal; tape/booster jack
TONE CONTROL ACTION	Treble (10 kc) +12 db to −15 db Bass (50 cps) +14 db to −9 db	Treble (10 kc) +10 db to −15 db Bass (50 cps) +11 db to −10 db	Treble (10 kc) +10 db to −16 db Bass (50 cps) +14 db to −10 db	Treble (10 kc) −11 db Bass (50 cps) +9 db to −9 db	Treble (10 kc) +10 db to −16 db Bass (50 cps) +14 db to −10 db	Treble (10 kc) −15 db Bass (50 cps) −17 db	Treble (10 kc) −24 db
TUBES or TRANSISTORS	Total of 7 tubes and silicon rectifier: 1−6EU7, 1−12AX7, 4−7868, 1−6C4	Total of 5 tubes and silicon rectifier: 1−6EU7, 1−12AX7, 2−6L6GC, 1−6C4	Total of 5 tubes, 2 silicon rectifiers and 1-silicon diode: 1−6EU7, 2−7868, 1−12AX7, 1−6C4	Total of 11 transistors and 3 silicon rectifiers: 9−2N2712, 2−RCA 40050 (matched) 1−50D100D 2−50D100A	Total of 3 tubes, 2 silicon rectifiers and 1-silicon diode: 1−6EU7, 2−6GW8	Total of 3 tubes, 2 silicon rectifiers: 1−6AU6, 2−ECL86	Total of 2 tubes and silicon rectifier: 1−12AX7/ ECC 83, 1−7868
POWER CONSUMPTION	300 w. 105-125 VAC 50-60 cycles	150 w. 105-125 VAC 50-60 cycles	125 w. 105-125 VAC 50-60 cycles	No Signal 12 w. (117 VAC) 0.3A (14 VDC) Max. Signal 50 w. (117 VAC) 2.5A (14 VDC)	90 w. 105-125 VAC 50-60 cycles	70 w. 105-125 VAC 50-60 cycles	50 w. 105-125 VAC 50-60 cycles
DIMENSIONS	6¾" H, 15¾" W, 10" D	6¾" H, 15¾" W, 10" D	6¾" H, 15¾" W, 10" D	4-7/16" H, 13 1/8" W, 10" D	6¾" H, 15¾" W, 10" D	6¾" H, 15¾" W, 10" D	5¾" H, 11¼" W, 8¼" D
SHIPPING WEIGHT	25 lbs.	21 lbs.	21 lbs.	17 lbs.	17 lbs.	16 lbs.	Model CHB10A 12 lbs. Model CHB10A-LC (less cage) 10 lbs.
NET EACH	$119.90 (Zone 2: $122.15)	$88.40 (Zone 2: $90.30)	$74.90 (Zone 2: $76.70)	$109.35 (Zone 2: $110.70)	$61.40 (Zone 2: $62.95)	$47.90 (Zone 2: $49.45)	Model CHB10A $38.85 (Zone 2: $39.90) Model CHB10A-LC (less cage) $36.00 (Zone 2: $36.90)

* Operates on 12-15 VDC and 117 VAC

Accessories: matching phono-top, control-guard locking plate, rack panel mounting kits, carrying cases, remote volume controls . . . and more. WMT-1 transformer provides 500/600 ohm telephone line input for wired background music.

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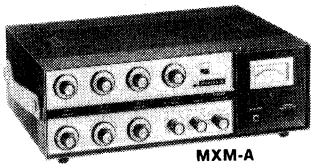
BOGEN SOUND SYSTEMS

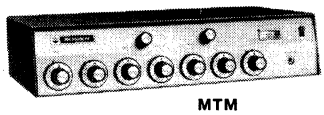
MIXER-PREAMPLIFIERS



MXM-A

MXM-A MIXER-PREAMPLIFIER

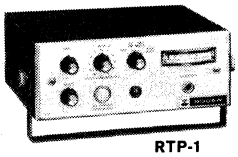
Professional, broadcast quality, self-powered unit which accommodates 7 mixed input signals simultaneously (5 may be from high or low impedance mics). One mic. input converts to an equalized mag. phono cartridge or tape playback head. Two aux. (high imped., high level) are connected to a fader control. Bridging input accepts signals from a remote preamplifier or a zero level line. Up to 3 MXM-A's may be paralleled to provide 21 inputs (up to 15 mics.). Output level may be monitored aurally and visually by headset and built-in VU meter. Panel-controlled speech filters for all mic. inputs; separate bass and treble tone controls. Provision for converting high imped. to balanced low imped. microphone inputs by using plug-in transformers. Sockets accept remote control and precedence plug-in units. Panel-controlled calibrated low frequency (notch) filter effectively "tunes out" hum, turntable rumble, etc. **Output:** 20 V. into high imped. load at 1%; 4 V. into 600 ohms at 1%; (from bridging output) 0.1 V. into 1 Meg. **Freq. Response:** 18-38,000 cps ±1 db. **Output Imped.:** high imped. (less than 3,000 ohms); 500/600 ohms with TL 600 (broadcast quality) plug-in transformer. **Sensitivity:** high imped. 2 MV.; low imped. 0.1 V.; Mag., 1 MV.; bridging 0.5 V.; Aux., 0.1 V. **Hum: (below rated output)** Mic. 60 db. **Tone Controls:** treble: (10 KC) + 12 db to − 12 db; bass: (50 cps) + 14 db to − 8 db. **Tubes:** 4-12AX7A, 1-7247, 1-12AU7A plus 3 silicon rectifiers. **Power Consumption:** 47 watts, 117 VAC; 50/60 cps. **Dimen.:** 16½" W, 12" D, 4¾" H. **Ship. Wt.:** 20 lbs **Net Each: $164.95** (Zone 2: $167.20)



MTM

MTM ALL-SILICON TRANSISTOR MIXER-PREAMPLIFIER ▩

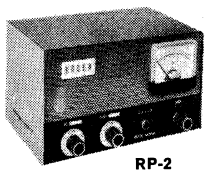
Professional, all-silicon transistor, self-powered unit (operates from 120 VAC or 12-15 VDC). Mixes 6 input signals (4 may be low impedance microphones). Unbalanced low impedance microphone inputs convert to balanced (50-600 ohms) with T525U plug-in transformer – or convert to mag. phono/tape input with PMC-1 plug-in module. 2 aux. (high impedance, high level) are connected to a fader control. Up to 3 MTM's may be paralleled to provide 18 inputs. Output level may be monitored aurally (head set) and visually (built-in meter). Sockets accept individual remote control, precedence and compressor plug-in units. Speech filters in mic. channels 1 and 2. R.F. filters in all mic. channels. **Output:** at 0 db: 1.8 V. into 500 ohms (0.5%); at +12 db: 7 V. into 500 ohms (2.5%); output transformer is built-in; no high impedance output. **Freq. Response:** 40-15,000 cps ± 1½ db. **Output Imped.:** (split output) 125/150 ohms and 125/150 ohms or 500/600 ohms balanced. **Input Imped.:** Mic.: low imped. unbalanced (balanced with T525U transformer); Aux.: 0.2 Meg. **Sensitivity:** low imped. Mic. 0.1 MV; Aux. 0.15 V. **Gain:** Mic. 75 db; Aux. 60 db; Bridging 60 db. **Bass Cut:** −15 db at 50 cps. **Treble Cut:** −15 db at 10 KC. **Hum:** Mic.: −65 db; Aux. −70 db. **Power Consum.:** 5 watts at 117 VAC 50/60 cps; .12 A at 12 VDC. **Transistors:** 11 silicon plus 5 silicon diodes. **Dimen.:** 16¼" W, 8½" D, 3¾" H. **Ship. Wt.:** 9 lbs. **Net Each: $134.95** (Zone 2: $135.75)



RTP-1

RTP-1 ALL-SILICON TRANSISTOR PREAMPLIFIER ▩

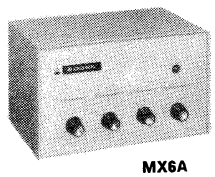
Designed for true broadcast quality, the RTP-1 will drive any number of booster amplifiers or packaged amplifiers over a 500/600 ohm line – even several miles away. Inputs include 2 Mic. (high or low impedance), 2 Aux. on fader control, 1 bridging. Two RTP-1's can be paralleled to provide 6 mixed inputs. Extremely low battery drain. Features include: Headphone monitor jack on front panel; built-in output meter calibrated in VU and db; 117 VAC or 12 VDC operation with internal batteries or external DC power supply; built-in battery tester. **Output:** at 0 db: 1.8 V. into 500 ohms (.1%); at + 12 db: 7 V. into 500 ohms (2.5%); output transformer is built-in; no high impedance output. **Freq. Response:** 20-20,000 cps ± 1 db. **Output Imped.:** (split output) 125/150 ohms & 125/150 ohms or 500/600 ohms balanced. **Input Imped.:** Mic.: high or low imped. (with T50, T200, T500 transformers); Aux.: 0.1 Meg. **Sensitivity:** low imped. (500 ohms) Mic. 0.5 MV; high imped. Mic. 5 MV.; Aux. .25 V. **Gain:** Mic. 72 db; **Aux.** 55 db; Bridging 60 db. **Bass Cut:** −12 db at 50 cps. **Hum:** Mic.: −65 db; Aux. −70 db. **Power Consum.:** 5 watts at 117 VAC 50/60 cps; 0.3 amps at 12 VDC. **Transistors:** 9 silicon plus 3 silicon diodes. **Dimen.:** 9" W, 9¼" D, 3½" H. **Ship. Wt.:** 6½ lbs. **Net Each: $114.95** (Zone 2: $115.60)



RP-2
Shown with
CAGVU2

RP-2 . . . LOW-NOISE PROGRAM PREAMPLIFIER

For use at remote pickup points. Features: separate input channels for 1 mic. and 1 phono; separate vol. controls for each channel permit input mixing; output feeds either booster amplifier or a low impedance line separately or simultaneously; bass cut-off switch for speech clarity. Enclosure with VU meter is available. **Power Consumption:** 20 W.; 117 VAC; 60 cps. **Gain:** mic., 76 db; phono, 35 db. **Sensitivity:** mic.; 3.5 MV.; phono, 0.4 V. **Bass Cut:** 20 db. **Output Imped.:** hi-imped., cathode follower driven (min. recommended load resistance 10,000 ohms); lo-imped.: 600 ohms (50 and 200 ohms). **Input Imped.:** hi-impedance, ½ megohm convertible to lo-imped. by use of plug-in transformers for 50, 150-250 or 600 ohms. **Tubes:** total of 4 (2-6SF5, 1-6J5, 1-6X5GT). **Dimen.:** 11" W., 7⅜" D., 5¼" H. With cage, height is 6¼". **Ship Wt.:** 8 lbs. **RP-2** (Cage CAGVU2 optional extra). **Net Each: $72.00** (Zone 2: $72.80) CAGVU2 **Net Each: $26.90** (Zone 2: $27.35)

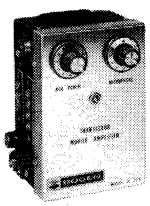


MX6A

MX6A MIXER-PREAMPLIFIER

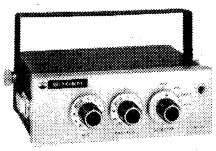
A self-powered unit with provisions for mixing any combination of 4 of its 6 inputs, including 4 high imped. mic. inputs and 2 radio-phono inputs. Can mix radio and/or phono signals with mic. signals for multi-mic. recordings of large groups and special recording effects. Individual gain controls for each channel; wide frequency response, low distortion and low hum; can be placed up to 400 ft. away from the amplifier. **Power Consumption:** 10 w., 117 V., 60 cps. **Freq. Response:** ±2 db, 50 to 15,000 cps. **Gain:** mic., 59 db; phono, 30 db. **Hum:** (below rated output) −70 db. **Output Imped.:** less than 1,000 ohms (cathode follower). **Input Imped.:** mic., .5 megohm; phono, 5 megohm. **Tubes:** total of 3 (2-12AX7, 1-12AT7). **Dimen.:** 8" W, 5⅜" D, 4¾" H. **Ship. Wt.:** 5 lbs. **Net Each: $42.00** (Zone 2: $42.25)

MOBILE AMPLIFIERS



BT20A; 25w. TRANSISTOR MOBILE PA AMPLIFIER ▩

Power Output: 25 watts @ less than 10% (continuous). **Power Consumption:** Full power: 2.8 amps; Quiescent: .26 amps; 6-15 VDC (6 w. output on 6 VDC). **Inputs:** 1 mic. (low impedance); 1 aux. (tuner, tape, phono). **Gain:** mic., 110 db; aux., 90 db. **Hum and Noise:** mic. −90 db (below rated output); aux. −95 db (below rated output). **Sensitivity:** mic., 1 MV; aux., 0.4 volts. **Output Impedance:** 4, 8, 16 ohms. **Controls:** 1 mic.; 1 aux./power. **Transistors:** (5): 2–2N2926, 1–40234, 2–DTG-110. **Dimensions:** 4½" W, 4" D, 6½" H. **Shipping Weight:** 5 lbs. **Net Each: $59.95** (Zone 2: $60.50)



BT35A; 40w. COMPACT TRANSISTOR MOBILE PA AMPLIFIER ▩

55-watts when used as electronic siren

Excellent for police, fire, CD, and boats; radio receiver connects easily to aux. input. Splash-proof gasket seals chassis in cabinet. Temperature range −20°C. to +65°C. (149°F.). Polarity protection. Accessory siren tone – fog horn generator. Adjustable fixed-lock bracket. Built-in RF/line filters.

Power Output: 40 w. at less than 10% (continuous); 55 w. with siren generator. **Peak Power:** 55 w. **Power Consumption:** Full power: 3.6 amps; Quiescent: .42 amps 12-15 VDC. **Freq. Response:** 150-15,000 cps ±3 db. **Inputs:** 1 mic. (low imped.); 1 aux. ±1 (high level) tuner/tape/phono, 1 aux. ±2 (high level) accessory (tone signal). **Gain:** mic. 110 db; aux. 90 db. **Hum and Noise:** (below rated output) mic. −90 db; aux. −95 db. **Sensitivity:** mic.: 1 MV; aux.: 0.4 V. **Output Imped.:** 4, 8, 16 ohms (output socket for accessory siren/fog horn generator). **Controls:** 1 mic.; 1 aux. volume; 1 selector switch/power (4 position); power off, mic., radio, aux. **Transistors:** 5 transistors, 1 silicon diode. **Dimen.:** 8" W, 6¼" D, 3" H. **Ship. Wt.:** 8 lbs. **Net Each: $80.90** (Zone 2: $81.65)

SF-1 SIREN/FOG HORN GENERATOR. All-silicon transistor, easily attaches to dashboard or bottom of BT35A. Furnished with 6 ft. cable and plug for attaching to BT35A. Provision for remote/accessory foot switch for generator activation. Siren may be operated automatically or manually. **Net Each: $54.70** (Zone 2: $54.95)

(▩ SOLID STATE)

All prices and specifications subject to change without notice. Zone 2 includes the states of Ariz., Ark., Cal., Col., Ida., La., Miss., Mont., Nev., N.M., Okla., Oreg., Tex., Utah, Wash. and Wyo. Alaska and Hawaii run slightly higher.

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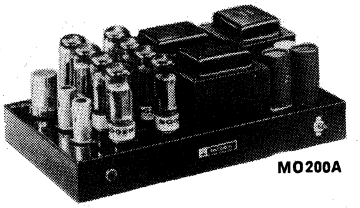
BOOSTER AMPLIERS

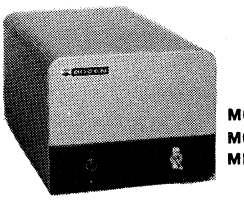
BOGEN SOUND SYSTEMS

Bogen's booster amplifiers embody the most advanced developments in design and techniques of construction. These units deliver maximum power from a small package. They are ideal for sound systems in industrial plants, airports, stadia, schools . . . wherever undistorted power is required. Note their exceptionally wide-range response characteristics. Built-in provision permits paralleling any number of power amplifiers to multiply power output. The models described on the preceding page are ideal preamplifiers for these boosters. The MO200A, MO100A, and MT100 units are unsurpassed for both PA and industrial uses. Their 115-volt output makes them adaptable to unique applications. With a variable frequency audio generator input, they represent relatively inexpensive power sources – any frequency or voltage – capable of driving servos, motors, vibration (shake) tables, ultrasonic equipment. The unique all-silicon transistor model MT100 may be operated from a 12-16 VDC source as well as from 117 VAC. Highly flexible in combination, inputs of identical amplifiers can be paralleled; outputs can be wired in series or parallel to provide any reasonable voltage or power (except MBT60 outputs).

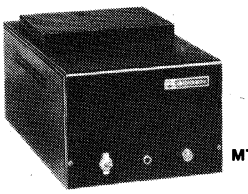
No cage is furnished with MO200A.



MO200A



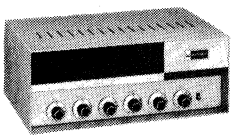
MO100A
MO30A
MBT60



MT100

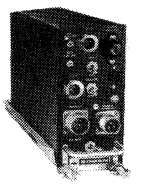
	MO200A	MO100A	MO30A	ALL-SILICON TRANSISTOR MBT60	ALL-SILICON TRANSISTOR MT100
POWER OUTPUT	200 w. at less than 2% distortion (Full power: 21-50,000 cps ±1 db at 5%)	100 w. at less than 2% distortion (Full power: 21-50,000 cps ±1 db at 5%)	30 w. at less than 2% distortion (Full power: 21-40,000 cps ±1½ db at 5%)	60 w. rms at less than 3% distortion	100 w. rms at less than 1% distortion
FREQ. RESPONSE	8-50,000 cps ±1 db	8-50,000 cps ±1 db	10-40,000 cps ±2 db	12-20,000 cps ±1 db	15-35,000 cps ±1 db
OUTPUT IMPEDANCE	Bal. 8 ohms, bal. 25-v (3 ohms) C.T., bal. 70-v (25 ohms) C.T. and 115-v (66 ohms) (for industrial uses)	Bal. 16 ohms, bal. 25-v (6.25 ohms) C.T., bal. 70-v (49 ohms) C.T. and 115-v (132 ohms) (for industrial uses)	Bal. 4, 8, 16 ohms, bal. 25-v (21 ohms), bal. 70-v (163 ohms)	Bal. 2.6, 8 and 16 ohms, bal. 25-v (10.4 ohms) C.T., bal. 70-v (82 ohms)	16 ohms, bal. 25-v (6 ohms) C.T., bal. 70-v (49 ohms) C.T., and 115-v (132 ohms) bal. (for industrial uses)
INPUTS	High imped: 0.5 megohms. Low imped: 500/600 ohms with T161 or T165B line transformer	High imped: 0.5 megohms. Low imped: 500/600 ohms with T161 or T165B line transformer	High imped: 0.5 megohms. Low imped: 600 ohms with T161 or T165B line transformer	High imped: 0.1 megohms. Low imped: 500/600 ohms with TL600 transformer; 10,000 ohms with TL10K transformer	High imped: 0.1 megohms. Low imped: 500/600 ohms with TL600 transformer; 10,000 ohms with TL10K transformer
SENSITIVITY	High imped: better than 2-v. Low imped: with T161 transformer, better than 0.5-v	High imped: better than 2-v. Low imped: with T161 transformer, better than 0.5-v	High imped: better than 2-v. Low imped: with T161 transformer, better than 0.5-v	High imped: 0.15-v. Low imped: with TL600 transformer, 0.04-v	High imped: 0.75-v. Low imped: with TL600 transformer, 0.2-v
HUM (below rated output)	−80 db	−80 db	−80 db	−78 db	−80 db
TUBES or TRANSISTORS	(10) tubes and (3) silicon rectifiers: 2-7247, 8-8417	(5) tubes and (3) silicon rectifiers: 1-7247, 4-8417	(3) tubes and (2) silicon rectifiers, (1) bias sil.-diode 1-7247, 2-7868	(7) all silicon transistors and (7) diodes	(14) all silicon transistors, (1) Zener diode and (2) silicon rectifiers
POWER CONSUM.	500 watts	250 watts	105 watts	115 watts 105-125 VAC, 50/60 cps	215 watts 105-125 VAC, 50/60 cps,12 A. at 16 VDC
DIMENSIONS	16″ W, 11½″ D, 6″ H	8″ W, 13″ D, 6¾″ H	8″ W, 13″ D, 6¾″ H	8″ W, 13″ D, 6¼″ H	8″W, 13″ D, 6″ H
SHIP. WEIGHT	48 lbs.	29 lbs.	23 lbs.	17 lbs.	30 lbs.
NET EACH	$247.50 (Zone 2: $251.55)	$142.40 (Zone 2: $145.40)	$89.95 (Zone 2: $92.00)	$112.40 (Zone 2: $114.05)	$209.95 (Zone 2: $212.75)

MOBILE AMPLIFIERS



MU1250; 50w. MOBILE TRANSISTOR PA AMPLIFIER

Universal PA amplifier, operates on 12 VDC or 117 VAC, within a temperature range of −20°C. to +65°C. (−4°F. to 149°F.). This amplifier offers a variety of inputs: 2 mic., 2 aux., and 1 mag. phono/tape. A host of matching accessories are available: phono-top, control-guard locking plate, rack panel mounting kit, carrying case, remote volume controls and more. **Power Output:** 50 w. at 10% (continuous). **Peak Power:** 70 w. **Power Consumption:** Full power: 116 w. (117 VAC); 6.7 amps. (12 VDC). Quiescent: 16 w. (117 VAC); .3 amps. (12 VDC). **Freq. Response:** 30 to 15,000 cps ±2 db. **Gain:** Mic. 125 db; Aux. 95 db. **Hum and Noise (below rated output):** Mic. −65 db; Aux. −70 db. **Output Imped.:** 4, 8 and 16 ohms; 25 V. bal. line; 70 V. (122 ohms) bal. **Inputs:** 2 mic. (hi or low imped., no transformer required); 2 aux.; 1 mag. phono/tape. **Transistors:** 11 transistors and 3 silicon rectifiers. **Tone Controls:** Treble (10 KC) −17 db; Bass (50 cps) +10 db to −17 db. **Dimen.:** 15¾″ W, 10″ D, 6¾″ H. **Ship. Wt.:** 23 lbs. **Net Each: $149.95** (Zone 2: $151.20) . Note: for a similar amplifier, but with a 20 w. output, refer to the CHB1225



BT500; 450w. TRANSISTOR MOBILE PA AMPLIFIER

Ideal for use in aircraft for directing ground operations, for emergency police and fire vehicles, boats, and as a standby P.A. amplifier. Choice of square or sine wave operation. Operates at 14 or 28 Volts D.C. Full output from −20°C. (−4°F.) to +65°C. (+149°F.). Equipped with a low impedance mic. input, a high impedance, high level aux. input, and a siren/fog horn input. RF filter in microphone circuit. **Power Output:** Square wave: 450 w. with 28 VDC input, 150 w. with 14 VDC input. Sine wave: 390 w. with 28 VDC input, 100 w. with 14 VDC input. **Power Consumption:** with 28 VDC power input: square wave, 25 amp; sine wave, 21 amp; quiescent, 1.5 amp. With 14 VDC power input: square wave, 13 amp; sine wave, 11 amp: quiescent, 2.5 amp. Pos. or neg. ground with polarity protection. **Inputs:** 1 mic. (low imped.); 1 aux. (high level, high imped.); 1 siren/fog horn generator. **Output Imped.:** With 28 VDC power input: 32, 16, 8, 4, 2 ohms. With 14 VDC power input: 16, 8, 4, 2, 1 ohms. **Controls:** Mic. volume, aux. volume, high frequency roll-off switch (at 3 KC or 12 KC), sine-square wave switch, power switch. **Transistors:** 20 (all silicon). **Dimen.:** 3¾″ W, 14⅛″ D, 7¾″ H. **Ship. Wt.:** 11 lbs. **Net Each: $742.50** (Zone 2: $744.30) **Microphone:** Use Shure 488B noise-cancelling, close talking 150 ohm (or equivalent). **Loudspeakers:** Use minimum of 4 Bogen model BP-5 reflex horn/driver units. (Write for eng. spec. sheet.)

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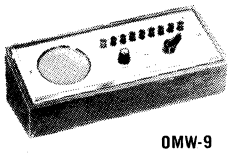
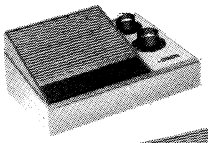
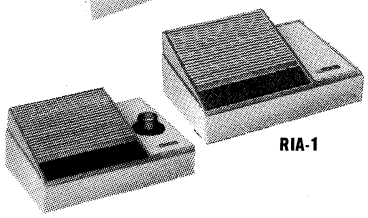
BOGEN INTERCOMS



OMW-9

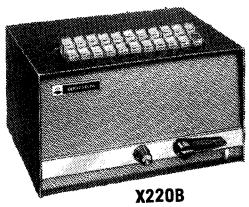


TIA-6
TIA-12

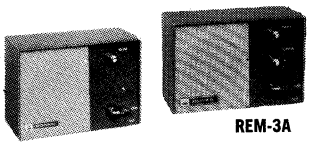


RIA-1

RIM-6

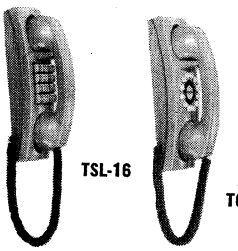


X220B

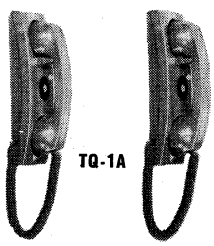


REM-3A

REM-1A



TSL-16
TQ-12A



TQ-1A

EXECUTIVE SERIES "9" INTERCOMS

For systems with up to 9 master and remote stations in any combination; featuring fully transistorized central amplifier; push-button convenience, simplified installation, with attractively styled brushed aluminum control panel in walnut wood cabinet. Selective call-common talk. "Hands free" answering.

OMW-9 MASTER STATION can call up to 8 master stations or remotes; 8 selector push-buttons; talk-listen lever; in-use light; volume control; 8-ohm speaker; walnut wood cabinet, brushed aluminum panel. **Dimen.:** 12¾" W x 5½" H x 5" D. **Ship. Wt.:** 5 lbs. **Net Each: $49.95** (Zone 2: $50.40)

OMF-9 MASTER STATION similar to OMW-9, but in metal box for flush mounting. **Dimen.:** 12" W x 4¾" H x 3½" D. **Ship Wt.:** 5 lbs. **Net Each: $43.95** (Zone 2: $46.40)

OA-1 AMPLIFIER Fully transistorized, 105-125 VAC, 50/60 cps; 8 watts power consumption; 8-ohm imped.; Vol. control; power on/off. Mounts in any convenient location. **Dimen.:** 8½" W x 4¾" H x 2¾" D. **Ship. Wt.:** 4 lbs. **Net Each: $48.75** (Zone 2: $49.10).

TBS-8 REMOTE STATION for indoors or outdoors. 8-ohm weatherproof speaker. **Dimen.:** 7-13/16" dia., 6⅞" deep. **Ship Wt.:** 4 lbs. **Net Each: $17.85** (Zone 2: $17.85)

WB 6/L115-A REMOTE STATION walnut wood surface-mounting baffle; Bogen 6" cone speaker, 8-ohm impedance. **Dimen.:** 7½" W, 9" H, 5" top, 3" base. **Ship. Wt.:** 4 lbs. **Net Each: $7.23** (Zone 2: $7.56)

HCR-1 REMOTE STATION mounts in flush or surface box; for indoor or outdoor use. Stainless steel panel; 8-ohm speaker. **Dimen.:** 6⅜" W x 4½" H. **Ship. Wt.:** 1 lb. **Net Each: $8.85** (Zone 2: $9.05)

Back boxes for HCR-1: RBR-F (flush mounting). **Dimen.:** 5-11/32" W, 3¾" H, 2⅜" D. **Ship Wt.:** 1 lb. **Net Each: $2.85** (Zone 2: $3.05)

RBR-S (surface mounting) **Dimen.:** 6⅜" W, 4½" H, 2" D. **Ship Wt.:** 1 lb. **Net Each: $7.90** (Zone 2: $8.10)

SERIES "T" INTERCOMS

Fully transistorized intercoms of unlimited flexibility, high intelligibility, simple installation and unique styling. Permit multiple simultaneous conversations.

TIA-6 MASTER STATION (can call any other station). For systems up to 6 stations — all masters or one master plus remotes. Vol. control, talk-listen bar and 7-position selector (including "mute" and "all-call" positions.) Operates from 117 v. AC; 8 w. power consumption, 8 ohm speaker impedance. **Dimen.:** 7¾" W, 7" D, 4" H. **Ship. Wt.:** 4 lbs. **Net Each: $35.65** (Zone 2: $36.00)

TIA-12 MASTER STATION. For systems up to 12 stations. Similar to TIA-6 in design and operation but does not permit calling all stations simultaneously. **Dimen.** and **Ship. Wt.** same as TIA-6. **Net Each: $39.75** (Zone 2: $40.10)

RIA-1 REMOTE STATION (can call only 1 pre-selected master and reply when called). Similar in appearance to TIA-6 with matching loudspeaker. **Dimen.:** same as TIA-6. **Ship. Wt.:** 3 lbs. **Net Each: $10.85** (Zone 2: $11.15)

TIM-12 MASTER STATION. For intermix systems combining up to 12 masters and remotes in any combination. Same features as **TIA-12**; dimensions and ship. wt.: same as TIA-6. **Net Each: $47.95** (Zone 2: $48.30)

RIM-6 SELECTIVE REMOTE STATION (can call any of 6 pre-selected masters). Features, dimensions: same as TIM-12. **Ship. Wt.:** 3 lbs. **Net Each: $23.90** (Zone 2: $24.20)

SERIES "X" INTERCOMS

Rugged utility intercoms, used in an 11 or 22 station system (all masters or mixed masters and remotes); featuring push-button convenience, high intelligibility, and simple installation, housed in handsome tan and gold steel cabinets. Permit multiple simultaneous conversations.

Power Supply: 117 v. AC, 35 w. **Output. Impedance:** 50 ohms balanced. **Tubes:** 3 (1 — 12AX7, 1 — 6W6GT, 1 — 6X4). **Dimen.:** X120B & X220B — 10" W, 7½" D, 7" H.

X120B MASTER STATION can call up to 10 masters or remotes. 10 selector push-buttons, 6 ft. master cable ending in plug for solderless connections to junction box, complete with tubes. **Ship. Wt.:** 15 lbs. **Net Each: $84.90** (Zone 2: $86.25)

X220B MASTER STATION can call up to 21 masters or remotes. 21 selector push-buttons, same features as X120B. **Ship. Wt.:** 16 lbs. **Net Each: $104.35** (Zone 2: $105.80)

REM-1A REMOTE with call-initiating switch to 1 master — with vol. control and 6-ft. cable. **Ship. Wt.:** 3 lbs. **Net Each: $18.60** (Zone 2: $18.85)

REM-3A REMOTE with selective call-initiating switch to 3 masters — with vol. control and 6-ft. cable. **Ship. Wt.:** 3 lbs. **Net Each: $22.65** (Zone 2: $22.90)

HSX HANDSET for private conversation — attaches to X120B and X220B. **Net Each: $52.50** (Zone 2: $52.60)

JB-2 JUNCTION BOX (one required for X120B; two for X220B) **Net Each: $6.40** (Zone 2: $6.55)

INTERNAL PHONE SYSTEMS

TSL-BOGEN-PHONES — a unique and extremely flexible telephone system that provides multiple, simultaneous conversations without a costly central exchange. To call, lift phone, press selector button, and then ring-button . . . buzzer sounds at called station, person called lifts phone and starts conversation . . . no switching, no dialing, no switchboard delay. System provides 100% trunkage.

TSL-16 with 1 ring button and 15 station selector buttons. **Dimen.:** 9½" W, 3¼" D, 3¾" H. **Ship. Wt.:** 4 lbs. **Net Each: $40.85** (Zone 2: $41.20).

TSL-8 with 1 ring button and 7 station selector buttons. Same dimensions and Ship. Wt. as TSL-16. **Net Each: $34.25** (Zone 2: $34.60)

PRS-16 Power Supply (1 required for each telephone system). **Dimen.:** 6" W, 2" D, 3½" H. **Ship. Wt.:** 5 lbs. **Net Each: $38.25** (Zone 2: $38.70)

TRC Phone-Page Adapter allows paging from Series TSL phones: **Net Each: $31.65** (Zone 2: $31.90)

TQ BOGEN-PHONES — low-cost telephone system. To call, lift phone, press station button . . . buzzer sounds at called station . . . bypassing the switchboard. Selective ringing with common talk line. Handset with base is 9½" x 3¼" x 3¼", **Ship. Wt.:** 5 lbs.; comes supplied with 4' snarlproof cord and junction box.

TQ-1A (pair) for 2-station systems. **Net Per Pair: $38.60** (Zone 2: $39.00)

TQ-6A phone for up to 7-station system. **Net Each: $25.15** (Zone 2: $25.50)

TQ-12A phone up to 13-station system. **Net Each: $28.30** (Zone 2: $28.65)

PRS-1A Power Supply (1 required for each system) **Net Each: $23.65** (Zone 2: $23.95)

TRA Phone-Page Adapter allows paging from Series TQ phones: **Net Each: $31.65** (Zone 2: $31.90)

PRS-5 Multi-mix Power Adapter to combine TQ-12A or TQ-6A phones with trumpets and PA amplifier. **Net Each: $97.30** (Zone 2: $98.20)

(■ SOLID STATE)

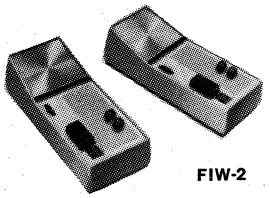
All prices and specifications subject to change without notice. Zone 2 includes the states of Ariz., Ark., Cal., Col., Ida., La., Miss., Mont., Nev., N.M., Okla., Oreg., Tex., Utah, Wash. and Wyo. Alaska and Hawaii run slightly higher.

FANON

INTERCOMS FOR HOME AND BUSINESS

"FI" SERIES — DELUXE INTERCOM SYSTEM

- Solid state circuits
- Push-button operation
- New styling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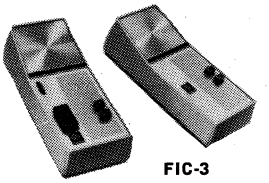
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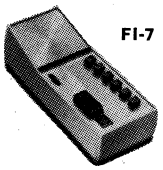
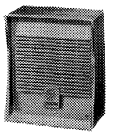

FI-7

FI-13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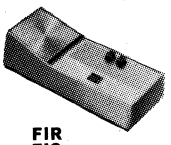
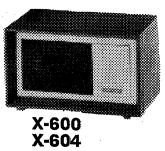

FIR
FIC

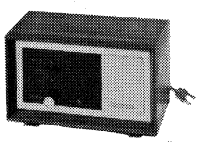
TPA

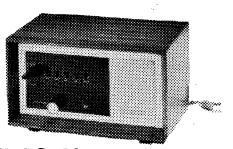
Refer to Catalog 15 for details

FIC-3	Trans. deluxe 2 station system with 50′ cable	Net 33.50
FIS	Transistorized deluxe staff station for FIC-3	Net 26.50
FIC	Additional indoor remote for FIC-3	Net 8.95
FID-3	Transistorized deluxe 2 station door intercom system with 50′ cable	Net 31.50
FID	Additional outdoor remote for "FI" series	Net 8.50
FI-3	Transistorized deluxe master only	Net 28.50
FI-7	Transistorized deluxe 7 station master for all-master or master to remote installation	Net 30.95
FI-13	Transistorized deluxe 13 station master for all master or master to remote installation	Net 43.50
FIR	Transistorized deluxe remote for FI-7, FI-13	Net 9.95
FIW-2	Transistorized deluxe 2 station, 2 channel wireless intercom system	Net 59.95
FIW-1	Additional wireless intercom station for FIW-2	Net 31.50
TPA	Telephone amplifier accessory for "FI" masters	Net 11.25
BM-3	Fire-sensing device for FIC-3, FID-3, FI-3	Net 3.50
PR-15	Paging and talkback relay accessory for FI-7, FI-13 master. Used with any PA system	Net 21.50

Refer to Catalog 12 for details


X-600
X-604



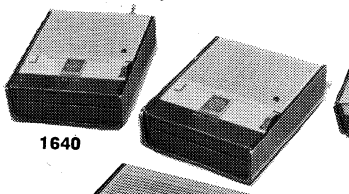

X-606

EXECUTIVE SERIES INTERCOMS

X-600	Deluxe two-station system with 50 ft. cable.	Net 37.50
X-610	Two station system, with 50 ft. cable, with X-601 master and, FSB remote.	Net 29.95
X-604	Deluxe two-station, 4 tube wireless intercom.	Net 62.95
X-602	Additional single station for X-604.	Net 32.95
X-601	Single station master for master-to-remote.	Net 23.95
X-606	Six station master for all master or master-to-remote. List	29.95
XR-01	Remote for X-600, X-601 and X-606.	Net 14.95

TWO-STATION "PACKAGED" INTERCOMS
1600 SERIES — SOLID STATE INTERCOMS

New economy series — Blister-packed for standard cartons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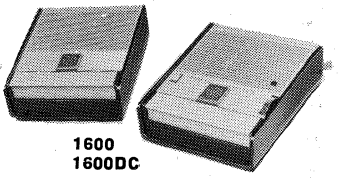
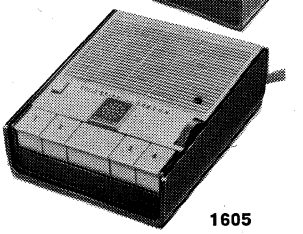

1600
1600DC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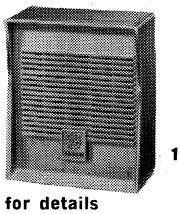
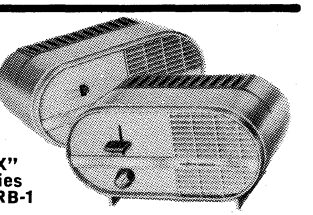

161

Refer to Catalog 16 for details

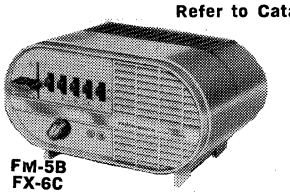
1600	Transistorized 2 station system w/built-in AC power supply and 50′ cable	Net 15.95
1600DC	Same as above less AC power supply	Net 13.50
ES-16	Transistorized 2 station door intercom w/built-in AC power supply and 50′ cable	Net 16.75
ES-16DC	Same as above less A.C. power supply	Net 14.30
PS-16	AC power supply for 1600DC and ES-16DC	Net 3.20
1605	Single 5 station master for master to remote instal.	Net 14.95
1640	Transistorized 2 station wireless intercom	Net 29.95
1641	Additional single wireless station for 1640	Net 15.95
161	Additional outdoor remote for above systems	Net 5.25
162	Additional indoor remote for above systems	Net 4.50
2WP	50′ 2 conductor cable with plug terminations	Net 1.50
2WP-100	100′ 2 conductor cable with plug terminations	Net 2.25

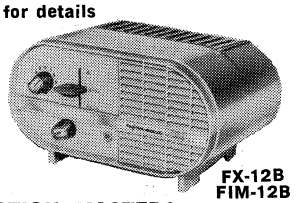
EC-2
EC-3
EW-3


"FX" Series and RB-1

EC-2	Transistorized battery operated two-station system with 50 ft. cable. Less battery	Net 9.95
EC-3	Transistorized, AC operated 2-station system	Net 11.95
EW-3	Transistorized, AC, 2-station wireless system	Net 19.95
FX-2B	Deluxe two-station system with 50 ft. cable	Net 26.95
FW-50B	Deluxe two-station, 4 tube wireless intercom system.	Net 49.95
RB-1	One station-wireless radio intercom	Net 14.50
FSB	Additional remote with 50 ft. cable for FX-2B	Net 9.50
FW-51B	Additional station for FW-50B	Net 25.45

Refer to Catalog 1 for details


FM-5B
FX-6C


FX-12B
FIM-12B

SIX AND TWELVE STATION MASTERS

FM-5B	Five station master for master-to-remote installations with "remote-to-remote" talking feature.	Net 26.95
FX-6C	Six station master for all master or master-to-remote.	Net 25.45
FX-12B	Eleven station master for master or master-to-remote.	Net 31.45
FIM-12B	Twelve station master for complete intermixed type.	Net 34.50
FCB	Remote for FM-5B, FX-6C, FX-12B and FIM-12B.	Net 10.25
FC-6B	Six station selective remote, for FIM-12B only.	Net 14.95

Some prices higher in Western States.

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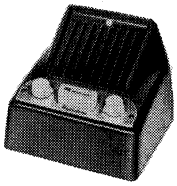
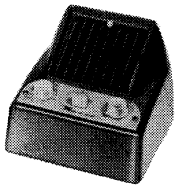
FANON INTERCOMS

Refer to Catalog 2 for details



IJM - MF - CAM Series



INDUSTRIAL INTERCOMS

JMR	Two station system with 50 ft. cable.	Net 44.95
WF-2	WIRELESS FONE. Two station wireless system.	Net 82.50
SSW	Additional single station for WF-2.	Net 41.95
IJM-5	Six station master for all master or master-to-remote installations.	Net 37.50
IJM-10	Eleven station master for all master or master-to-remote installations.	Net 42.75

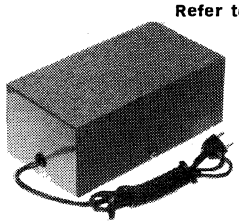
AC-DC Balanced Line Types:

MF-5	MULTIFONE. Six station master for all master, master-to-remote or intermixed installations.	Net 49.50
MF-10	MULTIFONE. Eleven station master for all master, master-to-remote or intermixed installations.	Net 56.25

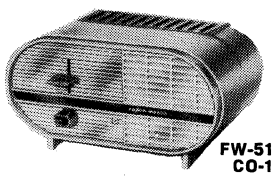
AC Transformer Powered, Balanced Line Types:

CAM-5	MASCOFONE. Six station master for all master, master-to-remote or intermixed installations	Net 56.95
CAM-10	MASCOFINE. Eleven station master for all master, master-to-remote or intermixed installations	Net 62.95
JR	Remote with call switch used with JMR, IJM-5, IJM-10.	Net 14.25
JL	Remote less call switch (non-private). Used with all above industrial intercoms.	Net 13.50
JS	Remote with call switch. Used with MF-5, MF-10, CAM-5, CAM-10	Net 17.25
JS-6 JL	Remote with call switch and six-station selector switch. Used with MF-5, MF-10, CAM-5, CAM-10	Net 26.95

Refer to Catalog P-1 for details



WP-1
WPT-2

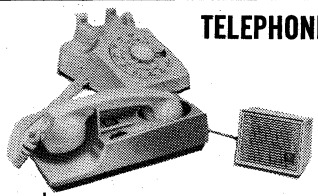


FW-51B
CO-1

WIRE-LESS PAGING SYSTEMS

WP-1	Transistorized paging Amplifier less Talk-Back.	Net 39.50
FW-51B	Wireless Call-Originator for WP-1.	Net 25.45
WPT-2	Transistorized paging Amplifier with Talk-Back.	Net 74.95
CO-1	Wireless Call-Originator for WPT-2.	Net 32.95

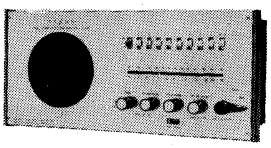
TELEPHONE AMPLIFIER



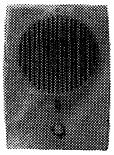
Refer to Catalog 7 for details

FTA-4	Telephone amplifier, transistorized with extension speaker	Net 14.95

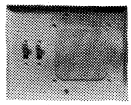
FANON BUILT-IN INTERCOMS



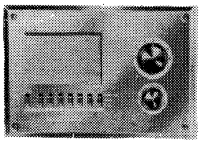
5509



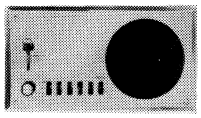
56



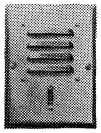
BC



MC
MCL

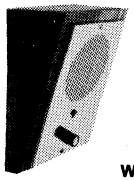


4405



BD

WC-55



WC-56

Refer to Catalog 6 for details

Masters	Specify copper or chrome finish.
4405	Six station, transistorized master with plaster box. Net 37.50
MCL	Seven station master, less radio, with plaster box. Net 34.25
MC	Seven station master with AM radio, and plaster box. Net 52.50
5509	Ten station master with AM-FM radio and plaster box. Net 107.25
WC-55	Walnut table top cabinet for 5509 master. Net 23.95
WC-56	Walnut cabinet for 56 remote, for desk or wall. Net 9.75
Remotes	
BC	Indoor remote. With plaster ring. Used with 4405, MCL and MC. Net 6.50
BD	Outdoor remote. With plaster ring. Used with 4405, MCL. MC and 5509. Net 6.50
BDR	Outdoor remote with bell button. With plaster ring. Used with 4405, MCL, MC and 5509. Net 7.95
BJ	Indoor remote with phono jack. With plaster ring. Used with 4405, MCL and MC. Net 8.95
DRPB	Surface mount, outdoor-remote with switch and bell button. Less wall box. Used with 4405, MCL, MC and 5509. Net 8.90
FB	Surface mount outdoor-remote with bell button, less switch. Less wall box. Used with 4405, MCL, MC, 5509. Net 6.75
FO	Surface mount outdoor remote less switch. Less wall box. Used with 4405, MCL, MC, 5509. Net 5.95
56	Indoor remote. With plaster ring. Used with 5509. Net 10.50
FMB	Surface mount wall box for DRPB, FB and FO. Net 6.75
WJT	Phono input assembly & wall box, used with 5509 master. Net 3.00

A system is made up of a "roughing-in" package and its respective "electronic" package.

"Roughing-In" Packages

IK	Consists of all plaster boxes and wire required for EKL, or EK.	Net 13.50
44-IK	Consists of all plaster boxes and wire required for 44-EK.	Net 13.50
55-IK	Consists of all plaster boxes and wire required for 55-EK.	Net 18.75

"Electronic Equipment" Packages

Specify copper or chrome

EKL	Consists of MCL, three BC and one BD. Less plaster boxes and wire.	Net 53.95
EK	Consists of MC, three BC and one BD. Less plaster boxes and wire.	Net 62.95
44-EK	Consists of 4405, three BC and one BD. Less plaster boxes and wire.	Net 44.95
55-EK	Consists of 5509, three 56 and one BD. Less plaster boxes and wire.	Net 127.50

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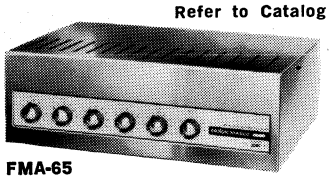
Net

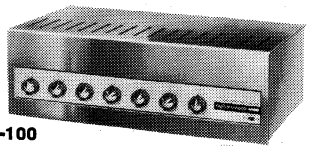
FANON — AMPLIFIERS, P.A. SYSTEMS, HORNS & SPEAKERS

Refer to Catalog 3D for details

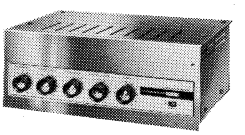


FMA-65
FMA-35

BC-350
with MH-3

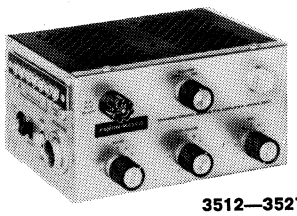


FMA-100



FMA-20

FMA-100	100 watt, POWER-FLEX P.A. amplifier.	Net 119.95
FMA-65	65 watt, POWER-FLEX P.A. amplifier.	Net 101.25
FMA-35	35 watt, POWER-FLEX P.A. amplifier.	Net 78.75
FMA-20	20 watt, POWER-FLEX P.A. amplifier.	Net 62.95
FMA-11	11 watt, POWER-FLEX P.A. amplifier	Net 44.95
FMB-100	100 watt, POWER-FLEX booster amplifier.	Net 108.75
FMB-65	65 watt, POWER-FLEX booster amplifier.	Net 89.95
ARM	Above amplifiers mounted on 19" rack panel, add:	14.95
BC-350	35 watt FM/AM receiver and P.A. amplifier	Net 179.95
MH-3	Metal cover for BC-350.	Net 14.95
ASC-10	Speaker area selector control.	Net 20.25
BMT	600 ohm balanced line transformer.	Net 19.45
CCP-1	Control cover for 100, 65 and 35 w. amplifiers	Net 7.50
LZT	Low impedance microphone transformer.	Net 17.25
MP-2	Two channel microphone preamplifier.	Net 20.25
PPC-1	Priority paging control.	Net 9.75
RMC-2	Remote microphone volume control.	Net 8.25
3600	Phono turntable, 117v AC.	Net 27.00
3604	Automatic 4-speed changer with base.	Net 44.95
S-2	Systems case with two 12" speakers, cables, plugs.	Net 59.95
MM-4	4 channel microphone mixer.	Net 18.75

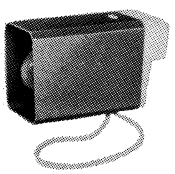


3512—3527

FMM-35AD

3512	12 watt, transistorized P.A. for 12v DC.	Net 52.50
3527	27 watt, transistorized P.A. for 12v DC.	Net 62.95
FMM-35AD	35 watt, transistorized P.A. for 12v DC or 117v AC.	Net 104.95
PS-27	117v AC power supply for 3512 and 3527.	Net 37.50
3612	Phono turntable for 12v DC.	Net 34.50

Refer to Catalog C-6 for details



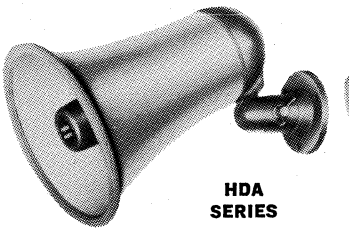
MV-2

MV-1

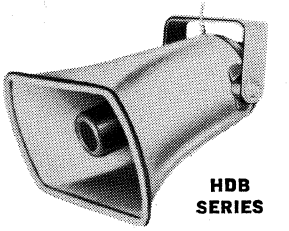
MV-4
MV-8B
MV-16S

MV-1	Electric, battery powered megaphone.	Net 26.95
MV-2	Transistorized, 1 watt battery powered megaphone.	Net 14.95
MV-4	Transistorized, 4 watt battery powered megaphone.	Net 44.95
MV-8B	Transistorized, 8 watt battery powered megaphone.	Net 59.95
MV-16S	Transistorized, 16 watt battery powered megaphone with built-in siren alarm.	Net 74.95
MVS-5	Transistorized, 8 watt portable P.A. system.	Net 67.50
CL-16	Auto cigarette lighter adaptor cord for MV-16S.	Net 4.50
MVR	Auto window rack holder for MVS-5.	Net 3.00

Refer to Catalog 11 for details



HDA SERIES

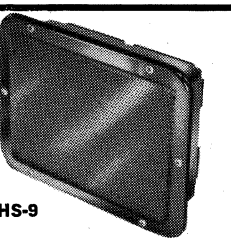


HDB SERIES

FANON PAGING AND TALKBACK SPEAKERS

HDA-5A-8	10 watt—swivel base—4" bell, 8 ohms	Net 7.45
HDA-5A-45	10 watt—swivel base—5¼" bell, 45 ohms	Net 7.90
HDA-6-8	15 watt—swivel base—6½" bell, 8 ohms	Net 13.30
HDA-6-45	15 watt—swivel base—6½" bell, 45 ohms	Net 13.75
HDA-10-8	30 watt—swivel base—10" bell, 8 ohms	Net 18.25
HDA-10-45	30 watt—swivel base—10" bell, 45 ohms	Net 18.75
HDB-8-8	25 watt—wide angle—8½x5½" bell, 8 ohms	Net 18.25
HDB-8-45	25 watt—wide angle—8½x5½" bell, 45 ohms	Net 18.75
HDB-12-8	30 watt—wide angle—11x6½" bell 8 ohms	Net 24.95
HDB-12-45	30 watt—wide angle—11x6½" bell, 45 ohms	Net 25.40

HFA SERIES

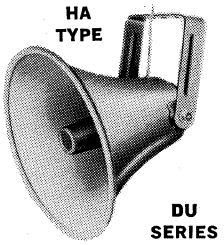


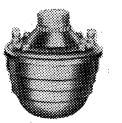
HS-9

FANON HI-FIDELITY AND SPECIAL PURPOSE

HFA-8	5 watt—swivel base—8" bell, 4 ohms	Net 13.75
HFA-12	10 watt—co-axial—12" bell, 8 ohms	Net 29.95
HS-9	10 watt—flush mount—6x9", 8 ohms	Net 16.60

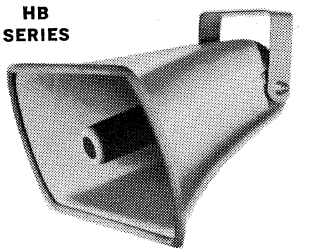
HA TYPE





DU SERIES

HB SERIES



FANON REFLEX TRUMPETS

HA-15	2½ ft. air column—15" bell	Net 16.60
HA-20	3½ ft. air column—20" bell	Net 19.95
HB-15	2½ ft. air column—15x 8" wide angle	Net 21.60
HB-20	3½ ft. air column—20x10" wide angle	Net 23.25

FANON HIGH POWER DRIVERS

DU-25	25 watt, deluxe weatherproof driver, 16 ohms.	Net 12.50
DU-35	35 watt, deluxe weatherproof driver, 16 ohms.	Net 16.60
DU-45	45 watt, deluxe weatherproof driver, 16 ohms.	Net 21.60
DU-60	60 watt, deluxe weatherproof driver, 16 ohms.	Net 26.60
DU-35T	35 watt with transformer, weatherproof 16 ohms.	Net 23.25
DU-60T	60 watt with transformer, weatherproof, 16 ohms	Net 32.25

Some prices higher in Western States.

© U.C.P., Inc.

FANON — WALKIE-TALKIES — FANON

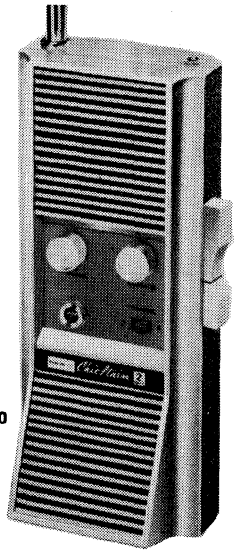
Refer to Catalog C-2 for details

TWO WATTS THREE CHANNELS

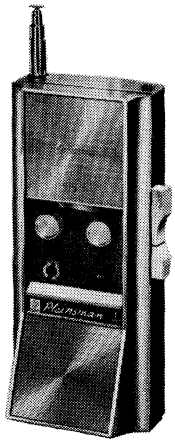
L-2000 "CHIEFTAN" 13 TRANSISTORS

The ultimate in professional quality hand-held transceivers. For performance, range, selectivity and sensitivity, "Chieftan" is the finest.

- 3 Channel operation (equipped for ch. 9).
- RF output and battery strength meter
- Separate mike and speaker
- Variable squelch control
- Jack for external 12v. power source
- Jack for external antenna
- "Beep" Tone signal to call other units
- Selective calling with optional CT-5 adapter to signal up to 5 on Channel A and 5 on Channel B



L-2000



L-1000

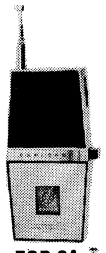
L-2000	"Chieftan" 13 transistors. 2 watts. Single transceiver. Earphone, batteries, strap	Net **79.95**
	OPTIONAL ACCESSORIES FOR L-2000 AND L-1000	
CT-5	5 Station Call-Tone Selector	Net **16.50**
PS-150	Transistorized AC power supply and battery recharger	Net **25.50**
RBP-10	Rechargable nickel-cadmium batteries (10) in interchangable holder-pack	Net **19.50**
LC-6	Leather carrying case	Net **4.50**

ONE WATT THREE CHANNELS

"PLAINSMAN"— 11 Transistors

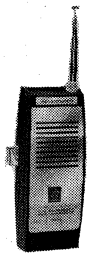
Three channel operation (equipped for channel 9) in a full one watt professional unit. Basically the same as L-2000, but without the RF output meter. All other features are same as L-2000 and can be used with the same accessories.

L-1000 — "Plainsman" 11 transistors. 1 watt. Single transceiver. Earphone, batteries, strap. Net **52.50**



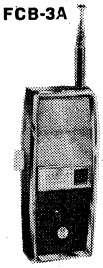
FCB-3A

FCB-4A



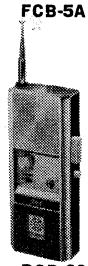
FCB-5A

FCB-6



FCB-90

FCB-91



DCB-92

TRANSCEIVERS (PAIRS)

FCB-33A	"Explorer" 3 transistors, 2 transceivers. Batteries and cases included	Net **14.95**
FCB-44A	"Mariner 4" 4 transistors, 2 transceivers. Batteries, and cases included	Net **17.95**
FCB-55A	"Adventurer" 5 transistors, 2 transceivers. Batteries, earphones and cases included	Net **22.50**
FCB-66	"Vagabond" Superhet, 6 transistors, 2 transceivers. Batteries, earphones and cases included	Net **29.95**
FCB-900	"Voyager" 9 transistors, 2 transceivers, 100 mw. Batteries, earphones and cases included	Net **39.95**
FCB-910	"Wanderer" 9 transistors 2 deluxe transceivers, 100mw. Batteries, earphones and straps included	Net **44.95**
DCB-920	"Scout" 9 transistors, 2 deluxe transceivers, 100 mw. 3 Channels. Batteries, earphones and straps included	Net **59.95**

TRANSCEIVERS (SINGLES)

FCB-3A	"Explorer" 3 transistors. Single transceiver. Battery and case	Net **7.50**
FCB-4A	"Mariner 4" 4 transistors. Single transceiver. Battery and case	Net **9.00**
FCB-5A	"Adventurer" 5 transistors. Single transceiver. Battery, earphone and case	Net **11.25**
FCB-6	"Vagabond" Superhet 6 transistors. Single transceiver. Earphone, case and battery	Net **15.00**
FCB-90	"Voyager" 9 transistors 100mw. Single transceiver. Battery, earphone and case	Net **19.95**
FCB-91	"Wanderer" 9 transistors. Single deluxe transceiver. 100mw. Batteries, earphone and strap	Net **22.50**
DCB-92	"Scout" 9 transistors. Deluxe single transceiver. 100mw. 3 Channels. Batteries, earphone and strap	Net **29.95**

500 MILLIWATT

DCL-50 "PATHFINDER" 11 TRANSISTORS

- 3 Channel operation, (equipped for ch. 9)
- Battery strength meter
- Variable squelch control
- "Beep" Tone signal
- Selective calling with optional CT-5

DCL-50

DCL-500	"Pathfinder" 11 transistors, 500mw. Pair of transceivers. Earphones, batteries, strap	Net **79.95**
DCL-50	Single transceiver with earphone, battery and strap	Net **39.95**

DCB-11 "OUTRIDER" 11 Transistors

Basically the same as DCL-50 but rated at 100 milliwatts. Same features as DCL-50 and can be used with same accessories.

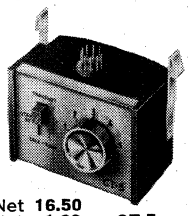
DCB-11

DCB-111	"Outrider" 11 transistors, 100mw. Pair of transceivers. Earphones, battery, strap	Net **67.50**
DCB-11	Single transceiver with earphone, battery and strap	Net **33.75**
	OPTIONAL ACCESSORIES for DCL-50 and DCB-11	
PS-150	AC power supply and batt. rech.	Net **25.50**
CT-5	5 Station Call-Tone Selector	Net **16.50**
RBP-8	Rechargable nickel-cadmium batteries (8) in interchangable holder-pack	Net **15.75**
LC-4	Leather carrying case	Net **3.75**

5 STATION CALL-TONE SELECTOR

Signals 5 transceivers selectively on each channel

A compatible unit that fits built-in plugs in L-2000, L-1000, DCL-50 and DCB-11. Eliminates listening to unwanted calls and constant background "noise." Frequency controlled tone selectively chooses just the party being called . . . completely bypasses all others. Up to 15 transceivers can be called (5 on each of the channels A, B and C). Other units must be equipped with CT-5 for this exclusive feature.



CT-5

CT-5 5 Station Call-Tone Selector — Net **16.50**
LC-5 Optional leather case — Net **1.90**

ACCESSORIES FOR C. B. TRANSCEIVERS

PS-140	A.C. power supply for DCB-92 and DCB-11	Net **$4.50**
LC-3	Leather case for FCB-91	Net **3.00**
LC-4	Leather case for DCB-92, DCB-11 and DCL-50	Net **3.75**
RBP-8	Rechargable nickel-cadmium batteries (8) in interchangable holder-pack for DCB-92	Net **15.75**

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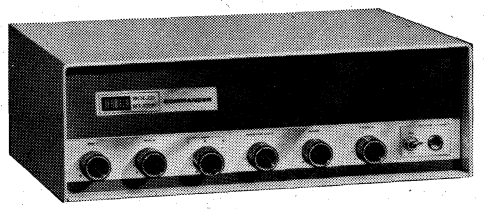
Some prices slightly higher in Western states.

JERROLD

ULTRA-RELIABLE SOLID STATE PA SYSTEMS



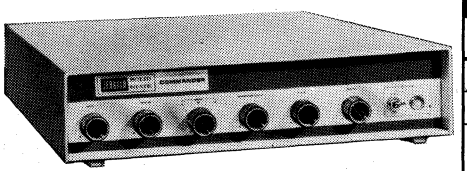
CA-50T 50 watts RMS • 2 microphone inputs, expandable to 4 • "Heat Guard"

MAXIMUM RELIABILITY FROM TRANSISTORS AND 12-VOLT OPERATION!

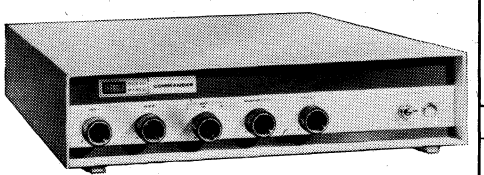
Jerrold solid state amplifiers eliminate **both** excessive heat and component strain — the major causes of costly service calls. These unique amplifiers convert the usual 117 volt AC supply down to 12 volts DC so all circuits operate on very low voltages. All circuit components last longer because they are **never** subjected to the strain of high voltages. And output transistors are protected against damage from shorted or open speaker lines. High-power models have a "Heat Guard" that automatically shuts off the amplifier to avoid damage from excessively high ambient temperatures.

JERROLD QUALITY AND VERSATILITY

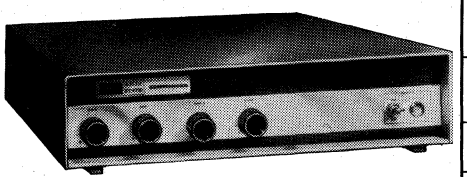
• 12-volt circuitry simplifies conversion to battery operation for mobile, outdoor or emergency applications • full-rated output with 117 V/ac or 12 V/dc • provision for additional microphone inputs • 2 auxiliary inputs with fader control • 4, 8, and 16 ohm outputs, plus 25V and 70.7V balanced lines • heavy duty toggle switch • power "on" light • complete with protective metal cover.



CA-35T 35 watts RMS
• 2 microphone inputs, expandable to 4.



CA-15T 15 watts RMS
• 2 microphone inputs, expandable to 4.

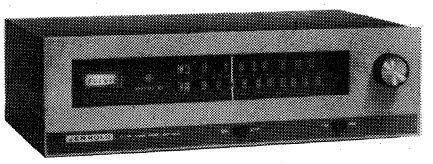


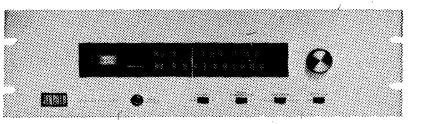
CA-10T 10 watts RMS
• 1 microphone input, expandable to 3.

COMMANDER AMPLIFIERS

SPECIFICATIONS	CA-10T	CA-15T	CA-35T	CA-50T
POWER OUTPUT	10 watts RMS	15 watts RMS	35 watts RMS	50 watts RMS
PEAK POWER	20 watts	30 watts	70 watts	100 watts
POWER REQUIREMENT	117V, 60 cyc AC; 12V/dc with DCK-1	117V, 60 cyc AC; 12V/dc with DCK-1	117V, 60 cyc AC; 12V/dc with DCK-1	117V, 60 cyc AC; 12V/dc with DCK-1
FREQUENCY RESPONSE	30 to 20,000 Hz	20 to 20,000 Hz	20 to 20,000 Hz	20 to 20,000 Hz
SENSITIVITY	mic. 5MV; aux. 25V	mic. 5MV; aux. 25V	mic. 5MV; aux. 25V	mic. 5MV; aux. 25V
INPUTS	1 hi-impedance mic (add 2 with CPX-2T) 2 aux hi-level, hi-impedance; 600 ohm balanced with MBT-2 transformer	2 hi-impedance mic (add 2 with CPX-2T) 2 aux hi-level, hi-impedance; 600 ohm balanced with MBT-2 transformer	2 hi-impedance mic (add 2 with CPX-2T) 2 aux hi-level, hi-impedance; 600 ohm balanced with MBT-2 transformer	2 hi-impedance mic (add 2 with CPX-2T) 2 aux hi-level, hi-impedance; 600 ohm balanced with MBT-2 transformer
"HEAT GUARD"	—	—	—	Yes
OUTPUT IMPEDANCE	4, 8, & 16 ohms; 25V & 70.7V	4, 8, & 16 ohms; 25V & 70.7V	4, 8, & 16 ohms; 25V & 70.7V balanced	4, 8, & 16 ohms; 25V & 70.7V balanced
CONTROLS (with reset indicators to mark desired levels)	1 mic level, 2 aux level, treble, power toggle, "on" light	2 mic levels, aux fader, treble, power toggle, "on" light	2 mic levels, bass & treble, master gain, power toggle, "on" light	2 mic levels, bass & treble, master gain, power toggle, "on" light
TONE CONTROL BASS CUT TREBLE CUT	— – 12 db at 10kHz	— – 12 db at 10kHz	– 12 db at 50 Hz – 12 db at 10kHz	– 12 db at 50 Hz – 12 db at 10kHz
DIMENSIONS	14⅞"W x 8⅝"D x 3¼"H	14⅞"W x 8⅝"D x 3¼"H	14⅞"W x 8⅝"D x 3¼"H	15½"W x 9³⁄₁₆"D x 5"H
DEALER NET	$67.50	$83.95	$97.45	$119.95

Prices and specifications subject to change without notice





CAT-1000 SOLID STATE AM/FM TUNER

Crisp, drift-free sound. All-transistor design eliminates excessive heat, the major cause of component deterioration. It's rock stable, never needs realignment! SPECS: FM—sensitivity 2.5 μv • Peak-to-peak separation 600 kc • image rejection 45 db . . . AM—sensitivity 50 μv • built-in loopstick antenna; provision for external antenna • image rejection 50 db • dealer net $150.00.

GT-2000 SOLID STATE AM/FM TUNER

Meets Professional requirements. Has audio compression switch to maintain tuner output at constant level. Overload and crosstalk from strong signals prevented by exclusive circuits. Programs can be monitored with tuner output disconnected from system. SPECS: FM—sensitivity 2.5 μv • image rejection better than 45 db . . . AM—sensitivity 50 μv • built-in loopstick antenna; monitor headphone jack • dealer net $197.25.

JERROLD

COMMERCIAL SOUND DIVISION

Net

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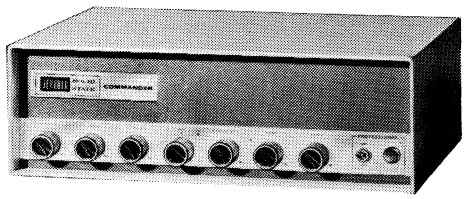
PROFESSIONAL SOLID STATE AMPLIFIERS

JERROLD

EXTRA RELIABILITY, VERSATILITY AND CONVENIENCE!

Like all Jerrold amplifiers, Professional models feature all-transistor 12-volt operation which eliminates the two major causes of service calls — excessive heat and high voltage component strain. In addition, they perform superbly and are especially convenient to install, operate and to expand in the future. The number of high impedance microphone inputs can be increased with a pre-amplifier that mounts inside the cabinet. All microphone inputs have snap-on Cannon connectors and individual front panel level controls. All may be individually matched to low impedance microphones with on-chassis, plug-in transformers. A precedence relay socket makes addition of paging fast and easy. Two auxiliary inputs have a fader control for radio, phono or FM tuner. There is also provision for magnetic phono input.



CAP-40T 40 watts RMS • 3 mic inputs, expandable to 5 • "Heat Guard" • provisions for precedence and mag. phono.

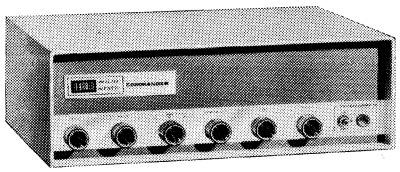
BUILT-IN QUALITY

• Easy conversion to battery operation for mobile, outdoor or emergency use • Crisp, clean sound • 4, 8 and 16 ohm outputs • 25V and 70.7V balanced lines for installing more speakers over longer distances with greater ease • Accessory provides balanced 600 ohm input for telephone or wired music • Conservatively rated components • Complete with metal cover.

COMMANDER PROFESSIONAL AMPLIFIERS

SPECIFICATIONS	CAP-25T	CAP-40T
POWER OUTPUT	25 watts RMS	40 watts RMS
PEAK POWER	50 watts	80 watts
POWER REQUIREMENT	117V, 60 cyc AC; 12V/dc with DCK-1	117V, 60 cyc AC; 12V/dc with DCK-1
FREQUENCY RESPONSE	20 to 20,000 Hz	20 to 20,000 Hz
SENSITIVITY	mic 5 MV; aux. 25V; mag. phono 5 MV	mic 5 MV; aux. 25V; mag. phono 5 MV
INPUTS	2 hi-impedance mic (add 2 with CPR-2T) 1 mag. phono. 2 aux.; 600 ohm balanced with MBT-2 transformer.	3 hi-impedance mic (add 2 with CPR-2T) 1 mag. phono, 2 aux; 600 ohm balanced with MBT-2 transformer.
"HEAT GUARD"	—	Yes
OUTPUT IMPEDANCE	4, 8, & 16 ohms; 25V & 70.7V balanced	4, 8, & 16 ohms; 25V & 70.7V balanced
CONTROLS (with reset indicators to mark desired levels)	2 mic. levels, aux fader, bass and treble, master gain, power toggle, "on" light	3 mic. levels, aux fader, bass and treble, master gain, power toggle, "on" light
TONE CONTROL BASS CUT TREBLE CUT	 — 12 db at 50 Hz — 12 db at 10,000 Hz	 — 12 db at 50 Hz — 12 db at 10,000 Hz
DIMENSIONS	15¼"W x 9$\frac{3}{16}$"D x 5"H	15¼"W x 9$\frac{3}{16}$"D x 5"H
DEALER NET	$109.45	$134.95

Prices and specifications subject to change without notice.



CAP-25T 25 watts RMS • 2 mic inputs, expandable to 4 • provisions for precedence and mag. phono.

SOLID STATE CB-40T BOOSTER AMPLIFIER

Easy system expansion • inputs of several boosters can be paralleled to provide greater flexibility • 40 watts RMS • 80 watts peak power • 4, 8, 16 ohm outputs • 25V and 70.7V balanced lines. Dealer Net $99.45.

CAP-6T SOLID STATE COMMANDER PROFESSIONAL MIXER PRE-AMPLIFIER

4 microphone inputs with Cannon connectors, expandable to 6 • 2 separate auxiliary inputs and controls • bass, treble and master gain control • built-in VU meter • provision for plug-in matching microphone transformers • + 12 dbm output • Dealer Net $134.95.

JERROLD MATCHED ACCESSORIES FOR FULL FLEXIBILITY

	Dealer Net
★ PK-1 plug-in precedence relay—for Professional models.	$11.95
★ DCK-1 POWER SUPPLY CONVERSION KIT — mounts inside cabinet for conversion to 12V/dc operation.	$15.30
★ MBT-2 BALANCED 600 ohm INPUT TRANSFORMER — for telephone or wired music lines.	$17.95
★ CPR-2T TWO INPUT MICROPHONE PRE-AMP — for CA-50T, CAP-40T, and CAP-25T.	$38.25
★ CPX-2T TWO INPUT MICROPHONE PRE-AMP — for CA-35T, CA-15T, and CA-10T.	$30.60
★ LOW-IMPEDANCE MICROPHONE INPUT MATCHING TRANSFORMERS — XT-1 for 30 to 50 ohms, XT-2 for 120-150 ohms, XT-3 for 500-600 ohms.	$12.60
★ A-95-A CABLE-TYPE LOW IMPEDANCE MICROPHONE MATCHING TRANSFORMER.	
★ RACK MOUNTS — available for easy mounting of every model.	$17.95
★ CS-2 CARRYING CASE — available for every model.	$70.44

COMMERCIAL SOUND DIVISION

JERROLD

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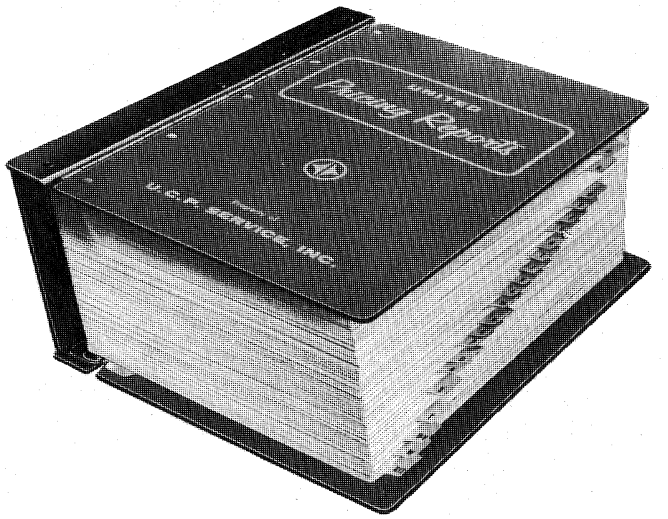

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NEWCOMB

PORTABLE PHONOGRAPHS & TRANSCRIPTION PLAYER / P. A. SYSTEMS

R&RT SERIES

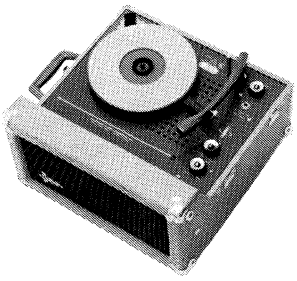
R SERIES ARE VACUUM TUBE MODELS, teaching tools of moderate cost and proven reliability. They are built for intensive usage with maximum reliability, optimum performance, and minimum maintenance; they include many convenience, performance, and safety features.

RUGGEDLY BUILT, both R and RT Series models have cases made of crack-proof, warp-proof, glue-blocked plywood covered with warm gray, washable, scratch-resistant vinyl. They are further protected with metal corners and kickproof, die-formed, perforated metal grilles and vent plates. Come-apart hinges obviate the most vulnerable part of case construction. Ready access for servicing is provided. Cases rest on spring-floated feet. All are transformer powered for maximum safety and best performance. All are UL approved. Made in the U.S.A. Handy bid specifications are available from the factory to authorized personnel. Condensed operating instructions in large type and clearly illustrated are plastic-coated and permanently mounted in lids. SPECIFICATIONS AND PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

RT SERIES MODELS WITH TRANSPECTRUM SOUND ARE FULLY TRANSISTORIZED. The purity and range of Transpectrum Sound is not only the result of using transistors properly in completely new and original circuitry, but more importantly it is the result of Newcomb interrelationship engineering — the precise matching and balancing of all parts of the system so that the performance of the whole machine exceeds what might be expected from summing up the contributions made by the various components. All RT phonographs are equipped with Newcomb's lighted Instant Stop-Pause-Go control, the finest instructional pause device on the market.

MODEL R-124

Monophonic Phonograph

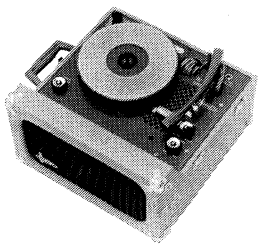


The Newcomb Model R-124 high fidelity, transformer-powered phonograph is an extraordinary combination of ruggedness and high fidelity sound — in every respect an outstanding value. It has an instant-start, 4-speed motor. Idler release is interlocked with a separate motor switch. A "Bi-Coupled" 12 watt vacuum tube output system drives a weighty 6″ x 9″ oval dual-cone high fidelity loudspeaker. High fidelity cartridge is the "Power Point" plug-in type. Turntable has a rubber mat and "twist-up" 45 center spindle. There is a standard phone jack for external speaker, headphones, or Newcomb Headphone Listening Center accessory. Power cord stows in a Hideaway compartment on side of case. Dual-acting bass-treble tone control matches source material to listening requirements. Volume control is compensated for realistic balance at low sound levels. Dimensions: 8¼″ x 14¾″ x 14¾″; weight 20 pounds. 117 volts, 60 cycles a.c. Transformer powered. UL approved.

MODEL R-124, fixed speed, 4 speed, **PROFESSIONAL NET $69.50**
MODEL R-124V, variable speed, 4 speed, with tempo control to vary speed as much as 20%, **PROFESSIONAL NET $85.95**

MODEL R12-C4

Monophonic Phonograph



A transformer-powered ten-watt utility model, the R12-C4 provides safety, dependability, and high performance at low cost. The powerful output system is stabilized with inverse feedback to maintain intelligibility at all volume levels. It is carefully matched to a 9″ oval dual-cone loudspeaker. The tweeter cone markedly improves distribution and treble response. Cartridge is heat- and moisture-resistant ceramic "Power Point" type with turnover dual-sapphire styli. The R12-C4 is equipped with a rubber record mat and "twist-up" 45 center post, output jack for headphones or external speaker, drop pad to protect pickup, positive tone arm lock screw, pilot light, and a tuckaway compartment in deck for cord stowage. It has a bass-treble tone control, compensated volume control, and main power switch that turns off everything including idler pressure. Dimensions: 8¼″ x 14⅛″ x 14⅛″; weight 19 pounds. 117 volts, 60 cycles a.c. Transformer powered. UL approved.

MODEL R12-C4, fixed speed, 4 speed, **PROFESSIONAL NET $62.50**

MODEL R-164

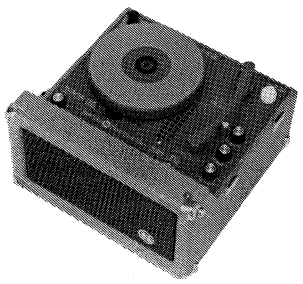
Monophonic Portable Combination Transcription Player P.A. System

The R-164 is a versatile, medium-powered, portable combination transcription player/p.a. system that will play any size record up to 17¼″ masters. Carefully matched to the 12 watt "Bi-Coupled" output system is a round 12″ dual-cone high fidelity loudspeaker with 25′ cord whose enclosure forms the top lid of the case. On the slanted, lighted operating panel are volume-mixing controls, separate treble control, and bass control that does not affect voice. There is a mike input jack, and an output jack for the speaker, headphones, or Newcomb Listening Center Accessory. The R-164 has a long tone arm of cast metal, "Power Point" type plug-in ceramic high fidelity cartridge, rubber record mat, "twist-up" 45 spindle, pickup stop post, drop pad, lock screw, jeweled pilot light, Hideaway cord stowage, idler-retracting separate power switch. Dimensions 11″ x 15½′ x 15½″, weight 25 pounds. 117 volts, 60 cycles a.c. Transformer powered. UL approved.

MODEL R-164, fixed speed, 4 speed, **PROFESSIONAL NET $93.25**
MODEL R-164V, variable speed, 4 speed, with tempo control to vary speed as much as 20%, **PROFESSIONAL NET $107.50**

MODEL RT-20

Transistorized Monophonic Phonograph

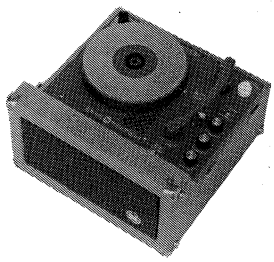


A deluxe, high quality, transformer-powered phonograph, the RT-20 has a 20 watt amplifier with 7 solid-state elements and 20-20,000 cycle response. Loudspeaker is a 6″ x 9″ oval unit of exceptional efficiency and fidelity. Transistors are mounted on a chimney-shaped aluminum heat sink which concentrate air flow for efficient cooling. The high compliance, high fidelity cartridge with jewel styli is the ceramic turnover plug-in type proven preferable for school use. It safely plays stereo as well as mono discs. The RT-20 has separate wide-range bass and treble tone controls which adjust to provide best reproduction of all program material from voice narration to symphonic music, compensated volume control, numbered calibrations on controls for instant return to previously selected settings. There is an output-to-tape jack, a headphone output pack, a new and improved pickup arm mount, new arm-and-stylus guard of advanced design. Hideaway a.c. stowage compartment. Bright pilot light is in the Newcomb Instant Stop-Pause-Go control. Dimensions: 14″ x 14″ x 8″; weight 17½ pounds. 117 volts, 60 cycles a.c. Transformer powered. UL approved.

MODEL RT-20, fixed speed, 4 speed, **PROFESSIONAL NET $78.50**
MODEL RT-20V, variable speed, 4 speed, with tempo control to vary speed from +5% to —15% and lighted strobe, **PROFESSIONAL NET $93.50**

MODEL RT-20B

Transistorized Monophonic Phonograph



An economical unit that retains Newcomb's matchless dependability and delivers fine sound, the RT-20B has a transformer-powered 20 watt amplifier utilizing 7 solid-state elements with a 20-20,000 cycle frequency response and a 6″ x 9″ oval dual-cone high fidelity loudspeaker. The high fidelity, high compliance cartridge safely plays either stereo or mono records. A rubber mat is bonded to the 8″ turntable which includes a non-tilt "twist-up" 45 adapter. The RT-20B includes separate wide-range bass and treble tone controls, compensated volume control, numbered calibrations, headphone jack, Hideaway a.c. cord stowage compartment, advanced-design arm-and-stylus guard. Dimensions: 14″ x 14″ x 8″; weight 17 pounds. 117 volts, 60 cycles a.c. Transformer powered. UL approved.

MODEL RT-20B, fixed speed, 4 speed, **PROFESSIONAL NET $73.50**
MODEL RT-20BV, variable speed, 4 speed, with tempo control to vary speed from +5% to —15% and lighted strobe, **PROFESSIONAL NET $88.50**

MODEL RTS-40

10 transistor

Stereophonic Phonograph

Compact and easily carried, the RTS-40 is an all-solid-state transformer-powered phonograph that will reproduce stereophonic records in full stereo with outstanding realism and play monophonic discs as well. Amplifiers deliver 40 watts with 20-20,000 cycle response to two high fidelity dual-cone 6″ x 9″ oval loudspeakers. The ceramic phono pickup is a durable, high compliance, turnover, plug-in type mounted in a cast metal tone arm. A unique guard protects stylus against dropping and wrong placement. The precision-balanced 4-speed, fixed-speed motor drives an 8″ metal turntable with bonded rubber mat and "twist-up" non-tilt 45 adapter. Controls are ganged for both channels and have numbered calibrations. Separate wide-range bass and dual-range treble tone controls and compensated volume control permit best reproduction of all material from speech to symphony. The RTS-40 includes Newcomb's Instant Stop-Pause-Go control, Hideaway cord compartment, output-to-tape-recorder jack, and two headphone jacks with special circuits to protect 8-ohm dynamic sets. Dimensions: 9¾″ x 10½″ x 16¼″; weight 20 pounds. 117 volts, 60 cycles a.c. Transformer powered. UL approved. **PROFESSIONAL NET $139.50**

NEWCOMB AUDIO PRODUCTS CO. **NEWCOMB**

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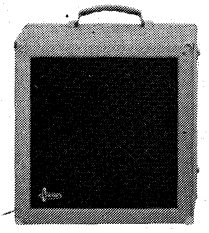
Net

NEWCOMB

STEREO PHONOGRAPHS, TRANSCRIPTION PLAYERS, HEADPHONE LISTENING CENTERS, TABLE RADIOS

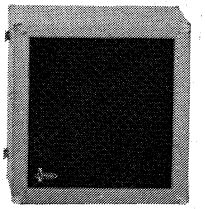
R SERIES

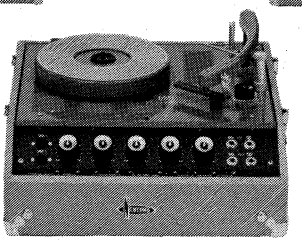
RS-1620V 4 speed, variable speed RS-1620 4 speed, fixed speed



STEREOPHONIC

PORTABLE
COMBINATION
TRANSCRIPTION
PLAYER
P.A. SYSTEM





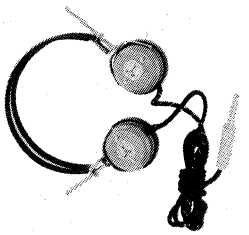
20 WATTS PEAK

Shown with Acra-Set tone arm lifting accessory available at additional cost

Newcomb RS-1620V stereophonic/monophonic portable combination transcription player/public address systems are simple to operate, durable, economical. Stereo or mono at the flip of a switch. Bi-Coupled output system delivers 10 watts peak per channel, 20 watts peak combined. Compatible cartridge is a turnover ceramic, plug-in type with jeweled styli. Rubber-matted turntable plays records to 17¼" masters. Tempo control +5% to −15%. Two mike inputs and left and right input jacks for radio or tape. On lighted, slanted panel are separate mixers for each mike and phono, voice filters, separate bass and treble tone controls ganged for both channels, but bass does not affect voice. Player unit measures 8" x 15½" x 16½". For use on 117 volts, 60 cycles a.c.

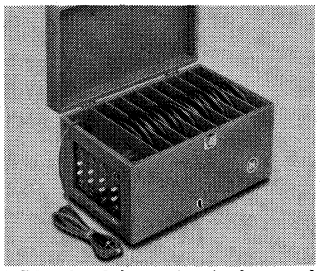
	Variable Speed Model Number	Prof. Net	Fixed Speed Model Number	Prof. Net
With S-212 split case containing two 12" dual cone hi-fi drivers. Closed case: 16¾" x 16¼" x 13⅛". 21 lbs.	RS-1620V-2	**$215.00**	RS-1620-2	**$205.00**
With S-212HF split case containing two 2-way systems — 12" woofers, 3½" tweeters. Closed: 16¾"x 16¼"x 13⅛", 23 lbs.	RS-1620V-HF2	**$239.00**	RS-1620-HF2	**$229.00**
With 2 C-100 2-way reproducers ea. in sep. encl. Each measures 10¼"x 14¾"x 20", 19½ lbs.	RS-1624V-C2	**$309.50**	RS-1620-C2	**$299.50**

NEWCOMB HEADPHONES AND LISTENING CENTER ACCESSORIES



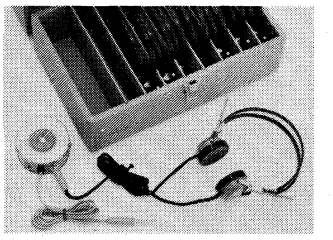
MODEL **HDPB**
monophonic headphones

Good sound, rugged construction, low cost, HDPB phones are colored red and black, have 6' cords, standard phone plugs. Plated metal parts, plastic-covered spring headband. Vertical adjustment springs are tubular sleeves with large friction-contact area for maximum life. **NET $4.60**



MODEL **R-HDB8C**
listening center

Eight sets of HDPB headphones in vinyl-covered compartmented case with 8 standard headphone jacks and 8 level controls in end panel; 10' source cord and output jack for additional adapter. 14¼" x 8 15/16" x 7¾", 11 pounds. **NET $69.95**

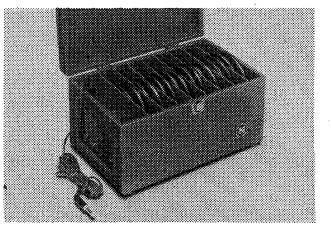


MODEL **LC8BP**
listening center

Kit includes an 8BP adapter, 8 sets of HDPB phones, compartmented carrying case. 14¼" x 8 15/16" x 7¾", 10 pounds. **NET $67.30**

MODEL **8BP** circular adapter

More convenient and space saving than panel-in-case type, the 8 BP free-standing adapter has 10' cord and phone jack for source connection, 8 jacks for HDPB phones, an additional jack for another adapter. **NET $17.50**

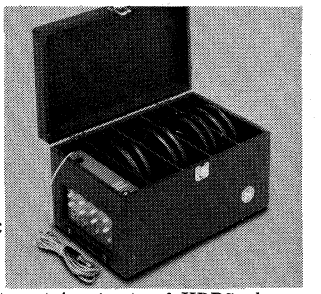


MODEL **R-HDB8**
listening center

Kit with 8 HDPB phones, compartmented case with terminal panel at end containing 8 standard phone jacks, has 10' source connection cord, jack for additional kit, measures 14¼" x 8 15/16" x 7¾", 11 pounds. **NET $59.55**

MODEL **HDPS**
stereophonic headphones

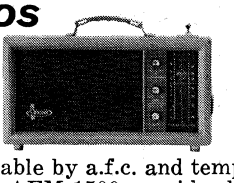
Economical, general purpose stereo phones with good response, colored red and black, have plastic-covered cables, plated hardware, standard stereo phone plugs, soft neoprene ear cushions that are comfortable on ears, form sound-tight seal. **NET $7.75**



MODEL **AVHS-4C**
stereophonic listening center

This deluxe kit contains 4 sets of HDPS phones in compartmented case that has connector panel at one end. There are 4 standard stereo phone jacks on panel and 8 level controls providing volume adjustment for each ear. 10' source cord and plug. Output jack for additional kit. 14¼" x 8 15/16" x 7⅞", 10 pounds. **NET $69.95**

TABLE MODEL RADIOS



AFM-1500
AM & FM

Highly sensitive, rendered very stable by a.f.c. and temperature-compensated oscillators, the AFM-1500 provides high fidelity sound through its 15 watts peak push-pull amplifier and 20 watt, 9" oval, dual-cone loudspeaker. It has a telescoping FM antenna, "Hi-Q" ferrite rod AM antenna, tuning eye, reference scale, large tuning knob, compensated volume control, external antenna terminals, jack for external speaker or headphones, jack for external amplifier, p.a. or tape recorder. 16¾" x 9¾" x 8⅝", 20¼ lbs. 70 watts, 117 volts, 60 cycles a.c. **PROF. NET: $164.50**

AM-500
AM

Trim, rugged, easy to carry, the AM-500 is an economical, continuous-duty transformer-powered radio with a 5 watts peak, inverse-feedback amplifier and 8" oval, dual-cone loudspeaker whose special tweeter cone gives improved distribution and high frequency response. It has a built-in "Hi-Q" antenna and terminals for external antenna. Pilot light index illuminates direct-driven dial. Same jacks as AFM-1500. Neat power cord stowage on back of both 6½" x 8" x 15½", 10 lbs. 40 watts, 117 volts, 60 cycles a.c.
PROF. NET: $59.95

NEWCOMB AUDIO PRODUCTS CO. **NEWCOMB**

Net

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NEWCOMB

TR SERIES

HIGH POWER, PORTABLE, COMBINATION TRANSCRIPTION PLAYER PUBLIC ADDRESS SYSTEMS

...outstanding for their highest quality sound, intelligibility, portability, versatility, and simplicity of operation...

features common to all TR models:

FOUR SPEED, VARIABLE SPEED, play any size record up to 17¼" masters.

AMERICAN-MADE MOTOR delivers full starting torque at any speed setting, no warm-up required, stable under all conditions, requires no more attention than conventional fixed-speed motors.

INDEPENDENT MOTOR SWITCH automatically retracts idler.

TEMPO CONTROL, separate from speed selector, varies speed +5% to −15%. No flutter-producing friction discs or cone drives.

SPEED-O-SCOPE neon strobe.

BIG TURNTABLE—10", 2 lbs.

STA-KLEEN, deep-ribbed rubber mat, special groove for handling 45's.

LONG TONE ARM, one-piece, cast metal, raises upright for stylus inspection, mounted on resilient acoustical filter, has stylus pressure adjustment for 78's or LP's.

RUGGED STOP POST prevents putting arm in wrong position.

LOCK SCREW secures arm during transportation.

DROP PAD, rubber-covered, protects stylus and cartridge.

PHONO PICK-UPS: GE twist-needle with individually replaceable sapphire styli in "M" models. High fidelity ceramic in others.

STEREO CONVERSION: ceramic cartridge may be replaced with stereo cartridge. Then a patch cord is connected between stereo output jack to auxiliary input jack on second player for perfectly balanced, fully controllable stereo.

HIGH POWER AMPLIFIERS, low distortion, inverse feedback, some have ultra-linear circuits, all engineered for optimum performance with speakers used. Frequency response ±2 db 20—20,000 cycles.

TRANSFORMER-POWERED for safety and performance.

BROAD-BAND OUTPUT TRANSFORMERS humidity-protected with mylar or acetate. Impedance selector—4 or 8 ohms (16, 8, & 4 on TRS-1680).

FUSE POST accessible from front panel.

COMPLETE, FLEXIBLE CONTROLS: separate volume mixers for phono and mike; voice filter, scratch filter; phono bass control does not affect voice mike; bass controls electrically interlocked with phono volume to automatically protect against bass overload at high levels, greatly reducing operating experience required for perfect results.

OUTPUT JACKS: "ALL" used to feed entire program to external amplifier, amplified monitor, or tape recorder. "PHONO" delivers phono signal only; useful for caller or m.c. who wants to monitor music only without interference from own voice. "STEREO" on ceramic models.

INPUT JACKS: One for each mike; number depends on model. "AUXILIARY" for signal from radio, tape machine, or stereo channel.

ILLUMINATED, SLOPING OPERATING PANEL.

TWO JEWELED PILOT LIGHTS.

RUGGED CASE made of warp-proof, crack-proof ⅜" plywood, glue-blocked, covered with scratch-resistant, washable, gray vinyl.

METAL CORNER PROTECTORS.

COME APART HINGES.

SPRING-FLOATED FEET.

HEAVY #18 GAUGE STEEL MOTOR BOARD, reinforced.

THROUGH VENTILATION for long parts life.

EASY ACCESS. Hinged motor board raises to reach tubes and motor. Perforated bottom plate unscrews to check wiring.

KICKPROOF GRILLES of die-formed metal and armored baskets protect speakers.

25' SPEAKER CORDS with stowage provisions. Straps for wall hanging.

HIDEAWAY COMPARTMENT for 8' power cord.

FULL-SIZE HANDLES on all cases and a hand-hold slot on player units for assistant carrier.

PERMANENT SERIAL NUMBER stamped in metal and riveted to motor board.

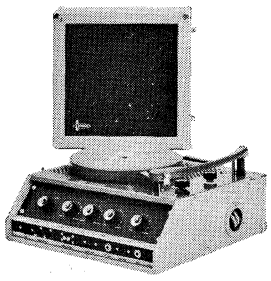
TRANSPARENT PLASTIC CARD HOLDER on each case.

PRINTED INSTRUCTION BOOK with each system.

CONDENSED INSTRUCTIONS sealed in plastic permanently attached inside lid.

BID SPECIFICATIONS AVAILABLE from factory to authorized personnel.

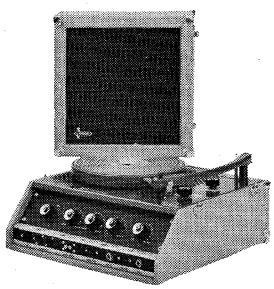
MADE IN U.S.A.



TR-1625 SERIES 25 WATT CERAMIC PICKUP STEREO JACK

TR-1625 Series player-amplifier units are carefully matched to the reproducers for great efficiency and better coverage than has heretofore been possible with a system in this class. It is equipped with a plug-in, "power point" type, high fidelity ceramic cartridge with separate jeweled standard and microgroove styli. It has a separate treble tone control, bass control that does not affect mike, phono volume mixer, mike volume mixer, scratch filter switch, voice filter switch. There are output jacks for 2 speakers, "Phono," "All," stereo; input jacks for one mike and another for auxiliary equipment.

	PROF. NET
MODEL TR-1625 in a single split case with one 12" dual-cone 30-watt speaker, 35 lbs.	139.50
MODEL TR-1625-2, two cases, includes one S-212, 50 lbs.	172.50
MODEL TR-1625-NE2, three cases, two N-12ET, 63 lbs.	237.00
MODEL TR-1625-CS2, three cases, two CS-48, 73 lbs.	247.00
MODEL TR-1625-SCS2, three cases, two SCS-412, 124 lbs.	387.00



TR-1625M SERIES 25 WATT MAGNETIC PICKUP

When monophonic music reproduction is to be a player's primary function, a Newcomb TR model equipped with a magnetic cartridge is your best choice. The TR-1625M is equipped with a GE variable reluctance, twist-needle cartridge with sapphire styli and necessary preamplifier built in. Motor is a 4-pole deluxe unit. Player has a separate treble tone control, bass control that does not affect mike, phono volume mixer, mike volume mixer, scratch filter switch, voice filter switch. There are output jacks for 2 speakers, "Phono," and "All"; input jacks for mike and auxiliary.

	PROF. NET
MODEL TR-1625M in a single split case with one 12" dual-cone 30-watt speaker, 36 lbs.	154.50
MODEL TR-1625M-2, two cases, includes one S-212, 51 lbs.	187.50
MODEL TR-1625M-NE2, three cases, two N12ET, 64 lbs.	252.00
MODEL TR-1625M-RHF, two cases with one 2-way speaker system in base reflex enclosure, 18" x 24" x 12½", 65 lbs.	211.50
MODEL TR-1625M-CS2, three cases, two CS48, 74 lbs.	262.00
MODEL TR-1625M-SCS2, three cases, two SCS-412, 125 lbs	402.00

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NEWCOMB

HIGH POWER PORTABLE
TRANSCRIPTION PLAYER
P. A. SYSTEMS

TR SERIES

TR-1640 SERIES 40 WATT CERAMIC PICKUP STEREO JACK

TR-1640 models provide impressive audience coverage at moderate cost. Motor is a heavy-duty, four-pole unit. Player is equipped with a plug-in, "power point" type, high fidelity ceramic cartridge with separate jeweled standard and microgroove styli, ultra-linear amplifier. It has a treble tone control for all channels, bass tone for phono, phono volume mixer, mike volume mixer, bass tone for mike, impedance switch for speakers, scratch filter switch. There are output jacks for 2 speakers, "Phono," "All," stereo. Inputs for one mike auxiliary.

	PROF. NET
MODEL TR-1640 in a single split case with one 12" 50-watt speaker, 36 lbs.	169.95
MODEL TR-1640-E2, two cases, includes one S-212, 51 lbs.	196.50
MODEL TR-1640-E4, three cases, one S-212, one S-212E, 72 lbs.	261.00
MODEL TR-1640-2, two cases, one S-212H, 51½ lbs.	209.50
MODEL TR-1640-4, three cases, one S-212H, one S-212E, 72½ lbs.	273.05
MODEL TR-1640-NE2, three cases two N12ET, 64 lbs.	261.00
MODEL TR-1640-NE4, five cases, four N12ET, 98 lbs.	390.00
MODEL TR-1640-NH2, three cases, two N12HT, 78 lbs.	331.00
MODEL TR-1640-NH4, five cases, four N12HT, 126 lbs.	530.00
MODEL TR-1640-CS2, three cases, two CS48, 74 lbs.	271.00
MODEL TR-1640-CS4, five cases, four CS48, 118 lbs.	410.00
MODEL TR-1640-SCS2, three cases, two SCS-412, 125 lbs.	411.00
MODEL TR-1640-SCS4, five cases, four SCS-412, 220 lbs.	690.00

TR-1640M SERIES 40 WATT MAGNETIC PICKUP

A more powerful music room model which handles with ease four speakers, the TR-1640M player unit has an ultra-linear output system, two-way crossover-network loudspeaker systems, and the GE variable reluctance cartridge. The phono circuit is converted to a second mike channel by flipping a selector switch. It has a treble tone control for all channels, phono volume mixer, phono bass tone control, mike bass tone, mike volume mixer, impedance switch for speakers, scratch filter. There are output jacks for 2 speakers, "Phono," and "All"; input jacks for 2 mikes and auxiliary.

	PROF. NET
MODEL TR-1640M-HF in a single split case with 2-way speaker system including a 12" 50-watt woofer, crossover and separate 3½" tweeter, 36½ lbs.	205.00
MODEL TR-1640M-E2, two cases, includes one S-212, 52 lbs.	220.00
MODEL TR-1640M-E4, three cases, one S-212, one S-212E, 73 lbs.	284.50
MODEL TR-1640M-HF2, two cases, one S-212HF, 54 lbs.	244.00
MODEL TR-1640M-HF4, three cases, one S-212HF, one S-212E, 75½ lbs.	309.50
MODEL TR-1640M-KN, two cases, one KN-200, 66 lbs.	288.25
MODEL TR-1640M-KN2, three cases, two KN-200, 101 lbs.	421.00
MODEL TR-1640M-NE2, three cases, two N12ET, 65 lbs.	284.50
MODEL TR-1640M-NE4, five cases, four N12ET, 99 lbs.	413.50
MODEL TR-1640M-NH2, three cases, two N12HT, 79 lbs.	354.50
MODEL TR-1640M-NH4, five cases, four N12HT, 127 lbs.	553.50
MODEL TR-1640M-NN2, three cases, two N12NT, 86 lbs.	394.50
MODEL TR-1640M-NN4, five cases, four N12NT, 141 lbs.	633.50
MODEL TR-1640M-CS2, three cases, two CS48, 75 lbs.	294.50
MODEL TR-1640M-CS4, five cases, four CS48, 119 lbs.	433.50
MODEL TR-1640M-SCS2, three cases, two SCS-412, 126 lbs.	434.50
MODEL TR-1640M-SCS4, five cases, four SCS-412, 221 lbs.	713.50

TR-1656M SERIES 56 WATT MAGNETIC PICKUP

These fully integrated systems achieve phenomenal acoustic output. They include 56 watts peak output system, four-pole deluxe motor, GE variable reluctance cartridge. The phono channel converts to a *third* microphone channel by flipping a switch. First mike channel has separate bass attenuating control for voice clarity. Second mike is flat. Phono tone controls regulate third mike. There are a separate treble tone control for all channels, bass tone for phono, phono volume mixer, mike 2 mixer, mike 1 mixer, mike 1 bass tone, speaker impedance switch, scratch filter. Output jacks for 2 speakers, "Phono," and "All"; input jacks for 3 mikes and auxiliary.

	PROF. NET
MODEL TR-1656M-HF2, two cases, includes one S-212HF, 57 lbs.	288.50
MODEL TR-1656M-HF4, three cases, one S-212HF, one S-212HFE, 80 lbs.	377.00
MODEL TR-1656M-X2, two cases, one S-212X, 59 lbs.	311.00
MODEL TR-1656M-X4, three cases, one S-212X, one S-212XE, 84 lbs.	421.50
MODEL TR-1656M-NF2, two cases, one S-212NF, 63 lbs.	329.85
MODEL TR-1656M-NF4, three cases, one S-212NF, one S-212NFE, 92 lbs.	459.35
MODEL TR-1656M-KN2, three cases, two KN-200, 104 lbs.	465.85
MODEL TR-1656M-KN4, five cases, four KN200, 176 lbs.	731.35
MODEL TR-1656M-NE2, three cases, two N12ET, 68 lbs.	329.00
MODEL TR-1656M-NE4, five cases, four N12ET, 102 lbs.	458.00
MODEL TR-1656M-NH2, three cases, two N12HT, 82 lbs.	399.00
MODEL TR-1656M-NH4, five cases, four N12HT, 130 lbs.	598.00
MODEL TR-1656M-NN2, three cases, two N12NT, 89 lbs.	439.00
MODEL TR-1656M-NN4, five cases, four N12NT, 144 lbs.	678.00
MODEL TR-1656M-CS2, three cases, two CS48, 78 lbs.	339.00
MODEL TR-1656M-CS4, five cases, four CS48, 122 lbs.	478.00
MODEL TR-1656M-SCS2, three cases, two SCS-412, 129 lbs.	479.00
MODEL TR-1656M-SCS4, five cases, four SCS-412, 224 lbs.	758.00

DIMENSIONS OF NEWCOMB TR PLAYERS

Single speaker TR players form a single case with the speaker mounting used as the lid. They measure 16¾" x 16¼" x 13¼". In multiple-speaker models (except TRS-1680) the phono-amplifier unit closed measures 16¾" x 16¼" x 8½". Speaker dimensions are given on facing page. Accessory speakers may be added to one- or two-speaker models at any time.

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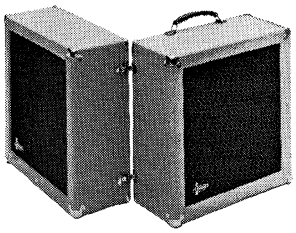
NEWCOMB

PORTABLE LOUDSPEAKERS

TR SERIES

Newcomb makes many types of portable loudspeakers for use with Newcomb Portable Combination Transcription Player/Public Address Systems. They vary in portability, directivity, efficiency, and frequency response. For example, the column speaker is highly directive, but not nearly as easy to carry as the compact S-212 Series models. The KN-200 reproducer combines widest frequency range with highest efficiency and exceptional intelligibility. The N-12 Series speakers are highly efficient, directive, intelligible and portable. All are excellent instruments, built to withstand rough treatment. Construction and finish matches player units.

ON THIS PAGE ARE SHOWN THE VARIOUS LOUDSPEAKER MODELS USED WITH NEWCOMB TR SERIES SYSTEMS

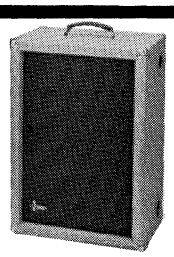


NEWCOMB S-212 SERIES

These open-back designs are the most popular of all square dance system reproducers because they provide a unique combination of light weight, high output per watt input, and low cost. Their wide-range response makes them ideal for general use. Each model includes two independent reproducers in a split case. Speakers snap together back-to-back for carrying. Case size: 16¾″ x 16¼″ x 13⅛″. 25′ cords stow on hooks inside case.

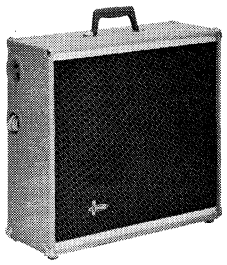
- **MODEL S-212** includes two 12″ dual-cone wide range 30 watts peak reproducers of good conversion efficiency. Impedance per speaker is 8 ohms. Weight: 21 lbs. **PROFESSIONAL NET: $64.50**
- **MODEL S-212E** is same as S-212 but has series extension jacks. **PROFESSIONAL NET: $64.50**
- **MODEL S-212H** includes two 50 watts peak 12″ reproducers of wide-range and excellent conversion efficiency. Impedance per speaker is 8 ohms. Weight 21½ lbs. **PROFESSIONAL NET: $77.50**
- **MODEL S-212HE** is same as S-212H but has series extension jacks. **PROFESSIONAL NET: $77.50**
- **MODEL S-212HF** includes two 50 watt speak 12″ woofers and two 3½″ tweeters with crossover. Impedance per reproducer is 8 ohms. Weight 23 lbs. **PROFESSIONAL NET: $88.50**
- **MODEL S-212HFE** is same as S-212HF but has series extension jacks. **PROFESSIONAL NET: $88.50**
- **MODEL S-212X** includes two 60 watts peak super-power, aluminum-dome 12″ dual-cone loudspeakers of superior efficiency and very wide range. Impedance per speaker is 8 ohms. Weight: 25 lbs. **PROFESSIONAL NET: $110.65**
- **MODEL S-212XE** is same as S-212X but has series extension jacks. **PROFESSIONAL NET: $110.65**
- **MODEL S-212NF** includes two 60 watts peak super-power woofers and two 3½″ tweeters with crossover. These systems combine exceptional response range with super efficiency. Impedance per reproducer is 8 ohms. Weight: 29 lbs. **PROFESSIONAL NET: $129.50**
- **MODEL S-212NFE** is same as S-212NF but has series extension jacks. **PROFESSIONAL NET: $129.50**

MODELS WITH "E" SUFFIX are only for use with other speakers and are not intended for use alone.



NEWCOMB KN-200 REPRODUCER

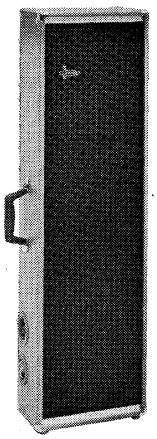
Designed to give you all the sound, all the quality, all the range, all the coverage inherent in your fine Newcomb sound system, the KN-200 is a fully-enclosed, ducted-port, two-way speaker system of advanced design. It is highly efficient, delivers the widest frequency response possible with a portable speaker... full music reproduction plus crisp high frequency intelligibility. The KN-200 includes a massive 12″ woofer, crossover, horn tweeter and treble control. It includes a parallel extension jack and impedance change switch for 8 or 16 ohms. 25 foot cord stows into "Hideaway" compartment. Size: 10¼″ x 16⅞″ x 23½″. Weight: 35 lbs. **PROFESSIONAL NET: $132.75**



NEWCOMB N-12 SERIES SPEAKERS

Most unusual for a portable speaker, Newcomb N-12 models are back-loaded, dual-labyrinth reproducers for those who want high directivity, firm bass, crisp and clean highs. They provide the advantages of a closed-back reproducer in problem halls and auditoriums. 25 foot cord stows in "Hideaway" compartment. Enclosure measures 7⅞″ x 18¼″ x 19½″. Offered in three models...

- **MODEL N12ET** is a 30 watts peak system using an efficient 12″ woofer and two 3½″ tweeters and crossover. Included is a series-type extension jack with shorting switch which permits using the N12ET as either a regular or extension speaker. Impedance is 8 ohms. Weight 17 pounds. **PROFESSIONAL NET: $64.50**
- **MODEL N12HT** is a 50 watts reproducer with a 12″ heavy duty woofer, a directional horn tweeter and full crossover network. This reproducer provides highest sound output per watt input. Included are a parallel extension jack and impedance changing switch. Impedance: 8 and 16 ohms. Weight: 24 pounds. **PROFESSIONAL NET: $99.50**
- **MODEL N12NT** is a 60 watts peak reproducer with an extra heavy duty 12″ woofer, a directional horn tweeter and full crossover network. This reproducer provides highest sound output per watt input. Included are a parallel extension jack and an impedance changing switch. Impedances: 8 and 16 ohms. Weight 27½ pounds. **PROFESSIONAL NET: $119.50**



NEWCOMB COLUMN SPEAKER, MODEL CS48

This is one of the most practical of all column speakers. It combines exceptional directivity with portability, has good efficiency and greater effective range than most columns. Power handling capacity is 60 watts peak. 25 foot cord and plug tuck into "Hideaway" cord compartment. It has an extension jack and switch for use with extension speakers. Size: 39⅞″ x 11¼″ x 6⅜″. Weight: 22 lbs. **PROFESSIONAL NET: $69.50**

NEWCOMB SUPER COLUMN, MODEL SCS-412

Here's the best column speaker you've ever heard. The Newcomb SCS-412 gives you super intelligibility, super efficiency, super power handling capacity. It contains four *twelve-inch* speakers specially developed for column use. Its peak power handling capacity of 120 watts makes for dependability and unusually low distortion when used with conventionally-powered systems. Each amplifier watt is converted into more sound than is available from any other column. The SCS-412 makes small amplifiers sound like big ones. It will project your voice clear as crystal, syllable-perfect over the noisiest big crowd. It takes a man-size system to produce these results. The SCS-412 stands 56″ high, is 15″ wide, 7½″ deep, weighs 42½ pounds. Impedance is 8 ohms. It has a 25 foot cord, "Hideaway" cord compartment, series type jack with shorting switch. **PROFESSIONAL NET: $139.50**

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NEWCOMB

STEREOPHONIC SYSTEMS
MICROPHONES, ACCESSORIES

TR SERIES

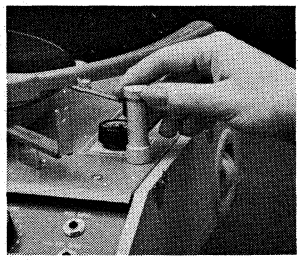
Built with a great reserve of power for most uses – 40 watts peak per channel – the Newcomb TRS-1680 is perhaps the most complete and flexible portable sound system ever built. It reproduces stereo or mono with the turn of a knob. Stereo or mono tape or radio can be fed to the system. Live music and speech are reproduced either stereo- or monophonically.

TRS-1680 SERIES 80 WATT

It has three mike channels. The central mike puts the speaker or square dance caller in the middle, midway between the reproducers. There are separate treble, bass, and volume controls for phono or other reproduced sound. Each mike channel has its own, individual tone and volume controls. Mike tone controls are rotated for treble adjustment, pushed or pulled for bass. There is a blend control to provide any degree of stereo you wish. There are "Left" and "Right" inputs for radio, tape, or auxiliary; a scratch filter; "All" or "Phono" monitor jacks; jacks for two or four speakers with an impedance-matching switch. Turntable-amplifier unit DIMENSIONS: 9¼" x 17⅞" x 18⅝"; 43 lbs. POWER CONSUMPTION: 180 watts, 117 volts, 60 cycles a.c. A wide choice of reproducers to meet specific assignments is offered...

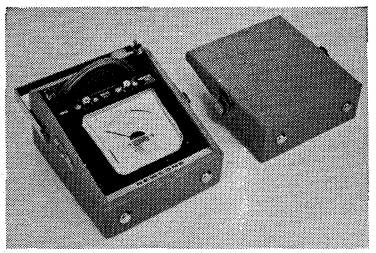
	PROF. NET
MODEL TRS-1680-NF2, two cases, includes one S-212NF, 72 lbs.	**$429.00**
MODEL TRS-1680-NF4, three cases, two S212NF, 101 lbs.	**$558.50**
MODEL TRS-1680-KN2, three cases, two KN-200, 113 lbs.	**$565.00**
MODEL TRS-1680-KN4, five cases, four KN-200, 183 lbs.	**$830.50**
MODEL TRS-1680-NH2, three cases, two N12HT, 91 lbs.	**$498.50**
MODEL TRS-1680-NH4, five cases, four N12HT, 139 lbs.	**$697.50**
MODEL TRS-1680-NN2, three cases, two N12NT, 98 lbs.	**$538.50**
MODEL TRS-1680-NN4, five cases, four N12NT, 153 lbs.	**$777.50**
MODEL TRS-1680-CS2, three cases, two CS48, 87 lbs.	**$438.50**
MODEL TRS-1680-CS4, five cases, four CS48, 131 lbs.	**$577.50**
MODL TRS-1680-SCS2, three cases, two SCS-412, 138 lbs.	**$578.50**
MODEL TRS-1680-SCS4, five cases, four SCS-412, 233 lbs.	**$857.50**

ACRA-SET TONE ARM LIFTER AND RECORD-CUEING DEVICE MODEL A-1



Acra-Set is an accessory available at additional cost for repeating passages and protecting records. You simply twist the knob on top to gently lift or lower tone arm. Lifter has a 100-division scale and a traveling stop with a pointer. It is simply installed by drilling a 3/16" hole which is readily located with a template. Holes are predrilled at the factory on current transcription players. Specify your model number when ordering; correct template and C-1 cue sheets will be supplied. **PROF. NET: $12.50**

MODEL VU-1 PORTABLE VISUAL OUTPUT METER



Model VU-1 Output Meter permits you to see that your voice is being amplified to the proper level, helps you make the most of your fine Newcomb TR system. Meter is high quality instrument with jeweled d'Arsonval movement and a scale calibrated in both db and volume units from 0 to 100 over the working range of the system. Also indicates overloading. Simple internal adjustment matches meter to any TR player; instructions are permanently mounted in lid. One end of the supplied patch cord connects player to "All" monitor jack, other end to "Input" on meter. Supplementary "All" monitor jack on meter. **PROF. NET: $29.95**

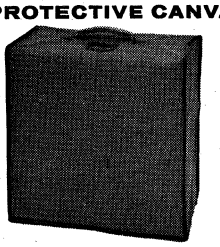
AMPLIFIED MUSIC MONITORS

With a Newcomb Amplified Monitor you can hear reproduced music without interference or feedback squeal from caller's or speaker's voice. Connected to "Phono" channel of transcription player, monitor reproduces music only, not mike channels. Or, it may be connected to "All" jack to reproduce voice and music. It can also be used as a stereo channel with a TR-1625 or TR-1640.

MODEL M-12: 12" speaker; 10 watt amplifier; 17⅞" x 13⅜" x 7½"; 17¼ lbs. **PROF. NET: $79.50**

MODEL M-9: 9" oval, dual-cone speaker; 10 watt amplifier; 13¼" x 10⅛" x 7"; 10 lbs. **PROF. NET: $69.50**

PROTECTIVE CANVAS COVERS



Made of tightly woven, fleece-lined, rubberized mackintosh covert, with stout zipper closure and flap that tucks under handle. Transparent slot for identification.

No. CA-102 for use with TR-1625, TR-1625M, TR-1640, TR-1640M amplifier sections only. **PROF. NET: $5.95**

No. CA-103 for use with S-212 type split case speaker assemblies and all TR series systems with single speaker in case lid. **PROF. NET: $5.95**

No. CA-104 for use with TRS-1680 amplifier section only. **PROF. NET: $5.95**

No. CA-110 for use with KN-200 or K-400 reproducers. **PROF. NET: $6.63**

No. CA-111 for use with C-100 or J-200 reproducers. **PROF. NET: $5.95**

No. CA-119 for use with M-12 monitor. **PROF. NET: $5.95**

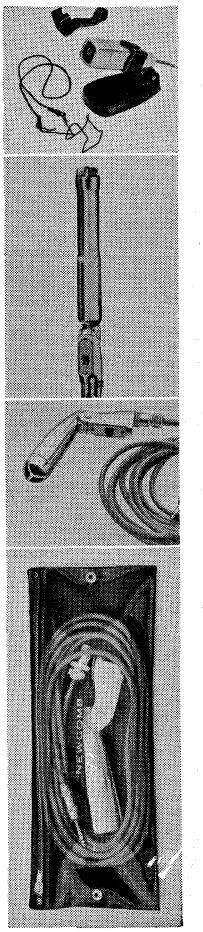
No. CA-132 for use with M-9 monitor. **PROF. NET: $5.95**

No. CA-136 for use with all N-12 series reproducers. PROF. **NET: $5.95**

No. CA-137 for use with CS48 column speaker. **PROF. NET: $9.30**

No. SCS-412 for use with SCS-412 column speaker. **PROF. NET: $12.63**

MICROPHONES



Model N-30 Crystal Microphone with lavaliere cord, stand adapter, switch, and shielded plug. **PRO. NET 13.95**

Model N-30D Desk Mounting for N-30 only. **PRO. NET 1.85**

Model N-36 Dynamic Professional Quality Microphone is the perfectionist's choice with any TR system, especially intended for use with TR-1640M, TR-1656M and TRS-1680 series models. Supplied with shielded cord and plug and on-off switch. **PRO. NET 50.00**

Model N-23 Dynamic Microphone of very high quality with switch and shielded plug, recommended for general purpose use with all TR series systems. **PRO. NET 39.50**

Model MS-23 Accessory Bag of heavy plastic, zippered, for microphones, etc., can be attached inside lid of speaker case. **PRO. NET 2.10**

Model PP-61 Stereo Conversion Pickup Cartridge, plug-in type, for any TR series player equipped with stereo output jack and plug-in ceramic cartridge. **PRO. NET 4.65**

Model WC-64 Connecting Cable, four feet long with plugs for connecting two TR ceramic models together for stereo. **PRO. NET 4.65**

SPECIFICATIONS AND PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

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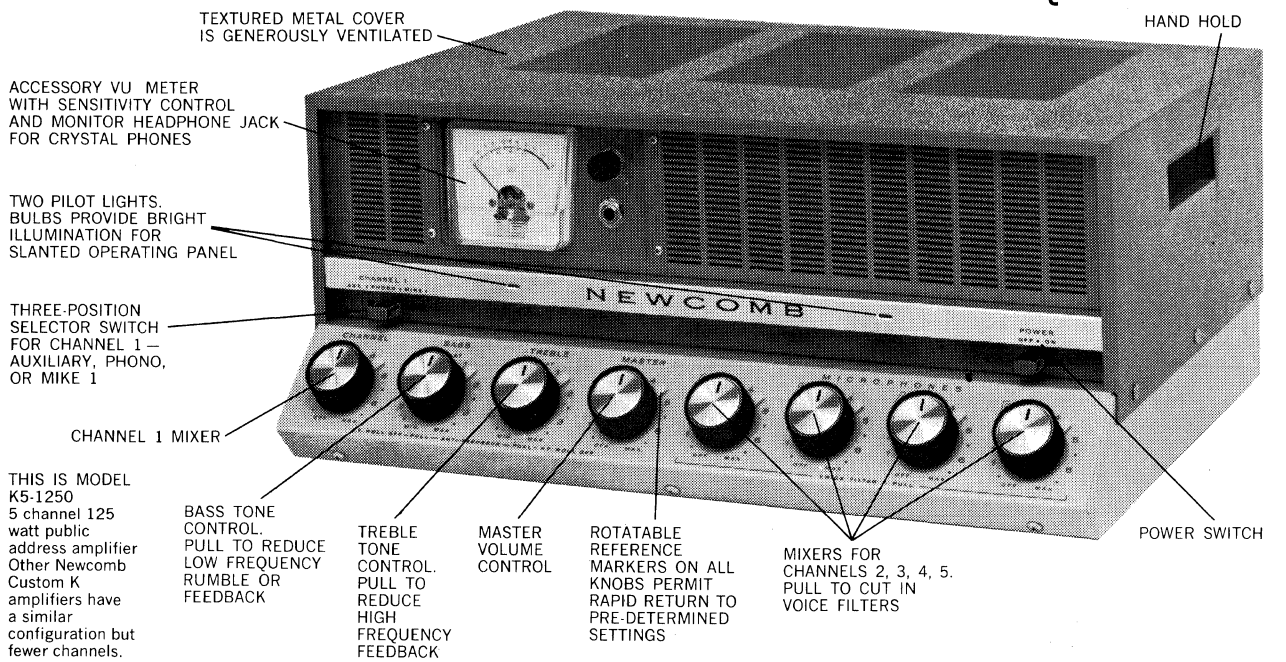
NEWCOMB

MODULAR PUBLIC ADDRESS AMPLIFIERS

CUSTOM SERIES K

MODULAR PUBLIC ADDRESS AMPLIFIERS OF THE VERY BEST QUALITY



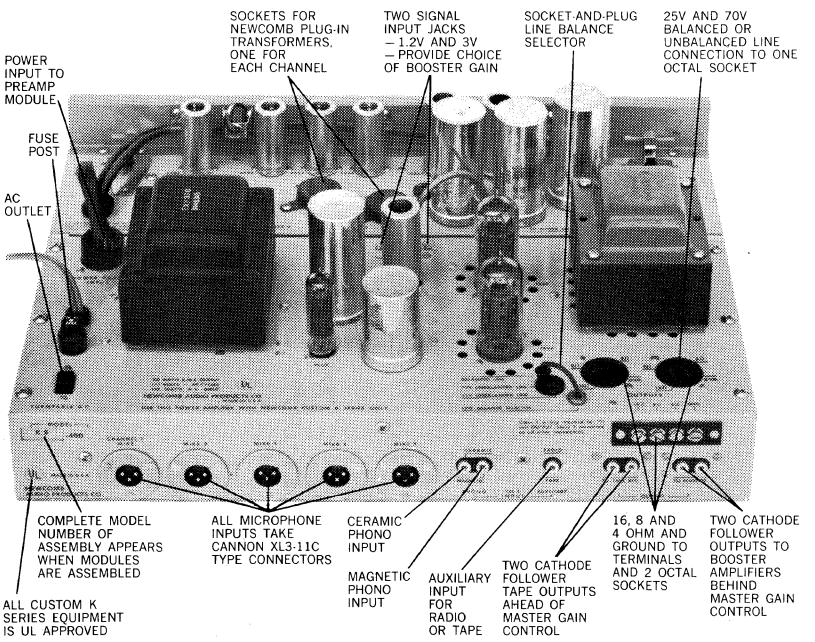
Flexibility and performance without equal are provided by Newcomb Custom K Series public address amplifiers. "Custom" has a very real meaning in this instance. Within minutes you can assemble exactly the right combination of channels, power and features to custom fit a particular situation. You are not faced with the hours of assembly labor and testing necessary with conventional modular designs. You simply select the Newcomb Custom K mixer/preamplifier with the number of channels — three, four, or five — you need. Then choose the power amplifier module — 40, 60, or 125 Watts — needed for the location. Drop the power amplifier into the preamplifier chassis. Two plug-in connections. No soldering. Drive a few sheet metal screws and you're in business. Take your choice of a well-ventilated cabinet cover or a rack panel mount. A VU meter accessory with a phone jack is available and can be quickly added to any front end. A remote control accessory is available for the four-channel module.

Any preamplifier may be used as a mixer by itself by inserting a Model P Power Supply instead of a power amplifier module. Any power output module becomes a straight power amplifier when it is mounted in the Newcomb Model KB Booster Chassis. The Newcomb Custom K modular system is so simple and straightforward that it's a wonder public address amplifiers weren't made this way to begin with.

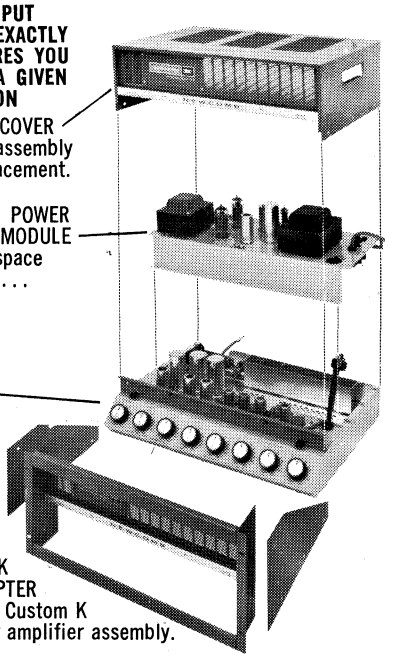
All modules are completely interchangeable.

The latest developments in vacuum tube technology and skilled hand craftsmanship are united to produce superb performance. Performance of Newcomb Custom K Series amplifiers has no equal. They operate with extremely low distortion at all power levels, supply unusually high useful power, run unbelievably cool. Vacuum tube design was chosen for the Custom K Series because no other method of amplification today provides the same combination of maximum performance, stability, reliability, extended life, and outright value. With vacuum tubes, repairs are easier and faster to make, cost less.

Visually, Custom K Series assemblies are exceedingly handsome, finished in soft, light shades of green. The control panel is slanted for convenient operation either seated or standing, and it is well illuminated. Custom K Series models abound with such refinements as movable reference markers on all knobs. To cut in a voice filter you simply pull the appropriate mixer knob. To kill feedback, pull tone control knobs. When you're out to prove what you can do, when you're putting in a model job, a job you'll be proud to put your nameplate on, that's the time to build with Newcomb Custom K.



INSTANTLY PUT TOGETHER EXACTLY THE FEATURES YOU NEED FOR A GIVEN INSTALLATION



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NEWCOMB

MODULAR PUBLIC ADDRESS AMPLIFIERS

CUSTOM SERIES K

70 COMBINATIONS FROM 14 UNITS

The modular concept makes it possible for you to get exactly the features you need without delay. Four chassis and four power units combine to form **15** basic assemblies. The VU meter may be added to **12** assemblies. **8** models (K4R assemblies with and without VU meter) become remote-control units with the addition of the RB4 accessory. All **35** may be rack panel mounted or covered for free-standing use. (UL requires that they be purchased with one or the other.)

MODEL KB BOOSTER CHASSIS WITH MODEL KCB COVER

AS SIMPLE TO SPECIFY AS THEY ARE TO ASSEMBLE

Model number of a basic assembly consists of a combination of preamp model number and power amplifier model number as follows:

Preamp Mixer ↓ / Power Amp →	Model 1250 125 watts	Model 600 60 watts	Model 400 40 watts	Model P Power Supply
Model K5 5 Channel	K5 – 1250 $439.00	K5 – 600 $399.00	K5 – 400 $369.00	K5 – P $277.00
Model K4R 4 Channel	K4R – 1250 $424.50	K4R – 600 $384.50	K4R – 400 $354.50	K4R – P $262.50
Model K3 3 Channel	K3 – 1250 $399.00	K3 – 600 $359.00	K3 – 400 $329.00	K3 – P $237.00
Model KB Booster Chassis	KB – 1250 $224.50	KB – 600 $184.50	KB – 400 $154.50	← Complete Power Amplifier Only / ↑ Complete Mixer-Preamp Only

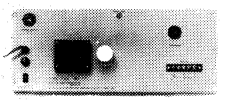
Specifications For Complete Mixer-Preamplifier Power Amplifier Assemblies			
Mike Gain	133 db	130 db	128 db
Auxiliary Gain	85.4 db	82.4 db	80.4 db
Hum, input shorted: Mike, –60 db below full output Magnetic pickup, –50 db below full output Auxiliary input, –60 db below full output All controls off, –80 db below full output			

List prices of combinations are shown without cover, rack mounting or VU meter.

SPECIFICATIONS — K3, K4R, K5 MIXER-PREAMPLIFIERS

All of the Newcomb Custom K mixer-preamplifier modules have space at the back of the chassis into which may be inserted either a Model 400, 600 or 1250 power amplifiers or the Model P power supply. Power is normally supplied to the front end by the power amplifier module; Model P is used when the preamp section is to be used as a separate mixer-control unit. Mixer models differ principally in the number of input channels. Each has one mike channel that is convertible by switch to use with a magnetic or ceramic phono pickup (preamp provides full RIAA response curve) or with a flat tuner or tape input. **Outputs:** 2 from each of two cathode followers, one before and one after the master control. Maximum output from followers: 10 volts into high impedance load. **Distortion:** less than ½%. D.C. on all filaments. **Frequency response:** ±1 db 20-20,000 cycles. **Bass tone control range:** −18 db to +18 db. **Low frequency roll off:** 3 db at 100 cycles, −12 db at 20 cycles. **Treble tone control range:** −18 db to +18 db. **High frequency roll off:** 3 db at 5,000 cycles, −12 db at 20,000 cycles. **Microphone impedance:** 2 megohms convertible to low impedance by Newcomb hum-free plug-in transformer. **Input volts required** for 1 volt output from cathode followers: **Mikes,** .0028 volts, gain 54* db, 2 megohms. **Magnetic,** .0022 volts, 100,000 ohms. Equalized to full RIAA curve. **Ceramic pickup,** .086 volts. Equalized to RIAA curve. **Tuner or Tape input** (Aux.), .34 volts, ½ meg., gain 6.4* db. *Gain stated is with 1 meg. output load. With 600 ohm output using TR-100 add 13 db. **Hum** below 10 volts output (inputs shorted): **Mikes,** −80 db. **Magnetic pickup,** −70 db. **Aux. input,** −80 db. **All controls off,** −100 db. Socket supplies power for VU-2T volume indicating meter. Note: K4R provides for remote control of all inputs. **Dimensions,** all models: 17″ x 13⅝″ x 7⅜″ (height dimension includes KC cover). **Weight,** all models: 7 pounds. All microphone inputs require Cannon XL3-11C type connectors.

	Model K3	Model K4R	Model K5
Number of Channels and mixing controls	3	4	5
Number of Channels with voice filters	2	3	4
Tubes	two 6AB4 three 12AX7	three 6AB4 three 12AX7	four 6AB4 three 12AX7
LIST: (with tubes, without cover)	$199.50	$225.00	$239.50



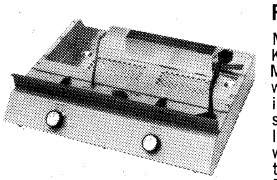
FOR SEPARATE MIXER-PREAMPLIFIER ONLY...

MODEL P POWER SUPPLY takes the place of the power amplifier in the space provided in the K3, K4R, and K5 preamp modules, and supplies power to them through an octal socket. (It is never needed when a Model 400, 600, or 1250 power amplifier is used.) Model P includes a socket for a plug-in output transformer and output terminals for a balanced or unbalanced 600 ohm line. **Maximum 600 ohm output** = 0 VU. **Input** power: 117 volts, 60 cycles, 22 watts. **Wt.** 4½ lbs. **List:** (with tubes) $37.50.

SPECIFICATIONS — 400, 600, 1250 POWER AMPLIFIER MODULES

The power amplifier modules in Newcomb's Custom K Series are not usable alone; they must be installed in a K3, K4R, or K5 mixer-preamplifier chassis. If they are to be used simply as a booster amplifier, they can be mounted in a Model KB Booster Chassis. Circuits in all power amplifier modules are resistance-capacity coupled, screen-regulated, with fixed bias and inverse feedback. They include power supply for K3, K4R, and K5 preamps. All have an a.c. outlet and an external fuse post. All three models have some identical specifications: **Input impedance:** 1 megohm convertible to low impedance with hum-free plug-in line or bridging transformers. **Output impedances:** 4, 8, and 16 ohms to a terminal strip and two octal sockets; 25 and 70 volts balanced or unbalanced line to one octal socket. **Hum and noise:** 80 db below steady state power rating.

	Model 400	Model 600	Model 1250
POWER OUTPUT: steady state RMS at less than 5% T.H.D.	40 watts	60 watts	125 watts
POWER OUTPUT: at less than 1% T.H.D.	35 watts	50 watts	110 watts
PEAK POWER: (Note: Music power peak rating is higher)	80 watts	120 watts	250 watts
INPUT—1.2 V or 3 V required for maximum rated steady state power output			
GAIN: at 1 meg. 1.2 V input tap 3 V input tap	74 db 70 db	76 db 72 db	79 db 75 db
GAIN: at 600 ohms input using TR-100 and 1.2 V input tap 3 V input tap	61 db 57 db	63 db 59 db	66 db 62 db
FREQUENCY RESPONSE: ±2 db 25-15,000 cps at	35 watts	50 watts	110 watts
all ±0 db 20-20,000 cps at	1 watt	1 watt	1 watt
POWER CONSUMPTION: 117 volts, 60 cycles a.c.	110 watts	145 watts	185 watts
TUBES: All models include 5 silicon rectifiers	one 7199 two 6878 one 6CU5	one 7199 two 6L6GC one 6CU5	two 12AU7 two 6550 one 6CU5
WEIGHT:	16½ lbs.	21¼ lbs.	30½ lbs.
LIST: (with tubes)	$129.50	$159.50	$199.50



FOR COMPLETE POWER AMPLIFIER ONLY

MODEL KB CHASSIS is the same size as the K3, K4R, and K5 preamp modules and accommodates Model 400, 600, or 1250 power amplifier modules when they are to be used as boosters. Model KB includes volume control, low frequency roll-off switch, power switch, and pilot lights. It has a lighted, slanted operating panel and factory-wired socket for Newcomb plug-in, hum-free transformers. **Dim.:** 17″ x 13⅝″ x 7⅜″. **Wt.:** 5 lbs. (without cover). **List:** $25.00.

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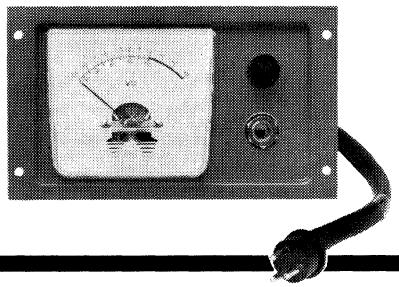
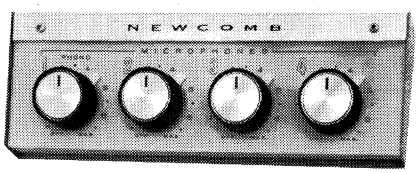
MODULAR PUBLIC ADDRESS AMPLIFIERS

CUSTOM SERIES K



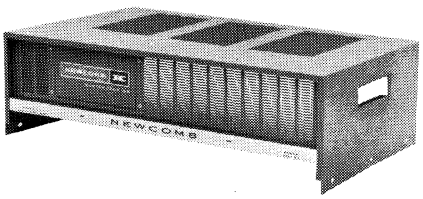
MODEL VU-2T ACCESSORY TRANSISTORIZED VU METER

for use with Newcomb Custom K Model K3, K4R or K5 mixer/preamp, the VU-2T has sensitivity control and a monitor headphone jack for wide-band crystal headphones only. The VU-2T obtains power from the preamp, is installed in place of the removable front plate, simply plugs into the socket provided. LIST: $49.50



MODEL RB4 ACCESSORY REMOTE CONTROL UNIT

for use with the K4R only. A four-channel unit, it may be placed up to 2,000 feet from the amplifier. A 5 wire unshielded cable is required. Cable extra. Dimensions: 3″ x 9″ x 1⅜″. Weight: 1½ pounds. LIST: $19.50

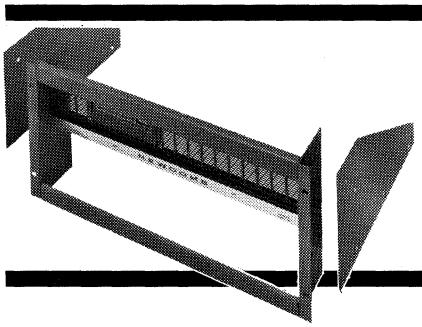


MODEL KC COVER

for assemblies incorporating Model K3, K4R, or K5 mixer-preamplifier modules. Size: 17⅞″ x 12⅞″ x 5⅞″. Weight: 5 pounds. LIST: $25.00

MODEL KCB COVER

for booster amplifier assemblies incorporating Model KB Booster Chassis. Size: 17⅞″ x 12⅞″ x 5⅞″. Weight: 5 pounds. LIST: $25.00

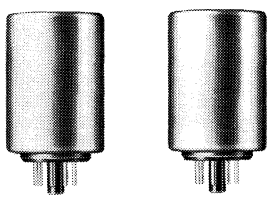


MODEL KR-875 RACK PANEL ADAPTER

for assemblies incorporating Model K3, K4R, or K5 mixer-preamplifier modules. Size: 19″ x 8¾″. Weight: 5 pounds. LIST: $25.00

MODEL KR-875B RACK PANEL ADAPTER

for assemblies incorporating Model KB Booster Chassis. Size: 19″ x 8¾″. Weight: 5 pounds. LIST: $25.00

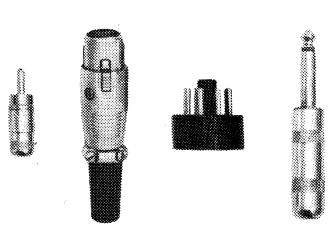


HUM-FREE PLUG-IN TRANSFORMERS

MODEL TR-91 input transformers are designed for all Newcomb amplifiers wired to accept them. They provide 30/50 ohms or 200/250 ohms input impedance depending on wiring of transformer socket. Normal Newcomb amplifier wiring connects the TR-91 for 30/50 ohms. Frequency response: 20 to 20,000 cycles. Wt: 1¼ lbs. LIST: $25.

MODEL TR-100 input transformers are identical to TR-91 models. They provide 125/150 ohms or 500/600 ohms impedance depending upon wiring of socket with 125/150 ohms normal. Frequency response: 20 to 20,000 cycles. Weight: 1¼ pounds. LIST: $37.50

MODEL TR-92B is a bridging transformer, otherwise identical to above models. Weight: 1¼ pounds. LIST: $37.50



CONNECTORS

MODEL PW-157 is a phono, tape, or radio input plug for all Custom K mixer/preamplifiers. LIST: $.75

MODEL PW-139 is a Cannon XL3-11C type microphone connector. LIST: $2.50

MODEL PW-156 is an octal plug for speaker line outputs. LIST: $.45

MODEL PW-142 is a two-contact shielded phone plug for monitor phones. LIST: $1.50

THE RICHEST-LOOKING RACK PANEL INSTALLATIONS IMAGINEABLE

are provided by Newcomb Custom K amplifiers. The two-tone soft green tints of the finish, recessed panels, the stimulating design of the equipment combine to give an impression of professionalism and permanence. Mounted in the Model 70-19 Cabinet Rack illustrated above, top to bottom, are a Newcomb louvered panel, Newcomb TB2-525G Intercom, K3 Mixer-preamp, lever key panel, AFM-750-875G AM-FM Radio, E2-525G Industrial Preamplifier, two KB-1250 complete power amplifiers, 1050CG Phono Changer Drawer, louvered panel. All Newcomb rack panel equipment, except Custom K series, is listed in the last two Newcomb Pathfinder pages in this section.

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NEWCOMB

STEREO TAPE RECORDERS, TWO-CHANNEL AMPLIFER, SYSTEMS

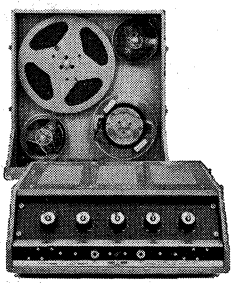
TAPE RECORDERS

NEW TX-10 SERIES

CYBERNETICALLY ENGINEERED FOR INTUITIVE OPERATION ▪ SOUND ON SOUND RECORDING ▪ THREE HEADS ▪ HYSTERESIS MOTOR ▪ MONITOR BEFORE OR AFTER RECORDING ▪ ANY SIZE REELS—3″ TO 10½″ ▪ MIXING CONTROLS ▪ POINTER-TO-POINTER METERS ▪ DIFFERENTIAL BRAKING

Essentially a machine for the perfectionist, the Newcomb TX-10 incorporates virtually all of the features professional users have said they would like to see in a portable recorder. The TX-10 is thoroughly dependable, a high precision instrument, with a transport mechanism that is probably the most foolproof, the gentlest on tape of any machine in the world. Tape movement is controlled with a telescoping joy stick. Operation is intuitive. The natural thing to do is the right thing to do. You can record sound on sound ad infinitum. For example, you first record on track one. Twist the selector and you record on track two while the signal from track one is being transferred to track two. Twist the switch again and you are adding new material to track one while the previously combined signal from track two is being re-recorded on track one. There is no limit to the number of times this can be done. Tape loads in a straight line. No pressure pads on heads. All tape guides are stainless steel. Shuts off automatically at reel's end. Head covers remove for easy cleaning and editing. A pause-edit position of the joystick permits inching tape to exact location desired. The TX-10 is a two-speed machine—7½ ips and 3¾ ips—selected by push button with automatic speed-frequency correction. (15/7½ ips machines available on special order.) A relatively powerful, cool-running hysteresis synchronous motor and dynamically-balanced flywheel drive keep flutter and wow below .2% at 7½, .25% at 3¾, or .1% at 15 ips. The TX-10 has three heads—record, playback, and erase. 100KC bias and erase oscillators with indicators. Response is ±2 db 30-18,000 cps at 7½ ips, or ±3 db 30-13,000 cps at 3¾ ips. The TX-10 may be operated either vertically or horizontally. The dual volume indicating meters are illuminated, arranged pointer-to-pointer, show playback as well as recording levels. Too prevent accidental erasure, you must push a separate interlock button to record. The four-digit counter permits close measurements even with a 10½″ reel fully loaded with thin-base tape. There are separate "mike" and "line" input mixing controls for each channel, a balance control, a ganged volume control, a pilot light. A roomy opening on the left-hand side of the case provides for all inputs and power cord stowage. There are sockets for Cannon XLR-3-12C male connectors, easily accessible sockets for Newcomb plug-in input transformers to permit use of low impedance microphones. Outputs are on the right side of the case.
Dimensions: 12⅞″ x 16¾″ x 9½″. Weight: 36½ lbs. Power requirements: 95 watts, 117 volts, 60 cycles a.c.

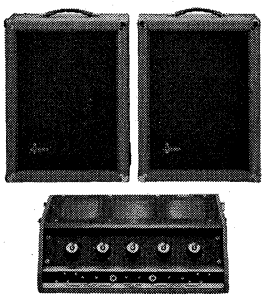
PROFESSIONAL USERS NET: $750.00. Unmounted CA-133 carrying case $25.00



MODEL SA-80B

2 CHANNEL POWER AMPLIFIER WITH TONE, VOLUME, AND BALANCE CONTROLS

The Newcomb SA-80B is a two channel, stereo/monaural, portable, power amplifier designed especially for use with the Newcomb TX-10 Series Tape Recorders. The amplifier puts out 40 watts peak per channel, a total of 80 watts peak. The controls are conveniently grouped on a slanted operating panel that is brightly illuminated by two pilot lights. Controls are ganged. They consist of a bass boost and attenuation control, treble boost and attenuation, volume control, and a balance control. There is an input jack for each channel, a stereo-monaural selector switch, output impedance selectors, and two speaker sockets for each channel. The removable cover carries tape reels of all sizes up to and including 10½″. A plastic zippered bag for miscellaneous cords is included. Frequency response—20-20,000 cycles ±1 db. Distortion per channel at 20 watts r.m.s.—less than 1%. Hum below −65 db. Output impedances per channel—16, 8, 4 ohms. 8½″ x 16¾″ x 16⅜″; 32 pounds. **PROFESSIONAL USERS NET: $199.50.**

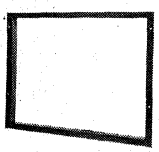


PORTABLE AMPLIFIER-REPRODUCER SYSTEMS

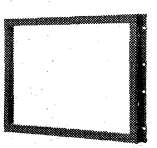
MODEL SA-80B-J2 consists of one SA-80B and two Model J-200 Reproducers. Latter are two-way speaker systems with tweeter level controls, enclosed in compact cases, use latest techniques to provide excellent, full-range coverage in music rooms and small auditoriums. Each measures 14¾″ x 20″ x 10¼″. Three-case system weighs 71 pounds. **PROFESSIONAL NET: $368.40.**

MODEL SA-80B-K2 consists of one SA-80B and two Model K-400 Reproducers. Latter are three-way loudspeaker systems developed for those who seek the very best possible reproduction that can be provided by translating advanced engineering concepts into portable form. Each measures 16⅞″ x 23½″ x 10¼″. Three-case system weighs 102 pounds. **PROFESSIONAL NET: $468.40.**

MOUNTING HARDWARE FOR THE TX-10



MODEL **SR-85** is a custom frame for mounting the TX-10 in home high fidelity installations. **PROFESSIONAL NET: $10.**



MODEL SR-86 is a frame for rack mounting the TX-10 in Newcomb Model 35-19 or 70-19 cabinet racks. (cannot be used with door.) **PROFESSIONAL NET: $15.95.**

MODEL SR-97 is a pair of rack brackets for mounting the TX-10 in standard 19″ racks. (Cannot be used in Newcomb Models 35-19 and 70-19 cabinets.) **PROFESSIONAL NET: $3.95.**

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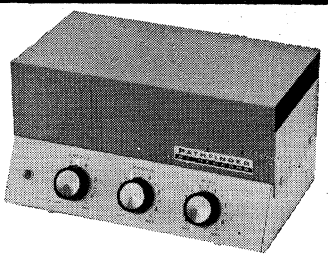
NEWCOMB PATHFINDER PUBLIC ADDRESS EQUIPMENT

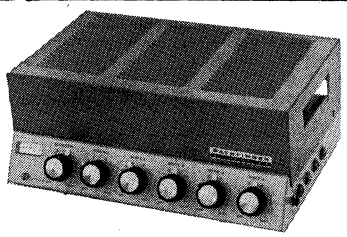


MODEL E-10B

10 watt amplifier
Low priced, deluxe, full push-pull output

The Newcomb E-10B offers a surprising number of deluxe features for so compact and economical an amplifier. It has the slanted operating panel and control markers which distinguish all Pathfinder models. The E-10B has separate mixers for microphone and ceramic phono pickup (or radio or tape). Mike input is a standard 3-contact phone jack suitable for high or low impedance mike. The E-10B is wired for plug-in transformers for instant conversion for use with low impedance mike. Output impedances to socket are 4, 8, 16 ohms, plus 25 and 70 volt line taps. Output jack for recorder or booster amplifier. Unit has a wide-range treble tone control, 25,000 hour pilot light. UL approved.

SPECIFICATIONS: Power Output: 10 watts RMS, 20 watts peak at less than 5% distortion. **Frequency Response:** ±2 db 30 through 15,000 cycles. **Mike Gain:** 118 db at 2 meg. .0055 volts delivers full power. **Phono Gain:** 79 db at 1 meg.; 33 volts delivers full power. **Output To Tape Jack:** Delivers 4.4 volts max. or 1 volt at ½ watt output. **Hum:** Fundamental, 70 db below rated output. **Power Response:** ± 3 db, 70 through 13,000 cycles at 5% distortion. **Size:** 10¼″ x 6½″ x 5¾″ high. **Weight:** 9 lbs. **Power Consumption:** 60 watts, 117 volts, 60 cycles. **Tubes:** 1-12AX7, 1-6AU6, 2-6V6, 1-6X4.
LIST: (with tubes) $75.00.



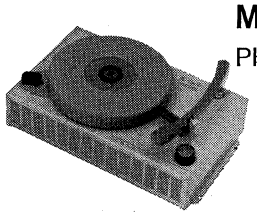
MODEL E-5P

5-channel mixer preamplifier

The Newcomb E-5P is a high performance, low-priced, multi-purpose mixer-preamplifier with 4 microphone channels (one convertible to magnetic phono), one high level channel with two inputs (chosen by selector switch) – one for ceramic phono pickup, the other for tape or radio. Master gain control. Each mike input jack is standard 3-contact phone jack. Each mike channel is wired for plug-in transformers for instant conversion to low impedance microphone usage. The E-5P has a VU meter with concealed sensitivity adjustment, outputs for tape, booster, and a.c., 25,000-hour pilot lamp. Operating panel is slanted for easy viewing and operating sitting or standing. Performance is excellent with individual mike input tubes for minimum crosstalk and d.c. on all filaments. UL approved.

SPECIFICATIONS: Cathode Follower Outputs: 6 volts at less than 2% into high impedance load. **Volume Indicating Meter:** Adjustable from 2 to 6 volts. **Frequency Response:** ±2 db 30 through 20,000 cycles. **Mike Inputs:** 2 meg.; .0025 volts for 2 volts out. **Ceramic Phono or Radio or Tape Input:** 1 meg. .32 volts for 2 volts output. **Magnetic Phono Input:** .011 volts for 2 volts output. **Hum:** Fundamental, 80 db below 6 volts output. **Size:** 14⅛″ x 8 5/16″ x 5″ high. **Weight:** 11¾ lbs. **Power Consumption:** 31 watts 117 volts 60 cycles A.C. **Tubes:** 4-12AV6, 1-12AU6, 5-0C5, 1 power silicon rectifier.
LIST: (with tubes) $139.50.

HIGH QUALITY, LOW PRICE PUBLIC ADDRESS AMPLIFIERS WITH MANY DELUXE FEATURES



MODEL P-4

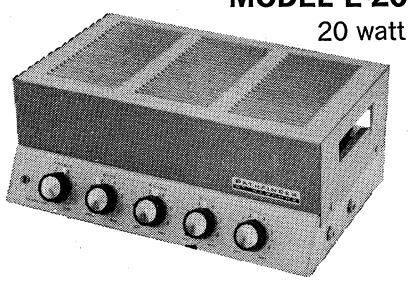
PHONO TOP

The Newcomb P-4 is a 4-speed record player that is designed to fit on top of the E-20, E-40 or E-75 Pathfinder amplifier. It includes an automatic idler release on the power switch to prevent flat spots, a plug-in turnover-type dual-sapphire-styli ceramic cartridge, pickup hold-down screw and drop pad. Dimensions: 8 5/16″ x 14″ x 5″ high over all. Weight: 6 lbs. **LIST: $39.95.**

All Newcomb Pathfinder power amplifiers and the E-5P preamplifier have slanted operating panels for convenient control in either a sitting or standing position. This feature is important, too, with rack mounted installations where units may be mounted near the floor as well as at eye level. All control knobs have white, rotable reference markers for quick return to a pre-determined setting. All have a 25,000 hour pilot light. All are UL approved. Newcomb public address amplifiers Models E-20, E-40, and E-75 all have the following features: Each has two microphone channels with mixer controls and one high level channel with mixer for ceramic phono pickup, radio or tape. Mike channels are wired for Newcomb plug-in transformers for instant conversion to use with low impedance microphones. High level control is compensated; as volume is reduced, bass is proportionately sustained. Mike not affected by this control. There are separate bass and treble master tone controls. Output taps on terminal strip and two sockets are for 25 volt balanced or unbalanced line plus 70 ohms unbalanced, and 16, 8, and 4 ohms. There is an output jack for recorder or booster and an a.c. output receptacle. Pathfinder equipment has a distinctive two-tone finish in soft tints of olive-gray and spruce.

MODEL E-20

20 watt



SPECIFICATIONS: Power Output: 20 watts RMS, 40 watts peak at less than 5% distortion. **Frequency Response:** ±2 db 30 through 15,000 cycles. **Mike Gain:** 122 db at 2 meg.; .005 volts delivers full power. **Phono Gain:** 83 db at 1 meg. .315 volts delivers full power. **Output To Tape Jack:** Delivers 6 volts max. or 1 volt at ½ watt output. **Hum:** Fundamental, 70 db below rated output. **Power Response:** ±3 db 50 through 20,000 cycles at 5% distortion. **Size:** 14⅛″ x 9½″ x 5¾″ high. **Weight:** 14¼ lbs. **Power Consumption:** 80 watts, 117 volts, 60 cycles A.C. **Tubes:** 1-12AX7, 1-6BR8, 2-EL-84, 1-5Y3.
LIST: (with tubes) $99.50.

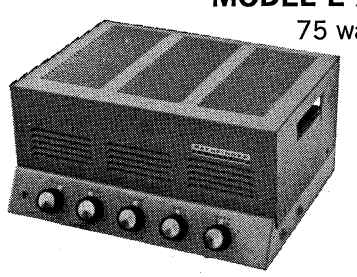
MODEL E-40

40 watt

SPECIFICATIONS: Power Output: 40 watts RMS, 80 watts peak at less than 5% distortion. **Frequency Response:** ±2 db 30 through 15,000 cycles. **Mike Gain:** 125 db at 2 meg.; .005 volts delivers full power. **Output To Tape Jack:** Delivers 6 volts max. or 1 volt at 1 watt output. **Hum:** Fundamental, 70 db below rated output. **Power Response:** ±2 db 40 through 20,000 cycles at 5% distortion. **Size:** 14⅛″ x 9½″ x 6¾″ high. **Weight:** 19¼ lbs. **Power Consumption:** 160 watts, 117 volts, 60 cycles A.C. **Tubes:** 1-12AX7, 1-6BR8, 4-EL84, 1-5U4.
LIST: (with tubes) $129.50

MODEL E-75

75 watt



SPECIFICATIONS: Power Output: 75 watts RMS, 150 watts peak at less than 5% distortion from a fixed bias, screen regulated, output system. **Frequency Response:** ±2 db 30 through 15,000 cycles. **Mike Gain:** 128 db at 2 meg.; .005 volts delivers full power. **Phono Gain:** 88 db at 1 meg.; 3 volts delivers full power. **Output To Tape Jack:** Delivers 6 volts max. or 1 volt at 1.87 watts output. **Hum:** Fundamental, 70 db below rated output. **Power Response:** ±2 db 50 through 20,000 cycles at 5% distortion. **Size:** 7″ x 13½″ x 14⅛″. **Weight:** 26 lbs. **Power Consumption:** 185 watts, 117 volts 60 cycles. **Tubes:** 2-12AX7, 1-6C4, 2-7027A, 1-6V6GT, 3 power silicon rectifiers.
LIST: (with tubes) $189.50.

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NEWCOMB PATHFINDER PUBLIC ADDRESS SYSTEMS

MODEL E-1008S

10 watt PORTABLE system

The Newcomb E-1008S System consists of one E-10B amplifier and one P-108 speaker assembly. The P-108 contains an efficient 8" loudspeaker protected by a kickproof, perforated metal grille, microphone carrying straps (but no mike), and space for carrying the E-10B amplifier. Size: 11¼" x 14¾" x 9" deep. System weight: 17½ lbs.
LIST: $115.00.

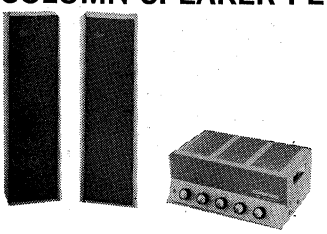
MODEL E-20-212R

20 watt PORTABLE system

This 20 watt system consists of one Newcomb E-20 amplifier and one P-212R dual speaker assembly which also acts as a carrying case for the amplifier. The P-212R includes two efficient 12" dual-cone loudspeakers, each with a 25 foot cord and plug. Speaker baffles snap together back to back. Inside are mike carrying straps but no microphone. Speakers are protected by kickproof perforated metal grilles. System closed measures 13½" x 15¼" x 23", weighs 37 lbs.
LIST: $199.50

MODEL E-40-212H 40 watt PORTABLE system. Included in the E-40-212H are one Newcomb E-40 amplifier and one P-212H dual speaker case assembly which also acts as a carrying case for the amplifier. There are two 12" heavy duty loudspeakers each with a 25 foot cord and plug, kick-proof perforated metal grilles and mike carrying straps but no microphone. Size 13½" x 15¼" x 23", weight 44 lbs.
LIST:$242.00.

COLUMN SPEAKER PERMANENT SYSTEMS



MODEL E-20-2C8F 20 watt consists of one E-20 amplifier, two Model C-8 column speakers, and 100 feet of speaker cord. No microphone. Weight: 54¾ lbs.
LIST: $336.20.

MODEL E-40-2C8F 40 watt consists of one E-40 amplifier, two Model C-8 column speakers, and 100 feet of speaker cord. No microphone. Weight: 60 lbs.
LIST: $366.20.

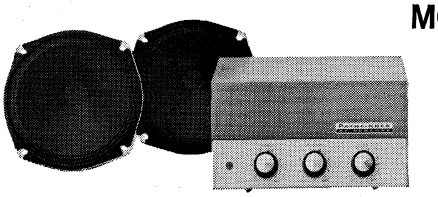
MODEL E-75-4C8F 75 watt consists of one E-75 amplifier, four Model C-8 column speakers, and 200 feet of speaker cord. No microphone. Weight: 107 lbs.
LIST: $662.90.

MODEL E-20-2C12F 20 watt consists of one E-20 amplifier, two model C-12 super column speakers, and 100 feet of speaker cord. No microphone. Weight: 93¼ lbs.
LIST: $569.50.

MODEL E-40-2C12F 40 watt consists of one E-40 amplifier, two model C-12 super column speakers, and 100 feet of speaker cord. No microphone. Weight: 98½ lbs.
LIST: $599.50.

MODEL E-75-2C12F consists of one E-75 amplifier, two model C-12 super column speakers, and 100 feet of speaker cord. No microphone. Weight: 105 lbs.
LIST: $659.50.

MODEL E-75-4C12F 75 watt consists of one E-75 amplifier, four model C-12 super column speakers and 200 feet of speaker cord. No microphone. Weight: 184 lbs.
LIST: $1129.50.



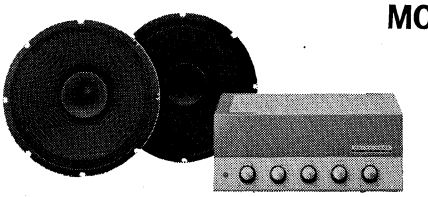
MODEL E-10-28F

10 watt PERMANENT system

This system includes one Newcomb Model E-10B amplifier, two eight-inch extended range loudspeakers, and 100 feet of speaker cord. No microphone included. System weight: 12 lbs.
LIST: $99.00.

MODEL E-20-48F

This is a 20 watt sound system for permanent installation consisting of one Newcomb Model E-20 amplifier, four 8" extended range loudspeakers, and 200 feet of speaker cord. No microphone. System weight: 20¼ lbs.
LIST: $147.50.



MODEL E-20-212F

20 watt PERMANENT system

This twenty watt system includes one Newcomb E-20 amplifier, two 12" dual-cone loudspeakers, and 100 feet of speaker cord. No microphone included. System weight: 20¾ lbs.
LIST: $143.50.

MODEL E-40-212FH 40 watt PERMANENT system includes one Newcomb E-40 amplifier, two heavy duty 12" loudspeakers, and 100 feet of speaker cord. No microphone. System weight: 28 lbs.
LIST: $184.50.

MODEL E-40-412F 40 watt PERMANENT system includes one Newcomb E-40 amplifier, four dual-cone loudspeakers, and 200 feet of speaker cord. No microphone. System weight: 32½ lbs.
LIST: $217.50

MODEL E-75-412FH 75 watt PERMANENT system includes one Newcomb E-75 amplifier, four heavy duty 12" loudspeakers, and 200 feet of speaker cord. No microphone. System weight: 43 lbs.
LIST: $299.50

SPEAKER ASSEMBLIES

MODEL P-108 is an 8" speaker in a portable case fitted for carrying the Newcomb E-10B amplifier. It has a kickproof, perforated metal grille, 25 foot cord with octal plug and microphone straps. Dimensions: 11¼" x 14¾" x 9" deep. Weight: 9 lbs.
LIST: $40.00.

MODEL P-212R consists of two efficient 12" dual-cone speakers, each with 25 foot cord and octal plug. in a split portable case designed to carry the E-20 amplifier with or without the P-4 phone top. Case is covered with gray vinyl, has kickproof, perforated metal grilles, and microphone-carrying straps. Dimensions: 13½" x 15¼" x 23". Weight: 22½ lbs.
LIST: $100.00.

MODEL P-212H consists of two heavy duty 12" loudspeakers, each with 25 foot cord and octal plug, in a split portable case designed to carry the E-40 amplifier with or without the P-4 phono top. Case is covered with gray vinyl, has kickproof, perforated metal grilles, and microphone-carrying straps. Dimensions: 13½" x 15¼" x 23". Weight: 24½ lbs.
LIST: $112.50.

MODEL C-8 COLUMN SPEAKER combines exceptional vertical directivity with broad horizontal coverage. Enclosure tapered front to back for ganging. Contains four efficient 8" speakers. Dimensions: 6½"D x 11⅜"W 40" H. Weight: 20¼ lbs.
LIST: $115.85.

MODEL C-12 SUPER COLUMN SPEAKER with four 12" speakers provides super intelligibility, super efficiency, super power handling capacity — 120 watts peak. Dimensions: 7½" D x 15¼" W x 56" H. Weight: 39½ lbs.
LIST: $232.50.

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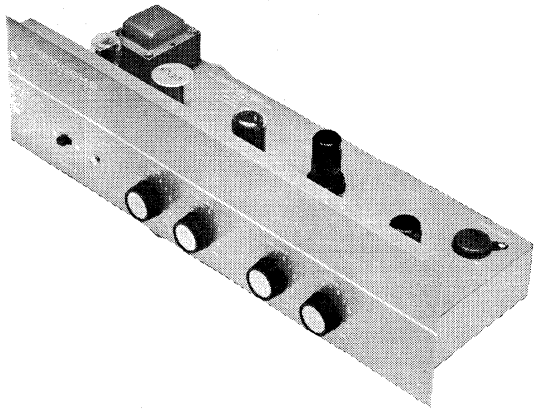
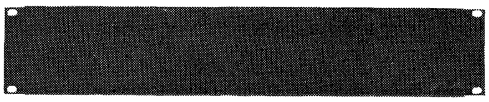


MODEL E2-525G INDUSTRIAL PREAMPLIFIER

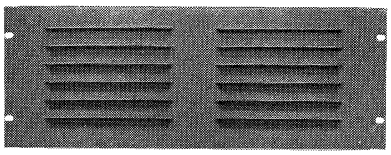
Designed for industrial sound systems, the Newcomb E2-525G has 125 to 600 ohm balanced line output. Maximum output at 600 ohms = 10 volts line output. Inputs: one mike at 2 meg impedance, convertible to low impedance by means of Newcomb plug-in transformer (socket provided) · one high level crystal phono; one radio or tape. At 600 ohm line output: mike output of .0015 volts delivers 1 volt; phono input of .15 volts delivers 1 volt out. Frequency response: ±2 db 30 to 15,000 cycles. Electronic remote switching turns mike on and music off when paging. Remote switching line may be unshielded 3-conductor cable up to several thousand feet long. No relays required. There are separate tone controls for mike and phono. Mike input socket is a standard 3-contact phone jack usable with low or high impedance microphones. Tubes: 1-6SF5, 1-6SN7, 1-6J5, 1-6X5, 25 watts, 117 volts, 60 cycles a.c. Dimensions: 19″ x 5¼″ x 6⅛″ deep. Weight: 9 lbs. **LIST: $129.50.**

PANELS FOR CABINET RACK



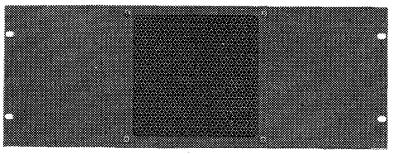
BLANK PANELS

Model Number	Dimensions	Weight lbs.	List
175G	1¾″ x 19″	1¾	$3.00
350G	3½″ x 19″	1¾	$3.50
525G	5¼″ x 19″	2½	$4.00
700G	7″ x 19″	3	$4.50
875G	8¾″ x 19″	3½	$5.00
1050G	10½″ x 19″	4¼	$5.50



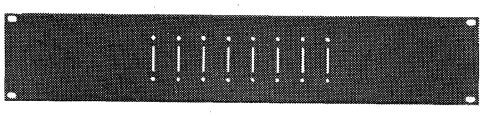
LOUVERED PANELS

Model Number	Dimensions	Weight lbs.	List
L-525G	5¼″ x 19″	2½	$5.00
L-700G	7″ x 19″	3	$5.75
L-875G	8¾″ x 19″	3½	$6.50
L-1050G	10½″ 19″	4¼	$7.25



MONITOR PANEL

MODEL 700MPG measures 7″ x 19″, has perforated metal grille, requires 6″ speaker, weight 3 lbs. (See also radio panels.)
LIST: $10.00.

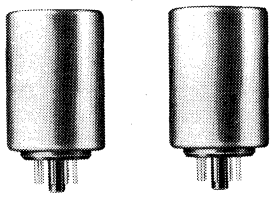


LEVER KEY PANELS

All lever key panels have 1″ slots 1″ apart wtih 1⅝″ mounting holes. Each panel measures 3½″ x 19″. Weight of each panel is 1¾ lbs.

Model No.	No. of slots	LIST
LK-350-6G	6	$5.00
LK-350-8G	8	$5.50
LK-350-10G	10	$6.00
LK-350-12G	12	$6.50
LK-350-14G	14	$7.00
LK-350-16G	16	$7.50

Name strip Model No.	LIST
SR-6	$2.50
SR-8	$2.60
SR-10	$2.70
SR-12	$2.80
SR-14	$2.90
SR-16	$3.00

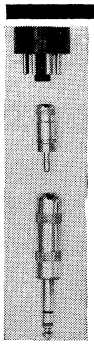


HUM-FREE PLUG-IN TRANSFORMERS

MODEL TR-91 input transformers are designed for all Newcomb amplifiers wired to accept them. They provide 30/50 ohms or 200/500 ohms input impedance depending on wiring of transformer socket. Normal Newcomb amplifier wiring connects the TR-91 for 30/50 ohms. Frequency response: 20 to 20,000 cycles. Wt: 1¼ lbs. **LIST: $25.00.**

MODEL TR-100 input transformers are identical to TR-91 models. They provide 125/150 ohms or 500/600 ohms impedance depending upon wiring of socket with 125/150 ohms normal. Frequency response: 20 to 20,000 cycles. Weight: 1¼ lbs. **LIST: $37.50.**

MODEL TR-92B is a bridging transformer, otherwise identical to above models. Weight: 1¼ lbs. **LIST: $37.50.**



CONNECTORS

MODEL PW-156 is an octal speaker plug for all Pathfinder models. **LIST: $.45.**

MODEL PW-157 is a phono tap or radio input plug for all Pathfinder models. **LIST: $.75.**

MODEL PW-144 is a three contact, shielded mike plug for all Pathfinder models. **LIST: $1.75.**

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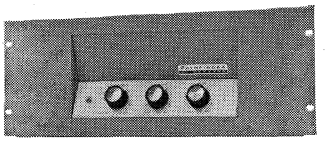
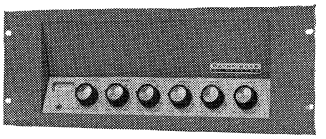
NEWCOMB PATHFINDER PUBLIC ADDRESS EQUIPMENT

RACK AND PANEL EQUIPMENT

AMPLIFIER PANELS — MODEL E-10-700PG

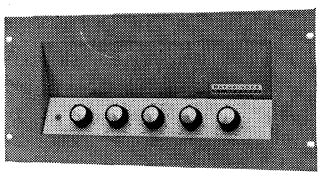


Panel only for rack mounting a standard Newcomb E-10B amplifier. Dimensions: 19″ x 7″. Weight: 3 lbs.
LIST: $17.50.



MODEL E-52040-700PG

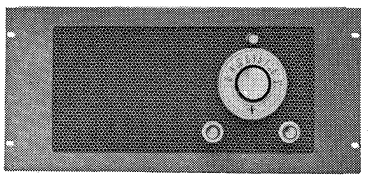
Panel only for either the Newcomb E-5P preamplifier, the E-20 or E-40 amplifier. Dimensions: 19″ x 7″. Weight: 3½ lbs.
LIST: $18.50.



MODEL E75-875PG

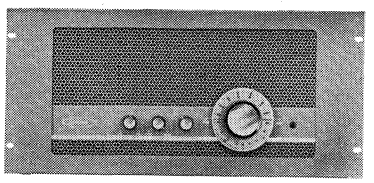
Panel only for rack mounting a standard Newcomb E-75 amplifier. Dimensions: 19″ x 8¾″. Weight: 4 lbs.
LIST :$19.50.

PANEL MOUNTED RADIOS—MODEL AM-500-875G AM RADIO

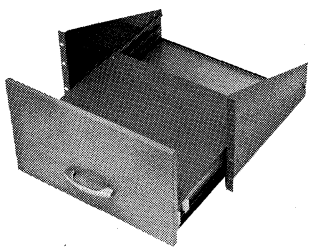


This is a complete, transformer-powered AM radio in which the output amplifier and 8″ oval speaker act as a monitor. The output to external amplifiers is taken off ahead of the volume control so adjustment of monitor volume has no affect on output to sound system or tape recorder. The AM-500-875G is a dependable, rugged, continuous duty receiver with a large, direct-driven tuning dial with conelrad markings, lighted index. 40 watts, 117 volts, 60 cycles a.c. Dimensions: 19″ x 8¾″ x 7½″ deep. Weight: 12¼ lbs.
LIST: $109.00.

MODEL AFM-750-875G AM-FM RADIO



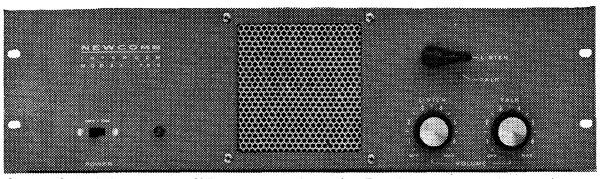
A complete, transformer-powered AM-FM radio in which the output amplifier and 8″ oval speaker act as a monitor, the AFM-750-875 has AFC (and defeat switch) and temperature-compensated oscillators for exceptionally stable performance. Output to external amplifier is taken off ahead of the volume control so adjustment of monitor volume has no affect on output to sound system or recorder. 54 watts, 117 volts, 60 cycles a.c. Dimensions: 19″ x 8¾″ x 7½″ deep. Weight 14½ lbs.
LIST: $249.00.



MODEL 1050CG

PHONO CHANGER DRAWER

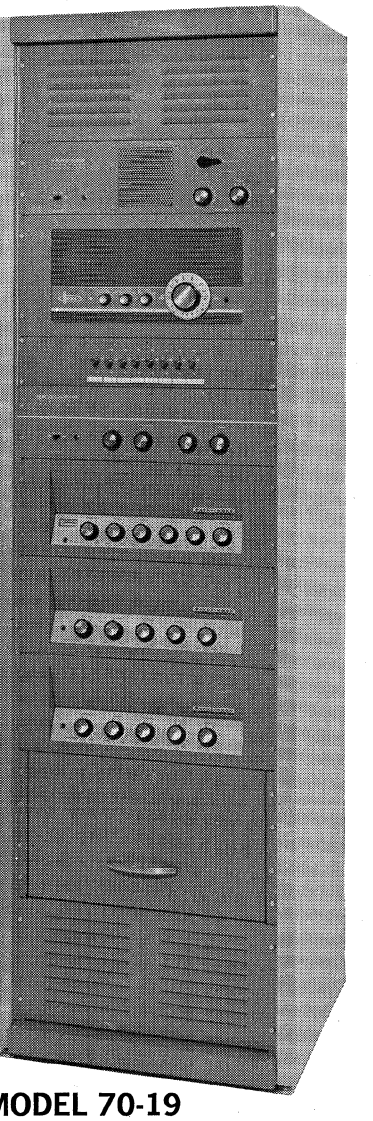
The front panel dimensions of the 1050CG phonograph changer drawer is 19″ x 10½″. It has a 16½″ x 15″ removable motor board. Depth from the top of the motor is 3¾″. Clearance above top of motor board is 6⅛″. Weight 19¼ lbs. Finest double-extension, roller bearing glides provide a stable level platform for player.
LIST: $65.00.



MODEL TB-525G

PANEL-MOUNTED INTERCOM

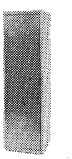
A complete intercom amplifier and speaker, the TB-525G is designed for industrial installations wherein paging speakers are used for intercommunication. Input and outgoing impedances: 500 ohms. Separate incoming and outgoing volume controls. Talk-listen switch. Pilot light. Tubes: (3) 1-6SL7, 1-6v6, 1-6X5. 40 watts, 117 volts, 60 cycles a.c. Dimensions: 19″ x 5¼″ x 6⅛″ deep. Weight: 9¼ lbs. **LIST: $183.50.**



MODEL 70-19

CABINET RACK

Contemporarily styled, solidly built, beautifully finished in an olive-gray tint compatible with Newcomb Pathfinder equipment, the 70-19 has a ventilated back, provides 70″ of panel space. Panels are standard 19″ width. Last three digits of model number indicate panel depth. e.g. "875" stands for 8¾″ panel depth. Dimensions: 21⅞″x 74″x 18½″ deep. Weight 84 lbs. **LIST: $262.00.**



MODEL 70D Door with lock for front of 70-19 cabinet. Weight: 23 lbs.
LIST: $50.00.

MODEL 35-19 CABINET RACK A short cabinet rack with ventilated back ,35″ of panel space. Dimensions: 21⅞″ x 39″ x 18½″ deep. Weight: 52 lbs.
LIST: $187.50.

MODEL 35D Door with lock for front of 35-19 cabinet. Weight: 12 lbs.
LIST: $29.50.

NEWCOMB AUDIO PRODUCTS CO. NEWCOMB

Trade Discount Applies To List Prices Only

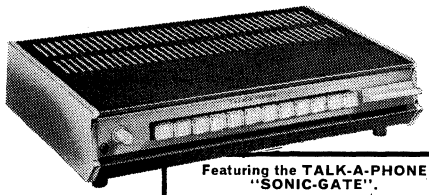
© U.C.P., Inc.

NEW TALK-A-PHONE WIRELESS AND HOME INTERCOM SYSTEMS

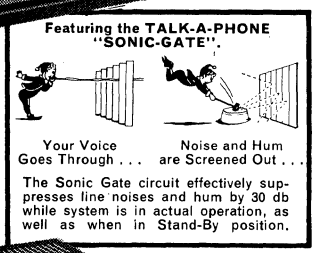
TWO NEW WIRELESS SYSTEMS

Two NEW, high-quality wireless intercoms, featuring the exclusive TALK-A-PHONE "SONIC GATE" circuit. Provides dependable communication where permanent, wired systems are not practical. Ideal for use in offices, factories, stores, homes, apartments, nurseries, farms, etc. Distinctively styled cabinets combine the look and feel of fine grained leather with the strength and rigidity of steel. Beautifully finished in charcoal gray with brushed chrome side panels. Each station has a translucent indicator which illuminates when "On." All stations must be connected to outlets on the **same electric company service transformer.** Built-in Ground Adapter provides greater sensitivity where electrical wiring is routed over long paths. U.L. Approved.

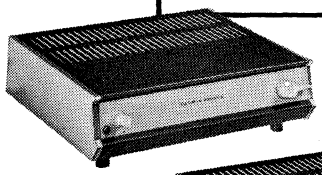
NEW TALK-A-PHONE 12-STATION SELECTIVE WIRELESS* SYSTEM

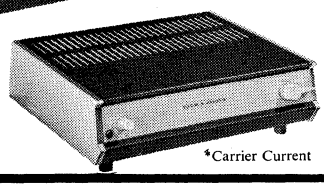


- No Installation
- No Wiring
- No Cables
- Just Plug-in and Talk



The Sonic Gate circuit effectively suppresses line noises and hum by 30 db while system is in actual operation, as well as when in Stand-By position.





*Carrier Current

• 6 Separate 2-Way Conversations Simultaneously
• Selective Paging with Reply • Push-Button Channel Selector
• Start a System with any number of Masters and Staffs

Provides selective communication. Each Master is equipped with a 6 or 12-channel selector; can converse with any other station selectively; can receive calls on any channel Master elects to use. As many as 6 separate conversations may be held simultaneously, with 12 Masters. Masters can talk with any station in system; can also set up conferences.

Wireless Staff Stations are for use where calls need not be originated, but where reply must be made. They are available for operation on any single channel desired—to match that of Master. They also can be used to receive Paging Calls from any Selective Wireless Master in the system . . . use as many Wireless Staffs as needed (all Staffs must operate on same channel for this purpose). Two or more Wireless Staffs on the same channel will function as a 2-Station System (without Master); they can originate calls and reply to each other.

Start a system with any number of Masters and Staffs. Where up to 12 stations are used, each on a separate channel, Master can converse selectively with any channel. If more than 12 stations are used, channels must be *shared*; stations on same channel will receive all calls to that channel. To change location, merely pick up unit and move . . . no rewiring or new installation is necessary. All stations are equipped with the original TALK-A-PHONE UNI-TRANS feature, which permits continuous one-way transmission for periods when you wish to dictate or "listen-in."

T-LCM-8912. 12-Station Selective Wireless Master. Complete, with tubes and instructions, ready to use. Operates on 110-120 volts, AC or DC. Size 14"wx8¾"dx3⅛"h. Shipping weight, 12½ lbs.
List Price Per Station $164.00 ..... Net **95.80**

T-LCM-8906. 6-Station Selective Wireless Master.
As above except for 6-Station Capacity. Shpg. Wt. 10 lbs.
List Price Per Station $146.00 ..... Net **85.50**

Wireless Staff Stations. Receive and reply on a single channel only.

T-LCS-901 Channel 1	T-LCS-903 Channel 3	T-LCS-905 Channel 5
T-LCS-902 Channel 2	T-LCS-904 Channel 4	T-LCS-906 Channel 6

Complete with tubes and instructions, ready to use. Operates on 110-120 volts, AC or DC. Size, 10½"wx8¾"dx3⅛"h. Shipping weight, 7 lbs.
List Price Per Station $84.00 ..... Net **49.00**

NEW TALK-A-PHONE 2-STATION WIRELESS* SYSTEM

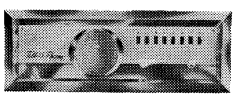
A complete system of 2 stations, ready to use. Simply place each unit where desired, plug each into nearest electrical outlet, and talk! Add more stations anytime. All stations will receive any messages transmitted from any point. Move units anywhere, plug into electrical outlet and use—no re-wiring or new installation necessary. The original TALK-A-PHONE UNI-TRANS is built in—provides continuous one-way transmission; ideal for dictation, or listening-in on baby. 110-120 V. AC-DC. Size, 10½"wx8¾"dx3⅛"h.

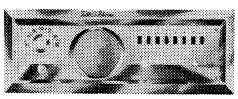
T-LC-33. Complete with tubes and instructions. Weight 16 lbs. List Price Per System $146.00 . . . Net **85.50**

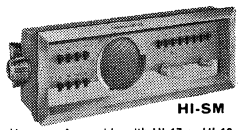
T-LC-17. Additional Single Station. Weight 8 lbs. List Price Each $73.00 ..... Net **42.75**

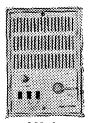
CRADLEPHONE—Optional for all units above. Add H to model No. when ordering.
List Price per Station add $59.95 ..... Net add **$35.00**

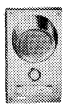
NEW TALK-A-PHONE All-Transistor HOME INTERCOM-RADIO SYSTEMS

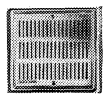

HI-9 or HI-8


HI-9R or HI-29R


HI-SM
Housing Assembly with HI-17 or HI-16


HI-4


HI-1


T-LR-2R

This new TALK-A-PHONE Intercom System saves the housewife and homeowner miles of tiresome steps, hours of time . . . Makes home life easier, more comfortable and more enjoyable . . .

LISTEN-IN ON BABY, CHILDREN OR SICK ROOM . . . from any room in the house, day or night • ANSWER OUTSIDE DOORS FROM ANY ROOM . . . in any part of the house—without opening doors to strangers • TALK FROM ROOM TO ROOM . . . back and forth, upstairs or downstairs, any time, day or night • YOUR FAVORITE RADIO PROGRAMS . . . follow you throughout the house with the flick of a switch.

TALK-A-PHONE All-Transistor Home Intercom units are beautifully finished in gold, polished and satin silver tones. All Masters and Staff Stations are designed for flush mounting; or with optional Housing Assembly, these stations can be mounted on walls, cabinets, or set on tables, shelves, etc. Plaster Ring included for 8 and 16-Station units require 14$\frac{1}{16}$"w, 4$\frac{3}{8}$"h, 3½"d wall opening. Front panel size: 15¼"w, 5¼"h. HI-4 requires 4⅛"w, 6½"h, 2"d wall opening. Front Panel size: 4$\frac{13}{16}$"w x 7$\frac{7}{16}$"h. Sub-Stations are designed for flush mounting only, do not need Plaster Ring. Requires 2" square wall opening, 2" deep. Front Panel size: 3$\frac{3}{8}$"w, 5$\frac{5}{8}$"h. Stations do not plug into electrical outlet. Operates from Battery or HI-PS Power Supply Unit. Total capacity: up to 16 stations including Central Master. With full instructions.

CENTRAL MASTER STATIONS. Only one used per system. Contains the All-Transistor Amplifier (and radio when built-in). Place in any room. Master can call and converse with any other station (or stations) in system; can listen-in to any Station that user makes "non-private". If system has Model HI-9R Central Master (built-in radio), the Master and any Staff can listen to standard AM radio broadcasts. "Additional" Masters can be used in rooms where it is desired to listen to AM radio programs different from those tuned in at Central Master.

HI-9 Central Master Station. Without radio, less battery.
List Price, Each, $99.50 ..... Net Each **58.00**

HI-9R Central Master Station. With built-in radio. Less battery.
List Price, Each, $154.00 ..... Net Each **89.50**

HI-17 Central Master Station. Same as HI-9 except has total 16 station capacity. Without built-in radio.
List Price Each $146.00 ..... Net Each **85.50**

HI-29R Additional Master Station. With built-in radio. Less battery.
List Price, Each, $154.00 ..... Net Each **89.50**

STAFF STATIONS. 4, 8 and 16-Station Capacity Staff Stations can be combined within the same system and used with choice of one 8-station capacity or one 16-station capacity Central Master Station. (When HI-9R is used, any HI-4, HI-8 and HI-16 staff, can listen to radio of HI-9R).

HI-4 Staff Station. Provides same facilities as HI-8 but has 4-Station capacity. For flush mounting in wall. With accessory T-SM-L, can be surface mounted.
List Price Each $29.95 ..... Net Each **17.50**

HI-8 Staff Station. Use as needed to call and converse with one or more Staff, Master or Sub-Stations. Can be switched to "private" or "non-private" operation as desired. When "non-private", as in baby or sick room use, another Staff or Master can listen in. Staff can listen to standard AM radio programs of HI-9R Central Master.
List Price Each $54.00 ..... Net Each **31.50**

HI-16 Staff Station. Same as HI-8 except has total 16 station capacity.
List Price Each $99.95 ..... Net Each **58.50**

HI-SM HOUSING ASSEMBLY. For enclosing any 8 or 16-Station Capacity Master or Staff, to permit mounting on walls or cabinets, or placing on tables, shelves, etc.
List Price Each $19.00 ..... Net Each **11.00**

HI-1 OUTDOOR SUB-STATION. For front and rear entrance applications. Complete with push-button for connection to regular house chime, bell or buzzer. Has illuminated nameplate. When caller rings bells, any Master or Staff may reply and converse with caller. Caller operates no controls.
List Price Each $27.50 ..... Net Each **15.95**

O-SM Surface Mounting Accessory for HI-1. Custom-styled metal casting of satin silver finish. Provides an attractive, coordinated base for mounting HI-1 on surface of wall. 3$\frac{3}{16}$"x5$\frac{13}{16}$"x⅜". List Price Each $5.20 ..... Net Each **2.95**

T-LR-2R ALTERNATE OUTDOOR SUB-STATION. For flush mounting. Requires wall opening 4⅛" square, 2" deep. Stainless steel front panel measures 4$\frac{13}{16}$" square. Complete with plaster ring. Without push button or illuminated nameplate.
List Price Each $22.50 ..... Net Each **12.95**

Model T-SM Optional accessory for surface mounting T-LR-2R on wall.
List Price Each $6.80 ..... Net each **4.00**

Model TSM-L Optional accessory for Surface mounting HI-4 Staff on wall.
List Price Each $7.90 ..... Net Each **4.65**

HI-JB8 JUNCTION BOX for connecting Masters and Staffs up to a total of 8 stations. See #2 of "How to Determine Cable Needs."
List Price Each $7.50 ..... Net Each **4.30**

HI-JB16 JUNCTION BOX Same as above except for up to 16 stations.
List Price Each $11.95 ..... Net Each **6.95**

BATTERY. Use any 9-volt dry battery, such as ignition or telephone battery; or six standard #6 dry cells in series—available from local sources. *Note: When battery is used, power supply is not required.*

HI-PS POWER SUPPLY UNIT. One required per system (only when battery is not used). Plugs into any 110-120 volt, 60 cycle AC electrical outlet in basement, attic, etc.
List Price Each $27.50 ..... Net Each **15.95**

HOW TO DETERMINE CABLE NEEDS

Masters and Staff Stations. Use #6226 cable in one of 2 ways: (1) Measure from 1st unit to 2nd unit only; from 2nd unit to 3rd unit only, etc., until last unit is reached—then total. Cable between last and 1st unit not needed. (2) Place a Common Junction Box (Model HI-JB) in attic, basement, closet, etc. Measure from each Master and Staff to Junction Box and total. Double length #6226 required for 16-Station units. Connect HI-4 to nearest 8 or 16-Station unit or to HI-JB with #6214 cable.

Outdoor Sub-Stations: Connect to nearest Master or Staff only with #6202 cable

Battery or Power Supply Unit: Connect with #6202 cable to Master Stations only.

CABLE. For indoor or outdoor use.

Type No.	No. Pairs	Approx. O.D.	LIST, Per Ft.	NET, Per Ft.
6226	13	$\frac{5}{16}$"	64c	37c
6214	7	$\frac{7}{16}$"	34c	20c
6202	1	$\frac{1}{16}$"	7c	4c

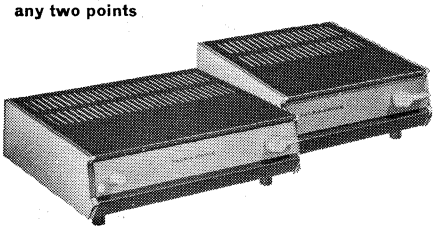
All prices slightly higher west of Rockies. All prices and specifications subject to change without notice. Manufactured under exclusive TALK-A-PHONE Patents.

TALK-A-PHONE CO.

NEW TALK-A-PHONE Deluxe Intercom Systems

Quality intercommunication systems designed for the Office, Business, Plant, House, Farm, Professional Man, or any other private or commercial application. A flick-of-a-finger gives you instant and direct two-way conversation between any two points—anywhere. Masters have translucent indicator which illuminates when system is "on." In cabinets that combine the look and feel of fine grained leather with the strength and rigidity of steel. Beautifully finished in charcoal gray and brushed chrome. Resists industrial liquids and atmospheres. Size: Masters, 10½"w x 8¾"d x 3⅛"h.; Subs, 7½"w x 8¾"d x 2⅛"h. U.L. Approved.

2-way voice communication between any two points



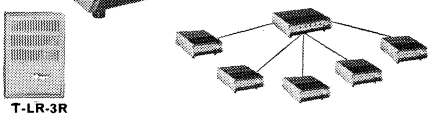
TALK-A-PHONE 2-STATION SYSTEM

T-LC-2 A complete, high-quality intercommunication system. Includes a Master Station, a Sub-Station and 50 feet of interconnecting cable. Additional cable available for distances up to 2000 feet. Easy to install and operate. Master and Sub-Station can originate calls to each other and carry on a 2-way conversation. Sub-Stations can be used "privately" or "non-privately". When "private", Master cannot listen-in on Sub-Station; yet Sub can answer and originate calls. When "non-private", persons at Sub-Station can answer calls at a distance without operating controls, as well as originate calls. Master is equipped with a translucent indicator, illuminated by permanent-type bulb, to show when system is "on". Rugged, high-gain amplifier is built to withstand continuous use and to require a minimum of maintenance. Adjustable Volume. Only Master plugs into electrical outlet, 110-120 volts, AC or DC. Master in deluxe cabinet finish, Sub-Station cabinet is of same style and color, but is in grained, baked enamel finish. U.L Approved.

Model T-LC-2 2-Station System complete with tubes, easy-to-follow instructions, and 50 feet of cable. Wt. 13 lbs.
List Price complete $67.00.....Net complete **39.00**
No. 6303 (3 conductor) cable. 175° F. individually covered conductors with overall plastic jacket and milar shield. Provides noise-free cable lines in Industry, Office and Home. For indoor and outdoor use where additional lengths are required between the Master and Sub-Station.
List Price per foot 8c.....Net per foot **4¾c**
No. 5303 (3 conductor) cable for indoor use.
List Price per foot 6c.....Net per foot **3½c**
Optional Wall Mounting Brackets for Model T-LC-2 Sub-Station are available. See description below.

A system of one Master Station which can communicate with from one to ten Sub-Stations. Subs can call Master, but not each other.

T-LR-3 or T-LR-3M



T-LR-3R

TALK-A-PHONE MASTER SELECTIVE SYSTEMS

T-LM A new system consisting of one Master Station and from one to ten Sub-Stations. Master Station can talk and listen to any one Sub-Station, several Sub-Stations or with all Subs simultaneously. Sub-Stations do not communicate with each other. Only the Master Station plugs into an electrical outlet. You may start with only one Master and one or two Sub-Stations and then add later when necessary. Installation of system has optional feature whereby Sub-Stations can be connected "privately," or "non-privately" and still originate calls to the Master under either application. Once a conversation has been initiated with a "non-private" system, persons at Sub-Stations need operate no controls and can reply from a distance. When the system is connected "privately," Master unit cannot "listen in" on Sub-Stations. However, they can reply when called, and also originate calls to the Master. Operates universally on 110-120 volts, AC-DC. U.L. Approved.

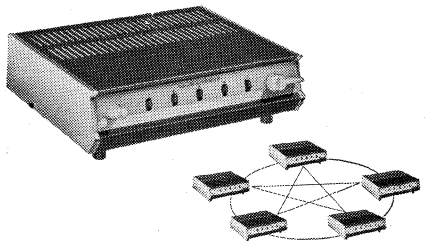
T-AC The T-AC-5406 and T-AC-5411 Master Stations operate as above with the added feature of 10 times volume output. A desirable feature for large or noisy areas and for paging. Operates on 110-120 volts, AC only.

Use only one Master in each System.

Optional Wall Mounting Brackets for Models T-LR-3 and T-LR-3M are available. See description below.

Model T-LM-5 Master selective Station for 5 Sub-Stations, complete with tubes and easy-to-follow instructions. Wt. 8 lbs. List Price each $64.00.....Net each **37.50**
Model T-LM-10 Master Selective Station for 10 Sub-Stations, complete with tubes and easy-to-follow instructions. Wt. 8 lbs. List Price each $79.00.....Net each **46.25**
Model T-AC-5406 Master Station. 5 sub-station capacity. High Volume Output. Wt. 8 lbs.
List Price each $79.00.....Net each **46.25**
Model T-AC-5411 Master Station. 10 sub-station capacity. High Volume Output. Wt. 8 lbs.
List Price each $95.00.....Net each **55.50**
Model T-LR-3 Sub-Station (in same deluxe finish as Masters) for use with any of above Masters. Wt. 6 lbs.
List Price each $29.00.....Net each **16.95**
Model T-LR-3M Sub-Station (in cabinet of same style, color and size as above, but in grained, baked enamel finish) for use with any of above Masters. Wt. 6 lbs.
List Price each $22.50.....Net each **12.95**
Model T-LR-3R Flush mounted Sub-Station for use with any of above Masters. Requires wall opening 4⅛" W. x 6½" H. Stainless steel front panel measures 4 13/16" W. x 7 3/16" H. Complete with plaster ring.
List Price each $22.50.....Net each **12.95**
Model T-SM-L Optional accessory for surface mounting T-LR-3R on wall. List Price each $7.90...Net each **4.65**
Model T-HP-3 Hi-Power Staff Station for wall mounting. Charcoal Gray metal case. Wt. 8 lbs.
List Price each $29.95.....Net each **17.50**
Model T-HP-3V Same as above, but with built-in volume control, adjustable to full output.
List Price each $38.50.....Net each **22.50**
Model T-C-20 Nine-inch weatherproof re-entrant horn. Charcoal Gray color. Wt. 5 lbs.
List Price each $46.00.....Net each **27.00**
Model T-C-20V Same as above, but with built-in weather resistant volume control, adjustable to full output.
List Price each $62.00.....Net each **36.00**
T-S-100 Wall Switch for origination of call through T-C-20 or T-HP-3. List Price each $6.40.....Net each **3.75**
Model T-S-111 Wall Mounted Cradle Phone. (Optional accessory). For noisy areas and listening privacy. Use with T-HP-3, T-C-20 and T-S-100. Speaker disconnects when in use.
List Price each $75.00.....Net each **44.00**
No. 6303 (3 conductor) cable. 175° F. individually covered conductors with overall plastic jacket and milar shield. Provides noise-free cable lines in Industry, Office and Home. For indoor and outdoor use to connect Sub-Station to Master.
List Price per foot 8c.....Net per foot **4¾c**
No. 5303 (3 conductor) cable for indoor use.
List Price per foot 6c.....Net per foot **3½c**

A system of up to ten Master Stations. Each station can call and communicate with any other.



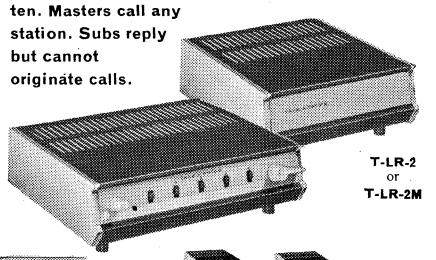
TALK-A-PHONE SUPER SELECTIVE SYSTEMS

T-LS A new system of all Master Stations. Any Station can call any other Station in system. Several completely private 2-way conversations are possible at same time. A versatile, low cost intercom system offering extreme flexibility, meeting many requirements in industry, offices, homes, etc. Any Station can call and carry on a conversation with any other Station or Stations in the system with absolute "privacy." Have a visitor in your office and your mind is at ease that no one can eavesdrop on your conversation. Stations can be located even 1000 feet apart. Variable volume, adjustable at each unit, controls incoming voice. You can start with two or three masters, and then add later as required. Operates universally on 110-120 volts, AC-DC. U.L. Approved.

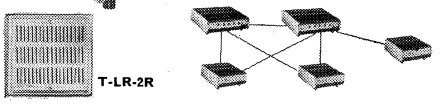
T-AC The T-AC-505 and T-AC-510 Master Stations operate as above but provides a system with the added feature of 10 times volume output. A desirable feature for large or noisy areas and for calling many stations at once. T-AC-505 and T-AC-510 Masters cannot be intermixed with any other master. For 110-120 volts, AC only.

Model T-LS-5 Super Selective Station for five Masters, complete with tubes and easy-to-follow instructions. Wt. 8 lbs. List Price each $64.00.....Net each **37.50**
Model T-LS-10 Super Selective Station for ten Masters, complete with tubes and easy-to-follow instructions. Wt. 8 lbs. List Price each $79.00.....Net each **46.25**
Model T-AC-505 Super-Selective Station for 5 Masters. Hi-Volume Output. Wt. 8 lbs. Complete with instructions.
List Price $79.00.....Net each **46.25**
Model T-AC-510 Same as T-AC-505 except for 10 Masters. List Price each $95.00.....Net each **55.50**
No. 5506 (6-conductor) Cable for connecting T-LS-5 or T-AC-505 Masters.List Price per foot 16c Net per foot **9½c**
No. 9911 (11-conductor) Cable for connecting T-LS-10 or T-AC-510 Masters.List Price per foot 29c Net per foot **17c**

A system combining one or more Master Stations with one or More Sub-Stations up to a combined total of ten. Masters call any station. Subs reply but cannot originate calls.

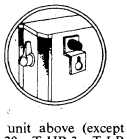


T-LR-2 or T-LR-2M



T-LR-2R

A.



B.

TALK-A-PHONE COMBINATION SYSTEMS

T-CL For the more flexible type of communication system requiring the operation of more than one Master Station, along with Sub-Stations which need not originate calls. Personnel can answer incoming calls even though they are 25 to 40 feet from their unit. Master Stations may talk to each other and to all Sub-Stations in the system selectively; or you can have one or more Sub-Stations which are exclusive to only one Master Station (as illustrated in the diagram at left). Master Stations have the option of making themselves "private" or "non-private" at will. You can begin with two stations (at least one must be a Master) and add other units as required. Model T-CL-5 Master Station has a total inter-connecting capacity of five stations, including Masters and Sub-Stations; while Model T-CL-10 Master Station has a total capacity of ten stations. Sub-Stations are not plugged into electric current. U.L. Approved. 110-120 volts. AC-DC.

Optional Wall Mounting Brackets for Models T-LR-2 and T-LR-2M are available. See description below.

T-AC The T-AC-605 and T-AC-610 Master Stations operate as above but provides a system with the added feature of 10 times volume output. A desirable feature for large or noisy areas and for calling many stations at once. T-AC-605 and T-AC-610 Masters cannot be intermixed with any other master. For 110-120 volts, AC only.

Model T-CL-5 Combination Master for five station use, complete with tubes and easy-to-follow instructions, Wt. 8 lbs. List Price each $77.00.....Net each **44.95**
Model T-CL-10 Combination Master for ten station use, complete with tubes and easy-to-follow instructions. Wt. 8 lbs. List Price each $92.00.....Net each **54.00**
T-AC-605 Combination Master for 5-Station use. Hi-Volume Output. Wt. 8 lbs. Complete with instructions.
List Price each $92.00.....Net each **54.00**
T-AC-610 Same as T-AC-605 except for 10-Station use.
List Price each $107.00.....Net each **62.50**
Model T-LR-2 Sub-Station (in same deluxe finish as Masters) for use with any of above Masters. Wt. 6 lbs.
List Price each $29.00.....Net each **16.95**
Model T-LR-2M Sub-Station (in cabinet of same style, color and size as above, but in grained, baked enamel finish) for use with any of above Masters. Wt. 6 lbs.
List Price each $22.50.....Net each **12.95**
Model T-LR-2R Flush mounted Sub-Station for use with any of above Masters. Requires wall opening 4⅛" square. Stainless steel front panel measures 4 13/16" square. Complete with plaster ring.
List Price each $22.50.....Net each **12.95**
Model T-SM Optional accessory for surface mounting T-LR-2R on wall. List price each $6.80....Net each **4.00**
Model T-HP-3 Hi-Power Sub-Station for wall mounting in charcoal gray metal case. Wt. 8 lbs.
List Price each $29.95.....Net each **17.50**
Model T-HP-3V Same as above, but with built-in volume control, adjustable to full output.
List Price each $38.50.....Net each **22.50**
Model T-C-20 Nine-inch weather proof re-entrant horn. Charcoal gray color. List Price each $46.00....Net each **27.00**
Model T-C-20V Same as above, but with built-in weather resistant volume control, adjustable to full output.
List Price each $62.00.....Net each **36.00**
Model T-S-111 Wall Mounted Cradle Phone. (Optional accessory). For noisy areas and listening privacy. Use with T-HP-3 and T-C-20. Speaker disconnects when in use. List Price each $75.00.....Net each **44.00**
No. 6210 (5 pair) Cable for interconnecting T-CL-5 or T-AC-605 Masters.
List Price per foot 27c.....Net per foot **16c**
No. 6226 (13 pair) Cable for interconnecting T-CL-10 or T-AC-610 Masters.
List Price per foot 64c.....Net per foot **37c**
No. 6902 (2-conductor) Cable for connecting Sub-Station to T-CL-5, T-CL-10, T-AC-605 or T-AC-610.
List Price per foot 4¼c.....Net per foot **2½c**

A. CRADLEPHONE—Optional for any unit above (except T-CL-5, T-CL-10, T-AC-605, T-AC-610, T-C-20, T-HP-3, T-LR-3R and T-LR-2R.) Add "H" to Model No. when ordering.
List Price Per Station, add $59.95.....Net, add **35.00**

B. WALL MOUNTING BRACKETS—Optional accessory for use with TALK-A-PHONE Models T-LR-3, T-LR-3M, T-LR-2, T-LR-2M, T-C-41, T-C-41M, T-C-42, T-C-42M, and T-LC-2 Sub Station to enable mounting on wall, side of desk, etc. One pair required per station. Permits mounting with front panel upward, downward or sideward.

Model T-W1 Mounting Brackets, per pair. List Price $1.00. Net **60c**

All Prices Slightly Higher West of Rockies — All Prices and Specifications Subject to Change Without Notice. Manufactured under exclusive TALK-A-PHONE Patents.

HOW TO DETERMINE CABLE REQUIREMENTS

For **Master Selective Systems** measure from each Sub-Station to the Master and order total. For **Super Selective Systems**—measure from first Master to second Master only, from second Master to third Master only, etc., and total. Cable between first and last Master not necessary. For **Combination Systems**—Master cable; measure from first Master to second Master only, from second Master to third Master only, etc., and total; Sub-Station cable; measure from each Sub-Station to nearest Master only. Connect T-S-111 at any convenient point between remote speaker and Master Station.

TALK-A-PHONE CO.

Trade Discount Applies To List Prices Only

© U.C.P., Inc.

THE ALL-NEW, ALL-TRANSISTOR TALK-A-PHONE "CHIEF" AND "CHIEF REDI-POWER" INTERCOMMUNICATION SYSTEMS

One Model Meets Every Requirement

Setting a new standard in quality, design and performance, the new TALK-A-PHONE "CHIEF" and "CHIEF REDI-POWER" meets every intercom need of office, factory, institution, or any other commercial or private application. "CHIEF" Master Stations of 6, 12, 20, 30, 40 or 50 station capacity can be intermixed with "CHIEF REDI-POWER" Masters of different capacities, together with Staff Stations and Horns within the same system in any desired combination. Masters can talk with any other Master or Staff . . . page . . . and can utilize other optional equipment shown as well. Staffs can answer any Master and can originate calls to one Master, or to two Masters selectively.

ONLY THE TALK-A-PHONE "CHIEF" AND "CHIEF REDI-POWER" GIVE YOU ALL THESE FEATURES

• **DISTINCTIVELY STYLED**—Less than 3-inches high. In cabinets that combine the look and feel of fine-grained leather with the strength and rigidity of steel. Attractively finished in charcoal gray and brushed chrome.
• **"PRIVATE" OR "NON-PRIVATE" MASTERS AND STAFFS**—Exclusive Dynasonic Design enables stations to perform "privately" (so no one can listen-in), or "non-privately" (for reply without use of controls). The same station can be "private" to one or more Masters and "non-private" to others, and retain full communication facilities.
• **INCOMING CALL CHIME**—A standard feature of Masters. Indicates that your station is being called. Caller talks, you reply.
• **MONITORING SIGNAL**—A standard feature of Masters and Staffs. Visually indicates to a "non-private" station that it is being monitored.
• **BUSY SIGNAL**—A standard feature of Masters and Staffs. Visually indicates when station you call is "busy." All units have facility to override "busy signal" for important calls.
• **DYNASONIC SELECTOR**—An exclusive TALK-A-PHONE feature that permits intermixing of stations and variation of performance. Add to system at anytime without discarding original equipment.
• **MULTI-MAGIC STATION SELECTOR**—A patented, exclusive TALK-A-PHONE feature that enables selection of up to 30 stations with only 12 push buttons . . . 40 and 50 stations with 14 push buttons . . . in the same attractive cabinet style and size.
• **UNI-TRANS DICTATION CONTROL**—No need to operate or hold down controls when one-way transmission is desired or when Cradle Phone is used.
• **EXTERNAL RELAY CONTROL**—A standard built-in feature of Masters. Enables Master to activate external relays for operating siren, gong, light, etc. For use in extremely high noise level areas to signal personnel, who can then communicate with caller from Master in quieter location or in sound booth.
• **RECIPROCAL POWER SUPPLY**—Each Master operates on 110-120 volts, AC only, and should be plugged-in. Where no electrical outlet is available, up to 30% of the Masters in the system can operate without being plugged-in.
• **NOISE-FREE VOICE RANGE POWER**—The rugged, all-transistor high-gain amplifier provides unsurpassed clarity and naturalness of tone. The exclusive, patented TALK-A-PHONE circuit enables performance without noise, hum or distortion when used with TALK-A-PHONE cable.
• **HI-POWER STAFF STATIONS AND HORNS**—For use with any TALK-A-PHONE Master where exceptionally high volume at Staff locations is needed. Ideal for paging speakers. T-HP-3 provides more than twice the volume of universal Staff; T-C-20 provides about 4 times greater volume . . . more with REDI-POWER Masters.
• **WALL SWITCH**—Combine with TALK-A-PHONE Horn or Hi-Power Staff to add origination-of-call feature.
• **"LD" LONG DISTANCE**—(optional accessory on "CHIEF" Masters). For use over cable lines of 2,000 ft., 5,000 ft., 10,000 ft. or more without loss of volume. Functions only between Masters with LD . . . not between an LD Master and Staff. Built-in at factory at additional cost.
• **CRADLE PHONE**—(optional accessory on Masters or Staffs). Has live microphone. Provides listening privacy and greater speaking convenience. Diminishes background noises in noisy areas. Eliminates use of controls in conversation between Masters. Cuts off incoming voice from loudspeaker when in use.
• **WALL MOUNTED CRADLE PHONE**—(optional accessory). For noisy areas and listening privacy. Use with T-HP-3, T-C-20 and T-S-101 or T-S-102. Speaker disconnects when in use.
• **RIGHT-OF-WAY RELAY**—(optional accessory). Use with "CHIEF REDI-POWER" Masters to page any group of stations with a single button. Paged stations can also be used for intercommunication. RW-10 capacity, 10 stations. For greater capacity use more RW-10's. Connects to one Master, other Masters also utilize facilities.
• **POWER PAGING BOOSTER**—(Optional accessory). Use with "CHIEF" Masters to page a group of speakers with a single button. 30 watts output. Requires its own paging speakers (as T-C-20, T-HP-3). Provides paging facility only . . . paged stations cannot reply or originate calls through paging speakers. Connects to one Master, other Masters can also utilize facilities.

All "CHIEF" and "CHIEF REDI-POWER" Master Stations come complete with junction box and built-in power supply attached by 6' flexible cable. Master size: 14"w, 3⅛"h, 8¾"d. For 110-120 volts, AC only. U.L. Approved.

T-C-4906 Master 6 station capacity. Wt. 13 lbs.
List Price Per Station $146.00 ..... Net **85.50**

T-C-4912 Master 12 station capacity. Wt. 14 lbs.
List Price Per Station $164.00 ..... Net **95.80**

T-C-4920 Master 20 station capacity. Wt. 17 lbs.
List Price Per Station $194.00 ..... Net **113.40**

T-C-4930 Master 30 station capacity. Wt. 20 lbs.
List Price Per Station $224.00 ..... Net **131.00**

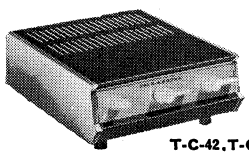
T-C-4940 Master 40 station capacity. Wt. 23 lbs.
List Price Per Station $254.00 ..... Net **148.60**

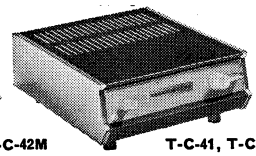
T-C-4950 Master 50 station capacity. Wt. 26 lbs.
List Price Per Station $284.00 ..... Net **166.20**

How to Determine Cable Requirements. To inter-connect Master Stations, measure from first Master to second Master only, from second to third Master only, etc., until the last unit in the system is reached, and total. For T-C-4920 and T-C-RP-5920, use two lengths of 6226 Cable; and for T-C-4930 use three lengths of 6226 Cable, etc. To connect T-C-41, T-C-20, T-C-42 or T-HP-3 Staff Stations, measure from Staff Station to the one Master to which Staff Station originates calls. To connect the T-C-42 Staff Station measure a separate length of cable from Staff Station to each Master Station to which Staff originates calls (for each T-C-41 or T-C-42, follow same procedure). Connect T-S-111 at any convenient point between remote speaker and Master Station.

TALK-A-PHONE ALL-TRANSISTOR "CHIEF REDI-POWER" MASTERS These units have all the operational features of the "CHIEF," plus the additional feature of built-in extra power (up to 20 watts) for use when and as needed. Provides additional volume for calling many stations at once, or noisy locations singly. Needs no separate power booster, which would eliminate return speech. Return speech is received at normal room volume. REDI-POWER Masters have a self-compensating amount of volume, whether you call 2, 10 or 20 stations simultaneously. Each station receives its pre-determined volume with no division of output as you call more stations at once. Use REDI-POWER Masters with "CHIEF" Masters and Staffs in same system. Add RW-10 and REDI-POWER Masters can page any group of stations with a single selector button. Paged stations can also be used for intercommunication. Operates on 110-120 volts, AC only. U.L. Approved.

T-C-RP-5912 Redi-Power Master 12 station capacity. Wt. 18 lbs
List Price Per Station $247.00 ..... Net **145.00**
T-C-RP-5920 Redi-Power Master 20 station capacity. Wt. 21 lbs.
List Price Per Station $277.00 ..... Net **162.00**


T-C-42, T-C-42M


T-C-41, T-C-41M

T-C-41R

TALK-A-PHONE "CHIEF" UNIVERSAL STAFF STATIONS For use with any "CHIEF" or "CHIEF REDI-POWER" Master. Like Masters, Staff Stations can be connected "privately" or "non-privately", and can originate calls. When "non-private", calls can be answered at a distance from Staff without using controls. Persons at "non-private" Staffs may reply to all Masters in the system (whether directly connected to them or not) and can originate calls to one Master or two Masters, depending upon Staff's capacity. Connected "privately" no one can listen-in to Staff, but any Master can call. "Private" Staffs can originate calls and reply to one or two Masters. Each Staff has "busy signal" and "monitoring signal" features. Staffs do not connect to an electrical outlet . . . are distinctively styled in modern cabinets that combine the look and feel of fine grained leather with the strength and rigidity of steel. Attractively finished in charcoal gray and brushed chrome. Size: 7½"w x 8¾"d x 2⅛"h.

T-C-41. Staff Station for origination-of-call to one Master. Wt. 8 lbs.
List Price, Each $38.50 ..... Net **22.50**
T-C-41M. Same operation as T-C-41 and in cabinet of same style, color and size, but in grained baked enamel finish. Wt. 8 lbs. List Price, Each $31.50 ..... Net **18.40**
T-C-42. Staff Station for origination-of-call to two Masters. Wt. 8 lbs.
List Price, Each $48.00 ..... Net **28.00**
T-C-42M. Same operation as T-C-42 and in cabinet of same style, color and size, but in grained baked enamel finish. Wt. 8 lbs. List Price, Each $41.25 ..... Net **24.00**
T-C-42R. Same as T-C-42, but for flush wall mounting. Stainless Steel Front Panel, 4¹³⁄₁₆ x 7⅜". Wall Opening: 4⅛"w x 6½"h x 2"d. Wt., 5 lbs.
List Price, Each $41.25 ..... Net **24.00**
T-C-41R Flush mounted Staff Station for use with any of above Masters. Requires wall opening 4⅛" W. x 6½" H. Stainless steel front panel measures 4¹³⁄₁₆" W. x 7⅜" H. Complete with plaster ring. List Price Each $31.50 ..... Net each **18.40**
T-SM-L Optional accessory for surface mounting T-C-41R on wall.
List price each $7.90 ..... Net each **4.65**
T-HP-3. Hi-Power Sub-Station for wall mounting in charcoal gray metal case. Wt. 8 lbs.
List Price, Each $29.95 ..... Net **17.50**
T-HP-3V. Same as above, but with built-in volume control, adjustable to full output. List Price, Each $38.50 ..... Net **22.50**
T-C-20. Nine-inch weatherproof re-entrant horn. List Price, Each $46.00 .. Net **27.00**
T-C-20V. Same as above, but with built-in weather resistant volume control, adjustable to full output. List Price, Each $62.00 ..... Net **36.00**
Optional Wall Mounting Brackets for Models T-C-41, T-C-41M, T-C-42 and T-C-42M are available. See description on preceding page.

Optional Equipment

Cradle Phone Available on all Models. Add "H" to Model No. when ordering. List Price, Each—add $59.95 ..... Net add **35.00**
Model T-S-111 Wall Mounted Cradle Phone. List Price, Each $75.00 .... Net **44.00**
LD—Long Distance Feature Available on "Chief," Master Stations. Add "LD" to Model No. when ordering. List Price, Each—add $20.00 ..... Net add **11.75**
T-S-101 Wall Switch For origination of call to one Master through T-C-20, or T-HP-3 in Chief systems. List Price, Each $12.75 ..... Net **7.50**
T-S-102 Wall Switch For origination of call to two Masters through T-C-20, or T-HP-3 in Chief systems. List Price, Each $21.00 ..... Net **12.35**
T-RW-10 Right-of-Way Relay. List Price, Each $67.50 ..... Net **39.50**
T-HP-30 Power Booster. List Price, Each $146.00 ..... Net **85.50**

Cable (For Indoor and Outdoor Use)

6206 Cable for connecting T-C-41, T-C-42, T-HP-3, T-C-20 with origination of call. List Price per Ft. 16c ..... Net per Ft. **9½c**
6214 Cable for inter-connecting T-C-4906 Masters. List Price per Ft. 34c. Net per Ft. **20c**
6226 Cable for inter-connecting T-C-4912, T-C-4920, T-C-4930, T-C-4940, T-C-4950, T-C-RP-5912 and T-C-RP-5920 Masters. List Price per Ft. 64c ..... Net per Ft. **37c**
6902 Cable for connecting T-HP-3, T-C-20 without origination of call.
List Price per Ft. 4½c ..... Net per Ft. **2½c**

All Prices Slightly Higher West of Rockies-All Prices and Specifications Subject to Change Without Notice. Manufactured under exclusive TALK-A-PHONE Patents

New **TALK-A-PHONE Apartment House Intercom System.** With 1 or 2 selective talking circuits; with 1 or 2 independent door opener buttons. Ask for catalog.

TALK-A-PHONE CO.

Argos PRODUCTS COMPANY *Quality*

SOUND COLUMNS • PORTABLE SYSTEMS LECTERNS • SPECIAL PURPOSE SPEAKERS

SOUND DIRECTOR Sound Columns

Provide completely intelligible PA system coverage of large audiences in churches, auditoriums, schools, hotel meeting rooms, etc. Simple installation. Available in 6 and 10 speaker columns with 8 speaker option. Models for voice, music or combined use. For complete data, send for free book all about sound columns.

For voice

Model SD-1060 — Six speakers, 16 ohms. For small rooms up to 60 feet. 30 watts. Walnut vinyl finish cane grill. Size: 30¼" x 7" x 3⅛". Ship. Wt. 10 lbs. ....**List Price $70.85**

Model SD-1100 — Ten speakers, 16 ohms, 50 watts. For rooms up to 200'. Converts to eight speakers, for rooms up to 125'. Walnut grain vinyl finish; cane grill. Entire column tilts to focus. Size: 49¼" x 7" x 6". Ship. Wt. 26½ lbs.
List Price $111.50

Model SD-1101 — Same as SD-1100, except the deluxe housing is oiled, hand-rubbed walnut. Ship Wt. 29 lbs.
List Price $129.00

Model SD-2100 — Ten speakers, 16 ohms, 50 watts. Some characteristics as SD-1100, except that speaker column may be tilted inside the housing for focusing. Walnut vinyl finish; cane grill. Size 50½" x 10¾" x 8¼". Ship. Wt. 43 lbs.
List Price $136.00

Model SD-2101 — Same as SD-2100, except the deluxe housing is oiled, hand-rubbed walnut. Ship. Wt. 50 lbs.
List Price $165.00

For full range voice and music

New! Model ESD-1061 — Primarily for voice, but an extended lower range makes it great for music, also. For smaller rooms, up to about 60 feet. 100 to 12,000 cps response. 30 watts, six speakers, 16 ohms. In genuine walnut. Size 10½" w. x 33¼" h. x 4" d. Ship Wt. 16 lbs. ..... **List Price $83.25 each.**

Model MSD-1060 — For voice and music under auditorium conditions. Extremely popular with folk music groups. 70 to 15,000 cps, 60 watts. Six 8" speakers, 16 ohms. Walnut vinyl finish. Cane grill. Size: 10¾" x 50½" x 8¼". Ship Wt. 38 lbs.
List Price $132.50

Model MSD-1061 — Same as model MSD-1060, except has deluxe oiled walnut housing. Ship. Wt. 45 lbs.
List Price $165.00

For high-fidelity music

Model MSD-1121 — Projects high-fidelity music over a large area like nothing else ever created. Focused sound beam controls reverberation, keeps uniform audio levels. 12 speakers, 6 woofers, 6 tweeters with crossover network provide 50 to 17,000 cps at 30 watts. Genuine American walnut, with handsome cane grill. Dimensions: 14½" w. x 42" h. x 5" d. Ship. Wt. 43 lbs. ..... **List Price $187.40**

For Custom installations

Concealed or back mounted installations can be made using the internal column element without cabinet. All electrical elements included, less outside housing.

Model SDBB-6: 6 speakers, 30 watts, 16 ohms. Ship. Wt. 8 lbs. 5¼" w. x 29" h. x 3" d. ..... **List Price $48.25**

Model SDBB-10: 10 speakers, 50 watts. Ship. Wt. 17½ lbs. 5¼" w. x 47¾" h. x 5¼" d. ..... **List Price $75.00**

For outdoor use

Model SD-1082 — "Argonaut" . . . certified by Inland Testing Laboratories to meet rugged environmental standards of U.S. Military Specifications MIL-E-4970A, is warranted as to performance for 3 years in every kind of climate, from tropic to Antarctic. (Send for complete free test report.) Heavy duty vinyl clad. 8 speakers, 40 watts-200 to 10,000 cps response. 9⅛" w. x 49½" h. x 4½" d. Ship. Wt. 37 lbs.
List Price $282.50

SOUND CADDY SYSTEM

Has two Jensen 12-in. heavy-duty 18-watt PA speakers, 8-ohms. Space below for amplifiers with turntable up to 35 watts, and many of greater power. Amplifier mounting board can slip out when case is opened but holds firmly in place when closed. Heavy plywood construction, steel corner angles, grey vinyl covering, matching plastic grill. 17¾" W x 22" H x 13⅛" D. Wt. 28½ lbs.

SC-2DS ..... **List Price $70.85**
Same as above without speakers. Wt. 20 lbs.
SC-2D ..... **List Price $41.50**

Famous VOICE DIRECTOR Portable Sound Column

Performs like a "sound truck in a suitcase". Has unique audience reaching characteristics of a sound column, plus portability of a battery powered transistor amplifier. Ideal for public speakers of every type because it provides:

25 watts output from flashlight "D" cells . . . all transistor amplifier.

200 hours operation. (400 hours from electronic alkaline batteries.)

Uniform sound coverage over large audiences, indoors or out, like all Argos sound columns.

50% to 100% greater **effective** power than any other system of like power output, indoors and out. 6 speakers.

Includes microphone, stand, 18 ft. cable and lavalier. Case measures 30" x 10" x 7". Weight 27 lbs.

PSD-5060, professional net (less batteries) **$169.95**

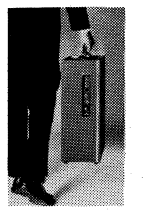
PSD-5060-1, identical to above but with deluxe microphone incorporating a built-in volume control. Wt. 30 lbs. Professional net. (less batteries)
$199.50

Extension Satellite SOUND DIRECTOR. Use with VOICE DIRECTOR for extended coverage or with any P.A. system. 6 speakers; 30 watts; 16 ohms has self-storing stand and 50 feet of cable. Size: 30⅝" x 6⅞" x 3¾". **SD-4060** Wt. 12½ lbs.
Professional net $54.95

Send for complete data sheet on Voice Director, including technical specifications.

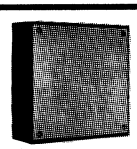
SPEECH DIRECTOR Portable Lectern

Has many of the extended audience reaching characteristics of a sound column, plus quick set up and convenience of a lectern. Gives pleasing natural sound that has won wide acceptance in meeting rooms everywhere.



4 speakers. AC/DC amplifier is all solid-state, delivers 12 watts from its own batteries, 15 watts from AC. 2 low impedance microphone inputs, 1 high impedance auxiliary. Miniature unidirectional microphone has built-in volume control, flexible 9" gooseneck stand, lavalier adaptor. Case measures 21" h. x 16" w. x 7⅝" d. Weight, less batteries, 20 lbs. **LSD-6040** ..... **professional net $229.95**

NEW MULTI-BAFFLES for walls, ceilings



Size 10¾" sqr. x 3½" d. Mount on ceiling with screws, on walls with clips. 8" speaker, 4.8 oz. magnet, 8 ohms, 10 watts. Antique birch or dusk walnut furniture finish.

DMBX-8S — Baffle with speaker. Ship. Wt. 4¾ lbs. **List Price $17.85**

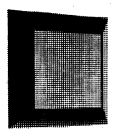
DMBX-8SV — Baffle, speaker, volume control. Ship. Wt. 4¾ lbs.
List Price $21.10

DMBX-8SVT — Baffle, speaker, 70.7-V.* transformer, volume control. Ship. Wt. 5¼ lbs. **List Price $24.75**

DMBX — Multi-Baffle only. Max. spkr. depth 3¼". Ship Wt., 3 lbs.
List Price $9.75 each.

*Also available w/25V. transformer at same price on special order. 12 unit minimum.

New "Troubador" system



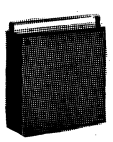
Extension speaker with flair design hangs square or as a diamond. Dual cone 8" speaker, 8 ohms, 15 watts. Antique Birch or Dusk Walnut. 13¼" sqr. 3½" d. Ship. Wt. 5¼ lbs. TSW-8S. Audiophile net, **each $12.95**

"PATIO" OUTDOOR SPEAKER

Durable redwood and cane have been combined with special moisture-resistant full-range 8" speaker. 10 watts, 8 ohms. Volume control. ¾" redwood enclosure has sealer coat; can be stained or painted. Baffleboard of marine grade plywood. Size: 14" x 10½" x 3½". Wt. 5½ lbs.

PAT-10 Audiophile net, **each $14.95**

New bi-directional "Hallmark"



Talks 2 ways at once for corridor paging, etc. Mounts on wall or ceiling. 8" dual cone spkr. 4.8 oz. magnet, 10 watts, 8 ohms. Dusk Walnut or Antique Birch. 10¾" sqr. x 3½" d. Ship. Wt. 6 lbs. **TCB-8S.**
List Price $23.30

Trade Discount Applies To List Prices Only

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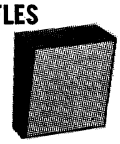
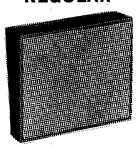
Argos
PRODUCTS COMPANY

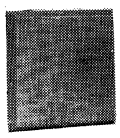
- Quality Speaker-Baffle Combinations
- Wall Baffles
- High Fidelity Speaker Systems

WALL BAFFLES

REGULAR


DELUXE


PROFESSIONAL


FLAIR

Argos offers 4 wall baffle lines to meet every need. All utilize Argos famous Speedy Mounting Clip for fastest installation:

Regular Wall Baffles (WB series) are the standard of the industry for quality. In blond or walnut wood-grained vinyl with cane grill.

Deluxe Wall Baffles (DWB series) are furniture finished wood in Antique Birch or Dusk Walnut.

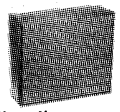
Professional Wall Baffle (PWB) is a large cubic capacity baffle for use with 8" speakers only. In blond or walnut wood grained vinyl.

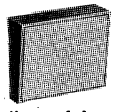
Flair Baffle (FMB) is a stylish new flush mounting wall or ceiling baffle with concealed mounting screws. In Dusk Walnut or Antique Birch furniture finished wood.

Model	Spkr. Cap.	Width, Height, Depth, Inches	Cubic Inches	Ship. Wt. Lbs.	List Each
WB-4/5D	4/5	6½x 6⅜x4	100	2¾*	$5.10
WB-6D	6	8⅛x 8¾x5	210	4½*	6.25
WB-6/9D	6/9	10 x10¾x6½	400	6¼*	7.40
WB-8D	8	10 x10¾x6½	400	6¼*	7.40
WB-10D	10	12⅛x12⅝x7⅞	800	8*	8.95
WB-12D	12	13⅞x14¼x9⅛	1180	11*	10.25
DWB-8A	8	9¾x10½x6½	400	5½*	10.00
DWB-12A	12	13⅝x14 x9⅛	1180	9*	14.00
PWB-8C	8	16¼x14 x6¼	1000	6	10.35
FMB-8	8	11⅜ sq. x 1¼"	—	2¼	9.00

*Ship. Wt. of 2 in carton

SPEAKER-BAFFLE COMBINATIONS


Prestige


Thin line

Now there are four complete lines of Argos speaker-baffles. Each comes to you completely wired, ready to install. Prestige (PB series) — our finest, with handsome wood furniture finishes in Dusk Walnut and Antique Birch and cane grill. 8" speaker, 15 watts. Thin line **Dual Cone** (WB-408 series) — Slender, handsomely clad in blond or walnut wood-grained vinyl, almost undistinguishable from wood. 8" dual cone speaker, 10 watts, 8 ohms.

"Thinline Heavy-Duty" (WB-212 series) has 12" Jensen speaker with 10 oz. ceramic magnet. 18 watt capacity, 8 ohms impedance. Dimensions: 14"h x 16¼"w. x 6¼"d. Blond or walnut vinyl-clad.

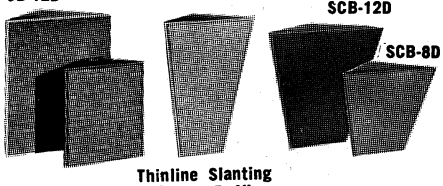
Thin line **Low Level** (WB-108 series) Has 8" speaker, 6 watts, 8 ohms, blond or walnut vinyl covering.

PB-508CS—Baffle with speaker. Ship. Wt. 5¾ lbs. (11" x 9¾" x 5⅜") ..... **List Price $19.10**
PB-508CSL — Baffle, speaker, L pad. Ship. Wt. 5¾ lbs. ..... **List Price $22.85**
PB-508CST — Baffle, speaker, 70.7V.* transformer. Ship. Wt. 6¼ lbs. ..... **List Price $23.35**
PB-508CSLT — Baffle, speaker, L pad. 70.7-V.* transformer. Ship. Wt. 6¼ lbs. ... **List Price $26.60**
PB-508C — Baffle only. Max. spkr. depth 4¼". Ship. Wt. of two 6 lbs. ..... **List Price each $8.10**
PB-512C — 12" Prestige Baffle only, max. spkr. depth 6". Ship. Wt. of two 11 lbs. **List Price each $11.25**
WB-408CS — Baffle with speaker. Ship. Wt. 5 lbs. (12¼" x 9¾" x 4⅜") ..... **List Price $15.85**
WB-408CSL — Baffle, speaker, L pad. Ship. Wt. 5 lbs. ..... **List Price $19.35**
WB-408CST — Baffle, speaker, 70.7-V.* transformer. Ship. Wt. 5½ lbs. ..... **List Price $20.00**
WB-408CSLT — Baffle, speaker, L pad. 70.7-V.* transformer. Ship. Wt. 5½ lbs. ... **List Price $23.25**
WB-212CS — Baffle with speaker. Ship. Wt. 9¾ lbs. **List Price $25.60**
WB-212CSL — Baffle, speaker, L pad. Ship. Wt. 9¾ lbs. ..... **List Price $29.40**
WB-212CST — Baffle, speaker, and 70.7-V.* transformer. Ship. Wt. 10¼ lbs. ..... **List Price $29.40**
WB212CSLT — Baffle, speaker, L pad, 70.7-V.* transformer. Ship. Wt. 10¼ lbs. **List Price $33.40**
WB-212C — 12" baffle only. Maximum speaker depth 4⅝". Ship. Wt. 5¾ lbs. ..... **List Price $10.25**
WB-108CS — Baffle with speaker. Ship. Wt. 4½ lbs. (12¼" x 9¾" x 4⅜") ..... **List Price $12.85**
WB-108CSV — Baffle, speaker, volume control. Ship. Wt. 4½ lbs. ..... **List Price $16.10**
WB-108CST — Baffle, speaker, 70.7-V.* transformer. Ship. Wt. 5 lbs. ..... **List Price $17.10**
WB-108CSVT — Baffle, speaker, volume control, 70.7-V.* transformer. Ship. Wt. 5 lbs. **List Price $19.85**
WB-208C — 8" Thinline Baffle only. Max. spkr. depth 3". Ship. Wt. 3¼ lbs. ..... **List Price $7.40**

*Also available w/25V. transformer at same price on special order. 12 unit minimum.

CORNER BAFFLES

CB-12D SCB-12D SCB-8D



Thinline Slanting Corner Baffle

Favorites for their mounting ease and over-all high quality. Argos corner baffles are now available in 3 series to fill every need. Corner location and bass reflex design provide excellent tone. All have quick clip-on front, are held to walls with Argos Speedy Mounting Clips. Coverings are wood-grained vinyl, walnut or blond, with cane grills.

Thinline Slanting Corner Speaker-Baffle combination

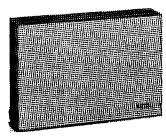
Heavy-duty PA performance in a thin, slanting baffle complete with 8" speaker. 15 watts, 8 ohms. Transformers and L-pads available on special order, min. 12 units. SCB-208S Ship. Wt. 6 lbs. **List Price $22.75**

Slanting Corner Baffles

SCB-8D — Take 8" spkr. up to 5½" deep. Internal volume: 680 cubic inches. Size: 15"H x 17¾"W x 9"D. Ship. Wt. 6 lbs. ..... **List Price $14.55**
SCB-12D — Takes 12" spkr. up to 6⅛" deep. Volume: 1240 cubic inches. Size: 20"H x 20¾"W x 10½"D. Ship. Wt. 8 lbs. .....**List Price $20.50**

Regular Corner Baffles

CB-8D — Takes 8" spkr. up to 4½" deep. Volume: 525 cubic inches. Size: 14"H x 12¼"W x 6½"D. Ship. Wt. 4½" lbs. ..... **List Price $12.00**
CB-12D — Takes 12" spkr. up to 6¼" deep. Volume: 1420 cubic inches. Size: 20"H x 17¾"W x 9"D. Ship. Wt. 8½ lbs. ..... **List Price $18.85**



Space Saver Extension Speaker System

Has 8" woofer, 3½" tweeter, crossover network. 12 watts, 8 ohms. Volume control. Furniture-finished hardwood enclosure 18"x12"x3⅜". Dusk Walnut or Antique Birch finish.

HFB-8SV — Wt. 6½ lbs. **Audiophile net, each $17.95**

TX-12 High Fidelity Speaker System

Has superb tonal realism from full-bass to the most crisp, high frequency passages. Features 12" woofer, 8" solid back midrange. 3½" tweeter. Response from 40 to 17,000 cycles. Enclosure is oiled and hand-rubbed ¾" American walnut. 24"x19"x5⅞" deep. Gracefull metal legs. Impedance 8 ohms; terminals marked for stereo phasing.

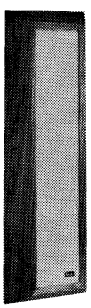
TX-12 — Wt. 25 lbs. .... **Audiophile net, each $54.95**
Special STEREO PAIR .....**Audiophile net, pair $99.95**

Brass legs furnished with TX-12 available as accessory for any speaker system.

Model HFA-1 — Set of cabinet legs. **Audiophile net, $2.95**

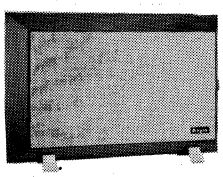
HIGH FIDELITY SPEAKER SYSTEMS

Magnificent new "Astra"



Looks beautiful, sounds excitingly different! Sound-column design uses scientific focusing principle to add extra projection to high tones, re-create music with startling fidelity. Ideal for stereo. 33¼"h x 10½"w x 4"d. 4 speakers — 2 Jensen woofers, 2 direct radiator tweeters. 50 to 17,000 cps response. Cabinet of genuine walnut with hand-rubbed oil finish. AHF-1 Ship. Wt. 15 lbs.
Audiophile net, each $49.95
Stereo pair $89.95

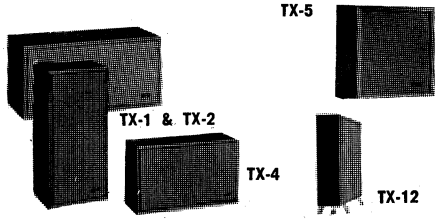
The tiny new "Solitaire"



A delight to see and hear, "Solitaire" offers extraordinary tonal brilliance, yet measures only 18"w x 12"h x 3¼"d. It's designed for desk, table, or wall to carry high fidelity music everywhere in home or office. Genuine walnut cabinet has hand-rubbed oil finish, grill cloth is neutral Belgian linen. Rests on its own miniature legs or hangs like a picture. Contains high-compliance Jensen woofer and separate direct-radiator tweeter give 50 to 17,000 cps. Stereo phased. Built-in volume control. SHF-1 Ship. Wt. 8¾ lbs.
Audiophile net, each $29.95 Stereo pair $54.00

Argos Finest — Famous TX-4

Has three magnificent speakers: a 12" woofer, 8" solid-back midrange, and 3½" direct radiator type tweeter. Response 35 to 17,000 cycles. Input is 8 ohms and terminals are marked for stereo phasing. Hand-rubbed oiled walnut cabinet 25"x14¾"x9" deep. Perfect to use in either horizontal or vertical position. Wt. 29 lbs. ..... **Audiophile net, each $ 79.95**
Special STEREO PAIR .....**Audiophile net, pair $145.00**



TX-4E—Enclosure only. Wt. 23 lbs. ....**Audiophile Net each/$39.95**
STEREO PAIR ..... **Audiophile net, pair $72.00**

TX-1 & TX-2 High Fidelity Speaker Systems

Here are two versions of a system unequalled for pure value. Both are 24x11x9" deep and feature a special 8", 45 cycle woofer and 3½" tweeter. Response 45 to 17,000 cps. Impedance is 8 ohms. Terminals marked for stereo phasing. Optional-use miniature legs provided.

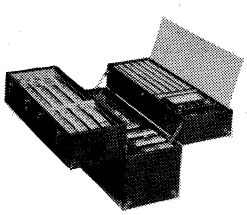
TX-1 — System, walnut wood-grain vinyl finish. Wt. 18 lbs. ..... **Audiophile net, each $29.95**
Special STEREO PAIR ... **Audiophile net, pair $54.00**
TX-1E — Enclosure only. Wt. 15 lbs. **Audiophile net, each $19.95**
Special STEREO PAIR ..... **Audiophile net, pair $37.00**
TX-2 — System in genuine walnut enclosure. Wt. 23 lbs. ..... **Audiophile net, each $44.50**
Special STEREO PAIR ..... **Audiophile net, pair/$79.55**
TX-2E—Enclosure only. Wt.. 19½ lbs. **Audiophile net, each $29.95**
STEREO PAIR ..... **Audiophile net, pair $54.00**

TX-5 High Fidelity Speaker System

Has sound fidelity normally associated with more costly and far larger high fidelity speaker systems. The ¾" hand-rubbed oiled walnut cabinet is 12⅜"x 13⅜"x10" deep. Has 8" woofer and a 3½" tweeter. 50 to 17,000 cycles. Wired through crossover network to terminal strip, marked for stereo phasing. 8 ohms.

TX-5 — Wt. 16 lbs. ..... **Audiophile net, each $32.50**
STEREO PAIR ..... **Audio net, pair $59.00**

VINYL-CLAD TUBE CADDIES



TC-5 $21.95 Super Tube Caddy. Our largest . . . has over 3300 cu. in. volume, roughly ⅓ larger than TC-4. Holds countless tubes and tools, soldering gun, meter, accessories. Tray clearance 2¾". Brown vinyl covering. Size: 24"W x 16½"H x 8½"D. Ship. Wt. 19 lbs.

TC-4 $15.95 Carry-All Tube Caddy — most popular ever made. Gives quick access to all sections. Holds up to 262 tubes . . . less with tools. Brown vinyl covering. Size: 21"W x 15"H x 8"D. Ship. Wt. 12 lbs.
TC-100 $13.95 Pacemaker Tube Caddy. Same size as TC-4 but built for the thrifty buyer. Break-away design gives quick access. Up to 262 tubes . . . less with tools. Brown vinyl covering. Size: 21"W x 15"H x 8"D. Ship. Wt. 11 lbs.

TC-201 $9.95 Pacemaker Junior. Smaller, easy-to-carry size for quick trips or as companion to other Argos Tube Caddies. Up to 143 tubes, less with tools. Brown vinyl covering. Size: 15¾"W x 12½"H x 8"D. Ship. Wt. 8 lbs.

Argos Products Co.

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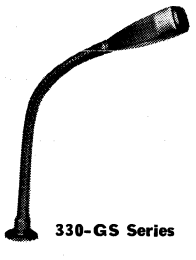
ASTATIC Microphones, Accessories


330-GS Series

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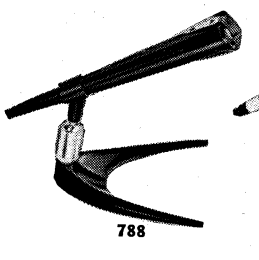
77-L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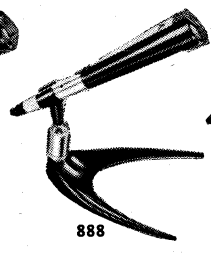
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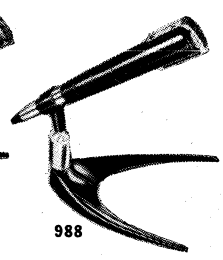
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SERIES 330-GS GOOSENECK MICROPHONES

Professional performing, all purpose gooseneck microphones for intercommunications, tape recording, amateur language laboratories and many other applications. Gooseneck is permanently attached, 13″ in length. Satin chrome finish for both microphone and gooseneck assembly. Complete with 7′ single conductor, shielded cable (335L-GS, 2-cond. for balanced line).

Model 332-GS Crystal—Output, −54 db; response, 30–15,000 cps. List Price..... **$24.50**

Model 333-GS Ceramic—Output, −58 db; response, 30–10,000 cps. List Price..... **$24.50**

Model 335H-GS Dynamic Hi-Z—Output, −56 db; response, 100–12,000 cps. List Price..... **$33.00**

Model 335L-GS Dynamic Lo-Z—Output, −57 db; response, 100–12,000 cps. List Price..... **$30.00**

MODEL 77 DYNAMIC CARDIOID

Most positive anti-feedback mike ever built. Also available in gold finish. Unidirectional design has suspended cartridge; eliminates external shock mounts. Built-in impedance selector. **Front-to-Back Pick-up:** 18 db differential. **Output:** −48 db. **Frequency Response:** 30–15,000 cps. **Impedance:** Low-Z, 30–50 ohms; medium, 150–250 ohms; high, 40,000 ohms. Shipping Weight, approximately 3 lbs., less stand.

Model 77—With on-off switch and provisions for locking in "on" position. List Price..... **$82.50**

Model 77 Gold Finish—List Price..... **$92.50**

Model 77-L—Head only for mounting on G Stand. List.. **72.50**

Model 77-L Gold Finish—List Price..... **82.50**

Model G-77—Includes G Stand and 8′ cable. List Price.. **97.45**

MODEL 788 "METRO" DYNAMIC

Wide range and rugged construction for voice and music reproduction in PA, recording and TV, indoor or outdoor. **Response:** 60–13,000 cps. **Output:** −58 db, lo-Z; −56 db, hi-Z. Black die cast alloy housing with brushed gold trim. Omnidirectional. Balanced high or low imped. by simple change. Max. dia. 1⅜″ x 8⅞″ h. Built-in On-Off switch. Desk-floor stand adapter, lavalier cord and assembly, belt clip. 20′ cable. Net Weight, 8 oz. **$79.50**

Model 788—Dynamic Microphone. List Price.....

MODEL 888 "TEMPO" DYNAMIC

High fidelity and advance styling for applications in color TV, sound stage and deluxe PA systems. **Response:** 50–15,000 cps. Multi-impedance, 50–200, balanced, and hi-Z. **Output Level:** −58 db, lo-Z; −56 db, hi-Z. Die cast alloy housing in satin black with brushed chrome finish; 9⅛″ long x 1⅛″ max. dia. Includes SA-8 desk-floor stand adapter, lavalier cord and assembly with belt clip and 20′ two-wire shielded cable. Weight, 9 oz. **$110.00**

Model 888—Dynamic Microphone. List Price.....

MODEL 988 "VOGUE" DYNAMIC

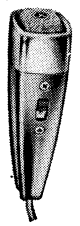
Beauty and high fidelity for the most exacting color TV and broadcast requirements. **Response:** 40–17,000 cps. **Output Level:** −56 db, hi-Z. Adjustable imped.: 50, 150 or 250 ohms for balanced line. Black housing with brushed gold finish. 9¹¹⁄₁₆″ long x 1⅛″ max. dia. With desk-floor stand adapter, lavalier cord and assembly and 20′ cable. Net Weight, 8¾ oz. **$150.00**

Model 988—Dynamic Microphone. List Price.....

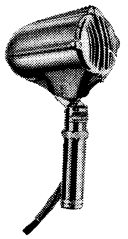
MODEL A-8 "FUTURA" DESK STAND

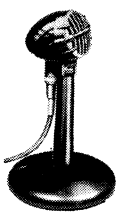
For Models 788, 888, and 988 mikes. Has ⅝″-27 thread. **$8.25**

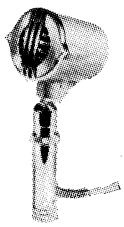
Model A-8 Desk Stand (Illus. on Models listed)—List...


330 Series

A-7


DN-50


JT-30


10-C, 10-D

D-104

SERIES 330 MICROPHONES

Small, slim mikes with quality performance for various applications at real low price. Model 331 has momentary on, spring-return switch, furnished with hang-up bracket. Cable provides for audio and relay connections. All other models have slide switch with "lock-on" position complete with lavalier and stand adapter with ⅝″-27 thread. High impedance except No. 335L.

Model	Type	Output	Freq.	Body	Grille	Cap	List
331	Ceramic	−58 db	300–7000	Black	Black	Chrome	$17.90
332	Crystal	−54 db	30–15000	Chrome	Black	Chrome	17.90
333	Ceramic	−58 db	30–10000	Black	Black	Chrome	17.90
335H	Dynamic	−56 db	100–12kc	TV Gray	Chrome	Chrome	26.50
335L	Dynamic	−57 db	100–12kc	TV Gray	Chrome	Chrome	23.50

Model A-7 Desk Stand—With adjustable swivel. List.... **$2.45**

MODEL DN-50 "THE COMMENTATOR"

General purpose. Unitary moving coil system, carefully proportioned acoustic circuit. **Response:** 50–10,000 cps. **Output:** DN-50, −51 db; DN-HZ, −52 db. Semi- or non-directional. Opalescent gray and bright chrome finish. With 10′ cable. **Size:** 6⅞″ h. 2⅝″ grille dia., 4⅝″ d. Net Wt., 1 lb. 12 oz. (mike only). **$33.50**

Model DN-50—Dynamic Mike, 50 ohms imped. List..

Model GDN-50—Same as above with grip-to-talk stand. 6′ two conductor shielded cable. List Price..... **$52.70**

Model UG8-DN50—Same as above, but balanced. List.. **57.70**

Model DN-HZ—Same, but Hi-Z. List Price..... **39.70**

Model GDN-HZ—Same as DN-HZ with grip-to-talk stand. 6′ two conductor shielded cable. List Price..... **$59.90**

Model G Stand—With grip-to-talk On-Off switch. List.. **24.95**

Model UG8 Stand—Same as Model G; use with DN balanced line. List Price..... **$29.95**

SERIES JT-30 "SPOKESMAN"

Streamline die-cast alloy housing; gray Hammerlin finish with chrome grille and fittings; includes handle and interlocking base. Concentric cable connector. For general PA, recording and communication. 8″ high, 2⁵⁄₁₆″ grille dia., 5⅛″ base die. Weight, 21 oz.

Model JT-30 Crystal—Output, −49 db; impedance, 1–5 megs; response 30–10,000 cps. Complete with 8′ single-conductor shielded cable. List Price..... **$18.40**

Model JT-30-C Ceramic—Same as JT-30 except with −54 db output and 5′ cable. List Price..... **$18.90**

Model JT-30-F Crystal (Head Only)—Same as Model JT-30, except less handle and desk stand. Threaded ⅝″-27 for mounting. List Price..... **$15.90**

Model JT-30-CF Ceramic (Head Only)—Same as Model JT-30-C, except less handle and desk stand. Threaded ⅝″-27 for mounting. List Price..... **$16.40**

MODELS 10-C, 10-D "THE VOICE"

Ideal for SSB, AM transmitters, paging and industrial applications. High impedance. **Output:** −52 db, Model 10-D; −54 db, Model 10-C. **Range:** 300–3,000 cps. Plug-in ⅝″-27 thread mounting with 5′ cable. **$29.70**

Model 10-C Ceramic—Gray chrome grille. List Price..

Model G-10-C Ceramic—Same as above, but with "G" (grip-to-talk) stand. List Price..... **$49.90**

Model 10-D Dynamic—Chrome body and grille. List... **39.70**

Model G-10-D Dynamic—Same as above, but with "G" (grip-to-talk) stand. List Price..... **$59.90**

SERIES D-104 "PREMIER"

The radio amateur's first choice. Balanced performance. Machined brass parts; heavy mesh grille; chrome finish. Standard ⅝″-27 thread mounting; adaptable to SC-11 lock-switch adapter or can be mounted on Model G (grip-to-talk) stand. Metal seal crystal offers protection against moisture and dryness. Ceramic immune to excessive heat and humidity. 3″ dia., 1⅛″ deep. Weight, 14 oz. Complete with 5′ single conductor shielded cable.

Model D-104 Crystal—Output, −46 db; impedance, 1–5 megs; response, 30–7,500 cps rising 500–4,000 cps. List.. **$31.00**

Model D-104C Ceramic—Output, −49 db; all other characteristics similar to D-104. List Price..... **$31.00**

Model SC-11 Adapter—List Price..... **9.00**

Model G Stand—With grip-to-talk On-Off switch. List.. **24.95**

ASTATIC PHONO CARTRIDGES

For over 25 years Astatic has maintained its number one position as the world's leader in supplying the most complete line of phonograph pickup cartridges for both original equipment manufacturers and distributors.

THE ASTATIC CORP.

MANUFACTURERS OF PHONOGRAPH CARTRIDGES • NEEDLES • PICKUPS • MICROPHONES
RECORDING TAPE • ELECTRONIC DEVICES

Trade Discount Applies To List Prices Only

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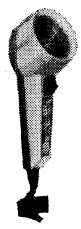
ASTATIC Microphones, Accessories

MICROPHONES


513H, 511

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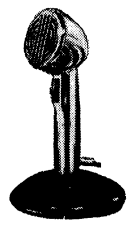
539

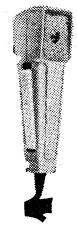
10M5A

150, 151

L-1


200-S, 241-S

T-3


551

MODEL 513H MOBILE MICROPHONE

Dynamic mike for Citizens' Band and other communications. Low background noise, feedback and hum. Semi-directional polar pattern. Wide temperature range; humidity-proof. **Frequency Response:** 200–9,000 cps. **Output Level:** −50 db at 1 v./dyne/cm². **Impedance:** 40,000 ohms. With press-to-talk switch, snap-removal mounting bracket and three-conductor (one shielded) coiled cable 5½′ long, extended. **Size:** 2¼″ w. x 2½″ d. x 6″ h. Weight, 10 oz. **$34.50**

Model 513H Mobile Mike—List Price..... **$34.50**

MODEL 511 MOBILE MICROPHONE

Ceramic element mike for Citizens' Band and similar uses. Low background noise, feedback and hum. Semi-directional polar pattern. **Frequency Response:** 200–4,000 cps. **Output Level:** −50 db at 1 v./dyne/cm². **Impedance:** 250,000 ohms (1000 cps). With press-to-talk switch, snap-removal mounting bracket and three-conductor (one shielded) coiled cable extending to 5½′ long. **Size:** 2¼″ w. x 2½″ d. x 6″ h. Weight, 7 oz. **$19.95**

Model 511 Ceramic Mike—List Price..... **$19.95**

MODEL 531 MOBILE MICROPHONE

High performance ceramic mike for amateur and Citizens' Band applications. Carefully calculated response characteristic for maximum clarity and intelligibility. Semi-directional polar pattern. Fully shielded to minimize hum pickup. **Frequency Response:** 150–3,500 cps with 6 db rise in 2,000 cps range. **Output Level:** −50 db at 1 v./dyne/cm². **Impedance:** 250,000 ohms, approx. at 1,000 cps (EIA, 100,000 ohms). With press-to-talk switch, molded high impact plastic housing and three-conductor (one shielded) coiled vinyl cord, 5′ long extended. **Size:** 2⅜″ w. x 1⁵⁄₁₆″ d. x 3⅜″ h. Weight, 7¼ oz. **$12.75**

Model 531 Mobile Mike—List Price..... **$12.75**

NEW MODEL 539 NOISE CANCELLING MIKE

Super talk power, ceramic mike is highly recommended for CB or ham operations. High output for effective use in noisy locations. Features 360° differential cancellation of background noise for sharp, clear speech. Lip bar maintains uniform, close spacing for high output modulation and maximum cancellation. **Frequency Response:** 100–3,500 cps with mike held for close talking using lip bar. **Output Level:** −50 db at 1 volt/dyne/cm². **Impedance:** 250,000 ohms, approx. at 1 kc (EIA, 100,000 ohms). With press-to-talk DPDT switch; wired for relay or electronic switching. Coiled 3-cond. (one cond. shielded) cable extends to 5 ft. High impact plastic housing. **Size:** 2⅜″ w. x 1⁵⁄₁₆″ d. x 3⅜″ h. **$17.50**

Model 539 Noise Cancelling Mike—List Price **$17.50**

MODEL 10M5A "COMMUNICATOR"

For mobile, ship-shore, etc. Sensitive and rugged. **Response:** 100–4,000 cps. Press-to-talk DPST switch. Retracting cable 12-in. coiled extends to 8′. Gray finish. **$29.50**

Model 10M5A Carbon Microphone—List Price..... **$29.50**

SERIES 150 RECORDER MIKES

For tape recorder use. Low cost; high output; outstanding performance; compact in size. **Size:** 2³⁄₁₆″ sq. x 1¼″ d. Plastic housing with rigid metal grille. With 5′ cable.

Model 150 Crystal Mike—Frequency response, 30–10,000 cps. Output, −44 db. List Price..... **$6.50**

Model 151 Ceramic Mike—Frequency response, 30–8,000 cps. Output, −48 db. List Price..... **$6.50**

MODEL L-1 CRYSTAL LAPEL MIKE

Tiny dual diaphragm with spring clip and 15′ of small diameter single conductor shielded cable. Machined brass housing with wire mesh front and rear grilles; black melamine finish. **Output:** −62 db. **Impedance:** 1–5 megohms. **Response:** 30–10,000 cps. 1½″ dia., ¾″ deep. Weight, 7 oz. **$27.35**

Model L-1 Crystal Lapel Microphone—List Price..... **$27.35**

MODEL T-3 CRYSTAL

For studios, intercom, amateur, PA, recording. **Response:** 30-10,000 cps. **Output Level:** −54 db. Semi- or non-directional. With connector, 10′ cable. All chrome finish. **$29.30**

Model T-3 Crystal Microphone—List Price..... **$29.30**

"VELVET VOICE" CRYSTAL MICROPHONES

For PA, home recording, ham, paging, radio. Use with floor or desk stand or in hand. Gold finished housing and handle; chrome grille; brown detachable base. ⅝″-27 mounting. 8″ high, 2½″ grille dia. 5⅛″ base dia. Weight, 24 oz.

Model 200—Output, −50 db; impedance, 1–5 megs; response, 30–7,000 cps. With 8′ cable. List Price..... **$19.50**

Model 200-S—With on-off switch in handle. List Price.. **$21.50**

Model 241-S—Same as 200-S, except response 30–10,000 cps with rising response from 1,500–5,500 cps. List Price..... **$21.50**

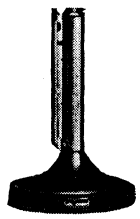
MODEL 551 INDUSTRIAL MICROPHONE

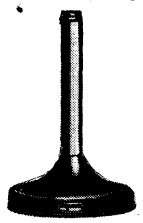
Dynamic industrial mike provides high intelligibility in noisy areas. Housing and transformer shielded. Withstands temperatures to 200° F; 180° F indefinitely. Moisture-sealed. Semi-directional polar pattern. **Frequency Response:** 300–6,000 cps, high impedance; 300–6,500 cps, low impedance. **Output Level:** −50 db at 1 mw/10 dynes/cm², low impedance; −46 db at 1 v./dyne/cm², high impedance; both open circuit, 1000 cps. **Impedance:** 150 or 40,000 ohms, adjustable. With press-to-talk switch, virtually unbreakable Delrin* housing, and four-conductor (shielded mike, two relay) coiled cord extends to 8′ long. **Size:** 1⅞″ x 2″ x 6⅞″. Weight, 20 oz. **$69.50**

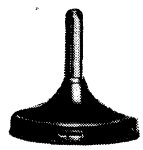
Model 551 Industrial Mike—List Price..... **$69.50**

*DuPont trademark.

STANDS, CARTRIDGES AND LINE TRANSFORMER


Models G, UG8


Models E-5-G, E-5-B


Model E-1

MICROPHONE STANDS

Model G Desk Stand—Has grip-to-talk SPST on-off switch, sliding bar for "lock-on". Use with DN-50, DN-HZ, T3, D-104, D-104-C, 10-C, 10-D and 77L. Finish: Bright chrome, gray Hammerlin base. List Price..... **$24.95**

Model UG8 Stand—Same as Model G, with DPDT switch for balanced or unbalanced line. Thread, ¹³⁄₁₆″ x 27; eight-terminal strip in base adapts to any circuit. List Price..... **$29.95**

Model E-5-G and E-5-B Desk Stands—Finish: Gray or brown Hammerlin base with bright chrome stem. Has ⅝″-27 thread. Overall height 8″. List Price..... **$7.75**

Model E-1 Desk Stand—Finish: Gray Hammerlin base, bright chrome trim. Has ⅝″-27 thread. Overall hgt., 5½″. List.. **$8.25**

LT-6

Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ

REPLACEMENT MICROPHONE CARTRIDGES

Model	Fig.	Use with Astatic Mike Model	List
MC 151	D	CX, CX-1, 200, 241, JT-30, JT-30-F, JT-40, T-3	$7.00
MC 127	D	CC, CC-1, VC, VC-1, JT-30-C, JT-30-CF, JT-40-C, T-3C	7.00
MC 451	E	10M5, 10M5A, 11M5	8.75
MC 563	B	DN-50, DN-500, DN-HZ, DN-MZ, 10-D	16.50
MC 320	A	D-104	9.50
MC 321	A	D-104-C	7.00
MC 551	C	M-301	7.00
MC 558*	....	332	7.00
MC 559-2*	....	331	7.00
MC 560*	....	335H, 335L	7.75

*Mikes without screw-fastened caps should be returned to factory for repairs.

MODEL LT-6 LINE-MATCHING TRANSFORMER

Matches low impedance microphone to high impedance amplifier input; or high impedance dynamic microphone to low impedance amplifier input. Permits long length of cable on the low impedance side of the transformer. Eliminates high frequency loss and objectionable hum pickup. Completely shielded. **Input:** 30–50 or 150–250 ohms. **Output:** 40,000 ohms or higher. **Response:** ±1 db, 20–20,000 cps. Supplied with Amphenol 91-852 and 75-MCIF end connectors. Opalescent gray body with chrome finish connectors. **Size:** ⅞″ dia. **$17.50**

Model LT-6 Transformer—List Price..... **$17.50**

598XL-65A

THE ASTATIC CORP.

MANUFACTURERS OF PHONOGRAPH CARTRIDGES • NEEDLES • PICKUPS • MICROPHONES
RECORDING TAPE • ELECTRONIC DEVICES

ASTATIC PHONO NEEDLES

Needle for needle, Astatic always has the highest quality with the most complete stocks of any maker anywhere. No matter who the original equipment maker of the phonograph, Astatic has just the needle made for that particular cartridge on hand, ready for immediate delivery.

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ATLAS SOUND

ATLAS PAGING AND TALK BACK SPEAKERS

The HU and CJ models listed below are all equipped with the well-known "Versalock" mounting bracket. This rigid, rugged and dependable bracket is completely adjustable on both a horizontal and vertical plane, affording "pin-point" directivity and simple secure mounting. The HU and TP horns are constructed of aluminum, while the CJ horns are molded of indestructible Fiberglas. Rugged diecastings and tough steel parts add strength wherever necessary. All models are 100% weatherproof under all climatic conditions.

HU-12N Small in size and low in cost. Excellent for low power paging and talk-back systems where limited coverage is required.

HU-15N The famous ATLAS SOUND "work horse," HU-15N is the most popular all-purpose, trouble-free speaker of its type and size.

HU-24N Similar to HU-15N. The larger horn improves low frequency response and increases over-all efficiency. For paging and talk-back systems that are also required to reproduce music.

CJ-14N A wide angle speaker with a rectangular horn opening which gives broad sound dispersion in the horizontal plane while maintaining good vertical coverage.

EC-10 The lowest priced American-made speaker designed specially for low power systems requiring limited coverage. Made possible by a breakthrough in design, materials and performance, EC-10 gives improved results and high efficiency for intercom and other applications formerly using cone speakers.

Horn sections are molded of a new, tough, all-weather, acrylic plastic and the handsome beige-brown color combination blends with any decor. The tough steel bracket is adjustable and makes mounting simple and secure. Model EC-10 is unmatched where size, weight, appearance and high efficiency combined with low cost are factors.

CJ-30N Similar to CJ-14N, except the power handling capacity is increased and the larger, wide angle horn improves low frequency response.

TP-15N One high efficiency driver unit does the work of two for low cost bi-directional coverage in long corridors and outdoors. The universal bracket mounts the dual horns at a 10° angle down or out from wall surface or pole.

TP-24N Same as TP-15N but equipped with oversized horns for improved low frequency response. Excellent for bi-directional paging locations required to reproduce music.

The DéCor speakers described below are designed to simulate a lamp, handsomely styled for contemporary interiors. All horn parts, fully adjustable bracket and base-canopy, are finished in brushed satin aluminum. Base-canopy conceals wiring and matching transformer, if required. All mounting hardware included. May be used outdoors in sheltered locations.

DU-12N Equipped with a driver type reproducer unit for high efficiency, directivity and intelligibility.

DC-5 Equipped with a high efficiency weather-resistant 5" diameter cone speaker for pleasing reproduction of low level voice and music. Ideal for locations where appearance is a critical factor, such as churches, conference halls, restaurants and similar quiet surroundings.

MODEL	POWER	IMPEDANCE (specify)	FREQUENCY cps	SOUND LEVEL#	DISPERSION	DIMENSIONS	SHIPPING WEIGHT	NET PRICE
EC-10	6 Watts	8 or 45 ohms	400-13,000	112 db	125°	6¼" Bell dia. 6⅜" deep	2½ lbs.	8Ω $14.25 45Ω $15.75
*HU-12N	7.5 Watts	8 or 45 ohms	350-13,000	115 db	120°	7½" Bell dia. 7¼" deep	3½ lbs.	8Ω $17.55 45Ω $19.05
*HU-15N	25 Watts	8 or 45 ohms	250-13,000	123 db	100°	9¾" Bell dia. 8¾" deep	6 lbs.	8Ω $21.60 45Ω $23.10
HU-24N	25 Watts	8 or 45 ohms	200-13,000	124 db	95°	11¼" Bell dia. 12" deep	6 lbs.	8Ω $24.00 45Ω $25.50
CJ-14N	7.5 Watts	8 or 45 ohms	350-13,000	115 db	120° x 60°	5½" high 9½" wide 8" deep	3½ lbs.	8Ω $19.80 45Ω $21.30
CJ-30N	25 Watts	8 or 45 ohms	250-13,000	121 db	120° x 60°	6" high 14" wide 11¼" deep	7 lbs.	8Ω $27.00 45Ω $28.50
TP-15N	25 Watts	8 or 45 ohms	250-13,000	120 db Each horn	100° Each horn	9¾" Bell dia. 16½" long	7½ lbs.	8Ω $33.60 45Ω $35.10
TP-24N	25 Watts	8 or 45 ohms	200-13,000	121 db Each horn	95° Each horn	11¼" Bell dia. 23" long	8 lbs.	8Ω $37.50 45Ω $39.00
DU-12N	7.5 Watts	8 or 45 ohms	350-13,000	115 db	110°	7" Bell dia. 14" long	4 lbs.	8Ω $23.70 45Ω $25.20
DC-5	6 Watts	8 ohms	120-7,000	105 db	—	7" Bell dia. 14" long	3 lbs.	8Ω $15.00

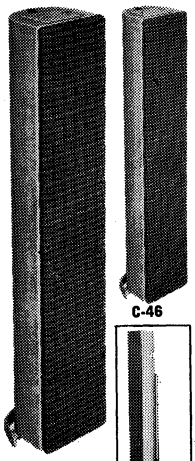
* Available with factory preassembled and prewired T-11 weatherproof line transformer. Model HU-12NT: **Net Price $24.15.** Model HU-15NT: **Net Price $28.20.**

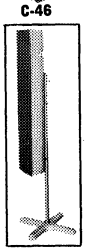
Measured at 4 ft. on axis rated power.

LINE TRANSFORMERS IN COMPLETE ATLAS SOUND CATALOG

ATLAS Columair SOUND COLUMNS

(with exclusive EASY-MOUNT Universal Bracket)



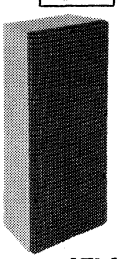


The "Columair" consists of an in-line array of six frequency adjusted cone speakers. The in-line configuration produces a sound pattern having a broad horizontal and narrow vertical distribution. Provides uniform sound intensity even at varying distances from the sound column. EASY-MOUNT swivel bracket permits optimum adjustment of critical beam pattern. Transformer cover plate located at top of enclosure. Constructed of heavy gauge steel finished in light beige two tone spatter. Plastic grill cloth in contrasting shade covers front plywood panel. Interior lined with "Tufflex" acoustic padding. Fine appearance blends with most décors.

SPECIFICATIONS	C-46	C-66
Speaker Array	Six, Four-Inch	Six, Six-Inch
Frequency Range	200-10,000 cps	125-10,000 cps
*Power Capacity	20 Watts	40 Watts
**Vert. Distribution Angle	26-36 Degrees	22-32 Degrees
**Hor. Distribution Angle	120-160 Degrees	120-160 Degrees
Impedance (Total)	16 Ohms	16 ohms
Dimensions	28" x 5¼" x 5"	42" x 7¾" x 6"
Net Weight	8¼ Lbs.	18½ Lbs.
Net Price	$39.00	$59.10

Model MK-1 Columair stand attachment kit. ..... Net Price $ 1.35
Model SS-4 Speaker stand for Columair. ..... Net Price $14.10

New WR-7



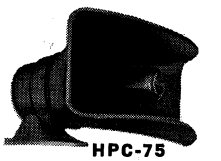
ATLAS WR-7 TWO-WAY SPEAKER SYSTEM

WR-7 A high fidelity design woofer/tweeter system for speech and music installations requiring above average sound quality. Positions horizontally or vertically on concealed wall brackets. Beige finish and grill cloth match ATLAS SOUND Columair. Construction is similar to C-46 and C-66. Ideal for auxiliary use with sound columns. ..... **Net Price $22.50**

WR-7 Specifications: Power: 15 watts. Impedance: 8 ohms. Response: 70-15,000 cps. Speakers: special 5" x 7" ellipsoid woofer with 6 oz. ceramic magnet, special 3" tweeter. Dimensions: 18" long, 8" wide, 5½" thin. Shipping wt. 8 lbs.

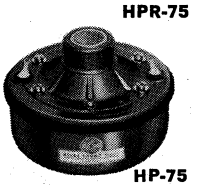
ATLAS HIGH POWER ELECTRONIC SIREN AND MOBILE SPEAKERS

HPC-75 Designed specially for electronic siren applications and high power mobile public address use. Low silhouette, fiber glass, cobra-flare horn gives wide dispersion. Rigid, one-piece cast bracket for fail-safe mounting. Weatherproof. Power: 75 watts. Impedance: 16 ohms. Response: 225-8,000 cps. Dispersion: 120° x 160°. Dimensions 6" high x 14" wide x 11¼" deep. Shipping wt: 8½ lbs. **Net Price $57.00**



HPR-75 Same as HPC-75 except with round horn and 100° dispersion. Dimensions: 9" bell diameter, 8¾" deep. Wt.: 7 lbs. **Net Price $50.25**

HP-75 High power public address and electronic siren driver unit only. 1⅜"-18 driver threads for use on any industry-standard horn. Power: 75 watts. Impedance: 16 ohms. Response: 125-8,000 cps. Dimensions: 4⅜" diameter, 3⅛" deep including threads. Shipping wt.: 4¾ lbs. **Net Price $34.50**



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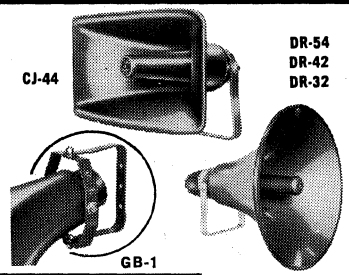
ATLAS SOUND

ATLAS COBRA-JECTOR

MODEL CJ-44 ALL PURPOSE WIDE ANGLE PROJECTOR — COMPLETE WITH SUPER POWER DRIVER — POLYESTER FIBRE GLASS CONSTRUCTION

All weather speaker with "Acousti-Matched" built in driver unit. The projector and reproducer is a single package, matched design resulting in maximum conversion efficiency. (Power input in watts versus sound pressure output.) The CJ-44 controlled response has been carefully restricted within frequency limits most useful in PA and high level music reproduction. Power: 40 watts continuous, 60 watts equalized response.* Impedance: 16 ohms. Response: 115-12,000 cps. Dispersion: 120° x 60°. Dimensions: 23" wide, 13" high, 19" deep. Shipping wt. 19 lbs. **Net Price $49.80**



ATLAS DR PROJECTORS

NON-RESONANT — STURDY — WEATHERPROOF

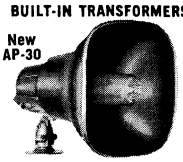
Atlas DR projectors are the result of many years of acoustic research. This costly engineering and elaborate tooling has resulted in projectors that are without acoustical or mechanical equal. All acoustical sound paths are clean and uniform without steps or pockets to disturb the normal function of the horn. These critical design features eliminate conditions of turbulence, frequency cancellation and resultant signal distortion. All models are equipped with a heavy duty "U" bracket. This bracket is securely fastened to a main body casting which will not fail when subjected to extreme conditions of stress, strain and vibration.

SPECIFICATIONS	DR-54	DR-42	DR-32
Air Column	4½ ft.	3½ ft.	2½ ft.
Low Frequency	115 cps	140 cps	190 cps
Bell Diameter	26 inches	21 inches	16½ inches
Length (less driver)	19 inches	16 inches	12½ inches
Shipping Weight	23 lbs.	14 lbs.	10 lbs.
Net Price	$30.60	$23.70	$20.40

GB-1 Accessory omni-directional bracket for CJ-44 and DR trumpets. 160° horizontal, 65° vertical adjustment. Attached to U bracket. **Net Price $4.05**

NEW ATLAS AP-30 PROFESSIONAL SPEAKERS

BUILT-IN TRANSFORMERS • WATTS/IMPEDANCE SWITCH • SCREW-TO-LINE TERMINALS



A screwdriver is the only tool required to mount, connect and adjust new AP-30 Series with exclusive ATLAS SOUND VARI-TAP CONTROL/CONNECT CENTER. Screw line terminals, built-in transformers and externally adjustable watts/impedance switch save time and costs of installation. Silver plated switch contacts, varnish impregnated transformers and AP-30 driver units are sealed in against water, dirt and corrosion. Terminal/switch cover plate is cable strain relief and omni-directional mounting bracket adjusts in three planes. New driver unit provides high efficiency needed with low wattage amplifiers, rugged 30 watt power handling when needed for noise penetration and distance coverage. Professional, metal construction with special corrosion-proofing and melamine enamel finish. Voice/coil diaphragm assembly field replaceable without soldering.

NEW ATLAS APC-30T WIDE ANGLE SPEAKER

APC-30T Cobra-Flare, fiber glass horn version of AP-30T for wide angle, 120° horizontal and 60° vertical dispersion. Includes all the exclusive, Professional Series design features and screwdriver adjustable watts/impedance switch. Built-in combination 70.7/25 volt line transformer has 45 ohm intercom tap.

BX-1 Armored cable adaptor for all Series AP-30. **Net Price $1.50**

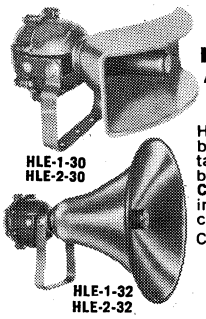
MODEL	POWER	IMPEDANCE	POWER TAPS	SHIPPING WT.	NET PRICE
AP-30	30 watts	8 or 45 ohms	—	5 lbs.	8Ω $23.70 45Ω $25.20
AP-30T	30 watts 70.7V line	4,000, 2000, 1000, 666, 333, 167 Ω	1.2, 2.5, 5, 7.5, 15, 30	6 lbs.	$29.70
AP-30T-25	30 watts 25V line	500, 250, 125, 83, 42, 21 Ω	1.2, 2.5, 5, 7.5, 15, 30	6 lbs.	$29.70
APC-30T	30 watts 70.7V line	2500, 1300, 666 333, 167, 89, 45 Ω	1.8, 3.7, 7.5, 15, 30	8¾ lbs.	$33.60

Series AP-30: FREQUENCY RESPONSE: 225-14,000 cps. SOUND LEVEL: 125 db. DISPERSION: 100° DIMENSIONS: 10" wide, 9½" high, 10½" deep.

APC-30T 25V LINE WATTS: 1.8, 3.7, 7.5, 15. FREQUENCY RESPONSE: 250-14,000 cps. SOUND LEVEL: 126 db*. DISPERSION: 120° x 60°. DIMENSIONS: 6" high x 14" wide x 12¾" deep.

ATLAS EXPLOSION-PROOF HIGH EFFICIENCY SPEAKERS

APPROVED BY UNDERWRITERS LABORATORIES FOR USE IN HAZARDOUS LOCATIONS WHERE EXPLOSIVE ATMOSPHERES EXIST



Highly efficient due to exclusive design of explosion barrier. **Class 1** speakers for use in atmospheres containing ethyl ether, cyclopropane, gasoline, naphtha, benzine, butane, acetone, lacquer, natural gas, etc. **Class 2** can be used in Class 1 conditions as well as in atmospheres containing dust of magnesium, coal, coke, flour, starch, grain, etc.

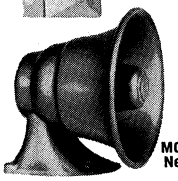
Complete specification in ATLAS SOUND catalog. **Net Prices from $75.00 to $96.60.**

ATLAS HEAVY DUTY SPEAKERS

SPB-1 Industrial duty speaker with heavy guage bell, protective screen and fully adjustable Versalock bracket. Weatherproof. Power: 25 watts. Impedance: 8 ohms. Response: 300-13,000 cps. Dispersion: 110°. Dimensions: 7¼" bell diameter, 6⅛" deep. Shipping wt. 5½ lbs. **Net Price $27.00**

SPB-3C Ruggedized, weatherproof speaker with cast aluminum conduit/armored cable box for industrial service. Combination bulkhead mounting plate and adjustable U bracket adapts to any surface. Power: 25 watts. Impedance: 16 ohms. Response: 300-13,000 cps. Dispersion: 130°. Dimensions: 6¹¹⁄₁₆" wide, 9⅛" high, 4¾" deep. Shipping wt. 6½ lbs. **Net Price $33.00**

ATLAS MOBILE SPEAKERS



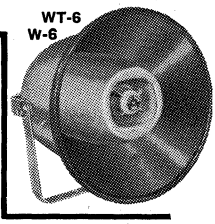
MO-1 Weatherproof speaker with special, rigid, one-piece cast bracket for fail-safe use on vehicles. Concealed wiring and special, one-piece horn discourage tampering. High efficiency for use with mobile radio transceivers. Power: 25 watts. Impedance: 8 ohms. Response: 300-13,000 cps. Dispersion: 120°. Dimensions: 7¼" bell diameter, 6⅜" deep. Shipping wt. 4½ lbs. **Net Price $26.40**

MO-2 Compact mobile communications speaker with welded steel, bracket for concealed, limited space use in vehicles. Power: 25 watts. Impedance: 8 ohms. Response: 300-13,000 cps. Dispersion: 130°. Dimensions: 6⅝" wide, 8" high, 4⅜" deep. Shipping wt. 5 lbs. **Net Price $26.40**

ATLAS ALL WEATHER HI-FI SPEAKERS

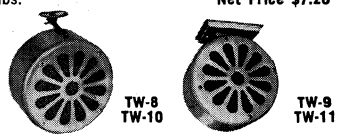
WT-6 Weatherproof, high fiidelity type two-way system. Attractive beige color for indoor and outdoor use wherever wide range, clean music reproduction is important. Adjustable bracket. Power: 15 watts. Impedance: 8 ohms. Response: 100-15,000 cps. Dispersion: 120°. Dimensions: 15" bell diameter, 12" deep. Shipping wt. 16 lbs. **Net Price $37.50**

MODEL W-6 identical to WT-6, but less tweeter. Extended range to 8,000 cps with special cone speaker. Shipping wt. 14 lbs. **Net Price $28.50**



ATLAS BI-DIRECTIONAL BAFFLES

TW-8 Grill openings on both sides gives coverage in opposite directions with any 8" cone speaker. Decorative beige finish, 9" diameter and 5" thin, adjustable bracket. Less speaker. Shipping wt. 3½ lbs. **Net Price $7.20**



TW-10 Same as TW-8, but with speaker. **Net Price $10.35**

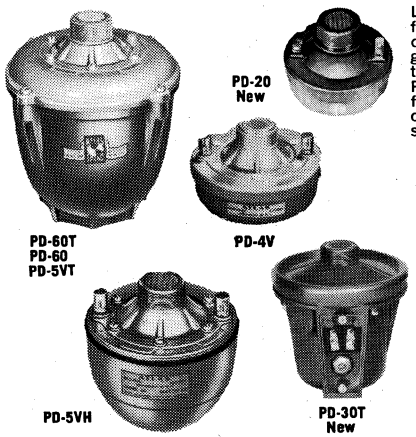
TW-9 with 5" x 6" bracket. Less speaker. Shipping wt. 4 lbs. **Net Price $9.00**

TW-11 Same as TW-9, but with speaker. **Net Price $12.15**

ATLAS DRIVER UNITS

• SUPER POWER — SUPER EFFICIENT

Lifetime guarantee against electro-acoustical failure when operated to specifications. New designs, materials and double weather sealing give the ultimate in response, efficiency and trouble-free, reliable service. Models PD-5VH, PD-5VT, PD-60 and PD-60T feature self-aligning, field replaceable diaphragm assemblies. Excellent for replacement in any trumpet with standard 1⅜" x 18" driver threads.



SPECIFICATIONS	PD-60T	PD-5VT	PD-5VH	PD-4V	PD-20	PD-30T
Power (continuous)*	60 watts	40 watts	40 watts	30 watts	20 watts	30 watts
Power (equalized response)†	100 watts	60 watts	60 watts	50 watts	25 watts	40 watts
Voice Coil Impedance	16 ohms	16 ohms	16 ohms	16 ohms	16 ohms	8 ohms
Sound Intensity#	136 db	131 db	131 db	128 db	125 db	126 db
Frequency Response cps	70-12,000	80-12,000	80-12,000	85-7,000	120-7,000	120-14,000
Transformer Imp. ohms	16, 85, 125, 250, 500, 1000, 2000	16, 125, 250, 500, 1000, 2000				2500, 1300, 666, 333, 167, 89, 45
Trans. Power Taps, Watts 70 Volt Line	60, 40, 20, 10, 5, 2.5	40, 20, 10, 5, 2.5				1.8, 3.7, 7.5, 15, 30
Shipping Weight	8 lbs.	7 lbs.	5 lbs.	4 lbs.	2¾ lbs.	4¾ lbs.
Net Price	$39.30	$31.80	$23.40	$18.60	$14.85	$22.80

PD-60 Same as PD-60T Less Transformer $31.80 **PD-30T 25V line watts: 1.8, 3.7, 7.5, 15.**

* Integrated speech and music full range. † Input range limited to frequencies above horn cut off.

Measured 4 ft. on axis 6 ft. air column with integrated full power input.

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ATLAS SOUND

ATLAS MICROPHONE STANDS AND ACCESSORIES

ATLAS SOUND microphone stands and accessories are noted for variety, quality and reliable performance. The famous, extra-long clutch for secure, full hand grip is standard on all manual models. Clutch operation is velvet-smooth, wear proof parts are jam free and positive locking; the adjustable tube cannot slip and drop unexpectedly.

New, low profile bases with modern, slim silhouettes are less conspicuous and more functional. Improved designs concentrate base weight at the outer edge for maximum stability. Additional anti-tip bumpers are located between self-leveling, shock-absorbing pads which protect desk, table and floor.

Superchrome plated finishes are lifetime wear and rust resistant. Stand parts and accessories are precision threaded for easy assembly and versatile interchangeability. All models have standard 5/8"-27 threads for microphone attachment.

MS-10C Popular, budget-priced floor stand for low cost applications. Sturdy, wrinkle gray base with stability for average weight microphones.

New Low Profile Bases

MS-4 Three tubes with two clutches adjust from standard height for adults to special low of 25" for children and seated performers. Ideal for instrumentalists requiring low microphone placement. New, low silhouette base with dark gray wrinkle finish.

MS-11C General purpose, all chrome design with new, low profile base contour and more weight for greater stability. Slim, inconspicuous silhouette is both elegant and modern, suits any decor where styling and appearance are important.

MS-14G Identical to MS-11C, but all gold finished for special decor requirements. Complements both black and gold model microphones.

MS-11S Self-locking version of MS-11C with unique, automatic clutch for effortless, instantaneous changes in height. The stand is adjusted by simply grasping the decorative black control sleeve and raising or lowering the microphone. Removing the hand automatically locks the position. All chrome with new, low profile base.

MS-12C Same general purpose, stable design as new MS-11C, with base finished in dark gray wrinkle.

MS-12S Special, automatic clutch action for easy, quick height adjustments. Identical in size, unique operation and applications to MS-11S, except with wrinkle gray base.

MS-20 Rugged, heavy duty combination for safer support of any microphone. Larger 12", low contour base has more anti-tip weight at the outer edge for maximum stability. Oversize 1 1/8"-7/8" tube assembly includes adaptor for 5/8"-27 threads.

MS-25 Professional floor stand. Integral air suspension system counterbalances microphone weight to prevent out of control crashdown, take effort out of height changes. Air cushioning action is adjustable, floats microphone tube gently down without severe mechanical shock if clutch is accidently not tightened or released. Heavy duty, gray and chrome base contacts floor on large, 17" circle. Triangular shape and concave sides permit standing close for easy handling without stepping on base. Oversize 1 1/8"-7/8" tube combination includes 5/8"-27 thread adaptor. MS-25 gives maximum stability and safety for all microphones, including the finest and most expensive — at home, on stage and in the studio.

CS-1 Tripod base infinitely adjustable from 10" diameter standing, to 42" circle flat on floor. Reverse-collapses to compact 23" for storage. Useful in restricted space, on uneven surfaces, for clustering microphones and indoor/outdoor portability.

CS-52 Handsome, three-legged floor stand. Combines the slim, less conspicuous appearance of modern, low profile design with large, 15" base stability. Packaged in one, reshippable carton.

CS-42 Similar to CS-52 in design, except that base is readily collapsible for portable use or convenient storage. Packaged in one, reshippable carton.

	Model	Type	Height	Base	Tube	Weight	Net Price
	MS-10C	Economy	35" to 63"	10" Gray	Chrome	10 lbs.	$ 6.45
	MS-4	Wide range	25" to 65"	10" Gray	Chrome	10 lbs.	10.05
	MS-11C	General use	34" to 62"	10" Chrome	Chrome	13 lbs.	8.70
NEW	MS-14G	Gold Special	34" to 62"	10" Gold	Gold	12 lbs.	11.25
	MS-11S	Auto-locking	39" to 62"	10" Chrome	Chrome	13 lbs.	15.60
	MS-12C	General use	34" to 62"	10" Gray	Chrome	12 lbs.	6.90
	MS-12S	Auto-locking	39" to 62"	10" Gray	Chrome	12 lbs.	14.10
	MS-20	Heavy duty	37" to 66"	12" Gray	Chrome	15 lbs.	10.80
	MS-25	Professional	38" to 67"	17" Gray	Chrome	22 lbs.	17.70
	CS-1	Collapsible	23" to 62"	Cadmium	Chrome	5 lbs.	13.50
	CS-52	Three-legged	34" to 62"	15" Gray	Chrome	9 lbs.	7.50
	CS-42	Portable	34" to 62"	16" Gray	Chrome	9 lbs.	8.70

CS Type Demountable Microphone Floor Stands—with full grip—"Velvet Action," fully collapsible—quick and simple "Come Apart" base design. This new and revolutionary design in microphone stands is ideal for fixed as well as portable applications. Excellent for use when it is desired to contain the stand within the amplifier or speaker carrying case. The stability of the assembled stand is equal to many types employing heavy cast iron base construction. The base legs are easily removed to permit minimum size, lightweight transportation. The spring lock leg-holding mechanism of this ingenious design offers a quick and simple "Come Apart" feature. No tools or screw fastenings are required to hold the base assembly together. No small parts to become lost. The self-leveling legs are chrome plated, tipped with skid-proof rubber shock absorbent bumpers —eliminates vibrational conductivity . . . protects polished floor surfaces against damage.

Model	Finish	Height Adj.	Shipping Weight	Net Price
CS-32	Full Chrome	36" to 64"	5 lbs.	$7.95
CS-33	Full Chrome	26" to 64"	4 lbs.	9.30

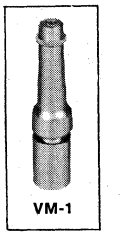
Each stand is individually packed complete in a single carton.
Model CS33 can be collapsed to a total length of only 22½".

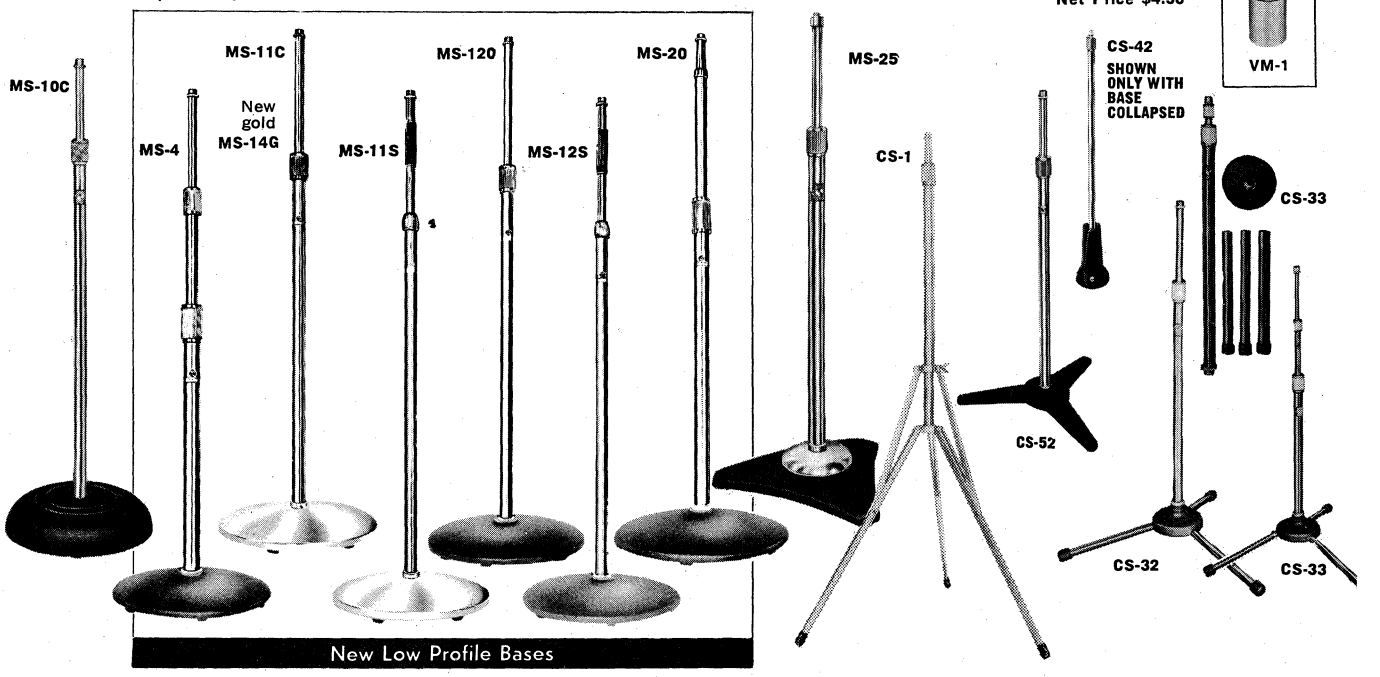
VM-1 SHOCK MOUNT The VM-1 shock mount will eliminate or greatly reduce microphone pick up of external mechanical shock and stand vibrations.

The shock mount is equipped with male and female 5/8"-27 threads permitting convenient insertion between the microphone and the microphone stand.

The VM-1 is constructed of die castings and brass turnings finished in bright polished chrome — overall length 4¾", diameter 1"

Net Price $4.50





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ATLAS SOUND

ATLAS MICROPHONE DESK STANDS AND ACCESSORIES

DS-4 Highly polished molded phenolic base is light beige in color with chrome upright tube. The smooth base will not scratch or mar table tops. Upright tube can be easily removed from base. Base diameter 5", height of tube 4", thread size 5/8"-27. Shipping weight ½ lb. **Net Price $1.50**

DS-5 Non-Adjustable Desk Stand. Base cast iron, finished in gun metal shrivel. Stable base is equipped with pads to prevent damage to desk or table tops. Base diameter 6", tube height 4" chrome finish. Shipping Weight 2 lbs. **Net Price $2.10**

DS-7 Same as above but equipped with upright adjustable from 8 to 13 inches. Equipped with standard "Velvet Action" clutch adjustment. Thread 5/8"-27. Shipping Weight 3 lbs. **Net Price $3.60**

DS-10 "Stream Liner" Desk Stand. Features "Rear Cable Exit". Mike cable is concealed under center section of chrome trim and directed out at rear of base; results in added stability and improved appearance. Constructed of precision die castings, finish gun metal grey, bright chrome trim. Rubber bumpers prevent damage. 5/8"-27 thread. Shipping Weight 1½ lbs. **Net Price $3.60**

TS-8 Adjustable Banquet Stand. Low silhouette base is a trim, modern design. Upright adjustable from 14½" to 26". Both base and upright finished in full super-chrome. Shipping wt. 5½ lbs. **Net Price $6.45**

DS-9 Professional Desk Stand. Handsome appearance of modern, low silhouette base and tapered upright, both finished in satin chrome, complements the finest microphones. Stable 8" diameter base protects against accidental microphone damage. 4" upright tube. 5 felt base pads (4 lbs.) **Net Price $5.10**

DS-14 Desk stand is functionally and aesthetically suited to slim, elongated microphones. Gun-metal shrivel finished base with protective felt pads and 3" polished chrome upright tube with 5/8"-27 thread. (2 lbs.) **Net Price $2.70**

SB-1 Dispatcher and Switchboard Mike Support. For use over telephone switchboards, dispatcher's desk, dais, banquet table, etc. 12 inch long, flexible, chrome plated "goose neck" arm is mounted on a spring loaded swivel, can be swung aside when not in use. A feed thru hole is located at the mike end of the "goose neck" so that the mike cable can be concealed within the flexible arm. Base casting is rear loaded so that the base will not tip forward. Finish grey shrivel. Shipping Weight 13 lbs. **Net Price $10.80**

SW-1 Gyromatic Swivel permits microphone to be adjusted to any angle, up, down, around. Locks in any position. Die cast finished in chrome. **Net Price $3.15**

LO-2 "Lock-On" accessory for instantaneous microphone attachment or removal without threading on or off any stand or support. One half of LO-2 remains fastened to the microphone, the other half stays on the stand. Excellent for floor show, sports announcing and similar uses where microphones must often be removed. Positive lock holds microphone safely in hanging positions on booms, ceiling supports and stage battens. Chrome finish. **Net Price $2.10**

SO-1 "Snap-On" accessory. Identical to LO-2 but less locking feature. Spring loaded, ball bearing design for secure, safe microphone attachment and quick disconnect on any upright floor stand. **Net Price $1.65**

FS-1 Foot Switch for press-to-talk paging applications using any microphone with a single ended input. May also be hand operated on desks and switchboards. Easily rewired for press-to-open circuit requirements. **Net Price $8.40**

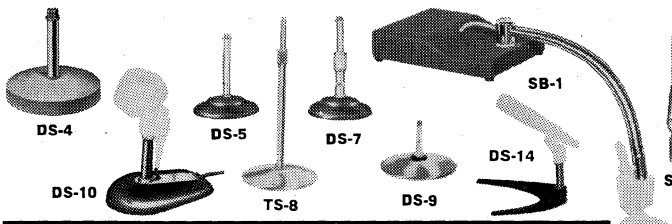
NS-1 "The Chesty" Neck Supported Mike Holder. Permits a quick and simple "three way" adjustment. Mike is always in a suitably "close talking" position reducing acoustic feedback problems. Wide comfortable chest support prevents rolling due to sudden movement. Cool and lightweight, weighing only 6 oz. **Net Price $3.90**

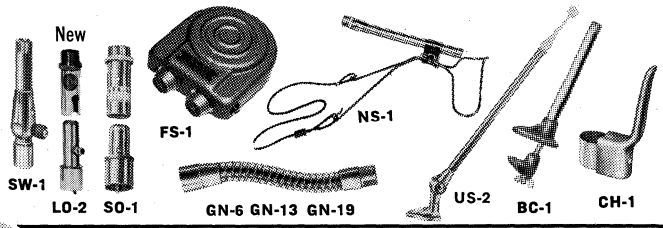
GN "Goose Necks" can be attached to any microphone stand or fixture; ends have 5/8"-27 male and female threads—all finished in bright chrome, model numeral indicates overall length of "goose neck" in inches. **Net Price GN-6 $1.20, GN-13 $1.65, GN-19 $2.40**

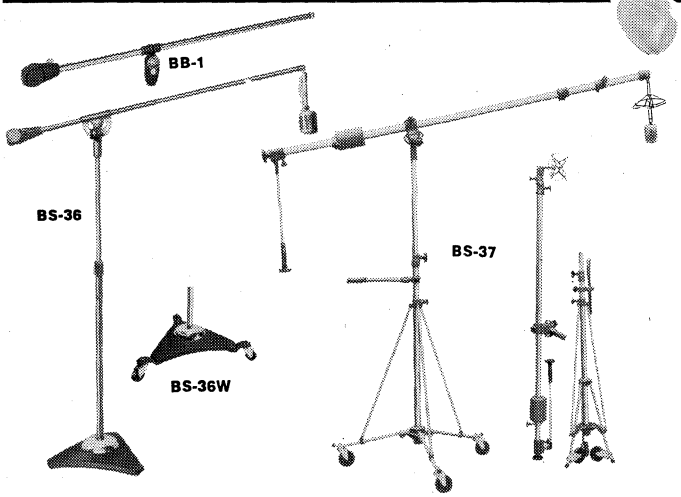
US-2 The Atlas US-2 Multi-Purpose microphone support. Excellent for use with language laboratories, dispatcher desks, telephone switchboards, pulpits, etc. The boom arm vertical adjustment and the rotation motion is spring loaded and will "float" the mike in the desired position without requiring a locking adjustment. The microphone cable may be concealed within the boom arm and will feed thru the swivel assembly and base flange. A small opening is provided at the microphone end of the boom for cable entry. Finished in "super-chrome". Specifications—Boom arm length 12¾"; vertical adjustment of boom 180°; rotation 360°; base length 2⅝". **Net Price $5.70**

BC-1 Bracket Clamp. A multitude of useful applications. Can be used with a boom arm, goose neck, etc. Chrome tube 6" long. Clamp can be removed and top flange screwed or bolted in position. 5/8"-27 thread. **Net Price $2.40**

CH-1 Cable Hanger. Fits all tubes 7/8" to 1¼" diameter. The mike cable can be quickly coiled and looped over the cable hanger when moving, storing or transporting the mike and stand. Finished in polished chromium. **Net Price $1.65**







ATLAS BOOM STANDS

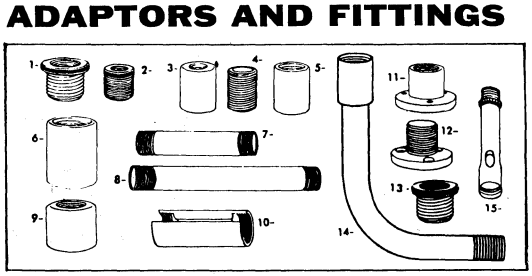
BB-1 "Baby Boom" Attachment. Versatile device that can be attached to any type of floor stand. All swivel parts are precision die castings resulting in smooth operation and secure positioning. Length of boom 31"—Chrome plated 5/8"-27 thread. Shipping weight 3½ lbs. **Net Price $5.10**

BS-36 Professional Boom Stand with "Safety Air Lock Cushion" offers all the advantages of "Floating Action" plus a secure and dependable locking adjustment. The Air Lock built into the vertical section prevents any accidental or sudden slippage of the upright section. A gyromatic swivel joint is provided at the microphone end. The base casting is equipped with shock absorbent chrome plated, "domes of silence". Specifications: Boom length 62" (extension may be added). Vertical extension from 48" to 72". All tubular sections super-chrome plated. Base finished in polished chrome and gun metal. Shipping weight 36 lbs. **Net Price $42.00**

BS-36W Mobile Model. Identical to the BS-36 except that the base is supplied with ball bearing swivel casters, permitting the entire stand to be wheeled to various positions in the studio. Shipping weight 40 lbs. **Net Price $48.00**

BS-37 Porto Boom. For most exacting TV studio, sound motion picture application, etc., ideal for portable service. Fully collapsible down to dimensions permitting its transportation in all automobiles. Air check prevents any accidental collapse of the upright. Detailed description sheet available. Specifications: Upright retracted 5¼ ft., extended 9 ft. Boom retracted 7 ft., extended 18 ft. All tubular sections aluminum processed in "Alumilite". Counter weight cast iron with bronze locking mechanism. Base casters 4" swivel type. Base spread 42" on radius. Shipping weight 73 lbs. **Net Price $420.00**

ATLAS MICROPHONE ADAPTORS AND FITTINGS



Model	Description	Net Price
AD- 1	5/8"-27 female to ½" pipe thread male (RCA Adaptor)	$ .63
AD- 2	1/8" pipe female to 5/8"-27 male	.45
AD- 3	1/8" pipe female to 5/8"-27 female	.48
AD- 4	¾" long, 5/8"-27 male running thread	.30
AD- 5	5/8"-27 female to 5/8"-27 female, coupling	.48
AD- 6	7/8"-27 female to 7/8"-27 female, coupling	.81
AD- 7	3" long tube 5/8"-27 male each end	.54
AD- 8	6" long tube 5/8"-27 male each end	.60
AD- 9	7/8"-27 female to 5/8"-27 female	.60
AD-10	5/8"-24 female to 5/8"-27 female (W. E. Adaptor)	.90
AD-11	Flange, 5/8"-27 female. Base Diameter 1¾"	.60
AD-12	Flange, 5/8"-27 male. Base holes on 1¼" mounting centers	.60
AD-13	7/8"-27 male to 5/8"27 female	.57
AD-14	Right angle bent tube: 5/8"-27 male and female each end	1.05
AD-15	Cable "Feed-Thru" adaptor: 5/8"-27 male and female each end	.99

Note: Thread sizes specified as 1/8" pipe is I.P.S. (Electrical fitting) Measures Approx. 3/8" dia. All adaptors chrome plated.

ATLAS SOUND, Division of AMERICAN TRADING AND PRODUCTION CORPORATION, In Canada: Atlas Radio Corp.

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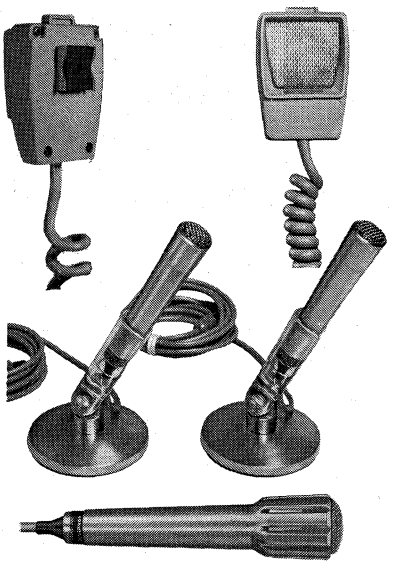
SONOTONE® DYNAMIC AND CERAMIC MICROPHONES



SONOTONE DYNAMIC CARDIOID MICROPHONE CDM-80 (Dual Impedance). Features discriminating, front-to-back rejection and unidirectional pattern preferred by professionals; on-off switch and dual impedance. Ideal for PA systems, TV use, professional use, tape recordings. Equipped with 15′ three-conductor cable plus shield. No plug. Net **$26.10.**

SPECIFICATIONS: Response: 80 to 10,000 cps; Sensitivity: 50,000 ohms —59 db @ 1kc, 200 ohms —83 db @ 1kc; Front-to-back rejection: 16 to 20 db; Impedance: 50,000/200 ohms.

SONOTONE DYNAMIC MICROPHONE DM70-100, DM70-200 AND DM70-500. High performance low and high impedance for PA systems, tape recording and professional use. Free-suspension design cuts handling and clothing noises. Equipped with shielded strain relief cable. Net **$16.50. DM70-550** Dynamic microphone with switch. Impedance: 200 ohms. Net **$17.70.**

SPECIFICATIONS: Response: 80 to 15,000 cps; Sensitivity: —60 to —83 db @ 1kc; Impedance: 50,000, 10,000 and 200 ohms.

SONOTONE DYNAMIC MICROPHONE DM10-100, DM10-200 AND DM10-500. Low and high impedance, omnidirectional for tape recordings, PA systems and professional use. Cartridge cup mounted in rubber sleeve. 7′ single conductor shielded cable with standard phone plug. Net **$14.70. DM10-550** Dynamic microphone with switch. Impedance: 200 ohms. Net **$15.30.**

SPECIFICATIONS: Response: 80 to 16,000 cps; Sensitivity: —57 to —80 db @ 1kc; Impedance: 50,000, 10,000 and 200 ohms.

MATCHING TABLE STAND CMS-10. With ⅝ No. 27 thread for floor stand mounting. Net **$3.25.**

MATCHING TABLE STAND LA-20. Black plastic lavalier; adjustable strap for desk or body use. For all DM and CM mike series. Net **$2.25.**

SONOTONE CERAMIKE CM-10A. Natural, clean reproduction for tape recording, home movies, PA systems and conference pickups. 7′ shielded cable with phone plug. Net **$11.03.**

Response: 50 to over 11,000 cps
Sensitivity: —56 db ± 2 db
Damping grid: Lanced, louvered metal grid

SONOTONE CERAMIKE CMC-10A. Combination package consisting of CM-10A mike and CMS-10 table stand. Net **$13.79.**

SONOTONE CERAMIKE CM-3050. Low-impedance CB mike. "Push-to-talk" button, shatterproof case, lightweight. Coiled 4-conductor shielded cable. Net **$9.45.**

SONOTONE CERAMIKE CM-3050M. Same as CM-3050, with magnetic dashboard mount. Net **$11.03.**

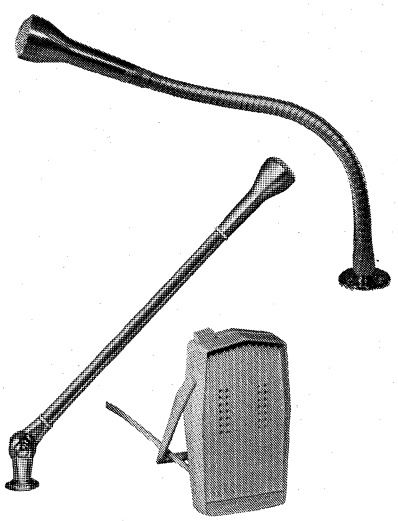
SONOTONE CERAMIKE CM-1050WR. Wide-range, low-impedance. For voice and music applications. Stand not included. Net **$11.67.**
Response: 50 to 10,000 cps
Sensitivity: —58 db
Recommended impedance: 250K (useable to 33K)
Damping grid: Lanced, louvered metal grid

SONOTONE CERAMIKE CM-1050SR. Speech-range, low-impedance for speech applications, as tape recording and communications. Like Net **$11.67.**

SONOTONE CERAMIC CMT-1050WR (matched twins). For music and speech taping in stereo. Each mike is matched to within ± 2 db. Stands not included. Spec same as CM-1050WR. Net **$23.63** pair.

SONOTONE CERAMIKE CMC-1050WR (combination stand and mike). For taping, PA systems and learning labs. Low-impedance, wide-range. Specs same as Model CM-1050WR. Net **$14.81.**

SONOTONE CERAMIKE CM-10A39. Ruggedized for classroom and other hard-usage applications. New bend relief sleeve and slim cable. Ideal for learning labs. Specs same as CM-10A. Shown with optional stand CMS1-10. Sleeve of rugged plastic. Net **$11.66.**
Response: 50 to over 11,000 cps
Sensitivity: —56 db ± 2 db
Damping grid: Lanced, louvered metal grid



SONOTONE CERAMIKE CM-30. For mobile units. Intelligibility unsurpassed. Favors voice frequency range. Ruggedly built. Lightweight, shatterproof plastic case. Convenient "push-to-talk" button and dashboard mounting bracket. Spring-spiraled 4-conductor shielded cable. Net **$8.82.**

SONOTONE CERAMIKE CM-30M. With new magnetic dashboard mount—no holes to drill. Net **$10.40.**
Response: 60 to 7,000 cps
Sensitivity: —49 db ± 2 db
Case: Shatterproof plastic

SONOTONE CERAMIKE CM-40. Low price. High impact plastic case. Unique swing type stand sits upright for table use. Net **$6.24.**
Response: 40 to 8,000 cps
Sensitivity: —50 db

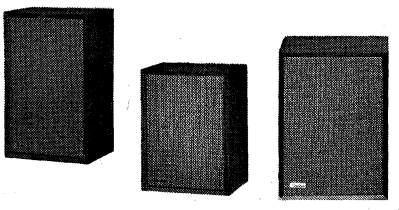
SONOTONE CERAMIKE CM-17A. Omnidirectional high impedance for audio-visual labs, language labs, PA systems. 13″ flexible gooseneck keeps hands free for writing and taking messages. For all speech needs. 6′ shielded cable. Net **$15.44.**
Response: 50 to over 11,000 cps
Sensitivity: —56 db ± 2 db
Damping grid: Lanced, louvered metal grid

Models utilizing the CM-17A element available in a variety of mountings as follows:

SONOTONE CERAMIKE CM-17B. 13″ boom mike. Fixed boom mounted with 350° swivel. 7′ mike cable. Net **$17.96.**

SONOTONE CERAMIKE CM-T10A (matched twin). For taping live stereo. Every CM-T10A set is electronically matched at the factory to a tolerance of ± 2 db. 7′ shielded cable and phone plug. Per pair, net **$22.37.**
Response: 50 to over 11,000 cps
Sensitivity: —56 db ± 2 db
Damping grid: Lanced, louvered metal grid

Sonotone Sonomaster® ACOUSTIC SUSPENSION SPEAKER SYSTEMS



SONOMASTER RM-1 (14½″ x 10½″ x 7¼″ deep). Requires only 10 watts of amplifier power to provide big sound performance. Power handling capacity: 40 watts average (80 watts peak). Speakers: 6″ linear high-compliance woofer, 2½″ high-frequency cone tweeter, integrated crossover network (crossover frequency 5000 cps). Net **$44.50.**

SONOMASTER RM-1K KIT. Same quality components used in factory-made RM-1. The only difference—you assemble it and save. Unfinished birch veneer cabinet. Net **$35.50.**

SONOMASTER RM 0.5. Only 8 lbs., only 10½″ x 7½″ x 7″ deep. Can handle 20 watts average program material (40 watts peak). Speakers: 4″ linear high-compliance woofer, 2″ high-frequency cone tweeter (crossover frequency 5000 cps). Net **$39.75.**

SONOMASTER RM-2A. The bigger sound of the compact systems. Equipped with an 8″ linear high-compliance woofer and 3½″ high-frequency cone tweeter acoustically matched with integrated crossover network (crossover frequency: 3000 cps.), 19″ x 11½″ x 8½″ deep. Requires only 10 watts input power. Handles 50 watts average (100 watts peak). Net **$56.50.**

ELECTRONIC APPLICATIONS DIVISION
SONOTONE
audio products

Net

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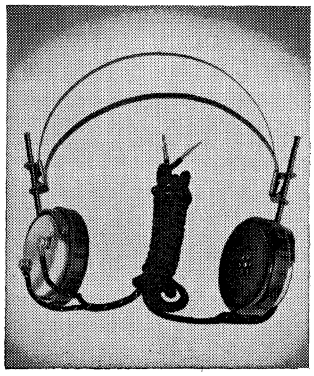
HEADPHONES By C. F. CANNON CO.

THE "CHIEF"
Cannon-Ball Bakelite Headset

A high quality headset of durable molded black plastic. Attractive in appearance, it is a sensitive and practical phone for every headset use. Inside terminals. Diameter of diaphragm is 2 1/8". Double coils, two in each receiver. Alnico permanent magnets. Supplied with vinyl plastic covered headband with permanent adjustment and no removable parts. Cotton covered cord, 4½ ft. long.

CC-2—2000 ohms D.C..... **List $4.55 Net $2.73**
CC-3—3000 ohms D.C..... **List 4.80 Net 2.88**
CC-5—5000 ohms D.C..... **List 5.90 Net 3.54**
CC-11—11 ohms D.C..... **List 4.55 Net 2.73**



BRANDES "SUPERIOR"
Matched Tone Headset

A rugged headset, millions of which are in use all over the world. Large size diaphragms of 2 1/8" diameter assure efficient performance. Outside terminals, with polished aluminum cases and bakelite caps. Double coils, two in each receiver. Chrome steel magnets. Steel headband with permanent adjusment. 4½ ft. cotton covered cord.

BS-2—2000 ohms D.C. **List $4.30 Net $2.58**

BRANDES "ADMIRAL"
Matched Tone Headset

The Brandes "Admiral" is of the same general construction as the Brandes Superior, but has terminals on the inside.

BA-2—2000 ohms D.C. **List $4.70 Net $2.82**
BA-3—3000 ohms D.C. **List 5.05 Net 3.03**
BA-5—5000 ohms D.C. **List 6.15 Net 3.69**

CANNON-BALL ALNICO MAGNETIC No. 25

A New Headset of Unusual Quality, Efficiency and Durability, powered by Alnico V magnets.

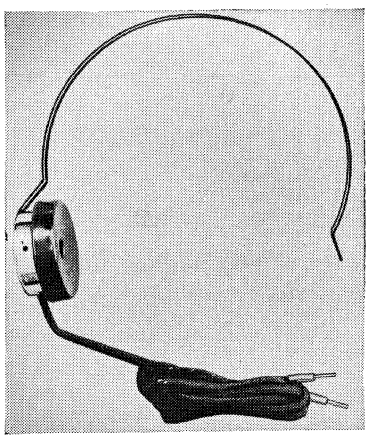
The headband is covered by attractive black extruded vinylite and provides utmost wearing comfort. Limits turn of phone to prevent twisting of cord. Cap and case of molded plastic. Large size diaphragm 2 1/8". Equipped with sanitary moisture-resistant plastic cord with riveted crotch piece.

AM-25-2 ..... **List $6.90 Net $4.14**
AM-25-3 ..... **List 7.40 Net 4.44**
AM-25-5 ..... **List 8.50 Net 5.10**

ALNICO MAGNETIC No. 15

A new, small size, extra sensitive double headset, light in weight. Diameter of diaphragm 1 7/8". Molded cap and case. Steel adjustable headband. 4½ ft. cord.

AM-15-2 ..... **List $4.05 Net $2.43**
AM-15-3 ..... **List 4.30 Net 2.58**



CANNON-BALL "ALNICO"
Single Headphone

Equal in clarity and volume to most double headsets, efficient and attractive. Permits listening while being addressed by others. Concealed terminals. Diaphragm 1 7/8". Bakelite case and caps. Alnico magnet, double coils. 4½ ft. cord. Spring steel headband permanently attached.

AM-15-1—1000 ohms D.C..... **List $2.20 Net 1.32**

THE "MASTER"
Cannon-Ball Headset

Used extensively in hospitals and other institutions as well as for general purposes, and is especially recommended for institutions. Inside terminals Aluminum cases with black bakelite caps. Spring steel adjustable headband with no removable parts. Diaphragm 2 1/8" diameter. Double coils. Chrome steel magnets. 4½ ft. cotton-covered cord.

MC-2—2000 ohms D.C... **List $4.70 Net $2.82**
MC-3—3000 ohms D.C... **List 5.05 Net 3.03**
MC-5—5000 ohms D.C... **List 6.15 Net 3.69**

CANNON-BALL "EMPIRE"
Lightweight Headset

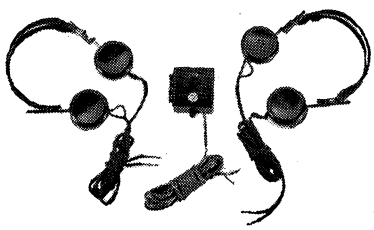
A low-priced light-weight headset with large magnet and double coils. Reproduces with clarity and good volume. Diameter of diaphragm is 1 7/8". Polished aluminum cases with bakelite caps. Steel adjustable headband. 4½ ft. cord. Inside terminal connections.

EC-2—2000 ohms D.C... **List $4.20 Net $2.52**
EC-3—3000 ohms D.C... **List 4.45 Net 2.67**

THE "DIXIE"
Cannon-Ball Headset

The "Dixie" is of the same general construction as the "Master" headset except that the terminals are on the outside. Bakelite case Alnico magnets.

CD-2—2000 ohms D.C... **List $4.30 Net $2.58**
CD-3—3000 ohms D.C... **List 4.55 Net 2.73**



CANNON-BALL HEARING AID FOR TELEVISION

Provides private listening without disturbing others. Excellent for persons hard of hearing. Can be attached to any television set and permits listening to phones alone, speaker alone, or both together.

FOR TELEVISION

Kit complete with 15 foot cord and phone volume control.

With 2 headsets... **List $17.25 Net $10.35**
With 1 headset.... **List 13.00 Net 7.80**

MOLDED RUBBER CUSHIONS

Fit standard size headsets. Molded-in air chamber provides maximum wearing comfort.

per pair ..... **List $1.00 Net $ .60**

Phones can be supplied with any resistance required or with variations to meet special requirements.

Sanitary plastic covered cords available for institutional use. Write for special quotation.

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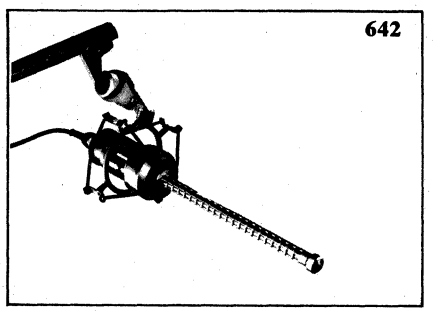
BC-TV-RECORDING MICROPHONES-DYNAMICS

Cardiline™ Unidirectional Microphones

MODEL 642—A highly directional dynamic microphone combining the best characteristics of cardioid and distributed front-opening designs.* Essentially cardioid unidirectional up to 500 Hz; highly directional over balance of range. Working distance is 2 to 3 (or more) times that of conventional types. Excellent for boom use with Model 356 shock mount. Minimum mechanical shock transfer and wind noise interference. Response: Flat from 40 to 10,000 Hz or choice of 5 or 10 db low frequency reduction steps by screwdriver adjustment. Acoustalloy® diaphragm. Impedance: 50, 150 and 250 ohms, externally adjustable. Output level: —48 db. Cast aluminum case with non-reflecting gray finish. Supplied with Cannon UA-3-14 connector, 20′ 3-conductor shielded broadcast cable and UA-3-11 Cannon connector. Length, 17⅞″; max. diameter, 3 3/16″. Must be used with Model 356 or 327. Net weight, 3 lbs., 4 oz. **Net $234.00**

MODEL 643 — A highly directional dynamic microphone combining the best characteristics of cardioid and distributed front-opening principle for more specialized and extended long-range pickup. Provides cardioid pickup pattern to 100 Hz and is highly directional over balance of range. Includes integral 3-position switch for selecting flat response or one of two bass tilt-down positions. Integral 100 Hz cutoff filter. Impedance: 50, 150, or 250 ohms, selected by changing internal connector pin. Light weight extruded and cast aluminum case with integral shock mount and removable wind filter. Output: —48 db. Response: 30 to 10,000 Hz. Length, 7′2″. Maximum diameter, 4″. Cannon UA-3-14 and UA-3-11 connectors. Supplied with 20′ cable and storage case. Fits ⅝″-27 pipe threads. Net weight, 12 lbs. **Net price** **$936.00**

*U.S. Patent No. 3,095,084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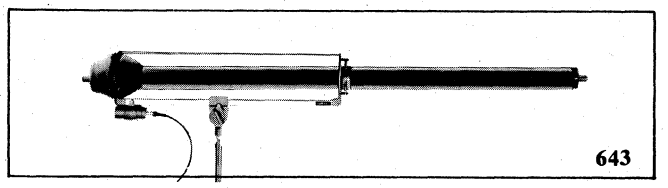

643

Cardioid Unidirectional Microphones

MODEL 666 SUPER CARDIOID — A Variable-D® microphone† for high discrimination against sounds from back. Permits close talking without bass accentuation. Working distance increased by 1.7:1 over pressure microphones. Single moving element is exclusive, rugged Acoustalloy® diaphragm. Response: 40 to 15,000 Hz. Output: —58 db. Internal connector pin impedance change. Wired for 150 ohms; taps at 50 and 250 ohms. Non-reflecting gray finished aluminum case. Built-in Cannon UA-3 connector. Model 300 stand mount with ⅝″-27 thread and 20′ cable furnished. Length, 7¾″. Diameter, 1¾″. Net weight, 11 oz. **Net price** **$153.00**

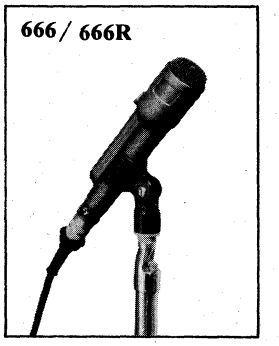
MODEL 666R RISING RESPONSE CARDIOID—Like Model 666, but with response which rises 4½ db from 100 to 1,000 Hz, reducing pickup of low-frequency reverberations, room "rumble" and prop noise. Particularly suited to boom use. Output: —58 db. **Net price** **$153.00**

MODEL 665 CARDIOID—Similar in design and function to the Model 666, but for less exacting applications. Uniform response 70 to 13,000 Hz. Recessed switch provides 50 or 250 ohms. Pressure-cast zinc case. Non-reflecting gray finish. Diameter, 1⅞″; length, 7 3/16″; 18′ cable. Fits ⅝″-27 threaded stand. Net weight, 1 lb. 10 oz. **Net price** **$90.00**

MODEL 668 — Entirely new Continuously Variable-D® cardioid† designed specifically for boom use in broadcasting and recording. Extremely smooth cardioid pattern for maximum reduction of ambient noise and reverberation. Integral windscreen eliminates noise caused by motion of boom-mounted microphone through the air. Built-in equalizer provides choice of 36 response variations. Acoustalloy® diaphragm. Response: 40 to 10,000 Hz. Output: — 51 db. Internal impedance selector permits 50, 150 or 250 ohm connection. Non-reflecting gray finished aluminum case. Two-foot mechanical isolation cable and twenty-foot three-conductor shielded broadcast type cable included. Supplied complete with shock isolating boom mount. Length: 9⅝″. Diameter, 3¼″. Net weight, 1 lb. 11 oz.
Net price **$297.00**

MODEL 667A — Identical to Model 668 except incorporates selection of six different response curves. **Net price** **$207.00**

†U.S. Patent No. 3,115,207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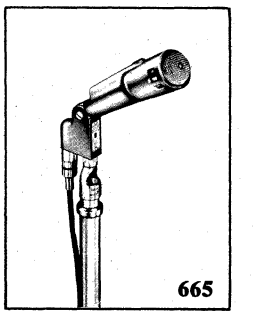
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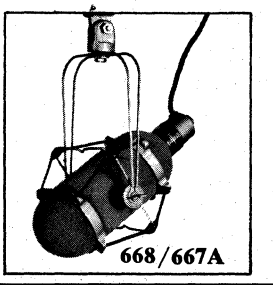
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Omnidirectional Microphones

MODEL 655C SLIM-TRIM TV DYNAMIC—Frequency response, 40 to 20,000 Hz. Output level, —57db. Excellent level affords high signal-to-noise ratio. Can be used on stand, in hand or on boom. Easily concealed in studio props. Acoustalloy® diaphragm. Pop-proof grille. Impedance: 50, 150 and 250 ohms. Impedance easily changed. Non-reflecting gray finish. Cannon UA-3 connector. Model 300 clamp-on stand mount included, has 5/8"-27 thread. Length, 10 3/8" less connector. Diameter, 1 1/8". 20' cable. Net weight, 7 oz. **Net price** **$120.00**

MODEL 654A SLIM-TRIM BROADCAST DYNAMIC—Frequency Response, 50 to 15,000 Hz. Output level: —57 db. Can be used stand-mounted, hand-held or as lavalier. Matches all low impedance inputs. Built-in Cannon XLR-3 connector. Acoustalloy® diaphragm. 18' cable. Length, 6 1/16". Diameter, 1 1/8". Non-reflecting gray finish. Net weight, 7 oz. Supplied with Model 300 clamp and lavalier neck cord. **Net price** **$60.00**

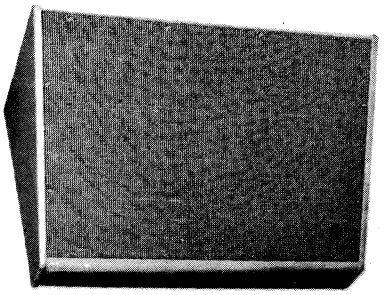
MODEL 635A BROADCAST DYNAMIC — Completely redesigned and improved omni-directional microphone, perfect for hand and stand use by entertainers and vocalists. Light weight turned steel case is extremely rugged and provides magnetic shielding. Finished in non-reflecting matte satin nickel. Effective four-stage pop and dust filter virtually eliminates need for external wind screen. Response: 100 to 13,000 Hz (rising). Output, —55 db. Acoustalloy® diaphragm. Low impedance. Cannon XL-3 connector. 2-conductor, 18' cable. Supplied with model 310 clamp and lavalier neck cord assembly. Microphone size: 6" 1. x 1 3/8" diameter (head), 3/4" shank diameter. Net weight, 6 oz. **Net price** **$49.20**

MODEL 649B MINIATURE LAVALIER—Smallest dynamic lavalier—weighs only 31 grams without cable; length, 2 1/4"; diameter, 3/4". Ideal for programming where unobtrusive or concealed microphone placement is desirable. Frequency response: 70 to 10,000 cps (rising). Output: —61 db. Acoustalloy® diaphragm. Omnidirectional. Matches all low impedance inputs. 30' shielded cable. Aluminum case finished in non-reflecting gray. Complete with neck cord, belt clip, model 310 stand mounting clamp, and suede pouch. **Net price** **$63.00**

Sentry Series Studio Monitor Speaker Systems

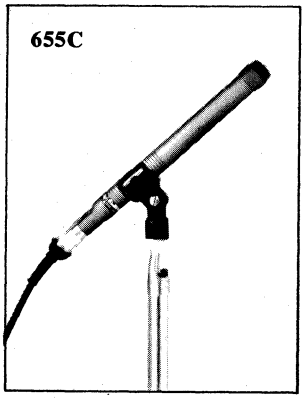
SENTRY I WALL OR CEILING MODEL — The first loudspeaker system designed specifically for monitor use in recording and broadcast studios. Permits precise monitoring and equalization uncolored by monitor speaker. Extremely wide, flat response allows use as studio reference standard. Precision driver components include 12" Radax™ loudspeaker, Diffraction Horn high frequency driver and special crossover. Provides smooth frequency response from 30 to 20,000 Hz. Internal matching transformer accommodates 16, 150, and 600-ohm amplifier impedances. Quality hardwood cabinet, smooth sanded and sealed, ready for finishing in your choice of colors if desired. Neutral cane grille cloth. Dimensions: 21 1/2" h. 37" w. x 16 3/8" d. Net weight, 82 lbs. **Net price** **$165.00**

SENTRY II FLOOR MODEL — Same specifications as those shown for Sentry I. Finished on all four sides to permit vertical or horizontal mounting. Includes protective metal trunk-type corners which may be attached for portable applications. Dimensions: 32" x 20" x 13" deep. Net Wt. 63 lbs. **Net** **$174.00**



SENTRY I

655C



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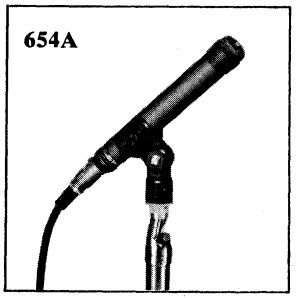
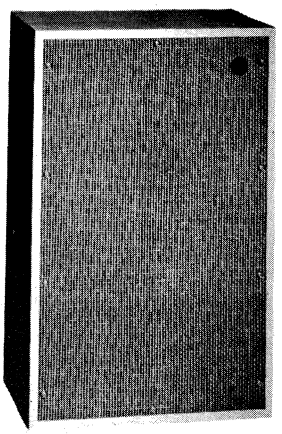
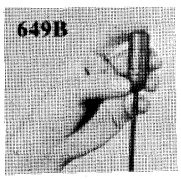
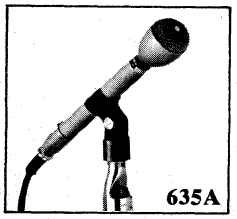




SENTRY II

649B





635A

GENERAL PURPOSE MICROPHONES

Unidirectional Line Microphone

MODEL 644 SOUND SPOT® — Another Electro-Voice revolutionary development, the Sound Spot Model 644 is a combination cardioid and distributed front opening* instrument, making it the most directional P.A. microphone ever. The Model 644 has the farthest front pickup, or better than 2.5 times the working distance of pressure types. Work close or far away without change of frequency response.

Cancellation from the rear and sides exceeds 20 db above 700 Hz giving practically complete rejection of unwanted sound. Cardioid below 700 Hz. This feature gives extremely high rejection of random noise. Reverberation and feedback are vastly lower than with any other P.A. microphone, allowing much greater leeway in loudspeaker placement.

The effective front acceptance angle is 45° each side of center, providing best isolation of individual performers. The Model 644 is 9 db better on the reduction of wind noise and has far less response to shock than most other microphones.

Frequency response is smooth from 40 to 10,000 Hz. Acoustalloy® diaphragm. High output: —53 db. Dual high and low impedance selected by changing one tap on MC4M cable connector. The case is high-pressure die-cast zinc with ¾" aluminum tube; satin chrome finish. Rear diameter 2 5/16", length 16". Cable is 15'. Net weight, 2 lbs. 9 oz. **Net price** **$66.00**

*U.S. Patent No. 3,095,084

Cardioid Unidirectional Dynamic Microphones

NEW MODEL 674 CARDIOID DYNAMIC — Radically new design brings truly professional quality to public address, recording, communications, and other general purpose microphone applications. An exclusive Continuously Variable-D® microphone† which assures uniform symmetrical cardioid pattern at all frequencies. Frequency response 60 to 15,000 Hz. Highest discrimination against feedback and unwanted sound. Exclusive three position switch offers controlled low-frequency attenuation to overcome rumble and feedback when microphone is used at a distance.

Stud-mount for use on floor or desk stand with ⅝"-27 threads. Incorporates on/off switch.

Slim design permits full view of person speaking. Rugged high pressure die-cast construction. Acoustalloy® diaphragm. Dual Lo-Z and Hi-Z, impedance changed by moving one wire in cable connector. Output, —57 db. Satin chrome finish. 15' cable. Size: 7⅞" l. x 1¼" dia. (not including stud). **Net price** **$60.00**

MODEL 674A—Non-reflecting Gray finish. Shipped wired for Lo-Z. **Net price** **$60.00**

MODEL 674G—Gold finish. **Net price** **$66.00**

MODEL 676 CARDIOID DYNAMIC—Similar to 674 microphone, above, except less mounting stud and on/off switch. For use with stand mounting clamp (Model 300 supplied) so microphone can easily be removed and used hand-held during performance. Response 60 to 15,000 Hz, with low-frequency attenuation switch. Output — 57 db. Dual Hi- and Lo-Z, selected by moving one wire in connector. Satin chrome finish. 15' cable. Size: 7⅜" l. x 1¼" dia. Net weight, 12 oz. less cable.

Net price **$60.00**

MODEL 676A—Non-reflecting Gray finish. Shipped wired for Lo-Z. **Net price** **$60.00**

MODEL 676G—Gold finish. **Net price** **$66.00**

MODEL 664 CARDIOID DYNAMIC — Similar to Model 666 in function, but designed for quality tape recording, communications, and public address applications. Cardioid pattern at all frequencies, with Variable-D† feature. Permits close talking without "booming" or bass accentuation. Provides better discrimination against unwanted sound. Blast filter minimizes wind effect. Acoustalloy® diaphragm shielded from dust and magnetic particles. Response 60-15,000 Hz. Output —58 db. On-off switch. Dual Lo-Z and Hi-Z, impedance changed by moving one wire in cable connector. Pressure-cast case. Chrome finish. 15' cable. Size: 7¼" l., less connector; 1⅞" dia. Net weight, 1 lb. 10 oz. **Net price** **$51.00**

MODEL 664A—Non-reflecting Gray finish. Shipped wired for Lo-Z. **Net price** **$51.00**

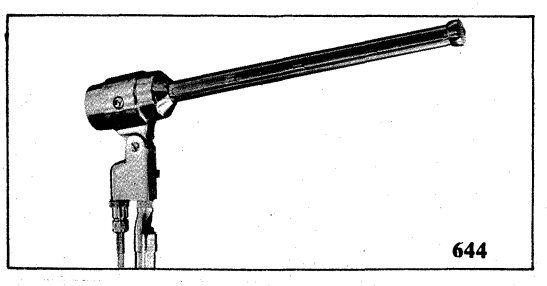
MODEL 664G—Gold finish. **Net price** **$54.00**

†U.S. Patent No. 3,115,207

Omnidirectional Dynamic Microphones

MODEL 641—Modern two-tone design dynamic microphone. High output level, wide-range response. For public address, home recording, communications, electronic teaching aids, paging systems. Integral On-Off switch, wide frequency response. 70 to 10,000 Hz. Output —57 db. 15 foot cable. Case is chrome plated die-cast zinc and gray high impact plastic. Standard ⅝"-27 stand connector. Available in Hi-Z or balanced Lo-Z, must be specified. Size: 4½" l. x 1¾" dia., not including stud. Net weight, 8 oz. less cable. **Net price** **$23.70**

MODEL 634A—Similar to Model 641 (above) except furnished without stand mounting stud or on-off switch. Fits any stand, boom or gooseneck with complete cable concealment. Ideal for desk mounting on electronic teaching aids, amateur and commercial communications and switchboard mounting for paging systems. 6 foot cable and standard ⅝" -27 threads in rear of case. Hi-Z or balanced Lo-Z, must be specified. Size: 4" l. x 1¾" dia. Net weight, 8 oz. **Net price** **$18.00**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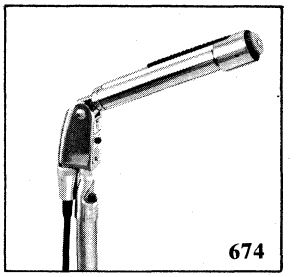
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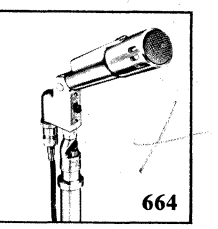
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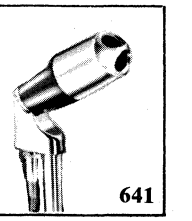
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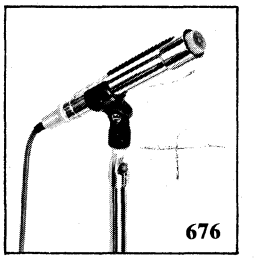
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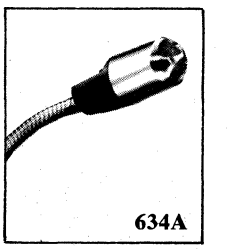
634A

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MODEL 636 "SLIMAIR" DYNAMIC—Exceptionally fine for PA, recording and general use. Response 60-13,000 Hz. Output —58 db. Pop-proof head. Wide pickup range. On-Off switch. Satin chrome finish. Tiltable head. 5/8"-27 thread. Dual Hi-Z or Lo-Z selected by changing one wire in connector. 15' cable. Length: 10¼" including stud. 1⅛" maximum diameter. Net weight, 15 oz. **Net price** **$43.50**

MODEL 636G—Gold finish **Net price** **$46.50**

MODEL 630 HIGH FIDELITY, HIGH-OUTPUT DYNAMIC—Famous for quality at low cost. Response 60-11,000 Hz; output level–55 db. Unaffected by heat or humidity. Acoustalloy® diaphragm. Tiltable head. Built-in MC-3 connector. On-Off switch. Satin chrome finish. Available in Hi-Z or balanced Lo-Z, must be specified. Size: 6¼" h. x 2" dia. 15' cable. Net weight, 1 lb. **Net price** **$31.50**

MODEL 647A DYNAMIC LAVALIER—Smallest high quality microphone in the entire public address field delivers big microphone performance. Extremely rugged dynamic construction assures long life. Frequency response, 70 to 10,000 Hz. Acoustalloy® diaphragm. Hi-Z or balanced Lo-Z, must be specified. Output: —60 db. Non-reflecting gray finish. 18' cable. Complete with neck cord, clip, and stand mounting clamp. Size: 3¾" l. x ¾" dia. Net weight, 2 oz. **Net price** **$49.50**

MODEL 623 SLIM DYNAMIC—Ideal for PA, recording and general use. Use on stand or in hand. Omnidirectional. Response 60-12,000 Hz; output level —56 db. Acoustalloy® diaphragm. Dual Hi-Z or Lo-Z selected by changing one wire in connector. Pressure-cast case, satin chrome finish. Tiltable head. On-off switch. 5/8"-27 thread. Size: 7½" l. x 15/16" dia. 15' cable. Net weight, 15 oz. **Net price** **$34.20**

MODEL 611 "MERCURY" DYNAMIC—Traditional styling, fine performance for general sound pickup. Response 50-9000 Hz; output level —55 db. Omnidirectional. Acoustalloy® diaphragm. Tiltable head. On-Off Switch. Built-in MC-3 connector. 5/8"-27 thread. Satin chrome finish. Available in Hi-Z or balanced Lo-Z, must be specified. 15' cable. Size: 2⅞" w. x 6¾" h. x 2⅜" d. Net weight 1 lb. 4 oz. **Net price** **$27.00**

MODEL 624 DYNAMIC LAVALIER—Most economical dynamic lavalier on the market. For chest or hand use. Supplied with neck cord, support clip and 18' cable. Non-reflecting gray finish. Wire mesh head acoustically treated for wind and moisture protection. Output —56 db, response 100-7,000 Hz. Acoustalloy® diaphragm. Available in Hi-Z or Lo-Z (not balanced to ground), must be specified. Cable has integral strain relief. Size: 3⅛" l. x 1¼" dia. Net weight, 14 oz. **Net price** **$27.00**

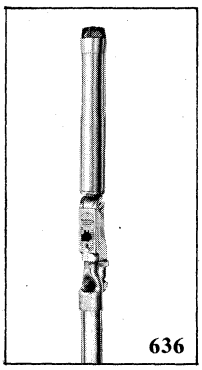
MODEL 619 "PRESS TO TALK" DYNAMIC—Modern, reliable base-station microphone ideal for ham, CB, or business communications and paging. Rugged die-cast stand in communications gray and contrasting, chrome plated die-cast head. Press-to-talk switch located on base may be moved into upper part of stand for grip-to-talk operation. Switch shorts microphone in "off" position and provides for relay operation or electronic switching. Response: 70-10,000 Hz. Output: —57 db. Hi-Z or balanced Lo-Z, must be specified. Cable: 15' (Lo-Z), 6½' (Hi-Z). Size: 4⅜" w. x 9" h. x 4¾" d. Net weight, 2 lbs. 2 oz. **Net price** **$28.50**

Crystal and Ceramic Microphones

MODEL 951 CARDIOID CRYSTAL—A Variable-D® microphone* like E-V's BC-TV cardioids, obtains uniform directivity at all frequencies, high discrimination against unwanted sound. The 951 is an excellent wide-range, all-purpose PA microphone for a great variety of acoustic conditions, and especially useful where background noise and reverberation are a problem. Response 50-11,000 Hz. Output —60 db. Hi-Z. On-Off switch. Pressure-cast case. Metalustre gray finish. 15' cable. MC-1 connector. 5⅜" l. (excluding stud), 1¾" dia. overall. Net wt., less cable, 1¼ lbs. **Net price** **$32.70**

*U.S. Patent No. 3,115,207

MODEL 924 LAVALIER CRYSTAL—Unique crystal lavalier for chest or hand use. Supplied with neck cord, support clip and 18' cable. Non-reflecting gray finish. Wire mesh head acoustically treated for wind and moisture protection. Output—60 db. Response 60-8,000 Hz. Hi-Z. 3 5/32" l. x 1 7/32" dia. Cable has integral strain relief. Net weight 8 oz. **Net price** **$14.10**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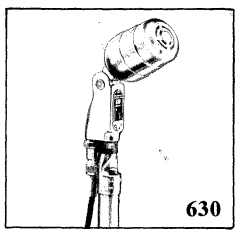
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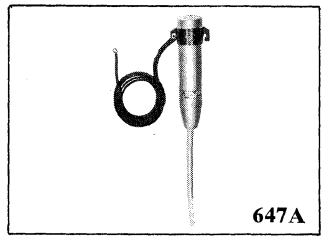
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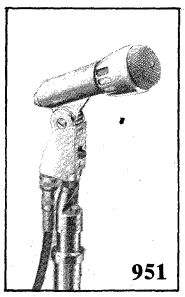
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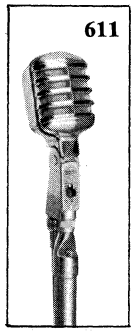
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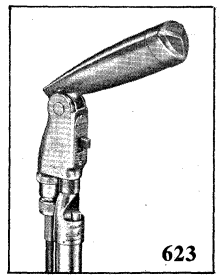
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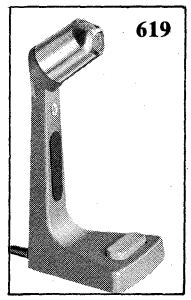
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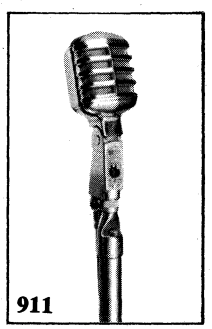
MODEL 911 CRYSTAL—Same smart design and fine performance as Model 611. Response 50-10,000 Hz. Output —50 db. Metal Seal Crystal. MC-1 connector. Hi-Z. 15′ cable. Net weight 1½ lbs. **Net price** **$22.50**

MODEL 920 "SPHEREX" CRYSTAL—Omnidirectional pickup. Response 60-10,000 Hz; output level —50 db. Strong wire-mesh head acoustically treated for wind and moisture protection. High capacity, moisture sealed crystal. Hi-Z. Satin chrome. ⅝"-27 thread. Diam. 2¼". 15′ cable. Net Weight 8 oz. **Net ...$16.50**

MODEL 714—A high output, ceramic hand-held communications microphone for paging, ham radio, and Citizens Band use. Molded, tough, gray Cycolac case, usually found only in most expensive mobile microphones, assures long life and protection from accidental shock damage. Response tailored for maximum intelligibility. High level, high impedance output —55 db over range of 100 to 7,000 Hz. DPDT switch shorts microphone in "off" position and closes relay circuit in "on" position, may be used for electronic switching. 3-conductor coiled cord extends to 5′. Size: 2½" w. x 3⅝" h. x 1 7/16" d. Net weight, 8 oz. including cable. Complete with hang-up bracket. **Net price** **$9.90**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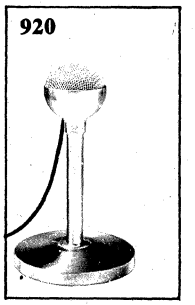
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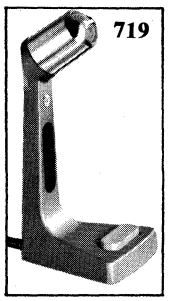
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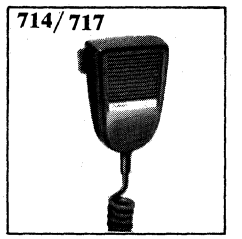
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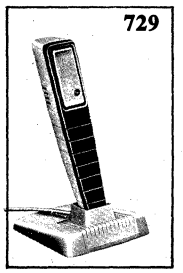
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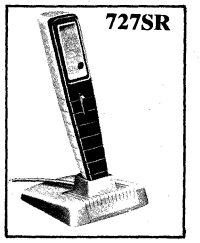
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MODEL 717—Similar to Model 714 above except close talking cardioid pickup pattern for rejection of unwanted background noise and feed-back. Specially designed ceramic element with apertures on either side of diaphragm provides effective attenuation of sounds arriving from the rear and sides. Output level —55 db. Frequency response 100 to 7,000 Hz. **Net price $11.70**

MODEL 719 "PRESS TO TALK" CERAMIC — Versatile, modest cost base-station microphone for any communications or paging work. Integral stand and head are both die-cast, communications gray and chrome plated, respectively. Switch may be used for press-to-talk in base, or moved to upper part of stand for grip-to-talk use. Switch shorts microphone in "off" position, allows relay operation or electronic switching. Hi-Z. Output: —56 db. Response: 70-7,000 Hz. 6½′ cable. Size: 4⅜" w. x 9" h. x 4¾" d. Net weight, 2 lbs. 2 oz. **Net price** **$16.50**

MODEL 729 CERAMIC CARDIOID—The Model 729 is the lowest priced cardioid ever built. Random noise, reverberation and feedback reduced by a factor of 67%. Front pickup range nearly double that of pressure microphones. For public address, call and paging systems, home recorders, especially stereo, and general communications. Discrimination against sound from the rear makes the 729 execellent for amateur radio VOX operations. Tailored for single sideband. Output: —60 db. Response: 60 to 8,000 Hz. High impedance only. Metalustre gray front with medium gray back. 8½′ cable. Attractive desk stand and floor stand adapter supplied. Size: 1½" w. x 8¼" h. x 1⅜" d. Net weight, 9 oz. less cable and stand.
Net price **$14.70**

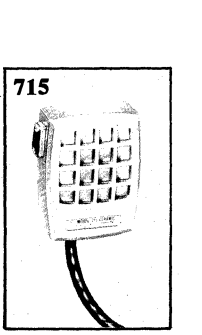
MODEL 729SR—With relay control switch. **Net price....$15.90**

MODEL 727 SLIM CERAMIC—A new approach to the design of ceramic microphones for PA, recording and general use; similar in appearance to Model 729. Withstands extremes of temperature and humidity. Response 60-8,000 Hz. Output —55 db. High impedance only. 8½′ cable. Metalustre gray front with medium gray back. Supplied with attractive desk stand and floor stand adapter. Size: 1½" w. x 7¾" h. x 1⅜" d. Net weight, 9 oz. less cable and stand. **Net price** **$12.00**

MODEL 727SR—With relay control switch. **Net price....$14.10**

MODEL 715 "CENTURY" CERAMIC—Use in any position—in hand, on table, on stand or overhead. Ceramic element. 60-7,000 Hz; output —55 db. Hi-Z. 5′ cable. Omnidirectional. Metalustre gray finish. Rugged, lightweight. AC-DC insulated. With ⅝"-27 adapter. Size: 2¼" w. x 3" h. x 1" d. Net weight, 6 oz. **Net price** **$8.85**

MODEL 721 CERAMIC — New amazingly inexpensive microphone featuring high output level and light weight for recording, experimenting, and general use. High impact gray plastic case. Use handheld or with integral fold-out stand. Response 100-5000 Hz. Output: —52 db. Hi-Z. 5′ cable. Size: 2¼" w., 3⅜" h., 1" d. Net Weight: 3 oz. **Net price** **$3.90**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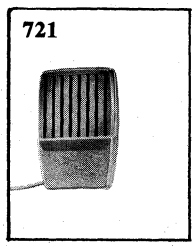
721

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Differential And Special Purpose Microphones

MODEL 606 DIFFERENTIAL DYNAMIC—Close talking, noise cancelling. Accepts sounds of close origin (¼") and rejects sounds of distant origin. Response: 100 to 5,000 Hz. Output at ¼": —55 db. Acoustalloy® diaphragm. ⅝"-27 thread. Built-in connector. Satin Chrome finish. Size: 3¼" h. including stud x 2" dia. Hi-Z or balanced Lo-Z, must be specified. 15' cable. Net weight, 8 oz. less cable. **Net price** **$31.50**

MODEL 600E DYNAMIC MOBILE MIKE—Reliability factors have been improved over all previous designs. High-impact Cycolac case and rugged dynamic construction assure protection against shock damage. Easy-action switch provides years of use—shorts microphone in "off" position to eliminate electrical noise pickup and closes relay circuit when depressed. High output level —55 db. Response 100 to 7,000 Hz specifically matched to high intelligibility requirements. Size: 2½" w. x 4" h. x 1½" d. Color, communications gray. Shielded coiled cord extends to 5'. Complete with hang-up bracket. Hi-Z or balanced Lo-Z, must be specified. Net weight, 10 oz. **Net price** **$23.40**

MODEL 602F NOISE CANCELING DYNAMIC MOBILE MICROPHONE — New differential close-talking microphone featuring superior rejection of unwanted background noise. Two balanced rear port openings phase out sound originating more than ¼" away. Output, —55 db. Response, 200-5,000 Hz. High-impact, rugged Cycolac case, communications gray. Press-to-talk switch shorts microphone in "off" position and closes relay contacts in "on". Shielded coiled cord extends to 5'. Hi-Z or balanced Lo-Z, must be specified. Size: 2½" w, x 4" h. x 1¾" d. Net weight, 10 oz. **Net price** **$34.50**

MODEL 603TR TRANSISTORIZED NOISE CANCELING MOBILE — Developed especially for aircraft applications, the 603TR is a superior, highly reliable microphone providing all dynamic advantages for direct replacement of carbon units. Rejects sounds originating more than ¼" away for elimination of high ambient background noise. Built-in transistor amplifier with 48 db. gain matches output level of carbon circuits. Output adjustable with internal potentiometer up to —16 db. Magnetic hanger bracket furnished, holds face of microphone. Acoustalloy® diaphragm. Response: 200-4,000 Hz. Coiled cord extends to 5'. Press-to-talk switch shorts microphone in "off" position and provides relay control. Lo-Z. Size: 2¼" w. x 3⁹⁄₁₆" h. x 1⅜" d. Net weight, 8 oz. **Net price** **$84.00**

MODEL 602TR — Similar to 603TR with different case design, uses conventional hanger which is supplied. Fixed output level, —23 db. Response: 100-5,000 Hz. Size: 2⅜" w. x 4" h. x 2" d. Net weight, 13 oz. **Net price** **$55.80**

MODEL 210E CARBON — Similar to 600E but single-button carbon. Output — 50 db. Lo-Z. Press-to-talk switch closes microphone and relay circuit. Coiled cord extends to 5'. **Net price** **$21.00**

MODEL 205STCKK Differential Carbon — Close-talking, noise-cancelling, single button carbon. For aircraft and emergency communications. FAA approved — Certificate No. 1040. Blastproof, waterproof and shock resistant. Output at ¼": —50 db. Lo-Z. Black phenolic case. Press-to-talk switch closes microphone and relay circuit. Mounting bracket furnished. Coiled cord extends to 5'. Size: 2¼" w. x 4" h. x 2" d. Net weight 12 oz. **Net price** **$30.00**

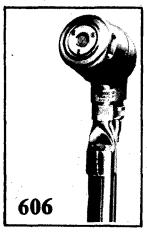
MODEL 205STCKKP — Same as above with PJ-068 plug. **Net price** **$32.85**

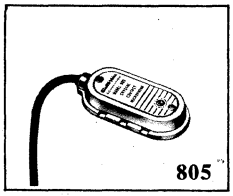
MODEL 625SKK DYNAMIC DIFFERENTIAL HANDSET — For paging, intercom, and communications. Sturdy phenolic case contains noise-canceling Lo-Z microphone and 150 ohm magnetic receiver. Response: 100-5,000 Hz. Output: —55 db. Grip-to-talk switch closes microphone and relay circuit. Five-conductor coiled cord extends to 5'. Size: 2⅝" w. x 8½" l. x 3" d. Net weight, 1 lb. 8 oz. **Net price** **$51.00**

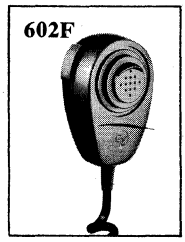
MODEL 625TRSKK—Identical to Model 625SKK above except with two-stage transistor amplifier with gain of 35 db. for direct replacement in carbon microphone circuits. FAA type certificate: 3R42-2. **Net price** **$73.50**

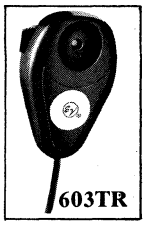
MODEL 648 INTERCOM MICROPHONE—Extremely versatile paging, intercom, or talk-back microphone. Omnidirectional. Acoustalloy® diaphragm. Non-reflecting gray. Does not include cable. Response: 50-10,000 Hz. Output: —58 db. Hi-Z or Lo-Z, must be specified. Size: 6" l. x 1" dia., including ⅝"-27 thread adapter. Net weight, 8½ oz. **Net price** **$33.60**

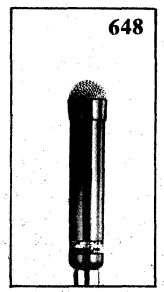
MODEL 805 CONTACT—For guitar, banjo, other stringed instruments. Hi-Z. Sealed crystal. Chrome finish. 15' cable. **Net price** **$12.00**

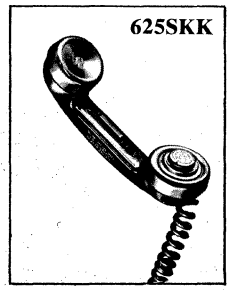


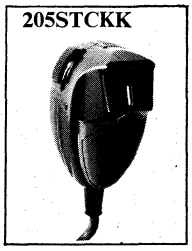












MICROPHONE ACCESSORIES

Clamps

MODEL 300 DETACHABLE MICROPHONE CLAMP—Light weight adapter fits any 1" to 1⅛" dia. cylindrical microphone providing positive mounting to ⅝"-27 desk or floor stand.
Net price **$4.50**

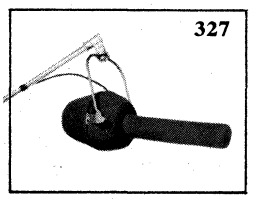
MODEL 310 DETACHABLE MICROPHONE CLAMP—Similar to Model 300 above, but designed for ¾" diameter microphones. **Net price** **$3.60**

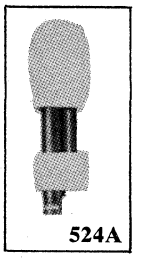
MODEL 311 SNAP-IN CLAMP—Similar to Model 310, but cut back for easy snap in, snap out of microphone.
Net price **$3.60**

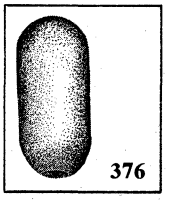
Suspension Shock Mounts

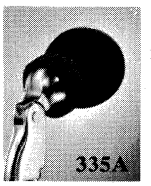
MODEL 356 SUSPENSION SHOCK MOUNT—For use with Model 642 on boom or floor stand when no windscreen is used. **Net price** **$30.00**

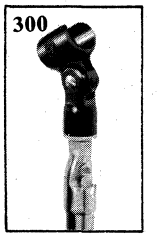
MODEL 324 SHOCK MOUNT—Suspension mount for Model 642 microphone. Will accept Model 326 windscreen.
Net price **$39.00**

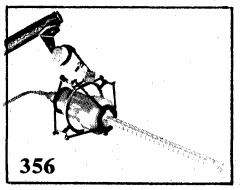


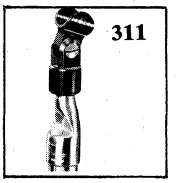


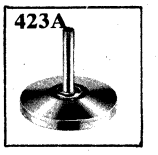


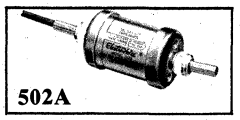


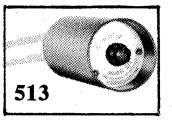


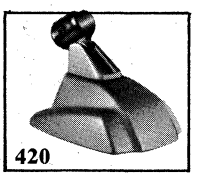












Windscreens

MODEL 327 WINDSCREEN PACKAGE—Consists of 324 shock mount and 326 windscreen, for use with Model 642 microphone. Fabricated of Acoustifoam*, eliminates "blast" caused by fast panning of boom, or when used outdoors. Net weight, 1 lb., 8 oz. **Net price** **$60.00**

MODEL 326 WINDSCREEN KIT—Acoustifoam* windscreen for Model 642 microphone. Compatible with Model 324 Shock mount. **Net price** **$27.00**

MODEL 335A WINDSCREEN—Acoustifoam* windscreen fits 630, 641, 634 microphones. Net weight, ½ oz.
Net price **$7.50**

MODEL 355 WINDSCREEN—Designed to reduce or eliminate wind noise, this windscreen is constructed of Electro-Voice Acoustifoam*, a material which will not alter frequency response or polar characteristics of microphone. Also protects against mechanical shock damage and pickup of dust and magnetic particles. For use with models 665C, 654A, 636, and 623. Size, 9" x 3¼". Net weight, ½ oz. Color: gray.
Net price **$6.60**

MODEL 376 WINDSCREEN — One piece Acoustifoam* sleeve for 676 and 674 microphones. Gray. Size: 2½" dia. x 6½" l. Net weight, ¼ oz. **Net price** **$9.00**

MODEL 524A WINDSCREEN—Designed specifically for use with Model 666 microphone. Minimizes wind effect on boom operation or when used outdoors. Made of Acoustifoam.* Net weight, ½ oz. **Net price** **$7.20**

Transformer and Filter

MODEL 502A MATCHING TRANSFORMER—Designed for use in series with mike line. Transformer windings have low distributed capacity and are amply shielded against inductive hum by a shield inside pressure-cast case. Designed for 50, 150, 250 and 500 ohms—to Hi-Z. Broadcast fidelity—response 40-20,000 Hz ± 1 db. Size 2⅞" l. x 2" dia. **Net price** **$10.50**

MODEL 513 FILTER—Designed for use with low impedance microphones, has switch to match 50, 150 or 250 ohms. When used in line between microphone and preamp., it rejects unwanted noise below 100 Hz. Terminals provided for cable connections. Size: 5⅝" l. x 2¼" dia. Net weight, 1 lb. 10 oz.
Net price **$57.00**

Microphone Stands

MODEL 418 DESK STAND—Use with microphones using small-type stud such as Models 611, 623, 630, 641, 636, 674, 911, and 951. Die cast base. Gray finish. **Net price** **$7.80**

MODEL 418S —With switch. **Net price** **$10.50**

MODEL 419 DESK STAND—Similar to Model 418 but for use with microphones using large-type stud such as Models 644, 664, and 665. **Net price** **$7.80**

MODEL 419S—With switch. **Net price** **$10.50**

MODEL 419G — Same as Model 419, except gold finish to match 664G microphone. **Net price** **$9.75**

MODEL 420 DESK STAND—Heavy die-cast stand finished in TV gray. Specifically designed for use with E-V 666, 655C, 654A, 652, 652A, 676 or other microphones with 1" diameter. Clamp attachment for mounting 1" to 1⅛" dia. cylindrical mikes, without tools. Base holds mike in position when subjected to ordinary strain. Net Weight, 3 lbs. **Net price** **$12.00**

MODEL 420G — Same as 420, except gold finish to match 676G microphone. **Net price** **$15.75**

MODEL 423A DESK STAND—Sturdy smartly styled, round die-cast matte black base, 5⅛" diameter. Rests firmly on rubber base buttons. ⅝"-27 thread. 5" chrome riser. Net Weight, 1 lb.
Net price **$3.60**

MODEL 428 TOUCH-TO-TALK STAND—Fits standard ⅝"-27 thread. Lever-type DPDT switch for relay operation or microphone On-Off—closes or opens instantly or locks in "talk" position. Satin chrome; gray plastic switch lever with locking button. 7" x 5⅛" base diameter. Net Weight, 1¾ lbs.
Net price **$18.00**

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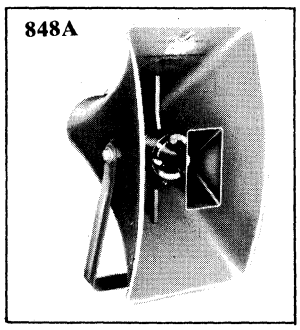
PUBLIC ADDRESS HORNS AND DRIVERS

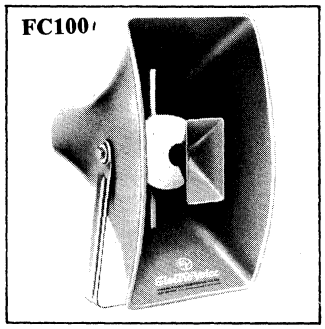
Compound Diffraction Projector

MODEL 848A—Combines FC100 Compound Diffraction Horn plus 1828C Compound Driver for finest wide-angle sound, lowest distortion, highest quality of any projector. Specifications: Frequency response, 150-10,000 Hz; impedance, 8 ohms; dispersion, 90° x 120°; power handling capacity, 30 watts; sound pressure level, 117 db; dimensions, 10½" x 20½" x 20". Net Weight, 13½ lbs. complete. **Net price** **$51.00**

848A

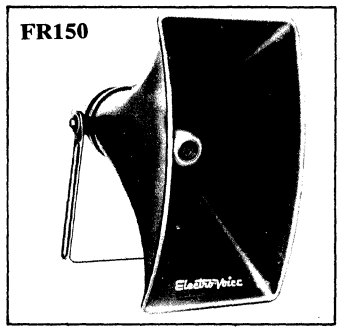


FC100

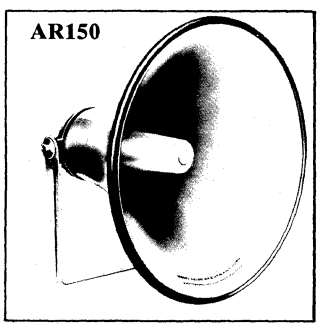


AC100

FR150



AR150



HC400

Projector Horns

Completely new designs assure finest performance with Electro-Voice projector horns. Two basic types from which to choose . . . compound and reentrant.

EXCLUSIVE COMPOUND HORNS permit widest range at lowest distortion, plus complete directional control of both highs and lows. Best wide-angle coverage with exclusive diffraction horns means better sound through entire coverage area. Concentrating compound horn provides highest efficiency at lowest distortion. Natural voice and music reproduction result in higher intelligibility without annoying peaks.

MODEL FC100—Similar to the famous CDP®, the FC100 provides two diffraction horns for uniform wide-angle coverage. Frequency response is not compromised since both horns are ideally designed to handle a specific portion of the range. Compound horn reduces distortion far below any other projector design. Flexible coverage control provided by individual adjustment of each horn. Large horn is fiberglass with Mesa Tan finish molded in. Use any E-V convertible driver. Specifications: Low-frequency horn — cut-off, 100 Hz; taper, 100 Hz; air column length, 58"; sound distribution, 90° x 120°. High frequency sound distribution, 90° x 120°; crossover, 1,000 Hz. Mouth size 10½" x 20½", depth (less driver), 20". Net Wt. (less driver), 10¾ lbs. **Net price** **$30.00**

MODEL AC100—Concentrating version of CDP®. Has all of the quality advantages of FC100, except utilizes round horns for most concentrated coverage with greatest efficiency. Retains compound design for lowest distortion—widest range. Use any E-V convertible driver. Specifications: Low-frequency horn—cut-off, 100 Hz; taper, 100 Hz; air column length, 56"; sound distribution, 80°. High-frequency sound distribution, 30°; crossover, 1,000 Hz. Diameter, 21"; depth (less driver), 21"; Net Wt. (less driver), 11½ lbs. **Net price** **$51.00**

REENTRANT HORNS provide wider range than ever before at lowest cost. Unique E-V ring reflector design provides better balanced highs than possible with conventional exponential designs, by reducing high-frequency losses often encountered in reentrant horns. Smoother response plus added useful range increases intelligibility and adds to more natural sound. Rugged aluminum die-cast mounting plate plus precision die-cast reentrant tubes assure long-lasting performance. Heavy spun aluminum round bell or fiberglass rectangular horn provides either concentrated coverage or medium angle coverage. Electro-Voice Reentrant Horns accept any standard driver with 1⅜"-18 threads.

MODEL FR150—Reentrant Horn. Medium-angle low-cost rectangular horn provides good coverage at low cost. Virtually indestructible fiberglass horn has Mesa Tan color molded in. Adjustable mounting angle allows best coverage. Can be stacked for multiple speaker applications. Ideal for car-top installation or wherever low silhouette is needed, and where bass response cannot be sacrificed. Accepts Electro-Voice convertible drivers or any standard driver with 1⅜"-18 thread. Specifications: Low-frequency cut-off, 150 Hz; taper, 150 Hz; air column length, 45"; sound distribution, 70° x 100°; mouth size, 10½" x 20½"; depth (less driver), 21"; Net Wt. (less driver), 9½ lbs. Shpg. Wt., 12 lbs. **Net price** **$26.70**

MODEL AR150—Reentrant Horn. Round concentrating horn for maximum penetration at lowest cost. E-V ring reflector plus precision new exponential design contributes to widest range yet achieved from this horn type. Smoother curve results in high intelligibility, and remarkably natural voice and music quality. Rubber edge-damping ring eliminates resonances. High-efficiency design allows more useful volume from driver over entire range. Accepts Electro-Voice Convertible drivers or any standard driver with 1⅜"-18 thread. Specifications: Low-frequency horn—cut-off, 150 Hz; taper, 150 Hz; air column length, 41"; sound distribution, 85°; diameter, 21"; depth (less driver), 17". Net Weight (less driver), 6½ lbs. **Net price** **$29.40**

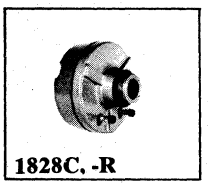
MODEL HC400 — Features wide-angle dispersion in a round reentrant horn. Same horn, less driver, as used in 844A. May be combined with any E-V driver listed on next page. High articulation for difficult paging jobs. Ruggedly constructed die-cast body. Completely weatherproofed and tropicalized. Nom. dispersion: 90°. Low frequency cutoff: 250 Hz. Taper: 250 Hz. Air column length: 16". Finished in Mesa Tan baked enamel. 10" dia., 5¼" deep. Net weight: 4½ lbs. **Net price** **$9.00**

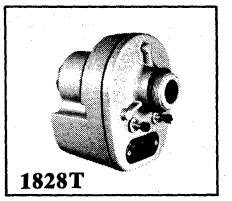
Versatile Convertible Drivers

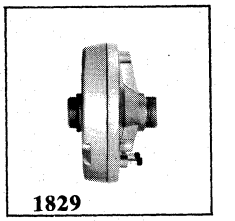
Designed for smooth peak-free response with maximum efficiency, Electro-Voice public address drivers offer the greatest possible long term economy with a consistently high level of performance.
The Reentrant Driver Model 1828R (30 watts) will produce maximum intelligibility when used with such Electro-Voice horns as the AR150 & FR150, and HC400, yet its freedom from severe response peaks assures improved results even when installed on other Reentrant Horns.
The versatile Convertible Drivers listed below are easily adapted for use with all Reentrant-type Horns (E-V and others), but are especially effective when used with the exclusive Electro-Voice Compound Diffraction Projectors (CDP®), FC100, and AC100.
For use in constant voltage systems, order 1828T, DC40T, DC50T, or 1829T.
All drivers have 1⅜" - 18 threads for attaching horn.
E-V Diaphragm replacement kits (easily field replaceable) are available for all Electro-Voice public address drivers.

Diaphragm Replacement Kits

Model	Use For	Net Price
8642	DS30 (844)	$7.20
8643	DS30-45 (844-45)	9.00
82015	DC30-45 (848-45 & 848LT-45)	9.00
82016	828 (848, 848LT)	7.20
82087	DC30, DC30T	7.20
8617	DC30-45	9.00
82088	DC40, DC40T	7.20
8618	DC40-45	9.00
82089	DC50, DC50T	7.20
8619	DC50-45	9.00
84434	1828C, 1828R (844A)	9.90
84433	1828T	9.90
84431	1829	9.90
84432	1829T	9.90


1828C, -R


1828T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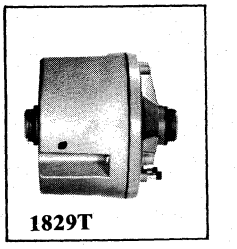
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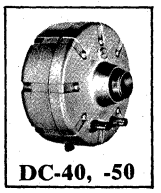
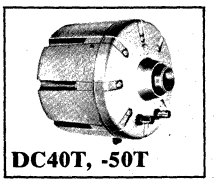

DC-40, -50


DC40T, -50T

	1828R*	1828C	1828T	DC40	DC40T	DC50	DC50T	1829	1829T
Frequency Response-Hz	150-10,000	150-10,000	150-10,000	140-11,000	140-11,000	140-11,000	140-11,000	140-11,000	140-11,000
Program Power Capacity-watts	30	30	30	40	40	50	50	60	60
Sound Presure Level†									
FC100		120 db	120 db	122 db	122 db	124 db	124 db	127 db	127 db
AR150	127 db	127 db	127 db	129 db	129 db	131 db	131 db	133 db	133 db
Voice Coil Impedance-ohms	8	8	8	16	16	16	16	16	16
Transformer Impedance-ohms	.....	.....	167,333,667 1337	.....	125, 250 500, 1000	.....	100, 143 200, 500	.....	83,167 333,667
Transformer Power Taps-watts	.....	.....	30, 15, 8, 4	.....	40, 20, 10, 5	.....	50, 35, 25, 10	.....	60, 30, 15, 8
Dimensions (overall)	4" dia., 2¾" d	4" dia., 3¼" d	5" h 4" w 5¼" d	6¼" dia., 4¼" d	6¼" dia., 6" d	6¼" dia., 4¼" d	6¼" dia., 6" d	5 15/16" dia., 4 1/16" d	5 15/16" dia., 6⅜" d
Net Price Each	$18.90	$19.80	$27.00	$25.20	$32.70	$32.70	$39.30	$32.70	$39.30

†Measured at 4 feet on axis with full rated power from 750-1250 cps. *Reentrant style only.

'Net
© U.C.P., Inc.

Paging Speakers

MODEL PA7 REENTRANT PROJECTOR — Attractively styled horn is constructed completely of Implex — virtually indestructible. Non-resonant horn won't dent, finish can't wear off. Electro-Voice diaphragm design eliminates loading problems, provides cleanliness of reproduction never before achieved in small projectors. Handles 7½ watts over a range of 400 to 13,000 Hz. Wide 120° dispersion angle provides excellent coverage. Mounting bracket allows horn to be positioned at any angle. 6¾" diameter by 6" deep. Net weight, 2 lbs.
Net price **$17.85**

PA7-45—Same as above but with 45-ohm voice coil.
Net price **$18.60**

MODEL PA30T—Thirty watt paging projector with integral 70.7-volt line transformer. Easily selected line power taps at 30, 15, 8, 4 and 2 watts. Rectangular horn design for maximum versatility and wide dispersion. Rugged, high-impact Implex horn and conservatively rated driver assure maximum reliability. Smooth response for voice and music. Universal swivel bracket permits placement in any position or rotating horn without dismounting. Response: 250-14,000 Hz. Power handling capacity: 30 watts. Dispersion: 120 degrees by 90 degrees. EIA sensitivity rating: 59 db. Sound pressure level: 125 db. Dimensions: 11" h. x 6½" w. x 8½" d. Net weight: 6¾ lbs.
Net price **$28.50**

MODEL PA30—Same as PA30T, above, except without line transformer. Will accept any type TR3 transformer. Nominal impedance, 8 ohms. Net weight 5½ lbs.
Net price **$21.90**

MODEL PA30-45—Same as standard PA30, but with 45 ohm voice coil for simple installation in intercom systems.
Net price **$23.10**

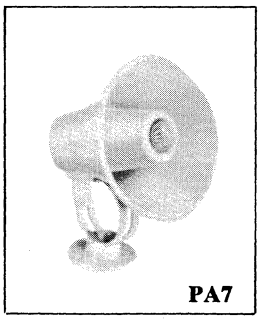
MODEL 844A—For medium-angle sound distribution. Features smooth response with better lows to provide natural paging without feedback. Handles 30 watts—to reduce costs. Rugged die-cast horn, plus field-replaceable voice coil keeps service costs at a minimum. Frequency response, 250–13,000 Hz; power handling capacity, 30 watts program; nominal impedance, 8 ohms; nom. dispersion, 90°; EIA sensitivity rating, 54 db; sound pressure level, 123 db; dimensions, 9⅞" diameter x 7⅞" deep; Net Weight, 11¼ lb. **Net price** **$23.40**

MODEL 847—Utilizing the famous CDP® Principle—this wide-angle speaker provides higher articulation without annoying "peaked" response over a uniform 120° x 90° area. Low distortion results from use of TWO diffraction horns. 25-watt power handling capacity. Fiberglass horn has mesa tan color molded in. Frequency response, 250–10,000 Hz; power handling capacity, 25 watts; sound pressure level, 114 db; dispersion, 90° x 120°; impedance, 16 ohms; dimensions, 11¾" x 7¾" x 10¼" depth. Net weight, 8 lbs. **Net price** **$33.00**

Multicellular Horn

The Multicellular Horn's dispersion characteristics are virtually independent of frequency, making it ideal for sound reenforcement where precise dispersion and wide, smooth frequency response are required.

MODEL M253—Completely weatherproofed Multicellular Horn (less driver), for indoor or outdoor use. Dispersion is essentially uniform at all useful frequencies. (60° vertical, 120° horizontal). Utilizes two rows of five identical cells. Construction is steel, with cells jig assembled and covered with special black damping compound. Use with any E-V driver with 1⅜-18 threads. Low-frequency cutoff 300 Hz. Recommended crossover frequency, 300 Hz. Supplied with mounting hardware. Driver-throat built in. No special assembly required. Dimensions: 17½" h., 30½" w., 36½" d. Net weight 26 lbs. **Net price** **$180.00**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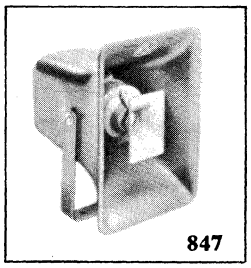
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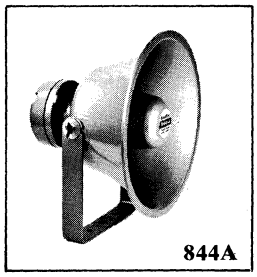
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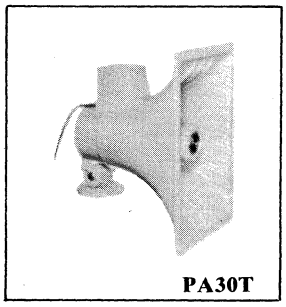
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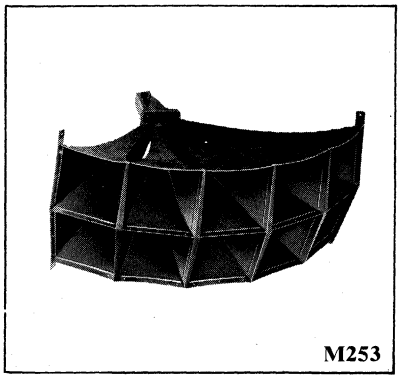

M253

Line Radiator™ Loudspeakers

Three new, wide-angle speaker designs permit wide horizontal dispersion while almost eliminating sound output above or below speaker. Superb for voice-reinforcement systems. Unusually wide frequency range coverage.

MODEL LR4A—Curved design* overcomes unwanted high-frequency dispersion at ends, eliminating echo and feedback. Contains nine 3″ x 5″ and three 3½″ cone speakers. 160° horizontal dispersion; 60° vertical dispersion. Frequency response: 200–10,000 Hz. Power handling capacity: 25 watts program, 50 watts peak. Nominal impedance: 8 ohms. Size 49″ h. x 7″ w. x 13″ d. Mesa tan finished wooden enclosure. Net weight, 26 lbs.
Net price **$120.00**

MODEL LR4SA — All new, completely weatherproofed Line Radiator loudspeaker for outside or indoor sound installations. Extruded aluminum case is lightweight, rugged, and attractive. Finished in Faun metallic, the speaker fits with any decor. Electrical filters remove end speakers from circuit as frequencies increase, eliminating high-frequency lobes at ends. Smooth, carefully tailored frequency response from 200 to 10,000 Hz for true high fidelity sound reinforcement at greatly increased sound pressure levels. Impedance: 8 ohms. Power handling capacity: 40 watts program. Dispersion: 30° vertical, 160° horizontal. Sound pressure level: 116 db (at 4′ with 40 watts input 750-1250 Hz.) Size: 48⅜″ l., 6⅝″ w., 4⅞″ d. Net weight 25 lbs. Complete with universal mounting bracket and chain.
Net price **$90.00**

MODEL LR7 — The largest of the revolutionary Electro-Voice Line Radiators. Both low- and high-frequency response extended. Utilizes nine 5″ x 7″ loudspeakers and two T35 vhf drivers for frequency range of 200 to 17,000 Hz. Full half-section crossover at 3500 Hz. Horizontal coverage 160°, vertical coverage 60°. Power handling capacity 50 watts, impedance 8 ohms. Non-resonant, curved* wood enclosure finished in Mesa Tan. Universal mounting brackets supplied. Dimensions: 60″ high x 11″ wide x 14″ deep. Net weight, 59 lbs.
Net price **$180.00**

Underwater Loudspeaker

MODEL DU30 — Pool Speaker. For use in swimming pools to provide voice and music audible underwater. May be mounted at any depth down to 4 feet. Specifications: Impedance, 16 ohms. Power handling capacity, 30 watts. Frequency response, 40 to 10,000 Hz. Size, 5¾″ diameter x 2⅜″ deep. Net weight (with cable), 8¼ lbs. Twelve-foot Underwriters approved cable. Resistant to chlorine, bromine, salt water, oil, grease, gasoline.
Net price **$58.50**

*U.S. Patent No. 3,125,181

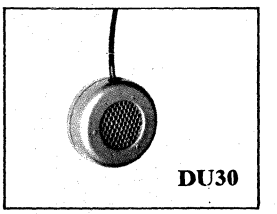
E-V Musicaster Hi-Fi Outdoor Weatherproof Speaker Systems

MUSICASTER—Provides high fidelity performance in a compact, portable system. Sturdy aluminum diecast housing protects weatherproof cone speaker and extends bass response through back-loaded folded horn. Dual Radax™ cone radiates smooth useful highs through 120° angle. Provision for mtg. 70.7-volt line transformer inside. Specifications: Frequency response, 60–13,000 Hz; nominal impedance, 8 ohms; dispersion, 120°, power handling capacity, 30 watts program; sound pressure level, 110 db; dimensions, 21½″ x 21½″ x 8½″ depth. Net weight. 31 lbs.
Net price **$72.00**

MUSICASTER II—Same fine performance as the Musicaster except has added brilliance and wider coverage from Very-High-Frequency Range Extender. Smooth response to 18,000 Hz. Complete with crossover. Net weight, 33 lbs.
Net price **$90.00**

MODEL MB-1—Surface mounting bracket allows mounting of any Musicaster flat against wall for neat unobtrusive installation. Replaces standard "U" bracket. **Net price** **$3.60**

Note: Sound Pressure Level is measured at 4′ on-axis with full rated power from 750 to 1250 cps.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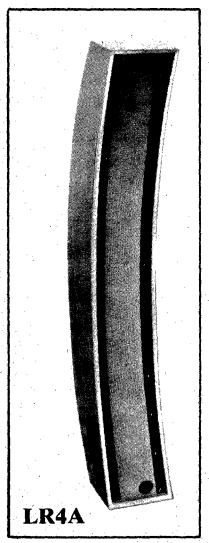
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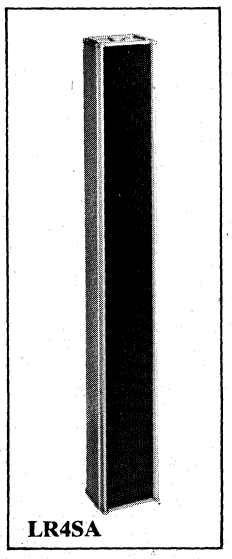
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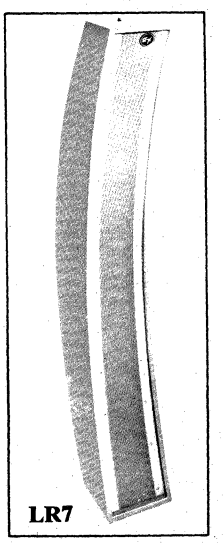
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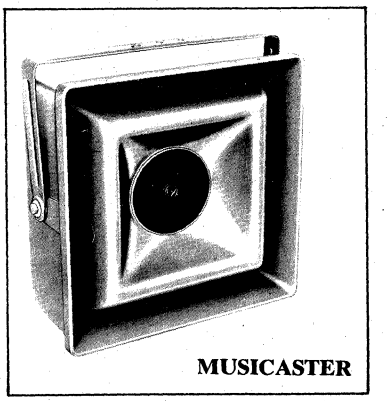
MUSICASTER

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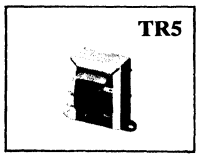
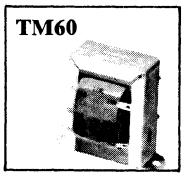
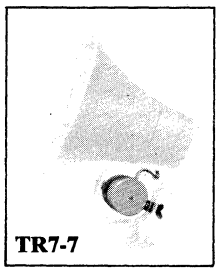
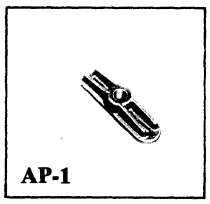
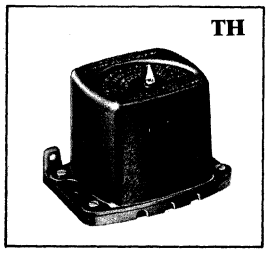
PA TRANSFORMERS AND ACCESSORIES











Transformers

MODEL TR5—5-watt 70.7-volt line transformer. 5, 2.5, 1.25 and .625-watt line power taps. 4, 8 and 16 ohms secondary impedances. Accepts solderless terminals in TH housing. Frequency response ± 2 db, 35–20,000 cps. Insertion loss 0.8 db. Overall dimensions 2″ x 1 11/16″ x 1⅜″. Mounting hole centers. 1¾″
Net price **$3.30**

MODEL TR15—Same as TR5 except 15-watt capacity with 15, 10, 5, 2.5-watt line power taps. Overall dimensions 1¾″ h., 2⅞″ w., 2 5/16″ d. **Net price** **$3.60**

MODEL TR30—Same as TR5 except 30-watt capacity with 30, 20, 10 and 5-watt line power taps. Overall dimensions 1¾″ h., 2⅞″ w., 2 5/16″ d. Mounting hole centers. 2⅜″
Net price **$4.20**

MODEL TR50—Same as TR5 except 50-watt capacity with 50, 40, 25 and 15-watt line power taps. Overall dimensions 2¼″ h., 2 5/16″ w., 2¼″ d. Mounting hole centers, 2⅜″.
Net price **$5.40**

MODEL TM5—Universal 5-watt 25- and 70.7-volt line transformer. Primary line power taps 5, 2.5, 1.25, .625 watts. Secondary impedance 8, 16 ohms. Accepts solderless terminals in TH housing. Frequency response ± 2 db, 35-20,000 cps. Insertion loss 0.8 db. Overall dimensions 2⅜″ x 1 15/16″ x 1⅝″. Mounting hole centers, 2″. **Net price** **$4.20**

MODEL TM15—Same as TM5 except 15-watt capacity with 15, 7.5, 3.75, 1.875 watt line power taps. Overall dimensions, 2⅞″ x 2⅜″ x 1⅞″. Mounting hole centers, 2⅜″.
Net price **$5.25**

MODEL TM30—Same as TM5 except 30-watt capacity with 30, 15, 7.5, 3.75 watt line power taps. Overall dimensions 3⅛″ x 2¾″ x 2″. Mounting hole centers, 2 13/16″.
impedance. **Net price** **$5.40**

MODEL TM60—Same as TM5 except 60-watt capacity with 60, 30, 15, 7.5 watt line power taps. Overall dimensions 3 9/16″ x 3 1/16″ x 2½″. Mounting hole centers, 3⅛″.
Net price **$7.20**

MODEL TR7-2—7½-watt 25-volt line transformer and weatherproof housing designed specifically for use with the Model PA7. Mounts quickly and easily inside PA7 bracket. Primary impedance taps 83, 156, 312, 624, and 1248 ohms; 7½, 4, 2, 1, and ½ watt line power taps. 8 ohms secondary impedance. **Net price** **$6.60**

MODEL TR7-7—Same as TR7-2 above except designed for 70.7 volt line applications. Primary impedance taps 660, 1250, 2500, 5000 and 10,000 ohms; 7½, 4, 2, 1 and ½ watt line power taps. 8 ohms secondary impedance **Net price** **$6.60**

MODEL TR3-2—30-watt 25-volt line transformer and weatherproof housing designed specifically for use with the Model PA30. Line power taps at 30, 15, 8, 4, 2 watts. Secondary impedance 8 ohms. **Net price** **$9.00**

MODEL TR3-7—Same as TR3-2 above except designed for 70.7-volt line applications. **Net price** **$9.00**

Accessories

MODEL TH — Transformer Housing provides neat weatherproof mounting of any E-V transformer. Mount vertically or horizontally on any flat surface or on horn bracket. Exclusive wattage indicator tells power setting at a glance. No soldering required with E-V transformers. Size: 4″ h., 5″ w., 3½″ d. Net weight, 1¾ lbs. **Net price** **$5.85**

MODEL AP-1—Pipe stand adapter for mounting any E-V speaker "U" bracket to standard ½″ pipe.
Net price **$3.00**

Take it from Mickey Mantle†

"ON LAND... AT SEA... there's a new wonderful, exciting world of sound... at your command!"

FEDTRO® POWERHOUSE MEGAPHONES

FEDTRO MEG-3600 DELUXE POWERHOUSE TRANSISTORIZED MEGAPHONE

• Waterproof • Impactproof • Rustproof

SPECIAL FEATURES

- Superior Power Range
- Tonal Quality and Clarity of the Highest Fidelity
- Perfectly Balanced Pistol Grip with Trigger Switch and Fingertip Volume Control
- All Aluminum Construction
- All Weather Durable Handy Carrying Strap
- Instant Battery Loading
- Special Blast Signal Stops and Starts the Action... Marine Signal... Boat Horn... Fog Horn..."Mayday" ...Designed to meet U.S. Coast Guard Distress Signalling Regulations

magnificently finished in gleaming harmonious tones of brilliant red and lustrous ivory

$79.95 *

*Suggested selling price. Slightly higher in Western states.

FEDTRO MEG-3300 DELUXE POWERHOUSE TRANSISTORIZED MEGAPHONE

• Waterproof • Impactproof • Rustproof

SPECIAL FEATURES

- Two Dynamic Microphones... One Built-In and Additional "Plug-In" Detachable Microphone
- Use 4 Ways:
  Over Shoulder • Trumpet Grip
  • Thru Regular Mike
  • Thru Detachable Mike
- Super Power Range
- Superior Clarity
- Perfect Tonal Quality
- Hi-Impact PVC Construction
- Fingertip Volume Control
- Adjustable Carrying Strap & Shoulder Cushion
- Instant Battery Loading

$59.95 *

*Suggested selling price. Slightly higher in Western states.

magnificently finished in gleaming harmonious tones of lustrous ivory and ebony black

FEDTRO MEG-1200 MICRO-MEG POWERHOUSE TRANSISTORIZED MEGAPHONE

the ultimate in transistorized miniaturization

• Waterproof • Impactproof • Rustproof

SPECIAL FEATURES

- Transistorized
- Miniaturized...only 8½ inches long
- Power Packed Amplification
- All Aluminum Construction
- Fingertip Volume Control
- Elegant Wrist-Strap Swivel Chain
- Noise-Cancelling Microphone

$39.95 *

*Suggested selling price. Slightly higher in Western states.

magnificently finished in gleaming harmonious tones of iridescent Imperial silver smartly trimmed with ebony black

FEDTRO MEG-1000B POWERHOUSE TRANSISTORIZED MEGAPHONE

• Waterproof • Impactproof • Rustproof

SPECIAL FEATURES

- All Aluminum Construction
- Superior Clarity and Tonal Quality
- Durable Handy Carrying Strap
- Instant Battery Loading
- Noise-Cancelling Microphone
- Fingertip Volume Control
- Power Packed Amplification

$39.95 *

*Suggested selling price. Slightly higher in Western states.

magnificently finished in gleaming harmonious tones of brilliant red and elegant ebony black

FEDTRO® proven sound around the world®

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†MICKEY MANTLE ENDORSES ALL FEDTRO AUDIO PRODUCTS

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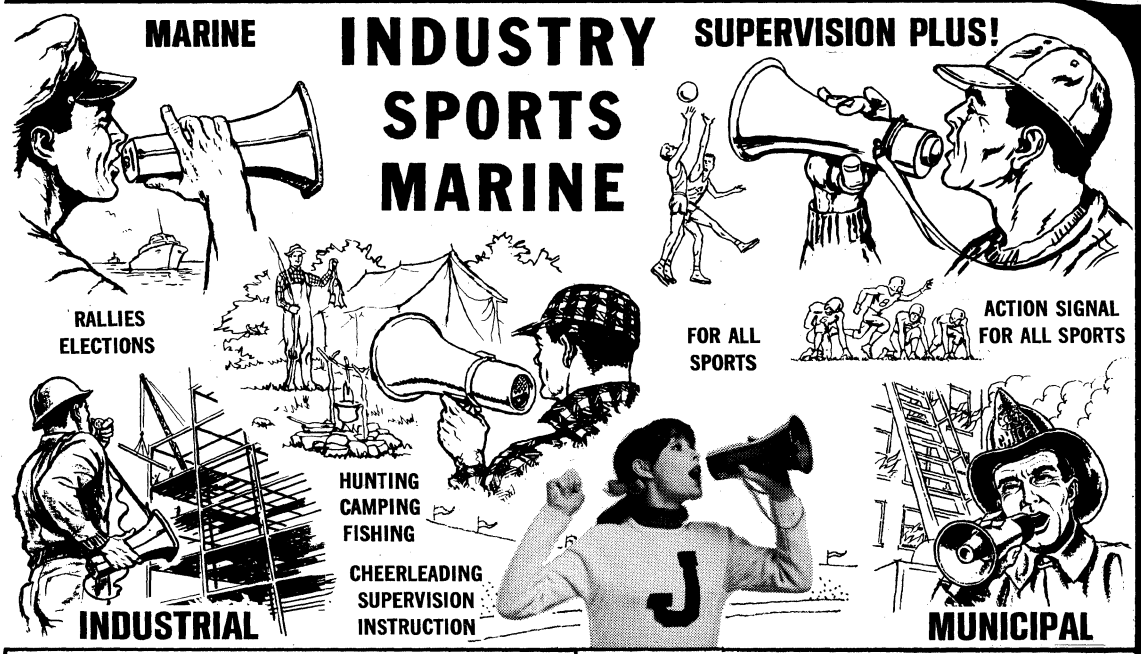
"FEDTRO...the proven sound of champions"

THE WORLD'S LEADING SUPPLIER OF TRANSISTORIZED MEGAPHONES

FEDTRO®



FEDTRO POWERHOUSE MEGAPHONE SPECIFICATION GUIDE

MODEL NO.	FEDTRO MEG-5000	FEDTRO MEG-3600	FEDTRO MEG-3300	FEDTRO MEG-1200	FEDTRO MEG-1000B
ELECTRIC POWER SOURCE	9 Volts	6 Volts	6 Volts	6 Volts	6 Volts
OUTPUT	25 Watts	16 Watts	14 Watts	5 Watts	5 Watts
BATTERIES	6 Flashlight "C" cells*	4 Flashlight "D" cells**	4 Flashlight "D" cells**	4 Flashlight "C" cells*	4 Flashlight "D" cells**
DIMENSIONS	Diameter 8⅝", Length 13½"	Diameter 7⅛", Length 12¾"	Diameter 7", Length 12¾"	Diameter 5¼", Length 8½"	Diameter 7¼", Length 12¼"
WEIGHT	5½ lbs.	3 lbs.	2¼ lbs.	1 lb. 10 ozs.	2.7 lbs.
POWER RANGE	Up to 5000 feet†	Up to 3600 feet†	Up to 3300 feet†	Up to 1200 feet†	Up to 1200 feet†
EXCLUSIVES	Built-in Blast-Signal	Built-in Blast-Signal	Two Dynamic Microphones	Ultra Miniaturization	Economy plus

*Eveready #1035 or equivalent.

**Eveready #950, Burgess #2 or equivalent.

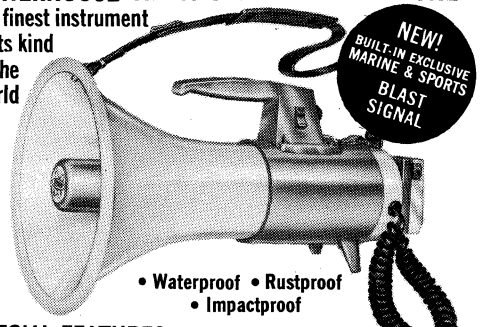
†Depending on environment, climatic conditions and existing area noise levels.

The bell of Fedtro Powerhouse Megaphone model numbers 5000, 3600, 3300 and 1000B are protected and cushioned with a rubber bumper rim, and the bell of model number 1200 is protected and cushioned with a poly-vinylchloride bumper rim.

All Fedtro Powerhouse Megaphones are magnificently packaged in an attractive re-usable, multi-color, sturdy compartment... ideal for quick, easy storage of the unit.

FEDTRO MEG-5000 ULTRA DELUXE POWERHOUSE TRANSISTORIZED MEGAPHONE

the finest instrument of its kind in the world



• Waterproof • Rustproof • Impactproof

SPECIAL FEATURES

- Super Range & Power
- The Ultimate in Clarity and Tonal Quality
- Versatility • Detachable Mike
- All Aluminum Construction
- Fingertip Volume Control
- Adjustable Carrying Strap and Shoulder Cushion
- Instant Battery Loading
- Special Blast Signal Stops and Starts the Action... Boat Horn... Fog Horn..."Mayday"...Designed to meet U.S. Coast Guard Distress Signalling Regulations

magnificently finished in brilliant red and lustrous ivory

- Use 4 Ways: *Pistol Grip • Over Shoulder • On its own legs • Tripod Mount*

$119.95*

*Suggested selling price. Slightly higher in Western states.

THE OFFICIAL MEGAPHONE OF THE N.Y. WORLD'S FAIR

FEDTRO

Unisphere, presented by United States Steel

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FEDTRO®

proven sound around the world®

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FOR FEDTRO POWERHOUSE TRUMPET SPEAKERS SEE PAGE 116.

POWERHOUSE TRUMPET SPEAKERS

proven sound around the world®

® Take it from Mickey Mantle†

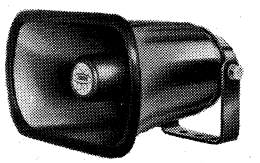
"FEDTRO...the proven sound of champions"

"proven sound around the world".® from the blistering humid depths of Equatorial Africa...to the frigid waters of the Arctic Seas, Fedtro Powerhouse Speakers are ruggedly constructed to guarantee optimum performance, even under the most brutal of climatic extremes. Shockproof, rustproof, and totally weatherized, the entire Fedtro series is ideally suited for the most trying applications of Marine and Mobile use...Public Address, Paging and Talkback Systems. The diaphragm is constructed with a special resinification process, which permits it to withstand higher than 30% power input overloads. Engineered and designed to afford the highest degree of clarity and intelligibility over the complete frequency spectrum, from the compact S-5RD to the mammoth S-16RD, there's a perfect Powerhouse available for your specific needs. Greater efficiency...increased power output...higher intelligibility ...and almost indestructable durability...all add up to why they are **"proven sound around the world".®**

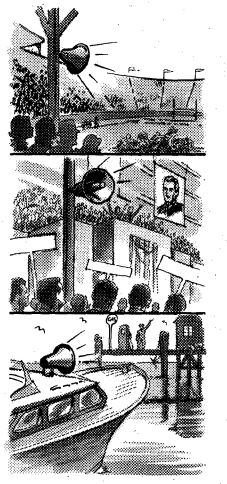
MODEL S-5RD

MODEL S-6RD

MODEL S-8RD



MODEL S-8BX



Ruggedly Constructed for Outdoor, Indoor, Marine and Mobile Use

■ WATERPROOF ■ SHOCKPROOF
■ RUSTPROOF ■ CORROSIONPROOF

DYNAMIC 3-COLOR CUSTOM PACKAGING

MODEL S-12RD

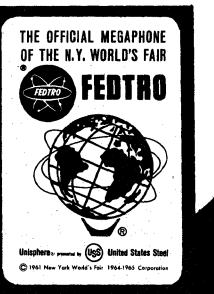
MODEL S-16RD

FEDTRO POWERHOUSE TRUMPET SPEAKER SPECIFICATION CHART	Model No.	Power Rating		Voice Coil Impedance	Frequency Range	Bell Diameter (Horn Opening)	Overall Length	Net Weight
		Program	Peak					
	S-5RD	8 watts	12 watts	8 ohms	200 to 13,000 cps.	5 inches	5 inches	approx. 1 lb.
	S-6RD	10 watts	15 watts	8 ohms	200 to 13,000 cps.	6 inches	6½ inches	approx. 2 lbs.
	S-8RD	15 watts	25 watts	8 ohms	200 to 13,000 cps.	8 inches	8½ inches	approx. 2½ lbs.
	S-8BX	15 watts	25 watts	8 ohms	200 to 13,000 cps.	8 inches x 5 inches	8 inches	approx. 2.4 lbs.
	S-12RD	30 watts	65 watts	8 ohms	150 to 13,000 cps.	12 inches	13¼ inches	approx. 4.4 lbs.
	S-16RD	40 watts	75 watts	8 ohms	150 to 13,000 cps.	16 inches	13 inches	approx. 5.3 lbs.

GET MORE SOUND FOR YOUR DOLLAR WITH FEDTRO POWERHOUSE SPEAKERS!

SUPERIOR QUALITY... at the lowest prices in the industry

proven sound around the world®



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†MICKEY MANTLE ENDORSES ALL FEDTRO AUDIO PRODUCTS

FOR FEDTRO POWERHOUSE TRANSISTORIZED MEGAPHONES SEE PAGES 114, 115

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MICROPHONES

POLYDIRECTIONAL RIBBON MICROPHONE—77DX

The standard quality microphone of the broadcast industry, the RCA 77-DX, is available in two models; one with a low gloss finish for TV, the other a satin chrome finish for AM and FM. The 77-DX offers a choice of unidirectional, bidirectional, or nondirectional pickup patterns which are easily changed by a selector switch. Three frequency response variations on the basic pickup patterns may also be obtained, thus a total of nine different directional characteristics may be utilized. The 30-20,000 cycle frequency response of the 77-DX makes it suitable for every high fidelity broadcasting and recording application. Output impedance is factory connected for 250 ohms; however, it may be easily reconnected for a 30 to 150 ohm output impedance.

This 77-DX mounts on a standard ½-inch pipe thread, and comes with 30 feet of three conductor shielded cable, less plug.

77-DX Satin Chrome Finish **$206.00***
77-DX-G Low Luster Gray Finish **$197.00***

BI-DIRECTIONAL RIBBON MICROPHONE—BK-11A

In the studio or at indoor remotes, whether a simple interview program or full orchestra pickup, the bidirectional characteristics and excellent frequency response (20 to 20,000 cps) make the BK-11A an extremely useful production tool. The output can be connected for 30, 150, and 250 ohm operation. A three position switch permits selection of desired frequency ranges for voice and music.

The BK-11A has been designed for use with the inexpensive MA-06 desk stand, and it can also be used with any standard ½-inch pipe thread desk or floor stand. Thirty feet of three conductor cable is supplied without a connector.

BK-11A **$131.25***

UNIAXIAL RIBBON MICROPHONE—BK-5B

The BK-5B is a high quality ribbon instrument designed especially for use in high noise areas, as well as being suitable for general studio purposes. Maximum sensitivity of the BK-5B is in the major mechanical axis, and this produces an extremely directional cardioid pattern. Frequency response from 30 to 20,000 cps permits using the BK-5B for all types of high fidelity voice and music pickups. The output is connected for 250 ohms, but may easily be changed to 30 or 150 ohms. The low-luster umber gray finish makes it ideal for TV.

It is supplied with thirty feet of three conductor cable, less connector. A wind-screen is available for outdoor use. The BK-5B is supported by a fork mounting which has ⅛-inch pipe thread.

BK-5B **$146.50***

LAVALIER MICROPHONE—BK-6B

The BK-6B is a lightweight microphone with excellent speech balance, ideal for remotes, interviews, and other applications where an inconspicuous microphone is needed. The 2.3 ounce unit is only 2 9/16 by 15/16 inches. Wide range frequency response (60-15,000 cps) permits using the microphone for all speech applications. The 250 ohm output impedance may be changed to 30 or 150 ohms by a simple change of cable connections.

The small size and lanyard mounting make the BK-6B extremely versatile. Thirty feet of three conductor cable is supplied, less connector.

BK-6B with lanyard and fastener **$86.00***

SUBMINIATURE LAVALIER MICROPHONE—BK-12A

The RCA BK-12A is a high-quality subminiature microphone weighing just 20 grams and measuring only ¾" x 1½". It has a wide-frequency response of 60 to 18,000 cps, which has been tailored for proper speech balance. The BK-12A is essentially non-directional to 6,000 cycles, and as a result, ordinary errors in orientation have negligible effect upon response. The microphone comes complete with lanyard, tie clip holder, cable clip and 30-feet of 2-conductor cable (less connector).

BK-12A **$95.00***

BI-DIRECTIONAL RIBBON MICROPHONE—SK-46

The SK-46 is designed for high quality indoor use. It has excellent frequency response 40-15,000 cps and bidirectional pickup characteristics. Output impedance is 200 ohms, but it may be reconnected to produce a 15,000 ohm output. Dependable performance as well as attractive styling make the SK-46 an ideal choice for high fidelity applications. The SK-46 has a ⅝-inch-27 mounting thread and is supplied with 25 feet of two conductor cable (less connector).

SK-46 ..... **$54.95***

NON-DIRECTIONAL DYNAMIC MICROPHONE—BK-1A

Ideal for outdoor use or wherever constant handling is required the BK-1A offers smooth response for both voice and music. The BK-1A is also an excellent unit for sports, panel shows, interviews, and remotes. It provides uniform response from 50 to 15,000 cps. The swivel mounting of the BK-1A can be used to control directional characteristics. The vertical position is nondirectional; the horizontal position is semidirectional. The output impedance is 250 ohms, but 30 and 150 ohm connections are included.

The BK-1A may be mounted on any type stand having ½-inch pipe thread and is perfect for use with the MA-06 desk stand. Thirty feet of three conductor cable is supplied, less conductor.

BK-1A **$73.50***

GENERAL PURPOSE DYNAMIC MICROPHONE—SK-30/SK-31

Here is an excellent non-directional general purpose microphone available as a low-impedance (SK-30) or high-impedance (SK-31) unit. It is rugged and lightweight with good response to voice and music (60-12,000 cps). In addition to being hand held, it may be swivel mounted on a desk or floor stand or it may be mounted on a goose-neck stand. A ⅝-inch-27 thread swivel adaptor is available for floor or desk stand mounting. The microphone comes complete with 20-feet of shielded cable (less connector).

SK-30 ..... **$30.00***
SK-31 ..... **$31.00***

NON-DIRECTIONAL DYNAMIC MICROPHONE—SK-45B

Ideal for talk-back, cue, and public address use, the rugged lightweight SK-45B microphone offers good voice reproduction. It may be connected for a 150 to 200 ohm balanced output, for a 15,000 ohm output. Response is from 70 to 12,000 cps. Mounting with any ⅝-inch-27 fixture thread permits the use of low cost stands. Finish is low gloss gray, and the SK-45B is supplied with 25 feet of cable less connector.

SK-45B **$45.00***

NON-DIRECTIONAL DYNAMIC MICROPHONE—SK-39A

Cue and talk-back applications are perfect for this inexpensive dynamic microphone. The SK-39A is rugged and relatively insensitive to mechanical shock and wind. Frequency response is 60 to 10,000 cps. It may be mounted on any ⅝-inch-27 fixture thread, and is supplied with 25 feet of two conductor cable (less connector).

SK-39A **$23.40***

STAND AND ACCESSORIES

Windscreen—**MA-25**—For use with BK-5B microphone **$16.50***

Boom Mount—**MA-24**—Shock mounting to isolate BK-5B microphone from vibration **$36.50***

Holder—**MA-07**—⅝" female thread. For use with BK-6B microphone **$3.35***

Adaptor—**MA-08**—⅝" female fitting—½" male pipe thread, to adapt a ⅝"-27 microphone to a ½" pipe thread stand ..... **$ .60***

Adaptor—**MA-09**—½" female pipe thread, ⅝"-27 male fitting, to adapt a ½" microphone to a ⅝"-27 stand ..... **$ .90***

Desk Stand—**MA-06**—½" pipe fit-male 4⅜" dia., 1⅜" h. For use with BK-1A and BK-11A microphones. **$7.75***

Desk Stand—**MA-05**—½" pipe fit-male 4½" wide, 6⅝" long, ¾" high or 1¾" (incl. Stem). Crinkle and 1⅛" dia,, 37" to 66" chrome tube. Triangular 17" dia. chrome finish, 4 lbs. For use with 77-DX and BK-5B Microphones **$16.75***

Desk Stand—**MA-01**—⅝"-27 male thread, 7" to 11" chrome tube, 8" dia. Crinkle base, About 2½ lbs. **$ 5.20***

Banquet Stand—**MA-02**—⅝"-27 male thread, 13" to 25" chrome tube, 8" dia. Crinkle base. About 6 lbs. **$ 5.85***

Floor Stand—**MA-03**—⅝"-27 male thread, ⅞" dia., 35" to 65" chrome tube. 12" dia. Crinkle base. **$ 9.00***

Floor Stand (Deluxe)—**MA-04**—⅝"-27 male thread, 1⅛" dia., 37" to 66" chrome tube. Triangular 17" dia. Crinkle base **$16.50***

Swivel Adaptor—**MA-32**—for SK-30/SK-31 microphone. (Fits conventional ⅝"-27 thread floor and desk stands) ..... **$ 3.40***

*Optional distributor resale price.

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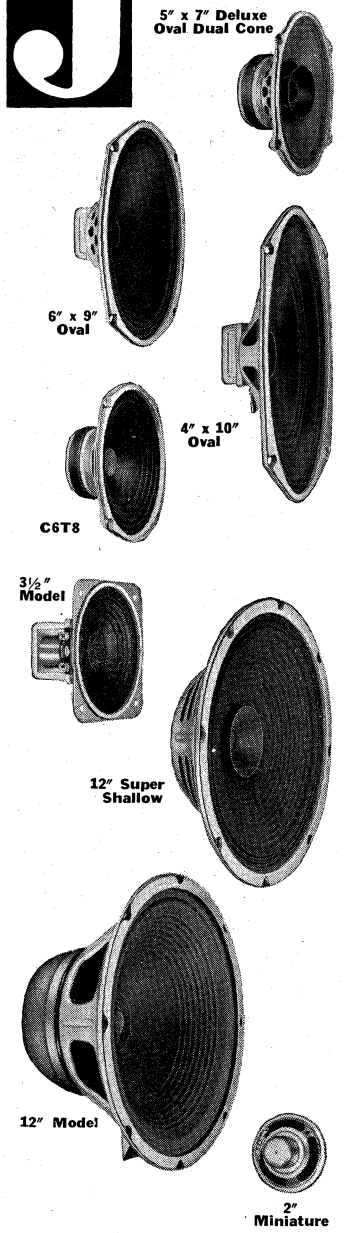
Net

jensen Concert Series Speakers



OVAL GROUP

Nom. Size, Inches	Jensen No.	Mag.* Wt., Oz.	Voice Coil: Imp., Ohms	Voice Coil: Power Watts†	Voice Coil: Dia., In.	Dimensions, Inches: H. x W.	Dimensions, Inches: Depth	Dimensions, Inches: Baffle Opening	Net Each
2 x 6	P2X6X3	.68	3.2	3.5	9/16	2¼ x 6¼	2 5/16	1 15/16 x 5 15/16	$2.85
3 x 5	P3X5X3	.68	3.2	4.0	9/16	3 x 5	2 3/16	2¾ x 4 11/16	2.58
3 x 5	P3X5X8	.68	8	4.0	9/16	3 x 5	2 3/16	2¾ x 4 11/16	2.58
4 x 6	P4X6X3	.68	3.2	4.0	9/16	4⅛ x 6⅛	2	3 11/16 x 5 11/16	2.76
4 x 6	P4X6W3	1.00	3.2	4.5	9/16	4⅛ x 6⅛	2¼	3 11/16 x 5 11/16	2.97
4 x 6	P4X6V3	1.47	3.2	5.0	9/16	4⅛ x 6⅛	2¼	3 11/16 x 5 11/16	3.09
4 x 8	P4X8V8	1.47	8	7.0	9/16	4 x 8	2½	3⅜ x 7 9/16	3.75
4 x 8	P4X8U3	1.73§	3.2	7.0	1	4 x 8	2 7/32	3⅜ x 7 9/16	4.32
4 x 8	P4X8U8	1.73§	8	7.0	1	4 x 8	2 7/32	3⅜ x 7 9/16	4.32
4 x 8	P4X8U40	1.73§	40 CT	7.0	1	4 x 8	2 7/32	3⅜ x 7 9/16	4.59
4 x 10	P4X10V8	1.47	8	7.0	9/16	4 5/16 x 10	2 29/32	3 13/16 x 9 1/32	4.08
4 x 10	P4X10U3	1.73§	3.2	7.5	1	4 5/16 x 10	2 21/32	3 13/16 x 9 1/32	4.65
4 x 10	P4X10U8	1.73§	8	7.5	1	4 5/16 x 10	2 21/32	3 13/16 x 9 1/32	4.65
4 x 10	P4X10U20	1.73§	20 CT	7.5	1	4 5/16 x 10	2 21/32	3 13/16 x 9 1/32	4.95
4 x 10	P4X10U40	1.73§	40 CT	7.5	1	4 5/16 x 10	2 21/32	3 13/16 x 9 1/32	4.95
4 x 10	P4X10T3	2.5▲	3.2	8.5	1	4 5/16 x 10	2 11/16	3 13/16 x 9 1/32	5.00
4 x 10	P4X10T9	2.5▲	8–10	8.5	1	4 5/16 x 10	2 11/16	3 13/16 x 9 1/32	5.00
5 x 7	P5X7V3	1.47	3.2	6.0	9/16	5 x 7¼	2 27/32	4¼ x 6½	3.50
5 x 7	P5X7V8	1.47	8	6.0	9/16	5 x 7¼	2 27/32	4¼ x 6½	3.50
5 x 7	P5X7VD3‡	1.47	3.2	6.0	9/16	5 x 7¼	2 27/32	4¼ x 6½	3.90
5 x 7	P5X7VD8‡	1.47	8	6.0	9/16	5 x 7¼	2 27/32	4¼ x 6½	3.90
5 x 7	P5X7U3	1.73§	3.2	8.0	1	5 x 7¼	2½	4¼ x 6½	4.30
5 x 7	P5X7U8	1.73§	8	8.0	1	5 x 7¼	2½	4¼ x 6½	4.30
5 x 7	P5X7T3	2.5▲	3.2	9.0	1	5 x 7¼	2½	4¼ x 6½	4.71
5 x 7	P5X7T9	2.5▲	8–10	9.0	1	5 x 7¼	2½	4¼ x 6½	4.71
5 x 7	P5X7T20	2.5▲	20 CT	9.0	1	5 x 7¼	2½	4¼ x 6½	5.07
5 x 7	P5X7T40	2.5▲	40 CT	9.0	1	5 x 7¼	2½	4¼ x 6½	5.07
5 x 7	C5X7RD3‡	10.0	3.2	10.0	1	5 x 7¼	2 17/32	4¼ x 6½	6.72
5 x 7	C5X7RD8‡	10.0	8	10.0	1	5 x 7¼	2 17/32	4¼ x 6½	6.72
5 x 8	P5X8U9■	1.73§	8–10	8.0	1	5 x 8⅛	2¼	4¼ x 6½	4.59
6 x 9	P6X9V3	1.47	3.2	7.5	9/16	6⅜ x 9⅛	3¼	5¼ x 8⅛	4.02
6 x 9	P6X9V8	1.47	8	7.5	9/16	6⅜ x 9⅛	3¼	5¼ x 8⅛	4.02
6 x 9	P6X9VD3‡	1.47	3.2	7.5	9/16	6⅜ x 9⅛	3¼	5¼ x 8⅛	4.35
6 x 9	P6X9VD8‡	1.47	8	7.5	9/16	6⅜ x 9⅛	3¼	5¼ x 8⅛	4.35
6 x 9	P6X9V20	1.47	20 CT	7.5	9/16	6⅜ x 9⅛	3¼	5¼ x 8⅛	4.26
6 x 9	P6X9U3	1.73§	3.2	9.0	1	6⅜ x 9⅛	3	5¼ x 8⅛	4.53
6 x 9	P6X9U8	1.73§	8	9.0	1	6⅜ x 9⅛	3	5¼ x 8⅛	4.53
6 x 9	P6X9T3	2.5▲	3.2	10.0	1	6⅜ x 9⅛	3	5¼ x 8⅛	4.89
6 x 9	P6X9T9	2.5▲	8–10	10.0	1	6⅜ x 9⅛	3	5¼ x 8⅛	4.89
6 x 9	C6X9T40	4.8	40 CT	10.0	1	6⅜ x 9⅛	2 13/16	5¼ x 8⅛	5.46
6 x 9	C6X9RD3#	10.0	3.2	11.0	1	6⅜ x 9⅛	3	5¼ x 8⅛	9.72
6 x 9	C6X9RD8#	10.0	8	11.0	1	6⅜ x 9⅛	3	5¼ x 8⅛	9.72
6 x 10	P6X10U9■	1.73§	8–10	9.0	1	6⅜ x 10 5/16	3	5¼ x 8⅛	4.83

GENERAL PURPOSE GROUP

3	P3W3	1.00	3.2	3.5	9/16	3	1 7/8	2 5/8	$ 2.73
3½	P35W3	1.00	3.2	4.0	9/16	3½	2 1/8	3 1/8	2.73
4	P4W3	1.00	3.2	4.5	9/16	4⅛	2 5/16	3½	2.52
4	P4V3	1.47	3.2	5.0	9/16	4⅛	2 9/16	3½	2.70
5	P5W3	1.00	3.2	5.0	9/16	4 21/32	2¼	4	2.55
5	P5V3	1.47	3.2	5.5	9/16	4 21/32	2¼	4	2.79
5	C5T3	4.8	3.2	6.0	¾	4 21/32	1 25/32	4	4.65
5¼	P525W3	1.00	3.2	5.5	9/16	5¼	2½	4½	2.73
5¼	P525V3	1.47	3.2	6.0	9/16	5¼	2½	4½	2.91
5¼	C525T3	4.8	3.2	6.5	¾	5¼	2 1/32	4½	4.65
6	P6W3	1.00	3.2	6.0	9/16	6 5/32	2¾	5¼	2.94
6	P6V3	1.47	3.2	6.5	9/16	6 5/32	2¾	5¼	3.15
6	C6T3	4.8	3.2	7.5	¾	6 5/32	2 9/32	5¼	4.71
7	P7V3	1.47	3.2	7.0	9/16	7	3 1/16	6⅛	4.08
8	P8V3	1.47	3.2	8.0	9/16	7 11/16	3¼	6¾	3.51
8	P8U3	1.73§	3.2	9.0	1	7 11/16	3	6¾	4.14
8	P8T3	2.5▲	3.2	10.0	1	7 11/16	3 7/32	6¾	4.83
8	C8T8	4.8	8	10.5	1	7 11/16	2 29/32	6¾	5.37
8	C8S8	6.0	8	11.0	1	7 11/16	2 29/32	6¾	6.27
8	C8SS8•	6.0	8	11.0	1	8 1/16	2 5/32	6¾	6.75
8	C8R8	10.0	8	12.0	1	7 11/16	3	6¾	6.90
10	C10T3	4.8	3.2	11.0	1	10 5/32	5¼	8¾	8.01
10	C10S8	6.0	8	12.0	1	10 5/32	5¼	8¾	8.52
10	C10SS8•	6.0	8	12.0	1	10 5/32	2¾	8¾	8.58
12	C12T3	4.8	3.2	12.0	1	12 1/8	6 1/16	10½	9.03
12	C12S8	6.0	8	13.0	1	12 1/8	6 1/16	10½	9.42
12	C12SS8•	6.0	8	13.0	1	12 1/8	3 15/32	10½	9.42
12	C12R8	10.0	8	14.0	1	12 1/8	6 1/16	10½	10.05
12	C12RS8•	10.0	8	14.0	1	12 1/8	3 15/32	10½	10.08
12	C12P8	16.0	8	18.0	1½	12 1/8	6½	10½	18.87
12	C12N8	27.0	8	20.0	1½	12 1/16	6¾	10½	24.90
15	C15P8	16.0	8	20.0	1½	15 1/8	7	13¼	25.17
15	C15N8	27.0	8	25.0	1½	15 1/8	7	13¼	31.20

*All model numbers beginning with "C" have SYNTOX-6® ceramic magnets. All others DP-Alnico 5. †Program power. Peak power is twice program rating. ‡Dual cone. §Performance equivalent to EIA 2.15 oz. #Dual cone and high-compliance annulus. ▲Super-shallow dual cone. ▲Performance equivalent to EIA 3.16 oz. ■Two-eared speaker housing.

MINIATURE GROUP

For small-space use in new or replacement applications. DP-Alnico 5 magnets. P20001 thru P20003, 2" sq. x ⅞" d. for 1¾" baffle; mag. wt., .47 oz. P27501 and 2, 2¾" sq. x 1⅛" d. for 2½" baffle; mag. wt., .65 oz.

Nom. Size, In.	Jensen No.	Voice Coil: Imp., Ohms	Voice Coil: Pwr. W.	Voice Coil: Dia., In.	Net Each
2	P20001	6–8	.10	½	$3.15
2	P20002	10–12	.10	½	3.15
2	P20003	100	.10	½	3.33
2¾	P27501	6–8	.25	⅝	3.72
2¾	P27502	12–16	.25	9/16	3.72

SPECIAL AUTOMOTIVE GROUP

Superior performance in confined mounting areas. No. C4T8 intended for Jaguar, MG and other British cars; C525T8 for Volkswagen and Karmann-Ghia; C6T8 installs between rear seats where provided for in Chevrolet SS, Buick, Pontiac and Oldsmobile.

Nom. Size, Inches	Jensen Number	Mag.* Wt., Oz.	Voice Coil: Imp., Ohms	Voice Coil: Power Watts†	Voice Coil: Dia., In.	Dimensions, Inches: H. x W.	Dimensions, Inches: Depth	Dimensions, Inches: Baffle Opening	Net Each
4	C4T8	4.8	8	5.5	¾	4⅛	1 11/16	3 13/16	$4.65
5¼	C525T8	4.8	8	6.5	¾	5¼	2 1/32	4⅞	3.16
6	C6T8	4.8	8	7.5	¾	6 5/32	2 9/32	5⅝	3.16

*SYNTOX-6® ceramic magnet. †Program power. Peak power is twice program rating.

FOR PROFESSIONAL SERIES HORNS, DRIVERS AND ACCESSORIES . . . SEE JENSEN CATALOG 1070

FOR HIGH FIDELITY UNITARY LOUDSPEAKERS AND SYSTEMS . . . SEE JENSEN CATALOG 165

Net

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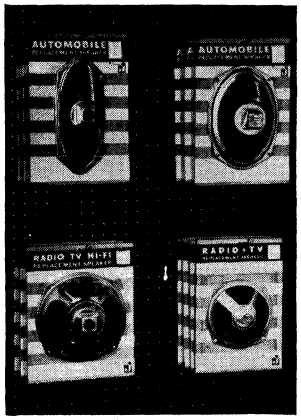
Jensen

SHOW PACK AND CONCERT SERIES LOUDSPEAKERS

JENSEN "Show Pack" REPLACEMENT SPEAKERS FOR AUTOMOTIVE, RADIO, TV REPLACEMENT

Jensen replacement loudspeakers sealed on attractive visual display cards are ideal for handy display rack sale by Electronics and Automotive parts distributors. In addition to radio and TV replacement the line includes the most popular and most commonly required loudspeakers for automotive front and rear deck replacement. A convenient detailed tabulation on back of display card shows which JENSEN speaker to choose for any automobile. The attractive packaging of transparent film keep speakers dust free and provides instant model identification.

Nominal Size, Inches	Jensen Number	Alnico-5 Magnet Wt., Oz.	Impedance, Ohms	V.C. Dia., Inches	Net Each
4	B4K5	.55	3.2	9/16	$1.76
4	B4K7	.68	3.2	9/16	2.12
5	B5K5	.55	3.2	9/16	1.95
5	B5K7	.68	3.2	9/16	2.28
6	B6K73	.68	3.2	9/16	2.48
6	B6K78	.68	8–10	9/16	2.48
8	B8W3	1.00	3.2	9/16	3.60
8	B8W8	1.00	8–10	9/16	3.60
3 x 5	B3X5K5	.55	3.2	9/16	2.39
4 x 10	B4X10W3	1.00	3.2	9/16	3.82
4 x 10	B4X10WM	1.00	8–10, 20, 40	9/16	4.90
5 x 7	B5X7W3	1.00	3.2	9/16	3.05
5 x 7	B5X7WM	1.00	8–10, 20, 40	9/16	3.71
5 x 7	B5X7V3	1.47	3.2	9/16	3.14
5 x 7	B5X7VM	1.47	8–10, 20, 40	9/16	3.80
6 x 9	B6X9W3	1.00	3.2	9/16	3.33
6 x 9	B6X9WM	1.00	8–10, 20, 40	9/16	4.07
6 x 9	B6X9V3	1.47	3.2	9/16	3.60
6 x 9	B6X9VM	1.47	8–10, 20, 40	9/16	4.35



INTERCOM GROUP

Designed for effective pickup and reproduction of speech in intercom replacement and original equipment. Supplied with DP-Alnico 5 magnets.

Nom. Size, Inches	Jensen Number	Mag. Wt., Oz.	Voice Coil Imp., Ohms	Voice Coil Power Watts	Voice Coil Dia., In.	Dimensions, Inches H. x W.	Dimensions, Inches Depth	Dimensions, Inches Baffle Opening	Net Each
2 x 6	P2X6V45	1.47	45	4.0	5/16	2 5/16 x 6 5/16	2 3/8	1 3/4 x 5 3/4	$3.63
3	P3V45	1.47	45	4.0	5/16	3	1 7/8	2 3/8	3.00
3 x 5	P3X5X45	.68	45	4.0	5/16	3 1/16 x 5 1/16	2	2 9/16 x 4 9/16	2.82
3 1/2	P35V45	1.47	45	4.5	5/16	3 1/2	2 1/8	3 1/8	3.00
4	P4W45	1	45	4.5	5/16	4 5/16	2 5/16	3 1/2	3.06
5	P5W45	1	45	5.0	5/16	4 11/16	2 5/16	4	3.24
8	P8U45	1.73*	45	9.0	1	7 11/16	3	6 3/4	4.74
8	P8T45	2.5‡	45	10.0	1	7 11/16	3 1/4	6 3/4	5.37

*Performance equivalent to EIA 2.15 oz. ‡Performance equivalent to EIA 3.16 oz.

D-8R8

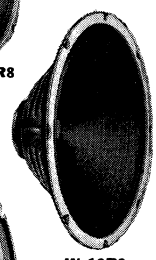
CONCERT-FIDELITY SPEAKER GROUP

Advanced design, hi-fi quality speakers for full range music reproduction. Dual cone and true coaxial types for single-speaker systems offer low resonance and good bass response; coaxial types have special tweeters with integral crossover. Woofer, tweeter and midrange units provide for multi-speaker systems with 2-way and 3-way crossovers. Crossovers incorporate high frequency control, knob and escutcheon; mount in single hole (25/64" drill) with bushing lengths for up to 3/4" panel. Binding post terminals. Impedance, 8 ohms.

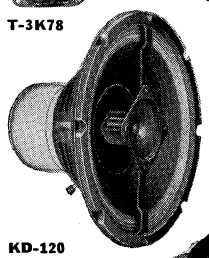
Type	Nom. Size, In.	Jensen No.	Frequency Range, cps	Power, Watts †	Dimensions, Inches H. x W.	Dimensions, Inches D.	Dimensions, Inches Baffle Opening	Net Each
Full Range, Dual Cone	8	DC-80	40–14,000	11	8 1/16	4 5/16	7	$12.57
	12	DC-120	25–13,000	13	12 1/16	6 1/4	10 1/2	14.49
3-element Coaxials*	8	KD-80	30–15,000	12	8 1/16	4 3/4	7	17.82
	12	KD-120	20–15,000	14	12 1/16	6 5/16	10 1/2	20.97
High Compliance Woofers	8	W-80	30–2,000	15	8 1/16	4 5/16	7	12.15
	12	W-120	20–2,000	18	12 1/16	6 1/4	10 1/2	14.04
	15	W-150	20–2,000	20	15 1/16	7 3/16	13 1/4	20.97
Midrange§	8	M-81	600–4,000	25	8 1/16	4 9/16	7	9.36
Cone Tweeter	3 1/2	TW-350	2,000–15,000	15	3 1/2	2 1/16	3 1/16	3.75
Compression Horn Tweeters	.....	TH-100	1,000–16,000	25	4x10 1/2	11 1/2	3x9 1/2	13.17
	.....	TH-200	2,000–16,000	25	3x7 1/4	6 5/8	2x6 1/16	11.76
2-way Crossover*	.....	XN-100	1000‡	.....	1 5/8x2 3/8	3 1/4	.....	9.78
	.....	XN-200	2000‡	.....	1 5/8x2 3/8	3 1/4	.....	9.78
3-way Cross.*	.....	XN-640	600/4000‡	.....	1 5/8x2 3/8	3 1/4	.....	12.57

*With H-F control. †Program power; peak power is twice program rating. ‡Crossover points. §Closed-back.

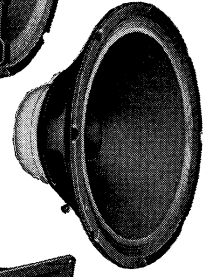
T-3K78



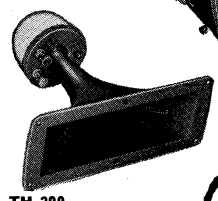
W-12R8



KD-120



W-150



TH-200

XN-100, XN-200, XN-640

HI-FI REPLACEMENT SPEAKER GROUP

Multi-application hi-fi replacements used in many makes of hi-fi equipment. Imp. 8 ohms.

Type	Nom. Size, In.	Jensen No.	Frequency Range, cps	Mag. Wt., Oz.	Power, Watts †	Dimensions, Inches H. x W.	Dimensions, Inches D.	Dimensions, Inches Baffle Opening	Net Each
Full Range, Dual Cone	8	D-8R8	50–14,000	10*	12	7 11/16	3	6 3/4	$ 9.24
	12	D-12R8	40–13,000	10*	14	12 1/16	4 1/2	10 1/2	11.52
Woofers	8	W-8R8	45–2,000	10*	20	7 11/16	3	6 3/4	8.61
	12	W-12R8	35–2,000	10*	25	12 1/16	4 1/2	10 1/2	11.19
	15	W-15N8	30–2,000	27*	30	15 1/16	6	13 1/4	35.46
Midrange, Closed-back	8	M-8U8	600–4,000	1.73‡	25	7 11/16	3	6 3/4	4.83
Direct Radiator Tweeters	3	T-3K78	2,000–15,000	.68	15	3	1 5/8	2 5/8	3.12
	3 1/2	T-35K78	2,000–15,000	.68	15	3 1/2	1 3/4	3 1/8	3.33
	3 1/2	T-35W8	2,000–15,000	1.00	15	3 1/2	2 1/16	3 1/8	3.48
	3 1/2	T-35V8	2,000–15,000	1.47	15	3 1/2	2 1/16	3 1/8	3.75
Compression Horn Tweeters	.....	T-107	2,000–16,000	1.47	25	3 x 7 1/4	6 5/8	2 x 6 1/16	10.92
	.....	T-109	1,000–16,000	1.00	25	4 x 10 1/2	11 1/2	3 x 9 1/2	12.21

*SYNTOX-6® ceramic magnet; all others DP-Alnico 5. †Program power; peak power is twice program rating. ‡Performance equivalent to EIA 2.15 oz.

FOR PROFESSIONAL SERIES HORNS, DRIVERS AND ACCESSORIES . . . SEE JENSEN CATALOG 1070

FOR HIGH FIDELITY UNITARY LOUDSPEAKERS AND SYSTEMS . . . SEE JENSEN CATALOG 165

Jensen ELECTRONIC MUSICAL INSTRUMENT & COMMUNICATION/AIRCRAFT SPEAKERS

LIFETIME GUARANTEED ELECTRONIC MUSICAL INSTRUMENT LOUDSPEAKERS

The Jensen LIFETIME Electronic Musical Instrument Loudspeaker group includes four fully LIFETIME GUARANTEED loudspeakers. These 12" and 15" loudspeakers designed especially for bass guitar, string bass, fully instrumented guitar and electronic accordion are fully guaranteed against loudspeaker shatter and diaphragm disintegration.

EM-1220
EM-1250

EM-1520
EM-1550

BASS GUITAR AND STRING BASS

Nom. Size, Inches	Jensen Number	Mag. Wt., Lbs.	Voice Coil Imp., Ohms	Voice Coil Dia., In.	Dimensions, Inches H. x W.	Dimensions, Inches Depth	Dimensions, Inches Baffle Opening	Net Each
12	EM-1220	1¾*	8	1½	12 1/16	6¼	10½	$34.62
15	EM-1520	3½	8	2	15⅜	7	13¼	67.65

FULLY INSTRUMENTED GUITAR AND ELECTRONIC ORGAN

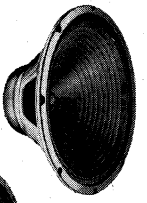
12	EM-1250	1¾*	8	1½	12 1/16	6¼	10½	$34.62
15	EM-1550	3½	8	2	15⅜	7	13¼	67.65

*SYNTOX-6® magnet; all others DP-Alnico 5.

SPECIAL LOUDSPEAKERS FOR ELECTRONIC MUSICAL INSTRUMENTS

Jensen electronic musical instrument loudspeakers are highly special devices designed to give exactly the correct musical quality required for the particular instrument. Unprecedented ruggedness for unusually long life under severe peak load conditions.

EM-1500
EM-1501
EM-1502



EM-1203

EM-801
EM-802

BASS GUITAR

Nom. Size, Inches	Jensen No.	Mag.* Wt., Oz.	Voice Coil Imp., Ohms	Voice Coil Power Watts†	Voice Coil Dia., In.	Dimensions, Inches H. x W.	Dimensions, Inches Depth	Dimensions, Inches Baffle Opening	Net Each
12	EM-1200	16	8	50	1½	12 1/16	6¼	10½	$22.65
15	EM-1500	27	8	60	1½	15⅜	7	13¼	32.76

GUITAR

8	EM-801	10	8	25	1	8 1/16	4 17/32	6¾	$12.57
10	EM-1001	10	8	30	1	10 5/16	5¼	8¾	13.56
12	EM-1201	11	8	40	1¼	12⅛	6½	10½	18.60
12	EM-1202	16	8	50	1½	12 1/16	6¼	10½	22.65
15	EM-1501	27	8	60	1½	15⅜	7	13¼	32.76

ACCORDION

12	EM-1202	16	8	50	1½	12 1/16	6¼	10½	$22.65
15	EM-1501	27	8	60	1½	15⅜	7	13¼	32.76

ORGAN

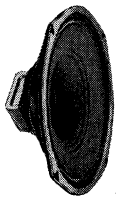
6 x 9	EM-6900	10	8	12	1	6⅜ x 9⅛	3	5¼ x 8½	$ 9.33
8	EM-802	10	8	15	1	8 1/16	4 17/32	6¾	12.57
10	EM-1002	10	8	18	1	10 5/16	5¼	8¾	13.56
12	EM-1203	10	8	20	1	12 1/16	6⅛	10½	14.19
12	EM-1204	16	8	25	1½	12⅛	6½	10½	22.65
15	EM-1502	27	8	30	1½	15⅜	7	13¼	32.76

*SYNTOX-6® magnets. †Program power. Peak power is twice program rating.

COMMUNICATION AND AIRCRAFT GROUP

AP-10

Feature special response characteristics for maximum speech intelligibility in high noise conditions. Widely used in amateur, CB and aircraft equipment. No. PC5V45 is excellent for speaker/microphone use. Aircraft types referred to particular makes are for cabin music and announce systems. Where specification number is shown, unit is original equipment item. No. CA6T3 has special voice response widely used in private aircraft. DP-Alnico 5 magnet unless otherwise noted.



8J10

COMMUNICATION TYPES

Nom. Size, Inches	Jensen Number	Mag. Wt., Oz.	Voice Coil Imp., Ohms	Voice Coil Power Watts	Voice Coil Dia., In.	Dimensions, Inches H. x W.	Dimensions, Inches Depth	Dimensions, Inches Baffle Opening	Net Each
3 x 5	PC3X5V3	1.47	3.2	5.0	9/16	3 1/16 x 5 1/16	2	2 5/16 x 4 9/16	$ 3.15
3½	PC35V3	1.47	3.2	5.0	9/16	3½	2¼	3⅛	2.88
4	PC4V3	1.47	3.2	5.0	9/16	4 5/16	2 5/16	3½	2.88
5	PC5V3	1.47	3.2	5.0	9/16	4 11/16	2 5/16	4	3.00
5	PC5V45	1.47	45	5.0	9/16	4 11/16	2 5/16	4	3.33
6	CA6T3	4.8▲	3.2	7.5	¾	6 1/16	2¼	5¼	4.74
8	CC8R3	10.0▲	3.2	12.5	1	7 11/16	3	6¾	6.48
.....	AP-10 (ST-590)	1.47	3.2	5.0	9/16	6¾ x 5	5⅛	.....	17.16
.....	AP-10 (ST-591)	1.47	45	5.0	9/16	6¾ x 5	5⅛	.....	18.87

AIRCRAFT TYPES

5	PA5T45♦	3.16	45	6.0	¾	4¾	2⅝	4	$ 5.04
8	8J10 (V1321-2)§	1.73	12	9.0	1	7 11/16	2 5/16	6¾	8.52
8	C8US(C-7885)§	2.8▲	8	10.0	¾	7 11/16	2 1/16	6¾	13.56
8	C8R (C7430)#	10.0▲	•	12.0	1	7 11/16	3	6¾	18.15

§For Douglas aircraft. #For Boeing aircraft. •Transformer. ▲SYNTOX-6® ceramic magnet. ♦For Lockheed aircraft.

FOR PROFESSIONAL SERIES HORNS, DRIVERS AND ACCESSORIES . . . SEE JENSEN CATALOG 1070

FOR HIGH FIDELITY UNITARY LOUDSPEAKERS AND SYSTEMS . . . SEE JENSEN CATALOG 165

Net

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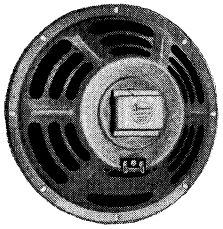
jensen

VIKING AND WEATHER MASTER® SERIES REPLACEMENT SPEAKERS

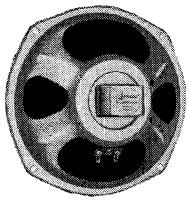
JENSEN VIKING SERIES REPLACEMENT SPEAKERS

Dependable, economical service replacement speakers used by countless manufacturers in original equipment such as home and auto radios, and even jet aircraft. Employ DP-Alnico 5 magnets, precision wound voice coils and heavily plated metal parts.

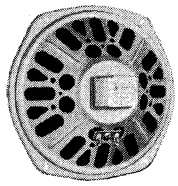
CIRCULAR RADIATOR GROUP



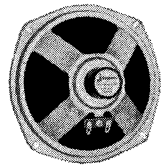
12J10, 10J10



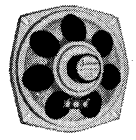
8W3



7W3



6K7, 5K7, 5K5



525K7

Nom. Size, Inches	Jensen No.	Mag. Wt., Oz.	Voice Coil: Imp., Ohms	Voice Coil: Power Watts	Voice Coil: Dia., In.	Dimensions, Inches: H. x W.	Dimensions, Inches: Depth	Dimensions, Inches: Baffle Opening	Net Each
3	3K7	.68	3.2	3.5	9/16	3	1 1/2	2 5/8	$2.06
3 1/2	35K7	.68	3.2	4.0	9/16	3 1/2	1 3/4	3 1/8	2.06
4	4K5	.55	3.2	4.0	9/16	4 5/16	1 3/4	3 1/2	1.54
4	4K7	.68	3.2	4.5	9/16	4 5/16	1 7/8	3 1/2	1.87
5	5K5	.55	3.2	5.0	9/16	4 11/16	1 7/8	4	1.71
5	5K7	.68	3.2	5.5	9/16	4 11/16	1 7/8	4	2.04
5 1/4	525K7	.68	3.2	5.5	9/16	6 1/16	2 3/16	4 1/4	2.28
6	6K7	.68	3.2	6.0	9/16	6 1/16	2 3/8	5 1/4	2.28
7	7W3	1.00	3.2	7.0	9/16	7	3	6 3/8	3.44
8	8W3	1.00	3.2	8.0	9/16	7 11/16	3 1/4	6 3/4	3.08
10	10J10	1.73	3.2	10.0	1	10 1/8	4	8 3/4	4.73
12	12J10	1.73	3.2	11.0	1	12 1/8	4 3/4	10 1/2	5.53

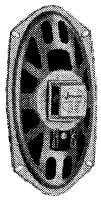
4K5

4K7, 35K7

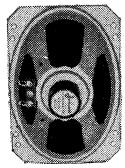
3K7

OVAL RADIATOR GROUP

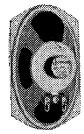
5X7W3, 5X7W9



4X8W9

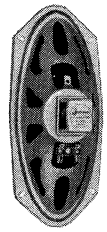


4X6K7



3X5K5

6X9W3, 6X9W9

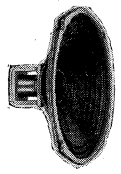


4X10W9

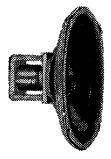
Nominal Size, Inches	Jensen No.	Magnet Weight, Ounces	Voice Coil: Imp., Ohms	Voice Coil: Power Watts	Voice Coil: Dia., Inches	Dimensions, Inches: H. x W.	Dimensions, Inches: Depth	Dimensions, Inches: Baffle Opening	Net Each
3 x 5	3X5K5	.55	3.2	4.0	9/16	3 1/16 x 5 1/16	1 3/4	2 1/2 x 4 1/2	$2.17
4 x 6	4X6K7	.68	3.2	4.5	9/16	4 1/8 x 6 1/8	1 7/8	3 11/16 x 5 11/16	2.53
4 x 8	4X8W3*	1.00	3.2	6.0	9/16	4 x 8	2 5/8	3 1/2 x 7 1/2	3.08
4 x 8	4X8W9*	1.00	8–10	6.0	9/16	4 x 8	2 5/8	3 1/2 x 7 1/2	3.08
4 x 10	4X10W3*	1.00	3.2	6.0	9/16	4 5/16 x 10 1/16	3	3 5/8 x 9 3/8	3.33
4 x 10	4X10W9*	1.00	8–10	6.0	9/16	4 5/16 x 10 1/16	3	3 5/8 x 9 3/8	3.33
4 x 10	4X10WM*	1.00	8–10, 20, 40	6.0	9/16	4 5/16 x 10 1/16	3	3 5/8 x 9 3/8	4.21
5 x 7	5X7W3*	1.00	3.2	6.0	9/16	5 x 7 1/4	2 15/16	4 1/4 x 6 1/4	2.81
5 x 7	5X7W9*	1.00	8–10	6.0	9/16	5 x 7 1/4	2 15/16	4 1/4 x 6 1/4	2.81
5 x 7	5X7WM*	1.00	8–10, 20, 40	6.0	9/16	5 x 7 1/4	2 15/16	4 1/4 x 6 1/4	3.44
5 x 7	5X7V3	1.47	3.2	6.0	9/16	5 x 7 1/4	2 27/32	4 9/16 x 6 3/4	2.83
5 x 7	5X7V9	1.47	8–10	6.0	9/16	5 x 7 1/4	2 27/32	4 9/16 x 6 3/4	2.83
5 x 7	5X7VM	1.47	8–10, 20, 40	6.0	9/16	5 x 7 1/4	2 27/32	4 9/16 x 6 3/4	3.58
6 x 9	6X9W3*	1.00	3.2	7.5	9/16	6 3/8 x 9 1/8	3 3/8	5 1/4 x 8 1/8	3.14
6 x 9	6X9W9*	1.00	8–10	7.5	9/16	6 3/8 x 9 1/8	3 3/8	5 1/4 x 8 1/8	3.14
6 x 9	6X9WM*	1.00	8–10, 20, 40	7.5	9/16	6 3/8 x 9 1/8	3 3/8	5 1/4 x 8 1/8	3.49
6 x 9	6X9V3	1.47	3.2	7.5	9/16	6 3/8 x 9 1/8	3 1/4	5 3/4 x 8 9/16	3.27
6 x 9	6X9V9	1.47	8–10	7.5	9/16	6 3/8 x 9 1/8	3 1/4	5 3/4 x 8 9/16	3.27
6 x 9	6X9VM	1.47	8–10, 20, 40	7.5	9/16	6 3/8 x 9 1/8	3 1/4	5 3/4 x 8 9/16	3.71

*With combination pin-jack and solder-lug terminals; wide use as auto replacement.

WEATHER MASTER® SERIES OUTDOOR SPEAKERS

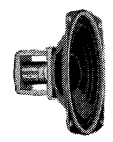


WP-602



WP-502

WF-500



WP-402

WF-400A

Long service in outdoor conditions such as drive-in theatre use. Types with prefix WF- have special moisture proof and anti-fungus impregnated fiber cones. Other types employ Mylar* laminated fiber cones. DP-Alnico 5 magnets, fungus-proof spiders; non-swelling gaskets. Adhesives are unaffected by heat. *Registered DuPont trademark.

4	WF-400A	.68	3.2	4.0	9/16	4 3/16	1 3/4	3 1/2	$2.09
4	WP-402	1.00	3.2	4.5	9/16	4 3/16	2 1/4	3 1/2	2.31
5	WF-500	1.00	3.2	5.0	9/16	4 11/16	2 5/16	4	2.37
5	WP-502	1.47	3.2	5.5	9/16	4 11/16	2 5/16	4	2.59
6	WP-602	1.47	3.2	6.0	9/16	6 1/16	2 3/4	5 1/4	2.89

767X-65A

FOR PROFESSIONAL SERIES HORNS, DRIVERS AND ACCESSORIES . . . SEE JENSEN CATALOG 1070

FOR HIGH FIDELITY UNITARY LOUDSPEAKERS AND SYSTEMS . . . SEE JENSEN CATALOG 165

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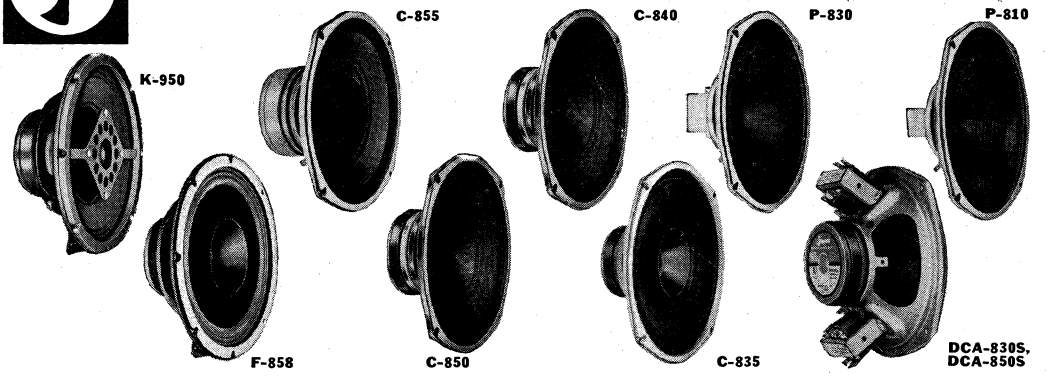
Jensen Professional Series Speakers

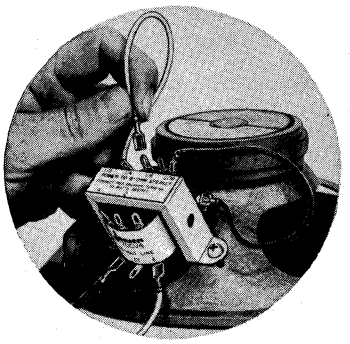
8" SPEAKERS FOR DISTRIBUTED SOUND

VALUE ENGINEERED FOR LOWEST INSTALLED COST



This new line of Jensen 8-inch Professional Series loudspeakers is specially designed to meet the exacting rigorous demands of commercial sound service. The 8-inch size is ideal for the majority of all distributed sound systems giving more than adequate low frequency range with a minimum of enclosure and mounting complications.

A **complete line** of speakers **value engineered** for lowest **installed cost** with such features as the handy 10-pack, preattached transformers, exclusive solderless connectors, weather and corrosion resistant designs . . . and many more. A wide selection of models to meet every need—from the lowest cost highly competitive application to the most sophisticated, highest quality system. Four conventional type speakers with varying sensitivity and power rating (magnetic energy) with the typical 90° coverage angle. Two models have dual cone radiating system with 95° coverage angle and unusually high frequency range. Another basic model is an 8" coaxial with 110° coverage angle and unusual frequency range and smoothness for the finest quality and intelligibility. This 110° coverage angle provides approximately **twice** the coverage area, so **fewer** are required for a given installation. Still another model is the unique Jensen FLEXAIR® with dual-cone radiator; super-low resonance for those small acoustic enclosures and back boxes; big-speaker lows with the remarkable H-F range to match. Two models have dual voice coil for emergency channel access and similar applications.



PREATTACHED TRANSFORMERS

The nine basic models mentioned above are all available with preattached 25-volt or 70.7-volt "constant voltage" transformers, Models 25CV4 or 70CV4. Factory attachment insures lower cost to the end user.

AVAILABLE IN HANDY 10-PACK

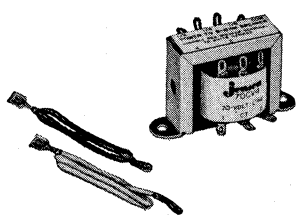
All of these speakers are available at added savings and convenience bulk-packed ten per carton (with or without transformers). These handy 10-pack cartons have individual sleeves for each speaker thus giving speaker protection of odd lots until actual installation.

KWIKON* INSTANT CONNECTORS

Simply twist bare ends of two 12" input leads supplied for each speaker to incoming signal cable leads, insulate with wire-nut or tape. Slide sleeve clips onto input terminal lugs of speaker or preattached transformer as speaker assembly is raised into place. KWIKON* instant connectors also provide simple fast power tap readjustment on transformer. *T.M.

Model	Type	Power Rating[2]	Sensitivity[3]	Magnet[4] Wt., Oz.	Freq. Range, CPS	Nom. V.C. Dia.	Max. Depth	W/O Transformer List	W/O Transformer Net Ea. Boxed	W/O Transformer Net Each in 10-Pack	Transformer Preattached List	Transformer Preattached Net Ea. Single	Transformer Preattached Net Each in 10-Pack
K-950	Coaxial[1]	16	85.5 db	10.0	30–14,000	1"	3¼"	$27.85	**$16.71**	**$15.03**	$30.85	**$18.51**	**$16.66**
F-858	FLEXAIR	12.0	85.5 db	10.0	30–18,000	1"	3"	19.80	**11.88**	**10.69**	24.50	**14.70**	**13.23**
C-855	Dual Cone	12	85.0 db	10.0	30–18,000	1"	3 1/16"	11.85	**7.11**	**6.40**	16.60	**9.96**	**8.96**
C-850	Conventional	12	85.5 db	10.0	30–13,000	1"	3"	11.25	**6.75**	**6.08**	16.00	**9.60**	**8.64**
C-840	Conventional	11	84.5 db	6.0	30–13,000	1"	2 15/16"	10.25	**6.15**	**5.54**	15.00	**9.00**	**8.10**
C-835	Dual Cone	10.0	84.0 db	5.4	35–18,000	1"	2 13/16"	9.55	**5.73**	**5.16**	14.30	**8.58**	**7.72**
P-830	Conventional	10	84.0 db	2.5	40–13,000	1"	3 1/16"	7.40	**4.44**	**4.00**	11.93	**7.16**	**6.44**
P-810	Conventional	9	82.0 db	1.47	60–13,000	¾"	3¼"	5.55	**3.33**	**3.00**	10.07	**6.04**	**5.44**
DCA-830	Dual Voice	10	82.0 db	5.4	30–12,000	1"	2 13/16"	10.00	**6.00**	**5.40**	19.50	**11.70**	**10.53**
DCA-850	Coil	12	83.0 db	10.0	30–12,000	1"	3"	12.00	**7.20**	**6.48**	21.50	**12.90**	**11.61**

[1]V.C. and magnet information pertain to L-F unit only. [2]Maximum speech and music level as indicated on standard VU meter (peak power is substantially higher). [3]Axial free field sound pressure level at a distance of 10 ft. for an input of 1.0 watt 800–1,250 cps warble frequency band (re .000204 dynes/cm²). [4]All magnets are Jensen Syntox-6® except P-810 and P-830 with DP-Alnico-5.



"CONSTANT VOLTAGE" TRANSFORMERS

Specially designed for use with the popular "constant voltage" distribution systems. Primary (input) windings are center-tapped for balanced-to-ground input circuits or for special circuit needs. Tapped secondary windings provide adjustment of power to the 8-ohm speaker in 3 db steps from ½ watt to 4 watts. Nominal core size 5/8" x 3/8". Two 1/16" dia. mounting holes on 2 3/8" centers. Available separately or preattached to these special 8-inch speakers.

Model	Line	Packing	List	Net	Net Ea. 50-Pack
25CV4	25-volt	Single	**$5.00**	**$3.00**	.....
25CV4B	25-volt	50-Pack	**5.00**	**3.00**	**$2.70**
70CV4	70-volt	Single	**5.00**	**3.00**	.....
70CV4B	70-volt	50-Pack	**5.00**	**3.00**	**2.70**

FOR PROFESSIONAL SERIES HORNS, DRIVERS AND ACCESSORIES . . . SEE JENSEN CATALOG 1070

FOR HIGH FIDELITY UNITARY LOUDSPEAKERS AND SYSTEMS . . . SEE JENSEN CATALOG 165

Net

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jensen Professional Series Speakers

JENSEN CALSTAR* COLUMN SPEAKERS

CALSTAR Controlled-Angle Lobe-Suppressed Twin-Array Reproducers are the result of an exhaustive study of directional sound radiation by Jensen engineers. In a CALSTAR column, an array of small woofers, covering the lower frequency range, is combined with a shorter array of tweeters covering the high frequency range (where the polar sharpening would otherwise become severe). Next, the signal distribution to each element is "tailored" so that the effective array length decreases as the frequency increases. The final result is a column design in which the vertical coverage angle is unusually constant for all frequencies and therefore exceptionally uniform sound quality and high speech intelligibility are achieved throughout the audience area. The exact signal distribution at each frequency provided by the pattern shaping networks has also been chosen to suppress unwanted side lobes.

*T.M.

MODEL 55

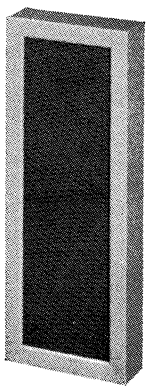
10-Element Twin-Array 60°, 30-Watt, 8-ohm Column Speaker.

List $139.65. Net Each. **$83.79**

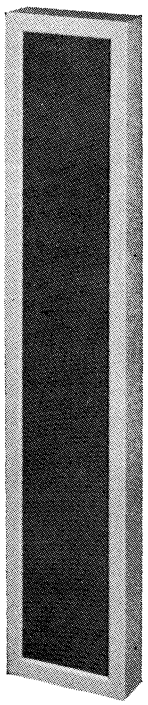
MODEL 1010

20-Element Twin-Array 30°, 60-Watt, 8-ohm Column Speaker.

List $244.65. Net Ea. **$146.79**



MODEL 55



MODEL 1010

TECHNICAL SPECIFICATIONS

MODEL 55		MODEL 1010
8 ohms	Input Impedance	8 ohms
30 watts	Power Rating[1]	60 watts
100–10,000 cps	Frequency Range	100–10,000 cps
60° total (±30°)	Vertical Coverage	30° total (±15°)
120° total (±60°)	Horizontal Coverage	120° total (±60°)
20 db	Lobe Suppression[2]	20 db
2000 cps	Crossover Frequency	2000 cps
11½" W., 3¾" D., 30" H.	Dimensions	11½" W., 3¾" D., 56⅞" H.

Sensitivity Table[3]

Model 55				Model 1010		
25'	50'	100'	Input Power, Watts	25'	50'	100'
90.0	84.0	78.0	5	94.5	88.5	82.5
92.0	86.0	80.0	7.5	96.5	90.5	84.5
93.0	87.0	81.0	10	97.5	91.5	85.5
95.0	89.0	83.0	15	99.5	93.5	87.5
96.0	90.0	84.0	20	100.5	94.5	88.5
98.0	92.0	86.0	30	102.5	96.5	90.5
—	—	—	60	105.5	99.5	93.5

1. Maximum speech and music level as indicated by VU meter. (Peak power is substantially higher.)
2. Maximum level outside main lobe relative to main lobe intensity.
3. Axial free field sound pressure level at listed distance (db above .000204 dynes/sq. cm.) in 800-1250 cps warble frequency band.

H-970 8" COAXIAL TWO-WAY LOUDSPEAKER

Heavy magnet, high efficiency coaxial in the popular 8" size. Circular h-f horn passes through center of l-f unit for broad symmetrical angular coverage. Ideal for high noise, high ceiling distributed sound systems.

List price $48.75 Net Each **$29.25**

K-1350 12" LOUDSPEAKER TWO-WAY LOUDSPEAKER

Similar to the popular Jensen 8" K-950 but with 12" l-f unit for improved bass range. Direct radiator h-f unit for low cost wide coverage angle distributed sound systems or central location and cluster use.

List price $45.00 Net Each **$27.00**

H-1380 12" COAXIAL TWO-WAY LOUDSPEAKER

Outstanding heavy-duty 12" coaxial for that premium central cluster or high power distributed sound system. Cellular horn for h-f unit passes through l-f unit yielding maximum control of coverage angles.

List price $88.00 Net Each **$52.80**

TECHNICAL SPECIFICATIONS	H-970	K-1350	H-1380
Nom. Size (Diam.)	8"	12"	12"
Power Rating, Watts*	20	20	28
Nom. VC Impedance, Ohms	8	8	8
Response Range, cps	30-19,000	30-18,500	30-19,000
Angular Coverage	115°	115°	80° H x 50° V
Resonant Frequency, cps	60	60	60
Crossover Frequency, cps	2000	2000	2000
L-F Magnet Weight	16 oz.	10 oz.	27 oz.
L-F Magnet Material	Syntox-6®	Syntox-6®	Syntox-6®
Nom. L-F VC Diam.	1½"	1"	1½"
Sensitivity**; 10 ft. 1 watt	87.0 db	85.5	88.0 ob
10 ft., 20 watts	100.0 db	98.5	—
10 ft., 28 watts	—	—	103.0 db
30 ft., .001 watt (EIA)	47.5 db	46.0	48.5 db

* Max. speech and music level indicated by standard VU meter (peak power is substantially higher)
** Axial free field sound pressure level for 800-1250 cps warble signal re .000204 dynes/cm².

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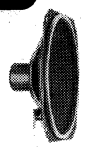
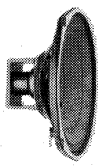
AKTRON REPLACEMENT SPEAKERS

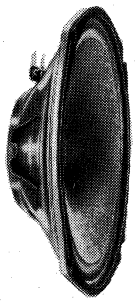
• ALUMINUM VOICE COILS • ALNICO 5 MAGNETS • SPECIALLY TREATED BLUE CONES • BLUE LUMINESCENT BAKED ENAMEL FINISH



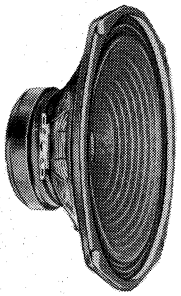
4" SQUARE CUP HOUSING



5" PIN CUSHION

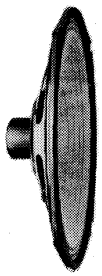


8" PIN CUSHION SHIELDED MAG

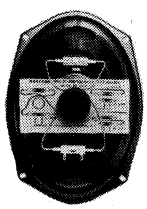


8" CERAMIC MAGNET

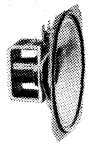
5" x 8" "FOOTBALL SHAPE"



6" x 9" FLAT CUP HOUSING



6" x 9" MULTI-IMPEDANCE



4" WEATHERPROOF

NOTE—Transformer Mounting Boss on all 4", 5" Round, 8" and 12" Speakers.

EIA WARRANTY APPLIES TO ALL OAKTRON SPEAKERS.

Size and Shape	Part No.	Magnet Weight Ounces	VOICE COIL Dia. Inches	VOICE COIL Impedance (Ohms)	Power in Watts	Suggested Dealer Prices
2¼" Round	23A8C	.53 cup	9/16	8	1	$1.96
2¾" Round	28A8C	.53 cup	9/16	8	2	1.79
3" Square	3A3C	.53 cup	9/16	3.2	2	1.48
3" Square	3C3	1.00	9/16	3.2	3	1.68
3½" Square	35A3C	.53 cup	9/16	3.2	2	1.48
3½" Square	35C3C	1.00	3/4	3.2	4	1.68
4" Square	4A3C	.53 cup	9/16	3.2	2	1.35
4" Square	4B3	.68	9/16	3.2	2	1.58
4" Square	4C3C	1.00 cup	3/4	3.2	4	1.66
4" Square	4D3	1.47	9/16	3.2	3	1.91
5" Pin Cushion	5A3C	.53 cup	9/16	3.2	2	1.44
5" Pin Cushion	5B3	.68	9/16	3.2	2	1.60
5" Pin Cushion	5C3C	1.00 cup	3/4	3.2	4	1.73
5" Pin Cushion	5D3	1.47	9/16	3.2	3	1.96
5" Pin Cushion	5D8S	1.47	9/16	8	5	1.96
5" Round	R5A3C	.53 cup	9/16	3.2	2	1.44
5" Round	R5B3	.68	9/16	3.2	2	1.60
5" Round	R5D3	1.47	9/16	3.2	3	1.96
5¼" Pin Cushior	53B3	.68	9/16	3.2	2	1.73
5¼" Pin Cushior	53C3C	1.00	3/4	3.2	4	1.80
6" Pin Cushion	6B3	.68	9/16	3.2	3	1.84
6" Pin Cushion	6C3C	1.00 cup	3/4	3.2	5	1.93
6" Pin Cushion	6D3	1.47	9/16	3.2	5	2.20
6" Pin Cushion	6E3C	2.18 cup	1	3.2	7	2.44
6" Pin Cushion	6E8C	2.18 cup	1	8	7	2.44
8" Pin Cushion	8C3C	1.00 cup	3/4	3.2	5	2.74
8" Pin Cushion	8E3C	2.18 cup	1	3.2	6	3.47
8" Pin Cushion	8F3	3.16	3/4	3.2	8	3.87
8" Pin Cushion	8H3	6.80	1	3.2	12	5.44
8" Pin Cushion	8C8C	1.00	3/4	8	5	2.74
8" Pin Cushion	8E8	2.15	3/4	8	6	3.47
8" Pin Cushion	8E8C	2.18 cup	1	8	7	3.47
8" Round Flat	8E8CF	2.18 cup	1	8	7	3.47
8" Pin Cushion	8EU8H	*3.00	3/4	8	6	3.65
8" Pin Cushion	8EU8	*3.00	3/4	8	6	3.65
8" Pin Cushion	8F8	3.16	3/4	8	8	3.87
8" Pin Cushion	8G8	4.64	1	8	10	5.05
8" Pin Cushion	8GU8	*6.00	1	8	10	5.15
8" Pin Cushion	‡8GU8D	*6.00	1	8	10	6.05
8" Pin Cushion	8H8	6.80	1	8	12	5.44
8" Pin Cushion	8HU8	*10.00	1	8	12	5.54
8" Round	8K8	10:10	1¼	8	20	8.01
10" Round	10F3	3.16	3/4	3.2	8	5.01
10" Round	10H3	6.80	1	3.2	12	7.05
10" Round	10F8	3.16	3/4	8	8	5.01
10" Round	10H8	6.80	1	8	12	7.05
12" Round	12F3	3.16	3/4	3.2	8	5.59
12" Round	12H3	6.80	1	3.2	12	7.55
12" Round	12F8	3.16	3/4	8	8	5.59
12" Round	12H8	6.80	1	8	12	7.55
12" Round	12HU8	*10.00	1	8	12	7.65
12" Round	§12HU8H	*10.00	1	8	12	7.65
12" Round	12K8	10.10	1¼	8	20	9.93
15" Round	15K8	10.10	1¼	8	20	13.98
2" x 6"	26A3C	.53 cup	9/16	3.2	2	1.71
3" x 5"	135A3C	.53 cup	9/16	3.2	2	1.60
3" x 5"	135C3C	1.00	3/4	3.2	4	1.80
2½" x 10"	210D3	1.47	9/16	3.2	5	3.36
4" x 6"	46A3C	.53 cup	9/16	3.2	2	1.69
4" x 6"	46B3	.68	9/16	3.2	3	1.82
4" x 6"	46C3C	1.00 cup	3/4	3.2	5	1.94
4" x 8"	48E3C	2.18 cup	1	3.2	5	2.99
4" x 10"	410E3C	2.18 cup	1	3.2	6	3.15
5" x 7"	57A3C	.53 cup	9/16	3.2	2	1.84
5" x 7"	57C3C	1.00 cup	3/4	3.2	5	2.25
5" x 7"	57D3	1.47	9/16	3.2	5	2.50
5" x 7"	57E3C	2.18 cup	1	3.2	7	2.77
5" x 7" Flat	57E3CF	2.18 cup	1	3.2	7	2.77
5" x 7"	57F3X	3.16	1	3.2	8	3.55
5" x 8"	†F58C8C	1.00 cup	3/4	8	5	2.78
6" x 9"	69A3C	.53 cup	9/16	3.2	2	2.15
6" x 9"	69C3C	1.00 cup	3/4	3.2	5	2.50
6" x 9"	69D3	1.47	9/16	3.2	5	2.77
6" x 9"	69E3C	2.18 cup	1	3.2	7	3.15
6" x 9" Flat	69E3CF	2.18 cup	1	3.2	7	3.15
6" x 9"	69H3	6.80	1	3.2	10	5.24
6" x 9"	69C8C	1.00 cup	3/4	8	5	2.51
6" x 9"	69E8C	2.18 cup	1	8	7	3.15
6" x 10"	†F610E8C	2.18 cup	1	8	7	3.80

*Ceramic Magnet—All others Alnico 5. †Has two mounting holes—Crinoline dust screen, "Football Shape" §Shielded Magnet Assembly Shallow Profile.

MULTI-IMPEDANCE SPEAKERS 10-20-40 OHM

Oaktron's new "three in one" multi-impedance series

- Specially developed heavy voice coil winding for maximum power handling.
- Dual solderless terminal strip arrangement for simplified hook up.
- Complete wiring diagram accompanies each speaker.

6" x Pin Cushion	6EMC	2.18 cup	1	10-20-40	6	$2.99
4" x 6"	46CMC	1.00 cup	3/4	10-20-40	5	2.51
4" x 8"	48EMC	2.18 cup	1	10-20-40	5	3.54
4" x 10"	410EMC	2.18 cup	1	10-20-40	6	3.69
5" x 7"	57EMCF	2.18 cup	1	10-20-40	7	3.31
6" x 9" Flat	69EMCF	2.18 cup	1	10-20-40	7	3.69
6" x 9" Free Edge Cone	FE69UMW	*10.00 oz.	1	10-20-40	10	8.57

WEATHERPROOF SPEAKERS

Specially Impregnated Cones, Gaskets and Dust Caps

3½" Square	35D8M	1.47	9/16	8	3	$2.25
4" Square	4A3M	.53 cup	9/16	3.2	2	1.71
4" Square	4D8M	1.47	9/16	8	3	2.27
5" Round	R5D8M	1.47	9/16	8	3	2.32
8" Pin Cushion	8F8M	3.16	3/4	8	6	4.23
8" Pin Cushion	8F45M	3.16	3/4	45	8	4.45
6" x 9"	69H8M	6.80	1	8	12	5.69

Net

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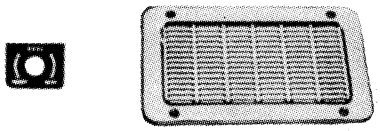
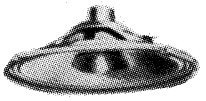
REAR SEAT SPEAKER KITS and Accessories

Featuring Oaktron's High Energy cup housing speakers.
Solderless hookup — No special tools required for installation. Includes all necessary hardware.



6" x 9" CUP



TWIN CONE

Model	Speaker	Grille	Control	Speaker	Sugg. Dealer Price
RK57	5 x 7	Gray	3 Pos. Switch	57C3C	$4.63
RK57C	5 x 7	Chrome	3 Pos. Switch	57C3C	4.90
RK57F	5 x 7	Gray	Fader	57C3C	4.90
RK57CF	5 x 7	Chrome	Fader	57C3C	5.15
MK57	5 x 7 Multi-Impedance	Gray	3 Pos. Switch	57EMC	5.64
MK57C	5 x 7 Multi-Impedance	Chrome	3 Pos. Switch	57EMC	5.89
MK57F	5 x 7 Multi-Impedance	Gray	Fader	57EMC	5.89
MK57CF	5 x 7 Multi-Impedance	Chrome	Fader	57EMC	6.16
AK69	6 x 9	Gray	3 Pos. Switch	69A3C	4.63
AK69C	6 x 9	Chrome	3 Pos. Switch	69A3C	4.90
AK69F	6 x 9	Gray	Fader	69A3C	4.90
AK69CF	6 x 9	Chrome	Fader	69A3C	5.15
RK69	6 x 9	Gray	3 Pos. Switch	69C3C	5.08
RK69C	6 x 9	Chrome	3 Pos. Switch	69C3C	5.33
RK69F	6 x 9	Gray	Fader	69C3C	5.33
RK69CF	6 x 9	Chrome	Fader	69C3C	5.60
WK69	6 x 9 Twin Cone	Gray	3 Pos. Switch	69E8WC	5.94
WK69C	6 x 9 Twin Cone	Chrome	3 Pos. Switch	69E8WC	6.21
WK69F	6 x 9 Twin Cone	Gray	Fader	69E8WC	6.21
WK69CF	6 x 9 Twin Cone	Chrome	Fader	69E8WC	6.47
MK69	6 x 9 Multi-Impedance	Gray	3 Pos. Switch	69EMCF	6.12
MK69C	6 x 9 Multi-Impedance	Chrome	3 Pos. Switch	69EMCF	6.37
MK69F	6 x 9 Multi-Impedance	Gray	Fader	69EMCF	6.37
MK69CF	6 x 9 Multi-Impedance	Chrome	Fader	69EMCF	6.65

ACCESSORIES:

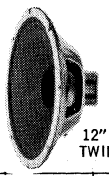
Part No.	Description	Sugg. Dealer Price
FA-1	Fader Control with Presoldered Wire and Hardware	$1.49
SW-1	Switch Control with Presoldered Wire and Hardware	1.22
CH57	5 x 7 Chrome Grill with Hardware	1.31
CH69	6 x 9 Chrome Grill with Hardware	1.31
GY57	5 x 7 Gray Grill with Hardware	1.04
GY69	6 x 9 Gray Grill with Hardware	1.04

NOTE — Kits can be supplied with other Oaktron Speakers. Please request prices.

TWIN CONE SPEAKERS

Matched dual cones for true high fidelity sound reproduction.

6" x 9" TWIN CONE



12" ROUND TWIN CONE

Size and Shape	Part Number	Magnet Weight Ounces	VOICE COIL Dia. Inches	VOICE COIL Impedance (Ohms)	Power in Watts	Sugg. Dealer Price
8" Pin Cushion	8E8WC	2.18 cup	1	8	6	$3.76
8" Pin Cushion	8F8W	3.16	¾	8	8	4.14
8" Pin Cushion	8H8W	6.80	1	8	12	5.73
8" Pin Cushion	8HU8W	*10.00	1	8	12	5.83
12" Round	12F8WX	3.16	1	8	10	6.37
12" Round	12H8W	6.80	1	8	12	8.00
5" x 7"	57E8W	2.15	¾	8	6	3.06
6" x 9"	69E8WC	2.18 cup	1	8	6	3.44
6" x 9"	69HU8W	*10.00	1	8	10	5.53
6" x 9"	69H8W	6.80	1	8	10	5.63

INTERCOM SPEAKERS

Size and Shape	Part No.	Magnet Weight Ounces	VOICE COIL Dia. Inches	VOICE COIL Impedance (Ohms)	Power In Watts	Sugg. Dealer Price
3½" Square	35A45C	.53 cup	9/16	45	2	$1.69
4" Square	4A45C	.53 cup	9/16	45	2	1.57
4" Square	4D45	1.47	9/16	45	3	2.12
5" Pin Cushion	5D45	1.47	9/16	45	3	2.18
8" Pin Cushion	8F45	3.16	3/4	45	8	4.09

TWEETER SPEAKERS

These speakers are true compression type, using totally enclosed baskets and molded curvilinear cones for maximum high frequency radiation, 8 ohm aluminum voice coils and Alnico 5 magnets—Blue luminescent enamel finish.

Size and Shape	Part Number	Impedance	Magnet Weight	V.C. Dia.	Power Watts	Frequency Response	Sugg. Dealer Price
3" Square	3C8T	8 Ohms	1.00 oz.	9/16"	4	3000-16,000	$1.95
3½" Square	35D8T		1.47 oz.	9/16"	5	3000-16,000	2.25
4" Square	4D8T		1.47 oz.	9/16"	5	3000-15,000	2.25
5" Round	5D8T		1.47 oz.	9/16"	5	2000-15,000	2.31
4" x 6"	46D8T		1.47 oz.	9/16"	6	2000-17,000	2.43

SYSTEMS

Matched Trio for Multi-Speaker Application

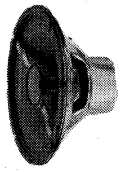
Size in Inches	Part Number	Impedance	Magnet Weight	V.C. Dia.	Power Watts	Frequency Response	Sugg. Dealer Price
12 6x9 4x6 Harness with Crossover	ST-124	8 Ohms	12" Woofer 6.80 oz. 6"x9" Mid Range 3.16 oz. 4"x6" Tweeter 1.47 oz.	1" 3/4" 9/16"	12	35-15,000	$17.00

HIGH FIDELITY SPEAKERS

ALL OAKTRON HI-FIDELITY SPEAKERS ARE ENCLOSED IN A PLASTIC COVERING AND INDIVIDUALLY BOXED TO INSURE MAXIMUM PROTECTION.

COAXIAL SPEAKERS

Oaktron's coaxial type speakers are superbly engineered to produce a flat response over a wide range of frequencies. These speakers are finished in a glossy royal blue luminescent enamel and feature a unique cross over network, solid basket compression type tweeters, specially treated aluminum voice coils and Alnico 5 magnets. These features combined with Oaktron's superior workmanship offer the finest in coaxial speakers.



12" COAXIAL

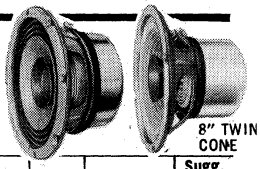
Size in Inches	Part Number	Impedance	Magnet Weight	V.C. Dia.	Power Watts	Frequency Response	Sugg. Dealer Price
8	CA-8	8 Ohms	8" Woofer 3.16 oz. 3" Tweeter .53 oz.	¾" 9/16"	8	60-14,000	$7.95
8	CA-8-HD	8 Ohms	8" Woofer 6.80 oz. 3" Tweeter .53 oz.	1" 9/16"	10	50-14,000	9.80
12	CA-12	8 Ohms	12" Woofer 6.80 oz. 3" Tweeter 1.00 oz.	1" 9/16"	12	35-14,000	11.95
12	‡CA-12-HD	8 Ohms	12" Woofer 10.10 oz. 3½" Tweeter 1.00 oz.	1¼" 9/16"	20	25-14,000	15.85
15	CA-15	8 Ohms	15" Woofer 6.80 oz. 5" Tweeter 1.00 oz.	1" 9/16"	14	30-13,000	16.35
15	‡CA-15-HD	8 Ohms	15" Woofer 10.10 oz. 5" Tweeter 1.00 oz.	1¼" 3/4"	20	20-13,000	21.40
6x9	CA-69	8 Ohms	6x9" Woofer 2.15 oz. 3" Tweeter .53 oz.	¾" 9/16"	6	70-14,000	7.15
6x9	CA-69-HD	8 Ohms	6x9" Woofer 6.80 oz. 3" Tweeter .53 oz.	1" 9/16"	10	60-14,000	9.80

‡Chrome Finished Dust Cover.

CLASSIC SERIES

Twin cone speakers:

- Perfectly matched dual cones
- Smooth Response
- Heavy magnets • Large voice coils



6" TWIN CONE

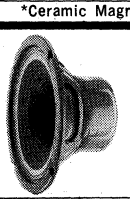
8" TWIN CONE

Size in Inches	Part Number	Impedance	Magnet Weight	V.C. Dia.	Power Watts	Frequency Response	Sugg. Dealer Price
6	‡FE6W	8	*6.00 oz.	1"	12	40-15,000	$7.75
8	Free Edge Cone ‡FE8KW	Ohms	10.10 oz.	1¼"	20	30-14,000	11.80
12	Free Edge ‡12K8W	8 Ohms	10.10 oz.	1¼"	20	25-13,000	13.90
15	‡15K8W	8	10.10 oz.	1¼"	20	20-13,000	18.75

‡Chrome Finished Dust Cover. *Ceramic Magnet.

FREE EDGE CONE SUSPENSION

SAME GENERAL APPEARANCE AS COAXIAL SPEAKERS
Excellent woofer characteristics combined with a perfectly matched twin cone to complete a truly exceptional full range high fidelity speaker.



8" FREE EDGE TWIN CONE

Size in Inches	Part Number	Impedance	Magnet Weight	V.C. Dia.	Power Watts	Frequency Response	Sugg. Dealer Price
6x9	FE-69UW Twin Cone	8 Ohms	*10.00 oz.	1"	10	35-16,000	$7.95
8	FE-8	8 Ohms	6.80 oz.	1"	12	35- 6,500	8.60
8	FE-8W Twin Cone	8 Ohms	6.80 oz.	1"	12	40-16,000	8.95

OAKTRON INDUSTRIES, INC.

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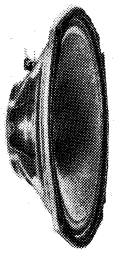
Net

OAKTRON ARCHITECTURAL SOUND SPEAKERS LINE TRANSFORMERS

ARCHITECTURAL SOUND SPEAKERS

• Aluminum Voice Coils • Attractive Blue Luminescent Finish



OA51
8" ROUND

OA56U
8" PIN CUSHION
DOUBLE TRANSFORMER
EMBOSS

Oaktron Architectural Sound speakers are designed specifically for commercial sound applications. Through the use of specially treated aluminum voice coils and carefully selected component parts, these speakers have proven their exceptional durability even under the most adverse conditions. These important features combined with Oaktron's superior workmanship and rigid quality control procedures assure the finest in commercial sound speakers.

Size and Shape	Part No.	Magnet Weight Ounces	Voice Dia. Inches	Coil Impedance Ohms	Power In Watts	Std. Bulk Pack	Wt. Case	Net Price
6" Pin Cushion	0A21	2.18 cup	1	8	7	24	20	$2.44
8" Round	0A40	2.15	¾	8	10	24	20	3.47
8" Pin Cushion	§0A41U	*3.00	¾	8	6	24	31	3.65
8" Pin Cushion	0A42U	*3.00	¾	8	6	24	31	3.65
8" Pin Cushion	0A43	3.16	¾	8	10	24	36	3.87
8" Pin Cushion	0A45	4.64	1	8	12	24	56	5.05
8" Pin Cushion	0A46U	*6.00	1	8	12	24	48	5.15
8" Pin Cushion	0A48	6.80	1	8	15	24	58	5.44
8" Pin Cushion	0A49U	*10.00	1	8	15	24	59	5.54
8" Round	0A51	10.10	1¼	8	20	16	55	8.01
8" Pin Cushion	‡0A53	3.16	¾	8	10	24	36	4.14
8" Pin Cushion	‡0A54U	*10.00	1	8	15	24	59	5.83
8" Pin Cushion	†0A56U	*6.00	1	8	10	24	48	6.05
12" Round	0A68	6.80	1	8	15	8	32	7.55
12" Round	0A69U	*10.00	1	8	15	8	33	7.65
12" Round	§0A70U	*10.00	1	8	12	8	31	7.65
12" Round	0A71	10.10	1¼	8	20	8	40	9.93

*Ceramic magnet—all others Alnico 5.
†Dual 8 ohm voice coil.
‡Twin cone speakers.
§Shielded Magnet Assembly—Shallow Profile

LINE TRANSFORMERS

CONSTANT VOLTAGE LINE TRANSFORMERS for impedance matching to 70.7 volt of 25 volt lines. This system provides simplified matching of speakers to an amplifier even though the individual speaker is required to produce different amounts of power. Oaktron transformers possess maximum efficiency and response characteristics through the use of new materials and the most advanced design parameters.

CONSTANT VOLTAGE: UNIVERSAL IMPEDANCE—MATCHING TYPES—INDIVIDUALLY BOXED

Transformers can be mounted at Factory

Part Number	Primary Impedance/ Power	Secondary Impedance (Ohms)	Nominal Watts	Core Size	DIMENSIONS Height	Width	Depth	Mtg. Centers	Shpg. Wt., Lbs.	Net Price
				70.7 CONSTANT VOLTAGE LINE						
T-71	2/1/.5	8/4	2	⅜ x ⅜	1¼	1½	1¼	1¾	½	$1.80
T-72	5/2.5/1.25 .62/.31	8/4	5	½ x ⅝	1⅜	1¾	1⅝	2	¾	2.35
				25 VOLT CONSTANT VOLTAGE LINE						
T-25	2/1/.5	8/4	2	⅜ x ⅜	1¼	1½	1¼	1¾	½	1.80
T-26	5/2.5/1.25 .62/.31	8/4	5	½ x ⅝	1⅜	1¾	1⅝	2	¾	2.35
				UNIVERSAL IMPEDANCE						
T-501	500/1000 1500/2000	8/4	4	½ x ½	1⅝	1 11/16	1¼	2	½	1.80
T-502	500/1000 1500/2000	8/4	8	⅝ x ⅝	1⅝	1 15/16	1⅜	2⅜	¾	2.35

All Oaktron Speakers Have Aluminum Voice Coils

Transformer Mounting Facilities on All Architectural Sound Speakers
Double Transformer Emboss on All 8" Pin Cushion Models
EIA Warranty Applies to All Oaktron Sueakers

THE BLUE PRINT TO BETTER SOUND

OAKTRON INDUSTRIES, INC.

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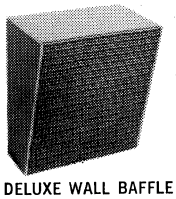
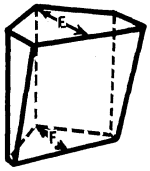
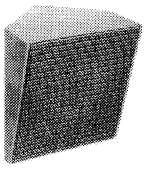
Oaktron's DELUXE and CUSTOM Baffles are smartly designed to compliment any decor. Rugged one half inch cabinet hardwood construction assures longer service even under the most severe conditions. Beautifully finished in a natural blonde or walnut these baffles represent the ultimate in appearance and sound reproduction. Speaker and baffle mounting hardware included.

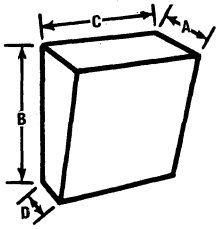


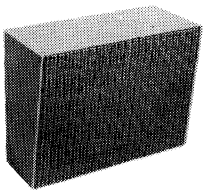
DELUXE WALL BAFFLE





DELUXE "KORNER" BAFFLE





CUSTOM WALL BAFFLE

DELUXE WALL BAFFLES

4"&5"	WB4-5-B	Blonde	Cabinet Hardwood	4½"	6¼"	6½"	2½"	$3.25
4"&5"	WB4-5-W	Walnut	Cabinet Hardwood	4½"	6¼"	6½"	2½"	3.25
6"	WB6-B	Blonde	Cabinet Hardwood	4⅝"	8"	9⅜"	2⅝"	4.10
6"	WB6-W	Walnut	Cabinet Hardwood	4⅝"	8"	9⅜"	2⅝"	4.10
8"	WB8-B	Blonde	Cabinet Hardwood	6¼"	10⅜"	9½"	3½"	4.45
8"	WB8-W	Walnut	Cabinet Hardwood	6¼"	10⅜"	9½"	3½"	4.45
12"	WB12-B	Blonde	Cabinet Hardwood	9⅛"	14⅛"	13¾"	5⅜"	5.80
12"	WB12-W	Walnut	Cabinet Hardwood	9⅛"	14⅛"	13¾"	5⅜"	5.80

"NOTCHED" DELUXE WALL BAFFLES

FOR USE WITH B-8 BAFFLE BRACKET

Speaker Size	Part No.	Furniture Finish	Material	Dimensions A	B	C	D	Sugg. Dealer Price
√8"	WB8B-N	Blonde	Hardwood	6¼"	10⅝"	9½"	3½"	$4.60
√8"	WB8W-N	Walnut	Hardwood	6¼"	10⅝"	9½"	3½"	4.60

DELUXE "KORNER" BAFFLES

Speaker Size	Model	Furniture Finish	Material	DIMENSIONS A	B	C	D	E	F	Sugg. Dealer Price
8"	KB8-B	Blonde	Cabinet Hardwood	4"	10⅜"	9½"	1"	8¼"	5⅛"	$7.40
8"	KB8-W	Walnut	Cabinet Hardwood	4"	10⅜"	9½"	1"	8¼"	5⅛"	7.40
12"	KB12-B	Blonde	Cabinet Hardwood	5⅜"	14"	13½"	1¾"	11¾"	8⅛"	10.15
12"	KB12-W	Walnut	Cabinet Hardwood	5⅜"	14"	13½"	1¾"	11¾"	8⅛"	10.15

CUSTOM WALL BAFFLES

8"	CWB8-B	Blonde	Cabinet Hardwood	6"	9⅜"	12"	4¼"	$5.35
8"	CWB8-W	Walnut	Cabinet Hardwood	6"	9⅜"	12"	4¼"	5.35
12"	CWB12-W	Blonde	Cabinet Hardwood	9"	14"	16"	5¼"	7.40
12"	CWB12-W	Walnut	Cabinet Hardwood	9"	14"	16"	5¼"	7.40

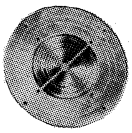
SLIMLINE WALL BAFFLES

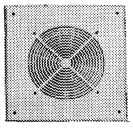
8"	SWB8-B	Blonde	Cabinet Hardwood	3⅞"	10½"	12½"	3⅞"	$5.20
8"	SWB8-W	Walnut	Cabinet Hardwood	3⅞"	10½"	12½"	3⅞"	$5.20

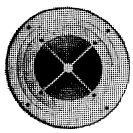
REDUCER RINGS

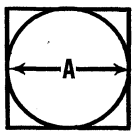
Model	Speaker Size	Material	Sugg. Dealer Price
R12/8	Reduces 12" to 8"	Tempered Presdwood	$1.25
R12/10	Reduces 12" to 10"	Tempered Presdwood	1.25

CEILING BAFFLES









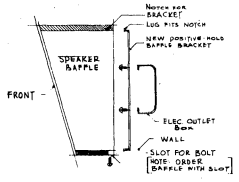
Oaktron's Ceiling Baffles possess qualities and design achieved only after years of engineering in this field. The extremely high efficiency and wide sound dispersion of these units result in superior acoustical sound reproduction. One piece construction eliminates vibration and rattle. Mount directly to the ceiling or to the convenient plaster ring. Available in satin or pebble aluminum and white baked enamel steel. Speaker mounting hardware included.

Speaker Size	Model	Finish	Shape	Material	Dimension A	Sugg. Dealer Price
8"	CR8-S	Satin	Round	Aluminum	12¾"	$3.30
8"	CR8-W	White	Round	Steel	12¾"	3.10
8"	CS8-S	Satin	Square	Aluminum	12⅛"	3.30
8"	CS8-W	White	Square	Steel	12⅛"	3.10

PLASTER RING

8"	PR8	Grey	—	Steel	—	$1.90

NEW, POSITIVE HOLD, BAFFLE BRACKET



Used To Mount Notched Deluxe Wall Baffle to Standard Electrical Outlet Box

Part No.	Material	Finish	Sugg. Dealer Price
B-8	3/32" Steel	Aluminum Painted	$ .60

Note — Baffles can be supplied with speaker and transformer installed at a total cost of the units supplied plus 60¢ for installation.

OAKTRON INDUSTRIES, INC.

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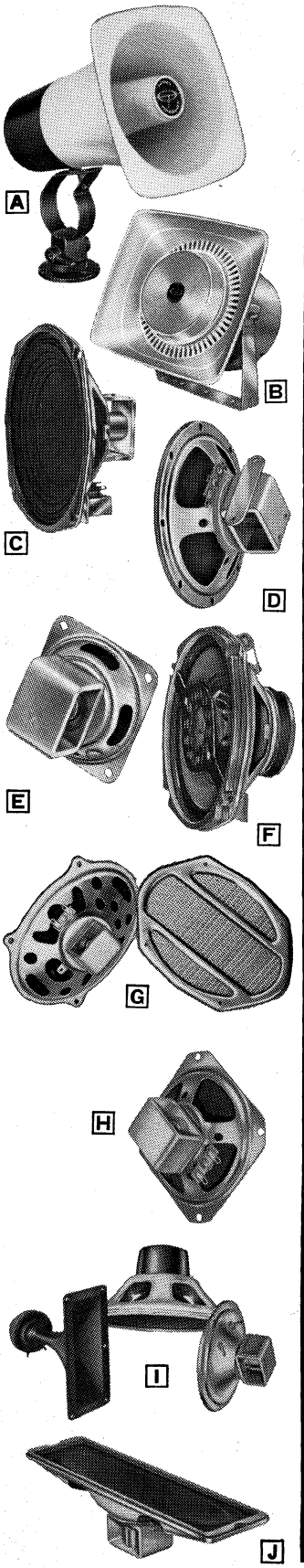
Net

OXFORD TRANSDUCER COMPANY

Division of OXFORD ELECTRIC CORPORATION

Quality Speakers for Every Application



A OP SPECIALIST SERIES

Models OP-6 and OP-8 represent the most advanced weatherproof paging and talkback speakers. They incorporate new design innovations with new materials to provide the highest efficiency with the lowest distortion factors of any competitive units available.

B OH-10 WEATHERPROOF DUAL SPEAKER SOUND SYSTEM

A high efficiency co-axial speaker that reproduces music and voice with the fidelity of an expensive indoor high-fidelity speaker system yet, the OH-10 is rugged and completely weatherproof. Components are housed in die-cast aluminum inclosure which is designed to compliment every setting from the shopping center to the patio.

C PUBLIC ADDRESS SPEAKERS

Oxford public address speakers are designed for higher output, with less power input. This maximum conversion efficiency in power and coverage permits a reduction in the number of speakers usually required in an installation. And, lower rated power amplifiers may be used with a substantial savings in cost.

D INTER-COM SPEAKERS

Oxford high efficency Inter-com speakers are designed to give round, full and clear reproduction in the voice frequency range and at the same time suppress unwanted background noises. Even whispers will be reproduced with great clarity in areas with high background noise levels . . . shouts are reproduced without distortion.

E ALL WEATHER SPEAKERS

Oxford offers a complete line of All Weather speakers specifically designed for maximum operating performance regardless of weather conditions. They feature exclusive Oxford HYDRO-PRUF cones for full environmental protection. Special moisture protected voice coils prevent humidity damage. Extra heavy cadmium plating, inside and out, resists corrosion.

F CERAMIC SPEAKERS

Featuring shallow construction, these speakers are ideal for in-wall, stereo wing, picture frame, and other installations where space is at a premium. In addition to the standard models, Oxford also offers ceramic units with exclusive Oxford Hidden Magnet design. The magnet is mounted between the basket and the cone, permitting use of the dual cone for extended range while retaining the thin silhouette.

G EXACT REPLACEMENT AUTOMOTIVE RADIO SPEAKERS

A complete line is available, including exact replacement speakers, universal speakers, special units for custom automobiles, and speakers specifically designed for transistorized automobile radios.

H REPLACEMENT SPEAKERS

Oxford manufactures the most complete line of standard replacement speakers available for original equipment, including, phonographs, tape recorders, radios and television sets. The speaker sizes range from 2" through 15", in dimensions to insure a perfect installation.

I HIGH FIDELITY SPEAKERS

The Oxford line offers a full range of woofers, tweeters, extended range and co-axial speakers. They are all designed to reproduce the entire audio spectrum with true high fidelity so necessary for fine stereo reproduction. For the price conscious hi-fi equipment buyer, Oxford offers the most outstanding value.

J SPECIAL PURPOSE SPEAKERS

As a "full line" loudspeaker manufacturer, Oxford also produces speakers for many "special purposes." The most popular of these is a series designed for use with electric musical instruments, such as guitars and electronic organs. It is only with a speaker designed for this particular application that the full quality of the instrument and performance can be appreciated.

Manufacturers, Write for Quotes on OEM Quantities.

OXFORD TRANSDUCER COMPANY

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AUTOMOTIVE REPLACEMENT

YEAR & MAKE	FRONT Size	FRONT Part No.	REAR Size	REAR Part No.
BUICK				
1959	4″ x 10″	6109	6″ x 9″	6112
1959 Portable	3″	7273926	6″ x 9″	6112
1960	8″ Special	1194080	6″ x 9″	6112
1961-2	4″ x 10″	6109	6″ x 9″	6112
1963	4″ x 10″	6127	6″ x 9″	6112
1963 Riviera	—	—	6″ x 9″	6126
1964	4″ x 10″	6127	6″ x 9″	6126
1964-5 Special	6″	6128	6″ x 9″	6126
1965-6	4″ x 10″ Thin	6129	6″ x 9″	6126
1966 Special	4″ x 10″ Thin	6129	6″ x 9″	6126
CADILLAC				
1959-62	4″ x 10″	6109	6″ x 9″	6126
1963-4	4″ x 10″	6127	6″ x 9″	6112
1965-6	4″ x 10″ Thin	6129	6″ x 9″	6126
CHEVROLET				
1959	6″ x 9″ Special	7276057	6″ x 9″	6112
1960	6″ x 9″ Special	7276057	6″ x 9″	6112
1961	4″ x 10″	6125	6″ x 9″	6112
1962	4″ x 10″ Special	7277075	6″ x 9″	6112
1963	6″ x 9″ Special	7282157	6″ x 9″	6126
1964	6″ x 9″ Special	1222047	6″ x 9″	6126
1965	4″ x 10″ Special	7291711	6″ x 9″	6126
1966	4″ x 10″ Special	7291711	6″ x 9″	Spcl. 7294892
CHEVELLE				
1964	4″ x 10″ Thin	6129	6″ x 9″	6126
1965	4″ x 10″ Special	7290681	6″ x 9″	6126
1966	4″ x 10″ Special	7293691	6″ x 9″	Spcl. 7294892
CHEVY II				
1962	4″ x 10″ Special	7280093	6″ x 9″	6112
1963	4″ x 10″	6127	6″ x 9″	6126
1964	4″ x 10″ Special	7282159	6″ x 9″	6126
1965	4″ x 10″	6127	6″ x 9″	6126
1966	4″ x 10″ Special	7293691	6″ x 9″	Spcl. 7294892
CORVAIR				
1960-1	6″ x 9″	6111	—	—
1962	6″ x 9″ Special	7280092	—	—
1963-4	6″ x 9″ Special	7282158	4″ x 10″	6127
1965	6″ x 9″ Special	7289731	6″ x 9″	Spcl. 7290951
1966	6″ x 9″ Special	7289731	6″ x 9″	Spcl. 7294892

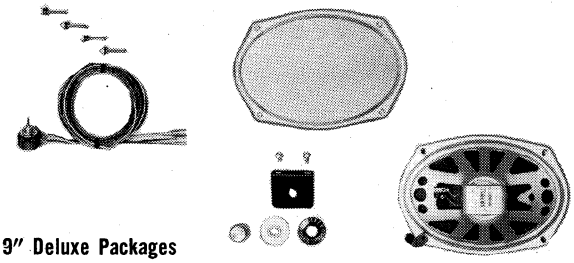
YEAR & MAKE	FRONT Size	FRONT Part No.	REAR Size	REAR Part No.
CORVETTE				
1958-60	6″ x 9″ Special	7270428	—	—
1961	6″ x 9″	6111	—	—
1962	6″ x 9″ Special	7281141	—	—
1963-6	6″ x 9″ Special	7282256	—	—
GMC TRUCK				
1960	6″ x 9″	6112	—	—
1961-2	6″ x 9″	7277260	—	—
1963-5	4″ x 10″	6127	—	—
1965-6 Handy Van	6″ x 9″	6126	—	—
1966 Truck	4″ x 10″	6127	—	—
OLDSMOBILE				
1959	6″ x 9″	6112	6″ x 9″	6112
1959 Portable	3″	7273926	6″ x 9″	6112
1960	6″ x 9″	6111	6″ x 9″	6112
1961	4″ x 10″	6125	6″ x 9″	6112
1961-2 F-85	4″ x 10″ Special	7276434	6″ x 9″	6112
1962	6″ x 9″	6112	6″ x 9″	6112
1963	4″ x 10″	6127	6″ x 9″	6126
1963 F-85	4″ x 10″ Special	7282213	6″ x 9″	6126
1964	4″ x 10″	6127	6″ x 9″	6126
1965	4″ x 10″ Thin	6129	6″ x 9″	6126
1966	4″ x 10″ Thin	6129	6″ x 9″	6126
PONTIAC				
1959	4″ x 10″	6109	6″ x 9″	6112
1959-60 Portable	3″	7273926	6″ x 9″	6112
1960	4″ x 10″	6109	6″ x 9″	6112
1961	4″ x 10″	6125	6″ x 9″	6112
1962	4″ x 10″	6125	6″ x 9″	6112
1963	4″ x 10″	6127	6″ x 9″	6126
1964	4″ x 10″	6127	6″ x 9″	6126
1964 Tempest	4″ x 10″ Thin	6129	6″ x 9″	6126
1965	4″ x 10″ Thin	6129	6″ x 9″	6126
1966	4″ x 10″ Thin	6129	6″ x 9″	Spcl. 7294892
1966 Tempest	4″ x 10″ Special	7286462	6″ x 9″	Spcl. 7294892

Most convertibles use 6″ rear speaker

UNIVERSAL AUTO RADIO SPEAKERS

Part No.	Size	Mtg. Holes	V.C. Ohms	V.C. Size	Power Watts	Mag. Wgt. Oz's.	Max. Depth	Ship. Wgt. Each	Master Carton Qty.	Master Carton Ship. Wgt.
6105	6″ x 9″	Tapped	3.7	1″	8	1.47	3″	1 lb. 6 oz.	20	32 lbs.
6109	4″ x 10″	Slotted	3.7	1″	8	1.47	2⅞″	1 lb. 3 oz.	20	25¾ lbs.
6110	5″ x 7″	Slotted	3.2	⅞″	6	1.0	2⅝″	1 lb.	20	25 lbs.
6111	6″ x 9″	Tapped	3.7	1″	8	1.47	3⅛″	1 lb. 10 oz.	20	35 lbs.
6112	6″ x 9″	Slotted	3.7	1″	8	1.47	3⅛″	1 lb. 10 oz.	20	35 lbs.
6113	6″ x 9″	Slotted	3.2	⅞″	6	1.0	3⅛″	1 lb. 9 oz.	20	34 lbs.
6114	6″ x 9″	Slotted	4.2	1⅛″	10	3.16	3⅜″	1 lb. 10 oz.	20	35 lbs.
6115	8″	Slotted	3.7	1″	8	1.47	3″	1 lb. 6 oz.	20	32 lbs.
6116	8″	Slotted	3.2	⅞″	6	1.0	3″	1 lb. 5 oz.	20	31 lbs.
6117	4″ x 8″	Slotted	3.7	1″	6	1.47	2⅝″	1 lb.	20	20 lbs.
6125	4″ x 10″	Tapped	4.5	⅞″	6	1.47	2⅞″	1 lb. 3 oz.	20	25¾ lbs.
6126	6″ x 9″	Slotted	8-10	⅞″	6	1.6	3 1/16″	1 lb. 12 oz.	20	35 lbs.
6127	4″ x 10″	Slotted	8-10	⅞″	6	1.6	3 1/16″	1 lb.	20	24 lbs.
6128	6″	Slotted	8-10	1″	8	2.15	2 15/16″	1 lb. 3 oz.	20	28 lbs.
6129	4″ x 10″	Slotted	8-10	⅞″	6	1.6	3 3/16″	1 lb.	20	24 lbs.

REAR SEAT SPEAKERS

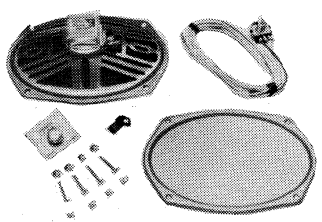


6″ x 9″ Deluxe Packages

Part No. 6122 — 10 OHM
Latest Applications

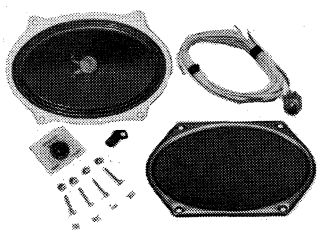
Part No. 6120 — 4 OHM
Earlier Applications

- These Deluxe Packages combine outstanding performance and ease of installation with attractive appearance and versatility of application.
- Fader control permits infinite adjustment of Volume between front and rear speakers. Fader can be mounted on the instrument panel or with bracket.
- Chrome fader control knob and metallic gray speaker grille blend with custom car interiors.
- Plug-in connectors provide solderless installation in most applications.



PART NO. 6121 — 6″ x 9″ Package

This package is complete with a GM-Delco 6″ x 9″ speaker, 3 position switch and wiring harness, foil escutcheon for instrument panel or bracket mounting, bracket, black plastic knob, attractive gray grille and all the necessary hardware. Grounding spring and socket and plug connection eliminates necessity of soldering the connections in the trunk. GM-Delco quality throughout.



PART NO. 6119 — 5″ x 7″ Package

Designed for those application with a 5″ x 7″ package shelf cutout. This high quality package is identical to the 6121 except that it contains a 5″ x 7″ speaker and grille.

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QUAM *Quality Line* SPEAKERS

These speakers are engineered and manufactured solely for replacement, public address, high fidelity and outdoor applications. EIA standard dimensions. Fully dust-proofed. Baked gold enamel finish. EIA service guarantee. Only Quam speakers have the U shaped coil pot construction which provides an unbroken flux path of sufficient cross section to carry the full energy of the magnetic field.

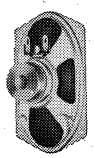
Fig. R

SPECIAL REPLACEMENT SPEAKERS FOR COLOR TV

MODEL No.	SIZE	FIGURE	MAGNET WEIGHT OR FIELD	POWER HANDLING WATTS	DEPTH	SHIP WT., LBS.	DEALER NET
35A2C*	3"x5"	R‡	1.1 oz. Alnico V	4	1-11/16	3/4	$3.00
4A2C*	4"	R‡	1.1 oz. Alnico V	4	1-3/8	3/4	2.86
46A2C*	4"x6"	R‡	1.1 oz. Alnico V	4	1-11/16	1	3.14
52A2C*	5¼"	R‡	1.1 oz. Alncio V	5	1-7/8	1	3.27
8A2C*	8"	R‡	1.1 oz. Alnico V	6	2-11/16	1-1/4	4.23

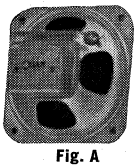
Fig. A

REPLACEMENT SPEAKERS Voice coil impedance 3.2 ohms ± 10%

22A06Z8**	2¼"	J	.45 oz. Alnico V	.25	1	1/4	$ 2.85
22A06Z100**	2¼"	J	.45 oz. Alnico V	.25	1	1/4	3.15
25A07	2½"	A	.65 oz. Alnico V	1.5	1-1/4	1/4	2.18
26A07	2"x6"	L	.65 oz. Alnico V	2	1-19/32	1/2	2.35
27A06Z12**	2¾"	J	.55 oz. Alnico V	.25	1	1/4	2.82

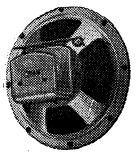
Fig. B

30A05	3"	I	.55 oz. Alnico V	2	1-3/16	1/2	1.72
3A05Z8**	3½"	I	.55 oz. Alnico V	2	1-9/32"	1/4	2.10
3A05*	3½"	I	.55 oz. Alnico V	2	1-9/32	1/4	1.72
3A07*	3½"	A	.55 oz. Alnico V	2.5	1-33/64	1/2	2.18
3A07Z20**	3½"	I	.55 oz. Alnico V	2.5	1-33/64"	1/2	2.58
35A05*	3"x5"	L	.55 oz. Alnico V	2	1-1/2	1/2	2.29
35A05Z8**	3"x5"	L	.55 oz. Alnico V	2	1-1/2"	1/2	2.67
4A05*	4"	I	.55 oz. Alnico V	2.5	1-1/2	1/4	1.61
4A07*	4"	A	.65 oz. Alnico V	3	1-23/32	1/2	2.35
4A1	4"	A	1.0 oz. Alnico V	3	2-1/16	3/4	2.51
4A1Z8**	4"	A	1.0 oz. Alnico V	3	2-1/16"	3/4	4.85
4A15	4"	A	1.47 oz. Alnico V	3	2-1/16	3/4	2.75

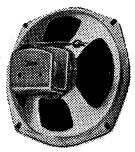
Fig. C

46A07*	4"x6"	E	.65 oz. Alnico V	3.5	1-15/16	3/4	2.59
46A1	4"x6"	E	1.0 oz. Alnico V	3.5	2-1/4	1	2.78
46A1Z8**	4"x6"	E	1.0 oz. Alnico V	3.5	2-1/4"	1	3.18
46A15	4"x6"	E	1.47 oz. Alnico V	3.5	2-1/4	1	3.00
48A2*	4"x8"	K	1.4 oz. Alnico V	4.5	2-3/16	1	4.34
48A2Z20CT†	4"x8"	K	1.4 oz. Alnico V	4.5	2-3/16"	1	4.95
410A2*	4" x 10"	M	1.4 oz. Alnico V	6	2-11/16	1¼	4.88

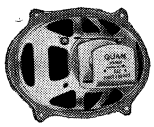
Fig. D

5A05*	5"	I	.55 oz. Alnico V	3	1-11/16	1/2	1.91
5A07*	5"	C	.65 oz. Alnico V	3.5	1-7/8	3/4	2.45
5A1	5"	C	1.0 oz. Alnico V	3.5	2-5/16	1	2.64
5A1Z8**	5"	C	1.0 oz. Alnico V	3.5	2-5/16"	1	3.03
5A15	5"	C	1.47 oz. Alnico V	3.5	2-5/16	1	2.86
52A1	5¼"	C	1.0 oz. Alnico V	4	2-25/64	1	2.70
52A1Z8**	5¼"	C	1.0 oz. Alnico V	4	2-25/64"	1	3.09
52C10#	5¼"	N	10.0 oz. Ceramic	10	2-1/4	2-1/8	5.43

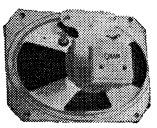
Fig. E

57A1	5"x7"	D	1.0 oz. Alnico V	5	2-11/16	1	3.00
57A15	5"x7"	D	1.47 oz. Alnico V	5	2-11/16	1	3.33
57A21	5"x7"	D	2.15 oz. Alnico V	5	2-61/64	1-1/4	3.68
58A15Z8	5"x8"	F	1.47 oz. Alnico V	5	2-3/4	1-1/4	4.26
6A1	6½"	C	1.0 oz. Alnico V	5	2-5/8	1	2.89
6A15	6½"	C	1.47 oz. Alnico V	5	2-5/8	1	3.14
6A31	6½"	C	3.16 oz. Alnico V	6	3-11/64	1-3/4	4.14

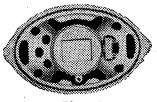
Fig. F

69A1*	6"x9"	D	1.2 oz. Alnico V	6	2-3/4	1-1/4	3.27
69A1S*	6"x9"	D	1.2 oz. Alnico V	6	2-1/8	1	4.64
69A2*	6"x9"	D	1.4 oz. Alnico V	8	2-15/16	1-1/2	4.09
69A3	6"x9"	D	3.2 oz. Alnico V	10	3-5/16	2	5.02
610A1Z8	6"x10"	F	1.2 oz. Alnico V	8	2-13/16	1-3/4	5.10
7A21*	7"	C	1.4 oz. Alnico V	6	2-31/32	1	3.95
8A1	8"	C	1 oz. Alnico V	6	3-1/2	1	3.24
8A21	8"	C	2.15 oz. Alnico V	7	3-13/32	1-1/2	4.23
8A31	8"	C	3.16 oz. Alnico V	9	3-21/32	2	4.91

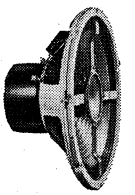
Fig. G

10A31	10"	B	3.16 oz. Alnico V	9	4-1/2	2-3/4	6.27
10A6A	10"	B	6.8 oz. Alnico V	12	4-5/8	3-1/2	7.91
12A31	12"	B	3.16 oz. Alnico V	10	4-19/32	3-3/4	6.52
12A6A	12"	B	6.8 oz. Alnico V	14	5-1/4	4-1/2	8.70

* Cup pot; very shallow construction. ** Impedance is designated by number following the letter "Z".

Ceramic magnet. • Dual cone. † 20 ohms, center tapped

‡ Illustrates magnet construction; see same size standard speaker for basket shape.

Net

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QUAM *Quality Line* SPEAKERS

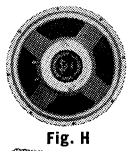
Fig. H

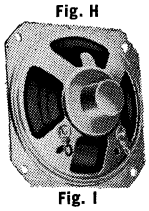
Fig. I

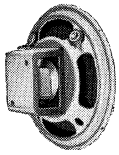
Fig. J

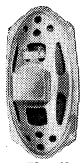
Fig. K

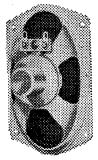
Fig. L

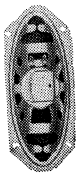
Fig. M

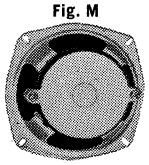
Fig. N

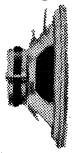
Fig. O

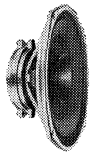
FIG. P

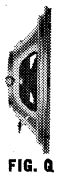
FIG. Q

OUTDOOR SPEAKERS

Voice coil impedance 3.2 ohms ±10%

These long-life speakers have the improved Humi-Gard Cone which utilizes a Mylar plastic film to provide maximum resistance to moisture and dirt and sand abrasion, yet does not interfere with response characteristics. Air gap surfaces cadmium plated and enameled. Quantity quotations on request.

All Quam speakers are available weather-proofed for an additional 70c list. When ordering weather-proofed speakers use part numbers appearing in this catalog and add suffix "OT" to part number. (Humi-Gard Cone available only on 3½", 4" 5", and 6½" speakers.)

MODEL No.	SIZE	FIGURE	MAGNET WEIGHT OR FIELD	POWER HANDLING WATTS	DEPTH	SHIP. WT., LBS.	DEALER NET
3A07 OT*	3½"	A	.65 oz. Alnico V	2.5	1-33/64	1/2	2.18
4A2 OT**	4"	R‡	1.1 oz.	5	1-21/32	3/4	5.43
4A05 OT*	4"	I	.55 oz. Alnico V	2½	1-1/2	1/4	1.77
5A05 OT*	5"	I	.55 oz. Alnico V	3	1-11/16	1/2	2.07

PUBLIC ADDRESS SPEAKERS

Voice coil impedance 8 ohms ± 10%

8A1PA	8"	C	1 oz. Alnico V	8	3-1/2	1-1/4	$3.57
8A21PA	8"	C	2.15 oz. Alnico V	10	3-9/16	2	4.92
8A31PA	8"	C	3.16 oz. Alnico V	10	3-9/16	2	5.70
8A4PA	8"	B	4.64 oz. Alnico V	12	3-3/4	2-3/4	6.60
8A6PA	8"	B	6.8 oz. Alnico V	12	3-7/8	3-1/4	7.80
8C6PA#	8"	O	6.0 oz. Ceramic	12	3	2-1/2	6.00
8C10PA#	8"	O	10.0 oz. Ceramic	12	3-1/8	3	7.17
10A31PA	10"	B	3.16 oz. Alnico V	12	4-13/32	2-3/4	6.90
10A6PA	10"	B	6.8 oz. Alnico V	14	4-5/8	3-1/2	8.70
12A31PA	12"	B	3.16 oz. Alnico V	12	5	3-1/4	7.17
12A4PA	12"	B	4.64 oz. Alnico V	15	5-1/8	3-3/4	8.55
12A6PA	12"	B	6.8 oz. Alnico V	15	5-1/4	4	9.57
12C12PA#	12"	O	12 oz. Ceramic	25	4-1/2	4-1/2	11.97

BACKGROUND MUSIC SPEAKERS

Voice coil impedance 8 ohms

MODEL NUMBER	SIZE	FIGURE	FREQUENCY RESPONSE (CPS)	MAGNET WEIGHT	POWER HANDLING WATTS	DEPTH	SHPG. WEIGHT POUNDS	DEALER NET
8C5PAX#	8"	P	50-20000	4.8	10	2-25/32"	2	6.00
8C6PAX#•	8"	P	50-20000	6.0 oz.	12	3"	2	6.57
8C10PAX#•	8"	P	50-20000	10.0 oz.	15	3-1/8"	2-1/2	7.77
8C6PAS#	8"	Q	50-6000	6.0 oz.	10	2-1/8"	2-1/4	8.97
12C6PAS#•	12"	Q	40-12000	6.0 oz.	15	3-1/2"	2-3/4	6.00
12C10PAX#•	12"	P	50-15000	10.0 oz.	15	4-3/8"	4	10.17

INTERCOM SPEAKERS

Voice coil impedance 45 ohms ±10%

3A07Z45*	3½"	A	.65 oz. Alnico V	2.5	1-33/64	1/2	2.55
4A07Z45*	4"	A	.65 oz. Alnico V	3.0	1-23/32	1/2	2.73
4A1Z45	4"	A	1.0 oz. Alnico V	3.0	2-3/16	3/4	2.91
5A1Z45	5"	C	1.0 oz. Alnico V	3.5	2-5/16	1	3.06

HIGH FIDELITY SPEAKERS

MODEL No.	SIZE	FIGURE	SPEAKER TYPE	FREQUENCY RESPONSE CPS	Pwr Hndlg Watts	V.C. Impedance	Shippg Wt. Lbs.	DEALER NET
15C12CO#	15"	G	Coaxial, 2000cps. Xover	25-18,000	25	8	8	31.50
12A6CO	12"	G	Coaxial, 2000cps. Xover	50-15,000	14	8	6-1/2	20.70
8A4CO	8"	G	Coaxial, 2000cps. Xover	50-15,000	10	8	2-3/4	13.77
12C12X#•	12"	H	Extended range dual cone	30-16,000	18	8	5-1/2	15.60
8C12X#	8"	H	Extended range	50-14,000	15	8	3-1/4	12.00
69C6X#•	6"x9"	D	Extended Range dual cone	50-15,000	12	8	2-1/2	8.37
15C12L#	15"	H	Low frequency woofer	20-4,000	15	8	7	21.00
12C12L#	12"	H	Low frequency woofer	30-3,000	15	8	5-1/2	15.60
5A15T	5"	A	High frequency tweeter	2,000-15,000	10	14	1	3.90
3A15T	3½"	B	High frequency tweeter	2,000-15,000	10	14	3/4	3.45
CO2-50			Crossover Unit for use with 5A15T&3A15T				1/8	1.20

REAR SEAT AUTO SPEAKER KITS

These kits contain everything required for the installation of the speaker. They include a dash-mounting fader control, cable, flocked screen grill, baffle plate, all necessary hardware and complete installation instructions.

†Chrome plated grill. ■ Multi-Tap Speaker
▲Sponge rubber baffle plate gasket

MODEL NUMBER	SIZE	FIELD OR MAGNET WEIGHT	POWER HANDLING WATTS	VOICE-COIL IMPEDANCE (OHMS)	SHPG. WEIGHT POUNDS	DEALER NET
AS-1	6-1/2"	1.47 oz.	5	3.2	2	5.43
AS1MT■	6-1/2"	1.47 oz.	5	10-20-40	2	6.57
AS-2▲	6" x 9"	2.15 oz.	9	3.2	3-1/2	7.61
AS-4	6" x 9"	1.2 oz.	6	3.2	1-3/4	4.09
AS5MT■	6" x 9"	1.4 oz.	8	10-20-40	1-3/4	8.37

AUTOMOTIVE SPEAKERS

MODEL NUMBER	SIZE	FIGURE	MAGNET WEIGHT	POWER HANDLING WATTS	DEPTH	VOICE-COIL IMPEDANCE OHMS	SHIPPING WEIGHT POUNDS	DEALER NET
410A2MT■	4" x 10"		1.4 oz.	6	2-11/16"	10-20-40	1	5.97
410A2Z10	4" x 10"	M	1.4 oz.	6	2-11/16"	8-12	1	5.67
410A2Z20CT*	4" x 10"	M	1.4 oz.	6	2-11/16"	18-22	1	5.97
410A2Z40CT*	4" x 10"	M	1.4 oz.	6	2-11/16"	35-45	1	5.97
57A2MT■	5" x 7"		1.2 oz.	5	2-5/16"	10-20-40	1	3.90
69A2MT■	6" x 9"		1.4 oz.	8	2-15/16"	10-20-40	1¼	5.04
69A2Z10	6" x 9"	D	1.4 oz.	8	2-15/16"	8-12	1¼	4.77
69A2Z20CT*	6" x 9"	D	1.4 oz.	8	2-15/16"	18-22	1¼	5.04
69A2Z40CT*	6" x 9"	D	1.4 oz.	8	2-15/16"	35-45	1¼	5.04

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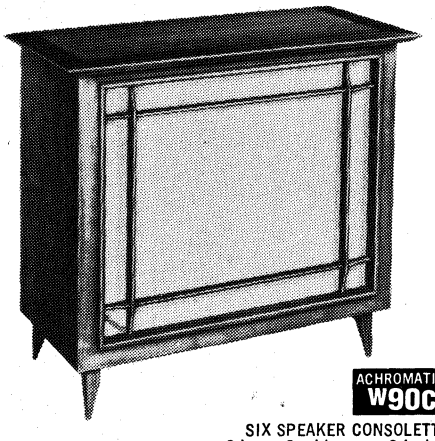
Net

Wharfedale ACHROMATIC SPEAKER SYSTEMS



ACHROMATIC W90C

SIX SPEAKER CONSOLETTE
2 bass, 2 mid range, 2 treble
... superbly matched and integrated with a magnificent sand-filled enclosure

The ultimate in Achromatic Speaker Systems. Each grouping of speakers is individually adjustable. The smart table-top cabinet is proportioned and styled to blend with any room decor. The grille is easily removed for custom grille cloth changes.

• Speakers: Woofers: one 12" with polystyrene 70 sq. in. piston; one 12" with conical diaphragm; Midrange: two 5" speakers; Treble: two Super 3" tweeters • Controls: Wire wound, continuous treble • Minimum Power Required: 8 watts (per channel) IHF • System Impedance: 4 to 8 ohms • Dimensions: Finished model: 23¾" x 30¼" x 13⅞" deep; Utility model: 23¼" x 27¾" x 12⅝" deep • Finishes/Prices: Genuine wood veneers: Choice of oiled or polished walnut, $279.95; Utility model: Sanded birch hardwood, flat molding, no table top, $263.95.

ACHROMATIC W70C

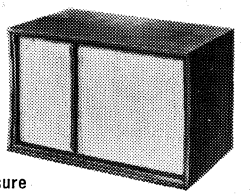
THREE-WAY HI/LO BOY SPEAKER SYSTEM
in exclusive sand-filled enclosure

Provides excellent bass; clear, transparent highs, without stridency; and fullness from a superb midrange. Distinctive, exceptionally versatile cabinet may be used standing on end ("Hi-Boy") or on its side ("Lo-Boy").

• Speakers: Woofer: 12" high compliance, low resonance; Midrange: 8" heavy duty; Treble: 3" Super tweeter • Controls: Wire wound, continuous treble and midrange controls • Minimum Power Required: 8 watts (per channel) IHF • System Impedance: 4 to 8 ohms • Dimensions: Finished model: 24" x 23¼" x 14" deep; Utility model: 24" x 20⅞" x 12⅜" deep • Finishes/Prices: Genuine wood veneers: Choice of oiled or polished walnut, $179.95; Utility model: Sanded birch hardwood with flat molding, no table top, $160.95.

ACHROMATIC W60C

COMBINATION THREE-WAY BOOKSHELF/FLOOR STANDING SPEAKER SYSTEM
in exclusive sand-filled enclosure

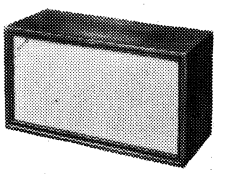


The W60C provides important benefits derived from its new 3-way speaker configuration. May be used bookshelf or floor standing. Individual, continuously variable mid and treble range compensation controls. Front grille easily removed.

• Speakers: Woofer: 12" high compliance, low resonance; Midrange: 5" acoustically isolated, heavy duty; Tweeter: 3" heavy duty omni-directional pressure dome • Minimum Power Required: 8 watts (per channel) IHF • System Impedance: 4 to 8 ohms • Dimensions: 14¼" x 24" x 13" deep • Finishes/Prices: Genuine wood veneers: Choice of oiled or polished walnut, $129.95; Sanded birch hardwood with flat molding, $113.95.

ACHROMATIC W40C

THREE-WAY BOOKSHELF SPEAKER SYSTEM
in exclusive sand-filled enclosure

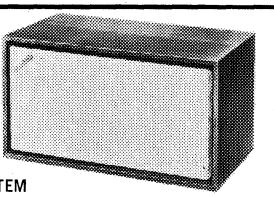


Now...a full three-way multiple speaker ensemble, yielding carefully tailored, ultra-linear response. A new dimension in sound realism for "bookshelf" speakers at a very reasonable price.

• Speakers: Woofer: 10" high compliance, low resonance; Midrange: 5" acoustically isolated; Treble: 3" omni-directional pressure dome • Controls: Wire wound, continuous treble and midrange controls • Minimum Power Required: 8 watts (per channel) IHF • System Impedance: 4 to 8 ohms • Dimensions: 12½" x 23½" x 10⅛" deep • Finishes/Prices: Genuine wood veneers: Choice of oiled or polished walnut, $89.95; Utility model: Sanded birch hardwood with flat molding, $78.95.

ACHROMATIC W30C

TWO-WAY COMPACT SPEAKER SYSTEM

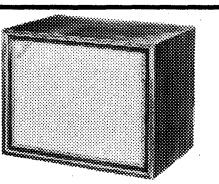


Despite its modest size and price, W30C may be used as the main system where space is at a premium. Compatible with all tube or transistor amplifiers having output of 4 to 8 ohms. Front grille removable.

• Speakers: Woofer: 8" acoustic suspension; Tweeter: 4" acoustically isolated • Control: Wire wound, continuous • Minimum Power Required: 8 watts (per channel) IHF • System Impedance: 4 to 8 ohms • Dimensions: 10" x 19" x 9¼" deep • Finishes/Prices: Genuine wood veneers: Oiled walnut, $69.95; Utility model: Sanded birch hardwood with flat molding, $63.95.

ACHROMATIC W20

TWO-WAY MINORETTE SPEAKER SYSTEM

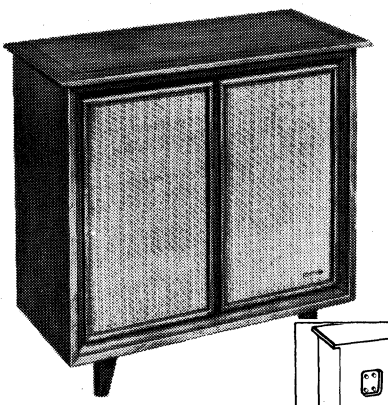


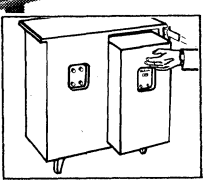
Wharfedale's W20 was designed to satisfy the requirements of good sound first, with dimensions and cost secondary considerations.

This handsome cabinet is finished in genuine walnut for decorating versatility. Front grille is easily removed.

• Speakers: Woofer: 8" acoustic suspension; Tweeter: 3" omni-directional pressure dome • Control: Wire wound, continuous • Minimum Power Required: 10 watts (per channel) IHF • System Impedance: 4 to 8 ohms • Dimensions: 9¾" x 14" x 8½" deep • Finish/Price: Genuine wood veneer: Oiled walnut, $49.95.

E-X-P-A-N-D-U-L-E-S





Bookshelf speaker slips into back of Expandule.

Wharfedale's exclusive Expandules convert Wharfedale and other bookshelf speakers into magnificent-sounding floor models. Each Expandule contains a high compliance, low-resonance woofer of appropriate size, plus the correct matching network to extend bass response and improve sound projection into the room...complementing the performance of the original bookshelf speaker. All Expandule enclosures are table-top (30") height, and of slim-line design. Finished in oiled or polished walnut, they blend perfectly with all home-decorating trends. Matching legs, optional, $7.50.

• Model E35—29¾" high, 23⅜" wide, 13⅜" deep; uses a special extended bass 10" woofer; has a 19⅝" x 10⅜" x 11" compartment. Takes Wharfedale bookshelf W30C. $99.75.

• Model E45—30" high, 30⅜" wide, 13⅝" deep; uses a 12" woofer; has a 24⅛" x 12¾" x 11" compartment. Takes Wharfedale bookshelf W40C. $149.50.

• Model E65—30" high, 36⅛" wide, 16¼" deep; uses a 15" woofer, has a 24⅛" x 14½" x 13½" compartment. Takes Wharfedale bookshelf W60C. $199.95.

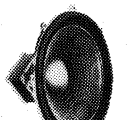
COMPONENT LOUDSPEAKERS

SUPER 8/RS/DD
Full Range 8"
$26.50

SUPER 10/RS/DD
Full Range 10"
$47.50

SUPER 12/RS/DD
Full Range 12"
$89.50

W12/RS
Woofer
$52.50



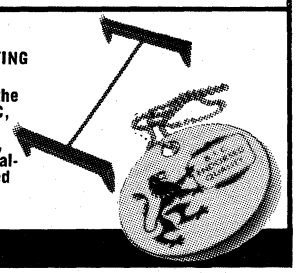
W15/RS
Woofer
$89.50

SUPER 3
Tweeter
$26.50

Crossover Network
3-way, $32.50
2-way, $16.50

MODEL B67 UNIVERSAL MOUNTING BASE

Now available for the W40C, W60C, W70C, and W90C Speaker System. Mahogany, Walnut, or Oiled Walnut, $10.50; Sanded Birch Hardwood, $9.50.



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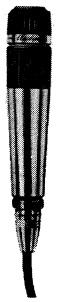
SHURE

FAMOUS UNIDYNE MICROPHONES



Model "545"
Unidyne III *

UNIDYNE III SERIES

THE ONLY CARDIOID MICROPHONES FEATURING PICKUP PATTERN SYMMETRICAL ABOUT AXIS AND UNIFORM AT ALL FREQUENCIES

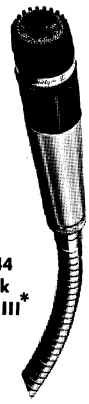
The world's finest moderately priced dynamic cardioid microphone for public-address system use. The Unidyne III approaches the theoretical ideal of the cardioid pickup pattern. This means completely uniform pickup about the axis at all frequencies — in all planes. Remarkably faithful reproduction of the human voice makes the Unidyne III a superior choice for public-address applications. Low frequency characteristics of the Unidyne III eliminate boominess, and make it a favorite for pickup of drums and bass instruments. Striking black and satin chrome finish in compact modern design makes the Unidyne III a stylish addition to any platform. Model 545 is suitable for handheld and/or stand use with Model A25 Swivel Adapter included. Model 545S is mounted on lifetime swivel and includes on-off switch. Model 544 is furnished with cable attached and is designed for gooseneck mountings. 544-G6 includes 6" gooseneck; 544-G12 includes 12" gooseneck; 544-G18 includes 18" gooseneck.

Model 545S
Unidyne III *

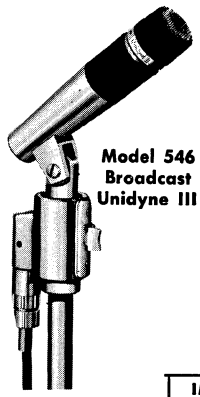
TYPE: Dynamic. FREQUENCY RESPONSE: 50-15,000 cps. POLAR PATTERN: Cardioid (Uniform with frequency, symmetrical about axis). MAGNETIC CIRCUIT: uses Alnico V magnet. CASE: Die cast zinc and "Armo-Dur". FINISH: Satin chrome and black. CABLE CONNECTOR: Equivalent to Amphenol MC4M plug. CABLE: 18 ft., 3 conductor shielded. STAND THREAD: 5/8" — 27 thread. DIMENSIONS: Length — 5 7/16", Diam. — 1 15/64". NET WEIGHT: 6/10 lb., Shipping Weight 2 7/8 lbs. FURNISHED ACCESORIES: A25 type swivel adapter. OPTIONAL ACCESSORIES: A95A cable type transformer, S33B desk stands.

IMPEDANCE TABLE	OUTPUT LEVEL
L-50-250 ohms	—57 db (0 db = 1 milliwatt per 10 microbars) .141 millivolts/microbar
H-High	—55 db (0 db = 1 volt per microbar); 1.760 millivolts/microbar

MODEL	LIST PRICE
545	$ 85.00
545S	$ 89.95
544	$ 80.00
544-G6	$ 83.00
544-G12	$ 83.75
544-G18	$ 85.00



Model 544
Gooseneck
Unidyne III*



Model 546
Broadcast
Unidyne III *

* U.S. Patent D190,864
other Patents Pending

BROADCAST UNIDYNE III

MODEL 546. Ultra compact, unidirectional, distinctive design, weights only 1 lb.! Recommended for critical broadcast and theater-stage sound system operation and highest quality public address and recording applications. Truly uniform cardioid pick-up pattern, symmetrical about axis. Special live-rubber vibration-isolating shock mount. Improved self-adjusting lifetime swivel permits tilting of head 180°. Cannon XL-3-11 connector. 20 ft. 2-conductor shielded broadcast type cable. Head only 1 15/64" diam., 5 7/16" long. 50-15,000 cps frequency response.

IMPEDANCE TABLE	OUTPUT LEVEL	MODEL	LIST PRICE
L — 50 Ohms	—55 db (0 db = 1 milliwatt per 10 microbars); .079 millivolts/microbar	546	$135.00
H — 150 Ohms	—55 db (0 db = 1 milliwatt per 10 microbars); .176 millivolts/microbar		

Model "55SW"
Unidyne

UNIDYNE II SERIES

Famed Throughout the World for Ruggedness and Reliability

The Unidynes are the largest selling microphones throughout the world — used consistently by famed celebrities for those important events where the faithfulness of sound reproduction is critical. A sturdy construction provides immunity of the moving-coil system to abnormal atmospheric conditions and severe mechanical shock. Model 55S is highly recommended for fine quality public address, theater-stage sound systems, recording and remote broadcasting, and low-gain tape recording. It is also the field-proved standard for fixed station use in the police, fire, transportation, forestry and commercial services. Smooth frequency response from 50 to 15,000 cps. Furnished with an 18-foot cable and plug assembly. Model 55SW is same as Model 55S except it has On-Off switch.

Model "556S"
Broadcast

Model 556S is specially constructed and tested to meet the requirements of the broadcast and television studio, and is held within close tolerances in frequency response and directivity. It is a moving-coil type microphone with a frequency range of 40 to 15,000 cps, production uniformity guaranteed to plus or minus 2½ db. As a further precaution against mechanical vibration pickup, the 556S is provided with an additional isolation unit, of live rubber construction in combination with the stand connector and a built-in high quality cable connector. Furnished with a 20-foot, high quality, shielded, 2-conductor cable with Cannon plug attached. Both the 55S and the 556S feature the patented "Uniphase" network system. All units include multi-impedance switch for High, Medium or Low Impedance.

IMPEDANCE TABLE	OUTPUT LEVEL
L-35-50 ohms	—54 db (0 db = 1 milliwatt per 10 microbars); .063 millivolts/microbar
M-150-250 ohms	—55 db (0 db = 1 milliwatt per 10 microbars); .125 millivolts/microbar
H-High	—57 db (0 db = 1 volt per microbar); 1.410 millivolts/microbar

MODEL	LIST PRICE
556S	$135.00
55S	$ 83.00
55SW	$ 85.00

All Shure Dynamic, Controlled Magnetic, and Ceramic Microphones are eligible for FCDA purchases.

Available in Gold finish for $10 additional (List Price)

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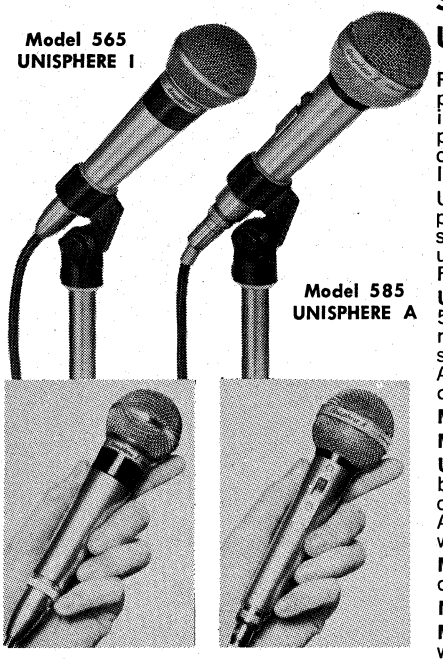
SHURE NEW MICROPHONES AND MIXER



SUPPRESS "POP" AND FEEDBACK WITH UNISPHERE® UNIDIRECTIONAL MICROPHONES

Provides all the superb, world-renowned feedback control and uniform cardioid pickup pattern features that have made the Unidyne family of microphones the industry standard for solving difficult public address problems—with the added problem-solving ability afforded by special filter assemblies that effectively control explosive breath sounds ("POP") and minimize wind noise in outdoor locations.

Unispheres are particularly recommended for close-talking applications and permit superior utilization of space on small stages. They facilitate speaker, singer or orchestral placement and provide practically complete rejection of unwanted audience noises. They control echoing in partially filled halls ("BOOM"). For hand or stand.

UNISPHERE I For use in the highest quality public-address systems. Smooth 50-15,000 Hz (cps) response. Dual impedance: high or 50-250 Ohm. Built-in shock mounting minimizes handling noise or floor vibration. Supplied with adjustable swivel stand adapter. 18-foot 3-conductor excellently hum-shielded cable with Amphenol MC4M type plug at microphone end. Satin chrome (or gold) finished case with black accents.

MODEL 565—List Price $95.00

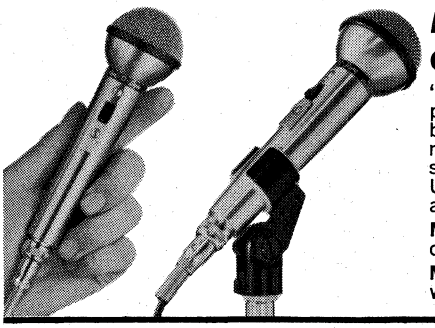
MODEL 565 GOLD—Gold Finish. List Price $105.00

UNISPHERE A Permits you to control feedback, "pop" or "boom" even in low-budget P.A. systems. 50-12,000 Hz (cps) response. Choice of impedances. Built-in on-off switch. Adjustable swivel stand adapter. 15-foot shielded cable with Amphenol type plug at microphone end. Satin chrome (or gold) finished case with black accents.

MODEL 585 SA—High impedance—includes 15′ one-conductor plastic jacketed cable with Amphenol MC1F type plug attached. List Price $65.00

MODEL 585 SA GOLD—Gold finish. List Price $75.00

MODEL 585 SB—Low impedance—includes 15′ two-conductor shielded cable with Amphenol MC2M type plug attached. List Price $58.00



MODEL 533 SPHER-O-DYNE® OMNIDIRECTIONAL DYNAMIC MICROPHONES

"Pop" styling with pop-proof performance, at a popular price! The only microphone of its type and quality available at such a moderate cost. Built-in wind, breath and pop filter makes it ideal for close-to-the-mouth applications—minimizes annoying, explosive breath sounds. Recommended for interview situations, singing groups, general-purpose P.A., theatre-stage sound systems, tape recording. Uniform response from 40 to 11,000 cps. Built-in on-off switch. Adjustable swivel adapter for stand use.

MODEL 533 SA—High impedance—includes 15′ one-conductor plastic jacketed cable with Amphenol MC1F type plug attached. List Price $50.00

MODEL 533 SB—Low impedance—includes 15′ two-conductor shielded cable with Amphenol MC2M type plug attached. List Price $47.50

SHURE M68 MICROPHONE MIXER (TRANSISTORIZED—PORTABLE)

PRACTICAL—The Shure M68 Mixer is a practical, efficient and economical way of increasing the efficiency, usefulness and flexibility of public-address and paging systems, or tape recorders, by making it possible to use more than one microphone or other sound source. You can strategically place microphones so that everybody who should be heard will have a microphone close at hand. It is particularly useful where additional microphones are needed for panels or for audience Question-and-Answer sessions.

UNIQUE—This new mixer is unique in that it satisfies the needs of most public-address systems and serious tape recording enthusiasts, while being light enough to be portable, simple to operate and modest in cost. It is the **only** mixer which strikes a happy medium between the expensive heavy and complex permanent-installation type mixer and the extremely low-cost units of limited usefulness.

With the M68, each microphone (or other sound source) can be cut in or out of the system (and independently balanced for volume) with no loss in microphone output level. In addition to independent volume controls, a master volume control simultaneously controls the gain of all inputs. The M68 can, therefore, be used as a conveniently "at-hand" P.A. system volume control in situations where the regular amplifier is located some distance away.

VERSATILE—You can use high or low impedance microphones, in any mix, with any type amplifier without need for expensive line transformers.

You can tape record from multiple sound sources or record sound-on-sound with two recorders, or conveniently record important meetings with full assurance that every voice will be intelligible.

Frequency response is 30-20,000 Hz (cps)

Underwriters Laboratory listed for use in commercial applications. Easily portable . . . 2⅝″ x 11⅛″ x 5⅜″, weighs only 4 lbs. 105-125 V. A.C. 50/60 cps. List Price $125.00

MICROPHONE MIXER ACCESSORIES.

ATTACHE-TYPE CARRYING CASE—Makes M68 mixer, microphones and cables conveniently portable. . . . . $37.50 List Price

A68B BATTERY POWER SUPPLY—Eliminates need for 115 V. A.C. hookup . . . . . $10.00 List Price

A68L LOCKING PANEL—Prevents tampering with the controls . . . . . $8.00 List Price

A68C OUTPUT CABLE KIT to connect mixer to any amplifier. . . . . $25.00 List Price

A68P PHONO PREAMP to connect magnetic or ceramic phonograph . . . . . $25.00 List Price

A68S STACKING KIT to connect 2 or more M68's together for use with more than four microphones . . . $5.00 List Price

A68SC INTERCONNECTING CABLE ONLY . . $1.25 List Price

A68R RACK PANEL KIT to mount mixer in a standard rack panel . . . . . $12.50 List Price

Trade Discount Applies To List Prices Only
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SHURE NEW! UNIDYNE A MICROPHONES

IN THE QUALITY TRADITION OF THE UNIDYNE FAMILY

The Unidyne A offers unidirectional problem-solving ability at an omnidirectional price! Solves feedback problems in low-budget sound systems. Very effective cardioid pickup pattern —symmetrical about axis at all frequencies. Uniform response from 50 to 12,000 cps. Rugged Dynamic cartridge is shock-mounted for quiet operation. Built-in ON-OFF switch with provisions for locking switch in ON position. Versatile: use it on a stand, or in the hand, indoors or out. With swivel adaptor (5/8" stand thread). Case is satin chrome and black "Armo-Dur" cap and stainless steel grille. Easy field service, if required. 15-foot attached shielded cable with rubber strain relief.

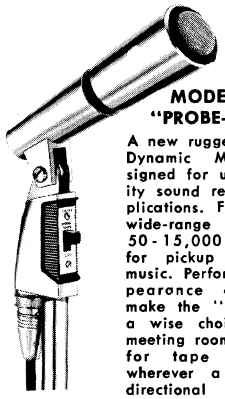
MODEL 580SB. Low impedance (150 to 250 ohms). Output: —58db (0 db = 1 milliwatt per 10 microbars). **$52.00 List.**

MODEL 580SA. High impedance. Output: —59 db (0 db = 1 volt per microbar). **$59.00 List.**

MATCHED PAIRS—UNIDYNE A

Matched within 2 db in both frequency response and output for stereo recording. High impedance models with plugs attached to fit most tape recorders. Boxed as a pair. **MODEL 580SA(MP) —$118.00 List.**

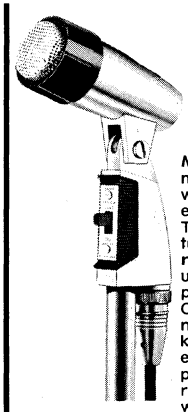
SHURE P. A. SYSTEM MICROPHONES



MODEL 550S— "PROBE-DYNAMIC"

A new rugged, high quality Dynamic Microphone designed for use in top-quality sound reinforcement applications. Features smooth, wide-range response from 50-15,000 cps. Excellent for pickup of voice and music. Performance and appearance characteristics make the "Probe-Dynamic" a wise choice for use in meeting rooms, auditoriums, for tape recording or wherever a quality omni-directional microphone is required, and moderate cost is an important consideration. Dual impedance. Comes complete with on-off switch, swivel and 18 ft. 2-conductor cable. Model 550S in satin chrome finish. Model 550S(Gold) in gold finish. Available in matched pairs for stereo recording. (Matched to ± 1 db in level and 1½ db in frequency response.)

List Price:	**Model 550S $69.00** **Model 550S (Gold) $79.00**
Type:	**Dynamic**
Frequency Response:	**50 to 15,000 cps**
Output:	**57.5 db** **58.5 db** **(0 db = 1 volt/microbar); 1.18 millivolts/microbar**
Impedance:	**Dual: Choice of 50 to 250 ohms and High**
Diaphragm:	**Shure Duracoustic**
Case:	**Model 550S** **Satin finished chrome case, stainless steel mesh grille** **Model 550S (Gold)** **Gold finished case and grille**
Dimensions: (not including swivel)	**1½" diameter, 6½" long**
Net Weight: (less cable)	**15 oz.**



SONODYNE II

MODEL 540S. A compact, modernistic microphone with high output dynamic element at moderate cost. The "Sonodyne II" features **adjustable frequency response** which allows the user to tailor the microphone to the application — One of the most versatile microphones on the market! High output Dynamic element Omni-Directional pick-up pattern. Frequency response: 60 to 10,000 cps with provisions for alternate response for voice intelligibility in paging and communications systems. Reliable on-off switch. Model 540 also available without switch. Improved positive action lifetime swivel permits tilting head 150°. 15 ft. 2-conductor shielded cable, equivalent to Amphenol MC3M connector.

IMPEDANCE TABLE	OUTPUT LEVEL
L—50-250 Ohm	**—56.5 db (0 db = 1 Milliwatt per microbar); .141 millivolts/microbar**
H—High	**—55 db (0 db = 1 volt per microbar); 1.76 millivolts/microbar**

LIST PRICE		
	Model 540S (with switch)	**$49.95**
	Model 540 (without switch)	**$47.95**

SONODYNE

MODEL 51. The "Sonodyne" is ideal for all general purposes, including public address, wire and tape recording, and similar applications. Ideal high-quality, moderately- priced replacement for the conventional microphone supplied with tape recorders. The wide range frequency response is 60 to 10,000 cps. This rugged microphone is one of the pressure type, with conventional semi-directional characteristics, and it may be used for close-talking without undue low frequency emphasis. Multi-impedance — for low, medium and high impedance. Has built-in receptacle and a 15-foot, two-conductor shielded cable with microphone plug attached. Satin chrome finish. Model 51S is same as Model 51 except it has on-off switch.

IMPEDANCE TABLE	OUTPUT LEVEL
L—35-50 Ohms	**—52.0 db (0 db = 1 Milliwatt per 10 microbars); .089 millivolts/microbar**
M—150-250 Ohms	**—52.5 db (0 db = 1 Milliwatt per 10 microbars); .238 millivolts/microbar**
H—High	**—49.5 db (0 db = 1 volt per microbar); 2.510 millivolts/microbar**

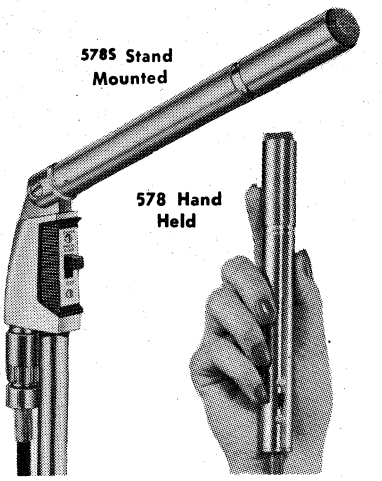
LIST PRICE		
	51	**$49.50**
	51S	**$51.50**

SHURE SLIM DYNAMIC PROBE MICROPHONES

MODEL 578 OMNIDYNE ULTRA SLIM PROBE

No Change in Pickup Pattern or Sensitivity from 50-17,000 cps

An outstanding new public address microphone combining striking modern ultra-slim (¾" diameter) design with exceptional performance, proved in severe field testing. Inconspicuous because of slender shape. Smooth, natural response from 50 to 17,000 cps. Built-in wire mesh "pop" filter reduces breath noises. Extremely rugged construction makes the Omnidyne an excellent choice for quality P.A. use indoors and outdoors. Satin chrome steel case provides magnetic shielding as well as good looks. Model 578S is mounted on swivel-switch assembly with attached Cannon XL3-11 cable connector. Model 578 has exceptional "feel" and "balance" making it ideal for hand-held use. Dual impedance. Complete with "On-Off" switch and special slip-in swivel stand adapter. Locking switch plate is included to lock switch in "On" position. Available in Matched Pairs for Stereo Recording (Matched to plus or minus 1 db in level and 1½ db in frequency response).



SPECIFICATIONS — TYPE: Dynamic. FREQUENCY RESPONSE: 50-17,000 cps. DIAPHRAGM: Shure Duracoustic. POLAR PATTERN: Omnidirectional. MAGNETIC CIRCUIT: Uses Alnico V Magnet. CASE FINISH: Satin chrome. SWIVEL ADAPTER: Furnished with swivel adapter having ⅝"-27 thread. CABLE: 18' — three-conductor shielded. SWITCH: Supplied with "On-Off" switch and optional cover plate. DIMENSIONS: ¾" diameter. 7⅜" overall length. NET WEIGHT: 7 ounces (less cable).

IMPEDANCE	OUTPUT LEVEL
200 Ohms	— 60 db (0 db = 1 Milliwatt per 10 microbars); .100 millivolts/microbar
High	— 59 db (0 db = 1 Milliwatt per microbar); 1.11 millivolts/microbar

MODEL 578† LIST PRICE $82.50 . . . MODEL 578S† LIST PRICE $90.00.

NEW 570S—ONLY PROFESSIONAL LAVALIER MICROPHONE WITH SWITCH—MODEL 570—WITHOUT SWITCH

FINEST PERFORMING PROFESSIONAL QUALITY DYNAMIC LAVALIER MICROPHONE — REGARDLESS OF PRICE! Designed for lavalier use in television, for lectures, etc. Features special "shaped" response for superior lavalier performance. Reduces pickup of clothing and cable noise. Designed for inconspicuous use with "Flex-Grip" lavalier assembly — the most versatile available. "Flex-Grip" design holds microphone firmly, yet permits easy and quick removal. Lavalier clip opens right or left or can be removed. Lightweight, flexible 30 ft. microphone cable attached. Non-reflecting gray metal case with stainless steel grille.

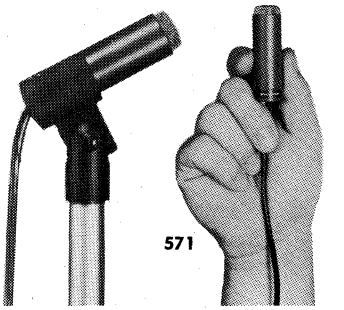
SPECIFICATIONS — ELEMENT TYPE: Dynamic. FREQUENCY RESPONSE: 50-12,000 cps, shaped for optimum lavalier performance, with rising response to 6,000 cps. DIAPHRAGM: Shure Duracoustic. POLAR PATTERN: Omnidirectional. MAGNETIC CIRCUIT: Uses Alnico V Magnet. CASE FINISH: Non-reflecting gray. CABLE: 30' two-conductor shielded. DIMENSIONS: ¾" diameter, 2½" overall length, NET WEIGHT: Model 570, 2 ounces (less cable). Model 570S, 3½ ounces. FURNISHED ACCESSORIES: Model A57L "Flex-Grip" lavalier cord, and belt clip for cable. OPTIONAL ACCESSORIES: Model A95A Transformer.

IMPEDANCE — 150 Ohms — to match all low impedance inputs; 50 to 250 Ohms.

OUTPUT LEVEL — 59 db (0 db = 1 Milliwatt per 10 microbars); .094 millivolts/microbar.

MODEL 570 LIST PRICE $95.00 . . . MODEL 570S LIST PRICE $105.00.

NEW MODEL 571 — Miniature dynamic microphone for hand-held and stand use. Similar to Model 570 in size and appearance, but has smooth peak-free response from 50 to 10,000 cps for voice applications where a small, inconspicuous microphone should be used. Use in hand, on stand, hang over stage, conceal in studio and other broadcast, motion picture, theatrical and public address applications. Model A57R swivel adapter included.



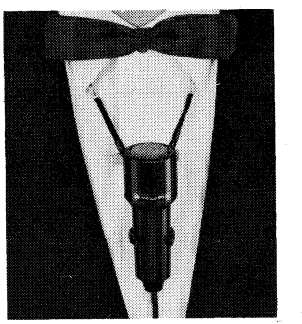
IMPEDANCE matches all low impedance inputs 50 — 250 ohms.

OUTPUT: — 60.5 db (0 db = 1 millivolt per 10 microbars); .085 millivolts/microbars.

LIST PRICE: $95.00

MODEL 560 DYNAMIC LAVALIER

Model 560 Dual Impedance, Dynamic Microphone with "tailored" response specifically designed for lavalier use. A truly excellent general purpose lavalier microphone at a very practical price. Compact and lightweight. Modern black satin all-metal case with stainless steel grille meets virtually every lavalier application, with quick change from High to Low impedance by simply moving pin jacks. New design clip-grip lavalier assembly holds microphone securely to wearer. Lightweight 18 foot attached cable permits maximum freedom of movement.



SPECIFICATIONS — FREQUENCY RESPONSE: Specially adapted to give optimum performance for lavalier use. DIAPHRAGM: Shure Duracoustic. CABLE: Non-detachable 18 ft., two-conductor shielded. CASE: Non-reflecting, black satin finished all-metal case with stainless steel grille. DIMENSIONS: 3 29/32" long by 1⅓" diameter. NET WEIGHT: 5 ounces; packaged weight: 13 ounces.

IMPEDANCE TABLE	OUTPUT LEVEL
150-250 Ohms	—55.5 db (0 db = 1 Milliwatt per 10 microbars); .149 millivolt/microbar
High	—56.5 db (0 db = 1 volt per microbar); 1.33 millivolt/microbar

MODEL	LIST PRICE
560	$42.50

Trade Discount Applies To List Prices Only
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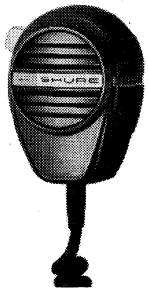
SHURE NEW! COMPACT COMMUNICATIONS MICROPHONES

RANGER II
WITH HIGH-IMPACT ARMO-DUR CASE



Only about half the size and weight of conventional mobile communications microphones, yet performs as well as or better than the "big boys." Only 6¾ oz., less cable, . . . 2 1/16" wide, 2⅛" deep, 2⅞" high. Ideal for miniaturized or portable communications. Neoprene-jacketed coil cord. Revolutionary molded-rubber Flex-Relief cable connection. Positive action single throw, double pole million-cycle switch. Controlled Magnetic cartridge. Frequency response from 400 to 4000 cps, especially tailored for voice communication use.

MODEL	OUTPUT LEVEL	IMPEDANCE	CABLE TYPE	SWITCH MIC. CIRC.	RELAY CIRC.	LIST PRICE
414A	—54.5 db (0 db = 1 volt per microbar)	High—100,000 Ohms or more	3-cond., one shielded	Closed	Open	$33.00
414B	—52.5 db (0 db = 1 milliwatt with 10 microbars)	150-250 Ohms	4-cond., two shielded	Closed	Open	$33.00

RANGER II NOISE CANCELLING
FOR HIGH SPEECH INTELLIGIBILITY

Gets the message through even when the ambient noise is so loud the operator can't hear himself! Significantly superior speech intelligibility to any other brand of so-called "noise cancelling" microphone. Specially tailored response for highest intelligibility—200 to 4000 cps. Same size, cable, cable relief, switch and case as Ranger II (at left) . . . only 7 oz., less cable.

MODEL	OUTPUT LEVEL	IMPEDANCE	CABLE TYPE	SWITCH MIC. CIRC.	RELAY CIRC.	LIST PRICE
419A	—57 db (0 db = 1 volt per microbar)	High—100,000 Ohms or more	3-cond., one shielded	Closed	Open	$62.50
419B	—55 db (0 db = 1 milliwatt with 10 microbars)	150-200 Ohms	4-cond., two shielded	Closed	Open	$62.50

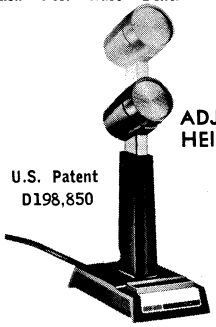
SHURE DISPATCHING . . GENERAL PURPOSE MICROPHONES

MODEL 450 "DISPATCHER" MICROPHONE *

Made of Rugged "ARMO-DUR"—Won't Crack—Peel—Rust—Dent.

New modern design fits every decor for paging use. Integrated case design, made of gray "Armo-Dur", features telescoping height adjustment for maximum convenience. Rugged Controlled Magnetic element with impedance switch for low or high impedance. Push-to-talk switch bar with optional features provide every desired switching option.

SPECIFICATIONS — ELEMENT TYPE: Controlled Magnetic. FREQUENCY RESPONSE: 100 to 9000 cps. CASE: Two-tone Gray "Armo-Dur". CABLE: 7 ft., four-conductor (two-conductor shielded). SWITCH: Push-to-talk switch button with optional locking feature to operate independent microphone and relay circuits. Relay portion of switch is normally open. Microphone portion of switch is normally open or normally closed as required. DIMENSIONS: 4" wide, 5 1/16" deep, 10 5/16" high (adjustable). NET WEIGHT: 1½ lbs.



MODEL	IMPEDANCE	OUTPUT LEVEL	LIST PRICE
450	50-250	—54 db (0 db = 1 Milliwatt per 10 microbars); 2.380 millivolts/microbar	$49.50
	High	—52.5 db (0 db = 1 volt per microbar); .281 millivolts/microbar	

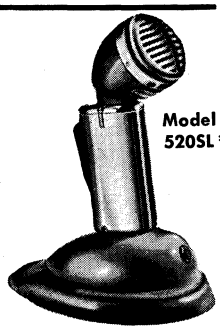
ACCESSORIES

NEW CABLE TYPE TRANSFORMER

Model A95A is a high-quality, cable-type transformer which makes it possible to connect a low impedance microphone (35-50 ohm and 150-250 ohm) to a high impedance amplifier. It is housed in a compact, sturdy and magnetically-shielded case, 2½" long x ¾" diameter. Use of this transformer solves the problem of excessive high frequency loss and objectionable hum when long lengths of microphone cable are necessary. Model A95A may also be used in specialized applications requiring high impedance to low impedance circuit connections. Attractive gray and black case furnished with Cannon XL-3-11 input and Amphenol MC1F output plugs installed. Frequency response: 20 to 20,000 cps, plus or minus 1 db.

List Price: $17.50

MODEL 520SL "DISPATCHER"



Model 520SL recommended for mobile and fixed station use, also for public address, recording call systems, radio telephone and amateur use.

Model 520SL equipped with grip-to-talk switch DPST — normally closed-normally open, and 7 ft. 2-conductor shielded cable, equivalent to Amphenol MC3M plug.

Model 520SLB has grip-to-talk switch DPST — normally closed-normally open, and 7 ft. 4-conductor (2 conductors shielded) cable, equivalent to Amphenol MC4M plug.

MODEL	OUTPUT LEVEL	IMPED-ANCE	LIST PRICE
520SL	—52.5 db (0 db = 1 volt per microbar); 2.38 millivolts/microbar	High	$45.00
520SLB	—51.0 db (0 db = 1 millivolt per 10 microbars); .281 millivolts/microbar	150-250 Ohms	$49.25

* U. S. Patent 2,454,425

TRIMM INC.

A SELECTED LISTING FROM OVER 2500 TRIMM-MANUFACTURED COMPONENTS.

HEADSETS: GENERAL PURPOSE, COMMERCIAL, MILITARY, AMATEUR, EDUCATIONAL, STEREO

Since 1922 TRIMM has manufactured a complete line of the finest electro-acoustic equipment and components. Engineered to fill the broadest applications; from the experimental crystal set to rugged field use, from industrial test equipment to home high-fidelity and stereo — these headsets are quality constructed and value priced.

ACME 24, 25, 27

A superior low-cost headset most suitable for Geiger counters, crystal sets, toys and radio systems. Black bakelite shell and cap. No. 24 has a black vinyl covered double headband and cotton tinsel conductor "Y" cord with pin tips. No. 25 headband is black enameled. No. 27 has a black enameled single headband and plastic covered stranded wire cord with pin tips.

REX 30, 32

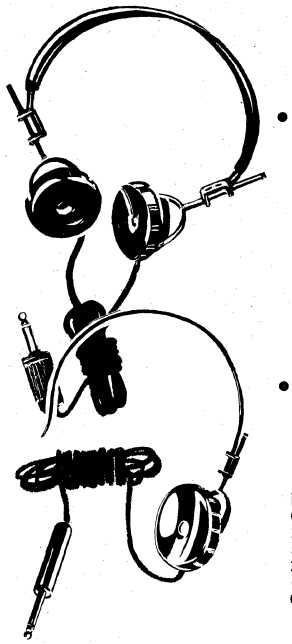
Lowest cost BIPOLAR type headset. Increased sensitivity. A 6 oz. lightweight for code training and institutional radio systems. Black bakelite shell and cap. Black vinyl covered headband. No. 32 has a single headband and plastic covered stranded wire with pin tips.

DEPENDABLE 70, 71, 72

Combines the best qualities of Acme and Rex; simple, rugged, sensitive and low cost. Ideal for electronic organs, code training and language labs. Black bakelite shell and cap, black vinyl covered headband, mercerized cotton tinsel "Y" cord and pin tips. No. 70 has double headband; No. 71 has plastic covered stranded wire cord; and No. 72 has single headband and single cord with pin tips.

• STEREO

Four stereo models are available. They range from the least expensive Acme to the top quality, extended range "L" headset. All models have a special cord that terminated with the No. 513 or 516 three-circuit plug. All stereo listings have been expanded to include four-conductor cords and two separated No. 501 plugs. These are identified by the number 15 following the model number.



ACME

24-03	$3.95	**25-2K**	$3.65	With 511 plug
25-03	3.50	**24-4K**	4.45	**24-9-03** $4.85
27-03*	2.10	**25-4K**	4.00	**24-9-2K** 5.00
24-15	4.00	**27-1K***	2.25	
24-2K	4.10	**27-2K***	2.45	

• STEREO

24-14-03	$6.20	**24-15-03**	$7.20

REX

30-03	$4.60	**32-03***	$2.60	With 511 plug
30-2K	4.80	**32-1K***	2.70	**30-9-03** $5.50
30-3K	5.10			**30-9-2K** 5.70
				32-9-03* 3.50

DEPENDABLE

70-03	$5.25	**70-3K**	$5.85	With 511 plug
70-06	5.35	**70-4K**	6.15	**70-9-03** $6.10
70-15	5.45	**72-03***	3.60	**70-9-2K** 6.40
70-2K	5.55	**72-1K***	3.70	**70-9-4K** 7.00
71-2K	6.55	**72-2K***	3.85	

• STEREO

70-14-03	$7.20	**70-14-2K**	$8.10
70-15-03	8.25	**70-15-2K**	9.15

Headsets are listed by their model number and by their impedance or D.C. resistance; 3.2 ohms (03); 8 ohms (08); 600 ohms (06); 1500 ohms (15); 2000 ohms D.C. (2K); 2000 ohms (2M); 3000 ohms D.C. (3K); 4000 ohms D.C. (4K); 5000 ohms (5M); 12000 ohms (12M); 17000 ohms (17M); and 24000 ohms (24M). Single earphones (*). List prices included are for single purchases at retail. Consult your distributor for quantity discounts.

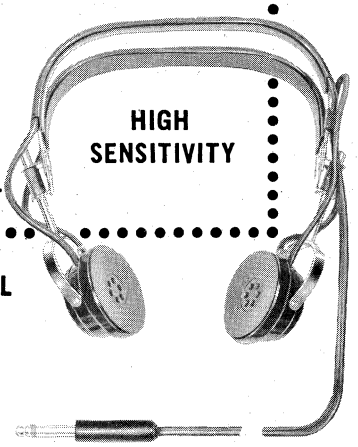
'L' HEADSET

IDEAL STEREO INSTRUMENT

HIGH SENSITIVITY

EXCEPTIONAL RESPONSE

No. 50, 56



Highest quality headset of conventional construction. Individually tuned acoustic cavities assures faithful sound reproduction. Top performance under all environmental conditions. Black bakelite shell and cap. No. 50 has black rubber covered double headband and waterproof nylon tinsel conductor, "Y" cord and No. 501 plug. No. 56 has a vinyl covered double headband with over-the-head molded neoprene cord and No. 501 plug.

STANDARD "L"

50-08	$23.00	**56-2M**	$27.65
56-08	27.65	**50-5M**	23.00
50-06	23.00	**56-5M**	27.65
56-06	27.65	**50-12M**	24.00
50-2M	23.00	**56-12M**	28.65

STEREO "L"

50-14-08	27.00	**50-14-16**	27.00
56-14-08	31.65	**50-14-6M**	28.00
50-14-16	27.00	**56-14-6M**	32.65
50-15-08	28.00	**56-15-16**	32.65
56-15-08	32.65	**50-15-6M**	29.00
50-15-16	28.00	**56-15-6M**	33.65

REPLACEMENT PARTS

For a nominal charge all TRIMM manufactured products can be restored to top working condition at the factory. Nearly any part that is required for manufacture is also available as a replacement part. In addition, worn or broken headset cords for almost any make can be made to order.

FEATHERWEIGHT 5 OZ.! WORLD FAMOUS-PROVEN IN USE

100, 104, 106, 107

Highly recommended for amateur radio use, language training and electronic testing. Nos. 100 and 106 have a fully adjustable nickel plated single headband. Black bakelite shell and cap. Waterproof mercerized cotton tinsel conductor "Y" cord with pin tips. Nos. 104 and 107 have black fabric covered double headband at no increase in price.

$11.50 List With Pin Tips		$13.40 List With 501 Plug	
100-03	**100-2K**	**100-9-03**	**100-9-4K**
104-03	**104-2K**	**104-9-03**	**104-9-4K**
100-06	**100-4K**	**100-9-06**	**106-9**
104-06	**104-4K**	**104-9-06**	**107-9**
100-15	**106**	**100-9-2K**	
104-15	**107**	**104-9-2K**	

• STEREO

104-14-03	$14.40	**104-14-2K**	$14.40
104-15-03	15.50	**104-15-2K**	15.50

ARMY — NAVY 28, 29

Built for severe use. Satin chrome brass shell, black bakelite cap. Black rubber covered double headband with thumbscrew lock for yoke adjustment. Waterproof nylon tinsel conductor "Y" cord, pin tips or plug.

With Pin Tips		With 501 Plug	
28 (W) 600 ohm	$20.00	**28-9** (W) 600 ohm	$21.65
29 (K) 20M ohm	20.00	**29-9** (K) 20M ohm	21.65

COMMERCIAL 151, 152, 155, 159

Very rugged TRIMM headset — yet very lightweight. Developed for marine and aircraft radio use. All types have black bakelite shell and cap, waterproof mercerized cotton tinsel conductor cord. The most popular, No. 156 (600 ohm) and No. 157 (17M ohm), have a black rubber covered double headband with a "Y" cord and 501 plug. Other models in standard impedances. No. 151 has nickel plated double headband, over-the-head cord with pin tips. No. 152 has black fabric covered double headband, over-the-head cord and pin tips. No. 158 (600 ohm) and No. 159 (17M ohm) have black rubber covered double headband, "Y" cord with pin tips.

$12.50 List With Pin Tips				$14.40 List With 501 Plug			
151-03	**152-06**	**151-9-03**	**152-9-06**	**156**	$15.75
152-03	**151-2K**	**152-9-03**	**151-9-2K**	**157**	15.75
151-06	**152-2K**	**151-9-06**	**152-9-2K**	**158**	14.00
				159	14.00

Trade Discount Applies To List Prices Only

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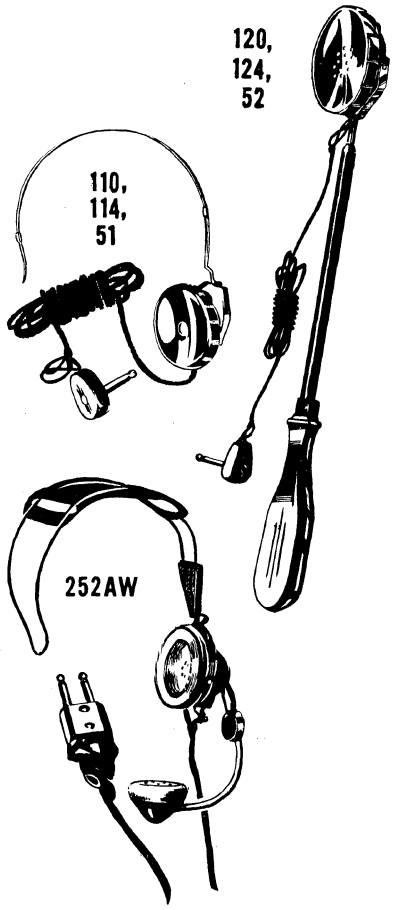
TRIMM INC.

A SELECTED LISTING FROM OVER 2500 TRIMM-MANUFACTURED COMPONENTS.

HEADSETS: GROUP AND INDIVIDUAL LISTENING, AUDIO KITS, STEREO



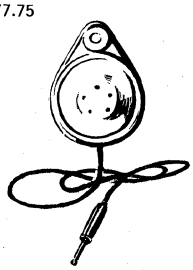
Telephone Operators Headset

A high quality transmitter/receiver unit commonly used in switchboard applications. Lightweight construction and complete adjustability assures wearing comfort and proper transmitter positioning.

RECEIVER	275 ohm impedance at 1000 cps.
TRANSMITTER	25 ohm impedance, carbon type. Frequency range—300 to 5000 cps.
PLUG	Standard twin 2 circuit plug, TRIMM No. 505

252AW List $77.75

"85" PILLOW PHONE



Sealed, waterproof ultra-thin disk for very local listening applications. Highly sensitive magnetic unit only 2" in diameter, 7/16" thick. Stainless steel face, pearl gray plastic shell. Replaceable vinyl tinsel cord with plug. Gray neoprene snap-on hanger ring, as shown: $0.50

With 514 plug		With 536 plug	
85-03 3.2 ohm	$11.30	**86-03** 3.2 ohm	$11.30
85-2M 2M ohm	11.30	**86-2M** 2M ohm	11.30

GROUP HEARING AID COMPONENTS—SINGLE EARPHONES

For installations where the listening requirements of many individuals must be served two basic types of earphones are used: the headband model for theatres and auditoriums and the hand held lorgnette for churches and mortuaries. Both Featherweight and "L" models are used. All have a 6 ft. waterproof mercerized cotton tinsel conductor cord. Standard impedances: 3.2, 8, 300, 1K and 2K ohms.

"L" Model (With 512 flat plug)

Headband		Lorgnette	
51-08	$12.00	**52-08**	$14.00
51-3	12.00	**52-3**	14.00
51-1K	12.50	**52-1K**	14.50

FEATHERWEIGHT (With pin tips)

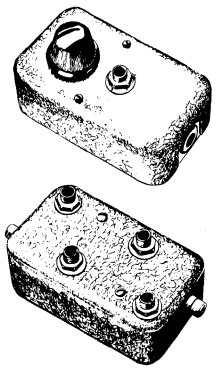
Headband		Lorgnette	
110-03	$8.00	**120-03**	$10.50
110-3	8.00	**120-3**	10.50
110-1K	8.00	**120-1K**	10.50
110-2K	8.00	**120-2K**	10.50

FEATHERWEIGHT (With 512 flat plug)

114-03	$8.90	**124-03**	$11.40
114-3	8.90	**124-3**	11.40
114-1K	8.90	**124-1K**	11.40
114-2K	8.90	**124-2K**	11.40

VOLUME CONTROL AND OUTLET BOXES

Formed metal boxes measuring 3¾" x 2⅛" x 1¼". All edges and corners are rounded. Available in Brown or Gray Hammertone and in Gloss Ivory.



Single Control — Single Jack Outlet Boxes

Resistance	Brown	Ivory	Gray	
1K	**460-1K**	**461-1K**	**462-1K**	$5.80
10K	**460-10K**	**461-10K**	**462-10K**	5.80
25K, 50K				
100K, 500K	**460-25K** (etc.)			6.50
		461-100K		6.50

Dual Control — Dual Jack Outlet Boxes

1K	**467-1K**	**469-1K**	$9.75
10K	**467-10K**	**469-10K**	9.75
25K	**467-25K**	**469-25K**	11.40

Dual Jacks — No Control

477	Brown	$4.00
478	Ivory	4.00

(With load resistor)

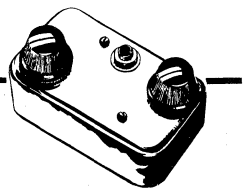
480	Brown	$5.00
481	Ivory	5.00
482	Gray	5.00

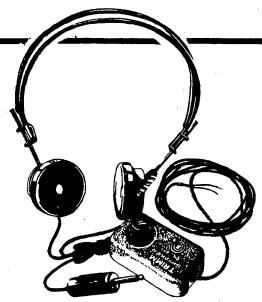
Single Jacks — No Control

484	Brown	$3.50
485	Ivory	3.50
486	Gray	3.50

Audio Junction Box — Four Jacks

490	Brown	$5.50
491	Ivory	5.50
492	Gray	5.50





Headset Kits For TV and Radio

Provides a simple means of attaching headsets or extension speakers to TV or radio sets. Has remote on-off switch for loudspeaker, a volume control for the headset and two jacks for multiple listening. Complete kit includes headset or single earphone with plug, control box and 15 ft. of connecting cord.

KIT		
632	(Double ACME Headset)	$12.15
632-1	(Single ACME Headset)	10.50
632-2	(Two double ACME Headsets)	17.00
633	(Double DEPENDABLE Headset)	13.60
634	(Double FEATHERWEIGHT Headset)	21.00
635	Single FEATHERWEIGHT Headset)	16.40
637	(Single PILLOW-PHONE)	18.80
631	Control Box Only	7.50

STEREO CONTROL BOX

Designed for stereo headsets with No. 513/516 three circuit plugs. Has two volume controls of suitable value for independent volume adjustment of both channels.

464-1C Brown Hammertone $10.00

EAR CUSHIONS

For comfort, cleanliness and noise control. Formed of sponge rubber, solid rubber, sponge and solid rubber, or chamois. Prices, per pair, range from $1.60 to $16.95 list.

654	Sponge rubber, Military type MC-162. Fits all TRIMM headsets but Dependable and Army-Navy.	$1.60
660	Sponge rubber. Fits Dependable and Army-Navy.	$2.50

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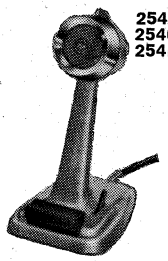
Trade Discount Applies To List Prices Only

MICROPHONES BY TURNER



COMMUNICATIONS AND CITIZENS BAND MICROPHONES BASE

MODEL 254X — It features push-to-talk front touch bar and locking on-off lever switch. May be wired for relay operation or electronic switching. Deluxe light grey hammertone finish. Output level: −48 db for more clear signal strength. Response: 100-8000 cps. 7′ three-conductor (shielded) cable. Size is 7¾″ in height x 5½″ in depth. Net price.....**$15.90**

MODEL 254C — Same as 254X except with famous 21C ceramic interior. Output level: −54 db. Net price.....**$15.90**

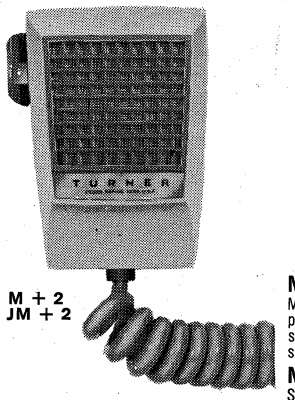
MODEL 254R — A CB base station microphone with carbon element for Kaar, Bendix, Pacific, RCA marine sets, Dumont and many others. Impedance: 40 ohms nominal DC resistance. Output level: −38 db. Cable is 7′, 4-conductor (unshielded). Operates by touch bar on-off switch and lever lock on-off switch. Net price.....**$15.42**

MODEL 454X — Designed for the voice range, it's extra hot. Output level: −48 db. Response: 300-3000 cps. Attractive telephone black finish. Your choice of VOX or PTT switch operation. Comes complete with 3-conductor (one shielded) coiled cord. Net price.....**$17.70**

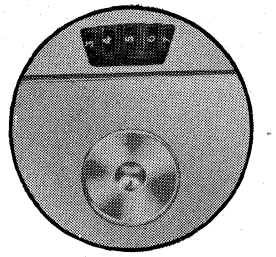
MODEL 454C — Same as Model 454X except has ceramic interior. Output level: −52 db. Net price.....**$17.70**

MODEL +2

Revolutionary new microphone which allows manual control of output volume by a twist of a dial. Two transistor pre-amp built into the microphone for up to **50 times** the output level of conventional ceramic base station microphones. World's best and most popular base station microphone. Exclusive touch-to-talk or lock on-off switching with a frequency response of 300-3,500 cps. Self contained 9 volt battery included. Net price..**$29.70**



REAR VIEW



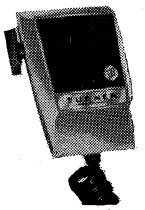
VOLUME CONTROL

MODEL M +2

Mobile companion to the +2 Model. 10 position output level control. Two transistor built-in pre-amp. Wired for relay switching. Net price.....**$23.70**

MODEL JM +2

Same as M +2 except wired for sets that use electronic switching. Net Price....**$23.70**



CUSTOM INTERIORS

Turner has complete facilities for designing and manufacturing all kinds of special application microphone interiors, soft speakers for dictating machines, anything you need. Write for full information on this service.

MOBILE

MODEL 333 — Top quality microphone with noise cancelling effect; voice frequency response of 300-3000 cps. Output level: −52 db. Rugged cycolac case with push-to-talk switch. Net price.....**$10.80**

MODEL 350C — Most used as original equipment. This low-cost ceramic microphone with on-off switch is familiar to most mobile radio operators. More 350C microphones are used as original equipment on citizens band and marine transceivers than any other microphone. Extra-tough cycolac case. Rugged ceramic interior allows you to use the 350C in any climate. Complete with hanger button and standard dash bracket for easy mounting. Ideal for citizens band, amateur use, mobile rigs and paging. Wired for relay operation. Response: 80-7000 cps. Output level: −54 db. Net price.....**$7.50**

MODEL 355C — Inexpensive mobile microphone with grip-to-talk switch. More comfortable to hold — more comfortable to use. The 355C features an output level of −50 db. It's extra hot for a high gain signal. Response: 80-7000 cps. Net price.....**$7.50**

MODEL SR90D — The Model SR90D (pressure operated dynamic) features a slender die cast zinc alloy case with the Turner exclusive front hanger button. (Satin chrome finish.) Dynamic models are available in two impedances, hi or 200 ohms. Relay switching is standard. Three-conductor (one shielded) 11″ retracted, 5′ extended coiled cord on hi impedance models and 4-conductor (two shielded) on 200 ohm units. Output level: −52 db. at hi impedance. Response: 200-10,000 cps. Net price.....**$25.50**

MODEL SR90R — Is equipped with a high quality telephone type carbon interior to give you maximum voltage output and high intelligibility as well. Same general appearance and features as Model SR90D. Output level: −40 db. Response: 200-4000 cps. Choose the Model SR90R wherever maximum output with a minimum of distortion is specified . . . taxicabs, police, etc. Net price.....**$15.90**

Net

© U.C.P., Inc.

MICROPHONES BY TURNER

CARDIOID MICROPHONES

MODEL 500 — An outstanding cardioid dynamic microphone featuring combination Hi or 50/250 ohms impedance, satin chrome finish with 20 ft. cable. Model 500 units are interchangeable in any system, with no testing for possible variations in frequency response or front-to-back ratio necessary. The 500 is a highly sensitive unit, with smooth, uniform response from 40 to 15,000 cps. and excellent front-to-back ratio of 20-25 db.

Model 500	Net price	**$50.40**
Model S-500 (with off-on switch)	Net price	**$53.50**
Model 500G	Net price	**$57.00**
Model S-500G	Net price	**$58.50**

MODEL 505 — Similar to Model 500, but with the acoustical advantages of a bass response control. In the "normal" position, response is 40-15,000 cps.; In the "less bass" position, 100-15,000 cps. Specifically recommended for auditorium work and recording. Net price..... **$66.00**

MODEL 600 — The econoline model which sets new quality standards for popularly priced cardioid units. Easy to hold or use, either by hand or with stand, and made from 100% American-made parts. 6" in length, with on-off switch, 12 ft. cable, and 50-15,000 frequency response. (For low impedance specify Model 602.)

Model 600	Net price	**$35.70**
Model 600G (Gold Finish)	Net price	**$38.70**

MODEL 777 — Quality cardioid performance with maximum noise rejection. Rolled-off bass response permits very close-to-mouth use, and new rotary on-off switch can be clearly seen even in dim light. Rugged all metal die cast case, satin chrome plated, allows hand or stand use night after night, and full fidelity assures faithful voice or music reproduction. Low impedance only. Net price..... **$66.00**

MODEL 510 — Broadcast cardioid dynamic with 40-15,000 cps. frequency response. Combination 50 or 200 ohms impedance selected at the free end of the cable. Professional broadcast blue finish. 20 ft. cable supplied. Connector is cannon XLR-4-11C. Cardioid discrimination is typically 25 db over the entire range. Furnished complete with stand adapter and matching shock-mounted desk stand. Net price..... **$90.00**

GENERAL PURPOSE AND PUBLIC ADDRESS MICROPHONES

MODEL 33D — Dynamic type. Excellent for paging, communications, announcing, P.A. use, ham radio. Satin chrome finish, 90 degree swivel coupler, supplied with 20' cable. Response: 100-9000 cps. Output level: −54 db. Impedance: 200 ohms or high. Net price..... **$24.00**

MODEL 44D — Compact modern design coupled with variable bass response makes the 44D an excellent microphone for paging and communications systems. Omni-directional pick-up pattern. Very sturdy. Combination cycolac and die-cast zinc alloy case. Use indoors or outside — anywhere. Response: 85-15,000 cps. — adjustable to 60-15,000 cps. Output level: −56.5 db. Complete with removable 12' cable and on-off switch. Specify Hi or 150 ohm when ordering. Net price..... **$27.00**

MODEL +50 — Designed for paging applications where long lines between microphone and amplifier are necessary. Remote volume control on the microphone permits instant level adjustment. Dual output impedance. Your choice of 150 or 600 ohms. Die cast satin chrome case contains two stage silicon transistor amplifier and relay switch to control mute on background music amplifiers. Frequency response of 60-10,000 cps., with distortion of less than 1%. Self-contained 9 volt battery. Net price..... **$45.00**

MODEL 58 — A dynamic lavalier microphone that's a natural for any application requiring freedom and mobility — panel shows, interview, sportcasting, etc. Only 4" long. Weight, 3½ oz. Choice of either high or 150 ohms impedance selected at the free end of the cable. Response from 60 to 13,000 cps at high impedance. Output level: −60 db. Net price..... **$34.20**

MODEL 58A — Same as Model 58, but is combination 50 or 200 ohm selected at free end of cable. Net price..... **$34.20**

MODEL P9D — This handy dynamic hand-held or stand microphone is well suited for paging, P.A., amateur and mobile use. Extremely rugged, heavy case. Push-to-talk switch. High or 200 ohms (specify when ordering). 7' cable supplied. Amphenol MC1M (MC2M on 200 ohms) connector in microphone. Output level: −52 db. Dimensions: 2½" x 5" in length x 1¾" in depth. Shipping weight: 2 lbs. Net price..... **$25.50**

MODEL 95D — A dynamic P.A. microphone for use in churches, schools, nightclubs, and high quality recording applications. Complete with 20' cable. Response: 100-10,000 cps. Output level: −58 db. Choice of 200 ohms or high Impedance. Net price..... **$25.50**

MODEL 250 — A dynamic microphone ideal for dispatch, paging, P.A., control tower and amateur use. Wired to operate both relay and mike circuits at a touch. Features on-off push-to-talk and lock switch. Also features Turner's "lift-switch." Response from 60 to 10,000 cps. Output level: −52 db. Complete with single unit satin chrome case and 20 ft. three-conductor (one shielded) cable. Net price..... **$33.00**

MODEL 251 — The Model 251 is the industrial and commercial sound contractors' favorite in the 250 family. Rugged-one piece die-cast case (no other accessories needed), gleaming satin chrome finish — three-way switching and 150 ohm impedance all add up to the paging microphone of the commercial sound industry. Why fuss with grip-to-talk devices when it's so easy to touch the 251's front bar or just simply pick it up? Convenient lock on-off switch, too. Airports, clubs, high schools, reception desks, dining rooms, are all favorite installations of 251 convenience. Comes wired for relay operation, too, with 20' four-conductor (two shielded) cable. Response: 70-10,000 cps. Output level: −52 db. Size is 7¾" high x 5½" in depth. Shipping weight: 4 lbs. Net Price **$33.00**

MODEL 304C — Provides four-in-one versatility to perform as a P.A. or home recording microphone. Accessories include desk stand, lavalier clip and string, and stand adapter. Response: 60-10,000 cps. Output level: −60 db. Net Price **$9.90**

MODEL SR-585D — Dynamic microphone with push-to-talk switch. Designed for fixed mounted applications, this microphone is ideal for grocery call stations, switchboards, paging, dispatching, etc. The switch is line-shorting and is designed to actuate a relay. The switch is a six-terminal slide switch which allows the user to wire anything from DPDT to SPST. The microphone is in a die cast satin chrome housing on a 16" flexarm with a 3 hole mounting flange attached. Impedance is 150 ohms. The cable extends 4' from the base of the mounting flange and is 4-conductor (two shielded). Response from 70 to 12,000 cps. Output level: −58 db. Overall length: 22". Shipping weight: 3 lbs. Net Price **$26.10**

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UNIVERSITY SOUND
A DIVISION OF LTV LING ALTEC, INC.

High Fidelity Component Speakers

SERIES 200 Wide-Range High Compliance Models

Model	Frequency Response (Hz)	Power Capacity (Watts IPM**)	Imp. (Ohms)*	Dimensions (Dia.-Depth)	Shipping Wt. (Pounds)	Net Price
315-C***	25-20,000	50	8-16	15¼"x12"	34½	$167.00
312***	28-40,000	35	8-16	13"x6⅝"	10¼	$ 78.00
6201***	28-18,500	35	8-16	13"x6⅝"	9½	61.80
Diff-12	25-15,000	35	8-16	13"x6⅝"	8¾	42.20
308***	30-17,000	35	8-16	9⅜"x6⅛"	5	44.60
Diff-8	30-15,000	35	8-16	9⅜"x6⅛"	4¾	29.40
M-8	50-12,000	30	8-16	8¼"x2½"	5½	16.00
M-8D	50-15,000	30	8-16	8¼"x2½"	5½	21.80
M-12	35-12,000	30	8-16	12⅜"x3⅞"	7½	19.20
M-12D	35-15,000	30	8-16	12⅜"x3⅞"	7½	26.00
M-12T***	35-40,000	30	8-16	12⅜"x3⅞"	9	35.60
MS	3000-40,000	30	8-16	3⅛"x3-1/16"	1	17.40

*May be used with amplifiers with output impedance of 8 or 16 ohms.

**Integrated Program Material.

WOOFERS, MID-RANGE and TWEETERS

Dual Voice Coil Woofers — High Compliance Models

Model	Frequency Response Hz	Power Capacity (Watts IPM*)	Impedance (Ohms)**	Dimensions (Dia.-Depth)	Shipping Wt. (Pounds)	Net Price
C-15HC	15-800	60	4-20**	15"x8⅛"	24¾	$ 96.20
C-12HC	20-3,000	50	4-20**	13"x6⅞"	9	54.00
C-8HC	20-3,000	30	4-20**	9⅜"x4¼"	7¼	43.20

High Efficiency Models

C-15W	25-1,500	60	4-20**	15⅜"x10½"	26¾	92.00
C-12SW†	30-6,000	30	8-16	13"x6¾"	7¼	43.20
C-8W	50-5,000	25	8-16	8¼"x6⅞"	3	16.40

*Integrated Program Material.

**Impedance Range Depending on Strapping of Voice Coils.

†Equipped with Built-in Crossover Network for 5000, 2500, and 700 cps Crossover

Mid-Range Speakers, Horns and Drivers

C-8M Cone Speaker	500-5,000	50	8	8¼" Dia. x 4" Depth	3	$ 18.20
T-30 Driver*	500-18,000	50	8	3½" Dia. x 3¾" Depth	2¼	33.40
T-50 Driver*	500-20,000	50	8	4¼" Dia. x 4⅛" Depth	5¼	53.20
H-600 Horn	600 cps cutoff			7¾" L. x 8¾" W. x 4¾" D.	1¾	23.80
Cobreflex Horn	350 cps cutoff			10¼" L. x 18½" W. x 9¼" D.	2¼	26.70

*For use with Cobreflex and H-600 horns.

Tweeters

T-202 Sphericon	3,000-40,000	30	4-16	4⅝" x 2¾"	2½	$ 27.00
T-203E & W††	3,000-40,000	30	4-16	6¾" L. x 5¼" W. x 2¾" D.	2¾	27.00
HF-206	3,500-22,000	30	8	6" L. x 3⅜" W. x 6⅜" D.	3½	36.80
4401	2,000-15,000	25	8	6" L. x 2¾" W. x 6⅜" D.	2¼	20.40
UXT-5	4,500-17,500	25	8	4¼" L. x 2½" W. x 4" D.	2¼	23.80

††Models T-203 E & W equipped with case for use outside of enclosure; available in ebony and walnut. Both equipped with built-in crossover network and brilliance control. For use with amplifiers having 4-8-16 ohms outputs.

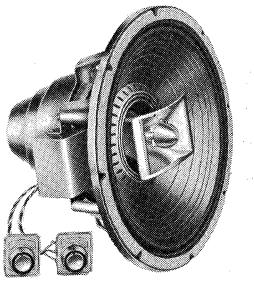
Crossover Networks and Attenuaters

Model	Crossover Frequencies Hz	Impedance (Ohms)	Dimensions (L.xW.xD.)	Shipping Wt. (Pounds)	Net Price
N-1*	1250, 2500, 5000, 10000	4-8-16	3⅝"x3¼"x3"	2	$ 15.00
N-2A	350, 700	4-8-16	3⅝"x3¼"x3"	2½	20.40
N-2B	1250, 2500, 5000	4-8-16	3⅝"x3¼"x3"	2½	15.00
N-3*	350, 700, 5000	8	7"x5"x3"	5¼	34.60
AP-8	L pad for presence and brilliance controls.				4.20

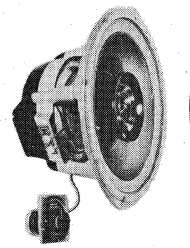
*Model N-1 equipped with built-in brilliance control. N-3 equipped with built-in brilliance and presence controls.

Wide-Range High Compliance Models

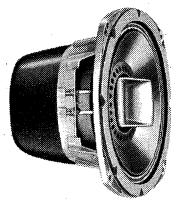
University Series 200 component speakers represent the ultimate in quality and engineering knowhow in the industry. Their high power-handling capacity and ruggedness of construction using modern die-cast baskets and molded seamless cones assures long-life adherence to original performance standards. These speakers are designed for use in any pre-finished or custom built enclosure and may be mounted from either the front or rear of the baffle panel. Where baffle mounting space is at a premium and high quality music reproduction is desired, Series 200 University component speakers are the logical choice for the discriminating music lover or audiophile.



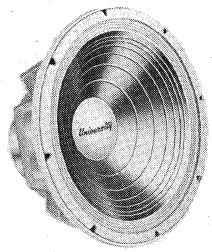
MODEL 315-C
Super 15" 3-Way Diffaxial Speaker



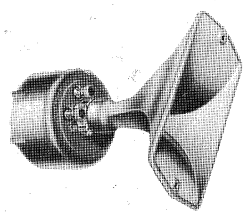
MODEL 312
12" 3-Way Diffaxial Speaker



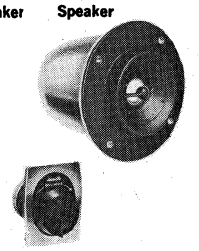
MODEL 308
8" 3-Way Diffaxial Speaker



C-15W



HF-206



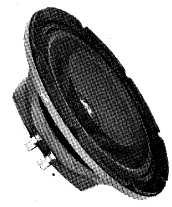
T-202

University MUSTANG Series Thin-Line High Fidelity Component Speakers

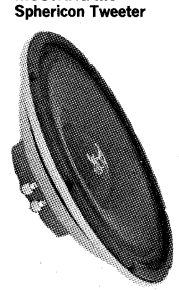
The newest addition to University's line of component speakers—the Mustang Series. These completely new speakers represent the latest engineering development in the industry. As in our Series 200 models, the Mustangs are constructed using strong die-cast baskets and molded seamless cones to assure long life and adherence to original performance. Mustangs are ideal for in-wall mounting for background music systems and home high fidelity installations. For quality sound at an economical price where space is at a premium, choose a Mustang.

MUSTANG MS
Sphericon Tweeter

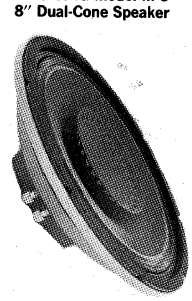
MUSTANG Model M-8
8" Dual-Cone Speaker



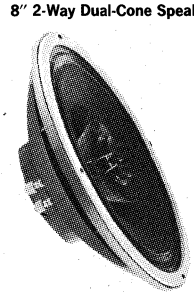
MUSTANG Model M-8D
8" 2-Way Dual-Cone Speaker



MUSTANG Model M-12
12" Dual-Cone Speaker



MUSTANG Model M-12D
12" 2-Way Dual-Cone Speaker



MUSTANG Model M-12T
12" 3-Way Wide-Range Speaker

Net

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UNIVERSITY SOUND

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Drivers

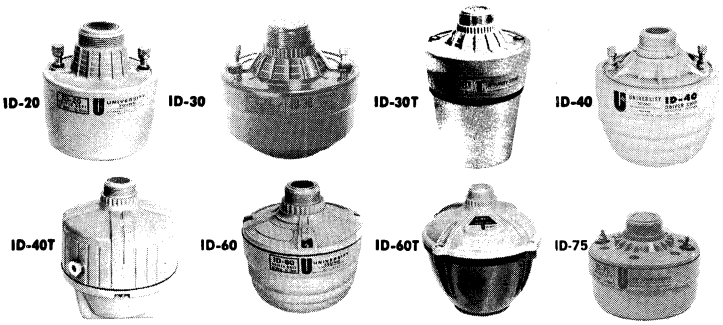
MODEL ID-20 (20 watts) For speech and music systems requiring moderate sound power. Designed to deliver maximum output, the ID-20 is highly efficient, produces a clear, penetrating and distortion-free sound.

MODEL ID-30/ID-30T (30 watts) Exceptional for installations requiring single medium power units or multiple driver/horn combinations. These high quality drivers produce musical balance and speech penetration with a performance superior to higher cost competitive models. Tropicalized voice coil, completely weatherproof. Model ID-30T has a built-in line matching transformer tapped for impedances of 167/335/-500/1000/2000/4000 ohms and 25 and 70 volt power taps at 30/20/10/5/2.5 watts.

MODEL ID-40/ID-40T (40 watts) Extended range, high quality and excellent efficiency produce an essentially uniform response and natural quality of speech and music reproduction. Moderately high power for penetrating through high ambient noise levels. Tropicalized voice coil and fully weatherproofed. Model ID-40T has a built-in line matching transformer tapped for impedances of 45/122/250/500/1000/-2000 ohms and 25 and 70 volt power taps at 40/20/10/5/2.5 watts. ID-40T housing is rugged, die-cast aluminum with dural gland nut water tight cable entrance.

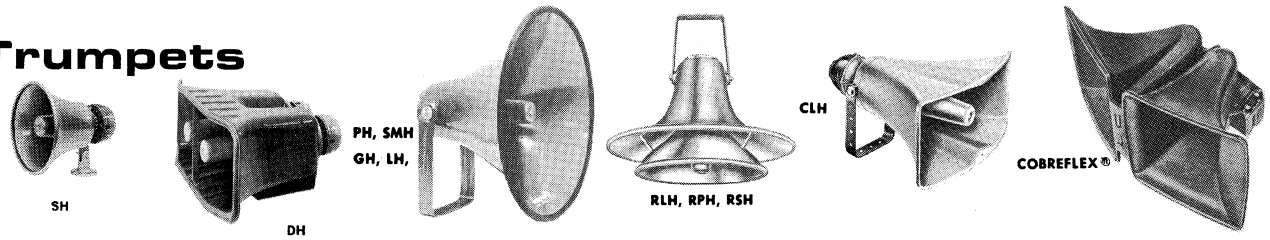
MODEL ID-60/ID-60T (60 watts) A premium high power compression driver. Wide range response, high efficiency and high quality construction for natural speech and music reproduction with maximum penetration in high noise areas. Rugged, weatherproof housing for trouble-free performance in any environmental application. Model ID-60T has high impact cycolac outer case and built-in line matching transformer tapped for impedances of 16/80/165/250/500/1000-/2000 ohms and 25 and 70 volt power taps at 60/30/20/10-/5/2.5 watts.

MODEL ID-75 (75 watts) New, higher power in a compact case. Ideal for both Public Address and electronic siren applications. Peak efficiency, super power for effective penetration into exceptionally high noise areas.



DRIVER MODEL	FREQUENCY RESPONSE	POWER RATING	VOICE COIL IMPEDANCE	DIMENSIONS (Overall)	SHIP. WT.	NET PRICE
ID-20	120-6500 Hz	20 watts	16 ohms	3½" dia. 3¾" d.	2½ lbs.	15.60
ID-30	85-7500 Hz	30 watts	16 ohms	4⅛" dia. 3¾" d.	3 lbs.	18.90
ID-30T	85-7500 Hz	30 watts	variable*	4⅛" dia. 8¾" d.	4 lbs.	27.00
ID-40	80-12000 Hz	40 watts	16 ohms	4½" dia. 4⅞" d.	4¼ lbs.	23.70
ID-40T	80-12000 Hz	40 watts	variable*	5" dia. 6¼" d.	5¼ lbs.	32.40
ID-60	70-12000 Hz	60 watts	16 ohms	4-11/16" dia. 5" d.	5¾ lbs.	32.70
ID-60T	70-12000 Hz	60 watts	variable*	6¾" dia. 6¾" d.	6½ lbs.	40.20
ID-75	150-7000 Hz	75 watts	16 ohms	4¼" dia. 3¾" d.	4½ lbs.	44.70

Trumpets



DIRECTIONAL MODELS GH, LH, PH, SMH For maximum noise penetration and distance of projected sound. Reflex design for highest conversion efficiency. Fully weatherproof, baked finish.

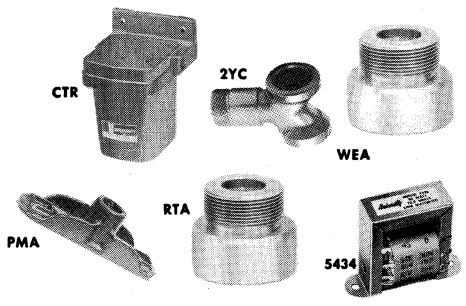
RADIAL MODELS RLH, RPH, RSH For uniform 360° overhead dispersion in high ceiling installations. Rugged construction, baked finish.

WIDE ANGLE COBREFLEX† Patented twin folded exponential horns with two air columns in a single assembly. High efficiency and smooth radiation pattern. Can be used in cluster arrays. Rugged, fully weatherproof.

WIDE ANGLE MODEL CLH† Patented design and construction. Wide angle bell and long air column for maximum low frequency response. Omnidirectional bracket for vertical and horizontal rotation to eliminate feedback and overshoot "dead spots". Can be used in cluster arrays. Rugged fiberglass horn.

HORN MODEL	LOW FREQUENCY CUT-OFF	SOUND DISTRIBUTION	AIR COLUMN LENGTH	DIMENSIONS (Overall) LENGTH	BELL	SHIP. WT.	Net Price
GH	85 Hz	65°	6½ ft.	28"	31"	22 lbs.	49.50
LH	120 Hz	75°	4½ ft.	19"	25¾"	16½ lbs.	29.70
PH	150 Hz	85°	3½ ft.	15¾"	20⅜"	11¾ lbs.	23.70
SMH	200 Hz	95°	2½ ft.	12"	16¼"	8¼ lbs.	20.70
RLH	120 Hz	360°	5 ft.	18½"	28⅛"	25 lbs.	38.40
RPH	140 Hz	360°	4 ft.	13¾"	25⅛"	19 lbs.	31.20
RSH	180 Hz	360°	3 ft.	11"	19"	13 lbs.	29.70
COBREFLEX†	200 Hz	120°x60°	2½ ft.	10¼"	18½"x9¼"	10¼ lbs.	26.70
CLH	120 Hz	120°x60°	4½ ft.	20"	21½"x11½"	13¼ lbs.	29.10
SH	350 Hz	100°	1½ ft.	7"	8¾"	2¾ lbs.	20.70
DH	180 Hz	40°x60°	3¼ ft.	13⅝"	20⅜"x9⅜"	10¾ lbs.	51.00
2WP	350 Hz	120° each horn	1½ ft.	20½"	8½"	4½ lb.	20.70

Accessories



PMA ADAPTER Fits standard ½" dia. threaded pipe to any University "U" mounting bracket—for special applications requiring pipe mounting. Net $2.85

RTA ADAPTER Fits University trumpets to Western Electric and RCA drivers having 1 7/16—16 threads. Shpg. wt., ½ lb. Net $2.25

WEA ADAPTER Fits University drivers to Western Electric and RCA trumpets having 1 7/16—16 threads. Shpg. wt., ½ lb. Net $1.80

MODEL 5433 TRANSFORMER 30 watt capacity. Use with ID-20, ID-30 or to feed a number of smaller paging speakers. Primary impedance: 45/165/200/250/500/1000/2000 ohms. Secondary impedance: 4/8/16 ohms. 70 v. line power taps: 30/25/20/10/5/2.5 watts. Dimensions: 1 15/16" x 2 5/16" x 1¾". Mtg. hole centers: 2⅜". Shpg. wt., 1 lb. Net $5.10

MODEL CTR TRANSFORMER/JUNCTION HOUSING Die cast aluminum. Weatherproof. Houses models 5433, 5434, or other transformers up to 2⅜" x 2⅞" x 2⅞". Adjustable slotted adapter mounts transformers with centers 1½" to 2⅞". Junction box for speaker lines. Bar strap for mounting to "U" brackets. Screws to wall. Also holds University paging speakers. Shpg. wt., 1½ lbs. Net $5.65

2YC CONNECTOR Allows use of two driver units on a single radial, directional, or wide-angle trumpet. Shpg. wt., 1 lb. Net $8.55

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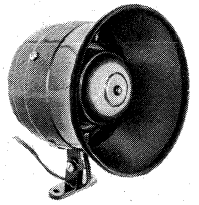
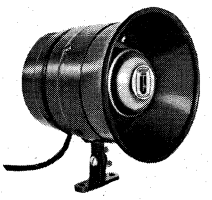
Net

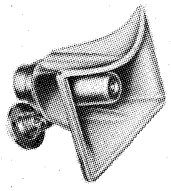
Paging/Talk-Back Speakers


DLC

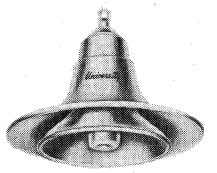

DLCT

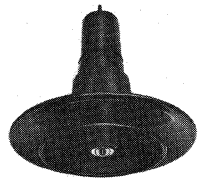
IB-A/MIL-A

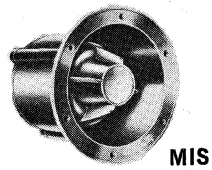
IB-T/MIL-T

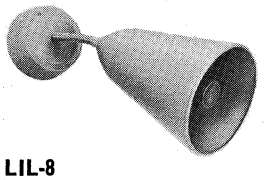

CIB-A/CMIL-A

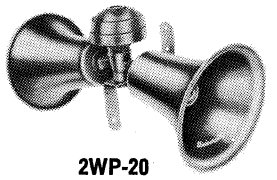
CIB-T/CMIL-T


IBR-A

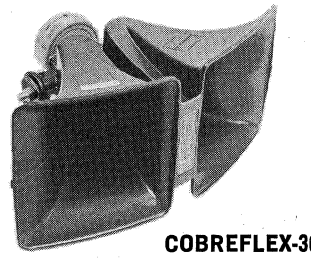

IBR-T


MIS


LIL-8


2WP-20

SH-30


COBREFLEX-30

MODEL	FREQUENCY RESPONSE	POWER RATING (1)	IMPEDANCE (VOICE COIL)	DISPERSION	SOUND PRESSURE LEVEL (6)	SENSITIVITY AS MICRO (7)	DIMENSIONS (8)	SHIPPING WEIGHT	NET PRICE
DLC-8	400-10,000 HZ	7½ w.	8 ohms	120°	104 db	-30 DBM	5⅞" dia. x 4" d. (A)	1¾ lbs.	9.80
DLC-45			45 ohms				5⅞" dia. x 6⅛" d. (A)	2⅔ lbs.	10.30
DLC-T			8 ohms (3)						13.17
IB-A8	250-13,000 Hz	30 w.	8 ohms (2)	105°	126 db	-20 DBM	10¼" dia. x 9" d. (A)	4½ lbs.	21.90
IB-T			8 ohms (4)				10¼" dia. x 11 7/16" d. (A)	5¼ lbs.	27.90
CIB-A8	250-13,000 Hz	30 w.	8 ohms (2)	120°x60°	126 db	-22 DBM	14" w. x 7⅜" h. x 12" d. (A)	6 lbs.	27.60
CIB-T			8 ohms (4)				14" w. x 7⅜" h. x 14½" d. (P)	6¾ lbs.	33.60
MIL-A8	350-13,000 Hz	10 w.	8 ohms (2)	120°	119 db	-23 DBM	7 13/16" dia. x 6⅞" d. (A)	3¼ lbs.	17.85
MIL-T			8 ohms (5)				7 13/16" dia. x 9 13/16" d. (A)	4 lbs.	23.85
CMIL-A	350-13,000 Hz	10 w.	8 ohms (2)	120°x60°	119 db	-26 DBM	9½" w. x 6¼" h. x 8½" d. (P)	4 lbs.	20.25
CMIL-T			8 ohms (5)				9½" w. x 6¼" h. x 10 7/16" d. (P)	4¾ lbs.	26.25
IBR-A8	300-10,000 Hz	30 w.	8 ohms (2)	360°	120 db	-28 DBM	13" dia. x 10¼" d. (A)	5½ lbs.	29.85
IBR-T			8 ohms (4)				13" dia. x 12 11/16" d. (A)	6¼ lbs.	35.85
MIS-8	500-13,000 Hz	5 w.	8 ohms (2)	150°	115 db	-22 DBM	5½" o.d., 4 7/16" d. (P) 6 holes on 4⅞" mtg. dia.	2½ lbs.	20.70
LIL-8	300-10,000 Hz	15 w.	8 ohms	110°	123 db	-27 DBM	6⅞" dia. x 15½" d. (A)	4½ lbs.	26.85
2WP-20	350-6,500 Hz	20 w.	16 ohms	120° each horn	123 db	-25 DBM	8½" dia. x 20½" d. (A)	7½ lbs.	35.85
SH-30T	350-7,500 Hz	30 w.	16 ohms (4)	100°	128 db	-22 DBM	8¾" dia. x 15¼" d. (A)	7¾ lbs.	47.10
SH-30	350-7,500 Hz	30 w.	16 ohms	100°	128 db	-22 DBM	8¾" dia. x 10¼" d. (A)	6¾ lbs.	39.00
Cobre-flex-30	200-7,500 Hz	30 w.	16 ohms	120°x60°	121 db	-20 DBM	13½" x 18½" x 9¼" (A)	14 lbs.	45.00
Cobre-flex-30T			16 ohms (4)				18½" x 18½" x 9¼" (A)	15 lbs.	53.10

1) Capacity in watts IPM (Music Power).

2) Also available in 4 ohm and 45 ohm impedances at 10% additional cost.

3) Voice coil impedance 8 ohms. Integral transformer terminals are labeled in wattage consumed and impedance on 70.7 and 25 volt constant voltage lines. Taps: 7.5/5/2.5/1.25/.65 watts.

4) Voice coil impedance 8 ohms. Integral transformer terminals are labeled in wattage consumed and impedance on 70.7 and 25 v. "constant voltage" lines. Wattage Taps: 30/15/10/5/2.5/1.25 w. Transformer Impedances: 167/335/500/1000/2000/4000 ohms.

5) Voice Coil impedance 8 ohms. Integral transformer terminals are labeled in wattage consumed and impedance on 70.7 and 25 v. "constant voltage" lines. Wattage Taps: 10/7.5/5/2.5/1.25/.65 Transformer Impedances: 500/667/1000/2000/4000/8000 ohms.

6) SPL reading taken 4 ft. on axis with "Full-Range" power input. Reduce by 6db each time distance is doubled. Reduce by 3db if power input is halved; increase by 3db when power input is doubled.

7) DBM re 10 dynes/cm².

8) An (A) after a dimension indicates a horn of spun aluminum with baked-on acrylic paint. A (P) after a dimension indicates a horn of color-impregnated high-impact plastic.

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LISTEN—UNIVERSITY SOUNDS BETTER
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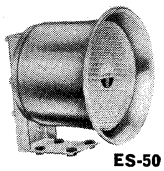
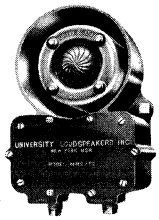
Special Purpose Loudspeakers


ES-50

MM-2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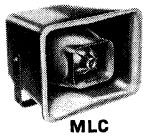
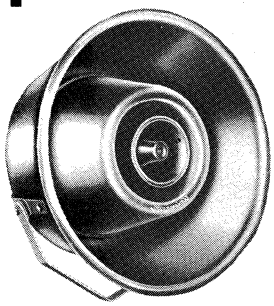
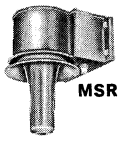

MLC


WLC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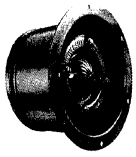
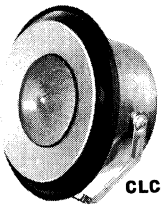

MM-2F

MM-2PPS


CLC

	Frequency Response	Power Rating (1)	Impedance (2)	Dispersion	Sound Pressure Level (3)	Dimensions	Shipping Weight	Net Price
ES-50	250-10,000 Hz	50 watts	16 ohms	120°	123 db	6 13/16" dia. x 6⅞" d.	6¼ lb.	47.85
ES-75	400-7,000 Hz	75 watts	16 ohms	90°	126 db	9½" h. x 8¾" w. x 10" l.	9 lb.	58.50
MSR	250-10,000 Hz	25 watts	16 ohms	360°	114 db	10¾" h. x 6 7/16" w. x 8¼" d.	10¼ lb.	51.00
MSR-T			16 ohms (4)				11¼ lb.	59.85
MM-2	350-10,000 Hz	25 watts	16 ohms	150°	117 db	6" dia. x 5" d.	5¼ lb.	33.90
MM-2F						7¼" dia. x 3¾" d.		34.50
MM-2TC	350-10,000 Hz	25 watts	16 ohms	120°	117 db	10" h. x 6 7/16" w. x 4 7/16" d.	8¾ lb.	52.50
MM-2TC-T			16 ohms (4)				9¾ lb.	59.85
MM-2PPS	100-10,000 Hz	25 watts	16 ohms			7 3/16" dia. x 3 5⁄8" d.	5¼ lb.	44.55
MLC	150-15,000 Hz	15 watts	8 ohms	120°	117 db	12¾" x 9⅛" x 10⅝" d.	10 lb.	37.50
CLC	55-14,000 Hz	30 watts	8 ohms	120°	118 db	22¾" dia. x 12¾" d.	23 lb.	59.70
WLC	50-15,000 Hz	30 watts	8 ohms	90°	120 db	33½" dia. x 20" d.	68 lb.	165.00

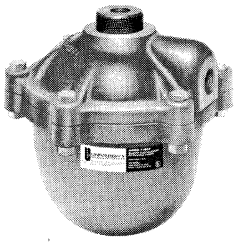
1) Capacity in watts IPM (Music Power).

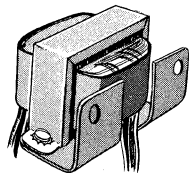
2) Voice coil impedance.

3) SPL reading taken 4 ft. on axis with "Full-Range" power input. Reduce by 6db each time distance is doubled. Reduce by 3db if power input is halved; increase by 3db when power input is doubled.

4 Matching transformer primary impedances: 45/325/500/1000/2000/4000-8000 ohms.

EXPLOSION PROOF DRIVERS




5436B

7101X, 7102X, 7105X are UL approved explosion-proof drivers, for use in 100%-safe systems where flammable liquids, gases, dust, etc., are present. The 7105X is approved for use in hydrogen-air atmospheres. In compliance with Government safety regulations, these units have provisions for mounting a line-matching transformer (optional*). 7101X is approved for Class I, Groups C & D. 7102X is approved for the same, plus Class II, Groups E, F & G. 7105X is approved for Class I, Groups B, C & D and Class II, Groups E, F & G. All units have 16 ohm voice coils. Frequency response is to 12,000 Hz and power capacity is 65 watts. Dimensions are 7⅞" in dia., 7⅜" long. Shipping weight is 14 lb.
These UNIVERSITY explosion-proof drivers may be used with any UNIVERSITY trumpet, but are most often used and recommended for use with the UNIVERSITY SOUND Models PH, SMH and Cobreflex.
* University Model 5436B 65 watt transformer kit is complete with transformer, mounting bracket and hardware for installation inside the explosion-proof driver housing.

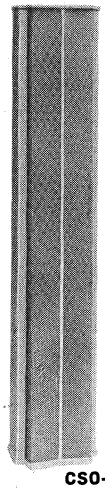
Slim profile 3-way high fidelity speaker

8M2C

8M2CT

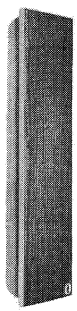
MODEL 8M2C 3-WAY SPEAKER A slim profile multi-speaker for public address and commercial sound applications. High quality, high efficiency performance for background music. Response 50-20,000 Hz. Handles 15 watts of IPM. Model 8M2CT has built-in line matching transformer for 25 and 70 volt lines, tapped for 15/10/5/2.5/-1.25/.65 watts. Only 3" deep. Net $12.60
MODEL 8M2CT Same as 8M2C with transformer. Net $14.97

UNILINE(TM) SOUND COLUMNS


CSO-6

CSO-4

CS-3


CS-2

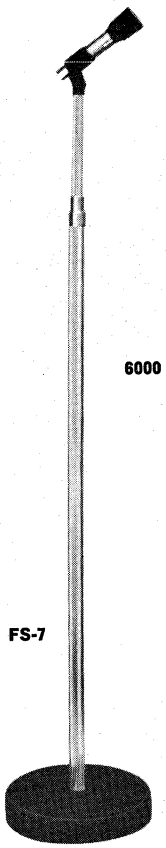
Model	CS-2	CS-3	CSO-4	CSO-6
Speakers	6 wide-range 5"	6-4"x6" Plus 2 Tweeters	2-8" plus 2-8" Dual Cone	4-8" plus 2-8" Dual Cone
Frequency Range	175-12,000 Hz	150-10,000 Hz	70-17,000 Hz	65-14,000 Hz
Power Capacity	30 watts IPM**	25 watts IPM	75 watts IPM	120 watts IPM
Impedance	16 ohms	16 ohms	8 ohms	16 ohms
S.P.L.*	108db	92db	94db	95db
Dispersion Vertical	25°	20°	18°	16°
Dispersion Horizontal	165°	120°	120°	120°
Dimensions	31"x5"x5½"	7½"x8¾"x47⅞"	11⅞"x7¾"x41⅜"	11⅞"x7¾"x60¼"
Shipping Weight	14 lb.	33 lb.	40 lb.	63 lb.
Net Price	59.70	89.70	147.90	195.00

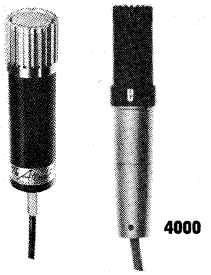
*10 ft. on axis, re .0002 dynes/cm², 1 watt at 1000 Hz

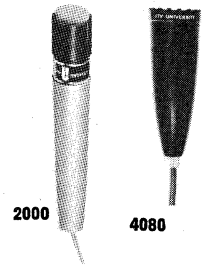
Dynamic Microphones

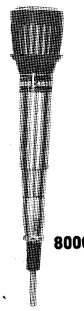
Broadcasting, Recording, Communications and General Purpose Models

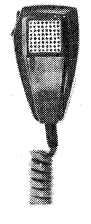
UNIVERSITY'S new series of dynamic microphones embraces every possible need in *the audio field. Widely acclaimed in the industry, each* UNIVERSITY *microphone is designed and engineered to maintain the same exacting quality standards for which* UNIVERSITY *is famous the world over. Each and every* UNIVERSITY *microphone, from the economically priced Model 2000 to the top of the line Model 1050, is covered by* UNIVERSITY'S *exclusive warranty to assure reliable trouble free operation for many years. To own the finest—choose* UNIVERSITY*!*

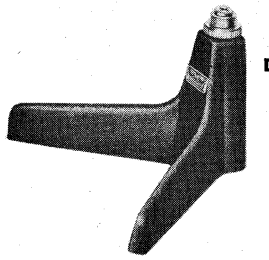


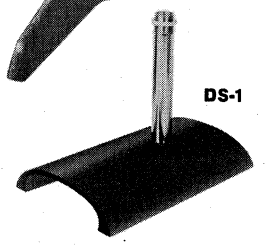


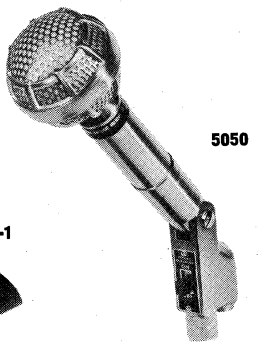












NEW Model 5000 Shock-Mounted Super-Cardioid Dynamic New spherical shaped 5000 Series has a wide-angle pickup pattern with a precise taper characteristic that rejects all unwanted sound at the rear hemisphere of the unit. Rugged die-cast housing. For all applications — soundcasting, broadcasting, recording. 200 and 20,000 ohms. Response from 25 to 20,000 Hz. Output at 200 ohms -54 db/1 mw/10 microbar; at 20,000 ohms 13 mv/10 microbar. 2 3/16" max diameter. 9⅝" max. length. 15' wired-in 2 cond. shielded cable and SA-10 Stand Adapter supplied. Net $51.60

Model 5020 Same as 5000 with detachable 15' cable and Amphenol Connector. Net $56.95

Model 5050 Same as 5000 with swivel stand adapter and 15' detachable cable. Net $59.95

Model 6000 Attache' Cardioid Lavalier The 6000 is the world's smallest cardioid microphone. Its wide-range cardioid pick-up pattern and inconspicuous appearance make it ideal for churches, night club, studio and remote broadcasting applications. It can be used as a lavalier, hand-held, mounted on a desk or floor stand, a boom or gooseneck fixture. Response is 50-15,000 Hz. Low impedance 50-500 ohms. Output at 150 ohms is -57 db/1 mw/10 microbar. 1 1/6" diameter, 3 11/16" long. Supplied with lavalier neck cord, cable. Net Price $39.95

Model 8000 Shock Mounted Cardioid Dynamic Highly directional wide angle pick-up pattern. Shock mounted for on-the-move applications. Ideal for church sound systems, industrial and commercial p.a. systems and home tape recording. Response is 70-15,000 Hz. Impedance 250 and 20,000 ohms. Output at 250 ohms is -60 db/1 mw/10 microbar; at 20,000 ohms is 8.5 mv/10 microbar. 1¾" diameter, 6⅜" long. Equipped with 15', 3 cond. shielded cable and Cannon XLR-4-11-C connector. Supplied with stand adaptor. Net $34.95

Model 8100 Same as Model 8000 with switch. Net $37.95

Model 2000 Omni-directional Dynamic For general soundcasting and recording applications. Omni-directional pick-up pattern is ideal for groups and audience participation programs. Response is 50-14,000 Hz. Impedance 50 and 20,000 ohms. Output at 50 ohms is -50 db/1 mw/10 microbar; at 20,000 ohms is 28 mv/10 microbar. 15' 3 cond. shielded cable is wired-in. 1 5/32" dia., 6" long. With SA-10 Stand Adaptor. Net $26.85

Model 2040 Same as Model 2000 with switch and detachable 15' cable. Cannon Connector. Net $30.60

Model 2050 Same as Model 2000 with switch and swivel stand adaptor, 15' detachable cable and Cannon Connector. Net $33.45

Model 61-V Communications Microphone For mobile communications, mobile p.a. systems and citizens band. 14" coiled (6' extended) 3 conductor cable, push-to-talk switch and panel mounting bracket. Response 95-9500 Hz. High impedance. Output at 25,000 ohms is 18 mv/10 microbar. 4" high by 2¼" wide by 1¾" deep. Net $24.75

Model 1000 Professional Shock Mounted Cardioid Dynamic High quality for broadcast and professional recording applications. Shock mounted with a wide-angle pickup pattern that is highly directional. Broad response from 30 to 16,000 Hz. Impedance selectable — 50, 200 and 20,000 ohms. Output at 50 and 200 ohms is -54 db/1 mw/10 microbar; at 20,000 ohms is 17 mv/10 microbar. 1¾" diameter by 8¾" long. Supplied with 18' 3 conductor shielded cable and Cannon connector with stand adaptor. Net $74.70

Model 1040 Same as Model 1000 with switch. Net $83.70

Model 1050 Same as Model 1000 with switch and swivel stand adaptor. Net $86.55

Model 4000 Professional Omni-Directional Dynamic A premium, high quality omni-directional microphone for professional applications. May be hand-held or worn on a lavalier neck cord. Response 50 to 20,000 Hz. Impedance 50, 200 and 20,000 ohms. Output at 50 and 200 ohms is -55 db/1 mw/10 microbar; at 20,000 ohms is 16 mv/10 microbar. 1⅛" diameter by 5⅛" long. Supplied with lavalier neck cord, clip and 18' of professional broadcast cable. Net $55.95

Model 4040 Same as 4000 but not for lavalier. 6⅞" long with switch and detachable 18' cable and stand adaptor. Net $63.45

Model 4050 Same as Model 4040 with swivel stand adaptor. Net $65.85

Model 4080 Professional Omni-directional Lavalier An ultra-compact version of the 4000 omni-directional dynamic microphone. May be hand held or worn on a neck cord. Lightweight, only 3⅜" long. Response 60 to 20,000 Hz. Impedance 50 and 200 ohms. Output at 50 and 200 ohms is -55 db/1 mw/10 microbar. 1¼" diameter, 3⅜" long. Supplied with lavalier neck cord, 18' shielded cable. Net $54.90

MICROPHONE STANDS

Model DS-10 Desk Stand Heavy base sculptured stand may be used with any microphone. Standard ⅝-27 NPSM thread. 4½" high x 7⅞" wide x 4⅝" deep. Black wrinkle finish. Net $7.65

Model SA-10 Slide-on Stand Adaptor. Net $2.85

Model DS-1 Desk Stand Contemporary design, slim profile desk stand with extruded aluminum base in black oxide finish. Perfectly balanced, will hold large microphones. Standard ⅝-27 thread. 6"x4"x 3¾". Knurled locking washer. Net $2.85

Model FS-7 Floor Stand A new concept in microphone stands. New fluted tubes are easy to adjust. Doesn't show hand marks, won't slip. Velvet action movement of upper tube, no twisting or turning. Positive lock clutch, jam-free one hand operation. Non-reflecting finish. Adjustable from 34" to 63". Black wrinkle base weighs 7 pounds and is 10" diameter. Natural satin fluted aluminum. Net $8.95

Model FS-7B Blue Anodized. Net $9.60

Model FS-7G Gold Anodized. Net $9.60

Model FS-10 Floor Stand Same as Model FS-7 except for 10 pound, 12" diameter base. Natural fluted aluminum. Net $10.75

Model FS-10B Blue Anodized. Net $11.35

Model FS-10G Gold Anodized. Net $11.35

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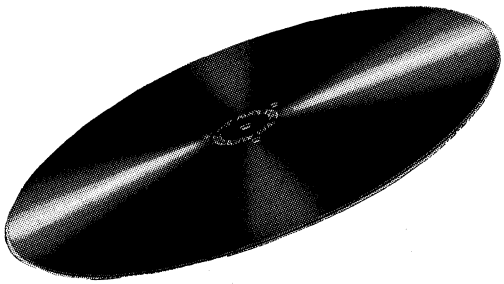

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For more than 25 years, Audiodiscs have consistently maintained their position of eminent leadership in every field of instantaneous disc recording.

A superior lacquer coating, applied to the mirror-smooth aluminum base by a patented process, gives these outstanding advantages: maximum uniformity of coating, permanent resistance to humidity, longer stylus life, freedom from audible background scratch, long playback life, brilliant frequency response, and freedom from deterioration with age.

DESCRIPTION	Size Inches	Suggested Resale	Carton Contains
RED LABEL AUDIODISCS — *double face only* Standard throughout the recording profession, these discs exceed the most exacting requirements for top quality and dependability. The finest discs obtainable. Aluminum base, double-sided. Embossed labels.	7*	$1.46	25
	8	1.08	25
	10	1.39	25
	12	2.97	25
YELLOW LABEL AUDIODISCS The popular choice for all general purpose recording which requires high, uniform quality. Aluminum base, double-sided. Designed primarily for applications where the super quality Red Label AUDIODISCS are not required. Paper labels.	7*	1.33	25
	8	1.00	25
	10	1.20	25
	10**	1.90	25
	12	2.53	25
BLUE LABEL AUDIODISCS These discs offer the very best in recording quality at a low price for schools, homes, amateur and demonstration work. Made of the same materials as professional type AUDIODISCS — but on a thinner aluminum base. Paper labels.	6½	.51	50
	8	.76	50
	10	1.01	50
MASTER AUDIODISCS—*single face only* Where copies of recordings (pressings) are to be made by the electroplating process, these discs are the outstanding choice. Their excellence and consistent quality are well known to all record processors. Fine results with either silvering or gold sputtering. Aluminum base. Center pin and one drive pin hole. Also available with center hole only.	10	2.78	25
	12	3.16	25
	13¼	4.68	25
	14	5.00	25

***Standard 45 rpm disc with 1½" diameter center hole. Also available with conventional center hole. To specify, indicate "Small Center Hole" on orders.**
All Prices Subject to Change Without Notice.
****Supplied with extra heavy base.**

audiopoints

The complete line of Audiopoints covers the full range of recording needs — for professional as well as general use. Audiopoints are made by skilled Craftsmen, and conveniently packaged in cards, boxes or envelopes.

RECORDING AUDIOPOINTS

SAPPHIRE No. 14 — long recognized as the finest recording stylus made. Short or long dural shank, 87° included angle.
Suggested Resale $5.34

SAPPHIRE No. 20 — especially designed for professional microgroove recording. Short or long dural shank. **Suggested Resale $5.34**

STELLITE No. 34 — a favorite with many professional and non-professional users. Short or long shank. 87° included angle.
Suggested Resale $1.74

Shipments: Freight will be paid anywhere in the U.S.A. on shipments of 100 lbs. or more. All other shipments are F.O.B. Stamford, Conn. or N.Y.C.

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THE COMPLETE LINE OF PROFESSIONAL QUALITY audiotape TRADE MARK

Description	Type No.	Length	Reel†	Suggested Resale
STANDARD RECORDING on plastic base Meets the most exacting requirements of the professional, educational and home recordist at minimum cost. Known the world over for its matchless performance and consistent uniform quality. **Formula 10, in the red box.**	151	150 ft.	3" Plastic Reel	$0.42
	151MB	150 ft.	3" Plastic Reel in Mailing Box	0.42
	351	300 ft.	4" Plastic Reel	0.81
	651	600 ft.	5" Plastic "C-Slot" Reel	1.35
	851	850 ft.	5¾" Plastic Reel	1.77
	1251	1200 ft.	7" Plastic "C-Slot" Reel	2.10
	2551H	2500 ft.	NARTB Hub	4.71
	2551R	2500 ft.	10½" Aluminum Reel	6.48
	‡2551FS	2500 ft.	10½" Fiberglass Reel	6.48
	5051H	5000 ft.	NARTB Hub	8.64
	5051R	5000 ft.	14" Aluminum Reel	12.81
audiotape **LONGER RECORDING on 1 mil Mylar*** **50% more recording time** per reel. The strong, super-durable polyester film base assures trouble-free operation even under severe conditions of heat and humidity. **Formula 10, in the orange box.**	261	225 ft.	3" Plastic in Self-Mailer Pkg.	0.60
	961	900 ft.	5" Plastic "C-Slot" Reel	2.16
	1261	1200 ft.	5¾" Plastic Reel	2.49
	1861	1800 ft.	7" Plastic "C-Slot" Reel	3.72
	3661H	3600 ft.	NARTB Hub	6.84
	3661R	3600 ft.	10½" Aluminum Reel	8.61
	‡3661FS	3600 ft.	10½" Fiberglass Reel	8.61
	7261H	7200 ft.	NARTB Hub	14.40
	7261R	7200 ft.	14" Aluminum Reel	18.00
audiotape **LONGER RECORDING on 1 mil plastic** **50%** more recording and playback time on low-cost 1-mil cellulose acetate base, affording maximum economy for applications where high strength is not required. **Formula 10, in the blue box.**	941	900 ft.	5" Plastic "C-Slot" Reel	2.10
	1241	1200 ft.	5¾" Plastic Reel	2.25
	1841	1800 ft.	7" Plastic "C-Slot" Reel	3.30
	3641H	3600 ft.	NARTB Hub	5.91
	3641R	3600 ft.	10½" Aluminum Reel	7.68
	‡3641FS	3600 ft.	10½" Fiberglass Reel	7.68
	7241H	7200 ft.	NARTB Hub	11.04
	7241R	7200 ft.	14" Aluminum Reel	15.21
audiotape **DOUBLE RECORDING on ½ mil Mylar*** **Twice as much** recording time per reel as standard plastic-base tape. Suitable for extended-play applications where tape tension is not excessive. **Formula 10, in the tan box.**	331	300 ft.	3" Plastic Reel	0.82
	1231	1200 ft.	5" Plastic "C-Slot" Reel	2.10
	1831	1800 ft.	5¾" Plastic Reel	3.00
	2431	2400 ft.	7" Plastic "C-Slot" Reel	3.90
audiotape **DOUBLE RECORDING on "Tempered" Mylar*** **Twice as much** recording time per reel as standard plastic-base tape, and is twice as strong as other double-length tapes. Will not stretch or break on any tape recorder — will not dry out or embrittle with age. **Formula 10, in the maroon box.**	331T	300 ft.	3" Plastic in Self-Mailer Pkg.	0.96
	1231T	1200 ft.	5" Plastic "C-Slot" Reel	3.27
	1831T	1800 ft.	5¾" Plastic Reel	4.05
	2431T	2400 ft.	7" Plastic "C-Slot" Reel	5.70
	4831T-R	4800 ft.	10½" Aluminum Reel	13.20
	‡4831T-FS	4800 ft.	10½" Fiberglass Reel	13.20
audiotape **STANDARD RECORDING on 1½ mil Mylar*** A premium-quality professional tape that provides the utmost in mechanical strength and immunity to temperature and humidity. Will not dry out or embrittle with age. **Formula 10, in the green box.**	671	600 ft.	5" Plastic "C-Slot" Reel	1.59
	1271	1200 ft.	7" Plastic "C-Slot" Reel	2.55
	2571H	2500 ft.	NARTB Hub	4.98
	2571R	2500 ft.	10½" Aluminum Reel	6.72
	‡2571FS	2500 ft.	10½" Fiberglass Reel	6.72
	5071H	5000 ft.	NARTB Hub	9.99
	5071R	5000 ft.	14" Aluminum Reel	14.70
audiotape **MASTER RECORDING on Plastic Base** The finest, professional-quality recording tape. Base material 1½-mil acetate. Maximum fidelity, uniformity, frequency response and freedom from noise and distortion. . . . **Plus low print-through. Formula 14, in red and gold box.**	651-M	600 ft.	5" Plastic "C-Slot" Reel	1.65
	1251-M	1200 ft.	7" Plastic "C-Slot" Reel	2.58
	2551H-M	2500 ft.	NARTB Hub	5.55
	2551R-M	2500 ft.	10½" Aluminum Reel	7.32
	‡2551FS-M	2500 ft.	10½" Fiberglass Reel	7.32
	5051H-M	5000 ft.	NARTB Hub	10.17
	5051R-M	5000 ft.	14" Aluminum Reel	14.34
audiotape **MASTER RECORDING on 1½ mil Mylar*** Super-durable tape that meets highest standards of performance. Withstands extreme temperature and is virtually immune to humidity. . . . **Plus low print-through. Formula 14, in the green and gold box.**	671-M	600 ft.	5" Plastic "C-Slot" Reel	1.92
	1271-M	1200 ft.	7" Plastic "C-Slot" Reel	3.06
	2571H-M	2500 ft.	NARTB Hub	6.00
	2571R-M	2500 ft.	10½" Aluminum Reel	8.10
	‡2571FS-M	2500 ft.	10½" Fiberglass Reel	8.10

†COLORED PLASTIC REELS. Audiotape on 5" and 7" reels can be supplied on colored reels at no increase in price. To designate color (Red, Yellow, Green or Blue) add "RR" and "YR", and "GR" or "BR" to Type No. E.g. — Type 1251YR covers 1200 feet of plastic-base tape on Yellow Reel.

‡"FS" in Type No. indicates Fiberglass reel with solid hub and 5/16" center hole.

*"Mylar" is the registered DuPont trade mark for its polyester film.

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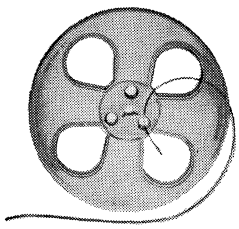
Description	Type No.	Length	Reel	Sug. Resale
audiotape **TRIPLE RECORDING on "Tempered" Mylar***	633T	600′	3¼″ Plastic in Self-Mailer Pkg.	$1.77
Three times as much recording time per reel as standard-plastic-base tape, plus the same extra strength as other "Tempered" Mylar Audiotapes. **Formula 11, in the olive box.**	1833T	1800′	5″ Plastic "C-Slot" Reel	4.17
	3633T	3600′	7″ Plastic "C-Slot" Reel	7.17
audiotape **LOW NOISE on 1½-mil Plastic Base**	1257	1200′	7″ Plastic "C-Slot" Reel	$2.58
An excellent Low Noise tape providing high signal to noise ratio and drastically lowered hiss level without sacrificing other properties needed for critical professional recording. **On 1½-mil Plastic Base, Formula 15 in the Red Box.**	2557H	2500′	NARTB Hub	5.55
	2557R	2500′	10½″ Aluminum Reel	7.32

OTHER **AUDIOTAPE** ITEMS

EMPTY AUDIOTAPE REELS IN INDIVIDUAL BOXES

All Audiotape reels, the complete range of sizes and types, are available, individually packaged in standard Audio boxes. Five and seven-inch reels feature the popular C-slot design for fast, easy threading. In addition to the standard clear plastic, C-Slot reels are available in four attractive jeweltone colors, at no extra cost.



Item		Type No.	Reel	Sug. Resale
	Standard Reels	3PMB	3″ Plastic Reel in Mailing Box	$0.15
		3.25PB	3¼″ Plastic Reel in Mailing Box	0.24
		4PB	4″ Plastic Reel in Box	0.33
		5PB	5″ Plastic C-Slot Reel in Box	0.39
		7PB	7″ Plastic C-Slot Reel in Box	0.45
		10RB	10½″ Aluminum Reel in Box	2.70
		10FS	10½″ Fiberglass Reel in Box	2.70
		10H	NARTB Metal Hub	0.45
		10S	Pr. 10½″ Alum. Flanges (NAB) w. screws	2.28
		14RB	14″ Aluminum Reel in Box	5.23
	Colored Plastic Reels	5PBR	Red — 5″ Plastic C-Slot Reel in Box	0.36
		5PBY	Yellow	
		5PBG	Green	
		5PBB	Blue	
		7PBR	Red — 7″ Plastic C-Slot Reel in Box	0.45
		7PBY	Yellow	
		7PBG	Green	
		7PBB	Blue	

* "Mylar" is the registered DuPont trade mark for its polyester film.

Audiotape Accessories

Items	Type No.	Suggested Resale
EMPTY AUDIOTAPE BOXES Standard, durably-constructed, Audiotape boxes are available in all the popular sizes for filing and storing tapes.	3B	$0.09
	3MB	0.09
	3.25B	0.09
	4B	0.12
	5B	0.12
	7B	0.12
	10B	0.45
	14B	0.60
AUDIOTAPE CORRUGATED MAILING BOXES Strong, re-usable containers	5M	0.09
	7M	0.12
	10M	0.18
AUDIO SELF-TIMING LEADER TAPE A strong, durable leader tape of white Mylar* material with spaced markings to permit accurate timing of leader intervals.	3L	0.33
AUDIO SPLICING TAPE Unusually durable pressure-sensitive tape that provides a solid, noise-free splice. White thermosetting adhesive holds firmly and instantly, will not ooze to cause sticky splices. On superior-strength Mylar.*	ST-0.25-66	0.35
	ST-0.50-100	0.39
	ST-50-66	1.05
	ST-75-66	1.50

Items	Type No.	Suggested Resale
AUDIO HEAD CLEANER Especially formulated for use on magnetic recording heads. Contains silicone solvent for sharper sound.	2HC	$0.60
AUDIO ADHESIVE REEL LABELS Provide positive identification of your tapes, right on the reel. Simply press to apply, pull to remove.	30AL	0.12
AUDIO HEAD DEMAGNETIZER Removes all permanent magnetism from recording and reproducing heads in a matter of seconds.	400	6.00
AUDIO HEAD ALIGNING TAPE Pre-recorded at 2,000, 10,000 and 15,000 cps (15″/sec) with precisely correct head alignment. Individually boxed, with instructions. Base material, 1½-mil Mylar.*	200	6.00
"HOW TO MAKE GOOD TAPE RECORDINGS" — NEW STEREO EDITION Complete handbook of tape recording. Over 160 pages of interesting information of practical value to every recordist. Liberally illustrated.	15P	1.10

Type EP AUDIOTAPE, extra precision magnetic recording tape for telemetering, electronic computers and other specialized applications, is also available. Ask for bulletin on EP AUDIOTAPE.
AUDIOFILM on 35mm, 17½mm and 16mm base, is also available. Ask for information.

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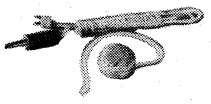
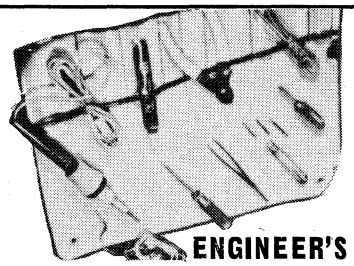
audiotex Hi Fi & Stereo ACCESSORIES

PHONO ACCESSORIES



MINIATURE EARPHONE

For private listening to radios, TV, and hi-fi. Electro-dynamic type with frequency range 50-4000 cps. Lightweight metal clip holds phone to either ear.
Cat. No. 30-154 15 ohm List 2.95
Cat. No. 30-156 2000 ohm List 2.95



ENGINEER'S HI-FI SERVICE TOOL KIT

Heavy duty plastic pouch contains miniature-tip soldering iron; precision tweezer neolite circuit tester; phono & recorder oil; set of jeweler's screwdrivers; Phillips screwdriver; miniature screw holding screwdriver; wire stripper and cutter and solder.
Cat. No. 30-244 List 16.50

PHONO AND RECORDER OIL

Specially compounded non-gumming oil in handy plastic drop-by-drop applicator. Contains rust inhibitor.
Cat. No. 30-250 List .65

FM INDOOR ANTENNA

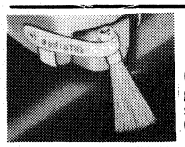
Folded Dipole for local or strong locations. Comes ready to install with 6' lead wire and spade lug.
Cat. No. 30-270 List 2.10

VIBRATION PADS

Resilient pads made of foam plastic and sponge rubber. Laminations reduce rumble, minimize feedback, and protect cabinets. Four available sizes to fit wide variety of units.
Cat. No. 30-162 Size 6" x 12" List .90
Cat. No. 30-166 Size 12" x 12" List 1.60
Cat. No. 30-168 Size 13" x 16" List 2.25

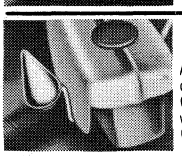
HI-FI DECALS

Jumbo assortment of attractive labels. Includes identification tabs for controls, cabinets, chassis parts and remote control devices.
Cat. No. 30-314 List 1.85



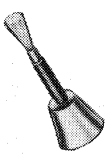
RECORD BRUSH

Camel hair brush clips on tone arm; sweeps grooves while record is playing. Adjustable swivel permits use with any record player.
Cat. No. 30-000 List .67



ATOMIC STAT-ELIM

Anti-static dust eliminator drains static charge by ionizing air surface of record. Contains mildly radio-active element; lightweight holder attaches to tone arm.
Cat. No. 30-002 List 3.95



STYLUS BRUSH

Automatically cleans stylus each time tone arm is moved from rest position. Self-adhesive bottom attaches to turntable; adjustable.
Cat. No. 30-004 List 1.40

ALL PURPOSE HI FI BRUSH

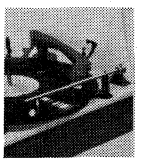
Gently remove harmful dust and dirt from valuable equipment with this soft nylon bristle brush with 4" handle
Cat. No. 30-005 (pack of 2) ..... List 1.08

RECORD SPRAY STATI-KLEER WITH SILICONE

Cleans destaticizes and lubricates in one easy operation. Just spray on and wipe off. Cleans and lubricates all plastic records. One application eliminates harmful dirt and dust in record grooves for hours and hours.
Cat. No. 30-007 List 1.80

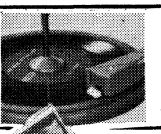
RECOR-DE-STAT KIT

Cleaner, pad and brush. Velvet pad applicator fibers reach bottom of record grooves. Anit-static detergent cleans records; leaves dust-repelling film.
Cat. No. 30-010 List 2.00



DUST OFF

Record cleaner and static eliminator. Applies cleaning fluid, brushes dirt from grooves, picks up loosened dirt, eliminates static charge while record is playing.
Cat. No. 30-013 Player model List 4.95
Cat. No. 30-016 Fluid refill List 1.95
Cat. No. 30-018 Plush pad replace. List 1.40



45 RPM RECORD ADAPTOR

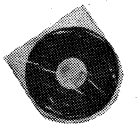
Plastic adaptor slips over standard spindle to play any 45 RPM disc.
Cat. No. 30-034 List .25

DISK-O-KLEEN

Silicone treated record cleaning cloth eliminates static charge; has extra length nap to reach bottom of grooves.
Cat. No. 30-022 List 1.40

KLEEN-O-RECORD

Anti-static record cleaning cloth, silicone impregnated, cleans, lubricates and destaticizes records.
Cat. No. 30-024 List .75



RECORD SAVERS

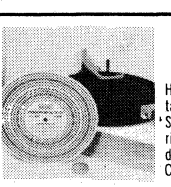
Heavy duty polyethelene envelopes protect records when not in use. Pkg. of 15.
Cat. No. 30-060 Pack of 6, 10" List .49
Cat. No. 30-062 Pack of 5, 12" List .55
Cat. No. 30-064 Pack of 15, 12" List 1.00

45 RPM RECORD INSERTS

Plastic snap-in inserts adapt large hole 7" records for play on 3 speed changers. Spring-like construction holds insert firmly in place.
Cat. No. 30-030 Pkg of 5. List .25
Cat. No. 30-031 Pkg. of 10 List .50

TURNTABLE RECORD CUSHIONS

Thick plastic sponge cushions eliminate record slip, reduce magnetic pull, prolong record life.
Cat. No. 30-040 10" List 1.00
Cat. No. 30-042 12" List 1.25



TURNTABLE RUBBER MAT KIT

Heavy rubber mat fits any 12" turntable. Has tapered ridges 7", 10", and 12" in diameter. Supports any size record by its blank outside rim, keeping grooves from touching. Strobe disc and 45 RPM adaptor included.
Cat. No. 30-044 List 5.25

TONE ARM LIFT

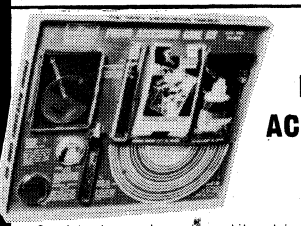
Provides precise control of tone arm. Made of spring metal, plastic coated; attaches to tone arm.
Cat. No. 30-066 List .35

RECORD TONE ARM LIFT AND BRUSH KIT

Kit fits all tone arms. Fine camels hair brush cleans records as they play. Tone arm lift is the only sure way to lift or place arm on records.
Cat. No. 30-068 ..... List 1.00

45 RPM RECORD REPEATERS

Automatically plays favorite records again. One disc placed on top of records will use record to play twice; 2 discs - 3 times.
Cat. No. 30-036 (pack of 6) ..... List .97



PHONO ACCESSORY KIT

Complete phono and record care kit contains record brush, recor-de-stat, 12" record savers, tone arm lift, stylus microscope, stylus weight gauge, strobe disc, and phono and recorder oil.
Cat. No. 30-098 List 9.95

AUDIOTESTER TEST RECORD

12" plastic LP has stereo tests on Side 1; mono on Side 2. Side 1: metronome balance, pickup alignment, channel separation, frequency response. RIAA equalization, turntable rumble. Side 2: stylus wear, frequency response, RIAA equalization, IM distortion, turntable rumble, tone arm resonance.
Cat. No. 30-200 List 4.98

RECORD STYLUS MICROSCOPE

Economy model for examination of stylus condition. Ample magnification - for occasional or limited usage.
Cat. No. 30-216 ..... List 1.25

STYLUS MICROSCOPE

Optical instrument for checking stylus wear. Has adjustable focus and magnifying power of 50. Complete with pen-type pocket clip.
Cat. No. 30-218 List 2.50

UHF GOLD LOOP ANTENNA

An attractive antenna for indoor use in primary signal areas Plastic base; gold color antenna. Complete with wire leads.
Cat No. 32-310 ..... List 2.66

UHF GOLDEN HALO ANTENNA

Decorator styled Indoor TV Antenna. Plastic base; gold color antenna. May be orientated for best reception. Complete with wire leads.
Cat. No. 32-312 ..... List 2.66

Trade Discount Applies To List Prices Only
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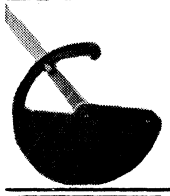
audiotex Hi Fi & Stereo ACCESSORIES

PHONO ACCESSORIES

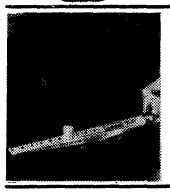
TAPE PHONO NON SLIP COMPOUND

Applied to phono/tape drive wheels and belts, this chemical prevents slippage, insures uniform speeds With brush applicator in cap
Cat. No. 30-121. . . . . List **1.00**



STYLUS WEIGHT GAUGE

Accurately gauges correct stylus pressure.
Cat. No. 30-220 List **2.80**

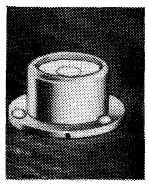


DECI-GRAM STYLUS PRESSURE GAUGE

1 to 10 gram pressure gauge measures stylus pressure within 1/2 gram. DECI-GRAM is built to close tolerances for years of service.
Cat. No. 30-222 List **1.03**

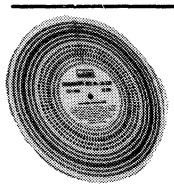
PHONO LEVEL KIT

Includes bubble-type phono level and four adjustable feet for balancing of any phonograph or turntable.
Cat. No. 30-226 List **3.25**



PHONO LEVEL

Bubble-type gauge for precise measurement of phonograph level. Accurate to better than 1 degree.
Cat. No. 30-224 List **2.50**

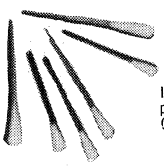


STROBE DISC

New design shows not only correct speed but also 2% and 4% deviations.
Cat. No. 30-228 Cardboard List **.55**
Cat. No. 30-230 Plastic List **1.65**

TAPE HEAD PRESSURE PADS

May be cut to desired size Package contains 4 pads; 2-1/4" x 1-3/16", in both 1/16" and 3/32" thickness.
Cat. No. 30-119. . . . . List **.99**



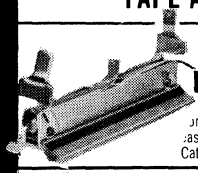
CLEAN STIKS

Ideal for cleaning/lubricating hard-to-reach places. Cotton tipped - package of 100.
Cat. No. 30-127. . . . . List **.98**

TAPE CLEANING CLOTH

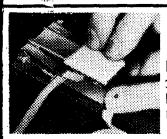
Impregnated with anti-static agent - repels dust. Silicone in cloth lubricates tape to reduce abrasive friction.
Cat. No. 30-026. . . . . List **1.00**

TAPE ACCESSORIES



TAPE SPLICER EZE SPLICE MODEL

or fixing broken tape and editing. Provides easy-to-repair mitre cut.
Cat. No. 30-100 List **2.75**

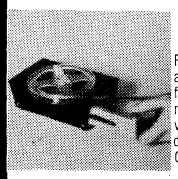


TAPE SPLICER STANDARD MODEL

Easy to use, precise cutter/splicer with pair of curved cutting blades. Leaves tape edges free of adhesive. For use with any 1/4" tape.
Cat. No. 30-104 List **7.95**

TAPE RECORDER STROBE

Tests accuracy and consistency of recorder speed Tests speed of 7-1/4 and 3-3/4 IPS. Compact, easy to use. Instructions included
Cat. No. 30-234. . . . . List **5.95**



TAPERASER

Removes all traces of signal and noise from audio tapes and 16 or 35 mm magnetic sound film. Powerful erase action (to -52 db) lowers residual noise level below that of some virgin tape. Erases tape on reels up to 10½" diameter.
Cat. No. 30-114 List **33.00**

LANGUAGE LAB ACCESSORY AND SERVICE KIT

Includes tape and record labels, splicing tape, tape threading leader, Hi-Fi service tool kit, tape strobe, head cleaner, head lubricant, kleen-tape, head demagnetizer, and a standard model tape splicer.
Cat. No. 30-099 List **54.95**

HEAD-DEMAG TAPE HEAD DEMAGNETIZER

Safely removes all trace of magnetism from recording heads. Curved, flat tip is plastic-covered. Reaches most heads with cover left on; on-off switch eliminates unplugging when device is not in use.
Cat. No. 30-112 List **12.10**

TAPE END CLIPS

Stops straying tape ends. Reusable plastic clip, works with any reel.
Cat. No. 30-116 Pkg. of 18 List **.60**

REEL-NEAT TAPE CLIPS

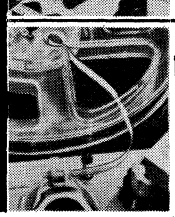
Works on full or partially full reels. Keep tape neatly wound for convenience in storage. Snap-on clips, fit any reel. Made of non-magnetic stainless steel. Fits snugly on wheel. Package of 5.
Cat. No. 30-130 List 1.25

TAPE AND RECORD LABELS

36 pressure-sensitive 1/2" x 2" labels provide handy index to the music library. Space for title, date, and number.
Cat. No. 30-118 List .45

TAPE CUEING LABELS

Color coded, pressure-sensitive numbered tabs for marking selections anywhere on a tape. Package contains five sheets, six tabs to a sheet, and includes identification labels for the reel or box.
Cat. No. 30-120 List **1.65**



TAPE THREADING LEADER

Can be written on for quick identification. 100' spool of durable, ¼" tape for splicing and preventing wear on tape ends. Brightly colored for easy recognition.
Cat.No. 30-134 . . . . . List $1.25

DELUXE TAPE SPLICER

With built in splicing tape dispenser. Cuts and splices tape automatically. Holds any size splicing tape.
Cat. No. 30-106. . . . . List **8.95**

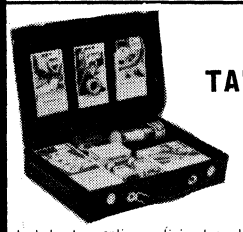
KLEEN-TAPE

30' of specially impregnated cloth tape on 3" reel for cleaning tape heads. "Plays" through any standard tape recorder in less than 2 minutes. Pat. No. 3008852
Cat. No. 30-126 List 2.21

SPLICING TAPE

For use with any tape splicer. Special cold setting, non-flowing adhesive on Mylar* base Available in 3 widths on 100" spools.
Cat. No. 30-110 1/2" tape List **.50**
Cat. No. 30-111 3/4" tape List **.75**
Cat. No. 30-113 3/8" tape List **.45**

*TM of DuPont

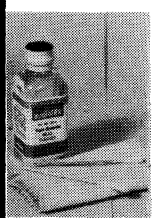


TAPE RECORDER CARE KIT

Includes tape splicer, splicing tape, head cleaner and lubricant, reel holders, end clips, cleaning brush and swabs, cleaning cloth, tape cueing and indexing labels Plastic container
Cat No 30-125. . . . . List **14.95**

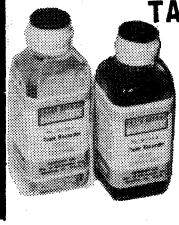
TAPE HEAD CLEANER SPRAY

Simply spray tape heads - wipe dry. Remove harmful dust, dirt, grease Will not harm finished surfaces. 6 oz can.
Cat. No. 30-128. . . . . List **2.95**



TAPE CARE KIT JR.

Contains 2 oz. bottle of recorder head cleaner, cotton swabs and cleaning cloth. Leaves a light protective film on tape head
Cat. No. 30-129. . . . . List **1.60**



TAPE HEAD CLEANER AND LUBRICANT

For cleaning and lubricating tape heads. Removes harmful dirt and grease. Lubricant contains silicone. Stops tape squeel reduces friction. Tapes last longer, give better fidelity.
Cat. No. 30-124-1 2 oz. cleaner List **1.00**
Cat. No. 30-124-2 2 oz. lubricant List **1.00**

BURGESS

SECTION 1340

MAGNETIC RECORDING TAPE

by the makers of BURGESS BATTERIES

40 years of successful developments in acoustics, coatings and coating processes, and solid state physics have enabled Burgess engineers to produce a superlative magnetic tape characterized by these quality features . . .

- SUPERB FREQUENCY RESPONSES
- LOW NOISE LEVEL • HIGH SENSITIVITY
- UNIFORM, TROUBLE-FREE PERFORMANCES ASSURED BY BURGESS QUALITY CONTROL

BURGESS NUMBER	TAPE LENGTH	REEL SIZE	†SUGG. DEALER PRICE	LIST PRICE	DESCRIPTION
111-1.5	150′	3″	$ .42	$ .70	**SERIES NO. 111** 1.5 mil ¼″ ALL-PURPOSE PLASTIC — 1.5 mil cellulose acetate for all general recording needs. Recognized throughout the recording industry as perfect for flawless recordings at minimum cost. The popular standard series tape.
111-2.5	250′	3¼″	.75	1.25	
111-3	300′	4″	.81	1.35	
**111-6	600′	5″	1.35	2.25	
111-8.5	850′	5¾″	1.71	2.85	
**111-12	1200′	7″	2.10	3.50	
111-24R	2400′	10½″ M	6.54	10.90	
111-24H	2400′	10½″	5.10	8.50	
111-24RPS	2400′	10½″	6.15	10.90	
111-25HPB	2500′	10½″	4.41	7.35	
111-48R	4800′	14″	13.26	22.10	
111-48H	4800′	14″	10.20	17.00	
111-50HPB	5000′	14″	8.91	14.85	
½-111-24R	2400′	10½″	12.30	19.40	SERIES NO. 111 1.5 mil ½″
½-111-24H	2400′	10½″	10.75	16.96	
190-2.25	225′	3″	.54	.90	**SERIES NO. 190** 1.0 mil ¼″ EXTRA-PLAY PLASTIC — 1.0 mil cellulose acetate for maximum economy. Superb reproduction with full frequency response and 50% more recording time.
190-9	900′	5″	2.10	3.50	
190-12	1200′	5¾″	2.55	4.25	
190-15	1500′	7″	2.70	4.50	
190-18	1800′	7″	3.30	5.50	
190-36R	3600′	10½″ M	7.71	12.85	
190-36H	3600′	10½″	6.00	10.00	
190-37.5HPB	3750′	10½″	5.97	9.95	
190-72R	7200′	14″	15.60	26.00	
190-72H	7200′	14″	12.00	20.00	
190-75HPB	7500′	14″	11.97	19.95	
½-190-36R	3600′	10½″	15.44	25.74	SERIES NO. 190 1.0 mil ½″
**102-6	600′	5″	1.59	2.65	**SERIES NO. 102** 1.5 mil ¼″ ALL-PURPOSE MYLAR* — 1.5 mil mylar* for super toughness, flawless performance under all conditions. Immune to heat or humidity, will not dry out or become brittle.
102-8.5	850′	5¾″	2.55	4.25	
**102-12	1200′	7″	2.55	4.25	
102-24R	2400′	10½″ M	6.72	11.20	
102-24H	2400′	10½″	5.28	8.80	
102-24RPS	2400′	10½″	6.73	11.20	
102-25HPB	2500′	10½″	4.98	8.30	
102-48R	4800′	14″	14.70	24.50	
102-48H	4800′	14″	11.10	18.50	
102-50HPB	5000′	14″	9.98	16.65	
½-102-24R	2400′	10½″	13.45	22.42	SERIES NO. 102 1.5 mil ½″

† Price each in quantities of 12 or more reels.
Letter "R" designates tape on NAB Reel with 3″ center hole, letter "H" designates tape on metal hub.

BURGESS NUMBER	TAPE LENGTH	REEL SIZE	†SUGG. DEALER PRICE	LIST PRICE	DESCRIPTION
150-2.25	225′	3″	$ .60	$1.00	**SERIES NO. 150** 1.0 mil ¼″ EXTRA-PLAY POLYESTER MYLAR* — 1.0 mil polyester mylar* for trouble-free operation in all weather. Performs brilliantly, unaffected by heat or humidity. 50% more recording time per reel.
150-3.75	375′	3¼″	1.05	1.75	
150-9	900′	5″	2.16	3.60	
150-12	1200′	5¾″	2.79	4.65	
150-15	1500′	7″	3.10	5.15	
150-18	1800′	7″	3.72	6.20	
150-36R	3600′	10½″ M	8.64	14.40	
150-36H	3600′	10½″	7.20	12.00	
150-36RPS	3600′	10½″	8.64	14.40	
150-37.5HPB	3750′	10½″	7.20	12.00	
150-72R	7200′	14″	18.00	30.00	
150-72H	7200′	14″	14.40	24.00	
150-75HPB	7500′	14″	14.40	24.00	
½-150-36R	3600′	10½″	17.28	28.80	SERIES NO. 150 1.0 mil ½″
200-3	300′	3″	.96	1.60	**SERIES NO. 200 & 290** .5 mil ¼″ DOUBLE LENGTH TENSILIZED POLYESTER MYLAR* — .5 mil double length tensilized polyester mylar* gives double the recording time of conventional tape. Twice the strength of conventional thin tape. Ideal for use under adverse conditions. Won't stretch or become brittle.
200-6	600′	4″	1.83	3.05	
200-12	1200′	5″	3.27	5.45	
200-17	1700′	5¾″	4.24	7.05	
200-24	2400′	7″	5.70	9.50	
200-48R	4800′	10½″	13.20	22.00	
200-48H	4800′	10½″	11.70	19.50	
200-48RPS	4800′	10½″	13.20	22.00	
290-6	600′	3¼″	1.50	2.50	
290-36	3600′	7″	7.17	11.95	
131-12	1200′	7″	2.64	4.40	**SERIES NO. 131** 1.5 mil ¼″ LOW PRINT THROUGH PROFESSIONAL QUALITY PLASTIC — 1.5 mil cellulose acetate. Provides absolute minimum layer-to-layer signal transfer.
131-24R	2400′	10½″	7.44	12.40	
131-24H	2400′	10½″	6.00	10.00	
131-48R	4800′	14″	15.60	26.00	
131-48H	4800′	14″	12.00	20.00	
½-131-24R	2400′	10½″	15.00	25.00	SERIES NO. 131 1.5 mil ½″
138-12	1200′	7″	3.06	5.10	**SERIES NO. 138** 1.5 mil ¼″ LOW PRINT THROUGH PROFESSIONAL QUALITY ALL-PURPOSE MYLAR* — 1.5 mil mylar* insures good strength and storage characteristics. Provides absolute minimum layer-to-layer signal transfer.
138-24R	2400′	10½″	8.10	13.50	
138-24H	2400′	10½″	6.66	11.10	
138-48R	4800′	14″	20.40	34.00	
138-48H	4800′	14″	16.80	28.00	
½-138-24R	2400′	10½″	17.28	28.80	SERIES NO. 138 1.5 mil ½″
175-6M	600′	5″	1.44	2.40	**SERIES NO. 175** 1.5 mil ¼″ ALL-PURPOSE MYLAR* — More tear resistant than acetate. For heavy duty recording applications.
175-12M	1200′	7″	2.25	3.75	

"HPB" designates tape on plastic hub, bulk packaged. "RPS" designates plastic reel with 5/16″ EIA center hole.

ACCESSORIES

BURGESS NUMBER	SIZE	† SUGG. DEALER PRICE	LIST PRICE	DESCRIPTION
LT-15 White	150′L ¼″W (White tape)	$ .66	$1.10	Mylar* Leader Tape
LT-15 Red	150′L ¼″W (Red tape)	.66	1.10	
LT-15 Blue	150′L ¼″W (Blue tape)	.66	1.10	
LT-15 Green	150′L ¼″W (Green tape)	.66	1.10	
LT-15 Yellow	150′L ¼″W (Yellow Tape)	.66	1.10	
LT-15M	150′L ¼″W	.66	1.10	Metalized Mylar* Leader Tape
ST-5	150″L ½″W	.28	.39	Splicing Tape
RB-3	Clear Plastic 3″ Reel	.15	.25	Empty Reel, Boxed
RB-3¼	Clear Plastic 3¼″ Reel	.27	.45	Empty Reel, Boxed
RB-4	Clear Plastic 4″ Reel	.33	.55	Empty Reel, Boxed
**RB-5	Clear Plastic 5″ Reel	.39	.65	Empty Reel, Boxed
RB-5¾	Clear Plastic 5¾″ Reel	.45	.75	Empty Reel, Boxed
**RB-7	Clear Plastic 7″ Reel	.45	.75	Empty Reel, Boxed
RB-10.5RPS	Clear Plastic 10½″ Reel with EIA hub	2.70	4.50	Empty Reel, Boxed
RB-14M	Metal 14″ Reel	5.22	8.70	Empty Reel, Boxed

BURGESS NUMBER	SIZE	† SUGG. DEALER PRICE	LIST PRICE	DESCRIPTION
B-3	For 3″ Reel	$ .09	$ .15	Empty Box
B-3¼	For 3¼″ Reel	.09	.15	Empty Box
B-4	For 4″ Reel	.12	.20	Empty Box
B-5	For 5″ Reel	.12	.20	Empty Box
B-5¾	For 5¾″ Reel	.12	.20	Empty Box
B-7	For 7″ Reel	.12	.20	Empty Box
B-10½	For 10½″ Reel	.45	.75	Empty Box
B-14	For 14″ Reel	.60	1.00	Empty Box
MB-4	For 4″ Reel & Box	.09	.15	Corrugated Mailing Carton
MB-5	For 5″ Reel & Box	.09	.15	Corrugated Mailing Carton
MB-7	For 7″ Reel & Box	.12	.20	Corrugated Mailing Carton

† Price each in quantities of 12 or more accessories.
** Also available in colored reels Red, Blue, Green, Yellow or Violet.
* Trade Mark of DuPont

Trade Discount Applies To List Prices Only
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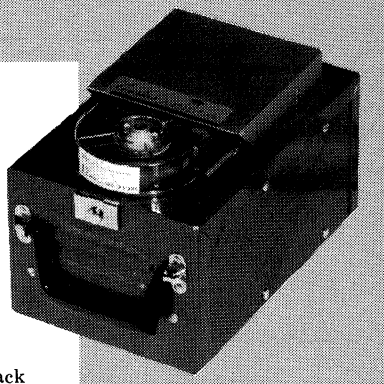
Cousino
AUDIO ANNOUNCERS
MAGNETIC TAPE CARTRIDGE MESSAGE REPEATERS



The Audio Announcer message repeater uses the Echo-Matic II continuous loop, automatic threading, magnetic tape cartridges. It starts "on demand" when activated by a remote push button or any of several other types of activation accessories. It turns off automatically at end of message and then is ready to repeat when activated again. Switch provides option of start-stop as above, or continuous repetitive replay of tape cartridge. All except the Repeater R-7320 model have built in amplifier and speaker. All models have jack for remote speaker or larger amplifier. All units are completely transistorized. This means "instant on" with no warmup required. Recording models come with lid and 40 second cartridge. Weight 9 pounds, size 6″ x 6″ x 9″ long.

SR-7341 SYNCHRO REPEATER—Provides synchronized audio with visual presentation when coupled with most filmstrip or slide projectors normally activated by a remote push-button. Will record and play back both audio and an inaudible tone to activate the projector. Less microphone $229.95.

S56-AR 7328 PLAYBACK ONLY—Same as SR-7341 except that it provides playback only. This unit does not have audio or tone recording facilities. $199.95.

RR-7331 RECORDER REPEATER—Will record and playback on pre-loaded Echo-matic II tape cartridges. Less microphone $169.95.

AR-7328 AUDIO REPEATER—Same as RR-7331 except that it provides playback only. $124.95.

R-7320 REPEATER — Low cost, pre-amplified model without speaker — provides audio source for quiet commentary fed to phone handsets. Can also be used with auxiliary amplifier and speaker set up such as a public address system. $99.95.

CRR-7332 AMERICAN SALES CASTER —Provides spot selling messages at timed intervals when coupled with background music and public address systems. Has built in timer and muting switch to mute music during spot announcements. Records and plays back on pre-loaded Echo-Matic II tape cartridges. With microphone $279.95.

ACCESSORIES

ECHO-MATIC II TAPE CARTRIDGES

Echo-Matic II Cartridges are loaded with Cousino Friction Free Tape and available in variable playing times up to 40 minutes at 3¾ inches of tape per second.

1410- 3— 3 Minutes	$3.25
1410- 6— 6 Minutes	3.75
1410-10—10 Minutes	4.25
1410-12—12 Minutes	4.60
1410-15—15 Minutes	4.95
1430-30—30 Minutes	5.95
1430-40—40 Minutes	7.95
1410—MT empty, 15 Minutes capacity	2.00
1430—MT empty, 40 Minutes capacity	3.00

FF-510 COUSINO FRICTION FREE TAPE Available in 450′; 900′ and 1800′ reels. Friction Free Tape is the only tape to work successfully in Echo-Matic tape cartridges.

FF-510-4.5—450′ Reel	$ 3.75
FF-510-9—900′ Reel	6.15
FF-510-18—1800′ Reel	11.25

K-6—U-Tape-It Kit Tape Cartridge Loading Kit. Reel of Friction-Free magnetic tape, tape loading disc, empty 1430-MT Echo-Matic Cartridge, tape splicing kit and instructions. $11.95.

M-4312—Microphone. This matched, low impedance dynamic microphone is recommended as an accessory for recording models. $17.95.

PC-4541—Remote Start Switch. Push button type. May be hand held or built into the display to activate all Audio Announcer models. $4.50.

MS-4547—Footmat Start Switch. Starts all Audio Announcer models when stepped-on. $22.50.

DS-4516 — Driveway Start Switch. Designed to automatically start all Audio Announcer models when a car drives over the driveway hose. $26.00.

CS-4548—Capacity Touch Switch. Novel activating switch for touch starting through windows, table tops, display boards, etc. $26.00.

AS-4549—Heavy Duty Animation Power Switch. Increases standard 75 watt animation power output on machines to 1000 watts. Turns "on" and "off" slide projectors and illuminating display "on demand" from audio announcers. $30.65.

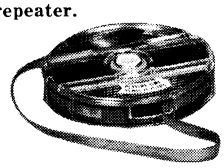
RT-4515—Restart Timer. Will automatically start all Audio Announcer models at preset intervals (maximum time interval of 8-minutes and 20-seconds). $29.00.

THS-4601 Telephone Handset w/cradle, black	$22.50
THSC-4602 Telephone Handset w/cradle, color	27.50
JB-4603 Multi-Input Telephone Junction Box, 3 phones	15.75
CT-4551 Carousel Trigger Cord	3.00
FT-4553 Sawyer Trigger Cords, Rotomatic	5.25
FT-4556 Bell & Howell Trigger Cord	4.00
FT-4555 DuKane Trigger Cord	4.00
TS-4550 Tone Shut-off Adapter Cord for SR-7341	3.00
SL-6278 Standard Metal Lid for R and AR Audio Announcer	3.00

COUSINO PRODUCTS
OF ORRTRONICS INC.

COUSINO
AUDIO VENDOR

Continuous Loop Repeating Magnetic Tape Magazine . . . Makes a standard tape recorder into a message repeater.



The Audio Vendor will fit most standard tape recorders. All units are factory loaded with the Cousino Friction Free, single oxide lubricated tape. Audio Vendors are available in playing times of 3, 5, 8, 12 and 15 minutes at 3¾ inches per second. All units may be played at 1⅞, 3¾ or 7½ inches per second. When ordering, specify (c) for clockwise **OR** (cc) for counter-clockwise operation, and the playing time required.

(U-1510 models are 2⅜″ dia.)
U-1510C-3 or U-1510CC-3
3 Minutes—$3.95
U-1510C-5 or U-1510CC-5
5 Minutes—$4.75

(U-1310 models are 3⅝″ dia.)
U-1310C-8 or U-1310CC-8
8 Minutes—$7.15
U-1310C-12 or U-1310CC-12
12 Minutes—$8.00
U-1310C-15 or U-1310CC-15
15 Minutes—$8.95
U-1310C-18 or U-1310CC-18
18 Minutes—$9.75

(U-1110 models are 5-3⁄16″ dia.)
U-1110C-30 or U-1110CC-30
30 Minutes—$12.95
U-1110C-40 or U-1110CC-40
40 Minutes—$16.95

READY MOUNT SPINDLE
An accessory for recorders with spindle obstructions or a driven feed spindle. $1.50.

WORLD'S FINEST Garrard® AUTOMATIC TURNTABLES

LAB 80 Mk II

Automatic Transcription Turntable, $99.50. The Lab 80 Mk II is the automatic transcription turntable brought to perfection. It is Garrard's definitive Lab 80, subtly, but magnificently refined in appearance and engineering. Two speeds: 33⅓-45 RPM. • Dynamically balanced, counterweight-adjusted tone arm, built of Afrormosia wood for light weight, low resonance • NEW anti-skating control with ½ gram markings and window to facilitate accurate setting • Calibrated stylus pressure gauge with ¼ gram precision click adjustments for accurate audible/visible settings • Built-in hydraulic cueing control eliminates accidental damage to records or stylus through manual handling • Low-mass cutaway shell with NEW cueing pointer and extended finger lift • NEW control center with fluted tab operating levers • NEW automatic play of single record. Press auto tab, tone arm comes over and plays record; returns to rest at record's end • Full 12" anti-magnetic turntable, heavy and dynamically balanced for perfect speed • NEW anti-static mat featuring deep rings at 12", 10" and 7" positions to protect the stylus against accidental damage during automatic play • Two spindles: one for manual play, the other for automatic operations. Handles 8 records fully automatically when desired • NEW repeat adaptor fits over automatic spindle, replays records as often as desired, doubles as 45 rpm single spindle • Exclusive, supersensitive magnetic trip with Dupont Delrin® to offset friction • Silent Laboratory Series® 4-pole shaded motor with vibration proof total isolation suspension.

60 Mk II

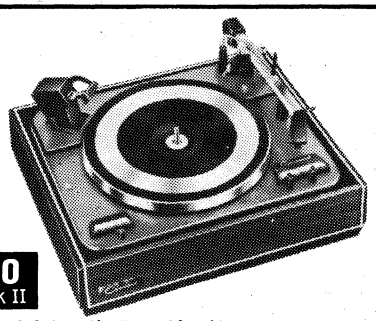
4-speed Automatic Turntable, $74.50. Developed from the "best buy" AT60, its superior engineering features have been refined to assure excellent reproduction with the latest ultra-sensitive cartridges.

• Tubular, dynamically balanced counterweight-adjusted tone arm • NEW resiliently mounted counterbalanced weight • NEW built-in stylus pressure adjustment assembly with precision knurled optical instrument type dial for smooth, highly accurate settings • NEW manual cueing and pause control permits placing tone arm on record in any position by use of cueing lever • NEW automatic anti-skating control • Lightweight cutaway shell with new cueing pointer and finger lift • NEW turntable mat with large trim ring over heavy, cast, balanced oversized turntable • Two interchangeable spindles: short for manual play, center drop for intermix automatic operation when desired • Supersensitive trip with Dupont Delrin® • Double shielded Laboratory Series® motor.

50 Mk II

Automatic Turntable, $54.50. An exciting new automatic turntable model, designed to establish the highest performance standards in its class. Styling is exceptional, trim, functional, and extremely handsome.

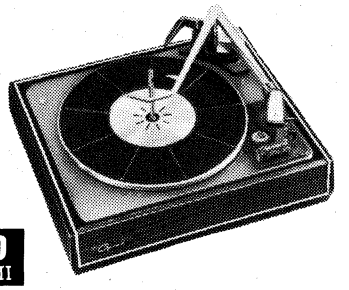
• NEW lightweight tubular tone arm with fixed position counterweight • NEW manual cueing and pause control permits placing tone arm on record in any position by use of cueing lever • NEW built-in stylus pressure adjustment with gram markings • NEW lightweight plug-in shell with cueing pointer • Oversized turntable with distinctive mat and trim ring • Two spindles: short for playing single records, center-drop spindle for intermix automatic play when desired • 4-pole shaded "Induction Surge" motor with dynamically balanced, shielded rotor • Supersensitive trip with Dupont Delrin® offsets friction • Ultra-compact size.



70 Mk II

4-speed Automatic Turntable, $84.50.

• Garrard's exclusive pusher platform record changing principle for gentleness and reliability in automatic play • Dynamically balanced, flat silhouette, counterweight-adjusted tone arm • Low mass, cutaway slide-in shell • Needle pivots set in miniaturized ball bearings • Calibrated stylus pressure gauge with precision ¼ gram click adjustments • Adjustable anti-skating control • Exclusive full-size, heavy, balanced cast "sandwich" turntable • Double shielded Laboratory Series® 4-pole shaded motor • Super-sensitive trip with Dupont Delrin® • Two interchangeable spindles: short for single play, long one-piece spindle for automatic when desired.



40 Mk II

4-speed Automatic Turntable, $44.50. Built to full Garrard standards, the 40 Mk II 4-speed unit is an exceptionally compact automatic turntable at the price of an ordinary record changer. It was designed to introduce new concepts of performance and versatility where space must be considered.

• Cast aluminum fixed counterweighted tone arm • Simple, accessible stylus pressure adjustment • Lightweight cutaway shell with extended finger lift • Oversized turntable with decorative mat • Two spindles: short for manual, center drop for intermix automatic play when desired • Ultra-compact size—fits easily into any record changer space.

SP20

4-speed Manual Record Playing Unit, $37.50. An excellent 4-speed manual record playing unit with high fidelity features. It is a compact, efficient player, recommended for basic stereo music systems and quality audio-visual applications.

• Semi-counterbalanced arm with adjustable stylus pressure...tracks as light as 2 grams • Interchangeable plug-in head takes any cartridge • Automatic return of arm to rest and shut-off after play • Full size weighted turntable • Dupont Delrin® trip • Garrard-built motor • Compact size.

ACCESSORIS: Coordinated bases, dust covers, mounting boards, carrying cases, automatic "45" spindles.

GARRARD, DIV. BRITISH INDUSTRIES CORP.

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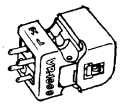
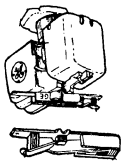
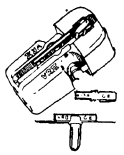
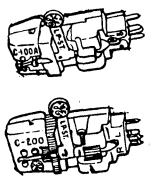
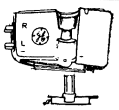
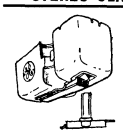
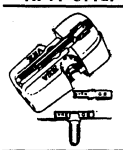
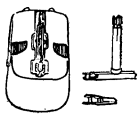
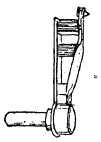
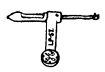
AUDIO COMPONENTS
CARTRIDGES

ELECTRONIC INNOVATIONS IN ACTION

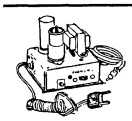
	Cat. No.	Stylus Radius (Inches)	Appli-cation	Repl't Stylus	Resistance	Freq. Resp. (Cy/Sec)	Output	Price Each‡
	VR-1000-3	Elliptical Diamond	Stereo	DR-3D	1100 ohms per channel nominal	20-20,000 ±3 db	1 mv per cm/sec min	$34.95
	VR-1000-5	.0005 Diamond	Stereo	DR-5D				29.95
	VR-1000-7	.0005 Diamond	Stereo	DR-7D				24.95
	4G-052	.001 Diam and .003 Saph*	Mono	4G-01D 4G-02D 4G-03D 4G-01S 4G-02S 4G-03S	600 ohms nominal	20-20,000	10 mv at 5.5 cm/sec @ 1,000 cycles	16.95
	4G-053	.001 Diam and .003 Diam	Mono					19.95
	4G-061	.001 Diamond	Mono					13.95
	4G-063	.003 Diamond	Mono					13.95
	4G-050	.001 Saph* and .003 Saph*	Mono					12.95
	4G-040	.003 Sapphire*	Mono					9.95
	4G-041	.001 Sapphire*	Mono					9.95
	4GS-01D	.001 Diamond	Mono					13.95
	4GS-02D	.0025 Diamond	Mono					13.95
	4GD-01D-02D	.001 Diam and .0025 Diam	Mono					19.95
	4GD-01D-02S	.001 Diam and .0025 Saph*	Mono					16.95
	4GS-01S	.001 Sapphire*	Mono					9.95
	4GS-02S	.0025 Sapphire*	Mono					9.95
	4GD-01S-02S	.001 Saph* and .0025 Saph*	Mono					12.95
	C100A	.0007 Diam and .003 Saph*	Stereo	TA-1	.....	20-12,000	450 mv	15.90
	C200	.0007 Diam and .003 Saph*	Stereo	TA-1	.....	20-17,000	300 mv	15.90

STYLI

	Cat. No.	Stylus Radius (Inches)	Application	Price Each‡
VR-1000 STEREO STYLI				
	DR-7D	.0007 Diamond	Stereo	$ 9.95
	DR-5D	.0005 Diamond	Stereo	11.95
	DR-3D	Elliptical Diamond	Stereo	18.95
VR-22 STEREO STYLI				
	VR-221	.0005 Diamond	Stereo	$7.95
	VR-222	.0007 Diamond	Stereo	6.95
	VR-223	.0007 Sapphire*	Stereo	2.99
"STEREO CLASSIC" "GOLDEN CLASSIC" STYLI				
	ST-5D	.0005 Diamond	Stereo	$7.95
	ST-7D	.0007 Diamond	Stereo	6.95
	ST-7S	.0007 Sapphire*	Stereo	2.99
VR-11 STYLI				
	4G-01D	.001 Diamond	Monaural	$5.95
	4G-02D	.0025 Diamond	Monaural	5.95
	4G-03D	.003 Diamond	Monaural	5.95
	4G-01S	.001 Sapphire*	Monaural	2.29
	4G-02S	.0025 Sapphire*	Monaural	2.29
	4G-03S	.003 Sapphire*	Monaural	2.29

	Cat. No.	Stylus Radius (Inches)	Application	Price Each‡
RPX STYLI				
	RPJ-010A	.001 Saph* and .003 Saph*	Monaural	4.95
	RPJ-012A	.001 Diam and .003 Diam	Monaural	11.95
	RPJ-013A	.001 Diam and .003 Saph*	Monaural	6.95
	RPJ-007A	.001 Saph* and .0025 Saph*	Monaural	4.95
	RPJ-011A	.001 Diam and .0025 Diam	Monaural	11.95
	RPJ-01D	.001 Diamond	Monaural	$5.95
	RPJ-02D	.0025 Diamond	Monaural	5.95
	RPJ-03D	.003 Diamond	Monaural	5.95
	RPJ-01S	.001 Sapphire*	Monaural	2.29
	RPJ-02S	.0025 Sapphire*	Monaural	2.29
	RPJ-03S	.003 Sapphire*	Monaural	2.29
	RPJ-004	.001 Diamond	Monaural	$5.95
	RPJ-002	.0025 Diamond	Monaural	5.95
	RPJ-003	.003 Diamond	Monaural	5.95
	RPJ-005	.001 Sapphire*	Monaural	2.29
	RPJ-006	.0025 Sapphire*	Monaural	2.29
	RPJ-001	.003 Sapphire*	Monaural	2.29
TA-1				
	TA-1	.0007 Diamond .003 Saph*	Stereo	$9.95

ACCESSORIES

	Cat. No.	Description	Output Impedance	Price Each‡
	UPX-003C	Self-powered Phone Preamp 3⅝" W, 3⅝" L, 3⅜" H	At 30 cycles 120,000 ohms At 15,000 cycles 1700 ohms	$14.95

	Cat No.	Description	Application	Price Each‡
	RX209	45-rpm Adapter (Short)	and VM Record Changers	$2.50

* All sapphires are synthetic. ‡ Manufacturer's suggested retail price.

GENERAL ELECTRIC

Scotch® Brand Recording Tape

No. 102 All Purpose, Extra Strength: For all general recording—especially suited for irreplaceable recordings or long term storage. On super-tough, weather balanced 1½ mil polyester backing.

No. 111 All Purpose: For all general recording. International standard of the recording industry—provides flawless sound reproduction at low cost. 1½ mil plastic backing.

No. 120 High Output: Over 100% more output, greater dynamic range and freedom from distortion on signal peaks. 1½ mil plastic backing.

No. 131 Low-Print: Reduces print-through (signal transfer from layer to layer) to a point below the noise level of most professional machines. Has excellent recording characteristics and allows long time storage. 1½ mil plastic backing.

No. 138 Low Print, Extra Strength: Same recording qualities as No. 131 on strong 1½ mil polyester backing.

No. 150 Extra Length, Extra Strength: 50% more playing time—withstands temperature and humidity extremes. High potency oxide on 1 mil polyester backing.

No. 175 Heavy Duty Tenzar®: This new, longer-wearing tape shrugs off hard use, rough handling . . . lasts 15 times longer than ordinary tapes. Made with a wear-resistant high potency oxide coating of the type proved exceedingly durable in heavy duty tapes for high speed computers. Available on red, blue, green, yellow or clear reels.

No. 190 Extra Length: 50% more tape—as much recording time as 1½ reels of standard tape. High potency oxide offers complete purity of sound. 1 mil plastic backing.

No. 200 Double Length, Double Strength: As much playing time as two reels of standard tape—enough to record an entire opera, concert or conference. High potency oxide on tensilized polyester backing.

Nos. 201, 202, and 203 "Dynarange" Series: Dynarange tapes are products engineered primarily for professional use, (and are now available to consumers for home recording use). Their unique qualities make them especially useful for the mastering and sub-mastering of pre-recorded tapes and records. Available in 1½ mil plastic (No. 201) and polyester backings (No. 202), as well as 1 mil polyester (No. 203).

No. 282 Sandwich: With exclusive micro-thin protective plastic shield over oxide coating. Eliminates oxide rub-off, wears up to 30 times longer, drastically reduces machine maintenance and provides superb sound fidelity. Strong, weatherproof 1½ mil polyester backing.

No. 290 Triple Length: The tape that gives maximum playing time for each reel size. Especially suitable for continuous recording of lengthy conferences, meetings, conventions. ½ mil tensilized polyester backing.

No. 8000 Quick-Load Cartridge: These compact cartridges slip into place in seconds and are ready to play. Completely self-contained. No threading. No loose ends. For use in home, education and industry. Available in 320′ or 560′ of high potency No. 150 tape in transparent or opaque cases.

"Living Letters" Tapes (in Plastic Containers): Three tape lengths available for a variety of uses, providing up to maximum recording time on a 3″ reel. Plastic container provides excellent re-useable mailer or dust-free storage unit.

ACCESSORIES

Empty Self Threading Reel in a Plastic Collar: A tape reel that threads itself. Holds tape firmly, but gently, when you start recorder. Threads up automatically—accommodates all tape thicknesses or leader tape. Reel comes complete with a snap-tight plastic collar that seals reel edges against dust, makes reel self-storing without a box. List Price—7″ reel $1.50.

No. 24 Colored Leader & Timing Tapes: Used to identify ends of tape and selections within a roll. Yellow and White in handy dispenser packages. List Price—¼″ x 100′—$.90.

No. 41 Splicing Tape: A self-sticking tape expressly made for neat noisless splices. On metal dispensers. List Price—½″ x 150″ $.39.

No. 51 Conductive Sensing Tape: For recorders with electronic sensing controls. Sticks tight, stays clean. On dispenser card. List Price — 7/32″ x 150″ $1.89.

No. 12 End-of-Reel Tape Clips: Prevent tape spilling. 10 clips per package — $.35.

Empty Reels and Boxes: Empty 3″, 5″ and 7″ plastic reels, plus boxes, are a must for editing and extra take-up reel needs. List Price — 3″ $.25 to 7″ $.75.

CATALOG NO.	LENGTH	REEL	LIST PRICE
102-¼-600	600′	5″	$ 2.65
102-¼-1200	1200′	7″	4.25
102-¼-2500H	2500′	HUB	8.55
102-¼-2500R	2500′	10½″	11.35
111-¼-150	150′	3″	.70
111-¼-600	600′	5″	2.25
111-¼-1200	1200′	7″	3.50
111-¼-2500H	2500′	HUB	7.85
111-¼-2500R	2500′	10½″	10.80
120-¼-600	600′	5″	2.25
120-¼-1200	1200′	7″	3.50
120-¼-2500H	2500′	HUB	7.85
120-¼-2500R	2500′	10½″	10.80
131-¼-1200	1200′	7″	4.40
131-¼-2500H	2500′	HUB	9.25
131-¼-2500R	2500′	10½″	12.20
138-¼-1200	1200′	7″	5.10
138-¼-2500H	2500′	HUB	11.10
138-¼-2500R	2500′	10½″	13.90
150-¼-900	900′	5″	3.60
150-¼-1800	1800′	7″	6.20
150-¼-3600H	3600′	HUB	11.40
150-¼-3600R	3600′	10½″	14.35
175-¼-600	600′	5″	2.40
175-¼-1200	1200′	7″	3.75
190-¼-900	900′	5″	3.50
190-¼-1800	1800′	7″	5.50
190-¼-3600H	3600′	HUB	9.85
190-¼-3600R	3600′	10½″	12.80
200-¼-1200	1200′	5″	5.45
200-¼-2400	2400′	7″	9.50
200-¼-4800RPS	4800′	10½″	22.00
201-¼-600	600′	5″	2.80
201-¼-1200	1200′	7″	4.40
201-¼-2500-RO	2500′	10½″	12.20
202-¼-600	600′	5″	2.85
202-¼-1200	1200′	7″	5.10
201-¼-2500-RO	2500′	10½″	13.90
203-¼-900	900′	5″	4.25
203-¼-1800	1800′	7″	7.35
203-¼-3600-RO	3600′	10½″	17.15
282-¼-600	600′	5″	3.10
282-¼-1200	1200′	7″	4.95
290-¼-1800	1800′	5″	6.95
290-¼-3600	3600′	7″	11.95
8000-¼-320 C	320′		4.00
8000-¼-560 O	560′		4.50
8000-¼-560 C	560′		4.50
111-¼-150-LL	150′	3″	.90
200-¼-300-LL	300′	3″	1.85
290-¼-600-LL	600′	3″	2.95

Magnetic Products Division 3M COMPANY

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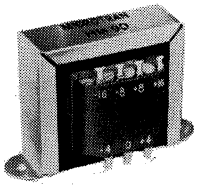
MICROTRAN

PRECISION **HI-FI** ACCESSORIES

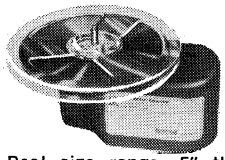
Stereo-Monaural – Mixing Transformer – Model HM-90

For Monaural Extension Speakers



- Used to convert stereo to monaural and extend Hi-Fi throughout the house.
- Combines left and right stereo channels into single channel.
- Add single remote speaker to your stereo system.
- Permits "hole-in-the-middle" fill in.
- Permits additions and matching of any combination of monaural or stereo speakers regardless of ratings.
- Power: 30 watts. Peak Power: 100 watts.
- Frequency Response: (Power): 40 to 20,000 cycles.
- Impedance matching Range: ±4 thru ±16Ω
- Simple hookup: Instructions show connections to be made to numbered terminals.
- Finish: Vacuum Varnish impregnation.
- Size: 3¾"x2½"x2⅝" hi: 3⅛" Mtg. ctrs.
- Weight: 2 lbs.
- **User Net: $6.33**

Magnetic Tape Eraser – Model HD-11M



A heavy duty bulk tape demagnetizer. Develops high intensity field. Noise level reduced below level of standard erase heads. Restores up to ½" tape to like-new condition or better. Spindle mounting of reel prevents missed spots.

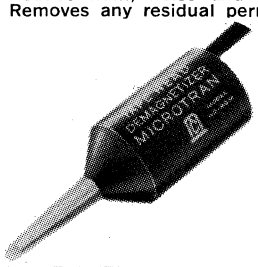
- Reel size range: 5" through 10½" (spindle removable for other sizes).
- Universal Use: May be used for Demagnetizing Record Playback-Erase Heads, and other metal objects.
- Rating: 117 Volts AC, 5 Amps.
- Finish: Cast Epoxy
- Size: 7"Lx3½"Wx3¼"H
- Weight: 9 lbs.
- HD-11M User Net: **$23.50**
- Accessory: Adapter Hub for use with N.A.B. 10½" reels. (Model HD-11AD—User Net **$2.30**)

A Must for Stereo Recording.
(Most stereo recorders do not provide complete erasure facilities)

Tape Head Demagnetizer – Model HD-40M

For Tape Recording Heads

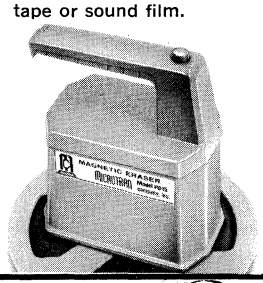
Reduce hum, noise and distortion caused by magnetized heads. Removes any residual permanent magnetism from the heads.



- Safeguards valuable tape libraries.
- Insures high frequency response.
- Special finish on pole piece prevents damaging recording head.
- Extended tapered pole piece for easy access.
- Ratings: 117 Volts AC, 1 Amp.
- Finish: High Impact molded epoxy
- Size: 4"Lx1¼" Diameter
- Weight: 7 ozs.
- **User Net: $6.15**

Magnetic Tape Eraser – Model HD-15

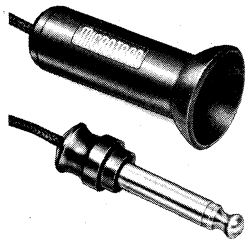
A compact tape demagnetizer that erases signals and noise instantly without rewinding. Removes background noise below level of new tape or sound film.



- Universal unit for any reel size.
- Demagnetizes guide posts, tools, watches, other metal objects, etc.
- Lightweight—hand held—easy to use.
- Tape Width Range: ¼" and ½".
- Sound Film Range: 8, 16, and 35mm.
- Rating: 117 Volts 50/60 cycle, 4 amps.
- Finish: High impact plastic case.
- Size: 4⅜"Lx2½"Wx4⅜"H
- Line Cord: 8' with molded plug.
- Weight: 2½ lbs.
- **User Net: $11.95**

Telephone Pick-up Coil– Model HP-61

For transcribing telephone conversations with tape recorder or dictation machine or making messages audible on amplifier. May also be used as probe for locating sources of hum.

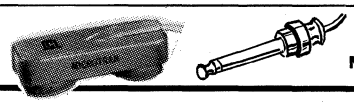


- Equalized Level: Local and distant conversations recorded with more constant signal level than base mounted units.
- Suction Cup: Mounting on telephone receiver.
- Universal Model: One unit suitable for all types of telephones.
- Plug-In Use: Supplied with 68" shielded cable, terminated with standard phone plug for mike input of recorder or amplifier.
- Finish: Optical Black.
- Size: Only ⅝" diameter x 2" long.
- Weight: 1½ ounces.
- **User Net: $6.15**

Hum-Bucking Telephone Pick-up Coil Model HP-70

For transcribing telephone conversations. Symmetrical pick-up coils eliminate high stray hum-pick up caused by fluorescent lights and appliances. For use with tape recorders or dictation machines or making messages audible on amplifier.

- Mounting: Double Suction cup.
- Cable Length: 5 feet.
- Termination: Tinned Leads.
- Shipping Weight: 2 ozs.
- Case: Hi impact plastic.
- Finish: Grey
- Size: 2½"Lx⅞"Wx⅝"H
- **Model HP-70: User Net: $6.95**



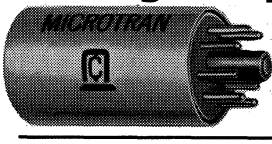
As above with Molded Phone Plug Termination.
Model HP-71 User Net: $7.50

In-Line Microphone Transformer Model M8027

Matches low-impedance mike to high impedance amplifier input. Minimizes loss on long cable runs. Mu metal and electrostatic shield suppresses hum. Simple in-line installation on microphone cable.

- Impedance Ratio: 1:400
- Pri. Imp.: 150 through 250 ohms.
- Sec. Imp.: 40,000 ohms nominal.
- Freq. Resp.: 50-20,000 cps ±2db.
- Cable: 20" shielded cable.
- Cable Termination: Tinned Leads.
- Color: Grey.
- Case: Hi impact plastic.
- Size: 2¾"Lx1⅜"Wx⅞"D
- Weight: 2 ozs.
- **User Net: $9.00**

Plug-in Input Transformers



Broadcast fidelity input transformers. 65db. double mu-metal shielding. Plug-in feature permits simple installation. 2⅛"H x1⅛"D. Weight 6 ozs. Octal type Plug-in Base. M8030-1 have 8 pins. M8032-3 have 9 pins. Matches many amplifiers.

Part Number	Pri. Imp.	Sec. Imp.	Frequency Resp. ±2db	User Net
M8030*	200/50 C.T.	50,000	20-20,000	**$13.50**
M8031	600 C.T./150	50,000	30-20,000	**13.35**
M8032†	250 C.T.	50,000	20-20,000	**13.05**
M8033†	50 C.T.	50,000	20-20,000	**13.05**

* M8030 is designed as a replacement for Ampex No. 1733-1.
† M8032 and M8033 mates with sockets on many RCA amplifiers.

MICROTRAN

Write for CATALOG showing complete specifications

© U.C.P., Inc.

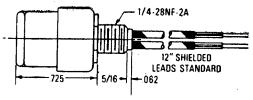
Net

Nortronics COMPANY, INC. MAGNETIC TAPE HEADS AND QUIK-KITS

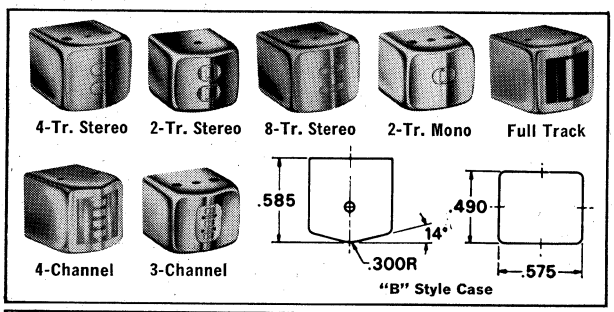
Designed and manufactured to highest standards of excellence, Nortronics tape heads are used as "original" equipment by more than 75% of the nation's tape recorder manufacturers. Nortronics now offers a complete line of heads, available in a wide selection of track styles, functions and sizes in PROFESSIONAL, PREMIUM or STANDARD versions.

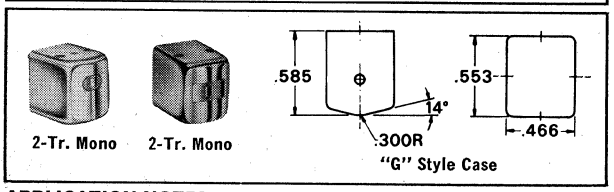
ABOUT THIS LISTING—The magnetic heads, hardware and accessories listed on these four pages is only a partial listing of the complete Nortronics line. **For information on more than 1500 replacements and more than 1500 possible conversions, see your Nortronics Distributor.** His comprehensive listings contain cross-reference data by: 1.) Manufacturer's Name and Model 2.) Recorder Manufacturer's Head Part Number and 3.) Head Manufacturer's Part Number.

REAR MOUNT HEADS—All heads listed below are No-Mount styles. Rear-Mount styles are also available, except on "Combos," and may be ordered by simply adding 50 to last two digits of No-Mount model number. (i.e.: 1203 No-Mount becomes 1253 to indicate same head with Rear-Mount.) For Rear-Mount prices, see footnote under charts.



■ Record/Play and Record-Only Heads



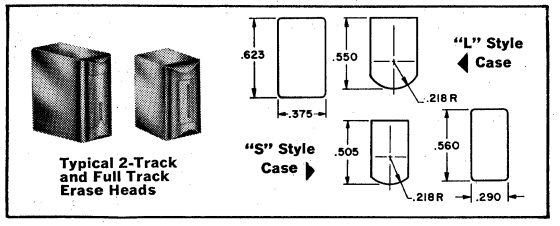


Head Description	Nortronics Model No.		Head Function	Application (See Notes)	1 KHz Inductance MHY	1 KHz Impedance OHMS	DC Resistance OHMS	Net Each† (No Mount)
	No Mount	Case Style						
Standard 4-Track Stereo Hyperbolic Metal Face Laminated Cores	1000	B	Record/Play	1	800	5000	700	$21 00
	1001	B	Record/Play	2	400	2500	390	21.00
	1002	B	Record/Play	3	100	650	90	21 00
	1009	B	Record/Play	2	500	3300	700	21.00
Premium 4-Track Stereo Hyperbolic Metal Face Laminated Cores	1200	B	Record/Play	1	800	5000	700	$28.20
	1201	B	Record/Play	2	400	2500	390	28.20
	1202	B	Record/Play	3	100	650	90	28.20
	1203	B	Record Only	5	50	400	90	28.20
Standard 2-Track Stereo Hyperbolic Metal Face Laminated Cores	1800	B	Record/Play	1	800	5000	720	$23.30
	1801	B	Record/Play	2	400	2500	410	23.30
	1802	B	Record/Play	3	100	650	130	23.30
Premium 2-Track Stereo Hyperbolic Metal Face Laminated Cores	2000	B	Record/Play	1	800	5000	720	$30.30
	2001	B	Record/Play	2	400	2500	410	30.30
	2002	B	Record/Play	3	100	650	130	30.30
	2003	B	Record Only	5	50	320	130	30.30
Premium 2-Track Mono Hyperbolic Metal Face Laminated Cores Track .040 Off Center	2600	B	Record/Play	1	800	5000	400	$15.90
	2601	B	Record/Play	2	400	2500	165	15.90
	2602	B	Record/Play	3	100	650	70	15 90
Standard 2-Track Mono Hyperbolic Metal Face Laminated Cores	3000	G	Record/Play	1	800	5000	400	$ 8.40
	3001	G	Record/Play	2	400	2500	165	8.40
	3002	G	Record/Play	3	100	650	70	8.40
2-Track Mono (Center Tr.) Cylindrical Metal Face Solid Cores	3100	G	Record/Play	1	1000	6300	625	$ 8.40
	3101	G	Record/Play	2	400	2500	350	8.40
Premium 2-Track Mono Hyperbolic Metal Face Laminated Cores	3200	G	Record/Play	1	800	5000	400	$15.90
	3201	G	Record/Play	2	400	2500	165	15.90
	3202	G	Record/Play	3	100	650	70	15.90
Premium Full-Track Hyperbolic Face Laminated Cores	4100	B	Record/Play	2	250	1500	200	$34.70
	4101	B	Record Only	5	55	330	125	34.70
Premium 4-Channel Hyperbolic Metal Face Laminated Cores	5601	B	Record Only	5	50	320	150	$99.00
	5602	B	Record/Play	3	90	600	100	99.00
	5603	B	Record/Play	2	370	2200	690	99.00
Premium 3-Channel Hyperbolic Metal Face Laminated Cores	5701	B	Record/Play	2	340	2000	800	$99.00
	5702	B	Record/Play	3	100	650	260	99.00
	5703	B	Record Only	5	50	400	260	99.00
Premium 8-Track Stereo Hyperbolic Metal Face Laminated Cores	5800	B	Record/Play	2	400	2500	700	$15.00
	5810	B	Record Only	4	10	75	42	21.00
	5813	B	Record Only	5	50	400	220	21.00

†Note: For Rear Mount add $1.50, except on 5650 and 5750 series add $6.00

APPLICATION NOTES:
1. High-impedance general-purpose record/play or playback-only head for vacuum-tube circuits. **2.** Medium-impedance record/play head for vacuum-tube or transistor circuits. **3.** Low-impedance record/play for transistor circuits. **4.** Special low-impedance record-only for vacuum-tube or transistor circuits in duplicators and professional recorders. **5.** Low-impedance record-only for vacuum-tube or transistor circuits.

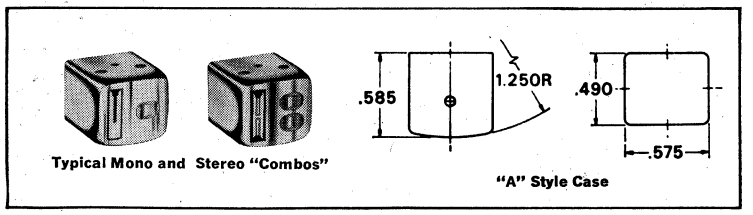
■ Erase Heads



Head Description	Nortronics No Mount Model Nos.		Imped.	1 KHz Induct. MHY	60 KHz Imped. OHMS	Operating Erase Current* MA	DC Resis. OHMS	60 KHz Operating Voltage VOLTS	Net Each†
	Standard "S" Case	Large "L" Case							
4-Track Stereo Erase Full Metal Face	1400	1400L	Hi	80	30,000	3—5	270	90—150	$12.00
	1401	1401L	Med	10	2,800	10—15	40	28—42	12.00
	1402	—	Lo	0.13	40	80—140	2	3—6	12.00
2-Track Stereo Erase Full Metal Face	2200	2200L	Hi	80	25,000	4.5—7.0	205	100—150	$12.00
	2201	2201L	Med	8	2,000	16—24	35	32—48	12.00
2-Track Mono Erase Full Metal Face	3600	3600L	Hi	80	25,000	4.5—7.0	205	100—150	$ 8.00
	3601	3601L	Med	8	2,000	16—24	35	32—48	8.00
Full-Track Mono Erase Full Metal Face	4400	4400L	Hi	40	12,000	10—15	88	100—150	$14.00
	4401	4401L	Med	3.6	1,000	32—48	25	32—48	14.00

*For 60 db erasure of saturated tape. Voltages shown are RMS.
†For Rear Mount, add $1.50.

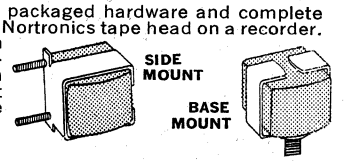
■ Combo Heads



Head Description	Nortronics No Mount Model No.	Head Function	Equivalent Head Specification Reference	Net Each
4-Track Stereo "Combo" Metal Face	6000	Record/Play, Erase	1201, 1400	$33.00
	6001	Record/Play, Erase	1203, 1400	33.00
	6002	Record/Play, Erase	1201, 1401	33.00
	6003	Record/Play, Erase	1000, 1402	33.00
	6009	Record/Play, Erase	1009, 1401	33.00
4-Track Mono "Combo" Metal Face, Center Track	6025	Record/Play, Erase	1000, 1402	$18.00
	6026	Record/Play, Erase	1001, 1401	18.00
2-Track Stereo "Combo" Metal Face	6100	Record/Play, Erase	2001, 2201	$36.00
2-Track Mono "Combo" Metal Face, Center Track	6125	Record/Play, Erase	3000, 3600	$21.00

■ Quik-Kit Mounting Hardware

Nortronics Quik-Kits consist of packaged hardware and complete instructions for installation of a Nortronics tape head on a recorder. Most Quik-Kits are universal in design to fit most recorders—special Quik-Kits are for use on recorders requiring a mount unique to that machine type only.



Quik-Kit	Description	Net
QK-18	Erase—Side Mount, "S" Cases	$1.00
QK-19	Erase—Base Mount, "S" Cases	1.00
QK-20	R/P—Side Mount, "G" Cases	1.00
QK-21	R/P—Base Mount, "G" Cases	1.00
QK-35	Spec. Base Mt., "A"; "B" Cases	2.00
QK-38	Side Mount, "A"; "B" Cases	1.00
QK-66	Base Mount, "A"; "B" Cases	1.00
QK-76	Ampex Mounting Block	12.00

Quik-Kit	Description	Net
QK-100	Pentron R/P Mount	$ 2.00
QK-102	Sony R/P Mount	1.75
QK-103	R.C.A. Type Cartridge Mount	1.00
QK-114	2—"B" Head Stereo Cart. Mt.	13.60
QK-115	2—"G" Head Mono Cart. Mt.	13.60
QK-118	Webcor R/P Mount	4.00
QK-300	Pentron Erase Mount	2.25
QK-305	Sony Erase Mount	3.00

YOUR BEST AND MOST COMPLETE SOURCE FOR MAGNETIC TAPE HEADS

Net
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Nortronics COMPANY, INC.

DIRECT REPLACEMENT HEADS FOR: POPULAR TAPE RECORDERS

Listing by Manufacturer and Model Number

Manufacturer and Model Numbers	Function	Nortronics Head + Q-Kit	Net,† Less Quik-Kit
PENTRON			
HF-400, HT-225, P-4, PB-1, PBA-2, PMC, PMD-1, 9T-3C, 9T-3M, T-90, TM-56, TR-4, PT-1, TM-1, NL-1, CT-1, RWN, PT-72, PT-74, PT-W3, NL-2, NL-3, TR-10	R/P	3000 + 100	$ 8.40
All above models except PBA-2 and PB-1	E	3600 + 300	8.00
NL-4, GR-1500	R/P	1009 + 38	21.00
	E	1401 + 18	12.00
GR15A/B/S, AR-62, XP60	R/P	3000 + 20	8.40
	E	3601 + 18	8.00
XP-60S	R/P	1000 + 38	21.00
	E	3601 + 18	8.00
AR62S	Play	1009 + 38	21.00
	E	3601 + 18	8.00
PR-65	R/P/E	6002 + None	33.00
ST-3	R/P	1800 + 38	23.30
	E	3600 + 18	8.00
NL-1S, NL-2S, NL-3S, PT-1S, PT-72S, PT-74S, PT-745, PT-W3S, TM-4	R/P	1800 + 100	23.30
	E	3600 + 300	8.00
REVERE			
T-10, T-11, T-100, T-202, T-700, T-700-D, T-900, T-1100, T-1400, T-2000, TR-20 thru TR-1200, (except TR-600), TRS-25 thru TRS-1226, TS-15 thru TS-2025	RPE	RPE-23[1] + None [1]Replaces Shure Head	15.60
	RPE	RPE-20[2] + None [2]Replaces Nortronics Head	15.60
T-11-4, T-204-4	RP	7601 + None	22.60
	E	7720 + None	11.00
T-2200, TS-2205, TS-2225	RP	7601 + None	22.60
	E	E-52 + None	16.25
5150	RP	6128 + 66	21.00
5200, 5250, 5280, 5300	RPE	6005 + 66	33.00
SONY			
250-D, TC-200, TC-260	RP	1207 + 66	28.20
	E	1402 + 305	12.00
262-D, 262-SL, 300, 464-CS, 464-D, 464-SL, 500, 521	RP	1200 + 102	28.20
	E	1402 + 305	12.00
263-D, 263-E	P	1200 + 102	28.20
600	P	1207 + 66	28.20
263-D, 263-E, 600	R	1210 + 102	28.20
For all models above (Also requires one L-6 bracket and circuit modification).	E	1402 + 18	12.00
TC-101, TC-102, TC-801-A, TC-905-A	RP	2601 + 102	15.90
TC-101	E	3602 + 305	8.00
TC-102	E	3600 + 19	8.00
V-M			
700, 701	R/P	3000 + 20	8.40
700	E	3600 + 18	8.00
701	E	3601 + 18	8.00
720, 722, 755, 1001-1, 1001-2, 1002-1, 1002-2	R/P	1009 + 38	21.00
	Play	1801 + 38	23.30
	E	1401 + 18	12.00
710, 710A, 711, 711A, 714, 730, 750, 750A, 1000	R/P	3101 + 20	8.40
714, 750A, 1000 (Only)	Play	1801 + 18	8.00
For all above models	E	3601 + 18	8.00
725-1	RPE	6127 + 38	21.00
726, 735, 738-1, 1471-1, 1481-1	RPE	6009 + 38	33.00
740, 740-1, 741	RPE	6002 + 38	33.00
735, 740, 740-1, 741	Play	1009 + 38	21.00
754	RPE	6005 + 38	33.00
WEBCOR			
2001-1, 2001-1A, 2001-1B, 2001-1C, 2009, 2810, 2811, 2812, 2816, 2819, 2820, 2820-1C, 2821, 2822, 2827, 2891, 2892, 2896, 2897, 2910, 2919, 2923, 2950, 2955, EP-2206-1	RP	7403 + 118	8.40
2101-1, 2200, 2200-1, 2202, 2205, 2205-1, 2300, 2303, 2402, 2402-1, 2500-1, 2500-10, 2502-1, 2502-10, CP-2500-1, CP-2502-1, EP-2202-1, EP-2300-1, EP-2302, EP-2302-1, EP-2303-1, EP-2400-1, LT-5400, TP-2302-1	RP	3100 + 118	8.40
2008, 2208, 2323, EP-2323-1, EP-2323-1A	RP	1000 + None	21.00
For all models above	E	7500 + None	8.00
2007, 2107, 2150, 2207, 2250, 2328, 2356, 2360, 2391, 3392, 3393, EP-2107-1, EP-2150, EP-2207-1, EP-2208-1, EP-2250-1, EP-2328-1, EP-2356-1, EP-2356-1A, EP-2356-1B, EP-2357, EP-2357-1, EP-2360-1, EP-4007-1	RP	1000 + None	21.00
	E	1402 + 18	12.00
2456, CP-2520-1, CP-2522-1 REGENT, EP-2456-1, EP-2457, 2757-1	RPE	6003 + None	33.00
2503-1, EP-2403, EP-2403-1, PB-2503-1, VISCOUNT III	RPE	6025 + None	18.00
WOLLENSAK			
T-700D, T-1400-B, C, D, E, T-1500, T-1570, T-1600, T-1700, T-1800, TS-1520 and all older 2-track mono models	RPE	RPE-23[1] + None [1]Replaces Shure Heads	15.60
	RPE	RPE-20[2] + None [2]Replaces Nortronics Heads	15.60
T-1440-B, C, D, E, T-1515-4, T-1616-4, T-1818	R/P	7601 + None	22.60
	E	7720 + None	11.00
1580, T-1780-B, C, D, E, T-1980-B, C, D, E, T-1981-B, C, D, E	R/P	7601 + None	22.60
	E	E59 + None	17.75
524, 7500, T-540	RPE	6125 + None	21.00
1220	RPE	6026 + None	18.00
1280	RPE	6002 + None	33.00
5150	RPE	6128 + 66	21.00
5200, 5250, 5280, 5300	RPE	6005 + 66	33.00

†For prices of Quik-Kits, see listing on Page 1 of this section.

Listing by Head Manufacturer

ROBINS (MICH. MAG.) Part Numbers	Nortronics Head + Q-Kit	Net,† Less Quik-Kit
08Q8, 5P17, 5Q08, 5Q8, 5Q17-(105, 300), 5QT17-(105, 300)	1009 + 103	$21.00
09QT17	1008 + 38	21.00
2L35, 2M40G, 3L20-101, 3L20S, 3M20A, 2120	3001 + 20	8.40
2FM20-500, 3FM20-502, 2MV17-301, 7HV17-102, 7HV40-101	6127 + 38	21.00
3A20-101, 3F20-101, 3F20L	1851 + —	24.80
3F20-(105, 106)	1801 + 66	23.30
3FM20-(104, 107, 108,320)	3251 + —	17.40
5AV17	6009 + 38	33.00
5B20LS, 10B20LS, 2835741, 7B17-102	1800 + 38	23.30
5L20, 5L20U, 7H17, 7H40, 7L17-(105, 108), 7L17U, 9L20S, 10H25, 10L17-104, 10L17B, 10L17S, 10L20S, 10L70, 10M20A, 10M70A	3000 + 20	8.40
5S1-103, 7EM12A, 551-115	3601 + 18	8.00
5SS1	2201 + 18	12.00
5TRB, HRE-1	RPE-23 + —	15.60
6AV17-203	6003 + 38	33.00
8BE30, 9QE3, 9QTE3	1401 + 18	12.00
10FM20	3251 + —	17.40
40EM12A, 50HE6-201	3600 + 18	8.00
40EQ3-101	1400 + 18	12.00

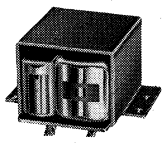
†For prices of Quik-Kits, see listing on Page 1 of this section.

NOTE: All heads with a 100 Series dash number are interchangeable with heads with a 300 Series dash number. For example: 3L20-101 and 3L20-301 are interchangeable.

SHURE Part Numbers	Nortronics Head + Q-Kit	Net†, Less Quik-Kit
815, TR5B, TR5B-J, TR5D, TR6H, TR5N	RPE-23 + —	$15.60
815H, 816, TR5C, TR5K, TR5L, TR5Z-2, TR5Z2-J	RPE-24 + —	15.60
817, TR16A, TR21A, TR21C	3101 + 20	8.40
TE2, TE2-J, TE11C, TE11C-J	3601 + 18	8.00
TE30	3600 + 19	8.00
TE35	3650 + —	9.50
TK418	RPE-20 + —	15.60
TR16, TR16J, TR21B, TR21C-J, TR26	3100 + 20	8.40
TR30	2601 + 66	15.90
TR40, TR40-J	2001 + 66	30.30
TR54, TR54-J	7601 + —	30.00

†For prices of Quik-Kits, see listing on Page 1 of this section.

Replacements—Shure "Combinations"



RPE-23 & RPE-24—These Nortronics Head-Kits are designed as premium quality replacements for several Shure "combination" heads originally developed in the early years of tape recording. They are called combination heads because the Erase and Record/Play functions (normally two separate heads) were contained in a single assembly and mounted as if they were one head. For specific replacements, see the table above. RPE-23 will fit the same models as the RPE-20 plus the very old model Revere & Wollensak monophonic machines.

Net Each **$15.60**

Conversion Kits—for Revere & Wollensak Models

WR-30—Converts all monophonic Wollensak and Revere tape recorders to full-track Record/Play. Fully assembled. Net Each **$57.00**

WR-35—Retains monophonic Record/Play capabilities—converts 2-track stereo to 4-track stereo Play. Fully assembled. Net Each **$25.50**

WR-40—Converts monophonic machines to monophonic Record/4-track stereo Play. Fully assembled.....Net Each **$32.50**

WR-60—Positive shifter provides four-channel monophonic Record/Play, 2 and 4-track stereo Erase/Record (requires additional second channel record pre-amp). Fully assembled.....Net Each **$49.50**

YOUR BEST AND MOST COMPLETE SOURCE FOR MAGNETIC TAPE HEADS

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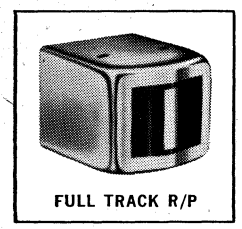
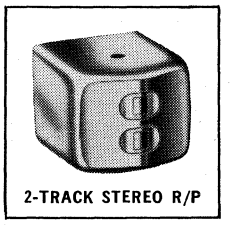
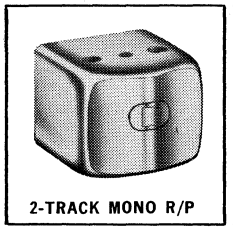
Nortronics COMPANY, INC.

DIRECT REPLACEMENT HEADS FOR: PROFESSIONAL MACHINES

■ Replacement Head Listing for Professional Machines


FULL TRACK R/P


2-TRACK STEREO R/P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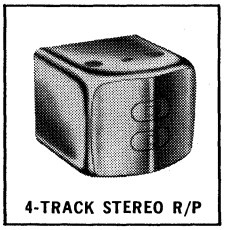
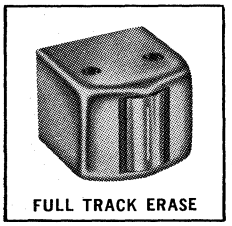
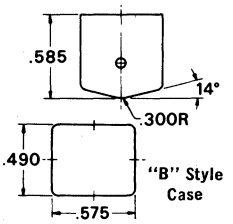

4-TRACK STEREO R/P

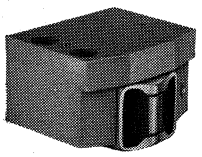

FULL TRACK ERASE



Manufacturer and Model Numbers	Original Function	Nortronics Head + Quik-Kit	Net,† Less Quik-Kit
AMPEX 300, 350, 354, 400 Series NOTE: On PR-10, 600, 900 and 1200 Series, use QK-66 instead of QK-76.	Record, Full Track	8001 + 76	$36.00
	Play, Full Track	8000 + 76	36.00
	Erase, Full Track (for all but 300 series)	8109 + 76	30.00
	Erase, Full Track (for 300 series only)	8106 + 76	30.00
	Record Mono, 2-Track	8401 + 76	22.00
	Play Mono, 2-Track	8400 + 76	22.00
	Erase Mono, 2-Track	8504 + 76	18.00
	Record Stereo, 2-Track	8201 + 76	32.00
	Play Stereo, 2 Track	8200 + 76	32.00
	Erase Stereo, 2-Track	8304 + 76	26.00
	Record Stereo, 4-Track	8604 + 76	30.00
	Play Stereo, 4-Track	8600 + 76	30.00
	Erase Stereo, 4-Track	8701 + 76	26.00
3200	Record, Full Track	8004 + 76	40.00
	Play, Full Track	8008 + 76	36.00
	Record Stereo, 2-Track	8214 + 76	32.00
	Play Stereo, 2-Track	8210 + 76	32.00
	Record Stereo, 4-Track	8614 + 76	30.00
	Play Stereo, 4-Track	8610 + 76	30.00
	Record Mono, 2-Track	8414 + 76	22.00
	Play Mono, 2-Track	8402 + 76	22.00
CROWN 701, 801, BX801, 1001, 1401	Play only or Record/Play, Full Track	8006 + 35	36.00
	Record, Full Track	8001 + 35	36.00
	Erase, Full Track	8102 + 35	30.00
712, 822, BX822, 1022, 1422/8	Play only or Record/Play Stereo, 2-Track	8209 + 35	32.00
	Record Stereo, 2-Track	8201 + 35	32.00
	Erase Stereo, 2-Track	8304 + 38	26.00
702, 802, BX802, 1002, 1402/8	Play only or Record/Play Mono, 2-Track	8403 + 35	22.00
	Record Mono, 2-Track	8404 + 35	22.00
	Erase Mono, 2-Track	8504 + 38	18.00
A51, A314	Play only Mono, 2-Track	8406 + 66	22.00
A54, A324	Play only Stereo, 4-Track	8608 + 66	30.00
714C, 824, BX824, 1024, 1424	Play only or Record/Play Stereo, 4-Track	8608 + 66	30.00
	Record Stereo, 4-Track	8608 + 66	30.00
	Erase Stereo, 4-Track	8701 + 38	26.00
MAGNECORD 1021 *No QK required	Record, Full Track	8005 *	40.00
	Play Mono, 2-Track	8408 *	22.00
	Erase, Full Track	8102 *	30.00
	Play, Full Track (Optional)	8006 *	36.00
1022 *No QK required	Record Stereo, 2-Track	8203 *	35.00
	Play Stereo, 2-Track	8202 *	35.00
	Erase Stereo, 2-Track	8302 *	26.00
1024 *No QK required	Record Stereo, 4-Track	8602 *	30.00
	Play Stereo, 4-Track	8607 *	30.00
	Erase Stereo, 4-Track	8702 *	26.00
P60, P75, M90	Record, Full Track	8001 + 35	36.00
	Play, Full Track	8000 + 35	36.00
	Erase, Full Track	8105 + 35	30.00
R.C.A. RT21 *No QK required	Record, Full Track	8002 *	68.00
	Play, Full Track	8003 *	54.00
	Erase, Full Track	8110 *	68.00
	Record Stereo, 2-Track	8206 *	42.00
	Play Stereo, 2-Track	8205 *	54.00
	Erase Stereo, 2-Track	8307 *	48.00

†IMPORTANT—For prices of Quik-Kits, see listing on Page 1 of this section.

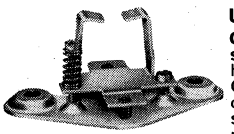
■ Head Mounting Brackets for Professional Machines


QK-76 with Nortronics Head

QK-76 contains all hardware and illustrated instructions necessary to adapt a Nortronics head to the shield cup of an Ampex head nest. Includes: precision cast aluminum block; spacers; screws; connector plug—all other parts necessary are utilized from the original Ampex equipment...Net Each **$12.00**

QK-35 is a special base-mount bracket kit for adapting Nortronics no-mount heads for replacement of Brush heads, or in any application requiring a large base-mounting stud. (Stud is ¼"—28 x ⅝").....Net Each **$2.00**

TAPE RECORDING ACCESSORIES



UNIVERSAL MOUNTS

QUIK-KIT 74 Adjustable Head Mounting Assembly. Unique design permits alignment of head for height, tilt and azimuth. Two TG-7 Guide Posts can be added if desired; if space does not permit, tabs for guide posts can be snapped off. Base has hole for mounting on recorder. For all Nortronics *no mount*, "B" case heads. Base Size (with tabs): 1 1/16" W. x 1 27/32" L. Without tabs: 1 1/16" W. x 1 7/32" L.....Net Each **$2.25**

QUIK-KIT 77 Adjustable Head Mounting Assembly. Identical to QK-74 (inc. dimensions) but for *no mount*, "G" case heads.....Net Each **$2.25**

QUIK-KIT 78 Adjustable Head Mounting Assembly. Identical to QK-74 (inc. dimensions) but for *no mount*, "S" case erase heads.....Net Each **$2.25**

L-5, L-Bracket for side mts. (inc. Azimuthing Plate)..Net Each **$ .50**

L-6, As above but with narrow base, Right Bend.....Net Each **$ .70**

L-7, Identical to L-6, but with Left Bend.....Net Each **$ .70**

TAPE GUIDES

TG-7, Tape Guide Post. Vertically adjustable with tapped mounting hole in base. Chrome-Plated brass for long life...Net Each **$1.00**

TG-8, Tape Guide Plate. For Side-Mount heads and L-5, L-6 or L-7 bracket; gives additional guiding.....Net Each **$ .50**

ALIGNMENT TAPE

AT-100 Azimuth and Amplifier Alignment Tape. A 7.5 IPS full track, direct oscillator master recording of frequencies from 40 to 10,000 Hertz for checking azimuth and NAB equalization. 1000 Hertz zero reference level tone included. Instructions are included. Net Each **$4.95**

CONNECTOR ASSEMBLIES

CC-70—18" plug and shielded insulated cable assembly for Nortronics heads (Except Mono Combo).....Net Each **$2.00**

CC-77—18" plug and shielded insulated cable assembly for Nortronics Mono Combo heads.....Net Each **$2.00**

BIAS OSCILLATOR TRANSFORMERS

T60-T2—For transistor circuits. Features Ferrox-cube E-cores for high Q, maximum efficiency and distortion-free waveform. Supplies 40-120 volts at 60-100 KHz. With instructions.....Net Each **$4.50**

T60E—For vacuum tube circuits, push-pull erase and bias power at operating frequencies from 40-70 KHz; 120 volts rms to high impedance erase heads and 7 volts rms to low impedance erase heads. With instructions.....Net Each **$4.50**

T60-F—For vacuum tube circuits, push-pull erase and bias power at operating frequencies from 70-100 KHz; output 150 volts rms tapped at 60 volts for high and medium impedance erase heads. With instructions.....Net Each **$4.50**

YOUR BEST AND MOST COMPLETE SOURCE FOR MAGNETIC TAPE HEADS

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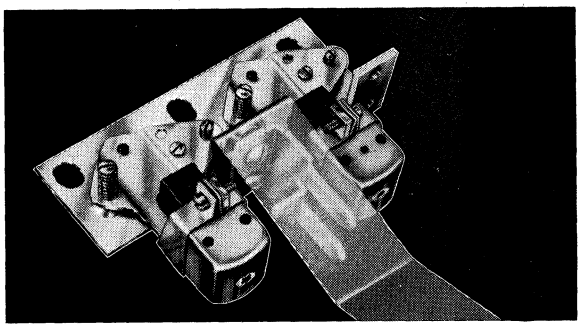
Nortronics COMPANY, INC.

DIRECT REPLACEMENT HEADS FOR: CARTRIDGE MACHINES

■ No-Mount Head Bracket Assembly for Cartridge Machines



QK-114 installs two no-mount dual channel heads for monophonic use, or two no-mount three channel heads for stereo operation. Left head is for recording; right head for playback. Requires heads similar to 2000 Series. Completely assembled and semi-aligned.....Net Each **$13.60**

QK-115 installs two no-mount monophonic 2-track heads (see monitor conversion information below). Requires heads similar to 3000 Series. Completely assembled and semi-aligned.....Net Each **$13.60**

BOTH QK-114 AND QK-115 FURNISHED WITH CARTRIDGE HOLD-DOWN SPRING AND CARTRIDGE GUIDE RAIL.

NAB CONVERSION TO MONITOR—As all professional users of tape equipment know, superior results can be achieved by using a special record-only head plus a separate playback head. Professionals also appreciate the ability to be able to monitor a tape as it is being recorded. Nortronics offers a conversion to monitor operation to update cartridge machines as shown in the shaded (NAB Conversion) columns on the chart below

■ Replacement Head Listing for Cartridge Machines—By Manufacturer and Model Number

NAME OF MFG.	MANUFACTURER'S MODEL NO.	NO-MOUNT HEADS					REAR-MOUNT HEADS				
		MFG. HEAD NO.	REPLACEMENT FUNCTION	REPLACEMENT NORTRONICS HEAD + QUIK KIT	NAB CONVERSION FUNCTION	NAB CONVERSION NORTRONICS HEAD + QUIK KIT	MFG. HEAD NO.	REPLACEMENT FUNCTION	REPLACEMENT NORT HEAD	NAB CONVERSION FUNCTION	NAB CONVERSION NORT. HEAD
ATC	CP11, CP12, CP13		Rec.—Prog. & Cue Play—Prog. & Cue	2003 } +114 2007 }	Unit is NAB Std.		20-1014 20-1011	Rec.—Prog. & Cue Play—Prog. & Cue	2053 2057	Unit is NAB Std.	
	CP21, CP22, CP23 STEREO (3-Channel)		Rec.—Prog. & Cue Play—Prog. & Cue	5703 } +114 5707 }	Unit is NAB Std.		20-1016 20-1015	Rec.—Prog. & Cue Play—Prog. & Cue	5753 5757	Unit is NAB Std.	
	P150, P190, PB150, PB190 PC150, PC190		Rec./Play—Prog. Rec./Play—Cue Requires circuit modification, see Nortronics Form No. 7213.	3201 } +115 3200 }	Rec.—Prog. & Cue Play—Prog. & Cue No circuit changes required.	2005 } +114 2001 }	20-1001	Rec./Play—Prog. Rec./Play—Cue Requires circuit modification, see Nortronics Form No. 7213.	3251 3250	Rec.—Prog. & Cue Play—Prog. & Cue No circuit changes required.	2055 2050
COLLINS	P150, P190, PB150, PB190		Rec./Play—Prog. Rec./Play—Cue Requires circuit modification, see Nortronics Form No. 7213.	3201 } +115 3200 }	Rec.—Prog. & Cue Play—Prog. & Cue No circuit changes required.	2005 } +114 2001 }		Rec./Play—Prog. Rec./Play—Cue Requires circuit modification, see Nortronics Form No. 7213.	3251 3250	Rec.—Prog. & Cue Play—Prog. & Cue No circuit changes required.	2055 2050
	642A-1, 642A-2		Rec./Play—Prog. Rec./Play—Cue A portion of the vertical rear flange must be cut out of the deck to mount QK-115 or QK-114	3201 } +115 3200 }	Rec.—Prog. & Cue Play—Prog. & Cue	2005 } +114 2001 }		Rec./Play—prog. Rec./Play—Cue It may be necessary to remount tape guide adjacent to Right head.	3251 3250	Rec.—Prog. & Cue Play—Prog. & Cue	2055 2050
GATES Study actual head configuration on your deck, since model numbers were unchanged when Gates converted from Rear-Mount to No-Mount heads.	M5944		Rec./Play—Prog. Rec./Play—Cue	3201 } +115 3200 }	Rec.—Prog. & Cue Play—Prog. & Cue	2005 } +114 2001 }		Rec./Play—Prog. Rec./Play—Cue	3251 3250	Rec.—Prog. & Cue Play—Prog. & Cue	2055 2050
	M5735 (SPOT TAPE)		Rec./Play Erase	2601 +35 8501 +35		none none		SEE LEFT SEE LEFT	none none		none none
	M6211 SERIES (Play Only)	730-0343 730-0423 730-0729	Play—Prog. & Cue } Play—Prog. & Cue } Play—Prog. & Cue	2002 +114 2002 +—	Unit is NAB Std.		730-0343 730-0423	Play—Prog. & Cue Play—Prog. & Cue	2052	Unit is NAB Std.	
	M6212 SERIES (3-Channel) (Play Only)	730-0731 Must be used if the original head was cylindrical or was a Nortronics No-Mount head.	Play—Prog. & Cue	5701 +114	Unit is NAB Std.		730-0727 Can be used if original head was a Nortronics Rear-Mount head.	Play—Prog. & Cue	5751	Unit is NAB Std.	
	M6213 SERIES	730-0343 730-0423 730-0729 730-0729 Used with QK-114 to replace Gates Rear-Mount 730-0343 and 730-0423 heads. Direct replacement for Gates No-Mount 730-0729 heads.	Rec.—Prog. & Cue Play—Prog. & Cue Rec.—Prog. & Cue Play—Prog. & Cue	2002 } +114 2002 } +— 2002 }	Unit is NAB Std.		730-0343 730-0423 Direct replacement for Gates Rear-Mount 730-0343 and 730-0423 heads.	Rec.—Prog. & Cue Play—Prog. & Cue	2052 2052	Unit is NAB Std.	
	M6214 SERIES (3-Channel)	730-0730 730-0731 Must be used if the original head was cylindrical or was a Nortronics No-Mount head.	Rec.—Prog. & Cue Play—Prog. & Cue	5703 } +114 5701 }	Unit is NAB Std.		730—0727 Can be used if original head was a Nortronics Rear-Mount head.	Rec.—Prog. & Cue Play—Prog. & Cue	5753 5751	Unit is NAB Std.	
KRS	REAR MOUNT HEADS MUST BE USED.		Check original Nortronics' OEM head numbers and replace from this listing.	none		none	SLAH4L SLAH5L TLAH4L TLAH5L P-B2H4R P-B2H7K	Rec./Play—Mono Rec./Play—Mono Rec./Play—Stereo Rec./Play—Stereo Rec. Only—Stereo Plbck. only—Stereo	3251 3252 2051 2052 2053 2051		none none none none none none
MACARTA (Moulic Specialties)	105/108 PLAYBACK } 2405/2408 CAROUSELS }	P-G1H7K P-G1H7K	Play—Prog. Play—Cue	3201 } +115 3201 }		none	P-G1H7K-R P-G1H7K-R	Play—Prog. Play—Cue	3251 3251		none
	208 STEREO PLAYBACK (4-Track)	P-B2Q7K P-B2Q7K	Play—Prog. Play—Cue	1201 } +114 1201 }	Unit is NAB Std.				none		none
	248 CAROUSEL (Transistor) } 500 PLAYBACK (Transistor) }	P-B2H2K P-B2H2K	Play—Prog. & Cue Play—Prog. & Cue	2000 } +114 2000 }	Unit is NAB Std.				none		none
	560 RECORDER			none	Rec.—Prog. & Cue Play—Prog. & Cue	2005 } +114 2001 }			none	Rec.—Prog. & Cue Play—Prog. & Cue	2055 2050
	570 RECORD PLAYBACK (Transistorized)	R-B2H4R P-B2H2K	Rec.—Prog. & Cue Play—Prog. & Cue	2003 } +114 2000 }	Unit is NAB Std.						none
RCA	RT 7A Cue head is on left. Program head is next to capstan.		Rec./Play—Prog. Rec./Play—Cue	3201 } +115 3201 }	Rec.—Prog. & Cue Play—Prog. & Cue	2005 } +114 2001 }	223320 223320	Rec./Play—Prog. Rec./Play—Cue	3251 3251	Rec.—Prog. & Cue Play—Prog. & Cue	2055 2051
	RT 7B, RT 7C Cue head is on left. Program head is next to capstan.		Rec./Play—Prog. Rec./Play—Cue	3202 } +115 3201 }	Rec.—Prog. & Cue Play—Prog. & Cue Head No. 2047 is a special Dual Channel head with 150 MHY top program channel and 400 MHY bottom cue channel.	2002 } +114 2047 }	226517 223320	Rec./Play—Prog. Rec./Play—Cue	3252 3251		none
	RT 17 MONO Quik-Kit conversion to No-Mount heads is not recommended.			none		none		Rec.—Prog. & Cue Play—Prog. & Cue	2052 2052	Unit is NAB Std.	
	RT 37 STEREO (3-Channel) Quik-Kit conversion to No-Mount heads is not recommended.			none		none	626-143 626-143	Rec.—Prog. & Cue Play—Prog. & Cue	5752 5752	Unit is NAB Std.	
SPARTA	CD 15-2	P-A1HC47K	R/P/E(Combo Hd.)	6127 +—		none			none		none
	PB211 (Play Only)	P-B2H7K	Play—Prog. & Cue	2001 +—	Unit is NAB Std.				none		none
	200P, 200RP, 300P		Rec./Play—Prog. Rec./Play—Cue	3201 } +115 3200 }	Rec.—Prog. & Cue Play—Prog. & Cue	2005 } +114 2001 }		Rec./Play—Prog. Rec./Play—Cue	3251 3250	Rec.—Prog. & Cue Play—Prog. & Cue	2055 2050
	300B, 400RP, 800RP	P-B2H4R P-B2H7K	Rec.—Prog. & Cue Play—Prog. & Cue	2003 } +114 2001 }	Unit is NAB Std.				none		none
	400P, 800P		Play—Prog. & Cue	2001 +114	Unit is NAB Std.				none		none
	600P, 600RP Older vacuum tube models will take same head listed.	P-B3Q7K P-B3Q7K	Rec.—Prog. & Cue Play—Prog. & Cue	5701 } +114 5701 }	Unit is NAB Std.				none		none
TAPECASTER	600P, 600RP		Rec./Play—Prog. Rec./Play—Cue	3201 } +115 3200 }	Rec.—Prog. & Cue Play—Prog. & Cue	2001 } +114 2001 }	P-G1H7K-R G1H2K-R	Rec./Play—Prog. Rec./Play—Cue	3251 3250	Rec.—Prog. & Cue Play—Prog. & Cue	2051 2050
	STEREO—700P, 700RP		R/P—Prog. & Cue	5701 +114		none	P-B3Q7K-R	R/P—Prog. & Cue	5751		none
	700P (1 Head Required) 700RP (2 Heads Required)		Rec.—Prog. & Cue Play—Prog. & Cue	2001 } +114 2001 }	Unit is NAB Std.			Rec.—Prog. & Cue Play—Prog. & Cue	2051 2051	Unit is NAB Std.	

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Net

RoBINS®

RECORDING TAPE

ferrotape

TAPE OF THE HIGHEST QUALITY WITH EXCLUSIVE PLUS FEATURES...

Head-Kleen Tape Leader—CO-05 Micro-Lapping Abrasive polishing leader pre-spliced on both ends, cleans heads and guides on every run-thru. Plus—Reversing Tabs on both ends for automatic bi-directional or automatic stop recorders. Improved coating and finishing provides denser flatter oxide surface for improved, consistent high frequency response. Standardized bias requirement provides higher output without resetting bias. Special processed oxide minimizes distortion at standard bias setting. Oxide layer has exclusive dry lubricant to prevent wow and flutter, and reduce head wear. Special formulated hard, scratch resistant surface eliminates flake-off peeling, and deposits on guides and heads. Attractively Boxed.

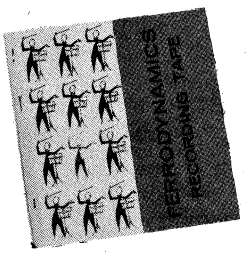
Cat #	Previous Cat. #	Reel Size	Length Feet	Playing Time per track in minutes at 3¾ ips	Material	List
5X5M	20253-12	5"	1200'	60	.5 mil Polyester	**$4.50**
5X7M	20253-24	7"	2400'	120		**8.00**
5X5MT	20256-12	5"	1200'	60	.5 mil Polyester	**5.60**
5X7MT	20256-24	7"	2400'	120	Tensilized	**9.85**
5X5MTS	20257-18	5"	1800'	90	.5 mil Polyester	**7.95**
5X7MTS	20257-36	7"	3600'	180	Tensilized Triple Play	**13.85**
10X5	20243-9	5"	900'	45	1. mil Acetate	**3.55**
10X7	20243-18	7"	1800'	90		**5.65**
10X5M	20252-9	5"	900'	45	1. mil Polyester	**3.70**
10X7M	20252-18	7"	1800'	90		**6.40**
15X5	20241-6	5"	600'	30	1.5 mil Acetate	**2.25**
15X7	20241-12	7"	1200'	60		**3.60**

M: Polyester (Mylar or Celanar) T: Tensilized S: Triple Play

BRAND FIVE

"Brand 5" derives its name from the fact that it is the fifth oldest brand of recording tape in the world. The "Best Buy"... the old familiar standby of better quality, popular tape, now better than ever under the guidance of Robins Quality control. "Brand 5" tapes have an improved dry synthetic lubricant to eliminate squeal, stop gumming of heads, and reduce head wear. Offers increased output, reduced distortion at same recording level, better frequency response for sharper, brighter recordings, and improved uniformity for lower modulation noise. Attractively Boxed.

Cat. #	Reel Size	Length Feet	Playing Time per track in minutes at 3¾ ips	Material	List
5D3M	3"	300'	15	.5 mil Polyester	**$1.08**
5D5M	5"	1200'	60	Double Play	**3.05**
5D7M	7"	2400'	120		**5.22**
5D3MT	3"	300'	15	.5 mil Tensilized	**1.30**
5D5MT	5"	1200'	60	Polyester	**4.58**
5D7MT	7"	2400'	120	Double Play	**7.65**
5D3MTS	3"	450'	22½	.5 mil Tensilized	**1.55**
5D5MTS	5"	1800'	90	Polyester	**6.25**
5D7MTS	7"	3600'	180	Triple Play	**11.10**
5D3MS	3"	450'	22½	.5 mil Polyester	**1.42**
5D5MS	5"	1800'	90	Triple Play	**4.85**
5D7MS	7"	3600'	180		**8.50**
10D3	3"	225'	11	1. mil Acetate	**.95**
10D5	5"	900'	45		**2.00**
10D7	7"	1800'	90		**3.35**
10D3M	3"	225'	11	1. mil Polyester	**1.05**
10D5M	5"	900'	45		**2.50**
10D7M	7"	1800'	90		**4.50**
15D3	3"	150'	7½	1.5 mil Acetate	**.72**
15D5	5"	600'	30		**1.65**
15D7	7"	1200'	60		**2.52**
15D3M	3"	150'	7½	1.5 mil Polyester	**1.00**
15D5M	5"	600'	30		**3.05**
15D7M	7"	1200'	60		**2.52**



ferrodynamics brand

Good quality, economical recording tape available in a full range of lengths and base materials to meet the needs of economy minded recordists. Offers good sound reproduction for general recording. Attractively Boxed.

Cat. #	Reel Size	Length Feet	Playing Time per track in minutes at 3¾ ips	Material	List
5F3M	3"	300'	15	.5 mil Polyester	**$1.03**
5F5M	5"	1200'	60	Double Play	**2.91**
5F7M	7"	2400'	120		**5.14**
5F3MT	3"	300'	15	.5 mil Tensilized	**1.24**
5F5MT	5"	1200'	60	Polyester	**4.35**
5F7MT	7"	2400'	120	Double Play	**7.25**
5F3MTS	3"	450'	22½	.5 mil Tensilized	**1.48**
5F5MTS	5"	1800'	90	Polyester	**5.95**
5F7MTS	7"	3600'	180	Triple Play	**10.55**
5F3MS	3"	450'	22½	.5 mil Polyester	**1.33**
5F5MS	5"	1800'	90	Triple Play	**4.63**
5F7MS	7"	3600'	180		**8.05**
10F3	3"	225'	11	1. mil Acetate	**.90**
10F5	5"	900'	45		**1.90**
10F7	7"	1800'	90		**3.17**
10F3M	3"	225'	11	1. mil Polyester	**1.00**
10F5M	5"	900'	45		**2.38**
10F7M	7"	1800'	90		**4.28**
15F3	3"	150'	7½	1.5 mil Acetate	**.69**
15F5	5"	600'	30		**1.55**
15F7	7"	1200'	60		**2.40**
15F3M	3"	150'	7½	1.5 mil Polyester	**.95**
15F5M	5"	600'	30		**2.91**
15F7M	7"	1200'	60		**4.75**

Trade Discount Applies To List Prices Only

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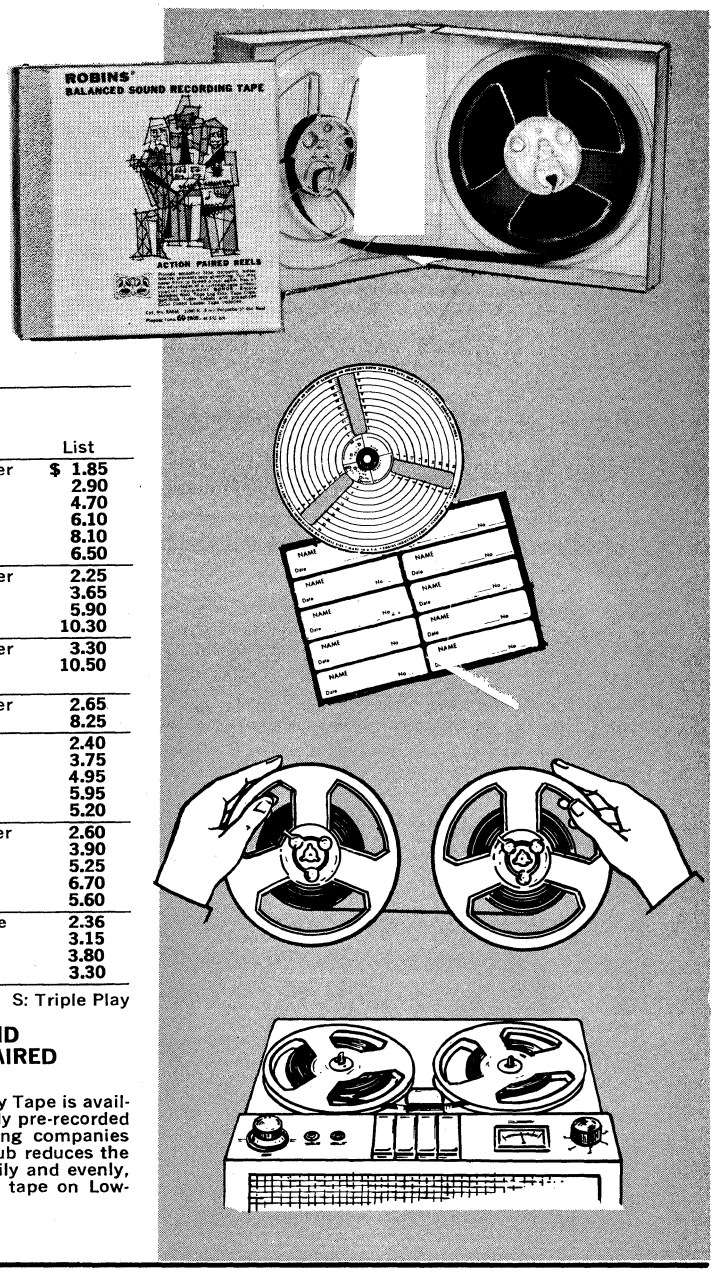
ROBINS®

RECORDING TAPE

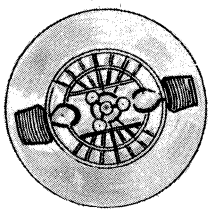
NEW ROBINS® BRAND BALANCED SOUND RECORDING TAPE WITH ACTION PAIRED REELS

ROBINS best quality recording tape with "Action Paired Reels." An empty matching reel is included with every "Balanced Sound" recording tape. The matching balanced reels provide smoother tape transport and helps prevent tape from stretching. The "Action Paired" reels offer advantages of a cartridge tape without special equipment. No need to repeatedly thread tape or search to find a treasured passage. Tape is always ready for playing or recording. Just lift partially played reels off recorder together and place them in the convenient "Dual Compartment Library Box." To load recorder, reverse procedure. Every Robins Balanced Sound Recording Tape includes Tape Log Disc, Tape Clips, and Self-Stick Title Labels . . . PLUS — Color Coded Leader Tape prespliced to beginning and end of every 5", 5¾", and 7" reel of tape. Green Leader indicates beginning and Red Leader indicates end of reel. Attractively Boxed.



Cat. #	Reel Size	Length Feet	Playing Time per track in minutes at 3¾ ips	Material	List
5A32M	3¼"	400'	20	.5 mil Polyester	**$ 1.85**
5A4M	4"	650'	32		**2.90**
5A5M	5"	1200'	60		**4.70**
5A56M	5¾"	1600'	80		**6.10**
5A7M	7"	2400'	120		**8.10**
5A74M	7" LT	1700'	85		**6.50**
5A32MT	3¼"	400'	20	.5 mil Polyester	**2.25**
5A4MT	4"	650'	32	Tensilized	**3.65**
5A5MT	5"	1200'	60		**5.90**
5A7MT	7"	2400'	120		**10.30**
5A32MTS	3¼"	600'	30	.5 mil Polyester	**3.30**
5A56MTS	5¾"	2400'	120	Tensilized Triple Play	**10.50**
5A32MS	3¼"	600'	30	.5 mil Polyester	**2.65**
5A56MS	5¾"	2400'	120	Triple Play	**8.25**
10A4	4"	500'	25	1. mil Acetate	**2.40**
10A5	5"	900'	45		**3.75**
10A56	5¾"	1200'	60		**4.95**
10A7	7"	1800'	90		**5.95**
10A74	7" LT	1300'	65		**5.20**
10A4M	4"	500'	25	1. mil Polyester	**2.60**
10A5M	5"	900'	45		**3.90**
10A56M	5¾"	1200'	60		**5.25**
10A7M	7"	1800'	90		**6.70**
10A74M	7" LT	1300'	65		**5.60**
15A5	5"	600'	30	1.5 mil Acetate	**2.36**
15A56	5¾"	800'	40		**3.15**
15A7	7"	1200'	60		**3.80**
15A74	7" LT	850'	42		**3.30**

LT: Low Torque Reel M: Polyester (Mylar or Celanar) T: Tensilized S: Triple Play

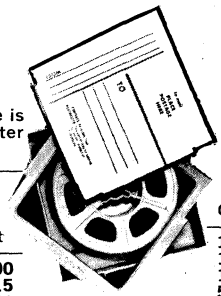


ROBINS® BRAND BALANCED SOUND RECORDING TAPE WITH ACTION PAIRED LOW TORQUE REELS...

Now for the first time a Professional Quality Tape is available with Low Torque Reels. Up till now only pre-recorded tapes produced by all the major recording companies had low torque reels because the larger hub reduces the force (torque) required to wind tape steadily and evenly, thus reducing wow and flutter. Recording tape on Low-Torque Reels is a ROBINS FIRST!

ROBINS® BRAND CORRESPONDENCE TAPE WITH REUSABLE IMPACT RESISTANCE PLASTIC TAPE MAILING CANISTERS

The best quality recording tape for tape correspondents. Tape is supplied with reusable impact resistant plastic mailing canister and two-sided address card. Peg-Packaged.



Cat. #	Reel Size	Length Feet	Playing Time per track in minutes at 3¾ ips	Material	List
15H3	3"	150'	7½	1.5 mil Acetate	**$1.00**
10H3	3"	225'	11	1. mil Acetate	**1.15**
10H3M	3"	225'	11	1. mil Polyester	**1.40**
5H3M	3"	300'	16	.5 mil Polyester	**1.55**
5H3MS	3"	450'	22½	.5 mil Polyester Triple Play	**2.20**
5H32MS	3¾"	600'	30	.5 mil Polyester Triple Play	**2.75**

ferrodynamics brand CORRESPONDENCE TAPE WITH REUSABLE IMPACT RESISTANT PLASTIC MAILING CANISTERS

Cat. #	Reel Size	Length Feet	Playing Time per track in minutes at 3¾ ips	Material	List
15C3	3"	150'	7½	1.5 mil Acetate	**$ .89**
10C3	3"	225'	11	1. mil. Acetate	**1.05**
10C3M	3"	225'	11	1. mil Polyester	**1.25**
5C3M	3"	300'	15	.5 mil Polyester	**1.45**
5C3.2	3¼"	600'	30	.5 mil Polyester Triple Play	**2.50**

Peg-Packaged

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Trade Discount Applies To List Prices Only

RoBINS® TAPE HEADS

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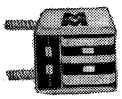
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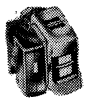
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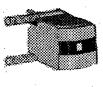
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EXACT REPLACEMENT AND STEREO CONVERSION RECORDING HEADS

SPECIFICATIONS — RECORD/PLAYBACK HEADS

Head No.	Track	Type	Tape Speed (IPS)	Imped. (1 KC)	Rec. Level (Bel. Sat.) (DB)	Audio Current (MA) A	Bias Current (MA)	Bias Freq. (KC)	Play Level (1 KC) (MV)	Play Level (10 KC) Bel. 1 KC Level	Induct. (Nom.) (H)	DCR (Ohms) Direct Current Resist.	Fig. No.	List Price
2FM20-500	½	M. R/P & E*	7.5	1650	−12	—	—	—	2.15	−10	—	360	8	**$22.00**
3F20-101	½	S. R/P	7.5	2000	−12	.043	1.0	62	1.8	−13	.3	390	11	**32.00**
3F20-305	½	S. R/P	7.5	2000	−12	.043	1.0	62	1.8	−13	.3	390	13	**32.00**
3FM20-304	½	M. R/P	7.5	2000	−12	.043	1.0	62	1.8	−13	.3	390	12	**14.50**
3FM 20-308	½	M. R/P	7.5	2000	−12	.043	1.0	62	1.8	−13	.3	390	12	**14.50**
3FM20-502	½	M. R/P & E*	7.5	2000	−12	—	—	—	2.7	−13	.3	390	8	**38.50**
3L20-301	½	M. R/P	7.5	2460	−12	.03	1.25	50	1.64	−13	.35	280	6	**11.00**
5AV17	¼	S. R/P & E*	3.75	3600	−12	.020	0.25	80	1.8	−12	.5	1000	7	**35.50**
5P17	¼	S. R/P	3.75	3500	−12	.018	.2	65	1.8	−12	.5	845	15	**25.00**
5QT17	¼	S. R/P	7.5	3340	−12	.020	.3	80	2.4	−6.0	.5	915	1	**17.50**
5QT17-305	¼	S. R/P	Identical to 5QT17 (above) Except Mounting Lugs on 5QT17-305 Are on Opposite Side											**24.00**
6AV17-200	¼	S. R/P & E*	3.75	4100	−12	.018	.25	70	1.8	−12	.6	900	23	**26.50**
6AV17-203	¼	S. R/P & E*	7.5	4100	−12	.022	.30	65	2.5	−3	.6	900	16	**26.50**
7B17	½	S. R/P	7.5	5150	−12	.032	.7	80	3.5	−8	.75	690	5	**16.50**
7H17	½	M. R/P	7.5	5150	−12	.042	.8	80	3.0	−8.0	0.75	642	9	**11.00**
7H40	½	M. R/P	7.5	5150	−12	.022	.3	50	6.0	−10	.7	1080	17	**9.50**
7HV17-302	½	M. R/P & E*	3.75	5150	−12	0.22	.4	60	3.2	−14	.75	640	18	**14.50**
7H40-301	½	M. R/P & E*	7.5	5150	−12	.022	.3	50	6.0	−10	.7	1080	19	**14.50**
7L17	½	M. R/P	7.5	5150	−12	.023	1.0	80	2.15	−11	.75	620	6	**11.00**
7L17-308	½	M. R/P	Same as 7L17 Except Mounts from Opposite Side											**11.00**
10H25	½	M. R/P	7.5	7000	−12	.022	.6	60	3.0	−10	1.0	1080	20	**11.00**
10L17-304	½	M. R/P	7.5	7030	−12	.020	1.0	80	2.6	−12	1.0	700	6	**11.00**
HRE-1	½	M. R/P & E*	7.5	1450	+	.05	1.5	50	+	+	+	.....	14	**22.00**

M = MONO, S = STEREO, R/P = RECORD/PLAYBACK, E = ERASE, * Erase and Record specs are in separate charts.
NOTE: All series L (single track), B (two track) and Q (four track) are electrically and mechanically interchangeable for easy Stereo conversion. 90TE3 Erase head is a ¼ track replacement for 5S1 and 5SS1 Erase heads.

SPECIFICATIONS — ERASE HEADS

Head No.	Track	Type Erase	Tape Speed (IPS)	Imped. @ Erase Freq.	Erase Freq. (KC)	Erase Current (MA)	Erasure (DB) (200) (Cy. Sat.)	Induct. (Nom.) (MH)	DCR (Ohms) Direct Current Resistance	Fig. No.	List Price
2FM20-500	½	Mono	7.5	1750	62	17	−55	5.0	26	8	**$22.00**
3FM20-502	½	Mono	7.5	1750	62	17	−55	5.0	26	8	**38.00**
5AV17	¼	Stereo	3.75	2800	80	15	−60	11.0	31	7	**35.50**
5S1	½	Mono	7.5	1750	62	17	−55	5.0	26	2	**8.00**
5S1-303	½	Mono	Identical to 5S1 Except Mounts from Opposite Side								**8.00**
5SS1	½	Stereo	7.5	1750	62	17	−55	5.0	26	3	**14.50**
6AV17-200	¼	Stereo	7.5	2800	70	15	−60	.12	33	23	**26.50**
6AV17-203	¼	Stereo	7.5	52	65	95	−60	.25	1.3	16	**26.50**
7EM12A	½	Mono	7.5	2200	80	30	−50	5.4	28	4	**9.00**
7HV17-302	½	Mono	7.5	2400	60	19	−55	18.0	40	18	**14.50**
7HV40-301	½	Mono	7.5	2200	50	19	−55	18.0	40	19	**14.50**
9QTE3	¼	Stereo	7.5	2500	75	12.5	−60	9.0	33	10	**11.00**
40EM12A	½	Mono	7.5	10000	52	10	−50	40.0	160	4	**9.00**
40EQ3-301	¼	Stereo	7.5	8000	60	10	−60	40.0	161	21	**9.50**
50HE6-201	½	Mono	7.5	6000	60	12.5	−55	50.0	67	22	**8.00**
HRE-1	½	Mono	7.5	780	25	27	−50	.....	.....	14	**22.00**

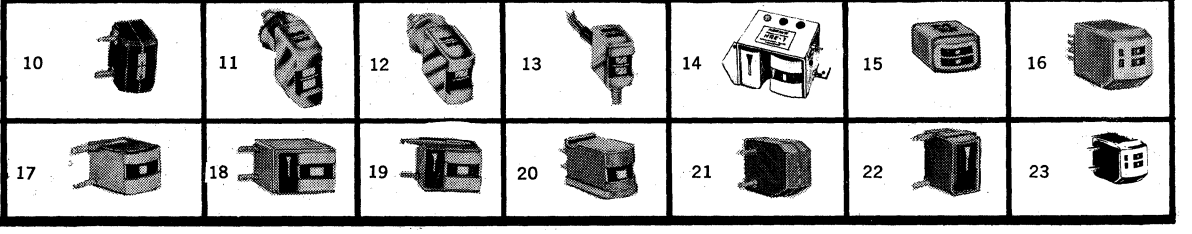
ROBINS M/M STEREO HEAD CONVERSION KITS

Converts 90% of all U.S. made two track Stereo recorders to 4 track using a screwdriver or pliers. For mono units too, but additional amplifier is required. Kit contains: 4 track R/P head, head alignment tape, hardware and instructions.

#5K17 (5QT17 head) **List $20.00**

#5K17U (5QT17-305 head) .....**List $26.00**

HEAD REPLACEMENT AND STEREO CONVERSION MANUAL. Complete cross reference guide lists recorder manufacturers models, head part numbers and Robins exact replacement heads. Head diagrams and specifications included. Latest Guide. **List 35¢**



ROBINS HAS A COMPLETE LINE OF EXACT REPLACEMENT DRIVE PARTS FOR PHONOS AND TAPE RECORDERS

Latest Drive Parts Replacement Cross Reference Guide lists manufacturers phono and tape recorder models, part numbers, and Robins exact replacement numbers. 16 pages, 8½" x 11", 3 hole punched for insertion into binder. Contains full Sizes illustrations, specifications, and dimensions of all parts.

DRIVE PARTS CROSS REFERENCE GUIDE.....**List 35¢**

RoBINS®

TAPE ACCESSORIES

1

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1. TAPE KARE CHEMICAL KIT. 2 oz. bottles of head cleaner, head and guide lubricant, Non-Slip for tape and phono drives, and tape and phono drive oil. With 50 Swabbies. **#TK-7**.....**List $3.50**

TAPE HEAD CLEANER AND LUBE KIT. 2 oz. bottles of head cleaner and head and guide lubricant. (Not illus.) **#TK-6**.....**List $1.90**

2. TAPE KARE KIT. 2 oz. bottle head cleaner and tape jockey cloth. **#TK-2** ..... **List $1.90**

3. TAPE-CLEAN. Chemically treated cloth tape. Cleans and lubricates tape heads and guides when played through recorder. Deposits minute film of Silicone for friction-free performance. **#HC-5,** 5" reel of Tape-Clean. **List $2.50** **#THC-3,** 3" reel of Tape-Clean for small recorders. **List $1.65**

Trade Discount Applies To List Prices Only

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ROBINS®

'SONORAMIC 99 LINE' TAPE MULTI-PAKS

A wide selection of multi-pak recording tapes for economy minded recordists and tape correspondents. Tapes are available on 2" to 7" dia. reels, packaged in quantities of 2, 3, 4, and 6 to a pack. Eye catching headers and clear polybags put reels of tape in sight. Tape boxes and mailers are included in the line. Self merchandising display #DD-25F is available to dealers.

ECONOMICAL, LOW PRICED GOOD QUALITY RECORDING TAPE

Cat. #	Reels per pkg.	Reel Size	Length Feet each reel	Playing Time per track in minutes at 3¾ ips	Material	List
15S3-P4	4	3"	150'	7½	1.5 mil Acetate	**$1.65**
15S2-P6	6	2"	75'	3¼	1.5 mil Acetate	**1.65**
10S3-P3	3	3"	225'	11	1. mil Acetate	**1.65**
10S2-P4	4	2"	110'	5	1. mil Acetate	**1.65**
10S3M-P2	2	3"	250'	12½	1. mil Polyester	**1.65**
10S2.5M-P3	3	2½"	150'	7½	1. mil Polyester	**1.65**
5S3M-P2	2	3"	300'	15	.5 mil Polyester Double Play	**1.65**
5S2.5M-P3	3	2½"	200'	10	.5 mil Polyester Double Play	**1.65**
5S2.5MS-P2	2	2½"	350'	17½	.5 mil Polyester Triple Play	**1.65**
15S7-P2	2	7"	1200'	60	1.5 mil Acetate	**4.35**
10S7-P2	2	7"	1800'	90	1. mil Acetate	**5.80**
15S5-P2	2	5"	600'	30	1.5 mil Acetate	**2.67**
10S5-P2	2	5"	900'	45	1. mil Acetate	**3.30**

RMC-6 Package of 6, reusable Impact Resistant Plastic Tape Mail Canisters for up to 3¼" dia. tapes **1.65**

TMC-15 Package of 25 double sided Addressing Cards for Reusable Plastic Tape Mailing Canisters..... **1.00**

TB3-12 Package of 12 Cardboard Mailing Boxes for up to 3¼" dia. tapes. Ready to be addressed..... **1.00**

TAPE ACCESSORIES

ROBINS®

4. GIBSON GIRL® STEREO 4 TAPE ACCESSORY KITS. Everything required for better tape recording and editing. DELUXE KIT contains: Deluxe Stereo 4 tape splicer, splicing tape, tape threader, head and guide lubricant, head cleaner, tape cleaning cloth, reel holders, tape clips, reel labels, and tape editing guide book. #**TK-8DLX**.....**List $16.75**

STANDARD KIT contains: Standard Stereo 4 splicer, splicing tape, tape threader, reel holders, head cleaner, tape cleaning cloth, tape clips, reel labels, and tape editing guide book. #**TK-4STD**.....**List $13.50**

JUNIOR KIT. Same accessories as above with Junior Splicer. #**TK-4JR** **List $11.25**

TAPE "JOCKEY CLOTH" cleans and lubricates recording tape with Silicone. Washable and reusable. Pkg. of 3 cloths. #**JCT-2** (Not illus.) **List $1.00**

TAPE CLIPS. Keeps tape from unwinding. Pkg. of 75 plastic, reusable clips. (Not illus.) #**TC-75**.....**List $1.00**

REEL HOLDERS. Reduces reel wobbling. A must for vertical decks. (Not illus.) #**RH-2** (Pair) .....**List $1.00**

5. TAPE THREADER. Eliminates awkward fumbling. Place tape against reel, slip threader on, turn crank—tape is threaded. #**TT-1**.....**List $1.00**

6. REEL-NEET PLASTIC REEL HOLDERS FOR 7" TAPES. Stores reels in upright position. Prevents reel warping. 2 Tape Log Discs included. Pkg. of 2. #**TRN-2** .....**List $1.00**

7. TAPE LOG DISCS. Easy indexing of tapes. Write titles on circular lines. Record tape speed, reel number, date, etc. #**TLD-15** for 7" reels. Pkg. of 15....**List $1.00** #**TLD-18** for 5" reels, Pkg. of 18....**List $1.00**

MULTI-PAK OF 150 TITLE LABELS. Self-Stick 2" x ½" labels. Write or type on them. (Not illus.) #**TL-150**.....**List $1.00**

LONG-LINE TITLE LABELS. Package of 50 self-stick 9½" x ⅜" labels. Type or write on them. Supplied in sheet of 10 labels for convenient handling. (Not illus.) #**TL-9**.....**List $1.00**

REPLACEMENT TAPE RECORDER PRESSURE PADS. Assortment of precut felt pads for most tape recorders. Worn pads cause wow, flutter, loss of highs, and tape squeal. Package contains 44 precut felt pads and 2 "U-Cut-It" Pads. (Not illus.) #**TPP-1**.....**List $1.00**
#**TPP-2** Self-Stick Pads .....**List $1.00**

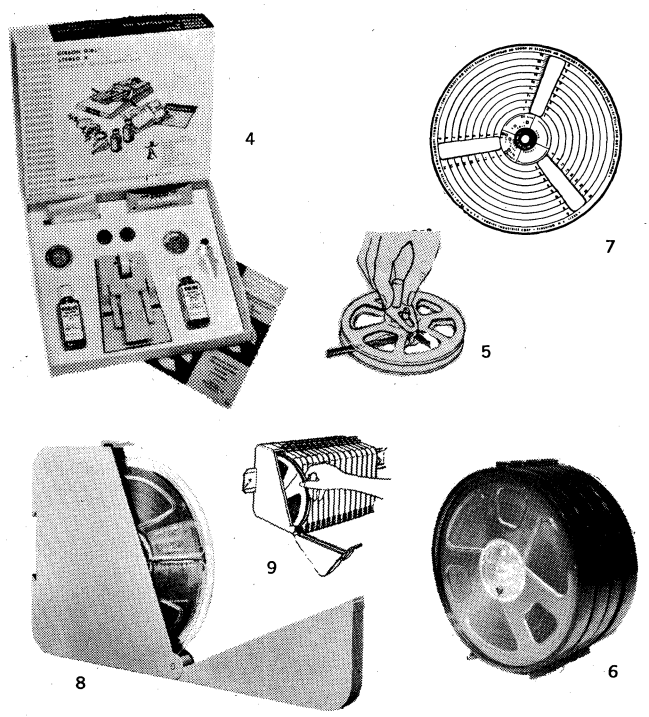
METAL TAPE STORAGE CANS. Enamel finished. Protects tapes against dust and moisture. Helps prevent tape "ageing." Ribs on cans nest for stacking. (Not illus.) #**TC-7,** 7" can for 7" reel.....**List 85¢**
#**TC-5,** 5" can for 5" reel.....**List 60¢**

8. DELUXE HI-IMPACT MOLDED INDIVIDUAL TAPE SAFE. Protects 7" tapes against dust and dirt. Reduces tape "ageing." Hinged cover for quick, easy access to tape. Bottom of safe has dovetail groove for secure fit onto dovetail metal bracket which can be mounted to wall. Sides of tape safe interlock for neat vertical stacking on shield, etc. #**TCP-1** ..... **List $1.50**

9. SET OF 12 INDIVIDUAL TAPE SAFES. Includes Metal Dovetail Bracket for wall mount. #**TCP-12** ..... **List $16.65**

METAL DOVETAIL BRACKET FOR TAPE SAFES, mounts to wall and hold 14 units. (Not illus.) #**TCB-1** .....**List $1.50**

ROBINS BOOKS. Helpful information covering tape recorder use and care.
#**TE-24 "TAPE EDITING AND SPLICING GUIDE BOOK"** by N. M. Haynes. 24 pages, illustrated .....**List 40¢**
#**TE-48 "TELEVISION TAPE RECORDING"** by George B. Goodall, 48 pages, illustrated .....**List $1.00**
#**TE-96 "WHAT YOU SHOULD KNOW ABOUT YOUR TAPE RECORDER."** Guide to care, use and operation of recorders. 96 pages. Illustrated. Trouble shooting guide and glossary of recording terms included. **List $1.00**



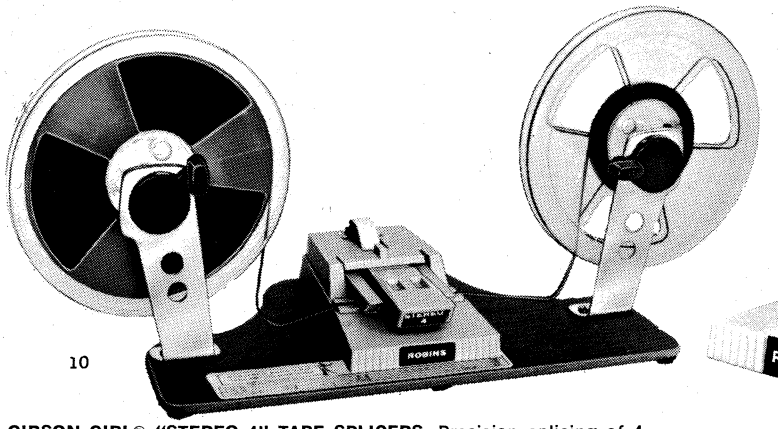
#**TE-127 "TAPE RECORDING THE SOUNDS OF YOUR LIFE."** 128 pages, illustrated. Learn about recording techniques, creative sound as a hobby. .....**List $1.35**

#**TE-129 "HOW TO GET THE MOST OUT OF YOUR TAPE RECORDER."** 128 pages, illustrated. Practical uses for recorders. Using portable recorders, taping shortwave, adding sound to 8mm films and slides, sound effects, etc.....**List $1.35**

ROBINS AUDIO-VISUAL KITS. Everything required for language labs, audio-visual depts, and broadcast studios. #**AVK-1 Kit** contains: ME-99 Bulk Tape Eraser; UL list, HD-6 Head Demagnetizer, UL list; TS-8D Deluxe Stereo 4 Tape Splicer; Tape Holding Clips; Reel Title Labels; Tape Jockey Cloth; 6 rolls of ½" Splicing Tape; Tape Threader; TK-5 Tape Strobe and Light Kit; and TK-6 Head and Guide Cleaning and Lube Kit. (Not illus.).....**List $78.00**

#**TK-11 Kit** contains: ME-77 Magnetic Bulk Tape Eraser; TS-4S Standard Stereo 4 Tape Splicer; roll of ⅜" x 275" Splicing Tape; TK-6 Head and Guide Cleaning and Lube Kit; TK-5 Tape Strobe and Light Kit; HD-3 Head Demagnetizer; Tape Threader; Tape Jockey Cloth; TL-150 package of 150 Title Labels, and Tape Clips. (Not illus.).....**List $46.00**

ROBINS® TAPE SPLICERS



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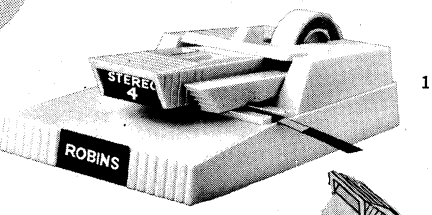
10. GIBSON GIRL® TAPE EDITING WORKSHOP. Easy, accurate splicing, editing, combining and repairing of recording tapes on reels up to 7". Two Tape Winders and Stereo 4 Deluxe Tape Splicer are attached to a sturdy, walnut grained, warp-proof base. Complete with splicing tape. An accurately calibrated Editing/Timing Scale, attached to the workshop base, indicates tape time being added or cut from tape. Size: 7" x 14" x 5½" ht. Free editing and cueing pencil and Robins Tape Editing and Splicing Guide Book included with Tape Editing Workshop.
#**TK-9** ..... **List $24.00**

GIBSON GIRL® "STEREO 4" TAPE SPLICERS. Precision splicing of 4 track tapes without loss of program material on the outside tracks. Excellent for single and multiple track tapes. All units have blade centering adjustment for lifetime accuracy, and replaceable cartridge and cutter pad.



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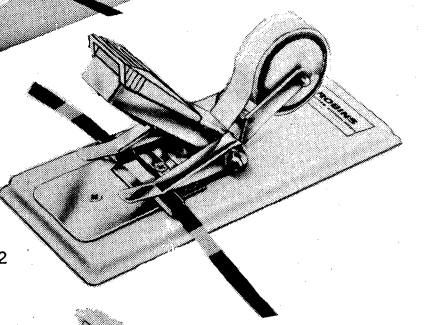
11. DELUXE STEREO 4 TAPE SPLICER. "See-thru" windows show "CUT" and "TRIM" positions for easy operation. Tape guide and arms secure tape during splicing. Easy threading integral tape dispenser with roll of ½" x 100" splicing tape. Safety-lock protects blades when not in use. Made of Cycolac®. #**TS-8D**.....**List $12.75**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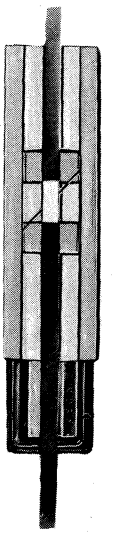
12. STANDARD STEREO 4 TAPE SPLICER. Same features as TS-8D, except for position index windows. Made of metal and plastic. Has integral tape dispenser with roll of ⅜" x 100" splicing tape.
#**TS-4S** ..... **List $9.50**

13. JUNIOR STEREO 4 TAPE SPLICER. Same as TS-4S without tape dispenser and splicing tape. #**TS-4J** ..... **List $7.25**

REPLACEMENT CUTTER KITS FOR ROBINS STEREO 4 SPLICERS. Each kit contains replacement cutter cartridge and 2 cutter pads. #**RK-2** for TS-4A series splicers. #**RK-3** for TS-4S and TS-4J #**RK-8** for TS-8D. #**RP-2** cutter pads for TS-4A series and TS-4S and J. #**RP-8** cutter pads for TS-8D. 12 cutter pads to a package.....**List each $1.50**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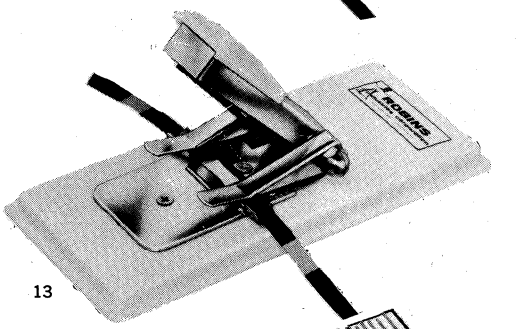
14. DELUXE CUT-N-SPLICE. Easy to use Tape Splicer has adjustment for cutting tapes at 30°, 45°, or 90°. 25 Self-Stick Splicing Patches are included in handy tray built-into splicer base. #**TS-6**.....**List $5.00**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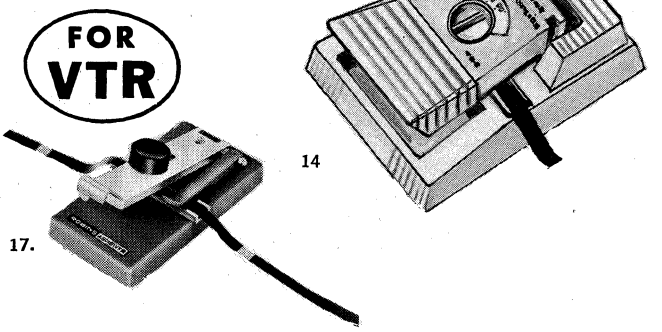
15. CUT-N-SPLICE. Metal Splicing Block has tape guide and cutting groove to guide hand held blade. Sliding Tray built-into the splicer holds 25 Self-Stick Splicing Patches and blade. Patches and blade are supplied. #**TS-5** ..... **List $3.00**

GIBSON GIRL® "SEMI-PRO." Compact, low cost splicer has tape alignment guide with adhesive back, hand held Gibson Girl Cutter and Trimmer with blade cover. Plastic. #**SP-4**.....(Not illus.).....**List $2.50**

GIBSON GIRL® "HOBBYIST" SPLICER. Adhesive backed plastic tape guide fastens to recorder. Supplied with unique, curved, cutting blades. (Not illus.) #**H-4** ..... **List $1.25**

ROBINS SPLICING TAPE. Special formula, Mylar, tackiness, thickness, strength and cold flow carefully controlled. (Not illus.)

#**TST-235** ¼" x 300"	**List $1.00**	#**ST-234** ¼" x 100"	**List 40¢**
#**TST-376** ⅜" x 275"	**List 1.00**	#**ST-375** ⅜" x 100"	**List 45¢**
#**TST-501** ½" x 250"	**List 1.00**	#**ST-500** ½" x 100"	**List 50¢**
#**TST-751** ¾" x 150"	**List 1.00**	#**TST-233** Self-Stick Patches for TS-5 and TS-6 Splicers and other brands of splicers. Pkg. of 75 Patches	**List $1.00**



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17. GIBSON GIRL® VIDEO RECORDING TAPE SPLICERS. Heavy duty, professional splicers for video tape, computer, industrial, and special purpose tapes. Heavy duty construction with precision features that made them the accepted standard of professional users. Precise blade centering adjustment. Long life replaceable blades and cutting pads. #**TS-250** for ¼" tapes. #**TS-500** for ½" tapes. #**TS-1000** for 1" tapes.
List ea. $85.00

17.

LEADER TAPE—1½ mil White Myar, 100 ft. x ¼" wide on 2½" reel. Splice Leader Tape at beginning and end of tapes to stop loss of tape due to threading. Ideal for indexing between recorded sections of a reel. (Not illus.) #**LT-100** ..... **List $1.00**

COLOR CODE SPLICING PATCHES. 12 each of 6 colors, Orange, Yellow, Green, Blue, Red, and White. Splice Color Code Patches between recorded subjects on a reel for easy, quick identification. (Not illus.) #**TT-240** ..... **List $1.65**

COLOR CODED LEADER TAPE. Set of 5 rolls. Easy indexing and cueing of recorded sections spliced on reels. Splice Color Tape to ends of tape for identification of recorded subjects. Tapes are Red, Yellow, Blue, Green, and White. (Not illus.) #**TT-16**.....**List $3.00**

SENSING AND CUEING PATCHES. Aluminum foil patches, ¼" wide x ¾" lengths. For recorders having automatic stop and reverse control and other electrical sensing devices. Package of 50 Patches. (Not illus.) #**TSP-50** ..... **List $1.65**

HIGH IMPEDANCE CERAMIC MICROPHONE WITH SWING-OUT STAND FOR TAPE RECORDERS. Frequency response 40 to 8,000 cps. Sensitivity—50 db. Ceramic transducer element encased and cushioned in Neoprene to withstand physical shock. High impact plastic housing Ivory finish. Complete with 5 ft. of shielded cable.
#**MK-40** (Not illus.) .....**List $10.50**

EMPTY TAPE REELS FOR EVERY RECORDING NEED

Cat. No.	Size	Qty. in Pkg.	List	Cat. No.	Size	Qty. in Pkg.	List
TR20-6	2"	6	**$1.00**	**TR-51R**	5" Red	1 w/Box	**$ .65**
TR25-6	2½"	6	**1.00**	**TR-51Y**	5" Yellow	1 w/Box	**.65**
TR30-6	3"	6	**1.00**	**TR-53**	5"†	1 w/Box	**.85**
TR32-4	3¼"	4	**1.00**	**TR-70**	7"	1 w/Box	**.75**
TR36-6	3"	6	**1.00**	**TR70-2**	7"	2	**1.00**
	2 each: Red Yellow, Blue			**TR-71B**	7" Blue	1 w/Box	**.85**
TR40-4	4"	4	**1.00**	**TR-71G**	7" Green	1 w/Box	**.85**
TR-50	5"	1 w/Box	**.60**	**TR-71R**	7" Red	1 w/Box	**.85**
TR50-2	5"	2	**1.00**	**TR-71Y**	7" Yellow	1 w/Box	**.85**
TR-51B	5" Blue	1 w/Box	**.65**	**TR-74**	7"†	1 w/Box	**1.00**
TR-51G	5" Green	1 w/Box	**.65**	(†Low Torque Reel)			

MULTI-PAK OF 12 TAPE MAILING BOXES. Cardboard boxes for tape reels up to 3¼" dia. Ready for tape correspondence. (Not illus.)
#**TB3-12** ..... **List $1.00**

REUSEABLE IMPACT RESISTANT PLASTIC TAPE MAILING CANISTER. Includes 2-sided address card. For reels up to 3¼". (Not illus.)
#**TMC-3** ..... **List $1.00**

MULTI-PAK OF 15 DOUBLE-SIDED ADDRESS CARDS FOR PLASTIC TAPE MAILERS. (Not illus.) #**TMC-15** .....**List $1.00**

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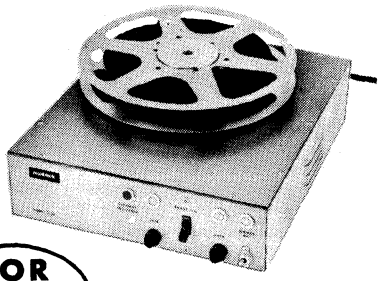
TAPE ACCESSORIES RoBINS®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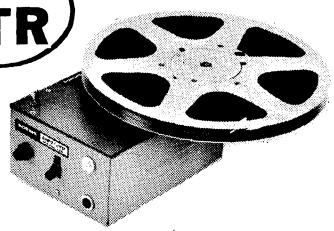
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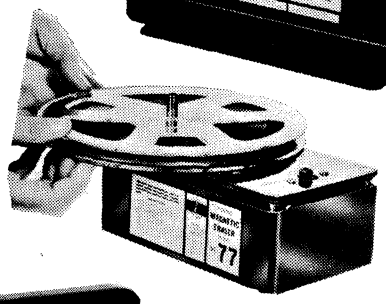
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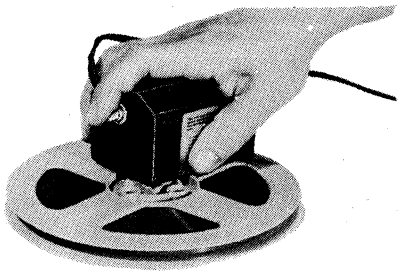
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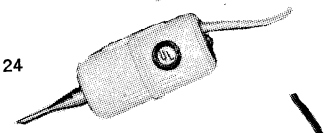
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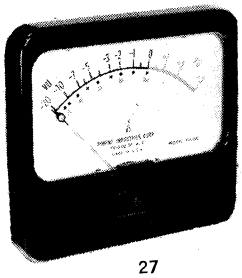
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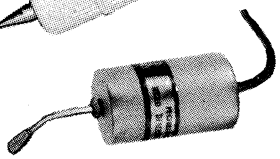
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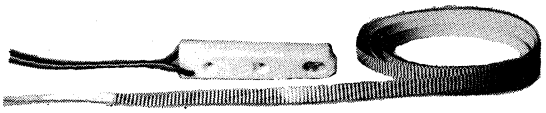
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18. MAGNETIC BULK TAPE ERASER FOR AUDIO, VIDEO, COMPUTER AND INDUSTRIAL RECORDING TAPE UP TO 1" WIDE ON REELS UP TO 17" DIA. (Up to 2" tapes can be erased by performing erase procedure on both sides of reel.) Reel is rotated slowly 3-4 seconds for erasure—50 to 90 db below saturation level. 115 V. 50-60 cy. A.C. Duty coded cycle 10 min. On/10 min. Off. Size: 3¾" x 12" x 14". Safety features: overheat indicator, individually fused, blower.
#**TM-120** ..... **List $165.00**

19. MAGNETIC BULK TAPE ERASER FOR AUDIO, VIDEO, COMPUTER AND INDUSTRIAL RECORDING TAPE UP TO 1" WIDE ON REELS UP TO 10½" DIA. (Up to 2" tapes if erased on both sides.) Reel is rotated slowly 3-4 seconds, erasure—50-90 db below saturation level. 115 V. 50-60 cy. A.C. Duty cycle 5 min. On/15 min. Off. Size: 3¾" x 6" x 8". Safety features: overheat indicator, individually fused.
#**TM-100** ..... **List $85.00**

20. MAGNETIC BULK TAPE ERASER, UL LIST. Completely erases recorded and unwanted signals from up to ½" wide tape on reels up to 10½" dia. in seconds. Reduces background noise levels from 3 to 6 db below normal erase head level. 110 V., 50-60 cy. A.C. Size: 5¼" x 6¾" x 3¾". #**ME-99** ..... **List $46.00**

21. LOW COST BULK TAPE ERASER. For reels up to 7" dia. x ¼" wide. Reduces background noise levels of tape 2-4 db below normal erase head level. 110 V. 50-60 cy. A.C. Non UL. Size: 2⅜" x 3¾" x 6¼". #**ME-77** ..... **List $26.50**

22. HAND HELD BULK TAPE ERASER. For ¼" wide tape, any size reels. Unique handle has momentary contact switch. Erases tape in seconds without rewinding. Simply move unit slowly over each side of reel. 4 amps at 110-120 V. 60 cy. A.C. Size: 4" x 2½" x 4¼".
#**ME-66** ..... **List $19.95**

23. HANDY-ERASER. Hand held Bulk Tape Eraser erases tape ¼" wide on any size reels in seconds by moving unit over each side of reel. 4 amps at 110-120 V. 60 cy. A.C. Size: 4½" x 2⅜" x 2".
#**ME-55** ..... **List $16.66**

24. HEAD DEMAGNETIZER, UL LIST. Removes signal damaging residual magnetism from tape heads for optimum signal to noise ratio. Easy to use. 110 volts, 60 cycles A.C. Size: 4⅝" x 1¼" dia. 6 ft. heavy weight line cord. #**HD-6** ..... **List $10.00**

25. LOW COST HEAD DEMAGNETIZER. Non UL. 110 V. 60 cy. A.C.
#**HD-3** ..... **List $6.00**

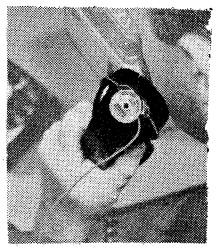
26. TAPE STROBE AND LIGHT KIT. Check tape recorder for speed, accuracy, flutter and wow operating at 15, 7½ and 3¾ ips. Strobe tape and neon light with instructions. 110 V. 60 cy. AC. #**TK-5 List $2.25**

27. "VU-METER". Size: 4½". Mounts in 2¾" dia. hole, depth 1½". 0-100% mod.; —20 to 3 db. Dual impedance output. Sensitivity 200 micro amps; shunts for 1.2 or 12 V. "zero" VU. Eliminates guess work of level control. #**VU-100** ..... **List $32.00**

29. TELE-TAPE PHONE PICK-UP COIL. High efficiency ferrite core gives 3-5 db more gain; high signal-noise ratio. Fastens to phone with Easy-On spring. Has 6 ft. shielded cable. #**TRP-1** ..... **List $6.00**

30. ECONOMY PHONE-PICK-UP. Fasten to phone by suction cup. 5 ft. cable has stripped ends for attachment of proper connector to fit recorder. #**TRP-2** ..... **List $3.00**

PRECISION TAPE STROBE. All metal, chrome plated strobe checks speed, flutter and wow of 7½, and 3¾ ips recorders. Precision machined. Precise needle bearings. With instructions. (Not illus.)
#**TW-1** ..... **List $10.00**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TAPE EDITING AND CUEING PENCILS. Mark beginning and end of sections of tape to be cut out or added, sections to be re-recorded, etc. Excellent marking on any material. Ideal for movie film editing and many other uses. Package of 3 pencils: Black, White, and Yellow. (Not illus.) #**TP-3** ..... **List $1.00**

RECORDING HEAD AZIMUTH ALIGNMENT TAPE. 100 ft. on a 3" reel with instructions. Enables accurate alignment of recording heads to set head angle for maximum sound output. #**TAT-100** (Not illus) **List $1.65**

HEAD CLEANER removes grime and accumulated oxides from heads. 2 oz. bottle. (Not illus.) #**HC-2** ..... **List $1.00**

RECORDING HEAD AND GUIDE LUBRICANT. Silicone fortified liquid provides friction-free tape patch, reduces head and tape wear.
#**RC-2-22** ..... **List $1.00**

TAPE AND PHONO DRIVE OIL. For rotating and moving parts. Inhibits rust and oxidation. 2 oz. bottle. (Not illus.) #**RC-2-33** ..... **List 75¢**

NON-SLIP FOR TAPE AND PHONO DRIVES. Helps stop slippage of idler wheels, pulley belts, and cords. Fast drying and penetrating, dries to tack free, yet non-slip surface. 2 oz. bottle #**RC-2-56** ..... **List $1.00**

SWABBIES. Multi-Pak of 150 cotton tips wound on 6" long applicators for cleaning and oiling in hard to reach places. (Not illus.)
#**MSW-150** ..... **List $1.00**

RoBINS®

RECORD AND

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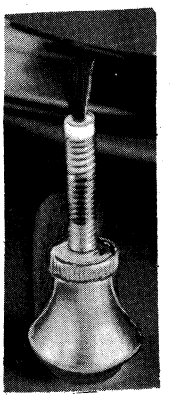
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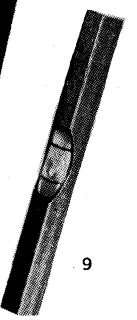
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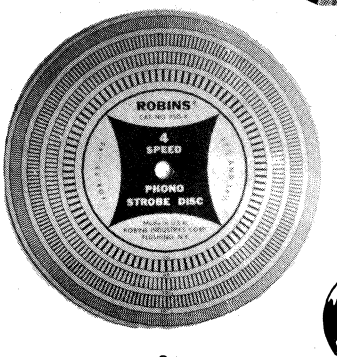

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1. **ROB-O-STAT RECORD CLEANING KIT.** Contains super-soft velvet and foam applicator mitt, 1½ oz. plastic bottle of Anti-Static cleaner and lubricant and polyfoam pad for cleaning velvet mitt.
#**ESK-6** ..... **List $2.00**

2. **MULTI-PAK OF TWO "MIRACLE" RECORD CLEANING CLOTHS AND CLIP-ON RECORD BRUSH.** #**PC-2**.....**List $1.00**
MULTI-PAK OF THREE "HI-FI/STEREO" RECORD CLEANING CLOTHS. Special Anti-Static ingredient reduces accumulation of dust on records. #**PC-3** (Not illus.) .....**List $1.00**
MULTI-PAK OF TWO RECORD CLEANING CLOTHS AND A 45 RPM SPINDLE ADAPTOR. Plastic conical spindle adaptor permits easy loading of 45 RPM records. #**PC-4** (Not illus.).....**List $1.00**

2. **MULTI-PAK OF RECORD SPIDERS.** 50 hi-impact plastic 45 RPM adaptors. Easy insertion. Reusable. #**PRA-50** (Not illus.).....**List $1.00**
PHONO CARE KIT. 2 oz. bottles of Phono Drive Oil and Non-Slip for Phono Drives. (Not illus.) #**PK-12**.....**List $1.65**

3. **PHONO DRIVE OIL.** Highly refined lubricant formulated for moving and rotating parts. Inhibits rust and oxidation. 2 oz. bottle. (Not illus.) #**RC-2-33** ..... **List 75¢**

3. **NON-SLIP FOR PHONO DRIVES.** Helps stop slippage of drive parts. Fast drying, stable and penetrating dries to tack-free non-slip surface. 2 oz. bottle (Not illus.) #**RC-2-56** ..... **List $1.00**
SWABBIES. Cotton tips wound on 6" long applicators. Easy cleaning and oiling in hard to reach places. Package of 150. (Not illus.)
#**MSW-150** ..... **List $1.00**

4. **HANDY ALL-PURPOSE BRUSH.** Telescoping soft Camel's hair brush in a gold finish case with pocket clip. Ideal for dusting and removing particles from equipment, phono stylus, records, delicate parts, and fine optical lenses. Fits pocket or purse. #**MRB-1**.....**List $1.50**

5. **"KLEENEEDLE" BRUSH.** Automatic changer brush removes "dust-blob" each time arm passes over brush. Adjustable height. Pressure sensitive base pad for mounting. #**NB-1**.....**List $1.00**

6. **POLYESTER PHONO CUSHIONS.** Foam mat cushions record drop. Reduces slippage. Includes strobe disk. #**PC-12,** 11¾ dia.....**List $1.00**
#**PC-10,** 9¾" dia. ..... **List $1.00**

7. **RIM-REST PHONO CUSHION.** Has graduated ridges for 7", 10" and 12" records. Records rest on rims only. Delicate sound grooves never touch rim-rest. Made of supple polyethylene. 12" dia. Fits all turntables. #**PC-33** (Not illus.) .....**List $2.25**

8. **METAL PHONO STROBE DISKS.** Accurately checks speeds of any phono.
#**PSD-4,** 5" dia., 4-Speed. Checks 16⅔, 33⅓, 45 and 78 RPM speeds **List $1.65**
#**PSD-3,** 3¼" dia., 3-Speed. Checks 33⅓, 45 and 78 RPM Speeds **List $1.00**

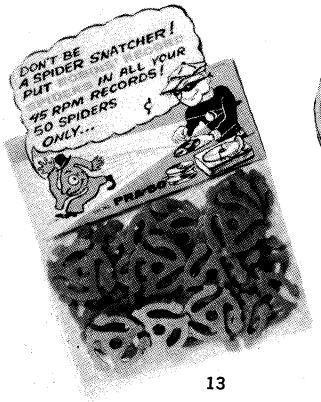
9. **TURNTABLE LEVEL.** Accurate leveling incurs correct tracking, minimizes stylus and record wear. #**TL-1**.....**List $1.35**

10. **ROUND TURNTABLE LEVEL.** A must for Stereo output balance. Can be mounted to turntable or changer deck. #**TL-2R** (not illus.) **List $2.50**

11. **STYLUS MICROSCOPE.** Inspect stylus tip for signs of wear, chips etc. Precision ground lenses for clear 50X magnification, knurled focusing adjustment, convenient slot positions stylus; with pocket clip. 3¾" long, ½" dia. Imported. #**MX-1**.....**List $2.75**
HOBBYIST STYLUS MICROSCOPE. Direct reading with precision plastic lens. #**MX-40** (Not illus.) .....**List $1.25**
ROUND BOTTOM PROTECTIVE PLASTIC DIS-CLOSURES. For 12" records. Prevents scratching, seals out dust and moisture. Package of 15 covers. (Not illus.) #**E-15**.....**List $1.00**
SQUARE COVERS. For 12" records or standard 12" record jackets. Pkg. of 15. (Not illus.) #**EJ-15** .....**List $1.00**

12. **"PLATTER-PUSSES."** Package of 12 2½" dia. folded, soft, felt-flocked leatherette disks for safe, convenient fingerprintless handling of records. Stops grease, perspiration, etc. from contacting record groove. #**PRM-12** ..... **List $1.00**

13. **"FRICTION-SPOTS."** Package of 144 thin ½" dia. Polyfoam disks for placement on and around inner circumference of label area of records. Pressure sensitive for easy application. Stops slippage of records. Supplied with mounting jig. #**PSF-1**.....**List $1.00**



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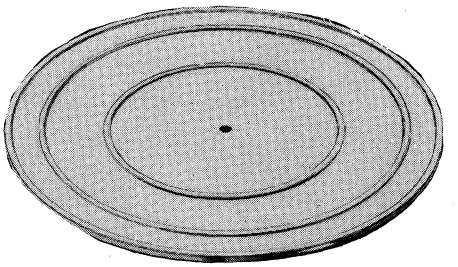
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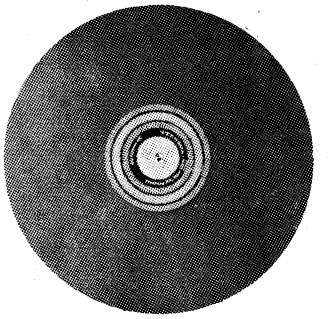
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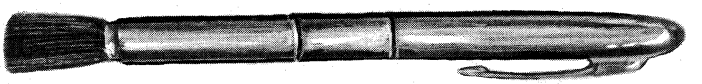
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RoBINS®

PHONO ACCESSORIES

14. DELUXE PHONO AND RECORD CARE KIT. Eleven important accessories for enjoyment and care of records and phono in a convenient album size box. Contains: 10" Foam Phono Cushion; Phono Strobe and Light Kit; 15 Round Bottom Record Covers; Record Brush; Record Cleaning Kit having applicator mitt and 1½ oz. Anti-Static cleaner and lubricant; Stylus Pressure Gauge; Stylus Microscope; "Disk-Whisk" Kit; Round Turntable Level; 144 "Friction-Spots"; 12" "Platter-Pusses" for safe handling of records; and instructions. #**PK-10**.....**List $16.50**

15. PHONO STROBE AND LIGHT KIT. Checks proper speed of turntable, changer or phono. Place strobe disk on turntable, set changer to desired speed and hold neon lamp over disk. 110 v. 60 cy. A.C. #**ESK-5** ..... **List $2.00**

16. "DISK-WHISK" KIT. Automatic record cleaning. Clips to tone arm. Loosens and removes dust and dirt from record grooves, deposits Anti-Static fluid containing Silicone to clean and lubricate records. Includes bottle of Anti-Static fluid with applicator. #**ESK-7**.....**List $2.50**

RENEWAL KIT FOR ESK-7. Anti-Static fluid and 2 mohair cylinders. (Not illus.) #**ESK-8** ..... **List $2.00**

HOBBYIST RECORD KARE KIT. Contains Stylus Pressure Gauge and Turntable Level. (Not illus.) #**ESK-1A**.....**List $2.25**

PROFESSIONAL RECORD KARE KIT. Contains Stylus Pressure Gauge, Stylus Microscope, and Turntable Level. (Not illus.) #**ESK-2A**....**List $3.25**

TURNTABLE LEVELING KIT. Contains four adjustable rubber feet to mount under turntable base, and round turntable level to mount to top deck of turntable. (Not illus.) #**ESK-4**.....**List $3.90**

17. DELUXE RECORD KARE KIT. Contains Stylus Pressure Gauge, Stylus Microscope, Turntable Level, Record Cleaning Cloth, KleeNeedle Brush, Record Brush and Tone-Arm Lift. #**ESK-3A**.....**List $4.50**

18. CLEAN-SWEEP. Large Camel's Hair Brush supported on a machined aluminum support sweeps entire tracking surface of records with each revolution. Helps protect record and stylus from dust damage. Pressure sensitive base pad mounts securely to any phono. #**RB-88**.....**List $5.95**

19. CLIP-ON RECORD BRUSH. Clips to tone arm and sweeps dust from records automatically. #**RB-75** ..... **List 65¢**

20. COMBINATION TONE-ARM LIFT AND RECORD BRUSH. Clips to tone arm. Provides convenient finger lift. Floating action nylon brush removes dust from record grooves. #**RBL-1**.....**List $1.00**

21. STYLUS PRESSURE GAUGE. Sturdy accurately calibrated gauge measures stylus pressure from ½ gram to 8 grams. #**SG-2**....**List $1.00**

45 RPM SPINDLE ADAPTOR. Fits most GE and VM changers using short spindle. No twisting or jamming. (Not illus.) #**PSA-35**.....**List $4.00**

ISOLATION PAD FOR RECORD CHANGER BASE. Absorbs vibration, minimizes acoustic feedback, reduces excessive noise and rumble. Use for recorders and TV Chassis, etc. (Not illus.) #**IP-16**.....**List $1.65**

22. HI-FI STOP-O-MATIC. Automatically turns off amplifier and changer when last record has played. Allows you to fall asleep to your favorite music without "burning-up" equipment. Has switch control permitting use of amplifier without changer.

#**HFS-1** For European Changers. Requires minimum of 10 watts. **List $10.00**

#**HFS-2** For U.S. made Changers. Requires minimum of 25 watts. **List $10.00**

FIBERGLASS ACOUSTIC INSULATION. Line speaker cabinets, record changers, tape decks, etc. 36" x 36" x 1". Damps "boom" and distortion causing standing waves inside speaker enclosures. (Not illus.) #**AM-90** ..... **List $2.00**

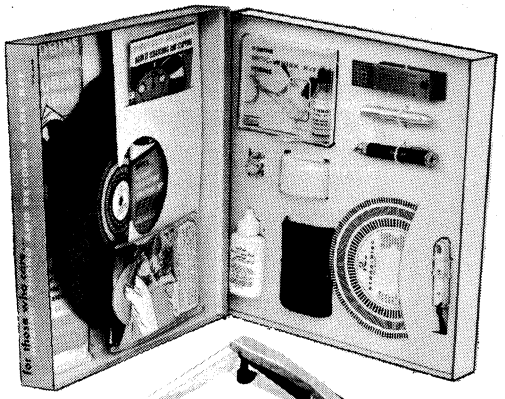
CHANGER COVERS		TURNTABLE COVERS	
#**CC-1** 13"x13½"x8"	**List $1.95**	#**CC-3** 22"x16½"x9"	**List $2.50**
#**CC-2** 12½"x15"x8"	**List 1.95**	#**CC-4** 17¼"x17½"x9"	**List 2.50**
#**CC-5** 17"x15"x18¾"	**List 1.95**		

DELUXE ALUMINUM COMPONENT SLIDES. Easy to install. For record changers and other equipment. Use for cabinet drawers, etc. Supports up to 30 lbs. Length is 13". Travel 14". Ball bearing action for smooth sliding. #**MS-13** Pair (Not illus.) ..... **List $5.00**

HEAVY GAUGE STEEL COMPONENT SLIDES. Ball bearing action. Supports up to 75 lbs.

#**MS-15** Length is 13". Travel length 9". Extends to 21". Pair (Not illus.) ..... **List $3.50**

#**MS-17** Length is 13". Travel length 11". Extends to 22½". Pair (Not illus.) ..... **List 3.50**



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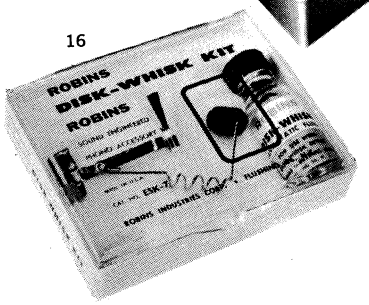

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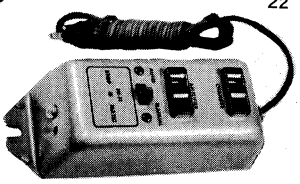
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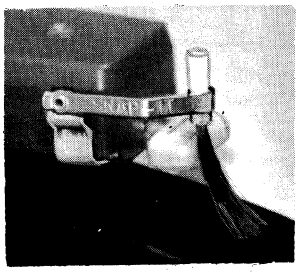
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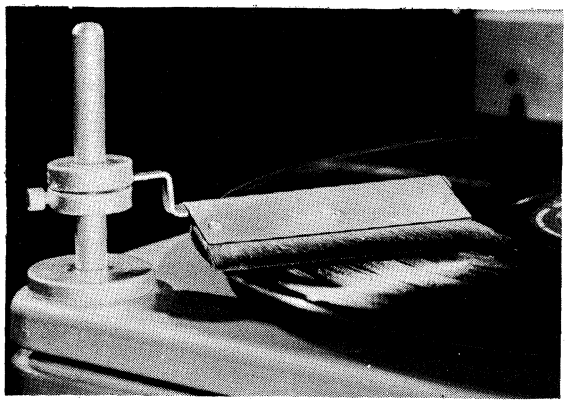
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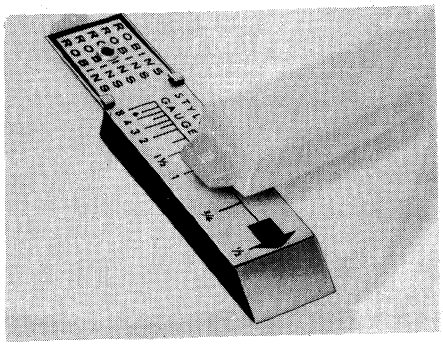
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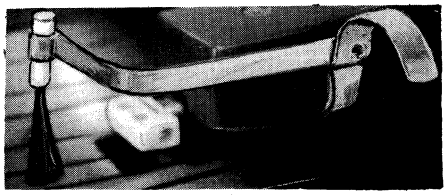
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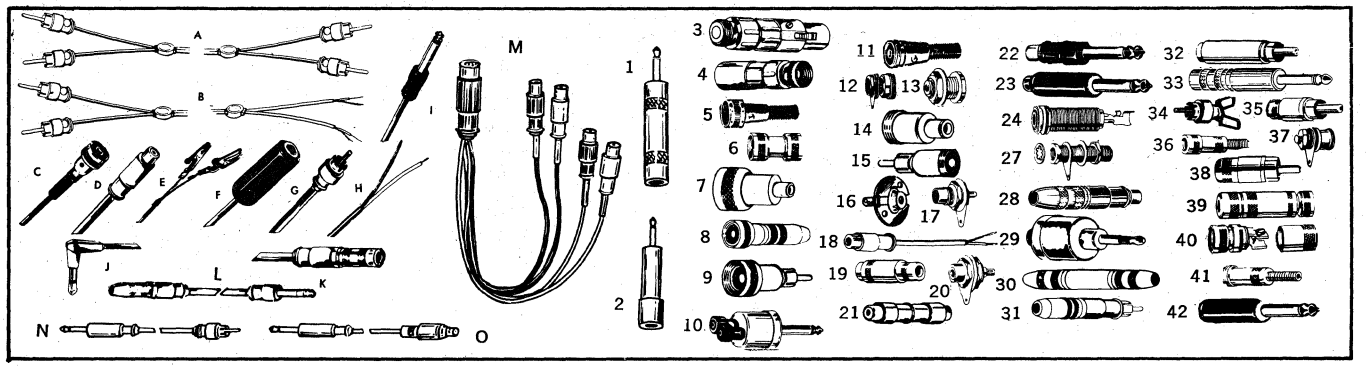
RoBINS® PATCH CORDS AND ADAPTORS



STEREO CABLE ASSEMBLIES

Fig.	Cat. No.	Length	List	Fig.	Cat. No.	Length	List
A	**SMM-36**	36"	**$3.25**	B	**SMS-36**	36"	**$2.90**
A	**SMM-72**	72"	**3.75**	B	**SMS-72**	72"	**3.25**
A	**SMM-120**	120"	**4.50**	B	**SMS-120**	120"	**3.75**

L—**SJT-300** Stereo extension cable. Phono plug (3 cond.) to extension jack (3 cond.) 25 ft. shielded cable. For Stereo headphones and other Stereo adaptations ..... **List $10.00**

M—**AS-8** Stereo Adaptor Cable, 5 pin European plug, two 1 ft. lengths of shielded cable to 4 connectors. Color coded for connection. Plugs into European 5 pin sockets of Norelco, Korting, Grundig, Elber, and Sony tape recorders, Grundig radios, models SO-240U, TM-42, TM-45, and many others. Use to interconnect preamps and crystal or ceramic high imped. phono cartridges to imported tape recorders..... **List $6.00**

MOLDED CABLE ASSEMBLIES

Cat. No.	Adaptor at One End Fig.	Adaptor at Other End Fig.	Length in inches	List	Cat. No.	Adaptor at One End Fig.	Adaptor at Other End Fig.	Length in inches	List
BS-120	C	H	120"	**$2.25**	**MS-72**	G	H	72"	**$1.15**
FF-72	D	D	72"	**1.95**	**MS-120**	G	H	120"	**1.65**
MC-120	G	E	120"	**2.25**	**MT-72**	G	I	72"	**2.20**
MF-18	G	D	18"	**1.25**	**MT-120**	G	I	120"	**2.75**
MF-36	G	D	36"	**1.35**	**TC-72**	I	E	72"	**1.90**
MF-72	G	D	72"	**1.75**	**TC-120**	I	E	120"	**2.40**
MF-120	G	H	120"	**2.00**	**TF-72**	I	D	72"	**2.20**
MJ-72	G	F	72"	**2.50**	**TJ-120**	I	F	120"	**3.50**
MM-18	G	G	18"	**1.05**	**TS-72**	I	H	72"	**1.75**
MM-36	G	G	36"	**1.20**	**TS-120**	I	H	120"	**2.25**
MM-72	G	G	72"	**1.50**	**TT-72**	I	I	72"	**2.40**
MM-120	G	G	120"	**2.00**	**TT-120**	I	I	120"	**2.70**
MS-18	G	H	18"	**.80**	**XJ-180**	J	K	180"	**5.00**
MS-36	G	H	36"	**.95**	**XM-120**	I	G	120"	**4.00**

N—**AC-32-6** Straight Tini-Plug to Straight Phono Plug; 2-Cond. 6 ft. shielded cable ..... **List $2.75**

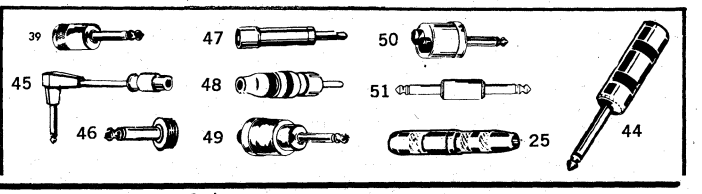
O—**AC-34-6** Straight Tini-Plug to Tini-Extension Jax; 2-Cond. 6 ft. shielded cable ..... **List $2.90**

ADAPTORS

Fig.	Cat. No.	Description	List
1.	**AA-66**	Adapts standard Phone-Plug to "Tini-Jax" Phone Jack	**$1.80**
2.	**AA-68**	Adapts standard Phono Plug to "Micro-Jax" Phone Jack	**1.70**
3.	**AC-1**	2-Cond. has input connector (#D-2), output connector, with unsoldered internal wire permitting connection to terminal	**3.05**
4.	**AC-2**	Female Mic. Connect. to input Connect.	**3.05**
5.	**B-1**	Microphone Connector, female	**.60**
6.	**BB-1**	Mic. Connect., double female, for connecting 2 cables with male connectors	**1.00**
7.	**BF-1**	Phono Jack input to female Mic. Connect. output Outside dia. main body—½"	**1.25**
8.	**BJ-1**	2-Cond. Phone Jack input to female Mic. output. Removeable coupler ring converts connector to male type. Body O.D. ½"	**1.75**
9.	**BP-1**	Phono Plug—female microphone connector	**1.00**
10.	**BPJT-1**	Binding Post, dual purpose, Banana Jack input to Phone plug output	**2.60**
11.	**D-1**	Microphone Connector, male	**.45**
12.	**D-2**	Mic. Panel Connector. Mounts in .385" hole	**.40**
13.	**D-3**	Panel Connector, male, single contact	**.45**
14.	**DF-1**	Phono Jack input to male Mic. Connect output	**1.25**
15.	**DP-1**	Phono Plug—male Mic. Connector	**1.00**
16.	**F-1**	Phono Jack. Pkg. of 3	**.45**
17.	**F-2**	Phono Jack—back of panel mount. 2-Cond.	**.50**
18.	**F-3**	2-Cond., long handle, Phono Jack to 3" shld'd. cable. Converts screw or solder type terminals to std. Phono Jack. Mates with #M-2 adaptor	**.80**
19.	**F-4**	Phono Extension Jack, removeable handle, shld'd. cable clamp	**.60**

ADAPTORS

Fig.	Cat. No.	Description	List
20.	**F-5**	RF Phono Jack for front of panel mount	**$ .60**
21.	**FF-1**	Phono Plug to Phono Plug	**1.00**
22.	**FT-1**	Phono Plug Output—Phono Jack input	**1.25**
23.	**FTR-1**	Phone Adapt., female Phono Jack end of handle. Has internal resistor circuit for connection between crystal phono pickup or radio or TV set and input of tape recorder. May be used as adaptor with magnetic phono by opening plug and twisting leads of resistor together	**1.95**
24.	**J-1**	Phone Jack w/long bushing. Mounts in panels up to 1¼" thick. Mates with "Littel plugs." Ideal for Mic. Connector. 2-Cond.	**1.30**
25.	**J-2**	¼" 2-Cond. Extension Phone Jack with Solder Terminals. Completely shielded	**2.15**
24.	**J-3**	Same as J-1, except 3-Cond.	**1.50**
27.	**JA-1**	Phono Jack Adapt. Mounts in panels up to 1¼" thick	**.95**
28.	**JF-1**	2-Cond. Phone Jack input to Phono Jack output	**1.45**
29.	**JG-1**	Jack input, std. ¼" 2-cond. to special plug for mate with jack in American Geloso Recorder. Permits use of U.S. made Microphone and plugs with recorder	**2.35**
30.	**JJ-1**	Coupler, 2-cond. Phone Jack each end. Connects 2 cables having phone plug terminations	**2.25**
30.	**JJ-3**	Same as JJ-1, except 3-Cond.	**2.75**
31.	**JM-1**	2-Cond. Phone Jack input to Phono Plug output	**1.45**
32.	**JM-2**	Compact Adapt., Phono Jack input to Phono Plug output, connects Ceramic Phono Cartridge to audio amplifier which was designed for magnetic cartridge	**2.95**
33.	**JR-1**	Std. 2-Cond. Phone Plug to 2-cond. short extension Jack. Use with late models Revere and Wollensak recorders	**2.00**
34.	**M-1**	Phono Plug. Pkg. of 4	**.50**
35.	**M-2**	Phono Plug, 2-Cond. w/long screw-on handle. Cable clamp	**.60**
36.	**MB-1**	Miniature Mic. Connect. Use w/single cond. shld'd. cable. Straight Connect., single contact, female coupling ring	**.60**
37.	**PC-1**	Panel Connect., single contact, male	**.45**
38.	**RF-1**	RF Plug, 2-cond. long screw on handle, cable clamp	**.80**
39.	**SC-1**	Straight Connect. w/2 screw terminals. Single contact female, 2-piece handle w/built-in cable clamp. Connects cable with stripped ends without solder.	**2.25**
40.	**SC-2**	Straight Connect., same as SC-1, short handle, no cable clamp	**1.65**
41.	**SC-3**	Straight Connector, single contact, male	**.50**
42.	**T-1**	Phone Plug	**.80**
43.	**T-1S**	"Silent Phone Plug", 2-cond. w/1" lgth. shld'd. Phenolic handle. Features circuit closing device when plug is removed. Ideal for use with musical instruments.	**1.75**
44.	**T-3**	¼" Phone Plug, 3-cond with Solder Terminals, shld'd. Metal Handle	**2.05**
45.	**TAF-1**	Phone Plug, right angle, 2-cond. w/long handle molded to 2" shld'd. cable. Adapts Phone Jack to Phono Plugs	**1.75**
46.	**TD-1**	Mic. input, male to Phone Plug output	**.60**
47.	**TJF-1**	Std. Phono Plug to "Tini-Plug" (5/16") output	**1.40**
48.	**TJM-1**	2-Cond. "Tini-Jack" input to Phono Plug output	**1.45**
49.	**TJS-1**	"Silent Plug" Adapt. w/2-cond. Jack input to 2-cond. Plug output. Circuit closes when plug is removed	**2.95**
50.	**TJT-1**	Tip Jack input to Phone Plug output	**2.35**
51.	**TTS-2**	Coupler, 2-Cond. Phone Plugs connect 2 assemblies having extension Jack terminations	**2.00**



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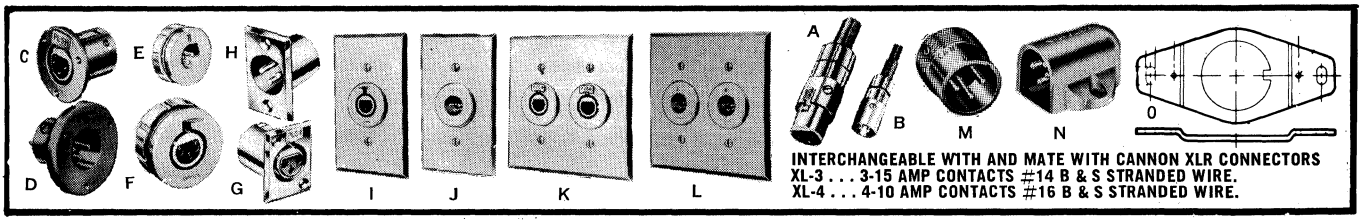
RoBINS®

XL★ AUDIO AND ELECTRONIC CONNECTORS



INTERCHANGEABLE WITH AND MATE WITH CANNON XLR CONNECTORS
XL-3 . . . 3-15 AMP CONTACTS #14 B & S STRANDED WIRE.
XL-4 . . . 4-10 AMP CONTACTS #16 B & S STRANDED WIRE.

STRAIGHT CORD PLUG. Cable relief spring entry. Zinc alloy shell, Phenolic insulator. Satin Nickel finish.

FIG. A **SOCKET CONTACTS**
#XL-3-11★ 3 CONTACTS LIST $1.90 #XL-3-11 3 contacts —— **#XL-4-11★ 4 CONTACTS List $2.50** #XL-4-11 4 contacts ——

FIG. B **PIN CONTACTS**
#XL-3-12★ 3 CONTACTS LIST $1.90 #XL-3-12 3 contacts —— **#XL-4-12★ 4 CONTACTS LIST $2.50** #XL-4-12 4 contacts ——

RECEPTACLE. Wall mount. Has mounting holes. Zinc alloy shell. Phenolic insulator. Satin Nickel finish.

FIG. C **SOCKET CONTACTS—LATCH LOCK**
#XL-3-13★ 3 CONTACTS LIST $1.90 #XL-3-13 3 contacts —— **#XL-4-13★ 4 CONTACTS LIST $2.50** #XL-4-13 4 contacts ——

FIG. D **PIN CONTACTS**
#XL-3-14★ 3 CONTACTS LIST $1.50 #XL-3-14 4 contacts —— **#XL-4-14★ 4 CONTACTS LIST $2.10** #XL-4-14 4 contacts ——

RECEPTACLE. Panel mount. The mounting nut accommodates 1/32" panel. Reversing the nut permits mounting on panel up to 5/16" thick. Zinc alloy shell. Satin Nickel finish.

FIG. E **SOCKET CONTACTS—LATCH LOCK**
#XL-3-13N★ 3 CONTACTS LIST $2.25 #XL-3-13N 3 contacts ——

FIG. F **PIN CONTACTS**
#XL-3-14N★ 3 CONTACTS LIST $2.25 #XL-3-14N 3 contacts —— **#XL-4-14N★ 4 CONTACTS LIST $2.90** #XL-4-14N 4 contacts ——

RECEPTACLE. Wall mount. Compact rectangular flange saves mounting space. Zinc alloy shell. Satin Nickel finish.

FIG. G **SOCKET CONTACTS—LATCH LOCK**
#XL-3-31★ 3 CONTACTS LIST $2.25 #XL-3-31 3 contacts —— **#XL-4-31★ 4 CONTACTS LIST $3.10** #XL-4-31 4 contacts ——

FIG. H **PIN CONTACTS**
#XL-3-32★ 3 CONTACTS LIST $1.75 #XL-3-32 3 contacts —— **#XL-4-32★ 4 CONTACTS LIST $2.10** #XL-4-32 4 contacts ——

MANUFACTURED BY CANNON PLUGS (AUSTRALIA) PTY. LTD. ® "CANNON" IS A TRADEMARK REGISTERED IN THE U.S. PATENT OFFICE AND IN OTHER COUNTRIES BY CANNON ELECTRIC COMPANY.

SINGLE GANG RECEPTACLE. Wall mount. Consists of XL-3-13N Socket Receptacle and mounting bracket XL-MB-1 assembled to wall plate.

FIG. I **SOCKET CONTACTS**
#XL-3-35★ 3 CONTACTS LIST $5.00 #XL-3-35 3 contacts ——

SINGLE GANG RECEPTACLE. Wall mount. Consists of XL-( )-14N Pin Receptacle and mounting bracket XL-MB-1 assembled to wall plate.

FIG. J **PIN CONTACTS**
#XL-3-36★ 3 CONTACTS LIST $5.00 #XL-3-36 3 contacts —— **#XL-4-36★ 4 CONTACTS LIST $6.40** #XL-4-36 4 contacts ——

TWO GANG RECEPTACLE. Wall mount. Consists of 2 XL-3-13N Socket Receptacles and 2 mounting brackets XL-MB-1 assembled to double wall plate.

FIG. K **SOCKET CONTACTS**
#XL-3-35-2G★ 3 CONTACTS LIST $11.00 #XL-3-35-2G 3 contacts ——

TWO GANG RECEPTACLE. Wall mount. Consist of 2 XL-( )-14N and 2 mounting brackets XL-MB-1 assembled to double wall plate.

FIG. L **PIN CONTACTS**
#XL-3-36-2G★ 3 CONTACTS LIST $11.00 #XL-3-36-2G 3 contacts —— **#XL-4-36-2G★ 4 CONTACTS LIST $12.00** #XL-4-36-2G 4 contacts ——

RECEPTACLE. Microphone or 90° mounting receptacle. Two mounting holes. Removable insert for soldering, inspection, etc. Zinc alloy shell. Satin Nickel finish

FIG. N **PIN CONTACTS**
#XL-3-42★ 3 CONTACTS LIST $2.20 #XL-3-42 3 CONTACTS —— **#XL-4-42★ 4 CONTACTS LIST $2.65** #XL-4-42 4 contacts ——

ADAPTOR RECEPTACLE. Mounts directly in or on to microphone and other units or surfaces where they can be adequately supported. Threads to mate into unit of equipment. Satin Nickel finish.

FIG. M **PIN CONTACTS**
#XL-3-50T★ 3 CONTACTS LIST $2.80 #XL-3-50T 3 contacts ——

MOUNTING BRACKET. XL-( )-13N and XL-( )14N Receptacles can be installed in the floor or at other convenient locations using this bracket for mounting receptacles in a Russel and Stoll Box No. 2503 and other boxes.

FIG. O #XL-MB-1★ LIST $1.00 #XL-MB-1 ——

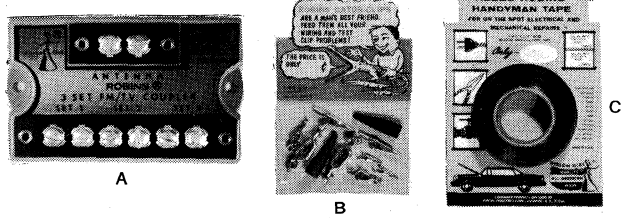
★ALL XL PLUGS ARE SUPPLIED EITHER IN BULK PACKED FOR O.E.M. AND INDUSTRIAL USE (AVAILABLE THROUGH INDUSTRIAL DISTRIBUTORS) OR INDIVIDUALLY PACKAGED FOR REPLACEMENT USE (AVAILABLE FROM GENERAL LINE DISTRIBUTORS. ORDER XL-( ) ★ (STAR SUFFIX) FOR INDIVIDUAL PACKAGE FOR REPLACEMENT USE.

XL INSERTS ONLY, FOR SPECIAL APPLICATIONS ARE AVAILABLE ON SPECIAL ORDER

STAINLESS STEEL WALL PLATES. Ready for drilling or punching for any required hole configuration. To accommodate any switches or controls. Holes for mounting these plates are prepunched and countersunk. With hardware. (Not illus.)

XP-1 Single Wall Plate ..... **List .75**
XP-2 Double Wall Plate ..... **List 1.50**

RoBINS®



FM INDOOR ANTENNA—FOLDED DIPOLE. Eliminates need for outdoor antenna in most locations. Easily concealed under rug or back of cabinet. (Not illus.) **#FMA-1** ..... **List $2.00**

GENERAL PURPOSE ACCESSORIES

A—3 SET TV/FM COUPLER. Three TV or FM sets can be coupled to one antenna and operated with little loss of gain. Screw terminals provide for simple attachment of set and antenna leads. Can be installed behind a set or at any convenient location. **#FMC-3** ..... **List $3.00**

LINT-FREE CLEANING CLOTHS. Multi-Pak of six 7" x 11" lint-free cloths for cleaning and dusting fine lenses, delicate tape heads, phonos, equipment, parts, etc., without leaving lint deposits. **#MLC-6 List ..$1.00**

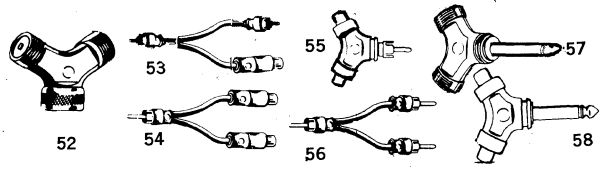
SELF-STICK FELT PADDING. Large 6" x 18" padding can be cut to size and applied as protective base to any object. Ideal for lining jewel boxes, drawers, shelves, cabinets; protective backing for equipment, mirrors, wall plaques, etc. Many uses in arts and crafts projects. **#MFP-1** ..... **List $1.00**

B—GATOR-CLIPS MULTI-PAK. Feed wiring and test clip problems to them. Package contains four pairs of alligator clips in assorted sizes and two insulators. **#AGC-1** ..... **List $1.65**

C—HANDY-MAN TAPE. Pressure sensitive 5 mil. Vinyl tape, 3/4" wide. For on the spot mechanical and electrical repairs. Adheres to any irregular surface. Resists moisture, oil alkalies, heat and cold. A must for home, shop, and auto.
#MT-1 3/4" x 30 ft. length..... **List $1.00**
#MT2 3/4" x 66 ft. length..... **List $1.65**

"Y" ADAPTORS—Phono Jack and Plug type, Microphone Connectors.

52. **YBDD-1** Light weight die cast, connects 2 cables (with std. mic. connectors) in parallel to one single connector **1.65**

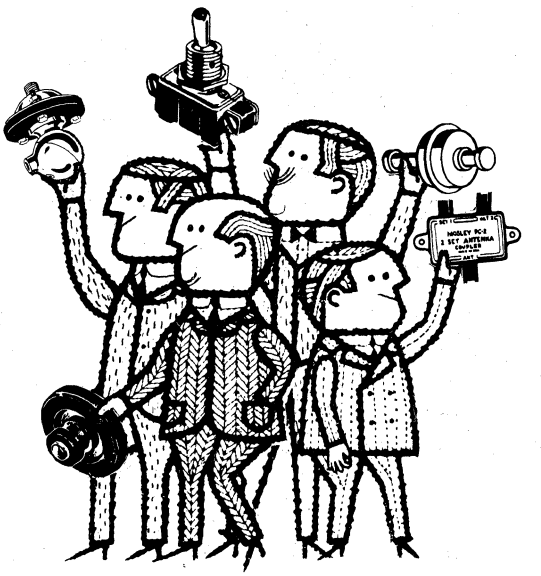


53. **YFMM-1** 1 Phono Plug connect. in parallel to 1 Phono Jack and 1 Phono Plug., shielded cable, 4" length **2.00**
54. **YMFF-1** Phono Plug connect. to 2 Phono Jacks, 4" shld'd. cable **2.00**
55. **YMFF-2** 2 Phono Jacks connect. in parallel to std. Phono Plug **2.00**
56. **YMMM-1** 3 Phono Plugs connect. together. 4" shld'd. cable.. **2.00**
57. **YTDD-1** 2 male Mic. Connectors connected in parallel to std. 2-cond. Phone Plug **1.90**
58. **YTFF-1** 2 Phono Jacks connect. in parallel to std. 2-cond. Phone Plug **1.90**

You can depend on your local

ELECTRONIC DISTRIBUTOR for ...

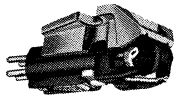
- *Instant off-the-shelf delivery*
- *In-depth inventories*
- *Wide varieties*
- *Prompt service*
- *Technical assistance*
- *Availability of the latest products*
- *Speedy purchasing — one order does the job*



Contact your local ELECTRONIC DISTRIBUTOR

for all your requirements!

SONOTONE® REPLACEMENT CARTRIDGES



VELOCITONE MARK V SOLID STATE HIGH COMPLIANCE STEREO. Low stylus mass for improved tracking in professional tonearms, changers. New elliptical stylus for improved tracking force; also .7-mil, .5-mil diamond needles. Plug-in type matched equalizers permit direct feed into magnetic phono input of any stereo preamp. Universal terminal plug. Sono-Flex® needle.

SPECIFICATIONS: Response: 20 to 20,000 cps; Output Voltage: 6mv (with equalizers); Compliance: 15 x 10^{-6} cm/dyne; Channel Separation: 27db; Tracking force: 1 gram for high quality arms; 1.5–2.5 grams for changers. 100T-D7V diamond, net **$19.50;** 100T-D5V diamond, net **$20.70;** 100T-DEV diamond, net **$23.70.**

VELOCITONE MARK IV HIGH COMPLIANCE CERAMIC STEREO. For professional tonearms and changers. High compliance, increased tracking ability. Matched equalizers feed directly into magnetic phono input of any stereo preamp. Universal terminal plug for fast, easy replacement. Sono-Flex needle.

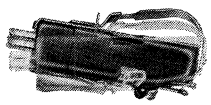
SPECIFICATIONS: Response: 20 to 20,000 cps (± 2 db to 17,000 cps); Output Voltage: 7mv (with equalizers); Compliance: 15 x 10^{-6} cm/dyne; Channel Separation: 30 db; Tracking Force: 1.5–3 grams for professional arms; 3–4 grams for changers. 9TAFHC-SDV diamond/sapphire, net **$13.89.** 9TAFHC-D77V dual diamond, net **$16.65.**

HIGH COMPLIANCE CERAMIC STEREO MODEL 9TAFHC. Low stylus mass and high compliance for flawless, hum-free reproduction of stereo and mono records. New universal tonearm terminal plug. Sono-Flex needle.

SPECIFICATIONS: Response: 20 to 20,000 cps (± 2 db 20 to 17,000 cps); Output Voltage: 0.2 volt; Compliance: 15 x 10^{-6} cm/dyne; Channel Separation: 30 db; Tracking Force: 1.5–3 grams for professional arms; 3–4 grams for changers. 9TAFHC-S dual sapphire, net **$7.04;** 9TAFHC-S77 dual sapphire, net **$7.04;** 9TAFHC-SD diamond/sapphire, net **$9.07;** 9TAFHC-D77 dual diamond, net **$9.88.**

MODEL 9TAF. Features Sono-Flex needle. Ceramic stereo cartridge with low stylus mass and high compliance for flawless, hum-free reproduction. New universal tonearm terminal plug.

SPECIFICATIONS: Response: 20 to 20,000 cps ± 2 db; Output Voltage: 0.4 volt; Compliance: 5.5; Channel Separation: 30 db; Tracking Force: 2–4 grams for professional arms; 3–5 grams for changers. 9TAF-S dual sapphire, net **$6.67;** 9TAF-S77 dual sapphire, net **$6.67;** 9TAF-SD sapphire/diamond, net **$8.74;** 9TAF-D77 dual diamond, net **$9.50.**



MODEL 21T STEREO CERAMIC. Complete with standard mounting bracket. Extra protection buttons to protect record and needle assembly. High output voltage. Sono-Flex needle. Available in **21TR.** New, safe, retractable mounting bracket.

21TR equipped with retractable mounting bracket. Response: Entire audio range; Output Voltage: 0.6 volt; Compliance: 5.5 x 10^{-6} cm/dyne; Channel Separation: 21 db; Tracking Force: 4–7 grams. 21TR-S dual sapphire, net **$5.24;** 21T-S dual sapphire, net **$4.90;** 21TR-S77 dual sapphire, net **$5.24;** 21T-S77 dual sapphire, net, **$4.90;** 21TR-SD diamond/sapphire, net **$7.32;** 21T-SD diamond/sapphire, net **$6.98.**

MODEL 22T HIGH COMPLIANCE STEREO CERAMIC. New standard mounting bracket permits easy installation and servicing. Once installed, it snaps in and out of mounted bracket. Fits standard tonearms designed for many cross-reference replacements. Sono-Flex needle.

22T equipped with snap-in mounting bracket. Available in **22TR.** New, safe, retractable mounting bracket. Response: Entire audio range; Output Voltage: 0.3 volt; Compliance: 10.0 x 10^{-6} cm/dyne; Channel Separation: 24 db; Tracking Force: 2–4 grams. 22T-S dual sapphire, net **$5.24;** 22T-S77 dual sapphire, net **$5.24;** 22T-SD diamond/sapphire, net **$7.32;** 22TR-S dual sapphire, net **$5.24;** 22TR-S77 dual sapphire, net **$5.24;** 22TR-SD diamond/sapphire, net **$7.32.**

MODEL 23T HIGH COMPLIANCE STEREO CERAMIC. High compliance, high output voltage, standard snap-in mounting brackets and protective "bottoming" buttons.

23T equipped with snap-in mounting bracket. Response: Entire audio range; Output Voltage: 0.4 volt; Compliance: 10 x 10^{-6} cm/dyne; Channel Separation: 26 db; Tracking Force: 2–4 grams. 23T-S dual sapphire, net **$5.78;** 23T-S77 dual sapphire, net **$5.78;** 23T-SD diamond/sapphire, net **$7.85.**

MODEL 24T. For transistorized amplifiers. Rugged stereo ceramic cartridge. Available with a standard mounting bracket for fast, trouble-free servicing. Sono-Flex needle. 4500 pf capacitance.

SPECIFICATIONS: Response: Smooth over entire audio range; Output Voltage: 0.25 volt; Compliance. 4.0 x 10^{-6} cm/dyne; Channel Separation: 21.0 db; Tracking Force: 4–7 grams. 24T-S dual sapphire, net **$6.30;** 24T-S77 dual sapphire, net **$6.30;** 24T-SD diamond/sapphire, net **$8.37.**

MODELS 25T, 26T, 27T, 28T MICRO-CERAMICS. For lightweight tonearms. New, tiny, high compliance cartridges designed for low-mass, tubular tonearms. Just 1"—end to end—weighs only one gram. Tracks light, responds smoothly and separation is sharp, definite. Standard mounting brackets permit easy updating of any two-hole boss mounting type arms. Sono-Flex needle. Model 27T for transistorized applications. 4100 pf capacitance.

SPECIFICATIONS: High compliance 25T: Response: Smooth over entire audio range; Output Voltage: 0.2 volt; Compliance: 15.0 x 10^{-6} cm/dyne; Channel Separation: 24 db; Tracking Force: 1–3 grams. 25T-MB-S* dual sapphire, net **$6.75;** 25T-MB-S77* dual sapphire, net **$6.75;** 25T-MB-SD* diamond/sapphire, net **$8.82.**

SPECIFICATIONS: High output 26T: Response: Smooth over the entire audio range; Output Voltage: 0.5 volt; Compliance: 6.0 x 10^{-6} cm/dyne; Channel Separation: 21 db; Tracking Force: 3–6 grams. 26T-MB-S* dual sapphire, net **$6.75;** 26T-MB-S77* dual sapphire, net **$6.75;** 26T-MB-SD* diamond sapphire, net **$8.82.**

SPECIFICATIONS: Transistor application 27T: Response: Smooth over the entire audio range; Output Voltage: 0.18 db; Compliance: 5.0 x 10^{-6} cm/dyne; Channel Separation: 22 db; Tracking Force: 3–6 grams; 4100 pf capacitance. 27T-MB-S* dual sapphire, net **$7.20;** 27T-MB-S77* dual sapphire, net **$7.20;** 27T-MB-SD* diamond/sapphire, net **$9.27.**

SPECIFICATIONS: 28T: Response: Smooth over the entire audio range; Output Voltage: 0.35 volt; Compliance: 9.0 x 10^{-6} cm/dyne; Tracking Force: 2–4 grams; Separation: 22 db. 28T-MB-S* dual sapphire, net **$6.75;** 28T-MB-S77* dual sapphire, net **$6.75;** 28T-MB-SD* diamond/sapphire, net **$8.82.**

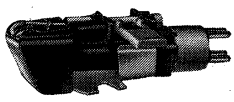
*MB—Metal Bracket. LB—Less Bracket.

MODEL 35T. High output stereo cartridge for replacement in popular-priced transistorized and tube amplifiers. Available with standard mounting bracket. Sono-Flex needle.

SPECIFICATIONS: Response: Smooth over entire audio range; Output Voltage: 1.0 volt; Compliance: 1.5 x 10^{-6} cm/dyne; Channel Separation: 20 db; Tracking Force: 6–8 grams. 850 pf capacitance. 35T-S dual sapphire, net **$7.20;** 35T-S77 dual sapphire, net **$7.20;** 35T-SD diamond/sapphire, net **$9.27.**

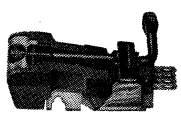
MODEL 916TAF. Sono-Flex needle. Low cost stereo cartridge employs same basic features of the audiophile-accepted Velocitone Mark IV. New universal tonearm terminal plug.

SPECIFICATIONS: Response: 20 to 15,000 cps ± 2 db; Output Voltage: 0.42 volt; Compliance: 4.5 x 10^{-6} cm/dyne; Channel Separation: 28 db; Tracking Force: 3–5 grams for professional arms; 4–6 grams for changers. 916TAF-S dual sapphire, net **$5.78;** 916TAF-S77 dual sapphire, net **$5.78;** 916TAF-SD sapphire/diamond, net **$7.85.**



MODELS 16TAF and 18TA CERAMIC STEREO. Remarkable quality.

SPECIFICATIONS: Response: 20 to 10,000 cps flat (± 1 db with smooth rolloff to 20,000 cps); Output: 0.65 V (16TAF), 1.0 V (18TA); Channel Separation: 25 db; Tracking Force: 5–7 grams. 16TAF-S dual sapphire, net **$4.90;** 16TAF-S77 dual sapphire, net **$4.90;** 16TAF-SD diamond/sapphire, net **$6.98;** 18TA-S dual sapphire, net **$4.52;** 18TA-S77 dual sapphire, net **$4.52;** 18TA-SD sapphire/diamond, net **$6.60.**



MODEL 8TA CERAMIC STEREO TURNOVER. Protects the quality of hi-fi stereo phonographs of more than 30 leading manufacturers.

SPECIFICATIONS: Response: 20 to 20,000 cps (± 2.5 db, 20 to 15,000 cps); Output Voltage: 0.3 volt; Compliance: 3.0 x 10^{-6} cm/dyne; Channel Separation: 20 db; Tracking Force: 4–6 grams for changers; 3–5 grams for professional arms. 8TA4-S dual sapphire, net **$6.60;** 8TA4-S77 dual sapphire, net **$6.60;** 8TA4-SD diamond/sapphire, net **$8.68.**

ELECTRONIC APPLICATIONS DIVISION
SONOTONE
audio products

MODEL 10T2 CERAMIC STEREO. Excellent for converting to stereo or replacing old stereo cartridges. Easy conversion package includes "fuse clip" mounting bracket and "jack-in" terminal plug with electrical contacts.

SPECIFICATIONS: Response: 20 to 15,000 cps ± 2.5 db; Output Voltage: 0.5 volt; Compliance: 1.5 x 10^{-6} cm/dyne; Channel Separation: 18 db; Tracking Force: 5–7 grams. 10T2-S dual sapphire, net **$5.24;** 10T2-S77 dual sapphire, net **$5.24;** 10T2-SD diamond/sapphire, net **$7.32;** 10T2-SD77 diamond/sapphire, net **$7.32.**

MODEL 2TA CERAMIC MONO. Also plays stereo records. Improved version of the famous Sonotone 2T series. New needle assembly, plus increased compliance and lower tracking force.

SPECIFICATIONS: Response: 20 to 20,000 cps (flat to 12,000); Output Voltage: 1.0 volt; Compliance: 2.0 x 10^{-6} cm/dyne; Tracking Force: 6 grams. 2TA-S dual sapphire, net **$4.44;** 2TA-LB-S* dual sapphire, net **$4.64;** 2TA-SD diamond/sapphire, net **$6.48;** 2TA-LB-SD* diamond/sapphire, net **$6.48.**

MODEL 3T CERAMIC MONO. Original equipment in many top quality phonographs. Available with or without brackets.

SPECIFICATIONS: Response: 20 to 20,000 cps (flat to 15,000); Output Voltage: 0.5 volt; Compliance: 2.0 x 10^{-6} (minimum); Tracking Force: 4–6 grams. 3T-LB-S* and 3T-S dual sapphire, net **$5.84;** 3T-LB-SD* and 3T-SD diamond/sapphire, net **$7.92.**

MODEL 1P CERAMIC MONO. Single needle. Selected by leading high fidelity phonograph manufacturers to protect quality of their products.

SPECIFICATIONS: Response: 20 to 20,000 cps (flat to 12,000); Output Voltage: 1.0 volt; Compliance: 1.0 x 10^{-6} cm/dyne; Tracking Force: 8–10 grams. 1P-LB-1S* and 1P-1S sapphire, net **$3.65;** 1P-LB-2S* and 1P-2S sapphire, net **$3.65;** 1P-LB-3S* and 1P-3S sapphire, net **$3.65;** 1P-LB-1D* and 1P-1D diamond, net **$5.72;** 1P-LB-3D* and 1P-3D diamond, net **$5.72.**

*LB—Less bracket.

NEW! SONO-FLEX® NEEDLE

Flick it—bend it—knock it—it springs back, ready to play.

N-9916 F-S 0.7-mil sapphire ..... net **$2.08**
N-9916 F-S77 dual 0.7-mil sapphire ..... net **$2.08**
N-9916 F-SD 0.7-mil diamond, .3-mil sapphire ..... net **$2.83**
N-9916 F-SD77 dual 0.7-mil diamond ..... net **$3.58**
N-9916 HC-S etc. (for Mark IV or 9TAFHC units)

NEW MONO AND STEREO CRYSTAL CARTRIDGES

MODEL 14T MONO CRYSTAL CARTRIDGE. Direct replacement for thousands of Ronette and Vaco mono cartridges now on the market. Also replaces other cartridges of this type. Turnover type cartridge for LP, 45 and 78 records.

SPECIFICATIONS: Response: Entire audio range; Output Voltage: 3.6 volts. 14T-S dual sapphire, net **$1.88;** 14TLB-S* dual sapphire, net **$1.70.**

MODEL 15T MONO CRYSTAL CARTRIDGE. High output crystal cartridge for mono replacements. Has standard type turnover (leverarm) mechanical features for replacement of boss mounted turnover type cartridges. Plays LP, 45 and 78 records.

SPECIFICATIONS: Response: Entire audio range; Output Voltage: 3.6 volts. 15T-S dual sapphire, net **$3.15.**

MODEL 19T2 STEREO CRYSTAL CARTRIDGE. Has standard turnover (leverarm) mechanical features for replacement of boss mounted turnover type cartridges. Plays LP, 45 and 78 records.

SPECIFICATIONS: Response: Entire audio range; Output Voltage: 2 volts. 19T2-S dual sapphire, net **$4.40.**

MODEL 20T1 STEREO CRYSTAL CARTRIDGE. Complete with mounting bracket. Turnover type cartridge for LP, 45 and 78's. Replacement for Ronette and Vaco. Without bracket: Model 20TLB.

SPECIFICATIONS: Response: Entire audio range; Output Voltage: 1.0 volt. For 2-volt order Model 20T2. 20T-1-S dual sapphire, net **$2.64;** 20T1LB-S*, net **$2.45;** 20T2-S dual sapphire, net **$2.64;** 20T2LB-S*, net **$2.45.**

SLIM MANUAL TONEARM COMPLETE WITH CRYSTAL CARTRIDGE

- Prewired ready for use
- Shielded cable
- Spring mounting post
- Packaged with installation hardware

STEREO AND MONO

STEREO T20T1-S. Complete with 20T1 stereo crystal cartridge. **Net $3.40. T20T2-S.** Complete with 20T2 stereo crystal cartridge. **Net $3.40. MONO T14T-S.** Complete with 14T mono crystal cartridge. **Net $2.64.**

*LB—Less bracket.

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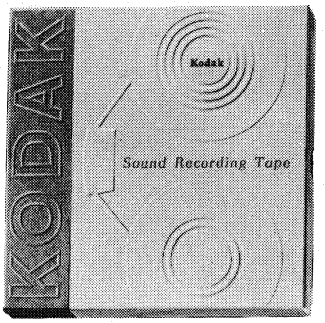
Net

SECTION 1340

KODAK SOUND RECORDING TAPES

IRC, Inc.

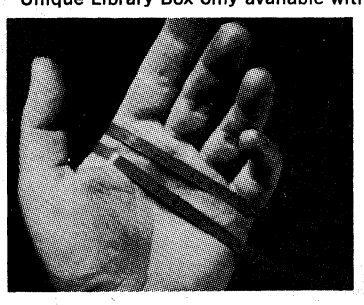


Whatever your recording needs there is a KODAK Tape to do the job. For a general-purpose tape with low-print characteristics, choose Type 31A. Type 34A is a high-output tape which can also be used as a low-noise tape if record levels can be adjusted. For longer-playing applications try Types 21A and 21P (extra play) or Type 11P (double play). And now, Type 12P for triple-play. You'll find KODAK Sound Recording Tapes are available in a complete range of sizes and windings for amateur and professional use.

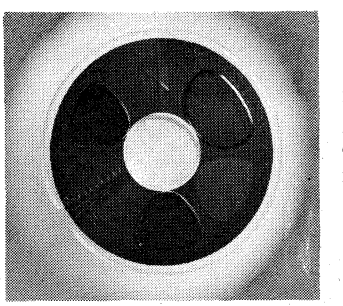
- **KODAK MEANS QUALITY.** The only professional quality tapes available at popular tape prices. Two great types . . . Professional Low Print-Through and Professional High Output. Both are lifetime coded to identify the brand and provide convenient indexing.
- **CONSISTENT UNIFORMITY** due to Eastman Kodak's exclusive emulsion process, consistent high quality is maintained from batch to batch and from reel to reel.
- **NO STRETCH.** New DUROL® base material is the Eastman Kodak's cellulose triacetate that is smooth, tough and durable. Breaks are clean . . . splices are made quickly, easily with minimum program loss.
- **NEW BINDER MATERIAL.** Coatings of "R-type" binder give a smoother, tougher recording surface that reduces tape noise and distortion. It is extremely abrasion resistant, preventing oxide build-up at the recording head.
- **THREAD EASY REEL** loads fast and easy. Rugged one-piece construction has indexing scale, built-in splicing jig and handy writing surface for tilting or identification. Supplied at no extra charge with all 5 and 7 inch rolls of KODAK Tape.
- **DURABLE LIBRARY CONTAINER.** Tough one-piece construction means package won't come apart even with heavy usage.

	DESCRIPTION	CAT. NO.	SIZE	REEL*
STANDARD PLAY	1½ MIL PLASTIC—Low Print-Though and other excellent performance characteristics. Ideal for general-purpose and master recordings. Type 31A base is Durol—a high strength cellulose triacetate plastic-type support material.	31A1 31A6 31A12 31A25MH 31A25HF 31A25PHB 31A25PH 31A50PHB	¼" x 150' ¼" x 625' ¼" x 1250' ¼" x 2500' ¼" x 2500' ¼" x 2500' ¼" x 2500' ¼" x 5000'	3" plastic reel in mailing box 5" plastic "Thread Easy" 7" plastic "Thread Easy" Metal NAB hub 10½" metal NAB hub and flange Plastic NAB hub (unboxed) Plastic NAB hub Plastic NAB hub (unboxed)
HIGH OUTPUT	1½ MIL PLASTIC—High Output with remarkable low print-through. Professional performance Specifications. Type 34A base is Durol high strength triacetate designed to minimize distortion under high tension.	34A12 34A25MH 34A25HF 34A25PHB 34A25PH 34A50PHB	¼" x 1250' ¼" x 2500' ¼" x 2500' ¼" x 2500' ¼" x 2500' ¼" x 5000'	7" plastic "Thread Easy" Metal NAB hub 10½" metal NAB hub and flange Plastic NAB hub (unboxed) Plastic NAB hub Plastic NAB hub (unboxed)
EXTRA PLAY	1 MIL PLASTIC — Longer play with Durol strength and good low print-through without sacrifice of excellent general-purpose features.	21A9 21A18	¼" x 900' ¼" x 1800'	5" plastic "Thread Easy" 7" plastic "Thread Easy"
EXTRA PLAY	1 MIL POLYESTER — Polyester base for strength—new "R-Type" binder for outstanding sound recordings.	21P9 21P18	¼" x 900' ¼" x 1800'	5" plastic "Thread Easy" 7" plastic "Thread Easy"
DOUBLE PLAY	½ MIL POLYESTER — Extra thin and treated for extra strength. Longer length for more playing time.	11P4 11P12 11P25	¼" x 400' ¼" x 1250' ¼" x 2500'	3" plastic reel in mailing box 5" plastic "Thread Easy" 7" plastic "Thread Easy"
TRIPLE PLAY	½ MIL POLYESTER — Triple play with superior print-through ratio. No sacrifice of general purpose performance.	12P6 12P18 12P36	¼" x 600' ¼" x 1800' ¼" x 3600'	3¼" plastic reel in mailing box 5" plastic "Thread Easy" 7" plastic "Thread Easy"

* Unique Library Box only available with 5" & 7" size reels.



EASTMAN KODAK *means quality*. The only professional quality tapes available at popular tape prices. Two great types . . . Professional Low Print-Through and Professional High Output. Both are lifetime coded to identify the brand and provide convenient indexing.



Thread Easy Reel loads fast and easy. Rugged one-piece construction has indexing scale, built-in splicing jig and handy writing surface for titling or identification.

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Walsco ELECTRONICS

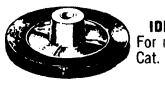
Walsco PHONO DRIVES

IDLER WHEEL–2-1/8" O.D.
With bushing. For GE, Motorola, Philco, Webcor.
Cat No. 1437..... Net **$1.67**

IDLER WHEEL–2-1/8" O.D.
With bushing. Used on Columbia, GE, Motorola, Webcor.
Cat. No. 1438. ..... Net **$2.07**

IDLER WHEEL–2" O.D.
With bushing. For use on Webcor Model 1134, 1136, 1151, 1121-1.
Cat. No. 1439..... Net **$1.88**

IDLER WHEEL–2-1/8" O.D.
Comes with bushing. For Webcor. Model 1135 record changer.
Cat. No. 1440..... Net **$1.75**



IDLER WHEEL–2-1/8" O.D.
For most Webcor tape recorders.
Cat. No 1441..... Net **$3.60**

IDLER WHEEL–1-1/2" O.D.
With bushing. For Philco & Webcor.
Cat. No. 1443..... Net **$1.00**

MOLDED IDLER WHEEL–RCA 45 RPM.
For RCA Series RP168 & RP190.
Cat. No. 1447..... Net **$1.38**

IDLER WHEEL–2" O.D.
For Collaro record changers in the 520 Series.
Cat. No. 1448..... Net **$2.72**

IDLER WHEEL–2-1/2" O.D.
For all Collaro record changers in the 54 and 530 Series
Cat. No. 1449..... Net **$2.00**

IDLER WHEEL–1" O.D.
For Crescent, in Models of 550 Series.
Cat. No 1450..... Net **$1.85**

IDLER WHEEL–1-9/16" O.D.
For VM Models 920 and 990 and Silvertone changers.
Cat No. 1452..... Net **$1.80**

IDLER WHEEL–2-1/2" O.D.
With bushing. For Gen. Ind., Seeburg, and other players.
Cat. No. 1430..... Net **$1.90**

IDLER WHEEL–2-1/2" O.D.
For Webcor Model 110 record players. Manufacturer's Part No. 45P1530.
Cat. No. 1431..... Net **$2.82**

IDLER WHEEL–2" O.D.
For Admiral, Columbia, Crescent, GE, Motorola, Philco, Rca, Seeburg, Silvertone and VM.
Cat. No. 1432.....Net **$1.00**
Bushing I.D.–.215
Cat. No. 1487 Bushing I.D.–.182
Used on older Silvertone, etc.
Net **$1.40**

IDLER WHEEL–2" O.D.
With bushing. For VM and GE.
Cat. No. 1433 ..... Net **$1.17**

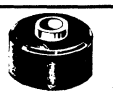
IDLER WHEEL–2" O.D.
With Shaft. For Admiral, Crescent, Motorola, Philco, RCA, Seeburg, Silvertone and VM.
Cat. No. 1434..... Net **$1.60**

IDLER WHEEL–2" O.D.
With bushing. For Milwaukee Stamping, Philco, Zenith and Westinghouse.
Cat. No. 1435..... Net **$1.50**

DRIVE WHEEL–3" O.D.
For Zenith Cobramatic Changers. Manufacturer's Part Nos. S-16922 and S-21754.
Cat. No. 1473..... Net **$5.16**

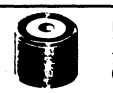
DRIVE WHEEL–1" O.D.
For Crescent changers of the 550 series.
Cat. No. 1451..... Net **$2.50**

3-STEP DRIVE SLEEVE
For Webcor Model 135, 136.
Cat. No. 1469..... Net **$1.60**



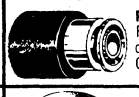
PRESSURE ROLLER–7/8" O.D.
For Webcor tape recorders.
Cat. No. 1455..... Net **$2.42**

PRESSURE ROLLER–7/8" O.D.
For Webcor tape recorders, 220 series and 2614, 2615.
Cat. No. 1482..... Net **$1.93**



PRESSURE ROLLER–3/4" O.D.
For VM Model 700, 701, 710, 711, 714 tape recorders.
Cat. No. 1458..... Net **$1.75**

CAPSTAN PRESSURE ROLLER–1" O.D.
For Pentron tape recorders.
Cat. No. 1488..... Net **$2.18**



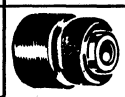
PRESSURE ROLLER–3/4" O.D.
For RCA & Wilcox-Gay tape recorders.
Cat. No. 1457..... Net **$ 2.08**

TAKE-UP DRIVER
For VM tape recorder Model 700.
Cat. No. 1484..... Net **$7.51**

RECORDER DRIVE BELTS
ROUND BLACK RUBBER DRIVES

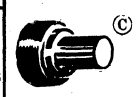
Precision ground to exacting tolerances for positive, non-slipping drive action.

Cat. No.	Insd. Circum.	Thick-ness	Used On	Dealer Net
1410-06	6-9/32"	9/64"	Model VM-700, 701, 710, 711, 714 Tape Recorders	$ .62
1410-07	7-7/16"	9/64"	RCA SRT 301, 401, 402, 403, Wilcox-Gay 3A10, 3A11	.57
1410-08	8-5/8"	9/64"	Pentron, Crestwood & other tape recorders	.70
1410-10	10-23/32"	9/64"	Crescent and other tape recorders	.67
1410-12	3/16"	3/32"	Ampro and most Revere recorders	.58
1410-14	1-9/16"	9/64"	Most Revere Recorders	1.07
1410-15	29/32"	1/8"	Webcor Tape Recorders	1.07
1410-18	18.1"	.139"	Ampro Tape Recorders	1.42
1410-20	20.4"	.139"	Ampro Tape Recorders	1.75
1410-21	21.1"	.139"	Ampro, Gen. Ind., Webcor & other tape Recorders	1.75
1410-50	17/32"	3/16"	Webcor & Revere	.67
1410-51	16-7/32"	1/8"	Viking Tape Recorders	1.17
	5.8"	.139"	Replaces Belts on	
1410-52	4.3"	.139"	Webcor 11x1736 pkg.	.95
1410-53	6.5"	.210"	Revere Tape Recorders	.52
1474	9.8"	.139"	Crestwood Tape Recorders	.72
1409-02	5/16"	17"	Pentron Tape Recorders	4.02
1409-03	5/16"	12-1/4'	Pentron, Crescent & other Tape Recorders	3.12
1409-04	5/16"	12-13/32"	VM 700, 701, 710, 711, 714 Tape Recorders	3.12
1409-05	1/64"	17"	Webcor Recorders	3.12

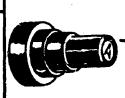


(A) Cat. No. 1460..... Net **$1.55** 78 RPM
Ⓐ Cat. No. 1470. . Net **$1.75** 78 RPM
(B) Cat. No. 1461..... Net **$1.65** 45 RPM

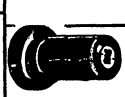
Ⓑ Cat. No. 1471..... Net **$1.50** 45 RPM
(C) Cat. No. 1462..... Net **$1.80** 33-1/3 RPM
Cat. No. 1472..... Net **$2.15** 33-1/3 RPM



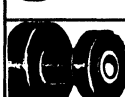
Ⓒ 1460, 1461 and 1462 are a Turret Drive group. For Crescent, GE, Motorola, RCA, VM and other changers.
The 1470 series is used on RCA, VM and other changers.



33-1/3RPM PULLEY-1/2" O.D.
RCA, R.P.-205/190 series motors replaces Mfg's Part No. 102941.
Cat. No. 1495-01.....Net **$1.58**



45 RPM PULLEY–1/2"O.D.
RCA, R.P./205/190 series motors. Replaces Mfg.'s Part No. 102942.
Cat. No. 1495-02.....Net **$1.58**



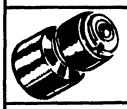
78 RPM PULLEY–1/2" O.D.
RCA, R.P.-205/190 series motors. Replaces Mfg.'s Part No. 102943.
Cat. No. 1495-03.....Net **$2.15**

16 RPM PULLEY–9/16" O.D.
RCA, R.P.-205/190 series motors. Replaces Mfg.'s Part No. 102944.
Cat. No. 1495-04.....Net **$1.42**

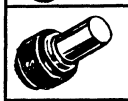
78 RPM PULLEY
Cat. No. 1463 78 RPM Net **$2.32**
Standard Pack: 3

45 RPM PULLEY
Cat. No. 1464 45 RPM Net **$2.38**
Standard Pack: 3

33-1/3RPM PULLEY
Cat. No. 1465 33-1/3 RPM
Standard Pack: 3 Net **$2.22**
Above 3 items are turret drives for GE and Webcor record changers



78 RPM PULLEY
Cat. No. 1466 78 RPM Net **$1.60**

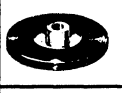


45 RPM PULLEY
Cat. No. 1467 45 RPM Net **$1.58**

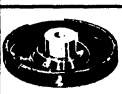
33-1/3RPM PULLEY
Cat. No. 1468 33-1/3 RPM
Net **$1.58**
For Crescent, Motorola, VM, RCA and other changers.

IDLER WHEEL-1-11/32" O.D.
A molded rubber wheel for RCA Series RP-199 record changers.
Cat. No. 1454..... Net **$3.40**

IDLER WHEEL–1" O.D.
For all Zenith Cobra-Matic record changers.
Cat. No. 1459..... Net **$3.23**



CAPSTAN IDLER–1-3/4" O.D.
For 700 series VM tape recorders
Cat. No. 1485..... Net **$1.67**

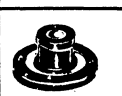


IDLER WHEEL–2" O.D.
For Eicor Tape Recorders and Silvertone Record Changers.
Cat. No. 1475..... Net **$2.40**

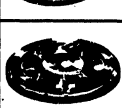
IDLER WHEEL–2" O.D.
For Pentron Tape Recorders
Cat. No. 1483..... Net **$2.65**

IDLER PULLEY–1-5/8" O.D.
A molded rubber wheel for VM Record Changers in 1200 series and other types.
Cat. No. 1453..... Net **$2.08**

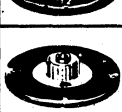
IDLER PULLEY–15/16" O.D.
A molded rubber wheel for VM Record Changers in the 1200 series having 4-pole motors.
Cat. No. 1456..... Net **$3.10**



IDLER PULLEY–1-5/8" O.D.
A molded rubber wheel for VM record changers.
Cat. No. 1486..... Net **$2.17**

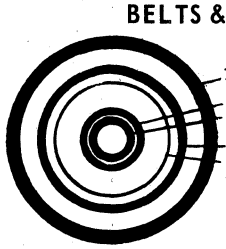


INTER WHEEL–2" O.D.
For Garrard Model RC-80 Record Changers.
Cat. No. 1444..... Net **$2.45**



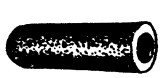
INTER WHEEL–2" O.D.
Has a ball-bearing hub cap. For Garrard T & TA record players.
Cat. No. 1445..... Net **$2.38**

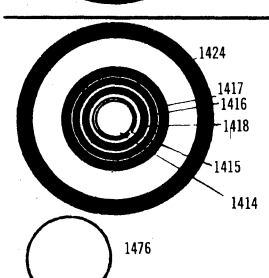
BELTS & CAM TIRES



Special shapes. Made of highest quality abrasion-resistant neopreme rubber.

INDEX FINGER CUSHION
Used on Webcor 100, 121, 1124 series. Also on Webcor 110 and 114 series.
Cat. No. 1419..... Net **$ .33** pr.





WALSCO TIRES & BELTS

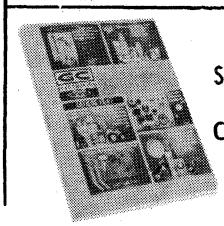
Cat. No.	I.D.	Wall Thick-ness	Length	Used on	Net
1414	5/8"	1/32"	1/4"	Admiral, Ge, Vm	$ .25 per pair
1415	21/32"	1/32"	1/4"	Garrard, Ge, Philco	.25 per pair
1416	2-3/4"	1/16"	3/16"	Zenith	.25 each
1417	1-1/2"	5/32"	3/16"	Admiral, Garrard	.25 each
1418	13/16"	1/8"	3/16"	Genl. Ind., Wilcox-Gray	.25 each
1424	2-7/8"	1/4"	1/4"	Admiral, Crescent, RCA	.58 each
1476	15/16"	1/32"	1/4"	Admiral	.25 per pair

RUBBER BUMPERS
Used on VM Record Changers.
Cat. No. 1411..... Net **$ .33** pr.

WALSCO RECORD ARM SLEEVE
For Garrard. Protects record arm and reduces vibration. Long-lasting neoprene rubber. (2 required).
Cat No. 1412..... Net **$ .25** pr.

WALSCO VELOCITY TRIP
For Webcor, precision-molded to manufacturer's specifications.
Cat. No. 1413..... Net **$ .25** pr.

WALSCO PHONO HARDWARE KIT
Kit contains over 60 parts, including phono jacks and plugs, assorted screws, spacers and springs, in transparent plastic box.
Cat. No. 1497..... Net **$1.82**



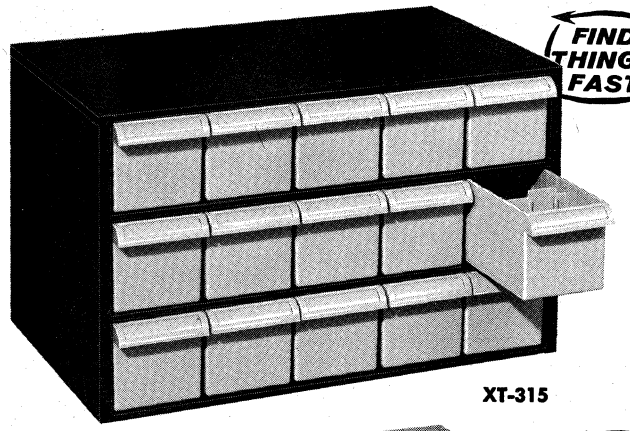
SEND FOR FREE CATALOG FR-67

A-M CABINETS
QUALITY BUILT

SMALL STORAGE CABINETS

YOUR ANSWER TO EFFICIENT STORAGE

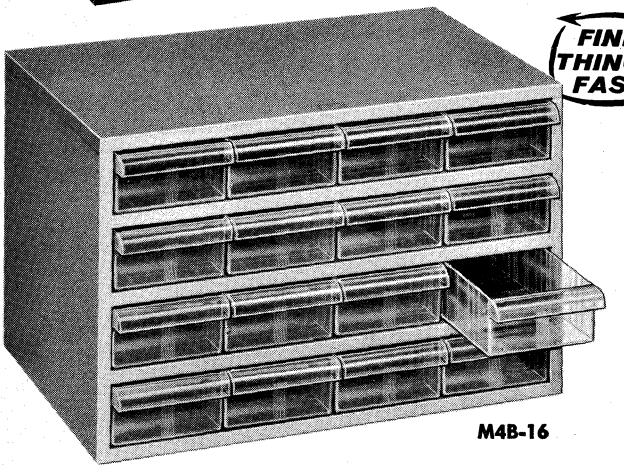
HEAVY DUTY MODULAR PARTS CABINETS



XT-315

Designed to expand with your storage needs, A-M Modular Cabinets save Time, Space, Labor and Money. Stop hunting thru small part "junk piles!" Eliminate duplication, inventory confusion and wasted motion. A-M Modulars add or stack in any combination. Store more in Less Space at low cost. Locate items fast.

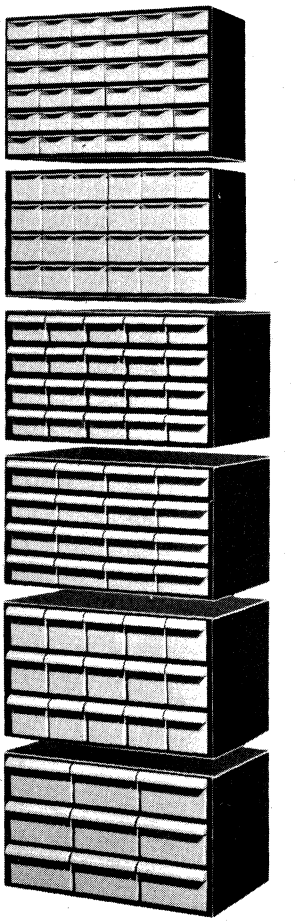
Welded into a single rigid unit, A-M Modular Steel frames stack securely — like building blocks. No bolting or assembling. They stand, stack, hang on walls or fit into standard shelving. Baked-on Enamel finish cannot chip or rub-off.



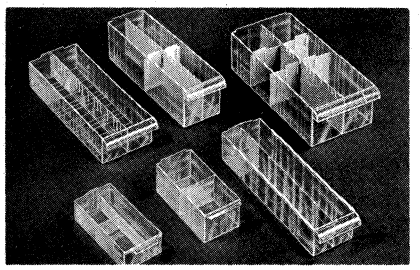
M4B-16

Two Types of Drawers Six Sizes of Each Type

"See-Thru" Drawer for visual inventory or virtually unbreakable "X"-tra Heavy Duty Drawers are available. Adjustable lengthwise, crosswise and criss-cross dividers provide from 2 to 24 compartments. No seams or sharp corners to cut hands. A-M Drawers are rustproof, Non-corrosive, Non-conductive, chemical resistant and smooth sliding. Stop tabs prevent spilling and Label slots provide easy indexing of contents.

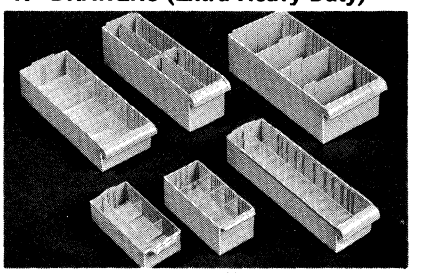


CLEAR "See-Thru" DRAWERS



"See-Thru" drawers are molded of clear styrene . . . for rapid visual identification.

"X" DRAWERS (Extra Heavy Duty)



Extra Heavy Duty Drawers are molded of tough polystyrene . . . in granite gray color . . . so strong they are virtually unbreakable . . . 60% lighter than steel, yet drawers will not bend, warp, or twist out of shape.

ILLUSTRATED AT RIGHT MODELS
XJ-36
XG-24
XM-320
XM-416
XT-315
XT-509

FIND THINGS FAST

UNCONDITIONALLY GUARANTEED

You must be 100% delighted with your Akro-Mils Cabinets or it's no sale. If not completely satisfied after a 10-day trial, simply return without explanation and you will owe nothing.

CABINETS WITH "SEE THRU" DRAWERS	CABINETS WITH "X" DRAWERS	NUMBER OF DRAWERS INCLUDED	DRAWER SIZE—INCHES			CABINET SIZE All 17⅞" Wide		SHIPPING WEIGHT POUNDS	NET COST COMPLETE
			High	Wide	Long	Deep	High		
J-36	XJ-36	36	1 1/16	2¾	5⅞	6"	11⅛"	13	$12.48
G-24	XG-24	24	2	2¾	5¾	6"	9⅞"	11	12.48
M3C-20	XM-320	20	2	3	11	11"	10¼"	16½	19.98
M4B-16	XM-416	16	2	4	11	11"	10¼"	16¾	17.98
T3C-15	XT-315	15	3 1/32	3⅛	11	11"	10⅝"	17	17.98
T5A-9	XT-509	9	3 1/32	5¼	11	11"	10⅝"	15¾	17.98

BUY WITH CONFIDENCE — ALL A-M CABINETS FULLY GUARANTEED — All models come ready to use, shipped in protective, individual floating-type cartons, fully assembled. Price includes drawer dividers and index labels. Prices F.O.B. shipping point. SALES TAX — Local, state and federal sales taxes are not included in prices shown in this catalog. If applicable, they are added at the time of purchase.

Manufactured under one or more of the following U.S. Patents: 2,985,333, 3,200,983. Other patents pending: Made in U.S.A. TM® ©1966

Net

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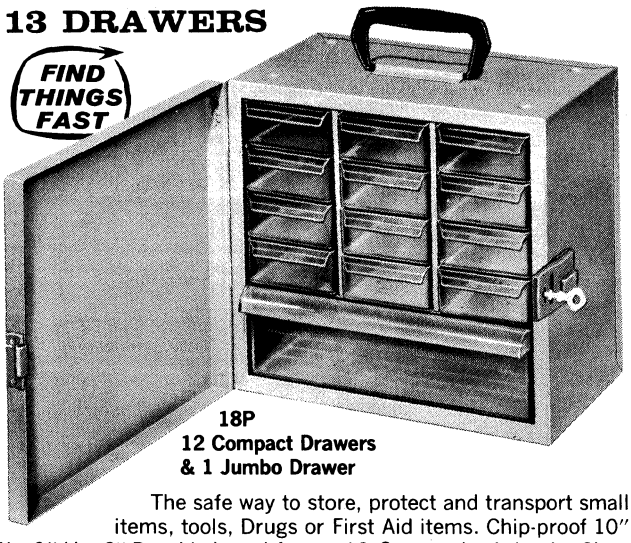
A-M CABINETS QUALITY BUILT

SMALL STORAGE CABINETS

YOUR ANSWER TO EFFICIENT STORAGE

PORTABLE LOCKING CABINET 13 DRAWERS

FIND THINGS FAST



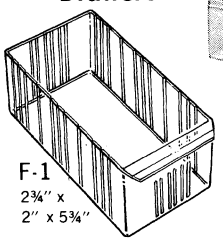
18P
12 Compact Drawers & 1 Jumbo Drawer

The safe way to store, protect and transport small items, tools, Drugs or First Aid items. Chip-proof 10" W x 9" H x 6" D welded steel frame. 12 Compact, 1 Jumbo Clear Plastic drawers, each with divider. Hinged door with locking clasp and key **$5.63**

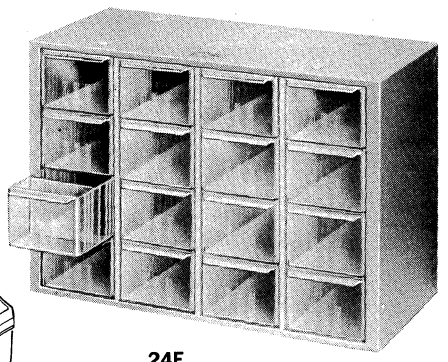
WELDED STEEL CABINETS WITH "SEE THRU" DRAWERS

FIND THINGS FAST

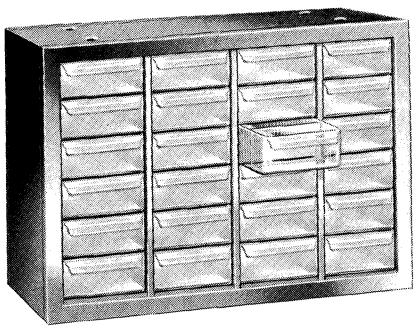
"See-Thru" Plastic Drawers



F-1
2¾" x 2" x 5¾"



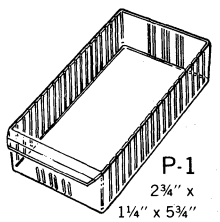
24F
With 16 Deep Drawers



24HB
With 24 Compact Drawers

Drawers Labels And Dividers

FIND THINGS FAST



P-1
2¾" x 1¼" x 5¾"

Convenient small parts storage cabinets for office, home, shop, lab or assembly line. A-M welded steel frame cabinets stack, stand, hang from walls or fit shelving. "See-Thru" drawers provide easy, visible, inventory control. Hammertone Enamel finish is chipproof.

Molded of premium-quality plastic for exceptional strength and rigidity. "See-Thru" for instant visibility — see what is inside at a glance. P-1, 2-3/4" w. x 5-3/4" d. x 1-1/4" h. F-1, Deep Drawers; 2-3/4" w. x 5-3/4" d. x 2" h.

24F 9" H x 13" W x 6" D with 16 deep F-1 drawers, each with 1 divider. **$5.63**

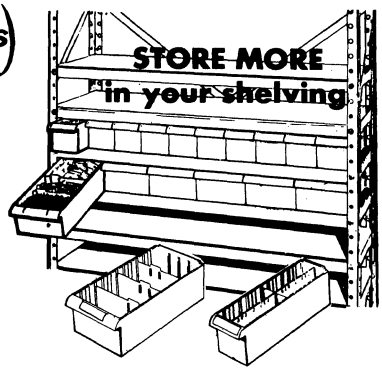
24HB 9" H x 13" W x 6" D with 24 compact P-1 drawers, each with 1 divider, ... **$5.63**

KITS OF DRAWERS THAT FIT IN ANY STANDARD SHELVING

2 SIZES OF DRAWERS IN KITS

FIND THINGS FAST

Quickly convert cluttered shelving into organized storage units. A-M Drawer Kits may double or triple the "use-ability" of your storage shelving. Drawers of virtually unbreakable polystyrene — no sharp edges, adjustable lengthwise, crosswise and crisscross dividers. Rustproof, non-corrosive. Kit fills one row of 36" shelving.



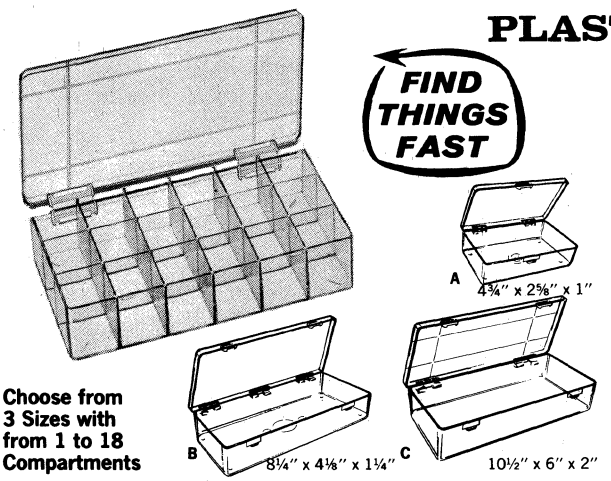
MAKE YOUR OWN STORAGE BINS

Kit Number	Drawers are 3-1/32" High, 11" Deep Width	Shipping Weight	Complete Kit Industrial User Price
23-110	10 Drawers—3⅛" W.	6 #	$7.50
23-306	6 Drawers—5¼" W.	6¼ #	7.50

PLASTIC UTILITY STORAGE BOXES

FIND THINGS FAST

Super-strong Plastic Utility Boxes with Exclusive "long-life" hinged-top design. Resists scratches and are light and durable. Perfect for electronic parts, hardware, all small items. 3 sizes with from 1 to 18 compartments. Packed individually



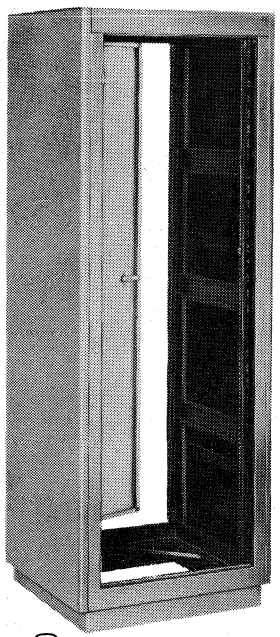
Choose from 3 Sizes with from 1 to 18 Compartments

Key	Order Number	Number of Compartments	Compartment Dimensions	Ship. Wt.	Net Each	Dozen
A	05-201	1	4-3/4"x2-5/8"x1"	2 oz.	$ .29	$ 2.64
A	05-204	4 equal	2-5/32"x1-9/32"x1"	2 oz.	.29	2.64
A	05-206	6 equal	1-7/16"x1-9/32"x1"	2 oz.	.29	2.64
B	05-401	1	8-1/4"x4-1/4"x1-1/4"	9 oz.	.65	5.88
B	05-406	6 equal	1-5/16"x4-1/8"x1-1/4"	9 oz.	.65	5.88
B	05-412	12 6	1-9/32"x1-5/16"x1-1/4"			
		2	1-5/16"x1-1/8"x1-1/4"			
		4	1-5/16"x2"x1-1/4"	9 oz.	.65	5.88
B	05-418	18 equal	1-3/16"x1-23/64"x1-1/4"	9 oz.	.65	5.88
C	05-501	1	10-7/16"x5-15/16"x2"	22 oz.	1.59	14.40
C	05-506	6 equal	1-11/16"x5-15/16"x2"	22 oz.	1.69	15.24
C	05-512	12 6	1-15/16"x1-11/16"x2"			
		6	3-15/16"x1-11/16"x2"	22 oz.	1.69	15.24
C	05-518	18 equal	1-5/16"x1-11/16"x2"	22 oz.	1.69	15.24

BUY WITH CONFIDENCE — ALL A-M CABINETS FULLY GUARANTEED — All models come ready to use, shipped in protective, individual floating-type cartons, fully assembled. Price includes drawer dividers and index labels. Prices F.O.B. shipping point. SALES TAX — Local, state and federal sales taxes are not included in prices shown in this catalog. If applicable, they are added at the time of purchase.

Manufactured under one or more of the following U.S. Patents: 2,985,333, 3,200,983. Other patents pending: Made in U.S.A. TM® ©1966

Series "60" Cabinet Racks



Ⓐ Upright Rack

Scientifically designed to meet all requirements for human needs as well as component physical specifications; the most practical cabinet rack developed for either a single piece of equipment or a large instrumentation system. Very economical to the user, units are shipped fully assembled and ready for immediate use.

Basic frame welded in a solid unit composed of 14-gauge cold-rolled steel channels. Sides have "U" braces with perforated channels for fastening vertical adjustable mounting rails. Rails also support other types of equipment such as brackets, shelves, slides, etc. Eliminates need of drilling holes in the rack. Sides and rear door made of 16 gauge steel. Door may be mounted to open left or right. Vertical channel, 6" wide, welded to door to prevent vibration or whip. Two pairs of panel mounting rails are supplied; fully adjustable. Panels may be mounted in front and rear at the same time. Front rails drilled and tapped 10-32 W.E. spacing. Rear rails are drilled according to universal spacing.

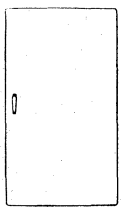
All Series Sixty enclosures may be quickly combined with each other to create units of any desired width as shown in the Add-A-Rack series. In addition, such accessories as desk tops, turrets, drawers, slides, sloping panel supports and front door are easily installed.

Standard finishes are smooth baked enamel over a primer. For two-tone gray, specify by adding suffix **SG.** For two-tone blue, add suffix **SB** to order number. Standard Bud relay rack panels are available for the Series Sixty racks in light gray and light blue; when ordering, add suffix **SG** for gray; **SB** for blue.

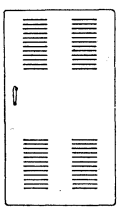
UPRIGHT CABINET RACKS (FIG. A)

Completely assembled with sides, rear door and top. Standard units have plain sides and door; solid top. For greater ventilation, order units with louvered sides and/or rear door; both, with solid top. Width, 24 1/16", all units. Inside depth 20¼" clear on units with 22" outside depth; 23¾", all others. Top opening 18½" w. x 17" d. on units with 22" outside depth; 18½" w. x 20½" d., all others. **Specify Color When Ordering:** Add suffix **SG** to number for gray; suffix **SB,** for blue.

With Plain Sides and Door								Louvered Sides, Plain Door			
Bud No. 60-	Net Each, Lots of 1-3	4-6	7-9	Height	Outside Depth	Panel Space	Wt., Lbs.	Bud No. 60-	Net Each, Lots of. 1-3	4-6	7-9
2300	$106.30	$ 95.67	$ 85.05	29 5/8"	22"	21"	118	2600	$112.00	$100.80	$ 89.60
2301	131.45	118.30	105.15	40 1/8"	22"	31½"	156	2601	140.00	126.00	112.00
2302	146.05	131.45	116.85	50 5/8"	22"	42"	173	2602	156.50	140.85	125.20
2303	166.25	149.60	133.00	61 1/8"	22"	52½"	197	2603	179.00	161.10	143.20
2304	180.25	162.20	144.20	69 7/8"	22"	61¼"	220	2604	194.75	175.28	155.80
2305	200.00	180.00	160.00	78 5/8"	22"	70"	235	2605	216.50	194.85	173.20
2306	218.65	196.80	174.90	87 3/8"	22"	78¾"	265	2606	235.15	211.64	188.12
2307	125.50	112.95	100.40	29 5/8"	25½"	21"	156	2607	135.15	121.64	108.12
2308	151.20	136.10	120.95	40 1/8"	25½"	31½"	176	2608	159.80	143.82	127.84
2309	168.00	151.20	134.40	50 5/8"	25½"	42"	185	2609	178.00	160.20	142.40
2310	186.50	167.85	149.20	61 1/8"	25½"	52½"	211	2610	203.70	183.33	162.96
2311	207.30	186.55	165.85	69 7/8"	25½"	61¼"	240	2611	219.90	197.91	175.92
2312	230.30	207.25	184.25	78 5/8"	25½"	70"	256	2612	244.20	219.78	195.36
2313	251.35	226.20	201.10	87 3/8"	25½"	78¾"	267	2613	266.20	239.58	212.96
With Louvered Sides and Door								**Plain Sides, Louvered Door**			
2700	$110.20	$ 99.18	$ 88.16	29 5/8"	22"	21"	118	2800	$108.50	$ 97.65	$ 86.80
2701	137.00	123.30	109.60	40 1/8"	22"	31½"	156	2801	134.30	120.87	107.44
2702	153.40	138.06	122.72	50 5/8"	22"	42"	173	2802	149.20	134.28	119.36
2703	175.30	157.77	140.24	61 1/8"	22"	52½"	197	2803	169.70	152.73	135.76
2704	190.80	171.72	152.64	69 7/8"	22"	61¼"	220	2804	184.10	165.69	147.28
2705	212.00	190.80	169.60	78 5/8"	22"	70"	235	2805	204.30	183.87	163.44
2706	230.20	207.18	184.16	87 3/8"	22"	78¾"	265	2806	223.40	201.06	178.72
2707	129.90	116.91	103.92	29 5/8"	25½"	21"	156	2807	127.70	114.93	102.16
2708	156.90	141.21	125.52	40 1/8"	25½"	31½"	176	2808	145.00	130.50	116.00
2709	174.70	157.23	139.76	50 5/8"	25½"	42"	185	2809	171.10	153.99	136.88
2710	194.30	174.87	155.44	61 1/8"	25½"	52½"	211	2810	190.00	171.00	152.00
2711	215.90	194.31	172.72	69 7/8"	25½"	61¼"	240	2811	211.10	189.99	168.88
2712	239.80	215.82	191.84	78 5/8"	25½"	70"	256	2812	234.60	211.14	187.68
2713	261.30	235.17	209.04	87 3/8"	25½"	78¾"	267	2813	256.10	230.49	204.88



Ⓑ Plain Door



Ⓒ Louvered Door

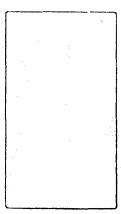
ACCESSORY PERFORATED TOP

Bud No.	Width	Depth	Fits Upright Rack	Wt., Lbs.	Net Each, Lots of 1-3	4-6	7-9
60-2370	21 15/16"	17"	With overall depth of 22"	6	$5.65	$5.10	$4.50
60-2371	21 15/16"	20½"	With overall depth of 25½"	7	6.00	5.40	4.80

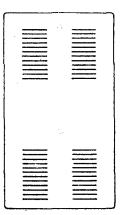
ACCESSORY DOORS

Doors are interchangeable; may be used for front or rear of rack; mount to open either left or right.

Plain Type (Fig. B)								Louvered Type (Fig. C)			
Bud No.	Net Each, Lots of 1-3	4-6	7-9	Ht.	Width	Fits Rack With Panel Space of	Wt., Lbs.	Bud No.	Net Each, Lots of 1-9	10-14	15-19
60-2340	$16.05	$14.45	$12.85	21 7/16"	18 15/16"	21"	8	60-2540	$18.35	$16.52	$14.68
60-2341	19.80	17.80	15.85	31 15/16"	18 15/16"	31½"	11½	60-2541	22.70	20.43	18.16
60-2342	21.90	19.70	17.50	42 7/16"	18 15/16"	42"	15½	60-2542	25.20	22.68	20.16
60-2343	24.30	21.85	19.45	52 15/16"	18 15/16"	52½"	19	60-2543	27.95	25.16	22.36
60-2344	27.05	24.35	21.65	61 11/16"	18 15/16"	61¼"	22¼	60-2544	31.05	27.95	24.84
60-2345	30.05	27.05	24.05	70 7/16"	18 15/16"	70"	25½	60-2545	34.50	31.05	27.60
60-2346	32.80	29.50	26.25	79 3/16"	18 15/16"	78¾"	29	60-2546	37.70	33.93	30.16



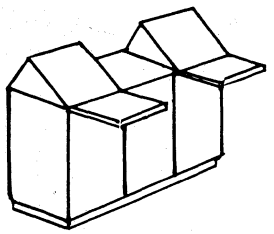
Ⓓ Plain Side



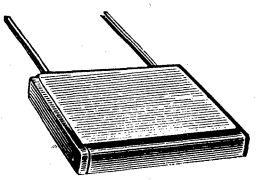
Ⓔ Louvered Side

ACCESSORY SIDES

Plain Type (Fig. D)								Louvered Type (Fig. E)			
Bud No.	Net Each Pair, Lots 1-3	4-6	7-9	Ht.	Width	Fits Rack With Panel Space of	Wt., Lbs.	Bud No.	Net Each Pair, Lots 1-3	4-6	7-9
60-2560	$24.10	$21.70	$19.30	26 55/64"	22"	21"	12½	60-2580	$28.10	$25.30	$22.50
60-2561	31.50	28.35	25.20	37 23/64"	22"	31½"	17½	60-2581	37.20	33.50	29.75
60-2562	36.65	33.00	29.30	47 55/64"	22"	42"	21	60-2582	44.20	39.80	35.35
60-2563	42.70	38.45	34.15	58 23/64"	22"	52½"	26¼	60-2583	51.95	46.75	41.55
60-2564	46.70	42.05	37.35	67 7/64"	22"	61¼"	30	60-2584	57.40	51.65	45.90
60-2565	51.45	46.30	41.15	75 55/64"	22"	70"	34	60-2585	63.60	57.25	50.90
60-2566	59.00	53.10	47.20	84 39/64"	22"	78¾"	38	60-2586	70.75	63.70	56.60
60-2567	30.15	27.15	24.10	26 55/64"	25½"	21"	14½	60-2587	34.70	31.25	27.75
60-2568	39.40	35.45	31.50	37 23/64"	25½"	31½"	20	60-2588	45.30	40.75	36.25
60-2569	45.85	41.25	36.70	47 55/64"	25½"	42"	24	60-2589	52.75	47.50	42.20
60-2570	53.35	48.00	42.70	58 23/64"	25½"	52½"	29½	60-2590	61.35	55.20	49.10
60-2571	58.35	52.50	46.70	67 7/64"	25½"	61¼"	34½	60-2591	67.10	60.40	53.70
60-2572	64.30	57.90	51.45	75 55/64"	25½"	70"	39	60-2592	73.95	66.55	59.15
60-2573	67.76	61.00	54.20	84 39/64"	25½"	78¾"	43½	60-2593	77.90	70.10	62.30



Typical Assembly



Ⓕ Desk Top

SERIES SIXTY DESK TOP (FIG. F)

May be used in connection with any Series Sixty enclosure. Furnished completely assembled with wood-grained Formica surface. Fastens to panel mounting rails by two pre-drilled channels. Will support in excess of 200 lbs. Surface 24 1/16" wide, 19½" deep, 3 1/16" high. Available in two colors. **Specify Color:** Add suffix **SG** for gray; **SB** for blue.

Bud No.	Fits Series Sixty	Support Channel	Wt., Lbs.	Ea., 1-3	Ea., 4-6	Ea., 7-9
60-2360	With 22" depth	21 9/32" long	22	$36.05	$32.45	$28.85
60-2362	With 25½" depth	24¾" long	23	36.75	33.08	29.40

Net

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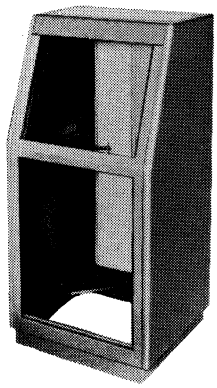
Series "60" Cabinet Racks

INCLINED PANEL CABINET RACKS (FIG. G)

Completely assembled with sides, rear door and solid top. Available in four combinations of plain or louvered sides and rear door. Size, 50⅜" h. x 24 1/16" w. x 22" d., outside; 20¼" d., clear inside. Weight, 165 lbs. **Specify Color When Ordering:** Add suffix **SG** to number for gray; suffix **SB,** for blue.

Bud No. 60-	Net Each, Lots of 1-3	4-6	7-9	Incline Panel Hgt.	Vert. Panel Hgt.	Top Opening W. x D.
With Plain Sides and Door						
2330	$165.25	$148.70	$132.20	10½"	29¾"	18½" x 11¾"
2331	175.15	157.65	140.10	15¾"	24½"	18½" x 10"
2332	175.15	157.65	140.10	17½"	22¾"	18½" x 9⅜"
With Louvered Sides and Door						
2730	$170.90	$153.81	$136.72	10½"	29¾"	18½" x 11¾"
2731	181.00	162.90	144.80	15¾"	24½"	18½" x 10"
2732	181.00	162.90	144.80	17½"	22¾"	18½" x 9⅜"

Bud No. 60-	Net Each, Lots of 1-3	4-6	7-9
Louvered Sides and Plain Door			
2630	$147.20	$132.48	$117.76
2631	184.20	165.78	147.36
2632	184.20	165.78	147.36
Plain Sides, Louvered Door			
2830	$168.50	$151.65	$134.80
2831	178.40	160.56	142.72
2832	178.40	160.56	142.72



G Inclined Panel Rack

ACCESSORY FRONT DOORS

Bud No.	Net Each, Lots of 1-3	4-6	7-9	Height	Width	Fits Rack Top Open. Size, In.	Wt., Lbs.
Plain Type (Fig. J)							
60-2350	$19.85	$17.85	$15.90	30 1/16"	18 15/16"	18½x11¾	11
60-2351	18.55	16.70	14.85	25 15/16"	18 15/16"	18½x10	9½
60-2352	18.00	16.20	14.40	23 3/16"	18 15/16"	18½x9⅜	9

Bud No.	Net Each, Lots of 1-3	4-6	7-9
Louvered Type (Fig. K)			
60-2550	$22.80	$20.52	$18.24
60-2551	21.30	19.17	17.04
60-2552	20.70	18.63	16.56

ACCESSORY REAR DOORS

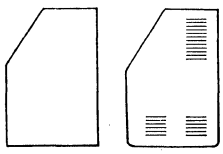
60-2342	$21.90	$19.70	$17.50	42 7/16"	18 15/16"	All sizes	15½	60-2542	$25.20	$22.68	$20.16

ACCESSORY SIDES

Specify "L" for left side or "R" for right side, determined when facing front of rack.

60-2574*	$38.45	$34.60	$30.75	47 55/64"	22"	18½x11¾	11	60-2594†	$44.20	$39.80	$35.35
60-2575*	39.55	35.60	31.65	47 55/64"	22"	18½x10	9½	60-2595†	45.50	40.95	36.40
60-2576*	39.55	35.60	31.65	47 55/64"	22"	18½x9⅜	9	60-2596†	45.50	40.95	36.40

*Fig. H. †Fig. I.



H Side Panels I

ACCESSORY PERFORATED TOPS

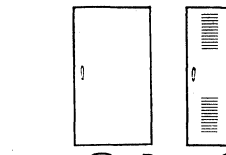
Bud No.	Width	Depth	Fits Rack Top Size, In.	Wt., Lbs.	Net Each, Lots of 1-3	4-6	7-9
60-2372	21 15/16"	11 13/16"	18½ x 11¾	4	$4.40	$3.95	$3.50
60-2373	21 15/16"	10"	18½ x 10	3	4.25	3.85	3.40
60-2374	21 15/16"	9 13/32"	18½ x 9⅜	3	4.20	3.80	3.35

ADD-A-RACK SERIES

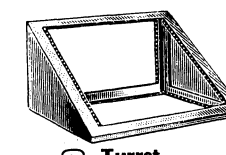
Each assembly consists of frame, top, bottom, rear door and cowlings; used as an add-on unit to join any of the Series Sixty enclosures into a bank of two or more. One standard rack plus several Add-A-Racks make any desired number of racks combined for optimum width. Colors same as above Racks.

Bud No. 60-	For Add-on to Rack No. 60-	Net Each, Lots of 1-3	4-6	7-9
Plain Sides				
2500	2300, 2600	$ 86.10	$ 77.50	$ 68.90
2501	2301, 2601	104.75	94.30	83.80
2502	2302, 2602	114.70	103.25	91.75
2503	2303, 2603	125.30	112.75	100.25
2504	2304, 2604	140.00	126.00	112.00
2505	2305, 2605	156.00	140.40	124.80
2506	2306, 2606	167.35	150.60	133.90
2507	2307, 2607	100.00	90.00	80.00
2508	2308, 2608	117.25	105.55	93.80
2509	2309, 2609	128.00	115.20	102.40
2510	2310, 2610	139.60	125.65	111.70
2511	2311, 2611	156.10	140.50	124.90
2512	2312, 2612	174.00	156.60	139.20
2513	2313, 2613	192.50	173.25	154.00
2530	2330, 2630	132.90	119.60	106.30
2531	2331, 2631	142.10	127.90	113.70
2532	2332, 2632	142.10	127.90	113.70

Bud No. 60-	For Add-on to Rack No. 60-	Net Each, Lots of 1-3	4-6	7-9	Wt., Lbs.
Louvered Sides					
2900	2700, 2800	$ 88.40	$ 79.56	$ 70.72	92
2901	2701, 2801	107.65	96.89	86.12	113
2902	2702, 2802	118.00	106.20	94.40	115
2903	2703, 2803	128.95	116.06	103.16	145
2904	2704, 2804	144.00	129.60	115.20	148
2905	2705, 2805	160.45	144.41	128.36	152
2906	2706, 2806	172.25	155.03	137.80	158
2907	2707, 2807	102.30	92.07	81.84	120
2908	2708, 2808	120.15	108.14	96.12	132
2909	2709, 2809	131.30	118.17	105.04	138
2910	2710, 2810	143.25	128.93	114.60	142
2911	2711, 2811	160.10	144.09	128.08	164
2912	2712, 2812	178.45	160.61	142.76	168
2913	2713, 2813	197.40	177.66	157.92	172
2930	2730, 2830	136.20	122.58	108.96	119
2931	2731, 2831	145.40	130.86	116.32	119
2932	2732, 2832	145.40	130.86	116.32	125



J Doors K

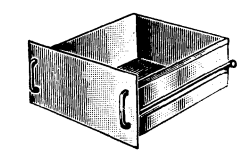


L Turret

SERIES SIXTY TURRETS (FIG. L)

Made of 16 gauge steel; designed so that any one of three sides may be attached to a Series Sixty upright rack or any horizontal surface. Accommodate standard 19" panels. All mounting rails have universal spacing. Sides easily removed when a series of interconnecting turrets are desired. **Specify Color When Ordering:** Add suffix **SG** for dark gray; **SB** for dark blue. For panels, order standard Bud panels with suffix **SG** for light gray; **SB** for light blue.

Bud No.	Width	Depth	Height	Panel Space Sloping	Bottom	Rear	Wt., Lbs.	Net Each, Lots of 1-3	4-6	7-9
60-2364	22 1/16"	17⅞"	12 5/16"	17½"	14"	8¾"	17	$39.05	$35.15	$31.25
60-2365	22 1/16"	14⅜"	10 3/16"	12¼"	10½"	7"	14	32.55	29.30	26.05
60-2366	22 1/16"	20 13/16"	14⅜"	21"	17½"	10½"	20	41.00	36.90	32.80



M Drawer

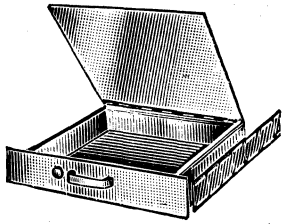
N Sliding Desk Top

SERIES SIXTY DRAWER, DESK TOP, AND SHELF ACCESSORIES

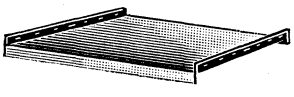
No. 60-2368 Drawer: Fits into any Series Sixty cabinet rack. Slides easily on nylon rollers. Will support heavy loads. Extends to full depth; stops prevent drawer from falling out. Slides easily attach to panel supporting rails. Silver anodized handles. Shipped completely assembled. **No. 60-2361 Sliding Desk Top:** Fits all Series Sixty racks. Has smooth Formica* surface for writing, servicing or inspection. Fits flush with front of unit. Usable area when fully extended, 11" x 16⅞". Occupies only 1¾" of panel height. Will support 75 lbs. Ball-bearing slide mechanism mounts directly in Series Sixty racks; brackets included to fit other Bud cabinets and consoles. **No. 60-2363 Desk Top Drawer:** Fits Series Sixty racks. Has Formica surface. Fits flush with front of unit. Hinged desk top on drawer holds small tools or parts. Special front-panel latch both locks and releases drawer or top as desired. Mounts to cabinet U-braces; slides travel on nylon rollers. Hardware supplied. **No. 60-2380 and 60-2381 Shelves:** Ideal for support of chassis, power supplies or other equipment; also may be used as base plate for bottom support. Of one-piece 16 gauge steel with flanged front and rear for extra strength and rigidity. Easily bolt to cabinet U-braces. Will support 200 lbs. Hardware supplied.

Bud No.	Fig.	Size, Inches	Wt., Lbs.	Net Each, Lots of 1-3	4-6	7-9
60-2368†	M	16⅝ x 6¾ x.19¼ inside	28	$32.05	$28.85	$25.65
60-2361‡	N	16⅞ x 15⅛ x 1¾ with std. 19" panel	8	16.65	14.99	13.32
60-2363†	O	16⅝ x 3¼ x 15 inside; 19 x 3½ front panel	19	55.00	49.50	44.00
60-2380†	P	17 31/32 w. x 19 9/32" d.	7½	6.80	6.12	5.44
60-2381†	P	17 31/32 w. x 22¾ d.	8¾	7.10	6.39	5.70

*Synthane Corp. trademark. †Add suffix **SB** for smooth blue; **SG,** smooth gray. ‡Add suffix **B** for black wrinkle; **G,** gray wrinkle; **HG,** gray hammertone; **SB,** smooth blue; **SG,** smooth gray.



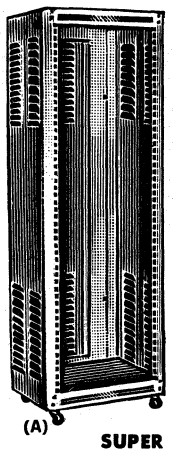
O Desk Top Drawer

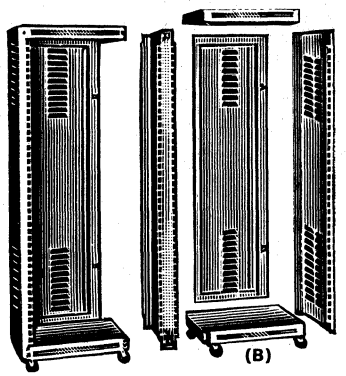


P Shelf

Cabinet Racks, Accessories

DELUXE RELAY RACKS WITH ADD-A-RACK


(A)


(B)

(A) Deluxe Relay Racks — High quality relay racks made of 16-gauge steel with 7/64" panel supports. Panel mounting supports are recessed so that no panel edges will be exposed. Both back and sides are fully louvered for best ventilation. Snap catches are positioned on the door. Rounded corners and red-lined chrome trim give streamlined appearance. Base constructed with four special supports so that casters may be applied directly to base for mobility. All standard panels fit these racks: 22" wide for 19" panels; 27" wide for 24" panels.

Super Deluxe Series Relay Racks are equipped with adjustable panel mounting supports permitting forward and backward adjustment of panels for more efficient use of space. Adjustable points are at 1" intervals for 9" to 15" clearance behind panels. Super Deluxe Racks are fitted with both front and rear doors, the rear to cover any equipment behind the panel while making it easily accessible. The front door, not louvered, conceals controls on the front panel.

(B) Add-A-Rack Series — Where relay racks are to be joined in series. Provides additional strength and improved appearance. Includes door, top, bottom and coupling unit, all that is needed to make a double relay rack out of a single Deluxe series.

All Racks Listed are shipped knocked-down with all necessary hardware and assembly instructions. Casters optional. When ordering specify finish. Add suffix **"HG"** for gray hammertone; suffix **"G"** for gray wrinkle; and suffix **"B"** for black wrinkle.

SUPER DELUXE TWO-DOOR RACKS WITH 19" WIDE PANEL SPACE

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-9	10-14	15-19
CR-2174	42 1/16"	36 3/4"	102	$ 70.70	$ 63.65	$56.55
CR-2171	47 5/16"	42"	104	80.10	72.10	64.10
CR-2172	66 9/16"	61 1/4"	138	103.35	93.00	82.70
CR-2175	75 5/16"	70"	150	105.85	95.25	84.70
CR-2173	82 5/16"	77"	163	124.10	111.70	99.30
WITH 24" WIDE PANEL SPACE						
CR-2494	42 1/16"	36 3/4"	119	$ 95.85	$ 86.25	$76.70
CR-2491	47 5/16"	42"	122	107.40	96.65	85.90
CR-2492	66 9/16"	61 1/4"	160	139.75	125.80	111.80
CR-2495	75 5/16"	70"	175	149.00	134.10	119.20
CR-2493	82 5/16"	77"	190	167.50	150.75	134.00

ADD-A-RACK ASSEMBLIES

Includes door, top, bottom and coupling unit for add-on use with racks indicated.

Bud No.	For Use With Rack No.	Wt., Lbs.	Net Each, Lots of 1-9	10-14	15-19
AR-1778	CR-1774	70	53.65	48.30	42.90
AR-1775	CR-1771	74	59.30	53.40	47.45
AR-1776	CR-1772	100	73.75	66.40	59.00
AR-1779	CR-1780	107	75.00	67.50	60.00
AR-1777	CR-1773	113	90.65	81.60	72.50
AR-4274	CR-2474	82	57.75	52.00	46.20
AR-4271	CR-2471	87	65.10	58.60	52.10
AR-4272	CR-2472	117	81.65	73.50	65.30
AR-4275	CR-2475	125	83.20	74.90	66.55
AR-4273	CR-2473	132	97.90	88.10	78.30
AR-2278*	CR-2074	102	63.15	56.85	50.50
AR-2275*	CR-2071	86	71.45	64.30	57.15
AR-2276*	CR-2072	110	89.40	80.45	71.50
AR-2279	CR-2075	120	91.35	82.20	73.10
AR-2277*	CR-2073	130	108.95	98.05	87.15
AR-3278	CR-2484	100	81.90	73.70	65.50
AR-3275	CR-2481	119	91.35	82.20	73.10
AR-3276	CR-2482	129	114.45	103.00	91.55
AR-3279	CR-2485	140	116.55	104.90	93.25
AR-3277	CR-2483	152	137.55	123.80	110.05

*Gray hammertone standard; for black or gray wrinkle add 10% to price.

"TEM-STAT" TEMPERATURE CONTROLS

Prevents costly damage to electronic components in enclosed cabinets, boxes, etc. Bimetal sensing element responds quickly to gradual or sudden temperature changes and actuates whatever warning device you use: Activates a light, bell, blower or other device; or, shuts off current. Activates snap-action, heavy-duty, normally open switch contacts. High electrical ratings up to 300° F; fully adjustable temperature ranges. Screw terminals for easy attachment. U/L Listed. Small size, 2 15/16" lg. x 1" w. x 1 1/2" d., suitable for limited space applications. **U/L Rating:** 8 amps, full load. **$5.00**

Bud Model TL-15—For 80°–170° F range. Net Each..... **$5.00**
Bud Model TL-16—For 150°–240° F range. Net Each.... **$5.00**

CASTERS

Bud No.	Height	Weight (Set of 4)	Net Each, Lots of 1-49	50-99	100-149
RC-7756	2 3/8"	1 3/4 lbs.	$1.10	$1.00	$ .90
RC-7757	2"	1 lb.	.50	.45	.40
RC-7758	3 1/4"	6 lbs.	2.65	2.40	2.10

• New product.

DELUXE RELAY RACKS
17 1/8" Overall Depth
WITH 19" WIDE PANEL SPACE

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-9	10-14	15-19
CR-1774	42 1/16"	36 3/4"	82	$54.65	$49.20	$43.70
CR-1771	47 5/16"	42"	92	61.80	55.15	49.45
CR-1772	66 9/16"	61 1/4"	115	77.40	69.65	61.90
CR-1780	75 5/16"	70"	125	78.65	70.80	62.90
CR-1773	82 5/16"	77"	135	92.70	83.45	74.15
WITH 24" WIDE PANEL SPACE						
CR-2474	42 1/16"	36 3/4"	96	$66.55	$59.90	$53.25
CR-2471	47 5/16"	42"	108	75.10	67.60	60.10
CR-2472	66 9/16"	61 1/4"	135	95.15	85.65	76.10
CR-2475	75 5/16"	70"	146	95.85	86.25	76.70
CR-2473	82 5/16"	77"	158	112.70	101.45	90.15

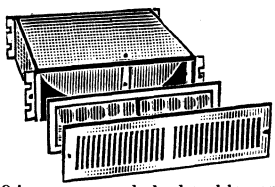
EXTRA DEEP DELUXE RACKS

Same as above, except 22 1/8" deep instead of 17 1/8" deep. Gray hammertone finish standard; for black or gray wrinkle add 10% to price.

WITH 19" WIDE PANEL SPACE

CR-2074	42 1/16"	36 3/4"	98	$69.55	$62.60	$55.65
CR-2071	47 5/16"	42"	102	78.70	70.85	62.95
CR-2072	66 9/16"	61 1/4"	137	98.50	89.65	78.80
CR-2075	75 5/16"	70"	148	100.45	90.40	80.35
CR-2073	82 5/16"	77"	159	117.00	105.50	93.60
WITH 24" WIDE PANEL SPACE						
CR-2484	42 1/16"	36 3/4"	115	$93.55	$84.20	$74.85
CR-2481	47 5/16"	42"	119	105.00	94.50	84.00
CR-2482	66 9/16"	61 1/4"	160	131.70	118.55	105.35
CR-2485	75 5/16"	70"	173	134.00	120.60	107.20
CR-2483	82 5/16"	77"	186	157.10	141.40	125.70

TRANS-AIRE BLOWER



Ideal for use where excessive heat is generated by equipment in an enclosed rack, cabinet or console. Brings in fresh air or exhausts heated air, enabling use as an exhaust or intake blower, depending upon mounting position. Unit will operate in any position—vertical or horizontal. May be mounted to rails of standard cabinet or rack. Use of Bud Chassis Supporting Angles SA-1349, SA-1350 or CE-2219 is recommended when blower is mounted in rack or cabinet. Motor is rubber mounted to reduce vibration. Operating noise factor reduced to minimum. Thermal overload protection to prevent overheating. Automatic reset. Oil impregnated, fiberglas disposable filter can be changed without removing unit from cabinet. Three sizes provide air displacement from 100 c.f.m. to 750 c.f.m. at 0° static pressure. Complete with filter, chrome-plated grille and 18" three-wire cord. All dimensional and technical data in table below. **Weight:** B-23 17 1/4 lbs., B-25 33 lbs., B-27 35 1/4 lbs.; replacement filter 1 lb.

BLOWERS

Bud No.	Panel Space	Depth	Air c.f.m. High	Low	Mot. hp	Net Each, Lots of 1-9	10-14	15 Up
B23	3 1/2"x19"	12"	200	100	1/20	$57.75	$52.00	$46.20
B25	5 1/4"x19"	14 1/2"	500	250	1/6	66.00	59.40	52.80
B27	7" x19"	14 1/2"	750	350	1/4	74.25	66.85	59.40

FILTERS FOR ABOVE BLOWERS

Bud No.	Unit	Net Each, Lots of 1-24	25-49	50-99
BF-24	Filter for use with B-23	$1.50	$1.35	$1.20
BF-26	Filter for use with B-25	1.65	1.50	1.30
BF-28	Filter for use with B-27	1.80	1.65	1.45

Net
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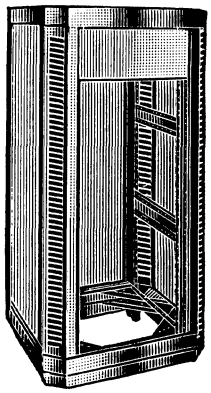
Racks, Cabinets, Accessories

●NEW ZEPHYR 8 CABINET RACKS



Combine striking appearance with increased utility, extra ventilation, and unusually sturdy construction. Units are completely assembled with all-welded 14 gauge steel frames. Sides and reinforced rear door are of 16 gauge steel. Sides of frame are reinforced by channel braces to which panel mounting rails are attached; front and rear mounting rails are adjustable. Sides may by removed from outside of rack for easy access to interior. The octagonal shape and louvres placed in the four narrow sides permit exceptional ventilating capability. If corner placement is desired or combinations of racks are placed together, this shape allows for a "center ventilated system." Also, the outer shape surrounding the inner structural frame provides extra space for longitudinal or vertical placement of plenums, cable-track, buss ducts, etc. Casters may be attached to the base or removable sub-base. Front doors, available as optional accessories, are equipped with a flush-type latch. Available in two-tone gray finish only.

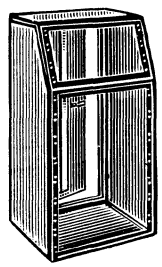
Bud No.	Overall Size, Inches W. x D. x H.	Vertical Panel Space, Inches	Weight, Lbs.
MD-1990	27 23/32 x 24 x 47 3/4	19 x 42	160
MD-1991	27 23/32 x 24 x 58 1/4	19 x 52 1/2	190
MD-1992	27 23/32 x 24 x 67	19 x 61 1/4	215
MD-1993	27 23/32 x 24 x 75 3/4	19 x 70	240
MD-1994	27 23/32 x 24 x 82 3/4	19 x 77	260

Bud No.	Net Each, Lots of 1-4	5-9	10-14
MD-1990	$185.00	$166.50	$148.00
MD-1991	206.00	185.40	164.80
MD-1992	229.00	206.10	183.20
MD-1993	255.00	229.50	204.00
MD-1994	278.00	250.00	222.00

ACCESSORY FRONT DOORS

Bud No.	Fits Bud No.	Weight, Lbs.	Net Each, Lots of 1-4	5-9	10-14
MD-1995	MD-1990	19	$23.40	$21.05	$18.70
MD-1996	MD-1991	25	26.00	23.40	20.80
MD-1997	MD-1992	30	28.90	26.00	23.10
MD-1998	MD-1993	35	32.20	29.00	25.75
MD-1999	MD-1994	39	35.00	31.60	28.10

IMPERIAL INCLINED PANEL CONSOLE

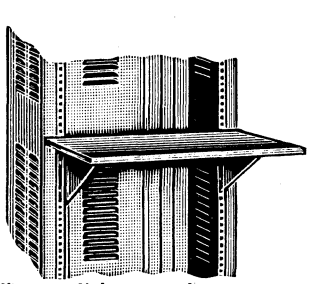


Smart looking all-aluminum console built for strength while keeping weight factor in mind. Assembly includes framework, top, bottom, two sides, and reinforced door with concealed hinges and flush mounted latch. Joints are ball-cornered aluminum castings. Inclined panel set at 22½° angle. Cast brass, heavy duty hinges designed to enable components, blowers, etc., to be mounted on rear door. Framework for top, inclined panel area and front are extrusions, drilled and tapped to accept standard rack panels. Casters may be attached. Standard Bud aluminum panels may be used to enclose the front and inclined panel spaces. Sides, top, door are gray hammertone. Frame and bottom are smooth black.

Bud No.	Overall Size, Inches W. x D. x H.	Vertical Panel Size, Inches	Weight, Lbs.
BI-1828	20 15/16 x 18 5/8 x 40 11/16	19 1/16 x 28 1/16	41
BI-2228	20 15/16 x 22 1/8 x 40 11/16	19 1/16 x 28 1/16	47
BI-2419	20 15/16 x 19 17/32 x 43 21/32	19 1/16 x 24 9/16	43
BI-2421	20 15/16 x 21 9/32 x 43 21/32	19 1/16 x 24 9/16	46

Bud No.	Net Each, Lots of 1-9	10-14	15-19
BI-1828	$162.75	$146.50	$130.20
BI-2228	170.00	153.00	136.00
BI-2419	190.00	171.00	152.00
BI-2421	200.00	180.00	160.00

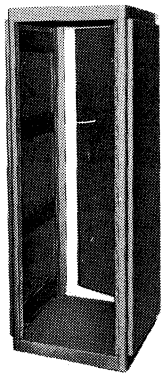
SHELF ASSEMBLY



Useful as a desk, work space, etc. Can't fall off or tilt; will support any reasonable weight. Shelf portion supported by two brackets, punched to fit standard panel mounting strips. No panel support needed. Sides welded to bottom of shelf; mounting brackets slip into sides and fasten with two screws. 16 gauge steel; ½" flange on all four sides; overall height, 7⅛". Brackets are 7" high. Specify black wrinkle (suffix "B"), gray wrinkle (suffix "G"), or light gray hammertone (suffix "HG") finish.

Bud No.	Size, Inches D. x W.	Weight, Lbs.	Net Each, Lots of 1-14	15-24	25-34
SA-1719	16 x 22	14	$12.00	$10.80	9.60
SA-1720	20 x 22	15	12.15	10.95	9.70

PRESTIGE BALL CORNER RACKS



Attractive, practical housing for permanent or mobile instrumentation. Consists of framework, top, bottom, two ball cornered sides, and a ball corner door. Sides attach to frame by means of a tongue-and-slot arrangement and two screws. Sides easily removable. Drilled and tapped adjustable panel mounting rails on all four vertical members of frame. Doors mount from either left or right. Base takes side panels on any of the four sides. Door and side clearance permits covering of equipment without damage to knobs or controls. Provision made for recessed casters. Extra doors available. Knockout holes for attaching two or more units together. Bottom will support 500 lbs. Panel rails 200 lbs. suspended vertically between rails. Units take Bud SD-1717 sliding drawer assembly or CD-2210 console drawer. Shipped knocked-down, with necessary hardware. **Gray hammertone finish only.**

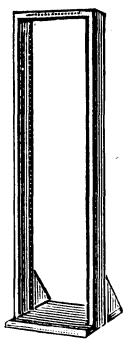
Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-9	10-14	15-19
CR-2280	66 9/16"	61¼"	179	$125.15	$112.65	$100.10
CR-2281	71 13/16"	66½"	186	133.45	120.10	106.75
CR-2282	82 5/16"	77"	213	149.90	134.90	119.90
DR-2290	Door for CR-2280		28	15.65	14.05	12.50
DR-2291	Door for CR-2281		33	16.65	15.00	13.30
DR-2292	Door for CR-2282		39	18.70	16.85	14.95

PRESTIGE ADD-A-RACKS

Where relay racks are to be joined in series this assembly is lower in cost yet provides additional strength and improved appearance. Consists of top, bottom, rear door and framework. 16 gauge steel. Extra ball corner doors will fit adjustable panel mounting rails which are recessed. Gray hammertone.

Bud No.	Used to Add-A-Rack to	Net Each, Lots of 1-9	10-14	15-19
AR-2284	CR-2280	$ 98.50	$ 88.65	$78.80
AR-2286	CR-2281	106.40	95.75	85.10
AR-2287	CR-2282	119.50	107.55	95.60

DELUXE TELEPHONE-TYPE RELAY RACKS



Sturdy rack with extra strength and capacity. U-member is welded with ventilation at top. Panel-mounting rails, front and rear, tapped 10-32 with W.E. spacing. Made of 12 ga. steel. Chassis-type base drilled for RC-7756 casters. Brackets hold uprights to base; holes on both sides for bolting racks together. Add suffix **HG** for gray hammertone; **B** for black wrinkle; or **G** for gray wrinkle. Nos. RR-1367-RR-1369 have 20⅞" base width and take 19" panels. Nos. RR-2467-RR-2469 have 25⅞" base width and take 24" panels.

Bud No.	Height, Overall	Panel Space	Net Each, Lots of 1-9	10-14	15-19
RR-1367	64 5/8"	61¼"	$42.85	$38.55	$34.30
RR-1368	73 3/8"	70"	43.80	39.40	35.05
RR-1369	80 3/8"	77"	51.90	46.70	41.50
RR-2467	64 5/8"	61¼"	52.00	46.80	41.60
RR-2468	73 3/8"	70"	53.15	47.85	42.50
RR-2469	80 3/8"	77"	62.95	56.65	50.35

TELEPHONE-TYPE RELAY RACKS

Standard Models: 3" channels and crossbars of 7/64" steel. Base is chassis type with side angles. Base drilled for RC-7756 casters. Black wrinkle (suffix **"B"**) or gray hammertone (suffix **"HG"**).

Heavy Duty Models RR-1265 and RR-1465: Two 3½" x 5" x ¼", 20⅜" long angles form base. Steel channels are 3" x 1⅜", 72¼" long. Cross bars are ⅛" x 2-3/32" angles. Panel holes tapped 12-24 with W.E. space. Black wrinkle finish only. Usually bolted to floor.

FOR 19" WIDE PANELS

Bud No.	Height, Overall	Panel Space	Net Each, Lots of 1-9	10-14	15-19
RR-1263	35 39/64"	31½"	$25.10	$22.60	$20.10
RR-1363	40 55/64"	36¾"	24.20	21.80	19.35
RR-1264	70 39/64"	66½"	28.65	25.80	22.90
RR-1364	75 55/64"	71¾"	27.70	24.95	22.15
RR-1366	81 7/64"	77"	33.00	29.70	26.40
RR-1265	72¼"	66½"	66.15	59.55	52.90

FOR 24" WIDE PANELS

RR-1463	35 39/64"	31½"	$30.85	$27.75	$24.70
RR-2463	40 55/64"	36¾"	33.50	30.15	26.50
RR-1464	70 39/64"	66½"	35.30	31.75	26.80
RR-2464	75 55/64"	71¾"	35.30	31.75	28.25
RR-2466	81 7/64"	77"	45.05	40.55	36.05
RR-1465	72¼"	66½"	78.30	70.45	62.65

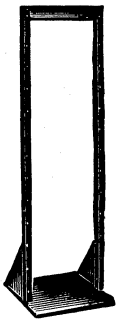


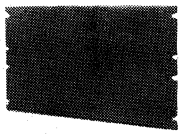
TABLE-MOUNT TELEPHONE RACK

Sturdy rack with chassis type base mounts heavy components on table where enclosures are not required. Panel mount rails recessed for flush mount of 19" panels. Shipped knocked down. Specify black wrinkle (suffix **"B"**) or gray hammertone (**"HG"**).

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-14	15-24	25-34
RR-1248	24"	21"	15	$11.05	$ 9.95	$ 8.85
RR-1249	31"	28"	18	13.50	12.15	10.80

Relay Racks and Panels

STANDARD RELAY RACK PANELS



Choice of steel or aluminum relay rack panels, 1/8" or 3/16" thick, in both 19" and 24" widths. Specify color when ordering, use letter suffix: **B** for black wrinkle; **G** for gray wrinkle; **HG** for gray hammertone; **SB** for smooth blue; **SG** for smooth gray. Aluminum panels 5005 H-36 alloy.

STANDARD 19" WIDE PANELS

Ht., In.	1/8" STEEL Bud No. PS-	Net Each, Lots of 1-49	50-99	100-149	1/8" ALUMINUM Bud No. PA-	Net Each, Lots of 1-49	50-99	100-149
1¾	1250	$1.00	$ .90	$ .80	1101	$1.25	$1.15	$1.00
3½	1251	1.20	1.10	.95	1102	1.65	1.50	1.30
5¼	1252	1.55	1.40	1.25	1103	2.20	2.00	1.75
7	1253	1.70	1.50	1.35	1104	2.80	2.50	2.25
8¾	1254	2.15	1.95	1.70	1105	3.25	2.95	2.60
10½	1255	2.55	2.30	2.05	1106	4.15	3.75	3.30
12¼	1256	2.90	2.60	2.30	1107	4.75	4.30	3.80
14	1257	3.40	3.05	2.70	1108	5.50	4.95	4.40
15¾	1258	3.75	3.40	3.00	1109	6.15	5.55	4.90
17½	1259	4.25	3.85	3.40	1110	6.75	6.10	5.40
19¼	1260	4.60	4.15	3.70	1111	7.35	6.65	5.90
21	1261	5.15	4.65	4.10	1112	8.10	7.30	6.50

STANDARD 24" WIDE PANELS

1¾	3420	$1.40	$1.25	$1.10	2401	$1.80	$1.60	$1.45
3½	3421	1.60	1.45	1.30	2402	2.30	2.05	1.85
5¼	3422	2.00	1.80	1.60	2403	3.15	2.85	2.50
7	3423	2.25	2.05	1.80	2404	3.95	3.55	3.15
8¾	3424	2.80	2.50	2.25	2405	4.60	4.15	3.70
10½	3425	3.35	3.00	2.70	2406	5.90	5.30	4.70
12¼	3426	3.95	3.55	3.15	2407	6.65	6.00	5.30
14	3427	4.55	4.10	3.65	2408	7.75	7.00	6.20
15¾	3428	5.15	4.65	4.10	2409	8.70	7.85	6.95
17½	3429	5.70	5.15	4.55	2410	9.55	8.60	7.65
19¼	3430	6.35	5.70	5.10	2411	10.50	9.45	8.40
21	3431	7.00	6.30	5.60	2412	11.55	10.40	9.25

STANDARD 3/16" THICK ALUMINUM PANELS

Ht., In.	Standard 19" Wide Panels Bud No. PA-	Net Each, Lots of 1-49	50-99	100-149	Standard 24" Wide Panels Bud No. PA-	Net Each, Lots of 1-49	50-99	100-149
1¾	3101	$2.00	$1.80	$1.60	2431	$3.25	$2.95	$2.60
3½	3102	2.65	2.40	2.10	2432	4.20	3.80	3.40
5¼	3103	3.55	3.20	2.85	2433	5.80	5.20	4.65
7	3104	4.45	4.00	3.55	2434	7.15	6.45	5.70
8¾	3105	5.25	4.75	4.20	2435	8.40	7.55	6.70
10½	3106	6.60	5.95	5.30	2436	10.65	9.60	8.50
12¼	3107	7.55	6.80	6.05	2437	12.10	10.90	9.70
14	3108	8.80	7.90	7.05	2438	14.20	12.80	11.35
15¾	3109	9.85	8.85	7.90	2439	15.80	14.20	12.65
17½	3110	10.80	9.70	8.65	2440	17.35	15.60	13.90
19¼	3111	11.85	10.65	9.50	2441	19.10	17.20	15.30
21	3112	12.95	11.65	10.35	2442	21.00	18.90	16.80

SURFACE SHIELD PANELS

Bright aluminum alloy 5005 H-36 panels have blemish-free mill finish. Covered on both sides with sturdy, pressure-sensitive, white paper; protects against damage and useful for marking for drilling, positioning, etc. Standard notched sizes.

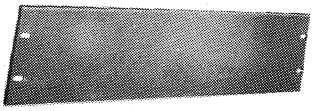
STANDARD 19" WIDE PANELS

Ht., In.	1/8" ALUMINUM Bud SFA-	Net Each, Lots of 1-49	50-99	100-149	3/16" ALUMINUM Bud SFA-	Net Each, Lots of 1-49	50-99	100-149
1¾	1831	$1.15	$1.05	$ .90	3161	$2.05	$1.85	$1.65
3½	1832	1.65	1.50	1.30	3162	2.75	2.50	2.20
5¼	1833	2.15	1.95	1.70	3163	3.70	3.35	2.95
7	1834	2.70	2.45	2.15	3164	4.50	4.05	3.60
8¾	1835	3.20	2.90	2.55	3165	5.40	4.85	4.30
10½	1836	4.05	3.65	3.25	3166	6.85	6.15	5.40
12¼	1837	4.60	4.15	3.70	3167	7.90	7.10	6.30
14	1838	5.35	4.80	4.30	3168	9.10	8.20	7.30
15¾	1839	6.00	5.40	4.80	3169	10.15	9.15	8.10
17½	1840	6.60	5.95	5.30	3170	11.20	10.10	8.95
19¼	1841	7.25	6.55	5.80	3171	12.25	11.05	9.80
21	1842	7.90	7.10	6.30	3172	13.30	12.00	10.65

STANDARD 24" WIDE PANELS

1¾	2451	$2.00	$1.80	$1.60	3401	$4.10	$3.70	$3.30
3½	2452	2.65	2.40	2.10	3402	5.40	4.85	4.30
5¼	2453	3.45	3.10	2.75	3403	7.30	6.55	5.85
7	2454	4.40	3.95	3.50	3404	9.00	8.10	7.20
8¾	2455	5.15	4.65	4.10	3405	10.75	9.70	8.60
10½	2456	6.50	5.85	5.20	3406	13.50	12.15	10.80
12¼	2457	7.35	6.60	5.90	3407	15.60	14.05	12.50
14	2458	8.60	7.75	6.90	3408	18.00	16.20	14.40
15¾	2459	9.65	8.70	7.70	3409	20.10	18.10	16.10
17½	2460	10.50	9.45	8.40	3410	22.15	19.95	17.70
19¼	2461	11.55	10.40	9.25	3411	24.25	21.85	19.40
21	2462	12.65	11.40	10.15	3412	26.35	23.70	21.10

FLANGED PANELS

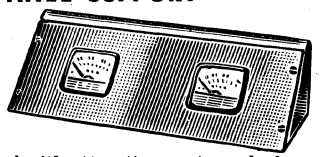


Made of 16 gauge steel with a ½" flange on all four sides. Elongated hole is .281" x .500". Spacing of holes conforms to W.E. spacing on panel mounting rails. Standard 19" panels. Finished in choice of gray wrinkle (G), black wrinkle (B), gray hammertone (H), smooth light gray (SG), smooth light blue (SB), charcoal gray (CG) and sand (S). Use suffix when ordering.

NEW PRODUCT PRICES

Bud. No.	Ht., In.	1-49	50-99	100-149
FPS-1230	1¾	1.15	1.05	.92
FPS-1231	3½	1.20	1.10	.96
FPS-1232	5¼	1.40	1.25	1.12
FPS-1233	7	1.60	1.45	1.30
FPS-1234	8¾	2.00	1.80	1.60
FPS-1235	10½	2.40	2.15	1.90
FPS-1236	12¼	2.80	2.50	2.25
FPS-1237	14	3.20	2.90	2.55
FPS-1238	15¾	3.65	3.30	2.90
FPS-1239	17½	4.10	3.70	3.30
FPS-1240	19¼	4.50	4.05	3.60
FPS-1241	21	4.90	4.40	3.90

DUAL-VIEW PANEL SUPPORT



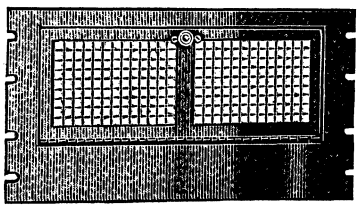
Designed for installation on a rack where an oblique view of instrument panel is desired. Engineered so that the entire assembly occupies no more space than size of supported panel. Panel support cover can be removed for easy servicing or installation of instruments. Made of heavy gauge steel with attractive contoured edges. Comes knocked-down with necessary assembly hardware, but without panels. Bud panels to fit these supports are PS-1253 (steel), and PA-1104 (aluminum) for Model IP-1120; PS-1255 (steel), and PA-1106 (aluminum) for IP-1121. Furnished in black wrinkle (add suffix **"B"**), gray hammertone (add suffix **"HG"**), gray wrinkle (add suffix **"G"**), smooth gray (suffix **"SG"**), or smooth blue (suffix **"SB"**).

Bud No. IP-1120—Requires 19" x 7" panel space. Wt., 3½ lbs.
Net Each, Lots of 1-14..... **$5.00**
Lots of 15-24, Each.... **$4.50** Lots of 25-34, Each.... **$4.00**

Bud No. IP-1121—Requires 19" x 10½" panel space. Wt., 6¾ lbs.
Net Each, Lots of 1-14..... **$7.05**
Lots of 15-24, Each.... **$6.35** Lots of 25-34, Each.... **$5.65**

● New product.

VENTILATED DOOR RACK PANELS



Generous perforated area in door provides adequate ventilation for adjacent units. Also features a newly designed plunger-type latch for positive locking and easy opening. Distance from hinged side of opening to bottom, 3½"; from lock side of opening to top, 1". Available in black or gray wrinkle finish or gray hammertone finish (specify when ordering). 1/8" steel, 19" long.

Bud No.	Height, Overall	Door Size, Inches	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
PS-814	10½"	15⅜ x 6	6	$9.15	$8.25	$7.30
PS-815	12¼"	15⅜ x 7½	7	10.00	9.00	8.00

NON-VENTILATED METAL DOOR PANELS

PS-615	10½"	15⅜ x 6	7¼	$7.35	$6.60	$5.90
PS-616	12¼"	15⅜ x 7½	8¼	9.15	8.25	7.30

VENTILATING GRILLE PANELS

Substitute for solid panels for extra ventilation. Made of 1/8" steel with die-cut grille 13¹³⁄₁₆" wide. Standard notched 19" wide sizes. Specify black wrinkle (suffix **B**), gray wrinkle (suffix **G**), or gray hammertone (suffix **HG**).

Bud No.	Height, Overall	Grille Height	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
PS-808	5¼"	3⅛"	2½	$3.95	$3.55	$3.15
PS-809	7"	4⅞"	3½	4.30	3.85	3.45
PS-810	8¾"	3⅜"*	5	5.15	4.65	4.10
PS-811	10½"	5⅞"*	5¾	5.45	4.90	4.35
PS-812	12¼"	7⅜"*	6¼	5.90	5.30	4.70

*Allows 3½" space for chassis mounting.

Net

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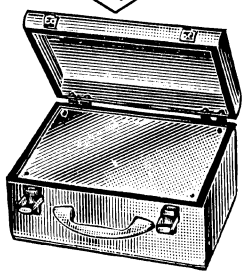
Cases, Racks, Chassis

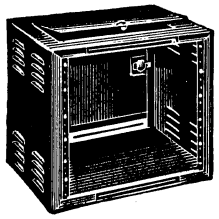
TRANSICASE PORTABLE INSTRUMENT CASES



Handsome, portable instrument case with unlimited applications. Contour design fabricated of .040" aluminum with flush-fitting aluminum panel. Foam-rubber lined lid protects instruments in case; mounted on two slide-off, bright nickel-plated hinges with toggle catches. Rubber feet at both base and back; metal plugs supplied to fill holes if rubber feet are not used. Bright nickel-plated handle. **Specify Color:** Add suffix **SB** for smooth blue; **SG**, for smooth gray enamel.

Bud No.	Inside Panel Size, Inches	Clear Internal Space Below Panel	Clear Internal Space Above Panel	Internal Aperture	Overall Size, Inches W. x D. x H.	Wt., Lbs.	Net Each, Lots of 1-9	10-14	15-19
TC-300	8 15/16 x 5 15/16	4 13/32"	1 15/32"	8" x 5 31/32"	10 1/16 x 7 x 6	3 3/4	$26.20	$23.60	$20.95
TC-301	10 3/8 x 7 1/4	4 13/32"	1 15/32"	9 7/16" x 7 9/32"	11 1/2 x 8 1/4 x 6	4 1/2	26.80	24.10	21.45
TC-302	11 7/8 x 7 15/16	5 29/32"	1 15/32"	10 15/16" x 7 31/32"	13 x 9 x 7 1/2	6	27.30	24.60	21.85
TC-303	15 3/8 x 7 15/16	5 29/32"	1 15/32"	14 7/16" x 7 31/32"	16 1/2 x 9 x 7 1/2	8	27.85	25.05	22.30
TC-304	19 x 7	7 11/32"	1 15/32"	18 1/16" x 7 1/32"	20 1/8 x 8 x 9	10	29.30	26.35	23.45

DELUXE CABINET RACKS



Rounded corners, red-lined chrome trim. There is a recessed, hinged door on the top with a snap catch. These racks are made of heavy gauge steel and are of sturdy construction. The five large sizes have a hinged rear door, while the small sizes have a welded panel in the rear. Adequate ventilation is assured by means of louvered sides and a 2½ inch opening in the bottom of the back extends the entire width. "NO-SCRATCH" EXTENDED METAL FEET ARE EMBOSSED ON THE BOTTOM. In black wrinkle (add suffix **"B"** to number when ordering), gray wrinkle (suffix **"G"**), and hammertone gray (suffix **"HG"**). **Size:** 14¾" x 22" w. Fits 19" panels. **Full size aluminum Relay Rack Panel supplied at no extra cost.**

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-14	15-24	25-34
CR-1726	8 25/32"	7"	24	$16.85	$15.15	$13.50
CR-1741	10 9/16"	8¾"	28	18.45	16.60	14.75
CR-1740	12 5/16"	10½"	31	21.10	19.00	16.90
CR-1742	14 1/16"	12¼"	32	22.20	20.00	17.75
CR-1739	15 13/16"	14"	35	29.45	26.50	23.55
CR-1743*	19 5/16"	17½"	40	28.95	26.05	23.15
CR-1727*	22 13/16"	21"	43	30.90	27.80	24.70
CR-1744*	28 1/16"	26¼"	51	33.25	29.90	26.60
CR-1728*	33 5/16"	31½"	58	35.30	31.75	28.25
CR-1745*	36 13/16"	35"	63	37.10	33.40	29.70

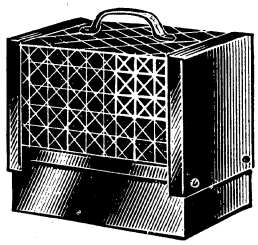
*These sizes have both top and rear doors.

HEAVY-DUTY CABINET RACKS

Similar to above units with Add-A-Cab feature (similar to Add-A-Rack) for continuously expanding systems. Panel mounting rails are integral part of the sides. Removable rear door. Louvered sides and 2½" x 17⅞" opening in the bottom of the back assure adequate ventilation. Made of 16 ga. steel. Gray hammertone finish; black or gray wrinkle at 10% additional charge. **Size:** 17⅛" d. x 22" w.

CR-1736	24½"	19¼"	50	$29.40	$26.45	$23.50
CR-1737	31½"	26¼"	57	31.70	28.55	25.35
CR-1738	40¼"	35"	70	37.65	33.90	30.10
ACR-1936	Add-A-Cab for CR-1736		42	28.00	25.20	22.40
ACR-1937	Add-A-Cab for CR-1737		52	30.20	27.20	24.15
ACR-1938	Add-A-Cab for CR-1738		57	35.85	32.25	28.70

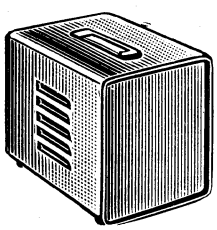
MINIATURE AMPLIFIER FOUNDATION



With the increased use of miniature tubes, smaller cabinets can be used when designing a compact amplifier. This amplifier foundation was designed expressly for this purpose. The chassis is 5" x 7" x 2". Height, 6". The cover is made of perforated metal. A streamlined handle makes this cabinet portable. Black wrinkle only. 1½ lbs.

Bud No.	Net Each, Lots of 1-24	25-49	50-99
CA-1754	$4.85	$4.35	$3.90

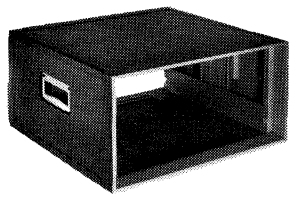
PORTACAB INSTRUMENT CABINETS



Attractive, versatile cabinets desirable as housings for instrumentation requiring highly stylized appearance. Custom, quality look achieved in standard production models. Made entirely of aluminum to minimize weight. Flexible recessed handle permits easy portability as well as vertical stacking. Well louvered for adequate ventilation. Louvers point inward, permitting side-to-side placement of cabinets without space loss. Aluminum front panel recessed ½". Welded back has opening. Perimeter of panel follows contour of body. Has four detachable rubber feet. Gray hammertone finish only.

Bud No.	Size, Inches W. x D. x H.	Wt., Lbs.	Bud Chassis	Net Each, Lots of 1-24	25-49	50-99
WA-1540	6⅛ x 8 x 8	2½	AC-402	$10.60	$ 9.55	$ 8.50
WA-1541	8⅛ x 12 x 9	3	AC-407	13.85	12.45	11.10
WA-1542	10⅛ x 8 x 8	3½	AC-406	12.30	11.05	9.85
WA-1543	11⅛ x 18 x 11	6½	AC-416	15.60	14.05	12.50
WA-1544	14⅛ x 18 x 12	7¾	AC-420	17.95	16.15	14.35

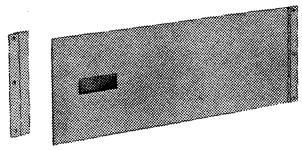
CLASSIC CABINETS



Truly functional beauty establishes this cabinet as a new concept in enclosures. Patterned .050 aluminum panels and smooth extruded 6063-T5 aluminum structure. Has 16 gauge vertically adjustable chassis supports. Front and rear mounting rails tapped 10-32; W.E. spacing. Accepts 19" panels. Clear inside depth, panel to panel is 17". Furnished completely assembled with two heavy duty aluminum handles and four rubber feet. Finish is vinyl texture. Choice of charcoal gray (CG) or sand (S). Specify when ordering.

Bud. No.	Ht., In.	Panel Space In.	1-4	5-9	10-14
AGC-266	4-57/64	3½	80.90	72.80	64.70
AGC-267	6-41/64	5¼	83.00	74.70	66.40
AGC-268	8-25/64	7	87.50	78.75	70.00
AGC-269	10-9/64	8¾	89.60	80.65	71.70
AGC-270	11-57/64	10½	92.70	83.45	74.15
AGC-271	13-41/64	12¼	96.35	86.70	77.10
AGC-272	15-25/64	14	99.35	89.40	79.50
AGC-273	17-9/64	15¾	103.00	92.70	82.40
AGC-274	18-57/64	17½	106.00	95.40	84.80
AGC-275	20-41/64	19¼	108.50	97.65	86.80
AGC-276	22-25/64	21	112.00	101.00	89.60
AGC-277	24-9/64	22¾	115.00	103.50	92.00
AGC-278	25-57/64	24½	118.00	106.20	94.40
AGC-279	27-41/64	26¼	121.00	108.90	96.80
AGC-280	29-25/64	28	123.75	111.40	99.00

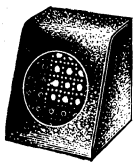
CLASSIC DOORS



Use on Classic Cabinets or any rack or cabinet with 19" panel space by attaching to panel mounting rails. Made of ¼" 5005-H 36 aluminum alloy. Stop fits on one panel mounting rail, hinged door attaches to other mounting rail. If an opening is required above and/or below door, select a door whose height is smaller than the opening it is intended to cover. Equipped with plated, flush type latch. Finished in vinyl texture. Choice of charcoal gray (CG) or sand (S). Use suffix when ordering.

Bud No.	Height	Width	1-4	5-9	10-14
AGD-366	3½	19	6.00	5.40	4.80
AGD-367	5¼	19	7.30	6.55	5.85
AGD-368	7	19	8.50	7.65	6.80
AGD-369	8¾	19	9.50	8.55	7.60
AGD-370	10½	19	10.40	9.35	8.50
AGD-371	12¼	19	11.40	10.25	9.10
AGD-372	14	19	12.20	11.00	9.75
AGD-373	15¾	19	13.00	11.70	10.40
AGD-374	17½	19	14.00	12.60	11.20
AGD-375	19¼	19	14.90	13.40	11.90
AGD-376	21	19	15.90	14.30	12.70
AGD-377	22¾	19	16.70	15.00	13.35
AGD-378	24½	19	17.50	15.75	14.00
AGD-379	26¼	19	18.70	16.85	14.95
AGD-380	28	19	19.90	17.90	15.90

MINIATURE SPEAKER CASES



Safe, convenient steel housing for 2" and 3" speakers. Black wrinkle finish only.

Bud No.	For Size Speaker	Net Each, Lots of 1-24	25-49	50-99
CS-1685	2"	$1.95	$1.75	$1.55
CS-1686	3"	1.95	1.75	1.55

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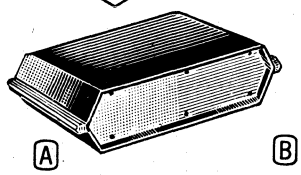
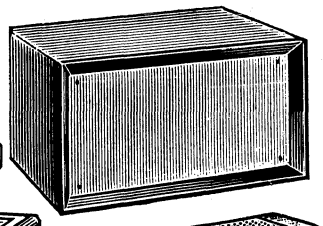
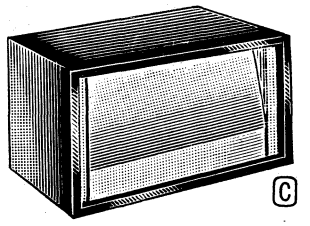
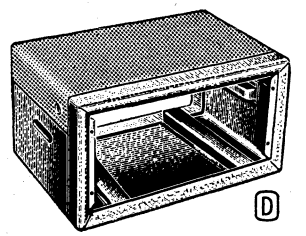
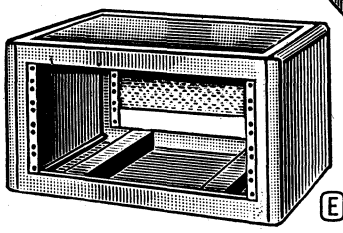
Cabinets, Foundations

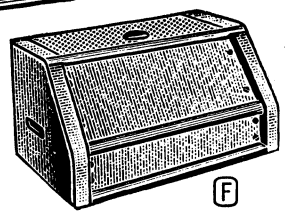


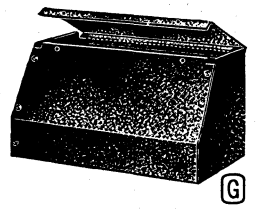


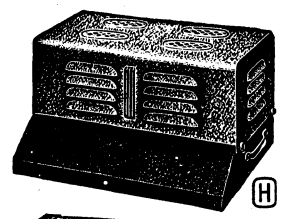


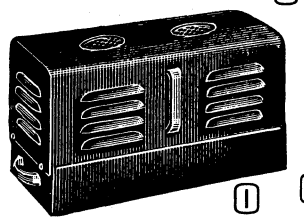


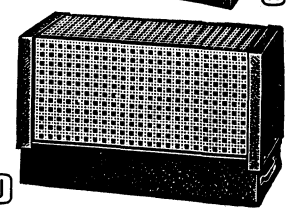












●NEW GRAND PRIX CABINETS (FIG. A)

Excellent for audio equipment or wherever appearance is important. Match any decor. Upper and lower segments held together by aluminum extrusions. Body and panels of 20 gauge steel. Four rubber feet. Specify smooth gray (suffix **"SG"**) or gray hammertone (**"HG"**).

Bud No.	Size, Inches H. x W. x D.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
MD-1	4 3/16 x 19 1/8 x 10 1/2	7 1/4	$14.45	$13.00	$11.55
MD-2	7 3/16 x 19 1/8 x 10 1/2	7 3/4	15.00	13.50	12.00
MD-3	4 3/16 x 12 1/8 x 8 3/4	7	11.55	10.50	9.25

SHADOW CABINETS (FIG. B)

Versatile housing with removable front, bottom and rear panels. Front panel recessed 1". Front edge of body is beveled. Body of 18 gauge and panels of 16 gauge steel. Four rubber feet. Available in light gray hammertone finish only.

Bud No.	Overall Size, In. W. x H. x D.	Uses Bud Chassis No.	Net Each, Lots of 1-24	25-49	50-99
SB-2140	14 1/4 x 8 x 10	AC-424, CB-704	$7.55	$6.80	$6.05
SB-2141	13 1/4 x 7 1/2 x 9	AC-407, CB-1193	5.80	5.20	4.65
SB-2142	17 x 9 1/2 x 11	AC-411, CB-666	10.25	9.25	8.20
SB-2143	15 1/2 x 6 x 9	AC-409, CB-1194	5.60	5.05	4.50

●NEW FUTURA CABINETS (FIG. C)

Handsome steel housings of 2 piece body. Panels held by flanges not screws. Nos. MD-1960 thru -1962 have vertical front panel; others (Fig. C) have inclined front panel rising 2" vertically, then inclining 15°. Specify blue (Suffix "SB") or gray (**"SG"**).

MD-1960	13	x 7	x 8	CB-40	$8.25	$7.45	$6.60
MD-1961	14	x 8	x 9	CB-997	8.80	7.90	7.05
MD-1962	16	x 8	x 9	CB-998	9.15	8.25	7.30
MD-1963	13	x 7	x 8	CB-40	9.65	8.70	7.70
MD-1964	14	x 8	x 9	CB-997	10.30	9.25	8.25
MD-1965	16	x 8	x 9	CB-998	11.00	9.90	8.80

STANDARD PRESTIGE CABINETS (FIG. D)

Has two supporting rails, laterally movable to fit any chassis width, and shielded handle slots. Finger holes in cover for easy lifting. Of 16 gauge steel. Takes 19" panels. With embossed feet. **Size:** 21 5/8" w. x 14 3/4" d. overall. Gray hammertone finish.

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-14	15-24	25-34
C-1440	9 9/16"	7"	26	$31.45	$28.30	$25.15
C-1441	11 5/16"	8 3/4"	27	33.15	29.85	26.50
C-1442	13 1/16"	10 1/2"	29	36.15	32.55	28.90
C-1550*	9 9/16"	7"	26	33.70	30.35	26.95
C-1551*	11 5/16"	8 3/4"	27	36.05	32.45	28.85
C-1552*	13 1/16"	10 1/2"	29	39.20	35.30	31.35

*With perforated cover; others solid.

PRESTIGE VERSA-CABINETS (FIG. E)

Sturdy framework with ball cornered sides, perforated back, solid bottom plate and two supporting channels. Front, back, top and bottom are removable for easy access; also accept 19" panels for full closure; top panel may be perforated. An opening, 1 3/4" x 19", across the bottom of the back is supplied for controls, knobs, leads, etc.; may be covered with PS-1250 or PA-1101 panels if desired. Sides may be removed to join one or more cabinets together, using holes in frame; units may also be stacked. Handles may be attached to side. Four rubber feet. Top may be closed, using PS-1256HG or PA-1107HG solid panels, PS-616HG or PS-815HG door panels, or PC-1710 perforated panel. **Size:** 23 3/16" w. x 15 25/32" d. overall. Gray hammertone finish. Weight, 28 to 35 lbs.

VERSA-CABINETS

Bud No.	Height, Overall	Panel Space	Rear Panel	Net Each, Lots of 1-14	15-24	25-34
PC-1700	8 3/4"	5 1/4"	3 1/2"	$30.05	$27.05	$24.05
PC-1701	10 1/2"	7"	5 1/4"	31.85	28.65	25.50
PC-1702	12 1/4"	8 3/4"	7"	33.90	30.50	27.10
PC-1703	14"	10 1/2"	8 3/4"	36.95	33.25	29.55
PC-1704	15 3/4"	12 1/4"	10 1/2"	38.85	34.95	31.10

PERFORATED STEEL TOP PLATE

Bud No.	Size, In.	Wt., Lbs.	Net Each, Lots of 1-14	15-24	25-34
PC-1710	12 1/4 x 19	2 1/2	$3.15	$2.85	$2.50

● New product.

PRESTIGE SLOPING PANEL CABINETS (FIG. F)

Ventilated top opens completely. Removable panel trim bar permits installation or removal of panels with chassis attached. Top panel is swept back for easy viewing. Takes standard 19" panels. Shielded lifting handles. Rear opening 2 1/2" x 18" for controls, etc.; panel recess 1 1/4"; bottom panel 3 1/2" high. **Size:** 22" w. x 9" top depth. Gray hammertone finish only. Weight, 26, 28 and 31 lbs.

Bud No.	Size, In. H. x D.	Slope Height	Net Each, Lots of 1-14	15-24	25-34
C-1555	11 7/8 x 14 3/8	7"	$39.70	$35.75	$31.75
C-1556	13 1/4 x 15 1/8	8 3/4"	42.65	38.40	34.10
C-1557	14 3/4 x 16 1/8	10 1/2"	45.70	41.15	36.55

SLOPING PANEL CABINETS (FIG. G)

Hinged top for easy access; front panel also removable. Specify black wrinkle (suffix **"B"**) or gray hammertone (suffix **"HG"**).

Bud No.	Size, Inches H. x W. x D.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
C-1584	6 1/2 x 7 1/16 x 7 5/16	2 1/2	$3.80	$3.40	$3.05
C-1587	8 x 8 1/16 x 8	2 3/4	5.25	4.75	4.20
C-1585	6 1/2 x 9 1/16 x 7 5/16	3	4.35	3.90	3.50
C-1588	8 x 10 1/16 x 8	3 1/4	5.80	5.20	4.65
C-1586	6 1/2 x 11 1/16 x 7 5/16	3 1/2	5.00	4.50	4.00
C-1894	8 x 14 1/16 x 8	4	6.15	5.55	4.90
C-1892	8 x 13 1/16 x 8 1/2	5 1/4	6.90	6.20	5.50
C-1896	9 x 18 1/16 x 8 1/8	7	8.85	7.95	7.10
C-1893	10 x 18 1/16 x 10 1/2	8 1/2	9.10	8.20	7.30

SLOPING PANEL FOUNDATIONS (FIG. H)

Removable top cover mounted on 3 1/2" sloping front chassis. Cover gray wrinkle, chrome trim; black wrinkle chassis. Overall ht., 9 1/2".

Bud No.	Chassis W. x D.	Top Depth	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
CA-1980	10" x 8"	5"	5	$ 8.68	$ 7.81	$6.94
CA-1981	12" x 10"	7"	6	9.35	8.42	7.48
CA-1982	17" x 10"	7"	8	10.69	9.62	8.55
CA-1983	17" x 13"	10"	10	11.19	10.07	8.95

STREAMLINED FOUNDATIONS (FIG. I)

Attractive unit houses amplifiers and similar apparatus. Standard chassis with removable top cover with chrome trim. Sides and ends louvered. Handles attached to chassis. Overall height, 9"; chassis 2 5/16" high. Specify black wrinkle (suffix **"B"**), or gray wrinkle (suffix **"G"**).

Bud No.	Size, In. W. x D.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
CA-1750	10 1/16 x 5	4 3/4	$ 8.20	$ 7.40	$6.55
CA-1751	12 1/16 x 7	5	9.70	8.75	7.75
CA-1752	17 1/16 x 7	8	10.30	9.25	8.25
CA-1753	17 1/16 x 10	9	11.20	10.10	8.95

STANDARD FOUNDATIONS (FIG. J)

Standard chassis with perforated cover for maximum ventilation. Handles are attached to chassis. Chassis 2 1/2" h., except CA-1128, 3" h. Overall height, 8 5/16", except CA-1128, 8 13/16". Black wrinkle finish only.

Bud No.	Size, Inches W. x D.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
CA-699	9 3/8 x 5 1/8	3	$6.80	$6.10	$5.45
CA-1125	13 3/8 x 5 1/8	4 3/4	7.05	6.35	5.65
CA-1126	17 1/8 x 7 1/8	6	8.00	7.20	6.40
CA-1128	12 1/8 x 10 1/8	7	8.25	7.45	6.60

Net
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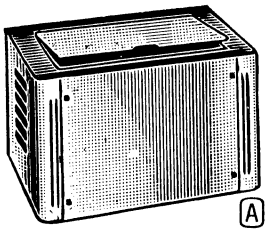
Cabinets and Cases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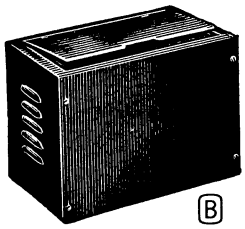
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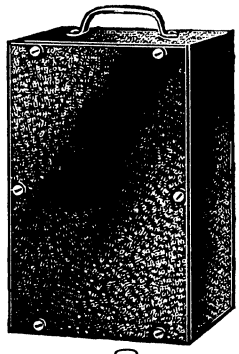

C

STREAMLINED CABINETS (FIG. A)

Ideal for housing devices not requiring excessive depth. Recessed, hinged cover with convenient finger lift for access. Panels fit flush with embossed, rounded corner fronts. Recommended for use with Bud Open End Chassis. Back opening 3½" h. provides for cables or rear controls; louvered sides provide ample ventilation. **Size:** 8¼" d. x 8" h., overall. Specify black wrinkle (suffix **"B"**), gray wrinkle (suffix **"G"**) or gray hammertone (suffix **"HG"**) finish.

Bud No.	Width, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
CD-1480	10½"	8" x 8"	5¾	$ 6.85	$ 6.15	$ 5.50
CD-1481	12½"	8" x 10"	6	6.95	6.25	5.55
CD-1482	14½"	8" x 12"	6½	7.30	6.55	5.85
CD-1483	16½"	8" x 14"	7	7.80	7.00	6.25
CD-1484	18½"	8" x 16"	7¾	8.50	7.65	6.80
CD-1485*	20⅝"	12" x 18"	15	17.25	15.55	13.80

*Depth is 12"; has ½" vertical chrome strip at corners.

INSTRUMENT AND RECEIVER CABINETS (FIG. B)

Economy version of the Streamlined Cabinet series. Recessed, hinged cover provides access to contents. Front panel is attached with self-tapping screws. Louvers provide ample ventilation. Bud Open End Chassis are suited for use with these units. Black wrinkle finish only.

Bud No.	Size, Inches H. x W. x D.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
C-973	7 x 8 x 8	5	$ 5.05	$ 4.55	$4.05
C-993	7 x 10 x 8	5½	5.85	5.25	4.70
C-994	7 x 12 x 8	5¾	6.05	5.45	4.85
C-995	7 x 14 x 8	6	6.40	5.75	5.10
C-1190	8 x 16 x 8	7	9.20	8.30	7.35
C-975	9 x 15 x 11	8	11.10	10.00	8.90
C-999	12 x 18 x 12	15	12.00	10.80	9.60

CARRYING CASES (FIG. C)

A versatile cabinet that accepts a variety of equipment. Removable front and back panels; handle may be attached to top. Available in sturdy steel or lightweight aluminum to suit your requirements.

STEEL CASES

Specify black wrinkle (suffix **"B"**) or gray hammertone (suffix **"HG"**) finish when ordering.

Bud No.	Size, Inches D. x W. x H.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
CC-1095	5 x 6 x 9	3¼	$3.65	$3.30	$2.90
CC-1091	5 x 9 x 6	3¼	3.65	3.30	2.90
CC-1096	6 x 7 x 12	4	5.05	4.55	4.05
CC-1092	6 x 12 x 7	4	5.05	4.55	4.05
CC-1097	7 x 7¾ x 15	5	5.65	5.10	4.50
CC-1100	8 x 10 x 10	5	5.85	5.25	4.70
CC-1093	7 x 15 x 9	5	7.10	6.40	5.70

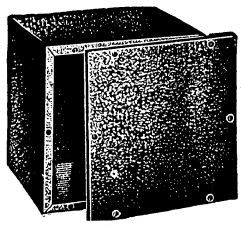
NATURAL FINISH ALUMINUM CASES*

Bud No.	Size, Inches D. x W. x H.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
ACC-2095	5 x 6 x 9	1⅛	$3.75	$3.40	$3.00
ACC-2091	5 x 9 x 6	1⅛	3.75	3.40	3.00
ACC-2096	6 x 7 x 12	1⅓	5.45	4.90	4.35
ACC-2092	6 x 12 x 7	1⅓	5.45	4.90	4.35

GRAY HAMMERTONE ALUMINUM CASES*

Bud No.	Size, Inches D. x W. x H.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
ACC-2095HG	5 x 6 x 9	1⅛	$4.25	$3.85	$3.40
ACC-2091HG	5 x 9 x 6	1⅛	4.25	3.85	3.40
ACC-2096HG	6 x 7 x 12	1⅓	6.15	5.55	4.90
ACC-2092HG	6 x 12 x 7	1⅓	6.15	5.55	4.90

*Aluminum alloy 5005 H-14.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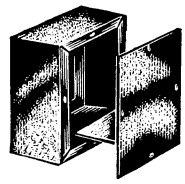
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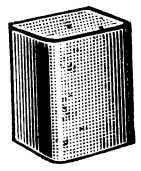

F

METAL UTILITY CABINETS (FIG. D)

Highly useful housing for all types of electronic equipment such as mixers, monitors, frequency meters, etc. Both front and back panels are removable for easy accessibility.

STEEL CABINETS

Specify black wrinkle (suffix **"B"**) or gray hammertone (suffix **"HG"**) finish.

Bud No.	Size, Inches D. x W. x H.	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
CU-883	2 x 4 x 4	¾	$1.30	$1.15	$1.05
CU-728	3 x 5 x 4	⅞	1.50	1.35	1.20
CU-729	4 x 5 x 6	1¼	1.70	1.55	1.35
CU-1098	6 x 6 x 6	2½	2.55	2.30	2.05
CU-1099	5 x 6 x 9	3	2.85	2.55	2.30
CU-879	7 x 8 x 10	5	4.05	3.65	3.25
CU-1124	6 x 7 x 12	4	3.95	3.55	3.15
CU-880	8 x 10 x 10	5½	4.85	4.35	3.90
CU-881	8 x 11 x 12	6	5.30	4.75	4.25
CU-882	7 x 9 x 15	7½	5.45	4.90	4.35
NATURAL FINISH ALUMINUM CABINETS*					
AU-1083	2 x 4 x 4	¼	$1.55	$1.40	$1.25
AU-1028	3 x 5 x 4	¼	1.65	1.50	1.30
AU-1029	4 x 5 x 6	½	1.80	1.60	1.45
AU-1039	6 x 6 x 6	¾	2.65	2.40	2.10
AU-1040	5 x 6 x 9	1	3.05	2.75	2.45
GRAY HAMMERTONE ALUMINUM CABINETS*					
AU-1083HG	2 x 4 x 4	¼	$1.80	$1.60	$1.45
AU-1028HG	3 x 5 x 4	¼	2.05	1.85	1.65
AU-1029HG	4 x 5 x 6	½	2.20	2.00	1.75
AU-1039HG	6 x 6 x 6	¾	2.90	2.60	2.30
AU-1040HG	5 x 6 x 9	1	3.40	3.05	2.70

*Aluminum alloy 5005 H-14.

MINIATURE UTILITY CABINETS (FIG. E)

Ideal housing for construction of electronic devices using miniature tubes and transistorized circuitry. Front panel has a built-on chassis. Both front and rear panels are removable; fastened by self-tapping screws. Black wrinkle enamel finish.

Bud No.	Size, In. H. x W. x D.	Chassis W. x D., In.	Net Each, Lots of 1-49	50-99	100-149
C-1793	4 x 4 x 2	3⅛ x 1⅞*	$1.60	$1.45	$1.30
C-1794	4 x 5 x 3	4⅛ x 2⅞*	1.80	1.60	1.45
C-1795	5 x 4 x 3	3⅛ x 2⅞†	2.00	1.80	1.60
C-1796	6 x 5 x 4	4⅛ x 3⅞‡	2.05	1.85	1.65
C-1797	5 x 6 x 4	5⅛ x 3⅞†	2.30	2.05	1.85
C-1798	6 x 6 x 6	4⅞ x 5⅞‡	2.65	2.40	2.10

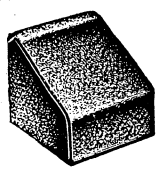
*1" high. †1¼" high. ‡1¾" high.

STREAMLINED MULTI-PURPOSE CABINETS (FIG. F)

Attractive cabinet with curved corners; uses chassis No. CB-1625. Back is entirely open for ventilation. Finished in light gray wrinkle only.

Bud No.	Size, Inches H. x W. x D.	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
C-1787	4½ x 5½ x 3½	1	$1.85	$1.65	$1.50
C-1788	6½ x 5½ x 3½	1½	1.95	1.75	1.55

UNIVERSAL SLOPING PANEL CABINETS



Fully enclosed and shielded housing with one-piece detachable back and sides fastened to body with four self-tapping screws. Components may be mounted on back, bottom, sides or front. Will accommodate Bud Miniature Aluminum Chassis. **Size:** 4" d. x 4¼" h. Gray hammertone finish only.

ALUMINUM MODELS

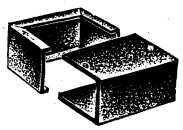
Aluminum alloy 5005 H-14.

Bud No.	Uses Chassis	Width	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
AC-1610	CB-1617	4"	½	$2.05	$1.85	$1.65
AC-1611	CB-1618	5"	½	2.15	1.95	1.70
AC-1612	CB-1619	6"	¾	2.30	2.05	1.85
AC-1613	CB-1620	7"	¾	2.55	2.30	2.05
STEEL MODELS						
C-1606	CB-1617	4"	¾	$1.75	$1.60	$1.40
C-1607	CB-1618	5"	¾	1.85	1.65	1.50
C-1608	CB-1619	6"	1⅛	2.00	1.80	1.60
C-1609	CB-1620	7"	1⅛	2.30	2.05	1.85

Boxes, Baffles, Cases

MINIBOXES, HANDY BOXES

Design of this box permits installation of more components than would be possible in the conventionally designed boxes the same size. Two-piece construction. **Either snap-lock or screw type.** The flange type construction assures adequate shielding. Made from heavy .040 ga. aluminum. Available in natural aluminum finish and gray hammertone finish.



GRAY HAMMERTONE MINIBOXES

Bud No.	Size, Inches L. x H. x W.	Wt. Lbs.	Net Each, Lots of 1-49	50-99	100-149
CU-2100A	2¾ x 2⅛ x 1⅝	¼	$ .80	$ .70	$ .65
CU-2101A	3¼ x 2⅛ x 1⅝	¼	.85	.75	.70
CU-2102A	4 x 2⅛ x 1⅝	¼	.90	.80	.70
CU-2103A	4 x 2¼ x 2¼	¼	1.00	.90	.80
CU-2104A	5 x 2¼ x 2¼	¼	1.05	.95	.85
CU-2105A	5 x 4 x 3	½	1.40	1.25	1.10
CU-2106A	5¼ x 3 x 2⅛	¼	1.10	1.00	.90
CU-2107A	6 x 5 x 4	¾	1.75	1.60	1.40
CU-2108A*	7 x 5 x 3	¾	2.00	1.80	1.60
CU-2109A*	8 x 6 x 3½	1	2.55	2.30	2.05
CU-2110A*	10 x 6 x 3½	1¼	2.85	2.55	2.30
CU-2111A*	12 x 7 x 4	1¾	3.85	3.45	3.10
CU-2112A*	17 x 5 x 4	2¼	3.85	3.45	3.10
CU-2113A*	10 x 2 x 1⅝	½	1.45	1.30	1.15
CU-2114A*	12 x 2½ x 2¼	¾	1.85	1.65	1.50
CU-2115A	4 x 2 x 2¾	¼	1.00	.90	.80
CU-2116A	4¼ x 2¼ x 1½	¼	1.00	.90	.80
CU-2117A	3¼ x 2⅛ x 1⅛	¼	.90	.80	.70

*.050" aluminum.

NATURAL FINISH MINIBOXES

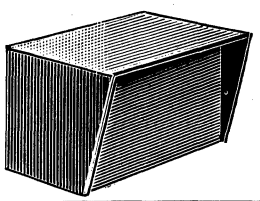
CU-3000A	2¾ x 2⅛ x 1⅝	¼	$ .70	$ .65	$ .55
CU-3001A	3¼ x 2⅛ x 1⅝	¼	.70	.65	.55
CU-3002A	4 x 2⅛ x 1⅝	¼	.75	.70	.60
CU-3003A	4 x 2¼ x 2¼	¼	.90	.80	.70
CU-3004A	5 x 2¼ x 2¼	¼	.95	.85	.75
CU-3005A	5 x 4 x 3	½	1.15	1.05	.90
CU-3006A	5¼ x 3 x 2⅛	¼	1.00	.90	.80
CU-3007A	6 x 5 x 4	¾	1.25	1.15	1.00
CU-3008A	7 x 5 x 3	¾	1.60	1.45	1.30
CU-3009A	8 x 6 x 3½	1	2.05	1.85	1.65
CU-3010A	10 x 6 x 3½	1¼	2.25	2.05	1.80
CU-3011A	12 x 7 x 4	1¾	3.10	2.80	2.50
CU-3012A	17 x 5 x 4	2¼	3.10	2.80	2.50
CU-3013A	10 x 2 x 1⅝	½	1.15	1.05	.90
CU-3014A	12 x 2½ x 2¼	¾	1.50	1.35	1.20
CU-3015A	4 x 2 x 2¾	¼	.90	.80	.70
CU-3016A	4¼ x 2¼ x 1½	¼	.90	.80	.70
CU-3017A	3¼ x 2⅛ x 1⅛	¼	.75	.70	.60

HANDY BOXES

Similar to Miniboxes in design and construction, except made of 22 gauge steel. Black wrinkle finish only. Screw type only.

HB-1621	4¼ x 2¼ x 1½	½	$1.40	$1.25	$1.1[illegible]
HB-1622	4 x 2 x 2¾	½	1.45	1.30	1.15

COWL-TYPE MINIBOXES



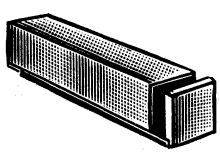
The cowl-type Minibox has a projecting cover to reduce glare on the panel from overhead lighting. It also provides protection for controls and dials. Cover has two box braces to which bottom is attached with sheet metal screws. When assembled, this type of construction results in a sturdy, rigid housing. Constructed of .040" aluminum and available in natural or light hammertone gray finish.

Bud No.	Overall Size, Inches H.	W.	D.	Net Each, Lots of 1-49	50-99	100 & Over
SC-2130*	6	10	7	6.55	5.90	5.25
SC-2131*	7	12	8	7.15	6.45	5.70
SC-2132*	3	8	5	3.80	3.40	3.05
SC-2133*	5	5	5	3.95	3.55	3.15
SC-3030†	6	10	7	4.75	4.30	3.80
SC-3031†	7	12	8	5.15	4.65	4.10
SC-3032†	3	8	5	2.70	2.45	2.15
SC-3033†	5	5	5	2.85	2.55	2.30

*Painted light gray hammertone. †Natural aluminum finish.

MINISLIDES

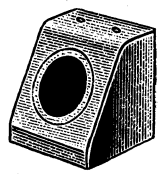
Ideal for housing components or assemblies where easy access to internally mounted parts is important. Can be mounted in a number of positions in a rack or cabinet. Accessibility achieved by removing sliding cover. Design of Mini-slide Box provides adequate shielding and protection from dust. Sturdily made of .050 aluminum. 4 self-tapping fastening screws included. Choice of gray hammertone (**GH**) or natural aluminum (**NA**).



Bud No.	Finish	Size, Inches W. x D. x H.	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
MS-2150	(GH)	3⅛ x 13 x 2⅝	1	$4.15	$3.75	$3.30
MS-2151	(GH)	5⅛ x 13 x 2⅝	1½	4.75	4.30	3.80
MS-2152	(GH)	3⅛ x 17 x 2⅝	1¼	4.55	4.10	3.65
MS-3050	(NA)	3⅛ x 13 x 2⅝	1	3.15	2.85	2.50
MS-3051	(NA)	5⅛ x 13 x 2⅝	1½	3.85	3.45	3.10
MS-3052	(NA)	3⅛ x 17 x 2⅝	1¼	3.70	3.35	2.95

UNIVERSAL METER CASES

Center hole punched for 2" meters, plus easily removed knock-out ring to provide fit for 3" meters. Single piece detachable back and sides fastened to case with self-tapping screws for easy installation and servicing. Two ⅜" knock-out holes in top provide for installation of feed-through insulators, switches, volume controls, etc. Gray hammertone finish only. **Size:** 4¼" h. x 4" w. x 4" d.



Bud No.	Construction	Weight, Lbs.	Net Each, Lots of 1-49	50-99	100-149
CM-1935	Steel	1	$1.50	$1.35	$1.20
CMA-1936	Aluminum	¾	1.75	1.60	1.40

WIDE UNIVERSAL METER CASE

Same as above, except extra wide to permit installation of small components along with a meter or accommodate a 4" meter. Made of 5005 H-14 aluminum. **Size:** 4¼" h. x 6" w. x 4" d.

CMA-1930	Aluminum	¾	$2.90	$2.60	$2.30

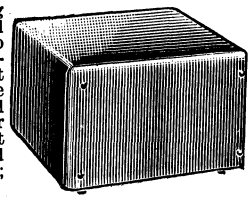
HEAT RADIATING PLATE AND GRID TUBE CONNECTORS

Fit all sizes of industrial and transmitting vacuum tubes. Dual purpose design permits use in making connections to plate or grid terminals, plus provide large heat radiating surface for heat dissipation from glass seal and tube element. Eight sizes fit all grid and plate leads; provide sufficient heat radiation for any tube in 50–2000 watt range. Machined from special aluminum rods. Edges rounded to minimize corona.

Bud No. TC-	Lead Hole	For Tube Types	Size L. x O.D.	Net Each
488	.052"	3C24, 24, 24G, 25T, 27	.900" x .615"	$ .90
487	.062"	UH50, HK24, 304B, 829B, 832A, 834	.900" x .615"	.90
489	.072"	35T, 35GB, 75TH, HK-257B, HK254, 484, 8001, 4E27	.900" x .615"	.90
1923	.110"	.....	1.0" x .738"	.95
1924	.125"	HK57, 152TH	1.0" x .738"	.95
1920	.375"	+-125A, 150TH, 2-150D, 240R, 250TH, 250TL, 420A, 802, 803, 804, 807, 808 grid, 814, 815, 828, 2E24, 2E26, 3E22, 4-65A, 4-250A, 816, 6146, 1625, 4D32, 807W, 1B3GT, 6BG6G, 6CD6G	1.0" x .738"	.85
1925	.125"	304TH, 304TL	1.0" x .924"	1.00
1921	.570"	ZB60, HF60, HF100, 111H, 211H, 230H, HF175, HF300 grid, 100R, HK375C, 450TH, 454, 750TH, 805, 806, 808, 809, 810, 811, 812, 813, 828, 833, 866, 854, 1500T, 2000T, 1054, 5331, 5332, 8000, 8003, 2005	1.0" x .924"	1.00
1926	.810"	WL468, WL463, WL460, HF200, HF201, MF300	1.0" x 1.115"	1.25

CONTOUR UTILITY CABINETS

Attractively designed utility housing with rounded contour corners. Flanged panels also have rounded corners to preserve the symmetry of design. Constructed of 20 gauge steel. Both front and rear panels are removable; the front panel is solid while the rear panel is louvered for proper ventilation. Four rubber feet, attached to base, prevent scratching surface the unit is placed on. Body is smooth, dark gray enamel; panel is smooth light gray enamel.



Bud No.	Overall Size, Inches H.	W.	D.	Net Each, Lots of 1-24	25-49	50 & Over
CU-463	47/32	67/32	3¾	$ 6.05	$ 5.45	$ 4.85
CU-465	47/32	67/32	5¾	7.00	6.30	5.60
CU-585	57/32	87/32	5¾	9.20	8.30	7.35
CU-587	57/32	87/32	7¾	10.00	9.00	8.00
CU-7125	71/32	127/32	5¾	10.20	9.20	8.15
CU-7127	71/32	127/32	7¾	10.85	9.75	8.70

Net

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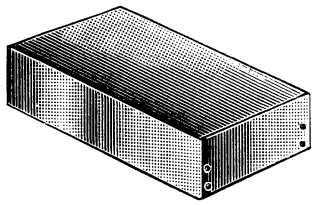
Chassis and Accessories

ALUMINUM CHASSIS BASES



Each chassis is made from a single sheet of aluminum. All bases are welded on the latest type of welders by experienced operators. All corners are reinforced. Natural finish aluminum alloy 5005 H14. All four sides are folded at bottom for extra strength and rigidity. Now 63 sizes.

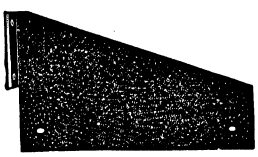
Bud No.	Width, In.	Lgth., In.	Ht., In.	Gauge	Net Each, Lots of 1-49	50-99	100-149
AC-1401*	2½	4½	1	18	$1.15	$1.05	$ .90
AC-1402*	3½	4½	1	18	1.20	1.10	.95
AC-1403*	3½	5½	1	18	1.20	1.10	.95
AC-1404*	4	5	2	18	1.40	1.25	1.10
AC-1405*	4	6	1½	18	1.30	1.20	1.05
AC-430	4	6	3	18	1.60	1.45	1.30
AC-431	4	6	2	18	1.40	1.25	1.10
AC-1406*	4	8	2	18	1.70	1.55	1.35
AC-432	4	17	3	16	2.85	2.55	2.30
AC-1407*	4½	8	1½	18	1.30	1.20	1.05
AC-402	5	7	2	18	1.45	1.30	1.15
AC-429	5	7	3	18	1.75	1.55	1.40
AC-1408*	5	9	1½	18	1.40	1.25	1.10
AC-1409*	5	9½	1½	18	1.40	1.25	1.10
AC-403	5	9½	2	18	1.55	1.40	1.25
AC-401	5	9½	2½	18	1.80	1.60	1.45
AC-421	5	9½	3	18	2.00	1.80	1.60
AC-404	5	10	3	18	2.00	1.80	1.60
AC-422	5	13	3	18	2.30	2.05	1.85
AC-1410*	5	13½	2½	18	1.85	1.65	1.50
AC-1411*	5½	5½	1	18	1.30	1.20	1.05
AC-1412*	5½	9½	1½	18	1.40	1.25	1.10
AC-1413*	6	8	2	18	1.70	1.55	1.35
AC-1414*	6	14	3	16	2.80	2.50	2.25
AC-433	6	17	3	16	3.30	2.95	2.65
AC-405	7	7	2	18	1.65	1.50	1.30
AC-406	7	9	2	18	1.75	1.60	1.40
AC-407	7	11	2	18	2.00	1.80	1.60
AC-408	7	12	3	18	2.40	2.15	1.90
AC-409	7	13	2	18	2.10	1.90	1.70
AC-1415*	7	15	2	16	2.65	2.40	2.10
AC-411	7	15	3	16	3.30	2.95	2.65
AC-1416*	7	17	2	16	2.90	2.60	2.30
AC-1417*	7	17	2½	16	3.00	2.70	2.40
AC-423	7	17	3	16	3.35	3.00	2.70
AC-1418*	8	10	2½	18	2.50	2.25	2.00
AC-1419*	8	12	2½	16	2.80	2.50	2.25
AC-424	8	12	3	16	2.95	2.65	2.35
AC-425	8	17	2	16	3.10	2.80	2.50
AC-412	8	17	3	16	3.45	3.10	2.75
AC-1420*	8½	15	3	16	2.90	2.60	2.30
AC-1421*	9	15	3	16	3.50	3.15	2.80
AC-413	10	12	3	16	3.30	2.95	2.65
AC-414	10	14	3	16	3.45	3.10	2.75
AC-415	10	17	2	16	3.30	2.95	2.65
AC-416	10	17	3	16	3.85	3.45	3.10
AC-427	10	17	4	14	5.50	4.95	4.40
AC-1422*	10	17	5	16	7.90	7.10	6.30
AC-1423*	10	23	3	14	5.40	4.85	4.30
AC-426	11	17	2	14	4.20	3.80	3.35
AC-417	11	17	3	14	4.85	4.35	3.90
AC-1424*	12	12	3	16	3.30	2.95	2.65
AC-1425*	12	17	2	16	4.40	3.95	3.15
AC-418	12	17	3	14	4.95	4.45	3.95
AC-419	13	17	2	14	4.30	3.85	3.45
AC-420	13	17	3	14	5.15	4.65	4.10
AC-428	13	17	4	14	6.40	5.75	5.10
AC-1426*	13	17	5	14	8.75	7.90	7.00
AC-1427*	14	17	3	14	6.15	5.55	4.90
AC-1428*	15	17	4	14	8.75	7.90	7.00
AC-1429*	15	17	6	14	11.90	10.70	9.50
AC-1430*	17	17	3	14	7.05	6.35	5.65
AC-1431*	17	17	4	14	10.35	9.30	8.30

*Denotes new size

CHASSIS MOUNTING BRACKETS

Mounts chassis to panels, essential when panel supports entire chassis weight. Heavy gauge steel 6½" high, cut away at bottom to mount flush to panel. Black enamel finish.

Bud No.	Depth, In.	Net Per Pair, Lots of 1-49	50-99	100-149
MB-458	8	$1.50	$1.35	$1.20
MB-448	10	1.50	1.35	1.20
MB-459	11	1.65	1.50	1.30
MB-449	12	1.95	1.75	1.55
MB-460	13	1.85	1.65	1.50
MB-450*	10	2.15	1.95	1.70
MB-451*	13	2.30	2.05	1.85



*8½" high for chassis height of 4".

TRIANGULAR MOUNTING BRACKETS

Ideal for rigid support of shelves to take heavy loads. Heavy gauge steel with ¾" flange. Black enamel finish only.

Bud No.	Height, In.	Depth, In.	Wt., Lbs.	Net Per Pair, Lots of 1-49	50-99	100-149
MB-1266	5	5	1	$ $1.15	$1.05	$ .90
MB-1267	7	7	1	1.35	1.20	1.10
MB-1268	9	9	1½	1.65	1.50	1.30

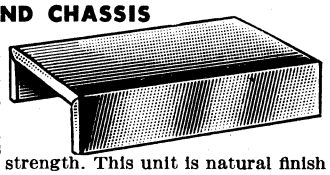
ALUMINUM BOTTOM PLATES

42 sizes to fit all Bud chassis. Made of 5005 H14 aluminum alloy. Natural finish. Plates have four embossed feet to prevent damage to surface on which they rest. Fit snuggly on bottom of chassis.

Bud No.	Fits Chassis Width In.	Fits Chassis Length In.	1-49	50-99	100-149
BPA-1501*	2½	4½	$ .60	$ .55	$ .50
BPA-1502*	3½	4½	.65	.60	.50
BPA-1503*	3½	5½	.70	.65	.55
BPA-1504*	4	5	.70	.65	.55
BPA-1505*	4	6	.75	.70	.60
BPA-1506*	4	8	.90	.80	.70
BPA-1532*	4	17	.90	.80	.70
BPA-1507*	4½	8	1.00	.90	.80
BPA-1589	5	7	.80	.70	.65
BPA-1508*	5	9	.85	.75	.65
BPA-1590	5	9½	.85	.75	.70
BPA-1591	5	10	.85	.75	.70
BPA-1509*	5	13	1.25	1.15	1.00
BPA-1510*	5	13½	1.30	1.15	1.05
BPA-1511*	5½	5½	.80	.70	.65
BPA-1512*	5½	9½	.90	.80	.70
BPA-1513*	6	8	1.00	.90	.80
BPA-1514*	6	14	1.25	1.15	1.00
BPA-1515*	6	17	1.55	1.40	1.25
BPA-1592	7	7	.85	.75	.70
BPA-1593	7	9	.90	.80	.70
BPA-1594	7	11	1.00	.90	.80
BPA-1595	7	12	1.05	.95	.85
BPA-1596	7	13	1.25	1.15	1.00
BPA-1516*	7	15	1.45	1.30	1.15
BPA-1517*	7	17	1.45	1.30	1.15
BPA-1518*	8	10	1.30	1.15	1.05
BPA-1519*	8	12	1.65	1.50	1.30
BPA-1520*	8	17	1.70	1.55	1.35
BPA-1521*	8½	15	1.95	1.75	1.55
BPA-1522*	9	15	2.00	1.80	1.60
BPA-1523*	10	12	1.65	1.50	1.30
BPA-1524*	10	14	1.65	1.50	1.30
BPA-1597	10	17	1.65	1.50	1.30
BPA-1525*	10	23	2.40	2.15	1.90
BPA-1526*	11	17	1.85	1.65	1.50
BPA-1527*	12	12	1.85	1.65	1.50
BPA-1528*	12	17	2.20	2.00	1.75
BPA-1598	13	17	2.30	2.05	1.85
BPA-1529*	14	17	2.30	2.05	1.85
BPA-1530*	15	17	3.15	2.85	2.50
BPA-1531*	17	17	3.20	2.90	2.55

OPEN-END CHASSIS

Primarily intended to be used with the various sizes and styles of Bud metal cabinets, these chassis are ideal for any type of small built-up unit such as a record amplifier, code oscillator, etc. U-shaped construction is used with ends folded over ⅜" for additional strength. This unit is natural finish aluminum alloy 5005 H-14.



Bud No.	Size, Inches D. x W. x H.	Fits Cabinet Number	Net Each, Lots of 1-24	25-49	50-99
CB-38	7 x 6 x 2	C-1584	$1.10	$1.00	$ .90
CB-30	5 x 7 x 1½	.....	1.05	.95	.85
CB-41	7 x 7 x 1½	C-973	1.35	1.20	1.10
CB-39	7 x 8 x 2	C-1585	1.30	1.15	1.05
CB-996	5½ x 9 x 1½	C-993	1.30	1.15	1.05
CB-976	7½ x 9 x 1½	C-999, CD-1481	1.70	1.55	1.35
CB-40	7 x 10 x 2	C-1586	1.50	1.35	1.20
CB-997	7 x 11 x 1½	C-994, CD-1482	1.60	1.45	1.30
CB-998	7 x 13 x 1½	C-995, CD-1483	1.95	1.75	1.55

MINIATURE ALUMINUM CHASSIS

Small versions of above with ¼" flange on bottom for bottom plate or fastening. Ideal for limited space uses. Natural finish.

CB-1623	2⅜ x 2¾ x 1¼	.....	$.45	$.40	$.35
CB-1624	1¾ x 3⅛ x 1	CU-883	.50	.45	.40
CB-1625	3¼ x 4½ x 2	C-1788	.60	.55	.50
CB-1626	2¾ x 4⅛ x 1	CU-728	.55	.50	.45
CB-1627	3¾ x 4⅛ x 1½	CU-729	.55	.50	.45
CB-1628	3 x 6⅛ x 1¼	C-1788	.65	.60	.50
CB-1629	5¾ x 4⅛ x 1½	CU-1098	.70	.65	.55
CB-1617	4 x 3⅛ x 1	C-1606, C-1610	.50	.45	.40
CB-1618	4 x 4⅛ x 1	C-1607, C-1611	.60	.55	.50
CB-1619	4 x 5⅛ x 1	C-1608, C-1612	.65	.60	.50
CB-1620	4 x 6⅛ x 1	C-1609, C-1613	.70	.65	.55

CHASSIS DECKS

Use in carrying cases, cabinets, etc.; deck is folded 1½" over at front and ½" on sides. Black enamel finish only.

Bud No.	Size, In. W. x D.	Fits Cabinet Number	Net Each, Lots of 1-24	25-49	50-99
CB-522	4¾ x 5½	CU-1098	68c	61c	54c
CB-523	4¾ x 4½	CU-1099	65c	59c	52c
CB-525	5¾ x 5½	CU-1124, CU-1096	78c	70c	62c

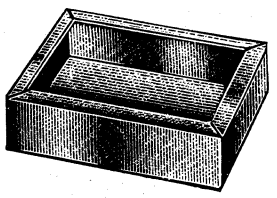
RACK SHELVES

Sturdily constructed of heavy-gauge steel. Have 1" flange to add rigidity and strength. Rest on chassis supporting angles. Available in black enamel finish only.

Bud No.	Size, Inches W. x D.	Weight, Lbs.	Net Each, Lots of 1-24	25-49	50-99
CB-1976	19 x 15	6½	$ $3.80	$3.40	$3.05
CB-1977	19 x 12	5½	2.90	2.60	2.30

Chassis and Accessories

STEEL CHASSIS BASES



Chassis are fabricated from a single sheet of steel. 20 gauge is used unless otherwise indicated. All four sides are folded at bottom for additional rigidity and strength. Available in zinc plate or black wrinkle finish.

Size, Inches D. x W. x H.	Zinc Plated Finish Bud CB-	Net Each, Lots of 1-24	25-49	50-99	Black Wrinkle Finish Bud CB-	Net Each, Lots of 1-24	25-49	50-99
5½ x 5½ x 1	101*	$1.60	$1.45	$1.30	.....	.....	.....	.....
5 x 7 x 2	629*	1.60	1.45	1.30	628*	$1.30	$1.15	$1.05
4½ x 8 x 1½	102*	1.75	1.60	1.40	.....	.....	.....	.....
5 x 9 x 1½	103*	1.55	1.40	1.25	.....	.....	.....	.....
5 x 9½ x 2½	645*	2.05	1.85	1.65	644*	1.65	1.50	1.30
5 x 9½ x 1½	776*	2.05	1.85	1.65	788*	1.50	1.35	1.20
5 x 10 x 3	605*	2.25	2.05	1.80	604*	1.55	1.40	1.25
5 x 13 x 3	105	2.55	2.30	2.00	.....	.....	.....	.....
6 x 8 x 2	104	1.75	1.60	1.40	.....	.....	.....	.....
6 x 14 x 3	756	2.50	2.25	2.00	755	2.15	1.95	1.70
7 x 7 x 2	1191	1.80	1.60	1.45	789	1.50	1.35	1.20
7 x 9 x 2	1192	1.95	1.75	1.55	790	1.70	1.55	1.35
7 x 11 x 2	1193	2.05	1.85	1.60	791	1.75	1.60	1.40
7 x 12 x 3	793	2.55	2.30	2.05	792	1.95	1.75	1.55
7 x 13 x 2	1194	2.30	2.05	1.85	646	1.85	1.65	1.50
5 x 13½ x 2½	1198	2.65	2.40	2.10	647	2.15	1.95	1.70
7 x 15 x 3	1189	2.90	2.60	2.30	649	2.40	2.15	1.90
8½ x 15 x 3	666	3.30	2.95	2.65	665	2.70	2.45	2.15
4 x 17 x 3	1066	2.60	2.35	2.10	1068	2.25	2.00	1.75
7 x 17 x 2½	1199	2.85	2.55	2.30	648	2.40	2.15	1.90
7 x 17 x 3	758	3.15	2.85	2.50	757	2.65	2.40	2.10
8 x 10 x 2½	702	2.40	2.15	1.90	701	2.10	1.90	1.70
8 x 12 x 2½	704	2.70	2.45	2.15	703	2.15	1.95	1.70
8 x 12 x 3	760	2.85	2.55	2.30	759	2.25	2.05	1.80
8 x 17 x 2	774	2.85	2.55	2.30	650	2.10	1.90	1.70
8 x 17 x 3	775	3.20	2.90	2.55	651†	2.50	2.25	2.00
10 x 12 x 3	1195	2.75	2.50	2.20	652	2.30	2.05	1.85
12 x 12 x 3	106	3.65	3.30	2.90	.....	.....	.....	.....
10 x 14 x 3	779	2.95	2.65	2.35	653	2.50	2.25	2.00
10 x 17 x 2	769	2.90	2.60	2.30	654†	2.40	2.15	1.90
10 x 17 x 3	637	3.45	3.10	2.75	636†	2.40	2.15	1.90
10 x 17 x 3	1196‡	3.70	3.35	2.95	655†‡	3.10	2.80	2.50
10 x 23 x 3	1197‡	4.15	3.75	3.30	656‡	3.45	3.10	2.75
11 x 17 x 2	770‡	3.40	3.05	2.70	657†‡	2.85	2.55	2.30
11 x 17 x 3	771‡	4.25	3.85	3.40	658†‡	3.35	3.00	2.70
12 x 17 x 2	661‡	3.75	3.40	3.00	663†‡	2.95	2.65	2.35
12 x 17 x 3	662‡	4.45	4.00	3.55	664†‡	3.50	3.15	2.80
13 x 17 x 2	772‡	4.50	4.05	3.60	659†‡	3.50	3.15	2.80
13 x 17 x 3	773‡	4.75	4.45	3.95	660†‡	4.15	3.75	3.30
10 x 17 x 4	641‡	4.30	3.85	3.45	640†‡	3.60	2.25	2.90
13 x 17 x 4	643‡	5.65	5.10	4.50	642†‡	4.75	4.30	3.80
10 x 17 x 5	624‡	6.50	5.85	5.20	623‡	5.50	4.95	4.40
13 x 17 x 5	626‡	7.20	6.50	5.75	625‡	6.00	5.40	4.80

*22 gauge. †Punched to accommodate chassis mounting brackets. ‡18 gauge.

STEEL CHASSIS BOTTOM PLATES

Protect wiring and keep out dust from chassis bottom. Four embossed feet. Two finishes to match chassis finish.

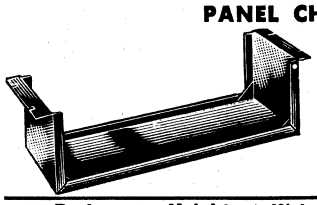
Fits Chassis Size, In. W. x L.	Zinc Plated Finish Bud BP-	Net Each, Lots of 1-49	50-99	100-149	Black Wrinkle Finish Bud BP-	Net Each, Lots of 1-49	50-99	100-149
5 x 7	706	$ .75	$ .70	$ .60	705	$.65	$ .60	$ .50
5 x 9½	667	.85	.75	.70	680	.70	.65	.55
5 x 10	538	.90	.80	.70	536	.80	.70	.65
7 x 7	668	1.05	.95	.85	681	1.00	.90	.80
7 x 9	669	1.10	1.00	.90	682	1.05	.95	.85
7 x 11	670	1.20	1.10	.95	683	1.05	.95	.85
7 x 12	539	1.40	1.25	1.10	537	1.20	1.10	.95
7 x 13	671	1.30	1.15	1.05	684	1.10	1.00	.90
5 x 13½	672	1.10	1.00	1.00	685	.90	.80	.70
4 x 17	1067	1.30	1.15	1.05	1069	1.00	.90	.80
7 x 17	673	1.50	1.35	1.20	686	1.00	.90	.80
8 x 10	708	1.15	1.05	.90	707	1.00	.90	.80
8 x 12	710	1.45	1.30	1.15	709	1.15	1.05	.90
8 x 17	674	1.70	1.55	1.35	687	1.05	.95	.85
10 x 12	675	1.75	1.60	1.40	688	1.05	.95	.85
10 x 14	514	1.65	1.50	1.30	517	1.55	1.40	1.25
10 x 17	676	1.75	1.60	1.40	689	1.30	1.15	1.05
11 x 17	677	1.75	1.60	1.40	690	1.30	1.15	1.05
12 x 17	678	2.05	1.85	1.65	691	1.40	1.25	1.10
13 x 17	679	2.45	2.20	1.95	692	1.60	1.45	1.30

HEAVY DUTY CHASSIS

Complete with 20 ga. bottom plate for uses requiring extra strength to hold heavy weights. Made of 16 ga. steel; 17" wide.

Size, In. D. x H.	Zinc Plated Finish Bud CB-	Net Each, Lots of 1-24	25-49	50-99	Black Wrinkle Finish Bud CB-	Net Each, Lots of 1-24	25-49	50-99
8 x 3	1765	$5.25	$4.75	$4.20	1758	$4.70	$4.25	$3.75
11 x 3	1767	5.30	4.75	4.25	1760	4.75	4.30	3.80
13 x 2	1768	5.85	5.25	4.70	1761	5.30	4.75	4.25
13 x 3	1769	5.95	5.35	4.75	1762	5.40	4.85	4.30
13 x 4	1770	6.45	5.80	5.15	1763	5.80	5.20	4.65

PANEL CHASSIS



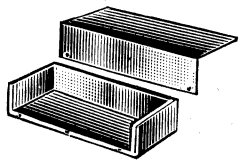
Panel mounting chassis for vertical installation where depth is limited or front service is desired. Made of .062" aluminum alloy 5005 H-14 in natural finish. Front flange has standard notching. Fits standard 19" panel space.

Bud No.	Height, Inches	Weight, Lbs.	Net Each, Lots of 1-24	25-49	50-99
CB-1370	1¾	¾	$2.80	$2.50	$2.25
CB-1371	3½	1¼	3.15	2.85	2.50
CB-1372	5¼	1½	3.40	3.05	2.70
CB-1373	7	2	3.95	3.55	3.15
CB-1374	8¾	2¼	4.55	4.10	3.65
CB-1375	10½	2¾	5.35	4.80	4.30
CB-1376	12¼	3	5.85	5.25	4.70
CB-1377	14	3¼	6.45	5.80	5.15

CHASSIS SUPPORTING ANGLES

Distribute weight to sides of the rack to relieve the panel. Angles are 3" x 1⅜" x 7/64" steel. Black enamel finish. **No. CE-2219** designed for attachment to rails of Console Pedestal or Prestige Relay Racks. Slotted for infinite vertical adjustment; extend to full cabinet depth; 21" x 3" x 2¾".

Bud No.	Length, Inches	Weight, Lbs.	Net Per Pair, Lots of 1-24	25-49	50-99
SA-1349	14½	4	$2.45	$2.20	$1.95
SA-1350	12	3	2.40	2.15	1.90
CE-2219	21	7½	3.00	2.70	2.40



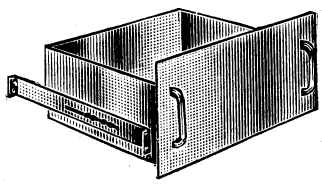
CONVERTA-BOXES

Versatile enclosure combines welded base and two-sided cover. Components or controls are easily mounted to any surface of the unit. All contents easily accessible. Cover and base are fastened by self-tapping screws. Rigid 20 ga. cadmium-plated steel.

Bud No.	Size, Inches H. x W. x D.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
CU-341	1½ x 4 x 3	½	$2.10	$1.90	$1.70
CU-452	2 x 5 x 4	1	2.20	2.00	1.75
CU-482	2 x 8 x 4	1¼	2.30	2.05	1.85
CU-592	2½ x 9½ x 5	1¾	2.50	2.25	2.00
CU-622	2½ x 12 x 6	2¾	2.75	2.50	2.20
CU-712	2½ x 15 x 7	3½	3.65	3.30	2.90

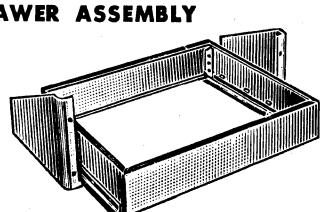
DRAWER WITH ADJUSTABLE SLIDES

Fits any cabinet or cabinet rack with 19" panel space. Slide bracket adjustable 16⅝" to 22⅞" to fit any cabinet with depth 17" to 23". Fastens by bracket to panel mounting rail in front and rear of cabinet. Nylon rollers for smooth movement. Hardware supplied. Specify color when ordering: Add suffix **HG** for gray hammertone; **B** for black wrinkle; or **G** for gray wrinkle.



Bud No.	Inside Size, Inches	Wt., Lbs.	Net Each, Lots of 1-14	15-24	25-34
D-1721	16⅜ x 6⅜ x 16¼	19½	$45.00	$40.50	$36.00

SLIDING DRAWER ASSEMBLY



Ideal for use as a record player mounting base, typewriter base, apparatus and instrument base, writing desk, etc. Installs quickly and simply in any standard rack. Can't fall out or tilt. Provides a completely safe mounting base for anything put on it. Ball bearing suspension for easy sliding. Chassis formed from one-piece 14 gauge aluminum; electro-welded. Support brackets formed from one-piece ⅛" steel. Slide rail fastens securely to chassis, slides in and out easily on channeled ball bearings. Stop screw on slide rail prevents drawer from falling out of channel. Support brackets and channel finished in grey enamel; chassis, slide and plate finished in light gray hammertone. Will support up to 50 lbs. Chassis Size: 16¾" x 14" x 3", with ½" flange top and bottom. *Fastens to top or bottom.

Bud No.	Description	Wt., Lbs.	Net Each, Lots of 1-14	15-24	25-34
SD-1717	Sliding drawer	5	$13.20	$11.20	$10.55
TP-1718	Drawer plate*	1½	2.95	2.65	2.35

537X-65A

Net

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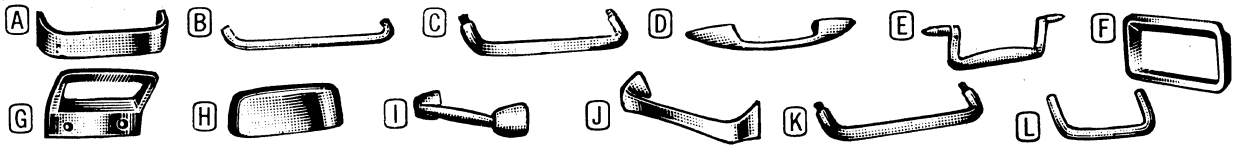
Cabinet Hardware

BUD HANDLES



Fabricated from steel, brass or cast aluminum. Durable finish provides long wear and attractive appearance. Skin packed in pairs or bulk packed (priced singly) with all necessary mounting hardware. Designed for rugged applications, they have unlimited use in electronic, electrical and other fields.

Bud No.	Fig.	Description	Net Per Pair, Lots of 1-49	50-99	100-149	Bulk Pack*: Net Each, Lots of 50-99	100-199	200-499
H-9100	A	1″ x ¼″ chrome-plated solid brass; 4″ x ½″ mtg. cntrs.; 1″ hand clearance; four ½″ x 6-32 threaded screws	$4.55	$4.10	$3.65	$2.05	$1.85	$1.65
H-9101	A	Same, but 8″ x ½″ mtg. centers	7.05	6.35	5.65	3.20	2.90	2.55
H-9102	A	⅝″ x ¼″ chrome-plated solid brass; 4″ mtg. centers; 1″ hand clearance; two ½″ x 6-32 threaded screws	3.60	3.25	2.90	1.75	1.60	1.40
H-9103	A	Same, but has 6″ mounting centers	4.15	3.75	3.30	1.75	1.65	1.50
H-9110	B	⅜″ steel rod angular formed, chrome-plated; 6″ mtg. ctrs.; 1¼″ hand clearance; two ½″ x 10-32 screws	3.20	2.90	2.55	1.15	1.05	.90
H-9111	B	⅜″ steel rod, chrome plated, 4″ mtg. ctrs.; 1″ hand clearance; two ½″ x 10-32 threaded screws	1.70	1.55	1.35	.65	.60	.50
H-9112	B	6″ mtg. center version of H-9111	2.15	1.95	1.70	.80	.70	.65
H-9113	B	8″ mtg. center version of H-9111	2.40	2.15	1.90	.90	.80	.70
H-9114	B	½″ steel rod, chrome-plated; 8″ mtg. centers; 1½″ hand clearance; two ½″ x ¼-28 thd. screws	4.05	3.65	3.25	1.45	1.30	1.15
H-9115	C	⅜″ steel rod, chrome-plated; 4″ mtg. ctrs.; 15/16″ hand clearance; two ¼-28 thd. nuts	2.75	2.50	2.20	1.05	.95	.85
H-9116	C	Same, but has 6″ mtg. centers	3.45	3.10	2.75	1.25	1.15	1.00
H-9120	D	Silver-anodized die-cast aluminum; 4⅜″ inside, 5⅜″ outside mtg. centers; 1″ hand clearance; four ½″ x 6-32 threaded screws	4.05	3.65	3.25	1.75	1.60	1.40
H-9121	D	Same, except chrome plated alloy	5.70	5.15	4.55	2.55	2.30	2.05
H-9123	D	Similar to H-9120 but 4½″ mtg. centers; 1″ hand clearance; two ½″ x 10-32 thd. screws	3.00	2.70	2.40	1.25	1.15	1.00
H-9122	E	Silver-anodized die-cast aluminum; hinged on ¼″ steel pins with 2 hinge blocks; 6½″ inside, 7¼″ outside mtg. centers; 1½″ hand clearance; four ⅜″ x 10-32 threaded screws	6.85	6.15	5.40	3.10	2.80	2.50
H-9130	F	Silver-anodized die-cast aluminum; 3″ mtg. centers; two ⅜″ x 10-32 thd. screws; size 4 15/16″ x 3″	6.05	5.45	4.85	2.75	2.50	2.20
H-9131	G	Silver-anodized die-cast aluminum; size, 4″ x 2⅞″; 2¼″ mtg. centers; two ¾″ x ¼-28 thd. raised, counter-sunk screws and nuts	4.50	4.05	3.60	1.95	1.75	1.55
H-9140	H	Silver-anodized die-cast aluminum; 3½″ mtg. centers; ¾″ hand clearance; two ½″ x 10-32 threaded screws	2.70	2.45	2.15	1.20	1.10	.95
H-9150	I	Silver-anodized die-cast aluminum; 4″ x ⅝″ mtg. centers; 1¼″ hand clearance; four ½″ x 10-32 threaded screws	3.60	3.25	2.90	1.55	1.40	1.25
H-9151	J	Silver-anodized die-cast aluminum; 5 5/16″ x ⅝″ mtg. centers; 1⅜″ hand clearance; four ½″ x 10-32 threaded screws	5.85	5.25	4.70	2.55	2.30	2.05
H-9152	J	Similar to above except 3⅞″ mtg. centers; 1⅛″ hand clearance; two ½″ x 10-32 threaded screws	4.75	4.30	3.80	2.15	1.95	1.70
H-9160	K	Chrome-plated ⅜″ steel rod; 3½″ mtg. centers; 1 11/16″ hand clearance; two ¼″-28 hex nuts	3.15	2.85	2.50	1.10	1.00	.90
H-9161	K	Same, but with 5¼″ mounting centers	3.60	3.25	2.90	1.30	1.15	1.05
H-9162	K	Same, but with 7″ mounting centers	3.75	3.40	3.00	1.35	1.20	1.10
H-9163	K	Same, but with 8¾″ mounting centers	4.05	3.65	3.25	1.45	1.30	1.15
H-9164	K	Same, but with 10½″ mounting centers	4.55	4.10	3.65	1.50	1.35	1.20
H-9165	K	Same, but with 12¼″ mounting centers	5.00	4.50	4.00	1.65	1.50	1.30
H-9166	L	Chrome-plated ¼″ brass rod; 1 29/32″ mtg. centers; 1″ hand clearance; two ½″ x 6-32 thd. screws	1.40	1.25	1.10	.60	.55	.50
H-9168	L	Same, but 3″ mtg. centers; two ¼″ x 6-32 thd. screws	1.55	1.40	1.25	.65	.60	.50

*Number shown is for skin packed pairs. For bulk packed handles (priced singly), add suffix **B** to number (example: H-9100**B**).

SPEAKER ENCLOSURE HANDLES

Attach to any small housing or speaker enclosure to achieve portability. Made of aluminum tubing with etched finish.

Bud No.	Length, Inches	Mtg. Ctrs., Inches	Net Each, Lots of 1-49	50-99	100-149
UH-70A	5⅜	4⅝	$ .45	$ .40	$ .35
UH-71A	3¾	3¼	.40	.35	.30

DOOR HANDLES, CATCH SETS

No. 9347: Fits flush with cabinet door; exposed parts chrome plated. **Nos. 9196 and 9223:** Lever-type handles are chrome plated with steel spindle and cam; fit Super Deluxe racks.

Bud No.	Description	Net Each, Lots of 1-49	50-99	100-149
9196	Non-locking handle	$2.95	$2.65	$2.35
9223	9196 with lock and key	5.50	4.95	4.40
9347	Flush-mount catch set	1.10	1.00	.90

RUBBER FEET

No. F-7264A: Has recessed head with mounting stud; rubber portion 15/16″ x 11/32″ thick. **No. F-8038:** May be applied to any surface when glue coating is moistened with benzol base solution; ¾″ dia. x ⅛″ thick. **No. F-9653:** Press-fit type for 7/16″ hole.

Bud No.	Description	Net per 100, Lots of 1-49	50-99	100-149
F-7264A	High grade black rubber	$8.90	$8.00	$7.10
F-8038	Sponge rubber pad	2.15	1.95	1.70
F-9653	Top grade gray rubber	4.15	3.75	3.30

*Lots 100–199.

MOUNTING BRACKETS

Permit mounting of midget condensers, controls and other components in any position. Made of ¾″ wide, cadmium plated steel. Right-angle design with short side have two mounting holes; long side with ⅜″ slot. No. AB-549 has additional ½″ dia. hole centered on ⅜″ slot.

Bud No.	Size	Wt. Per 100, Lbs.	Net Each, Lots of 1-99	100-199	200-299
AB-549	1⅜″ x 2″	2¼	$11.00C	$9.90C	$8.80C
AB-550	1⅜″ x 2″	2	11.00C	9.90C	8.80C

ANGLES AND BRACKETS

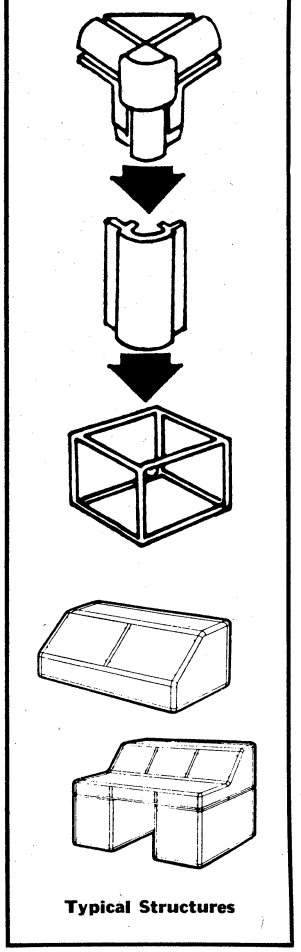
Similar to above; made of ¾″ wide, nickel-plated brass. Right-angle design; Type 1 has single hole at end of each angle; Type 2 has two holes on long side; single hole on short side.

Bud No.	Size, Inches	Type	Wt. Per 100, Lbs.	Net Per 100, Lots of 1-99	100-199	200-299
AB-444	½ x ½	1	½	$4.45	$4.00	$3.55
AB-445	¾ x ¾	1	1¼	5.10	4.60	4.10
AB-446	1 x 1	1	2	6.75	6.10	5.40
AB-447	1½ x 1½	1	2½	8.25	7.45	6.60
AB-631	1 x ½	1	1¼	5.60	5.05	4.50
AB-632	1½ x ⅝	1	1½	6.95	6.25	5.55
AB-633	2 x ⅝	2	1¾	9.10	8.20	7.30
AB-634	3 x ¾	2	2½	11.20	10.08	9.00
AB-635	4 x ¾	2	3¾	13.25	11.95	10.60

DIAL LOCK

Dual purpose design functions as both dial lock and position indicator. Completely eliminates problems of dial slippage and accidental movement. Nickel-plated brass construction.
Bud No. DL-1947 Dial Lock—Net Each..... **25¢**

Imlok "Prototyper" Cabinets



Typical Structures

System of metal cabinet construction, ideal for research and prototype work, permits quick assembly of cases, cabinets and racks using the simplest of tools. Complex structures may be built to your design using a variety of corner castings and extrusions held rigidly with friction clips or screws. Panels may be cut to size from sheet aluminum or steel, fitted grooves or screw fastened. No grinding or welding needed.

EXTERNAL CORNER CONNECTORS

Bud No.	Description	Net Each, Lots of 1-14	15-24	25 Up
BI-1001	90° basic corner connector for rectangular cabinets. Use with BI-2004, BI-2014, BI-2024, BI-2034, BI-2044, BI-2054 or BI-2064 extrusions.	$1.05	$ .95	$ .85
BI-1016	67½° corner connector holds vertical wall and horizontal wall to a third rising at 67½° to the horizontal. One leg fits BI-2041 extrusion; other two fit any 90° external extrusion.	1.70	1.55	1.35
BI-1024	60° corner connector similar to BI-1016. One leg fits BI-2081; other legs fit any 90° external extrusion.	1.70	1.55	1.35
BI-1002	45° corner connector similar to BI-1016. One leg fits BI-2005, BI-2015, or BI-2025; other two legs fit any 90° external extrusion.	1.20	1.10	.95
BI-1020	30° corner connector similar to BI-1016. One leg fits BI-2061; other two legs fit any 90° external extrusion.	1.70	1.55	1.35
BI-1012	22½° corner connector similar to BI-1016. One leg fits BI-2021; other two legs fit any 90° external extrusion.	1.70	1.55	1.35

EXTERNAL STANDARD EXTRUSIONS

Bud No.	Description	Net Each, Lots of 1-9	10-14	15 Up
BI-2004	12 ft. long, 90° external extrusion most used; has panel retaining groove on each flange for 0.050" panels. Ideal for small to medium sized structures with unbraced spaces up to 2 ft. long.	9.30	$ 8.35	$ 7.45
BI-2004-3	3 ft. length BI-2004	2.85	2.55	2.30
BI-2004-6	6 ft. length BI-2004	5.35	4.80	4.30
BI-2004-9	9 ft. length BI-2004	7.60	6.85	6.10
BI-2064	12 ft. long, 90° extrusion with panel retaining flange to take 20 gauge panels.	9.15	8.25	7.30
BI-2064-3	3 ft. length BI-2064	2.75	2.50	2.20
BI-2064-6	6 ft. length BI-2064	5.20	4.70	4.15
BI-2064-9	9 ft. length BI-2064	7.45	6.70	5.95
BI-2041	12 ft. long, 67½° extrusion; companion to BI-1016 for unbraced spans up to 3 ft. long.	11.20	10.10	8.95
BI-2041-3	3 ft. length BI-2041	3.35	3.00	2.70
BI-2041-6	6 ft. length BI-2041	6.40	5.75	5.10
BI-2041-9	9 ft. length BI-2041	9.10	8.20	7.30
BI-2081	12 ft. long, 60° extrusion; companion to BI-1024 connector. For unbraced spans up to 3 ft. long.	11.20	10.10	8.95
BI-2081-3	3 ft. length BI-2081	3.30	2.95	2.65
BI-2081-6	6 ft. length BI-2081	6.40	5.75	5.10
BI-2081-9	9 ft. length BI-2081	9.10	8.20	7.30
BI-2005	12 ft. long, 45° extrusion used with BI-1002 connector; for spans up to 2 ft. long.	8.05	7.25	6.45
BI-2005-3	3 ft. length BI-2005	2.45	2.20	1.95
BI-2005-6	6 ft. length BI-2005	4.60	4.15	3.70
BI-2005-9	9 ft. length BI-2005	6.50	5.85	5.20
BI-2061	12 ft. long, 30° extrusion used with BI-1020 connector.	11.20	10.10	8.95
BI-2061-3	3 ft. length BI-2061	3.35	3.00	2.70
BI-2061-6	6 ft. length BI-2061	6.40	5.75	5.10
BI-2061-9	9 ft. length BI-2061	9.10	8.20	7.30
BI-2021	12 ft. long, 22½° extrusion used with BI-1012 connector.	11.65	10.50	9.30
BI-2021-3	3 ft. length BI-2021	3.50	3.15	2.80
BI-2021-6	6 ft. length BI-2021	6.65	6.00	5.30
BI-2021-9	9 ft. length BI-2021	9.50	8.55	7.60
BI-2014	12 ft. long, 90° strengthened extrusion similar to BI-2004 but stronger for use in unbraced spans up to 3 ft. long.	10.40	9.35	8.30
BI-2014-3	3 ft. length BI-2014	3.15	2.85	2.50
BI-2014-6	6 ft. length BI-2014	6.00	5.40	4.80
BI-2014-9	9 ft. length BI-2014	8.50	7.65	6.80
BI-2015	12 ft. long, 45° external strengthened extrusion used in place of BI-2005 in unbraced spans up to 3 ft. long.	9.15	8.25	7.30
BI-2015-3	3 ft. length BI-2015	2.75	2.50	2.20
BI-2015-6	6 ft. length BI-2015	5.20	4.70	4.15
BI-2015-9	9 ft. length BI-2015	7.45	6.70	5.95
BI-2054	12 ft. long, 90° strengthened extrusion with two 11/16" extended flanges to take standard ⅛"; retaining groove at root of flanges.	12.90	11.60	10.30
BI-2054-3	3 ft. length BI-2054	3.90	3.50	3.10
BI-2054-6	6 ft. length BI-2054	7.40	6.65	5.90
BI-2054-9	9 ft. length BI-2054	10.60	9.55	8.50
BI-2024	12 ft. long, 90° strengthened extrusion with one flange extended ⅝" to fit ⅜" panel; other has normal panel-retaining groove.	10.55	9.50	8.45
BI-2024-3	3 ft. length BI-2024	3.20	2.90	2.55
BI-2024-6	6 ft. length BI-2024	6.05	5.45	4.85
BI-2024-9	9 ft. length BI-2024	8.60	7.75	6.90
BI-2025	12 ft. long, 45° strengthened extrusion with one ⅝" extended flange for ⅜" panel and one normal panel-retaining groove flange.	10.10	9.10	8.10
BI-2025-3	3 ft. length BI-2025	3.00	2.70	2.40
BI-2025-6	6 ft. length BI-2025	5.75	5.20	4.60
BI-2025-9	9 ft. length BI-2025	8.20	7.40	6.55
BI-2034	12 ft. long, 90° heavy-duty extrusion takes loadings for spans over 3 ft. long. Additional returns reinforce strength. Flanges are both ⅝" deep.	18.60	16.75	14.90
BI-2034-3	3 ft. length BI-2034	5.55	5.00	4.45
BI-2034-6	6 ft. length BI-2034	10.60	9.55	8.50
BI-2034-9	9 ft. length BI-2034	15.15	13.65	12.10
BI-2044	12 ft. long, 90° reinforcing angle screws to return flanges of BI-2034 for extra rigid, boxed in section. Use with heavy-duty BI-1011 spacer bar and BI-2018 and BI-2028 extrusions to build almost any size structure.	6.95	6.25	5.55
BI-2044-3	3 ft. length BI-2044	2.10	1.90	1.70
BI-2044-6	6 ft. length BI-2044	3.95	3.55	3.15
BI-2044-9	9 ft. length BI-2044	5.65	5.10	4.50

SPECIAL CONNECTORS, ACCESSORIES

No. BI-1003—T-junction connector permits making "T" with 2 lengths of extrusions; also used for picture frame effect. Fits 90° external extrusions.

No. BI-1005—90° table-top or foot connector used in place of radiused corner; has well to hold glass or wood table-top. Used also as foot or as wall mount. One leg fits 90° external extrusion; other two fit BI-2009.

No. BI-1008—Stacking plate for use with BI-1005 to permit stacking.

No. BI-1009—90° spacer bar cruciform connector.

No. BI-4001—Package of 50 friction clips; for assembly without use of screws.

No. BI-4302—Concealed brass hinge fits 90° extrusions; 3 mounting holes take 6-32 or 10-32 screws.

No. BI-4601—Chrome plated ventilation ring for dress-up. Used in addition to slots and louvers. Clips (supplied) into 2⅝" hole. Has stainless steel gauze.

Bud No.	Net Each, Lots of 1-14	15-24	25 Up
BI-1003	$1.20	$1.10	$ .95
BI-1005	1.55	1.40	1.25
BI-1008	.85	.75	.70
BI-1009	2.20	2.00	1.75
BI-4302	2.20	2.00	1.75
BI-4601	3.30	3.00	2.65

Net

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Imlok "Prototyper" Cabinets

INTERNAL EXTRUSIONS

Bud No.	Description	Net Each, Lots of 1-9	10-14	15 Up
BI-2032	12 ft. long, 90° internal extrusion to fit BI-1028; has two panel retaining grooves; for unbraced spans up to 3 ft. long.	$13.85	$12.45	$11.10
BI-2032-3	3 ft. length BI-2032	4.20	3.80	3.35
BI-2032-6	6 ft. length BI-2032	7.90	7.10	6.30
BI-2032-9	9 ft. length BI-2032	11.30	10.15	9.05
BI-2051	12 ft. long, 67½° internal extrusion to fit BI-1017 connector. For use in unbraced spans up to 3 ft.	13.25	11.95	10.60
BI-2051-3	3 ft. length BI-2051	3.95	3.55	3.15
BI-2051-6	6 ft. length BI-2051	7.55	6.80	6.05
BI-2051-9	9 ft. length BI-2051	10.80	9.70	8.65
BI-2091	12 ft. long, 60° internal extrusion; fits BI-1025 connector.	13.70	12.35	10.95
BI-2091-3	3 ft. length BI-2091	4.10	3.70	3.30
BI-2091-6	6 ft. length BI-2091	7.85	7.05	6.30
BI-2091-9	9 ft. length BI-2091	11.20	10.10	8.95
BI-2006	12 ft. long, 45° internal extrusion has two 5/8" flanges, one with panel-retaining groove. For flat-topped, sloping front cabinets.	11.80	10.60	9.45
BI-2006-3	3 ft. length BI-2006	3.55	3.20	2.85
BI-2006-6	6 ft. length BI-2006	6.75	6.10	5.40
BI-2006-9	9 ft. length BI-2006	9.65	8.70	7.70
BI-2071	12 ft. long, 30° internal extrusion; fits BI-1021 connector.	13.25	11.95	10.60
BI-2071-3	3 ft. length BI-2071	3.95	3.55	3.15
BI-2071-6	6 ft. length BI-2071	7.55	6.80	6.05
BI-2071-9	9 ft. length BI-2071	10.80	9.70	8.65
BI-2031	12 ft. long, 22½° internal extrusion; fits BI-1013 connector.	13.70	12.35	10.95
BI-2031-3	3 ft. length BI-2031	4.10	3.70	3.30
BI-2031-6	6 ft. length BI-2031	7.80	7.00	6.25
BI-2031-9	9 ft. length BI-2031	11.20	10.10	8.95

SPACER BAR AND TABLE-TOP EXTRUSIONS

BI-2008	12 ft. long, spacer bar extrusion used to subdivide panels or act as cross-bracing members.	12.60	11.35	10.10
BI-2008-3	3 ft. length BI-2008	3.75	3.40	3.00
BI-2008-6	6 ft. length BI-2008	7.15	6.45	5.70
BI-2008-9	9 ft. length BI-2008	10.30	9.25	8.25
BI-2009	12 ft. long, table-top extrusion for use at base of cabinet, as vertical member where double radius between cabinets is undesirable. Has flange with normal retaining groove; other is 1" deep to support table or bench top.	10.40	9.35	8.30
BI-2009-3	3 ft. length BI-2009	3.15	2.85	2.50
BI-2009-6	6 ft. length BI-2009	6.00	5.40	4.80
BI-2009-9	9 ft. length BI-2009	8.50	7.65	6.80

EXTERNAL SPACER BAR CONNECTORS

Bud No.	Description	Net Each, Lots of 1-14	15-24	25 Up
BI-1011	This connector specially designed for use with 90° external heavy duty extrusion BI-2034. One leg fits this extrusion as well as all other 90° external extrusions. The other two legs fit BI-2008.	1.70	1.55	1.35
BI-1018	67½° external spacer bar connector; brace or sub-divide walls where BI-1016 is used at corners. One leg fits BI-2041; other two fit any spacer bar extrusion.	1.70	1.55	1.35
BI-1026	60° version of BI-1018. One leg fits BI-2081; other two fit any spacer bar extrusion.	1.70	1.55	1.35
BI-1007	45° version of BI-1018. One leg fits BI-2005, BI-2015 or BI-2025; other two fit any spacer bar extrusion.	2.20	2.00	1.75
BI-1022	30° version of BI-1018. One leg fits BI-2061 extrusion; other two fit any spacer bar extrusion.	1.70	1.55	1.35
BI-1014	22½° version of BI-1018. One leg fits BI-2021; other two fit any spacer bar extrusion.	1.70	1.55	1.35

INTERNAL CORNER CONNECTORS

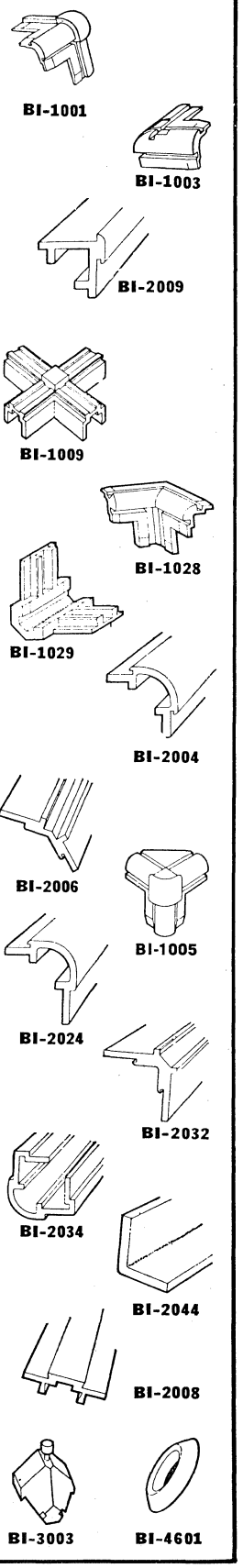
BI-1028	90° internal connector gives an included angle of 90° for L-shaped structures. One leg fits BI-2032 extrusion; other two fit any 90° external extrusion, (BI-2004, BI-2014, BI-2024, BI-2034, BI-2054).	1.70	1.55	1.35
BI-1017	67½° internal connector used where two walls are to meet to include a 67½° angle. One leg fits BI-2051 extrusion; other two fit any 90° external extrusion.	1.70	1.55	1.35
BI-1025	60° version of BI-1017. One leg fits BI-2091; other two fit any 90° external extrusion.	1.70	1.55	1.35
BI-1006	45° version of BI-1017. One leg fits BI-2006; other two fit any 90° external extrusion. Helps make flat top, sloping front structure.	2.20	2.00	1.75
BI-1021	30° version of BI-1017. One leg fits BI-2071; other two fit any 90° external extrusion.	1.70	1.55	1.35
BI-1013	22½° version of BI-1017. One leg fits BI-2031; other two fit any 90° external extrusion.	1.70	1.55	1.35

INTERNAL SPACER BAR CONNECTORS

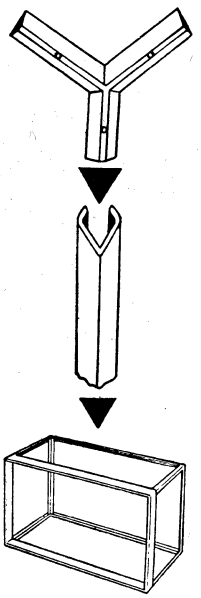
BI-1029	90° internal spacer connector permits bracing or sub-division of spans of BI-2032. One leg fits BI-2032 internal extrusion; other two fit BI-2008 spacer bar extrusion.	1.70	1.55	1.35
BI-1019	67½° internal spacer bar connector is companion to BI-1017 for sub-dividing or cross-bracing. One leg fits BI-2051; other two fit any spacer bar extrusion.	1.70	1.55	1.35
BI-1027	60° version of BI-1019 above; companion for BI-1025. One leg fits BI-2091; other two fit any spacer bar extrusion.	2.30	2.05	1.85
BI-1010	45° version of BI-1019; companion for BI-1006. One leg fits BI-2006; other two fit any spacer bar extrusion.	1.70	1.55	1.35
BI-1023	30° version of BI-1019; companion to BI-1021. One leg fits BI-2071; other two fit any spacer bar extrusion.	2.30	2.05	1.85
BI-1015	22½° version of BI-1019; companion to BI-1013. One leg fits BI-2031; other two fit any spacer bar extrusion.	1.70	1.55	1.35

CUTTING JIGS

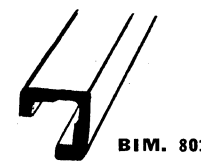
Bud No.	Description	Net Each, Lots of 1-4	5-9	10 Up
BI-3003	90° cutting jig permits easy mitering of any 90° external extrusion. Makes assembly quick, easy.	14.95	13.45	11.95
BI-3002	45° cutting jig for mitering any 45° external extrusion.	17.35	15.60	13.90



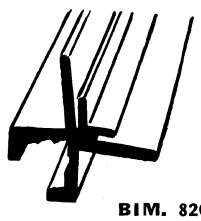
Slimline 901 Imlok®



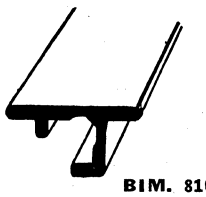
BIM. 801



BIM. 806

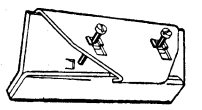


BIM. 826



BIM. 810

BIM. 601



BIM. 101

Bud Slimline 901 Imlok is based upon the same, proven principles as the Standard Imlok system. The basic difference is lighter weight and narrower appearance of the extrusions; corner connectors are smaller in size and are not visible in the completed housing. Connectors are 380 aluminum die castings; extrusions are 6063 aluminum. A really attractive small rectangular case, large elegant console or multiangular structure can be made with Slimline 901 Imlok. Whether for a production run or a single prototype, we can supply the material or make a complete enclosure.

EXTRUSIONS (9-FT. LENGTH ONLY)

Bud No.	Description	Net Each, Lots of 1-9	10-14	15-19
BIM. 801	90° external extrusion suitable for lightweight frameworks; when enclosed with panels it is not visible from the outside.	$ 5.10	$ 4.60	$ 4.10
BIM. 802	90° external extrusion has retaining groove for 20-gauge panels.	5.40	4.85	4.30
BIM. 803	90° external extrusion; heavier extrusion with retaining grooves for 20-gauge panels.	6.30	5.65	5.00
BIM. 806	90° bezel extrusion; bezel frame for recessed panels; one side has panel retaining groove.	7.50	6.75	6.00
BIM. 807	90° bezel extrusion similar to BIM. 806, but heavier; thicker internal flange permits mounting of rack type panels.	10.05	9.05	8.05
BIM. 821	90° bezel extrusion similar to BIM. 806, but has much deeper recess that provides picture frame effect for the panel.	12.45	11.20	9.95
BIM. 826	90° internal extrusion used for all internal 90° applications; retaining grooves for 20-gauge panels.	15.70	14.15	12.55
BIM. 810	Spacer bar extrusion matches BIM. 801 for dividing and reinforcing panel areas.	5.70	5.15	4.55
BIM. 811	Spacer bar extrusion; visible face similar to BIM. 802; used with all extrusions except BIM. 801.	5.95	5.35	4.75
BIM. 812	Spacer bar extrusion similar to BIM. 811, but with wider visible area to match BIM. 803.	7.50	6.75	6.00
BIM. 601	15° external extrusion used for all 15° external corner applications; fits one leg of BIM. 915 and BIM. 91 connectors; used with BIM. 802, BIM. 803, BIM. 806, BIM. 807, BIM. 821 and BIM. 845 extrusions.	11.80	10.60	9.45
BIM. 611	15° internal extrusion used for all 15° internal corner applications; fits one leg of BIM. 951 connector; used with BIM. 802, BIM. 803, BIM. 806, BIM. 807 and BIM. 821 extrusions.	11.80	10.60	9.45
BIM. 641	45° external extrusion used for all 45° external corner applications; fits one leg of BIM. 945 and BIM. 94 connectors; used with same extrusions as BIM. 601.	11.80	10.60	9.45
BIM. 651	45° internal extrusion used for all 45° internal corner applications; fits one leg of BIM. 954; used with same extrusions as BIM. 611.	11.80	10.60	9.45
BIM. 681	75° external extrusion used for all 75° external corner applications with BIM. 975 or BIM. 97 connectors; used with same extrusions as BIM. 601.	11.80	10.60	9.45
BIM. 682	75° acute external extrusion.	11.80	10.60	9.45
BIM. 691	75° internal extrusion used for all 75° internal corner applications with BIM. 957 connector; used with same extrusions as BIM. 611.	11.80	10.60	9.45
BIM. 845	90° deep recess extrusion has 5/8" deep recess on one side and is similar to BIM. 803 on other; used with appropriate corner connectors.	11.30	10.15	9.05
BIM. 847	Deep recess conversion extrusion used where BIM. 845 is not suitable; used with extrusions BIM. 802, BIM. 803, BIM. 812, BIM. 826, BIM. 651, BIM. 691 and one side only on BIM. 806, BIM. 807, BIM. 811 and BIM. 821.	9.10	8.20	7.30
BIM. 610	Deep recess conversion extrusion similar to BIM. 847; used with BIM. 601 and BIM. 611 extrusions.	9.45	8.50	7.55
BIM. 690	Deep recess conversion extrusion similar to BIM. 847 and BIM. 610; used with extrusions BIM. 641, BIM. 681 and BIM. 682.	9.45	8.50	7.55
BIM. 846	Deep recess spacer bar extrusion matches deep recess on deep-recess conversion extrusions; inner flanges accept standard captive nuts suitable for 14-gauge material.	18.00	16.20	14.40
BIM. 834	90° glazing extrusion has retaining groove on both sides to accept 1/4" panels.	13.80	12.40	11.05
BIM. 835	90° glazing extrusion similar to BIM. 834, but will accept 1/8" panels.	12.50	11.25	10.00
BIM. 836	90° sliding door extrusion has twin channels on one side to accept 1/4" sliding doors; retaining groove on other side for 1/4" fixed panel.	19.20	17.30	15.35
BIM. 837	90° sliding door extrusion same as BIM. 836, except will accommodate 1/8" doors and 1/8" panel.	17.55	15.80	14.05
BIM. 822	1/4" sliding door conversion extrusion; used where 1/4" sliding doors are required without a side panel. May be added to either side of BIM. 802, BIM. 803, BIM. 812, BIM. 826, BIM. 651, and BIM. 691 extrusions; or, to one side only of BIM. 806, BIM. 807, BIM. 811, BIM. 821 and BIM. 845 extrusions.	8.55	7.70	6.85
BIM. 823	1/8" sliding door conversion extrusion similar to BIM. 822, except will accommodate 1/8" sliding doors; may be added to same extrusions as BIM. 822.	8.20	7.40	6.55
BIM. 832	Closure section may be added to inside of frameworks using 90° connectors to completely conceal them.	3.45	3.10	2.75
BIM. 818	90° door frame extrusion used for making double skinned doors.	7.15	6.45	5.70
BIM. 829	90° mounting flange extrusion; used in conjunction with frameworks made of BIM. 801 extrusion to provide a flange suitable for rack mounting.	7.10	6.40	5.70
BIM. 107	Panel mounting conversion extrusion; normally fitted to two vertical members to provide mountings for rack type panels.	10.40	9.35	8.30

MITERING JIGS

Bud No.	Description	Net Each, Lots of 1-9	10-14	15-19
BIM. 101	90° mitering jig; external, double miter	$ 8.45	$ 7.60	$ 6.75
BIM. 115	90° mitering jig; external, single miter	8.40	7.55	6.70
BIM. 116	90° mitering jig; internal, single miter	8.40	7.55	6.70
BIM. 117	15° mitering jig; external, single miter	8.40	7.55	6.70
BIM. 118	15° mitering jig; internal, single miter	8.40	7.55	6.70
BIM. 121	45° mitering jig; external, single miter	8.40	7.55	6.70
BIM. 122	45° mitering jig; internal, single miter	8.40	7.55	6.70
BIM. 125	75° mitering jig; external, single miter	6.25	5.65	5.00
BIM. 126	75° mitering jig; internal, single miter	8.40	7.55	6.70
BIM. 127	Acute 75° mitering jig; external, single miter	8.40	7.55	6.70
BIM. 129	Notch jig	32.35	29.10	25.90

Net

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Slimline 901 Imlok®

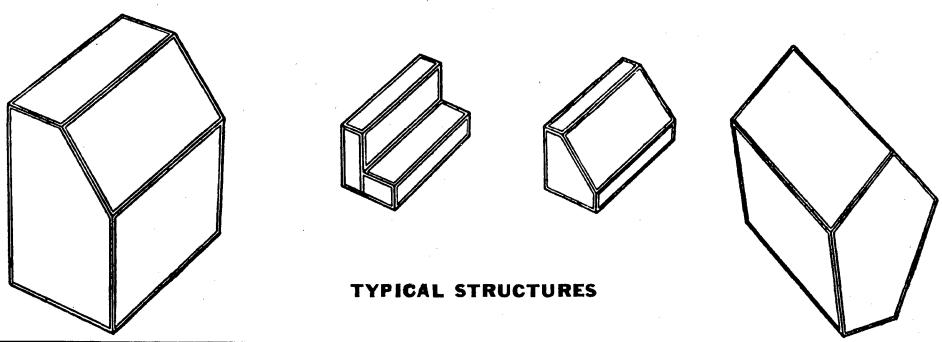
CONNECTORS

Bud No.	Description	Net Each, Lots of 1-14	15-24	25-34
BIM. 902	90° external standard connector used for normal 90° external corners and for joining spacer bars to the various 90° external and bezel extrusions.	$1.00	$ .90	$ .80
BIM. 901	90° external corner connector; a lighter duty model than BIM. 902; used with extrusions BIM. 801, BIM. 834, BIM. 835, BIM. 836 and BIM. 837; if one leg is removed use BIM. 818.	.85	.75	.70
BIM. 90	90° external slotted connector replaces BIM. 902 if an unobstructed aperature is required on framework involving extrusions BIM. 802, BIM. 806, BIM. 810, BIM. 811 and BIM. 821.	1.90	1.70	1.50
BIM. 909	90° internal connector; extrusion BIM. 826 is fitted to one leg and the other two legs accept extrusions BIM. 802, BIM. 803, BIM. 806, BIM. 807 and BIM. 821.	1.65	1.50	1.30
BIM. 090	90° internal spacer bar connector enables spacer bars BIM. 810, BIM. 811 or BIM. 812 to be fitted to extrusion BIM. 826.	1.90	1.70	1.50
BIM. 990	90° cruciform connector; used to join spacer bars BIM. 810, BIM. 811, or BIM. 812 where they cross to divide large panel areas.	1.85	1.65	1.50
BIM. 915	15° external corner connector; used for 15° external corners when two 90° frame extrusions are BIM. 803 or BIM. 845; extrusion BIM. 601 is always fitted to third leg.	1.60	1.45	1.30
BIM. 91	15° external slotted connector replaces BIM. 915 when 90° extrusions are BIM. 802, BIM. 806, BIM. 807 or BIM. 821; also used for joining spacer bars to BIM. 601.	1.90	1.70	1.50
BIM. 951	15° internal corner connector for all 15° internal corner applications; extrusion BIM. 611 is fitted to one leg; the other two will accept BIM. 802, BIM. 803, BIM. 806, BIM. 807 or BIM. 821.	1.60	1.45	1.30
BIM. 015	15° internal spacer bar connector permits spacer bars BIM. 810, BIM. 811 or BIM. 812 to be fitted to 15° internal extrusion BIM. 611.	1.90	1.70	1.50
BIM. 945	45° external corner connector; used for 45° external corners when extrusion is either BIM. 803 or BIM. 845; must be used with extrusion BIM. 641.	1.60	1.45	1.30
BIM. 94	45° external slotted connector replaces BIM. 945 when extrusions are either BIM. 802, BIM. 806, BIM. 807 or BIM. 821; also used for joining spacer bars to extrusion BIM. 641.	1.90	1.70	1.50
BIM. 954	45° internal corner connector; used for all 45° internal corners with extrusion BIM. 651; two legs accept 90° extrusions.	1.85	1.65	1.50
BIM. 045	45° internal spacer bar connector; used in fitting spacer bars to extrusion BIM. 651.	1.90	1.70	1.50
BIM. 975	75° external corner connector; used for 75° external corners with either 90° extrusion BIM. 803 or BIM. 845; BIM. 681 is always the third extrusion.	1.60	1.45	1.30
BIM. 97	75° external slotted connector; used to replace BIM. 975 when 90° extrusions are BIM. 802, BIM. 806, BIM. 807 or BIM. 821; connects spacer bars to extrusion BIM. 681.	1.90	1.70	1.50
BIM. 957	75° internal corner connector; used for all 75° internal corners with extrusion BIM. 691 fitted to one leg; use BIM. 802, BIM. 803, BIM. 806, BIM. 807 or BIM. 821 on other two legs.	1.65	1.50	1.30
BIM. 075	75° internal spacer bar connector enables spacer bars to be fitted to extrusion BIM. 691.	1.90	1.70	1.50
BIM. 750	75° acute external corner connector; used with extrusions BIM. 803 or BIM. 845; always used with extrusion BIM. 682.	1.75	1.60	1.40
BIM. 75	75° acute external slotted connector replaces BIM. 750 when extrusions BIM. 802, BIM. 806, BIM. 807 or BIM. 821 are used; also joins spacer bars to extrusion BIM. 682.	1.90	1.70	1.50

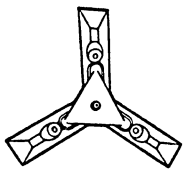
ACCESSORIES

Bud No.	Description	Net Each, Lots of 1-14	15-24	25-34
BIM. 103	Tapped block 6-32 threaded for mounting panels with extrusions BIM. 801 and BIM. 810.	$ .65	$ .60	$ .50
BIM. 104	Tapped block 10-32 threaded for mounting panels with extrusions BIM. 801 and BIM. 810.	.65	.60	.50
BIM. 106	Adjustable mounting bracket may be positioned as required to allow standard rack panel mountings on extrusions BIM. 801, BIM. 802, BIM. 803, BIM. 806, BIM. 807, BIM. 810, BIM. 811, BIM. 812, BIM. 821 and BIM. 845.	.35	.30	.28
BIM. 108	90° external corner gusset may be fitted to connectors BIM. 90 and BIM. 901.	.25	.23	.20
BIM. 109L	Lift-off butt hinge, left hand; chrome plated.	1.35	1.20	1.10
BIM. 109R	Lift-off butt hinge, right hand; chrome plated.	1.35	1.20	1.10
BIM. 134	45° corner gusset with 3 drilled holes (one .44″, two .22″) plus 4 holes tapped 12-24. For 90° corners only.	1.00	.90	.80
BIM. 135	45° corner gusset with 3 drilled holes (one .44″, two .22″).	.90	.80	.70
BIM. 136	23°–67° corner gusset drilled and tapped for use in any 90° corner; may be fitted after framework is completed.	1.00	.90	.80

Bud No.	Description	Net Each, Lots of 1-9	10-14	15-19
BIM. 110	Open hinge, cadmium plated steel, undrilled, 4-ft. length for use with deep recess extrusions.	$4.20	$3.80	$3.35
BIM. 130	Pivot hinge block and collar designed for use with either flush fitting or recessed doors; chrome plated.	1.70	1.55	1.35
BIM. 137	Bracing extrusion for internal bracing at any desired angle; particularly useful for strengthening non-90° corners.	9.15	8.25	7.30



TYPICAL STRUCTURES



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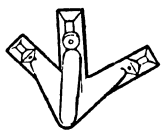

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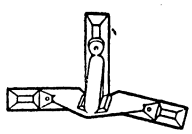

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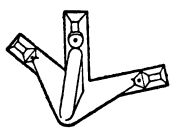

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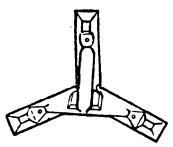

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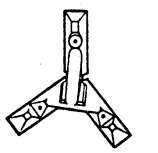

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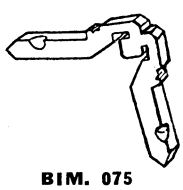
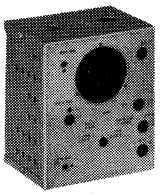
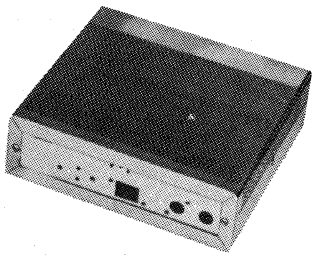
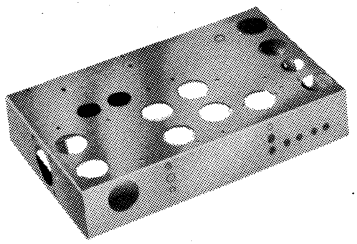


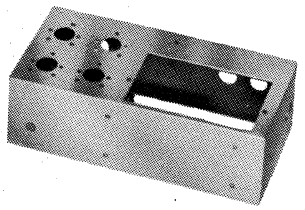
BIM. 075

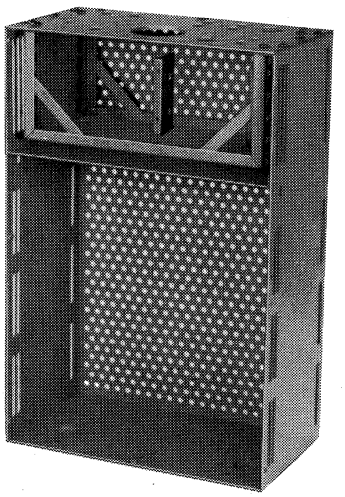
SPECIAL FABRICATION SERVICE











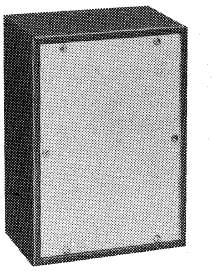
Consult your local Authorized Bud Distributor about your special enclosure problems. In reality, he is an extension of the factory's engineering department and can recommend the proper design and size for your equipment. His advice will save you time and money.

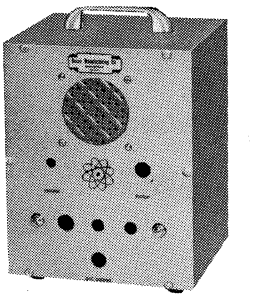
These are the services we perform:

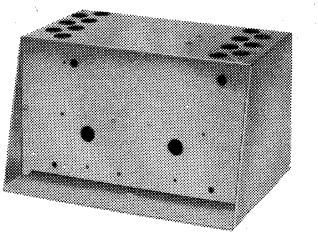
1. Modification of our standard products.
2. Specially punched panels, chassis and boxes.
3. Standard construction employing steel or aluminum.
4. Special construction employing the Imlok system of aluminum extrusions, castings and sheets.
5. Original designs based upon your circuitry requirements.

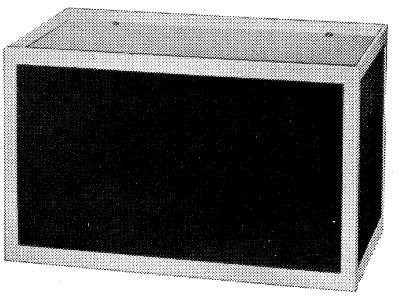
Bud can supply you with a pilot model or a production run. Our more than 35 years of experience in the electronic industry assures you that we can readily understand your problems and solve them economically. 112,000 sq. ft. of completely integrated plant facilities — from engineering, tooling and fabrication to painting, assembly and packaging insure quick delivery. Almost every type of industry, branches of the armed forces, the Space Agency and the Nuclear Energy Commission use Bud products.

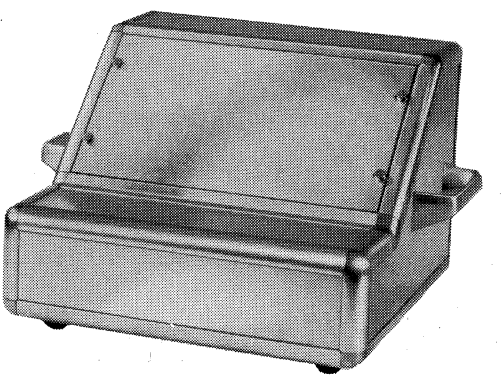
Whenever a special sheet metal enclosure is required, call in your local Authorized Bud Distributor. He is anxious to cooperate with you.

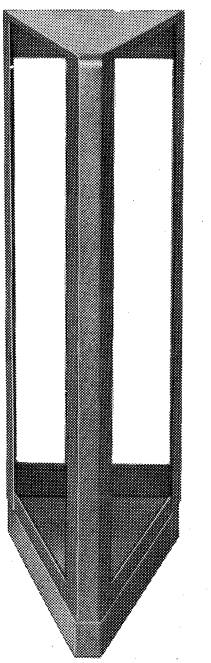












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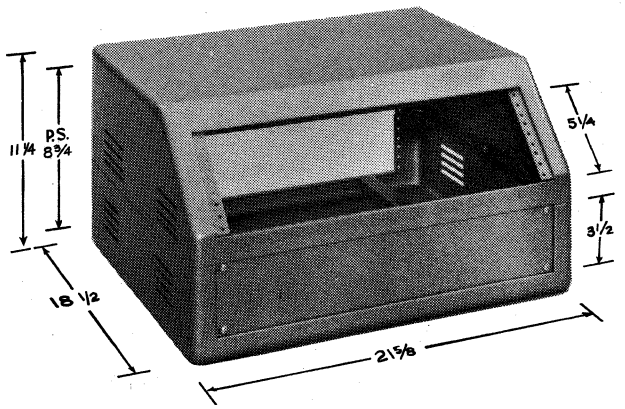
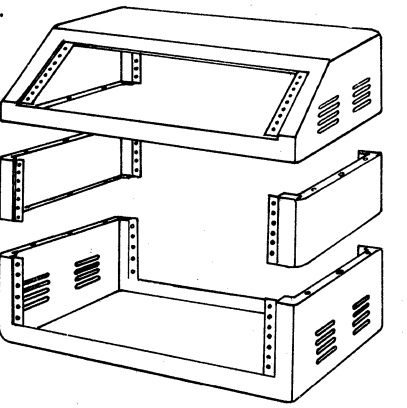
SLOPE-FRONT EXPANDABLE CABINET (MPXM)



	Width	Height	Depth
MPXM Cabinet without inserts	21⅝ in.	11¼ in.	18½ in.
Slope panel opening	19⅛ in.	5¼ in.	—
Front panel opening	19⅛ in.	3½ in.	—
Back panel opening	19⅛ in.	8¾ in.	—
Inserts (in increments of 1¾ to 28 inches.)	—	1¾ to 28 in.	18½ in. (side)

Recommended total panel height with inserts: 35 inches.

This cabinet accepts standard relay rack panels and is drilled and tapped for universal panel mountings. 16-Gauge cold rolled steel construction.

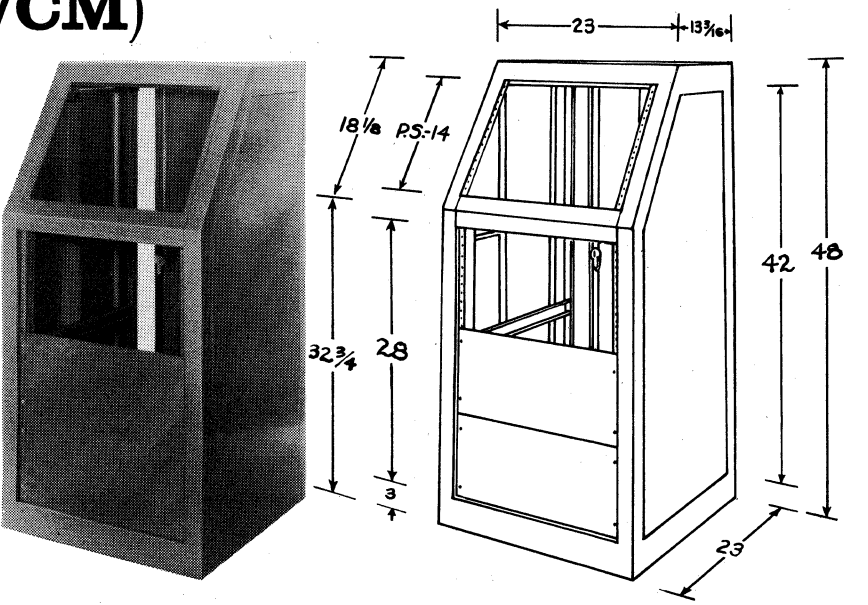


This latest addition to the popular California Chassis "Designer's Series" enclosures provide a functional 45° sloping front for convenience and easy viewing of meters, dials, control knobs and switches. The new slope front, combined with expandable inserts to meet the need of added circuitry and component requirements, enhances the functional design features of this attractive and rugged cabinet ■ Inserts are available to accommodate standard panel chassis sizes ■ Finished in silver-grey hammertone.

SLOPE-FRONT, ALL STEEL WELDED CABINET (AWCM)

The California Chassis AWCM-42 Slope-Front Cabinet offers the ultimate in clean, functional lines and versatility in construction. It is available as a finished "package" or with separate components to satisfy your specific requirements ■ The basic all-steel welded rack is open on all sides to simplify installation and permit adequate service access ■ Doors have chrome key locking handles and special spring-loaded hinge pins for rapid removal ■ Side panels are removable without use of tools ■ Panel slope is 34° and provides a full 14 x 19⅛ inch area for meters, dials and controls ■ Holes are provided in bottom for floor mounting ■ Panel mounting angles are drilled and tapped 10-32 with universal spacing to accept all standard panels ■ The AWCM-42 is attractively finished with our special low-maintenance, scratch resistant silver-grey hammertone formula. Other finishes optional. **The AWCM-42 is shipped complete with two side panels and locking rear door.**

	Width	Height	Depth
AWCM-42	23 in.	48 in.	23 in.
Slope panel opening	19⅛ in.	14 in.	—
Front panel opening	19⅛ in.	28 in.	—
Rear Door opening	19⅛ in.	42 in.	—
Front panel slope: 34°			



CALIFORNIA CHASSIS CO.

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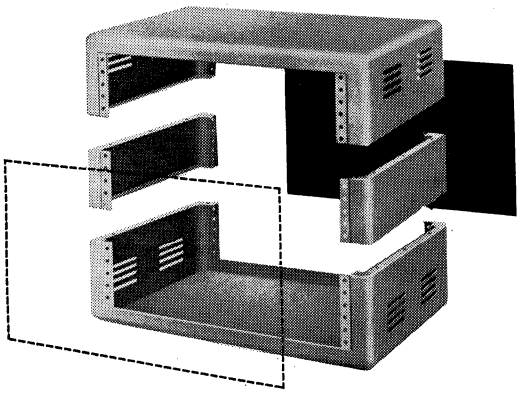
ds DESIGNER SERIES

MULTI-PURPOSE EXPANDABLE CABINET

The MPX enclosure combines clean design and attractive finish with utility, strength and versatility. Inserts permit vertical expansion of cabinet. Standard finish — gray hammertone; other finishes optional.



MPX CABINET — Consists of top, bottom, rear panel 5¼" high and assembly hardware. Basic cabinet provides 7" of panel space front and back.....$29.75

MPXF-10 1¾" FILLER — each filler group listed consists of two sides, rear panel same height as sides and hardware..... 9.22

MPXF-11	3½"	FILLER	$10.35	MPXF-18	15¾"	FILLER	$17.35
MPXF-12	5¼"	FILLER	11.50	MPXF-19	17½"	FILLER	18.50
MPXF-13	7"	FILLER	12.50	MPXF-20	19¼"	FILLER	19.50
MPXF-14	8¾"	FILLER	13.60	MPXF-21	21"	FILLER	20.60
MPXF-15	10½"	FILLER	14.69	MPXF-22	24½"	FILLER	21.80
MPXF-16	12¼"	FILLER	15.80	MPXF-23	26¼"	FILLER	22.95
MPXF-17	14"	FILLER	16.95	MPXF-24	28"	FILLER	24.10

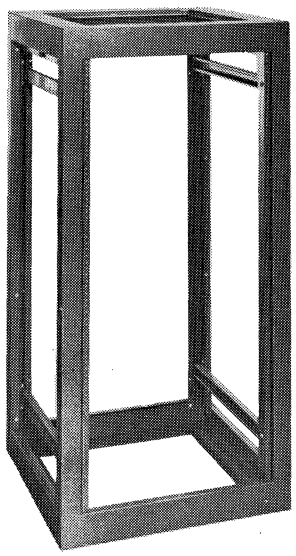
MPX Cabinet without Inserts	Width 21⅝ in.	Height 9½ in.	Depth 18½ In.
Font panel opening	19⅛ in.	7 in.	——
Back panel opening	19⅛ In.	7 in.	——
Inserts (in increments of 1¾ to 26¼ in.)	——	1¾ to 26¼ in.	18½ in. (side)

Recommended total panel height with inserts: 35 inches. This cabinet accepts standard relay rack panels and is drilled for universal panel mountings. 16 gauge cold rolled steel construction.

ds DESIGNER SERIES

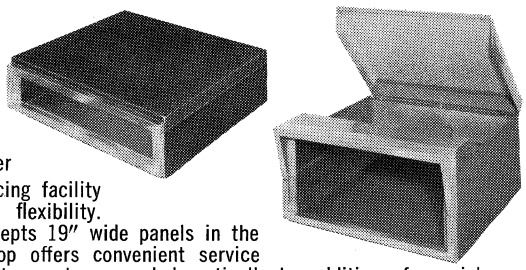
ALL-STEEL WELDED CABINET

This flexible AWC cabinet is available as a complete package or as separate components to satisfy individual requirements. Doors and sides are interchangeable. Doors have chrome handles — spring loaded hinge pins provide rapid removal and servicing without tools. Panel mounting angles are tapped 10-32 with universal spacing for all standard panels. Louvers on doors and sides available. Standard finish — gray hammertone; other finishes optional.



AWC-42	Assembly consisting of 42 inch panel space frame, two sides, one door, top, one pair panel mounting angles and all necessary hardware	$125.00
AWC-61	Same as above except 61¼ inch panel space frame	153.00
AWC-70	Same as above except 70 inch panel space frame	166.00
AWC-77	Same as above except 77 inch panel space frame	192.00
AWCF-42	Basic frame only — 42 inch panel space	60.40
AWCF-61	Basic frame only — 61¼ inch panel space	75.40
AWCF-70	Basic frame only — 70 inch panel space	80.40
AWCF-77	Basic frame only — 77 inch panel space	95.40

NEW! "SWING-TOP CABINET MODULE"

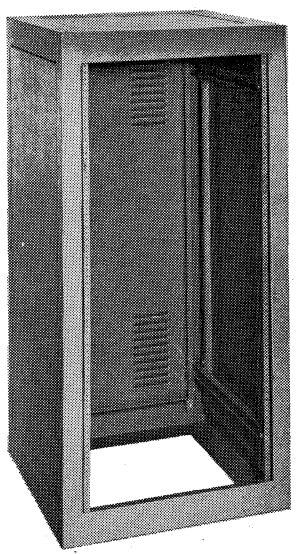


Developed for the discriminating user in response to a demand for servicing facility coupled with modern design and flexibility. Basic cabinet is 18" deep and accepts 19" wide panels in the shadow boxed front. The swing top offers convenient service access to installed equipment. Unit may be expanded vertically by addition of special center sections — available from the factory to meet your requirements. Standard units stocked in gray hammertone, other finishes available.

ST-14	Double Section	8¾" Panel Space	$34.80 ea.
ST-12	Single Section	5¼" Panel Space	$29.50 ea.

PM-11 POWER ENCLOSURE

The base section of the Swing-Top Module is available as a separate item and is most often used as a power supply enclosure. It offers a 3½" x 19" front panel area coupled with 18 inches of depth. The removable cover section serves as either top or bottom at users discretion. Panel space may be increased vertically by addition of special center sections, please contact factory with your requirements. Stocked in gray hammrtone, custom finishes available ..... $24.50 ea.



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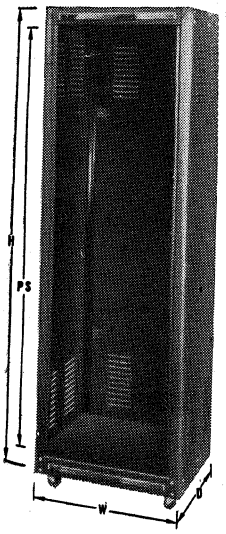
CALIFORNIA CHASSIS CO.

CABINET RACKS

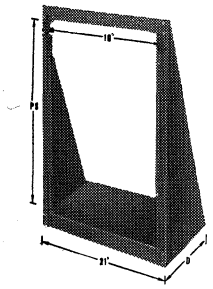
These racks are made entirely of 16 gauge steel except for the heavy steel panel supports. They have universal spacing, the holes being tapped for 10/32" screws. Panels fit into a recess so that the edges do not show. Mounting plate on bottom of rack permits casters to be fastened directly to base for easy mobility. Casters are not included in price of rack but may be ordered separately. No. TC-10.

All standard 19" panels RETMA, Western Electric or Amateur will fit these racks. Double rows of louvres side and rear give ample ventilation.

Gray hammertone finish.



NO. CAT.	PANEL SPACE	HEIGHT	WIDTH	DEPTH	INSIDE DEPTH CLEAR.	SHIP. WT. LBS.	NET PRICE
CR-36	36¾	42	22	17	15½	90	52.00
CR-42	42	47¼	22	17	15½	96	58.60
CR-61	61¼	66½	22	17	15½	120	74.00
CR-77	77	82¼	22	17	15½	145	88.00
CRD-36	36¾	42	22	24	22½	99	66.86
CRD-42	42	47¼	22	24	22½	105	79.17
CRD-61	61¼	66½	22	24	22½	133	94.81
CRD-77	77	82¼	22	24	22½	160	113.97



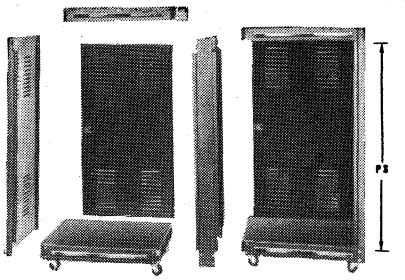
DOR SERIES

This open rack is made of 16 gauge steel. It is useful where the larger, heavier floor model is not necessary.

Mounting holes are on universal centers tapped 10/32" Gray hammertone finish.

Cat. No.	Panel Space	Overall Height	Width	Depth	Ship. Wt.	Net Price
DOR-21	21 x 19	25	21	12	18	9.66
DOR-28	28 x 19	32	21	12	19	11.92

MULTI RACK SERIES



With this unit and a standard rack of the same size one can make a multiple rack or a series of connected racks. Each unit consists of a door, top, bottom, and a multi-rack connecting unit. This must have the same panel space as the unit it is to be used with. All hardware except casters is furnished. Colors to match mating units.

CATALOG NO.	PANEL SPACE	FITS RACK	SHPG. WT.	NET PRICE
MR-36	36¾	CR-36	75	$52.00
MR-42	42	CR-42	80	58.60
MR-61	61¼	CR-61	100	74.00
MR-77	77	CR-77	118	88.00
MRD-36	36¾	CRD-36	80	66.86
MRD-42	42	CRD-42	85	79.17
MRD-61	61¼	CRD-61	108	94.81
MRD-77	77	CRD-77	128	113.97

FRONT DOOR KIT

To convert CR, CRD, MR, MRD racks to Front Door type, formed of 16 gauge steel 1¾* deep to clear handles, knobs, etc. All corners seam welded and ground smooth. Supplied with locking handle with same keying as back door and all necessary hardware to mount on rack front. Finish grey hammertone.

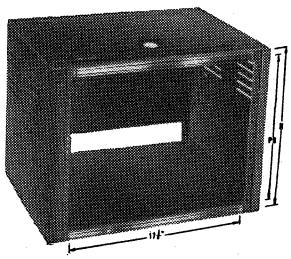
Cat. No.	Price	Cat. No.	Price
FD-36	$21.50	FD-61	$31.80
FD-42	26.00	FD-77	38.50

DESK CABINET RACKS

This solid welded, rounded front, deluxe desk cabinet has a professional look as well as being a sturdy utility unit. Embossed feet are on all sizes to reduce marring.

Cabinets have universal punching, accommodating W. E.; RETMA; or Amateur notched panels. Unit is made from 16 ga. steel, having a 2" opening on bottom rear for ventilation in addition to side louvers.

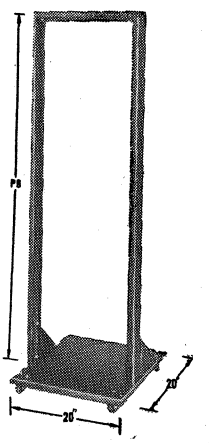
The five smaller models have solid welded backs. The five larger models have a removable hinged rear door.
All models clear 14½" inside depth — Outside width is 21½". Gray hammertone.



CATALOG NO.	PANEL SPACE	HEIGHT	SHPG. WT.	NET PRICE
DCR-7	7	8 15/16	25	18.00
DCR-8	8¾	10 11/16	27	18.37
DCR-10	10½	12 7/16	29	21.00
DCR-12	12¼	14 3/16	31	22.06
DCR-14	14	15 15/16	33	24.05
DCR-17	17½	19 7/16	37	28.78
DCR-21	21	22 15/16	39	30.80
DCR-26	26¼	28 3/16	47	33.00
DCR-31	31½	33 7/16	51	35.05
DCR-35	35	36 15/16	58	37.00

OR SERIES

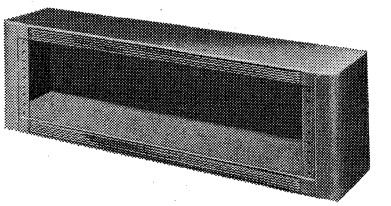
These open racks are constructed so the uppermost panel mounts at the top of the ⅛" steel upright. There is no loss of space at the top. Rack uprights are punched with universal spacing and tapped 10/32". Two brackets of ⅛" steel bind the uprights and a chassis like base into one solid unit. Gray hammertone.



CATALOG NO.	PANEL SPACE	OVERALL HEIGHT	SHPG. WT.	NET PRICE
OR-31	31½	32¾	27	22.76
OR-36	36¾	38	28	22.97
OR-42	42	43¼	30	24.63
OR-61	61¼	62½	37	25.45
OR-66	66½	67¾	39	25.96
OR-71	71¾	73	41	26.88
OR-77	77	78¼	42	31.28

MINIATURE CABINET RACKS

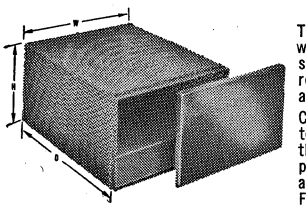
The MCR combines stylized function and compactness for desktop use. Available in three sizes. Accepts standard relay rack panels and "PC" chassis units. Attractive grey hammertone with chrome trim.



MCR-12 CABINET — Panel space 19" x 5¼" $14.27
MCR-13 CABINET — Panel space 19" x 7" 14.57
MCR-14 CABINET — Panel space 19" x 8¾" 14.87

All above items available in gray hammertone finish. Other finishes available on special order. Contact factory for special finish prices.
All MCR units have embossed feet to protect desk tops.

TYPE	WIDTH	PANEL SPACE	DEPTH	HEIGHT	WT.
MCR-12	21⅝	19 x 5¼	6 1/16	7⅛	11½ lb.
MCR-13	21⅝	19 x 7	6 1/16	8⅞	12½ lb.
MCR-14	21⅝	19 x 8¾	6 1/16	10⅝	13½ lb.



LOW TEMPERATURE CABINETS

This cabinet made of perforated metal with 3/32 holes on 5/32 centers, solves most thermal problems. It is a real space saver, the chassis being almost the size of the cabinet.

Chassis is .063 aluminum and bolts to the rear panel which is welded to the perforated screen. Rear steel panel has rectangular hole in it to allow access to connectors in chassis. Front panel has no screws but is held on by control knobs mounted in chassis. Gray hammertone.

Chassis and front are one piece when unit is complete and can be easily removed yet cabinet chassis and front panel are solidly held together.

Catalog Number	Cabinet Size H	W	D	Front Panel	Chassis Size	Hole in Rear Panel	Net Price
LTC-463	4½ x	7 3/16 x	9 3/16	4½x 7¼	6 15/16x 8 13/16x1½	⅞x 4	10.00
LTC-464	4½ x	9 3/16 x	7 3/16	4½x 9 3/16	8 15/16x 6 13/16x1½	⅞x 5	10.00
LTC-469	5 1/16x	8¾ x	11 3/16	5⅝x 8¾	8 7/16 x10 15/16x2	1½x 5	11.64
LTC-470	5 1/16x	11 3/16 x	8 1/16	5⅝x11 3/16	10 13/16x 8 7/16 x2	1½x 6	11.64
LTC-472	9½	x16¼	x11 3/16	9½x16¼	11 x16 x3	2 x 8	18.60
LTC-474	12	x17¼	x12 3/16	12 x17¼	12 x17 x4	2½x12	21.70

CALIFORNIA CHASSIS COMPANY

"ALL PRICES SUBJECT TO CHANGE W/O NOTICE"

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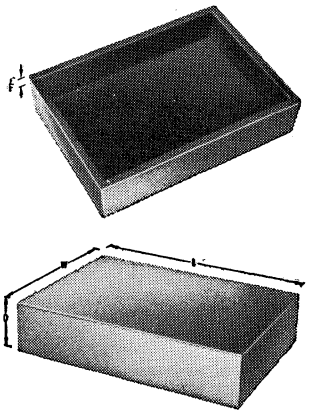
CALIFORNIA CHASSIS CO.



STANDARD ALUMINUM CHASSIS—All chassis are stamped and formed from one piece of material. All four corners welded and sides flanged to accommodate bottom plates.

Aluminum	W	L	D	Gauge	App. Wt.	Net Price
A-134	2½	4½	1	18	¼	1.12
A-135	3½	4½	1	18	¼	1.22
A-136	3½	5½	1	18	¼	1.22
A-137	4	6	1½	18	¼	1.34
A-155	4	6	2	18	¼	1.41
A-149	4	6	3	18	¼	1.53
A-138	4	5	2	18	⅜	1.38
A-121	5½	5½	1	18	¼	1.45
A-101	5	7	2	18	⅜	1.22
A-150	5	7	3	18	⅜	1.62
A-147	4	8	2	18	⅜	1.63
A-119	4½	8	1½	18	⅜	1.31
A-122	5	9	1½	18	⅜	1.39
A-102	5	9½	2½	18	⅜	1.96
A-120	6	8	2	18	¾	1.68
A-103	5	10	3	18	½	1.82
A-104	7	7	2	18	½	1.53
A-105	7	9	2	18	¾	1.63
A-113	7	11	2	18	¾	1.77
A-106	8	10	2½	18	1	2.48
A-151	6	14	3	18	1	2.75
A-114	7	13	2	18	¾	1.87
A-139	5	13	3	18	¾	2.04
A-107	8	12	2½	18	1	2.77
A-117	7	12	3	18	1	2.30
A-124	8	12	3	18	1	2.55
A-108	10	12	3	18	1¼	2.94
A-129	12	12	3	18	1½	3.28
A-115	10	14	3	18	1¼	3.18
A-130	7	15	3	18	1¼	2.90
A-125	9	15	3	18	1½	3.45
A-118	4	17	3	18	1	2.62
A-145	6	17	3	18	1¼	2.87
A-144	7	17	2	18	1	2.81
A-152	7	17	3	18	1½	3.08
A-109	8	17	2	18	1½	2.90
A-116	8	17	3	16	1½	3.48
A-140	10	17	2	16	2¼	3.57
A-110	10	17	3	16	2½	3.91
A-153	10	17	4	16	3	5.02
A-141	10	17	5	14	3¼	7.82
A-146	11	17	2	16	1½	3.71
A-128	11	17	3	14	2½	4.67
A-127	12	17	2	14	2¼	4.22
A-123	12	17	3	14	2½	5.02
A-126	13	17	2	14	2½	4.50
A-111	13	17	3	14	2¾	4.85
A-112	13	17	4	14	3¼	7.48
A-142	13	17	5	14	3½	8.50
A-156	15	17	3	14	3½	6.13
A-133	14	17	3	14	3¼	5.95
A-131	15	17	4	14	3¾	8.42
A-148	15	17	6	14	4	11.40
A-132	10	x 23	3	16	2½	5.27
A-154	17	17	3	16	2½	6.73
A-143	17	17	4	14	4¼	10.00

ENTIRE LINE OF CHASSIS DUPLICATED IN STEEL. USE PREFIX "C" INSTEAD OF "A" FOR ZINC STEEL CHASSIS

All aluminum chassis are etched finish. 1" and 1½" chassis are flanged on long side only and contain no mounting holes.

CHASSIS BOTTOM PLATES

CATALOG NO.	SIZE	ALUM. WEIGHT	STEEL WEIGHT	Net Price
BP-134	2½x 4½	1 oz.	2 oz.	.58
BP-135	3½x 4½	2 oz.	¼ lb.	.63
BP-136	3½x 5½	2 oz.	¼ lb.	.68
BP-137	4 x 6	2 oz.	¼ lb.	.71
BP-138	4 x 5	2 oz.	¼ lb.	.66
BP-147	4 x 8	¼ lb.	½ lb.	.85
BP-121	5½x 5½	2 oz.	½ lb.	.77
BP-101	5 x 7	2 oz.	¼ lb.	.77
BP-119	4½x 8	¼ lb.	½ lb.	.88
BP-122	5 x 9	¼ lb.	½ lb.	.92
BP-102	5 x 9½	¼ lb.	½ lb.	.90
BP-120	6 x 8	¼ lb.	½ lb.	.92
BP-151	6 x14	½ lb.	1¼ lb.	1.16
BP-103	5 x10	¼ lb.	½ lb.	.93
BP-104	7 x 7	¼ lb.	½ lb.	.99

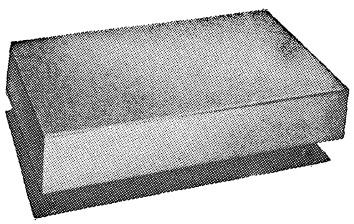
CATALOG NO.	SIZE	ALUM. WEIGHT	STEEL WEIGHT	Steel Net Price
BP-105	7 x 9	¼ lb.	¾ lb.	1.00
BP-113	7 x11	½ lb.	1 lb.	1.19
BP-106	8 x10	¼ lb.	¾ lb.	1.17
BP-139	5 x13	¼ lb.	½ lb.	1.16
BP-114	7 x13	½ lb.	1 lb.	1.34
BP-107	8 x12	¾ lb.	1¼ lb.	1.50
BP-117	7 x12	½ lb.	1 lb.	1.22
BP-108	10 x12	¾ lb.	1½ lb.	1.56
BP-129	12 x12	¾ lb.	1½ lb.	1.70
BP-115	10 x14	¾ lb.	2 lb.	1.63
BP-130	7 x15	½ lb.	1 lb.	1.43
BP-125	9 x15	¾ lb.	1½ lb.	1.87
BP-118	4 x17	½ lb.	1 lb.	1.16
BP-145	6 x17	½ lb.	1 lb.	1.41
BP-144	7 x17	½ lb.	1 lb.	1.36
BP-109	8 x17	½ lb.	1¾ lb.	1.53
BP-110	10 x17	¾ lb.	2½ lb.	1.60
BP-128	11 x17	1 lb.	2 lb.	1.68
BP-123	12 x17	1¼ l.b	3 lb.	2.04
BP-111	13 x17	1½ lb.	3¼ lb.	2.24
BP-133	14 x17	1½ lb.	3½ lb.	2.43
BP-131	15 x17	1½ lb.	3½ lb.	2.47
BP-143	17 x17	2 lb.	5 lb.	2.99
BP-132	10 x23	1½ lb.	3¼ lb.	2.24

Steel bottom plates supplied in zinc plate aluminum is caustic etched. Actual size of BP is ⅛" under chassis size which is shown. This allows 1/16" of set back when attached to bottom of chassis.

HEAVY DUTY CHASSIS 16 GAUGE STEEL			Net Price
HD-109	6¾#	8x17x2	4.68
HD-116	7½	8x17x3	5.15
HD-110	8½	10x17x3	5.24
HD-146	8	11x17x2	5.19
HD-128	10	11x17x3	5.80
HD-126	9½	13x17x2	6.17
HD-111	11½	13x17x3	6.55
HD-112	12	13x17x4	7.48

Bottom Plates Included

Units are Zinc Plated



CAT. NO. STEEL	ALUM.	HEIGHT	WT. LBS.
PC-110	PCA-110	1¾	2
PC-111	PCA-111	3½	2¾
PC-112	PCA-112	5¼	4
PC-113	PCA-113	7	4½
PC-114	PCA-114	8¾	5¾
PC-115	PCA-115	10½	6¾
PC-116	PCA-116	12¼	7½
PC-117	PCA-117	14	8½

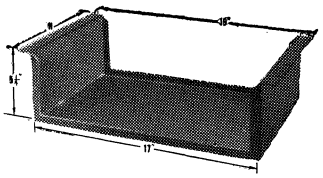
Larger Sizes on Request

These are constructed so the sharp rib corner is cut to a 45° angle protecting the user's wrist. Side flange is ¾" O.D. Height is 1/32 under size to permit proper mounting in rack.

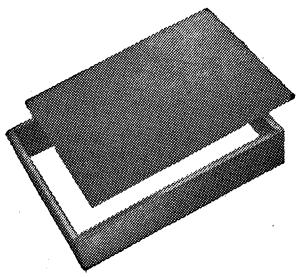
PC Series is 16 GA—Zinc Plated Steel

PCA Series is 14 GA—Etched Aluminum

PANEL CHASSIS



REMOVABLE TOP CHASSIS



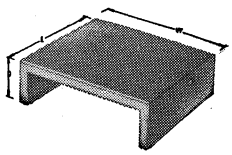
Cat. No.	Weight	Dimensions	Net Price
RT-1	5¼#	10x17x3	3.55
RT-2	7	13x17x3	4.42
RT-3	6½	10x17x4	3.93
RT-4	9	13x17x4	4.90

Experimenters and the radio amateur when designing, will find it economical to use this type chassis, as the tops and bottoms may be easily replaced or discarded. Steel-Electro Zinc Only.

TOPS ONLY FOR REMOVAL TOP CHASSIS

Cat. No.	Weight	Dimensions	Net Price
T-1	3#	10x17	1.70
T-2	4	13x17	2.09

Made From 16 Gauge Steel — Electro Zinc Finish



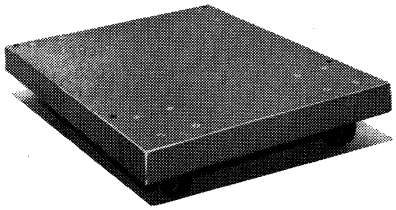
Cat. No.	Weight	W L D	Net Price
EC-1	1 #	7 x 6x2	1.02
EC-2	¾	5 x 7x1½	.97
EC-3	1	5½x 9x1½	1.12
EC-4	1¼	7½x 9x1½	1.39
EC-5	1½	7 x13x1½	1.58
EC-6	2¼	7¾x15x2	1.68
EC-7	1	7 x 8x2	1.16
EC-8	1¼	7 x10x2	1.39

These chassis are ideal for any type of unit which is built-up, such as a record changer. Steel — Electro Zinc Only

HEAVY DUTY ROLLER TRUCK

Formed of 12 gauge steel with seam welded corners. Supplied with heavy duty four inch swivel casters, mounting hardware, and drilled to fit the base of the "AWC" Series. Unit is designed to extend six inches forward of the "AWC" unit, offering ample stability to assemblies with a high center of gravity. Stocked in grey hammertone finish.

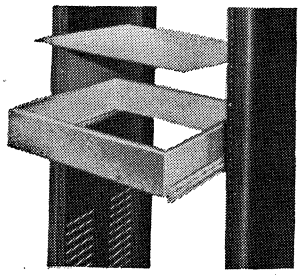
Cat. No.	Price
HDT	$50.00

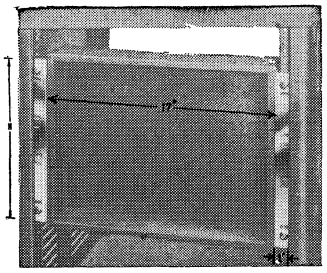


SLIDING DRAWER CHASSIS

The drawer chassis is used where there is a need to pull out the chassis without disconnecting it from the rack. Chassis rolls in and out on ball bearings in a formed channel. When assembled it forms a rigid unit which will fit any 19" rack. Brackets are ⅛" Aluminum Chassis and top plate are 14 gauge aluminum. Finish, except for slide rail assembly, is gray hammertone.

Cat. No.	Chassis Size	Brk. H	Wt.	Net Price
SD-399	16¾x14x3	6½e	6½ #	$15.52





CHASSIS FLANGES

These 1" chassis flanges will convert any 17" chassis to a 19" panel rack chassis. Made of 16 gauge Zinc plated steel.

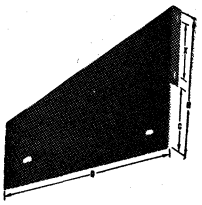
Catalog No.	Height	Shpg. Wt.	Net Price
CF-12	5¼	½#	.94
CF-13	7	½	1.00
CF-14	8¾	1	1.07
CF-15	10½	1	1.16
CF-16	12¼	1	1.22
CF-17	14	1	1.34

"ALL PRICES SUBJECT TO CHANGE W/O NOTICE"

CALIFORNIA CHASSIS CO.

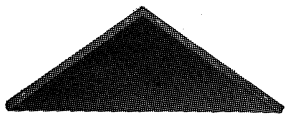
CHASSIS MOUNTING BRACKETS

To assure the proper support for a chassis a sturdy mounting bracket it used. Flange is 5/8" inside dimension. Elongated hole 3/16" x 1 1/4" is centered in flange. "X" shows the distance between flange holes. Finished in Zinc plated "C" or Wrinkle "W" may be had at additional cost of 15%.



Zinc Plated	Height	x	Depth	Clearance	Wt.	Net Price
C-58B	6 1/2	2 1/2	8	3 1/16	1 1/4	1.94
C-57B	6 1/2	2 1/2	9	3 1/16	1 1/2	2.09
C-48B	6 1/2	2 1/2	10	3 1/16	1 3/4	2.16
C-59B	6 1/2	2 1/2	11	3 1/16	1 3/4	2.35
C-49B	6 1/2	2 1/2	12	3 1/16	1 3/4	2.52
C-60B	6 1/2	2 1/2	13	3 1/16	2	2.48
C-50B	8 1/2	3 1/2	10	4 1/16	2 1/2	2.82
C-51B	8 1/2	3 1/2	13	4 1/16	3	3.04
C-52B	12	7	15	4 1/16	4 1/2	3.86
C-53B	14	8	17	5 1/16	5 3/4	4.40

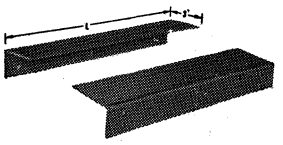
TRIANGULAR MOUNTING BRACKETS



Cat. No.	Height	Dimensions	Net Price
MB-55	1/2	5x5	1.02
MB-77	1 1/2	7x7	1.19
MB-99	1 3/4	9x9	1.41

Steel — Zinc Plated.

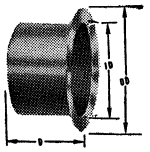
CHASSIS SUPPORT ANGLES



These angles when bolted to the sides of a cabinet will support a heavy chassis unit. They are made of 1/8" thick steel and are finished in zinc plate.

Cat. No.	Length	Width	Shpg. Lbs. Wt.	Price Net
CA-12	12	3	3	2.14
CA-14	14 1/2	3	4	2.24

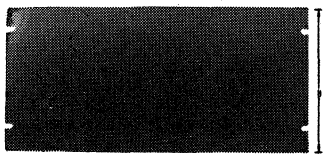
METER SHIELD



This shield is made of spun aluminum. It will fit over the meter and effectively stops most interference. Furnished with no holes and in natural finish only.

Catalog Number	D	I.D.	O.D.	Meter Size	Net Price
MSA-2	2-3/16	2-1/32	2 7/8	2	1.75
MSA-3	2	2-25/32	3 3/4	3	1.75

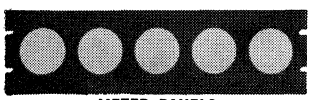
RELAY RACK PANELS



Regular panels are made from 1/8 aluminum or steel material. Aluminum is 3003 H 14. Notching is Western Electric (WE). Finish gray hammertone, or unpainted. 24" wide panels are available on special order in both aluminum and steel.

Notching Western Electric	Height	Width	Wt. Alum.	Wt. Steel	Net Price
PW-10	1 3/4	19	1/2	1 1/4	1.19
PW-11	3 1/2	19	3/4	2 1/4	1.79
PW-12	5 1/4	19	1 1/4	4	2.26
PW-13	7	19	1 1/2	4 3/4	3.08
PW-14	8 3/4	19	2	6	3.91
PW-15	10 1/2	19	2 1/2	6 3/4	4.73
PW-16	12 1/4	19	3	8 3/4	5.00
PW-17	14	19	3 1/2	9 3/4	5.64
PW-18	15 3/4	19	4	10 3/4	6.45
PW-19	17 1/2	19	4 1/2	12	7.30
PW-20	19 1/4	19	5	13	8.15
PW-21	21	19	5 1/2	15 3/4	8.75
PW-22	24 1/2	19	6	18 1/2	10.30
PW-23	26 1/4	19	7	20 1/4	11.30

METER PANELS



All panels are 5 1/4" x 19" x 1/8" steel or aluminum — designed to handle either 2" or 3" meters. All units Western Electric notch. Gray hammertone.

ALUMINUM

Cat. No.	Wt.	No. Holes	Dia.	Net Price
MPA-32	1	3	2 3/16	2.69
MPA-52	1 1/4	5	2 3/16	3.13
MPA-33	1 1/8	3	2 13/16	2.69
MPA-53	1	5	2 13/16	3.13

STEEL

Cat. No.	Wt.	No. Holes	Dia.	Net Price
MPS-32	3	3	2 3/16	1.94
MPS-52	2 3/4	5	2 3/16	2.55
MPS-33	3 1/2	3	2 13/16	1.94
MPS-53	3	5	2 13/16	2.55

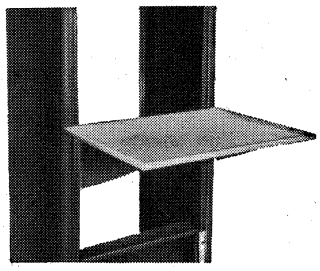
Small holes are for 2" meters, larger holes are for 3" meters.

HARD ALUMINUM PANELS

Cat. No.	Height	Width	Wt.	Net Price
PWHA-10	1 3/4	19	1/2	1.63
PWHA-11	3 1/2	19	3/4	2.22
PWHA-12	5 1/4	19	1 1/4	2.80
PWHA-13	7	19	1 1/2	3.48
PWHA-14	8 3/4	19	2 1/2	4.08
PWHA-15	10 1/2	19	2 1/2	4.93
PWHA-16	12 1/4	19	3	5.78
PWHA-17	14	19	3 1/2	6.63
PWHA-18	15 3/4	19	4	7.22
PWHA-19	17 1/2	19	4 1/2	7.82
PWHA-20	19 1/4	19	5	8.42
PWHA-21	21	19	5 1/2	9.60
PWHA-22	24 1/2	19	6	11.70
PWHA-23	26 1/4	19	7	11.90

PWHA series supplied in both 1/8 and 3/16 thickness in the 2024T3 alloy which is considered most suitable for drilling, machining or engraving. Panels are stocked in unpainted or gray hammertone. Other finishes available on request. All panels available in 24" width, on special order.

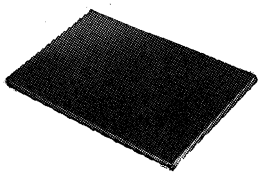
EXTERIOR RACK SHELVES



The exterior shelf replaces a panel when a shelf is needed. Unit is composed of a 16 gauge steel shelf with seam welded front corners and two supporting 1/8" steel brackets. All hardware included. Gray hammertone finish.

Cat No.	Shelf Size	Wt.	Net Price
ER-416	16x22	12	11.66
ER-420	20x22	15	11.83

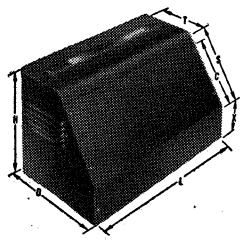
INTERIOR RACK SHELVES



These 16 gauge steel shelves may be supported in the rack by chassis support angles CA-12 or CA-14. They are used to form a strong shelf for modulator units, power supplies etc. Finish black enamel.

Cat. No.	Size	Shpg. Wt.	Price Net
RS-512	12x19	5 1/2	2.64
RS-515	15x19	6 1/2	3.47

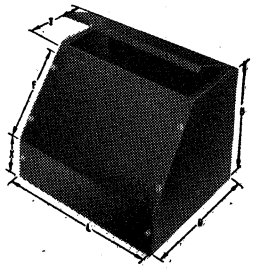
SLOPING FRONT CABINETS



These deluxe all purpose steel cabinets are designed for wide use in the electronic field. Front and top corners are rounded, sides have stainless steel ventilators. Embossed feet to prevent scratching. Gray wrinkle or gray hammertone, please specify.

Catalog No.	D	H	L	T	X	S	Use This Chassis C	Net Price
SFC-42	8	8	8	4 1/4	2 3/4	6	5 1/4 C-104	5.19
SFC-44	8	8	10	4 1/4	2 3/4	6	5 1/4 C-105	7.29
SFC-46	8	8	14	4 1/4	2 3/4	6	5 1/4 C-114	8.79
SFC-48	12	12	18	6	3 1/8	10 3/8	9 1/2 C-110	11.78

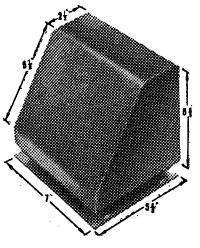
HINGED TOP SLOPING CABINET



This 20 gauge steel cabinet provides for a complete opening of top and front. Chassis may be attached to the face as there is no inside flange on the front. Bottom has embossed feet. Rear has opening for connectors. Gray hammertone finish.

Catalog No.	H	L	D	X	F	T	WT.	Use Chassis Size	Net Price
HC-250	6 1/2	7 1/16	7 5/16	2 3/16	4 7/8	4 1/4	2 1/2	7x 6x2	3.69
HC-251	8	8 1/16	8	2 3/16	6 5/8	3 7/8	2 3/4	7x 7x2	4.45
HC-252	6 1/2	9 1/16	7 5/16	2 3/16	4 7/8	4 1/4	3	7x 8x2	4.20
HC-253	8	10 1/16	8	2 3/16	6 5/8	3 7/8	3	7x 9x2	4.95
HC-254	6 1/2	11 1/16	7 5/16	2 3/16	4 7/8	4 1/4	3 1/2	7x10x2	4.64
HC-255	8	14 1/16	8	2 3/16	6 5/8	3 7/8	4	7x13x2	5.36
HC-256	8	13 1/16	8 1/2	2 5/8	5 7/8	4 3/4	5 1/4	8x12x2 1/2	5.58
HC-257	9	18 1/16	8 1/8	3 5/8	6	4 1/4	7	7x17x3	7.67
HC-258	10	18 1/16	10 1/2	3 5/8	7 1/4	5 7/8	8 1/2	10x17x3	7.82

ENCLOSED METER CABINET



Enclosed Meter Cabinet bottom is open. Bottom plate with embossed feet and four sheet metal screws included. Finish silver gray hammertone. 20 gauge steel or .040 aluminum.

	Net Price
Specify EMC 2 S — Steel	3.25
EMC 2 A — Aluminum	3.75

CALIFORNIA CHASSIS COMPANY

"ALL PRICES SUBJECT TO CHANGE W/O NOTICE"

Net

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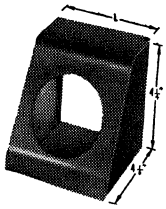
CALIFORNIA CHASSIS CO.

METER CABINETS

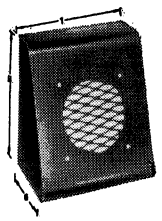
Meter Size		Aluminum Cat. No.	Net Price			Wt. Lbs.	Net Price
2″	4 ″	MC-2	1.43	½	SMC-2	1½	1.12
3″	4 ″	MC-3	1.43	½	SMC-3	1½	1.12
No Holes	4 ″	MC-4	1.43	½	SMC-4	1½	1.12
2″	4 ″	MC-6*	1.43	½	SMC-6*	1½	1.12
3″	4 ″	MC-7*	1.43	½	SMC-7*	1½	1.12
No Holes	7½″	MC-8	2.06	¾	SMC-8	2¼	1.87
3″	6 ″	HAC-MC-7*	2.06	¾			



* Indicates it has two ½″ holes on ¾″ centers at top of cabinet for insulators. 2″ meter hole is 2 3/16″. 3″ meter hole is 2 13/16″. Gray hammertone finish.

WALL SPEAKER ENCLOSURE

An attractive steel case suitable for wall mounting by use of Key slotted screw holes on back or may be used free standing on embossed feet in bottom. Supplied in gray hammertone finish.

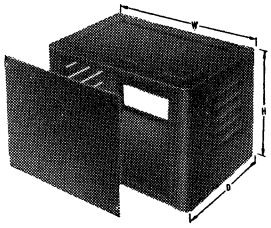


Catalog No.	Speaker Size	Hole Size	H	L	D	Wt.	Net Price
WS-304	4	3½	7½	6½	4¼	1¾	3.52
WS-305	5	4	1/27	6½	4¼	1¾	3.71
WS-306	6	4¾	9½	8	5⅝	3	4.19
WS-308	8	6½	11½	9½	7	4	5.15
WS-310	10	8½	13½	11½	8¼	5	6.47
WS-312	12	10½	15½	13½	9¾	6	8.12

LITE LINE SERIES

These all aluminum portable cabinets are found to be highly versatile for instrumentation housings. The "Lite Line" units are attractive and compact yet give proper ventilation with light weight. Panel is recessed ⅜″. Finish: Gray hammertone.

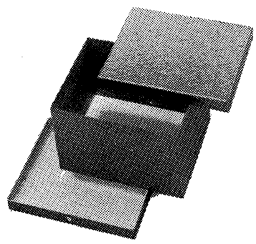
Catalog No.	Cabinet Size H	W	D	Wt.	Rear Opening ½ inch from base of cabinet
LLS-582	8	6⅛	8	2	2 x 4½
LLS-584	8	10⅛	8	2½	2 x 8½
LLS-586	9	8⅛	12	3½	2 x 6½



AMPLIFIER FOUNDATIONS

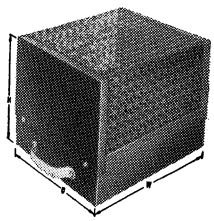
These consist of a chassis and perforated metal cover. They have ample ventilation. Handles are included in each package. Gray hammertone finish.

Catalog No.	Height	Width	Depth	Chassis Height	Shpg. Wt.	Net Price
AF-240*	8	7⅜	5⅛	2	2	4.49
AF-241	8 5/16	9⅝	5⅛	2½	2	5.61
AF-242	8 5/16	13⅝	5⅛	2½	4⅜	6.43
AF-243	8 5/16	17⅛	7⅛	2½	6	7.29
AF-244	8 13/16	17⅛	10⅛	3	8	10.01



STREAMLINED INSTRUMENT CABINET

Miniature aluminum chassis MA series are usually used with this cabinet. Black wrinkle is standard.



Catalog No.	Panel Space	Height	Width	Depth	Wt.	Net Price
SC-31	8x 8	8	10½	8¼	5¾	4.37
SC-32	8x10	8	12½	8¼	6	5.42
SC-33	8x12	8	14½	8¼	6½	5.88
SC-34	8x14	8	16½	8¼	7	6.17
SC-35	8x16	8	18½	8¼	7¾	6.77
SC-36	12x18	12	20½	12	15	12.17

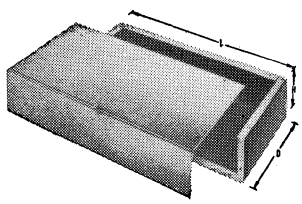
FF UTILITY CABINETS

Flange-free construction is the keynote of this series — allowing complete use of the internal cabinet surfaces. Unit consists of a basic shell, two cap-type covers and assembly screws. Fabricated in .040 aluminum and stocked in unpainted etched finish or gray hammertone baked enamel. Use suffix "UA" for unpainted or "GH" for gray hammertone.

CATALOG NO.	WEIGHT LBS.	DEPTH	WIDTH	LENGTH
F.F. CAB-1	⅜	2	4	4
F.F. CAB-2	½	3	5	4
F.F. CAB-3	¾	4	5	6
F.F. CAB-4	1	6	6	6
F.F. CAB-5	1¼	5	6	9

UTILITY BOX REMOVABLE COVER

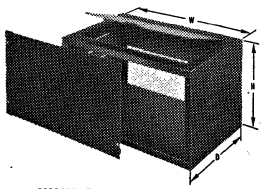
This model allows complete accessibility to the interior of the unit. All work may be completed before cover is installed. Box supplied with covers. Steel box and cover electro-zinc only.



Cat. No.	D	L	H	Net Price
HA-10	3x	4	x1½	1.50
HA-11	4x	5	x2	1.96
HA-12	4x	8	x2	2.14
HA-13	5x	9½	x2½	2.15
HA-14	6x12		x2½	3.23
HA 15	7x15		x2½	3.82

INSTRUMENT CABINETS

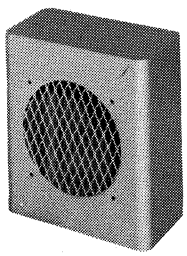
This cabinet has a hinged access door on top and removable front cover. The elimination of the rounded corners gives more inside room. The rear has a 3½″ opening for ventilation plus louvers at each end. The open end chassis, E.C. series, is usually used with these cabinets. Black wrinkle only.



Cat. No.	H	W	D	Ship. Wt.	Net Price
HTC-342	7	8	8	5	4.15
HTC-343	7	10	8	5½	5.36
HTC-344	7	12	8	5¾	5.65
HTC-345	7	14	8	6	6.05
HTC-346	8	16	8	7	8.35
HTC-347	9	15	11	8	8.53
HTC-348	12	18	12	14½	12.22

UNIVERSAL SPEAKER HOUSING

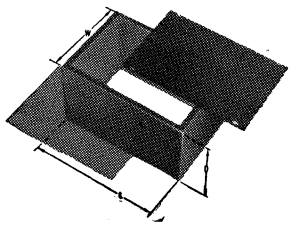
As the name implies this unit is universal in application. Widely used in schools, factories, and stores, where good communication is required. Speaker openings both sides enable the unit to project sound 180°. Completely adjustable in position by use of a suitable bracket, or can be mounted directly on a standard outlet box. Unit is of all steel construction, supplied in gray hammertone finish.



Cat. No.	Speak. Size	H	L	D	Wt.	Price Net
USH-534	4 or 5	7¼	6¾	3½	2½	5.51
USH-535	5 or 6	8¼	7½	4	2¾	5.98
USH-536	6 or 8	10 9/16	9½	5	4½	9.62
USH-540	10 or 12	15	13½	7 7/32	9	13.09

METAL UTILITY CABINETS

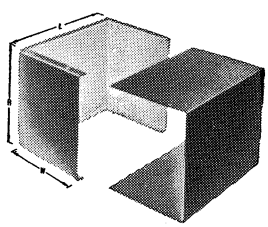
Catalog No.	Wt. Stl.	D	W	L	Wt. Alm.	Painted Alum.
CAB-1	¾	2″	4″	4″	⅜	1.68
CAB-2	1	3″	5″	4″	½	1.87
CAB-3	1½	4″	5″	6″	¾	2.14
CAB-4	2½	6″	6″	6″	1	2.56
CAB-5	3¼	5″	6″	9″	1¼	3.47
CAB-6	4¾	7″	8″	10″	2	5.10
CAB-7	5	6″	7″	12″	2	4.93
CAB-8	6	8″	10″	10″	2½	7.15
CAB-9	7	8″	11″	12″	2¾	8.58
CAB-10	7	7″	9″	15″	2¾	8.75



Considered the "work horse" in the small cabinet field. This series is one of the most widely used. Supplied with two removable covers for easy access to cabinet interior. Available in both aluminum use suffix "A" and steel use suffix "S", complete with mounting hardware. Finished in gray hammertone. Aluminum units also available in unfinished etched condition — use suffix "UA".

MINIATURE CABINETS

Aluminum Gray Hammertone Cat. No.	Net Price	Etched Aluminum Cat. No.	Net Price	L	H	W
M-51	.83	M-81	.61	2¾x	2⅛x	1⅝
M-52	.95	M-82	.85	2¾x	2⅛x	2¾
M-53	.88	M-83	.61	3¼x	2⅛x	1⅛
M-54	1.04	M-84	.66	3¼x	2⅛x	1⅝
M-55	.92	M-85	.65	4	x2⅛x	1⅝
M-56	1.00	M-86	.83	4	x2¼x	2¼
M-57	1.16	M-87	.83	4	x2	x2¾
M-58	1.17	M-88	.87	4¼x	2¼x	1½
M-59	1.21	M-89	.90	5	x2¼x	2¼
M-60	1.41	M-90	1.34	5	x4	x3
M-61	1.38	M-91	1.26	5¼x	3	x2⅛
M-62	1.85	M-92	1.28	6	x5	x4
M-63	1.89	M-93	1.34	7	x5	x3
M-64	2.28	M-94	2.02	8	x6	x3½
M-65	1.53	M-95	1.34	10	x2	x1⅝
M-66	3.66	M-96	3.23	10	x6	x3½
M-67	2.04	M-97	1.53	12	x2½	x2¼
M-68	3.56	M-98	2.89	12	x7	x4
M-69	4.08	M-99	3.40	17	x5	x4



CALIFORNIA CHASSIS COMPANY

"ALL PRICES SUBJECT TO CHANGE W/O NOTICE"

L M B® Box Chassis

The Engineered Precision Line with Interlocking and Flangelocking Construction

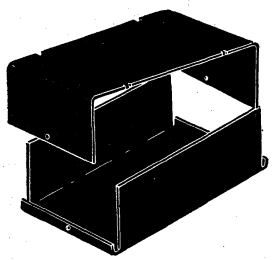
Here is the answer to box chassis needs, for the laboratory, manufacturer, experimenter, or builder. The following L. M. B.® Boxes are available from stock in either interlocking (screw fastened) or snap latch. All screw fastenings are drilled and tapped. Self tapping screws are not used. Available colors include natural aluminum, gray or brown hammertone, and black crackle. When ordering specify style and color.

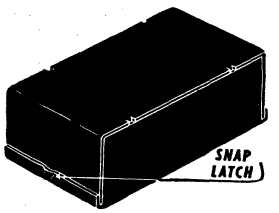
Aluminum used in all LMB® products is aircraft quality specifications type 3003-H 14.

All prices quoted are dealer net. Manufacturers Special Discounts on Application.

WRITE FOR COMPLETE CATALOGUE

Interlocking





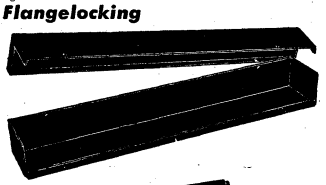
INTERLOCKING (SCREW-FASTENED OR SNAP LATCH)

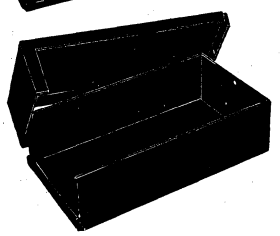
Model	Size	Price	Model	Size	Price
M00	2¼" x 1½" x 1⅜"	.57	138	6¼" x 3½" x 2⅛"	1.32
00Z	2 5/16" x 2⅛" x 1¾"	.64	139	5½" x 3" x 1¼"	1.01
000	3¼" x 2⅛" x 1⅝"	.68	140PL	3" x 4" x 5"	1.29
00	4" x 2⅛" x 1⅝"	.71	140	3" x 4" x 5"	1.61
100	2¾" x 2⅛" x 2⅝"	.89	141PL	6" x 4" x 3"	1.44
101	4¼" x 2¼" x 1¼"	.87	141	6" x 4" x 3"	1.72
102	4" x 2" x 2¾"	1.02	142PL	6" x 4" x 5"	1.68
107	4" x 2¼" x 2¼"	.96	142	6" x 4" x 5"	2.11
108	5" x 2¼" x 2¼"	1.03	143	4" x 4" x 2"	1.33
135	3¾" x 3" x 2⅛"	.97	144	10" x 4" x 2½"	2.19
136	5¼" x 3" x 2⅛"	1.08	145	7" x 5" x 3"	2.11
650	6½" x 2⅛" x 1⅝"	1.05	146	8" x 6" x 4½"	2.99
137	8" x 3" x 2¾"	1.61	15	12" x 2" x 1¾"	1.61
850	8½" x 2⅛" x 1⅝"	1.35			

SIDELOCK and ENDLOCK CONSTRUCTION

L. M. B.® aluminum Box chassis with sidelock and endlock construction are dust proof, semi-water, and rain proof. Sturdy construction and 100% shielded. The following models are available in plain aluminum, or finished in black, gray, or brown. Endlock or sidelock construction:

Flangelocking





Model	Size	Price	Model	Size	Price
221	2¾" x 3⅛" x 1⅝"	1.13	654	6" x 5" x 4"	2.51
321	3¼" x 2⅛" x 1⅝"	1.13	666	6" x 6" x 6"	3.39
421	4" x 2⅛" x 1⅝"	1.13	686	6" x 8" x 6"	4.27
422	4" x 2¼" x 2¼"	1.29	695	6" x 9" x 5"	3.84
424	4" x 2" x 4"	1.98	753	7" x 5" x 3"	2.60
435	4" x 3" x 5"	2.19	754	7" x 5" x 4"	2.76
444	4" x 4" x 4"	1.89	863	8" x 6" x 3½"	2.86
531	5¼" x 3" x 1½"	1.29	865	8" x 6" x 5"	3.57
532	5¼" x 3" x 2⅛"	1.47	1063	10" x 6" x 3½"	3.57
534	5⅝" x 3" x 4"	2.06	1085	10" x 8" x 5"	4.42
543	5" x 4" x 3"	1.87	1221	12" x 2" x 1¾"	1.87
546	5" x 4" x 6"	2.74	1274	12" x 7" x 4"	4.65
645	6" x 4" x 5"	2.60	1754	17" x 5" x 4"	5.27

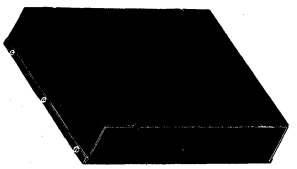
Endlock

SLIDE COVER

SLIDE COVER (or dust cover) BOXES

Designed by BROADCAST ENGINEERS

No.	L	W	H	Ea.	No.	L	W	H	Ea.
16—Natural Aluminum	13"	3⅛"	2⅝"	$1.85	18—Natural Aluminum	13"	5¼"	2⅝"	3.50
16—Gray, Black, Brown	13"	3⅛"	2⅝"	2.52	18—Gray, Black, Brown	13"	5¼"	2⅝"	4.30
17—Natural Aluminum	13"	4⅛"	2⅝"	3.18	19—Natural Aluminum	17"	3⅛"	2⅝"	3.35
17—Gray, Black, Brown	13"	4⅛"	2⅝"	3.95	19—Gray, Black, Brown	17"	3⅛"	2⅝"	4.15



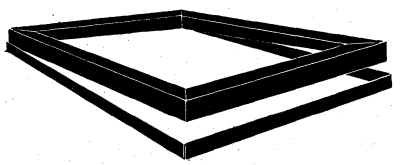
SHIELDED CHASSIS

SHIELDED CHASSIS

	L	W	H	Ea		L	W	H	Ea.
No. 20 Plain	7½"	7"	2"	$1.67	No. 21 Anodized	13"	10"	3"	$5.81
No. 20 Anodized	7½"	7"	2"	2.06	No. 22 Plain	17"	10"	3"	5.13
No. 21 Plain	13"	10"	3"	4.34	No. 22 Anodized	17"	10"	3"	6.67

PRINTED CIRCUIT CHASSIS

Printed circuit chassis are made with a shallow base with a cap cover on the bottom so that it can be removed to work on the assembly without removing the printed circuit from the chassis. All printed circuit chassis are of plain aluminum.



STANDARD SIZES

Model No.	L	W	D	Mounting Lip	Price
PC 325	3	2	½	3/16"	ea. .70
PC 635	6	3	½	3/16"	ea. .80
PC 645	6	4	½	1/8"	ea. .91
PC 855	8	5	½	1/8"	ea. 1.04
PC 10875	10	8	¾	½"	ea. 1.52
PC 12975	12	9	¾	⅝"	ea. 1.76

Model No.	Size	Mounting Lip	Model No.	Size	Mounting Lip
D 7131	7 x 13 x 1	½"	D 541	5 x 4 x 1	½"
for use in building with the Danco model No. 14 printed amplifier circuit....ea. 1.17			for use in building with the Danco model No. 21, 31, 41 printed preamplifier circuit ....ea. $ .63		

WRITE FOR COMPLETE CATALOG PRICES SUBJECT TO CHANGE

L M B®

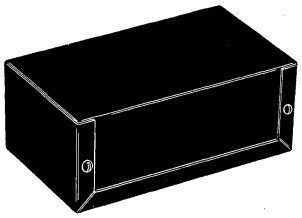
Net

© U.C.P., Inc.

L M B® Box Chassis (Continued)

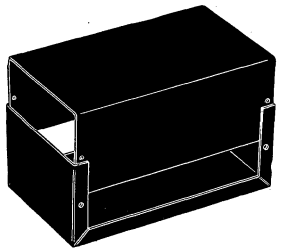
	Each	DEALER NET Plain	Gray, Black, Brown
T-F 770	2¾x2⅛x1⅝	$ .62	$ .81
T-F 771	2¾x2⅛x2¾	.68	.95
T-F 772	3¼x2⅛x1⅛	.62	.84
T-F 773	3½x2⅛x1⅝	.62	.84
T-F 774	4 x2⅛x1⅝	.62	.95
T-F 775	4 x2¼x2¼	.75	.97
T-F 776	4 x2 x2¾	.75	1.00
T-F 777	4¼x2¼x1½	.72	1.00
T-F 778	5 x2¼x2¼	.78	1.03
T-F 779	5 x4 x3	.94	1.32
T-F 780	5¼x3 x2⅛	.82	$1.12
T-F 781	6 x5 x4	1.47	1.83
T-F 782	7 x5 x3	1.40	1.86
T-F 783	8 x6 x3½	1.72	2.25
T-F 784	10 x6 x3½	2.02	2.54
T-F 785	10 x2 x1⅝	1.15	1.57
T-F 786	12 x2½x2¼	1.37	1.67
T-F 787	12 x7 x4	2.71	3.43
T-F 788	17 x5 x4	2.92	3.44

TITE-FIT BOX CHASSIS



	Each	PRICES Plain	Gray, Black, Brown
J-870	2¾x2⅛x1⅝	.62	$ .81
J-871	2¾x2⅛x2¾	.68	.95
J-872	3¼x2⅛x1⅛	.62	.84
J-873	3½x2⅛x1⅝	.62	.84
J-874	4 x2⅛x1⅝	.62	.95
J-875	4 x2¼x2¼	.75	.97
J-876	4 x2 x2¾	.75	1.00
J-877	4¼x2¼x1½	.72	1.00
J-878	5 x2¼x2¼	.78	1.03
J-879	5 x4 x3	.94	1.32
J-880	5¼x3 x2⅛	$ .82	$1.12
J-881	6 x5 x4	1.47	1.83
J-882	7 x5 x3	1.40	1.86
J-883	8 x6 x3½	1.72	2.25
J-884	10 x6 x3½	2.02	2.54
J-885	10 x2 x1⅝	1.15	1.57
J-886	12 x2½x2¼	1.37	1.67
J-887	12 x7 x4	2.71	3.43
J-888	17 x5 x4	2.92	3.44

JIFFY BOX CHASSIS



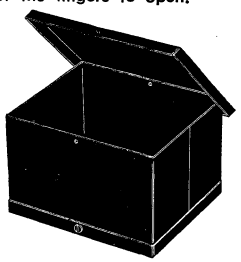
NO SCREWS

Just push together to close and the Catches snap into place—just a slight pressure of the fingers to open.

			ALUM. GAUGE Each	PRICES Plain	Gray, Black, or Brown
U-C 970	4x	4x2	.040	$1.57	$1.82
U-C 971	5x	4x3	.040	1.69	1.98
U-C 972	6x	5x4	.040	2.18	2.52
U-C 973	6x	6x6	.040	2.55	3.02
U-C 974	7x	5x3	.040	2.98	3.48
U-C 975	9x	6x5	.051	3.38	3.89
U-C 976	10x	8x7	.051	$4.63	$5.35
U-C 977	12x	7x6	.051	4.46	5.30
U-C 978	10x	10x8	.051	5.90	6.85
U-C 979	12x	11x8	.051	7.06	8.02
U-C 980	15x	9x7	.051	7.15	8.11

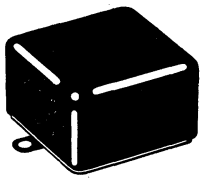
UTILITY BOXES

Give approximately 25% more usable spaces for building.



MINIATURE BOX CHASSIS

Precision made in steel only, cadmium plated. Made with or without mounting ears. Covers solder in when used in assembly.



SIZES

No.	L	W	H
M-01	1⅛"	x 1"	x ½"
02	1"	x ⅞"	x ½"
*06	1½"	x 1⅛"	x ½"
07	1¾"	x 1"	x ¾"
*08	2¼"	x 1"	x 5/16"
* 09	2⅝"	x 1"	x ⅜"
010	1¾"	x 1¼"	x ⅞"
011	2"	x 1¼"	x ¾"
*012	2"	x 1¼"	x 1"
*013	1¾"	x 1¼"	x 1"
014	1½"	x 1½"	x ¾"
*015	2"	x 1¾"	x ½"
016	2"	x 1¾"	x ¾"
017	2"	x 1¾"	x 1"
018	2"	x 2"	x 1¼"
*019	2½"	x 1¾"	x 5/16"
*020	1½"	x 1½"	x 1"
*021	2½"	x 1¾"	x ¾"
022	3⅛"	x 1¾"	x ½"

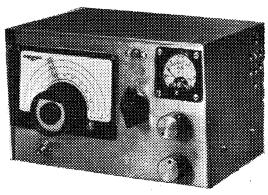
* Without Mounting Ears

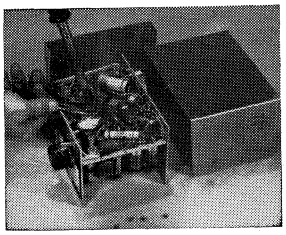
PRICES

	Plain	Plated
With Mounting Ears in Lots of 100 to 999 ea.	.49	.65
Without Mounting Ears 100 to 999 ea.	.41	.57
Covers for LMB® Miniature Boxes 100 to 999 ea.	.15	

UTILITY ENCLOSURES

No.	L	W	H		Plain	Gray
W-1A	7"	x 5"	x 4½"	with built in chassis	$3.97	$4.84
W-1B	10"	x 4"	x 3½"	with built in chassis	3.97	4.84
W-1C	8½"	x 6⅛"	x 5"	with built in chassis	4.43	5.33
W-1D	18"	x 9"	x 11"	will accommodate an 11" x 17" 2", 3" or 4" chassis	9.75	13.13

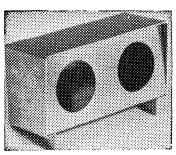


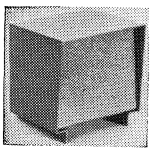


"AL-CAB" CABINETS for meter cases or any application where outstanding appearance is needed

No.	L	W	H		Plain	Gray
W-2AP	3½"	x 4"	x 3"	with holes	$1.88	$2.18
W-2A	3½"	x 4"	x 3½"	without holes	1.98	2.28
W-2B	3"	x 7"	x 3½"	with and without holes	2.25	2.67
W-2C	3⅜"	x 7"	x 3½"	without holes	2.93	3.36
W-2E	4½"	x 4½"	x 3½"	without holes	2.30	2.60

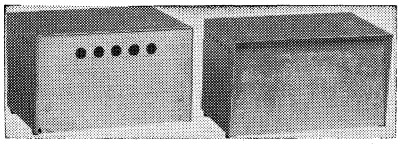
Holes in W-2AP, 2B are 2¼", 2 13/16". For 4" Meter holes and knockout, add 10% to above prices.





W.M. "AL-CAB" Deluxe Series All with Built-in Chassis

No.	L	W	H	Plain	Gray
W-2F	7½" x	5"	x 4½"	$4.40	$5.18
W-2G	13" x	10"	x 5¾"	9.36	11.06
W-2H	7" x	11"	x 6¼"	7.38	8.63
W-2J	8" x	11½"	x 7½"	8.10	9.35



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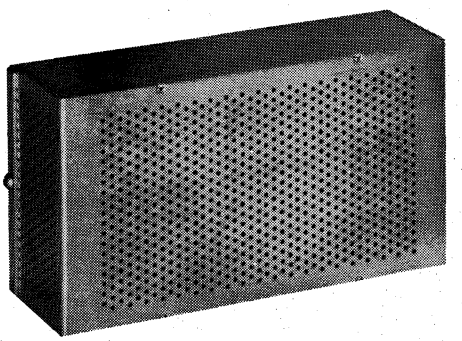
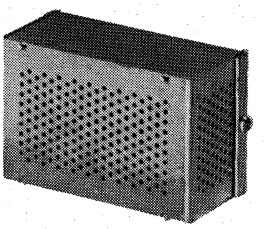


LMB® PERFORATED BOX CHASS.S



LMB® Perforated Boxes are adaptable wherever heat dissipation is required as they are spaced in perforations that are set by laboratory research to give utmost heat dissipation and also give utmost shielding. They are die perforated on three sides and top of the box.

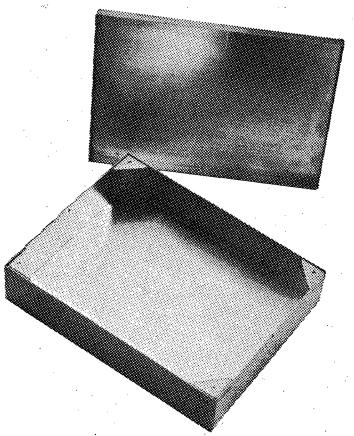
NO.	FINISH	SIZE	NET EA.
00Z	Plain or Gray	2 5/16 x 2 1/8 x 1 3/4	$ .83
000	" "	3 1/4 x 2 1/8 x 1 5/8	.95
00	" "	4 x 2 1/8 x 1 5/8	1.02
100	" "	2 3/4 x 2 1/8 x 2 5/8	1.20
101	" "	4 1/4 x 2 1/4 x 1 1/4	1.12
102	" "	4 x 2 x 2 3/4	1.41
107	" "	4 x 2 1/4 x 2 1/4	1.09
108	" "	5 x 2 1/4 x 2 1/4	1.50
135	" "	3 3/4 x 3 x 2 1/8	1.36
136	" "	5 1/4 x 3 x 2 1/8	1.50
137	" "	8 x 3 x 2 3/4	2.14
138	Plain or Gray	6 1/4 x 3 1/2 x 2 1/8	$1.82
139	" "	5 1/2 x 3 x 1 1/4	1.36
140	" "	3 x 4 x 5	1.75
141	" "	6 x 4 x 3	1.88
142	" "	6 x 4 x 5	2.18
143	" "	4 x 4 x 2	1.40
144	" "	10 x 4 x 2 1/2	2.19
650	" "	6 1/2 x 2 1/8 x 1 5/8	1.41
850	" "	8 1/2 x 2 1/8 x 1 5/8	1.59
15	" "	12 x 2 x 1 3/4	1.79

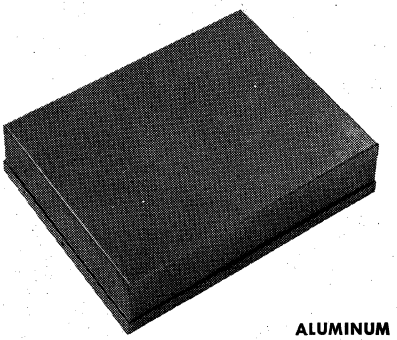
L M B® PRESENTS SOMETHING NEW IN CHASSIS —

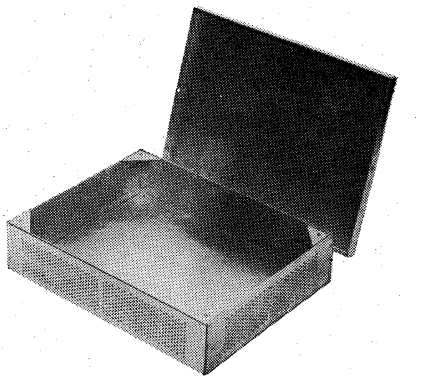
THE CHASSIS WITH THE CAP COVERS AS ORIGINATED BY LMB®

Built with the new original LMB® popular cap cover construction. This construction enables the builder to use either the top or the bottom of the chassis for construction. The Chassis can also be mounted on its side and construction can be on both top and bottom at the same time. Sturdily built from Aircraft quality aluminum, Type 3003, H-14, the same material as is used in the construction of all LMB® precision box chassis. Special technique in welding the corners makes for a stronger chassis than the orthodox type. Cap construction allows for using all the space inside the chassis without being hindered by the mounting flange, which takes from 10% to 20% of the mounting space out of the average chassis.

The P Series are perforated on all four sides and are ideal where heat dissipation is a factor. LMB® chassis — the better chassis, with the year's ahead advanced construction for your better project application. An advanced quality product competitively priced.







ALUMINUM

WITHOUT COVER				WITH CAP COVER			PERFORATED		
NO.	SIZE L W H	GUAGE	NET	NO.	L W H	NET	NO.	L W H	NET
572	5x 7x2	18	$1.17	572C	5x 7x2	$1.75	572P	5x 7x2	$2.05
573	5x 7x3	18	1.42	573C	5x 7x3	1.95	573P	5x 7x3	2.25
5952	5x9 1/2x2	18	1.25	5952C	5x9 1/2x2	1.85	5952P	5x9 1/2x2	2.15
5103	5x10x3	18	1.65	5103C	5x10x3	2.25	5103P	5x10x3	2.55
5133	5x13x3	18	1.85	5133C	5x13x3	2.50	5133P	5x13x3	2.80
6173	6x17x3	18	2.67	6173C	6x17x3	3.40	6173P	6x17x3	3.70
772	7x 7x2	18	1.35	772C	7x 7x2	1.90	772P	7x 7x2	2.20
792	7x 9x2	18	1.46	792C	7x 9x2	1.95	792P	7x 9x2	2.25
7112	7x11x2	18	1.58	7112C	7x11x2	2.30	7112P	7x11x2	2.60
7123	7x12x3	18	2.03	7123C	7x12x3	2.75	7123P	7x12x3	3.05
7153	7x15x3	18	2.67	7153C	7x15x3	3.60	7153P	7x15x3	3.90
7173	7x17x3	18	2.75	7173C	7x17x3	3.70	7173P	7x17x3	4.00
8123	8x12x3	18	2.42	8123C	8x12x3	3.23	8123P	8x12x3	3.53
8172	8x17x2	18	2.52	8172C	8x17x2	3.50	8172P	8x17x2	3.80
8173	8x17x3	16	2.95	8173C	8x17x3	4.50	8173P	8x17x3	4.80
10123	10x12x3	18	2.70	10123C	10x12x3	3.60	10123P	10x12x3	4.30
10143	10x14x3	18	2.95	10143C	10x14x3	4.30	10143P	10x14x3	4.70
10172	10x17x2	16	2.85	10172C	10x17x2	4.37	10172P	10x17x2	4.77
10173	10x17x3	16	3.40	10173C	10x17x3	5.18	10173P	10x17x3	5.98
10174	10x17x4	16	4.85	10174C	10x17x4	6.37	10174P	10x17x4	7.17
11173	11x17x3	14	4.20	11173C	11x17x3	6.60	11173P	11x17x3	7.10
12172	12x17x2	14	4.50	12172C	11x17x2	6.60	12172P	12x17x2	7.20
12173	12x17x3	14	4.60	12173C	12x17x3	6.90	12173P	12x17x3	7.50
13172	13x17x2	14	4.50	13172C	13x17x2	6.60	13172P	13x17x2	7.30
13173	13x17x3	14	4.80	13173C	13x17x3	6.90	13173P	13x17x3	7.50
13174	13x17x4	14	5.95	13174C	13x17x4	7.95	13174P	13x17x4	8.55

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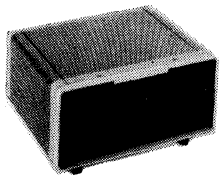
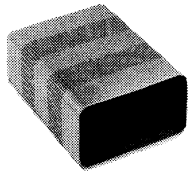
QUALITY CABINETS by LMB®

Original designs in cabinets for the electronic industry, for quality products. Use an original by LMB® to dress up your product.



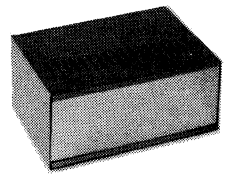
Perforated, removable top, 3 tone, body gray, trim ivory, recessed front panel blue gray.

		Net Ea. Plain	Net Ea. Gray
CO-1	14½"x13"x6½"	..$17.95	$19.95
CO-2	12"x10"x6½"	15.75	17.95



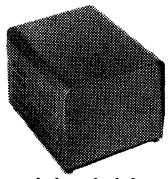
Perforated 3 sides, built in chassis, recessed front panel. Color, body gray, panel dark gray.

		Net Ea. Plain	Net Ea. Gray
CO-3	7¼"x5½"x3⅛"	....$4.48	$5.40



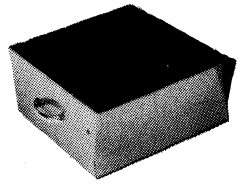
Slotted ventilation, front panel recessed. Colors — Gray, Bronze Hammertone, Black Crackle, Plain — with chassis.

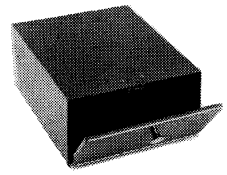
		Net Ea. Plain	Net Ea. Colors
CB-1	8"x10"x4½"	$4.47	$5.35
CB-2	6"x8"x4½"	4.27	4.97



Aluminum with chassis contoured, hooded front recessed panel, slotted ventilation on bottom, louvers on side. Colors — Gold, Gray, Bronze Hammertone, Black Crackle, Plain — with chassis.

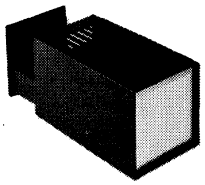
		Net Ea. Plain	Net Ea. Colors
B-1	10"x8"x6"	$11.15	$12.83
B-2	9"x6"x5"	10.02	11.48





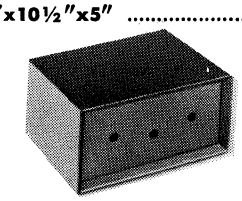
Hooded front, hinged door in rear, front panel removable by removing three screws. Chrome carrying handle. Colors blue, gray, bronze hammertone, black crackle, plain. Steel or aluminum.

		Net Ea. Plain	Net Ea. Colors
HA-1	(ALUM.) 11½"x10½"x5"	$8.85	$ 9.75
HS-1	(Steel) 11½"x10½"x5"	8.84	10.98



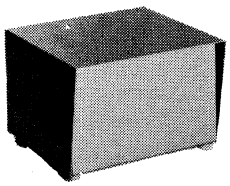
Slot ventilated, ventilation from underneath and sides, built in chassis, recessed panel. Chassis attached to back plate and is removable. Colors — Gray, Bronze Hammertone, Black Crackle, Plain.

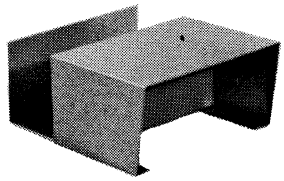
		Net Ea. Plain	Net Ea. Colors
SQ-1	8½"x4½"x4½"	$4.65	$5.35



Double cabinet, inside cabinet fully shielded. Double recessed panel. Colors, Gray, Bronze Hammertone, Black crackle, Plain.

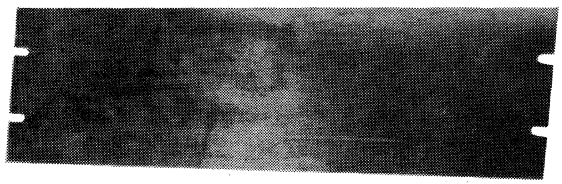
		Net Ea. Plain	Net Ea. Colors
CM-1	6"x8"x3⅞"	$4.50	$5.72





NEW SERIES. Original Construction. Cover slides off at bottom by removing 4 screws. Made of .040 aluminum. Finish: Plain or gray aluminum. Sensibly priced.

No.	D		W		H	Plain	Gray
275	2¾"	x	3"	x	4"	$1.58	$1.65
2754	2¾"	x	2¾"	x	4"	1.64	1.76
342	3"	x	4¼"	x	2⅜"	1.59	1.79
442	4"	x	4½"	x	2⅝"	1.71	1.95
444	4"	x	4"	x	4"	1.79	2.03
453	4"	x	5"	x	3"	1.85	2.06
463	4"	x	6"	x	3"	1.88	2.25
555	5"	x	5"	x	5"	2.40	2.75
564	5"	x	6"	x	4"	2.22	2.60
685	6"	x	8"	x	5"	3.33	3.75



STANDARD RELAY RACK PANELS

⅛" Aluminum material. Aluminum 1100 H 14. Notching is Western Electric. Finish — BLACK WRINKLE, GRAY WRINKLE OR HAMMERTONE. ALL PANELS 19" WIDE

No.	Height	Width	Net Price
#175	1¾"	x 19"	$1.09
#350	3½"	x 19"	1.42
#525	5¼"	x 19"	1.92
#7	7"	x 19"	2.42
#875	8¾"	x 19"	2.84
#1050	10½"	x 19"	3.59
#1225	12¼"	x 19"	4.09

No.	Height	Width	Net Price
#14	14"	x 19"	$4.76
#1575	15¾"	x 19"	5.34
#1750	17½"	x 19"	5.85
#1925	19¼"	x 19"	6.43
#21	21"	x 19"	7.01
#2425	24¼"	x 19"	9.00
#2625	26¼"	x 19"	10.50

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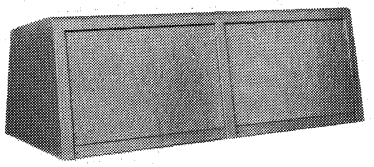
METAL WORKS INCORPORATED

MANUFACTURERS OF ELECTRONIC AND SPECIAL METAL HOUSINGS

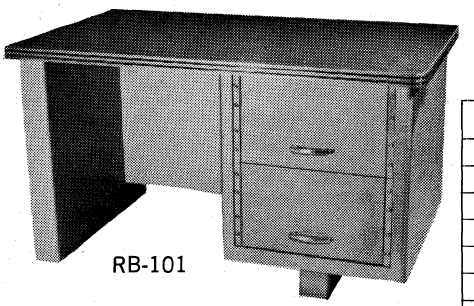
CONSOLES FOR INDUSTRY...SCHOOLS...AIRPORTS...BROADCASTING RECORDING...TESTING APPARATUS...FOR 19" RACK PANELS

RB-101 DOUBLE PEDESTAL UNIT



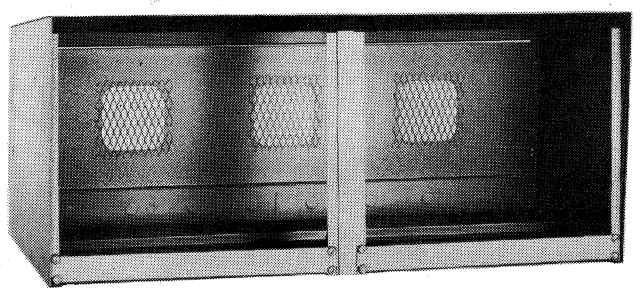
This console is designed for The Dual Turret RBT-101, equivalent to a 30 classroom unit. This unit is equipped with a sliding drawer (PD-1050-16) built in the upper or lower section of the cabinet. A blank panel (PM-1610) is provided in the remaining space. This console has a hard linoleum top trimmed with metal molding.

Catalog No.	H	D	W	M	Inside Pedestal Depth	Ship. Wt.
RB-100	29"	30"	26"		27¼"	125
RB-101	29"	30"	53"	23¼"	27¼"	190
RB-102	29"	30"	70"	21½"	27¼"	250



RB-101

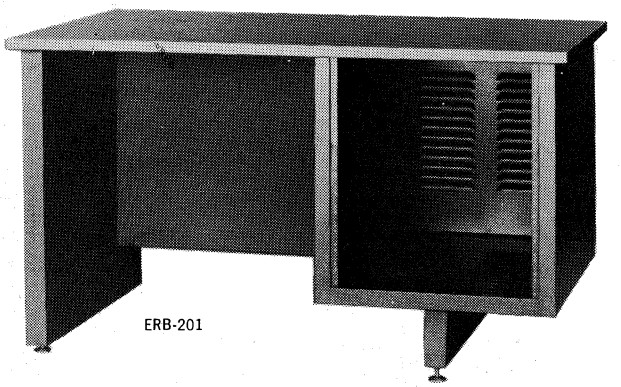
Cat. No.	W	H	WT	WB	PS	No. of Units	Shipping Weight
RBT-100	21¾	15¾	13½	18	12¼	1	40 lbs.
RBT-101	42	15¾	13½	18	12¼	2	65 lbs.
RBT-102	62¼	15¾	13½	18	12¼	3	110 lbs.
RBT-100-1	21¾	17⅝	12¾	18	14	1	50 lbs.
RBT-101-1	42	17⅝	12¾	18	14	2	80 lbs.
RBT-102-1	62¼	17⅝	12¾	18	14	3	130 lbs.
RBT-100-2	21¾	14	11⅝	15⅞	10½	1	35 lbs.
RBT-101-2	42	14	11⅝	15⅞	10½	2	60 lbs.
RBT-102-2	62¼	14	11⅝	15⅞	10½	3	105 lbs.



CONSOLES ERB

These units offer 21" of panel space in front and rear of each pedestal. The rear panel is removable and ventilated by two rows of six inch louvers. Both front and rear panel space is punched for Tinnerman speed clips on Western Electric spacing (½" - 1¼").

No drawers or front panels are furnished with the consoles. These can be ordered as separate items. Standard grey lineoleum top and stainless steel trim is furnished. Beige linoleum is also available where desired. Standard finish is #4719 Gray Hammerex.



ERB-201

TURRETS ERBT

Turrets are offered in three panel heights—10½", 12¼", 14" —in single, double or triple bay to be used with our ERB consoles. Panel space with shadow effect is punched for Tinnerman speed clips on Western Electric spacing (½"- 1¼"). No front panels are furnished. Finished in #4719 Gray Hammerex.

MODEL NO.	HEIGHT LESS LEVELERS	DEPTH	WIDTH	MODESTY PANEL WIDTH	INSIDE PEDESTAL DEPTH	SHIP WT.
ERB-200	29"	30"	26"	——	27¼"	100
ERB-201	29"	30"	53"	26¼"	27¼"	150
ERB-202	29"	30"	70"	26⅛"	27¼"	200

MODEL NO.	W	H FRONT	D	PS	NO. BAYS	SHIP WT.
ERBT-200	19½	15¾	16¼	12¼	1	25
ERBT-201	39¾	15¾	16¼	12¼	2	41
ERBT-202	59½	15¾	16¼	12¼	3	69
ERBT-200-1	19½	17½	16¼	14	1	31
ERBT-201-1	39¾	17½	16¼	14	2	50
ERBT-202-1	59½	17½	16¼	14	3	82
ERBT-200-2	19½	14	16¼	10½	1	22
ERBT-201-2	39¾	14	16¼	10½	2	38
ERBT-202-2	59½	14	16¼	10½	3	66

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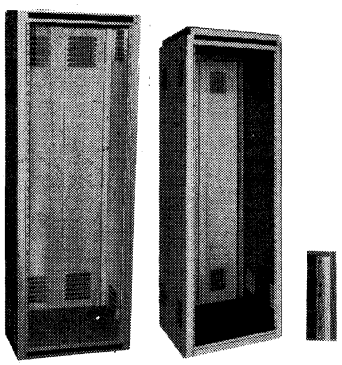
MWMI

METAL WORKS INCORPORATED

MANUFACTURERS OF ELECTRONIC AND SPECIAL METAL HOUSINGS

CABINET RELAY RACKS FOR STANDARD 19" RACK PANELS



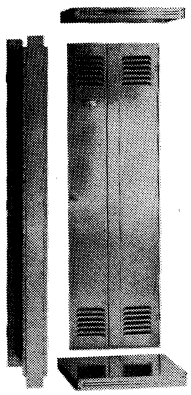
Cabinet Relay Racks are rigidly constructed of 16 ga. steel. These racks are completely bolted together.

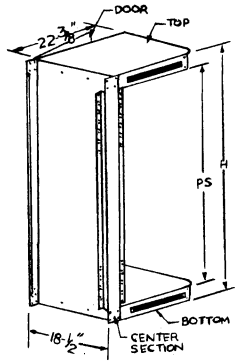
Panel mounting space is recessed ¼" to give a more modernistic and pleasing appearance. The rear doors swing on rigid slip joint hinges which permit it to be easily removed. The standard type rack has square front vertical corners. The rounded type rack has rounded front vertical corners. The deluxe type rack has a dome top with rounded front vertical corners.

Front door with 1¼" depth furnished on request.

Corner trim or stainless steel mounting trim available. Order either separately.

Model	Catalog No.	Height-in.	Width-in.	Depth-in.	Panel Space-in.	Ship. Wt. Lbs.
Standard	SCR-3675	41⅛	22⅜	18½	36¾	100
	SCR-4200	46⅜	22⅜	18½	42	110
	SCR-6125	65⅝	22⅜	18½	61¼	130
	SCR-7000	74⅜	22⅜	18½	70	140
	SCR-7700	81⅜	22⅜	18½	77	150
Round Corner	RCR-3675	41⅛	22⅜	18½	36¾	100
	RCR-4200	46⅜	22⅜	18½	42	110
	RCR-6125	65⅝	22⅜	18½	61¼	130
	RCR-7000	74⅜	22⅜	18½	70	140
	RCR-7700	81⅜	22⅜	18½	77	150
DeLuxe	DCR-3675	43	22⅜	18½	36¾	105
	DCR-4200	48¼	22⅜	18½	42	115
	DCR-6125	67½	22⅜	18½	61¼	135
	DCR-7000	76¼	22⅜	18½	70	145
	DCR-7700	83¼	22⅜	18½	77	155





MSCR MRCR MDCR

For use where our standard SCR-RCR-DCR cabinets are to be installed in series. Panel spacing for matching units in an installation must be the same. Where series installation is required, an SCR or RCR or DCR must be used as the basic unit. The multi-rack unit consists of a TOP-BOTTOM-CENTER SECTION and REAR DOOR.

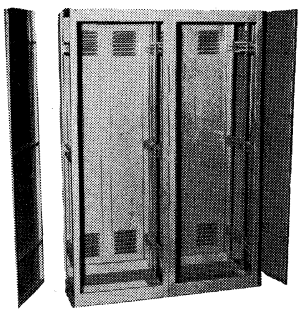
Priced to save you money. Stainless steel panel trim is also available; order separately. Front doors of 1¼" depth furnished at extra cost. Order separately.

MATERIAL: 16 ga. CRS

CONSTRUCTION:

1. Panel mounting holes are punched and formed as part of the center section.
2. 10-24 Tinnerman clips, oval head screws and finishing washers furnished for panel space.
3. Assembled w/¼ 20 pan head screws and nuts.
4. Rear door swings on slip joint hinges permitting easy removal.
5. Top and bottom furnished with a SS trim strip.
6. Furnished knocked down only.
7. FINISH: **GRAY HAMMER**—Other colors available on request.

DUPLI-RACK

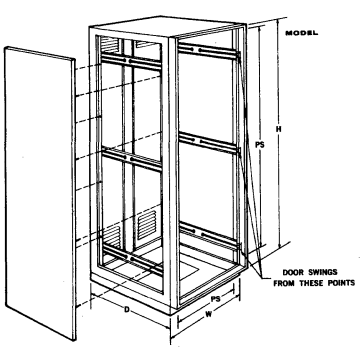


Dupli-rack features a maximum of cabinet space in a minimum of floor space at a savings in cost. To increase the size of an installation, simply remove the detachable side panels, bolt the units together through holes provided, forming a sturdy unit, and slip the detachable side panels on each side. This becomes an attractive installation where the addition of units will always remain the same in color tone and freshness of appearance. Each unit is of weld construction, forming a sturdy and rigid piece of equipment. Basic unit consists of frame and rear door.

SPECIFICATIONS MATERIAL: 16 ga. CRS. Panel mounting angles 11 ga. CRS. CONSTRUCTION: (1) Braze and spotweld assembly. (2) Detachable side panels are formed and supported and fastened by brackets. (3) Louvers provided in rear door. (4) Panel mounting angles drilled and tapped to 10-24 thread on standard 1¼" x ½" spacing. (5) Locking handle furnished on front door with flush mounted lock and separate handle on rear door.

	Rack with Rear Door			Front Door		Detachable Side Panels	
	Overall Ht.	Panel Space	Ship. Wt. Lbs.		Ship. Wt. Lbs.		Ship. Wt. Lbs. (Per Pair)
DR-3675	42⅞"	36¾"	100	FDR-36	10	DSP-36	20
DR-4200	48⅛"	42"	104	FDR-42	12	DSP-42	24
DR-6125	67⅜"	61¼"	120	FDR-61	18	DSP-61	32
DR-7000	76⅛"	70"	129	FDR-70	20	DSP-70	36
DR-7700	83⅛"	77"	133	FDR-77	22	DSP-77	40

DUPLI RACK-HEAVY DUTY



*Without casters. With casters add 6½".

Complimenting units to our Dupli Rack (DR) Series where competent weight requires extra structural rigidity. No bolts or screws are visible from the outside.

The basic unit is of heli-arc weld construction and made from heavy 11 gauge. (.119) steel to support weight of 1000# or more. Each unit can be bolted to an adjoining unit by removing the detachable side panels, bolting through holes provided, and then replacing the side panels on each end unit.

Supplied as part of the basic unit are a pair of 11 gauge drilled and tapped (10-32) panel angles (HD) plus two pair of support angles (SA-HD) drilled and tapped on same Western Electric spacing as panel angles and a 16 gauge CRS reinforced louvered rear door.

Front doors are box type reinforced with an internal channel and without louvres. Doors swing open on hidden hinges within an attractive anodized aluminum extrusion around entire cabinet front to give a distinct shadow effect.

DUPLI RACK — HEAVY DUTY				FDR-HD FRONT DOORS			DSP-HD DETACHABLE SIDE PANEL		
Model No.	Height	Panel Space	Ship. Wt. Lbs.	Model No.	Height	Ship. Wt. Lbs.	Model No.	Height	Ship. Wt. Lbs.
DR-HD-3675	*44⅜"	36¾"	210	FDR-HD-36	37"	17½	DSP-HD-36	36⅞"	36 pr.
DR-RD-4200	*49⅝"	42"	225	FDR-HD-42	42¼"	20¾	DSP-HD-42	42⅛"	40 pr.
DR-HD-6125	*68⅞"	61¼"	275	FDR-HD-61	61½"	28½	DSP-HD-61	61⅜"	56 pr.
DR-HD-7000	*77⅝"	70"	300	FDR-HD-70	70¼"	32¾	DSP-HD-70	70⅛"	62¾ pr.
DR-HD-7700	*84⅝"	77"	320	FDR-HD-77	77¼"	35¾	DSP-HD-77	77⅛"	68¼ pr.
Width: 23⅝", Depth: 24"				Width: 19½", Depth: 1¼"			Width: 19⅜", Depth: 1 1/16"		

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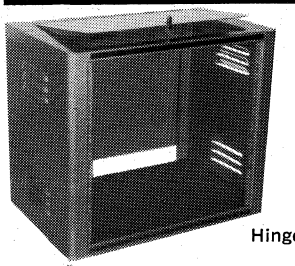
DELUXE DESK CABINET RACKS FOR STANDARD 19″ RACK PANELS — 15″ DEEP



Hinged Door Back Type

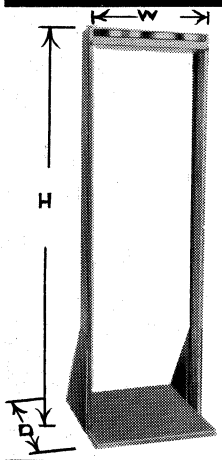
DC SERIES These cabinets are completely welded together to save on assembly time and costs. Panel mounting angles are punched to standard 1¼″-½″ spacings. Enough 10-24 speed clips and machine screws are furnished to mount several rack panels. To give a more pleasing appearance, the mounting angles are constructed to permit recessing of rack panels. All models have a recessed door on top for easy access to equipment. The six largest sizes have a door in back which permits access from the back. All models have a bright chrome strip on top and bottom of front. Phono drawer PD-1050-14 can be mounted in these cabinets except DC-875.

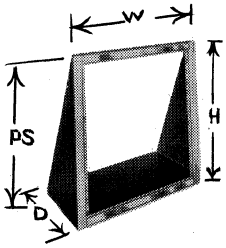
ARCHITECTS AND ENGINEERS SPECIFICATIONS — MATERIAL: 16 ga. CRS. CONSTRUCTION: 1. Completely welded together for rigidity. 2. Rounded front corners. 3. Panels fastened with Tinnerman clips. 4. 10-24 screws, Tinnerman clips and finish washers furnished. 5. 5/16″ recessed panel mounting flanges. FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

Catalog No.	Width-in.	Height-in.	Depth-in.	Panel Space-in.	Ship. Wt. Lbs.
DC- 875*	22¾	10⅞	15	8¾	26
DC-1050*	22¾	12⅝	15	10½	28
DC-1225*	22¾	14⅜	15	12¼	30
DC-1400*	22¾	16⅛	15	14	35
DC-1750	22¾	19⅝	15	17½	38
DC-2100	22¾	23⅛	15	21	42
DC-2450	22¾	26⅝	15	24½	46
DC-2625	22¾	28⅜	15	26¼	48
DC-3150	22¾	33⅜	15	31½	52
DC-3500	22¾	37⅛	15	35	56

(*) Solid back type.

RELAY RACKS CHANNEL AND TABLE TYPE





TR DESK TYPE

These Table Racks are constructed of heavy No. 16 gauge steel and are completely welded together for strength. Mounting holes are drilled to standard 1¼″—½″ spacings. All panel mounting hardware is supplied. Each rack is finished in silver gray hammertone and is trimmed with bright chrome molding.

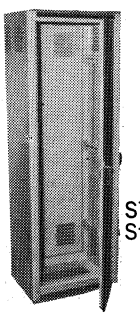
Catalog No.	Width-in.	Height-in.	Depth-in.	Panel Space-in.	Ship. Wt. Lbs.
TR-121	22	24	12	21	17
TR-128	22	31	12	28	20

RR CHANNEL TYPE

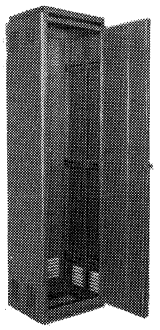
Channel Relay Racks are constructed of No. 11 ga. steel. The vertical channels are drilled and tapped on 1¼″—½″ spacing and for No. 10-24 machine screws. Racks are shipped knocked down or assembled. Hardware included. Each rack is finished in silver gray hammertone unless otherwise specified.

Catalog No.	Width-in.	Height-in.	Depth-in.	Panel Space-in.	Ship. Wt. Lbs.
RR-156	19 1/16	61 3/16	20	56	70
RR-163	19 1/16	68 3/16	20	63	80
RR-170	19 1/16	75 3/16	20	70	90
RR-177	19 1/16	82 3/16	20	77	100
RR-184	19 1/16	89 3/16	20	84	110

TRANSMITTER RACKS



STR Standard



DTR Deluxe

Transmitter racks are made to accommodate 19″, 24″ and 30″ rack panels. All models are furnished with front and rear doors.

Rear door opening provides easy access for equipment maintenance and installation. Front door furnishes full covering for dials, knobs, etc., mounted on panels. Front door is provided with a locking handle and rear door with a flush mounted lock and handle. This gives added protection where it is necessary to lock all components.

Slotted channels (3 per side) permit panel mounting angles to be recessed to full cabinet depth by simply tightening screws that hold each angle in place. Stainless steel panel mounting trim available. Order separately.

Finished Silver Gray Hammertone.

Size	Catalog No.	Width-in.	Height-in.	Depth-in.	Panel Space-in.	Ship. Wt. Lbs.
Standard for 19″ Panels	STR-3675	23	42	18½	36¾	130
	STR-4200	23	47¼	18½	42	140
	STR-6125	23	66½	18½	61¼	150
	STR-7000	23	75¼	18½	70	155
	STR-7700	23	82¼	18½	77	160
For 24″ Panels	STR-7024	27⅞	75¼	24	70	230
	STR-7724	27⅞	82¼	24	77	245
For 30″ Panels	STR-7030	33⅞	75¼	24	70	250
	STR-7730	33⅞	82¼	24	77	265
DeLuxe for 19″ Panels	DTR-3675	23	43⅞	18½	36¾	135
	DTR-4200	23	49⅛	18½	42	145
	DTR-6125	23	68⅜	18½	61¼	155
	DTR-7000	23	77⅛	18½	70	160
	DTR-7700	23	84⅛	18½	77	160
For 24″ Panels	DTR-7024	27⅞	77⅛	24	70	235
	DTR-7724	27⅞	84⅛	24	77	250
For 30″ Panels	DTR-7030	33⅞	77⅛	24	70	255
	DTR-7730	33⅞	84⅛	24	77	270

CONSTRUCTION:

1. Louvers are provided in sides and rear door—four sets of six louvers each.
2. Assembled with ¼-20 bolts and nuts.
3. Rear doors swing on rigid slip joint hinges. Front doors mounted on continuous hinges.
4. All models furnished with stainless steel feature strip (colored) trim.
5. Shipped knocked down unless otherwise requested.

MATERIAL: 16 ga. CRS. Panel mounting angles 16 ga. CRS. Punch for Tinnerman Clips.

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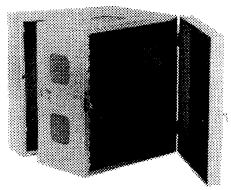
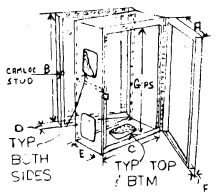
SECTIONAL WALL MOUNTING CABINET EC SERIES





This is the **ECONOMY** version of our 193 series Cabinets made for loads not exceeding 50-75 lbs. (depending on location in panel mtg.) where weight of components can be limited.
Sections are hinged on the right side via slip joint hinges. Panel mounting holes are punched on W.E. spacing for Tinnermann clips. The panel holes are recessed only the thickness of 16 ga. CRS or about .059", which is the thickness of material on the cabinet's back can.
Front door is 2" deep for knob clearance and is locked with a FLUSH keyed lock. Center section is locked to back can via a camloc. Entire unit is locked with one FLUSH lock. If a phono drawer is required, order our PD 1050-14.
Ventilation is provided by 4½" K.O. and cover w/perforated metal. K.O. for wiring is provided in back can at top and bottom.

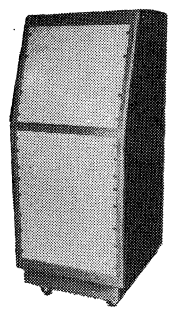
Material: 16 ga. CRS
Construction:
1. All sections spot weld assembled.
2. Panel mounting holes punched for Tinnermann clips.
3. Center section 4½" K.O. covered on inside by perforated metal for maximum heat dissipation.
4. Entire cabinet locks with one FLUSH lock.
5. Center section locks via a camloc stud to back section.
6. All hinges are a slip joint type.
7. Center section reinforced with corner gussets.
8. Standard finish #4719 **Gray Hammer-X.**

FINISH: Iron phosphate dipped and finished with #4719 Silver **Gray Hammer-X.** Other colors available.

Model No.	Dimensions								Ship. Weight
	A	B	C	D	E	F	G-ps	D-E-F	
EC-1750	20⅝	19⅛	19⅛	4½	11	2	17½	17½	43
EC-2100	20⅝	22⅝	19⅛	4½	11	2	21	17½	52
EC-2625	20⅝	27⅞	19⅛	4½	11	2	26¼	17½	65

CABINET CONSOLES

CR-1001



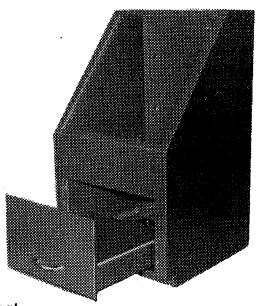
This is a combination console and rack cabinet for applications requiring a minimum of horizontal space.

The upper panel space is large enough to mount a 17" television screen for testing equipment.

Lower panel area has sufficient space for control equipment.

Furnished without panels.

CR-1005

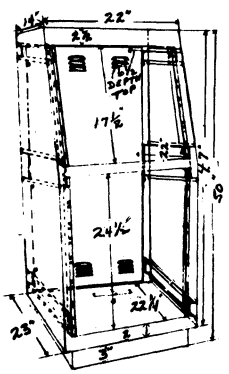


This console rack fits in well where height might be a problem yet offers a sufficient amount of panel space for most applications.

The base area contains a space for mounting a record player or an automatic turntable drawer. The control panel area has a 38° slope for good visibility.

Rear of console rack has a removable louvered panel for easy servicing of the unit.

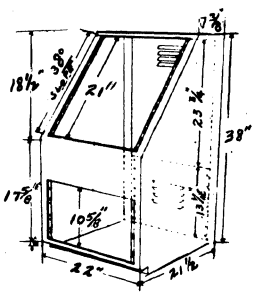
Furnished without drawer.



CR-1001

MATERIAL: 16 ga. CRS except panel mounting angles and these are made of 13 ga. CRS. CONSTRUCTION: 1. Spot welded and brazed throughout. 2. Upper and lower panel mounting angles drilled and tapped to 10-32 thread. 3. Ball corners brazed for added strength and finish appearance. 4. Rear panel removable, attached with Tinnerman clips and screws. 5. 1¾" x 6" rectangle slot punched out of bottom and 1½" dia. hole in rear bottom for wiring inlet. 6. All reinforced channel iron on sides (3 ea. side) formed from 18 ga. CRS. 7. Channel support panel mounting angles and are fastened with ¼ x 20 binding head screws. 8. Upper panel space is on a 20° slope. 9. Two sets of four louvers each provided in top and bottom of rear panel. 10. Sides, front and back, and top, are formed with ⅝" radius. 11. Sides and top have a ¼" flange turned in for added strength and smooth corners. 12. Four gussets—one on each corner, drilled for mounting 2½" rubber casters. 13. Casters are guaranteed to hold up 100 lbs. of weight each; total load capacity per console is 400 lbs. Heavy duty casters available at extra cost. 14. Cabinet weight—105 lbs. 15. Shipping weight—140 lbs. Shipped assembled. FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

ARCHITECTS AND ENGINEERS SPECIFICATIONS



CR-1005

MATERIAL: 16 ga. CRS. CONSTRUCTION. 1. Spot welded and brazed throughout. 2. Upper and lower panel mounting holes are punched to standard 1¼" x ½" spacing. 3. 10-24 Tinnerman clips, 10-24 oval head screws and finishing washers furnished. 4. Rear panel removable; attached with sheet metal screws. 5. Upper panel space has a 38° slope. 6. All corners are square—not rounded. 7. Cabinet strength is accomplished via formed parts eliminating channels for supporting members. 8. Louvers in fixed lower rear panel are reversed and faced up to help dissipate heat. 9. Shipping weight—110 lbs. FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

PANEL MOUNTING PHONO & STORAGE DRAWERS FOR 19" RACKS

325 SLIDE

With Ball Bearing Drawer Slides

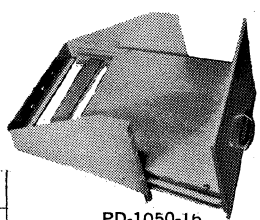
All drawers illustrated are made of 16 ga. steel. Phono drawer chassis has a ¾" flange to accommodate a plywood or masonite base for a record changer. Base is included with drawer.

Catalog No.	PS	Chassis Size	Shp. Wt.
PD-1050-14-E	10½"	15¹³⁄₁₆"W x 14"D x 3¼"H	16 lbs.
PD-1050-16-E	10½"	15¹³⁄₁₆"W x 16"D x 3¼"H	18 lbs.
PD-1050-14	10½"	16⅜"W x 14"D x 3¼"H	16 lbs.
PD-1050-16	10½"	16⅜"W x 16"D x 3¼"H	18 lbs.

Storage Drawers

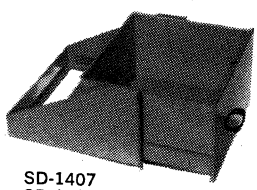
Catalog No.	PS	Storage Area	Shp. Wt.
SD-1407	7"	16⅜"W x 14"L x 6¼"D	16 lbs.
SD-1410	10½"	16⅜"W x 14"L x 9¾"D	18 lbs.
SD-1607	7"	16⅜"W x 16"L x 6¼"D	20 lbs.
SD-1610	10½"	16⅜"W x 16"L x 9¾D	22 lbs.
DSD-1207	7"	15¹³⁄₁₆"W x 16"L x 6¼"D	20 lbs.
DSD-1210	10½"	15¹³⁄₁₆"W x 16"L x 9¾"D	22 lbs.

Finished in Silver Gray Hammertone with an attractive chrome drawer pull.



PD-1050-16
PD-1050-14

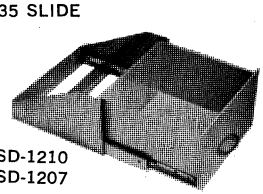
PD-1050-16 or 14 Phono Drawer. The phono drawer is obtainable in two sizes, 14¾" o/a depth and 16¾" o/a depth. The 14¾" o/a depth will fit all cabinets while the 16¾" o/a depth can be used in all cabinets except DC & 193 cabinets. Mounted on slides with nylon rim ball bearing rollers, this drawer pushes in and out with ease. Extends a full 12" from front of cabinet. If full extension slide is desired add suffix "E" to these part numbers. Weight load—75 lbs.



SD-1407
SD-1410

SD-1407 or SD-1410 — 14¾" o/a depth in 7" or 10½" height
SD-1607 or SD-1610 — 16¾" o/a depth in 7" or 10½" height
Standard Storage Drawers come in 4 sizes to accommodate extra tape reels, tools, and what have you. Same slides as illustrated in our PD-1050 shown above. Use SD-1410 or 1407 in any cabinets. Use SD-1610 or 1607 in all cabinets except DC & 193 cabinets.

335 SLIDE



DSD-1210
DSD-1207

DSD-1210 or 1207 Deluxe Storage Drawer. The ultimate in storage drawer capacity and convenience. These drawers feature a full extension slide permitting the drawer to be pulled out 15" from cabinet. Smooth operation is provided by ball bearing rollers. Instant drawer removal and positive stopping, positive closing are additional features offered. Weight load—150 lbs.

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MWMI

METAL WORKS INCORPORATED

MANUFACTURERS OF ELECTRONIC AND SPECIAL METAL HOUSINGS

AMPLIFIER CABINETS RACKS AND CONSOLES

RVTB Series

This series of cabinets is a compliment to Metal Works' TB—STB & HTB series. For serviceability of equipment The RVTB offers a swing out panel rack. The panel rack can also be recessed if necessary for knob, handle, etc., clearance.

A fully recessed cabinet which accepts standard 19" rack panels drilled and tapped 10/24 on WE spacing. The panel rack can be reversed to swing out from either side. A 4¾" wide full length ventilating partition is provided in the panel rack for maximum heat dissipation. Double cabinet doors are reinforced, double louvered (inside and outside). Doors lay flat against 2¼" door trim and are installed with full length piano hinges. Doors recess into trim or frame with no protruding handles or knobs and are locked in closed position with a two point (rods) flush lock.

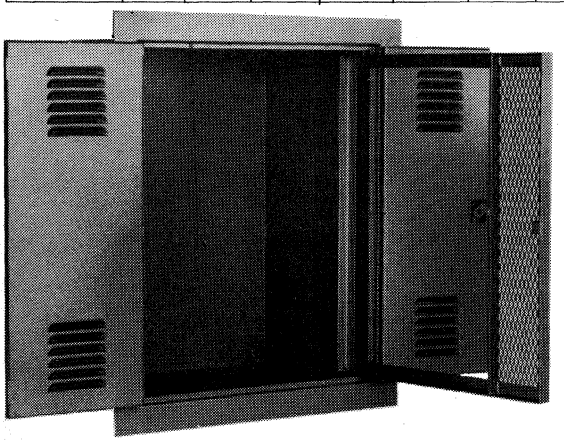
Entire cabinet is made of steel and is finished in #4719 Gray Hammer-X. Other colors available on request.

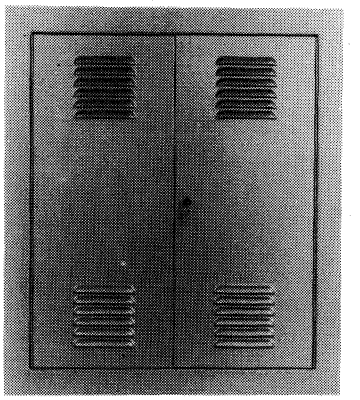
MATERIAL: Back Can—16 ga. CRS
Panel Rack—1¼"x1¼" Structured steel angles
Ventilated Opening—16-18 ga. Flat expanded CRS
Door Frame—11 ga. HRPO

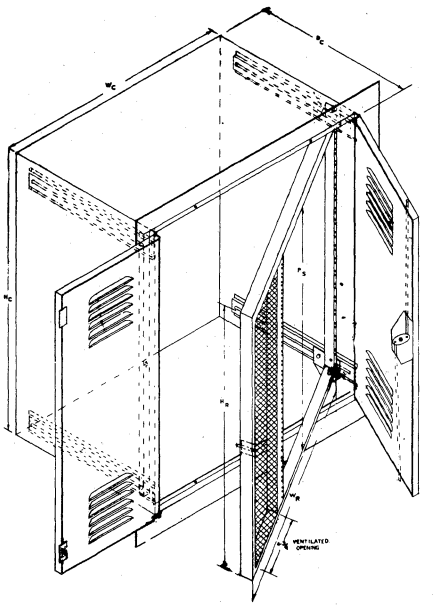
CONSTRUCTION:
1. Entire cabinet made of steel as specified above.
2. Constructed for full recess wall mounting installation.
3. Rack panel frame drilled and tapped 10-24 on WE spacing, and made of structured steel angle.
4. Rack panel frame provided so that it can swing from either right or left side.
5. Five ⅞" KO provided in top and bottom for ½" conduit.
6. Cabinet provided with reinforced double steel two point flush lock doors. Rack panel frame provided with camloc stud on side opposite hinged side so it can be locked in place.

FINISH: Iron phosphate dipped and finished in Silver Gray **Hammer-X** paint #4719.

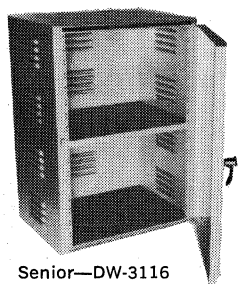
Model No.	Cabinet			Rack			Vent Size	Ship Wt.
	H/C	W/C	D/C	H/R	W/R	PS		
RVTB 2100	25⅝	28	18½	23⅞	26⅝	21	4¾"x21"	121
RVTB 2625	30⅞	28	18½	28⅛	26⅝	26¼	4¾"x26¼"	148
RVTB 3675	41⅜	28	18½	39⅝	26⅝	36¾	4¾"x36¾"	198
RVTB 5250	57⅛	28	18½	55⅛	26⅝	52½	4¾"x52½"	275







DELUXE WALL MOUNTING AMPLIFIER CABINET SENIOR MODEL...JUNIOR MODEL



Senior—DW-3116

Here is a sturdy cabinet designed for housing the new style amplifiers. Completely welded construction with facilities for wall mounting. DW3116 comes complete with cabinet shelf and door with locking handle. Tamper proof inside hinges. Deep enough for the new larger amplifiers and wide enough for amplifiers using plugs on the side. Plenty of ventilation from louvers on sides and back. No shelf in DW-1616

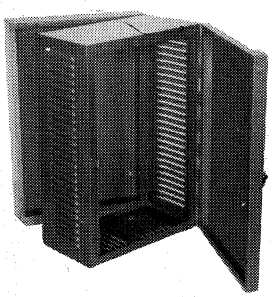
MATERIAL: 16 ga. CRS

CONSTRUCTION:
1. Completely welded together for rigidity.
2. Panels fastened with Tinnerman clips.
3. 10-24 screws, Tinnerman clips and finish washers furnished.

Catalog No.	Height	Depth	Width	PS	Ship. Wt.
Senior DW-3116	31"	16"	21"	28"	75 lbs.
Junior DW-1616	16⅛"	16"	21"	14"	50 lbs.

FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

SECTIONAL WALL MOUNTING CABINET 193 SERIES



This series of cabinets is designed for maximum installation convenience. Swing out feature of cabinets permit less handling of components on the job or in the shop. Dowel pins and heavy hinge assure you of durability and a greater amount of weight acceptance of components. Camloc studs interlock two sections with a flush lock mounted on front door in sizes A & B and a locking handle in sizes C & D to complete a totally enclosed locking unit. The cabinets are available in four vertical panel sizes. If a phono drawer is required, order PD-1050-14. If a shelf is needed order CS-1207. Additional bracing is provided for rack mounting weight in excess of 250 lbs. Indicate this by prefix WT i.e. (WT 193) and letter size of cabinet. See specifications below.

ARCHITECTS AND ENGINEERS SPECIFICATIONS

MATERIAL: 16 ga. CRS, 11 ga. reinforced angle for wall mounting. CONSTRUCTION: 1. Each section shall be spot welded and brazed at corners for sturdiness. 2. Panel mounting holes shall be tapped for 10-32 threads. 3. Bottom and sides of middle section shall be louvered for maximum heat dissipation. 4. Dowel pins shall be provided to prevent sagging. 5. Each section shall be hinged with a heavy continuous steel hinge. 6. Extra bracing shall be provided when weight of components exceeds 250 lbs. 7. All louvers shall be 6" in length. FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

Model No.	Dimensions								Ship. Weight
	A	B	C	D	E	F	G-ps	D-E-F	
193A	20⅝	18Ⅼ	19⅛	4½	11	1¾	15¾	17¼	50#
193B	20⅝	31	19⅛	4½	11	1¾	28	17¼	75#
193C	20⅝	45	19⅛	4½	11	1¾	42	17¼	125#
193D	20⅝	64⅝	19⅛	4½	11	1¾	61¼	17¼	175#

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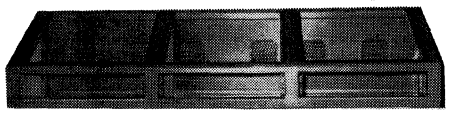
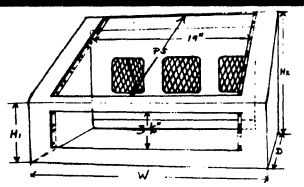
METAL WORKS INCORPORATED

MANUFACTURERS OF ELECTRONIC AND SPECIAL METAL HOUSINGS

INSTRUCTORS TURRETS FOR USE WITH "RB" SERIES — 19" PANELS





The T-103-1, 103-2, 103-3 series of turrets are especially designed for the language lab control unit ensemble. The low slope affords easy vision of the classroom as well as the equipment installed therein. These turrets are the result of considerable study in the field of audio education and are designed with the instructor, as well as maintenance personnel, in mind. Other applications of this turret are feasible where low slope aids vision of dials, meters and switch panel from a standing position. Takes panels:—ARP-123; RP-123; PM-163 or PA-163—lower space. Upper space:—ARP-1217; RP-1217; PM-1617 or PA-1617. Panels not furnished—order separately.

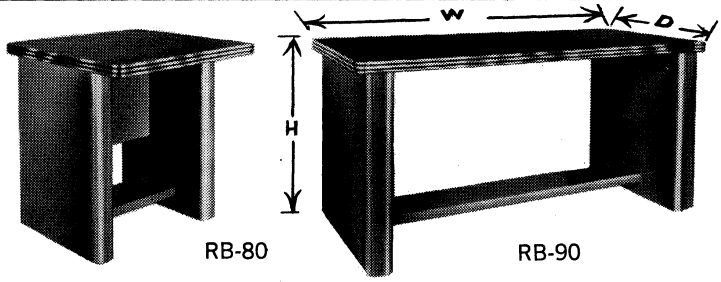
*SPECIFICATIONS

MATERIAL: 18 ga. CRS. **CONSTRUCTION:** 1. Spot weld throughout. 2. Corners brazed for added strength and finished appearance. 3. Removable rear panel for easy access to cabinet components. 4. Five 7/8" knockouts provided in rear of each panel space. These knockouts accommodate 1/2" conduit or pipe. 5. Two 6 1/8" channel irons formed from 18 ga. CRS comprise the bottom of each turret. This construction adds **rigidity.** 6. Front panel, 3 1/2" x 19", is made especially for our SP-1635 switch panel. 7. 17 1/2" panel space in all bays provides ample space for most installations. 8. Panel mounting holes are punched on standard Western Electric spacing. 9. 10/24 oval head screws, Tinnerman clips and finishing washers are furnished. 10. Panel spacing is recessed 5/16" to flush mount panel. FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

Cat. No.	W	H1	H2	D	PS	Shipping Weight
T-103-1	22	6 3/8	10	20 1/2	17 1/2	40 lbs.
T-103-2	42 3/4	6 3/8	10	20 1/2	17 1/2	65 lbs.
T-103-3	63 3/8	6 3/8	10	20 1/2	17 1/2	95 lbs.

EQUIPMENT TABLES FOR SMALL OR LARGE DESK EQUIPMENT

Equipment tables are exclusively in the line. They are very handy when small equipment is being used. Models 80-1 — 80-3 have an overhanging top and plenty of knee room and are used for the smaller equipment. Models 90-1 — 90-3 are for larger table mounting equipment and have larger tops for more working area. Top is attractive linoleum with bright metal trim. Finish is modern silver gray hammertone.



RB-80 RB-90

Cat. No.	Width-in.	Height-in.	Depth-in.	Ship. Wt. Lbs.
RB-80-1	26	29	26	75
RB-80-2	36	29	26	95
RB-80-3	46 1/2	29	26	120
RB-90-1	53	29	30	120
RB-90-2	60	29	30	130
RB-90-3	70	29	30	150

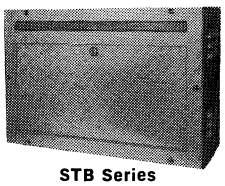
AMPLIFIER CABINETS RACKS AND CONSOLES

Surface Mounted—STB Series
Same size and panel space as TB listed above. Made for those applications where surface mounting is required. STB Panel Mtg. Angles furnished on request.

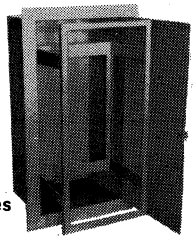
Heavy Duty—HTB Series
This cabinet offers adequate panel mounting space for most applications where the above listed TB's are too small. The rack portion of the cabinet is completely removable and mounted on 4 nylon ball bearing slides. The rack will support a maximum of 200 lbs. of weight. Maintenance convenience is offered in that the rack can be pulled forward to afford easy access to all components. Sturdy construction features of this cabinet are incorporated to give you quality in an economical unit. Doors are furnished with locking handles.

STB
MATERIAL: 16 ga. CRS body
11 ga. CRS grille
CONSTRUCTION:
1. All spot weld and braze construction.
2. Panel mounting angles are supported in slotted bracket, adjustable 9 1/2" front to rear, affording ample clearance for dials, tuning knobs, switches, etc., on TB only.
3. 10 1/2" of maximum panel space.
4. Panel mounting angles are punched for use with Tinnerman clips.
FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

HTB
MATERIAL: 16 ga. CRS cabinet
1/8" thick angle iron with 11 ga. bracing on rack.
CONSTRUCTION:
1. Spot weld and electric arc construction on cabinet. Electric arc weld on removable rack.
2. Panel mounting angles drilled and tapped for 10/24 thread.
3. Nylon ball bearing slides used on rack.
4. Complete panel mounting rack is removable.
5. Front door made to provide adequate clearance space for dials, knobs, etc.
FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.



STB Series



HTB Series

Catalog No.	Inside H	Inside W	Inside D	Outside H	Outside W	Outside D
STB-1200	14"	21"	11 15/16"	16"	23"	12"
STB-1500	14"	21"	14 15/16"	16"	23"	15"
STB-1800	14"	21"	17 15/16"	16"	23"	18"

Catalog No.	Height	Cabinet Only Width	Depth	Height	Removable Rack Width	Removable Rack Depth	P.S.	Ship. Wt.
HTB-1575	19"	21 9/16"	18"	18 3/8"	20 5/16"	16"	15 3/4"	85
HTB-2800	31 1/4"	21 9/16"	18"	30 5/8"	20 5/16"	16"	28"	125
HTB-4200	45 1/4"	21 9/16"	18"	44 5/8"	20 5/16"	16"	42"	175
HTB-6152	64 1/2"	21 9/16"	18"	63 7/8"	20 5/16"	16"	61 1/4"	225

Door frame is 27 1/4" wide or 2 27/32" wider each side than cabinet width. Add 6" to cabinet height for overall height of door frame.

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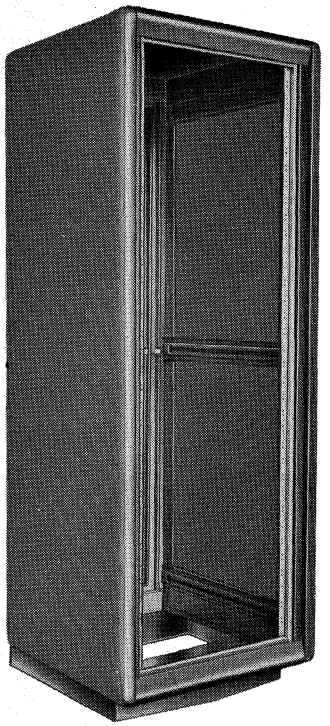
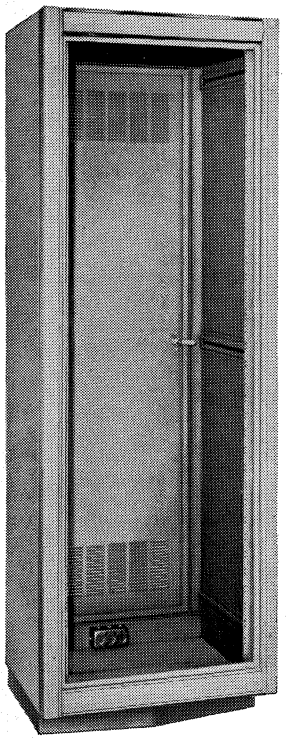
SUPERIOR CHARACTERISTICS OF

PAR-METAL Modular Cabinet Racks



SERIES "PL" RACKS
With Rear Door Only
Equipped with optional detachable ball cornered side panels and recessed base.

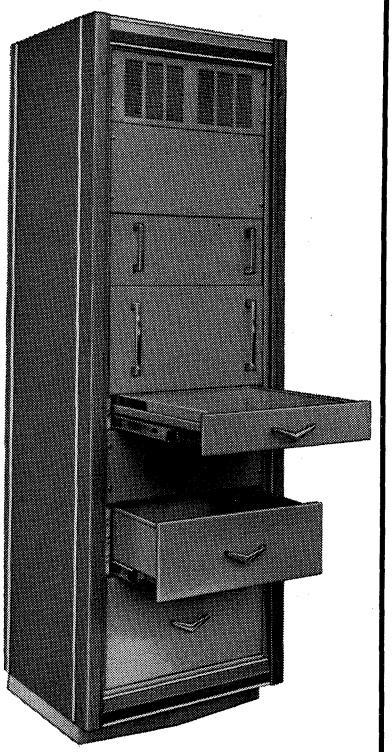


SERIES "PX" RACKS
With Rear Door Only
with SOLID SIDE WALLS
(Recessed base is optional)

PAR-METAL cabinet racks listed on **Par-Metal Pages 3 to 8** merit your serious consideration. They incorporate many features derived from long experience in the manufacture of electronic housings exclusively.

The distinctive styling and versatile design make them adaptable to many applications. At no time has sturdiness been sacrificed for styling; our emphasis has been on a **rigid, welded assembly** to assure stability and freedom from structural weakness under severe mobile usage.

DESIGN: All sizes listed may be obtained with conventional solid side walls, or with open side walls and detachable side panels. Side shields for use between racks are also available.



SERIES "PR" RACKS
With Rear Door Only
Equipped with optional flush detchable side panels and recessed base.

Racks are available for 19", 24", and 30" wide panels. Cabinet heights are 48-1/8", 58-5/8", 67-3/8", 76-1/8", 83-1/8" and 90-1/8". Racks 18" and 24" deep are listed. We have facilities to fabricate racks with panel widths to *48"*, and any depth to *36"*.

MODULAR GROUPS: All models may be joined into modular groups: cabinets of the same height, in varying panel widths with and without front doors, may be intermixed; Series "PL" racks may be combined with our console units.

•

MID-RAIL MOUNTING OF PANELS: The panel mounting angles or "strips" are fully adjustable on all racks, and may be positioned at any location from front to back. Additional panel mounting angles may be easily inserted where needed for mounting terminal boards, etc.

•

VERTICAL SIDE SUPPORTS: These supports provide a simple method for supporting chassis and other equipment in the racks. The means of attaching such brackets is fully adjustable so that chassis may be accurately lined up with the front panels. No drilling or other fabrication is required. The chassis may then be installed or removed with a minimum of effort. The vertical side supports also facilitate the installation of special sliding devices.

•

ADJUSTABLE FLOOR LEVELERS are supplied with all racks as standard.

•

SLIDING SHELVES AND DRAWERS: These are constructed for mounting on the front of the racks the same as regular panels.

•

SLOPING INSTRUMENT PANELS and EXTENSION DESK TABLES for single and modular assemblies are available for all modular racks.

•

ANGULAR SECTION FRAMES are available as standard units for all Modular Cabinet Racks listed on **Par-Metal Pages 3 to 8,** with a choice of 30° or 45° angles.

MODIFICATIONS: Without departing from the basic design of our racks, it is possible to modify them to meet your special requirements. Standard ventilated tops are available. They may also be modified with our standard dies for making openings, louvers, circular holes, etc., in side, tops, bottoms and doors of racks.

All of our products incorporate the same exacting standards of quality and uniformity which we have maintained for over three decades. If you have a specific problem, do not hesitate to consult us. **Personalized and interested engineering assistance is always available.**

ASK YOUR DISTRIBUTOR FOR PAR-METAL PRODUCTS CORP. CATALOG

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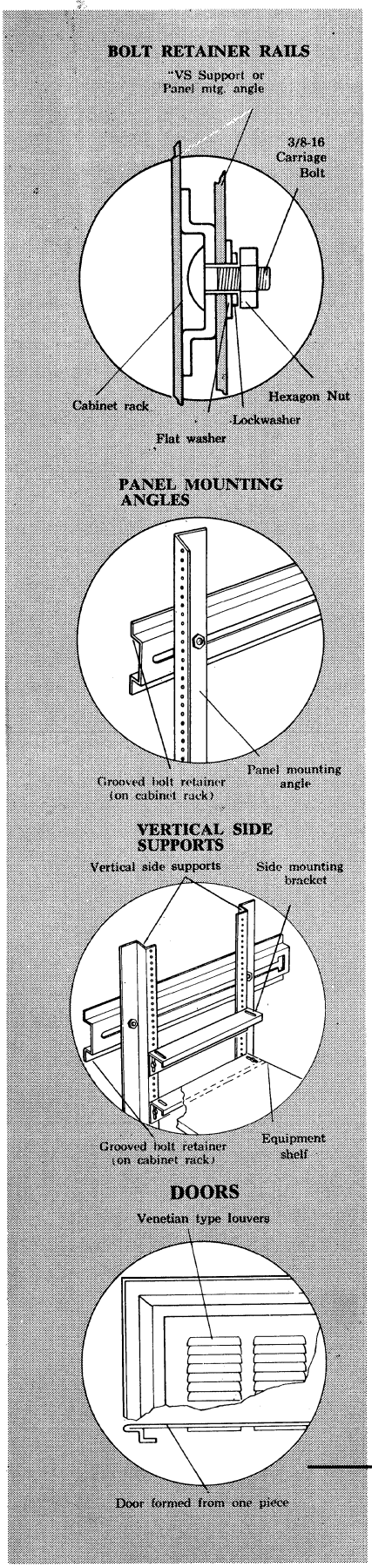
PAR-METAL Modular Cabinet Racks



DETAILS OF CONSTRUCTION AND ASSEMBLY

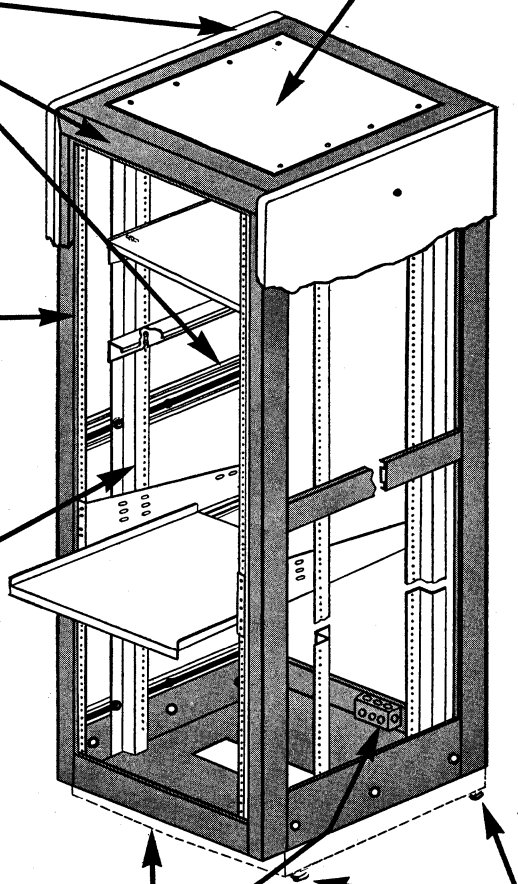
The cabinet rack illustrated below is our **PL-FL** Series, completely assembled with vertical trim strips and horizontal mouldings at top (and bottom). The ball cornered side panels are also attached.

The same frame is used in our **PR-FR** Series racks. However, the styling is distinctively different, and permits the use of flush side panels. Series **PX-FX** Racks are similar in appearance to the PR-FR Series, except that the side walls are an integral part of the rack; separate side panels are not required.

REMOVABLE TOP PANEL: Also available with standard ventilating type panels (Louvers, Perforated Metal, etc.).

DETACHABLE SIDE PANELS:

FRONT MOULDINGS:



- **BOLT RETAINER RAILS:**

To these are bolted the panel mounting angles and vertical side supports, which may be located at any position from front to back. These rails are made from 7/64" steel, and are rigidly welded in place. Angles and supports are securely fastened to rails with 3/8" diam. steel bolts, lock washers, and hexagon nuts.

- **PANEL MOUNTING ANGLES:**

They are made from 1½" x 1½" x 3/16" thick structural steel. All holes are die punched to provide accurate spacings with close tolerances; holes are tapped 12/24 thread on 5/8"-5/8"-½" alternate spacings for standard rack panels. Additional angles may be purchased for mounting terminal blocks or other devices.

Holes tapped 10/32 thread are optional without additional cost.

- **VERTICAL SIDE SUPPORTS:**

These supports are fastened to the same bolt retainer rails used for securing the panel mounting angles. Holes are 5/8"—5/8"—½" alternate centers, tapped 10/32 thread, provide maximum adjustment for side mounting brackets and equipment shelves. They may also be used for attaching slides or other custom made brackets. The supports are made from 7/64" thick steel, locked in place with 3/8" diameter screws, lock washers and hexagon nuts, to afford maximum support.

- **SIDE MOUNTING BRACKETS:**

These may be used separately or with shelves as shown. Slotted holes on the brackets provide any vertical adjustment required.

DOORS:

For sake of clarity, doors are not shown on the frame drawing. They are stamped from one piece of 1/16" steel, and "dutch-formed" on all sides providing smooth double-thick edges. Adequate ventilation is obtained from full ventilating (venetian-type) louvers. Lock type handles are supplied on racks with both front and rear doors. Non-locking handles are used on racks with rear doors only; locking type handles are optional.

- **OUTLETS:**

"Knockout holes" are available on cabinet side for connecting cables; a duplex outlet and outlet box are mounted on cabinet under rear door.

- **FLOOR LEVELERS:**

Four are supplied with all modular type racks.

- **RECESSED SUB-BASES:**

They are available for all modular type racks as an optional accessory.

PAR-METAL PRODUCTS CORP.

PAR-METAL ELECTRONIC HOUSINGS

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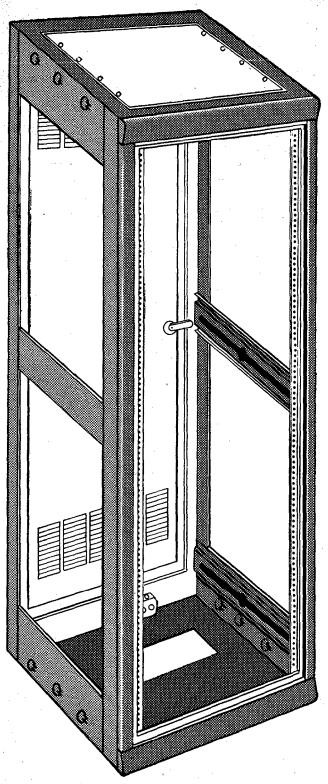
PAR-METAL Modular Cabinet Racks

SERIES PL & FL RACKS FOR BALL CORNERED SIDE PANELS

FOR 19" — 24" — 30" WIDE PANELS — 18⅜" & 24⅜" DEEP



* SERIES PL RACKS
With Rear Door Only

SERIES PL AND FL CABINET RACKS are attractively styled with built-in custom quality. Ball corners are used not only as a sales feature, but are effectively blended into a functional modular design.

FRAMES: Rack frames are made of #12 gauge steel (0.104") and are securely welded to obtain extra rigidity and stability. Doors are made from one piece of #16 gauge steel (0.059").

PANEL MOUNTING ANGLES: Angles are made from 3/16" structural steel. Hole spacing meets both WE and EIA requirements. Holes are tapped for 12-24 screws, 10-32 tapped holes are optional at no extra cost. Angles are rigidly secured with three 3/8" diameter bolts; angle may be located at any position from front to rear.

DOORS: A louvered rear door is regularly supplied on all racks; on FL racks, an additional front door (less louvres) is supplied. Plain doors, or doors louvered at the top or bottom are optional at no extra cost (See Par-Metal Page 11). Racks 30" wide have double doors with three point latching device in center, to save aisle space.

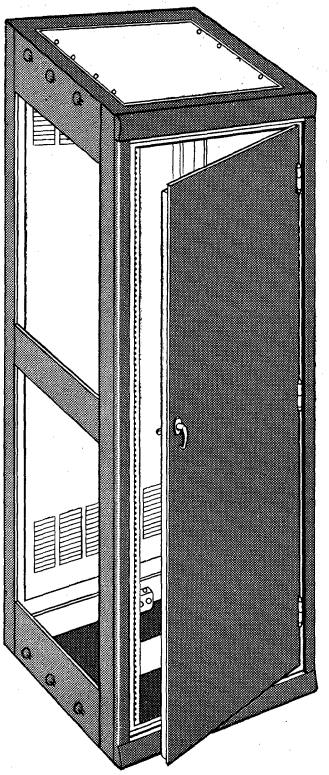
HINGES: Doors are mounted on slip-joint hinges and are easily removeable.

HANDLES: Door handles are die cast with chrome plated finish. *PL* Series with rear doors have non-locking handles. Front and rear doors of *FL* racks have locking handles with keys. Locking handles may be obtained for *PL* Series doors at $1.00 each additional

TOP PANELS: All racks have removeable blank top panels. Ventilating top panels are available, (see Par-Metal Page 11).

RACK LEVELERS: Four holes are provided for insertion of levelers supplied with each rack.

DRAWINGS: Detailed drawings available for all of these racks.

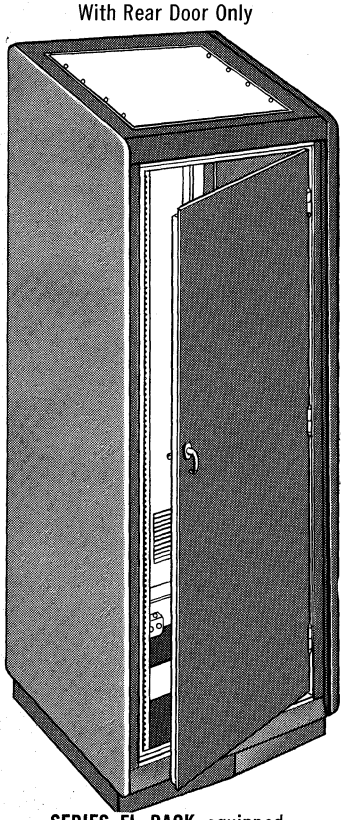


* SERIES FL RACKS
With Front and Rear Doors

RACK BASES: Heavy duty bases are optional at small extra cost. Where roller trucks are used rack bases are not required or recommended.

CONVENIENCE OUTLET: A grounding type duplex outlet is located at the rear below the door.

HARDWARE: All necessary bolts, screws, washers, nuts, and panel mounting screws are included.



SERIES FL RACK equipped with ball cornered side panels and recessed base attached.

***BALL CORNERED SIDE PANELS** and **RECESSED BASES** are optional accessories and are available at additional cost (see facing page).

BEFORE ORDERING PLEASE READ INSTRUCTIONS BELOW:

Specify racks by catalog number; also detachable side panels. (Catalog number of side panels is for one pair). If racks are set up in rows, please specify number in each row, so we can supply proper front joining vertical trims used between adjoining racks.

SPECIFY FINISH YOUR CHOICE OF THE FOLLOWING

"LH" for light grey hammertone enamel.

"DH" for dark grey hammertone enamel.

"LD" for light grey hammertone cabinets with dark grey hammertone trim on front of assembly.

"GM" for dark grey metallic enamel.

"BG" for blue grey wrinkle enamel.

"BW" for black wrinkle enamel.

"PC" for primer coat only.

SPECIAL ENAMEL AND LACQUER FINISHES CAN BE SUPPLIED WHERE QUANTITY WARRANTS

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PAR-METAL Modular Cabinet Racks

SERIES PL & FL RACKS FOR BALL CORNERED SIDE PANELS

TYPE "PL" SERIES RACKS — WITH REAR DOORS ONLY

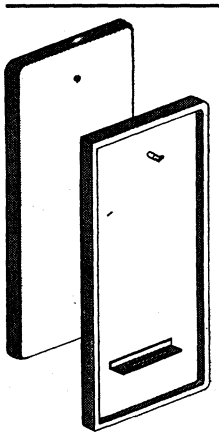
PARTIAL CHECK LIST OF AVAILABLE ACCESSORIES IS LISTED BELOW.

Catalog No.	Height	Width	Depth	Panel Space	* Clear Inside Depth	*** Clear Inside Width Front	Clear Inside Width Rear	Net Price	Side Panels Cat. No. Per Pair See Prices Below	Rack Base Cat. No. See Prices Below	Vertical Side Supports Cat. No. See Pg. 10 For Prices & Specs.	Side Mounting Brackets Cat. No. See Pg. 10 For Prices & Specs.	Roller Truck Cat. No. See Pg. 22 For Prices & Specs.
FOR 19" WIDE PANELS — 18⅜" DEEP RACKS													
PL-4818-B	48-1/8"	22-3/32"	18-3/8"	42-1/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	$ 92.00	RL-418-B	RB-2217	VS-42	BR-118	HD-425
PL-5818-B	58-5/8"	22-3/32"	18-3/8"	52-9/16"x19-1/8"	16-3/4"	17-3/4"	19-1/81	98.00	RL-518-B	RB-2217	VS-52	BR-118	HD-425
PL-6718-B	67-3/8"	22-3/32"	18-3/8"	61-5/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	105.00	RL-618-B	RB-2217	VS-61	BR-118	HD-425
PL-7718-B	76-1/8"	22-3/32"	18-3/8"	70-1/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	116.75	RL-718-B	RB-2217	VS-70	BR-118	HD-425
PL-8418-B	83-1/8"	22-3/32"	18-3/8"	77-1/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	128.50	RL-818-B	RB-2217	VS-77	BR-118	HD-425
FOR 19" WIDE PANELS — 24⅜" DEEP RACKS													
PL-4824-B	48-1/8"	22-3/32"	24-3/8"	42-1/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	110.50	RL-424-B	RB-2223	VS-42	BR-124	HD-426
PL-5824-B	58-5/8"	22-3/32"	24-3/8"	52-9/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	118.00	RL-524-B	RB-2223	VS-52	BR-124	HD-426
PL-6724-B	67-3/8"	22-3/32"	24-3/8"	61-5/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	126.00	RL-624-B	RB-2223	VS-61	BR-124	HD-426
PL-7724-B	76-1/8"	22-3/32"	24-3/8"	70-1/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	137.75	RL-724-B	RB-2223	VS-70	BR-124	HD-426
PL-8424-B	83-1/8"	22-3/32"	24-3/8"	77-1/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	152.75	RL-824-B	RB-2223	VS-77	BR-124	HD-426
PL-9024-B	90-1/8"	22-3/32"	24-3/8"	84-1/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	167.00	RL-924-B	RB-2223	VS-84	BR-124	HD-426
FOR 24" WIDE PANELS — 24⅜" DEEP RACKS													
PL-4827-B	48-1/8"	27-3/32"	24-3/8"	42-1/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	139.75	RL-424-B	RB-2723	VS-42	BR-124	HD-432
PL-5827-B	58-5/8"	27-3/32"	24-3/8"	52-9/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	149.00	RL-524-B	RB-2723	VS-52	BR-124	HD-432
PL-6727-B	67-3/8"	27-3/32"	24-3/8"	61-5/16"x24-1/8	22-3/4"	22-3/4"	24-1/8"	158.75	RL-624-B	RB-2723	VS-61	BR-124	HD-432
PL-7727-B	76-1/8"	27-3/32"	24-3/8"	70-1/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	170.50	RL-724-B	RB-2723	VS-70	BR-124	HD-432
PL-8427-B	83-1/8"	27-3/32"	24-3/8"	77-1/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	187.50	RL-824-B	RB-2723	VS-77	BR-124	HD-432
PL-9027-B	90-1/8"	27-3/32"	24-3/8"	84-1/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	205.00	RL-924-B	RB-2723	VS-84	BR-124	HD-432
FOR 30" WIDE PANELS — 24⅜" DEEP RACKS													
PL-4833-B	48-1/8"	33-3/32"	24-3/8"	42-1/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	160.00	RL-424-B	RB-3323	VS-42	BR-124	HD-438
PL-5833-B	58-5/8"	33-3/32"	24-3/8"	52-9/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	175.00	RL-524-B	RB-3323	VS-52	BR-124	HD-438
PL-6733-B	67-3/8"	33-3/32"	24-3/8"	61-5/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	189.50	RL-624-B	RB-3323	VS-61	BR-124	HD-438
PL-7733-B	76-1/8"	33-3/32"	24-3/8"	70-1/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	205.50	RL-724-B	RB-3323	VS-70	BR-124	HD-438
PL-8433-B	83-1/8"	33-3/32"	24-3/8"	77-1/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	224.25	RL-824-B	RB-3323	VS-77	BR-124	HD-438
PL-9033-B	90-1/8"	33-3/32"	24-3/8"	84-1/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	243.00	RL-924-B	RB-3323	VS-84	BR-124	HD-438

TYPE "FL" SERIES RACKS — WITH FRONT AND REAR DOORS

Catalog No.	Height	Width	Depth	Panel Space	** Clear Inside Depth	*** Clear Inside Width Front	Clear Inside Width Rear	Net Price	Side Panels Cat. No. Per Pair See Prices Below	Rack Base Cat. No. See Prices Below	Vertical Side Supports Cat. No. See Pg. 10 For Prices & Specs.	Side Mounting Brackets Cat. No. See Pg. 10 For Prices & Specs.	Roller Truck Cat. No. See Pg. 22 For Prices & Specs.
FOR 19" WIDE PANELS — 18⅜" DEEP RACKS													
FL-4818-B	48-1/8"	22-3/32"	18-3/8"	42-1/16"x19-1/8"	16"	17-3/4"	19-1/8"	$109.25	RL-418-B	RB-2217	VS-42	BR-118	HD-425
FL-5818-B	58-5/8"	22-3/32"	18-3/8"	52-9/16"x19-1/8"	16"	17-3/4"	19-1/8"	119.00	RL-518-B	RB-2217	VS-52	BR-118	HD-425
FL-6718-B	67-3/8"	22-3/32"	18-3/8"	61-5/16"x19-1/8"	16"	17-3/4"	19-1/8"	128.00	RL-618-B	RB-2217	VS-61	BR-118	HD-425
FL-7718-B	76-1/8"	22-3/32"	18-3/8"	70-1/16"x19-1/8"	16"	17-3/4"	19-1/8"	145.25	RL-718-B	RB-2217	VS-70	BR-118	HD-425
FL-8418-B	83-1/8"	22-3/32"	18-3/8"	77-1/16"x19-1/8"	16"	17-3/4"	19-1/8"	157.00	RL-818-B	RB-2217	VS-77	BR-118	HD-425
FOR 19" WIDE PANELS — 24⅜" DEEP RACKS													
FL-4824-B	48-1/8"	22-3/32"	24-3/8"	42-1/16"x19-1/8"	22"	17-3/4"	19-1/8"	130.75	RL-424-B	RB-2223	VS-42	BR-124	HD-426
FL-5824-B	58-5/8"	22-3/32"	24-3/8"	52-9/16"x19-1/8"	22"	17-3/4"	19-1/8"	140.50	RL-524-B	RB-2223	VS-52	BR-124	HD-426
FL-6724-B	67-3/8"	22-3/32"	24-3/8"	61-5/16"x19-1/8"	22"	17-3/4"	19-1/8"	149.00	RL-624-B	RB-2223	VS-61	BR-124	HD-426
FL-7724-B	76-1/8"	22-3/32"	24-3/8"	70-1/16"x19-1/8"	22"	17-3/4"	19-1/8"	166.75	RL-724-B	RB-2223	VS-70	BR-124	HD-426
FL-8424-B	83-1/8"	22-3/32"	24-3/8"	77-1/16"x19-1/8"	22"	17-3/4"	19-1/8"	181.25	RL-824-B	RB-2223	VS-77	BR-124	HD-426
FL-9024-B	90-1/8"	22-3/32"	24-3/8"	84-1/16"x19-1/8"	22"	17-3/4"	19-1/8"	195.00	RL-924-B	RB-2223	VS-84	BR-124	HD-426
FOR 24" WIDE PANELS — 24⅜" DEEP RACKS													
FL-4827-B	48-1/8"	27-3/32"	24-3/8"	42-1/16"x24-1/8"	22"	22-3/4"	24-1/8"	160.00	RL-424-B	RB-2723	VS-42	BR-124	HD-432
FL-5827-B	58-5/8"	27-3/32"	24-3/8"	52-9/16"x24-1/8"	22"	22-3/4"	24-1/8"	172.00	RL-524-B	RB-2723	VS-52	BR-124	HD-432
FL-6727-B	67-3/8"	27-3/32"	24-3/8"	61-5/16"x24-1/8"	22"	22-3/4"	24-1/8"	188.00	RL-624-B	RB-2723	VS-61	BR-124	HD-432
FL-7727-B	76-1/8"	27-3/32"	24-3/8"	70-1/16"x24-1/8"	22"	22-3/4"	24-1/8"	199.00	RL-724-B	RB-2723	VS-70	BR-124	HD-432
FL-8427-B	83-1/8"	27-3/32"	24-3/8"	77-1/16"x24-1/8"	22"	22-3/4"	24-1/8"	223.00	RL-824-B	RB-2723	VS-77	BR-124	HD-432
FL-9027-B	90-1/8"	27-3/32"	24-3/8"	84-1/16"x24-1/8"	22"	22-3/4"	24-1/8"	245.00	RL-924-B	RB-2723	VS-84	BR-124	HD-432
FOR 30" WIDE PANELS — 24⅜" DEEP RACKS													
FL-4833-B	48-1/8"	33-3/32"	24-3/8"	42-1/16"x30-1/8"	22"	28-3/4"	30-1/8"	185.00	RL-424-B	RB-3323	VS-42	BR-124	HD-438
FL-5833-B	58-5/8"	33-3/32"	24-3/8"	52-9/16"x30-1/8"	22"	28-3/4"	30-1/8"	210.00	RL-524-B	RB-3323	VS-52	BR-124	HD-438
FL-6733-B	67-3/8"	33-3/32"	24-3/8"	61-5/16"x30-1/8"	22"	28-3/4"	30-1/8"	231.50	RL-624-B	RB-3323	VS-61	BR-124	HD-438
FL-7733-B	76-1/8"	33-3/32"	24-3/8"	70-1/16"x30-1/8"	22"	28-3/4"	30-1/8"	252.75	RL-724-B	RB-3323	VS-70	BR-124	HD-438
FL-8433-B	83-1/8"	33-3/32"	24-3/8"	77-1/16"x30-1/8"	22"	28-3/4"	30-1/8"	274.00	RL-824-B	RB-3323	VS-77	BR-124	HD-438
FL-9033-B	90-1/8"	33-3/32"	24-3/8"	84-1/16"x30-1/8"	22"	28-3/4"	30-1/8"	293.00	RL-924-B	RB-3323	VS-84	BR-124	HD-438

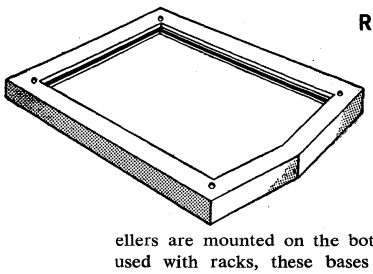
* ADD 1" to depth for adjacent areas not limited by handle latch. ** ADD 1¾" to depth for adjacent areas not limited by handle latches. *** Indicates clearance for chassis between panel mounting angles.



BALL CORNERED SIDE PANELS

These side panels are sturdily constructed from #16 gauge steel; they have formed edges, and are welded at all four corners. They are supplied with coinciding brackets at the bottom for easy alignment with the rack sides. At the top, they are secured with a cowl fastener, making them readily removable. Panels are 1-1/4 inches thick. They are available in all finishes to match racks.

Catalog No.	To Fit Racks	Net Price (per pair)
RL-418-B	PL or FL-4818	$40.00
RL-518-B	PL or FL-5818	44.20
RL-618-B	PL or FL-6718	48.90
RL-718-B	PL or FL-7718	52.20
RL-818-B	PL or FL-8418	55.80
RL-424-B	PL or FL-4824, 4827, 4833	47.20
RL-524-B	PL or FL-5824, 5827, 5833	51.00
RL-624-B	PL or FL-6724, 6727, 6733	55.80
RL-724-B	PL or FL-7724, 7727, 7733	59.40
RL-824-B	PL or FL-8424, 8427, 8433	62.80
RL-924-B	PL or FL-9024, 9027, 9033	66.20



RECESSED RACK BASES

These heavy duty bases are made from #12 gauge (7/64") steel, rigidly formed and welded. Tapped holes are provided on top to match holes in bottom of racks; four adjustable floor levellers are mounted on the bottom. Where roller trucks are used with racks, these bases are not required. **All bases are 2-1/2" high.**

Catalog No.	To Fit All Racks	Net Price
RB-2217	22" wide 18" deep	$15.00
RB-2223	22" wide 24" deep	16.00
RB-2723	27" wide 24" deep	17.50
RB-3323	33" wide 24" deep	18.75

PAR-METAL PRODUCTS CORP. • ENGINEERING ASSISTANCE AVAILABLE

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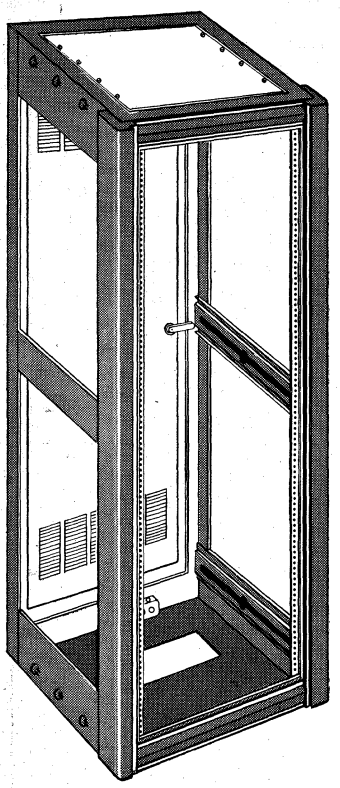
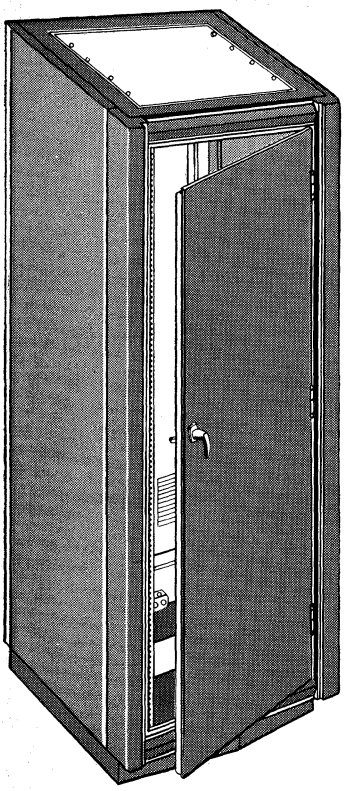
PAR-METAL Modular Cabinet Racks

SERIES PR & FR RACKS FOR FLUSH SIDE PANELS

FOR 19″ — 24″ — 30″ WIDE PANELS — 18⅜″ & 24⅜″ DEEP



*** SERIES PR RACKS**
With Rear Doors Only



SERIES FR RACK
equipped with flush side panels and recessed base.

*** FLUSH MOUNTED SIDE PANELS** and **RECESSED BASES** are optional accessories and are available at additional cost (see facing page).

SERIES PR AND FR CABINET RACKS have new horizontal mouldings and vertical corner trims on the front of racks, with new compact flush side panels create a distinctive appearance in keeping with the current trend in cabinet styling. In effect, a frame is provided which can be finished in a contrasting color at your option.

FRAMES: Rack frames are made of #12 gauge steel (0.104″) and are securely welded to obtain extra rigidity and stability. Doors are made from one piece of #16 gauge steel (0.059″).

PANEL MOUNTING ANGLES: Angles are made from 3/16″ structural steel. Hole spacing meets both WE and EIA requirements. Holes are tapped for 12-24 screws, 10-32 tapped holes are optional at no extra cost. Angles are rigidly secured with three 3/8″ diameter bolts; angle may be located at any position from front to rear.

DOORS: A louvered rear door is regularly supplied on all racks; on *FR* racks an additional front door (less louvres) is supplied. Plain doors, or doors louvered at the top or bottom are optional at no extra cost (see Par-Metal Page 11). Racks 30″ wide have double doors with three point latching device in center, to save aisle space.

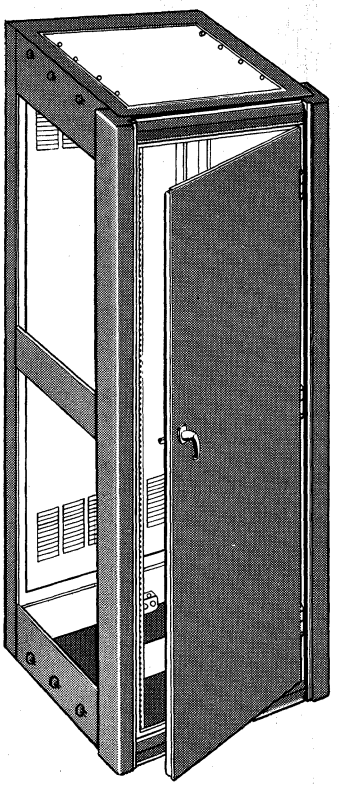
HINGES: Doors are mounted on slip-joint hinges and are easily removeable.

HANDLES: Door handles are die cast with chrome plated finish. *PR* Series rear doors have non-locking handles. Front and rear doors of *FR* Series racks have locking handles with keys. Locking handles may be obtained for *PR* Series doors at $1.00 each additional.

TOP PANELS: All racks have removeable blank top panels. Ventilating top panels are available, (see Par-Metal Page 11).

RACK LEVELERS: Four holes are provided for insertion of levelers supplied with each rack.

DRAWINGS: Detailed drawings available for all racks.



*** SERIES FR RACKS**
With Front and Rear Doors

RACK BASES: Heavy duty bases are optional at small extra cost. Where roller trucks are used rack bases are not required or recommended.

CONVENIENCE OUTLET: A grounding type duplex outlet is located at the rear below the door.

HARDWARE: All necessary bolts, screws, washers, nuts, and panel mounting screws are included.

BEFORE ORDERING PLEASE READ INSTRUCTIONS BELOW:

Specify racks by catalog number; also detachable side panels. (Catalog number of side panels is for one pair). If racks are set up in rows, please specify number in each row, so we can supply proper front joining vertical trims used between adjoining racks.

SPECIFY FINISH YOUR CHOICE OF THE FOLLOWING

"LH" for light grey hammertone enamel.
"DH" for dark grey hammertone enamel.
"LD" for light grey hammertone cabinets with dark grey hammertone trim on front of assembly.
"GM" for dark grey metallic enamel.
"BG" for blue grey wrinkle enamel.
"BW" for black wrinkle enamel.
"PC" for primer coat only.

SPECIAL ENAMEL AND LACQUER FINISHES CAN BE SUPPLIED WHERE QUANTITY WARRANTS

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PAR-METAL Modular Cabinet Racks

SERIES PR & FR RACKS FOR FLUSH SIDE PANELS

TYPE "PR" SERIES RACKS — WITH REAR DOORS ONLY

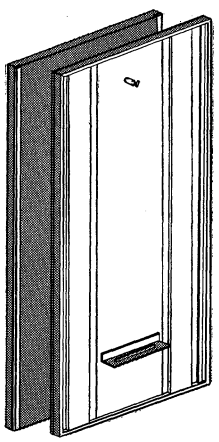
PARTIAL CHECK LIST OF AVAILABLE ACCESSORIES IS LISTED BELOW.

Catalog No.	Height	Width	Depth	Panel Space	* Clear Inside Depth	*** Clear Inside Width Front	Clear Inside Width Rear	Net Price	Side Panels Cat. No. Per Pair See Prices Below	Rack Base Cat. No. See Prices Below	Vertical Side Supports Cat. No. See Pg. 10 For Prices & Specs.	Side Mounting Brackets Cat. No. See Pg. 10 For Prices & Specs.	Roller Truck Cat. No. See Pg. 22 For Prices & Specs.
FOR 19" WIDE PANELS — 18⅜" DEEP RACKS													
PR-4818-B	48-1/8"	22-3/32"	18-3/8"	42-1/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	$ 80.60	RS-418-B	RB-2217	VS-42	BR-118	HD-425
PR-5818-B	58-5/8"	22-3/32"	18-3/8"	52-9/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	86.25	RS-518-B	RB-2217	VS-52	BR-118	HD-425
PR-6718-B	67-3/8"	22-3/32"	18-3/8"	61-5/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	92.20	RS-618-B	RB-2217	VS-61	BR-118	HD-425
PR-7718-B	76-1/8"	22-3/32"	18-3/8"	70-1/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	103.80	RS-718-B	RB-2217	VS-70	BR-118	HD-425
PR-8418-B	83-1/8"	22-3/32"	18-3/8"	77-1/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	115.20	RS-818-B	RB-2217	VS-77	BR-118	HD-425
FOR 19" WIDE PANELS — 24⅜" DEEP RACKS													
PR-4824-B	48-1/8"	22-3/32"	24-3/8"	42-1/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	97.70	RS-424-B	RB-2223	VS-42	BR-124	HD-426
PR-5824-B	58-5/8"	22-3/32"	24-3/8"	52-9/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	105.00	RS-524-B	RB-2223	VS-52	BR-124	HD-426
PR-6724-B	67-3/8"	22-3/32"	24-3/8"	61-5/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	112.00	RS-624-B	RB-2223	VS-61	BR-124	HD-426
PR-7724-B	76-1/8"	22-3/32"	24-3/8"	70-1/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	123.50	RS-724-B	RB-2223	VS-70	BR-124	HD-426
PR-8424-B	83-1/8"	22-3/32"	24-3/8"	77-1/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	138.30	RS-824-B	RB-2223	VS-77	BR-124	HD-426
PR-9024-B	90-1/8"	22-3/32"	24-3/8"	84-1/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	153.00	RS-924-B	RB-2223	VS-84	BR-124	HD-426
FOR 24" WIDE PANELS — 24⅜" DEEP RACKS													
PR-4827-B	48-1/8"	27-3/32"	24-3/8"	42-1/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	126.20	RS-424-B	RB-2723	VS-42	BR-124	HD-432
PR-5827-B	58-5/8"	27-3/32"	24-3/8"	52-9/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	136.70	RS-524-B	RB-2723	VS-52	BR-124	HD-432
PR-6727-B	67-3/8"	27-3/32"	24-3/8"	61-5/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	143.80	RS-624-B	RB-2723	VS-61	BR-124	HD-432
PR-7727-B	76-1/8"	27-3/32"	24-3/8"	70-1/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	155.30	RS-724-B	RB-2723	VS-70	BR-124	HD-432
PR-8427-B	83-1/8"	27-3/32"	24-3/8"	77-1/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	172.30	RS-824-B	RB-2723	VS-77	BR-124	HD-432
PR-9027-B	90-1/8"	27-3/32"	24-3/8"	84-1/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	190.00	RS-924-B	RB-2723	VS-84	BR-124	HD-432
FOR 30" WIDE PANELS — 24⅜" DEEP RACKS													
PR-4833-B	48-1/8"	33-3/32"	24-3/8"	42-1/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	147.50	RS-424-B	RB-3323	VS-42	BR-124	HD-438
PR-5833-B	58-5/8"	33-3/32"	24-3/8"	52-9/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	160.00	RS-524-B	RB-3323	VS-52	BR-124	HD-438
PR-6733-B	67-3/8"	33-3/32"	24-3/8"	61-5/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	173.20	RS-624-B	RB-3323	VS-61	BR-124	HD-438
PR-7733-B	76-1/8"	33-3/32"	24-3/8"	70-1/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	189.00	RS-724-B	RB-3323	VS-70	BR-124	HD-438
PR-8433-B	83-1/8"	33-3/32"	24-3/8"	77-1/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	207.40	RS-824-B	RB-3323	VS-77	BR-124	HD-438
PR-9033-B	90-1/8"	33-3/32"	24-3/8"	84-1/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	225.00	RS-924-B	RB-3323	VS-84	BR-124	HD-438

TYPE "FR" SERIES RACKS — WITH FRONT AND REAR DOORS

Catalog No.	Height	Width	Depth	Panel Space	** Clear Inside Depth	*** Clear Inside Width Front	Clear Inside Width Rear	Net Price	Side Panels Cat. No. Per Pair See Prices Below	Rack Base Cat. No. See Prices Below	Vertical Side Supports Cat. No. See Pg. 10 For Prices & Specs.	Side Mounting Brackets Cat. No. See Pg. 10 For Prices & Specs.	Roller Truck Cat. No. See Pg. 22 For Prices & Specs.
FOR 19" WIDE PANELS — 18⅜" DEEP RACKS													
FR-4818-B	48-1/8"	22-3/32"	18-3/8"	42-1/16"x19-1/8"	16"	17-3/4"	19-1/8"	$ 97.70	RS-418-B	RB-2217	VS-42	BR-118	HD-425
FR-5818-B	58-5/8"	22-3/32"	18-3/8"	52-9/16"x19-1/8"	16"	17-3/4"	19-1/8"	107.50	RS-518-B	RB-2217	VS-52	BR-118	HD-425
FR-6718-B	67-3/8"	22-3/32"	18-3/8"	61-5/16"x19-1/8"	16"	17-3/4"	19-1/8"	115.20	RS-618-B	RB-2217	VS-61	BR-118	HD-425
FR-7718-B	76-1/8"	22-3/32"	18-3/8"	70-1/16"x19-1/8"	16"	17-3/4"	19-1/8"	132.20	RS-718-B	RB-2217	VS-70	BR-118	HD-425
FR-8418-B	83-1/8"	22-3/32"	18-3/8"	77-1/16"x19-1/8"	16"	17-3/4"	19-1/8"	143.80	RS-818-B	RB-2217	VS-77	BR-118	HD-425
FOR 19" WIDE PANELS — 24⅜" DEEP RACKS													
FR-4824-B	48-1/8"	22-3/32"	24-3/8"	42-1/16"x19-1/8"	22"	17-3/4"	19-1/8"	118.00	RS-424-B	RB-2223	VS-42	BR-124	HD-426
FR-5824-B	58-5/8"	22-3/32"	24-3/8"	52-9/16"x19-1/8"	22"	17-3/4"	19-1/8"	128.50	RS-524-B	RB-2223	VS-52	BR-124	HD-426
FR-6724-B	67-3/8"	22-3/32"	24-3/8"	61-5/16"x19-1/8"	22"	17-3/4"	19-1/8"	134.90	RS-624-B	RB-2223	VS-61	BR-124	HD-426
FR-7724-B	76-1/8"	22-3/32"	24-3/8"	70-1/16"x19-1/8"	22"	17-3/4"	19-1/8"	152.50	RS-724-B	RB-2223	VS-70	BR-124	HD-426
FR-8424-B	83-1/8"	22-3/32"	24-3/8"	77-1/16"x19-1/8"	22"	17-3/4"	19-1/8"	166.80	RS-824-B	RB-2223	VS-77	BR-124	HD-426
FR-9024-B	90-1/8"	22-3/32"	24-3/8"	84-1/16"x19-1/8"	22"	17-3/4"	19-1/8"	181.50	RS-924-B	RB-2223	VS-84	BR-124	HD-426
FOR 24" WIDE PANELS — 24⅜" DEEP RACKS													
FR-4827-B	48-1/8"	27-3/32"	24-3/8"	42-1/16"x24-1/8"	22"	22-3/4"	24-1/8"	146.50	RS-424-B	RB-2723	VS-42	BR-124	HD-432
FR-5827-B	58-5/8"	27-3/32"	24-3/8"	52-9/16"x24-1/8"	22"	22-3/4"	24-1/8"	162.20	RS-524-B	RB-2723	VS-52	BR-124	HD-432
FR-6727-B	67-3/8"	27-3/32"	24-3/8"	61-5/16"x24-1/8"	22"	22-3/4"	24-1/8"	172.90	RS-624-B	RB-2723	VS-61	BR-124	HD-432
FR-7727-B	76-1/8"	27-3/32"	24-3/8"	70-1/16"x24-1/8"	22"	22-3/4"	24-1/8"	183.80	RS-724-B	RB-2723	VS-70	BR-124	HD-432
FR-84^7-B	83-1/8"	27-3/32"	24-3/8"	77-1/16"x24-1/8"	22"	22-3/4"	24-1/8"	207.40	RS-824-B	RB-2723	VS-77	BR-124	HD-432
FR-9027-B	90-1/8"	27-3/32"	24-3/8"	84-1/16"x24-1/8"	22"	22-3/4"	24-1/8"	218.50	RS-924-B	RB-2723	VS-84	BR-124	HD-432
FOR 30" WIDE PANELS — 24⅜" DEEP RACKS													
FR-4833-B	48-1/8"	33-3/32"	24-3/8"	42-1/16"x30-1/8"	22"	28-3/4"	30-1/8"	180.00	RS-424-B	RB-3323	VS-42	BR-124	HD-438
FR-5833-B	58-5/8"	33-3/32"	24-3/8"	52-9/16"x30-1/8"	22"	28-3/4"	30-1/8"	197.50	RS-524-B	RB-3323	VS-52	BR-124	HD-438
FR-6733-B	67-3/8"	33-3/32"	24-3/8"	61-5/16"x30-1/8"	22"	28-3/4"	30-1/8"	215.20	RS-624-B	RB-3323	VS-61	BR-124	HD-438
FR-7733-B	76-1/8"	33-3/32"	24-3/8"	70-1/16"x30-1/8"	22"	28-3/4"	30-1/8"	236.20	RS-724-B	RB-3323	VS-70	BR-124	HD-438
FR-8433-B	83-1/8"	33-3/32"	24-3/8"	77-1/16"x30-1/8"	22"	28-3/4"	30-1/8"	257.20	RS-824-B	RB-3323	VS-77	BR-124	HD-438
FR-9033-B	90-1/8"	33-3/32"	24-3/8"	84-1/16"x30-1/8"	22"	28-3/4"	30-1/8"	275.00	RS-924-B	RB-3323	VS-84	BR-124	HD-438

* ADD 1" to depth for adjacent areas not limited by handle latch. ** ADD 1¾" to depth for adjacent areas not limited by handle latches. *** Indicates clearance for chassis between panel mounting angles.



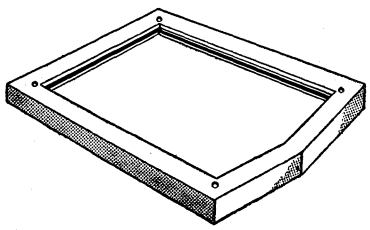
FLUSH MOUNTED SIDE PANELS

Side panels are sturdily constructed from #16 gauge steel; they have formed edges, and are welded at all four corners. The vertical edges are trimmed with recessed stainless steel mouldings to harmonize with the styling of the front of the rack.

They are supplied with coinciding brackets at the bottom, for easy alignment with the rack sides. At the top, they are secured with a cowl type fastener, making them readily removable. Panels are 3/4" thick. They are available in all finishes to match racks.

Catalog No.	To Fit Racks	Net Price (per pair)
RS-418-B	PR or FR-4818	$34.50
RS-518-B	PR or FR-5818	38.70
RS-618-B	PR or FR-6718	41.40
RS-718-B	PR or FR-7718	44.70
RS-818-B	PR or FR-8418	48.30
RS-424-B	PR or FR-4824, 4827, 4833	41.70
RS-524-B	PR or FR-5824, 5827, 5833	45.90
RS-624-B	PR or FR-6724, 6727, 6733	48.30
RS-724-B	PR or FR-7724, 7727, 7733	51.90
RS-824-B	PR or FR-8424, 8427, 8433	55.10
RS-924-B	PR or FR-9024, 9027, 9033	58.30

RECESSED RACK BASES



These heavy duty bases are made from #12 gauge (7/64") steel, rigidly formed and welded. Tapped holes are provided on top to match holes in bottom of racks; four adjustable floor levellers are mounted on the bottom. Where roller trucks are used with racks, these bases are not required. **All bases are 2-1/2" high.**

Catalog No.	To Fit All Racks	Net Price
RB-2217	22" wide 18" deep	$15.00
RB-2223	22" wide 24" deep	16.00
RB-2723	27" wide 24" deep	17.50
RB-3323	33" wide 24" deep	18.75

ASK YOUR DISTRIBUTOR FOR PAR-METAL PRODUCTS CORP. CATALOG

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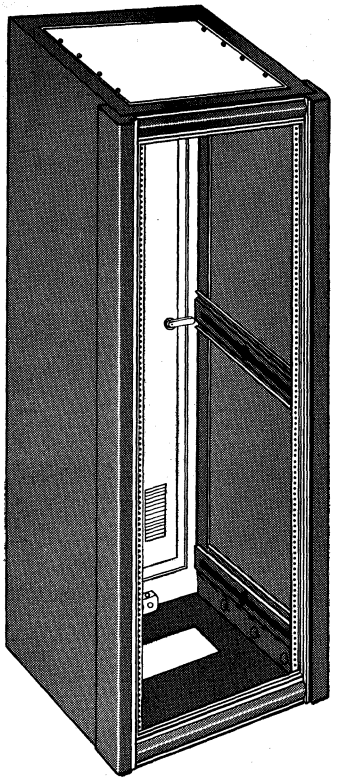
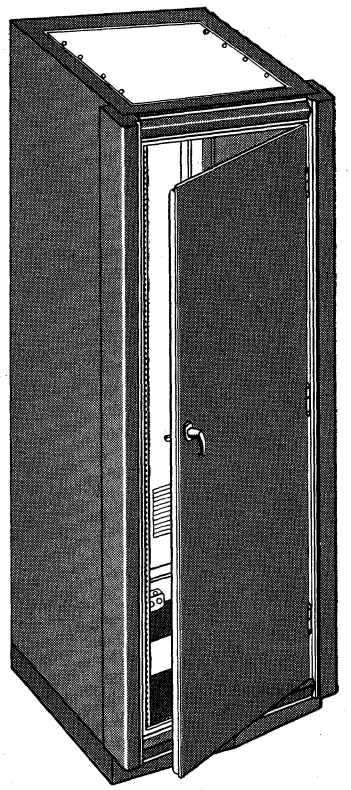
PAR-METAL Modular Cabinet Racks

SERIES PX & FX RACKS WITH SOLID SIDE WALLS

FOR 19" — 24" — 30" WIDE PANELS — 18¼" & 24¼" DEEP



* SERIES PX RACKS
With Rear Door Only



SERIES FX RACKS
equipped with
recessed base

* The **RECESSED BASE** is an optional accessory and is available at an additional cost (see opposite page).

SERIES PX AND FX RACKS are similar to our *PR* Racks listed on *Par-Metal Pages 5* and *6* except that they are constructed with *SOLID SIDE WALLS* as shown. Where open side racks are not required, the cost of detachable side panels is eliminated.

These racks feature the same horizontal mouldings and corner trims used on our *PR* Series, resulting in a trim, compact appearance. The new styling, in effect, provides an attractive frame around the front of the rack where contrasting color finishes are used.

RACK CONSTRUCTION: The front, sides and doors are made from #16 gauge steel (0.059"). Trims are #18 gauge steel (0.048"). All other parts including the top and bottom are made from #12 gauge steel (0.104") securely welded for rigidity and stability.

PANEL MOUNTING ANGLES: Angles are made from 3/16" structural steel. Hole spacing meets both WE and EIA requirements. Holes are tapped for 12-24 screws, 10-32 tapped holes are optional at no extra cost. Angles are rigidly secured with three 3/8" diameter bolts; angle may be located at any position from front to rear.

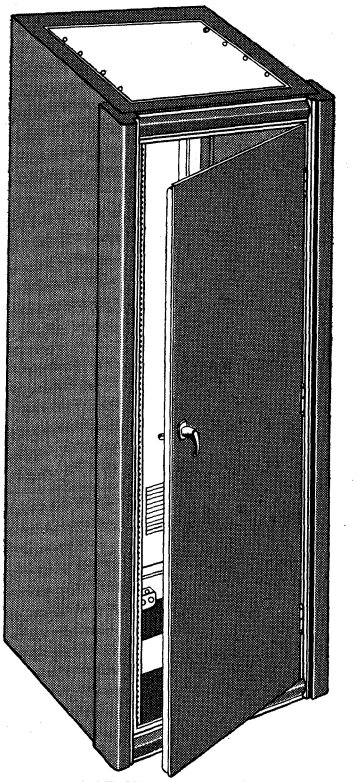
DOORS: A louvered rear door is regularly supplied on all racks; on *FX* racks, an additional front door (less louvres) is supplied. Plain doors, or doors louvered at the top or bottom are optional at no extra cost (See Par-Metal Page 11). Racks 30" wide have double doors with three point latching devices in center, to save aisle space.

HINGES: Doors are mounted on slip-joint hinges and are easily removable.

HANDLES: Door handles are die cast with chrome plated finish. *PX* Series doors have non-locking handles. Front and rear doors of *FX* racks have locking handles with keys. Locking handles may be obtained for *PX* Series doors at $1.00 each additional.

TOP PANELS: All racks have removable blank top panels. Ventilating top panels are available, (see Par-Metal Page 11).

RACK LEVELERS: Four holes are provided for insertion of levelers supplied with each rack.



* SERIES FX RACKS
With Front and Rear Doors

RACK BASES: Heavy duty bases are optional at small extra cost. Where roller trucks are used rack bases are not required or recommended.

CONVENIENCE OUTLET: A grounding type duplex outlet is located at the rear below the door.

HARDWARE: All necessary bolts, screws, washers, nuts, and panel mounting screws are included.

DRAWINGS: Detailed drawings are available for all these racks.

BEFORE ORDERING PLEASE READ INSTRUCTIONS BELOW:

Specify racks by catalog number. If racks are set up in rows, please specify number in each row, so we can supply proper front joining vertical trims used between adjoining racks.

SPECIFY FINISH YOUR CHOICE OF THE FOLLOWING

"LH" for light grey hammertone enamel.

"DH" for dark grey hammertone enamel.

"LD" for light grey hammertone cabinets with dark grey hammertone trim on front of assembly.

"GM" for dark grey metallic enamel.

"BG" for blue grey wrinkle enamel.

"BW" for black wrinkle enamel.

"PC" for primer coat only.

SPECIAL ENAMEL AND LACQUER FINISHES CAN BE SUPPLIED WHERE QUANTITY WARRANTS

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PAR-METAL Modular Cabinet Racks

SERIES PX & FX RACKS WITH SOLID SIDE WALLS

TYPE "PX" SERIES RACKS — WITH REAR DOORS ONLY

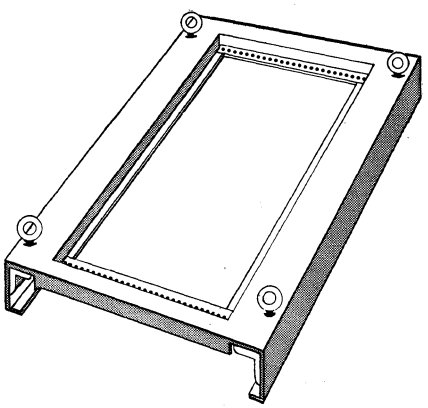
PARTIAL CHECK LIST OF AVAILABLE ACCESSORIES IS LISTED BELOW.

Catalog No.	Height	Width	Depth	Panel Space	* Clear Inside Depth	*** Clear Inside Width Front	Clear Inside Width Rear	Net Price	Rack Base Catalog No. See Prices Below	Vertical Side Supports Catalog No. See Pg. 10 for Prices & Specs.	Side Mounting Brackets Catalog No. See Pg. 10 for Prices & Specs.	Roller Truck Catalog No. See Pg. 22 for Prices & Specs.
FOR 19" WIDE PANELS — 18¼" DEEP RACKS												
PX-3718-B	42-7/8"	22"	18¼"	36-13/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	$ 69.00	RB-2217	VS-36	BR-118	HD-412
PX-4818-B	48-1/8"	22"	18¼"	42- 1/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	80.60	RB-2217	VS-42	BR-118	HD-412
PX-5818-B	58-5/8"	22"	18¼"	52- 9/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	86.25	RB-2217	VS-52	BR-118	HD-412
PX-6718-B	67-3/8"	22"	18¼"	61- 5/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	92.20	RB-2217	VS-61	BR-118	HD-412
PX-7718-B	76-1/8"	22"	18¼"	70- 1/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	103.80	RB-2217	VS-70	BR-118	HD-412
PX-8418-B	83-1/8"	22"	18¼"	77- 1/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	115.20	RB-2217	VS-77	BR-118	HD-412
FOR 19" WIDE PANELS — 24¼" DEEP RACKS												
PX-4824-B	48-1/8"	22"	24¼"	42- 1/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	97.70	RB-2223	VS-42	BR-124	HD-420
PX-5824-B	58-5/8"	22"	24¼"	52- 9/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	105.00	RB-2223	VS-52	BR-124	HD-420
PX-6724-B	67-3/8"	22"	24¼"	61- 5/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	112.00	RB-2223	VS-61	BR-124	HD-420
PX-7724-B	76-1/8"	22"	24¼"	70- 1/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	123.50	RB-2223	VS-70	BR-124	HD-420
PX-8424-B	83-1/8"	22"	24¼"	77- 1/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	138.30	RB-2223	VS-77	BR-124	HD-420
PX-9024-B	90-1/8"	22"	24¼"	84- 1/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	153.00	RB-2223	VS-84	BR-124	HD-420
FOR 24" WIDE PANELS — 24¼" DEEP RACKS												
PX-4827-B	48-1/8"	27"	24¼"	42- 1/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	126.20	RB-2723	VS-42	BR-124	HD-427
PX-5827-B	58-5/8"	27"	24¼"	52- 9/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	136.70	RB-2723	VS-52	BR-124	HD-427
PX-6727-B	67-3/8"	27"	24¼"	61- 5/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	143.80	RB-2723	VS-61	BR-124	HD-427
PX-7727-B	76-1/8"	27"	24¼"	70- 1/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	155.30	RB-2723	VS-70	BR-124	HD-427
PX-8427-B	83-1/8"	27"	24¼"	77- 1/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	172.30	RB-2723	VS-77	BR-124	HD-427
PX-9027-B	90-1/8"	27"	24¼"	84- 1/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	190.00	RB-2723	VS-84	BR-124	HD-427
FOR 30" WIDE PANELS — 24¼" DEEP RACKS												
PX-4833-B	48-1/8"	33"	24¼"	42- 1/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	147.50	RB-3323	VS-42	BR-124	HD-434
PX-5833-B	58-5/8"	33"	24¼"	52- 9/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	160.00	RB-3323	VS-52	BR-124	HD-434
PX-6733-B	67-3/8"	33"	24¼"	61- 5/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	173.20	RB-3323	VS-61	BR-124	HD-434
PX-7733-B	76-1/8"	33"	24¼"	70- 1/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	189.00	RB-3323	VS-70	BR-124	HD-434
PX-8433-B	83-1/8"	33"	24¼"	77- 1/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	207.40	RB-3323	VS-77	BR-124	HD-434
PX-9033-B	90-1/8"	33"	24¼"	84- 1/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	225.00	RB-3323	VS-84	BR-124	HD-434

TYPE "FX" SERIES RACKS — WITH FRONT AND REAR DOORS

Catalog No.	Height	Width	Depth	Panel Space	** Clear Inside Depth	*** Clear Inside Width Front	Clear Inside Width Rear	Net Price	Rack Base Catalog No. See Prices Below	Vertical Side Supports Catalog No. See Pg. 10 for Prices & Specs.	Side Mounting Brackets Catalog No. See Pg. 10 for Prices & Specs.	Roller Truck Catalog No. See Pg. 22 for Prices & Specs.
FOR 19" WIDE PANELS — 18¼" DEEP RACKS												
FX-3718-B	42-7/8"	22"	18¼"	36-13/16"x19-1/8"	16"	17-3/4"	19-1/8"	$ 85.90	RB-2217	VS-36	BR-118	HD-412
FX-4818-B	48-1/8"	22"	18¼"	42- 1/16"x19-1/8"	16"	17-3/4"	19-1/8"	97.70	RB-2217	VS-42	BR-118	HD-412
FX-5818-B	58-5/8"	22"	18¼"	52- 9/16"x19-1/8"	16"	17-3/4"	19-1/8"	107.50	RB-2217	VS-52	BR-118	HD-412
FX-6718-B	67-3/8"	22"	18¼"	61- 5/16"x19-1/8"	16"	17-3/4"	19-1/8"	115.20	RB-2217	VS-61	BR-118	HD-412
FX-7718-B	76-1/8"	22"	18¼"	70- 1/16"x19-1/8"	16"	17-3/4"	19-1/8"	132.20	RB-2217	VS-70	BR-118	HD-412
FX-8418-B	83-1/8"	22"	18¼"	77- 1/16"x19-1/8"	16"	17-3/4"	19-1/8"	143.80	RB-2217	VS-77	BR-118	HD-412
FOR 19" WIDE PANELS — 24¼" DEEP RACKS												
FX-4824-B	48-1/8"	22"	24¼"	42- 1/16"x19-1/8"	22"	17-3/4"	19-1/8"	118.00	RB-2223	VS-42	BR-124	HD-420
FX-5824-B	58-5/8"	22"	24¼"	52- 9/16"x19-1/8"	22"	17-3/4"	19-1/8"	128.50	RB-2223	VS-52	BR-124	HD-420
FX-6724-B	67-3/8"	22"	24¼"	61- 5/16"x19-1/8"	22"	17-3/4"	19-1/8"	134.90	RB-2223	VS-61	BR-124	HD-420
FX-7724-B	76-1/8"	22"	24¼"	70- 1/16"x19-1/8"	22"	17-3/4"	19-1/8"	152.50	RB-2223	VS-70	BR-124	HD-420
FX-8424-B	83-1/8"	22"	24¼"	77- 1/16"x19-1/8"	22"	17-3/4"	19-1/8"	166.80	RB-2223	VS-77	BR-124	HD-420
FX-9024-B	90-1/8"	22"	24¼"	84- 1/16"x19-1/8"	22"	17-3/4"	19-1/8"	181.50	RB-2223	VS-84	BR-124	HD-420
FOR 24" WIDE PANELS — 24¼" DEEP RACKS												
FX-4827-B	48-1/8"	27"	24¼"	42- 1/16"x24-1/8"	22"	22-3/4"	24-1/8"	146.50	RB-2723	VS-42	BR-124	HD-427
FX-5827-B	58-5/8"	27"	24¼"	52- 9/16"x24-1/8"	22"	22-3/4"	24-1/8"	162.20	RB-2723	VS-52	BR-124	HD-427
FX-6727-B	67-3/8"	27"	24¼"	61- 5/16"x24-1/8"	22"	22-3/4"	24-1/8"	172.90	RB-2723	VS-61	BR-124	HD-427
FX-7727-B	76-1/8"	27"	24¼"	70- 1/16"x24-1/8"	22"	22-3/4"	24-1/8"	183.80	RB-2723	VS-70	BR-124	HD-427
FX-8427-B	83-1/8"	27"	24¼"	77- 1/16"x24-1/8"	22"	22-3/4"	24-1/8"	200.50	RB-2723	VS-77	BR-124	HD-427
FX-9027-B	90-1/8"	27"	24¼"	84- 1/16"x24-1/8"	22"	22-3/4"	24-1/8"	218.50	RB-2723	VS-84	BR-124	HD-427
FOR 30" WIDE PANELS — 24¼" DEEP RACKS												
FX-4833-B	48-1/8"	33"	24¼"	42- 1/16"x30-1/8"	22"	28-3/4"	30-1/8"	180.00	RB-3323	VS-42	BR-124	HD-434
FX-5833-B	58-5/8"	33"	24¼"	52- 9/16"x30-1/8"	22"	28-3/4"	30-1/8"	197.50	RB-3323	VS-52	BR-124	HD-434
FX-6733-B	67-3/8"	33"	24¼"	61- 5/16"x30-1/8"	22"	28-3/4"	30-1/8"	215.20	RB-3323	VS-61	BR-124	HD-434
FX-7733-B	76-1/8"	33"	24¼"	70- 1/16"x30-1/8"	22"	28-3/4"	30-1/8"	236.20	RB-3323	VS-70	BR-124	HD-434
FX-8433-B	83-1/8"	33"	24¼"	77- 1/16"x30-1/8"	22"	28-3/4"	30-1/8"	257.20	RB-3323	VS-77	BR-124	HD-434
FX-9033-B	90-1/8"	33"	24¼"	84- 1/16"x30-1/8"	22"	28-3/4"	30-1/8"	275.00	RB-3323	VS-84	BR-124	HD-434

* ADD 1" to depth for adjacent areas not limited by handle latch. ** ADD 1¾" to depth for adjacent areas not limited by handle latches. *** Indicates clearance for chassis between panel mounting angles.

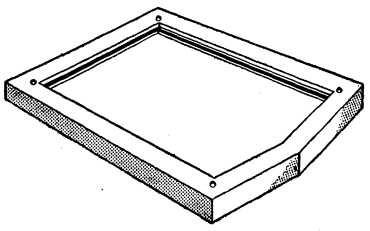


LIFT BOLT ASSEMBLY

This unit can be supplied on any of our Series **PL-FL Racks** (see Par-Metal Pages 3 and 4), Series **PR-FR** Racks (see Par-Metal Pages 5 and 6), and Series **PX-FX** Racks (listed above). Eyebolts have a 1/2" diameter threaded stud; opening in eye is 1-3/16" diameter. Top of rack is reinforced. To order, **Specify "with IB Assembly"** when ordering.

PRICES ON REQUEST.

RECESSED RACK BASES



These heavy duty bases are made from #12 gauge (7/64") steel, rigidly formed and welded. Tapped holes are provided on top to match holes in bottom of racks; four adjustable floor levellers are mounted on the bottom. Where roller trucks are used with racks, these bases are not required. **All bases are 2-1/2" high.**

Catalog No.	To Fit All Racks	Net Price
RB-2217	22" wide 18" deep	$15.00
RB-2223	22" wide 24" deep	16.00
RB-2723	27" wide 24" deep	17.50
RB-3323	33" wide 24" deep	18.75

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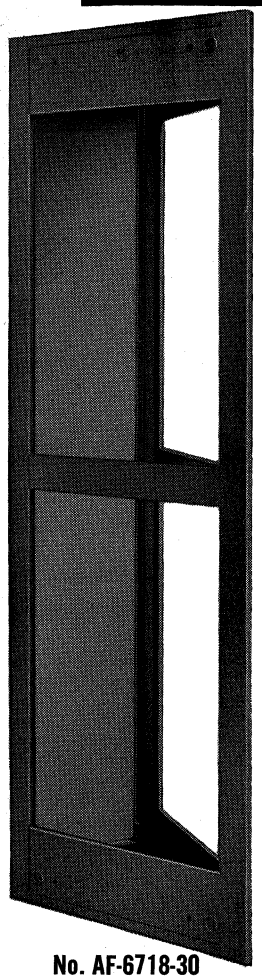
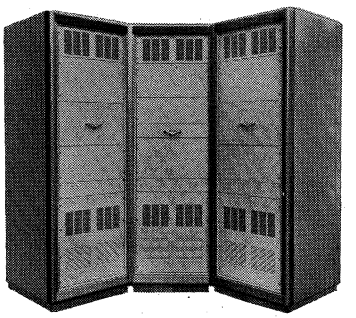
PAR-METAL CABINET RACK ACCESSORIES

ANGULAR SECTION FRAMES



No. AF-6718-30
(with front vertical joining trim removed)



These angular section frames are suitable for use with any of the Modular Cabinet Racks listed on Par-Metal Pages 3 thru 8. They have the same sturdy frame as the Modular Cabinet Racks. In place of a hinged door at the back, a removable formed steel panel is supplied.

An angular front joining trim is furnished with each frame to match the style of rack to which it is joined. These frames are supplied with a choice of 30° or 45° angles.

BEFORE ORDERING, PLEASE READ INSTRUCTIONS BELOW:

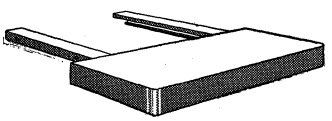
1. Specify type of racks to which angular section frames will be joined (Series **PL, FL, PR, FR, PX,** or **FX)** so that we may supply proper front joining trim with each frame.
2. Frames may be used without change on racks equipped **with** or **without** recessed sub-bases.
3. Specify paint finish required. Available finishes may be selected from groups shown on Par-Metal Pages **3, 5, 7.**

Catalog No.	To Fit Rack □ Height	To Fit Rack Width	Rack Depth #	Frame Angle	Frame Width (at rear)	Frame Panel (at rear)	Net Price Of Frame
AF-4818-30	48-1/8″	**	18″	30°	10″	42″ x 7″	$ 94.00
AF-5818-30	58-5/8″	**	18″	30°	10″	52-1/2″ x 7″	100.00
AF-6718-30	67-3/8″	**	18″	30°	10″	61-1/4″ x 7″	105.00
AF-7718-30	76-1/8″	**	18″	30°	10″	70″ x 7″	116.75
AF-8418-30	83-1/8″	**	18″	30°	10″	77″ x 7″	128.50
AF-4824-30	48-1/8″	**	24″	30°	13-1/4″	42″ x 10-1/8″	114.50
AF-5824-30	58-5/8″	**	24″	30°	13-1/4″	51-1/2″ x 10-1/8″	116.50
AF-6724-30	67-3/8″	**	24″	30°	13-1/4″	61-1/4″ x 10-1/8″	126.00
AF-7724-30	76-1/8″	**	24″	30°	13-1/4″	70″ x 10-1/8″	137.75
AF-8424-30	83-1/8″	**	24″	30°	13-1/4″	77″ x 10-1/8″	149.50
AF-9024-30	90-1/8″	**	24″	30°	13-1/4″	84″ x 10-1/8″	159.50
AF-4818-45	48-1/8″	**	18″	45°	15″	42″ x 11-7/8″	98.60
AF-5818-45	58-5/8″	**	18″	45°	15″	52-1/2″ x 11-7/8″	104.50
AF-6718-45	67-3/8″	**	18″	45°	15″	61-1/4″ x 11-7/8″	110.25
AF-7718-45	76-1/8″	**	18″	45°	15″	70″ x 11-7/8″	122.60
AF-8418-45	83-1/8″	**	18″	45°	15″	77″ x 11-7/8″	134.90
AF-4824-45	48-1/8″	**	24″	45°	19-1/2″	42″ x 16-1/2″	120.00
AF-5824-45	58-5/8″	**	24″	45°	19-1/2″	52-1/2″ x 16-1/2″	126.00
AF-6724-45	67-3/8″	**	24″	45°	19-1/2″	61-1/4″ x 16-1/2″	132.30
AF-7724-45	76-1/8″	**	24″	45°	19-1/2″	70″ x 16-1/2″	144.60
AF-8424-45	83-1/8″	**	24″	45°	19-1/2″	77″ x 16-1/2″	158.40
AF-9024-45	90-1/8″	**	24″	45°	19-1/2″	84″ x 16-1/2″	172.00

**Will fit racks for 19″, 24″, and 30″ wide panels listed on Par-Metal Pages 23 and 24.

NOTE: □ FRAME is same height as rack; # FRAME is same depth as rack.

RACK TYPE EXTENSION TABLES



These tables are mounted to the front of cabinet racks. They are made from 3/4″ plywood to which is bonded 1/16″ thick laminated plastic of a dark grey pattern on both top and apron, which is 2-1/2″ high.

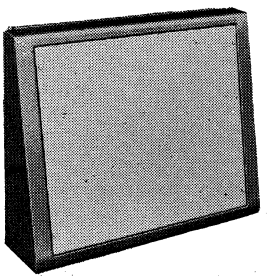
The apron is substantially reinforced for fastening to horizontal channel type supports. The channels are made from 7/64″ thick steel, and are bolted to vertical side supports which are securely mounted on the inside wall of the rack. The tables may be adjusted at any height from the floor. This assembly provides a very rigid structure, with a smooth writing space across the entire top. There are no metal parts exposed, and no painted metal surfaces to deteriorate with constant usage.

The tables may be installed on any of the modular cabinet racks (without front doors) listed on PAR-METAL Pages 3-8. They are also available for modular rows of four or more racks.

ALL OF THESE TABLE ASSEMBLIES REQUIRE ONLY 3-1/2″ PANEL SPACE (height).

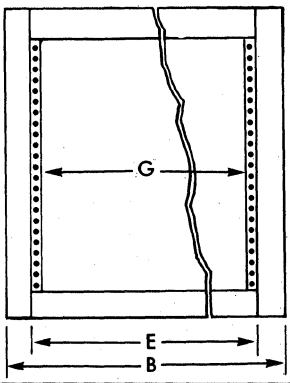
Cat. No.	Table Size	Type	Rack Panel Width	Net Price
RX-119	21¼″ x 20″	Single	19″	$38.00
RX-219	42⅛″ x 20″	Double	19″	72.00
RX-319	64¼″ x 20″	Triple	19″	98.00
RX-419	86⅜″ x 20″	Quadruple	19″	136.00
RX-124	26¼″ x 20″	Single	24″	44.00
RX-224	52⅛″ x 20″	Double	24″	88.00
RX-324	79¼″ x 20″	Triple	24″	124.00
RX-130	32¼″ x 20″	Single	30″	49.80
RX-230	64⅛″ x 20″	Double	30″	95.00

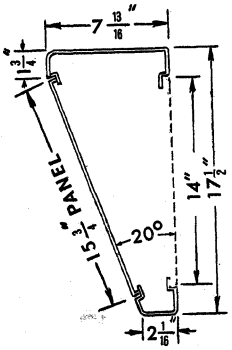
SLOPING PANEL TURRETS



These sloping front turrets are intended for mounting on racks for **19″, 24″,** and **30″** wide panels. The turrets extend across the full width of the rack, and are fastened to the panel mounting angles by means of adjustable bracket supports. They may be used with the slope **upward** or **downward.** They are supplied complete with removable front and back panels. Available in all standard rack finishes.

Catalog No.	Overall Height	Width Dim. B	Panel Width Dim. E	Clearance Dim. G	Net Price
SP-1719	17-1/2″	22″	19″	17-5/8″	$42.00
SP-1724	17-1/2″	27″	24″	22-5/8″	50.00
SP-1730	17-1/2″	33″	30″	28-5/8″	65.00





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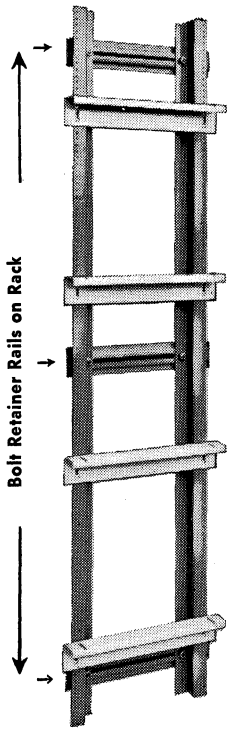
PAR-METAL CABINET RACK ACCESSORIES

VERTICAL SIDE SUPPORTS



These vertical side supports are supplied in sets of four uprights to fit all Modular racks listed on PAR-METAL Pages 3 to 8. (Cut shows side mounting brackets in place which are sold separately — see listing below).

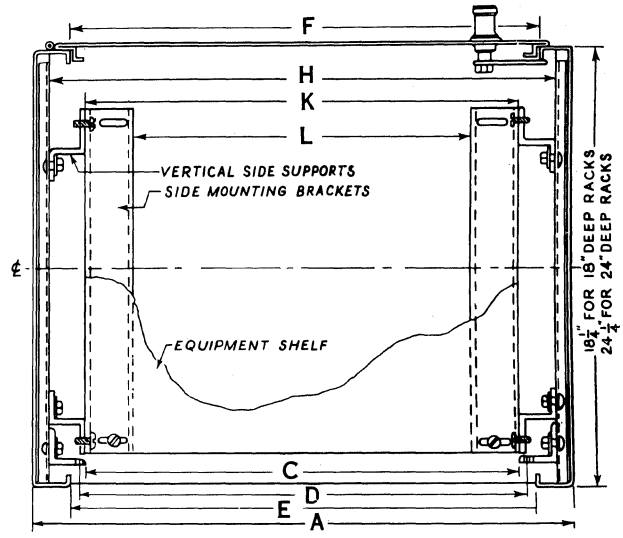
Supports are fastened to bolt retainer rails which hold panel mounting angles in place, and are adjustably mounted from front to back of rack. Holes are **drilled** and **tapped 10-32** to provide adequate vertical adjustment for mounting brackets, shelves, and various sliding devices.

Supports are made from 7/64" thick steel, finished in aluminum enamel. Each set is supplied with 3/8" dia. bolts, lock washers, and nuts for rack mounting.

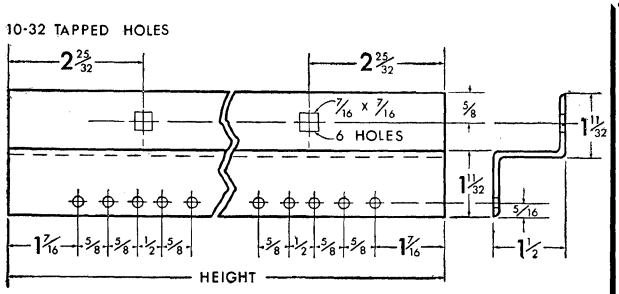
TO FIT ALL MODULAR CABINET RACKS (Par-Metal Pages 3 to 8)

Cat. No.	Height	Racks	Net Price (Set of 4)
VS-36	40-27/32"	PX-3718-B	$15.00
VS-42	46-3/32"	PL-FL-PR-FR-PX-FX-4818-4824-4827-4833	16.50
VS-52	56-19/32"	PL-FL-PR-FR-PX-FX-5818-5824-5827-5833	19.25
VS-61	65-11/32"	PL-FL-PR-FR-PX-FX-6718-6724-6727-6733	21.75
VS-70	74-3/32"	PL-FL-PR-FR-PX-FX-7718-7724-7727-7733	25.50
VS-77	81-3/32"	PL-FL-PR-FR-PX-FX-8418-8424-8427-8433	28.35
VS-84	88-3/32"	PL-FL-PR-FR-PX-FX-9018-9024-9027-9033	31.10

ASSEMBLY DIMENSIONS



Dimension	Explanation	Racks for 19" wide Panels	Racks for 24" Wide Panels	Racks for 30" Wide Panels
"A"	Nominal width of rack	22"	27"	33"
"C"	Clearance between panel mounting strips	17-3/4"	22-3/4"	28-3/4"
"D"	To centers of panel mounting holes	18-5/16"	23-5/16"	29-5/16"
"E"	Panel space (plus clearance)	19-1/8"	24-1/8"	30-1/8"
"F"	Clear inside width (rear)	19-1/8"	24-1/8"	30-1/8"
"H"	Clearance between bolt retainer rails	20-3/4"	25-3/4"	31-3/4"
"K"	Clearance between vertical side supports	17-3/4"	22-3/4"	28-3/4"
"L"	Clearance between side mounting brackets	13-3/4"	18-3/4"	24-3/4"



SIDE MOUNTING BRACKETS

Brackets BR-118 and Shelf SS-1918

These brackets will fit on Vertical Side Supports shown above. They are sold in pairs, and slotted to provide vertical adjustment at any height required. Brackets are 2" wide and 1-13/16" high. The vertical face of the bracket is also slotted to match holes in equipment shelves listed below. Where desirable, the horizontal face of the bracket may be bolted to the vertical side supports. They are made from 7/64" steel, zinc plated finish. Necessary bolts are supplied.

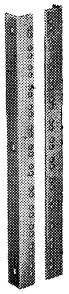
Cat. No.	Length	To Fit Racks	Shpg. Wt.	Net Price
BR-118	14"	All 18" deep racks	4 lbs.	$3.30 per pair
BR-124	20"	All 24" deep racks	6 lbs.	4.45 per pair

EQUIPMENT SHELVES

These shelves will assemble with the side mounting brackets listed above, to make a complete shelf between Vertical Side Supports. Made from 1/16" steel, zinc plated. Necessary bolts for assembly are included. All shelves are 7/8" high.

Cat. No.	Width	Depth	To Fit Racks	Net Price
SS-1918	17 5/8"	14 1/4"	19" panels-18" deep	$3.50
SS-1924	17 5/8"	20 1/4"	19" panels-24" deep	4.20
SS-2724	22 5/8"	20 1/4"	24" panels-24" deep	4.95
SS-3324	28 5/8"	20 1/4"	30" panels-24" deep	7.20

PANEL MOUNTING ANGLES



These panel mounting angles (or strips) are used in all Modular type racks (see PAR-METAL Pages 3 to 8). They are supplied with necessary bolts to fit into the bolt retainer rails which hold the pair of panel mounting angles regularly supplied with each rack.

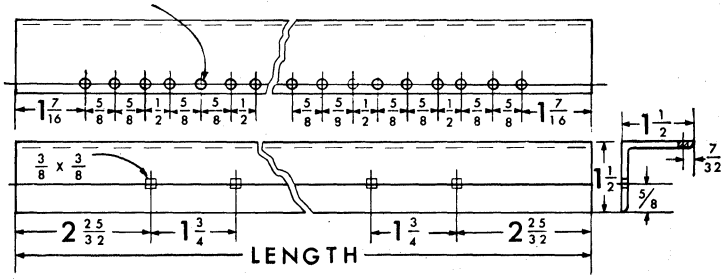
Angles regularly supplied are made from 1-1/2" x 1-1/2" x 3/16" thick structural steel. Holes are tapped for 12/24 screws. Holes tapped for 10/32 screws are optional. (See drawing below).

It is often desirable to use an additional pair of panel mounting angles for mounting chassis, terminal strips, etc. They may be adjusted to any depth within rack from front to back.

Angle No.	Length	To Fit Modular Cabinet Racks	Net Price Per Pair
PA-36	40-27/32"	PX-3718	$ 9.50
PA-42	46-3/32"	PL, FL, PX, FX, PR, FR-4818, 4824, 4827, 4833	11.50
PA-52	56-19/32"	PL, FL, PX, FX, PR, FR-5818, 5824, 5827, 5833	13.80
PA-61	65-11/32"	PL, FL, PX, FX, PR, FR-6718, 6724, 6727, 6733	15.90
PA-70	74-3/32"	PL, FL, PX, FX, PR, FR-7718, 7724, 7727, 7733	18.10
PA-77	81-3/32"	PL, FL, PX, FX, PR, FR-8418, 8424, 8427, 8433	19.80
PA-84	88-3/32"	PL, FL, PX, FX, PR, FR-9024, 9027, 9033	21.50

12-24 TAP, STANDARD

10-32 TAP, OPTIONAL



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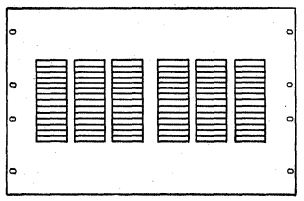
MODIFICATIONS OF MODULAR CABINET RACKS

TOP PANELS FOR RACKS

Blank formed steel panels are supplied as standard in the top of all Series **PL-FL-PR-FR-PX** and **FX** racks listed on preceding pages. Listed below are optional ventilating type panels, which may be substituted at a nominal increase in cost.

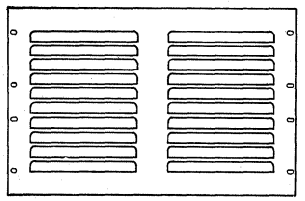
PANELS WITH "VENETIAN" TYPE LOUVERS



Louvers are the same as those used on standard rack doors listed on preceding pages. When ordering, specify **"WITH TOP PANEL MODIFICATION TC".**

Rack Size	Panel Size	Louvers	Additional Cost
22" wide, 18" deep	19" wide, 12-1/4" deep	Single Row	$2.00
22" wide, 24" deep	19" wide, 19-1/4" deep	Double Row	2.00
27" wide, 24" deep	24" wide, 19-1/4" deep	Double Row	2.50
33" wide, 24" deep	30" wide, 19-1/4" deep	Double Row	3.00

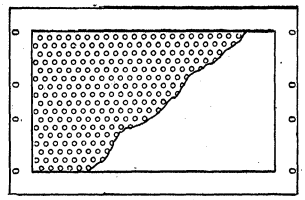
PANELS WITH PRESSED LOUVERS



With 7" wide pressed louvers in panel from front to back as illustrated above. When ordering, specify **"WITH TOP PANEL MODIFICATION TB".**

Rack Size	Panel Size	Louvers	Additional Cost
22" wide, 18" deep	19" wide, 12-1/4" deep	2 Rows	$2.50
22" wide, 24" deep	19" wide, 19-1/4" deep	2 Rows	3.00
27" wide, 24" deep	24" wide, 19-1/4" deep	2 Rows	3.00
33" wide, 24" deep	30" wide, 19-1/4" deep	3 Rows	4.00

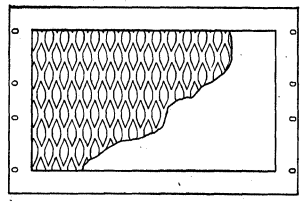
PANELS WITH PERFORATED HOLES



Perforated holes in top panel shown are 3/16" diameter, on 5/16" centers, staggered. When ordering, specify **"WITH TOP MODIFICATION TH".**

Rack Size	Panel Size	Perforated Area	Additional Cost
22" wide, 18" deep	19" wide, 12-1/4" deep	10-1/4" x 16-3/4"	$3.50
22" wide, 24" deep	19" wide, 19-1/4" deep	17-1/4" x 16-3/4"	4.00
27" wide, 24" deep	24" wide, 19-1/4" deep	17-1/4" x 21-3/4"	4.50
33" wide, 24" deep	30" wide, 19-1/4" deep	17-1/4" x 27-3/4"	5.25

PANELS WITH EXPANDED METAL MESH



Expanded steel mesh is .055" thick, having diamond shaped opening 5/16" x 7/8"; mesh is spot welded underneath. When ordering, specify **"WITH TOP MODIFICATION TA".**

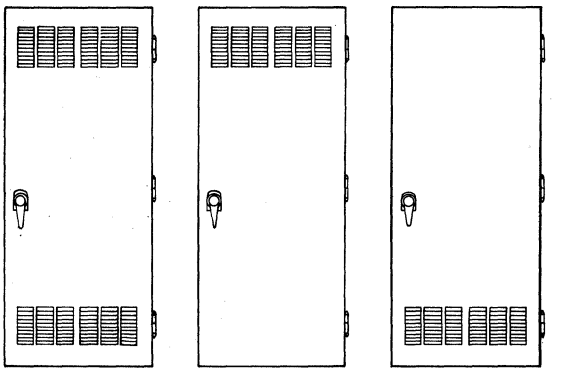
Rack Size	Panel Size	Mesh Area	Additional Cost
22" wide, 18" deep	19" wide, 12-1/4" deep	10-1/4" x 16-3/4"	$3.50
22" wide, 24" deep	19" wide, 19-1/4" deep	17-1/4" x 16-3/4"	4.00
27" wide, 24" deep	24" wide, 19-1/4" deep	17-1/4" x 21-3/4"	4.50
33" wide, 24" deep	30" wide, 19-1/4" deep	17-1/4" x 27-3/4"	5.25

DOOR MODIFICATIONS

For Front and Rear Rack Doors

TYPE **"LS"** Louvers are standard for Rear Doors and TYPE **"SS"** Louvers (not illustrated and without louvers) are standard for Front Doors.

ALL types as shown below, are optional without additional cost when so designated on the order. ALL doors are interchangeable from front to rear of rack and will fit the same size racks in ALL series listed on preceding pages.



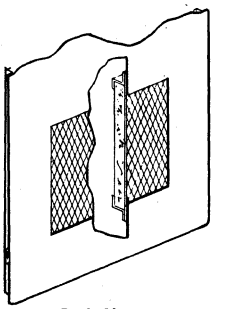
TYPE LS TYPE LT TYPE LB

Type "LS": STANDARD REAR DOOR) with louvers at top and bottom.
Type "LT": with louvers at top only.
Type "LB": with louvers at bottom only.
Type "SS": (STANDARD FRONT DOOR) with louvers omitted at top and bottom (not shown).

All standard doors are hinged on right side as illustrated. Doors hinged on left side are available without additional charge. When ordering, please specify any change from standard doors listed above as follows:

Type of door and location (front or rear?)
Hinged Side: wherever left hand hinges are required.

DOORS WITH AIR FILTERS



This drawing illustrates a grilled opening and interior frame for a removable air filter, which is installed in the lower section of the door. The same provision can be made at the top of the door, if so specified. The filter sizes below are standard; other sizes are available if required. When ordering, specify the rack catalog number **"WITH MODIFICATION FD DOOR".** (Prices include filters).

Rack Size	Filter Size	Net Price
22" wide, 18" deep	10" x 10" x 1"	$ 7.50
22" wide, 24" deep	10" x 10" x 1"	7.50
27" wide, 24" deep	10" x 10" x 1"	7.50
*33" wide, 24" deep	10" x 10" x 1"	15.00

* On each door — cabinet has double doors.

ADDITIONAL DOOR MODIFICATIONS

For Doors on All Modular Cabinet Racks

Where cooling fans are required in doors, we can provide the necessary opening and mounting holes. We can also supply doors with special round or rectangular openings, and frames for glass or plexiglass panels. *Short doors* for use with panel mounted cooling devices are also available.

PRICES ON REQUEST

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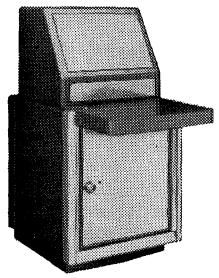
PAR-METAL MODULAR CONSOLE ASSEMBLIES

GENERAL DESCRIPTION

SINGLE UNIT ASSEMBLY



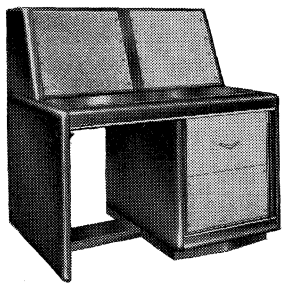
This illustration shows one of our three basic single unit assemblies. Other single unit assembles are shown on the next page.

The combination of a control cabinet mounted on table, desk or similar support usually called a console has been in general use in the electronics industry many years.

While it is obvious that no particular fixed design can serve every requirement, **we have devised a group of standard units,** the combination of which is readily adaptable for specialized applications in control equipment, testing facilities, sound distribution systems and industrial purposes. These models have been functionally designed and smartly styled to keep pace with current trends. New modular units have been added, all of which may be grouped or expanded to meet your specific needs.

The **versatile pedestal racks** are the keystone to the entire assembly. They are constructed for heavy duty use, having all the essential features of our PL cabinet racks listed on PAR-METAL Pages 3 and 4. This would include panel mounting angles which are adjustable from front to back, and provision for installing chassis mounting brackets and shelves where needed. They offer an efficient utilization of space, complete accessibility for servicing, and are **solidly built** to withstand heavy strains **whether in a laboratory or a moving vehicle.**

DOUBLE UNIT ASSEMBLY



In this double unit assembly, the pedestal rack can also be fitted on the left side.

Two models of pedestal frames are available, which are identical except for the depth (front to back). PD-224 frame (24¼" deep) unit may be used with or without an extension desk table.

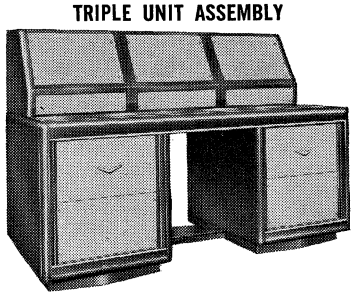
The PD-234 frame (34¼" deep) forms a complete desk structure without the use of extension shelves. When one of our desk panel cabinets is mounted on top, additional space is available in front as a desk writing surface. The 34¼" depth also provides additional interior space.

There are four models of desk panel cabinets suitable for mounting on the pedestal frame top to make a complete console. Single or multiple unit consoles may be combined with our Series PL racks.

Unit assemblies are not limited to quad units, and may be extended to modular groups of five or more. **If you have a specific problem, do not hesitate to consult us.**

The **side panels** are readily detachable from the outside. No drilling or fitting is necessary for the assembly of pedestals, cabinets, brackets, shelves or drawers. All panel mounting holes are tapped for screws—no metal screws or clips are used.

TRIPLE UNIT ASSEMBLY



Various triple unit assemblies are available as shown on this and the following pages.

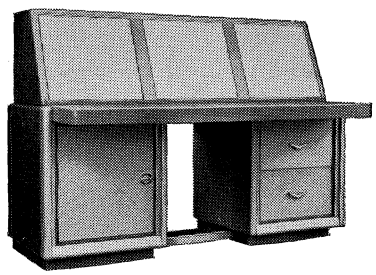
STANDARD FINISH: Combination of light and dark grey hammertone enamel on pedestal frames. All panels are supplied in light grey hammertone enamel.

OPTIONAL FINISHES: Your Choice of the following:

SPECIFY

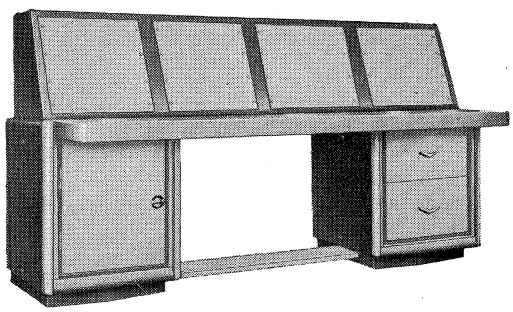
"LH" for light grey hammertone enamel.
"DH" for dark grey hammertone enamel.
"GM" for dark grey metallic enamel.
"BG" for blue grey wrinkle enamel.
"PC" for primer coat only.
"MT" for beige enamel.

ALTERNATE TRIPLE UNIT ASSEMBLY



The above unit consists of: two No. PD-224 pedestal frames, two No. EP-24 exterior side panels, two No. KP-24 interior side panels, one No. HS-103 high slope cabinet, one No. CD-24 center desk section and one CT-319 extension table, (door drawers, or rack panels for front and back are optional).

TYPICAL QUAD UNIT ASSEMBLY



The above unit consists of: two No. PD-224 pedestal frames, two No. EP-24 exterior side panels, two No. KP-24 interior side panels, one No. HS-104 high slope cabinet, one No. CD-242 center desk section and one CT-419 extension table, (door drawers, or rack panels for front and back are optional).

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COMPONENT GROUP CHECK LISTS

The group charts below list all necessary and alternate components for **single, double, triple,** and **quad** unit assemblies, and also provides a check list to determine your exact requirements. There are **four models** of **desk panel cabinets** specially designed to fit on the top of the assemblies detailed below. For simplicity, they have been omitted; for a complete description see Par-Metal Page 17.

FOR SINGLE UNIT ASSEMBLIES

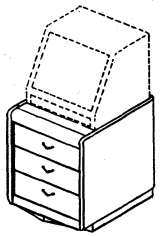

FIGURE "A" AS ABOVE
FIGURE "B" (LESS TOP CABINET)

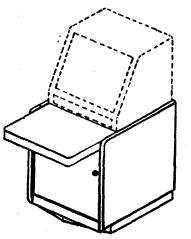

FIGURE "C" AS ABOVE
FIGURE "D" (LESS TOP CABINET)

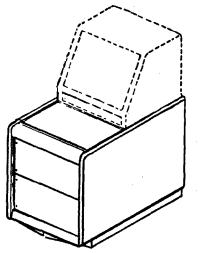

FIGURE "E" AS ABOVE
FIGURE "F" (LESS TOP CABINET)

PARTS REQUIRED	Par-Metal Page No.	Quant.	Fig. "A"	Fig. "B"	Fig. "C"	Fig. "D"	Fig. "E"	Fig. "F"
Pedestal Frame	15	1	PD-224	PD-224	PD-224	PD-224	PD-234	PD-234
Exterior Side Panel	16	2	EP-24	EP-24	EP-24	EP-24	EP-34	EP-34
Extension Desk Table	16	1			CT-119	CT-119		
Utility Table Top	15	1	*	WT-241	*	NT-241	HT-341	WT-341

*Table top not required.

FOR TRIPLE UNIT ASSEMBLIES

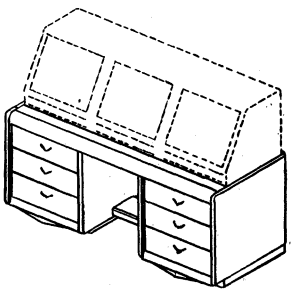

FIGURE "N" AS ABOVE
FIGURE "O" (LESS TOP CABINET)

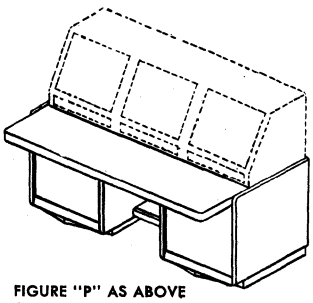

FIGURE "P" AS ABOVE
FIGURE "R" (LESS TOP CABINET)

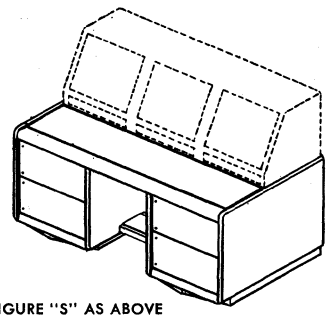

FIGURE "S" AS ABOVE
FIGURE "T" (LESS TOP CABINET)

PARTS REQUIRED	Par-Metal Page No.	Quant.	Fig. "N"	Fig. "O"	Fig. "P"	Fig. "R"	Fig. "S"	Fig. "T"
Pedestal Frames	15	2	PD-224	PD-224	PD-224	PD-224	PD-234	PD-234
Center Desk Section	16	1	CD-24	CD-24	CD-24	CD-24	CD-34	CD-34
Exterior Side Panels	16	2	EP-24	EP-24	EP-24	EP-24	EP-34	EP-34
Interior Side Panels	16	2	KP-24	KP-24	KP-24	KP-24	KP-34	KP-34
Extension Desk Table	16	1			CT-319	CT-319		
Utility Table Top	15	1	*	WT-243	*	NT-243	HT-343	WT-343

*Table top not required

FOR QUAD UNIT ASSEMBLIES

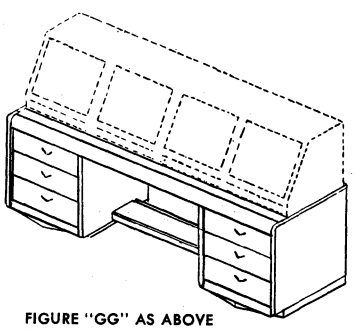

FIGURE "GG" AS ABOVE
FIGURE "HH" (LESS TOP CABINET)

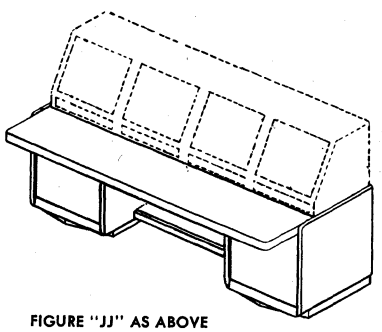

FIGURE "JJ" AS ABOVE
FIGURE "KK" (LESS TOP CABINET)

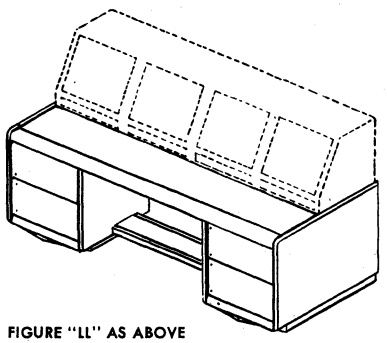

FIGURE "LL" AS ABOVE
FIGURE "MM" (LESS TOP CABINET)

PARTS REQUIRED	Par-Metal Page No.	Quant.	Fig. "GG"	Fig. "HH"	Fig. "JJ"	Fig. "KK"	Fig. "LL"	Fig. "MM"
Pedestal Frames	15	2	PD-224	PD-224	PD-224	PD-224	PD-234	PD-234
Center Desk Section	16	1	CD-242	CD-242	CD-242	CD-242	CD-342	CD-342
Exterior Side Panels	16	2	EP-24	EP-24	EP-24	EP-24	EP-34	EP-34
Interior Side Panels	16	2	KP-24	KP-24	KP-24	KP-24	KP-34	KP-34
Extension Desk Table	16	1			CT-419	CT-419		
Utility Table Top	15	1	*	WT-244	*	NT-244	HT-344	WT-344

*Table top not required

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COMPONENT GROUP CHECK LISTS

All of the 19″ wide panels listed on Par-Metal pages 23 and 24 may be mounted on these assemblies. Refer to Par-Metal Page 21 for **sliding drawers** shown in various illustrations in this Component Group Check List. Other **component parts** suitable for use with these assemblies are shown on Par-Metal Page 16.

FOR DOUBLE UNIT ASSEMBLIES

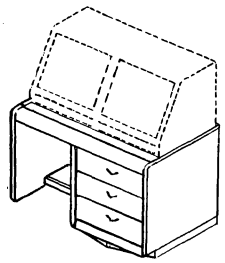

FIGURE "G" AS ABOVE
FIGURE "H" (LESS TOP CABINET)

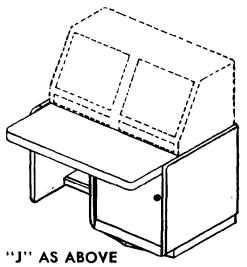

FIGURE "J" AS ABOVE
FIGURE "K" (LESS TOP CABINET)

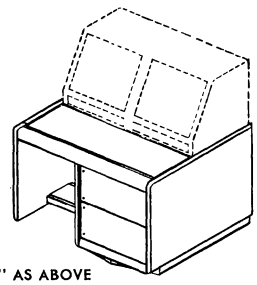

FIGURE "L" AS ABOVE
FIGURE "M" (LESS TOP CABINET)

PARTS REQUIRED	Par-Metal Page No.	Quant.	Fig. "G"	Fig. "H"	Fig. "J"	Fig. "K"	Fig. "L"	Fig. "M"
Pedestal Frame	15	1	PD-224	PD-224	PD-224	PD-224	PD-234	PD-234
End Pedestal Assembly	16	1	DU-24	DU-24	DU-24	DU-24	DU-34	DU-34
Exterior Side Panel	16	1	EP-24	EP-24	EP-24	EP-24	EP-34	EP-34
Interior Side Panel	16	1	KP-24	KP-24	KP-24	KP-24	KP-34	KP-34
Extension Desk Table	16	1			CT-219	CT-219		
Utility Table Top	15	1	*	WT-242	*	NT-242	HT-342	WT-342

*Table top not required

FOR TRIPLE UNIT ASSEMBLIES

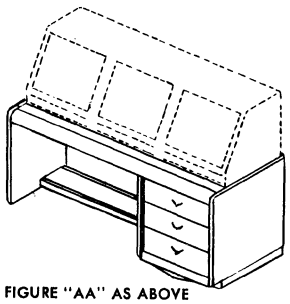

FIGURE "AA" AS ABOVE
FIGURE "BB" (LESS TOP CABINET)

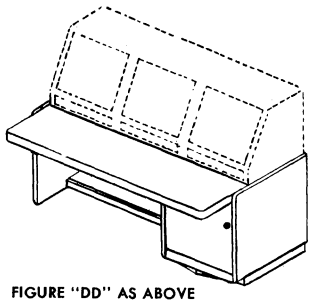

FIGURE "DD" AS ABOVE
FIGURE "CC" (LESS TOP CABINET)

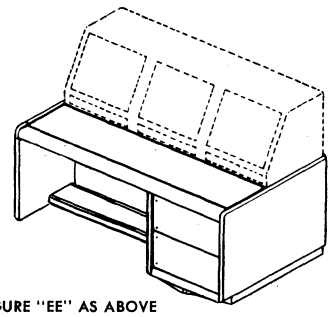

FIGURE "EE" AS ABOVE
FIGURE "FF" (LESS TOP CABINET)

PARTS REQUIRED	Par-Metal Page No.	Quant.	Fig. "AA"	Fig. "BB"	Fig. "CC"	Fig. "DD"	Fig. "EE"	Fig. "FF"
Pedestal Frame	15	1	PD-224	PD-224	PD-224	PD-224	PD-234	PD-234
End Pedestal Assembly	16	1	DU-242	DU-242	DU-242	DU-242	DU-342	DU-342
Exterior Side Panel	16	1	EP-24	EP-24	EP-24	EP-24	EP-34	EP-34
Interior Side Panel	16	1	KP-24	KP-24	KP-24	KP-24	KP-34	KP-34
Extension Desk Table	16	1			CT-319	CT-319		
Utility Table Top	15	1	*	WT-243	*	NT-243	HT-343	WT-343

*Table top not required

FOR QUAD UNIT ASSEMBLIES

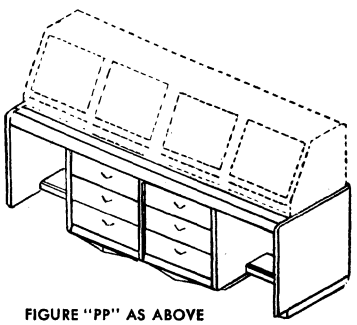

FIGURE "PP" AS ABOVE
FIGURE "RR" (LESS TOP CABINET)

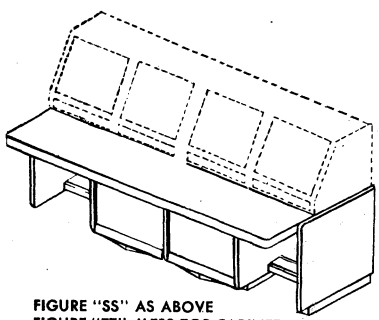

FIGURE "SS" AS ABOVE
FIGURE "TT" (LESS TOP CABINET)

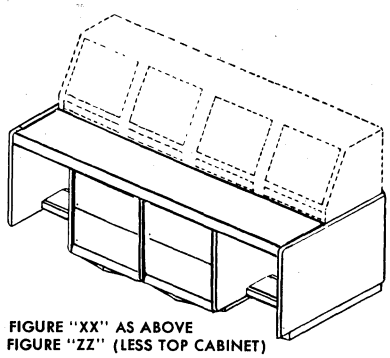

FIGURE "XX" AS ABOVE
FIGURE "ZZ" (LESS TOP CABINET)

PARTS REQUIRED	Par-Metal Page No.	Quant.	Fig. "PP"	Fig. "RR"	Fig. "SS"	Fig. "TT"	Fig. "XX"	Fig. "ZZ"
Pedestal Frame	15	2	PD-224	PD-224	PD-224	PD-224	PD-234	PD-234
End Pedestal Assembly	16	2	DU-24	DU-24	DU-24	DU-24	DU-34	DU-34
Interior Side Panels	16	2	KP-24	KP-24	KP-24	KP-24	KP-34	KP-34
Extension Desk Table	16	1			CT-419	CT-419		
Utility Table Top	15	1	*	WT-244	*	NT-244	HT-344	WT-344

*Table top not required

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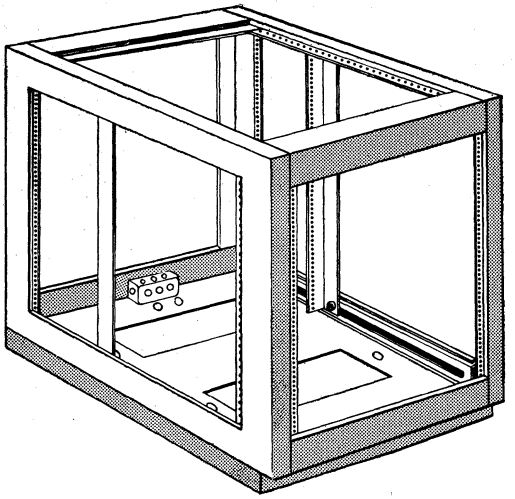
PAR-METAL MODULAR CONSOLE ASSEMBLIES



PEDESTAL FRAMES

The pedestal is the principal component used in all console assemblies. It combines the essential features of our Series **PL** racks listed on Par-Metal Page 3 and is attractively styled for any environment.

The pedestal is made from #16 gauge steel, reinforced for extra strength and stability. A recessed base is included. It will **withstand rigorous usage,** whether in a **laboratory, industrial plant** or a **moving vehicle.**

Panel space at front and back is 21″ x 19″. Two pairs of panel mounting angles are supplied, which may be located at any position from front to back. Openings at sides have tapped holes on standard rack spacings, to which may be attached interior brackets and shelves or standard rack panels. The No. PD-224 pedestal is 24-1/4″ deep; the No. PD-234 is 34-1/4″ deep.

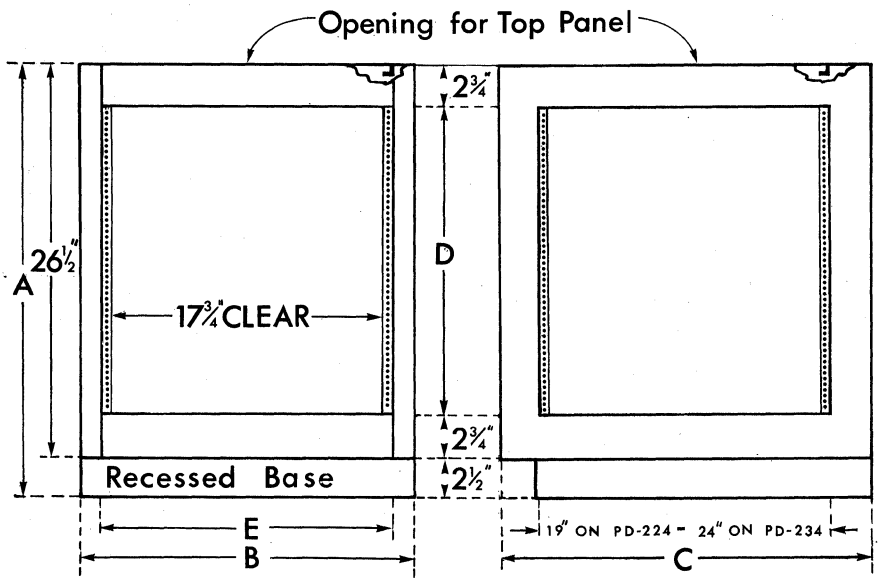
CASTERS: Heavy duty casters with 3″ diameter wheels will be supplied in place of recessed bases at an additional cost of $9.00 per pedestal.

FINISHES: All available finishes are listed on Par-Metal Page 12.

CATALOG NUMBER	OUTSIDE DIMENSIONS HEIGHT A	WIDTH B	DEPTH C	PANEL SPACE FRONT & BACK HEIGHT D	WIDTH E	CLEAR INSIDE DEPTH FRONT TO BACK F	OPENING ON TOP FOR PANEL WIDTH	DEPTH	*OVERALL DIMENSIONS HEIGHT	WIDTH	DEPTH	NET PRICE
PD-224	29″	22″	24-1/4″	21″	19″	23-1/8″	19″	19-1/4″	30″	24-1/2″	25-3/8″	$80.00
PD-234	29″	22″	34-1/4″	21″	19″	33-1/8″	19″	28″	30″	24-1/2″	35-3/8″	95.00

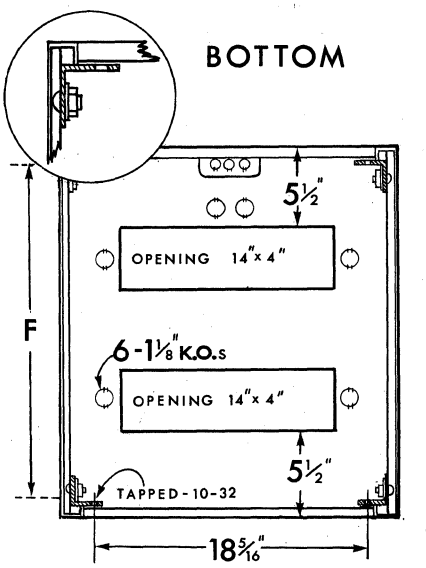
* WITH SIDE PANELS AND FRONT MOULDINGS.

FRONT & BACK

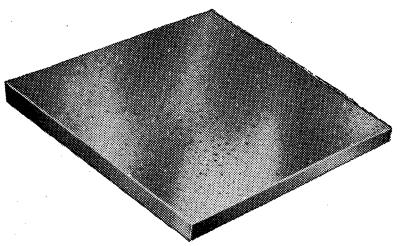


SIDE VIEW

BOTTOM



Note: Bottom shown above is for PD-234 pedestal. A single 14″ x 4″ opening is standard for the PD-224 pedestal.



LAMINATED PLASTIC TABLE TOPS

These table tops are made from 3/4″ thick plywood to which is bonded 1/16″ thick patterned grey plastic. There are no metal spacers between units, providing a clear unobstructed writing surface across the entire top. The table top required for any particular assembly may be easily identified from the check list of component groups on **Par-Metal Pages 13 and 14.** The listings below are a cross reference and also include prices.

For Use on No. PD-224 Pedestal Frames (24¼″ deep)

Catalog No.	Assembly	Refer to: Figure	Par-Metal Page No.	Net Price
WT-241	Single Unit Assembly	"B"	13	$15.00
NT-241	Single Unit Assembly	"D"	13	12.00
WT-242	Double Unit Assembly	"H"	14	24.00
NT-242	Double Unit Assembly	"K"	14	24.00
WT-243	Triple Unit Assembly	"O"	13	42.00
NT-243	Triple Unit Assembly	"R"	13	32.00
WT-244	Quad Unit Assembly	"HH"	13	56.00
NT-244	Quad Unit Assembly	"TT"	14	40.00

For Use on No. PD-234 Pedestal Frames (34¼″ deep)

Catalog No.	Assembly	Refer to: Figure	Par-Metal Page No.	Net Price
HT-341	Single Unit Assembly	"E"	13	$11.20
WT-341	Single Unit Assembly	"F"	13	23.40
HT-342	Double Unit Assembly	"L"	14	18.20
WT-342	Double Unit Assembly	"M"	14	46.00
HT-343	Triple Unit Assembly	"S"	13	24.00
WT-343	Triple Unit Assembly	"T"	13	62.00
HT-344	Quad Unit Assembly	"XX"	14	34.00
WT-344	Quad Unit Assembly	"ZZ"	14	72.00

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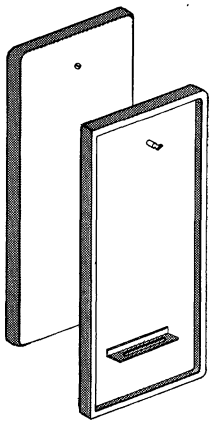
PAR-METAL MODULAR CONSOLE ASSEMBLIES

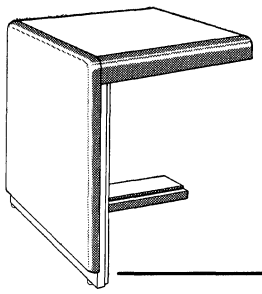


DETACHABLE SIDE PANELS

These panels are sturdily constructed from #16 gauge steel with ball corners. They have formed edges on all four sides, and are securely welded. The **"EP"** exterior panels are supplied with coinciding brackets at the bottom for easy alignment with the side of the pedestal. At the top they are secured with a cowl fastener, making them readily removable.

Cat. No.	Description	To fit Pedestal	For use on	Net Price
EP-24	Exterior side panel	PD-224	All assemblies	$20.00
KP-24	Interior side panel	PD-224	" "	17.50
EP-34	Exterior side panel	PD-234	" "	25.00
KP-34	Interior side panel	PD-234	" "	20.00

The "KP" panels are mounted in place with two cowl fasteners. All panels are 1¼" thick. They are finished to match pedestals, unless otherwise ordered.

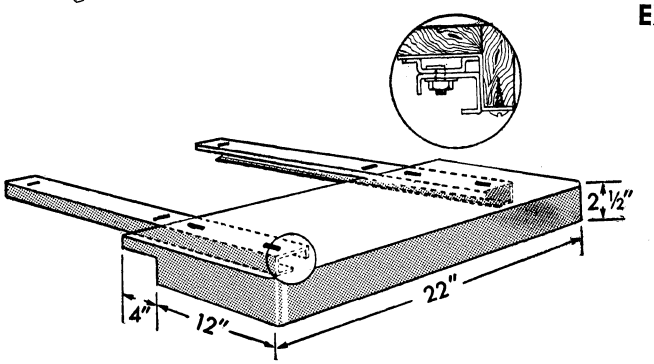


END PEDESTAL (For Double, Triple and Quad Unit Assemblies)

End pedestals are designed to make up various assemblies as shown on Par-Metal Pages 13 and 14. May be installed on either right or left hand side of pedestal. The assembly consists of vertical member, end panel, top section and floor brace. Formica table top is not included. **Finished to match pedestals** unless otherwise ordered.

Cat. No.	For Assembly With	Length	Front to Back	Height	Net Price
DU-24	Pedestal PD-224	23-1/4"	25-3/8"	30"	$45.00
DU-242	Pedestal PD-224	45-1/4"	25-3/8"	30"	58.75
DU-34	Pedestal PD-234	23-1/4"	35-3/8"	30"	56.00
DU-342	Pedestal PD-234	45-1/4"	35-3/8"	30"	73.20

EXTENSION DESK TABLES



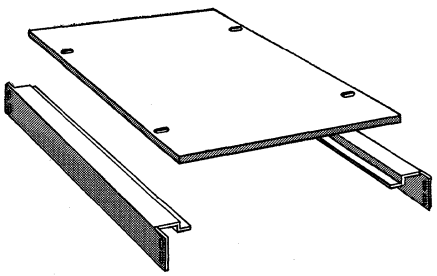
These extension tables are used in console assemblies illustrated on Par-Metal Pages 13 and 14. They are made from 3/4" thick plywood, to which is bonded 1/16" thick grey laminated plastic.

The plastic covers both the top and apron of the table which is 2-1/2" deep. The apron is substantially reinforced for fastening to horizontal channel supports. The assembly provides a rugged structure with a smooth writing space across the entire top.

There are no metal parts exposed, and no metal surfaces to deteriorate with constant usage. As these tables are mounted above the front panels on the pedestal frame, the full front panel space of 21" may be used.

Cat. No.	For Use on Assemblies	Overall Size	Net Price
CT-119	Single Unit	16" x 22" x 2½"	$26.00
CT-219	Double Unit	16" x 44" x 2½"	44.00
CT-319	Triple Unit	16" x 66" x 2½"	61.00
CT-419	Quad Unit	16" x 88" x 2½"	77.00

MOUNTING BRACKETS AND SHELVES



These brackets may be mounted on each side of the pedestal frame.

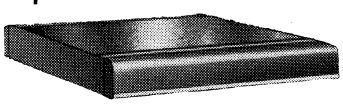
They are slotted to match the tapped holes in the sides of the pedestal and may be adjusted to any height.

Catalog No.	To Fit Pedestal	Overall Size	Net Price Per Pair
CB-24	PD-224	2-1/2"x2-31/32"x18-13/16"	$4.20
CB-34	PD-234	2-1/2"x2-31/32"x28-13/16"	5.80

These shelves are drilled for assembly with Mounting Brackets CB-24 and CB-34. Both shelves are 17-1/2" wide and 5/8" high.

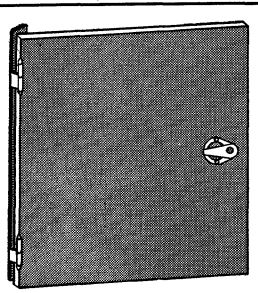
Cat. No.	To Fit Brackets	For Pedestal	Depth	Net Price
SS-24	CB-24	PD-224	22-3/4"	$4.60
SS-34	CB-34	PD-234	32-3/4"	6.40

CENTER DESK SECTION
(For Triple and Quad Unit Assemblies)



The center desk section shown is attached between two rack pedestals to make up a triple or quad unit assembly. Consists of table top support and floor brace illustrated on Par-Metal Page 12. Plastic table top not included in price of sections. Sections finished to match color of pedestal frames, unless otherwise ordered.

Cat. No.	For Assembly with	Front to Back	Length	Net Price
CD-24	PD-224	25-3/8"	22"	$16.80
CD-242	PD-224	25-3/8"	44"	33.60
CD-34	PD-234	35-3/8"	22"	19.80
CD-342	PD-234	35-3/8"	44"	39.60



PEDESTAL FRAME DOORS

These doors are made to enclose the front or back of pedestal frames. They are **"double wall"** type with **smooth surfaces inside and outside.** A push button spring catch provides easy operation with a minimum projection from the front of the door.

Doors are made in **three** sizes, and may be used in combination with rack panels or drawers; either on pedestals or any standard racks for 19" wide panels. **Available in all finishes.**

Catalog No.	Sizes	Net Price
DR-7019	7" x 19"	$11.75
DR-1019	10-1/2" x 19"	13.50
DR-2119	21" x 19"	16.50

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PAR-METAL MODULAR CONSOLE ASSEMBLIES

DESK PANEL CABINETS

The desk control cabinets shown below are ideal **for use in the laboratory, for test equipment** and **other industrial applications.** Each cabinet section is made from 1/16″ sheet steel, rigidly welded together — ready for use without a multiplicity of clips, studs, nuts and other fastening devices.

FRONT: Steel formed blank panels are supplied. Aluminum panels 1/8″ thick are optional at same price.

REAR: Regularly equipped with removable hinged doors **(louvered)** except **"LS"** series cabinets. Doors are held closed with a push-button spring catch. In double, triple, and quad unit cabinets, **individual** doors are used for each section. Standard formed steel panels, 19″ wide, either plain or louvered may be substituted for doors without additional cost.

BOTTOM: Furnished with removable blank formed steel panel.

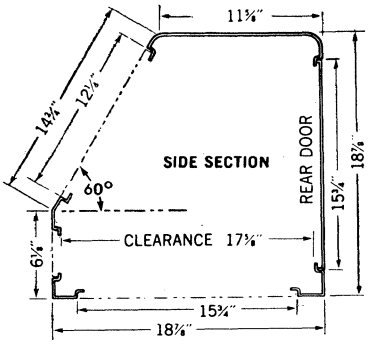
FINISH: Cabinet finished in dark grey hammertone enamel; panels and doors in light grey hammertone enamel. Optional finishes listed on Par-Metal Page 12.

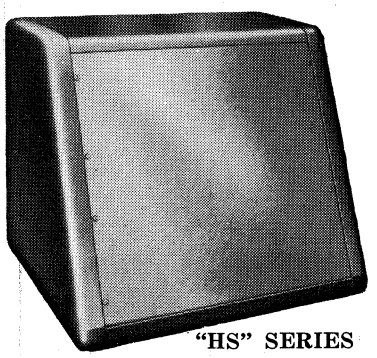
"CX" SERIES

DUAL PANEL DESK CONTROL CABINETS

On series **"CX"** cabinets, the upper panel is **12-1/4″** high, and is sloped at an angle of **60°;** the lower vertical panel is **3-1/2″** high. The rear door and bottom panel (for each unit) is 15-3/4″ x 19″.

Catalog No.	Description	Height	Width	Depth	Net Price
CX-101	Single Unit	18-7/8″	22″	18-7/8″	$ 70.00
CX-102	Double-Unit	18-7/8″	44″	18-7/8″	115.00
CX-103	Triple Unit	18-7/8″	66″	18-7/8″	160.00
CX-104	Quad Unit	18-7/8″	88″	18-7/8″	200.00



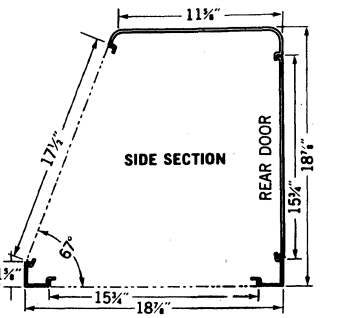


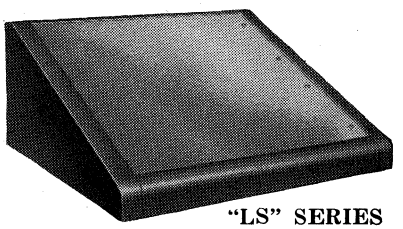
"HS" SERIES

HIGH SLOPE PANEL CABINETS

On series **"HS"** cabinets, the front panel is **17-1/4″** high, and is sloped at an angle of **67°.** The rear door and bottom panel (for each unit) is 15-3/4″ x 19″.

Catalog No.	Description	Height	Width	Depth	Net Price
HS-101	Single Unit	18-7/8″	22″	18-7/8″	$ 66.50
HS-102	Double Unit	18-7/8″	44″	18-7/8″	110.00
HS-103	Triple Unit	18-7/8″	66″	18-7/8″	150.00
HS-104	Quad Unit	18-7/8″	88″	18-7/8″	190.00



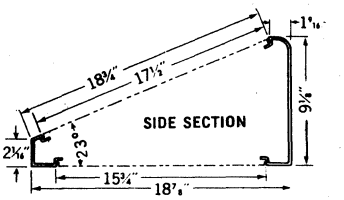


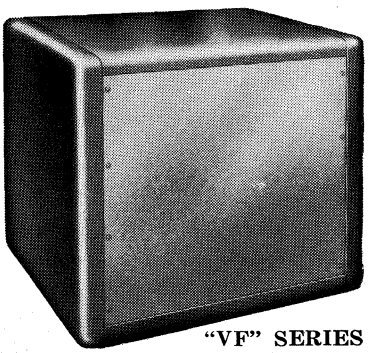
"LS" SERIES

LOW SLOPE PANEL DESK CABINETS

On series **"LS"** cabinets, the front panel is **17-1/2″** high, and slopes upward at an angle of **23°.** The bottom panel (for each unit) is 15-3/4″ x 19″.

Catalog No.	Description	Height	Width	Depth	Net Price
LS-101	Single Unit	9-1/8″	22″	18-7/8″	$ 40.00
LS-102	Double Unit	9-1/8″	44″	18-7/8″	70.00
LS-103	Triple Unit	9-1/8″	66″	18-7/8″	100.00
LS-104	Quad Unit	9-1/8″	88″	18-7/8″	130.00



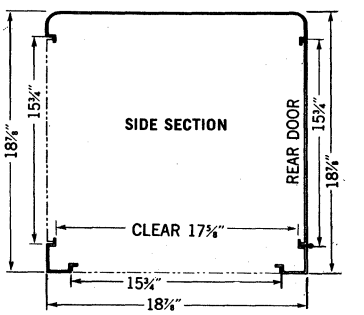


"VF" SERIES

VERTICAL PANEL DESK CABINETS

On series **"VF"** cabinets, the vertical front panel is **15-3/4″** high.. The rear door and bottom panel (for each unit) is 15-3/4″ x 19″.

Catalog No.	Description	Height	Width	Depth	Net Price
VF-101	Single Unit	18-7/8″	22″	18-7/8″	$ 55.00
VF-102	Double Unit	18-7/8″	44″	18-7/8″	100.00
VF-103	Triple Unit	18-7/8″	66″	18-7/8″	145.00
VF-104	Quad Unit	18-7/8″	88″	18-7/8″	185.00



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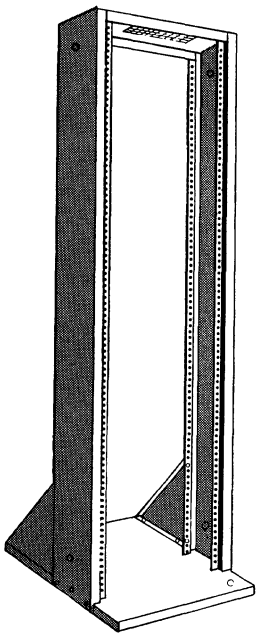
PAR-METAL CHANNEL RELAY RACKS

DELUXE TYPE RACKS for 19" and 24" wide panels



No. RR-197

These DeLuxe Channel Type Relay Racks **are made from 7/64" thick steel,** and extend the utility of the channel relay rack for **both Electronic and Electrical applications.** The panel spaces available are: 61-1/4", 70", and 77" for both 19" and 24" wide rack panels.

The upright channels have been modified to an 8" overall depth, which when combined with a formed recess for the panels, greatly increases the rigidity of the rack. The edges of the panels are not exposed.

The rack is drilled and tapped for 10/32 screws at **both front and back** on 5/8"-5/8"-1/2" alternate centers permitting the optional use of either panels, or dish type chassis mounted to the racks at both front and back. The **full** panel space is available on the back, the same as the front.

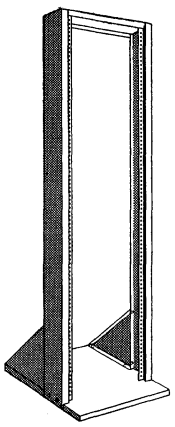
Clear distance between panel mounting flanges (from front to back) is 6-7/8". It is practicable to use this depth as an enclosure for dish type chassis listed on **Par-Metal Page 26.**

When such chassis are mounted at the back, the addition of standard or hinged type panels (see **Par-Metal Page 24**) will make a rack enclosure with a clear depth of 6-7/8".

The top is provided with a grille for ventilation where needed. It is also trimmed with a chrome finished moulding at the front. Two holes are located on each side for bolting racks together in rows; there are no projecting screw heads on the sides. Top brace and vertical channel members are securely welded together. Base and rear braces are shipped knocked down, with all necessary bolts for assembly. Panel mounting screws are also supplied.

FINISH: Standard finish is black ripple enamel. Blue grey wrinkle or grey hammertone is also available without extra charge if so specified on your order. **OTHER FINISHES ALSO AVAILABLE**

STANDARD TYPE RACKS for 19" wide panels



No. RX-195

THESE RACKS are sturdily constructed from 7/64" pressed steel, and are braced at the back as illustrated, and will withstand severe abuse. They have a formed recess for the panels; the edges of the panels are not exposed.

Top brace and vertical channel members are securely welded together. Base and rear braces are shipped knocked down, with necessary bolts for assembly.

Panel mounting holes are accurately drilled for standard rack panels, tapped for 10-32 machine screws at the front only. An ample supply of panel mounting screws are supplied.

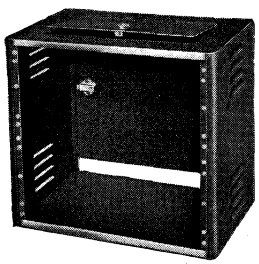
Upright channels are 3-3/16" deep with flanges 1" wide. Clearance between uprights is 17-15/16". Base is 20-7/8" deep and extends both front and rear, and is 21-1/16" wide for either unit.

FINISH: Standard finish is black wrinkle. For blue grey wrinkle or grey hammertone enamel add 10%.

CAT. NO.	OVERALL HEIGHT	PANEL HEIGHT	SHP. WT. LBS.	NET PRICE
RX-193	39 7/16"	36 3/4"	45	$21.00
RX-195	74 7/16"	71 3/4"	55	25.50

Catalog Number	Overall Dimensions Height	Width	Depth	Panel Space	Clearance between Uprights	Clear Depth in Channel	Shipping Weight	Net Price
RR-194	64-5/8"	21-1/16"	26"	61-1/4"x19"	17-15/16"	6-7/8" Inside	88 lbs.	$38.50
RR-196	73-3/8"	21-1/16"	26"	70" x19"	17-15/16"	6-7/8" Inside	95 lbs.	41.00
RR-197	80-3/8"	21-1/16"	26"	77" x19"	17-15/16"	6-7/8" Inside	102 lbs.	43.50
RR-1922	64-5/8"	26-1/16"	26"	61-1/4"x24"	22-15/16"	6-7/8" Inside	100 lbs.	49.00
RR-1923	73-3/8"	26-1/16"	26"	70" x24"	22-15/16"	6-7/8" Inside	105 lbs.	52.50
RR-1924	80-3/8"	26-1/16"	26"	77" x24"	22-15/16"	6-7/8" Inside	112 lbs.	55.00

DESK PANEL CABINET RACKS For Standard 19" Rack Panels



No. DL-1713

The vertical front corners are rounded and the top and bottom are trimmed with chrome finished mouldings. Panels fit into a recess, so that the edges are not exposed. Panel mounting holes are accurately drilled on universal centers, for standard rack panels. Holes are tapped for 10/32 machine screws.

They may be used with any chassis up to 13" x 17" in size. All cabinets are rigidly constructed of 1/16" thick cold rolled sheet steel, with all joints electrically welded. Louvres provide ample ventilation through sides and back. Piano type hinges are used on the top doors, which are provided with chrome plated handles. A push-button spring catch with chrome plated handle is used on rear doors. Panel mounting screws are furnished.

FINISH: BLACK RIPPLE ENAMEL is standard. Blue grey wrinkle or grey hammertone is also available without extra charge if so specified on your order.

PANELS: Rack panels to fit these racks are listed on **Par-Metal Pages 23 and 24.**

(With door in top only) (not illustrated)

Catalog No.	Cabinet Size	Available Panel Space	Shp.Wt. Lbs.	Net Price
DL-128	10½"x21½"x15" deep	8¾"x19"	28	$16.20
DL-1210	12¼"x21½"x15" deep	10½"x19"	29	17.70
DL-1225	14" x21½"x15" deep	12¼"x19"	30	19.20
DL-1413	15¾"x21½"x15" deep	14" x19"	32	21.00

RACK SHELF: Rack shelf No. R-2128 listed on **Par Metal Page 26** is designed to fit these racks.

(With door in top and door on rear panel)

Catalog No.	Cabinet Size	Available Panel Space	Shp.Wt. Lbs.	Net Price
DL-1713	19¼"x21½"x15" deep	17½"x19"	38	$22.80
DL-2613	28" x21½"x15" deep	26¼"x19"	48	26.70
DL-3513	36¾"x21½"x15" deep	35" x19"	58	29.55

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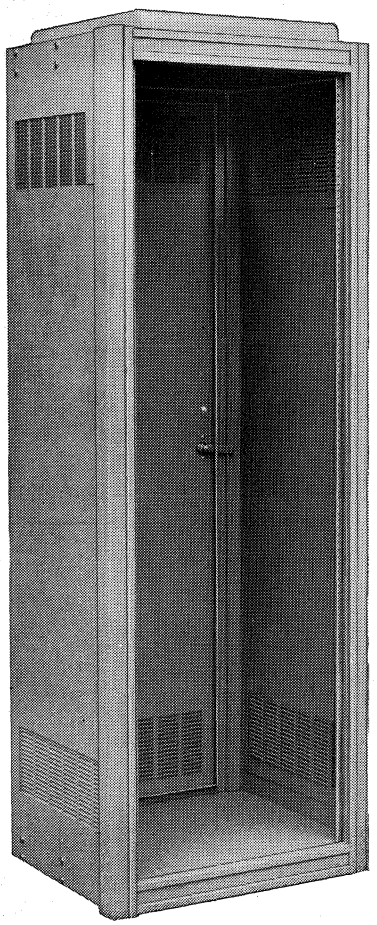
PAR-METAL TYPE "A" RELAY RACKS

DELUXE TYPE—FOR 19" WIDE PANELS



"ER" SERIES
WITH REAR DOOR ONLY

CABINET: The entire cabinet is made from 1/16" sheet steel. The sides are adequately ventilated with "venetian" type louvres similar to our modular cabinet racks. The vertical corner trims and formed mouldings at top and bottom are designed to effect a distinctive frame around the front of the rack. Racks are shipped **"knocked down"** for easy assembly.

CORNER TRIMS: All front vertical corner and joining trims are narrow type (do not overlap panels) to permit installation of sliding shelves, drawers, tables, etc.

PANEL MOUNTING: Angle irons are 7/64" thick steel, holes are accurately drilled and tapped 10-32 thread for all types of panels.

HARDWARE: Doors are the same as our modular racks. **"Series ER"** racks are equipped with die-cast non-locking handles on rear doors.

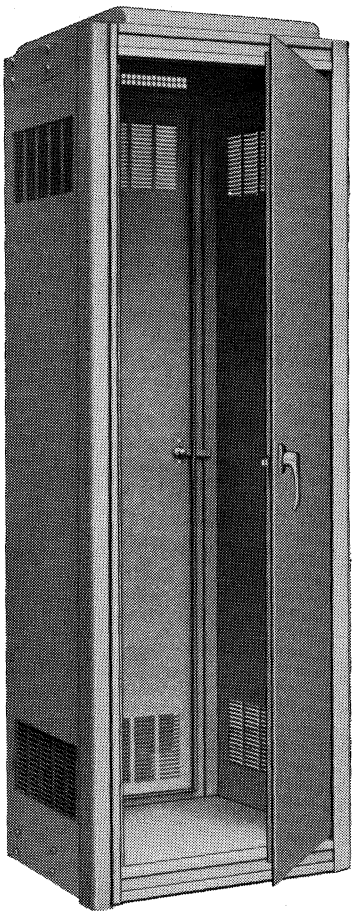
On **"Series FD"** racks, similar handles with key locks are used on both front and rear doors. Hinges are the "slip-joint" type so that doors may be easily removed.

FINISH: Blue grey wrinkle finish is standard. Black wrinkle enamel or grey hammertone enamel is also available without extra charge if so specified on your order.

ROLLER TRUCK: Use either No. RT-412 or HD-412 for all racks listed on this page; roller trucks are listed on **Par-Metal Page 22.**

PANELS: Panels 19" wide to fit these racks are listed on **Par-Metal Pages 23** and **24.**

SHELVES: For Series ER Racks use shelf No. ER-2212 listed on **Par-Metal Page 26.** To install shelves in Series FD Racks, it is recommended that Vertical Side Supports, Brackets and Shelves listed on **Par-Metal Page 10** be used.

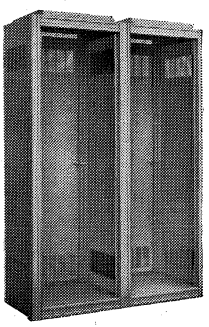


"FD" SERIES
WITH FRONT AND
REAR DOOR

Catalog No.	Doors	Overall Dimensions	Panel Space	Clear Inside Width (Front)	Clear Inside Width (Rear)	Clear Inside Depth	Shipping Wt. Lbs.	Net Price
ER-223-A	Rear only	43¼x22x18"	36¾x19"	**17⅝"	19"	16¾"	90	**$ 52.20**
ER-225-A	Rear only	67¾x22x18"	61¼x19"	**17⅝"	19"	16¾"	120	**64.35**
ER-227-A	Rear only	83½x22x18"	77 x19"	**17⅝"	19"	16¾"	140	**77.70**
FD-223-A	Front & Rear	43¼x22x18"	36¾x19"	19⅛"	19"	*16"	110	**66.90**
FD-225-A	Front & Rear	67¾x22x18"	61¼x19"	19⅛"	19"	*16"	150	**83.10**
FD-227-A	Front & Rear	83½x22x18"	77 x19"	19⅛"	19"	*16"	175	**103.95**

*clearance between front and rear doors. **between panel mounting angles.

MULTI-RACK CABINET ASSEMBLIES



MULTI-RACK ASSEMBLY

MULTI-RACK ASSEMBLIES: Both **Series "ER"** and **"FD"** racks may be set up in rows as shown. The use of "venetian type" louvers provides a flat exterior surface on the sides of the racks; separate side plates with welded screw studs inserted at top and bottom of adjacent sides simplifies the assembly — no screwdrivers or wrenches are needed. Vertical joining trims overlap the joint between racks on the sketch.

SERIES "FD" RACKS: This series with front and rear doors has adjustable panel mounting angles, which may be located at any distance from front to rear of rack. VERTICAL SIDE SUPPORTS listed on **Par-Metal Page 10** will fit into these racks.

ASK YOUR DISTRIBUTOR FOR PAR-METAL PRODUCTS CORP. CATALOG

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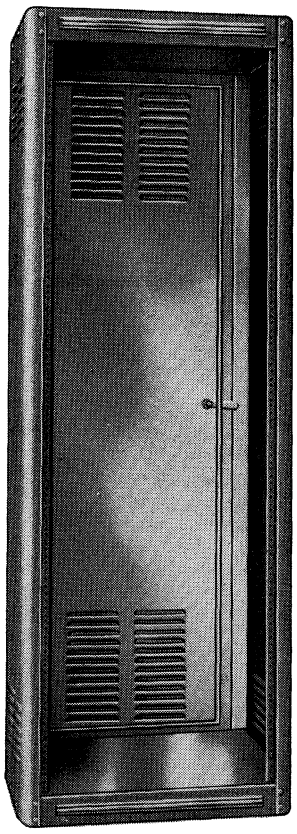
PAR-METAL TYPE "A" RELAY RACKS

ROUNDED CORNER TYPE—FOR 19" WIDE PANELS



"ER" SERIES
WITH REAR DOOR ONLY

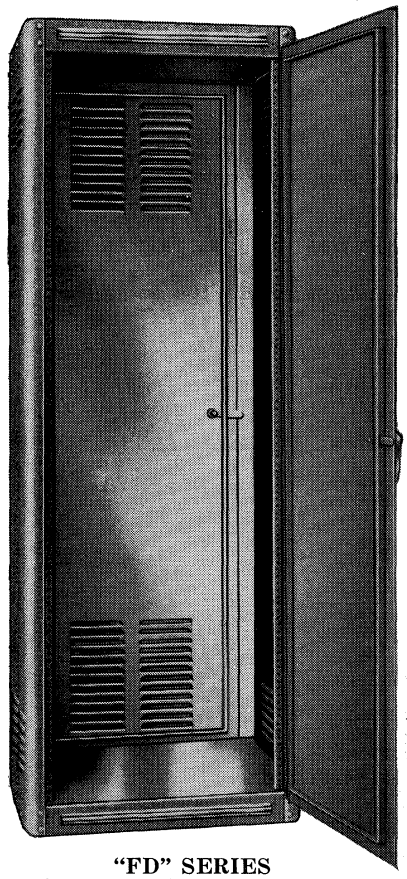
THESE RACKS ARE SIMILAR in construction to our Series "ER" Racks. They provide a combination of standard functional design and superior construction at a modest price. The vertical front corners are nicely rounded, and the top and bottom are trimmed with chrome finished mouldings. The panels fit into a recess, so that the edges are not exposed.

CABINET: Entire cabinet is constructed of 1/16" thick cold-rolled steel. These racks are shipped "knocked-down" with necessary bolts for easy assembly. Screws for mounting panels are supplied.

PANEL MOUNTING: Angle irons are 7/64" thick steel, holes are accurately drilled and tapped 10-32 thread for all types of panels.

HARDWARE: Doors are of the same design as our modular racks. **"SERIES ER"** racks are equipped with die-cast non-locking handles on rear doors. On **"SERIES FD"** racks, similar handles with key locks are used on both front and rear doors. Hinges are the "slip-joint" type so that doors may be easily removed.

FRONT DOOR RACKS: On Series FD racks, the front panel mounting angles are recessed 2" deep to allow clearance for dials, etc. The clear inside depth behind the panel is 15".



"FD" SERIES
WITH FRONT AND REAR DOOR

SPECIFICATIONS

Catalog No.	Doors	Overall Dimensions	Panel Space	Clear Inside Depth	Clear Inside Width (Rear)	Clear Inside Width (Front)	Shipping Wt. Lbs.	Net Price
ER-213-A	Rear only	42 x22x18"	36¾x19"	16¾"	19"	**17⅝"	85	**$37.20**
ER-215-A	Rear only	66½x22x18"	61¼x19"	16¾"	19"	**17⅝"	110	**54.90**
ER-217-A	Rear only	82¼x22x18"	77 x19"	16¾"	19"	**17⅝"	130	**66.30**
FD-215-A	Front & Rear	66½x22x18"	61¼x19"	*15"	19"	19⅛"	130	**73.92**
FD-217-A	Front & Rear	82¼x22x18"	77 x19"	*15"	19"	19⅛"	155	**89.10**

*clearance behind panel. **between panel mounting angles.

FINISH: Blue grey wrinkle finish is standard. Black wrinkle enamel or grey hammertone enamel is also available without extra change if so specified on your order.

PANELS: Panels 19" wide to fit these racks are listed on **Par-Metal Pages 23 and 24.**

ROLLER TRUCK: No. RT-412 will fit all racks listed on this page. Roller trucks are listed on **Par-Metal Page 22.**

SHELVES: For series ER-215A racks, use shelf No. ER-2212. For series FD-215A racks, use shelf No. R-2225. Both shelves are listed on **Par-Metal Page 26.**

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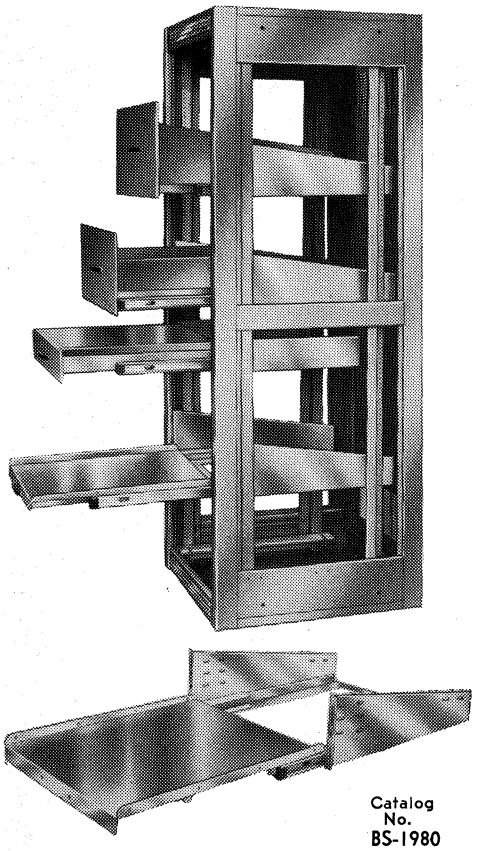
PAR-METAL RACK TYPE SLIDE ASSEMBLIES



GENERAL DESCRIPTION

These slide assemblies will save considerable layout and assembly time by eliminating the need to align and mount individual slides directly to the interior of a rack.

All models consist of two units: a heavy cradle made from 7/64" steel, and the sliding unit (either the basic shelf, drawer, or desk shelf). The cradle is first mounted to the rack; the sliding unit slips into place on the cradle, **and may be removed when desired.** Additional holes are provided in the side brackets of the shelf assembly for mounting to our standard vertical side supports. Either method will provide a rigid support; both may be used together where desirable.

The basic slide assemblies for use in 19" wide panels **racks will accommodate chassis up to 17" wide.** All of the "usable space" noted below may be fully extended from the front of the rack; load capacities are based on the shelf in this position. All units are ruggedly constructed to withstand constant usage. All parts are securely welded or fastened with stainless steel rivets.

BASIC SLIDE ASSEMBLIES

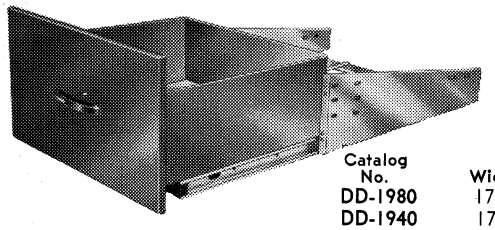
The basic slide assembly illustrated is sold as a complete unit, ready for installation in all 18" or 24" deep racks. Panels may be attached to chassis by using standard brackets or any other convenient method. The panel and chassis assembly is then bolted directly to the slide pan.

Formed panels with a minimum height of 7" are recommended. Four models are listed to fit racks using panels either 19" or 24" wide. The BS-1940 and BS-2419 are identical in size, but have different load capacities.

***All load capacities are conservatively rated to carry the full load with the sliding shelf completely extended.** All parts are zinc plated.

Catalog No.	Usable Space Width	Usable Space Depth	Panel Width	Rack Depth	Bracket Height	Shelf Height	*Load Capacity	Net Price	Shipping Weight
BS-1980	17 1/8"	14"	19"	18" or 24"	6 1/2"	1 3/4"	50 lbs.	$19.25	24 lbs.
BS-1940	17 1/8"	20"	19"	24"	6 1/2"	1 3/4"	36 lbs.	25.50	32 lbs.
BS-2419	17 1/8"	20"	19"	24"	6 1/2"	1 3/4"	60 lbs.	30.75	32 lbs.
BS-2424	22 1/8"	20"	24"	24"	6 1/2"	1 3/4"	55 lbs.	33.00	35 lbs.

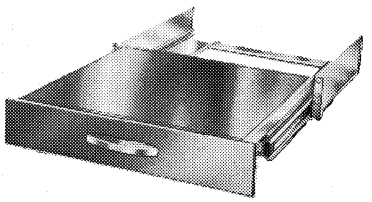
Special brackets are available for mounting rack panels, as listed on Par-Metal page 26.



STORAGE DRAWER ASSEMBLIES

These drawers are suitable for stationery, instruments, parts, etc. The drawers are mounted on the basic slide assemblies described above. They are available either 7" or 10½" high to match standard rack panels of the same height. Three models are listed for racks with 19" wide panels, and one for 24" wide panel racks.

Catalog No.	Usable Space Width	Usable Space Length	Depth	Panel Height	Panel Width	Rack Depth	*Load Capacity	Net Price	Shipping Weight
DD-1980	17"	14"	5"	7"	19"	18" or 24"	40 lbs.	$26.50	33 lbs.
DD-1940	17"	20"	5"	7"	19"	24"	25 lbs.	35.00	42 lbs.
DD-2419	17"	20"	8"	10 1/2"	19"	24"	45 lbs.	41.90	50 lbs.
DD-2424	22"	20"	8"	10 1/2"	24"	24"	45 lbs.	46.75	50 lbs.



DESK SHELF ASSEMBLIES

This assembly effectively provides a retractable writing desk, or may be used for supporting test instruments or other devices. When not in use, it saves valuable aisle space. The writing surface is charcoal grey plastic. The front requires only 3½" of panel space, and is provided with a drawer pull. It is made for racks using panels either 19" or 24" wide. No. SK-1970 and SK-2419 are identical except for load capacity.

Catalog No.	Shelf Size Width	Shelf Size Depth	Writing Surface	Pulls Out	Panel Width	Rack Depth	*Load Capacity	Net Price	Shipping Weight
SK-1970	17"	17"	Laminated Plastic	16 3/8"	19"	18" or 24"	36 lbs.	$36.00	32 lbs.
SK-2419	17"	17"	Laminated Plastic	16 3/8"	19"	18" or 24"	60 lbs.	41.50	32 lbs.
SK-2424	22"	17"	Laminated Plastic	16 3/8"	24"	24"	60 lbs.	48.75	35 lbs.

IMPORTANT: When ordering, please specify paint finish on front panels or drawer fronts of series "DD" or "SK" assemblies. Standard finishes are grey hammertone, black wrinkle, blue grey wrinkle, primer coat only. Other finishes available.

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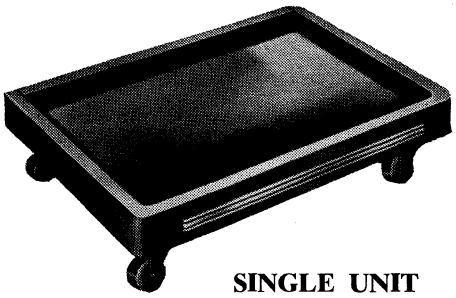
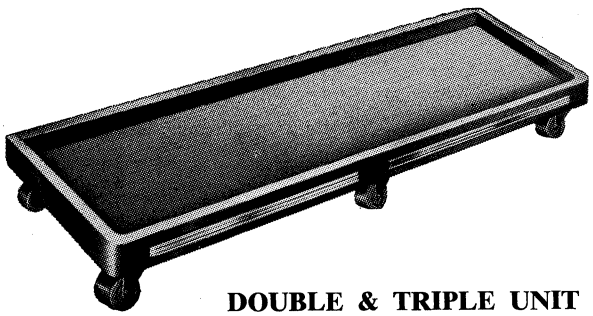
PAR-METAL — ROLLER TRUCKS



SINGLE UNIT



DOUBLE & TRIPLE UNIT

These roller trucks have been designed to fit all the cabinet racks listed on other pages. The overall size is about two inches larger than the racks to provide safer weight distribution of the rack and its contents. They are attractively styled with rounded front corners and chrome finished moulding.

STANDARD TYPE: Made from 1/16″ steel, securely welded and equipped with swivel type casters using 2″ diameter rubber composition wheels.

HEAVY DUTY TYPE: Similar to the above, but bottom of truck is reinforced with 7/16″ thick steel braces. Casters are ball bearing swivel type, using 3″ diameter hard rubber composition wheels. Load capacity of each caster is 225 lbs.

Trucks are available for one, two, or three racks, and are listed below as single, double and triple units. Double units have **six casters,** and triple units have **eight casters.**

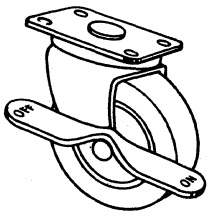
BRAKE CASTERS: The use of brake type casters is desirable both as a utility and safety measure. This is particularly true where racks have been loaded to capacity. These casters are available for all heavy duty trucks.

SEMI-CUSTOM TRUCKS: WE CAN SUPPLY ON A "SEMI-CUSTOM" BASIS pressed steel roller trucks for our cabinet racks up to 36″ wide and 88″ long. They can be equipped with 4″ dia. wheel casters and necessary foot brakes. The extra width is used in front of the rack assembly to provide stability where extension shelves and other accessories are mounted on the front of the racks. Drawings and prices available upon request.

FINISH: Blue grey ripple enamel is standard; all other finishes listed on Par-Metal Page 3 will be supplied without additional charge. **PLEASE SPECIFY FINISH WHEN ORDERING.**

TO FIT RACKS LISTED BELOW:	Par-Metal Rack Page No.	STD. TYPE SINGLE UNIT Catalog No.	STD. TYPE SINGLE UNIT Net Price	HEAVY DUTY TYPE SINGLE UNIT Catalog No.	HEAVY DUTY TYPE SINGLE UNIT Net Price	HEAVY DUTY TYPE DOUBLE UNIT Catalog No.	HEAVY DUTY TYPE DOUBLE UNIT Net Price	HEAVY DUTY TYPE TRIPLE UNIT Catalog No.	HEAVY DUTY TYPE TRIPLE UNIT Net Price
DL-1713, DL-2613, DL-3513	18	RT-410	**10.68**						
ER-213, 215, 217A-FD-215, 217-A	20	RT-412	**12.87**	HD-412	**22.00**	HD-412-2	**44.00**	HD-412-3	**85.00**
ER-223, 225, 227-A	19	RT-412	**12.87**	HD-412	**22.00**	HD-412-2	**44.00**	HD-412-3	**85.00**
FD-223, 225, 227-A	19	RT-412	**12.87**	HD-412	**22.00**	HD-412-2	**44.00**	HD-412-3	**85.00**
PL-FL-4818, 5818, 6718, 7718, 8418	4	See Heavy Duty Type		*HD-425	**25.60**	HD-425-2	**51.20**	HD-425-3	**97.50**
PL-FL-4824, 5824, 6724, 7724, 8424, 9024-B	4	See Heavy Duty Type		*HD-426	**28.30**	HD-426-2	**56.60**	HD-426-3	**105.00**
PL-FL-4827, 5827, 6727, 7727, 8427, 9027-B	4	See Heavy Duty Type		*HD-432	**31.10**	HD-432-2	**62.20**	HD-432-3	**120.00**
PL-FL-4833, 5833, 6733, 7733, 8433, 9033-B	4	See Heavy Duty Type		*HD-438	**38.60**	HD-438-2	**77.20**	HD-438-3	**155.00**
PR-FR-4818, 5818, 6718, 7718, 8418	6	See Heavy Duty Type		*HD-425	**25.60**	HD-425-2	**51.20**	HD-425-3	**97.50**
PR-FR-4824, 5824, 6724, 7724, 8424, 9024-B	6	See Heavy Duty Type		*HD-426	**28.30**	HD-426-2	**56.60**	HD-426-3	**105.00**
PR-FR-4827, 5827, 6727, 7727, 8427, 9027-B	6	See Heavy Duty Type		*HD-432	**31.10**	HD-432-2	**62.20**	HD-432-3	**120.00**
PR-FR-4833, 5833, 6733, 7733, 8433, 9033-B	6	See Heavy Duty Type		*HD-438	**38.60**	HD-438-2	**77.20**	HD-438-3	**155.00**
PX-FX-3718, 4818, 5818, 6718-B	8	RT-412	**12.87**	HD-412	**22.00**	HD-412-2	**44.00**	HD-412-3	**85.00**
PX-FX-7718, 8418	8	See Heavy Duty Type		HD-412	**22.00**	HD-412-2	**44.00**	HD-412-3	**85.00**
PX-FX-4824, 5824, 6724, 7724, 8424, 9024-B	8	See Heavy Duty Type		HD-420	**25.40**	HD-420-2	**50.80**	HD-420-3	**97.50**
PX-FX-4827, 5827, 6727, 7727, 8427, 9027-B	8	See Heavy Duty Type		HD-427	**28.60**	HD-427-2	**57.20**	HD-427-3	**112.00**
PX-FX-4833, 5833, 6733, 7733, 8433, 9033-B	8	See Heavy Duty Type		HD-434	**35.50**	HD-434-2	**71.00**	HD-434-3	**142.00**

* For racks with detachable side panels attached to racks.



BRAKE TYPE CASTERS: Brake type casters are supplied to replace the **two front casters** of single roller trucks; the **three front casters** of double roller trucks, and **four front casters** on triple roller trucks. Additional cost **per roller truck** is as follows:

For single units (HD-412, etc.)..... **$ 8.50**
For double units (HD412-2, etc.)..... **12.75**
For triple units (HD-412-3, etc.)..... **17.00**

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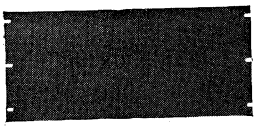
PAR-METAL RACK PANELS 19"-24"-30" WIDE

All panels on this page are uniformly slotted to fit Racks, Pedestals and Desk Panel Cabinets on Par-Metal Pages 4, 6, 8, 9, 15, 17, 18, 19 and 20. They will also fit any other rack equipment having multiple 1¼"-½" spacings or what is commonly termed as W.E. spacing.

In addition to finishes listed below, Primer Coat is optional at the same prices as Grey Hammertone. Other finishes listed on Par-Metal Page 3 are also available.

STANDARD STEEL BLANK PANELS
1/8" STEEL



Standard flat panels made from 1/8" thick steel, either 19", 24", or 30" wide.

19" WIDE PANELS — 1/8" STEEL

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
6600	G-6600	$ .81	1¾"	H-6600	$ .87
6601	G-6601	1.02	3½"	H-6601	1.11
6602	G-6602	1.29	5¼"	H-6602	1.41
6603	G-6603	1.56	7"	H-6603	1.71
6604	G-6604	1.86	8¾"	H-6604	2.04
6605	G-6605	2.10	10½"	H-6605	2.31
6606	G-6606	2.49	12¼"	H-6606	2.73
6607	G-6607	2.89	14"	H-6607	3.18
6608	G-6608	3.24	15¾"	H-6608	3.54
6609	G-6609	3.60	17½"	H-6609	3.96
6610	G-6610	3.98	19¼"	H-6610	4.38
6611	G-6611	4.29	21"	H-6611	4.71

24" WIDE PANELS — 1/8" STEEL

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
6201	G-6201	$1.38	3½"	H-6201	$1.52
6202	G-6202	1.77	5¼"	H-6202	1.95
6203	G-6203	2.16	7"	H-6203	2.38
6204	G-6204	2.76	8¾"	H-6204	3.04
6205	G-6205	3.15	10½"	H-6205	3.47
6206	G-6206	3.57	12¼"	H-6206	3.93
6207	G-6207	4.35	14"	H-6207	4.79
6208	G-6208	4.95	15¾"	H-6208	5.45
6209	G-6209	5.40	17½"	H-6209	5.94
6210	G-6210	6.09	19¼"	H-6210	6.70
6211	G-6211	6.60	21"	H-6211	7.26

30" WIDE PANELS — 1/8" STEEL

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
6301	G-6301	$2.10	3½"	H-6301	$2.31
6302	G-6302	2.55	5¼"	H-6302	2.81
6303	G-6303	3.00	7"	H-6303	3.30
6304	G-6304	3.60	8¾"	H-6304	3.96
6305	G-6305	3.99	10½"	H-6305	4.39
6306	G-6306	4.71	12¼"	H-6306	5.18
6307	G-6307	5.37	14"	H-6307	5.91
6308	G-6308	6.00	15¾"	H-6308	6.60
6309	G-6309	6.72	17½"	H-6309	7.39
6310	G-6310	7.44	19¼"	H-6310	8.18
6311	G-6311	8.16	21"	H-6311	8.98

STANDARD ALUMINUM BLANK PANELS

These aluminum panels are made from No. 3003-H14 aluminum alloy. Panels 24" or 30" wide, made from 3/16" aluminum, are available on order.

19" WIDE PANELS — 1/8" ALUMINUM

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
6675	G-6675	$ .96	1¾"	H-6675	$1.05
6676	G-6676	1.35	3½"	H-6676	1.47
6677	G-6677	1.86	5¼"	H-6677	2.04
6678	G-6678	2.37	7"	H-6678	2.61
6679	G-6679	2.88	8¾"	H-6679	3.15
6680	G-6680	3.42	10½"	H-6680	3.75
6681	G-6681	3.89	12¼"	H-6681	4.26
6682	G-6682	4.56	14"	H-6682	5.01
6683	G-6683	5.13	15¾"	H-6683	5.64
6684	G-6684	5.60	17½"	H-6684	6.15
6685	G-6685	6.27	19¼"	H-6685	6.90
6686	G-6686	6.87	21"	H-6686	7.56

24" WIDE PANELS — 1/8" ALUMINUM

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
6275	G-6275	$1.80	1¾"	H-6275	$1.98
6276	G-6276	2.28	3½"	H-6276	2.51
6277	G-6277	3.00	5¼"	H-6277	3.30
6278	G-6278	3.81	7"	H-6278	4.19
6279	G-6279	4.74	8¾"	H-6279	5.21
6280	G-6280	5.73	10½"	H-6280	6.30
6281	G-6281	6.66	12¼"	H-6281	7.33
6282	G-6282	7.62	14"	H-6282	8.38
6283	G-6283	8.58	15¾"	H-6283	9.44
6284	G-6284	9.54	17½"	H-6284	10.49
6285	G-6285	10.47	19¼"	H-6285	11.52
6286	G-6286	11.40	21"	H-6286	12.54

30" WIDE PANELS — 1/8" ALUMINUM

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
6376	G-6376	$2.73	3½"	H-6376	$3.00
6377	G-6377	3.96	5¼"	H-6377	4.36
6378	G-6378	5.19	7"	H-6378	5.71
6379	G-6379	6.42	8¾"	H-6379	7.06
6380	G-6380	7.65	10½"	H-6380	8.42
6381	G-6381	8.88	12¼"	H-6381	9.77
6382	G-6382	10.11	14"	H-6382	11.12
6383	G-6383	11.34	15¾"	H-6383	12.47
6384	G-6384	12.57	17½"	H-6384	13.83
6385	G-6385	13.80	19¼"	H-6385	15.18
6386	G-6386	15.00	21"	H-6386	16.50

19" WIDE PANELS — 3/16" ALUMINUM

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
6675-3	G-6675-3	$1.65	1¾"	H-6675-3	$1.74
6676-3	G-6676-3	2.28	3½"	H-6676-3	2.40
6677-3	G-6677-3	3.36	5¼"	H-6677-3	3.54
6678-3	G-6678-3	4.14	7"	H-6678-3	4.38
6679-3	G-6679-3	5.16	8¾"	H-6679-3	5.43
6680-3	G-6680-3	6.18	10½"	H-6680-3	6.51
6681-3	G-6681-3	7.20	12¼"	H-6681-3	7.59
6682-3	G-6682-3	8.22	14"	H-6682-3	8.64
6683-3	G-6683-3	9.30	15¾"	H-6683-3	9.78
6684-4	G-6684-3	10.35	17½"	H-6684-3	10.89
6685-3	G-6685-3	11.40	19¼"	H-6685-3	12.00
6686-3	G-6686-3	12.60	21"	H-6686-3	13.26

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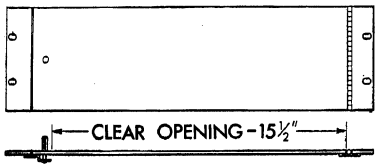
PAR-METAL RACK PANELS 19" & 24" WIDE

In addition to finishes listed below, Primer Coat is optional at the same prices as Grey Hammertone. Other finishes listed on Par-Metal Page 3 are also available.

SIDE HINGED BLANK PANELS

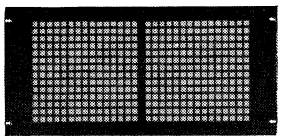


These door panels are made from 7/64" steel, hinged at the sides with a cowl type fastener to hold the door closed.

May be mounted on racks with hinges on right or left side. Clear opening (width) is 15½".

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
HP-350	GP-350	$3.15	3½"	HA-350	$3.37
HP-525	GP-525	3.27	5¼"	HA-525	3.60
HP-700	GP-700	3.57	7"	HA-700	3.93
HP-875	GP-875	3.84	8¾"	HA-875	4.22
HP-1050	GP-1050	4.14	10½"	HA-1050	4.56
HP-1225	GP-1225	4.41	12¼"	HA-1225	4.85
HP-1400	GP-1400	4.77	14"	HA-1400	5.25
HP-1750	GP-1750	6.90	17½"	HA-1750	7.59
HP-2100	GP-2100	7.50	21"	HA-2100	8.25

GRILLE PANELS 19" WIDE — 1/8" STEEL



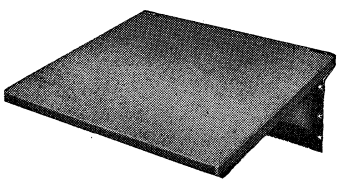
This modern type ventilating grille panel is stamped into the panel itself; it is not a pieced assembly.

Black Wrinkle Cat. No.	Grey Wrinkle Cat. No.	Net Price	Panel Size	Grille Size	Grey Hammertone Cat. No.	Net Price
P-661	G-661	$2.94	5¼"	3⅜x14⅜"	H-661	$3.23
P-662	G-662	3.24	7"	4⅞x14⅜"	H-662	3.56
P-663	G-663	3.87	8¾"	6⅞x14⅜"	H-663	4.26
P-664	G-664	3.54	8¾"	*3⅞x14⅜"	H-664	3.89
P-665	G-665	4.29	10½"	8⅜x14⅜"	H-665	4.72
P-666	G-666	4.02	10½"	*5⅞x14⅜"	H-666	4.42
P-667	G-667	4.35	12¼"	*7⅜x14⅜"	H-667	4.79

* Allows 3½" space at bottom for chassis mounting.

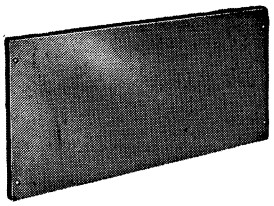
STANDARD DESK PANELS

These standard tables are rigidly made of 1/16" thick furniture steel. The rounded front corners are of seamless construction and the flanges of the shelf are folded in to provide smooth edges underneath.



They are securely mounted to regular 1/8" steel panels, size 10½ x 19". They may be obtained in two sizes and finishes as listed below. The tables are 22" wide to give full working space across the front of the racks when mounted in place. Shipping weight is 25 lbs.

Cat. No.	Width	Depth	Finish	Net Price
BT-2216	22"	16"	Black enamel	$15.45
GT-2216	22"	16"	Blue Grey enamel	15.45
HT-2216	22"	16"	Grey Hammertone	17.00
BT-2220	22"	20"	Black enamel	16.95
GT-2220	22"	20"	Blue Grey enamel	16.95
HT-2220	22"	20"	Grey Hammertone	18.65



FORMED BLANK PANELS

These panels are made from 1/16" thick steel, with formed edges to make an overall thickness of 7/16". They are made 19" and 24" wide, with mounting holes on standard centers to fit relay racks.

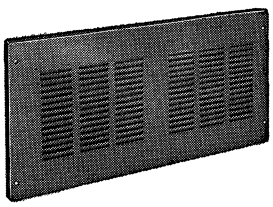
19" WIDE FORMED PANELS — 1/16" STEEL

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
P-600	G-600	$1.29	1¾"	H-600	$1.42
P-601	G-601	1.38	3½"	H-601	1.52
P-602	G-602	1.56	5¼"	H-602	1.72
P-603	G-603	1.83	7"	H-603	2.01
P-604	G-604	2.19	8¾"	H-604	2.39
P-605	G-605	2.46	10½"	H-605	2.71
P-606	G-606	2.88	12¼"	H-606	3.17
P-607	G-607	3.24	14"	H-607	3.56
P-608	G-608	3.72	15¾"	H-608	4.09
P-609	G-609	4.11	17½"	H-609	4.52
P-610	G-610	4.53	19¼"	H-610	4.98
P-611	G-611	4.95	21"	H-611	5.45
P-612	G-612	5.90	22¾"	H-612	5.90
P-613	G-613	6.35	24½"	H-613	6.35
P-615	G-615	7.25	28"	H-615	7.25
P-619	G-619	9.90	35"	H-619	9.90
P-623	G-623	12.80	42"	H-623	12.80
P-629	G-629	14.70	52½	H-629	14.70
P-634	G-634	16.20	61¼"	H-634	16.20
P-635	G-635	18.70	70"	H-635	18.70
P-637	G-637	21.30	77"	H-637	21.30
P-639	G-639	23.70	84"	H-639	23.70

24" WIDE FORMED PANELS — 1/16" STEEL

P-641	G-641	$1.95	3½"	H-641	$2.15
P-642	G-642	2.37	5¼"	H-642	2.61
P-643	G-643	2.85	7"	H-643	3.14
P-644	G-644	3.42	8¾"	H-644	3.76
P-645	G-645	3.78	10½"	H-645	4.16
P-646	G-646	4.14	12¼"	H-646	4.55
P-647	G-647	4.62	14"	H-647	5.08
P-648	G-648	5.22	15¾"	H-648	5.74
P-649	G-649	5.82	17½"	H-649	6.40
P-650	G-650	6.45	19¼"	H-650	7.10
P-651	G-651	7.02	21"	H-651	7.72
P-652	G-652	8.10	22¾"	H-652	8.10
P-653	G-653	8.70	24½"	H-653	8.70
P-655	G-655	9.90	28"	H-655	9.90
P-659	G-659	12.30	35"	H-659	12.30
P-668	G-668	14.70	42"	H-668	14.70
P-669	G-669	17.10	52½"	H-669	17.10
P-674	G-674	19.70	61¼	H-674	19.70
P-675	G-675	22.80	70"	H-675	22.80
P-677	G-677	24.60	77"	H-677	24.60
P-679	G-679	26.70	84"	H-679	26.70

19" WIDE FORMED PANELS — 1/16" STEEL VENTILATED TYPE



These are standard formed panels with louvre type ventilation as shown above.

Same panels can be supplied in 24" width if required.

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
PV-603	GV-603	$3.45	7"	HV-603	$3.80
PV-604	GV-604	3.90	8¾"	HV-604	4.29
PV-605	GV-605	4.29	10½"	HV-605	4.72
PV-606	GV-606	4.86	12¼"	HV-606	5.35
PV-608	GV-608	5.70	15¾"	HV-608	6.27
PV-611	GV-611	7.56	21"	HV-611	8.32

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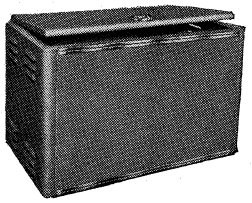
PAR-METAL — DESK CABINETS — AMPLIFIER CHASSIS

DELUXE TYPE CABINETS

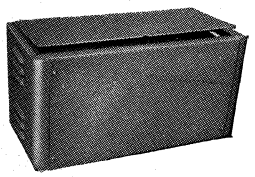


These cabinets make attractive housings for commercial and amateur use. The formed type door, with modern handle, is **hinged at the back** for full access to the interior.

Chrome finished mouldings are mounted on the front at top and bottom. Cabinet has ventilating louvres **on each side**, and full width opening at back for leads, etc. Standard finish is blue grey ripple enamel. Prices do not include chassis which are listed on PAR METAL Page 26.

Catalog No.	Overall Dimensions	Panel Size	For Chassis	Shp. Wt. Lbs.	Net Price
CA-300	9x12⅛x 8"	7 15/32"x10 1/16"	7x 9x2"	6	$ 7.95
CA-301	9x16⅛x 8"	7 15/32"x14 1/16"	7x13x2"	7	9.00
CA-302	10x17⅛x11"	8 15/32"x15 1/16"	10x14x3"	8	12.15
CA-303	10x20⅛x 9"	8 15/32"x18 1/16"	8x17x3"	11	12.15
CA-304	13x20⅛x12"	11 15/32"x18 1/16"	10x17x3"	15	13.65

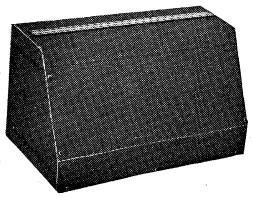
ROUNDED CORNER TYPE CABINETS



Standard type cabinets are similar in design to those listed above. They have **flat type doors**, hinged at back to permit full access to the interior. The vertical front corners are rounded; ventilating louvres are stamped in both sides, and full width opening is provided at the back for leads. Standard finish is blue grey ripple enamel. Prices do not include chassis, which are listed on PAR METAL Page 26.

Catalog No.	Overall Dimensions	Panel Size	For Chassis	Shp. Wt. Lbs.	Net Price
CA-200	8½x10⅛x 8"	7 15/32"x 8 1/16"	7x 7x2"	6	$ 5.85
CA-201	8½x12⅛x 8"	7 15/32"x10 1/16"	7x 9x2"	7	6.30
CA-202	8½x16⅛x 8"	7 15/32"x14 1/16"	7x13x2"	8	7.65
CA-203	9½x17⅛x11"	8 15/32"x15 1/16"	10x14x3"	11	10.05
CA-204	12½x20⅛x12"	11 15/32"x18 1/16"	10x17x3"	15	11.85

SLOPING FRONT CABINETS



May be readily adapted as instrument cases for use in studios, laboratories, etc.

- Top corner is rounded and trimmed with a chrome moulding, and with the blue grey ripple finish makes a very attractive case.
- A chassis may be mounted to a front panel and removed as a unit.
- Rear of case is ventilated, with an opening for connections.
- Prices do not include chassis, which are listed on PAR METAL Page 26.

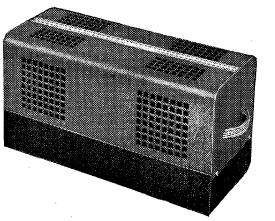
Catalog No.	Overall Dimensions	For Chassis	Shp. Wt. Lbs.	Net Price
SF-500	8x 8x 8"	7x 7x2"	6	$ 5.70
SF-501	8x10x 8"	7x 9x2"	7	6.30
SF-502	8x14x 8"	7x13x2"	8	6.75
SF-503	9x18x 8"	7x17x3"	10	8.40
SF-504	12x18x12"	10x17x3"	14	10.20

AMPLIFIER FOUNDATION CHASSIS
SLOPING FRONT TYPE

These amplifier foundations are useful where a sloping panel is desirable for mounting meters, etc. This panel is removeable and protrudes 3" from the face of the screen cover. All parts are finished in blue grey wrinkle enamel, trimmed with a chrome finished moulding and handles at each end. **Chassis are supplied WITH bottom plates.**

Cat. No.	Chassis Size	Screen Cover	Shp. Wt. Lbs.	Net Price
F-10120	10x12x3"	6½" high	11	$ 9.15
F-10170	10x17x3"	6½" high	13	10.80
F-13170	13x17x3"	6½" high	15	11.85

ROUNDED CORNER TYPE

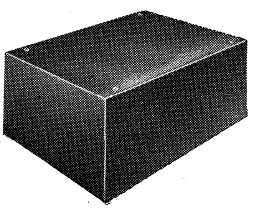


Rounded corners effectively streamline the screen covers of these chassis. Ventilation is obtained through rectangular screen openings. The moulding and handles, finished in chrome with red striping, gives the units a distinctive, modern design.

The screen cover is finished in blue grey wrinkle enamel to contrast with the black chassis. Chassis are drilled for bottom plates, which are listed on PAR METAL Page 26.

Cat. No.	Chassis Size	Depth of Cover	Shp. Wt. Lbs.	Net Price
DF-510	5x10x3"	6"	7	$5.94
DF-615	6x14x3"	6"	8	6.60
DF-717	7x17x3"	6"	9	7.65
DF-1012	10x12x3"	6"	9	7.65
DF-1017	10x17x3"	6"	10	8.55
DF-1317	13x17x3"	6"	12	10.20

STEEL UTILITY CASES



These cases have flat tops and bottoms, which are removable.

Made from 20 gauge sheet steel, with flanged edges and spot-welded corners. Finished in black wrinkle enamel.

Cat. No.	Overall Size	Shp. Wt. Lbs.	Net Price	Cat. No.	Overall Size	Shp. Wt. Lbs.	Net Price
MC-442	4x 4x 2"	1	$1.26	MC-666	6x 6x 6"	3	$2.31
MC-453	4x 5x 3"	2	1.47	MC-8101	8x10x10"	7	4.48
MC-596	5x 9x 6"	4	2.79	MC-8107	8x10x 7"	6	3.90
MC-654	6x 5x 4"	3	1.68	MC-1128	11x12x 8"	9	4.95

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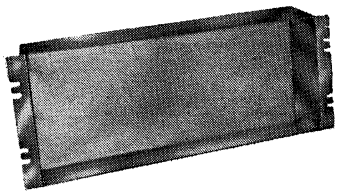
PAR-METAL BLANK CHASSIS BASES

VERTICAL RACK MOUNTING CHASSIS

TO FIT 19" STANDARD RACKS



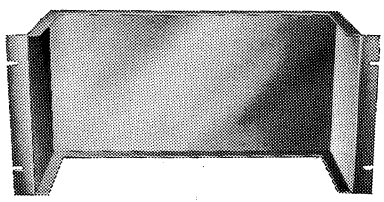
These chassis are fabricated from 1/16" **thick aluminum** with etched finish, or 1/16" **thick steel, zinc** plated. Overall length including mounting flanges is 18¾". They are designed to mount under 19" wide formed panels listed on PAR METAL Page 24. The 4 15/16" height is for use with 5¼" high panels, 6 11/16" for 7" high panels, etc.

Additional slots are provided in chassis side flanges to clear panel attachment screws. Although chassis are 18¾" overall width, they will fit on any relay rack.

ALUMINUM Cat. No.	Net Price	Chassis Dimensions	STEEL Cat. No.	Net Price
AC-402	$3.98	4-15/16"x17"x3"	SC-402	$3.06
AC-403	4.54	6-11/16"x17"x3"	SC-403	3.45
AC-404	5.10	8- 7/16"x17"x3"	SC-404	3.84
AC-405	5.64	10- 3/16"x17"x3"	SC-405	4.23
AC-406	6.30	11-15/16"x17"x3"	SC-406	4.59

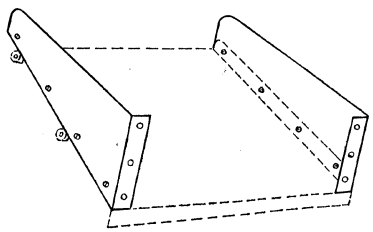
VERTICAL RACK MOUNTING CHASSIS

TO FIT 19" STANDARD RACKS



These chassis are suitable for installation in all cabinet relay racks. They may also be used on Deluxe channel racks listed on PAR-METAL Page 18. Material used is 1/16" aluminum, with corners welded for added rigidity. Etched finish on inside and outside. All chassis are 5¼" deep; overall width is 19"; chassis width inside is 16⅞".

Catalog No.	Height	Shipping Wt. Lbs.	Net Price
AC-430	1¾"	2	$2.70
AC-431	3½"	3	3.09
AC-432	5¼"	3	3.51
AC-433	7"	4	3.90
AC-434	8¾"	5	4.29
AC-435	10½"	5	4.80
AC-436	12¼"	6	5.46
AC-437	14"	7	5.97



PANEL MOUNTING BRACKETS FOR BASIC SLIDE ASSEMBLIES

These brackets are useful for attaching rack panels to the sliding shelves of our series "BS" basic slide assemblies listed on Par-Metal page 21. Special short screws and nuts are supplied for mounting brackets which assures free movement of the shelf after assembly.

Brackets are made from 1/16" steel, zinc plated. Brackets are 6½" high at front, and 3½" at back. Front flange is 5/16" wide. Made in two lengths, for 14" and 20" deep shelf assemblies. Price listed below is for one pair of brackets, with mounting screws and nuts.

Cat. No.	Length	To Fit Assembly	Net Price
BR-14	14¼"	BS-1980	$2.55 pair
BR-20	20¼"	BS-1940, 2419, 2424	3.45 pair

SHELVES FOR CABINET RACKS

These shelves are designed to fit into the various type "A" enclosed racks listed in this catalog. They are constructed to be mounted inside the rack, with side bolt mounting. All shelves are 1" high, and finished in black ripple enamel. Shipping weight of all shelves is 10 lbs.

Catalog No.	Will Fit Rack No.	Par-Metal Rack Page No.	Shelf Size	Net Price
ER-2112	ER-213, ER-215, ER-217-A	20	15"x21 15/16"	$3.60
R-2225	FD-215, FD-217-A	20	12"x21 15/16"	3.60
ER-2212	ER-223, ER-225, ER-227-A	19	15"x21 15/16"	3.60
R-2128	DL-1713, 2613, 3513	18	12"x21 3/16"	2.94

CHASSIS

Stamped from one piece of cold rolled steel zinc-plated, and have four solid sides with welded corners. Bottom edges are flanged in on four sides to provide additional reinforcement, and they are drilled for bottom plates. The chassis are made from #20 gauge steel, except those marked (*) which are stamped from 1/16" steel for heavy-duty use.

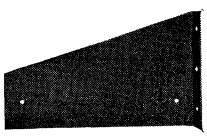
Cat. No. Zinc Plated	Size	Shp. Wt. Lbs.	Net Price
C-4508	5 x 10 x 3"	3	$1.38
C-4510	7 x 7 x 2"	2	1.08
C-4511	7 x 9 x 2"	2	1.29
C-4513	7 x 13 x 2"	3	1.56
C-4515	7 x 17 x 3"	4	1.98
C-4532	8 x 17 x 3"	5	1.98
C-4524	10 x 14 x 3"	5	2.01
C-4526	10 x 17 x 3"	7	2.22
C-4533*	11 x 17 x 2"	7	2.91
C-4534*	11 x 17 x 3"	9	3.18
C-4535*	13 x 17 x 2"	8	3.12
C-4536*	13 x 17 x 3"	9	3.51
C-4537*	13 x 17 x 4"	10	3.87
C-4540*	17 x 17 x 4"	13	4.65

BOTTOM PLATES

These bottom plates have holes to match the standard type chassis listed above, and also have pressed bumpers at the four corners.

Cat. No. Zinc Plated	Size	Shp. Wt. Lbs.	Net Price
CP-4508	5 x 10"	1	$ .48
CP-4510	7 x 7"	1	.57
CP-4511	7 x 9"	1	.66
CP-4513	7 x 13"	2	.75
CP-4515	7 x 17"	2	.87
CP-4531	8 x 17"	2	.90
CP-4524	10 x 14"	2	.90
CP-4528	10 x 17"	2	1.08
CP-4533	11 x 17"	2	1.05
CP-4535	13 x 17"	3	1.26
CP-4540	17 x 17"	4	1.71

CHASSIS MOUNTING BRACKETS



These brackets are made for assembly with our standard or heavy duty type chassis listed directly above. Panels must be at least 7" high.

FINISH: Black enamel only. They are made from 1/16" thick steel. Cat. Nos. SB-78 thru SB-713 Chassis Mounting Brackets are to be used with the stipulated size base only. Cat. No. SB-717 is used for 17" Bases and larger sizes.

Cat. No.	Base Dimension	Shp. Wt. Lbs.	Net Price
SB- 78	For 8"	2	$1.05
SB-710	For 10"	2	1.23
SB-711	For 11"	2	1.32
SB-713	For 13"	3	1.50
SB-717	For 17"	4	2.31

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PACKAGE WITH PREMIER STANDARD METAL HOUSINGS FOR THE ELECTRONICS INDUSTRY

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INDUSTRIAL DISCOUNT SCHEDULE

Applies to any PREMIER products listed in this catalog.

If total order at net price is:	Discount
Up to $199.99	Net Price
$200 to $399.99	Net Less 10%
$400 to $549.99	Net Less 15%
$550 to $699.99	Net Less 20%
$700 to $999.99	Net Less 25%
$1,000 to $2,499.99	Net Less 30%
$2,500 OR MORE	Net Less 33⅓%

PREMIER METAL PRODUCTS CO., INC.

PREMIER PAGE 1 **ALL PRICES 10% HIGHER WEST OF MISSISSIPPI**

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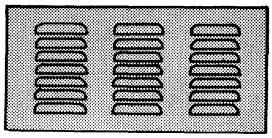
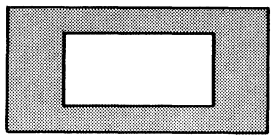
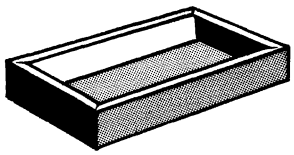


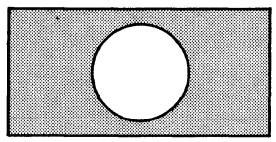
LOUVRES ON TOP (3 Rows—4" wide)
For FA, FS, PRXA, RMX, FDX



CUT-OUTS
For FA, FS, PRXA, RMX, FDX

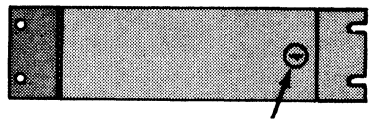


SOLID BOTTOM (NO CUT-OUT)
For FA, FS, PRXA, RMX, FDX



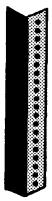
ROUND HOLE
For FA, FS, PRXA, RMX, FDX

PROVISION FOR MOUNTING SPECIAL SIZE CASTERS

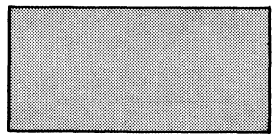


CYLINDER LOCK (HW-6) ON SHP PANELS

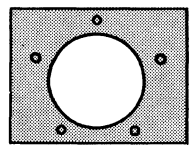
PREMIER
CUSTOMIZED MODIFICATIONS Available for all STANDARD UNITS
■
PREMIER
METAL PRODUCTS CO., INC.



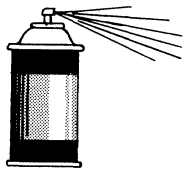
COPPER PLATED .0005"
PANEL MOUNTING ANGLES



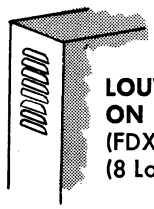
SOLID TOP PANELS on POR, MOR
SOLID REAR PANELS on POR, MOR, CSC, CMS



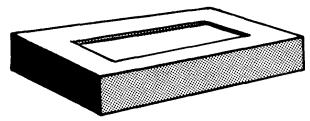
MOUNTING HOLES FOR FANS
For FA, FS, PRXA, RMX, FDX



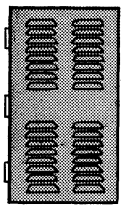
SPECIAL FINISHES



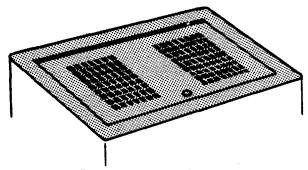
LOUVRES ON SIDES
(FDX, RMX only)
(8 Louvres — 6" wide)



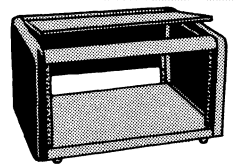
INVERTED BASES
For FA, FS, PRXA, RMX, FDX only



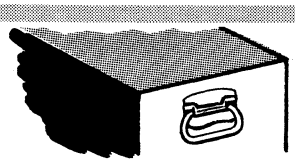
LOUVRES ON DOORS
(DF only)
8 Louvres — 6" wide



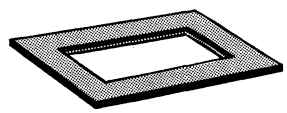
PERFORATIONS IN TOP OF DCR



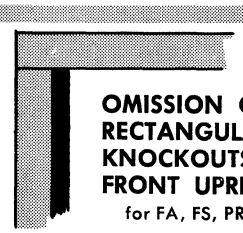
ASSEMBLED and WELDED POR CABINETS



DROP HANDLES (HW-5)
Welded on both sides of
POR, DCR, SDR, MDK only

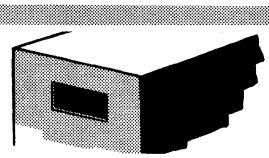


OPENING IN TOP
with ½" recess to accept Louvres (FPL)
or Blank Formed Panels (FP)
for FA, FS, PRXA only

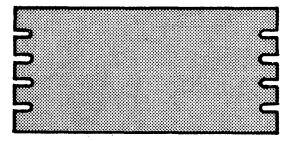


OMISSION OF RECTANGULAR KNOCKOUTS ON FRONT UPRIGHTS
for FA, FS, PRXA

LOCKING HANDLE
ON REAR DOOR of
R, FXR, DR, RMX, FDX
■
LOCKING HANDLE ON FD-300 - 306 DOORS



RECESSED HANDLES
ON SIDES OF POR, DCR, CSC, MDK ONLY



PANELS NOTCHED TO MIL-STD-189

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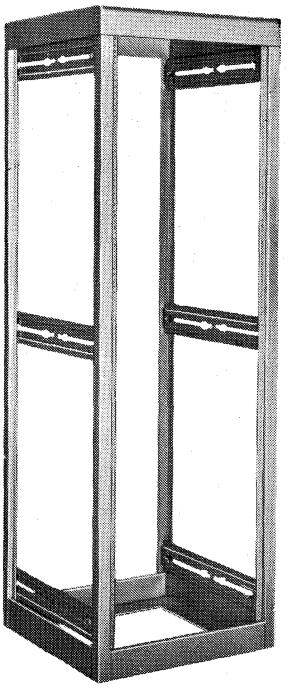
PREMIER MODULAR ROUNDED CORNER FRAMES

PREM-Ō-RAK®

22" and 25½" DEEP for 19" and 24" PANELS

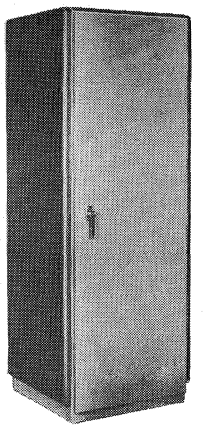
SECTION A

- **Frames accommodate Ball Cornered End Panels (CEP Series)**
- Frame Made of No. 14 gauge steel.
- Supplied with two pair of No. 12 gauge steel Panel Mounting Angles. Both legs of the angle are tapped 10-32 on E.I.A. spacings (⅝-⅝-½) to accommodate Front Panels & Chassis Support Angles (CSA series) and Shelves (S series).
- Panel mounting angles are held in place at three points by ⅜" carriage bolts and are adjustable to any desired position by means of channel slides.
- Three combination 1⅜" and 1⅛" diameter knockouts furnished on both sides of top and bottom to provide access for cabling between racks.
- Frame completely welded throughout.
- Top of frame is solid. Round hole and 5 mounting holes on top of frame to accommodate Exhaust (EF Series) and Intake (IF Series) Fans, available at additional cost.
- Knockouts supplied on sides of uprights for use in ganging frames.
- A rectangular cutout is provided in bottom for leads, etc.
- Rectangular knockouts provided on front and rear of uprights of frame to accommodate hinge and handle brackets, so that door can be mounted either left or right hand. Doors can be mounted to front or rear of frame.
- Holes punched in bottom to accommodate CA-4 (2"), CA-5 (3"), CA-6 (double 2") and CA-7 (locking 3") casters.
- Finished in Gray Hammertone.

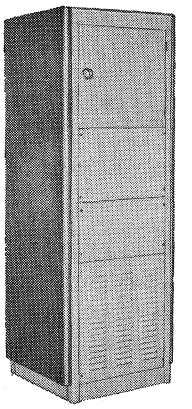


FA FRAME

- **Designed for MULTIPLE INSTALLATIONS**
- **TOPS OF FRONT AND REAR ARE ROUNDED**



Above unit consists of Frame FA Series), 2 End Panels (CEP Series) and Door (DF Series).



Above unit consists of Frame (FA Series), 2 End Panels (CEP Series), Flush Door (CD Series), Louvred Panel (FPL Series) and Formed Panels (FP Series)

FRAMES — 22" WIDE

22" DEEP					25½" DEEP		
Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	Panel Space	Cat. No.	Shpg. Wt. Lbs.	Net Price
FA-42-22	50	$78.00	48⅝"	42 x 19"	FA-42-255	58	$81.96
FA-52-22	65	84.60	59⅛"	52½ x 19"	FA-52-255	75	88.80
FA-61-22	80	95.85	67⅞"	61¼ x 19"	FA-61--255	92	105.60
FA-70-22	100	112.44	76⅝"	70 x 19"	FA-70-255	115	123.60
FA-77-22	110	115.59	83⅝"	77 x 19"	FA-77-255	127	127.20

FRAMES — 27" WIDE

22" DEEP					25½" DEEP		
FA-2761-22	90	105.00	67⅞"	61¼ x 24"	FA-2761-255	98	114.60
FA-2770-22	110	123.60	76⅝"	70 x 24"	FA-2770-255	123	135.60
FA-2777-22	120	126.00	83⅝'	77 x 24"	FA-2777-255	135	138.00

ORDERING GUIDE

FRAME Cat. No.	Use END PANEL (Page 16) Cat. No.	Use DOOR (Page 18) Cat. No.	Use CHASSIS SUPPORT ANGLE (Page 22) Cat. No.	Use SHELF (Page 22) Cat. No.	Use CHASSIS SLIDES (Pages 27, 28) Length
FA-42-22	CEP-42-22	DF-42	CSA-22	S-22-22	20"
FA-52-22	CEP-52-22	DF-52	CSA-22	S-22-22	20"
FA-61-22	CEP-61-22	DF-61	CSA-22	S-22-22	20"
FA-70-22	CEP-70-22	DF-70	CSA-22	S-22-22	20"
FA-77-22	CEP-77-22	DF-77	CSA-22	S-22-22	20"
FA-42-255	CEP-42-255	DF-42	CSA-255	S-22-255	24"
FA-52-255	CEP-52-255	DF-52	CSA-255	S-22-255	24"
FA-61-255	CEP-61-255	DF-61	CSA-255	S-22-255	24"
FA-70-255	CEP-70-255	DF-70	CSA-255	S-27-255	24"
FA-77-255	CEP-77-255	DF-77	CSA-255	S-22-255	24"
FA-2761-22	CEP-61-22	DF-2761	CSA-22	S-27-22	20"
FA-2770-22	CEP-70-22	DF-2770	CSA-22	S-27-22	20"
FA-2777-22	CEP-77-22	DF-2777	CSA-22	S-27-22	20"
FA-2761-255	CEP-61-255	DF-2761	CSA-255	S-27-255	24"
FA-2770-255	CEP-70-255	DF-2770	CSA-255	S-27-255	24"
FA-2777-255	CEP-77-255	DF-2777	CSA-255	S-22-255	24"

FOR MODIFICATIONS
See Premier Page 2

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FOR ACCESSORIES
See Section E
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FOR BLOWERS, FANS AND HARDWARE
See Section G
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PREMIER METAL PRODUCTS CO., INC.

PREMIER PAGE 3 **ALL PRICES 10% HIGHER WEST OF MISSISSIPPI**

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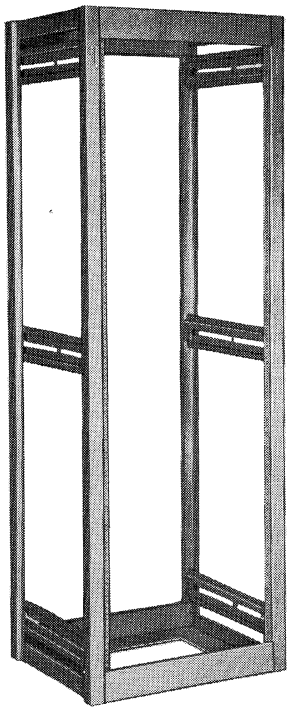
PREMIER MODULAR Square Cornered FRAMES

18" and 24" DEEP For 19", 24" and 30" PANELS

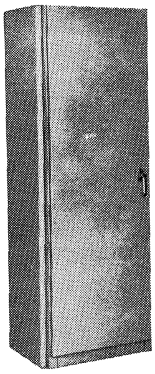
SECTION A

- DESIGNED FOR MULTIPLE INSTALLATIONS
- TOPS of FRONT and REAR are SQUARE
- FRAMES ACCOMMODATE FLUSH SIDE PANELS (FL Series) or ROUNDED SIDE PANELS (SP Series)

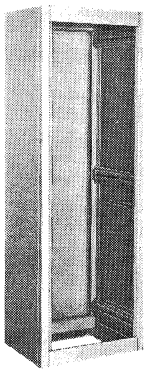


PRXA FRAME

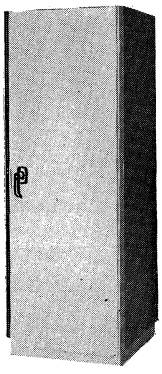
- Frame made of No. 14 gauge steel.
- Supplied with two pair of No. 12 gauge steel Panel Mounting Angles. Both legs of the angle are tapped 10-32 on E.I.A. spacings (⅝-⅝-½) to accommodate Front Panels & Chassis Support Angles (CSA series) and Shelves (S series).
- Panel mounting angles are held in place at three points by ⅜" carriage bolts and are adjustable to any desired position by means ot channel slides.
- Frame completely welded throughout.
- Top of frame is solid. Round hole and 5 mounting holes on top of frame to accommodate Exhaust (EF Series) and Intake (IF Series) Fans, available at additional cost.
- Knockouts supplied on sides of uprights for use in ganging frames.
- A rectangular cutout is provided in bottom for leads, etc.
- Rectangular knockouts provided on front and rear of uprights of frame to accommodate hinge and handle brackets, so that door can be mounted either left or right hand. Doors can be mounted to front or rear of frame.
- Holes punched in bottom to accommodate CA-4 (2"), CA-5 (3"), CA-6 (double 2") and CA-7 (locking 3") casters.
- Finished in Gray Hammertone.



Above unit consists of Frame (PRXA Series), Rounded Side Panels (SP Series) and Door (DF Series)



Above unit consists of Frame (PRXA Series), Flush Side Panels (FL Series) and Door (DF Series)



Above unit consists of Frame (PRXA Series), Square End Panel (MSP Series) and Door (DF Series)

FRAMES

Cat. No.	18" DEEP Shpg. Wt. Lbs.	Net Price	22" WIDE Height	Panel Space	Cat. No.	24" DEEP Shpg. Wt. Lbs.	Net Price
PRXA-36	40	$42.50	42⅞"	36¾ x 19"	PRXA-36-24	50	$62.50
PRXA-42	48	46.80	48⅛"	42 x 19"	PRXA-42-24	58	70.80
PRXA-52	60	57.60	58⅝"	52½ x 19"	PRXA-52-24	72	78.00
PRXA-61	70	71.70	67⅜"	61¼ x 19"	PRXA-61-24	85	99.54
PRXA-70	88	86.76	76⅛"	70 x 19"	PRXA-70-24	108	118.56
PRXA-77	100	88.56	83⅛"	77 x 19"	PRXA-77-24	120	126.00
	18" DEEP		27" WIDE			24" DEEP	
PRXA-2761	100	80.58	67⅜"	61¼ x 24"	PRXA-2761-24	134	112.38
PRXA-2770	104	95.58	76⅛"	70 x 24"	PRXA-2770-24	140	123.00
PRXA-2777	116	100.20	83⅛"	77 x 24"	PRXA-2777-24	156	128.76
	18" DEEP		33" WIDE			24" DEEP	
PRXA-3361	122	85.56	67⅜"	61¼ x 30"	PRXA-3361-24	162	118.80
PRXA-3370	126	109.14	76⅛"	77 x 30"	PRXA-3370-24	169	140.64
PRXA-3377	142	110.76	83⅛"	77 x 30"	PRXA-3377-24	190	143.52

ORDERING GUIDE

FRAME Cat. No.	FLUSH END PANEL* (Page 17) Cat. No.		SQUARE END PANEL (Page 17) Cat. No.		ROUNDED END PANEL* (Page 17) Cat. No.	Use DOOR (Page 18) Cat. No.	Use CHASSIS SUPPORT ANGLE (Page 22)	Use SHELF (Page 22)	Use CHASSIS SLIDES (Pages 27, 28)
PRXA-36	FL-36		MSP-36		SP-36	DF-36	CSA-18	S-2218	16"
PRXA-42	FL-42		MSP-42		SP-42	DF-42	CSA-18	S-2218	16"
PRXA-52	FL-52		MSP-52		SP-52	DF-52	CSA-18	S-2218	16"
PRXA-61	FL-61		MSP-61		SP-61	DF-61	CSA-18	S-2218	16"
PRXA-70	FL-70		MSP-70		SP-70	DF-70	CSA-18	S-2218	16"
PRXA-77	FL-77		MSP-77		SP-77	DF-77	CSA-18	S-2218	16"
PRXA-42-24	FL-36-24		MSP-36-24		SP-36-24	DF-36	CSA-24	S-2224	22"
PRXA-36-24	FL-42-24	USE EITHER OR	MSP-42-24	USE EITHER OR	SP-42-24	DF-42	CSA-24	S-2224	22"
PRXA-52-24	FL-52-24		MSP-52-24		SP-52-24	DF-52	CSA-24	S-2224	22"
PRXA-61-24	FL-61-24		MSP-61-24		SP-61-24	DF-61	CSA-24	S-2224	22"
PRXA-77-24	FL-70-24		MSP-70-24		SP-70-24	DF-70	CSA-24	S-2224	22"
PRXA-70-24	FL-77-24		MSP-77-24		SP-77-24	DF-77	CSA-24	S-2224	22"
PRXA-2761	FL-61		MSP-61		SP-61	DF-2761	CSA-18	S-2718	16"
PRXA-2770	FL-70		MSP-70		SP-70	DF-2770	CSA-18	S-2718	16"
PRXA-2777	FL-77		MSP-77		SP-77	DF-2777	CSA-18	S-2718	16"
PRXA-2761-24	FL-61-24		MSP-61-24		SP-61-24	DF-2761	CSA-24	S-2724	22"
PRXA-2770-24	FL-70-24		MSP-70-24		SP-70-24	DF-2770	CSA-24	S-2724	22"
PRXA-2777-24	FL-77-24		MSP-77-24		SP-77-24	DF-2777	CSA-24	S-2724	22"
PRXA-3361	FL-61		MSP-61		SP-61	DF-3361	CSA-18	S-3318	16"
PRXA-3370	FL-70		MSP-70		SP-70	DF-3370	CSA-18	S-3318	16"
PRXA-3377	FL-77		MSP-77		SP-77	DF-3377	CSA-18	S-3318	16"
PRXA-3361-24	FL-61-24		MSP-61-24		SP-61-24	DF-3361	CSA-24	S-3324	22"
PRXA-3370-24	FL-70-24		MSP-70-24		SP-70-24	DF-3370	CSA-24	S-3324	22"
PRXA-3377-24	FL-77-24		MSP-77-24		SP-77-24	DF-3377	CSA-24	S-3324	22"

FOR MODIFICATIONS
See Premier Page 2

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FOR ACCESSORIES
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FOR BLOWERS, FANS AND HARDWARE
See Section G
Premier Pages 27 thru 32

* End Panels fit into recess on side of frame.

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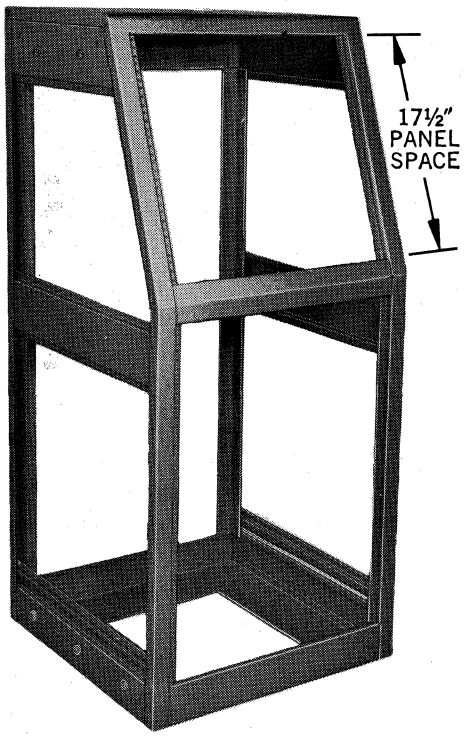
PREMIER MODULAR SLOPED FRONT FRAMES

PREM-Ō-RAK®

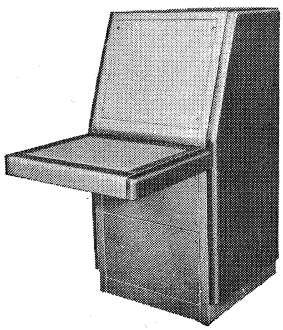
10½" AND 17½" FOR 19" AND 24" PANELS

SECTION A

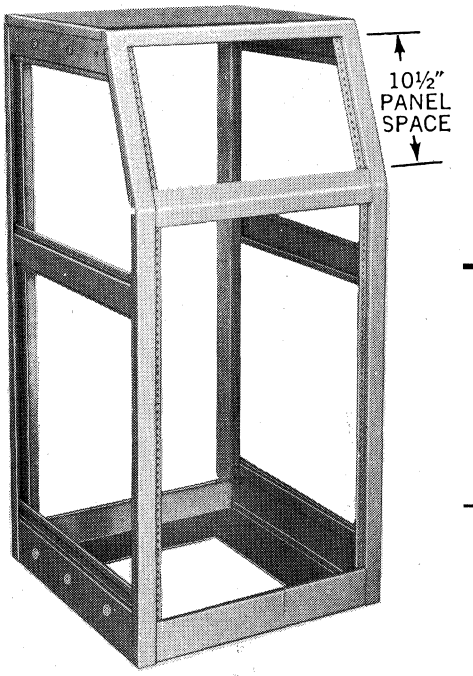


FS-1001

- TOPS OF FRONT AND REAR ARE ROUNDED
- Frames accommodate Ball Cornered End Panels (CEP Series)
- Designed for Multiple Installations
- Made of No. 14 Gauge (.0747) Steel
- Sloped Front Is 19° from Vertical
- Frame Completely Welded Throughout
- All Panel Mounting Angles are made of No. 12 Gauge Steel and Tapped on both legs 10/32 on E.I.A. Spacings (⅝-⅝-½). Front and Rear Vertical Angles Are Adjustable to Any Desired Position.
- Panels Fit into ½" Recess.
- Combination 1⅜" and 1⅛" Diameter Knockouts on Top and Bottom to Provide Access for Cabling Between Racks.
- Holes Punched in Bottom to Accommodate CA-4 (2"), CA-5 (3"), CA-6 (double 2") and CA-7 (locking 3") casters.
- A Rectangular Cutout Is Provided in Bottom for Leads, etc.
- Front Cross Piece Removable.
- Rectangular Knockouts On Rear Uprights to Accommodate Hinge and Handle Latch Brackets so that Door can be Mounted Either Left or Right.
- Finished in Gray Hammertone.



Above unit consists of Frame (FS Series), 2 End Panels (CEP-1201 Series), Writing Work Shelf (WW Series) and 2 End Panels (CEP Series) for shelf.



FS-1002

Cat. No.	Width	Hgt.	Depth	Sloped Front Panel Space	Front Vertical Space	Rear Vertical Space	Ship. Wt. Lbs.	Net Price
FS-1001	22"	50"	22"	17½ x 19"	26¼ x 19"	42 x 19"	66	$80.40
FS-1002	22"	47"	22"	10½ x 19"	29¾ x 19"	42 x 19"	64	78.00
FS-1003	27"	50"	22"	17½ x 24"	26¼ x 24"	42 x 24"	76	88.20
FS-1004	27"	47"	22"	10½ x 24"	29¾ x 24"	42 x 24"	74	86.40
FS-1001-255	22"	50"	25½"	17½ x 19"	26¼ x 19"	42 x 19"	75	83.00
FS-1002-255	22"	47"	25½"	10½ x 19"	29¾ x 19"	42 x 19"	73	81.00
FS-1003-255	27"	50"	25½"	17½ x 24"	26¼ x 24"	42 x 24"	85	92.00
FS-1004-255	27"	47"	25½"	10½ x 24"	29¾ x 24"	42 x 24"	83	90.00

ORDERING GUIDE

FRAME Cat. No.	USE END PANEL (Page 16) Cat. No.	USE REAR DOOR (Page 18) Cat. No.	USE SHELF (Page 22) Cat. No.	USE CHASSIS SUPPORT ANGLE (Page 22) Cat. No.	USE CHASSIS SLIDES (Pgs. 27, 28) Length
FS-1001	CEP-1201 (LH and/or RH)	DF-42	S-22-22	CSA-22	20"
FS-1002	CEP-1202 (LH and/or RH)	DF-42-1002	S-22-22	CSA-22	20"
FS-1003	CEP-1201 (LH and/or RH)	DF-2742	S-27-22	CSA-22	20"
FS-1004	CEP-1202 (LH and/or RH)	DF-2742-1002	S-27-22	CSA-22	20"
FS-1001-255	CEP-1201-255 (LH and/or RH)	DF-42	S-22-255	CSA-255	24"
FS-1002-255	CEP-1202-255 (LH and/or RH)	DF-42-1002	S-22-255	CSA-255	24"
FS-1003-255	CEP-1201-255 (LH and/or RH)	DF-2742	S-27-255	CSA-255	24"
FS-1004-255	CEP-1202-255 (LH and/or RH)	DF-2742-1002	S-27-255	CSA-255	24"

FOR MODIFICATIONS SEE PREMIER PAGE 2 • FOR ACCESSORIES SEE SECTION E PREMIER PAGES 16 THRU 22
FOR BLOWERS, FANS, HARDWARE SEE SECTION G PREMIER PAGES 27 THRU 32

PREMIER METAL PRODUCTS CO., INC.

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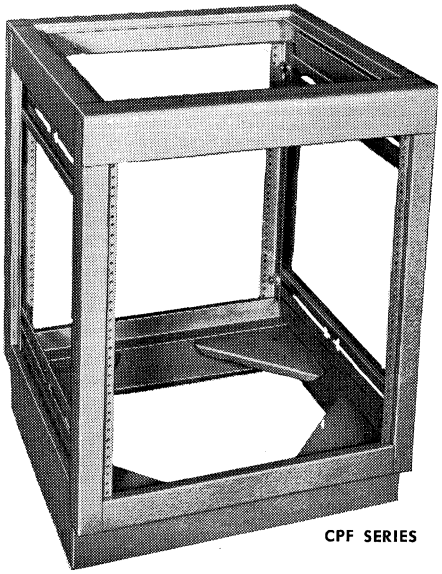
PREMIER MODULAR ROUNDED PEDESTAL FRAMES

PREM-Ō-RAK®

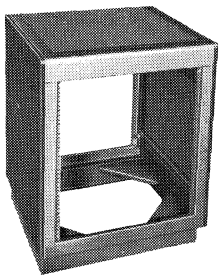
SECTION A



CPF SERIES

- TOPS OF FRONT AND REAR ARE ROUNDED.
- Frames accommodate Ball Cornered End Panel (CEP Series).
- Units are designed for multiple installation.
- Supplied with two pair of No. 12 gauge steel Panel Mounting Angles. Both legs of the angle are tapped 10-32 on E.I.A. spacings (⅝-⅝-½) to accommodate Front Panels & Chassis Support Angles (CSA Series) and Shelves (S Series).
- Panels fit into ½" recess.
- Two rectangular knockouts supplied on one top cross member to accommodate channels of Writing Work Shelf.
- Brackets welded in base and punched to accommodate CA-5 (3") casters and supplied with adapter to accommodate CA-4 (2") casters.
- Frame made of No. 16 gauge steel;
- Finished in Gray Hammertone.

Cat. No.	Width	Depth	Height with Casters	Height without Casters	Front & Rear Panel Space	Top Panel Space	Shpg. Wt. Lbs.	Net Price
CPF-101	22"	22"	30"	29½"	21 x 19"	17½ x 19"	45	$56.04
CPF-102	22"	22"	37"	36½"	28 x 19"	17½ x 19"	48	64.20
CPF-103	27"	22"	30"	29½"	21 x 24"	17½ x 24"	50	63.00
CPF-104	27"	22"	37"	36½"	28 x 24"	17½ x 24"	53	72.00
CPF-101-34	22"	34¼"	30"	29½"	21 x 19"	29¾ x 19"	54	78.00
CPF-101-255	22"	25½"	30"	29½"	21 x 19"	21 x 19"	53	65.00
CPF-102-255	22"	25½"	37"	36½"	28 x 19"	21 x 19"	55	78.50
CPF-103-255	27"	25½"	30"	29½"	21 x 24"	21 x 24"	58	68.50
CPF-104-255	27"	25½"	37"	36½"	28 x 24"	21 x 24"	59	83.00
CPF-101-18	22"	18½"	30"	29½"	21 x 19"	14 x 19"	44	54.00
CPF-102-18	22"	18½"	37"	36½"	28 x 19"	14 x 19"	47	62.00
CPF-103-18	27"	18½"	30"	29½"	21 x 24"	14 x 24"	49	61.00
CPF-104-18	27"	18½"	37"	36½"	28 x 19"	14 x 24"	52	70.00



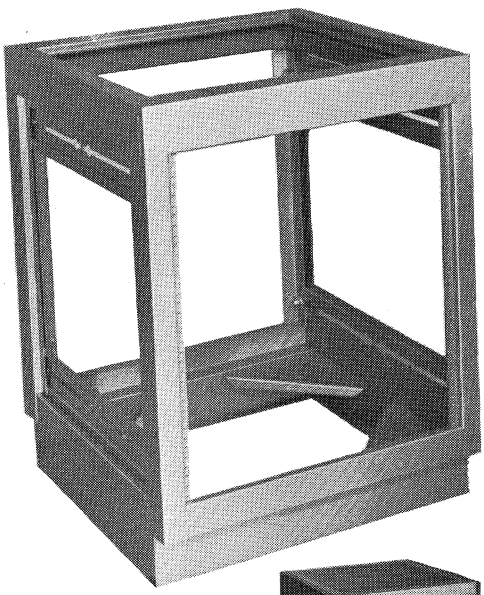
Frame shown with End Panel (CEP Series) and Top Panel (FP Series)

ORDERING GUIDE

FRAME Cat. No.	Use END PANEL (Page 16) Cat. No.	Use DOOR (Page 18) Cat. No.	Use SHELVES (Page 22) Cat. No.	Use CHASSIS SUPPORT ANGLES (Page 22) Cat. No.	Use CHASSIS-SLIDES (Pgs. 27, 28) Length
CPF-101	CEP-401	CD-21	S-22-22	CSA-22	20"
CPF-102	CEP-402	CD-28	S-22-22	CSA-22	20"
CPF-103	CEP-401	CD-2124	S-27-22	CSA-22	20"
CPF-104	CEP-402	CD-2824	S-27-22	CSA-22	20"
CPF-101-34	CEP-401-34	CD-21	—	—	—
CPF-101-255	CEP-401-255	CD-21	S-22-255	CSA-255	24"
CPF-102-255	CEP-402-255	CD-28	S-22-255	CSA-255	24"
CPF-103-255	CEP-401-255	CD-2124	S-27-255	CSA-255	24"
CPF-104-255	CEP-402-255	CD-2824	S-27-255	CSA-255	24"
CPF-101-18	CEP-401-18	CD-21	S-22-18	CSA-18	16"
CPF-102-18	CEP-402-18	CD-28	S-22-18	CSA-18	16"
CPF-103-18	CEP-401-18	CD-2124	S-27-18	CSA-18	16"
CPF-104-18	CEP-402-18	CD-2824	S-27-18	CSA-18	16"

PREMIER MODULAR SQUARE PEDESTAL FRAMES

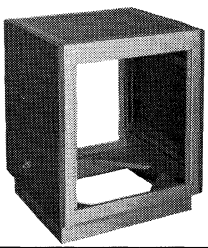
PREM-Ō-RAK®



MSF FRAME

- Tops of front and rear are square
- Supplied with two pair of No. 12 gauge steel Panel Mounting Angles. Both legs of the angle are tapped 10-32 on E.I.A. spacings (⅝-⅝-½) to accommodate Front Panels & Chassis Support Angles (CSA Series) and Shelves (S Series)
- Panels fits into ½" recess
- Finished in gray hammertone
- Frame accommodates square cornered end panels (MSP Series)
- Units designed for multiple installation
- Brackets welded in base and punched to accommodate CA-5 (3") casters and supplied with adapter to accommodate CA-4 (2") casters
- Frame made of No. 16 gauge steel

FRAME Cat. No.	Width	Depth	Height with Casters	Height without Casters	Front & Rear Panel Space	Top Panel Space	Shpg. Wt. Lbs.	Net Price
MSF-21-22	22"	22"	30"	29½"	21 x 19"	17½ x 19"	45	$57.00
MSF-28-22	22"	22"	37"	36½"	28 x 19"	17½ x 19"	50	66.00
MSF-21-255	22"	25½"	30"	29½"	21 x 19"	21 x 19"	50	60.00
MSF-28-255	22"	25½"	37"	36½"	28 x 19"	21 x 19"	55	69.00



Frame shown with End Panels (MSP Series) and Top Panels (FP Series)

ORDERING GUIDE

FRAME Cat. No.	Use END PANEL (Page 16) Cat. No.	Use DOOR (Page 18) Cat. No.	Use SHELF (Page 22) Cat. No.	Use CHASSIS SUPPORT ANGLE (Page 22) Cat. No.	Use SLIDE (Pgs. 27, 28) Length
MSF-21-22	MSP-21-22	CD-21	S-22-22	CSA-22	20"
MSF-28-22	MSP-28-22	CD-28	S-22-22	CSA-22	20"
MSF-21-255	MSP-21-255	CD-21	S-22-255	CSA-255	24"
MSF-28-255	MSP-28-255	CD-28	S-22-255	CSA-255	24"

FOR MODIFICATIONS SEE PREMIER PAGE 2
FOR ACCESSORIES SEE SECTION E PREMIER PAGES 16 THRU 22
FOR BLOWERS, FANS and HARDWARE SEE SECTION G PREMIER PAGES 27 THRU 32

PREMIER METAL PRODUCTS CO., INC.

ALL PRICES 10% HIGHER WEST OF MISSISSIPPI

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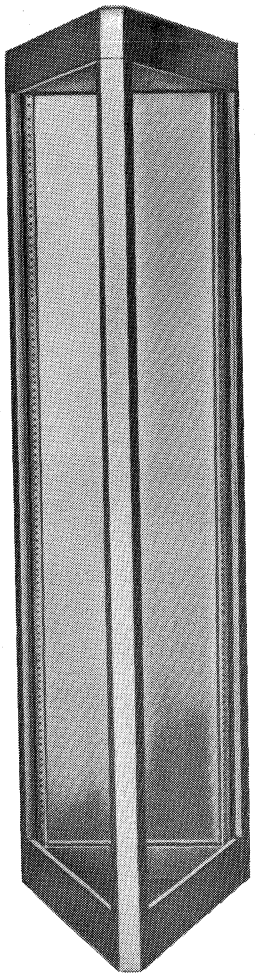
PREMIER MODULAR WEDGE FRAMES

PREM-Ō-RAK®

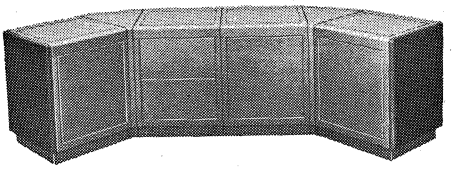
30° and 45°

SECTION A



- Constructed of 16 gauge steel
- Completely welded throughout
- Supplied with formed panel on rear
- End panels (CEP Series) can be mounted to the side of wedge frames if desired
- Finished in Gray Hammertone
- Designed for use in Semi-Circular Arrangements when bolted to Pedestal Frames (CPF Series) or Transmitter Rack Frames (FA Series)

NOTE: One piece Formica Shelf available for semi-circular arrangements.



30° WEDGE RACK FRAMES

Cat. No.	Height	Width	For Use With	Net Price
WED-30-42-22	48⅝"	22"	FA-42-22	$122.10
WED-30-52-22	59⅛"	22"	FA-52-22	132.00
WED-30-61-22	67⅞"	22"	FA-61-22	138.60
WED-30-70-22	76⅝"	22"	FA-70-22	148.50
WED-30-77-22	83⅝"	22"	FA-77-22	155.10
WED-30-42-255	48⅝"	25½"	FA-42-255	146.50
WED-30-52-255	59⅛"	25½"	FA-52-255	154.44
WED-30-61-255	67⅞"	25½"	FA-61-255	158.40
WED-30-70-255	76⅝"	25½"	FA-70-255	171.60
WED-30-77-255	83⅝"	25½"	FA-77-255	178.20

45° WEDGE RACK FRAMES

Cat. No.	Height	Width	For Use With	Net Price
WED-45-42-22	48⅝"	22"	FA-42-22	$125.40
WED-45-52-22	59⅛"	22"	FA-52-22	135.30
WED-45-61-22	67⅞"	22"	FA-61-22	141.90
WED-45-70-22	76⅝"	22"	FA-70-22	151.80
WED-45-77-22	83⅝"	22"	FA-77-22	158.40
WED-45-42-255	48⅝"	25½"	FA-42-255	149.82
WED-45-52-255	59⅛"	25½"	FA-52-255	157.30
WED-45-61-255	67⅞"	25½"	FA-61-255	161.70
WED-45-70-255	76⅞"	25½"	FA-70-255	174.90
WED-45-77-255	83⅝"	25½"	FA-77-255	181.50

30° Wedge Pedestal Frames

Catalog No.	Height	Width	For Use With	Net Price
WED-30-101	29½"	22"	CPF-101 103	$102.30
WED-30-101-18	29½"	18½"	CPF-101-18, 103-18	100.00
WED-30-101-255	29½"	25½"	CPF-101-255, 103-255	105.00

45° Wedge Pedestal Frames

Catalog No.	Height	Width	For Use With	Net Price
WED-45-101	29½"	22"	CPF-101 103	$105.00
WED-45-101-18	29½"	18½"	CPF-101-18, 103-18	103.00
WED-45-101-255	29½"	25½"	CPF-101-255, 103-255	108.00

TYPICAL INSTALLATIONS OF THE PREM-Ō-RAK® MODULAR CONSOLE SYSTEM

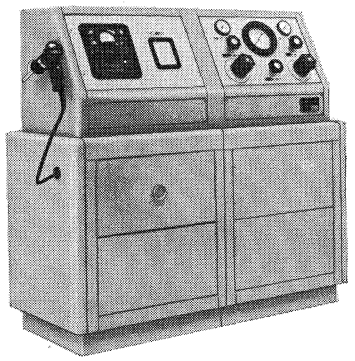
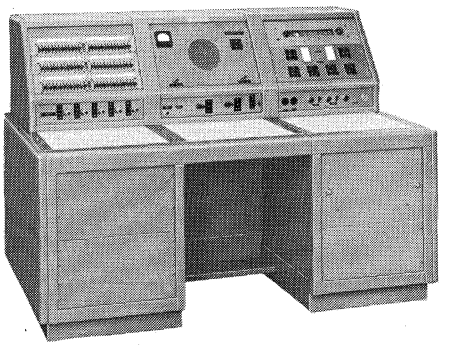


Photo Courtesy Aerojet General Corp.

Photo Courtesy Commercial Radio-Sound Corp.



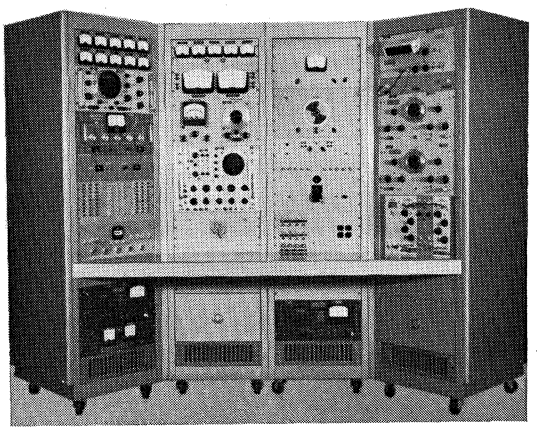


Photo Courtesy Texas Instruments Incorporated

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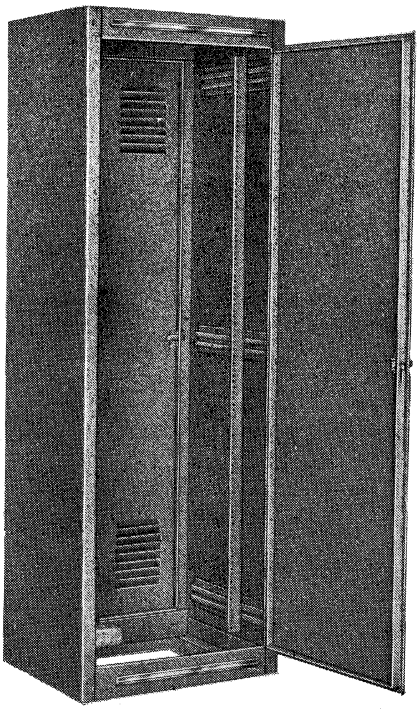
PREMIER HEAVY DUTY RACKS

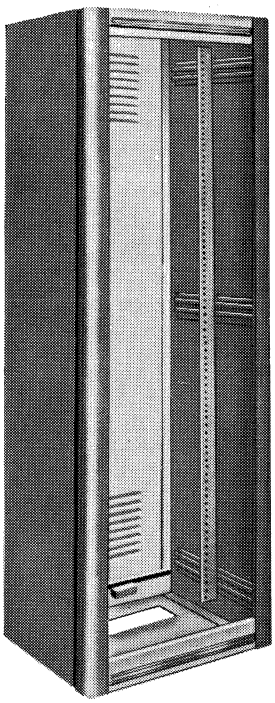
SECTION B

FOR 19", 24" AND 30" RACK PANELS — 18" AND 24" DEEP



FDX SERIES

- Rigidly constructed of #16 gauge steel with a #12 gauge steel bottom and welded throughout.
- Supplied with two pair of #12 gauge steel Panel Mounting Angles. Both legs of the angle are tapped 10-32 on E.I.A. spacings (⅝-⅝-½) to accommodate Front Panels & Chassis Support Angles (CSA Series) and Shelves (S Series).
- Rear doors are hung on sturdy slip-jointed hinges and closed with a chrome handle. Locking handle with 2 keys available at additional cost.
- Round hole and 5 mounting holes on top of frame to accommodate Exhaust (EF Series) and Intake (IF Series) Fans available at additional cost.
- A rectangular cut-out is made in the bottom for leads, etc.
- RMX-7030 Rack supplied with double rear doors and with a 3-point locking device.
- FDX Series are furnished with locking handle and 2 keys on Front Door.
- ALL RACKS ARE SUPPLIED WITHOUT LOUVRES ON SIDES UNLESS SPECIFIED.
- Vertica rounded corner "J" type moldings are supplied with RMX series.
- When joining RMX racks for multiple installation, specify amount of center "U" type moldings (supplied at no additional cost). EXAMPLE: Three RMX-3619 requires two "J" and two "U" moldings.
- Tops and bottoms are trimmed with chrome molding.
- Panel mounting angles are held in place at three points by ⅜" carriage bolts and are adjustable to any desired position by means of channel slides.
- A heavy duty duplex "U" ground receptacle and outlet box are furnished in the rear under the door.
- Finished in Gray Hammertone. Also available in Black Wrinkle.



RMX SERIES

FOR MODIFICATIONS
SEE PREMIER PAGE 2

FOR ACCESSORIES
SEE SECTION E
PREMIER PAGES 16 THRU 22

FOR BLOWERS, FANS AND HARDWARE
SEE SECTION G
PREMIER PAGES 27 THRU 32

SPECIFY COLOR WHEN ORDERING

18" DEEP RACKS Cat. No.	Shpg. Wt. Lbs.	Net Price	H & W	Panel Space	18" DEEP RACKS WITH FRONT AND REAR DOORS Cat. No.	Shpg. Wt. Lbs.	Net Price
RMX-3619	100	$ 69.15	42⅞x22"	36¾x19"	FDX-3619	115	$102.39
RMX-4219	130	81.00	48⅛x22"	42 x19"	FDX-4219	120	108.00
RMX-6119	150	90.00	67⅜x22"	61¼x19"	FDX-6119	175	115.77
RMX-7618	170	105.84	76⅛x22"	70 x19"	FDX-7019	200	132.30
RMX-7719	190	115.00	83⅛x22"	77 x19"	FDX-7719	220	142.34

24" DEEP RACKS Cat. No.	Shpg. Wt. Lbs.	Net Price	H & W	Panel Space	24" DEEP RACKS WITH FRONT AND REAR DOORS Cat. No.	Shpg. Wt. Lbs.	Net Price
RMX-3619-24	110	$ 84.00	42⅞x22"	36¾x19"	FDX-3619-24	125	$105.00
RMX-4219-24	130	93.05	48⅛x22"	42 x19"	FDX-4219-24	150	114.00
RMX-6119-24	175	122.40	67⅜x22"	61¼x19"	FDX-6119-24	200	152.16
RMX-7618-24	200	132.30	76⅛x22"	70 x19"	FDX-7019-24	255	158.76
RMX-7719-24	225	148.86	83⅛x22"	77 x19"	FDX-7719-24	270	181.89
RMX-2742	170	120.78	48⅛x27"	42 x24"	FDX-2742	180	145.00
RMX-2761	210	137.58	67⅜x27"	61¼x24"	FDX-2761	230	170.00
RMX-2770	240	148.59	76⅛x27"	70 x24"	FDX-2770	260	182.00
RMX-2777	270	165.39	83⅛x27"	77 x24"	FDX-2777	290	200.00
RMX-7030	240	191.85	76⅛x33"	70 x30"			

ORDERING GUIDE

Frame Cat. No.		Frame Cat. No.	Chassis Support Angle (Page 22) Cat. No.	Shelves (Page 22) Cat. No.	Use Chassis Slides (length) (Pages 27, 28)	Use Roller Truck (Page 21) Cat. No.
RMX-3619		FDX-3619	CSA-16	S-18-22	14"	RT-1101 or RT-1101-3*
RMX-4219		FDX-4219	CSA-16	S-18-22	14"	RT-1101 or RT-1101-3*
RMX-6119		FDX-6119	CSA-16	S-18-22	14"	RT-1101 or RT-1101-3*
RMX-7618		FDX-7618	CSA-16	S-18-22	14"	RT-1101 or RT-1101-3*
RMX-7719		FDX-7719	CSA-16	S-18-22	14"	RT-1101 or RT-1101-3*
RMX-3619-24		FDX-3619-24	CSA-22	S-22-22	20"	RT-1103 or RT-1103-3*
RMX-4219-24		FDX-4219-24	CSA-22	S-22-22	20"	RT-1103 or RT-1103-3*
RMX-6119-24	OR	FDX-6119-24	CSA-22	S-22-22	20"	RT-1103 or RT-1103-3*
RMX-7618-24		FDX-7618-24	CSA-22	S-22-22	20"	RT-1103 or RT-1103-3*
RMX-7719-24		FDX-7719-24	CSA-22	S-22-22	20"	RT-1103 or RT-1103-3*
RMX-2742		FDX-2742	CSA-22	S-27-22	20"	RT-1110 or RT-1110-3*
RMX-2761		FDX-2761	CSA-22	S-27-22	20"	RT-1110 or RT-1110-3*
RMX-2770		FDX-2770	CSA-22	S-27-22	20"	RT-1110 or RT-1110-3*
RMX-2777		FDX-2777	CSA-22	S-27-22	20"	RT-1110 or RT-1110-3*
RMX-7030		FDX-7030	CSA-22	S-33-22	20"	RT-1111 or RT-1111-3*

* 3" dia. caster

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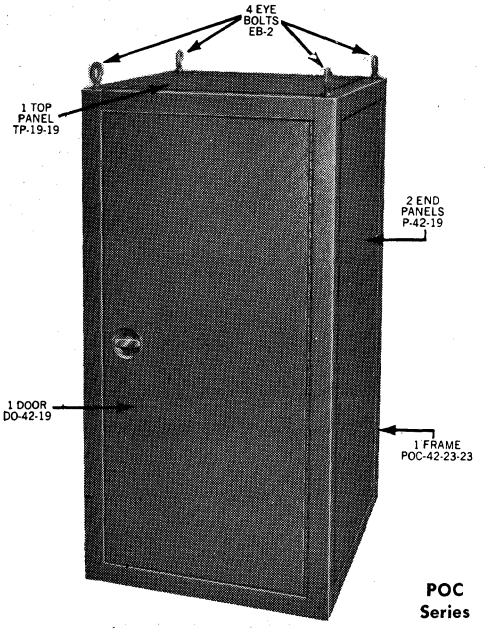
PREMIER HEAVY DUTY CUBICLES

SECTION B

FOR STANDARD 19, 24 and 30" WIDE PANELS

PREM-O-CUBE

- Frame made of No. 12 gauge steel and supplied with 10-32 tapped holes on EIA spacings (⅝-⅝-½") on both legs of all vertical uprights.
- Top of frame supplied with knock-out in each corner to accommodate eye bolts for lifting.
- Top and side panels and doors made of No. 14 gauge steel and supplied with a return flange on all sides for easy gasketing.
- Doors and/or side panels can be mounted to any openings of frame.
- Finished in Green Kromotex. Also available in Gray Hammertone. Specify when ordering.



POC Series

FRAMES 23" WIDE for 19" PANELS

Overall Height	Panel Height	23" Deep Cat. No.	Net Price	28" Deep Cat. No.	Net Price	34" Deep Cat. No.	Net Price
40¾"	36¾"	POC-36-23-23	$ 87.00	POC-36-28-28	$ 92.00	POC-36-23-34	$ 98.00
46"	42"	POC-42-23-23	92.00	POC-42-23-28	97.00	POC-42-23-34	103.00
65¼"	61¼"	POC-61-23-23	112.00	POC-61-23-28	117.00	POC-61-23-34	123.00
74"	70"	POC-70-23-23	120.00	POC-70-23-28	125.00	POC-70-23-34	131.00
81"	77"	POC-77-23-23	127.00	POC-77-23-28	132.00	POC-77-23-34	138.00
84½"	80½"	POC-80-23-23	131.00	POC-80-23-28	136.00	POC-80-23-34	142.00

FRAMES 28" WIDE for 24" PANELS

40¾"	36¾"	—	—	POC-36-28-28	$ 97.00	POC-36-28-34	$103.00
46"	42"	—	—	POC-42-28-28	102.00	POC-42-28-34	108.00
65¼"	61¼"	—	—	POC-61-28-28	122.00	POC-61-28-34	128.00
74"	70"	—	—	POC-70-28-28	130.00	POC-70-28-34	136.00
81"	77"	—	—	POC-77-28-28	137.00	POC-77-28-34	143.00
84½"	80½"	—	—	POC-80-28-28	141.00	POC-80-28-34	147.00

FRAMES 34" WIDE for 30" PANELS

40¾"	36¾"	—	—	—	—	POC-36-34-34	$109.00
46"	42"	—	—	—	—	POC-42-34-34	114.00
65¼"	61¼"	—	—	—	—	POC-61-34-34	134.00
74"	70"	—	—	—	—	POC-70-34-34	142.00
81"	77"	—	—	—	—	POC-77-34-34	149.00
84½"	80½"	—	—	—	—	POC-80-34-34	153.00

PANELS AND DOORS FOR PREM-O-CUBE HEAVY DUTY CUBICLES

END PANELS

Blank and Louvred — ¾" DEEP. Made of No. 14 gauge steel with return bend for easy gasketing.

FOR 19" WIDE

BLANK Cat. No.	Net Price	Height	LOUVRED Cat. No.	Net Price
P-36-19	$22.40	36¾"	PL-36-19	$30.40
P-42-19	24.40	42"	PL-42-19	32.40
P-61-19	32.40	61¼"	PL-61-19	40.40
P-70-19	35.60	70"	PL-70-19	43.60
P-77-19	38.40	77"	PL-77-19	46.40
P-80-19	40.00	80½"	PL-80-19	48.00

FOR 24" WIDE

P-36-24	24.00	36¾"	PL-36-24	32.00
P-42-24	26.00	42"	PL-42-24	34.00
P-61-24	34.00	61¼"	PL-61-24	42.00
P-70-24	37.20	70"	PL-70-24	45.20
P-77-24	40.00	77"	PL-77-24	48.00
P-80-24	41.60	80½"	PL-80-24	49.80

FOR 30" WIDE

P-36-30	26.80	36¾"	PL-36-30	34.80
P-42-30	28.80	42"	PL-42-30	36.80
P-61-30	36.80	61¼"	PL-61-30	44.80
P-70-30	40.00	70"	PL-70-30	48.00
P-77-30	42.80	77"	PL-77-30	50.80
P-80-30	44.40	80½"	PL-80-30	52.40

DOORS

Blank and Louvred

- Made of No. 14 gauge steel
- Continuous hinge flush fitting
- Supplied with 3 point latching device and round flush handle

FOR 19" WIDE

Blank	Net Price	Height	Width	Louvred	Net Price
DO-36-19	$38.08	36¾"	19"	DOL-36-19	$46.08
DO-36-24	40.80	36¾"	24"	DOL-36-24	48.80
DO-36-30	45.56	36¾"	30"	DOL-36-30	53.56
DO-42-19	41.48	42"	19"	DOL-42-19	49.48
DO-42-24	44.20	42"	24"	DOL-42-24	52.20
DO-42-30	48.96	42"	30"	DOL-42-30	56.96
DO-61-19	55.08	61¼"	19"	DOL-61-19	63.08
DO-61-24	57.80	61¼"	24"	DOL-61-24	65.80
DO-61-30	62.56	61¼"	30"	DOL-61-30	70.56
DO-70-19	60.52	70"	19"	DOL-70-19	68.52
DO-70-24	63.24	70"	24"	DOL-70-24	71.24
DO-70-30	68.00	70"	30"	DOL-70-30	76.00
DO-77-19	65.28	77"	19"	DOL-77-19	73.28
DO-77-24	68.00	77"	24"	DOL-77-24	76.00
DO-77-30	72.76	77"	30"	DOL-77-30	80.76
DO-80-19	68.00	80½"	19"	DOL-80-19	76.00
DO-80-24	70.72	80½"	24"	DOL-80-24	78.72
DO-80-30	75.48	80½"	30"	DOL-80-30	83.48

ACCESSORIES FOR PREM-O-CUBE HEAVY DUTY CUBICLES

TOP & BOTTOM PANELS

Size	Blank Cat No.	Net Price	Louvred Cat. No.	Net Price
19x19"	TP-19-19	$15.20	TPL-19-19	$20.20
19x24"	TP-19-24	17.20	TPL-19-24	22.20
19x30"	TP-19-30	19.60	TPL-19-30	24.60
24x24"	TP-24-24	19.20	TPL-24-24	24.20
24x30"	TP-24-30	21.60	TPL-24-30	26.60
30x30"	TP-30-30	24.00	TPL-30-30	29.00

PANEL MOUNTING ANGLES

12 gauge steel; tapped 10-32 on E.I.A. spacings

Length	Cat. No.	Net Price (Pair)
36¾"	PMA 362-12	$11.55
42"	PMA 422-12	13.20
61¼"	PMA 612-12	16.50
70"	PMA 702-12	18.50
77"	PMA 772-12	20.00
80½"	PMA 802-12	21.00

HORIZONTAL CROSS PIECES

Fits Frame Depth	Cat. No.	Net Price
23"	HCP-23	$2.50
28"	HCP-28	3.00
34"	HCP-34	3.50

ROLLER TRUCKS

with 4" Diameter Rockite Casters
Fits into recess in bottom of frame

Size	Cat. No.	Net Price
19x19"	CRT 19-19	$50.00
19x24"	CRT 19-24	52.00
19x30"	CRT 19-30	54.40
24x24"	CRT 24-24	54.00
24x30"	CRT 24-30	56.40
30x30"	CRT 30-30	58.80

EYE BOLTS

2" Dia. — Cat. No. EB-2
Net Price — $6.00 for 4

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PREMIER PAGE 9 — All Prices 10% Higher West of Mississippi

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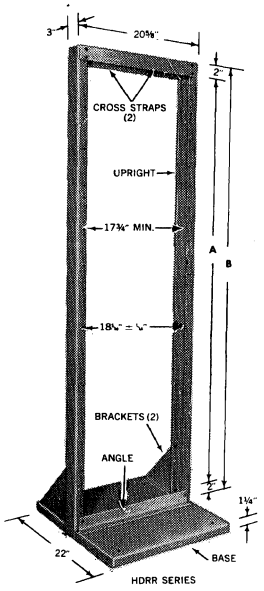
PREMIER CHANNEL RELAY RACKS

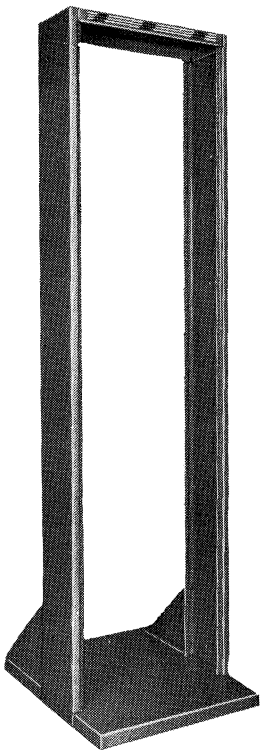
SECTION B

HEAVY DUTY RELAY RACK *Meets MIL-STD-189*



- Uprights and top cross straps made of 3/16" sheet steel.
- Base and Brackets made of No. 12 gauge sheet steel.
- Base angle made of 2 x 2 x 3/16" steel.
- Panel mounting holes are tapped 10-32 on E.I.A. spacings (1¼-½").
- Finished in Zinc Chromate Primer (MIL SPEC. 6889A) or Gray Hammertone (Specify finish when ordering).
- Shipped knocked down and assembled with ¼-20 x ¾" long hex head cap screws and nuts.

Catalog No.	Panel Space (A)	Frame Height (B)	Net Price
HDRR-6619	66 21/32"	71 29/32"	$67.00
HDRR-7319	73 21/32"	78 29/32"	73.00
HDRR-7719	77 5/32"	82 13/32"	77.00

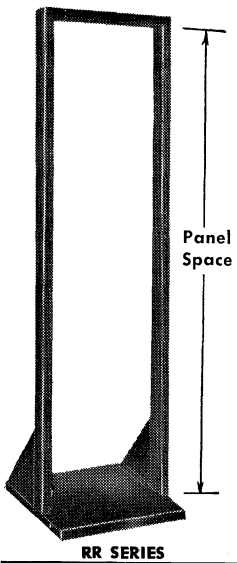


RR-2100 Series

DELUXE UTILITY RACKS

- Made of No. 12 gauge (.104) steel Tapped 10-32 on EIA spacings (⅝—⅝—½) both front and rear.
- Uprights 8⅛" deep.
- Panels Fit into ½" Recess. Either flat or Formed Panels may be used.
- Finished in Gray Hammertone. Also available in Black Wrinkle.
- Top ventilated by means of grille.
- Racks can be bolted side by side.
- There are no screw heads projecting.
- Vertical members and top cross piece are welded together.
- The base and rear supports are shipped knocked down.

FOR 19" WIDE PANELS						FOR 24" WIDE PANELS				
Cat. No.	Width	Panel Space	Shpg. Wt. Lbs.	Net Price	Height	Cat. No.	Width	Panel Space	Shpg. Wt. Lbs.	Net Price
RR-2164	21 1/16"	61¼x19"	85	$38.00	64½"	RR-2664	26 1/16"	61¼x24"	100	$49.00
RR-2173	21 1/16"	70x19"	90	41.00	73¼"	RR-2673	26 1/16"	70x24"	105	52.00
RR-2180	21 1/16"	77x19"	95	45.00	80¼"	RR-2680	26 1/16"	77x24"	105	56.00



RR SERIES

CHANNEL RELAY RACKS

- Rigidly constructed of #12 gauge cold rolled sheet steel and finished in Gray Hammertone. Also available in Black Wrinkle.
- Vertical members and top crossbrace are welded together.
- Panel mounting holes are tapped for 10/32 machine screws on E.I.A. spacings (⅝-⅝-½").
- Racks are shipped knocked down with all necessary bolts for easy assembly.
- Base punched to accommodate CA-4 (2") and CA-5 (3") casters.

Cat. No.	H.	W.	D.	Panel Space	Shp. Wt. Lbs.	Net Price
RR-800	39¼"	20"	18⅜"	36¾" x 19"	40	$21.20
RR-801	74¼"	20"	20⅞"	71¾" x 19"	55	25.20
RR-802	79½"	20"	20⅞"	77" x 19"	60	29.20
RR-803	69"	20"	20⅞"	66½" x 19"	50	24.20

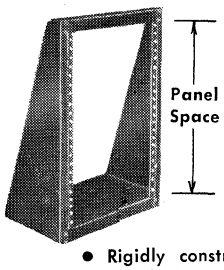


TABLE TYPE RELAY RACKS

TR SERIES

- Rigidly constructed of #16 gauge cold rolled sheet steel and finished in Gray Hammertone. Also available in Black Wrinkle.
- Base constructed of one piece, similar to a chassis.
- Panel mounting holes are tapped for 10/32 machine screws on E.I.A. spacings (⅝-⅝-½").
- Racks are shipped knocked down with all necessary bolts for easy assembly.

Cat. No.	H.	W.	D.	Panel Space	Shp. Wt. Lbs.	Net Price
TR-2119	25"	21"	12"	21 x 19"	17	$ 8.82
TR-2819	32"	21"	12"	28 x 19"	20	11.04

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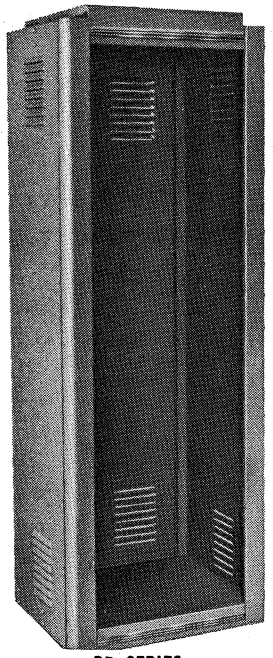
PREMIER CABINET RELAY RACKS

SECTION C

FOR STANDARD 19" RACK PANELS (KNOCKED DOWN)

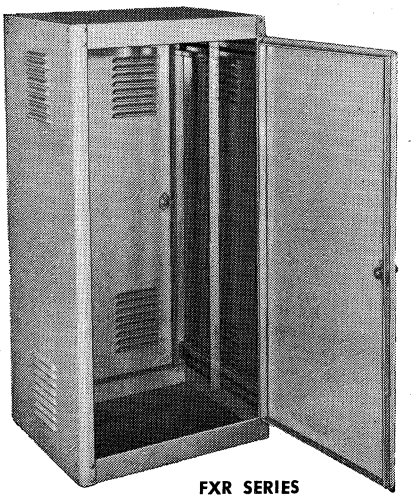
- Rigidly constructed of #16 gauge cold rolled sheet steel.
- The panel mounting angles are of #12 gauge steel and are tapped for 10-32 machine screws on E.I.A. spacings (⅝-⅝-½).
- Panels fit into a 5/16" recess so that the edges are not exposed.
- Racks are shipped knocked down with all necessary bolts for easy assembly.
- Rear doors are hung on sturdy slip-jointed hinges, and closed by a chrome handle. Locking handle with two keys available at additional cost.
- Holes punched in bottom to accommodate CA-4 and CA-5 casters.
- ROUNDED TYPE has front vertical rounded corners.
- DELUXE TYPE — The removable vertical corner mouldings are rounded and cover the mounting screws.
- DELUXE TYPE — Top and bottom are trimmed with chrome finished moulding.
- FRONT DOOR TYPE has front vertical rounded corners and is supplied with locking chrome handle and two keys for front door.
- Finished in Gray Hammertone. Also available in Black Wrinkle.
- SPECIFY COLOR WHEN ORDERING.

DELUXE TYPE



DR SERIES

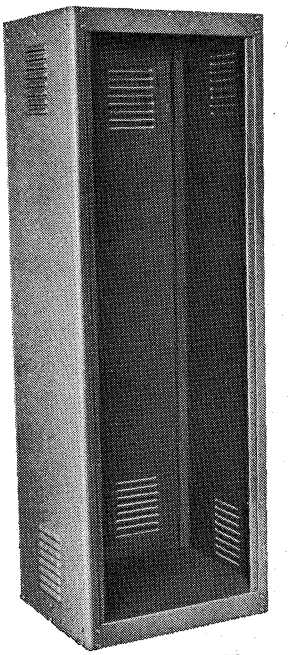
FRONT DOOR TYPE



FXR SERIES

Supplied with adjustable Panel Mounting Angles

ROUNDED TYPE



R SERIES

SPECIFY COLOR WHEN ORDERING Racks are 22" wide x 18" deep

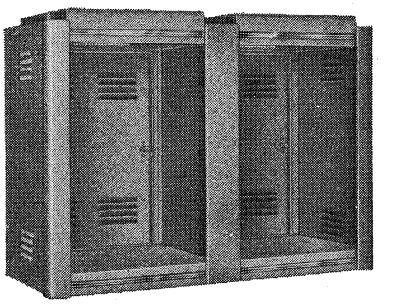
	Cat. No.	Overall Height	Panel Space	Use Slide Length*	Ship. Wt.—Lbs.	Net Price
DELUXE	DR-3619	43⅛"	36¾"	16"	85	$56.70
	DR-6119	67⅝"	61¼"	16"	135	69.30
	DR-7719	83⅜"	77"	16"	160	83.90
FRONT DOOR	FXR-3619	41⅞"	36¾"	16"	93	63.50
	FXR-4219	47⅛"	42"	16"	105	72.00
	FXR-6119	66⅜"	61¼"	16"	140	90.00
	FXR-7719	82⅛"	77"	16"	164	109.00
ROUNDED	R-3619	41⅞"	36¾"	16"	80	43.00
	R-4219	47⅛"	42"	16"	90	50.00
	R-6119	66⅜"	61¼"	16"	120	64.00
	R-7719	82⅛"	77"	16"	140	76.00

	Cat. No.	Overall Height	Panel Space	Use Slide Length*	Used With	Net Price
MULTIPLE RACK SECTIONS	DMR-3619	43⅛"	36¾"	16"	DR-3619	$56.96
	DMR-6119	67⅝"	61¼"	16"	DR-6119	68.02
	DMR-7719	83⅜"	77"	16"	DR-7719	81.18
	MR-3619	41⅞"	36¾"	16"	R-3619	41.50
	MR-4219	47⅛"	42"	16"	R-4219	48.50
	MR-6119	66⅜"	61¼"	16"	R-6119	62.50
	MR-7719	82⅛"	77"	16"	R-7719	74.50
	MXR-3619	41⅞"	36¾"	16"	FXR-3619	61.00
	MXR-4219	47⅛"	42"	16"	FXR-4219	70.50
	MXR-6119	66⅜"	61¼"	16"	FXR-6119	88.50
	MXR-7719	82⅛"	77"	16"	FXR-7719	107.50

*Use Slide Adapter Kit (Cat. No. SAK-35) for rear mounting. (See Page 28).

MULTIPLE RACK UNITS

These racks can be joined together to make multiple units by means of a solid center partition which is bolted to the top and bottom. Each multiple section comprises a top, bottom, rear door and center partition. On MXR Models, front door is also supplied. When ordering multiple units, specify number of units, such as double, triple, quad, etc.



ABOVE UNIT IS ONE DOUBLE DR3619

Example: One Double DR-3619 consists of one DR-3619 and one DMR-3619.

One Triple FXR-3619 consists of one FXR-3619 and two MXR-3619.

One Quad R-3619 consists of one R-3619 and three MR-3619.

FOR MODIFICATIONS SEE PREMIER PAGE 2
FOR ACCESSORIES SEE SECTION E PREMIER PAGES 16 THRU 22
FOR BLOWERS, FANS and HARDWARE SEE SECTION G PREMIER PAGES 27 THRU 32

PREMIER METAL PRODUCTS CO., INC.

PREMIER PAGE 11 **ALL PRICES 10% HIGHER WEST OF MISSISSIPPI**

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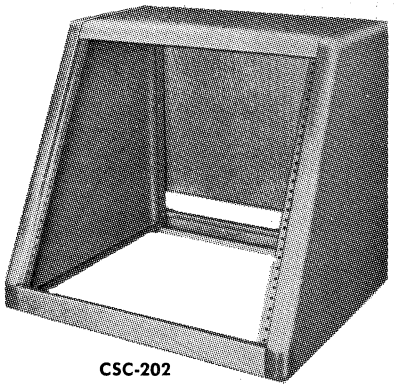
PREMIER MODULAR SLOPING DESK CABINETS

PREM-Ō-RAK®

SECTION **D**

CSC-201

- BOTH FRONT AND REAR HAVE ATTRACTIVE BALL CORNERS.
- Shipped knocked down with necessary hardware for easy assembly.
- All screws for assembling console are not visible from the outside.
- Both front and rear are tapped for 10/32 machine screws on E.I.A. spacings (⅝-⅝-½).
- Interlocking removable rear panel made of perforated metal and held in place by four captive screws.
- Made of No. 16 gauge steel.
- Rear panel has 1¾" opening on bottom for leads, etc.
- Panels fit into ½" recess.
- May be used individually or in multiples.
- Handsomely finished in Two Tone Hammertone—Top, cross-piece and base are Gray Hammertone. Rear and side panels are Brown Hammertone.

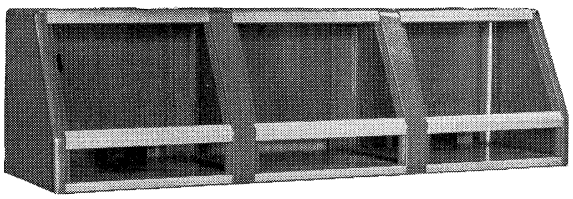


CSC-202

Cat. No.	Width	Height	Depth	Sloped Panel Space	Front Vertical Panel Space	Rear Panel Space	Slope from Vertical	Bottom Panel Space	Ship. Wt. Lbs.	Net Price
CSC-201	21¾"	18⅛"	18"	12¼" x19"	3½" x 9"	15¾" x 19"	30°	———	35	$55.00
CSC-202	21¾"	18⅞"	18⅞"	17½" x 19"	———	15¾" x 19"	25°	15¾" x 19"	40	$60.00

DESIGNED FOR MULTIPLE INSTALLATION

The PREM-O-RAK CONSOLE CABINETS can be joined together to make multiple units by means of a center frame section which is bolted to the top, cross-piece and base. When ordering multiple units specify number of units, such as Double, Triple, etc.



One Triple CSC-201 consists of one CSC-201 and two CMS-301

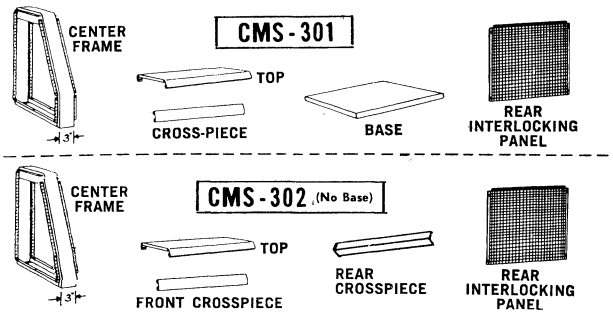
MULTIPLE SECTION for SLOPING CABINET

Cat. No.	Ship. Wt. Lbs.	Net Price
CMS-301	26	$36.00
CMS-302	28	40.00

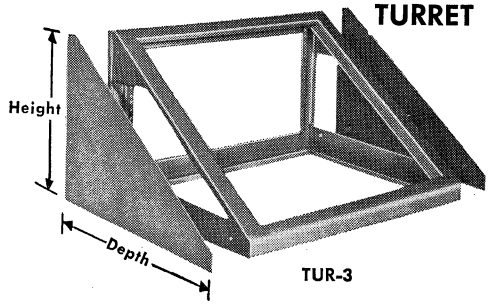
EACH MULTIPLE SECTION comprises 5 pieces as shown:

Rigidly constructed of No. 16 gauge steel and finished in Two Tone Hammertone.

EXAMPLE: One Double CSC-201 consists of one CSC-201 and one CMS-301
One Triple CSC-201 consists of one CSC-201 and two CMS-301

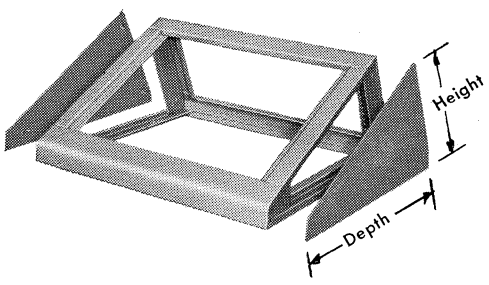


TURRET WITH FLAT SIDE PANELS



TUR-3

- Made of No. 16 gauge steel.
- All panel openings tapped for 10/32 machine screws on E.I.A. spacings (⅝-⅝-½).
- Panels fit into ½" recess.
- Flat side panels are assembled at factory before shipping.
- Frame finished in Gray Hammertone. Side panels finished in Brown Hammertone.



TUR-1

Cat. No.	Width	Height	Depth	Sloped Front Panel Space	Rear Panel Space	Bottom Panel Space	Ship. Wt. lbs.	Net Price
TUR-1	22"	9¾"	21"	14" x 19"	7" x 19"	17½" x 19"	25	$40.00
TUR-3	22"	12¼"	17½"	17½" x 19"	8¾" x 19"	14" x 19"	20	34.80

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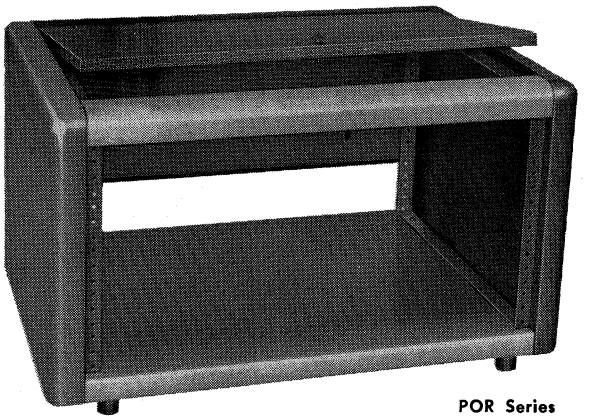
PREMIER DESK CABINET RACKS

SECTION **D**

PREM-O-RAK®



POR Series

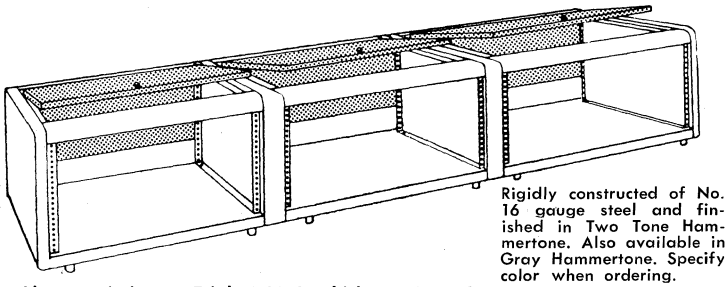
15¼" and 18" DEEP FOR STANDARD 19" WIDE PANELS

(KNOCKED DOWN)

BOTH FRONT AND REAR OF TOP HAVE ATTRACTIVE BALL CORNERS.

- All screws for assembling PREM-O-RAK are not visible from the outside.
- Both front and rear verticals are tapped for 10/32 machine screws on E.I.A. spacings (⅝-⅝-½") so that panels may be mounted on both front and rear if desired.
- Interlocking removable top made of perforated metal and held in place by only one captive screw.
- Interlocking removable rear panel made of perforated metal and held in place by two captive screws.
- Rigidly constructed of #16 gauge steel.
- Rear Panel has 3½" opening on bottom for leads, etc., except on POR-3, 318, 5, 518.
- Panels fit into ½" recess.
- Base supplied with four rubber feet.
- Components may be mounted on base before assembly of rack into a complete unit.
- Shipped knocked down with all necessary hardware for easy assembly.
- HANDSOMELY FINISHED IN TWO-TONE HAMMERTONE.
  Top cross braces and base are Gray Hammertone.
  Top & rear panel & side panels are Brown Hammertone.
  Also available all Gray Hammertone. Specify color when ordering.

15¼" DEEP				ALL CABINETS ARE 21¾" WIDE		18" DEEP			
Catalog No.	Shp. Wt. Lbs.	Use Slide Length	Net Price	Overall Height	Panel Space	Catalog No.	Ship. Wt. Lbs.	Use Slide Length	Net Price
POR-3	18	14"	$25.10	5⅞"	3½"	POR-318	20	16"	$26.40
POR-5	20	14"	26.40	7⅝"	5¼"	POR-518	22	16"	29.10
POR-7	22	14"	27.75	9⅜"	7"	POR-718	24	16"	30.70
POR-8	24	14"	29.10	11⅛"	8¾"	POR-818	26	16"	32.25
POR-10	26	14"	33.30	12⅞"	10½"	POR-1018	29	16"	36.75
POR-12	28	14"	36.05	14⅝"	12¼"	POR-1218	31	16"	40.00
POR-14	32	14"	40.20	16⅜"	14"	POR-1418	35	16"	44.35
POR-17	40	14"	47.85	19⅞"	17½"	POR-1718	44	16"	52.70
POR-21	44	14"	52.00	23⅜"	21"	POR-2118	48	16"	57.55
POR-26	45	14"	56.15	28⅝"	26¼"	POR-2618	49	16"	61.85
POR-31	50	14"	58.90	33⅞"	31½"	POR-3118	55	16"	65.65
POR-35	55	14"	62.40	37⅜"	35"	POR-3518	60	16"	68.80



Rigidly constructed of No. 16 gauge steel and finished in Two Tone Hammertone. Also available in Gray Hammertone. Specify color when ordering.

Above unit is one Triple POR-8 which consists of one POR-8 two MOR-8

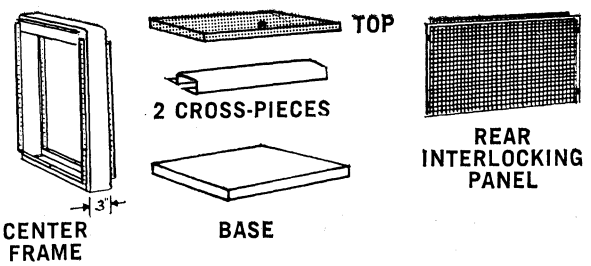
MULTIPLE SECTION FOR PREM-O-RAK DESK CABINETS

PREM-O-RAK DESK CABINETS can be joined together to make multiple units by means of a center frame section which is bolted to the top cross pieces and base. When ordering multiple units specify number of units, such as Double, Triple, etc.

EXAMPLE: One Double POR-1218 consists of one POR-1218 and one MOR-1218.
One Triple POR-8 consists of one POR-8 and two MOR-8.

EACH MULTIPLE SECTION (MOR Series) comprises 6 pieces as shown.

15¼" DEEP					18" DEEP		
Cat. No.	Ship. Wt. Lbs.	Net Price	Overall Height	Panel Space	Cat. No.	Ship. Wt Lbs.	Net Price
MOR-3	16	$17.60	5⅞"	3½"	MOR-318	18	$18.50
MOR-5	17	18.50	7⅝"	5¼"	MOR-518	19	20.40
MOR-7	18	19.40	9⅜"	7"	MOR-718	20	21.60
MOR-8	19	20.40	11⅛"	8¾"	MOR-818	21	22.70
MOR-10	20	23.40	12⅞"	10½"	MOR-1018	23	25.85
MOR-12	21	25.30	14⅝"	12¼"	MOR-1218	24	27.80
MOR-14	23	28.20	16⅜"	14"	MOR-1418	26	31.10
MOR-17	31	33.55	19⅞"	17½"	MOR-1718	34	37.00
MOR-21	33	36.45	23⅜"	21"	MOR-2118	37	40.30
MOR-26	34	39.40	28⅝"	26¼"	MOR-2618	38	43.35
MOR-31	36	41.25	33⅞"	31½"	MOR-3118	40	46.00
MOR-35	40	43.70	37⅜"	35"	MOR-3518	44	48.20



FOR MODIFICATIONS SEE PREMIER PAGE 2 • FOR ACCESSORIES SEE SECTION E PREMIER PAGES 16 THRU 22
FOR BLOWERS, FANS and HARDWARE SEE PREMIER SECTION G PREMIER PAGES 27 THRU 32

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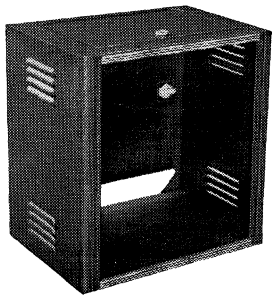
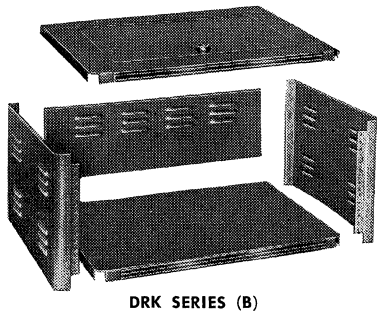
PREMIER DESK CABINET RACKS

SECTION **D**

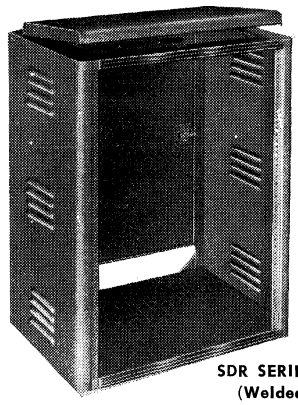
15¼" and 18" DEEP FOR STANDARD 19" WIDE PANEL
(WELDED AND KNOCKED DOWN MODELS)



DCR SERIES (A)
(Welded)



DRK SERIES (B)
(Knocked Down)



SDR SERIES (C)
(Welded)

- Front vertical corners are rounded and the top and bottom are trimmed with chrome finished moulding.
- Rigidly constructed of #16 gauge cold rolled sheet steel.
- Panels fit into a ¼" recess so that the edges are not exposed.
- Panel mounting holes are tapped for 10-32 machine screws on E.I.A. spacings (⅝-⅝-½).
- Piano type hinges are used on the top doors, which are provided with snap catches.
- Top door on Model SDR opens to 90° and has a rounded front corner.
- DRK is identical to DCR except shipped knocked down with all necessary hardware for easy assembly. On these models the bolts are not visible from the outside and have the same appearance as the welded models.
- Gussets welded at bottom of rear on Models 170-350 for additional strength.
- Finished in Gray Hammertone. Also available in Black Wrinkle.
- Specify color when ordering.

WALL MOUNTING BRACKETS

FOR MOUNTING DESK CABINET RACKS ON WALL — REMOVE REAR DOOR AND USE WALL MOUNTING BRACKETS.

Catalog No. WB-19
Net Price $5.00

Sold in sets only.
Finished in Gray Hammertone.
Shipping Weight 2½ lbs.

FOR MODIFICATIONS SEE PREMIER PAGE 2
FOR ACCESSORIES SEE SECTION E PREMIER PAGES 16 THRU 22
FOR BLOWERS, FANS and HARDWARE SEE SECTION G PREMIER PAGES 27 THRU 32

21¾" WIDE x 15¼" DEEP

	Catalog No. (A)	Net Price	Catalog No. (C)	Net Price	Catalog No. (B)	Net Price	Overall Height	Panel Space	Ship. Wt. Lbs.	Use Slide Length*
WITH DOOR ON TOP ONLY	DCR-70	$15.00	SDR-70	$19.00	DRK-70	$14.00	8¾"	7"	22	14"
	DCR-80	16.00	SDR-80	20.00	DRK-80	15.00	10½"	8¾"	24	14"
	DCR-100	17.50	SDR-100	21.50	DRK-100	16.50	12¼"	10½"	26	14"
	DCR-120	19.50	SDR-120	23.50	DRK-120	18.50	14"	12¼"	28	14"
	DCR-140	21.00	SDR-140	25.00	DRK-140	20.00	15¾"	14"	32	14"
WITH DOOR ON TOP AND REAR	DCR-170	25.50	SDR-170	29.50	DRK-170	24.50	19¼"	17½"	40	14"
	DCR-190	27.00	SDR-190	31.00	DRK-190	26.00	21"	19¼"	42	14"
	DCR-210	28.00	SDR-210	32.00	DRK-210	27.00	22¾"	21"	44	14"
	DCR-260	30.00	SDR-260	34.00	DRK-260	29.00	28"	26¼"	45	14"
	DCR-310	32.00	SDR-310	36.00	DRK-310	31.00	33¼"	31½"	50	14"
	DCR-350	34.00	SDR-350	38.00	DRK-350	33.00	36¾"	35"	55	14"

21¾" WIDE x 18" DEEP

	Catalog No. (A)	Net Price	Catalog No. (C)	Net Price	Overall Height	Panel Space	Ship. Wt. Lbs.	Use Slide Length*
WITH DOOR ON TOP ONLY	DCR-1880	$18.50	SDR-1880	$22.50	10½"	8¾"	26	16"
	DCR-18100	21.50	SDR-18100	25.50	12¼"	10½"	29	16"
	DCR-18120	24.50	SDR-18120	28.50	14"	12¼"	31	16"
	DCR-18140	26.00	SDR-18140	30.00	15¾"	14"	35	16"
WITH DOOR ON TOP AND REAR	DCR-18170	29.50	SDR-18170	33.50	19¼"	17½"	44	16"
	DCR-18190	30.50	SDR-18190	34.50	21"	19¼"	46	16"
	DCR-18210	32.00	SDR-18210	37.00	22¾"	21"	48	16"
	DCR-18260	35.00	SDR-18260	39.00	28"	26¼"	49	16"
	DCR-18310	36.50	SDR-18310	40.50	33¼"	31½"	55	16"
	DCR-18350	37.50	SDR-18350	41.50	36¾"	35"	60	16"

SPECIFY COLOR WHEN ORDERING

*Use Slide Adapter Kit (Cat. No. SAK-35) for rear mounting. (See Page 26)

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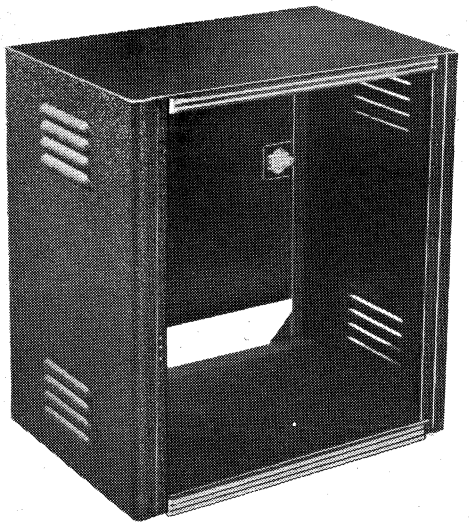
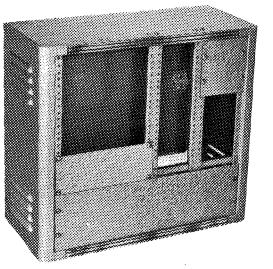
PREMIER 12" DEEP MINIATURE DESK CABINET RACKS

MODU-RAK®

SECTION D





MDK SERIES → Shown with panels, horizontal (DH Series) and vertical (DV Series) dividers assembled.

FOR STANDARD 19" RACK PANELS

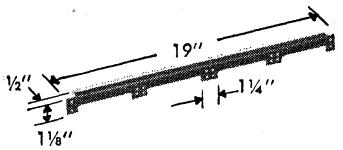
(KNOCKED DOWN)

- Front vertical corners are rounded and the top and bottom are trimmed with red striped chrome moulding.
- Rigidly constructed of #16 gauge cold rolled sheet steel.
- Panels fit into a recess so that the edges are not exposed.
- Panel mounting holes are tapped for 10-32 machine screws on E.I.A. Spacings (⅝-⅝-½").
- Rear doors have snap catches.
- Bolts are not visible from the outside and these units have the same appearance as the welded models.
- FINISHED IN GRAY HAMMERTONE.
- SHIPPED KNOCKED DOWN WITH ALL NECESSARY HARDWARE FOR EASY ASSEMBLY.

21¾" WIDE x 12" DEEP

	Catalog No.	Overall Height	Available Panel-Space	Ship. Wt. Lbs.	Net Price
WITH REMOVABLE REAR PANEL	MDK-50	7"	5¼ x 19"	16	$11.25
	MDK-70	8¾"	7 x 19"	20	11.65
	MDK-80	10½"	8¾ x 19"	21	12.35
	MDK-100	12¼"	10½ x 19"	23	14.20
	MDK-120	14"	12¼ x 19"	25	15.50
	MDK-140	15¾"	14 x 19"	29	17.50
WITH REAR DOOR	MDK-170	19¼"	17½ x 19"	36	21.25
	MDK-210	22¾"	21 x 19"	39	23.15
	MDK-260	28"	26¼ x 19"	40	25.35
	MDK-280	29¾"	28 x 19"	41	27.35

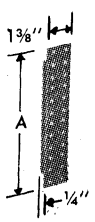
ACCESSORIES FOR SUBDIVIDING ANY 19" WIDE PANEL SPACE INTO MODULAR UNITS



HORIZONTAL DIVIDERS

- Holes punched to accommodate vertical dividers (DV Series) which subdivides the panel space into 9½" and 4¾" widths.
- Made of #16 gauge steel.
- Finished in Gray Hammertone.

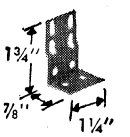
Catalog No.	Dimensions	Net Price
DH-19	19" x 1⅛"	$3.42
DH-95	9½" x 1⅛"	2.80



VERTICAL DIVIDERS

- Two rows of 10-32 tapped holes punched on E.I.A. Spacings.
- Made of No. 16 gauge steel.
- Finished in gray Hammertone.

Cat. No.	"A" Available Panel Mtg. Space	Net Price
DV-5	5¼"	$0.95
DV-7	7"	1.30
DV-8	8¾"	1.60
DV-10	10½"	1.95
DV-12	12¼"	2.05
DV-14	14"	2.25
DV-17	17½"	2.95
DV-21	21"	3.60
DV-26	26¼"	4.45
DV-28	28"	4.70



ANGLE BRACKETS

- Punched to accommodate vertical dividers.
- Made of No. 16 gauge steel.
- Finished in gray hammertone.

Cat. No.	Net Price	sold in
AB-2	$1.09 pr.	pairs only

FOR MODIFICATIONS SEE PREMIER PAGE 2 • FOR ACCESSORIES SEE SECTION E PREMIER PAGES 16 THRU 22

FOR BLOWERS, FANS and HARDWARE SEE SECTION G PREMIER PAGES 27 THRU 32

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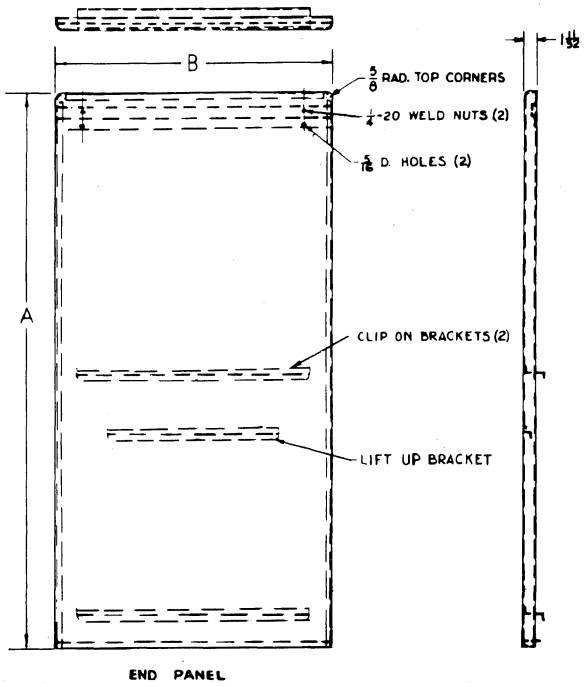
PREMIER END PANELS For Rounded Corner FRAMES

SECTION E



END PANEL

CEP SERIES

END PANELS FOR FA FRAMES 1-11/32" DEEP

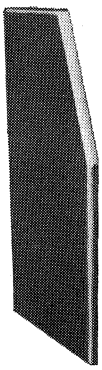
- Made of one piece of 16 gauge steel.
- BALL CORNERED.
- End panels attach to frame by means of a bracket on bottom and held securely by two captive screws on top.
- Panels supplied blank. Louvres furnished at no additional charge.
- Finished in Brown Hammertone.

22" WIDE

Cat. No.	For Use with Frame	Shpg. Wt. Lbs.	Hgt.	Net Price
CEP-42-22	FA-42-22	23	45¼"	$18.90
CEP-52-22	FA-52-22	27	55¾"	22.70
CEP-61-22	FA-61-22	30	64½"	25.20
CEP-70-22	FA-70-22	33	73¼"	27.10
CEP-77-22	FA-77-22	35	80¼"	29.30

25½" WIDE

Cat. No.	For Use with Frame	Shpg. Wt. Lbs.	Hgt.	Net Price
CEP-42-255	FA-42-255	28	45¼"	$22.05
CEP-52-255	FA-52-255	32	55¾"	25.85
CEP-61-255	FA-61-255	35	64½"	27.75
CEP-70-255	FA-70-255	38	73¼"	30.25
CEP-77-255	FA-77-255	40	80¼"	32.20



BALL CORNERED END PANELS FOR FS FRAMES — 1-11/32" DEEP

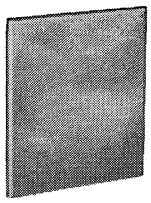
- Made of 1 Pc. No. 18 Gauge Steel.
- End Panels Attached to Frame by Means of a Bracket on Bottom & Held Securely by 2 Captive Screws on Top.
- Supplied Blank; Louvres Furnished at No Additional Charge.
- Finished in Brown Hammertone.

22" WIDE

End Panels	Used for Frame	Ship. Wt. Lbs.	Net Price
CEP-1201 LH	Left side FS-1001 & 1003	20	$18.50
CEP-1201 RH	Right side FS-1001 & 1003	20	18.50
CEP-1202 LH	Left side FS-1002 & 1004	18	18.90
CEP-1202 RH	Right side FS-1002 & 1004	18	18.90

25½" WIDE

End Panels	Used for Frame	Ship. Wt. Lbs.	Net Price
CEP-1201-255 LH	Left side FS-1001-255 & 1003-255	22	$21.50
CEP-1201-255 RH	Right side FS-1001-255 & 1003-255	22	21.50
CEP-1202-255 LH	Left side FS-1002-255 & 1004-255	20	19.50
CEP-1202-255 RH	Right side FS-1002-255 & 1004-255	20	19.50

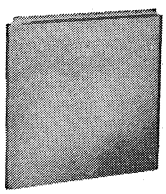


END PANELS FOR CPF FRAMES

- Made of one piece of #18 gauge steel.
- Finished in Brown Hammertone.
- End panels attach to pedestal frame CPF Series by means of 2 brackets on bottom and held securely with 2 captive screws on top.

BALL CORNERED END PANEL 1-11/32" DEEP

Cat. No.	Width	Height	For use with	Shpg. Wt. Lbs.	Net Price
CEP-401	22"	26"	CPF-101 & 103	17	$15.75
CEP-402	22"	33"	CPF-102 & 104	20	18.90
CEP-401-34	34¼"	26"	CPF-101-34	22	20.80
CEP-401-255	25½"	26"	CPF-101-255 & 103-255	21	17.50
CEP-402-255	25½"	33"	CPF-102-255 & 104-255	24	19.00
CEP-401-18	18½"	26"	CPF-101-18 & 103-18	16	15.00
CEP-402-18	18½"	23"	CPF-102-18 & 104-18	16	18.00



SHORT END PANEL — 1-11/32" DEEP

Used only when work top is mounted between 2 pedestal frames.

Cat. No.	Width	Height	For use with	Shpg. Wt. Lbs.	Net Price
CSS-701	22"	23"	CPF-101 & 103	15	$10.00
CSS-701-34	34¼"	23"	CPF-101-34	18	13.20
CSS-701-255	25½"	23"	CPF-101-255 & 103-255	17	12.00
CSS-701-18	18½"	23"	CPF-101-18 & 103-18	14	9.00

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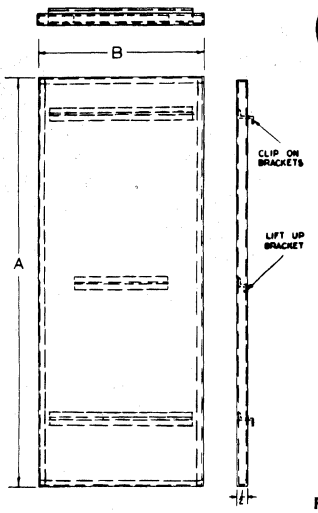
PREMIER END PANELS For Square Cornered FRAMES

SECTION E

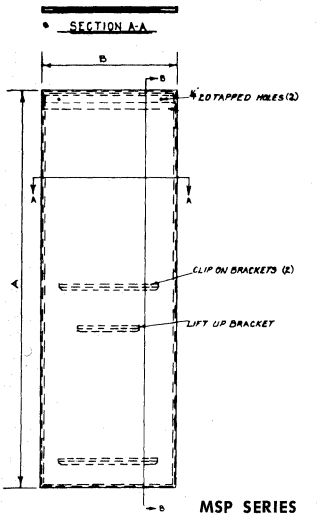


FL SERIES

FLUSH END PANELS FOR PRXA FRAMES ½" DEEP

- Fits into side recess of frame.
- Made of one piece of #16 gauge steel.
- Clips on to horizontal side section of frame. Finished in Gray Hammertone.

15" WIDE for 18" DEEP FRAMES				Height	21" WIDE for 24" DEEP FRAMES			
Cat. No.	To Fit Frame No.	Shpg. Wt. Lbs.	Net Price Each	(A)	Cat. No.	To Fit Frame No.	Shpg. Wt. Lbs.	Net Price Each
FL-36	PRXA-36	18	$14.75	42¾"	FL-36-24	PRXA-36-24	20	$19.75
FL-42	PRXA-42	19	15.66	48"	FL-42-24	PRXA-42-24	21	20.46
FL-52	PRXA-52	21	17.72	58½"	FL-52-24	PRXA-52-24	24	22.50
FL-61	PRXA-61, 2761, 3361	22	20.64	67¼"	FL-61-24	PRXA-61-24, 2761-24; 3361-24	27	24.90
FL-70	PRXA-70, 2770, 3370	25	22.26	76"	FL-70-24	PRXA-70-24, 2770-24; 3370-24	30	26.88
FL-77	PRXA-77, 2777, 3377	27	24.00	83"	FL-77-24	PRXA-77-24, 2777-24; 3377-24	33	29.00



MSP SERIES

SQUARE END PANELS 13/16" DEEP

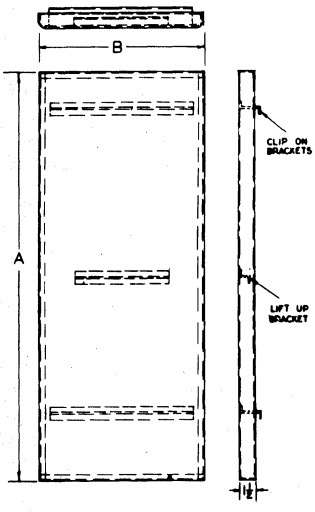
- Made of one piece of #16 gauge steel.
- End panels attach to frame by means of a bracket on bottom and held securely by two captive screws on top.
- Finished in Gray Hammertone.

SQUARE END PANELS FOR PRXA FRAMES — 13/16" DEEP

18" WIDE for 18" DEEP FRAMES				Height	24" WIDE for 24" DEEP FRAMES			
Cat. No.	To Fit Frame No.	Shpg. Wt. Lbs.	Net Price	(A)	Cat. No.	To Fit Frame No.	Shpg. Wt. Lbs.	Net Price
MSP-36	PRXA-36	20	$18.00	42¾"	MSP-36-24	PRXA-36-24	24	$21.00
MSP-42	PRXA-42	22	19.05	48"	MSP-42-24	PRXA-42-24	27	22.05
MSP-52	PRXA-52	26	22.85	58½"	MSP-52-24	PRXA-52-24	32	25.85
MSP-61	PRXA-61	30	24.75	67¼"	MSP-61-24	PRXA-61-24	34	27.75
MSP-70	PRXA-70	32	27.25	76"	MSP-70-24	PRXA-70-24	38	30.25
MSP-77	PRXA-77	34	29.20	83"	MSP-77-24	PRXA-77-24	40	32.20

SQUARE END PANELS FOR MSF FRAMES — 13/16" DEEP

22" WIDE for 22" DEEP FRAMES			Height	25½" WIDE for 25½" DEEP FRAMES		
Cat. No.	To Fit Frame No.	Net Price	(A)	Cat. No.	To Fit Frame No.	Net Price
MSP-21-22	MSF-21-22	$13.50	26"	MSP-21-255	MSF-21-255	$15.50
MSP-28-22	MSF-28-22	15.50	33"	MSP-28-255	MSF-28-255	17.50



SP SERIES

- Fits into side recess of frame.
- Made of one piece of #16 gauge steel.
- Clips on to horizontal side section of frame.
- Finished in Gray Hammertone.

ROUNDED END PANELS FOR PRXA FRAMES

1½" DEEP

15" WIDE for 18" DEEP FRAMES				
Cat. No.	To Fit Frame No.	Height (A)	Shpg. Wt. Lbs.	Net Price
SP-36	PRXA-36	42¾"	19	$16.50
SP-42	PRXA-42	48"	20	17.40
SP-52	PRXA-52	58½"	21	19.54
SP-61	PRXA-61	67¼"	23	22.62
SP-70	PRXA-70	76"	26	24.32
SP-77	PRXA-77	83"	28	26.15
21" WIDE for 24" DEEP FRAMES				
SP-36-24	PRXA-36-24	42¾"	21	$21.50
SP-42-24	PRXA-42-24	48"	22	22.44
SP-52-24	PRXA-52-24	58½"	25	24.58
SP-61-24	PRXA-61-24	67¼"	28	27.12
SP-70-24	PRXA-70-24	76"	31	29.18
SP-77-24	PRXA-77-24	83"	34	31.50

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PREMIER PAGE 17 **ALL PRICES 10% HIGHER WEST OF MISSISSIPPI**

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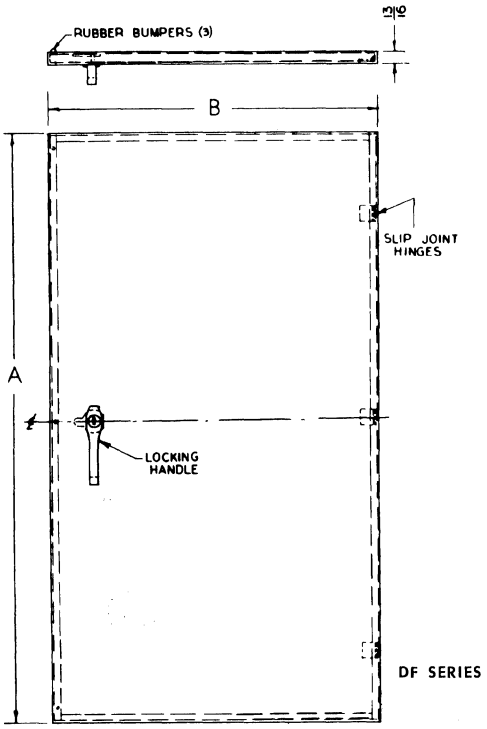
PREMIER DOORS for FRAMES and RACKS



DOORS FOR FA, FS and PRXA FRAMES 13/16" DEEP

SECTION E

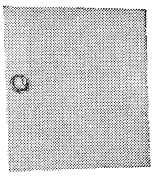
- Made of #16 gauge steel
- Doors can be mounted either left or right hand by rotating door 180°
- Doors supplied blank. Louvres furnished at no additional charge
- Doors hung on slip jointed hinges and equipped with locking handle and 2 keys
- Door mounted to frame by 3 removable hinge brackets, permitting the door to be mounted either left or right hand. Handle latch bracket also supplied
- Finished in Gray Hammertone
- **SPECIFY HINGED-SIDE WHEN DOORS ARE FURNISHED LOUVRED.**

21½" WIDE			Height (A)	26½" WIDE		
Cat. No.	Shpg. Wt. Lbs.	Net Price		Cat. No.	Shpg. Wt. Lbs.	Net Price
DF-36	17	$25.00	40 5/16"	DF-2736	23	$30.00
DF-42*	20	26.40	45 5/16"	DF-2742	26	32.40
DF-52	25	29.40	56 1/16"	DF-2752	31	35.40
DF-61	28	33.60	64 13/16"	DF-2761	34	39.60
DF-70	31	36.00	73 5/16"	DF-2770	38	43.50
DF-77	34	38.40	80 9/16"	DF-2777	41	45.00

32½" WIDE (DOUBLE DOORS with 3 Point Locking Device)

Cat. No.	Shpg. Wt. Lbs.	Height	Net Price
DF-3361	40	64 13/16"	$45.00
DF-3370	45	73 5/16"	50.50
DF-3377	48	80 9/16"	54.00

*Add suffix -1002 when used with FS-1002, 1002-255, 1004, 1004-255



CD SERIES

FLUSH DOORS—½" DEEP

For Prem-O-Rak Console Frames CPF, FS, FA, MSF, POR and CSC Series.

- Made of 16 gauge steel
- Finished in Gray Hammertone
- Doors can be mounted either left or right hand by rotating door 180°
- Hinge brackets are punched to accommodate panel mounting angles on cabinets.
- Furnished with attractive round chrome plated handle and snap catch.

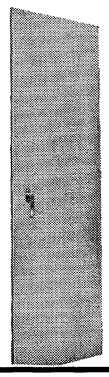
Cat. No.	Height	Width	Shpg. Wt. Lbs	Net Price
CD-17	17½"	19"	7	$11.90
CD-21	21"	19"	8	12.85
CD-26	26¼"	19"	9	14.40
CD-28	28"	19"	10	15.10
CD-29	29¾"	19"	11	15.75
CD-42	42"	19"	16	25.65
CD-1724	17½"	24"	8	14.30
CD-2124	21"	24"	9	15.40
CD-2824	28"	24"	12	18.15
CD-2924	29¾"	24"	13	18.90
CD-4224	42"	24"	17	31.50

FRONT DOORS — 1¼" DEEP

TO FIT STANDARD 19" DESK RACK CABINETS AND CABINET RELAY RACKS

Constructed from one piece of #16 gauge steel. Two concealed piano hinges are provided with holes, punched to accommodate E.I.A. spacings and are made to fit on top of the panels. Supplied with cylinder lock and cam bracket to hold door in position on FD-300-306. Locking chrome handle with two keys supplied on FD-310-313 models. All necessary bolts furnished for easy assembly. All doors are 20½" wide x 1¼" deep. Finished in Gray Hammertone. Also available in Black Wrinkle.

SPECIFY COLOR WHEN ORDERING



FD-310-313 MODELS

FD-300-306 MODELS

Cat. No.	Will Fit Rack No.	Overall Height	Shpg. Wt. Lbs.	Net Price
FD-300	DCR, DRK, SDR-260, 18260, MDK-260	26¼"	10	$14.66
FD-301	DCR, DRK, SDR-310, 18310, MDK-310	31½"	11	17.04
FD-302	DCR, DRK, SDR-350, 18350, MDK-350	35"	12	19.00
FD-303	DCR, DRK, SDR-120, 18120, MDK-120	12¼"	6	11.05
FD-304	DCR, DRK, SDR-140, 18140, MDK-140	14"	7	12.00
FD-305	DCR, DRK, SDR-170, 18170, MDK-170	17½"	8	13.04
FD-306	DCR, DRK, SDR-210, 18210, MDK-210	21"	9	14.04
FD-310	R-3619	36⅞"	13	30.45
FD-311	R-4219	42⅛"	15	34.75
FD-312	R-6119	61⅜"	20	40.55
FD-313	R-7719	77⅛"	24	46.35

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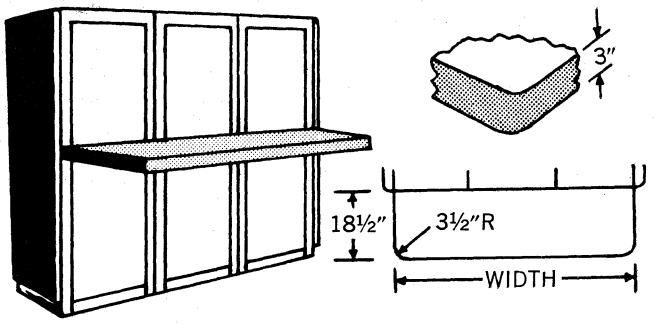
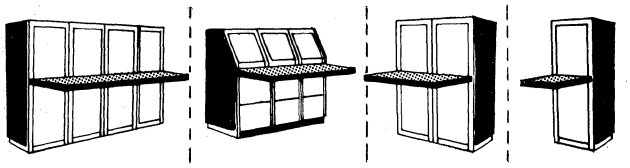
PREMIER ACCESSORIES

ONE PIECE FORMICA WORK WRITING SHELVES
For 22" Wide FA and FS FRAMES

- Gray linen weave Formica (2-C-1) bonded to ¾" plywood
- Other Standard Formica Colors or Patterns Available
- 3" self edged Formica skirt on 3 sides
- Supplied with 3½ x 19" formed panel, channels and brackets



TO FIT 22" DEEP FRAMES				TO FIT 25½" DEEP FRAMES	
Cat. No.	Net Price	Depth	Width	Cat. No.	Net Price
For 1 Vertical Frame (FA MSF, or PRXA Series) or 1 Sloped Front Frame (FS Series)					
OFT-2218-22	$82.50	18½"	22"	OFT-2218-255	$83.60
For 2 Vertical Frames (FA MSF, or PRXA Series) or 2 Sloped Front Frames (FS Series) Side By Side					
OFT-4418-22	104.50	18½"	44"	OFT-4418-255	105.60
For 3 Vertical Frames (FA MSF, or PRXA Series) or 3 Sloped Front Frames (FS Series) Side By Side					
OFT-6618-22	126.50	18½"	66"	OFT-6618-255	128.70
For 4 Vertical Frames (FA MSF, or PRXA Series) or 4 Sloped Front Frames (FS Series) Side By Side					
OFT-8818-22	154.00	18½"	88"	OFT-8818-255	156.20



NOTE:
ONE PIECE Formica shelves available for use with semi-circular arrangements when used with Wedge Frames.

FORMICA WRITING PANELS

19" and 24" WIDE — ½" THICK

Gray Linen Weave Pattern Formica 2-C-1 bonded to plywood as top surface; Unfinished Formica bonded to bottom surface.

19" WIDE

Cat. No.	Panel Space	Fits into	Net Price
FWP-1019	10½" x 19"	WW-15-22 & WW-15-255	$7.26
FWP-1419	14" x 19"	WW-18-22 & WW-18-255	9.24
FWP-1719	17½" x 19"	WW-22-22 & WW-22-255, WTO-22-22 & Top Panel Space of CPF-101, CPF-102, MSF-21-22, MSF-28-22	11.22
FWP-2119	21" x 19"	WTO-22-255, WW-255-22, WW-255-255, MSF-21-255, MSF-28-255	14.00
FWP-2919	29¾" x 19"	CPF-101-34, WTO-22-34	26.40

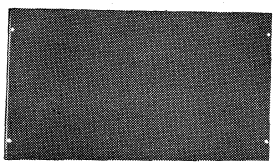
24" WIDE

Cat. No.	Panel Space	Fits into	Net Price
FWP-1024	10½" x 24"	WW-2715-22, WW-2715-255	$7.92
FWP-1424	14" x 24"	WW-2718-22, WW-2718-255	9.90
FWP-1724	17½" x 24"	WW-2722-22, WW-2722-255, WTO-27-22 & Top Panel Space of CPF-103 & CPF-104	11.88
FWP-2124	21" x 24"	WTO-27-255, WW-27-255, WW-27-255-255	15.00

FORMED PANELS — ½" DEEP
19" and 24" WIDE

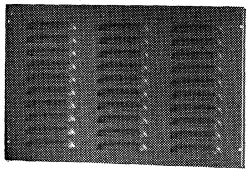
SECTION **E**

BLANK



FP Series

LOUVRED



FPL Series

- Made of one piece of No. 16 gauge steel, with edges formed for overall depth of ½".
- Each panel has only 2 mounting holes on each side.
- Finished in Gray Hammertone.

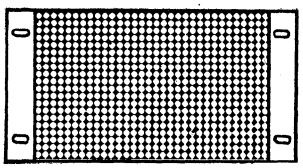
BLANK

19" WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	24" WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price
FP-119	1½	$1.21	1¾"	FP-124	2	$1.40
FP-319	2	1.25	3½"	FP-324	3	1.52
FP-519	2½	1.45	5¼"	FP-524	3½	1.72
FP-719	3	1.65	7"	FP-724	4	2.00
FP-819	4	2.02	8¾"	FP-824	5	2.45
FP-1019	5	2.50	10½"	FP-1024	6	3.00
FP-1219	6	2.90	12¼"	FP-1224	7	3.45
FP-1419	6½	3.25	14"	FP-1424	7½	3.90
FP-1519	7	3.75	15¾"	FP-1524	8	4.50
FP-1719	7½	4.15	17½"	FP-1724	8½	4.95
FP-1919	8	4.52	19¼"	FP-1924	9	5.42
FP-2119	9	4.95	21"	FP-2124	10	5.95
FP-2219	10	5.50	22¾"	FP-2224	11	6.60
FP-2619	11	6.12	26¼"	FP-2624	12	7.35
FP-2819	12	6.60	28"	FP-2824	13	7.95
FP-4219	18	11.00	42"	FP-4224	20	13.20

LOUVRED

19" WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	24" WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price
FPL-719	3	$3.48	7"	FPL-724	4	$4.16
FPL-819	4	3.90	8¾"	FPL-824	5	4.70
FPL-1019	5	4.30	10½"	FPL-1024	6	5.15
FPL-1219	6	4.85	12¼"	FPL-1224	7	5.82
FPL-1419	6½	5.22	14"	FPL-1424	7½	6.30
FPL-1719	7½	6.12	17½"	FPL-1724	8½	7.35
FPL-2119	9	7.60	21"	FPL-2124	10	9.12
FPL-2219	10	8.25	22¾"	FPL-2224	11	9.35
FPL-2619	11	8.52	26¼"	FPL-2624	12	10.25
FPL-2819	12	9.05	28"	FPL-2824	13	10.85
FPL-4219	18	15.40	42"	FPL-4224	20	18.70

PERFORATED



PFP Series

- Made of No. 20 gauge steel with 1/16" diameter holes on 3/16" staggered centers.
- Edges formed on 4 sides. • Overall depth ½".
- Each panel has 2 mounting holes on each side.
- Finished in Gray Hammertone.

19" WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	24" WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price
PFP-119	1¼	$2.50	1¾"	PFP-124	2¼	$3.25
PFP-319	1¾	2.75	3½"	PFP-324	2¾	3.50
PFP-519	2¼	3.00	5¼"	PFP-524	3¼	3.90
PFP-719	2¾	3.75	7"	PFP-724	3¾	5.00
PFP-819	3¾	4.25	8¾"	PFP-824	4¾	5.75
PFP-1019	4¾	5.00	10½"	PFP-1024	5¾	6.25
PFP-1219	5¾	5.60	12¼"	PFP-1224	6¾	7.40
PFP-1419	6¼	6.20	14"	PFP-1424	7¼	8.00
PFP-1519	6¾	6.80	15¾"	PFP-1524	7¾	8.90
PFP-1719	7¼	7.25	17½"	PFP-1724	8¼	9.50
PFP-1919	7¾	7.95	19¼"	PFP-1924	8¾	10.50
PFP-2119	8¾	8.50	21"	PFP-2124	9¾	11.25
PFP-2619	10¾	10.00	26¼"	PFP-2624	11¾	13.00
PFP-2819	11¾	11.00	28"	PFP-2824	12¾	14.25

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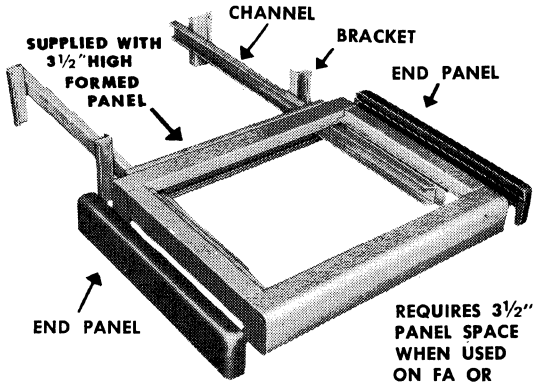
WRITING WORK SHELVES
FOR CPF, FA and FS FRAMES

- Made Of No. 16 Gauge Steel
- Tops Of Front And Rear Are Rounded
- Shipped Knocked Down • Finished In Gray Hammertone
- Supplied With Channels And Brackets For Mounting To Inside of Frames



DESIGNED FOR SINGLE OR MULTIPLE INSTALLATION
22" WIDE — 3" HIGH

To Fit 22" DEEP FRAMES					To Fit 25½" DEEP FRAMES		
Cat. No.	Shpg. Wt. Lbs.	Net Price	Top Panel Space	Depth	Cat. No.	Shpg. Wt. Lbs.	Net Price
WW-15-22	11	$37.80	10½"x19"	15"	WW-15-255	12	$38.60
WW-18-22	12	39.70	14" x19"	18½"	WW-18-255	13	40.50
WW-22-22	13	41.58	17½"x19"	22"	WW-22-255	14	42.38
WW-255-22	14	46.00	21" x19"	25½"	WW-255-255	15	47.00

27" WIDE

WW-2715-22	14	43.40	10½"x24"	15"	WW-2715-255	15	44.26
WW-2718-22	15	44.74	14" x24"	18½"	WW-2718-255	16	45.52
WW-2722-22	16	46.00	17½"x24"	22"	WW-2722-255	17	46.80
WW-27-255-22	17	48.00	21" x24"	25½"	WW-27-255-255	18	49.00

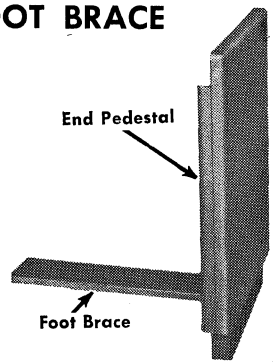
END PANELS FOR WRITING WORK SHELF

- Ball cornered • Attaches to Writing Work Shelf by means of 2 captive screws • Made of one piece of No. 18 gauge steel
- Finished in Brown Hammertone

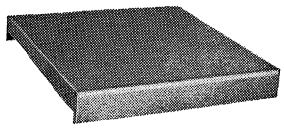
Cat. No.	Lbs.	Used With	Net Price each
CEP-15	1½	WW-15-22, 15-255; 2715-22, 2715-255	$3.75
CEP-18	2	WW-18-22, 18-255; 2718-22, 2718-255	4.00
CEP-22	2½	WW-22-22, 22-255; 2722-22, 2722-255, 255-22, 255-255, 27-255-22, 27-255-255	4.25

END PEDESTAL and FOOT BRACE
FOR DOUBLE UNIT ASSEMBLY

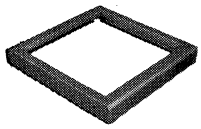
- Made of No. 18 gauge steel
- Ball cornered
- End Pedestal mounts to Work Top CWT Series or WTO Series. Foot Brace mounts to Pedestal Frame CPF Series and End Pedestal PE-901
  - Foot Brace can be mounted between two Pedestal Frames (CPF or MSF Series).
- Finished in Brown Hammertone



WORK TOPS FOR MULTIPLE ASSEMBLY — 3" HIGH



CWT Series
Solid Type



WTO Series
Open Type

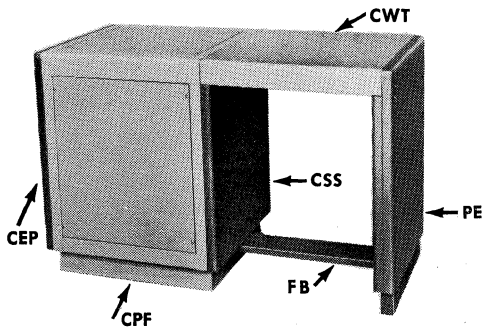
- Tops of front and rear are rounded.
- Designed for mounting between two Pedestal Frames or when used with End Pedestal (PE Series).
- USE SHORT END PANELS (CSS Series) FOR THIS INSTALLATION.
- Made of No. 16 gauge steel.
- Finished in Gray Hammertone.

WORK TOPS
Solid Type

Cat. No.	Width	Depth	Shp. Wt. Lbs.	Net Price
CWT-601	22"	22"	14	$14.00
CWT-603	27"	22"	18	16.50
CWT-601-34	22"	34¼"	20	20.80
CWT-601-18	22"	18½"	12	13.00
CWT-601-255	22"	25½"	16	15.00

Open Type

Cat. No.	Width	Depth	Panel Space	Shpg. Wt. Lbs.	Net Price
WTO-22-22	22"	22"	17½ x 19"	9½	$28.35
WTO-27-22	27"	22"	17½ x 24"	11	34.02
WTO-22-34	22"	34¼"	29¾ x 19"	12	44.10
WTO-22-255	22"	25½"	21 x 19"	12	38.00
WTO-27-255	27"	25½"	21 x 24"	13	40.00
WTO-22-18	22"	18½"	14 x 19"	9	27.00



END PEDESTAL

Cat. No.	Depth	Height	Shpg. Wt. Lbs.	Net Price
PE-901	22"	29½"	25	$31.50
PE-901-34	34¼"	29½"	30	47.25
PE-901-255	25½"	29½"	28	38.50
PE-901-18	18½"	29½"	22	30.00

FOOT BRACE

Cat. No.	Shpg. Wt. Lbs.	Used With	Net Price
FB-801	3	22" Wide Work Tops	$8.92
FB-802	3½	27" Wide Work Tops	9.64

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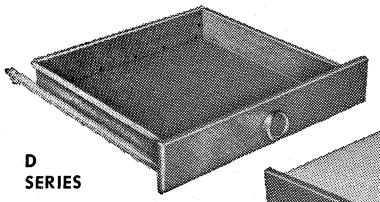
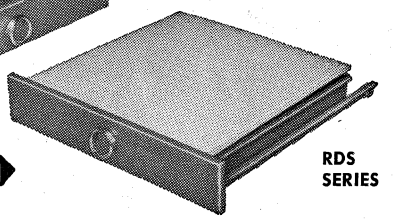
PREMIER ACCESSORIES

SECTION **E**

SLIDING DRAWERS



D SERIES



RDS SERIES

SLIDING SHELVES

- Made of No. 16 gauge steel.
- Mounted on suspension slides, which sustain 46 lbs.
- Drawer extends 16" from front of cabinet.
- Supplied with brackets for mounting to tapped holes of panel mounting angles.
- Furnished with attractive, round chrome-plated handle.
- Shipped knocked down with all necessary hardware for easy assembly.
- Will fit CPF, FS, MSF, POR, PRXA, RMX, FDX SERIES.
- Finished in Gray Hammertone.
- Sliding shelves supplied with Gray linen weave Formica (2-C-1) on top surface.

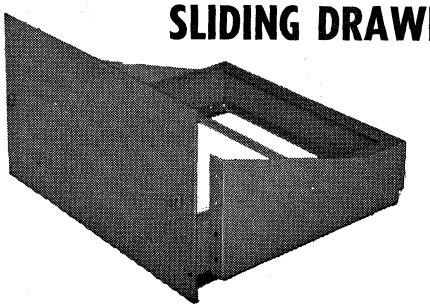
SLIDING DRAWERS

Cat. No.	Formed Panel Size	Drawer Size W	D	H	Shpg. Wt. Lbs.	Net Price
	FOR 19" WIDE PANEL SPACE					
D-1916	10⅜"x18⅞"x½"	16⅛"	16	6"	23	$18.90
D-2016	6⅞"x18⅞"x½"	16⅛"	16	6"	22	18.15
D-2316	3⅜"x18⅞"x½"	16⅛"	16	2 11/16"	16	17.10
	FOR 24" WIDE PANEL SPACE					
D-2116	10⅜"x23⅞"x½"	21⅛"	16	6"	25	22.70
D-2216	6⅞"x23⅞"x½"	21⅛"	16	6"	24	21.75
D-2416	3⅜"x23⅞"x½"	21⅛"	16	2 11/16"	17	18.90

SLIDING SHELVES

Cat. No.	Formed Panel Size	Shelf Size	Shpg. Wt. Lbs.	Net Price
	FOR 19" WIDE PANEL SPACE			
RDS-319-22	3⅜"x18⅞"x½"	16 3/16"x15 15/16"	20	$34.65
	FOR 24" WIDE PANEL SPACE			
RDS-324-22	3⅜"x23⅞"x½"	21 3/16"x15 15/16"	22	44.10

SLIDING DRAWERS TO FIT STANDARD 19" RACKS 15¼" AND 18" DEEP



Panel made of #12 gauge steel; chassis of #16 steel and has a 1" flange on top and bottom to accommodate plywood for the record changer. The chassis is mounted on ball-bearing suspension slides which can sustain 40 lbs. Drawer extends 11" from front of cabinet. Entire unit mounts on angle brackets which can be bolted on to the cabinet. Supplied knocked down with all necessary bolts for easy assembly. Locks in place by means of 2 latches. Finished in Gray Hammertone. Also available in Black Wrinkle.

SPECIFY COLOR WHEN ORDERING.

Catalog No.	Will Fit Rack No.	Panel Size	Chassis Size W. D. H.	Ship. Wt. Lbs.	Net Price
RD-10 RD-12	R, DCR-18, SDR-18, RMX & FDX Models	10⅜" x 18⅞" 12⅛" x 18⅞"	17" x 16" x 3" 17" x 16" x 4"	15 18	$17.25 19.15
RD-10-14 RD-12-14	DCR, SDR, DRK, RMX & FDX, R, DCR-18, SDR-18 Models	10⅜" x 18⅞" 12⅛" x 18⅞"	17" x 14" x 3" 17" x 14" x 4"	14½ 17	17.10 19.00

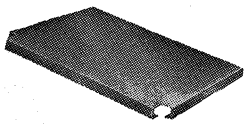
DESK PANELS TO FIT STANDARD 19" WIDE PANEL RACKS

For Use With RMX, R, DR, RR, HDRR, PRXA, MSF Series

- Made of No. 16 gauge steel and bolted to a standard steel panel 10½"x19".
- Front corners are rounded.
- Finished in Gray Hammertone. Also available in Black Enamel.
- SHIPPED KNOCKED DOWN WITH ALL NECESSARY HARDWARE FOR EASY ASSEMBLY.

Cat. No.	Width	Depth	Ship. Wt. Lbs.	Net Price
DP-1016	22"	16"	20	$17.90
DP-1020	22"	20"	22	18.30

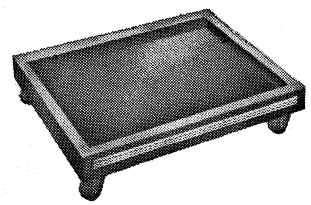
SHELVES TO FIT 19" WIDE PANEL RACKS



Made of one piece of #16 Ga. Cold Rolled Steel, 1" high. Holes are punched on sides for mounting to rack. Finished in Gray Hammertone.

Cat. No.	Will Fit Rack No.	Shelf Size	Shp. Wt. Lbs.	Net Price
RS-1106	All 15¼" SDR, DCR & DRK Racks	12x21 3/16	7	$3.10
RS-1107	R & DR Racks	15x21 13/16	7	3.85
RS-1108	FXR	13x21 13/16	7	3.50
RS-1111	MDK Series - 21¾" wide	10x21 3/16	6	3.00
RS-1113	18" deep DCR & SDR Racks	16x21 3/16	7	3.95

ROLLER TRUCKS FOR RACKS



Made from 1 piece of No. 16 ga. Cold Rolled Steel. Supplied with either 2" or 3" diameter casters and bolts for easy assembly. Finished in Gray Hammertone with a red striped chrome molding. Also available in Black Wrinkle.

SPECIFY COLOR WHEN ORDERING.

With 2" Dia Casters Cat. No.	Ship. Wt. lbs.	Net Price	Will Fit Rack No.	Inside Dimensions	With 3" Dia. Casters Cat. No.	Ship. Wt. lbs.	Net Price
RT-1100	22	$10.45	All 15¼" Racks	15¾ x 22¼"	RT-1100-3	24	$15.70
RT-1101	22	13.20	R, DR, FXR, 18" deep RMX, FDX, DCR and SDR Racks	18¾ x 22¾"	RT-1101-3	24	18.45
RT-1103	23	16.38	24" deep FDX & RMX Racks	22½ x 24½"	RT-1103-3	25	21.65
RT-1110	25	24.50	RMX-27 & FDX-27 Series	27½ x 24½"	RT-1110-3	27	30.00
RT-1111	30	31.50	RMX-7030	33½ x 24½"	RT-1111-3	32	36.75

PREMIER METAL PRODUCTS CO., INC.

ALL PRICES 10% HIGHER WEST OF MISSISSIPPI

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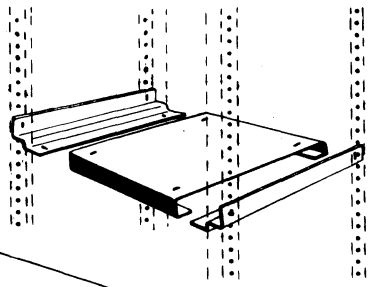
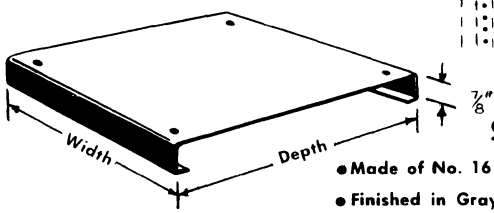
PREMIER ACCESSORIES

SHELF AND CHASSIS SUPPORT ANGLES IN POSITION





SHELVES

- Made of No. 16 Gauge Steel
- Finished in Gray Hammertone

S SERIES

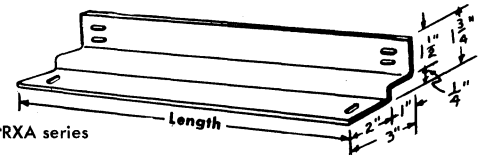
Cat. No.	Depth	Width	To Fit Frames		Net Price
S-18-22	14"	17½"	22"Wx18"D	18" FDX, RMX	$3.30
S-22-22	20⅜"	17½"	22"Wx22"D	FA	3.93
S-27-22	20⅜"	22½"	27"Wx22"D	FA	5.10
S-22-255	23⅞"	17½"	22"Wx25½"D	FA	4.62
S-27-255	23⅞"	22½"	27"Wx25½"D	FA	5.82
S-22-18	16⅜"	17½"	22"Wx18"D	PRXA	3.39
S-27-18	16⅜"	22½"	27"Wx18"D	PRXA	4.14
S-33-18	16⅜"	28½"	33"Wx18"D	PRXA	5.58
S-22-24	22⅜"	17½"	22"Wx24"D	PRXA	4.38
S-27-24	22⅜"	22½"	27"Wx24"D	PRXA	5.58
S-33-24	22⅜"	28½"	33"Wx24"D	PRXA	6.84
S-33-22	20⅜"	28½"	33"Wx24"D	RMX-7030	6.80

CHASSIS SUPPORT ANGLES

SECTION E

- Made of No. 12 ga. steel
- Accommodates Shelf (S Series)
- Finished in Gray Hammertone
- Mounts to tapped holes on side legs of Panel Mounting Angles of FA & PRXA series

CSA SERIES



Cat. No.	Length	To Fit Frames	Net Price Pair
CSA-16	14⅛"	18" deep FDX, RMX	$4.25
CSA-18	16⅛"	18" deep PRXA, CPF	4.50
CSA-22	20⅛"	22" deep FA, CPF, MSF, FS & 24" deep FDX & RMX	5.00
CSA-24	22⅛"	24" deep PRXA	5.25
CSA-255	23⅝"	25½" deep FA, CPF, FS & MSF	5.50

PANEL MOUNTING ANGLES—1¼" x 1¼"

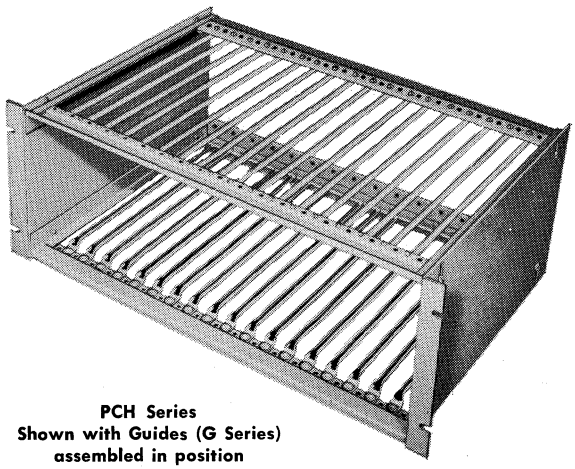
Made of #12 Ga. (.104) thick steel punched and tapped 10—32 on E.I.A. spacings (⅝-⅝-½) on both legs. Finished in Gray Hammertone.

PANEL MOUNTING ANGLES			TO FIT RACKS
Cat. No.	Height	Net Price Pr.	
PMA-212-12	21"	7.60	CPF-101, 103, MSF-21-22 & MSF-21-255
PMA-282-12	28"	10.00	CPF-102, 104, MSF-28-22 & MSF-28-255
PMA-362-12	36¾"	11.00	PRXA, FDX, RMX
PMA-422-12	42"	13.20	FA, PRXA, FS, FDX, RMX
PMA-522-12	52½"	15.20	FA, PRXA
PMA-612-12	61¼"	16.50	FA, PRXA, FDX, RMX
PMA-702-12	70"	18.50	FA, PRXA, FDX, RMX
PMA-772-12	77"	20.00	FA, PRXA, FDX, RMX

PREMIER PRINTED CIRCUIT CARD HOLDER

TO FIT STANDARD 19" and 24" WIDE RACKS FOR 5¼" — 7" — 8¾" PANEL HEIGHTS

- To accommodate Printed Circuit Cards from 4½" to 14½" deep.
- 19" wide holder accommodates up to 32 cards, 24" wide holder up to 42 cards.
- Unit shipped unassembled with all necessary hardware.
- Guides are supplied with push rivets for easy positioning.
- Guide (G Series) sold in pairs and ordered as a separate item.
- Frames made of No. 16 gauge steel and finished in Gray Hammertone.
- Guides made of No. 16 gauge steel and zinc plated with colored iridite.
- Supplied with two rear connector panels made of ⅛" aluminum with natural finish. Holes tapped 4-40 on .200" centers.
- Guides also available vinyl coated for insulation at additional cost.



PCH Series
Shown with Guides (G Series) assembled in position

	FOR 19" WIDE PANEL SPACE					FOR 24" WIDE PANEL SPACE		
Panel Height	FRAME — 19" WIDE Rear Connector Panels 1½"x16 1/16" Cat. No.	Net Price	Overall Depth	FRAME — 24" WIDE Rear Connector Panels — 1½"x21 1/16" Cat. No.	Net Price	Cat. No.	GUIDES Length	Net Price Pair
5¼"	PCH-519-6	$12.00	6¼"	PCH-524-6	$14.50	G-6	4⅛"	$.27
	PCH-519-8	12.00	8¼"	PCH-524-8	15.50	G-8	6⅛"	.34
	PCH-519-10	14.00	10"	PCH-524-10	16.50	G-10	7⅞"	.40
	PCH-519-12	15.00	12"	PCH-524-12	17.50	G-12	9⅞"	.47
	PCH-519-14	16.00	14"	PCH-524-14	18.50	G-14	11⅞"	.53
	PCH-519-16	17.00	16"	PCH-524-16	19.50	G-16	13⅞"	.59
7"	PCH-719-6	13.00	6¼"	PCH-724-6	15.50	G-6	4⅛"	.27
	PCH-719-8	14.00	8¼"	PCH-724-8	16.50	G-8	6⅛"	.34
	PCH-719-10	15.00	10"	PCH-724-10	17.50	G-10	7⅞"	.40
	PCH-719-12	16.00	12"	PCH-724-12	18.50	G-12	9⅞"	.47
	PCH-719-14	17.00	14"	PCH-724-14	19.00	G-14	11⅞"	.53
	PCH-719-16	18.00	16"	PCH-724-16	20.50	G-16	13⅞"	.59
8¾"	PCH-819-6	14.00	6¼"	PCH-824-6	16.50	G-6	4⅛"	.27
	PCH-819-8	15.00	8¼"	PCH-824-8	17.50	G-8	6⅛"	.34
	PCH-819-10	16.00	10"	PCH-824-10	18.50	G-10	7⅞"	.40
	PCH-819-12	17.00	12"	PCH-824-12	19.50	G-12	9⅞"	.47
	PCH-819-14	18.00	14"	PCH-824-14	20.50	G-14	11⅞"	.53
	PCH-819-16	19.00	16"	PCH-824-16	21.50	G-16	13⅞"	.59

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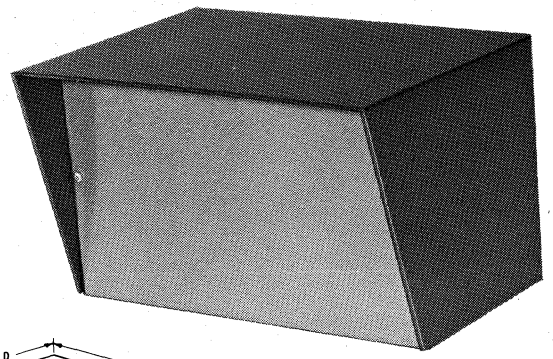
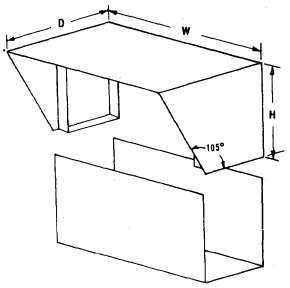
PREMIER CASES

SECTION F

NEW!
SLOPING COMPACT CASES
SCC SERIES



- Two piece case made of #20 Ga. Cold Rolled Steel.
- Top of unit extends beyond the front panel.
- Supplied with necessary screws for assembly.
- Finished in **two tone Metallic Gray** Enamel —
  Outer Unit — Dark Gray
  Inner Unit — Light Gray

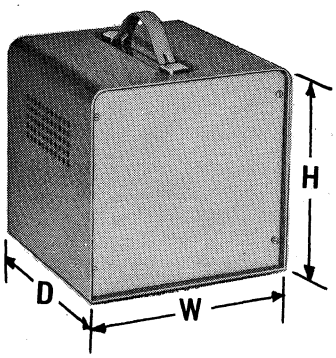


OVERALL DIMENSIONS

Cat. No.	Height	Width	Depth	Net Price
SCC-3000	6″	10″	7″	**$5.50**
SCC-3001	7″	12″	8″	**6.00**
SCC-3002	3″	8″	5″	**3.20**
SCC-3003	5″	5″	5″	**3.40**

COMPACT CASES
with ROUNDED CORNERS ON BOTH FRONT AND REAR OF TOP

CC Series



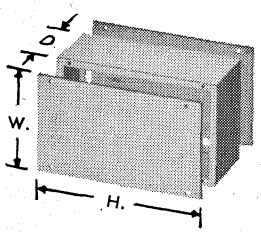
"Customized" Design for Instrumentation

SPECIFICATIONS

- Body made of 20 gauge steel
- Front Panel made of .064 aluminum
- Recessed Handle supplied on top
- Perforated Sides for ventilation
- Base supplied with four rubber feet
- Panel fits into ½″ recess
- Two-inch opening in rear for leads
- Finished in two tone Metallic Grey Enamel; Body — dark grey metallic; Front panel — light grey metallic
- Supplied with necessary screws for assembly
- Welded construction

Cat. No.	Depth	Width	Height	Use Chassis	Wt. in Lbs.	Net Price
CC-2000	8″	6⅛″	8″	ACH 426 5 x 7 x 2	4	$8.35
CC-2001	8″	8⅛″	8″	ACH 403 7 x 7 x 2	5	9.10
CC-2002	8″	10⅛″	8″	ACH 404 7 x 9 x 2	6	9.75
CC-2003	12″	8⅛″	9″	ACH 405 7x11x2	7	10.60
CC-2004	18″	11⅛″	11″	ACH 415 10x17x3	10	12.70
CC-2005	18″	14⅛″	12″	ACH 423 13x17x3	11	14.50

UTILITY CASES



ALUMINUM

Constructed of #16 ga. (.051) aluminum with ½″ flanged edges, spot welded corners and two removable flat covers. Natural Aluminum finish or Gray Hammertone.

Natural Aluminum Cat. No.	Net Price	Size H. W. D.	Ship. Wt. Lbs.	Gray Hammertone Cat. No.	Net Price
AC-442	$1.40	4 4 2″	½	PAC-442	$1.55
AC-453	1.54	4 5 3″	¾	PAC-453	1.78
AC-564	1.82	5 6 4″	1	PAC-564	2.25
AC-596	3.00	5 9 6″	1½	PAC-596	3.40
AC-666	2.10	6 6 6″	1½	PAC-666	2.35
AC-1276	4.10	12 7 6″	2¼	PAC-1276	4.55
AC-1597	5.65	15 9 7″	3½	PAC-1597	6.25
AC-695	3.00	6 9 5″	1½	PAC-695	3.40

STEEL

Constructed of #20 ga. sheet steel with ½″ flanged edges, spot welded corners, and two removable flat covers. Finished in Black Wrinkle.

Catalog No.	H.	W.	D.	Ship. Wt. Lbs.	Net Price
C-442	4″	4″	2″	⅞	$1.05
C-453	4″	5″	3″	1¼	1.25
C-564	5″	6″	4″	1¾	1.45
C-596	5″	9″	6″	3	2.25
C-666	6″	6″	6″	2¼	2.00
C-695	6″	9″	5″	3	2.25
C-754	7″	5″	4″	2	1.60
C-8101	10″	10″	8″	6	3.75
C-1276	12″	7″	6″	4½	3.15

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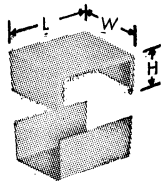
PREMIER CASES



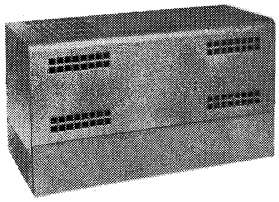
ALUMINUM MINIATURE UTILITY CASES

A two piece case made of #16 Ga. (.051) aluminum. Natural Aluminum Finish or Gray Hammertone.

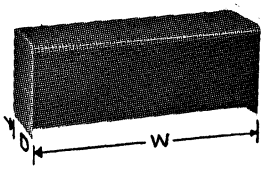
Natural Aluminum Cat. No.	Net Price	L.	W.	H.	Ship Wt. Lbs.	Gray Hammertone Cat. No.	Net Price
AMC-1000*	$ .70	2¾"	2⅛"	1⅝"	¼	PMC-1000*	$ .79
AMC-1001*	.70	3¼"	2⅛"	1⅝"	¼	PMC-1001*	.79
AMC-1002*	.73	4"	2⅛"	1⅝"	¼	PMC-1002*	.83
AMC-1003	.96	4"	2¼"	2¼"	⅜	PMC-1003	1.06
AMC-1004	.99	5"	2¼"	2¼"	½	PMC-1004	1.09
AMC-1005	1.17	5"	4"	3"	½	PMC-1005	1.23
AMC-1006	1.09	5¼"	3"	2⅛"	1	PMC-1006	1.19
AMC-1007	1.39	6"	5"	4"	¾	PMC-1007	1.53
AMC-1008	1.56	7"	5"	3"	1⅛	PMC-1008	1.69
AMC-1009	2.31	8"	6"	3½"	1½	PMC-1009	2.45
AMC-1010	2.88	10"	6"	3½"	1¾	PMC-1010	3.04
AMC-1011	3.24	12"	7"	4"	2	PMC-1011	3.57
AMC-1012	3.84	17"	5"	4"	½	PMC-1012	4.20
AMC-1013	1.17	10"	2"	1⅝"	¼	PMC-1013	1.23
AMC-1014	1.53	12"	2½"	2¼"	¼	PMC-1014	1.65
AMC-1015	.93	4"	2"	2¾"	⅜	PMC-1015	1.20
AMC-1016	.96	4¼"	2¼"	1½"	¼	PMC-1016	1.06

*18 Gauge (.040)

AMPLIFIER FOUNDATIONS



STANDARD TYPE



PERFORATED TYPE COVERS

STANDARD TYPE

TOP COVER has perforations, rounded corners and is 6" high. Finished in Gray Hammertone. Also available in Blue-Gray Wrinkle.

CHASSIS constructed of one piece with corners spot-welded. Finished in Gray Hammertone. Also available in Black Wrinkle.

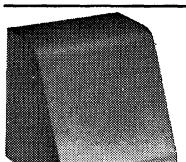
Cat. No.	Chassis Size	Ship. Wt. Lbs.	Net Price
AF-510	5" x 10" x 3"	5	$5.05
AF-615	6" x 14" x 3"	7	5.85
AF-1017	10" x 17" x 3"	11	7.85
AF-1317	13" x 17" x 3"	13	9.43

PERFORATED TYPE COVERS

TOP COVER made of perforated steel and has rounded corners with solid ends. 6" high except PC-57*. Finished in Gray Hammertone. Also available in Blue-Gray Wrinkle.

Cat. No.	W.	D.	Use Chassis No.	Ship. Wt. Lbs.	Net Price
*PC-57	7"	5"	ACH or CH-426	1	$3.40
PC-510	10"	5"	ACH or CH-401	1¾	3.45
PC-615	14"	6"	ACH or CH-402	2⅜	4.00
PC-717	17"	7"	ACH or CH-409	3	4.40
PC-1012	12"	10"	ACH or CH-412	3	4.50
PC-1017	17"	10"	ACH or CH-415	3¼	5.45

* 4" high.

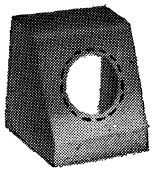


STEEL and ALUMINUM Sloping Panel Cases

ROUND TOP CORNERS WITH SLOPING FRONT

No. 20 gauge Steel—Black Wrinkle Finish. No. 18 gauge (.040) Aluminum—Natural Aluminum finish.

Steel Cat. No.	W.	D.	H.	Ship. Wt. Lbs.	Net Price	Alum. Cat. No.	Net Price
SPC-1200	4 3/16	x4 1/16	x4 5/16	¾	$1.20	ASPC-1200	1.51
SPC-1201	5 3/16	x4 1/16	x4 5/16	1	1.36	ASPC-1201	1.71
SPC-1202	6 3/16	x4 1/16	x4 5/16	1	1.54	ASPC-1202	1.94
SPC-1203	7 3/16	x4 1/16	x4 5/16	1½	1.86	ASPC-1203	2.33



2 in 1 STEEL & ALUMINUM METER CASES

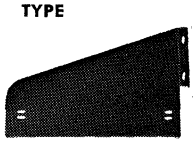
Center Hole for 2" meter (2-3/16" dia.) increases to 3" (2-13/16" dia). meter hole by simply removing a knock-out. Size: 4 3/16 x 4 5/16 x 4 1/16". Supplied with two ½" dia. knockouts. #20 gauge steel—Black Wrinkle Finish, #18 gauge (.040) Aluminum — Natural Aluminum Finish.

	Cat. No.	Sh. Wt.	Net Price
ALUMINUM	ASPC-23	¾	$1.66
STEEL	SPC-23	¾	1.40

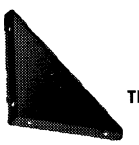
CHASSIS MOUNTING BRACKETS

- Constructed of No. 16 gauge steel.
- Finished in Gray Hammertone
- Sold in pairs only.

STANDARD TYPE

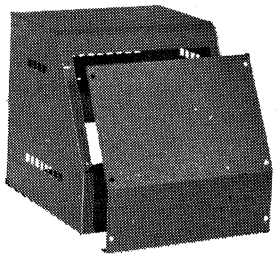


	Cat. No.	H.	D.	Ship. Wt. Lbs.	Net Price
Notched for 3" Chassis	CB-78	6½"	8"	1½	$1.06
	CB-710	6½"	10"	1¾	1.42
	CB-711	6½"	11"	2	1.55
	CB-712	6½"	12"	2⅛	1.66
	CB-713	6½"	13"	2¼	1.80
	CB-717	6½"	17"	3	2.80
Notched for 4" Chassis	CB-810	8½"	10"	2⅜	2.10
	CB-813	8½"	13"	3	2.22



TRIANGULAR TYPE

Cat. No.	Height	Depth	Ship. Wt. Lbs.	Net Price
TCB-55	5"	5"	1	$1.04
TCB-77	7"	7"	1	1.18
TCB-99	9"	9"	1½	1.44

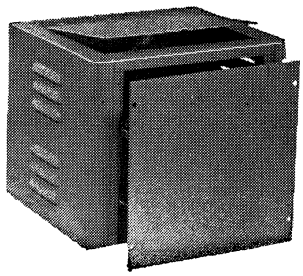


SECTION F

SLOPING FRONT

Cabinet has rounded top corners and a removable front panel. Back of cabinet is perforated and has opening for leads. Constructed of #20 gauge steel. Finished in Gray Hammertone. Also available in Blue-Gray Wrinkle.

Catalog No.	H.	W.	D.	Use Chassis No.	Ship. Wt. Lbs.	Net Price
SFC-500	8 x	8⅛ x	8"	CH-403	6	$4.90
SFC-501	8 x	10⅛ x	8"	CH-404	7	5.45
SFC-502	8 x	14⅛ x	8"	CH-406	8	5.84
SFC-503	9 x	18⅛ x	8"	CH-409	10	8.38
SFC-504	12 x	18⅛ x	12"	CH-415	14	10.70



HINGED TOP ROUNDED CORNER TYPE

Cabinet has front vertical rounded corners and a removable front panel. Back of cabinet is louvred and has opening for leads. Constructed of #20 gauge steel. Finished in Gray Hammertone. Also available in Blue-Gray Wrinkle.

Catalog No.	H.	W.	D.	Panel Size	Use Chassis No.	Ship Wt. Lbs.	Net Price
HTC-200	8x10 3/16	x	8"	8x 8"	CH-403	6	$ 5.75
HTC-201	8x12 3/16	x	8"	8x10"	CH-404	6½	6.00
HTC-202	8x16 3/16	x	8"	8x14"	CH-406	11	7.50
HTC-203	9x17 3/16	x11"		9x15"	CH-413	6½	11.00
HTC-204	12x20 3/16	x12"		12x18"	CH-415	13½	13.00
HTC-205	8x14 3/16	x	8"	8x12"	CH-405	7¼	6.50

PREMIER METAL PRODUCTS CO., INC.

ALL PRICES 10% HIGHER WEST OF MISSISSIPPI

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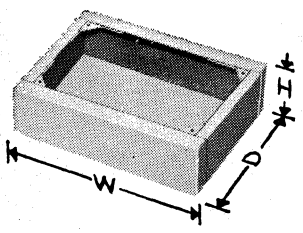
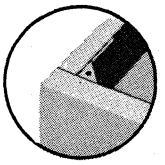
Net

PREMIER STEEL and ALUMINUM CHASSIS

STEEL and ALUMINUM BLANK



EXCLUSIVE PREMIER FEATURE!



View of Chassis Showing Gusset Spot-Welded in Corner.

Chassis are of one piece construction with gussets spot-welded to the bottom flanges for additional strength. Corners have rounded effect and single inside thickness for mounting components. Bottom edges are flanged in on four sides and punched for bottom plates.

Steel chassis are made of No. 20 gauge cold rolled steel, except those marked * which are of No. 16 gauge. Steel chassis are finished in either Black Wrinkle or Cadmium Plated. Cadmium plated furnished if finish is not specified.

Aluminum chassis are made of No. 18 gauge (.040) aluminum, except those marked * which are of No. 14 gauge (.064). Natural Aluminum Finish.

ALUMINUM Cat. No.	Ship. Wt. Lbs.	Net Price	Size D.	W.	H.	STEEL Cat. No.	Ship. Wt. Lbs.	Net Price
ACH-400	½	$1.33	5½"	9½"	1½"	CH-400	1	$1.10
ACH-401	¾	1.52	5"	10"	3"	CH-401	1½	1.55
ACH-402	1	2.57	6"	14"	3"	CH-402	2½	1.80
ACH-403	½	1.33	7"	7"	2"	CH-403	1¼	1.30
ACH-404	½	1.39	7"	9"	2"	CH-404	1½	1.55
ACH-405	¾	1.52	7"	11"	2"	CH-405	1⅞	1.60
ACH-406	¾	1.64	7"	13"	2"	CH-406	2	1.70
ACH-407	1	2.89	7"	15"	3"	CH-407	2¾	2.00
ACH-408	1	2.36	4"	17"	3"	CH-408	2¼	1.80
ACH-409	1½	2.85	7"	17"	3"	CH-409	3⅛	2.20
ACH-410	1⅛	2.89	8"	17"	2"	CH-410	2¾	2.00
ACH-411	1½	3.00	8"	17"	3"	CH-411	5¼	2.20
ACH-412	1¼	2.68	10"	12"	3"	CH-412	2¾	2.15
ACH-413	1¼	3.40	10"	14"	3"	CH-413	3¼	2.25
ACH-414	1¼	3.26	10"	17"	2"	CH-414	3¼	2.30
ACH-415*	1⅞	3.65	10"	17"	3"	CH-415*	6	2.60
ACH-416*	2·	4.20	10"	17"	4"	CH-416*	7½	2.90
ACH-417*	1¾	3.48	11"	17"	2"	CH-417*	5¼	3.15
ACH-418*	2·	4.27	11"	17"	3"	CH-418*	6¼	3.45
ACH-419*	1⅞	3.81	12"	17"	2"	CH-419*	5	2.40
ACH-420*	2⅛	4.51	12"	17"	3"	CH-420*	7	2.90
ACH-421*	2⅞	4.98	12"	17"	4"	CH-421*	8½	3.15
ACH-422*	1⅞	4.02	13"	17"	2"	CH-422*	6	3.45
ACH-423*	2⅛	4.79	13"	17"	3"	CH-423*	7	4.00
ACH-424*	2½	5.48	13"	17"	4"	CH-424*	10	4.55
ACH-425	⅞	1.64	7"	11"	3"	CH-425	2¼	1.70
ACH-426	¼	1.29	5"	7"	2"	CH-426	1	1.25
ACH-427	1¼	2.91	8½"	15"	3"	CH-427	3	2.30
ACH-428	¼	1.50	5"	7"	3"	CH-428	1¼	1.30
ACH-429	¾	1.80	5"	13"	3"	CH-429	2	1.90
ACH-430	1	2.19	8"	12"	3"	CH-430	2½	2.00
ACH-431	¼	1.29	4"	6"	2"	CH-431	1	1.25
ACH-432	¼	1.33	4"	6"	3"	CH-432	1	1.25
ACH-433	⅞	1.83	7"	12"	3"	CH-433	2½	1.75
ACH-434	1	2.70	6"	17"	3"	CH-434	4	2.15
ACH-435*	2½	5.37	10"	23"	3"	CH-435*	10	3.30
ACH-436	¼	1.09	4"	6"	1½"	CH-436	¾	1.25
ACH-437	⅜	1.13	4"	8"	2"	CH-437	1	1.30
ACH-438*	3	10.79	17"	17"	4"	CH-438*	13	6.50
—	—	—	10"	17"	5"	CH-439*	8½	3.50
—	—	—	13"	17"	5"	CH-440*	11	5.15
ACH-441	1	1.68	8"	10"	2½"	CH-441	2½	1.70

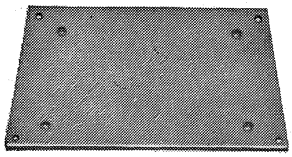
*Made of No. 14 gauge (.064) aluminum.

For Chassis Mounting Brackets See Premier Page 24

*Made of No. 16 gauge steel.

For Steel and Aluminum Panels See Premier Page 26

ALUMINUM AND STEEL BOTTOM PLATES

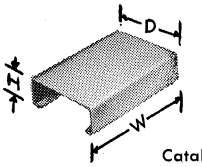


SECTION F

The bottom plates have holes to match the chassis and have 4 pressed dimples. Steel plates made of No. 20 gauge steel, finished in either Black Wrinkle or Cadmium Plated. Aluminum plates made of No. 18 gauge (.040). Natural aluminum finish.

ALUMINUM Cat. No.	Net Price	Size	STEEL Cat. No.	Ship. Wt. Lbs.	Net Price
ABP-400	$0.87	5½" x 9½"	BP-400	1	$0.50
ABP-401	.87	5" x 10"	BP-401	1	.55
ABP-402	1.32	6" x 14"	BP-402	1	.75
ABP-403	.90	7" x 7"	BP-403	1	.55
ABP-404	.96	7" x 9"	BP-404	1	.60
ABP-405	1.06	7" x 11"	BP-405	1	.80
ABP-406	1.32	7" x 13"	BP-406	2	.80
ABP-407	1.32	7" x 15"	BP-407	2	.90
ABP-408	1.32	4" x 17"	BP-408	2	.85
ABP-409	1.36	7" x 17"	BP-409	2	.95
ABP-410	1.53	8" x 17"	BP-410	2	.95
ABP-412	1.50	10" x 12"	BP-412	2	.95
ABP-413	1.37	10" x 14"	BP-413	2	1.00
ABP-414	1.72	10" x 17"	BP-414	2	1.25
ABP-418	2.16	11" x 17"	BP-418	3	1.30
ABP-419	2.28	12" x 17"	BP-419	3	1.35
ABP-422	2.41	13" x 17"	BP-422	3	1.45
ABP-423	.87	5" x 7"	BP-423	1	.50
ABP-424	.99	5" x 13"	BP-424	1	.80
ABP-425	1.32	8" x 12"	BP-425	2	1.15
ABP-426	.87	4" x 6"	BP-426	1	.50
ABP-427	1.14	7" x 12"	BP-427	2	1.00
ABP-428	1.36	6" x 17"	BP-428	2	.95
ABP-429	2.55	10" x 23"	BP-429	2	2.00
ABP-430	.87	4" x 8"	BP-430	1	.50
ABP-431	2.57	17" x 17"	BP-431	4	2.10
ABP-432	2.41	8½" x 15"	BP-432	1½	1.45
ABP-433	1.14	8" x 10"	BP-433	1	1.00

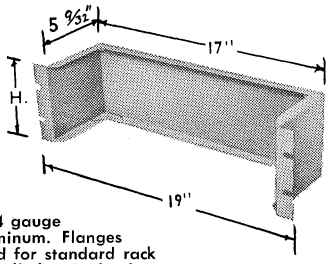
ALUMINUM OPEN END CHASSIS



Made of 18 ga. (.040) Aluminum.

Catalog No.	Depth	Width	Height	Ship. Wt. Lbs.	Net Price
ACH-1350	2⅝"	2¾"	1¼"	¼	$ .40
ACH-1351	1¾"	3⅛"	1"	¼	.44
ACH-1352	3¼"	4½"	2"	¼	.46
ACH-1353	2¾"	4⅛"	1"	¼	.46
ACH-1354	3¾"	4⅛"	1½"	¼	.46
ACH-1355	3"	6⅛"	1¼"	¼	.55
ACH-1356	5¾"	4⅞"	1½"	¼	.58
ACH-1357	4"	3⅛"	1"	½	.46
ACH-1358	4"	4⅛"	1"	½	.50
ACH-1359	4"	5⅛"	1"	½	.54
ACH-1360	4"	6⅛"	1"	½	.58

ALUMINUM VERTICAL PANEL CHASSIS



To FIT 19" STANDARD RACKS

Made of 14 gauge (.064) Aluminum. Flanges are notched for standard rack mounting. All chassis depths are 5-9/32". Gussets are spot welded in each corner for greater strength. Etched finish.

Catalog No.	Height	Ship. Wt. Lbs.	Net Price
ACH-1200	1¾"	¾	$2.75
ACH-1201	3½"	1¾	3.00
ACH-1202	5¼"	1½	3.25
ACH-1203	7"	2	3.60
ACH-1204	8¾"	2¼	4.25
ACH-1205	10½"	2¾	4.75
ACH-1206	12¼"	3	5.25
ACH-1207	14"	3¼	6.00

FOR SIDE HINGED PANELS (SHP SERIES) SEE PREMIER PAGE 26

PREMIER METAL PRODUCTS CO., INC.

ALL PRICES 10% HIGHER WEST OF MISSISSIPPI

Net

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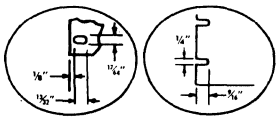
PREMIER STEEL & ALUMINUM RACK PANELS

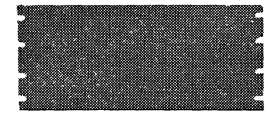
TWIN-TEX REVERSIBLE

19" wide painted panels are finished in REVERSIBLE HAMMERTONE-WRINKLE
One side is Gray Hammertone — the other side is Black Wrinkle.
9½", 24" and 30" WIDE PANELS are finished on both sides in either Gray Hammertone or Black Wrinkle. Specify color when ordering.

MASKED ALUMINUM PANELS
Made of bright natural aluminum covered on both sides with special self-adhesive paper. Drilling or milling can be done on paper in place, affording complete damage protection. Paper is removed simply by peeling.

NOTCHING
All panels are notched according to E.I.A. Standards and will fit any rack having multiple 5/8 - 5/8 - 1/2 or 1¼ - ½ spacings.
All panels have open slots except the 1¾" & 3½" high, which have closed slots for rigidity.





SECTION **F**

BLANK RACK PANELS
9½" - 19" - 24" - 30" WIDTHS

MATERIAL
Steel.....#12 Ga. (.104) Cold Rolled
Aluminum.....⅛" thick — 5005-H36 Alloy
Aluminum.....3/16" thick — 6061-T6 Alloy

***NOTE: All panels are cut 1/32" less than nominal height.**

ALUMINUM
Made of ⅛" Thick Aluminum **9½" Wide**

Cat. No.	Ship. Wt.	*Nominal Height	Net Price
ARP-195	¼	1¾"	$0.95
ARP-395	½	3½"	1.25
ARP-595	¾	5¼"	1.85
ARP-795	1	7"	2.25
ARP-895	1¼	8¾"	2.65
ARP-1095	1½	10½"	3.30
ARP-1295	1¾	12¼"	4.85
ARP-1495	2	14"	4.40

Modifications Available
- Notched to meet MIL-Std-189.
- ⅛" thick Aluminum Panels available in 6061T6 alloy.
- Panels can be finished in same color on both sides.
- Special finishes, including unfinished.
- Special Heights.

19" WIDE

*Nominal Height	Masked Aluminum — ⅛" Thick Cat. No.	Shipping Wt. Lbs.	Net Price	Masked Aluminum — 3 16" Thick Cat. No.	Shipping Wt. Lbs.	Net Price
1¾"	MAP-119	½	$ 1.06	MAP-119-36	¾	$ 2.00
3½"	MAP-319	1	1.45	MAP-319-36	1½	2.70
5¼"	MAP-519	1½	1.95	MAP-519-36	2½	4.15
7"	MAP-719	2	2.35	MAP-719-36	3	5.00
8¾"	MAP-819	2½	2.85	MAP-819-36	3¾	6.00
10½"	MAP-1019	3	3.55	MAP-1019-36	4½	7.00
12¼"	MAP-1219	3½	4.15	MAP-1219-36	5	8.25
14"	MAP-1419	4	4.75	MAP-1419-36	6	10.15
15¾"	MAP-1519	4	5.30	MAP-1519-36	6	1[illegible].25
17½"	MAP-1719	4¾	5.85	MAP-1719-36	7	12.00
19¼"	MAP-1919	5	6.40	MAP-1919-36	7½	12.75
21"	MAP-2119	6	6.95	MAP-2119-36	9	14.50
26¼"	MAP-2619	7½	9.00	MAP-2619-36	11½	18.50
31½"	MAP-3119	8½	10.50	MAP-3119-36	13½	21.00
35"	MAP-3519	10	12.50	MAP-3519-36	15	26.00

Painted Aluminum — ⅛" Thick Cat. No.	Shipping Wt. Lbs.	Net Price	Painted Aluminum — 3/16" Thick Cat. No.	Shipping Wt. Lbs.	Net Price	Painted Steel — No. 12 Gauge Cat. No.	Shipping Wt. Lbs.	Net Price
ARP-119	½	$ 1.12	ARP-119-36	¾	$ 1.80	RP-119	1	$ .85
ARP-319	1	1.50	ARP-319-36	1½	2.35	RP-319	2	1.00
ARP-519	1½	2.05	ARP-519-36	2½	3.30	RP-519	3	1.20
ARP-719	2	2.46	ARP-719-36	3	4.00	RP-719	4	1.40
ARP-819	2½	2.95	ARP-819-36	3¾	4.75	RP-819	5¼	1.70
ARP-1019	3	3.75	ARP-1019-36	4½	6.00	RP-1019	6¼	2.05
ARP-1219	3½	4.15	ARP-1219-36	5	6.95	RP-1219	7¼	2.45
ARP-1419	4	5.00	ARP-1419-36	6	8.00	RP-1419	8¼	2.82
ARP-1519	4	5.50	ARP-1519-36	6	8.90	RP-1519	9	3.16
ARP-1719	4¾	6.10	ARP-1719-36	7	9.80	RP-1719	10½	3.50
ARP-1919	5	6.70	ARP-1919-36	7½	10.75	RP-1919	12	3.85
ARP-2119	6	7.50	ARP-2119-36	9	11.65	RP-2119	12½	4.25
ARP-2619	7½	10.20	ARP-2619-36	11½	15.00	RP-2619	15½	6.00
ARP-3119	8½	13.70	ARP-3119-36	13½	17.60	RP-3119	19	7.70
ARP-3519	10	14.85	ARP-3519-36	15	20.50	RP-3519	22	9.00

24" WIDE

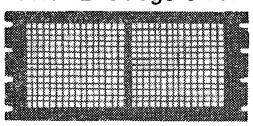
Aluminum — 1/8" Thick Cat. No.	Ship. Wt. Lbs.	Net Price	*Nominal Height	Steel — No. 12 Gauge Cat. No.	Ship. Wt. Lbs.	Net Price
ARP-324	1¼	$2.30	3½"	RP-324	2¼	$1.50
ARP-524	2	3.40	5¼"	RP-524	3½	1.85
ARP-724	2½	4.10	7"	RP-724	4½	2.10
ARP-824	3	4.90	8¾"	RP-824	6	2.60
ARP-1024	3½	6.15	10½"	RP-1024	7	3.10
ARP-1224	4	7.20	12¼"	RP-1224	8	3.66
ARP-1424	4½	8.25	14"	RP-1424	9	4.20
ARP-1524	5	9.15	15¾"	RP-1524	10	4.75
ARP-1724	5½	10.10	17½"	RP-1724	11	5.25
ARP-1924	6	11.05	19¼"	RP-1924	12	5.80
ARP-2124	6½	12.05	21"	RP-2124	13	6.40

30" WIDE

Aluminum — 1/8" Thick Cat. No.	Ship. Wt. Lbs.	Net Price	*Nominal Height	Steel — No. 12 Gauge Cat. No.	Ship. Wt. Lbs.	Net Price
ARP-330	1½	$3.05	3½"	RP-330	3	$1.95
ARP-530	2¼	4.55	5¼"	RP-530	4½	2.45
ARP-730	3	5.50	7"	RP-730	6	2.80
ARP-830	3¾	6.50	8¾"	RP-830	8	3.40
ARP-1030	4½	8.20	10½"	RP-1030	9¼	3.45
ARP-1230	5	9.55	12¼"	RP-1230	10¼	4.85
ARP-1430	6	10.95	14"	RP-1430	12	5.60
ARP-1530	6½	12.25	15¾"	RP-1530	13½	6.35
ARP-1730	7	13.50	17½"	RP-1730	15	6.95
ARP-1930	7½	14.75	19¼"	RP-1930	18	7.66
ARP-2130	9	16.05	21"	RP-2130	19	8.50

PANELS — 19" WIDE
Made of No. 12 Gauge Steel

FINISHED IN GRAY HAMMERTONE
ALSO AVAILABLE IN BLACK WRINKLE.

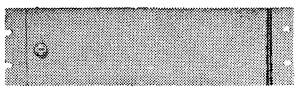


3/8" Sq. Perforations

GRILLE PANELS

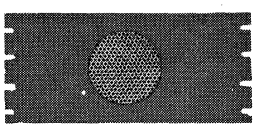
Cat. No.	Grill Size	*Nominal Height	Ship. Wt. Lbs.	Net Price
GRP-601	3⅞"x13⅜"	5¼"	2	$3.40
GRP-602	3⅞"x13⅜"	7"	2	3.64
GRP-603	5⅞"x13⅜"	8¾"	2½	4.40
GRP-604	*3⅞"x13⅜"	8¾"	2½	4.05
GRP-605	7⅞"x13⅜"	10½"	2½	4.82
GRP-606	*5⅞"x13⅜"	10½"	2½	4.40
GRP-607	*7⅞"x13⅜"	12¼"	3	5.00

* Allows 3½" space at bottom for chassis mounting.



SIDE HINGED DOOR PANELS
Can be used for left or right hand opening. Supplied with a quick turn fastener. Full height piano hinge welded to panel.

Cat. No.	Height	Net Price
SHP-319	3½"	$3.30
SHP-519	5¼"	3.44
SHP-719	7"	3.76
SHP-819	8¾"	4.04
SHP-1019	10½"	4.36
SHP-1219	12¼"	4.66
SHP-1419	14"	5.05
SHP-2119	21"	8.00



SPEAKER PANELS
Perforated metal is spot-welded behind the opening.

Cat. No.	Height	Spkr. Size	Hole Size	Ship. Wt. Lbs.	Net Price
SRP-819	8¾"	6"	4⅝"	6	$3.20
SRP-1019	10½"	8"	6½"	8	4.04
SRP-1219	12¼"	10"	8½"	9	4.82
SRP-1419	14"	12"	11"	10	5.54

PREMIER METAL PRODUCTS CO., INC.

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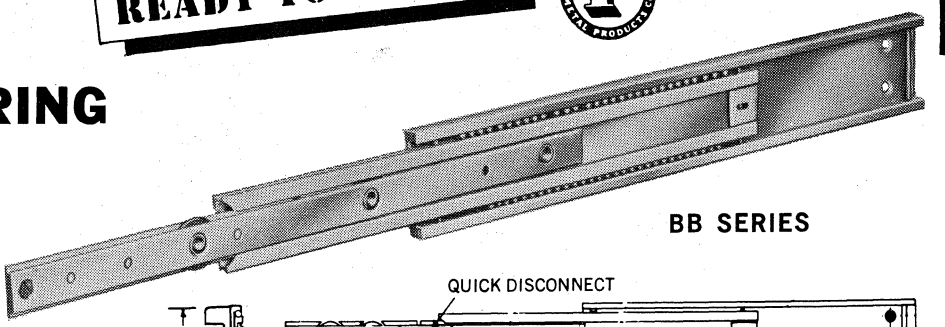
PREMIER CHASSIS SLIDES

PREM-Ö-RAK®

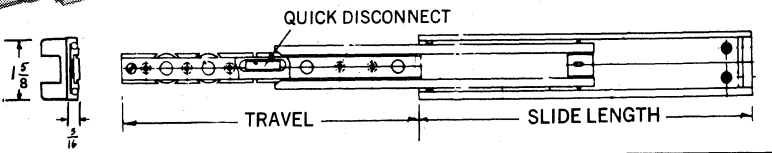
READY-TO-MOUNT

SECTION G

100 lb. BALL BEARING SLIDES



BB SERIES



- EXCLUSIVE "QUICK DISCONNECT" allows for mediate removal of chassis.
- Carries load of 100 lbs. when fully extended.
- Glides smoothly on stainless steel ball bearings.
- 5/16" horizontal side space adjustable ± 1/16.
- 1 5/8" vertical side space.
- 3 telescoping anodized aluminum members.
- Allows full accessibility for instantaneous servicing.
- Slide mounts standard 17" wide chassis.
- Slide locks in open position.
- Supplied with all necessary hardware for immediate installation.

Catalog No.	Load Rating Lbs.	Slide Length	Travel Length	Will Fit Racks	Net Price per Pair
BB-100-14	100	14"	13"	15¼" deep POR (DCR, SDR, DRK, FXR)* RMX, FDX	$63.25
BB-100-16	100	16	15	18" deep PRXA, POR (R, DCR, SDR)*	63.25
BB-100-20	100	20	19	FS, 22" deep CPF & FA, MSF, RMX, FDX	68.50
BB-100-22	100	22	21	24" deep PRXA	69.75
BB-100-24	100	24	23	25½" deep FA & FS, MSF, CPF	71.50

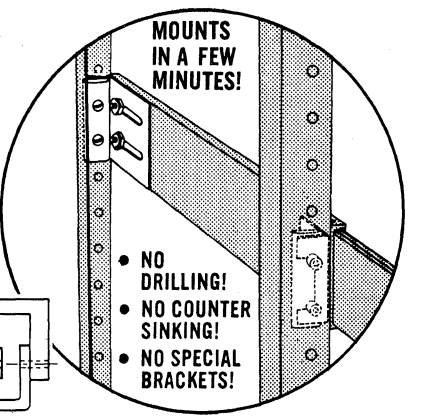
*Slide Adapter Kit (Cat. No. SAK-35) required for rear mounting on all models in parenthesis (See page 28).

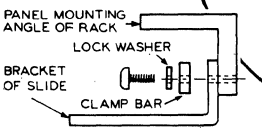
RAPID INSTALLATION

For BB, HBB, SB and SNR SERIES SLIDES

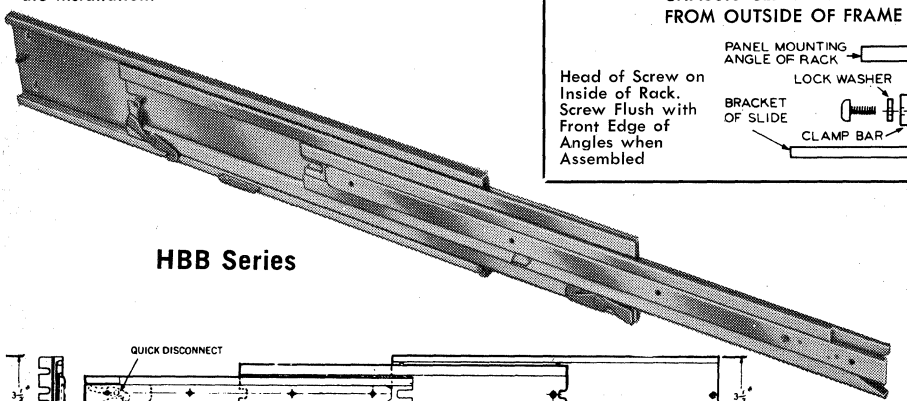
★ MOUNTS TO TAPPED HOLES OF FRONT AND REAR PANEL MOUNTING ANGLES

★ SIMPLE ADJUSTABILITY OF CHASSIS SLIDE ASSEMBLY FROM OUTSIDE OF FRAME

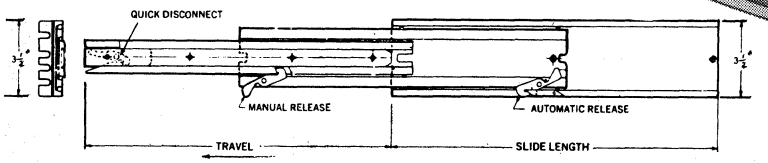




Head of Screw on Inside of Rack. Screw Flush with Front Edge of Angles when Assembled



HBB Series



200 lb. HEAVY BALL BEARING SLIDES

- EXCLUSIVE "QUICK DISCONNECT" allows for immediate removal of chassis.
- Chassis may be removed from side by depressing quick release lever.
- Slide locks in open position.
- ½" horizontal side space adjustable ± 3/32.
- Carries loads of 200 lbs. when fully extended.
- 3½" vertical side space.
- 4 telescoping anodized aluminum members.
- Allows full accessibility for instantaneous servicing.
- Glides smoothly on stainless steel ball bearings.
- Supplied with all necessary hardware for immediate installation.

Catalog No.	Load Rating Lbs.	Slide Length	Travel Length	Will Fit Racks	Net Price per Pair
HBB-200-14	200	14"	13"	15¼" deep POR, RMX, FDX (DCR, SDR, DRK, FXR)*	$81.50
HBB-200-16	200	16	15	18" deep PRXA, POR, (R, DCR, SDR)*	81.50
HBB-200-20	200	20	19	FS, 22" deep CPF & FA, MSF RMX, FDX	88.75
HBB-200-22	200	22	21	24" deep PRXA	92.00
HBB-200-24	200	24	23	25½" deep FA & FS MSF, CPF	94.00

*Slide Adapter Kit (Cat. No. SAK-35) required for rear mounting on all models in parenthesis (See page 28).

SEE PAGE 29 FOR PREMIER CABLE RETRACTORS

PREMIER METAL PRODUCTS CO., INC.

ALL PRICES 10% HIGHER WEST OF MISSISSIPPI

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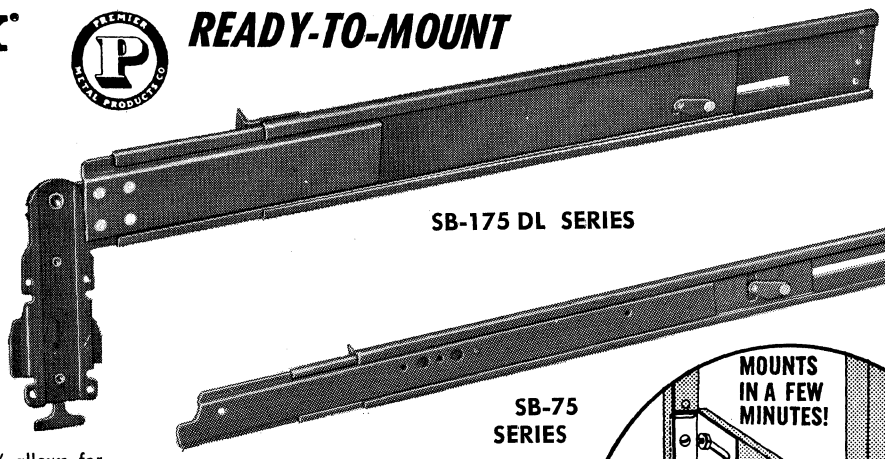
PREMIER CHASSIS SLIDES

PREM-Ō-RAK®

SOLID BEARING SLIDES

READY-TO-MOUNT

SECTION G



SB-175 DL SERIES

SB-75 SERIES

CARRY 75 lb. and 175 lb. LOADS
- **TILT and NON-TILT MODELS.**

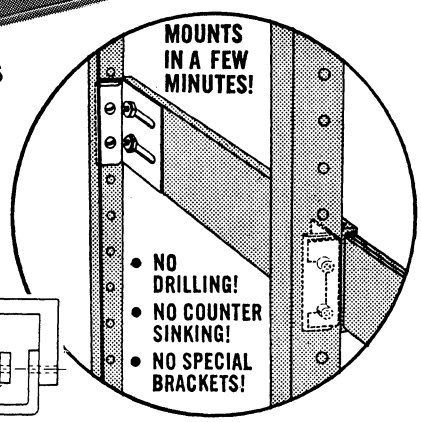
- EXCLUSIVE "QUICK DISCONNECT" allows for immediate removal of chassis.
- SB-75 Series carry 75 lbs. fully extended. SB-175 Series carry 175 lbs. fully extended.
- Made of high strength cold rolled steel.
- Withstands 100 hours salt spray.
- Slide mounts standard 17" wide chassis.
- 3 telescoping members allow full accessibility for instant servicing.
- SB-75 Series—.386 horizontal side space adjustable ± 1/32.

  SB-175 Series—.398 horizontal side space adjustable ± 1/32.
- Finish: Electro zinc plated, chromate treated and completely coated with Molybedenum Disulphide lubricant.
- SB-175-DL Series have detent locks which allow chassis to be tilted either up or down and locked at 90° for easy servicing.

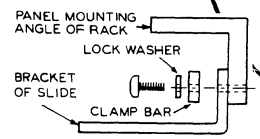
RAPID INSTALLATION For BB, HBB, SB and SNR SERIES SLIDES

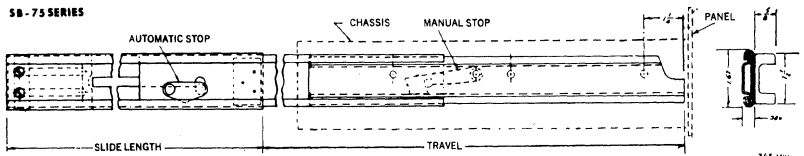
★ MOUNTS TO TAPPED HOLES OF FRONT AND REAR PANEL MOUNTING ANGLES

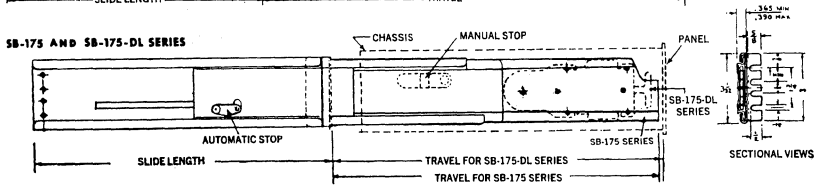
★ SIMPLE ADJUSTABILITY OF CHASSIS SLIDE ASSEMBLY FROM OUTSIDE FRAME



Head of Screw on Inside of Rack. Screw Flush with Front Edge of Angle when Assembled







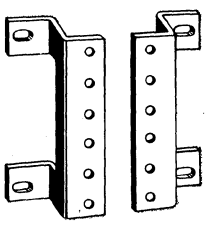
Catalog No.	Load Rating lbs.	Slide Length	Travel Length	Will Fit Racks	Net Price per-Pair
SB-75-14	75	14"	14½"	15¼" deep POR (DCR, SDR, DRK, FXR)*	$17.50
SB-75-16	75	16	14½	RMX, FDX	
				18" deep PRXA, POR (R, DCR, SDR)*	17.50
SB-75-20	75	20	18½	FS, 22" deep CPF & FA, MSF, RMX, FDX	17.50
SB-75-22	75	22	22½	24" deep PRXA	18.75
SB-75-24	75	24	22½	25½" deep FA & FS, MSF, CPF	19.75
SB-175-14	175	14"	14½"	15¼" deep POR (DCR, SDR, DRK, FXR)*	$37.25
SB-175-16	175	16	18½	RMX, FDX	
				18" deep PRXA, POR (R, DCR, SDR)*	37.25
SB-175-20	175	20	22½	FS, 22" deep CPF & FA, MSF, RMX, FDX	37.25
SB-175-22	175	22	24	24" deep PRXA	39.50
SB-175-24	175	24	26½	25½" deep FA & FS, MSF, CPF	40.25
SB-75-DL-14	75	14"	15"	15¼" deep POR (DCR, SDR, DRK, FXR)*	$40.00
SB-75-DL-16	75	16	17	RMX, FDX	
				18" deep PRXA, POR (R, DCR, SDR)*	40.00
SB-75-DL-20	75	20	21	FS, 22" deep CPF & FA, MSF, RMX, FDX	40.00
SB-75-DL-22	75	22	23	24" deep PRXA	42.50
SB-75-DL-24	75	24	25	25½" deep FA & FS, MSF, CPF	44.00
SB-175-DL-14	175	14"	14½"	15¼" deep POR (DCR, SDR, DRK, FXR)*	$59.00
SB-175-DL-16	175	16	18¼	RMX, FDX	
				18" deep PRXA, POR (R, DCR, SDR)*	59.00
SB-175-DL-20	175	20	22¼	FS, 22" deep CPF & FA, MSF, RMX, FDX	59.00
SB-175-DL-22	175	22	26¼	24" deep PRXA	61.50
SB-175-DL-24	175	24	26¼	25½" deep FA & FS, MSF, CPF	63.50

*Slide Adapter Kit (Cat. No. SAK-35) required for rear mounting on all models in parenthesis.

SLIDE ADAPTER KIT
For BB, HBB, SB and SNR SERIES

Required for rear mounting on DR, R, DCR, DRK, SDR and FXR models.
- Mounts to inside rear flange by drilling 4 holes.
- Made of No. 12 gauge steel and tapped 10-32 on E.I.A. spacings (5/8-5/8-1/2).
- Finished in Gray Hammertone.

Kit includes 2 brackets, four 10-32 screws and keps.



Cat. No. SAK-35
$3.63 Net Price

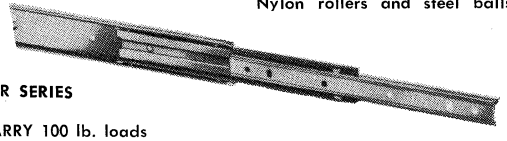
SLIDE TILTING KIT

For tilting one pair of slides. Consists of 4 special screws, lock washers and nuts.

STK-75 (For SB-75 series) ..... **$3.00** Net Price
STK-175 (For SB-175 series) ..... **3.50** Net Price

HEAVY DUTY CHASSIS SLIDES

Glide smoothly on large, quiet Nylon rollers and steel balls



SNR SERIES

CARRY 100 lb. loads

- Exclusive "QUICK DISCONNECT allows for immediate removal of chassis.
- Extends fully, yet keeps chassis perfectly straight.
- Supplied with all necessary hardware.
- Positive mechanical stop prevents possibility of chassis extending too far.
- 1/2" horizontal side spaces.

Cat. No.	Slide Length	Slide Travel	Will fit Racks	Net Price
SNR-100-14	14"	14"	15¼" deep POR (DCR, SDR, DRK, FXR)* RMX, FDX	$11.27
SNR-100-16	16"	16"	18" deep PRXA, POR (R, DCR, SDR)*	11.45
SNR-100-20	20"	20"	FS, 22" deep CPF & FA, MSF, RMX, FDX	11.45
SNR-100-22	22"	22"	24" deep PRXA	12.03
SNR-100-24	24"	24"	25½" deep FA & FS, MSF, CPF	12.33

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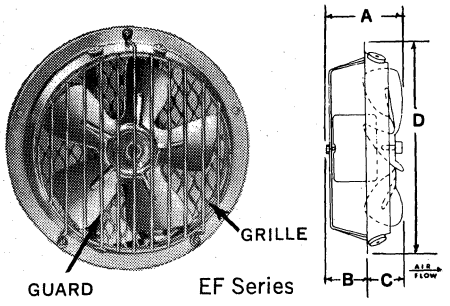
PREMIER FANS

PREM-O-KOOL

SECTION G



EXHAUST and INTAKE FANS

PREM-O-KOOL fans are available for exhausting air from cabinets (EF Series) and for drawing air into cabinets (IF Series).

- Motors are 115 volts 50/60 cycle single phase AC.
- Minimum space required. • Supplied with 18" lead.
- Fan and motor assembly shock mounted for minimum noise and vibration.
- Permanently lubricated ball bearing, shaded pole motors with low temperature rise.
- Easily interchangeable accessories for flexibility of mounting in cabinets.
- Cut-out and mounting holes for fans can be provided on any Premier rack or cabinet at slight additional cost.

Patent No. 3,019,965.
Other Patents Pending.

EXHAUST FANS

Cat. No.	CFM	Motor Watts	RPM	Fan Blade Dia.	A	B	C	D	Hole Dia. Required	Net Price
EF-165	165	20	1650	6½"	2⅞"	1⅝"	1¼"	8½"	7⅜"	$50.00
EF-220	220	25	1550	6½	3¼	1⅝	1⅝	8½	7⅜	45.00
EF-300	300	65	3000	6½	4⅛	2⅝	1½	8½	7⅜	45.00
EF-400	400	46	1460	8	3⅝	1⅞	1¾	10½	9¼	54.00
EF-550	550	90	1600	9	4⅜	2⅛	2¼	11½	10⅝	57.00
EF-750	750	105	1560	10	4⅜	2⅛	2¼	12½	11⅝	60.00

ACCESSORIES FOR EXHAUST FANS

GUARDS

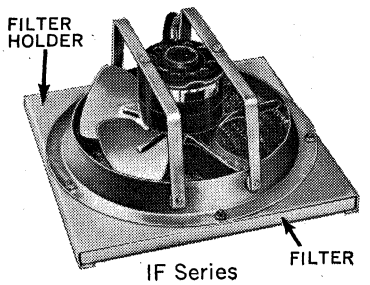
Cat. No.	Used with Fan	Dia.	Depth	Net Price
GU-6	EF165, 220, 300	6¾"	1⅞"	$2.40
GU-8	EF400	8¼	2⅜	2.40
GU-9	EF550	9¼	2⅜	3.00
GU-10	EF750	10¼	2⅜	3.60

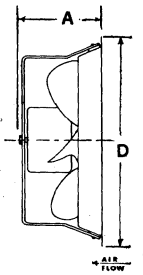
GRILLES

Cat. No.	Used with Fan	Dia.	Net Price
GR-6	EF165,220,300	8½"	$2.40
GR-8	EF400	10½	2.40
GR-9	EF550	11½"	3.00
GR-10	EF750	12½	3.60

SLEEVES

Cat. No.	Used with Fan	Dia.	Depth	Net Price
SL-6	EF165,220,300	8½"	1¾"	$3.60
SL-8	EF400	10½	2	3.60
SL-9	EF550	11½	2⅜	4.20
SL-10	EF750	12½	2⅜'	4.80

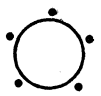




INTAKE FANS

Cat. No.	CFM	Motor Watts	RPM	Fan Blade Dia.	Dimensions A	Dimensions D	Hole Diam. Required	Net Price
IF-160	160	20	1650	6½"	2⅞"	8½"	7⅜"	$50.00
IF-180	180	25	1550	6½	3¼	8½	7⅜	45.00
IF-300	300	65	3000	6½	4⅛	8½	7⅜	45.00
IF-360	360	46	1460	8	3¾	10½	9¼	54.00
IF-540	540	90	1600	9	4⅜	11½	10⅝	57.00
IF-740	740	105	1560	10	4⅜	12½	11⅝	60.00

PREMIER CABINETS AND RACKS



FA, PRXA, FS, RMX, FDX, R, DR, DCR, DRK, SDR, POR and FXR models may be supplied with one round and 5 mounting holes to accommodate Exhaust and Intake Fans, at additional cost.

ACCESSORIES FOR INTAKE FANS

FILTERS — Permanent washable type, ½" thick

Cat. No.	Used with Fan	Size	Net Price
FL-6	IF 160, 180, 300	8⅜" Sq.	$2.40
FL-8	IF 360	10⅜ Sq.	2.40
FL-9	IF 540	11⅜ Sq.	3.00
FL-10	IF 740	12⅜ Sq.	3.00

FILTER HOLDERS

Cat. No.	Used with Fan	Size	Depth	Net Price
FH-6	IF 160, 180, 300	8⅜" Sq.	⅝"	$4.80
FH-8	IF 360	10⅜ Sq.	⅝	4.80
FH-9	IF 540	11⅜ Sq.	⅝	6.00
FH-10	IF 740	12⅜ Sq.	⅝	7.20

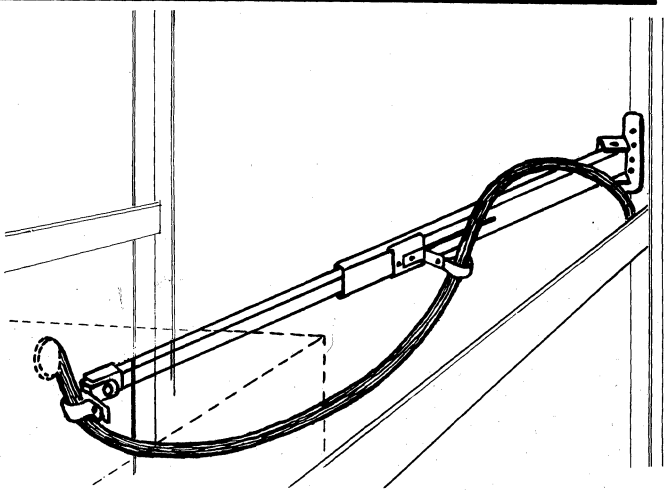
PREMIER BALL BEARING ACTION CABLE RETRACTOR

FOR CONTROL OF POWER SUPPLY CABLES

- Smooth gliding, stress-free motion
- Heavy duty construction
- Quick, simple installation
- Spring tension keeps cable "jam-proof"

The PREMIER CABLE RETRACTOR is designed for easy and fast installation in both new and existing equipment. It is attached to rear of cabinet and controls power supply cables most efficiently. As the chassis is extended, the retractor pivots and the inner ball bearing actuated member glides out as necessary.

CATALOG NO. PCR-3-16 **Net Price $15.85**



PREMIER METAL PRODUCTS CO., INC.

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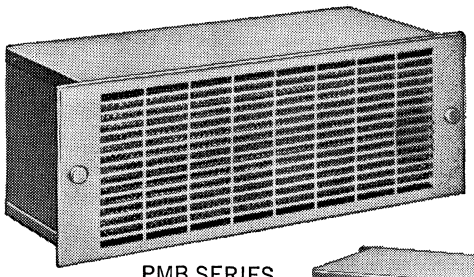
PREMIER PANEL MOUNTED BLOWERS

SECTION G

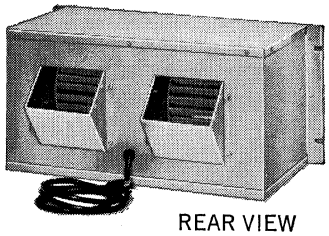
PREM-O-KOOL

MAXIMUM COOLING with MINIMUM SPACE!

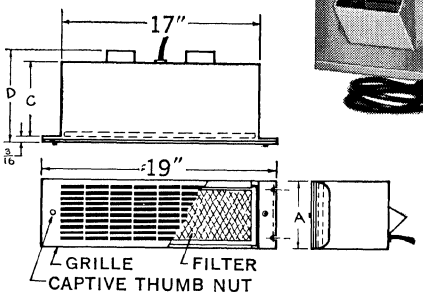
TO FIT STANDARD 19" WIDE PANEL SPACE



PMB SERIES



REAR VIEW



Units available to fit Standard 24" wide panel space. Prices upon request.

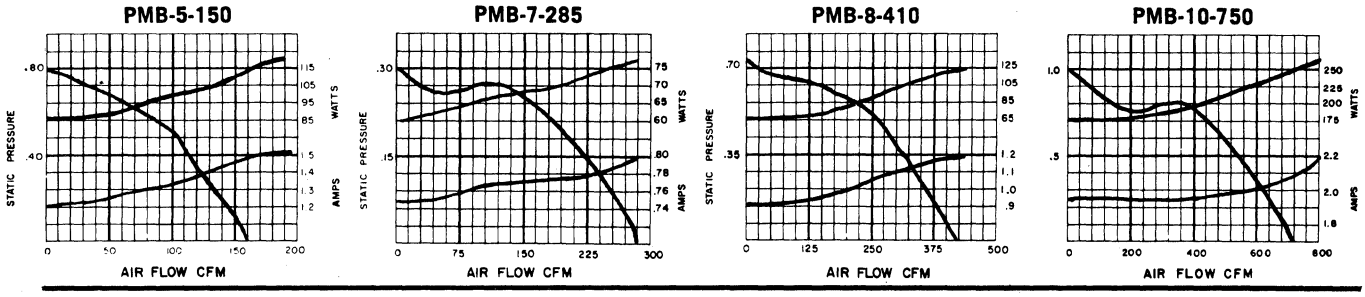
- Permanently lubricated motors with lubricant temperature range from −29°C to +148°C.
- Permanent type washable filter—easily removable from front.
- Low noise level with minimum of vibration.
- Standard E.I.A. notching.
- Grille supplied with 2 captive thumb nuts.
- Units furnished with 3'6" lead with molded male plug.
- Performance data prepared by impartial, independent testing laboratory.
- Motors are 115 Volt 50/60 cycle, single phase AC.
- Housing and grille made of cold rolled steel and finished in gray hammertone.

GRILLE FINISHED TO MATCH COLOR OF PREMIER CABINETS OR FRAMES AT NO ADDITIONAL COST.

CATALOG NO.	PMB-5-150	PMB-7-285	PMB-8-410*	PMB-10-750
CFM at 0" S.P.	150	285	410	750
PANEL HEIGHT (A)	5¼"	7"	8¾"	10½"
FILTER	16⅝"x4⅞" x½"	16⅝"x6¾" x½"	16⅝"x8⅜" x½"	16⅝"x10⅛" x½"
DEPTH OF ENCLOSURE ONLY (C)	6¼"	8½"	9¾"	11½"
OVERALL DEPTH including outlets and front grille (D)	7"	10¼"	11¼"	13⅜"
MOTOR				
RPM	3000	1500	1500	1500
WATTS	120	78	125	255
VOLTS	115	115	115	115
CYCLES	50/60	50/60	50/60	50/60
AMPS	1.5	1.1	1.3	2.2
TYPE	Ball Bearing shaded pole	Ball bearing permanent split capacitor	Ball bearing permanent split capacitor	Ball bearing permanent split capacitor
SHIPPING WT. LBS.	14	24	26	35
NET PRICE	$125.00	$150.00	$175.00	$220.00

*Supplied with grille on rear outlets.

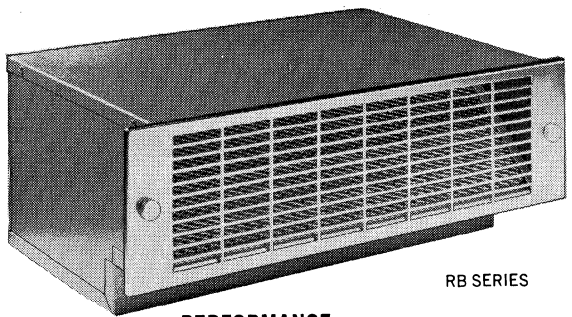
PERFORMANCE



RECESSED TYPE

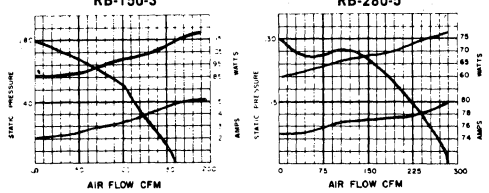
FOR INSTALLATION IN THE OPEN BASE AREA OF ELECTRONIC RACKS

For maximum air delivery with minimum panel height. Built to the same general specifications as Panel Mounted Blowers (PMB Series).



RB SERIES

PERFORMANCE



Cat. No.	RB-150-3	RB-280-5	RB-300-3
CFM at 0" S.P.	150	280	300
PANEL HEIGHT	3½"	5¼"	3½"
TYPE OF DISCHARGE	Diagonal Rear	Diagonal Rear	Diagonal Rear
OVERALL DEPTH including outlets and front grille	9 7/16"	12 7/16"	8½"
MOTOR			
RPM	3000	1500	3000
WATTS	120	78	90
VOLTS	115	115	115
CYCLES	50/60	50/60	50/60
AMPS	1.5	.8	1.0
TYPE	Shaded pole, permanent lubrication, ball bearing	Permanent split capacitor, permanent lubrication, ball bearing	Ball bearing permanent split capacitor
SHIP. WT. Lbs.	15	24	15
NET PRICE	$125.00	$140.00	$156.00

PREMIER METAL PRODUCTS CO., INC.

ALL PRICES 10% HIGHER WEST OF MISSISSIPPI

© U.C.P., Inc.

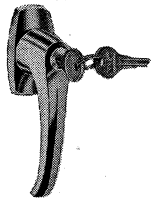
Net

PREMIER HARDWARE

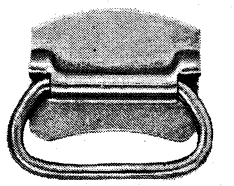
SECTION G

HW-1
NON-LOCKING HANDLE
Chrome plated
Net Price each
$2.64

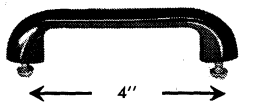
HW-3
LOCKING HANDLE
with 2 keys—
Chrome plated
Net Price each
$5.61



HW-5
DROP HANDLE
Finished in Gray Hammertone. Also available in Black Wrinkle or Brown Hammertone.
Net Price each
.83



HW-6
CYLINDER LOCK
with 2 keys—
Nickel plated
Net Price each
$4.62

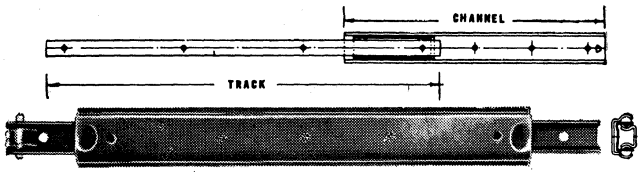
HW-7


BLACK NYLON HANDLE
with 2 screws
Net Price each
.56

HW-13

TRUSS HEAD MACHINE SCREWS 10/32 x ¾"
Nickel plated
Net Price
$1.65 per 100*
*Minimum Quantity

ECONOMY SLIDES



"A" SERIES
Patent No. 2,542,247

- May be mounted on side or underneath.
- Ball bearing spacer and patented silencer spring eliminates slide noise and vibration.
- All members made of 16 gauge cold rolled steel.
- Black oxidized finish.

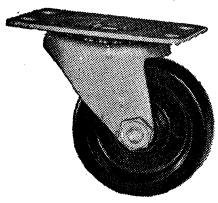
Catalog No.	Slide Travel	Channel Length	Track Length	Load Cap.	Net Price Per Pair
A-50-13	9"	11"	13"	50	$2.80
A-40-15	11	11	15	40	2.90
A-30-165	12½	11	16½	30	3.00
A-30-185	14½	11	18½	30	3.20

"330" SERIES

- Side mounted.
- Each slide rolls on 2 concealed and dust-free nylon wheels.
- No metal-to-metal contact—noiseless operation.
- Drawer is tilted up for quick removal.
- Made of 16 gauge cold rolled steel and zinc plated.

Catalog No.	Slide Travel	Track Length	Channel Length	Load Cap.	Net Price Per Pair
330-62-12	7⅞"	12"	12"	62	$3.25
330-58-14	9⅞	14	14	58	3.40
330-54-16	11⅞	16	16	54	3.50
330-50-18	13⅞	18	18	50	3.70
330-46-20	15⅞	20	20	46	3.80

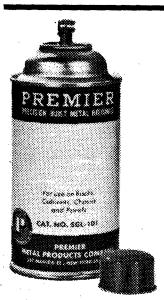
2" - 3" - 4" DIA. CASTERS



Made of non-marking composition wheel with Ball Bearing Swivel Plate. Packed one set of 4 in box with screws for assembly.

Cat. No.	Kind of Wheel	Wheel Size	Overall Height	Cap. per caster—lbs.	Net Price Set of 4
CA-4	Plaskite	2" dia. x 1¾6"	2 7/16"	80	$4.68
CA-5	Rockite	3" dia. x 1¼"	3 13/16"	225	11.00
CA-6	Soft Rubber	Double 2" dia. x 1⅝"	2 13/16"	125	13.20
CA-7*	Rockite	3" dia. x 1¼"	3 13/16"	225	24.20
CA-8**	Rockite	4" dia. x 1⅝"	5¼"	450	48.40

*Foot operated friction brake for positive locking wheel.
**With roller bearing wheel.



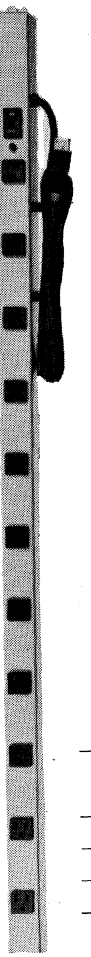
SPRAY CAN LACQUER Available in 2 Colors

Cat. No.	To Match
GHL-102	Premier Gray Hammertone
BHL-103	Premier Brown Hammertone

NET PRICE: $1.95 EACH 12 oz. CAN

HW-2
ROUND CHROME PLATED HANDLE
Net Price each
.56

HW-8
QUICK TURN FASTENER
Nickel Plated
Net Price Each
.92



HEAVY DUTY OUTLET BOXES

FOR INTERNAL RACK MOUNTING

- Completely wired. Ready for use
- Supplied with 6′ Neoprene cord set with molded plug
- Rated at 15 Amperes
- 130 Volts continuous duty
- "U" ground outlets—soldered connections
- Mounting centers 6"
- Circuit breaker
- 1½" wide x 1⅛" deep
- Mounts to crosspiece on PRXA, FA, FDX & RMX frames
- Steel case finished in Gray Hammertone

Model No.	Length	No. Of Outlets	Rack Panel Space	Net Price (Each)
OB-161	56¾"	9	61¼"†	$25.30
OB-170	65½"	10	70"†	30.36
OB-177	72½"	11	77"†	31.90

PREMIER METAL PRODUCTS CO., INC.

ALL PRICES 10% HIGHER WEST OF MISSISSIPPI

Net

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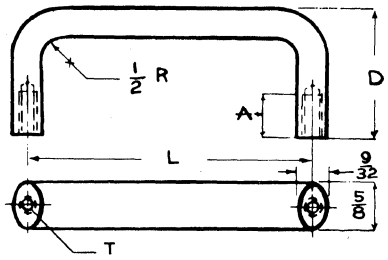
PREMIER HANDLES for INSTRUMENTS and EQUIPMENT



5/8" OVAL HW-16 SERIES

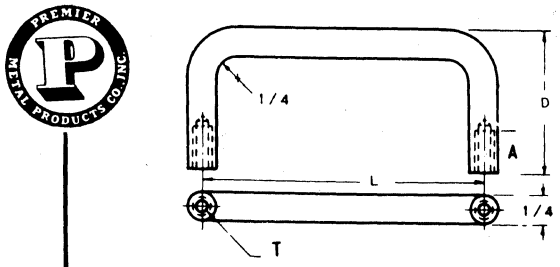
MATERIAL: Aluminum per QQ-A-325-A.
FINISH: Black Anodize per MIL-A-8625 Type II.

Cat. No.	L	D	A	T	Net Price
HW-16A1	3	1 9/32	9/32	10-24	$1.39
HW-16A4	4 9/16	1 1/2	1/2	10-24	1.41
HW-16A6	6 7/16	1 3/4	1/2	10-24	2.02

5/8" OVAL HW-17 SERIES

MATERIAL: Brass per QQ-B-626 Comp 22½ Hard.
FINISH: Nickel Plate and Polish per MIL-QQ-N-290 Type VI.

Cat. No.	L	D	A	T	Net Price
HW-17B1	3	1 9/32	9/32	10-32	$1.94
HW-17B4	4 9/16	1 1/2	1/2	10-32	2.19
HW-17B6	6 7/16	1 3/4	1/2	10-32	2.57



1/4" ROUND HW-19 SERIES

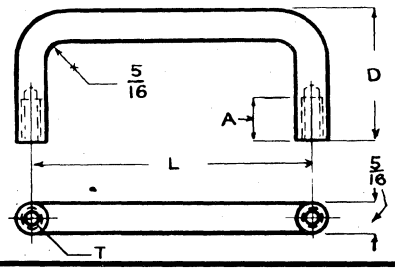
MATERIAL: Brass per QQ-B-626 Comp 22½ Hard.
FINISH: Nickel Plate and Polish per MIL-QQ-N-290 Type VI.

Cat. No.	L	D	A	T	Net Price
HW-19B1	2	1½	9/16	8-32	$1.38
HW-19B2	3	1½	9/16	8-32	1.44
HW-19B3	4	1½	9/16	8-32	1.54
HW-19B4	6	1½	9/16	8-32	1.64

1/4" ROUND HW-20 SERIES

MATERIAL: Aluminum per QQ-A-325A.
FINISH: Black Anodize per MIL-A-8625 Type II.

Cat. No.	L	D	A	T	Net Price
HW-20A1	2	1½	9/16	8-32	$ .84
HW-20A2	3	1½	9/16	8-32	.90
HW-20A3	4	1½	9/16	8-32	.98
HW-20A4	6	1½	9/16	8-32	1.16



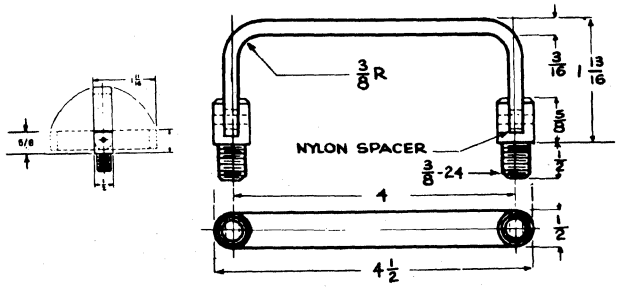
5/16" ROUND HW-18 SERIES

MATERIAL: Brass per QQ-B-626 Comp 22½ Hard.

FINISH: Nickel Plate and Polish per MIL-QQ-N-290 Type VI.

Cat. No.	L	D	A	T	Net Price
HW-18B3	3	1 5/16	7/16	8-32	$1.19
HW-18B13	4 9/16	1½	9/16	10-32	1.31
HW-18B14	6	1½	9/16	10-32	1.60
HW-18B16	6 7/16	1¾	9/16	10-32	1.70

DROP HANDLES — HW-21 and HW-22 SERIES



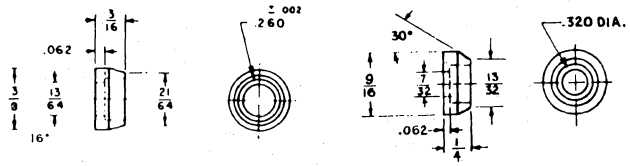
HW-21A
MATERIAL: Bow-Aluminum MIL Spec QQ-A-274. Ferrules MIL Spec QQ-A-325A.
FINISH: Semi-Frost Per MIL-A-8625 Type II.

HW-22B
MATERIAL: Bow-Brass MIL Spec QQ-B-626 Comp 22½ Hard. Ferrules MIL Spec QQ-B-626 Comp 22½ Hard.
FINISH: Nickel Plate and Polish MIL-QQ-N-290 Type VI.

NOTE: Handle and Ferrules are furnished with nylon spacer and roll-pin ⅛ dia. to hold bow in any given position. Swings 180° to either plane.

Cat.No.	Material	Net Price
HW-21A	Aluminum	$2.40
HW-22B	Brass	3.45

FERRULES FOR ABOVE HANDLES



FOR 1/4" DIAMETER HANDLES
HW-23AF (ALUMINUM) Made of Aluminum per QQ-A-325A, anodized black per MIL-A-8625 Type II.
Net Price .12

HW-24BF (BRASS) Made of Brass per QQ-B-626 comp. 22½ hard, nickel plated and polished per MIL-QQ-N-290 Type VI.
Net Price .15

FOR 5/16" DIAMETER HANDLES
HW-25BF (BRASS) Made of Brass per QQ-B-626 comp. 22½ hard, nickel plated and polished per MIL-QQ-N-290 Type VI.
Net Price .16

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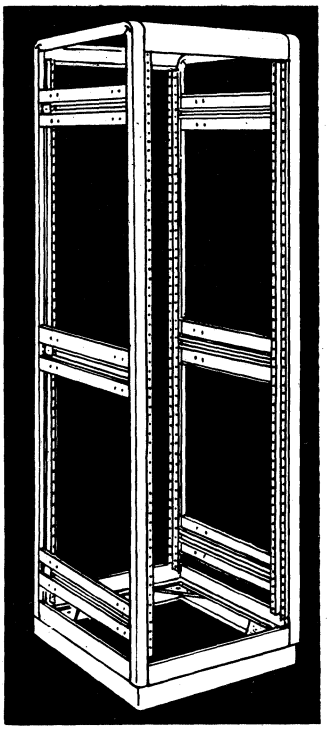
WYCO METAL PRODUCTS

VERTICAL RACK CABINET FRAMES

BALL CORNER DESIGN

19" AND 24" WIDE PANEL SPACE— 22-1/8" AND 25-5/8" DEEP



ENGINEERING DRAWINGS AVAILABLE

DESCRIPTION

A. Material:
   1. Frame-corner post: 14 ga. steel
   2. Mouldings and braces: 16 ga. steel
   3. Panel mounting angles: 11 ga. steel

B. Manufacturing/assembly procedure:
   1. "Heli-arc" method of welding.
   2. Electronically-controlled spot-welding.

C. Design-features:
   1. "Four - sided" frame - corner posts.
   2. 19" or 24" wide panel space (for standard 19" or 24" formed or flat panels) available at front, rear and top.
   3. Panel mounting hole spacing: EIA and WE.
   4. Panel mounting holes TAPPED
   5. May be bolted together in any quantity for multiple installation or developing console assemblies.

D. Panel mounting angles:
   1. Two pair provided, one pair at front, one pair at rear.
   2. May be positioned to any depth from front to back or back to front by loosening the bolt that holds them to the WYCO METAL PRODUCTS "UNICHANNEL."
   3. Additional pairs of panel mounting angles may be purchased.

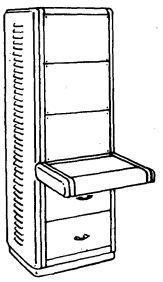
E. Frame bottom opening may be enclosed with standard, plain, perforated or louvered panels.

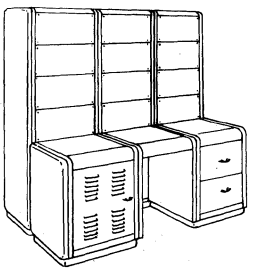
F. Pontoon base features:
   1. Bolted to cabinet bottom
   2. Will accept casters (catalog #WC1100, load capacity 800 lbs. per set of four; casters are recessed.)
   3. Has provisions for bolting to floor.

G. Enclosure accessories:
   1. Side panels: page # 275, 276, 281.
   2. Doors: page # 275, 276.
   3. Panels: page # 287, 288, 289, 290.

H. Other accessories, such as drawers, etc., are available and described on page # 273, 277, 278, 279, 281, 283, 284, 286, 287, 290.

EXAMPLES OF ASSEMBLIES USING THE VERTICAL FRAME WITH OTHER WYCO METAL PRODUCTS





ORDERING CHART

CAT. #	VERTICAL PANEL SPACE FRONT & BACK	PANEL SPACE WIDTH	TOP AND BOTTOM PANEL SPACE	O.D. DEPTH OF FRAME	OVER-ALL WIDTH	OVER-ALL HEIGHT	VERTICAL PANEL SPACE ABOVE DESK HEIGHT SURFACE	VERTICAL PANEL SPACE ABOVE COUNTER HEIGHT SURFACE	BALL CORNERED SIDE - PLAIN	BALL CORNERED SIDE - LOUVERED	FLAT SIDE
WF200-43-22	43-3/4"	19"	19" x 17-1/2"	22-1/8"	22-5/32"	52-1/4"	19-1/4"	12-1/4"	WS200-43-22	WS200-43-22-L	WS200-43-22-F
WF200-52-22	52-1/2"	19"	19" x 17-1/2"	22-1/8"	22-5/32"	61"	28"	21"	WS200-52-22	WS200-52-22-L	WS200-52-22-F
WF200-61-22	61-1/4"	19"	19" x 17-1/2"	22-1/8"	22-5/32"	69-3/4"	36-3/4"	29-3/4"	WS200-61-22	WS200-61-22-L	WS200-61-22-F
WF200-70-22	70"	19"	19" x 17-1/2"	22-1/8"	22-5/32"	78-1/2"	45-1/2"	38-1/2"	WS200-70-22	WS200-70-22-L	WS200-70-22-F
WF200-78-22	78-3/4"	19"	19" x 17-1/2"	22-1/8"	22-5/32"	87-1/4"	54-1/4"	47-1/4"	WS200-78-22	WS200-78-22-L	WS200-78-22-F
WF200-43-25	43-3/4"	19"	19" x 21"	25-5/8"	22-5/32"	52-1/4"	19-1/4"	12-1/4"	WS200-43-25	WS200-43-25-L	WS200-43-25-F
WF200-52-25	52-1/2"	19"	19" x 21"	25-5/8"	22-5/32"	61"	28"	21"	WS200-52-25	WS200-52-25-L	WS200-52-25-F
WF200-61-25	61-1/4"	19"	19" x 21"	25-5/8"	22-5/32"	69-3/4"	36-3/4"	29-3/4"	WS200-61-25	WS200-61-25-L	WS200-61-25-F
WF200-70-25	70"	19"	19" x 21"	25-5/8"	22-5/32"	78-1/2"	45-1/2"	38-1/2"	WS200-70-25	WS200-70-25-L	WS200-70-25-F
WF200-78-25	78-3/4"	19"	19" x 21"	25-5/8"	22-5/32"	87-1/4"	54-1/4"	47-1/4"	WS200-78-25	WS200-78-25-L	WS200-78-25-F
WF224-43-22	43-3/4"	24"	24" x 17-1/2"	22-1/8"	27-5/32"	52-1/4"	19-1/4"	12-1/4"	WS200-43-22	WS200-43-22-L	WS200-43-22-F
WF224-52-22	52-1/2"	24"	24" x 17-1/2"	22-1/8"	27-5/32"	61"	28"	21"	WS200-52-22	WS200-52-22-L	WS200-52-22-F
WF224-61-22	61-1/4"	24"	24" x 17-1/2"	22-1/8"	27-5/32"	69-3/4"	36-3/4"	29-3/4"	WS200-61-22	WS200-61-22-L	WS200-61-22-F
WF224-70-22	70"	24"	24" x 17-1/2"	22-1/8"	27-5/32"	78-1/2"	45-1/2"	38-1/2"	WS200-70-22	WS200-70-22-L	WS200-70-22-F
WF224-78-22	78-3/4"	24"	24" x 17-1/2"	22-1/8"	27-5/32"	87-1/4"	54-1/4"	47-1/4"	WS200-78-22	WS200-78-22-L	WS200-78-22-F
WF224-43-25	43-3/4"	24"	24" x 21"	25-5/8"	27-5/32"	52-1/4"	19-1/4"	12-1/4"	WS200-43-25	WS200-43-25-L	WS200-43-25-F
WF224-52-25	52-1/2"	24"	24" x 21"	25-5/8"	27-5/32"	61"	28"	21"	WS200-52-25	WS200-52-25-L	WS200-52-25-F
WF224-61-25	61-1/4"	24"	24" x 21"	25-5/8"	27-5/32"	69-3/4"	36-3/4"	29-3/4"	WS200-61-25	WS200-61-25-L	WS200-61-25-F
WF224-70-25	70"	24"	24" x 21"	25-5/8"	27-5/32"	78-1/2"	45-1/2"	38-1/2"	WS200-70-25	WS200-70-25-L	WS200-70-25-F
WF224-78-25	78-3/4"	24"	24" x 21"	25-5/8"	27-5/32"	87-1/4"	54-1/4"	47-1/4"	WS200-78-25	WS200-78-25-L	WS200-78-25-F

COLOR/FINISH: Zinc chromate primer is first applied. Any one or a combination of two of the following baking enamels are available: light or dark metallic grey and dark metallic blue. If a two tone combination is ordered, specify the color desired for the frame and color desired for doors, sides, panels and accessories. Special colors (baking enamels only) can be applied at an additional cost of 5% of the net cost of order (after discount). Paint chip and/or paint specification must accompany order.

SEE PAGES 291 TO 294 FOR LIST AND DOLLAR VOLUME DISCOUNTS

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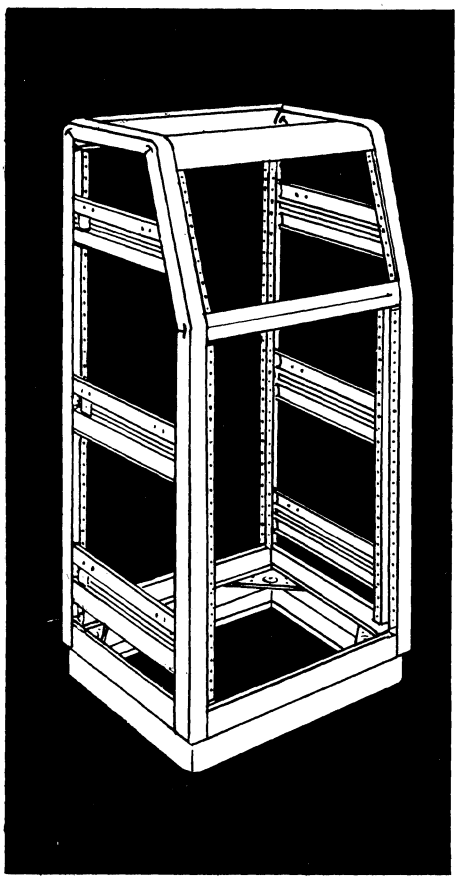
WYCO METAL PRODUCTS

10½" AND 17½" SLOPING FRONT CABINET FRAMES

19" AND 24" WIDE PANEL SPACE 18-5/8", 22-1/8" AND 25-5/8" DEEP



ENGINEERING DRAWINGS AVAILABLE

DESCRIPTION

A. Material:
   1. Frame-corner post: 14 ga. steel
   2. Mouldings and braces: 16 ga. steel
   3. Panel mounting angles in vertical Panel spaces: 11 ga. steel.

B. Manufacturing/assembly procedure:
   1. "Heli-arc" method of welding.
   2. Electronically-controlled spot-welding.

C. Design-features:
   1. "Four-sided" frame-corner posts.
   2. 19" wide or 24" panel space (for standard 19" or 24" formed or flat panels) available at front, rear, top and sloping front.
   3. Panel mounting hole spacing: EIA and WE.
   4. Panel mounting holes TAPPED 10-32 thread.
   5. May be bolted together in any quantity for multiple installation or developing console assemblies.
   6. Sloping front 19 degrees from vertical.

D. Panel mounting angles:
   1. Two pair provided, one pair each at front vertical space and rear vertical space.
   2. May be positioned at any depth from front to back or back to front by loosening the bolt that holds them to the WYCO METAL PROD. "UNI-CHANNEL."
   3. Additional pairs of panel mounting angles may be purchased.

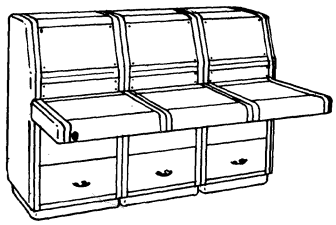
E. Frame bottom opening may be enclosed with standard 19" or 24" wide, plain, perforated or louvered panels.

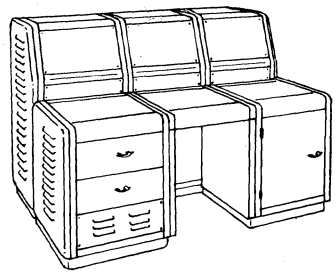
F. Pontoon base features:
   1. Bolted to cabinet bottom.
   2. Will accept casters (catalog #WC1100, load capacity 800 lbs. per set of four; casters are recessed.)
   3. Has provisions for bolting to floor.

G. Enclosure accessories:
   1. Side panels: page # 275, 276, 281.
   2. Doors: page # 275, 276.
   3. 19" and 24" panels: page # 275, 276.

H. Other accessories, such as drawers, etc., are available and described on page # 273, 277, 278, 279, 281, 283, 284, 286, 287, 290.

EXAMPLES OF ASSEMBLIES USING THE 10-1/2" and 17-1/2" SLOPING FRONT FRAME WITH OTHER WYCO METAL PRODUCTS





ORDERING CHART

CAT. #	SLOPING FRONT PANEL SPACE	VERTICAL PANEL SPACE FRONT	VERTICAL PANEL SPACE REAR	PANEL SPACE WIDTH	PANEL SPACE TOP	PANEL SPACE BOTTOM	O.D. DEPTH OF FRAME	OVER-ALL WIDTH	OVER-ALL HEIGHT	* BALL CORNERED SIDE—PLAIN	* BALL CORNERED SIDE—LOUVERED	* FLAT SIDE
WF300-18	10-1/2"	28"	38-1/2"	19"	10-1/2" x 19"	14" x 19"	18-5/8"	22-5/32"	46-3/4"	WS300-18	WS300-18-L	WS300-18-F
WF300-22	10-1/2"	28"	38-1/2"	19"	14" x 19"	17-1/2" x 19"	22-1/8"	22-5/32"	46-3/4"	WS300-22	WS300-22-L	WS300-22-F
WS324-18	10-1/2"	28"	38-1/2"	24"	10-1/2" x 24"	14" x 24"	18-5/8"	27-5/32"	46-3/4"	WS300-18	WS300-18-L	WS300-18-F
WF324-22	10-1/2"	28"	38-1/2"	24"	14" x 24"	17-1/2" x 24"	22-1/8"	27-5/32"	46-3/4"	WS300-22	WS300-22-L	WS300-22-F
WF400-22	17-1/2"	24-1/2"	42"	19"	12-1/4" x 19"	17-1/2" x 19"	22-1/8"	22-5/32"	49-7/8"	WS400-22	WS400-22-L	WS400-22-F
WF400-25	17-1/2"	24-1/2"	42"	19"	15-314" x 19"	21" x 19"	25-5/8"	22-5/32"	49-7/8"	WS400-25	WS400-25-L	WS400-25-F
WF424-22	17-1/2"	24-1/2"	42"	24"	12-1/4" x 24"	17-1/2" x 24"	22-1/8"	27-5/32"	49-7/8"	WS400-22	WS400-22-L	WS400-22-F
WF424-25	17-1/2"	24-1/2"	42"	24"	15-3/4" x 24"	21" x 24"	25-5/8"	27-5/32"	49-7/8"	WS400-25	WS400-25-L	WS400-25-F

* Specify LH or RH. Example: WS400-25-LH

COLOR/FINISH: Zinc chromate primer is first applied. Any one or a combination of two of the following baking enamels are available: light or dark metallic grey and dark metallic blue. If a two tone combination is ordered, specify the color desired for the frame and color desired for doors, sides, panels and accessories. Special colors (baking enamels only) can be applied at an additional cost of 5% of the net cost of order (after discount). Paint chip and/or paint specification must accompany order.

SEE PAGES 291 TO 294 FOR LIST AND DOLLAR VOLUME DISCOUNTS

Wyco Metal Products .....

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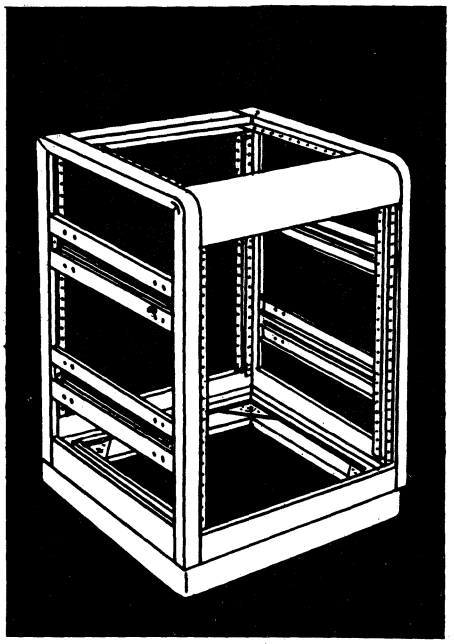
WYCO METAL PRODUCTS

DESK HEIGHT AND COUNTER HEIGHT RACK CABINET FRAMES

19" AND 24" WIDE PANEL SPACE —18-5/8", 22-1/8" AND 25-5/8" DEEP



ENGINEERING DRAWINGS AVAILABLE

DESCRIPTION

A. Material:
   1. Frame-corner post: 14 ga. steel
   2. Mouldings and braces: 16 ga. steel
   3. Panel mounting angles in vertical panel spaces: 11 ga. steel

B. Manufacturing/assembly procedure:
   1. "Heli-arc" method of welding.
   2. Electronically-controlled spot-welding.

C. Design-features:
   1. "Four-sided" frame-corner posts.
   2. 19" wide or 24" panel space (for standard 19" or 24" formed or flat panels) available at front, rear and top.
   3. Panel mounting hole spacing: EIA and WE.
   4. Panel mounting holes TAPPED 10-32 thread.
   5. May be bolted together in any quantity for multiples installation or developing console assemblies.

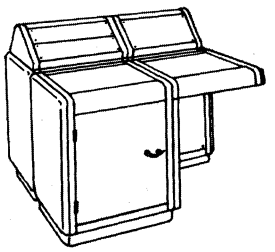
D. Panel mounting angles:
   1. Two pair provided, one pair at front, one pair at rear.
   2. May be positioned at any depth from front to back or back to front by loosening the bolt that holds them to the WYCO METAL PROD. "UNICHANNEL."
   3. Additional pairs of panel mounting angles may be purchased.

E. Frame bottom opening may be enclosed with standard 19" or 24" wide, plain, perforated or louvered panels.

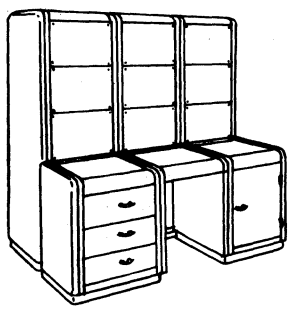
F. Pontoon base features:
   1. Bolted to cabinet bottom.
   2. Will accept casters (catalog #WC1100, load capacity 800 lbs. per set of four; casters are recessed.)
   3. Has provisions for bolting to floor.

G. Enclosure accessories:
   1. Side panels: page # 275, 276, 281.
   2. Doors: page # 275, 276.
   3. 19" and 24" panels: page # 275, 276.

H. Other accessories, such as drawers, etc., are available and described on page # 273, 277, 278, 279, 281, 283, 284, 286, 287, 290.



EXAMPLES OF ASSEMBLIES USING THE DESK HEIGHT AND COUNTER HEIGHT FRAME WITH OTHER WYCO METAL PRODUCTS



ORDERING CHART

CAT. #	VERTICAL PANEL SPACE FRONT & BACK	PANEL SPACE WIDTH	TOP AND BOTTOM PANEL SPACE	O.D. DEPTH OF FRAME	OVER-ALL WIDTH	OVER-ALL HEIGHT	BALL CORNERED SIDE—PLAIN	BALL CORNERED SIDE—LOUVERED	FLAT SIDE
WF100-18	21"	19"	14" x 19"	18-5/8"	22-5/32"	29-1/2"	WS100-18	WS100-18-L	WS100-18-F
WF100-22	21"	19"	17-1/2" x 19"	22-1/8"	22-5/32"	29-1/2"	WS100-22	WS100-22-L	WS100-22-F
WF100-25	21"	19"	21" x 19"	25-5/8"	22-5/32"	29-1/2"	WS100-25	WS100-25-L	WS100-25-F
WF124-18	21"	24"	14" x 24"	18-5/8"	27-5/32"	29-1/2"	WS100-18	WS100-18-L	WS100-18-F
WF124-22	21"	24"	17-1/2" x 24"	22-1/8"	27-5/32"	29-1/2"	WS100-22	WS100-22-L	WS100-22-F
WF124-25	21"	24"	21" x 24"	25-5/8"	27-5/32"	29-1/2"	WS100-25	WS100-25-L	WS100-25-F
WF1500-18	28"	19"	14" x 19"	18-5/8"	22-5/32"	36-1/2"	WS1500-18	WS1500-18-L	WS1500-18-F
WF1500-22	28"	19"	17-1/2" x 19"	22-1/8"	22-5/32"	36-1/2"	WS1500-22	WS1500-22-L	WS1500-22-F
WF1500-25	28"	19"	21" x 19"	25-5/8"	22-5/32"	36-1/2"	WS1500-25	WS1500-25-L	WS1500-25-F
WF1524-18	28"	24"	14" x 24"	18-5/8"	27-5/32"	36-1/2"	WS1500-18	WS1500-18-L	WS1500-18-F
WF1524-22	28"	24"	17-1/2" x 24"	22-1/8"	27-5/32"	36-1/2"	WS1500-22	WS1500-22-L	WS1500-22-F
WF1524-25	28"	24"	21" x 24"	25-5/8"	27-5/32"	36-1/2"	WS1500-25	WS1500-25-L	WS1500-25-F

COLOR/FINISH: Zinc chromate primer is first applied. Any one or a combination of two of the following baking enamels are available: light or dark metallic grey and dark metallic blue. If a two tone combination is ordered, specify the color desired for the frame and color desired for doors, sides, panels and accessories. Special colors (baking enamels only) can be applied at an additional cost of 5% of the net cost of order (after discount). Paint chip and/or paint specification must accompany order.

SEE PAGES 291 TO 294 FOR LIST AND DOLLAR VOLUME DISCOUNTS

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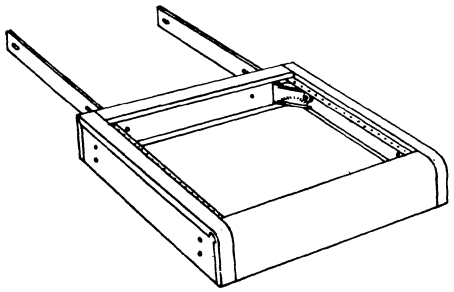
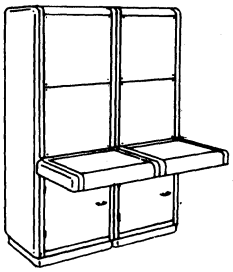
WORK/WRITING DESK FRAMES

19" AND 24" WIDE PANEL SPACE— 15-1/8", 18-5/8", 22-1/8" AND 25-5/8" PROJECTION

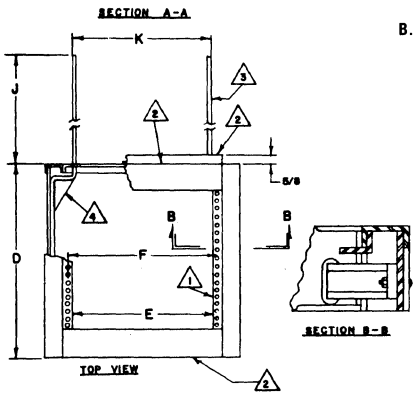


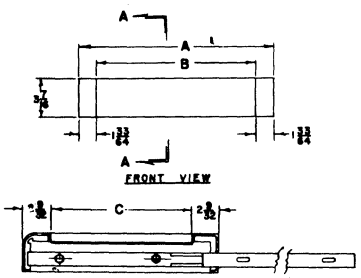
EXAMPLE OF AN ASSEMBLY USING THIS FRAME WITH OTHER WYCO METAL PRODUCTS



DESCRIPTION

A. Material:
   1. Frame: 14 ga. steel
   2. Mouldings: 16 ga. steel
B. Design-features work/writing frames:
   1. 19" wide or 24" wide panel space for formed, flat or TEXTOLITE panels
   2. Panel mounting hole spacing: EIA and WE. Holes TAPPED 10-32 thread.
C. When used between desk height or counter height frames, support arms not required. In all other cases, support arms required. Support arms bolt directly to WYCO METAL PROD. mounting angles.
D. Ball-cornered or flat sides available
E. Available in four projections: 15-1/8"—18-5/8"—22-1/8"—25-5/8"
F. Normally installed so that top surface is 29-1/2" from floor level
G. Requires 3-1/2" of vertical panel space on all WYCO METAL PROD. cabinet frames





19" WIDE PANEL SPACE

CAT. NO.	A	B	C	D	E	F	G	H	J	K	BALL CORNERED SIDES
WF-700-15	22-5/32	19-1/8	10-9/16	15-1/8	17-7/8	18-3/8	9			17-7/8	Not Req'd.
WF-700-15-18	22-5/32	19-1/8	10-9/16	15-1/8	17-7/8	18-3/8	9	p1-5/8	16-1/8	17-7/8	WS700-15
WF-700-15-22	22-5/32	19-1/8	10-9/16	15-1/8	17-7/8	18-3/8	9	15-1/8	19-5/8	17-7/8	WS700-15
WF-700-15-25	22-5/32	19-1/8	10-9/16	15-1/8	17-7/8	18-3/8	9	18-5/8	23-1/8	17-7/8	WS700-15
WF-700-18	22-5/32	19-1/8	14-1/16	18-5/8	17-7/8	18-3/8	12-1/2			17-7/8	Not Req'd.
WF-700-18-18	22-5/32	19-1/8	14-1/16	18-5/8	17-7/8	18-3/8	12-1/2	11-5/8	16-1/8	17-7/8	WS700-18
WF-700-18-22	22-5/32	19-1/8	14-1/16	18-5/8	17-7/8	18-3/8	12-1/2	15-1/8	19-5/8	17-7/8	WS700-18
WF-700-18-25	22-5/32	19-1/8	14-1/16	18-5/8	17-7/8	18-3/8	12-1/2	18-5/8	23-1/8	17-7/8	WS700-18
WF-700-22	22-5/32	19-1/8	17-9/16	22-1/8	17-7/8	18-3/8	16			17-7/8	Not Req'd.
WF-700-22-18	22-5/32	19-1/8	17-9/16	22-1/8	17-7/8	18-3/8	16	11-5/8	16-1/8	17-7/8	WS700-22
WF-700-22-22	22-5/32	19-1/8	17-9/16	22-1/8	17-7/8	18-3/8	16	15-1/8	19-5/8	17-7/8	WS700-22
WF-700-22-25	22-5/32	19-1/8	17-9/16	22-1/8	17-7/8	18-3/8	16	18-5/8	23-1/8	17-7/8	WS700-22
WF-700-25	22-5/32	19-1/8	21-1/16	25-5/8	17-7/8	18-3/8	19-1/2			17-7/8	Not Req'd
WF-700-25-18	22-5/32	19-1/8	21-1/16	25-5/8	17-7/8	18-3/8	19-1/2	11-5/8	16-1/8	17-7/8	WS700-25
WF-700-25-22	22-5/32	19-1/8	21-1/16	25-5/8	17-7/8	18-3/8	19-1/2	15-1/8	19-5/8	17-7/8	WS700-25
WF-700-25-25	22-5/32	19-1/8	21-1/16	25-5/8	17-7/8	18-3/8	19-1/2	18-5/8	23-1/8	17-7/8	WS700-25

24" WIDE PANEL SPACE

CAT. NO.	A	B	C	D	E	F	G	H	J	K	BALL CORNERED SIDES
WF-724-15	27-5/32	24-1/8	10-9/16	15-1/8	22-7/8	23-3/8	9			22-7/8	Not Req'd.
WF-724-15-18	27-5/32	24-1/8	10-9/16	15-1/8	22-7/8	23-3/8	9	11-5/8	16-1/8	22-7/8	WS700-15
WF-724-15-22	27-5/32	24-1/8	10-9/16	15-1/8	22-7/8	23-3/8	9	15-1/8	19-5/8	22-7/8	WS700-15
WF-724-15-25	27-5/32	24-1/8	10-9/16	15-1/8	22-7/8	23-3/8	9	18-5/8	23-1/8	22-7/8	WS700-15
WF-724-18	27-5/32	24-1/8	14-1/16	18-5/8	22-7/8	23-3/8	12-1/2			22-7/8	Not Req'd.
WF-724-18-18	27-5/32	24-1/8	14-1/16	18-5/8	22-7/8	23-3/8	12-1/2	11-5/8	16-1/8	22-7/8	WS700-18
WF-724-18-22	27-5/32	24-1/8	14-1/16	18-5/8	22-7/8	23-3/8	12-1/2	15-1/8	19-5/8	22-7/8	WS700-18
WF-724-18-25	27-5/32	24-1/8	14-1/16	18-5/8	22-7/8	23-3/8	12-1/2	18-5/8	23-1/8	22-7/8	WS700-18
WF-724-22	27-5/32	24-1/8	17-9/16	22-1/8	22-7/8	23-3/8	16			22-7/8	Not Req'd.
WF-724-22-18	27-5/32	24-1/8	17-9/16	22-1/8	22-7/8	23-3/8	16	11-5/8	16-1/8	22-7/8	WS700-22
WF-724-22-22	27-5/32	24-1/8	17-9/16	22-1/8	22-7/8	23-3/8	16	15-1/8	19-5/8	22-7/8	WS700-22
WF-724-22-25	27-5/32	24-1/8	17-9/16	22-1/8	22-7/8	23-3/8	16	18-5/8	23-1/8	22-7/8	WS700-22
WF-724-25	27-5/32	24-1/8	21-1/16	25-5/8	22-7/8	23-3/8	19-1/2			22-7/8	Not Req'd.
WF-724-25-18	27-5/32	24-1/8	21-1/16	25-5/8	22-7/8	23-3/8	19-1/2	11-5/8	16-1/8	22-7/8	WS700-25
WF-724-25-22	27-5/32	24-1/8	21-1/16	25-5/8	22-7/8	23-3/8	19-1/2	15-1/8	19-5/8	22-7/8	WS700-25
WF-724-25-25	27-5/32	24-1/8	21-1/16	25-5/8	22-7/8	23-3/8	19-1/2	18-5/8	23-1/8	22-7/8	WS700-25

NOTE
1. MATERIAL
   1. 14 GA. C. R. STEEL
   2. 16 GA. C. R. STEEL
   3. 3/16 STEEL
   4. 11 GA. C. R. STEEL

SEE PAGES 291 TO 294 FOR LIST AND DOLLAR VOLUME DISCOUNTS

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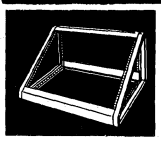
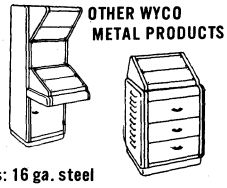
WYCO METAL PRODUCTS TURRET FRAMES/INSTRUMENT CABINETS

19" AND 24" WIDE PANEL SPACE



EXAMPLES OF ASSEMBLIES USING TURRET FRAMES WITH OTHER WYCO METAL PRODUCTS



DESCRIPTION

A. Material:
   1. Frame: 14 ga. steel
   2. Mouldings and braces: 16 ga. steel
B. Design features:
   1. 19" or 24" wide panel space (for standard 19" or 24" formed or flat panels) available at all panel space openings.
   2. Panel mounting angles (fixed) have EIA and WE hole spacing.
   3. Panel mounting holes TAPPED 10-32 thread.
   4. May be bolted together in any quantity for multiple installation.
   5. Flat sides available.
   6. Four rubber feet (part #WH-33) included with each frame.
C. Suggested usages:
   1. On top of WYCO METAL PRODUCTS desk-height and counter-height frames, or projected top frames.
   2. Vertical surfaces of any vertical panel space opening.
   3. On table or work-bench.
D. Four attaching clips (part #WH-34) furnished with each frame for attaching to rack frames.

19°, 35° AND 55° SLOPE

ORDERING CHART

CAT. #	55° SLOPING PANEL SPACE OPENING	35° SLOPING PANEL SPACE OPENING	BOTTOM PANEL SPACE OPENING	OVER-ALL WIDTH	OVER-ALL HEIGHT	OVER-ALL DEPTH	* TURRET FLAT SIDES
WF601	10-1/2" x 19"	7" x 19"	15-3/4"	22-5/32"	9"	17-1/2"	WS601-F
WF602	14" x 19"	8-3/4" x 19"	17-1/2"	22-5/32"	11-3/16"	21-5/16"	WS602-F
WF601-24	10-1/2" x 24"	7" x 24"	15-3/4"	27-5/32"	9"	17-1/2"	WS601-F
WF602-24	14" x 24"	8-3/4" x 24"	17-1/2"	27-5/32"	11-3/16"	21-5/16"	WS602-F

*Order separately; Specify left or right hand (example: WS601-F-LH).

CAT. #	SLOPING PANEL SPACE	* OVER-ALL DEPTH	** OVER-ALL HEIGHT	BOTTOM PANEL SPACE OPENING	● TURRET FLAT SIDES
WF605	17-1/2" x 19"	17-1/2" or 13"	13" or 17-1/2"	14" x 19" or 8-3/4" x 19"	WS605-F
WF605-24	17-1/2" x 24"	17-1/2" or 13"	13" or 17-1/2"	14" x 24" or 8-3/4" x 24"	WS605-F
WF606	14" x 19"	17-1/2"	5-3/8"	10-1/2 x 19"	WS606-F
WF606-24	14" x 24"	17-1/2"	5-3/8"	10-1/2" x 24"	WS606-F
WF607	21" x 19"	24-1/2"	8-1/16"	17-1/2" x 19"	WS607-F
WF607-24	21" x 24"	24-1/2"	8-1/16"	17-1/2" x 24"	WS607-F

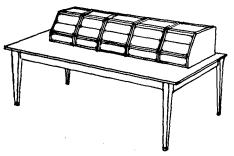
*Depth determined by which vertical side is mounted to cabinet frame.
**Height determined by which vertical side is mounted to cabinet frame.
●Order separately. Specify left or right hand (example: WS605-F-LH)

17-1/2" AND 10-1/2" SLOPING FRONT

DESCRIPTION

A. Material: 1. Frame: 14 ga. steel. 2. Mouldings and braces: 16 ga. steel
B. Design features: 1. 19" or 24" wide panel space (for standard 19" or 24" formed or flat panels) available at front vertical, sloping front, top, rear and bottom. 2. Panel mounting angles (fixed) have EIA and WE hole spacing. 3. Panel mounting holes TAPPED 10-32 thread. 4. May be bolted together in any quantity for multiple installation. 5. Sloping front is 19° from vertical. 6. Four rubber feet (part #WH-33) included with each frame.
C. Suggested usages: 1. On table or work-bench. 2. On WYCO METAL PROD. desk height frames. 3. On WYCO METAL PROD. height frames.
D. Flat-sides or ball-cornered sides available.

EXAMPLES OF ASSEMBLIES USING THESE FRAMES WITH OTHER WYCO METAL PRODUCTS

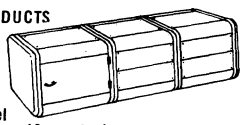


CAT. #	SLOPING FRONT PANEL SPACE OPENING	VERTICAL FRONT PANEL SPACE OPENING	TOP PANEL SPACE	ORDERING CHART: REAR PANEL SPACE	ORDERING CHART: BOTTOM PANEL SPACE	ORDERING CHART: * OVER-ALL WIDTH	OVER-ALL HEIGHT	OVER-ALL DEPTH	** TURRET FLAT SIDES	** TURRET BALL-CORNERED SIDES
WF608	17-1/2" x 19"	3-1/2" x 19"	12-1/4" x 19"	21" x 19"	17-1/2" x 19"	22-5/32"	25-15/16"	22-1/8"	WS608-F	WS608
WF608-24	17-1/2" x 24"	3-1/2" x 24"	12-1/4" x 24"	21" x 24"	17-1/2" x 24"	27-5/32"	25-15/16"	22-1/8"	WS608-F	WS608
WF609	10-1/2" x 19"	3-1/2" x 19"	10-1/2" x 19	14" x 19"	14" x 19"	22-5/32"	18- 7/16"	18-5/8"	WS609-F	WS609
WF610	10-1/2" x 19"	3-1/2" x 19"	3-1/2" x 19"	14" x 19"	7" x 19"	22-5/32"	18- 7/16"	18-5/8"	WS610-F	WS610
WF609-24	10-1/2" x 24"	3-1/2" x 24"	10-1/2" x 24"	14" x 24"	14" x 24"	27-5/32"	18- 7/16"	18-5/8"	WS609-F	WS609
WF610-24	10-1/2" x 24"	3-1/2" x 24"	3-1/2" x 24"	14" x 24"	7" x 24"	27-5/32"	18- 7/16"	18-5/8"	WS610-F	WS610

*Add 1-3/16" for each ball-cornered side used in assembly. **Order separately. Specify left or right hand (example: WS608-F-LH)

INSTRUMENT CABINET FRAMES/ BALL CORNER DESIGN

EXAMPLE OF AN ASSEMBLY USING THIS FRAME WITH OTHER WYCO METAL PRODUCTS



DESCRIPTION

A. Material:
   1. Frame: 14 ga. steel
   2. Mouldings or braces: 16 ga. steel
B. Design-features:
   1. 19" or 24" wide panel space for standard 19" or 24" formed or flat panels available at front, top, rear and bottom.
   2. Panel mounting angles (fixed) have EIA and WE spacing.
   3. Panel mounting holes TAPPED 10-32 thread.
   4. May be bolted together in any quantity, side by side, back to back and top of another.
   5. Four rubber feet (part #WH-33) included with each side.
   6. Ball cornered sides, plain and louvered, available.
   7. One pair of chassis guides and supports supplied with each frame. They are adjustable horizontally.

ORDERING CHART

CAT. #	PANEL SPACE WIDTH	VERTICAL PANEL SPACE FRONT & REAR	PANEL SPACE TOP & BOTTOM	OVER-ALL WIDTH	OVER-ALL HEIGHT	OVER-ALL DEPTH	* PLAIN BALL-CORNERED SIDES	* LOUVERED BALL-CORNERED SIDES
WF500-8	19"	8-3/4"	12-1/4" x 19"	22-5/32"	12-13/16"	16-5/16"	WS500-8	WS500-8-L
WF500-10	19"	10-1/2"	12-1/4" x 19"	22-5/32"	14- 9/16"	16-5/16"	WS500-10	WS500-10-L
WF500-12	19"	12-1/4"	12-1/4" x 19"	22-5/32"	16- 5/16"	16-5/16"	WS500-12	WS500-12-L
WF500-14	19"	14"	12-1/4" x 19"	22-5/32"	18- 1/16"	16-5/16"	WS500-14	WS500-14-L
WF500-15	19"	15-3/4"	12-1/4" x 19"	22-5/32"	19-13/16"	16-5/16"	WS500-15	WS500-15-L
WF500-17	19"	17-1/2"	12-1/4" x 19"	22-5/32"	21- 9/16"	16-5/16"	WS500-17	WS500-17-L
WF500-19	19"	19-1/4"	12-1/4" x 19"	22-5/32"	23- 5/16"	16-5/16"	WS500-19	WS500-19-L
WF500-21	19"	21"	12-1/4" x 19"	22-5/32"	25- 1/16"	16-5/16"	WS500-21	WS500-21-L
WF524-8	24"	8-3/4"	12-1/4" x 24"	27-5/32"	12-13/16"	16-5/16"	WS500-8	WS500-8-L
WF524-10	24"	10-1/2"	12-1/4" x 24"	27-5/32"	14- 9/16"	16-5/16"	WS500-10	WS500-10-L
WF524-12	24"	12-1/4"	12-1/4" x 24"	27-5/32"	16- 5/16"	16-5/16"	WS500-12	WS500-12-L
WF524-14	24"	14"	12-1/4" x 24"	27-5/32"	18- 1/16"	16-5/16"	WS500-14	WS500-14-L
WF524-15	24"	15-3/4"	12-1/4" x 24"	27-5/32"	19-13/16"	16-5/16"	WS500-15	WS500-15-L
WF524-17	24"	17-1/2"	12-1/4" x 24"	27-5/32"	21- 9/16"	16-5/16"	WS500-17	WS500-17-L
WF524-18	24"	19-1/4"	12-1/4" x 24"	27-5/32"	23- 5/16"	16-5/16"	WS500-19	WS500-19-L
WF524-21	24"	21"	12-1/4" x 24"	27-5/32"	25- 1/16"	16-5/16"	WS500-21	WS500-21-L

*Order separately; add 1-3/16" for each ball-cornered side used in assembly.

COLOR/FINISH: Zinc chromate primer is first applied. Any one or a combination of two of the following baking enamels are available: light or dark metallic grey and dark metallic blue. If a two tone combination is ordered, specify the color desired for the frame and color desired for doors, sides, panels and accessories. Special colors (baking enamels only) can be applied at an additional cost of 5% of the net cost of order (after discount). Paint chip and/or paint specification must accompany order.

SEE PAGES 291 TO 294 FOR LIST AND DOLLAR VOLUME DISCOUNTS

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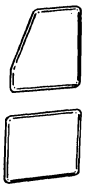
WYCO METAL PRODUCTS

DOORS — SIDES

19" AND 24" PANELS

SHORT BALL CORNERED SIDES



DESCRIPTION

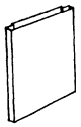
A. Material: 16 ga. steel
B. Usage: When vertical or sloping-front frames are joined side-by-side with desk-height frames, WF100 and WF124 series.
C. IMPORTANT:
   1. Specify left or right hand
   2. Add one of the following suffixes to catalog number:
      .18 (when joining side-by-side to 18-5/8" deep, desk height frame)
      -22 (when joining side-by-side to 22-1/8" deep, desk height frame)
      -25 (when joining side-by-side to 25-5/8" deep, desk height frame)

(EXAMPLE: WHS300-22-LH)

ORDERING CHART

CAT. #	WHEN A SHORT-SIDE IS REQUIRED FOR FRAME NUMBERS
WSHS300	WF300* or WF324*
WSHS400	WF400** or WF424**
WSHS200-43	WF200-43** or WF224-43**
WSHS200-52	WF200-52** or WF224-52**
WSHS200-61	WF200-61** or WF224-61**
WSHS200-70	WF200-70** or WF224-70**
WSHS200-78	WF200-78** or WF224-78**

KNEE SPACE SIDE PANEL



DESCRIPTION

A. Material: 16 ga. steel
B. Usage: Close up knee space side openings at operator position when work/writing desk frame is used between two desk height or counter height frames.

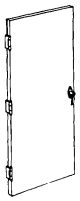
ORDERING CHART

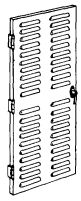
WYCO #	USED IN CONNECTION WITH	WYCO #	USED IN CONNECTION WITH
WS100-18-K	desk height frame—18-5/8" deep	WS1500-18-K	counter height frame—18-5/8" deep
WS100-22-K	desk height frame—22-1/8" deep	WS1500-22-K	counter height frame—22-1/8" deep
WS100-25-K	desk height frame—25-5/8" deep	WS1500-25-K	counter height frame—25-5/8" deep

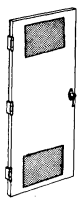
FACE MOUNTED DOORS 19" AND 24" WIDE PANEL SPACE

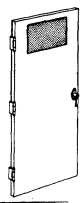
DESCRIPTION

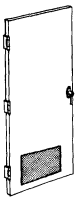
A. Material: 16 ga. steel
B. Design-features:
   1. Face-mounted; hinged (left or right hand) on face of frame-corner post.
   2. Full-length doors over-lap 1" at top and bottom of vertical opening.
   3. Two-point catch.
   4. Locking handle (2 keys)
   5. Doors are 7/8" thick.
   6. Can be mounted at both front and back vertical openings.
C. Louvered doors.
   1. Louvers are 6" long.
   2. Louvers are 3/4" high.
   3. One inch between louvers.
   4. Approximately 1-3/4 square inches of ventilation per louver.
D. Filtered doors:
   1. Filtered top and bottom, top only or bottom only.
   2. Filters are removable (10" x 10").
   3. Each filter allows 100 square inches of opening.
   4. Replaceable filter part number: H70.
E. IMPORTANT: specify left hand or right hand (EXAMPLE: WD200-61-LH)









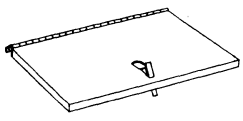


ORDERING CHART

	PLAIN		LOUVERED		FILTERED TOP AND BOTTOM		FILTERED TOP ONLY		FILTERED BOTTOM ONLY	
COVERS VERTICAL PANEL SPACE	19" WIDE	24" WIDE	19" WIDE	24" WIDE	19" WIDE	24" WIDE	19" WDIE	24" WIDE	19" WIDE	24" WIDE
17-1/2"	WD200-17	WD224-17	WD200-17-L	WD224-17-L	———	———	———	———	———	———
21"	WD200-21	WD224-21	WD200-21-L	WD224-21-L	———	———	WD200-21-FT	WD224-21-FT	WD200-21-FB	WD224-21-FB
24-1/2"	WD200-24	WD224-24	WD200-24-L	WD224-24-L	———	———	WD200-24-FT	WD224-24-FT	WD224-24-FB	WD224-24-FB
28"	WD200-28	WD224-28	WD200-28-L	WD224-28-L	———	———	WD200-28-FT	WD224-28-FT	WD200-28-FB	WD224-28-FB
38-1/2"	WD200-38	WD224-38	WD200-38-L	WD224-38-L	WD200-38-FTB	WD224-38-FTB	WD200-38-FT	WD224-38-FT	WD200-38-FB	WD224-38-FB
42"	WD200-42	WD224-42	WD200-42-L	WD224-42-L	WD200-42-FTB	WD224-42-FTB	WD200-42-FT	WD224-42-FT	WD200-42-FB	WD224-42-FB
43-3/4"	WD200-43	WD224-43	WD200-43-L	WD224-43-L	WD200-43-FTB	WD224-43-FTB	WD200-43-FT	WD224-43-FT	WD200-43-FB	WD224-43-FB
52-1/2"	WD200-52	WD224-52	WD200-52-L	WD224-52-L	WD200-52-FTB	WD224-52-FTB	WD200-52-FT	WD224-52-FT	WD200-52-FB	WD224-52-FB
61-1/4"	WD200-61	WD224-61	WD200-61-L	WD224-61-L	WD224-61-FTB	WD224-61-FTB	WD200-61-FT	WD224-61-FT	WD200-61-FB	WD224-61-FB
70"	WD200-70	WD224-70	WD200-70-L	WD224-70-L	WD200-70-FTB	WD224-70-FTB	WD200-70-FT	WD224-70-FT	WD200-70-FB	WD224-70-FB
78-3/4"	WD200-78	WD224-78	WD200-78-L	WD224-78-L	WD200-78-FTB	WD224-78-FTB	WD200-78-FT	WD224-78-FT	WD200-78-FB	WD224-78-FB

IMPORTANT: Specify left hand or right hand (EXAMPLE: WD200-61-L-RH)

PANEL LIFT DOORS



DESCRIPTION:

A. Material: 16 ga. steel
B. Design-features:
   1. Installs flush into 5/8" recessed panel openings
   2. Continuous piano-hinge across 19" or 24" wide dimension
   3. Flush-type latch
C. Suggested usage:
   1. Top opening of frames
   2. Sloping front opening of frames
   3. Vertical opening of frames when flush-latch can engage behind top moulding of panel space or behind a panel directly above the door opening

ORDERING CHART

CAT. #	AMOUNT OF PANEL SPACE REQUIRED	CAT. #	AMOUNT OF PANEL SPACE REQUIRED
WPLD-10	10-1/2"	WPLD-10-24	10-1/2"
WPLD-12	12-1/4"	WPLD-12-24	12-1/4"
WPLD-14	14"	WPLD-14-24	14"
WPLD-17	17-1/2"	WPLD-17-24	17-1/2"
WPLD-21	21"	WPLD-21-24	21"

SEE PAGES 291 TO 294 FOR LIST AND DOLLAR VOLUME DISCOUNTS

Wyco Metal Products .....

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WYCO
METAL PRODUCTS

DOORS — SIDES
19" AND 24" PANELS

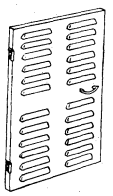
FLUSH MOUNTED DOORS

19" AND 24" WIDE PANEL SPACE

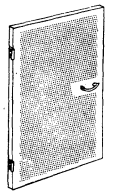
DESCRIPTION

A. Material: 16 ga. steel
B. Design-features:
   1. Installs flush into 5/8" recessed panel openings.
   2. Hinges, left or right hand, off of mounting angle. Opposite mounting angle becomes door stop
   3. Door may be easily removed by lifting pin from hinge
   4. Attractive door—pull included
C. Available types:
   1. Plain
   2. Louvered
   3. Perforated
D. If keyed tumbler lock desired, ADD SUFFIX "-LK" TO CATALOG NUMBER. (EXAMPLE: WDF 21-LK)
E. IMPORTANT: SPECIFY LEFT HAND OR RIGHT HAND (EXAMPLE: WDF 28-LH)

PLAIN



LOUVERED



PERFORATED

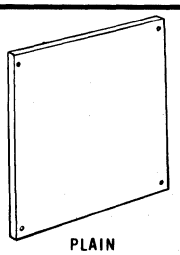
VERTICAL HEIGHT	PLAIN 19" WIDE	PLAIN 24" WIDE	LOUVERED 19" WIDE	LOUVERED 24" WIDE	PERFORATED 19" WIDE	PERFORATED 24" WIDE
8-3/4"	WDF-8	WDF-8-24	WDF-8-L	WDF-8-24-L	WDF-8-P	WDF-8-24-P
10-1/2"	WDF-10	WDF-10-24	WDF-10-L	WDF-10-24-L	WDF-10-P	WDF-10-24-P
12-1/4"	WDF-12	WDF-12-24	WDF-12-L	WDF-12-24-L	WDF-12-P	WDF-12-24-P
14"	WDF-14	WDF-14-24	WDF-14-L	WDF-14-24-L	WDF-14-P	WDF-14-24-P
17-1/2"	WDF-17	WDF-17-24	WDF-17-L	WDF-17-24-L	WDF-17-P	WDF-17-24-P
21"	WDF-21	WDF-21-24	WDF-21-L	WDF-21-24-L	WDF-21-P	WDF-21-24-P
24-1/2"	WDF-24	WDF-24-24	WDF-24-L	WDF-24-24-L	WDF-24-P	WDF-24-24-P
28"	WDF-28	WDF-28-24	WDF-28-L	WDF-28-24-L	WDF-28-P	WDF-28-24-P

FORMED STEEL PANELS

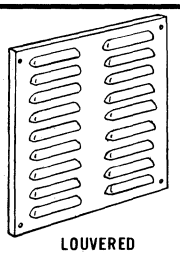
19" AND 24" WIDE FOR FRONT, REAR, TOP AND BOTTOM OPENING ON WYCO METAL FRAMES

DESCRIPTION

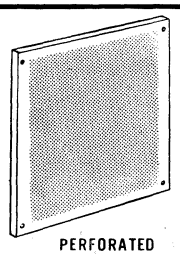
A. Material:
   1. Plain panels: 16 ga. steel
   2. Louvered panels: 16 ga. steel
   3. Perforated panels: 16 ga. steel
   4. Textolite panels:
      (a) Textolite top—grey desk pattern
      (b) Particle board: 1/2" thick
      (c) Phenolic backing sheet
B. Design-features:
   1. Plain:
      (a) 5/8" flange all four sides
      (b) Fits into 5/8" recessed opening on all WYCO METAL PROD. frames to create "flush appearance"
      (c) Available in 19" and 24" width
   2. Louvered:
      (a) Same features as plain panel
      (b) Double-row of louvers
      (c) Louvers are 6" long
      (d) Louvers are 3/4" high
      (e) 1" between louvers
      (f) Approximately 1-3/4 square inches of ventilation per louver
   3. Perforated:
      (a) Same features as plain panel
      (b) 5/64" dia. holes on 1/8" centers—staggered rows
      (c) 36% open area
      (d) 1" solid border all four sides
   4. Textolite:
      (a) Furnished with screws for fastening to WYCO METAL PROD. frames
      (b) Used as work/writing surface
      (c) Resists heat, abrasion and most acid and alkalines



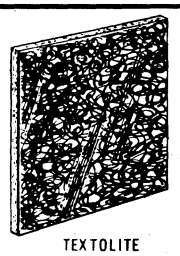
PLAIN



LOUVERED



PERFORATED



TEXTOLITE

PANEL HEIGHT	PLAIN 19" WIDE	PLAIN 24" WIDE	LOUVERED 19" WIDE	LOUVERED 24" WIDE	PERFORATED 19" WIDE	PERFORATED 24" WIDE	TEXTOLITE 19" WIDE	TEXTOLITE 24" WIDE
1-3/4"	WP1	WP1-24	———	———	———	———	———	———
3-1/2"	WP3	WP3-24	———	———	WP3P	WP3P-24	WP3T	WP3T-24
5-1/4"	WP5	WP5-24	WP5L	WP5L-24	WP5P	WP5P-24	———	———
7"	WP7	WP7-24	WP7L	WP7L-24	WP7P	WP7P-24	WP7T	WP7T-24
8-3/4"	WP8	WP8-24	WP8L	WP8L-24	WP8P	WP8P-24	———	———
10-1/2"	WP10	WP10-24	WP10L	WP10L-24	WP10P	WP10P-24	WP10T	WP10T-24
12-1/4"	WP12	WP12-24	WP12L	WP12L-24	WP12P	WP12P-24	WP12T	WP12T-24
14"	WP14	WP14-24	WP14L	WP14L-24	WP14P	WP14P-24	WP14T	WP14T-24
15-3/4"	WP15	WP15-24	WP15L	WP15L-24	WP15P	WP15P-24	———	———
17-1/2"	WP17	WP17-24	WP17L	WP17L-24	WP17P	WP17P-24	WP17T	WP17T-24
19-1/4"	WP19	WP19-24	WP19L	WP19L-24	WP19P	WP19P-24	———	———
21"	WP21	WP21-24	WP21L	WP21L-24	WP21P	WP21P-24	WP21T	WP21T-24
24-1/2"	WP24	WP24-24	WP24L	WP24L-24	WP24P	WP24P-24	———	———
28"	WP28	WP28-24	WP28L	WP28L-24	WP28P	WP28P-24	———	———
38-1/2"	WP38	WP38-24	WP38L	WP38L-24	———	———	———	———
42"	WP42	WP42-24	WP42L	WP42L-24	———	———	———	———
43-3/4"	WP43	WP43-24	WP43L	WP43L-24	———	———	———	———
52-1/2"	WP52	WP52-24	WP52L	WP52L-24	———	———	———	———
61-1/4"	WP61	WP61-24	WP61L	WP61L-24	———	———	———	———
70"	WP70	WP70-24	WP70L	WP70L-24	———	———	———	———
78-3/4"	WP78	WP78-24	WP78L	WP78L-24	———	———	———	———

SEE PAGES 291 TO 294 FOR LIST AND DOLLAR VOLUME DISCOUNTS

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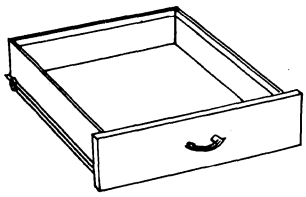
WYCO METAL PRODUCTS

ACCESSORIES

SLIDING DRAWERS
19" AND 24" WIDE PANEL SPACE



DESCRIPTION

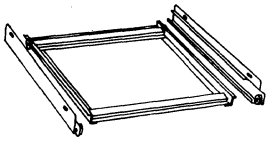
A. Material:
1. Front panel: 16 ga. steel
2. Drawer body: 20 ga. steel
3. Slide assembly: 16 ga. steel

B. Design-features:
1. Attractive drawer-pull included
2. Slides, included with drawer, allow drawer to move in and out on steel roller ball bearings
3. Front panel fits flush into cabinet frame vertical openings
4. Stationary part of slides bolt directly to panel mounting angles
5. Mating part of slide assembly is spot-welded to drawer body
6. If keyed tumbler lock desired, add "-LK" to suffix. Example: WED1000-7-25-LK.

ORDERING CHART

USE WITH 19" WIDE PANEL OPENING CAT.#	USE WITH 24" WIDE PANEL OPENING CAT.#	REQUIRES VERTICAL HEIGHT OF PANEL SPACE	INSTALLS IN FRAME DEPTH
WED1000-3-18	WED1024-3-18	3-1/2"	18-5/8"
WED1000-3-22	WED1024-3-22	3-1/2"	22-1/8"
WED1000-3-25	WED1024-3-25	3-1/2"	25-5/8"
WED1000-7-18	WED1024-7-18	7"	18-5/8"
WED1000-7-22	WED1024-7-22	7"	22-1/8"
WED1000-7-25	WED1024-7-25	7"	25-5/8"
WED1000-8-18	WED1024-8-18	8-3/4"	18-5/8"
WED1000-8-22	WED1024-8-22	8-3/4"	22-1/8"
WED1000-8-25	WED1024-8-25	8-3/4"	25-5/8"
WED1000-10-18	WED1024-10-18	10-1/2"	18-5/8"
WED1000-10-22	WED1024-10-22	10-1/2"	22-1/8"
WED1000-10-25	WED1024-10-25	10.1/2"	25-5/8"
WED1000-14-18	WED1024-14-18	14"	18-5/8"
WED1000-14-22	WED1024-14-22	14"	22-1/8"
WED1000-14-25	WED1024-14-25	14"	25-5/8"

CHASSIS/EQUIPMENT SLIDES
19" AND 24" WIDE PANEL SPACE



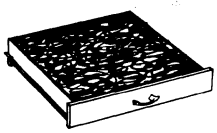
DESCRIPTION

A. Material: 16 ga. steel
B. Design-features:
1. Consists of 2 parts:
   a. stationary slides that bolt directly to mounting angles
   b. chassis/equipment frame support that moves in and out on steel roller-ball bearings
2. Cadmium plated
3. Supports up to 75 lbs. in extended position
4. Chassis/equipment frame support is removable and will not fall out because of positive-stops

ORDERING CHART

USE WITH 19" WIDE PANEL OPENING CAT.#	USE WITH 24" WIDE PANEL OPENING CAT.#	INSTALLS IN FRAME DEPTH
WSL900-18	WSL924-18	18-5/8"
WSL900-22	WSL924-22	22-1/8"
WSL900-25	WSL924-25	25-5/8"

SLIDING WORK-WRITING SHELVES



DESCRIPTION

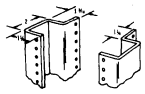
A. Material:
1. 16 ga. steel
2. Textolite work/writing top

B. Design-features:
1. Roller-bearing slides allow shelf to be pulled out when writing surface or work surface required
2. Uses 3-1/2" of vertical panel space
3. Supplied with attractive drawer pull
4. Stationary part of slides bolt directly to panel mounting angles
5. Mating part of slide assembly is spot-welded to shelf frame

ORDERING CHART

19" WIDE PANEL SPACE CAT.#	24" WIDE PANEL SPACE CAT.#	INSTALLS IN FRAME DEPTT	EXPOSED DEPTH WHEN PULLED OUT
WSS10	WSS10-24	18-5/8"	12-1/2"
WSS11	WSS11-24	22-1/8"	16"
WSS12	WSS12-24	25-5/8"	19-1/2"

PANEL MOUNTING/ACCESSORY MOUNTING ANGLES



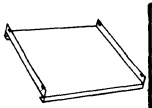
DESCRIPTION

A. Material: 11 ga. steel
B. Design Featurs:
1. W.E. & EIA spacing
2. Holes TAPPED 10-32 thread
C. Two pair (front/back) supplied with most frames. Additional pairs may be ordered.
D. Sold in pairs only.

ORDERING CHART

CAT. #	VERTICAL HEIGHT	CAT. #	VERTICAL HEIGHT
WM21	21"	WM43	43-3/4"
WM24	24-1/2"	WM52	52-1/2"
WM28	28"	WM61	61-1/4"
WM38	38-1/2"	WM70	70"
WM42	42"	WM78	78-3/4"

EQUIPMENT/CHASSIS SHELVES



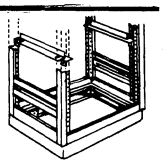
DESCRIPTION

A. Material: 16 ga. steel
B. Bolts directly to mounting angles

ORDERING CHART

USED WITH 19" WIDE PANEL SPACE FRAMES	USED WITH 24" WIDE PANEL SPACE FRAMES	INSTALLED IN FRAME DEPTH
WES1200-18	WES1224-18	18-5/8"
WES1200-22	WES1224-22	22-1/8"
WES1200-25	WES1224-25	25-5/8"

CHASSIS/EQUIPMENT SUPPORTING ANGLES



DESCRIPTION

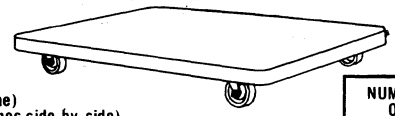
A. Material: 14 ga. steel
B. Consists of:
1. One pair of supporting angles that bolt directly to the WYCO METAL PRODS. panel mounting angles
2. One pair of chassis/equipment guide angles that bolt to the horizontal surface of the supporting angles. Slotted holes in both parts allow for lateral adjustment in in width.

C. Lateral adjustment of guide angles, as follows:
1. 19" wide panel opening: 16-1/4" to 17-3/4"
2. 24" wide panel opening: 21-1/4" to 22-3/4"

ORDERING CHART

CAT. #	INSTALLS IN FRAME DEPTH
WCSA15	15-1/8"
WCSA18	18-5/8"
WCSA22	22-1/8"
WCSA25	25-5/8"

HEAVY DUTY ROLLER TRUCKS



DESCRIPTION

A. Material: 11 ga. steel
B. Types available:
1. One bay (1 cabinet frame)
2. Two bay (2 cabinet frames side-by-side)
3. Three bay (3 cabinet frames side-by-side)

C. Pontoon bases not required with cabinet frames when heavy-duty roller trucks are used (ordering number for cabinet frame should specify w/o pontoon base)
D. Cabinet frames are bolted to roller truck unless otherwise specified; cabinet frames are centered on roller truck (from front to back), leaving 6" of roller truck top exposed at front and rear
E. Casters:
1. Self-lubricating
2. Hard tread
3. Three-inch diameter
4. Hardened double ball-bearing raceways
5. Full swivel
6. 200 lb. capacity per caster
F. IF FOOT-LOCK DESIRED, suffix catalog number with -LK (EXAMPLE: WRT3000-1-18-LK)
G. Larger casters available. Pricing developed upon application

ORDERING CHART

NUMBER OF BAYS WIDE	Use With Frames Having 19" Wide Panel Opening Cat.#	Use With Frames Having 24" Wide Panel Opening Cat.#	USED WITH FRAME DEPTH	OVER-ALL WIDTH 19"	OVER-ALL WIDTH 24"	OVER-ALL DEPTH OF TRUCK	NUMBER OF CASTERS 19"	NUMBER OF CASTERS 24"
One Bay	WRT3000-1-18	WRT3024-1-18	18-5/8"	22- 5132"	27- 5/32"	30-5/8"	4	4
One Bay	WRT3000-1-22	WRT3024-1-22	22-1/8"	22- 5/32"	27- 5/32"	34-1/8"	4	4
One Bay	WRT3000-1-25	WRT3024-1-25	25-5/8"	22- 5/32"	27- 5/32"	37-5/8"	4	4
Two Bay	WRT3000-2-18	WRT3024-2-18	18-5/8"	44-5/16"	54- 5/16"	30-5/8"	4	4
Two Bay	WRT3000-2-22	WRT3024-2-22	22-1/8"	44- 5/16"	54- 5/16"	34-1/8"	4	4
Two Bay	WRT3000-2-25	WRT3024-2-25	25-5/8"	44- 5/16"	54- 5/16"	37-5/8"	4	4
Three Bay	WRT3000-3-18	WRT3024-3-18	18-5/8"	66-15/32"	81-15/32"	30-5/8"	6	6
Three Bay	WRT3000-3-22	WRT3024-3-22	22-1/8"	66-15/32"	81-15/32"	34-1/8"	6	6
Three Bay	WRT3000-3-25	WRT3024-3-25	25-5/8"	66-15/32"	81-15/32"	37-5/8"	6	6

SEE PAGES 291 TO 294 FOR LIST AND DOLLAR VOLUME DISCOUNTS

Wyco Metal Products .....

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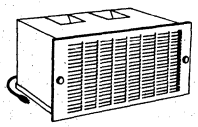
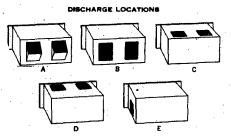
WYCO METAL PRODUCTS

BLOWERS/FANS





PACKAGED BLOWERS

ORDERING CHART

CAT.#	CFM @ 0"	PANEL HEIGHT	DEPTH MIN.	DEPTH MAX.	MOTOR SPEED	POWER APMS	POWER WATTS	CHOICE OF DISCHARGE A	B	C	D	E
WPB300	300	5-1/4"	6-1/4"	7"	3000	1.0	90	X	X	X	X	
WPB375	375	7"	8-1/4"	10"	3000	2.4	260	X	X	X	X	
WPB405	405	8-3/4"	9-3/4"	11"	1500	1.2	125	X	X	X	X	
WPB600	600	7"	____	15-3/4"	1140	5.2	425					X
WPB700	700	10-1/2"	11-1/2"	13"	1500	2.2	255	X	X	X	X	
WPB840	840	10-1/2"	13-3/4"	13-3/4"	1725	3.2	330			X	X	

DESCRIPTION

A. Motors:
1. Double-shielded precision ball bearing
2. Bearings meet Fed. Spec. #FF-B-171A
3. Lubricant used has range from –29° C to +148° C., provided protection exceeding MIL-G-3278 requirements under severe high temperature conditions
4. 115 volt, 50/60 cycle current is standard
5. Most units can be constructed for 230 volt usage on "special order"
6. All standard motors meet specification #CC-M-636A
7. Forced-air cooled by portion of intake air

B. Filter:
1. Permanent
2. Washable and reusable
3. Multiple layers of knitted aluminum encased in aluminum channel frame

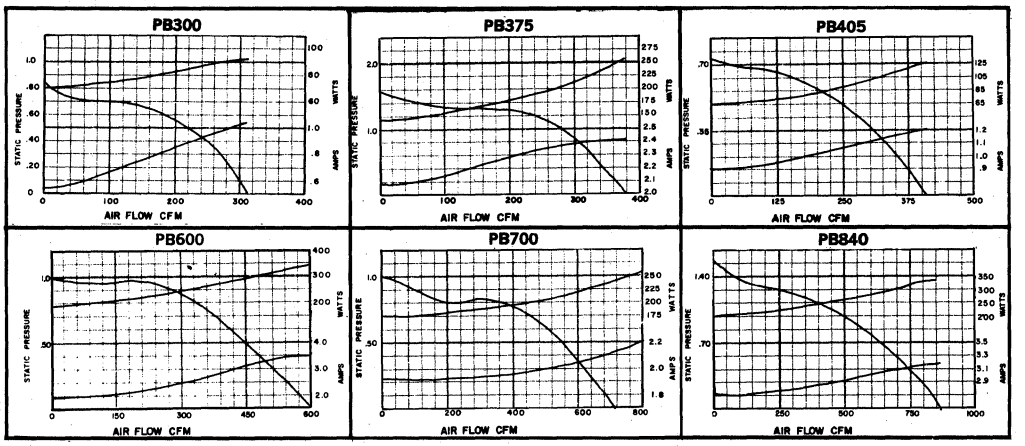
C. Front Grille:
1. Chrome plated C. R. steel
2. Knurled-head fasteners for easy removal
3. Grille pattern: 65% open
4. 19" wide

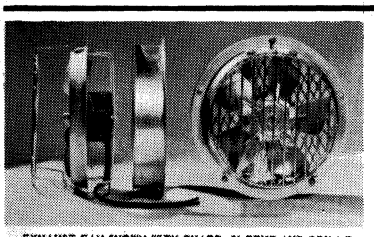
D. Blower case painted zinc chromate primer plus grey hammertone

E. Rotating parts neoprene shock-mounted and isolated from enclosure

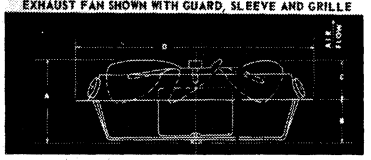
F. Minimum of 36" type SJ 3-wire core with molded plug included. Internally grounded, securely locked to case by strain-relief bushing.

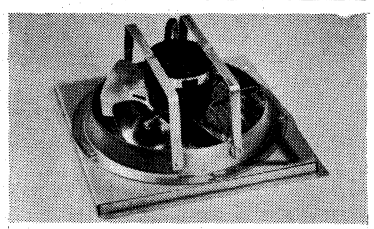
G. IMPORTANT: When ordering, add discharge suffix to catalog #, EXAMPLE: WPB300-A



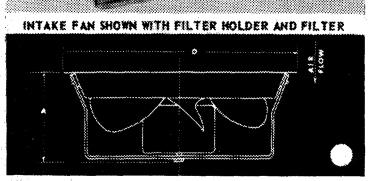


EXHAUST FAN SHOWN WITH GUARD, SLEEVE AND GRILLE





INTAKE FAN SHOWN WITH FILTER HOLDER AND FILTER



FANS AND FAN ACCESSORIES

ORDERING CHART

MOTORS: PERMANENTLY LUBRICATED – 115 VOLT – 50/60 CYCLE – SINGLE PHASE AC

	CFM AT 0" S.P.	CAT.#	A	B	C	D	FAN BLADE DIA.	RPM	MOTOR WATTS	BALL BEARING
EXHAUST	165	WF165B	2-7/8	1-5/8	1-1/4	8-1/2	6-1/2	1650	20	X
	220	WF220B	3-1/4	1-5/5	1-5/8	8-1/2	6-1/2	1550	25	X
	300	WF300B	4-1/8	2-5/8	1-1/2	8-1/2	6-1/2	3000	65	X
	400	WF400B	3-5/8	1-7/8	1-3/4	10-1/2	8	1460	46	X
	550	WF550B	4-3/8	2-1/8	2-1/4	11-1/2	9	1600	100	X
	750	WF750B	4-3/8	2-1/8	2-1/4	12-1/2	10	1560	105	X
INTAKE	160	WF160S	2-7/8			8-1/2	6-1/2	1650	20	X
	180	WF180S	3-1/4			8-1/2	6-1/2	1550	25	X
	300	WF300S	4-1/8			8-1/2	6-1/2	3000	65	X
	360	WF360S	3-3/4			10-1/2	8	1460	46	X
	540	WF540S	4-3/8			11-1/2	9	1600	100	X
	740	WF740S	4-3/8			12-1/2	10	1560	105	X

ACCESSORIES

ITEM	CAT. #	USED WITH FAN BLADE DIA. 6-1/2" Dia.	Depth	CAT. #	USED WITH FAN BLADE DIA. 8" Dia.	Depth	CAT. #	USED WITH FAN BLADE DIA. 9" Dia.	Depth	CAT. #	USED WITH FAN BLADE DIA. 10" Dia.	Depth
Guard	WFA101	6-3/4	1-7/8	WFB101	8-1/4	2-3/16	WFC101	9-1/4	2-3/8	WFD101	10-1/4	2-3/8
Grille*	WFA102	8-1/2	____	WFB102	10-1/2	____	WFC102	11-1/2	____	WFD102	12-1/2	____
Sleeve	WFA103	8-1/2	1-3/4	WFB103	10-1/2	2	WFC103	11-1/2	2-3/8	WFD103	12-1/2	2-3/8
Sleeve***	WFA104	8-1/2	1-1/2	____	____	____	____	____	____	____	____	____
Filter**	WFA105	8-3/8	____	WFB105	10-3/8	____	WFC105	11-3/8	____	WFD105	12-3/8	____
Filter Holder	WFA106	8-9/16	5/8	WFB106	10-9/16	5/8	WFC106	11-9/16	5/8	WFD106	12-9/16	5/8

*Grille Material: U S G Rondo, Type "F" Expanded Metal.
**Filter: Aluminum, Permanent-Type, 1/2" Thick.
***Used only with WF165B and WF300B Fans.

SEE PAGES 291 TO 294 FOR LIST AND DOLLAR VOLUME DISCOUNTS

Wyco Metal Products .....

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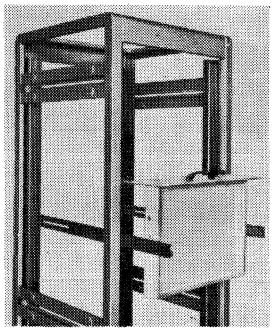
WYCO METAL PRODUCTS

SOLID BEARING SLIDES HARDWARE/WIRING STRIPS

75 LB. CAPACITY-TILT FEATURE



DESCRIPTION

A. This slide can be used as a non-tilt or tilt slide.
B. Locks in extended position.
C. Quick release feature allows for returning of chassis to closed position or substituting replacement chassis, if required.
D. 75 lb. load capacity at full extension with ±00% safety factor.
E. Withstands maximum shock and vibration due to solid bearing design.
F. Will support a full 17" wide chassis in a 19" wide panel space.
G. Will support a full 22" wide chassis in a 24" wide panel space.
H. Meets the following MIL specifications:
(1) Steel: MIL-QQ-S-636
(2) Salt Spray: 100 hours of 20% salt fog at 95° temp.
(3) Lubrication: MIL-L-22273 and QPL-25504-1
(4) Plating: MIL-QQ-2-325, Class 2, Type II
J. All mounting hardware included.

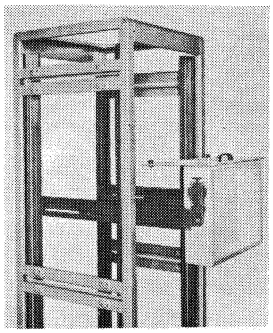
ORDERING CHART

Your Chassis Length	Wyco Slide No.	**Use in Wyco Frames
up to 14"	WSBS7000-16-T	WF500 series
up to 16"	WSBS7000-18-T	18-5/8" deep frames
up to 20"	WSBS7000-22-T	22-1/8" deep frames
up to 20"	WSBS7000-25-T	25-5/8" deep frames

**If rear mounting angles are positioned completely to the rear.

NOTE: If desired, any one of the above slides may be used in frames of lesser depths than notated above, by moving the rear or front mounting angles to the dimensional position required by length of slides ordered, or by ordering an additional pair of mounting angles.

175 LB. CAPACITY-TILT FEATURE



DESCRIPTION

A. Heavy-duty detent lock allows chassis to be tilted 90° in an up or down position. This makes for quick and easy servicing.
B. The slide will lock in extended position.
C. Quick release feature allows for returning of chassis to closed position or substituting replacement chassis, if required.
D. 175 lb. load capacity at full extension with 100% safety factor.
E. Withstands maximum shock and vibration due to solid bearing design.
F. Will support a full 17" wide chassis in a 19" wide panel space.
G. Will support a full 22" wide chassis in a 24" wide panel space.
H. Meets with following MIL Specifications:
(1) Steel: MIL-QQ-S-636
(2) Salt Spray: 100 hours of 20% salt fog at 95° temp.
(3) Lubrication: MIL-L-22273 and QPL-25504-!
(4) Plating: MIL-QQ-2-325, Class 2, Type II
J. All mounting hardware included.

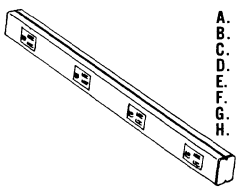
ORDERING CHART

Your Chassis Length	Wyco Slide No.	*Use in Wyco Frame
10" to 16"	WSBS8000-18-D	18-5/8" deep frames
12" to 20"	WSBS8000-22-D	22-1/8" deep frames
14" to 24"	WSBS8000-25-D	25-5/8" deep frames

*If rear mounting angles are positioned completely to the rear.

NOTE: If desired, any one of the above slides may be used in frames of lesser depth than notated above, by moving the rear or front mounting angles to the dimensional position required by length of slides ordered, or by ordering an additional pair of mounting angles.

PLUGMOLD WIRING STRIP

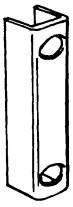


DESCRIPTION

A. Wired with No. 12 type TW conductors
B. NEMA Grounded Brown outlets (15A, 125V) 6" on centers.
C. Wire leads: 5" long
D. Duplex 2-wire outlets
E. Furnished with end fittings
F. Listed by Underwriters' Laboratories
G. Manufactured by "The Wiremold Company"
H. Sold separately or installed at factory.

ORDERING CHART

CAT. NO.	LENGTH	NUMBER OF OUTLETS
WPM4050	3' – 0"	6
WPM4051	6' – 0"	12



DESCRIPTION

A. Shim strip used behind 1/8" thick flat 19" or 24" rack panels to create flush appearance.

ORDERING CHART

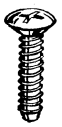
HT.	CAT.#	HT.	CAT.#
1-3/4"	WH80	12-1/4"	WH86
3-1/2"	WH81	14"	WH87
5-1/4"	WH82	15-3/4"	WH88
7"	WH83	17-1/2"	WH89
8-3/4"	WH84	19-1/4"	WH90
10-1/2"	WH85	21"	WH91

WYCO COLORS

TYPE	COLOR	QUANT.	CAT.#
Baking	Lite Grey	Qt.	WBLG
Baking	Dark Grey	Qt.	WBDG
Baking	Nordic Blue	Qt.	WBNB
Baking	Lite Blue	Qt.	WBLB
Baking	Gold	Qt.	WBGM
Baking	Lite Tan	Qt.	WBLT
Baking	Medium Tan	Qt.	WBMT
Baking	Black	Qt.	WBB

WYCO COLORS

TYPE	COLOR	QUANT.	CAT.#
Air Dry	Lite Grey	Qt.	WALG
Air Dry	Drk. Grey	Qt.	WADG
Air Dry	Nordic Blue	Qt.	WANB
Air Dry	Lite Blue	Qt.	WALB
Air Dry	Gold	Qt.	WAGM
Air Dry	Lite Tan	Qt.	WALT
Air Dry	Medium Tan	Qt.	WAMT
Air Dry	Black	Qt.	WAB



DESCRIPTION

A. Panel screws for rack panels
B. 10'32 thread—1-1/8" long
C. Bright nickel plated
D. Phillips recess head
E. CAT.#WH-40

A. Cup washers for panel screws
B. Bright nickel plated
C. CAT.#WH-41

A. Nylon cup washer insert
B. Used with #WH-41 to protect paint finish on panels
C. CAT.#WH-45

A. 1/4-20 bolt with lock washer
B. Cadmium plated
C. Phillips recess head
D. Used for bolting Stantron frames side-by-side
CAT.#WH72

A. 1/4-20 hex bolt
B. Cadmium plated
CAT.#WH73

SEE PAGES 291 TO 294 FOR LIST AND DOLLAR VOLUME DISCOUNTS

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WYCO METAL PRODUCTS

ALL-WELDED CABINET RACKS

DELUXE SERIES "G" AND "DF" — STANDARD SERIES "SL" AND "S"

DESCRIPTION:

A. 16 ga. high quality steel.
B. Welded together.
C. Panel mounting angles 1/8" steel.
D. Western Electric spacing.
E. Tapped 10/32.
F. Louvres rear door.
G. Rear door hung on loose-pin hinges.
H. Rear door has flush-type latch.
I. Highly-polished trim at front, top and bottom.
J. Front corners rounded.
K. Available grey or black wrinkle and silver grey hammertone.
L. "SL" and "S" series have detachable vertical trim.
M. "G" and "DF" series panel mounting angles adjustable front to back.
N. "DF" series has front door with automotive type handle and three point catch.
O. "SL" series has louvres at sides.
P. Narrow vertical trim can be ordered for "SL" and "S" series.

SPECIFICATIONS:

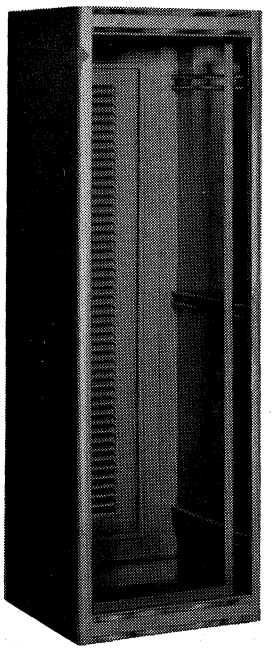
Cat. No.	Overall Dim.	Panel Space	Approx. Ship. Wt. Lbs.	Net each 1-5	Net each 6-10
G 6119	67 3/8" x 22" x 18"	61 1/4" x 19"	165	94.18	89.29
G 7019	76 1/8" x 22" x 18"	70" x 19"	185	105.98	100.40
G 7719	83 1/8" x 22" x 18"	77" x 19"	195	117.72	111.53
DF 1961	67 3/8" x 22" x 18"	61 1/4" x 19"	185	117.72	111.53
DF 1970	76 1/8" x 22" x 18"	70" x 19"	200	135.11	128.00
DF 1977	83 1/8" x 22" x 18"	77" x 19"	210	146.91	139.18
SL 1842	42 7/8" x 21 1/8" x 18"	36 3/4" x 19"	107	67.57	64.02
SL 1867	67 3/8" x 21 1/8" x 18"	61 1/4" x 19"	145	87.48	82.87
SL 1883	83 1/8" x 21 1/8" x 18"	77" x 19"	177	111.02	105.17

STANDARD "S" SERIES

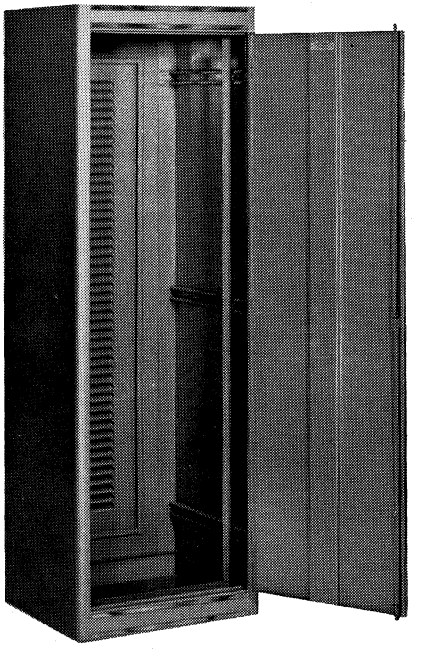
FOR 19" RACK PANELS

SPECIFICATIONS:

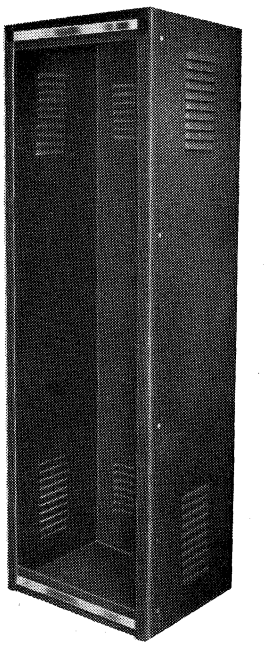
A. ALL SPECIFICATIONS AND DIMENSIONS OF "SL" SERIES APPLY, EXCEPT FOR FOLLOWING:
   (1) LOUVRES AT SIDE ARE OMITTED to facilitate use of racks in rows or "gangs."
   (2) When it is desirable to set up these cabinets in rows or "gangs," we can supply a connecting trim for a small additional charge. Order connecting trim, using prefix "AS" plus the last two numbers of the catalog number of the cabinet.
   (3) Catalog Numbers are prefaced with "S" instead of "SL."



"G" SERIES
ADJUSTABLE MOUNTING ANGLE



"DF" SERIES
ADJUSTABLE MOUNTING ANGLE



"SL" SERIES
DETACHABLE VERTICAL TRIM AT FRONT CORNERS

Wyco Metal Products .....

Net
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CABINET RACKS - RELAY RACKS EXPAND-A-RACKS

WYCO METAL PRODUCTS

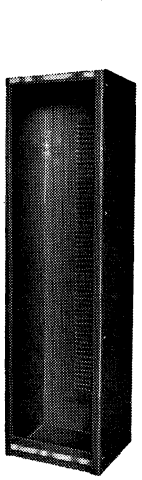
MODEL "W" AND BANNER "B" SERIES

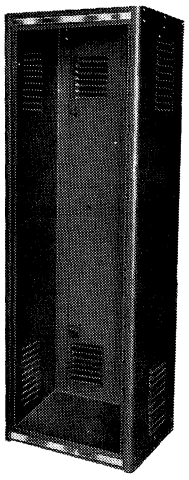
DESCRIPTION: "W" SERIES

A. 16 gauge high-quality steel.
B. Front corners are rounded.
C. Panel mounting angles 1/8" steel.
D. Mounting holes tapped 10/32 thread.
E. Mounting holes are UNIVERSAL CENTERS.
F. Louvres in rear door and sides.
G. Door hung on loose pin hinges.
H. Door closed by two flush-type latches.
I. Highly-polished trim on front.
J. RACK IS SHIPPED "KNOCKED-DOWN"; all necessary bolts supplied for assembly.
K. Finished in black or grey wrinkle and silver grey hammertone.
L. There are four brackets spot welded to the bottom of the cabinet. Our casters (catalog No. RC100) can be attached to these brackets. This offers instant mobility, if required.

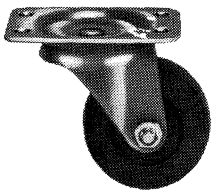
DESCRIPTION: "B" SERIES

A. 16 gauge high-quality steel and is welded together.
B. Panel mounting angles 1½x1½x⅛" angle iron.
C. Mounting holes are 10/32 thread.
D. (WESTERN ELECTRIC SPACING.)
E. Louvres in rear doors.
F. Rear corners re-inforced.
G. Door hung on loose pin hinges.
H. Door closed by two flush-type latches.
I. Highly-polished trim on front.
J. Panel mounting screws concealed by vertical trim.
K. Finished in black or grey wrinkle enamel and silver grey hammertone.
L. When it is desirable to set up racks in rows or "gangs," order connecting trim, using the prefix "AB" plus the last two numbers of the catalog number of the cabinet.





"B" SERIES

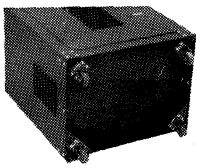


CASTERS

DESCRIPTION:

A. Can be used with our "W" series and Expand-A-Rack series.
B. Load capacity of a set of four is 520 lbs.
C. The swivel bearing wheels are made of a hard fibrous compound.

CATALOG NO. RC-100 APPROX. SHIP. WT. EACH 8 oz.
Net Ea. $1.10



"W" SERIES

SPECIFICATIONS:

Catalog Number	Overall Dimensions	Panel Space	Clear Inside Width (Front)	Clear Inside Width (Rear)	Clear Inside Depth	Approx. Shipping Weight	Net each 1-2	3-9	10-15
W 1036	42 x22x17¼	36¾x19	17⅞	17¼	15⅞	88 lbs.	45.17	36.59	32.93
W 1042	47¼x22x17¼	42 x19	17⅞	17¼	15⅞	95 lbs.	51.10	41.39	37.25
W 1061	66½x22x17¼	61¼x19	17⅞	17¼	15⅞	122 lbs.	63.96	51.80	46.62
W 1077	82¼x22x17¼	77 x19	17⅞	17¼	15⅞	148 lbs.	76.57	62.02	55.82
B 1876	76⅛x21⅛x18	70 x19	17⅞	17¼	16½	178 lbs.	118.27	112.04	—

EXPAND-A-RACK SERIES

DESCRIPTION:

A. When it is necessary to join two or more racks together, WYCO METAL PRODUCTS offers the "EXPAND-A-RACK" series.
B. Figure "A" shows two Expand-A-Racks joined together.
C. Figure "B" illustrates the method of expanding your present rack space. In place of purchasing an additional rack, a unit, consisting of the following items, would be bought: (a) the door; (b) the top; (c) the bottom; (d) an Expand-A-Rack joining unit. The right or left side of your existing relay cabinet rack is dis-assembled and replaced with an Expand-A-Rack joining unit. Following this step, the top and bottom are assembled. The cabinet side removed from the original rack is then fastened onto the second rack. Upon hanging the additional door, two complete racks are now joined together.
D. Wyco's Expand-A-Rack series may be purchased by one of two methods. One method consists of buying one complete rack (the "W" series) plus one Expand-A-Rack unit. If you already have one of our basic "W" series cabinets, then order an Expand-A-Rack unit.
E. Supports are electronically welded to the bottom to receive our casters (#RC-100).
F. There is an ample amount of compound knockouts in the Expand-A-Rack joining unit center partition. This allows cables and leads to be taken from one cabinet to the other.
G. Available in Grey or Black Wrinkle and Silver Grey Hammertone.

SPECIFICATIONS:

Cat. No.	Used to Expand-A-Rack With	Approx. Ship. Wt. Lbs.	Net Ea. 1-2	3-9	10-15
E-400	W-1036	74	44.34	35.92	32.33
E-401	W-1042	78	49.01	39.70	35.73
E-402	W-1061	99	60.95	49.37	44.43
E-403	W-1077	126	74.90	60.67	54.60

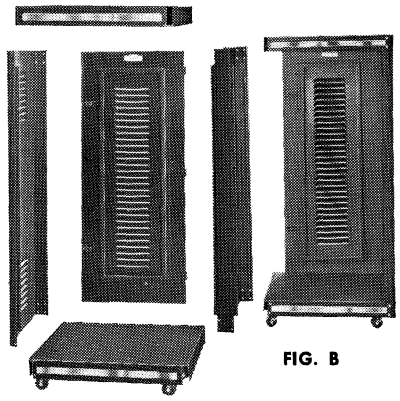


FIG. B

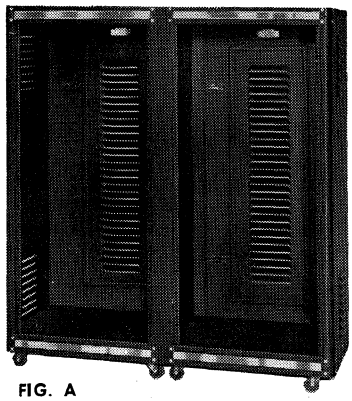


FIG. A

Wyco Metal Products .....

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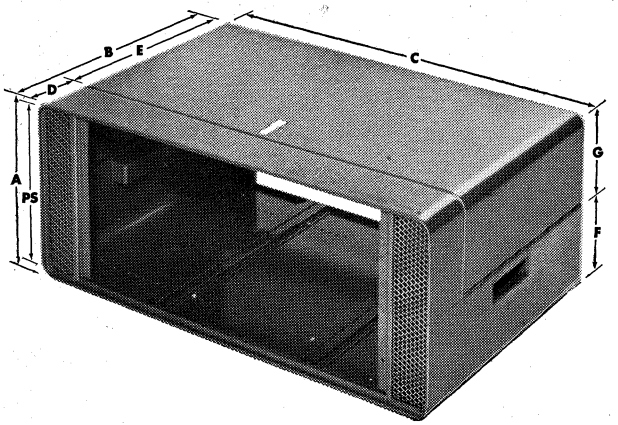
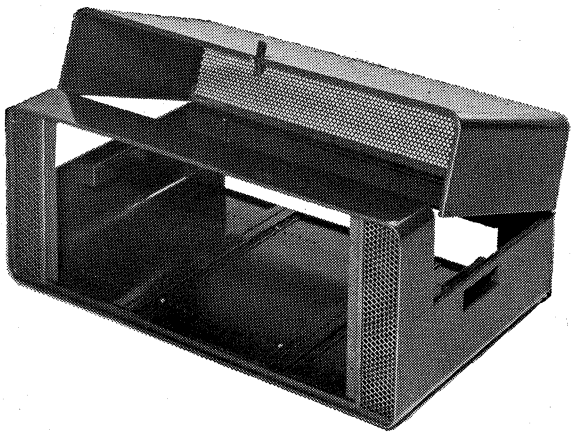
WYCO METAL PRODUCTS

THE "SUPREME LINE" CABINET SERIES AND PORTABLE SCOPE DOLLY



FRONT VIEW



FRONT VIEW — TOP DOOR OPEN

DESCRIPTION:

A. Fabricated of 16 ga. steel.

B. Mounting holes tapped 10-32.

C. Mounting holes: Universal spacing.

D. Ventilated by perforated metal front, louvred back and rear opening.

E. Top door has continuous piano hinge.

F. Top door has flush-type latch.

G. Embossed feet with rubber bumpers at bottom.

H. Adjustable Hat-section type rails, furnished to support chassis, have holes for bolting to cabinet bottom and chassis.

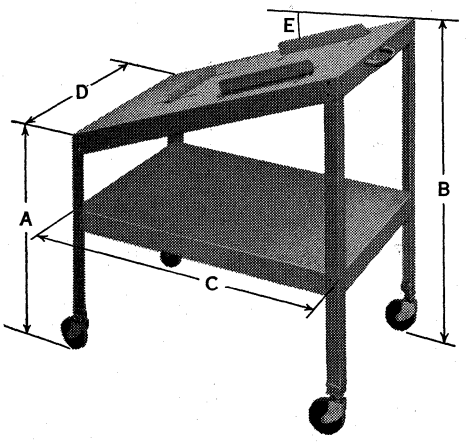
I. Recessed carrying handles are in sides of cabinet.

J. Finished in dark grey hammertone.

K. Utilization of our standard aluminum or steel panels in silver grey hammertone finish with this series creates an attractive contrast.

SPECIFICATIONS

CAT #	PANEL SPACE	A	B	C	D	E	F	G	H	I	Approx. Ship. Wt. Lbs.	Net each 1-5	Net each 6-15
SL 7760	7x19	7¾	15	24	3	12	3⅞	3⅞	3⅛	3⅞	25	30.20	28.69
SL 7761	8¾x19	9½	15	24	3	12	4¾	4¾	3⅛	4¾	23	32.20	30.59
SL 7762	10½x19	11¼	15	24	3	12	5⅝	5⅝	3⅛	5⅝	27	34.20	32.49
SL 7763	12¼x19	13	15	24	3	12	6½	6½	3⅛	6½	29	38.73	36.79
SL 7764	14x19	14¾	15	24	3	12	7⅜	7⅜	3⅛	7⅜	31	43.05	40.90



PORTABLE SCOPE DOLLY

DESCRIPTION

A. Shelves fabricated of high-quality steel.

B. Legs fabricated of structural steel for strength.

C. Highly - polished functional handle included.

D. By adjusting brackets on the top shelf, almost any popular type of laboratory scope may be carried.

E. Full - swivel 3" rubber casters included.

F. Painted in smooth grey enamel.

G. Shipped knocked-down with all necessary hardware for easy assembly.

CAT. #	Type	"A"	"B"	"C"	"D"	"E"	Approx. Ship. Wt.	Net each 1-5	Net each 6-15
SD 7783	sloping	21¾"	32½"	28"	19"	20°	30#	37.33	35.46

Wyco Metal Products .....

Net

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WYCO METAL PRODUCTS

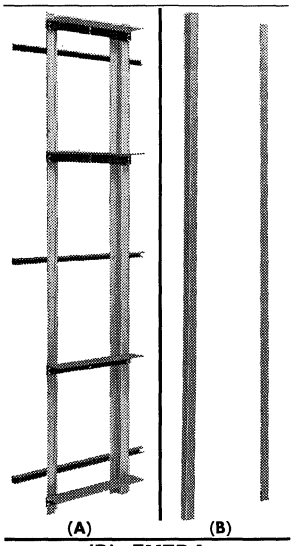
SLIDES — SLIDE ASSEMBLIES

SLIDING DRAWERS
VERTICAL SLIDE SUPPORTS — EXTRA MOUNTING ANGLES
HEAVY DUTY CASTERS

(A) VERTICAL SIDE SUPPORTS

Description: (A) Bolts to Unistrut members in following series cabinets: G/DF. (B) 12 ga. steel; painted hammertone. (C) 10-32 holes. Universal spacing. (D) Supports shelves, mounting brackets and slide units. (E) Support brackets not included; order separately. (F) Mounting hardware included.

Cat. No.	Panel Space	Ship. Wt.	Net ea. per set 1-5	6-15
ZA-7757	61¼"	30	20.38	19.36
ZA-7758	70"	34	23.71	22.53
ZA-7759	77"	38	26.54	25.21



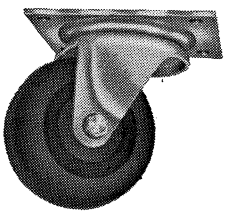
(A) (B)

(B) EXTRA MOUNTING ANGLES

Description: (A) Order when additional pair mounting angles required for following cabinet series: DF/G. (B) 12 ga. steel; painted grey hammertone. (C) 10-32 holes; WE spacing.

Cat. No.	Panel Space	Ship. Wt.	Net ea. per pr. 1-5	6-15
MA-7774	61¼"	22	17.48	16.61
MA-7775	70"	26	19.89	18.90
MA-7776	77"	30	21.73	20.64

HEAVY DUTY CASTER



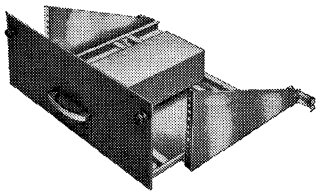
Description: (A) Capacity: 200# per caster. (B) 4" x 1⅝" full-swivel wheel. (C) All rubber cushion tread, hard fibrous center. (D) Used on RW/FW cabinet series.

Catalog #RC-7773

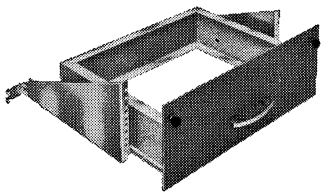
Net Each		
1-20: 5.18	21-30: 4.29	31-40: 4.19

PHOTOGRAPHS A, B, C, D, ARE EXAMPLES OF SLIDE ASSEMBLIES FOR 19" RACKS

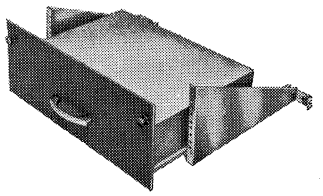
(A) Example: Slide Assembly Using Chassis LESS Than 17" Width



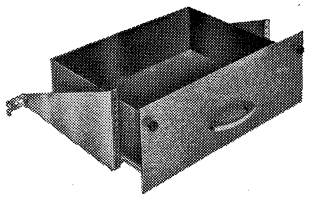
(B) Example: Slide Assembly Using Chassis Frame



(C) Example: Slide Assembly Using 17" Wide Chassis

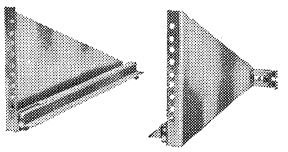


(D) Example: Slide Assembly Using Drawer



ORDER COMBINATION OF PARTS, DESCRIBED BELOW, TO BUILD ASSEMBLIES, AS REQUIRED, FOR 19" RACK MOUNTING

SLIDES FOR 17" WIDE CHASSIS

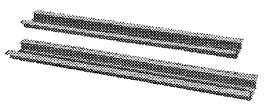


Catalog #BS-7777

Net ea. 1-5: 7.77 6-15: 7.38

Description: (A) Supports 17" wide chassis. (B) Supports 75 lbs. in extended position. (C) Travels on roller bearings. (D) 14" deep in closed position. (E) Extends 10" to front when pulled out. (F) Attaches to rear side of mounting angle. (G) Fabricated of heavy-gauge, plated steel.

SUPPORTS FOR CHASSIS LESS THAN 17" WIDE

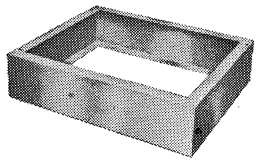


Catalog #BS-7778

Net ea. 1-5: 2.29pr 6-15: 2.18pr

Description: (A) Used with BS-7777 to support any chassis less than 17" wide. (B) Heavy-gauge, plated steel. (C) Includes hardware for attaching to basic slides.

CHASSIS FRAMES

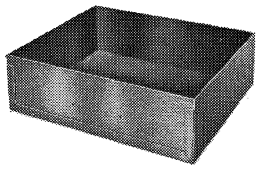


Catalog #BS-7779

Net ea. 1-5: 5.12 6-15: 4.86

Description: (A) Size 17" x 14" x 3" x 1" flange. (B) 1" flange supports plywood for record changer. (C) Heavy-gauge, plated steel. (D) Includes hardware for attaching to basic slides.

DRAWER

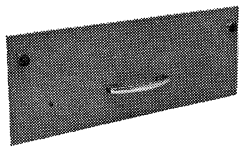


Catalog #BS-7780

Net ea. 1-5: 8.96 6-15: 8.51

Description: (A) Size: 17" wide x 14" deep x 5" high. (B) Heavy-gauge steel. (C) Painted black enamel. (D) Includes hardware for attaching to basic slides.

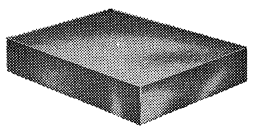
FRONT SLIDE PANEL



Cat. No.	Size	Net each 1-5	6-15
BS-7781	7"x19"	4.59	4.36
BS-7782	10½"x19"	5.22	4.96

Description: (A) Used as front panel; attaches to slide assembly. (B) 12 gauge steel. (C) Handle and quick-turn latches included. (D) Colors: Grey and Black wrinkle or grey hammertone.

STANDARD CHASSIS



Description: (A) Standard aluminum or steel chassis may be used with our slide unit. (B) See list of sizes described in this catalog.

Wyco Metal Products .....

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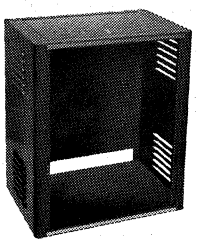
WYCO METAL PRODUCTS — CABINET RACKS - RELAY RACKS CHASSIS - CASES

MODEL "C" SERIES



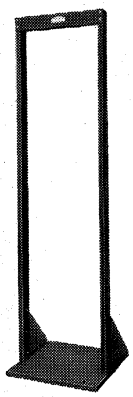
DESCRIPTION:

A. Constructed of heavy gauge high-quality steel and is completely welded together.
B. Front vertical corners rounded.
C. Mounting holes tapped 10/32 thread.
D. Mounting holes spaced on UNIVERSAL CENTERS.
E. Louvres in side provide ample ventilation.
F. Highly-polished trim at top and bottom of front.
G. Top door has piano hinge and flush-type latch.
H. Finished in black or grey wrinkle and silver grey hammertone.
I. Embossed feet on bottom minimize marring of table tops.

SPECIFICATIONS:

(DOOR IN TOP ONLY)

Catalog Number	Dimensions	Panel Space	Approx. Shipping Weight	Net Each 1-2	3-9	10-15
C719	8¾x22x15 Deep	7 x19	25 lbs.	15.28	12.38	11.14
C819	10½x22x15 Deep	8¾x19	27 lbs.	16.70	13.53	12.18
C1019	12¼x22x15 Deep	10½x19	28 lbs.	19.12	15.49	13.94
C1219	14 x22x15 Deep	12¼x19	30 lbs.	20.12	16.30	14.68
C1419	15¾x22x15 Deep	14 x19	32 lbs.	22.96	17.78	16.00
	(DOOR IN TOP AND REAR)					
C1719	19¼x22x15 Deep	17½x19	36 lbs.	26.22	21.24	19.12
C2119	22¾x22x15 Deep	21 x19	40 lbs.	28.06	22.72	20.45
C2619	28 x22x15 Deep	26¼x19	43 lbs.	30.14	24.42	21.98
C3119	33¼x22x15 Deep	31½x19	47 lbs.	31.98	25.90	23.31
C3519	36¾x22x15 Deep	35 x19	50 lbs.	33.65	27.26	24.53



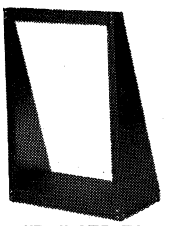
"RC" SERIES

"RC" SERIES

A. Rack constructed of ⅛" high-quality steel.
B. Mounting holes are tapped 10-32 thread.
C. Mounting holes are spaced on UNIVERSAL CENTERS.
D. Base is 20" x 20".
E. SHIPPED "KNOCKED-DOWN"; all necessary bolts supplied for assembly.
F. FINISH: Grey hammertone or Black Wrinkle.

"RT" SERIES

A. Rack constructed of heavy gauge high-quality steel.
B. Mounting holes are tapped 10/32 thread.
C. Mounting holes are spaced on UNIVERSAL CENTERS.
D. SHIPPED "KNOCKED-DOWN"; all necessary bolts supplied for assembly.
E. FINISH: Grey hammertone or Black Wrinkle.



"RT" SERIES

SPECIFICATIONS:

Catalog Number	Panel Space	Approx. Shipping Weight	Net each 1-2	3-9	10-15
RC36	36¾x19	28 lbs	21.96	17.78	16.00
RC71	71¾x19	41 lbs.	25.13	20.36	18.32

Catalog Number	Panel Space	Height	Width	Depth	Approx. Shipping Weight	Net each 1-2	3-9	10-15
RT21	21x19	25"	21"	12"	16 lbs.	9.10	7.37	6.63
RT28	28x19	32"	21"	12"	18 lbs.	11.19	9.06	8.15

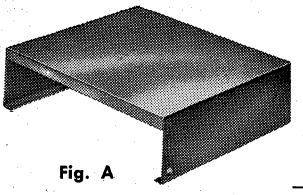


Fig. A

OPEN END CHASSIS

DESCRIPTION: Fig. A

A. Can be utilized on all types of small built-up units such as record amplifier, code oscillator, etc.
B. Electro-Zinc plated.

MINIATURE ALUMINUM CHASSIS

DESCRIPTION: Fig. B

A. Ideal for miniature tube applications, sub-assemblies, small receivers, narrow band FM adaptors.
B. Has ¼" flanges on bottom.
C. Natural aluminum finish.

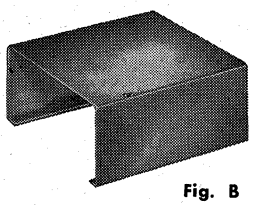
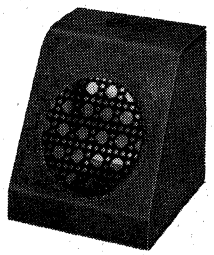


Fig. B

Catalog Number	Depth	Width	Height	Approx. Shipping Wt.-Lbs.	Net each 1-24	25-50	51-100
E-570	7"	6"	2"	1	1.00	.81	.73
E-571	5"	7"	1½"	¾	.97	.78	.70
E-572	7"	7"	1½"	¾	1.24	1.01	.91
E-573	7"	8"	2"	1	1.17	.95	.86
E-574	5½"	9"	1½"	¾	1.09	.88	.79
E-575	7½"	9"	1½"	1	1.40	1.13	1.02
E-576	7"	10"	2"	1¼	1.37	1.11	1.00
E-577	7"	11"	1½"	1¼	1.30	1.05	.95
E-578	7"	13"	1½"	1½	1.59	1.29	1.16
E-579	10¾"	14"	2"	2½	1.87	1.51	1.36
E-580	7¾"	15"	2"	2	1.78	1.44	1.30

Catalog Number	Depth	Width	Height	Approx. Shipping Wt.-Lbs.	Net each 1-24	25-50	51-100
MA-700	2⅝"	2¾"	1¼"	¼	.38	.31	.28
MA-701	1¾"	3⅛"	1"	¼	.42	.34	.31
MA-702	3¼"	4½"	2"	¼	.48	.39	.35
MA-703	2¾"	4⅛"	1½"	¼	.45	.37	.33
MA-704	3¾"	4⅛"	1"	¼	.45	.37	.33
MA-705	3"	6⅛"	1¼"	¼	.53	.43	.39
MA-706	5¾"	4⅞"	1½"	¼	.57	.46	.41
MA-707	4"	3⅛"	1"	½	.41	.33	.30
MA-708	4"	4⅛"	1"	½	.50	.41	.37
MA-709	4"	5⅛"	1"	½	.53	.43	.39
MA-710	4"	6⅛"	1"	½	.55	.45	.41



MINIATURE SPEAKER CASE

DESCRIPTION:

A. Houses midget 2" or 3" speaker.
B. Silver Grey Hammertone Finish.

SPECIFICATIONS:

Catalog Number	Hole Diameter	Fits Speaker Size	Approx. Ship. Wt. Lbs.	Net each 1-24	25-50	51-100
MS-80	2¼"	2"	¾	1.58	1.42	1.28
MS-81	2 13/16"	3"	¾	1.58	1.42	1.28

Wyco Metal Products .....

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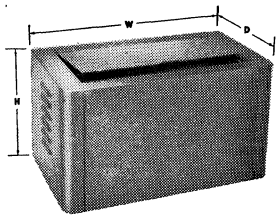
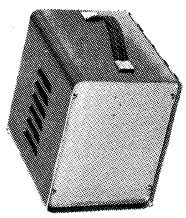
WYCO METAL PRODUCTS — RECEIVER CABINETS - SLOPING PANEL/TOP OPENING - MULTI-USE CABINETS - CHASSIS DECK



MODEL "CS" RECEIVER CABINET (Description)

(A.) Front vertical corners are rounded. (B.) Has recessed, hinged, top door. (C.) Top door opened by finger lift. (D.) Removable front panel, included, is attached with self-tapping screws. (E.) Louvers in side provide ventilation. (F.) Silver grey hammertone only.

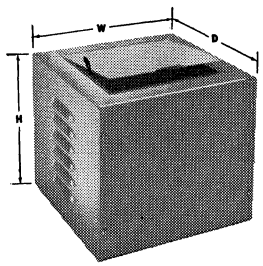
Cat. #	H	W	D	Panel Size	Approx. Ship. Wt. Lbs.	Net each 1-9	10-50	51-100
CS 7727	8"	10½"	8¼"	8"x 8"	6¼	4.31	3.49	3.14
CS 7728	8"	12½"	8¼"	8"x10"	6½	5.31	4.30	3.87
CS 7729	8"	14½"	8¼"	8"x12"	7	5.78	4.68	4.21
CS 7730	8"	16½"	8¼"	8"x14"	7½	6.05	4.91	4.42
CS 7731	8"	18½"	8¼"	8"x16"	8¼	6.63	5.37	4.83
CS 7732	12"	20⅝"	12"	12"x18"	15½	12.06	9.76	8.78



CARRY-CASE CABINET (Description)

(A) Fabricated of one piece .050 aluminum with radius corners.
(B) Front panel included is made of .062 aluminum and is recessed ½".
(C) Flexible handel included.
(D) Recessed louvres each side provide good ventilation.
(E) Four removable rubber feet provided.
(F) Silver grey hammertone finish.

Cat. #	H	W	D	Rear Opening	Louvre Ea. Side	Net each 1-9	10-50	51-100
CC 7784	8"	6⅛"	8"	4½" x 2"	1 Row	9.60	8.64	7.78
CC 7785	9"	8⅛"	12"	6½" x 2"	2 Rows	12.55	11.30	10.17
CC 7786	8"	10⅛"	8"	8½" x 2"	1 Row	11.15	10.05	9.00
CC 7787	11"	11⅛"	18"	9½" x 2"	3 Rows	14.15	12.75	11.45



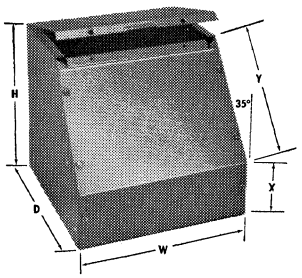
MODEL "CR" RECEIVER CABINET (Description)

(A.) Front vertical corners are square. (B.) Top door is recessed and hinged. (C.) Top door has finger lift. (D.) Removable front panel, included, is attached with self-tapping screws. (E.) Ventilation is supplied by louvers. (F.) Finished in silver grey hammertone only.

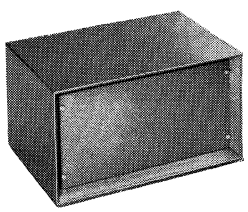
Cat. #	H	W	D	Approx. Ship. Wt. Lbs.	Net each 1-9	10-50	51-100
CR 7720	7"	8"	8"	5½	4.18	3.88	3.04
CR 7721	7"	10"	8"	6	4.84	3.92	3.53
CR 7722	7"	12"	8"	6¼	5.01	4.06	3.65
CR 7723	7"	14"	8"	6½	5.26	4.26	3.83
CR 7724	8"	16"	8"	7½	7.60	6.16	5.54
CR 7725	9"	15"	11"	8½	9.19	7.44	6.70
CR 7726	12"	18"	12"	15½	9.92	8.04	7.24

SLOPING PANEL/TOP OPENING CABINET (Description)

(A.) Sloping front panel, included, is attached with self-tapping screws. (B.) Hinged, top door has finger lift. (C.) Opening at back for leads and ventilation. (D.) Silver grey hammertone only.



Cat. #	H	W	D	X	Y	Approx. Ship. Wt. Lbs.	Net eacn 1-9	10-50	51-100
SC 7739	6½"	7 1/16"	7 5/16"	2¼"	5 1/16"	3	3.30	2.67	2.40
SC 7740	8"	8 1/16"	8"	2¼"	6 7/16"	3¼	4.51	3.65	3.29
SC 7741	6½"	9 1/16"	7 5/16"	2¼"	5 1/16"	3½	3.75	3.04	2.74
SC 7742	8"	10 1/16"	8"	2¼"	6⅞"	3¾	5.01	4.06	3.65
SC 7743	6½"	11 1/16"	7 5/16"	2¼"	5 1/16"	4	4.34	3.52	3.17
SC 7744	8"	14 1/16"	8"	2¼"	6⅞"	4½	5.34	4.33	3.90
SC 7745	8"	13 1/16"	8½"	2¾"	6 5/16"	4¾	5.59	4.53	4.08
SC 7746	9"	18 1/16"	8⅛"	2¼"	6 15/16"	7½	7.68	6.22	5.60
SC 7747	10"	18 1/16"	10½"	3¼"	8⅛"	8¾	7.85	6.36	5.72



SHADOW-BOX INSTRUMENT CABINET (Description)

(A) Front panel, rear panel and bottom removable for both installation and/or servicing.
(B) Front panel recessed 1" within beveled cabinet front.
(C) Front/rear panel: 16 ga. steel.
(D) Cabinet body and bottom: 18 ga. steel.
(E) Four removable rubber feet included.
(F) Silver grey hammertone finish.

Cat. #	H	W	D	1-9	Net each 10-50	51-100
SBC 7788	8"	14¼"	10"	6.80	6.12	5.50
SBC 7789	7½"	13¼"	9"	5.70	5.13	4.62
SBC 7790	9½"	17"	11"	9.30	8.37	7.53
SEC 7791	6"	15½"	9"	5.60	5.04	4.54

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WYCO METAL PRODUCTS

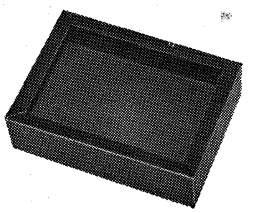
CHASSIS

STEEL

Cad Plated Cat. No.	Depth	Width	Ht.	Ga.	Approx. Ship. Wt.-Lbs.	Net each 1-24	25-50	51-100
CP-1300	5"	7"	2"	22	1	1.30	1.05	.95
CP-1301	5"	9½"	2½"	22	1¼	1.67	1.35	1.22
CP-1302	5"	9½"	1½"	22	1	1.69	1.37	1.23
CP-1303	5"	10"	3"	22	1¼	1.84	1.49	1.34
CP-1304	6"	14"	3"	20	1¾	2.05	1.67	1.50
CP-1305	7"	7"	2"	22	1½	1.50	1.22	1.10
CP-1306	7"	9"	2"	22	1½	1.59	1.29	1.16
CP-1307	7"	11"	2"	20	1½	1.67	1.35	1.22
CP-1308	7"	12"	3"	20	1¾	2.05	1.67	1.50
CP-1309	7"	13"	2"	20	2	1.92	1.56	1.40
CP-1310	5"	13½"	2½"	20	1¾	2.17	1.76	1.58
CP-1311	7"	15"	3"	20	2	2.40	1.94	1.75
CP-1312	8½"	15"	3"	20	2½	2.71	2.30	1.98
CP-1313	4"	17"	3"	20	2¼	2.14	1.74	1.57
CP-1314	7"	17"	2½"	20	2½	2.37	1.92	1.73
CP-1315	7"	17"	3"	20	1¾	2.59	2.10	1.89
CP-1316	8"	10"	2½"	20	2	2.02	1.64	1.48
CP-1317	8"	12"	2½"	20	2½	2.24	1.82	1.64
CP-1318	8"	12"	3"	20	1¾	2.34	1.90	1.71
CP-1319	8"	17"	2"	20	2½	2.34	1.90	1.71
CP-1320	8"	17"	3"	20	3¼	2.62	2.12	1.91
CP-1321	10"	12"	3"	20	3	2.25	1.83	1.65
CP-1322	10"	14"	3"	20	4	2.44	1.98	1.78
*CP-1323	10"	17"	2"	20	3¼	2.39	1.94	1.75
*CP-1324	10"	17"	3"	20	4	2.84	2.30	2.07
*CP-1325	10"	17"	3"	18	5	3.05	2.48	2.23
CP-1326	10"	23"	3"	18	5½	3.42	2.78	2.50
*CP-1327	11"	17"	2"	18	4½	2.81	2.28	2.05
*CP-1328	11"	17"	3"	18	4½	3.49	2.83	2.55
*CP-1329	12"	17"	2"	18	4½	3.09	2.50	2.25
*CP-1330	12"	17"	3"	18	5¼	3.67	2.97	2.67
*CP-1331	13"	17"	2"	18	5	3.72	3.02	2.72
*CP-1332	13"	17"	3"	18	5½	4.07	3.29	2.96
*CP-1333	10"	17"	4"	18	6½	3.51	2.84	2.56
*CP-1334	13"	17"	4"	18	7½	4.68	3.79	3.41
CP-1335	10"	17"	5"	18	7½	5.34	4.33	3.90
CP-1336	13"	17"	5"	18	8	5.93	4.81	4.33

ALUMINUM

Cat. No.	Depth	Width	Ht.	Gauge	Approx. Shipping Wt.-Lbs.	Net each 1-24	25-50	51-100
CA-2001	4"	6"	3"	18	½	1.34	1.09	.98
CA-2002	4"	6"	2"	18	½	1.10	.89	.80
CA-2003	4"	17"	3"	16	1¼	2.33	1.89	1.70
CA-2004	5"	7"	2"	18	½	1.17	.95	.86
CA-2005	5"	7"	3"	16	¾	1.42	1.15	1.04
CA-2006	5"	9½"	2"	18	½	1.24	1.01	.91
CA-2007	5"	9½"	3"	18	¾	1.60	1.30	1.17
CA-2008	5"	10"	3"	18	¾	1.63	1.32	1.19
CA-2009	5"	13"	3"	18	¾	1.84	1.49	1.34
CA-2010	6"	17"	3"	16	1¼	2.67	2.16	1.94
CA-2011	7"	7"	2"	18	½	1.35	1.10	.99
CA-2012	7"	9"	2"	18	½	1.46	1.18	1.06
CA-2013	7"	11"	2"	18	¾	1.58	1.28	1.15
CA-2014	7"	12"	3"	18	1	2.00	1.62	1.46
CA-2015	7"	13"	2"	18	¾	1.67	1.35	1.22
CA-2016	7"	15"	3"	16	1½	2.67	2.16	1.94
CA-2017	7"	17"	3"	16	1¾	2.75	2.23	2.01
CA-2018	8"	12"	3"	16	1½	2.42	1.96	1.76
CA-2019	8"	17"	2"	16	1½	2.51	2.03	1.83
CA-2020	8"	17"	3"	16	1¾	2.84	2.30	2.07
CA-2021	10"	12"	3"	16	1½	2.67	2.16	1.94
CA-2022	10"	14"	3"	16	1¾	2.84	2.30	2.07
CA-2023	10"	17"	2"	16	1¼	2.68	2.17	1.95
CA-2024	10"	17"	3"	16	2	3.17	2.57	2.31
CA-2025	11"	17"	2"	14	2¼	3.42	2.77	2.49
CA-2026	11"	17"	3"	14	2¾	3.97	3.21	2.89
CA-2027	12"	17"	3"	14	2¾	4.08	3.30	2.97
CA-2028	13"	17"	2"	14	2¼	3.51	2.84	2.56
CA-2029	13"	17"	3"	14	2¾	4.26	3.45	3.11
CA-2030	10"	17"	4"	14	3½	4.51	3.65	3.28
CA-2031	13"	17"	4"	14	3¾	5.26	4.26	3.83



STEEL CHASSIS

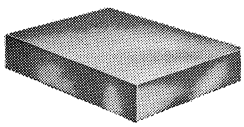
DESCRIPTION:

A. Fabricated from one piece of steel.
B. All corners electronically spot welded.
C. Flanges on bottom formed and punched to allow bottom plate to be attached if desired.
D. Finished in Cad. Plate.
E. Asterisk indicates holes punched to receive chassis mounting brackets.

ALUMINUM CHASSIS

DESCRIPTION:

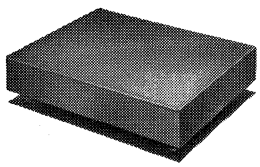
A. Fabricated of one piece of aluminum, 3003-H14.
B. All corners are electronically spot welded.
C. Flanges on bottom formed and punched to allow bottom plate to be attached, if desired.
D. Natural aluminum finish.
E. Gauges indicated are aluminum gauges.



HEAVY DUTY CHASSIS AND BOTTOM PLATE

DESCRIPTION:

A. Made of cold Rolled steel.
B. Bottom plate included at no additional charge.
C. Available in Cad. Plate.

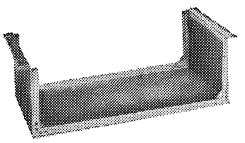


Cad. Plated Cat No.	Steel Guage	Depth	Width	Height	Approx. Shipping Wt. - Lbs.	Net each 1-24	25-50	51-100
C-627	20	8"	17"	2"	6	4.50	3.65	3.29
C-628	20	8"	17"	3"	7½	4.76	3.85	3.47
C-629	18	11"	17"	2"	8½	4.78	3.87	3.48
C-630	18	11"	17"	3"	9	4.84	3.92	3.53
C-631	18	13"	17"	2"	9½	5.34	4.33	3.90
C-632	18	13"	17"	3"	10	5.43	4.40	3.96
C-633	18	13"	17"	4"	11	5.85	4.74	4.27

PANEL CHASSIS ALUMINUM

DESCRIPTION:

A. .062 aluminum (3003-H14).
B. Natural aluminum finish.
C. Flange notched for mounting to rack mounting angles.



Alum. Cat. #	W.	H.	D.	Alum. Wt.	Net each 1-24	25-50	51-100
PC-505	19"	1¾	5/32	¾	2.30	1.86	1.67
PC-506	19"	3½	5/32	1¼	2.59	2.10	1.89
PC-507	19"	5¼	5/32	1½	2.84	2.30	2.07
PC-508	19"	7	5/32	2	3.26	2.64	2.38
PC-509	19"	8¾	5/32	2¼	3.76	3.04	2.74
PC-510	19"	10½	5/32	2¾	4.43	3.59	3.23
PC-511	19"	12¼	5/32	3	4.84	3.92	3.53
PC-512	19"	14	5/32	3¼	5.34	4.33	3.90

Wyco Metal Products .....

Net

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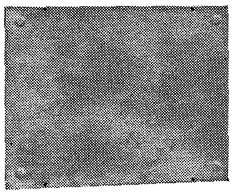
WYCO METAL PRODUCTS — ROLLER TRUCKS - BOTTOM PLATES - SHELVES SUPPORTING ANGLES - MOUNTING BRACKETS

CHASSIS BOTTOM PLATES

STEEL AND ALUMINUM



DESCRIPTION:

A. Protects component parts and wiring from dust.

B. Four embossed feet protect table top or other surfaces from being marred.

C. Catalog number R6023 to R6045 are Cad plated steel.

D. Catalog numbers R6046 to R6055 are Natural aluminum finish.

Cad. Plated Cat. No.	W.	L.	Ship. Wt.	Net each 1-24	25-50	51-100
R-6023	5″	7″	½	.62	.56	.50
R-6024	5″	9½″	¾	.68	.61	.55
R-6025	5″	10″	¾	.66	.59	.53
R-6026	7″	7″	1	.87	.78	.70
R-6027	7″	9″	1	.89	.80	.72
R-6028	7″	11″	1	.96	.86	.77
R-6029	7″	12″	1¼	1.01	.91	.82
R-6030	7″	13″	1¼	1.08	.97	.87
R-6031	5″	13½″	1	.90	.81	.73
R-6032	7″	15″	1¼	1.23	1.11	1.00
R-6033	8½″	15″	1½	1.32	1.19	1.07
R-6034	4″	17″	1½	.96	.86	.77

Cad. Plated Cat. No.	W.	L.	Ship. Wt.	Net each 1-24	25-50	51-100
R-6035	6″	17″	1½	1.23	1.11	1.00
R-6036	8″	10″	1¼	.95	.86	.77
R-6037	8″	12″	1½	1.21	1.09	.98
R-6038	8″	17″	1¾	1.39	1.25	1.13
R-6039	10″	12″	1½	1.41	1.27	1.14
R-6040	10″	14″	1½	1.20	1.08	.97
R-6041	10″	17″	1¾	1.44	1.30	1.17
R-6042	11″	17″	1½	1.44	1.30	1.17
R-6043	12″	17″	2	1.68	1.51	1.36
R-6044	13″	17″	2½	2.02	1.82	1.64
R-6045	10″	23″	2¼	2.13	1.92	1.73

Alum. Cat. No.	W.	L.	Ship. Wt.	Net each 1-24	25-50	51-100
R-6046	5″	7″	⅛	.67	.60	.54
R-6047	5″	9½″	¼	.68	.61	.55
R-6048	5″	10″	¼	.68	.61	.55
R-6049	7″	7″	⅓	.69	.62	.56
R-6050	7″	9″	⅓	.81	.73	.66

Alum. Cat. No.	W.	L.	Ship. Wt.	Net each 1-24	25-50	51-100
R-6051	7″	11″	⅓	.81	.73	.66
R-6052	7″	12″	½	.87	.78	.70
R-6053	7″	13″	½	.103	.93	.84
R-6054	10″	17″	¾	1.37	1.23	1.11
R-6055	13″	17″	¾	1.86	1.67	1.50

RACK SHELVES

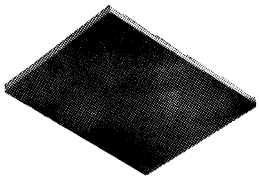
DESCRIPTION:

A. Used to mount heavy power supplies, modulator units, etc.

B. Supported by chassis supporting angles which are described on this page.

C. Made of heavy gauge steel.

D. Finished in black enamel only.



Cat. No.	Size	Wt. Lbs.	Net each 1-24	25-50	51-100
S195	19″x15″	6½	3.12	2.81	2.53
S196	19″x12″	5½	2.38	2.14	1.93
S197	17⅝″x14¼″	5	3.01	2.71	2.44
S198	17⅝″x20¼″	5½	3.94	3.55	3.20

CHASSIS SUPPORTING ANGLES

DESCRIPTION:

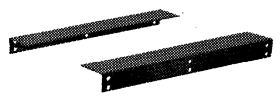
A. Used when heavy weights are encountered in chassis construction.

B. Distributes weight on sides of rack to relieve panel.

C. Made of ⅛″ steel.

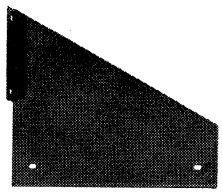
D. Finished in black enamel only.

E. Sold in pairs only.



Cat. No.	Length	Wt. Lbs.	Net each 1-24	25-50	51-100
A-143	14½″	4	2.25pr.	1.83pr.	1.65pr.
A-144	12″	3	2.17pr.	1.76pr.	1.58pr.
A-145	20″	7	3.34pr.	2.71pr.	2.44pr.

CHASSIS MOUNTING BRACKETS



DESCRIPTION:

A. Used to insure proper support of chassis.

B. Made of heavy gauge steel.

C. Cut away at bottom to provide clearance so that chassis can mount flush against panel.

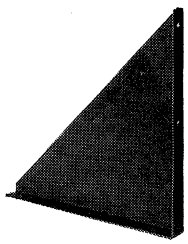
D. Finished in black enamel only.

E. Cat. # CB-565 and CB-566 designed for 4″ chassis height.

F. Sold in pairs only.

Cat. No.	H.	D.	Wt. Lbs.	Net each 1-24	25-50	51-100
CB-560	6½″	8″	1¼	1.09pr.	.88pr.	.79pr.
CB-561	6½″	10″	1¾	1.35pr.	1.10pr.	.99pr.
CB-562	6½″	11″	2	1.50pr.	1.22pr.	1.10pr.
CB-563	6½″	12″	2	1.75pr.	1.42pr.	1.28pr.
CB-564	6½″	13″	2½	1.69pr.	1.37pr.	1.23pr.
CB-565	8½″	10″	2¼	1.97pr.	1.59pr.	1.43pr.
CB-566	8½″	13″	3	2.09pr.	1.69pr.	1.52pr.

TRIANGULAR MOUNTING BRACKETS



DESCRIPTION:

A. When large weights are involved in panel and chassis assemblies, triangular mounting brackets are used as supports.

B. Fabricated of heavy gauge steel; finished in Black enamel only.

C. Sold only in pairs.

Cat. No.	Size	Approx. Ship. Wt.-Lbs.	Net each 1-24	25-50	51-100
TB-410	5″ x 5″	1	1.00pr.	.81pr.	.73pr.
TB-411	7″ x 7″	1	1.17pr.	.95pr.	.86pr.
TB-412	9″ x 9″	1½	1.42pr.	1.15pr.	1.04pr.

ROLLER TRUCKS

SPECIFICATIONS:

A. Roller Truck constructed from heavy gauge high-quality steel.

B. Casters have 2″ rubber wheels and are ball-bearing swivel type.

C. Finished in grey only.

Catalog No.	Inside Clearance	Approx. Ship. Weight	1-2	6-9
T 18	21½ x 18½	16 lbs.	13.79	12.41
T 19	23⅞ x 18¾	18 lbs.	14.66	13.19

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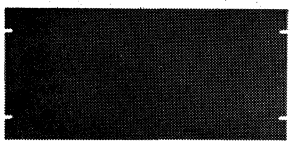
WYCO METAL PRODUCTS

AMPLIFIER FOUNDATIONS - RACK PANELS SLOPING PANEL SUPPORTS - CABINETS

STANDARD RELAY RACK PANELS

DESCRIPTION:

A. Aluminum: .125 THICK 3003-H18 Alloy
B. Steel: 11 gauge (.120 THICK)
C. Finish: Unpainted, primed only, or painted black wrinkle, grey wrinkle, or silver grey hammertone.

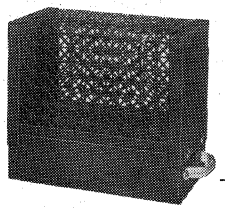


STEEL

Cat. No.	Height	Wt. Lbs.	Net each 1-24	25-50	51-100
SP-210	1¾"	1¼	.84	.68	.61
SP-211	3½"	2¼	1.00	.81	.73
SP-212	5¼"	3¼	1.25	1.02	.92
SP-213	7"	4½	1.42	1.15	1.04
SP-214	8¾"	6	1.75	1.42	1.28
SP-215	10½"	7	2.09	1.69	1.52
SP-216	12¼"	8¼	2.42	1.96	1.76
SP-217	14"	9½	2.84	2.30	2.07
SP-218	15¾"	10¾	3.09	2.50	2.25
SP-219	17½"	11¾	3.51	2.84	2.56
SP-220	19¼"	13	3.84	3.11	2.80
SP-221	21"	14¼	4.26	3.45	3.11
SP-210-24	1¾"	1¼	1.68	1.36	1.22
SP-211-24	3½"	2¼	2.00	1.62	1.46
SP-212-24	5¼"	3¼	2.50	2.04	1.84
SP-213-24	7"	4½	2.84	2.30	2.08
SP-214-24	8¾"	6	3.50	2.84	2.56
SP-215-24	10½"	7	4.18	3.38	3.04
SP-216-24	12¼"	8¼	4.84	3.92	3.52
SP-217-24	14"	9½	5.68	4.60	4.14
SP-218-24	15¾"	10¾	6.18	5.00	4.50
SP-219-24	17½"	11¾	7.02	5.68	5.30
SP-220-24	19¼"	13	7.68	6.22	5.60
SP-221-24	21"	14¼	8.52	6.90	6.22

ALUMINUM

Cat. No.	Height	Wt. Lbs.	Net each 1-24	25-50	51-100
AP-320	1¾"	¼	1.09	.88	.79
AP-321	3½"	¾	1.42	1.15	1.04
AP-322	5¼"	1	1.93	1.57	1.41
AP-323	7"	1¾	2.42	1.96	1.76
AP-324	8¾"	2	2.84	2.30	2.07
AP-325	10½"	2½	3.59	2.91	2.62
AP-326	12¼"	2¾	4.09	3.31	2.98
AP-327	14"	3	4.76	3.85	3.47
AP-328	15¾"	3½	5.34	4.33	3.90
AP-329	17½"	4	5.86	4.74	4.27
AP-330	19¼"	4¼	6.43	5.21	4.69
AP-331	21"	5	7.01	5.68	5.11
AP-320-24	1¾"	¼	2.18	1.76	1.58
AP-321-24	3½"	¾	2.84	2.30	2.08
AP-322-24	5¼"	1	3.86	3.14	2.82
AP-323-24	7"	1¾	4.84	3.92	3.52
AP-324-24	8¾"	2	5.68	4.60	4.14
AP-325-24	10½"	2½	7.18	5.82	5.24
AP-326-24	12¼"	2¾	8.18	6.62	5.96
AP-327-24	14"	3	9.52	7.70	6.94
AP-328-24	15¾"	3½	10.68	8.66	7.80
AP-329-24	17½"	4	11.72	9.48	8.54
AP-330-24	19¼"	4¼	12.86	10.42	9.38
AP-331-24	21"	5	14.02	11.36	10.22



AMPLIFIER FOUNDATIONS

DESCRIPTION:

A. Consists of standard chassis and perforated metal cover.
B. Includes handles.
C. Available in Black Wrinkle only.

Cat. No.	Height	Width	Depth	Height Chassis	Approx. Shipping Wt. - Lbs.	Net each 1-24	25-50	51-100
AF-680	8 5/16"	9 5/8"	5 1/8"	2½"	3	5.61	4.55	4.10
AF-681	8 5/16"	13 5/8"	5 1/8"	2½"	4¾	6.43	5.21	4.69
AF-682	8 5/16"	17 1/8"	7 1/8"	2½"	6	7.26	5.88	5.29
AF-683	8 13/16"	17 1/8"	10 1/8"	3"	8	8.50	6.89	6.20
AF-684	8 13/16"	12 1/8"	10 1/8"	3"	7	7.52	6.09	5.48

MINIATURE AMPLIFIER FOUNDATION

DESCRIPTION:

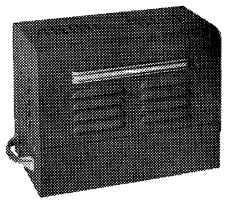
A. Chassis size 5" x 7" x 2".
B. Perforated metal cover.
C. Includes handle.
D. Black Wrinkle finish only.

Catalog No.	Approx. Ship. Wt. - Lbs.	Net each 1-9	10-50	51-100
MA-1000	2	4.00	3.24	2.92

STREAMLINED AMPLIFIER FOUNDATIONS

DESCRIPTION:

A. Consists of standard chassis and streamlined removable top cover.
B. Includes attractive stainless steel trim and handles.
C. Available in Silver Grey Hammertone only.

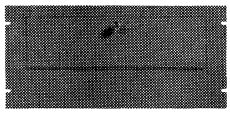


Catalog No.	Width	Depth	Approx. Ship. Wt. - Lbs.	Net each 1-24	25-50	51-100
SA-670	10 1/16"	5"	4¾	6.76	5.47	4.92
SA-671	12 1/16"	7"	5	8.02	6.50	5.85
SA-672	17 1/16"	7"	8	8.52	6.90	6.21
SA-673	17 1/16"	10"	9	9.27	7.51	6.76

METAL DOOR RACK PANELS

DESCRIPTION:

A. Used when accessability to component parts on chassis is necessary.
B. Made of 1/8" steel.
C. Available in black or grey wrinkle and silver grey hammertone.
D. 19" wide.

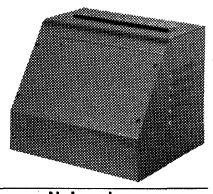


Cat. No.	Height	Door Opening	Wt. Lbs.	Net each 1-24	25-50	51-100
RP-310	10½"	15 3/8" x 5 7/8"	7¼	6.08	4.92	4.43
RP-311	12¼"	15 3/8" x 7 5/8"	8¼	7.52	6.09	5.48

SLOPING FRONT CABINET

DESCRIPTION:

A. Top corner rounded.
B. Attractive high-polish moulding at top.
C. Front panel is removable.
D. Chassis may be mounted to front panel and removed as unit.
E. Louvres at both sides; vented at rear.
F. Available in silver grey hammertone only.



Cat. No.	Height	Width	Depth	Net each 1-24	25-50	51-100
K810	8"	8"	8"	5.13	4.16	3.74
K811	8"	10"	8"	7.06	5.72	5.15
K812	8"	14"	8"	8.53	6.91	6.22
K813	12"	18"	12"	11.46	9.28	8.53

NOTE: If desired, an attractive handle can be used with above "K" series cabinet. Holes to mount moulding are spaced for handle, also. Catalog # for handle is HK70. .....Net ea. $1.02

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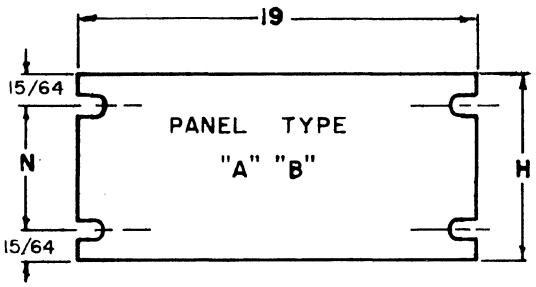
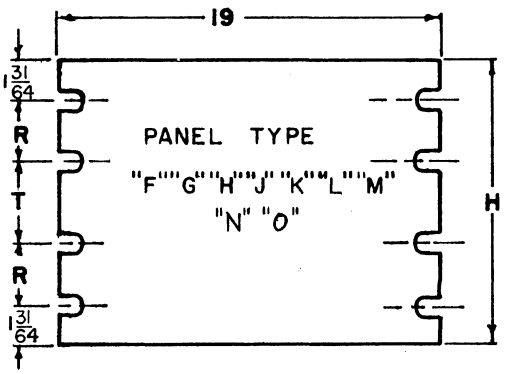
WYCO METAL PRODUCTS

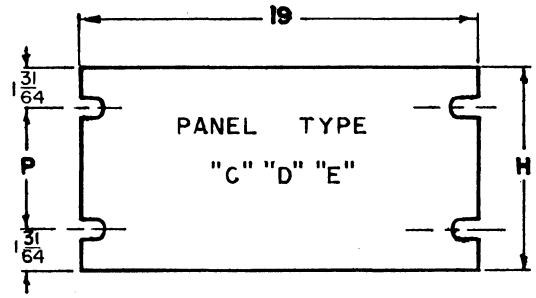
2024-T3 HARD ALUMINUM PANELS

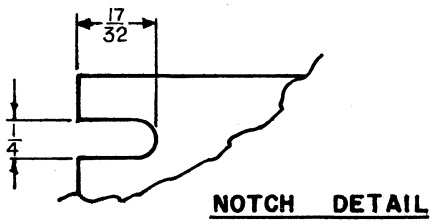
1/8" (.125) AND 3/16" (.188) THICK

RELAY RACK PANEL NOTCHING









NOTE: (A) For 3-1/16" Thick Panels, Add (-316). EXAMPLE: HAP-175-316
(B) 24" Wide Panels are available. Add (-24). EXAMPLE: HAP-175-24

Panel Type	Catalog No. 1/8" Thick	H	N	P	R	T
"A"	HAP-175	1-23/32	1¼			
"B"	HAP-350	3-15/32	3			
"C"	HAP-525	5-7/32		2¼		
"D"	HAP-700	6-31/32		4		
"E"	HAP-875	8-23/32		5¾		
"F"	HAP-1050	10-15/32			2¼	3
"G"	HAP-1225	12-7/32			3½	2¼

Panel Type	Catalog No. 1/8" Thick	H	N	P	R	T
"H"	HAP-1400	13-31/32			4	3
"J"	HAP-1575	15-23/32			4	4¾
"K"	HAP-1750	17-15/32			4	6½
"L"	HAP-1925	19-7/32			5¼	5¾
"M"	HAP-2100	20-31/32			5¾	6½
"N"	HAP-2450	24-15/32			7	7½
"O"	HAP-2625	26-7/32			7	9¼

Cat. No.	Net each 1-24	25-50	51-100
HAP-175	1.63	1.47	1.19
HAP-175-316	2.09	1.88	1.69
HAP-350	2.06	1.85	1.66
HAP-350-316	2.62	2.36	2.12
HAP-525	2.72	2.45	2.19
HAP-525-316	3.47	3.12	2.81
HAP-700	3.32	2.99	2.69

Cat. No.	Net each 1-24	25-50	51-100
HAP-700-316	4.25	3.82	3.44
HAP-875	3.93	3.54	3.19
HAP-875-316	5.00	4.50	4.05
HAP-1050	4.59	4.13	3.72
HAP-1050-316	5.87	5.28	4.74
HAP-1225	5.25	4.72	4.25
HAP-1225-316	6.73	6.06	5.46

Cat. No.	Net each 1-24	25-50	51-100
HAP-1400	6.07	5.46	4.91
HAP-1400-316	7.77	6.99	6.29
HAP-1575	6.78	6.10	5.49
HAP-1575-316	8.67	7.80	7.02
HAP-1750	7.48	6.73	6.06
HAP-1750-316	9.57	8.61	6.97
HAP-1925	8.18	7.36	6.62

Cat. No.	Net each 1-24	25-50	51-100
HAP-1925-316	10.47	9.42	8.48
HAP-2100	8.87	7.99	7.19
HAP-2100-316	11.36	10.22	9.20
HAP-2450	10.73	9.66	8.69
HAP-2450-316	12.34	11.11	10.00
HAP-2625	11.58	10.73	9.46
HAP-2625-316	13.35	12.28	11.05

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WYCO METAL PRODUCTS — BOXES-CASES-CABINETS-DESK PANELS

CARRYING CASE

Steel Cat. No.	D	W	H	Approx. Ship. Wt.	Net each 1-24	25-50	51-100
D-850	5″	6″	9″	3¼	3.01	2.44	2.20
D-851	5″	9″	6″	3¼	3.01	2.44	2.20
D-852	6″	7″	12″	4	4.18	3.38	3.04
D-853	6″	12″	7″	4	4.18	3.38	3.04
D-854	7″	7¾″	15″	5	4.68	3.79	3.41
D-855	8″	10″	10″	5	4.84	3.92	3.53
D-856	7″	15″	9″	5	5.85	4.74	4.27

Alum. Cat. No.	D	W	H	Approx. Ship. Wt.	Net each 1-24	25-50	51-100
DA-857	5″	6″	9″	1⅛	3.09	2.50	2.25
DA-858	5″	9″	6″	1⅛	3.09	2.50	2.25
DA-859	6″	7″	12″	1⅓	4.50	3.65	3.29
DA-860	6″	12″	7″	1⅓	4.50	3.65	3.29

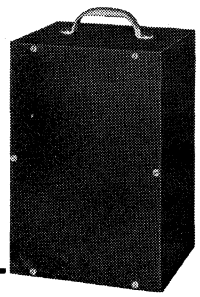
DESCRIPTION:

A. Front and rear panels are removable.

B. Includes handle.

C. Prefix "D" designates steel finished in Grey Hammertone.

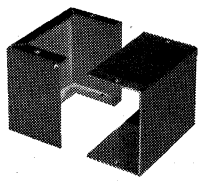
D. Prefix "DA" designates aluminum Natural finish (.051) alum.).



Silver Grey Cat. No.	L	W	H	Approx. Ship. Wt.	Net each 1-24	25-50	51-100
E-900	2¾″	2⅛″	1⅝″	¼	.85	.70	.63
E-901	3¼″	2⅛″	1⅝″	¼	.92	.75	.68
E-902	4″	2⅛″	1⅝″	¼	.92	.75	.68
E-903	4″	2¼″	2¼″	¼	1.00	.81	.73
E-904	5″	4″	2¼″	¼	1.09	.88	.79
E-905	5″	4″	3″	½	1.25	1.02	.92
E-906	5¼″	3″	2⅛″	¼	1.09	.88	.79
E-907	6″	5″	4″	¾	1.90	1.54	1.39
E-908	7″	5″	3″	¾	1.82	1.48	1.33
E-909	8″	6″	3½″	1	2.23	1.81	1.63
E-910	10″	6″	3½″	1¼	2.59	2.10	1.89
E-911	12″	7″	4″	1¾	3.27	2.65	2.39
E-912	17″	5″	4″	2¼	3.51	2.84	2.56
E-913	10″	2″	1⅝″	½	1.38	1.12	1.01
E-914	12″	2½″	2¼″	¾	1.70	1.38	1.24
E-915	4″	2″	2¾″	¼	1.09	.88	.79
E-916	4¼″	2¼″	1½″	¼	1.00	.81	.73
E-917	3¼″	2⅛″	1⅛″	¼	.84	.68	.61

Etched Cat. No.	L	W	H	Approx. Ship. Wt.	Net each 1-24	25-50	51-100
E-918	2¾″	2⅛″	1⅝″	¼	.62	.50	.45
E-919	3¼″	2⅛″	1⅝″	¼	.62	.50	.45
E-920	4″	2⅛″	1⅝″	¼	.62	.50	.45
E-921	4″	2¼″	2¼″	¼	.75	.61	.55
E-922	5″	2¼″	2¼″	¼	.78	.63	.57
E-923	5″	4″	3″	½	.94	.77	.69
E-924	5¼″	3″	2⅛″	¼	.82	.67	.60
E-925	6″	5″	4″	¾	1.47	1.19	1.07
E-926	7″	5″	3″	¾	1.40	1.13	1.02
E-927	8″	6″	3½″	1	1.72	1.40	1.26
E-928	10″	6″	3½″	1¼	2.02	1.64	1.48
E-929	12″	7″	4″	1¾	2.71	2.20	1.98
E-930	17″	5″	4″	2¼	2.92	2.37	2.13
E-931	10″	2″	1⅝″	½	1.15	.94	.85
E-932	12″	2½″	2¼″	¾	1.37	1.11	1.00
E-933	4″	2″	2¾″	¼	.75	.61	.55
E-934	4¼″	2¼″	1½″	¼	.72	.59	.53
E-935	3¼″	2⅛″	1⅛″	¼	.62	.50	.45

MINITBOXES



DESCRIPTION:

A. Fabricated of aluminum (.051).

B. Design assures necessary shielding.

C. Available in Natural finish or Silver Grey Hammertone.

EASY BOXES (SAME DESIGN AS MINITBOX)

DESCRIPTION:

A. Design allows a number of small components to be easily wired or serviced.

B. Fabricated of 22 gauge steel.

C. Grey Hammertone finish.

Cat. No.	H	W	D	Approx. Ship. Wt.-Lbs.	Net each 1-24	25-50	51-100
H-105	2¼″	4¼″	1½″	½	1.15	.94	.85
H-106	2″	4″	2¾″	½	1.17	.95	.86

DESK PANELS

DESCRIPTION:

A. Table is constructed of heavy gauge high-quality steel and measures 21″ x 16″.

B. Panel, constructed of ⅛″ steel, is 10½″ x 19″.

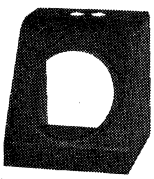
C. Front corners of table are rounded.

D. SHIPPED "KNOCKED-DOWN"; all necessary bolts supplied for easy assembly.

E. Finished in grey enamel.

Catalog No.	Width	Depth	Approx. Shipping Weight	Net each 1-2	6-9
DP 16	21″	16″	14 lbs.	14.79	13.31

METER CASES



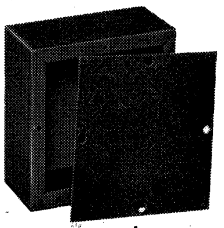
DESCRIPTION:

A. Sloping front with top corner rounded.

B. Prefix "MC" designates steel Grey Hammertone finish.

C. Prefix "AC" designates aluminum Natural finish.

Catalog No.	Hole Diameter	Approx. Ship. Wt. - Lbs.	Net each 1-24	25-50	51-100
MC-73	2¼″	1	1.10	.89	.80
MC-74	2 13/16″	1	1.10	.89	.80
AC-86	2¼″	⅓	1.42	1.15	1.04
AC-87	2 13/16″	⅓	1.42	1.15	1.04



METAL UTILITY CABINETS

DESCRIPTION:

A. Cabinet has two removable covers.

B. Prefix MU designates steel finished in Silver Grey Hammertone only.

C. Prefix LU designates aluminum in a Natural finish (.051 Alum.).

D. Used for amplifiers, monitors, input stages, meters, tranceivers, etc.

Steel Cat. No.	D	W	H	Approx. Ship. Wt.	Net each 1-24	25-50	51-100
MU-750	2″	4″	4″	¾	1.09	.88	.79
MU-751	3″	5″	4″	1	1.22	.99	.89
MU-752	4″	5″	6″	1¼	1.38	1.12	1.01
MU-753	6″	6″	6″	2½	2.09	1.69	1.52
MU-754	5″	6″	9″	3	2.34	1.90	1.71
MU-755	7″	8″	10″	5	3.34	2.71	2.44
MU-756	6″	7″	12″	4	3.29	2.66	2.39
MU-757	8″	10″	10″	5½	4.01	3.25	2.93
MU-758	8″	11″	12″	6	4.34	3.52	3.17
MU-759	7″	9″	15″	7½	4.51	3.65	3.29

Alum. Cat. No.	D	W	H	Approx. Ship. Wt.	Net each 1-24	25-50	51-100
LU-760	2″	4″	4″	¼	1.29	1.04	.94
LU-761	3″	5″	4″	¼	1.37	1.11	1.00
LU-762	4″	5″	6″	½	1.50	1.22	1.10
LU-763	6″	6″	6″	¾	2.17	1.76	1.58
LU-764	5″	6″	9″	1	2.51	2.03	1.83

MINIATURE UTILITY CABINETS

DESCRIPTION:

A. Front and rear panels are removable.

B. Chassis attached to front panel.

C. Fabricated in steel; Silver Grey Hammertone only.

Cat. No.	H	W	D	Chassis Size	Approx. Ship. Wt.-Lbs.	Net each 1-24	25-50	51-100
A-780	4″	4″	2″	1″ x3⅛″x1⅞″	¾	1.34	1.09	.98
A-781	4″	5″	3″	1″ x4⅛″x2⅞″	1	1.48	1.20	1.08
A-782	5″	4″	3″	1¼″x3⅛″x2⅞″	1	1.62	1.31	1.18
A-783	6″	5″	4″	1¾″x4⅛″x3⅞″	1¾	1.70	1.38	1.24
A-784	5″	6″	4″	1¼″x5⅛″x3⅞″	1¾	1.92	1.56	1.40
A-785	6″	6″	6″	1¾″x4⅞″x5⅞″	2¾	2.17	1.76	1.58

Wyco Metal Products .....

Net

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Wyco Metal Products .....

PRICE LIST FOR WYCO METAL PRODUCTS

A. F.O.B. our plant, North Hollywood, California
B. Prices are subject to change without notice
C. FANS, FAN ACCESSORIES, PACKAGED BLOWERS AND SOLID BEARING SLIDES ARE NET PRICED (THEY ARE NOT SUBJECT TO THE DISCOUNT SCHEDULE). ALL OTHER PRICES ARE SUBJECT TO THE DISCOUNT SCHEDULE SHOWN BELOW.

IF YOUR ORDER TOTALS:	APPLY THIS DISCOUNT
LESS THAN $200.00	none
200.00 to 299.99	10%
300.00 to 499.99	15%
500.00 to 699.99	20%

Catalog No.	List Price Ea.	Approx. Ship. Wt. Lbs.
AIR DRY PAINT		
WALG	2.70/qt.	3
WADG	2.70/qt.	3
WANB	2.70/qt.	3
WALB	2.70/qt.	3
WAGM	2.70/qt.	3
WALT	2.70/qt.	3
WAMT	2.70/qt.	3
WAB	2.70/qt.	3
PONTOON BASES		
WB 18	16.20	7
WB 22	16.80	9
WB 25	17.70	11
WB 18-24	18.15	9
WB 22-24	18.45	11
WB 25-24	19.20	13
BAKING ENAMEL PAINT		
WBLG	2.70/qt.	3
WBDG	2.70/qt.	3
WBNB	2.70/qt.	3
WBLB	2.70/qt.	3
WBGM	2.70/qt.	3
WBLT	2.70/qt.	3
WBMT	2.70/qt.	3
WBB	2.70/qt.	3
CASTERS		
WC 1100	10.30/set 4	5
WC 1103	1.00	6 oz.
CHASSIS/EQUIPMENT SUPPORTING ANGLES		
WCSA 15	8.15 pr.	3
WCSA 18	8.80 pr.	4
WCSA 22	9.55 pr.	4-1/2
WCSA 25	10.30 pr.	5
PLAIN FACE-MOUNTED DOORS		
WD 200-17	24.20	11
WD 200-21	25.30	12
WD 200-24	26.35	15
WD 200-28	27.45	16
WD 200-38	30.70	21
WD 200-42	31.75	21-1/2
WD 200-43	32.30	23
WD 200-52	35.00	27
WD 200-61	37.70	31
WD 200-70	40.55	34
WD 200-78	43.10	38

Catalog No.	List Price Ea.	Approx. Ship. Wt. Lbs.
PLAIN FACE-MOUNTED DOORS continued		
WD 224-17	25.65	12
WD 224-21	26.85	15
WD 224-24	28.15	17
WD 224-28	29.45	20
WD 224-38	33.20	24
WD 224-42	34.50	26
WD 224-43	35.15	27
WD 224-52	38.30	32
WD 224-61	41.50	38
WD 224-70	44.65	42
WD 224-78	47.80	48
LOUVERED FACE-MOUNTED DOORS		
WD 200-17-L	24.50	10
WD 200-21-L	25.55	12
WD 200-24-L	26.70	14
WD 200-28-L	27.80	16
WD 200-38-L	31.25	20
WD 200-42-L	32.40	21
WD 200-43-L	32.90	22
WD 200-52-L	35.70	26
WD 200-61-L	38.50	31
WD 200-70-L	41.25	35
WD 200-78-L	44.10	39
WD 224-17-L	26.00	12
WD 224-21-L	27.35	15
WD 224-24-L	28.65	17
WD 224-28-L	29.90	20
WD 224-38-L	33.85	24
WD 224-42-L	35.20	26
WD 224-43-L	35.85	27
WD 224-52-L	39.10	32
WD 224-61-L	42.35	38
WD 224-70-L	45.60	42
WD 224-78-L	48.80	47
FILTERED BOTTOM DOOR		
WD 200-21-FB	35.30	12
WD 200-24-FB	36.35	15
WD 200-28-FB	37.45	16
WD 200-38-FB	40.30	19
WD 200-42-FB	41.45	20
WD 200-43-FB	42.00	21
WD 200-52-FB	44.70	25
WD 200-61-FB	47.35	30
WD 200-70-FB	50.20	34
WD 200-78-FB	52.85	37
WD 224-21-FB	36.85	15
WD 224-24-FB	38.15	17
WD 224-28-FB	39.45	20

Catalog No.	List Price Ea.	Approx. Ship. Wt. Lbs.
FILTERED BOTTOM DOOR continued		
WD 224-38-FB	46.10	23
WD 224-42-FB	47.30	25
WD 224-43-FB	47.95	26
WD 224-52-FB	51.10	31
WD 224-61-FB	54.30	37
WD 224-70-FB	57.45	41
WD 224-78-FB	60.65	47
FILTERED TOP DOOR		
WD 200-21-FT	35.30	12
WD 200-24-FT	36.35	15
WD 200-28-FT	37.45	16
WD 200-38-FT	40.30	19
WD 200-42-FT	41.45	20
WD 200-43-FT	42.00	21
WD 200-52-FT	44.70	25
WD 200-61-FT	47.35	30
WD 200-70-FT	50.20	34
WD 200-78-FT	52.85	38
WD 224-21-FT	36.85	15
WD 224-24-FT	38.15	17
WD 224-28-FT	39.45	20
WD 224-38-FT	46.10	23
WD 224-42-FT	47.30	25
WD 224-43-FT	47.95	26
WD 224-52-FT	51.10	31
WD 224-61-FT	54.30	37
WD 224-70-FT	57.45	41
WD 224-78-FT	60.65	47
FILTERED TOP AND BOTTOM DOORS		
WD 200-38-FTB	47.50	18
WD 200-42-FTB	48.65	20
WD 200-43-FTB	49.15	21
WD 200-52-FTB	51.90	25
WD 200-61-FTB	54.55	29
WD 200-70-FTB	57.40	33
WD 200-78-FTB	60.05	37
WD 224-38-FTB	56.80	23
WD 224-42-FTB	58.10	25
WD 224-43-FTB	58.75	26
WD 224-52-FTB	61.90	30
WD 224-61-FTB	65.10	36
WD 224-70-FTB	68.25	41
WD 224-78-FTB	71.45	46
PLAIN FLUSH-MOUNTED DOORS		
WDF 8	9.70	4-1/2
WDF 10	10.25	5

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Catalog No.	List Price Ea.	Approx. Ship. Wt. Lbs.
PLAIN FLUSH-MOUNTED DOORS continued		
WDF 12	10.80	5-1/2
WDF 14	11.30	6
WDF 17	12.30	8
WDF 21	13.20	9
WDF 24	13.60	10
WDF 28	14.00	13
WDF 8-24	10.60	5-1/2
WDF 10-24	11.30	6
WDF 12-24	12.10	7
WDF 14-24	12.90	8
WDF 17-24	14.25	9
WDF 21-24	15.75	10
WDF 24-24	16.40	14
WDF 28-24	17.30	15
If keyed tumbler lock is desired, add suffix "–LK" to Cat. #. (Example: WDF 21-LK). Add $1.50 to list price.		
LOUVERED FLUSH-MOUNTED DOORS		
WDF 8-L	10.45	4-1/2
WDF 10-L	11.00	5
WDF 12-L	11.50	5-1/2
WDF 14-L	12.00	6
WDF 17-L	13.10	7
WDF 21-L	14.10	8
WDF 24-L	14.60	8-1/2
WDF 28-L	15.05	9-1/2
WDF 8-24-L	11.30	5-1/2
WDF 10-24-L	12.10	6
WDF 12-24-L	12.90	7
WDF 14-24-L	13.70	6
WDF 17-24-L	15.10	8
WDF 21-24-L	16.70	9
WDF 24-24-L	17.50	10
WDF 28-24-L	18.30	11
If key tumbler lock is desired, add "–LK" to Cat. #. (Example: WDF 21-L-LK). Add $3.00 to list price.		
PERFORATED FLUSH-MOUNTED DOORS		
WDF 8-P	19.00	4
WDF 10-P	19.65	4-1/2
WDF 12-P	20.35	4-3/4
WDF 14-P	21.05	5
WDF 17-P	22.50	5-1/2
WDF 21-P	24.00	7
WDF 24-P	24.75	8
WDF 28-P	25.50	9
WDF 8-24-P	21.75	4-1/2
WDF 10-24-P	22.60	5
WDF 12-24-P	23.50	6
WDF 14-24-P	24.35	7
WDF 17-24-P	26.10	7-1/2
WDF 21-24-P	27.70	8
WDF 24-24-P	28.60	9
WDF 28-24-P	29.45	11
If keyed tumbler lock is desired, add "–LK" to Cat. #. (Example: WDF 21-P-LK). Add $1.50 to list price.		
SLIDING DRAWERS		
WED 1000-3-18	24.90	14-1/2
WED 1000-3-22	25.35	15-1/2
WED 1000-3-25	25.75	16-1/2
WED 1000-7-18	26.45	17
WED 1000-7-22	26.85	18
WED 1000-7-25	27.30	19
WER 1000-8-18	27.15	19
WED 1000-8-22	27.65	20
WED 1000-8-25	28.10	21
WED 1000-10-18	28.65	21
WED 1000-10-22	29.15	22

Catalog No.	List Price Ea.	Approx. Ship. Wt. Lbs.
SLIDING DRAWERS continued		
WED 1000-10-25	29.60	23
WED 1000-14-18	30.15	23
WED 1000-14-22	30.70	24
WED 1000-14-25	31.10	25
WED 1024-3-18	26.10	17
WED 1024-3-22	26.50	18
WED 1024-3-25	27.00	19
WED 1024-7-18	28.10	19
WED 1024-7-22	28.50	20
WED 1024-7-25	28.95	21
WED 1024-8-18	29.10	21-1/2
WED 1024-8-22	29.50	22
WED 1024-8-25	29.95	23
WED 1024-10-18	31.05	23-1/2
WED 1024-10-22	31.55	24-1/2
WED 1024-10-25	32.00	25-1/2
WED 1024-14-18	33.05	26
WED 1024-14-22	33.55	27
WED 1024-14-25	34.00	28
If keyed tumbler lock is desired, add "–LK" to Cat. #. (Example: WED 1000-7-22-LK). Add $1.50 to list price.		
EQUIPMENT/CHASSIS SHELVES		
WES 1200-18	7.40	6
WES 1200-22	8.20	8
WES 1200-25	8.90	10
WES 1224-18	9.65	7-1/2
WES 1224-22	10.65	10
WES 1224-25	11.65	12-1/2
DESK HEIGHT FRAMES		
WF 100-18	61.30	57
WF 100-22	62.80	62
WF 100-25	68.25	67
WF 124-18	67.10	68
WF 124-22	68.85	74
WF 124-25	73.95	79
FANS		
WF 165B	30.36 NET	4
WF 220B	27.39 NET	4
WF 300B	27.39 NET	5
WF 400B	25.31 NET	6
WF 550B	36.96 NET	7
WF 750B	39.27 NET	8
WF 160S	30.36 NET	4
WF 180S	27.39 NET	4
WF 300S	27.39 NET	4
WF 360S	35.31 NET	6
WF 540S	36.96 NET	7
WF 740S	39.27 NET	8
VERTICAL FRAMES		
WF 200-43-22	81.45	94
WF 200-52-22	84.40	103
WF 200-61-22	91.90	122
WF 200-70-22	99.50	127
WF 200-78-22	104.85	133
WF 200-43-25	85.60	114
WF 200-52-25	87.55	123
WF 200-61-25	97.35	136
WF 200-70-25	105.10	152
WF 200-78-25	159.05	160
WF 224-43-22	87.15	106
WF 224-52-22	89.35	115
WF 224-61-22	97.75	135
WF 224-70-22	105.10	140
WF 224-78-22	110.35	146
WF 224-43-25	89.65	126
WF 224-52-25	93.90	136
WF 224-61-25	103.45	149
WF 224-70-25	111.40	165
WF 224-78-25	114.00	173

Catalog No.	List Price Ea.	Approx. Ship. Wt. Lbs.
10-1/2" SLOPING FRONT FRAMES		
WF 300-18	72.95	64
WF 300-22	75.30	80
WF 324-18	82.35	80
WF 324-22	84.20	96
17-1/2" SLOPING FRONT FRAMES		
WF 400-22	76.50	80
WF 400-25	81.55	90
WF 424-22	82.90	96
WF 424-25	88.75	104
INSTRUMENT CABINET FRAME		
WF 500-8	41.55	23
WF 500-10	42.05	24-1/2
WF 500-12	42.65	25-1/2
WF 500-14	43.15	27
WF 500-15	43.65	29
WF 500-17	44.20	31
WF 500-19	44.70	33-1/2
WF 500-21	45.20	36
WF 524-8	44.15	32
WF 524-10	44.70	33-1/2
WF 524-12	45.20	34-1/2
WF 524-14	45.80	36
WF 524-15	46.30	38
WF 524-17	46.90	40
WF 524-19	47.40	42-1/2
WF 524-21	47.95	45
35%–55% TURRET FRAME		
WF 601	31.20	16
WF 602	32.85	18-1/2
WF 601-24	32.50	22
WF 602-24	33.75	24-1/2
19%–25%–55% TURRET FRAME		
WF 605	32.20	21
WF 606	29.15	19
WF 607	30.45	22
WF 605-24	33.40	25
WF 606-24	30.75	23
WF 607-24	32.60	26
17-1/2" SLOPING FRONT TURRET FRAME		
WF 608	52.90	35
WF 608-24	56.25	45
10-1/2" SLOPING FRONT TURRET FRAME		
WF 609	28.80	25
WF 610	39.90	33
WF 609-24	42.65	35
WF 610-24	42.10	43
DESK FRAMES		
WF 700-15	26.90	19
WF 700-15-18	43.10	37
WF 700-15-22	43.30	38
WF 700-15-25	43.40	39
WF 700-18	27.45	20
WF 700-18-18	41.20	41
WF 700-18-22	41.35	42
WF 700-18-25	41.50	45
WF 700-22	28.25	21
WF 700-22-18	41.95	44
WF 700-22-22	42.10	46
WF 700-22-25	42.25	48
WF 700-25	30.30	23
WF 700-25-18	44.15	48
WF 700-25-22	44.30	50
WF 700-25-25	44.45	52
WF 724-15	27.65	21
WF 724-15-18	41.90	41
WF 724-15-22	42.05	42
WF 724-15-25	42.20	43

Trade Discount Applies To List Prices Only
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Wyco Metal Products

Catalog No.	List Price Ea.	Approx. Ship. Wt. Lbs.
DESK FRAMES continued		
WF 724-18	28.15	23
WF 724-18-18	42.35	45
WF 724-18-22	42.55	46
WF 724-18-25	42.70	47
WF 724-22	28.95	26
WF 724-22-18	43.20	48
WF 724-22-22	43.35	51
WF 724-22-25	43.56	53
WF 724-25	31.20	27
WF 724-25-18	45.35	52
WF 724-25-22	45.60	55
WF 724-25-25	45.70	57
COUNTER HEIGHT FRAME		
WF 1500-18	67.50	66
WF 1500-22	69.55	72
WF 1500-25	75.10	78
WF 1524-18	72.80	78
WF 1524-22	76.10	84
WF 1524-25	80.70	90
FAN ACCESSORIES		
WFA 101	2.09 NET	4 oz.
WFA 102	2.09 NET	4 oz.
WFA 103	2.75 NET	10 oz.
WFA 104	2.75 NET	9 oz.
WFA 105	2.09 NET	3 oz.
WFA 106	4.13 NET	10 oz.
WFB 101	2.09 NET	6 oz.
WFB 102	2.09 NET	6 oz.
WFB 103	2.75 NET	12 oz.
WFB 105	2.09 NET	4 oz.
WFB 106	4.13 NET	14 oz.
WFC 101	2.48 NET	7 oz.
WFC 102	2.48 NET	7 oz.
WFC 103	3.19 NET	14 oz.
WFC 105	2.09 NET	5 oz.
WFC 106	4.57 NET	12 oz.
WFD 101	2.75 NET	8 oz.
WFD 102	2.75 NET	8 oz.
WFD 103	4.13 NET	16 oz.
WFD 105	2.48 NET	6 oz.
WFD 106	5.45 NET	18 oz.
HARDWARE		
WH 33	.25/set 4	4 oz./4
WH 34	.60/pr.	2 oz./pr.
WH 36	1.50	5 oz.
WH 37	1.00	3 oz.
WH 38	.50	2 oz.
WH 40	2.00/100	1 oz./100
WH 41	1.00/100	1 oz./100
WH 43	.30	1 oz.
WH 44	.10	1 oz.
WH 45	3.00/100	1 oz./100
WH 50-LH	3.30	8 oz.
WH 50-RH	3.30	8 oz.
WH 51	.45	5 oz.
WH 70	2.25	5 oz.
WH 72	1.50/100	10 oz./100
WH 73	1.50/100	7 oz./100
WH 80	.75/pr.	4 oz./pr.
WH 81	.80/pr.	4 oz./pr.
WH 82	.90/pr.	5 oz./pr.
WH 83	.95/pr.	5 oz./pr.
WH 84	1.00/pr.	6 oz./pr.
WH 85	1.20/pr.	6 oz./pr.
WH 86	1.25/pr.	7 oz./pr.
WH 87	1.30/pr.	7 oz./pr.
WH 88	1.35/pr.	8 oz./pr.
WH 89	1.40/pr.	8 oz./pr.
WH 90	1.45/pr.	9 oz./pr.
WH 91	1.50/pr.	9 oz./pr.

Catalog No.	List Price Ea.	Approx. Ship. Wt. Lbs.
HARDWARE continued		
WH 92	12.00 pr.	1/pr.
WH 93	15.00 pr.	1/pr.
PANEL MOUNTING ANGLES		
WM 21	9.10 pr.	7
WM 24	10.00 pr.	10
WM 28	10.90 pr.	13
WM 38	13.50 pr.	14-1/2
WM 42	14.60 pr.	16
WM 43	15.00 pr.	16
WM 52	16.90 pr.	18
WM 61	17.50 pr.	21
WM 70	28.90 pr.	24
WM 78	21.90 pr.	26
PLAIN FORMED STEEL PANELS		
WP 1	2.75	1
WP 3	3.10	1-1/2
WP 5	3.55	2
WP 7	3.90	3
WP 8	4.25	3-1/2
WP 10	4.60	4
WP 12	5.05	4-1/2
WP 14	5.40	5
WP 15	5.75	5-1/2
WP 17	6.25	6-1/2
WP 19	6.70	7
WP 21	7.10	7-1/2
WP 24	8.10	9
WP 28	8.90	10
WP 38	11.65	13
WP 42	12.60	15
WP 43	13.05	16
WP 52	15.35	18
WP 61	17.55	22
WP 70	19.90	25
WP 78	22.10	28
WP 1-24	2.90	1-1/2
WP 3-24	3.40	2
WP 5-24	3.80	2-1/2
WP 7-24	4.30	4
WP 8-24	4.75	4-1/2
WP 10-24	5.20	5
WP 12-24	5.70	6
WP 14-24	6.12	6
WP 15-24	6.65	7
WP 17-24	7.15	8
WP 19-24	7.70	9
WP 21-24	8.20	9-1/2
WP 24-24	9.30	11
WP 28-24	10.35	12-1/2
WP 38-24	13.20	16
WP 42-24	14.25	19
WP 43-24	14.85	20
WP 52-29	17.20	23
WP 61-24	19.50	27
WP 70-24	21.90	30
WP 78-24	24.20	35
LOUVERED FORMED STEEL PANELS		
WP 5-L	3.65	2
WP 7-L	4.05	3
WP 8-L	4.50	3-1/2
WP 10-L	4.90	4
WP 12-L	5.25	4-1/2
WP 14-L	5.70	5
WP 15-L	6.05	5-1/2
WP 17-L	6.55	6-1/2
WP 19-L	7.00	7
WP 21-L	7.40	7-1/2
WP 24-L	8.45	9

Catalog No.	List Price Ea.	Approx. Ship. Wt. Lbs.
LOUVERED FORMED STEEL PANELS continued		
WP 28-L	9.45	10
WP 38-L	12.15	13
WP 42-L	13.10	15
WP 43-L	13.55	16
WP 52-L	16.00	18
WP 61-L	18.45	22
WP 70-L	20.75	25
WP 78-L	23.10	28
WP 5-L-24	3.95	2-1/2
WP 7-L-24	4.50	4
WP 8-L-24	4.95	4-1/2
WP 10-L-24	5.50	5
WP 12-L-24	5.90	5-1/2
WP 14-L-24	6.50	6
WP 15-L-24	6.90	7
WP 17-L-24	4.50	8
WP 19-L-24	8.00	9
WP 21-L-24	8.60	10
WP 24-L-24	9.75	11
WP 28-L-24	10.90	12-1/2
WP 38-L-24	13.75	16
WP 42-L-24	14.85	19
WP 43-L-24	15.35	20
WP 52-L-24	17.90	23
WP 61-L-24	20.35	27
WP 70-L-24	22.75	31
WP 78-L-24	25.20	36
PERFORATED FORMED STEEL PANELS		
WP 3-P	3.25	1
WP 5-P	3.60	1-1/2
WP 7-P	3.95	2-1/2
WP 8-P	4.40	3
WP 10-P	4.85	3-1/2
WP 12-P	5.55	4
WP 14-P	5.75	4-1/2
WP 15-P	6.30	5
WP 17-P	6.85	6
WP 19-P	7.55	6-1/2
WP 21-P	8.35	7
WP 24-P	9.90	8-1/2
WP 28-P	11.35	9-1/2
WP 3-P-24	3.55	1-1/2
WP 5-P-24	4.00	2
WP 7-P-24	4.50	3
WP 8-P-24	4.95	4
WP 10-P-24	5.50	4-1/2
WP 12-P-24	6.30	5
WP 14-P-24	6.70	5-1/2
WP 15-P-24	7.20	6
WP 17-P-24	7.80	7-1/2
WP 19-P-24	8.90	8
WP 21-P-24	10.10	9
WP 24-P-24	12.40	10-1/2
WP 28-P-24	14.75	12
TEXTOLITE PANELS		
WP 3-T	1.90	1
WP 7-T	3.25	2
WP 10-T	4.55	3
WP 12-T	5.25	3-1/2
WP 14-T	5.90	4
WP 17-T	7.30	5
WP 21-T	8.65	6
WP 3-T-24	2.50	1-1/2
WP 7-T-24	4.55	2-1/2
WP 10-T-24	6.55	4
WP 12-T-24	7.55	4-1/2
WP 14-T-24	8.55	5
WP 17-T-24	10.60	6-1/2
WP 21-T-24	12.60	7-1/2

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Wyco Metal Products

Catalog No.	List Price Ea.	Approx. Ship. Wt. Lbs.
PACKAGED BLOWERS		
WPB 300	79.75 NET	15
WPB 375	92.95 NET	25
WPB 405	101.20 NET	26
WPB 600	131.45 NET	43
WPB 700	132.00 NET	43
WPB 840	134.75 NET	43
PANEL LIFT DOORS		
WPLD 10	10.15	4
WPLD 12	10.45	5
WPLD 14	10.80	6
WPLD 17	11.40	7
WPLD 21	11.95	8
WPLD 10-24	11.50	5
WPLD 12-24	11.80	6
WPLD 14-24	12.10	7
WPLD 17-24	12.75	9
WPLD 21-24	13.35	10
PLUG MOLD WIRING STRIP		
WPM 4050	18.20	5
WPM 4051	21.10	7
HEAVY DUTY ROLLER TRUCK		
WRT 3000-1-18	69.15	27
WRT 3000-1-22	72.00	31
WRT 3000-1-25	72.95	35
WRT 3000-2-18	135.00	50
WRT 3000-2-22	140.00	58
WRT 3000-2-25	145.50	66
WRT 3000-3-18	185.40	73
WRT 3000-3-22	192.10	84
WRT 3000-3-25	196.90	97
WRT 3024-1-18	73.50	31
WRT 3024-1-22	74.40	41
WRT 3024-1-25	75.30	42
WRT 3024-2-18	114.10	58
QRT 3024-2-22	128.30	78
WRT 3024-2-25	132.50	80
WRT 3024-3-18	165.00	89
WRT 3024-3-22	179.50	119
WRT 3024-3-25	184.10	122

NOTE: IF FOOT-LOCK DESIRED, SUFFIX CATALOG NUMBER WITH –LK. EXAMPLE: WRT 3000-2-18–LK. ADD $15.60 TO ABOVE LIST PRICES.

Catalog No.	List Price Ea.	Approx. Ship. Wt. Lbs.
PLAIN BALL-CORNERED SIDES		
WS 100-18	10.95	10
WS 100-22	12.10	11
WS 100-25	13.35	19
WS 200-43-22	17.10	20
WS 200-52-22	18.60	24
WS 200-61-22	20.80	27
WS 200-70-22	23.75	31
WS 200-78-22	26.20	34
WS 200-43-25	18.45	24
WS 200-52-25	20.45	29
WS 200-61-25	23.25	32
WS 200-70-25	25.70	36
WS 200-78-25	28.35	41
WS 300-18	18.15	16
WS 300-22	19.45	18
WS 400-22	19.95	20
WS 400-25	22.75	24
WS 500-8	10.15	2-3/4
WS 500-10	10.35	5-1/4
WS 500-12	10.60	5-3/4
WS 500-14	10.90	6-1/4
WS 500-15	11.10	6-3/4
WS 500-17	11.30	7-1/4
PLAIN BALL-CORNERED SIDES continued		
WS 500-19	11.55	7-3/4
WS 500-21	11.75	8-1/4
WS 608	13.95	8
WS 609	11.25	7
WS 610	10.30	9
WS 700-15	4.75	1-1/2
WS 700-18	4.85	2
WS 700-22	4.90	2-1/2
WS 700-25	4.95	3
WS 1500-18	12.55	12
WS 1500-22	13.70	14
WS 1500-25	14.90	17
TURRET FLAT SIDES		
WS 601-F	4.35	2
WS 602-F	4.90	2-1/2
WS 605-F	4.55	3
WS 606-F	3.55	2
WS 607-F	3.80	4
WS 608-F	9.90	4
WS 609-F	7.40	2
WS 610-F	6.70	2
FLAT SIDES		
WS 100-18-F	8.35	10
WS 100-22-F	9.60	12
WS 100-25-F	10.15	15
WS 200-43-22-F	13.90	20
WS 200-43-25-F	15.00	24
WS 200-52-22-F	15.05	24
WS 200-52-25-F	17.15	28
WS 200-61-22-F	17.35	27
WS 200-61-25-F	19.90	33
WS 200-70-22-F	18.60	31
WS 200-70-25-F	21.35	34
WS 200-78-22-F	22.35	34
WS 200-78-25-F	24.50	41
WS 300-18-F	13.50	13
WS 300-22-F	14.75	15
WS 400-22-F	15.20	15
WS 400-25-F	18.10	17
WS 700-15-F	3.05	1
WS 700-18-F	3.10	1-1/2
WS 700-22-F	3.25	2
WS 700-25-F	3.30	2-1/2
WS 1500-18-F	9.95	15
WS 1500-22-F	11.15	16
WS 1500-25-F	12.40	17
WS 100-25-H	24.90	14
WS 200-43-22-H	28.45	21
WS 200-52-22-H	30.70	25
WS 200-61-22-H	34.50	29
WS 200-70-22-H	36.50	32
WS 200-78-22-H	38.70	35
WS 200-43-25-H	31.55	25
WS 200-52-25-H	31.85	30
WS 200-61-25-H	35.85	34
WS 200-70-25-H	38.15	38
WS 200-78-25-H	40.40	42
WS 300-18-H	28.15	17
WS 300-22-H	29.45	20
WS 400-22-H	29.90	21
WS 400-25-H	32.75	25
WS 1500-18-H	22.50	13
WS 1500-22-H	23.70	16
WS 1500-25-H	24.90	18
KNEE SPACE SIDE PANELS		
WS 100-18-K	9.15	8
WS 100-22-K	10.35	9
WS 100-25-K	11.60	10
WS 1500-18-K	10.80	11

Catalog No.	List Price Ea.	Approx. Ship. Wt. Lbs.
KNEE SPACE SIDE PANELS continued		
WS 1500-22-K	11.95	13
WS 1500-25-K	13.20	15
LOUVERED BALL-CORNERED SIDES		
WS 100-18-L	11.45	10
WS 100-22-L	12.70	11-1/2
WS 100-25-L	13.90	13
WS 200-43-22-L	17.65	20
WS 200-52-22-L	19.15	24
WS 200-61-22-L	21.80	27
WS 200-70-22-L	23.25	31
WS 200-78-22-L	27.50	34
WS 200-43-25-L	19.00	24
WS 200-52-25-L	21.40	28
WS 200-61-25-L	24.30	33
WS 200-70-25-L	26.90	36
WS 200-78-25-L	29.75	41
WS 300-18-L	18.75	16
WS 300-22-L	20.00	18
WS 400-22-L	20.45	20
WS 400-25-L	23.35	24
WS 500-8-L	10.35	2-1/2
WS 500-10-L	10.60	5
WS 500-12-L	10.90	5-1/2
WS 500-14-L	11.15	6
WS 500-15-L	11.40	6-1/2
WS 500-17-L	11.60	7
WS 500-19-L	11.80	7-1/2
WS 500-21-L	12.05	8
WS 1500-18-L	13.05	12
WS 1500-22-L	14.25	14-1/2
WS 1500-25-L	15.20	17
SOLID BEARING SLIDES		
WSBS 7000-16-T	11.72 pr. NET	6
WSBS 7000-18-T	13.09 pr. NET	7
WSBS 7000-22-T	14.52 pr. NET	8
WSBS 7000-25-T	14.85 pr. NET	9
WSBS 8000-18-D	38.45 pr. NET	9
WSBS 8000-22-D	39.16 pr. NET	10
WSBS 8000-25-D	40.04 pr. NET	11
SHORT BALL-CORNERED SIDES		
WSHS 200-43-22	15.90	9
WSHS 200-43-25	17.20	11
WSHS 200-52-22	18.10	13
WSHS 200-52-25	19.60	16
WSHS 200-61-22	21.05	16
WSHS 200-61-25	22.50	20
WSHS 200-70-22	23.10	20
WSHS 200-70-25	25.00	24
WSHS 200-78-22	26.70	23
WSHS 200-78-25	28.70	27
WSHS 300-18	15.10	7
WSHS 300-22	16.50	8
WSHS 400-22	17.00	9
WSHS 400-25	18.20	13
CHASSIS/EQUIPMENT SLIDES		
WSL 900-18	14.10	8
WSL 900-22	14.75	11
WSL 900-25	16.95	13
WSL 924-18	14.40	8-1/2
WSL 924-22	15.05	11
WSL 924-25	15.60	14
SLIDING WORK/WRITING SHELVES		
WSS 10	29.95	18
WSS 11	34.15	24
WSS 12	38.30	26
WSS 10-24	36.90	20
WSS 11-24	41.10	26
WSS 12-24	45.35	28

Trade Discount Applies To List Prices Only

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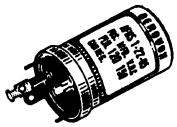
AEROVOX

CAPACITORS

ELECTROLYTICS



TYPE AFH (85°C) TWIST PRONG ELECTROLYTIC CAPACITOR

SINGLES • DUALS • TRIPLES • QUADS

The outstanding line of twist-prong mounting electrolytic capacitors with all the latest refinements — 85°C operation — high purity aluminum foil construction through out — improved moisture resistant seal. Types AFHS-PWHS are specially constructed for high ripple current circuits. PWH and PWHS are constructed for printed wiring board applications.

These units operate over a wide temperature range with a minimum change in capacitance.

While designed for filter audio bypass applications in Radio-TV and Amplifier equipment as exact replacements, many values are rapidly gaining acceptance in industrial applications.

They are manufactured to meet all requirements of EIA specification number RS-154. Capacity tolerances of this specification are listed below.

ELECTROLYTIC CAPACITY TOLERANCES

0-50 Volts	—	—10 +250%
51-350 Volts	—	—10 +100%
351 Volts & Up	—	—10 +50%

Aerovox Corporation is currently working on a size reduction program. Many sizes shown in the following listing reflect latest design figures. However Aerovox reserves the right to furnish previous catalog sizes until present stocks are depleted.

The AFH capacitors listed here include only those ratings which might find usage in industrial applications. A complete line of 1212 ratings may be found in the latest Aerovox Industrial Catalog, IDC 565, or Servicemen's Catalog, SE-565, and may be requested from Aerovox Corporation, Distributor Division, or through your nearest authorized Aerovox Industrial Distributor.

SINGLES

Catalog Number	Capacity	Voltage	Dia. x Length	*Net
AFH 1-00-50	2000	6	1-3/8 x 2	$1.83
AFH 1-01-25	225	15	3/4 x 2	1.05
AFH 1-02	1000	15	1 x 1½	1.53
AFH 1-03	2000	15	1-3/8 x 2	2.07
AFH 1-04	3000	15	1-3/8 x 2	2.55
AFH 1-08	500	25	1 x 2	1.53
AFH 1-10	1000	25	1-3/8 x 2	2.13
AFH 1-11	100	50	3/4 x 2	.99
AFH 1-12	150	50	3/4 x 2	1.08
AFH 1-13	500	50	1-3/8 x 2	1.59
AFH 1-13-05	500	50	1 x 3	1.59
AFH 1-14	1000	50	1-3/8 x 3½	2.25
AFH 1-14-50	1500	50	1-3/8 x 3	2.64
AFH 1-16	30	150	1 x 1½	.93
AFH 1-18	50	150	1 x 1½	.99
AFHS 1-20	80	150	1 x 2	1.11
AFH 1-21	100	150	1 x 2	1.20
AFHS 1-22	120	150	1 x 2	1.23
AFHS 1-22-05	120	150	1-3/8 x 2	1.29
AFHS 1-23	140	150	1 x 1¾	1.26
AFH 1-24	150	150	1 x 2½	1.29
AFH 1-24-01	150	150	1-3/8 x 2	1.29
AFHS 1-24-25	200	150	1-3/8 x 2	1.47
AFHS 1-24-75	300	150	1-3/8 x 2½	1.68
PWH 1-25-75	160	200	1-3/8 x 3	1.74
AFH 1-29	40	250	1 x 2	1.08
AFH 1-31-25	100	250	1 x 3	1.62
AFH 1-31-75	150	250	1-3/8 x 2	1.86
AFHS 1-31-85	200	250	1-3/8 x 2	2.19
AFH 1-35	80	300	1 x 1¾	1.53
AFH 1-36	100	300	1 x 2½	1.74
AFH 1-37	125	300	1-3/8 x 2	2.10
AFHS 1-37-25	150	300	1-3/8 x 2	2.10
AFH 1-37-35	250	300	1-3/8 x 4	3.33
AFH 1-39	30	350	1 x 1½	1.14
AFH 1-40	40	350	1 x 1½	1.20
AFH 1-41	50	350	1 x 2	1.26
AFH 1-42	80	350	1-3/8 x 2	1.71
AFHS 1-43	125	350	1-3/8 x 2	2.19
AFH 1-43-20	150	350	1-3/8 x 2	2.37
AFH 1-45	20	400	1 x 2	1.29
AFH 1-48	10	450	1 x 1½	.93
AFH 1-49	15	450	1 x 1½	1.26
AFH 1-50	20	450	1 x 1½	1.08
AFH 1-51	30	450	1 x 1½	1.17
AFH 1-52	40	450	1 x 1¾	1.23
AFH 1-53	50	450	1 x 2½	1.41

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-249

SINGLES (Continued)

Catalog Number	Capacity	Voltage	Dia. x Length	*Net
AFH 1-54	60	450	1-3/8 x 2½	1.62
AFH 1-55	80	450	1-3/8 x 2½	1.83
AFH 1-55-20	100	450	1-3/8 x 2½	2.07
AFH 1-55-25	125	450	1-3/8 x 3	2.37
AFH 1-56-10	40	475	1-3/8 x 2	1.50
AFH 1-58	10	500	1 x 2	.96
AFH 1-59	20	500	1 x 2	1.11
AFH 1-60	30	500	1 x 2	1.23
AFH 1-61	40	500	1 x 2½	1.50
AFH 1-62	80	500	1-3/8 x 2½	2.16
AFH 1-63	90	500	1-3/8 x 3½	2.34

DUALS

AFH 2-08	20-20	150	1 x 1½	1.02
AFH 2-11	30-30	150	1 x 1½	1.11
AFH 2-12	40-20	150	1 x 1½	1.08
AFH 2-13	40-30	150	1 x 1½	1.11
AFH 2-14	40-40	150	1 x 1½	1.14
AFH 2-15	50-30	150	1 x 1½	1.20
AFH 2-16	50-50	150	1 x 1½	1.29
AFH 2-17	60-60	150	1 x 1½	1.41
PWH 2-17-50	70-30	150	1 x 1½	1.32
AFH 2-18	75-75	150	1 x 1½	1.56
AFH 2-19-25	80-50	150	1 x 1½	1.44
AFH 2-20	80-80	150	1-3/8 x 2	1.59
AFH 2-20-50	125-100	150	1-3/8 x 2	2.10
AFH 2-20-61	150-100	150	1-3/8 x 2	2.01
AFHS 2-21	200-5	150	1-3/8 x 2	1.62
AFH 2-22	200-125	150	1-3/8 x 3	2.25
AFH 2-22-50	200-150	150	1-3/8 x 3	2.25
AFH 2-23	200-200	150	1-3/8 x 3	2.40
AFH 2-24	60-60	200	1-3/8 x 2	1.53
AFHS 2-24-20	100-100	200	1-3/8 x 3	2.10
AFHS 2-24-75	200-5	200	1-3/8 x 2½	1.83
AFH 2-26	20-20	250	1 x 1½	1.14
AFH 2-29	40-40	250	1 x 1½	1.50
AFHS 2-30	150-150	250	1-3/8 x 2½	3.09
AFHS 2-30-75	200-200	250	1-3/8 x 4	3.66
AFH 2-34	80-80	300	1-3/8 x 3	2.43
AFH 2-35	120-20	300	1-3/8 x 3	2.40
AFH 2-36	15-15	350	1 x 2	1.35
AFH 2-39	30-30	350	1 x 2½	1.74
AFH 2-40	50-30	350	1-3/8 x 2	1.89
AFH 2-40-40	60-30	350	1-3/8 x 2	1.89
AFH 2-40-80	80-40	350	1-3/8 x 2½	2.37
AFH 2-41	80-80	350	1-3/8 x 3½	2.82
AFH 2-41-10	90-40	350	1-3/8 x 2½	2.58
AFH 2-41-40	100-60	350	1-3/8 x 3½	2.88

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AEROVOX

CAPACITORS

ELECTROLYTICS – (Continued)

DUALS (Continued)

Catalog Number	Capacity	Voltage	Dia. x Length	*Net
AFHS 2-41-50	100-100	350	1-3/8 x 3	3.69
AFHS 2-41-80	160-10	350	1-3/8 x 3	2.58
AFH 2-45-10	80-20	400	1-3/8 x 2	2.73
AFH 2-45-40	80-60	400	1-3/8 x 4	2.91
AFH 2-45-60	120-40	400	1-3/8 x 4	3.15
AFH 2-46	5-5	450	1 x 2	1.05
AFH 2-47	10-10	450	1 x 1½	1.14
AFH 2-49	15-15	450	1 x 2½	1.35
AFH 2-50	20-10	450	1 x 1¾	1.35
AFH 2-51	20-20	450	1 x 2	1.53
AFH 2-52	30-10	450	1 x 2	1.50
AFH 2-54	30-30	450	1-3/8 x 2	1.83
AFH 2-55	40-10	450	1 x 2	1.59
AFH 2-56	40-20	450	1-3/8 x 2	1.80
AFH 2-57	40-40	450	1-3/8 x 2½	2.07
AFH 2-59	50-50	450	1-3/8 x 2½	2.31
AFH 2-61	60-40	450	1-3/8 x 3	2.37
AFH 2-61-50	60-60	450	1-3/8 x 3	3.36
AFH 2-62	80-10	450	1-3/8 x 2	2.16
AFH 2-63	80-20	450	1-3/8 x 2¼	2.34
AFH 2-64	80-40	450	1-3/8 x 2¼	2.61
AFH 2-64-25	100-40	450	1-3/8 x 3½	2.91
AFH 2-64-50	15-15	475	1 x 2½	1.41
AFH 2-66-60	80-50	475	1-3/8 x 3	3.12
AFH 2-67	10-10	500	1 x 1¾	1.23
AFH 2-69	20-20	500	1-3/8 x 2	1.71
AFH 2-71	30-10	500	1-3/8 x 2	1.71
AFH 2-71-01	30-10	500	1 x 3	1.56
AFH 2-71-75	30-30	500	1-3/8 x 2	1.95
AFH 2-72	40-40	500	1-3/8 x 2½	2.64
AFH 2-73	60-40	500	1-3/8 x 3½	2.76
AFH 2-86-70	100/30	400/50	1-3/8 x 2½	2.34
AFH 2-86-72	80/80	400/200	1-3/8 x 2½	2.37
AFH 2-94-30	30/200	450/150	1-3/8 x 3	2.10

TRIPLES

AFH 3-05	20-20-20	150	1 x 2	1.38
AFH 3-06	30-30-10	150	1 x 2	2.10
AFH 3-07	40-20-10	150	1 x 1½	1.41
AFH 3-08	40-20-20	150	1 x 2	1.44
AFH 3-09	40-30-20	150	1 x 2	1.50
AFH 3-10	40-40-40	150	1 x 2	1.56
AFH 3-11-20	50-40-10	150	1 x 1½	1.53
AFH 3-11-50	50-50-50	150	1 x 1¾	1.80
AFH 3-12	60-40-20	150	1 x 1¾	1.65
PWH 3-12-10	70-15-15	150	1 x 2	1.62
AFH 3-12-20	70-40-40	150	1 x 1¾	1.77
AFH 3-13	80-40-20	150	1-3/8 x 3	1.74
AFH 3-13-08	100-30-10	150	1 x 2	1.83
AFH 3-13-15	120-80-40	150	1-3/8 x 2	2.28
AFH 3-13-30	120-120-40	150	1-3/8 x 2	2.43
AFH 3-13-50	200-100-60	150	1-3/8 x 2	2.73
AFH 3-13-75	200-150-150	200	1-3/8 x 3	4.50
AFH 3-17-10	20-20-20	250	1 x 2½	1.56
AFH 3-20	40-20-20	250	1 x 1¾	1.74
AFH 3-21	80-80-60	250	1-3/8 x 3	2.94
AFH 3-22	10-10-10	300	1 x 2	1.44
AFH 3-25	60-20-10	300	1-3/8 x 2	2.07
AFH 3-25-50	80-40-40	300	1-3/8 x 2	2.85
AFH 3-26	120-50-40	300	1-3/8 x 2½	3.39
AFH 3-28-30	30-20-10	350	1 x 2½	1.95
AFH 3-29	60-40-20	350	1-3/8 x 2	2.55
AFH 3-29-25	60-50-50	350	1-3/8 x 2¼	2.94
AFH 3-29-50	80-60-60	350	1-3/8 x 2½	3.33
AFH 3-29-75	90-40-20	350	1-3/8 x 3	3.15
AFH 3-30	10-10-10	400	1 x 1½	1.44
AFH 3-30-75	90-10-5	400	1-3/8 x 3	2.64
AFH 3-31	10-10-10	450	1 x 2	1.56

TRIPLES (Continued)

Catalog Number	Capacity	Voltage	Dia. x Length	*Net
AFH 3-34	15-15-15	450	1 x 3	1.86
AFH 3-35	20-10-10	450	1 x 2	1.77
AFH 3-36	20-20-20	450	1-3/8 x 2	2.16
AFH 3-37	30-20-20	450	1-3/8 x 2	2.31
AFH 3-39	30-30-30	450	1-3/8 x 2	2.61
AFH 3-41	40-10-10	450	1-3/8 x 2	2.01
AFH 3-42	40-30-20	450	1-3/8 x 2	2.58
AFH 3-43	40-40-10	450	1-3/8 x 2	2.52
AFH 3-43-50	40-40-20	450	1-3/8 x 2½	2.67
AFH 3-44	40-40-40	450	1-3/8 x 3	2.94
AFH 3-44-50	50-40-30	450	1-3/8 x 4	2.94
AFH 3-45	60-20-20	450	1-3/8 x 3½	2.76
AFH 3-45-10	60-30-10	450	1-3/8 x 3	2.70
AFH 3-45-25	60-40-20	450	1-3/8 x 3	3.00
AFH 3-45-35	80-10-10	450	1-3/8 x 2½	2.58
AFH 3-46	80-40-20	450	1-3/8 x 3	3.24
AFH 3-49-10	30-30-20	475	1-3/8 x 2	2.85
AFH 3-50-07	40-30-10	475	1-3/8 x 3	2.70
AFH 3-50-10	40-30-30	475	1-3/8 x 3	3.09
AFH 3-51	10-10-10	500	1 x 3	1.62
AFH 3-52	30-20-20	500	1-3/8 x 2¼	2.52
AFH 3-53	40-10-10	500	1-3/8 x 2	2.34
AFH 3-54	40-40-10	500	1-3/8 x 2½	3.03
AFH 3-72	40-20/20	150/25	1 x 1½	1.38
AFH 3-77	50-30/20	150/25	1 x 1½	1.50
AFH 3-79	50-50/20	150/25	1 x 3	1.59
AFH 3-82	80-40/20	150/25	1 x 2½	1.68
AFH 3-82-40	80-40/300	150/25	1-3/8 x 2	2.22
AFH 3-84-75	80-10/20	200/50	1 x 1¾	1.68
AFH 3-120	20-20/20	400/25	1 x 3	1.71
AFH 3-124	10-10/10	450/25	1 x 1½	1.41
AFH 3-125	10-10/20	450/25	1 x 1½	1.44
AFH 3-132	40-20/20	450/25	1-3/8 x 2	2.10
AFH 3-187-05	20/100/140	450/400/300	1-3/8 x 4	4.17

QUADS

AFH 4-01	40-40-40-30	150	1-3/8 x 2	2.01
AFH 4-01-40	100-80-60-40	150	1-3/8 x 3	2.79
AFHS 4-01-55	200-200-60-30	175	1-3/8 x 2¾	3.33
AFH 4-01-80	40-20-10-10	300	1-3/8 x 2	2.37
AFH 4-02	40-40-20-10	300	1-3/8 x 2½	2.73
AFH 4-02-10	40-40-30-20	300	1-3/8 x 3	2.91
AFH 4-02-30	60-40-10-10	300	1-3/8 x 2½	2.73
AFH 4-02-90	200-20-20-20	300	1-3/8 x 3½	3.69
AFH 4-04	40-20-20-10	350	1-3/8 x 2	2.61
AFH 4-04-50	40-40-40-40	350	1-3/8 x 2¼	3.60
AFH 4-05-55	80-60-40-20	350	1-3/8 x 3	3.84
AFH 4-06-40	50-40-30-20	400	1-3/8 x 4	3.30
AFH 4-07	80-20-10-10	400	1-3/8 x 3½	3.03
AFH 4-10	10-10-10-10	450	1-3/8 x 2	2.01
AFH 4-14	20-20-20-20	450	1-3/8 x 2½	2.82
AFH 4-15-30	30-30-20-20	450	1-3/8 x 3	4.23
AFH 4-16	35-35-10-5	450	1-3/8 x 2	2.79
AFH 4-17	40-10-10-10	450	1-3/8 x 2	2.49
AFH 4-18-10	40-35-10-10	450	1-3/8 x 2	2.88
AFH 4-18-30	40-40-20-20	450	1-3/8 x 3	3.33
AFH 4-18-40	40-40-30-30	450	1-3/8 x 3	3.63
AFH 4-18-45	40-40-40-40	450	1-3/8 x 3½	3.87
AFH 4-18-50	60-20-20-20	450	1-3/8 x 3	3.39
AFH 4-18-60	60-30-10-2	450	1-3/8 x 3	3.06
AFH 4-18-80	80-10-10-10	450	1-3/8 x 3	3.03
AFH 4-19-10	20-20-10-10	475	1-3/8 x 2½	2.61
AFH 4-19-20	20-20-20-20	475	1-3/8 x 2½	3.12
AFH 4-19-50	40-20-10-10	475	1-3/8 x 2½	3.06
AFH 4-20	10-10-10-10	500	1-3/8 x 2	2.10
AFH 4-46	60-40-20/50	300/25	1-3/8 x 2	2.79
AFH 4-58-75	80-40/40-20	400/350	1-3/8 x 4	3.87
AFH 4-59	10-10-10/20	450/25	1-3/8 x 2	1.89

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-249

Net

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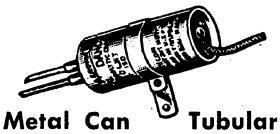
AEROVOX

CAPACITORS



ELECTROLYTICS — (Continued)

TYPE PRS "DANDEE" (85°C)

SINGLES • DUALS • TRIPLES • MULTIPLES

Metal Can Tubular Electrolytic Capacitors TYPE PRS-AC (AC rated units) NP-PRS (non-polarized units)

Compact, electrolytic tubular capacitors furnished in aluminum cans with cardboard insulating sleeves. Designed for use in television and radio applications where space is at a premium.
Included in this listing are the AC rated units (PRS-AC) and non-polarized units (NP PRS) for replacement use in cross-over networks and color TV receivers.
Single section capacitors are furnished with bare tinned copper leads 3 inches long. Negative grounded to case. Multiple units are furnished with insulated, stranded copper leads 5 inches long. Negative is common and grounded to case. Multiple units have common cathode.
Sizes listed are diameters over cardboard insulating sleeve. For actual can size deduct 1/16" from diameter and 1/4" from length. Multiple units are supplied with mounting strap. If mounting strap is required on single units, specify on order.
Tolerance and surge voltage are in accordance with EIA Specification RS-154.
The factory is currently in the process of reducing sizes of this type. Aerovox reserves the right to ship sizes listed below until present stock is depleted and smaller sizes as they become available.

TYPE PRS – SINGLES

Prs No.	Cap. Mfd.	Size	Net Price*
		3V	
1010	25	7/16 x 1¼	$ .51
1015	50	7/16 x 1¼	.57
1020	100	7/16 x 1¼	.66
1025	200	7/16 x 1-7/8	.69
1030	300	9/16 x 1-3/8	.78
1040	500	9/16 x 1-7/8	.84
		4V	
1050	2000	13/16 x 2	1.38
		6V	
1075	5	7/16 x 1¼	.48
1080	25	7/16 x 1¼	.51
1090	50	7/16 x 1¼	.57
1100	100	7/16 x 1¼	.72
1110	250	9/16 x 1-3/8	.81
1120	500	11/16 x 1½	.93
1130	1000	11/16 x 2-1/8	1.14
1140	1500	13/16 x 2	1.26
1145	2000	13/16 x 2-3/8	1.38
		10V	
1147	2000	15/16 x 2½	1.47
		12V	
1149	50	7/16 x 1-3/8	.60
1150	100	7/16 x 1-3/8	.72
1155	200	9/16 x 1-7/8	.81
1160	250	9/16 x 1¾	.87
1170	500	11/16 x 1-7/8	1.02
1180	1000	13/16 x 2-1/8	1.35
		15V	
1200	100	9/16 x 1-3/8	.75
1210	250	11/16 x 1-5/8	.93
1220	500	13/16 x 1¾	1.05
1230	1000	15/16 x 1-7/8	1.38
1240	2000	15/16 x 2¼	1.92
		20V	
1243	2000	1 x 2¾	2.55
		25V	
1245	5	7/16 x 1¼	.60
1250	10	7/16 x 1¼	.60
1255	16	7/16 x 1¼	.60
1257	20	7/16 x 1¼	.60
1260	25	7/16 x 1¼	.60
1265	50	7/16 x 1-3/8	.66
1270	100	9/16 x 1-5/8	.81
1280	250	13/16 x 1¾	1.02
1290	500	13/16 x 2¼	1.38
1295	1000	1-1/16 x 2-1/8	1.98
		50V	
1297	1	7/16 x 1¼	.54
1300	2	7/16 x 1¼	.54
1310	5	7/16 x 1¼	.60
1320	10	7/16 x 1¼	.60
1325	15	7/16 x 1-3/8	.60
1330	20	7/16 x 1¼	.60
1340	25	7/16 x 1-3/8	.63
1350	50	11/16 x 1½	.72
1360	100	11/16 x 1¾	.84
1370	150	13/16 x 1¾	.93
1380	250	15/16 x 1¾	1.05
1390	500	1-1/16 x 2¼	1.44
1395	1000	1 x 3	2.07
		150V	
1400	4	7/16 x 1¼	.60
1401	5	7/16 x 1¼	.60
1405	8	9/16 x 1¼	.63
1410	10	9/16 x 1-3/8	.63
1420	12	9/16 x 1-3/8	.66
1425	15	9/16 x 1-3/8	.69
1430	16	9/16 x 1½	.69
1440	20	9/16 x 1-5/8	.72
1450	24	9/16 x 1-7/8	.75
1451	25	9/16 x 1-7/8	.75
1460	30	11/16 x 1½	.78
1470	40	11/16 x 1¾	.81
1480	50	13/16 x 1¾	.84

TYPE PRS–SINGLES (Cont)

Prs No.	Cap. Mfd.	Size	Net Price*
1490	60	13/16 x 1¾	.90
1500	80	13/16 x 2	.96
1510	100	13/16 x 2¼	1.05
1520	150	15/16 x 2-3/8	1.14
1530	200	15/16 x 2-7/8	1.32
1540	300	1-1/16 x 3	1.53
		250V	
1550	4	7/16 x 1¼	.60
1555	8	9/16 x 1-3/8	.69
1560	12	9/16 x 1-5/8	.75
1565	16	11/16 x 1-3/8	.78
1570	20	11/16 x 1-5/8	.81
1575	30	11/16 x 2	.87
1580	40	13/16 x 1¾	.93
1585	50	13/16 x 2	1.02
1590	60	13/16 x 2-1/8	1.08
1595	100	15/16 x 2½	1.47
		350V	
1600	4	9/16 x 1¼	.63
1610	8	9/16 x 1-7/8	.72
1620	10	11/16 x 1½	.75
1630	12	11/16 x 1½	.78
1640	16	11/16 x 1¾	.84
1650	24	13/16 x 1-5/8	.93
1660	30	13/16 x 1¾	.99
1670	40	13/16 x 2-1/8	1.05
1680	50	15/16 x 2-1/8	1.11
1690	60	15/16 x 2-3/8	1.17
		450V	
1700	1	7/16 x 1¼	.66
1705	2	9/16 x 1¼	.69
1710	4	9/16 x 1½	.69
1715	8	11/16 x 1-5/8	.75
1720	10	11/16 x 1-7/8	.78
1725	12	13/16 x 1½	.81
1730	16	13/16 x 1¾	.84
1735	20	13/16 x 2	.93
1740	30	15/16 x 2-1/8	1.02
1750	40	15/16 x 2½	1.08
1760	50	15/16 x 3¼	1.26
1770	60	1-1/16 x 3	1.41
1780	80	1-1/16 x 3¾	1.68
1790	100	1-1/16 x 4	1.92
		500V	
1795	1	½ x 1	.66
1800	4	9/16 x 1¾	.72
1805	8	13/16 x 1½	.78
1810	10	13/16 x 1-5/8	.81
1815	12	13/16 x 1¾	.84
1820	16	13/16 x 2-1/8	.90
1830	20	15/16 x 2	.96
1840	30	15/16 x 2-5/8	1.05
		600V	
1845	4	11/16 x 2½	1.44
1850	8	13/16 x 2¾	1.71
1860	10	15/16 x 2¾	1.77
1870	12	15/16 x 2¾	1.89
1880	16	15/16 x 3¼	2.07
1890	20	1-1/16 x 3	2.13
		700V	
1900	8	15/16 x 2¾	1.74
1905	10	15/16 x 3	1.83
1910	12	15/16 x 3¼	1.95
1915	16	1-1/16 x 3-3/8	2.10

TYPE PRS – DUALS

			15V	
2020	500-150		15/16 x 1¾	1.62
			25V	
2050	10-10		11/16 x 1¼	.84
2075	20-20		11/16 x 1¼	.84
			150V	
2150	8-8		11/16 x 1¼	.90

TYPE PRS–DUALS (Cont)

Prs No.	Cap. Mfd.	Size	Net Price*
2155	16-8	13/16 x 1-3/8	.93
2160	20-10	13/16 x 1½	.93
2165	20-20	13/16 x 1¾	.99
2170	30-20	13/16 x 1½	1.02
2175	30-30	13/16 x 1-5/8	1.08
2180	40-20	13/16 x 1-5/8	1.05
2190	40-30	13/16 x 1¾	1.08
2195	40-40	13/16 x 2	1.08
2200	50-30	13/16 x 2	1.17
2210	50-50	13/16 x 2¼	1.26
2220	80-20	13/16 x 2¼	1.29
2230	80-40	13/16 x 2½	1.32
2240	80-50	15/16 x 2-1/8	1.41
2245	100-100	15/16 x 2-7/8	1.92
		200V	
2250	8-8	13/16 x 1¼	.90
2260	16-8	13/16 x 1½	.96
2280	16-16	13/16 x 1¾	1.02
2290	30-30	13/16 x 1-7/8	1.29
		250V	
2300	10-10	13/16 x 1-5/8	.99
2320	16-16	13/16 x 2-1/8	1.02
2330	20-20	13/16 x 1¾	1.11
2340	30-30	13/16 x 2-1/8	1.35
		300V	
2345	50-10	1-1/16 x 2¼	1.50
		350V	
2348	30-5	15/16 x 2¼	1.29
		450V	
2350	8-8	13/16 x 1¾	1.02
2360	10-10	13/16 x 2	1.11
2370	16-8	13/16 x 2¼	1.20
2380	16-16	15/16 x 2¼	1.35
2390	20-20	15/16 x 2½	1.50
2400	30-30	1-1/16 x 3	1.80
2410	40-20	1-1/16 x 3	1.77
2420	40-40	1-1/16 x 3¾	2.01
2430	50-30	1-1/16 x 3¾	2.04

TYPE PRS – TRIPLES

			15V	
3200	500-100-100		15/16 x 1-13/16	1.80
			150V	
3500	20-20-20		15/16 x 1¾	1.51
3550	30-20-10		15/16 x 1¾	1.51
3555	30-25-20		15/16 x 1¾	1.51
3560	30-30-20		15/16 x 1¾	1.58
3570	30-30-30		15/16 x 1¾	1.58
3600	40-20-20		15/16 x 1¾	1.58
3625	40-30-20		15/16 x 1¾	1.58
3650	40-40-20		15/16 x 1-7/8	1.63
3675	40-40-40		15/16 x 2¼	1.67
3700	50-30-10		15/16 x 1¾	1.58
3750	50-30-20		15/16 x 1-7/8	1.63
3800	80-40-20		15/16 x 2¼	1.74
3825	80-50-20		15/16 x 2-3/8	1.74
			450V	
3900	10-10-10		15-16 x 2-1/8	1.67

TYPE PRS – MULTIPLE VOLTAGES

Prs No.	Cap Mfd.	VDCW	Size	Net Price*
4150	40-40/250	150/10	15/16 x 2¼	1.71
4200	20-20/20	150/25	15/16 x 1¾	1.48
4300	30-20/20	150/25	15/16 x 1¾	1.50
4350	30-20/100	150/25	15/16 x 1¾	1.58
4400	40-20/20	150/25	15/16 x 1¾	1.53
4425	40-30/20	150/25	15/16 x 1¾	1.55
4450	40-40/20	150/25	15/16 x 1¾	1.59
4475	40-40/100	150/25	15/16 x 2	1.67

TYPE PRS - MULTIPLE VOLTAGES (Cont)

Prs No.	Cap Mfd.	VDCW	Size	Net Price*
4500	50-30/20	150/25	15/16 x 1¾	1.59
4525	50-30/100	150/25	15/16 x 2	1.67
4550	50-30/250	150/25	15/16 x 2½	1.81
4575	50-50/20	150/25	15/16 x 1-7/8	1.66
4600	80-20/100	150/25	15/16 x 2¼	1.69
4650	80-40/20	150/25	15/16 x 2-1/8	1.69
4700	20-20/20	450/25	1-1/16 x 2/3/8	1.86
*4800	20/100	475/50	15/16 x 2-7/8	1.56
4805	20/100	500/25	15/16 x 2-5/8	1.56

*No Tube

TYPE PRS – AC Rated

Prs No.	Cap. Mfd.	Size	Net Price*
		10VAC	
6200	8	11/16 x 1½	$ .75
		25VAC	
6400	20	13/16 x 1½	.75
		50VAC	
6500	30	15/16 x 1¾	.84
6550	60	13/16 x 2¾	.93

NP-PRS–NON-POLARIZED

		3 VNP	
7050	1000	13/16 x 2	1.29
		6 VNP	
7100	500	11/16 x 2-1/8	1.17
		10 VNP	
7200	25	7/16 x 1¼	.69
7220	50	7/16 x 1-3/8	.72
7230	170	11/16 x 1-5/8	.96
7240	450	1-1/16 x 2¼	1.20
7245	500	1-1/16 x 1¾	1.20
		12 VNP	
**7247	200	11/16 x 1¾	1.08

**with bracket

		15 VNP	
7250	500	15/16 x 1-7/8	1.31
7275	1000	1-1/16 x 2¼	1.74
		25 VNP	
7300	2	7/16 x 1¼	.69
7315	10	7/16 x 1¼	.75
7330	50	11/16 x 1½	.84
7340	100	11/16 x 1-5/8	1.02
		30 VNP	
7350	20	9/16 x 1¼	.75
		50 VNP	
7400	2	7/16 x 1-1/8	.69
7405	4	7/16 x 1¼	.75
		150 VNP	
7450	40	1-1/16 x 2	1.02
		200 VNP	
7500	2	11/16 x 1¼	.75
		300 VNP	
7525	1	7/16 x 1¼	.75
		350 VNP	
7550	5	15/16 x 1¾	.78
7555	10	13/16 x 2	.93
7560	20	1-1/16 x 2¼	1.09
		400 VNP	
7650	10	13/16 x 2	.93
		450 VNP	
7750	4	11/16 x 1-5/8	.84

*Request O.E.M. Prices in the following quantities:

25-49, 50-99, 100-249, 250-499.

AEROVOX

CAPACITORS

ELECTROLYTICS – (Continued)
TYPE CRE ULTRA-MINIATURE 85°C
ALUMINUM CASED ELECTROLYTICS

Ultra-miniature, tubular, aluminum cased electrolytics with tinned copper leads. Furnished with insulating sleeves of heat shrinkable mylar tubing which adds only 1/32" to can diameter and 1/16" to length.

Ideal for use in bypass, filter, and coupling applications in low-voltage, compact, miniaturized equipments such as personal radios, hearing aids, microphones, wire receivers, etc.

Elimination of variable or high resistance connections, freedom from corrosion and extremely low leakage characteristics have been attained through the use of a combination of all-welded construction, high purity ingredients and extreme care in manufacture and test procedures.

Temperature Range: —30°C to +85°C
Capacitance Tolerance: —10%, +100%
Nominal lead length: 1½".

Packaging: Packaged in new, patented, straight-lead, 5-pack container. Keeps leads straight. Holds five units. The 5-pack is adaptable to packaging in bulk or in single inside cartons. For full technical information request Bulletin NPJ-124

STOCK LISTING

Mfd.	Size	Catalog Number *	Net **Price
		3 VDCW	
1	B	CRE200A	$ .75
2	B	CRE201A	.75
3	B	CRE202A	.75
4	B	CRE203A	.75
5	B	CRE204A	.75
6	B	CRE205A	.75
8	B	CRE206A	.75
10	B	CRE207A	.75
15	B	CRE209A	.75
20	B	CRE211A	.75
25	B	CRE212A	.75
30	C	CRE213A	.75
35	C	CRE214A	.75
40	C	CRE215A	.75
50	C	CRE217A	.75
60	D	CRE218A	.84
75	D	CRE220A	.84
100	D	CRE223A	.84
125	E	CRE226A	.87
150	E	CRE228A	.87
175	F	CRE230A	.90
200	F	CRE231A	.90
225	G	CRE232A	.96
250	G	CRE233A	.96
300	G	CRE235A	.99
350	H	CRE237A	1.02
400	H	CRE239A	1.02
450	J	CRE241A	1.05
500	J	CRE243A	1.05
		6 VDCW	
1	B	CRE300A	.81
2	B	CRE301A	.81
3	B	CRE302A	.81
4	B	CRE303A	.81
5	B	CRE304A	.81
6	B	CRE305A	.81
8	B	CRE306A	.81
10	B	CRE307A	.81
15	B	CRE309A	.81
20	C	CRE311A	.81
25	C	CRE312A	.81
30	C	CRE313A	.84
35	C	CRE314A	.84
40	D	CRE315A	.84
50	D	CRE317A	.84
60	D	CRE318A	.84
75	E	CRE320A	.87
100	E	CRE323A	.90
125	F	CRE326A	.93
150	G	CRE328A	.93
175	H	CRE330A	.96
200	H	CRE331A	.96
225	H	CRE332A	.99
250	H	CRE333A	1.02
300	J	CRE335A	1.08
350	J	CRE337A	1.08
		12 VDCW	
1	B	CRE400A	$ .84
2	B	CRE401A	.84
3	B	CRE402A	.84
4	B	CRE403A	.84
5	B	CRE404A	.84
6	B	CRE405A	.84
8	B	CRE406A	.84
10	B	CRE407A	.84
12	B	CRE408A	.84
15	C	CRE409A	.84
20	C	CRE411A	.84
25	C	CRE412A	.84
30	D	CRE413A	.87
35	D	CRE414A	.87
40	E	CRE415A	.93
50	E	CRE417A	.93
60	E	CRE418A	.93
75	F	CRE420A	.99
100	F	CRE423A	1.05
125	G	CRE426A	1.08
150	H	CRE428A	1.14
175	H	CRE430A	1.17
200	H	CRE431A	1.23
225	J	CRE432A	1.32
250	J	CRE433A	1.32
		15 VDCW	
1	B	CRE450A	.84
2	B	CRE451A	.84
3	B	CRE452A	.84
4	B	CRE453A	.84
5	B	CRE454A	.84
6	B	CRE455A	.84
8	B	CRE456A	.84
10	B	CRE457A	.84
15	C	CRE459A	.87
20	C	CRE461A	.87
25	D	CRE462A	.87
30	D	CRE463A	.90
35	E	CRE464A	.93
40	E	CRE465A	.96
50	E	CRE467A	.96
60	F	CRE468A	1.02
75	F	CRE470A	1.02
100	G	CRE473A	1.08
125	H	CRE476A	1.17
150	H	CRE478A	1.17
175	J	CRE480A	1.26
200	J	CRE481A	1.26
		25 VDCW	
1	B	CRE600A	.84
2	B	CRE601A	.84
3	B	CRE602A	.84
4	B	CRE603A	.84
5	B	CRE604A	.84
6	C	CRE605A	.84
8	C	CRE606A	.87
10	C	CRE607A	.87
15	D	CRE609A	$ .87
20	E	CRE611A	.90
25	E	CRE612A	.93
30	E	CRE613A	.96
35	F	CRE614A	.99
40	F	CRE615A	1.02
50	G	CRE617A	1.08
60	G	CRE618A	1.08
75	H	CRE620A	1.17
100	J	CRE623A	1.26
125	J	CRE626A	1.26
		50 VDCW	
1	B	CRE750A	.84
2	B	CRE751A	.84
3	C	CRE752A	.84
4	C	CRE753A	.84
5	C	CRE754A	.87
6	D	CRE755A	.87
8	D	CRE756A	.90
10	D	CRE757A	.90
15	E	CRE759A	.90
20	F	CRE761A	.90
25	G	CRE762A	.93
30	G	CRE763A	.96
35	H	CRE764A	1.02
40	H	CRE765A	1.05
50	J	CRE767A	1.11
		100 VDCW	
1	D	CRE900A	.84
2	D	CRE901A	.84
3	D	CRE902A	.84
4	E	CRE903A	.84
5	E	CRE904A	.90
6	E	CRE905A	.90
8	F	CRE906A	.93
10	G	CRE907A	.93
12	G	CRE908A	.93
15	H	CRE909A	.93
20	J	CRE911A	.96
25	J	CRE912A	.96
		150 VDCW	
1	D	CRE950A	.84
2	E	CRE951A	.87
3	E	CRE952A	.87
4	E	CRE953A	.87
5	E	CRE954A	.93
6	F	CRE955A	.93
8	G	CRE956A	.96
10	H	CRE957A	.96
15	H	CRE959A	.96
20	J	CRE961A	.96

SIZE CHART			
B	¼ x ½	F	3/8 x 13/16
C	¼ x 11/16	G	3/8 x 15/16
D	5/16 x 11/16	H	3/8 x 1¼
E	3/8 x 11/16	J	3/8 x 1½

*When ordering units without insulating sleeve delete suffix letter 'A' from Catalog No.
**Request O.E.M. Prices in the following quantities: 50-99, 100-249.

Net

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AEROVOX

CAPACITORS

ELECTROLYTICS — (Continued)

TYPE PTT TUBULAR PLASTIC-CASED ELECTROLYTICS

Small in size big in performance, designed especially for wide applications in transistorized circuitry and cramped electronic assemblies, here is a truly MINIATURE electrolytic tubular that will handle full sized loads. Aerovox Type PTT units feature "Polycap" cases that are the next best thing to metal cans for maximum protection against humidity. Advanced construction techniques assure long capacitor life. Units are rated for operation at temperatures from —30°C to +65°C.

For full technical information request Bulletin NPJ-111 Rev.

Cap.	PTT #	Size	Net Price*
	3 VDCW		
1	PTT 1	A	.42
2	PTT 2	A	.42
3	PTT 3	A	.42
5	PTT 4	A	.42
8	PTT 5	A	.42
10	PTT 6	A	.42
15	PTT 7	A	.42
20	PTT 8	B	.42
25	PTT 9	B	.42
30	PTT 10	B	.42
40	PTT 11	B	.42
50	PTT 12	C	.42
100	PTT 13	H	.45
150	PTT 100	J	.45
200	PTT 14	K	.45
250	PTT 15	K	.48
300	PTT 16	L	.54
500	PTT 17	O	.75
800	PTT 138	W	.75
	6 VDCW		
1	PTT 18	A	.42
2	PTT 19	A	.42
3	PTT 20	A	.42
5	PTT 21	A	.42
8	PTT 22	A	.42
10	PTT 23	A	.42
15	PTT 24	B	.42
20	PTT 25	B	.42
25	PTT 26	B	.42
30	PTT 27	C	.42
40	PTT 28	C	.45
50	PTT 29	E	.45
100	PTT 30	G	.45
150	PTT 101	J	.48
200	PTT 31	K	.48
250	PTT 32	M	.60
300	PTT 33	N	.75
	10 VDCW		
1	PTT 34	A	.42
2	PTT 35	A	.42
3	PTT 36	A	.42
5	PTT 37	A	.42
8	PTT 38	A	.42
10	PTT 39	A	.42
15	PTT 40	B	.42
20	PTT 41	B	.42
25	PTT 42	E	.45
30	PTT 43	E	.45
40	PTT 44	E	.45
50	PTT 45	F	.45
100	PTT 46	J	.45
150	PTT 102	K	.60
200	PTT 47	L	.75
250	PTT 103	N	.75
300	PTT 104	O	.75
	12 VDCW		
1	PTT 48	A	.42
2	PTT 49	A	.42
3	PTT 50	A	.42
5	PTT 51	A	.42
8	PTT 52	A	.42
10	PTT 53	B	.42
15	PTT 54	B	.42
20	PTT 55	E	.45
25	PTT 56	E	.45
30	PTT 57	E	.45
40	PTT 58	H	.45
50	PTT 59	H	.45
100	PTT 60	K	.45
150	PTT 105	L	.60
200	PTT 106	N	.75
	15 VDCW		
1	PTT 61	A	.42
2	PTT 62	A	.42
3	PTT 63	A	.42

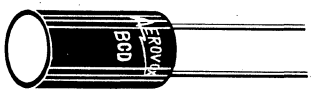
*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-249

Cap.	PTT #	Size	Net Price*
	15 VDCW (Continued)		
5	PTT 64	A	.42
8	PTT 65	B	.42
10	PTT 66	B	.42
15	PTT 67	B	.42
20	PTT 68	E	.45
25	PTT 69	E	.45
30	PTT 70	E	.45
40	PTT 71	H	.45
50	PTT 72	H	.45
100	PTT 73	K	.60
150	PTT 107	L	.66
200	PTT 108	O	.75
	20 VDCW		
1	PTT 109	A	.42
2	PTT 110	A	.42
3	PTT 111	A	.42
5	PTT 112	A	.42
8	PTT 113	B	.42
10	PTT 114	B	.42
15	PTT 115	E	.45
20	PTT 116	E	.45
25	PTT 117	E	.45
30	PTT 118	H	.45
40	PTT 119	H	.45
50	PTT 120	J	.45
100	PTT 121	N	.66
150	PTT 122	S	.75
200	PTT 123	U	.75
	25 VDCW		
1	PTT 74	A	.42
2	PTT 75	A	.42
3	PTT 76	A	.42
5	PTT 77	B	.42
8	PTT 78	B	.42
10	PTT 79	E	.42
15	PTT 80	E	.45
20	PTT 81	H	.45
25	PTT 82	H	.45
30	PTT 83	H	.45
40	PTT 84	J	.45
50	PTT 85	K	.45
100	PTT 86	N	.66
150	PTT 124	V	.75
	35 VDCW		
1	PTT 125	A	.42
2	PTT 126	A	.42
3	PTT 127	A	.42
5	PTT 128	D	.42
8	PTT 129	E	.45
10	PTT 130	E	.45
15	PTT 131	H	.45
20	PTT 132	H	.45
25	PTT 133	J	.48
30	PTT 134	J	.60
40	PTT 135	P	.75
50	PTT 136	R	.75
100	PTT 137	T	.75
	50 VDCW		
1	PTT 87	A	.42
2	PTT 88	A	.42
3	PTT 89	B	.42
5	PTT 90	C	.42
8	PTT 91	E	.45
10	PTT 92	H	.45
15	PTT 93	H	.45
20	PTT 94	J	.45
25	PTT 95	K	.48
30	PTT 96	K	.60
40	PTT 97	M	.75
50	PTT 98	N	.75

SIZE CHART

A	1/4 x 5/8	J	3/8 x 7/8	R	7/16 x 1
B	1/4 x 1/4	K	3/8 x 1	S	7/16 x 1¼
C	1/4 x 7/8	L	3/8 x 1-1/8	T	7/16 x 1½
E	5/16 x 1/4	M	3/8 x 1¼	U	1/2 x 1¼
F	5/16 x 7/8	N	3/8 x 1-3/8	V	7/16 x 1-3/8
G	5/16 x 1	O	3/8 x 1½	W	1/2 x 1-3/8
H	3/8 x 3/4	P	7/16 x 7/8		

TYPE B C D UPRIGHT MOUNTING BAKELITE CASED ELECTROLYTICS



"Polycap" cased, epoxy end filled electrolytic capacitors. Upright mounting for replacement in printed wiring, transistorized personal radios and car radios.

Small size and type of mounting make these units ideal for use in any printed wiring circuit.

Plastic case and epoxy end seal offer good moisture barrier which protects against drying out or leakage of electrolyte.

High purity foil insures long life and low leakage.

Minimum 1" lead length assists in threading connections into printed wiring boards even in tightest spaces.

Positive lead is identified by a + (plus) mark on case.

For full technical information request Bulletin NPJ-108.

Cap. Mfds.	BCD No.	Size	Net Price*
	3 VDCW		
1	3001	A	.75
2	3002	A	.75
3	3003	A	.75
4	3004	A	.75
5	3005	A	.75
6	3006	A	.75
8	3008	A	.75
10	3010	A	.75
15	3015	A	.75
20	3020	A	.75
25	3025	A	.75
35	3035	B	.75
50	3050	B	.75
75	3075	B	.78
100	3100	C	.84
150	3150	D	.84
200	3200	D	.87
250	3250	F	.96
300	3300	F	.99
500-50	3X50050	N	1.14
1.5	3X100050	Q	1.20
	4 VDCW		
100-100	4X100100	F	1.05
	5 VNP		
5	5005	A	.81
	6 VDCW		
1	6001	A	.75
2	6002	A	.75
3	6003	A	.75
4	6004	A	.75
5	6005	A	.75
6	6006	A	.75
8	6008	A	.75
10	6010	A	.75
15	6015	B	.75
20	6020	B	.75
25	6025	B	.75
35	6035	B	.75
50	6050	B	.75
75	6075	C	.81
100	6100	D	.90
150	6150	F	.93
200	6200	F	.96
100-30	6X10030	F	1.05
	8 VDCW		
800	8800	P	1.20
	10 VNP		
5	10005	A	.81
	10 VDCW		
10	10010	A	.75
25	10025	B	.75
50	100050	C	.75
80	10080	D	.84
100	10100	D	.90
190	10190	G	.99
50-30	10X5030	F	1.02
50-50	10X5050	F	1.02
80-50	10X8050	F	1.05
80-80	10X8080	F	1.05
	12 VDCW		
1	12001	A	.75
2	12002	A	.75
3	12003	A	.75
4	12004	A	.75
5	12005	A	.75
6	12006	A	.75
8	12008	A	.75
10	12010	A	.75
15	12015	B	.75
20	12020	B	.75
25	12025	B	.75
35	12035	B	.75
50	12050	C	.75
75	12075	D	.84
100	12100	F	.90
150	12150	G	.99
250	12250	H	1.08
500	12500	P	1.20

Cap. Mfds.	BCD No.	Size	Net Price*
	15 VDCW		
1	15001	A	.75
2	15002	A	.75
3	15003	A	.75
4	15004	A	.75
5	15005	A	.75
6	15006	A	.75
8	15008	A	.75
10	15010	A	.75
15	15015	B	.75
20	15020	B	.75
25	15025	B	.75
35	15035	C	.75
50	15050	C	.75
75	15075	F	.87
100	15100	F	.90
100-100	*15X100100	J	1.05
300-100	15X300100	K	1.11
300	15300	N	1.20
500	15500	P	1.20
	18 VDCW		
100	18100	M	.96
	20 VDCW		
200	20200	N	1.05
100-100	*20X100100	R	1.11
	25 VDCW		
1	25001	A	.75
2	25002	A	.75
3	25003	A	.75
4	25004	A	.75
5	25005	A	.75
6	25006	A	.75
8	25008	A	.75
10	25010	A	.75
15	25015	B	.75
20	25020	C	.75
25	25025	C	.75
35	25035	D	.81
50	25050	F	.84
75	25075	E	.90
	50 VDCW		
1	50001	A	.75
2	50002	A	.75
3	50003	A	.75
4	50004	A	.75
5	50005	B	.75
6	50006	B	.75
8	50008	B	.75
10	50010	B	.75
15	50015	C	.75
20	50020	D	.75
25	50025	F	.81

* Common Positive

BCD SIZE CODE

A	5/16 x 5/8	H	1/2 x 1-1/8
B	3/8 x 5/8	J	1/2 x 1-1/4
C	3/8 x 3/4	K	1/2 x 1-1/2
D	7/16 x 3/4	M	5/8 x 3/4
E	7/16 x 1	N	5/8 x 1
F	1/2 x 3/4	P	5/8 x 1-1/4
G	1/2 x 7/8	R	5/8 x 1-7/8
		Q	5/8 x 1½

Diam.	Lead Spacing
5/16	.125
3/8	.187
7/16	.250
1/2	.312
5/8	.400

LEAD SIZE

Diam.	Pos.	Neg.
5/16	.020	.025
3/8	.025	.032
7/16	.025	.032
1/2	.025	.032
5/8	.025	.032

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Net

AEROVOX CAPACITORS

ELECTROLYTICS — (Continued)

TYPE QE 61

Type QE capacitors are aluminum electrolytics designed for applications requiring high reliability and long life. Typical applications are in computor equipment, power supplies, telephone networks, industrial electronic equipment and high grade commercial and laboratory test instruments.

These units are manufactured with special high purity materials and processed under controlled conditions of cleanliness with the most modern equipment available. The aluminum container is hermetically sealed and furnished with low screw inserts with a pressure type safety vent provided in the cover.

Operating temperatures for QE61 is —20°C to +65°C. Standard capacity tolerance 2.5 Volts to 150 Volts is —10% +100%. For 151 Volts to 450 Volts —10% +50%. QE61 will be furnished with heat shrinkable mylar tubing which adds only .010 to the diameter and .020 to the length of the can size as shown.

For complete engineering details including ripple currents, dissipation factor, etc., request our latest bulletin NPJ-125.

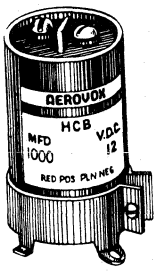
AVAILABLE CAN SIZES AND DESIGNATION

Can Size	Design-nation	Can Size	Design-nation	Can Size	Design-nation	Can Size	Design-nation	Can Size	Design-nation
1⅜ x 1⅜	A1	1¾ x 2⅛	B1	2 x 3⅛	C1	2½ x 3⅛	D1	3 x 4⅛	E1
1⅜ x 2⅛	A2	1¾ x 3⅛	B2	2 x 4⅛	C2	2½ x 4⅛	D2	3 x 4⅝	E2
1⅜ x 3⅛	A3	1¾ x 4⅛	B3	2 x 4⅝	C3	2½ x 4⅝	D3	3 x 5⅛	E3
1⅜ x 4⅛	A4	1¾ x 4⅝	B4	2 x 5⅛	C4	2½ x 5⅛	D4	3 x 5⅝	E4
1⅜ x 4⅝	A5	1¾ x 5⅛	B5	2 x 5⅝	C5	2½ x 5⅝	D5		

Cat. No.	Size	Capacity	Net Price*
10 VDCW			
61QE2048M	A1	1800	$2.97
61QE2049M	A2	3600	3.45
61QE2051M	A3	7300	4.71
61QE2052M	A4	11000	5.61
61QE2058M	C2	25000	8.79
15 VDCW			
61QE2072M	A1	1500	2.97
61QE2073M	A2	3100	3.54
61QE2075M	A3	6100	4.38
61QE2076M	A4	9200	5.61
61QE2079M	C1	14000	7.41
61QE2083M	C2	21000	8.94
61QE2086M	C4	28000	11.16
61QE2088M	D2	35000	12.00
25 VDCW			
61QE2120M	A1	950	2.97
61QE2121M	A2	1900	3.60
61QE2123M	A3	3800	4.62
61QE2124M	A4	5800	5.70
61QE2127M	C1	8900	6.72
61QE2131M	C2	13000	9.60
61QE2134M	C4	17000	10.20
61QE2136M	D2	22000	11.52
61QE2140M	E1	33000	13.56
35 VDCW			
61QE2164M	E1	23000	13.50
61QE2165M	E2	27000	14.10
40 VDCW			
61QE2171M	A3	2400	4.86
61QE2175M	C1	5600	7.05
61QE2178M	C2	8300	9.27
61QE2184M	D2	14000	13.50
61QE2185M	D3	16300	13.80
50 VDCW			
61QE2192M	A1	470	2.97
61QE2193M	A2	940	3.75
61QE2195M	A3	1850	4.23
61QE2196M	A4	2830	5.79
61QE2199M	C1	4300	7.20
61QE2202M	C2	6500	8.19
61QE2206M	C4	8700	10.20
61QE2208M	D2	10900	12.90

Cat. No.	Size	Capacity	Net Price*
75 VDCW			
61QE2243M	A3	950	$ 4.05
61QE2247M	C1	2300	5.43
61QE2256M	D2	5800	10.41
100 VDCW			
61QE2268M	A4	1000	4.62
61QE2271M	C1	1600	5.22
61QE2274M	C2	2400	6.30
61QE2278M	C4	3200	8.64
61QE2280M	D2	4000	10.26
150 VDCW			
61QE2291M	A3	520	3.30
61QE2292M	A4	785	4.05
61QE2295M	C1	1200	5.55
61QE2298M	C2	1800	6.72
61QE2304M	D2	3100	9.06
61QE2308M	E1	4700	13.17
61QE2309M	E2	5400	14.10
200 VDCW			
61QE2315M	A3	400	3.27
61QE2319M	C1	960	6.90
61QE2323M	C2	1450	9.00
61QE2325M	D1	1600	9.75
250 VDCW			
61QE2340M	A4	460	3.90
61QE2343M	C1	750	5.40
61QE2346M	C2	1100	9.00
300 VDCW			
61QE2363M	A3	250	3.75
350 VDCW			
61QE2387M	A3	185	3.66
61QE2400M	D2	1100	11.25
450 VDCW			
61QE2430M	C2	340	5.82
61QE2436M	D2	570	7.26
61QE2437M	E1	850	10.80

*Request O.E.M. Prices in the following quantities: 25-49, 50-99



TYPES HCB and NPB High Capacity Low Voltage Bakelite Cased Electrolytics

Type HCB units are polarized electrolytic capacitors designed for use in industrial applications such as battery eliminators, power supplies, electric fence controls and sound movie projectors. For non-polarized applications in welding and control equipment Type NPB units are available.

Both types feature heavy-duty, moisture resistant bakelite cases which eliminate the need for outer cardboard insulating tubes. Operating temperature range from —40°C to +85°C. Capacitance tolerance up to 150 VDCW —10% +100%, over 150 VDCW —10% +50%. High capacity etched plate construction assures long trouble-free operation. Units supplied with wrap around—footed brackets for vertical mtg.—horizontal mtg. available on Special Order.

For full technical information request bulletin NPJ-117.

TYPE HCB			HCB (Continued)		
Capacity MFD	Size	Net Price**	Capacity MFD	Size	Net Price**
6 VDCW—8V Surge			**50 VDCW—75V Surge**		
12000	1-13/16 x 4-3/8	$8.16	500	1-7/16 x 3-3/8	$3.33
			1000	1-7/16 x 3-3/8	4.25
			2000	1-13/16 x 3-3/8	5.06
12 VDCW—18V Surge			3000	1-13/16 x 4-3/8	7.00
500	1-7/16 x 2¾	2.70	4000	2-1/16 x 4-3/8	7.32
1000	1-7/16 x 2¾	2.94			
2000	1-7/16 x 2¾	3.36			
3000	1-7/16 x 3-3/8	3.96	**150 VDCW—185V Surge**		
4000	1-7/16 x 3-3/8	4.60	1000	1-13/16 x 4-3/8	6.44
6000	1-13/16 x 3-3/8	5.20			
10000	1-13/16 x 4-3/8	7.82			
18 VDCW—25V Surge			**TYPE NPB**		
500	1-7/16 x 2¾	2.89	**125 VNP—175V Surge**		
1000	1-7/16 x 2¾	3.31	200	1-7/16 x 3-3/8	4.04
1500	1-7/16 x 2¾	3.39	300	1-13/16 x 3-3/8	4.87
2000	1-7/16 x 2¾	3.47	500	1-13/16 x 4-3/8	6.30
4000	1-13/16 x 3-3/8	5.37			
6000	1-13/16 x 3-3/8	5.62	**300 VNP—375V Surge**		
			15	1-7/16 x 2¾	2.87
25 VDCW—40V Surge			100	1-13/16 x 3-3/8	6.13
500	1-7/16 x 2¾	2.89	200	2-1/16 x 4-3/8	7.00
1000	1-7/16 x 2¾	3.19			
1250	1-7/16 x 3-3/8	3.43			
2000	1-7/16 x 3-3/8	4.15	**450 VNP—525V Surge**		
3000	1-13/16 x 3-3/8	4.88	50	1-13/16 x 3-3/8	6.30
4000	1-13/16 x 3-3/8	5.58	100	2-1/16 x 4-3/8	7.70
6000	1-13/16 x 4-3/8	7.12			

**Request O.E.M. Prices in the following quantities: 10-24. 25-49, 50-99, 100-249

Net

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AEROVOX CAPACITORS

ADDITIONAL STYLES

For complete information on any Types shown on this page request Catalog or Brochure from Aerovox Corporation, Distributor Division, or your nearest authorized Aerovox Industrial Distributor.

TYPE G
Insulated Screw-Mounting Capacitors

Hermetically-sealed aluminum can unit, threaded cover size 7/8—16 with hex nut and washer for convenient mounting on chassis. Washer can be used to insulate can from chassis. Terminals molded in cover. Cathode connection thru terminal in cover. These units are the commercial equivalent of case style CE41 and 42 of specification MIL C62A.

7 Stock Values – 3 Voltages

TYPE E
Hermetically-Sealed, Aluminum, Round Metal-Cased Capacitors

Can be mounted with terminals upright or inverted by use of a ring-type clamp provided with unit. Can is floating, thus having two terminals on single-section capacitors, three on duals, and four on triples.
These units are the commercial equivalent of case style CE31, 2 and 3 of MIL Specification C62A.

16 Stock Values – 10 Voltages

TYPE AEP
Plug-in Electrolytic Capacitors

Hermetically sealed, dry electrolytic capacitor furnished in round, aluminum can and 4-pin, octal-base mounting. For quick changes, readily removed and replaced in a standard octal-base tube socket.
For use where continuous service is important. They are ideally suited for experimental testing, juke boxes and communication receiver uses. These units are the commercial equivalents of Type CE51's, 2's and 3's, as listed in MIL Specification C62A.
Operating temperature to +65°C. Quadruple element units furnished with ground lug for cathode connection.

28 Stock Values – 5 Voltages

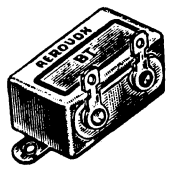
Type VBC Vibrator Buffer Capacitors

These units are heavy-duty, Hyvol M impregnated, vibrator buffer capacitors in ceramic tubes, specifically designed for severe-service auto-radio applications.

TYPE FF
Photo-Flash Capacitors

Selective choice of highest purity materials makes these units ideal for rugged photoflash application calling for lowest leakage requirements. Type FF-1 furnished in molded black plastic container, type FF-2 in aluminum can with black glazed tubing; both units furnished with screw lug terminals. Highly resistant to moisture and oil. Surge voltages and time duty cycles as listed in EIA specification No. RS-154.

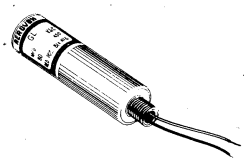
2 Stock Values



TYPE BT
Drawn-Case "Bathtub" Electrolytic Capacitors

Hermetically-sealed units designed for rigid mounting in minimum space. Of sturdy construction, these high-quality units are commercial equivalent to the case style CE63 of MIL Specification C62A.

21 Stock Values – 6 Voltages



TYPE GL

These ever-popular inverted-mounting, aluminum can units, are furnished with the same high purity materials as the more expensive type E and G. Two separate color-coded leads 4" long for each section. Inverted chassis mounting can be made, using palnut and threaded neck. Threaded neck size 5/8—18.

24 Stock Values – 6 Voltages

BE - BI-ELECTRIC® MYLAR* PAPER BYPASS TUBULAR

–Radial Lead Mounting

Adjunct to dipped Bi-Electric these units are furnished in Polycap® plastic case for values not normally available in DBE line. Polycap® case provides a consistent size, controlled end-fill and leads cannot crack case or pull out when mounted axially. Standard tolerance ±10% - operating temperature range –30°C to +100°C.

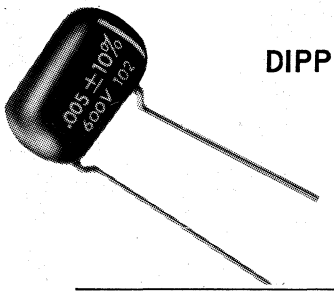
54 Values – 3 Voltages

For full technical information request bulletin NPJ-118 Rev.
*Reg. DuPont trademark

AUTOPASS® Vertical Mounting Plastic-Cased Paper Capacitors

Aerovox Autopass capacitors were specifically designed and developed for use in conjunction with printed-wiring assemblies where it is highly desirable to mount capacitors at right angles to the mounting surface thereby conserving valuable space

AEROVOX CAPACITORS



PAPER CAPACITORS

DIPPED BI-ELECTRIC®, 10% TYPE DBE MYLAR*-PAPER BY-PASS TUBULARS

Now the "better by-pass" Bi-Electric® is presented in a dipped radial lead style. Better characteristics with all the advantages of a combination dielectric. Combines the best features of Mylar* and high quality kraft tissue with a solid impregnant resulting in a unit that affords excellent protection against moisture, mechanical damage and damage from soldering iron contact.

The solid thermo setting impregnant will not crack, soften or flow assuring very stable units.

Standard capacitance tolerance is ±10%.

Other features of this capacitor include 125°C maximum operating temperature, low power factor, high insulation resistance. All units are furnished with crimped style leads.

For full technical information request Bulletin NPJ-130 Rev.

Cat. No.	Size	Net Price**	Cat. No.	Size	Net Price**	Cat. No.	Size	Net Price**	Cat. No.	Size	Net Price**
	600 VDCW		DBE6D39	.370 x .690	.15	DBE6S1	.390 x .870	.18	DBE6S4	.470 x 1.150	.21
DBE6D1	.340 x .690	.15	DBE6D4	.370 x .690	.15	DBE6S12	.400 x .870	.18	DBE6S47	.490 x 1.150	.21
DBE6D12	.340 x .690	.15	DBE6D47	.400 x .690	.15	DBE6S15	.415 x .870	.18	DBE6S5	.520 x 1.180	.21
DBE6D15	.340 x .690	.15	DBE6D5	.415 x .690	.15	DBE6S18	.470 x .870	.18	DBE6S56	.520 x 1.180	.24
DBE6D18	.340 x .690	.15	DBE6D56	.415 x .690	.15	DBE6S2	.470 x .870	.18	DBE6S6	.520 x 1.180	.24
DBE6D2	.340 x .690	.15	DBE6D6	.415 x .690	.15	DBE6S22	.470 x .870	.18	DBE6S68	.540 x 1.300	.27
DBE6D22	.340 x 690	.15	DBE6D68	.430 x .690	.18	DBE6S25	.415 x 1.150	.21	DBE6S75	.570 x 1.300	.27
DBE6D25	.370 x .690	.15	DBE6D7	.430 x .690	.18	DBE6S27	.415 x 1.150	.21	DBE6S82	.590 x 1.300	.27
DBE6D27	.370 x .690	.15	DBE6D75	.370 x .870	.18	DBE6S3	.430 x 1.150	.21	DBE6P1	.640 x 1.300	.27
DBE6D3	.370 x .690	.15	DBE6D8	.370 x .870	.18	DBE6S33	.430 x 1.150	.21	DBE6P15	.650 x 1.560	.33
DBE6D33	.370 x .690	.15	DBE6D82	.370 x .870	.18	DBE6S39	.470 x 1.150	.21	DBE6P22	.750 x 1.560	.42

**Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499, 500-999.

*Dupont Registered Trade Mark

TYPE B161Y — High Voltage Capacitor

Now a dual purpose high voltage capacitor for use on standard DC applications or low frequency AC use. These units incorporate a dual dielectric of film and Kraft paper with a special impregnant which allows these units to be used as replacements for the higher priced glass tube capacitors. Standard tolerance is ±20%. Operating temperature is −45°C to +100°C. All units are furnished with #18 AWG wire leads. Also available on special order are units with studs for mounting in place of the glass capacitors.

Higher voltages and capacities available on request. For full technical information request bulletin NPJ-135.

Cap.	3000 VDCW	Net* Price	5000 VDCW	Net* Price	8000 VDCW	Net* Price	10,000 VDCW	Net* Price	15,000 VDCW	Net* Price
.0005			1/2 x 1 9/16	.72	9/16 x 1 5/8	.78	5/8 x 1 3/4	.84	5/8 x 2 3/4	1.11
.001	1/2 x 1 5/16	.60	5/8 x 1 9/16	.75	5/8 x 1 5/8	.81	3/4 x 1 3/4	.90	3/4 x 2 3/4	1.32
.002	5/8 x 1 5/16	.63	5/8 x 1 11/16	.78	3/4 x 1 3/4	.87	3/4 x 1 15/16	1.08	7/8 x 2 15/16	1.74
.005	5/8 x 1 1/2	.69	11/16x1 15/16	.87	7/8 x 1 7/8	1.11	15/16 x 2 3/16	1.26	1 x 3 1/2	2.22
.01	11/16 x 1 5/8	.75	13/16x1 15/16	1.02	115/16 x 2 1/4	1.26	1 x 2 5/8	1.74	1 x 5 3/16	2.67
.02	3/4 x 1 3/4	.87	7/8 x 2 5/16	1.29	1 x 2 7/8	1.83	1 x 3 13/16	2.22		
.03	3/4 x 2 1/16	1.02	1 x 2 5/16	1.59	1 x 3 11/16	2.28	1 x 5 1/16	2.61		
.05	7/8 x 2 1/16	1.26	1 x 2 7/8	1.83	1 x 5 5/16	2.58				
.1	1 x 2 3/8	1.59	1 x 4 5/16	2.40						
.15	1 x 3	1.89								
.25	1 x 4 3/16	2.34								

*Request O.E.M. price in the following quantities: 25-49, 50-99, 100-499

TYPE V161

AEROFILM® (MYLAR*) CAPACITORS

V161 Aerofilm Tubular Capacitors are high quality units in Polycap® cases. These units have exceptionally high insulation resistance and low dielectric absorption and power factor. They are extremely stable having a relatively small capacitance change with temperature variations over a range of 0 to 85°C.

Their excellent resistance to humidity and moisture are due to the use of Aerofilm (Aerovox's trade name for Mylar* polyester film), finest quality casing material, and an epoxy end fill which will not flow, soften or melt at any operating temperature. Standard tolerance is ±20% but also available in ±5% and ±10%

Cap. Mfd.	Size	Net Price*	Cap. Mfd.	Size	Net Price*	Cap. Mfd.	Size	Net Price*	Cap. Mfd.	Size	Net Price*
	200 VDCW		.0047	9/32 x 15/16	$.15	.003	9/32 x 15/16	$.15		1000 VDCW	
.0047	9/32 x 15/16	$.15	.0068	9/32 x 15/16	.15	.0033	9/32 x 15/16	.15	.001	9/32 x 15/16	.30
.0068	9/32 x 15/16	.15	.01	5/16 x 1	.15	.004	5/16 x 1	.15	.0012	9/32 x 15/16	.30
.01	9/32 x 15/16	.15	.015	5/16 x 1	.15	.0047	5/16 x 1	.15	.0015	9/32 x 15/16	.30
.015	9/32 x 15/16	.15	.02	5/16 x 1-1/16	.15	.005	5/16 x 1	.15	.0018	9/32 x 15/16	.30
.022	5/16 x 1	.15	.022	11/32 x 1-1/16	.15	.0068	5/16 x 1	.18	.002	9/32 x 15/16	.30
.033	5/16 x 1	.15	.03	3/8 x 1-1/16	.18	.01	11/32 x 1-1/16	.18	.0022	9/32 x 15/16	.30
.047	5/16 x 1-1/16	.15	.033	3/8 x 1-1/16	.18	.015	3/8 x 1-3/16	.18	.0033	5/16 x 1	.30
.05	5/16 x 1-1/16	.15	.047	3/8 x 1¼	.18	.02	3/8 x 1-3/16	.18	.0039	5/16 x 1	.30
.068	11/32 x 1-1/16	.18	.05	3/8 x 1¼	.18	.022	13/32 x 1-3/16	.18	.0047	5/16 x 1	.30
.1	3/8 x 1¼	.21	.068	7/16 x 1¼	.21	.03	7/16 x 1-3/16	.21	.0068	11/32 x 1-1/16	.30
.15	13/32 x 1¼	.24	.1	½ x 1¼	.21	.033	7/16 x 1-3/16	.21	.01	3/8 x 1-1/16	.30
.22	½ x 1¼	.24	.15	9/16 x 1½	.36	.04	½ x 1¼	.24	.018	7/16 x 1-1/4	.36
.25	½ x 1¼	.27	.22	9/16 x 1½	.39	.047	½ x 1¼	.24	.022	7/16 x 1-1/4	.36
.33	½ x 1½	.33	.25	9/16 x 1¾	.39	.05	½ x 1¼	.24	.025	1/2 x 1-1/4	.36
.47	9/16 x 1½	.39	.33	5/8 x 1¾	.51	.068	½ x 1½	.27	.027	1/2 x 1-1/4	.36
.68	19/32 x 1¾	.51	.47	11/16 x 2	.66	.075	½ x 1½	.27	.033	1/2 x 1-1/4	.36
1.0	13/16 x 1-7/8	.57	.5	11/16 x 2	.69	.1	9/16 x 1½	.30	.039	1/2 x 1-1/2	.36
	400 VDCW		.68	25/32 x 2	.87	.15	5/8 x 1-5/8	.39	.047	1/2 x 1-1/2	.42
.0015	9/32 x 15/16	.15	1.0	7/8 x 2-1/8	1.05	.2	23/32 x 1-5/8	.48	.056	9/16 x 1-5/8	.45
.0022	9/32 x 15/16	.15		600 VDCW		.22	¾ x 1-5/8	.51	.068	9/16 x 1-5/8	.48
.0033	9/32 x 15/16	.15	.001	9/32 x 15/16	.15	.25	¾ x 1¾	.54	.075	5/8 x 1-5/8	.51
			.0015	9/32 x 15/16	.15	.33	13/16 x 1-7/8	.78	.1	11/16 x 1-7/8	.54
			.002	9/32 x 15/16	.15	.47	7/8 x 2-1/8	.84	.15	13/16 x 1-7/8	.66
			.0022	9/32 x 15/16	.15	.5	7/8 x 2-1/8	.87			

*Dupont trademark

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-249

Net

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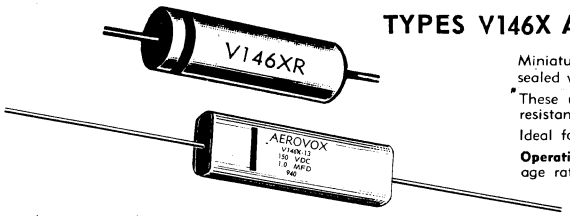
AEROVOX

CAPACITORS

FILM CAPACITORS

TYPES V146X AND V146XR "WRAP & FILL" AEROFILM® CAPACITORS



Miniature, mylar, tubular capacitor sections, extended foil construction, wrapped with a synthetic film and end-sealed with a plastic resin.

These units offer high insulation resistance, high operating temperature, low power factor and outstanding resistance to moisture.

Ideal for use in miniaturized circuits where size and weight are important factors.

Operating Temperature Range: Capable of operation in a temperature range of —65°C to +85°C at full voltage rating and to 125°C with voltage derating as follows:

DC Rated Voltage at 85°C	Maximum DC Working Voltage at 125°C
150	100
200	125
400	200
600	300

Leads: solder-coated "copper-weld" wire, 2" minimum length.

Tolerance: Standard ±10%. Available in closer tolerances on special order.

For Full technical information request bulletin NPJ-121 Rev.

STOCK LISTING V146XR

Capacity In Mfd.	150 VDC D	L	Cat. No.	Net Price*	200 VDC D	L	Cat. No.	Net Price*	400 VDC D	L	Cat. No.	Net Price*	600 VDC D	L	Cat. No.	Net Price*
.001	See Note 1				.156 x	1/2	V146XR-16	.31	.156 x	5/8	V146XR-37	.31	.156 x	3/4	V146XR-58	.31
.0015	See Note 1				.156 x	1/2	V146XR-17	.31	.156 x	5/8	V146XR-38	.31	.171 x	3/4	V146XR-59	.31
.0022	See Note 1				.156 x	1/2	V146XR-18	.31	.156 x	5/8	V146XR-39	.31	.187 x	3/4	V146XR-60	.31
.0033	See Note 1				.156 x	1/2	V146XR-19	.31	.156 x	5/8	V146XR-40	.31	.203 x	3/4	V146XR-61	.31
.0047	See Note 1				.156 x	1/2	V146XR-20	.31	.187 x	5/8	V146XR-41	.31	.234 x	3/4	V146XR-62	.31
.0068	See Note 1				.156 x	1/2	V146XR-21	.31	.218 x	5/8	V146XR-42	.31	.265 x	3/4	V146XR-63	.31
.01	.156 x	1/2	V146XR-1	.30	.171 x	1/2	V146XR-22	.31	.250 x	5/8	V146XR-43	.31	.312 x	3/4	V146XR-64	.31
.015	.187 x	1/2	V146XR- 2	.30	.203 x	1/2	V146XR-23	.31	.296 x	5/8	V146XR-44	.31	.312 x	7/8	V146XR-65	.34
.022	.203 x	5/8	V146XR- 3	.30	.250 x	5/8	V146XR-24	.31	.312 x	3/4	V146XR-45	.32	.375 x	7/8	V146XR-66	.38
.033	.218 x	5/8	V146XR- 4	.30	.250 x	3/4	V146XR-25	.31	.312 x	7/8	V146XR-46	.33	.406 x	1	V146XR-67	.39
.047	.234 x	3/4	V146XR- 5	.30	.296 x	3/4	V146XR-26	.31	.343 x	7/8	V146XR-47	.35	.453 x	1	V146XR-68	.43
.068	.265 x	3/4	V146XR- 6	.32	.343 x	3/4	V146XR-27	.33	.375 x	1	V146XR-48	.39	.531 x	1	V146XR-69	.48
.1	.281 x	7/8	V146XR- 7	.35	.375 x	7/8	V146XR-28	.35	.421 x	1	V146XR-49	.43	.562 x	1-3/8	V146XR-70	.52
.15	.328 x	7/8	V146XR- 8	.38	.453 x	7/8	V146XR-29	.39	.468 x	1-1/4	V146XR-50	.47	.671 x	1-3/8	V146XR-71	.64
.22	.385 x	1	V146XR- 9	.43	.438 x	1-1/8	V146XR-30	.44	.546 x	1-3/8	V146XR-51	.50	.718 x	1-5/8	V146XR-72	.86
.33	.375 x	1-1/8	V146XR-10	.45	.484 x	1-1/8	V146XR-31	.47	.593 x	1-5/8	V146XR-52	.61	.765 x	2	V146XR-73	1.09
.47	.468 x	1-1/4	V146XR-11	.54	.546 x	1-1/4	V146XR-32	.55	.671 x	1-5/8	V146XR-53	.78	.859 x	2	V146XR-74	1.25
.68	.562 x	1-1/4	V146XR-12	.59	.609 x	1-5/8	V146XR-33	.60	.796 x	1-3/4	V146XR-54	1.00	1.016 x	2	V146XR-75	1.61
1.0	.593 x	1-1/2	V146XR-13	.76	.671 x	1-3/4	V146XR-34	.85	.812 x	2	V146XR-55	1.12	1.125 x	2-1/2	V146XR-76	1.97
1.5	.718 x	1-3/4	V146XR-14	.97	.828 x	1-3/4	V146XR-35	1.31	.921 x	2-1/4	V146XR-56	1.48	1.234 x	3	V146XR-77	2.73
2.0	.812 x	1-3/4	V146XR-15	1.68	.875 x	1-7/8	V146XR-36	1.52	1.093 x	2-1/4	V146XR-57	1.92	1.421 x	3	V146XR-78	3.31

Note 1: These capacity values are only made at 200 VDC or higher.
The 200 VDC unit may be used for lower voltage requirements since sizes are as small as or smaller than competitive 100 VDC units.

® Registered Trademark

*Request O.E.M. prices in the following quantities: 25-49, 50-99, 100-499

AEROVOX MINIATURE TYPE WRAP & FILL FILM DIELECTRIC CAPACITORS Type V146X

Capacity	Thickness	Width	Length	Catalog No.
150 VDC AT 85°C				
.033	3/16	11/32	15/16	V146X-15
.047	3/16	3/8	15/16	V146X-16
.068	7/32	3/8	15/16	V146X-17
.082	7/32	13/32	15/16	V146X-18
.1	1/4	15/32	15/16	V146X-19
.15	1/4	7/16	1-1/16	V146X-20
.22	1/4	17/32	1-1/4	V146X-21
.33	5/16	19/32	1-1/4	V146X-22
.47	7/16	23/32	1-7/16	V146X-23
.68	13/32	23/32	1-11/16	V146X-24
.82	15/32	3/4	1-11/16	V146X-25
1.0	13/32	3/4	1-7/8	V146X-26
200 VDC AT 85°C				
.033	7/32	3/8	15/16	V146X-217
.047	7/32	13/32	15/16	V146X-218
.068	9/32	7/16	15/16	V146X-219
.1	5/16	15/32	1-1/8	V146X-220
.15	3/8	9/16	1-1/8	V146X-221
.22	13/32	9/16	1-1/4	V146X-222
.33	3/8	9/16	1-11/16	V146X-223
.47	7/16	21/32	1-11/16	V146X-224
.68	1/2	3/4	1-7/8	V146X-225
1.0	9/16	13/16	2-1/8	V146X-226
400 VDC AT 85°C				
.0033	3/16	5/16	13/16	V146X-27
.0047	3/16	5/16	13/16	V146X-28
.0068	3/16	5/16	13/16	V146X-29
.0082	3/16	5/16	13/16	V146X-30
.01	3/16	5/16	13/16	V146X-31
.015	7/32	3/8	13/16	V146X-32
.022	7/32	7/16	13/16	V146X-33
.033	7/32	7/16	15/16	V146X-34
400 VDC AT 85°C				
.047	1/4	15/32	15/16	V146X-35
.068	9/32	1/2	1-1/8	V146X-36
.082	9/32	15/32	1-1/4	V146X-37
.10	9/32	17/32	1-1/4	V146X-38
.15	5/16	19/32	1-11/16	V146X-39
.22	3/8	21/32	1-7/8	V146X-40
.33	7/16	3/4	1-7/8	V146X-41
.47	1/2	7/8	1-7/8	V146X-42
.68	17/32	15/16	2-1/8	V146X-43
.82	17/32	31/32	2-5/16	V146X-44
1.0	9/16	1.0	2-5/16	V146X-45
600 VDC AT 85°C				
.001	3/16	5/16	13/16	V146X-46
.0015	3/16	5/16	13/16	V146X-47
.0022	3/16	5/16	13/16	V146X-48
.0033	3/16	3/8	7/8	V146X-49
.0047	3/16	13/32	7/8	V146X-50
.0068	7/32	13/32	7/8	V146X-51
.0082	1/4	13/32	7/8	V146X-52
.01	1/4	7/16	7/8	V146X-53
.015	5/16	1/2	7/8	V146X-54
.022	5/16	1/2	1-1/16	V146X-55
.033	9/32	1/2	1-1/8	V146X-56
.047	5/16	17/32	1-1/8	V146X-57
.068	5/16	19/32	1-1/4	V146X-58
.082	3/8	5/8	1-9/16	V146X-59
.10	13/32	21/32	1-9/16	V146X-60
.15	3/8	23/32	1-7/8	V146X-61
.22	1/2	27/32	1-7/8	V146X-62
.33	1/2	29/32	2-1/8	V146X-63
.47	5/8	1-1/16	2-1/8	V146X-64
.68	11/16	1-3/32	2-7/16	V146X-65

Note: For capacities greater than listed use type V146XR.

Net Prices for V146X are same as like Vt. & Cap. in V146XR listing.

AEROVOX

CAPACITORS

INDUSTRIAL SECTION — STANDARD TYPES
METALLIZED FILM CAPACITORS

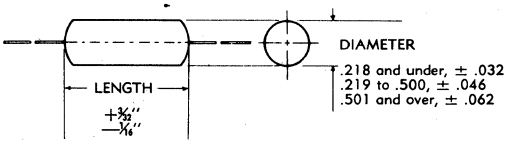
Type V146Z (Flat)
Metallized Mylar* 'Wrap & Fill' Capacitors

*Dupont Trademark.

V146Z-V146ZR Metallized 'Mylar Wrap & Fill' units offer lightweight ultra miniature design featuring high insulation resistance and long stable life. These units are instrument quality and feature the self-healing characteristic of all metallized dielectrics. Standard tolerance is ±10%. Also available at closer tolerances on request. Power factor will not exceed 1%. All leads are solder-coated "Copper-Weld" wire. These units ideally suited for use in printed assemblies and offer appreciable weight saving for use in light weight portable and air-borne equipment of all types. The flat style allows them to be mounted inbanks using a minimum amount of space. For full technichal information request bulletin NPJ-132 Rev.

Cap. Mfd.	Catalog Number	Size T	Size W	Size L	Wire Lead Gauge	Net Price*1
100 VDCW @ 85 C				**50 VDCW @ 125 C**		
.1	V146Z-160	.125	.234	9/16	#22	.96
.15	V146Z-161	.156	.265	9/16	#22	1.06
.22	V146Z-162	.156	.250	11/16	#22	1.20
.33	V146Z-163	.203	.312	11/16	#22	1.58
.47	V146Z-164	.250	.359	11/16	#22	1.78
.68	V146Z-165	.218	.328	15/16	#22	2.21
1.0	V146Z-166	.265	.375	15/16	#22	2.93
1.5	V146Z-167	.250	.250	1 1/4	#20	3.79
2.0	V146Z-168	.312	.468	1 1/4	#20	4.70
3.0	V146Z-169	.406	.562	1 1/4	#20	6.67
4.0	V146Z-170	.406	.562	1 3/8	#20	8.30
5.0	V146Z-171	.375	.593	1 3/4	#20	9.79
200 VDCW @85 C				**150 VDCW @ 125 C**		
.01	V146Z-127	.156	.203	7/16	#22	.86
.015	V146Z-128	.156	.234	7/16	#22	.86
.022	V146Z-129	.203	.265	7/16	#22	.88
.033	V146Z-130	.218	.281	7/16	#22	.90
.047	V146Z-131	.171	.265	9/16	#22	.91
.068	V146Z-60	.125	.250	11/16	#22	.93
.1	V146Z-6	.187	.281	11/16	#22	.94
.15	V146Z-61	.187	.312	11/16	#22	1.02
.22	V146Z-132	.265	.375	11/16	#22	1.11
.33	V146Z-133	.296	.484	11/16	#20	1.26
.47	V146Z-134	.359	.546	11/16	#20	1.47
.68	V146Z-135	.343	.515	11/16	#20	1.77
1.0	V146Z-64	.312	.468	1 3/16	#20	2.19
1.05	V146Z-65	.406	.593	1 3/16	#20	2.66
2.0	V146Z-8	.343	.563	1 11/16	#20	3.05
4.0	V146Z-55	.562	.687	1 11/16	#20	4.66
5.0	V146Z-136	.484	.843	1 3/4	#20	5.47

Cap. Mfd.	Catalog Number	Size T	Size W	Size L	Wire Lead Gauge	Net Price*
400 VDCW @ 125 C						
.01	V146Z-137	.140	.265	11/16	#22	.97
.015	V146Z-138	.171	.296	11/16	#22	.98
.022	V146Z-139	.203	.312	11/16	#22	.99
.033	V146Z-140	.250	.375	11/16	#22	1.01
.047	V146Z-81	.187	.281	7/8	#22	1.04
.068	V146Z-141	.234	.421	15/16	#22	1.09
.1	V146Z-142	.296	.484	15/16	#22	1.11
.15	V146Z-143	.343	.562	15/16	#20	1.22
.22	V146Z-84	.281	.281	1 1/4	#20	1.36
.33	V146Z-85	.375	.375	1 1/4	#20	1.58
.47	V146Z-144	.406	.406	1 1/2	#20	1.86
.68	V146Z-145	.421	.890	1 1/2	#20	2.27
1.0	V146Z-87	.531	.718	1 3/4	#20	2.91
1.5	V146Z-88	.500	1.093	1 3/4	#20	3.49
2.0	V146Z-146	.812	1.125	1 3/4	#20	4.66
4.0	V146Z-89	1.00	1.093	2 1/4	#20	7.87
600 VDCW @ 125 C						
.01	V146Z-147	.187	.246	11/16	#22	.99
.015	V146Z-148	.218	.343	11/16	#22	1.00
.022	V146Z-149	.250	.453	11/16	#22	1.01
.033	V146Z-150	.296	.500	11/16	#22	1.03
.047	V146Z-151	.234	.437	15/16	#20	1.12
.068	V146Z-152	.312	.531	15/16	#20	1.20
.1	V146Z-153	.375	.593	15/16	#20	1.29
.15	V146Z-95	.312	.437	1 1/4	#20	1.40
.22	V146Z-96	.343	.531	1 1/4	#20	1.54
.33	V146Z-154	.515	.875	1 1/2	#20	1.78
.47	V146Z-155	.515	.890	1 1/2	#20	2.49
.68	V146Z-156	.671	1.031	1 1/2	#20	3.02
1.0	V146Z-157	.671	1.187	1 3/4	#20	3.70
1.5	V146Z-158	.859	1.375	1 3/4	#20	4.80
2.0	V146Z-159	1.032	1.515	1 3/4	#20	6.00



Type V146ZR (Round)

Net Prices for V146ZR are same as like Vt. & Cap. in V146Z listing.

Capacity in Mfd.	100 VDC @ 85C 50 VDC @ 125C D	L	Cat. No.	200 VDC @ 85C 150 VDC@ 125C D	L	Cat. No.	400 VDC @ 125 C D	L	Cat. No.	600 VDC @ 125 C D	L	Cat. No.
.01							.180 x	9/16	V146ZR-132	.171 x	3/4	V146ZR-63
.015							.180 x	11/16	V146ZR-133	.203 x	3/4	V146ZR-64
.022							.210 x	11/16	V146ZR-134	.300 x	3/4	V146ZR-145
.033							.250 x	11/16	V146ZR-135	.370 x	3/4	V146ZR-146
.047				.200 x	9/16	V146ZR-123	.300 x	11/16	V146ZR-136	.250 z 1	1/16	V146ZR-67
.068				.200 x	11/16	V146ZR-25	.350 x	11/16	V146ZR-137	.296 x 1	1/16	V146ZR-68
.1	.170 x	11/16	V146ZR-111	.234 x	11/16	V146ZR-26	.325 x 1		V146ZR-138	.359 x 1	1/16	V146ZR-69
.15	.190 x	11/16	V146ZR-112	.265 x	11/16	V146ZR-27	.375 x 1		V146ZR-139	.375 x 1	1/4	V146ZR-70
.22	.215 x	11/16	V146ZR-113	.340 x	11/16	V146ZR-124	.400 x 1	1/4	V146ZR-55	.468 x 1	1/4	V146ZR-71
.33	.265 x	11/16	V146ZR-114	.390 x	11/16	V146ZR-125	.450 x 1	1/2	V146ZR-140	.453 x 1	3/4	V146ZR-72
.47	.315 x	11/16	V146ZR-115	.328 x 1		V146ZR-16	.520 x 1	1/2	V146ZR-141	.531 x 1	3/4	V146ZR-73
.68	.280 x 1		V146ZR-116	.390 x 1		V146ZR-30	.625 x 1	1/2	V146ZR-142	.800 x 1	3/4	V146ZR-147
1.0	.325 x 1		V146ZR-117	.500 x 1		V146ZR-126	.656 x 1	3/4	V146ZR-59	.950 x 1	3/4	V146ZR-148
1.5	.340 x 1	1/4	V146ZR-118	.515 x 1	3/16	V146ZR-32	.825 x 1	3/4	V146ZR-60	.859 x 2	1/4	V146ZR-76
2.0	.405 x 1	1/4	V146ZR-119	.620 x 1	1/4	V146ZR-127	.950 x 1	3/4	V146ZR-143	.890 x 2	1/4	V146ZR-17
3.0	.500 x 1	1/4	V146ZR-120	.650 x 1	1/2	V146ZR-128	.990 x 2	1/4	V146ZR-144			
4.0	.510 x 1	3/8	V146ZR-121	.656 x 1	11/16	V146ZR-34	1.093 x 2	1/4	V146ZR-62			
5.0	.510 x 1	3/4	V146ZR-122	.800 x 1	3/4	V146ZR-129						
7.0				.930 x 1	3/4	V146ZR-130						
8.0				.990 x 1	3/4	V146ZR-131						

Net

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AEROVOX CAPACITORS

Type K323Z
Metallized Polycarbonate Capacitors

If plastic sleeve is desired add suffix "P" to type number and specify when ordering. Add 1/16" to the diameter and length and add .02 to cost of unit.

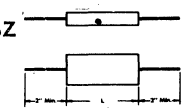
Here is the first stock line of hermetically sealed metallized polycarbonate capacitors. Polycarbonate film offers many advantages over paper or other film dielectrics including high capacitance stability, low dissipation factor, low dielectric absorption and high insulation resistance. Metallized polycarbonate offers the additional feature of self-healing in the rare case of dielectric breakdown. Size and weight savings over paper capacitors are most obvious in lower voltage ratings but the added stability is an important plus at the higher voltages. Operating temperature is -65°C to +125°C at full rating. Standard tolerance is ±20%. Other tolerances available on special order. For full technical information request bulletin NPJ-136.

Capacity Mfd.	d x l	Net Price*	Capacity Mfd.	d x l	Net Price*	Capacity Mfd.	d x l	Net Price*	Capacity Mfd.	d x l	Net Price*
	K323Z – 100 VDCW			K323Z – 200 VDCW			K323Z – 400 VDCW			K323Z – 600 VDCW	
.015	.175 x 5/8	1.59	.01	.175 x 5/8	1.83	.01	.235 x 11/16	1.86	.01	.312 x 13/16	1.95
.022	.175 x 5/8	1.59	.015	.195 x 5/8	1.83	.015	.235 x 13/16	1.86	.015	.400 x 13/16	1.98
.033	.195 x 11/16	1.62	.022	.195 x 11/16	1.83	.022	.312 x 11/16	1.95	.022	.400 x 13/16	1.98
.047	.235 x 5/8	1.68	.033	.235 x 11/16	1.86	.033	.312 x 13/16	1.95	.033	.400 x 15/16	1.98
.068	.235 x 11/16	1.77	.047	.235 x 13/16	1.89	.047	.400 x 13/16	1.95	.047	.400 x 1 1/8	2.01
.1	.235 x 13/16	1.95	.068	.235 x 13/16	1.95	.068	.400 x 15/16	2.04	.068	.400 x 1 5/16	2.13
.15	.312 x 13/16	2.04	.1	.312 x 13/16	2.22	.1	.400 x 1 1/8	2.34	.1	.562 x 1 1/8	2.43
.22	.312 x 13/16	2.07	.15	.312 x 15/16	2.25	.15	.400 x 1 5/16	2.52	.15	.562 x 1 5/16	2.73
.33	.400 x 13/16	2.25	.22	.400 x 13/16	2.25	.22	.562 x 1 1/8	2.61	.22	.562 x 1 13/16	2.94
.47	.400 x 15/16	2.34	.33	.400 x 1 1/8	2.46	.33	.562 x 1 9/16	2.88	.33	.670 x 1 13/16	3.36
.68	.400 x 1 1/8	2.49	.47	.400 x 1 5/16	2.61	.47	.562 x 1 13/16	3.18	.47	.750 x 1 13/16	3.69
1.0	.400 x 1 9/16	2.73	.68	.562 x 15/16	2.73	.68	.670 x 1 13/16	3.69	.68	.750 x 2 5/16	4.02
1.5	.562 x 1 1/8	4.35	1.0	.562 x 1 5/16	2.94	1.0	.750 x 2 1/16	4.02	1.0	1.0 x 2 1/16	4.71
2.0	.562 x 1 5/16	5.40	1.5	.562 x 1 9/16	4.41	1.5	1.0 x 1 13/16	5.37			
3.0	.562 x 1 13/16	5.94	2.0	.562 x 1 13/16	5.37	2.0	1.0 x 2 1/16	6.72			
4.0	.670 x 1 13/16	7.05	3.0	.750 x 1 13/16	5.82						
5.0	.670 x 2 1/16	7.95	4.0	.750 x 2 1/16	6.96						
			5.0	.750 x 2 5/16	7.68						

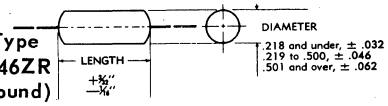
AEROVOX MINIATURE TYPE WRAP & FILL METALLIZED DIELECTRIC CAPACITORS

Aerovox Type K146Z and K146ZR offer excellent electrical characteristics to meet the miniature requirements of transistorized circuits for Military, Industrial and Consumer-Type applications. Aerovox capacitors utilize a metallized film dielectric proven by Aerovox Research and Engineering for capacitor use. Sizes chosen are consistent with high reliability and long service life at maximum rated conditions.

Type K146Z (Flat)



Type K146ZR (Round)



Capacity in Mfd.	100 VDC T x W x L	Cat. #	Net Price	200 VDC T x W x L	Cat. #	Net Price
.027				.125 x .234 x 1/2	K146Z-20	
.033				.125 x .234 x 1/2	K146Z-21	
.039				.125 x .234 x 1/2	K146Z-22	
.047				.109 x .218 x 11/16	K146Z-23	
.056				.125 x .234 x 11/16	K146Z-24	
.068				.140 x .250 x 11/16	K146Z-25	
.082	.125 x .218 x 9/16	K146Z-1		.156 x .265 x 11/16	K146Z-26	
.10	.140 x .250 x 9/16	K146Z-2		.171 x .281 x 11/16	K146Z-27	
.12	.156 x .265 x 9/16	K146Z-3		.187 x .296 x 11/16	K146Z-28	
.15	.140 x .250 x 11/16	K146Z-4		.218 x .328 x 11/16	K146Z-29	
.18	.156 x .265 x 11/16	K146Z-5		.250 x .359 x 11/16	K146Z-30	
.22	.171 x .281 x 11/16	K146Z-6		.265 x .375 x 11/16	K146Z-31	
.27	.203 x .312 x 11/16	K146Z-7		.250 x .359 x 13/16	K146Z-32	
.33	.218 x .328 x 11/16	K146Z-8		.218 x .375 x 1	K146Z-33	
.39	.250 x .359 x 11/16	K146Z-9		.234 x .390 x 1	K146Z-34	
.47	.234 x .343 x 13/16	K146Z-10		.234 x .390 x 1 3/16	K146Z-35	
.56	.234 x .390 x 1	K146Z-11		.250 x .406 x 1 3/16	K146Z-36	
.68	.250 x .406 x 1	K146Z-12		.281 x .437 x 1 3/16	K146Z-37	
.82	.281 x .429 x 1	K146Z-13		.328 x .484 x 1 3/16	K146Z-38	
1.0	.312 x .468 x 1	K146Z-14		.359 x .515 x 1 3/16	K146Z-39	
1.5	.296 x .453 x 1 3/16	K146Z-15		.359 x .556 x 1 7/16	K146Z-40	
2.0	.343 x .500 x 1 3/16	K146Z-16		.359 x .556 x 1 13/16	K146Z-41	
3.0	.296 x .493 x 1 13/16	K146Z-17		.468 x .671 x 1 13/16	K146Z-42	
4.0	.343 x .546 x 1 13/16	K146Z-18		.515 x .718 x 1 15/16	K146Z-43	
5.0	.375 x .578 x 1 15/16	K146Z-19		.546 x .750 x 2 3/16	K146Z-44	

CONTACT FACTORY FOR PRICES

Capacity in Mfd.	100 V D x L	Cat. #	Net Price	200 V D x L	Cat. #	Net Price
.01	Use 200 V			.140 x 1/2	K146ZR-32	
.012	Use 200 V			.140 x 1/2	K146ZR-33	
.015	Use 200 V			.156 x 1/2	K146ZR-34	
.018	Use 200 V			.156 x 1/2	K146ZR-35	
.022	.140 x 1/2	K146ZR-6		.171 x 1/2	K146ZR-36	
.027	.140 x 1/2	K146ZR-7		.187 x 1/2	K146ZR-37	
.033	.156 x 1/2	K146ZR-8		.187 x 9/16	K146ZR-38	
.039	.156 x 1/2	K146ZR-9		.187 x 9/16	K146ZR-39	
.047	.171 x 1/2	K146ZR-10		.171 x 11/16	K146ZR-40	
.056	.171 x 1/2	K146ZR-11		.187 x 11/16	K146ZR-41	
.068	.171 x 9/16	K146ZR-12		.203 x 11/16	K146ZR-42	
.082	.187 x 9/16	K146ZR-13		.218 x 11/16	K146ZR-47	
.1	.203 x 9/16	K146ZR-14		.234 x 11/16	K146ZR-43	
.12	.218 x 9/16	K146ZR-15		.250 x 11/16	K146ZR-44	
.15	.203 x 11/16	K146ZR-16		.281 x 11/16	K146ZR-45	
.18	.218 x 11/16	K146ZR-17		.312 x 11/16	K146ZR-46	
.22	.234 x 11/16	K146ZR-18		.328 x 11/16	K146ZR-48	
.27	.265 x 11/16	K146ZR-19		.312 x 13/16	K146ZR-49	
.33	.281 x 11/16	K146ZR-20		.312 x 1	K146ZR-50	
.39	.312 x 11/16	K146ZR-21		.328 x 1	K146ZR-51	
.47	.296 x 13/16	K146ZR-22		.328 x 1 3/16	K146ZR-52	
.56	.328 x 1	K146ZR-23		.343 x 1 3/16	K146ZR-53	
.68	.343 x 1	K146ZR-24		.375 x 1 3/16	K146ZR-54	
.82	.375 x 1	K146ZR-25		.421 x 1 3/16	K146ZR-55	
1.0	.406 x 1	K146ZR-26		.453 x 1 3/16	K146ZR-56	
1.5	.390 x 1 3/16	K146ZR-27		.484 x 1 7/16	K146ZR-57	
2.0	.437 x 1 3/16	K146ZR-28		.484 x 1 13/16	K146ZR-58	
3.0	.421 x 1 13/16	K146ZR-29		.593 x 1 13/16	K146ZR-59	
4.0	.468 x 1 13/16	K146ZR-30		.643 x 1 15/16		
5.0	.500 x 1 15/16	K146ZR-31		.670 x 2 3/16		

CONTACT FACTORY FOR PRICES

Capacity in Mfd.	400 VDC T x W x L	Cat. #	Net Price	600 VDC T x W x L	Cat. #	Net Price
.01	.140 x .250 x 9/16	K146Z-71		.125 x .281 x 11/16	K146Z-98	
.012	.140 x .250 x 9/16	K146Z-72		.140 x .296 x 11/16	K146Z-99	
.015	.171 x .281 x 9/16	K146Z-73		.156 x .312 x 11/16	K146Z-100	
.018	.187 x .296 x 9/16	K146Z-74		.187 x .343 x 11/16	K146Z-101	
.022	.203 x .312 x 9/16	K146Z-75		.203 x .359 x 11/16	K146Z-102	
.027	.187 x .296 x 11/16	K146Z-76		.187 x .343 x 13/16	K146Z-103	
.033	.203 x .312 x 11/16	K146Z-77		.218 x .375 x 13/16	K146Z-104	
.039	.234 x .343 x 11/16	K146Z-78		.187 x .390 x 1	K146Z-105	
.047	.250 x .359 x 11/16	K146Z-79		.203 x .406 x 1	K146Z-106	
.056	.281 x .390 x 11/16	K146Z-80		.218 x .421 x 1	K146Z-107	
.068	.265 x .375 x 13/16	K146Z-81		.250 x .359 x 1	K146Z-108	
.082	.281 x .390 x 13/16	K146Z-82		.281 x .484 x 1	K146Z-109	
.10	.250 x .406 x 1	K146Z-83		.312 x .515 x 1	K146Z-110	
.12	.281 x .437 x 1	K146Z-84		.312 x .515 x 1 3/16	K146Z-111	
.15	.296 x .453 x 1	K146Z-85		.359 x .562 x 1 3/16	K146Z-112	
.18	.343 x .500 x 1	K146Z-86		.390 x .593 x 1 7/16	K146Z-113	
.22	.390 x .546 x 1	K146Z-87		.453 x .656 x 1 7/16	K146Z-114	
.27	.375 x .531 x 1 3/16	K146Z-88		.500 x .703 x 1 7/16	K146Z-115	
.33	.343 x .546 x 1 7/16	K146Z-89		.406 x .609 x 1 13/16	K146Z-116	
.39	.375 x .578 x 1 7/16	K146Z-90		.453 x .656 x 1 13/16	K146Z-117	
.47	.421 x .625 x 1 7/16	K146Z-91		.500 x .703 x 1 13/16	K146Z-118	
.56	.453 x .656 x 1 7/16	K146Z-92		.562 x .765 x 1 13/16	K146Z-119	
.68	.515 x .718 x 1 7/16	K146Z-93		.609 x .812 x 1 13/16	K146Z-120	
.82	.578 x .781 x 1 7/16	K146Z-94		.687 x .890 x 1 13/16	K146Z-121	
1.0	.640 x .837 x 1 7/16	K146Z-95		.734 x .937 x 1 15/16	K146Z-122	
1.5	.812 x 1.015 x 1 7/16	K146Z-96				
2.0	.781 x 1.00 x 1 15/16	K146Z-97				

CONTACT FACTORY FOR PRICES

Capacity in Mfd.	400 V D x L	Cat. #	Net Price	600 V D x L	Cat. #	Net Price
.01	.203 x 9/16	K146ZR-88		.218 x 11/16	K146ZR-115	
.012	.203 x 9/16	K146ZR-89		.234 x 11/16	K146ZR-116	
.015	.234 x 9/16	K146ZR-90		.250 x 11/16	K146ZR-117	
.018	.250 x 9/16	K146ZR-91		.281 x 11/16	K146ZR-118	
.022	.265 x 9/16	K146ZR-92		.296 x 11/16	K146ZR-119	
.027	.250 x 11/16	K146ZR-93		.281 x 13/16	K146ZR-120	
.033	.265 x 11/16	K146ZR-94		.312 x 13/16	K146ZR-121	
.039	.296 x 11/16	K146ZR-95		.312 x 1	K146ZR-122	
.047	.312 x 11/16	K146ZR-96		.328 x 1	K146ZR-123	
.056	.343 x 11/16	K146ZR-97		.343 x 1	K146ZR-124	
.068	.328 x 13/16	K146ZR-98		.375 x 1	K146ZR-125	
.082	.343 x 13/16	K146ZR-99		.406 x 1	K146ZR-126	
.1	.343 x 1	K146ZR-100		.437 x 1	K146ZR-127	
.12	.375 x 1	K146ZR-101		.437 x 1 3/16	K146ZR-128	
.15	.390 x 1	K146ZR-102		.484 x 1 3/16	K146ZR-129	
.18	.437 x*1	K146ZR-103		.515 x 1 7/16	K146ZR-130	
.22	.484 x 1	K146ZR-104		.478 x 1 7/16	K146ZR-131	
.27	.468 x 1 3/16	K146ZR-105		.625 x 1 7/16	K146ZR-132	
.33	.468 x 1 7/16	K146ZR-106		.531 x 1 13/16	K146ZR-133	
.39	.500 x 1 7/16	K146ZR-107		.573 x 1 13/16	K146ZR-134	
.47	.546 x 1 7/16	K146ZR-108		.625 x 1 13/16	K146ZR-135	
.56	.578 x 1 7/16	K146ZR-109		.687 x 1 13/16	K146ZR-136	
.68	.643 x 1 7/16	K146ZR-110		.734 x 1 13/16	K146ZR-137	
.82	.703 x 1 7/16	K146ZR-111		.812 x 1 13/16	K146ZR-138	
1.0	.765 x 1 7/16	K146ZR-112		.859 x 1 15/16	K146ZR-139	
1.5	.937 x 1 7/16	K146ZR-113				
2.0	.906 x 1 15/16	K146ZR-114				

CONTACT FACTORY FOR PRICES

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-249

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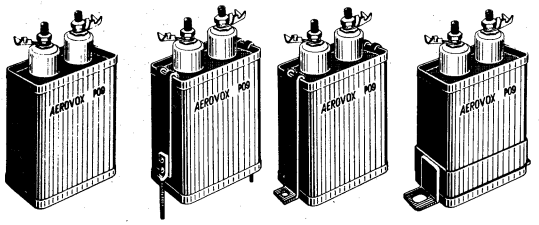
Net

AEROVOX

CAPACITORS

INDUSTRIAL SECTION — STANDARD TYPES

TYPE P09



P09 P09MSB P09MS P09MB

PAPER CAPACITORS

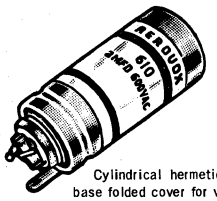
Immersion-proof units in sturdy, rectangular metal cans. High-voltage screw-type pillar terminals fitted with soldering lugs. Use of HYVOL M or J allows exceptionally compact size for capacity, working voltage and safety factor. Intended for heavy-duty, continuous service in transmitters, amplifiers, etc. Operating temperature —55 to +85°C.

Standard tolerance +20 —10%. Other tolerance on request.

Type MB bracket is supplied unless otherwise specified except on units with base sizes 3¾" x 3⅜6" and 3¾" x 4⅜6" where Type MS bracket is supplied. MSB bracket is available for all sizes on request.

Cap.	Size	Net Price*
	600V	
.5	1-1/16 x 1-13/16 x 2¼	3.39
1.0	1-1/16 x 1-13/16 x 2¼	3.96
2.0	1-1/16 x 1-13/16 x 2-7/8	4.89
3.0	1-1/16 x 1-13/16 x 3-7/8	6.45
4.0	1-3/16 x 2½ x 3½	6.45
5.0	1-1/16 x 1-13/16 x 4¾	7.05
6.0	1-3/16 x 2½ x 4¾	7.05
8.0	1¼ x 3¾ x 3-7/8	7.50
10.0	1¼ x 3¾ x 4¾	8.10
12.0	1½ x 3¾ x 4¾	10.05
15.0	1¾ x 3¾ x 4¾	12.09
	1000V	
.1	1-1/16 x 1-13/16 x 1-5/8	3.93
.25	1-1/16 x 1-13/16 x 2¼	4.11
.5	1-1/16 x 1-13/16 x 2¼	4.20
1.0	1-1/16 x 1-13/16 x 2¼	4.74
2.0	1-1/16 x 1-13/16 x 3-7/8	5.25
3.0	1-3/16 x 2½ x 3½	6.30
4.0	1-3/16 x 2½ x 4¾	6.30
5.0	1¼ x 3¾ x 3-7/8	8.70
6.0	1¼ x 3¾ x 4¾	8.70
8.0	1¼ x 3¾ x 4¾	10.20
10.0	1¾ x 3¾ x 4¾	11.40
12.0	2¼ x 3¾ x 3-7/8	12.75
15.0	2½ x 3¾ x 4¾	15.75
	1500V	
.5	1-1/16 x 1-13/16 x 2-7/8	4.80
1.0	1-1/16 x 1-13/16 x 3-7/8	5.10
2.0	1-3/16 x 2½ x 4¾	6.30
3.0	1-3/16 x 2½ x 4¾	8.55
4.0	1¼ x 3¾ x 4¾	8.55
5.0	1¾ x 3¾ x 4¾	11.70
6.0	1¾ x 3¾ x 4¾	11.70
8.0	2½ x 3¾ x 4¾	14.70
10.0	3-3/16 x 3¾ x 4¾	16.50
12.0	3-3/16 x 3¾ x 4¾	20.70
15.0	3¾ x 4-9/16 x 4¾	23.40
	2000V	
.1	1-1/16 x 1-13/16 x 2-1/8	4.74
.25	1-1/16 x 1-13/16 x 2-1/8	4.89
.5	1-1/16 x 1-13/16 x 2-7/8	5.22
1.0	1-3/16 x 2½ x 3½	5.55
2.0	1¼ x 3¾ x 4¼	6.90
3.0	1¼ x 3¾ x 4¾	9.60
4.0	2¼ x 3¾ x 3-7/8	9.60
5.0	2¼ x 3¾ x 4¾	12.90
6.0	3-3/16 x 3¾ x 4½	12.90
8.0	3-3/16 x 3¾ x 4¾	16.20
10.0	3¾ x 4-9/16 x 4¾	19.50
12.0	3¾ x 4-9/16 x 5½	23.40
15.0	3¾ x 4-9/16 x 6½	28.50
	2500V	
.5	1-3/16 x 2½ x 3½	6.75
1.0	1¾ x 3¾ x 3¼	7.65
2.0	1¾ x 3¾ x 4¾	10.20
4.0	3¾ x 4-9/16 x 4	16.50
10.0	3¾ x 4-9/16 x 6-3/8	34.50
	3000V	
.1	1-3/16 x 2½ x 2	6,30
.25	1-3/16 x 2½ x 2½	6.45
.5	1-3/16 x 2½ x 3-7/8	7.20
1.0	2¼ x 3¾ x 3-7/8	8.94
2.0	3-3/16 x 3¾ x 4-1/8	12.15
4.0	3¾ x 4-9/16 x 4¾	18.00
	4000V	
.1	2¼ x 3¾ x 2¾	12.69
.25	2¼ x 3¾ x 2¾	$14.40
.5	2¼ x 3¾ x 3-7/8	17.10
1.0	2¼ x 3¾ x 5-1/8	21.60
2.0	3¾ x 4-9/16 x 5-1/8	28.20
4.0	3¾ x 4-9/16 x 8½	43.50
	5000V	
.1	2¼ x 3¾ x 2¾	13.50
.25	2¼ x 3¾ x 3-7/8	15.60
.5	2¼ x 3¾ x 4½	17.85
1.0	3¾ x 4-9/16 x 4-3/8	25.20
2.0	3¾ x 4-9/16 x 6	38.70
	6000V	
.1	2¼ x 3¾ x 3-3/8	15.30
.25	2¼ x 3¾ x 4½	18.15
1.0	3¾ x 4-9/16 x 7½	38.70
	7500V	
.1	2¼ x 3¾ x 3-7/8	18.15
.25	3¾ x 4-9/16 x 3-7/8	22.05
.5	3¾ x 4-9/16 x 5-1/8	29.10

*Request O.E.M. Prices in the following quantities: 10-99



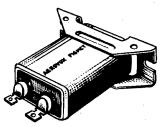
TYPE P10

Cylindrical hermetically sealed can with screw-base folded cover for vertical mounting. These units are Hyvol M or J impregnated and filled for long life and safe operation at temperatures from —55 to +85°C

Standard units have two terminals, case floating.

Standard tolerance +20% —10%. Other tolerances available on request.

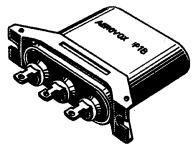
6 Standard Values - 3 Voltages



TYPE P16 and P16-CT

Small corrosion and immersion-proof unit for severe atmospheric and climatic conditions. P16-CT is standard; P16 is available in 400 and 600 volts. Operating temperature —55 to +85°C. Dual units have two terminals, case grounded. Standard tolerance +20 — 10%. CP0-91S and CP091F brackets available for P16. Base size 1-5/16 x 11/16. Impregnated with either Hyvol M or Hyvol J.

30 Standard Values - 3 Voltages

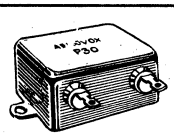


TYPE P18-CB

Similar to P16 in construction and electrical characteristics. Because of the difference in the base size type P18CB can be supplied with three terminals. Dual units are case floating, triples are case grounded. The size difference also makes these units suitable for use in assemblies where P16's do not fit. Operating temperature range —55 to +85°C. Standard tolerance +20 —10%. Impregnated with either Hyvol M or Hyvol J.

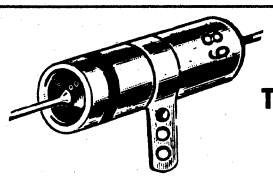
37 Standard Values - 3 Voltages

TYPE P30 Bathtub Case



High-quality bypass capacitors furnished in drawn metal bathtub cases, hermetically sealed. These units are Hyvol M or J impregnated for operation at temperatures from —55 to +85°C. They are especially recommended for applications where high reliability and superior performance are required. Typical applications for these rugged units would include marine, aircraft and tropical climates. Standard tolerance +20% — 10%.

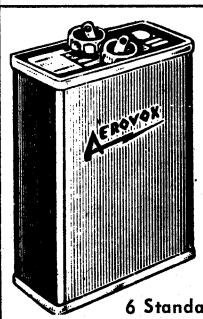
47 Standard Values - 3 Voltages



TYPE P89M

Immersion-proof, oil impregnated, oil filled units in hermetically sealed metal tubes. Ideal for coupling and bypass functions in transmitters, high voltage applications and for use in test equipment. Case is insulated, not connected to the capacitor section. Standard units are supplied with cardboard insulating sleeve and radial mounting bracket. (Type P89M).

26 Standard Values - 5 Voltages



TYPE PX Energy Storage Capacitors

For high-speed flash photography, flash signaling equipment, pulsing and other energy storage uses.

6 Standard Values - 5 Voltages

Net

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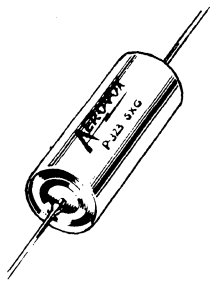
AEROVOX CAPACITORS



INDUSTRIAL SECTION — STANDARD TYPES (Continued)

PAPER SUB-MINIATURES

Tubular, metal-cased capacitors, hermetically sealed with glass terminal end seals. Miniaturized, conventional, foil-paper construction. Especially developed to meet high temperature and minimum space requirements of present day electronic equipment. Designed for rugged long life operation, these units are preferred for many of those applications where reliability is a factor. Impregnated with Hyvol "S" a special, high-temperature-operating, stable, liquid impregnant for operation at elevated temperature. These units are capable of withstanding a voltage breakdown test of twice rated voltage between terminals or between terminals and case, for a one-minute period. Ambient temperature shall be plus 25°C. plus or minus 10° C. during this test. Power factor will be less than 1% when measured or referred to a frequency of 1000 cycles per second at 25°C. Type P323S and P323SX are rigidly processed to assure operation over the temperature range of —65°C. to +125°C. The capacitor sections on types P323S utilize an inserted tab construction to obtain minimum size. Type P323SX utilizes extended foil construction for those applications where operation is required at very low AC voltages.

For equivalent types rated —65°C. to +100°C. in the same case size as shown order as P123S, SX, etc. and request prices.
These subminiature units are widely used in many applications because of their high reliability and varied case styles. To order any of these style variations add the suffix letter shown to the basic designation listed.

Suffix	STYLE VARIATIONS Description	Can size change	Suffix	STYLE VARIATIONS Description	Can size change
† S-SX † G	As listed One end grounded	As listed Deduct 1/16" from length	GV	One end grounded with side vertical bracket	Deduct 1/16" from length
† GP	Grounded with plastic insulating sleeve	Add 1/16" to diameter	V	Both ends insulated with side vertical bracket	As listed
† P	Both ends insulated with plastic sleeve	Add 1/16" to diameter and length	GB	One end grounded with soldered tangential bracket	Deduct 1/16" from length
GT	One end grounded with threaded neck mounting	Deduct 1/16" from length	B	Both ends insulated with soldered tangential bracket	As listed
T	Both ends insulated with threaded neck mounting	As listed	GL	One end grounded with tab terminals	Deduct 1/16" from length
GE	One end grounded with axial threaded stud	Deduct 1/16" from length	L	Both ends insulated with tab terminals	As listed
GR	One end grounded with two radial threaded studs	Deduct 1/16" from length	R	Both ends insulated with two radial threaded studs	As listed

†These style variations are available from stock. All others listed above are available on special order.

Cap.	P323S	Price*	P323SX	Price*
100 VOLTS				
.001	.175 x 3/4	1.47	.175 x 3/4	1.50
.0015	.175 x 3/4	1.47	.175 x 3/4	1.50
.0022	.175 x 3/4	1.49	.175 x 3/4	1.50
.0033	.175 x 3/4	1.49	.175 x 3/4	1.50
.0047	.175 x 3/4	1.49	.175 x 3/4	1.50
.0068	.175 x 3/4	1.49	.195 x 3/4	1.50
.01	.175 x 3/4	1.50	.235 x 3/4	1.50
.015	.175 x 3/4	1.50	.235 x 3/4	1.50
.022	.195 x 3/4	1.50	.312 x 7/8	1.55
.027	.235 x 3/4	1.50	.312 x 7/8	1.58
.033	.235 x 3/4	1.50	.312 x 7/8	1.58
.047	.312 x 7/8	1.50	.312 x 7/8	1.62
.068	.312 x 7/8	1.55	.400 x 7/8	1.62
.082	.312 x 7/8	1.58	.400 x 7/8	1.67
.1	.312 x 7/8	1.58	.400 x 7/8	1.67
.12	.400 x 7/8	1.67	.400 x 1-1/8	1.67
.15	.400 x 7/8	1.67	.400 x 1-1/8	1.67
.18	.400 x 1-1/8	1.67	.400 x 1-3/8	1.78
.22	.400 x 1-1/8	1.67	.400 x 1-3/8	1.78
.27	.400 x 1-3/8	1.90	.562 x 1-1/8	1.98
.33	.400 x 1-3/8	1.90	.562 x 1-1/8	1.98
.39	.562 x 1-1/8	2.02	.562 x 1-3/8	2.06
.47	.562 x 1-1/8	2.02	.562 x 1-3/8	2.06
.56	.562 x 1-3/8	2.10	.562 x 1-5/8	2.21
.68	.562 x 1-3/8	2.10	.562 x 1-5/8	2.21
.82	.562 x 1-7/8	2.14	.670 x 1-5/8	2.38
1.00	.562 x 1-7/8	2.14	.670 x 1-5/8	2.38
200 VOLTS				
.001	.235 x 3/4	1.47	.235 x 3/4	1.50
.0012	.235 x 3/4	1.47	.235 x 3/4	1.50
.0015	.235 x 3/4	1.47	.235 x 3/4	1.50
.0018	.235 x 3/4	1.49	.235 x 3/4	1.50
.0022	.235 x 3/4	1.49	.235 x 3/4	1.50
.0027	.235 x 3/4	1.49	.235 x 3/4	1.52
.0033	.235 x 3/4	1.49	.235 x 3/4	1.52
.0039	.235 x 3/4	1.49	.235 x 3/4	1.52
.0047	.235 x 3/4	1.49	.235 x 3/4	1.52
.0056	.235 x 3/4	1.49	.235 x 3/4	1.55
.0068	.235 x 3/4	1.49	.235 x 3/4	1.55
.0082	.235 x 3/4	1.50	.312 x 7/8	1.62
.01	.235 x 3/4	1.50	.312 x 7/8	1.62
.012	.235 x 3/4	1.50	.312 x 7/8	1.62
.015	.235 x 3/4	1.50	.312 x 7/8	1.62
.018	.235 x 3/4	1.50	.312 x 7/8	1.67
.022	.235 x 3/4	1.50	.312 x 7/8	1.67
.027	.312 x 7/8	1.50	.312 x 7/8	1.67
.033	.312 x 7/8	1.50	.312 x 7/8	1.67
.039	.312 x 7/8	1.55	.400 x 7/8	1.70
.047	.312 x 7/8	1.55	.400 x 7/8	1.70
.056	.312 x 7/8	1.58	.400 x 7/8	1.70
.068	.312 x 7/8	1.58	.400 x 7/8	1.70
.082	.312 x 7/8	1.62	.400 x 1-1/8	1.72
.1	.400 x 7/8	1.62	.400 x 1-1/8	1.72
.12	.400 x 1-1/8	1.65	.400 x 1-3/8	1.78
.15	.400 x 1-1/8	1.65	.400 x 1-3/8	1.78
.18	.400 x 1-3/8	1.80	.562 x 1-1/8	1.90
.22	.400 x 1-3/8	1.80	.562 x 1-1/8	1.90
.27	.562 x 1-1/8	1.94	.562 x 1-3/8	2.02
.33	.562 x 1-1/8	1.94	.562 x 1-3/8	2.02
.39	.562 x 1-3/8	2.06	.562 x 1-5/8	2.10
.47	.562 x 1-3/8	2.06	.562 x 1-5/8	2.10
.56	.562 x 1-7/8	2.18	.670 x 1-5/8	2.38
.68	.562 x 1-7/8	2.18	.670 x 1-5/8	2.38
.82	.670 x 1-7/8	2.61	.750 x 2-1/8	2.67
1.00	.670 x 1-7/8	2.61	.750 x 2-1/8	2.67
300 VOLTS				
.001	.235 x 3/4	1.47	.235 x 3/4	1.55
.0015	.235 x 3/4	1.47	.235 x 3/4	1.55
.0022	.235 x 3/4	1.49	.235 x 3/4	1.55
.0033	.235 x 3/4	1.49	.235 x 3/4	1.55
.0047	.235 x 3/4	1.49	.235 x 3/4	1.55
.0068	.235 x 3/4	1.50	.312 x 7/8	1.62
.01	.235 x 3/4	1.50	.312 x 7/8	1.67
.015	.235 x 3/4	1.52	.312 x 7/8	1.68
.022	.312 x 7/8	1.58	.312 x 7/8	1.70
.033	.312 x 7/8	1.58	.400 x 7/8	1.72
.047	.312 x 7/8	1.62	.400 x 7/8	1.72
.068	.400 x 7/8	1.67	.400 x 1-1/8	1.72
.1	.400 x 1-1/8	1.67	.400 x 1-3/8	1.75
.15	.400 x 1-3/8	1.75	.562 x 1-1/8	1.90
.22	.562 x 1-1/8	1.86	.562 x 1-3/8	2.02
.33	.562 x 1-3/8	2.02	.562 x 1-5/8	2.14
.47	.562 x 1-7/8	2.46	.670 x 1-5/8	2.56
.68	.670 x 1-7/8	2.61	.750 x 2-1/8	2.66
1.00	.750 x 2-1/8	3.37	1.000 x 2-1/8	3.39
400 VOLTS				
.001	.235 x 3/4	1.49	.235 x 3/4	1.57
.0012	.235 x 3/4	1.49	.235 x 3/4	1.57
.0015	.235 x 3/4	1.49	.235 x 3/4	1.57
.0018	.235 x 3/4	1.49	.235 x 3/4	1.57
.0022	.235 x 3/4	1.49	.235 x 3/4	1.57
.0027	.235 x 3/4	1.52	.235 x 3/4	1.58
.0033	.235 x 3/4	1.52	.235 x 3/4	1.58
.0039	.235 x 3/4	1.52	.312 x 7/8	1.67
.0047	.235 x 3/4	1.52	.312 x 7/8	1.67
.0056	.235 x 3/4	1.52	.312 x 7/8	1.67
.0068	.235 x 3/4	1.52	.312 x 7/8	1.67
.0082	.235 x 3/4	1.55	.312 x 7/8	1.70
.01	.235 x 3/4	1.55	.312 x 7/8	1.70
.012	.235 x 3/4	1.58	.312 x 7/8	1.70
.015	.312 x 7/8	1.58	.312 x 7/8	1.70
.018	.312 x 7/8	1.60	.400 x 7/8	1.75
.022	.312 x 7/8	1.60	.400 x 7/8	1.75
.027	.312 x 7/8	1.60	.400 x 7/8	1.75
.033	.312 x 7/8	1.60	.400 x 7/8	1.75
.039	.400 x 7/8	1.67	.400 x 1-1/8	1.78
.047	.400 x 7/8	1.67	.400 x 1-1/8	1.78
.056	.400 x 1-1/8	1.70	.400 x 1-3/8	1.78
.068	.400 x 1-1/8	1.70	.400 x 1-3/8	1.78
.082	.400 x 1-3/8	1.75	.562 x 1-1/8	1.90
.1	.400 x 1-3/8	1.75	.562 x 1-1/8	1.90
.12	.562 x 1-1/8	1.90	.562 x 1-3/8	1.98
.15	.562 x 1-1/8	1.90	.562 x 1-3/8	1.98
.18	.562 x 1-3/8	2.02	.562 x 1-5/8	2.10
.22	.562 x 1-3/8	2.02	.562 x 1-5/8	2.10
.27	.562 x 1-7/8	2.06	.670 x 1-5/8	2.30
.33	.562 x 1-7/8	2.06	.670 x 1-5/8	2.30
.39	.670 x 1-7/8	2.46	.750 x 2-1/8	2.66
.47	.670 x 1-7/8	2.46	.750 x 2-1/8	2.66
.56	.750 x 2-1/8	3.27	.750 x 2-3/8	3.51
.68	.750 x 2-1/8	3.27	.750 x 2-3/8	3.51
.82	1.000 x 1-7/8	3.38	1.000 x 2-5/8	3.64
1.00	1.000 x 1-7/8	3.38	1.000 x 2-5/8	3.64
600 VOLTS				
.001	.235 x 3/4	1.50	.235 x 3/4	1.58
.0012	.235 x 3/4	1.50	.235 x 3/4	1.58
.0015	.235 x 3/4	1.50	.235 x 3/4	1.58
.0018	.235 x 3/4	1.50	.235 x 3/4	1.58
.0022	.235 x 3/4	1.50	.235 x 3/4	1.58
.0027	.235 x 3/4	1.55	.312 x 7/8	1.62
.0033	.235 x 3/4	1.55	.312 x 7/8	1.62
.0039	.235 x 3/4	1.55	.312 x 7/8	1.68
.0047	.235 x 3/4	1.55	.312 x 7/8	1.68
.0056	.235 x 3/4	1.55	.312 x 7/8	1.70
.0068	.235 x 3/4	1.55	.312 x 7/8	1.70
.0082	.312 x 7/8	1.58	.312 x 7/8	1.72
.01	.312 x 7/8	1.58	.312 x 7/8	1.72
.012	.312 x 7/8	1.62	.400 x 7/8	1.75
.015	.312 x 7/8	1.62	.400 x 7/8	1.75
.018	.312 x 7/8	1.62	.400 x 7/8	1.76
.022	.312 x 7/8	1.62	.400 x 7/8	1.76
.027	.400 x 7/8	1.68	.400 x 1-1/8	1.76
.033	.400 x 7/8	1.68	.400 x 1-1/8	1.76
.039	.400 x 1-1/8	1.70	.400 x 1-3/8	1.82
.047	.400 x 1-1/8	1.70	.400 x 1-3/8	1.82
.056	.400 x 1-3/8	1.78	.562 x 1-1/8	1.94
.068	.400 x 1-3/8	1.78	.562 x 1-1/8	1.94
.082	.562 x 1-1/8	1.90	.562 x 1-3/8	1.98
.1	.562 x 1-1/8	1.90	.562 x 1-3/8	1.98
.12	.562 x 1-3/8	1.98	.562 x 1-5/8	2.10
.15	.562 x 1-3/8	1.98	.562 x 1-5/8	2.10
.18	.562 x 1-3/8	1.98	.562 x 1-5/8	2.14
.22	.562 x 1-7/8	2.14	.670 x 1-5/8	2.38
.27	.670 x 1-7/8	2.38	.750 x 2-1/8	2.66
.33	.670 x 1-7/8	2.38	.750 x 2-1/8	2.66
.39	.750 x 2-1/8	2.67	.750 x 2-3/8	2.77
.47	.750 x 2-1/8	2.67	.750 x 2-3/8	2.77
.56	1.000 x 1-7/8	3.33	1.000 x 2-1/8	3.67
.68	1.000 x 1-7/8	3.33	1.000 x 2-1/8	3.67
.82	1.000 x 2-3/8	3.45	1.000 x 2-5/8	3.78
1.00	1.000 x 2-3/8	3.45	1.000 x 2-5/8	3.78
1000 VOLTS				
.001	.400 x 7/8	1.73	.400 x 7/8	1.82
.0012	.400 x 7/8	1.73	.400 x 7/8	1.82
.0015	.400 x 7/8	1.73	.400 x 7/8	1.82
.0018	.400 x 7/8	1.73	.400 x 7/8	1.82
.0022	.400 x 7/8	1.73	.400 x 7/8	1.82
.0027	.400 x 7/8	1.78	.400 x 7/8	1.86
.0033	.400 x 7/8	1.78	.400 x 7/8	1.86
.0039	.400 x 7/8	1.78	.400 x 7/8	1.94
.0047	.400 x 7/8	1.78	.400 x 7/8	1.94
.0056	.400 x 7/8	1.78	.400 x 7/8	1.95
.0068	.400 x 7/8	1.78	.400 x 7/8	1.95
.0082	.400 x 7/8	1.82	.400 x 7/8	1.98
.01	.400 x 7/8	1.82	.400 x 7/8	1.98
.012	.400 x 7/8	1.86	.400 x 1-1/8	2.01
.015	.400 x 7/8	1.86	.400 x 1-1/8	2.01
.018	.400 x 1-1/8	1.86	.400 x 1-3/8	2.03
.022	.400 x 1-1/8	1.86	.400 x 1-3/8	2.03
.027	.400 x 1-3/8	1.94	.562 x 1-1/8	2.03
.033	.400 x 1-3/8	1.94	.562 x 1-1/8	2.03
.039	.562 x 1-1/8	1.95	.562 x 1-3/8	2.09
.047	.562 x 1-1/8	1.95	.562 x 1-3/8	2.09
.056	.562 x 1-3/8	2.05	.562 x 1-5/8	2.23
.068	.562 x 1-3/8	2.05	.562 x 1-5/8	2.23
.082	.562 x 1-5/8	2.19	.670 x 1-5/8	2.28
.1	.562 x 1-5/8	2.19	.670 x 1-5/8	2.28
.12	.670 x 1-5/8	2.28	.670 x 1-7/8	2.41
.15	.670 x 1-5/8	2.28	.670 x 1-7/8	2.41
.18	.750 x 2-1/8	2.47	.750 x 2-1/8	2.74
.22	.750 x 2-1/8	2.47	.750 x 2-1/8	2.74
.27	.750 x 2-5/8	2.74	1.000 x 2-1/8	3.05
.33	.750 x 2-5/8	2.74	1.000 x 2-1/8	3.05
.39	1.000 x 2-1/8	3.08	1.000 x 2-3/8	3.19
.47	1.000 x 2-1/8	3.08	1.000 x 2-3/8	3.19

*Request O.E.M. Prices in the following quantities: 10-24, 25-49, 50-99, 100-499

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AEROVOX CAPACITORS

INDUSTRIAL SECTION — STANDARD TYPES (Continued)

METALLIZED-PAPER CAPACITORS

TYPE P8292ZN PLASTIC-CASED, METALLIZED-PAPER TUBULARS

Featuring an exclusive "polycap" plastic-case construction, these capacitors offer outstanding resistance to humidity and improved insulation resistance. The high temperature impregnant permits operation over the temperature range of −30° to +100°C at working voltage. Distinctive black cases are completely free of any wax coating to facilitate handling problems in automatic insertion and assembly equipment. Standard tolerance on these units is ±20%. Available in closer tolerances upon request at an additional charge. Mechanical Tolerances— ±1/16" on length and diameter.

For full technical information request Bulletin NPJ-113. Rev.

**Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499, 500-999.

200 VDCW

Cap. Mfd.	D L	Catalog Number	Net** Price
.01	1/4 x 19/32	P8292ZN6	$ .44
.02	1/4 x 21/32	P8292ZN7	.44
.03	5/16 x 23/32	P8292ZN8	.45
.05	5/16 x 23/32	P8292ZN9	.45
.1	3/8 x 23/32	P8292ZN10	.47
.25	1/2 x 23/32	P8292ZN11	.68
.5	7/16 x 1-5/32	P8292ZN12	.80
1.0	9/16 x 1-5/32	P8292ZN13	1.07
2.0	5/8 x 1-21/32	P8292ZN14	1.46
3.0	11/16 x 1-31/32	P8292ZN206	1.80
4.0	13/16 x 1-15/16	P8292ZN207	2.25
5.0	7/8 x 1-15/16	P8292ZN208	2.70
6.0	15/16 x 1-15/16	P8292ZN209	3.45
8.0	15/16 x 2-3/8	P8292ZN210	4.35
10.0	1 x 2-3/8	P8292ZN211	4.80

400 VDCW

Cap. Mfd.	D x L	Catalog Number	Net** Price
.01	5/16 x 23/32	P8292ZN15	.44
.02	3/8 x 23/32	P8292ZN16	.45
.03	3/8 x 23/32	P8292ZN17	.45
.05	7/16 x 23/32	P8292ZN18	.47

400 VDCW

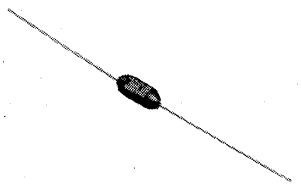
Cap. Mfd.	D x L	Catalog Number	Net** Price
.1	7/16 x 1-5/32	P8292ZN19	.51
.25	9/16 x 1-5/32	P8292ZN20	.74
.5	5/8 x 1-15/32	P8292ZN21	.95
1.0	11/16 x 1-31/32	P8292ZN22	1.32
2.0	7/8 x 2-3/8	P8292ZN23	1.86
3.0	1 x 2-7/8	P8292ZN212	2.64
4.0	1 x 3-5/8	P8292ZN213	3.39

600 VDCW

Cap. Mfd.	D x L	Catalog Number	Net** Price
.01	3/8 x 23/32	P8292ZN24	.45
.02	3/8 x 23/32	P8292ZN25	.47
.03	7/16 x 23/32	P8292ZN26	.50
.05	1/2 x 23/32	P8292ZN27	.53
.1	7/16 x 1-5/32	P8292ZN28	.59
.25	5/8 x 1-5/32	P8292ZN29	.92
.5	11/16 x 1-19/32	P8292ZN30	1.15
1.0	13/16 x 2	P8292ZN31	1.43
2.0	1 x 2-3/8	P8292ZN32	2.03
3.0	1 x 3-3/8	P8292ZN214	2.73

TYPE P95ZN

Micro-Miniature Dipped Metallized Paper Capacitors



Aerovox Type P95ZN capacitors employ an entirely new internal construction concept and utilize a dipped resinous housing to produce remarkably small sizes. The dielectric is a distinct departure from conventional foil paper and previous metallized paper construction. This new and improved metallized dielectric provides both the dielectric and the electrodes. Since capacitance is predetermined mechanically in the initial processing, the human element is eliminated for capacitance control. In addition, the P95ZN offers unusually strong lead connections as the result of an exclusive Aerovox manufacturing process. Leads are hot tin-coated phosphor bronze.

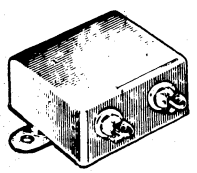
These Aerovox micro-miniature capacitors are especially suited for applications where low capacity units are now being used.

Cat. No.	Capacity	Net Price*	Size
	200 VDCW		
P95ZN1	.004	.40	.217 x .473
P95ZN2	.005	.40	.217 x .473
P95ZN3	.01	.40	.217 x .473
P95ZN4	.02	.50	.217 x .610
P95ZN5	.03	.50	.256 x .610
P95ZN6	.04	.50	.256 x .610
P95ZN7	.05	.50	.256 x .610
	400 VDCW		
P95ZN8	.002	.40	.217 x .473
P95ZN9	.003	.40	.217 x .473
P95ZN10	.005	.50	.217 x .610
P95ZN11	.01	.50	.256 x .610

Cat. No.	Capacity	Net Price*	Size
	600 VDCW		
P95ZN12	.00005	.40	.217 x .473
P95ZN13	.0001	.40	.217 x .473
P95ZN14	.0002	.40	.217 x .473
P95ZN15	.00025	.40	.217 x .473
P95ZN16	.0003	.40	.217 x .473
P95ZN17	.0005	.40	.217 x .473
P95ZN18	.001	.40	.217 x .473
P95ZN19	.002	.50	.256 x .610
P95ZN20	.003	.50	.256 x .610

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499.

TYPE P30ZN High Temperature Bathtub Case



AEROVOX type P30ZN Aerolene impregnated metallized-paper capacitors housed in "bathtub" metal cases hermetically sealed. Operating temperature range —65°C. to +125°C. at full rating. Standard Tolerance ±20%.

*Request O.E.M. Prices in the following quantities: 25-49, 50-99

Capacity	150 V	Net* Price	200 V	Net* Price	400 V	Net* Price	600 V	Net* Price
.1			1-3/4 x 1 x 3/4	2.16	1-3/4 x 1 x 3/4	2.31	1-3/4 x 1 x 3/4	2.49
.25			1-3/4 x 1 x 3/4	2.40	1-3/4 x 1 x 3/4	2.52	1-3/4 x 1 x 3/4	2.67
.5			1-3/4 x 1 x 3/4	2.43	1-3/4 x 1 x 3/4	2.94	1-3/4 x 1 x 3/4	2.97
1.0			1-3/4 x 1 x 3/4	2.85	1-3/4 x 1 x 7/8	3.66	1-3/4 x 1¼ x 7/8	4.17
2.0			1-3/4 x 1 x 3/4	3.54	2 x 1-3/4 x 13/16	5.04	2 x 2 x 7/8	5.07
3.0	1-3/4 x 1 x 3/4	3.30			2 x 1-3/4 x 15/16	6.42	2 x 2 x 1-1/8	5.97
4.0	1-3/4 x 1 x 3/4	3.96			2 x 2 x 1	7.80	2 x 2 x 1-1/4	7.14
5.0	1-3/4 x 1 x 3/4	4.38			2 x 2 x 1-1/4	9.24		
6.0	1-3/4 x 1¼ x 7/8	4.56						
8.0	2 x 1-3/4 x 3/4	5.28						
10.0	2 x 1-3/4 x 3/4	6.09						
12.0	2 x 2 x 7/8	6.81						
15.0	2 x 2 x 1	8.25						

Net

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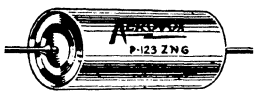
CAPACITORS

INDUSTRIAL SECTION—STANDARD TYPES (Continued)
METALLIZED-PAPER



TYPES P123ZN, P123ZNG and TYPES P323ZN, P323ZNG
Metal-Cased Capacitors

Metallized paper tubulars hermetically sealed in metal tubes with glass end seals soldered for positive moisture seal. P123ZN operating temperature range –55°C to +100°C. at full voltage rating and +125°C. with voltage derating to 75%.

Type P323ZN is in a similar construction but made to operate WITHOUT VOLTAGE DERATING over a temperature range of –55°C. to +125°C.

Standard tolerance – P123ZN –.01 mfd. and lower ±25% .012 mfd. and up ±20%. Type P323ZN – all values ±20%.

Sizes shown are for uninsulated styles, for insulated case add the suffix "P" to designation and 1/16" to diameter and length.

Capacity	P123ZN	Net Price*	P123ZNG	Net Price*	P323ZN	Net Price*	P323ZNG	Net Price*
50 VOLTS								
.047	.195 x 13/16	2.11	.195 x 3/4	1.31				
.068	.195 x 13/16	2.13	.195 x 3/4	1.33				
.1	.195 x 15/16	2.15	.195 x 7/8	1.35				
.15	.235 x 15/16	2.18	.235 x 7/8	1.38				
.22	.312 x 13/16	2.22	.312 x 3/4	1.42				
.33	.312 x 1-1/8	2.27	.312 x 1-1/16	1.47				
.47	.312 x 1-3/16	2.34	.312 x 1-1/8	1.54				
.68	.400 x 1-1/8	2.54	.400 x 1-1/16	1.73				
1.0	.400 x 1-5/16	2.75	.400 x 1-1/4	1.95				
1.5	.500 x 1-1/8	3.08	.500 x 1-1/16	2.28				
2.0	.562 x 1-5/16	3.41	.562 x 1-1/4	2.61				
3.0	.562 x 1-7/16	3.86	.562 x 1-3/8	3.06				
4.0	.670 x 1-7/16	4.31	.670 x 1-3/8	3.51				
200 VOLTS								
.0005	.175 x 1/2	1.36	.175 x 7/16	1.01				
.001	.175 x 1/2	1.36	.175 x 7/16	1.01				
.002	.175 x 1/2	1.36	.175 x 7/16	1.01				
.003	.175 x 1/2	1.36	.175 x 7/16	1.01				
.005	.175 x 1/2	1.36	.175 x 7/16	1.01				
.01	.175 x 1/2	1.36	.175 x 7/16	1.01	.175 x 1/2	1.51	.175 x 7/16	1.16
.012	.195 x 5/8	1.36	.195 x 9/16	1.01	.195 x 5/8	1.51	.195 x **9/16**	1.16
.015	.195 x 5/8	1.36	.195 x 9/16	1.01	.195 x 5/8	1.51	.195 x 9/16	1.16
.018	.195 x 5/8	1.36	.195 x 9/16	1.01	.235 x 5/8	1.51	.235 x 9/16	1.16
.02	.195 x 5/8	1.36	.195 x 9/16	1.01				
.022	.195 x 5/8	1.36	.195 x 9/16	1.01	.235 x 5/8	1.51	.235 x 9/16	1.16
.027	.235 x 5/8	1.37	.235 x 9/16	1.02	.235 x 5/8	1.51	.235 x 9/16	1.16
.033	.235 x 5/8	1.38	.235 x 9/16	1.03	.235 x 3/4	1.53	.235 x 11/16	1.18
.039	.235 x 11/16	1.40	.235 x 5/8	1.05	.235 x 13/16	1.53	.235 x 3/4	1.18
.04	.235 x 11/16	1.42	.235 x 5/8	1.07				
.047	.235 x 11/16	1.42	.235 x 5/8	1.07	.235 x 13/16	1.57	.235 x 3/4	1.22
.05	.235 x 11/16	1.42	.235 x 5/8	1.07				
.056	.235 x 13/16	1.43	.235 x 3/4	1.08	.235 x 13/16	1.57	.235 x 3/4	1.22
.068	.312 x 13/16	1.45	.312 x 3/4	1.10	.312 x 13/16	1.61	.312 x 3/4	1.26
.082	.312 x 13/16	1.46	.312 x 3/4	1.11	.312 x 13/16	1.61	.312 x 3/4	1.26
.1	.312 x 13/16	1.48	.312 x 3/4	1.13	.312 x 13/16	1.63	.312 x 3/4	1.28
.12	.312 x 1-1/8	1.49	.312 x 1-1/16	1.14	.312 x 1-1/8	1.63	.312 x 1-1/16	1.28
.15	.312 x 1-1/8	1.49	.312 x 1-1/16	1.14	.312 x 1-1/8	1.67	.312 x 1-1/16	1.32
.18	.312 x 1-1/8	1.50	.312 x 1-1/16	1.15	.400 x 7/8	1.67	.400 x 13/16	1.32
.2	.312 x 1-1/8	1.50	.312 x 1-1/16	1.15				
.22	.312 x 1-1/8	1.50	.312 x 1-1/16	1.15	.400 x 7/8	1.67	.400 x 13/16	1.32
.25	.312 x 1-1/8	1.62	.312 x 1-1/16	1.27				
.27	.400 x 1-1/8	1.62	.400 x 1-1/16	1.27	.400 x 1-1/8	1.67	.400 x 1-1/16	1.32
.33	.400 x 1-1/8	1.62	.400 x 1-1/16	1.27	.400 x 1-1/8	1.82	.400 x 1-1/16	1.47
.39	.400 x 1-1/8	1.70	.400 x 1-1/16	1.35	.400 x 1-1/8	1.82	.400 x 1-1/16	1.47
.47	.400 x 1-1/8	1.71	.400 x 1-1/16	1.36	.500 x 1-1/8	1.93	.500 x 1-1/16	1.58
.5	.400 x 1-1/8	1.73	.400 x 1-1/16	1.38				
.56	.500 x 1-1/8	1.73	.500 x 1-1/16	1.38	.500 x 1-1/8	1.93	.500 x 1-1/16	1.58
.68	.500 x 1-1/8	1.78	.500 x 1-1/16	1.43	.500 x 1-1/8	2.00	.500 x 1-1/16	1.65
.82	.562 x 1-1/8	1.90	.562 x 1-1/16	1.55	.562 x 1-1/8	2.00	.562 x 1-1/16	1.65
1.0	.562 x 1-1/8	1.92	.562 x 1-1/16	1.57	.562 x 1-1/8	2.15	.562 x 1-1/16	1.80
1.5	.562 x 1-5/8	2.73	.562 x 1-9/16	2.38	.562 x 1-5/8	3.22	.562 x 1-9/16	2.87
2.0	.562 x 1-7/8	2.73	.562 x 1-13/16	2.38	.670 x 1-5/8	3.90	.670 x 1-9/16	3.55
3.0	.670 x 1-7/8	3.62	.670 x 1-13/16	3.27	.670 x 1-7/8	4.26	.670 x 1-13/16	3.91
4.0	.750 x 1-7/8	3.89	.750 x 1-13/16	3.54	.750 x 1-7/8	5.09	.750 x 1-13/16	4.73
5.0	1.000 x 1-7/8	4.10	1.000 x 1-13/16	3.75	1.000 x 1-7/8	5.61	1.000 x 1-13/16	5.26
6.0	1.000 x 1-7/8	4.31	1.000 x 1-13/16	3.96	1.000 x 1-7/8	6.03	1.000 x 1-13/16	5.68
8.0					1.000 x 1-7/8	6.23	1.000 x 1-13/16	5.87
10.0					1.000 x 2-3/8	7.97	1.000 x 2-5/16	7.62
12.0					1.000 x 2-5/8	8.87	1.000 x 2-9/16	8.52
400 VOLTS								
.0005	.235 x 1/2	1.36	.235 x 7/16	1.01				
.001	.235 x 1/2	1.36	.235 x 7/16	1.01	.235 x 3/4	1.56	.235 x 11/16	1.21
.002	.235 x 1/2	1.36	.235 x 7/16	1.01				
.0022					.235 x 3/4	1.56	.235 x 11/16	1.21
.003	.235 x 5/8	1.39	.235 x 9/16	1.04				
.0047					.235 x 3/4	1.56	.235 x 11/16	1.21
.005	.235 x 5/8	1.42	.235 x 9/16	1.07				
.01	.235 x 5/8	1.42	.235 x 9/16	1.07	.235 x 3/4	1.56	.235 x 11/16	1.21
.012	.235 x 13/16	1.42	.235 x 3/4	1.07	.235 x 13/16	1.56	.235 x 3/4	1.21
.015	.235 x 13/16	1.42	.235 x 3/4	1.07	.235 x 13/16	1.56	.235 x 3/4	1.21
.018	.235 x 13/16	1.42	.235 x 3/4	1.07	.312 x 13/16	1.60	.312 x 3/4	1.25
.02	.235 x 13/16	1.42	.235 x 3/4	1.07				
.022	.235 x 13/16	1.43	.235 x 3/4	1.08	.312 x 13/16	1.61	.312 x 3/4	1.26
.027	.312 x 13/16	1.43	.312 x 3/4	1.08	.312 x 13/16	1.61	.312 x 3/4	1.26
.033	.312 x 13/16	1.43	.312 x 3/4	1.08	.312 x 13/16	1.61	.312 x 3/4	1.26
.039	.312 x 1-1/8	1.43	.312 x 1-1/16	1.08	.312 x 1-1/8	1.61	.312 x 1-1/16	1.26
.04	.312 x 1-1/8	1.43	.312 x 1-1/16	1.08				
.047	.312 x 1-1/8	1.43	.312 x 1-1/16	1.08	.312 x 1-1/8	1.61	.312 x 1-1/16	1.26
.05	.312 x 1-1/8	1.43	.312 x 1-1/16	1.08				
.056	.312 x 1-1/8	1.50	.312 x 1-1/16	1.15	.312 x 1-1/8	1.64	.312 x 1-1/16	1.29
.068	.312 x 1-1/8	1.53	.312 x 1-1/16	1.18	.400 x 1-1/8	1.69	.400 x 1-1/16	1.34
.082	.400 x 1-1/8	1.54	.400 x 1-1/16	1.19	.400 x 1-1/8	1.70	.400 x 1-1/16	1.35
.1	.400 x 1-1/8	1.55	.400 x 1-1/16	1.20	.400 x 1-1/8	1.74	.400 x 1-1/16	1.39
.12	.500 x 1-1/8	1.60	.500 x 1-1/16	1.25	.500 x 1-1/8	1.79	.500 x 1-1/16	1.44
.15	.500 x 1-1/8	1.63	.500 x 1-1/16	1.28	.500 x 1-1/8	1.84	.500 x 1-1/16	1.49
.18	.500 x 1-1/8	1.64	.500 x 1-1/16	1.29	.500 x 1-1/8	1.88	.500 x 1-1/16	1.53
.2	.500 x 1-1/8	1.64	.500 x 1-1/16	1.29				
.22	.500 x 1-1/8	1.64	.500 x 1-1/16	1.29	.562 x 1-1/8	1.91	.562 x 1-1/16	1.56
.25	.500 x 1-1/8	**1.81**	.500 x 1-1/16	1.46				
.27	.562 x 1-1/8	1.81	.562 x 1-1/16	1.46	.562 x 1-1/8	1.97	.562 x 1-1/16	1.62
.33	.562 x 1-3/8	1.81	.562 x 1-5/16	1.46	.562 x 1-3/8	2.11	.562 x 1-5/16	1.76
.39	.562 x 1-5/8	1.90	.562 x 1-9/16	1.55	.562 x 1-5/8	2.19	.562 x 1-9/16	1.84
.47	.562 x 1-5/8	1.94	.562 x 1-9/16	1.59	.562 x 1-5/8	2.34	.562 x 1-9/16	1.99
.5	.562 x 1-5/8	2.14	.562 x 1-9/16	1.79				
.56	.670 x 1-5/8	2.14	.670 x 1-9/16	1.82	.670 x 1-5/8	2.49	.670 x 1-9/16	2.14
.68	.670 x 1-5/8	2.17	.670 x 1-9/16	1.82	.670 x 1-7/8	2.68	.670 x 1-13/16	2.33
.82	.670 x 1-7/8	2.30	.670 x 1-13/16	1.95	.750 x 1-7/8	2.85	.750 x 1-13/16	2.50
1.0	.670 x 2-1/8	2.31	.670 x 2-1/16	1.96	.750 x 1-7/8	2.94	.750 x 1-13/16	2.59
1.5	.750 x 2-3/8	3.00	.750 x 2-5/16	2.65	1.000 x 1-7/8	3.90	1.000 x 1-13/16	3.55
2.0	1.000 x 1-7/8	3.51	1.000 x 1-13/16	3.16	1.000 x 1-7/8	4.86	1.000 x 1-13/16	4.51
600 VOLTS								
.0005	.235 x 1/2	1.40	.235 x 7/16	1.05				
.001	.235 x 5/8	1.40	.235 x 9/16	1.05	.235 x 3/4	1.62	.235 x 11/16	1.27
.002	.235 x 5/8	1.40	.235 x 9/16	1.05				
.0022					.235 x 3/4	1.62	.235 x 11/16	1.27
.003	.235 x 5/8	1.43	.235 x 9/16	1.08				
.0047					.235 x 3/4	1.62	.235 x 11/16	1.27
.005	.235 x 5/8	1.45	.235 x 9/16	1.10				
.01	.235 x 13/16	1.45	.235 x 3/4	1.10	.312 x 13/16	1.62	.312 x 3/4	1.27
.012	.312 x 13/16	1.46	.312 x 3/4	1.11	.312 x 13/16	1.63	.312 x 3/4	1.28
.015	.312 x 13/16	1.46	.312 x 3/4	1.11	.312 x 13/16	1.63	.312 x 3/4	1.28
.018	.312 x 13/16	1.46	.312 x 3/4	1.11	.312 x 13/16	1.64	.312 x 3/4	1.29
.02	.312 x 13/16	1.46	.312 x 3/4	1.11				
.022	.312 x 13/16	1.48	.312 x 3/4	1.13	.312 x 13/16	1.64	.312 x 3/4	1.29
.027	.400 x 13/16	1.48	.400 x 3/4	1.13	.312 x 1-1/8	1.64	.312 x 1-1/16	1.29
.033	.400 x 13/16	1.48	.400 x 3/4	1.13	.312 x 1-1/8	1.64	.312 x 1-1/16	1.29
.039	.400 x 13/16	1.49	.400 x 3/4	1.14	.400 x* 1-1/8	1.64	.400 x 1-1/16	1.29
.04	.400 x 13/16	1.49	.400 x 3/4	1.14				
.047	.400 x 13/16	1.50	.400 x 3/4	1.15	.400 x 1-1/8	1.66	.400 x 1-1/16	1.31
.05	.400 x 13/16	1.50	.400 x 3/4	1.15				
.056	.400 x 1-1/8	1.55	.400 x 1-1/16	1.20	.400 x 1-1/8	1.70	.400 x 1-1/16	1.35
.068	.400 x 1-1/8	1.57	.400 x 1-1/16	1.22	.400 x 1-1/8	1.77	.400 x 1-1/16	1.42
.082	.400 x 1-1/8	1.60	.400 x 1-1/16	1.25	.500 x 1-1/8	1.79	.500 x 1-1/16	1.43
.1	.400 x 1-1/8	1.61	.400 x 1-1/16	1.26	.500 x 1-1/8	1.79	.500 x 1-1/16	1.43
.12	.500 x 1-1/8	1.70	.500 x 1-1/16	1.35	.500 x 1-1/8	1.90	.500 x 1-1/16	1.55
.15	.500 x 1-1/8	1.75	.500 x 1-1/16	1.40	.500 x 1-1/8	2.00	.500 x 1-1/16	1.65
.18	.562 x 1-1/8	1.81	.562 x 1-1/16	1.46	.562 x 1-1/8	2.09	.562 x 1-1/16	1.74
.2	.562 x 1-3/8	1.85	.562 x 1-5/16	1.50				
.22	.562 x 1-3/8	1.88	.562 x 1-5/16	1.53	.562 x 1-3/8	2.16	.562 x 1-5/16	1.81
.25	.562 x 1-3/8	1.91	.562 x 1-5/16	1.56				
.27	.670 x 1-5/8	1.91	.562 x 1-9/16	1.56	.562 x 1-5/8	2.34	.562 x 1-9/16	1.99
.33	.562 x 1-5/8	2.09	.562 x 1-9/16	1.74	.562 x 1-5/8	2.46	.562 x 1-9/16	2.11
.39	.670 x 1-5/8	2.18	.670 x 1-9/16	1.83	.670 x 1-5/8	2.57	.670 x 1-9/16	2.22
.47	.670 x 1-5/8	2.21	.670 x 1-9/16	1.86	.670 x 1-5/8	2.68	.670 x 1-9/16	2.33
.5	.670 x 1-7/8	2.33	.670 x 1-13/16	1.98				
.56	.670 x 1-7/8	2.33	.670 x 1-13/16	1.98	.670 x 1-7/8	2.79	.670 x 1-13/16	2.44
.68	.670 x 1-7/8	2.35	.670 x 1-13/16	2.00	.670 x 1-7/8	2.94	.670 x 1-13/16	2.59
.82	.750 x 2-3/8	2.48	.750 x 2-5/16	2.13	1.000 x 1-7/8	3.35	1.000 x 1-13/16	2.99
1.0	.750 x 2-3/8	2.49	.750 x 2-5/16	2.14	1.000 x 1-7/8	3.42	1.000 x 1-13/16	3.07
1.5	1.000 x 1-7/8	3.01	1.000 x 1-13/16	2.66	1.000 x 1-7/8	4.19	1.000 x 1-13/16	3.83
2.0	1.000 x 2-3/8	3.54	1.000 x 2-5/16	3.19	1.000 x 2-3/8	5.16	1.000 x 2-5/16	4.81

*Request O.E.M. Prices in the following quantities: 25-99, 100-499

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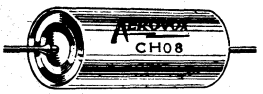
Net

AEROVOX CAPACITORS

METALLIZED TUBULAR CAPACITORS



Metallized tubular capacitors in accordance with MIL-C-18312 Rev. C. Listed are the case floating style (diagram 1) only. Case grounded (diagram 3) are available on special order.

In accordance with directions in MIL-C-18312 Rev. C. units will be marked with the "Dash number" rather than type designation. CH08 types will be marked M18312/01-( ), CH09 will be marked M18312/02-( ) as identified below. Tolerances shown are standard, available at closer tolerance on special order - Dash number changes with tolerance and case style.

Capacity Mfd.	Type Designation	Dash Number	Price*
	50 VDCW		
.018	CH-*-AIRA183K	-0002	1.89
.022	CH-*-AIRA223K	-0006	1.89
.027	CH-*-AIRA273K	-0010	1.89
.033	CH-*-AIRA333K	-0014	1.89
.039	CH-*-AIRA393K	-0018	1.89
.047	CH-*-AIRA473K	-0022	1.89
.056	CH-*-AIRA563K	-0026	1.89
.068	CH-*-AIRA683K	-0030	1.89
.082	CH-*-AIRA823K	-0034	1.89
.1	CH-*-AIRA104K	-0038	1.92
.18	CH-*-AIRA184K	-0042	2.01
.22	CH-*-AIRA224K	-0046	2.04
.27	CH-*-AIRA274K	-0050	2.07
.33	CH-*-AIRA334K	-0054	2.13
.39	CH-*-AIRA394K	-0058	2.00
.47	CH-*-AIRA474K	-0062	2.25
.56	CH-*-AIRA564K	-0066	2.43
.68	CH-*-AIRA684K	-0070	2.67
.82	CH-*-AIRA824K	-0074	2.88
1.0	CH-*-AIRA105K	-0078	3.06
1.5	CH-*-AIRA155K	-0082	3.36
2.0	CH-*-AIRA205K	-0086	4.26
2.5	CH-*-AIRA255K	-0090	5.04
3.0	CH-*-AIRA305K	-0094	5.64
4.0	CH-*-AIRA405K	-0098	6.84
5.0	CH-*-AIRA505K	-0102	8.13
6.0	CH-*-AIRA605K	-0106	9.72
7.0	CH-*-AIRA705K	-0110	11.25
10.0	CH-*-AIRA106K	-0114	15.78
12.0	CH-*-AIRA126K	-0118	18.00

Capacity Mfd.	Type Designation	Dash Number	Price*
	200 VDCW		
.1	CH-*-AINC104M	-0122	1.63
.22	CH-*-AINC224M	-0126	1.67
.47	CH-*-AINC474M	-0130	1.93
1.0	CH-*-AINC105M	-0134	2.15
1.5	CH-*-AINC155M	-0138	3.22
2.0	CH-*-AINC205M	-0142	3.90
3.0	CH-*-AINC305M	-0146	4.26
4.0	CH-*-AINC405M	-0150	5.09
5.0	CH-*-AINC505M	-0154	5.61
6.0	CH-*-AINC605M	-0158	6.03
8.0	CH-*-AINC805M	-0162	6.23
10.0	CH-*-AINC106M	-0166	7.97
12.0	CH-*-AINC126M	-0170	8.87
	400 VDCW		
.047	CH-*-AINE473M	-0174	1.61
.1	CH-*-AINE104M	-0178	1.74
.22	CH-*-AINE224M	-0182	1.91
.47	CH-*-AINE474M	-0186	2.34
1.0	CH-*-AINE105M	-0190	2.94
2.0	CH-*-AINE205M	-0194	4.86
3.0	CH-*-AINE305M	-0198	
	600 VDCW		
.01	CH-*-AINF103M	-0202	1.62
.022	CH-*-AINF223M	-0206	1.64
.047	CH-*-AINF473M	-0210	1.66
.1	CH-*-AINF104M	-0214	1.79
.22	CH-*-AINF224M	-0218	2.16
.47	CH-*-AINF474M	-0222	2.68
1.0	CH-*-AINF105M	-0226	3.42
1.5	CH-*-AINF155M	-0230	4.19
2.0	CH-*-AINF205M	-0234	5.16
2.5	CH-*-AINF255M	-0238	

* Insert "08" for uninsulated case,
"09" for insulated case.

Prices shown are for CH08. For CH09 add approximately .02 ea. net.

* Request O.E.M. Prices in the following quantities: 25-49, 50-99

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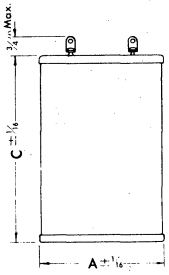
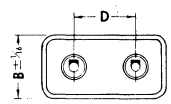
AEROVOX

CAPACITORS

TYPE P09ZNR — MIL TYPE CH70
HIGH-TEMPERATURE METALLIZED PAPER CAPACITORS





Hermetically sealed rectangular case metallized paper capacitors, the Type P09ZNR is equivalent to the CH70 of MIL-C-18312. These units may be operated at full voltage to 125°C and offer a great deal of weight and size saving over conventional oil paper units. The operating temperature of these units is —55°C to +125°C. The P09ZNR is furnished with silicone terminals such as the "B" terminal specified in MIL-C-25. Also available with porcelain terminals equivalent to the "E" terminal on special order.

NOTES: AT PRESENT WE ARE STOCKING ONLY MIL CAPACITIES AND VOLTAGES.

ALL CAPACITIES AND VOLTAGES PREFIXED WITH ASTERISK WILL BE SUBJECT TO FACTORY DELIVERY CYCLES.

SPECIFY CHARACTERISTIC "M" OR "N" WHEN ORDERING AND ADD "K" (10%) OR "M" (20%) FOR TOLERANCE DESIRED.

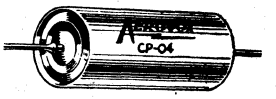
Cap. Mfd.	MIL Number	SIZE A x B x C x D	Tolerance	Net Price
		150 VDCW		
4.0	*NOT IN MIL	1-13/16 x 1-1/16 x 1-1/4 x 13/16	K,M	
6.0	*NOT IN MIL	1-13/16 x 1-1/16 x 1-1/2 x 13/16	K,M	
8.0	*NOT IN MIL	1-13/16 x 1-1/16 x 1-3/4 x 13/16	K,M	
10.0	*NOT IN MIL	1-13/16 x 1-1/16 x 1-7/8 x 13/16	K,M	
12.0	*NOT IN MIL	1-13/16 x 1-1/16 x 2-1/8 x 13/16	K,M	
15.0	CH70B1-V156-	1-13/16 x 1-1/16 x 2-3/8 x 13/16	K,M	
20.0	CH70B1-V206-	1-13/16 x 1-1/16 x 2-3/4 x 13/16	K,M	
25.0	*NOT IN MIL	1-13/16 x 1-1/16 x 3-3/8 x 13/16	K,M	
30.0	CH70B1-V306-	1-13/16 x 1-1/16 x 4-1/4 x 13/16	K,M	
40.0	*NOT IN MIL	2-1/2 x 1-3/16 x 3-1/4 x 1-1/8	K,M	
50.0	CH70B1-V506-	2-1/2 x 1-3/16 x 4 x 1-1/8	K,M	
60.0	*NOT IN MIL	3-3/4 x 1-1/4 x 3-3/8 x 2	K,M	
75.0	*NOT IN MIL	3-3/4 x 1-1/2 x 3-1/2 x 2	K,M	
100.0	*NOT IN MIL	3-3/4 x 1-3/4 x 3-3/4 x 2	K,M	
		200 VDCW		
4.0	*NOT IN MIL	1-13/16 x 1-1/16 x 1-5/8 x 13/16	K,M	
6.0	*NOT IN MIL	1-13/16 x 1-1/16 x 2 x 13/16	K,M	
8.0	*NOT IN MIL	1-13/16 x 1-1/16 x 2-1/2 x 13/16	K,M	
10.0	*NOT IN MIL	1-13/16 x 1-1/16 x 3 x 13/16	K,M	
12.0	*NOT IN MIL	1-13/16 x 1-1/16 x 3-1/4 x 13/16	K,M	
15.0	*NOT IN MIL	1-13/16 x 1-1/16 x 3-7/8 x 13/16	K,M	
20.0	*NOT IN MIL	2-1/2 x 1-3/16 x 3-3/4 x 1-1/8	K,M	
25.0	*NOT IN MIL	2-1/2 x 1-3/16 x 4-1/8 x 1-1/8	K,M	
30.0	*NOT IN MIL	2-1/2 x 1-3/16 x 4-3/4 x 1-1/8	K,M	
40.0	*NOT IN MIL	3-3/4 x 1-1/4 x 4 x 2	K,M	
50.0	*NOT IN MIL	3-3/4 x 1-1/4 x 4-3/4 x 2	K,M	
60.0	*NOT IN MIL	3-3/4 x 1-3/4 x 4-3/8 x 2	K,M	
75.0	*NOT IN MIL	3-3/4 x 2-1/4 x 4-5/8 x 2	K,M	
100.0	*NOT IN MIL	3-3/4 x 2-1/4 x 5-5/8 x 2	K,M	
		400 VDCW		
4.0	*NOT IN MIL	1-13/16 x 1-1/16 x 2-3/8 x 13/16	K,M	
6.0	CH70B1-E605-	1-13/16 x 1-1/16 x 3-1/2 x 13/16	K,M	
8.0	CH70B1-E805-	1-13/16 x 1-1/16 x 4 x 13/16	K,M	
10.0	CH70B1-E106-	1-13/16 x 1-1/16 x 4-1/4 x 13/16	K,M	
12.0	*NOT IN MIL	2-1/2 x 1-3/16 x 3-5/8 x 1-1/8	K,M	
15.0	*NOT IN MIL	2-1/2 x 1-3/16 x 4 x 1-1/8	K,M	
20.0	CH70B1-E206-	3-3/4 x 1-1/4 x 3-3/4 x 2	K,M	
25.0	*NOT IN MIL	3-3/4 x 1-1/4 x 4-1/4 x 2	K,M	
30.0	*NOT IN MIL	3-3/4 x 1-1/4 x 4-3/4 x 2	K,M	
		600 VDCW		
4.0	*NOT IN MIL	1-13/16 x 1-1/16 x 2-3/4 x 13/16	K,M	
6.0	CH70B1-F605-	1-13/16 x 1-1/16 x 3-3/4 x 13/16	K,M	
8.0	CH70B1-F805-	2-1/2 x 1-3/16 x 3-1/4 x 1-1/8	K,M	
10.0	CH70B1-F106-	2-1/2 x 1-3/16 x 4 x 1-1/8	K,M	
12.0	*NOT IN MIL	2-1/2 x 1-3/16 x 4-3/8 x 1-1/8	K,M	
15.0	CH70B1-F156-	3-3/4 x 1-1/4 x 3-5/8 x 2	K,M	
20.0	CH70B1-F206-	3-3/4 x 1-3/4 x 3-5/8 x 2	K,M	
25.0	*NOT IN MIL	3-3/4 x 2-1/4 x 3 x 2	K,M	

CONTACT FACTORY FOR PRICES

AEROVOX

CAPACITORS

INDUSTRIAL SECTION — MIL TYPES
MIL-C-25C



TYPES CP04 and CP05 — Characteristics K Vibration Grades 1 and 3

Hermetically sealed tubular capacitors with glass terminal seal and axial wire leads. CP04 and CP05 are inserted tab construction; CP08 and CP09 are extended foil construction. Standard tolerance is ±10% (K). Specify Vibration Grade when ordering.

		CP04, CHAR. K				CP05, CHAR. K			
		P323S		P323SG		P323SP		P323SGP	
				NO TUBE				PLASTIC TUBE	
CAPACITY	VOLTAGE	Case Floating	Net Price*	Case Grounded	Net Price*	Case Floating	Net Price*	Case Grounded	Net Price*
.027	100V	CP04A1KB273K–	.78	CP04A3KB273K–	.66	CP05A1KB273K–	.84	CP05A3KB273K–	.72
.033	100V	CP04A1KB333K–	.78	CP04A3KB333K–	.66	CP05A1KB333K–	.84	CP05A3KB333K–	.72
.082	100V	CP04A1KB823K–	1.08	CP04A3KB823K–	.87	CP05A1KB823K–	1.14	CP05A3KB823K–	.93
.1	100V	CP04A1KB104K–	1.08	CP04A3KB104K–	.87	CP05A1KB104K–	1.14	CP05A3KB104K–	.93
.12	100V	CP04A1KB124K–	1.14	CP04A3KB124K–	.93	CP05A1KB124K–	1.20	CP05A3KB124K–	.99
.15	100V	CP04A1KB154K–	1.17	CP04A3KB154K–	.93	CP05A1KB154K–	1.23	CP05A3KB154K–	.99
.18	100V	CP04A1KB184K–	1.23	CP04A3KB184K–	1.02	CP05A1KB184K–	1.29	CP05A3KB184K–	1.08
.22	100V	CP04A1KB224K–	1.29	CP04A3KB224K–	1.08	CP05A1KB224K–	1.35	CP05A3KB224K–	1.14
.27	100V	CP04A1KB274K–	1.35	CP04A3KB274K–	1.14	CP05A1KB274K–	1.41	CP05A3KB274K–	1.20
.33	100V	CP04A1KB334K–	1.44	CP04A3KB334K–	1.23	CP05A1KB334K–	1.50	CP05A3KB334K–	1.29
.39	100V	CP04A1KB394K–	1.50	CP04A3KB394K–	1.29	CP05A1KB394K–	1.59	CP05A3KB394K–	1.38
.47	100V	CP04A1KB474K–	1.56	CP04A3KB474K–	1.35	CP05A1KB474K–	1.65	CP05A3KB474K–	1.44
.56	100V	CP04A1KB564K–	1.59	CP04A3KB564K–	1.38	CP05A1KB564K–	1.68	CP05A3KB564K–	1.47
.68	100V	CP04A1KB684K–	1.65	CP04A3KB684K–	1.44	CP05A1KB684K–	1.74	CP05A3KB684K–	1.53
.82	100V	CP04A1KB824K–	1.71	CP04A3KB824K–	1.50	CP05A1KB824K–	1.80	CP05A3KB824K–	1.59
1.0	100V	CP04A1KB105K–	1.77	CP04A3KB105K–	1.56	CP05A1KB105K–	1.86	CP05A3KB105K–	1.65
.012	200V	CP04A1KC123K–	.78	CP04A3KC123K–	.66	CP05A1KC123K–	.84	CP05A3KC123K–	.72
.015	200V	CP04A1KC153K–	.78	CP04A3KC153K–	.66	CP05A1KC153K–	.84	CP05A3KC153K–	.72
.018	200V	CP04A1KC183K–	.78	CP04A3KC183K–	.66	CP05A1KC183K–	.84	CP05A3KC183K–	.72
.022	200V	CP04A1KC223K–	.84	CP04A3KC223K–	.72	CP05A1KC223K–	.90	CP05A3KC223K–	.78
.039	200V	CP04A1KC393K–	.84	CP04A3KC393K–	.72	CP05A1KC393K–	.90	CP05A3KC393K–	.78
.047	200V	CP04A1KC473K–	.84	CP04A3KC473K–	.72	CP05A1KC473K–	.90	CP05A3KC473K–	.78
.056	200V	CP04A1KC563K–	.87	CP04A3KC563K–	.75	CP05A1KC563K–	.93	CP05A3KC563K–	.81
.068	200V	CP04A1KC683K–	.93	CP04A3KC683K–	.81	CP05A1KC683K–	.99	CP05A3KC683K–	.87
.082	200V	CP04A1KC823K–	.96	CP04A3KC823K–	.84	CP05A1KC823K–	1.02	CP05A3KC823K–	.90
.1	200V	CP04A1KC104K–	1.02	CP04A3KC104K–	.84	CP05A1KC104K–	1.08	CP05A3KC104K–	.90
.12	200V	CP04A1KC124K–	1.08	CP04A3KC124K–	.90	CP05A1KC124K–	1.14	CP05A3KC124K–	.96
.15	200V	CP04A1KC154K–	1.11	CP04A3KC154K–	.93	CP05A1KC154K–	1.17	CP05A3KC154K–	.99
.18	200V	CP04A1KC184K–	1.14	CP04A3KC184K–	.96	CP05A1KC184K–	1.20	CP05A3KC184K–	1.02
.22	200V	CP04A1KC224K–	1.17	CP04A3KC224K–	.96	CP05A1KC224K–	1.23	CP05A3KC224K–	1.02
.27	200V	CP04A1KC274K–	1.29	CP04A3KC274K–	1.08	CP05A1KC274K–	1.38	CP05A3KC274K–	1.17
.33	200V	CP04A1KC334K–	1.38	CP04A3KC334K–	1.17	CP05A1KC334K–	1.47	CP05A3KC334K–	1.26
.39	200V	CP04A1KC394K–	1.44	CP04A3KC394K–	1.23	CP05A1KC394K–	1.53	CP05A3KC394K–	1.32
.47	200V	CP04A1KC474K–	1.50	CP04A3KC474K–	1.29	CP05A1KC474K–	1.59	CP05A3KC474K–	1.38
.56	200V	CP04A1KC564K–	1.56	CP04A3KC564K–	1.35	CP05A1KC564K–	1.65	CP05A3KC564K–	1.44
.68	200V	CP04A1KC684K–	1.65	CP04A3KC684K–	1.44	CP05A1KC684K–	1.74	CP05A3KC684K–	1.53
.82	200V	CP04A1KC824K–	1.77	CP04A3KC824K–	1.56	CP05A1KC824K–	1.86	CP05A3KC824K–	1.65
1.0	200V	CP04A1KC105K–	1.86	CP04A3KC105K–	1.65	CP05A1KC105K–	1.95	CP05A3KC105K–	1.74
.0082	400V	CP04A1KE822K–	.87	CP04A3KE822K–	.75	CP05A1KE822K–	.93	CP05A3KE822K–	.81
.01	400V	CP04A1KE103K–	.87	CP04A3KE103K–	.75	CP05A1KE103K–	93	CP05A3KE103K–	.81
.027	400V	CP04A1KE273K–	.93	CP04A3KE273K–	.81	CP05A1KE273K–	.99	CP05A3KE273K–	.87
.033	400V	CP04A1KE333K–	.93	CP04A3KE333K–	.81	CP05A1KE333K–	.99	CP05A3KE333K–	.87
.039	400V	CP04A1KE393K–	.96	CP04A3KE393K–	.84	CP05A1KE393K–	1.02	CP05A3KE393K–	.90
.047	400V	CP04A1KE473K–	1.02	CP04A3KE473K–	.84	CP05A1KE473K–	1.08	CP05A3KE473K–	.90
.056	400V	CP04A1KE563K–	1.08	CP04A3KE563K–	.90	CP05A1KE563K–	1.14	CP05A3KE563K–	.96
.068	400V	CP04A1KE683K–	1.11	CP04A3KE683K–	.90	CP05A1KE683K–	1.17	CP05A3KE683K–	.96
.082	400V	CP04A1KE823K–	1.17	CP04A3KE823K–	.96	CP05A1KE823K–	1.23	CP05A3KE823K–	1.02
.1	400V	CP04A1KE104K–	1.26	CP04A3KE104K–	1.05	CP05A1KE104K–	1.32	CP05A3KE104K–	1.11
.12	400V	CP04A1KE124K–	1.35	CP04A3KE124K–	1.14	CP05A1KE124K–	1.44	CP05A3KE124K–	1.23
.15	400V	CP04A1KE154K–	1.44	CP04A3KE154K–	1.23	CP05A1KE154K–	1.53	CP05A3KE154K–	1.32
.18	400V	CP04A1KE184K–	1.50	CP04A3KE184K–	1.29	CP05A1KE184K–	1.59	CP05A3KE184K–	1.38
.22	400V	CP04A1KE224K–	1.56	CP04A3KE224K–	1.35	CP05A1KE224K–	1.65	CP05A3KE224K–	1.44
.27	400V	CP04A1KE274K–	1.65	CP04A3KE274K–	1.44	CP05A1KE274K–	1.74	CP05A3KE274K–	1.53
.33	400V	CP04A1KE334K–	1.71	CP04A3KE334K–	1.50	CP05A1KE334K–	1.80	CP05A3KE334K–	1.59
.39	400V	CP04A1KE394K–	1.98	CP04A3KE394K–	1.77	CP05A1KE394K–	2.07	CP05A3KE394K–	1.86
.47	400V	CP04A1KE474K–	1.98	CP04A3KE474K–	1.77	CP05A1KE474K–	2.07	CP05A3KE474K–	1.86
.56	400V	CP04A1KE564K–	2.13	CP04A3KE564K–	1.86	CP05A1KE564K–	2.22	CP05A3KE564K–	1.95
.68	400V	CP04A1KE684K–	2.13	CP04A3KE684K–	1.86	CP05A1KE684K–	2.22	CP05A3KE684K–	1.95
.82	400V	CP04A1KE824K–	2.58	CP04A3KE824K–	2.31	CP05A1KE824K–	2.67	CP05A3KE824K–	2.40
1.0	400V	CP04A1KE105K–	2.58	CP04A3KE105K–	2.31	CP05A1KE105K–	2.67	CP05A3KE105K–	2.40
.001	600V	CP04A1KF102K–	.75	CP04A3KF102K–	.63	CP05A1KF102K–	.81	CP05A3KF102K–	.69
.0012	600V	CP04A1KF122K–	.75	CP04A3KF122K–	.63	CP05A1KF122K–	.81	CP05A3KF122K–	.69
.0015	600V	CP04A1KF152K–	.75	CP04A3KF152K–	.63	CP05A1KF152K–	.81	CP05A3KF152K–	.69
.0018	600V	CP04A1KF182K–	.75	CP04A3KF182K–	.63	CP05A1KF182K–	.81	CP05A3KF182K–	.69
.0022	600V	CP04A1KF222K–	.75	CP04A3KF222K–	.63	CP05A1KF222K–	.81	CP05A3KF222K–	.69
.0027	600V	CP04A1KF272K–	.78	CP04A3KF272K–	.66	CP05A1KF272K–	.84	CP05A3KF272K–	.72
.0033	600V	CP04A1KF332K–	.78	CP04A3KF332K–	.66	CP05A1KF332K–	.84	GP05A3KF332K–	.72
.0039	600V	CP04A1KF392K–	.78	CP04A3KF392K–	.66	CP05A1KF392K–	.84	CP05A3KF392K–	.72
.0047	600V	CP04A1KF472K–	.78	CP04A3KF472K–	.66	CP05A1KF472K–	.84	CP05A3KF472K–	.72
.0056	600V	CP04A1KF562K–	.84	CP04A3KF562K–	.72	CP05A1KF562K–	.90	CP05A3KF562K–	.78
.0068	600V	CP04A1KF682K–	.96	CP04A3KF682K–	.84	CP05A1KF682K–	1.02	CP05A3KF682K–	.90
.0082	600V	CP04A1KF822K–	.99	CP04A3KF822K–	.87	CP05A1KF822K–	1.05	CP05A3KF822K–	.93
.01	600V	CP04A1KF103K–	.99	CP04A3KF103K–	.87	CP05A1KF103K–	1.05	CP05A3KF103K–	.93
.012	600V	CP04A1KF123K–	1.05	CP04A3KF123K–	.93	CP05A1KF123K–	1.11	CP05A3KF123K–	.99
.015	600V	CP04A1KF153K–	1.08	CP04A3KF153K–	.96	CP05A1KF153K–	1.14	CP05A3KF153K–	1.02
.018	600V	CP04A1KF183K–	1.08	CP04A3KF183K–	.96	CP05A1KF183K–	1.14	CP05A3KF183K–	1.02
.022	600V	CP04A1KF223K–	1.08	CP04A3KF223K–	.96	CP05A1KF223K–	1.14	CP05A3KF223K–	1.02
.027	600V	CP04A1KF273K–	1.11	CP04A3KF273K–	.99	CP05A1KF273K–	1.17	CP05A3KF273K–	1.05
.033	600V	CP04A1KF333K–	1.11	CP04A3KF333K–	.99	CP05A1KF333K–	1.17	CP05A3KF333K–	1.05
.039	600V	CP04A1KF393K–	1.11	CP04A3KF393K–	.99	CP05A1KF393K–	1.17	CP05A3KF393K–	1.05
.047	600V	CP04A1KF473K–	1.11	CP04A3KF473K–	.99	CP05A1KF473K–	1.17	CP05A3KF473K–	1.05

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-249

Net

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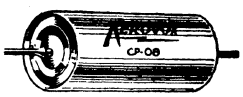
AEROVOX CAPACITORS

CAPACITY	VOLTAGE	CP04, CHAR. K P323S Case Floating	Net Price*	CP04, CHAR. K P323SG Case Grounded	Net Price*	CP05, CHAR. K P323SP Case Floating	Net Price*	CP05, CHAR. K P323SGP Case Grounded	Net Price*
		NO TUBE				PLASTIC TUBE			
.056	600V	CP04A1KF563K–	1.14	CP04A3KF563K–	1.02	CP05A1KF563K–	1.20	CP05A3KF563K–	1.08
.068	600V	CP04A1KF683K–	1.14	CP04A3KF683K–	1.02	CP05A1KF683K–	1.20	CP05A3KF683K–	1.08
.082	600V	CP04A1KF823K–	1.20	CP04A3KF823K–	1.05	CP05A1KF823K–	1.29	CP05A3KF823K–	1.14
.1	600V	CP04A1KF104K–	1.26	CP04A3KF104K–	1.05	CP05A1KF104K–	1.35	CP05A3KF104K–	1.14
.12	600V	CP04A1KF124K–	1.35	CP04A3KF124K–	1.14	CP05A1KF124K–	1.44	CP05A3KF124K–	1.23
.15	600V	CP04A1KF154K–	1.44	CP04A3KF154K–	1.23	CP05A1KF154K–	1.53	CP05A3KF154K–	1.32
.18	600V	CP04A1KF184K–	1.47	CP04A3KF184K–	1.26	CP05A1KF184K–	1.56	CP05A3KF184K–	1.35
.22	600V	CP04A1KF224K–	1.53	CP04A3KF224K–	1.32	CP05A1KF224K–	1.62	CP05A3KF224K–	1.41
.27	600V	CP04A1KF274K–	1.59	CP04A3KF274K–	1.38	CP05A1KF274K–	1.68	CP05A3KF274K–	1.47
.33	600V	CP04A1KF334K–	1.62	CP04A3KF334K–	1.41	CP05A1KF334K–	1.71	CP05A3KF334K–	1.50
.39	600V	CP04A1KF394K–	1.74	CP04A3KF394K–	1.53	CP05A1KF394K–	1.83	CP05A3KF394K–	1.62
.47	600V	CP04A1KF474K–	1.86	CP04A3KF474K–	1.65	CP05A1KF474K–	1.95	CP05A3KF474K–	1.74
.56	600V	CP04A1KF564K–	2.37	CP04A3KF564K–	2.16	CP05A1KF564K–	2.46	CP05A3KF564K–	2.25
.68	600V	CP04A1KF684K–	2.37	CP04A3KF684K–	2.16	CP05A1KF684K–	2.46	CP05A3KF684K–	2.25
.015	1000V	CP04A1KG153K–	1.11	CP04A3KG153K–	.90	CP05A1KG153K–	1.17	CP05A3KG153K–	.96
.018	1000V	CP04A1KG183K–	1.11	CP04A3KG183K–	.90	CP05A1KG183K–	1.17	CP05A3KG183K–	.96
.022	1000V	CP04A1KG223K–	1.11	CP04A3KG223K–	.90	CP05A1KG223K–	1.17	CP05A3KG223K–	.96
.027	1000V	CP04A1KG273K–	1.17	CP04A3KG273K–	.96	CP05A1KG273K–	1.23	CP05A3KG273K–	1.02
.033	1000V	CP04A1KG333K–	1.17	CP04A3KG333K–	.96	CP05A1KG333K–	1.23	CP05A3KG333K–	1.02
.039	1000V	CP04A1KG393K–	1.17	CP04A3KG393K–	.96	CP05A1KG393K–	1.26	CP05A3KG393K–	1.05
.047	1000V	CP04A1KG473K–	1.17	CP04A3KG473K–	.96	CP05A1KG473K–	1.26	CP05A3KG473K–	1.05
.056	1000V	CP04A1KG563K–	1.23	CP04A3KG563K–	1.02	CP05A1KG563K–	1.32	CP05A3KG563K–	1.11
.068	1000V	CP04A1KG683K–	1.26	CP04A3KG683K–	1.05	CP05A1KG683K–	1.35	CP05A3KG683K–	1.14
.082	1000V	CP04A1KG823K–	1.32	CP04A3KG823K–	1.11	CP05A1KG823K–	1.41	CP05A3KG823K–	1.20
.1	1000V	CP04A1KG104K–	1.35	CP04A3KG104K–	1.14	CP05A1KG104K–	1.44	CP05A3KG104K–	1.23
.12	1000V	CP04A1KG124K–	1.41	CP04A3KG124K–	1.20	CP05A1KG124K–	1.50	CP05A3KG124K–	1.29
.15	1000V	CP04A1KG154K–	1.41	CP04A3KG154K–	1.20	CP05A1KG154K–	1.50	CP05A3KG154K–	1.29
.18	1000V	CP04A1KG184K–	1.50	CP04A3KG184K–	1.23	CP05A1KG184K–	1.59	CP05A3KG184K–	1.32
.22	1000V	CP04A1KG224K–	1.65	CP04A3KG224K–	1.38	CP05A1KG224K–	1.74	CP05A3KG224K–	1.47
.27	1000V	CP04A1KG274K–	2.04	CP04A3KG274K–	1.77	CP05A1KG274K–	2.13	CP05A3KG274K–	1.86
.33	1000V	CP04A1KG334K–	2.16	CP04A3KG334K–	1.89	CP05A1KG334K–	2.25	CP05A3KG334K–	1.98
.39	1000V	CP04A1KG394K–	2.37	CP04A3KG394K–	2.10	CP05A1KG394K–	2.46	CP05A3KG394K–	2.19
.47	1000V	CP04A1KG474K–	2.37	CP04A3KG474K–	2.10	CP05A1KG474K–	2.46	CP05A3KG474K–	2.19



INDUSTRIAL SECTION — MIL TYPES

MIL-C-25C

TYPES CP08 and CP09—Characteristics K Vibration Grades 1 and 3

Hermetically sealed tubular capacitors with glass terminal seal and axial wire leads. CP04 and CP05 are inserted tab construction; CP08 and CP09 are extended foil construction. Standard tolerance is ±10% (K). Specify Vibration Grade when ordering.

CAPACITY	VOLTAGE	CP08, CHAR. K P323SX Case Floating	Net Price*	CP08, CHAR. K P323SXG Case Grounded	Net Price*	CP09, CHAR. K P323SXP Case Floating	Net Price*	CP09, CHAR. K P323SXGP Case Grounded	Net Price*
		NO TUBE				PLASTIC TUBE			
.0082	100V	CP08A1KB822K–	.75	CP08A3KB822K–	.63	CP09A1KB822K–	.81	CP09A3KB822K–	.69
.01	100V	CP08A1KB103K–	.75	CP08A3KB103K–	.63	CP09A1KB103K–	.81	CP09A3KB103K–	.69
.012	100V	CP08A1KB123K–	.75	CP08A3KB123K–	.63	CP09A1KB123K–	.81	CP09A3KB123K–	.69
.015	100V	CP08A1KB153K–	.75	CP08A3KB153K–	.63	CP09A1KB153K–	.81	CP09A3KB153K–	.69
.039	100V	CP08A1KB393K–	.84	CP08A3KB393K–	.72	CP09A1KB393K–	.90	CP09A3KB393K–	.78
.047	100V	CP08A1KB473K–	.90	CP08A3KB473K–	.78	CP09A1KB473K–	.96	CP09A3KB473K–	.84
.082	100V	CP08A1KB823K–	.99	CP08A3KB823K–	.90	CP09A1KB823K–	1.05	CP09A3KB823K–	.96
.1	100V	CP08A1KB104K–	1.05	CP08A3KB104K–	.90	CP09A1KB104K–	1.11	CP09A3KB104K–	.96
.12	100V	CP08A1KB124K–	1.08	CP08A3KB124K–	.90	CP09A1KB124K–	1.14	CP09A3KB124K–	.96
15	100V	CP08A1KB154K–	1.11	CP08A3KB154K–	.90	CP09A1KB154K–	1.17	CP09A3KB154K–	.96
.18	100V	CP08A1KB184K–	1.20	CP08A3KB184K–	.99	CP09A1KB184K–	1.26	CP09A3KB184K–	1.05
.22	100V	CP08A1KB224K–	1.26	CP08A3KB224K–	1.02	CP09A1KB224K–	1.32	CP09A3KB224K–	1.08
.27	100V	CP08A1KB274K–	1.32	CP08A3KB274K–	1.11	CP09A1KB274K–	1.41	CP09A3KB274K–	1.20
.33	100V	CP08A1KB334K–	1.38	CP08A3KB334K–	1.17	CP09A1KB334K–	1.47	CP09A3KB334K–	1.26
.39	100V	CP08A1KB394K–	1.44	CP08A3KB394K–	1.23	CP09A1KB394K–	1.53	CP09A3KB394K–	1.32
.47	100V	CP08A1KB474K–	1.47	CP08A3KB474K–	1.26	CP09A1KB474K–	1.56	CP09A3KB474K–	1.35
.56	100V	CP08A1KB564K–	1.56	CP08A3KB564K–	1.35	CP09A1KB564K–	1.65	CP09A3KB564K–	1.44
.68	100V	CP08A1KB684K–	1.62	CP08A3KB684K–	1.41	CP09A1KB684K–	1.71	CP09A3KB684K–	1.50
.82	100V	CP08A1KB824K–	1.71	CP08A3KB824K–	1.50	CP09A1KB824K–	1.80	CP09A3KB824K–	1.59
1.0	100V	CP08A1KB105K–	1.86	CP08A3KB105K–	1.65	CP09A1KB105K–	1.95	CP09A3KB105K–	1.74
.0039	200V	CP08A1KC392K–	.72	CP08A3KC392K–	.60	CP09A1KC392K–	.78	CP09A3KC392K–	.66
.0047	200V	CP08A1KC472K–	.72	CP08A3KC472K–	.60	CP09A1KC472K–	.78	CP09A3KC472K–	.66
.0056	200V	CP08A1KC562K–	.72	CP08A3KC562K–	.60	CP09A1KC562K–	.78	CP09A3KC562K–	.66
.0068	200V	CP08A1KC682K–	.72	CP08A3KC682K–	.60	CP09A1KC682K–	.78	CP09A3KC682K–	.66
.018	200V	CP08A1KC183K–	.84	CP08A3KC183K–	.72	CP09A1KC183K–	.90	CP09A3KC183K–	.78
.022	200V	CP08A1KC223K–	.84	CP08A3KC223K–	.72	CP09A1KC223K–	.90	CP09A3KC223K–	.78
.027	200V	CP08A1KC273K–	.87	CP08A3KC273K–	.75	CP09A1KC273K–	.93	CP09A3KC273K–	.81
.033	200V	CP08A1KC333K–	.87	CP08A3KC333K–	.75	CP09A1KC333K–	.93	CP09A3KC333K–	.81
.039	200V	CP08A1KC393K–	.96	CP08A3KC393K–	.81	CP09A1KC393K–	1.02	CP09A3KC393K–	.87
.047	200V	CP08A1KC473K–	.96	CP08A3KC473K–	.81	CP09A1KC473K–	1.02	CP09A3KC473K–	.87
.056	200V	CP08A1KC563K–	1.02	CP08A3KC563K–	.84	CP09A1KC563K–	1.08	CP09A3KC563K–	.90
.068	200V	CP08A1KC683K–	1.08	CP08A3KC683K–	.87	CP09A1KC683K–	1.14	CP09A3KC683K–	.93
.082	200V	CP08A1KC823K–	1.17	CP08A3KC823K–	.96	CP09A1KC823K–	1.23	CP09A3KC823K–	1.02
.1	200V	CP08A1KC104K–	1.17	CP08A3KC104K	.96	CP09A1KC104K–	1.23	CP09A3KC104K–	1.02
.12	200V	CP08A1KC124K–	1.23	CP08A3KC124K–	1.02	CP09A1KC124K–	1.29	CP09A3KC124K–	1.08
.15	200V	CP08A1KC154K–	1.23	CP08A3KC154K–	1.02	CP09A1KC154K–	1.29	CP09A3KC154K–	1.08
.18	200V	CP08A1KC184K–	1.29	CP08A3KC184K–	1.08	CP09A1KC184K–	1.38	CP09A3KC184K–	1.17
.22	200V	CP08A1KC224K–	1.29	CP08A3KC224K–	1.08	CP09A1KC224K–	1.38	CP09A3KC224K–	1.17
.27	200V	CP08A1KC274K–	1.35	CP08A3KC274K–	1.14	CP09A1KC274K–	1.44	CP09A3KC274K–	1.23

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499

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AEROVOX

CAPACITORS

		CP08, CHAR. K				CP09, CHAR. K			
		P323SX		P323SXG		P323SXP		P323SXGP	
		NO TUBE				PLASTIC TUBE			
CAPACITY	VOLTAGE	Case Floating	Net Price*	Case Grounded	Net Price*	Case Floating	Net Price*	Case Grounded	Net Price*
.33	200V	CP08A1KC334K–	1.35	CP08A3KC334K–	1.14	CP09A1KC334K–	1.44	CP09A3KC334K–	1.23
.39	200V	CP08A1KC394K–	1.41	CP08A3KC394K–	1.20	CP09A1KC394K–	1.50	CP09A3KC394K–	1.29
.47	200V	CP08A1KC474K–	1.41	CP08A3KC474K–	1.20	CP09A1KC474K–	1.50	CP09A3KC474K–	1.29
.56	200V	CP08A1KC564K–	1.56	CP08A3KC564K–	1.35	CP09A1KC564K–	1.65	CP09A3KC564K–	1.44
.68	200V	CP08A1KC684K–	1.68	CP08A3KC684K–	1.47	CP09A1KC684K–	1.77	CP09A3KC684K–	1.56
.82	200V	CP08A1KC824K–	1.86	CP08A3KC824K–	1.59	CP09A1KC824K–	1.95	CP09A3KC824K–	1.68
1.0	200V	CP08A1KC105K–	1.92	CP08A3KC105K–	1.65	CP09A1KC105K–	2.01	CP09A3KC105K–	1.74
.0027	400V	CP08A1KE272K–	.75	CP08A3KE272K–	.63	CP09A1KE272K–	.81	CP09A3KE272K–	.69
.0033	400V	CP08A1KE332K–	.75	CP08A3KE332K–	.63	CP09A1KE332K–	.81	CP09A3KE332K–	.69
.012	400V	CP08A1KE123K–	.81	CP08A3KE123K–	.69	CP09A1KE123K–	.87	CP09A3KE123K–	.75
.015	400V	CP08A1KE153K–	.84	CP08A3KE153K–	.72	CP09A1KE153K–	.90	CP09A3KE153K–	.78
.027	400V	CP08A1KE273K–	.96	CP08A3KE273K–	.78	CP09A1KE273K–	1.02	CP09A3KE273K–	.84
.033	400V	CP08A1KE333K–	1.08	CP08A3KE333K–	.87	CP09A1KE333K–	1.14	CP09A3KE333K–	.93
.039	400V	CP08A1KE393K–	1.08	CP08A3KE393K–	.87	CP09A1KE393K–	1.14	CP09A3KE393K–	.93
.047	400V	CP08A1KE473K–	1.11	CP08A3KE473K–	.90	CP09A1KE473K–	1.17	CP09A3KE473K–	.96
.056	400V	CP08A1KE563K–	1.11	CP08A3KE563K–	.90	CP09A1KE563K–	1.17	CP09A3KE563K–	.96
.068	400V	CP08A1KE683K–	1.11	CP08A3KE683K–	.90	CP09A1KE683K–	1.17	CP09A3KE683K–	.96
.082	400V	CP08A1KE823K–	1.17	CP08A3KE823K–	.96	CP09A1KE823K–	1.26	CP09A3KE823K–	1.05
.1	400V	CP08A1KE104K–	1.20	CP08A3KE104K–	.99	CP09A1KE104K–	1.29	CP09A3KE104K–	1.08
.12	400V	CP08A1KE124K–	1.26	CP08A3KE124K–	1.05	CP09A1KE124K–	1.35	CP09A3KE124K–	1.14
.15	400V	CP08A1KE154K–	1.32	CP08A3KE154K–	1.11	CP09A1KE154K–	1.41	CP09A3KE154K–	1.20
.18	400V	CP08A1KE184K–	1.47	CP08A3KE184K–	1.26	CP09A1KE184K–	1.56	CP09A3KE184K–	1.35
.22	400V	CP08A1KE224K–	1.59	CP08A3KE224K–	1.38	CP09A1KE224K–	1.68	CP09A3KE224K–	1.47
.27	400V	CP08A1KE274K–	1.71	CP08A3KE274K–	1.50	CP09A1KE274K–	1.80	CP09A3KE274K–	1.59
.33	400V	CP08A1KE334K–	1.83	CP08A3KE334K–	1.62	CP09A1KE334K–	1.92	CP09A3KE334K–	1.71
.39	400V	CP08A1KE394K–	1.89	CP08A3KE394K–	1.65	CP09A1KE394K–	1.98	CP09A3KE394K–	1.74
.47	400V	CP08A1KE474K–	1.95	CP08A3KE474K–	1.68	CP09A1KE474K–	2.04	CP09A3KE474K–	1.77
.001	600V	CP08A1KF102K–	.75	CP08A3KF102K–	.63	CP09A1KF102K–	.81	CP09A3KF102K–	.69
.0012	600V	CP08A1KF122K–	.75	CP08A3KF122K–	.63	CP09A1KF122K–	.81	CP09A3KF122K–	.69
.0015	600V	CP08A1KF152K–	.75	CP08A3KF152K–	.63	CP09A1KF152K–	.81	CP09A3KF152K–	.69
.0018	600V	CP08A1KF182K–	.75	CP08A3KF182K–	.63	CP09A1KF182K–	.81	CP09A3KF182K–	.69
.0022	600V	CP08A1KF222K–	.78	CP08A3KF222K–	.66	CP09A1KF222K–	.84	CP09A3KF222K–	.72
.0027	600V	CP08A1KF272K–	.78	CP08A3KF272K–	.66	CP09A1KF272K–	.84	CP09A3KF272K–	.72
.0033	600V	CP08A1KF332K–	.78	CP08A3KF332K–	.66	CP09A1KF332K–	.84	CP09A3KF332K–	.72
.0039	600V	CP08A1KF392K–	.81	CP08A3KF392K–	.69	CP09A1KF392K–	.87	CP09A3KF392K–	.75
.0047	600V	CP08A1KF472K–	.81	CP08A3KF472K–	.69	CP09A1KF472K–	.87	CP09A3KF472K–	.75
.0056	600V	CP08A1KF562K–	.87	CP08A3KF562K–	.75	CP09A1KF562K–	.93	CP09A3KF562K–	.81
.0068	600V	CP08A1KF682K–	.87	CP08A3KF682K–	.75	CP09A1KF682K–	.93	CP09A3KF682K–	.81
.0082	600V	CP08A1KF822K–	.87	CP08A3KF822K–	.75	CP09A1KF822K–	.93	CP09A3KF822K–	.81
.01	600V	CP08A1KF103K–	.87	CP08A3KF103K–	.75	CP09A1KF103K–	.93	CP09A3KF103K–	.81
.012	600V	CP08A1KF123K–	.93	CP08A3KF123K–	.78	CP09A1KF123K–	.99	CP09A3KF123K–	.84
.015	600V	CP08A1KF153K–	.93	CP08A3KF153K–	.78	CP09A1KF153K–	.99	CP09A3KF153K–	.84
.018	600V	CP08A1KF183K–	.99	CP08A3KF183K–	.81	CP09A1KF183K–	1.05	CP09A3KF183K–	.87
.022	600V	CP08A1KF223K–	.99	CP08A3KF223K–	.81	CP09A1KF223K–	1.05	CP09A3KF223K–	.87
.027	600V	CP08A1KF273K–	1.02	CP08A3KF273K–	.84	CP09A1KF273K–	1.08	CP09A3KF273K–	.90
.033	600V	CP08A1KF333K–	1.08	CP08A3KF333K–	.87	CP09A1KF333K–	1.14	CP09A3KF333K–	.93
.039	600V	CP08A1KF393K–	1.14	CP08A3KF393K–	.93	CP09A1KF393K–	1.20	CP09A3KF393K–	.99
.047	600V	CP08A1KF473K–	1.14	CP08A3KF473K–	.93	CP09A1KF473K–	1.20	CP09A3KF473K–	.99
.056	600V	CP08A1KF563K–	1.20	CP08A3KF563K–	.99	CP09A1KF563K–	1.29	CP09A3KF563K–	1.08
.068	600V	CP08A1KF683K–	1.23	CP08A3KF683K–	1.02	CP09A1KF683K–	1.32	CP09A3KF683K–	1.11
.082	600V	CP08A1KF823K–	1.26	CP08A3KF823K–	1.05	CP09A1KF823K–	1.35	CP09A3KF823K–	1.14
.1	600V	CP08A1KF104K–	1.26	CP08A3KF104K–	1.05	CP09A1KF104K–	1.35	CP09A3KF104K–	1.14
.12	600V	CP08A1KF124K–	1.29	CP08A3KF124K–	1.08	CP09A1KF124K–	1.38	CP09A3KF124K–	1.17
.15	600V	CP08A1KF154K–	1.29	CP08A3KF154K–	1.08	CP09A1KF154K–	1.38	CP09A3KF154K–	1.17
.18	600V	CP08A1KF184K–	1.47	CP08A3KF184K–	1.20	CP09A1KF184K–	1.56	CP09A3KF184K–	1.29
.22	600V	CP08A1KF224K–	1.59	CP08A3KF224K–	1.32	CP09A1KF224K–	1.68	CP09A3KF224K–	1.41
.27	600V	CP08A1KF274K–	1.77	CP08A3KF274K–	1.50	CP09A1KF274K–	1.86	CP09A3KF274K–	1.59
.33	600V	CP08A1KF334K–	1.89	CP08A3KF334K–	1.62	CP09A1KF334K–	1.98	CP09A3KF334K–	1.71
.39	600V	CP08A1KF394K–	1.89	CP08A3KF394K–	1.62	CP09A1KF394K–	1.98	CP09A3KF394K–	1.71
.47	600V	CP08A1KF474K–	1.95	CP08A3KF474K–	1.68	CP09A1KF474K–	2.04	CP09A3KF474K–	1.77
.001	1000V	CP08A1KG102K–	.93	CP08A3KG102K–	.72	CP09A1KG102K–	.99	CP09A3KG102K–	.78
.0012	1000V	CP08A1KG122K–	.93	CP08A3KG122K–	.72	CP09A1KG122K–	.99	CP09A3KG122K–	.78
.0015	1000V	CP08A1KG152K–	.93	CP08A3KG152K–	.72	CP09A1KG152K–	.99	CP09A3KG152K–	.78
.0018	1000V	CP08A1KG182K–	.93	CP08A3KG182K–	.72	CP09A1KG182K–	.99	CP09A3KG182K–	.78
.0022	1000V	CP08A1KG222K–	.93	CP08A3KG222K–	.72	CP09A1KG222K–	.99	CP09A3KG222K–	.78
.0027	1000V	CP08A1KG272K–	.96	CP08A3KG272K–	.75	CP09A1KG272K–	1.02	CP09A3KG272K–	.81
.0033	1000V	CP08A1KG332K–	.96	CP08A3KG332K–	.75	CP09A1KG332K–	1.02	CP09A3KG332K–	.81
.0039	1000V	CP08A1KG392K–	1.02	CP08A3KG392K–	.81	CP09A1KG392K–	1.08	CP09A3KG392K–	.87
.0047	1000V	CP08A1KG472K–	1.02	CP08A3KG472K–	.81	CP09A1KG472K–	1.08	CP09A3KG472K–	.87
.0056	1000V	CP08A1KG562K–	1.05	CP08A3KG562K–	.84	CP09A1KG562K–	1.11	CP09A3KG562K–	.90
.0068	1000V	CP08A1KG682K–	1.05	CP08A3KG682K–	.84	CP09A1KG682K–	1.11	CP09A3KG682K–	.90
.0082	1000V	CP08A1KG822K–	1.05	CP08A3KG822K–	.84	CP09A1KG822K–	1.11	CP09A3KG822K–	.90
.01	1000V	CP08A1KG103K–	1.05	CP08A3KG103K–	.84	CP09A1KG103K–	1.11	CP09A3KG103K–	.90
.012	1000V	CP08A1KG123K–	1.05	CP08A3KG123K–	.84	CP09A1KG123K–	1.11	CP09A3KG123K–	.90
.015	1000V	CP08A1KG153K–	1.05	CP08A3KG153K–	.84	CP09A1KG153K–	1.11	CP09A3KG153K–	.90
.018	1000V	CP08A1KG183K–	1.05	CP08A3KG183K–	.84	CP09A1KG183K–	1.11	CP09A3KG183K–	.90
.022	1000V	CP08A1KG223K–	1.05	CP08A3KG223K–	.84	CP09A1KG223K–	1.11	CP09A3KG223K–	.90
.027	1000V	CP08A1KG273K–	1.11	CP08A3KG273K–	.90	CP09A1KG273K–	1.20	CP09A3KG273K–	.99
.033	1000V	CP08A1KG333K–	1.17	CP08A3KG333K–	.96	CP09A1KG333K–	1.26	CP09A3KG333K–	1.05
.039	1000V	CP08A1KG393K–	1.23	CP08A3KG393K–	1.02	CP09A1KG393K–	1.32	CP09A3KG393K–	1.11
.047	1000V	CP08A1KG473K–	1.29	CP08A3KG473K–	1.08	CP09A1KG473K–	1.38	CP09A3KG473K–	1.17
.056	1000V	CP08A1KG563K–	1.35	CP08A3KG563K–	1.14	CP09A1KG563K–	1.44	CP09A3KG563K–	1.23
.068	1000V	CP08A1KG683K–	1.38	CP08A3KG683K–	1.17	CP09A1KG683K–	1.47	CP09A3KG683K–	1.26
.082	1000V	CP08A1KG823K–	1.44	CP08A3KG823K–	1.23	CP09A1KG823K–	1.53	CP09A3KG823K–	1.32
.1	1000V	CP08A1KG104K–	1.47	CP08A3KG104K–	1.26	CP09A1KG104K–	1.56	CP09A3KG104K–	1.35
.12	1000V	CP08A1KG124K–	1.56	CP08A3KG124K–	1.35	CP09A1KG124K–	1.65	CP09A3KG124K–	1.44
.15	1000V	CP08A1KG154K–	1.65	CP08A3KG154K–	1.44	CP09A1KG154K–	1.74	CP09A3KG154K–	1.53
.18	1000V	CP08A1KG184K–	1.74	CP08A3KG184K–	1.50	CP09A1KG184K–	1.83	CP09A3KG184K–	1.59
.22	1000V	CP08A1KG224K–	1.83	CP08A3KG224K–	1.56	CP09A1KG224K–	1.92	CP09A3KG224K–	1.65
.27	1000V	CP08A1KG274K–	1.95	CP08A3KG274K–	1.68	CP09A1KG274K–	2.04	CP09A3KG274K–	1.77
.33	1000V	CP08A1KG334K–	2.10	CP08A3KG334K–	1.83	CP09A1KG334K–	2.19	CP09A3KG334K–	1.92
.39	1000V	CP08A1KG394K–	2.28	CP08A3KG394K–	2.01	CP09A1KG394K–	2.37	CP09A3KG394K–	2.10
.47	1000V	CP08A1KG474K–	2.43	CP08A3KG474K–	2.16	CP09A1KG474K–	2.52	CP09A3KG474K–	2.25

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499

Net

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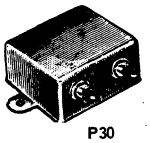
CAPACITORS

INDUSTRIAL SECTION — MIL TYPES MIL-C-25C



TYPES CP53, CP54, CP55

Hyvol J or H oil impregnated and filled, drawn-metal cased capacitors, immersion proof and hermetically sealed. This unusually compact "bathtub" type capacitor is the most popular of the small units for severe operating conditions. Available with terminals on side (CP53), top (CP54), or bottom (CP55). The standard tolerance on single section units is ±10% (K), on multiple section units +20 —10% (V).

CAP.	VOLT.	P30 SIDE TERM.	Net Price*	P30-T TOP TERM.	Net Price*	P30-B BOTTOM TERM.	Net Price*
2.0	100V	CP53B1EB205K	$2.19				
4.0	100V	CP53B1EB405K	2.94				
1.0	200V	CP53B1EC105K	2.01				
2.0	200V	CP53B1EC205K	2.55				
.5	400V	CP53B1KE504K	1.86	CP54B1KE504K	$1.86		
1.0	400V	CP53B1KE105K	2.07				
3X.5	400V	CP53B5EE504V	3.06				
.25	600V	CP53B1EF254K	1.71	CP54B1EF254K	1.71	CP55B1EF254K	1.71
.5	600V	CP53B1EF504K	1.92	CP54B1EF504K	1.92	CP55B1EF504K	1.92
1.0	600V	CP53B1EF105K	2.10	CP54B1EF105K	2.10	CP55B1EF105K	2.10
2.0	600V	CP53B1EF205K	2.70	CP54B1EF205K	2.70	CP55B1EF205K	2.70
2X.05	600V	CP53B4EF503V	2.01	CP54B4EF503V	2.01	CP55B4EF503V	2.01
2X.1	600V	CP53B4EF104V	2.07	CP54B4EF104V	2.07	CP55B4EF104V	2.07
2X.25	600V	CP53B4EF254V	2.25	CP54B4EF254V	2.25	CP55B4EF254V	2.25
2X.5	600V	CP53B4EF504V	2.61	CP54B4EF504V	2.61	CP55B4EF504V	2.61
2X1.0	600V	CP53B4EF105V	3.18	CP54B4EF105V	3.18	CP55B4EF105V	3.18
3X.1	600V	CP53B5EF104V	2.40	CP54B5EF104V	$2.40	CP55B5EF104V	$2.40
3X.25	600V	CP53B5EF254V	2.70	CP54B5EF254V	2.70	CP55B5EF254V	2.70
3X.5	600V	CP53B5EF504V	3.24	CP54B5EF504V	3.24	CP55B5EF504V	3.24
.05	1000V	CP53B1EG503K	1.56				
.1	1000V	CP53B1EG104K	1.62				
.25	1000V	CP53B1EG254K	1.77				
.5	1000V	CP53B1EG504K	2.04				
1.0	1000V	CP53B1EG105K	2.70				
2X.05	1000V	CP53B4EG503V	2.10				
2X.1	1000V	CP53B4EG104V	2.22				
2X.25	1000V	CP53B4EG254V	2.46				
2X.5	1000V	CP53B4EG504V	3.03				
3X.05	1000V	CP53B5EG503V	2.46				
3X.1	1000V	CP53B5EG104V	2.76				
3X.25	1000V	CP53B5EG254V	3.30				

CHARACTERISTIC F

CAP.	VOLT.	P30J SIDE TERM.	Net Price*
8.0	100V	CP53B1FB805K	$4.50
10.0	100V	CP53B1FB106K	6.30

MIL-C-25C

CP63, CP65 — Characteristics E & K

Compact, Hyvol M or J oil impregnated and filled, rectangular units. Immersion proof and hermetically sealed. Dual secton has case grounded. Channel brackets attached. Standard tolerance on single section units, ±10% (K), on multiple section units +20 —10% (V).

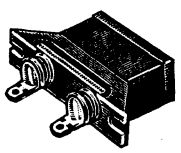
CAP.	VOLT.	P16-CT TOP TERM.	Net Price*	P16-CB BOTTOM TERM.	Net Price*
.1	400V	CP63B1KE104K	$2.02	CP65B1KE104K	$2.02
.25	400V	CP63B1KE254K	2.23		
1.0	400V	CP63B1EE105K	2.68		
.05	600V	CP63B1EF503K	2.05	CP65B1EF503K	2.05
.25	600V	CP63B1EF254K	2.32	CP65B1EF254K	2.32
.5	600V	CP63B1EF504K	2.50	CP65B1EF504K	2.50
1.0	600V	CP63B1EF105K	2.86	CP65B1EF105K	2.86
2X.1	600V	CP63B6EF104V	2.74	CP65B6EF104V	2.74
2X.25	600V	CP63B6EF254V	2.89	CP65B6EF254V	2.89
2X.5	600V	CP63B6EF504V	3.07	CP65B6EF504V	3.07
.01	1000V	CP63B1EG103K	2.08	CP65B1EG103K	2.08
.02	1000V	CP63B1EG203K	2.15	CP65B1EG203K	2.15
.05	1000V	CP63B1EG503K	2.32	CP65B1EG503K	2.32
.1	1000V	CP63B1EG104K	2.38		
.25	100V	CP63B1EG254K	2.50		
.5	1000V	CP63B1EG504K	2.80		

MIL-C-25C

CP91 — Characteristics E & K

Former issues of MIL-C-25 listed variations of this item as CP61 and CP90. CP91 base size 1¾ x ⅝. Brackets must be ordered separately. Specify CP091F (footed) or CP091S (spade).

CAP.	VOLT.	P16 NO. BRACKETS	Net Price*
.1	400V	CP91B1KE104K	$1.95
.25	400V	CP91B1KE254K	2.16
1.0	400V	CP91B1EE105K	2.61
.05	600V	CP91B1EF503K	1.98
.25	600V	CP91B1EF254K	2.25
.5	600V	CP91B1EF504K	2.43
1.0	600V	CP91B1EF105K	2.79
2X.05	600V	CP91B6EF503V	2.46
2X.1	600V	CP91B6EF104V	2.67
2X.25	600V	CP91B6EF254V	2.82
2X.5	600V	CP91B6EF504V	3.00
.01	1000V	CP91B1EG103K	2.01
.02	1000V	CP91B1EG203K	2.07
.05	1000V	CP91B1EG503K	2.25
.1	1000V	CP91B1EG104K	2.31
.25	1000V	CP91B1EG254K	2.43
.5	1000V	CP91B1EG504K	2.73



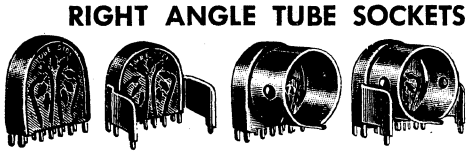
MIL-C-25C

TYPES CP67, CP69 — Characteristics E

Hyvol M or J oil impregnated and filled unit, rectangular cased. Similar to CP91 except additional length in base size of 1¾ x ⅝ permits 2 or 3 sections, case floating. Single units also can be used for special applications where type CP91 does not fit. Both CP67 and CP69 supplied with channel brackets attached. Standard tolerance on single section units ±10% (K), on multiple section units +20 —10% (V).

CAP.	VOLT.	P18-CT TOP TERM.	Net Price*	P18-CB BOTTOM TERM.	Net Price*
.05	600V	CP67B1EF503K	$2.25	CP69B1EF503K	$2.25
.1	600V	CP67B1EF104K	2.37	CP69B1EF104K	2.37
.25	600V	CP67B1EF254K	2.46	CP69B1EF254K	2.46
.5	600V	CP67B1EF504K	2.64	CP69B1EF504K	2.64
1.0	600V	CP67B1EF105K	3.09	CP69B1EF105K	3.09
2X.05	600V	CP67B4EF503V	2.67	CP69B4EF503V	2.67
2X.1	600V	CP67B4EF104V	2.85	CP69B4EF104V	2.85
2X.25	600V	CP67B4EF254V	2.94	CP69B4EF254V	2.94
2X.5	600V	CP67B4EF504V	3.36	CP69B4EF504V	3.36
3X.05	600V	CP67B5EF503V	3.27	CP69B5EF503V	3.27
3X.1	600V	CP67B5EF104V	3.54	CP69B5EF104V	3.54
3X.25	600V	CP67B5EF254V	3.72	CP69B5EF254V	3.72
.01	1000V	CP67B1EG103K	2.19	CP69B1EG103K	2.19
.02	1000V	CP67B1EG203K	2.22	CP69B1EG203K	2.22
.05	1000V	CP67B1EG503K	2.37	CP69B1EG503K	2.37
.1	1000V	CP69B1EG104K	$2.46		
.25	1000V	CP69B1EG254K	2.64		
.5	1000V	CP69B1EG504K	2.94		
2X.05	1000V	CP69B4EG503V	2.94		
2X.1	1000V	CP69B4EG104V	3.12		
2X.25	1000V	CP69B4EG254V	3.42		
3X.01	1000V	CP69B5EG103V	2.94		
3X.02	1000V	CP69B5EG203V	3.33		
3X.05	1000V	CP69B5EG503V	3.42		
3X.1	1000V	CP69B5EG104V	3.69		

RIGHT ANGLE TUBE SOCKETS



Type A Type AX Type B Type BX

Ordering Example: RA7A = (Type 7 Pin Socket)

Available in 7-pin and 9-pin types in four styles, these sockets are designed to meet existing MIL Specifications. Active contacts are silver plated and non-fatiguing contact pressure provides proper insertion and withdrawal pressure with a minimum of contact resistance. Ideal for hand or mechanical insertion into printed-wiring boards using simple in-line punched round holes. Templates are furnished with each socket. Long terminals permit use of sockets on wide range of board thickness.

Type A — for general purpose applications.
Type AX — for special applications (military and commercial) where extra strength and rigidity are required.
Type B — same as Type A except tube shield shell added.
Type BX — same as Type AX except tube shield shell added.

RA 7 — 7 pin right angle tube socket. RA 9 — 9 pin right angle tube socket

Cat. No.	Net Price**
RA7A	$ .64
RA7AX	.65
RA7B	.69
RA7BX	.91
RA9A	.85
RA9AX	.87
RA9B	.92
RA9BX	.95

*Request O.E.M. Prices in the following quantities: 10-24, 25-49, 50-99
**Request O.E.M. Prices in the following quantities: 25-99, 100-499

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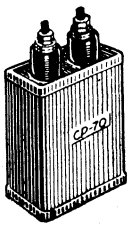
CAPACITORS



INDUSTRIAL SECTION — MIL TYPES

TYPE CP70 MIL-C-25C

Characteristics E and F • Porcelain and Riveted Terminals

Hyvol M or J oil impregnated and filled, large, rectangular, metal-cased capacitor for heavy-duty, continuous-service applications such as power supplied for transmitters, amplifiers, etc. immersion proof and hermetically sealed. Available with either high-voltage screw-type porcelain-pillar terminals or the space-saving riveted terminal. Pillar terminals have soldering lugs.

Standard tolerance ±10% (K). MIL-C-25C mounting brackets are also available for all units.

Units meet Vibration Grade 1 of MIL-C-25C—Designated by addition of numeral 1 to part number.

Capacity	Voltage	CHAR. E P09 Porc. Term	Case Size and Brkt. Desig.	Net Price*	CHAR. F P09 Porc. Term	Case Size and Brkt. Desig.	Net Price*	CHAR. E P09-R Rivet Term	Case Size and Brkt. Desig.	Net Price*	CHAR. F P09-R Rivet Term	Case Size and Brkt. Desig.	Net Price*
1.0	600V	CP70E1EF105K	A2	4.02				CP70B1EF105K	A2	3.78			
2.0	600V	CP70E1EF205K	A4	4.95	CP70E1FF205K	A3	4.89	CP70B1EF205K	A4	4.71	CP70B1FF205K	A3	4.71
4.0	600V	CP70E1EF405K	B4	6.90	CP70E1FF405K	B3	6.45	CP70B1EF405K	B4	6.66	CP70B1FF405K	B3	6.21
6.0	600V	CP70E1EF605K	C2	8.94	CP70E1FF605K	B6	7.05	CP70B1EF605K	C2	8.70	CP70B1FF605K	B6	6.81
8.0	600V	CP70E1EF805K	C3	10.95	CP70E1FF805K	C2	7.50	CP70B1EF805K	C3	10.71	CP70B1FF805K	C2	7.29
10.0	600V	CP70E1EF106K	D3	13.14	CP70E1FF106K	C4	8.10	CP70B1EF106K	D3	12.90	CP70B1FF106K	C4	7.89
.1	1000V	CP70E1EG104K	A1	4.14									
.25	1000V	CP70E1EG254K	A2	4.50									
.5	1000V	CP70E1EG504K	A2	4.68									
1.0	1000V	CP70E1EG105K	A3	5.19	CP70E1FG105K	A2	4.74	CP70B1EG105K	A3	4.95			
2.0	1000V	CP70E1EG205K	A6	6.06	CP70E1FG205K	A5	5.25	CP70B1EG205K	A6	5.82	CP70B1FG205K	A5	5.04
4.0	1000V	CP70E1EG405K	C2	8.10	CP70E1FG405K	B6	6.30	CP70B1EG405K	C2	7.86	CP70B1FG405K	B6	6.06
6.0	1000V	CP70E1EG605K	D3	9.90	CP70E1FG605K	C4	8.70	CP70B1EG605K	D3	9.66	CP70B1FG605K	C4	8.46
8.0	1000V	CP70E1EG805K	D5	11.85				CP70B1EG805K	D5	11.61	CP70B1FG805K	D2	9.96
10.0	1000V	CP70E1EG106K	E5	13.80	CP70E1FG106K	D5	11.40	CP70B1EG106K	E5	13.56	CP70B1FG106K	D5	11.16
12.0	1000V	CP70E1EG126K	E6	15.75				CP70B1EG126K	E6	15.51	CP70B1FG126K	E4	12.51
15.0	1000V	CP70E1EG156K	G2	18.75	CP70E1FG156K	F1	15.75	CP70B1EG156K	G2	18.51	CP70B1FG156K	F1	15.51
.5	1500V	CP70E1EH504K	A3	5.40				CP70B1EH504K	A3	5.16			
1.0	1500V	CP70E1EH105K	A6	6.24	CP70E1FH105K	A5	5.10	CP70B1EH105K	A6	6.00			
2.0	1500V	CP70E1EH205K	E6	7.80	CP70E1FH205K	B5	6.30	CP70B1EH205K	B6	7.56	CP70B1FH205K	B5	6.06
4.0	1500V	CP70E1EH405K	D4	11.10	CP70E1FH405K	C4	8.55	CP70B1EH405K	D4	10.86	CP70B1FH405K	C4	8.31
6.0	1500V	CP70E1EH605K	E5	14.34	CP70E1FH605K	D5	11.70	CP70B1EH605K	E5	14.10	CP70B1FH605K	D5	11.46
8.0	1500V	CP70E1EH805K	F2	17.55	CP70E1FH805K	F1	14.70	CP70B1EH805K	F2	17.31	CP70B1FH805K	F1	14.46
10.0	1500V	CP70E1EH106K	G4	20.85	CP70E1FH106K	G2	16.50	CP70B1EH106K	G4	20.61	CP70B1FH106K	G2	16.26
12.0	1500V	CP70E1EH126K	J3	24.00	CP70E1FH126K	G2	20.70	CP70B1EH126K	J3	23.76	CP70B1FH126K	G2	20.46
15.0	1500V	CP70E1EH156K	J6	29.10	CP70E1FH156K	J3	23.40	CP70B1EH156K	J6	28.86	CP70B1FH156K	J3	23.16
.25	2000V	CP70E1EJ254K	B1	5.22									
.5	2000V	CP70E1EJ504K	B2	5.55									
1.0	2000V	CP70E1EJ105K	B6	6.45	CP70E1FJ105K	B3	5.55						
2.0	2000V	CP70E1EJ205K	C4	7.95	CP70E1FJ205K	C3	6.90						
4.0	2000V	CP70E1EJ405K	E6	11.55	CP70E1FJ405K	E3	9.60						
6.0	2000V				CP70E1FJ605K	G1	12.90						
10.0	2000V				CP70E1FJ106K	J3	19.50						
12.0	2000V				CP70E1FJ126K	J5	23.40						
15.0	2000V				CP70E1FJ156K	J7	28.50						
.1	2500V	CP70E1EK104K	B1	5.10									
.5	2500V	CP70E1EK504K	B4	6.30	CP70E1FK504K	B3	6.75						
1.0	2500V	CP70E1EK105K	D2	7.95	CP70E1FK105K	D1	7.65						
2.0	2500V	CP70E1EK205K	E5	11.10	CP70E1FK205K	D5	10.20						
4.0	2500V	CP70E1EK405K	J2	17.70									
10.0	2500V	CP70E1EK106K	J10	36.90									
.1	3000V	CP70E1EL104K	B2	5.70									
.25	3000V	CP70E1EL254K	B3	6.30									
.5	3000V	CP70E1EL504K	B6	7.35									
1.0	3000V	CP70E1EL105K	E4	9.75	CP70E1FL105K	E3	8.94						
2.0	3000V	CP70E1EL205K	G2	13.95	CP70E1FL205K	G1	12.15						
4.0	3000V	CP70E1EL405K	J7	22.95	CP70E1FL405K	J3	18.00						
.1	4000V	CP70E1EM104K	E1	13.89									
.25	4000V				CP70E1FM254K	E1	14.40						
.5	4000V				CP70E1FM504K	E3	17.10						
1.0	4000V				CP70E1FM105K	E6	21.60						
2.0	4000V				CP70E1FM205K	J4	28.20						
4.0	4000V	CP70E1EM405K	J11	46.56	CP70E1FM405K	J10	43.50						
.1	5000V	CP70E1EN104K	E1	15.15									
.25	5000V	CP70E1EN254K	E3	16,56									
.5	5000V	CP70E1EN504K	E6	19.29	CP70E1FN504K	E4	17.85						
1.0	5000V				CP70E1FN105K	J2	25.20						
2.0	5000V				CP70E1FN205K	J6	38.70						
.1	6000V	CP70D1EP104K	E3	16.35	CP70D1FP104K	E2	15.30						
.25	6000V	CP70D1EP254K	E5	19.14	CP70D1FP254K	E4	18.15						
.5	6000V	CP70D1EP504K	J3	22.20									
1.0	6000V	CP70D1EP105K	J11	41.16	CP70D1FP105K	J9	38.70						
.1	7500V				CP70D1FR104K	E3	18.15						
.25	7500V				CP70D1FR254K	J1	22.05						
.5	7500V				CP70D1FR504K	J4	29.10						

A1	1 13/16 x 1 1/16 x 1 5/8	E2	3 3/4 x 2 1/4 x 3 3/8
A2	1 13/16 x 1 1/16 x 2 1/4	E3	3 3/4 x 2 1/4 x 3 7/8
A3	1 13/16 x 1 1/16 x 2 7/8	E4	3 3/4 x 2 1/4 x 4 1/2
A4	1 13/16 x 1 1/16 x 3 1/4	E5	3 3/4 x 2 1/4 x 4 3/4
A5	1 13/16 x 1 1/16 x 3 7/8	E6	3 3/4 x 2 1/4 x 5 1/8
A6	1 13/16 x 1 1/16 x 4 3/4	F1	3 3/4 x 2 1/2 x 4 3/4
B1	2 1/2 x 1 3/16 x 2 1/2	F2	3 3/4 x 2 1/2 x 5 3/4
B2	2 1/2 x 1 3/16 x 2 7/8	G1	3 3/4 x 3 1/16 x 4 1/2
B3	2 1/2 x 1 3/16 x 3 1/2	G2	3 3/4 x 3 1/16 x 4 3/4
B4	2 1/2 x 1 3/16 x 3 7/8	G4	3 3/4 x 3 1/16 x 5 1/2
B5	2 1/2 x 1 3/16 x 4 1/4	J1	4 1/16 x 3 3/4 x 3 7/8
B6	2 1/2 x 1 3/16 x 4 3/4	J2	4 1/16 x 3 3/4 x 4 3/8
C2	3 3/4 x 1 1/4 x 3 7/8	J3	4 1/16 x 3 3/4 x 4 3/4
C3	3 3/4 x 1 1/4 x 4 1/4	J4	4 1/16 x 3 3/4 x 5 1/8
C4	3 3/4 x 1 1/4 x 4 3/4	J5	4 1/16 x 3 3/4 x 5 1/2
D1	3 3/4 x 1 3/4 x 3 1/4	J6	4 1/16 x 3 3/4 x 6
D2	3 3/4 x 1 3/4 x 3 7/8	J7	4 1/16 x 3 3/4 x 6 1/2
D3	3 3/4 x 1 3/4 x 4	J9	4 1/16 x 3 3/4 x 7 1/2
D4	3 3/4 x 1 3/4 x 4 1/4	J10	4 1/16 x 3 3/4 x 8 1/2
D5	3 3/4 x 1 3/4 x 4 3/4	J11	4 1/16 x 3 3/4 x 9 5/8
E1	3 3/4 x 2 1/4 x 2 3/4		

If MIL brackets are required with units, specify CP07S (spade) or CP07F (footed) and add the bracket designation listed beside the unit.

Example: CP70E1EF504K with CP07SA2 brackets.

*Request O.E.M. Prices in the following quantities: 10-24, 25-49, 50-99

TYPE CP41 — Characteristics E and F

Cylindrical, hermetically sealed can with screwbase molded cover for vertical mounting. Operating temperature range —55 +85°C. Solder lug. nonremovable terminals MIL designation B). Supplied with mounting nut and lockwasher. Standard tolerance ±10% (K).

Units meet Vibration Grade 1 of MIL-C-25C Designated by addition of numeral 1 to part number.

Capacity	Voltage	Char. E P10M	Net Price*	Char. F P10M	Net Price*
2.0	600V	CP41B1EF205K	5.51	CP41B1FF205K	5.51
4.0	600V	CP41B1EF405K	7.46	CP41B1FF405K	7.46
1.0	1000V	CP41B1EG105K	5.51	CP41B1FG105K	5.51
2.0	1000V	CP41B1EG205K	6.59	CP41B1FG205K	6.59
.5	1500V			CP41B1FH504K	6.26
1.0	1500V			CP41B1FH105K	7.07

*Request O.E.M. Prices in the following quantities: 25-49, 50-99

Net

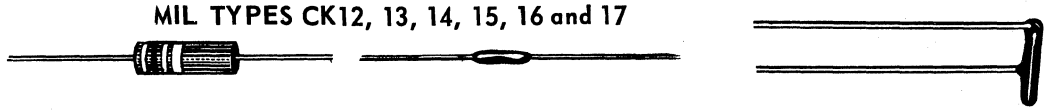
© U.C.P., Inc.

AEROVOX

CAPACITORS

INDUSTRIAL CERAMIC CAPACITORS
MIL TYPES CK12, 13, 14, 15, 16 and 17

CERAFIL®



These remarkably ultra-miniature units, Molded Type MC80V and Durez Coated Type C80V, are designed primarily for air-borne and space-borne equipments, having critical space and weight parameters. They are also designed for transistorized circuit applications in hearing aids and other critical requirements where space and weight are at an absolute premium. The unique design and construction features of Cerafil® capacitors make it possible to obtain extremely high capacities per unit volume. These tiny capacitors are the ideal answer to many problems created by the growing trend towards miniaturization of electronic assemblies and equipments. When tested using Cerafil® ratings, these units will meet or surpass the requirement of MIL-C-11015C.

For full technical information request Bulletins NPJ-119 Rev. 3 and NPJ-120 Rev.

Capacity Mfd.	MIL-C-11015C Number†	Dimensions +.003 −.005 D	x L	Molded Axial Leads ± 20% Part No.	Net** Price	± 10% Part No.	Net** Price	Dimensions* D	x L	Dipped Axial Leads Part No.	Net** Price	Dipped Radial Leads Part No.	Net** Price
.00001	CK12AX100–	.087	.315	MC80V100AM	.47	MC80V100AK	.59	.090	.320	C80V100AM	.52	C80V100RM	.57
.000012		.087	.315	MC80V120AM	.47	MC80V120AK	.59						
.000015		.087	.315	MC80V150AM	.47	MC80V150AK	.59						
.000018		.087	.315	MC80V180AM	.47	MC80V180AK	.59						
.000022	CK12AX220–	.087	.315	MC80V220AM	.47	MC80V220AK	.59	.090	.320	C80V220AM	.52	C80V220RM	.57
.000027		.087	.315	MC80V270AM	.47	MC80V270AK	.59						
.000033	CK12AX330–	.087	.315	MC80V330AM	.47	MC80V330AK	.59	.090	.320	C80V330AM	.52	C80V330RM	.57
.000039		.087	.315	MC80V390AM	.47	MC80V390AK	.59						
.000047	CK12AX470–	.087	.315	MC80V470AM	.47	MC80V470AK	.59	.090	.320	C80V470AM	.52	C80V470RM	.57
.000056		.087	.315	MC80V560AM	.47	MC80V560AK	.59	.090	.320	C80V560AM	.52	C80V560RM	.57
.000068		.087	.315	MC80V680AM	.47	MC80V680AK	.59	.090	.320	C80V680AM	.52	C80V680RM	.57
.000082		.087	.315	MC80V820AM	.47	MC80V820AK	.59	.090	.320	C80V820AM	.52	C80V820RM	.57
.0001	CK12AX101–	.087	.315	MC80V101AM	.47	MC80V101AK	.59	.090	.320	C80V101AM	.52	C80V101RM	.57
.00012		.087	.315	MC80V121AM	.47	MC80V121AK	.59						
.00015		.087	.315	MC80V151AM	.47	MC80V151AK	.59						
.00018		.087	.315	MC80V181AM	.47	MC80V181AK	.59						
.00022	CK12AX221–	.087	.315	MC80V221AM	.47	MC80V221AK	.59	.090	.320	C80V221AM	.52	C80V221RM	.57
.00027		.087	.315	MC80V271AM	.47	MC80V271AK	.59						
.00033	CK12AX331–	.087	.315	MC80V331AM	.47	MC80V331AK	.59	.090	.320	C80V331AM	.52	C80V331RM	.57
.00039		.087	.315	MC80V391AM	.47	MC80V391AK	.59						
.00047	CK12AX471–	.087	.315	MC80V471AM	.47	MC80V471AK	.59	.090	.320	C80V471AM	.52	C80V471RM	.57
.00056		.087	.315	MC80V561AM	.47	MC80V561AK	.59	.090	.320	C80V561AM	.52	C80V561RM	.57
.00068		.087	.315	MC80V681AM	.47	MC80V681AK	.59	.090	.320	C80V681AM	.52	C80V681RM	.57
.00082		.087	.315	MC80V821AM	.47	MC80V821AK	.59	.090	.320	C80V821AM	.52	C80V821RM	.57
.001	CK12AX102–	.087	.315	MC80V102AM	.47	MC80V102AK	.59	.090	.320	C80V102AM	.46	C80V102RM	.51
.0012		.117	.495	MC80V122AM	.68	MC80V122AK	.85						
.0015		.117	.495	MC80V152AM	.68	MC80V152AK	.85						
.0018		.117	.495	MC80V182AM	.68	MC80V182AK	.85						
.002		.117	.495	MC80V202AM	.68	MC80V202AK	.85	.120	.500	C80V202AM	.76	C80V202RM	.84
.0022	CK13AX222–	.117	.495	MC80V222AM	.68	MC80V222AK	.85	.120	.500	C80V222AM	.76	C80V222RM	.84
.0027		.117	.495	MC80V272AM	.68	MC80V272AK	.85						
.0033	CK13AX332–	.117	.495	MC80V332AM	.68	MC80V332AK	.85	.120	.500	C80V332AM	.76	C80V332RM	.84
.0039		.117	.495	MC80V392AM	.68	MC80V392AK	.85						
.0047	CK13AX472–	.117	.495	MC80V472AM	.68	MC80V472AK	.85	.120	.500	C80V472AM	.76	C80V472RM	.84
.005		.117	.495	MC80V502AM	.68	MC80V502AK	.85	.120	.500	C80V502AM	.76	C80V502RM	.84
.0056		.157	.495	MC80V562AM	.90	MC80V562AK	1.13						
.0068		.157	.495	MC80V682AM	.90	MC80V682AK	1.13	.180	.500	C80V682AM	1.00	C80V682RM	1.19
.0082		.157	.495	MC80V822AM	.90	MC80V822AK	1.13						
.01	CK14AX103–	.157	.495	MC80V103AM	.90	MC80V103AK	1.13	.180	.500	C80V103AM	1.00	C80V103RM	1.19
.012		.197	.495	MC80V123AM	1.65	MC80V123AK	2.06						
.015		.197	.495	MC80V153AM	1.65	MC80V153AK	2.06						
.018		.197	.495	MC80V183AM	1.65	MC80V183AK	2.06						
.02		.197	.495	MC80V203AM	1.65	MC80V203AK	2.06	.200	.500	C80V203AM	1.83	C80V203RM	2.03
.022	CK15AX223–	.197	.495	MC80V223AM	1.65	MC80V223AK	2.06	.200	.500	C80V223AM	3.05	C80V223RM	3.38
.027		.237	.645	MC80V273AM	2.75	MC80V273AK	3.44						
.033		.237	.645	MC80V333AM	2.75	MC80V333AK	3.44	.240	.650	C80V333AM	3.05	C80V333RM	3.38
.039		.237	.645	MC80V393AM	2.75	MC80V393AK	3.44						
.047	CK16AX473–	.237	.645	MC80V473AM	2.75	MC80V473AK	3.44	.240	.650	C80V473AM	3.05	C80V473RM	3.38
.05		.237	.645	MC80V503AM	2.75	MC80V503AK	3.44	.240	.650	C80V503AM	3.05	C80V503RM	3.38
.056		.277	.745	MC80V563AM	4.93	MC80V563AK	6.16						
.068		.277	.745	MC80V683AM	4.93	MC80V683AK	6.16	.310	.750	C80V683AM	5.48	C80V683RM	6.08
.082		.277	.745	MC80V823AM	4.93	MC80V823AK	6.16						
.1	CK17AX104–	.277	.745	MC80V104AM	4.93	MC80V104AK	6.16	.310	.750	C80V104AM	5.48	C80V104RM	6.08

† FOR CK12 THRU CK17 SPECIFY K OR M TOLERANCE AND USE SAME PRICE AS SHOWN FOR COMPARABLE MC80V, K OR M TOLERANCE.

*Overall length may exceed dimensions shown by as much as 1/16" due to deposit of insulating material on leads.

ELECTRICAL SPECIFICATIONS

1. VOLTAGE — 100 VDCW; 300 VDCT
2. CAPACITY TOLERANCE — ±10% (K), ±20% (M) as listed above.
3. INSULATION RESISTANCE — 100 mfd.—megohms or 10,000 megohms whichever is smaller.
4. TEMPERATURE COEFFICIENT — (—55°C to +85°C.) No voltage +10% to —15%. 100 volts applied — +10% to —35%.
5. POWER FACTOR — 2.5% maximum.
6. OPERATING TEMPERATURE —55°C to 85°C at 100 volts —55°C to 125°C at 50 volts

** Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499

MECHANICAL SPECIFICATIONS

1. All dimensions in inches.
2. LEADS — Tinned Copper
   C80V—Below .01 mfd.—#26 gauge.
   .01 and above—#22 gauge..
   MC80V—.005 and below—#26 gauge.
   .0051 and above—#22 gauge.
3. LEAD LENGTHS — C80V—1½" Min. MC80V—1 19/32" Min.
4. MARKING — Color code. No code for temperature coefficient; no code for lead designation since it is obvious.

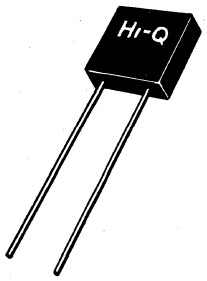
AEROVOX CAPACITORS

INDUSTRIAL CERAMIC CAPACITORS (cont.)

TYPE MC52-MC62
MIL TYPE CK05-CK06

Test and compare these new **reliable** types.

- Will meet MIL-C-11015/18/19
- Will operate without derating at 200VDC from —55°C to +150°C
- Life tested at 400 VDC, 150°C
- Manufactured in complete new automated facility
- Molded (not shell encased)
- Ceralam Process



DIMENSIONS
CK05—.195 x .195 x .095
CK06—.295 x .295 x .095

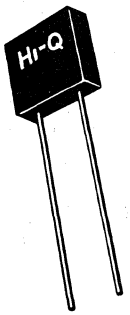
These units are marked with capacity, voltage and tolerance.

For complete technical data request bulletin NPJ-123 Rev. 2.

Cap. MMF.	Commercial Designation	MIL-C-11015C Designation ±10%	Net Price**	±20%	Net Price**
10	MC52CW100*	CK05CW100K	1.05	CK05CW100M	.87
12	MC52CW120*	CK05CW120K	1.05	CK05CW120M	.87
15	MC52CW150*	CK05CW150K	1.05	CK05CW150M	.87
18	MC52CW180*	CK05CW180K	1.05	CK05CW180M	.87
22	MC52CW220*	CK05CW220K	1.05	CK05CW220M	.87
27	MC52CW270*	CK05CW270K	1.05	CK05CW270M	.87
33	MC52CW330*	CK05CW330K	1.05	CK05CW330M	.87
39	MC52CW390*	CK05CW390K	1.05	CK05CW390M	.87
47	MC52CW470*	CK05CW470K	1.05	CK05CW470M	.87
56	MC52CW560*	CK05CW560K	1.05	CK05CW560M	.87
68	MC52CW680*	CK05CW680K	1.05	CK05CW680M	.87
82	MC52CW820*	CK05CW820K	1.05	CK05CW820M	.87
100	MC52CW101*	CK05CW101K	1.05	CK05CW101M	.87
120	MC52CW121*	CK05CW121K	1.05	CK05CW121M	.87
150	MC52CW151*	CK05CW151K	1.05	CK05CW151M	.87
180	MC52CW181*	CK05CW181K	1.05	CK05CW181M	.87
220	MC52CW221*	CK05CW221K	1.05	CK05CW221M	.87
270	MC52CW271*	CK05CW271K	1.05	CK05CW271M	.87
330	MC52CW331*	CK05CW331K	1.05	CK105CW331M	.87
390	MC52CW391*	CK05CW391K	1.05	CK05CW391M	.87
470	MC52CW471*	CK05CW471K	1.05	CK05CW471M	.87
560	MC52CW561*	CK05CW561K	1.05	CK05CW561M	.87
680	MC52CW681*	CK05CW681K	1.05	CK05CW681M	.87
820	MC52CW821*	CK05CW821K	1.05	CK05CW821M	.87
1000	MC52CW102*	CK05CW102K	1.05	CK05CW102M	.87
1200	MC62CW122*	CK06CW122K	1.14	CK06CW122M	.99
1500	MC62CW152*	CK06CW152K	1.14	CK06CW152M	.99
1800	MC62CW182*	CK06CW182K	1.14	CK06CW182M	.99
2200	MC62CW222*	CK06CW222K	1.20	CK06CW222M	1.05
2700	MC62CW272*	CK06CW272K	1.20	CK06CW272M	1.05
3300	MC62CW332*	CK06CW332K	1.20	CK06CW332M	1.05
3900	MC62CW392*	CK06CW392K	1.20	CK06CW392M	1.05
4700	MC62CW472*	CK06CW472K	1.20	CK06CW472M	1.05
5600	MC62CW562*	CK06CW562K	1.23	CK06CW562M	1.08
6800	MC62CW682*	CK06CW682K	1.29	CK06CW682M	1.14
8200	MC62CW822*	CK06CW822K	1.38	CK06CW822M	1.20
10000	MC62CW103*	CK06CW103K	1.38	CK06CW103M	1.20

*Add K for ± 10% tolerance or M for ± 20% tolerance
**Request O.E.M. Prices in the following quantities: 50-99, 100-249, 250-499, 500-999

EXTENDED CAPACITANCE RANGE
TYPE MC51 and MC61
in CK05 - CK06 Size



Now available as standard are capacitance values up to .01 mfd in the CK05 configuration and to .1 mfd in the CK06 size. Utilizing the exclusive Hi-Q CERALAM construction, they are rated at 100 VDC and meet the exacting requirements of the "BX" voltage - temperature characteristic at 50 VDC. (±15% @ 0 VDC, +15% —25% @ 50 VDC). The Hi-Q molding process assures precisely centered leads. The monolithic CERALAM structure provides the full capability of meeting the environmental requirements of MIL-C-11015, MIL-C-38102 and MIL-C-39014.

For full technical information request bulletin NPJ-134.

MC51 and MC61 STOCK LISTING

Cap. pf.	Part No. + 10%	+Net Price	Part No. +20%	+Net Price
1500	MC51BW152K	$3.15	MC51BW152M	$2.45
2200	MC51BW222K	3.15	MC51BW222M	2.45
3300	MC51BW332K	3.30	MC51BW332M	2.65
4700	MC51BW472K	3.30	MC51BW472M	2.65
6800	MC51BW682K	3.45	MC51BW682M	2.80
10,000	MC51BW103K	3.65	MC51BW103M	3.00
15,000	MC61BW153K	3.65	MC61BW153M	3.00
22,000	MC61BW223K	3.65	MC61BW223M	3.00
33,000	MC61BW333K	3.65	MC61BW333M	3.00
47,000	MC61BW473K	4.10	MC61BW473M	3.30
68,000	MC61BW683K	4.30	MC61BW683M	3.45
1000,000	MC61BW104K	5.30	MC61BW104M	3.95

SPECIFICATIONS

Rated at 100 VDC; Voltage-Temperature Characteristic: ±15% @ 0 VDC, +15% —25% @ 50 VDC, +15% —30% @ 100 VDC; Temperature Range —55°C to +125°C; Insulation Resistance is 20,000 meg. min; Power Factor 2.5%

Units are marked with the following:
Hi-Q, 100 VDCW, Capacity, Tolerance.

SIZE CHART

CK05 — MC51 — .195 x .195 x .095
CK06 — MC61 — .295 x .295 x .095

+ Request O.E.M. Prices in the Following Quantities: 25-49, 50-99

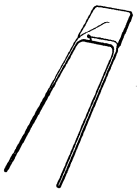
Net
© U.C.P., Inc.

AEROVOX

CAPACITORS

INDUSTRIAL CERAMIC CAPACITORS (cont.)

SUBMINIATURE THIN PLATE CAPACITORS
TYPES TPNPO, TP 25 & TP 89



Subminiature rectangular ceramic capacitors with a difference. Slim design allows close assembly, small size-maximum circuit density. Ideal for transistorized circuit and micromodule applications.

- Close temperature coefficients
- Operation to 125°C
- Closer standard tolerances
- Radial or axial lead
- Gold plate Dumet leads

For complete technical data request bulletin NPJ-122.

TYPICAL PROPERTIES

	TYPE TPNPO	TYPE TP25	TYPE TP89
Voltage, VDCW @ 85° C, (Derated 50% @ 125° C)	50	50	50
Power Factor, Maximum @ 1 KC.	.1%	.6%	2%
Temperature Coefficient with 0 Voltage, —55°C to +125°C.	0±30PPM/°C	+5%, —8%	+10%, —30%
Temperature Coefficient with rated Voltage applied, —55°C to +125°C.	0±30PPM/°C	+5%, —10%	+10%, —40%
Capacity Tolerance	±5%*	±10%	±20%

*To 6.8 mmf. ± .5 mmf.

TYPICAL CAPACITY RANGE—MMF

MAXIMUM SIZE (L x W x t)	TYPE TPNPO	TYPE TP25	TYPE TP89
.100 x .100 x .060"	5 - 20	25 - 140	360 - 1300
.150 x .150 x .060"	21 - 50	141 - 350	1301 - 3300
.200 x .200 x .060"	51 - 100	351 - 700	3301 - 6600
.250 x .250 x .060"	101 - 160	701 - 1200	6601 - 10500
.300 x .300 x .060"	161 - 220	1201 - 1500	10501 - 14500
.350 x .350 x .060"	221 - 305	1501 - 2100	14501 - 20000

Spacing between radial leads is .100" on the .100" and .150" case sizes; .200" on all other case sizes.

STOCK VALUES†

Capacitance In MMFD.	CAT. NO. TPNPO	*Net Price	CAT. NO. TP25	*Net Price	CAT. NO. TP89	*Net Price
4.7	TPNPO-4R7*D	.68				
6.8	TPNPO-6R8*D	.68				
10.0	TPNPO-100*J	.68				
15.0	TPNPO-150*J	.68				
22.0	TPNPO-220*J	.68				
33.0	TPNPO-330*J	.68	TP25-330*K	.60		
47.0	TPNPO-470*J	.68	TP25-470*K	.60		
68.0	TPNPO-680*J	.68	TP25-680*K	.60		
100	TPNPO-101*J	.68	TP25-101*K	.60		
150	TPNPO-151*J	.82	TP25-151*K	.60		
220	TPNPO-221*J	.82	TP25-221*K	.60		
330			TP25-331*K	.60		
470			TP25-471*K	.60	TP89-471*M	.48
680			TP25-681*K	.60	TP89-681*M	.48
1000			TP25-102*K	.72	TP89-102*M	.48
1500			TP25-152*K	.72	TP89-152*M	.48
2200			TP25-222*K	1.45	TP89-222*M	.48
3300					TP89-332*M	.48
4700					TP89-472*M	.48
6800					TP89-682*M	.58
10,000					TP89-103*M	.58
15,000					TP89-153*M	1.16
20,000					TP89-203*M	1.16

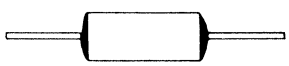
*Insert "A" for axial leads or "R" for radial leads
†Intermediate values and closer tolerances available on special order
*Request O.E.M. Prices in the following quantities: 50-99, 100-499

MILITARY CERAMIC DISCS
CK60, 61, 62 and 63
MIL-C-11015C - 500 VDCW

Cap. pf.	VDCW	Tol.	Mil Number	*Net Price	Cap. pf.	VDCW	Tol.	Mil Number	*Net Price
2.2	1000	10%	CK60BX2R2K	.165	330	500	20%	CK61BX331M	.156
3.3	1000	10%	CK60BX3R3K	.165	470	500	10%	CK61BX471K	.165
4.7	1000	10%	CK60BX4R7K	.165	470	500	20%	CK61BX471M	.156
6.8	1000	10%	CK60BX6R8K	.165	680	500	10%	CK61BX681K	.165
10	1000	10%	CK60BX100K	.165	680	500	20%	CK61BX681M	.156
15	1000	10%	CK60BX150K	.165	2200	500	20%	CK61AW222M	.148
22	1000	10%	CK60BX220K	.165	22	1500	20%	CK62AY220M	.148
33	1000	10%	CK60BX330K	.165	47	1500	20%	CK62AY470M	.159
33	1000	20%	CK60BX330M	.156	100	1500	20%	CK62AY101M	.159
47	1000	10%	CK60BX470K	.165	220	1500	20%	CK62AY221M	.159
47	1000	20%	CK60BX470M	.156	470	1500	20%	CK62AY471M	.159
68	1000	10%	CK60BX680K	.165	820	500	10%	CK62BX821K	.181
68	1000	20%	CK60BX680M	.156	820	500	20%	CK62BX821M	.167
100	1000	10%	CK60BX101K	.165	1000	500	10%	CK62BX102K	.181
100	1000	20%	CK60BX101M	.156	1000	500	20%	CK62BX102M	.167
150	500	10%	CK60BX151K	.165	1500	500	10%	CK62BX152K	.181
150	500	20%	CK60BX151M	.156	1500	500	20%	CK62BX152M	.167
220	1000	10%	CK60AX221K	.165	2200	500	10%	CK62AX222K	.181
220	1000	20%	CK60AX221M	.156	2200	500	20%	CK62AX222M	.167
330	500	10%	CK60AX331K	.165	3300	500	20%	CK62AW332M	.159
330	500	20%	CK60AX331M	.156	4700	500	20%	CK62AW472M	.159
470	500	10%	CK60AX471K	.165	6800	500	20%	CK62AW682M	.159
470	500	20%	CK60AX471M	.156	8200	500	20%	CK62AW822M	.159
470	1000	20%	CK60AW471M	.148	2200	500	10%	CK63BX222K	.204
680	1000	20%	CK60AW681M	.148	2200	500	20%	CK63BX222M	.176
820	1000	20%	CK60AW821M	.148	3300	500	10%	CK63BX332K	.204
1000	1000	20%	CK60AW102M	.148	3300	500	20%	CK63BX332M	.176
1500	500	20%	CK60AW152M	.148	4700	1000	20%	CK63AW472M	.168
220	500	10%	CK61BX221K	.165	10,000	1000	+80% -20%	CK63AY103X	.168
220	500	20%	CK61BX221M	.156					
330	500	10%	CK61BX331K	.165	10,000	500	20%	CK63AW103M	.168

*Request O.E.M. Prices in the following quantities: 50-99, 100-249, 250-499, 500-999

MILITARY GENERAL PURPOSE CERAMIC TUBULARS
CK21, CK22, CK26, CK27
MIL-C-11015C



CK21 – 26 / CK22 – 27

Cap. mmf.	±10%	*Price	±20%	*Price	±10%	*Price	±20%	*Price
12	CK21AX120K	.22			CK22AX120K	.17		
15	CK21AX150K	.22			CK22AX150K	.17		
18	CK21AX180K	.22			CK22AX180K	.17		
22	CK21AX220K	.22			CK22AX220K	.17		
27	CK21AX270K	.22			CK22AX270K	.17		
33	CK21AX330K	.22			CK22AX330K	.17		
39	CK21AX390K	.22			CK22AX390K	.17		
47	CK21AX470K	.22			CK22AX470K	.17		
56	CK21AX560K	.22			CK22AX560K	.17		
68	CK21AX680K	.22	CK21AX680M	.21	CK22AX680K	.17	CK22AX680M	.16
82	CK21AX820K	.22			CK22AX820K	.17		
100	CK21AX101K	.22	CK21AX101M	.21	CK22AX101K	.17	CK22AX101M	.16
120	CK21AX121K	.22			CK22AX121K	.17		
150	CK21AX151K	.28	CK21AX151M	.26	CK22AX151K	.23	CK22AX151M	.21
180	CK21AX181K	.28			CK22AX181K	.23		
200	CK21AX221K	.28	CK21AX221M	.26	CK22AX221K	.23	CK22AX221M	.21
270	CK21AX271K	.28			CK22AX271K	.23		
330	CK21AX331K	.28	CK21AX331M	.26	CK22AX331K	.23	CK22AX331M	.21
390					CK22AX391K	.23		
470	CK21AX471K	.28	CK21AX471M	.26	CK22AX471K	.23	CK22AX471M	.21
560					CK22AX561K	.23		
680	CK21AX681K	.28	CK21AX681M	.26	CK22AX681K	.23	CK22AX681M	.21
820	CK26AX821K	.30	CK26AX821M	.28	CK27AX821K	.25		
1000	CK26AX102K	.30	CK26AX102M	.28	CK27AX102K	.25	CK27AX102M	.23
1200					CK27AX122K	.25		
1500	CK26AX152K	.30	CK26AX152M	.28	CK27AX152K	.25	CK27AX152M	.23

Request O.E.M. Prices in the following quantities: 25-99, 100-249, 250-499, 500-999.

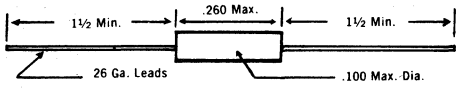
AEROVOX

CAPACITORS

INDUSTRIAL CERAMIC CAPACITORS (cont.)

TYPE MC70 & MC705 CERALAM-MOLDED TUBULAR CAPACITORS

10 pf TO 20,000 pf IN A UNIFORM MOLDED CASE



MC70 & MC705 CERALAM CAPACITORS — ideally suited for automatic insertion into printed circuit boards . . . as well as perfectly sized for "cordwood" packaging requirements. Check the outstanding specifications on these completely versatile capacitors. MC70 & MC705 will meet the environmental requirements of MIL-C-11015, MIL-C-38100 and MIL-C-39014. Gold plated dumet leads are standard. For full technical information request Bulletin NPJ-129 Rev. 2

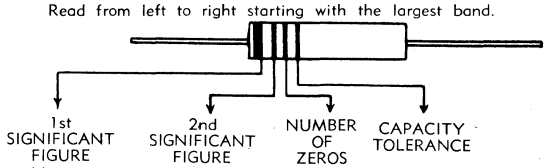
SPECIFICATIONS

Capacity Ranges in pf	Minimum Capacity Tolerance	Maximum Power Factor	Rated Voltage 125°C	Capacity Change from —55°C to +125°C		Temp. Coef. Letter for Part # Desig.
				Zero Volts	Rated Volts	
10-33	5%	.1%	100	±.5%	±.5%	A
39-270	5%	.6%	100	+5% —8%	+5% —10%	B
330-10,000	10%	2.5%	100	+10% —15%	+10% —30%	C
10,001-22,000	20%	2.5%	50	+10% —15%	+10% —30%	C

TYPICAL PART NUMBER CODE EXAMPLE FOR 10,000 pf

MC	70	C	103	A	M
MOLDED CERAMIC	STYLE	TEMPERATURE COEFFICIENT (see last column above)	CAPACITY pf First Two Figures Significant Third Figure Number of Zeroes	AXIAL LEADS	CAPACITY TOLERANCE J=± 5% X=+50% —20% K=±10% M=±20% Z=GMV

The following color code system is used to denote capacity in micromicrofarads and tolerance.
Read from left to right starting with the largest band.

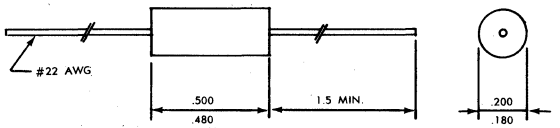


*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499

STOCK LISTING

Cap.	Part No.	Net Price*	Cap.	Part No.	Net Price*
10	MC70A100AK	$ .64	390	MC70C391AK	$ .64
12	MC70A120AK	.64	470	MC70C471AK	.64
15	MC70A150AK	.64	560	MC70C561AK	.64
18	MC70A180AK	.64	680	MC70C681AK	.64
22	MC70A220AK	.64	820	MC70C821AK	.64
27	MC70A270AK	.64	1000	MC70C102AK	.64
33	MC70A330AK	.64	1200	MC70C122AK	1.46
39	MC70B390AK	.64	1500	MC70C152AK	1.46
47	MC70B470AK	.64	1800	MC70C182AK	1.46
51	MC70B510AK	.64	2200	MC70C222AK	3.38
56	MC70B560AK	.64	2700	MC70C272AK	3.38
62	MC70B620AK	.64	3300	MC70C332AK	3.38
68	MC70B680AK	.64	3900	MC70C392AK	3.38
75	MC70B750AK	.64	4700	MC70C472AK	3.38
82	MC70B820AK	.64	5600	MC70C662AM	3.09
91	MC70B910AK	.64	6800	MC70C682AM	3.09
100	MC70B101AK	.64	8200	MC70C822AM	3.09
120	MC70B121AK	.64	10000	MC70C103AK	4.61
150	MC70B151AK	.64	10000	MC70C103AM	3.09
180	MC70B181AK	.64	15000	MC705C153AM*	5.28
220	MC70B221AK	.64	20000	MC705C203AM*	5.28
270	MC70B271AK	.64			
330	MC70C331AK	.64	†100 VDCW *50 VDCW		

MC91 and MC905 CERALAM CAPACITORS



MC91 and MC905 Ceralam Capacitors, twice the size of the MC70 Ceralam, will meet the environment requirements of MIL-C-11015 and MIL-C-39014.

These units have a temperature range of —55° to +125°C. Capacitance change at 0 VDC is +10% —15%; at rated voltage +10% —30%. Maximum power factor is 2.5%. Gold Dumet leads are standard. For full technical information request bulletin NPJ-133.

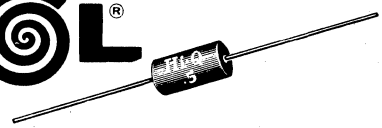
Units will be English marked, stamped with - Hi-Q, Part Number and Tolerance.

MC91 and MC905 STOCK LISTING

Cap. pf.	VDCW	Part No. ±10%	Net Price*	Part No. ±20%	Net Price*
15,000	100	MC91C153K	$2.29	MC91C153M	$1.83
22,000	100	MC91C223K	2.44	MC91C223M	1.95
33,000	100	MC91C333K	3.15	MC91C333M	2.52
47,000	100	MC91C473K	3.26	MC91C473M	2.61
68,000	100	MC91C683K	3.26	MC91C683M	2.61
100,000	100	MC91C104K	6.50	MC91C104M	5.20
150,000	50	MC905C154K	6.50	MC905C154M	5.20
220,000	50	MC905C224K	7.29	MC905C224M	5.88

*Request O.E.M. Prices in the Following Quantities: 25-49, 50-99, 100-499.

CEROL®



HIGH CAPACITY, HIGH RELIABILITY, ROLLED CERAMIC CAPACITORS

Cerol® capacitors are rolled ceramic capacitors in the high capacitance range of paper and plastic film dielectrics but in much smaller physical sizes and with superior electrical characteristics. Designed for general applications in bypass-coupling, filtering and blocking circuits. Excellent electrical characteristics for critical applications in decoupling and pulse circuits where low series resistance at high frequencies together with miniature sizes are required. Low series resistance makes them ideal for use in all computer circuits. Operating temperature range at rated voltage —55°C to 85°C and at 50% rated voltage —55°C to 125°C. Capacitance tolerance is ±20%. Will meet or surpass all the requirements of MIL-C-11015C.

Units are stamped with the rated voltage for identification of type.

For full technical information request Bulletin NPJ-112 (Rev.)

Value	TYPE CR89 — 50 VDCW Stock Items	D Max In.	L Max In.	Net Price*
.1 MFD	CR89W104AM	.140	.400	3.10
.25 MFD	CR89W254AM	.210	.495	4.13
.5 MFD	CR89W504AM	.260	.495	6.72
1.0 MFD	CR89W105AM	.260	.690	10.33
2.0 MFD	CR89W205AM	.350	.690	15.50

Value	TYPE CR90 — 100 VDCW Stock Items	D Max In.	L Max In.	Net Price*
.1 MFD	CR90V104AM	.210	.690	3.44
.25 MFD	CR90V254AM	.260	.690	4.59
.5 MFD	CR90V504AM	.350	.690	7.46
1.0 MFD	CR90V105AM	.480	.690	11.48
2.0 MFD	CR90V205AM	.400	1.440	17.21

Axial gold plated dumet leads are standard. Tinned copper leads also available on special order. All values - #22 gauge except CR89W104AM has 26 gauge leads.

Color Code
Brown, Black, Yellow & Black
Red Green, Yellow & Black
Green, Black, Yellow & Black
Brown, Black, Green, Black
Red, Black, Green, Black

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499

Net

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AEROVOX

CAPACITORS

INDUSTRIAL CERAMIC CAPACITORS

Type TTD Transistor Disks

These square miniature disks are ideally suited for all applications where size is a factor such as transistorized radios and industrial applications having critical space requirements.

Units are rated at 100 VDCW ±20% standard tolerance.

Capacity	Length & Width	Thickness	Net Price**
.005	.280	.125	.24
.01	.340	.125	.24
.02	.430	.125	.30
.025	.465	.125	.30
.03	.465	.125	.30
.05	.535	.125	.36
.1	.700	.125	.54

**Request O.E.M. Prices in the following quantities: 50-99, 100-249, 250-499, 500-999.

General Purpose Bypass Coupling Disks Type IDI

These industrial ceramic disks capacitors offer small physical sizes with high capacity. Mainly used for by-pass coupling or filter applications these units contain maximum protection against humidity, voltage breakdown, vibration. Rated for 500 VDCW these units are flash tested at 1500 VDC. Units will be marked with capacity and tolerance except those units which have a CK number listed. Such units are equivalent to those listed in MIL-C-11015 and will be marked with the number shown in the listing.

*NET PRICE .15

Cap. mmf	Size	Tolerance	Cap. mmf	Size	Tolerance	Mil Equivalent MIL-C-11015A
2.2	DI-1	±.5 mmf.	470	DI-1	+100-20%	CK60Y471Z
3.3	DI-1	±.5 mmf.	500	DI-1	±10%	
4.7	DI-1	±.5 mmf.	510	DI-1	±10%	
5.0	DI-1	±10%	560	DI-1	±10%	
6.0	DI-1	±10%	600	DI-2	±10%	
6.5	DI-1	±10%	680	DI-2	±10%	
7.5	DI-1	±10%	680	DI-1	+100-20%	CK60Y681Z
8.0	DI-1	±10%	750	DI-2	±10%	
8.2	DI-1	±10%	800	DI-2	±10%	
10	DI-1	±10%	820	DI-2	±10%	
12	DI-1	±10%	820	DI-1	+100-20%	CK60Y821Z
15	DI-1	±10%	910	DI-2	±10%	
18	DI-1	±10%	1000	DI-2	±10%	
20	DI-1	±10%	1000	DI-2	+100-20%	CK61Y102Z
22	DI-1	±10%	1200	DI-3	±10%	
24	DI-1	±10%	1300	DI-3	±10%	
25	DI-1	±10%	1500	DI-3	±10%	
27	DI-1	±10%	1500	DI-3	+100-20%	CK61Y152Z
30	DI-1	±10%	1600	DI-4	±10%	
33	DI-1	±10%	1800	DI-4	±10%	
39	DI-1	±10%	2000	DI-4	±10%	
47	DI-1	±10%	2200	DI-4	±20%	
50	DI-1	±10%	2200	DI-4	+100-20%	CK62Y222Z
51	DI-1	±10%	2500	DI-4	±20%	
56	DI-1	±10%	2700	DI-4	±20%	
68	DI-1	±10%	3000	DI-4	±20%	
75	DI-1	±10%	3300	DI-4	±20%	
82	DI-1	±10%	3300	DI-4	+100-20%	CK62Y332Z
91	DI-1	±10%	3900	DI-2	GMV	
100	DI-1	±10%	4000	DI-2	GMV	
120	DI-1	±10%	4300	DI-2	GMV	
130	DI-1	±10%	4700	DI-4	±20%	
150	DI-1	±10%	4700	DI-4	+100-20%	CK62Y472Z
180	DI-1	±10%	5000	DI-3	GMV	
200	DI-1	±10%	5600	DI-3	GMV	
220	DI-1	±10%	6800	DI-3	GMV	
240	DI-1	±10%	7500	DI-4	GMV	
250	DI-1	±10%	8200	DI-4	GMV	
270	DI-1	±10%	10000	DI-5	±20%	
300	DI-1	±10%	10000	DI-5	+100-20%	CK63Y103Z
330	DI-1	±10%				
350	DI-1	±10%				
360	DI-1	±10%				
390	DI-1	±10%				
400	DI-1	±10%				
470	DI-1	±10%				

DISK CAPACITORS Bypass and Coupling

BPD-GMV CAPACITOR Stock Items 1000 VDCW

Type	Cap. Mfd.	Dia.	Net Price*	Type	Cap. Mfd.	Dia.	Net Price*
BPD	.00001	5/16	$.15	BPD	.0033	7/16	$.15
BPD	.000015	5/16	.15	BPD	.004	7/16	.15
BPD	.000022	5/16	.15	BPD	.0047	19/32	.15
BPD	.000025	5/16	.15	BPD	.005	19/32	.15
BPD	.000033	5/16	.15	BPD	.0068	19/32	.15
BPD	.000047	5/16	.15	BPD	.01	3/4	.18
BPD	.00005	5/16	.15				
BPD	.000068	5/16	.15	BPD	.015	29/32	.24
BPD	.0001	5/16	.15	BPD	.02	29/32	.36
BPD	.00012	5/16	.15	BPD	.03	29/32	.39
BPD	.00015	5/16	.15	BPD	.05	29/32	.42
BPD	.0002	5/16	.15	DUALS and TRIPLES			
BPD	.00027	5/16	.15	BPD2-2 x .001		7/16	.24
BPD	.00033	5/16	.15	BPD2-2 x .0015		19/32	.24
BPD	.00047	5/16	.15	BPD2-2 x .002		19/32	.24
BPD	.0005	5/16	.15	BPD2-2 x .0022		19/32	.24
BPD	.00068	5/16	.15	BPD2-2 x .003		3/4	.27
BPD	.0008	5/16	.15	BPD2-2 x .004		3/4	.27
BPD	.001	5/16	.15	BPD2-2 x .0047		3/4	.27
BPD	.0015	5/16	.15	BPD2-2 x .01		3/4	.30
BPD	.002	3/8	.15	BPD2-2 x .02		29/32	.42
BPD	.0022	3/8	.15	BPD3-3 x .0015		3/4	.30
BPD	.0025	3/8	.15	BPD3-3 x .002		3/4	.30

DI-DISK CAPACITORS General Purpose

Stock Items 1000 VDCW

Type	Cap. Mmfd	Dia.	Net Price**	Type	Cap. Mmfd	Dia.	Net Price**
D1	3.3	5/16	$.15	D1	300	5/16	$.15
D1	5	5/16	.15	D1	330	5/16	.15
D1	6.8	5/16	.15	D1	390	5/16	.15
D1	8.2	5/16	.15	D1	470	5/16	.15
D1	10	5/16	.15	D1	500	5/16	.15
D1	12	5/16	.15	D1	560	5/16	.15
D1	15	5/16	.15	D1	680	5/16	.15
D1	18	5/16	.15	D1	750	3/8	.15
D1	20	5/16	.15	D1	820	3/8	.15
D1	22	5/16	.15	D1	1000	3/8	.15
D1	25	5/16	.15	D1	1200	7/16	.15
D1	27	5/16	.15	D1	1500	7/16	.15
D1	30	5/16	.15	D1	1800	19/32	.15
D1	33	5/16	.15	D1	2000	19/32	.15
D1	39	5/16	.15	D1	2200	19/32	.15
D1	47	5/16	.15	D1	2500	19/32	.15
D1	50	5/16	.15	D1	2700	19/32	.15
D1	56	5/16	.15	D1	3000	11/16	.15
D1	68	5/16	.15	D1	3300	11/16	.15
D1	82	5/16	.15	D1	4000	11/16	.15
D1	100	5/16	.15	D1	4700	3/4	.15
D1	120	5/16	.15	D1	5000	3/4	.15
D1	150	5/16	.15	D1	5600	3/4	.18
D1	180	5/16	.15	D1	6800	29/32	.18
D1	200	5/16	.15	D1	7500	29/32	.18
D1	220	5/16	.15	D1	10000	29/32	.18
D1	250	5/16	.15				
D1	270	5/16	.15				

Standard tolerance ± 10%.

TYPE IDI DISK CAPACITOR SIZES

Designation	Size
DI-1	5/16
DI-2	3/8
DI-3	7/16
DI-4	19/32
DI-5	11/16

*Request O.E.M. Prices in the following quantities: 25-99, 100-249, 250-499, 500-999.

**Request O.E.M. Prices in the following quantities: 50-99, 100-249, 250-499, 500-999.

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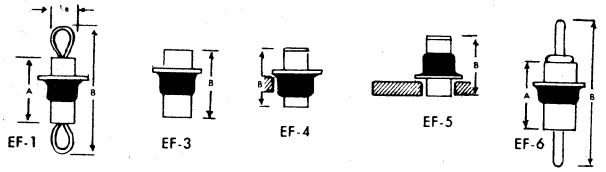
AEROVOX CAPACITORS

INDUSTRIAL CERAMIC CAPACITORS (cont.)



Eyelet Feed-Thru Capacitors

Hi-Q Feed-Thru Capacitors Eyelet Type are the ultimate in miniaturization because of unique design. This design is such that the capacitors can be soldered directly to a chassis and provide excellent bypass performance where space is critical. The low inductance characteristics brought about through the construction of the capacitors make the eyelet type ideal for high frequency bypass.

***Net Price .33**

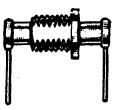
Style	Capacity in mmf						D.C. Working Voltage	Size A	Size B
EF-1	50	100	200	500	1000	1500	500	.375	.750
EF-3	50	100	200	500	1000	1500	500	—	.375
EF-4	50	100	200	500			250	—	.250
EF-5	50	100	200	500	1000		250	—	.250
EF-6	50	100	200	500	1000	1500	500	.375	.875

Tolerance ±20% up to and including 500 mmfd. GMV above 500 mmfd.

*Request O.E.M. prices in the following quantities: 25-99, 100-249, 250-499, 500-999.

Feed-Thru Capacitors

FEED-THRU TYPE CFC



FEED-THRU TYPE CF

Hi-Q Feed-Thru Capacitors provide means to transmit thru shields or ground potentials and simultaneously by-pass unwanted frequencies. A good mechanical connection is provided by the silver-plated bushing. These are excellent dependable units even under severe mechanical vibrations as in aircraft, missiles and automotive requirements. All units are flash tested at 1250 volts D.C.

*****Net Price $1.10**

Type	Cap. Mmfd.	Thread
CFC-1	500 mmf.	12-28
	1000 mmf.	12-28
	1500 mmf.	12-28
CF-1	1500 mmf.	¼-28

Type	Cap. Mmfd.	Thread
CF-2	1800 mmf.	5/16-24
	2300 mmf.	5/16-24
	3000 mmf.	5/16-24
CF-3	4000 mmf.	5/16-24
CF-4	7000 mmf.	5/16-24

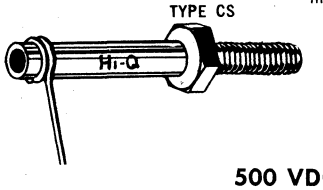
Tolerance ±20%

***Request O.E.M. Prices in the following quantities: 250-499

Stand-Off Capacitors

TYPE MCS

TYPE CS



Hi-Q stand-off capacitors have a screw fixture for mounting to the chassis or common ground. All units are coated with a high temperature enamel, stamped with capacity and supplied with mounting nut, if desired.

The MCS is a quick mounting type which permits high speed mechanical installation. The ceramic tube is enclosed in a cadmium-plated metal case with a specially developed end seal for protection against humidity and temperature changes. All units are flash tested at 1250 volts D.C. The power factor is under 3% and the insulation resistance is above 7500 megohms.

500 VDCW

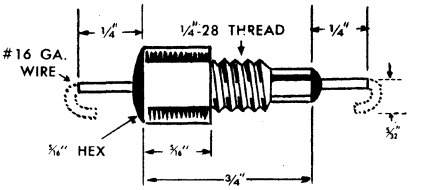
Type	Capacity Mmfd.	Net** Price
CS-1A	50	.765
CS-1A	100	.765
CS-1B	500	.765
CS-1B	1000	.713
CS-1B	1500	.713
CS-2	3000	.713
CS-3	4000	.891

Type	Capacity Mmfd.	Net** Price
CS-4	7500	.891
CIS-1	50	.410
CIS-1	100	.410
CIS-1	500	.410
CIS-1	1000	.377
CIS-2	1500	.377
MCS	1500	.468

Radial leads only

Tolerance ±10% up to and including 500 mmf.
±20% above 500 mmf.

**Request O.E.M. Prices in the following quantities: 100-249, 250-499, 500-999



BLF

FRACTIONAL TOLERANCES ±1/32

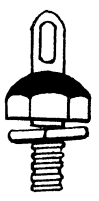
Heavy Duty Feed-Thru Capacitors

Type BLF-ICC

These heavy-duty Feed-Thru capacitors are the same as listed in specification MIL-C-11015. Units through 100 mmf. are rated at 1000 VDCW, values above 100 mmf. are rated at 500 VDCW. Capacity tolerance is ±10% except on the 1000 mmf. and 1500 mmf. which have capacity tolerance of ±20%.

Capacity	Part Number	***Net Price
10	AXCK70AX100K	1.10
33	AXCK70AX330K	1.10
47	AXCK70AX470K	1.10
68	AXCK70AX680K	1.10
100	AXCK70AX101K	1.10
470	AXCK70AX471K	1.10
680	AXCK70AX681K	1.10
1000	CK70AW102M	1.10
1500	CK70AW152M	1.10

***Request O.E.M. Prices in the following quantities: 250-499



DS-C

Disk Stand-Off Capacitors

Type DS-C

These units are very popular in industrial applications having a critical space requirement but requiring a stand-off capacitor. These stock units are furnished with captive lock washers, are rated at 350 VDCW. Capacity tolerance GMV. Both units are furnished with threaded portion 5/16" long, #6-32 thread.

Capacity	**Net Price
470	.90
1000	.90

Net

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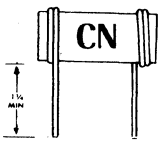
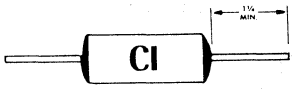
AEROVOX CAPACITORS

INDUSTRIAL CERAMIC CAPACITORS (cont.)

Temperature Compensating Tubulars





Popular values in accordance with the latest revisions of specification MIL-C-20 and EIA specification RS-198. Uninsulated units are furnished color coded, packaged in bulk. Insulated units—stamped with part number. Voltage rating 500 VDCW.

	UNINSULATED TYPE CN NPO		INSULATED TYPE CI	
Cap.	MIL No.	Net Price*	MIL No.	Net Price*
.3	CC20CKOR3C	.198	CC21CKOR3C	.250
.5	CC20CKOR5C	.198	CC21CKOR5C	.250
.68	CC20CKR68C	.198	CC21CKR68C	.250
.75	CC20CKR75C	.198	CC21CKR75C	.250
1.0	CC20CK010C	.198	CC21CK010C	.250
1.2	CC20CK1R2C	.198	CC21CK1R2C	.250
1.5	CC20CK1R5C	.198	CC21CK1R5C	.250
2.0	CC20CK020C	.198	CC21CK020C	.250
2.2	CC20CK2R2C	.198	CC21CK2R2C	.250
3.0	CC20CJ030C	.198	CC21CJ030C	.250
4.0	CC20CH040C	.198	CC21CH040C	.250
5.0	CC20CH050C	.198	CC21CH050C	.250
6.0	CC20CH060C	.348	CC21CH060C	.400
6.2	CC20CH6R2C	.348	CC21CH6R2C	.400
7.0	CC20CH070C	.348	CC21CH070C	.400
8.0	CC20CH080C	.348	CC21CH080C	.400
9.0	CC20CH090C	.348	CC21CH090C	.400
10.0	CC20CH100C	.348	CC21CH100C	.400
12.0	CC20CH120G	.348	CC21CH120G	.400
15.0	CC20CH150G	.348	CC21CH150G	.400
18.0	CC20CH180G	.348	CC21CH180G	.400
20.0	CC20CH200G	.348	CC21CH200G	.400
22.0	CC20CH220G	.348	CC21CH220G	.400
24	CC25CH240G	.388	CC26CH240G	.440
27	CC25CH270G	.388	CC26CH270G	.440
30	CC25CH300G	.388	CC26CH300G	.440
33	CC25CH330G	.388	CC26CH330G	.440
36	CC25CH360J	.212	CC26CH360J	.264
39	CC25CH390J	.212	CC26CH390J	.264
43	CC25CH430J	.212	CC36CH430J	.576
47	CC25CH470J	.212	CC36CH470J	.576
51	CC25CH510J	.212	CC36CH510J	.576
56	CC32CG560J	.432	CC36CG560J	.576
62	CC32CG620J	.432	CC36CG620J	.576
68	CC32CG680J	.432	CC36CG680J	.576
75	CC32CG750J	.432	CC36CG750J	.576
82	CC32CG820J	.432	CC36CG820J	.576
91	CC32CG910J	.432	CC36CG910J	.576
100	CC32CG101G	.614	CC36CG101J	.576
110	CC32CG111G	.614	CC36CG111J	.576
120	CC35CG121G	1.208	CC36CG121J	.576
130	CC35CG131G	1.208	CC36CG131J	.576
150	CC35CG151G	1.208	CC36CG151J	.576

	UNINSULATED TYPE CN N750		INSULATED TYPE CI	
Cap.	MIL No.	Net Price*	MIL No.	Net Price*
.5	CC20UKOR5C	.198		
.75	CC20UKR75C	.198	CC21UKR75C	.250
1.0	CC20UK010C	.198	CC21UK010C	.250
1.5	CC20UK1R5C	.198	CC21UK1R5C	.250
2.0	CC20UK020C	.198	CC21UK020C	.250
5.0	CC20UJ050C	.198	CC21UJ050C	.250
10.0	CC20UJ100C	.348	CC21UJ100C	.400
12.0	CC20UJ120G	.348	CC20UJ120G	.400
15.0	CC20UJ150G	.348	CC21UJ150G	.400
18.0	CC20UJ180G	.348	CC21UJ180G	.400
20.0	CC20UJ200G	.348	CC21UJ200G	.400
22.0	CC20UJ220G	.348	CC21UJ220G	.400
24.0	CC20UJ240G	.348	CC21UJ240G	.400
27.0	CC20UJ270G	.348	CC21UJ270G	.400
30.0	CC20UJ300G	.348	CC21UJ300G	.400
33.0	CC20UJ330G	.348	CC21UJ330G	.400
36.0	CC20UJ360J	.178	CC21UJ360J	.230
39.0	CC20UJ390J	.178	CC21UJ390J	.230
43.0	CC20UJ430J	.178	CC21UJ430J	.230
47.0	CC20UJ470J	.178	CC21UJ470J	.230
51.0	CC20UJ510J	.178	CC21UJ510J	.230
56.0	CC20UJ560J	.178	CC21UJ560J	.230
62.0	CC20UJ620J	.178	CC21UJ620J	.230
68.0	CC25UJ680J	.212	CC26UJ680J	.264
75.0	CC25UJ750J	.212	CC26UJ750J	.264
82.0	CC25UJ820J	.212	CC26UJ820J	.264
91.0	CC25UJ910J	.212	CC26UJ910J	.264
100.0	CC25UJ101G	.388	CC26UJ101J	.264
110	CC25UJ111G	.388	CC26UJ111J	.264
120	CC25UJ121G	.388	CC26UJ121J	.264
130	CC25UJ131G	.388	CC36UJ131J	.576
150	CC25UJ151G	.388	CC36UJ151J	.576
160	CC32UJ161G	.614	CC36UJ161J	.576
180	CC32UJ181G	.614	CC36UJ181J	.576
200	CC32UJ201G	.614	CC36UJ201J	.576
220	CC32UJ221G	.614	CC36UJ221J	.576
240	CC32UJ241G	.614	CC36UJ241J	.576
270	CC35UJ271F	2.348	CC36UJ271J	.576
300	CC35UJ301F	2.348	CC36UJ301J	.576
330	CC35UJ331F	2.348	CC36UJ331F	1.444
360	CC35UJ361F	2.348	CC36UJ361J	1.444

Type Designation MIL	Max. Size	TOLERANCE Letter Descrip.	Tolerance
CC20	.200 x .400	C	± .25 mmf.
CC21	.200 x .562		
CC25	.250 x .655	F	± 1%
CC26	.250 x .812		
CC32	.250 x .860	G	± 2%
CC35	.255 x 1.090		
CC36	.340 x 1.328		

*Request O.E.M. Prices in the following quantities: 50-99, 100-249, 250-499, 500-999

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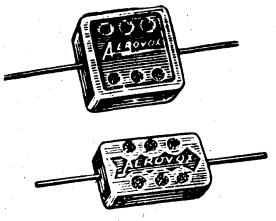
Net

AEROVOX

CAPACITORS



MICAS

MIL Types CM15, CM20, CM30

AEROVOX Types 1459, 1469, 1464

Compact, precision-made mica dielectric molded capacitors made in accordance with MIL-C-5B. Units furnished color coded and tested to meet all MIL requirements for "N" temperature rating and all vibration grades of this specification. All units are silvered mica molded in red bakelite.

Type CM-15 (500 VDCW)

1459

Cap. Mmf.	Type Designation	Net Price*
1	CM-15C-010	.18
2	CM-15C-020	.18
3	CM-15C-030	.18
5	CM-15C-050	.18
10	CM-15C-100	.18
12	CM-15C-120	.18
15	CM-15C-150	.18
18	CM-15C-180	.18
20	CM-15C-200	.18
22	CM-15C-220	.18
24	CM-15E-240	.18
27	CM-15E-270	.18
30	CM-15E-300	.18
33	CM-15E-330	.18
36	CM-15E-360	.18
39	CM-15E-390	.18
43	CM-15E-430	.18
47	CM-15E-470	.18
50	CM-15E-500	.18
51	CM-15E-510	.18
56	CM-15E-560	.18
62	CM-15E-620	.18
68	CM-15E-680	.18
75	CM-15E-750	.18
82	CM-15E-820	.18
91	CM-15E-910	.18
100	CM-15E-101	.18
110	CM-15E-111	.21
120	CM-15E-121	.21
130	CM-15E-131	.21
150	CM-15E-151	.21
160	CM-15E-161	.24
180	CM-15E-181	.24
200	CM-15E-201	.24
220	CM-15E-221	.27
240	CM-15E-241	.27
250	CM-15E-251	.27
270	CM-15E-271	.30
300	CM-15E-301	.30
330	CM-15E-331	.33
360	CM-15E-361	.36
390	CM-15E-391	.39
430*	CM-15E-431	.42
470*	CM-15E-471	.45
500*	CM-15E-501	.48
510*	CM-15E-511	.48

Type CM-20 (500 VDCW)

1469

Cap. Mmf.	Type Designation	Net Price*
5	CM-20C-050	.18
10	CM-20C-100	.18
12	CM-20C-120	.18
15	CM-20C-150	.18
18	CM-20C-180	.18
20	CM-20C-200	.18
22	CM-20C-220	.18
24	CM-20C-240	.18
25	CM-20C-250	.18
27	CM-20C-270	.18
30	CM-20C-300	.18
33	CM-20C-330	.18
36	CM-20C-360	.18
39	CM-20C-390	.18
40	CM-20C-400	.18
43	CM-20C-430	.18
47	CM-20C-470	.18
50	CM-20C-500	.18
51	CM-20C-510	.18
56	CM-20C-560	.18
62	CM-20C-620	.18
68	CM-20C-680	.18
70	CM-20C-700	.18
75	CM-20C-750	.18
82	CM-20C-820	.18
91	CM-20C-910	.18
100	CM-20C-101	.18
110	CM-20C-111	.21
120	CM-20C-121	.21
130	CM-20C-131	.21
150	CM-20C-151	.21
160	CM-20C-161	.21
180	CM-20C-181	.21
200	CM-20D-201	.21
220	CM-20D-221	.21
240	CM-20D-241	.24
250	CM-20D-251	.24
270	CM-20D-271	.27
300	CM-20D-301	.27
330	CM-20D-331	.27
350	CM-20D-351	.30
360	CM-20D-361	.30
390	CM-20D-391	.30
400	CM-20D-401	.30
430	CM-20D-431	.30
470	CM-20D-471	.33
500	CM-20D-501	.33
510	CM-20D-511	.33
560	CM-20D-561	.33
620	CM-20D-621	.36
680	CM-20D-681	.36
750	CM-20D-751	.39
820	CM-20D-821	.42
910	CM-20D-911	.42
1000	CM-20D-102	.45

Type CM-30 (500 VDCW)

1464

Cap. Mmf.	Type Designation	Net Price*
470	CM-30D-471	.33
510	CM-30D-511	.33
560	CM-30D-561	.36
620	CM-30D-621	.36
680	CM-30D-681	.39
750	CM-30D-751	.39
800	CM-30D-801	.42
820	CM-30D-821	.42
900	CM-30D-901	.42
910	CM-30D-911	.42
1000	CM-30D-102	.45
1100	CM-30D-112	.45
1200	CM-30D-122	.45
1300	CM-30D-132	.48
1500	CM-30D-152	.51
1600	CM-30D-162	.51
1800	CM-30D-182	.54
2000	CM-30D-202	.60
2200	CM-30D-222	.66
2400	CM-30D-242	.72
2500	CM-30D-252	.72
2700	CM-30D-272	.78
3000	CM-30D-302	.84
3300	CM-30D-332	.90
3600	CM-30D-362	.96
3900	CM-30D-392	1.02
4000	CM-30D-402	1.02
4300	CM-30D-432	1.08
4700	CM-30D-472	1.14
5000	CM-30D-502	1.20
5100	CM-30D-512	1.20
5600	CM-30D-562	1.26
6200	CM-30D-622	1.32
6800	CM-30D-682	1.32
7500	CM-30D-752	1.44
8200	CM-30D-822	1.44
9100	CM-30D-912	1.44
10000	CM-30D-103	1.86

Type 1469-HV

1000 VDCW 2000 VDCT Cap. Mmfd.	*Net Price	1500 VDCW 3000 VDCT Cap. MMfd.	*Net Price
5	.27	5	.30
10	.27	10	.30
12	.27	12	.30
15	.27	15	.30
18	.27	18	.30
20	.27	20	.30
22	.27	22	.30
24	.27	24	.30
25	.27	25	.30
27	.27	27	.30
30	.27	30	.30
33	.27	33	.30
36	.27	36	.30
39	.27	39	.30
43	.27	43	.30
47	.27	47	.33
50	.27	50	.33
51	.27	51	.33
56	.27	56	.33
62	.27	62	.33
68	.27	68	.33
75	.27	75	.33
82	.27	82	.33
91	.30	91	.36
100	.30	100	.36
110	.30	110	.36
120	.30	120	.36
130	.30	130	.36
150	.30	150	.42
160	.33	160	.42
180	.33	180	.42
200	.33	200	.48
220	.36	220	.48
240	.36	240	.48
250	.39	250	.60
270	.39	270	.60
300	.42	300	.66
330	.42	330	.66
350	.42	350	.69
360	.42	360	.69
390	.42	390	.69
400	.42	400	.69
430	.45		
470	.45		
500	.45		
510	.45		
560	.48		
620	.51		

Type 1464-HV

1000 VDCW 2000 VDCT Cap. Mmfd.	*Net Price	1500 VDCW 3000 VDCT Cap. Mmfd.	*Net Price
		430	.90
		470	.90
		500	.90
		510	.90
		560	.90
		620	.90
680	.72	680	.90
750	.72	750	.90
820	.72	820	1.02
910	.72	910	1.08
1000	.72	1000	1.08
1100	.72	1100	1.14
1200	.78	1200	1.32
1300	.78	1300	1.38
1500	.90	1500	1.56
1600	.96	1600	1.56
1800	.96	1800	1.74
2000	1.02	2000	1.92
2200	1.14	2200	2.04
2400	1.26	2400	2.16
2500	1.26		
2700	1.26		
3000	1.38		
3300	1.44		
3600	1.62		
3900	1.68		
4000	1.68		
4300	1.80		
4700	1.98		
5000	2.04		
5100	2.04		

NOTES

Nominal Size All CM30 Units — 53/64 x 53/64 x 3/32
Nominal Size All CM20 Units — 45/64 x 29/64 x 3/16
Nominal Size All CM15 Units — 1/2 x 3/32 x 3/16

In silver mica the standard tolerance is ±5%. Also available in ±2% and ±1%. Closest available tolerance up to 10 mmf. is ±1/2 mmf.; 10 mmf. and up ±1% or ± 1 mmf., whichever is greater.

*Request O.E.M. Prices in the following quantities: 25-99, 100-499, 500 and up

Net

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AEROVOX

CAPACITORS

RECEIVING MICA CAPACITORS — (Continued)

DIPPED, SILVERED MICA CAPACITORS
TYPES ADM-15, ADM-19, ADM-20 and ADM-30

Aerovox plastic-coated dipped-mica units exceed many of the advantages of molded mica units, and at the same time are smaller than conventional units. Meeting all the applicable MIL-C-5B Test Standards for molded mica capacitors, these unique dipped-mica units offer the following features:

• High operating temperatures —55° to +125°C • Excellent long-life characteristics • Improved temperature coefficient range • Radial leads for automatic insertion and plug-in assemblies • Ideal for printed-wiring assemblies • Unsurpassed performance and stability characteristics • Smaller physical size.

Humidity Resistance: these capacitors shall have an insulation resistance of not less than 2,000 megohms after being subjected to the Humidity Resistance Test as outlined in MIL-C-5B. Minimum Insulation Resistance: 25,000 megohms at 25°C; 1000 meghoms at 125°C.

Capacitors will be marked with capacity and tolerance.

For full technical information request Bulletin NPJ-104.

CHARACTERISTICS

ADM-15—from 5 to 20 mmf. Characteristic "C", from 22 to 150 mmf. Characteristic "E", from 160 mmf. and up Characteristic "F"
ADM-19—All capacities listed "F" Characteristic.
ADM-20—All capacities listed "F" Characteristic.
ADM-30—All capacities listed "F" Characteristic.

Standard Tolerance ±5%

Minimum tolerance for capacitances up to and including 10 mmf. is ± ½ mmf., for all other capacitances ± 1% or 1 mmf. whichever is greater.

Sizes	L	W	T
ADM-15	13/32	5/16	7/32 max.
ADM-19	21/32	13/32	7/32 max.
ADM-20	3/4	13/32	7/32 max.
ADM-30	29/32	27/32	5/16 max.

Cap. Mmf.	Type Designation	Net Price**
5	ADM-15-050	$.17
10	ADM-15-100	.17
12	ADM-15-120	.17
15	ADM-15-150	.17
18	ADM-15-180	.17
20	ADM-15-200	.17
22	ADM-15-220	.17
24	ADM-15-240	.17
27	ADM-15-270	.17
30	ADM-15-300	.17
33	ADM-15-330	.17
36	ADM-15-360	.17
39	ADM-15-390	.17
43	ADM-15-430	.17
47	ADM-15-470	.17
50	ADM-15-500	.17
51	ADM-15-510	.17
56	ADM-15-560	.17
62	ADM-15-620	.17
68	ADM-15-680	.17
75	ADM-15-750	.17
82	ADM-15-820	.17
91	ADM-15-910	.17
100	ADM-15-101	.17
110	ADM-15-111	.20
120	ADM-15-121	.20
130	ADM-15-131	.20
150	ADM-15-151	.20
160	ADM-15-161	.23
180	ADM-15-181	.23
200	ADM-15-201	.23
220	ADM-15-221	.26
240	ADM-15-241	.26
250	ADM-15-251	.26
270	ADM-15-271	.30
300	ADM-15-301	.30
330	ADM-15-331	.33
360	ADM-15-361	.33
390	ADM-15-391	.36
430	ADM-15-431	.36
470	ADM-15-471	.36
500	ADM-15-501	.36
510	ADM-15-511	.36
560		
620		
680		
750		
820		
910		
1000		
1100		
1200		
1300		
1500		
1600		
1800		
2000		
2200		
2400		
2500		
2700		
3000		
3300		
3600		
3900		
4300		
4700		
5000		
5100		
5600		
6200		
6800		
7500		
8200		
9100		
10000		
12000		
13000		
15000		

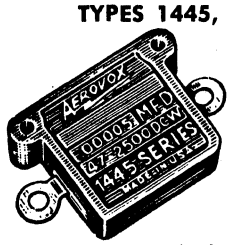
Type Designation	Net Price**
ADM-19-101	.17
ADM-19-111	.20
ADM-19-121	.20
ADM-19-131	.20
ADM-19-151	.20
ADM-19-161	.20
ADM-19-181	.20
ADM-19-201	.20
ADM-19-221	.20
ADM-19-241	.23
ADM-19-251	.23
ADM-19-271	.26
ADM-19-301	.26
ADM-19-331	.26
ADM-19-361	.30
ADM-19-391	.30
ADM-19-431	.30
ADM-19-471	.33
ADM-19-501	.33
ADM-19-511	.33
ADM-19-561	.37
ADM-19-621	.37
ADM-19-681	.40
ADM-19-751	.40
ADM-19-821	.40
ADM-19-911	.43
ADM-19-102	.46
ADM-19-112	.46
ADM-19-122	.50
ADM-19-132	.53
ADM-19-152	.56
ADM-19-162	.59
ADM-19-182	.66
ADM-10-202	.73
ADM-19-222	.79
ADM-19-242	.86
ADM-19-252	.89
ADM-19-272	.92
ADM-19-302	.99

Type Designation	Net Price**
ADM-20-681	$.33
ADM-20-751	.33
ADM-20-821	.33
ADM-20-911	.37
ADM-20-102	.40
ADM-20-112	.40
ADM-20-122	.43
ADM-20-132	.46
ADM-20-152	.50
ADM-20-162	.53
ADM-20-182	.59
ADM-20-202	.63
ADM-20-222	.69
ADM-20-242	.73
ADM-20-252	.73
ADM-20-272	.79
ADM-20-302	.86
ADM-20-332	.92
ADM-20-362	.99
ADM-20-392	1.06
ADM-20-432	1.12
ADM-20-472	1.19
ADM-20-502	1.25
ADM-20-512	1.29

Type Designation	Net Price**
ADM-30-432	$1.06
ADM-30-472	1.12
ADM-30-502	1.16
ADM-30-512	1.16
ADM-30-562	1.19
ADM-30-622	1.25
ADM-30-682	1.39
ADM-30-752	1.52
ADM-30-822	1.65
ADM-30-912	1.78
ADM-30-103	1.98
ADM-30-123	2.31
ADM-30-133	2.48
ADM-30-153	2.81

*Request O.E.M. Prices in the following quantities: 25-99, 100- and up.

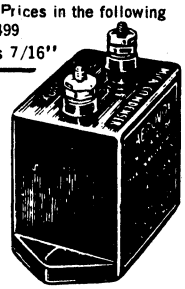
TRANSMITTING MICA CAPACITORS
TYPES 1445, 1446 and 1447



Designed with insulated mounting holes 1¾" apart independent of soldering lugs. Used to shunt meter windings.
Size: 1⅛" x 1⅜" x 1⅛"
Standard Tolerance ±10% ±5% and ±2% tolerance are available on special order. Meter Mounting Bracket E available. Specify when ordering. These units are equivalent to case styles CM45 and CM50 of specification MIL-C5B.

TYPE 1445 600 VDCW 1000 VDCT		TYPE 1446 1200 VDCW 2500 VDCT		TYPE 1447 2500 VDCW 5000 VDCT	
Cap. Mfd.	Net* Price	Cap. Mfd.	Net* Price	Cap. Mfd.	Net* Price
.00005	.40	.00005	.48	.00005	.60
.0001	.40	.0001	.48	.000075	.60
.00015	.40	.00015	.48	.0001	.60
.0002	.40	.0002	.48	.00015	.60
.00025	.40	.00025	.48	.0002	.60
.0003	.40	.0003	.48	.00025	.60
.00035	.40	.00035	.48	.0003	.60
.0004	.40	.0004	.48	.00035	.60
.0005	.40	.0005	.48	.0004	.60
.001	.40	.001	.48	.0005	.66
.0015	.46	.0015	.58	.001	.90
.002	.48	.002	.66	.0015	1.14
.0025	.52	.0025	.72	.002*	1.42
.003	.54	.003	.82	.0025*	1.66
.004	.60	.004*	.96	.003*	1.90
.005	.66	.005*	1.14	.004*	2.40
.006	.76	.006*	1.30	.005*	2.88
.008	.84	.008*	1.62		
.01	1.00	.01*	2.40		
.015*	1.30	.015*	2.74		
.02*	1.62				
.025*	1.92				
.03*	2.26				
.04*	2.88				

*Request O.E.M. Prices in the following quantities: 100-499
*Thickness 7/16"



TYPES 1991 thru 1996
Porcelain-Cased Capacitors

Ideal for high-frequency application. Glazed porcelain case, high temperature wax sealed. Heavy duty power terminals. Minimum power loss due to dielectric absorption. No heating at full load.
Size: 4" overall by 3" high; 2½" between mounting holes.
Standard Tolerance ±10%

Cap. Mfd.	DC Voltage Rating	Type	Maximum Current Capacity – Amperes 15 mc	7.5 mc	3750 kc	1875 kc	Net Price
.00005	12,500	1996	3	2.5	1.5	1	8.75
.0001	12,500	1996	5	4	3	2	8.75
.00025	12,500	1996	7	8	6	4	8.75
.0005	12,500	1996	8	9	8	7	8.75
	7,000	1994	7	8	6	4	7.00
.001	12,500	1996	9	10	11	12	10.50
	7,000	1994	8	9	10	8	7.88
	3,500	1992	8	9	8	5	7.88
.0015	12,500	1996	9	10	11	12	12.25
	7,000	1994	9	9	10	8	8.75
	5,000	1993	8	9	9	7	7.88
	3,500	1992	8	9	8	5	7.88
	2,000	1991	7	8	8	5	7.00
.002	12,500	1996	9	12	13	15	14.00
	10,000	1995	9	10	11	12	12.25
	7,000	1994	9	9	10	10	9.63
	5,000	1993	8	9	9	8	8.75
	3,500	1992	8	8	9	7	7.88
	2,000	1991	7	8	8	6	7.00
.003	12,500	1996	9	12	13	15	17.50
	10,000	1995	9	11	12	13	15.75
	7,000	1994	9	10	10	10	10.50
	5,000	1993	8	9	9	9	9.63
	3,500	1992	8	9	9	8	8.75
	2,000	1991	7	8	8	7	7.88
.005	10,000	1995	10	13	14	15	17.50
	7,000	1994	9	11	12	11	15.75
	5,000	1993	9	11	12	10	10.50
	3,500	1992	9	10	11	9	9.63
	2,000	1991	8	9	10	8	8.75
.01	7,000	1994	10	13	15	15	21.00
	5,000	1993	10	13	15	15	15.75
	3,500	1992	10	13	14	14	14.00
	2,000	1991	10	13	14	14	10.50
.02	3,500	1992	10	14	16	17	15.75
	2,000	1991	10	13	15	15	12.25
.05	3,500	1992	10	14	17	18	17.50
	2,000	1991	10	14	16	17	14.00
.1	2,000	1991	10	14	17	18	17.50

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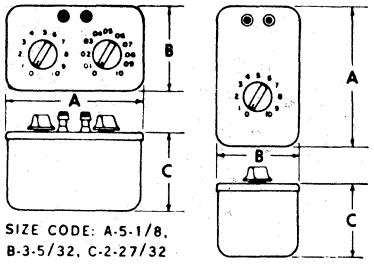
Net

AEROVOX CAPACITORS

FIGURE A



SIZE CODE: A-5-1/8, B-3-5/32, C-2-27/32

AEROVOX DECADE BOXES

RESISTANCE CAPACITANCE INDUCTANCE

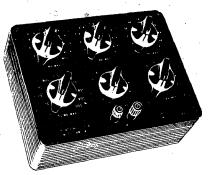
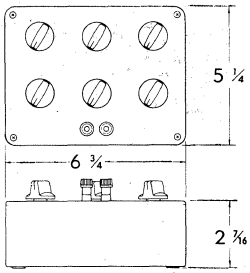


FIGURE B



Aerovox now makes available to the electronic industry laboratory quality standards in capacitance, resistance and inductance decades. From one of the outstanding manufacturers of precision resistors, capacitors and inductors, Aerovox is making available decade boxes of the highest quality in the ranges most needed for electronic and electrical laboratories at a price far below that of equivalent quality standards. Aerovox decade boxes are available in 11 units; 4 resistance decades, 3 capacitance decades and 4 inductance decades.

Ten of the decades are housed in seamless, drawn steel cases coated with gray enamel. They are capable of taking the beating of bench use without impairment of accuracy. The 11th decade box, a new resistance model ARD-41, is housed in a special high impact plastic case which will also withstand rugged handling.

This new decade box has a range of 0 to 1.1 megohms in 1 ohm steps, combining all the three other resistance decades into one compact box. Outline drawings of both sizes are shown. All panels are black with the marking engraved in white.

For full technical information request bulletin NPJ-109 Rev. 2.

RESISTANCE

PART NO.	FIGURE	TYPE	DIELECTRIC	DIELS	RANGE	STEPS	ACCURACY ± 1st Dial	ACCURACY ± 2nd Dial	RATING 1st Dial	RATING 2nd Dial	Net Price
ARD-15	A	R	Wire-Wound	2	0 to 110 ohms	1.0 ohm	5%	3%	1.0 Amp.	.5 Amp.	15.15
ARD-23	A	R	Wire-Wound	2	0 to 11 K	100 ohm	3%	3%	100 Ma.	50 Ma.	15.15
ARD-31	A	R	Carbon Deposited	2	0 to 1.1 meg.	10.K ohms	1%	1%	5 Ma.	2 Ma.	15.15
ARD-41	B	R	Wire-Wound & Metal Film	6	0 to 1.1 meg.	1.0 ohm	1%		1st Dial 2 Ma. 2nd Dial 5 Ma. 3rd Dial 15 Ma.	4th Dial 50 Ma. 5th Dial 150 Ma. 6th Dial 500 Ma.	44.95

CAPACITANCE

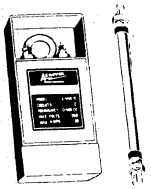
ACD-13	A	C	Mica	2	0 to .011 mfd.	.0001 mfd.	3%	3%	600 VDC 220 VAC	600 VDC 220 VAC	14.50
ACD-23	A	C	Oil Paper	2	0 to 1.1 mfd.	.01 mfd.	3%	3%	600 VDC 220 VAC	600 VDC 220 VAC	16.50
ACD-33	A	C	Oil Paper	1	0 to 10.0 mfd.	1.0 mfd.	3%	–	600 VDC 220 VAC	–	27.25

INDUCTANCE

ALD-12	A	L	Toroidal	1	0 to 10 mh	1.0 mh	2%	–	250 MaDC	–	29.90
ALD-22	A	L	Toroidal	1	0 to 100 mh	10.0 mh	2%	–	79 MaDC	–	29.90
ALD-32	A	L	Toroidal	1	0 to 1.0 hy.	100.0 mh	2%	–	25 MaDC	–	29.90
ALD-42	A	L	Toroidal	1	0 to 10.0 hy.	1.0 hy	2%	–	8 MaDC	–	32.90

FILTERS

SCREEN ROOM FILTERS



Screen room filters comply with rigid specifications set up by the designers of the most advanced type screen rooms. All have attenuation equal to or exceeding that of the screen room. Easy mounting arrangements plus high attenuation assure you of the finest equipment specially designed for screen room use. These filters are hermetically sealed and terminals at both ends are shielded using knock-outs for ¾" and 1" conduit.

1¼" diameter mounting hole on all cases is countersunk to permit flush mounting of the filter on the screen room.

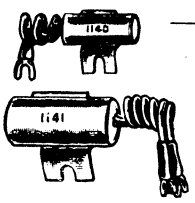
For full technical information request Bulletin NPJ-127.

Part No.	Curr. (Amps.)	Circuits	CPS	Attenuation vs. Frequency	Size L x W x D	Net Price
*S-1076-1	50	1	0-60	100 db from 14 kc to 1000 mc	20" x 3-5/8" x 3-5/8"	95.00
*S-1076-2	50	2	0-60	100 db from 14 kc to 1000 mc	20" x 7-3/16" x 3-5/8"	190.00
*S-1076-3	50	3	0-60	100 db from 14 kc to 1000 mc	20-1/8" x 10-7/8" x 3-11/16	285.00
S-1142-1	30	1	0-400	100 db from 150 kc to 1000 mc	10-1/8" x 2-7/8" x 2-7/16"	36.50
S-1142-2	30	2	0-400	100 db from 150 kc to 1000 mc	10-1/8" x 4-3/4" x 2-7/16"	48.50
S-1142-3	30	3	0-400	100 db from 150 kc to 1000 mc	10-1/8" x 7" x 2-7/16"	62.50
S-1302-1	100	1	0-60	100 db from 200 kc to 1000 mc	14" x 4-3/8" x 4-3/8"	70.00
*S-1303-1	60	1	0-1000	100 db from 100 kc to 1000 mc	20" x 3-5/8" x 3-5/8"	100.00
S-1304-1	80	1	0-60	100 db from 14 kc to 1000 mc	22" x 4-3/8" x 4-3/8"	105.00
S-1305-1	100	1	0-1000	100 db from 100 kc to 1000 mc	22" x 4-3/8" x 4-3/8"	120.00
S-1361-1	100	1	0-60	100 db from 14 kc to 1000 mc	22" x 4-3/8" x 4-3/8"	130.00
S-1432-1	100	1	0-60	100 db from 100 kc to 1000 mc	22" x 4-3/8" x 4-3/8"	95.00
S-1455-1	100	1	0-60	100 db from 150 kc to 1000 mc	22" x 4-3/8" x 4-3/8"	90.00

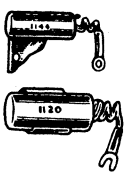
Part No.	Curr. (Amps.)	Circuits	CPS	Attenuation vs. Frequency	Overall L.	Overall D.	Net Price
S-1468-A	50	1	0-1000	60 db/1000 mc to 10000 mc	10-3/4"	7/8"	70.00
S-1468-B	100	1	0-1000	60 db/1000 mc to 10000 mc	10-3/4"	7/8"	80.00

*250 VAC/DC. All others 500VAC/DC.

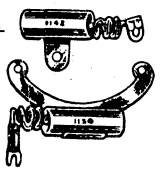
AUTO-RADIO CAPACITORS



Type	Net Price	Cap. Mfd.
		SINGLE ELEMENT
Car Generators		
Type 1120	.54	1.0
Type 1140	.39	0.5
		DUAL ELEMENT
Type 1141	.90	0.5-0.5
Ford Auto Radios		
Type 1144	.48	0.5
For 1936 Models		
Type 1150	.60	0.5



Type	Net Price	Cap. Mfd.
Oil Gage Filter Condenser		
Type 1142-0	.54	0.25



For complete Catalog listing and Engineering information on RF Noise Suppressors and Interference Filters request Catalog from Aerovox Corporation, Distributor Division, or your nearest authorized Aerovox Industrial Distributor.

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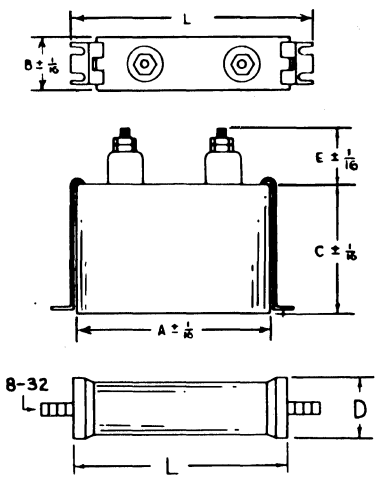
HIGH VOLTAGE FILTER CAPACITORS

SMALLEST SIZE AVAILABLE ANYWHERE

TYPE ASG and TYPE KMOC capacitors are hermetically sealed, rated for operation at 85°C at full nameplate rating, and will withstand most environmental and electrical specifications in general use. Size is very small due to the nature of the dielectric used, and the particular attention to processing. **AVAILABLE UP TO 100 KV**



All glass containers with "D" dimensions of 19/32 have 2½ inch long 18 tinned copper pigtail leads. CONTAINER is a hard glass pillar with silver fused to each end. A metal ferrule is soldered to each end assuring hermetic sealing. The stud is silver soldered to the ferrule. All parts are tin plated.

TYPE KMOC CP70 CONTAINER

PART NUMBER	CAP MFD	VOLTS DC	DIMENSIONS A	B	C	D
KMOC 25C2	2.0	2,500	3¾	1¼	4¾	9/16
KMOC 25C4	4.0	2,500	3¾	2¼	5⅛	9/16
KMOC 25C6	6.0	2,500	4⅜	3¾	4⅜	9/16
KMOC 25C8	8.0	2,500	4⅜	3¾	5½	9/16
KMOC 25C10	10.0	2,500	4⅜	3¾	6½	9/16
KMOC 25C12	12.0	2,500	4⅜	3¾	9⅝	9/16
KMOC 5M01	0.1	5,000	1¾	1	2⅛	1⅛
KMOC 5M025	0.25	5,000	1¾	1	3	1⅛
KMOC 5M05	0.5	5,000	1¾	1	4¾	1⅛
KMOC 5M1	1.0	5,000	2½	1 3/16	5	1⅛
KMOC 5M2	2.0	5,000	3¾	1¼	5¾	1⅛
KMOC 125C01	0.1	12,500	3¾	1¾	3⅝	2¾
KMOC 125C025	0.25	12,500	3¾	1¾	5⅞	2¾
KMOC 125C05	0.5	12,500	3¾	3 3/16	5⅝	2¾
KMOC 125C1	1.0	12,500	4 9/16	3¾	6⅝	2¾

PULSE FORMING NETWORKS PULSE CAPACITORS

PULSE CAPACITORS and PULSE FORMING NETWORKS require special consideration. Due to the sharp wave front of the pulse it is necessary to reduce the Corona effect to as close to zero as possible. With no internal Corona, and the use of low power factor dielectric material, the pulse current and the repetition rate can be raised to very high figures since relatively little internal heat will be generated. CPC pulse capacitors and pulse forming networks are generally the smallest available.

TYPE LSG and TYPE TSG CAPACITORS are designed for pulse and high radio frequency applications. They are enclosed in hard, chemically neutral, glass with soldered end ferrules. The studs are ⅜" x 8-32 thread. The end ferrules are tin plated. The operating limits are a REP rate of 2000 PPS working into a 50 ohm load on the equivalent Kva at rated pulse charge voltage. The windings are the extended foil type.

TYPE TSG 125° OPERATING

TYPE TSG Capacitors use Teflon as the solid dielectric. The liquid dielectric is silicone fluid. This item may be modified for operation up to 210°C if required. Type TSG available from 1,000 volts to 60,000 volt pulse and .0004 capacitance to .01 capacitance.

TYPE LSG 65° OPERATING

Available from 1,000 volt pulse to 60,000 volt pulse. Capacitance .000075 to .1

TYPE ASG GLASS CONTAINER

PART NUMBER	CAP MFD	VOLTS DC	DIMENSIONS A	D
ASG 202-2M	.002	2,000	1 3/16	19/32
ASG 502-2M	.005	2,000	1 3/16	19/32
ASG 103-2M	.01	2,000	1 3/16	19/32
ASG 203-2M	.02	2,000	1 3/16	19/32
ASG 503-2M	.05	2,000	1¾	¾
ASG 104-2M	.1	2,000	2¼	¾
ASG 254-2M	.25	2,000	2¾	29/32
ASG 504-2M	.5	2,000	2	1⅜
ASG 105-2M	1.0	2,000	3	1⅝
ASG 205-2M	2.0	2,000	6	1⅝
ASG 102-5M	.001	5,000	1 3/16	19/32
ASG 202-5M	.002	5,000	1 3/16	19/32
ASG 502-5M	.005	5,000	1⅝	19/32
ASG 103-5M	.01	5,000	1¾	¾
ASG 203-5M	.02	5,000	2¼	¾
ASG 303-5M	.03	5,000	2¼	13/16
ASG 503-5M	.05	5,000	2¼	29/32
ASG 104-5M	.1	5,000	2¼	1⅜
ASG 254-5M	.25	5,000	3	1⅝
ASG 504-5M	.5	5,000	6	1⅝
ASG 501-20M	.0005	20,000	3½	19/32
ASG 102-20M	.001	20,000	3½	¾
AGS 202-20M	.002	20,000	3½	13/16
ASG 502-20M	.005	20,000	3½	1⅛
ASG 103-20M	.01	20,000	4½	1⅜
ASG 203-20M	.02	20,000	4½	1⅝
ASG 303-20M	.03	20,000	6½	1⅝
ASG 403-20M	.04	20,000	8	1⅝

AVAILABLE UP TO 100 KV

THIS IS ONLY A SMALL LISTING OF SIZES, VOLTAGES AND AVAILABLE TYPES... FOR COMPLETE INFORMATION... SEND FOR BULLETIN NO. 7...

CONDENSER PRODUCTS COMPANY

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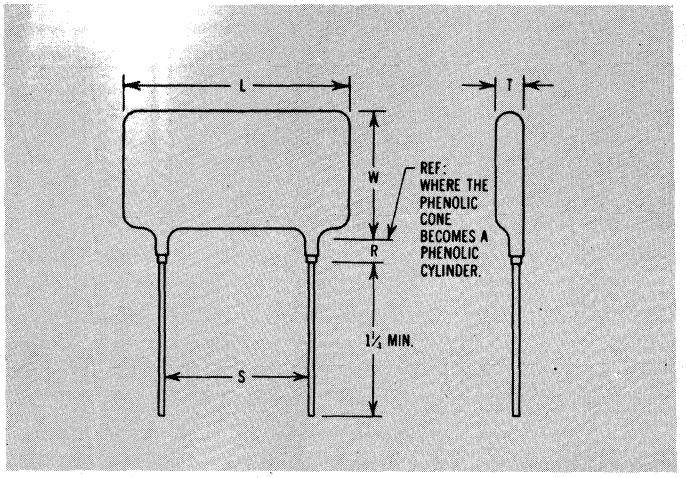
ELMENCO CAPACITORS DIMENSIONAL DATA



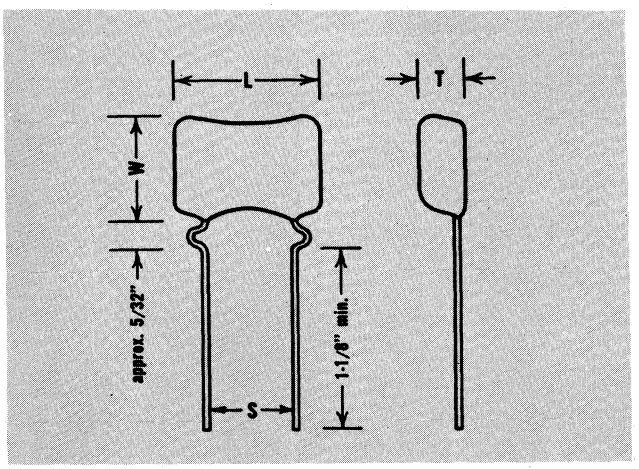
	DM-10	DM-15	DM-16	DM-19	DM-20	DM-30	DM-42	DM-43
R MAX.	1/8	1/8	1/8	9/64	9/64	11/64	11/64	11/64
S ±1/32	9/64	15/64	1/2	11/32	7/16	7/16	1 1/16	1 11/16
LEAD WIRE GAGE	#26	#22	#22	#20	#20	#18	#18	#18

All Dur-Mica capacitor leads are tinned brass except the following which are copper-clad steel, 30% minimum conductivity:

DM-10, DM-42, and DM-43.
DM-19 and DM-20 — 3000 mmf. and above.
DM-30 — 10,000 mmf. and above.

Crimped Leads

In addition to the straight lead design, DM capacitors are also available with crimped leads for printed circuit application. The crimp provides a positive stop when capacitors are mounted. This prevents interference of resin coat on the leads with dip-solder operation, provides greater mounting uniformity, and elevates the components slightly above the surface of the board. The crimp lead design is not a regularly stocked item, but it is available to special order at a small fixed handling charge.



Lead wire gage for crimped lead units is the same as for straight lead capacitors with the exception of DM-15 and DM-16. Crimped lead gage of DM-15 and DM-16 is #20. The DM-10 case size is not available with crimped leads.

Maximum Dimensions

The following is a tabulation of maximum dimensions of the various DM case sizes. They have been specified to anticipate variations in coat thickness and minor protrusions on the surface. As a result, average dimensions of a given lot may be appreciably smaller than those listed.

It is to be noted that the leads are not centered in the thickness dimension as can be seen on the end view dimensional drawing. Construction of Elmenco Dur-Mica capacitors provides for leads to project from one surface of the mica stack, causing them in turn to extend from one edge of the capacitor. Regardless of case size and overall thickness, leads will always be within 1/16 to 3/32 from one of the capacitor surfaces. (Exclude SCDM).

Not all dimensions of every capacitance value are listed below. It has been found that size varies almost linearly with capacitance value. As a result, dimensions of values between those specified below should be determined by interpolation.

CASE SIZE	Cap. mmf.	Volt. VDCW	L max.	W max.	T max.
DM-10	10	500	.360	.330	.190
	50	500	.370	.340	.190
	100	500	.370	.350	.200
	150	500	.380	.360	.210
	250	500	.390	.380	.220
	300	300	.390	.380	.220
	390	100	.390	.380	.220
DM-15 (CM05)	10	500	.450	.360	.170
	100	500	.460	.360	.180
	200	500	.460	.380	.190
	300	500	.470	.390	.210
	500	500	.490	.420	.240
	560	300	.470	.390	.210
	680	300	.470	.390	.210
	820	300	.470	.400	.230
	1000	100	.490	.420	.240
DM-16	430	500	.730	.390	.210
	600	500	.740	.400	.220
	720	500	.740	.410	.230
	720	300	.730	.380	.200
	900	300	.740	.390	.220
	1300	300	.740	.390	.230
DM-19 (CM06)	100	500	.640	.500	.190
	500	500	.650	.510	.200
	1000	500	.650	.520	.220
	2000	500	.670	.530	.240
	3000	500	.680	.550	.280
	5000	500	.710	.590	.360
	6200	300	.690	.570	.330
	8200	100	.700	.580	.350
DM-20	680	500	.750	.510	.200
	1000	500	.750	.510	.200
	2000	500	.760	.520	.220
	3900	500	.780	.560	.300
	5600	500	.790	.570	.340
	6800	300	.790	.560	.320
	7500	100	.780	.560	.300
	10000	100	.790	.570	.340
DM-30 (CM07)	4300	500	.780	.860	.270
	6800	500	.780	.870	.300
	10000	500	.800	.890	.340
	15000	500	.810	.900	.390
	20000	500	.830	.920	.450
	20000	300	.810	.890	.370
	25000	300	.820	.910	.420
	30000	300	.830	.920	.460
	36000	100	.830	.920	.450
DM-42 (CM08)	20000	500	1.420	.870	.300
	30000	500	1.440	.890	.350
	50000	500	1.480	.920	.460
	62000	300	1.470	.920	.450
	82000	100	1.480	.920	.460
DM-43	50000	500	2.060	.900	.380
	68000	500	2.070	.910	.440
	75000	300	2.060	.900	.380
	100000	300	2.070	.910	.440
	130000	100	2.090	.930	.490

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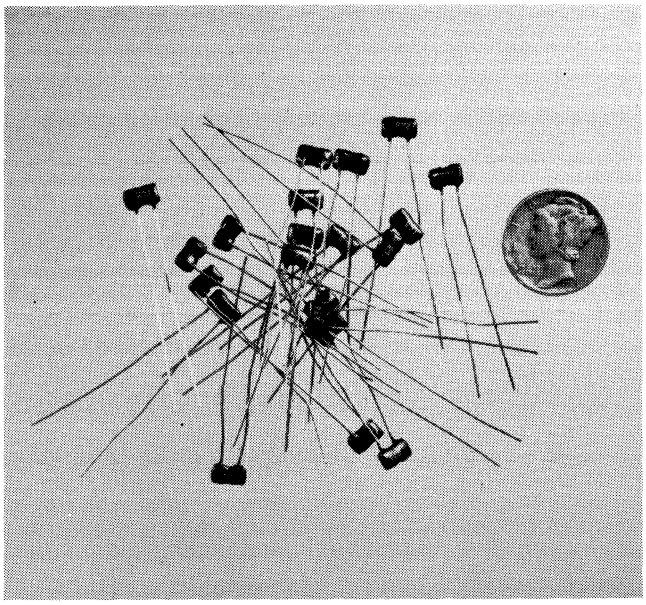
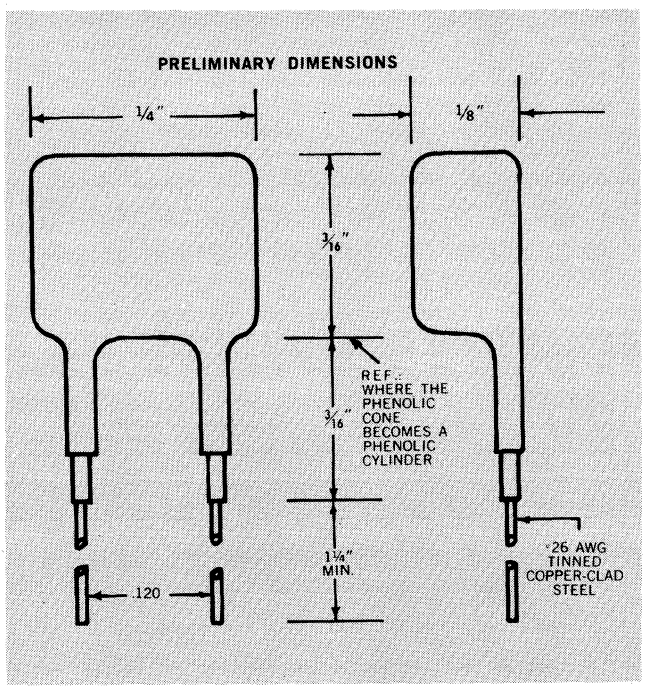
ELMENCO CAPACITORS — DM5 Miniature Dur-Mica



The new ELMENCO DM5 dipped silvered mica capacitor has been designed to keep pace with the ever-shrinking world of electronic circuitry. Significant volumetric savings are achieved in the lower values of capacitance through two principle changes in design. First, the area of each mica film has been reduced to get a better balance of area vs. thickness of capacitive section. This automatically resulted in further saving through redesign of other structural members to get more capacitance per cubic inch. Second, a newly developed dip-coat material is employed which imparts improved environmental protection with a far thinner coat than found on the larger mica capacitors of the ELMENCO line. The result is a much smaller capacitor in the 1 through 198 pf. range with the same reliability and high quality performance the industry has come to expect from ELMENCO mica capacitors.

DM5 capacitors have a standard voltage rating of 300 VDCW except for the highest values which are 100V and 50V ratings as indicated in the tabulation below. Electrical and environmental specifications are basically the same as for the other ELMENCO dipped mica capacitor styles. The capacitors are stamped with capacitance value in pf. followed by a letter signifying capacitance tolerance. For example, 27K would be 27 pf. ±10%; 150G would be 150 pf. ±2%. In the lower values, standard minimum tolerance is ±1 pf., but for an added charge we can produce ±0.5 pf. or even ±0.25 pf. capacitors.



The preliminary dimensions indicated above represent the expected maximum limits for the largest DM5 capacitors. At this printing the analysis of dimensions vs. capacitance for all values and voltages had not yet been completed. Due to the variation in size of capacitive section with value, dimensions will vary 30 to 40 mils between 1 and 180 pf. Final tabulation of case size dimensions in mils will be published in the next ARCO catalog similar to tabulations now shown for established case sizes. The lead spacing and specifications will not change.

300VDCW

Cap. pf.	Part Number	TOLERANCE (Net price 1-24 ea.) ±1 pf.	±0.5 pf. (D)	±10% (K)	±5% (J)	±2% (G)	±1% (F)
1	DM5-010‡	$0.21	$0.34				
2	DM5-020‡	.21	.34				
3	DM5-030‡	.21	.34				
4	DM5-040‡	.21	.34				
5	DM5-050‡	.21	.34	$0.34			
6	DM5-060‡	.21	.34	.34			
7	DM5-070‡	.21	.34	.34			
8	DM5-080‡	.21	.34	.34			
10	DM5-100‡		.34	.21	$0.34		
12	DM5-120‡		.44	.22	.36		
15	DM5-150‡		.44	.22	.36		
18	DM5-180‡		.46	.23	.37		
20	DM5-200‡		.51	.23	.25		
22	DM5-220‡		.51	.23	.25		
24	DM5-240‡		.51	.23	.25		
27	DM5-270‡			.24	.27	$0.53	
30	DM5-300‡			.24	.27	.53	
33	DM5-330‡			.24	.27	.53	
36	DM5-360‡			.25	.28	.55	
39	DM5-390‡			.25	.28	.55	
43	DM5-430‡			.26	.29	.57	
47	DM5-470‡			.26	.29	.57	
50	DM5-500‡			.26	.29	.52	$0.87
51	DM5-510‡			.28	.31	.56	.93
56	DM5-560‡			.29	.32	.58	.96
62	DM5-620‡			.30	.33	.60	1.00
68	DM5-680‡			.32	.36	.64	1.07
75	DM5-750‡			.34	.38	.68	1.13
82	DM5-820‡			.36	.40	.72	1.20
91	DM5-910‡			.39	.43	.78	1.30
100	DM5-101‡			.42	.47	.84	.93
110	DM5-111‡			.44	.49	.88	.98
120	DM5-121‡*			.38	.42	.76	.84
130	DM5-131‡*			.39	.43	.78	.87
150	DM5-151‡*			.44	.49	.88	.98
160	DM5-161‡**			.38	.42	.76	.84
180	DM5-181‡**			.42	.47	.84	.93

‡ Insert letter suffix to denote capacitance tolerance.
* 100VDCW
** 50VDCW

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ELMENCO CAPACITORS — DUR-MICA

SPACE-SAVER

TYPE SCDM THIN COAT DUR MICA CAPACITORS (ELMENCO TYPE ICR)

In applications requiring the high performance characteristics of dipped mica capacitors where space is at a premium, the Type SCDM reduced coat ELMENCO capacitors may often be used to advantage. A single protective resin coat is applied instead of the full series of dips incorporated in the standard unit. The amount of coat material is thereby reduced to a minimum consistent with good design, and a significant reduction of all dimensions is achieved.

All electrical and environmental requirements of MIL-C-5 are retained with the exception of case insulation (3.5.3) and moisture resistance (3.14). A maximum voltage stress of 100 VDC through the case insulation is recommended for SCDM units. Although some lots of this type capacitor will not meet stringent MIL moisture resistance specifications, all will meet the humidity requirements of Paragraph 2.3.6 of EIA Standard RS-153. Therefore, the SCDM capacitors will operate with satisfaction where they will not be exposed to extensive periods of high humidity. It is recommended that if these capacitors are destined for operation under extreme environmental conditions, they should be given additional moisture protection such as encapsulation or hermetic sealing of the assembly.

TYPE SCDM SINGLE COAT

CASE SIZE	Cap. mmf.	Volt. VDCW	L max.	W max.	T max.
SCDM10	10	500	.310	.230	.120
	100	500	.320	.230	.130
	180	500	.330	.240	.150
	250	500	.340	.250	.160
	300	300	.340	.250	.160
	390	100	.340	.250	.160
SCDM15	10	500	.430	.280	.140
	100	500	.430	.280	.150
	270	500	.440	.300	.160
	510	500	.450	.310	.190
	560	300	.450	.310	.160
	820	300	.450	.310	.170
	1000	100	.450	.310	.170

NOTE: SCDM10 and SCDM15 are maintained as stock items for immediate delivery. The larger ELMENCO DM case sizes are also available in the thin dip SCDM style. Contact us for price, delivery, and specification information.

TYPE DM-10

500VDCW

(SCDM10 values and prices the same)

CAP. MMF.	PART NUMBER	Net Price (1-24) Tolerance ±10% "K"	±5% "J"	±2% "G"	±1% "F"
1	DM-10-010§	$0.18			
2	DM-10-020§	.18			
3	DM-10-030§	.18			
5	DM-10-050§	.18			
10	DM-10-100	.18	$0.27		
12	DM-10-120	.21	.27		
15	DM-10-150	.21	.27		
18	DM-10-180	.21	.27		
20	DM-10-200	.21	.23		
22	DM-10-220	.21	.23		
24	DM-10-240	.21	.23		
27	DM-10-270	.21	.23	$0.38	
30	DM-10-300	.21	.23	.38	
33	DM-10-330	.21	.23	.38	
36	DM-10-360	.21	.23	.38	
39	DM-10-390	.21	.23	.38	
43	DM-10-430	.21	.23	.38	
47	DM-10-470	.24	.26	.43	
50	DM-10-500	.24	.26	.43	$0.60
51	DM-10-510	.24	.26	.43	.60
56	DM-10-560	.24	.26	.43	.60
62	DM-10-620	.24	.26	.43	.60
68	DM-10-680	.24	.26	.43	.66
75	DM-10-750	.24	.26	.43	.66
82	DM-10-820	.24	.26	.43	.66
91	DM-10-910	.24	.26	.43	.66
100	DM-10-101	.24	.26	.43	.60
110	DM-10-111	.24	.26	.43	.60
120	DM-10-121	.27	.30	.50	.60
130	DM-10-131	.27	.30	.50	.60

DM-10 (Continued)

CAP. MMF.	PART NUMBER	Net Price (1-24) Tolerance ±10% "K"	±5% "J"	±2% "G"	±1% "F"
150	DM-10-151	.30	.33	.55	.66
160	DM-10-161	.33	.37	.61	.74
180	DM-10-181	.36	.40	.66	.80
200	DM-10-201	.36	.40	.66	.80
220	DM-10-221	.39	.43	.71	.86
240	DM-10-241	.42	.46	.76	.92
250	DM-10-251	.42	.46	.76	.92
270*	DM-10-271	.42	.46	.76	.92
300*	DM-10-301	.45	.50	.83	1.00
330**	DM-10-331	.45	.50	.83	1.00
360**	DM-10-361	.48	.53	.87	1.06
390**	DM-10-391	.51	.56	.92	1.12

TYPE DM-15 (CM05)

(SCDM15 values and prices the same)

CAP. MMF.	PART NUMBER	MIL-C-5 TYPE DESIGNATION	Net Price (1-24) Tolerance ±10% "K"	±5% "J"	±2% "G"	±1% "F"
1	DM-15-010†		$0.17			
2	DM-15-020†		.17			
3	DM-15-030†		.17			
5	DM-15-050†	CM-05-C-050K03†	.17			
6	DM-15-060	CM-05-C-060K03	.17			
7	DM-15-070	CM-05-C-070K03	.17			
8	DM-15-080	CM-05-C-080K03	.17			
10	DM-15-100	CM-05-C-100‡03	.15	$0.17		
12	DM-15-120	CM-05-C-120‡03	.15	.17		
15	DM-15-150	CM-05-C-150‡03	.15	.17		
18	DM-15-180	CM-05-C-180‡03	.15	.17		
20	DM-15-200	CM-05-E-200‡03	.15	.17		
22	DM-15-220	CM-05-E-220‡03	.15	.17		
24	DM-15-240	CM-05-E-240‡03	.15	.17		
27	DM-15-270	CM-05-E-270‡03	.15	.17	$0.24	
30	DM-15-300	CM-05-E-300‡03	.15	.17	.24	
33	DM-15-330	CM-05-E-330‡03	.15	.17	.24	
36	DM-15-360	CM-05-E-360‡03	.15	.17	.24	
39	DM-15-390	CM-05-E-390‡03	.15	.17	.24	
43	DM-15-430	CM-05-E-430‡03	.15	.17	.24	
47	DM-15-470	CM-05-E-470‡03	.15	.17	.24	
50	DM-15-500		.15	.17	.20	$0.29
51	DM-15-510	CM-05-E-510‡03	.15	.17	.20	.29
56	DM-15-560	CM-05-E-560‡03	.15	.17	.20	.29
62	DM-15-620	CM-05-E-620‡03	.15	.17	.20	.29
68	DM-15-680	CM-05-E-680‡03	.15	.17	.20	.29
75	DM-15-750	CM-05-E-750‡03	.15	.17	.20	.29
82	DM-15-820	CM-05-E-820‡03	.15	.17	.20	.29
91	DM-15-910	CM-05-F-910‡03	.15	.17	.20	.29
100	DM-15-101	CM-05-F-101‡03	.15	.17	.20	.29
110	DM-15-111	CM-05-F-111‡03	.18	.20	.23	.29
120	DM-15-121	CM-05-F-121‡03	.18	.20	.23	.29
130	DM-15-131	CM-05-F-131‡03	.18	.20	.23	.29
150	DM-15-151	CM-05-F-151‡03	.18	.20	.23	.29
160	DM-15-161	CM-05-F-161‡03	.21	.23	.28	.34
180	DM-15-181	CM-05-F-181‡03	.21	.23	.28	.34
200	DM-15-201	CM-05-F-201‡03	.21	.23	.28	.34
220	DM-15-221	CM-05-F-221‡03	.24	.26	.31	.38
240	DM-15-241	CM-05-F-241‡03	.24	.26	.31	.38
250	DM-15-251		.24	.26	.31	.38
270	DM-15-271	CM-05-F-271‡03	.27	.30	.35	.43
300	DM-15-301	CM-05-F-301‡03	.27	.30	.35	.43
330	DM-15-331	CM-05-F-331‡03	.30	.33	.39	.48
360	DM-15-361	CM-05-F-361‡03	.30	.33	.39	.48
390	DM-15-391	CM-05-F-391‡03	.33	.37	.43	.53
430	DM-15-431		.33	.37	.43	.53
470	DM-15-471		.36	.40	.47	.58
500	DM-15-501		.36	.40	.47	.58
510	DM-15-511		.36	.40	.47	.58
560*	DM-15-561		.39	.43	.51	.62
620*	DM-15-621		.42	.46	.55	.67
680*	DM-15-681		.45	.50	.59	.72
750*	DM-15-751		.48	.53	.62	.77
820*	DM-15-821		.51	.56	.67	.82
910**	DM-15-911		.57	.63	.74	.86
1000**	DM-15-102		.60	.66	.78	.96
1100**	DM-15-112		.69	.76	.90	1.10
1200**	DM-15-122		.78	.86	1.01	1.25

TYPE DM-16

500VDCW

Although not tabulated here, DM16 is available in capacitance values up through 1600 mmf. Most values are in stock. Write for price and delivery.

*300VDCW
**100VDCW
§Minimum tolerance ±1 mmf. Add 50% for ±0.5 mmf.
†Minimum tolerance ±0.5 mmf.
DM-10 and DM-15 "C" characteristic 1 through 18 mmf.
DM-10 and DM-15 "E" characteristic 20 through 82 mmf.
DM-10 and DM-15 "F" characteristic 91 mmf. and up.
All listed DM-16 are characteristic "F".
‡Insert appropriate letter designating capacitance tolerance.

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Distributor)

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ELMENCO CAPACITORS — DUR-MICA

TYPE DM-19 (CM-06) 500VDCW

CAP. MMF.	PART NUMBER	TYPE DESIGNATION	Net Price (1-24) Tolerance ±10% "K"	±5% "J"	±2% "G"	±1% "F"
100	DM-19-101		$0.15	$0.17	$0.18	$0.23
110	DM-19-111		.18	.20	.22	.27
120	DM-19-121		.18	.20	.22	.27
130	DM-19-131		.18	.20	.22	.27
150	DM-19-151		.18	.20	.22	.27
160	DM-19-161		.18	.20	.22	.27
180	DM-19-181		.18	.20	.22	.27
200	DM-19-201		.18	.20	.22	.27
220	DM-19-221		.18	.20	.22	.27
240	DM-19-241		.21	.23	.25	.32
250	DM-19-251		.21	.23	.25	.32
270	DM-19-271		.24	.26	.29	.36
300	DM-19-301		.24	.26	.29	.36
330	DM-19-331		.24	.26	.29	.36
360	DM-19-361		.27	.30	.32	.41
390	DM-19-391		.27	.30	.32	.41
430	DM-19-431	CM-06-F-431‡03	.27	.30	.32	.41
470	DM-19-471	CM-06-F-471‡03	.30	.33	.36	.45
500	DM-19-501		.30	.33	.36	.45
510	DM-19-511	CM-06-F-511‡03	.30	.33	.36	.45
560	DM-19-561	CM-06-F-561‡03	.33	.37	.40	.50
620	DM-19-621	CM-06-F-621‡03	.33	.37	.40	.50
680	DM-19-681	CM-06-F-681‡03	.36	.40	.43	.54
750	DM-19-751	CM-06-F-751‡03	.36	.40	.43	.54
820	DM-19-821	CM-06-F-821‡03	.36	.40	.43	.54
910	DM-19-911	CM-06-F-911‡03	.39	.43	.47	.59
1000	DM-19-102	CM-06-F-102‡03	.42	.46	.51	.63
1100	DM-19-112	CM-06-F-112‡03	.42	.46	.51	.63
1200	DM-19-122	CM-06-F-122‡03	.45	.50	.54	.68
1300	DM-19-132	CM-06-F-132‡03	.48	.53	.58	.72
1500	DM-19-152	CM-06-F-152‡03	.51	.57	.62	.77
1600	DM-19-162	CM-06-F-162‡03	.54	.60	.65	.82
1800	DM-19-182	CM-06-F-182‡03	.60	.66	.72	.90
2000	DM-19-202	CM-06-F-202‡03	.66	.73	.79	.99
2200	DM-19-222	CM-06-F-222‡03	.72	.79	.87	1.08
2400	DM-19-242	CM-06-F-242‡03	.78	.86	.94	1.17
2500	DM-19-252		.81	.89	.97	1.23
2700	DM-19-272	CM-06-F-272‡03	.84	.92	1.01	1.26
3000	DM-19-302	CM-06-F-302‡03	.90	.99	1.08	1.35
3300	DM-19-332	CM-06-F-332‡03	.96	1.06	1.15	1.44
3600	DM-19-362	CM-06-F-362‡03	1.02	1.12	1.23	1.53
3900	DM-19-392	CM-06-F-392‡03	1.08	1.19	1.30	1.62
4300	DM-19-432	CM-06-F-432‡03	1.14	1.26	1.37	1.71
4700	DM-19-472	CM-06-F-472‡03	1.20	1.32	1.44	1.80
5000	DM-19-502		1.26	1.39	1.51	1.89
5100	DM-19-512		1.26	1.39	1.51	1.89
5600*	DM-19-562		1.32	1.45	1.58	1.89
6200*	DM-19-622		1.38	1.52	1.66	2.07
6800**	DM-19-682		1.38	1.52	1.66	2.07
7500**	DM-19-752		1.44	1.58	1.73	2.16
8200**	DM-19-822		1.50	1.65	1.80	2.25

TYPE DM-20 500VDCW

680	DM-20-681	$0.30	$0.33	$0.36	$0.45
750	DM-20-751	.30	.33	.36	.45
820	DM-20-821	.30	.33	.36	.45
910	DM-20-911	.33	.37	.40	.50
1000	DM-20-102	.36	.40	.43	.54
1100	DM-20-112	.36	.40	.43	.54
1200	DM-20-122	.39	.43	.47	.59
1300	DM-20-132	.42	.46	.50	.63
1500	DM-20-152	.45	.50	.54	.68
1600	DM-20-162	.48	.53	.58	.72
1800	DM-20-182	.54	.59	.65	.81
2000	DM-20-202	.57	.63	.68	.86
2200	DM-20-222	.63	.70	.76	.95
2400	DM-20-242	.66	.73	.79	.99
2500	DM-20-252	.66	.73	.79	.99
2700	DM-20-272	.72	.79	.86	1.08
3000	DM-20-302	.78	.86	.94	1.17
3300	DM-20-332	.84	.92	1.01	1.26
3600	DM-20-362	.90	.99	1.08	1.35
3900	DM-20-392	.96	1.06	1.15	1.44
4300	DM-20-432	1.02	1.12	1.22	1.53
4700	DM-20-472	1.08	1.19	1.30	1.62
5000	DM-20-502	1.14	1.25	1.37	1.71
5100	DM-20-512	1.17	1.29	1.40	1.76
5600	DM-20-562	1.20	1.32	1.44	1.80
6200*	DM-20-622	1.20	1.32	1.44	1.80
6800*	DM-20-682	1.26	1.39	1.51	1.89
7500**	DM-20-752	1.32	1.45	1.58	1.98
8200**	DM-20-822	1.44	1.58	1.73	2.16
9100**	DM-20-912	1.62	1.78	1.94	2.43
10000**	DM-20-103	1.80	1.98	2.16	2.70

Notes: Higher DM-20 values are available on special order as follows: up to 10,000 mmf. at 500VDCW, up to 12,000 mmf. at 300VDCW, up to 18,000 mmf. at 100VDCW. Characteristics of DM-19 and DM-20 are as follows: C characteristic 1 to 180 mmf. E characteristic 200 to 510 mmf. F characteristic 560 and up.

TYPE DM-30 (CM-07) 500VDCW

CAP. MMF.	PART NUMBER	TYPE DESIGNATION	Net Price (1-24) Tolerance ±10% "K"	±5% "J"	±2% "G"	±1% "F"
4300	DM-30-432		$0.96	$1.06	$1.15	$1.25
4700	DM-30-472		1.02	1.12	1.22	1.33
5000	DM-30-502		1.05	1.16	1.26	1.37
5100	DM-30-512	CM-07-F-512‡03	1.05	1.16	1.26	1.37
5600	DM-30-562	CM-07-F-562‡03	1.08	1.19	1.30	1.40
6200	DM-30-622	CM-07-F-622‡03	1.14	1.25	1.37	1.48
6800	DM-30-682	CM-07-F-682‡03	1.26	1.39	1.51	1.64
7500	DM-30-752	CM-07-F-752‡03	1.38	1.52	1.66	1.79
8200	DM-30-822	CM-07-F-822‡03	1.50	1.65	1.80	1.95
9100	DM-30-912	CM-07-F-912‡03	1.62	1.78	1.94	2.11
10000	DM-30-103	CM-07-F-103‡03	1.80	1.98	2.16	2.34
11000	DM-30-113	CM-07-F-113‡03	1.95	2.15	2.34	2.54
12000	DM-30-123	CM-07-F-123‡03	2.10	2.31	2.52	2.73
13000	DM-30-133	CM-07-F-133‡03	2.25	2.48	2.70	2.93
15000	DM-30-153	CM-07-F-153‡03	2.55	2.81	3.06	3.32
16000	DM-30-163	CM-07-F-163‡03	2.70	2.97	3.24	3.51
18000	DM-30-183	CM-07-F-183‡03	3.00	3.30	3.60	3.90
20000	DM-30-203	CM-07-F-203‡03	3.30	3.63	3.96	4.29
22000*	DM-30-223		3.42	3.76	4.10	4.45
24000*	DM-30-243		3.69	4.06	4.43	4.80
25000*	DM-30-253		3.84	4.22	4.61	4.99
27000*	DM-30-273		4.11	4.52	4.93	5.35
30000*	DM-30-303		4.50	4.95	5.40	5.85
33000**	DM-30-333		4.95	5.45	5.94	6.44
36000**	DM-30-363		5.40	5.94	6.48	7.02

TYPE DM-42 (CM-08) 500VDCW

10000	DM-42-103		$2.25	$2.48	
12000	DM-42-123		2.64	2.90	
13000	DM-42-133		2.76	3.04	
15000	DM-42-153		3.12	3.43	
16000	DM-42-163		3.36	3.70	
18000	DM-42-183		3.66	4.03	
20000	DM-42-203		3.96	4.36	
22000	DM-42-223	CM-08-F-223‡03	4.29	4.72	
24000	DM-42-243	CM-08-F-243‡03	4.68	5.15	
25000	DM-42-253		4.80	5.28	
27000	DM-42-273	CM-08-F-273‡03	5.19	5.71	±1% PRICING ON REQUEST
30000	DM-42-303	CM-08-F-303‡03	5.67	6.24	
33000	DM-42-333	CM-08-F-333‡03	6.15	6.77	
36000	DM-42-363	CM-08-F-363‡03	6.75	7.43	
39000	DM-42-393	CM-08-F-393‡03	7.20	7.92	
43000	DM-42-433	CM-08-F-433‡03	7.80	8.58	
47000	DM-42-473	CM-08-F-473‡03	8.40	9.24	
50000	DM-42-503		8.85	9.74	
51000	DM-42-513		9.00	9.90	
51000*		CM-08-F-513‡03	7.92	8.71	
56000*	DM-42-563	CM-08-F-563‡03	8.58	9.44	
62000*	DM-42-623	CM-08-F-623‡03	9.30	10.23	
68000**	DM-42-683		9.00	9.90	
75000**	DM-42-753		9.60	10.56	
82000**	DM-42-823		10.20	11.22	

TYPE DM-43 500VDCW

47000	DM-43-473
50000	DM-43-503
51000	DM-43-513
56000	DM-43-563
62000	DM-43-623
68000	DM-43-683
75000*	DM-43-753
82000*	DM-43-823
91000*	DM-43-913
100000*	DM-43-104
110000**	DM-43-114
120000**	DM-43-124
130000**	DM-43-134

Prices on Request

All capacities marked with * are 300WV.

All capacities marked with ** are 100WV.

All capacities listed above, in DM-30, DM-42 and DM-43 case sizes are "F" characteristic.

For ±½% tolerance. Prices on request.

‡Tolerance designation in part number. Insert the proper letter signifying capacitance tolerance required

NET (For quantities of 25 or more, please contact your local Arco-Elmenco distributor)

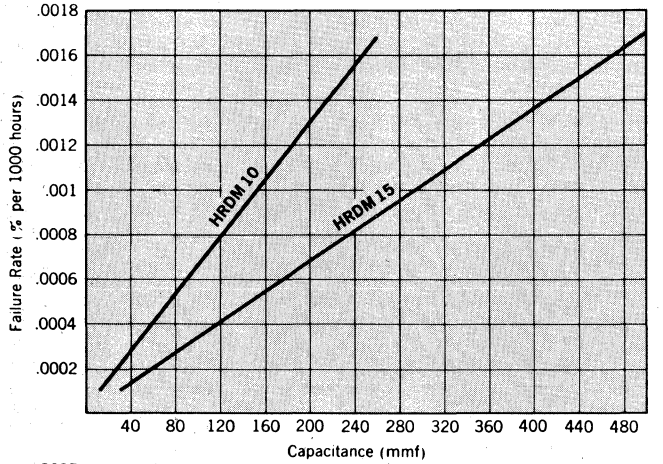
ELMENCO CAPACITORS — High Reliability Dur-Mica

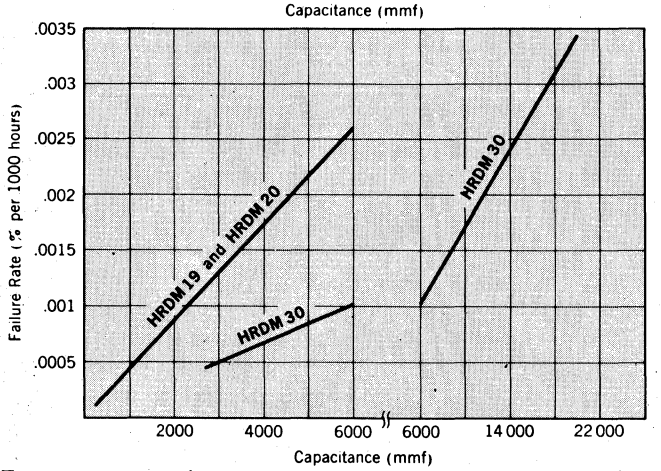
Type HRDM

Missile, Computer, and other applications wherein entire system performance depends on reliable operation of thousands of components has prompted development of a High Reliability line of ELMENCO Dur-Mica dipped silvered mica capacitors. Selected DM units are subjected to a special "debugging" process to eliminate potential early failures. This process is particularly effective when the capacitors are to be subjected to operation near their maximum rated temperatures. The HRDM capacitors are exposed to double rated voltage for 48 hours at 125°C. The graphs below indicate the reliability levels of these capacitors. The curves have been derived from the results of tens of thousands of hours of testing of tens of thousands of capacitors of all values and case sizes. Further information on the performance characteristics of HRDM capacitors is available upon request.

RELIABILITY OF ELMENCO HRDM CAPACITORS

Failure Rate in % per 1000 Hours (90% Confidence Level) vs. Capacitance Value ☐ 500VDCW Operation at 85°C.





To conserve catalog space, part numbers for each HRDM capacitor are not listed as they are for the standard units. Capacitance values are shown for each case size with corresponding list prices indicated for each standard tolerance. Voltage ratings are the same as for the standard DM capacitors.

To specify part number, merely prefix the regular DM part number by the letters "HR". For example, a high reliability DM15-101J would be called out by the part number HRDM15-101J.

Capacitance values (mmf.)		Net Price (1-24) Tolerance			
	DM-10	±10%	±5%	±2%	±1%
	1-10§	$0.33			
	12-18†	.36	$0.42		
	20-43	.36	.38	$0.53	
	47-110	.39	.41	.58	$0.81
	120-130	.42	.45	.65	.75
	150	.46	.49	.71	.82
	160	.49	.53	.78	.90
	180-200	.52	.56	.82	.96
	220	.55	.59	.87	1.02
	240-270	.60	.64	.94	1.10
	300-330	.63	.68	1.01	1.20
	360	.66	.71	1.06	1.26
	390	.69	.75	1.11	1.32
	DM-15				
	1-100†	.32	.32	.39	.44
	110-150	.33	.35	.39	.44
	160-200	.36	.39	.43	.49
	220-250	.39	.42	.47	.53
	270-300	.42	.45	.51	.59
	330-360	.45	.48	.54	.63
	390-430	.48	.52	.59	.68
	470-510	.51	.56	.63	.74
	560	.56	.60	.68	.80
	620	.59	.64	.72	.86
	680	.62	.68	.77	.92
	750	.66	.71	.81	.96
	820	.69	.75	.86	1.02
	910	.75	.81	.94	1.06
	1000	.80	.85	.98	1.11
DM-19	DM-20				
100		.30	.32	.33	.38
110-220		.33	.35	.37	.42
240-250		.36	.39	.41	.47
270-330		.39	.42	.44	.51
360-430		.42	.45	.48	.56
470-510	680-820	.45	.48	.51	.60
560-620	910	.48	.52	.55	.65
680-820	1000-1100	.51	.56	.59	.70
910	1200	.54	.59	.62	.75
1000-1100	1300	.57	.62	.66	.79
1200	1500	.60	.65	.70	.84
1300	1600	.63	.68	.74	.88
1500		.66	.72	.78	.93
1600	1800	.70	.76	.81	.98
	2000	.73	.79	.84	1.02
1800		.76	.82	.88	1.07
	2200	.79	.86	.92	1.12
2000	2400-2500	.82	.89	.96	1.16
	2700	.88	.96	1.03	1.25
2200		.90	.98	1.06	1.29
	3000	.95	1.02	1.11	1.35
2400		.97	1.05	1.14	1.38
2500		1.00	1.09	1.17	1.43
2700	3300	1.04	1.13	1.22	1.49
3000	3600	1.10	1.20	1.29	1.58
3300	3900	1.17	1.27	1.37	1.68
3600	4300	1.23	1.34	1.45	1.78
3900	4700	1.30	1.41	1.53	1.88
4300	5000-5100	1.37	1.49	1.61	1.98
4700	5600-6200	1.43	1.55	1.69	2.08
5000-5100	6800	1.50	1.62	1.77	2.18
5600	7500	1.56	1.70	1.86	2.29
6200-6800		1.63	1.77	1.94	2.39
7500	8200	1.69	1.85	2.03	2.50
8200		1.76	1.92	2.11	2.61
	9100	1.85	2.04	2.21	2.75
	10000	2.07	2.25	2.45	3.04

PRICES FOR HRDM30, HRDM42, AND HRDM43 ON REQUEST.

§ Minimum tolerance ±1 mmf. Add $0.09 for ±0.5 mmf.

† Minimum tolerance ±0.5 mmf.

NOTE: Voltage ratings of items listed correspond to those indicated for the standard line DM capacitors in equivalent values and case sizes indicated on previous pages.

There is a set-up charge of $3.00 per item when the quantity of the item is less than 100. This charge is added to the unit prices indicated above.

NET (For quantities of 25 or more, please contact your local Arco-Elmenco distributor)

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ELMENCO CAPACITORS — High Voltage Dur-Mica

A new line of ELMENCO Silvered Hi-Voltage Dur-Mica capacitors is now available to complement the similar values in the molded configuration. These high voltage capacitors afford the same facility of use in low power applications by providing reliable operation in a small case size. Elmenco Dur-Mica capacitors may be substituted for similarly rated molded units normally supplied in the larger CM45, CM50, CM55, and CM60 case sizes.

The Dur-Mica design provides advantage of higher temperature operation (125°C. max.); radial leads for printed circuit application; higher capacitance in a given case size; and improved reliability. The dipped units, being solidly impregnated with corona resistant material, do not have the voids which make molded types susceptible to corona. As a result, the dipped capacitors can be supplied with voltage rating as high as 5000VDCW.

All Elmenco Dur-Mica capacitors are silvered mica construction. They conform to electrical and environmental specifications set forth in MIL-C-5 specifications.

The physical configuration of these capacitors is the same as for the standard DM units. This information is found on page 8. The only difference is that for a given capacitance value case dimensions will be larger for higher voltage ratings because the mica is thicker. The maximum case dimensions for each of the case sizes indicated below is the same as the maximums indicated in the tabulation.

VDM-20 HI-VOLTAGE

TOLERANCE ±5%

CAP. MMF.	TYPE DESIGNATION	VDC 2000T 1000W NET	VDC 3000T 1500W NET	VDC 5000T 2500W NET
5	VDM-20-050K			$0.18
10	VDM-20-100J	USE	USE	.18
12	VDM-20-120J	2500V	2500V	.18
15	VDM-20-150J			.18
18	VDM-20-180J		.18	.21
20	VDM-20-200J		.18	.21
22	VDM-20-220J		.18	.21
24	VDM-20-240J		.18	.21
27	VDM-20-270J	USE	.18	.21
30	VDM-20-300J	1500V	.18	.21
33	VDM-20-330J		.18	.21
36	VDM-20-360J		.18	.21
39	VDM-20-390J		.18	.21
43	VDM-20-430J	.18	.21	.24
47	VDM-20-470J	.18	.21	.27
50	VDM-20-500J	.18	.21	.27
51	VDM-20-510J	.18	.21	.27
56	VDM-20-560J	.18	.21	.27
62	VDM-20-620J	.18	.21	.30
68	VDM-20-680J	.18	.21	.30
75	VDM-20-750J	.18	.21	.30
82	VDM-20-820J	.18	.24	.33
91	VDM-20-910J	.18	.24	.36
100	VDM-20-101J	.21	.24	.36
110	VDM-20-111J	.21	.24	.39
120	VDM-20-121J	.21	.24	.39
130	VDM-20-131J	.21	.27	.42
150	VDM-20-151J	.21	.27	.45
160	VDM-20-161J	.21	.27	.48
180	VDM-20-181J	.21	.30	.51
200	VDM-20-201J	.24	.30	.57
220	VDM-20-221J	.24	.33	.60
240	VDM-20-241J	.24	.33	.63
250	VDM-20-251J	.24	.36	.66
270	VDM-20-271J	.24	.36	.72
300	VDM-20-301J	.24	.36	.78
330	VDM-20-331J	.24	.39	.84
360	VDM-20-361J	.24	.39	.90
390	VDM-20-391J	.27	.42	
430	VDM-20-431J	.27	.45	
470	VDM-20-471J	.27	.48	
500	VDM-20-501J	.30	.51	
510	VDM-20-511J	.30	.51	
560	VDM-20-561J	.30	.54	
620	VDM-20-621J	.33	.60	
680	VDM-20-681J	.36	.66	
750	VDM-20-751J	.36	.72	
820	VDM-20-821J	.39	.78	
910	VDM-20-911J	.42	.84	
1000	VDM-20-102J	.42	.90	
1100	VDM-20-112J	.45	.96	
1200	VDM-20-122J	.48	1.02	
1300	VDM-20-132J	.51	1.08	
1500	VDM-20-152J	.54		
1600	VDM-20-162J	.57		
1800	VDM-20-182J	.60		
2000	VDM-20-202J	.66		
2200	VDM-20-222J	.72		
2400	VDM-20-242J	.78		
2700	VDM-20-272J	.87		
3000	VDM-20-302J	.96		

VDM-30 HI-VOLTAGE

TOLERANCE ±5%

CAP. MMF.	TYPE DESIGNATION	VDC 2000T 1000W NET	VDC 3000T 1500W NET	VDC 5000T 2500W NET
390	VDM-30-391J	USE	USE	$0.72
430	VDM-30-431J			.78
470	VDM-30-471J			.84
500	VDM-30-501J			.90
510	VDM-30-511J			.90
560	VDM-30-561J			.96
620	VDM-30-621J			1.02
680	VDM-30-681J		CASE	1.08
750	VDM-30-751J		VDM-20	1.14
820	VDM-30-821J			1.20
910	VDM-30-911J			1.29
1000	VDM-30-102J	CASE		1.38
1100	VDM-30-112J	VDM-20		1.50
1200	VDM-30-122J			1.65
1300	VDM-30-132J			1.80
1500	VDM-30-152J		1.20	2.10
1600	VDM-30-162J		1.32	2.25
1800	VDM-30-182J		1.44	2.58
2000	VDM-30-202J		1.56	2.94
2200	VDM-30-222J		1.68	3.30
2400	VDM-30-242J		1.89	3.66
2700	VDM-30-272J		1.98	4.20
3000	VDM-30-302J		2.16	
3300	VDM-30-332J	1.20	2.34	
3600	VDM-30-362J	1.32	2.52	
3900	VDM-30-392J	1.38	2.70	
4300	VDM-30-432J	1.50	2.88	
4700	VDM-30-472J	1.62	3.06	
5000	VDM-30-502J	1.80	3.24	
5100	VDM-30-512J	1.80	3.30	
5600	VDM-30-562J	1.86	3.60	
6200	VDM-30-622J	2.10	3.90	
6800	VDM-30-682J	2.34	4.20	
7500	VDM-30-752J	2.64		
8200	VDM-30-822J	3.00		
9100	VDM-30-912J	3.36		
10000	VDM-30-103J	3.72		

VDM-42 HI-VOLTAGE

CAP. MMF.	TYPE DESIGNATION	VDC 2000T 1000W	VDC 1500T 1500W	VDC 5000T 2500W
3000	VDM-42-302J		USE	
3300	VDM-42-332J		VDM-30	
3600	VDM-42-362J		CASE	
3900	VDM-42-392J			
4300	VDM-42-432J			
4700	VDM-42-472J			
5000	VDM-42-502J			
5100	VDM-42-512J			
5600	VDM-42-562J			
6200	VDM-42-622J			
6800	VDM-42-682J			
7500	VDM-42-752J			
8200	VDM-42-822J			
9100	VDM-42-912J			
10000	VDM-42-103J			
12000	VDM-42-123J		PRICING	
13000	VDM-42-133J		ON	
15000	VDM-42-153J		REQUEST	
16000	VDM-42-163J			
18000	VDM-42-183J			
20000	VDM-42-203J			
22000	VDM-42-223J			
24000	VDM-42-243J			
25000	VDM-42-253J			
27000	VDM-42-273J			
30000	VDM-42-303J			

VDM-43 HI-VOLTAGE

TOLERANCE ±5%

CAP. MMF.	TYPE DESIGNATION	
12000	VDM-43-123J	2500WV
13000	VDM-43-133J	↓
15000	VDM-43-153J	
20000	VDM-43-203J	15000WV
22000	VDM-43-223J	
24000	VDM-43-243J	PRICING
25000	VDM-43-253J	ON
27000	VDM-43-273J	REQUEST
30000	VDM-43-303J	
33000	VDM-43-333J	1000WV
36000	VDM-43-363J	
39000	VDM-43-393J	
43000	VDM-43-433J	
47000	VDM-43-473J	

SPECIAL HVDM-42 & HVDM-43 5000WV UNITS

CAP. MMF.	TYPE DESIGNATION	10000 VOLTS DC TEST 5000 VOLTS DC WKG.
5	HVDM-42-050K	
10	HVDM-42-100J	
12	HVDM-42-120J	
15	HVDM-42-150J	
18	HVDM-42-180J	
20	HVDM-42-200J	
22	HVDM-42-220J	
24	HVDM-42-240J	
27	HVDM-42-270J	
30	HVDM-42-300J	
33	HVDM-42-330J	
36	HVDM-42-360J	
39	HVDM-42-390J	
43	HVDM-42-430J	
47	HVDM-42-470J	
50	HVDM-42-500J	
51	HVDM-42-510J	
56	HVDM-42-560J	
62	HVDM-42-620J	
68	HVDM-42-680J	
75	HVDM-42-750J	
82	HVDM-42-820J	PRICING
91	HVDM-42-910J	ON
100	HVDM-42-101J	REQUEST
110	HVDM-42-111J	
120	HVDM-42-121J	
130	HVDM-42-131J	
150	HVDM-42-151J	
160	HVDM-42-161J	
180	HVDM-42-181J	
200	HVDM-42-201J	
220	HVDM-42-221J	
240	HVDM-42-241J	
250	HVDM-42-251J	
270	HVDM-42-271J	
300	HVDM-42-301J	
330	HVDM-42-331J	
360	HVDM-42-361J	
390	HVDM-42-391J	
430	HVDM-42-431J	
470	HVDM-42-471J	
500	HVDM-42-501J	
510	HVDM-42-511J	
560	HVDM-42-561J	
620	HVDM-42-621J	
680	HVDM-43-681J	
750	HVDM-43-751J	
820	HVDM-43-821J	
910	HVDM-43-911J	

PLEASE SPECIFY WORKING VOLTAGE RATING WHEN ORDERING

Above prices are for Standard 5% Tolerance.
Closer Tolerances to ±1% available.
Pricing on request.

NET (For quantities of 25 or more, please contact your local Arco-Elmenco distributor)

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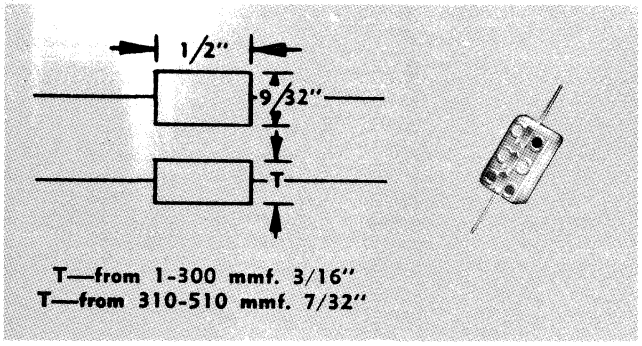
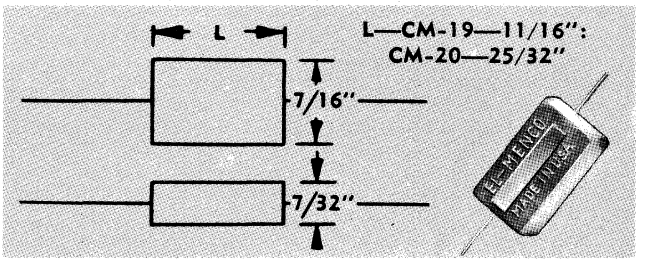
ELMENCO CAPACITORS — Molded Silvered Mica





TYPE CM-15

500VDCW

CAP. MMF.	TYPE DESIGNATION	Net Price (1-24) Tolerance "J" ±5%	"G" ±2%	"F" ±1%
1	CM-15-C-010†			
2	CM-15-C-020†			
3	CM-15-C-030†			
5	CM-15-C-050†			
10	CM-15-C-100	$0.18		
12	CM-15-C-120	.18		
15	CM-15-C-150	.18		
18	CM-15-C-180	.18		
20	CM-15-C-200	.18		
22	CM-15-C-220	.18		
24	CM-15-E-240	.18		
27	CM-15-E-270	.18	$0.25	
30	CM-15-E-300	.18	.25	
33	CM-15-E-330	.18	.25	
36	CM-15-E-360	.18	.25	
39	CM-15-E-390	.18	.25	
43	CM-15-E-430	.18	.25	
47	CM-15-E-470	.18	.25	
50	CM-15-E-500	.18	.25	$0.30
51	CM-15-E-510	.18	.25	.30
56	CM-15-E-560	.18	.25	.30
62	CM-15-E-620	.18	.25	.30
68	CM-15-E-680	.18	.25	.30
75	CM-15-E-750	.18	.25	.30
82	CM-15-E-820	.18	.25	.30
91	CM-15-E-910	.18	.25	.30
100	CM-15-E-101	.18	.25	.30
110	CM-15-E-111	.21	.25	.30
120	CM-15-E-121	.21	.25	.30
130	CM-15-E-131	.21	.25	.30
150	CM-15-E-151	.21	.25	.30
160	CM-15-E-161	.24	.29	.34
180	CM-15-E-181	.24	.29	.34
200	CM-15-E-201	.24	.29	.34
220	CM-15-E-221	.27	.32	.39
240	CM-15-E-241	.27	.32	.39
250	CM-15-E-251	.27	.32	.39
270	CM-15-E-271	.30	.36	.43
300	CM-15-E-301	.30	.36	.43
330	CM-15-E-331	.33	.40	.47
360	CM-15-E-361	.36	.43	.52
390	CM-15-E-391	.39	.47	.56
430	CM-15-E-431	.39	.47	.56
470	CM-15-E-471	.42	.50	.61
500	CM-15-E-501	.42	.50	.61
510	CM-15-E-511	.42	.50	.61
560**	CM-15-E-561	.42	.50	.61
620**	CM-15-E-621	.45	.54	.65
680**	CM-15-E-681	.48	.58	.69
750**	CM-15-E-751	.51	.61	.73
820**	CM-15-E-821	.54	.65	.78

† Capacities marked with † denote that closest tolerance is ±0.5 mmf.

* Voltage rating 300 VDCW.

** Voltage rating 100 VDCW.

SPECIFICATIONS NOTES:
±½% tolerance available above 100 mmf., pricing upon request.
CM-15, available "F" characteristic above 30 mmf.
CM-19, 20 available "E" characteristic above 110 mmf.
CM-19, 20 available "F" characteristic above 200 mmf.
All CM-30, 35, and 42 values listed are available in "F" characteristic.

TYPE CM-19 & 20

500VDCW

CAP. MMF.	TYPE DESIGNATION	Net Price (1-24) Tolerance "K" ±10%	"J" ±5%	"G" ±2%	"F" ±1%
100	CM-20-C-101	$0.16	$0.18	$0.23	$0.29
110	CM-20-C-111	.19	.21	.23	.29
120	CM-20-C-121	.19	.21	.23	.29
130	CM-20-C-131	.19	.21	.23	.29
150	CM-20-C-151	.19	.21	.23	.29
160	CM-20-C-161	.19	.21	.23	.29
180	CM-20-C-181	.19	.21	.23	.29
200	CM-20-D-201	.19	.21	.23	.29
220	CM-20-D-221	.19	.21	.23	.29
240	CM-20-D-241	.22	.24	.26	.34
250	CM-20-D-251	.22	.24	.26	.34
270	CM-20-D-271	.22	.24	.26	.34
300	CM-20-D-301	.22	.24	.26	.34
330	CM-20-D-331	.22	.24	.26	.34
360	CM-20-D-361	.22	.24	.26	.34
390	CM-20-D-391	.24	.27	.30	.38
430	CM-20-D-431	.24	.27	.30	.38
470	CM-20-D-471	.24	.27	.30	.38
500	CM-20-D-501	.27	.30	.33	.42
510	CM-20-D-511	.27	.30	.33	.42
560	CM-20-D-561	.27	.30	.33	.42
620	CM-20-D-621	.30	.33	.37	.46
680	CM-20-D-681	.33	.36	.40	.50
750	CM-20-D-751	.33	.36	.40	.50
820	CM-20-D-821	.35	.39	.43	.55
910	CM-20-D-911	.38	.42	.46	.59
1000	CM-20-E-102	.38	.42	.46	.59
1100	CM-20-E-112	.41	.45	.50	.63
1200	CM-20-E-122	.43	.48	.53	.67
1300	CM-20-E-132	.43	.48	.53	.67
1500	CM-20-E-152	.46	.51	.56	.71
1600	CM-20-E-162	.49	.54	.59	.76
1800	CM-20-E-182	.54	.60	.66	.84
2000	CM-20-E-202	.60	.66	.73	.92
2200	CM-20-E-222	.66	.72	.79	1.01
2400	CM-20-E-242	.68	.75	.83	1.05
2500	CM-20-E-252	.71	.78	.86	1.09
2700	CM-20-E-272	.76	.84	.92	1.18
3000	CM-20-E-302	.81	.90	.99	1.26
3300	CM-20-E-332	.87	.96	1.06	1.34
3600*	CM-20-E-362	.92	1.02	1.12	1.43
3900*	CM-20-E-392	.99	1.08	1.19	1.51
4300*	CM-20-E-432	1.03	1.14	1.25	1.60
4700*	CM-20-E-472	1.08	1.20	1.32	1.68
5000*	CM-20-E-502	1.14	1.26	1.39	1.76
5100*	CM-20-E-512	1.14	1.26	1.39	1.76

Capacities from 5 to 2400 mmf. can be supplied in CM-19 cases. In values above 1000 mmf. the net prices for CM-19 are 10% higher than those listed above.

As can be seen in the line drawing above, the only difference between CM19 and CM20 is length dimension. For competitive reasons it has been necessary to retain both mold sizes. However both CM19 and CM20 fully conform to all specifications for MIL-C-5 case size CM20, and they are interchangeable for military requirements.

NET (For quantities of 25 or more, please contact your local Arco-Elmenco distributor)

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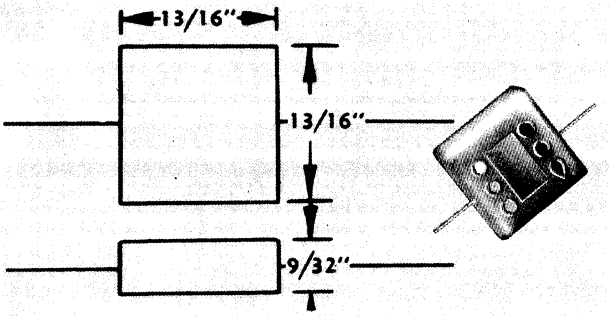
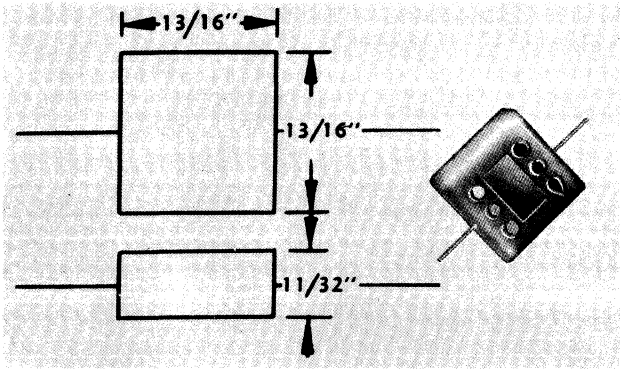
ELMENCO CAPACITORS — Molded Silvered Mica



TYPE CM-30

500VDCW

CAP. MMF.	TYPE DESIGNATION	Net Price (1-24) Tolerance "K" ±10%	"J" ±5%	"G" ±2%	"F" ±1%
510	CM-30-E-511	$0.30	$0.33	$0.37	$0.40
560	CM-30-E-561	.33	.36	.40	.43
620	CM-30-E-621	.33	.36	.40	.43
680	CM-30-E-681	.35	.39	.43	.47
750	CM-30-E-751	.35	.39	.43	.47
820	CM-30-E-821	.38	.42	.46	.50
910	CM-30-E-911	.38	.42	.46	.50
1000	CM-30-E-102	.41	.45	.50	.54
1100	CM-30-E-112	.41	.45	.50	.54
1200	CM-30-E-122	.41	.45	.50	.54
1300	CM-30-E-132	.43	.48	.53	.58
1500	CM-30-E-152	.46	.51	.56	.61
1600	CM-30-E-162	.46	.51	.56	.61
1800	CM-30-E-182	.49	.54	.59	.65
2000	CM-30-E-202	.54	.60	.66	.72
2200	CM-30-E-222	.60	.66	.73	.79
2400	CM-30-E-242	.65	.72	.79	.86
2500	CM-30-E-252	.65	.72	.79	.86
2700	CM-30-E-272	.70	.78	.86	.94
3000	CM-30-E-302	.76	.84	.92	1.01
3300	CM-30-E-332	.81	.90	.99	1.08
3600	CM-30-E-362	.87	.96	1.06	1.15
3900	CM-30-E-392	.92	1.02	1.12	1.22
4300	CM-30-E-432	.98	1.08	1.19	1.30
4700	CM-30-E-472	1.03	1.14	1.25	1.37
5000	CM-30-E-502	1.08	1.20	1.32	1.44
5100	CM-30-E-512	1.08	1.20	1.32	1.44
5600	CM-30-E-562	1.14	1.26	1.39	1.51
6200	CM-30-E-622	1.19	1.32	1.45	1.58



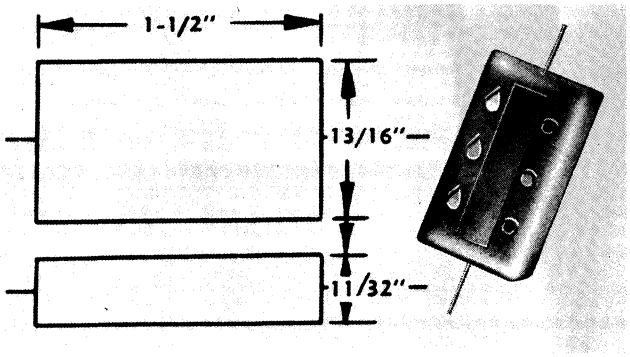
TYPE CM-35

500VDCW

		Net Price (1-24) Tolerance "K" ±10%	"J" ±5%	"G" ±2%	"F" ±1%
6800*	CM-35-E-682	$1.19	$1.32	$1.45	$1.58
7500*	CM-35-E-752	1.30	1.44	1.58	1.73
8200*	CM-35-E-822	1.42	1.56	1.72	1.87
9100*	CM-35-E-912	1.53	1.68	1.85	2.02
10000*	CM-35-E-103	1.68	1.86	2.05	2.23
12000*	CM-35-E-123	1.94	2.16	2.38	2.59
15000*	CM-35-E-153	2.28	2.58	2.84	3.10
6800	VCM-35-E-682	1.31	1.44	1.58	1.73
7500	VCM-35-E-752	1.42	1.56	1.72	1.87
8200	VCM-35-E-822	1.53	1.68	1.85	2.02
9100	VCM-35-E-912	1.69	1.85	2.05	2.23
10000	VCM-35-E-103	1.80	2.04	2.24	2.45

All capacities marked with * are 300WV.

NOTE:—All above "SILVERED MICA" units can be supplied in "F" Characteristic at no extra cost.



TYPE CM-42

500VDCW

CAP. MMF.	TYPE DESIGNATION	Net Price (1-24) Tolerance "J" ±5%	"G" ±2%	"F" ±1%
12000	CM-42-E-123			
13000	CM-42-E-133			
15000	CM-42-E-153			
16000	CM-42-E-163			
18000	CM-42-E-183			
20000	CM-42-E-203			
22000	CM-42-E-223			
24000	CM-42-E-243			
25000	CM-42-E-253			
27000*	CM-42-E-273			
30000*	CM-42-E-303			
33000*	CM-42-E-333			
36000*	CM-42-E-363			
39000*	CM-42-E-393			

PRICING ON REQUEST

All capacities marked with * are 300VDCW.

TYPES CM-25 & CM-40

Although CM-25 and CM-40 are not listed, they are still available and most items are in stock. Please contact us for price and delivery information.

MICA CAPACITOR NOTES

Off standard capacitance values — non-standard values not listed in part number tabulations of molded and dipped mica capacitors are priced at next higher listed value and are subject to a $1.00 set-up charge per item.

Minimum tolerance — Regardless of capacitance and percentage tolerance indicated, the minimum absolute capacitance tolerance normally supplied is ±0.5 mmf. It is ARCO standard practice to supply ±0.5 mmf. automatically on orders for ±5% or ±10% which calculate to less than ±0.5 mmf. If ±2% or ±1% tolerance is specified, customer is notified of deviation for approval.

EXCEPTION: Standard minimum tolerance for DM10 is ±1 mmf. (±0.5 mmf available at added cost).

Source Inspection — Government Source Inspection is performed on MIL-C-5 capacitors, both dipped and molded, when specified. Prompt service is afforded on all items from case size CM-05 to CM-40 inclusive.

NET (For quantities of 25 or more, please contact your local Arco-Elmenco distributor)

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ELMENCO CAPACITORS — High Temperature Molded Silvered Mica

The standard Elmenco molded mica capacitor is designed for use at a maximum of 85°C., the former industry and military standard prior to issuance of MIL-C-5. Now, in some applications, these components are expected to operate without derating and with the same order of reliability at 125°C. The latter requirement is particularly difficult to cope with and obviously requires vast improvement over the standard design.

A specially designed Elmenco molded mica capacitor, designated type HTCM, has been developed which will afford complete satisfaction at the higher levels of temperature stress. The resulting units have been carefully evaluated in millions of unit-hours of life and environmental testing to verify their performance excellence.

In order to retain proper characteristics at 125°C., the following steps are taken:

1. Every mica film is screened for high temperature characteristics. This is done 100%, not on a sampling basis.

2. A special high temperature molding resin is employed to preserve the strength and electrical characteristic of the mica at 125°C. This molding material was also selected for the lower molding pressure required. This reduced stress greatly enhances the reliability of the mica films.

3. A solid high temperature impregnant is used instead of wax for greater stability and retention of the moisture resistance characteristic. Wax will have a tendency to melt out at high temperature, causing possible change in capacitance value, loss of moisture seal, and possible foulling of adjacent circuitry. The HTCM capacitors will remain physically and electrically stable at 125°C.

With these design innovations, vast improvement is obtained in operating reliability at elevated temperature. The expected failure rate is reduced to a small fraction of what might otherwise be expected of standard design capacitors.

HTCM CAPACITORS MEET ALL ELECTRICAL AND ENVIRONMENTAL SPECIFICATIONS FOR MIL-C-5 TEMPERATURE RANGE "O".

The Elmenco high temperature molded mica capacitor is designated simply by adding prefix letters "HT" to the standard part number. For example, a 100 mmf. ±5% CM-15, standard part number CM-15-E-101J, would be called an HTCM-15-E-101J, for high temperature operation.

To conserve catalog space, part numbers for each individual HTCM capacitor are not listed as they are for the standard units. Capacitance values are shown for each case size with corresponding prices indicated for each tolerance. Voltage ratings are the same as for standard CM capacitors.

THE HTCM15 CAPACITORS ARE NOW MOLDED IN A NEW FILLED-EPOXY CASE, GREATLY INCREASING RELIABILITY AND ELECTRICAL CHARACTERISTICS. THEY CAN NOW BE RECOMMENDED FOR CONSTANT OPERATION AT 150°C. ALL SPECIFICATIONS FOR MIL-C-5 TEMPERATURE RANGE "P" ARE MET.

NET PRICE (1-24)

CAP. MMF.	±5%	±2%	±1%
		HTCM15	
1-75	$0.39	$0.49	$0.59
82-150	.42	.53	.63
160-200	.45	.56	.68
220	.48	.60	.72
240	.48	.60	.72
250	.48	.60	.72
270	.51	.64	.77
300	.51	.64	.77
330	.54	.68	.81
360	.57	.71	.86
390	.57	.71	.86
430	.60	.75	.90
470	.63	.79	.95
500	.63	.79	.95
510	.63	.79	.95
		HTCM19, HTCM20	
100-220	.63	.74	.80
240-360	.72	.83	.92
390-430	.81	.93	1.02
470-510	.86	.99	1.08

NET PRICE (1-24)

CAP. MMF.	±5%	±2%	±1%
560	$0.90	$1.05	$1.14
620	.90	1.05	1.14
680	.95	1.10	1.19
750	.95	1.10	1.19
820	.99	1.14	1.25
910	.99	1.14	1.25
1000	1.04	1.20	1.31
1100	1.04	1.20	1.31
1200	1.13	1.29	1.41
1300	1.13	1.29	1.41
1500	1.26	1.46	1.59
1600	1.26	1.46	1.59
1800	1.35	1.56	1.70
2000	1.35	1.67	1.82
2200	1.53	1.77	1.92
2400	1.62	1.86	2.04
2500	1.67	1.92	2.09
2700	1.76	2.08	2.21
3000	1.94	2.24	2.43
3300	2.08	2.33	2.54

Add 10% to indicated prices for HTCM19 in values above 1000 mmf. to a maximum of 2400 mmf.

NET PRICE (1-24)

CAP. MMF.	±5%	±2%	±1%
3600	$2.08	$2.33	$2.54
3900	2.12	2.45	2.66
4300	2.21	2.54	2.76
4700	2.30	2.64	2.88
5000	2.39	2.75	2.99
5100	2.39	2.75	2.99
		HTCM30, HTCM35	
3600	2.12	2.45	2.66
3900	2.21	2.54	2.76
4300	2.30	2.64	2.88
4700	2.39	2.75	2.99
5000	2.52	2.90	3.17
5100	2.52	2.90	3.17
5600	2.88	3.32	3.62
6200	3.11	3.59	3.89
6800	2.75	3.17	3.44
7500	2.88	3.32	3.62
8200	3.11	3.57	3.89
9100	3.33	3.94	4.17
10000	3.60	4.14	4.52

THERE IS A $5.00 PER ITEM SET-UP CHARGE FOR NON-STANDARD CAPACITANCE VALUES IN QUANTITIES LESS THAN 100 OF A SIZE. ALL VALUES LISTED ON PRIOR PAGES FOR THE STANDARD SILVERED MOLDED MICA ARE CONSIDERED STANDARD STOCK VALUES FOR WHICH THERE IS NO SET-UP CHARGE.

NET (For quantities of 25 or more, please contact your local Arco-Elmenco distributor)

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ELMENCO CAPACITORS — High Voltage Molded Mica

Demand for smaller units in higher voltages designed to meet the requirements for TELEVISION, POWER AMPLIFIERS, LOW POWER TRANSMITTERS, and various INDUSTRIAL USES has increased. ELMENCO designed and produced units listed below are especially adaptable to compact circuits where space is an important factor. Their acceptance has been overwhelming by the various manufacturers of TELEVISION RECEIVERS.

In many cases, these units will do the work of capacitors molded in CM-45, CM-50, and CM-55 cases without breaking down. NO SPECIAL MOUNTINGS ARE NECESSARY; just wire right into the circuit.

The capacitors are molded in low-loss Phenolic Resin in CM-20, CM-35, CM-42 cases and tested at double the branded voltage. They are tested for dielectric strength, insulation resistance, temperature coefficient capacitance drift, susceptibility to humidity, and length of life, according to EIA Standards. All units are wax-dipped for protection against salt water immersion.

VCM-20 HI-VOLTAGE MOLDED SILVERED MICA

CAP. MMF.	TYPE DESIGNATION	2000VDCT 1000VDCW ±5% (J) LIST	2000VDCT 1000VDCW ±5% (J) NET	3000VDCT 1500VDCW ±5% (J) LIST	3000VDCT 1500VDCW ±5% (J) NET	5000VDCT 2500VDCW ±5% (J) LIST	5000VDCT 2500VDCW ±5% (J) NET
5	VCM-20-050	USE 2500WV		USE 2500WV		$0.35	$0.21
10	VCM-20-100					.35	.21
12	VCM-20-120					.35	.21
15	VCM-20-150					.35	.21
18	VCM-20-180			$0.35	$0.21	.40	.24
20	VCM-20-200			.35	.21	.40	.24
22	VCM-20-220			.35	.21	.40	.24
24	VCM-20-240			.35	.21	.40	.24
27	VCM-20-270			.35	.21	.40	.24
30	VCM-20-300	USE 1500WV		.35	.21	.40	.24
33	VCM-20-330			.35	.21	.45	.27
36	VCM-20-360			.35	.21	.45	.27
39	VCM-20-390			.35	.21	.45	.27
43	VCM-20-430	$0.35	$0.21	.40	.24	.45	.27
47	VCM-20-470	.35	.21	.40	.24	.50	.30
50	VCM-20-500	.35	.21	.40	.24	.50	.30
51	VCM-20-510	.35	.21	.40	.24	.50	.30
56	VCM-20-560	.35	.21	.40	.24	.50	.30
62	VCM-20-620	.35	.21	.40	.24	.55	.33
68	VCM-20-680	.35	.21	.40	.24	.55	.33
75	VCM-20-750	.35	.21	.40	.24	.55	.33
82	VCM-20-820	.35	.21	.40	.24	.60	.33
91	VCM-20-910	.35	.21	.40	.24	.60	.36
100	VCM-20-101	.35	.21	.40	.24	.60	.36
110	VCM-20-111	.35	.21	.40	.24	.65	.39
120	VCM-20-121	.35	.21	.40	.24	.65	.39
130	VCM-20-131	.35	.21	.45	.27	.70	.42
150	VCM-20-151	.35	.21	.45	.27	.75	.45
160	VCM-20-161	.35	.21	.45	.27	.80	.48
180	VCM-20-181	.35	.21	.50	.30	.85	.51
200	VCM-20-201	.40	.24	.50	.30	.95	.57
220	VCM-20-221	.40	.24	.55	.33	1.00	.60
240	VCM-20-241	.40	.24	.55	.33		
250	VCM-20-251	.40	.24	.60	.36		
270	VCM-20-271	.40	.24	.60	.36		
300	VCM-20-301	.40	.24	.60	.36		
330	VCM-20-331	.40	.24	.65	.39		
360	VCM-20-361	.40	.24	.65	.39		
390	VCM-20-391	.45	.27	.70	.42		
430	VCM-20-431	.45	.27	.75	.45		
470	VCM-20-471	.45	.27	.80	.48		
500	VCM-20-501	.50	.30	.85	.51		
510	VCM-20-511	.50	.30	.85	.51		
560	VCM-20-561	.50	.30	.90	.54		
620	VCM-20-621	.55	.33				
680	VCM-20-681	.60	.36				
750	VCM-20-751	.60	.36				
820	VCM-20-821	.65	.39				
910	VCM-20-911	.70	.42				
1000	VCM-20-102	.70	.42				
1100	VCM-20-112	.75	.45				
1200	VCM-20-122	.80	.48				
1300	VCM-20-132	.85	.51				

VCM-35 & 42 HI-VOLTAGE MOLDED SILVERED MICA

CAP. MMF.	TYPE DESIGNATION	2000VDCT 1000VDCW ±5%	3000VDCT 1500VDCW ±5%	5000VDCT 2500VDCW ±5%
240	VCM-35-241			
250	VCM-35-251			
270	VCM-35-271			
300	VCM-35-301		USE VCM-20	
330	VCM-35-331			
360	VCM-35-361			
390	VCM-35-391			
430	VCM-35-431			
470	VCM-35-471			
500	VCM-35-501	USE VCM-20		
510	VCM-35-511			
560	VCM-35-561			
620	VCM-35-621			
680	VCM-35-681			
750	VCM-35-751			
820	VCM-35-821			
910	VCM-35-911			
1000	VCM-35-102			
1100	VCM-35-112			
1200	VCM-35-122			
1300	VCM-35-132			
1500	VCM-35-152			
1600	VCM-35-162			
1800	VCM-35-182			
2000	VCM-35-202			
2200	VCM-35-222			
2400	VCM-35-242			
2700	VCM-35-272			
3000	VCM-35-302			
3300	VCM-35-332			
3600	VCM-35-362	PRICING ON REQUEST		
3900	VCM-35-392			
4300	VCM-35-432			
4700	VCM-35-472			
5000	VCM-35-502			
5100	VCM-35-512			
5600	VCM-35-562			
6200	VCM-42-622			
6800	VCM-42-682			
7500	VCM-42-752			
8200	VCM-42-822			
9100	VCM-42-912			
10000	VCM-42-103			
12000	VCM-42-123			
13000	VCM-42-133			
15000	VCM-42-153			
16000	VCM-42-163			

PLEASE SPECIFY WORKING VOLTAGE RATING WHEN ORDERING

CLOSER TOLERANCES TO ±1% AVAILABLE.
PRICE AND DELIVERY INFORMATION ON REQUEST.

NET (For quantities of 25 or more, please contact your local Arco-Elmenco distributor)

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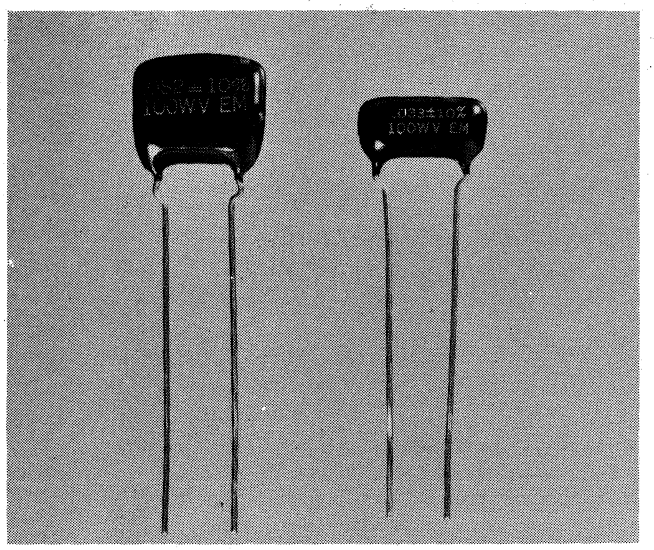
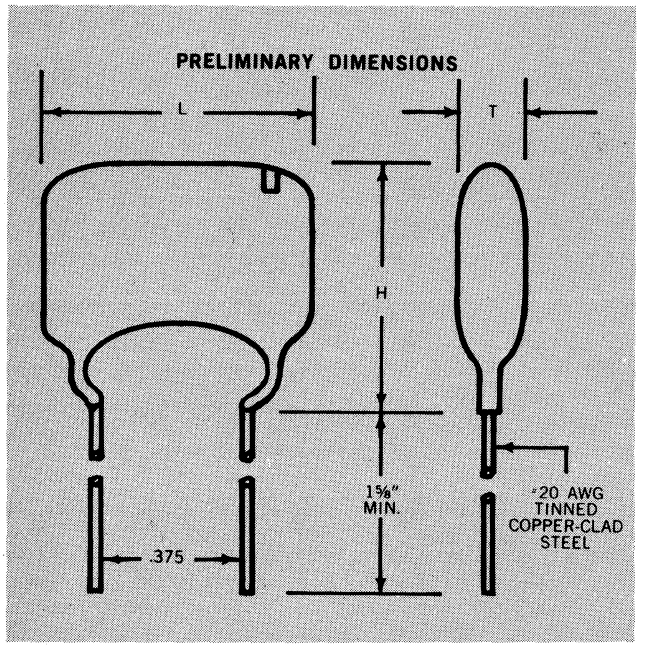
ELMENCO CAPACITORS — Epoxy-dipped Flat Mylar





These preliminary dimensions are established maximums for the four basic configurations of Type MDF. When dimensional surveys are completed on production representative of all values, individual dimensional information for each capacitance value will be published as for other dipped ELMENCO capacitors. Dimensions, particularly thickness, will vary with capacitance value.

Cap. value (mfd.)	L max.	H max.	T max.
.001 - .033	.800	19/32	7/32
.034 - .068	.800	5/8	1/4
.069 - .15	.800	7/8	5/16
.16 - .47	.800	1 1/8	9/16

The new ELMENCO Type MDF capactor is a mylar dielectric unit dipped in a newly formulated epoxy material and shaped in the flat configuration particularly suited to saving space on printed circuit boards. Before being brought to market, the design has been carefully evaluated for more than two years to be sure that the performance of the MDF will be of a level expected of ELMENCO capacitors. This release covers the 100VDCW rated series only. Dipped mylar capacitors with other voltage ratings will be announced shortly.

The specifications for the ELMENCO Type MDF are as follows:

Voltage Rating: 100VDCW, 250VDCT.

Insulation Resistance: 20,000 megohm-microfarads or 100,000 ohms, whichever is less, at 25°C.
At 85°C., the figures are 300 megohm-microfarads or 1500 megohms minimum; at 125°C., 20 and 100 respectively.

Maximum power factor at 1 kc.: 1.0%

Maximum cap. change from room temperature:
−7% at −55°C.
−3.5% at −30°C.
+4% at 85°C.
+17% at 125°C.

Capacitance drift: ±1% maximum.

STANDARD TOLERANCE ±10%

Cap. mfd.	Part Number	List Price	Net Price (1-24)
.001	1MDF-1-102	$0.25	$0.15
.0012	1MDF-1-122	.25	.15
.0015	1MDF-1-152	.25	.15
.0018	1MDF-1-182	.25	.15
.002	1MDF-1-202	.25	.15
.0022	1MDF-1-222	.25	.15
.0027	1MDF-1-272	.25	.15
.003	1MDF-1-302	.25	.15
.0033	1MDF-1-332	.25	.15
.0039	1MDF-1-392	.25	.15
.0047	1MDF-1-472	.25	.15
.005	1MDF-1-502	.25	.15
.0051	1MDF-1-512	.25	.15
.0056	1MDF-1-562	.25	.15
.0062	1MDF-1-622	.25	.15
.0068	1MDF-1-682	.25	.15
.0075	1MDF-1-752	.25	.15
.0082	1MDF-1-822	.25	.15
.01	1MDF-1-103	.25	.15
.012	1MDF-1-123	.30	.18
.015	1MDF-1-153	.30	.18
.018	1MDF-1-183	.30	.18
.02	1MDF-1-203	.30	.18
.022	1MDF-1-223	.30	.18
.024	1MDF-1-243	.30	.18
.027	1MDF-1-273	.30	.18
.03	1MDF-1-303	.30	.18
.033	1MDF-1-333	.30	.18
.039	1MDF-2-393	.30	.18
.047	1MDF-2-473	.30	.18
.05	1MDF-2-503	.30	.18
.051	1MDF-2-513	.30	.18
.056	1MDF-2-563	.30	.18
.062	1MDF-2-623	.35	.21
.068	1MDF-2-683	.35	.21
.075	1MDF-3-753	.35	.21
.082	1MDF-3-823	.35	.21
.1	1MDF-3-104	.35	.21
.12	1MDF-3-124	.40	.24
.15	1MDF-3-154	.40	.24
.2	1MDF-4-204	.45	.27
.22	1MDF-4-224	.50	.30
.27	1MDF-4-274	.60	.36
.33	1MDF-4-334	.70	.42
.39	1MDF-4-394	.80	.48
.47	1MDF-4-474	.90	.54

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ELMENCO CAPACITORS

DIPPED TUBULARS

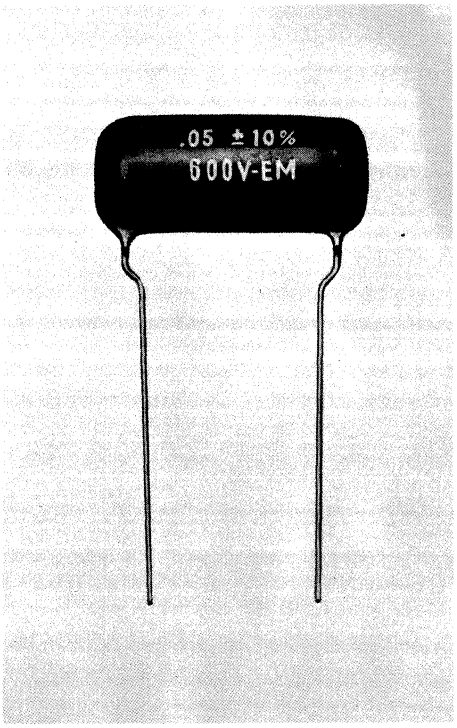
MYLAR* and MYLAR-PAPER

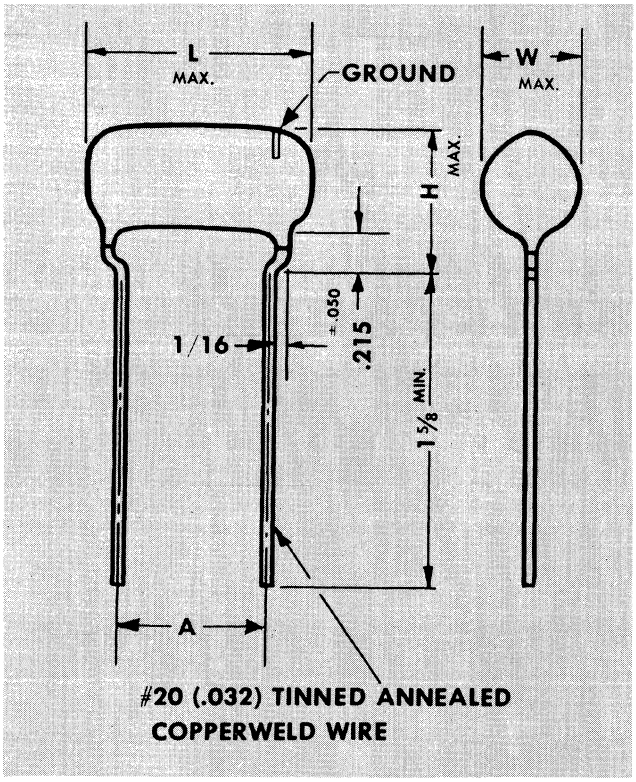
* Reg. DuPont Trademark

ELMENCO dipped mylar and mylar-paper capacitors represent a double break-through in capacitor design. They combine missile and computer quality with commercial radio-TV cost. A recent development is the addition of precision dipped tubular capacitors in tolerances as low as ±1% in addition to the popular ±10% general purpose unit. The only difference between the general purpose "dp" series and the industrial precision capacitors lies in the extra stabilizing processes applied to close tolerance capacitors to insure retention of accuracy in the field under operating extremes.

Elmenco Type MPD capacitors are non-inductively wound and vacuum dipped to obtain solid impregnation and a rugged, moisture-proof coat. New fabricating techniques realize the full potential of the dielectric materials utilizing most of the low-cost procedures of the exclusive Elmenco dip-coat process. The result is a product of electrical excellence with high reliability in operation at 125°C. without derating. The specifications listed on this and following pages well-illustrate the inherent quality of these capacitors.

NOTE: The 100VDCW rated dp units are pure mylar* dielectric capacitors.





SPECIFICATIONS

TOLERANCE:	±10%, ±5%, ±2%, ±1%.
VOLTAGE RATINGS:	Mylar-Paper — 200, 400, 600, 1600VDCW (no derating) Mylar — 100VDCW (derate 1% per °C. over 85°C.)
TEMPERATURE RANGE:	— 55 to 125°C.

INSULATION RESISTANCE:		**MYLAR-PAPER**		**MYLAR**	
	Temperature	**Megohm-Microfarads Whichever is the lesser**	**Or Megohms**	**Megohm-Microfarads Whichever is the lesser**	**Or Megohms**
	25°C.	10,000	50,000	20,000	100,000
	85°C.	200	1,000	300	1,500
	105°C.	50	250	80	400
	125°C.	15	75	20	100

POWER FACTOR:	1% maximum at 1 kc.
CAPACITANCE CHANGE VS. TEMPERATURE:	See curves on following page.

CASE SIZE	1	2	3	4	5	6	7	8
DIM. "A" ±1/32	1/4	7/16	25/32	27/32	13/32	1 11/32	1 23/32	1 27/32

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ELMENCO CAPACITORS

TYPE DP
GENERAL PURPOSE

Part Numbers:

6 DP - 2 - 103

- 6 — Voltage Rating (in 100's of volts DCW)
- DP — Type Designation
- 2 — Case Size
- 103 — Cap. Value (2 sig. figs. & dec. mult.)

The above example calls for a .01 mfd. capacitor with a 600VDCW voltage rating.

100VDCW

CAP. MFD.	PART NUMBER	L	W	H	LIST PRICE	NET PRICE (1-24)
.005	1DP-1-502	11/16	5/16	17/32	$0.30	$0.18
.006	1DP-1-602	11/16	5/16	17/32	.30	.18
.0068	1DP-1-682	11/16	5/16	17/32	.30	.18
.0075	1DP-1-752	11/16	5/16	17/32	.30	.18
.01	1DP-1-103	11/16	5/16	17/32	.30	.18
.015	1DP-1-153	23/32	11/32	19/32	.30	.18
.02	1DP-1-203	23/32	11/32	19/32	.30	.18
.022	1DP-1-223	23/32	11/32	19/32	.30	.18
.025	1DP-1-253	23/32	11/32	19/32	.30	.18
.03	1DP-1-303	23/32	3/8	5/8	.30	.18
.033	1DP-1-333	23/32	3/8	5/8	.30	.18
.04	1DP-1-403	23/32	3/8	5/8	.30	.18
.047	1DP-2-473	7/8	11/32	19/32	.35	.21
.05	1DP-2-503	7/8	11/32	19/32	.35	.21
.056	1DP-2-563	7/8	3/8	5/8	.35	.21
.068	1DP-2-683	7/8	13/32	5/8	.35	.21
.075	1DP-2-753	7/8	13/32	5/8	.35	.21
.1	1DP-2-104	29/32	7/16	11/16	.35	.21
.15	1DP-3-154	1 1/4	7/16	11/16	.40	.24
.2	1DP-3-204	1 9/32	1/2	23/32	.45	.27
.22	1DP-3-224	1 9/32	1/2	23/32	.45	.27
.25	1DP-3-254	1 9/32	17/32	3/4	.50	.30
.33	1DP-4-334	1 3/8	9/16	13/16	.60	.36
.47	1DP-4-474	1 3/8	21/32	29/32	.75	.45
.5	1DP-4-504	1 3/8	21/32	29/32	.75	.45
.68	1DP-5-684	1 9/16	11/16	15/16	.95	.57
1.0	1DP-5-105	1 9/16	3/4	1	1.20	.72

200VDCW

CAP. MFD.	PART NUMBER	L	W	H	LIST PRICE	NET PRICE (1-24)
.1	2DP-3-104	1 15/64	1/2	47/64	$0.35	$0.21
.15	2DP-3-154	1 15/64	37/64	25/32	.40	.24
.2	2DP-4-204	1 21/64	37/64	27/32	.45	.27
.22	2DP-4-224	1 21/64	37/64	27/32	.45	.27
.25	2DP-4-254	1 21/64	5/8	7/8	.50	.30
.33	2DP-5-334	1 5/8	5/8	13/16	.60	.36
.47	2DP-5-474	1 5/8	49/64	61/64	.75	.45
.5	2DP-5-504	1 5/8	49/64	61/64	.75	.45

400VDCW

CAP. MFD.	PART NUMBER	L	W	H	LIST PRICE	NET PRICE (1-24)
.01	4DP-1-103	23/32	13/32	41/64	$0.25	$0.15
.015	4DP-1-153	23/32	29/64	43/64	.25	.15
.02	4DP-2-203	7/8	7/16	11/16	.25	.15
.022	4DP-2-223	7/8	7/16	11/16	.30	.18
.025	4DP-2-253	7/8	15/32	23/32	.30	.18
.03	4DP-2-303	7/8	15/32	23/32	.30	.18
.033	4DP-2-333	7/8	15/32	23/32	.30	.18
.04	4DP-3-403	1 15/64	31/64	47/64	.30	.18
.047	4DP-3-473	1 15/64	31/64	47/64	.35	.21
.05	4DP-3-503	1 15/64	33/64	47/64	.35	.21
.056	4DP-3-563	1 15/64	33/64	47/64	.35	.21
.068	4DP-3-683	1 15/64	35/64	49/64	.40	.24
.075	4DP-3-753	1 15/64	37/64	51/64	.40	.24
.1	4DP-3-104	1 15/64	5/8	55/64	.40	.24
.15	4DP-4-154	1 29/64	45/64	59/64	.45	.27
.2	4DP-5-204	1 35/64	23/32	59/64	.55	.33
.22	4DP-5-224	1 35/64	23/32	59/64	.55	.33
.25	4DP-5-254	1 35/64	47/64	61/64	.60	.36
.27	4DP-5-274	1 35/64	47/64	61/64	.60	.36
.33	4DP-5-334	1 5/8	49/64	61/64	.90	.54
.47	4DP-6-474	1 5/8	15/16	1 3/16	1.10	.66
.5	4DP-6-504	1 7/8	27/32	1 1/32	1.20	.72

600VDCW

CAP. MFD.	PART NUMBER	L	W	H	LIST PRICE	NET PRICE (1-24)
.001	6DP-1-102	23/32	25/64	5/8	$0.25	$0.15
.0012	6DP-1-122	23/32	25/64	5/8	.25	.15
.0015	6DP-1-152	23/32	25/64	5/8	.25	.15
.002	6DP-1-202	23/32	25/64	5/8	.25	.15
.0022	6DP-1-222	23/32	25/64	5/8	.25	.15
.0025	6DP-1-252	23/32	25/64	5/8	.25	.15
.0027	6DP-1-272	23/32	25/64	5/8	.25	.15
.003	6DP-1-302	23/32	25/64	5/8	.25	.15
.0033	6DP-1-332	23/32	25/64	5/8	.25	.15
.0039	6DP-1-392	23/32	25/64	5/8	.25	.15
.004	6DP-1-402	23/32	27/64	41/64	.25	.15
.0047	6DP-1-472	23/32	27/64	41/64	.25	.15
.005	6DP-1-502	23/32	7/16	41/64	.25	.15
.0056	6DP-1-562	23/32	7/16	41/64	.25	.15
.006	6DP-1-602	23/32	3/8	5/8	.25	.15
.0068	6DP-1-682	23/32	29/64	11/16	.30	.18
.0075	6DP-2-752	57/64	7/16	43/64	.30	.18
.008	6DP-2-802	57/64	7/16	43/64	.30	.18
.0082	6DP-2-822	57/64	7/16	43/64	.30	.18
.01	6DP-2-103	57/64	7/16	43/64	.30	.18
.012	6DP-2-123	57/64	7/16	11/16	.30	.18
.015	6DP-2-153	57/64	29/64	45/64	.30	.18
.018	6DP-2-183	57/64	15/32	23/32	.30	.18
.02	6DP-2-203	57/64	1/2	3/4	.30	.18
.022	6DP-2-223	57/64	1/2	3/4	.30	.18
.025	6DP-2-253	57/64	33/64	47/64	.35	.21
.027	6DP-3-273	1 7/32	33/64	47/64	.35	.21
.03	6DP-3-303	1 7/32	33/64	47/64	.35	.21
.033	6DP-3-333	1 7/32	33/64	47/64	.35	.21
.036	6DP-3-363	1 7/32	17/32	49/64	.35	.21
.039	6DP-3-393	1 7/32	17/32	49/64	.35	.21
.04	6DP-3-403	1 7/32	17/32	49/64	.35	.21
.047	6DP-3-473	1 7/32	17/32	49/64	.40	.24
.05	6DP-3-503	1 7/32	35/64	49/64	.40	.24
.056	6DP-3-563	1 7/32	35/64	49/64	.40	.24
.06	6DP-3-603	1 7/32	35/64	49/64	.45	.27
.068	6DP-4-683	1 11/32	9/16	51/64	.45	.27
.075	6DP-4-753	1 11/32	39/64	27/32	.45	.27
.082	6DP-4-823	1 11/32	39/64	27/32	.45	.27
.1	6DP-4-104	1 11/32	11/16	29/32	.45	.27
.15	6DP-5-154	1 9/16	47/64	15/16	.60	.36
.2	6DP-5-204	1 9/16	55/64	1 1/32	.70	.42
.22	6DP-5-224	1 9/16	55/64	1 1/32	.70	.42
.25	6DP-5-254	1 9/16	57/64	1 7/64	.75	.45
.33	6DP-6-334	1 7/8	7/8	1 1/16	1.05	.63
.47	6DP-6-474	2 3/8	29/32	1 7/32	1.50	.90
.5	6DP-6-504	2 3/8	15/16	1 3/16	1.50	.90

1600 VDCW

CAP. MFD.	PART NUMBER	L	W	H	LIST PRICE	NET PRICE (1-24)
.001	16DP-2-102	7/8	11/32	9/16	$0.40	$0.24
.0015	16DP-2-152	7/8	11/32	9/16	.40	.24
.0018	16DP-2-182	7/8	3/8	19/32	.40	.24
.002	16DP-2-202	7/8	3/8	19/32	.40	.24
.0022	16DP-2-222	7/8	3/8	19/32	.40	.24
.0025	16DP-2-252	7/8	13/32	5/8	.45	.27
.0027	16DP-2-272	7/8	7/16	5/8	.45	.27
.003	16DP-2-302	7/8	7/16	21/32	.45	.27
.0033	16DP-2-332	7/8	7/16	21/32	.45	.27
.004	16DP-2-402	7/8	15/32	23/32	.45	.27
.0047	16DP-2-472	7/8	1/2	23/32	.45	.27
.005	16DP-2-502	7/8	17/32	3/4	.45	.27
.006	16DP-3-602	1 3/16	7/16	21/32	.50	.30
.0068	16DP-3-682	1 3/16	15/32	11/16	.50	.30
.007	16DP-3-702	1 3/16	15/32	11/16	.50	.30
.0075	16DP-3-752	1 3/16	1/2	23/32	.50	.30
.008	16DP-3-802	1 3/16	17/32	3/4	.50	.30
.0082	16DP-3-822	1 3/16	17/32	3/4	.50	.30
.01	16DP-3-103	1 3/16	17/32	3/4	.50	.30
.015	16DP-4-153	1 11/32	9/16	27/32	.55	.33
.018	16DP-4-183	1 11/32	5/8	7/8	.60	.36
.02	16DP-4-203	1 11/32	21/32	7/8	.60	.36
.022	16DP-5-223	1 9/16	5/8	7/8	.70	.42
.025	16DP-5-253	1 9/16	21/32	7/8	.70	.42
.03	16DP-5-303	1 9/16	11/16	15/16	.70	.42
.033	16DP-5-333	1 9/16	23/32	15/16	.70	.42
.04	16DP-5-403	1 9/16	3/4	1	.75	.45
.047	16DP-5-473	1 9/16	13/16	1 1/16	.80	.48
.05	16DP-5-503	1 9/16	13/16	1 1/16	.80	.48

NET (For quantities of 25 or more, please contact your local Arco-Elmenco distributor)

Trade Discount Applies To List Prices Only

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ELMENCO CAPACITORS — DIPPED TUBULARS

MYLAR*and MYLAR-PAPER

* Reg. DuPont Trademark

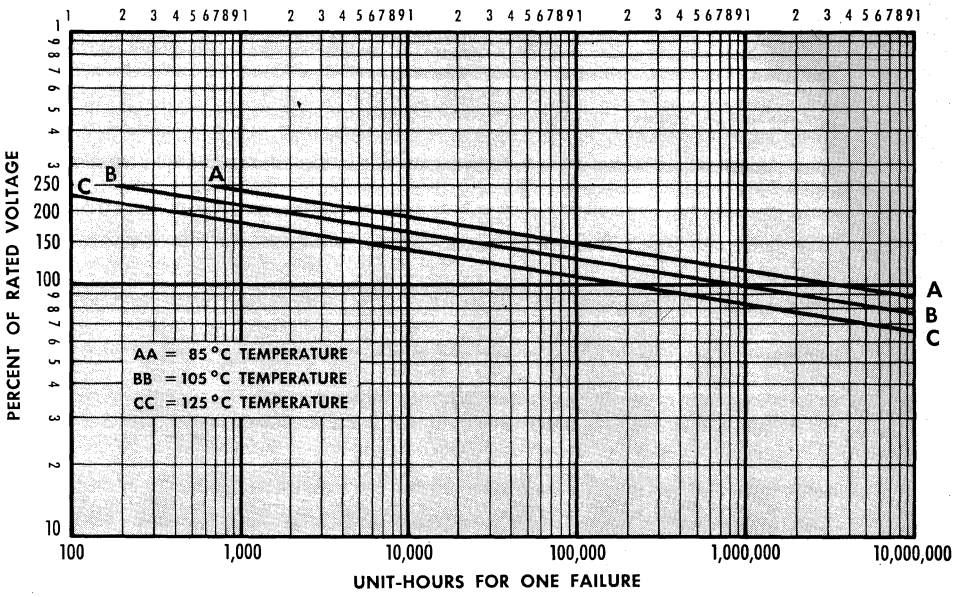
RELIABILITY

Exhaustive evaluation of ELMENCO Dipped Mylar*-Paper Capacitors has been conducted during the past four years and the product refined to its present high level of quality. The graph to the right is a plot of typical life expectancy for a theoretical 1 MFD. unit expressed in unit-hours operation to first failure as a function of voltage and temperature. It will be noted that those capacitors can be operated at 125°C. in most applications with excellent reliability.

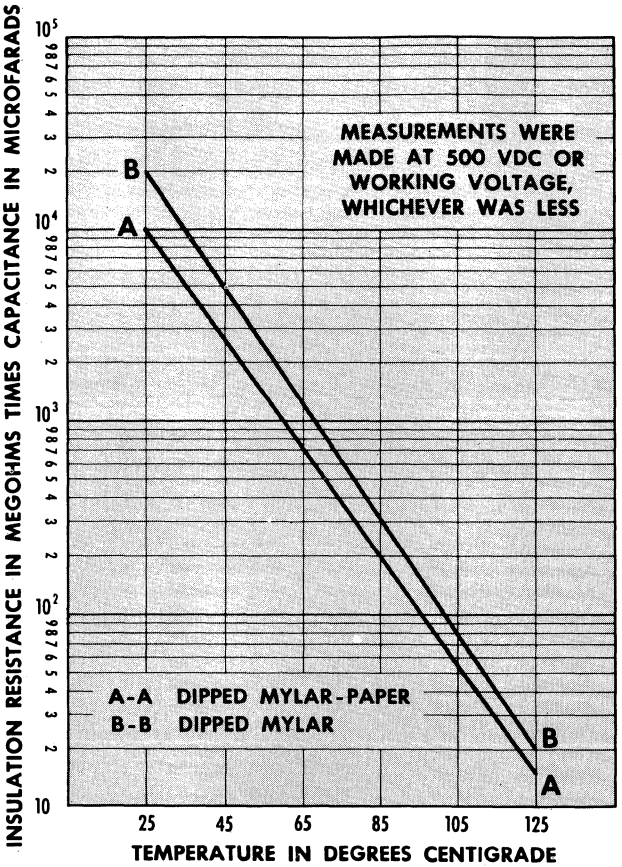
The number of unit-hours to first failure is inversely proportional to the capacitance value in mfd.

As an example, a 0.1 mfd. capacitor operated at full rated voltage and at 105°C. will have a life expectancy of 10 x 500,000 or 5,000,000 unit-hours to first failure. This quality level is continually verified by continuing accelerated life testing on all production.

MINIMUM LIFE EXPECTANCY FOR 1 MFD MYLAR*-PAPER DIPPED CAPACITORS AS A FUNCTION OF VOLTAGE AND TEMPERATURE

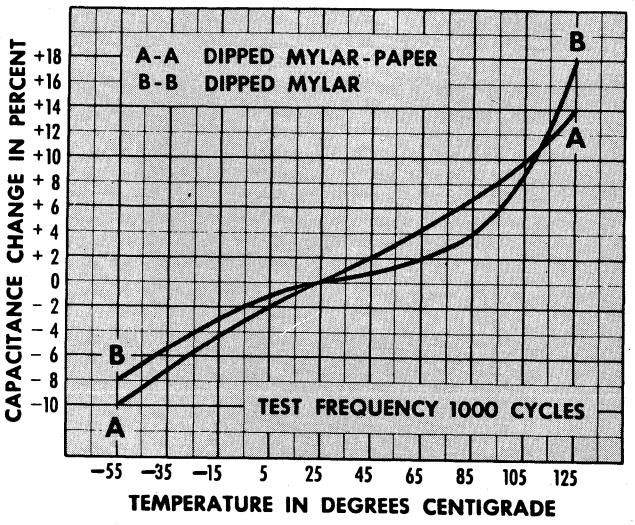


MINIMUM INSULATION RESISTANCE VS. TEMPERATURE



These curves represent characteristics as they change with temperature. They have been charted only after thorough long-term testing of thousands of capacitors to assure validity.

MAXIMUM CAPACITANCE CHANGE VS. TEMPERATURE



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ELMENCO CAPACITORS

Precision Dipped Tubular

(ELMENCO TYPES MD and MPD)

100VDCW

FOR VALUES LESS THAN .005, USE 600V UNITS

CAP. MFD.	PART NUMBER	Net Price (1-24) Tolerance "K" ±10%	"J" ±5%	"G" ±2%	"F" ±1%
.005	1MD-1-502	$0.18	$0.27	$1.10	$1.38
.0051	1MD-1-512	.18	.27	1.10	1.38
.0056	1MD-1-562	.18	.27	1.10	1.38
.006	1MD-1-602	.18	.27	1.10	1.38
.0062	1MD-1-622	.18	.27	1.10	1.38
.0068	1MD-1-682	.18	.27	1.10	1.38
.0075	1MD-1-752	.18	.27	1.10	1.38
.0082	1MD-1-822	.18	.27	1.10	1.38
.0091	1MD-1-912	.18	.27	1.10	1.38
.01	1MD-1-103	.18	.27	1.10	1.38
.012	1MD-1-123	.18	.27	1.10	1.38
.015	1MD-1-153	.18	.27	1.10	1.38
.018	1MD-1-183	.18	.27	1.10	1.38
.02	1MD-1-203	.18	.27	1.10	1.38
.022	1MD-1-223	.18	.27	1.10	1.38
.024	1MD-1-243	.18	.27	1.13	1.41
.025	1MD-1-253	.18	.27	1.13	1.45
.027	1MD-1-273	.18	.27	1.15	1.45
.03	1MD-1-303	.18	.27	1.15	1.45
.033	1MD-1-333	.18	.27	1.21	1.51
.036	1MD-1-363	.18	.27	1.24	1.55
.039	1MD-1-393	.18	.27	1.24	1.55
.04	1MD-1-403	.18	.27	1.24	1.55
.043	1MD-2-433	.21	.32	1.30	1.62
.047	1MD-2-473	.21	.32	1.30	1.62
.05	1MD-2-503	.21	.32	1.37	1.71
.051	1MD-2-513	.21	.32	1.37	1.71
.056	1MD-2-563	.21	.32	1.37	1.71
.062	1MD-2-623	.21	.32	1.40	1.75
.068	1MD-2-683	.21	.32	1.43	1.79
.075	1MD-2-753	.21	.32	1.48	1.85
.082	1MD-2-823	.21	.32	1.52	1.90
.091	1MD-2-913	.21	.32	1.55	1.93
.1	1MD-2-104	.21	.32	1.57	1.96
.12	1MD-3-124	.24	.36	1.72	2.15
.15	1MD-3-154	.24	.36	1.85	2.31
.18	1MD-3-184	.27	.41	2.02	2.53
.2	1MD-3-204	.27	.41	2.12	2.64
.22	1MD-3-224	.27	.41	2.20	2.75
.25	1MD-3-254	.30	.45	2.26	2.84
.27	1MD-3-274	.36	.54	2.30	2.88
.3	1MD-3-304	.36	.54	2.34	2.93
.33	1MD-4-334	.36	.54	2.39	2.98
.39	1MD-4-394	.39	.59	2.55	3.19
.47	1MD-4-474	.45	.68	2.78	3.47
.5	1MD-4-504	.45	.68	2.80	3.63
.56	1MD-4-564	.51	.77	3.13	3.91
.62	1MD-5-624	.54	.81	3.35	4.19
.68	1MD-5-684	.57	.86	3.55	4.44
.75	1MD-5-754	.63	.95	3.80	4.75
.82	1MD-5-824	.66	.99	4.00	4.97
1.0	1MD-5-105	.72	1.08	4.38	5.45

200VDCW

FOR VALUES LESS THAN .01, USE 600V UNITS

CAP. MFD.	PART NUMBER	Net Price (1-24) Tolerance "K" ±10%	"J" ±5%	"G" ±2%	"F" ±1%
.1	2MPD-3-104	$0.21	$0.32	$1.65	$2.07
.12	2MPD-3-124	.24	.36	1.81	2.27
.15	2MPD-3-154	.24	.36	1.97	2.47
.18	2MPD-3-184	.27	.41	2.13	2.66
.2	2MPD-4-204	.27	.41	2.27	2.83
.22	2MPD-4-224	.27	.41	2.40	3.00
.25	2MPD-4-254	.30	.45	2.52	3.15
.27	2MPD-4-274	.36	.54	2.67	3.33
.3	2MPD-5-304	.36	.54	2.83	3.53
.33	2MPD-5-334	.36	.54	2.98	3.73
.39	2MPD-5-394	.45	.68	3.34	4.17
.47	2MPD-5-474	.45	.68	3.65	4.56
.5	2MPD-5-504	.45	.68	3.75	4.68
.51	2MPD-5-514	.45	.68	3.75	4.68

400VDCW

FOR VALUES LESS THAN .01, USE 600 V UNITS

CAP. MFD.	PART NUMBER	Net Price (1-24) Tolerance "K" ±10%	"J" ±5%	"G" ±2%	"F" ±1%
.01	4MPD-1-103	$0.15	$0.23	$1.04	$1.30
.012	4MPD-1-123	.15	.23	1.06	1.32
.015	4MPD-1-153	.15	.23	1.08	1.34
.018	4MPD-2-183	.15	.23	1.17	1.47
.02	4MPD-2-203	.15	.23	1.20	1.50
.022	4MPD-2-223	$0.18	$0.27	$1.22	$1.53
.024	4MPD-2-243	.18	.27	1.27	1.59
.025	4MPD-2-253	.18	.27	1.27	1.59
.027	4MPD-2-273	.18	.27	1.27	1.59
.03	4MPD-2-303	.18	.27	1.35	1.69
.033	4MPD-2-333	.18	.27	1.35	1.69
.036	4MPD-3-363	.18	.27	1.44	1.80
.039	4MPD-3-393	.18	.27	1.44	1.80
.04	4MPD-3-403	.18	.27	1.49	1.83
.043	4MPD-3-433	.21	.31	1.49	1.83
.047	4MPD-3-473	.21	.31	1.49	1.83
.05	4MPD-3-503	.21	.31	1.51	1.88
.051	4MPD-3-513	.21	.31	1.56	1.94
.056	4MPD-3-563	.21	.31	1.56	1.94
.062	4MPD-3-623	.24	.36	1.63	2.04
.068	4MPD-3-683	.24	.36	1.63	2.04
.075	4MPD-3-753	.24	.36	1.71	2.13
.082	4MPD-3-823	.24	.36	1.71	2.13
.091	4MPD-3-913	.24	.36	1.78	2.23
.1	4MPD-3-104	.24	.36	1.78	2.23
.12	4MPD-3-124	.27	.41	2.07	2.59
.15	4MPD-4-154	.27	.41	2.16	2.70
.18	4MPD-4-184	.33	.50	2.39	2.95
.2	4MPD-5-204	.33	.50	2.50	3.12
.22	4MPD-5-224	.33	.50	2.62	3.27
.25	4MPD-5-254	.36	.54	2.69	3.36
.27	4MPD-5-274	.36	.54	2.81	3.51
.3	4MPD-5-304	.45	.68	2.98	3.72
.33	4MPD-5-334	.54	.79	3.15	3.93
.39	4MPD-5-394	.60	.85	3.41	4.26
.47	4MPD-5-474	.66	.94	3.75	4.68
.5	4MPD-6-504	.72	1.05	4.20	5.25
.51	4MPD-6-514	.75	1.09	4.37	5.45

Case dimensions are the same as for Type dp capacitors listed on page 21.

600VDCW

CAP. MFD.	PART NUMBER	Net Price (1-24) Tolerance "K" ±10%	"J" ±5%	"G" ±2%	"F" ±1%
.0025	6MPD-1-252	$0.15	$0.23	$1.06	$1.32
.0027	6MPD-1-272	.15	.23	1.06	1.32
.003	6MPD-1-302	.15	.23	1.06	1.32
.0033	6MPD-1-332	.15	.23	1.06	1.32
.0036	6MPD-1-362	.15	.23	1.06	1.32
.0039	6MPD-1-392	.15	.23	1.06	1.32
.004	6MPD-1-402	.15	.23	1.06	1.32
.0043	6MPD-1-432	.15	.23	1.06	1.32
.0047	6MPD-1-472	.15	.23	1.06	1.32
.005	6MPD-1-502	.15	.23	1.06	1.32
.0051	6MPD-1-512	.15	.23	1.06	1.32
.0056	6MPD-1-562	.15	.23	1.06	1.32
.0062	6MPD-1-622	.15	.23	1.09	1.36
.0068	6MPD-1-682	.18	.27	1.09	1.36
.0075	6MPD-2-752	.18	.27	1.10	1.38
.0082	6MPD-2-822	.18	.27	1.10	1.38
.0091	6MPD-2-912	.18	.27	1.13	1.41
.01	6MPD-2-103	.18	.27	1.13	1.41
.012	6MPD-2-123	.18	.27	1.15	1.46
.015	6MPD-2-153	.18	.27	1.15	1.46
.018	6MPD-2-183	.18	.27	1.21	1.51
.02	6MPD-2-203	.18	.27	1.26	1.57
.022	6MPD-2-223	.18	.27	1.30	1.63
.024	6MPD-2-243	.21	.31	1.36	1.71
.025	6MPD-2-253	.21	.31	1.36	1.71
.027	6MPD-3-273	.21	.31	1.36	1.71
.03	6MPD-3-303	.21	.31	1.45	1.81
.033	6MPD-3-333	.21	.31	1.45	1.81
.036	6MPD-3-363	.21	.31	1.49	1.87
.039	6MPD-3-393	.21	.31	1.49	1.87
.043	6MPD-3-433	.24	.36	1.51	1.89
.047	6MPD-3-473	.24	.36	1.51	1.89
.05	6MPD-3-503	.24	.36	1.54	1.92
.051	6MPD-3-513	.24	.36	1.54	1.92
.056	6MPD-3-563	.24	.36	1.59	1.98
.062	6MPD-3-623	.27	.41	1.72	2.14
.068	6MPD-4-683	.27	.41	1.84	2.30
.075	6MPD-4-753	.27	.41	1.88	2.34
.082	6MPD-4-823	.27	.41	1.92	2.37
.091	6MPD-4-913	.27	.41	1.95	2.43
.1	6MPD-4-104	.27	.41	1.99	2.49
.12	6MPD-5-124	.36	.54	2.21	2.76
.15	6MPD-5-154	.36	.54	2.48	3.09
.18	6MPD-5-184	.42	.66	2.71	3.39
.2	6MPD-5-204	.42	.66	2.86	3.58
.22	6MPD-5-224	.42	.66	2.98	3.72
.25	6MPD-5-254	.45	.68	3.05	3.81
.27	6MPD-5-274	.51	.77	3.34	4.17
.3	6MPD-6-304	.57	.86	3.75	4.68
.33	6MPD-6-334	.63	.95	4.18	5.20
.39	6MPD-7-394	.78	1.17	4.87	6.10
.47	6MPD-8-474	.90	1.35	5.80	7.25
.5	6MPD-8-504	.90	1.35	5.90	7.40
.51	6MPD-8-514	.90	1.35	6.00	7.50

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Distributor)

Net

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ELMENCO CAPACITORS — Variable Compression Mica

TRIMMERS

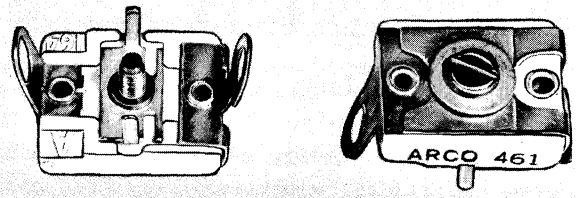
Elmenco Trimming Condensers are treated for resistance to humidity and for permanence of capacity setting.

The base is made of the lowest dielectric loss ceramic material available and the mica is clear India Ruby.

The soldering lugs may be bent in any position without affecting capacity setting due to the rigid construction of adjusting plates.

Trimmers shown here are standard sizes and capacities.

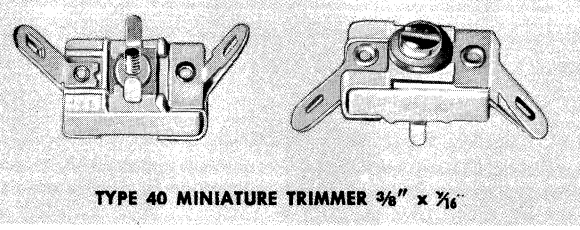
Voltage 350 VDCT — 175 VDCW.



TYPE 46 STANDARD TRIMMER 3/4" x 5/8"

TYPE 46 — STANDARD TRIMMER

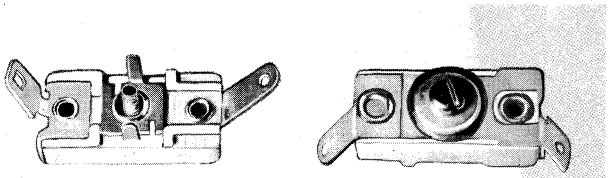
TYPE 46W		GUARANTEED RANGE			
PART NUMBER	NUMBER OF PLATES	At Tight Cap. Will Be More Than MMF.	At 3 Turns Open Cap. Will Be Less Than MMF.	LIST PRICE	NET PRICE (1-24)
460	1¼ Pl.	15	1.5	$0.55	$0.33
461	1¾ Pl.	30	2.7	.55	.33
462	2 Pl.	80	5	.55	.33
463	3 Pl.	180	9	.60	.36
464	4 Pl.	280	25	.70	.42
465	5 Pl.	380	50	.75	.45
466	6 Pl.	480	80	.90	.54
467	7 Pl.	580	110	1.00	.60
468	8 Pl.	680	140	1.05	.63
469	9 Pl.	780	170	1.15	.69
4610	10 Pl.	900	190	1.30	.78
4611	11 Pl.	1000	210	1.40	.84
4612	12 Pl.	1100	240	1.55	.93
4613	13 Pl.	1200	300	1.70	1.02
4614	14 Pl.	1300	340	1.85	1.11
4615	15 Pl.	1400	390	2.00	1.20



TYPE 40 MINIATURE TRIMMER 3/8" x 7/16"

TYPE 40 — MINIATURE TRIMMER

TYPE 40		GUARANTEED RANGE			
PART NUMBER	NUMBER OF PLATES	At Tight Cap. Will Be More Than MMF.	At 3 Turns Open Cap. Will Be Less Than MMF.	LIST PRICE	NET PRICE (1-24)
400	1⅛ Pl.	7	0.9	$0.55	$0.33
402	2 Pl.	20	1.5	.55	.33
403	3 Pl.	40	4	.60	.36
404	4 Pl.	60	7	.70	.42
405	5 Pl.	80	10	.80	.48
406	6 Pl.	115	15	.85	.51

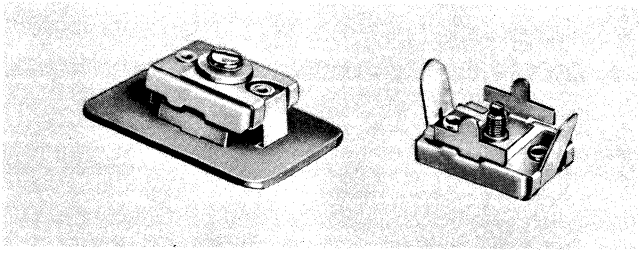


TYPE 42 MIDGET TRIMMER 3/8" x 3/4"

TYPE 42 — MIDGET TRIMMER

TYPE 42		GUARANTEED RANGE			
PART NUMBER	NUMBER OF PLATES	At Tight Cap. Will Be More Than MMF.	At 3 Turns Open Cap. Will Be Less Than MMF.	LIST PRICE	NET PRICE (1-24)
420	1⅛ Pl.	12	1	$0.55	$0.33
421	1¾ Pl.	25	2	.55	.33
422	2 Pl.	40	4	.55	.33
423	3 Pl.	100	7	.60	.36
424	4 Pl.	150	14	.70	.42
425	5 Pl.	200	24	.75	.45
426	6 Pl.	250	37	.90	.54
427	7 Pl.	300	55	1.00	.60
428	8 Pl.	350	70	1.05	.63
429	9 Pl.	400	90	1.15	.69
4210	10 Pl.	450	110	1.35	.81
4211	11 Pl.	500	130	1.50	.90
4212	12 Pl.	550	150	1.65	.99
4213	13 Pl.	600	170	1.80	1.08
4214	14 Pl.	650	190	1.90	1.14
4215	15 Pl.	700	210	2.05	1.23

TYPE PC — PRINTED CIRCUIT TRIMMERS



The Elmenco Trimmer capacitors, Types 40, 42, and 46, have been adapted for printed circuit techniques through alteration of terminals and mounting configuration. The holes in the terminal lugs are removed since necessity for hook-up is eliminated. The resulting solid terminals have greatly increased spring action, allowing the trimmer to be "snapped in" the printed circuit board and firmly held until solderd. The mounting lug portion of the trimmer has also been modified to facilitate positioning and support of the unit. Drawings of the trippers and mounting layout are available upon request at no charge.

This printed circuit style is identified by the prefix letters "PC" preceding the regular part number. All listed values are available in the PC style.

For list price add $0.05, for net price add $0.03, to the respective prices of the standard trimmer.

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Distributor)

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Trade Discount Applies To List Prices Only

ELMENCO CAPACITORS — Variable Compression Mica

SINGLE AND DUAL
PADDERS

ELMENCO Padding Condensers have been acclaimed by engineers as the finest development in adjustable mica condensers.

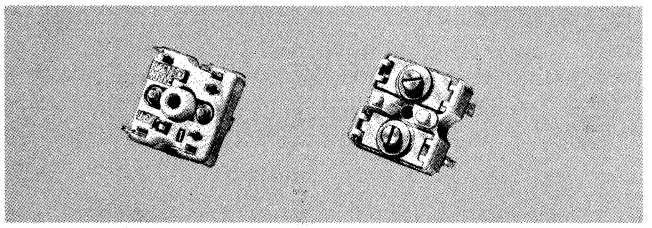
The construction is such as to completely enclose and protect the delicate edges of the mica films, made of the finest quality clear India ruby mica.

The phosphor bronze adjusting plates assure permanent resilience and freedom from mechanical fatigue. All parts are heavily plated to resist corrosion.

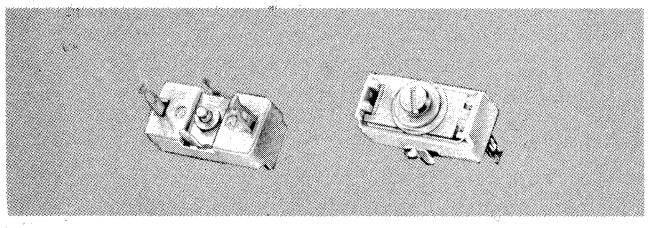
TYPE 30
500 Volts DC Flash-Test — 250 WVDC

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE: At 1¾ Inch Pounds Cap. Will Be More Than MMF.	GUARANTEED RANGE: At 3 Turns Open Cap. Will Be Less Than MMF.	LIST PRICE	NET PRICE (1-24)
302	2 Pl.	130	15	$0.90	$0.54
303	3 Pl.	340	65	.95	.57
304	4 Pl.	550	100	1.05	.63
305	5 Pl.	760	190	1.15	.69
306	6 Pl.	970	275	1.20	.72
307	7 Pl.	1180	350	1.30	.78
308	8 Pl.	1390	450	1.40	.84
309	9 Pl.	1600	550	1.45	.87
310	10 Pl.	1890	650	1.55	.93
311	11 Pl.	2110	780	1.65	.99
312	12 Pl.	2330	880	1.75	1.05
313	13 Pl.	2605	1150	1.90	1.14
314	14 Pl.	2830	1300	2.00	1.20
315	15 Pl.	3055	1400	2.10	1.26

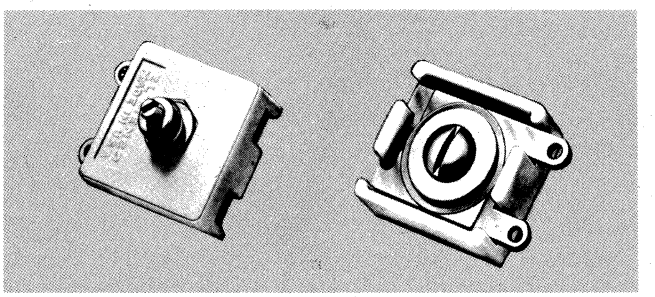
Screw is insulated from top plate by mica washer. Above maximum capacity values are based on using 1½ to 1¾ Mil Mica films.



TYPE 50 DUAL PADDER — 175 VDCW
(will fit any size shield having dimensions exceeding 1 1/16" x 1 1/16")



TYPE 58 PADDER 1" x 15/32" — 175 VDCW



TYPE 30 AND TYPE 30-M PADDER 7/8" x 15/16"

TYPE 30-M
1000 Volts DC Flash-Test — 500 WVDC

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE: At 1¾ Inch Pounds Cap. Will Be More Than MMF.	GUARANTEED RANGE: At 3 Turns Open Cap. Will Be Less Than MMF.	LIST PRICE	NET PRICE (1-24)
302-M	2 Pl.	120	15	$0.90	$0.54
303-M	3 Pl.	320	65	1.00	.60
304-M	4 Pl.	500	100	1.10	.66
305-M	5 Pl.	690	180	1.20	.72
306-M	6 Pl.	880	265	1.30	.78
307-M	7 Pl.	1070	340	1.40	.84
308-M	8 Pl.	1260	425	1.50	.90
309-M	9 Pl.	1415	525	1.60	.96
310-M	10 Pl.	1600	615	1.70	1.02
311-M	11 Pl.	1785	730	1.80	1.08
312-M	12 Pl.	1970	800	1.90	1.14
313-M	13 Pl.	2155	1000	2.00	1.20
314-M	14 Pl.	2340	1100	2.15	1.29
315-M	15 Pl.	2525	1200	2.25	1.35

Screw is insulated from top plate by mica washer. Above maximum capacity values are based on using 2 to 2¼ Mil Mica.

TYPE 50

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE: At Tight Cap. Will Be More Than MMF.	GUARANTEED RANGE: At 2 Turns Open Cap. Will Be Less Than MMF.	LIST PRICE	NET PRICE (1-24)
502	2 Pl.	80	7.5	**$1.15**	**$0.69**
503	3 Pl.	160	19	**1.30**	**.78**
504	4 Pl.	240	50	**1.45**	**.87**

◀ **TYPE 50** Dual Padders provide two variable trimmers mounted on a single base. This unit is designed as a tuning component for I.F. transformers; and as such, may be snap-in mounted along with the transformer coil in any size shield having dimensions exceeding 1 1/16" x 1 1/16".

TYPE 58

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE: At Tight Cap. Will Be More Than MMF.	GUARANTEED RANGE: At 2 Turns Open Cap. Will Be Less Than MMF.	LIST PRICE	NET PRICE (1-24)
582	2 Pl.	80	7.5	**$0.70**	**$0.42**
583	3 Pl.	160	19	**.75**	**.45**
584	4 Pl.	240	50	**.85**	**.51**

◀ **TYPE 58** Padder is a single variable trimmer section provided with a two-pronged staple mounting for attachment to bracket or chassis. Base is made of lowest loss steatite and the mica is India Ruby.

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Distributor)

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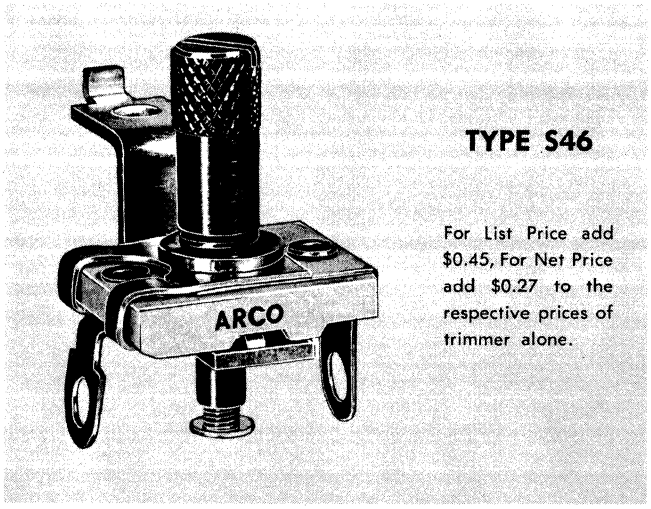
VARIABLE COMPRESSION MICA CAPACITORS



TYPE S46

For List Price add $0.45, For Net Price add $0.27 to the respective prices of trimmer alone.

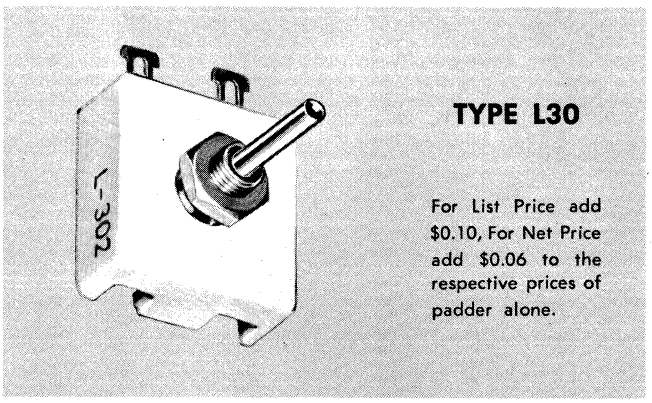
A complete Type 46 trimmer assembly with mounting bracket and adjusting shaft for ease of tuning. Can be supplied as pictured from stock or with construction variations to order.

To specify precede trimmer part number with the letter "S".

For example:
Type 460 trimmer will be ordered as S-460.

The two new assemblies shown at left have been developed due to increasing demands for miniaturized tuning devices. However, certain precautions must be taken in design so that these variable mica capacitors are not used in circuits for which they are not adapted. These assemblies are highly stable for components of their design, but they do not match the stability of the air dielectric tuners. Short term drift of the mica trimmers and padders after tuning is negligible. Long term drift at one setting due to changes in atmospheric conditions and physical motion should be well within ±2%.

It should also be remembered that variable compression type mica capacitors do not have linear variation with adjustment. Rate of change of capacity decreases per turn as the screw is withdrawn. For example, a 306 padder will reduce to half the nominal maximum value within one opening turn. Those with a greater number of plates require further screw disengagement for a similar percentage reduction in capacity value. On the other hand, a 302 padder will reach one-half the nominal maximum in less than one-half turn open. Type 46 trimmers operate in much the same way. Detailed information on specific sizes is available upon request.

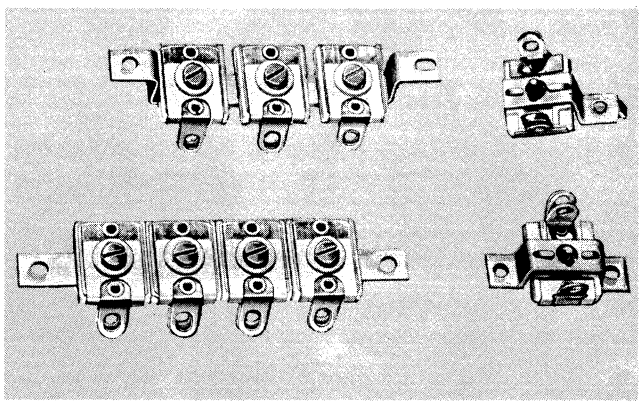


TYPE L30

For List Price add $0.10, For Net Price add $0.06 to the respective prices of padder alone.

The Type 30 or Type 30M padder can now be obtained with a special adjusting screw which has been lengthened to accommodate a tuning knob. To obtain a padder with the special screw, precede the regular padder part number with the letter "L". For example, a 302 padder with the special screw would be specified as "L-302".

NOTE: Knobs may also be obtained if desired at a cost of 30¢ each list, 18¢ each net.



Mounting brackets as illustrated above can be supplied for all types of trimmers in flat "Z" (single mounting hole with or without non-rotational stop), and "U" (dual mounting hole) configurations.

	List Price	Net Price (1-24)
Bracket for mounting 1 Trimmer	$0.15	$0.09
Bracket for mounting 2 Trimmers	.18	.11
Bracket for mounting 3 Trimmers	.21	.13
Bracket for mounting 4 Trimmers	.24	.14
Bracket for mounting 5 Trimmers	.27	.16
Bracket for mounting 6 Trimmers	.30	.18

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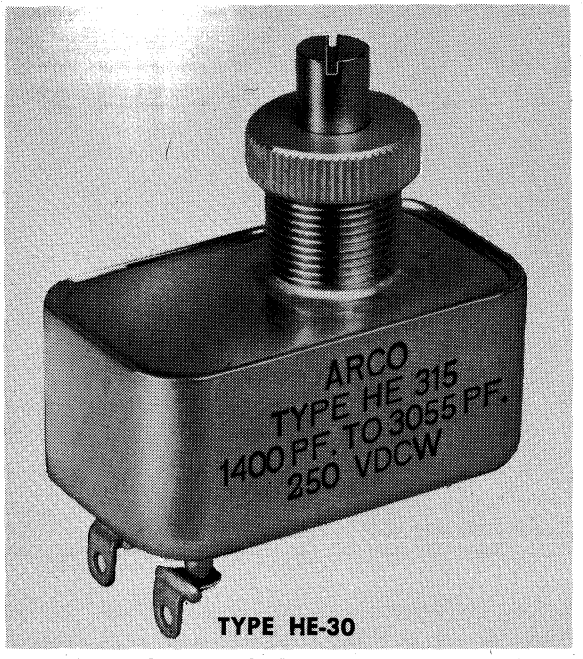
ARCO CAPACITORS

Hermetically-Sealed Variable Compression-Type Mica Capacitors



TYPE HE-30

HERMETICALLY-SEALED VARIABLE COMPRESSION-TYPE MICA CAPACITOR

ARCO introduces the first hermetically-sealed variable compression-type mica capacitor. Designated as Types HE-30 and HE-30M, these units employ a specially designed enclosure that protects them against the effects of moisture, pressure variation, fungus, salt spray, dust, and mechanical damage. Additionally, the case provides effective electrostatic shielding.

The basic capacitor design is the time-tested Type 30 padder with established reliability verified by more than 25 years of operational experience.

The enclosure measures 1 9/16" by 15/16" by 3/4" deep. The drawn brass can is hot tin dipped and all mechanical parts are nickel-plated brass. The capacitor element is completely insulated from the case and connection is made at the rear by means of two lugs mounted on glass-to-metal seals. The unit is designed for single-hole panel mounting using a 15/32" — 32 bushing. A bushing nut is furnished as part of the assembly. Rotational control can be either by means of a screwdriver slot at the end of the 1/4" shaft or by means of a standard knob of the user's own choice. The rotary shaft seal enhances the stability of the shaft setting under conditions of shock and vibration. For complete locking of the shaft after adjustment, an accessory shaft lock is available. This shaft lock also provides redundant protection where the ultimate in reliability is needed.

The HE-30 is a 250VDC rated series in 14 discreet capacitance ranges from 15-130 PF to 1400-3055 PF. The HE-30M is a 500VDC rated series, also in 14 similar ranges from 15-120 PF to 1200-2525 PF. These are guaranteed minimum ranges in three turns of adjustment. Dissipation factor at 1MC is better than .001. Insulation resistance is better than 100,000 megohms.

Stability of the capacitance varies with the particular setting, however, a conservative design limit is a maximum of ±3% change caused by all combinations of temperature cycling, vibration, shock, hysteresis, etc. As the extremes of environment are reduced toward laboratory conditions, the stability will be improved at least ten-fold or to ±0.3%. Operating temperature range is −55°C. to +85°C.

500 Volts DC Flash-Test — 250 WVDC

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE: At 3 Inch Pounds Cap. Will Be More Than MMF.	GUARANTEED RANGE: At 3 Turns Open Cap. Will Be Less Than MMF.	NET PRICE (1-24)
HE-302	2 Pl.	130	15	$6.63
HE-303	3 Pl.	340	65	6.66
HE-304	4 Pl.	550	100	6.72
HE-305	5 Pl.	760	190	6.78
HE-306	6 Pl.	970	275	6.84
HE-307	7 Pl.	1180	350	6.90
HE-308	8 Pl.	1390	450	6.96
HE-309	9 Pl.	1600	550	7.02
HE-310	10 Pl.	1890	650	7.08
HE-311	11 Pl.	2110	780	7.17
HE-312	12 Pl.	2330	880	7.23
HE-313	13 Pl.	2605	1150	7.29
HE-314	14 Pl.	2830	1300	7.38
HE-315	15 Pl.	3055	1400	7.47

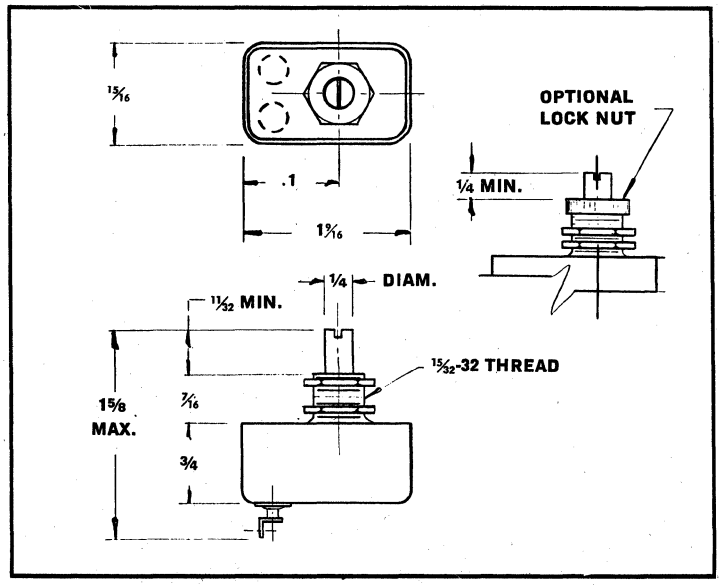
Screw is insulated from capacitor element by mica washer. Above maximum capacity values are based on using 1½ to 1¾ Mil Mica films.

TYPE HE-30M

1000 Volts DC Flash-Test — 500 WVDC

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE: At 3 Inch Pounds Cap. Will Be More Than MMF.	GUARANTEED RANGE: At 3 Turns Open Cap. Will Be Less Than MMF.	NET PRICE (1-24)
HE-302-M	2 Pl.	120	15	$6.63
HE-303-M	3 Pl.	320	65	6.69
HE-304-M	4 Pl.	500	100	6.75
HE-305-M	5 Pl.	690	180	6.81
HE-306-M	6 Pl.	880	265	6.90
HE-307-M	7 Pl.	1070	340	6.96
HE-308-M	8 Pl.	1260	425	7.02
HE-309-M	9 Pl.	1415	525	7.11
HE-310-M	10 Pl.	1600	615	7.17
HE-311-M	11 Pl.	1785	730	7.26
HE-312-M	12 Pl.	1970	800	7.35
HE-313-M	13 Pl.	2155	1000	7.41
HE-314-M	14 Pl.	2340	1100	7.50
HE-315-M	15 Pl.	2525	1200	7.62

Screw is insulated from capacitor element by mica washer. Above capacity values are based on using 2 to 2¼ Mil Mica.



Net

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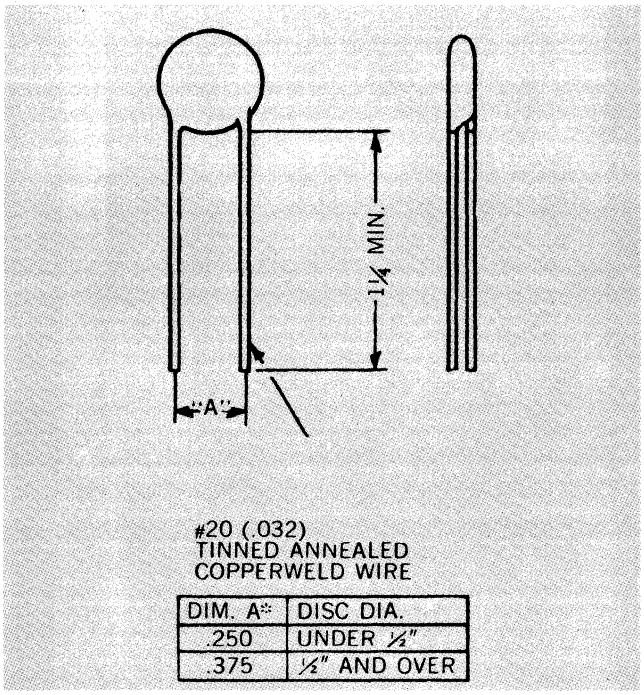
ARCO CAPACITORS — CERAMIC DISC

GENERAL INFORMATION

Arco ceramic disc capacitors exhibit a level of performance and reliability consistent with conservative design technique inherent in all Arco components. Higher voltage ratings improve reliability manyfold and provide extra reserve for resistance to surges and temporary overloads. Rugged phenolic coating and high temperature wax impregnation give superior moisture resistance and physical strength. Arco ceramic discs have been designed to minimum size obtainable with complete retention of original specifications while operating in the field. For original equipment or for replacement, Arco ceramic disc capacitors may be used with confidence.



DIM. A*	DISC DIA.
.250	UNDER ½"
.375	½" AND OVER

* Below 5 mmf. .300 x 3/16" Thick max.

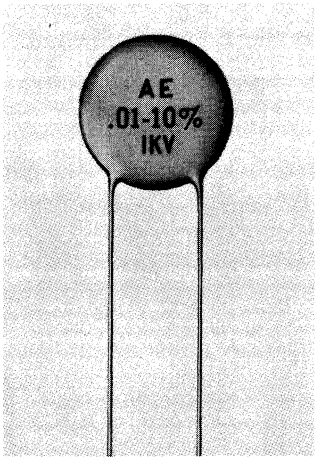
CERAMIC DISC SIZE TABULATION

Max. Diam.	Capacitance range (mmf.) CCD	3CCD	6CCD	CCS	CCTO	CCTN
5/16"	5-1200			150-330	2.2-** 15	5-39
3/8"	1500-3300	4.7-680		390-620	18-24	47-68
7/16"	3900-5000	820-1000		680-1000	27-39	75-120
9/16"	5600-8200	2000	4.7-560	1200-1500	47-56	150
11/16"	10000-15000	3000		1800-2700	68-82	200-270
3/4"	20000	4000	680-1000	3000-3300	100	300-330
15/16"	30000-50000*	5000	2000	3900-4700	120-150	390-470

Maximum thickness: Types CCD, CCS, CCTO, CCTN — 3/32" max.
*CCD-503 — 5/16" max.
**Type CCTO below 5 mmf. is .300 x 3/16 max.
Type 3CCD — 1/4" max.
Type 6CCD — 5/16" max.

MINIATURE GENERAL PURPOSE

Arco Type CCD ceramic disc capacitors have improved ceramic bodies which impart longer life and greater stability to any application. The standard CCD line has a ±10% tolerance and 1000VDCW rating, making possible a single ceramic disc stock for universal use. Whether a broad coupling or by-pass application, or a critical close tolerance use, Arco CCD units fill the bill with dependability and economy. The "space-saving" size of Arco discs is another feature designed to offer greater service convenience with complete safety of operation. In addition to the 1000VDCW line, higher voltage ratings are available in Type CCD units. 3000-VDCW (Type 3CCD) and 6000VDCW (Type 6CCD) disc ceramics are supplied in tolerance of ±20%.



TYPE CCD

±10% TOLERANCE

1000 VDCW

CAP. MMF.	PART NUMBER	LIST PRICE	NET PRICE (1-24)	CAP. MMF.	PART NUMBER	LIST PRICE	NET PRICE (1-24)
5	CCD-050	$0.25	$0.15	400	CCD-401	.25	.15
10	CCD-100	.25	.15	470	CCD-471	.25	.15
12	CCD-120	.25	.15	500	CCD-501	.25	.15
15	CCD-150	.25	.15	560	CCD-561	.25	.15
18	CCD-180	.25	.15	680	CCD-681	.25	.15
20	CCD-200	.25	.15	750	CCD-751	.25	.15
22	CCD-220	.25	.15	800	CCD-801	.25	.15
25	CCD-250	.25	.15	820	CCD-821	.25	.15
27	CCD-270	.25	.15	1000	CCD-102	.25	.15
30	CCD-300	.25	.15	1200	CCD-122	.25	.15
33	CCD-330	.25	.15	1500	CCD-152	.25	.15
39	CCD-390	.25	.15	2000	CCD-202	.25	.15
47	CCD-470	.25	.15	2200	CCD-222	.25	.15
50	CCD-500	.25	.15	2500	CCD-252	.25	.15
56	CCD-560	.25	.15	2700	CCD-272	.25	.15
68	CCD-680	.25	.15	3000	CCD-302	.25	.15
75	CCD-750	.25	.15	3300	CCD-332	.25	.15
82	CCD-820	.25	.15	3900	CCD-392	.25	.15
91	CCD-910	.25	.15	4700	CCD-472	.25	.15
100	CCD-101	.25	.15	5000	CCD-502	.30	.18
120	CCD-121	.25	.15	5600	CCD-562	.30	.18
150	CCD-151	.25	.15	6800	CCD-682	.30	.18
180	CCD-181	.25	.15	8200	CCD-822	.30	.18
200	CCD-201	.25	.15	10000	CCD-103	.30	.18
220	CCD-221	.25	.15	15000*	CCD-153	.30	.18
250	CCD-251	.25	.15	20000*	CCD-203	.30	.18
270	CCD-271	.25	.15	30000†	CCD-303	.50	.30
300	CCD-301	.25	.15	40000‡	CCD-403	.60	.36
330	CCD-331	.25	.15	50000‡	CCD-503	.70	.42
390	CCD-391	.25	.15				

*±20% tolerance
†500VDCW, ±20% tolerance
‡500VDCW, +80 −20% tolerance

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Distributor)

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ARCO CAPACITORS — CERAMIC DISC

MINIATURE GENERAL PURPOSE

TYPE 3CCD

High Voltage

±20% TOLERANCE

3000 VDCW

(not recommended for deflection yoke application)

CAP. MMF.	PART NUMBER	LIST PRICE	NET PRICE (1-24)	CAP. MMF.	PART NUMBER	LIST PRICE	NET PRICE (1-24)
4.7	3CCD-4R7	$0.40	$0.24	180	3CCD-181	$0.40	$0.24
6.8	3CCD-6R8	.40	.24	220	3CCD-221	.40	.24
10	3CCD-100	.40	.24	270	3CCD-271	.40	.24
15	3CCD-150	.40	.24	330	3CCD-331	.40	.24
22	3CCD-220	.40	.24	390	3CCD-391	.40	.24
27	3CCD-270	.40	.24	470	3CCD-471	.40	.24
33	3CCD-330	.40	.24	560	3CCD-561	.40	.24
39	3CCD-390	.40	.24	680	3CCD-681	.40	.24
47	3CCD-470	.40	.24	820	3CCD-821	.40	.24
56	3CCD-560	.40	.24	1000	3CCD-102	.40	.24
68	3CCD-680	.40	.24	2000	3CCD-202	.40	.24
82	3CCD-820	.40	.24	3000	3CCD-302	.40	.24
100	3CCD-101	.40	.24	4000	3CCD-402	.40	.24
120	3CCD-121	.40	.24	5000	3CCD-502	.40	.24
150	3CCD-151	.40	.24				

TYPE 6CCD

High Voltage

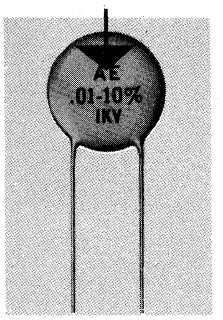
±20% TOLERANCE

6000 VDCW

(not recommended for deflection yoke application)

CAP. MMF.	PART NUMBER	LIST PRICE	NET PRICE (1-24)	CAP. MMF.	PART NUMBER	LIST PRICE	NET PRICE (1-24)
4.7	6CCD-4R7	$0.60	$0.36	100	6CCD-101	$0.60	$0.36
6.8	6CCD-6R8	.60	.36	120	6CCD-121	.60	.36
10	6CCD-100	.60	.36	150	6CCD-151	.60	.36
15	6CCD-150	.60	.36	220	6CCD-221	.60	.36
22	6CCD-220	.60	.36	330	6CCD-331	.60	.36
27	6CCD-270	.60	.36	470	6CCD-471	.60	.36
33	6CCD-330	.60	.36	560	6CCD-561	.70	.42
47	6CCD-470	.60	.36	680	6CCD-681	.70	.42
56	6CCD-560	.60	.36	820	6CCD-821	.70	.42
68	6CCD-680	.60	.36	1000	6CCD-102	.70	.42
82	6CCD-820	.60	.36	2000	6CCD-202	.70	.42

LOOK for the "AE" brand on all ARCO disc ceramic capacitors



ARCO disc ceramic capacitors are now packed in durable, compact plastic boxes at no extra cost. Each box contains five disc ceramic capacitors of the desired rating. Leads are kept straight . . . capacitors are always factory clean. Available at ARCO distributors everywhere.

TEMPERATURE STABLE

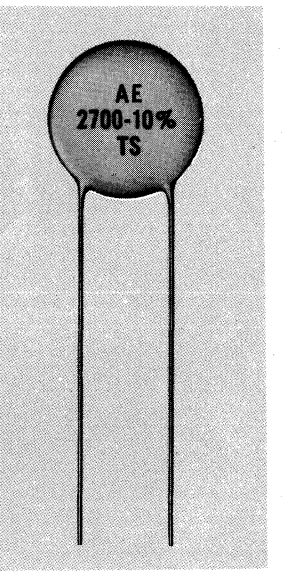
This new ARCO ceramic capacitor maintains excellent capacitance stability with wide temperature variation. The graph illustrates typical percentage variation of capacity value with temperature. The operating temperature range has been extended to −55°C. to +125°C. without derating of the 1000VDCW specification. Standard tolerance is ±10%. The combined small size, low cost, and high stability represents another significant advance in the quality line of ARCO capacitors. All units are marked "TS" for identification.

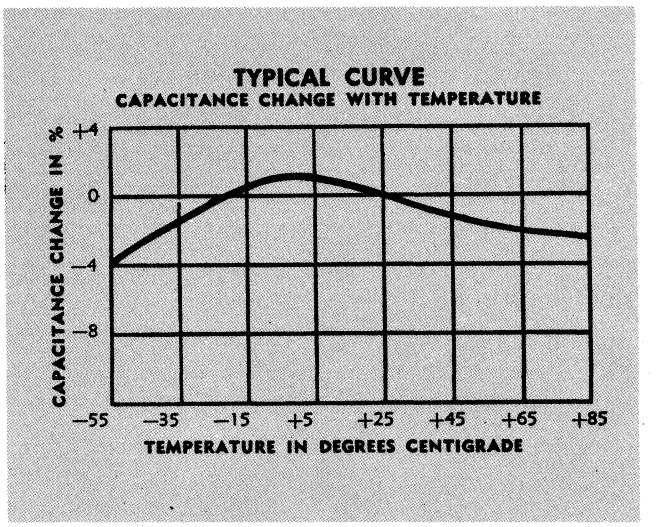
TYPE CCS

±10% TOLERANCE

1000 VDCW

CAP. MMF.	PART NUMBER	LIST PRICE	NET PRICE (1-24)
150	CCS-151	$0.30	$0.18
180	CCS-181	.30	.18
200	CCS-201	.30	.18
220	CCS-221	.30	.18
250	CCS-251	.30	.18
270	CCS-271	.30	.18
300	CCS-301	.30	.18
330	CCS-331	.30	.18
390	CCS-391	.30	.18
470	CCS-471	.30	.18
500	CCS-501	.30	.18
560	CCS-561	.30	.18
620	CCS-621	.30	.18
680	CCS-681	.30	.18
750	CCS-751	.30	.18
820	CCS-821	.35	.21
1000	CCS-102	.35	.21
1200	CCS-122	.35	.21
1500	CCS-152	.35	.21
1800	CCS-182	.35	.21
2000	CCS-202	.35	.21
2200	CCS-222	.35	.21
2500	CCS-252	.40	.24
2700	CCS-272	.40	.24
3000	CCS-302	.40	.24
3300	CCS-332	.40	.24
3900	CCS-392	.40	.24
4700	CCS-472	.40	.24





NET (For quantities of 25 or more, please contact your local Arco-Elmenco Distributor)

Trade Discount Applies To List Prices Only

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ARCO CAPACITORS — CERAMIC DISC

TEMPERATURE COMPENSATING

TYPE CCTO

Arco Type CCTO ceramic disc capacitors are zero temperature coefficient units specifically suited for high stability, high Q application. In addition to extreme temperature stability, Type CCTO capacitors have very high insulation resistance and low aging rate. These special characteristics are added to the high 1000VDCW rating and close tolerance of the entire Arco ceramic line to provide a superior capacitor for the special purpose intended. Type CCTO capacitors are identified by "NPO" printed on each unit.

TYPE CCTN

Another member of the Arco temperature compensating disc ceramic line is the Type CCTN unit which has a negative temperature coefficient of −750 ppm/°C. (N750). These units are used to counterbalance shifts in other circuit components with change in temperature. The result is a more stable circuit essential to many frequency control applications. Improved ceramic bodies in the temperature compensating line provide greater long term stability in addition to accurate temperature compensation. Type CCTN capacitors are identified by "N750" imprinted on each unit except the smallest size. On the small units the E.I.A. temperature coefficient designation "U2" is imprinted.

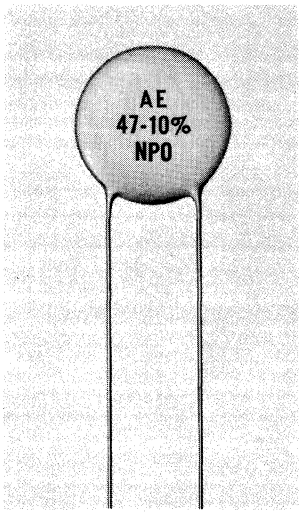
NPO-TYPE CCTO

±10% TOLERANCE

1000 VDCW

CAP. MMF.	PART NUMBER	LIST PRICE	NET PRICE (1-24)
2.2*	CCTO-2R2	$0.50	$0.30
3.3*	CCTO-3R3	.50	.30
4.7*	CCTO-4R7	.50	.30
5.0	CCTO-050	.50	.30
6.8	CCTO-6R8	.50	.30
10	CCTO-100	.50	.30
12	CCTO-120	.50	.30
15	CCTO-150	.50	.30
18	CCTO-180	.50	.30
20	CCTO-200	.50	.30
22	CCTO-220	.50	.30
24	CCTO-240	.50	.30
27	CCTO-270	.50	.30
30	CCTO-300	.50	.30
33	CCTO-330	.50	.30
36	CCTO-360	.50	.30
39	CCTO-390	.50	.30
47	CCTO-470	.50	.30
51	CCTO-510	.55	.33
56	CCTO-560	.55	.33
68	CCTO-680	.55	.33
75	CCTO-750	.55	.33
82	CCTO-820	.55	.33
100	CCTO-101	.55	.33
120	CCTO-121	.55	.33
150	CCTO-151	.55	.33

*±.5 mmf. tolerance

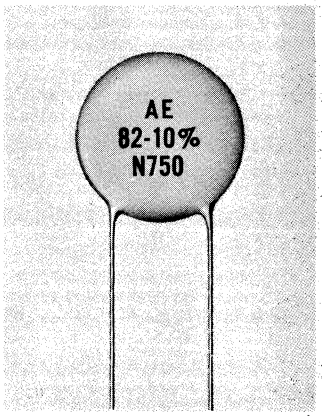


N750-TYPE CCTN

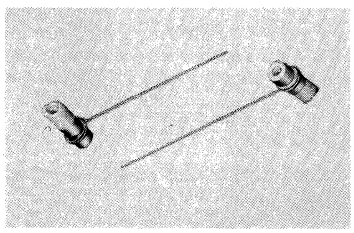
±10% TOLERANCE

1000 VDCW

CAP. MMF.	PART NUMBER	LIST PRICE	NET PRICE (1-24)
5	CCTN-050	$0.50	$0.30
10	CCTN-100	.50	.30
15	CCTN-150	.50	.30
22	CCTN-220	.50	.30
27	CCTN-270	.50	.30
33	CCTN-330	.50	.30
39	CCTN-390	.50	.30
47	CCTN-470	.50	.30
56	CCTN-560	.50	.30
62	CCTN-620	.50	.30
68	CCTN-680	.50	.30
75	CCTN-750	.50	.30
82	CCTN-820	.50	.30
100	CCTN-101	.50	.30
120	CCTN-121	.50	.30
150	CCTN-151	.50	.30
200	CCTN-201	.50	.30
220	CCTN-221	.50	.30
270	CCTN-271	.50	.30
300	CCTN-301	.50	.30
330	CCTN-331	.50	.30
390	CCTN-391	.50	.30
470	CCTN-471	.50	.30



VARIABLE CERAMIC TRIMMER

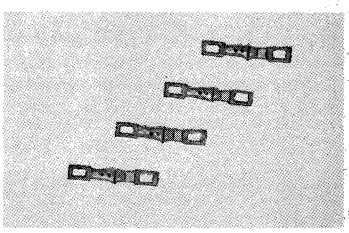


Adjustable ceramic trimmer capacitor for high frequency applications. Silvered Steatite tubes 5/8" in length provide capacity ranges listed below upon insertion of 6-32 screw.

PART No.	CAP. RANGE MMF.	LIST PRICE	NET PRICE (1-24)
CV-1	0.5 - 3	$0.35	$0.21
CV-2	1 - 4	.35	.21
CV-3	2 - 6	.35	.21

FEED THRU CERAMICS

Compact rugged ceramic feed through capacitors are designed for high frequency coupling with a minimum of inductive reactance through elimination of wire leads. These units are three dot EIA coded and rated at 500VDCW.



PART No.	CAP. (MMF.) (Guar. Min. Val.)	LIST PRICE	NET PRICE (1-24)
CCF-501	500	$0.40	$0.24
CCF-102	1000	.40	.24
CCF-152	1500	.40	.24
CCF-202	2000	.40	.24

NET (For quantities of 25 or more, please contact your local Arco-Elmenco distributor)

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ARCO CAPACITORS — Miniature Aluminum Electrolytics Type ME

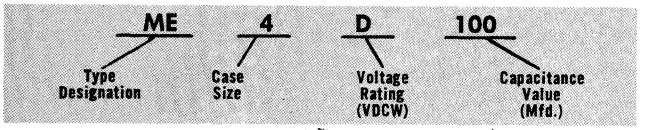
Type ME Miniature Aluminum-cased Electrolytics are the latest addition to the Arcolytic capacitor line. They use the same high purity (99.99%) etched aluminum foil as the standard size Arcolytics. The design of the ME is particularly adapted to the latest transistorized circuitry which features low voltages and compactness of structure.

OPERATING TEMPERATURE RANGE: −30°C. to +85°C.

TOLERANCE: −10%, +100%

LEADS: Axial, 1½", #20 tinned copper

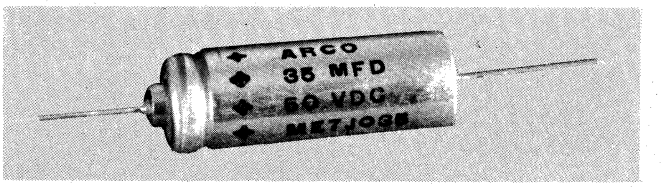
NOMENCLATURE: The part numbers for each Type ME value incorporate case size, voltage and capacitance:-



The example describes a 100 mfd. 12V capacitor, case size ⅜" x ¾".

VOLTAGE RATINGS: Working voltages begin as low as 3 VDCW and extend to 350 VDCW. The voltage ratings are:-

Letter Designation	A	B	D	E	G	J	M	N	R	T
VDCW	3	6	12	15	25	50	100	150	250	350



Type ME capacitors have an all-welded construction which provides increased ruggedness and resistance to environmental extremes. Corrosion and electrolyte leakage is eliminated. Electrically, they exhibit extremely low leakage current and maintain extended shelf life without deterioration. All units are insulated with a transparent plastic sleeve permanently bonded to the aluminum body.

CASE SIZE: Type ME capacitors are made in 8 different case sizes:

CASE SIZE	DIMENSION	CASE SIZE	DIMENSION
1	¼" D x ⅝" L	5	⅜" D x ⅞" L
2	¼" D x ¾" L	6	⅜" D x 1" L
3	⅜" D x ⅝" L	7	⅜" D x 1⅛" L
4	⅜" D x ¾" L	8	⅜" D x 1⅜"L

The insulating plastic sleeve adds $\frac{1}{32}$" x $\frac{1}{16}$" to case dimensions.

STANDARD PACKAGING is in units of 5 in a custom-designed box which protects straight leads and allows visual observation of quantity through a clear plastic window.

3VDCW

CAP. MFD.	PART NUMBER	LIST PRICE	NET PRICE (1-24)
1	ME-1-A-001	$1.25	$0.75
2	ME-1-A-002	1.25	.75
3	ME-1-A-003	1.25	.75
4	ME-1-A-004	1.25	.75
5	ME-1-A-005	1.25	.75
6	ME-1-A-006	1.25	.75
8	ME-1-A-008	1.25	.75
10	ME-1-A-010	1.25	.75
15	ME-1-A-015	1.25	.75
20	ME-1-A-020	1.25	.75
25	ME-1-A-025	1.25	.75
30	ME-2-A-030	1.25	.75
35	ME-2-A-035	1.25	.75
40	ME-2-A-040	1.25	.75
50	ME-2-A-050	1.25	.75
75	ME-3-A-075	1.40	.84
100	ME-3-A-100	1.40	.84
125	ME-4-A-125	1.45	.87
150	ME-4-A-150	1.45	.87
175	ME-4-A-175	1.50	.90
200	ME-4-A-200	1.50	.90
250	ME-4-A-250	1.60	.96
300	ME-7-A-300	1.65	.99
350	ME-7-A-350	1.70	1.02
400	ME-7-A-400	1.70	1.02
450	ME-7-A-450	1.75	1.05
500	ME-7-A-500	1.75	1.05

6VDCW

CAP. MFD.	PART NUMBER	LIST PRICE	NET PRICE (1-24)
1	ME-1-B-001	1.25	.75
2	ME-1-B-002	1.25	.75
3	ME-1-B-003	1.25	.75
4	ME-1-B-004	1.25	.75
5	ME-1-B-005	1.25	.75
6	ME-1-B-006	1.25	.75
8	ME-1-B-008	1.35	.81
10	ME-1-B-010	1.35	.81
15	ME-1-B-015	1.35	.81
20	ME-1-B-020	1.35	.81
25	ME-1-B-025	1.35	.81
30	ME-2-B-030	1.40	.84
35	ME-2-B-035	1.40	.84
40	ME-2-B-040	1.40	.84
50	ME-2-B-050	1.40	.84
60	ME-2-B-060	1.40	.84
75	ME-3-B-075	1.45	.87
100	ME-3-B-100	1.50	.90
125	ME-6-B-125	1.55	.93
150	ME-6-B-150	1.55	.93
175	ME-6-B-175	1.60	.96
200	ME-6-B-200	1.60	.96
250	ME-6-B-250	1.70	1.02
300	ME-8-B-300	1.80	1.08
400	ME-8-B-400	1.85	1.11
500	ME-8-B-500	1.90	1.14

12VDCW

CAP. MFD.	PART NUMBER	LIST PRICE	NET PRICE (1-24)
1	ME-1-D-001	$1.25	$0.75
2	ME-1-D-002	1.25	.75
3	ME-1-D-003	1.25	.75
4	ME-1-D-004	1.25	.75
5	ME-1-D-005	1.35	.81
6	ME-1-D-006	1.35	.81
8	ME-1-D-008	1.35	.81
10	ME-1-D-010	1.35	.81
15	ME-1-D-015	1.40	.84
20	ME-1-D-020	1.40	.84
25	ME-1-D-025	1.40	.84
30	ME-3-D-030	1.45	.87
35	ME-3-D-035	1.45	.87
40	ME-3-D-040	1.50	.90
50	ME-3-D-050	1.55	.93
75	ME-4-D-075	1.65	.99
100	ME-4-D-100	1.65	.99
150	ME-8-D-150	1.75	1.05
200	ME-8-D-200	1.90	1.14
250	ME-8-D-250	2.00	1.20

15VDCW

CAP. MFD.	PART NUMBER	LIST PRICE	NET PRICE (1-24)
1	ME-1-E-001	1.25	.75
2	ME-1-E-002	1.25	.75
3	ME-1-E-003	1.25	.75
4	ME-1-E-004	1.30	.78
5	ME-1-E-005	1.40	.84
6	ME-1-E-006	1.40	.84
8	ME-1-E-008	1.40	.84
10	ME-1-E-010	1.40	.84
15	ME-1-E-015	1.45	.87
20	ME-1-E-020	1.45	.87
25	ME-1-E-025	1.45	.87
30	ME-3-E-030	1.50	.90
35	ME-3-E-035	1.55	.93
40	ME-3-E-040	1.60	.96
50	ME-3-E-050	1.60	.96
75	ME-4-E-075	1.60	.96
100	ME-4-E-100	1.65	.99
150	ME-8-E-150	1.75	1.05
200	ME-8-E-200	1.95	1.17
250	ME-8-E-250	2.05	1.23

25VDCW

CAP. MFD.	PART NUMBER	LIST PRICE	NET PRICE (1-24)
1	ME-1-G-001	1.25	.75
2	ME-1-G-002	1.30	.78
3	ME-1-G-003	1.30	.78
4	ME-1-G-004	1.30	.78
5	ME-1-G-005	1.40	.84
6	ME-1-G-006	1.40	.84
8	ME-1-G-008	1.45	.87
10	ME-1-G-010	1.45	.87
15	ME-3-G-015	1.45	.87
20	ME-3-G-020	1.50	.90
25	ME-3-G-025	1.55	.93
30	ME-3-G-030	1.60	.96

25VDCW (cont.)

CAP. MFD.	PART NUMBER	LIST PRICE	NET PRICE (1-24)
35	ME-4-G-035	$1.65	$0.99
40	ME-4-G-040	1.65	.99
50	ME-4-G-050	1.65	.99
75	ME-7-G-075	1.70	1.02
100	ME-7-G-100	1.75	1.05

50VDCW

1	ME-1-J-001	1.30	.78
2	ME-1-J-002	1.35	.81
3	ME-1-J-003	1.35	.81
4	ME-1-J-004	1.35	.81
5	ME-1-J-005	1.45	.87
6	ME-1-J-006	1.45	.87
8	ME-2-J-008	1.50	.90
10	ME-2-J-010	1.50	.90
15	ME-4-J-015	1.50	.90
20	ME-4-J-020	1.50	.90
25	ME-4-J-025	1.55	.93
30	ME-4-J-030	1.60	.96
35	ME-7-J-035	1.70	1.02
40	ME-7-J-040	1.75	1.05
50	ME-7-J-050	1.75	1.05

100VDCW

1	ME-1-M-001	1.35	.81
2	ME-1-M-002	1.40	.84
3	ME-1-M-003	1.40	.84
4	ME-3-M-004	1.40	.84
5	ME-3-M-005	1.50	.90
6	ME-3-M-006	1.50	.90
8	ME-4-M-008	1.55	.93
10	ME-4-M-010	1.55	.93
15	ME-7-M-015	1.55	.93
20	ME-7-M-020	1.60	.96
25	ME-7-M-025	1.60	.96

150VDCW

1	ME-3-N-001	1.40	.84
2	ME-3-N-002	1.45	.87
3	ME-4-N-003	1.45	.87
4	ME-4-N-004	1.45	.87
5	ME-4-N-005	1.55	.93
6	ME-4-N-006	1.55	.93
8	ME-6-N-008	1.60	.96
10	ME-6-N-010	1.60	.96
12	ME-6-N-012	1.60	.96
15	ME-7-N-015	1.60	.96
20	ME-8-N-020	1.60	.96

250VDCW

1	ME-3-R-001	1.70	1.02
2	ME-3-R-002	1.70	1.02
5	ME-6-R-005	1.80	1.08

350VDCW

1	ME-3-T-001	1.75	1.05
2	ME-5-T-002	1.75	1.05

NET (For quantities of 25 or more, please contact your local Arco-Elmenco distributor)

Trade Discount Applies To List Prices Only

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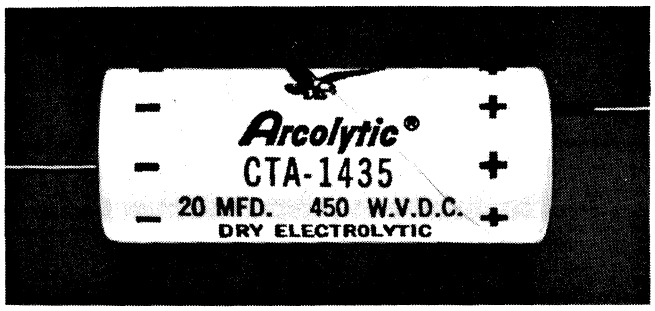
ARCO CAPACITORS — Tubular Electrolytic Capacitors



ARCOLYTIC TUBULARS

- Made with 99.99% high purity aluminum foil.
- Maximum operating temperature: 85°C. (Type CTW: 75°C.)
- Extended shelf and operating life at both normal and elevated temperatures.
- Built and tested to meet EIA specification RS-154.

Type CTA Single and multiple section tubular electrolytics in drawn aluminum cans with cardboard sleeves. Single section units have bare wire leads with negative grounded to can. Multiple units have a common negative grounded to can, and all leads have vari-colored insulated wire for ease of identification.

DIMENSIONS INDICATED FOR CTA ARE ALUMINUM CAN SIZE. ADD 1/16 to DIAMETER AND 3/16 TO LENGTH FOR CARDBOARD INSULATING SLEEVE.

Type CTW Same as type CTA except that these are multiple section electrolytics in wax-filled cardboard tubes.

SINGLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTA-1050	50	6	½ x 1¼	.95	.57
CTA-1055	100	6	½ x 1¼	1.20	.72
CTA-1060	250	6	⅝ x 1¾	1.35	.81
CTA-1065	500	6	¾ x 1¾	1.55	.93
CTA-1070	1000	6	¾ x 2¼	1.90	1.14
CTA-1075	1500	6	1 x 2¼	2.10	1.26
CTA-1080	2000	6	1 x 2¾	2.30	1.38
CTA-1085	100	15	⅝ x 1¼	1.25	.75
CTA-1090	250	15	⅝ x 1¾	1.55	.93
CTA-1095	500	15	¾ x 2¼	1.75	1.05
CTA-1100	1000	15	⅞ v 2¼	2.30	1.38
CTA-1105	2	25	½ x 1¼	.90	.54
CTA-1110	5	25	½ x 1¼	1.00	.60
CTA-1115	10	25	½ x 1¼	1.00	.60
CTA-1120	25	25	½ x 1¼	1.00	.60
CTA-1125	50	25	⅝ x 1¼	1.10	.66
CTA-1130	100	25	⅝ x 1¾	1.35	.81
CTA-1135	250	25	⅞ x 2¼	1.70	1.02
CTA-1140	500	25	1 x 2¼	2.30	1.38
CTA-1145	1	50	½ x 1¼	.90	.54
CTA-1150	2	50	½ x 1¼	.90	.54
CTA-1155	5	50	½ x 1¼	1.00	.60
CTA-1160	10	50	½ x 1¼	1.00	.60
CTA-1165	20	50	⅝ x 1¼	1.00	.60
CTA-1170	25	50	⅝ x 1¼	1.05	.63
CTA-1175	50	50	⅝ x 1¾	1.20	.72
CTA-1180	100	50	¾ x 1¾	1.40	.84
CTA-1185	150	50	¾ x 1¾	1.55	.93
CTA-1190	250	50	⅞ x 1¾	1.75	1.05
CTA-1195	500	50	1 x 2¼	2.40	1.44
CTA-1200	4	150	½ x 1¼	1.00	.60
CTA-1205	5	150	½ x 1¼	1.00	.60
CTA-1210	8	150	⅝ x 1¼	1.05	.63
CTA-1215	10	150	⅝ x 1¼	1.05	.63
CTA-1220	12	150	⅝ x 1¼	1.10	.66
CTA-1225	16	150	⅝ x 1¾	1.15	.69
CTA-1230	20	150	⅝ x 1¾	1.20	.72
CTA-1235	25	150	⅝ x 1¾	1.25	.75
CTA-1240	30	150	¾ x 1¾	1.30	.78
CTA-1245	40	150	¾ x 1¾	1.35	.81

SINGLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTA-1250	50	150	⅞ x 1¾	1.40	.84
CTA-1255	60	150	⅞ x 1¾	1.50	.90
CTA-1260	80	150	¾ x 2¼	1.60	.96
CTA-1265	100	150	1 x 2¼	1.75	1.05
CTA-1270	150	150	1¼ x 2¼	1.90	1.14
CTW-1275	200	150	1¼ x 2¾	2.20	1.32
CTW-1280	250	150	1¼ x 3¼	2.55	1.53
CTW-1285	300	150	1¼ x 3¾	2.55	1.53
CTW-1290	150	200	1 x 3¾	2.55	1.53
CTW-1295	200	200	1 x 3¼	2.90	1.74
CTA-1300	4	250	⅝ x 1¼	1.00	.60
CTA-1305	8	250	⅝ x 1¼	1.15	.69
CTA-1310	10	250	⅝ x 1¾	1.20	.72
CTA-1315	12	250	⅝ x 1¾	1.25	.75
CTA-1320	16	250	⅝ x 1¾	1.30	.78
CTA-1325	20	250	¾ x 1¾	1.35	.81
CTA-1330	30	250	¾ x 2¼	1.45	.87
CTA-1335	40	250	¾ x 2¼	1.55	.93
CTA-1340	50	250	⅞ x 1¾	1.70	1.02
CTA-1345	60	250	⅞ x 2¼	1.80	1.08
CTA-1350	100	250	1 x 2¾	2.45	1.47
CTW-1355	140	300	1 x 3¾	3.15	1.89
CTA-1357	200	300	1⅛ x 4¼	3.70	2.22
CTA-1360	4	350	⅝ x 1¼	1.05	.63
CTA-1365	8	350	⅝ x 1¾	1.20	.72
CTA-1370	10	350	⅝ x 1¾	1.25	.75
CTA-1375	12	350	¾ x 1¾	1.30	.78
CTA-1380	16	350	¾ x 1¾	1.40	.84
CTA-1385	20	350	⅞ x 1¾	1.45	.87
CTA-1390	30	350	⅞ x 2¼	1.65	.99
CTA-1395	40	350	1 x 2¼	1.75	1.05
CTA-1398	60	350	1 x 2¾	1.95	1.17
CTA-1400	1	450	½ x 1¼	1.10	.66
CTA-1405	2	450	½ x 1¼	1.10	.66
CTA-1410	4	450	⅝ x 1¼	1.15	.69
CTA-1415	8	450	⅝ x 1¾	1.25	.75
CTA-1420	10	450	¾ x 1¾	1.30	.78
CTA-1425	12	450	¾ x 1¾	1.35	.81
CTA-1430	16	450	⅞ x 1¾	1.40	.84
CTA-1435	20	450	⅞ x 2¼	1.55	.93
CTA-1440	30	450	1 x 2¼	1.70	1.02
CTA-1445	40	450	1 x 2¾	1.80	1.08
CTA-1450	50	450	1 x 3¼	2.10	1.26
CTA-1455	60	450	1 x 3¼	2.35	1.41
CTA-1460	80	450	1 x 3¼	2.80	1.68
CTA-1465	100	450	1 x 3¾	3.20	1.92
CTA-1470	8	500	¾ x 1¾	1.30	.78
CTA-1475	10	500	⅞ x 1¾	1.35	.81
CTA-1480	16	500	⅞ x 2¼	1.50	.90
CTA-1485	20	500	⅞ x 1¾	1.60	.96
CTA-1490	30	500	1 x 2¾	1.75	1.05
CTA-1500	8	600	1 x 2¾	2.85	1.71
CTA-1505	10	600	1 x 2¾	2.95	1.77
CTA-1510	16	600	1 x 2¾	3.45	2.07
CTA-1515	20	600	1 x 3¾	3.55	2.13
CTA-1520	8	700	1 x 2¾	2.75	1.65
CTA-1525	10	700	1 x 2¾	3.45	2.07
CTA-1530	16	700	1 x 3¾	3.55	2.13

DOUBLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTA-2030	10-10	50-50	⅝ x 1¾	1.40	.84
CTA-2035	8-8	150-150	⅝ x 1¾	1.50	.90
CTA-2040	16-16	150-150	¾ x 1¾	1.80	1.08
CTA-2045	20-12	150-150	¾ x 1¾	1.60	.96
CTA-2050	20-20	150-150	¾ x 1¾	1.65	.98
CTA-2055	30-20	150-150	⅞ x 1¾	1.70	1.02
CTA-2060	30-30	150-150	⅞ x 1¾	1.80	1.08
CTA-2065	40-20	150-150	⅞ x 1¾	1.75	1.05
CTA-2070	40-30	150-150	⅞ x 2¼	1.80	1.08
CTA-2075	40-40	150-150	⅞ x 2¼	1.85	1.11
CTA-2080	50-30	150-150	⅞ x 2¼	1.95	1.17
CTA-2085	50-50	150-150	⅞ x 2¼	2.10	1.26
CTA-2090	80-30	150-150	1 x 2¼	2.20	1.32
CTA-2100	80-40	150-150	1 x 2¾	2.20	1.32
CTA-2105	80-50	150-150	1 x 2¾	2.35	1.41
CTW-2110	100-100	150-150	1 x 3¾	3.20	1.92
CTA-2112-S	120-120	150-150	1⅛ x 4⅞	3.45	2.07
CTW-2115	250-50	150-150	1¼ x 3¾	3.70	2.22
CTW-2120	200-5	150-150	1 x 3¾	2.65	1.59
CTW-2125	250-200	150-150	1¼ x 4¾	4.20	2.52
CTA-2130	20-20	250-250	⅞ x 2¼	1.85	1.11
CTA-2135	40-10	250-250	⅞ x 2¼	2.05	1.23
CTA-2140	80-10	250-250	1 x 3¼	2.55	1.53
CTW-2145	120-80	250-250	1¼ x 3¾	4.00	2.40
CTW-2150	140-5	350-350	1¼ x 4¼	4.15	2.49
CTW-2155	80-100	450-50	1¼ x 4¼	3.70	2.22

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Distributor)

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ARCO CAPACITORS — Tubular Electrolytic Capacitors

DOUBLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTA-2160	8-8	450-450	7/8 x 2 1/4	1.70	1.02
CTA-2165	10-10	450-450	1 x 2 1/4	1.85	1.11
CTA-2170	16-8	450-450	1 x 2 1/4	2.00	1.20
CTA-2175	20-20	450-450	1 x 2 3/4	2.50	1.50
CTA-2180	30-30	450-450	1 x 3 1/4	3.00	1.80
CTA-2185	40-40	450-450	1 x 3 3/4	3.40	2.04
CTA-2190	50-30	450-450	1 x 3 3/4	3.40	2.04

TRIPLE UNITS

CTA-3050	20-20-20	150-150-150	7/8 x 1 3/4	2.50	1.50
CTA-3055	30-30-30	150-150-150	7/8 x 2 1/4	2.60	1.56
CTA-3060	40-30-20	150-150-150	7/8 x 2 1/4	2.60	1.56
CTA-3063	40-40-20	150-150-150	1 x 2 1/4	2.35	1.41
CTA-3065	40-40-40	150-150-150	1 x 2 1/4	2.80	1.68
CTA-3070	50-30-20	150-150-150	1 x 2 1/4	2.70	1.62
CTA-3075	80-40-20	150-150-150	1 x 2 3/4	2.90	1.74
CTW-3078	150-150-150	150-150-150	1 3/8 x 4 1/4	4.85	2.91
CTW-3080	250-200-10	150-150-150	1 1/4 x 4 1/4	4.60	2.76
CTA-3085	60-40-250	150-150-15	1 x 3 1/4	2.60	1.56
CTA-3090	80-30-300	150-150-15	1 x 3 3/4	2.90	1.74
CTA-3095	20-20-20	150-150-25	7/8 x 1 3/4	2.45	1.47
CTA-3100	40-20-20	150-150-25	1 x 1 3/4	2.55	1.53
CTA-3105	40-30-20	150-150-25	7/8 x 2 1/4	2.60	1.56
CTA-3110	40-40-20	150-150-25	1 x 2 1/4	2.65	1.59
CTA-3115	40-40-100	150-150-25	1 x 2 1/4	2.80	1.68
CTA-3120	50-30-20	150-150-25	1 x 2 1/4	2.65	1.59
CTA-3125	50-30-100	150-150-25	1 x 2 1/4	2.80	1.68
CTA-3130	50-30-250	150-150-25	1 x 3	3.10	1.86
CTA-3135	50-50-20	150-150-25	1 x 2 1/4	2.75	1.65
CTA-3140	80-20-100	150-150-25	1 x 2 3/4	2.80	1.68
CTA-3145	80-40-20	150-150-25	1 x 2 3/4	2.80	1.68
CTW-3150	250-120-50	150-150-25	1 3/8 x 4	4.35	2.61
CTW-3153	120-40-100	300-250-50	1 3/8 x 4 1/4	4.95	2.97
CTW-3155	60-60-60	300-300-300	1 3/8 x 3 1/2	4.70	2.82
CTW-3160	80-40-100	300-300-50	1 3/8 x 3 1/2	4.25	2.55
CTW-3165	100-60-100	300-300-50	1 3/8 x 4 1/4	4.95	2.97
CTW-3168	120-40-10	300-300-250	1 3/8 x 3 1/2	4.85	2.91
CTW-3170	60-60-4	350-350-350	1 3/8 x 3 1/4	3.85	2.31
CTW-3175	140-5-200	350-350-200	1 1/2 x 4 3/4	6.70	4.02

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTW-3178	10-20-100	400-150-150	1 1/4 x 4 3/4	4.10	2.46
CTW-3180	5-80-40	450-400-400	1 3/4 x 4 1/4	4.55	2.73
CTA-3185	20-20-20	450-450-25	1 1/4 x 3	3.10	1.86
CTA-3190	40-40-20	450-450-25	1 x 3 3/4	3.80	2.28

QUADRUPLE UNITS

CTW-4050	40-20-20-100	150-150-150-25	1 x 3 1/4	3.10	1.86
CTW-4055	150-100-20-100	300-300-300-50	1 1/2 x 4 3/4	6.95	4.17
CTW-4060	120-40-40-10	300-300-300-250	1 1/4 x 4 3/4	6.20	3.72
CTW-4065	140-5-200-100	350-300-200-150	1 1/2 x 4 3/4	8.20	4.92
CTW-4070	140-5-200-30	350-300-200-200	1 1/2 x 4 3/4	7.65	4.59
CTW-4075	80-60-40-20	350-350-300-150	1 1/4 x 4 3/4	5.90	3.54
CTW-4085	80-10-40-100	400-400-300-50	1 3/8 x 4 1/4	5.45	3.27
CTW-4090	10-80-40-100	450-300-250-50	1 3/8 x 4 1/4	4.80	2.88
CTW-4095	20-120-40-100	450-300-250-50	1 1/4 x 4 3/4	6.15	3.69
CTW-4100	10-80-40-40	450-300-300-250	1 3/8 x 4 1/4	4.95	2.97
CTW-4105	20-20-20-10	450-450-450-450	1 3/8 x 3 3/4	4.25	2.55
CTW-4110	40-20-20-10	450-450-450-450	1 1/4 x 4 1/4	4.70	2.82
CTW-4115	40-40-20-20	450-450-450-450	1 1/2 x 4 1/4	5.45	3.27

FIVE LEADS

CTW-5050	40-20-20-20-50	300-300-300-300-75	1 3/8 x 4 1/4	5.05	3.03

PRINTED CIRCUIT

APC-2100	50-30	150-150	1 x 2 1/2	2.60	1.56
APC-2105	50-50	150-150	1 x 2 1/2	2.70	1.62
APC-2110	80-30	150-150	1 x 3	2.75	1.65
APC-2115	100-50	150-150	1 x 3 1/2	2.95	1.77

ANTENNA ROTOR CAPACITOR

CRA-1000	70	50 VAC	7/8 x 3	1.25	.75
CRA-1050	100-120	50 VAC	1 x 2 3/4	1.65	.99
CRA-1200	210-240	50 VAC	1 x 3	2.70	1.62
CRA-1220	210-290	50 VAC	1 x 3	2.50	1.50

PRINTED CIRCUIT TWIST MOUNTS

SINGLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTP-1250	140	150	1 x 2 1/2	2.15	1.29
CTP-1350	375	165	1 3/8 x 3 1/2	4.65	2.79
CTP-1450	160	200	1 3/8 x 3	2.90	1.74
CTP-1550	50	350	1 x 2	2.10	1.26
CTP-1650	20	450	1 x 2	1.80	1.08

DUAL UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTP-2150	250-250	16-16	1 x 2	2.75	1.65
CTP-2275	500-100	16-16	1 x 2	3.10	1.86
CTP-2350	800-250	16-16	1 x 2	3.35	2.01
CTP-2360	500-200	18-18	1 x 2	3.35	2.01
CTP-2475	50-30	150-150	1 x 2	2.00	1.20
CTP-2550	80-30	150-150	1 x 2	2.25	1.35
CTP-2625	80-40	150-150	1 x 2	2.30	1.38
CTP-2700	200-5	150-150	1 3/8 x 2 1/2	2.70	1.62
CTP-2775	2-20	300-25	1 x 2	1.45	.87
CTP-2850	10-10	300-50	1 x 2	1.60	.96
CTP-2875	150-100	300-150	1 3/8 x 4	4.50	2.70
CTP-2890	10-10	300-300	1 3/8 x 2	1.75	1.05

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTP-3130	250-250-50	16-16-16	1 x 2	3.25	1.95
CTP-3160	500-250-50	16-16-16	1 x 2	3.50	2.10
CTP-3190	500-250-250	16-16-16	1 x 2	4.10	2.46
CTP-3220	70-30-100	150-150-10	1 x 2	2.80	1.68
CTP-3250	40-30-250	150-150-10	1 x 2 1/2	3.10	1.86

PRINTED CIRCUIT TWIST MOUNTS

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTP-3280	80-60-250	150-150-10	1 x 2 1/2	3.40	2.04
CTP-3310	80-60-400	150-150-10	1 x 3	3.65	2.19
CTP-3340	90-40-400	150-150-10	1 x 3	3.50	2.10
CTP-3370	40-20-20	150-150-25	1 x 2 1/2	2.30	1.38
CTP-3400	80-20-20	150-150-25	1 x 2 1/2	2.70	1.62
CTP-3430	70-30-20	150-150-25	1 x 2 1/2	2.70	1.62
CTP-3460	30-30-30	150-150-150	1 x 2	2.50	1.50
CTP-3490	40-40-20	150-150-150	1 x 2 1/2	2.50	1.50
CTP-3510	40-40-30	150-150-150	1 x 2 1/2	2.70	1.62
CTP-3540	50-30-20	150-150-150	1 x 2	2.60	1.56
CTP-3570	50-40-30	150-150-150	1 x 2 1/2	2.70	1.62
CTP-3600	60-60-40	150-150-150	1 3/8 x 2	3.10	1.86
CTP-3630	70-15-15	150-150-150	1 x 2	2.70	1.62
CTP-3660	80-60-10	150-150-150	1 x 3	2.95	1.77
CTP-3670	100-80-40	175-175-175	1 x 3	4.00	2.40
CTP-3690	10-10-20	300-50-25	1 x 2	2.10	1.26
CTP-3720	150-60-200	300-200-150	1 3/8 x 4	5.95	3.57
CTP-3750	60-10-25	300-300-25	1 3/8 x 2	3.05	1.83
CTP-3780	150-100-30	300-300-300	1 3/8 x 4	6.35	3.81
CTP-3810	125-5-100	350-150-10	1 3/8 x 3 1/2	4.60	2.76
CTP-3830	40-30-20	400-350-300	1 3/8 x 2 1/2	3.95	2.37

QUADRUPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTP-4100	290-30-10-100	150-150-150-10	1 3/8 x 3 1/2	4.50	2.70
CTP-4200	50-40-10-50	150-150-150-25	1 3/8 x 2	3.15	1.89
CTP-4300	100-40-10-50	150-150-150-25	1 3/8 x 2	3.70	2.22
CTP-4400	60-60-40-10	150-150-150-150	1 3/8 x 2	3.65	2.19
CTP-4500	100-60-60-40	350-350-200-75	1 3/8 x 3 1/2	6.55	3.93
CTP-4600	40-20-10-100	350-350-350-50	1 3/8 x 2 1/2	4.35	2.61
CTP-4700	40-30-20-20	400-350-350-350	1 3/8 x 2 1/2	4.95	2.97

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Distributor)

Trade Discount Applies To List Prices Only

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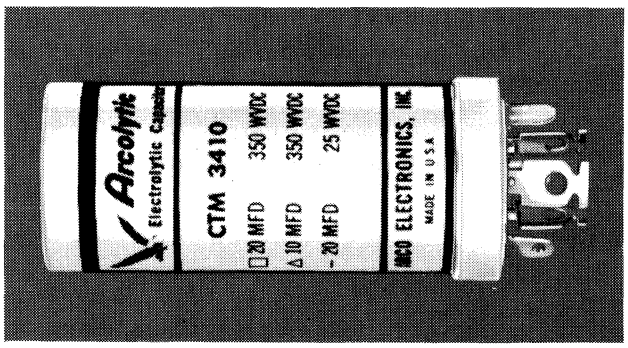
ARCO CAPACITORS — Twist Mount Electrolytic Capacitors



ARCOLYTIC TWIST MOUNTS

- Made with 99.99% pure aluminum foil.
- Hermetically sealed in aluminum cans.
- Designed for high temperature operation: 85°C.
- Made to withstand high surge voltages and high ripple currents.
- Greater shelf and operating life because only premium grade ingredients are used.
- Built and tested to meet EIA specification RS-154.
- Complete with phenolic and metal mounting plates.

SINGLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTM-1068	10 OHM @ 30 CPS	3 N.P.	1⅜ x 2	2.75	1.65
CTM-1077	1000	6	1⅜ x 2	2.40	1.44
*CTM-1086	2000	6	1⅜ x 2	2.55	1.83
CTM-1095	1000	10	1 x 2½	3.20	1.92
CTM-1104	3000	10	1⅜ x 2	4.25	2.19
*CTM-1113	225	15	¾ x 2	1.75	1.05
*CTM-1122	1000	15	1 x 2½	2.55	1.53
CTM-1131	1500	15	1 x 2	3.45	2.07
*CTM-1140	2000	15	1⅜ x 2	3.45	2.07
*CTM-1149	3000	15	1⅜ x 2	4.25	2.55
CTM-1158	4000	15	1⅜ x 2	5.25	2.25
CTM-1167	25	25	¾ x 2	1.55	.93
CTM-1176	40	25	¾ x 2	1.35	.81
CTM-1185	50	25	1 x 2	1.70	1.02
CTM-1194	100	25	¾ x 2	2.00	1.20
*CTM-1203	500	25	1 x 2	2.55	1.53
*CTM-1212	1000	25	1⅜ x 2	3.55	2.13
CTM-1221	4	50	¾ x 2	1.55	.93
CTM-1230	25	50	¾ x 2	1.30	.78
*CTM-1239	100	50	¾ x 2	1.65	.99
*CTM-1248	150	50	¾ x 2½	1.80	1.08
*CTM-1257	250	50	1 x 2½	2.00	1.20
*CTM-1266	500	50	1⅜ x 2	2.65	1.59
*CTM-1275	1000	50	1⅜ x 2	3.75	2.25
*CTM-1284	1500	50	1⅜ x 2	5.25	3.15
CTM-1293	10	150	1 x 2	1.65	.99
CTM-1302	20	150	1 x 2	1.80	1.08
CTM-1311	25	150	1 x 2	1.90	1.14
*CTM-1320	30	150	1 x 2	1.55	.93
CTM-1329	40	150	1 x 2	2.00	1.20
*CTM-1338	50	150	1 x 2	1.65	.99
CTM-1347	60	150	1 x 2	2.20	1.32
*CTM-1356	80	150	1 x 2½	1.85	1.11
CTM-1365	80	150	1⅜ x 2	2.30	1.38
*CTM-1374	100	150	1 x 2½	2.00	1.20
CTM-1383	110	150	1 x 2	2.70	1.62
*CTM-1392	120	150	1 x 2½	2.15	1.29
CTM-1400T	120/150 with Insulated Black Sleeve		1⅜ x 2	2.35	1.41
*CTM-1401	120	150	1⅜ x 2½	2.15	1.29
*CTM-1410	140	150	1 x 2	2.15	1.29
*CTM-1419	150	150	1 x 2	2.15	1.29
*CTM-1428	150	150	1⅜ x 3	2.15	1.29
CTM-1436	200	150	1 x 3	3.10	1.86
*CTM-1437	200	150	1⅜ x 3½	2.45	1.47
*CTM-1446	300	150	1⅜ x 3½	2.80	1.68
*CTM-1455	375	165	1⅜ x 3½	4.65	2.79
CTM-1464	40	200	1 x 2	2.15	1.29

*Preferred Type

SINGLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTM-1471T	120/200 with Insulated Black Sleeve		1⅜ x 2	2.80	1.68
*CTM-1472	125	200	1 x 2	2.90	1.74
*CTM-1473	125	200	1⅜ x 2½	2.80	1.68
CTM-1481	160	200	1 x 3½	3.30	1.98
*CTM-1482	160	200	1⅜ x 3	3.15	1.89
CTM-1491	500	200	1⅜ x 4	6.60	3.96
*CTM-1500	15	250	1 x 2	1.95	1.17
CTM-1509	20	250	1 x 2	1.60	.96
CTM-1518	30	250	1 x 2	2.15	1.29
*CTM-1527	40	250	1 x 2	1.80	1.08
CTM-1536	50	250	1 x 2½	2.45	1.47
CTM-1545	60	250	1 x 3	2.05	1.23
CTM-1554	80	250	1 x 3	2.70	1.62
*CTM-1563	100	250	1 x 3	2.70	1.62
*CTM-1572	150	250	1⅜ x 2½	3.10	1.86
*CTM-1574	160	250	1⅜ x 2½	3.15	1.89
*CTM-1581	200	250	1⅜ x 3½	3.65	2.19
CTM-1590	15	300	1 x 2	2.00	1.20
CTM-1599	30	300	1 x 2	2.20	1.32
CTM-1608	50	300	1 x 2	2.55	1.53
CTM-1617	60	300	1 x 3	2.10	1.26
*CTM-1626	80	300	1 x 3	2.55	1.53
*CTM-1635	100	300	1 x 4	2.90	1.74
*CTM-1644	125	300	1⅜ x 3	3.50	2.10
*CTM-1653	150	300	1⅜ x 3	3.50	2.10
*CTM-1662	250	300	1⅜ x 4	5.55	2.10
CTM-1651	10	350	1 x 2	1.90	1.14
CTM-1660	15	350	1 x 2	2.05	1.23
CTM-1669	20	350	1 x 2	2.20	1.32
*CTM-1678	30	350	1 x 2	1.90	1.14
*CTM-1687	40	350	1 x 2	2.00	1.20
*CTM-1696	50	350	1 x 2	2.10	1.26
*CTM-1705	60	350	1 x 3	2.20	1.32
*CTM-1714	80	350	1⅜ x 2	2.85	1.71
*CTM-1723	125	350	1⅜ x 3½	3.95	2.37
CTM-1732	140	350	1⅜ x 3½	4.95	2.97
*CTM-1741	150	350	1⅜ x 3½	3.95	2.37
CTM-1750	320	350	1⅜ x 4	6.75	4.05
CTM-1759	10	400	1 x 2	1.90	1.14
CTM-1768	20	400	1 x 2	2.20	1.32
CTM-1777	40	400	1⅜ x 2	3.15	1.89
CTM-1786	50	400	1⅜ x 2½	2.75	1.65
CTM-1795	80	400	1⅜ x 3	3.70	2.22
CTM-1804	100	400	1⅜ x 3	4.25	2.55
*CTM-1813	4	450	1 x 2	1.40	.84
*CTM-1822	10	450	1 x 2	1.55	.93
*CTM-1831	15	450	1 x 2	1.70	1.02
*CTM-1840	20	450	1 x 2	1.80	1.08
CTM-1849	25	450	1 x 2½	1.90	1.14
*CTM-1858	30	450	1 x 2½	1.95	1.17
*CTM-1867	40	450	1 x 3	2.05	1.23
*CTM-1876	50	450	1 x 3	2.35	1.41
*CTM-1885	60	450	1⅜ x 2½	2.60	1.56
*CTM-1894	80	450	1⅜ x 2½	3.05	1.83
*CTM-1903	100	450	1⅜ x 3	3.45	2.07
*CTM-1912	125	450	1⅜ x 4	3.85	2.31
CTM-1921	20	475	1 x 2½	2.30	1.38
CTM-1930	30	475	1 x 2½	2.50	1.50
*CTM-1939	40	475	1⅜ x 2	2.50	1.50
CTM-1948	90	475	1⅜ x 2½	4.40	2.64
*CTM-1957	10	500	1 x 2	1.70	1.02
*CTM-1966	20	500	1 x 2½	1.85	1.11
*CTM-1975	30	500	1 x 2½	2.00	1.20
*CTM-1984	40	500	1 x 2½	2.50	1.50
*CTM-1993	80	500	1⅜ x 2½	3.60	2.16
CTM-1995	90	500	1⅜ x 2½	3.50	2.10
CTM-1997	15	525	1⅜ x 3	1.85	1.11

DUAL UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Price (1-24)
CTM-2050	(.5 OHM @ 51.75 K 2.5 OHM) @ 60 CPS		1⅜ x 2	4.50	2.70
*CTM-2058	250-1000	10-6	1⅜ x 2	2.85	1.71
*CTM-2066	1000-1000	15-15	1 x 3½	4.40	2.64
*CTM-2070	1000-1000	15-15	1⅜ x 2½	4.40	2.64
CTM-2074	250-250	16-16	1 x 2	3.45	2.07
*CTM-2078	500-100	16-16	1 x 2	2.50	1.50
*CTM-2079	500-200	16-16	1 x 2	2.70	1.62
*CTM-2080	1000-50	16-16	1 x 2½	3.90	2.34
CTM-2082	20-20	25-25	1 x 2	1.80	1.08
CTM-2086	40-40	25-25	1 x 2	2.00	1.20
*CTM-2090	100-70	25-25	1 x 2	1.80	1.08
CTM-2094	150-50	25-25	1 x 2	2.40	1.44
*CTM-2098	500-500	25-25	1⅜ x 2	4.40	2.64
*CTM-2101	1000-500	25-25	1⅜ x 2	5.50	3.30
*CTM-2106	50-50	50-50	1 x 2	1.70	1.02
*CTM-2110	100-25	50-50	1 x 2	1.90	1.14
*CTM-2114	100-100	50-50	1 x 2	2.10	1.26
*CTM-2118	50-500	150-5	1 x 3	2.45	1.47
CTM-2122	40-20	150-25	1 x 2	2.15	1.29
CTM-2126	40-150	150-25	1 x 2	2.55	1.52

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Distributor)

ARCO CAPACITORS — Twist Mount Electrolytic Capacitors

DUAL UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTM-2130	50-150	150-25	1 x 2½	2.75	1.65
*CTM-2134	150-100	150-25	1⅜ x 2½	2.70	1.62
CTM-2138	40-20	150-50	1 x 2	2.55	1.53
*CTM-2142	150-50	150-50	1 x 3	2.80	1.68
*CTM-2146	150-100	150-50	1⅜ x 2½	3.25	1.95
CTM-2150	20-10	150-150	1 x 2	2.00	1.20
*CTM-2154	20-20	150-150	1 x 2	1.70	1.02
CTM-2158	30-15	150-150	1 x 2	2.20	1.32
CTM-2162	30-20	150-150	1 x 2	2.20	1.32
*CTM-2166	30-30	150-150	1 x 2	1.85	1.11
*CTM-2170	40-20	150-150	1 x 2	1.85	1.11
*CTM-2174	40-30	150-150	1 x 2	1.85	1.11
*CTM-2178	40-40	150-150	1 x 2	1.90	1.14
*CTM-2182	50-30	150-150	1 x 2	2.00	1.20
*CTM-2186	50-50	150-150	1 x 2	2.15	1.29
*CTM-2190	60-20	150-150	1 x 2	2.05	1.23
*CTM-2194	60-60	150-150	1 x 2	2.35	1.41
*CTM-2198	70-30	150-150	1 x 2	2.20	1.32
*CTM-2202	75-75	150-150	1 x 2	2.60	1.56
*CTM-2206	80-40	150-150	1⅜ x 2½	2.30	1.38
*CTM-2210	80-50	150-150	1 x 2	2.40	1.44
*CTM-2214	80-60	150-150	1 x 3	2.50	1.50
*CTM-2218	80-80	150-150	1⅜ x 2	2.65	1.59
*CTM-2222	100-30	150-150	1 x 2½	2.80	1.68
CTM-2226	100-100	150-150	1⅜ x 2½	4.05	2.43
*CTM-2230	125-100	150-150	1⅜ x 2½	3.35	2.01
*CTM-2234	150-80	150-150	1⅜ x 2½	3.05	1.83
CTM-2238	150-150	150-150	1⅜ x 3	4.40	2.64
*CTM-2242	200-5	150-150	1⅜ x 2	2.70	1.62
*CTM-2246	200-125	150-150	1⅜ x 3½	3.75	2.25
*CTM-2250	200-150	150-150	1⅜ x 4	3.75	2.25
*CTM-2254	200-200	150-150	1⅜ x 4	4.00	2.40
*CTM-2258	60-125	200-25	1 x 3	2.40	1.44
CTM-2262	30-10	200-50	1 x 2	2.30	1.38
CTM-2266	100-100	200-50	1⅜ x 2½	3.55	2.13
CTM-2270	40-40	200-200	1 x 2	2.90	1.74
*CTM-2274	60-60	200-200	1 x 3	3.40	2.04
*CTM-2278	60-60	200-200	1⅜ x 2	3.40	2.04
*CTM-2282	100-100	200-200	1⅜ x 3	3.50	2.10
*CTM-2286	200-5	200-200	1⅜ x 2	3.05	1.83
CTM-2290	40-350	250-15	1⅜ x 2	3.45	2.07
CTM-2294	40-25	250-25	1 x 2½	2.50	1.50
CTM-2298	50-100	250-50	1⅜ x 2	3.25	1.95
CTM-2302	80-100	250-50	1⅜ x 2½	3.55	2.13
*CTM-2306	100-150	250-50	1⅜ x 3	3.65	2.19
CTM-2310	40-25	250-150	1 x 2½	3.45	2.07
CTM-2314	10-10	250-250	1 x 2	2.15	1.29
*CTM-2318	20-20	250-250	1 x 2	1.90	1.14
CTM-2322	30-30	250-250	1 x 2½	2.75	1.65
CTM-2326	40-20	250-250	1 x 3	2.75	1.65
*CTM-2330	40-40	250-250	1 x 2	2.50	1.50
CTM-2334	150-40	250-250	1⅜ x 3	4.80	2.88
*CTM-2338	150-150	250-250	1⅜ x 4	5.15	3.09
*CTM-2342	200-200	250-250	1⅜ x 4	6.05	3.63
*CTM-2346	35-500	300-6	1 x 2½	3.55	2.13
CTM-2350	20-20	300-25	1 x 2	2.30	1.38
CTM-2354	20-100	300-25	1 x 2½	3.40	2.04
*CTM-2358	10-40	300-50	1 x 2	1.70	1.02
CTM-2362	80-100	300-50	1⅜ x 3	3.95	2.37
CTM-2366	60-200	300-150	1⅜ x 3	4.65	2.79
CTM-2370	80-100	300-150	1⅜ x 2½	4.55	2.73
CTM-2374	60-10	300-200	1 x 3½	3.15	1.89
*CTM-2378	100-100	300-200	1 x 4	4.30	2.58
CTM-2382	20-60	300-250	1 x 3½	3.45	2.07
CTM-2386	10-10	300-300	1 x 2	2.20	1.32
CTM-2390	15-15	300-300	1 x 2	2.40	1.44
*CTM-2394	40-30	300-300	1 x 3	2.65	1.59
CTM-2398	40-40	300-300	1⅜ x 2½	3.75	2.25
CTM-2402	50-50	300-300	1⅜ x 2½	4.20	2.52
CTM-2406	60-20	300-300	1⅜ x 2½	3.50	2.10
CTM-2410	60-60	300-300	1⅜ x 2½	4.25	2.55
CTM-2414	75-75	300-300	1⅜ x 3	4.75	2.85
CTM-2418	80-40	300-300	1⅜ x 2½	4.45	2.67
CTM-2422	80-60	300-300	1⅜ x 3½	4.65	2.79
*CTM-2426	80-80	300-300	1⅜ x 3	4.05	2.43
*CTM-2430	120-20	300-300	1⅜ x 3½	4.00	2.40
*CTM-2434	120-40	300-300	1⅜ x 2½	4.35	2.61
CTM-2438	150-100	300-300	1⅜ x 3½	6.75	4.05
*CTM-2442	200-80	300-300	1⅜ x 4	5.25	3.15
CTM-2446	20-20	350-25	1 x 2	2.40	1.44
CTM-2450	40-20	350-25	1 x 2½	2.95	1.77
CTM-2454	80-100	350-50	1⅜ x 3	5.65	3.39
CTM-2458	20-100	350-75	1 x 2½	2.80	1.68
CTM-2462	5-75	350-150	1 x 2½	2.65	1.59
CTM-2466	40-10	350-200	1⅜ x 2	3.05	1.83
CTM-2470	20-30	350-250	1 x 3	2.90	1.74
CTM-2474	40-10	350-250	1 x 3	3.05	1.83
CTM-2478	60-80	350-250	1⅜ x 3½	4.30	2.58
CTM-2482	20-10	350-300	1 x 2	2.55	1.53
CTM-2486	30-30	350-300	1 x 3½	3.30	1.98

*Preferred Type

DUAL UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTM-2490	60-20	350-300	1⅜ x 2½	3.55	2.13
*CTM-2494	15-15	350-350	1 x 2	2.25	1.35
CTM-2498	20-20	350-350	1 x 2½	2.90	1.74
CTM-2502	30-20	350-350	1 x 3½	3.25	1.95
*CTM-2506	30-30	350-350	1 x 3	2.90	1.74
*CTM-2510	50-30	350-350	1⅜ x 2½	3.15	1.89
*CTM-2514	60-30	350-350	1⅜ x 3	3.15	1.89
CTM-2518	80-4	350-350	1⅜ x 2½	4.00	2.40
*CTM-2522	80-20	350-350	1⅜ x 3	3.50	2.10
*CTM-2526	80-40	350-350	1⅜ x 3	4.10	2.46
*CTM-2530	80-80	350-350	1⅜ x 4	4.70	2.82
*CTM-2534	90-40	350-350	1⅜ x 3	4.30	2.58
CTM-2538	100-40	350-350	1⅜ x 3	5.75	3.45
*CTM-2542	100-60	350-350	1⅜ x 3½	4.80	2.88
*CTM-2546	100-100	350-350	1⅜ x 4	6.15	3.69
*CTM-2550	160-10	350-350	1⅜ x 3	4.30	2.58
CTM-2554	50-50	385-385	1⅜ x 3	4.55	2.73
*CTM-2558	35-100	400-50	1 x 3	2.60	1.56
CTM-2562	40-100	400-50	1⅜ x 2	3.40	2.04
*CTM-2566	100-30	400-50	1⅜ x 3	3.90	2.34
*CTM-2570	80-80	400-200	1⅜ x 3½	3.95	2.37
CTM-2574	60-80	400-250	1⅜ x 4	4.90	2.94
CTM-2578	4-140	400-300	1⅜ x 3	3.60	2.16
CTM-2582	100-80	400-350	1⅜ x 4	6.80	4.08
CTM-2586	15-15	400-400	1 x 2½	2.80	1.68
CTM-2590	30-10	400-400	1 x 3	2.95	1.77
CTM-2594	60-60	400-400	1⅜ x 4	5.50	3.30
CTM-2598	75-75	400-400	1⅜ x 4	6.05	3.63
CTM-2602	80-10	400-400	1⅜ x 3½	4.25	2.55
CTM-2606	80-20	400-400	1⅜ x 3	4.55	2.73
CTM-2610	80-40	400-400	1⅜ x 3	5.15	3.09
*CTM-2614	80-60	400-400	1⅜ x 3	4.70	2.82
*CTM-2618	120-40	400-400	1⅜ x 4	5.25	3.15
*CTM-2622	10-20	450-25	1 x 2	1.70	1.02
CTM-2626	10-50	450-25	1 x 2½	2.15	1.29
CTM-2630	20-20	450-25	1 x 2	2.50	1.50
CTM-2634	20-100	450-25	1 x 2½	2.75	1.65
CTM-2638	40-20	450-25	1 x 3	3.05	1.83
CTM-2642	80-10	450-25	1⅜ x 3	4.25	2.55
CTM-2646	80-20	450-25	1⅜ x 3	4.25	2.55
CTM-2650	10-100	450-50	1 x 2½	2.55	1.53
CTM-2654	30-25	450-50	1 x 2½	2.90	1.74
CTM-2658	40-50	450-50	1 x 3½	3.75	2.25
*CTM-2662	40-100	450-50	1 x 3½	2.80	1.68
*CTM-2665	50-100	450-50	1⅜ x 2½	3.00	1.80
*CTM-2668	80-50	450-50	1⅜ x 3	3.50	2.10
*CTM-2670	80-100	450-50	1⅜ x 3	3.75	2.25
CTM-2674	10-50	450-100	1⅜ x 2	2.55	1.53
CTM-2678	20-100	450-100	1⅜ x 2	3.65	2.19
CTM-2682	30-40	450-150	1⅜ x 2	3.65	2.19
*CTM-2686	30-200	450-150	1⅜ x 3	3.50	2.10
CTM-2690	40-150	450-150	1⅜ x 3	4.30	2.58
CTM-2694	80-50	450-150	1⅜ x 3	4.70	2.82
CTM-2698	80-60	450-150	1⅜ x 3	5.20	3.12
CTM-2702	80-40	450-200	1⅜ x 3	4.75	2.85
*CTM-2706	20-50	450-250	1 x 3	2.80	1.68
CTM-2710	20-150	450-250	1⅜ x 3	4.80	2.88
*CTM-2714	40-10	450-300	1 x 3	2.60	1.56
CTM-2718	10-100	450-350	1⅜ x 3½	5.00	3.00
CTM-2722	20-80	450-350	1⅜ x 3½	4.55	2.73
CTM-2726	25-15	450-350	1 x 3	3.20	1.92
*CTM-2730	40-10	450-350	1⅜ x 2	2.60	1.56
CTM-2734	40-20	450-350	1⅜ x 2	3.55	2.13
CTM-2738	40-40	450-350	1⅜ x 3	4.15	2.49
CTM-2740	80-2	450-350	1⅜ x 3	4.20	2.52
CTM-2742	30-20	450-400	1 x 3	3.40	2.04
*CTM-2746	5-5	450-450	1 x 2	1.70	1.02
*CTM-2750	10-10	450-450	1 x 2	1.90	1.14
CTM-2754	15-10	450-450	1 x 2½	2.80	1.68
*CTM-2758	15-15	450-450	1 x 2½	2.25	1.35
*CTM-2762	20-10	450-450	1 x 2½	2.25	1.35
*CTM-2766	20-20	450-450	1 x 2½	2.55	1.53
*CTM-2770	30-10	450-450	1 x 3	2.40	1.44
CTM-2774	30-10	450-450	1⅜ x 2	3.00	1.80
CTM-2778	30-15	450-450	1⅜ x 2	3.30	1.98
*CTM-2782	30-30	450-450	1⅜ x 2½	3.05	1.83
CTM-2786	40-5	450-450	1 x 3	3.20	1.92
CTM-2790	40-15	450-450	1⅜ x 2	3.50	2.10
*CTM-2794	40-20	450-450	1⅜ x 2	3.25	1.95
*CTM-2798	40-40	450-450	1⅜ x 2½	3.45	2.07
CTM-2802	50-40	450-450	1⅜ x 3	4.50	2.70
*CTM-2806	50-50	450-450	1⅜ x 2½	3.85	2.31
*CTM-2810	60-20	450-450	1⅜ x 3	3.55	2.13
*CTM-2814	60-40	450-450	1⅜ x 3	3.95	2.37
*CTM-2818	60-60	450-450	1⅜ x 3½	4.50	2.70
*CTM-2822	80-10	450-450	1⅜ x 3	3.60	2.16
*CTM-2826	80-20	450-450	1⅜ x 3	3.90	2.34
*CTM-2830	80-30	450-450	1⅜ x 3	4.20	2.52
*CTM-2834	80-40	450-450	1⅜ x 3	5.05	3.03
*CTM-2838	80-80	450-450	1⅜ x 4½	6.60	3.96
*CTM-2842	100-40	450-450	1⅜ x 4	4.85	2.91

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Distributor)

Trade Discount Applies To List Prices Only

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ARCO CAPACITORS — Twist Mount Electrolytic Capacitors

DUAL UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTM-2846	10-20	475-25	1 x 2	2.15	1.29
*CTM-2850	30-100	475-50	1⅜ x 3½	2.75	1.65
CTM-2854	75-50	475-50	1⅜ x 3	4.55	2.73
CTM-2858	40-80	475-200	1⅜ x 2½	4.55	2.73
CTM-2862	80-80	475-250	1⅜ x 4	4.65	2.79
CTM-2866	20-100	475-300	1⅜ x 3½	4.95	2.97
*CTM-2870	20-100	475-400	1⅜ x 4	4.50	2.70
CTM-2874	40-40	475-400	1⅜ x 3	4.70	2.82
*CTM-2878	15-15	475-475	1 x 2½	2.35	1.41
*CTM-2882	30-10	475-475	1 x 3	2.60	1.56
*CTM-2886	40-10	475-475	1⅜ x 2½	3.10	1.86
CTM-2890	40-40	475-475	1⅜ x 3	5.40	3.24
CTM-2894	60-40	475-475	1⅜ x 3½	5.70	3.42
CTM-2898	80-40	475-475	1⅜ x 3½	6.30	3.78
*CTM-2902	80-50	475-475	1⅜ x 3½	5.20	3.12
CTM-2906	80-50	500-50	1⅜ x 3½	4.75	2.85
CTM-2910	60-80	500-150	1⅜ x 3	4.70	2.82
CTM-2914	40-50	500-200	1⅜ x 3	4.20	2.52
CTM-2918	15-20	500-300	1 x 2½	2.90	1.74
CTM-2922	20-100	500-300	1⅜ x 3	4.90	2.94
CTM-2926	40-40	500-400	1⅜ x 3	4.70	2.82
CTM-2930	4-4	500-500	1 x 2½	2.15	1.29
*CTM-2934	10-10	500-500	1 x 2½	1.95	1.17
*CTM-2938	20-20	500-500	1⅜ x 2	2.85	1.71
*CTM-2942	30-10	500-500	1⅜ x 3	2.60	1.56
*CTM-2946	30-30	500-500	1⅜ x 3	3.25	1.95
*CTM-2950	40-25	500-500	1⅜ x 3	4.55	2.73
*CTM-2954	40-40	500-500	1⅜ x 3	4.30	2.58
*CTM-2958	60-40	500-500	1⅜ x 3½	4.60	2.76

TRIPLE UNITS

CTM-3020	1500-1500-1500	3-3-3	1 x 3½	9.00	5.40
CTM-3022	200-200-30	10-10-10	1 x 2	3.40	2.04
CTM-3022.7	850-400-4	16-16-11.5RMS	1 x 2½	5.00	3.00
CTM-3022.9	1000-500-4	16-16-11.5RMS	1 x 2½	5.20	3.12
*CTM-3023	1000-500-4	16-16-11.5RMS	1⅜ x 2	4.10	2.46
*CTM-3024	400-100-100	16-16-16	1 x 2	3.00	1.80
CTM-3026	500-100-100	16-16-16	1 x 2	3.50	2.10
CTM-3028	500-500-100	16-16-16	1 x 2	3.90	2.34
*CTM-3029	700-200-100	16-16-16	1 x 2	3.55	2.13
CTM-3029.3	1000-500-20	16-16-16	1⅜ x 2	4.30	2.58
CTM-3030	40-500-500	25-10-10	1 x 2½	5.05	3.03
*CTM-3032	20-20-20	25-25-25	1 x 2	1.95	1.17
CTM-3034	40-40-40	25-25-25	1 x 2	3.20	1.92
CTM-3036	30-30-30	50-50-50	1 x 2	3.25	1.91
CTM-3038	20-250-100	150-15-15	1⅜ x 2	4.35	2.61
CTM-3040	40-25-130	150-25-15	1 x 3	4.95	2.97
CTM-3042	50-100-20	150-50-25	1 x 3	4.30	2.58
CTM-3044	100-50-25	150-50-25	1 x 3	4.50	2.70
*CTM-3046	15-15-1200	150-150-2	1 x 2	3.15	1.89
CTM-3048	30-20-100	150-150-6	1 x 2	3.60	2.16
CTM-3050	20-20-100	150-150-10	1 x 2	3.55	2.13
CTM-3052	20-20-250	150-150-10	1 x 2	3.90	2.34
*CTM-3056	40-20-150	150-150-10	1 x 2	2.40	1.44
CTM-3058	40-20-200	150-150-10	1 x 2½	3.75	2.25
CTM-3060	40-20-250	150-150-10	1 x 2½	4.05	2.43
CTM-3062	40-40-100	150-150-10	1 x 2½	3.75	2.25
CTM-3064	40-40-250	150-150-10	1 x 2½	5.65	3.39
CTM-3066	50-30-100	150-150-10	1 x 2½	4.05	2.43
CTM-3068	80-20-200	150-150-10	1⅜ x 2	4.30	2.58
*CTM-3070	80-30-300	150-150-10	1⅜ x 2	3.15	1.69
CTM-3072	80-60-250	150-150-10	1 x 2½	4.80	2.88
*CTM-3074	90-40-400	150-150-10	1⅜ x 2½	3.50	2.10
CTM-3076	100-20-200	150-150-10	1⅜ x 2½	4.95	2.97
*CTM-3078	100-80-200	150-150-10	1⅜ x 2½	3.60	2.16
CTM-3080	60-40-400	150-150-15	1⅜ x 2	4.80	2.88
CTM-3082	80-20-100	150-150-15	1⅜ x 2	4.20	2.52
CTM-3084	20-20-20	150-150-25	1 x 2	3.30	1.98
CTM-3086	20-20-200	150-150-25	1 x 3	3.90	2.34
CTM-3088	30-20-20	150-150-25	1 x 2	3.40	2.04
CTM-3090	30-30-20	150-150-25	1 x 2	3.45	2.07
*CTM-3092	40-20-20	150-150-25	1 x 2½	2.30	1.38
*CTM-3094	40-20-100	150-150-25	1 x 2½	2.50	1.50
*CTM-3096	40-20-200	150-150-25	1 x 2	2.70	1.62
*CTM-3098	40-40-20	150-150-25	1 x 2	2.40	1.44
*CTM-3100	40-40-200	150-150-25	1 x 3	2.80	1.68
*CTM-3102	40-40-250	150-150-25	1 x 3	3.15	1.89
*CTM-3104	50-30-20	150-150-25	1 x 2½	2.50	1.50
*CTM-3106	50-30-100	150-150-25	1 x 3	2.70	1.62
CTM-3108	50-30-200	150-150-25	1⅜ x 2	4.35	2.61
CTM-3110	50-30-300	150-150-25	1 x 3	5.10	3.06
*CTM-3112	50-50-20	150-150-25	1 x 2	2.65	1.59
CTM-3114	50-50-200	150-150-25	1 x 3	4.60	2.76
CTM-3116	60-20-20	150-150-25	1 x 2	3.85	2.31
*CTM-3118	60-40-200	150-150-25	1 x 3	3.05	1.83
CTM-3120	60-60-100	150-150-25	1⅜ x 2	4.60	2.76
CTM-3122	80-20-20	150-150-25	1 x 3	4.00	2.40
CTM-3124	80-30-300	150-150-25	1⅜ x 2	5.50	3.30
*CTM-3126	80-40-20	150-150-25	1 x 2½	2.80	1.68

*Preferred Type

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
*CTM-3128	80-40-300	150-150-25	1⅜ x 2½	3.70	2.22
CTM-3130	120-60-20	150-150-25	1⅜ x 2½	5.05	3.03
CTM-3134	10-10-10	150-150-150	1 x 2	3.10	1.86
*CTM-3136	20-20-20	150-150-150	1 x 2	2.30	1.38
*CTM-3138	30-30-10	150-150-150	1 x 2	2.85	1.71
*CTM-3140	40-20-10	150-150-150	1 x 2	2.35	1.41
*CTM-3142	40-20-20	150-150-150	1 x 2	2.40	1.44
*CTM-3144	40-30-20	150-150-150	1 x 2	2.50	1.50
*CTM-3146	40-40-40	150-150-150	1 x 2	2.60	1.56
*CTM-3150	50-40-10	150-150-150	1 x 2	2.55	1.53
CTM-3152	50-50-10	150-150-150	1⅜ x 2	4.05	2.43
*CTM-3154	50-50-50	150-150-150	1 x 2	3.00	1.80
CTM-3156	50-50-50	150-150-150	1⅜ x 2	4.50	2.70
*CTM-3158	60-40-20	150-150-150	1 x 2	2.75	1.65
CTM-3160	60-40-30	150-150-150	1⅜ x 2	4.20	2.52
CTM-3162	60-50-50	150-150-150	1⅜ x 2	4.65	2.79
*CTM-3164	70-15-15	150-150-150	1 x 2½	2.70	1.62
*CTM-3166	70-40-40	150-150-150	1 x 3	4.05	2.43
CTM-3168	80-20-20	150-150-150	1 x 2	4.20	2.52
*CTM-3170	80-30-10	150-150-150	1 x 2	2.75	1.65
*CTM-3172	80-40-20	150-150-150	1 x 2	2.90	1.74
CTM-3174	80-50-50	150-150-150	1 x 3	4.90	2.94
CTM-3176	80-80-80	150-150-150	1⅜ x 3	5.65	3.39
*CTM-3178	100-30-10	150-150-150	1 x 3	3.05	1.83
*CTM-3180	120-80-40	150-150-150	1⅜ x 3	3.80	2.28
*CTM-3182	120-120-40	150-150-150	1⅜ x 3	4.05	2.43
CTM-3184	150-50-25	150-150-150	1⅜ x 3	5.40	3.24
*CTM-3186	200-100-60	150-150-150	1⅜ x 3½	4.55	2.73
*CTM-3190	200-150-150	150-150-150	1⅜ x 3½	7.50	4.50
*CTM-3192	300-100-80	150-150-150	1⅜ x 4	7.75	4.65
CTM-3194	80-40-50	200-100-50	1⅜ x 2½	4.60	2.76
CTM-3196	40-40-20	200-150-25	1 x 3	3.90	2.34
*CTM-3198	60-200-140	200-150-150	1⅜ x 4	4.80	2.88
CTM-3199	250-200-50	200-150-150	1⅜ x 3½	6.50	3.90
CTM-3200	20-20-20	200-200-25	1 x 2	3.45	2.07
CTM-3202	30-20-20	200-200-25	1 x 2	3.85	2.31
CTM-3204	30-20-40	200-200-25	1 x 2	3.85	2.31
*CTM-3206	60-5-20	200-200-50	1 x 2½	2.50	1.50
*CTM-3208	60-5-100	200-200-50	1 x 2½	2.90	1.74
*CTM-3209	60-5-200	200-200-50	1 x 2½	3.20	1.92
*CTM-3210	80-10-20	200-200-50	1 x 3	2.80	1.68
CTM-3212	80-40-100	200-200-50	1⅜ x 3	5.25	3.15
CTM-3214	90-90-20	200-200-50	1⅜ x 3	5.70	3.42
CTM-3216	100-10-40	200-200-50	1⅜ x 2	4.75	2.85
*CTM-3218	30-20-40	200-200-150	1 x 2½	2.70	1.62
CTM-3220	20-20-20	200-200-200	1 x 2½	3.75	2.25
CTM-3222	30-20-20	200-200-200	1 x 2½	4.05	2.43
CTM-3224	40-40-20	200-200-200	1 x 2½	4.55	2.73
CTM-3226	50-30-30	200-200-200	1⅜ x 2	4.75	2.85
*CTM-3228	250-200-10	200-200-200	1⅜ x 4	6.70	4.02
CTM-3230	40-40-20	250-150-25	1⅜ x 2	4.05	2.43
*CTM-3232	80-40-50	250-150-50	1⅜ x 2½	2.35	1.41
CTM-3234	15-20-20	250-150-150	1 x 2	3.60	2.16
*CTM-3236	60-40-20	250-200-25	1⅜ x 2	3.30	1.98
*CTM-3238	15-15-20	250-250-25	1 x 2	2.35	1.41
CTM-3240	20-15-20	250-250-25	1 x 2½	3.55	2.13
*CTM-3242	30-30-20	250-250-25	1 x 3	2.80	1.68
CTM-3244	60-60-25	250-250-25	1 x 3½	5.70	3.42
CTM-3246	70-70-20	250-250-50	1⅜ x 3	5.85	3.51
*CTM-3248	90-90-20	250-250-50	1⅜ x 3	4.60	2.76
CTM-3250	40-20-10	250-250-150	1⅜ x 2	4.15	2.49
CTM-3252	40-40-10	250-250-200	1⅜ x 2	4.45	2.67
CTM-3254	80-80-60	250-250-200	1⅜ x 3½	6.75	4.05
CTM-3256	15-15-10	250-250-250	1 x 2	3.70	2.22
CTM-3258	20-20-10	250-250-250	1 x 2	3.75	2.25
*CTM-3260	20-20-20	250-250-250	1 x 2	2.60	1.56
CTM-3262	30-15-10	250-250-250	1 x 2½	4.05	2.43
CTM-3264	30-15-15	250-250-250	1 x 2	4.15	2.49
CTM-3266	30-20-10	250-250-250	1 x 2	4.05	2.48
*CTM-3270	40-20-20	250-250-250	1 x 3½	2.90	1.74
*CTM-3272	80-10-10	250-250-250	1 x 3	3.20	1.92
*CTM-3274	80-80-60	250-250-250	1⅜ x 3	4.90	2.94
*CTM-3276	10-500-500	300-15-15	1⅜ x 2½	5.85	3.51
CTM-3278	20-10-10	300-75-25	1⅜ x 3	3.55	2.13
*CTM-3280	100-60-20	300-150-25	1⅜ x 3	4.20	2.52
CTM-3282	140-200-100	300-150-50	1⅜ x 4	8.60	5.16
*CTM-3284	20-150-80	300-150-150	1⅜ x 3	3.95	2.37
*CTM-3286	60-200-30	300-150-150	1⅜ x 4	6.50	3.90
CTM-3288	100-150-30	300-150-150	1⅜ x 4	7.45	4.47
*CTM-3290	100-200-30	300-150-150	1⅜ x 4	5.20	3.12
*CTM-3292	100-200-60	300-150-150	1⅜ x 3½	5.00	3.00
CTM-3294	20-80-10	300-250-200	1⅜ x 2½	5.20	3.12
CTM-3296	16-20-20	300-250-250	1 x 3	3.90	2.34
CTM-3298	40-80-40	300-250-250	1⅜ x 3	6.30	3.78
*CTM-3302	100-60-20	300-250-250	1⅜ x 4	4.90	2.94
*CTM-3304	200-60-20	300-250-250	1⅜ x 4	5.50	3.30
CTM-3306	20-20-20	300-300-25	1 x 2½	4.15	2.49
CTM-3308	40-15-20	300-300-25	1 x 3	4.45	2.67

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Distributor)

ARCO CAPACITORS — Twist Mount Electrolytic Capacitors

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTM-3310	40-20-20	300-300-25	1⅜ x 2	4.65	2.79
CTM-3312	140-10-100	300-300-25	1⅜ x 3½	6.70	4.02
*CTM-3313	20-20-50	300-300-50	1 x 2½	3.00	1.80
CTM-3314	30-30-25	300-300-50	1 x 3	4.35	2.61
*CTM-3316	100-10-60	300-300-50	1⅜ x 2½	4.05	2.43
CTM-3318	125-20-20	300-300-50	1⅜ x 3	6.70	4.02
CTM-3320	125-20-100	300-300-50	1⅜ x 3	7.35	4.41
*CTM-3322	125-60-40	300-300-50	1⅜ x 4	5.20	3.12
*CTM-3324	140-100-60	300-300-50	1⅜ x 4	6.05	3.63
*CTM-3326	140-100-100	300-300-50	1⅜ x 4	8.40	5.04
*CTM-3328	200-20-10	300-300-100	1⅜ x 4	4.90	2.94
CTM-3330	40-40-20	300-300-150	1⅜ x 2	5.40	3.24
CTM-3332	140-10-200	300-300-150	1⅜ x 4	5.50	3.30
*CTM-3336	10-10-10	300-300-300	1 x 2	2.40	1.44
*CTM-3338	60-20-10	300-300-300	1⅜ x 2	3.45	2.07
CTM-3340	80-20-10	300-300-300	1⅜ x 2½	5.70	3.42
*CTM-3342	80-40-40	300-300-300	1⅜ x 2½	4.75	3.15
CTM-3344	100-40-20	300-300-300	1⅜ x 3½	5.50	3.30
*CTM-3346	120-50-40	300-300-300	1⅜ x 4	5.85	3.51
*CTM-3348	150-100-10	300-300-300	1⅜ x 4	6.35	3.81
CTM-3352	200-140-20	300-300-300	1⅜ x 4	10.60	6.36
CTM-3356	5-100-40	350-25-25	1 x 2	3.55	2.13
CTM-3358	40-100-25	350-50-25	1⅜ x 2	4.80	2.88
CTM-3360	10-50-100	350-100-75	1 x 3	4.30	2.58
*CTM-3362	20-50-100	350-100-75	1 x 3	3.10	1.86
CTM-3364	10-10-250	350-150-15	1 x 2½	4.15	2.49
*CTM-3366	10-50-100	350-150-50	1 x 3½	2.85	1.71
CTM-3367	40-200-100	350-150-150	1⅜ x 3½	5.00	3.00
CTM-3368	60-200-30	350-150-150	1⅜ x 3½	5.00	3.00
CTM-3370	40-80-500	350-200-25	1⅜ x 3½	7.60	4.56
*CTM-3372	125-5-100	350-200-75	1⅜ x 3½	5.30	3.18
CTM-3374	50-10-500	350-250-5	1⅜ x 2½	5.55	3.33
CTM-3376	50-10-1000	350-250-5	1⅜ x 2½	6.10	3.66
CTM-3378	20-30-20	350-250-25	1 x 3	4.20	2.52
CTM-3380	30-20-100	350-250-50	1 x 3	4.90	2.94
CTM-3382	100-40-5	350-250-50	1⅜ x 2½	4.85	2.91
CTM-3384	30-20-10	350-250-250	1 x 3½	4.50	2.70
CTM-3386	10-80-25	350-300-25	1⅜ x 3	5.10	3.06
*CTM-3388	30-30-20	350-300-25	1 x 3	3.15	1.89
CTM-3392	10-40-5	350-300-150	1 x 2½	4.30	2.58
CTM-3396	40-20-10	350-300-200	1⅜ x 2	4.95	2.97
CTM-3398	100-40-40	350-300-250	1⅜ x 3½	4.85	2.91
CTM-3400	10-10-1400	350-350-3	1⅜ x 3	4.90	2.94
*CTM-3402	15-10-20	350-350-25	1 x 2½	2.50	1.50
CTM-3404	15-15-20	350-350-25	1 x 2½	4.05	2.43
CTM-3406	20-5-30	350-350-25	1 x 2	3.70	2.22
*CTM-3408	20-5-100	350-350-25	1 x 3	2.60	1.56
*CTM-3410	20-10-20	350-350-25	1 x 2½	2.55	1.53
*CTM-3412	20-20-20	350-350-25	1 x 2½	2.90	1.74
CTM-3414	30-10-20	350-350-25	1 x 2½	4.60	2.76
*CTM-3416	30-20-20	350-350-25	1 x 2½	3.10	1.86
CTM-3418	30-20-40	350-350-25	1 x 3	4.75	2.85
*CTM-3420	30-30-20	350-350-25	1⅜ x 2	3.40	2.04
CTM-3422	40-5-30	350-350-25	1⅜ x 2	4.35	2.61
CTM-3424	40-40-50	350-350-25	1⅜ x 2½	5.65	3.39
CTM-3426	60-10-25	350-350-25	1⅜ x 2½	4.50	2.70
CTM-3428	90-40-50	350-350-25	1⅜ x 3½	7.35	4.41
CTM-3430	100-20-20	350-350-25	1⅜ x 3½	7.10	4.26
*CTM-3432	200-10-50	350-350-50	1⅜ x 4	5.25	3.15
CTM-3434	10-5-30	350-350-50	1 x 2	3.30	1.98
CTM-3436	10-5-150	350-350-50	1 x 3	4.05	2.43
*CTM-3438	20-5-150	350-350-50	1 x 3	2.95	1.77
*CTM-3440	20-10-100	350-350-50	1⅜ x 2½	2.90	1.74
CTM-3442	70-40-50	350-350-50	1⅜ x 3½	6.50	3.90
CTM-3444	80-10-40	350-350-50	1⅜ x 3	5.70	3.42
CTM-3446	80-10-100	350-350-50	1⅜ x 3	6.15	3.69
CTM-3448	100-20-50	350-350-50	1⅜ x 3	6.95	4.17
CTM-3450	80-40-400	350-350-50	1⅜ x 4	5.65	3.39
*CTM-3452	150-4-30	350-350-50	1⅜ x 3½	4.75	2.85
CTM-3453	150-5-100	350-350-50	1⅜ x 3½	5.10	3.06
CTM-3454	30-20-100	350-350-75	1⅜ x 2½	6.00	3.60
*CTM-3458	30-20-100	350-350-150	1⅜ x 2½	4.00	2.40
CTM-3460	40-20-10	350-350-150	1 x 3	4.80	2.88
CTM-3462	40-40-100	350-350-200	1⅜ x 4	7.20	4.32
*CTM-3464	80-40-100	350-350-200	1⅜ x 4	5.45	3.27
*CTM-3466	100-60-20	350-350-200	1⅜ x 4	5.50	3.20
*CTM-3468	20-10-5	350-350-250	1 x 2½	2.55	1.53
CTM-3470	30-10-20	350-350-250	1 x 3	4.60	2.76
CTM-3472	20-20-10	350-350-350	1 x 3	4.45	2.67
*CTM-3474	30-20-10	350-350-350	1 x 2½	3.25	1.95
CTM-3476	50-50-50	350-350-350	1⅜ x 3½	7.30	4.38
CTM-3478	60-20-10	350-350-350	1⅜ x 4	4.00	2.40
*CTM-3480	60-40-20	350-350-350	1⅜ x 4	4.25	2.55
CTM-3482	60-40-40	350-350-350	1⅜ x 4	7.05	4.23
*CTM-3484	60-50-50	350-350-350	1⅜ x 4	4.90	2.94
CTM-3486	80-40-40	350-350-350	1⅜ x 3½	7.95	4.77
*CTM-3488	80-60-60	350-350-350	1⅜ x 3½	5.55	3.33

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
*CTM-3490	90-40-20	350-350-350	1⅜ x 4	5.25	3.15
CTM-3492	100-20-20	350-350-350	1⅜ x 4	5.15	3.09
CTM-3494	100-40-10	350-350-350	1⅜ x 4	5.25	3.15
CTM-3496	100-100-10	350-350-350	1⅜ x 4	6.80	4.08
CTM-3497	100-100-40	350-350-350	1⅜ x 4½	7.50	4.50
CTM-3498	120-40-40	350-350-350	1⅜ x 4	9.30	5.58
*CTM-3500	140-140-20	350-350-350	1⅜ x 4	7.65	4.59
CTM-3502	20-50-50	400-10-10	1 x 2	3.55	2.13
*CTM-3504	40-200-60	400-200-200	1⅜ x 4	5.55	3.33
CTM-3506	10-5-40	400-300-25	1 x 2	3.30	1.98
CTM-3508	60-40-20	400-300-25	1⅜ x 3½	6.30	3.78
CTM-3510	80-20-10	400-300-300	1⅜ x 3½	6.40	3.84
CTM-3512	10-50-30	400-350-25	1 x 3½	4.65	2.79
CTM-3514	100-10-200	400-350-25	1⅜ x 3	4.90	2.94
CTM-3516	80-20-100	400-350-50	1⅜ x 3	6.75	4.05
CTM-3518	100-10-20	400-350-50	1⅜ x 3½	6.75	4.05
CTM-3520	20-15-10	400-350-350	1 x 3	4.45	2.67
CTM-3522	10-20-20	400-350-350	1 x 3	4.00	2.40
CTM-3524	15-15-40	400-400-25	1 x 3	4.20	2.52
*CTM-3526	20-20-20	400-400-25	1 x 3	2.85	1.71
CTM-3528	30-10-20	400-400-25	1 x 3	4.25	2.55
CTM-3530	20-10-40	400-400-50	1 x 3	4.00	2.40
CTM-3532	30-10-150	400-400-50	1⅜ x 2½	5.10	3.06
CTM-3534	80-40-100	400-400-50	1⅜ x 3	7.50	4.50
*CTM-3536	80-40-150	400-400-50	1⅜ x 3	5.25	3.15
*CTM-3538	100-10-20	400-400-50	1⅜ x 3½	4.50	2.70
CTM-3540	20-20-20	400-400-100	1 x 3	4.45	2.67
CTM-3542	20-10-10	400-400-350	1 x 3	4.05	2.43
CTM-3544	20-10-40	400-400-350	1 x 3	5.10	3.06
*CTM-3546	20-20-10	400-400-350	1 x 3	3.00	1.80
*CTM-3548	60-30-20	400-400-350	1⅜ x 3	4.55	2.73
*CTM-3550	80-20-10	400-400-350	1⅜ x 3	4.30	2.58
*CTM-3552	100-10-80	400-400-350	1⅜ x 4	6.10	3.66
*CTM-3554	10-10-10	400-400-400	1 x 2½	2.40	1.44
CTM-3556	40-10-10	400-400-400	1 x 3	3.15	1.89
*CTM-3558	90-10-5	400-400-400	1⅜ x 3	4.40	2.64
CTM-3560	100-30-20	400-400-400	1⅜ x 4	8.25	4.95
CTM-3562	10-20-10	450-25-25	1 x 2	3.25	1.95
CTM-3564	30-20-20	450-25-25	1 x 3	4.15	2.49
CTM-3568	10-100-20	450-50-25	1 x 3	3.85	2.31
CTM-3570	80-100-20	350-50-50	1⅜ x 3	6.40	3.84
CTM-3572	10-50-100	450-150-25	1 x 3	4.15	2.49
*CTM-3574	40-40-130	450-150-50	1⅜ x 3	3.70	2.22
CTM-3576	40-50-100	450-150-50	1⅜ x 2½	5.50	3.30
*CTM-3578	10-50-100	450-150-75	1 x 3	3.25	1.95
CTM-3580	20-50-100	450-150-75	1⅜ x 2	5.10	3.06
*CTM-3582	40-90-50	450-150-150	1⅜ x 3	4.00	2.40
CTM-3584	20-80-50	450-200-50	1⅜ x 2½	5.10	3.06
*CTM-3586	10-100-200	450-200-25	1 x 3½	3.60	2.16
*CTM-3588	10-100-100	450-200-50	1 x 3½	3.60	2.16
*CTM-3590	20-60-100	450-250-25	1⅜ x 2½	3.65	2.19
CTM-3592	10-60-60	450-250-250	1⅜ x 4	6.00	3.60
*CTM-3594	10-80-80	450-250-250	1⅜ x 4	4.15	2.49
CTM-3596	20-40-10	450-250-250	1⅜ x 2	4.75	2.85
CTM-3598	20-60-40	450-250-250	1⅜ x 3	5.95	3.57
*CTM-3600	80-40-40	450-250-250	1⅜ x 4	4.80	2.88
*CTM-3602	10-40-10	450-300-150	1⅜ x 2	3.10	1.86
CTM-3604	30-10-10	450-300-150	1⅜ x 2	4.45	2.67
*CTM-3606	5-80-40	450-300-300	1⅜ x 3	4.15	2.49
CTM-3608	10-100-20	450-300-300	1⅜ x 3	6.50	3.90
CTM-3610	20-15-10	450-300-300	1⅜ x 3	4.30	2.58
CTM-3612	10-10-20	450-350-25	1 x 2½	3.45	2.07
CTM-3614	10-10-50	450-350-25	1 x 3	3.60	2.16
*CTM-3616	30-15-40	450-350-25	1⅜ x 2	3.20	1.92
*CTM-3618	30-40-50	450-350-25	1 x 4	3.70	2.22
CTM-3620	20-80-100	450-350-50	1⅜ x 3½	6.75	4.05
*CTM-3622	80-50-100	450-350-200	1⅜ x 4	5.85	3.51
CTM-3624	15-20-20	450-350-250	1⅜ x 2	4.45	2.67
CTM-3625	50-10-160	450-350-250	1⅜ x 4	6.20	3.72
CTM-3626	20-15-10	450-350-300	1 x 3	4.60	2.76
CTM-3628	40-50-50	450-350-300	1⅜ x 3	7.30	4.38
CTM-3630	20-15-15	450-350-350	1 x 3	4.90	2.94
*CTM-3632	20-40-10	450-350-350	1⅜ x 2½	3.50	2.10
*CTM-3634	20-80-10	450-350-350	1⅜ x 3	4.25	2.55
*CTM-3636	40-80-40	450-350-350	1⅜ x 3½	5.40	3.24
CTM-3638	50-80-10	450-350-350	1⅜ x 3½	7.35	4.41
CTM-3640	60-20-20	450-350-350	1⅜ x 3½	6.45	3.87
CTM-3642	60-40-20	450-350-350	1⅜ x 3½	6.90	4.14
CTM-3644	10-30-150	450-400-5	1 x 3	4.50	2.70
CTM-3646	30-50-40	450-400-25	1⅜ x 3	5.85	3.51
*CTM-3648	60-80-20	450-400-250	1⅜ x 4	5.45	3.27
CTM-3650	10-30-30	450-400-300	1⅜ x 2½	5.05	3.03
CTM-3652	10-30-40	450-400-300	1⅜ x 2½	5.50	3.30
CTM-3654	4-40-40	450-400-300	1⅜ x 2½	6.90	4.14
*CTM-3656	10-10-10	450-450-25	1 x 2½	2.40	1.44
*CTM-3658	10-10-20	450-450-25	1 x 2½	2.40	1.44
CTM-3660	15-15-20	450-450-25	1 x 3	4.05	2.43
*CTM-3662	15-15-40	450-450-25	1 x 2½	2.75	1.65
*CTM-3664	20-10-20	450-450-25	1 x 3	2.70	1.62
CTM-3666	20-15-20	450-450-25	1 x 3½	4.35	2.61
*CTM-3668	20-20-20	450-450-25	1 x 3	3.05	1.83

*Preferred Type

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Distributor)

Trade Discount Applies To List Prices Only

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ARCO CAPACITORS — Twist Mount Electrolytic Capacitors

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
*CTM-3670	30-30-20	450-450-25	1⅜ x 2½	3.55	2.13
*CTM-3672	30-30-125	450-450-25	1⅜ x 3	3.95	2.37
*CTM-3674	40-20-20	450-450-25	1⅜ x 2½	3.50	2.10
*CTM-3676	40-40-20	450-450-25	1⅜ x 2½	3.90	2.34
*CTM-3678	40-40-40	450-450-25	1⅜ x 2½	3.95	2.37
*CTM-3680	80-10-125	450-450-25	1⅜ x 3½	4.45	2.67
*CTM-3682	80-40-100	450-450-25	1⅜ x 4	5.05	3.03
*CTM-3684	10-10-40	450-450-50	1 x 2½	2.50	1.50
*CTM-3686	20-10-50	450-450-50	1 x 3	2.85	1.71
CTM-3688	20-20-100	450-450-50	1⅜ x 2½	5.25	3.15
*CTM-3690	30-10-150	450-450-50	1⅜ x 2½	3.50	2.10
*CTM-3692	30-15-150	450-450-50	1⅜ x 3	3.70	2.22
CTM-3694	30-30-40	450-450-50	1⅜ x 3	5.50	3.30
*CTM-3696	35-25-150	450-450-50	1⅜ x 3	3.95	2.37
CTM-3698	40-10-40	450-450-50	1⅜ x 2½	4.90	2.99
*CTM-3700	40-10-100	450-450-50	1⅜ x 3	4.30	2.58
CTM-3702	40-30-25	450-450-50	1⅜ x 2½	5.65	3.39
*CTM-3704	40-40-100	450-450-50	1⅜ x 3½	4.30	2.58
*CTM-3706	60-40-75	450-450-50	1⅜ x 4	4.65	2.79
*CTM-3708	80-20-100	450-450-50	1⅜ x 4	4.80	2.88
CTM-3710	80-50-50	450-450-50	1⅜ x 4	7.80	4.68
CTM-3712	30-30-125	450-450-75	1⅜ x 3	6.75	4.05
CTM-3716	30-20-30	450-450-150	1⅜ x 2½	5.25	3.15
*CTM-3718	40-40-40	450-450-150	1⅜ x 3½	4.15	2.49
*CTM-3720	40-10-80	450-450-200	1⅜ x 3	3.90	2.34
*CTM-3722	40-10-100	450-450-200	1⅜ x 3	4.15	2.49
*CTM-3724	40-40-60	450-450-200	1⅜ x 3½	4.45	2.67
*CTM-3726	40-40-100	450-450-200	1⅜ x 3	4.95	2.97
CTM-3728	15-10-120	450-450-300	1⅜ x 3½	7.05	4.23
CTM-3730	15-15-10	450-450-300	1 x 3½	4.30	2.58
CTM-3734	20-20-60	450-450-350	1⅜ x 3½	7.60	4.56
CTM-3736	40-10-10	450-450-350	1⅜ x 3	4.95	2.97
CTM-3738	40-40-60	450-450-350	1⅜ x 3	7.35	4.11
*CTM-3740	40-40-80	450-450-350	1⅜ x 3	5.55	3.33
*CTM-3742	50-5-50	450-450-350	1⅜ x 3	4.25	2.55
CTM-3744	60-20-40	450-450-350	1⅜ x 4	7.35	4.41
CTM-3745	80-80-10	450-450-400	1⅜ x 4½	7.20	4.32
*CTM-3746	10-10-10	450-450-450	1 x 3	2.60	1.56
CTM-3748	15-15-10	450-450-450	1 x 3½	4.45	2.67
*CTM-3750	15-15-15	450-450-450	1 x 3	3.10	1.86
*CTM-3752	20-10-10	450-450-450	1 x 3	2.90	1.74
*CTM-3754	20-20-20	450-450-450	1⅜ x 2½	3.60	2.16
*CTM-3756	30-10-10	450-450-450	1⅜ x 2	3.15	1.89
*CTM-3758	30-20-20	450-450-450	1⅜ x 2½	3.85	2.31
CTM-3760	30-30-10	450-450-450	1⅜ x 3	5.65	3.39
*CTM-3762	30-30-30	450-450-450	1⅜ x 3½	4.35	2.61
*CTM-3764	40-10-10	450-450-450	1⅜ x 3	3.35	2.01
*CTM-3766	40-30-20	450-450-450	1⅜ x 3	4.30	2.58
*CTM-3768	40-40-10	450-450-450	1⅜ x 2½	4.15	2.49
*CTM-3770	40-40-20	450-450-450	1⅜ x 3	4.45	2.57
*CTM-3772	40-40-40	450-450-450	1⅜ x 3	4.90	2.94
CTM-3774	50-30-30	450-450-450	1⅜ x 3	7.15	4.29
*CTM-3776	50-40-30	450-450-450	1⅜ x 3	4.90	2.94
CTM-3778	60-10-10	450-450-450	1⅜ x 3	5.85	3.51
*CTM-3780	60-20-20	450-450-450	1⅜ x 3	4.60	2.76
*CTM-3782	60-30-10	450-450-450	1⅜ x 3	4.50	2.70
*CTM-3784	60-40-20	450-450-450	1⅜ x 3½	5.00	3.00
CTM-3786	80-40-10	450-450-450	1⅜ x 4	7.60	4.56
*CTM-3788	80-40-20	450-450-450	1⅜ x 4	5.40	3.24
*CTM-3790	20-50-20	475-50-25	1 x 3	2.75	1.65
*CTM-3792	80-80-50	475-150-50	1⅜ x 4	4.85	2.91
CTM-3794	10-100-40	475-200-50	1⅜ x 2½	5.05	3.03
CTM-3796	40-40-100	475-250-50	1⅜ x 3	6.45	3.87
CTM-3798	40-40-100	475-250-100	1⅜ x 3	6.15	3.69
CTM-3800	40-40-10	475-250-250	1⅜ x 3½	6.00	3.00
CTM-3802	20-20-40	475-300-25	1⅜ x 2	4.65	2.79
CTM-3804	40-40-100	475-300-50	1⅜ x 3½	6.75	4.05
*CTM-3806	40-80-10	475-300-300	1⅜ x 3½	4.85	2.91
CTM-3808	10-100-25	475-350-25	1⅜ x 2½	4.55	2.73
*CTM-3810	10-4-100	475-350-50	1 x 2½	2.65	1.59
*CTM-3812	20-10-5	475-350-150	1 x 2½	2.80	1.68
*CTM-3814	10-4-40	475-350-250	1⅜ x 2	2.75	1.65
CTM-3816	20-20-10	475-350-350	1 x 3	4.80	2.88
CTM-3818	40-40-25	475-400-50	1⅜ x 3	6.45	3.87
CTM-3820	10-45-100	475-450-50	1⅜ x 3	5.50	3.30
CTM-3822	40-40-20	475-450-50	1⅜ x 3	6.60	3.96
*CTM-3824	10-40-100	475-450-200	1⅜ x 3	4.20	2.52
CTM-3826	40-20-20	475-450-450	1⅜ x 3	6.75	4.05
*CTM-3828	40-80-10	475-450-450	1⅜ x 4	5.50	3.30
CTM-3830	40-40-500	475-475-10	1⅜ x 3½	8.20	4.92
CTM-3832	10-10-5	475-475-25	1 x 2½	3.70	2.22
CTM-3834	10-10-100	475-475-25	1 x 3	4.00	2.40
CTM-3836	20-10-20	475-475-25	1 x 3	4.35	2.61
CTM-3838	10-10-150	475-475-50	1 x 3	4.50	2.70
CTM-3840	20-10-20	475-475-50	1 x 3	4.45	2.67
*CTM-3842	20-10-100	475-475-50	1⅜ x 2	3.25	1.95
CTM-3844	25-10-20	475-475-50	1 x 3	4.45	2.67
*CTM-3846	20-10-100	475-475-400	1⅜ x 4	5.25	3.15
CTM-3848	20-20-60	475-475-400	1⅜ x 3½	7.20	4.32

*Preferred Type

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
*CTM-3850	20-20-60	475-475-450	1⅜ x 4	4.85	2.91
CTM-3852	10-10-10	475-475-475	1 x 3	4.05	2.43
CTM-3854	30-30-10	475-475-475	1⅜ x 2½	6.00	3.60
*CTM-3856	30-30-20	475-475-475	1⅜ x 2½	4.45	2.67
CTM-3858	40-10-10	475-475-475	1⅜ x 3	5.80	3.48
*CTM-3860	40-20-20	475-475-475	1⅜ x 3	4.75	2.85
*CTM-3862	40-30-10	475-475-475	1⅜ x 3	4.50	2.20
*CTM-3864	40-30-30	475-475-475	1⅜ x 4	5.15	3.09
CTM-3866	40-35-10	475-475-475	1⅜ x 3	6.85	4.11
CTM-3868	10-80-10	500-150-150	1 x 3½	4.30	2.58
CTM-3870	10-100-40	500-200-50	1⅜ x 2½	5.05	3.03
CTM-3872	40-40-100	500-250-50	1⅜ x 3	6.45	3.87
CTM-3874	20-20-40	500-300-25	1⅜ x 2	4.65	2.79
CTM-3876	20-40-100	500-300-25	1⅜ x 2½	5.40	3.24
CTM-3878	5-100-200	500-300-150	1⅜ x 4	7.75	4.65
CTM-3880	40-40-25	500-400-50	1⅜ x 3	6.45	3.87
CTM-3882	20-40-100	500-450-25	1⅜ x 3	5.70	3.42
CTM-3884	80-20-100	500-450-50	1⅜ x 4	7.65	4.59
CTM-3886	10-40-40	500-450-450	1⅜ x 3½	6.25	3.75
CTM-3888	30-20-20	500-500-25	1⅜ x 2½	5.35	3.21
CTM-3890	10-10-100	500-500-50	1 x 3½	4.30	2.58
*CTM-3892	20-10-100	500-500-50	1 x 4	3.30	1.98
CTM-3894	30-10-20	500-500-50	1⅜ x 2½	4.65	2.79
*CTM-3896	40-40-100	500-500-200	1⅜ x 3	5.80	3.48
CTM-3898	10-10-5	500-500-350	1 x 2½	3.75	2.25
*CTM-3900	20-20-60	500-500-400	1⅜ x 3½	4.80	2.88
*CTM-3902	10-10-10	500-500-500	1 x 3	2.70	1.02
CTM-3904	30-20-20	500-500-500	1⅜ x 2½	4.20	2.52
*CTM-3906	40-10-10	500-500-500	1⅜ x 3	3.90	2.34
*CTM-3908	40-40-10	500-500-500	1⅜ x 3½	5.05	3.03

QUADRUPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
*CTM-4010	750-600-350-4	16-16-16-11.5RMS	1⅜ x 2	5.20	3.12
*CTM-4011	750-750-350-4	16-16-16-11.5RMS	1⅜ x 2	5.50	3.30
CTM-4020	40-40-40-40	25-25-25-25	1⅜ x 2	4.15	2.49
CTM-4022	5-5-25-100	75-75-25-15	1⅜ x 2	4.00	2.40
*CTM-4025	50-20-150-30	150-150-15-15	1⅜ x 2	3.15	1.89
CTM-4028	40-40-50-200	150-150-25-10	1⅜ x 2	4.75	2.85
*CTM-4031	20-20-160-40	150-150-25-25	1⅜ x 2	3.20	1.92
CTM-4034	40-40-100-100	150-150-25-25	1⅜ x 2	5.05	3.03
CTM-4037	40-40-200-100	150-150-25-25	1⅜ x 2	5.35	3.21
*CTM-4040	50-40-160-40	150-150-25-25	1⅜ x 2	3.55	2.13
CTM-4043	80-20-160-40	150-150-25-25	1⅜ x 2	5.55	3.33
CTM-4047	80-30-100-40	150-150-25-25	1⅜ x 2	5.20	3.12
CTM-4050	40-40-100-100	150-150-50-50	1⅜ x 2	5.55	3.33
CTM-4052	30-20-20-200	150-150-150-10	1⅜ x 2	4.65	2.79
*CTM-4055	40-40-20-200	150-150-150-10	1⅜ x 2	3.20	1.92
CTM-4058	50-30-25-200	150-150-150-10	1⅜ x 2	5.05	3.03
*CTM-4061	60-40-20-200	150-150-150-10	1⅜ x 2	3.45	2.07
CTM-4064	80-80-10-200	150-150-150-10	1⅜ x 2½	5.85	3.51
*CTM-4067	200-30-10-100	150-150-150-10	1⅜ x 3½	4.10	2.46
*CTM-4070	290-30-10-100	150-150-150-10	1⅜ x 3½	4.50	2.70
CTM-4073	60-20-20-1000	150-150-150-15	1⅜ x 2½	7.00	4.20
CTM-4076	20-20-20-20	150-150-150-25	1⅜ x 2	4.35	2.61
CTM-4079	30-20-20-100	150-150-150-25	1⅜ x 2	4.75	2.85
*CTM-4082	30-30-30-40	150-150-150-25	1⅜ x 2	3.10	1.86
*CTM-4085	40-20-20-20	150-150-150-25	1⅜ x 2	2.95	1.77
CTM-4088	40-30-20-100	150-150-150-25	1⅜ x 2	4.80	2.88
*CTM-4092	40-40-30-20	150-150-150-25	1⅜ x 2	3.10	1.86
CTM-4095	40-40-30-120	150-150-150-25	1⅜ x 2	5.25	3.15
*CTM-4098	40-40-40-20	150-150-150-25	1⅜ x 2	3.15	1.89
*CTM-4104	40-40-40-160	150-150-150-25	1⅜ x 2	3.55	2.13
*CTM-4107	50-20-20-200	150-150-150-25	1⅜ x 2	3.50	2.10
*CTM-4110	50-30-30-100	150-150-150-25	1⅜ x 2	3.40	2.04
*CTM-4113	50-50-50-20	150-150-150-25	1⅜ x 2	3.55	2.13
CTM-4116	50-50-50-100	150-150-150-25	1⅜ x 2	5.65	3.39
CTM-4118	60-30-10-60	150-150-150-25	1⅜ x 2	4.60	2.76
CTM-4120	60-40-20-20	150-150-150-25	1⅜ x 2	4.95	2.97
CTM-4122	60-60-10-60	150-150-150-25	1⅜ x 2	5.25	3.15
CTM-4124	70-40-40-25	150-150-150-25	1⅜ x 2½	5.20	3.12
CTM-4126	80-40-30-100	150-150-150-25	1⅜ x 2	5.55	3.33
*CTM-4128	80-40-40-20	150-150-150-25	1⅜ x 2	3.55	2.13
*CTM-4130	80-40-40-40	150-150-150-25	1⅜ x 2	3.60	2.16
*CTM-4132	80-40-40-100	150-150-150-25	1⅜ x 2	3.75	2.25
CTM-4134	80-50-50-25	150-150-150-25	1⅜ x 2½	5.70	3.42
CTM-4136	80-60-40-100	150-150-150-25	1⅜ x 2	5.95	3.57
*CTM-4138	100-90-60-200	150-150-150-25	1⅜ x 3	4.95	2.97
CTM-4140	125-125-40-100	150-150-150-25	1⅜ x 3	7.45	4.47
*CTM-4143	250-200-10-25	150-150-150-50	1⅜ x 4	5.35	3.21
*CTM-4146	200-200-100-10	150-150-150-75	1⅜ x 3½	5.95	3.57
*CTM-4148	40-40-40-30	150-150-150-150	1⅜ x 2	3.30	1.98
CTM-4150	50-40-30-30	150-150-150-150	1⅜ x 2	5.10	3.06
CTM-4152	50-50-50-50	150-150-150-150	1⅜ x 2½	5.85	3.51
CTM-4154	80-50-20-20	150-150-150-150	1⅜ x 2½	5.55	3.33
*CTM-4156	100-80-60-40	150-150-150-150	1⅜ x 3	4.65	2.79
*CTM-4159	200-200-60-30	175-175-175-175	1⅜ x 4	5.55	3.33
*CTM-4163	250-200-10-10	175-175-150-150	1⅜ x 4	5.50	3.30
CTM-4165	40-20-10-20	200-200-200-25	1⅜ x 2	4.80	2.88

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Distributor)

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ARCO CAPACITORS — Twist Mount Electrolytic Capacitors

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTM-4167	60-20-5-50	200-200-200-50	1⅜ x 3	5.25	3.15
CTM-4170	40-40-50-80	250-250-150-150	1⅜ x 2½	6.15	3.69
*CTM-4173	100-40-10-100	250-250-250-50	1⅜ x 3½	5.15	3.09
CTM-4176	80-60-40-20	250-250-250-150	1⅜ x 4	7.65	4.59
CTM-4178	40-40-20-20	250-250-250-250	1⅜ x 2½	6.00	3.60
CTM-4180	100-40-80-20	300-50-25-25	1⅜ x 3	6.85	4.11
*CTM-4183	20-150-150-100	300-150-150-30	1⅜ x 4	5.30	3.18
*CTM-4185	10-200-140-30	300-150-150-150	1⅜ x 3	5.10	3.06
*CTM-4188	10-200-200-30	300-150-150-150	1⅜ x 3	5.35	3.21
*CTM-4190	100-60-10-20	300-200-150-50	1⅜ x 3½	4.85	2.91
CTM-4193	120-20-20-100	300-250-25-30	1⅜ x 3½	7.90	4.77
*CTM-4195	200-20-100-20	300-250-50-25	1⅜ x 4	5.80	3.48
CTM-4198	40-40-40-40	300-250-250-25	1⅜ x 2½	6.60	3.96
CTM-4200	80-5-60-20	300-300-150-25	1⅜ x 3	4.35	2.61
CTM-4203	100-40-125-50	300-300-150-50	1⅜ x 4	9.30	5.58
*CTM-4205	140-10-10-100	300-300-150-50	1⅜ x 3½	5.05	3.03
*CTM-4208	100-10-200-30	300-300-150-150	1⅜ x 4	5.90	3.54
*CTM-4210	140-10-200-30	300-300-150-150	1⅜ x 4	6.25	3.75
*CTM-4213	140-10-200-60	300-300-150-150	1⅜ x 4½	6.40	3.84
*CTM-4215	150-20-10-250	300-300-250-50	1⅜ x 3	6.05	3.63
CTM-4218	10-10-10-20	300-300-300-25	1⅜ x 2	4.45	2.67
CTM-4220	40-30-20-50	300-300-300-25	1⅜ x 2½	6.25	3.75
*CTM-4223	60-40-20-50	300-300-300-25	1⅜ x 3½	4.70	2.82
CTM-4225	30-30-15-30	300-300-300-50	1⅜ x 3	5.50	3.30
CTM-4228	60-30-10-60	300-300-300-50	1⅜ x 2½	6.30	3.78
*CTM-4230	150-30-30-150	300-300-300-50	1⅜ x 4	6.10	3.66
*CTM-4233	40-40-40-20	300-300-300-150	1⅜ x 3	4.90	2.94
*CTM-4235	120-40-40-10	300-300-300-250	1⅜ x 4	6.30	3.78
*CTM-4238	40-20-10-10	300-300-300-300	1⅜ x 2	3.95	2.37
*CTM-4240	40-40-20-10	300-300-300-300	1⅜ x 3	4.55	2.73
*CTM-4243	40-40-30-20	300-300-300-300	1⅜ x 3	4.85	2.91
*CTM-4245	60-40-10-10	300-300-300-300	1⅜ x 2½	4.55	2.73
*CTM-4248	100-40-20-20	300-300-300-300	1⅜ x 4	8.70	5.22
CTM-4250	100-50-10-5	300-300-300-300	1⅜ x 4	7.75	4.65
*CTM-4253	140-100-20-20	300-300-300-300	1⅜ x 4½	7.10	4.26
*CTM-4255	150-100-10-10	300-300-300-300	1⅜ x 4	6.65	3.99
CTM-4258	150-150-30-30	300-300-300-300	1⅜ x 4½	7.70	4.62
*CTM-4260	200-20-20-20	300-300-300-300	1⅜ x 4	6.25	3.75
CTM-4263	20-150-80-20	350-150-150-25	1⅜ x 3	6.85	4.11
CTM-4265	60-60-30-160	350-150-150-25	1⅜ x 3	6.85	4.11
CTM-4268	40-50-20-80	350-150-150-50	1⅜ x 3	6.10	3.66
CTM-4270	20-60-160-40	350-200-25-25	1⅜ x 2	6.00	3.60
CTM-4273	15-80-40-200	350-200-200-25	1⅜ x 3	6.75	4.05
CTM-4275	20-100-100-10	350-200-200-100	1⅜ x 4	7.50	4.50
CTM-4278	20-100-100-20	350-200-200-200	1⅜ x 4	7.75	4.65
CTM-4280	20-40-10-250	350-300-150-50	1⅜ x 3	6.90	4.14
CTM-4283	140-10-10-100	350-300-150-50	1⅜ x 4	5.75	3.45
*CTM-4285	20-150-10-250	350-300-150-50	1⅜ x 4	6.10	3.66
CTM-4288	40-40-20-20	350-300-300-25	1⅜ x 3	6.75	4.05
*CTM-4290	160-30-30-20	350-300-300-50	1⅜ x 4	5.80	3.48
*CTM-4293	30-30-50-100	350-300-300-75	1⅜ x 3	5.25	3.15
CTM-4295	40-80-10-10	350-300-300-300	1⅜ x 3	5.35	3.21
*CTM-4298	140-100-20-20	350-300-300-300	1⅜ x 4½	7.70	4.62
*CTM-4300	160-30-10-4	350-300-300-300	1⅜ x 3½	6.05	3.63
*CTM-4303	160-60-10-4	350-300-300-300	1⅜ x 4	6.30	3.78
*CTM-4305	40-10-100-25	350-350-25-25	1⅜ x 2	3.75	2.25
*CTM-4308	60-4-100-40	350-350-25-25	1⅜ x 2½	3.80	2.28
CTM-4310	100-4-50-50	350-350-50-25	1⅜ x 3½	7.50	4.50
CTM-4313	200-10-4-20	350-350-50-25	1⅜ x 4	8.70	5.22
CTM-4315	60-5-50-20	350-350-50-50	1⅜ x 2½	3.65	2.19
CTM-4318	100-20-50-30	350-350-50-50	1⅜ x 3½	8.15	4.89
*CTM-4320	60-20-80-100	350-350-150-50	1⅜ x 4	4.90	2.94
CTM-4323	60-10-100-100	350-350-150-10	1⅜ x 4	6.00	3.60
*CTM-4325	100-60-100-100	350-350-150-10	1⅜ x 4½	6.80	4.08
CTM-4328	15-15-150-150	350-350-150-150	1⅜ x 3½	6.95	4.17
CTM-4330	40-20-10-20	350-350-200-25	1⅜ x 2	5.85	3.51
CTM-4333	40-20-100-10	350-350-200-50	1⅜ x 3	7.15	4.29
CTM-4335	80-20-20-100	350-350-200-50	1⅜ x 3½	7.50	4.50
CTM-4338	80-20-20-200	350-350-200-50	1⅜ x 3½	8.10	4.86
CTM-4339	100-50-100-100	350-350-200-50	1⅜ x 4½	7.25	4.35
*CTM-4340	60-40-60-20	350-350-200-150	1⅜ x 2½	5.05	3.03
CTM-4343	80-60-60-10	350-350-200-150	1⅜ x 4	8.40	5.04
CTM-4344	100-60-10-100	350-350-200-150	1⅜ x 4½	6.50	3.90
CTM-4345	50-30-8-20	350-350-250-200	1⅜ x 2½	6.75	4.05
CTM-4348	15-15-15-15	350-350-300-25	1⅜ x 2	5.20	3.12
CTM-4350	35-35-10-20	350-350-300-25	1⅜ x 2½	6.25	3.75
CTM-4353	100-80-10-20	350-350-300-50	1⅜ x 4	6.60	3.96
CTM-4355	100-60-40-40	350-350-300-75	1⅜ x 4	6.80	4.08
CTM-4358	10-10-10-10	350-350-300-300	1⅜ x 2	4.65	2.79
CTM-4360	10-10-10-20	350-350-350-25	1⅜ x 2	4.45	2.67
*CTM-4363	20-10-5-10	350-350-350-25	1⅜ x 2	3.10	1.86
*CTM-4365	30-10-5-200	350-350-350-25	1⅜ x 2	3.80	2.28
CTM-4368	30-20-20-20	350-350-350-25	1⅜ x 2½	6.15	3.96
CTM-4370	40-20-5-10	350-350-350-25	1⅜ x 2½	5.70	3.42
CTM-4373	40-20-20-25	350-350-350-25	1⅜ x 2½	6.40	3.84
CTM-4375	40-25-25-20	350-350-350-25	1⅜ x 3	7.00	4.20
*CTM-4378	40-40-20-20	350-350-350-25	1⅜ x 3	4.65	2.79
*CTM-4380	40-40-30-10	350-350-350-25	1⅜ x 3	4.95	2.97
*CTM-4383	40-40-40-40	350-350-350-25	1⅜ x 3	5.20	3.12
*CTM-4385	120-20-10-50	350-350-350-25	1⅜ x 3	5.60	3.36
CTM-4388	15-15-15-50	350-350-350-50	1⅜ x 2	5.65	3.39
CTM-4390	40-30-10-50	350-350-350-50	1⅜ x 3	6.60	3.96
*CTM-4393	40-40-40-150	350-350-350-50	1⅜ x 4	5.65	3.39
CTM-4395	50-40-20-100	350-350-350-50	1⅜ x 3	7.75	4.65
CTM-4398	50-40-40-160	350-350-350-50	1⅜ x 4	8.65	5.19
CTM-4400	60-25-25-100	350-350-350-50	1⅜ x 3½	7.75	4.65
*CTM-4403	60-30-30-150	350-350-350-50	1⅜ x 3	5.50	3.30
*CTM-4405	70-40-10-50	350-350-350-50	1⅜ x 3	5.25	3.15
*CTM-4408	100-10-10-20	350-350-350-50	1⅜ x 3½	5.15	3.09
*CTM-4410	100-20-10-20	350-350-350-50	1⅜ x 3½	5.40	3.24
*CTM-4413	100-40-30-50	350-350-350-50	1⅜ x 3½	6.55	3.93
CTM-4415	140-20-10-100	350-350-350-50	1⅜ x 4	9.25	5.55
*CTM-4418	90-30-5-100	350-350-350-75	1⅜ x 3½	6.15	3.69
CTM-4420	80-60-40-20	350-350-350-150	1⅜ x 4	9.15	5.49
CTM-4424	20-10-5-60	350-350-350-200	1⅜ x 2½	5.50	3.30
*CTM-4428	30-10-5-100	350-350-350-200	1⅜ x 2½	4.55	2.73
CTM-4432	30-20-5-100	350-350-350-200	1⅜ x 3	4.70	2.82
CTM-4439	80-40-10-100	350-350-350-200	1⅜ x 3½	7.45	4.47
CTM-4443	130-20-10-40	350-350-350-300	1⅜ x 4	9.80	5.88
CTM-4446	35-30-20-10	350-350-350-350	1⅜ x 3	6.95	4.17
*CTM-4449	40-20-20-10	350-350-350-350	1⅜ x 2½	4.35	2.61
CTM-4453	40-25-25-10	350-350-350-350	1⅜ x 2½	5.95	3.57
*CTM-4456	40-40-40-40	350-350-350-350	1⅜ x 4	6.00	3.60
*CTM-4459	80-60-40-20	350-350-350-350	1⅜ x 4	6.40	3.84
*CTM-4461	90-40-30-30	350-350-350-350	1⅜ x 4	6.80	4.08
CTM-4464	100-20-10-5	350-350-350-350	1⅜ x 3½	7.95	4.77
*CTM-4467	100-40-10-10	350-350-350-350	1⅜ x 3½	6.00	3.60
*CTM-4469	100-40-25-25	350-350-350-350	1⅜ x 4	6.55	3.93
CTM-4471	50-20-100-25	400-200-150-25	1⅜ x 2½	7.00	4.20
CTM-4473	20-20-10-40	400-250-250-25	1⅜ x 2½	5.05	3.03
*CTM-4475	40-120-10-150	400-250-250-50	1⅜ x 4	5.90	3.54
CTM-4477	10-100-10-100	400-300-75-25	1⅜ x 2½	7.05	4.23
CTM-4479	30-40-50-200	400-300-250-150	1⅜ x 4	9.00	5.40
CTM-4481	20-30-20-20	400-300-300-25	1⅜ x 2½	5.70	3.42
CTM-4483	80-40-20-10	400-300-300-300	1⅜ x 4	8.35	5.01
CTM-4485	20-40-100-10	400-350-50-50	1⅜ x 3	6.30	3.78
CTM-4486	40-100-5-100	400-350-150-50	1⅜ x 4	6.10	3.66
*CTM-4487	20-10-10-20	400-350-200-25	1⅜ x 2	3.20	1.92
*CTM-4489	40-80-100-25	400-350-200-50	1⅜ x 3½	5.95	3.57
CTM-4491	40-10-80-10	400-350-250-250	1⅜ x 4	7.00	4.20
CTM-4493	80-40-20-20	400-350-300-300	1⅜ x 3½	6.40	3.84
CTM-4495	10-50-30-30	400-350-350-25	1⅜ x 3	6.60	3.96
CTM-4499	80-40-10-10	400-350-350-25	1⅜ x 4	7.95	4.77
*CTM-4501	20-50-40-80	400-350-350-50	1⅜ x 3	5.00	3.00
*CTM-4505	40-80-10-100	400-350-350-200	1⅜ x 4	6.20	3.72
CTM-4507	40-100-20-10	400-350-350-350	1⅜ x 4	6.50	3.90
CTM-4509	10-10-25-25	400-400-25-25	1⅜ x 2	4.20	2.52
CTM-4511	20-5-20-20	400-400-25-25	1⅜ x 2	4.60	2.76
CTM-4513	20-20-40-10	400-400-25-25	1⅜ x 2½	7.60	4.56
CTM-4515	50-25-100-20	400-400-50-25	1⅜ x 3	7.00	4.20
*CTM-4517	50-40-100-100	400-400-50-25	1⅜ x 4	5.10	3.06
CTM-4519	80-40-100-20	400-400-50-25	1⅜ x 4	8.40	5.04
*CTM-4521	100-10-30-20	400-400-50-50	1⅜ x 3½	5.10	3.06
CTM-4523	20-10-10-25	400-400-100-25	1⅜ x 2	4.65	2.79
*CTM-4525	20-20-100-100	400-400-100-100	1⅜ x 3	5.20	3.12
*CTM-4527	20-10-20-25	400-400-200-25	1⅜ x 2	3.30	1.98
CTM-4529	10-10-40-10	400-400-200-50	1⅜ x 2	4.80	2.88
CTM-4530	80-40-100-100	400-400-200-50	1⅜ x 4	6.50	3.90
CTM-4531	40-30-80-10	400-400-200-200	1⅜ x 3½	7.45	4.47
CTM-4533	80-10-80-100	400-400-250-50	1⅜ x 4	5.80	3.48
CTM-4535	40-10-80-10	400-400-250-250	1⅜ x 3½	7.05	4.23
CTM-4537	5-5-50-80	400-400-300-250	1⅜ x 3	7.00	4.20
*CTM-4539	50-20-20-25	400-400-350-25	1⅜ x 3	4.45	2.67
*CTM-4543	100-10-20-20	400-400-350-50	1⅜ x 4	8.20	4.92
CTM-4544	20-20-20-20	400-400-400-25	1⅜ x 2½	5.80	3.48
CTM-4545	60-30-30-150	400-400-400-25	1⅜ x 4	8.70	5.22
*CTM-4547	80-40-10-20	400-400-400-25	1⅜ x 4	5.30	3.18
*CTM-4549	80-40-30-40	400-400-400-25	1⅜ x 4	5.95	3.57
CTM-4551	90-40-10-40	400-400-400-25	1⅜ x 4	8.70	5.22
CTM-4553	40-40-40-150	400-400-400-50	1⅜ x 4	8.55	5.13
*CTM-4555	90-20-10-50	400-400-400-50	1⅜ x 4	5.40	3.24
CTM-4557	80-20-10-100	400-400-400-50	1⅜ x 4	7.90	4.74
*CTM-4558	80-40-10-100	400-400-400-200	1⅜ x 4	6.30	3.78
*CTM-4559	80-40-30-4	400-400-400-350	1⅜ x 3½	5.90	3.54
CTM-4561	30-30-20-20	400-400-400-400	1⅜ x 3	7.30	4.38
CTM-4563	40-35-10-10	400-400-400-400	1⅜ x 3	6.70	4.02
CTM-4567	80-10-10-10	400-400-400-400	1⅜ x 3½	7.05	4.23
*CTM-4569	80-25-10-10	400-400-400-400	1⅜ x 4	5.25	3.15
*CTM-4571	100-40-10-10	400-400-400-400	1⅜ x 4	6.10	3.66
CTM-4574	40-40-30-10	450-150-50-50	1⅜ x 3	5.65	3.39
CTM-4577	10-80-40-100	450-200-200-50	1⅜ x 3	6.40	3.84
*CTM-4579	20-80-20-50	450-200-200-50	1⅜ x 3	4.10	2.46
CTM-4581	20-160-50-50	450-250-75-50	1⅜ x 4	5.10	3.06
CTM-4582	60-40-10-80	450-250-150-50	1⅜ x 3½	7.25	4.32
CTM-4585	40-40-40-20	450-250-250-25	1⅜ x 3	6.70	4.02
*CTM-4588	60-80-40-20	450-250-250-150	1⅜ x 4	5.65	3.39
*CTM-4591	10-100-10-100	450-300-75-25	1⅜ x 3	4.75	2.85
CTM-4594	10-10-60-100	450-300-200-50	1⅜ x 3	5.70	3.42
CTM-4597	10-40-40-100	450-300-250-50	1⅜ x 3½	6.60	3.96
CTM-4600	30-40-50-200	450-300-250-150	1⅜ x 4	9.00	5.40
*CTM-4603	25-100-10-60	450-300-300-50	1⅜ x 3	5.30	3.18
*CTM-4606	40-40-40-20	450-300-300-150	1⅜ x 3	4.90	2.94

* Preferred Type

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Distributor)

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ARCO CAPACITORS — Twist Mount Electrolytic Capacitors

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
*CTM-4609	10-100-20-20	450-300-300-200	1⅜ x 3	5.05	3.03
CTM-4612	10-100-20-20	450-300-300-300	1⅜ x 3	7.90	4.74
CTM-4615	10-40-80-10	450-350-200-200	1⅜ x 3½	7.05	4.23
*CTM-4618	10-40-100-100	450-350-250-50	1⅜ x 3	5.55	3.33
CTM-4621	40-30-15-50	450-350-300-50	1⅜ x 3	6.55	3.93
CTM-4624	10-140-20-10	450-350-300-300	1⅜ x 4	8.95	5.37
*CTM-4625	10-140-100-20	450-350-300-300	1⅜ x 4	7.50	4.50
*CTM-4630	10-60-40-25	450-350-350-25	1⅜ x 4	4.60	2.76
CTM-4633	20-15-15-20	450-350-350-25	1⅜ x 2½	5.70	3.42
*CTM-4636	20-80-50-100	450-350-350-50	1⅜ x 4	6.00	3.60
CTM-4639	30-40-40-10	450-350-350-200	1⅜ x 3½	7.75	4.65
CTM-4642	80-10-30-40	450-400-300-150	1⅜ x 3½	7.90	4.74
*CTM-4645	80-10-40-30	450-400-300-300	1⅜ x 3½	5.80	5.48
CTM-4648	5-60-50-20	450-400-350-25	1⅜ x 3½	7.60	4.56
CTM-4651	10-40-30-40	450-400-400-25	1⅜ x 3	6.60	3.96
CTM-4654	80-40-10-150	450-400-400-50	1⅜ x 4	9.00	5.40
CTM-4657	10-40-40-100	450-400-400-50	1⅜ x 3½	7.30	4.38
CTM-4660	60-40-20-20	450-400-400-100	1⅜ x 4	8.70	5.22
CTM-4664	10-10-20-20	450-450-25-25	1⅜ x 2	4.45	2.67
CTM-4666	20-10-100-50	450-450-25-25	1⅜ x 2	5.35	3.21
*CTM-4669	20-15-20-20	450-450-25-25	1⅜ x 2	3.45	2.07
*CTM-4672	30-30-125-125	450-450-25-25	1⅜ x 3	4.85	2.91
CTM-4675	30-10-150-30	450-450-50-50	1⅜ x 2½	6.15	3.69
*CTM-4678	20-20-60-100	450-450-150-25	1⅜ x 2½	6.40	3.84
*CTM-4681	40-40-125-125	450-450-150-25	1⅜ x 4	5.70	3.42
CTM-4682	50-20-4-40	450-450-150-25	1⅜ x 2	4.50	2.70
*CTM-4684	10-10-60-100	450-450-200-50	1⅜ x 3	3.85	2.31
*CTM-4687	35-25-20-100	450-450-200-50	1⅜ x 3	4.65	2.79
CTM-4690	40-40-100-60	450-450-200-200	1⅜ x 4	6.05	3.63
CTM-4691	80-50-20-50	450-450-250-50	1⅜ x 4	5.95	3.57
CTM-4692	80-50-100-250	450-450-250-50	1⅜ x 4	7.40	4.44
CTM-4692.4	30-20-160-40	450-450-250-150	1⅜ x 3	5.65	3.39
CTM-4693	10-10-10-50	450-450-300-25	1⅜ x 2	4.75	2.85
CTM-4696	40-40-10-50	450-450-300-50	1⅜ x 3½	7.05	4.23
CTM-4699	20-20-30-30	450-450-300-300	1⅜ x 3½	6.75	4.05
CTM-4702	20-5-50-20	450-450-350-25	1⅜ x 2½	6.85	4.11
CTM-4705	20-20-30-30	450-450-350-350	1⅜ x 3	7.60	4.56
CTM-4708	40-10-35-10	450-450-350-350	1⅜ x 3½	6.90	4.14
CTM-4710	40-20-80-10	450-450-350-350	1⅜ x 4	8.70	5.22
*CTM-4712	40-40-30-30	450-450-350-350	1⅜ x 4	5.90	3.54
*CTM-4714	10-10-10-20	450-450-450-25	1⅜ x 2	3.15	1.89
CTM-4716	10-10-10-100	450-450-450-25	1⅜ x 2	4.90	2.94
CTM-4718	15-10-10-20	450-450-450-25	1⅜ x 3	4.95	2.97
CTM-4720	20-10-10-100	450-450-450-25	1⅜ x 2	5.55	3.33
*CTM-4722	20-20-20-20	450-450-450-25	1⅜ x 2½	4.15	2.49
CTM-4724	30-15-15-40	450-450-450-25	1⅜ x 2½	6.25	3.75
CTM-4726	30-20-20-20	450-450-450-25	1⅜ x 3	6.60	3.96
CTM-4728	30-30-10-20	450-450-450-25	1⅜ x 3	6.55	3.93
*CTM-4730	30-30-10-125	450-450-450-25	1⅜ x 3	4.70	2.82
CTM-4732	30-30-20-20	450-450-450-25	1⅜ x 3	7.00	4.20
CTM-4734	40-10-10-250	450-450-450-25	1⅜ x 3	7.05	4.23
CTM-4736	40-15-10-25	450-450-450-25	1⅜ x 3	6.15	3.69
CTM-4738	40-20-10-20	450-450-450-25	1⅜ x 3	6.40	3.84
*CTM-4740	40-20-20-20	450-450-450-25	1⅜ x 3	4.60	2.76
*CTM-4742	40-20-20-40	450-450-450-25	1⅜ x 3	4.65	2.79
*CTM-4744	40-30-10-20	450-450-450-25	1⅜ x 3	4.50	2.70
*CTM-4746	40-40-10-20	450-450-450-25	1⅜ x 3	4.70	2.82
*CTM-4748	40-40-20-20	450-450-450-25	1⅜ x 3	5.00	3.00
*CTM-4750	40-40-40-40	450-450-450-25	1⅜ x 3	5.50	3.30
CTM-4752	50-40-5-20	450-450-450-25	1⅜ x 3	7.20	4.32
*CTM-4754	60-40-40-10	450-450-450-25	1⅜ x 4	6.00	3.60
*CTM-4756	60-50-5-20	450-450-450-25	1⅜ x 4	5.35	3.21
*CTM-4758	80-40-40-40	450-450-450-25	1⅜ x 4	6.45	3.87
CTM-4759	80-50-10-20	450-450-450-25	1⅜ x 4	5.95	3.57
CTM-4760	10-10-10-150	450-450-450-50	1⅜ x 2½	5.55	3.33
*CTM-4762	20-20-20-100	450-450-450-50	1⅜ x 2½	4.55	2.73
*CTM-4764	30-30-15-30	450-450-450-50	1⅜ x 3	4.55	2.73
CTM-4766	30-30-15-100	450-450-450-50	1⅜ x 3½	7.35	4.41
*CTM-4768	40-20-10-100	450-450-450-50	1⅜ x 3½	4.60	2.76
*CTM-4770	40-40-10-25	450-450-450-50	1⅜ x 3	4.70	2.82
*CTM-4772	40-40-10-50	450-450-450-50	1⅜ x 4	4.80	2.88
*CTM-4774	60-40-10-25	450-450-450-50	1⅜ x 4	5.25	3.15
*CTM-4776	40-40-10-100	450-450-450-100	1⅜ x 3½	5.55	3.33
CTM-4778	10-10-10-10	450-450-450-150	1⅜ x 2	4.75	2.85
*CTM-4780	60-10-10-20	450-450-450-150	1⅜ x 3	4.55	2.73
CTM-4782	35-35-10-10	450-450-450-200	1⅜ x 3½	6.90	4.14
CTM-4785	40-10-10-100	450-450-450-200	1⅜ x 4	7.35	4.41
CTM-4788	40-40-30-10	450-450-450-200	1⅜ x 4	8.05	4.83
CTM-4790	30-10-10-10	450-450-450-250	1⅜ x 2½	5.80	3.48
*CTM-4794	40-20-10-100	450-450-450-250	1⅜ x 4	5.85	3.51
*CTM-4798	40-10-10-40	450-450-450-350	1⅜ x 3	4.75	2.85
CTM-4800	40-20-20-20	450-450-450-350	1⅜ x 3	7.50	4.50
CTM-4802	40-40-10-10	450-450-450-350	1⅜ x 3½	7.20	4.32
*CTM-4804	5-5-5-5	450-450-450-450	1⅜ x 2	3.00	1.80
*CTM-4806	10-10-10-10	450-450-450-450	1⅜ x 2	3.35	2.01
*CTM-4808	20-10-10-10	450-450-450-450	1⅜ x 2½	3.70	2.22
*CTM-4810	20-20-20-20	450-450-450-450	1⅜ x 3	4.70	2.82
CTM-4812	25-20-20-20	450-450-450-450	1⅜ x 3½	7.30	4.38
*CTM-4814	30-15-15-15	450-450-450-450	1⅜ x 3	4.45	2.67
CTM-4816	30-20-20-10	450-450-450-450	1⅜ x 3	6.90	4.14
CTM-4818	30-30-15-10	450-450-450-450	1⅜ x 3½	7.05	4.23
*CTM-4820	30-30-20-20	450-450-450-450	1⅜ x 3	5.20	3.12
CTM-4822	30-30-30-15	450-450-450-450	1⅜ x 4	7.95	4.77
*CTM-4824	35-35-10-5	450-450-450-450	1⅜ x 3½	4.60	2.76
*CTM-4826	40-10-10-10	450-450-450-450	1⅜ x 3	4.10	2.46
CTM-4828	40-20-20-10	450-450-450-450	1⅜ x 3	7.20	4.32
*CTM-4830	40-35-10-10	450-450-450-450	1⅜ x 3	4.80	2.88
*CTM-4832	40-40-4-4	450-450-450-450	1⅜ x 3½	4.65	2.79
*CTM-4834	40-40-20-20	450-450-450-450	1⅜ x 3½	5.55	3.33
*CTM-4836	40-40-30-30	450-450-450-450	1⅜ x 4	6.05	3.63
*CTM-4838	40-40-40-40	450-450-450-450	1⅜ x 4	6.45	3.87
*CTM-4840	60-20-20-20	450-450-450-450	1⅜ x 4	5.65	3.39
*CTM-4842	60-30-10-2	450-450-450-450	1⅜ x 3	5.10	3.06
CTM-4844	70-10-10-5	450-450-450-450	1⅜ x 3	7.15	4.29
*CTM-4846	80-10-10-10	450-450-450-450	1⅜ x 4	5.05	3.03
*CTM-4848	40-40-50-80	475-250-150-50	1⅜ x 3½	5.00	3.00
*CTM-4850	20-40-100-80	475-300-50-25	1⅜ x 3	4.45	2.67
*CTM-4852	10-100-10-100	475-300-300-25	1⅜ x 3½	4.90	2.94
*CTM-4854	20-80-20-10	475-300-300-300	1⅜ x 3½	5.00	3.00
*CTM-4856	20-140-20-10	475-300-300-300	1⅜ x 4	6.00	3.60
CTM-4858	10-20-100-25	475-350-25-25	1⅜ x 2	3.45	2.07
*CTM-4862	20-40-80-100	475-350-200-100	1⅜ x 4	5.45	3.27
*CTM-4864	10-40-80-100	475-350-300-100	1⅜ x 4	5.55	3.33
*CTM-4866	10-30-5-80	475-350-350-50	1⅜ x 2½	5.55	3.33
*CTM-4868	10-140-4-100	475-350-350-50	1⅜ x 4	5.85	3.51
*CTM-4870	10-130-20-10	475-350-350-350	1⅜ x 4	6.00	3.60
CTM-4872	20-60-40-10	475-350-350-350	1⅜ x 3½	7.80	4.68
*CTM-4874	30-130-10-10	475-350-350-350	1⅜ x 4	6.40	3.84
*CTM-4876	10-40-100-10	475-400-50-25	1⅜ x 2½	4.05	2.43
*CTM-4878	10-40-4-100	475-400-350-50	1⅜ x 2½	4.05	2.43
*CTM-4880	10-80-40-100	475-400-400-50	1⅜ x 3½	5.80	3.48
*CTM-4882	5-70-25-5	475-400-400-400	1⅜ x 3½	5.05	3.03
CTM-4884	10-10-80-50	475-450-200-60	1⅜ x 3	5.80	3.48
CTM-4886	25-20-20-100	475-450-300-50	1⅜ x 3	6.90	4.14
CTM-4888	25-20-40-100	475-450-300-50	1⅜ x 3½	7.45	4.47
*CTM-4890	10-60-30-125	475-450-400-50	1⅜ x 4	5.55	3.33
*CTM-4892	10-50-30-30	475-450-450-25	1⅜ x 3	4.75	2.85
*CTM-4894	10-40-10-100	475-450-450-50	1⅜ x 2½	4.30	2.58
CTM-4895	80-4-4-4	475-450-450-450	1⅜ x 3	5.20	3.12
*CTM-4896	15-15-80-40	475-475-300-50	1⅜ x 3	4.80	2.88
CTM-4898	50-30-20-20	475-475-300-300	1⅜ x 4	8.55	5.13
*CTM-4900	40-10-4-40	475-475-350-300	1⅜ x 3	4.95	2.97
CTM-4902	40-10-40-10	475-475-350-350	1⅜ x 3	5.50	3.30
*CTM-4904	20-10-20-100	475-475-450-25	1⅜ x 2½	4.20	2.52
CTM-4906	10-5-80-40	475-475-450-50	1⅜ x 3½	7.35	4.41
CTM-4907	80-80-4-4	475-475-450-450	1⅜ x 4	7.50	4.50
CTM-4908	30-30-10-20	475-475-475-25	1⅜ x 3	6.85	4.11
CTM-4910	40-20-10-10	475-475-475-25	1⅜ x 3	7.30	4.38
CTM-4912	80-30-10-20	475-475-475-25	1⅜ x 4	8.65	5.19
*CTM-4914	20-20-10-10	475-475-475-300	1⅜ x 2½	4.30	2.58
*CTM-4916	50-30-10-20	475-475-475-300	1⅜ x 3½	5.60	3.36
CTM-4918	10-10-10-10	475-475-475-475	1⅜ x 2	5.25	3.15
*CTM-4920	20-20-10-10	475-475-475-475	1⅜ x 2½	4.35	2.61
*CTM-4922	20-20-20-20	475-475-475-475	1⅜ x 3	5.10	3.06
CTM-4924	40-10-10-10	475-475-475-475	1⅜ x 3	7.00	4.20
*CTM-4926	40-20-10-10	475-475-475-475	1⅜ x 3	5.10	3.06
CTM-4928	10-10-4-20	500-300-300-25	1⅜ x 2	2.90	1.74
CTM-4930	10-100-30-100	500-300-300-25	1⅜ x 3½	7.80	4.68
CTM-4932	5-100-10-200	500-300-300-150	1⅜ x 4	8.80	5.28
CTM-4934	20-80-20-10	500-300-300-300	1⅜ x 3½	7.50	4.50
*CTM-4936	30-10-150-30	500-450-50-50	1⅜ x 2½	4.20	2.52
*CTM-4938	10-10-10-10	500-500-500-500	1⅜ x 2	3.50	2.10
*CTM-4940	40-40-8-8	500-500-500-500	1⅜ x 4	5.70	3.42

*Preferred Type

INSULATING TUBES FOR TWIST MOUNT CAPACITORS

Cat. No.	Dimensions	List Price	Net Price	Cat. No.	Dimensions	List Price	Net Price
TMT-1	1 x 2	.10	.06	TMT-6	1⅜ x 2	.10	.06
TMT-2	1 x 2½	.10	.06	TMT-7	1⅜ x 2½	.10	.06
TMT-3	1 x 3	.10	.06	TMT-8	1⅜ x 3	.10	.06
TMT-4	1 x 3½	.10	.06	TMT-9	1⅜ x 3½	.10	.06
TMT-5	1 x 4	.10	.06	TMT-10	1⅜ x 4	.10	.06

BAKELITE MOUNTING PLATES FOR CTM CAPACITORS

BMP-1	1	.10	.06	BMP-2	1⅜	.10	.06

METAL MOUNTING PLATES FOR CTM CAPACITORS

MMP-1	1	.10	.06	MMP-2	1⅜	.10	.06

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Distributor)

There is a $1.00 set-up charge per item for capacitance values not tabulated above.

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ELMENCO CAPACITORS — ARCO KITS

FOR: ENGINEERING LABS • GOVERNMENTAL AGENCIES
EXPERIMENTAL LABS. • SCHOOLS, ETC.

DUR-MICA the silvered mica capacitor coated with a specially developed plastic coating for extra durability . . . provides maximum protection at environmental extremes of moisture and temperature.

DM-15 KIT #10

Purchased individually the total list price value of the capacitors contained in this kit would be $103.31.

SPECIAL KIT LIST PRICE
$95.00

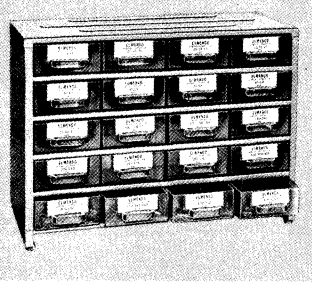
This handy kit consists of five of each DM-15 capacity as listed. All are 500VDCW and ±5% tolerance . . . packed in individual transparent plastic snap boxes, properly identified for ease of handling.

CAP. MMF.	TYPE DESIGNATION	CAP. MMF.	TYPE DESIGNATION	CAP. MMF.	TYPE DESIGNATION
1	DM-15-010†	56	DM-15-560	360	DM-15-361
2	DM-15-020†	62	DM-15-620	390	DM-15-391
3	DM-15-030†	68	DM-15-680	430	DM-15-431
5	DM-15-050†	75	DM-15-750	470	DM-15-471
10	DM-15-100	82	DM-15-820	500	DM-15-501
12	DM-15-120	91	DM-15-910	510	DM-15-511
15	DM-15-150	100	DM-15-101	560*	DM-15-561
18	DM-15-180	110	DM-15-111	620*	DM-15-621
20	DM-15-200	120	DM-15-121	680*	DM-15-681
22	DM-15-220	130	DM-15-131	750*	DM-15-751
				820*	DM-15-821
24	DM-15-240	150	DM-15-151		
27	DM-15-270	160	DM-15-161		
30	DM-15-300	180	DM-15-181		
33	DM-15-330	200	DM-15-201		
36	DM-15-360	220	DM-15-221		
39	DM-15-390	240	DM-15-241		
43	DM-15-430	250	DM-15-251		
47	DM-15-470	270	DM-15-271		
50	DM-15-500	300	DM-15-301		
51	DM-15-510	330	DM-15-331		

* All capacitors marked with * are 300WV.

† Minimum tolerance ±0.5 mmf.

DM-15 STOCK PACKAGE



Purchased individually the total list price value would be $715.

SPECIAL LIST PRICE
$596

Distinctive Steel Cabinet With Plastic Pull-Out Drawers Supplied FREE With DM-15 Package.

A complete stock of DM-15 capacitors (fifty-one items) totaling 2100 capacitors; fifty of each of the most used values and 25 each of the others. Capacity range is 1-820 mmf., tolerance ±5% or ±0.5 mmf., whichever is greater.

DUR-MICA KIT #11

Purchased individually the total list price value of the capacitors contained in this kit would be $286.35.

SPECIAL KIT LIST PRICE
$250.00

This Kit contains five each of the following listed DUR-MICA capacitors, all 500VDCW and ±5% tolerance; or ±0.5 mmf., whichever is greater. Packed in individual transparent plastic snap boxes, properly identified for ease of handling.

CAP. MMF.	TYPE DESIGNATION	CAP. MMF.	TYPE DESIGNATION
2	DM-15-020M	360	DM-19-361J
5	DM-15-050K	390	DM-19-391J
10	DM-15-100J	430	DM-19-431J
12	DM-15-120J	470	DM-19-471J
15	DM-15-150J	510	DM-19-511J
18	DM-15-180J	560	DM-19-561J
20	DM-15-200J	620	DM-19-621J
22	DM-15-220J	680	DM-20-681J
24	DM-15-240J	750	DM-20-751J
27	DM-15-270J	820	DM-20-821J
30	DM-15-300J	910	DM-20-911J
33	DM-15-330J	1000	DM-20-102J
36	DM-15-360J	1100	DM-20-112J
39	DM-15-390J	1200	DM-20-122J
43	DM-15-430J	1300	DM-20-132J
47	DM-15-470J	1500	DM-20-152J
51	DM-15-510J	1600	DM-20-162J
56	DM-15-560J	1800	DM-20-182J
62	DM-15-620J	2000	DM-20-202J
68	DM-15-680J	2200	DM-20-222J
75	DM-15-750J	2400	DM-20-242J
82	DM-15-820J	2700	DM-20-272J
91	DM-15-910J	3000	DM-20-302J
100	DM-15-101J	3300	DM-20-332J
110	DM-15-111J	3600	DM-20-362J
120	DM-15-121J	3900	DM-20-392J
130	DM-15-131J	4300	DM-20-432J
150	DM-15-151J	4700	DM-30-472J
160	DM-19-161J	5100	DM-30-512J
180	DM-19-181J	5600	DM-30-562J
200	DM-19-201J	6200	DM-30-622J
220	DM-19-221J	6800	DM-30-682J
240	DM-19-241J	7500	DM-30-752J
270	DM-19-271J	8200	DM-30-822J
300	DM-19-301J	9100	DM-30-912J
330	DM-19-331J	10000	DM-30-103J

Trade Discount Applies To List Prices Only
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ELMENCO CAPACITORS — ARCO KITS

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EXPERIMENTAL LABS. • SCHOOLS, ETC.

CM-15 MINIATURE MICA CAPACITOR KIT #1

The complete set of capacitors amounts to $88.00 at list prices. You get the entire set at the

SPECIAL KIT LIST PRICE **$75.00**

This Kit can be supplied in 2% and 1% Tolerances upon request.

TYPE DESIGNATION	CAP. MMF.	DC WKG. VOLT.	TYPE DESIGNATION	CAP. MMF.	DC WKG. VOLT.
CM-15-C-010M	1	500	CM-15-E-750J	75	500
CM-15-C-020M	2	500	CM-15-E-820J	82	500
CM-15-C-030M	3	500	CM-15-E-910J	91	500
CM-15-C-050K	5	500	CM-15-E-101J	100	500
CM-15-C-100J	10	500	CM-15-E-111J	110	500
CM-15-C-120J	12	500	CM-15-E-121J	120	500
CM-15-C-150J	15	500	CM-15-E-131J	130	500
CM-15-C-180J	18	500	CM-15-E-151J	150	500
CM-15-C-200J	20	500	CM-15-E-161J	160	500
CM-15-C-220J	22	500	CM-15-E-181J	180	500
CM-15-E-240J	24	500	CM-15-E-201J	200	500
CM-15-E-270J	27	500	CM-15-E-221J	220	500
CM-15-E-300J	30	500	CM-15-E-241J	240	500
CM-15-E-330J	33	500	CM-15-E-251J	250	500
CM-15-E-360J	36	500	CM-15-E-271J	270	500
CM-15-E-390J	39	500	CM-15-E-301J	300	500
CM-15-E-430J	43	500	CM-15-E-331J	330	500
CM-15-E-470J	47	500	CM-15-E-361J	360	500
CM-15-E-500J	50	500	CM-15-E-391J	390	500
CM-15-E-510J	51	500	CM-15-E-431J	430	500
CM-15-E-560J	56	500	CM-15-E-471J	470	500
CM-15-E-620J	62	500	CM-15-E-501J	500	500
CM-15-E-680J	68	500	CM-15-E-511J	510	500

This Handy Kit consists of 46 most commonly used Capacitors per MIL-C-5 specifications five of each capacity as listed above packed in individual tuck boxes of 5 each properly identified for permanent use.

SILVERED MICA KIT #3

This kit contains the complete range of ELMENCO silvered molded mica capacitors from 5 mmf. to 10,000 mmf. manufactured in accordance with MIL-C-5 specifications. All units are of letters "C", "D" or "E" characteristics as specified and letter "J" (5%) tolerance and are MIL color coded.

Silvered Mica Kit contains FIVE EACH of the following MIL-C-5 Capacity values.

Purchased individually the total list price value of the capacitors contained in this kit would be $287.00

SPECIAL KIT LIST PRICE **$260.00**

SILVERED MICA KIT #3

TYPE DESIGNATION	VOLT.	TYPE DESIGNATION	VOLT.
CM-20-C-050K	500	CM-20-D-361J	500
CM-20-C-100J	500	CM-20-D-391J	500
CM-20-C-120J	500	CM-20-D-431J	500
CM-20-C-150J	500	CM-20-D-471J	500
CM-20-C-180J	500	CM-20-D-511J	500
CM-20-C-200J	500	CM-20-D-561J	500
CM-20-C-220J	500	CM-20-D-621J	500
CM-20-C-240J	500	CM-20-D-681J	500
CM-20-C-270J	500	CM-20-D-751J	500
CM-20-C-300J	500	CM-20-D-821J	500
CM-20-C-330J	500	CM-20-D-911J	500
CM-20-C-360J	500	CM-20-E-102J	500
CM-20-C-390J	500	CM-30-E-112J	500
CM-20-C-430J	500	CM-30-E-122J	500
CM-20-C-470J	500	CM-30-E-132J	500
CM-20-C-510J	500	CM-30-E-152J	500
CM-20-C-560J	500	CM-30-E-162J	500
CM-20-C-620J	500	CM-30-E-182J	500
CM-20-C-680J	500	CM-30-E-202J	500
CM-20-C-750J	500	CM-30-E-222J	500
CM-20-C-820J	500	CM-30-E-242J	500
CM-20-C-910J	500	CM-30-E-272J	500
CM-20-C-101J	500	CM-30-E-302J	500
CM-20-C-111J	500	CM-30-E-332J	500
CM-20-C-121J	500	CM-30-E-362J	500
CM-20-C-131J	500	CM-30-E-392J	500
CM-20-C-151J	500	CM-30-E-432J	500
CM-20-C-161J	500	CM-30-E-472J	500
CM-20-C-181J	500	CM-30-E-512J	500
CM-20-D-201J	500	CM-30-E-562J	500
CM-20-D-221J	500	CM-30-E-622J	500
CM-20-D-241J	500	CM-35-E-682J	300
CM-20-D-271J	500	CM-35-E-752J	300
CM-20-D-301J	500	CM-35-E-822J	300
CM-20-D-331J	500	CM-35-E-912J	300
		CM-35-E-103J	300

The above kit can be supplied in 2% and 1% tolerance upon request.

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Trade Discount Applies To List Prices Only

ELMENCO CAPACITORS — ARCO KITS

The total list price for all units included in the kit is $170.40. Yet you may have this complete kit for only

SPECIAL KIT LIST PRICE
$150.00

TYPE 46 TRIMMER KIT #5

This Kit contains 24 of each Trimmer listed below

TYPE 46W PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE At Tight Cap. Will Be More Than MMF.	GUARANTEED RANGE At 3 Turns Open Cap. Will Be Less Than MMF.
460	1¼ Pl.	15	1.5
461	1¾ Pl.	30	2.7
462	2 Pl.	80	5
463	3 Pl.	180	9
464	4 Pl.	280	25
465	5 Pl.	380	50
466	6 Pl.	480	80
467	7 Pl.	580	110
468	8 Pl.	680	140
469	9 Pl.	780	170

TYPE 30 PADDER KIT TYPE #6

This Kit contains 12 each of Padders listed below

The total list price for all units included in the kit is $224.20. Yet you may have this complete kit for only

SPECIAL KIT LIST PRICE
$210.00

TYPE 30M PADDER KIT TYPE #6M

This Kit contains 12 each of Padders listed below

The total list price for all units included in the kit is $261.60. Yet you may have this complete kit for only

SPECIAL KIT LIST PRICE
$225.00

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE At 1¾ Inch Pounds Cap. Will Be More Than MMF.	GUARANTEED RANGE At 3 Turns Open Cap. Will Be Less Than MMF.
302	2 Pl.	130	15
303	3 Pl.	340	65
304	4 Pl.	550	100
305	5 Pl.	760	190
306	6 Pl.	970	275
307	7 Pl.	1180	350
308	8 Pl.	1390	450
309	9 Pl.	1600	550
310	10 Pl.	1890	650
311	11 Pl.	2110	780
312	12 Pl.	2330	880
313	13 Pl.	2605	1150
314	14 Pl.	2830	1300
315	15 Pl.	3055	1400

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE At 1¾ Inch Pounds Cap. Will Be More Than MMF.	GUARANTEED RANGE At 3 Turns Open Cap. Will Be Less Than MMF.
302-M	2 Pl.	120	15
303-M	3 Pl.	320	65
304-M	4 Pl.	500	100
305-M	5 Pl.	690	180
306-M	6 Pl.	880	265
307-M	7 Pl.	1070	340
308-M	8 Pl.	1260	425
309-M	9 Pl.	1415	525
310-M	10 Pl.	1600	615
311-M	11 Pl.	1785	730
312-M	12 Pl.	1970	800
313-M	13 Pl.	2155	1000
314-M	14 Pl.	2340	1100
315-M	15 Pl.	2525	1200

A complete stock of trimmers and padders is provided in these compact, easily handled, and readily accessible kits. Always have a full line of Elmenco trimmers and padders available for immediate use.

Trade Discount Applies To List Prices Only
© U.C.P., Inc.

ARCO CAPACITORS — PLASTIC FILM CAPACITORS

Type PT capacitors are polystyrene dielectric enclosed in non-ferrous metallic tubes with compression glass end seals. The principle features of this type are high stability, high insulation resistance, low dielectric absorption, and low dissipation factor. Their principle uses include precision filter and tuned circuits, analog computer circuits, pulse networks, servo systems, reference capacitors, and high Q applications.

SPECIFICATIONS:

DISSIPATION FACTOR: .01% max. at 25°C. .02% max. at 85°C.
INSULATION RESISTANCE: 10^5 megohm-microfarads min. for 100VDCW and 200VDCW units; 10^6 megohm-microfarads for 400-VDCW and higher ratings (at 25°C.)
TEMPERATURE RANGE: —55°C. to +85°C.
TEMPERATURE COEFFICIENT: —120 ± 15 ppm/°C. This specification may be tightened if required for specific values.
DIELECTRIC ABSORPTION: .05% max. at 25°C.
STABILITY: ±0.1% maximum capacitance drift long term under maximum operating conditions.
TOLERANCES: standard tolerance ±5%. Also available, ±10% ±3% ±2% ±1% ±½ ±¼%.

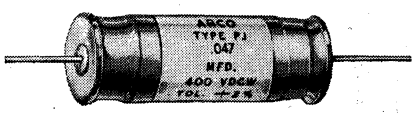
TYPE PT

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
100 VDCW			
*1PT-102J	.001	7/8 x .312	6.34
*1PT-202J	.002	7/8 x .312	3.17
1PT-222J	.0022	7/8 x .312	3.17
1PT-272J	.0027	7/8 x .312	3.17
*1PT-332J	.0033	7/8 x .312	3.17
1PT-392J	.0039	7/8 x .312	3.17
*1PT-472J	.0047	7/8 x .312	3.17
*1PT-502J	.005	7/8 x .312	3.17
*1PT-682J	.0068	7/8 x .312	3.17
1PT-822J	.0082	7/8 x .312	3.17
*1PT-103J	.01	7/8 x .312	3.17
1PT-123J	.012	7/8 x .312	3.19
*1PT-153J	.015	7/8 x .312	3.20
*1PT-203J	.02	7/8 x .312	3.22
*1PT-223J	.022	7/8 x .312	3.24
1PT-273J	.027	1 x .312	3.27
*1PT-333J	.033	1 x .312	3.30
1PT-393J	.039	1 x .400	3.34
*1PT-473J	.047	1 x .400	3.38
*1PT-503J	.05	1 x .400	3.40
*1PT-683J	.068	1 x .400	3.57
1PT-823J	.082	1 1/16 x .400	3.71
*1PT-104J	.1	1 1/16 x .500	3.89
*1PT-124J	.12	1 1/16 x .500	4.10
*1PT-154J	.15	1 1/16 x .500	4.38
*1PT-204J	.2	1 1/16 x .500	4.90
*1PT-224J	.22	1 1/16 x .500	5.04
1PT-274J	.27	1 1/16 x .562	5.43
*1PT-334J	.33	1 13/16 x .562	5.85
1PT-394J	.39	1 13/16 x .562	6.30
*1PT-474J	.47	1 7/8 x .670	6.86
*1PT-504J	.5	1 7/8 x .670	7.18
200 VDCW			
*2PT-102J	.001	7/8 x .312	6.34
*2PT-202J	.002	7/8 x .312	3.17
2PT-222J	.0022	7/8 x .312	3.17
2PT-272J	.0027	7/8 x .312	3.17
*2PT-332J	.0033	7/8 x .312	3.17
2PT-392J	.0039	7/8 x .312	3.17
*2PT-472J	.0047	7/8 x .312	3.17
*2PT-502J	.005	7/8 x .312	3.17
*2PT-682J	.0068	7/8 x .312	3.17
2PT-822J	.0082	7/8 x .312	3.17
*2PT-103J	.01	7/8 x .312	3.17
2PT-123J	.012	1 x .312	3.20
2PT-153J	.015	1 x .312	3.24
2PT-203J	.02	1 x .400	3.31
2PT-223J	.022	1 x .400	3.32
2PT-273J	.027	1 x .400	3.35
2PT-333J	.033	1 1/16 x .400	3.40
2PT-393J	.039	1 1/16 x .400	3.44
2PT-473J	.047	1 1/16 x .400	3.50
2PT-503J	.05	1 1/16 x .500	3.64
2PT-683J	.068	1 7/16 x .500	3.99
2PT-823J	.082	1 7/16 x .500	4.31
2PT-104J	.1	1 7/16 x .500	4.66
2PT-124J	.12	1 7/16 x .562	4.97
2PT-154J	.15	1 7/16 x .562	5.43
2PT-204J	.2	1 13/16 x .562	6.16
2PT-224J	.22	1 7/8 x .670	6.44
2PT-274J	.27	1 7/8 x .670	7.11
2PT-334J	.33	1 7/8 x .750	7.88
2PT-394J	.39	1 15/16 x 1.00	8.65
2PT-474J	.47	1 15/16 x 1.00	9.70
2PT-504J	.5	1 15/16 x 1.00	10.22
400 VDCW			
*4PT-102J	.001	7/8 x .312	6.34
*4PT-202J	.002	7/8 x .312	3.17
4PT-222J	.0022	7/8 x .312	3.17
4PT-272J	.0027	7/8 x .312	3.11
*4PT-332J	.0033	7/8 x .312	3.17
4PT-392J	.0039	7/8 x .312	3.17
*4PT-472J	.0047	7/8 x .312	3.17
*4PT-502J	.005	7/8 x .312	3.17
*4PT-682J	.0068	7/8 x .312	3.22
4PT-822J	.0082	7/8 x .312	3.26
*4PT-103J	.01	1 x .312	3.31
*4PT-153J	.015	1 x .400	3.39
*4PT-203J	.02	1 x .400	3.48
*4PT-223J	.022	1 x .400	3.50
4PT-273J	.027	1 1/8 x .400	3.57
*4PT-333J	.033	1 1/8 x .400	3.68
4PT-393J	.039	1 1/8 x .500	3.75
*4PT-473J	.047	1 1/16 x .500	3.89
*4PT-503J	.05	1 1/16 x .500	3.96
*4PT-683J	.068	1 1/16 x .500	4.34
4PT-823J	.082	1 1/16 x .562	4.65
*4PT-104J	.1	1 13/16 x .562	5.04
4PT-124J	.12	1 13/16 x .562	5.46
*4PT-154J	.15	1 7/8 x .670	6.06
*4PT-204J	.2	1 7/8 x .750	7.07
*4PT-224J	.22	1 7/8 x .750	7.42
4PT-274J	.27	1 15/16 x 1.00	8.30
*4PT-334J	.33	1 15/16 x 1.00	9.38
4PT-394J	.39	1 15/16 x 1.00	10.43
600 VDCW			
*6PT-102J	.001	7/8 x .312	6.34
*6PT-202J	.002	7/8 x .312	3.17
6PT-222J	.0022	7/8 x .312	3.17
6PT-272J	.0027	7/8 x .312	3.17
*6PT-332J	.0033	7/8 x .312	3.19
6PT-392J	.0039	7/8 x .312	3.22
*6PT-472J	.0047	7/8 x .312	3.27
*6PT-502J	.005	7/8 x .312	3.28
6PT-682J	.0068	7/8 x .312	3.33
6PT-822J	.0082	1 x .312	3.37
*6PT-103J	.01	1 x .400	3.41
6PT-153J	.015	1 x .400	3.54
*6PT-203J	.02	1 1/8 x .400	3.68
6PT-223J	.022	1 1/8 x .400	3.75
6PT-273J	.027	1 1/8 x .500	3.89
6PT-333J	.033	1 1/16 x .500	4.06
6PT-393J	.039	1 1/16 x .500	4.17
6PT-473J	.047	1 1/16 x .562	4.31
*6PT-503J	.05	1 1/16 x .562	4.38
6PT-683J	.068	1 13/16 x .562	5.22
6PT-823J	.082	1 7/8 x .670	5.60
*6PT-104J	.1	1 7/8 x .750	6.09
6PT-124J	.12	1 7/8 x .750	6.65
6PT-154J	.15	1 15/16 x .100	7.49
*6PT-204J	.2	1 15/16 x .100	8.58
6PT-224J	.22	1 15/16 x .100	10.19

NOTE: Non-standard capacitance values between those listed are also available at no additional cost.
* The starred items are stock items available for immediate delivery.
NOTE: The suffix letter "J" refers to the standard tolerance of ±5%. This letter is changed for different tolerances.

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
1000 VDCW			
*10PT-102J	.001	7/8 x .312	6.34
10PT-152J	.0015	7/8 x .312	6.34
*10PT-202J	.002	7/8 x .312	3.17
10PT-222J	.0022	7/8 x .312	3.19
10PT-272J	.0027	7/8 x .312	3.21
*10PT-332J	.0033	7/8 x .312	3.24
10PT-392J	.0039	7/8 x .312	3.27
*10PT-472J	.0047	7/8 x .312	3.31
*10PT-502J	.005	7/8 x .312	3.34
10PT-682J	.0068	1 x .312	3.40
10PT-822J	.0082	1 x .400	3.44
10PT-103J	.01	1 x .400	3.50
10PT-153J	.015	1 1/8 x .400	3.68
10PT-203J	.02	1 1/8 x .500	3.85
10PT-223J	.022	1 1/16 x .500	3.92
10PT-273J	.027	1 1/16 x .500	4.10
10PT-333J	.033	1 1/16 x .500	4.27
10PT-393J	.039	1 1/16 x .562	4.41
10PT-473J	.047	1 13/16 x .562	4.62
10PT-503J	.05	1 7/8 x .670	4.69
10PT-683J	.068	1 7/8 x .750	5.64
10PT-823J	.082	1 15/16 x 1.00	6.23
10PT-104J	.1	1 15/16 x 1.00	6.97

Type PJ capacitors are polystyrene dielectric enclosed in silicone treated fused polystyrene jackets. The same superior quality of the Type PT hermetically sealed units is preserved in Type PJ units while effecting a marked saving in both size and price. Extensive evaluation has confirmed the excellent moisture resistance of this design as well as extreme ruggedness. The Type PJ will meet MIL tests for vibration, shock, moisture resistance and immersion as well as providing the excellent electrical characteristics specified.



SPECIFICATIONS:

DISSIPATION FACTOR: .01% max. at 25°C. .02% max. at 85°C.
INSULATION RESISTANCE: 10^5 megohm-microfarads at 25°C.
TEMPERATURE RANGE: —55°C. to +85°C.
TEMPERATURE COEFFICIENT: —120 ± 15 ppm/°C.
DIELECTRIC ABSORPTION: .05% max. at 25°C.
STABILITY: ±0.1% maximum capacitance drift long term under maximum operating conditions.
TOLERANCES: standard tolerance ±5%. ±10% ±3% ±2% ±1% ±½% also available.

TYPE PJ

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
100 VDCW			
*1PJ-102J	.001	1 1/16 x 9/32	2.98
*1PJ-202J	.002	1 1/16 x 9/32	1.49
1PJ-222J	.0022	1 1/16 x 9/32	1.49
1PJ-272J	.0027	1 1/16 x 9/32	1.49
*1PJ-332J	.0033	1 1/16 x 9/32	1.49
1PJ-392J	.0039	1 1/16 x 9/32	1.49
*1PJ-472J	.0047	1 1/16 x 9/32	1.49
*1PJ-502J	.005	1 1/16 x 9/32	1.49
*1PJ-682J	.0068	1 1/16 x 9/32	1.49
1PJ-822J	.0082	1 1/16 x 9/32	1.49
*1PJ-103J	.01	1 1/16 x 9/32	1.49
1PJ-123J	.012	1 1/16 x 5/16	1.51
*1PJ-153J	.015	1 1/16 x 5/16	1.51
*1PJ-203J	.02	1 1/16 x 5/16	1.53
*1PJ-223J	.022	1 1/16 x 5/16	1.54
1PJ-273J	.027	7/8 x 5/16	1.56
*1PJ-333J	.033	7/8 x 5/16	1.60
1PJ-393J	.039	7/8 x 3/8	1.63
*1PJ-473J	.047	7/8 x 3/8	1.67
*1PJ-503J	.05	7/8 x 3/8	1.69
*1PJ-683J	.068	7/8 x 13/32	1.83
1PJ-823J	.082	1 x 3/8	1.94
*1PJ-104J	.1	1 x 7/16	2.09
*1PJ-124J	.12	1 x 13/32	2.28
*1PJ-154J	.15	1 1/4 x 7/16	2.54
*1PJ-204J	.2	1 1/4 x 1/2	2.99
*1PJ-224J	.22	1 1/4 x 1/2	3.12
1PJ-274J	.27	1 1/4 x 9/16	3.43
*1PJ-334J	.33	1 5/8 x 17/32	3.82
1PJ-394J	.39	1 5/8 x 9/16	4.20
*1PJ-474J	.47	1 5/8 x 5/8	4.69
*1PJ-504J	.5	1 5/8 x 5/8	4.97

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Net

ARCO CAPACITORS — PLASTIC FILM CAPACITORS

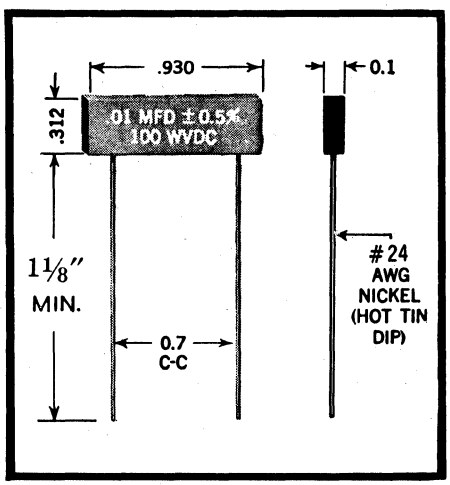
TYPE PJ

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
200 VDCW			
*2PJ-102J	.001	11/16 x 9/32	2.98
*2PJ-202J	.002	11/16 x 9/32	1.49
2PJ-222J	.0022	11/16 x 9/32	1.49
2PJ-272J	.0027	11/16 x 9/32	1.49
*2PJ-332J	.0033	11/16 x 9/32	1.49
2PJ-392J	.0039	11/16 x 9/32	1.49
2PJ-472J	.0047	11/16 x 9/32	1.49
*2PJ-502J	.005	11/16 x 9/32	1.49
*2PJ-682J	.0068	11/16 x 9/32	1.49
2PJ-822J	.0082	11/16 x 5/16	1.49
*2PJ-103J	.01	11/16 x 5/16	1.49
2PJ-123J	.012	7/8 x 5/16	1.54
2PJ-153J	.015	7/8 x 5/16	1.54
2PJ-203J	.02	7/8 x 3/8	1.60
2PJ-223J	.022	7/8 x 3/8	1.61
2PJ-273J	.027	7/8 x 3/8	1.65
2PJ-333J	.033	1 x 3/8	1.68
2PJ-393J	.039	1 x 3/8	1.72
2PJ-473J	.047	1 x 7/16	1.77
2PJ-503J	.05	1 x 7/16	1.88
2PJ-683J	.068	1 1/4 x 7/16	2.21
2PJ-823J	.082	1 1/4 x 1/2	2.52
2PJ-104J	.1	1 1/4 x 1/2	2.78
2PJ-124J	.12	1 1/4 x 1 1/32	3.05
2PJ-154J	.15	1 1/4 x 5/16	3.44
2PJ-204J	.2	1 5/8 x 5/16	4.09
2PJ-224J	.22	1 5/8 x 5/8	4.34
2PJ-274J	.27	1 3/4 x 11/16	4.90
2PJ-334J	.33	1 3/4 x 3/4	5.56
400 VDCW			
*4PJ-102J	.001	11/16 x 9/32	2.98
*4PJ-202J	.002	11/16 x 9/32	1.49
4PJ-222J	.0022	11/16 x 9/32	1.49
4PJ-272J	.0027	11/16 x 9/32	1.49
*4PJ-332J	.0033	11/16 x 9/32	1.49
4PJ-392J	.0039	11/16 x 9/32	1.49
*4PJ-472J	.0047	11/16 x 9/32	1.49
*4PJ-502J	.005	11/16 x 9/32	1.49
*4PJ-682J	.0068	11/16 x 5/16	1.53
4PJ-822J	.0082	11/16 x 5/16	1.56
*4PJ-103J	.01	7/8 x 5/16	1.60
*4PJ-153J	.015	7/8 x 11/32	1.68
*4PJ-203J	.02	7/8 x 3/8	1.75
*4PJ-223J	.022	7/8 x 3/8	1.77
4PJ-273J	.027	1 x 3/8	1.84
*4PJ-333J	.033	1 x 13/32	1.92
4PJ-393J	.039	1 x 7/16	2.00
*4PJ-473J	.047	1 1/4 x 7/16	2.10
*4PJ-503J	.05	1 1/4 x 7/16	2.16
4PJ-683J	.068	1 1/4 x 1/2	2.49
4PJ-823J	.082	1 1/4 x 9/16	2.77
*4PJ-104J	.1	1 5/8 x 17/32	3.12
4PJ-124J	.12	1 5/8 x 9/16	3.47
*4PJ-154J	.15	1 5/8 x 5/8	3.99
*4PJ-204J	.2	1 3/4 x 11/16	4.90
4PJ-224J	.22	1 3/4 x 11/16	5.18
4PJ-274J	.27	1 3/4 x 3/4	5.95
600 VDCW			
*6PJ-102J	.001	11/16 x 9/32	2.98
*6PJ-202J	.002	11/16 x 9/32	1.49
6PJ-222J	.0022	11/16 x 9/32	1.49
6PJ-272J	.0027	11/16 x 9/32	1.49
*6PJ-332J	.0033	11/16 x 9/32	1.50
6PJ-392J	.0039	11/16 x 9/32	1.53
6PJ-472J	.0047	11/16 x 5/16	1.56
*6PJ-502J	.005	11/16 x 5/16	1.59
6PJ-682J	.0068	11/16 x 5/16	1.62
6PJ-822J	.0082	7/8 x 5/16	1.66
*6PJ-103J	.01	7/8 x 11/32	1.70
6PJ-153J	.015	7/8 x 3/8	1.81
*6PJ-203J	.02	1 x 3/8	1.92
6PJ-223J	.022	1 x 13/32	1.97
6PJ-273J	.027	1 x 7/16	2.11
6PJ-333J	.033	1 1/4 x 7/16	2.25
6PJ-393J	.039	1 1/4 x 1/2	2.35
6PJ-473J	.047	1 1/4 x 9/16	2.48
*6PJ-503J	.05	1 1/4 x 9/16	2.55
6PJ-683J	.068	1 5/8 x 9/16	3.26
6PJ-823J	.082	1 5/8 x 5/8	3.57
*6PJ-104J	.1	1 3/4 x 11/16	4.03
6PJ-124J	.12	1 3/4 x 3/4	4.52

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
1000 VDCW			
*10PJ-102J	.001	11/16 x 9/32	2.98
10PJ-152J	.0015	11/16 x 9/32	2.98
*10PJ-202J	.002	11/16 x 9/32	1.49
10PJ-222J	.0022	11/16 x 9/32	1.50
10PJ-272J	.0027	11/16 x 9/32	1.52
*10PJ-332J	.0033	11/16 x 5/16	1.55
10PJ-392J	.0039	11/16 x 5/16	1.58
*10PJ-472J	.0047	11/16 x 5/16	1.61
*10PJ-502J	.005	11/16 x 5/16	1.63
10PJ-682J	.0068	7/8 x 5/16	1.68
10PJ-822J	.0082	7/8 x 11/32	1.72
10PJ-103J	.01	7/8 x 3/8	1.78
10PJ-153J	.015	1 x 3/8	1.93
10PJ-203J	.02	1 x 7/16	2.08
10PJ-223J	.022	1 1/4 x 13/32	2.14
10PJ-273J	.027	1 1/4 x 7/16	2.30
10PJ-333J	.033	1 1/4 x 1/2	2.45
10PJ-393J	.039	1 1/4 x 9/16	2.57
10PJ-473J	.047	1 5/8 x 9/16	2.74
10PJ-503J	.05	1 5/8 x 5/8	2.82
10PJ-683J	.068	1 3/4 x 3/4	3.64

THIN POLYSTYRENE CAPACITORS TYPE PE

100 WVDC



SPECIFICATIONS

CAPACITANCE RANGE: .001 to .01 mfd. (values as low as 50 mmf. and as high as .015 mfd. available to special order.)

TOLERANCES: ±5%, ±2%, ±1%, ±½%, ±¼%.

VOLTAGE RATING: 100VDCW.

INSULATION RESISTANCE: 10^{13} ohms min. at 25°C.; 10^{12} ohms min. at 85°C.

DISSIPATION FACTOR: .01% max. at 25°C.; .02% max. at 85°C.

DIELECTRIC ABSORPTION: .05% max. at all temperatures.

TEMPERATURE COEFFICIENT: −190 ±15 ppm/°C.
Special: Type T1PE −150 ±15 ppm/°C.
Type T2PE −120 ±15 ppm/°C.

STABILITY: ±0.1% maximum capacitance drift long term under maximum specified operating conditions.

STANDARD TOLERANCE ±5%

Part Number	Cap. Mfd.	Part Number	Cap. Mfd.
PE-102J	.001	PE-392J	.0039
PE-122J	.0012	PE-432J	.0043
PE-152J	.0015	PE-472J	.0047
PE-182J	.0018	PE-502J	.005
PE-202J	.002	PE-512J	.0051
PE-222J	.0022	PE-562J	.0056
PE-242J	.0024	PE-622J	.0062
PE-252J	.0025	PE-682J	.0068
PE-272J	.0027	PE-752J	.0075
PE-302J	.003	PE-822J	.0082
PE-332J	.0033	PE-912J	.0091
PE-362J	.0036	PE-103J	.01

Other tolerances: ± 2% — letter G suffix
± 1% — letter F suffix
±½% — letter D suffix
±¼% — letter B suffix

All the above design advantages are accompanied by lower prices and quick delivery. Listed items are standard values for Arco Type PE capacitors. All items are in stock in all tolerances for immediate delivery. In addition to listed values, any capacitance value within specified range limits can be manufactured to order.

ARCO Type PE Thin Polystyrene Capacitors

THE FOLLOWING PRICES ARE APPLICABLE TO ALL CAPACITANCE VALUES BETWEEN .001 AND .01 MFD.

	1,000 up	500-999	100-499	50-99	25-49	10-24	1-9
±5% tol.	$0.60	$0.62	$0.64	$0.68	$0.73	$0.99	$1.38
±2% tol.	0.68	0.70	0.72	0.77	0.88	1.15	1.61
±1% tol.	0.75	0.77	0.80	0.85	1.04	1.34	1.92
±½% tol.	0.90	0.93	0.96	1.02	1.46	1.80	2.69
±¼% tol.	1.20	1.24	1.28	1.36	2.09	2.53	3.85

MINIMUM BILLING FOR ANY ORDER IS $10.00.

MINIMUM BILLING FOR ANY NON-STANDARD ITEM IS $10.00.

Delivery is 48 hours for listed stock values, two to three weeks for initial shipments of non-listed values. Volume requirements in either standard or non-standard values will require at least 3-4 weeks for shipment.

NOTE: Non-standard capacitance values between those listed are also available at no additional cost.

The suffix letter "J" refers to the standard tolerance of ±5%. This letter is changes for different tolerances.

* The starred items are stock items available for immediate delivery.

SIZE REDUCTIONS: If a particular application has critical space limitations, the standard dimensions tabulated above may be reduced appreciably through special monitoring of film thickness.

Net

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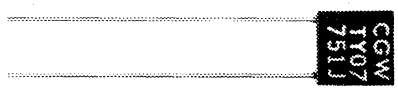
CORNING® FIXED GLASS CAPACITORS

For coupling, decoupling, filtering, timing, switching or computer circuits, CORNING Capacitors provide ultra-stable electrical performance. This stability is inherent in their fused glass and aluminum foil capacitive elements. These inorganic materials and continuous process and quality monitoring are responsible for the well-known CORNING CYFR capacitor made for the Minuteman. Many of the basic advantages of the CYFR have found their way into the standard CYFM and TYO units. The properties of these capacitors are entirely those of the closely controlled dielectric, and can't be changed by assembly methods or subsequent treatment. At 1 Kc and 25°C, dissipation factor is less than 0.001; at any given temperature, TC will not deviate from the curve by more than 5 ppm.

Corning manufactures highly stable fixed glass capacitors to meet your demanding circuit requirements. Their performance and economic advantages will add value to your equipment.

	TYPE AND MIL SPEC	MODEL	CAPACITANCE RANGE (pf)	VOLTAGE	NOMINAL DIMENSIONS Size in inches	WEIGHT IN GRAMS
CYFM	Fusion-sealed environment-proof performance at cost savings. Electrically and environmentally interchangeable with CYFR. MIL-C-11272B.	CYFM10	0.5 to 200 220 to 300	500 300	11/32 x 11/64 x 5/64	0.25 - 0.50
		CYFM15	220 to 510 560 to 1200	500 300	15/32 x 17/64 x 7/64	0.75 - 1.25
		CYFM20	560 to 3500 3600 to 5100	500 300	47/64 x 27/64 x 9/64	2.50 - 4.00
		CYFM30	3600 to 6200 6800 to 10000	500 300	49/64 x 3/4 x 9/64	5.00 - 7.00
TYO	New printed circuit capacitor provides glass stability in a uniformly symmetric case. Eliminates shorting. Lead spacing: TYO-6—0.2", TYO-7—0.2", TYO-8—0.4". 	TYO-6	1 to 560	300	.300 x .200 x .115	.3 - .4
		TYO-7	561 to 1000	300	.300 x .300 x .115	.4 - .5
		TYO-8	1001 to 2700	300	.500 x .300 x .115	.7 - .8

STANDARD CAPACITOR VALUES, CYFM, TYO*

CAP. (pf)	MIL EQUIV.	CAP. (pf)	MIL EQUIV.	CAP. (pf)	MIL EQUIV.	CAP. (pf)	MIL. EQUIV.	CAP. (pf)	MIL EQUIV.	CAP. (pf)	MIL EQUIV.
0.5†	0R5C	7.5	7R5C	33	330J	130	131J	560	561J	2400	242J
1.0	1R0C	8.2	8R2C	36	360J	150	151J	620	621J	2700	272J
1.5	1R5C	9.1	9R1C	39	390J	160	161J	680	681J	3000	302J
2.2	2R2C	10	100C	43	430J	180	181J	750	751J	3300	332J
2.7	2R7C	11	110C	47	470J	200	201J	820	821J	3600	362J
3.0	3R0C	12	120J*	51	510J	220	221J	910	911J	3900	392J
3.3	3R3C	13	130J	56	560J	240	241J	1000	102J	4300	432J
3.6	3R6C	15	150J	62	620J	270	271J	1100	112J	4700	472J
3.9	3R9C	16	160J	68	680J	300	301J	1200	122J	5100	512J
4.3	4R3C	18	180J	75	750J	330	331J	1300	132J	5600	562J
4.7	4R7C	20	200J	82	820J	360	361J	1500	152J	6200	622J
5.1	5R1C	22	220J	91	910J	390	391J	1600	162J	6800	682J
5.6	5R6C	24	240J	100	101J	430	431J	1800	182J	7500	752J
6.2	6R2C	27	270J	110	111J	470	471J	2000	202J	8200	822J
6.8	6R8C	30	300J	120	121J	510	511J	2200	222J	9100	912J
										10000	103J

*Standard Tolerances As Shown: C = ± 25 pf J = ± 5%.
*Other Tolerances Available On Request: D = ± .50 pf F = ± 1% G = ± 2% K = ± 10%
TYO Capacitors now available in 10% and 20% Tolerances
†0.5 pf does not apply to TY capacitors

CORNING
ELECTRONICS

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Capacitors

CDE CORNELL-DUBILIER

Sub-Miniature Electrolytics — Type NLW — Class 201.13

3/16 dia. case is the smallest case size available in subminiature electrolytics. of all molded construction, hermetically sealed, provided with plastic insulating sleeve. Operating temp. ranges −40°C to +85°C. Tolerance −10% to +150% thru 50 VDCW and to 100% thru 150 VDCW. Capacitance ranges from 10 to 450 Mfd at 3 VDCW, 1 to 300 Mfd at 6 VDCW, 8 to 225 Mfd at 10 VDCW, 15 to 250 Mfd at 12 VDCW, 3 to 200 Mfd at 25 VDCW; 1 to 75 Mfd at 50 VDCW, 2 to 20 Mfd at 100 VDCW, and 1 to 18 Mfd at 150 VDCW.

Single Section, Tubular Electrolytics — Type BR-BBR — Class 201.26

Tubular Electrolytics hermetically sealed in aluminum cases with cardboard insulating sleeves. Negative grounded to can. Maximum operating temperature is 85°C below 500 VDCW and 65°C 500 VDCW and above. Capacitance range, Single Sections, from 1 to 5000 Mfd, and voltage at 3, 6, 12, 15, 25, 50, 150, 250, 350, 450, 500, 600, and 700 VDCW.

Non Polarized Tubulars — Type BRNP — Class 201.26

Designed for use in cross-over networks and in boot-strap filtering applications, where true non-polarized electrolytics are suitable for use when no DC polarizing voltage is present.

Multiple Section Tubulars — Type BBRD, BBRT, BBRQ — Class 201.26

Similar in construction to type BBR, aluminum case is cardboard insulated and equipped with combination vent and hermetic seal.
Dual sections range from 25 to 450 VDCW.
Triple sections range from 150 to 450, 200 VDCW.
Quadruple sections range from 450 to 450, 300, 250, 50 VDCW.

Printed Circuit Wide Application Range Twist Prong — Type APC, BPC, CPC, DPC — Class 201.40

This line of wide-application range printed circuit Twist Prong has gained wide acceptance. Dimensions and mounting have been selected to fill the vast majority of replacement requirements. Recommended replacements for all Twist Prongs in current use are contained in the 112 page CDE Twist Prong Replacement Guide available without charge from your CDE General Line Distributor.

Wide Application Range Twist Prong Electrolytics — Type AA-BB-CC-DD — Class 201.42

Approximately 200 wide application range CDE Twist Prongs meet the requirements of over 1800 ratings. Used in conjunction with the CDE 112 page replacement guide, available without cost from your CDE General Line Distributor, almost every replacement need may be supplied from this simplified inventory.

Threaded Neck Electrolytic — Type KR — Class 201.46

Designed for top of chassis mounting through a single hole with a nut and lockwasher supplied. Available in single and dual section units. Tolerance conforms to EIA standards. Operating temperature from −20°C to +65°C. Single Section voltages 450, and 600 VDCW — Dual & Triple Separate Section units — 450 VDCW.

Replacement for Wet Electrolytics — Type WR — Class 201.47

Designed to replace the majority of obsolete wet electrolytic types — as replacement for 4 to 12 Mfd.; 16 to 20 Mfd; 20 to 30 Mfd; and 30 to 40 Mfd. units.

Plug-in Electrolytics — Type QC — Class 201.51

Designed for applications such as juke boxes and communication receivers where quick capacitor changes are necessary. Units equipped with a 4 pin plug to get a medium, octal base socket. Operating temperature range is to +85°C for units rated 450 VDCW and below, and +65°C for units rated 500 VDCW.

High Capacity, Low Voltage Electrolytics — Type FB — Class 201.70

Intended for replacement applications in sound projectors and other low voltage circuits. Capacitance range from 500 to 6000 Mfd, voltage range from 10 to 50 VDCW.

Capacitor Mounting Hardware

A large variety of mounting hardware is described in the CDE Replacement Component Selector, available, without charge, from your CDE General Line Distributor.

3V High Capacitance General Purpose Ceramic Disc — Type HCC — Class 202.05

3 VDCW, high capacitance general purpose disc for use in transisterized circuits and other low voltage circuits. Capacitance available: 005, 01, 02, 05, .1, .22, .47, 1.0 and 2.2 Mfd.

100V Miniature General Purpose Disc — Type H — Class 202.11

Designed to provide maximum capacitance in minimum disc size for use in limited space requirements. Capacitance available: 005, 01, 02, 025, 05, 0.1 Mfd.

1000V General Purpose Disc — Type BYA — Class 202.14

With capacitance ranging from 470 pf to 20,000 pf — this ceramic disc capacitor is the most widely used style of ceramic capacitor. Operating Temperature range is from +10°C to +85°C.

Temperature Stable Disc — Type JB — Class 202.20

The 1000 Volt temperature stable disc provides maximum capacitance change of ±10% over operating temperature range of −30°C to +85°C. Capacitance range from 47 Pf to 5000 Pf.

Temperature Compensating — Type C — Class 202.25

1000 Volt temperature compensating disc available in both characteristic NPO, with nominal zero capacitance change, and T.C. N750, with a nominal capacitance change of negative 750 ppm/°C. Temperature characteristic tolerance is ±120 ppm/°C except NPO, 5 and 6.8 pf, ±60 ppm/°C and NPO, 10 pf and above, ±30 ppm/°C.

AC Line By-Pass General Purpose Disc — Type ACA — Class 202.30

Designed for AC Line by-pass applications operating at 250 VAC, 60 cycles. Nominally rated also at 1400 VDCW. Operating temperature range is −55°C to +85°C.

High Voltage General Purpose Disc — Type HV — Class 202.32

Compact — suitable for high voltage applications from 1600 VDCW thru 6000 VDCW. Wide use in deflection yoke applications as well as other high voltage applications. Available as 1600 VDCW, 2000 VDCW, 3000 VDCW and 6000 VDCW units.

High Voltage General Purpose Slug — Type TM — Class 202.40

Widely used in TV as well as high voltage instrumentation and industrial electronic applications. Operating temperature range is −55°C to +85°C. A wide variety of terminal styles are available.

Dipped Mica — Type CD — Class 203.01

Types CD10 thru CD42 dipped silvered mica dielectric capacitors provide a wide selection of ratings, tolerances and sizes to meet replacement requirements. Units are rated 500 VDCW, 1000V DC Test. Capacitance ranges from 5 to 62,000 Pf — and sizes from .360 x .330 x .190 to 1.470 x 920 x .450.

Molded Mica Capacitors — Type 22R, 5R, 1R, 1DR, 3R — Class 203.23

Five types of molded, silvered-mica dielectric capacitors provide a wide choice of ratings and form factors to fill replacement needs. Units are rated 500 VDCW and 1000V DC Test. Operating temperature range is −55°C to +85°C. Capacitance ranges from 10 Pf to 10,000 Pf.

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CDE CORNELL-DUBILIER

Capacitors

High Voltage Molded Mica — Type 5RP, 1DRP — Class 203.23

Ideal replacements where high voltage spikes or pulses are encountered and stable, low-loss operation is required. Type 5RP10 is rated 1000 VDCW and 2000V DC Test. Type 5RP15 and 1DRP15 are rated 1500 VDCW and 3000V DC Test; Type 1DRP20 is rated 2000 VDCW; 4000V DC Test. Operating temperature is −55°C to +85°C. Capacitance ranges from 10 Pf to 2000 Pf.

Supermicadon® Encapsulated — Type 22A, 5A, 1A, 1AD — Class 203.30

Precision mica capacitors encapsulated in premolded cases — a construction providing much higher capacitance than molded units in comparable case sizes. Standard operating temperatures range from −55°C to +125°C. They are available in 100V, 300V and 500V, Standard Stock Ratings — with capacitance that ranges from 10 Pf to 40,000 Pf.

Low Power Molded Mica — Type 4, 9 — Class 203.40

Type 4 — is provided with solder lugs and separate mounting holes. Capacitance range 50 Pf to 30,000 Pf.
Type 9 — is provided with tapped terminal holes. Capacitance range of 50 Pf to 60,000 Pf.

Medium Power Plastic Cased Mica — Type 6L, 15L, 30BL — Class 203.50

Frequently used as replacements in airborne and portable electronic equipment because of their small size and weight and their relatively high RF power handling capabilities.

Molded Mylar* Tubular — Type PM — Class 204.13

Utilizing an all Mylar* dielectric — molded in a low loss material with excellent moisture and humidity resistance — wax free and leak proof. Available with 100 VDCW and capacitance of .015 Mfd, 200 VDCW and capacitance range from .0033 to 1.0 Mfd, 400 VDCW and capacitance range from .0022 to 1.0 Mfd, and 600 VDCW and capacitance range from .001 to .56 Mfd.

Miniature Dipped Mylar* — Type DMF — Class 204.18

Flat pressed Mylar* dielectric, radial lead capacitor. Lends itself to use in crowded circuit boards. Maximum operating temperature is 125°C — 85°C at full rated voltage. Capacitance from .001 Mfd to 1.0 Mfd and VDCW of 100, 200, 400 and 600V.

Wrapped Mylar* Tubular — Type WMF — Class 204.23

An ideal replacement for any tubular where space is limited and requirements of the application are demanding. This Mylar* wrapped unit insures minimum size and maximum moisture and humidity resistance. Tolerance is ±10%. Operating temperature range is −55°C to 125°C. DC working voltages of 100, 200, 400 and 600 VDCW — and capacitance range from .001 Mfd to 4.0 Mfd.

Molded Mylar* Tubular — Type PKM — Class 204.33

A Molded Tubular capacitor of the highest quality. Features a high dielectric strength Kraft paper coupled with a Mylar* dielectric for the highest dielectric strength possible. In voltages of 400, 600, 1000 and 1600 VDCW — and capacitance ranges:

400V — .0039 to 1.0 Mfd	1000V — .001 to .1 Mfd
600V — .0012 to .68 Mfd	1600V — .001 to 0.5 Mfd

Dipped Paper-Mylar* Tubular — Type DMPS — Class 204.37

Radial Lead capacitors — multiple dipped with a dielectric of high strength Kraft paper and Mylar*.

200 VDCW — .022 to .47 Mfd	600 VDCW — .001 to .25 Mfd
400 VDCW — .01 to .25 Mfd	1000 VDCW — .001 to .047 Mfd

* DuPont Trade Mark.

"Bathtub" Types — DC Paper — Type DYR — Class 205.11

Side terminal bathtub types — widely used in military as well as in communications and industrial electronic equipment. All types are drawn case "bathtub" configurations provided with integral drilled mounting flange. A wide selection of single, dual and triple capacitance units are available.

Rectangular Case — Type T — Class 205.41

Rectangular case, solder seam, DC paper-coil capacitors. Stock ratings include the most popular ratings required for replacements. Rated −55°C to +85°C — supplied with ceramic pillar terminals — Tolerance ±10%. Footed, spade and wrap-around footed mounting brackets are available for all stock ratings.

600 VDCW — .5 to 15 Mfd	2000 VDCW — .1 to 15 Mfd
1000 VDCW — .1 to 15 Mfd	3000 VDCW — .1 to 8 Mfd

DC Oval Paper — Oil — Type OT — Class 205.50

This oval paper-oil capacitor can replace rectangular types in many applications with savings in weight, size and cost. Dual rated for DC applications from −55°C to +85°C and for AC applications up to +55°. Designed for normal blocking, filtering and by-pass applications in DC circuits and for light duty 50/60 cps AC applications. Standard ratings: 600 VDCW/330V AC: 1.0 to 20 Mfd; 1000 VDCW/440V AC: 0.1 to 20 Mfd; 1500 VDCW/660V AC: 0.5 to 14 Mfd; 2000 VDCW/800V AC: 0.1 to 10 Mfd; 2500 VDCW/800V AC: 0.5 to 8 Mfd; 3000 VDCW/950V AC: 0.1 to 4 Mfd.

Dipped Case Radial Lead — Type DMP — Class 207.03

Metallized paper capacitor — Suitable for high temperature operations with range of −55°C to +125°C at full rated voltage — extremely small size — in many cases as much as 70% smaller than equivalent ratings in paper-foil or film-foil capacitors. Excellent capacitance stability. Standard ratings: 200 VDCW: .047 to 2.0 Mfd; 400 VDCW: .022 to 1.0 Mfd; 600 VDCW: .01 to 1.0 Mfd.

Metallized Paper — Type MPY — Class 207.04

CDE's Tri-Clad case insures maximum moisture and humidity resistance with minimum size. Ideal replacement for metal or non-metal case tubular metallized capacitors. Maximum operating temperature: 125°C without derating. 200 VDCW: .022 to 2.0 Mfd; 400 VDCW: .015 to 2.0 Mfd; 600 VDCW: .01 to 2.0 Mfd.

AC Electrolytic (Motor Start) — Type ETW — Class 209.01

Widely used in motor starting applications. Available in voltage ratings of: 110V — 50/60 cps; 125V — 50/60 cps; 220V — 50/60 cps; 330 V — 50/60 cps.

AC Oil (Motor Run) Capacitors — Type KB, KK, KN, KT, KV — Class 209.50

These are drawn case capacitors designed for operation to +70°. For general purpose AC applications in voltage ratings from 236 VAC thru 660 VAC at 60 cps. Tolerance is ±10%. These capacitors meet or exceed the requirements of NEMA standard CP-5 for AC capacitors. Designed for operations of air conditioners, refrigerators, fans, blowers and similar equipment — also in electronic equipment in power supplies and voltage correction applications. Five basic types are stocked. Types KB, KK, KV and KT are drawn case oval units of varying base sizes. Type KN is a drawn case rectangular unit. Case configuration and case heights provide a wide selection of ratings and sizes.

Rectangular AC Oil — Motor Run — Type KGNT — Class 209.60

Solder seam rectangular AC oil capacitor widely used in electronic equipment and in electrical motor run applications. Available in a wide range of ratings and small case sizes to meet all application requirements. 236 VAC: 1 to 30 Mfd; 370 VAC: 1 to 60 Mfd; 440 VAC: 1 to 40 Mfd; 660 VAC: 1 to 25 Mfd.

Round AC Oil, Motor Run — Type CRA, CMA — Class 209.70

Type CRA is a round, unpainted, AC Oil Capacitor — solder lug type terminals. Type CMA is a painted unit supplied with mounting bracket, end cap and flexible leads. Both types are rated 330/370 VAC, 60 cps for operation to +70°C. Tolerance is ±10%.

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PRICES

Prices in this MASTER should not be considered as final. INQUIRE ABOUT LATEST PRICES AND DELIVERY.

DISCOUNTS

Trade discounts apply in most cases where LIST PRICES are shown.

ORDERING

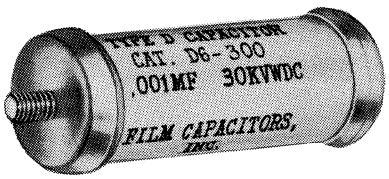
Since previous editions of the MASTER are frequently referred to, it is important, when ordering, to mention specifically the edition and page number, also the catalog number of each item. This will avoid possible confusion and delay.

INVENTORY

While most distributors maintain a large and varied stock, they do not represent that they stock all manufacturers' products shown in this MASTER catalog.

FILM CAPACITORS, INC.

TYPE D6 HI-VOLTAGE TUBULAR CAPACITORS



F-C-I Type D6 high voltage capacitors are designed to assure reliable operation where space is at a premium. These capacitors utilize a combination of polyester film and high quality capacitor tissue. The impregnation in a highly purified mineral oil provides for extremely high insulation resistance and low power factor. The hermetic steatite housing allows for operation under extreme humidity.

All capacitors are constructed with extended foil windings, and all internal wiring is kept to a minimum. This eliminates most of the series inductance and produces a very high ringing frequency, an extremely desirable condition for energy storage and pulsing capacitors.

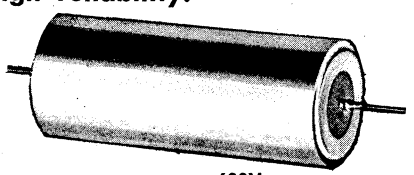
OIL FILLED • MINIMUM SIZE & WEIGHT • EASY MOUNTING • HERMETICALLY SEALED • HIGH RELIABILITY

CAT. NO.	CAP. MFD.	WORKING VOLTS DC	DIMENSIONS L DIA.
D6-10-10	.01	1000	1 3/16 x 17/32
D6-10-20	.02	1000	1 3/16 x 17/32
D6-10-50	.05	1000	1 3/16 x 17/32
D6-10-100	.10	1000	2 3/8 x 1 1/16
D6-10-250	.25	1000	2 3/8 x 7/8
D6-10-500	.50	1000	2 3/8 x 1
D6-20-2	.002	2000	1 3/16 x 17/32
D6-20-5	.005	2000	1 3/16 x 17/32
D6-20-10	.01	2000	1 3/16 x 17/32
D6-20-20	.02	2000	1 3/16 x 17/32
D6-20-50	.05	2000	1 3/8 x 1 1/16
D6-20-100	.10	2000	2 3/8 x 1 1/16
D6-20-250	.25	2000	2 3/8 x 1
D6-20-500	.50	2000	2 3/8 x 1 1/4
D6-30-2	.002	3000	1 3/16 x 17/32
D6-30-5	.005	3000	1 3/16 x 17/32
D6-30-10	.01	3000	1 3/16 x 17/32
D6-30-20	.02	3000	1 3/8 x 1 1/16
D6-30-50	.05	3000	2 3/8 x 1 1/16
D6-30-100	.10	3000	2 3/8 x 7/8
D6-30-250	.25	3000	2 3/8 x 1 1/4
D6-30-500	.50	3000	2 3/4 x 1 3/8
D6-50-5	.005	5 KV	1 3/8 x 1 1/16
D6-50-10	.01	5 KV	1 3/8 x 1 1/16
D6-50-20	.02	5 KV	2 3/8 x 3/4
D6-50-50	.05	5 KV	2 3/8 x 7/8
D6-50-100	.10	5 KV	2 3/8 x 1 1/4
D6-50-250	.25	5 KV	3 x 1 1/2
D6-75-1	.001	7 1/2 KV	1 3/16 x 17/32
D6-75-2	.002	7 1/2 KV	1 3/8 x 1 1/16
D6-75-5	.005	7 1/2 KV	1 3/8 x 7/8
D6-75-10	.01	7 1/2 KV	2 3/8 x 3/4
D6-75-20	.02	7 1/2 KV	2 3/8 x 7/8
D6-75-50	.05	7 1/2 KV	2 3/8 x 1 1/4
D6-75-100	.10	7 1/2 KV	3 x 1 1/2
D6-100-1	.001	10 KV	1 3/8 x 1 1/16
D6-100-2	.002	10 KV	1 3/8 x 1 1/16
D6-100-5	.005	10 KV	2 3/8 x 1 1/16
D6-100-10	.01	10 KV	2 3/8 x 7/8
D6-100-20	.02	10 KV	2 3/8 x 1
D6-100-50	.05	10 KV	2 3/8 x 1 1/2
D6-100-60	.06	10 KV	3 x 1 1/2
D6-100-100	.10	10 KV	4 5/8 x 1 1/2
D6-150-1	.001	15 KV	2 3/8 x 1 1/16
D6-150-2	.002	15 KV	2 3/8 x 3/4
D6-150-5	.005	15 KV	2 3/8 x 7/8
D6-150-10	.01	15 KV	2 3/8 x 1 1/4
D6-150-20	.02	15 KV	4 5/8 x 1 1/4
D6-150-50	.05	15 KV	6 1/2 x 1 1/2
D6-200-05	.0005	20 KV	2 3/8 x 1 1/16
D6-200-1	.001	20 KV	2 3/8 x 1 1/16
D6-200-2	.002	20 KV	2 3/8 x 7/8
D6-200-5	.005	20 KV	2 3/8 x 1 1/4
D6-200-10	.01	20 KV	4 5/8 x 1 1/8
D6-200-20	.02	20 KV	4 5/8 x 1 1/2
D6-200-50	.05	20 KV	11 1/2 x 1 1/2
D6-300-02	.0002	30 KV	4 5/8 x 17/32
D6-300-05	.0005	30 KV	4 5/8 x 17/32
D6-300-1	.001	30 KV	5 x 3/4
D6-300-2	.002	30 KV	5 x 3/4
D6-300-5	.005	30 KV	4 5/8 x 1 1/4
D6-300-10	.01	30 KV	6 5/8 x 1 1/2
D6-400-01	.0001	40 KV	5 3/4 x 1 1/16
D6-400-02	.0002	40 KV	5 3/4 x 1 1/16
D6-400-05	.0005	40 KV	5 3/4 x 1 1/16
D6-400-1	.001	40 KV	6 1/2 x 3/4
D6-400-2	.002	40 KV	6 1/2 x 1
D6-400-5	.005	40 KV	6 1/2 x 1 1/2
D6-400-6	.006	40 KV	8 x 1 1/2
D6-400-10	.01	40 KV	10 3/4 x 1 3/8
D6-500-01	.0001	50 KV	8 1/4 x 1 1/16
D6-500-02	.0002	50 KV	8 1/4 x 1 1/16
D6-500-05	.0005	50 KV	8 1/4 x 1 1/16
D6-500-1	.001	50 KV	8 1/4 x 3/4
D6-500-2	.002	50 KV	8 1/4 x 1 1/8
D6-500-5	.005	50 KV	10 3/4 x 1 3/8
D6-500-6	.006	50 KV	10 3/4 x 1 3/8
D6-600-01	.0001	60 KV	10 x 3/4
D6-600-02	.0002	60 KV	10 x 3/4
D6-600-05	.0005	60 KV	10 x 3/4
D6-600-1	.001	60 KV	10 x 7/8
D6-600-2	.002	60 KV	10 3/4 x 1 3/8
D6-600-5	.005	60 KV	11 1/2 x 1 1/2

Note: Unless otherwise specified 2 1/2" wire leads will be furnished on the 17/32 x 1 3/16 size.

TYPE MD HERMETICALLY SEALED METALLIZED MYLAR* CAPACITORS. Designed for miniaturization and high reliability.

Mylar* film is utilized by F-C-I as a dielectric to produce high quality capacitors. Metallized Mylar offers all of the advantages of Mylar film with the added feature of miniaturization and self-healing action. The results are extremely small capacitors with long life expectancy.



	200V		400V		600V	
MD4-2-10	.01	.235 x 3/4	MD4-4-10	.01	.312 x 7/8	MD4-6-10	.01	.312 x 7/8
MD4-2-15	.015	.235 x 3/4	MD4-4-15	.015	.312 x 7/8	MD4-6-15	.015	.312 x 7/8
MD4-2-22	.022	.235 x 3/4	MD4-4-22	.022	.312 x 7/8	MD4-6-22	.022	.312 x 1 1/8
MD4-2-33	.033	.235 x 3/4	MD4-4-33	.033	.312 x 1 1/8	MD4-6-33	.033	.312 x 1 1/8
MD4-2-47	.047	.312 x 7/8	MD4-4-47	.047	.400 x 1 1/8	MD4-6-47	.047	.400 x 1 1/8
MD4-2-68	.068	.312 x 7/8	MD4-4-68	.068	.400 x 1 1/8	MD4-6-68	.068	.400 x 1 1/8
MD4-2-100	.10	.312 x 7/8	MD4-4-100	.10	.500 x 1 1/8	MD4-6-100	.10	.500 x 1 1/8
MD4-2-150	.15	.312 x 1 1/8	MD4-4-150	.15	.500 x 1 1/8	MD4-6-150	.15	.562 x 1 1/8
MD4-2-220	.22	.400 x 7/8	MD4-4-220	.22	.562 x 1 3/8	MD4-6-220	.22	.562 x 1 3/8
MD4-2-330	.33	.400 x 1 1/8	MD4-4-330	.33	.562 x 1 5/8	MD4-6-330	.33	.562 x 1 5/8
MD4-2-470	.47	.500 x 1 1/8	MD4-4-470	.47	.670 x 1 5/8	MD4-6-470	.47	.670 x 1 5/8
MD4-2-680	.68	.500 x 1 1/8	MD4-4-680	.68	.670 x 1 7/8	MD4-6-680	.68	.670 x 1 7/8
MD4-2-1M	1.0	.562 x 1 1/8	MD4-4-1M	1.0	.750 x 1 7/8	MD4-6-1M	1.0	1.000 x 1 7/8
MD4-2-1500	1.5	.562 x 1 5/8	MD4-4-1500	1.5	1.000 x 1 7/8	MD4-6-1500	1.5	1.000 x 1 7/8
MD4-2-2M	2.0	.670 x 1 5/8	MD4-4-2M	2.0	1.000 x 1 7/8	MD4-6-2M	2.0	1.000 x 2 1/8
MD4-2-3M	3.0	.670 x 1 7/8	MD4-4-3M	3.0	1.000 x 2 5/8	MD4-6-2500	2.5	1.000 x 2 5/8
MD4-2-4M	4.0	.750 x 1 7/8						
MD4-2-5M	5.0	1.000 x 1 7/8						
MD4-2-8M	8.0	1.000 x 1 7/8						
MD4-2-10M	10.0	1.000 x 2 3/8						
MD4-2-12M	12.0	1.000 x 2 5/8						

LESS 1/16 IN LENGTH FOR TYPE MD4G, ONE SIDE GROUNDED

SEND FOR COMPLETE FILM CAPACITORS CATALOG

© U.C.P., Inc.

SERVICE-DESIGNED CAPACITORS

HOW TO SELECT THE RIGHT REPLACEMENT

It is easy to select the right G-E replacement for any aluminum electrolytic capacitor used in the past ten years.

IF YOU KNOW RATING ONLY: Refer to correct type of capacitor and locate the G-E capacitor with desired characteristics. For example if you need single-section tubular with capacitance of 55 mfd at 450 V, refer to QT TUBULAR ELECTROLYTICS, Single-Section. Look for the capacitance range in which 55 mfd falls (QT1-17: 40-**60** mfd; QT1-18: 50-**60** mfd; QT1-19: 50-**60** mfd). The rating in bold-face type (60 mfd in the above rating) is the absolute or maximum rating. Check voltage required. Since QT1-19 is the only one rated for 450V, it is the correct replacement.

If rating needed were 55 mfd at 250 volts you could correctly use either QT1-18 (up to 350V) or QT1-19 (up to 450V), since G-E capacitors will work properly at any voltage up to their maximum rating. You would then choose between QT1-18 and QT1-19 on the basis of the size (¼" difference in length) or price and probably choose QT1-18.

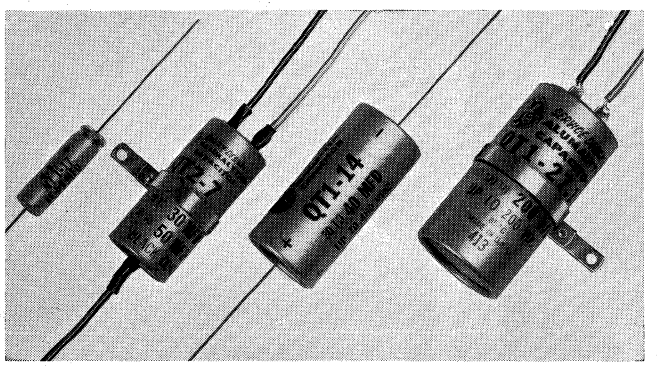
TO SELECT MULTI-SECTION UNITS (either tubular or can-type,) follow this same process for each section. Here's a quick way to do it:

1. List values of original capacitor sections in ascending order of value.
2. Match values with their voltage ratings.
3. Find G-E units that most closely match capacitance values starting from the lowest value. Use next higher value if first unit value does not match exactly.
4. Be sure that G-E voltage ratings equal or exceed original voltage ratings. Proper replacement will usually fall within two or three catalog numbers of the first unit checked.

EXPLANATION OF RATINGS

Cat. No.	Capacitance, Mfd	Voltage
SINGLE-SECTION QT1-19 (Single-section tubular)	50-**60** (a 60 mfd unit that can be used at any capacitance between 50 and 60 mfd; 50, 55 or 60 mfd)	(a 450V unit that can be used for any voltage up to and including 450V: 450, 350, 250, 175, 150 or 50 volts)
MULTI-SECTION XC4-16 (Quad-section can)	8-8-50-50 **10-10-60-100** (The two 10 mfd units can be used at any capacitance between 8 and 10 mfd; the 60 mfd between 50 and 60; the 100 mfd between 50 and 100)	450-450-200-50 (the two 450V units can be used for any voltage up to and including 450V; the 200V and the 50V units can also be used for any voltage up to and including 200V and 50V respectively)

QT TUBULAR ELECTROLYTICS



- Designed for 85°C operation in voltages to 600 WVDC.
- Long shelf and operating life.
- Superior capacitance, resistance and leakage current characteristics.
- Hermetically sealed in aluminum cans — with insulating sleeve.
- Insulated leads on multiple section units.

SINGLE-SECTION TUBULARS

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
QT1-1	**2**	Up to 450V	½ x 1⅜	$1.15
QT1-2	3-**4**	Up to 300V	½ x 1⅜	1.25
QT1-2.1	3-**4**	Up to 450V	⅝ x 1⅝	1.15
QT1-3	3-**5**	Up to 150V	½ x 1⅜	1.00
QT1-4	5-**8**	Up to 450V	⅝ x 1⅝	1.25
QT1-5	8-**10**	Up to 150V	½ x 1⅜	1.05
QT1-6	8-**10**	Up to 450V	¾ x 1⅝	1.30
QT1-6.1	8-**10**	Up to 500V	⅞ x 1 1/16	1.35
QT1-7	8-**10**	Up to 600V	1 x 2 5/16	2.25
QT1-8	12-**16**	Up to 450V	⅞ x 1⅝	1.40
QT1-8.1	12-**20**	Up to 150V	⅝ x 1 11/16	1.20
QT1-9	16-**20**	Up to 350V	⅞ x 1⅝	1.45
QT1-10	15-**20**	Up to 475V	⅞ x 1⅝	1.60
QT1-10.1	15-**20**	Up to 500V	1 x 2 3/16	1.60
QT1-10.2	15-**20**	Up to 500V	1 x 3½	3.55
QT1-11	16-**25**	Up to 50V	⅝ x 1⅝	1.05
QT1-12	25-**30**	Up to 450V	1 x 1 13/16	1.70
QT1-13	30-**40**	Up to 150V	¾ x 1⅝	1.35
QT1-14	30-**40**	Up to 450V	1 x 2⅛	1.80
QT1-14.1	30 **40**	Up to 600V	1 x 2 5/16	2.25
QT1-15	25-**50**	Up to 50V	⅝ x 1⅝	1.20
QT1-16	40-**50**	Up to 450V	1 x 2⅜	2.10
QT1-17	40-**60**	Up to 150V	⅞ x 1⅝	1.50
QT1-18	50-**60**	Up to 350V	1 x 2⅜	1.95
QT1-19	50-**60**	Up to 450V	1 x 2⅝	2.35
QT1-20	60-**80**	Up to 150V	1 x 1⅝	1.60
QT1-21	60-**80**	Up to 450V	1 x 3⅛	2.80
QT1-22	50-**100**	Up to 15V	⅝ x 1⅜	1.25
QT1-23	50-**100**	Up to 50V	¾ x 1⅝	$1.40
QT1-24	80-**100**	Up to 450V	1¼ x 2 13/16	3.20
QT1-24.1†	75-**140**	Up to 300V	1¼ x 2⅜	3.15
QT1-25	100-**150**	Up to 150V	1 x 2⅛	1.90
QT1-26	100-**150**	Up to 300V	1¼ x 2⅜	3.15
QT1-27	150-**200**	Up to 200V	1¼ x 2⅜	2.90
QT1-27.1†	110-**200**	Up to 200V	1¼ x 2⅜	2.90
QT1-28	150-**250**	Up to 25V	¾ x 1⅝	1.70
QT1-29	200-**300**	Up to 150V	1 x 3⅝	2.55
QT1-30	250-**500**	Up to 15V	¾ x 1 13/16	1.75
QT1-31	250-**500**	Up to 50V	1 x 2⅜	2.40
QT1-32	500-**1000**	Up to 15V	1 x 1 13/16	2.30
QT1-33	1500-**2000**	Up to 15V	1 x 2 13/16	3.20

* Add 3/32" to diameter and 13/16" to length to allow for insulating sleeve.
† Single ended with 5" insulated leads and mounting bracket.

DUAL-SECTION TUBULARS§

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
QT2-1	4-150-**5-200**	150-150	1 x 2⅞	$2.65
QT2-1.2	3-100-**5-200**	250-250	1⅜ x 2 3/16	4.40
QT2-2	5-5-**8-8**	450-450	⅞ x 1⅞	1.70
QT2-3	8-8-**10-10**	450-450	⅞ x 1⅞	1.85

* Add 3/32" to diameter and 13/16" to length to allow for insulating sleeve.
§ All designs have mounting bracket and insulated leads.

Trade Discount Applies To List Prices Only
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QT TUBULAR ELECTROLYTICS (cont'd)

ELECTRONIC INNOVATIONS IN ACTION

Dual-Section Tubulars § (cont'd)

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
QT2-3.1	7-14-**10-20**	450-450	7/8 x 1 15/16	$2.25
QT2-4	8-30-**10-40**	350-350	7/8 x 2 5/8	2.35
QT2-5	16-16-**20-20**	150-150	7/8 x 1 5/8	1.65
QT2-6	16-16-**20-20**	450-450	7/8 x 2 5/8	2.50
QT2-6.1‡	14-14-**20-20**	450-450	1 x 3 1/2	3.70
QT2-6.2	10-75-**20-150**	150-150	1 x 2 3/16	3.05
QT2-7	20-40-**30-50**	150-150	7/8 x 1 7/8	1.95
QT2-8	30-30-**40-40**	450-450	1 x 3 3/8	3.40
QT2-9	40-40-**50-50**	150-150	7/8 x 1 7/8	2.10
QT2-10	40-60-**50-80**	150-150	7/8 x 2 5/8	2.35
QT2-10.1	40-70-**80-125**	250-250	1 x 3 7/16	4.30
QT2-10.2	50-75-**100-125**	300-350	1 3/8 x 2 11/16	6.40
QT2-11‡	60-60-**120-120**	150-150	1 1/4 x 3 3/4	3.45

QUAD-SECTION TUBULARS

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
QT4-1	4-20-100-150 **5-30-140-200**	300-200-350-200	1 3/8 x 3 5/8	$6.85
QT4-1.1	7-15-15-15 **10-20-20-20**	450-450-450-450	1 3/8 x 1 15/16	5.25
QT4-2	8-30-30-60 **10-40-40-80**	450-250-250-300	1 3/8 x 2 5/8	4.95
QT4-2.1	7-20-40-50 **10-40-80-100**	450-300-400-300	1 3/8 x 3 7/16	6.90
QT4-3	16-16-30-30 **20-20-40-40**	450-450-450-450	1 3/8 x 3 1/8	5.45
QT4-4	16-20-30-40 **20-30-40-50**	25-150-150-150	1 3/8 x 2	5.50
QT4-5	15-50-50-50 **20-100-100-100**	400-200-50-300	1 3/8 x 3 15/16	6.80
QT4-6	15-20-50-100 **20-40-100-200**	150-150-150-150	1 3/8 x 2 7/16	4.85

TRIPLE-SECTION TUBULARS §

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
QT3-0.1	2-30-30 **4-60-60**	350-350-350	1 x 3 7/16	$5.20
QT3-0.2	3-70-100 **5-150-200**	350-350-200	1 3/8 x 3 11/16	6.70
QT3-1	8-8-8- **10-10-10**	450-450-450	1 x 1 5/8	2.80
QT3-1.1	7-7-75 **10-10-150**	450-450-150	1 x 1 11/16	3.85
QT3-1.2	5-100-125 **10-200-250**	150-150-150	1 3/8 x 2 11/16	4.50
QT3-2	16-16-16 **20-20-20**	450-450-450	1 x 2 7/8	3.80
QT3-2.1	10-10-10 **20-20-20**	150-150-150	1 x 1 11/16	2.80
QT3-3	16-25-30 **20-30-40**	150-150-150	1 x 1 7/8	2.65
QT3-4	16-25-50 **20-30-60**	150-150-150	1 x 2 3/8	2.60
QT3-5	16-30-30 **20-40-40**	150-150-150	1 x 1 7/8	2.70
QT3-5.1	10-30-30 **20-40-40**	350-450-450	1 x 3 11/16	5.40
QT3-6	16-30-60 **20-40-80**	150-150-150	1 x 2 3/8	2.90
QT3-7	16-40-40 **20-50-50**	150-150-150	1 x 2 3/8	2.70
QT3-7.1	25-40-50 **50-80-100**	150-150-150	1 x 2 7/16	3.60
QT3-8	30-30-30 **50-50-50**	150-150-150	1 x 2 3/8	3.15
QT3-9	25-30-125 **50-60-250**	150-150-25	1 x 2 7/16	3.65
QT3-10	25-60-125 **50-120-250**	25-150-150	1 3/8 x 2 7/16	4.35
QT3-11	30-50-60 **60-100-120**	300-300-300	1 3/8 x 2 15/16	6.50
QT3-12	35-50-70 **70-75-100**	25-400-400	1 3/8 x 3 3/16	6.40
QT3-13	75-75-75 **150-150-150**	150-150-150	1 3/8 x 2 11/16	5.05

NONPOLARIZED TUBULARS

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
NPQT-1	3-**5**	30	1/2 x 1 3/8	$1.50
NPQT-2	4-**5**	350	3/4 x 1 5/8	1.70
NPQT-3	8-**10**	400	1 x 1 5/8	2.00
NPQT-4	15-**20**	350	1 x 1 5/8	2.50
NPQT-5	15-**20**	30	5/8 x 1 5/8	1.55
NPQT-5.1¶	66.5-**90**	50	7/8 x 2 7/8	1.50
NPQT-5.2¶	100-**120**	50	1 x 2 7/8	2.00
NPQT-5.3¶	210-**290**	50	1 x 3 5/8	2.75
NPQT-6	250-**500**	10	1 3/8 x 1 5/8	2.00
NPQT-7	500-**1000**	3	1 3/8 x 1 5/8	2.10

MT1 MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS IN ALUMINUM CASES

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
MT1-1	1-**2**	50	3/16 x 1/2	$1.35
MT1-2	1-**2**	150	5/16 x 5/8	1.45
MT1-3	3-**5**	50	1/4 x 1/2	1.45
MT1-4	3-**5**	150	3/8 x 5/8	1.55
MT1-5	6-**10**	25	1/4 x 5/8	1.45
MT1-6	6-**10**	50	5/16 x 5/8	1.50
MT1-7	6-**10**	100	3/8 x 7/8	1.55
MT1-8	6-**10**	150	3/8 x 1	1.60
MT1-9	12-**20**	100	3/8 x 1 1/2	1.60
MT1-10	15-**25**	15	5/16 x 5/8	1.45
MT1-11	15-**25**	25	3/8 x 5/8	1.55
MT1-12	15-**25**	50	3/8 x 3/4	1.60
MT1-13	20-**35**	6	5/16 x 5/8	1.40
MT1-14	20-**25**	50	3/8 x 7/8	1.70
MT1-15	25-**50**	6	5/16 x 3/4	1.40
MT1-16	25-**50**	15	3/8 x 5/8	1.60
MT1-17	**25-50**	50	3/8 x 1 1/4	1.85
MT1-18	50-**100**	6	3/8 x 3/4	1.50
MT1-19	50-**100**	15	3/8 x 7/8	1.80
MT1-20	50-**100**	25	3/8 x 1 1/2	1.80
MT1-21	75-**150**	6	3/8 x 7/8	1.55
MT1-22	**100-200**	3	3/8 x 7/8	1.50
MT1-23	100-**200**	15	3/8 x 1 1/2	2.10
MT1-24	150-**300**	6	3/8 x 1	1.80
MT1-25	125-**250**	12	3/8 x 1 1/2	2.10
MT1-26	250-**500**	3	3/8 x 1 1/2	1.75

* Add 3/32" to diameter and 13/16" to length to all for insulating sleeve.
‡ Separate sections.
§ All designs have mounting bracket and insulated leads.
¶ Replacement for antenna rotator capacitors.

For explanation of ratings, see first page of G-E capacitors

All prices are subject to change without notice.

GENERAL ELECTRIC

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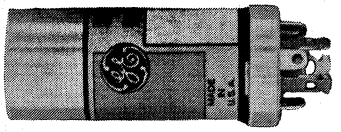
SERVICE-DESIGNED CAPACITORS

XC TWIST-PRONG ELECTROLYTICS



- Designed for 85°C operation.
- Withstand high surge voltages.
- Ideal for high Ripple Seleninum Rectifier Circuits.
- Furnished complete with Phenolic Mounting Plate.

SINGLE-SECTION CANS

Cat. No.	Capacitance, Mfd	Voltage	Size	List Price
XC1-1	7-**10**	Up to 500V	1 x 2	$1.70
XC1-2	15-**20**	Up to 500V	1 x 2	1.85
XC1-3	30-**40**	Up to 500V	1 x 2½	2.50
XC1-4	25-**50**	Up to 150V	1 x 2	1.65
XC1-5	30-**50**	Up to 350V	1 x 2	2.10
XC1-6	35-**50**	Up to 450V	1 x 2½	2.35
XC1-7	50-**80**	Up to 350V	1⅜ x 2	2.85
XC1-8	60-**80**	Up to 450V	1⅜ x 2½	3.05
XC1-9	60-**80**	Up to 500V	1⅜ x 2½	3.35
XC1-9.1	60-**90**	Up to 500V	1⅜ x 3	3.50
XC1-10	60-**100**	Up to 150V	1 x 2	2.00
XC1-11	60-**100**	Up to 300V	1 x 3	2.90
XC1-12	60-**100**	Up to 300V	1⅜ x 2	2.90
XC1-13	70-**100**	Up to 450V	1⅜ x 2½	3.45
XC1-14	70-**125**	Up to 200V	1 x 3	2.50
XC1-15	100-**125**	Up to 450V	1⅜ x 3	3.85
XC1-16	80-**140**	Up to 150V	1 x 2½	2.15
XC1-16.1*	80-**150**	Up to 150V	1 x 2½	2.20
XC1-17	100-**150**	Up to 150V	1⅜ x 2	2.15
XC1-18	100-**150**	Up to 350V	1⅜ x 3½	3.60
XC1-19	100-**160**	Up to 250V	1⅜ x 2½	3.40
XC1-19.1	100-**160**	Up to 200V	1 x 3	3.15
XC1-20	120-**200**	Up to 150V	1 x 3	2.70
XC1-21	120-**200**	Up to 300V	1⅜ x2 ½	4.05
XC1-22	200-**300**	Up to 150V	1⅜ x 2½	2.80
XC1-23	250-**300**	Up to 350V	1⅜ x 4	5.55
XC1-24	250-**500**	Up to 25V	1 x 2	2.40
XC1-25	250-**500**	Up to 50V	1⅜ x 2	2.65
XC1-25.1	250-**500**	Up to 50V	1 x 2½	2.65
XC1-25.2	250-**500**	Up to 200V	1⅜ x 3½	3.65
XC1-26	500-**1000**	Up to 16V	1 x 2	2.55
XC1-26.1	500-**1000**	Up to 50V	1⅜ x 2	3.75
XC1-27	750-**1500**	Up to 50V	1⅜ x 3	4.40
XC1-28	1000-**2000**	Up to 16V	1⅜ x 2	3.45
XC1-29	1500-**3000**	Up to 16V	1⅜ x 2½	4.25
XC1-30	2000-**4000**	Up to 15V	1⅜ x 3	4.25

*Can insulated

DUAL-SECTION CANS

Cat. No.	Capacitance, Mfd	Voltage	Size	List Price
XC2-1	3-60 **4-80**	350V-450V	1 x 3½	$3.40
XC2-2	4-4 **5-5**	450V-450V	1 x 2	1.90
XC2-3	4-15 **5-20**	350V-350V	1 x 2	2.05
XC2-4	4-120 **5-200**	200V-200V	1⅜ x 2½	2.80
XC2-5	8-8 **10-10**	500V-500V	1 x 2	2.00
XC2-6	8-16 **10-20**	350V-475V	1 x 2½	2.35
XC2-7	5-20 **10-30**	50V-200V	1 x 2	2.00
XC2-8	8-25 **10-30**	500V-500V	1 x 3	2.60
XC2-9	8-30 **10-40**	300V-300V	1 x 2	2.50
XC2-10	8-30 **10-40**	450V-450V	1 x 2	2.75
XC2-11	8-40 **10-50**	300V-350V	1⅜ x 2	$2.90
XC2-12	8-100 **10-160**	350V-350V	1⅜ x 3	4.30
XC2-13	15-15 **20-20**	250V-250V	1 x 2	1.90
XC2-14	15-15 **20-20**	450V-450V	1 x 2½	2.55
XC2-15	15-15 **20-20**	500V-500V	1⅜ x 2	2.85
XC2-16	15-30 **20-40**	350V-350V	1 x 2½	2.75
XC2-17	15-30 **20-40**	450V-450V	1⅜ x 2	3.25
XC2-18	15-60 **20-80**	350V-350V	1⅜ x 2½	3.50
XC2-18.1	15-40 **20-80**	450V-350V	1 x 3	3.25
XC2-19	15-60 **20-80**	450V-450V	1⅜ x 2½	3.90
XC2-20	15-75 **20-100**	475V-400V	1⅜ x 3	4.50
XC2-21	20-30 **20-50**	150V-150V	1 x 2	2.00
XC2-21.1	20-20 **30-30**	350V-350V	1 x 2	2.90
XC2-22	20-40 **30-60**	350V-350V	1⅜ x 2	3.15
XC2-23	20-75 **30-100**	50V-400V	1⅜ x 2½	3.90
XC2-24	30-30 **40-40**	250V-250V	1 x 2½	2.50
XC2-25	30-30 **40-40**	450V-450V	1⅜ x 2½	3.45
XC2-26	30-35 **40-45**	500V-500V	1⅜ x 2½	4.40
XC2-26.1	20-40 **40-80**	150V-150V	1⅜ x 2	2.30
XC2-27	30-60 **40-80**	350V-350V	1⅜ x 2½	4.10
XC2-28	30-75 **40-100**	450V-450V	1⅜ x 3½	4.85
XC2-28.1	30-50 **40-100**	450V-50V	1 x 2½	2.80
XC2-29	30-30 **50-50**	150V-150V	1 x 2	2.15
XC2-30	30-60 **50-80**	150V-150V	1 x 2½	2.40
XC2-31	30-60 **50-80**	475V-475V	1⅜ x 3½	5.20
XC2-32	30-100 **50-150**	50V-150V	1 x 3	2.50
XC2-32.1	25-250 **50-500**	150V-5V	1 x 2	2.45
XC2-33	40-40 **60-60**	450V-450V	1⅜ x 3	4.50
XC2-34	60-60 **80-80**	200V-400V	1⅜ x 2½	3.95
XC2-35	60-60 **80-80**	450V-450V	1⅜ x 3½	5.40
XC2-36	60-75 **80-100**	450V-50V	1⅜ x 3	3.75
XC2-37	50-50 **100-100**	50V-50V	1 x 2	2.10
XC2-38	75-75 **100-100**	200V-300V	1⅜ x 3	3.45
XC2-38.1	75-75 **100-100**	350V-350V	1⅜ x 3	6.15
XC2-39	75-75 **100-100**	400V-400V	1⅜ x 4	5.75
XC2-40	75-100 **100-150**	150V-150V	1 x 3½	3.10
XC2-41	75-100 **100-150**	150V-150V	1⅜ x 2	3.25
XC2-42	75-90 **100-120**	400V-400V	1⅜ x 4	6.20
XC2-43	100-120 **200-200**	250V-250V	1⅜ x 4	5.50
XC2-43.05	250-250 **500-500**	16V-16V	1 x 1¾	3.05
XC2-43.1	300-100 **800-250**	16V-16V	1 x 2	2.75
XC2-44	500-500 **1000-1000**	16V-16V	1 x 3½	3.80
XC2-45	500-500 **1000-1000**	30V-30V	1⅜ x 2½	5.35

Trade Discount Applies To List Prices Only

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XC TWIST-PRONG ELECTROLYTICS (cont'd)

ELECTRONIC INNOVATIONS IN ACTION

TRIPLE-SECTION CANS

Cat. No.	Capacitance, Mfd	Voltage	Size	List Price
XC3-1	4-18-15 **5-10-20**	350-400-400	1 x 2	$2.55
XC3-1.1	3-7-50 **4-10-100**	350-475-50	1 x 2	2.65
XC3-2	4-15-30 **5-20-40**	350-475-400	1 x 3	3.70
XC3-3	4-15-50 **56-20-40**	350-350-400	1 x 3½	3.70
XC3-4	4-30-100 **5-40-250**	350-350-350	1⅜ x 3½	5.05
XC3-5	4-40-75 **5-50-100**	450-350-350	1⅜ x 3	4.55
XC3-5.1	3-30-100 **5-60-200**	200-200-50	1 x 2½	2.90
XC3-6	4-50-75 **5-100-125**	200-75-350	1⅜ x 3	4.80
XC3-6.1	2-250-500 **5-500-1000**	32-16-16	1 x 2½	4.10
XC3-7	8-8-8 **10-10-10**	450-450-450	1 x 2	2.60
XC3-8	8-8-30 **10-10-40**	400-400-400	1 x 3	3.35
XC3-9	8-8-60 **10-10-80**	450-450-450	1⅜ x 2½	4.80
XC3-10	8-15-10 **10-20-20**	350-350-25	1 x 2	2.55
XC3-11	8-15-20 **10-20-30**	475-475-350	1 x 3	3.40
XC3-12	8-15-60 **10-20-80**	350-450-350	1⅜ x 2½	4.25
XC3-13	8-15-75 **10-20-100**	450-350-350	1⅜ x 2½	4.55
XC3-13.1	7-15-50 **10-20-100**	450-450-50	1 x 2½	2.95
XC3-14	8-20-75 **10-30-100**	150-150-150	1 x 2½	2.85
XC3-15	8-30-30 **10-40-40**	500-500-500	1⅜ x 2½	5.05
XC3-16	8-30-75 **10-40-100**	400-400-350	1⅜ x 3	5.05
XC3-17	8-35-75 **10-45-100**	450-450-200	1⅜ x 2½	4.15
XC3-17.1	7-40-75 **10-50-100**	500-475-450	1⅜ x 3	5.45
XC3-18	8-60-75 **10-80-100**	400-350-400	1⅜ x 3½	5.55
XC3-19	8-75-110 **10-100-150**	450-300-300	1⅜ x 3½	5.75
XC3-20	8-150-200 **10-200-250**	450-300-200	1⅜ x 4	6.85
XC3-21	12-12-15 **15-15-20**	450-450-450	1 x 3	3.25
XC3-22	12-12-20 **15-15-40**	450-450-25	1 x 2½	2.75
XC3-22.1	10-20-75 **15-30-150**	500-500-50	1⅜ x 2½	3.70
XC3-23	15-15-15 **20-20-20**	350-350-350	1 x 2½	2.90
XC3-23.1	15-15-10 **20-20-20**	450-450-25	1 x 2	2.95
XC3-24	15-15-15 **20-20-20**	450-450-450	1⅜ x 2	3.60
XC3-25	15-10-20 **20-20-30**	350-25-350	1 x 2½	2.95
XC3-26	15-15-30 **20-20-40**	450-450-450	1⅜ x 2½	4.40
XC3-26.1	15-15-30 **20-20-40**	500-500-500	1⅜ x 3	4.50
XC3-27	15-15-75 **20-20-100**	450-450-350	1⅜ x 3	4.95
XC3-28	15-20-30 **20-30-40**	150-150-150	1 x 2	2.60
XC3-28.1	10-15-20 **20-30-40**	350-350-350	1 x 3	3.00
XC3-29	15-30-30 **20-40-40**	450-450-450	1⅜ x 2½	4.45
XC3-30	15-30-50 **20-40-60**	450-450-450	1⅜ x 3	5.00
XC3-31	15-30-60 **20-40-80**	150-150-150	1 x 2½	2.90
XC3-32	15-30-60 **20-40-80**	450-450-450	1⅜ x 3	$5.40
XC3-33	15-30-60 **20-40-90**	350-350-350	1⅜ x 3	4.85
XC3-34	15-60-75 **20-80-100**	450-450-350	1⅜ x 3½	5.85
XC3-35	15-75-90 **20-100-240**	450-400-300	1⅜ x 4	6.70
XC3-35.1	10-75-75 **20-140-140**	350-350-350	1⅜ x 4	6.00
XC3-36	20-20-30 **30-30-40**	475-475-475	1⅜ x 3	5.15
XC3-36.1	20-40-75 **30-60-100**	500-450-450	1⅜ x 3½	6.00
XC3-37	20-15-150 **30-60-200**	400-350-150	1⅜ x 3	5.00
XC3-38	30-30-30 **40-40-40**	150-150-150	1 x 2½	2.60
XC3-39	30-30-20 **40-40-40**	450-450-25	1⅜ x 2½	3.95
XC3-40	30-30-30 **40-40-40**	450-450-450	1⅜ x 3	4.90
XC3-41	30-60-80 **40-80-125**	450-400-350	1⅜ x 4	6.30
XC3-41.1	20-20-100 **40-40-250**	150-150-25	1 x 2½	3.15
XC3-41.2	30-40-50 **40-60-100**	500-500-350	1⅜ x 3½	6.10
XC3-41.3	20-45-250 **40-90-500**	150-150-25	1⅜ x 2½	3.50
XC3-42	30-60-300 **40-80-500**	400-400-50	1⅜ x 3½	5.80
XC3-43	30-70-70 **40-120-120**	150-150-150	1⅜ x 2½	4.05
XC3-44	30-30-30 **50-50-50**	150-150-150	1 x 2½	3.05
XC3-45	40-40-50 **60-60-80**	350-350-350	1⅜ x 3½	5.55
XC3-45.1	30-40-50 **60-80-100**	175-175-175	1 x 3	3.60
XC3-45.2	30-50-100 **60-100-200**	100-350-350	1⅜ x 4	6.25
XC3-46	40-80-125 **60-140-200**	200-150-150	1⅜ x 3	4.40
XC3-47	60-125-175 **80-200-300**	150-150-150	1⅜ x 3½	5.00
XC3-47.1	30-75-250 **100-200-700**	16-16-16	1 x 1¾	3.35
XC3-48	50-250-250 **100-500-500**	16-16-16	1 x 2	3.35
XC3-48.1	80-80-150 **250-250-500**	16-16-16	1 x 1¾	3.35

Quad-Section Cans on Next Page

ACCESSORIES

Cat. No.	Description	List Price
W53	Mounting wafer (phenolic) for 1 inch can	$0.10
WL4	Mounting wafer (phenolic) for 1⅜ inch can	.10
WM3	Mounting wafer (metal) for 1 inch can	.10
WM4	Mounting wafer (metal) for 1⅜ inch can	.10
PMA1	*Printed board mounting adapter kit	.45
1T9	†Insulating sleeves for 1 x 4 inch can	.10
1T14	†Insulating sleeves for 1⅜ x 4 inch can	.10

* Half-moon terminal ends must be removed from capacitors before installing printed-circuit adapters.

† Can be easily cut to fit 2, 2½, 3 and 3½-inch cans.

For explanation of ratings, see first page of G-E capacitors

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GENERAL ELECTRIC

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Trade Discount Applies To List Prices Only

SERVICE-DESIGNED CAPACITORS

XC TWIST-PRONG ELECTROLYTICS (cont'd)

QUAD-SECTION CANS

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
XC4-1	3-8-8-8-10 **4-10-10-20**	300-500-300-25	2	$3.35
XC4-2	3-8-30-100 **5-10-40-160**	350-475-400-350	4	6.30
XC4-3	3-8-40-100 **5-10-60-160**	300-300-300-350	3½	6.20
XC4-4	3-8-75-100 **4-10-100-160**	350-475-300-350	4	6.70
XC4-4.1	2-100-250-250 **4-350-750-750**	32-16-16-16	2	4.80
XC4-5	4-4-4-4 **5-5-5-5**	450-450-450-450	2	3.00
XC4-6	4-4-20-60 **5-5-25-70**	450-450-450-450	2½	5.10
XC4-7	4-8-8-60 **5-10-10-70**	450-450-450-450	2½	5.00
XC4-8	4-8-30-30 **5-10-35-40**	450-475-450-475	2½	5.00
XC4-9	4-15-40-50 **5-20-50-60**	450-350-350-400	3	5.15
XC4-10	4-25-30-60 **5-30-40-80**	400-400-400-400	3½	5.85
XC4-10.1	4-20-40-50 **5-40-60-100**	350-25-350-25	2	3.80
XC4-11	4-30-75-80 **5-40-100-110**	350-350-75-350	3	5.50
XC4-12	8-8-8-8 **10-10-10-10**	450-450-450-450	2	3.35
XC4-13	8-8-15-30 **10-10-20-40**	475-475-475-475	2½	4.85
XC4-14	8-8-15-90 **10-10-20-130**	475-350-350-350	3	5.60
XC4-15	8-8-30-30 **10-10-35-40**	450-450-450-450	2½	4.80
XC4-16	8-8-50-50 **10-10-60-100**	450-450-200-50	2	3.85
XC4-17	8-8-75-100 **10-10-100-150**	475-400-300-300	3½	6.20
XC4-18	8-15-15-100 **10-20-20-140**	475-300-300-300	2½	5.05
XC4-19	8-10-20-75 **10-20-30-100**	400-50-50-400	2½	5.10
XC4-20	8-15-30-30 **10-20-40-40**	350-350-350-350	2½	4.40
XC4-21	8-15-30-30 **10-20-40-40**	450-25-450-450	2½	4.70
XC4-22	8-15-30-50 **10-20-40-60**	350-475-350-350	2½	4.95
XC4-23	8-15-30-90 **10-20-40-125**	475-450-450-300	3	5.80
XC4-24	8-15-30-90 **10-20-40-130**	350-350-475-350	3½	6.35
XC4-25	8-15-30-90 **10-20-50-120**	350-350-50-350	3	5.10
XC4-26	8-10-30-90 **10-20-50-120**	475-400-50-400	3	5.90
XC4-27	8-10-50-75 **10-20-60-100**	150-50-200-300	2½	4.55
XC4-28	8-15-60-75 **10-20-80-100**	300-50-350-350	3½	5.35
XC4-29	8-15-75-100 **10-20-100-140**	450-300-300-350	4	6.60
XC4-30	8-15-100-100 **10-20-140-150**	450-300-350-300	4	6.70
XC4-31	8-15-100-150 **10-20-150-250**	250-350-300-50	3	5.55
XC4-32	8-15-30-50 **10-25-40-60**	450-25-350-350	2½	4.60
XC4-33	8-15-30-50 **10-25-40-100**	350-25-350-25	2	3.75
XC4-34	8-25-30-60 **10-30-40-80**	450-450-450-475	3½	6.65
XC4-35	8-25-30-60 **10-30-40-80**	450-300-400-400	3	$5.75
XC4-36	8-25-25-75 **10-30-50-150**	475-500-50-50	2½	4.45
XC4-37	8-25-75-150 **10-30-100-200**	300-300-300-300	4	6.80
XC4-38	8-25-100-150 **10-30-140-200**	300-150-300-150	3½	5.70
XC4-39	8-25-150-150 **10-30-200-200**	300-150-200-150	3½	5.50
XC4-40	8-30-30-60 **10-40-40-80**	250-300-300-300	3	4.85
XC4-41	8-30-25-75 **10-40-50-100**	350-350-50-350	3	5.15
XC4-42	8-30-60-75 **10-40-80-100**	475-400-400-400	4	6.95
XC4-43	8-30-90-110 **10-40-120-150**	250-400-250-50	3	5.20
XC4-44	8-50-50-60 **10-60-60-80**	150-200-350-350	3	5.40
XC4-44.1	5-30-50-50 **10-60-100-100**	200-350-350-150	3	4.90
XC4-44.2	5-50-100-100 **10-100-200-200**	75-150-150-150	2½	5.95
XC4-45	12-12-12-30 **15-15-15-40**	450-350-450-350	2½	4.00
XC4-46	12-15-10-10 **15-20-20-20**	450-450-25-25	2	3.45
XC4-47	12-30-30-20 **15-40-40-40**	450-450-450-50	3	5.20
XC4-48	15-15-15-10 **20-20-20-20**	450-450-450-25	2	4.15
XC4-49	15-15-15-10 **20-20-20-20**	450-450-450-450	2½	4.55
XC4-50	15-15-15-15 **20-20-20-20**	475-475-475-475	2½	4.85
XC4-51	15-15-15-50 **20-20-20-60**	450-450-450-450	3	5.50
XC4-52	15-15-15-75 **20-20-20-100**	450-450-450-300	3	5.30
XC4-53	15-15-15-150 **20-20-20-200**	300-300-300-300	3½	5.95
XC4-54	15-15-30-20 **20-20-40-40**	450-450-450-25	2½	4.65
XC4-55	15-15-30-30 **20-20-40-40**	450-450-450-450	3	5.55
XC4-56	15-15-30-75 **20-20-40-100**	350-350-350-400	3½	6.00
XC4-57	15-15-60-150 **20-20-80-200**	350-300-350-150	3½	5.50
XC4-58	15-15-75-75 **20-20-100-100**	400-400-350-100	3½	5.50
XC4-59	15-15-75-100 **20-20-100-140**	300-300-300-350	4	5.00
XC4-60	15-20-30-75 **20-25-35-100**	200-450-450-50	2½	4.65
XC4-61	15-20-30-30 **20-25-35-100**	450-50-450-450	2½	5.05
XC4-62	10-25-30-30 **20-30-40-40**	25-350-350-350	2½	4.20
XC4-63	15-25-30-25 **20-30-40-50**	300-300-300-25	2	4.00
XC4-64	15-25-25-150 **20-30-50-200**	350-400-50-350	4	6.75
XC4-65	15-30-50-50 **20-40-60-60**	150-350-350-200	3	4.80
XC4-66	15-30-50-60 **20-40-60-80**	400-300-450-350	3½	6.15
XC4-67	15-30-50-65 **20-40-60-90**	350-350-350-350	3½	5.90
XC4-68	15-30-50-150 **20-40-60-200**	150-150-150-10	2	3.60
XC4-68.1	10-25-40-60 **20-50-50-80**	250-50-450-450	3½	5.55

* All Dia. are 1⅜".

Trade Discount Applies To List Prices Only

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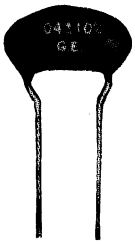
Quad-Section Cans (cont'd)

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
XC4-69	15-50-60-50 **20-60-80-100**	350-350-150-50	2½	4.65
XC4-70	15-75-75-170 **20-100-100-240**	350-150-150-150	3½	$5.95
XC4-70.1	15-60-50-80 **20-100-100-150**	450-350-50-350	4	6.75
XC4-71	15-30-60-75 **25-40-80-100**	50-400-350-200	3½	5.55
XC4-72	25-25-30-30 **30-30-40-40**	450-350-450-350	3	5.35
XC4-73	25-25-30-30 **30-30-150-150**	450-450-300-300	4	6.95
XC4-74	25-30-20-60 **30-40-40-80**	400-400-25-400	3½	5.90
XC4-75	25-30-25-100 **30-40-50-140**	350-350-50-350	3½	5.90
XC4-76	25-30-40-150 **30-40-50-200**	400-300-250-150	3	5.45
XC4-77	25-45-150-150 **30-60-200-100**	175-175-175-175	3½	6.15
XC4-78	30-30-30-30 **40-40-40-40**	150-150-150-150	2	$3.60

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
XC4-79	30-30-30-20 **40-40-40-40**	450-450-450-25	3	5.50
XC4-80	30-30-30-30 **40-40-40-40**	450-450-450-450	3½	6.25
XC4-81	30-30-20-60 **40-40-40-80**	150-150-25-150	2	3.65
XC4-82	30-30-20-60 **40-40-40-80**	450-450-25-450	3½	6.45
XC4-83	30-30-50-100 **40-40-60-150**	350-350-350-75	3	5.25
XC4-84	30-50-50-75 **40-60-60-100**	400-400-300-400	4	6.85
XC4-84.1	20-30-50-75 **40-60-100-100**	75-200-250-350	3½	5.35
XC4-85	50-60-75-50 **60-80-100-100**	400-350-200-50	3½	5.90

* All Dia. are 1⅜".

PAPER MYLAR‡ CAPACITORS



MPC SIDE-LEAD TUBULARS

- ±10% capacitance tolerance
- 85° OPERATION: for 125°C derate working voltage by 25%
- Dual DIELECTRIC (Mylar-Paper) solidly impregnated with rock-type casing with high humidity resistance.

Cat. No.	Capacitance, Mfd.	Size	List Price
200 W.V.D.C			
MPC-2S2	.02	.350 x .855	$0.25
MPC-2S47	.047	.450 x .855	.30
MPC-2S5	.05	.450 x .855	.30
MPC-2P1	.1	.470 x 1.180	.35
MPC-2P15	.15	.540 x 1.180	.40
MPC2P25	.25	.620 x 1.300	.45
MPC-2P47	.47	.730 x 1.600	.60
MPC-2P5	.5	.730 x 1.600	.60
400 W.V.D.C.			
MPC-4S1	.01	.390 x .690	.25
MPC-4S15	.015	.430 x .690	.25
MPC-4S2	.02	.390 x .855	.30
MPC-4S22	.022	.400 x .855	.30
MPC-4S33	.033	.440 x .855	.30
MPC-4S47	.047	.415 x 1.150	.35
MPC-4S5	.05	.415 x 1.150	.35
MPC-4S68	.068	.440 x 1.180	.35
MPC-4P1	.10	.520 x 1.180	.40
MPC-4P15	.15	.560 x 1.300	.50
MPC-4P22	.22	.620 x 1.560	.60
MPC-4P25	.25	.650 x 1.560	.60
MPC-4P47	.47	.850 x 1.600	.70
MPC-4P5	.50	.850 x 1.600	.75
600 W.V.D.C.			
MPC-6D1	.001	.340 x .690	.25
MPC-6D15	.0015	.340 x .690	.25
MPC-6D2	.002	.340 x .690	.25
MPC-6D22	.0022	.340 x .690	.25
MPC-6D25	.0025	.350 x .690	.25
MPC-6D27	.0027	.370 x .690	.25
MPC-6D3	.003	.370 x .690	.25
MPC-6D33	.0033	.370 x .690	.25
MPC-6D39	.0039	.370 x .690	.25
MPC-6D4	.004	.400 x .690	.25
MPC-6D47	.0047	.400 x .690	.25
MPC-6D5	.005	.415 x .690	.25
MPC-6D56	.0056	.415 x .690	.25
MPC-6D6	.006	.430 x .690	.25
MPC-6D68	.0068	.370 x .870	.25
MPC-6D75	.0075	.370 x .870	.30
MPC-6D8	.008	.390 x .870	.30
MPC-6S1	.01	.400 x .870	.30
MPC-6S12	.012	.415 x .870	.30
MPC-6S15	.015	.445 x .870	.30
MPC-6S2	.02	.470 x .870	.30
MPC-6S22	.022	.400 x 1.150	.30
MPC-6S25	.025	.415 x 1.150	.35
MPC-6S27	.027	.370 x .690	.35

Cat. No.	Capacitance, Mfd.	Size	List Price
600 W.V.D.C. (CONTD.)			
MPC-6S3	.03	.415 x 1.150	$0.35
MPC-6S33	.033	.430 x 1.150	.35
MPC-6S39	.039	.470 x 1.150	.35
MPC-6S4	.04	.470 x 1.150	.35
MPC-6S47	.047	.490 x 1.150	.40
MPC-6S5	.05	.490 x 1.150	.40
MPC-6S56	.056	.520 x 1.100	.40
MPC-6S6	.06	.520 x 1.180	.45
MPC-6S68	.068	.540 x 1.300	.45
MPC-6S75	.075	.570 x 1.300	.45
MPC-6S82	.082	.590 x 1.300	.45
MPC-6P1	.10	.640 x 1.300	.45
MPC-6P15	.15	.650 x 1.560	
MPC-6P2	.20	.730 x 1.560	.65
MPC-6P22	.22	.750 x 1.560	.65
1600 W.V.D.C.			
MPC-16D1	.001	.350 x 8.70	.35
MPC-16D15	.0015	.375 x .870	.35
MPC-16D18	.0018	.400 x .870	.35
MPC-16D2	.002	.405 x .870	.35
MPC-16D22	.0022	.420 x .870	.35
MPC-16D3	.003	.475 x .870	.40
MPC-16D33	.0033	.480 x .870	.40
MPC-16D4	.004	.520 x .870	.40
MPC-16D47	.0047	.540 x .870	.40
MPC-16D5	.005	.565 x .870	.45
MPC-16D6	.006	.460 x 1.180	.45
MPC-16D7	.007	.485 x 1.180	.45
MPC-16D75	.0075	.495 x 1.180	.45
MPC-16D8	.008	.510 x 1.180	.50
MPC-16S1	.01	.525 x 1.180	.50
MPC-16S15	.015	.560 x 1.300	.50
MPC-16S2	.02	.570 x 1.600	.60
MPC-16S3	.03	.665 x 1.600	.70
MPC-16S33	.033	.695 x 1.600	.80
MPC-16S47	.047	.785 x 1.600	.85
MPC-16S5	.05	.815 x 1.600	.85

MAL AXIAL-LEAD TUBULARS

- ±10% capacitance tolerance
- 85°C operation
- Dual DIELECTRIC (Mylar-Paper) encased in solid thermosetting compound which will not crack, soften or flow at maximum temperature.

Cat. No.	Capacitance, Mfd.	Size	List Price
200 W.V.D.C			
MAL-2S2	.02	⅜ x 1¼	$0.25
MAL-2S47	.047	⅜ x 1¼	.25
MAL-2S5	.05	⅜ x 1¼	.25
MAL-2P1	.10	7/16 x 1¼	.35
MAL-2P15	.15	½ x 1½	.35
MAL-2P25	.25	9/16 x 1 9/16	.45
MAL-2P47	.47	⅝ x 1⅞	.60
MAL-2P5	.50	⅝ x 1⅞	.60

Cat. No.	Capacitance, Mfd.	Size	List Price
400 W.V.D.C.			
MAL-4S1	.01	5/16 x 1	$0.25
MAL-4S15	.015	⅜ x 1¼	.25
MAL-4S2	.02	⅜ x 1¼	.25
MAL-4S22	.022	⅜ x 1¼	.30
MAL-4S33	.033	7/16 x 1¼	.30
MAL-4S47	.047	7/16 x 1¼	.30
MAL-4S5	.05	7/16 x 1¼	.30
MAL-4S68	.068	½ x 1½	.35
MAL-4P1	.10	½ x 1½	.35
MAL-4P15	.15	9/16 x 1 9/16	.40
MAL-4P22	.22	⅝ x 1⅞	.45
MAL-4P25	.25	⅝ x 1⅞	.50
MAL-4P47	.47	¾ x 2¼	.75
MAL-4P50	.50	¾ x 2¼	.80
600 W.V.D.C.			
MAL-6D1	.001	5/16 x 1	.25
MAL-6D15	.0015	5/16 x 1	.25
MAL-6D2	.002	5/16 x 1	.25
MAL-6D22	.0022	5/16 x 1	.25
MAL-6D3	.003	5/16 x 1	.25
MAL-6D33	.0033	5/16 x 1	.25
MAL-6D4	.004	5/16 x 1	.25
MAL-6D47	.0047	5/16 x 1	.25
MAL-6D5	.005	5/16 x 1	.25
MAL-6D6	.006	5/16 x 1	.25
MAL-6D68	.0068	5/16 x 1	.30
MAL-6S1	.01	⅜ x 1¼	.30
MAL-6S15	.015	⅜ x 1¼	.30
MAL-6S2	.02	7/16 x 1¼	.30
MAL-6S22	.022	7/16 x 1¼	.30
MAL-6S3	.03	7/16 x 1¼	.35
MAL-6S33	.033	7/16 x 1¼	.35
MAL-6S4	.04	7/16 x 1¼	.35
MAL-6S47	.047	½ x 1½	.40
MAL-6S5	.05	½ x 1½	.40
MAL-6S6	.06	½ x 1½	.40
MAL-6S68	.068	½ x 1½	.45
MAL-6P1	.10	9/16 x 1 9/16	.45
MAL-6P15	.15	⅝ x 1⅞	.55
MAL-6P2	.20	⅝ x 1⅞	.65
MAL-6P22	.22	⅝ x 1⅞	.70
MAL-6P25	.25	11/16 x 1 13/16	.75
MAL-6P33	.33	¾ x 2¼	.90
MAL-6P47	.47	¾ x 2¼	1.25
MAL-6P50	.50	¾ x 2¼	1.25
1600 W.V.D.C.			
MAL-16D1	.001	⅜ x 1¼	.65
MAL-16D15	.0015	⅜ x 1¼	.65
MAL-16D22	.0022	⅜ x 1¼	.65
MAL-16D33	.0033	⅜ x 1¼	.65
MAL-16D47	.0047	⅜ x 1¼	.65
MAL-16D5	.005	⅜ x 1¼	.65
MAL-16D68	.0068	7/16 x 1¼	.65
MAL-16D82	.0082	7/16 x 1¼	.65
MAL-16S1	.01	½ x 1½	.70
MAL-16S15	.015	½ x 1½	.70
MAL-16S22	.022	⅝ x 1⅞	.70
MAL-16S33	.033	⅝ x 1⅞	.70
MAL-16S47	.047	⅝ x 1⅞	.90
MAL-16S5	.05	⅝ x 1⅞	.90
6000 W.V.D.C.			
MAL-60T5	.0005	½ x 1½	1.35
MAL-60D1	.001	9/16 x 1 9/16	1.35
MAL-60D5	.005	11/16 x 1 13/16	1.35
10,000 W.V.D.C			
MAL-100T5	.0005	½ x 1½	1.50
12,500 W.V.D.C.			
MAL-125T5	.00025	½ x 1½	1.70

‡ Trade-mark of DuPont Co.

For explanation of ratings, see first page of G-E capacitors

All prices are subject to change without notice.

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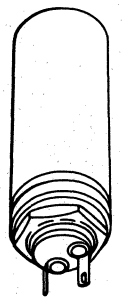
Trade Discount Applies To List Prices Only

GENERAL INSTRUMENT CORPORATION

CAPACITOR GROUP

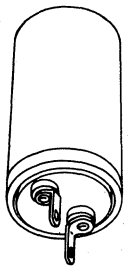
POLARIZED DRY ELECTROLYTIC CAPACITORS to MIL-C-62

CE 41, 42 (TYPE DI)



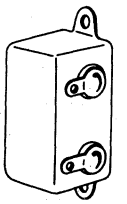
Type DI Electrolytics are provided in aluminum cans for chassis mounting. Have standard insulating 7/8-16N-2A threaded neck with lock nut. Solder lugs solidly anchored in insulating neck. Sealed with special leak-proof gasket. Available as CE41 in single capacitor and CE42 in dual capacitor units. Range: 10mfd thru 6800mfd; voltages of 15 thru 450 WVDC.

CE 31, 32, 33 (TYPE PFB)



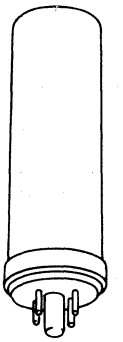
Type PFB General Instrument Polarized Electrolytics are made in standard round aluminum containers with convenient solder lugs. Special gasket provides maximum seal. Mounting ring is optional. Available as CE31 in single capacitor, CE32 in dual-capacitor units and CE33 in triple-capacitor units. Range: 6.8 thru 6800mfd., voltages of 15 thru 450 WVDC.

CE 63, 64 (TYPE DPD)



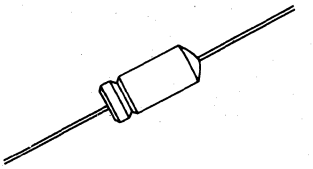
Type DPD's are hermetically sealed in drawn, hot-tinned steel bathtub containers. Solder-lug terminal insulated from case with silicon-rubber grommets. Type CE63 has terminals on side of can and CE64 has terminals on top of can. Range: 4 thru 100mfd, voltages of 15 thru 450 WVDC.

CE 51, 52, 53 (TYPE DO)



Type DO Electrolytics are provided in round aluminum containers with plug in terminals to fit standard medium octal socket. Type CE51 is single section, CE52 dual and CE53 triple section units. Range: 10 thru 6800mfd., voltages of 15 thru 450 WVDC.

MINIATURE SINTERED ANODE LIQUID ELECTROLYTE TANTALUMS to MIL-C-3965 (MIL TYPES CL64 & CL65)

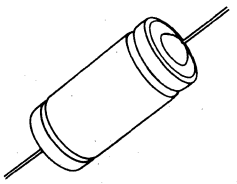


Afford maximum space economy. Conventional cylindrical cases allow for various methods of mounting. Sealing method and materials used in manufacturing this capacitor assure protection against seepage. Manufactured to meet MIL-C-3965 specification, style CL-64 and CL-65 (insulated sleeve).

TEMPERATURE OPERATING RANGES

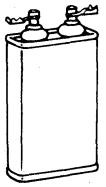
TAK	−55°C to 85°C
TAK-H	−55°C to 125°C

OIL-PAPER CAPACITORS to MIL-C-25



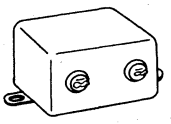
CP 25 to CP 29 (TYPE PTM)

Available in capacitances from .001 thru 0.1 mf and voltages of 1500 V.D.C.



CP 70 SERIES (TYPE PLM)

Available in capacitances from .1 mf thru 15 mf and voltages of 400 V.D.C. thru 25,000 V.D.C. (Type PJ in higher values)

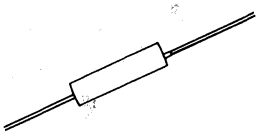


CP 53, 54, 55 (TYPE PDM)

Available in capacitances from .05 mf thru 10 mf and voltages of 100 V.D.C. thru 1000 V.D.C.

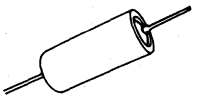
MINIATURIZED SOLID ELECTROLYTE TANTALUMS to MIL-C-26655 (MIL TYPES CS12 & CS13)

True Subminiature Sizes
Solid Tantalum Electrolyte
Hermetically Sealed Metal Cases



METALLIZED-PAPER/MYLAR GLASS-SEALED METAL TUBULARS TYPE 227

Designed for operation at +125°C without derating. The finest capacitor of its type available. Encased in hermetic, glass-sealed metal tubes.



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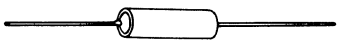
GENERAL INSTRUMENT CORPORATION

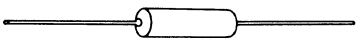
CAPACITOR GROUP

SUBMINIATURE GLASSEAL PAPER CAPACITORS to MIL-C-25

BASIC STYLE

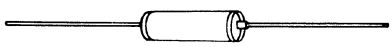


CP04A1/CP08A1/Case Floating

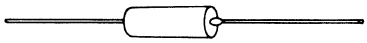


CP04A3/CP08A3/Case Grounded

STYLE V (Insulated)

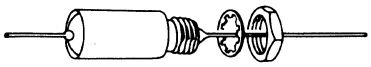


CP05A1/CP09A1/Case Floating

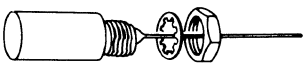


CP05A3/CP09A3/Case Grounded

STYLE 3

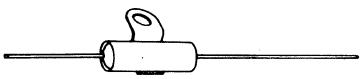


CP11A1/CP13A1/Case Floating

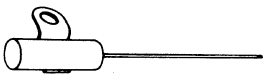


CP11A3/SP13A3/Case Grounded

STYLE 7

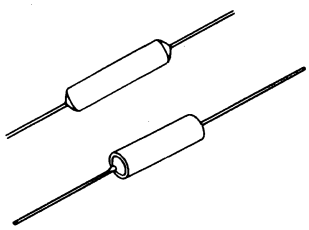


CP10A1/CP12A1/Case Floating



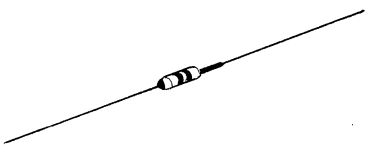
CP10A3/CP12A3/Case Grounded

POLYCARBONATE CAPACITORS



TYPE 233 (hermetic seal) and TYPE 170 (wrap & fill) polycarbonate capacitors offer superior electrical characteristics: high insulation resistance, excellent capacitance stability and minimum capacitance change with temperature. Available in capacitances from .001 thru 10 mfd. and voltages of 100 thru 600 VDC.

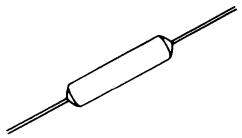
Hi-Voltan® TANTALUM CAPACITORS



Subminiature tantalum capacitor of unique construction having no electrolyte eliminates major causes of instability. Extremely low leakage current. Available in capacitances from 400 thru 33000 pF and voltages of 25 thru 125 VDC.

®General Instrument Corp.

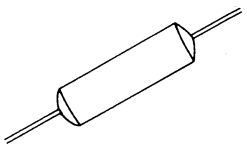
WRAPPED MYLAR® CAPACITORS TYPE 107



Non-inductive polyester film with extended foil section occupies minimum of space due to outer Mylar®-wrap case. Ends filled with thermosetting resin. Tinned leads, soldered to foil and firmly secured in the resin, will not pull out. Type 107 capacitors have very high insulation resistance and high resistance to moisture.

®E. I. DuPont

HI-TEMP METALLIZED PAPER CAPACITORS



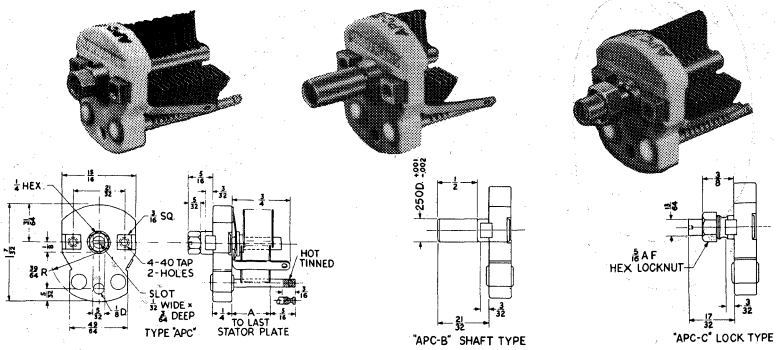
TYPE 155

Assembled in a plastic tube with plastic end-seals. Self-healing. Low R-F impedance. Excellent Pf over wide temperature range.

Temperature Rating:
−40°C to +100°C

HAMMARLUND

88 STANDARD TYPES OF VARIABLE AIR CAPACITORS



APC capacitors are available in three basic groups. The original APC group is furnished with a hex collar on a slotted shaft as indicated in the drawing. The APC-"B" group is furnished with ¼" diameter shafts to permit adjustment of the capacitance with a front panel knob. The APC-"C" group is supplied with slotted shafts for variation of the capacitance and a 5/16" hex locknut to prevent movement of the rotor in equipment subjected to high levels of vibration or shock.

APC

Capacitor Type	Net Price	Capacitor Type	Net Price
APC-25	$ 1.20	APC-100-B	$ 1.70
APC-50	1.35	APC-140-B	1.90
APC-75	1.45	APC-25-C	1.85
APC-100	1.60	APC-50-C	2.00
APC-140	1.80	APC-75-C	2.10
APC-25-B	1.30	APC-100-C	2.25
APC-50-B	1.40	APC-140-C	2.45
APC-75-B	1.50		

TYPE	CAPACITANCE		PLATES	DIMENSION "A"
	Max.	Min.		
APC-25	25.	3.0	7	21/64
APC-50	50.	3.9	14	1/2
APC-75	75.	4.6	20	11/16
APC-100	100.	5.5	27	59/64
APC-140	140.	6.7	37	1-7/32

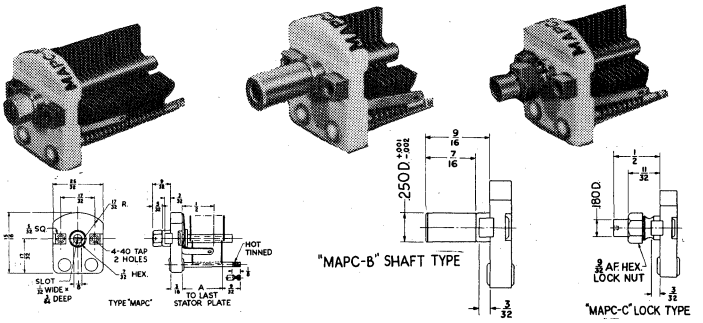
Note: When ordering the APC-"B" or "C" type, add the suffix -B or -C to the above listed type number.

MAPC

FEATURES—The MAPC series is similar to the APC series of capacitors in that identical materials and assembly methods are employed. The silicone treated steatite bases and all brass nickel plated metal parts with exception of the phosphor bronze rotor wiper assure the same type of reliable performance that the APC series provides.

TYPE	CAPACITANCE		PLATES	DIMENSION "A"
	Max.	Min.		
MAPC-15	15	2.3	6	17/64
MAPC-25	25	2.6	10	3/8
MAPC-35	35	2.9	14	15/32
MAPC-50	50	3.2	19	37/64
MAPC-75	75	3.9	29	53/64
MAPC-100	100	4.5	38	1-5/64

Note: When ordering the MAPC-"B" or "C" type, add the suffix -B or -C to the type numbers listed above.

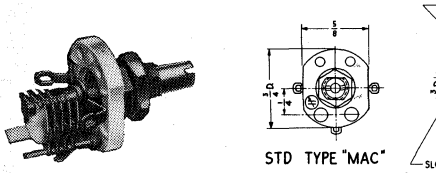


Capacitor Type	Net Price	Capacitor Type	Net Price	Capacitor Type	Net Price
MAPC-15	$ 1.00	MAPC-15-B	$ 1.00	MAPC-15-C	$ 1.35
MAPC-25	1.05	MAPC-25-B	1.05	MAPC-25-C	1.40
MAPC-35	1.10	MAPC-35-B	1.10	MAPC-35-C	1.45
MAPC-50	1.15	MAPC-50-B	1.15	MAPC-50-C	1.50
MAPC-75	1.20	MAPC-75-B	1.20	MAPC-75-C	1.55
MAPC-100	1.30	MAPC-100-B	1.30	MAPC-100-C	1.70

MAC

The MAC capacitors provide the low minimum capacitance and inductance essential for trimming and tuning resonant circuits in the VHF and UHF range. The materials employed and the constructional methods are the same as those used in the manufacture of the APC and MAPC series of capacitors.

TYPE	CAPACITANCE		PLATES	DIMENSIONS	
	Max.	Min.		"A"	"B"
MAC-5	5.4	1.3	5	45/64	39/64
MAC-10	9.6	1.5	9	13/16	23/32
MAC-15	15.8	1.9	15	1	29/32
MAC-20	21.5	2.2	21	1-11/64	1-5/64
MAC-30	32.0	2.5	27	1-17/65	1-11/64

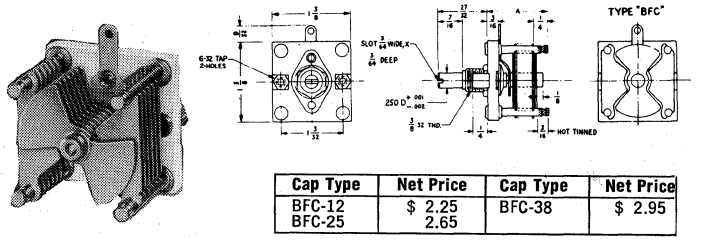


Cap. Type	Net Price	Cap. Type	Net Price
MAC-5	$ .90	MAC-20	$ 1.10
MAC-10	.95	MAC-30	1.20
MAC-15	1.00		

BFC

The BFC capacitors are of the butterfly type permitting operation as a series capacitor without a rotor connection or as a split stator capacitor with provision for grounding the rotor independently from the capacitor mounting studs, which are insulated from the rotor in the silicone treated steatite base.

CODE	CAPACITY/SECTION		SERIES CAPACITY		PLATES		DIMENSION "A"
	Max.	Min.	Max.	Min.	Rotor	Ea. Stator	
BFC-12	14.5	3.4	7.6	2.2	4	3	29/32
BFC-25	27.3	4.8	14.1	2.9	7	6	1-13/64
BFC-38	40.1	6.2	20.6	3.6	10	9	1-1/2

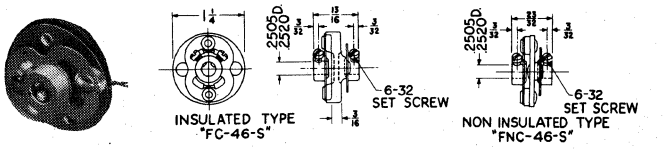


Cap Type	Net Price	Cap Type	Net Price
BFC-12	$ 2.25	BFC-38	$ 2.95
BFC-25	2.65		

FC-FNC

The FC-46-S is an insulated flexible coupling to prov mechanical ganging of angularly misaligned shafts. T FNC-46-S is non-insulated.

FC-46-S — $1.50; FNC-46-S — $1.20.



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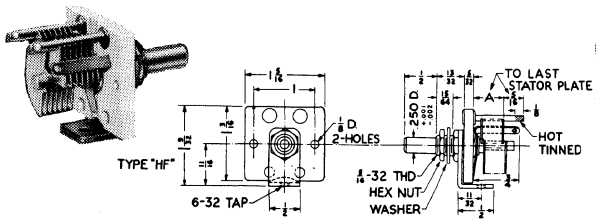
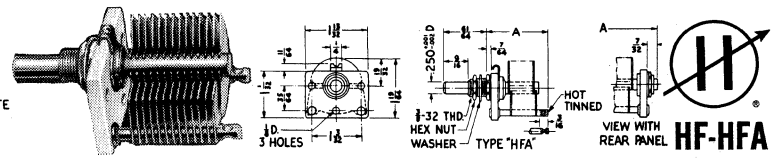
88 STANDARD TYPES OF VARIABLE AIR CAPACITORS



CODE	CAPACITY		PLATES/SECTION	DIMENSION "A"
	Max.	Min.		
HF-15	17.5	2.8	5	17/64
HF-35	36.	3.2	10	25/64
HF-50	52.	3.7	14	1/2
HF-100	102.	5.3	27	59/64
HF-140	142.	6.3	37	1-7/32
HF-15-X	15.	3.6	10	23/32
HF-30-X	30.	5.2	20	1-5/16

The HF is a single section capacitor employing the APC rotor and stator design. An extra long sleeve bearing and positive contact nickel-plated phosphor bronze wiper make this unit ideally suited to high frequency applications.

The HFA capacitors are similar to the HF series except that larger rotor and stator plates are used.

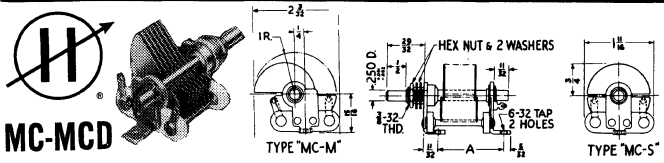


HF-HFA

CODE	CAPACITY		AIR GAP	PLATES/ SECTION	DIMENSION "A"
	Max.	Min.			
HFA-100-A	102	4.5	0.020	19	1-13/32
HFA-140-A	145	6.0	0.020	27	1-23/32
HFA-200-A	200	8.0	0.020	38	2-7/32
HFA-15-B	16	2.8	0.030	5	7/8
HFA-25-B	25	3.0	0.030	7	31/32
HFA-50-B	50	4.3	0.030	14	1-3/8
HFA-100-B*	100	7.5	0.030	27	2-21/64
HFA-15-E	16	4.0	0.070	9	1-3/8
60 cycle peak test voltage HFA-A, 1130 V. B, 1690 V. E, 1750 V.					

*Has Front and Rear Supporting Panels.

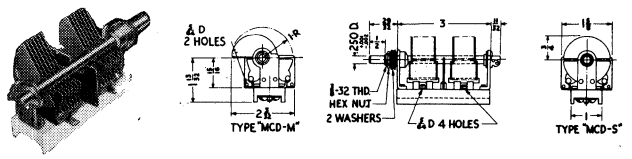
Cap. Type	Net Price	Cap. Type	Net Price
HF-15	$ 1.30	HFA-100-A	$ 2.75
HF-35	1.40	HFA-140-A	2.95
HF-50	1.60	HFA-200-A	3.70
HF-100	1.80	HFA-15-B	2.20
HF-140	1.95	HFA-25-B	2.30
HF-15-X	1.30	HFA-50-B	2.50
HF-30-X	1.70	HFA-100-B	3.90
		HFA-15-E	2.45



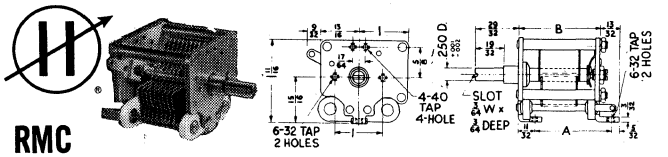
MC-MCD

The MC is a versatile single section tuning capacitor designed to give the equipment engineer a choice of mountings, connections and capacity characteristics. The threaded brass front bearing and tapped aluminum end brackets permit panel or base mounting.

Capacitor Type	Net Price	Capacitor Type	Net Price	Capacitor Type	Net Price
MC-20-S	$ 2.40	MC-140-S	$ 3.15	MC-50-SX	$ 3.00
MC-35-S	2.45	MC-200-M	3.40	MC-100-SX	3.95
MC-50-M	2.55	MC-250-M	3.70	MCD-50-M	7.25
MC-50-S	2.60	MC-325-M	4.20	MCD-100-M	7.85
MC-75-M	2.75	MC-20-SX	2.60	MCD-100-S	7.50
MC-75-S	2.85	MC-35-MX	2.75	MCD-140-M	8.35
MC-100-M	2.90	MC-35-SX	2.75	MCD-35-MX	7.85
MC-100-S	2.95	MC-50-MX	3.00	MCD-35-SX	7.50
MC-140-M	3.00				



TYPE	CAPACITY		PLATES/SECTION	DIMENSION "A"
	Max.	Min.		
MC-20-S	20.	5.5	3	1-7/32
MC-35-S	35.	6.0	5	1-7/32
MC-50-M	50.	6.3	7	1-7/32
MC-50-S	50.	6.5	7	1-7/32
MC-75-M	80.	7.3	11	1-7/32
MC-75-S	80.	8.0	11	1-7/32
MC-100-M	100.	7.7	14	1-13/32
MC-100-S	100.	8.3	14	1-13/32
MC-140-M	140.	9.0	19	1-19/32
MC-140-S	140.	10.0	19	1-19/32
MC-200-M	200.	10.3	27	2
MC-250-M	250.	12.0	34	2-5/16
MC-325-M	320.	13.5	43	2-23/32
MC-20-SX	20.	6.8	7	1-13/32
MC-35-MX	32.	7.8	11	1-19/32
MC-35-SX	32.	8.5	11	1-19/32
MC-50-MX	53.	10.5	19	2-5/16
MC-50-SX	53.	11.5	19	2-5/16
MC-100-SX	100.	16.5	35	3-29/32
MCD-50-M	50.	5.5	7	Single Hole panel mtg. Length back of panel 3-11/32
MCD-100-M	100.	6.3	14	
MCD-100-S	100.	7.0	14	
MCD-140-M	140.	7.8	19	
MCD-35-MX	31.	6.0	11	
MCD-35-SX	31.	6.8	11	

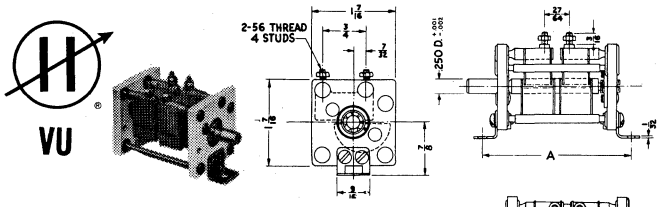


RMC

The RMC was designed specifically for applications requiring an MC type tuning capacitor with very rigid construction. Its sturdy frame consists of heavy gauge aluminum end panels held together by three aluminum tie rods.

Cap. Type	Net Price	Cap. Type	Net Price
RMC-50-S	$ 4.95	RMC-140-S	$ 5.95
RMC-100-S	5.25	RMC-325-S	6.85

CODE	CAPACITY		PLATES	DIMENSIONS	
	Max.	Min.		"A"	"B"
RMC-50-S	50.	7.3	7	1-7/32	1-5/16
RMC-100-S	105.	9.5	14	1-13/32	1-1/2
RMC-140-S	143.5	11.0	19	1-19/32	1-11/16
RMC-325-S	327.	17.5	43	2-23/32	2-13/16



VU

The VU is a uniquely designed UHF tuning capacitor using completely original concepts. With it, conventional **lumped constant** circuits, rather than tuned cavity techniques, can be efficiently used up to 500 megacycles.

Cap. Type	Net Price	Cap. Type	Net Price
VU-20	$ 7.10	VU-45	$ 8.00
VU-30	7.50		

CODE	SERIES CAPACITY		PLATES/ SECTION	DIMENSIONS	
	Eff.	Min.		"A"	"B"
VU-20	22.5	3.35	11	2-9/32	1-25/32
VU-30	31.5	3.5	15	2-9/16	2-1/16
VU-45	45.0	3.8	21	2-31/32	2-15/32

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ITT Jennings VACUUM

Glass Vacuum Variable Capacitors

	TYPE	CAPACITY	PEAK MOMENTARY RF AND 60 CYCLE VOLTAGE ③	CONTINUOUS RMS AMPERES ①③	NOMINAL DIMENSIONS ②	
		PF	KILOVOLTS		LENGTH	DIAMETER
2 to 5 KV	UCSL	4-250	3, 5	30	4 1/8	2 1/4
	USL	5-250, 5-500	3, 5	40	5 1/2	2 3/8
	USLS	5-465 shorting	3, 5	40	5 5/8	2 3/8
	USL	10-1000	3, 5	40	5	3 1/8
	UCSL	5-750, 7-1000, 20-2000	3, 5	42	7 5/8	3 1/8
	UCSL	50-3000	2, 3	42	8 3/8	3 9/16
	UCSL	100-5000	2, 3	42	8 3/4	4 1/8
7.5 to 15 KV	UCSB	5-100	7.5, 10, 15	40	4 7/8	2 3/8
	UCSV	8-110, 125-250	7.5, 10, 15	40	5 1/4	2 7/8
	ATCS	15-200	7.5, 10, 15	20	7	3 1/8
	UCS	5-200, 10-300	7.5, 10, 15	42	8 3/4	2 5/8
	UCS	10-400, 25-500	7.5, 10, 15	42	9	3 1/8
	UCSF	5-250, 12-500	7.5, 10, 15	45	7 3/4	3 5/8
	UCSX	25-700, 25-1000	7.5, 10, 15	45	9 7/8	3 3/4
	UCSXF	12-1000, 15-1200	7.5, 10, 15	50	10	4 3/8
	UCSXF	20-1500, 50-2000	7.5, 10, 12	50	10	5 1/8
10 to 20 KV	ECS	2-8, 3-30	10, 15	20	4	1 3/8
	TC	5-25	20	20	6 5/8	2 1/4
	ATC	10-50, 15-75	20, 30	20	6 7/8	3 1/8
	UC	50-250	10, 15, 20	60	11 1/2	5
	UXC	25-500	10, 15, 20	60	14	5
	UXCF	10-250, 20-500	10, 15, 20	45	9 7/8	4 3/8
	VMMC	50-1000, 100-2000	10, 15	125	15 7/8	6 1/8
	VMMC	100-5000	7.5, 10, 15	125	19	9 1/4
35 to 60 KV	UCSVH	8-35	25, 35	35	4 3/4	3
	UHC	10-75, 75-150	35, 45, 55, 60	60	12	5
	UXHC	25-150	35, 45, 55	75	14 5/8	5
	UCSXH	10-200	35, 45	50	10	4 1/2
	UCSXHF	20-450	35, 40	60	10 1/2	5 1/8
	VMMHC	10-250, 25-450, 30-650	35, 45, 55	125	17	8 1/8
	VMMHCW	25-250, 50-400	35, 45, 55	500	17	9 5/8
	VMMHC	60-1000	35, 40, 45	125	19 3/8	9 1/4
120 KV	VMMHHC	25-200	120	140	20 1/4	9 1/4

Type USLS 5-465 pf 5 kv

Type UCSF 12-500 pf 15 kv

UCSXHF 20-450 pf 40 kv

Ceramic Vacuum Variable Capacitors

	TYPE	CAPACITY	PEAK MOMENTARY RF AND 60 CYCLE VOLTAGE③	CONTINUOUS RMS AMPERES①③	NOMINAL DIMENSIONS②	
		PF	KILOVOLTS		LENGTH	DIAMETER
2 to 5 kv	CVCE	10-750	3, 5	70	7.1	3.75
	CVCD	10-1000	3, 5	80	7.1	3.75
	CVCD	10-1500	3, 5	80	7.1	3.75
	CVCD	20-2000	3, 5	80	7.1	3.75
7.5 to 20 kv	CVDD	10-100	7.5, 10, 15	70	6.62	2.75
	CVDD	20-400	7.5, 10, 15	80	7.50	3.75
	CVDD	25-1000	7.5, 10, 15	125	8.00	4.88
	CVDP	35-1500	7.5, 10, 15	125	9.8	5.50
	CVDP	50-2300	7.5, 10, 15	125	9.8	5.50
	CVEP	25-500	10, 15, 20	140	9.4	5.50
	CVEP	50-1000	10, 15, 20	140	10.2	7.00
	CVEP	100-2000	10, 15	150	10.2	7.00
30 to 55 kv	CVFP	25-450	30, 35, 40	140	9.6	5.50
	CVFP	20-750	30, 35, 40	150	11.7	7.20
	CVFP	35-1000	30, 35, 40	150	11.7	7.20
	CVFP	100-1500	30, 35	150	13.6	7.20
	CVHP	10-250	35, 45, 55	170	11.9	7.20
	CVHP	25-450	35, 45, 55	170	11.9	7.20
	CVHP	30-650	35, 45, 55	170	11.9	7.20
	CVHP	60-1000	35, 45, 50	200	13.0	8.25

Type CVDD 10-1000 PF

Type CVEP 100-2000 PF

①Current ratings can usually be increased by 50% with proper forced air cooling, and up to 400% with water cooling.

②Nominal dimensions are for the largest unit of each type.

③Voltage and current limitations are dependent upon capacity and frequency. Specific voltage and current information at all frequencies is available upon request.

NOTE: A series of adjustable capacitors is available to cover the range of 8 to 1000 pf at 10 kv.
Jennings application engineers are available to discuss special application problems. If necessary we will run special tests in the Jennings Radio Frequency Testing Laboratory, where equipment is available with frequencies up to 600 mc, and power ratngs up to 100 kw.

JENNINGS RADIO MANUFACTURING CORPORATION

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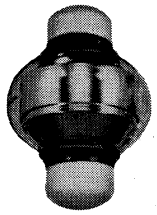
CAPACITORS

Glass Vacuum Fixed Capacitors

	TYPE	CAPACITY	PEAK MOMENTARY RF AND 60 CYCLE VOLTAGE③	CONTINUOUS RMS AMPERES①③	NOMINAL DIMENSIONS②	
		PF	KILOVOLTS		LENGTH	DIAMETER
2	JSLF	5000	3, 5	100	3	4⅛
to	JCSL	500, 750, 1000	3, 5	50	4	2⅞
5 KV	JCSL	1500, 2000	3, 5	42	4	2⅞
	JCSF	25, 40, 80, 120, 150	7.5, 10, 15	30	1⅝	1⅝
	JCS2	25, 50, 100	7.5, 10, 15	35	3⅛	1⅞
	JCS1	25, 50, 75, 100, 150	7.5, 10, 15	65	3¾	2⅛
7.5	JCS	250, 400, 500	7.5, 10, 15	65	4	3⅛
to	JCS	1000	7.5, 10, 12	65	4⅝	3⅝
15 KV	MC1	500, 750, 1000	10, 15	80	4⅛	4⅛
	MC	500, 750, 1000	10, 15, 20	120	8⅜	5
	MMC	1500, 2000	10, 15	140	9¼	6⅛
	MMC1	2000	10, 15	125	5	6⅛
	MMC	3000, 4000, 5000	10, 15	200	13	9¼
	Y	1, 2, 3, 4, 5	17	7	3¼	¾
	X	5, 10, 15, 20, 25	17	7	3¼	1⅛
	W	6, 12, 100	20, 25	10.5	4⅝	2¼
17	VCCA	12, 25, 50, 100, 150	20, 30	60	4½	2⅜
to	VC	6, 12, 25, 50, 75, 100, 150	20, 30, 35	70	6½	2⅝
30 KV	VCCE	200, 250	20, 30, 35	70	6½	2⅝
	JMF	50, 75, 100	20, 30	50	2¾	2⅛
	JC2	25, 50, 75, 100	20, 30	60	4	3¼
	MLC	500, 750, 1000	25, 30	125	9¼	5
	JC3	20, 50	35, 45, 55, 60	④140	8¼	3½
35	JC4	100, 125	35, 45, 55, 60	④280	9¼	5
to	JC5	200	35, 45, 55, 60	④360	11¼	7
60 KV	MMHC	450	35, 45, 55	145	9¼	6⅛
	MMHC	1000	35, 40, 45	200	13	9¼

Type JCS2
25 PF
15 kv

Type JMF
100 pf
30 kv



Type MMHC
1000 pf
45 kv

Ceramic Vacuum Fixed Capacitors

	TYPE	CAPACITY	PEAK MOMENTARY RF AND 60 CYCLE VOLTAGE③	CONTINUOUS RMS AMPERES①③	NOMINAL DIMENSIONS②	
		PF	KILOVOLTS		LENGTH	DIAMETER
3	CFCD	1000	3, 5	45	2.62	3.75
to	CFCD	2000	3, 5	85	2.62	3.75
5 KV						
20	CFED	150	20, 25, 30	100	3.38	2.75
to	CFED	500	10, 15, 20, 25	155	3.81	4.88
30 KV	CFED	750	10, 15, 20, 25	155	3.81	4.88
	CFED	1000	10, 15, 20, 25	155	3.81	4.88
35	CFHD	50	45, 50, 60	130	5.18	2.75
to	CFHP	450	35, 45, 55	215	5.5	2.75
60 KV	CFHP	1000	35, 45, 50	215	6.2	7.20

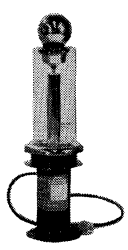
Type CFED 500

Type CFHP 450

Current ratings can usually be increased by 50% with proper forced air cooling, and up to 400% with water cooling.
Nominal dimensions are for the largest unit of each type.
Voltage and current limitations are dependent upon capacity and frequency. Specific voltage and current information at all frequencies is available upon request.
Forced air cooling.

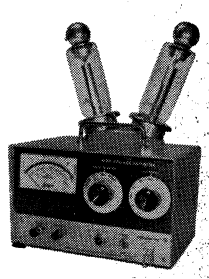
High Voltage Measuring Equipment

MODEL JP 325 HIGH VOLTAGE PROBE
VOLTAGE RATINGS: 40, 50, or 60 KV peak.
VOLTAGE DIVISION RATIO: 325 to 1 to termination of 3 ft. of RG-58 A U cable.
INPUT IMPEDANCE:
Resistance: above 10^{12} ohms.
Capacitance: 4 mmfd.
FREQUENCY RESPONSE: High frequency limited by that of measuring instrument. (Internal resonances are above 100 mc.) Low frequency response is 100 cps if operating into 10 megohm shunt resistance, 1000 cps if operating into 1 megohm shunt resistance.



MODEL J-1003 HIGH VOLTAGE VACUUM TUBE VOLTMETER
for use in pulse, rf and 60 cycle circuits at voltages up to 100 KV.
VOLTAGE RANGES (peak volts Scale):
Single Ended: 2.5, 5, 10, 25, 50 KV.
Double Ended: 2.5, 5, 10, 25, 50, 100 KV.
(By using Type JCD Series capacitor, these ranges can be more than doubled.)

OSCILLOSCOPE CONNECTION: 300 to 1 division ratio.
FREQUENCY RESPONSE: 10 cycles to 20 megacycles at full rated voltage. Internal resonances are above 100 mc.
INPUT IMPEDANCE: 10^{12} ohms and 4 mmfd.
CALIBRATION ACCURACY: — 3% of full scale.
POWER SUPPLY: 117 volt, 50, 60 cy.
DIMENSIONS: 16¼" v 11" x 9"



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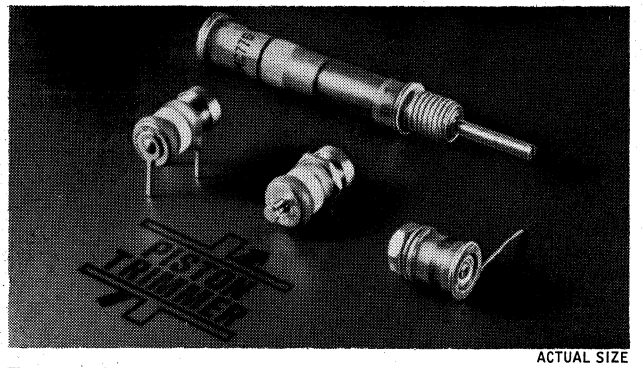
JFD

JFD ELECTRONICS CO./COMPONENTS DIVISION



ACTUAL SIZE

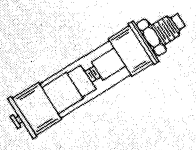
PISTON TRIMMER

JFD has available the largest selection of Precision Piston Trimmers in the industry—more than 2,500 standard and special designs that meet or exceed MIL-C-14409B.

JFD's unique capacitor-design-capability offers an unmatched number of exclusive features—Seven drive mechanisms incorporating advanced construction . . . Matched metalizing / homogeneous bond with dielectric . . . High level shock and vibration resistance . . . Clean room high reliability units available.

Write for complete catalog #C-66 "Precision Piston Trimmer and Tuning Capacitors."

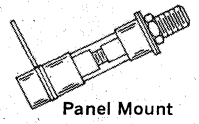
Max-C High Range Miniature Telescopic Sealed Capacitor Series



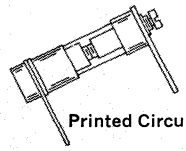
(Max. Dia. 5/16 in.)

PANEL MOUNT					PRINTED CIRCUIT				
JFD No.	Mil. Spec.	Cap. (pf) Min.	Cap. (pf) Max.	Body Length ±1/32 in.	JFD No.	Mil. Spec.	Cap. (pf) Min.	Cap. (pf) Max.	Body Length ±1/32 in.
GLASS					**GLASS**				
NMC601	PC39J160	1.0	16.0	15/32	NMC621	PC43J160	1.0	16.0	.750
NMC603	PC39J360	1.0	36.0	45/64	NMC623	PC43J360	1.0	36.0	.990
NMC604	PC39J520	1.0	52.0	59/64	NMC624	PC43J520	1.0	52.0	1.205
NMC606	PC39J750	1.0	75.0	1 11/64	NMC626	PC43J750	1.0	75.0	1.450
NMC609	PC39J121	1.0	120.0	1 49/64	NMC629	PC43J121	1.0	120.0	2.050
MC601Y	PC39J140	1.0	14.0	15/32	MC621Y	PC43J140	1.0	14.0	.750
MC603Y	PC39J280	1.0	28.0	45/64	MC621	PC43J140	1.0	14.0	.700
MC604Y	PC39J420	1.0	42.0	59/64	MC623Y	PC43J280	1.0	28.0	.990
MC606Y	PC39J600	1.0	60.0	1 11/64	MC623	PC43J280	1.0	28.0	.940
MC609Y	PC39J900	1.0	90.0	1 49/64	MC624Y	PC43J420	1.0	42.0	1.205
MC601	PC39J140	1.0	14.0	15/32	MC624	PC43J420	1.0	42.0	1.155
MC603	PC39J280	1.0	28.0	45/64	MC626Y	PC43J600	1.0	60.0	1.450
MC604	PC39J420	1.0	42.0	59/64	MC626	PC43J600	1.0	60.0	1.400
MC606	PC39J600	1.0	60.0	1 11/64	MC629Y	PC43J900	1.0	90.0	2.050
MC609	PC39J900	1.0	90.0	1 49/64	MC629	PC43J900	1.0	90.0	2.000

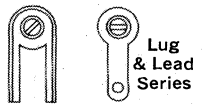
Miniature Telescopic Capacitor Series*



Panel Mount



Printed Circuit



Wire Series — Lug & Lead Series

(Max. Dia. ¼ in.)

GLASS +3/64 −1/32					GLASS				
NVC20G	PC50J110	0.8	11.0	35/64	NVC9GW	PC51J110	0.8	11.0	9/16
NVC21G	PC50J5R5	0.8	5.5	19/64	NVC10GW	PC51J5R5	0.8	5.5	5/16
NVC22G	PC50H160	0.8	16.0	3/4	NVC31GW	PC51H160	0.8	16.0	49/64
NVC23G	PC50H230	0.8	23.0	63/64	NVC32GW	PC51H230	0.8	23.0	1
NVC24G	PC50H380	1.0	38.0	1 19/32	NVC43GW	PC51H380	1.0	38.0	1 39/64
VC20GY	PC40J8R5	0.8	8.5	35/64	VC9GWY	PC41J8R5	0.8	8.5	9/16
VC21GY	PC40J4R5	0.8	4.5	19/64	VC10GWY	PC41J4R5	0.8	4.5	5/16
VC22GY	PC40H120	0.8	12.0	3/4	VC31GWY	PC41H120	0.8	12.0	49/64
VC23GY	PC40H180	0.8	18.0	63/64	VC32GWY	PC41H180	0.8	18.0	1
VC24GY	PC40H300	1.0	30.0	1 19/32	VC43GWY	PC41H300	1.0	30.0	1 39/64
VC20G	PC40J8R5	0.8	8.5	35/64	VC9GW	PC41J8R5	0.8	8.5	9/16
VC21G	PC40J4R5	0.8	4.5	19/64	VC10GW	PC41J4R5	0.8	4.5	5/16
VC22G	PC40H120	0.8	12.0	3/4	VC31GW	PC41H120	0.8	12.0	49/64
VC23G	PC40H180	0.8	18.0	63/64	VC32GW	PC41H180	0.8	18.0	1
VC24G	PC40H300	1.0	30.0	1 19/32	VC43GW	PC41H300	1.0	30.0	1 39/64
QUARTZ +3/64 −1/32					**QUARTZ**				
NMQ101	PC40Q1R8	0.6	1.8	35/64	NMQ121	PC41Q1R8	0.6	1.8	9/16
NMQ103	PC40Q5R5	0.6	5.5	19/64	NMQ123	PC41Q5R5	0.6	5.5	5/16
NMQ106	PC40Q9R5	0.6	9.5	63/64	NMQ126	PC41Q9R5	0.6	9.5	1
NMQ109	PC40Q160	0.8	16.0	1 19/32	NMQ129	PC41Q160	0.8	16.0	1 19/32
MQ101	PC40Q1R8	0.6	1.8	35/64	MQ121	PC41Q1R8	0.6	1.8	9/16
MQ103	PC40Q5R5	0.6	5.5	19/64	MQ123	PC41Q5R5	0.6	5.5	5/16
MQ106	PC40Q9R5	0.6	9.5	63/64	MQ126	PC41Q9R5	0.6	9.5	1
MQ109	PC40Q160	0.8	16.0	1 19/32	MQ129	PC41Q160	0.8	16.0	1 19/32

GENERAL SPECIFICATIONS	GLASS	QUARTZ
JFD No./Prefix 'N'	Green Glass dielectric & Hi-Life mechanism	Hi-Life mechanism only
JFD No./Suffix 'Y'	Hi-Life mechanism only	
WVDC	750	750
Dielectric Strength VDC	1,500	1,500
"Q" Minimum at 20 MC	500 min.	1,500 min.
Temperature Coefficient PPM/°C	±50 (−55 to +125°C)	+25 ±25 (−55 to +150°C)
Insulation Resistance megohms	10^6	10^6
Turning Torque inch ounces	1-10	1-10

Maximum length indicated on Panel Mount only is exclusive of mounting bushing. 'N' and 'Y' Series mounting bushing dimension: 9/32 in. All other ¼ in.
*Miniature Telescopic Capacitor Series available sealed.

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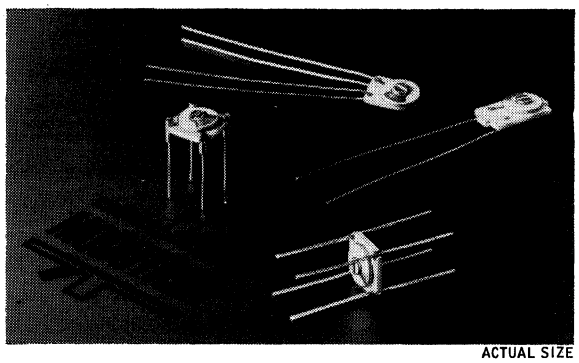
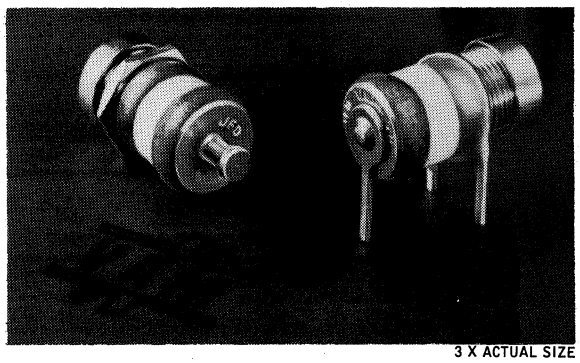


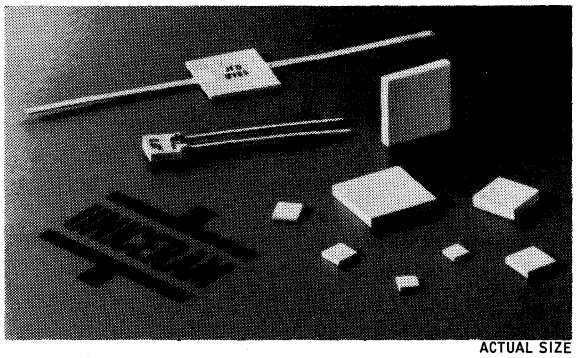
ACTUAL SIZE

Modutrim Ceramic Variable Capacitors feature wide delta C in extremely small and ultra stable circuits. Now 9 models in 4 configurations. Write for complete catalog #MT-66.



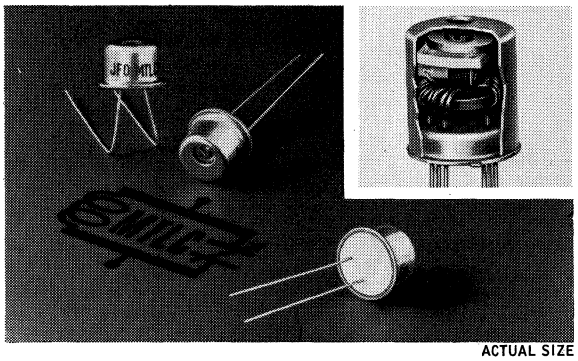
3 X ACTUAL SIZE

New JFD VAM Air Variable Capacitors maintain highest Q at high frequencies, offer ultra stability, smallest size. Write for complete catalog #VAM-65.



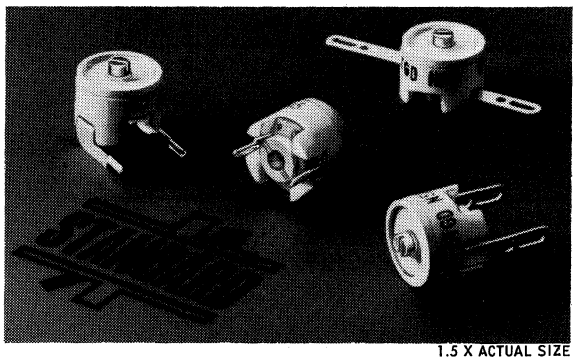
ACTUAL SIZE

Uniceram High-Q ceramic fixed capacitors combine exceptional stability, small size with minimum Q of 5000. Write for complete catalog #UNM-65-2.



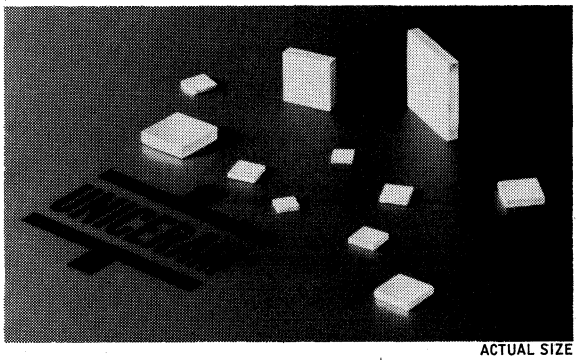
ACTUAL SIZE

MTLC's offer complete LC tuned circuits within TO-5 can. Standard frequency ranges from 2 MC to 300 MC. Various other complex networks such as discriminators, phase detectors are also available on special order. Write for complete catalog #MTLC-65-2.



1.5 X ACTUAL SIZE

Low-cost Stangard miniature ceramic variable series for commercial and industrial applications provide 8 wide delta C in 4 versatile configurations. Write for complete catalog #STD-65.



ACTUAL SIZE

JFD WAFERS are unleaded, unencapsulated versions of Uniceram capacitors. They offer the same fine electrical properties of regular Uniceram capacitors at lower cost. Ideally suited for hybrid microcircuits. Write for complete catalog #UNM-65-2.

JFD ELECTRONICS CO./COMPONENTS DIVISION

"TODAY'S COMPONENTS BUILT FOR TOMORROW'S CHALLENGES"

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CAPACITORS

MACHINED PLATE TRIMMER AND TUNER TYPES – U, UA, UB, U-LC, V, AND W – Available in both printed circuit and chassis mounting types. U types available in differential and butterfly printed circuit mounting types in addition to single section types. V and W capacitors available in single section type only. Maximum capacities of up to 54 pf. Tuners consist of a machined plate trimmer and high Q air wound silver plated inductor, in resonant frequencies of 100 to 750 Mc.

SOLDER PLATE TYPES – Type M: Capacity values to 30 pf. Voltage ratings to 1250 volts peak. Available in single section, differential and butterfly types.

Type S: Capacity values to 100 pf. Voltage ratings to 3000 volts peak. Available in single section, differential and butterfly types.

Type K: Capacity values to 150 pf. Voltage ratings to 3800 volts peak. Available only in single section types. May be furnished in production quantities in full compliance to MIL-C-92A.

Type R: Capacity values to 340 pf. Voltage ratings to 4400 volts peak. Available only in single section type.

Type L: Capacity values to 200 pf. Voltage ratings to 3500 volts peak. Available in single section differential, butterfly and dual section types.

SPACER TYPES – Type C: Capacity values to 1500 pf. Voltage ratings to 13,000 volts peak. Available in single section and dual section types.

Type D: Capacity values to 1700 pf. Voltage ratings to 9000 volts peak. Available in single section and dual section types.

STAKED PLATE TYPES – Type E: Capacity values to 1000 pf. Voltage ratings to 4500 volts peak. Available in single section and dual section types.

Type F: Capacity values to 400 pf. Voltage ratings to 3000 volts peak. Available in single section and dual section types.

CONNECTORS

SUB-MINIATURE INSULATED TYPES – Designed for printed circuit applications. Operating voltages to 1500 volts RMS . . . 5 amperes current carrying capacity . . . contact resistance less than 2 milliohms. Capacitance between two adjacent jacks less than one pf at 1 Mc. 10 colors available. Test-Point Strip/Handle – rapid-mounting polyamide body contains 12 test points each rated at 5 amps., maximum current capacity. Operating voltage 1500 volts RMS at sea level, 350 volts RMS at 50,000 feet. Contact resistance less than 2 milliohms.

STANDARD INSULATED CONNECTORS – A complete line of connectors molded of tough, low-loss, shock-proof polyamide in 10 colors meeting Fed. Std. 595. Tip, Banana and Dual Banana Plugs; Tip and Banana Jacks; Metal-Clad Tip Jack, Military; Jack and Sleeve; Binding Posts.

RIB-LOC TERMINALS – A new line of miniature, one-piece, insulated terminals with a unique serrated conical design, which resists loosening and turning. Provides an inexpensive approach to convenient press-in type terminals. Six colors conforming to Federal Color Standard No. 595. Terminal styles include single and double turret feed-thrus and stand-offs, .040" dia. tip plug and mating jack for .040# tip plug.

Tube Sockets, Insulators, Pilot Lights, and Hardware

ULTRA HIGH FREQUENCY SOCKETS – Continuous heat resistance to 500°F. with low loss, glass filled silicone base and heat treated beryllium copper contacts. Low inductance screen bypass capacitor available for VHF and UHF operation.

KEL-F SERIES – Molded of low dielectric loss-factor Kel-F plastic – designed for use with a wide selection of high power transmitting tubes.

STEATITE WAFER TYPES – Available in 4, 5, 6, 7, and 8-pin standard socket types, as well as Super Jumbo 4-pin types. Also giant 5 pin, and 7 pin Septar and VHF Septar Sockets.

SPECIAL PURPOSE TYPES – Includes sockets for special purpose tubes.

Note: For detailed specifications, request Socket Standardization Booklet 536 on your company letterhead.

INSULATORS – Low loss, high-voltage breakdown in either steatite or porcelain. Complete line includes Thru-panel Bushings and Insulators, Antenna Strain and Feeder Types, Cone and Stand-off Insulators, Lead-in Bushings and Feed-Thru Bowl Assemblies.

PILOT LIGHTS – Over 47 separate assemblies. Continuous indication neon types, models for high and low voltage incandescent bulbs, standard or wide angle glass, and lucite jewels. Specials, including types meeting military specifications, also available in production quantities.

PANEL BEARINGS – For use on ¼" shafts and panels up to ⅜" thick. CRYSTAL SOCKETS – For low capacity, high voltage and high temperature operation. Glazed steatite, Grade L-423 or better. DC-200 impregnated. RF CHOKES – High quality construction. For 1.7 to 30 Mc range.

CHECK Johnson for all your component requirements

Johnson also offers a complete line of heavy-duty RF components for broadcast transmitting, RF heating, antenna phasing and other commercial applications.

Equipment in this line includes fixed and variable inductors, antenna phase sampling loops, isolation filter inductors, feed-thru bowl insulators, static drain chokes, RF contactors and heavy-duty make-before-break switches.

E. F. JOHNSON COMPANY

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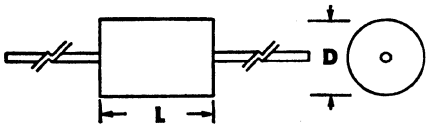
LOW VOLTAGE CAPACITORS

TYPE AZ
EPOXY DIP



TYPE AZ Capacitors are finished with a dip finish assuring operation in severe environmental conditions. **TYPE AZ** Capacitors are also available in flat oval shape.

Cap MFD	Cap Code	AZ2 D Max.	AZ2 L Max.	AZ3 D Max.	AZ3 L Max.
.01	103	.23	.38	.26	.38
.012	123	.24	.38	.23	.51
.015	153	.25	.38	.24	.51
.018	183	.23	.51	.25	.51
.022	223	.24	.51	.26	.51
.027	273	.25	.51	.28	.51
.033	333	.26	.51	.29	.51
.039	393	.27	.51	.26	.70
.047	473	.29	.51	.28	.70
.056	563	.26	.70	.29	.70
.068	683	.27	.70	.31	.70
.082	823	.29	.70	.33	.70
.1	104	.30	.70	.35	.70
.12	124	.32	.70	.37	.70
.15	154	.39	.70	.40	.70
.18	184	.39	.70	.43	.70
.22	224	.39	.70	.39	.95
.27	274	.44	.70	.42	.95
.33	334	.44	.70	.45	.95
.39	394	.47	.70	.48	.95
.47	474	.44	.95	.52	.95
.56	564	.47	.95	.55	.95
.68	684	.50	.95	.60	.95
.82	824	.50	.95	.65	.95
1.0	105	.57	.95	.64	1.13
1.5	155	.66	1.13	.75	1.13
2.0	205	.75	1.13	.85	1.13
3.0	305	.75	1.38	.84	1.63
4.0	405	.87	1.63	1.09	1.26
5.0	505	.87	1.63	1.05	1.63
8.0	805	1.07	1.63		
10.0	106	1.19	1.63		

Cap MFD	Cap Code	AZ4 D Max.	AZ4 L Max.	AZ6 D Max.	AZ6 L Max.
.001	102			.22	.38
.0022	222			.27	.38
.0033	332			.29	.38
.0047	472			.27	.51
.01	103	.23	.70	.29	.70
.012	123	.24	.70	.30	.70
.015	153	.26	.70	.28	.95
.018	183	.27	.70	.30	.95
.022	223	.28	.70	.36	.70
.027	273	.29	.70	.34	.95
.033	333	.32	.70	.36	.95
.039	393	.34	.70	.38	.95
.047	473	.37	.70	.40	.95
.056	563	.38	.70	.43	.95
.068	683	.41	.70	.47	.95
.082	823	.44	.70	.49	.95
.1	104	.37	1.13	.54	.95
.12	124	.39	1.13	.58	.95
.15	154	.42	1.13	.57	1.13
.18	184	.45	1.13	.59	1.26
.22	224	.53	1.13	.68	1.13
.27	274	.56	.95	.69	1.26
.33	334	.62	.95	.75	1.26
.39	394	.61	1.13	.71	1.63
.47	474	.67	1.13	.76	1.63
.56	564	.72	1.13	.83	1.63
.68	684	.78	1.13	.89	1.63
.82	824	.84	1.13	.97	1.63
1.0	105	.86	1.26	1.06	1.63
1.5	155	.93	1.51		
2.0	205	1.01	1.63		

★ DUPONT POLYESTER FILM

TYPE AM
METALLIZED MYLAR★

TYPE AM Capacitors are hermetically sealed in brass containers with compression glass seals for a "floating" case add 1/16" to dimension L (See drawing in **TYPE AZ** column).

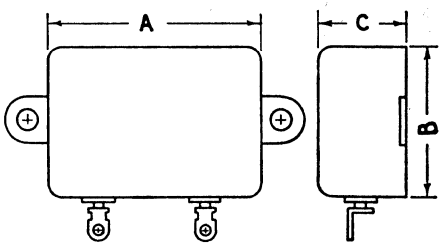
200 VOLTS D.C.

BASIC PART NO.	CAP MFD	SIZE CIRCUIT A OR F D	SIZE CIRCUIT A OR F L
AM2-103	0.01	0.174	9/16
AM2-123	.012	.174	9/16
AM2-153	.015	.174	9/16
AM2-183	.018	.174	9/16
AM2-223	.022	.187	9/16
AM2-273	.027	.187	9/16
AM2-333	.033	.235	9/16
AM2-393	.039	.235	9/16
AM2-473	.047	.235	9/16
AM2-563	.056	.235	3/4
AM2-683	.068	.235	3/4
AM2-823	.082	.235	3/4
AM2-104	0.1	.235	3/4
AM2-124	.12	.312	3/4
AM2-154	.15	.312	3/4
AM2-184	.18	.312	3/4
AM2-224	.22	.312	3/4
AM2-274	.27	.400	3/4
AM2-334	.33	.400	3/4
AM2-394	.39	.400	3/4
AM2-474	.47	.400	1 1/16
AM2-564	.56	.400	1 1/16
AM2-684	.68	.400	1 1/16
AM2-824	.82	.562	1 1/16
AM2-105	1.0	.562	1 1/16
AM2-155	1.5	.562	1 1/4
AM2-205	2.0	.670	1 1/4
AM2-305	3.0	.670	1 1/2
AM2-405	4.0	.670	1 3/4
AM2-505	5.0	.750	1 3/4
AM2-805	8.0	1.0	1 3/4
AM2-106	10.0	1.0	2 1/4

300 VOLTS D.C.

AM3-393	.039	.235	3/4
AM3-473	.047	.235	3/4
AM3-563	.056	.235	3/4
AM3-683	.068	.312	3/4
AM3-823	.082	.312	3/4
AM3-104	0.10	.312	3/4
AM3-124	.12	.400	3/4
AM3-154	.15	.400	3/4
AM3-184	.18	.400	3/4
AM3-224	.22	.400	1 1/16
AM3-274	.27	.400	1 1/16
AM3-334	.33	.400	1 1/16
AM3-394	.39	.400	1 1/4
AM3-474	.47	.562	1 1/16
AM3-564	.56	.562	1 1/16
AM3-684	.68	.562	1 1/16
AM3-824	.82	.562	1 1/16
AM3-105	1.0	.562	1 1/2
AM3-155	1.5	.670	1 1/2
AM3-205	2.0	.670	1 3/4
AM3-305	3.0	1.0	1 1/4
AM3-405	4.0	1.0	1 1/2
AM3-505	5.0	1.0	2 1/4
AM3-605	6.0	1.0	2 1/4

TYPE AB
METALLIZED MYLAR★



TYPE AB Capacitors are housed in standard bathtub containers using compression type solder-seal glass insulators. **TYPE AB** provides large values of capacitance with the fine characteristics of Metallized Mylar.*

200 VOLTS D.C.

PART NUMBER	CAP. MFD.	CASE SIZE A	CASE SIZE B	CASE SIZE C
AB2-504	0.5	1 1/8	1	13/16
AB2-105	1.0	1 1/8	1	13/16
AB2-205	2.0	1 1/8	1	13/16
AB2-405	4.0	1 3/4	1	3/4
AB2-505	5.0	1 3/4	1	3/4
AB2-605	6.0	1 3/4	1 1/4	7/8
AB2-805	8.0	1 3/4	1 1/4	7/8
AB2-106	10.0	2	1 3/4	7/8
AB2-126	12.0	2	1 3/4	7/8
AB2-156	15.0	2	1 3/4	7/8
AB2-206	20.0	2	2	1 1/8
AB2-306	30.0	2	2	1 1/4

300 VOLTS D.C.

AB3-504	0.5	1 1/8	1	13/16
AB3-105	1.0	1 1/8	1	13/16
AB3-205	2.0	1 3/4	1	3/4
AB3-405	4.0	1 3/4	1 1/4	7/8
AB3-505	5.0	2	1 3/4	7/8
AB3-605	6.0	2	1 3/4	7/8
AB3-805	8.0	2	1 3/4	7/8
AB3-106	10.0	2	2	1 1/8
AB3-126	12.0	2	2	1 1/8
AB3-156	15.0	2	2	1 1/4

400 VOLTS D.C.

AB4-104	0.1	1 1/8	1	13/16
AB4-254	0.25	1 1/8	1	13/16
AB4-504	0.5	1 1/8	1	13/16
AB4-105	1.0	1 3/4	1	3/4
AB4-205	2.0	1 3/4	1 1/4	7/8
AB4-405	4.0	2	1 3/4	7/8
AB4-505	5.0	2	2	1 1/8
AB4-605	6.0	2	2	1 1/8
AB4-805	8.0	2	2	1 1/4

600 VOLTS D.C.

AB6-503	0.05	1 1/8	1	13/16
AB6-104	0.10	1 1/8	1	13/16
AB6-254	0.25	1 1/8	1	13/16
AB6-504	0.50	1 3/4	1 1/4	7/8
AB6-105	1.0	2	1 3/4	7/8
AB6-205	2.0	2	2	1 1/8

The listing comprises a small portion of capacitors and voltage available. Send for complete information.

Plastic Capacitors, Inc.

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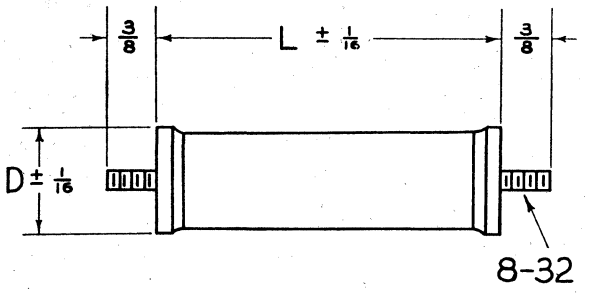
HIGH VOLTAGE CAPACITORS
TYPE OF

85°C GLASS CAP — PLASTIC FILM DC FILTER

TYPE OF Capacitors are housed in glass tubes with metal-to-glass soldered ferrules. Capacitor element is an improved plastic dielectric type, impregnated with a highly purified and inhibited mineral oil.



All glass containers with 'D' dimensions of 19/32 have 2-1/2 inch long 18 tinned copper pigtail leads.

PART NUMBER	CAP MFD	VOLTS DC	DIMENSIONS L	D
OF20-102	.001	2000	1 3/16	19/32
OF20-202	.002	2000	1 3/16	19/32
OF20-502	.005	2000	1 3/36	19/32
OF20-103	.01	2000	1 3/16	19/32
OF20-203	.02	2000	1 9/16	19/32
OF20-503	.05	2000	1 3/4	3/4
OF20-104	0.1	2000	2 1/4	3/4
OF20-254	0.25	2000	2 3/4	29/32
OF20-504	0.5	2000	2	1 3/8
OF30-102	.001	3000	1 3/16	19/32
OF30-202	.002	3000	1 3/16	19/32
OF30-502	.005	3000	1 3/16	19/32
OF30-103	.01	3000	1 9/16	19/32
OF30-203	.02	3000	1 3/4	3/4
OF30-503	.05	3000	2 1/4	3/4
OF30-104	0.1	3000	1 3/4	1 1/8
OF30-254	0.25	3000	2	1 3/8
OF30-504	0.5	3000	2 3/4	1 5/8
OF40-102	.001	4000	1 3/16	19/32
OF40-202	.002	4000	1 3/16	19/32
OF40-502	.005	4000	1 3/16	19/32
OF40-103	.01	4000	1 3/16	3/4
OF40-203	.02	4000	1 3/4	3/4
OF40-503	.05	4000	2	13/16
OF40-104	0.1	4000	2	1 1/8
OF40-254	0.25	4000	2 1/4	1 5/8
OF40-504	0.5	4000	3 3/4	1 5/8

PART NUMBER	CAP MFD	VOLTS DC	DIMENSIONS L	D
OF50-202	.002	5000	1 3/16	19/32
OF50-502	.005	5000	1 5/8	19/32
OF50-103	.01	5000	1 3/4	3/4
OF50-203	.02	5000	2 1/4	3/4
OF50-503	.05	5000	2 1/4	29/32
OF50-104	0.1	5000	2 1/4	1 3/8
OF50-254	0.25	5000	3	1 5/8
OF50-504	0.5	5000	6	1 5/8
OF60-103	.01	6000	1 3/4	3/4
OF60-203	.02	6000	2 1/4	3/4
OF60-503	.05	6000	3 1/4	29/32
OF60-104	0.1	6000	3	1 3/8
OF60-254	0.25	6000	4	1 5/8
OF60-504	0.5	6000	7	1 5/8
OF80-502	.005	8000	1 3/4	3/4
OF80-103	.01	8000	2 1/4	3/4
OF80-203	.02	8000	2 3/4	29/32
OF80-503	.05	8000	2 3/4	1 3/8
OF80-104	0.1	8000	3 5/8	1 5/8
OF80-204	0.2	8000	7	1 5/8
OF100-101	.0001	10 KV	1 5/8	19/32
OF100-201	.0002	10 KV	1 5/8	19/32
OF100-501	.0005	10 KV	1 5 8	19/32
OF100-102	.001	10 KV	1 5/8	19/32
OF100-202	.002	10 KV	1 5/8	3/4
OF100-502	.005	10 KV	1 3/4	13/16
OF100-103	.01	10 KV	2 1/4	29/32
OF100-203	.02	10 KV	2 3/4	1 1/8
OF100-503	.05	10 KV	2 3/4	1 5/8
OF100-603	.06	10 KV	3	1 5/8
OF100-104	0.1	10 KV	5	1 5/8
OF150-101	.0001	15 KV	2 1/4	19/32
OF150-201	.0002	15 KV	2 1/4	19/32
OF150-501	.0005	15 KV	2 1/4	19/32
OF150-102	.001	15 KV	2 1/4	3/4
OF150-202	.002	15 KV	2 1/4	3/4
OF150-502	.005	15 KV	2 3/4	1 1/8
OF150-103	.01	15 KV	3 3/4	1 1/8
OF150-203	.02	15 KV	4 1/4	1 3/8
OF150-503	.05	15 KV	7	1 5/8
OF150-603	.06	15 KV	8	1 5/8
OF200-101	.0001	20 KV	3 1/2	19/32
OF200-201	.0002	20 KV	3 1/2	19/32
OF200-501	.0005	20 KV	3 1/2	19/32
OF200-102	.001	20 KV	3 1/2	3/4
OF200-202	.002	20 KV	3 1/2	13/16
OF200-502	.005	20 KV	3 1/2	1 1/8
OF200-103	.01	20 KV	4 1/2	1 1/8
OF200-203	.02	20 KV	4 1/2	1 5/8
OF200-403	.04	20 KV	7 1/4	1 5/8
OF300-101	.0001	30 KV	4 9/16	19/32
OF300-201	.0002	30 KV	4 9/16	19/32
OF300-501	.0005	30 KV	4 9/16	19/32
OF300-102	.001	30 KV	5	3/4
OF300-202	.002	30 KV	5	29/32
OF300-502	.005	30 KV	5	1 3/8
OF300-103	.01	30 KV	6 1/2	1 5/8
OF300-203	.02	30 KV	9	1 5/8

The above is a partial listing. Additional capacitance and voltage values are available. Send for complete listing.

HIGH VOLTAGE POWER PACKS
COMPACT "M" SERIES 2 TO 75 KVDC

SEE SECTION 4000, PAGE 1015

Plastic Capacitors, Inc.

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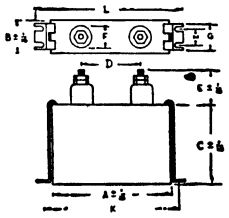
HIGH VOLTAGE CAPACITORS
TYPE LK

MYLAR★ PAPER FILTER CAPACITORS

TYPE LK Capacitors are specifically designed for filter, bypass and coupling applications in the low audio frequency range. The CP70 style container and internal construction permit operation in any position. Glazed steatite bushings are used, and in the voltage ranges of 2000 and greater, steatite is the electrical insulation in the terminal assembly. The threaded stud terminal is supplied with nut, lockwasher and/or solder lug. The whole assembly is hermetically sealed.



2000 VDCW

PART NUMBER	CAP. MFD.	A	B	C
LK20-105	1.0	1 3/4	1	3 1/4
LK20-205	2	2 1/2	1 3/16	3 1/2
LK20-205Y	2	1 3/4	1	5
LK20-405	4	2 1/2	1 3/16	5 1/2
LK20-405Y	4	3 3/4	1 1/4	3 3/4
LK20-605	6	3 3/4	1 1/4	5
LK20-605Y	6	3 3/4	1 3/4	3 3/4
LK20-805	8	3 3/4	1 1/4	6 1/4
LK20-805Y	8	3 3/4	1 3/4	4 1/2
LK20-106	10	3 3/4	1 3/4	5 1/4
LK20-106Y	10	3 3/4	2 1/4	4 1/2
LK20-126	12	3 3/4	1 3/4	6 1/4
LK20-126Y	12	3 3/4	2 1/4	5
LK20-126Z	12	3 3/4	3 3/16	4
LK20-156	15	3 3/4	2 1/4	6
LK20-156Y	15	3 3/4	3 3/16	5
LK20-156Z	15	4 9/16	3 3/4	3 3/4
LK20-206	20	3 3/4	3 3/16	6
LK20-206Y	20	4 9/16	3 3/4	4 1/4
LK20-256	25	3 3/4	3 3/16	6 3/4
LK20-306	30	4 9/16	3 3/4	5 3/4

3000 VDCW

PART NUMBER	CAP. MFD.	A	B	C
LK30-504	.5	1 3/4	1	3 1/4
LK30-105	1.0	1 3/4	1	5 1/4
LK30-105Y	1.0	2 1/2	1 3/16	3 1/2
LK30-205	2	2 1/2	1 3/16	5 1/2
LK30-205Y	2	3 3/4	1 1/4	3 3/4
LK30-405	4	3 3/4	1 1/4	6 1/4
LK30-405Y	4	3 3/4	1 3/4	4 3/4
LK30-405Z	4	3 3/4	2 1/4	4
LK30-605	6	3 3/4	1 3/4	6 1/4
LK30-605Y	6	3 3/4	2 1/4	5 1/4
LK30-605Z	6	3 3/4	3 3/16	4
LK30-805	8	3 3/4	2 1/4	6 1/2
LK30-805Y	8	3 3/4	3 3/16	5
LK30-805Z	8	4 9/16	3 3/4	3 3/4
LK30-106	10	3 3/4	3 3/16	5 3/4
LK30-106Y	10	4 9/16	3 3/4	4 1/2
LK30-126	12	3 3/4	3 3/16	6 3/4
LK30-126Y	12	4 9/16	3 3/4	5
LK30-156	15	4 9/16	3 3/4	6
LK30-206Y	20	4 9/16	3 3/4	7
LK30-256Y	25	4 9/16	3 3/4	10
LK30-306Z	30	4 9/16	3 3/4	11 1/2

4000 VDCW

PART NUMBER	CAP. MFD.	A	B	C
LK40-254	.25	1 3/4	1	2 3/4
LK40-504	.5	1 3/4	1	4
LK40-105	1.0	2 1/2	1 3/16	4
LK40-205	2	2 1/2	1 3/16	6 3/4
LK40-205Y	2	3 3/4	1 3/4	3 3/4
LK40-405	4	3 3/4	1 3/4	6
LK40-405Y	4	3 3/4	2 1/4	4 3/4
LK40-605	6	3 3/4	2 1/4	6 1/2
LK40-605Y	6	3 3/4	3 3/16	5
LK40-605Z	6	4 9/16	3 3/4	3 3/4
LK40-805	8	3 3/4	3 3/16	6
LK40-805Y	8	4 9/16	3 3/4	4 3/4
LK40-106	10	4 9/16	3 3/4	5 1/2
LK40-126	12	4 9/16	3 3/4	6 1/2
LK40-156	15	4 9/16	3 3/4	8 1/2
LK40-206Z	20	4 9/16	3 3/4	9

★ DUPONT POLYESTER FILM

5000 VDCW

PART NUMBER	CAP. MFD.	A	B	C
LK50-104	.1	1 3/4	1	2 1/8
LK50-254	.25	1 3/4	1	3
LK50-504	.5	1 3/4	1	4 3/4
LK50-504Y	.5	2 1/2	1 3/16	3 1/4
LK50-105	1.0	2 1/2	1 3/16	5
LK50-105Y	1.0	3 3/4	1 1/4	3 3/4
LK50-205	2	3 3/4	1 1/4	6
LK50-205Y	2	3 3/4	1 3/4	4 1/2
LK50-205Z	2	3 3/4	2 1/4	3 3/4
LK50-405	4	3 3/4	2 1/4	6 1/4
LK50-405Y	4	3 3/4	3 3/16	4 3/4
LK50-405Z	4	4 9/16	3 3/4	3 3/4
LK50-605	6	3 3/4	3 3/16	6 1/2
LK50-605Y	6	4 9/16	3 3/4	4 3/4
LK50-805	8	4 9/16	3 3/4	6 1/4
LK50-106Y	10	4 9/16	3 3/4	7 1/2
LK50-126Y	12	4 9/16	3 3/4	9 1/2
LK50-156Y	15	4 9/16	3 3/4	9 1/4
LK50-206Y	20	7 5/16	5 9/16	5 3/4
LK50-206Z	20	6	4 5/8	8
LK50-256Y	25	6	4 5/8	9 1/4
LK50-306Y	30	6	4 5/8	11 1/4

6000 VDCW

PART NUMBER	CAP. MFD.	A	B	C
LK60-104	.1	3 3/4	1 1/4	2 1/4
LK60-254	.25	3 3/4	1 1/4	2 1/2
LK60-504	.5	3 3/4	1 1/4	3 3/4
LK60-105	1.0	3 3/4	1 1/4	6 1/2
LK60-105Y	1.0	3 3/4	1 3/4	4 1/2
LK60-205	2	3 3/4	2 1/4	6 1/4
LK60-205Y	2	3 3/4	3 3/16	4 3/4
LK60-405	4	4 9/16	3 3/4	6
LK60-605	6	4 9/16	3 3/4	8 1/4
LK60-805	8	4 9/16	3 3/4	10 1/4
LK60-805Y	8	8	4	9 1/4
LK60-106Y	10	6	4 5/8	8 3/4
LK60-126Y	12	6	4 5/8	9 3/4
LK60-156Y	15	6	4 5/8	11
LK60-206Y	20	7 5/16	5 9/16	10 1/4
LK60-306Y	30	13 1/2	5 1/8	11 7/8

8000 VDCW

PART NUMBER	CAP. MFD.	A	B	C
LK80-104Y	.1	2 1/2	1 3/16	3
LK80-104	.1	3 3/4	1 1/4	2 1/2
LK80-254Y	.25	2 1/2	1 3/16	5 1/4
LK80-254	.25	3 3/4	1 1/4	3 3/4
LK80-504	.5	3 3/4	1 1/4	5 3/4
LK80-504Y	.5	3 3/4	1 3/4	4 1/4
LK80-105	1.0	3 3/4	1 3/4	7
LK80-105Y	1.0	3 3/4	2 1/4	5 3/4
LK80-105Z	1.0	3 3/4	3 3/16	4 1/2
LK80-205	2	3 3/4	3 3/16	7
LK80-205Y	2	4 9/16	3 3/4	5 1/4
LK80-405	4	4 9/16	3 3/4	8 1/2
LK80-605Y	6	6	4 5/8	8 1/4
LK80-605Z	6	4 9/16	3 3/4	12
LK80-805Y	8	6	4 5/8	10
LK80-106Y	10	7 5/16	5 9/16	9
LK80-126Y	12	7 5/16	5 9/16	10
LK80-156Y	15	13 1/2	4 1/8	11
LK80-206Y	20	13 1/2	5 1/8	11 7/8

10 KVDC

PART NUMBER	CAP. MFD.	A	B	C
LK100-104	.1	3 3/4	1 3/4	3 1/4
LK100-254	.25	3 3/4	1 3/4	3 3/4
LK100-254Y	.25	3 3/4	2 1/4	3 1/4
LK100-504	.5	3 3/4	1 3/4	5 3/4
LK100-504Y	.5	3 3/4	2 1/4	4 1/2
LK100-504Z	.5	3 3/4	3 3/16	3 3/4
LK100-105	1.0	3 3/4	2 1/4	7 1/4
LK100-105Y	1.0	3 3/4	3 3/16	5 1/4
LK100-105Z	1.0	4 9/16	3 3/4	4 1/2
LK100-205	2	4 9/16	3 3/4	6 3/4
LK100-405Y	4	4 9/16	3 3/4	11
LK100-605Y	6	6	4 5/8	10 1/2
LK100-805Y	8	7 5/16	5 9/16	9 1/4
LK100-106Y	10	7 5/16	5 9/16	11

12.5 KVDC

PART NUMBER	CAP. MFD.	A	B	C
LK125-503	.05	3 3/4	1 3/4	3
LK125-104	.1	3 3/4	1 3/4	3 5/8
LK125-254	.25	3 3/4	1 3/4	5 7/8
LK125-504	.5	3 3/4	3 3/16	5 5/8
LK125-504Y	.5	4 9/16	3 3/4	4 3/8
LK125-105	1.0	4 9/16	3 3/4	6 5/8
LK125-205	2	4 9/16	3 3/4	11
LK125-205Z	2	6	4 1/8	7 3/4
LK125-405Y	4	7 5/16	5 9/16	9 1/2
LK125-605	6	13 1/2	4 1/8	11
LK125-805Y	8	13 1/2	5 1/8	11 7/8
LK125-106	10	13 1/2	5 1/8	13 3/4

15 KVDC

PART NUMBER	CAP. MFD.	A	B	C
LK150-104	.1	3 3/4	1 3/4	3 3/4
LK150-254	.25	3 3/4	1 3/4	7
LK150-254Y	.25	3 3/4	2 1/4	5
LK150-504	.5	3 3/4	3 3/16	6 1/2
LK150-504Y	.5	4 9/16	3 3/4	5
LK150-105	1.0	4 9/16	3 3/4	8 1/2
LK150-205Y	2	6	4 5/8	9 1/4
LK150-405Y	4	7 5/16	5 9/16	12

20 KVDC

PART NUMBER	CAP. MFD.	A	B	C
LK200-104	.1	3 3/4	2 1/4	4 3/4
LK200-254	.25	3 3/4	3 3/16	6
LK200-254Y	.25	4 9/16	3 3/4	4 3/4
LK200-504	.5	4 9/16	3 3/4	7 1/2
LK200-105	1.0	8	4	9 1/4
LK200-205	2	13 1/2	4 1/8	9 1/4

25 KVDC

PART NUMBER	CAP. MFD.	A	B	C
LK250-503	.05	3 3/4	3 3/16	4
LK250-104	.1	3 3/4	3 3/16	4 3/4
LK200-254	.25	4 9/16	3 3/4	6 1/2
LK250-504	.5	4 9/16	3 3/4	11 1/2
LK250-504Y	.5	8	4	9 1/4
LK250-105	1.0	13 1/2	4 1/8	9 1/4

30 KVDC

PART NUMBER	CAP. MFD.	A	B	C
LK300-503	.05	3 3/4	3 3/16	5 1/2
LK300-104	.1	3 3/4	3 3/16	8 3/4
LK300-254Y	.25	4 9/16	3 3/4	8 3/4
LK300-504Z	.5	6	4 5/8	9 1/4
LK300-105Y	1.0	13 1/2	4 1/8	11 1/2

The above is a partial listing. Additional capacitance and voltage values are available. Send for complete listing.

Plastic Capacitors, Inc.

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MALLORY Dry Electrolytic Capacitors

METAL CAN ELECTROLYTIC CAPACITORS

FP-WP capacitors are designed for 85° C operation, and have standard twist-prong mounting lugs with solder terminals. PFP-PWP types use standard EIA printed circuit terminals and can be used in place of normal solder terminal types. FPS is special mounting for auto radios. FP-WP types may be adapted to printed circuit mounting by using an **FPA Adapter Kit** (Net Each, **27c**). All types use "etched cathode" construction for hum-free operation, and have an exclusive vent and seal design. Standard tolerance: Up to 50 WVDC, −10% to +150%; 51 to 350 WVDC, −10% to +100%; 351 WVDC and up, −10% to +50%. *Sizes shown are at end of listing.

FP-WP AND PFP-PWP—SINGLES

Mallory No.	Cap., µF	WV DC	*	Net Each
WP510	.5Z/15750†	3NP	b	$1.32
WP540	1.0Z/60†	3NP	h	2.40
WP505	10Z/30†	3NP	a	1.20
PWP030A	750	6	o	1.29
FP030.6	5000	6	c	3.14
FP030.8	10000	6	g	5.52
PWP031A	2500	10	c	2.84
FP031.6	5000	10	d	3.45
FP031.8	10000	10	h	6.16
WP035	225	15	a	1.05
PWP036	400	15	a	1.16
WP039A	1000	15	l	1.53
WP041A	2000	15	f	2.07
WP042A	3000	15	f	2.10
FP042.6	5000	15	g	4.06
FP042.8	10000	15	j	6.66
WP052	40	25	a	.81
WP055A	100	25	l	.96
PWP056	400	25	b	1.44
WP057A	500	25	l	$1.53
WP059	1000	25	f	2.13
PWP060A	1500	25	c	2.57
FP060.2	2000	25	r	2.56
FP060.4	4000	25	h	3.93
FP060.6	5000	25	j	4.63
FP060.8	7500	25	n	6.33
WP063	4	50	a	.75
WP064A	100	50	l	.99
PWP 063.9A	100	50	o	1.04
WP064.2A	150	50	l	1.08
WP065	500	50	f	1.59
WP066A	500	50	c	1.59
FP066.5	1000	50	f	2.50
PWP067A	1250	50	g	2.90
WP068	1500	50	h	2.31
FP070	2000	50	j	3.21
FP113	30	150	a	.93
FP115A	50	150	l	.99
FP116A	100	150	l	1.20
FP116.5A	120	150	b	1.23
FP116.6	120	150	f	$1.23
PFP116.8A	140	150	b	1.44
FP117A	150	150	b	1.29
FP117.5	150	150	f	1.29
FP118A	200	150	f	1.47
FP119A	300	150	f	1.68
FP121	120	200	f	1.41
FP122A	125	200	b	1.47
PFP122A	160	200	f	1.91
WP123A	500	200	h	2.19
FP125	15	250	a	.93
WP125.5A	140	250	c	1.74
WP125.9A	150	250	c	1.71
FP128A	80	300	c	1.53
FP129.1A	100	300	c	1.74
WP131.5	160	300	g	2.31
WP132	200	300	g	2.58
FP135A	30	350	l	1.14
FP137A	50	350	b	1.26
FP137.2A	60	350	c	1.32
FP138A	80	350	f	1.71
FP140A	125	350	g	2.37
FP140.5A	140	350	g	$2.34
FP140.6A	150	350	g	2.55
FP141	320	350	l	4.05
FP142	10	450	a	.93
FP143A	15	450	l	1.02
FP144A	20	450	m	1.08
PFP144	20	450	b	1.29
FP145	30	450	c	1.17
FP146	40	450	c	1.23
FP147	50	450	d	1.25
FP148	60	450	g	1.68
FP149	80	450	g	1.83
FP150A	100	450	g	2.07
FP155A	125	450	h	2.76
FP171A	10	500	l	.96
FP173A	20	500	m	1.11
FP175	30	500	c	1.20
FP176	40	500	f	1.50
FP177	40	500	d	1.50
PFP176.5	40	500	d	1.74
FP187A	90	500	g	2.10

FP-WP AND PFP-PWP—DUALS

Mallory No.	Capacity, µF	WVDC	*	Net Each
WP204	250-1000	10-6	f	$1.71
WP205	.5Z-2.5Z/15750†-60†	12-6	i	2.16
WP200	1000-1000	15-15	f	2.64
WP200.1A	1000-1000	15-15	c	2.64
FPS200.13A	1000-1000	16-10	b	2.77
WP200.23	1500-1000	16-10	f	2.55
FP200.6	500-500	16-16	b	1.95
PFP200.64	500-500	16-16	l	1.75
PFP200.65	500-500	16-16	l	1.83
PFP200.45A	700-200	16-16	l	2.09
WP200.18	800-200	16-16	b	1.68
PFP200.19	1000-200	16-16	b	1.83
WP200.21A	1000-500	16-16	b	2.28
PWP200.3A	250-250	20-20	l	1.69
WP200.5A	500-100	20-20	l	1.65
PWP200.6	500-100	20-20	b	1.79
PFP200.7	500-100	20-20	b	1.80
WP200.7A	500-200	20-20	l	1.80
PWP200.4A	800-250	20-20	b	2.25
WP200.2B	1000-2000	25-15	f	3.87
WP201.1A	40-40	25-25	l	.93
PWP-201.13A	400-200	25-25	l	1.79
PWP201.15	1000-1000	25-25	g	3.48
PWP201.3A	1500-1500	25-25	g	4.52
WP201.5A	1000-1000	35-35	f	3.93
WP202.1A	50-50	50-50	l	1.02
WP202.5A	100-100	50-50	l	1.26
WP205.6A	50-500	150-5	l	1.41
WP205.8	50-1000	150-8	b	1.71
WP206A	50-150	150-25	l	1.32
FP208A	20-20	150-150	l	1.02
FP211A	30-30	150-150	l	1.11
FP210A	40-20	150-150	l	1.08
FP212A	40-40	150-150	l	1.14
FP213A	50-30	150-150	l	1.29
PFP213.1A	50-30	150-150	l	1.40
FP214A	50-50	150-150	c	1.56
PFP214.3	70-30	150-150	b	1.46
FP214.5	75-75	150-150	f	1.56
FP214.6A	75-75	150-150	b	1.38
FP216.2A	80-40	150-150	m	1.38
PWP214.4A	80-40	150-150	b	1.52
WP216.24	80-50	150-150	b	1.50
PFP214.7A	100-50	150-150	b	1.62
FP215A	125-100	150-150	r	2.04
FP216.3A	200-150	150-150	f	2.25
FP216.4A	200-200	150-150	g	$2.40
PFP216.4A	200-200	150-150	g	2.59
PFP216.45	50-100	200-150	f	1.91
PFP216.5A	40-20	200-200	l	1.42
FP216.6A	60-60	200-200	b	1.53
FP216.1A	200-5	200-200	f	1.65
PFP216.1A	200-5	200-200	f	2.26
FP216.7	250-100	200-200	g	2.78
FP217.865	100-100	200-300	k	2.23
FP216.8A	40-25	250-150	l	1.29
FP217A	20-20	250-250	l	1.14
FP221A	40-40	250-250	m	1.50
FP217.7A	150-150	250-250	g	3.09
FP217.74A	200-200	250-250	h	3.60
WP217.85A	35-500	300-6	m	1.68
FP217.86A	30-20	300-50	l	1.14
FP217.8A	20-60	300-250	b	1.65
PFP217.86	10-10	300-300	f	1.57
FP217.87	40-40	300-300	f	1.77
FP217.88	50-10	300-300	f	1.53
FP217.9A	75-75	300-300	g	2.28
FP218A	120-20	300-300	g	2.40
WP219	125-60	300-300	g	2.70
FP219.7	150-100	300-300	h	3.11
PFP220.1	40-25	350-25	b	1.54
FP223A	5-75	350-150	m	1.26
FP225A	15-15	350-350	m	1.35
FP227A	20-20	350-350	b	1.38
FP227.3A	30-30	350-350	c	1.74
WP227.35	80-20	350-350	d	2.10
FP227.4A	80-20	350-350	f	2.10
FP227.5A	80-40	350-350	g	2.16
FP227.6A	80-80	350-350	h	2.82
FP227.7A	100-100	350-350	j	3.69
FP228.3	150-20	350-350	h	2.73
FP229A	35-100	400-50	c	1.56
FP229.2	40-4	400-350	d	1.41
FP229.25	80-4	400-350	e	2.10
FP229.28	100-10	400-350	g	2.62
FP229.3	75-75	400-400	i	2.91
FP229.4	80-60	400-400	i	2.82
FP229.5	120-40	400-400	i	3.15
WP229.52	120-120	400-400	i	4.17
FP229.53	40-50	450-50	d	1.73
FP229.55A	40-100	450-50	d	1.68
FP229.6	50-100	450-50	g	1.80
FP244	80-50	450-50	h	2.10
FP229.8	80-100	450-50	h	2.25
FP229.9A	30-200	450-150	g	$2.10
FP230A	20-50	450-250	c	1.68
WP230.2	20-200	450-250	f	2.73
FP230.3	40-10	450-300	d	1.56
FP230.5	10-50	450-350	d	1.71
FP230.6	10-100	450-350	h	2.40
FP235	20-80	450-350	g	2.19
PFP230.7	80-2	450-350	h	2.51
PFP217.11	2-20	450-400	b	1.43
WP230.9A	5-5	450-450	l	1.02
FP231A	10-10	450-450	m	1.14
FP231.2	20-5	450-450	b	1.46
FP231.3A	20-10	450-450	b	1.32
FP234A	20-20	450-450	c	1.53
FP237	30-30	450-450	g	1.83
FP238A	40-40	450-450	g	2.07
FP239A	50-40	450-450	g	2.19
FP240†	50-50	450-450	h	2.31
FP242A	60-20	450-450	g	2.10
FP242.5B	60-60	450-450	h	2.70
FP245A	80-10	450-450	g	2.16
FP245.2	80-20	450-450	h	2.34
FP245.3B	80-30	450-450	h	2.49
FP247A	100-40	450-450	j	2.91
FP248	100-60	450-450	i	3.51
FP250A	40-80	475-200	f	2.19
FP252B	80-80	475-250	h	2.79
FP253	80-160	475-250	n	3.53
FP255A	20-100	475-300	g	2.37
FP256A	20-100	475-400	j	2.70
FP258	15-15	475-475	c	1.41
FP259	30-10	475-475	d	1.56
FP260B	40-10	475-475	f	1.86
FP262A	40-40	475-475	g	2.58
FP263B	60-40	475-475	h	2.73
FP264.5A	80-40	475-475	h	3.03
FP266A	80-50	475-475	j	3.12
WP272A	10-100	500-50	m	1.38
FP277	60-80	500-150	h	2.25
FP280	40-50	500-200	g	1.98
FP282A	10-10	500-500	b	1.17
FP282.5	20-20	500-500	f	2.09
FP283	30-10	500-500	f	1.56
FP284	30-30	500-500	g	1.95
PFP284.1B	30-30	500-500	f	2.52
FP288A	40-40	500-500	g	2.58
FP290A	60-40	500-500	h	2.73

†Cycles. ‡Can ungrounded for photoflash.

FP-WP AND PFP-PWP—TRIPLES

Mallory No.	Capacity, µF	Working Volts DC	*	Net Each
WP300.6A	850-400-2.2	16-16-#	b	$2.97
WP300.7A	850-400-4	16-16-#	b	2.97
FPS300.75	850-400-4	16-16-#	c	3.00
FP300.76	850-400-8	16-16-#	c	2.57
FP300.77	850-400-12	16-16-#	c	2.57
FPS300.78	850-400-12	16-16-#	c	2.74
WP300.88	1000-400-4	16-16-#	c	2.16
WP300.89	1000-400-4	16-16-#	f	2.58
WP300.9	1000-500-4	16-16-#	c	3.12
FPS300.91	1000-500-4	16-16-#	g	2.50
PWP300.3A	250-250-50	16-16-16	l	1.87
PWP300.4B	250-250-500	16-16-16	l	2.34
WP300.5	400-100-100	16-16-16	b	1.80
PFP300.65	400-300-100	16-16-16	m	1.81
PFP300.8	500-100-100	16-16-16	m	$1.72
PFP300.81	500-300-300	16-16-16	l	1.93
PFP300.18	500-450-100	16-16-16	l	2.00
WP300.85A	500-500-100	16-16-16	m	2.40
PFP300.87	700-200-100	16-16-16	l	1.89
WP300	1000-500-20	16-16-16	f	2.52
WP300.17A	500-200-5	16-16-25	m	1.92
WP520A	40-40-40	25-25-25	l	1.29
WP300.95	1000-200-200	25-25-25	f	2.96
WP301A	30-30-30	50-50-50	l	1.29
FP312A	100-50-25	150-50-25	b	1.80
WP302.1A	15-15-1200	150-150-2	c	1.80
PFP302.38	70-30-100	150-150-10	c	$1.67
FP302.4	80-20-200	150-150-10	f	1.71
FP302.5A	80-60-250	150-150-10	c	2.04
PWP302.55A	80-60-250	150-150-10	c	1.87
FP302.7	80-30-300	150-150-10	f	1.89
PFP302.75A	90-40-400	150-150-10	c	1.93
FP302.8A	100-80-200	150-150-10	f	2.16
FP302.9	80-20-100	150-150-15	f	1.68
FP306A	40-20-20	150-150-25	l	1.38
PFP311.1A	40-20-20	150-150-25	l	1.50
FP307A	40-20-100	150-150-25	l	1.50
FP304A	40-20-200	150-150-25	m	1.62
FP310A	40-40-20	150-150-25	l	1.44

*See table of sizes on another page. #11.5 rms.

Triples continued on next page.

Net

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MALLORY Dry Electrolytic Capacitors

FP-WP AND PFP-PWP—TRIPLES (CONTINUED)

Mallory No.	Capacity, μF	Working Volts DC	*	Net Each
FP314A	40-40-200	150-150-25	m	$1.68
WP308.1A	40-40-250	150-150-25	b	1.89
FP309A	50-30-100	150-150-25	m	1.62
FP311A	50-50-20	150-150-25	m	1.59
PFP-311.12A	70-30-20	150-150-25	b	1.63
FP311.05	80-20-200	150-150-25	b	1.76
FP311.1A	80-40-25	150-150-25	b	1.65
FP311.15A	80-40-300	150-150-25	f	2.22
FP311.2A	20-20-20	150-150-150	l	1.38
PFP311.3A	30-25-20	150-150-150	l	1.52
PFP-311.63A	30-50-40	150-150-150	b	1.67
FP311.4A	40-20-20	150-150-150	l	1.44
FP311.5A	40-40-40	150-150-150	m	1.56
PFP311.51	40-60-40	150-150-150	b	1.70
FP311.55A	50-20-20	150-150-150	m	1.53
PFP-311.62A	50-30-20	150-150-150	m	1.59
FP311.6A	50-40-10	150-150-150	m	1.53
FP311.65A	50-50-50	150-150-150	b	1.80
PFP311.53	60-60-40	150-150-150	f	2.03
FP326.45	60-60-60	150-150-150	c	1.79
FP311.66A	70-15-15	150-150-150	m	1.62
FP311.8A	70-40-40	150-150-150	b	1.74
FP311.67A	80-30-10	150-150-150	m	1.65
FP311.7	80-40-20	150-150-150	f	1.74
FP311.71	80-40-20	150-150-150	b	1.67
PWP-311.75A	80-60-20	150-150-150	c	1.78
FP311.84	120-80-20	150-150-150	c	1.90
FP311.85A	120-80-40	150-150-150	f	2.22
FP311.9A	120-120-40	150-150-150	f	2.43
FP311.95A	150-50-50	150-150-150	f	2.22
FP312.5A	200-100-60	150-150-150	g	2.73
FP312.6A	300-100-80	150-150-150	g	2.97
PWP315	80-100-40	160-160-160	d	1.42
FP312.8A	60-200-140	200-150-150	g	2.85
FP314.7	150-150-60	200-150-150	e	2.49
FP315.1	60-5-200	200-200-50	d	1.80
FP318.3A	30-20-40	200-200-150	m	1.62
FP318.5A	20-20-20	200-200-200	l	1.50
FP318.7A	30-20-20	200-200-200	m	1.62
FP318.74	40-40-20	200-200-200	f	1.77
WP318.77	60-60-40	200-200-200	f	2.16
FP318.8A	250-200-10	200-200-200	h	4.02
FP318.85	250-200-50	200-200-200	j	3.56
FP319A	80-40-50	250-150-50	f	1.98
WP319.6A	60-5-100	250-250-50	b	1.80
FP319.5A	90-90-20	250-250-50	f	2.76
WP319.7	60-5-50	250-250-200	f	2.13
FP319.8A	20-20-20	250-250-250	m	1.56
FP320	40-20-20	250-250-250	f	1.74
FP321A	40-20-20	250-250-250	b	1.74
FP321.5	40-40-40	250-250-250	c	1.92
FP323A	80-80-60	250-250-250	f	2.94
FP326A	100-60-20	300-150-25	f	2.52
PWP-326.16A	10-20-10	300-150-150	l	1.47
FP326.2A	20-150-80	300-150-150	f	2.37
FP326.3A	100-200-60	300-150-150	h	3.27
WP326.35A	20-100-100	300-200-50	d	1.95
FP326.61	80-200-10	300-200-300	h	2.97
FP326.4A	60-30-30	300-250-250	f	2.25
FP335A	100-60-20	300-250-250	g	2.94
FP336A	200-60-20	300-250-250	h	3.48
PFP326.4	60-10-25	300-300-25	f	2.07
FP326.5A	150-10-25	300-300-25	g	2.37
FP326.54A	20-20-50	300-300-50	b	1.62
FP326.6A	100-10-60	300-300-50	f	2.43
FP326.7A	140-100-60	300-300-50	h	3.57
WP326.71A	140-100-100	300-300-50	h	3.36
FP326.74A	140-10-200	300-300-150	h	3.30
WP326.63A	30-10-20	300-300-250	b	1.71
WP326.64	60-5-20	300-300-250	c	1.83
FP326.62A	80-40-40	300-300-300	g	2.64
FP326.65A	100-60-4	300-300-300	g	2.82
FP326.67A	120-50-40	300-300-300	h	3.33
FP326.75A	150-30-30	300-300-300	h	3.00
PWP-326.77	150-30-100	300-300-300	l	3.55
FP326.78A	140-100-20	300-300-300	j	$3.45
WP326.8A	4-100-40	350-25-25	l	1.35
FP327	40-100-25	350-50-25	f	1.92
WP327.2A	20-50-100	350-100-75	c	1.98
FP327.3A	60-200-30	350-150-150	g	2.82
FP327.35	10-150-200	350-200-75	f	2.52
FP327.4A	125-5-100	350-200-75	g	3.18
FP327.5A	10-40-40	350-200-200	b	2.58
FP327.6A	30-20-100	350-250-50	c	1.95
FP331A	30-30-20	350-300-25	c	1.89
FP327.8A	30-50-20	350-300-25	f	2.16
FP327.89A	40-40-40	350-300-300	f	2.61
WP327.896	160-120-30	350-300-300	i	3.99
PWP-327.95A	20-20-1000	350-350-15	f	2.57
FP328A	15-10-20	350-350-25	m	1.50
FP329.1A	20-4-100	350-350-25	m	1.56
FP329.5	20-20-20	350-350-25	b	1.68
FP330A	30-20-20	350-350-25	c	1.86
FP330.13A	200-10-50	350-350-25	j	3.06
FP330.15A	10-5-30	350-350-50	l	1.32
FP330.2A	10-5-150	350-350-50	m	1.62
FP330.21A	20-5-150	350-350-50	b	1.77
FP330.23	80-40-400	350-350-50	h	3.39
FP330.22A	100-20-50	350-350-50	g	2.91
FP330.244	150-4-30	350-350-50	g	2.90
FP330.246	150-5-100	350-350-50	j	3.04
FP330.25A	30-20-100	350-350-150	f	2.40
FP330.248A	70-40-50	350-350-150	g	2.64
FP330.24	125-20-20	350-350-150	h	2.85
FP330.29A	30-5-100	350-350-200	f	2.25
FP330.26A	100-60-20	350-350-200	h	3.30
FP330.27A	125-60-40	350-350-200	j	3.54
FP330.28A	100-60-100	350-350-200	j	3.36
FP330.3A	20-10-5	350-350-250	m	1.53
PFP330.4	10-10-60	350-350-300	f	2.15
FP330.5A	10-10-10	350-350-350	m	1.44
PFP330.6A	20-20-20	350-350-350	c	1.84
FP330.7A	30-20-10	350-350-350	c	1.95
PFP330.8A	40-40-40	350-350-350	g	2.64
FP330.9A	60-50-50	350-350-350	h	2.94
FP331.2	80-20-20	350-350-350	g	2.57
FP331.3A	80-60-60	350-350-350	j	3.33
FP331.6A	90-40-20	350-350-350	g	3.15
WP331.7A	100-40-5	350-350-350	g	2.82
FP331.76A	100-40-40	350-350-350	h	3.15
FP331.8A	100-60-40	350-350-350	j	3.39
FP332.4A	100-100-10	350-350-350	j	4.08
WP332.44	140-140-20	350-350-350	l	4.16
FP332.5A	40-200-60	400-200-200	j	3.33
FP332.7A	10-4-40	400-350-25	l	1.32
FP333	10-50-30	400-350-25	f	1.86
FP333.05	100-10-200	400-350-25	h	2.99
FP333.08	10-4-4	400-350-150	b	1.43
FP333.1	40-4-4	400-350-150	d	1.71
PFP333.16	40-30-20	400-350-300	g	2.44
FP333.2A	80-40-100	400-400-50	j	3.00
FP333.3A	80-40-150	400-400-50	j	3.09
FP333.15	100-20-20	400-400-50	h	2.88
FP333.5A	20-10-40	400-400-350	k	2.04
FP333.6	20-20-10	400-400-350	d	1.80
FP333.7	60-30-20	400-400-350	h	2.73
FP333.8	80-20-10	400-400-350	h	2.58
FP333.85	100-10-80	400-400-350	l	3.66
FP333.86	100-40-100	400-400-350	l	4.04
FP333.88	50-30-4	400-400-400	g	2.31
FP333.89	80-60-40	400-400-400	j	3.63
FP333.9	90-10-5	400-400-400	h	2.64
FP333.95	100-30-20	400-400-400	l	3.30
WP334.6A	20-500-500	450-25-25	g	3.21
FP342	40-40-130	450-150-50	g	2.22
FP343A	40-100-50	450-150-50	g	2.37
WP339.5A	10-50-100	450-150-75	c	1.95
FP340	20-50-100	450-150-75	f	2.04
FP341A	40-90-50	450-150-150	g	2.40
FP341.2A	10-100-200	450-200-25	k	2.04
FP341.24	10-100-100	450-200-50	d	1.94
FP341.28	10-150-100	450-200-150	g	2.55
FP341.3A	20-80-50	450-200-150	f	2.16
FP341.5A	20-60-100	450-250-25	f	2.19
FP341.6A	50-160-50	450-250-50	j	3.09
FP341.8A	10-80-80	450-250-250	g	2.61
FP342.2A	5-80-40	450-300-300	g	$2.49
FP342.5	30-15-40	450-350-25	f	1.92
FP342.7	30-40-50	450-350-25	e	2.22
FP342.8	80-50-100	450-350-200	i	3.51
FP343.1A	15-20-20	450-350-250	c	1.77
FP343.4	20-15-15	450-350-350	d	1.95
FP343.6A	20-40-10	450-350-350	f	2.10
FP343.9	10-30-150	450-400-5	d	1.80
FP344.2	60-80-20	450-400-250	i	3.27
FP344.4	4-40-40	450-400-300	g	2.22
FP344.5	10-30-40	450-400-300	g	2.19
FP345.2	10-10-20	450-450-25	b	1.44
FP345.5	15-15-40	450-450-25	c	1.65
FP345.8	20-20-20	450-450-25	c	1.83
FP345.3A	40-20-20	450-450-25	f	2.10
FP346A	40-40-20	450-450-25	g	2.37
FP345.4	80-10-125	450-450-25	h	2.64
FP364A	80-40-100	450-450-25	j	3.06
FP365A	10-10-40	450-450-50	b	1.47
FP366A	20-10-50	450-450-50	c	1.71
FP366.5A	30-10-150	450-450-50	f	2.10
FP367A	35-25-100	450-450-50	g	2.37
FP367.5	40-30-25	450-450-50	g	2.25
FP368A	60-40-75	450-450-50	j	2.76
FP368.3B	80-20-100	450-450-50	h	2.88
FP368.5A	80-50-50	450-450-50	j	3.12
FP368.6A	30-30-125	450-450-75	g	2.70
FP368.68A	10-4-20	450-450-150	m	1.50
PFP368.9	40-30-8	450-450-150	g	2.51
FP369.1	40-40-40	450-450-150	h	2.49
FP370A	40-10-80	450-450-200	g	2.34
FP375A	40-40-100	450-450-200	j	2.97
FP375.2A	15-10-120	450-450-300	h	2.70
FP375.6A	60-20-40	450-450-350	j	2.94
FP375.7	20-10-15	450-450-400	d	1.86
FP375.8	10-10-10	450-450-450	c	1.56
FP376.1A	15-15-10	450-450-450	c	1.77
FP376.3	20-10-10	450-450-450	d	1.74
FP376.5A	20-20-20	450-450-450	f	2.16
FP376.6	30-10-10	450-450-450	f	1.89
FP376.7A	30-30-30	450-450-450	g	2.67
FP376.8	40-40-10	450-450-450	h	2.49
FP376.9	40-40-20	450-450-450	h	2.67
FP377.1A	40-40-40	450-450-450	h	3.12
FP377.2A	50-40-30	450-450-450	j	2.94
FP377.4A	60-10-10	450-450-450	g	2.34
FP377.6	60-30-10	450-450-450	h	2.70
FP377.7	60-40-40	450-450-450	l	3.41
FP378	80-40-20	450-450-450	l	3.24
FP378.1	80-40-30	450-450-450	l	3.53
FP378.4	80-40-40	450-450-450	l	3.66
FP379.1A	20-50-20	475-50-25	e	1.65
FP381.1A	80-80-50	475-150-50	j	2.91
FP382.1A	40-40-100	475-250-100	g	2.46
FP384	20-20-40	475-300-25	f	1.86
FP384.12	30-100-50	475-300-50	h	2.46
FP384.14A	5-100-200	475-300-150	j	3.09
FP384.16	10-4-100	475-350-50	b	2.37
FP384.2	10-4-40	475-350-300	f	1.80
FP384.35	20-10-5	475-350-350	c	1.71
FP384.5	10-45-100	475-450-50	g	2.19
FP384.7	40-40-25	475-450-50	h	2.64
FP385A	10-40-100	475-450-200	g	2.52
FP385.5A	40-80-10	475-450-450	j	3.30
FP386	10-10-5	475-475-25	c	1.47
FP387.1	10-10-150	475-475-50	d	1.80
FP388.1	25-10-20	475-475-50	d	1.77
FP389.1A	20-10-100	475-475-400	j	3.15
FP391.1B	20-20-60	475-475-450	h	2.91
FP394	10-10-10	475-475-475	d	1.62
FP396A	30-30-20	475-475-475	g	2.67
FP396.2A	40-10-10	475-475-475	f	2.31
FP396.1A	40-20-20	475-475-475	g	2.85
FP396.12	40-30-10	475-475-475	h	2.70
FP396.14B	40-30-30	475-475-475	h	3.09
FP397A	40-35-10	475-475-475	g	2.73
PFP397.5	40-40-60	500-200-50	g	2.53
PFP397.7	40-40-20	500-350-250	h	2.76
FP398A	10-40-40	500-450-450	g	2.49
FP399B	20-10-100	500-500-50	c	1.95
FP399.5A	40-20-20	500-500-500	g	2.85
FP399.55	40-40-20	500-500-500	j	3.42

FP-WP AND PFP-PWP—QUADS

Mallory No.	Capacity, μF	Working Volts DC	*	Net Each
WP401.5	750-600-350-4	16-16-16-11.5 rms	f	$3.24
WP401.8	750-750-350-4	16-16-16-11.5 rms	f	3.87
FP401.85	850-400-100-4	16-16-16-11.5 rms	r	2.17
FP401.9	850-400-100-15	16-16-16-11.5 rms	r	2.18
FP403	50-20-150-30	150-150-15-15	f	1.92
FP405	20-20-160-40	150-150-25-25	f	1.92
WP405.5	50-40-160-40	150-150-25-25	f	2.01
WP406	40-40-200-100	150-150-25-25	f	2.13
FP407	30-20-20-200	150-150-150-10	f	1.86
FP407.5	40-40-20-200	150-150-150-10	f	1.92
FP408	60-40-20-200	150-150-150-10	f	2.07
FP408.5	80-80-10-200	150-150-150-10	g	2.34
FP408.7A	300-30-10-100	150-150-150-10	g	2.73
FP408.9	30-30-30-40	150-150-150-25	f	1.86
FP409	40-40-30-20	150-150-150-25	f	1.86
FP409.4	50-20-20-200	150-150-150-25	f	2.10
FP409.6	50-40-10-50	150-150-150-25	f	1.89
FP410A	50-50-50-20	150-150-150-25	f	2.13
FP410.3	60-40-20-20	150-150-150-25	f	1.98
FP410.7	60-60-10-60	150-150-150-25	g	2.10
FP411A	80-40-30-100	150-150-150-25	f	$2.22
FP411.3A	80-40-40-20	150-150-150-25	f	2.10
FP411.32A	80-40-40-40	150-150-150-25	f	2.16
FP411.4	80-50-50-25	150-150-150-25	g	2.28
FP411.5	100-90-60-200	150-150-150-25	h	2.97
FP411.7	125-125-40-100	150-150-150-25	i	2.91
PFP411.9	60-60-40-10	150-150-150-150	g	2.21
FP412A	100-80-60-40	150-150-150-150	f	2.73
WP412.1A	200-200-60-30	175-175-175-175	h	3.12
FP412.14	200-200-200-30	175-175-175-175	j	3.79
WP412.15	200-200-100-10	200-200-200-200	i	3.75
FP412.13	160-240-240-5	200-200-200-200	i	4.37
PFP412.17	250-200-10-20	200-200-200-200	h	3.63
FP419.41	200-20-20-5	200-300-300-300	g	2.77
PFP419.575	150-100-5-100	200-350-150-50	j	3.35
FP412.2A	40-40-50-80	250-250-150-50	f	2.46
WP412.8	40-40-40-40	250-250-250-250	f	2.49
PFP427.69	160-30-20-40	250-450-450-150	i	3.39
FP417A	100-40-80-20	300-50-25-25	f	2.73

*Table of sizes on next page.

Quads cont'd next page.

MALLORY Tantalum Capacitors

Mallory tantalum foil capacitors are available in either **etched** or **plain foil, polarized** or **non-polarized,** and in two temperature grades (**+85° C** or **+125° C**). Standard ratings shown below and on the next page are listed with **uninsulated** cases. For **insulating** sleeve, add "one" to type shown (CL20 becomes CL**21**, etc.) and add **10c** to prices shown. Case sizes, tolerances and industrial net prices are shown in the table at the bottom of this page. These capacitors are also available to Mallory commercial numbers (TAF, TAG, TBF, TBG, etc.). For details on these numbers ask for Technical Bulletin 4-65.

ETCHED FOIL TO MIL-C-3965

−55° C TO +125° C

CL20/21 POLARIZED

Cap., µF	WVDC at Max. Temp.	Mallory Number	Size Code	Maximum DCL Microamps 25° C	Maximum DCL Microamps 125° C	Max. Imped. at −55° C 120CPS (Ohms)
15	10	CL20CD150UP3	A2	2	4	480
60	10	CL20CD600UP3	B4	2.5	10	120
200	10	CL20CD201UP3	C4	3	50	36
400	10	CL20CD401UP3	D4	6	80	18
580	10	CL20CD581UP3	E4	9	100	12
10	15	CL20CE100UP3	A2	2	4	720
40	15	CL20CE400UP3	B4	2.5	15	180
120	15	CL20CE121UP3	C4	3	40	58
250	15	CL20CE251UP3	D4	6	90	29
350	15	CL20CE351UP3	E4	12	100	21
4.5	30	CL20CH4R5TP3	A2	2	4	754
18	30	CL20CH180TP3	B4	2	14	188
60	30	CL20CH600TP3	C4	3	50	57
100	30	CL20CH101TP3	D4	4	75	34
150	30	CL20CH151TP3	E4	5	112	23
3	50	CL20CJ030TP3	A2	2	4	1128
12	50	CL20CJ120TP3	B4	2	14	282
30	50	CL20CJ300TP3	C4	3	34	113
70	50	CL20CJ700TP3	D4	7.5	80	49
100	50	CL20CJ101TP3	E4	13	112	34
2	60	CL20CK020TP3	A2	2	4	1690
8	60	CL20CK080TP3	B4	2	12	424
25	60	CL20CK250TP3	C4	2.5	37	136
50	60	CL20CK500TP3	D4	5	75	68
70	60	CL20CK700TP3	E4	7	105	48
1	100	CL20CN010SP3	A2	2	4	3385
4	100	CL20CN040SP3	B4	2	14	847
13	100	CL20CN130SP3	C4	4	30	260
25	100	CL20CN250SP3	D4	5	80	135
36	100	CL20CN360SP3	E4	8	112	94

CL22/23 NON-POLARIZED

Cap., µF	WVDC at Max. Temp.	Mallory Number	Size Code	Maximum DCL Microamps 25° C	Maximum DCL Microamps 125° C	Max. Imped. at −55° C 120CPS (Ohms)
10	10	CL22CD100UN3	A2	2	4	720
40	10	CL22CD400UN3	B4	2	10	180
120	10	CL22CD121UN3	C4	3	50	58
250	10	CL22CD251UN3	D4	6	80	29
350	10	CL22CD351UN3	E4	9	100	21
5	15	CL22CE050UN3	A2	2	4	1440
20	15	CL22CE200UN3	B4	2.5	15	360
70	15	CL22CE700UN3	C4	3	40	103
140	15	CL22CE141UN3	D4	6	90	52
200	15	CL22CE201UN3	E4	12	100	36
2.5	30	CL22CH2R5TN3	A2	2	4	1355
10	30	CL22CH100TN3	B4	2	14	339
30	30	CL22CH300TN3	C4	3	50	113
60	30	CL22CH600TN3	D4	4	75	57
80	30	CL22CH800TN3	E4	5	112	42
1.5	50	CL22CJ1R5TN3	A2	2	4	1487
6	50	CL22CJ060TN3	B4	2	14	560
15	50	CL22CJ150TN3	C4	3	34	226
35	50	CL22CJ350TN3	D4	4.5	80	97
50	50	CL22CJ500TN3	E4	13	112	68
1	60	CL22CK010TN3	A2	2	4	3385
4	60	CL22CK040TN3	B4	2	12	845
12	60	CL22CK120TN3	C4	2.5	37	282
25	60	CL22CK250TN3	D4	5	75	136
35	60	CL22CK350TN3	E4	7	105	97
0.5	100	CL22CN0R5SN3	A2	2	4	5770
2	100	CL22CN020SN3	B4	2	14	1693
6	100	CL22CN060SN3	C4	4	30	564
12	100	CL22CN120SN3	D4	5	80	282
18	100	CL22CN180SN3	E4	8	112	188

−55° C TO +85° C

CL24/25 POLARIZED

Cap., µF	WVDC at Max. Temp.	Mallory Number	Size Code	Maximum DCL Microamps 25° C	Maximum DCL Microamps 125° C	Max. Imped. at −55° C 120CPS (Ohms)
15	15	CL24BE150UP3	A1	2	4	226
60	15	CL24BE600UP3	B2	2.5	10	58
200	15	CL24BE201UP3	C2	3	50	17
400	15	CL24BE401UP3	D3	6	80	9
580	15	CL24BE581UP3	E3	9	100	6
10	25	CL24BG100UP3	A1	2	4	339
40	25	CL24BG400UP3	B2	2.5	15	85
120	25	CL24BG121UP3	C2	3	40	27
250	25	CL24BG251UP3	D3	6	90	14
350	25	CL24BG351UP3	E3	12	100	10
8	30	CL24BH080UP3	A1	2	6	424
32	30	CL24BH320UP3	B2	2	14	106
110	30	CL24BH111UP3	C2	4	50	31
220	30	CL24BH221UP3	D3	8	90	16
300	30	CL24BH301UP3	E3	11	120	11
4.5	50	CL24BJ4R5TP3	A1	2	4	753
18	50	CL24BJ180TP3	B2	2	14	188
60	50	CL24BJ600TP3	C2	3	50	57
100	50	CL24BJ101TP3	D3	4	75	34
150	50	CL24BJ151TP3	E3	5	112	23
3	75	CL24BL030TP3	A1	2	4	1130
12	75	CL24BL120TP3	B2	2	14	283
30	75	CL24BL300TP3	C2	3	34	113
70	75	CL24BL700TP3	D3	7.5	80	48
100	75	CL24BL101TP3	E3	13	112	34
2	100	CL24BN020SP3	A1	2	4	1690
8	100	CL24BN080SP3	B2	2	12	428
25	100	CL24BN250SP3	C2	2.5	37	135
50	100	CL24BN500SP3	D3	5	75	68
70	100	CL24BN700SP3	E3	7	105	49
1	150	CL24BQ010SP3	A1	2	4	3000
4	150	CL24BQ040SP3	B2	2	14	750
13	150	CL24BQ130SP3	C2	4	30	261
25	150	CL24BQ250SP3	D3	5	80	135
36	150	CL24BQ360SP3	E3	8	112	94

CL26/27 NON-POLARIZED

Cap., µF	WVDC at Max. Temp.	Mallory Number	Size Code	Maximum DCL Microamps 25° C	Maximum DCL Microamps 125° C	Max. Imped. at −55° C 120CPS (Ohms)
10	15	CL26BE100UN3	A1	2	4	339
40	15	CL26BE400UN3	B2	2.5	10	85
120	15	CL26BE121UN3	C2	3	50	27
250	15	CL26BE251UN3	D3	6	80	14
350	15	CL26BE351UN3	E3	9	100	10
5	25	CL26BG050UN3	A1	2	4	680
20	25	CL26BG200UN3	B2	2.5	15	170
70	25	CL26BG700UN3	C2	3	40	49
140	25	CL26BG141UN3	D3	6	90	24
200	25	CL26BG201UN3	E3	12	100	17
4.5	30	CL26BH4R5UN3	A1	2	6	754
18	30	CL26BH180UN3	B2	2	14	188
60	30	CL26BH600UN3	C2	4	50	57
120	30	CL26BH121UN3	D3	8	90	28
170	30	CL26BH171UN3	E3	11	120	20
2.5	50	CL26BJ2R5TN3	A1	2	4	1355
10	50	CL26BJ100TN3	B2	2	14	339
30	50	CL26BJ300TN3	C2	3	50	113
60	50	CL26BJ600TN3	D3	4	75	57
80	50	CL26BJ800TN3	E3	5	112	41
1.5	75	CL26BL1R5TN3	A1	2	4	2255
6	75	CL26BL060TN3	B2	2	14	565
15	75	CL26BL150TN3	C2	3	34	226
35	75	CL26BL350TN3	D3	7.5	80	97
50	75	CL26BL500TN3	E3	13	112	68
1	100	CL26BN010SN3	A1	2	4	3385
4	100	CL26BN040SN3	B2	2	12	845
12	100	CL26BN120SN3	C2	2.5	37	283
25	100	CL26BN250SN3	D3	5	75	135
35	100	CL26BN350SN3	E3	7	105	97
0.5	150	CL26BQ0R5SN3	A1	2	4	6780
2	150	CL26BQ020SN3	B2	2	14	1693
6	150	CL26BQ060SN3	C2	4	30	565
12	150	CL26BQ120SN3	D3	5	80	283
18	150	CL26BQ180SN3	E3	8	112	188

TANTALUM FOIL CAPACITOR INDUSTRIAL NET PRICES

Size Code	Net Each, Lots of* 1-9	10-24	25-49	50-99	100-499	500 Up	Size Code	Net Each, Lots of* 1-9	10-24	25-49	50-99	100-499	500 Up
A1	$ 4.20	$ 3.33	$2.42	$1.70	$1.19	$1.03	C5	$20.50	$16.10	$11.12	$ 7.92	$ 5.97	$5.47
A2	7.35	5.18	3.99	2.84	1.96	1.79	C6	23.55	18.53	12.78	9.09	6.87	6.29
A3	10.85	8.55	5.89	4.19	3.16	2.90	D1	14.60	10.03	7.70	5.49	3.78	3.46
A4	12.45	9.79	6.75	4.82	3.62	3.32	D2	18.30	12.87	9.93	7.07	4.85	4.45
B1	6.60	4.51	3.47	2.47	1.70	1.56	D3	20.55	14.11	10.83	7.70	5.31	4.86
B2	7.55	4.94	3.80	2.70	1.87	1.72	D4	24.55	17.29	13.30	9.45	6.55	5.96
B3	9.80	6.89	5.32	3.78	2.59	2.38	D5	25.30	19.95	13.73	9.77	7.38	6.76
B4	10.50	7.36	5.70	4.05	2.79	2.55	D6	29.05	22.85	15.49	11.21	8.46	7.76
B5	14.25	11.21	7.74	5.49	4.14	3.81	E1	19.60	13.44	10.30	7.34	5.06	4.63
B6	16.40	12.92	8.93	6.35	4.79	4.39	E2	23.55	16.57	12.78	9.08	6.25	5.71
C1	10.40	7.17	5.51	3.92	2.68	2.47	E3	27.35	18.76	14.44	10.26	7.10	6.47
C2	12.60	8.65	6.65	4.73	3.27	2.98	E4	31.75	22.37	17.24	12.24	8.46	7.71
C3	14.20	9.98	7.70	5.47	3.78	3.44	E5	31.90	25.13	17.34	12.33	9.30	8.53
C4	16.15	11.40	8.79	6.26	4.29	3.93	E6	36.75	28.95	19.95	14.18	10.71	9.82

*Add **10c** to prices shown for CL21, 23, 25, 27, 31, 33, 35, 37 (Mylar sleeve).

CASE SIZES

A = 3/16" dia. x 11/16"
B = 9/32" dia. x 7/8"
C = 3/8" dia. x 1 7/16"
D = 3/8" dia. x 2 1/8"
E = 3/8" dia. x 2 3/4"

For insulating sleeve, add .015" to dia. and .063" to length.

TOLERANCES

K = ±10%; L = ±15%; M = ±20%; S = −15+30%; T = −15+30%; U = −15+75%. (10th digit of Mallory number.)

Net

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MALLORY Electrolytic Capacitors

METAL TUBULAR ELECTROLYTICS

Metal tubulars with insulating sleeve. Use etched cathode construction for maximum reliability. **TC, TCN** are single section with 3″ tinned leads; **TCD, TCT** have 7″ insulated leads; **TCS** has solder lugs. Sizes 13/16″ dia. and up have mtg. straps. **Temp. Range:** −20° C to +85° C except (*) rated at +65° C. **Tolerance:** −10%, +100% up to 350 WVDC; −10%, +50% 450 WVDC and up.

TC SINGLE SECTION

Mallory No.	Cap., µF	WV DC	Size, In. Dia. x Lg.	Net Each
TC304	200	3	11/16 x 1 1/4	$0.69
TC305	500	3	11/16 x 1 1/2	.84
TC310	1000	3	15/16 x 1 3/4	1.02
TC605	500	6	13/16 x 1 3/4	.93
TC610	1000	6	15/16 x 2	1.14
TC1502	200	15	13/16 x 1 1/2	.84
TC1505	500	15	15/16 x 2	1.05
TC1501	1000	15	1 1/16 x 2 1/4	1.38
TC1520	2000	15	15/16 x 2	1.92
TC22	10	25	7/16 x 3/4	.60
TC26	25	25	7/16 x 3/4	.60
TC29	50	25	9/16 x 1 1/2	.66
TC2501	100	25	11/16 x 1 3/4	.81
TC25015	150	25	11/16 x 1 3/4	.87
TC2505	500	25	15/16 x 2 1/4	1.38
TC31	1	50	1/4 x 11/16	.54
TC302	2	50	5/16 x 3/4	.54
TC30	5	50	5/16 x 7/8	.60
TC32	10	50	7/16 x 3/4	.60
TC36	25	50	11/16 x 1 1/4	.63
TC39	50	50	13/16 x 1 1/4	.72
TC3501	100	50	11/16 x 1 3/4	.84
TC50015	150	50	15/16 x 1 3/4	1.12
TC50025	250	50	15/16 x 1 3/4	1.05
TC50050	500	50	1 1/16 x 2 1/4	1.92
TC50100	1000	50	1 1/16 x 4	2.91
TC40	5	150	7/16 x 7/8	.60
TC41	8	150	7/16 x 1	.63
TC42	10	150	7/16 x 1 1/4	.63
TC43	12	150	7/16 x 1 1/4	.66
TC44	16	150	11/16 x 1 1/2	.69
TC45	20	150	13/16 x 1 1/2	.72
TC47	30	150	13/16 x 1 1/2	.78
TC48	40	150	15/16 x 1 3/4	.81
TC49	50	150	15/16 x 1 3/4	.84
TC492	80	150	15/16 x 2	.96
TC493	100	150	1 1/16 x 2 1/4	1.05
TC495	150	150	1 1/16 x 2 1/4	1.14
TC496	200	150	1 1/16 x 2 3/8	1.58
TC499	300	150	1 7/16 x 3	1.53
TC50X	5	250	11/16 x 1 1/4	.63
TC51	8	250	11/16 x 1 3/4	.69
TC52	10	250	11/16 x 1 3/4	.72
TC53	12	250	13/16 x 1 3/4	.75
TC54	16	250	13/16 x 1 3/4	.78
TC55	20	250	13/16 x 1 3/4	.81
TC58	40	250	1 1/16 x 1 3/4	.93
TC59	50	250	1 1/16 x 1 3/4	1.02
TC1265	100	250	1 1/16 x 2 1/8	1.47
TC593	150	300	1 1/16 x 3 1/2	1.95
TC595	2	350	7/16 x 1 1/2	1.26
TC60	5	350	11/16 x 1 3/4	.63
TC61	8	350	13/16 x 1 3/4	.72
TC62	10	350	13/16 x 1 3/4	.75
TC63	12	350	13/16 x 1 3/4	.78
TC64	16	350	15/16 x 1 3/4	.84
TC65	20	350	15/16 x 1 3/4	.87
TC67	40	350	15/16 x 2 1/4	1.44
TC68	60	350	1 1/16 x 2 1/4	1.17
TC69	100	350	1 1/16 x 4	1.86
TC692	150	350	1 7/16 x 3 7/8	3.16
TC695	2	450	11/16 x 1 1/2	.66
TC697	4	450	1 1/16 x 1 3/4	.97
TC70	5	450	11/16 x 1 3/4	.72
TC71	8	450	13/16 x 1 3/4	.75
TC72	10	450	15/16 x 1 3/4	.78
TC73	12	450	15/16 x 1 3/4	.81
TC74	16	450	15/16 x 1 3/4	.84
TC75	20	450	1 1/16 x 1 3/4	.93
TC77	30	450	1 1/16 x 2 1/4	1.02
TC78	40	450	1 1/16 x 2 1/4	1.08
TC79	50	450	1 1/16 x 2 1/8	1.26
TC795	60	450	1 1/16 x 2 1/8	1.38
TC80	80	450	1 1/16 x 4	1.68
TC805	100	450	1 7/16 x 3	1.92
TC81*	10	500	15/16 x 1 3/4	.81
TC82	10	500	1 1/16 x 3	1.62
TC83*	20	500	1 1/16 x 1 3/4	.96
TC84*	30	500	1 1/16 x 2 1/4	1.05
TC90	4	600	3/4 x 2 1/2	2.30
TC92	10	600	15/16 x 2 15/16	1.77
TC96	20	600	1 1/16 x 3	3.51

NON-POLAR SINGLE SECTION

TCN308	.5Z†	3#	1 1/16 x 2	$1.32
TC420	1.5Z‡	4#	1 1/16 x 2 7/8	2.10
TC421	1.5Z§	6#	1 1/16 x 2	1.80
TCN105	5	10#	11/16 x 1 1/4	.69
TCN106	6	10#	9/16 x 1 1/4	.69
TCN108	8	10#	11/16 x 1 1/2	.69
TCN1025	25	10#	7/16 x 7/8	.84
TCN412	500	10#	15/16 x 2	1.20

†15,750 cps; ‡60 cps; §120 cps. #VNP.

NON-POLAR (CONT'D)

Mallory No.	Cap., µF	VNP	Size, In. Dia. x Lg.	Net Each
TCN1550	500	15	15/16 x 2 1/4	$1.32
TCN415	1000	15	1 1/16 x 3 1/2	1.71
TCN2516	16	25	9/16 x 1 1/2	.60
TCN425	100	25	13/16 x 1 1/2	1.02
TCN501	1	50	9/16 x 1 1/4	.69
TCN502	2	50	9/16 x 1 1/4	.69
TCN503	3	50	9/16 x 1 1/4	.72
TCN504	4	50	9/16 x 1 1/4	.75
TCN505	5	50	9/16 x 1 1/4	.90
TCN5010	10	50	9/16 x 1 1/4	.75
TCN5099	100	50	15/16 x 1 3/4	1.29
TCN510	4	150	9/16 x 1 1/4	.75
TCN1512	12	150	5/8 x 1 3/4	1.01
TCN1540	40	150	15/16 x 1 3/4	1.30
TCN1551	50	150	15/16 x 2 1/4	1.34
TCN2550	4	200	1 x 1 3/4	1.02
TCN3520	20	350	1 1/16 x 2 7/8	1.08
TCN511	10	450	1 1/16 x 2 1/4	.99

TCD DUAL COMMON NEGATIVE

No. TCD-	Cap., µF	WVDC	Size, In. Dia. x Lg.	Net Each
204	250-1000	10-6	1 1/16 x 2 1/4	$1.68
16	500-100	16-16	15/16 x 2	1.62
26	25-25	25-25	13/16 x 1 1/4	.84
N201†	130-130	25-25	1 1/16 x 2 1/4	2.15
40	10-10	100-100	13/16 x 1 1/4	.87
43	10-30	150-150	13/16 x 1 3/4	1.62
45	20-20	150-150	13/16 x 1 3/4	.99
508	130-20	150-150	1 1/16 x 2 7/8	2.07
47	30-30	150-150	15/16 x 1 3/4	1.08
485	40-20	150-150	15/16 x 1 3/4	1.05
475	40-30	150-150	15/16 x 2	1.08
48	40-40	150-150	1 1/16 x 2	1.11
497	50-30	150-150	15/16 x 2	1.17
49	50-50	150-150	1 1/16 x 2 1/4	1.26
50	60-20	150-150	15/16 x 1 7/8	1.53
4975	80-40	150-150	1 1/16 x 2 1/4	1.32
498	80-50	150-150	1 1/16 x 2 1/4	1.41
2155	100-100	150-150	1 1/16 x 4	1.92
46	30-20	200-200	15/16 x 2	1.17
2165	30-30	200-200	1 1/16 x 2 1/4	1.32
2169	50-75	250-50	1 1/16 x 2 1/4	1.44
2174	100-150	250-50	1 1/16 x 4	2.16
2173	8-8	250-250	15/16 x 1 3/4	.96
52	10-10	250-250	15/16 x 2	.99
55	20-20	250-250	1 1/16 x 2	1.11
2274	40-40	300-300	1 1/16 x 3 1/16	1.77
58	80-40	300-300	1 1/16 x 4	2.07
62	10-10	350-350	15/16 x 2	1.02
65	20-20	350-350	1 1/16 x 2 3/8	1.35
68	30-5	350-350	15/16 x 2 3/8	2.25
2297	40-50	450-50	1 1/16 x 3 7/8	1.50
2302	30-60	450-300	1 1/16 x 4	1.92
71	8-8	450-450	15/16 x 2	1.02
72	10-10	450-450	1 1/16 x 2	1.11
74	15-15	450-450	1 1/16 x 3 1/16	1.32
745	20-8	450-450	1 1/16 x 2 1/4	1.26
75	20-20	450-450	1 1/16 x 3 7/8	1.50
77	30-30	450-450	1 1/16 x 4	1.80
78	40-40	450-450	1 1/16 x 4	2.04

TCS DUAL SEPARATE SECTION

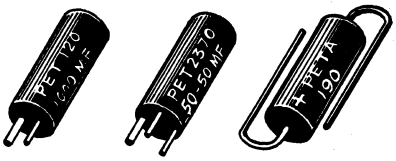
Mallory No.	Cap., µF	WV DC‡	Size, In. Dia. x Lg.	Net Each
TCS44	15-15	150	13/16 x 2 3/8	$1.20
TCS45	20-20	150	15/16 x 2 3/8	1.26
TCS47	30-30	150	1 1/16 x 2 3/8	1.35
TCS48	40-40	150	1 1/16 x 2 7/8	1.41
TCS49	120-120	150	1 1/16 x 3 7/8	1.98
TCS505	70-70	175	1 1/16 x 3 7/8	2.16
TCS52	10-10	250	15/16 x 2 3/8	1.26
TCS55	20-20	250	1 1/16 x 2 7/8	1.41
TCS61	8-8	350	15/16 x 2 3/8	1.26
TCS64	15-15	350	1 1/16 x 2 7/8	1.65
TCS71	8-8	450	1 1/16 x 2 3/8	1.29
TCS74	15-15	450	1 1/16 x 2 7/8	1.65
TCS75	20-20	450	1 1/16 x 3 1/2	1.89

†Non-polar. ‡Each section.

TCT TRIPLE COMMON NEGATIVE

No. TCT-	Cap., µF	Volts	Size, In. Dia. x L.	Net Each
3053	20-20-20	150-150-25	15/16 x 2 1/4	$1.23
3055	30-30-20	150-150-25	1 1/16 x 2 1/4	1.32
3094	50-30-200	150-150-25	1 1/16 x 2 7/8	1.65
3109	20-10-10	150-150-150	15/16 x 1 3/4	1.20
3112	20-20-20	150-150-150	1 1/16 x 1 3/4	1.29
3113	30-30-30	150-150-150	1 1/16 x 2 1/4	1.41
3114	40-20-20	150-150-150	1 1/16 x 2 1/4	1.35
3105	40-30-20	150-150-150	1 1/16 x 1 3/4	1.38
3116	40-40-20	150-150-150	1 1/16 x 2 1/4	1.41
3115	40-40-40	150-150-150	1 1/16 x 2 1/4	1.47
3107	50-30-20	150-150-150	1 1/16 x 2 1/4	1.41
3110	60-30-10	150-150-150	1 1/16 x 2	2.22
3119	60-50-20	150-150-150	1 1/16 x 2 7/8	1.62
3117	80-40-20	150-150-150	1 1/16 x 2 7/8	1.65
3118	80-50-50	150-150-150	1 1/16 x 4	1.86
3120	80-80-20	150-150-150	15/16 x 3	2.47
3285	40-30-40	350-250-150	1 1/16 x 4	1.98
3405	30-50-100	450-150-25	1 1/16 x 4	1.92
3432	30-30-30	450-350-250	1 1/16 x 4	2.25
3764	40-20-10	450-450-450	1 1/16 x 4	2.25

MINIATURE PHENOLIC CASE ELECTROLYTICS

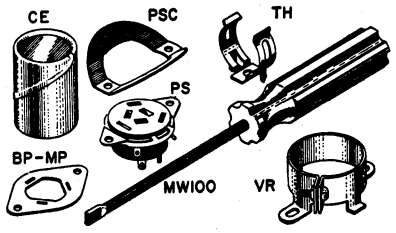


Miniature electrolytics for portable radio and television applications. Enclosed in phenolic case with epoxy end seals. **PET** series are single ended with 1″ leads for printed circuit use. **PETA** series has 1 1/2″ axial leads. **Temperature Range:** −30° C to +85° C. **Tolerance:** −10%, +150%.

No. PET-	Cap., µF	WV DC	Size, In.	Net Each
118	8	3	3/8 x 5/8	$0.82
122	15	3	3/8 x 5/8	.83
130	30	3	3/8 x 3/4	.83
140	40	3	3/8 x 3/4	.83
180	150	3	7/16 x 1 1/16	.89
1210	5	6	3/8 x 5/8	.82
1260	60	6	7/16 x 3/4	.85
1300	750	6	5/8 x 1 1/4	1.18
1340	10	10	3/8 x 5/8	.83
1400	100	10	1/2 x 7/8	.88
1500	100	12	7/16 x 1 1/8	.88
1535	6	15	3/8 x 5/8	.83
1570	20	15	3/8 x 3/4	.83
1575	50	15	7/16 x 7/8	.85
1760	10	25	3/8 x 3/4	.83
1930	2	50	3/8 x 5/8	.82
1935	4	50	3/8 x 3/4	.83
1960	25	50	7/16 x 1	.85
1980	50	50	1/2 x 1 1/8	.88
290	500-50	3-3	1/2 x 1 1/4	1.31
295	1000-50	3-3	5/8 x 1 1/2	1.53
2150	100-100	4-4	1/2 x 1 1/16	1.18
2290	100-40	6-3	1/2 x 7/8	1.14
2320	400-200	6-6	1/2 x 1 1/2	1.37
2312	200-20	8-8	1/2 x 1 1/2	1.18
2365C*	50-25	10-10	1/2 x 3/4	1.12
2370	50-50	10-10	1/2 x 1	1.13
3310	100-100-65	8-8-8	5/8 x 1	1.20
A120	1000	1	5/8 x 1 7/8	1.16
A190	750	3	5/8 x 1 3/8	1.06
A1675	65	16	7/16 x 1 1/8	.72
A2300	250-100	7-3	1/2 x 1 3/8	1.27
A2385	80-50	10-10	1/2 x 1 1/4	1.08
A2395	100-40	10-3	1/2 x 1 1/8	1.58

*Uses common positive construction.

CAPACITOR HARDWARE



BP (phenolic) and **MP** (metal) **Series:** Mounting plates for FP-WP capacitors. **PS Series:** Plug-in sockets for FP-WP. **VR Series:** Clamps fit all can types. **TH Series:** Clips for tubular and can types. **CE Series:** Cardboard insulating tubes for FP, etc. **MW100:** Mounting wrench for FP.

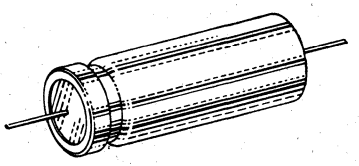
Mall. No.	Size, In.	Net Ea.	Mall. No.	Size, In.	Net Ea.
BP2	3/4	3c	TH17	5/8	3c
BP4	1	3c	TH19	3/4	3c
BP4A	1	3c	TH21	7/8	3c
BP6	1 3/8	3c	TH23	1	3c
MP2	3/4	3c	TH25	1 3/8	6c
MP4	1	3c			
MP6	1 3/8	3c	CE1	3/4 x 2	6c
			CE2	1 x 1 1/2	6c
PS4	1	42c	CE3	1 x 2	6c
PSC4	*	6c	CE4	1 x 3	6c
PS6	1 3/8	54c	CE5	1 3/8 x 2	6c
			CE6	1 3/8 x 3	6c
VR1	1	11c	CE7	1 x 2 1/2	6c
VR3	1 3/8	12c	CE8	1 x 4	9c
VR4	1 1/2	14c	CE9	1 3/8 x 2 1/2	6c
VR6	1 3/4	14c	CE10	1 3/8 x 4	9c
VR8	2	14c	CE11	1 x 3 1/2	9c
VR10	2 1/2	20c	CE12	1 3/8 x 3 1/2	9c
VR12	3	30c	CE13	1 x 1 3/4	6c
			CE14	3/4 x 1 1/2	6c
TH13	3/8	3c			
TH15	1/2	3c			

*Retainer.

Mallory MW100 Mounting Wrench— Net Each..... **$1.05**

MALLORY Electrolytic Capacitors

TT TINY TUBULAR ALUMINUM ELECTROLYTIC CAPACITORS

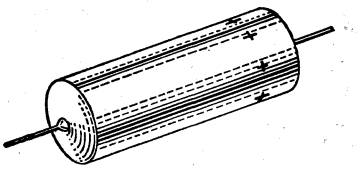


Mallory TT capacitors are made from very high purity aluminum foil, deep-etched to provide maximum capacity per unit of volume. Etched cathode construction assures long, hum-free operation. Utilize all-welded construction; exhibit exceptionally low DCL and ESR. Supplied in aluminum case with insulating sleeve; wire leads 2" lg. (± ¼"). **Temperature Range:** −30° C to +85° C, operating. **Tolerance:** −10%, +150%, f-50 WVDC; −10%, +100%, 60 WVDC and up.

Mallory No.	Cap., µF	WV DC	Size, In.* Dia. x L.	Net Each
TT1X5	5	1	¼ x ⅝	$0.51
TT2X150	150	2	⅜ x ⅝	.90
TT3X1	1	3	¼ x ⅝	.51
TT3X2	2	3	¼ x ⅝	.51
TT3X3	3	3	¼ x ⅝	.51
TT3X4	4	3	¼ x ⅝	.51
TT3X5	5	3	¼ x ⅝	.51
TT3X6	6	3	¼ x ⅝	.51
TT3X8	8	3	¼ x ⅝	.51
TT3X10	10	3	¼ x ⅝	.51
TT3X15	15	3	¼ x ⅝	.51
TT3X20	20	3	¼ x ⅝	.51
TT3X25	25	3	¼ x ⅝	.51
TT3X35	35	3	¼ x ⅝	.57
TT3X40	40	3	¼ x ⅝	.72
TT3X50	50	3	¼ x ⅝	.74
TT3X75	75	3	¼ x ¾	.75
TT3X100	100	3	⅜ x ⅝	.81
TT3X110	110	3	⅜ x ⅝	.81
TT3X150	150	3	5/16 x ¾	.81
TT3X200	200	3	⅜ x ¾	.81
TT3X250	250	3	⅜ x ⅞	.81
TT3X300	300	3	⅜ x 1	.87
TT3X400	400	3	⅜ x 1 1/8	.93
TT3X500	500	3	⅜ x 1 3/8	.99
TT6X1	1	6	¼ x ⅝	.54
TT6X2	2	6	¼ x ⅝	.54
TT6X3	3	6	¼ x ⅝	.54
TT6X4	4	6	¼ x ⅝	.54
TT6X5	5	6	¼ x ⅝	.54
TT6X6	6	6	¼ x ⅝	.54
TT6X8	8	6	¼ x ⅝	.54
TT6X10	10	6	¼ x ⅝	.54
TT6X15	15	6	¼ x ⅝	.54
TT6X20	20	6	¼ x ⅝	.54
TT6X25	25	6	¼ x ⅝	.54
TT6X30	30	6	¼ x ⅝	.57
TT6X35	35	6	¼ x ⅝	.57
TT6X40	40	6	¼ x ⅝	.57
TT6X50	50	6	5/16 x ⅝	.75
TT6X60	60	6	⅜ x ⅝	.75
TT6X75	75	6	⅜ x ⅝	.81
TT6X80	80	6	5/16 x ¾	.81
TT6X100	100	6	⅜ x ⅝	.81
TT6X150	150	6	⅜ x ¾	.81
TT6X200	200	6	⅜ x ⅞	.84
TT6X250	250	6	⅜ x 1	.87
TT6X300	300	6	⅜ x 1	.93
TT10X2	2	10	¼ x ⅝	.57
TT10X6	6	10	¼ x ⅝	.57
TT10X10	10	10	¼ x ⅝	.57
TT10X15	15	10	¼ x ⅝	.57
TT10X25	25	10	¼ x ⅝	.75
TT10X30	30	10	5/16 x ⅝	.81
TT10X40	40	10	¼ x ¾	.81
TT10X50	50	10	5/16 x ⅝	.81
TT10X60	60	10	⅜ x ⅝	.81
TT10X100	100	10	⅜ x ¾	.81
TT10X200	200	10	⅜ x 1	.96
TT12X1	1	12	¼ x ⅝	.57
TT12X2	2	12	¼ x ⅝	.57
TT12X3	3	12	¼ x ⅝	.57
TT12X4	4	12	¼ x ⅝	.57
TT12X5	5	12	¼ x ⅝	.57
TT12X6	6	12	¼ x ⅝	.57
TT12X8	8	12	¼ x ⅝	.57
TT12X10	10	12	¼ x ⅝	.57
TT12X15	15	12	¼ x ⅝	.57
TT12X20	20	12	¼ x ⅝	.57
TT12X25	25	12	¼ x ¾	.75
TT12X35	35	12	5/16 x ⅝	.75
TT12X50	50	12	⅜ x ⅝	.81
TT12X75	75	12	⅜ x ¾	.81
TT12X100	100	12	⅜ x ⅞	.81
TT12X150	150	12	⅜ x 1	.93
TT12X200	200	12	⅜ x 1 1/8	.96
TT12X250	250	12	⅜ x 1 3/8	.96
TT15X1	1	15	¼ x ⅝	$0.57
TT15X2	2	15	¼ x ⅝	.57
TT15X3	3	15	¼ x ⅝	.57
TT15X4	4	15	¼ x ⅝	.57
TT15X5	5	15	¼ x ⅝	.57
TT15X6	6	15	¼ x ⅝	.57
TT15X8	8	15	¼ x ⅝	.57
TT15X10	10	15	¼ x ⅝	.57
TT15X15	15	15	¼ x ⅝	.57
TT15X20	20	15	5/16 x ⅝	.57
TT15X25	25	15	¼ x ¾	.75
TT15X30	30	15	5/16 x ⅝	.75
TT15X35	35	15	⅜ x ⅝	.75
TT15X40	40	15	⅜ x ⅝	.81
TT15X50	50	15	5/16 x ¾	.81
TT15X75	75	15	⅜ x ⅞	.81
TT15X100	100	15	⅜ x ⅞	.81
TT15X150	150	15	⅜ x 1 1/8	.87
TT15X200	200	15	⅜ x 1 3/8	.96
TT25X1	1	25	¼ x ⅝	.54
TT25X2	2	25	¼ x ⅝	.57
TT25X3	3	25	¼ x ⅝	.57
TT25X4	4	25	¼ x ⅝	.57
TT25X5	5	25	¼ x ⅝	.57
TT25X6	6	25	¼ x ⅝	.57
TT25X8	8	25	¼ x ⅝	.60
TT25X10	10	25	¼ x ⅝	.60
TT25X15	15	25	5/16 x ⅝	.75
TT25X20	20	25	5/16 x ⅝	.81
TT25X25	25	25	⅜ x ⅝	.81
TT25X30	30	25	5/16 x ¾	.81
TT25X35	35	25	5/16 x ¾	.81
TT25X50	50	25	⅜ x ⅞	.81
TT25X75	75	25	⅜ x 1	.87
TT25X100	100	25	⅜ x 1 1/8	.90
TT50X1	1	50	¼ x ⅝	.54
TT50X2	2	50	¼ x ⅝	.54
TT50X3	3	50	¼ x ⅝	.57
TT50X4	4	50	¼ x ⅝	.57
TT50X5	5	50	¼ x ¾	.57
TT50X6	6	50	¼ x ¾	.81
TT50X8	8	50	¼ x ¾	.81
TT50X10	10	50	⅜ x ⅝	.81
TT50X15	15	50	5/16 x ¾	.81
TT50X20	20	50	⅜ x ⅞	.81
TT50X25	25	50	⅜ x ⅞	.84
TT50X35	35	50	⅜ x 1	.84
TT50X50	50	50	⅜ x 1 1/8	.87
TT80X4	4	80	¼ x ¾	.81
TT100X1	1	100	¼ x ⅝	.81
TT100X2	2	100	¼ x ⅝	.81
TT100X3	3	100	¼ x ⅝	.81
TT100X4	4	100	¼ x ¾	.81
TT100X5	5	100	5/16 x ⅝	.81
TT100X6	6	100	5/16 x ¾	.81
TT100X8	8	100	5/16 x ¾	.81
TT100X10	10	100	⅜ x ¾	.81
TT100X15	15	100	⅜ x ⅞	.84
TT100X20	20	100	⅜ x 1	.84
TT100X25	25	100	⅜ x 1 1/8	.84
TT150X1	1	150	¼ x ⅝	.84
TT150X2	2	150	¼ x ¾	.84
TT150X3	3	150	5/16 x ⅝	.84
TT150X4	4	150	⅜ x ⅝	.84
TT150X5	5	150	⅜ x ¾	.84
TT150X6	6	150	⅜ x ¾	.84
TT150X8	8	150	⅜ x ⅞	.84
TT150X10	10	150	⅜ x ⅞	.84
TT150X12	12	150	⅜ x 1	.87
TT250X1	1	250	⅜ x ⅝	1.02
TT350X2	2	350	⅜ x 1 3/8	1.05

*Size shown for plain case. For insul. sleeve add .020" dia. x 1/16" l.

MTA MOLDED TUBULAR ALUMINUM ELECTROLYTIC CAPACITORS



High quality electrolytics, precision molded by an exclusive new technique. Precision molding assures case uniformity and quality unattainable by conventional tube-and-fill methods. Polypropylene case material provides extreme humidity protection; actually excludes water molecules while allowing for molecular venting of the electrolyte if necessary. All-welded construction. **Temperature Range:** −20° C to +65° C. **Tolerance:** −10%, +100%. **Ask for Bulletin 9-372 for complete specifications.**

MTA STOCK VALUES

Mallory No.	Cap., µF	Max. WVDC	Surge VDC	Size †	Net Each
MTA60D3	60	3	4	D	$0.36
MTA175E3	175	3	4	E	.45
MTA600F3	600	3	4	F	.45
MTA50D6	50	6	8	D	.36
MTA125E6	125	6	8	E	.39
MTA150E6	150	6	8	E	.39
MTA450F6	450	6	8	F	.51
MTA500F6	500	6	8	F	.51
MTA40D10	40	10	12	D	.36
MTA75E10	75	10	12	E	.39
MTA100E10	100	10	12	E	.39
MTA200F10	200	10	12	F	.45
MTA400F10	400	10	12	F	.54
MTA30D15	30	15	18	D	.36
MTA35D15	35	15	18	D	.36
MTA50E15	50	15	18	E	.39
MTA80E15	80	15	18	E	.39
MTA90E15	90	15	18	E	.39
MTA100E15	100	15	18	E	.39
MTA250F15	250	15	18	F	.51
MTA300F15	300	15	18	F	.63
MTA350F15	350	15	18	F	.63
MTA25D20	25	20	25	D	.36
MTA60E20	60	20	25	E	.39
MTA70E20	70	20	25	E	.39
MTA250F20	250	20	25	F	.63
MTA50E25	50	25	30	E	.39
MTA175F25	175	25	30	F	.54
MTA200F25	200	25	30	F	.63
MTA20D30	20	30	35	D	.36
MTA40E30	40	30	35	E	.39
MTA9D35	9	35	40	D	.36
MTA10D35	10	35	40	D	.36
MTA15D35	15	35	40	D	.36
MTA25E35	25	35	40	E	.39
MTA30E35	30	35	40	E	.39
MTA35E35	35	35	40	E	.39
MTA90F35	90	35	40	F	.51
MTA100F35	100	35	40	F	.51
MTA125F35	125	35	40	F	.54
MTA150F35	150	35	40	F	.63
MTA1D50	1	50	60	D	.36
MTA2D50	2	50	60	D	.36
MTA3D50	3	50	60	D	.36
MTA4D50	4	50	60	D	.36
MTA5D50	5	50	60	D	.36
MTA6D50	6	50	60	D	.36
MTA7D50	7	50	60	D	.36
MTA8D50	8	50	60	D	.36
MTA9E50	9	50	60	E	.39
MTA10E50	10	50	60	E	.39
MTA15E50	15	50	60	E	.39
MTA20E50	20	50	60	E	.39
MTA25F50	25	50	60	F	.45
MTA30F50	30	50	60	F	.45
MTA35F50	35	50	60	F	.45
MTA40F50	40	50	60	F	.45
MTA50F50	50	50	60	F	.45
MTA60F50	60	50	60	F	.51
MTA70F50	70	50	60	F	.51
MTA80F50	80	50	60	F	.54

†MTA CASE SIZES

Size	Size, Inches Dia. x L.	Leads
D	5/16 x ¾	2
E	⅜ x 1	2
F	½ x 1 ⅜	2

Net

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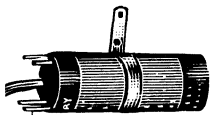
MALLORY Electrolytic Capacitors

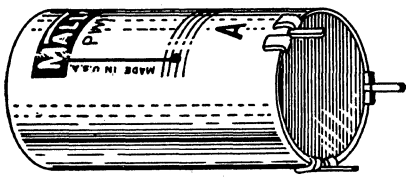
CARDBOARD TUBULAR WAX-FILLED ELECTROLYTICS



Very high quality aluminum electrolytics in wax-filled cardboard tubes with mounting straps and 5" insulated leads. All values have exclusive Mallory safety vent and feature all-welded internal construction. **Temperature Range:** −20° C to +65° C. **Tolerance:** −10%, +250% up to 50 WVDC; −10%, +100% 51 to 350 WVDC; −10%, +50% 450 WVDC and up. WQ240 is special double ended design.

Mall. No.	Cap., μF at WVDC	Size, In. D. x L.	Net Each
WS342	200 at 200	1 1/8 x 2 7/8	$1.84
WS427	140 at 300	1 1/4 x 2 7/8	2.05
WS560	150 at 400	1 1/4 x 4 3/8	2.64
WS730	100 at 450	1 5/16 x 3 3/8	2.63
WD210	50-30 at 150	3/4 x 2 3/8	1.24
WD215	50-50 at 150	7/8 x 2 3/8	1.30
WD220	70-30 at 150	7/8 x 2 3/8	1.30
WD235	100-50 at 150	1 x 2 3/8	1.56
WD270	120-120 at 150	1 x 2 7/8	1.87
WD251	250-50 at 160	1 3/8 x 2 5/8	2.18
WD340	60-125 at 200-50	1 1/16 x 2 3/8	1.54
WD345	5-200 at 200-200	1 1/8 x 3 1/8	2.05
WD355	250-120 at 200-200	1 3/8 x 3 1/8	2.92
WD410	200-100 at 300-50	1 1/8 x 4 3/8	2.93
WD446	100-150 at 350-300	1 3/8 x 3 5/8	3.40
WD448	150-100 at 350-300	1 3/8 x 4 3/8	3.49
WD450	5-140 at 350-350	1 1/8 x 4 3/8	2.54
WT201	60-40-250 at 150-150-15	1 x 2 3/8	1.72
WT240	60-60-100 at 150-150-25	1 x 2 3/8	1.72
WT312	250-120-50 at 160-160-100	1 3/8 x 3 5/8	2.31
WT217	40-40-20 at 150	1 x 2 7/8	1.58
WT316	150-150-150 at 150	1 1/4 x 3 3/8	2.81
WT350	150-150-20 at 200	1 1/4 x 4 3/8	2.78
WT360	200-250-10 at 200	1 3/8 x 3 3/8	3.58
WT430	100-60-100 at 300-300-50	1 1/4 x 3 3/8	2.74
WT434	120-40-100 at 300-300-50	1 1/4 x 3 5/8	2.74
WT407	70-50-30 at 300-300-250	1 1/4 x 3 3/8	2.41
WT447	10-100-200 at 350-150-150	1 3/8 x 2 3/8	2.47
WT449	140-5-200 at 350-300-200	1 3/8 x 4 3/8	3.60
WT455	100-40-40 at 350-350-250	1 1/8 x 4 3/8	2.90
WT458	60-60-60 at 350-350-300	1 1/4 x 4 3/8	2.93
WT460	60-60-4 at 350	1 1/4 x 3 3/8	2.49
WT565	100-75-70 at 400-400-25	1 1/2 x 4 3/8	3.41
WT630	5-40-80 at 450-400-400	1 5/16 x 4 3/8	2.72
WT700	10-10-150 at 450-450-50	1 1/8 x 2 5/8	1.85
WQ209	60-40-20-200 at 150-150-150-10	1 x 2 3/8	1.93
WQ215	40-20-20-100 at 150-150-150-25	1 x 2	1.77
WQ230	40-40-20-20 at 150-150-150-25	15/16 x 2 7/8	1.70
WQ250	60-40-40-20 at 150-150-150-25	1 x 2 3/8	1.91
WQ240	10-10-40-200 at 150-150-150-35	1 1/8 x 2	1.74
WQ290	60-50-40-20 at 150	7/8 x 2 7/8	1.90
WQ401	140-4-50-4 at 300-300-150-150	1 3/8 x 3 1/2	2.88
WQ405	120-40-40-10 at 300-300-300-250	1 3/8 x 3 3/8	3.18
WQ511	140-5-200-100 at 350-300-200-150	1 3/8 x 4 3/8	4.27
WQ505	140-5-200-30 at 350-300-200-200	1 1/2 x 4 3/8	4.06
WQ515	40-20-20-100 at 350-300-250-50	1 1/4 x 2 5/8	2.34
WQ525	50-40-20-50 at 350-350-350-50	1 1/4 x 3 3/8	2.59
WQ520	150-100-20-100 at 350-350-350-50	1 1/2 x 4 3/8	4.33
WQ635	25-100-10-50 at 450-300-300-50	1 3/8 x 3 3/8	2.98
WQ640	10-80-40-40 at 450-300-300-300	1 1/4 x 4 3/8	2.94
WQ650	10-40-80-100 at 450-300-400-50	1 1/4 x 4 3/8	3.07
WQ775	10-20-20-40 at 450	1 1/4 x 3 3/8	3.02
WQ795	20-20-40-40 at 450	1 1/4 x 4 3/8	3.53
WV404	40-20-20-20-50 at 300-300-300-300-50	1 1/4 x 3 3/8	2.58

PRINTED CIRCUIT CARDBOARD TUBULAR ELECTROLYTICS

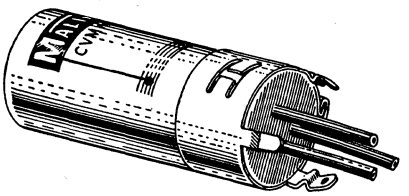


Dual and triple section types for exact replacement in popular home entertainment equipment. Fit printed circuit boards exactly. Same specifications as W series.

Mallory No.	Cap., μF	WVDC	Size, In. Dia. x L.	Net Each
PWD211	50-30	150*	1x2	$1.26
PWD221	50-50	150*	1x2	1.44
PWD231	75-30	150*	1x2 3/8	1.34
PWD240	80-30	150*	1x2 3/8	1.35
PWD252	80-50	150*	1x2 3/8	1.42
PWD253	80-50	200*	1x2 5/8	1.58
PWD263	100-50	150*	1x2 3/8	1.50
PWT205	30-25-20	150*	1x1 3/4	1.44
PWT225	50-30-20	150*	1x2	1.52
PWT245	60-20-5	150*	1x2 7/8	1.47
PWT260	60-80-20	150*	1x2 3/8	1.71
PWT275	80-40-150	150-150-25	1x2 3/8	1.69
PWT285	80-60-250	150-150-25	1 1/8 x 2 3/8	1.83
PWT360	60-120-20	200*	1 1/8 x 2 7/8	2.12

*WVDC each section.

"SNAP-CAP" CARDBOARD TUBULAR ELECTROLYTICS

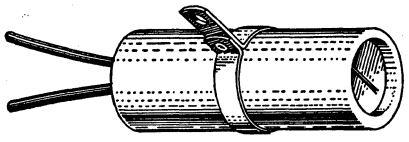


"Snap-Cap" CVM wax-filled cardboard tubular electrolytics snap firmly into FP type mounting plates. Will not shake or vibrate loose, yet are easily removed if necessary. Furnished with color-coded insulated wire leads and exclusive safety vent. **Temp. Range:** −20° C to +65° C. **Tolerance:** −10%, +100%.

Mallory No.	Cap., μF	WVDC*	Size, In.	Net Each
CVM2316	40-40	150	1x2	$1.23
CVM2225	50-30	150	1x2	1.10
CVM2200	80-20	150	1x2 1/2	1.28
CVM3200	20-80-20	150	1x2 1/2	1.46
CVM3300	40-30-20	150	1x2	1.39
CVM3375	50-50-20	150	1x2 1/2	1.46
CVM3325	60-40-20	150	1x2 1/2	1.46
CVM3350	80-40-20	150	1x2 1/2	1.51
CVM3210	150-20-20	150	1x3	1.64

*WVDC each section.

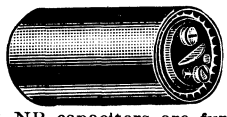
ANTENNA ROTATOR CAPACITORS



Exact replacement capacitors for all popular antenna rotators. Especially engineered to withstand rugged climate and humidity conditions.

Mall. No.	Cap., μF at VAC	Size, In. D. x L.	Net Each
ST75	70-92 at 50 VAC	7/8 x 2 5/8	$0.75
ST76	66.2-76 at 50 VAC	7/8 x 2 5/8	.75
ST78	58.5-78 at 50 VAC	3/4 x 2 5/8	.75
ST80	75-90 at 65 VAC	7/8 x 2 5/8	.90
ST100	100-120 at 50 VAC	1 x 2 3/4	1.02
ST156	117-156 at 50 VAC	7/8 x 2 7/8	.90
ST240	210-240 at 50 VAC	1 x 2 7/8	1.29
ST290	210-290 at 50 VAC	1 x 2 7/8	1.29

HIGH CAPACITY DRY ELECTROLYTICS



HC and NP capacitors are furnished in heavy-duty molded phenolic cases with integral safety vent. HC types are polarized; NP types are non-polarized. **Temp. Range:** −20° C to +85° C. **Tolerance:** Type HC—0–50 WVDC, −10%, +150%; 51–350 WVDC, −10%, +100%; 351 WVDC up, −10%, +50%. Type NP—±25%, all units.

POLARIZED TYPE HC

Mallory No.	Cap., μF	WV DC	* Size	Net Each
HC1020A	2,000	10	1	$ 3.36
HC1040A	4,000	10	2	4.60
HC1060A	6,000	10	8	5.20
HC1080	8,000	10	5	6.00
HC10100	10,000	10†	7	7.82
HC10120	12,000	10	7	7.14
HC10150	15,000	10	7	7.67
HC1520A	2,000	15	1	3.47
HC1540A	4,000	15	3	5.37
HC1560A	6,000	15	4	5.62
HC1580	8,000	15	7	6.62
HC15100	10,000	15	7	7.14
HC2050-50	2x5,000	20	7	8.00
HC2060	6,000	20	7	6.60
HC2060A	6,000	20†	5	6.11
HC20250	25,000	20	9	12.88
HC2510A	1,000	25	1	3.19
HC2520A	2,000	25	2	4.15
HC2530	3,000	25	4	4.88
HC2540A	4,000	25	4	5.58
HC2550	5,000	25	7	6.30
HC4040	4,000	40	7	7.54
HC4040A	4,000	40	5	6.98
HC4060	6,000	40	7	7.91
HC5005	500	50	2	3.60
HC5005A	500	50	1	3.33
HC5010A	1,000	50	2	4.25
HC5020A	2,000	50	4	5.06
HC5030	3,000	50	7	7.00
HC5040	4,000	50	7	7.32
HC8005	500	80	2	3.85
HC8010	1,000	80	4	5.34
HC8020	2,000	80	7	6.62
HC10005	500	100	2	4.20
HC10010	1,000	100	5	5.86
HC10015	1,500	100	7	6.44
HC15005	500	150	4	5.09
HC15010	1,000	150	7	6.89
HC15010A	1,000	150	5	6.44
HC20002	200	200	4	4.08
HC20005	500	200	7	5.97
HC20005A	500	200	4	5.53
HC25001	100	250	2	4.59
HC25002	200	250	4	4.88
HC25003	300	250	5	5.37
HC25004	400	250	7	5.64
HC35001	100	350	4	4.88
HC35002	200	350	5	5.93
HC35003	300	350	7	6.97
HC45001	100	450	4	5.97
HC45002	200	450	7	7.47
HC45003	300	450	7	8.47

NON-POLARIZED TYPE NP

NP0340	2,000	25	7	$ 5.43
NP0555	500	50	5	4.38
NP1225A	200	125	2	4.04
NP1235A	300	125	4	4.87
NP1245	400	125	7	5.69
NP1255A	500	125	5	6.30
NP2514	100	250	5	5.95
NP2520	150	250	5	6.15
NP2525	200	250	7	6.34
NP3003A	15	300	1	2.87
NP3006	30	300	2	3.85
NP3008	50	300	2	5.25
NP3014A	100	300	4	6.13
NP3020	150	300	7	6.56
NP3025	200	300	7	7.00
NP4503	30	450	2	4.90
NP4505	50	450	4	6.30
NP4510	100	450	7	7.70

†Semi-polarized.

*HC AND NP CASE SIZES

Code	Size, In. Dia. x Lg.	Use Hardware No. for Cap	Brkt.	Clamp
1	1 1/16 x 2 3/4	PL3, PLA3	HB2	VR3
2	1 7/16 x 3 3/8	PL3, PLA3	HB4	VR3
3	1 7/16 x 4 3/8	PL3, PLA3	HB8	VR3
4	1 13/16 x 3 3/8	PL6, PLA6	HB4	VR6
5	1 13/16 x 4 3/8	PL6, PLA6	HB8	VR6
6	2 1/16 x 3 3/8	PL8, PLA8	HB4	VR8
7	2 1/16 x 4 3/8	PL8, PLA8	HB8	VR8
8	1 1/2 x 4 1/8	.....	.....	VR4
9	3 x 4 1/8	.....	.....	VR12

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Net

MALLORY High Reliability Capacitors

HIGH-RELIABILITY TUBULAR ELECTROLYTICS

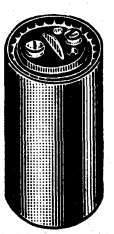
TPG capacitors are premium grade electrolytics in precision tubular cases. They are especially suited to those applications which require the utmost in reliability and long-life performance (communications, computers, instruments, etc.). Internal construction is all-welded for minimum loss. DCL is exceptionally low. The TPG has a positive end seal and exclusive safety vent. Furnished with shrink-fit insulating sleeve. **Temperature Range:** −40° C to +85° C. **Tolerance:** −10%, +100%.

Mallory No.	Cap., µF	WVDC	Size *	Net Each
TPG120T3	120	3	A	$1.81
TPG180T3	180	3	B	1.82
TPG330T3	330	3	C	1.83
TPG385T3	385	3	D	1.85
TPG450T3	450	3	E	1.86
TPG80T6	80	6	A	1.81
TPG120T6	120	6	B	1.82
TPG220T6	220	6	C	1.83
TPG260T6	260	6	D	1.85
TPG300T6	300	6	E	1.86
TPG65T10	65	10	A	1.81
TPG100T10	100	10	B	1.82
TPG175T10	175	10	C	1.83
TPG210T10	210	10	D	1.85
TPG240T10	240	10	E	1.86
TPG45T15	45	15	A	1.81
TPG70T15	70	15	B	1.82
TPG125T15	125	15	C	1.83
TPG150T15	150	15	D	1.85
TPG175T15	175	15	E	1.86
TPG30T25	30	25	A	1.81
TPG45T25	45	25	B	1.82
TPG85T25	85	25	C	1.83
TPG100T25	100	25	D	1.85
TPG115T25	115	25	E	1.86
TPG25T30	25	30	A	1.81
TPG35T30	35	30	B	1.82
TPG65T30	65	30	C	1.83
TPG75T30	75	30	D	1.85
TPG90T30	90	30	E	1.86
TPG12T50	12	50	A	1.81
TPG18T50	18	50	B	1.82
TPG35T50	35	50	C	1.83
TPG40T50	40	50	D	1.85
TPG50T50	50	50	E	1.86
TPG10T75	10	75	A	1.81
TPG15T75	15	75	B	1.82
TPG25T75	25	75	C	1.83
TPG30T75	30	75	D	1.85
TPG40T75	40	75	E	1.86
TPG7T100	7	100	A	1.81
TPG10T100	10	100	B	1.82
TPG15T100	15	100	C	1.83
TPG20T100	20	100	D	1.85
TPG30T100	30	100	E	1.86
TPG1T150	1	150	A	1.81
TPG2T150	2	150	A	1.81
TPG3T150	3	150	A	1.81
TPG4T150	4	150	A	1.81
TPG5T150	5	150	A	1.81
TPG7T150	7	150	B	1.82
TPG10T150	10	150	C	1.83
TPG15T150	15	150	D	1.85
TPG20T150	20	150	E	1.86

*TPG CASE SIZES: ⅜" DIA. X

Code	A	B	C	D	E
Length	13/16"	15/16"	1 1/16"	1 3/8"	1 5/8"

PHOTOFLASH CAPACITORS



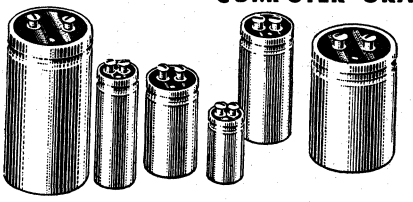
Especially engineered capacitors for photoflash use.

HC45003—300 µF, 450 WV DC. Plastic case, 2 1/16" dia. x 4 5/16". Max. DCL (at 5 min.) 5.5 mA. Net Each..**$8.47**

FF45052—525 µF, 450 WV DC. Plastic case, 2 1/16" dia. x 4 5/16". Max. DCL (at 5 min.) 2.0 mA. Net Ea...**$13.50**

FP240—Specially engineered FP capacitor for photoflash use. Dual separate section, 50 µF at 450 WVDC each section. May be used in parallel for 100 µF. Supplied with cardboard insulating tube. Uses standard FP mounting plate. Net Each.....**$2.31**

COMPUTER GRADE CAPACITORS



Ultra-reliable, high capacity aluminum electrolytic capacitors. Exclusive safety vent provides positive protection. Furnished with Mylar† insulating sleeve. **Temp. Range:** −20° C to +85° C. **Tolerance:** 0–150 WVDC, −10, +75% (U); 151 WVDC up, −10, +50% (T).

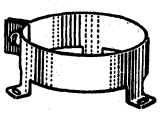
Mallory No.	Cap., µF	WV DC	* Size	Net Each
CG552U3A1	5,500	3	A	$1.44
CG1052U3B1	10,500	3	B	1.58
CG143U3C1	14,000	3	C	2.05
CG1752U3H1	17,500	3	H	2.38
CG233U3K1	23,000	3	K	2.75
CG243U3J1	24,000	3	J	2.85
CG363U3D1	36,000	3	D	3.40
CG54U3E1	50,000	3	E	4.36
CG753U3F1	75,000	3	F	5.44
CG1153U3G1	115,000	3	G	6.52
CG442U5A1	4,400	5	A	1.31
CG852U5B1	8,500	5	B	1.82
CG1252U5C1	12,500	5	C	2.43
CG143U5H1	14,000	5	H	2.50
CG1852U5K1	18,500	5	K	2.74
CG24U5J1	20,000	5	J	2.86
CG2752U5D1	27,500	5	D	3.32
CG453U5E1	45,000	5	E	4.31
CG653U5F1	65,000	5	F	5.40
CG15U5G1	100,000	5	G	6.83
CG322U10A1	3,200	10	A	1.50
CG63U10B1	6,000	10	B	1.88
CG822U10C1	8,200	10	C	2.19
CG14U10H1	10,000	10	H	2.43
CG1352U10K1	13,500	10	K	2.67
CG143U10J1	14,000	10	J	2.70
CG183U10D1	18,000	10	D	3.32
CG34U10E1	30,000	10	E	5.09
CG4352U10F1	43,500	10	F	6.21
CG683U10G1	68,000	10	G	6.74
CG252U15A1	2,500	15	A	1.40
CG452U15B1	4,500	15	B	2.01
CG642U15C1	6,400	15	C	2.07
CG83U15H1	8,000	15	H	2.38
CG1052U15K1	10,500	15	K	2.62
CG113U15J1	11,000	15	J	2.67
CG143U15D1	14,000	15	D	3.47
CG233U15E1	23,000	15	E	4.87
CG343U15F1	34,000	15	F	5.39
CG533U15G1	53,000	15	G	6.64
CG152U25A1	1,500	25	A	1.36
CG282U25B1	2,800	25	B	1.71
CG382U25C1	3,800	25	C	1.96
CG452U25H1	4,500	25	H	2.13
CG63U25K1	6,000	25	K	2.50
CG652U25J1	6,500	25	J	2.62
CG852U25D1	8,500	25	D	3.01
CG1352U25E1	13,500	25	E	4.66
CG24U25F1	20,000	25	F	5.05
CG3152U25G1	31,500	25	G	6.33
CG112U35A1	1,100	35	A	1.47
CG212U35B1	2,100	35	B	1.69
CG312U35C1	3,100	35	C	2.43
CG362U35H1	3,600	35	H	2.52
CG472U35K1	4,700	35	K	2.80
CG532U35J1	5,300	35	J	2.86
CG692U35D1	6,900	35	D	2.87
CG113U35E1	11,000	35	E	5.09
CG1652U35F1	16,500	35	F	5.54
CG243U35G1	24,000	35	G	6.20
CG82U50A1	800	50	A	1.40
CG152U50B1	1,500	50	B	1.77
CG23U50C1	2,000	50	C	1.82
CG252U50H1	2,500	50	H	1.94
CG332U50K1	3,300	50	K	2.51
CG352U50J1	3,500	50	J	2.47
CG452U50D1	4,500	50	D	2.67
CG732U50E1	7,300	50	E	4.14
CG14U50F1	10,000	50	F	5.17
CG1652U50G1	16,500	50	G	6.36
CG62U75A1	600	75	A	1.47
CG13U75B1	1,000	75	B	1.92
CG152U75C1	1,500	75	C	2.19
CG23U75H1	2,000	75	H	2.38
CG252U75K1	2,500	75	K	2.85
CG262U75J1	2,600	75	J	2.86
CG3451U75D1	3,450	75	D	3.11
CG552U75E1	5,500	75	E	4.87
CG822U75F1	8,200	75	F	5.75
CG1252U75G1	12,500	75	G	6.89
CG42U100A1	400	100	A	1.46
CG751U100B1	750	100	B	1.82
CG13U100C1	1,000	100	C	2.11
CG132U100H1	1,300	100	H	2.30
CG1651U100K1	1,650	100	K	2.38
CG172U100J1	1,700	100	J	2.42
CG2251U100D1	2,250	100	D	$3.15
CG362U100E1	3,600	100	E	4.64
CG532U100F1	5,300	100	F	5.32
CG832U100G1	8,300	100	G	7.01
CG2750U150A1	275	150	A	1.31
CG52U150B1	500	150	B	1.84
CG72U150C1	700	150	C	2.05
CG8750U150H1	875	150	H	2.20
CG112U150K1	1,100	150	K	2.36
CG1151U150J1	1,150	150	J	2.42
CG1551U150D1	1,550	150	D	3.13
CG252U150E1	2,500	150	E	4.56
CG362U150F1	3,600	150	F	5.41
CG562U150G1	5,600	150	G	7.01
CG181T200A1	180	200	A	1.46
CG341T200B1	340	200	B	1.74
CG451T200C1	450	200	C	1.93
CG551T200H1	550	200	H	2.09
CG751T200K1	750	200	K	2.57
CG82T200J1	800	200	J	2.65
CG13T200D1	1,000	200	D	3.48
CG1651T200E1	1,650	200	E	3.86
CG2451T200F1	2,450	200	F	5.25
CG382T200G1	3,800	200	G	7.26
CG141T250A1	140	250	A	1.70
CG2750T250B1	275	250	B	1.88
CG3750T250C1	375	250	C	2.01
CG451T250H1	450	250	H	2.08
CG62T250K1	600	250	K	2.23
CG6250T250J1	625	250	J	2.43
CG82T250D1	800	250	D	3.65
CG132T250E1	1,300	250	E	4.87
CG192T250F1	1,900	250	F	5.85
CG33T250G1	3,000	250	G	7.40
CG121T300A1	120	300	A	1.76
CG2250T300B1	225	300	B	2.01
CG3250T300C1	325	300	C	2.25
CG42T300H1	400	300	H	2.38
CG5250T300K1	525	300	K	2.52
CG551T300J1	550	300	J	2.55
CG72T300D1	700	300	D	3.66
CG1151T300E1	1,150	300	E	5.60
CG1651T300F1	1,650	300	F	6.45
CG262T300G1	2,600	300	G	7.57
CG12T350A1	100	350	A	1.77
CG181T350B1	180	350	B	2.38
CG251T350C1	250	350	C	2.28
CG32T350H1	300	350	H	2.43
CG42T350K1	400	350	K	2.75
CG4250T350J1	425	350	J	2.94
CG551T350D1	550	350	D	3.87
CG92T350E1	900	350	E	4.98
CG132T350F1	1,300	350	F	6.26
CG23T350G1	2,000	350	G	7.75
CG550T400A1	55	400	A	1.16
CG111T400B1	110	400	B	2.05
CG151T400C1	150	400	C	2.23
CG181T400H1	180	400	H	2.38
CG241T400K1	240	400	K	2.63
CG251T400J1	250	400	J	2.69
CG3250T400D1	325	400	D	2.92
CG531T400E1	530	400	E	3.86
CG41T450A1	40	450	A	1.12
CG81T450B1	80	450	B	1.32
CG111T450C1	110	450	C	2.19
CG141T450H1	140	450	H	2.34
CG181T450K1	180	450	K	2.57
CG191T450J1	190	450	J	2.58
CG241T450D1	240	450	D	2.81

†DuPont trademark.

*CG CASE SIZES

Code	Dia. x L., Inches	Mtg. Clamp
A	1⅜ x 2⅛	VR3
B	1⅝ x 3⅛	VR3
C	1⅝ x 4⅛	VR3
D	2 x 4⅛	VR8
E	2½ x 4⅛	VR10
F	3 x 4⅛	VR12
G	3 x 5⅝	VR12
H	1¾ x 3⅛	VR6
J	1¾ x 4⅛	VR6
K	2 x 3⅛	VR8

COMPUTER GRADE HARDWARE



Mallory No.	Description	Net Each
VR3	1⅜–1 7/16" vert. clamp	$0.12
VR4	1½–1 9/16" vert. clamp	.14
VR6	1¾–1 13/16" vert. clamp	.14
VR8	2–2¼" vert. clamp	.14
VR10	2½–2¾" vert. clamp	.20
VR12	3–3¼" vert. clamp	.48

Net

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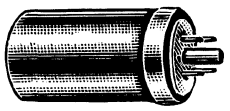
MALLORY Capacitors

HEAVY-DUTY INDUSTRIAL ALUMINUM ELECTROLYTICS

Heavy-duty design meets detail specifications of MIL-C-62 for industrial aluminum electrolytic capacitors. **Temperature Range:** −40° C to +85° C. **Tolerance:** −10%, +150% up to 50 WVDC; −10%, +100%, 100–350 WVDC; −10%, +50%, 450 WVDC and up.

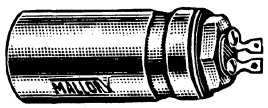
PLUG-IN MOUNTING PB SERIES



Conform to MIL-C-62 detail specifications CE51, CE52 and CE53. Plug into standard octal tube socket.

Mallory No.	Cap., µF	WV DC	Size, In. Dia. x L.	Net Each
PB110	20	150	1 1/16 x 2 1/2	$2.37
PB114	40	150	1 1/16 x 2 1/2	2.46
PB139	100	350	1 3/8 x 3 1/2	3.51
PB142	10	450	1 1/16 x 2 1/2	2.43
PB144	20	450	1 1/16 x 2 1/2	2.53
PB146	40	450	1 3/8 x 2 1/2	2.73
PB149	80	450	1 3/8 x 4 1/4	3.33
PB208	20-20	150	1 1/16 x 2 1/2	2.52
PB212	40-40	150	1 1/16 x 2 1/2	2.61
PB234	20-20	450	1 3/8 x 2 1/2	3.03
PB238	40-40	450	1 3/8 x 4 1/4	3.57
PB311.2	20-20-20	150	1 1/16 x 2 1/2	2.88
PB345.8	20-20-20	450-450-25	1 3/8 x 2 1/2	3.33
PB375.8	10-10-10	450	1 1/16 x 2 1/2	3.06

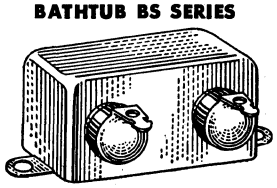
THREADED-NECK MOUNTING SERIES



Series RS, HS and RM have threaded neck ¾"-16 x ½" with nut and washer; insulated stranded wire terminations. Conform closely to MIL-C-62, detail specifications CE41 and CE42.

Mallory No.	Cap., µF	WV DC	Size, In. Dia. x L.	Net Each
RS207	30	250	1 x 3 1/2	$1.23
RS212	8	450	1 3/8 x 3	1.32
RS213	8	450	1 x 2 3/4	1.32
RS214	12	450	1 3/8 x 3	1.44
RS215	12	450	1 x 2 3/4	1.44
RS216	16	450	1 x 3 1/2	1.47
RS217	16	450	1 3/8 x 3	1.47
RS219	20	450	1 3/8 x 3	1.62
RS223	30	450	1 3/8 x 3	1.80
RS224	40	450	1 3/8 x 3	1.89
HS691	4	600	1 3/8 x 4	1.77
HS693	8	600	1 3/8 x 3 3/4	1.89
HS696	20	600	1 3/8 x 4 1/4	2.31
RM262	8-8	450	1 3/8 x 3	1.80
RM265	8-8-8	450	1 3/8 x 4 1/4	3.00

BATHTUB BS SERIES

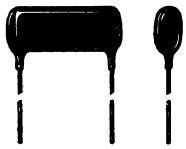


Conform to MIL-C-62 detail specification CE63. These capacitors are hermetically sealed in hot-tinned steel cases with solder lug terminations at the side. Mounts with flanges having 5/16" dia. holes.

Mall. No.	Cap. µF	WV DC	Size, Inches H. x W. x L.	Net Each
BS26	25	25	¾ x 1 x 1 ¾	$2.70
BS29	50	25	¾ x 1 x 1 ¾	2.76
BS36	25	50	¾ x 1 x 1 ¾	2.73
BS39	50	50	⅞ x 1 x 1 ¾	2.82
BS45	20	150	⅞ x 1 x 1 ¾	2.82
BS48	40	150	1 x 1 ¼ x 1 ¾	2.91
BS62	10	300	⅞ x 1 x 1 ¾	2.85
BS65	20	300	1 ⅛ x 1 ¼ x 1 ¾	2.94
BS81*	8	500	1 x 1 ¾ x 2	3.45
BS91*	8	600	1 x 1 ¾ x 2	3.51

*Mtg. centers 2 3/8"; all others 2 1/8".

PVC DIPPED MYLAR* RADIAL-LEAD CAPACITORS



Dielectric 100% Mylar. Radial leads have tough polyvinylchloride coating; will not crack during installation. **Temperature Range:** −55° C to +105° C. **Tolerance:** ±10%.

100 WVDC, 250 V SURGE

Mallory No.	Cap., µF	Size, Inches L.	H.	T.	Net Ea. 1-24
PVC1118	.018	.63	.38	.22	$0.15
PVC1122	.022	.63	.38	.22	.15
PVC1133	.033	.63	.38	.22	.15
PVC114	.04	.63	.38	.22	.15
PVC1147	.047	.63	.38	.22	.15
PVC1156	.056	.75	.38	.22	.16
PVC1168	.068	.81	.41	.25	.17
PVC101	.10	.81	.44	.31	.18
PVC1015	.15	.94	.47	.34	.21
PVC1022	.22	1.09	.50	.34	.24
PVC1025	.25	1.22	.50	.34	.24
PVC1033	.33	1.22	.56	.41	.28
PVC1047	.47	1.34	.59	.44	.31
PVC105	.5	1.34	.63	.44	.33
PVC1056	.56	1.46	.63	.46	.34
PVC1068	.68	1.46	.69	.50	.38
PVC11	1.0	1.75	.72	.53	.46
PVC11P5	1.5	1.75	.88	.63	.58
PVC12	2.0	1.78	1.00	.78	.72

200 WVDC, 500 V SURGE

PVC211	.01	.63	.38	.22	$0.15
PVC2115	.015	.63	.38	.22	.15
PVC212	.02	.63	.38	.22	.15
PVC2122	.022	.63	.38	.22	.15
PVC2133	.033	.81	.41	.25	.15
PVC214	.04	.81	.41	.25	.15
PVC2147	.047	.81	.44	.28	.15
PVC215	.05	.81	.44	.28	.15
PVC2168	.068	.94	.46	.28	.18
PVC201	.1	1.10	.50	.31	.21
PVC2015	.15	1.22	.53	.34	.21
PVC2022	.22	1.22	.56	.41	.24
PVC2025	.25	1.34	.56	.41	.24
PVC2033	.33	1.46	.63	.44	.30
PVC2047	.47	1.63	.66	.46	.35
PVC205	.5	1.63	.69	.50	.35
PVC21	1.0	1.75	.88	.63	.55
PVC22	2.0	1.78	1.15	.94	.95

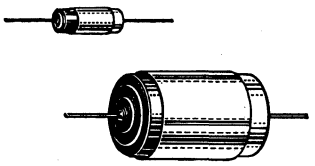
400 WVDC, 1000 V SURGE

PVC4222	.0022	.63	.31	.22	$0.15
PVC4247	.0047	.63	.38	.22	.15
PVC411	.01	.63	.38	.22	.15
PVC412	.02	.75	.41	.25	.15
PVC4147	.047	.94	.46	.28	.18
PVC415	.05	.94	.46	.31	.18
PVC401	.1	1.22	.53	.38	.21
PVC4022	.22	1.46	.66	.46	.27
PVC4025	.25	1.63	.66	.46	.30
PVC404	.4	1.75	.75	.56	.41
PVC4047	.47	1.75	.78	.59	.45
PVC405	.5	1.75	.81	.63	.46
PVC4056	.56	1.78	.84	.66	.49

600 WVDC, 1500 V SURGE

PVC621	.001	.63	.31	.22	$0.15
PVC6212	.0012	.63	.31	.22	.15
PVC6215	.0015	.63	.31	.22	.15
PVC622	.002	.63	.31	.22	.15
PVC6222	.0022	.63	.31	.22	.15
PVC6225	.0025	.63	.31	.22	.15
PVC623	.003	.63	.38	.22	.15
PVC6233	.0033	.63	.38	.22	.15
PVC6239	.0039	.63	.38	.22	.15
PVC624	.004	.63	.38	.22	.15
PVC6247	.0047	.63	.38	.22	.15
PVC625	.005	.63	.38	.22	.15
PVC6256	.0056	.63	.38	.22	.15
PVC626	.006	.63	.38	.22	.15
PVC6268	.0068	.63	.38	.25	.18
PVC6275	.0075	.63	.38	.25	.18
PVC628	.008	.63	.38	.25	.18
PVC611	.01	.75	.38	.25	.18
PVC6112	.012	.75	.38	.25	.18
PVC6115	.015	.81	.41	.28	.18
PVC612	.02	.94	.41	.28	.18
PVC6122	.022	.94	.47	.28	.18
PVC6125	.025	.94	.47	.28	.21
PVC613	.03	1.10	.50	.31	.21
PVC6133	.033	1.10	.50	.31	.21
PVC6139	.039	1.22	.50	.31	.21
PVC614	.04	1.22	.50	.31	.21
PVC6147	.047	1.22	.50	.34	.24
PVC615	.05	1.22	.53	.34	.24
PVC6156	.056	1.22	.53	.38	.24
PVC6168	.068	1.22	.59	.41	.27
PVC601	.1	1.34	.63	.44	.27
PVC6015	.15	1.63	.66	.46	.30
PVC602	.2	1.75	.69	.50	.39
PVC6022	.22	1.75	.72	.53	.42
PVC6025	.25	1.75	.75	.56	.45
PVC6033	.33	1.78	.84	.66	.47
PVC6047	.47	1.78	1.00	.78	.61
PVC61	1.0	2.31	1.13	.94	1.05

600 VOLT POLYSTYRENE CAPACITORS



Manufactured from a unique form of stretched and fused polystyrene to provide the ultimate in temperature stability and humidity protection. Can replace mica, film, paper and ceramic types in most applications. Full coverage includes 73 standard ratings from 5 pF to .01 µF. **Insulation Resistance:** Greater than 100,000 megohms. **Power Factor:** Less than 0.05%. **Temperature Coefficient:** −150 ppm/° C, ±60 ppm/° C. **Temperature Range:** −40° C to +85° C; for best operating stability, −10° C to +70° C. **Voltage:** 600 WVDC; surge, 1500 VDC. **Tolerance:** ±5%. Sizes shown are ±.010" dia. x ±.032" lg. **Ask for Bulletin 9-370 for complete specifications.**

Mallory No.	Cap., pF	Size, In. Dia. x L.	Net Each
SX550	5	.165 x .395	12c
SX568	6.8	.166 x .395	12c
SX410	10	.167 x .395	12c
SX412	12	.167 x .395	12c
SX415	15	.168 x .395	12c
SX418	18	.169 x .395	12c
SX420	20	.170 x .395	12c
SX422	22	.170 x .395	12c
SX424	24	.171 x .395	12c
SX427	27	.172 x .395	12c
SX430	30	.173 x .395	12c
SX433	33	.173 x .395	12c
SX436	36	.174 x .395	12c
SX439	39	.175 x .395	12c
SX443	43	.177 x .395	12c
SX447	47	.178 x .395	12c
SX456	56	.180 x .395	12c
SX462	62	.182 x .395	12c
SX468	68	.184 x .395	12c
SX475	75	.188 x .395	12c
SX482	82	.189 x .395	12c
SX491	91	.192 x .395	12c
SX310	100	.195 x .395	12c
SX311	110	.198 x .395	12c
SX312	120	.201 x .395	12c
SX313	130	.204 x .395	12c
SX315	150	.210 x .395	12c
SX316	160	.213 x .395	12c
SX318	180	.221 x .395	12c
SX320	200	.227 x .395	12c
SX322	220	.233 x .395	12c
SX324	240	.239 x .395	12c
SX327	270	.248 x .395	12c
SX330	300	.255 x .395	12c
SX333	330	.194 x .590	12c
SX336	360	.195 x .590	12c
SX339	390	.197 x .590	12c
SX343	430	.200 x .590	12c
SX347	470	.202 x .590	12c
SX351	510	.204 x .590	12c
SX356	560	.207 x .590	12c
SX362	620	.211 x .590	12c
SX368	680	.215 x .590	12c
SX375	750	.219 x .590	12c
SX382	820	.223 x .590	12c
SX391	910	.228 x .590	12c
SX210	1,000	.233 x .590	12c
SX211	1,100	.238 x .590	15c
SX212	1,200	.245 x .590	15c
SX213	1,300	.250 x .590	15c
SX215	1,500	.262 x .590	15c
SX216	1,600	.267 x .590	15c
SX218	1,800	.279 x .590	15c
SX220	2,000	.291 x .590	15c
SX222	2,200	.300 x .590	15c
SX224	2,400	.314 x .590	15c
SX225	2,500	.320 x .590	15c
SX227	2,700	.331 x .590	15c
SX230	3,000	.348 x .590	15c
SX233	3,300	.366 x .590	18c
SX236	3,600	.383 x .590	18c
SX239	3,900	.402 x .590	18c
SX243	4,300	.425 x .590	18c
SX247	4,700	.448 x .590	18c
SX250	5,000	.466 x .590	18c
SX251	5,100	.470 x .590	21c
SX256	5,600	.465 x .790	21c
SX262	6,200	.480 x .790	21c
SX268	6,800	.500 x .790	21c
SX275	7,500	.520 x .790	21c
SX282	8,200	.540 x .790	21c
SX291	9,100	.565 x .790	21c
SX110	10,000	.590 x .790	21c

MALLORY Ceramic Capacitors

DISCAP® ceramic disc capacitors offer the widest range of types available. Meet or exceed all requirements of EIA Specification RS-198, Class 2.

LOW VOLTAGE MAGNACAPS

For low-voltage transistor circuits; rated 3, 12 and 25 WVDC. **Tol.:** −20%, +80%. **Power Factor:** 3% at 3 WVDC; 5% at 12 and 25 WVDC. **Temp. Coef.:** ±22%. **Temp. Range:** −55° C to +85° C.

Mallory No.	Cap., µF	WV DC	IR* Ohms	Dia., In.	Net Ea.
MAG315	.05	3	80K	.265	58c
MAG301	.1	3	40K	.265	42c
MAG3022	.22	3	18K	.310	24c
MAG3047	.47	3	9K	.425	24c
MAG31	1.0	3	4K	.615	36c
MAG32P2	2.2	3	1820	.880	42c
MAG1215	.05	12	800K	.290	18c
MAG1201	.1	12	400K	.400	18c
MAG12022	.22	12	180K	.550	24c
MAG12047	.47	12	85K	.775	42c
MAG121	1.0	12	40K	1.100	58c
MAG2511	.01	25	10 megs	.265	18c
MAG2512	.02	25	10 megs	.340	18c
MAG2515	.05	25	10 megs	.480	18c
MAG2501	.10	25	10 megs	.650	21c
MAG25022	.22	25	10 megs	.910	39c

*Insulation resistance.

MINIATURE 100 VOLTS

High capacity miniatures rated 100 WVDC; flash, 200 VDC. **Tol.:** −20%, +80%. **Power Factor:** 3% max. at 1 kc. **Insul. Resis.:** 7500 megs min. **Temp. Coef.:** +22%, −56% (+10° C to +85° C).

Mallory No.	Cap., µF	Net Ea.	Mallory No.	Cap., µF	Net Ea.
TA250*	.005	12c	TA125†	.025	18c
TA110*	.01	12c	TA150‡	.05	21c
TA120†	.02	18c	TA010‡	.1	52c

Dia.: *11/32"; †1/2"; ‡5/8".

MINIATURE 500 VOLTS

Miniature bypass types rated 500 WVDC; flash 1250 VDC. **Tol.:** ±20% except, •GMV. **Power Factor:** 1.5% max. at 1 kc. **Insul. Resis.:** 7500 megs min. **Temp. Coef.:** +22%, −56% (+10° C to +85° C).

SM210*•	.001	9c	SM110#	.01	12c
SM215†•	.0015	9c	SM120§	.02	15c
SM250‡	.005	9c			

Dia.: *1/4"; †9/32"; ‡3/8"; #1/2"; §11/16".

GENERAL PURPOSE 1000 VOLTS

Rated 1000 WVDC except 40K and 50K pF units, 500 WVDC.

Mallory No.	Cap., pF	Net Ea.	Mallory No.	Cap., pF	Net Ea.
GP533*	3.3	12c	GP336*	360	12c
GP550*	5.0	12c	GP339*	390	12c
GP568*	6.8	12c	GP340*	400	12c
GP580*	8.0	12c	GP347*	470	12c
GP410*	10	12c	GP350*	500	12c
GP412*	12	12c	GP356*	560	12c
GP415*	15	12c	GP360*	600	12c
GP418*	18	12c	GP368*	680	12c
GP420*	20	12c	GP375§	750	12c
GP422*	22	12c	GP382§	820	12c
GP425*	25	12c	GP210§	1000	12c
GP427*	27	12c	GP212‡	1200	12c
GP430*	30	12c	GP215‡	1500	12c
GP433*	33	12c	GP216‡	1600	12c
GP439*	39	12c	GP218‡	1800	12c
GP447*	47	12c	GP220‡	2000	12c
GP450*	50	12c	GP222‡	2200	12c
GP456*	56	12c	GP225‡	2500	12c
GP468*	68	12c	GP227‡	2700	12c
GP475†	75	12c	GP230‡	3000	12c
GP482†	82	12c	GP233‡	3300	12c
GP491†	91	12c	GP239‡	3900	12c
GP310†	100	12c	GP240‡	4000	12c
GP312†	120	12c	GP243‡	4300	12c
GP313†	130	12c	GP247#	4700	12c
GP315*	150	12c	GP250#	5000	12c
GP318*	180	12c	GP256#	5600	15c
GP320*	200	12c	GP268#	6800	15c
GP322*	220	12c	GP275▲	7500	15c
GP324*	240	12c	GP110•	10K	15c
GP325*	250	12c	GP115•	15K	15c
GP327*	270	12c	GP120•	20K	21c
GP330*	300	12c	GP130•	30K	21c
GP333*	330	12c	GP140■	40K	34c
GP335*	350	12c	GP150♦	50K	36c

Max. dia.: *0.29"; †0.40"; ‡0.54"; #0.62"; §0.38"; •0.77"; ▲0.65"; ■0.95"; ♦0.83".

DUAL-SHIELDED BYPASS

Same as **B** types except dual back-to-back shielded; **Tol.:** ±20%; 3 leads.

Mallory No.	Cap., µF	Dia., In.	Net Each
B2X210	2 x .001	.290	30c
B2X215	2 x .0015	.400	30c
B2X220	2 x .002	.400	30c
B2X230	2 x .003	.560	30c
B2X250	2 x .005	.650	30c
B2X110	2 x .01	.800	30c

HEAVY-DUTY BYPASS

High reliability; rated 1000 WVDC for bypass and audio coupling; 2000 VDC flash. **Tol.:** GMV‡ except B115 and B120, −20%, +80%. **Power Factor:** 1.5% max. at 1 kc. **Insul. Resis.:** 7500 megs min. **Temp. Coef.:** +22%, −56% (+10° C to +85° C); stamped Z5U.

Mallory No.	Cap., pF	Net Ea.	Mallory No.	Cap., pF	Net Ea.
B315*	150	12c	B220†	2000	12c
B318*	180	12c	B222†	2200	12c
B322*	220	12c	B227‡	2700	12c
B327*	270	12c	B233‡	3300	12c
B333*	330	12c	B240‡	4000	12c
B339*	390	12c	B247§	4700	12c
B347*	470	12c	B250§	5000	12c
B350*	500	12c	B256§	5600	12c
B356*	560	12c	B260§	6000	12c
B368*	680	12c	B268#	6800	12c
B382*	820	12c	B282#	8200	12c
B210*	1000	12c	B110•	10K	12c
B212*	1200	12c	B115•	15K	15c
B215†	1500	12c	B120■	20K	21c
B218†	1800	12c			

Dia.: *9/32"; †3/8"; ‡17/32"; §5/8"; #21/32"; •3/4"; ■15/16".

TEMPERATURE COMPENSATING

Stocked in both NPO (CNO) and N750 (CN7) values. Others, from P100 to N5200 available. Rated 1000 WVDC; 2000 VDC flash. **Tol.:** 1−4.7 pF, ±0.25 pF, all others, ±5%. **Power Factor:** 0.1% max. at 1 Mc. **Insul. Resis.:** 7500 megs min. **Temp. Coef.:** NPO or N750 (see tables). **Temp. Range:** −55° C to +85° C.

NPO (+.5%, −.25%) COEFFICIENT

CNO510*	1	12c	CNO427†	27	12c
CNO515*	1.5	12c	CNO433†	33	12c
CNO522*	2.2	12c	CNO439‡	39	12c
CNO533*	3.3	12c	CNO447‡	47	12c
CNO547*	4.7	12c	CNO450‡	50	12c
CNO568*	6.8	12c	CNO456‡	56	12c
CNO410*	10	12c	CNO468‡	68	12c
CNO412*	12	12c	CNO475§	75	12c
CNO415*	15	12c	CNO482§	82	12c
CNO418†	18	12c	CNO310#	100	15c
CNO420†	20	12c	CNO312•	120	15c
CNO422†	22	12c	CNO315•	150	15c
CNO425†	25	12c	CNO318•	180	15c

N750 (+7.5%, −5%) COEFFICIENT

CN7522*	2.2	12c	CN7447†	47	12c
CN7533*	3.3	12c	CN7456†	56	12c
CN7547*	4.7	12c	CN7468†	68	12c
CN7550*	5	12c	CN7475†	75	12c
CN7568*	6.8	12c	CN7482‡	82	12c
CN7410*	10	12c	CN7310‡	100	12c
CN7412*	12	12c	CN7312‡	120	12c
CN7415*	15	12c	CN7315‡	150	12c
CN7418*	18	12c	CN7318§	180	12c
CN7420*	20	12c	CN7320§	200	12c
CN7422*	22	12c	CN7322§	220	12c
CN7427*	27	12c	CN7327#	270	15c
CN7433†	33	12c	CN7333•	330	15c
CN7439†	39	12c			

Dia.: *9/32"; †13/32"; ‡9/16"; §21/32"; #3/4"; •7/8".

TEMPERATURE STABLE

Extreme temperature stability for filter networks. Rated 1000 WVDC; 2000 VDC flash. **Tol.:** ±10%. **Power Factor:** 1.5% max. at 1 kc. **Insul. Resis.:** 7500 megs min. **Temp. Coef.:** ±7.5%. **Temp. Range:** −55° C to +85° C.

JL310*	100	15c	JL212‡	1200	15c
JL315*	150	15c	JL215‡	1500	15c
JL322*	220	15c	JL218‡	1800	15c
JL333*	330	15c	JL220§	2000	18c
JL347†	470	15c	JL222§	2200	18c
JL356†	560	15c	JL233#	3300	21c
JL368†	680	15c	JL239#	3900	21c
JL375†	750	15c	JL247•	4700	27c
JL382†	820	15c	JL250•	5000	27c
JL210‡	1000	15c			

FREQUENCY STABLE

Capacitance changes less than 10% from 100 cps to 100 Mc. Rated 1000 WVDC; 2000 VDC flash. **Tol.:** ±10%. **Power Factor:** 1.5% max. at 1 kc. **Insul. Resis.:** 7500 megs min. **Temp. Coef.:** +22%, −56% (+10° C to +85° C).

JF315*	150	12c	JF215‡	1500	12c
JF322*	220	12c	JF218‡	1800	12c
JF333*	330	12c	JF220‡	2000	12c
JF347*	470	12c	JF222‡	2200	12c
JF350*	500	12c	JF233■	3300	12c
JF356*	560	12c	JF239■	3900	12c
JF368*	680	12c	JF247#	4700	15c
JF375†	750	12c	JF250#	5000	15c
JF382†	820	12c	JF268▲	6800	15c
JF210†	1000	12c	JF110▲♦	10K	15c
JF212‡	1200	12c			

Dia.: *9/32"; †3/8"; ‡17/32"; §5/8"; #3/4"; •7/8"; ■31/32"; ▲29/32"; ♦500 WVDC.

AC LINE AND BUFFER

U/L Approved for AC line bypass. Rated 1400 WVDC; 150 V rms at 60 cps; 210 VAC/DC peak; 2800 VDC flash. **Tol.:** ±20%. **Insul. Resis.:** 7500 megs min. **Temp. Coef.:** +22%, −56% (+10° C to +85° C); stamped Z5U.

Mallory No.	Cap., µF	Net Ea.	Mallory No.	Cap., µF	Net Ea.
UAC210*	.001	24c	UAC250†	.005	24c
UAC220*	.002	24c	UAC260†	.006	24c
UAC222*	.0022	24c	UAC270‡	.007	24c
UAC230†	.003	24c	UAC275‡	.0075	24c
UAC233†	.0033	24c	UAC280‡	.008	24c
UAC240†	.004	24c	UAC110‡	.01	24c
UAC247†	.0047	24c	UAC120‡	.02	42c

Dia.: *23/32"; †27/32"; ‡1".

HIGH VOLTAGE

High voltage DISCAPS for high frequency use. Rated voltages as listed, below; flash is two times rated voltage. **Tol.:** ±20% except type 2HV types 330 pF up and 3HV types 560 pF up which are GMV‡. **Power Factor:** 1.5% max. at 1 kc. **Insul. Resis.:** 7500 megs min. **Temp. Coef.:** N1500 (+13%, −10%) (−35° C to +85° C). **Not for deflection yoke use.**

2000 WVDC

Mallory No.	Cap., pF	Net Ea.	Mallory No.	Cap., pF	Net Ea.
2HV310*	100	15c	2HV210§	1000	24c
2HV312*	120	15c	2HV212§	1200	24c
2HV315*	150	15c	2HV215§	1500	24c
2HV322†	220	15c	2HV218§	1800	24c
2HV327‡	270	15c	2HV222§	2200	24c
2HV333#	330	21c	2HV233•	3300	24c
2HV347#	470	21c	2HV239■	3900	24c
2HV356#	560	24c	2HV247■	4700	24c
2HV368§	680	24c	2HV268▲	6800	24c
2HV375§	750	24c	2HV110♦	10K	24c
2HV382§	820	24c			

3000 WVDC

3HV322#	220	21c	3HV210§	1000	24c
3HV327#	270	21c	3HV212§	1200	24c
3HV333#	330	21c	3HV215§	1500	24c
3HV347#	470	21c	3HV218§	1800	24c
3HV356§	560	24c	3HV222†	2200	24c
3HV368§	680	24c	3HV233▲	3300	24c
3HV375§	750	24c	3HV239▲	3900	24c
3HV382§	820	24c	3HV247♦	4700	24c

6000 WVDC

6HV310#	100	36c	6HV347†	470	36c
6HV312#	120	36c	6HV356†	560	36c
6HV315#	150	36c	6HV368▲	680	36c
6HV322#	220	36c	6HV375▲	750	36c
6HV327#	270	36c	6HV382▲	820	36c
6HV333†	330	36c	6HV210♦	1000	48c

Dia.: *27/32"; †13/16"; ‡29/32"; #17/32"; §21/32"; •3/4"; ■27/32"; ▲15/16"; ♦1 1/16".

DEFLECTION YOKE

Made especially for 15,750 cps deflection yoke use. Voltage as listed below; flash is two times rated voltage. **Tol.:** ±10%. **Power Factor:** 1.5% max. at 1 kc. **Insul. Resis.:** 7500 megs min. **Temp. Coef.:** N1500 (+13%, −10%) (−35° C to +85° C).

2000 WVDC

Mallory No.	Cap., pF	Net Ea.	Mallory No.	Cap., pF	Net Ea.
2DY547*	4.7	15c	2DY433*	33	15c
2DY568*	6.8	15c	2DY439*	39	15c
2DY410*	10	15c	2DY447*	47	15c
2DY412*	12	15c	2DY456*	56	15c
2DY415*	15	15c	2DY468*	68	15c
2DY422*	22	15c	2DY482*	82	15c
2DY427*	27	15c	2DY310†	100	15c

3000 WVDC

3DY547*	4.7	21c	3DY447*	47	21c
3DY568*	6.8	21c	3DY456*	56	21c
3DY410*	10	21c	3DY468†	68	21c
3DY412*	12	21c	3DY482†	82	21c
3DY415*	15	21c	3DY310†	100	21c
3DY422*	22	21c	3DY312‡	120	21c
3DY427*	27	21c	3DY3135‡	135	21c
3DY433*	33	21c	3DY315‡	150	21c
3DY439*	39	21c	3DY318#	180	21c

6000 WVDC

6DY547*	4.7	36c	6DY433*	33	36c
6DY568*	6.8	36c	6DY439†	39	36c
6DY410*	10	36c	6DY447†	47	36c
6DY412*	12	36c	6DY456‡	56	36c
6DY415*	15	36c	6DY468#	68	36c
6DY422*	22	36c	6DY482§	82	36c
6DY427*	27	36c			

Dia.: *19/32"; †25/32"; ‡13/16"; #29/32"; §31/32".

‡Guaranteed minimum value.

®P. R. Mallory & Co. Inc. trademark.

Net

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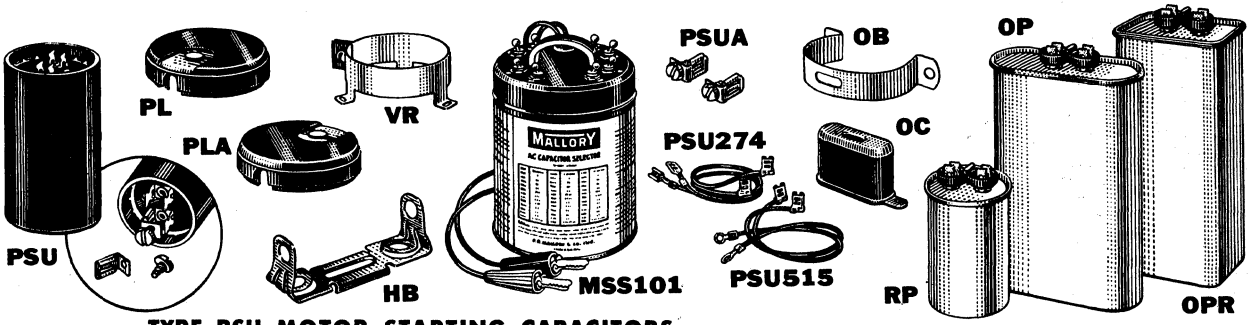
MALLORY AC Motor Capacitors



TYPE PSU MOTOR STARTING CAPACITORS

PSU capacitors are dry electrolytic non-polarized types for intermittent duty in AC motor starting circuits. Capacitors are rated at minimum to maximum microfarads. Round cases are of moisture and oil resistant molded plastic. Equipped with two quick disconnect terminals. Packed with two PSUA terminal adapters for solder or screw type connection. May be mounted by means of PL plastic end cap and HB metal snap-in bracket or VR clamp-bracket. (Order separately.)

Mallory No.	Cap., µF	V AC	Size, In. Dia. x L.	Net 1-9*
PSU2010	20–24	110	1 7/16 x 2 3/4	$0.74
PSU2610	26–31	110	1 7/16 x 2 3/4	.76
PSU3210	32–39	110	1 7/16 x 2 3/4	.76
PSU3810	38–46	110	1 7/16 x 2 3/4	.76
PSU4310	43–52	110	1 7/16 x 2 3/4	.76
PSU5310	53–64	110	1 7/16 x 2 3/4	.77
PSU6410	64–77	110	1 7/16 x 2 3/4	.81
PSU7010	70–84	110	1 7/16 x 2 3/4	.86
PSU7510	75–90	110	1 7/16 x 3 1/8	.92
PSU8610	86–103	110	1 7/16 x 3 1/8	.95
PSU9710	97–116	110	1 7/16 x 3 1/8	1.00
PSU10810	108–130	110	1 7/16 x 2 3/4	1.03
PSU12410	124–149	110	1 7/16 x 2 3/4	1.06
PSU13010	130–156	110	1 7/16 x 2 3/4	1.06
PSU14510	145–174	110	1 7/16 x 2 3/4	1.15
PSU15810	158–190	110	1 7/16 x 2 3/4	1.17
PSU16110	161–193	110	1 7/16 x 2 3/4	1.17
PSU19210	192–230	110	1 7/16 x 3 1/8	1.35
PSU19410	194–233	110	1 7/16 x 3 1/8	1.40
PSU20010	200–240	110	1 7/16 x 3 1/8	1.40
PSU21610	216–259	110	1 7/16 x 3 1/8	1.46
PSU23310	233–280	110	1 7/16 x 4 1/8	1.62
PSU24310	243–292	110	1 13/16 x 3 1/8	1.69
PSU27010	270–324	110	1 13/16 x 3 1/8	1.71
PSU28210	282–338	110	1 13/16 x 3 1/8	1.75
PSU32410	324–389	110	1 13/16 x 3 1/8	1.94
PSU34010	340–408	110	1 13/16 x 3 1/8	2.00
PSU34110	341–409	110	1 13/16 x 3 1/8	2.00
PSU37810	378–454	110	1 13/16 x 3 1/8	2.16
PSU40010	400–480	110	1 13/16 x 4 1/8	2.13
PSU43010	430–516	110	1 13/16 x 4 1/8	2.50
PSU48510	485–582	110	1 13/16 x 4 1/8	2.74
PSU54010	540–648	110	1 13/16 x 4 1/8	2.93
PSU59010	590–708	110	1 13/16 x 4 1/8	3.19
PSU3825	38–46	125	1 7/16 x 2 3/4	.83
PSU7225	72–86	125	1 7/16 x 3 1/8	.92
PSU8625	86–104	125	1 7/16 x 2 3/4	.99
PSU10825	108–130	125	1 7/16 x 3 1/8	1.10
PSU12425	124–149	125	1 7/16 x 3 1/8	1.17
PSU13025	130–156	125	1 7/16 x 3 1/8	1.17
PSU14525	145–174	125	1 7/16 x 3 1/8	1.31
PSU16125	161–193	125	1 7/16 x 4 1/8	1.39
PSU18925	189–229	125	1 13/16 x 3 1/8	1.51
PSU19225	192–230	125	1 7/16 x 4 1/8	1.55
PSU21625	216–259	125	1 13/16 x 3 1/8	1.71
PSU24325	243–292	125	1 13/16 x 3 1/8	1.87
PSU27325	273–328	125	1 13/16 x 4 1/8	1.98
PSU32425	324–389	125	1 13/16 x 4 1/8	2.09
PSU34125	341–409	125	1 13/16 x 4 1/8	2.34
PSU40025	400–480	125	2 1/16 x 4 1/8	2.43
PSU48525	485–540	125	2 1/16 x 4 1/8	2.68
PSU18965	189–227	165	1 13/16 x 4 1/8	2.61
PSU21665	216–259	165	1 13/16 x 4 1/8	2.70
PSU24365	243–292	165	2 1/16 x 3 1/8	3.10
PSU2520	25–30	220	1 7/16 x 2 3/4	1.66
PSU3220	32–38	220	1 7/16 x 2 3/4	1.76
PSU3820	38–46	220	1 7/16 x 3 1/8	1.91
PSU4320	43–52	220	1 13/16 x 3 1/8	2.00
PSU5020	50–60	220	1 13/16 x 3 1/8	2.03
PSU5320	53–64	220	1 13/16 x 3 1/8	2.07
PSU6420	64–77	220	1 13/16 x 3 1/8	2.43
PSU7020	70–84	220	1 13/16 x 3 1/8	2.52
PSU7520	75–90	220	1 13/16 x 3 1/8	2.65
PSU8620	86–103	220	1 13/16 x 4 1/8	2.75
PSU10820	108–130	220	2 1/16 x 4 1/8	2.75
PSU12120	121–145	220	2 1/16 x 4 1/8	3.10
PSU13520	135–162	220	2 1/16 x 4 1/8	3.24
PSU14120	141–169	220	2 1/16 x 4 1/8	3.37
PSU14120R	141–169*	220	2 1/16 x 4 1/8	3.46
PSU14520	145–174	220	2 1/16 x 4 1/8	3.60
PSU1850R	18–22*	250	1 7/16 x 2 3/4	1.62
PSU2550	25–30	250	1 7/16 x 2 3/4	1.69
PSU3650	36–43	250	1 13/16 x 3 3/8	2.09

TYPE PSU (Continued)

Mallory No.	Cap., µF	V AC	Size, In. Dia. x L.	Net 1-9*
PSU4350	43–53	250	1 13/16 x 3 3/8	$2.12
PSU5050	50–60	250	1 13/16 x 3 3/8	2.07
PSU5950	59–71	250	1 13/16 x 4 3/8	2.48
PSU7550	75–90	250	1 13/16 x 4 3/8	2.61
PSU8150	81–97	250	1 13/16 x 4 3/8	2.70
PSU10850	108–130	250	2 1/16 x 4 3/8	3.38
PSU12150	121–145	250	2 1/16 x 4 3/8	3.56
PSU13550	135–162	250	2 1/16 x 4 3/8	3.71
PSU14150	141–169	250	2 1/16 x 4 3/8	4.14
PSU16150R	161–193*	250	2 9/16 x 4 3/8	4.84
PSU18950	189–227	250	2 9/16 x 4 3/8	5.20
PSU2730	27–32	330	1 13/16 x 3 3/8	1.87
PSU3430	34–42	330	1 13/16 x 3 3/8	1.94
PSU7230	72–88	330	2 1/16 x 4 3/8	3.10
PSU8130	81–90	330	2 9/16 x 4 3/8	3.60
PSU10830	108–130	330	2 9/16 x 4 3/8	4.26
PSU10830R	108–130*	330	2 9/16 x 4 3/8	4.41
PSU12430	124–149	330	2 9/16 x 4 3/8	4.91
PSU12730	127–152	330	2 9/16 x 4 3/8	4.95
PSU13530	135–162	330	2 9/16 x 4 3/8	4.84
PSU13530R	135–162*	330	2 9/16 x 4 3/8	5.11

*Furnished with Bleeder resistor.

MOTOR RUN CAPACITORS

Designed for continuous, heavy duty AC applications. Used as motor running capacitors, fluorescent light ballast, etc., where continuous duty is required. Supplied in metal cases, may be safely operated up to 10% above rated voltages and from −30° to +70° C. Impregnating oil is non-inflammable. Quick disconnect terminals have flash guards to prevent arcing. Tolerance: ±10%.

TYPE OP (OVAL)

Mallory No.	Cap., µF	V AC	Size, Inches	Net 1-9*
OP1065	10	165	1 5/16 x 2 5/32 x 2 7/8	$3.30
OP336	3	236	1 5/16 x 2 5/32 x 2 1/16	1.51
OP436	4	236	1 5/16 x 2 5/32 x 2 1/16	1.62
OP536	5	236	1 5/16 x 2 5/32 x 2 5/16	1.80
OP7x36	7.5	236	1 5/16 x 2 5/32 x 3 3/8	3.35
OP1036	10	236	2 5/32 x 2 27/32 x 2 1/4	3.71
OP1536	15	236	2 5/32 x 2 27/32 x 3 1/32	4.19
OP2036	20	236	2 5/32 x 2 27/32 x 3 21/32	6.12
OP17525	17.5	250	2 5/32 x 2 27/32 x 3 13/32	5.69
OP1033	10	330	2 5/32 x 2 27/32 x 3 1/32	3.78
OP14533	14.5	330	2 5/32 x 2 27/32 x 4 5/32	4.19
OP370	3	370	1 5/16 x 2 5/32 x 2 1/16	1.58
OP470	4	370	1 5/16 x 2 5/32 x 2 9/16	1.69
OP570	5	370	1 5/16 x 2 5/32 x 2 7/8	2.18
OP670	6	370	1 5/16 x 2 5/32 x 3 1/8	2.76
OP7x570	7.5	370	2 5/32 x 2 27/32 x 2 1/2	3.49
OP1070	10	370	2 5/32 x 2 27/32 x 3 1/32	3.92
OP12x70	12.5	370	1 29/32 x 2 29/32 x 3 1/2	4.19
OP1570B	15	370	1 29/32 x 2 29/32 x 3 7/8	4.19
OP1570	15	370	2 5/32 x 2 27/32 x 4 5/32	4.19
OP17570B	17.5	370	1 29/32 x 2 29/32 x 4 3/4	5.11
OP17570	17.5	370	2 5/32 x 2 27/32 x 4 7/8	5.11
OP2070B	20	370	1 29/32 x 2 29/32 x 5 1/4	6.18
OP2070	20	370	2 5/32 x 2 27/32 x 4 11/32	6.18
OP2570B	25	370	1 29/32 x 2 29/32 x 6 1/4	7.56
OP2570C	25	370	1 31/32 x 3 21/32 x 4 3/4	7.56
OP2570	25	370	2 5/32 x 2 27/32 x 5 5/16	7.56
OP27570	27.5	370	1 31/32 x 3 21/32 x 5 3/4	7.97
OP3070	30	370	1 31/32 x 3 21/32 x 5 3/4	8.36
OP3570	35	370	1 31/32 x 3 21/32 x 6 1/4	8.74
OP17D570	17.5,5	370	1 29/32 x 2 29/32 x 6 1/4	5.86
OP20D570	20, 5	370	1 31/32 x 3 21/32 x 5 3/4	6.75
OP25D570	25, 5	370	1 31/32 x 3 21/32 x 6 3/4	8.42
OP30D570	30, 5	370	1 31/32 x 3 21/32 x 8	9.12
OP35D570	35, 5	370	1 31/32 x 3 21/32 x 7 1/4	10.92
OP240	2	440	1 5/16 x 2 5/32 x 2 1/16	1.96
OP340	3	440	1 5/16 x 2 5/32 x 2 7/8	2.09
OP440	4	440	1 5/16 x 2 5/32 x 3 1/16	2.32
OP540	5	440	1 5/16 x 2 5/32 x 3 3/4	2.88
OP7x40	7.5	440	2 5/32 x 2 27/32 x 3 13/32	3.76
OP1040	10	440	1 29/32 x 2 29/32 x 3 7/8	4.10
OP1044	10	440	2 5/32 x 2 27/32 x 4 1/16	4.10
OP1540	15	440	2 5/32 x 2 27/32 x 5 5/8	5.69
OP17x40	17.5	440	1 29/32 x 2 29/32 x 6 1/4	6.91
OP2040	20	440	1 29/32 x 2 29/32 x 6 3/4	6.91

TYPE OP (OVAL) Continued

Mallory No.	Cap., µF	V AC	Size, Inches	Net 1-9*
OP2040B	20	440	1 31/32 x 3 21/32 x 5 1/4	$ 6.91
OP2540	25	440	1 31/32 x 3 21/32 x 6 1/4	9.77
OP3040	30	440	1 31/32 x 3 21/32 x 7 1/4	11.38
OP3540	35	440	1 31/32 x 3 21/32 x 9	12.59
OP4040	40	440	1 31/32 x 3 21/32 x 9 1/2	13.82

TYPE OPR (RECTANGULAR)

Mallory No.	Cap., µF	V AC	Size, Inches	Net 1-9*
OPR2070	20	370	2 5/32 x 2 27/32 x 5 3/8	$ 7.92
OPR2570	25	370	2 5/32 x 2 27/32 x 5 5/8	8.41
OPR2570B	25	370	2 27/32 x 4 9/16 x 3 3/4	8.41
OPR3070	30	370	2 5/32 x 2 27/32 x 6 1/4	8.93
OPR3570	35	370	2 27/32 x 4 9/16 x 4 3/8	9.32
OPR4070	40	370	2 27/32 x 4 9/16 x 5 1/8	13.18
OPR4570	45	370	2 27/32 x 4 9/16 x 6 1/4	14.44
OPR2040	20	440	2 5/32 x 2 27/32 x 6 3/4	8.14
OPR2040B	20	440	2 27/32 x 4 9/16 x 4 3/8	8.14
OPR2540	25	440	2 27/32 x 4 9/16 x 4 3/8	9.79
OPR3040	30	440	2 27/32 x 4 9/16 x 5 5/8	11.41
OPR3540	35	440	2 27/32 x 4 9/16 x 5 5/16	12.59
OPR4040	40	440	2 27/32 x 4 9/16 x 6 1/4	13.82
OPR4540	45	440	2 27/32 x 4 9/16 x 6 1/4	15.29
OPR5040B	50	440	2 27/32 x 4 9/16 x 6 3/4	16.81
OPR5040	50	440	3 3/4 x 4 9/16 x 5 7/8	16.81
OPR5540	55	440	2 27/32 x 4 9/16 x 7 1/2	19.72
OPR6040	60	440	3 3/4 x 4 9/16 x 7	22.62

TYPE RP (ROUND)

Mallory No.	Cap., µF	V AC	Size, Inches Dia. x Lgth.	Net 1-9
RP3301	1	330	1 3/8 x 1 1/2	$1.51
RP3302	2	330	1 3/8 x 2 5/16	1.87
RP3303	3	330	2 x 1 3/4	2.23
RP3304	4	330	2 x 2 5/16	2.23
RP3305	5	330	2 x 2 11/16	2.45
RP3306	6	330	2 x 2 7/8	2.70
RP3307	7	330	2 x 3 5/16	2.84
RP3308	8	330	2 x 3 13/16	3.01
RP3310	10	330	2 1/2 x 3 3/8	3.44
RP3312	12	330	2 1/2 x 3 7/8	3.92
RP3315	15	330	2 1/2 x 4 3/4	4.97

AC CAPACITOR HARDWARE

Mallory No.	Description	Cap. Size, In.	Net Ea.
ACR15K	5-pack: 15K ohm/2W resis.		$0.75
PL3	End cap-wire in	1 7/16	.08
PL6	End cap-wire in	1 13/16	.10
PL8	End cap-wire in	2 1/16	.12
PL10	End cap-wire in	2 9/16	.25
PLA3	End cap-wire out	1 7/16	.08
PLA6	End cap-wire out	1 13/16	.10
PLA8	End cap-wire out	2 1/16	.12
PLA10	End cap-wire out	2 9/16	.25
HB2	Horiz. bracket	3 1/4*	.13
HB4	Horiz. bracket	3 21/32*	.13
HB8	Horiz. bracket	4 21/32*	.15
VR1	Vert. mtg. clamp	1–1 1/16	.11
VR3	Vert. mtg. clamp	1 3/8–1 7/16	.12
VR4	Vert. mtg. clamp	1 1/2–1 9/16	.14
VR6	Vert. mtg. clamp	1 3/4–1 13/16	.14
VR8	Vert. mtg. clamp	2–2 1/16	.14
VR10	Vert. mtg. clamp	2 1/2–2 9/16	.20
VR12	Vert. mtg. clamp	3–3 1/16	.30
OB1	Mtg. clamp for OP	.....	.12
OC1	Term. cover for OP	.....	.12
PSUA	10 term. adapters	.....	.30
PSU274	Pair 12" leads; quick disconnect terminals	.....	.30
PSU515	Pair 12" leads; 1 quick-disc. term.; 1 eyelet	.....	.40

*Capacitor length; all others diameter.

MSS101 Capacitor Selector—25–645 µF at 125 V rms. Net Each..... **$29.00**

★QUANTITY PRICES AVAILABLE UPON REQUEST

MALLORY Tantalum Capacitors

CS12, CS13 AND TAS SOLID ELECTROLYTE TANTALUM CAPACITORS

Ultra-miniature capacitors designed to withstand the most difficult environmental conditions. Furnished in hermetically sealed metal cases. Temperature range: −80° C to +85° C (to +125° C with derating). TAS commercial types 6 through 50 WVDC are shown on this page. TAS 75 and 100 WVDC are shown on the next page. CS12 and CS13 types to both MIL-C-26655A and MIL-C-26655B are shown on next page. **TAS ORDERING INFORMATION:** Are specified by a 13-digit part number. **Tolerance:** Specify **K** for ±10% or **M** for ±20%. **Insulating Sleeve:** TAS types are listed with uninsulated cases; for insulating sleeve, change 12th digit of part number from **0** to **1** and add **2c** to prices shown. **Case Sizes:** TAS sizes are indicated by the last digit in the part number (**A, C, F,** & **G**). See price table below. **CS12/13 ORDERING INFORMATION:** Shown on next page to both MIL-C-26655A and MIL-C-26655B. Either type may be ordered. Prices are shown below by case code. **Tolerance:** Specify **K** for ±10% or **M** for ±20%. **Insulating Sleeve:** Uninsulated CS12 types are shown. For insulating sleeve, specify **CS13** and add **2c** to prices shown. **Case Sizes:** Shown below by code letter in listing, see price table below.

STOCK VALUES—TAS TYPES

Cap., µF	6 WVDC Mallory No.†	10 WVDC Mallory No.†	15 WVDC Mallory No.†	20 WVDC Mallory No.†	35 WVDC Mallory No.†	50 WVDC Mallory No.†
.0047	TAS472*006P0A	TAS472*010P0A	TAS472*015P0A	TAS472*020P0A	TAS472*035P0A*	.....
.0056	TAS562K006P0A	TAS562K010P0A	TAS562K015P0A	TAS562K020P0A	TAS562K035P0A*	.....
.0068	TAS682*006P0A	TAS682*010P0A	TAS682*015P0A	TAS682*020P0A	TAS682*035P0A*	.....
.0082	TAS822K006P0A	TAS822K010P0A	TAS822K015P0A	TAS822K020P0A	TAS822K035P0A*	.....
.010	TAS103*006P0A	TAS103*010P0A	TAS103*015P0A	TAS103*020P0A	TAS103*035P0A*	.....
.012	TAS123K006P0A	TAS123K010P0A	TAS123K015P0A	TAS123K020P0A	TAS123K035P0A*	.....
.015	TAS153*006P0A	TAS153*010P0A	TAS153*015P0A	TAS153*020P0A	TAS153*035P0A*	.....
.018	TAS183K006P0A	TAS183K010P0A	TAS183K015P0A	TAS183K020P0A	TAS183K035P0A*	.....
.022	TAS223*006P0A	TAS223*010P0A	TAS223*015P0A	TAS223*020P0A	TAS223*035P0A*	.....
.027	TAS273K006P0A	TAS273K010P0A	TAS273K015P0A	TAS273K020P0A	TAS273K035P0A*	.....
.033	TAS333*006P0A	TAS333*010P0A	TAS333*015P0A	TAS333*020P0A	TAS333*035P0A*	.....
.039	TAS393K006P0A	TAS393K010P0A	TAS393K015P0A	TAS393K020P0A	TAS393K035P0A*	.....
.047	TAS473*006P0A	TAS473*010P0A	TAS473*015P0A	TAS473*020P0A	TAS473*035P0A*	.....
.056	TAS563K006P0A	TAS563K010P0A	TAS563K015P0A	TAS563K020P0A	TAS563K035P0A*	.....
.068	TAS683*006P0A	TAS683*010P0A	TAS683*015P0A	TAS683*020P0A	TAS683*035P0A*	.....
.082	TAS823K006P0A	TAS823K010P0A	TAS823K015P0A	TAS823K020P0A	TAS823K035P0A*	.....
.10	TAS104*006P0A	TAS104*010P0A	TAS104*015P0A	TAS104*020P0A	TAS104*035P0A*	.....
.12	TAS124K006P0A	TAS124K010P0A	TAS124K015P0A	TAS124K020P0A	TAS124K035P0A*	.....
.15	TAS154*006P0A	TAS154*010P0A	TAS154*015P0A	TAS154*020P0A	TAS154*035P0A*	.....
.18	TAS184K006P0A	TAS184K010P0A	TAS184K015P0A	TAS184K020P0A	TAS184K035P0A*	.....
.22	TAS224*006P0A	TAS224*010P0A	TAS224*015P0A	TAS224*020P0A	TAS224*035P0A*	.....
.27	TAS274K006P0A	TAS274K010P0A	TAS274K015P0A	TAS274K020P0A	TAS274K035P0A*	.....
.33	TAS334*006P0A	TAS334*010P0A	TAS334*015P0A	TAS334*020P0A	TAS334*035P0A*	TAS334*050P0A
.39	TAS394K006P0A	TAS394K010P0A	TAS394K015P0A	TAS394K020P0A	TAS394K035P0A*	TAS394K050P0A
.47	TAS474*006P0A	TAS474*010P0A	TAS474*015P0A	TAS474*020P0A	TAS474*035P0A*	TAS474*050P0A
.56	TAS564K006P0A	TAS564K010P0A	TAS564K015P0A	TAS564K020P0A	TAS564K035P0A*	TAS564K050P0A
.68	TAS684*006P0A	TAS684*010P0A	TAS684*015P0A	TAS684*020P0A	TAS684*035P0A*	TAS684*050P0A
.82	TAS824K006P0A	TAS824K010P0A	TAS824K015P0A	TAS824K020P0A	TAS824K035P0A*	TAS824K050P0A
1.0	TAS105*006P0A	TAS105*010P0A	TAS105*015P0A	TAS105*020P0A	TAS105*035P0A*	TAS105*050P0A
1.2	TAS125K006P0A	TAS125K010P0A	TAS125K015P0A	TAS125K020P0A*	TAS125K035P0C*	TAS125K050P0C
1.5	TAS155*006P0A	TAS155*010P0A	TAS155*015P0A	TAS155*020P0A*	TAS155*035P0C*	TAS155*050P0C
1.8	TAS185K006P0A	TAS185K010P0A	TAS185K015P0A	TAS185K020P0A*	TAS185K035P0C*	TAS185K050P0C
2.2	TAS225*006P0A	TAS225*010P0A	TAS225*015P0A	TAS225*020P0A*	TAS225*035P0C*	TAS225*050P0C
2.7	TAS275K006P0A	TAS275K010P0A	TAS275K015P0A*	TAS275K020P0C	TAS275K035P0C*	TAS275K050P0C
3.3	TAS335K006P0A	TAS335K010P0A	TAS335*015P0A*	TAS335*020P0C	TAS335*035P0C*	TAS335*050P0C
3.9	TAS395K006P0A	TAS395K010P0A*	TAS395K015P0C	TAS395K020P0C	TAS395K035P0C*	TAS395K050P0C
4.7	TAS475*006P0A	TAS475*010P0A*	TAS475*015P0C	TAS475*020P0C	TAS475*035P0C*	TAS475*050P0C
5.6	TAS565K006P0A*	TAS565K010P0C	TAS565K015P0C	TAS565K020P0C	TAS565K035P0C*	TAS565K050P0F
6.8	TAS685*006P0A*	TAS685*010P0C	TAS685*015P0C	TAS685*020P0C	TAS685*035P0C*	TAS685*050P0F
8.2	TAS825K006P0C	TAS825K010P0C	TAS825K015P0C	TAS825K020P0C*	TAS825K035P0F*	TAS825K050P0F
10	TAS106*006P0C	TAS106*010P0C	TAS106*015P0C	TAS106*020P0C*	TAS106*035P0F*	TAS106*050P0F
12	TAS126K006P0C	TAS126K010P0C	TAS126K015P0C	TAS126K020P0C*	TAS126K035P0F*	TAS126K050P0F
15	TAS156*006P0C	TAS156*010P0C	TAS156*015P0C	TAS156*020P0C*	TAS156*035P0F*	TAS156*050P0F
18	TAS186K006P0C	TAS186K010P0C	TAS186K015P0C*	TAS186K020P0F	TAS186K035P0F*	TAS186K050P0F
22	TAS226*006P0C	TAS226*010P0C	TAS226*015P0C*	TAS226*020P0F	TAS226*035P0F*	TAS226*050P0G
27	TAS276K006P0C	TAS276K010P0C*	TAS276K015P0F	TAS276K020P0F*	TAS276K035P0G*	.....
33	TAS336*006P0C	TAS336*010P0C*	TAS336*015P0F	TAS336*020P0F*	TAS336*035P0G*	.....
39	TAS396K006P0C	TAS396K010P0C*	TAS396K015P0F	TAS396K020P0F*	TAS396K035P0G*	.....
47	TAS476*006P0C*	TAS476*010P0F	TAS476*015P0F	TAS476*020P0F*	TAS476*035P0G	.....
56	TAS566K006P0C*	TAS566K010P0F	TAS566K015P0F*	TAS566K020P0G*	.....	.....
68	TAS686*006P0F	TAS686*010P0F	TAS686*015P0F*	TAS686*020P0G*	TAS686M035P0G	.....
82	TAS826K006P0F	TAS826K010P0F*	TAS826K015P0G	TAS826K020P0G*	.....	.....
100	TAS107*006P0F	TAS107*010P0F*	TAS107*015P0G	TAS107*020P0G*	.....	.....
120	TAS127K006P0F	TAS127K010P0F*	TAS127K015P0G*	.....	.....	.....
150	TAS157*006P0F*	TAS157*010P0G	TAS157*015P0G*	.....	.....	.....
180	TAS187K006P0F*	TAS187K010P0G*	.....	.....	.....	.....
220	TAS227*006P0G	TAS227*010P0G*	.....	.....	.....	.....
270	TAS277K006P0G*	.....	.....	.....	.....	.....
330	TAS337*006P0G*	.....	.....	.....	.....	.....

*Specify **K** for ±10% tolerance or **M** for ±20%. *Parent value; Max. WVDC vs. capacity, size and price. †Last letter indicates size; see pricing below.

TAS AND CS12/13 INDUSTRIAL NET PRICES

Prices shown are for bare metal case types. Add **2c** for types with insulating sleeve; add .010″ dia. for sleeve.

FOR 6, 10, 15, 20 AND 35 WVDC

Case Code †	Case Size, Inches Dia. x L.	WVDC	Capacity Range, µF	For ±10% Tol. (K), Net Each 1-24	25-49	50-99	100-499	500-999	For ±20% Tol. (M), Net Each 1-24	25-49	50-99	100-499	500-999
A	.125 x .250	6, 10, 15, 20, 35	.0047–6.8	$1.32	$1.05	$0.73	$0.60	$0.51	$1.29	$1.03	$0.70	$0.57	$0.48
C	.175 x .438	6, 10, 15, 20, 35	1.2–56	1.53	1.23	.75	.62	.52	1.50	1.20	.72	.59	.49
F	.279 x .650	6, 10, 15, 20	18–180	2.21	1.77	1.33	1.10	.92	2.18	1.74	1.30	1.07	.89
		35	8.2–22	2.53	2.03	1.40	1.14	.95	2.50	2.00	1.37	1.11	.93
G	.341 x .750	6, 10, 15, 20	56–330	4.48	3.53	2.32	1.89	1.58	4.45	3.50	2.29	1.86	1.55
		35	27–33	4.53	3.63	2.51	2.03	1.79	4.50	3.60	2.48	2.00	1.68
		35	39–47	4.73	3.78	2.78	2.27	1.89	4.70	3.75	2.75	2.24	1.86
		35	68	.....	.....	.....	.....	.....	5.30	4.25	3.14	2.45	2.34

FOR 50 WVDC

A	.125 x .250	50	0.47–1.0	$2.45	$1.97	$1.66	$1.43	$1.29	$1.90	$1.50	$1.28	$1.09	$1.00
C	.175 x .438	50	1.2–4.7	2.60	2.08	1.75	1.50	1.37	2.00	1.60	1.35	1.15	1.05
F	.279 x .650	50	5.6–18	4.25	3.40	2.88	2.45	2.24	3.25	2.60	2.20	1.89	1.72
G	.341 x .750	50	22	7.95	6.35	5.35	4.58	4.18	6.10	4.90	4.15	3.50	3.22

Net

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MALLORY Tantalum Capacitors

MIL-C-26655A, CS12 AND CS13

For bare metal case, order CS12 as listed. For insulating sleeve, specify CS13.

6 WVDC

Cap., µF	Mallory Number	Size
5.6	CS12AB5R6K	A
6.8	CS12AB6R8*	A
47	CS12AB470*	C
56	CS12AB560K	C
150	CS12AB151*	F
180	CS12AB181K	F
270	CS12AB271K	G
330	CS12AB331*	G

10 WVDC

Cap., µF	Mallory Number	Size
3.9	CS12AC3R9K	A
4.7	CS12AC4R7*	A
27	CS12AC270K	C
33	CS12AC330*	C
39	CS12AC390K	C
82	CS12AC820K	F
100	CS12AC101*	F
120	CS12AC121K	F
180	CS12AC181K	G
220	CS12AC221*	G

15 WVDC

Cap., µF	Mallory Number	Size
2.7	CS12AD2R7K	A
3.3	CS12AD3R3*	A
18	CS12AD180K	C
22	CS12AD220*	C
56	CS12AD560K	F
68	CS12AD680*	F
120	CS12AD121K	G
150	CS12AD151*	G

20 WVDC

Cap., µF	Mallory Number	Size
1.2	CS12AE1R2K	A
1.5	CS12AE1R5*	A
1.8	CS12AE1R8K	A
2.2	CS12AE2R2*	A
8.2	CS12AE8R2K	C
10	CS12AE100*	C
12	CS12AE120K	C
15	CS12AE150*	C
27	CS12AE270K	F
33	CS12AE330*	F
39	CS12AE390K	F
47	CS12AE470*	F
56	CS12AE560K	G
68	CS12AE680*	G
82	CS12AE820K	G
100	CS12AE101*	G

35 WVDC

Cap., µF	Mallory Number	Size
.33	CS12AFR33*	A
.39	CS12AFR39K	A
.47	CS12AFR47*	A
.56	CS12AFR56K	A
.68	CS12AFR68*	A
.82	CS12AFR82K	A
1.0	CS12AF010*	A
1.2	CS12AF1R2K	C
1.5	CS12AF1R5*	C
1.8	CS12AF1R8K	C
2.2	CS12AF2R2*	C
2.7	CS12AF2R7K	C
3.3	CS12AF3R3*	C
3.9	CS12AF3R9K	C
4.7	CS12AF4R7*	C
5.6	CS12AF5R6K	C
6.8	CS12AF6R8*	C
8.2	CS12AF8R2K	F
10	CS12AF100*	F
12	CS12AF120K	F
15	CS12AF150*	F
18	CS12AF180K	F
22	CS12AF220*	F
27	CS12AF270K	G
33	CS12AF330*	G
39	CS12AF390K	G
47	CS12AF470*	G

50 WVDC

Cap., µF	Mallory Number	Size
1.0	CS12AG010*	A
1.2	CS12AG1R2K	C
1.5	CS12AG1R5*	C
1.8	CS12AG1R8K	C
2.2	CS12AG2R2*	C
2.7	CS12AG2R7K	C
3.3	CS12AG3R3*	C
3.9	CS12AG3R9K	C
4.7	CS12AG4R7*	C
5.6	CS12AG5R6K	F
6.8	CS12AG6R8*	F
8.2	CS12AG8R2K	F
10	CS12AG100*	F
12	CS12AG120K	F
15	CS12AG150*	F
18	CS12AG180K	F
22	CS12AG220*	G

*Specify tolerance: **K** = ±10%; **M** = ±20%. For case sizes, see pricing table.

SEE PREVIOUS PAGE FOR PRICING, CASE SIZE AND ORDERING INFORMATION

MIL-C-26655B, CS12 AND CS13

For bare metal case, order CS12 as listed. For insulating sleeve, specify CS13.

6 WVDC

Cap., µF	Mallory Number	Size
5.6	CS12BB565K	A
6.8	CS12BB685*	A
47	CS12BB476*	C
56	CS12BB566K	C
150	CS12BB157*	F
180	CS12BB187K	F
270	CS12BB277K	G
330	CS12BB337*	G

10 WVDC

Cap., µF	Mallory Number	Size
3.9	CS12BC395K	A
4.7	CS12BC475*	A
27	CS12BC276K	C
33	CS12BC336*	C
39	CS12BC396K	C
82	CS12BC826K	F
100	CS12BC107*	F
120	CS12BC127K	F
180	CS12BC187K	G
220	CS12BC227*	G

15 WVDC

Cap., µF	Mallory Number	Size
2.7	CS12BD275K	A
3.3	CS12BD335*	A
18	CS12BD186K	C
22	CS12BD226*	C
56	CS12BD566K	F
68	CS12BD686*	F
120	CS12BD127K	G
150	CS12BD157*	G

20 WVDC

Cap., µF	Mallory Number	Size
1.2	CS12BE125K	A
1.5	CS12BE155*	A
1.8	CS12BE185K	A
2.2	CS12BE225*	A
8.2	CS12BE825K	C
10	CS12BE106*	C
12	CS12BE126K	C
15	CS12BE156*	C
27	CS12BE276K	F
33	CS12BE336*	F
39	CS12BE396K	F
47	CS12BE476*	F
56	CS12BE566K	G
68	CS12BE686*	G
82	CS12BE826K	G
100	CS12BE107*	G

35 WVDC

Cap., µF	Mallory Number	Size
.33	CS12BF334*	A
.39	CS12BF394K	A
.47	CS12BF474*	A
.56	CS12BF564K	A
.68	CS12BF684*	A
.82	CS12BF824K	A
1.0	CS12BF105*	A
1.2	CS12BF125K	C
1.5	CS12BF155*	C
1.8	CS12BF185K	C
2.2	CS12BF225*	C
2.7	CS12BF275K	C
3.3	CS12BF335*	C
3.9	CS12BF395K	C
4.7	CS12BF475*	C
5.6	CS12BF565K	C
6.8	CS12BF685*	C
8.2	CS12BF825K	F
10	CS12BF106*	F
12	CS12BF126K	F
15	CS12BF156*	F
18	CS12BF186K	F
22	CS12BF226*	F
27	CS12BF276K	G
33	CS12BF336*	G
39	CS12BF396K	G
47	CS12BF476*	G

50 WVDC

Cap., µF	Mallory Number	Size
1.0	CS12BG105*	A
1.2	CS12BG125K	C
1.5	CS12BG155*	C
1.8	CS12BG185K	C
2.2	CS12BG225*	C
2.7	CS12BG275K	C
3.3	CS12BG335*	C
3.9	CS12BG395K	C
4.7	CS12BG475*	C
5.6	CS12BG565K	F
6.8	CS12BG685*	F
8.2	CS12BG825K	F
10	CS12BG106*	F
12	CS12BG126K	F
15	CS12BG156*	F
18	CS12BG186K	F
22	CS12BG226*	G

*Specify tolerance: **K** = ±10%; **M** = ±20%. For case sizes, see pricing table.

SEE PREVIOUS PAGE FOR PRICING, CASE SIZE AND ORDERING INFORMATION

TAS 75 AND 100 WVDC

Higher voltage versions of the TAS types listed on the previous page. Case sizes remain the same as the lower voltage versions. Furnished in hermetically sealed metal cases for maximum environmental protection. Available with shrink-fit insulating sleeve (change 12th digit from **0** to **1**, and add **2c** to prices shown below. For complete technical details, ask for Bulletin 4-40.

75 WVDC

Cap., µF	Mallory Number	Size†
.47	TAS474*075P0A	A
.56	TAS564K075P0A	A
.68	TAS684*075P0A	A
.82	TAS824K075P0C	C
1.0	TAS105*075P0C	C
1.2	TAS125K075P0C	C
1.5	TAS155*075P0C	C
1.8	TAS185K075P0C	C
2.2	TAS225*075P0C	C
2.7	TAS275K075P0C	C
3.3	TAS335*075P0C	C

*Specify **K** for ±10% tol., **M** for ±20%.

†CASE SIZES

Size	Uninsulated	Insulated
A	.125 x .250	.135 x .286
C	.175 x .438	.185 x .474

±10% TOLERANCE

†	Net Each, Lots of 1-24	25-49	50-99	100-499	500-999
A	$6.10	$3.50	$2.65	$2.10	$1.93
C	6.45	3.70	2.75	2.20	2.02

±20% TOLERANCE

A	$4.70	$2.70	$2.05	$1.60	$1.48
C	4.95	2.85	2.15	1.70	1.55

100 WVDC

Cap., µF	Mallory Number	Size†
.47	TAS474*100P0A	A
.56	TAS564K100P0A	A
.68	TAS684*100P0C	C
.82	TAS824K100P0C	C
1.0	TAS105*100P0C	C
1.2	TAS125K100P0C	C
1.5	TAS155*100P0C	C
1.8	TAS185K100P0C	C
2.2	TAS225*100P0C	C
2.7	TAS275K100P0C	C

*Specify **K** for ±10% tol., **M** for ±20%.

†CASE SIZES

Size	Uninsulated	Insulated
A	.125 x .250	.135 x .286
C	.175 x .438	.185 x .474

±10% TOLERANCE

†	Net Each, Lots of 1-24	25-49	50-99	100-499	500-999
A	$7.95	$4.55	$3.40	$2.70	$2.50
C	8.40	4.80	3.60	2.85	2.63

±20% TOLERANCE

A	$6.10	$3.50	$2.65	$2.10	$1.93
C	6.45	3.70	2.75	2.20	2.02

TAM SOLID ELECTROLYTE

TAM

Mallory TAM tantalum capacitors are made to the same exacting standards as the TAS types. The TAM is designed for printed circuit board applications and has parallel leads 1½″ long spaced .200″ apart. Case is premolded plastic with polarity markings on the top. Temperature range is −55° C to +85° C. Standard tolerance: ±20%. Stability and life characteristics are ideal for low voltage, low impedance transistorized circuits. Complete technical specifications and typical life test data is given in Technical Bulletin 4-47.

Cap., µF	WVDC +85°C	Mallory Number	Case Size†
56	6	TAM566M006P5C	C
33	10	TAM336M010P5C	C
39	10	TAM396M010P5C	C
22	15	TAM226M015P5C	C
6.8	25	TAM685M025P5C	C
10	25	TAM106M025P5C	C
15	25	TAM156M025P5C	C
4.7	35	TAM475M035P5C	C

†.325″ w. x .175″ d. x .425″ h.

Case Size	Net Each, Lots of 1-24	25-49	50-99	100-499	500-999
C	$1.20	$0.96	$0.82	$0.69	$0.63

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Net

MALLORY Dry Electrolytic Capacitors

FP-WP AND PFP-PWP—QUADS (CONTINUED)

Mallory No.	Capacity, μF	WVDC	*	Net Each
FP417.2A	20-150-150-100	300-300-150-30	g	$3.09
FP417.3A	10-200-140-30	300-150-150-150	g	3.06
FP417.8A	10-200-200-30	300-150-150-150	h	3.21
FP417.9A	100-60-10-20	300-200-150-50	g	2.91
FP419A	200-20-100-20	300-250-50-25	h	3.48
FP419.11	60-5-50-20	300-300-50-50	f	2.16
FP418.7A	140-10-10-100	300-300-150-50	g	2.97
FP419.4A	100-10-200-30	300-300-150-150	h	3.54
FP419.1A	150-20-10-250	300-300-250-50	h	3.63
FP419.2A	40-30-20-50	300-300-300-25	f	2.49
FP419.7A	60-40-20-50	300-300-300-25	f	2.73
FP419.35A	60-30-10-60	300-300-300-50	f	2.52
FP419.37A	150-30-30-150	300-300-300-50	h	3.66
PFP419.42A	20-20-20-100	300-300-300-150	f	2.41
WP419.39A	80-20-20-200	300-300-300-150	h	3.12
FP419.45	120-40-40-10	300-300-300-250	i	3.63
FP419.53A	60-40-10-10	300-300-300-300	f	2.73
FP419.55A	150-100-10-10	300-300-300-300	j	3.96
WP419.554	150-100-30-10	300-300-300-300	j	3.69
WP419.52	150-150-30-30	300-300-300-300	i	4.17
FP419.54A	200-20-20-20	300-300-300-300	j	3.87
FP419.56	60-60-30-160	350-150-150-25	hj	2.76
FP419.58	20-60-160-40	350-200-25-25	g	2.40
FP414	15-80-40-200	350-200-200-25	h	2.70
FP418.3	120-20-100-20	350-250-50-25	i	3.03
WP419.585A	50-60-5-100	350-250-250-50	f	2.58
FP419.59A	160-30-30-20	350-300-300-50	j	3.54
WP419.51	40-80-10-10	350-300-300-300	g	2.72
FP419.514	140-100-20-20	350-300-300-300	n	3.88
FP419.65A	160-60-10-4	350-300-300-300	j	3.84
FP419.6	40-10-100-25	350-350-25-25	f	2.25
FP419.62A	60-4-100-40	350-350-25-25	f	2.28
FP419.61	100-4-50-50	350-350-50-25	h	3.03
FP419.63A	200-10-4-20	350-350-50-25	j	3.36
FP419.635	40-40-50-50	350-350-50-50	h	2.52
FP419.64	40-20-50-25	350-350-150-25	g	2.49
FP419.649A	40-20-100-100	350-350-200-50	f	2.70
FP419.67A	100-60-60-40	350-350-200-75	j	3.93
FP419.661A	100-60-10-100	350-350-200-150	j	3.43
FP419.66A	60-40-60-20	350-350-250-150	g	3.24
FP419.68	15-15-15-15	350-350-300-25	f	2.07
FP419.8	35-35-10-20	350-350-300-25	g	2.49
FP419.82	20-10-5-10	350-350-350-25	f	1.86
FP419.84	30-10-5-200	350-350-350-25	f	2.28
FP419.86A	40-20-5-10	350-350-350-25	f	2.28
FP419.87	40-20-20-50	350-350-350-25	g	2.55
FP419.88A	40-30-15-30	350-350-350-25	f	2.70
FP419.3A	40-40-20-20	350-350-350-25	g	2.79
FP419.895	10-150-100-100	350-350-350-50	i	4.08
FP419.9	15-15-15-50	350-350-350-50	f	2.25
PFP420.17A	40-20-10-100	350-350-350-50	f	2.45
FP420.15A	70-40-10-50	350-350-350-50	g	3.15
FP420.2A	50-40-40-160	350-350-350-50	h	3.45
FP420.23A	100-10-10-20	350-350-350-50	g	3.09
FP419.89A	100-30-10-40	350-350-350-50	g	2.94
WP420.25A	100-40-4-100	350-350-350-50	h	3.09
FP420.26A	100-40-30-50	350-350-350-50	h	3.93
FP420.273	100-100-60-100	350-350-350-50	i	4.08
FP420.276	120-20-10-50	350-350-350-50	h	3.00
FP420.28A	140-20-10-100	350-350-350-50	h	3.63
FP420.29A	90-30-5-100	350-350-350-75	h	3.54
FP420.31A	100-80-10-20	350-350-350-150	j	3.42
FP420.32A	20-10-5-60	350-350-350-200	f	2.13
FP420.33A	30-10-5-100	350-350-350-200	f	2.64
WP420.34	40-40-40-40	350-350-350-300	h	3.00
FP420.35A	40-20-20-10	350-350-350-350	f	2.61
FP420.36A	40-40-30-20	350-350-350-350	g	2.82
FP420.38A	40-40-40-40	350-350-350-350	h	3.60
FP420.4A	80-60-40-20	350-350-350-350	j	3.84
FP420.405A	100-20-10-5	350-350-350-350	g	2.85
FP420.3	100-50-25-25	350-350-350-350	h	3.40
FP420.407	80-80-4-100	400-200-150-50	j	3.04
FP420.41A	40-120-10-150	400-250-250-50	j	3.48
FP420.44A	30-40-50-200	400-300-250-150	j	3.60
FP420.43	80-80-100-100	400-350-25-25	i	3.78
FP420.438	10-4-4-20	400-350-150-25	f	2.26
PFP420.439	40-100-5-100	400-350-150-50	j	3.18
FP420.45A	40-80-100-25	400-350-200-50	j	3.63
FP420.46A	80-40-20-20	400-350-300-300	j	3.48
FP420.47	20-50-40-80	400-350-350-50	h	3.00
FP420.5A	30-60-20-100	400-350-350-50	j	3.00
PFP420.52	40-30-20-20	400-350-350-350	h	2.80
FP420.51	20-20-50-50	400-400-15-15	f	2.04
FP420.53	20-5-20-20	400-400-25-25	f	1.83
FP420.54	80-50-25-25	400-400-25-25	h	3.21
FP420.56A	50-25-100-20	400-400-50-25	g	2.79
FP420.6A	80-40-100-20	400-400-50-25	j	3.36
FP420.7	100-10-30-20	400-400-50-50	h	3.06
FP420.8	20-10-10-25	400-400-100-25	f	1.86
WP420.9A	20-20-100-100	400-400-100-100	g	3.15
FP420.95	80-40-100-100	400-400-200-50	i	3.63
FP420.97	80-40-40-100	400-400-300-50	j	3.48
FP421	5-5-50-80	400-400-300-250	h	2.79
FP421.1	40-120-20-100	400-400-350-25	n	3.86
FP421.2A	60-40-40-10	400-400-350-50	j	3.45
FP421.3A	100-10-20-20	400-400-350-50	j	3.27
FP421.4	30-30-15-20	400-400-400-25	h	2.58
FP421.6	80-40-30-40	400-400-400-25	i	3.57
FP421.8A	40-40-40-150	400-400-400-50	j	3.42
WP421.85	40-80-10-100	400-400-400-200	i	3.36
FP421.87	80-40-30-4	400-400-400-350	i	3.49
FP421.9A	50-40-30-20	400-400-400-400	j	3.39
WP422	60-40-40-40	400-400-400-400	i	3.78
FP422.05	100-80-10-30	400-400-400-400	n	4.25
FP422.1A	20-80-20-50	450-200-200-50	f	2.46
FP422.11	20-160-50-50	450-250-75-50	j	2.97
FP422.7A	60-80-40-20	450-250-250-150	h	3.39
FP422.8	25-100-10-60	450-300-300-50	h	3.18
FP413X	40-40-40-20	450-300-300-150	h	2.94
FP422.9	10-100-20-20	450-300-300-300	h	$3.15
FP423.4	10-40-100-100	450-350-250-50	h	3.33
WP423.5	10-140-100-20	450-350-300-300	i	3.87
FP424.1	10-100-10-20	450-350-350-25	h	3.12
FP424.3A	20-80-50-100	450-350-350-50	j	3.60
FP425	30-40-40-10	450-350-350-200	h	3.09
FP425.6	40-100-20-10	450-350-350-350	i	3.84
FP425.1A	80-10-40-30	450-400-300-300	j	3.48
FP426	20-15-20-20	450-450-25-25	f	2.07
FP426.2	80-40-100-100	450-450-25-25	i	3.48
FP426.5A	20-20-60-100	450-450-150-25	f	2.55
FP426.9A	40-40-125-125	450-450-150-25	j	3.42
FP427.5A	10-10-60-100	450-450-200-50	f	2.31
FP427.6A	35-25-20-100	450-450-200-50	g	2.79
FP427.65A	40-40-100-60	450-450-200-200	j	3.63
FP427.67	80-50-20-50	450-450-250-50	i	3.58
PFP427.69A	30-20-160-40	450-450-250-150	j	3.39
FP427.7	10-10-10-50	450-450-300-25	f	1.89
FP427.9A	20-20-20-10	450-450-350-350	g	2.49
FP428A	40-10-35-10	450-450-350-350	g	2.76
FP428.4A	40-40-30-30	450-450-350-350	j	3.54
FP424	15-15-10-20	450-450-450-25	f	2.10
FP428.9	30-30-10-125	450-450-450-25	h	2.58
FP432A	40-10-10-250	450-450-450-25	g	2.82
FP431	40-15-10-25	450-450-450-25	g	2.46
FP430.2A	40-20-20-25	450-450-450-25	g	2.76
FP436	40-20-20-40	450-450-450-25	h	2.79
FP429	40-30-10-20	450-450-450-25	h	2.70
FP429.2	40-40-30-100	450-450-450-25	j	3.21
FP430.6A	40-40-40-40	450-450-450-25	j	3.30
FP430.9	60-40-40-10	450-450-450-25	i	3.60
FP430.95A	60-50-5-20	450-450-450-25	j	3.21
FP430.97	20-20-20-20	450-450-450-50	g	2.49
FP437	20-20-20-100	450-450-450-50	g	2.73
FP431.2	40-40-10-25	450-450-450-50	h	2.82
FP431.3A	40-40-10-50	450-450-450-50	h	2.13
FP431.35	40-40-20-40	450-450-450-50	h	3.03
FP431.4B	60-40-10-25	450-450-450-50	h	3.15
FP431.7A	40-40-10-100	450-450-450-100	j	3.18
FP433A	60-10-10-20	450-450-450-150	g	2.76
FP432.4A	40-40-30-10	450-450-450-200	j	3.21
FP432.8	35-35-15-25	450-450-450-250	h	2.91
FP432.9B	40-20-10-100	450-450-450-250	h	3.51
FP450.2	80-50-10-20	450-450-450-300	i	3.67
FP433.2	40-10-10-40	450-450-450-350	h	2.85
FP433.4	40-20-20-20	450-450-450-350	h	3.00
WP433.6	5-5-5-5	450-450-450-450	f	1.80
FP434	10-10-10-10	450-450-450-450	f	2.01
FP434.5	20-10-10-10	450-450-450-450	f	2.22
FP444A	20-20-20-20	450-450-450-450	g	2.82
FP444.4A	30-15-15-15	450-450-450-450	g	2.67
FP444.5	30-20-20-10	450-450-450-450	h	2.76
FP444.6A	30-30-15-10	450-450-450-450	g	2.82
FP444.8	30-30-20-20	450-450-450-450	h	3.12
FP444.9A	30-30-30-15	450-450-450-450	h	3.18
FP444.54	40-20-20-4	450-450-450-450	h	2.79
FP444.95	40-20-20-20	450-450-450-450	h	3.06
FP445	35-35-10-5	450-450-450-450	h	2.76
FP446	40-35-10-10	450-450-450-450	h	2.88
FP447A	40-40-20-20	450-450-450-450	j	3.33
FP447.5A	40-40-30-30	450-450-450-450	j	3.63
WP447.7	40-40-40-40	450-450-450-450	i	3.78
FP448A	60-20-20-20	450-450-450-450	j	3.39
FP448.5	60-30-10-2	450-450-450-450	h	3.06
FP449	70-10-10-5	450-450-450-450	h	2.85
FP450B	80-10-10-10	450-450-450-450	h	3.03
FP450.08	80-40-20-10	450-450-450-450	i	3.66
FP450.16A	80-40-20-20	450-450-450-450	i	3.79
FP450.5	40-40-50-80	475-250-150-50	h	3.00
FP451A	10-100-10-100	475-300-300-25	g	2.94
FP451.3A	10-140-4-100	475-300-300-50	j	3.18
FP452A	20-80-20-10	475-300-300-300	g	3.00
FP452.5	10-20-100-50	475-350-25-25	f	2.07
FP453A	20-40-80-100	475-350-200-100	h	3.27
FP453.4A	10-40-80-100	475-350-300-100	h	3.33
FP453.8A	10-30-5-80	475-350-350-50	f	2.22
FP454.4A	10-130-20-10	475-350-350-350	j	3.54
FP454.2	20-60-40-10	475-350-350-350	h	3.12
FP454.6	10-40-4-100	475-400-350-50	g	2.43
FP454.8A	10-80-40-100	475-400-400-50	j	3.48
FP455.5	25-20-20-100	475-450-300-50	g	2.73
FP456	25-20-40-100	475-450-300-50	h	2.97
FP456.5A	10-60-30-125	475-450-400-50	j	3.33
FP455	10-50-30-30	475-450-450-25	h	2.85
FP459	10-40-10-100	475-450-450-50	g	2.58
FP460	80-4-4-4	475-450-450-450	j	3.09
FP460.5	50-40-4-40	475-475-150-25	j	3.14
FP461A	15-15-80-40	475-475-300-50	g	2.88
FP463A	50-30-20-20	475-475-300-300	j	3.42
FP464.9	40-10-4-40	475-475-350-300	h	2.97
FP467	20-10-20-100	475-475-450-25	g	2.52
FP472A	80-4-4-200	475-475-475-25	h	3.28
FP474	10-10-10-10	475-475-475-475	f	2.10
FP474.5A	20-20-10-10	475-475-475-475	f	2.61
FP475	20-20-20-20	475-475-475-475	h	3.12
FP475.5A	40-10-10-10	475-475-475-475	g	2.79
FP476A	40-20-10-10	475-475-475-475	g	3.06
FP485	10-20-10-4	500-300-300-300	f	1.98
FP490A	30-10-150-30	500-450-50-50	f	2.52
FP495B	40-40-8-8	500-500-500-500	h	3.42

*Key	Dia.	Lgth.	*Key	Dia.	Lgth.	*Key	Dia.	Lgth.
a	¾″	2″	g	1⅜″	2½″	m	1″	1¼″
b	1″	2″	h	1⅜″	3″	n	1⅛″	4½″
c	1″	2½″	i	1⅜″	4″	o	¾″	1½″
d	1″	3″	j	1⅜″	3½″	p	1⅜″	1½″
e	1″	4″	k	1″	3½″	q	1″	2⅛″
f	1¾″	2″	l	1″	1½″	r	1⅛″	1¾″

Net

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MALLORY Tantalum Capacitors

PLAIN FOIL TO MIL-C-3965

Mallory plain foil tantalum capacitors shown on this page are in **uninsulated** cases. For insulated cases add "one" to the type number shown (CL30 becomes CL31, etc.) and add **10c** to the prices shown in the table on the previous page. **Case sizes, prices and tolerances are shown on previous page.**

−55° C TO +125° C

CL30/31 POLARIZED

Cap., μF	WVDC at Max. Temp.	Mallory Number	Size Code	Maximum DCL Microamps 25° C	Maximum DCL Microamps 125° C	Max. Imped. at −55° C 120CPS (Ohms)
4.5	10	CL30CD4R5MP3	A2	1	2	495
18	10	CL30CD180MP3	B3	2	4	125
55	10	CL30CD550MP3	C3	2	10	41
110	10	CL30CD111MP3	D2	4	20	20
160	10	CL30CD161MP3	E2	5	30	14
3	15	CL30CE030MP3	A2	1	3	744
12	15	CL30CE120MP3	B3	2	6	186
35	15	CL30CE350MP3	C3	2	12	64
70	15	CL30CE700MP3	D2	4	25	32
100	15	CL30CE101MP3	E2	4	20	23
1.5	30	CL30CH1R5MP3	A2	1	4	1487
6	30	CL30CH060MP3	B3	2	6	372
20	30	CL30CH200MP3	C3	2	13	112
40	30	CL30CH400MP3	D2	4	26	56
55	30	CL30CH550MP3	E2	6	38	41
1	50	CL30CJ010MP3	A2	1	4	2255
4	50	CL30CJ040MP3	B3	2	6	558
14	50	CL30CJ140MP3	C3	2	13	159
28	50	CL30CJ280MP3	D2	4	26	80
40	50	CL30CJ400MP3	E2	6	38	56
0.8	60	CL30CK0R8MP3	A2	1	3.5	2790
3	60	CL30CK030MP3	B3	2	6	1115
10	60	CL30CK100MP3	C3	2	13	223
20	60	CL30CK200MP3	D2	3	25	112
30	60	CL30CK300MP3	E2	6	38	74
0.5	100	CL30CN0R5MP3	A2	2	4	4454
2	100	CL30CN020MP3	B3	2	6	1115
7	100	CL30CN070MP3	C3	3	13	319
14	100	CL30CN140MP3	D2	4	26	159
20	100	CL30CN200MP3	E2	6	38	112
0.35	150	CL30CQR35MP3	A2	1	10.5	5000
1.5	150	CL30CQ1R5MP3	B3	2	20	1800
5	150	CL30CQ050MP3	C3	3	70	450
10	150	CL30CQ100MP3	D2	6	100	250
15	150	CL30CQ150MP3	E2	10	200	150

CL32/33 NON-POLARIZED

Cap., μF	WVDC at Max. Temp.	Mallory Number	Size Code	Maximum DCL Microamps 25° C	Maximum DCL Microamps 125° C	Max. Imped. at −55° C 120CPS (Ohms)
2.5	10	CL32CD2R5MN3	A2	1	2	893
10	10	CL32CD100MN3	B3	2	4	223
35	10	CL32CD350MN3	C3	2	10	64
70	10	CL32CD700MN3	D2	4	20	32
100	10	CL32CD101MN3	E2	5	30	23
1.5	15	CL32CE1R5MN3	A2	1	3	1487
6	15	CL32CE060MN3	B3	2	6	372
20	15	CL32CE200MN3	C3	2	12	112
40	15	CL32CE400MN3	D2	4	26	56
60	15	CL32CE600MN3	E2	5	36	37
0.8	30	CL32CH0R8MN3	A2	1	4	2790
3	30	CL32CH030MN3	B3	2	6	743
10	30	CL32CH100MN3	C3	2	13	223
20	30	CL32CH200MN3	D2	4	26	112
30	30	CL32CH300MN3	E2	6	38	75
0.5	50	CL32CJ0R5MN3	A2	1	4	4460
2	50	CL32CJ020MN3	B3	2	6	1115
7	50	CL32CJ070MN3	C3	2	13	319
14	50	CL32CJ140MN3	D2	4	26	159
20	50	CL32CJ200MN3	E2	6	38	112
0.4	60	CL32CK0R4MN3	A2	1	3.5	5580
1.5	60	CL32CK1R5MN3	B3	2	6	1487
5	60	CL32CK050MN3	C3	2	13	446
10	60	CL32CK100MN3	D2	3	25	223
15	60	CL32CK150MN3	E2	6	38	149
0.25	100	CL32CNR25MN3	A2	2	4	8908
1	100	CL32CN010MN3	B3	2	6	2227
3.5	100	CL32CN3R5MN3	C3	3	13	638
7	100	CL32CN070MN3	D2	4	26	319
10	100	CL32CN100MN3	E2	6	28	223
0.15	150	CL32CQR15MN3	A2	1	10.5	14000
0.75	150	CL32CQR75MN3	B3	2	20	3000
2.5	150	CL32CQ2R5MN3	C3	3	70	900
5	150	CL32CQ050MN3	D2	6	100	450
7.5	150	CL32CQ7R5MN3	E2	10	200	325

−55° C TO +85° C

CL34/35 POLARIZED

Cap., μF	WVDC at Max. Temp.	Mallory Number	Size Code	Maximum DCL Microamps 25° C	Maximum DCL Microamps 125° C	Max. Imped. at −55° C 120CPS (Ohms)
10	3	CL34BA100MP3	A1	1	2	250
50	3	CL34BA500MP3	B1	2	6	50
8	6	CL34BB080MP3	A1	1	2	329
30	6	CL34BB300MP3	B1	2	6	88
100	6	CL34BB101MP3	C1	2	10	26
200	6	CL34BB201MP3	D1	5	30	13
300	6	CL34BB301MP3	E1	10	50	9
6	10	CL34BD060MP3	A1	1	2	440
25	10	CL34BD250MP3	B1	2	6	105
80	10	CL34BD800MP3	C1	2	10	33
160	10	CL34BD161MP3	D1	4	20	17
220	10	CL34BD221MP3	E1	5	50	12
4.5	15	CL34BE4R5MP3	A1	1	2	495
10	15	CL34BE100MP3	B1	2	4	250
18	15	CL34BE180MP3	B1	2	4	124
55	15	CL34BE550MP3	C1	2	10	41
110	15	CL34BE111MP3	D1	4	20	21
160	15	CL34BE161MP3	E1	5	30	14
2.5	30	CL34BH2R5MP3	A1	2	5	893
30	30	CL34BH300MP3	C1	2	11	75
60	30	CL34BH600MP3	D1	4	20	37
85	30	CL34BH850MP3	E1	6	30	27
1.5	50	CL34BJ1R5MP3	A1	1	4	1486
6	50	CL34BJ060MP3	B1	2	6	372
20	50	CL34BJ200MP3	C1	2	13	112
40	50	CL34BJ400MP3	D1	4	26	56
55	50	CL34BJ550MP3	E1	6	38	41
1	75	CL34BL010MP3	A1	1	4	2230
4	75	CL34BL040MP3	B1	2	6	558
14	75	CL34BL140MP3	C1	2	13	160
28	75	CL34BL280MP3	D1	4	26	80
40	75	CL34BL400MP3	E1	6	38	56
.8	100	CL34BN0R8MP3	A1	1	3.5	2790
3	100	CL34BN030MP3	B1	2	6	743
10	100	CL34BN100MP3	C1	2	13	223
20	100	CL34BN200MP3	D1	3	25	112
30	100	CL34BN300MP3	E1	6	38	75
.5	150	CL34BQ0R5MP3	A1	2	4	4460
2	150	CL34BQ020MP3	B1	2	6	1693
4	150	CL34BQ040MP3	C1	3	13	558
7	150	CL34BQ070MP3	C1	3	13	319
8	150	CL34BQ080MP3	D1	4	26	265
12	150	CL34BQ120MP3	D1	4	26	208
14	150	CL34BQ140MP3	D1	4	26	159
20	150	CL34BQ200MP3	E1	6	38	112
.35	200	CL34BRR35LP3	A3	3	13	5700
1.5	200	CL34BR1R5LP3	B5	4	16	1300
5	200	CL34BR050LP3	C5	8	32	400
10	200	CL34BR100LP3	D5	14	56	200
15	200	CL34BR150LP3	E5	20	80	130
.3	250	CL34BSR30LP3	A3	3	16	6600
1.2	250	CL34BS1R2LP3	B5	4	20	1600
4	250	CL34BS040LP3	C5	8	40	500
8	250	CL34BS080LP3	D5	14	70	250
12	250	CL34BS120LP3	E5	20	90	160
1	300	CL34BX010LP3	B5	4	22	1600
3	300	CL34BX030LP3	C5	9	45	680
7	300	CL34BX070LP3	D5	16	80	280
10	300	CL34BX100LP3	E5	22	100	200

CL36/37 NON-POLARIZED

Cap., μF	WVDC at Max. Temp.	Mallory Number	Size Code	Maximum DCL Microamps 25° C	Maximum DCL Microamps 125° C	Max. Imped. at −55° C 120CPS (Ohms)
10	3	CL36BA100MN3	A1	1	2	263
45	3	CL36BA450MN3	B1	2	6	59
140	3	CL36BA141MN3	C1	2	10	19
280	3	CL36BA281MN3	D1	3	30	10
400	3	CL36BA401MN3	C1	5	50	6
7	6	CL36BB070MN3	A1	1	2	377
25	6	CL36BB250MN3	B1	2	6	105
85	6	CL36BB850MN3	C1	2	10	31
170	6	CL36BB171MN3	D1	5	30	15
250	6	CL36BB251MN3	E1	10	50	11
4	10	CL36BD040MN3	A1	1	2	660
16	10	CL36BD160MN3	B1	2	6	165
55	10	CL36BD550MN3	C1	2	10	48
110	10	CL36BD111MN3	D1	4	20	24
150	10	CL36BD151MN3	E1	5	50	18
2.5	15	CL36BE2R5MN3	A1	1	2	892
10	15	CL36BE100MN3	B1	2	4	223
35	15	CL36BE350MN3	C1	2	10	64
70	15	CL36BE700MN3	D1	4	20	32
100	15	CL36BE101MN3	E1	5	30	23
1.5	25	CL36BG1R5MN3	A1	2	4	1485
6	25	CL36BG060MN3	B1	2	6	372
20	25	CL36BG200MN3	C1	3	10	111
40	25	CL36BG400MN3	D1	4	20	56
60	25	CL36BG600MN3	E1	5	30	38
1.4	30	CL36BH1R4MN3	A1	2	5	1594
5.5	30	CL36BH5R5MN3	B1	2	6	406
18	30	CL36BH180MN3	C1	2	11	124
36	30	CL36BH360MN3	D1	4	20	62
45	30	CL36BH450MN3	E1	6	30	50
0.8	50	CL36BJ0R8MN3	A1	1	4	2790
3	50	CL36BJ030MN3	B1	2	6	743
10	50	CL36BJ100MN3	C1	2	13	223
20	50	CL36BJ200MN3	D1	4	26	112
30	50	CL36BJ300MN3	E1	6	38	75
0.5	75	CL36BL0R5MN3	A1	1	4	4460
2	75	CL36BL020MN3	B1	8	16	1115
7	75	CL36BL070MN3	C1	2	13	319
14	75	CL36BL140MN3	D1	4	26	160
20	75	CL36BL200MN3	E1	6	38	112
0.4	100	CL36BN0R4MN3	A1	1	3.5	5600
1.5	100	CL36BN1R5MN3	B1	2	6	1485
5	100	CL36BN050MN3	C1	2	13	446
10	100	CL36BN100MN3	D1	3	25	223
15	100	CL36BN150MN3	E1	6	38	149
0.25	150	CL36BQR25MN3	A1	2	4	8920
1	150	CL36BQ010MN3	B1	2	6	2230
3.5	150	CL36BQ3R5MN3	C1	3	13	635
7	150	CL36BQ070MN3	D1	4	26	319
10	150	CL36BQ100MN3	E1	6	38	223
0.15	200	CL36BRR15LN3	A4	6	26	13000
0.75	200	CL36BRR75LN3	B6	8	32	2600
2.5	200	CL36BR2R5LN3	C6	16	64	800
5	200	CL36BR050LN3	D6	28	112	400
7.5	200	CL36BR7R5LN3	E6	40	160	260
0.15	250	CL36BSR15LN3	A4	6	32	13000
0.6	250	CL36BS0R6LN3	B6	8	40	3300
2	250	CL36BS020LN3	C6	16	80	1000
4	250	CL36BS040LN3	D6	28	140	500
6	250	CL36BS060LN3	E6	40	200	330

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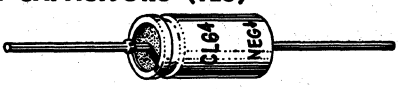
MALLORY Tantalum Capacitors

MIL-C-3965 CL64/65 MINIATURE METAL CASE WET-SLUG TANTALUM CAPACITORS (TLS)

Mallory CL64/65 (TLS) sintered anode tantalums have flangeless case, ideal for high density packaging. Completely replaces the older CL44/45 MIL type. Type CL64 exhibits very high performance and very low DCL. Supplied in two temperature grades: −55° C to +85° C and −55° C to +125° C. Tolerances: ±10% **(K)**, ±20% **(M)**, −15% +30% **(S)** and −15% +50% **(T)**. Types listed are in plain, uninsulated case; for insulating sleeve, specify CL65 and add **5c** to prices shown. **Complete specs in bulletin 9-351.**



CASE SIZES

Case Size	Uninsulated Dia.	Uninsulated Lgth.	Insulated Dia.	Insulated Lgth.
T1	.190″	.453″	.219″	.485″
T2	.281″	.641″	.313″	.672″
T3	.375″	.766″	.406″	.797″

CL64B—, −55° TO +85° C

Cap., µF	WVDC at +85°C	Mallory Number	Case Size
30	6	CL64BB300*P3	T1
68	6	CL64BB680*P3	T1
140	6	CL64BB141*P3	T2
270	6	CL64BB271*P3	T2
330	6	CL64BB331*P3	T3
560	6	CL64BB561*P3	T3
25	8	CL64BC250*P3	T1
56	8	CL64BC560*P3	T1
220	8	CL64BC221*P3	T2
430	8	CL64BC431*P3	T3
20	10	CL64BD200*P3	T1
47	10	CL64BD470*P3	T1
100	10	CL64BD101*P3	T2
180	10	CL64BD181*P3	T2
250	10	CL64BD251*P3	T3
390	10	CL64BD391*P3	T3
15	15	CL64BE150*P3	T1
33	15	CL64BE330*P3	T1
70	15	CL64BE700*P3	T2
120	15	CL64BE121*P3	T2
170	15	CL64BE171*P3	T3
270	15	CL64BE271*P3	T3
10	25	CL64BG100*P3	T1
22	25	CL64BG220*P3	T1
100	25	CL64BG101*P3	T2
180	25	CL64BG181*P3	T3
8	30	CL64BH080*P3	T1
15	30	CL64BH150*P3	T1
40	30	CL64BH400*P3	T2
68	30	CL64BH680*P3	T2
100	30	CL64BH101*P3	T3
150	30	CL64BH151*P3	T3
5	50	CL64BJ050*P3	T1
10	50	CL64BJ100*P3	T1
25	50	CL64BJ250*P3	T2
47	50	CL64BJ470*P3	T2
60	50	CL64BJ600*P3	T3
82	50	CL64BJ820*P3	T3
4	60	CL64BK040*P3	T1
8.2	60	CL64BK8R2*P3	T1
20	60	CL64BK200*P3	T2
39	60	CL64BK390*P3	T2
50	60	CL64BK500*P3	T3
68	60	CL64BK680*P3	T3
3.5	75	CL64BL3R5*P3	T1
6.8	75	CL64BL6R8*P3	T1
15	75	CL64BL150*P3	T2
33	75	CL64BL330*P3	T2
40	75	CL64BL400*P3	T3
56	75	CL64BL560*P3	T3
2.5	100	CL64BN2R5*P3	T1
4.7	100	CL64BN4R7*P3	T1
11	100	CL64BN110*P3	T2
22	100	CL64BN220*P3	T2
30	100	CL64BN300*P3	T3
43	100	CL64BN430*P3	T3
1.7	125	CL64BP1R7*P3	T1
3.6	125	CL64BP3R6*P3	T1
9	125	CL64BP090*P3	T2
14	125	CL64BP140*P3	T2
18	125	CL64BP180*P3	T3
25	125	CL64BP250*P3	T3

CL64C—, −55° TO +125° C

Cap., µF	WVDC at +85°C	Mallory Number	Case Size
30	6	CL64CB300*P3	T1
68	6	CL64CB680*P3	T1
140	6	CL64CB141*P3	T2
270	6	CL64CB271*P3	T2
330	6	CL64CB331*P3	T3
560	6	CL64CB561*P3	T3
25	8	CL64CC250*P3	T1
56	8	CL64CC560*P3	T1
220	8	CL64CC221*P3	T2
430	8	CL64CC431*P3	T3
20	10	CL64CD200*P3	T1
47	10	CL64CD470*P3	T1
100	10	CL64CD101*P3	T2
180	10	CL64CD181*P3	T2
250	10	CL64CD251*P3	T3
390	10	CL64CD391*P3	T3
15	15	CL64CE150*P3	T1
33	15	CL64CE330*P3	T1
70	15	CL64CE700*P3	T2
120	15	CL64CE121*P3	T2
170	15	CL64CE171*P3	T3
270	15	CL64CE271*P3	T3
10	25	CL64CG100*P3	T1
22	25	CL64CG220*P3	T1
100	25	CL64CG101*P3	T2
180	25	CL64CG181*P3	T3
8	30	CL64CH080*P3	T1
15	30	CL64CH150*P3	T1
40	30	CL64CH400*P3	T2
68	30	CL64CH680*P3	T2
100	30	CL64CH101*P3	T3
150	30	CL64CH151*P3	T3
5	50	CL64CJ050*P3	T1
10	50	CL64CJ100*P3	T1
25	50	CL64CJ250*P3	T2
47	50	CL64CJ470*P3	T2
60	50	CL64CJ600*P3	T3
82	50	CL64CJ820*P3	T3
4	60	CL64CK040*P3	T1
8.2	60	CL64CK8R2*P3	T1
20	60	CL64CK200*P3	T2
39	60	CL64CK390*P3	T2
50	60	CL64CK500*P3	T3
68	60	CL64CK680*P3	T3
3.5	75	CL64CL3R5*P3	T1
6.8	75	CL64CL6R8*P3	T1
15	75	CL64CL150*P3	T2
33	75	CL64CL330*P3	T2
40	75	CL64CL400*P3	T3
56	75	CL64CL560*P3	T3
2.5	100	CL64CN2R5*P3	T1
4.7	100	CL64CN4R7*P3	T1
11	100	CL64CN110*P3	T2
22	100	CL64CN220*P3	T2
30	100	CL64CN300*P3	T3
43	100	CL64CN430*P3	T3
1.7	125	CL64CP1R7*P3	T1
3.6	125	CL64CP3R6*P3	T1
9	125	CL64CP090*P3	T2
14	125	CL64CL140*P3	T2
18	125	CL64CP180*P3	T3
25	125	CL64CP250*P3	T3

*Specify tolerance: K= ±10%; M= ±20%; S= −15 +30%; T= −15 +50%.

CL64/65 INDUSTRIAL NET PRICES

Prices are for uninsulated case; for insulating sleeve, change no. to CL65 and add **5c** to prices shown.

CL64B—, (+85° C)

±10% (K)

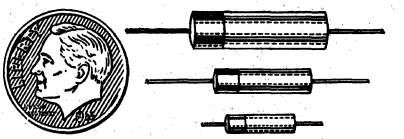
Case Size	Net Each, Lots of 1-24	25-49	50-99	100-499	500-999
T1	$2.42	$1.94	$1.64	$1.40	$1.27
T2	3.70	2.95	2.50	2.13	1.94
T3	5.83	4.67	3.94	3.36	3.06
±20% (M)					
T1	$2.20	$1.76	$1.49	$1.27	$1.16
T2	3.36	2.69	2.27	1.93	1.76
T3	5.30	4.25	3.58	3.05	2.78
−15 +30% (S)					
T1	$2.20	$1.76	$1.49	$1.27	$1.16
T2	3.36	2.69	2.27	1.93	1.76
T3	5.30	4.25	3.58	3.05	2.78
−15 +50% (T)					
T1	$1.98	$1.58	$1.34	$1.14	$1.04
T2	3.02	2.41	2.03	1.73	1.58
T3	4.72	3.77	3.18	2.71	2.48

CL64C—, (+125° C)

±10% (K)

Case Size	Net Each, Lots of 1-24	25-49	50-99	100-499	500-999
T1	$2.50	$2.00	$1.70	$1.44	$1.31
T2	3.85	3.08	2.61	2.21	2.02
T3	6.10	4.88	4.12	3.51	3.20
±20% (M)					
T1	$2.28	$1.82	$1.54	$1.31	$1.20
T2	3.50	2.80	2.39	2.02	1.84
T3	5.54	4.43	3.74	3.19	2.91
−15 +30% (S)					
T1	$2.28	$1.82	$1.54	$1.31	$1.20
T2	3.50	2.80	2.39	2.02	1.84
T3	5.54	4.43	3.74	3.19	2.91
−15 +50% (T)					
T1	$2.04	$1.63	$1.37	$1.17	$1.07
T2	3.14	2.52	2.12	1.81	1.65
T3	4.94	3.95	3.33	2.84	2.59

MTP/MTPH ULTRA-MINIATURE TANTALUM CAPACITORS



Mallory MTP/MTPH capacitors provide the greatest capacity-voltage product of any tantalum type. Sintered anodes are housed in special silver cases with elastomer end seal, and are completely insulated. MTPH types are manufactured to rigid "Minuteman II" standards with zero failures in 3.7 million unit-hours of testing. Type MTP is the commercial equivalent. Operating Temp.: −50° C to +85° C. Tolerance: ±20%. DCL is extremely low. **See bulletin 4-70 for details.**

MTP TYPES

µF	WVDC	Mallory Number	Size
15	6	MTP156M006P1D	D
47	6	MTP476M006P1A	A
150	6	MTP157M006P1B	B
180	6	MTP187M006P1B	B
450	6	MTP457M006P1C	C
470	6	MTP477M006P1C	C
10	10	MTP106M010P1D	D
33	10	MTP336M010P1A	A
100	10	MTP107M010P1B	B
120	10	MTP127M010P1B	B
300	10	MTP307M010P1C	C
330	10	MTP337M010P1C	C
22	15	MTP226M015P1A	A
68	15	MTP686M015P1B	B
80	15	MTP806M015P1B	B
200	15	MTP207M015P1C	C
220	15	MTP227M015P1C	C
6.8	20	MTP685M020P1D	D
15	20	MTP156M020P1A	A
47	20	MTP476M020P1B	B
60	20	MTP606M020P1B	B
150	20	MTP157M020P1C	C
6	30	MTP605M030P1D	D
10	30	MTP106M030P1A	A
45	30	MTP456M030P1B	B
120	30	MTP127M030P1C	C
4.7	35	MTP475M035P1D	D
10	35	MTP106M035P1A	A
100	35	MTP107M035P1C	C
4	50	MTP405M050P1D	D
6.8	50	MTP685M050P1A	A
30	50	MTP306M050P1B	B
33	50	MTP336M050P1B	B
68	50	MTP686M050P1C	C
78	50	MTP786M050P1C	C
3.3	60	MTP335M060P1D	D
4.7	60	MTP475M060P1A	A
6.8	60	MTP685M060P1A	A
10	60	MTP106M060P1B	B
15	60	MTP156M060P1B	B
22	60	MTP226M060P1B	B
33	60	MTP336M060P1C	C
47	60	MTP476M060P1C	C

MTPH TYPES

180	6	MTPH12	B
450	6	MTPH13	C
120	10	MTPH10	B
300	10	MTPH11	C
80	15	MTPH8	B
200	15	MTPH9	C
60	20	MTPH7	B
10	30	MTPH4	A
45	30	MTPH5	B
120	30	MTPH6	C
6.8	50	MTPH1	A
30	50	MTPH2	B
78	50	MTPH3	C

CASE SIZES

Case Size	Dimensions Diameter	Length
A	.115″	.400″
B	.145″	.590″
C	.225″	.775″
D	.115″	.312″

MTP INDUSTRIAL NET PRICES

Case Size	Net Each, Lots of 1-9	10-24	25-49	50-99	100-499	500-999
A	$2.59	$2.28	$1.99	$1.71	$1.37	$1.25
B	3.11	2.74	2.39	2.06	1.64	1.51
C	3.62	3.18	2.78	2.39	1.91	1.75
D	2.57	2.26	1.97	1.69	1.35	1.23

MTPH INDUSTRIAL NET PRICES

A	$7.68	$6.40	$5.12	$3.84	$3.33	$2.81
B	8.04	6.70	5.36	4.02	3.49	2.94
C	8.34	6.95	5.56	4.17	3.62	3.06

Net

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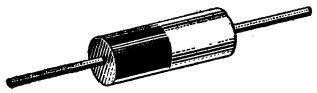
MALLORY Tantalum Capacitors

TAP-TNT MINIATURE PELLET EPOXY SEAL −55° C TO +85° C



Mallory TNT-TAP capacitors employ sintered anode wet-slug construction and are furnished in metal cases with precision formed epoxy end seals. Values shown have uninsulated cases; for insulating sleeve, change 12th digit of part number to "1" and add **5c** to prices shown. Standard tolerance: −15%+75%; other tolerances are available on special order. **For detailed specifications, ask for bulletins: 4-38 (TNT) and 4-52 (TAP).**

CASE SIZES

Add .010″ dia. x .093″ l. for sleeve.

Case Code	Size, In. (Dia. x L.) TNT	TAP
A	.152 x .325	.228 x .500
B	.152 x .475	.228 x .660
C	.....	.228 x .875

TNT

Cap., μF	WVDC +85° C	Mallory Number	Case Size
40	3	TNT406U003P0A	A
80	3	TNT806U003P0B	B
25	6	TNT256U006P0A	A
50	6	TNT506U006P0B	B
35	12	TNT356U012P0B	B
12	15	TNT126U015P0A	A
25	15	TNT256U015P0B	B
15	30	TNT156U030P0B	B
6	35	TNT605U035P0A	A
12	35	TNT126U035P0B	B
2	50	TNT205U050P0A	A
4	50	TNT405U050P0A	A
8	50	TNT805U050P0B	B

TNT PRICES*

Case Size	Net Each, Lots of 1-24	25-49	50-99	100-499	500-999
A	$1.24	$0.99	$0.84	$0.714	$0.651
B	1.46	1.17	.99	.84	.766

TAP PRICES*

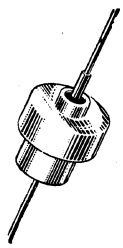
Case Size	Net Each, Lots of 1-24	25-49	50-99	100-499	500-999
A	$1.46	$1.17	$0.99	$0.84	$0.766
B	2.46	1.97	1.66	1.415	1.29
C	4.28	3.42	2.89	2.46	2.25

*For insulating sleeve, change 12th digit of catalog number from "0" to "1" and add **5c** to prices shown.

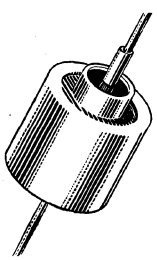
TAP

Cap., μF	WVDC +85° C	Mallory Number	Case Size
30	6	TAP306U006P0A	A
140	6	TAP147U006P0B	B
330	6	TAP337U006P0C	C
20	10	TAP206U010P0A	A
100	10	TAP107U010P0B	B
250	10	TAP257U010P0C	C
15	15	TAP156U015P0A	A
70	15	TAP706U015P0B	B
170	15	TAP177U015P0C	C
12	20	TAP126U020P0A	A
10	25	TAP106U025P0A	A
8	30	TAP805U030P0A	A
40	30	TAP406U030P0B	B
100	30	TAP107U030P0C	C
7	35	TAP705U035P0A	A
6	40	TAP605U040P0A	A
30	40	TAP306U040P0B	B
5	50	TAP505U050P0A	A
25	50	TAP256U050P0B	B
60	50	TAP606U050P0C	C
4	60	TAP405U060P0A	A
20	60	TAP206U060P0B	B
50	60	TAP506U060P0C	C
3.5	75	TAP355U075P0A	A
15	75	TAP156U075P0B	B
40	75	TAP406U075P0C	C
2	90	TAP205U090P0A	A
11	90	TAP116U090P0B	B
30	90	TAP306U090P0C	C

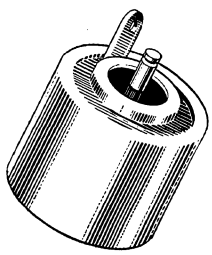
HIGH TEMPERATURE—HERMETICALLY SEALED



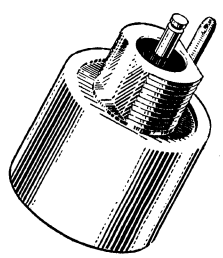
MTF



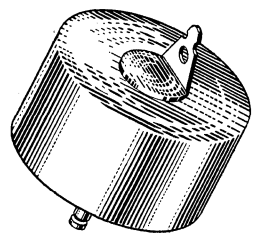
XTM-A



XTH-C, XTL-C, XTV-C



XTH-L, XTL-L



XTV-B

Mallory high temperature tantalum capacitors are furnished in hermetically sealed metal cases and are wet-slug polarized types. MTF and XTM-A have axial leads. Other XTM's and all XTL, H and V types have a wide variety of terminal arrangements available. The types shown here are the standard MIL-C-3965 values and all are available from stock. **For detailed specifications, ask for bulletins: 4-41 (MTF); 4-49 (XTM); 4-60 (XTH-XTL-XTV). XTH, L and V also available in radiation proof construction; ask for bulletin 4-69 (XTG).**

MTF −55° TO +150° C

Axial leads, commercial equivalent to MIL-C-3965 Style CL44.

Cap., μF	WVDC +85°C	Mallory Number	Cap., μF	WVDC +85°C	Mallory Number
140	6	MTF147T006P0H	25	50	MTF256T050P0H
100	10	MTF107T010P0H	20	60	MTF206T060P0H
70	15	MTF706T015P0H	15	75	MTF156T075P0H
40	30	MTF406T030P0H	11	90	MTF116T090P0H
30	40	MTF306T040P0H			

Any Model listed above—Net Each, Lots of 1–24, **$6.76**; 25–49, **$5.41**; 50–99, **$4.56**; 100–499, **$3.89.**

XTM −55° TO +175° C

Cap., μF	WVDC +85° C	Mallory Number*	Net Each, Lots of 1-24	25-49	50-99
40	35	XTM406T035P0A	$ 6.56	$ 6.12	$ 5.68
25	60	XTM256T060P0A	6.56	6.12	5.68
16	90	XTM166T090P0A	6.56	6.12	5.68
8	170	XTM805T170P0A	9.90	9.24	8.56
5	255	XTM505T255P0A	12.96	12.10	11.23
4	340	XTM405T340P0A	16.20	15.12	14.04

*Suffix **A** indicates MIL-C-3965/20A, Style CL10. Also available in Style CL13; change suffix **A** to **D**, add **5c** to prices shown.

XTH −55° TO +200° C

Cap., μF	WVDC +85° C	Mallory Number*	Net Each, Lots of 1-24	25-49	50-99
240	18	XTH247U018P0L	$ 9.65	$ 9.04	$ 8.42
150	30	XTH157U030P0C	9.30	8.69	8.07
150	30	XTH157U030P0L	9.65	9.04	8.42
120	35	XTH127U035P0C	9.30	8.69	8.07
80	60	XTH806U060P0C	9.30	8.69	8.07
80	60	XTH806U060P0L	9.65	9.04	8.42
50	90	XTH506U090P0C	9.30	8.69	8.07
25	180	XTH256U180P0C	14.80	13.81	12.83
25	180	XTH256U180P0L	15.15	14.16	13.18
16	270	XTH166U270P0C	20.48	19.12	17.76
16	270	XTH166U270P0L	20.83	19.47	18.11
12	360	XTH126U360P0C	26.06	24.33	22.59
12	360	XTH126U360P0L	26.41	24.68	22.94
8	540	XTH805U540P0C	37.13	34.66	32.19
7	630	XTH705U630P0C	42.62	39.78	36.94

***C**, MIL-C-3965/1D, CL14; **L**, MIL-C-3965/1D, CL16.

XTL −55° TO +200° C

Cap., μF	WVDC +85° C	Mallory Number	Net Each, Lots of 1-24	25-49	50-99
120	18	XTL127U018P0C*	$ 8.24	$ 7.69	$ 7.15
75	30	XTL756U030P0C*	8.24	7.69	7.15
75	30	XTL756U030P0L‡	8.59	8.04	7.50
40	60	XTL406U060P0C*	8.24	7.69	7.15
40	60	XTL406U060P0L‡	8.59	8.04	7.50
25	90	XTL256U090P0C*	8.24	7.69	7.15
12	180	XTL126U180P0C*	12.38	11.56	10.64
12	180	XTL126U180P0L‡	12.73	11.91	11.09
8	270	XTL805U270P0C*	16.70	15.59	14.48
6	360	XTL605U360P0C*	21.16	19.75	18.34
6	360	XTL605U360P0L‡	21.50	20.10	18.69
5	450	XTL505U450P0C*	25.70	23.99	22.28
4	540	XTL405U540P0C*	29.89	27.90	25.91
3.5	630	XTL355U630P0C*	34.30	32.01	29.73

*Stock Items (MIL-C-3965/1D, Style CL14). ‡Stock Items (MIL-C-3965/1D, Style CL16).

XTV −55° TO +200° C

XTV listed by MIL-C-3965/19A Style CL17 ("C") and CL18 ("B") are stocked. Ten other case configurations available on special order.

Cap., μF	WVDC +85° C	Mallory Number	Net Each, Lots of 1-24	25-49	50-99
370	30	XTV377T030P0C	$19.55	$18.25	$16.95
650	30	XTV657U030P0C	30.05	28.05	26.05
1300	30	XTV138T030P0*	43.55	40.65	37.75
190	40	XTV197T040P0B	13.55	12.65	11.75
290	40	XTV297T040P0*	19.55	18.25	16.95
500	40	XTV507T040P0*	30.05	28.05	26.05
1000	40	XTV108T040P0*	43.55	40.65	37.75
200	60	XTV207T060P0*	19.55	18.25	16.95
350	60	XTV357T060P0*	30.05	28.05	26.05
700	60	XTV707T060P0*	43.55	40.65	37.75
750	60	XTV757T060P0*	43.55	40.65	37.75
220	75	XTV227T075P0*	30.05	28.05	26.05
450	75	XTV457T075P0*	43.55	40.65	37.75
120	90	XTV127T090P0*	19.55	18.25	16.95
60	180	XTV606T180P0*	35.00	32.67	30.34
40	270	XTV406T270P0*	49.55	46.25	42.95
25	450	XTV256T450P0*	79.55	74.25	68.95

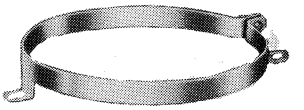
*Specify **B** for CL18 or **C** for CL17.

SANGAMO ELECTRIC COMPANY

capacitors

SANGAMO ELECTRONIC COMPONENTS

Type DCM Computer Grade FILTER AND ENERGY STORAGE ELECTROLYTIC CAPACITOR



Type DCM Mounting Bracket	Capacitor Diameter (Inches)	Net Price
	1-7/16	$0.24
	1-13/16	0.33
	2-1/16	0.36
	2-9/16	0.48
	3-1/16	0.60

Note: 1-7/16" bracket available with 2 feet only. Two or 3 feet are available in other sizes.

The SANGAMO Type DCM is a high quality, long life, electrolytic capacitor, specially designed for use as an energy storage or filter capacitor at 65°C. The Type DCM is enclosed in an aluminum can and is normally furnished with a clear plastic insulating sleeve. Aluminum terminals, which are permanently molded into the top, include #10-32 machine screws. A pressure-sensivent is provided as a safety mechanism in each top. A footed, wrap-around mounting bracket is available at extra cost. ***For more complete information write for Bulletin 2231.***

Catalog Number	Cap. (Mfd)	Rated Volts d-c	Case Sizes * Diameter	Case Sizes * Length	Term. * Ctr. to Ctr.	Net Price 1-24†
539-2619-01	33,000	5	2-1/16	4-1/2	.875	$ 7.62
539-2621-01	125,000	5	3-1/16	6	1.250	16.71
539-2530-01	3,750	10	1-7/16	2-1/2	.500	3.36
539-2531-01	7,000	10	1-7/16	3-1/2	.500	4.20
539-2622-01	10,000	10	1-7/16	4-1/2	.500	5.10
539-2736-01	15,000	10	1-13/16	4-1/2	.750	5.73
539-2623-01	20,000	10	2-1/16	4-1/2	.875	8.07
539-2624-01	35,000	10	2-1/16	6	.875	10.92
539-2625-01	40,000	10	2-9/16	4-1/2	1.125	12.12
539-2626-01	60,000	10	3-1/16	4-1/2	1.250	15.39
539-2627-01	90,000	10	3-1/16	6	1.250	19.77
539-2532-01	2,500	15	1-7/16	2-1/2	.500	2.94
539-2533-01	5,000	15	1-7/16	3-1/2	.500	4.17
539-2628-01	6,000	15	1-7/16	4-1/2	.500	4.23
539-2534-01	8,000	15	1-7/16	4-1/2	.500	4.98
539-2737-01	10,000	15	1-13/16	4-1/2	.750	5.34
539-2738-01	14,000	15	1-13/16	4-1/2	.750	6.94
539-2629-01	18,000	15	2-1/16	4-1/2	.875	8.49
539-2630-01	25,000	15	2-1/16	6	.875	10.95
539-2631-01	33,000	15	2-9/16	4-1/2	1.125	11.28
539-1246-02	35,000	15	3-1/16	4-1/2	1.250	11.34
539-2632-01	40,000	15	3-1/16	4-1/2	1.250	12.48
539-2598-01	45,000	15	3-1/16	4-1/2	1.250	13.77
539-2673-01	50,000	15	3-1/16	6	1.250	15.12
539-2633-01	60,000	15	3-1/16	6	1.250	17.67
539-2535-01	2,250	20	1-7/16	2-1/2	.500	2.97
539-2536-01	4,500	20	1-7/16	3-1/2	.500	4.32
539-2537-01	6,500	20	1-7/16	4-1/2	.500	4.77
539-2538-01	10,000	20	1-13/16	4-1/2	.750	5.85
539-2539-01	14,750	20	2-1/16	4-1/2	.875	8.04
539-2540-01	22,000	20	2-1/16	6	.875	10.56
539-2541-01	25,000	20	2-9/16	4-1/2	1.125	11.10
539-2542-01	35,000	20	3-1/16	4-1/2	1.250	13.50
539-2543-01	50,000	20	3-1/16	6	1.250	16.92
539-2544-01	1,500	25	1-7/16	2-1/2	.500	2.79
539-2545-01	3,000	25	1-7/16	3-1/2	.500	3.69
539-2634-01	5,000	25	1-7/16	4-1/2	.500	4.74
539-2739-01	8,000	25	1-13/16	4-1/2	.750	6.12
539-2635-01	10,000	25	2-1/16	4-1/2	.875	7.26
539-2636-01	15,000	25	2-1/16	6	.875	10.20
539-2637-01	20,000	25	2-9/16	4-1/2	1.125	10.59
539-2638-01	25,000	25	3-1/16	4-1/2	1.250	11.22
539-2639-01	40,000	25	3-1/16	6	1.250	17.55
539-2640-01	1,500	35	1-7/16	3-1/2	.500	3.03
539-2547-01	2,500	35	1-7/16	3-1/2	.500	3.60
539-2641-01	4,000	35	1-7/16	4-1/2	.500	4.50
539-2740-01	5,000	35	1-13/16	4-1/2	.750	5.31
539-2548-01	7,000	35	1-13/16	4-1/2	.750	6.69
539-2642-01	8,000	35	2-1/16	4-1/2	.875	6.78
539-2549-01	9,000	35	2-1/16	4-1/2	.875	7.71
539-2643-01	10,000	35	2-1/16	6	.875	8.31
539-2550-01	13,500	35	2-1/16	6	.875	10.53
539-2644-01	15,000	35	2-9/16	4-1/2	1.125	11.07
539-2645-01	20,000	35	3-1/16	4-1/2	1.250	12.12
539-2646-01	30,000	35	3-1/16	6	1.250	13.92
539-2551-01	750	50	1-7/16	2-1/2	.500	2.88
539-1615-03	1,000	50	1-7/16	3-1/2	.500	3.24
539-2552-01	1,500	50	1-7/16	3-1/2	.500	3.69
539-1463-03	2,000	50	1-7/16	4-1/2	.500	3.81
539-2647-01	2,500	50	1-7/16	4-1/2	.500	4.08
539-2741-01	4,000	50	1-13/16	4-1/2	.750	5.49
539-2648-01	5,000	50	2-1/16	4-1/2	.875	7.11
539-2649-01	8,000	50	2-1/16	6	.875	8.79
539-2650-01	10,000	50	2-9/16	4-1/2	1.125	11.46
539-2651-01	15,000	50	3-1/16	4-1/2	1.250	13.65
539-2652-01	20,000	50	3-1/16	6	1.250	16.71
539-2553-01	450	75	1-7/16	2-1/2	.500	$ 2.85
539-2554-01	900	75	1-7/16	3-1/2	.500	3.78
539-2653-01	1,000	75	1-7/16	4-1/2	.500	4.02
539-2555-01	1,350	75	1-7/16	4-1/2	.500	4.29
539-2654-01	3,000	75	2-1/16	4-1/2	.875	6.27
539-2656-01	5,000	75	2-9/16	4-1/2	1.125	10.23
539-2557-01	7,750	75	3-1/16	4-1/2	1.250	12.84
539-2657-01	10,000	75	3-1/16	6	1.250	16.20
539-2558-01	350	100	1-7/16	2-1/2	.500	3.00
539-2559-01	500	100	1-7/16	3-1/2	.500	3.18
539-2658-01	1,000	100	1-7/16	4-1/2	.500	4.41
539-2742-01	1,500	100	1-13/16	4-1/2	.750	4.86
539-2597-01	3,000	100	2-1/16	6	.875	9.42
539-2660-01	4,000	100	2-9/16	4-1/2	1.125	9.96
539-2661-01	5,000	100	3-1/16	4-1/2	1.250	10.71
539-2662-01	8,500	100	3-1/16	6	1.250	16.35
539-2560-01	250	150	1-7/16	2-1/2	.500	2.64
539-2663-01	500	150	1-7/16	3-1/2	.500	3.84
539-2664-01	700	150	1-7/16	4-1/2	.500	4.32
539-2561-01	750	150	1-7/16	4-1/2	.500	4.41
539-2743-01	1,000	150	1-13/16	4-1/2	.750	4.83
539-2744-01	1,250	150	1-13/16	4-1/2	.750	5.22
539-2562-01	1,450	150	1-13/16	4-1/2	.750	6.12
539-2861-01	1,850	150	2-1/16	4-1/2	.875	7.71
539-2665-01	2,000	150	2-1/16	6	.875	8.37
539-2666-01	2,500	150	2-9/16	4-1/2	1.125	9.57
539-2564-01	3,000	150	2-9/16	4-1/2	1.125	10.44
539-2667-01	4,000	150	3-1/16	4-1/2	1.250	12.63
539-2565-01	4,500	150	3-1/16	4-1/2	1.250	13.29
539-2668-01	6,000	150	3-1/16	6	1.250	15.18
539-2566-01	200	200	1-7/16	2-1/2	.500	3.12
539-2669-01	500	200	1-7/16	4-1/2	.500	4.17
539-2745-01	750	200	1-13/16	4-1/2	.750	5.37
539-2670-01	1,500	200	2-1/16	6	.875	7.65
539-2671-01	2,000	200	2-9/16	4-1/2	1.125	9.18
539-2672-01	2,500	200	3-1/16	4-1/2	1.250	10.80
539-2570-01	4,500	200	3-1/16	6	1.250	14.13
539-2746-01	500	250	1-13/16	4-1/2	.750	4.50
539-2575-01	1,000	250	2-1/16	4-1/2	.875	9.81
539-2874-01	1,500	250	2-9/16	4-1/2	1.125	10.83
539-2675-01	275	300	1-7/16	4-1/2	.500	4.50
539-2747-01	450	300	1-13/16	4-1/2	.750	5.10
539-2676-01	1,000	300	2-9/16	4-1/2	1.125	11.22
539-2677-01	1,500	300	3-1/16	4-1/2	1.250	17.73
539-2584-01	150	350	1-7/16	3-1/2	.500	4.08
539-2748-01	350	350	1-13/16	4-1/2	.750	5.49
539-2678-01	1,000	350	3-1/16	4-1/2	1.250	11.73
539-2590-01	50	400	1-7/16	2-1/2	.500	3.00
539-2595-01	50	450	1-7/16	2-1/2	.500	3.60
539-2682-01	100	450	1-7/16	3-1/2	.500	4.50
539-2596-01	150	450	1-7/16	4-1/2	.500	5.04
539-2749-01	250	450	1-13/16	4-1/2	.750	5.94
539-2683-01	300	450	2-1/16	4-1/2	.875	6.33
539-2684-01	500	450	2-1/16	6	.875	8.04
539-2685-01	600	450	2-9/16	4-1/2	1.125	9.90
539-2686-01	800	450	3-1/16	4-1/2	1.250	11.46
539-2687-01	850	450	3-1/16	4-1/2	1.250	12.24

*All dimensions are in inches.
†Prices for larger quantities are available on request.

Net

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SANGAMO ELECTRIC COMPANY

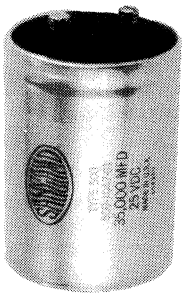
capacitors

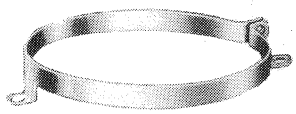
SANGAMO ELECTRONIC COMPONENTS

Type 500 Computer Electrolytic

FOR HIGH RIPPLE AND HIGH TEMPERATURE APPLICATIONS

The Sangamo Type 500 capacitor represents the optimum design in electrolytic capacitors for storage and filter requirements in high reliability circuits requiring 85°C operation. An exceptional anode surface gain and better production control have been achieved in perfecting the Type 500. These advanced techniques, plus the use of the best electrolytes, result in capacitors having lower ESR which may be operated at higher ripple currents and in case sizes smaller than conventional capacitors. All units are supplied with screw terminals. Mounting brackets are furnished at extra cost. ***For more complete information write for Bulletin 2236.***





Type 500 Mounting Bracket	Capacitor Diameter	Net Price
	1-3/8"	$0.24
	2"	0.36
	2-1/2"	0.48
	3"	0.60

Note: 1-3/8" bracket available with 2 feet only. Other sizes are available with 2 or 3 feet. Specify accordingly.

Catalog Number	Cap. (Mfd)	Rated Volts d-c	Case Sizes* Diameter	Case Sizes* Length	Term * Ctr. to Ctr.	Net Price 1-24†
500-1900-01	14000	3	1-3/8	2-1/8	.500	$ 4.32
500-1901-01	25000	3	1-3/8	3-1/8	.500	6.06
500-1902-01	35000	3	1-3/8	4-1/8	.500	7.08
500-1903-01	80000	3	2	4-1/8	.875	11.82
500-1904-01	120000	3	2	5-5/8	.875	15.39
500-1905-01	145000	3	2-1/2	4-1/8	1.125	19.77
500-1906-01	200000	3	3	4-1/8	1.250	29.88
500-1907-01	300000	3	3	5-5/8	1.250	34.92
500-1908-01	500000	3	3	8-5/8	1.250	45.00
500-1909-01	11000	5	1-3/8	2-1/8	.500	4.53
500-1910-01	20000	5	1-3/8	3-1/8	.500	6.00
500-1911-01	29000	5	1-3/8	4-1/8	.500	7.14
500-1912-01	67000	5	2	4-1/8	.875	11.91
500-1913-01	95000	5	2	5-5/8	.875	14.28
500-1914-01	120000	5	2-1/2	4-1/8	1.125	16.08
500-1915-01	170000	5	3	4-1/8	1.250	26.10
500-1916-01	250000	5	3	5-5/8	1.250	35.70
500-1917-01	400000	5	3	8-5/8	1.250	45.30
500-1918-01	8000	10	1-3/8	2-1/8	.500	4.50
500-1919-01	14000	10	1-3/8	3-1/8	.500	5.64
500-1920-01	20000	10	1-3/8	4-1/8	.500	7.77
500-1921-01	47000	10	2	4-1/8	.875	13.98
500-1922-01	70000	10	2	5-5/8	.875	17.31
500-1923-01	85000	10	2-1/2	4-1/8	1.125	18.87
500-1924-01	120000	10	3	4-1/8	1.250	24.96
500-1925-01	180000	10	3	5-5/8	1.250	32.52
500-1926-01	280000	10	3	8-5/8	1.250	44.88
500-1927-01	6500	15	1-3/8	2-1/8	.500	4.38
500-1928-01	11000	15	1-3/8	3-1/8	.500	5.49
500-1929-01	16000	15	1-3/8	4-1/8	.500	7.89
500-1930-01	37000	15	2	4-1/8	.875	11.58
500-1931-01	55000	15	2	5-5/8	.875	16.71
500-1932-01	65000	15	2-1/2	4-1/8	1.125	18.99
500-1933-01	95000	15	3	4-1/8	1.250	24.72
500-1934-01	140000	15	3	5-5/8	1.250	30.78
500-1935-01	225000	15	3	8-5/8	1.250	44.70
500-1936-01	4400	20	1-3/8	2-1/8	.500	4.29
500-1937-01	8000	20	1-3/8	3-1/8	.500	5.79
500-1938-01	11000	20	1-3/8	4-1/8	.500	6.15
500-1939-01	26000	20	2	4-1/8	.875	11.22
500-1940-01	38000	20	2	5-5/8	.875	14.22
500-1941-01	46000	20	2-1/2	4-1/8	1.125	16.32
500-1942-01	65000	20	3	4-1/8	1.250	20.43
500-1943-01	100000	20	3	5-5/8	1.250	28.98
500-1944-01	160000	20	3	8-5/8	1.250	45.15
500-1945-01	3600	25	1-3/8	2-1/8	.500	4.02
500-1946-01	6500	25	1-3/8	3-1/8	.500	5.52
500-1947-01	9500	25	1-3/8	4-1/8	.500	7.08
500-1948-01	22000	25	2	4-1/8	.875	10.83
500-1949-01	30000	25	2	5-5/8	.875	12.84
500-1950-01	37000	25	2-1/2	4-1/8	1.125	16.20
500-1951-01	55000	25	3	4-1/8	1.250	22.20
500-1952-01	80000	25	3	5-5/8	1.250	30.45
500-1953-01	130000	25	3	8-5/8	1.250	45.21
500-1954-01	2500	35	1-3/8	2-1/8	.500	3.75
500-1955-01	4500	35	1-3/8	3-1/8	.500	4.74
500-1956-01	6500	35	1-3/8	4-1/8	.500	6.27
500-1957-01	14000	35	2	4-1/8	.875	10.59
500-1958-01	20000	35	2	5-5/8	.875	12.12
500-1959-01	25000	35	2-1/2	4-1/8	1.125	13.02
500-1960-01	35000	35	3	4-1/8	1.250	14.82
500-1961-01	55000	35	3	5-5/8	1.250	25.62
500-1962-01	85000	35	3	8-5/8	1.250	44.94
500-1963-01	1500	50	1-3/8	2-1/8	.500	3.69
500-1964-01	2800	50	1-3/8	3-1/8	.500	4.86
500-1965-01	4200	50	1-3/8	4-1/8	.500	5.55
500-1966-01	9400	50	2	4-1/8	.875	10.74
500-1967-01	13000	50	2	5-5/8	.875	12.90
500-1968-01	16000	50	2-1/2	4-1/8	1.125	14.25
500-1969-01	23500	50	3	4-1/8	1.250	17.67
500-1970-01	35000	50	3	5-5/8	1.250	26.85
500-1971-01	57000	50	3	8-5/8	1.250	$45.09
500-1972-01	1050	75	1-3/8	2-1/8	.500	4.08
500-1973-01	2000	75	1-3/8	3-1/8	.500	4.98
500-1974-01	2800	75	1-3/8	4-1/8	.500	6.09
500-1975-01	6500	75	2	4-1/8	.875	10.62
500-1976-01	9500	75	2	5-5/8	.875	15.66
500-1977-01	11000	75	2-1/2	4-1/8	1.125	17.28
500-1978-01	16000	75	3	4-1/8	1.250	22.26
500-1979-01	24000	75	3	5-5/8	1.250	30.21
500-1980-01	39000	75	3	8-5/8	1.250	45.09
500-1981-01	550	100	1-3/8	2-1/8	.500	3.30
500-1982-01	1000	100	1-3/8	3-1/8	.500	4.41
500-1983-01	1500	100	1-3/8	4-1/8	.500	5.04
500-1984-01	3400	100	2	4-1/8	.875	9.63
500-1985-01	5000	100	2	5-5/8	.875	10.86
500-1986-01	6000	100	2-1/2	4-1/8	1.125	12.36
500-1987-01	8500	100	3	4-1/8	1.250	15.48
500-1988-01	12500	100	3	5-5/8	1.250	25.47
500-1989-01	20000	100	3	8-5/8	1.250	44.97
500-1991-01	400	150	1-3/8	2-1/8	.500	3.36
500-1992-01	700	150	1-3/8	3-1/8	.500	4.32
500-1993-01	1000	150	1-3/8	4-1/8	.500	4.83
500-1994-01	2300	150	2	4-1/8	.875	9.03
500-1995-01	3500	150	2	5-5/8	.875	11.43
500-1996-01	4000	150	2-1/2	4-1/8	1.125	12.33
500-1997-01	6000	150	3	4-1/8	1.250	15.84
500-1998-01	8500	150	3	5-5/8	1.250	25.59
500-1999-01	13000	150	3	8-5/8	1.250	45.00
500-1089-01	200	200	1-3/8	2-1/8	.500	3.15
500-1090-01	400	200	1-3/8	3-1/8	.500	3.93
500-1091-01	575	200	1-3/8	4-1/8	.500	4.59
500-1092-01	1300	200	2	4-1/8	.875	7.74
500-1990-01	1800	200	2	5-5/8	.875	8.85
500-1094-01	2200	200	2-1/2	4-1/8	1.125	9.81
500-1095-01	3250	200	3	4-1/8	1.250	12.66
500-2000-01	4800	200	3	5-5/8	1.250	14.76
500-1097-01	160	250	1-3/8	2-1/8	.500	3.90
500-1098-01	300	250	1-3/8	3-1/8	.500	4.05
500-1099-01	430	250	1-3/8	4-1/8	.500	4.35
500-1100-01	1000	250	2	4-1/8	.875	9.81
500-2001-01	1400	250	2	5-5/8	.875	10.71
500-1102-01	1700	250	2-1/2	4-1/8	1.125	11.25
500-1103-01	2500	250	3	4-1/8	1.250	16.20
500-1104-01	110	300	1-3/8	2-1/8	.500	3.63
500-1105-01	210	300	1-3/8	3-1/8	.500	4.11
500-1106-01	310	300	1-3/8	4-1/8	.500	4.68
500-1107-01	700	300	2	4-1/8	.875	7.68
500-2002-01	1000	300	2	5-5/8	.875	11.22
500-1109-01	1200	300	2-1/2	4-1/8	1.125	13.68
500-1110-01	1750	300	3	4-1/8	1.250	18.15
500-1111-01	80	350	1-3/8	2-1/8	.500	3.69
500-1112-01	150	350	1-3/8	3-1/8	.500	4.08
500-1113-01	220	350	1-3/8	4-1/8	.500	4.77
500-1114-01	500	350	2	4-1/8	.875	7.08
500-2003-01	750	350	2	5-5/8	.875	9.54
500-1116-01	850	350	2-1/2	4-1/8	1.125	10.89
500-1117-01	1250	350	3	4-1/8	1.250	16.89
500-1118-01	60	440	1-3/8	2-1/8	.500	3.69
500-1119-01	115	400	1-3/8	3-1/8	.500	4.26
500-1120-01	165	400	1-3/8	4-1/8	.500	4.77
500-1121-01	390	400	2	4-1/8	.875	6.24
500-2004-01	560	400	2	5-5/8	.875	8.70
500-1123-01	650	400	2-1/2	4-1/8	1.125	9.24
500-1124-01	975	400	3	4-1/8	1.250	17.76
500-1125-01	55	450	1-3/8	2-1/8	.500	4.11
500-1126-01	100	450	1-3/8	3-1/8	.500	4.50
500-1127-01	150	450	1-3/8	4-1/8	.500	5.10
500-1128-01	330	450	2	4-1/8	.875	6.33
500-2005-01	500	450	2	5-5/8	.875	8.10
500-1130-01	600	450	2-1/2	4-1/8	1.125	9.84
500-1131-01	850	450	3	4-1/8	1.250	12.60

* All dimensions are in inches.
\+ Prices for larger quantities are available on request.

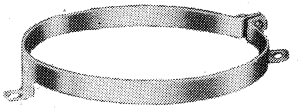
SANGAMO ELECTRIC COMPANY

capacitors

SANGAMO ELECTRONIC COMPONENTS

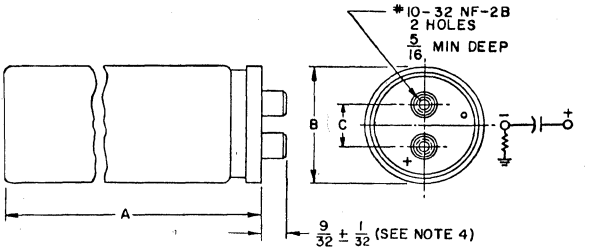
Type CE70 and CE71 MILITARY GRADE CAPACITORS

The Sangamo Types CE70 and CE71 are aluminum electrolytic capacitors designed and manufactured in accordance with Mil-C-62B. They are recommended for operation up to +85°C and are available in voltage ratings from 5 to 450 d-c volts. The Type CE70 is supplied with a plastic insulating sleeve. Commercial equivalents can be supplied which meet or exceed the applicable military requirements. ***FOR MORE COMPLETE INFORMATION WRITE FOR BULLETIN 2236.***



Type	Capacitor Diameter (Inches)	Net Price
CE70 & CE71 Mounting Bracket	1-7/16	$.24
	2-1/16	.36
	2-9/16	.48
	3-1/16	.60

Note: 1-7/16" bracket available with 2 feet only. Other sizes are available with 2 or 3 feet.



1. All dimensions in inches.
2. Capacitors are mounted by means of a wraparound, footed-type bracket.
3. There is an indeterminate resistance between the metal case and the negative terminal.
4. This dimension shall be measured from the base of the container.

Type Designation	Cap. (Mfd)	Rated Volts d-c	Case Sizes* Diam.	Case Sizes* Length	Term.* Ctr. to Ctr.	Net Price 1-24†
CE71C103C	10,000	5	1-7/16	4-1/2	.500	$ 4.98
CE71C153C	15,000	5	2-1/16	4-1/2	.875	6.12
CE71C253C	25,000	5	2-1/16	4-1/2	.875	7.62
CE71C333C	33,000	5	2-9/16	4-1/2	1.125	8.76
CE71C473C	47,000	5	2-9/16	4-1/2	1.125	10.77
CE71C683C	68,000	5	3-1/16	4-1/2	1.250	13.65
CE71C682D	6,800	10	1-7/16	4-1/2	.500	4.77
CE71C103D	10,000	10	2-1/16	4-1/2	.875	5.88
CE71C153D	15,000	10	2-1/16	4-1/2	.875	6.60
CE71C283D	28,000	10	2-9/16	4-1/2	1.125	11.76
CE71C403D	40,000	10	3-1/16	4-1/2	1.250	13.95
CE71C472E	4,700	15	1-7/16	4-1/2	.500	4.77
CE71C562E	5,600	15	1-7/16	4-1/2	.500	4.83
CE71C123E	12,000	15	2-1/16	4-1/2	.875	5.85
CE71C223E	22,000	15	2-9/16	4-1/2	1.125	11.34
CE71C333E	33,000	15	3-1/16	4-1/2	1.250	12.96
CE71C393E	39,000	15	3-1/16	4-1/2	1.250	14.04
CE71C332F	3,300	25	1-7/16	4-1/2	.500	4.26
CE71C472F	4,700	25	2-1/16	4-1/2	.875	5.25
CE71C682F	6,800	25	2-1/16	4-1/2	.875	6.72
CE71C103F	10,000	25	2-1/16	4-1/2	.875	8.34
CE71C153F	15,000	25	2-9/16	4-1/2	1.125	11.73
CE71C223F	22,000	25	3-1/16	4-1/2	1.250	12.48
CE71C152G	1,500	50	1-7/16	4-1/2	.500	4.23
CE71C222G	2,200	50	2-1/16	4-1/2	.875	4.50
CE71C332G	3,300	50	2-1/16	4-1/2	.875	6.12
CE71C472G	4,700	50	2-9/16	4-1/2	1.125	6.78
CE71C562G	5,600	50	2-9/16	4-1/2	1.125	8.88
CE71C682G	6,800	50	2-9/16	4-1/2	1.125	9.90
CE71C103G	10,000	50	3-1/16	4-1/2	1.250	13.17
CE71C681H	680	100	1-7/16	4-1/2	.500	4.08
CE71C102H	1,000	100	1-7/16	4-1/2	.500	5.07
CE71C152H	1,500	100	2-1/16	4-1/2	.875	5.76
CE71C222H	2,200	100	2-9/16	4-1/2	1.125	7.59
CE71C332H	3,300	100	2-9/16	4-1/2	1.125	11.01
CE71C472H	4,700	100	3-1/16	4-1/2	1.250	12.00
CE71C471J	470	150	1-7/16	4-1/2	.500	4.38
CE71C681J	680	150	1-7/16	4-1/2	.500	4.89
CE71C122J	1,200	150	2-1/16	4-1/2	.875	5.94
CE71C202J	2,000	150	2-9/16	4-1/2	1.125	$ 9.63
CE71C332J	3,300	150	3-1/16	4-1/2	1.250	12.63
CE71C351K	350	200	1-7/16	4-1/2	.500	4.23
CE71C471K	470	200	1-7/16	4-1/2	.500	4.74
CE71C681K	680	200	2-1/16	4-1/2	.875	5.85
CE71C102K	1,000	200	2-1/16	4-1/2	.875	8.43
CE71C152K	1,500	200	2-9/16	4-1/2	1.125	8.79
CE71C222K	2,200	200	3-1/16	4-1/2	1.250	11.22
CE71C301M	300	250	1-7/16	4-1/2	.500	4.65
CE71C471M	470	250	2-1/16	4-1/2	.875	5.10
CE71C681M	680	250	2-1/16	4-1/2	.875	7.20
CE71C102M	1,000	250	2-9/16	4-1/2	1.125	11.28
CE71C122M	1,200	250	2-9/16	4-1/2	1.125	11.46
CE71C152M	1,500	250	2-9/16	4-1/2	1.125	12.33
CE71C222M	2,200	250	3-1/16	4-1/2	1.250	15.72
CE71C251N	250	300	1-7/16	4-1/2	.500	5.01
CE71C331N	330	300	2-1/16	4-1/2	.875	5.46
CE71C471N	470	300	2-1/16	4-1/2	.875	5.94
CE71C551N	550	300	2-1/16	4-1/2	.875	6.18
CE71C681N	680	300	2-9/16	4-1/2	1.125	8.52
CE71C102N	1,000	300	2-9/16	4-1/2	1.125	12.90
CE71C152N	1,500	300	3-1/16	4-1/2	1.250	19.38
CE71C201P	200	350	1-7/16	4-1/2	.500	5.13
CE71C331P	330	350	2-1/16	4-1/2	.875	6.21
CE71C471P	470	350	2-1/16	4-1/2	.875	8.34
CE71C681P	680	350	2-9/16	4-1/2	1.125	10.23
CE71C751P	750	350	2-9/16	4-1/2	1.125	10.62
CE71C122P	1,200	350	3-1/16	4-1/2	1.250	15.30
CE71C151Q	150	400	1-7/16	4-1/2	.500	5.34
CE71C221Q	220	400	2-1/16	4-1/2	.875	6.06
CE71C331Q	330	400	2-1/16	4-1/2	.875	6.90
CE71C471Q	470	400	2-9/16	4-1/2	1.125	7.89
CE71C601Q	600	400	2-9/16	4-1/2	1.125	10.56
CE71C681Q	680	400	2-9/16	4-1/2	1.125	10.77
CE71C101R	100	450	1-7/16	4-1/2	.500	5.19
CE71C151R	150	450	1-7/16	4-1/2	.500	5.79
CE71C221R	220	450	2-1/16	4-1/2	.875	6.39
CE71C331R	330	450	2-1/16	4-1/2	.875	7.41
CE71C471R	470	450	2-9/16	4-1/2	1.125	8.67

For Type CE70 (CE71 without sleeve), Deduct 3/8" From Length, 1/16" From Diameter and $0.05 From Net Price

* All Dimensions are in Inches.

† Prices for Larger Quantities are Available on Request.

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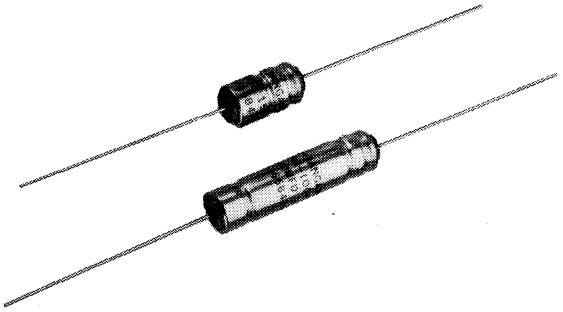
SANGAMO ELECTRONIC COMPONENTS

Type 556 Computer Grade

ALUMINUM ELECTROLYTIC AXIAL LEAD CAPACITOR (105°C)



The Sangamo type 556 is a computer grade axial lead aluminum electrolytic capacitor with an operating temperature range of −40°C to +105°C. Voltage ratings from 3 to 150 VDC and capacitance values from 4 to 560 Mfd. are available in 8 case sizes. Mylar sleeves are provided for improved electrical insulation and mechanical properties. ***FOR MORE COMPLETE INFORMATION WRITE FOR BULLETIN 2238.***

Catalog Number	Cap. mfd.	Rated Volts d-c	Case Sizes *		Price † 1-24
			Diameter	Length	
556-1001-01	125	3	3/8	11/16	$.78
556-1002-01	180	3	3/8	13/16	.78
556-1003-01	250	3	3/8	15/16	.795
556-1004-01	310	3	3/8	1-1/8	.795
556-1005-01	370	3	3/8	1-1/4	.795
556-1006-01	435	3	3/8	1-3/8	.810
556-1007-01	500	3	3/8	1-1/2	.825
556-1008-01	560	3	3/8	1-5/8	.840
556-1009-01	85	5	3/8	11/16	.78
556-1010-01	125	5	3/8	13/16	.78
556-1011-01	170	5	3/8	15/16	.795
556-1012-01	210	5	3/8	1-1/8	.795
556-1013-01	250	5	3/8	1-1/4	.795
556-1014-01	300	5	3/8	1-3/8	.810
556-1015-01	340	5	3/8	1-1/2	.825
556-1016-01	385	5	3/8	1-5/8	.840
556-1017-01	75	6	3/8	11/16	.78
556-1018-01	110	6	3/8	13/16	.78
556-1019-01	150	6	3/8	15/16	.795
556-1020-01	190	6	3/8	1-1/8	.795
556-1021-01	225	6	3/8	1-1/4	.795
556-1022-01	265	6	3/8	1-3/8	.810
556-1023-01	305	6	3/8	1-1/2	.825
556-1024-01	340	6	3/8	1-5/8	.840
556-1025-01	60	10	3/8	11/16	.78
556-1026-01	90	10	3/8	13/16	.78
556-1027-01	125	10	3/8	15/16	.795
556-1028-01	155	10	3/8	1-1/8	.795
556-1029-01	185	10	3/8	1-1/4	.795
556-1030-01	215	10	3/8	1-3/8	.810
556-1031-01	250	10	3/8	1-1/2	.825
556-1032-01	275	10	3/8	1-5/8	.840
556-1033-01	50	15	3/8	11/16	.78
556-1034-01	75	15	3/8	13/16	.78
556-1035-01	100	15	3/8	15/16	.795
556-1036-01	125	15	3/8	1-1/8	.795
556-1037-01	150	15	3/8	1-1/4	.795
556-1038-01	175	15	3/8	1-3/8	.810
556-1039-01	200	15	3/8	1-1/2	.825
556-1040-01	225	15	3/8	1-5/8	.840
556-1041-01	35	20	3/8	11/16	.78
556-1042-01	55	20	3/8	13/16	.78
556-1043-01	75	20	3/8	15/16	.795
556-1044-01	95	20	3/8	1-1/8	.795
556-1045-01	110	20	3/8	1-1/4	.795
556-1046-01	130	20	3/8	1-3/8	.810
556-1047-01	150	20	3/8	1-1/2	.825
556-1048-01	170	20	3/8	1-5/8	.840
556-1049-01	25	25	3/8	11/16	.78
556-1050-01	40	25	3/8	13/16	.78
556-1051-01	55	25	3/8	15/16	.795
556-1052-01	70	25	3/8	1-1/8	.795
556-1053-01	85	25	3/8	1-1/4	.795
556-1054-01	100	25	3/8	1-3/8	.810
556-1055-01	115	25	3/8	1-1/2	.825
556-1056-01	130	25	3/8	1-5/8	.840
556-1057-01	23	35	3/8	11/16	.78
556-1058-01	35	35	3/8	13/16	.78
556-1059-01	45	35	3/8	15/16	.795
556-1060-01	55	35	3/8	1-1/8	.795
556-1061-01	70	35	3/8	1-1/4	.795
556-1062-01	80	35	3/8	1-3/8	.810
556-1063-01	95	35	3/8	1-1/2	.825
556-1064-01	105	35	3/8	1-5/8	.840
556-1065-01	20	40	3/8	11/16	.78
556-1066-01	30	40	3/8	13/16	.78
556-1067-01	40	40	3/8	15/16	.795
556-1068-01	50	40	3/8	1-1/8	.795
556-1069-01	60	40	3/8	1-1/4	$.795
556-1070-01	70	40	3/8	1-3/8	.810
556-1071-01	80	40	3/8	1-1/2	.825
556-1072-01	90	40	3/8	1-5/8	.840
556-1073-01	15	50	3/8	11/16	.78
556-1074-01	20	50	3/8	13/16	.78
556-1075-01	30	50	3/8	15/16	.795
556-1076-01	35	50	3/8	1-1/8	.795
556-1077-01	45	50	3/8	1-1/4	.795
556-1078-01	50	50	3/8	1-3/8	.810
556-1079-01	60	50	3/8	1-1/2	.825
556-1080-01	65	50	3/8	1-5/8	.840
556-1081-01	10	60	3/8	11/16	.78
556-1082-01	15	60	3/8	13/16	.78
556-1083-01	20	60	3/8	15/16	.795
556-1084-01	30	60	3/8	1-1/8	.795
556-1085-01	35	60	3/8	1-1/4	.795
556-1086-01	40	60	3/8	1-3/8	.810
556-1087-01	45	60	3/8	1-1/2	.825
556-1088-01	50	60	3/8	1-5/8	.840
556-1089-01	9	65	3/8	11/16	.78
556-1090-01	13	65	3/8	13/16	.78
556-1091-01	18	65	3/8	15/16	.795
556-1092-01	20	65	3/8	1-1/8	.795
556-1093-01	25	65	3/8	1-1/4	.795
556-1094-01	30	65	3/8	1-3/8	.810
556-1095-01	35	65	3/8	1-1/2	.825
556-1096-01	40	65	3/8	1-5/8	.840
556-1097-01	6.5	75	3/8	11/16	.78
556-1098-01	10	75	3/8	13/16	.78
556-1099-01	13	75	3/8	15/16	.795
556-1100-01	17	75	3/8	1-1/8	.795
556-1101-01	20	75	3/8	1-1/4	.795
556-1102-01	24	75	3/8	1-3/8	.810
556-1103-01	27	75	3/8	1-1/2	.820
556-1104-01	30	75	3/8	1-5/8	.840
556-1105-01	6	90	3/8	11/16	.78
556-1106-01	9	90	3/8	13/16	.78
556-1107-01	12	90	3/8	15/16	.795
556-1108-01	15	90	3/8	1-1/8	.795
556-1109-01	18	90	3/8	1-1/4	.795
556-1110-01	20	90	3/8	1-3/8	.810
556-1111-01	25	90	3/8	1-1/2	.825
556-1112-01	28	90	3/8	1-5/8	.840
556-1113-01	5	100	3/8	11/16	.78
556-1114-01	8	100	3/8	13/16	.78
556-1115-01	11	100	3/8	15/16	.795
556-1116-01	13	100	3/8	1-1/8	.795
556-1117-01	16	100	3/8	1-1/4	.795
556-1118-01	19	100	3/8	1-3/8	.810
556-1119-01	20	100	3/8	1-1/2	.825
556-1120-01	24	100	3/8	1-5/8	.840
556-1121-01	4.5	125	3/8	11/16	.78
556-1122-01	6.5	125	3/8	13/16	.78
556-1123-01	9	125	3/8	15/16	.795
556-1124-01	11	125	3/8	1-1/8	.795
556-1125-01	13	125	3/8	1-1/4	.795
556-1126-01	16	125	3/8	1-3/8	.810
556-1127-01	18	125	3/8	1-1/2	.825
556-1128-01	20	125	3/8	1-5/8	.840
556-1129-01	4	150	3/8	11/16	.78
556-1130-01	6	150	3/8	13/16	.78
556-1131-01	8	150	3/8	15/16	.795
556-1132-01	10	150	3/8	1-1/8	.795
556-1133-01	12	150	3/8	1-1/4	.795
556-1134-01	15	150	3/8	1-3/8	.810
556-1135-01	17	150	3/8	1-1/2	.825
556-1136-01	19	150	3/8	1-5/8	.840

* All dimensions are in inches. † Prices for larger quantities are available on request.

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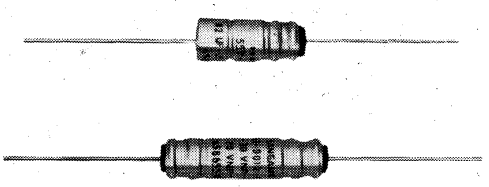
SANGAMO ELECTRONIC COMPONENTS

Type 557 Aluminum Electrolytic

–55°C TO + 125°C AXIAL LEAD CAPACITOR



The axial lead type 557 has extremely stable characteristics at much wider temperature ranges. The type 557, designed for application in high reliability circuits, meets the MIL - C - 39018 military specifications at temperatures from –55°C to +125°C. Standard ratings are available for both polar and non-polar applications. Mylar sleeves are provided for improved electrical insulation and mechanical properties. ***FOR MORE COMPLETE INFORMATION WRITE FOR BULLETIN 2240.***

Catalog Number	Cap. mfd	Rated Volts d-c		Case Sizes*		Price 1-24 †
		+85°C	+125°C	D	L	
557-001-13-001	220	7	5	3/8	15/16	$4.29
557-002-19-004	270	7	5	3/8	1-1/8	4.35
557-003-31-007	390	7	5	3/8	1-3/8	4.41
557-004-43-010	560	7	5	3/8	1-5/8	4.50
557-005-49-013	820	7	5	3/8	2-3/16	4.80
557-006-55-016	1000	7	5	3/8	2-11/16	4.95
557-007-13-019	180	10	7	3/8	15/16	4.29
557-008-19-022	220	10	7	3/8	1-1/8	4.35
557-009-31-025	330	10	7	3/8	1-3/8	4.41
557-010-43-028	470	10	7	3/8	1-5/8	4.50
557-011-49-031	680	10	7	3/8	2-3/16	4.80
557-012-55-034	820	10	7	3/8	2-11/16	4.95
557-013-13-037	150	15	10	3/8	15/16	4.29
557-014-19-040	180	15	10	3/8	1-1/8	4.35
557-015-31-043	270	15	10	3/8	1-3/8	4.41
557-016-43-046	390	15	10	3/8	1-5/8	4.50
557-017-49-049	560	15	10	3/8	2-3/16	4.80
557-018-55-052	680	15	10	3/8	2-11/16	4.95
557-019-13-055	82	30	20	3/8	15/16	4.29
557-020-19-058	100	30	20	3/8	1-1/8	4.35
557-021-31-061	120	30	20	3/8	1-3/8	4.41
557-022-31-064	150	30	20	3/8	1-3/8	4.41
557-023-43-067	220	30	20	3/8	1-5/8	4.50
557-024-49-070	330	30	20	3/8	2-3/16	4.80
557-025-55-073	390	30	20	3/8	2-11/16	4.95
557-026-13-076	33	50	40	3/8	15/16	4.29
557-027-19-079	47	50	40	3/8	1-1/8	4.35
557-028-31-082	56	50	40	3/8	1-3/8	4.41
557-029-31-085	68	50	40	3/8	1-3/8	4.41
557-030-43-088	100	50	40	3/8	1-5/8	$4.50
557-031-49-091	150	50	40	3/8	2-3/16	4.80
557-032-55-094	180	50	40	3/8	2-11/16	4.95
557-033-13-097	22	75	60	3/8	15/16	4.29
557-034-19-100	33	75	60	3/8	1-1/8	4.35
557-035-31-103	47	75	60	3/8	1-3/8	4.41
557-036-43-106	68	75	60	3/8	1-5/8	4.50
557-037-49-109	100	75	60	3/8	2-3/16	4.80
557-038-55-112	120	75	60	3/8	2-11/16	4.95
557-039-13-115	12	100	75	3/8	15/16	4.29
557-040-19-118	15	100	75	3/8	1-1/8	4.35
557-041-31-121	22	100	75	3/8	1-3/8	4.41
557-042-43-124	33	100	75	3/8	1-5/8	4.50
557-043-49-127	47	100	75	3/8	2-3/16	4.80
557-044-55-130	68	100	75	3/8	2-11/16	4.95
557-045-13-133	8.2	150	100	3/8	15/16	4.29
557-046-19-136	12	150	100	3/8	1-1/8	4.35
557-047-31-139	18	150	100	3/8	1-3/8	4.41
557-048-43-142	22	150	100	3/8	1-5/8	4.50
557-049-49-145	33	150	100	3/8	2-3/16	4.80
557-050-55-148	56	150	100	3/8	2-11/16	4.95
557-051-55-151	39	200	150	3/8	2-11/16	4.95
557-052-13-154	5.6	250	200	3/8	15/16	4.29
557-053-19-157	6.8	250	200	3/8	1-1/8	4.35
557-054-31-160	10	250	200	3/8	1-3/8	4.41
557-055-43-163	12	250	200	3/8	1-5/8	4.50
557-056-49-166	22	250	200	3/8	2-3/16	4.80
557-057-55-169	27	250	200	3/8	2-11/16	4.95

Non-Polarized

Catalog Number	Cap. mfd	Rated Volts d-c		Case Sizes*		Price 1-24 †
		+85°C	+125°C	D	L	
557-701-01-001	220	7	5	3/8	1-7/16	$4.83
557-702-03-004	470	7	5	3/8	2-1/8	5.28
557-703-05-007	680	7	5	3/8	2-3/4	5.43
557-704-01-010	180	10	7	3/8	1-7/16	4.83
557-705-03-013	330	10	7	3/8	2-1/8	5.28
557-706-05-016	470	10	7	3/8	2-3/4	5.43
557-707-01-019	120	15	10	3/8	1-7/16	4.83
557-708-01-022	150	15	10	3/8	1-7/16	4.83
557-709-03-025	270	15	10	3/8	2-1/8	5.28
557-710-05-028	390	15	10	3/8	2-3/4	5.43
557-711-01-031	56	30	20	3/8	1-7/16	4.83
557-712-01-034	68	30	20	3/8	1-7/16	4.83
557-713-03-037	120	30	20	3/8	2-1/8	5.28
557-714-03-049	150	30	20	3/8	2-1/8	5.28
557-715-05-043	180	30	20	3/8	2-3/4	5.43
557-716-01-046	27	50	40	3/8	1-7/16	4.83
557-717-03-049	56	50	40	3/8	2-1/8	5.28
557-718-05-052	82	50	40	3/8	2-3/4	$5.43
557-719-01-055	15	75	60	3/8	1-7/16	4.83
557-720-01-058	18	75	60	3/8	1-7/16	4.83
557-721-03-061	39	75	60	3/8	2-1/8	5.28
557-722-05-064	56	75	60	3/8	2-3/4	5.43
557-723-01-067	12	100	75	3/8	1-7/16	4.83
557-724-03-070	22	100	75	3/8	2-1/8	5.28
557-725-05-073	33	100	75	3/8	2-3/4	5.43
557-726-01-076	5.6	150	100	3/8	1-7/16	4.83
557-727-01-079	8.2	150	100	3/8	1-7/16	4.83
557-728-03-082	12	150	100	3/8	2-1/8	5.28
557-729-03-085	15	150	100	3/8	2-1/8	5.28
557-730-05-088	22	150	100	3/8	2-3/4	5.43
557-731-05-091	15	200	150	3/8	2-3/4	5.43
557-732-01-094	3.3	250	200	3/8	1-7/16	4.83
557-733-03-097	6.8	250	200	3/8	2-1/8	5.28
557-734-05-100	10	250	200	3/8	2-3/4	5.43

*All dimensions are in inches.
†Prices for larger quantities are available on request.

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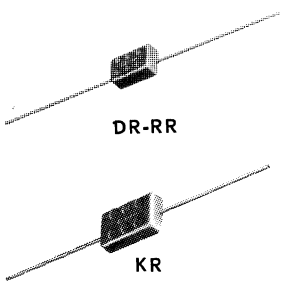
SANGAMO ELECTRONIC COMPONENTS

Type DR,RR and KR

SILVER MICA, 500W.V.D.C. (MILITARY CM15 and CM20)

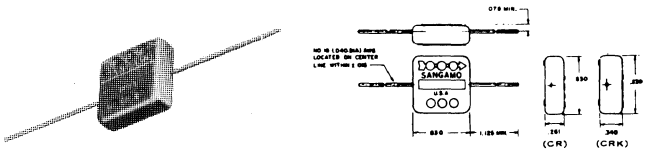
Type DR, RR and KR capacitors are molded in red Humiditite and are normally supplied to ±5% tolerance, "C" characteristic up to 20 mmf. Characteristic "E" is supplied on units above 20 mmf. unless specified otherwise. ***FOR MORE COMPLETE INFORMATION WRITE FOR BULLETIN 2320.***



Type CR and CRK

SILVER MICA (MILITARY CM30 and CM35)

Types CR and CRK silvered mica capacitors are molded in red Humiditite and are normally supplied to ±5% capacitive tolerance and characteristic "E". Characteristics C, D and F are also available on request. When the thicker case size is required in higher capacitive values, the type designation changes to CRK (example: CRK5E362). ***FOR MORE COMPLETE INFORMATION WRITE FOR BULLETIN 2320.***

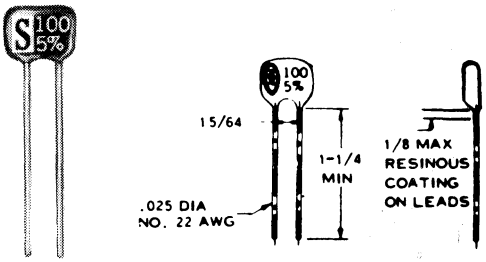


Type D15, D19, D20, D30, and D42

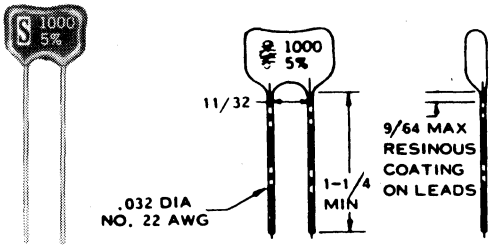
DIPPED SILVER MICA CAPACITORS

Sangamo Type D dipped Mica capacitors are available in five case sizes: D15, D19, D20, D30 and D42. With the exception of the Type D20 they correspond to the MIL-C-5B sizes CM05, CM06, CM07 and CM08 respectively. These units utilize silvered mica sections encased in several coatings of electrical grade phenolic and epoxy resins. All commercial units meet or exceed the applicable requirements of MIL-C-5 and are normally furnished to a capacitive tolerance of ±5% and characteristic F. ***FOR MORE COMPLETE INFORMATION WRITE FOR BULLETIN 2323.***

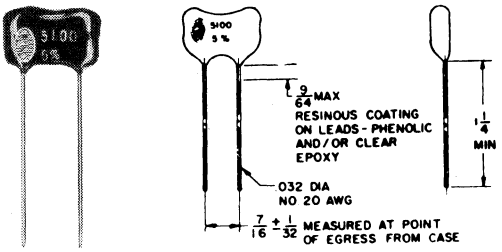
TYPE D15
(MILITARY CM05)



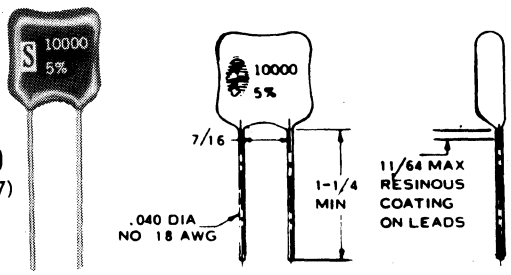
TYPE D19
(MILITARY CM06)



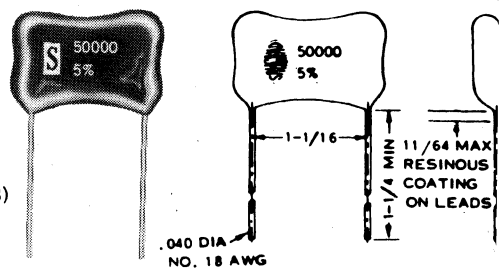
TYPE D20
(NON MILITARY)



TYPE D30
(MILITARY CM07)



TYPE D42
(MILITARY CM08)



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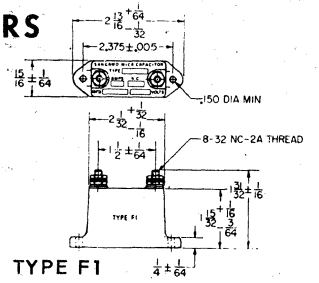
SANGAMO ELECTRONIC COMPONENTS

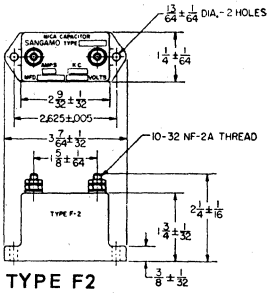
Types F1-F2-F3 MICA CAPACITORS

The Types F1, F2 and F3 are the smallest of the Sangamo line of transmitting capacitors. They are encapsulated in low loss molded phenolic cases and possess a wide range of voltage and current ratings. The mica and foil sections are pressure clamped, vacuum impregnated and encapsulated in the case in such a manner as to provide stable characteristics and adequate resistance to moisture. All Type F1 and F2 capacitors meet or exceed the applicable requirements of the MIL-C-5 specification.

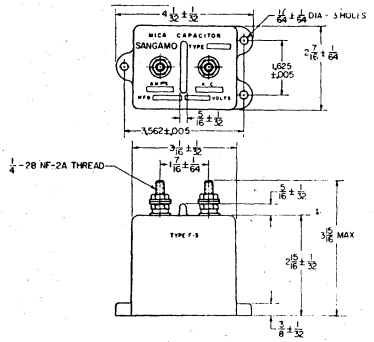
For more complete information write for Bulletin 2322.



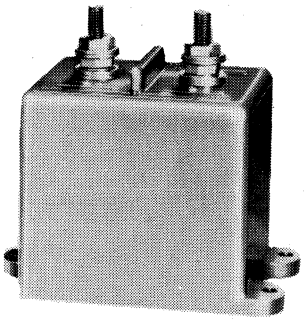
TYPE F1

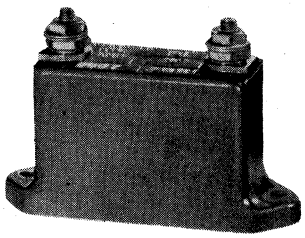


TYPE F2



TYPE F3





Type F1–F2

Catalog Number	Military Type Designation	Cap. (Mfd)	Peak Volts d-c	Net Price 1-9*
F1-331	CM65B101J	.0001	3000	$ 4.99
F1-332	CM65B201J	.0002	3000	4.99
F1-333	CM65B301J	.0003	3000	4.99
F1-321	CM65B102J	.001	3000	4.99
F1-223	CM65B302J	.003	2000	4.99
F1-111	CM65B103J	.01	1000	4.99
F1-112	CM65B203J	.02	1000	5.67
F1-0201		.1	200	6.10
F2-531	CM70B101J	.0001	5000	6.86
F2-532	CM70B201J	.0002	5000	6.86
F2-533	CM70B301J	.0003	5000	6.86
F2-522	CM70B202J	.002	5000	6.86
F2-211	CM70B103J	.01	2000	6.86
F2-212	CM70B203J	.02	2000	6.86

Catalog Number	Military Type Designation	Cap. (Mfd)	Peak Volts d-c	Net Price 1-9*
F2-0501	CM70B104J	.1	500	$ 7.61
F2-02025		.25	250	11.06
F3-835		.0005	8000	14.65
F3-821		.001	8000	16.34
F3-825		.005	8000	20.22
F3-828		.008	8000	21.57
F3-512		.02	5000	22.96
F3-201		.1	2000	20.20
F3-0605		.5	600	21.85
F3-0410		1.0	400	34.03

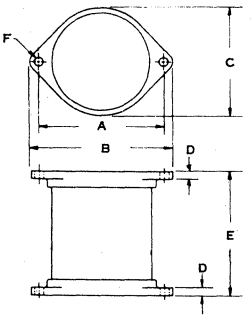
*Prices for larger quantities are available on request.
Note: Standard tolerance ±5%, "B" characteristic.
Note: Prices for closer tolerances and other characteristics are available on request.

Types G1-G2-G3-G4-G5 MICA

Type G ceramic cased capacitors are intended for service where high voltage and R.F. current ratings are required, such as in commercial transmitting or induction heating applications. All possible steps are taken in design and manufacturing operations to insure permanence of quality. Terminal plates are designed to permit any usual connecting or mounting practices. Case sizes are in accordance with Mil-C-5C specification covering type CM75, 80, 85, 90 and 95. ***For more complete information write for Bulletin 2322.***

TYPE G MICA CAPACITOR DIMENSIONS - INCHES

Type	A	B	C	D	E	F
G1	3¼	3-13/16	2-13/16	¼	2½	17/64
G2	4¼	5	3½	¼	3	.272
G3	5¾	6½	5	3/8	4	.377
G4	5¾	6½	5	3/8	5¾	.377
G5	8	9	6¾	½	10	13/32



TYPES G1, G2, G3, G4 and G5

Catalog Number	Military Type Designation	Cap. (Mfd)	Peak Volts d-c	Net Price 1-9*
G1-6315	CM75B151J	.00015	6000	$ 16.07
G1-633	CM75B301J	.0003	6000	17.68
G1-621	CM75B102J	.001	6000	18.47
G1-624		.004	6000	20.04
G1-511		.01	5000	20.37
G1-312		.02	3000	20.37
G2-1032	CM80B201J	.0002	10,000	25.96
G2-1022	CM80B202J	.002	10,000	25.96
G2-824		.004	8000	25.96
G2-511	CM80B103J	.01	5000	27.38
G2-1511	CM80B104J	.1	1500	27.38
G3-2031	CM85B101J	.0001	20,000	47.92
G3-2035		.0005	20,000	54.30
G3-2021	CM85B102J	.001	20,000	55.90
G3-1522	CM85B202J	.002	15,000	56.71

Catalog Number	Military Type Designation	Cap. (Mfd)	Peak Volts d-c	Net Price 1-9*
G3-1011		.01	10,000	$ 59.90
G3-201	CM85B104J	.1	2000	59.90
G4-3031	CM90B101J	.0001	30,000	87.45
G4-3035		.0005	30,000	91.95
G4-3021	CM90B102J	.001	30,000	95.25
G4-1525		.005	15,000	100.51
G4-301	CM90B104J	.1	3000	113.28
G5-3521	CM95B101J	.0001	35,000	183.68
G5-3535		.0005	35,000	215.62
G5-3521	CM95B102J	.001	35,000	222.28
G5-30225		.0025	30,000	216.95
G5-1511	CM95B103J	.01	15,000	235.59

*Prices for larger quantities are available on request.
Note: Standard capacitive tolerance is ±5%, "B" characteristic.
Note: Prices for closer tolerance and better characteristics available on request.

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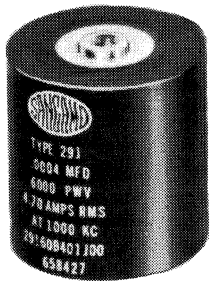
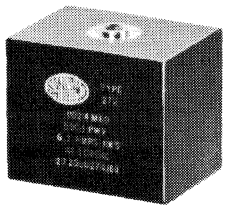
Types 271-272-273-291-292-293-294 MICA CAPACITORS



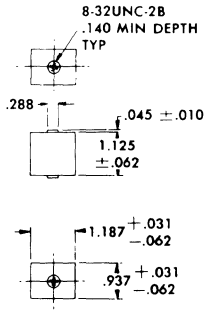
TYPE 291



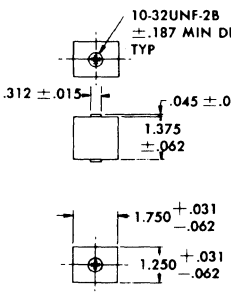
TYPE 272

Sangamo transmitting cast mica capacitors are supplied in seven basic case sizes. They are encapsulated in a high quality thermo-setting compound which eliminates moisture intrusion and makes them highly shock resistant. These capacitors are designed for frequencies ranging from 100 kilocycles per second to 3 megacycles per second and are ideally suited for high current and high voltage circuits.

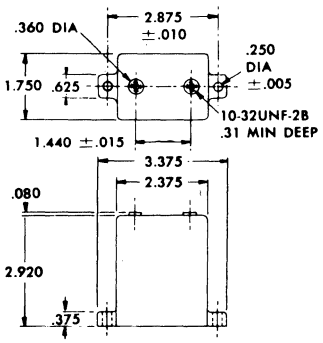
In capacitance and current ratings, Sangamo cast mica units are equivalent to MIL-C-5 Types CM65 through CM90 in molded and ceramic cases, but in environmental capability, operating temperature range, physical size, mounting configuration and reliability, they are far superior. ***FOR MORE COMPLETE INFORMATION WRITE FOR BULLETIN 2324.***



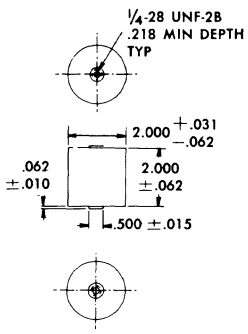
TYPE 271



TYPE 272



TYPE 273



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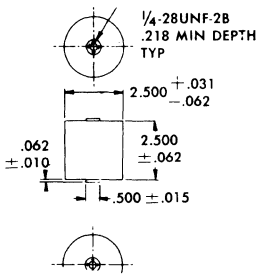
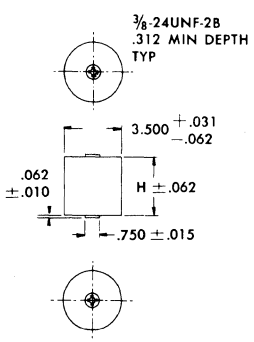
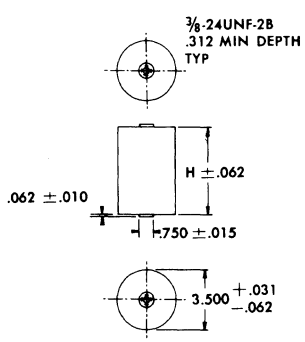


TYPE 292



TYPE 293



TYPE 294

Catalog Number	Cap. (pf)	Peak Volts (d-c)	Net Price 1-9*
TYPE 271			
27130B101J0	100	3000	$ 4.40
27130B151J0	150	3000	4.40
27130B201J0	200	3000	4.40
27130B501J0	500	3000	4.40
27130B102J0	1000	3000	4.40
27130B202J0	2000	3000	4.40
27120B302J0	3000	2000	4.40
27120B502J0	5000	2000	4.40
27110B103J0	10000	1000	4.40
27102B503J0	50000	250	4.55
27102B104J0	100000	250	4.85
TYPE 272			
27250B101J0	100	5000	$ 6.19
27250B151J0	150	5000	6.19
27250B201J0	200	5000	6.19
27250B501J0	500	5000	6.19
27250B102J0	1000	5000	6.19
27250B202J0	2000	5000	6.19
27230B302J0	3000	3000	6.19
27230B502J0	5000	3000	6.19
27220B103J0	10000	2000	6.19
27215B503J0	50000	1500	6.19
27205B104J0	100000	500	7.90
TYPE 273			
27380B501J0	500	8000	$15.29
27380B102J0	1000	8000	17.04
27380B202J0	2000	8000	17.04
27380B502J0	5000	8000	19.75
27380B103J0	10000	8000	25.81
27340B503J0	50000	4000	27.58
27320B104J0	100000	2000	23.00
27304B105J0	1000000	400	35.46

Catalog Number	Cap. (pf)	Peak Volts (d-c)	Case Height	Net Price 1-9*
TYPE 291				
29160B251J0	250	6000		$12.85
29160B501J0	500	6000		14.00
29160B102J0	1000	6000		14.00
29160B202J0	2000	6000		14.63
29160B502J0	5000	6000		14.63
29140B103J0	10000	4000		15.33
29110B104J0	100000	1000		18.38
TYPE 292				
292100B251J0	250	10000		$18.50
292100B501J0	500	10000		18.50
292100B102J0	1000	10000		18.50
292100B202J0	2000	10000		18.50
29260B502J0	5000	6000		18.50
29250B103J0	10000	5000		20.56
29215B104J0	100000	1500		20.56
TYPE 293				
293200B251J0	250	20000	2.50	$43.78
293200B501J0	500	20000	2.50	45.01
293200B102J0	1000	20000	2.75	47.25
293150B202J0	2000	15000	3.00	47.25
293100B502J0	5000	10000	2.75	48.85
29380B103J0	10000	8000	3.25	48.85
29320B104J0	100000	2000	2.75	48.85
TYPE 294				
294300B251J0	250	30000	4.00	$78.11
294300B501J0	500	30000	4.00	78.11
294300B102J0	1000	30000	4.50	79.28
294200B202J0	2000	20000	4.50	79.28
294150B502J0	5000	15000	4.50	87.51
294100B103J0	10000	10000	5.00	94.25
29430B104J0	100000	3000	4.50	94.25

* Prices for larger quantities are available on request

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Type S Subminiature Hermetically Sealed Metal Tubular Capacitors

Sangamo Type S capacitors are designed to meet the demands for a high quality, hermetically sealed paper tubular capacitor. They are encapsulated in brass tubular cases finished with a high tin content alloy. Hermetic sealing is accomplished by using glass-to-metal solder seal terminals. The impregnant used in these units is Etherm, an oil of high thermal stability and superior electrical characteristics over the temperature range of -55°C to +125°C. Sangamo Type S capacitors meet the case sizes and performance requirements of military specification MIL-C-25. The limited number of popular listings below are furnished with insulated sections. They are also available with grounded case if equipment requirements so dictate. The adjacent cross reference table will assist in the interpretation of Sangamo catalog nomenclatures with the various military types and case constructions.

For more complete information on other ratings, tolerances and voltages, write for Bulletin 2421.

Sangamo Type	Military Type	Description
SBA	CP04	Tab construction (without sleeve)
SBB	CP05	Tab construction (with sleeve)
SDA	CP08	Extended foil (without sleeve)
SDB	CP09	Extended foil (with sleeve)
SBC	CP10	Tab construction (with bracket)
SBE	CP11	Tab construction (with threaded mtg)
SDC	CP12	Extended foil (with bracket)
SDE	CP13	Extended foil (with threaded mtg)

Capacitance Tolerance ±10% †		Tab Construction		Tab Construction		Extended Foil		Extended Foil	
Cap. (Mfd)	Rated Volts d-c	Catalog Number	Net Price 1-9*	Catalog Number	Net Price 1-9*	Catalog Number	Net Price 1-9*	Catalog Number	Net Price 1-9*
.027	100	SBA1K01273K.	$1.76	SBB1K01273K	$1.84	SDA1K01273K	$1.96	SDB1K01273K	$2.04
.033	100	SBA1K01333K	1.80	SBB1K01333K	1.84	SDA1K01333K	1.96	SDB1K01333K	2.04
.082	100	SBA1K01823K	1.92	SBB1K01823K	1.96	SDA1K01823K	2.00	SDB1K01823K	2.08
.1	100	SBA1K01104K	1.92	SBB1K01104K	2.00	SDA1K01104K	2.04	SDB1K01104K	2.08
.15	100	SBA1K01154K	1.92	SBB1K01154K	2.04	SDA1K01154K	2.04	SDB1K01154K	2.12
.22	100	SBA1K01224K	2.00	SBB1K01224K	2.16	SDA1K01224K	2.16	SDB1K01224K	2.20
.27	100	SBA1K01274K	2.04	SBB1K01274K	2.08	SDA1K01274K	2.24	SDB1K01274K	2.28
.33	100	SBA1K01334K	2.08	SBB1K01334K	2.16	SDA1K01334K	2.32	SDB1K01334K	2.40
.39	100	SBA1K01394K	2.16	SBB1K01394K	2.24	SDA1K01394K	2.36	SDB1K01394K	2.44
.47	100	SBA1K01474K	2.24	SBB1K01474K	2.32	SDA1K01474K	2.44	SDB1K01474K	2.52
.68	100	SBA1K01684K	2.36	SBB1K01684K	2.48	SDA1K01684K	2.56	SDB1K01684K	2.64
.82	100	SBA1K01824K	2.44	SBB1K01824K	2.52	SDA1K01824K	2.68	SDB1K01824K	2.80
1.0	100	SBA1K01105K	2.52	SBB1K01105K	2.64	SDA1K01105K	2.88	SDB1K01105K	2.96
.015	200	SBA1K02153K	1.84	SBB1K02153K	1.92	SDA1K02153K	2.00	SDB1K02153K	2.08
.022	200	SBA1K02223K	1.84	SBB1K02223K	1.92	SDA1K02223K	2.00	SDB1K02223K	2.08
.039	200	SBA1K02393K	1.92	SBB1K02393K	2.00	SDA1K02393K	2.04	SDB1K02393K	2.12
.047	200	SBA1K02473K	1.96	SBB1K02473K	2.00	SDA1K02473K	2.08	SDB1K02473K	2.12
.068	200	SBA1K02683K	1.96	SBB1K02683K	2.04	SDA1K02683K	2.08	SDB1K02683K	2.16
.1	200	SBA1K02104K	2.00	SBB1K02104K	2.08	SDA1K02104K	2.08	SDB1K02104K	2.16
.15	200	SBA1K02154K	2.04	SBB1K02154K	2.08	SDA1K02154K	2.20	SDB1K02154K	2.28
.22	200	SBA1K02224K	2.16	SBB1K02224K	2.20	SDA1K02224K	2.32	SDB1K02224K	2.40
.33	200	SBA1K02334K	2.28	SBB1K02334K	2.36	SDA1K02334K	2.48	SDB1K02334K	2.56
.39	200	SBA1K02394K	2.36	SBB1K02394K	2.44	SDA1K02394K	2.52	SDB1K02394K	2.64
.47	200	SBA1K02474K	2.44	SBB1K02474K	2.52	SDA1K02474K	2.64	SDB1K02474K	2.72
.68	200	SBA1K02684K	2.56	SBB1K02684K	2.64	SDA1K02684K	2.88	SDB1K02684K	2.96
.82	200	SBA1K02824K	2.56	SBB1K02824K	2.76	SDA1K02824K	2.92	SDB1K02824K	3.00
1.0	200	SBA1K02105K	2.80	SBB1K02105K	2.88	SDA1K02105K	3.00	SDB1K02105K	3.08
.0082	400	SBA1K04822K	1.88	SBB1K04822K	1.96	SDA1K04822K	2.04	SDB1K04822K	2.12
.01	400	SBA1K04103K	1.92	SBB1K04103K	1.96	SDA1K04103K	2.04	SDB1K04103K	2.12
.033	400	SBA1K04333K	2.00	SBB1K04333K	2.04	SDA1K04333K	2.12	SDB1K04333K	2.20
.047	400	SBA1K04473K	2.04	SBB1K04473K	2.12	SDA1K04473K	2.16	SDB1K04473K	2.24
.068	400	SBA1K04683K	2.08	SBB1K04683K	2.16	SDA1K04683K	2.24	SDB1K04683K	2.32
.082	400	SBA1K04823K	2.12	SBB1K04823K	2.16	SDA1K04823K	2.28	SDB1K04823K	2.36
.1	400	SBA1K04104K	2.16	SBB1K04104K	2.24	SDA1K04104K	2.32	SDB1K04104K	2.40
.15	400	SBA1K04154K	2.28	SBB1K04154K	2.36	SDA1K04154K	2.48	SDB1K04154K	2.56
.22	400	SBA1K04224K	2.44	SBB1K04224K	2.52	SDA1K04224K	2.60	SDB1K04224K	2.68
.33	400	SBA1K04334K	2.56	SBB1K04334K	2.64	SDA1K04334K	2.88	SDB1K04334K	2.96
.47	400	SBA1K04474K	2.80	SBB1K04474K	2.88	SDA1K04474K	3.00	SDB1K04474K	3.12
.68	400	SBA1K04684K	3.00	SBB1K04684K	3.08	SDA1K04684K	3.12	SDB1K04684K	3.24
.82	400	SBA1K04824K	3.16	SBB1K04824K	3.24	----------	-----	----------	-----
1.0	400	SBA1K04105K	3.36	SBB1K04105K	3.48	----------	-----	----------	-----
.0015	600	SBA1K06152K	1.88	SBB1K06152K	1.92	SDA1K06152K	1.96	SDB1K06152K	2.00
.0022	600	SBA1K06222K	1.88	SBB1K06222K	1.92	SDA1K06222K	1.96	SDB1K06222K	2.04
.0047	600	SBA1K06472K	1.92	SBB1K06472K	1.96	SDA1K06472K	2.04	SDB1K06472K	2.12
.0068	600	SBA1K06682K	1.92	SBB1K06682K	2.00	SDA1K06682K	2.04	SDB1K06682K	2.12
.0082	600	SBA1K06822K	1.92	SBB1K06822K	2.04	SDA1K06822K	2.08	SDB1K06822K	2.12
.01	600	SBA1K06103K	1.96	SBB1K06103K	2.04	SDA1K06103K	2.08	SDB1K06103K	2.12
.015	600	SBA1K06153K	2.00	SBB1K06153K	2.08	SDA1K06153K	2.16	SDB1K06153K	2.20
.022	600	SBA1K06223K	2.00	SBB1K06223K	2.12	SDA1K06223K	2.16	SDB1K06223K	2.24
.033	600	SBA1K06333K	2.08	SBB1K06333K	2.16	SDA1K06333K	2.16	SDB1K06333K	2.24
.047	600	SBA1K06473K	2.12	SBB1K06473K	2.20	SDA1K06473K	2.28	SDB1K06473K	2.32
.068	600	SBA1K06683K	2.20	SBB1K06683K	2.32	SDA1K06683K	2.40	SDB1K06683K	2.48
.1	600	SBA1K06104K	2.32	SBB1K06104K	2.44	SDA1K06104K	2.48	SDB1K06104K	2.56
.15	600	SBA1K06154K	2.40	SBB1K06154K	2.52	SDA1K06154K	2.64	SDB1K06154K	2.72
.22	600	SBA1K06224K	2.60	SBB1K06224K	2.80	SDA1K06224K	2.92	SDB1K06224K	3.00
.39	600	SBA1K06394K	2.96	SBB1K06394K	3.12	SDA1K06394K	3.16	SDB1K06394K	3.24
.47	600	SBA1K06474K	3.04	SBB1K06474K	3.20	SDA1K06474K	3.24	SDB1K06474K	3.36
.68	600	SBA1K06684K	3.20	SBB1K06684K	3.52	SDA1K06684K	3.40	----------	-----
.82	600	SBA1K06824K	3.32	SBB1K06824K	3.52	----------	-----	----------	-----
1.0	600	SBA1K06105K	3.40	SBB1K06105K	3.72	----------	-----	----------	-----

*Prices for larger quantities are available on request.
†For ±5% tolerance add 30% to above price.

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SANGAMO ELECTRIC COMPANY

capacitors

SANGAMO ELECTRONIC COMPONENTS

Types 40-41-42-43 PAPER

Sangamo Types 40, 41, 42 and 43 paper dielectric capacitors are ideal for use in high voltage filter applications. Enclosed in aluminum containers, they mount to the chassis by means of a 3/4-16 threaded neck. In the Types 40 and 42, one connection is provided by an insulated terminal and the other is provided by the case and washer with a solder lug. In the Types 41 and 43, both terminals are completely insulated from the case. Each of the 4 types is provided with mounting nut and lockwasher. The Types 40 and 41 are impregnated with Diaclor to provide an F characteristic. Types 42 and 43 are impregnated with mineral oil to provide an E characteristic. All units are designed in accordance with electrical characteristics of MIL-C-25.

For more complete information write for Bulletin 2423.

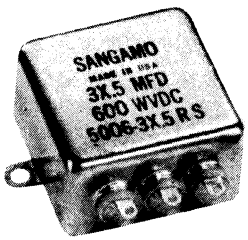
Types 40 42

Types 41 43

Catalog Number	Military Type Designation	Cap. (Mfd)	Rated Volts d-c	Net Price 1-9*	Catalog Number	Military Type Designation	Cap. (Mfd)	Rated Volts d-c	Net Price 1-9*
4006-1	CP40B2FF105K	1.0	600	$3.81	4106-1	CP41B1FF105K	1.0	600	3.91
4206-1	CP40B2EF105K	1.0	600	3.81	4306-1	CP41B1EF105K	1.0	600	3.91
4006-2	CP40B2FF205K	2.0	600	3.95	4106-2	CP41B1FF205K	2.0	600	4.05
4206-2	CP40B2EF205K	2.0	600	3.95	4306-2	CP41B1EF205K	2.0	600	4.05
4006-3	----------	3.0	600	4.40	4106-3	----------	3.0	600	4.50
4206-3	----------	3.0	600	4.40	4306-3	----------	3.0	600	4.50
4006-4	CP40B2FF405K	4.0	600	5.13	4106-4	CP41B1FF405K	4.0	600	5.23
4206-4	CP40B2EF405K	4.0	600	5.13	4306-4	CP41B1EF405K	4.0	600	5.23
4010-1	CP40B2FG105K	1.0	1000	3.54	4110-1	CP41B1FG105K	1.0	1000	3.64
4210-1	CP40B2EG105K	1.0	1000	3.54	4310-1	CP41B1EG105K	1.0	1000	3.64
4010-2	CP40B2FG205K	2.0	1000	4.54	4110-2	CP41B1FG205K	2.0	1000	4.64
4210-2	CP40B2EG205K	2.0	1000	4.54	4310-2	CP41B1EG205K	2.0	1000	4.64
4015-.25	CP40B2FH254K	.25	1500	4.18	4115-.25	CP41B1FH254K	.25	1500	4.28
4215-.25	CP40B2EH254K	.25	1500	4.18	4315-.25	CP41B1EH254K	.25	1500	4.28
4015-.5	CP40B2FH504K	.5	1500	4.49	4115-.5	CP41B1FH504K	.5	1500	4.59
4215-.5	CP40B2EH504K	.5	1500	4.49	4315-.5	CP41B1EH504K	.5	1500	4.59
4015-1.0	CP40B2FH105K	1.0	1500	4.95	4115-1.0	CP41B1FH105K	1.0	1500	5.05
4215-1.0	CP40B2EH105K	1.0	1500	4.95	4315-1.0	CP41B1EH105K	1.0	1500	5.05

*Prices for larger quantities are available on request.
Note: Standard capacitive tolerance ±10%

Type 50 PAPER



Sangamo Type 50 paper dielectric capacitors are primarily intended for bypass applications. They are non-inductively wound, supplied in fractional capacitive values and will provide efficient and continuous operation in coupling and bypass circuits. These capacitors are impregnated with mineral oil and may be operated under severe humidity conditions at temperatures between -55° and 85°C. All units are designed in accordance with electrical characteristics of MIL-C-25.

For more complete information write for Bulletin 2423.

Catalog Number	Military Type Designation	Cap. (Mfd)	Dimensions (inches) Length	Width	Height	Net Price 1-9*
100 W.V.D.C.						
50V01-1RS	----------	1.0	1-13/16	1	7/8	$2.34
50V01-2RS	----------	2.0	2	1-3/4	1	2.83
50V01-4RS	CP53B1EB405K1	4.0	2	2	1-1/8	3.43
----------	CP53B1FB405K1	4.0	2	2	1	3.43
----------	CP53B1FB106K1	10.0	2	2	1-1/8	6.11
200 W.V.D.C.						
50V02-.25RS	----------	.25	1-13/16	1	3/4	1.98
50V02-.5RS	CP53B1FC504K1	.5	1-13/16	1	3/4	2.02
50V02-1RS	CP53B1EC105K1	1.0	2	1-3/4	7/8	2.43
50V02-2RS	CP53B1EC205K1	2.0	2	2	1	3.07
400 W.V.D.C.						
50V04-.05RS	----------	.05	1-13/16	1	3/4	1.81
50V04-.1RS	----------	.1	1-13/16	1	3/4	1.90
----------	CP53B1KE104K1	.1	1-13/16	1	3/4	2.09
50V04-.5RS	----------	.5	1-13/16	1	3/4	2.18
----------	CP53B1KE105K1	1.0	2	1-3/4	7/8	2.79
50V04-2RS	----------	2.0	2	2	1-1/8	3.25
50X04-2X.1RS	----------	2X.1	1-13/16	1	3/4	2.59
50X04-2X.25RS	----------	2X.25	2	1-3/4	7/8	3.03
50X04-2X1RS	----------	2X1.0	2	2	1-1/8	3.77
50Y04-3X.05RS	----------	3X.05	1-13/16	1	3/4	2.92
50Y04-3X.1RS	----------	3X.1	1-13/16	1	3/4	3.03
50Y04-3X.5RS	CP53B5EE504V1	3X.5	2	2	1-1/8	4.07

Catalog Number	Military Type Designation	Cap. (Mfd)	Dimensions (inches) Length	Width	Height	Net Price 1-9*
600 W.V.D.C.						
50V06-.05RS	----------	.05	1-13/16	1	3/4	$1.88
50V06-.1RS	----------	.1	1-13/16	1	3/4	1.98
50V06-.25RS	CP53B1EF254K1	.25	1-13/16	1	3/4	2.03
50V06-.5RS	CP53B1EF504K1	.5	1-13/16	1	1	2.17
50V06- 1RS	CP53B1EF105K1	1.0	2	1-3/4	7/8	2.53
50V06- 2RS	CP53B1EF205K1	2.0	2	2	1-1/8	3.36
50X06-2X.1RS	CP53B4EF104V1	2X.1	1-13/16	1	3/4	2.67
----------	CP53B4EF254V1	2X.25	1-13/16	1	1	2.75
----------	CP53B4EF504V1	2X.5	2	1-3/4	1	3.11
50X06-2X.5RS	CP53B4FF504V1	2X.5	2	1-3/4	7/8	3.11
50X06-2X1RS	CP53B4EF105V1	2X1.0	2	2	1-1/8	3.77
----------	CP53B5EF104V1	3X.1	1-13/16	1	7/8	3.05
50Y06-3X.25RS	CP53B5EF254V1	3X.25	2	1-3/4	7/8	3.41
50Y06-3X.5RS	CP53B5EF504V1	3X.5	2	2	1-1/8	4.20
1000 W.V.D.C.						
50V10-.1RS	CP53B1EG104K1	.1	1-13/16	1	3/4	2.07
50V10-.25RS	CP53B1EG254K1	.25	1-13/16	1	7/8	2.13
50V10-.5RS	CP53B1EG504K1	.5	2	1-3/4	7/8	2.28
50V10-1RS	CP53B1EG105K1	1.0	2	2	1-1/8	3.11
50X10-2X.1RS	CP53B4EG104V1	2X.1	1-13/16	1	3/4	2.77
50X10-2X.25RS	CP53B4EG254V1	2X.25	2	1-3/4	7/8	3.03
50X10-2X.5RS	CP53B4EG504V1	2X.5	2	2	1-1/8	3.94
50Y10-3X.1RS	CP53B5EG104V1	3X.1	2	1-3/4	7/8	3.41
50Y10-3X.25RS	CP53B5EG254V1	3X.25	2	2	1-1/8	4.23

*Prices for larger quantities are available on request.
Note: Standard capacitive tolerance ±10%.
Note: Capacitors are normally supplied with side terminals unless otherwise specified.

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SANGAMO ELECTRIC COMPANY

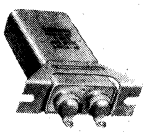
capacitors

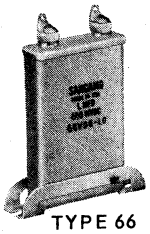
ELECTRONIC COMPONENTS

Types 60- 62- 64- 66- 68 PAPER

TYPE 60

TYPE 62


TYPE 64


TYPE 66

TYPE 68

Sangamo Types 60, 62, 64, 66 and 68 are non-inductively wound paper capacitors, impregnated with mineral oil and hermetically sealed in drawn metal cans. The mineral oil assures dependable service between the temperature range of -55° to +85°C. All units are designed in accordance with the electrical characteristics of MIL-C-25 specification. Mounting brackets are supplied on units as shown.

For more complete information write for Bulletin 2423.

Catalog Number	Military Type Designation	Cap. (Mfd)	(Dimensions (inches) Length	Width	Height	Net Price 1-9*
400 W.V.D.C.						
60V04-.05	----------	.05	1-5/16	.625	1-1/16	$1.81
60V04-.1	CP91B1KE104K1	.1	1-5/16	.625	1-1/16	1.91
60V04-.5	----------	.5	1-5/16	.625	1-5/8	2.03
60V04-1	CP91B1EE105K1	1.0	1-5/16	.625	2-1/2	2.29
60X04-2X.05	CP91B6EE503V1	2X.05	1-5/16	.625	1-1/16	2.13
60X04-2X.1	CP91B6EE104V1	2X.1	1-5/16	.625	1-3/8	2.22
60X04-2X.25	----------	2X.25	1-5/16	.625	1-3/8	2.39
----------	CP91B6EE504V1	2X.5	1-5/16	.625	2-1/2	2.77
62V04-.05	----------	.05	2-5/16	.766	1-1/16	1.89
62V04-.5	----------	.5	2-5/16	.766	1-5/8	2.11
----------	CP63B1KE504K1	.5	2-5/16	.766	2	1.43
62V04-1	CP63B1EE105K1	1.0	2-5/16	.766	2-1/2	2.37
62X04-2X.05	CP63B6EE503K1	2X.05	2-5/16	.766	1-1/16	2.21
62X04-2X.1	CP63B6EE104K1	2X.1	2-5/16	.766	1-3/8	2.30
62X04-2X.25	----------	2X.25	2-5/16	.766	1-3/8	2.47
----------	CP63B6EE504K1	2X.5	2-5/16	.766	2-1/2	2.85
64V04-.05	----------	.05	2-5/16	.766	1-1/16	1.89
64V04-.1	CP65B1KE104K1	.1	2-5/16	.766	1-1/16	1.99
64V04-.25	CP65B1KE254K1	.25	2-5/16	.766	1-3/8	2.05
64V04-.5	----------	.5	2-5/16	.766	1-5/8	2.11
64V04-1	CP65B1EE105K1	1.0	2-5/16	.766	2-1/2	2.37
64X04-2X.05	CP65B6EE503K1	2X.05	2-5/16	.766	1-1/16	2.21
64X04-2X.1	CP65B6EE104K1	2X.1	2-5/16	.766	1-3/8	2.30
64X04.2X.25	----------	2X.25	2-5/16	.766	1-3/8	2.47
----------	CP65B6EE504K1	2X.5	2-5/16	.766	2-1/2	2.85
600 W.V.D.C.						
60V06-.01	----------	.01	1-5/16	.625	1-1/16	1.81
60V06-.05	CP91B1EF503K1	.05	1-5/16	.625	1-1/16	1.86
60V06-.1	----------	.1	1-5/16	.625	1-3/8	1.94
60V06-.25	CP91B1EF254K1	.25	1-5/16	.625	1-5/8	2.01
60V06-.5	CP91B1EF504K1	.5	1-5/16	.625	2	2.08
60V06-1.0	CP91B1EF105K1	1.0	1-5/16	.625	2-3/4	2.34
60V06-2.0	----------	2.0	2-1/4	1.188	1-3/16	4.22
60X06-2X.1	CP91B6EF104V1	2X.1	1-5/16	.625	1-5/8	2.26
60X06-2X.25	CP91B6EF254V1	2X.25	1-5/16	.625	2	2.44
60X06-2X.5	CP91B6EF504V1	2X.5	1-5/16	.625	2-3/4	2.83
62V06-.25	CP63B1EF254K1	.25	2-5/16	.766	1-5/8	2.09
62V06-.5	CP63B1EF504K1	.5	2-5/16	.766	2	2.16
62V06-1.0	CP63B1EF105K1	1.0	2-5/16	.766	2-3/4	2.42
64V06-.25	CP65B1EF254K1	.25	2-5/16	.766	1-5/8	2.09
64V06-.5	CP65B1EF504K1	.5	2-5/16	.766	2	2.16
64V06-1.0	CP65B1EF105K1	1.0	2-5/16	.766	2-3/4	2.42
64X06-2X.1	CP65B6EF104K1	2X.1	2-5/16	.766	1-5/8	2.34
64X06-2X.25	CP65B6EF254K1	2X.25	2-5/16	.766	2	2.52
64X06-2X.5	CP65B6EF504K1	2X.5	2-5/16	.766	2-3/4	2.91

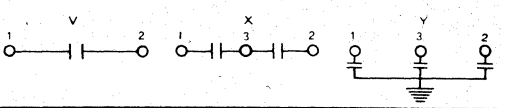
Catalog Number	Military Type Designation	Cap. (Mfd)	Dimensions (inches) Length	Width	Height	Net Price 1-9*
600 W.V.D.C. (Cont'd.)						
----------	CP67B1FF105K1	1.0	2-7/16	.640	1-1/16	$2.78
66X06-2X.1	CP67B1EF104V1	2X.1	2-7/16	.640	1-1/2	2.85
66X06-2X.25	CP67B4EF254V1	2X.25	2-7/16	.640	2	3.06
66X06-2X.5	CP67B4EF504V1	2X.5	2-7/16	.640	2-3/4	3.34
66Y06-3X.1	CP67B5EF104V1	3X.1	2-7/16	.640	1-1/2	3.42
66Y06-3X.25	CP67B5EF254V1	3X.25	2-7/16	.640	2-3/4	3.67
68V06-.1	CP69B1EF104K1	.1	2-7/16	.640	1-1/16	2.36
68V06-.25	CP69B1EF254K1	.25	2-7/16	.640	1-1/2	2.43
68V06-.5	CP69B1EF504K1	.5	2-7/16	.640	2	2.52
68V06-1.0	CP69B1EF105K1	1.0	2-7/16	.640	2-3/4	2.78
68X06-2X.1	CP69B4EF104V1	2X.1	2-7/16	.640	1-1/2	2.85
68X06-2X.25	CP69B4EF254V1	2X.25	2-7/16	.640	2	3.06
68X06-2X.5	CP69B4EF504V1	2X.5	2-7/16	.640	2-3/4	3.34
68Y06-3X.1	CP69B5EF104V1	3X.1	2-7/16	.640	1-1/2	3.42
68Y06-3X.25	CP69B5EF254V1	3X.25	2-7/16	.640	2-3/4	3.67
1000 W.V.D.C.						
60V10-.05	CP91B1EG503K1	.05	1-5/16	.625	1-3/8	1.93
60V10-.1	CP91B1EG104K1	.1	1-5/16	.625	1-3/8	2.00
60V10-.5	CP91B1EG504K1	.5	1-5/16	.625	2-3/4	2.25
60V10-1.0	----------	1.0	2-1/4	1.188	1-3/16	2.65
60X10-2X.05	CP91B6EG503V1	2X.05	1-5/16	.625	1-3/8	2.25
60X10-2X.25	CP91B6EG254V1	2X.25	1-5/16	.625	2-3/4	2.52
62V10-.25	CP63B1EG254K1	.25	2-5/16	.766	2	2.14
62V10-.5	CP63B1EG504K1	.5	2-5/16	.766	2-3/4	2.33
62X10-2X.05	CP63B6EG503K1	2X.05	2-5/16	.766	1-3/8	2.33
62X10-2X.01	CP63B6EG104K1	2X.1	2-5/16	.766	2	2.46
62X10-2X.25	CP63B6EG254K1	2X.25	2-5/16	.766	2-3/4	2.60
64V10-.25	CP65B1EG254K1	.25	2-5/16	.766	2	2.14
64V10-.5	CP65B1EG504K1	.5	2-5/16	.766	2-3/4	2.33
64X10-2X.05	CP65B6EG503K1	2X.05	2-5/16	.766	1-3/8	2.33
64X10-2X.25	CP65B6EG254K1	2X.25	2-5/16	.766	2-3/4	2.60
66V10-.1	CP67B1EG104K1	.1	2-7/16	.640	1-1/2	2.39
66V10-.5	CP67B1EG504K1	.5	2-7/16	.640	2-3/4	2.68
66X10-2X.1	CP67B4EG104V1	2X.1	2-7/16	.640	2	2.95
66X10-2X.25	CP67B4EG254V1	2X.25	2-7/16	.640	2-3/4	3.13
66Y10-3X.05	CP67B5EG503V1	3X.05	2-7/16	.640	1-1/2	3.40
66Y10-3X.1	CP67B5EG104V1	3X.1	2-7/16	.640	2-1/2	3.52
68V10-.1	CP69B1EG104K1	.1	2-7/16	.640	1-1/2	2.39
68V10-.25	CP69B1EG254K1	.25	2-7/16	.640	2	2.46
68X10-2X.05	CP69B4EG503V1	2X.05	2-7/16	.640	1-1/2	2.83
68X10-2X.25	CP69B4EG254V1	2X.25	2-7/16	.640	2-3/4	3.13
68Y10-3X.1	CP69B5EG104V1	3X.1	2-7/16	.640	2-1/2	3.52

*Prices on larger quantities are available on request.

Note: Standard tolerance on all single section capacitors is ±10% and +20, -10% on all multiple section capacitors.

Note: Type 60 can be furnished with spade or footed brackets. Add $0.20 to above prices when required.

Note: Letter V, X and Y denote electrical circuit as follows:



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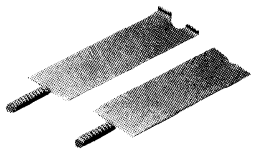
Type 75 MOTOR-RUN AND BALLAST CAPACITORS



SPADE BRACKET

The Sangamo Type 75 paper dielectric capacitors are designed for use in motor-run, ballast and light-duty power factor correction applications. These units are impregnated with Sangamo Diaclor A – a highly refined, electrically stable, non-inflammable dielectric oil that is recommended for use in continuous A.C. duty at ambient temperatures up to +70°C. ***For more complete information write for Bulletin 2424.***

Catalog Number	Cap. (Mfd)	Rated Volts A.C.	Base Dimensions L±1/16	Base Dimensions W±1/16	Height ±1/16	Net Price 1-9*
7522-1	1.0	220	1-13/16	1-1/16	1-5/8	$ 3.80
7522-2	2.0	220	1-13/16	1-1/16	2-1/4	4.55
7522-4	4.0	220	1-13/16	1-1/16	3-1/4	5.32
7522-5	5.0	220	2-1/2	1-3/16	2-7/8	5.61
7522-7.5	7.5	220	2-1/2	1-3/16	3-7/8	7.24
7522-10	10.0	220	2-1/2	1-3/16	4-3/4	8.56
7522-12	12.0	220	3-3/4	1-1/4	3-7/8	9.79
7522-20	20.0	220	3-3/4	1-3/4	4	16.01
7522-25	25.0	220	3-3/4	2-1/4	4-1/8	20.01
7522-30	30.0	220	3-3/4	2-1/2	4-3/4	25.10
7522-35	35.0	220	3-3/4	3-3/16	4-1/2	29.00
7522-40	40.0	220	3-3/4	3-3/16	4-3/4	33.57
7522-50	50.0	220	4-9/16	3-3/4	4-1/4	38.10
7522-60	60.0	220	4-9/16	3-3/4	4-3/4	46.85
7533-2	2.0	330	1-13/16	1-1/16	2-7/8	4.65
7533-4	4.0	330	1-13/16	1-1/16	4-3/4	6.01
7533-6	6.0	330	2-1/2	1-3/16	3-7/8	7.34
7533-10	10.0	330	3-3/4	1-1/4	3-7/8	10.01
7533-12	12.0	330	3-3/4	1-3/4	3-7/8	12.00
7533-15	15.0	330	3-3/4	1-3/4	4-1/4	13.33
7533-20	20.0	330	3-3/4	2-1/4	4-1/2	15.99
7533-25	25.0	330	3-3/4	2-1/2	4-3/4	20.01
7533-30	30.0	330	3-3/4	3-3/16	4-1/2	24.16
7533-40	40.0	330	3-3/4	3-3/16	5-1/2	29.90
7533-45	45.0	330	4-9/16	3-3/4	4-1/2	33.73
7533-55	55.0	330	4-9/16	3-3/4	5-1/8	38.65

Catalog Number	Cap. (Mfd)	Rated Volts A.C.	Base Dimensions L±1/16	Base Dimensions W±1/16	Height ±1/16	Net Price 1-9*
7544-2	2.0	440	1-13/16	1-1/16	3-1/4	$ 5.63
7544-3	3.0	440	1-13/16	1-1/16	4-3/4	6.55
7544-3.75	3.75	440	2-1/2	1-3/16	3-7/8	6.88
7544-4	4.0	440	2-1/2	1-3/16	3-7/8	6.88
7544-8	8.0	440	3-3/4	1-1/4	4-1/4	10.12
7544-10	10.0	440	3-3/4	2-1/4	3-3/8	11.30
7544-15	15.0	440	3-3/4	2-1/4	4-1/2	13.65
7544-20	20.0	440	3-3/4	3-3/16	4-1/8	16.51
7544-30	30.0	440	3-3/4	3-3/16	5-1/2	24.39
7544-35	35.0	440	4-9/16	3-3/4	4-1/2	26.13
7544-40	40.0	440	4-9/16	3-3/4	5-1/8	27.63
7544-50	50.0	440	4-9/16	3-3/4	6	30.50
7544-55	55.0	440	4-9/16	3-3/4	6-3/4	32.36
7566-1	1.0	660	1-13/16	1-1/16	3-7/8	4.83
7566-2	2.0	660	2-1/2	1-3/16	3-7/8	6.07
7566-8	8.0	660	3-3/4	2-1/4	3-7/8	11.30
7566-20	20.0	660	4-9/16	3-3/4	4-1/4	17.50
7566-30	30.0	660	4-9/16	3-3/4	6	21.80

*Price for larger quantities are available on request.
Note: Standard tolerance ±10%
Note: All dimensions in inches
Note: Spade Type, footed or universal wrap-around brackets can be furnished at additional cost.

Type 80 Ballast and Motor-Run Capacitors

The Sangamo Type 80 capacitors are impregnated with Sangamo Diaclor A and hermetically sealed in drawn oval metal containers. They are specifically used in flourescent-light ballast, heating, ventilating and air conditioning motor-run applications. They are designed for use in continuous A.C. duty.
For more complete information write for Bulletin 2424.

Catalog Number	Cap. (Mfd)	Rated Volts A.C.	Base Dimensions L±1/16	Base Dimensions W±1/16	Height ±1/16	Net Price 1-9*
8022-2	2.0	220	2-1/16	1-1/4	2-1/4	$ 2.86
8022-3	3.0	220	2-1/16	1-1/4	2-1/4	2.99
8022-4	4.0	220	2-1/16	1-1/4	2-7/8	3.26
8022-5	5.0	220	2-1/16	1-1/4	2-7/8	3.65
8022-6	6.0	220	2-1/16	1-1/4	3-3/4	4.40
8022-7.5	7.5	220	2-13/16	2-1/8	2-17/32	6.44
8022-10	10.0	220	2-13/16	2-1/8	3-1/32	7.46
8022-20	20.0	220	2-13/16	2-1/8	5	11.77
8033-2	2.0	330	2-1/16	1-1/4	2-1/4	3.10
8033-3	3.0	330	2-1/16	1-1/4	2-7/8	3.14
8033-4	4.0	330	2-1/16	1-1/4	3-1/8	3.26
8033-5	5.0	330	2-1/16	1-1/4	3-3/4	4.19
8033-6	6.0	330	2-1/16	1-1/4	3-3/4	5.34
8033-8	8.0	330	2-13/16	2-1/8	3-3/8	7.02
8033-10	10.0	330	2-13/16	2-1/8	3-3/8	7.54
8033-15	15.0	330	2-13/16	2-1/8	4-21/32	9.13
8033-20	20.0	330	2-13/16	2-1/8	5-3/16	11.94
8033-25	25.0	330	2-13/16	2-1/8	6-7/8	13.85
8033-30	30.0	330	2-13/16	2-1/8	8	15.80

Catalog Number	Cap. (Mfd)	Rated Volts A.C.	Base Dimensions L±1/16	Base Dimensions W±1/16	Height ±1/16	Net Price 1-9*
8044-2	2.0	440	2-1/16	1-1/4	2-1/4	$ 3.80
8044-3	3.0	440	2-1/16	1-1/4	3-1/8	4.04
8044-4	4.0	440	2-1/16	1-1/4	3-3/4	4.49
8044-5	5.0	440	2-13/16	2-1/8	2-17/32	5.63
8044-6	6.0	440	2-13/16	2-1/8	2-25/32	6.63
8044-8	8.0	440	2-13/16	2-1/8	3-25/32	7.80
8044-10	10.0	440	2-13/16	2-1/8	4-5/32	7.92
8044-15	15.0	440	2-13/16	2-1/8	6-1/4	11.00
8044-20	20.0	440	2-13/16	2-1/8	7-3/8	12.40
8066-1	1.0	660	2-1/16	1-1/4	2-1/4	3.52
8066-3	3.0	660	2-13/16	2-1/8	2-25/32	5.92
8066-5	5.0	660	2-13/16	2-1/8	4-5/32	8.25
8066-6	6.0	660	2-13/16	2-1/8	4-21/32	9.57
8066-8	8.0	660	2-13/16	2-1/8	5-3/16	10.52
8066-10	10.0	660	2-13/16	2-1/8	6-1/8	11.00

*Prices for larger quantities are available on request.
Note: Standard tolerance ±10%
Note: All dimensions in inches

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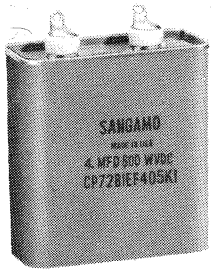
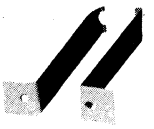
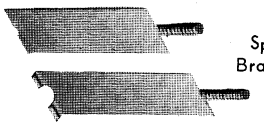
MIL Type CP72 PAPER





Footed Brackets



Spade Brackets

Type CP72 capacitors are furnished in drawn metal cases and are designed to comply with the requirements of specification MIL-C-25. They are impregnated with various dielectric oils to guarantee the desired electrical characteristics available. Capacitors rated at 3000 volts or less are normally supplied with solder lug (B) terminals capable of accomodating a #14AWG wire. Type D and E terminals may be substituted if desired. If brackets are required, specify a choice of spade, lug or footed type.

For more complete information write for Bulletin 2423.

Military Type Designation	Cap. (Mfd)	Dimensions (inches) L±1/16	W±1/16	H±1/16†	Net Price 1-9*	Bracket Price Per Pr.
600 WVDC						
CP72B1EF254K1	.25	1-13/16	1-1/16	1-5/8	$ 1.90	$0.15
CP72B1EF105K1	1.0	1-13/16	1-1/16	2-1/4	2.20	0.15
CP72B1EF405K1	4.0	2- 1/2	1-3/16	3-1/2	4.00	0.16
CP72B1EF106K1	10.0	3- 3/4	1-3/4	4	6.80	0.26
1000 WVDC						
CP72B1EG504K1	.5	1-13/16	1-1/16	2-1/4	2.50	0.15
CP72B1EG205K1	2.0	1-13/16	1-1/16	2-7/8	2.74	0.16
CP72B1EG605K1	6.0	3- 3/4	1-3/4	4	5.90	0.26
CP72B1EG106K1	10.0	3- 3/4	2-1/4	4-3/4	8.10	0.27
1500 WVDC						
CP72B1EH105K1	1.0	1-13/16	1-1/16	4-3/4	3.00	0.16
CP72B1EH405K1	4.0	3- 3/4	1-3/4	4-1/4	6.15	0.26
CP72B1EH805K1	8.0	3- 3/4	2-1/2	5-3/4	10.60	0.27
CP72B1EH156K1	15.0	4- 9/16	3-3/4	6	17.00	0.54
2000 WVDC						
CP72E1EJ504K1	.5	2- 1/2	1-3/16	2-7/8	4.60	0.15
CP72E1EJ105K1	1.0	2- 1/2	1-3/16	4-3/4	5.40	0.16
CP72E1EJ605K1	6.0	3- 3/4	3-3/16	5-1/2	12.80	0.60
CP72E1EJ106K1	10.0	4- 9/16	3-3/4	6-1/2	18.80	0.57

Catalog Number	Cap. (Mfd)	Dimensions (inches) L±1/16	W±1/16	H±1/16†	Net Price 1-9*	Bracket Price Per Pr.
2500 WVDC						
CP72E1EK104K1	.1	2- 1/2	1-3/16	2-1/2	6.00	0.15
CP72E1EK105K1	1.0	3- 3/4	1-3/4	3-7/8	8.80	0.16
CP72E1EK205K1	2.0	3- 3/4	2-1/4	4-3/4	12.00	0.27
CP72E1EK405K1	4.0	4- 9/16	3-3/4	4-3/8	17.40	0.57
4000 WVDC						
CP72E1EM104K1	.1	3- 3/4	2-1/4	2-3/4	10.20	0.27
CP72E1EM254K1	.25	3- 3/4	2-1/4	3-7/8	11.20	0.27
CP72E1EM504K1	.5	3- 3/4	2-1/4	4-3/4	13.40	0.27
CP72E1EM105K1	1.0	3- 3/4	3-3/16	4-3/4	16.50	0.27
6000 WVDC						
CP72D1EP254K1	.25	3- 3/4	2-1/4	4-3/4	15.00	0.27
CP72D1EP504K1	.5	4- 9/16	3-3/4	4-3/4	19.20	0.54
CP72D1EP105K1	1.0	4- 9/16	3-3/4	9-5/8	36.20	0.60
CP72D1EP205K1	2.0	13- 1/2	4-1/8	7	85.00	1.50
7500 WVDC						
CP72D1ER254K1	.25	4- 9/16	3-3/4	4-3/8	20.80	0.57
CP72D1ER504K1	.5	4- 9/16	3-3/4	6	28.50	0.54
CP72D1ER105K1	1.0	8	4	9-1/4	68.00	1.10
CP72D1ER205K1	2.0	13- 1/2	4-1/8	9-1/4	125.00	1.60
12,500 WVDC						
CP72D1ET104K1	.1	8	4	5-1/2	67.00	0.60
CP72D1ET504K1	.5	13- 1/2	4-1/8	7	85.50	1.50
CP72D1ET105K1	1.0	13- 1/2	5-1/8	12-7/8	147.00	1.80
CP72D1ET205K1	2.0	13- 1/2	5-1/8	13-3/4	153.00	1.80

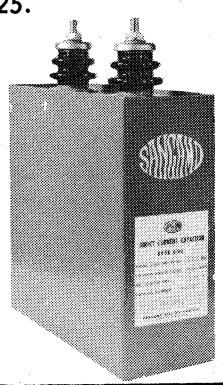
*Prices for larger quantities available on request.
†Height does not include terminals.
Note: Standard capacitive tolerance ±10%

Note: Currently stocked as CP70; CP72 stock added as orders dictate.

Type HVC HIGH VOLTAGE PAPER CAPACITORS

Sangamo Type HVC High Voltage capacitors are impregnated with a halogenated hydrocarbon called Diaclor B. This oil provides the desirable electrical performance characteristics for the most severe applications. They are sealed in shock and vibration resistant drawn rectangular or cold-rolled steel cases. The absence of solder seams eliminates oil leakage and contamination from solder flux. A wide variety of capacitance ranges are available in voltage ratings up to 50,000 volts d-c. Spade, footed or wrap-around brackets are optional at extra cost, but will not be furnished unless requested. When choice of brackets is not indicated, spade type will be supplied.

For more complete information write for Bulletin 2425.



Catalog Number	Cap. (Mfd)	Rated Volts d-c	Case Dimensions (inches) L±1/16	W±1/16	H±1/16	Net Price 1-9*	Bracket Price Per Pr.
702012-9401	100	600	4-9/16	3-3/4	9-1/2	$ 35.00	$0.55
702012-7503	30	1000	4-9/16	3-3/4	4-3/8	18.40	0.55
702013-0708	100	1500	8	4	11	46.00	1.10
702013-3107	250	1500	13-1/2	5-1/8	12-7/8	105.00	1.80
702012-7801	10	2000	4-9/16	3-3/4	4-3/4	14.30	0.55
702013-0207	30	2000	8	4	7	35.25	1.10
702013-3108	150	2000	13-1/2	5-1/8	12-7/8	106.00	1.80
702013-6604	100	2500	13-1/2	5-1/8	12-7/8	105.00	1.80
702012-7403	4	3000	4-9/16	3-3/4	4-1/4	15.80	0.55
702012-9101	10	3000	4-9/16	3-3/4	8-1/2	28.60	0.55
702013-2904	50	3000	13-1/2	4-1/8	12-7/8	100.00	1.50
702012-4203	1.0	4000	3-3/4	1-3/4	4-1/2	9.70	0.25
702013-9301	20	4000	8	4	11	37.50	1.10
702013-7401	30	4000	13-1/2	4-1/8	9-1/4	85.50	1.50
702013-4101	50	4000	13-1/2	5-1/8	11	109.00	1.80
702013-0402	10	5000	8	4	9-1/4	39.50	1.10
702013-7601	20	5000	13-1/2	4-1/8	9-1/4	81.00	1.50
702013-2201	30	5000	13-1/2	4-1/8	12-7/8	95.00	1.50
702013-6601	25	6000	13-1/2	4-1/8	9-1/4	105.00	1.80
702012-8904	1.0	10KV	4-9/16	3-3/4	7-1/2	27.00	0.55
702013-6701	10.	10KV	13-1/2	5-1/8	12-7/8	109.00	1.80
702013-7802	3.5	12.5KV	13-1/2	4-1/8	11	86.00	1.50
702013-9501	2.5	12.5KV	13-1/2	4-1/8	11	87.00	1.50
702013-8402	3.5	15KV	13-1/2	4-1/8	14-1/2	102.50	1.50
702013-6602	2.0	20KV	13-1/2	5-1/8	12-7/8	111.00	1.80
702013-3302	1.0	25KV	13-1/2	5-1/8	11	96.00	1.80
702013-4102	.75	30KV	13-1/2	5-1/8	11	105.50	1.80
702013-3501	.5	35KV	13-1/2	5-1/8	11	79.50	1.80
702013-6603	.25	50KV	13-1/2	5-1/8	12-7/8	121.00	1.80

*Prices for larger quantities available on request.
Note: Standard capacitive tolerance ±10%

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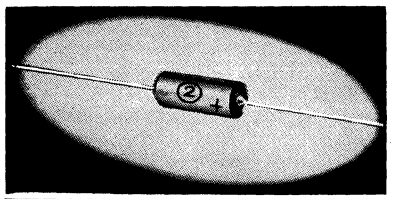
SPRAGUE CAPACITORS

TYPE 150D SOLID-ELECTROLYTE TANTALEX® CAPACITORS



- Combine True Miniaturization with Characteristics Previously Unobtainable in Electrolytic Capacitors.
- Hermetically Sealed Metal Case.
- Solid Electrolyte Cannot Leak or Corrode, Even if Hermetic Seal is Accidentally Broken.
- Exhibit Stable Capacitance and Low Dissipation Factor over Temperature Range of —80°C to +85°C. With Appropriate Voltage Derating, May Be Operated to +125°C.
- Listed Units have Plastic Sleeves. For Bare Case, end Cat. No. in "0" instead of "2."
- For complete technical data, refer to latest issue of Engineering Bulletin 3520.
- Call your Sprague Industrial Distributor for Current Quantity Prices

µF	Size Code	Catalog Number ±20% Tol.	±10% Tol.
6 WVDC — 8 VDC SURGE			
.22	A	150D224X0006A2	150D224X9006A2
.27	A	———	150D274X9006A2
.33	A	150D334X0006A2	150D334X9006A2
.39	A	———	150D394X9006A2
.47	A	150D474X0006A2	150D474X9006A2
.56	A	———	150D564X9006A2
.68	A	150D684X0006A2	150D684X9006A2
.82	A	———	150D824X9006A2
1.0	A	150D105X0006A2	150D105X9006A2
1.2	A	———	150D125X9006A2
1.5	A	150D155X0006A2	150D155X9006A2
1.8	A	———	150D185X9006A2
2.2	A	150D225X0006A2	150D225X9006A2
2.7	A	———	150D275X9006A2
3.3	A	150D335X0006A2	150D335X9006A2
3.9	A	———	150D395X9006A2
4.7	A	150D475X0006A2	150D475X9006A2
5.6	A	———	150D565X9006A2
6.8	A	150D685X0006A2	150D685X9006A2
8.2	B	———	150D825X9006B2
10	B	150D106X0006B2	150D106X9006B2
12	B	———	150D126X9006B2
15	B	150D156X0006B2	150D156X9006B2
18	B	———	150D186X9006B2
22	B	150D226X0006B2	150D226X9006B2
27	B	———	150D276X9006B2
33	B	150D336X0006B2	150D336X9006B2
39	B	———	150D396X9006B2
47	B	150D476X0006B2	150D476X9006B2
56	B	———	150D566X9006B2
60	B	150D606X0006B2	150D606X9006B2
68	R	150D686X0006R2	150D686X9006R2
82	R	———	150D826X9006R2
100	R	150D107X0006R2	150D107X9006R2
120	R	150D127X0006R2	150D127X9006R2
150	R	150D157X0006R2	150D157X9006R2
180	R	150D187X0006S2	150D187X9006R2
220	S	150D227X0006S2	150D227X9006S2
270	S	150D277X0006S2	150D227X9006S2
330	S	150D337X0006S2	150D337X9006S2
10 WVDC — 13 VDC SURGE			
.22	A	150D224X0010A2	150D224X9010A2
.27	A	———	150D274X9010A2
.33	A	150D334X0010A2	150D334X9010A2
.39	A	———	150D394X9010A2
.47	A	150D474X0010A2	150D474X9010A2
.56	A	———	150D564X9010A2
.68	A	150D684X0010A2	150D684X9010A2
.82	A	———	150D824X9010A2
1.0	A	150D105X0010A2	150D105X9010A2
1.2	A	———	150D125X9010A2
1.5	A	150D155X0010A2	150D155X9010A2
1.8	A	———	150D185X9010A2
2.2	A	150D225X0010A2	150D225X9010A2
2.7	A	———	150D275X9010A2
3.3	A	150D335X0010A2	150D335X9010A2
3.9	A	———	150D395X9010A2
4.7	A	150D475X0010A2	150D475X9010A2
5.6	B	———	150D565X9010B2
6.8	B	150D685X0010B2	150D685X9010B2
8.2	B	———	150D825X9010B2
10	B	150D106X0010B2	150D106X9010B2
12	B	———	150D126X9010B2
15	B	150D156X0010B2	150D156X9010B2
18	B	———	150D186X9010B2
22	B	150D226X0010B2	150D226X9010B2
27	B	———	150D276X9010B2
33	B	150D336X0010B2	150D336X9010B2
39	B	———	150D396X9010B2
40	B	150D406X0010B2	150D406X9010B2
47	R	150D476X0010R2	150D476X9010R2
56	R	———	150D566X9010R2
68	R	150D686X0010R2	150D686X9010R2
82	R	———	150D826X9010R2
100	R	150D107X0010R2	150D107X9010R2
120	R	150D127X0010R2	150D127X9010R2
150	S	150D157X0010S2	150D157X9010S2
180	S	———	150D187X9010S2
220	S	150D227X0010S2	150D227X9010S2
15 WVDC — 18 VDC SURGE			
.22	A	150D224X0015A2	150D224X9015A2
.27	A	———	150D274X9015A2
.33	A	150D334X0015A2	150D334X9015A2
.39	A	———	150D394X9015A2
.47	A	150D474X0015A2	150D474X9015A2
.56	A	———	150D564X9015A2
.68	A	150D684X0015A2	150D684X9015A2
.82	A	———	150D824X9015A2
1.0	A	150D105X0015A2	150D105X9015A2
1.2	A	———	150D125X9015A2
1.5	A	150D155X0015A2	150D155X9015A2
1.8	A	———	150D185X9015A2
2.2	A	150D225X0015A2	150D225X9015A2
2.7	A	———	150D275X9015A2
3.3	A	150D335X0015A2	150D335X9015A2
3.9	B	———	150D395X9015B2
4.7	B	150D475X0015B2	150D475X9015B2
5.6	B	———	150D565X9015B2
6.8	B	150D685X0015B2	150D685X9015B2
8.2	B	———	150D825X9015B2
10	B	150D106X0015B2	150D106X9015B2
12	B	———	150D126X9015B2
15	B	150D156X0015B2	150D156X9015B2
18	B	———	150D186X9015B2
22	B	150D226X0015B2	150D226X9015B2
27	R	———	150D276X9015R2
33	R	150D336X0015R2	150D336X9015R2
39	R	———	150D396X9015R2
47	R	150D476X0015R2	150D476X9015R2
56	R	———	150D566X9015R2
68	R	150D686X0015R2	150D686X9015R2
82	S	———	150D826X9015S2
100	S	150D107X0015S2	150D107X9015S2
120	S	———	150D127X9015S2
150	S	150D157X0015S2	150D157X9015S2
20 WVDC — 23 VDC SURGE			
.0047	A	150D472X0020A2	150D472X9020A2
.0056	A	———	150D562X9020A2
.0068	A	150D682X0020A2	150D682X9020A2
.0082	A	———	150D822X9020A2
.01	A	150D103X0020A2	150D103X9020A2
.012	A	———	150D123X9020A2
.015	A	150D153X0020A2	150D153X9020A2
.018	A	———	150D183X9020A2
.022	A	150D223X0020A2	150D223X9020A2
.027	A	———	150D273X9020A2
.033	A	150D333X0020A2	150D333X9020A2
.039	A	———	150D393X9020A2
.047	A	150D473X0020A2	150D473X9020A2
.056	A	———	150D563X9020A2
.068	A	150D683X0020A2	150D683X9020A2
.082	A	———	150D823X9020A2
.10	A	150D104X0020A2	150D104X9020A2
.12	A	———	150D124X9020A2
.15	A	150D154X0020A2	150D154X9020A2
.18	A	———	150D184X9020A2
.22	A	150D224X0020A2	150D224X9020A2
.27	A	———	150D274X9020A2
.33	A	150D334X0020A2	150D334X9020A2
.39	A	———	150D394X9020A2
.47	A	150D474X0020A2	150D474X9020A2
.56	A	———	150D564X9020A2
.68	A	150D684X0020A2	150D684X9020A2
.82	A	———	150D824X9020A2
1.0	A	150D105X0020A2	150D105X9020A2
1.2	A	———	150D125X9020A2
1.5	A	150D155X0020A2	150D155X9020A2
1.8	A	———	150D185X9020A2
2.2	A	150D225X0020A2	150D225X9020A2
2.7	B	———	150D275X9020B2
3.3	B	150D335X0020B2	150D335X9020B2
3.9	B	———	150D395X9020B2
4.7	B	150D475X0020B2	150D475X9020B2
5.6	B	———	150D565X9020B2
6.8	B	150D685X0020B2	150D685X9020B2
8.2	B	———	150D825X9020B2
10	B	150D106X0020B2	150D106X9020B2
12	B	———	150D126X9020B2
15	B	150D156X0020B2	150D156X9020B2
18	R	———	150D186X9020R2
22	R	150D226X0020R2	150D226X9020R2
27	R	———	150D276X9020R2
33	R	150D336X0020R2	150D336X9020R2
39	R	———	150D396X9020R2
47	R	150D476X0020R2	150D476X9020R2
56	S	———	150D566X9020S2
68	S	150D686X0020S2	150D686X9020S2
82	S	———	150D826X9020S2
100	S	150D107X0020S2	150D107X9020S2
35 WVDC — 40 VDC SURGE			
.0047	A	150D472X0035A2	150D472X9035A2
.0056	A	———	150D562X9035A2
.0068	A	150D682X0035A2	150D682X9035A2
.0082	A	———	150D822X9035A2
.01	A	150D103X0035A2	150D103X9035A2
.012	A	———	150D123X9035A2
.015	A	150D153X0035A2	150D153X9035A2
.018	A	———	150D183X9035A2
.022	A	150D223X0035A2	150D223X9035A2
.027	A	———	150D273X9035A2
.033	A	150D333X0035A2	150D333X9035A2
.039	A	———	150D393X9035A2
.047	A	150D473X0035A2	150D473X9035A2
.056	A	———	150D563X9035A2
.068	A	150D683X0035A2	150D683X9035A2
.082	A	———	150D823X9035A2
.10	A	150D104X0035A2	150D104X9035A2
.12	A	———	150D124X9035A2
.15	A	150D154X0035A2	150D154X9035A2
.18	A	———	150D184X9035A2
.22	A	150D224X0035A2	150D224X9035A2
.27	A	———	150D274X9035A2
.33	A	150D334X0035A2	150D334X9035A2
.39	A	———	150D394X9035A2
.47	A	150D474X0035A2	150D474X9035A2
.56	A	———	150D564X9035A2
.68	A	150D684X0035A2	150D684X9035A2
.82	A	———	150D824X9035A2
1.0	A	150D105X0035A2	150D105X9035A2
1.2	B	———	150D125X9035B2
1.5	B	150D155X0035B2	150D155X9035B2
1.8	B	———	150D185X9035B2
2.2	B	150D225X0035B2	150D225X9035B2
2.7	B	———	150D275X9035B2
3.3	B	150D335X0035B2	150D335X9035B2
3.9	B	———	150D395X9035B2
4.7	B	150D475X0035B2	150D475X9035B2
5.6	B	———	150D565X9035B2
6.8	B	150D685X0035B2	150D685X9035B2
8.2	R	———	150D825X9035R2
10	R	150D106X0035R2	150D106X9035R2
12	R	———	150D126X9035R2
15	R	150D156X0035R2	150D156X9035R2
18	R	———	150D186X9035R2
22	R	150D226X0035R2	150D226X9035R2
27	S	———	150D276X9035S2
33	S	150D336X0035S2	150D336X9035S2
39	S	———	150D396X9035S2
47	S	150D476X0035S2	150D476X9035S2

DIMENSIONS

Code	With Sleeve D. x L.	Bare Case D. x L.
A	.135" x .286"	.125" x .250"
B	.185" x .474"	.175" x .438"
P	.289" x .686"	.279" x .650"
S	.351" x .786"	.341" x .750"

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Sizes subject to change without notice.

SPRAGUE CAPACITORS

TYPE 150D SOLID-ELECTROLYTE TANTALEX® CAPACITORS (Cont.)

50 WVDC, 65 VDC SURGE

µF	Size Code	Catalog Number ±20% Tol.	±10% Tol.
.0047	A	150D472X0050A2	150D472X9050A2
.0056	A	—	150D562X9050A2
.0068	A	150D682X0050A2	150D682X9050A2
.0082	A	—	150D822X9050A2
.01	A	150D103X0050A2	150D103X9050A2
.012	A	—	150D123X9050A2
.015	A	150D153X0050A2	150D153X9050A2
.018	A	—	150D183X9050A2
.022	A	150D223X0050A2	150D223X9050A2
.027	A	—	150D273X9050A2
.033	A	150D333X0050A2	150D333X9050A2
.039	A	—	150D393X9050A2
.047	A	150D473X0050A2	150D473X9050A2
.056	A	—	150D563X9050A2
.068	A	150D683X0050A2	150D683X9050A2
.082	A	—	150D823X9050A2
.1	A	150D104X0050A2	150D104X9050A2
.12	A	—	150D124X9050A2
.15	A	150D154X0050A2	150D154X9050A2
.18	A	—	150D184X9050A2
.22	A	150D224X0050A2	150D224X9050A2
.27	A	—	150D274X9050A2
.33	A	150D334X0050A2	150D334X9050A2
.39	A	—	150D394X9050A2
.47	A	150D474X0050A2	150D474X9050A2
.56	A	—	150D564X9050A2
.68	A	150D684X0050A2	150D684X9050A2
.82	A	—	150D824X9050A2
1.0	A	150D105X0050A2	150D105X9050A2
1.2	B	—	150D125X9050B2
1.5	B	150D155X0050B2	150D155X9050B2
1.8	B	—	150D185X9050B2
2.2	B	150D225X0050B2	150D225X9050B2
2.7	B	—	150D275X9050B2
3.3	B	150D335X0050B2	150D335X9050B2
3.9	B	—	150D395X9050B2
4.7	B	150D475X0050B2	150D475X9050B2
5.6	R	—	150D565X9050R2
6.8	R	150D685X0050R2	150D685X9050R2
8.2	R	—	150D825X9050R2
10	R	150D106X0050R2	150D106X9050R2
12	R	—	150D126X9050R2
15	R	150D156X0050R2	150D156X9050R2
18	R	—	150D186X9050R2
22	S	150D226X0050S2	150D226X9050S2

60 WVDC, 78 VDC SURGE

µF	Size Code	Catalog Number ±20% Tol.	±10% Tol.
.0047	A	150D472X0060A2	150D472X9060A2
.0056	A	—	150D562X9060A2
.0068	A	150D682X0060A2	150D682X9060A2
.0082	A	—	150D822X9060A2
.01	A	150D103X0060A2	150D103X9060A2
.012	A	—	150D123X9060A2
.015	A	150D153X0060A2	150D153X9060A2
.018	A	—	150D183X9060A2
.022	A	150D223X0060A2	150D223X9060A2
.027	A	—	150D273X9060A2
.033	A	150D333X0060A2	150D333X9060A2
.039	A	—	150D393X9060A2
.047	A	150D473X0060A2	150D473X9060A2
.056	A	—	150D563X9060A2
.068	A	150D683X0060A2	150D683X9060A2
.082	A	—	150D823X9060A2
.1	A	150D104X0060A2	150D104X9060A2
.12	A	—	150D124X9060A2
.15	A	150D154X0060A2	150D154X9060A2
.18	A	—	150D184X9060A2
.22	A	150D224X0060A2	150D224X9060A2
.27	A	—	150D274X9060A2
.33	A	150D334X0060A2	150D334X9060A2
.39	A	—	150D394X9060A2
.47	A	150D474X0060A2	150D474X9060A2
.56	A	—	150D564X9060A2
.68	A	150D684X0060A2	150D684X9060A2
.82	B	—	150D824X9060B2
1.0	B	150D105X0060B2	150D105X9060B2
1.2	B	—	150D125X9060B2
1.5	B	150D155X0060B2	150D155X9060B2
1.8	B	—	150D185X9060B2
2.2	B	150D225X0060B2	150D225X9060B2
2.7	B	—	150D275X9060B2
3.3	B	150D335X0060B2	150D335X9060B2
3.9	B	—	150D395X9060B2
4.7	R	150D475X0060R2	150D475X9060R2
5.6	R	—	150D565X9060R2
6.8	R	150D685X0060R2	150D685X9060R2
8.2	R	—	150D825X9060R2
10	R	150D106X0060R2	150D106X9060R2
12	S	—	150D126X9060S2
15	S	150D156X0060S2	150D156X9060S2
18	S	—	150D186X9060S2
22	S	150D226X0060S2	150D226X9060S2

75 WVDC, 97 VDC SURGE

µF	Size Code	Catalog Number ±20% Tol.	±10% Tol.
.0047	A	150D472X0075A2	150D472X9075A2
.0056	A	—	150D562X9075A2
.0068	A	150D682X0075A2	150D682X9075A2
.0082	A	—	150D822X9075A2
.01	A	150D103X0075A2	150D103X9075A2
.012	A	—	150D123X9075A2
.015	A	150D153X0075A2	150D153X9075A2
.018	A	—	150D183X9075A2
.022	A	150D223X0075A2	150D223X9075A2
.027	A	—	150D273X9075A2
.033	A	150D333X0075A2	150D333X9075A2
.039	A	—	150D393X9075A2
.047	A	150D473X0075A2	150D473X9075A2
.056	A	—	150D563X9075A2
.068	A	150D683X0075A2	150D683X9075A2
.082	A	—	150D823X9075A2
.1	A	150D104X0075A2	150D104X9075A2
.12	A	—	150D124X9075A2
.15	A	150D154X0075A2	150D154X9075A2
.18	A	—	150D184X9075A2
.22	A	150D224X0075A2	150D224X9075A2
.27	A	—	150D274X9075A2
.33	A	150D334X0075A2	150D334X9075A2
.39	A	—	150D394X9075A2
.47	A	150D474X0075A2	150D474X9075A2
.56	A	—	150D564X9075A2
.68	A	150D684X0075A2	150D684X9075A2
.82	B	—	150D824X9075B2
1.0	B	150D105X0075B2	150D105X9075B2
1.2	B	—	150D125X9075B2
1.5	B	150D155X0075B2	150D155X9075B2
1.8	B	—	150D185X9075B2
2.2	B	150D225X0075B2	150D225X9075B2
2.7	B	—	150D275X9075B2
3.3	B	150D335X0075B2	150D335X9075B2
3.9	B	—	150D395X9075B2
4.7	R	150D475X0075R2	150D475X9075R2
5.6	R	—	150D565X9075R2
6.8	R	150D685X0075R2	150D685X9075R2
8.2	R	—	150D825X9075R2
10.0	R	150D106X0075R2	150D106X9075R2
12.0	S	—	150D126X9075S2
15.0	S	150D156X0075S2	150D156X9075S2

100 WVDC, 115 VDC SURGE

µF	Size Code	Catalog Number ±20% Tol.	±10% Tol.
.0047	A	150D472X0100A2	150D472X9100A2
.0056	A	—	150D562X9100A2
.0068	A	150D682X0100A2	150D682X9100A2
.0082	A	—	150D822X9100A2
.01	A	150D103X0100A2	150D103X9100A2
.012	A	—	150D123X9100A2
.015	A	150D153X0100A2	150D153X9100A2
.018	A	—	150D183X9100A2
.022	A	150D223X0100A2	150D223X9100A2
.027	A	—	150D273X9100A2
.033	A	150D333X0100A2	150D333X9100A2
.039	A	—	150D393X9100A2
.047	A	150D473X0100A2	150D473X9100A2
.056	A	—	150D563X9100A2
.068	A	150D683X0100A2	150D683X9100A2
.082	A	—	150D823X9100A2
.1	A	150D104X0100A2	150D104X9100A2
.12	A	—	150D124X9100A2
.15	A	150D154X0100A2	150D154X9100A2
.18	A	—	150D184X9100A2
.22	A	150D224X0100A2	150D224X9100A2
.27	A	—	150D274X9100A2
.33	A	150D334X0100A2	150D334X9100A2
.39	A	—	150D394X9100A2
.47	A	150D474X0100A2	150D474X9100A2
.56	A	—	150D564X9100A2
.68	B	150D684X0100B2	150D684X9100B2
.82	B	—	150D824X9100B2
1.0	B	150D105X0100B2	150D105X9100B2
1.2	B	—	150D125X9100B2
1.5	B	150D155X0100B2	150D155X9100B2
1.8	B	—	150D185X9100B2
2.2	B	150D225X0100B2	150D225X9100B2
2.7	B	—	150D275X9100B2
3.3	R	150D335X0100B2	150D335X9100R2
3.9	R	—	150D395X9100R2
4.7	R	150D475X0100R2	150D475X9100R2
5.6	R	—	150D565X9100R2
6.8	R	150D685X0100R2	150D685X9100R2

125 WVDC, 140 VDC SURGE

µF	Size Code	Catalog Number ±20% Tol.	±10% Tol.
.0047	A	150D472X0125A2	150D472X9125A2
.0056	A	—	150D562X9125A2
.0068	A	150D682X0125A2	150D682X9125A2
.0082	A	—	150D822X9125A2
.01	A	150D103X0125A2	150D103X9125A2
.012	A	—	150D123X9125A2
.015	A	150D153X0125A2	150D153X9125A2
.018	A	—	150D183X9125A2
.022	A	150D223X0125A2	150D223X9125A2
.027	A	—	150D273X9125A2
.033	A	150D333X0125A2	150D333X9125A2
.039	A	—	150D393X9125A2
.047	A	150D473X0125A2	150D473X9125A2
.056	A	—	150D563X9125A2
.068	A	150D683X0125A2	150D683X9125A2
.082	A	—	150D823X9125A2
.1	A	150D104X0125A2	150D104X9125A2
.12	A	—	150D124X9125A2
.15	A	150D154X0125A2	150D154X9125A2
.18	A	—	150D184X9125A2
.22	A	150D224X0125A2	150D224X9125A2
.27	A	—	150D274X9125A2
.33	A	150D334X0125A2	150D334X9125A2
.39	B	—	150D394X9125B2
.47	B	150D474X0125B2	150D474X9125B2
.56	B	—	150D564X9125B2
.68	B	150D684X0125B2	150D684X9125B2
.82	B	—	150D824X9125B2
1.0	B	150D105X0125B2	150D105X9125B2
1.2	B	—	150D125X9125B2
1.5	B	150D155X0125B2	150D155X9125B2
1.8	B	—	150D185X9125B2
2.2	B	150D225X0125B2	150D225X9125B2

DIMENSIONS WITH SLEEVE

Code	D. x L.
A	.135″x.286″
B	.185″x.474″
R	.289″x.686″
S	.351″x.786″

Call your Sprague Industrial Distributor for Current Quantity Prices

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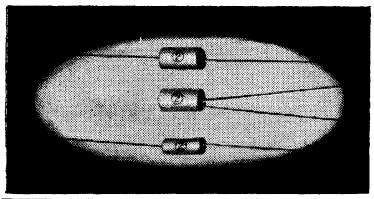
SPRAGUE CAPACITORS



DIMENSIONS

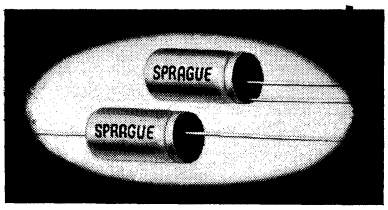
Case Code	D	x	L
AA	0.080	x	0.135
AB	0.080	x	0.185
BA	0.105	x	0.265
CA	0.145	x	0.265

TYPES 162D, 169D MINIATURE SOLID-ELECTROLYTE RED TOP® TANTALEX® CAPACITORS IN RESIN-SEALED CASES

- Miniature Polarized Tantalex Capacitors in Resin-sealed Case For Use in Compactly Designed Electronic Equipment.
- Two Lead Styles—Type 162D With Axial Leads, and "Single-Ended" Type 169D, Which is Especially Suited For Printed Wiring Board Applications.
- Red End Seal Indicates Positive End on Axial Lead Units. Center Lead is Positive on "Single-Ended" Type 169D Capacitors.
- Listed Units have Plastic-Film Insulation. Bare Metal Case Units Available.
- Ratings From 2 Through 100 WVDC Available.
- Capacitance Values From 0.033 μF to 68 μF.
- Temperature Range of —55 C to +85C.
- For Complete Technical Data, Refer to the Latest Issue of Sprague Engineering Bulletin No. 3536.
- Call Your Sprague Industrial Distributor For Prices.

Size			Catalog Number	
μF	WVDC	Code	Axial-Lead	Single-Ended
47	4	CA	162D476X9004CA2	169D476X9004CA2
1.0	10	AA	162D105X9010AA2	169D105X9010AA2
10	10	BA	162D106X9010BA2	169D106X9010BA2
22	10	CA	162D226X9010CA2	169D226X9010CA2
.68	15	AA	162D684X9015AA2	169D684X9015AA2
2.2	15	AB	162D225X9015AB2	169D225X9015AB2
6.8	15	BA	162D685X9015BA2	169D685X9015BA2
15	15	CA	162D156X9015CA2	169D156X9015CA2
.47	20	AA	162D474X9020AA2	169D474X9020AA2
1.0	20	AB	162D105X9020AB2	169D105X9020AB2
4.7	20	BA	162D475X9020BA2	169D475X9020BA2
.15	35	AA	162D154X9035AA2	169D154X9035AA2
.1	50	AA	162D104X9050AA2	169D104X9050AA2
.033	100	AA	162D333X9100AA2	169D333X9100AA2
.068	100	AA	162D683X9100AA2	169D683X9100AA2

TYPE 164D, SOLID-ELECTROLYTE RED TOP® TANTALEX® CAPACITORS



- Economically Priced Red Top Capacitors Are For Use in Commercial Digital Computers and All Types of Industrial Electronic Equipment.
- Metal Cases With Resin End Seals Afford Greater Moisture Protection Than Organic Housings Such as Moldings or Polyester Film.
- Case Sizes are the Same as those of the "Industrial Standard" Type 150D Hermetically-Sealed Design.
- Red End Seal Indicates Positive End on Axial Lead Units.
- Listed Units Have Plastic-Film Insulation. Bare Metal Case Units Available.
- Voltage Ratings From 6 Through 75 WVDC.
- Temperature Range of —55 C to +85 C.
- For Complete Technical Data, Refer to the Latest Issue of Sprague Engineering Bulletin No. 3537.
- Call Your Sprague Industrial Distributor for Prices.

DIMENSIONS **Case Code** A = .135 D. x .322 L. B = .185 D. x .510 L. R = .289 D. x .722 L. S = .351 D. x .822 L.

μF	WVDC	Size	Catalog Number Axial-Lead
5.6	6	A	164D565X9006A2
6.8	6	A	164D685X9006A2
47	6	B	164D476X9006B2
56	6	B	164D566X9006B2
150	6	R	164D157X9006R2
180	6	R	164D187X9006R2
270	6	S	164D277X9006S2
330	6	S	164D337X9006S2
3.9	10	A	164D395X9010A2
4.7	10	A	164D475X9010A2
27	10	B	164D276X9010B2
33	10	B	164D336X9010B2
39	10	B	164D386X9010B2
82	10	R	164D826X9010R2
100	10	R	164D107X9010R2
120	10	R	164D127X9010R2
180	10	S	164D187X9010S2
220	10	S	164D227X9010S2
2.7	15	A	164D275X9015A2
3.3	15	A	164D335X9015A2
18	15	B	164D186X9015B2
22	15	B	164D226X9015B2
56	15	R	164D566X9015R2
68	15	R	164D686X9015R2
120	15	S	164D127X9015S2
150	15	S	164D157X9015S2
1.2	20	A	164D125X9020A2
1.5	20	A	164D155X9020A2
1.8	20	A	164D185X9020A2
2.2	20	A	164D225X9020A2
8.2	20	B	164D825X9020B2
10	20	B	164D106X9020B2
12	20	B	164D126X9020B2
15	20	B	164D156X9020B2
27	20	R	164D276X9020R2
33	20	R	164D336X9020R2
39	20	R	164D396X9020R2
47	20	R	164D476X9020R2
56	20	S	164D566X9020S2
68	20	S	164D686X9020S2
82	20	S	164D826X9020S2
100	20	S	164D107X9020S2
.0047	35	A	164D472X9035A2
.0068	35	A	164D682X9035A2
.01	35	A	164D103X9035A2
.015	35	A	164D153X9035A2
.022	35	A	164D223X9035A2
.033	35	A	164D333X9035A2
.047	35	A	164D473X9035A2
.068	35	A	164D683X9035A2
.1	35	A	164D104X9035A2
.15	35	A	164D154X9035A2
.22	35	A	164D224X9035A2
.33	35	A	164D334X9035A2
.47	35	A	164D474X9035A2
.68	35	A	164D684X9035A2
1.0	35	A	164D105X9035A2
1.2	35	B	164D125X9035B2
1.5	35	B	164D155X9035B2
1.8	35	B	164D185X9035B2
2.2	35	B	164D225X9035B2
2.7	35	B	164D275X9035B2
3.3	35	B	164D335X9035B2
3.9	35	B	164D395X9035B2
4.7	35	B	164D475X9035B2
5.6	35	B	164D565X9035B2
6.8	35	B	164D685X9035B2
8.2	35	R	164D825X9035R2
10	35	R	164D106X9035R2
12	35	R	164D126X9035R2
15	35	R	164D156X9035R2
18	35	R	164D186X9035R2
22	35	R	164D226X9035R2
27	35	S	164D276X9035S2
33	35	S	164D336X9035S2
39	35	S	164D396X9035S2
47	35	S	164D476X9035S2
.0047	50	A	164D472X9050A2
.0068	50	A	164D682X9050A2
.01	50	A	164D103X9050A2
.015	50	A	164D153X9050A2
.022	50	A	164D223X9050A2
.033	50	A	164D333X9050A2
.047	50	A	164D473X9050A2
.068	50	A	164D683X9050A2
.1	50	A	164D104X9050A2
.15	50	A	164D154X9050A2
.22	50	A	164D224X9050A2
.33	50	A	164D334X9050A2
.47	50	A	164D474X9050A2
.68	50	A	164D684X9050A2
1.0	50	A	164D105X9050A2
1.2	50	B	164D125X9050B2
1.5	50	B	164D155X9050B2
1.8	50	B	164D185X9050B2
2.2	50	B	164D225X9050B2
2.7	50	B	164D275X9050B2
3.3	50	B	164D335X9050B2
3.9	50	B	164D395X9050B2
4.7	50	B	164D475X9050B2
5.6	50	R	164D565X9050R2
6.8	50	R	164D685X9050R2
8.2	50	R	164D825X9050R2
10	50	R	164D106X9050R2
12	50	R	164D126X9050R2
15	50	R	164D156X9050R2
18	50	R	164D186X9050R2
22	50	S	164D226X9050R2
.0047	75	A	164D472X9075A2
.0068	75	A	164D682X9075A2
.01	75	A	164D103X9075A2
.015	75	A	164D153X9075A2
.022	75	A	164D223X9075A2
.033	75	A	164D333X9075A2
.047	75	A	164D473X9075A2
.068	75	A	164D683X9075A2
.1	75	A	164D104X9075A2
.15	75	A	164D154X9075A2
.22	75	A	164D224X9075A2
.33	75	A	164D334X9075A2
.47	75	A	164D474X9075A2
.68	75	A	164D684X9075A2
1.0	75	B	164D105X9075B2
1.2	75	B	164D125X9075B2
1.5	75	B	164D155X9075B2
1.8	75	B	164D185X9075B2
2.2	75	B	164D225X9075B2
2.7	75	B	164D275X9075B2
3.3	75	B	164D335X9075B2
3.9	75	B	164D395X9075B2

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IND-REM-2-6611

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SPRAGUE CAPACITORS

125C FOIL TANTALEX® CAPACITORS

- Small size, electrically stable, long life. For data, see latest Engineering Bulletin 3602.
- 120D, 122D available as MIL-C-3965 units.
- Tol., 120D, 121D, ±20%; 122D, 123D, −15, +75%.
- Listed units have plastic wrap. For bare metal case units, end Cat. No. in "0" instead of "1".
- Call Your Sprague Industrial Distributor for Quantity Prices.

Size Code	D. x L.	Size Code	D. x L.
E	0.203 x 0.843	Q	0.390 x 2.968
H	0.296 x 1.125	S	0.390 x 2.968
K	0.390 x 1.656	Z	0.546 x 2.968
N	0.390 x 2.343		

TYPE 120D
POLARIZED PLAIN-FOIL STANDARD RATINGS

µF	Case Code	Catalog Number
10 WORKING VOLTS D-C		
4.5	E	120D455X0010E1
18	H	120D186X0010H1
55	K	120D556X0010K1
110	N	120D117X0010N1
160	Q	120D167X0010Q1
260	S	120D267X0010S1
320	Z	120D327X0010Z1
15 WORKING VOLTS D-C		
3	E	120D305X0015E1
12	H	120D126X0015H1
35	K	120D356X0015K1
70	N	120D706X0015N1
100	Q	120D107X0015Q1
180	S	120D187X0015S1
210	Z	120D217X0015Z1
30 WORKING VOLTS D-C		
1.5	E	120D155X0030E1
6	H	120D605X0030H1
20	K	120D206X0030K1
40	N	120D406X0030N1
55	Q	120D556X0030Q1
100	S	120D107X0030S1
120	Z	120D127X0030Z1
50 WORKING VOLTS D-C		
1	E	120D105X0050E1
4	H	120D405X0050H1
14	K	120D146X0050K1
28	N	120D286X0050N1
40	Q	120D406X0050Q1
70	S	120D706X0050S1
88	Z	120D886X0050Z1
65 WORKING VOLTS D-C		
0.8	E	120D804X0065E1
3	H	120D305X0065H1
10	K	120D106X0065K1
20	N	120D206X0065N1
30	Q	120D306X0065Q1
57	S	120D576X0065S1
70	Z	120D706X0065Z1
100 WORKING VOLTS D-C		
0.5	E	120D504X0100E1
2	H	120D205X0100H1
7	K	120D705X0100K1
14	N	120D146X0100N1
20	Q	120D206X0100Q1
40	S	120D406X0100S1
47	Z	120D476X0100Z1
150 WORKING VOLTS D-C		
0.35	E	120D354X0150E1
1.5	H	120D155X0150H1
5	K	120D505X0150K1
10	N	120D106X0150N1
15	Q	120D156X0150Q1
25	S	120D256X0150S1
30	Z	120D306X0150Z1
200 WORKING VOLTS D-C		
0.25	E	120D254X8200E1
1	H	120D105X8200H1
3	K	120D305X8200K1
7	N	120D705X8200N1
10	Q	120D106X8200Q1
18	S	120D186X8200S1
250 WORKING VOLTS D-C		
0.2	E	120D204X8250E1
0.8	H	120D804X8250H1
2.5	K	120D255X8250K1
5	N	120D505X8250N1
8	Q	120D805X8250Q1
12	S	120D126X8250S1
300 WORKING VOLTS D-C		
0.15	E	120D154X8300E1
0.65	H	120D654X8300H1
2	K	120D205X8300K1
4	N	120D405X8300N1
6	Q	120D605X8300Q1

TYPE 121D
NON-POLARIZED PLAIN-FOIL STANDARD RATINGS

µF	Case Code	Catalog Number
10 WORKING VOLTS N.P.		
2.5	E	121D255X0010E1
10	H	121D106X0010H1
35	K	121D356X0010K1
70	N	121D706X0010N1
100	Q	121D107X0010Q1
160	S	121D167X0010S1
200	Z	121D207X0010Z1
15 WORKING VOLTS N.P.		
1.5	E	121D155X0015E1
6	H	121D605X0015H1
20	K	121D206X0015K1
40	N	121D406X0015N1
60	Q	121D606X0015Q1
100	S	121D107X0015S1
120	Z	121D127X0015Z1
30 WORKING VOLTS N.P.		
0.8	E	121D804X0030E1
3	H	121D305X0030H1
10	K	121D106X0030K1
20	N	121D206X003UN1
30	Q	121D306X0030Q1
50	S	121D506X0030S1
65	Z	121D656X0030Z1
50 WORKING VOLTS N.P.		
0.5	E	121D504X0050E1
2	H	121D205X0050H1
7	K	121D705X0050K1
14	N	121D146X0050N1
20	Q	121D206X0050Q1
40	S	121D406X0050S1
47	Z	121D476X0050Z1
65 WORKING VOLTS N.P.		
0.4	E	121D404X0065E1
1.5	H	121D155X0065H1
5	K	121D505X0065K1
10	N	121D106X0065N1
15	Q	121D156X0065Q1
30	S	121D306X0065S1
37	Z	121D376X0065Z1
100 WORKING VOLTS N.P.		
0.25	E	121D254X0100E1
1.0	H	121D105X0100H1
3.5	K	121D355X0100K1
7	N	121D705X0100N1
10	Q	121D106X0100Q1
20	S	121D206X0100S1
24	Z	121D246X0100Z1
150 WORKING VOLTS N.P.		
0.15	E	121D154X0150E1
0.75	H	121D754X0150H1
2.5	K	121D255X0150K1
5.0	N	121D505X0150N1
7.5	Q	121D755X0150Q1
13	S	121D136X0150S1
16	Z	121D166X0150Z1
200 WORKING VOLTS N.P.		
0.1	E	121D104X8200E1
0.5	H	121D504X8200H1
1.5	K	121D155X8200K1
3.5	N	121D355X8200N1
5.0	Q	121D505X8200Q1
9.5	S	121D955X8200S1
250 WORKING VOLTS N.P.		
0.1	E	121D104X8250E1
0.4	H	121D404X8250H1
1.2	K	121D125X8250K1
2.5	N	121D255X8250N1
4.0	Q	121D405X8250Q1

TYPE 122D
POLARIZED ETCHED-FOIL STANDARD RATINGS

µF	Case Code	Catalog Number
10 WORKING VOLTS D-C		
15	E	122D156C7010E1
60	H	122D606C7010H1
200	K	122D207C7010K1
400	N	122D407C7010N1
580	Q	122D587C7010Q1
15 WORKING VOLTS D-C		
10	E	122D106C7015E1
40	H	122D406C7015H1
120	K	122D127C7015K1
250	N	122D257C7015N1
350	Q	122D357C7015Q1
30 WORKING VOLTS D-C		
4.5	E	122D455C5030E1
18	H	122D186C5030H1
60	K	122D606C5030K1
100	N	122D107C5030N1
150	Q	122D157C5030Q1
50 WORKING VOLTS D-C		
3	E	122D305C5050E1
12	H	122D126C5050H1
30	K	122D306C5050K1
70	N	122D706C5050N1
100	Q	122D107C5050Q1
65 WORKING VOLTS D-C		
2	E	122D205C3065E1
8	H	122D805C3065H1
25	K	122D256C3065K1
50	N	122D506C3065N1
70	Q	122D706C3065Q1
100 WORKING VOLTS D-C		
1	E	122D105C3100E1
4	H	122D405C3100H1
13	K	122D136C3100K1
25	N	122D256C3100N1
36	Q	122D366C3100Q1

TYPE 122D
POLARIZED ETCHED-FOIL MAXIMUM RATINGS

µF	Case Code	Catalog Number
10 WORKING VOLTS D-C		
36	E	122D366C7010E1
130	H	122D137C7010H1
370	K	122D377C7010K1
780	N	122D787C7010N1
1100	Q	122D118C7010Q1
2000	S	122D208C7010S1
2500	Z	122D258C7010Z1
15 WORKING VOLTS D-C		
23	E	122D236C7015E1
80	H	122D806C7015H1
240	K	122D247C7015K1
510	N	122D517C7015N1
720	Q	122D727C7015Q1
1300	S	122D138C7015S1
1600	Z	122D168C7015Z1
20 WORKING VOLTS D-C		
19	E	122D196C7020E1
67	H	122D676C7020H1
200	K	122D207C7020K1
420	N	122D427C7020N1
590	Q	122D597C7020Q1
1100	S	122D118C7020S1
1400	Z	122D148C7020Z1
30 WORKING VOLTS D-C		
8	E	122D805C5030E1
29	H	122D296C5030H1
85	K	122D856C5030K1
180	N	122D187C5030N1
260	Q	122D267C5030Q1
470	S	122D477C5030S1
580	Z	122D587C5030Z1
50 WORKING VOLTS D-C		
4	E	122D405C5050E1
15	H	122D156C5050H1
45	K	122D456C5050K1
95	N	122D956C5050N1
130	Q	122D137C5050Q1
250	S	122D257C5050S1
200	Z	122D307C5050Z1
65 WORKING VOLTS D-C		
3	E	122D305C3065E1
10	H	122D106C3065H1
30	K	122D306C3065K1
63	N	122D636C3065N1
90	Q	122D906C3065Q1
170	S	122D177C3065S1
210	Z	122D217C3065Z1
100 WORKING VOLTS D-C		
1.6	E	122D165C3100E1
5.5	H	122D555C3100H1
17	K	122D176C3100K1
35	N	122D356C3100N1
50	Q	122D506C3100Q1
90	S	122D906C3100S1
120	Z	122D127C3100Z1
150 WORKING VOLTS D-C		
0.75	E	122D754C3150E1
2.5	H	122D255C3150H1
7.5	K	122D755C3150K1
15	N	122D156C3150N1
22	Q	122D226C3150Q1
41	S	122D416C3150S1
51	Z	122D516C3150Z1
200 WORKING VOLTS D-C		
1.7	H	122D175X0200H1
5	K	122D505X0200K1
11	N	122D116X0200N1
15	Q	122D156X0200Q1
28	S	122D286X0200S1
250 WORKING VOLTS D-C		
1.3	H	122D135X0250H1
4	K	122D405X0250K1
8	N	122D805X0250N1
12	Q	122D126X0250Q1

TYPE 123D
NON-POLARIZED ETCHED-FOIL STANDARD RATINGS

µF	Case Code	Catalog Number
10 WORKING VOLTS N.P.		
10	E	123D106C7010E1
40	H	123D406C7010H1
120	K	123D127C7010K1
250	N	123D257C7010N1
350	Q	123D357C7010Q1
15 WORKING VOLTS N.P.		
5	E	123D505C7015E1
20	H	123D206C7015H1
70	K	123D706C7015K1
140	N	123D147C7015N1
200	Q	123D207C7015Q1
30 WORKING VOLTS N.P.		
2.5	E	123D255C5030E1
10	H	123D106C5030H1
30	K	123D306C5030K1
60	N	123D606C5030N1
80	Q	123D806C5030Q1
50 WORKING VOLTS N.P.		
1.5	E	123D155C5050E1
6	H	123D605C5050H1
15	K	123D156C5050K1
35	N	123D356C5050N1
50	Q	123D506C5050Q1
65 WORKING VOLTS N.P.		
1	E	123D105C3065E1
4	H	123D405C3065H1
12	K	123D126C3065K1
25	N	123D256C3065N1
35	Q	123D356C3065Q1
100 WORKING VOLTS N.P.		
0.5	E	123D504C3100E1
2	H	123D205C3100H1
6	K	123D605C3100K1
12	N	123D126C3100N1
18	Q	123D186C3100Q1

TYPE 123D
NON-POLARIZED ETCHED-FOIL MAXIMUM RATINGS

µF	Case Code	Catalog Number
10 WORKING VOLTS N.P.		
25	E	123D256C7010E1
90	H	123D906C7010H1
250	K	123D257C7010K1
530	N	123D537C7010N1
760	Q	123D767C7010Q1
1400	S	123D148C7010S1
2000	Z	123D208C7010Z1
15 WORKING VOLTS N.P.		
14	E	123D146C7015E1
50	H	123D506C7015H1
140	K	123D147C7015K1
290	N	123D297C7015N1
420	Q	123D427C7015Q1
800	S	123D807C7015S1
1100	Z	123D118C7015Z1
20 WORKING VOLTS N.P.		
11	E	123D116C7020E1
39	H	123D396C7020H1
110	K	123D117C7020K1
230	N	123D237C7020N1
320	Q	123D327C7020Q1
600	S	123D607C7020S1
850	Z	123D857C7020Z1
30 WORKING VOLTS N.P.		
4	E	123D405C5030E1
14	H	123D146C5030H1
40	K	123D406C5030K1
84	N	123D846C5030N1
120	Q	123D127C5030Q1
230	S	123D237C5030S1
310	Z	123D317C5030Z1
50 WORKING VOLTS N.P.		
2	E	123D205C5050E1
7	H	123D705C5050H1
20	K	123D206C5050K1
43	N	123D436C5050N1
60	Q	123D606C5050Q1
110	S	123D117C5050S1
160	Z	123D167C5050Z1
65 WORKING VOLTS N.P.		
1.4	E	123D145C3065E1
5	H	123D505C3065H1
14	K	123D146C3065K1
29	N	123D296C3065N1
41	Q	123D416C3065Q1
78	S	123D786C3065S1
110	Z	123D117C3065Z1
100 WORKING VOLTS N.P.		
0.75	E	123D754C3100E1
2.7	H	123D275C3100H1
7.5	K	123D755C3100K1
15	N	123D156C3100N1
22	Q	123D226C3100Q1
43	S	123D436C3100S1
60	Z	123D606C3100Z1

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IND-REM-4-6605

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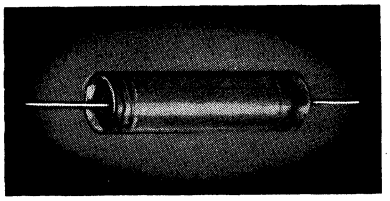
SPRAGUE CAPACITORS



85C FOIL TANTALEX® CAPACITORS

- Small Size, Electrically Stable, Long Life. For Data, See Latest Engineering Bulletin 3601
- 110D and 112D Available as MIL-C-3965 Units
- Tol. 110D, 111D, ±20% and ±15%; 112D and 113D +75%, −15%, +50%, −15% and +30%, −15%
- Plastic Wrap, For Bare Case, End Cat. No. in "0" Instead of "1"
- Call Your Sprague Industrial Distributor For Quantity Prices

DIMENSIONS

Case	D x L	Case	D x L
D	0.203 x 0.812	P	0.390 x 2.875
G	0.296 x 1.000	R	0.483 x 2.875
J	0.390 x 1.562	Y	0.546 x 2.875
M	0.390 x 2.250		

TYPE 110D
POLARIZED PLAIN-FOIL

µF	Case	Catalog No.
3 WORKING VOLTS D-C		
10	D	110D106X0003D1
55	G	110D556X0003G1
160	J	110D167X0003J1
350	M	110D357X0003M1
440	P	110D447X0003P1
1100	R	110D118X0003R1
1300	Y	110D138X0003Y1
6 WORKING VOLTS D-C		
8	D	110D805X0006D1
35	G	110D356X0006G1
100	J	110D107X0006J1
200	M	110D207X0006M1
300	P	110D307X0006P1
460	R	110D467X0006R1
560	Y	110D567X0006Y1
10 WORKING VOLTS D-C		
6	D	110D605X0010D1
25	G	110D256X0010G1
80	J	110D806X0010J1
160	M	110D167X0010M1
220	P	110D227X0010P1
350	R	110D357X0010R1
420	Y	110D427X0010Y1
15 WORKING VOLTS D-C		
4.5	D	110D455X0015D1
18	G	110D186X0015G1
55	J	110D556X0015J1
110	M	110D117X0015M1
160	P	110D167X0015P1
260	R	110D267X0015R1
320	Y	110D327X0015Y1
25 WORKING VOLTS D-C		
3	D	110D305X0025D1
12	G	110D126X0025G1
35	J	110D356X0025J1
70	M	110D706X0025M1
100	P	110D107X0025P1
180	R	110D187X0025R1
210	Y	110D217X0025Y1
30 WORKING VOLTS D-C		
2.5	D	110D255X0030D1
10	G	110D106X0030G1
30	J	110D306X0030J1
60	M	110D606X0030M1
85	P	110D856X0030P1
150	R	110D157X0030R1
180	Y	110D187X0030Y1
50 WORKING VOLTS D-C		
1.5	D	110D155X0050D1
6	G	110D605X0050G1
20	J	110D206X0050J1
40	M	110D406X0050M1
55	P	110D556X0050P1
100	R	110D107X0050R1
120	Y	110D127X0050Y1
60 WORKING VOLTS D-C		
1.2	D	110D125X0060D1
5	G	110D505X0060G1
17	J	110D176X0060J1
34	M	110D346X0060M1
48	P	110D486X0060P1
85	R	110D856X0060R1
100	Y	110D107X0060Y1
75 WORKING VOLTS D-C		
1	D	110D105X0075D1
4	G	110D405X0075G1
14	J	110D146X0075J1
28	M	110D286X0075M1
40	P	110D406X0075P1
70	R	110D706X0075R1
88	Y	110D886X0075Y1
100 WORKING VOLTS D-C		
0.8	D	110D804X0100D1
3	G	110D305X0100G1
10	J	110D106X0100J1
20	M	110D206X0100M1
30	P	110D306X0100P1
57	R	110D576X0100R1
70	Y	110D706X0100Y1
150 WORKING VOLTS D-C		
0.5	D	110D504X0150D1
2	G	110D205X0150G1
7	J	110D705X0150J1
14	M	110D146X0150M1
20	P	110D206X0150P1
40	R	110D406X0150R1
47	Y	110D476X0150Y1
200 WORKING VOLTS D-C		
0.35	D	110D354X8200D1
1.5	G	110D155X8200G1
5.0	J	110D505X8200J1
10.0	M	110D106X8200M1
15.0	P	110D156X8200P1
25	R	110D256X8200R1
35	Y	110D356X8200Y1
250 WORKING VOLTS D-C		
0.3	D	110D304X8250D1
1.2	G	110D125X8250G1
4.0	J	110D405X8250J1
8.0	M	110D805X8250M1
12.0	P	110D126X8250P1
20	R	110D206X8250R1
30	Y	110D306X8250Y1
300 WORKING VOLTS D-C		
0.25	D	110D254X8300D1
1	G	110D105X8300G1
3	J	110D305X8300J1
7	M	110D705X8300M1
10	P	110D106X8300P1
18	R	110D186X8300R1
375 WORKING VOLTS D-C		
0.2	D	110D204X8375D1
0.8	G	110D804X8375G1
2.5	J	110D255X8375J1
5	M	110D505X8375M1
7	P	110D705X8375P1
12	R	110D126X8300R1
450 WORKING VOLTS D-C		
0.15	D	110D154X8450D1
0.65	G	110D654X8450G1
2	J	110D205X8450J1
4	M	110D405X8450M1
6	P	110D605X8450P1

TYPE 111D
NON-POLARIZED PLAIN-FOIL

µF	Case	Catalog No.
6 WORKING VOLTS N.P.		
7	D	111D705X0006D1
25	G	111D256X0006G1
85	J	111D856X0006J1
170	M	111D177X0006M1
250	P	111D257X0006P1
360	R	111D367X0006R1
470	Y	111D477X0006Y1
10 WORKING VOLTS N.P.		
4	D	111D405X0010D1
16	G	111D166X0010G1
55	J	111D556X0010J1
110	M	111D117X0010M1
150	P	111D157X0010P1
230	R	111D237X0010R1
280	Y	111D287X0010Y1
15 WORKING VOLTS N.P.		
2.5	D	111D255X0015D1
10	G	111D106X0015G1
35	J	111D356X0015J1
70	M	111D706X0015M1
100	P	111D107X0015P1
160	R	111D167X0015R1
200	Y	111D207X0015Y1
25 WORKING VOLTS N.P.		
1.5	D	111D155X0025D1
6	G	111D605X0025G1
20	J	111D206X0025J1
40	M	111D406X0025M1
60	P	111D606X0025P1
100	R	111D107X0025R1
120	Y	111D127X0025Y1
30 WORKING VOLTS N.P.		
1.4	D	111D145X0030D1
5.5	G	111D555X0030G1
18	J	111D186X0030J1
36	M	111D366X0030M1
45	P	111D456X0030P1
85	R	111D856X0030R1
100	Y	111D107X0030Y1
50 WORKING VOLTS N.P.		
0.8	D	111D804X0050D1
3	G	111D305X0050G1
10	J	111D106X0050J1
20	M	111D206X0050M1
30	P	111D306X0050P1
50	R	111D506X0050R1
65	Y	111D656X0050Y1
60 WORKING VOLTS N.P.		
0.6	D	111D604X0060D1
2.5	G	111D255X0060G1
8.5	J	111D855X0060J1
17	M	111D176X0060M1
24	P	111D246X0060P1
45	R	111D456X0060R1
53	Y	111D536X0060Y1
75 WORKING VOLTS N.P.		
0.5	D	111D504X0075D1
2	G	111D205X0075G1
7	J	111D705X0075J1
14	M	111D146X0075M1
20	P	111D206X0075P1
40	R	111D406X0075R1
47	Y	111D476X0075Y1
100 WORKING VOLTS N.P.		
0.4	D	111D404X0100D1
1.5	G	111D155X0100G1
5	J	111D505X0100J1
10	M	111D106X0100M1
15	P	111D156X0100P1
30	R	111D306X0100R1
37	Y	111D376X0100Y1
150 WORKING VOLTS N.P.		
0.25	D	111D254X0150D1
1.0	G	111D105X0150G1
3.5	J	111D355X0150J1
7	M	111D705X0150M1
10	P	111D106X0150P1
20	R	111D206X0150R1
24	Y	111D246X0150Y1
200 WORKING VOLTS N.P.		
0.15	D	111D154X8200D1
0.75	G	111D754X8200G1
2.5	J	111D255X8200J1
5.0	M	111D505X8200M1
7.5	P	111D755X8200P1
14	R	111D146X8200R1
17	Y	111D176X8200Y1
250 WORKING VOLTS N.P.		
0.15	D	111D154X8250D1
0.6	G	111D604X8250G1
2.0	J	111D205X8250J1
4.0	M	111D405X8250M1
6.0	P	111D605X8250P1
12	R	111D126X8250R1
15	Y	111D156X8250Y1
300 WORKING VOLTS N.P.		
0.1	D	111D104X8300D1
.5	G	111D504X8300G1
1.5	J	111D155X8300J1
3.5	M	111D355X8300M1
5	P	111D505X8300P1
9.5	R	111D955X8300R1

TYPE 112D
POLARIZED ETCHED-FOIL

µF	Case	Catalog No.
15 WORKING VOLTS D-C		
15	D	112D156C7015D1
36	D	112D366C7015D1
60	G	112D606C7015G1
130	G	112D137C7015G1
200	J	112D207C7015J1
370	J	112D377C7015J1
400	M	112D407C7015M1
580	P	112D587C7015P1
780	M	112D787C7015M1
1100	P	112D118C7015P1
2000	R	112D208C7015R1
2500	Y	112D258C7015Y1
25 WORKING VOLTS D-C		
10	D	112D106C7025D1
23	D	112D236C7025D1
40	G	112D406C7025G1
80	G	112D806C7025G1
120	J	112D127C7025J1
240	J	112D247C7025J1
250	M	112D257C7025M1
350	P	112D357C7025P1
510	M	112D517C7025M1
720	P	112D727C7025P1
1300	R	112D138C7025R1
1600	Y	112D168C7025Y1
30 WORKING VOLTS D-C		
8	D	112D805C7030D1
19	D	112D196C7030D1
32	G	112D326C7030G1
67	G	112D676C7030G1
110	J	112D117C7030J1
200	J	112D207C7030J1
220	M	112D227C7030M1
300	P	112D307C7030P1
420	M	112D427C7030M1
590	P	112D597C7030P1
1100	R	112D118C7030R1
1400	Y	112D148C7030Y1
50 WORKING VOLTS D-C		
4.5	D	112D455C5050D1
8	D	112D805C5050D1
18	G	112D186C5050G1
29	G	112D296C5050G1
60	J	112D606C5050J1
85	J	112D856C5050J1
100	M	112D107C5050M1
150	P	112D157C5050P1
180	M	112D187C5050M1
260	P	112D267C5050P1
470	R	112D477C5050R1
580	Y	112D587C5050Y1
60 WORKING VOLTS D-C		
4	D	112D405C5060D1
75 WORKING VOLTS D-C		
3	D	112D305C5075D1
4	D	112D405C5075D1
12	G	112D126C5075G1
15	G	112D156C5075G1
30	J	112D306C5075J1
45	J	112D456C5075J1
70	M	112D706C5075M1
95	M	112D956C5075M1
100	P	112D107C5075P1
130	P	112D137C5075P1
250	R	112D257C5075R1
300	Y	112D307C5075Y1
100 WORKING VOLTS D-C		
2	D	112D205C3100D1
3	D	112D305C3100D1
8	G	112D805C3100G1
10	G	112D106C3100G1
25	J	112D256C3100J1
30	J	112D306C3100J1
50	M	112D506C3100M1
63	M	112D636C3100M1
70	P	112D706C3100P1
90	P	112D906C3100P1
170	R	112D177C3100R1
210	Y	112D217C3100Y1
150 WORKING VOLTS D-C		
1	D	112D105C3150D1
1.6	D	112D165C3150D1
4	G	112D405C3150G1
5.5	G	112D555C3150G1
13	J	112D136C3150J1
17	J	112D176C3150J1
25	M	112D256C3150M1
35	M	112D356C3150M1
36	P	112D366C3150P1
50	P	112D506C3150P1
90	R	112D906C3150R1
120	Y	112D127C3150Y1
200 WORKING VOLTS D-C		
3	G	112D305X0200G1
9	J	112D905X0200J1
19	M	112D196X0200M1
27	P	112D276X0200P1
55	R	112D556X0200R1
66	Y	112D666X0200Y1
250 WORKING VOLTS D-C		
2	G	112D205X0250G1
6	J	112D605X0250J1
13	M	112D136X0250M1
19	P	112D196X0250P1
37	R	112D376X0250R1
45	Y	112D456X0250Y1
300 WORKING VOLTS D-C		
1.8	G	112D185X0300G1
5	J	112D505X0300J1
11	M	112D116X0300M1
15	P	112D156X0300P1
28	R	112D286X0300R1

TYPE 113D
NON-POLARIZED ETCHED-FOIL

µF	Case	Catalog No.
15 WORKING VOLTS N.P.		
10	D	113D106C7015D1
25	D	113D256C7015D1
40	G	113D406C7015G1
90	G	113D906C7015G1
120	J	113D127C7015J1
250	J	113D257C7015J1
250	M	113D257C7015M1
350	P	113D357C7015P1
530	M	113D537C7015M1
760	P	113D767C7015P1
1400	R	113D148C7015R1
2000	Y	113D208C7015Y1
25 WORKING VOLTS N.P.		
5	D	113D505C7025D1
14	D	113D146C7025D1
20	G	113D206C7025G1
50	G	113D506C7025G1
70	J	113D706C7025J1
140	J	113D147C7025J1
140	M	113D147C7025M1
200	P	113D207C7025P1
290	M	113D297C7025M1
420	P	113D427C7025P1
800	R	113D807C7025R1
1100	Y	113D118C7025Y1
30 WORKING VOLTS N.P.		
4.5	D	113D455C7030D1
11	D	113D116C7030D1
18	G	113D186C7030G1
39	G	113D396C7030G1
60	J	113D606C7030J1
110	J	113D117C7030J1
120	M	113D127C7030M1
170	P	113D177C7030P1
220	M	113D227C7030M1
320	P	113D327C7030P1
600	R	113D607C7030R1
850	Y	113D857C7030Y1
50 WORKING VOLTS N.P.		
2.5	D	113D255C5050D1
4	D	113D405C5050D1
10	G	113D106C5050G1
14	G	113D146C5050G1
30	J	113D306C5050J1
40	J	113D406C5050J1
60	M	113D606C5050M1
80	P	113D806C5050P1
84	M	113D846C5050M1
120	P	113D127C5050P1
230	R	113D237C5050R1
310	Y	113D317C5050Y1
75 WORKING VOLTS N.P.		
1.5	D	113D155C5075D1
2	D	113D205C5075D1
6	G	113D605C5075G1
7	G	113D705C5075G1
15	J	113D156C5075J1
20	J	113D206C5075J1
35	M	113D356C5075M1
43	M	113D436C5075M1
50	P	113D506C5075P1
60	P	113D606C5075P1
110	R	113D117C5075R1
160	Y	113D167C5075Y1
100 WORKING VOLTS N.P.		
1	D	113D105C3100D1
1.4	D	113D145C3100D1
4	G	113D405C3100G1
5	G	113D505C3100G1
12	J	113D126C3100J1
14	J	113D146C3100J1
25	M	113D256C3100M1
29	M	113D296C3100M1
35	P	113D356C3100P1
41	P	113D416C3100P1
78	R	113D786C3100R1
110	Y	113D117C3100Y1
150 WORKING VOLTS N.P.		
0.5	D	113D504C3150D1
0.75	D	113D754C3150D1
2	G	113D205C3150G1
2.7	G	113D275C3150G1
6	J	113D605C3150J1
7.5	J	113D755C3150J1
12	M	113D126C3150M1
15	M	113D156C3150M1
18	P	113D186C3150P1
22	P	113D226C3150P1
43	R	113D436C3150R1
60	Y	113D606C3150Y1

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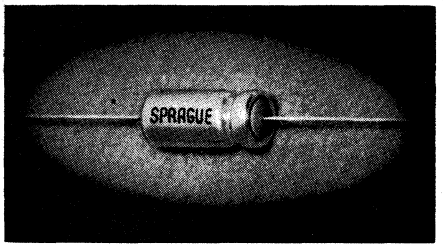
SPRAGUE CAPACITORS

TYPE 130D 125C SINTERED-ANODE TANTALEX® CAPACITORS



DIMENSIONS

Code	D x L	Code	D x L	Code	D x L	Code	D x L
C	.203 x .515	F	.296 x .703	T	.390 x .828	W	.390 x 1.312

- Reliable, Superior Quality Capacitors With no Voltage Derating for 125C Operation
- Especially Suited for Military Electronics
- Meets 2000 Cycle MIL Missile Vibration Requirements
- Clean, Shoulder-Less Design Simplifies Mounting on Printed Wiring Boards
- Voltage Ratings From 4 WVDC Through 100 WVDC
- Capacitances from 1.7 μF to 1200 μF
- For Complete Technical Data, Refer to the Latest Issue of Sprague Engineering Bulletin No. 3701
- Listed Units Have Plastic-Film Insulation For Bare Metal Cases, Change Last Digit of Cat. No. to "0"
- Call Your Sprague Industrial Distributor for Current Quantity Prices

GROUP 1: ±10%, +20, −15%, and +75, −15% Capacitance Tolerance with outer plastic-film insulation

μF	WVDC	Size Code	Catalog Number ±10%	Catalog Number +20−15%	Catalog Number +75−15%
27	4	C	130D276X9004C2	130D276C2004C2	130D276C7004C2
30	4	C	130D306X9004C2	130D306C2004C2	130D306C7004C2
120	4	F	130D127X9004F2	130D127C2004F2	130D127C7004F2
140	4	F	130D147X9004F2	130D147C2004F2	130D147C7004F2
290	4	T	130D297X9004T2	130D297C2004T2	130D297C7004T2
330	4	T	130D337X9004T2	130D337C2004T2	130D337C7004T2
22	5	C	130D226X9005C2	130D226C2005C2	130D226C7005C2
25	5	C	130D256X9005C2	130D256C2005C2	130D256C7005C2
100	5	F	130D107X9005F2	130D107C2005F2	130D107C7005F2
120	5	F	130D127X9005F2	130D127C2005F2	130D127C7005F2
260	5	T	130D267X9005T2	130D267C2005T2	130D267C7005T2
290	5	T	130D297X9005T2	130D297C2005T2	130D297C7005T2
18	7	C	130D186X9007C2	130D186C2007C2	130D186C7007C2
20	7	C	130D206X9007C2	130D206C2007C2	130D206C7007C2
85	7	F	130D856X9007F2	130D856C2007F2	130D856C7007F2
100	7	F	130D107X9007F2	130D107C2007F2	130D107C7007F2
220	7	T	130D227X9007T2	130D227C2007T2	130D227C7007T2
250	7	T	130D257X9007T2	130D257C2007T2	130D257C7007T2
13	10	C	130D136X9010C2	130D136C2010C2	130D136C7010C2
15	10	C	130D156X9010C2	130D156C2010C2	130D156C7010C2
55	10	F	130D556X9010F2	130D556C2010F2	130D556C7010F2
70	10	F	130D706X9010F2	130D706C2010F2	130D706C7010F2
150	10	T	130D157X9010T2	130D157C2010T2	130D157C7010T2
170	10	T	130D177X9010T2	130D177C2010T2	130D177C7010T2
9	15	C	130D905X9015C2	130D905C2015C2	130D905C7015C2
10	15	C	130D106X9015C2	130D106C2015C2	130D106C7015C2
45	15	F	130D456X9015F2	130D456C2015F2	130D456C7015F2
50	15	F	130D506X9015F2	130D506C2015F2	130D506C7015F2
100	15	T	130D107X9015T2	130D107C2015T2	130D107C7015T2
110	15	T	130D117X9015T2	130D117C2015T2	130D117C7015T2
7	20	C	130D705X9020C2	130D705C2020C2	130D705C7020C2
8	20	C	130D805X9020C2	130D805C2020C2	130D805C7020C2
35	20	F	130D356X9020F2	130D356C2020F2	130D356C7020F2
40	20	F	130D406X9020F2	130D406C2020F2	130D406C7020F2
80	20	T	130D806X9020T2	130D806C2020T2	130D806C7020T2
100	20	T	130D107X9020T2	130D107C2020T2	130D107C7020T2
4.5	30	C	130D455X9030C2	130D455C2030C2	130D455C7030C2
5	30	C	130D505X9030C2	130D505C2030C2	130D505C7030C2
22	30	F	130D226X9030F2	130D226C2030F2	130D226C7030F2
25	30	F	130D256X9030F2	130D256C2030F2	130D256C7030F2
55	30	T	130D556X9030T2	130D556C2030T2	130D556C7030T2
60	30	T	130D606X9030T2	130D606C2030T2	130D606C7030T2
3.6	40	C	130D365X9040C2	130D365C2040C2	130D365C7040C2
4	40	C	130D405X9040C2	130D405C2040C2	130D405C7040C2
18	40	F	130D186X9040F2	130D186C2040F2	130D186C7040F2
20	40	F	130D206X9040F2	130D206C2040F2	130D206C7040F2
45	40	T	130D456X9040T2	130D456C2040T2	130D456C7040T2
50	40	T	130D506X9040T2	130D506C2040T2	130D506C7040T2
3	50	C	130D305X9050C2	130D305C2050C2	130D305C7050C2
3.5	50	C	130D355X9050C2	130D355C2050C2	130D355C7050C2
13	50	F	130D136X9050F2	130D136C2050F2	130D136C7050F2
15	50	F	130D156X9050F2	130D156C2050F2	130D156C7050F2
35	50	T	130D356X9050T2	130D356C2050T2	130D356C7050T2
40	50	T	130D406X9050T2	130D406C2050T2	130D406C7050T2
2.5	70	C	130D255X9070C2	130D255C2070C2	130D255C7070C2
10	70	F	130D106X9070F2	130D106C2070F2	130D106C7070F2
11	70	F	130D116X9070F2	130D116C2070F2	130D116C7070F2
27	70	T	130D276X9070T2	130D276C2070T2	130D276C7070T2
30	70	T	130D306X9070T2	130D306C2070T2	130D306C7070T2
1.7	85	C	130D175X9085C2	130D175C2085C2	130D175C7085C2
9	85	F	130D905X9085F2	130D905C2085F2	130D905C7085F2
18	85	T	130D186X9085T2	130D186C2085T2	130D186C7085T2
1.7	100	C	130D175X9100C2	130D175C2100C2	130D175C7100C2
6.8	100	F	130D685X9100F2	130D685C2100F2	130D685C7100F2
14	100	T	130D146X9100T2	130D146C2100T2	130D146C7100T2

GROUP 2: ±20% and ±10% Capacitance Tolerance with outer plastic-film insulation

These capacitors have approximately twice the capacitance of Group 1 Capacitors of the same physical size at a given voltage rating.

μF	WVDC	Case Code	±20% Tol.	±10% Tol.
68	4	C	130D686X0004C2	130D686X9004C2
270	4	F	130D277X0004F2	130D277X9004F2
560	4	T	130D567X0004T2	130D567X9004T2
1200	4	W	130D128X0004W2	130D128X9004W2
56	5	C	130D566X0005C2	130D566X9005C2
220	5	F	130D227X0005F2	130D227X9005F2
430	5	T	130D437X0005T2	130D437X9005T2
850	5	W	130D857X0005W2	130D857X9005W2
47	7	C	130D476X0007C2	130D476X9007C2
180	7	F	130D187X0007F2	130D187X9007F2
390	7	T	130D397X0007T2	130D397X9007T2
750	7	W	130D757X0007W2	130D757X9007W2
33	10	C	130D336X0010C2	130D336X9010C2
120	10	F	130D127X0010F2	130D127X9010F2
270	10	T	130D277X0010T2	130D277X9010T2
540	10	W	130D547X0010W2	130D547X9010W2
22	15	C	130D226X0015C2	130D226X9015C2
100	15	F	130D107X0015F2	130D107X9015F2
180	15	T	130D187X0015T2	130D187X9015T2
350	15	W	130D357X0015W2	130D357X9015W2
15	20	C	130D156X0020C2	130D156X9020C2
68	20	F	130D686X0020F2	130D686X9020F2
150	20	T	130D157X0020T2	130D157X9020T2
300	20	W	130D307X0020W2	130D307X9020W2
10	30	C	130D106X0030C2	130D106X9030C2
47	30	F	130D476X0030F2	130D476X9030F2
82	30	T	130D826X0030T2	130D826X9030T2
160	30	W	130D167X0030W2	130D167X9030W2
8.2	40	C	130D825X0040C2	130D825X9040C2
39	40	F	130D396X0040F2	130D396X9040F2
68	40	T	130D686X0040T2	130D686X9040T2
140	40	W	130D147X0040W2	130D147X9040W2
6.8	50	C	130D685X0050C2	130D685X9050C2
33	50	F	130D336X0050F2	130D336X9050F2
56	50	T	130D566X0050T2	130D566X9050T2
110	50	W	130D117X0050W2	130D117X9050W2
4.7	70	C	130D475X0070C2	130D475X9070C2
22	70	F	130D226X0070F2	130D226X9070F2
43	70	T	130D436X0070T2	130D436X9070T2
86	70	W	130D866X0070W2	130D866X9070W2
3.6	85	C	130D365X0085C2	130D365X9085C2
14	85	F	130D146X0085F2	130D146X9085F2
25	85	T	130D256X0085T2	130D256X9085T2
56	85	W	130D566X0085W2	130D566X9085W2
3	100	C	130D305X0100C2	130D305X9100C2
11	100	F	130D116X0100F2	130D116X9100F2
22	100	T	130D226X0100T2	130D226X9100T2

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IND-REM-4A-6605

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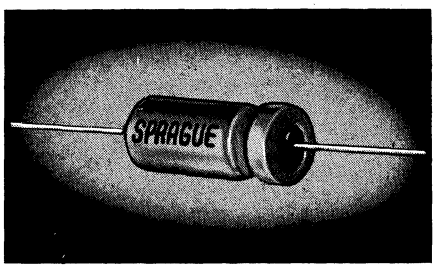
SPRAGUE CAPACITORS

TYPE 109D SINTERED-ANODE TANTALEX® CAPACITORS



DIMENSIONS

Code	D. x L.	Code	D. x L.	Code	D. x L.	Code	D. x L.
C	.203x.515	F	.296x.703	T	.380x.828	W	.390x1.312

- Intended for Applications Where Reliable Design in Military Equipment is Required
- Double Spun TFE-fluorocarbon Elastomer High Temp. End Seals
- Large Values of Capacitance in Small Physical Size
- Listed Units Have Plastic Sleeves
- For Bare Case, End Catalog Number in "0" instead of "2"
- May Be Operated at 85C at Rated Voltage and to 105C With 15% Voltage Derating
- Will Meet 2000 Cycle Missile Vibration Requirements
- For Complete Technical Data, See Latest Issue of Engineering Bulletin 3700
- Call Your Sprague Industrial Distributor For Current Quantity Prices

GROUP 1: Available in Capacitance Tolerances of ±10%, +20, −15%; +75, −15%

μF	WVDC	Size Code	Catalog Number ±10%	+20, −15%	+75, −15%
27	6	C	109D276X9006C2	109D276C2006C2	109D276C7006C2
30	6	C	109D306X9006C2	109D306C2006C2	109D306C7006C2
120	6	F	109D127X9006F2	109D127C2006F2	109D127C7006F2
140	6	F	109D147X9006F2	109D147C2006F2	109D147C7006F2
290	6	T	109D297X9006T2	109D297C2006T2	109D297C7006T2
330	6	T	109D337X9006T2	109D337C2006T2	109D337C7006T2
22	8	C	109D226X9008C2	109D226C2008C2	109D226C7008C2
25	8	C	109D256X9008C2	109D256C2008C2	109D256C7008C2
100	8	F	109D107X9008F2	109D107C2008F2	109D107C7008F2
120	8	F	109D127X9008F2	109D127C2008F2	109D127C7008F2
260	8	T	109D276X9008T2	109D267C2008T2	109D276C7008T2
290	8	T	109D297X9008T2	109D297C2008T2	109D297C7008T2
18	10	C	109D186X9010C2	109D186C2010C2	109D186C7010C2
20	10	C	109D206X9010C2	109D206C2010C2	109D206C7010C2
85	10	F	109D856X9010F2	109D856C2010F2	109D856C7010F2
100	10	F	109D107X9010F2	109D107C2010F2	109D107C7010F2
220	10	T	109D227X9010T2	109D227C2010T2	109D227C7010T2
250	10	T	109D257X9010T2	109D257C2010T2	109D257C7010T2
13	15	C	109D136X9015C2	109D136C2015C2	109D136C7015C2
15	15	C	109D156X9015C2	109D156C2015C2	109D156C7015C2
55	15	F	109D556X9015F2	109D556C2015F2	109D556C7015F2
70	15	F	109D706X9015F2	109D706C2015F2	109D706C7015F2
150	15	T	109D157X9015T2	109D157C2015T2	109D157C7015T2
170	15	T	109D177X9015T2	109D177C2015T2	109D177C7015T2
9	25	C	109D905X9025C2	109D905C2025C2	109D905C7025C2
[illegible]	25	C	109D106X9025C2	109D106C2025C2	109D106C7025C2
45	25	F	109D456X9025F2	109D456C2025F2	109D456C7025F2
50	25	F	109D506X9025F2	109D506C2025F2	109D506C7025F2
100	25	T	109D107X9025T2	109D107C2025T2	109D107C7025T2
110	25	T	109D117X9025T2	109D117C2025T2	109D117C7025T2
7	30	C	109D705X9030C2	109D705C2030C2	109D705C7030C2
8	30	C	109D805X9030C2	109D805C2030C2	109D805C7030C2
35	30	F	109D356X9030F2	109D356C2030F2	109D356C7030F2
40	30	F	109D406X9030F2	109D406C2030F2	109D406C7030F2
80	30	T	109D806X9030T2	109D806C2030T2	109D806C7030T2
100	30	T	109D107X9030T2	109D107C2030T2	109D107C7030T2
4.5	50	C	109D455X9050C2	109D455C2050C2	109D455C7050C2
5	50	C	109D505X9050C2	109D505C2050C2	109D505C7050C2
22	50	F	109D226X9050F2	109D226C2050F2	109D226C7050F2
25	50	F	109D256X9050F2	109D256C2050F2	109D256C7050F2
55	50	T	109D556X9050T2	109D556C2050T2	109D556C7050T2
60	50	T	109D606X9050T2	109D606C2050T2	109D606C7050T2
3.6	60	C	109D365X9060C2	109D365C2060C2	109D365C7060C2
4	60	C	109D405X9060C2	109D405C2060C2	109D405C7060C2
18	60	F	109D186X9060F2	109D186C2060F2	109D186C7060F2
20	60	F	109D206X9060F2	109D206C2060F2	109D206C7060F2
45	60	T	109D456X9060T2	109D456C2060T2	109D456C7060T2
50	60	T	109D506X9060T2	109D506C2060T2	109D506C7060T2
3	75	C	109D305X9075C2	109D305C2075C2	109D305C7075C2
3.5	75	C	109D355X9075C2	109D355C2075C2	109D355C7075C2
13	75	F	109D136X9075F2	109D136C2075F2	109D136C7075F2
15	75	F	109D156X9075F2	109D156C2075F2	109D156C7075F2
35	75	T	109D356X9075T2	109D356C2075T2	109D356C7075T2
40	75	T	109D406X9075T2	109D406C2075T2	109D406C7075T2
2.5	100	C	109D255X9100C2	109D255C2100C2	109D255C7100C2
10	100	F	109D106X9100F2	109D106C2100F2	109D106C7100F2
11	100	F	109D116X9100F2	109D116C2100F2	109D116C7100F2
27	100	T	109D276X9100T2	109D276C2100T2	109D276C7100T2
30	100	T	109D306X9100T2	109D306C2100T2	109D306C7100T2
1.7	125	C	109D175X9125C2	109D175C2125C2	109D175C7125C2
9	125	F	109D905X9125F2	109D905C2125F2	109D905C7125F2
18	125	T	109D186X9125T2	109D186C2125T2	109D186C7125T2
1.7	150	C	109D175X9150C2	109D175C2150C2	109D175C7150C2
6.8	150	F	109D685X9150F2	109D685C2150F2	109D685C7150F2
14	150	T	109D146X9150T2	109D146C2150T2	109D146C7150T2

GROUP 2. Available in Capacitance Tolerances of ±20% and ± 10%

These capacitors have approximately twice the capacitance of Group I Capacitors of the same physical size at a given voltage rating.

μF	WVDC	Size Code	Catalog Number ±20% Tol.	±10% Tol.
68	6	C	109D686X0006C2	109D686X9006C2
270	6	F	109D277X0006F2	109D277X9006F2
560	6	T	109D567X0006T2	109D567X9006T2
1200	6	W	109D128X0006W2	109D128X9006W2
56	8	C	109D566X0008C2	109D566X9008C2
220	8	F	109D227X0008F2	109D227X9008F2
430	8	T	109D437X0008T2	109D437X9008T2
850	8	W	109D857X0008W2	109D857X9008W2
47	10	C	109D476X0010C2	109D476X9010C2
180	10	F	109D187X0010F2	109D187X9010F2
390	10	T	109D397X0010T2	109D397X9010T2
750	10	W	109D757X0010W2	109D757X9010W2
33	15	C	109D336X0015C2	109D336X9015C2
120	15	F	109D127X0015F2	109D127X9015F2
270	15	T	109D277X0015T2	109D277X9015T2
540	15	W	109D547X0015W2	109D547X9015W2
22	25	C	109D226X0025C2	109D226X9025C2
100	25	F	109D107X0025F2	109D107X9025F2
180	25	T	109D187X0025T2	109D187X9025T2
350	25	W	109D357X0025W2	109D357X9025W2
15	30	C	109D156X0030C2	109D156X9030C2
68	30	F	109D686X0030F2	109D686X9030F2
150	30	T	109D157X0030T2	109D157X9030T2
300	30	W	109D307X0030W2	109D307X9030W2
10	50	C	109D106X0050C2	109D106X9050C2
47	50	F	109D476X0050F2	109D476X9050F2
82	50	T	109D826X0050T2	109D826X9050T2
160	50	W	109D167X0050W2	109D167X9050W2
8.2	60	C	109D825X0060C2	109D825X9060C2
39	60	F	109D396X0060F2	109D396X9060F2
68	60	T	109D686X0060T2	109D686X9060T2
140	60	W	109D147X0060W2	109D147X9060W2
6.8	75	C	109D685X0075C2	109D685X9075C2
33	75	F	109D336X0075F2	109D336X9075F2
56	75	T	109D566X0075T2	109D566X9075T2
110	75	W	109D117X0075W2	109D117X9075W2
4.7	100	C	109D475X0100C2	109D475X9100C2
22	100	F	109D226X0100F2	109D226X9100F2
43	100	T	109D436X0100T2	109D436X9100T2
86	100	W	109D866X0100W2	109D866X9100W2
3.6	125	C	109D365X0125C2	109D365X9125C2
14	125	F	109D146X0125F2	109D146X9125F2
25	125	T	109D256X0125T2	109D256X9125T2
56	125	W	109D566X0125W2	109D566X9125W2
3	150	C	109D305X0150C2	109D305X9150C2
11	150	F	109D116X0150F2	109D116X9150F2
22	150	T	109D226X0150T2	109D226X9150T2

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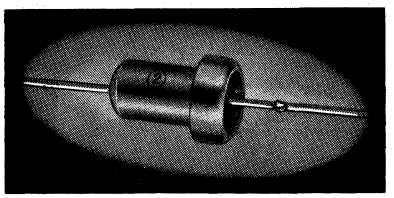
SPRAGUE CAPACITORS

"CUP STYLE" TANTALEX® CAPACITORS



Size Code	Dimensions Dia. x Length
U	7/32 x 15/32
V	9/32 x 11/16
T	3/8 x 49/64

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

- −55C to +85C Operation at Full Rating. 100C Operation With 15% Derating.
- Stable in Performance Characteristics Over Entire Temperature Range.
- Large Capacitance in Small Size.
- Extremely Low Leakage Currents.
- 132D Designed to Withstand Severe Military Vibration Tests.
- For Plastic Tube on units, change "0" to "4" at End of Catalog Number.
- For Complete Technical Data See Latest Issue of Engineering Bulletin 3710 and 3711.

VIBRATION-PROOF TYPE 132D

µF	Size Code	Catalog Number ±10% Tol.	Catalog Number −15, +20% Tol.
6 WVDC — 7 VDC SURGE			
30	U	132D306X9006U0	132D306C2006U0
140	V	132D147X9006V0	132D147C2006V0
320	T	132D327X9006T0	132D327C2006T0
8 WVDC — 10 VDC SURGE			
25	U	132D256X9008U0	132D256C2008U0
10 WVDC — 12 VDC SURGE			
20	U	132D206X9010U0	132D206C2010U0
100	V	132D107X9010V0	132D107C2010V0
250	T	132D257X9010T0	132D257C2010T0
15 WVDC — 18 VDC SURGE			
15	U	132D156X9015U0	132D156C2015U0
70	V	132D706X9015V0	132D706C2015V0
170	T	132D177X9015T0	132D177C2015T0
25 WVDC — 30 VDC SURGE			
10	U	132D106X9025U0	132D106C2025U0
30 WVDC — 36 VDC SURGE			
8	U	132D805X9030U0	132D805C2030U0
40	V	132D406X9030V0	132D406C2030V0
100	T	132D107X9030T0	132D107C2030T0
50 WVDC — 60 VDC SURGE			
5	U	132D505X9050U0	132D505C2050U0
25	V	132D256X9050V0	132D256C2050V0
60	T	132D606X9050T0	132D606C2050T0
60 WVDC — 72 VDC SURGE			
4	U	132D405X9060U0	132D405C2060U0
20	V	132D206X9060V0	132D206C2060V0
50	T	132D506X9060T0	132D506C2060T0
75 WVDC — 87 VDC SURGE			
3.5	U	132D355X9075U0	132D355C2075U0
15	V	132D156X9075V0	132D156C2075V0
40	T	132D406X9075T0	132D406C2075T0
100 WVDC — 115 VDC SURGE			
2	U	132D205X9100U0	132D205C2100U0
11	V	132D116X9100V0	132D116C2100V0
30	T	132D306X9100T0	132D306C2100T0
125 WVDC — 140 VDC SURGE			
1.7	U	132D175X9125U0	132D175C2125U0
9	V	132D905X9125V0	132D905C2125V0
25	T	132D256X9125T0	132D256C2125T0

VIBRATION-PROOF TYPE 133D

- −55C to +125C Operation at Full Rating. May Be Up-Rated 50% for Operation at 85C.
- Meet Stringent Requirements in Military and Missile Applications.
- Sintered Anode for Unusual Capacitance Stability, Large Values of Capacitance in Small Physical Size.
- Non-Tarnish Finish to Prevent Discoloration During Storage or Use.
- For Units With Outer Plastic Insulating Tube, Substitute "4" for "0" at End of Catalog Number.
- Housed in Miniature Silver Thimble.

µF	Size Code	Catalog Number −15, +20% Tol.	Catalog Number ±10% Tol.
4 WORKING VOLTS D-C			
30	U	133D306C2004U0	133D306X9004U0
140	V	133D147C2004V0	133D147X9004V0
320	T	133D327C2004T0	133D327X9004T0
5 WORKING VOLTS D-C			
25	U	133D256C2005U0	133D256X9005U0
7 WORKING VOLTS D-C			
20	U	133D206C2007U0	133D206X9007U0
100	V	133D107C2007V0	133D107X9007V0
250	T	133D257C2007T0	133D257X9007T0
10 WORKING VOLTS D-C			
15	U	133D156C2010U0	133D156X9010U0
70	V	133D706C2010V0	133D706X9010V0
170	T	133D177C2010T0	133D177X9010T0
15 WORKING VOLTS D-C			
10	U	133D106C2015U0	133D106X9015U0
20 WORKING VOLTS D-C			
8	U	133D805C2020U0	133D805X9020U0
40	V	133D406C2020V0	133D406X9020V0
100	T	133D107C2020T0	133D107X9020T0
30 WORKING VOLTS D-C			
5	U	133D505C2030U0	133D505X9030U0
25	V	133D256C2030V0	133D256X9030V0
60	T	133D606C2030T0	133D606X9030T0
40 WORKING VOLTS D-C			
4	U	133D405C2040U0	133D405X9040U0
20	V	133D206C2040V0	133D206X9040V0
50	T	133D506C2040T0	133D506X9040T0
50 WORKING VOLTS D-C			
3.5	U	133D355C2050U0	133D355X9050U0
15	V	133D156C2050V0	133D156X9050V0
40	T	133D406C2050T0	133D406X9050T0
70 WORKING VOLTS D-C			
2	U	133D205C2070U0	133D205X9070U0
11	V	133D116C2070V0	133D116X9070V0
30	T	133D306C2070T0	133D306X9070T0
85 WORKING VOLTS D-C			
1.7	U	133D175C2085U0	133D175X9085U0
9	V	133D905C2085V0	133D905X9085V0
25	T	133D256C2085T0	133D256X9085T0

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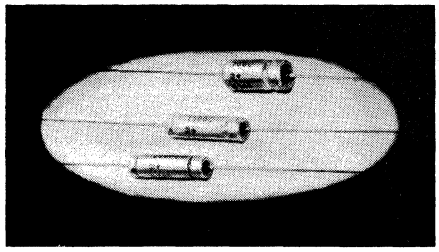
SPRAGUE CAPACITORS

TYPE 137D HERMETICALLY-SEALED GELLED-ELECTROLYTE SINTERED-ANODE TANTALEX® CAPACITORS

- Glass-to-metal Hermetic Seal Makes Type 137D Capacitors Especially Well Suited For Use in Satellites and Other Space Equipment.
- Gelled-electrolyte For Optimum Performance Characteristics
- High Volumetric Efficiency Results in Space Savings
- Operating Temperature Range of —55C to +175C
- Available in Voltage Ratings From 6 WVDC Through 125 WVDC At 85C With Appropriate Derating For Higher Temperature Operation
- Group 1 Available in Capacitance Tolerances of +20, —15% and +75, —15%; Group 2 Available in a Capacitance Tolerance of ±20%
- For Complete Technical Data, See Latest Issue of Sprague Engineering Bulletin Number 3703
- Call Your Sprague Industrial Distributor For Current Prices



GROUP 1: +20%, —15% and +75%, —15% Capacitance Tolerance with Outer Plastic-film Insulation

μF	Diam. (±0.015)	Length (max.)	Catalog No.*
	6 VOLTS D-C WORKING		
140	0.296	0.704	137D147C2006F2
330	0.390	0.828	137D337C2006T2
	8 VOLTS D-C WORKING		
120	0.296	0.704	137D127C2008F2
290	0.390	0.828	137D297C2008T2
	10 VOLTS D-C WORKING		
85	0.296	0.704	137D856C2010F2
100	0.296	0.704	137D107C2010F2
220	0.390	0.828	137D227C2010T2
250	0.390	0.828	137D257C2010T2
	15 VOLTS D-C WORKING		
55	0.296	0.704	137D556C2015F2
70	0.296	0.704	137D706C2015F2
150	0.390	0.828	137D157C2015T2
170	0.390	0.828	137D177C2015T2
	25 VOLTS D-C WORKING		
45	0.296	0.704	137D456C2025F2
50	0.296	0.704	137D506C2025F2
110	0.390	0.828	137D117C2025T2
	30 VOLTS D-C WORKING		
35	0.296	0.704	137D356C2030F2
40	0.296	0.704	137D406C2030F2
80	0.390	0.828	137D806C2030T2
100	0.390	0.828	137D107C2030T2
	50 VOLTS D-C WORKING		
22	0.296	0.704	137D226C2050F2
25	0.296	0.704	137D256C2050F2
55	0.390	0.828	137D556C2050T2
60	0.390	0.828	137D606C2050T2
	60 VOLTS D-C WORKING		
18	0.296	0.704	137D186C2060F2
20	0.296	0.704	137D206C2060F2
45	0.390	0.828	137D456C2060T2
50	0.390	0.828	137D506C2060T2
	75 VOLTS D-C WORKING		
13	0.296	0.704	137D136C2075F2
15	0.296	0.704	137D156C2075F2
35	0.390	0.828	137D356C2075T2
45	0.390	0.828	137D456C2075T2
	100 VOLTS D-C WORKING		
10	0.296	0.704	137D106C2100F2
11	0.296	0.704	137D116C2100F2
27	0.390	0.828	137D276C2100T2
30	0.390	0.828	137D306C2100T2
	125 VOLTS D-C WORKING		
9	0.296	0.704	137D905C2125F2
18	0.390	0.828	137D186C2125T2

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*Catalog numbers listed are for +20, —15% tolerance capacitors. For +75, —15% tolerance capacitors, change the digit following the letter "C" from "2" to "7".

GROUP 2: ±20% Capacitance Tolerance with Outer Plastic-film Insulation

These capacitors have approximately twice the capacitance of Group 1 capacitors of the same physical size of a given voltage rating.

μF	Diam. (±0.015)	Length (max.)	Catalog No.
	6 VOLTS D-C WORKING		
270	0.296	0.704	137D277X0006F2
540	0.296	1.095	137D547X0006A2
560	0.390	0.828	137D567X0006T2
	8 VOLTS D-C WORKING		
220	0.296	0.704	137D227X0008F2
430	0.390	0.828	137D437X0008T2
440	0.296	1.095	137D447X0008A2
	10 VOLTS D-C WORKING		
180	0.296	0.704	137D187X0010F2
360	0.296	1.095	137D367X0010A2
390	0.390	0.828	137D397X0010T2
	15 VOLTS D-C WORKING		
120	0.296	0.704	137D127X0015F2
240	0.296	1.095	137D247X0015A2
270	0.390	0.828	137D277X0015T2
	25 VOLTS D-C WORKING		
100	0.296	0.704	137D107X0025F2
180	0.390	0.828	137D187X0025T2
200	0.296	1.095	137D207X0025A2
	30 VOLTS D-C WORKING		
68	0.296	0.704	137D686X0030F2
140	0.296	1.095	137D147X0030A2
150	0.390	0.828	137D157X0030T2
	50 VOLTS D-C WORKING		
47	0.296	0.704	137D476X0050F2
82	0.390	0.828	137D826X0050T2
94	0.296	1.095	137D946X0050A2
	60 VOLTS D-C WORKING		
39	0.296	0.704	137D396X0060F2
68	0.390	0.828	137D686X0060T2
78	0.296	1.095	137D786X0060A2
	75 VOLTS D-C WORKING		
33	0.296	0.704	137D336X0075F2
56	0.390	0.828	137D566X0075T2
66	0.296	1.095	137D666X0075A2
	100 VOLTS D-C WORKING		
22	0.296	0.704	137D226X0100F2
43	0.390	0.828	137D436X0100T2
44	0.296	1.095	137D446X0100A2
	125 VOLTS D-C WORKING		
14	0.296	0.704	137D146X0125F2
25	0.390	0.828	137D256X0125T2
28	0.296	1.095	137D286X0125A2

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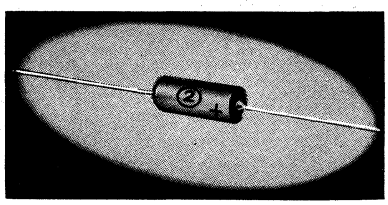
SPRAGUE CAPACITORS

MIL-C-26655 Solid TANTALUM CAPACITORS

- Military Version of Type 150D.
- CS12, Bare Tube; CS13, Insulating Sleeve
- Solid Electrolyte Will Not Seep Even if Hermetic Seal is Accidentally Broken
- Temperature Range of −55C to +85C. Also −55C to +125C With Voltage Derating
- See Latest Issue of Engineering Bulletin 3502.1
- Call Your Sprague Distributor For Quantity Prices
- For Insulated Style CS13, Add 0.010" to Diameter and 0.036" to Length



SIZE CODE

A = .125" D. x .250" L. C = .279" D. x .650" L.
B = .175" D. x .438" L. D = .341" D. x .750" L.

µF	Size Code	Tol.	CS12 Type Designation	CS13 Type Designation
6 WVDC				
5.6	A	10%	CS12BB565K	CS13BB565K
6.8	A	10%	CS12BB685K	CS13BB685K
6.8	A	20%	CS12BB685M	CS13BB685M
47	B	10%	CS12BB476K	CS13BB476K
47	B	20%	CS12BB476M	CS13BB476M
56	B	10%	CS12BB566K	CS13BB566K
150	C	10%	CS12BB157K	CS13BB157K
150	C	20%	CS12BB157M	CS13BB157M
180	C	10%	CS12BB187K	CS13BB187K
270	D	10%	CS12BB277K	CS13BB277K
330	D	10%	CS12BB337K	CS13BB337K
330	D	20%	CS12BB337M	CS13BB337M
10 WVDC				
3.9	A	10%	CS12BC395K	CS13BC395K
4.7	A	10%	CS12BC475K	CS13BC475K
4.7	A	20%	CS12BC475M	CS13BC475M
27	B	10%	CS12BC276K	CS13BC276K
33	B	10%	CS12BC336K	CA13BC336K
33	B	20%	CS12BC336M	CA13BC336M
39	B	10%	CS12BC396K	CS13BC396K
82	C	10%	CS12BC826K	CS13BC826K
100	C	10%	CS12BC107K	CS13BC107K
100	C	20%	CS12BC107M	CS13BC107M
120	C	10%	CS12BC127K	CS13BC127K
180	D	10%	CS12BC187K	CS13BC187K
220	D	10%	CS12BC227K	CS13BC227K
220	D	20%	CS12BC227M	CS13BC227M
15 WVDC				
2.7	A	10%	CS12BD275K	CS13BD275K
3.3	A	10%	CS12BD335K	CS13BD335K
3.3	A	20%	CS12BD335M	CS13BD335M
18	B	10%	CS12BD186K	CS13BD186K
22	B	10%	CS12BD226K	CS13BD226K
22	B	20%	CS12BD226M	CS13BD226M
56	C	10%	CS12BD566K	CS13BD566K
68	C	10%	CS12BD686K	CS13BD686K
68	C	20%	CS12BD686M	CS13BD686M
120	D	10%	CS12BD127K	CS13BD127K
150	D	10%	CS12BD157K	CS13BD157K
150	D	20%	CS12BD157M	CS13BD157M
20 WVDC				
1.2	A	10%	CS12BE125K	CS13BE125K
1.5	A	10%	CS12BE155K	CS13BE155K
1.5	A	20%	CS12BE155M	CS13BE155M
1.8	A	10%	CS12BE185K	CS13BE185K
2.2	A	10%	CS12BE225K	CS13BE225K
2.2	A	20%	CS12BE225M	CS13BE225M
8.2	B	10%	CS12BE825K	CS13BE825K
10	B	10%	CS12BE106K	CS13BE106K
10	B	20%	CS12BE106M	CS13BE106M
12	B	10%	CS12BE126K	CS13BE126K
15	B	10%	CS12BE156K	CS13BE156K
15	B	20%	CS12BE156M	CS13BE156M
27	C	10%	CS12BE276K	CS13BE276K
33	C	10%	CS12BE336K	CS13BE336K
33	C	20%	CS12BE336M	CS13BE336M
39	C	10%	CS12BE396K	CS13BE396K
47	C	10%	CS12BE476K	CS13BE476K
47	C	20%	CS12BE476M	CS13BE476M
56	D	10%	CS12BE566K	CS13BE566K
68	D	10%	CS12BE686K	CS13BE686K
68	D	20%	CS12BE686M	CS13BE686M
82	D	10%	CS12BE826K	CS13BE826K
100	D	10%	CS12BE107K	CS13BE107K
100	D	20%	CS12BE107M	CS13BE107M
35 WVDC				
.33	A	10%	CS12BF334K	CS13BF334K
.33	A	20%	CS12BF334M	CS13BF334M
.39	A	10%	CS12BF394K	CS13BF394K
.47	A	10%	CS12BF474K	CS13BF474K
.47	A	20%	CS12BF564K	CS13BF474M
.56	A	10%	CS12BF564K	CS13BF564K
.68	A	10%	CS12BF684K	CS13BF684K
.68	A	20%	CS12BF684M	CS13BF684M
.82	A	10%	CS12BF824K	CS13BF824K
1.0	A	10%	CS12BF105K	CS13BF105K
1.0	A	20%	CS12BF105M	CS13BF105M
1.2	B	10%	CS12BF125K	CS13BF125K
1.5	B	10%	CS12BF155K	CS13BF155K
1.5	B	20%	CS12BF155M	CS13BF155M
1.8	B	10%	CS12BF185K	CS13BF185K
2.2	B	10%	CS12BF225K	CS13BF225K
2.2	B	20%	CS12BF225M	CS13BF225M
2.7	B	10%	CS12BF275K	CS13BF275K
3.3	B	10%	CS12BF335K	CS13BF335K
3.3	B	20%	CS12BF335M	CS13BF335M
3.9	B	10%	CS12BF395K	CS13BF395K
4.7	B	10%	CS12BF475K	CS13BF475K
4.7	B	20%	CS12BF475M	CS13BF475M
5.6	B	10%	CS12BF565K	CS13BF565K
6.8	B	10%	CS12BF685K	CS13BF685K
6.8	B	20%	CS12BF685M	CS13BF685M
8.2	C	10%	CS12BF825K	CS13BF825K
10	C	10%	CS12BF106K	CS13BF106K
10	C	20%	CS12BF106M	CS13BF106M
12	C	10%	CS12BF126K	CS13BF126K
15	C	10%	CS12BF156K	CS13BF156K
15	C	20%	CS12BF156M	CS13BF156M
18	C	10%	CS12BF186K	CS13BF186K
22	C	10%	CS12BF226K	CS13BF226K
22	C	20%	CS12BF226M	CS13BF226M
27	D	10%	CS12BF276K	CS13BF276K
33	D	10%	CS12BF336K	CS13BF336K
33	D	20%	CS12BF336M	CS13BF336M
39	D	10%	CS12BF396K	CS13BF396K
47	D	10%	CS12BF476K	CS13BF476K
47	D	20%	CS12BF476M	CS13BF476M
50 WVDC				
1.0	A	10%	CS12BG105K	CS13BG105K
1.0	A	20%	CS12BG105M	CS13BG105M
1.2	B	10%	CS12BG125K	CS13BG125K
1.5	B	10%	CS12BG155K	CS13BG155K
1.5	B	20%	CS12BG155M	CS13BG155M
1.8	B	10%	CS12BG185K	CS13BG185K
2.2	B	10%	CS12BG225K	CS13BG225K
2.2	B	20%	CS12BG225M	CS13BG225M
2.7	B	10%	CS12BG275K	CS13BG275K
3.3	B	10%	CS12BG335K	CS13BG335K
3.3	B	20%	CS12BG335M	CS13BG335M
3.9	B	10%	CS12BG395K	CS13BG395K
4.7	B	10%	CS12BG475K	CS13BG475K
4.7	B	20%	CS12BG475M	CS13BG475M
5.6	C	10%	CS12BG565K	CS13BG565K
6.8	C	10%	CS12BG685K	CS13BG685K
6.8	C	20%	CS12BG685M	CS13BG685M
8.2	C	10%	CS12BG825K	CS13BG825K
10	C	10%	CS12BG106K	CS13BG106K
10	C	20%	CS12BG106M	CS13BG106M
12	C	10%	CS12BG126K	CS13BG126K
15	C	10%	CS12BG156K	CS13BG156K
15	C	20%	CS12BG156M	CS13BG156M
18	C	10%	CS12BG186K	CS13BG186K
22	D	10%	CS12BG226K	CS13BG226K
22	D	20%	CS12BG226M	CS13BG226M
75 WVDC				
.10	A	10%	CS12BH104K	CS13BH104K
.10	A	20%	CS12BH104M	CS13BH104M
.12	A	10%	CS12BH124K	CS13BH124K
.15	A	10%	CS12BH154K	CS13BH154K
.15	A	20%	CS12BH154M	CS13BH154M
.18	A	10%	CS12BH184K	CS13BH184K
.22	A	10%	CS12BH224K	CS13BH224K
.22	A	20%	CS12BH224M	CS13BH224M
.27	A	10%	CS12BH274K	CS13BH274K
.33	A	10%	CS12BH334K	CS13BH334K
.33	A	20%	CS12BH334M	CS13BH334M
.39	A	10%	CS12BH394K	CS13BH394K
.47	A	10%	CS12BH474K	CS13BH474K
.47	A	20%	CS12BH474M	CS13BH474M
.56	A	10%	CS12BH564K	CS13BH564K
.68	A	10%	CS12BH684K	CS13BH684K
.68	A	20%	CS12BH684M	CS13BH684M
.82	B	10%	CS12BH824K	CS13BH824K
1.0	B	10%	CS12BH105K	CS13BH105K
1.0	B	20%	CS12BH105M	CS13BH105M
1.2	B	10%	CS12BH125K	CS13BH125K
1.5	B	10%	CS12BH155K	CS13BH155K
1.5	B	20%	CS12BH155M	CS13BH155M
1.8	B	10%	CS12BH185K	CS13BH185K
2.2	B	10%	CS12BH225K	CS13BH225K
2.2	B	20%	CS12BH225M	CS13BH225M
2.7	B	10%	CS12BH275K	CS13BH275K
3.3	B	10%	CS12BH335K	CS13BH335K
3.3	B	20%	CS12BH335M	CS13BH335M
3.9	B	10%	CS12BH395K	CS13BH395K
4.7	C	10%	CS12BH475K	CS13BH475K
4.7	C	20%	CS12BH475M	CS13BH475M
5.6	C	10%	CS12BH565K	CS13BH565K
6.8	C	10%	CS12BH685K	CS13BH685K
6.8	C	20%	CS12BH685M	CS13BH685M
8.2	C	10%	CS12BH825K	CS13BH825K
10	C	10%	CS12BH106K	CS13BH106K
10	C	20%	CS12BH106M	CS13BH106M
12	D	10%	CS12BH126K	CS13BH126K
15	D	10%	CS12BH156K	CS13BH156K
15	D	20%	CS12BH156M	CS13BH156M
100 WVDC				
.0047	A	10%	CS12BJ472K	CS13BJ472K
.0047	A	20%	CS12BJ472M	CS13BJ472M
.0056	A	10%	CS12BJ562K	CS13BJ562K
.0068	A	10%	CS12BJ682K	CS13BJ682K
.0068	A	20%	CS12BJ682M	CS13BJ682M
.0082	A	10%	CS12BJ822K	CS13BJ822K
.01	A	10%	CS12BJ103K	CS13BJ103K
.01	A	20%	CS12BJ103M	CS13BJ103M
.012	A	10%	CS12BJ123K	CS13BJ123K
.015	A	10%	CS12BJ153K	CS13BJ153K
.015	A	20%	CS12BJ153M	CS13BJ153M
.018	A	10%	CS12BJ183K	CS13BJ183K
.022	A	10%	CS12BJ223K	CS13BJ223K
.022	A	20%	CS12BJ223M	CS13BJ223M
.027	A	10%	CS12BJ273K	CS13BJ273K
.033	A	10%	CS12BJ333K	CS13BJ333K
.033	A	20%	CS12BJ333M	CS13BJ333M
.039	A	10%	CS12BJ393K	CS13BJ393K
.047	A	10%	CS12BJ473K	CS13BJ473K
.047	A	20%	CS12BJ473M	CS13BJ473M
.056	A	10%	CS12BJ563K	CS13BJ563K
.068	A	10%	CS12BJ683K	CS13BJ683K
.068	A	20%	CS12BJ683M	CS13BJ683M
.082	A	10%	CS12BJ823K	CS13BJ823K
.10	A	10%	CS12BJ104K	CS13BJ104K
.10	A	20%	CS12BJ104M	CS13BJ104M
.12	A	10%	CS12BJ124K	CS13BJ124K
.15	A	10%	CS12BJ154K	CS13BJ154K
.15	A	20%	CS12BJ154M	CS13BJ154M
.18	A	10%	CS12BJ184K	CS13BJ184K
.22	A	10%	CS12BJ224K	CS13BJ224K
.22	A	20%	CS12BJ224M	CS13BJ224M
.27	A	10%	CS12BJ274K	CS13BJ274K
.33	A	10%	CS12BJ334K	CS13BJ334K
.33	A	20%	CS12BJ334M	CS13BJ334M
.39	A	10%	CS12BJ394K	CS13BJ394K
.47	A	10%	CS12BJ474K	CS13BJ474K
.47	A	20%	CS12BJ474M	CS13BJ474M
.56	A	10%	CS12BJ564K	CS13BJ564K
.68	B	10%	CS12BJ684K	CS13BJ684K
.68	B	20%	CS12BJ684M	CS13BJ684M
.82	B	10%	CS12BJ824K	CS13BJ824K
1.0	B	10%	CS12BJ105K	CS13BJ105K
1.0	B	20%	CS12BJ105M	CS13BJ105M
1.2	B	10%	CS12BJ125K	CS13BJ125K
1.5	B	10%	CS12BJ155K	CS13BJ155K
1.5	B	20%	CS12BJ155M	CS13BJ155M
1.8	B	10%	CS12BJ185K	CS13BJ185K
2.2	B	10%	CS12BJ225K	CS13BJ225K
2.2	B	20%	CS12BJ225M	CS13BJ225M
2.7	B	10%	CS12BJ275K	CS13BJ275K

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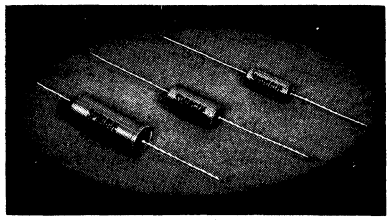
SPRAGUE CAPACITORS

MIL-C-3965 FOIL TANTALUM CAPACITORS TYPES CL24 & CL25



DIMENSIONS

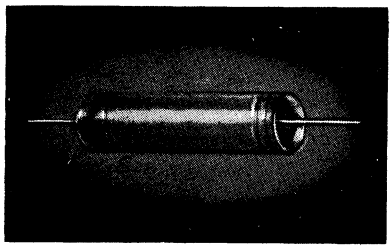
Code	D. x L.	Code	D. x L.
D	13/64 x 3/4	M	25/64 x 23/16
G	19/64 x 15/16	P	25/64 x 213/16
J	25/64 x 1 1/2		

- For −55C to +85C Operation up to 150 Volts in Military and Industrial Electronic Equipment
- Low Leakage Current and Stable Temperature Coefficient Makes Possible Its Use in Many Circuits Where Aluminum Foil Designs Are Undesirable
- The Electrolyte System Used Assures Long Operating and Shelf Life, excellent Low-temperature Performance, Chemical Stability and Inertness
- Dimensions Listed Are For Bare Metal-Case For Insulated Case Add 1/64" to Diameter and 1/8" to Length
- MIL Version of Sprague Type 112D
- Type CL24 Is a Bare Metal-Case Unit. If An Outer Insulating Sleeve Is Desired, Order Type CL25
- Call Your Sprague Industrial Distributor For Current Quantity Prices

µF	WVDC	Size Code	Military Designation*	
15	15	D	CL24BE150UP3	CL25BE150UP3
60	15	G	CL24BE600UP3	CL25BE600UP3
200	15	J	CL24BE201UP3	CL25BE201UP3
400	15	M	CL24BE401UP3	CL25BE401UP3
580	15	P	CL24BE581UP3	CL25BE581UP3
10	25	D	CL24BG100UP3	CL25BG100UP3
40	25	G	CL24BG400UP3	CL25BG400UP3
120	25	J	CL24BG121UP3	CL25BG121UP3
250	25	M	CL24BG251UP3	CL25BG251UP3
350	25	P	CL24BG351UP3	CL25BG351UP3
8	30	D	CL24BH080UP3	CL25BH080UP3
32	30	G	CL24BH320UP3	CL25BH320UP3
110	30	J	CL24BH111UP3	CL25BH111UP3
220	30	M	CL24BH221UP3	CL25BH221UP3
300	30	P	CL24BH301UP3	CL25BH301UP3
4.5	50	D	CL24BJ4R5TP3	CL25BJ4R5TP3
18	50	G	CL24BJ180TP3	CL25BJ180TP3
60	50	J	CL24BJ600TP3	CL25BJ600TP3
100	50	M	CL24BJ101TP3	CL25BJ101TP3
150	50	P	CL24BJ151TP3	CL25BJ151TP3
3	75	D	CL24BL030TP3	CL25BL030TP3
12	75	G	CL24BL120TP3	CL25BL120TP3
30	75	J	CL24BL300TP3	CL25BL300TP3
70	75	M	CL24BL700TP3	CL25BL700TP3
100	75	P	CL24BL101TP3	CL25BL101TP3
2	100	D	CL24BN020SP3	CL25BN020SP3
8	100	G	CL24BN080SP3	CL25BN080SP3
25	100	J	CL24BN250SP3	CL25BN250SP3
50	100	M	BL24BN500SP3	CL25BN500SP3
70	100	P	CL24BN700SP3	CL25BN700SP3
1	150	D	CL24BQ010SP3	CL25BQ010SP3
4	150	G	CL24BQ040SP3	CL25BQ040SP3
13	150	J	CL24BQ130SP3	CL25BQ130SP3
25	150	M	CL24BQ250SP3	CL25BQ250SP3
36	150	P	CL24BQ360SP3	CL25BQ360SP3

*Note: For vibration grade 1 or 2, change last digit of military designation to 1 or 2.

MIL-C-3965 FOIL TANTALUM CAPACITORS TYPES CL34 and CL35



- For use in military and industrial electronic equipment. Designed to operate over the temperature range of −55C to +85C
- Long operation and shelf life, excellent low temperature performance, and optimum electrical characteristics
- For use in circuits where aluminum foil units are unsatisfactory
- Low leakage current and good temperature coefficient
- Type CL34 is a bare metal case unit. If an outer insulating sleeve is desired, order Type CL35
- MIL version of Sprague Type 110D
- Call Your Sprague Industrial Distributor For Current Quantity Prices

DIMENSIONS

Code	D. x L.	Code	D. x L.
D	3/16 x 11/16	M	3/8 x 2 1/8
G	9/32 x 7/8	P	3/8 x 2 3/4
J	3/8 x 1 7/16		

µF	WVDC	Size Code	Military Designation*	
10	3	D	CL34BA100MP3	CL35BA100MP3
50	3	G	CL34BA500MP3	CL35BA500MP3
8	6	D	CL34BB080MP3	CL35BB080MP3
30	6	G	CL34BB300MP3	CL35BB300MP3
100	6	J	CL34BB101MP3	CL35BB101MP3
200	6	M	CL34BB201MP3	CL35BB201MP3
300	6	P	CL34BB301MP3	CL35BB301MP3
6	10	D	CL34BD060MP3	CL35BD060MP3
25	10	G	CL34BD250MP3	CL35BD250MP3
80	10	J	CL34BD800MP3	CL35BD800MP3
160	10	M	CL34BD161MP3	CL35BD161MP3
220	10	P	CL34BD221MP3	CL35BD221MP3
4.5	15	D	CL34BE4R5MP3	CL35BE4R5MP3
10	15	G	CL34BE100MP3	CL35BE100MP3
18	15	G	CL34BE180MP3	CL35BE180MP3
55	15	J	CL34BE550MP3	CL35BE550MP3
110	15	M	CL34BE111MP3	CL35BE111MP3
160	15	P	CL34BE161MP3	CL35BE161MP3
2.5	30	D	CL34BH2R5MP3	CL35BH2R2MP3
30	30	J	CL34BH300MP3	CL35BH300MP3
60	30	M	CL34BH300MP3	CL35BH600MP3
85	30	P	CL34BH850MP3	CL35BH850MP3
1.5	50	D	CL34BJ1R5MP3	CL35BJ1R5MP3
6	50	G	CL34BJ060MP3	CL35BJ060MP3
20	50	J	CL34BJ200MP3	CL35BJ200MP3
40	50	M	CL34BJ400MP3	CL35BJ400MP3
55	50	P	CL34BJ550MP3	CL35BJ550MP3
1	75	D	CL34BL010MP3	CL35BL010MP3
4	75	G	CL34BL040MP3	CL35BL040MP3
14	75	J	CL34BL140MP3	CL35BL140MP3
28	75	M	CL34BL280MP3	CL35BL280MP3
40	75	P	CL34BL400MP3	CL35BL400MP3
0.8	100	D	CL34BN0R8MP3	CL35BN0R8MP3
3	100	G	CL34BN030MP3	CL35BN030MP3
10	100	J	CL34BN100MP3	CL35BN100MP3
20	100	M	CL34BN200MP3	CL35BN200MP3
30	100	P	CL34BN300MP3	CL35BN300MP3
0.5	150	D	CL34BQ0R5MP3	CL35BQ0R5MP3
2	150	G	CL34BQ020MP3	CL35BQ020MP3
4	150	J	CL34BQ040MP3	CL35BQ040MP3
7	150	J	CL34BQ070MP3	CL35BQ070MP3
8	150	M	CL34BQ080MP3	CL35BQ080MP3
12	150	M	CL34BQ120MP3	CL35BQ120MP3
14	150	M	CL34BQ140MP3	CL35BQ140MP3
20	150	P	CL34BQ200MP3	CL35BQ200MP3
.35	200	D	CL34BRR35LP3	CL35BRR35LP3
1.5	200	G	CL34BR1R5LP3	CL35BR1R5LP3
5	200	J	CL34BR050LP3	CL35BR050LP3
10	200	M	CL34BR100LP3	CL35BR100LP3
15	200	P	CL34BR150LP3	CL35BR150LP3
.30	250	D	CL34BSR30LP3	CL35BSR30LP3
1.2	250	G	CL34BS1R2LP3	CL35BS1R2LP3
4	250	J	CL34BS040LP3	CL35BS040LP3
8	250	M	CL34BS080LP3	CL35BS080LP3
12	250	P	CL34BS120LP3	CL35BS120LP3
1	300	G	CL34BX010LP3	CL35BX010LP3
3	300	J	CL34BX030LP3	CL35BX030LP3
7	300	M	CL34BX070LP3	CL35BX070LP3
10	300	P	CL34BX100LP3	CL35BX100LP3

*Note: For vibration grade 1 or 2, change last digit of military designation to 1 or 2.

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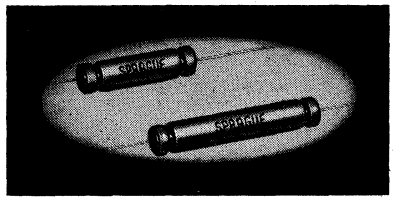
SPRAGUE CAPACITORS

MIL-C-3965 TUBULAR FOIL TANTALUM ELECTROLYTICS

TYPES CL20, CL21, CL22, CL23, CL30, CL31, CL32, and CL33

- Meet Requirements of Military Specification MIL-C-3965
- Small Electrically Stable Foil Tantalums, Long, Reliable Life
- Available in Industrial Equivalents as Types 120D, 121D, 122D, 123D
- Temperature Rating 125C
- Types Marked (*) Have Insulating Sleeves All Others are Bare Case
- Capacitance Tolerance
  M = +20, −20% S = +30, −15%
  T = +50, −15% U = +75, −15%
- Call Your Sprague Industrial Distributor for Current Quantity Prices

SIZE CODE (Diam x Length)	
E 13/64 x 3/4	N 25/64 x 2 1/4
H 13/64 x 1 1/32	Q 25/64 x 2 7/8
K 25/64 x 1 9/16	



µF	Size Code	MIL Type
TYPE CL20		
POLARIZED ETCHED FOIL		
10 WORKING VOLTS D-C		
15	E	CL20CD150UP3
60	H	CL20CD600UP3
200	K	CL20CD201UP3
400	N	CL20CD401UP3
580	Q	CL20CD581UP3
15 WORKING VOLTS D-C		
10	E	CL20CE100UP3
40	H	CL20CE400UP3
120	K	CL20CE121UP3
250	N	CL20CE251UP3
350	Q	CL20CE351UP3
30 WORKING VOLTS D-C		
4.5	E	CL20CH4R5TP3
18	H	CL20CH180TP3
60	K	CL20CH600TP3
100	N	CL20CH101TP3
150	Q	CL20CH151TP3
50 WORKING VOLTS D-C		
3	E	CL20CJ030TP3
12	H	CL20CJ120TP3
30	K	CL20CJ300TP3
70	N	CL20CJ700TP3
100	Q	CL20CJ101TP3
60 WORKING VOLTS D-C		
2	E	CL20CK020TP3
8	H	CL20CK080TP3
25	K	CL20CK250TP3
50	N	CL20CK500TP3
70	Q	CL20CK700TP3
100 WORKING VOLTS D-C		
1	E	CL20CN010SP3
4	H	CL20CN040SP3
13	K	CL20CN130SP3
25	N	CL20CN250SP3
36	Q	CL20CN360SP3
TYPE CL21*		
POLARIZED ETCHED FOIL		
10 WORKING VOLTS D-C		
15	E	CL21CD150UP3
60	H	CL21CD600UP3
200	K	CL21CD201UP3
400	N	CL21CD401UP3
590	Q	CL21CD581UP3
15 WORKING VOLTS D-C		
10	E	CL21CE100UP3
40	H	CL21CE400UP3
120	K	CL21CE121UP3
250	N	CL21CE251UP3
350	Q	CL21CE351UP3
30 WORKING VOLTS D-C		
4.5	E	CL21CH4R5TP3
18	H	CL21CH180TP3
60	K	CL21CH600TP3
100	N	CL21CH101TP3
150	Q	CL21CH151TP3
50 WORKING VOLTS D-C		
3	E	CL21CJ030TP3
12	H	CL21CJ120TP3
30	K	CL21CJ300TP3
70	N	CL21CJ700TP3
100	Q	CL21CJ101TP3
60 WORKING VOLTS D-C		
2	E	CL21CK020TP3
8	H	CL21CK080TP3
25	K	CL21CK250TP3
50	N	CL21CK500TP3
70	Q	CL21CK700TP3
100 WORKING VOLTS D-C		
1	E	CL21CN010SP3
4	H	CL21CN040SP3
13	K	CL21CN130SP3
25	N	CL21CN250SP3
36	Q	CL21CN360SP3
TYPE CL22		
NON-POLARIZED ETCHED FOIL		
10 WORKING VOLTS D-C		
10	E	CL22CD100UN3
40	H	CL22CD400UN3
120	K	CL22CD121UN3
250	N	CL22CD251UN3
350	Q	CL22CD351UN3
15 WORKING VOLTS D-C		
5	E	CL22CE050UN3
20	H	CL22CE200UN3
70	K	CL22CE700UN3
140	N	CL22CE141UN3
200	Q	CL22CE201UN3
30 WORKING VOLTS D-C		
2.5	E	CL22CH2R5TN3
10	H	CL22CH100TN3
30	K	CL22CH300TN3
60	N	CL22CH600TN3
80	Q	CL22CH800TN3
50 WORKING VOLTS D-C		
1.5	E	CL22CJ1R5TN3
6	H	CL22CJ060TN3
15	K	CL22CJ150TN3
35	N	CL22CJ350TN3
50	Q	CL22CJ500TN3
60 WORKING VOLTS D-C		
1	E	CL22CK010TN3
4	H	CL22CK040TN3
12	K	CL22CK120TN3
25	N	CL22CK250TN3
35	Q	CL22CK350TN3
100 WORKING VOLTS D-C		
0.5	E	CL22CN0R5SN3
2	H	CL22CN020SN3
6	K	CL22CN060SN3
12	N	CL22CN120SN3
18	Q	CL22CN180SN3
TYPE CL23*		
NON-POLARIZED ETCHED FOIL		
10 WORKING VOLTS D-C		
10	E	CL23CD100UN3
40	H	CL23CD400UN3
120	K	CL23CD121UN3
250	N	CL23CD251UN3
350	Q	CL23CD351UN3
15 WORKING VOLTS D-C		
5	E	CL23CE050UN3
20	H	CL23CE200UN3
70	K	CL23CE700UN3
140	N	CL23CE141UN3
200	Q	CL23CE201UN3
30 WORKING VOLTS D-C		
2.5	E	CL23CH2R5TN3
10	H	CL23CH100TN3
30	K	CL23CH300TN3
60	N	CL23CH600TN3
80	Q	CL23CH800TN3
50 WORKING VOLTS D-C		
1.5	E	CL23CJ1R5TN3
6	H	CL23CJ060TN3
15	K	CL23CJ150TN3
35	N	CL23CJ350TN3
50	Q	CL23CJ500TN3
60 WORKING VOLTS D-C		
1	E	CL23CK010TN3
4	H	CL23CK040TN3
12	K	CL23CK120TN3
25	N	CL23CK250TN3
35	Q	CL23CK350TN3
100 WORKING VOLTS D-C		
0.5	E	CL23CN0R5SN3
2	H	CL23CN020SN3
6	K	CL23CN060SN3
12	N	CL23CN120SN3
18	Q	CL23CN180SN3
TYPE CL30		
POLARIZED PLAIN FOIL		
10 WORKING VOLTS D-C		
4.5	E	CL30CD4R5MP3
18	H	CL30CD180MP3
55	K	CL30CD550MP3
110	N	CL30CD111MP3
160	Q	CL30CD161MP3
15 WORKING VOLTS D-C		
3	E	CL30CE030MP3
12	H	CL30CE120MP3
35	K	CL30CE350MP3
70	N	CL30CE700MP3
100	Q	CL30CE101MP3
30 WORKING VOLTS D-C		
1.5	E	CL30CH1R5MP3
6	H	CL30CH060MP3
20	K	CL30CH200MP3
40	N	CL30CH400MP3
55	Q	CL30CH550MP3
50 WORKING VOLTS D-C		
1	E	CL30CJ010MP3
4	H	CL30CJ040MP3
14	K	CL30CJ140MP3
28	N	CL30CJ280MP3
40	Q	CL30CJ400MP3
60 WORKING VOLTS D-C		
0.8	E	CL30CK0R8MP3
3	H	CL30CK030MP3
10	K	CL30CK100MP3
20	N	CL30CK200MP3
30	Q	CL30CK300MP3
100 WORKING VOLTS D-C		
0.5	E	CL30CN0R5MP3
2	H	CL30CN020MP3
7	K	CL30CN070MP3
14	N	CL30CN140MP3
20	Q	CL30CN200MP3
150 WORKING VOLTS D-C		
0.35	E	CL30CQR35MP3
1.5	H	CL30CQ1R5MP3
5	K	CL30CQ050MP3
10	N	CL30CQ100MP3
15	Q	CL30CQ150MP3
TYPE CL31*		
POLARIZED PLAIN FOIL		
10 WORKING VOLTS D-C		
4.5	E	CL31CD4R5MP3
18	H	CL31CD180MP3
55	K	CL31CD550MP3
110	N	CL31CD111MP3
160	Q	CL31CD161MP3
15 WORKING VOLTS D-C		
3	E	CL31CE030MP3
12	H	CL31CE120MP3
35	K	CL31CE350MP3
70	N	CL31CE700MP3
100	Q	CL31CE101MP3
30 WORKING VOLTS D-C		
1.5	E	CL31CH1R5MP3
6	H	CL31CH060MP3
20	K	CL31CH200MP3
40	N	CL31CH400MP3
55	Q	CL31CH550MP3
50 WORKING VOLTS D-C		
1	E	CL31CJ010MP3
4	H	CL31CJ040MP3
14	K	CL31CJ140MP3
28	N	CL31CJ280MP3
40	Q	CL31CJ400MP3
60 WORKING VOLTS D-C		
0.8	E	CL31CK0R8MP3
3	H	CL31CK030MP3
10	K	CL31CK100MP3
20	N	CL31CK200MP3
30	Q	CL31CK300MP3
100 WORKING VOLTS D-C		
0.5	E	CL31CN0R5MP3
2	H	CL31CN020MP3
7	K	CL31CN070MP3
14	N	CL31CN140MP3
20	Q	CL31CN200MP3
150 WORKING VOLTS D-C		
0.35	E	CL31CQR35MP3
1.5	H	CL31CQ1R5MP3
5	K	CL31CQ050MP3
10	N	CL31CQ100MP3
15	Q	CL31CQ150MP3
TYPE CL32		
NON-POLARIZED PLAIN FOIL		
10 WORKING VOLTS D-C		
2.5	E	CL32CD2R5MN3
10	H	CL32CD100MN3
35	K	CL32CD350MN3
70	N	CL32CD700MN3
100	Q	CL32CD101MN3
15 WORKING VOLTS D-C		
1.5	E	CL32CE1R5MN3
6	H	CL32CE060MN3
20	K	CL32CE200MN3
40	N	CL32CE400MN3
60	Q	CL32CE600MN3
30 WORKING VOLTS D-C		
0.8	E	CL32CH0R8MN3
3	H	CL32CH030MN3
10	K	CL32CH100MN3
20	N	CL32CH200MN3
30	Q	CL32CH300MN3
50 WORKING VOLTS D-C		
0.5	E	CL32CJ0R5MN3
2	H	CL32CJ020MN3
7	K	CL32CJ070MN3
14	N	CL32CJ140MN3
20	Q	CL32CJ200MN3
60 WORKING VOLTS D-C		
0.4	E	CL32CK0R4MN3
1.5	H	CL32CK1R5MN3
5	K	CL32CK050MN3
10	N	CL32CK100MN3
15	Q	CL32CK150MN3
100 WORKING VOLTS D-C		
0.25	E	CL32CNR25MN3
1	H	CL32CN010MN3
3.5	K	CL32CN3R5MN3
7	N	CL32CN070MN3
10	Q	CL32CN100MN3
150 WORKING VOLTS D-C		
0.15	E	CL32CQR15MN3
0.75	H	CL32CQR75MN3
2.5	K	CL32CQ2R5MN3
5	N	CL32CQ050MN3
7.5	Q	CL32CQ7R5MN3
TYPE CL33*		
NON-POLARIZED PLAIN FOIL		
10 WORKING VOLTS D-C		
2.5	E	CL33CD2R5MN3
10	H	CL33CD100MN3
35	K	CL33CD350MN3
70	N	CL33CD700MN3
100	Q	CL33CD101MN3
15 WORKING VOLTS D-C		
1.5	E	CL33CE1R5MN3
6	H	CL33CE060MN3
20	K	CL33CE200MN3
40	N	CL33CE400MN3
60	Q	CL33CE600MN3
30 WORKING VOLTS D-C		
0.8	E	CL33CH0R8MN3
3	H	CL33CH030MN3
10	K	CL33CH100MN3
20	N	CL33CH200MN3
30	Q	CL33CH300MN3
50 WORKING VOLTS D-C		
0.5	E	CL33CJ0R5MN3
2	H	CL33CJ020MN3
7	K	CL33CJ070MN3
14	N	CL33CJ140MN3
20	Q	CL33CJ200MN3
60 WORKING VOLTS D-C		
0.4	E	CL33CK0R4MN3
1.5	H	CL33CK1R5MN3
5	K	CL33CK050MN3
10	N	CL33CK100MN3
15	Q	CL33CK150MN3
100 WORKING VOLTS D-C		
0.25	E	CL33CNR25MN3
1	H	CL33CN010MN3
3.5	K	CL33CN3R5MN3
7	N	CL33CN070MN3
10	Q	CL33CN100MN3
150 WORKING VOLTS D-C		
0.15	E	CL33CQR15MN3
0.75	H	CL33CQR75MN3
2.5	K	CL33CQ2R5MN3
5	N	CL33CQ050MN3
7.5	Q	CL33CQ7R5MN3

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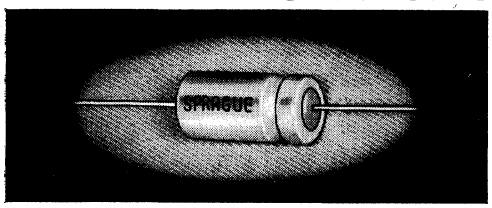
SPRAGUE CAPACITORS

MIL-C-3965 TUBULAR SINTERED-ANODE TANTALEX® CAPACITORS—TYPES CL64 and CL65



DIMENSIONS

Code	D. x L.	Code	D. x L.	Code	D.x L.
T1	.188" x .453"	T2	.281" x .641"	T3	.375" x .766"

- Reliable Superior Quality Capacitors With No Voltage Derating For 125C Operation
- MIL Version of Sprague Type 130D
- Voltage Ratings From 6 WVDC Through 125 WVDC
- Type CL64 Is a Bare Metal-Case Unit. If An Outer Insulating Sleeve is Desired, Order Type CL65.
- Capacitance Tolerance: K = ±10%; M = ± 20%
- Call Your Sprague Industrial Distributor For Quantity Prices

TYPES CL64, CL65 - 85C ALSO AVAILABLE IN CHARACTERISTIC C (125C)

µF	Size Code	CL64 Type Number*	CL65 Type Number*
6 WVDC			
30	T1	CL64BB300KP3	CL65BB300KP3
30	T1	CL64BB300MP3	CL65BB300MP3
68	T1	CL64BB680MP3	CL65BB680MP3
140	T2	CL64BB141KP3	CL65BB141KP3
140	T2	CL64BB141MP3	CL65BB141MP3
270	T2	CL64BB271MP3	CL65BB271MP3
330	T3	CL64BB331KP3	CL65BB331KP3
330	T3	CL64BB331MP3	CL65BB331MP3
560	T3	CL64BB561MP3	CL65BB561MP3
8 WVDC			
25	T1	CL64BC250KP3	CL65BC250KP3
25	T1	CL64BC250MP3	CL65BC250MP3
56	T1	CL64BC560MP3	CL65BC560MP3
220	T2	CL64BC221MP3	CL65BC221MP3
430	T3	CL64BC431MP3	CL65BC431MP3
10 WVDC			
20	T1	CL64BD200KP3	CL65BD200KP3
20	T1	CL64BD200MP3	CL65BD200MP3
47	T1	CL64BD470MP3	CL65BD470MP3
100	T2	CL64BD101KP3	CL65BD101KP3
100	T2	CL64BD101MP3	CL65BD101MP3
180	T2	CL64BD181MP3	CL65BD181MP3
250	T3	CL64BD251KP3	CL65BD251KP3
250	T3	CL64BD251MP3	CL65BD251MP3
390	T3	CL64BD391MP3	CL65BD391MP3
15 WVDC			
15	T1	CL64BE150KP3	CL65BE150KP3
15	T1	CL64BE150MP3	CL65BE150MP3
33	T1	CL64BE330MP3	CL65BE330MP3
70	T2	CL64BE700KP3	CL65BE700KP3
70	T2	CL64BE700MP3	CL65BE700MP3
120	T2	CL64BE121MP3	CL65BE121MP3
170	T3	CL64BE171KP3	CL65BE171KP3
170	T3	CL64BE171MP3	CL65BE171MP3
270	T3	CL64BE271MP3	CL65BE271MP3
25 WVDC			
10	T1	CL64BG100KP3	CL65BG100KP3
10	T1	CL64BG100MP3	CL65BG100MP3
22	T1	CL64BG220MP3	CL65BG220MP3
100	T2	CL64BG101MP3	CL65BG101MP3
180	T3	CL64BG181MP3	CL65BG181MP3
30 WVDC			
8	T1	CL64BH080KP3	CL65BH080KP3
8	T1	CL64BH080MP3	CL65BH080MP3
15	T1	CL64BH150MP3	CL65BH150MP3
40	T2	CL64BH400KP3	CL65BH400KP3
40	T2	CL64BH400MP3	CL65BH400MP3
68	T2	CL64BH680MP3	CL65BH680MP3
100	T3	CL64BH101KP3	CL65BH101KP3
100	T3	CL64BH101MP3	CL65BH101MP3
150	T3	CL64BH151MP3	CL65BH151MP3
50 WVDC			
5	T1	CL64BJ050KP3	CL65BJ050KP3
5	T1	CL64BJ050MP3	CL65BJ050MP3
10	T1	CL64BJ100MP3	CL65BJ100MP3
25	T2	CL64BJ250KP3	CL65BJ250KP3
25	T2	CL64BJ250MP3	CL65BJ250MP3
47	T2	CL64BJ470MP3	CL65BJ470MP3
60	T3	CL64BJ600KP3	CL65BJ600KP3
60	T3	CL64BJ600MP3	CL65BJ600MP3
82	T3	CL64BJ820MP3	CL65BJ820MP3
60 WVDC			
4	T1	CL64BK040KP3	CL65BK040KP3
4	T1	CL64BK040MP3	CL65BK040MP3
8.2	T1	CL64BK8R2MP3	CL65BK8R2MP3
20	T2	CL64BK200KP3	CL65BK200KP3
20	T2	CL64BK200MP3	CL65BK200MP3
39	T2	CL64BK390MP3	CL65BK390MP3
50	T3	CL64BK500KP3	CL65BK500KP3
50	T3	CL64BK500MP3	CL65BK500MP3
68	T3	CL64BK680MP3	CL65BK680MP3
75 WVDC			
3.5	T1	CL64BL3R5KP3	CL65BL3R5KP3
3.5	T1	CL64BL3R5MP3	CL65BL3R5MP3
6.8	T1	CL64BL6R8MP3	CL65BL6R8MP3
15	T2	CL64BL150KP3	CL65BL150KP3
15	T2	CL64BL150MP3	CL65BL150MP3
33	T2	CL64BL330MP3	CL65BL330MP3
40	T3	CL64BL400KP3	CL65BL400KP3
40	T3	CL64BL400MP3	CL65BL400MP3
56	T3	CL64BL560MP3	CL65BL560MP3
100 WVDC			
2.5	T1	CL64BN2R5KP3	CL65BN2R5KP3
2.5	T1	CL64BN2R5MP3	CL65BN2R5MP3
4.7	T1	CL64BN4R7MP3	CL65BN4R7MP3
11	T2	CL64BN110KP3	CL65BN110KP3
11	T2	CL64BN110MP3	CL65BN110MP3
22	T2	CL64BN220MP3	CL65BN220MP3
30	T3	CL64BN300KP3	CL65BN300KP3
30	T3	CL64BN300MP3	CL65BN300MP3
43	T3	CL64BN430MP3	CL65BN430MP3
125 WVDC			
1.7	T1	CL64BP1R7MP3	CL65BP1R7MP3
1.7	T1	CL64BP1R7KP3	CL65BP1R7KP3
3.6	T1	CL64BP3R6MP3	CL65BP3R6MP3
3.6	T1	CL64BP3R6KP3	CL65BP3R6KP3
9	T2	CL64BP090MP3	CL65BP090MP3
9	T2	CL64BP090KP3	CL65BP090KP3
14	T2	CL64BP140MP3	CL65BP140MP3
14	T2	CL64BP140KP3	CL65BP140KP3
18	T3	CL64BP180MP3	CL65BP180MP3
18	T3	CL64BP180KP3	CL65BP180KP3
25	T3	CL64BP250MP3	CL65BP250MP3
25	T3	CL64BP250KP3	CL65BP250KP3

*For Vibration Guide 1, or 2, change last digit in Type Number to 1, or 2.

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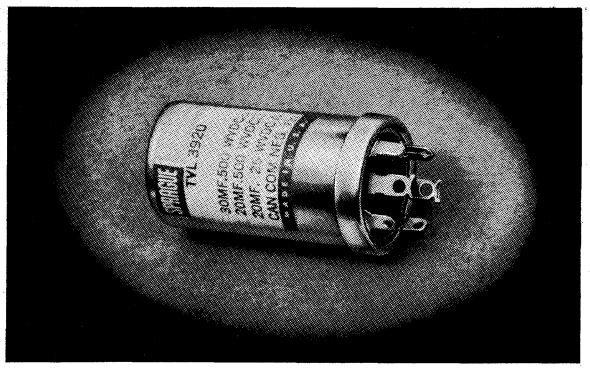
SPRAGUE CAPACITORS

TVL TWIST-LOK® ELECTROLYTICS



- Hermetically Sealed in Aluminum Cans for Long Life and Dependable Performance in TV, Radio and Hi-Fi
- Designed for 85C (185F) Operation
- Stand Up Under Extremely High Temperatures Often Encountered in TV, Hi-Fi, and Auto Radio Cabinets
- Withstand High Surge Voltages
- Ideal for High Ripple Selenium Rectifier Circuits
- Can Be Safely Mounted "Above Ground" Using Phenolic Mounting Plate and Insulating Tube
- Easy to Mount — Unit Locks Firmly in Place with a Twist of the Tabs
- Furnished Complete with Both Phenolic and Metal Mounting Plates

The Twist-lok Capacitors listed here include only popular ratings for industrial applications. For the complete line of more than 1800 Twist-lok Capacitors, please refer to Distributor's Guide to Replacement Electrolytic Capacitors, C-1002.

μF	WVDC	Dia. x Length	Cat. No.
	SINGLE UNITS		
2000	6	1⅜ x 2	TVL-1115
3000	10	1⅜ x 2½	TVL-1140
225	15	¾ x 2	TVL-1160
1000	15	1 x 1½	TVL-1165
1500	15	1 x 2	TVL-1167
2000	15	1⅜ x 2	TVL-1168
3000	15	1⅜ x 2	TVL-1170
4000	15	1⅜ x 3½	TVL-1173
100	25	¾ x 2	TVL-1215
500	25	1 x 1½	TVL-1220
1000	25	1⅜ x 2	TVL-1230
25	50	¾ x 2	TVL-1308
100	50	¾ x 2	TVL-1317
150	50	¾ x 2½	TVL-1320
250	50	1 x 2	TVL-1324
500	50	1⅜ x 2	TVL-1330
1000	50	1⅜ x 2½	TVL-1338
1500	50	1⅜ x 3	TVL-1341
30	150	1 x 2	TVL-1408
50	150	1 x 1½	TVL-1415
80	150	1 x 2½	TVL-1420
100	150	1 x 1½	TVL-1423
120	150	1 x 2	TVL-1425
120	150	1⅜ x 2½	TVL-1426
140	150	1 x 2½	TVL-1428
150	150	1 x 2	TVL-1429
150	150	1⅜ x 2	TVL-1430
200	150	1⅜ x 2	TVL-1431
200	150	1 x 3	TVL-1431.1
300	150	1⅜ x 2	TVL-1434
500	150	1⅜ x 4	TVL-1439.5
125	200	1 x 2½	TVL-1470
150	200	1 x 2⅞	TVL-1471
160	200	1⅜ x 2	TVL-1473
200	200	1⅜ x 2	TVL-1475
500	200	1⅜ x 4	TVL-1490
20	250	1 x 2	TVL-1509
40	250	1 x 2	TVL-1519
100	250	1 x 3	TVL-1535
150	250	1 x 3	TVL-1539
150	250	1⅜ x 2½	TVL-1540
160	250	1⅜ x 2½	TVL-1541

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

μF	WVDC	Dia. x Length	Cat. No.
160	250	1 x 4	TVL-1541.1
200	250	1⅜ x 2½	TVL-1547
60	300	1 x 3	TVL-1570
80	300	1 x 2½	TVL-1573
100	300	1 x 2½	TVL-1578
125	300	1⅜ x 2½	TVL-1580
150	300	1⅜ x 3½	TVL-1584
250	300	1⅜ x 4	TVL-1590
30	350	1 x 2	TVL-1617
40	350	1 x 2	TVL-1621
50	350	1 x 2	TVL-1622
60	350	1 x 2½	TVL-1624
80	350	1⅜ x 2	TVL-1630
125	350	1⅜ x 2½	TVL-1638
150	350	1⅜ x 2½	TVL-1642
250	350	1⅜ x 4½	TVL-1644.2
320	350	1⅜ x 4	TVL-1645
4	450	1 x 2	TVL-1702
10	450	1 x 1½	TVL-1705
15	450	1 x 1½	TVL-1709
20	450	1 x 2	TVL-1714
25	450	1 x 2	TVL-1716
30	450	1 x 2½	TVL-1720
40	450	1 x 2½	TVL-1725
50	450	1 x 2½	TVL-1728
60	450	1⅜ x 2½	TVL-1730
80	450	1⅜ x 2½	TVL-1735
100	450	1⅜ x 2½	TVL-1750
125	450	1⅜ x 4	TVL-1760
150	450	1⅜ x 4	TVL-1770
40	475	1⅜ x 2	TVL-1820
10	500	1 x 1½	TVL-1940
20	500	1 x 2½	TVL-1943
30	500	1 x 2½	TVL-1947
40	500	1 x 2½	TVL-1950
80	500	1⅜ x 2½	TVL-1958
90	500	1⅜ x 3	TVL-1960
15	525	1⅜ x 3	TVL-1980
	DUAL UNITS		
500-500	15-15	1 x 2	TVL-2157
1000-1000	15-15	1 x 2½	TVL-2160
1000-1000	15-15	1⅜ x 2½	TVL-2161
500-100	16-16	1 x 2	TVL-2175

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SPRAGUE CAPACITORS

TVL TWIST-LOK® ELECTROLYTICS, continued

μF	WVDC	Dia. x Length	Cat. No.
800-200	16-16	1 x 2	TVL-2179.5
1000-500	16-16	1 x 2½	TVL-2185
500-200	16-16	1 x 2	TVL-2190
500-500	25-25	1⅜ x 2	TVL-2233
1000-500	25-25	1⅜ x 2	TVL-2239
100-25	50-50	1 x 2	TVL-2324
100-100	50-50	1 x 1½	TVL-2326
150-100	150-50	1 x 3	TVL-2413
20-20	150-150	1 x 1½	TVL-2415
30-30	150-150	1 x 1½	TVL-2422
40-20	150-150	1 x 1½	TVL-2425
40-30	150-150	1 x 2	TVL-2427
40-40	150-150	1 x 1½	TVL-2428
50-30	150-150	1 x 1½	TVL-2432
50-50	150-150	1 x 1½	TVL-2435
60-20	150-150	1 x 2	TVL-2436
60-60	150-150	1 x 3½	TVL-2438
70-30	150-150	1 x 2	TVL-2439
75-75	150-150	1 x 2	TVL-2440
80-40	150-150	1⅜ x 2	TVL-2442
80-50	150-150	1 x 2½	TVL-2442.1
80-60	150-150	1 x 3	TVL-2442.2
80-80	150-150	1⅜ x 2	TVL-2442.4
125-100	150-150	1⅜ x 2½	TVL-2443.3
150-80	150-150	1⅜ x 2½	TVL-2443.5
200-5	150-150	1⅜ x 3	TVL-2444
200-125	150-150	1⅜ x 3½	TVL-2445
200-150	150-150	1⅜ x 4	TVL-2446
200-200	150-150	1⅜ x 2½	TVL-2447
60-60	200-200	1 x 1¾	TVL-2461
60-60	200-200	1⅜ x 2	TVL-2462
100-100	200-200	1⅜ x 3	TVL-2464
200-5	200-200	1⅜ x 2	TVL-2470
20-20	250-250	1 x 1½	TVL-2515
40-40	250-250	1 x 3	TVL-2520
150-150	250-250	1⅜ x 2½	TVL-2535
200-200	250-250	1⅜ x 4	TVL-2538
100-100	300-200	1 x 3½	TVL-2562
40-30	300-300	1 x 3	TVL-2574
40-40	300-300	1⅜ x 2	TVL-2575
80-80	300-300	1⅜ x 2½	TVL-2585
120-20	300-300	1⅜ x 3½	TVL-2588
120-40	300-300	1⅜ x 3½	TVL-2589
150-100	300-300	1⅜ x 3	TVL-2591
200-80	300-300	1⅜ x 4½	TVL-2593
15-15	350-350	1 x 2	TVL-2625
20-20	350-350	1 x 2	TVL-2626
30-30	350-350	1 x 2½	TVL-2628
50-30	350-350	1⅜ x 2	TVL-2630
80-20	350-350	1⅜ x 2½	TVL-2633
80-40	350-350	1⅜ x 2½	TVL-2634
80-80	350-350	1⅜ x 2½	TVL-2635
90-40	350-350	1⅜ x 3	TVL-2637
100-60	350-350	1⅜ x 3½	TVL-2639
100-100	350-350	1⅜ x 3	TVL-2641
160-10	350-350	1⅜ x 3	TVL-2643
200-200	350-350	1⅜ x 5	TVL-2645.5
100-30	400-50	1⅜ x 2½	TVL-2655
80-80	400-200	1⅜ x 3½	TVL-2656
80-60	400-400	1⅜ x 3	TVL-2677
80-80	400-400	1⅜ x 4	TVL-2678
120-40	400-400	1⅜ x 4	TVL-2679
40-100	450-50	1 x 3½	TVL-2709
80-100	450-50	1⅜ x 3	TVL-2711
20-50	450-250	1 x 3	TVL-2722
20-160	450-250	1⅜ x 4	TVL-2722.7
80-200	450-250	1⅜ x 4½	TVL-2722.8
40-10	450-300	1 x 3	TVL-2724
80-2	450-350	1⅜ x 2½	TVL-2738.5
10-10	450-450	1 x 2	TVL-2750
15-15	450-450	1 x 2½	TVL-2753
20-10	450-450	1 x 2½	TVL-2754
20-20	450-450	1 x 2½	TVL-2755
30-10	450-450	1 x 2½	TVL-2757
30-30	450-450	1⅜ x 2	TVL-2759
40-20	450-450	1⅜ x 2	TVL-2762
40-40	450-450	1⅜ x 2½	TVL-2764
50-50	450-450	1⅜ x 3	TVL-2767
60-20	450-450	1⅜ x 3	TVL-2768
60-40	450-450	1⅜ x 3½	TVL-2770
60-60	450-450	1⅜ x 3	TVL-2772
80-10	450-450	1⅜ x 3	TVL-2776
80-20	450-450	1⅜ x 2½	TVL-2776.5
80-30	450-450	1⅜ x 4	TVL-2777
80-40	450-450	1⅜ x 3½	TVL-2778
80-50	450-450	1⅜ x 4	TVL-2778.5
80-80	450-450	1⅜ x 3½	TVL-2779
100-40	450-450	1⅜ x 3½	TVL-2780
30-100	475-50	1 x 3½	TVL-2803
80-160	475-250	1⅜ x 4½	TVL-2808
20-100	475-400	1⅜ x 3	TVL-2813
15-15	475-475	1 x 2½	TVL-2820
30-10	475-475	1 x 3	TVL-2824
80-50	475-475	1⅜ x 3½	TVL-2851
10-10	500-500	1 x 2½	TVL-2933
20-20	500-500	1⅜ x 2	TVL-2935
30-30	500-500	1⅜ x 2½	TVL-2937
40-40	500-500	1⅜ x 2½	TVL-2940
60-40	500-500	1⅜ x 3½	TVL-2944

TRIPLE UNITS

850-400-4	16-16-11.5	1 x 2½	TVL-3021
1000-500-4	16-16-11.5	1⅜ x 2	TVL-3021.5
400-100-100	16-16-16	1 x 2	TVL-3025
500-500-100	16-16-16	1 x 2	TVL-3026.8
1000-500-20	16-16-16	1⅜ x 2	TVL-3027
20-20-20	25-25-25	1 x 1½	TVL-3210
40-20-20	150-150-25	1 x 2	TVL-3422
40-40-20	150-150-25	1 x 1½	TVL-3426
40-40-200	150-150-25	1 x 2	TVL-3426.3
40-40-250	150-150-25	1 x 2½	TVL-3426.4
50-30-20	150-150-25	1 x 2½	TVL-3426.7
50-50-20	150-150-25	1 x 3	TVL-3430
60-40-200	150-150-25	1 x 3	TVL-3431.3
80-40-20	150-150-25	1 x 2½	TVL-3432
20-20-20	150-150-150	1 x 1½	TVL-3433
30-30-10	150-150-150	1 x 2	TVL-3435
40-20-10	150-150-150	1 x 2	TVL-3436
40-20-20	150-150-150	1 x 1½	TVL-3437
40-30-20	150-150-150	1 x 2	TVL-3438
40-40-40	150-150-150	1 x 1¾	TVL-3440
50-40-10	150-150-150	1 x 2½	TVL-3441
50-50-50	150-150-150	1 x 3	TVL-3442
60-40-20	150-150-150	1 x 1¾	TVL-3443
70-40-40	150-150-150	1 x 3	TVL-3443.4
80-40-20	150-150-150	1 x 2	TVL-3444
80-80-80	150-150-150	1⅜ x 3	TVL-3446
100-30-10	150-150-150	1 x 2½	TVL-3447
120-80-40	150-150-150	1⅜ x 3½	TVL-3448
120-120-40	150-150-150	1⅜ x 2	TVL-3448.2
200-100-60	150-150-150	1⅜ x 2½	TVL-3450
200-150-150	150-150-150	1⅜ x 4	TVL-3452
250-200-10	150-150-150	1⅜ x 4	TVL-3453
60-200-140	200-150-150	1⅜ x 3	TVL-3461.4
60-5-20	200-200-50	1 x 2½	TVL-3467
80-10-20	200-200-50	1 x 3	TVL-3471
250-200-10	200-200-200	1⅜ x 4	TVL-3490

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SPRAGUE CAPACITORS

TVL TWIST-LOK® ELECTROLYTICS, continued

μF	WVDC	Dia. x Length	Cat. No.
15-15-20	250-250-25	1 x 2	TVL-3510
20-20-20	250-250-250	1 x 2	TVL-3532
40-20-20	250-250-250	1 x 2	TVL-3540
80-80-60	250-250-250	1⅜ x 3	TVL-3545
100-60-20	300-150-50	1⅜ x 3	TVL-3560.1
100-200-60	300-150-150	1⅜ x 4	TVL-3560.5
100-200-30	300-150-150	1⅜ x 4	TVL-3560.6
20-100-100	300-200-50	1 x 3½	TVL-3560.10
100-60-20	300-250-250	1⅜ x 3	TVL-3562
200-60-20	300-250-250	1⅜ x 4	TVL-3563
100-10-60	300-300-50	1⅜ x 2½	TVL-3574
125-20-20	300-300-50	1⅜ x 3½	TVL-3574.3
125-60-40	300-300-50	1⅜ x 4	TVL-3574.6
140-100-60	300-300-50	1⅜ x 3½	TVL-3574.7
140-100-100	300-300-50	1⅜ x 3½	TVL-3574.8
10-10-10	300-300-300	1 x 2	TVL-3580
80-40-40	300-300-300	1⅜ x 2½	TVL-3583
120-50-40	300-300-300	1⅜ x 3	TVL-3585
140-100-20	300-300-300	1⅜ x 4½	TVL-3585.5
160-60-20	300-300-300	1⅜ x 4	TVL-3587
40-200-100	350-150-150	1⅜ x 3½	TVL-3608.3
60-200-30	350-150-150	1⅜ x 3	TVL-3608.6
125-5-75	350-200-75	1⅜ x 3	TVL-3610
30-30-20	350-300-25	1 x 3	TVL-3620
15-10-20	350-350-25	1 x 2	TVL-3630
20-10-20	350-350-25	1 x 2	TVL-3634
20-20-20	350-350-25	1 x 2	TVL-3635
30-20-20	350-350-25	1 x 2	TVL-3636
200-10-50	350-350-25	1⅜ x 4	TVL-3636.8
20-5-150	350-350-50	1 x 3	TVL-3638.1
80-40-100	350-350-200	1⅜ x 3	TVL-3639
100-60-20	350-350-200	1⅜ x 4	TVL-3639.2
20-10-10	350-350-350	1 x 2	TVL-3639.6
30-20-10	350-350-350	1 x 2½	TVL-3639.8
60-40-20	350-350-350	1⅜ x 3½	TVL-3640
60-50-50	350-350-350	1⅜ x 2½	TVL-3641
80-60-60	350-350-350	1⅜ x 3½	TVL-3642
90-40-20	350-350-350	1⅜ x 2½	TVL-3645
140-140-20	350-350-350	1⅜ x 4	TVL-3648
80-80-100	400-200-50	1⅜ x 3	TVL-3652
40-200-60	400-200-200	1⅜ x 4	TVL-3653
10-4-20	400-350-25	1 x 2	TVL-3668
100-10-20	400-350-50	1⅜ x 3½	TVL-3672
20-20-20	400-400-25	1 x 2½	TVL-3678
80-40-60	400-400-50	1⅜ x 3½	TVL-3682.8
80-40-100	400-400-50	1⅜ x 3	TVL-3683
80-40-150	400-400-50	1⅜ x 4	TVL-3684
100-10-20	400-400-50	1⅜ x 2½	TVL-3685
20-20-10	400-400-350	1 x 3	TVL-3687.4
60-30-20	400-400-350	1⅜ x 3	TVL-3688
80-20-10	400-400-350	1⅜ x 3	TVL-3689
100-10-80	400-400-350	1⅜ x 3½	TVL-3689.3
100-30-20	400-400-400	1⅜ x 4	TVL-3697
100-40-10	400-400-400	1⅜ x 4	TVL-3698
10-100-200	450-200-25	1 x 3½	TVL-3708.2
10-100-100	450-200-50	1 x 3½	TVL-3708.4
50-160-50	450-250-50	1⅜ x 4	TVL-3711.2
20-160-40	450-250-150	1⅜ x 3	TVL-3711.3
10-40-10	450-300-150	1⅜ x 2	TVL-3713.7
50-10-160	450-350-250	1⅜ x 4½	TVL-3719.4
60-80-20	450-400-250	1⅜ x 4	TVL-3720
80-50-100	450-350-200	1⅜ x 4	TVL-3723.7
40-80-40	450-350-350	1⅜ x 3½	TVL-3724.7
10-10-20	450-450-25	1 x 2	TVL-3731
15-15-40	450-450-25	1 x 2½	TVL-3734
20-10-20	450-450-25	1 x 3	TVL-3735
20-20-20	450-450-25	1 x 3	TVL-3739
40-40-20	450-450-25	1⅜ x 2½	TVL-3744
40-40-40	450-450-25	1⅜ x 2½	TVL-3744.2
80-40-100	450-450-25	1⅜ x 4	TVL-3746
20-10-50	450-450-50	1 x 3	TVL-3751

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μF	WVDC	Dia. x Length	Cat. No.
30-10-150	450-450-50	1⅜ x 2	TVL-3752
80-65-50	450-450-50	1⅜ x 3½	TVL-3754.9
40-40-100	450-450-50	1⅜ x 3	TVL-3755
60-40-75	450-450-50	1⅜ x 4	TVL-3756
80-20-100	450-450-50	1⅜ x 3½	TVL-3757
40-40-40	450-450-150	1⅜ x 3	TVL-3758
40-10-100	450-450-200	1⅜ x 3½	TVL-3762
40-40-100	450-450-200	1⅜ x 3	TVL-3764
40-40-80	450-450-350	1⅜ x 4	TVL-3774
50-20-4	450-450-350	1 x 3½	TVL-3774.6
80-80-10	450-450-400	1⅜ x 4	TVL-3775.7
10-10-10	450-450-450	1 x 2	TVL-3776
15-15-10	450-450-450	1 x 3	TVL-3778
15-15-15	450-450-450	1 x 2½	TVL-3778.2
20-10-10	450-450-450	1 x 3	TVL-3779
20-20-20	450-450-450	1⅜ x 2	TVL-3780
30-10-10	450-450-450	1⅜ x 2	TVL-3780.5
30-20-20	450-450-450	1⅜ x 3	TVL-3781
30-30-30	450-450-450	1⅜ x 3	TVL-3782
40-10-10	450-450-450	1⅜ x 2½	TVL-3783
40-30-20	450-450-450	1⅜ x 2½	TVL-3784
40-40-10	450-450-450	1⅜ x 2½	TVL-3785
40-40-20	450-450-450	1⅜ x 2½	TVL-3786
40-40-40	450-450-450	1⅜ x 3	TVL-3787
50-20-4	450-450-450	1 x 3½	TVL-3787.5
50-40-30	450-450-450	1⅜ x 3	TVL-3788
60-20-20	450-450-450	1⅜ x 3	TVL-3789
60-30-10	450-450-450	1⅜ x 3	TVL-3790
60-40-20	450-450-450	1⅜ x 3	TVL-3791
80-40-20	450-450-450	1⅜ x 3	TVL-3793
80-50-30	450-450-450	1⅜ x 4	TVL-3793.3
40-80-10	475-300-300	1⅜ x 3½	TVL-3806
10-100-25	475-350-25	1⅜ x 3	TVL-3806.4
10-4-100	475-350-50	1 x 2	TVL-3806.6
20-10-5	475-350-150	1 x 2½	TVL-3806.8
40-80-10	475-450-450	1⅜ x 4	TVL-3816
50-40-40	475-475-25	1⅜ x 3½	TVL-3816.11
20-10-100	475-475-50	1⅜ x 2	TVL-3817
20-10-100	475-475-400	1⅜ x 3½	TVL-3819
30-30-20	475-475-475	1⅜ x 3	TVL-3840
40-20-20	475-475-475	1⅜ x 3	TVL-3842
40-30-10	475-475-475	1⅜ x 3	TVL-3842.6
40-30-30	475-475-475	1⅜ x 4	TVL-3843
20-10-100	500-500-50	1 x 4	TVL-3928
40-40-100	500-500-200	1⅜ x 4	TVL-3935
10-10-10	500-500-500	1 x 2½	TVL-3952
30-20-20	500-500-500	1⅜ x 3	TVL-3956
40-40-10	500-500-500	1⅜ x 3½	TVL-3965

QUADRUPLE UNITS

50-40-160-40	150-150-25-25	1⅜ x 2	TVL-4410.7
60-40-20-200	150-150-150-10	1⅜ x 2	TVL-4414
40-40-30-20	150-150-150-25	1⅜ x 2	TVL-4420
40-40-40-20	150-150-150-25	1⅜ x 2	TVL-4421
80-40-40-20	150-150-150-25	1⅜ x 2	TVL-4431
80-40-40-40	150-150-150-25	1⅜ x 2½	TVL-4432
80-40-40-100	150-150-150-25	1⅜ x 2	TVL-4434
250-200-10-25	150-150-150-50	1⅜ x 3	TVL-4440
200-200-100-10	150-150-150-75	1⅜ x 2½	TVL-4440.3
40-40-40-30	150-150-150-150	1⅜ x 2	TVL-4441
100-80-60-40	150-150-150-150	1⅜ x 3	TVL-4445
200-200-60-30	150-150-150-150	1⅜ x 4	TVL-4448
200-200-60-30	175-175-175-175	1⅜ x 3½	TVL-4450
100-40-10-100	250-250-250-50	1⅜ x 3½	TVL-4516
10-200-140-30	300-150-150-150	1⅜ x 3½	TVL-4559
10-200-200-30	300-150-150-150	1⅜ x 4	TVL-4559.2
100-60-10-20	300-200-150-50	1⅜ x 3	TVL-4559.5
100-10-200-30	300-300-150-150	1⅜ x 3½	TVL-4561
140-10-200-30	300-300-150-150	1⅜ x 4	TVL-4561.3
60-40-20-50	300-300-300-25	1⅜ x 3½	TVL-4570

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SPRAGUE CAPACITORS

TVL TWIST-LOK® ELECTROLYTICS, continued

μF	WVDC	Dia. x Length	Cat. No.
150-30-30-150	300-300-300-50	1⅜ x 4	TVL-4574
80-20-20-200	300-300-300-150	1⅜ x 3½	TVL-4576
40-20-10-10	300-300-300-300	1⅜ x 2	TVL-4578
40-40-20-10	300-300-300-300	1⅜ x 2	TVL-4579
40-40-30-20	300-300-300-300	1⅜ x 3	TVL-4580
60-40-10-10	300-300-300-300	1⅜ x 2½	TVL-4583
150-100-10-5	300-300-300-300	1⅜ x 4	TVL-4587
140-100-20-20	300-300-300-300	1⅜ x 4½	TVL-4588
150-150-30-30	300-300-300-300	1⅜ x 4½	TVL-4589
200-20-20-20	300-300-300-300	1⅜ x 3½	TVL-4590
10-20-10-50	350-200-200-50	1⅜ x 2	TVL-4603.13
5-100-20-100	350-200-200-25	1⅜ x 2	TVL-4603.15
160-30-30-20	350-300-300-50	1⅜ x 4	TVL-4605.2
140-100-20-20	350-300-300-300	1⅜ x 4	TVL-4605.3
160-60-10-4	350-300-300-300	1⅜ x 3½	TVL-4605.5
40-80-10-10	350-300-300-300	1⅜ x 2½	TVL-4605.6
60-4-100-40	350-350-25-25	1⅜ x 2½	TVL-4607
60-20-80-100	350-350-150-50	1⅜ x 3	TVL-4608
5-20-100-100	350-350-200-50	1⅜ x 2	TVL-4608.12
60-40-60-20	350-350-200-150	1⅜ x 3	TVL-4609
100-60-10-100	350-350-200-150	1⅜ x 4½	TVL-4609.4
100-80-10-20	350-350-300-50	1⅜ x 4	TVL-4610.8
30-10-5-200	350-350-350-25	1⅜ x 2	TVL-4620.3
40-20-20-25	350-350-350-25	1⅜ x 2½	TVL-4621.3
40-40-20-20	350-350-350-25	1⅜ x 2½	TVL-4621.6
40-40-30-10	350-350-350-25	1⅜ x 3	TVL-4622
40-40-40-40	350-350-350-25	1⅜ x 2½	TVL-4622.3
250-20-20-50	350-350-350-25	1⅜ x 4½	TVL-4622.11
90-30-5-100	350-350-350-75	1⅜ x 3½	TVL-4625
60-30-30-150	350-350-350-50	1⅜ x 3	TVL-4630.4
70-40-10-50	350-350-350-50	1⅜ x 3	TVL-4631
100-10-10-20	350-350-350-50	1⅜ x 3	TVL-4632
100-20-10-20	350-350-350-50	1⅜ x 3½	TVL-4633
100-40-30-50	350-350-350-50	1⅜ x 4	TVL-4634
30-20-5-100	350-350-350-200	1⅜ x 3	TVL-4634.6
30-10-5-100	350-350-350-200	1⅜ x 2½	TVL-4634.7
40-20-20-10	350-350-350-350	1⅜ x 2	TVL-4635
40-40-40-40	350-350-350-350	1⅜ x 4	TVL-4635.3
80-60-40-20	350-350-350-350	1⅜ x 3½	TVL-4635.7
90-40-30-30	350-350-350-350	1⅜ x 4	TVL-4635.8
20-10-10-20	400-350-200-25	1⅜ x 2	TVL-4652
40-80-100-100	400-350-200-50	1⅜ x 3½	TVL-4653
40-80-100-25	400-350-200-50	1⅜ x 3½	TVL-4654
40-80-10-100	400-350-350-200	1⅜ x 4	TVL-4661.4
40-100-20-10	400-350-350-350	1⅜ x 4	TVL-4661.6
50-40-100-100	400-400-50-25	1⅜ x 4	TVL-4663.2
80-40-100-20	400-400-50-25	1⅜ x 3	TVL-4663.4
100-10-30-20	400-400-50-50	1⅜ x 2½	TVL-4663.5
50-20-20-25	400-400-350-25	1⅜ x 3	TVL-4665.5
100-10-20-20	400-400-350-50	1⅜ x 3	TVL-4666.2
80-40-10-20	400-400-400-25	1⅜ x 3½	TVL-4669
80-40-30-40	400-400-400-25	1⅜ x 3½	TVL-4670
90-20-10-50	400-400-400-50	1⅜ x 4	TVL-4670.7
80-10-4-100	400-400-400-50	1⅜ x 4	TVL-4670.9
80-40-10-100	400-400-400-200	1⅜ x 4	TVL-4671.2
80-40-30-4	400-400-400-350	1⅜ x 4	TVL-4672
50-40-30-20	400-400-400-400	1⅜ x 4	TVL-4674
80-25-10-10	400-400-400-400	1⅜ x 4	TVL-4680
100-40-10-10	400-400-400-400	1⅜ x 4	TVL-4681
100-80-10-10	400-400-400-400	1⅜ x 4	TVL-4683
100-80-30-10	400-400-400-400	1⅜ x 4½	TVL-4683.8
20-80-20-50	450-200-200-50	1⅜ x 3	TVL-4701
20-160-50-50	450-250-75-50	1⅜ x 4	TVL-4701.3
25-100-10-60	450-300-300-50	1⅜ x 3	TVL-4703.5
10-100-20-20	450-300-300-200	1⅜ x 3	TVL-4704
80-2-100-25	450-350-25-25	1⅜ x 3	TVL-4705.3
40-30-15-50	450-350-300-50	1⅜ x 3	TVL-4705.8
10-140-100-20	450-350-300-300	1⅜ x 4	TVL-4705.9
80-10-40-30	450-400-300-300	1⅜ x 4	TVL-4710.2
20-80-50-100	450-350-350-50	1⅜ x 4	TVL-4711
60-40-20-20	450-400-400-400	1⅜ x 4	TVL-4711.3

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μF	WVDC	Dia. x Length	Cat. No.
20-15-20-20	450-450-25-25	1⅜ x 2	TVL-4712
50-20-4-40	450-450-150-25	1⅜ x 2½	TVL-4712.9
50-40-4-40	450-450-150-25	1⅜ x 2½	TVL-4712.10
35-25-20-100	450-450-200-50	1⅜ x 2½	TVL-4714
80-30-20-50	450-450-250-50	1⅜ x 3½	TVL-4714.2
40-40-100-60	450-450-200-200	1⅜ x 4	TVL-4714.3
30-20-160-40	450-450-250-150	1⅜ x 4½	TVL-4714.4
80-50-100-250	450-450-250-50	1⅜ x 4	TVL-4714.5
80-50-20-50	450-450-250-50	1⅜ x 4	TVL-4714.6
30-20-160-10	450-450-250-250	1⅜ x 4	TVL-4714.10
30-20-4-200	450-450-350-250	1⅜ x 4½	TVL-4716.4
40-40-30-30	450-450-350-350	1⅜ x 4	TVL-4720
10-10-10-20	450-450-450-25	1⅜ x 2	TVL-4723
20-20-20-20	450-450-450-25	1⅜ x 2	TVL-4724.2
40-20-20-20	450-450-450-25	1⅜ x 3	TVL-4731
40-20-20-40	450-450-450-25	1⅜ x 2½	TVL-4732
40-30-10-20	450-450-450-25	1⅜ x 3	TVL-4734
40-40-10-20	450-450-450-25	1⅜ x 3½	TVL-4736
40-40-20-20	450-450-450-25	1⅜ x 3½	TVL-4737
40-40-40-40	450-450-450-25	1⅜ x 3	TVL-4739
60-50-5-20	450-450-450-25	1⅜ x 4	TVL-4739.5
80-40-40-40	450-450-450-25	1⅜ x 4	TVL-4739.6
80-50-10-20	450-450-450-25	1⅜ x 4	TVL-4739.9
40-20-10-100	450-450-450-50	1⅜ x 3½	TVL-4743
40-40-10-25	450-450-450-50	1⅜ x 3	TVL-4745
40-40-10-50	450-450-450-50	1⅜ x 4	TVL-4746
40-40-10-100	450-450-450-100	1⅜ x 3½	TVL-4747
20-30-80-40	450-450-450-150	1⅜ x 4	TVL-4754
40-20-10-100	450-450-450-250	1⅜ x 4	TVL-4757
30-20-10-20	450-450-450-350	1⅜ x 2½	TVL-4757.12
40-10-10-40	450-450-450-350	1⅜ x 3	TVL-4758
5-5-5-5	450-450-450-450	1⅜ x 2	TVL-4759.7
10-10-10-10	450-450-450-450	1⅜ x 2	TVL-4760
20-10-10-10	450-450-450-450	1⅜ x 2	TVL-4761
20-20-20-20	450-450-450-450	1⅜ x 2½	TVL-4763
30-30-20-20	450-450-450-450	1⅜ x 3	TVL-4769.4
35-35-10-5	450-450-450-450	1⅜ x 3	TVL-4771
40-10-10-10	450-450-450-450	1⅜ x 3	TVL-4771.3
40-35-10-10	450-450-450-450	1⅜ x 3	TVL-4771.8
40-40-20-20	450-450-450-450	1⅜ x 2½	TVL-4773
40-40-30-30	450-450-450-450	1⅜ x 4	TVL-4774
40-40-40-40	450-450-450-450	1⅜ x 3½	TVL-4775
60-20-20-20	450-450-450-450	1⅜ x 3	TVL-4778
80-10-10-10	450-450-450-450	1⅜ x 3½	TVL-4783
20-80-20-10	475-300-300-300	1⅜ x 3½	TVL-4801
20-140-20-10	475-300-300-300	1⅜ x 4	TVL-4801.2
10-100-10-100	475-300-300-25	1⅜ x 3½	TVL-4802
10-140-4-100	475-350-350-50	1⅜ x 4	TVL-4803.3
10-130-20-10	475-350-350-350	1⅜ x 3	TVL-4803.4
30-130-10-10	475-350-350-350	1⅜ x 4	TVL-4803.8
10-40-100-10	475-400-50-25	1⅜ x 2½	TVL-4804
10-40-4-100	475-400-350-50	1⅜ x 2½	TVL-4805
10-80-40-100	475-400-400-50	1⅜ x 4	TVL-4805.2
10-60-30-125	475-450-400-50	1⅜ x 4	TVL-4811
10-50-30-30	475-450-450-25	1⅜ x 3	TVL-4813
80-4-4-200	475-450-450-25	1⅜ x 3½	TVL-4813.2
10-40-10-100	475-450-450-50	1⅜ x 2½	TVL-4814
50-18-4-40	475-475-150-25	1⅜ x 2½	TVL-4814.7
20-10-20-100	475-475-450-25	1⅜ x 2½	TVL-4818
100-4-4-200	475-475-475-25	1⅜ x 4	TVL-4818.5
80-4-4-4	475-450-450-450	1⅜ x 3	TVL-4820.3
50-40-4-40	475-475-150-25	1⅜ x 3½	TVL-4820.4
80-80-4-4	475-475-450-450	1⅜ x 4	TVL-4820.5
80-4-4-200	475-475-475-25	1⅜ x 3½	TVL-4823
20-20-10-10	475-475-475-475	1⅜ x 2½	TVL-4832
20-20-20-20	475-475-475-475	1⅜ x 2½	TVL-4834
40-20-10-10	475-475-475-475	1⅜ x 2½	TVL-4840
10-10-4-20	500-300-300-25	1⅜ x 2	TVL-4909
30-10-150-30	500-450-50-50	1⅜ x 3	TVL-4917
10-10-10-10	500-500-500-500	1⅜ x 2	TVL-4940
40-40-8-8	500-500-500-500	1⅜ x 4	TVL-4944

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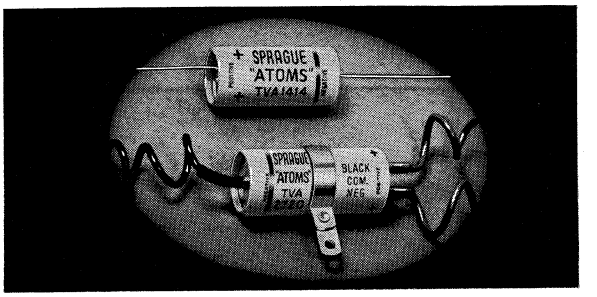
ATOM® ELECTROLYTICS

- The Smallest Dependable Standard Tubular—Designed for 85C (185F) Operation in Voltages to 475 WVDC
- Whether For AC-DC Sets, Auto Radios, Home Radio-phono Combinations, Or TV Sets, The SPRAGUE Line Will Handle All Your Replacement Requirements—No Dual Inventory Problems
- Have Low Leakage And Long Shelf Life
- Will Withstand High Temperatures, High Ripple Currents, High Surge Voltages
- Metal Case Construction with Outer Kraftboard Insulating Case Except as Noted by † Sign



SINGLE UNITS

µF	WVDC	D. x L.	Cat. No.
750	3	9/16 x 2 9/16	TVA-1097
50	6	3/8 x 1 1/4	TVA-1100
100	6	9/16 x 1 5/16	TVA-1101
250	6	9/16 x 1 5/16	TVA-1102
500	6	5/8 x 1 9/16	TVA-1103
1000	6	11/16 x 2 3/16	TVA-1104
1500	6	13/16 x 2 11/16	TVA-1105
2000	6	13/16 x 2 15/16	TVA-1106
8	10NP	9/16 x 1 15/16	TVAN-1112
50	10NP	9/16 x 1 9/16	TVAN-1117
160	10VNP	11/16 x 1 13/16	TVAN-1120
100	12	9/16 x 1 5/16	TVA-1130
250	12	5/8 x 1 5/16	TVA-1131
500	12	3/4 x 1 11/16	TVA-1132
1000	12	13/16 x 1 13/16	TVA-1133
100	15	9/16 x 1 5/16	TVA-1160
250	15	5/8 x 1 9/16	TVA-1161
500	15	11/16 x 1 13/16	TVA-1162
1000	15	13/16 x 1 13/16	TVA-1163
2000	15	15/16 x 2 13/16	★TVA-1170
3000	15	1 1/16 x 4 1/16	TVA-1175
2	25	7/16 x 1 3/8	TVA-1201
2	25NP	9/16 x 1 9/16	TVAN-1202
4	25NP	15/16 x 1 5/16	★TVAN-1202.2
5	25	7/16 x 1 3/8	TVA-1203
5	25NP	9/16 x 1 5/16	TVAN-1203.1
8	25NP	11/16 x 1 13/16	★TVAN-1203.8
10	25	7/16 x 1 3/8	TVA-1204
10	25NP	9/16 x 1 5/16	TVAN-1204.1
20	25	7/16 x 1 1/4	TVA-1204.5
25	25	7/8 x 1 3/8	TVA-1205
50	25	9/16 x 1 5/16	TVA-1206
50	25NP	11/16 x 1 13/16	TVAN-1206.1
100	25	9/16 x 1 11/16	TVA-1207
100	25NP	1 1/16 x 1 5/16	TVAN-1207.1
150	25	13/16 x 1 9/16	TVA-1207.5
250	25	11/16 x 1 9/16	TVA-1208
500	25	3/4 x 1 13/16	TVA-1209
1000	25	13/16 x 2 5/16	TVA-1211
3	30NP	11/16 x 1 5/16	TVAN-1215
20	30NP	11/16 x 1 9/16	TVAN-1220
10	40NP	9/16 x 1 13/16	TVAN-1230
1	50	7/16 x 1 3/8	TVA-1300
2	50	7/16 x 1 3/8	TVA-1301
2	50NP	11/16 x 1 13/16	TVAN-1301.1
3	50	9/16 x 1 5/16	TVA-1302
3	50NP	9/16 x 1 9/16	TVAN-1302.1
4	50NP	11/16 x 9/16	★TVAN-1302.5
5	50	7/16 x 1 3/8	TVA-1303
5	50NP	11/16 x 2 5/16	TVAN-1303.1
10	50	7/16 x 1 1/4	TVA-1304
10	50NP	11/16 x 2 1/16	TVAN-1304.1
15	50	7/16 x 1 1/4	TVA-1305
20	50	7/16 x 1 1/4	TVA-1305.5
25	50	7/16 x 1 1/4	TVA-1306
50	50	5/8 x 1 5/16	TVA-1308
50	50NP	13/16 x 2 1/16	TVAN-1308.1
100	50	5/8 x 1 9/16	TVA-1310
150	50	3/4 x 1 9/16	TVA-1311
250	50	15/16 x 1 11/16	TVA-1312
500	50	1 x 1 15/16	TVA-1315
10	90	7/16 x 1 7/8	TVA-1320
10	100NP	11/16 x 1 13/16	TVAN-1333
1	150	7/16 x 1 3/8	TVA-1400
4	150	7/16 x 1 1/4	TVA-1402
4	150NP	9/16 x 1 13/16	TVAN-1402.1
5	150	7/16 x 1 1/4	TVA-1403
8	150	9/16 x 1 5/16	TVA-1405
10	150	9/16 x 1 5/16	TVA-1406
10	150NP	13/16 x 1 9/16	TVAN-1406.1
12	150	9/16 x 1 5/16	TVA-1407
16	150	9/16 x 1 9/16	TVA-1409
20	150	5/8 x 1 9/16	TVA-1410
25	150	3/4 x 1 9/16	TVA-1411
30	150	13/16 x 1 5/16	TVA-1412
40	150	13/16 x 1 9/16	TVA-1413
50	150	13/16 x 1 13/16	TVA-1414
60	150	15/16 x 1 9/16	TVA-1415
80	150	15/16 x 1 9/16	TVA-1418
100	150	15/16 x 2 1/16	TVA-1420
150	150	1 1/16 x 2 1/16	TVA-1422
200	150	1 1/16 x 2 9/16	TVA-1423
250	150	1 1/4 x 4 3/8	★TVA-1424†
300	150	1 1/16 x 3 5/16	TVA-1425
80	175	1 1/16 x 2 1/16	TVA-1430
2	200NP	9/16 x 1 9/16	TVAN-1435.1
60	200NP	1 1/16 x 2 13/16	TVAN-1440
100	200	1 1/16 x 2 5/16	TVA-1445
150	200	1 3/8 x 3 3/8	★TVA-1447†
200	200	1 3/8 x 3 3/8	★TVA-1480†
1	250	9/16 x 1 5/16	TVA-1500
4	250	9/16 x 1 5/16	TVA-1501
8	250	9/16 x 1 9/16	TVA-1503
10	250	5/8 x 1 9/16	TVA-1504
12	250	5/8 x 1 9/16	TVA-1505
16	250	13/16 x 1 5/16	TVA-1507
20	250	13/16 x 1 5/16	TVA-1508
30	250	13/16 x 1 13/16	TVA-1510
40	250	13/16 x 2 1/16	TVA-1511
50	250	15/16 x 1 13/16	TVA-1512
60	250	1 x 1 13/16	TVA-1513
70	250	1 1/16 x 2 1/16	TVA-1515
100	250	1 1/16 x 2 5/16	TVA-1522
200	250	1 3/8 x 3 1/8	TVA-1528†
100	300	1 1/16 x 3 1/16	TVA-1573
140	300	1 3/8 x 3 3/8	★TVA-1575†
150	300	1 3/8 x 3 7/8	TVA-1576†
200	300	1 3/8 x 4 5/8	TVA-1578†
4	350	11/16 x 1 5/16	TVA-1601
5	350NP	13/16 x 1 13/16	TVAN-1602
8	350	11/16 x 1 9/16	TVA-1603
10	350	3/4 x 1 9/16	TVA-1604
10	350NP	1 1/16 x 2 1/16	TVAN-1604.1
12	350	13/16 x 1 9/16	TVA-1605
16	350	13/16 x 1 9/16	TVA-1607
20	350	13/16 x 1 13/16	TVA-1608
30	350	13/16 x 2 1/16	TVA-1610
40	350	15/16 x 2 1/16	TVA-1611
60	350	1 1/16 x 2 1/16	TVA-1613
100	350	1 1/16 x 2 13/16	TVA-1620
150	350	1 3/8 x 3 3/8	TVA-1622†
200	350	1 3/8 x 4 1/8	TVA-1624†
10	400NP	1 1/16 x 2 1/16	TVAN-1650
20	400NP	1 1/16 x 2 5/16	TVAN-1652
1	450	9/16 x 1 5/16	TVA-1700
2	450	9/16 x 1 5/16	TVA-1701
4	450	11/16 x 1 5/16	TVA-1702
5	450	11/16 x 1 9/16	TVA-1703
8	450	3/4 x 1 9/16	TVA-1704
10	450	13/16 x 1 9/16	TVA-1705
12	450	13/16 x 1 9/16	TVA-1706
16	450	13/16 x 1 13/16	TVA-1708
20	450	15/16 x 1 13/16	TVA-1709
30	450	15/16 x 2 1/16	TVA-1711
40	450	1 1/16 x 2 1/16	TVA-1712
50	450	1 1/16 x 2 9/16	TVA-1713
60	450	1 1/16 x 2 13/16	TVA-1714
80	450	1 1/16 x 3 13/16	TVA-1716
100	450	1 1/16 x 4 1/16	TVA-1718
150	450	1 3/8 x 3 5/8	TVA-1719†
200	450	1 3/8 x 4 3/8	TVA-1720†
10	475	13/16 x 2 1/16	TVA-1802
20	475	15/16 x 2 5/16	TVA-1804
8	500	15/16 x 1 13/16	TVA-1902
10	500	15/16 x 1 13/16	TVA-1903
12	500	15/16 x 2 1/16	TVA-1904
16	500	1 x 2 5/16	TVA-1905
20	500	1 1/16 x 2 5/16	TVA-1906
40	500	1 1/16 x 3 1/16	TVA-1908
8	600	1 x 1 3/8	TVA-1962
10	600	1 x 1 3/8	TVA-1963
16	600	1 x 1 7/8	TVA-1965
20	600	1 x 1 7/8	TVA-1966

µF	WVDC	Diam. x Length	Cat. No.
DUAL UNITS (COMMON NEGATIVE)—3 LEADS			
10-10	25-25	15/16 x 1 9/16	★TVA-2210
10-10	50-50	13/16 x 1 5/16	★TVA-2315
8-8	150-150	15/16 x 1 9/16	★TVA-2415
16-16	150-150	15/16 x 1 9/16	★TVA-2420
30-20	150-150	15/16 x 1 9/16	★TVA-2421
20-12	150-150	13/16 x 1 9/16	★TVA-2425
20-20	150-150	13/16 x 1 9/16	★TVA-2428
30-30	150-150	15/16 x 1 9/16	★TVA-2434
40-20	150-150	15/16 x 1 9/16	★TVA-2438
40-30	150-150	15/16 x 1 13/16	★TVA-2442
40-40	150-150	15/16 x 2 1/16	★TVA-2445
50-30	150-150	15/16 x 2 1/16	★TVA-2450
50-50	150-150	15/16 x 2 1/16	★TVA-2453
60-20	150-150	15/16 x 2 1/16	★TVA-2455
60-40	150-150	15/16 x 2 13/16	★TVA-2456
60-60	150-150	15/16 x 2 13/16	★TVA-2457
80-20	150-150	15/16 x 2 9/16	★TVA-2459
80-30	150-150	15/16 x 2 9/16	★TVA-2460
80-40	150-150	15/16 x 2 9/16	★TVA-2461
80-50	150-150	15/16 x 2 9/16	★TVA-2462
100-50	150-150	1 1/16 x 2 13/16	★TVA-2463

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★Mounting straps attached †Kraftboard construction.

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SPRAGUE CAPACITORS

ATOM® ELECTROLYTICS, continued

μF	WVDC	Diam. x Length	Cat. No.
DUAL UNITS (COMMON NEGATIVE)—3 LEADS continued			
100-100	150-150	1 3/8 x 3 3/8	TVA-2464†
150-150	150-150	1 3/8 x 4 1/8	TVA-2466†
200-5	150-150	1 1/16 x 3 9/16	★TVA-2467
200-100	150-150	1 3/8 x 5 1/8	★TVA-2470†
250-50	150-150	1 3/8 x 3 1/8	TVA-2473†
250-200	150-150	1 3/8 x 4 1/8	TVA-2475†
60-125	200-50	1 1/8 x 2 7/8	★TVA-2484†
60-1	200-200	1 5/16 x 2 5/16	★TVA-2493
200-5	200-200	1 1/16 x 3 13/16	★TVA-2498
20-20	250-250	1 5/16 x 1 13/16	★TVA-2515
40-10	250-250	1 5/16 x 2 1/16	★TVA-2520
80-10	250-250	1 1/16 x 2 5/16	★TVA-2525
120-80	250-250	1 3/8 x 3 7/8	TVA-2535†
140-100	300-50	1 3/8 x 3 3/8	TVA-2563†
200-100	300-50	1 3/8 x 4 5/8	★TVA-2565†
60-32	300-300	1 x 2 7/8	★TVA-2585
150-100	300-300	1 3/8 x 4 7/8	TVA-2590†
140-5	350-350	1 1/4 x 3 7/8	★TVA-2640†
10-100	450-50	1 x 2 3/8	★TVA-2663†
80-100	450-50	1 3/8 x 4 3/4	TVA-2711†
8-8	450-450	1 5/16 x 1 13/16	★TVA-2720
10-10	450-450	1 5/16 x 2 1/16	★TVA-2722
16-8	450-450	1 5/16 x 2 5/16	★TVA-2725
20-20	450-450	1 5/16 x 2 13/16	TVA-2730
30-30	450-450	1 1/16 x 3 5/16	★TVA-2735
40-40	450-450	1 1/16 x 4 1/16	★TVA-2740
50-30	450-450	1 1/16 x 4 1/16	★TVA-2743
80-30	450-450	1 1/16 x 4 9/16	★TVA-2750
20-100	475-50	1 1/16 x 2 9/16	★TVA-2765
DUAL UNITS (SEPARATE SECTIONS)—4 LEADS			
20-20	150-150	1 x 2 3/8	★TU-220†
40-20	150-150	1 1/16 x 2 5/8	★TU-420†
16-16	250-250	1 x 2 7/8	TU-216†
8-8	450-450	1 1/16 x 3 3/8	★TU-88†
16-16	450-450	1 3/8 x 3 1/8	★TU-1616†
120-120	150-150	1 1/16 x 4 1/16	TU-2120
TRIPLE UNITS			
40-40-250	150-150-10	1 x 2 1/16	★TVA-3406
20-20-20	150-150-25	1 5/16 x 1 9/16	★TVA-3415
30-30-100	150-150-12	1 5/16 x 2 1/16	★TVA-3419
60-40-250	150-150-15	1 1/16 x 2 1/16	★TVA-3421.5
40-20-20	150-150-25	1 5/16 x 1 13/16	★TVA-3422.9
40-30-20	150-150-25	1 5/16 x 2 1/16	★TVA-3423
40-40-20	150-150-25	1 5/16 x 2 5/16	★TVA-3425
40-40-100	150-150-25	1 5/16 x 2 9/16	★TVA-3427
50-30-20	150-150-25	1 5/16 x 2 5/16	★TVA-3430
50-30-100	150-150-25	1 5/16 x 2 9/16	★TVA-3432
50-30-200	150-150-25	1 1/16 x 2 5/16	★TVA-3433
50-50-20	150-150-25	1 x 2 5/16	★TVA-3436
80-20-100	150-150-25	1 1/4 x 2 7/8	TVA-3437†
80-40-20	150-150-25	1 1/16 x 2 1/16	★TVA-3437.1
250-120-50	150-150-25	1 3/8 x 3 7/8	★TVA-3437.6†
20-20-20	150-150-150	1 5/16 x 1 13/16	★TVA-3440
30-25-20	150-150-150	1 5/16 x 2 5/16	★TVA-3442
30-30-20	150-150-150	1 5/16 x 2 5/16	★TVA-3443
30-30-30	150-150-150	1 5/16 x 2 5/16	★TVA-3444
40-20-10	150-150-150	1 5/16 x 2 5/16	★TVA-3445
40-20-20	150-150-150	1 5/16 x 2 1/16	★TVA-3446

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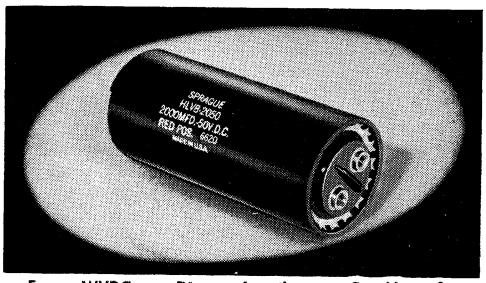
μF	WVDC	Diam. x Length	Cat. No.
40-30-20	150-150-150	1 5/16 x 2 5/16	★TVA-3448
40-30-30	150-150-150	1 1/16 x 2 9/16	★TVA-3449
40-40-20	150-150-150	1 5/16 x 2 9/16	★TVA-3450
40-40-40	150-150-150	1 1/16 x 2 9/16	★TVA-3451
50-30-20	150-150-150	1 1/16 x 2 9/16	★TVA-3453
50-50-50	150-150-150	1 1/16 x 3 1/16	★TVA-3453.5
60-40-40	150-150-150	1 1/16 x 2 9/16	★TVA-3454.3
80-40-20	150-150-150	1 1/16 x 3 1/16	★TVA-3455
80-40-40	150-150-150	1 1/16 x 3 1/16	★TVA-3456
80-50-50	150-150-150	1 1/16 x 3 5/16	★TVA-3456.5
80-60-20	150-150-150	1 1/16 x 3 1/16	★TVA-3457
100-30-10	150-150-150	1 1/16 x 2 13/16	★TVA-3458
150-150-150	150-150-150	1 1/4 x 4 5/8	★TVA-3459†
250-200-10	150-150-150	1 3/8 x 3 5/8	★TVA-3460†
40-20-100	250-250-50	1 3/8 x 1 3/8	TVA-3485†
200-150-50	250-250-150	1 1/2 x 4 1/8	TVA-3493†
80-10-100	300-250-50	1 3/8 x 3 3/8	★TVA-3556†
80-40-100	300-300-50	1 3/8 x 3 7/8	TVA-3558†
100-60-100	300-300-50	1 3/8 x 3 7/8	TVA-3559†
120-40-100	300-300-50	1 3/8 x 4 3/8	TVA-3560†
120-40-10	300-300-250	1 3/8 x 3 3/8	TVA-3563†
60-60-60	300-300-300	1 3/8 x 3 7/8	TVA-3567†
80-40-40	300-300-300	1 3/8 x 3 5/8	TVA-3569†
100-40-40	350-300-250	1 3/8 x 4 5/8	★TVA-3590†
100-20-50	350-350-50	1 3/8 x 3 7/8	★TVA-3605†
140-5-200	350-350-200	1 1/2 x 5 1/8	TVA-3620†
60-60-60	350-350-250	1 3/8 x 3 7/8	TVA-3626†
60-60-4	350-350-350	1 3/8 x 3 3/8	TVA-3630†
10-80-60	400-250-150	1 3/8 x 3 3/8	TVA-3650†
100-75-70	400-400-25	1 1/2 x 4 3/8	TVA-3667†
5-80-40	450-400-400	1 3/8 x 4 1/8	★TVA-3712†
12-12-20	450-450-25	1 1/16 x 2 1/16	★TVA-3716
20-20-20	450-450-25	1 1/16 x 2 9/16	★TVA-3718
40-40-20	450-450-25	1 1/16 x 4 1/16	★TVA-3720
40-20-20	450-450-450	1 1/16 x 4 1/16	★TVA-3740
60-60-60	450-450-450	1 1/2 x 4 5/8	TVA-3748†
QUADRUPLE UNITS			
40-20-20-100	150-150-150-25	1 1/4 x 2 7/8	TVA-4517†
40-40-20-20	150-150-150-25	1 1/8 x 2 5/8	★TVA-4520†
50-50-30-25	150-150-150-25	1 3/8 x 2 7/8	TVA-4525†
60-40-40-20	150-150-150-25	1 1/4 x 2 5/8	TVA-4529†
40-40-40-25	250-250-150-25	1 1/16 x 3 1/16	★TVA-4560
100-40-40-25	300-300-50-25	1 1/2 x 3 1/8	TVA-4567†
140-5-200-30	350-300-200-150	1 1/2 x 4 7/8	TVA-4576†
150-100-20-100	300-300-300-25	1 3/8 x 4 5/8	TVA-4580†
100-80-20-50	300-300-300-50	1 3/8 x 4 3/8	TVA-4580.5†
80-40-10-40	300-300-300-250	1 3/8 x 4 1/8	TVA-4582†
120-40-40-10	300-300-300-250	1 3/8 x 4 5/8	TVA-4584†
140-5-200-30	350-300-200-200	1 1/2 x 5 1/8	TVA-4607†
80-60-40-20	350-350-300-150	1 1/2 x 4 5/8	TVA-4618†
80-10-40-100	400-400-300-50	1 3/8 x 4 1/8	★TVA-4659†
10-80-40-100	450-300-250-50	1 3/8 x 4 1/8	★TVA-4705†
20-120-40-100	450-300-250-50	1 3/8 x 4 3/8	★TVA-4706†
10-80-40-40	450-300-250-250	1 3/8 x 4 3/8	★TVA-4708†
10-20-20-10	450-300-300-300	1 3/8 x 3 1/8	TVA-4712†
20-20-20-10	450-450-450-450	1 3/8 x 3 5/8	TVA-4742†
40-20-20-10	450-450-450-450	1 3/8 x 4 3/8	TVA-4748†
40-40-20-20	450-450-450-450	1 1/2 x 4 1/4	TVA-4750†
QUINTUPLE UNITS			
40-20-20-20-50	300-300-300-300-50	1 3/8 x 3 1/8	TVA-5100†

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

★Mounting straps attached (†)cardboard construction.



TYPE HLVB HIGH-MF ELECTROLYTICS

- Designed For Low-Voltage Filter Circuits.
- Large Values of Capacitance in Relatively Small Physical Size.
- Molded Phenolic Case For Physical Protection and Moisture Resistance. Assures Long and Dependable Service Life.
- Easily and Securely Mounted With Hardware Listed Below.
- Call Your Sprague Industrial Distributor For Current Prices.

μF	WVDC	Diam. x Length	Cat. No.
500	6	1 7/16 x 2 3/4	HLVB-56
1000	6	1 7/16 x 2 3/4	HLVB-106
1500	6	1 7/16 x 2 3/4	HLVB-156
2000	6	1 7/16 x 2 3/4	HLVB-206
4000	10	1 7/16 x 3 3/8	HLVB-4010
6000	10	1 7/16 x 4 3/8	HLVB-6010
10000	10	1 13/16 x 4 3/8	HLVB-10010
500	12	1 7/16 x 2 3/4	HLVB-512
1000	12	1 7/16 x 2 3/4	HLVB-1012
1500	12	1 7/16 x 2 3/4	HLVB-1512
2000	12	1 7/16 x 2 3/4	HLVB-2012
500	15	1 7/16 x 2 3/4	HLVB-515
1000	15	1 7/16 x 2 3/4	HLVB-1015
1500	15	1 7/16 x 2 3/4	HLVB-1515
2000	15	1 7/16 x 2 3/4	HLVB-2015
4000	15	1 7/16 x 4 3/8	HLVB-4015
6000	15	1 13/16 x 4 3/8	HLVB-6015
6000	20	2 1/16 x 4 3/8	HLVB-6020
500	25	1 7/16 x 2 3/4	HLVB-525
1000	25	1 7/16 x 2 3/4	HLVB-1025
2000	25	1 7/16 x 4 3/8	HLVB-2025
4000	25	1 13/16 x 4 3/8	HLVB-4025
500	50	1 7/16 x 3 3/8	HLVB-550
1000	50	1 13/16 x 3 3/8	HLVB-1050
2000	50	1 13/16 x 4 3/8	HLVB-2050
3000	50	1 13/16 x 4 3/8	HLVB-3050
4000	50	2 1/16 x 4 3/8	HLVB-4050
1000	150	1 13/16 x 4 3/8	HLVB-10150
500	200	1 13/16 x 4 3/8	HLVB-5200

VERTICAL MOUNTING CLAMPS

Cap. Diam.	Cat. No.
1 13/16	CMC-28A
2 1/16	CMC-32
1 7/16	CMC-22

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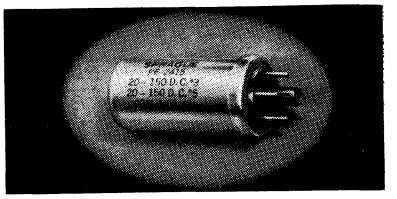
SPRAGUE CAPACITORS

PE OCTAL-BASE ELECTROLYTICS

- For Applications where Rapid Changing of Capacitors is Desired
- Will Fit Standard Octal-Base Tube Sockets
- Hermetically Sealed in Metal Cans for Long Life
- Will Stand Up Under High Temperatures, High Ripple Currents, High Surge Voltages



Terminal Code

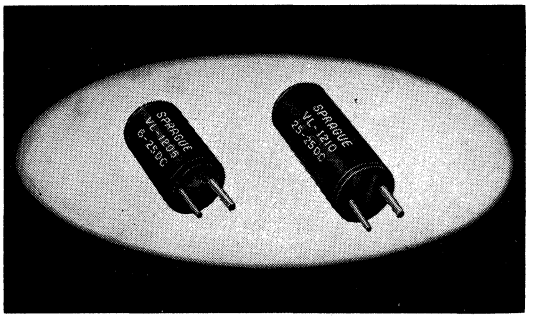
Sections	—	+
Single	1	5
Dual	1	3,5
Triple	1	3,5,7
Quadruple	Gnd Lug	1,3,5,7

μF	WVDC	Diam. x Lgth.	Cat. No.
100	350	1⅜ x 3	PE-1636
10	450	1 5/32 x 2½	PE-1705
20	450	1 5/32 x 2½	PE-1714
40	450	1⅜ x 2½	PE-1725
80	450	1⅜ x 3½	PE-1730
20-20	150-150	1 5/32 x 2½	PE-2415
40-40	150-150	1 5/32 x 2½	PE-2428
10-10	450-450	1 5/32 x 2½	PE-2750
20-20	450-450	1⅜ x 2½	PE-2755
40-40	450-450	1⅜ x 3½	PE-2764
10-10-10	450-450-450	1 5/32 x 2½	PE-3776
20-20-20	450-450-450	1⅜ x 3	PE-3780
30-30-10-20	450-450-450-50	1⅜ x 3½	PE-4741

Call your Sprague Industrial Distributor for Current Prices

VL VERTI-LYTIC® ELECTROLYTICS

- For Replacement of Units of this Type Found on Printed Wiring Boards in Original Equipment
- Sections Housed in Sturdy, Pre-Molded Phenolic Cases
- Resin End Fill Will Not Contaminate Electrolyte — Protects Against Drying or Entrance of External Moisture
- Low Leakage Current and Long Shelf Life
- Polarity Easily Determined by Larger Diameter of Negative Lead
- For Complete Technical Data, See Latest Issue of Sprague Engineering Bulletin 3060



μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
	3 WVDC		
1	⅜ x ¾	VL-1031	89D100
2	⅜ x ¾	VL-1032	89D101
3	⅜ x ¾	VL-1033	89D102
4	⅜ x ¾	VL-1034	89D103
5	⅜ x ¾	VL-1035	89D104
6	⅜ x ¾	VL-1036	89D105
8	⅜ x ¾	VL-1037	89D106
10	⅜ x ¾	VL-1038	89D107
15	⅜ x ¾	VL-1039	89D108
20	⅜ x ¾	VL-1040	89D109
25	⅜ x ¾	VL-1041	89D110
35	⅜ x ¾	VL-1043	89D111
50	⅜ x ¾	VL-1045	89D112
75	⅜ x ¾	VL-1048	89D113
100	⅜ x ¾	VL-1051	89D114
150	⅜ x ⅞	VL-1055	89D115
200	⅜ x ⅞	VL-1059	89D116
250	7/16 x ⅞	VL-1063	89D117
290	7/16 x ⅞	VL-1067	89D118
	6 WVDC		
1	⅜ x ¾	VL-1080	89D119
2	⅜ x ¾	VL-1081	89D120
3	⅜ x ¾	VL-1082	89D121
4	⅜ x ¾	VL-1083	89D122
5	⅜ x ¾	VL-1084	89D123
6	⅜ x ¾	VL-1085	89D124
8	⅜ x ¾	VL-1086	89D125
10	⅜ x ¾	VL-1087	89D126
15	⅜ x ¾	VL-1088	89D127
20	⅜ x ¾	VL-1089	89D128
25	⅜ x ¾	VL-1090	89D129
35	⅜ x ¾	VL-1092	89D130
50	⅜ x ¾	VL-1094	89D131
75	⅜ x ¾	VL-1097	89D132
100	⅜ x ⅞	VL-1100	89D133
150	7/16 x ⅞	VL-1104	89D134
200	7/16 x ⅞	VL-1108	89D135

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μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
	12 WVDC		
1	⅜ x ¾	VL-1120	89D136
2	⅜ x ¾	VL-1121	89D137
3	⅜ x ¾	VL-1122	89D138
4	⅜ x ¾	VL-1123	89D139
5	⅜ x ¾	VL-1124	89D140
6	⅜ x ¾	VL-1125	89D141
8	⅜ x ¾	VL-1126	89D142
10	⅜ x ¾	VL-1127	89D143
15	⅜ x ¾	VL-1128	89D144
20	⅜ x ¾	VL-1129	89D145
25	⅜ x ¾	VL-1130	89D146
35	⅜ x ¾	VL-1132	89D147
50	⅜ x ¾	VL-1134	89D148
75	⅜ x ⅞	VL-1137	89D149
100	7/16 x ⅞	VL-1140	89D150
140	7/16 x ⅞	VL-1144	89D151
	15 WVDC		
1	⅜ x ¾	VL-1160	89D152
2	⅜ x ¾	VL-1161	89D153
3	⅜ x ¾	VL-1162	89D154
4	⅜ x ¾	VL-1163	89D155
5	⅜ x ¾	VL-1164	89D156
6	⅜ x ¾	VL-1165	89D157
8	⅜ x ¾	VL-1166	89D158
10	⅜ x ¾	VL-1167	89D159
15	⅜ x ¾	VL-1168	89D160
20	⅜ x ¾	VL-1169	89D161
25	⅜ x ¾	VL-1170	89D162
35	⅜ x ⅞	VL-1172	89D163
50	⅜ x ⅞	VL-1174	89D164
75	7/16 x ⅞	VL-1177	89D165
90	7/16 x ⅞	VL-1180	89D166
	25 WVDC		
1	⅜ x ¾	VL-1200	89D167
2	⅜ x ¾	VL-1201	89D168

Call your Sprague Industrial Distributor for Current Prices

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
	25 WVDC ctd.		
3	⅜ x ¾	VL-1202	89D169
4	⅜ x ¾	VL-1203	89D170
5	⅜ x ¾	VL-1204	89D171
6	⅜ x ¾	VL-1205	89D172
8	⅜ x ¾	VL-1206	89D173
10	⅜ x ¾	VL-1207	89D174
15	⅜ x ¾	VL-1208	89D175
20	⅜ x ¾	VL-1209	89D176
25	⅜ x ¾	VL-1210	89D177
35	⅜ x ⅞	VL-1212	89D178
50	⅜ x ⅞	VL-1215	89D179
70	7/16 x ⅞	VL-1218	89D180
	50 WVDC		
1	⅜ x ¾	VL-1300	89D181
2	⅜ x ¾	VL-1301	89D182
3	⅜ x ¾	VL-1302	89D183
4	⅜ x ¾	VL-1303	89D184
5	⅜ x ¾	VL-1304	89D185
6	⅜ x ¾	VL-1305	89D186
8	⅜ x ¾	VL-1306	89D187
10	⅜ x ¾	VL-1307	89D188
15	⅜ x ¾	VL-1308	89D189
20	⅜ x ⅞	VL-1309	89D190
25	7/16 x ⅞	VL-1310	89D191
	6-6 WVDC		
100-30	7/16 x 1 3/16	VL-2150	.....
	10-10 WVDC		
50-50	½ x ⅞	VL-2250	.....
80-80	½ x ⅞	VL-2350	.....
	8-8-8 WVDC		
100-100-60	½ x 1 1/16	VL-3320	.....
	10-10-3 WVDC		
50-50-15	½ x ⅞	VL-3350	.....

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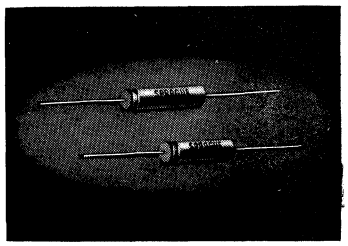
SPRAGUE CAPACITORS

TE LITTL-LYTIC® ELECTROLYTICS

- Ultra-Small — Excellent, Dependable Replacement Units for Transistorized Equipment Presently on the Market
- Reliability at Reasonable Prices
- All-Welded Construction — No Pressure Joints to Cause "Open" or Intermittent Circuits
- No Corrosion as with Competitive Units
- Extremely Low Leakage Current, Long Shelf Life
- Withstand Temperatures Up to 85C (185F)
- Furnished with Clear Plastic Outer Insulating Sleeves
- Packed 5 to a Handy Rigid Kleer-Pak® Plastic Box



For Complete Technical Data, See Latest Issue of Sprague Engineering Bulletin 3150

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
1 WVDC			
5	.260 x .536	TE-1010	.....
3 WVDC			
1	.260 x .536	TE-1050	30D105G003BA2
2	.260 x .536	TE-1051	30D205G003BA2
3	.260 x .536	TE-1052	30D305G003BA2
4	.260 x .536	TE-1052.1	30D405G003BA2
5	.260 x .536	TE-1052.2	30D505G003BA2
6	.260 x .536	TE-1052.3	30D605G003BA2
8	.260 x .536	TE-1052.5	30D805G003BA2
10	.260 x .536	TE-1053	30D106G003BA2
15	.260 x .536	TE-1053.5	30D156G003BA2
20	.260 x .536	TE-1054	30D206G003BA2
25	.260 x .536	TE-1055	30D256G003BA2
35	.260 x .723	TE-1056	.....
40	.260 x .723	TE-1057	.....
50	.260 x .723	TE-1058	30D506G003BB2
75	.322 x .723	TE-1059	.....
100	.322 x .723	TE-1059.5	30D107G003CB2
110	.322 x .723	TE-1060	.....
150	.322 x .848	TE-1061	30D157G003CC2
200	.322 x .848	TE-1064	30D207G003CC2
250	.385 x .848	TE-1065	30D257G003DD2
300	.385 x .848	TE-1066	.....
400	.385 x .973	TE-1067	.....
500	.385 x 1.286	TE-1068	30D507G003DF2
6 WVDC			
1	.260 x .536	TE-1080	30D105G006BA2
2	.260 x .536	TE-1081	30D205G006BA2
3	.260 x .536	TE-1082	30D305G006BA2
4	.260 x .536	TE-1083	30D405G006BA2
5	.260 x .536	TE-1084	30D505G006BA2
6	.260 x .536	TE-1085	30D605G006BA2
8	.260 x .536	TE-1086	30D805G006BA2
10	.260 x .536	TE-1087	30D106G006BA2
15	.260 x .536	TE-1089	30D156G006BA2
20	.260 x .536	TE-1090	30D206G006BA2
25	.260 x .723	TE-1091	30D256G006BB2
30	.260 x .723	TE-1092	.....
35	.260 x .723	TE-1093	30D356G006BB2
40	.260 x .723	TE-1095	30D406G006BB2
50	.322 x .723	TE-1100	.....
60	.322 x .723	•TE-1101	.....
75	.322 x .723	TE-1101.5	30D756G006CB2
100	.322 x .848	TE-1102	30D107G006CC2
150	.385 x .848	TE-1103	30D157G006DC2
200	.385 x .848	TE-1104	30D207G006DC2
250	.385 x .973	TE-1105	30D257G006DD2
300	.385 x 1.286	TE-1106	30D307G006DF2

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
10 WVDC			
10	.260 x .536	TE-1114	.....
15	.260 x .536	TE-1116	.....
25	.260 x .723	TE-1118	.....
50	.322 x .723	TE-1119	.....
100	.322 x .848	TE-1119.3	.....
200	.385 x 1.286	TE-1119.6	.....
12 WVDC			
1	.260 x .536	TE-1120	30D105G012BA2
2	.260 x .536	TE-1121	30D205G012BA2
3	.260 x .536	TE-1122	30D305G012BA2
4	.260 x .536	TE-1123	30D405G012BA2
5	.260 x .536	TE-1127	30D505G012BA2
6	.260 x .536	TE-1127.1	30D605G012BA2
8	.260 x .536	TE-1127.3	30D805G012BA2
10	.260 x .536	TE-1128	30D106G012BA2
15	.260 x .536	TE-1129	30D156G012BA2
20	.260 x .723	TE-1130	30D206G012BB2
25	.260 x .723	TE-1131	30D256G012BB2
35	.322 x .723	TE-1132	.....
50	.322 x .723	TE-1133	30D506G012CB2
75	.322 x .848	TE-1134	30D756G012CC2
100	.322 x .848	TE-1135	30D107G012CC2
150	.385 x .973	TE-1136	30D157G012DD2
200	.385 x 1.286	TE-1137	30D207G012DF2
250	.385 x 1.286	TE-1138	30D257G012DF2
15 WVDC			
1	.260 x .536	TE-1148	30D105G015BA2
2	.260 x .536	TE-1149	30D205G015BA2
3	.260 x .536	TE-1150	30D305G015BA2
4	.260 x .536	TE-1151	30D405G015BA2
5	.260 x .536	TE-1152	30D505G015BA2
6	.260 x .536	TE-1153	30D605G015BA2
8	.260 x .536	TE-1154	30D805G015BA2
10	.260 x .536	TE-1155	30D106G015BA2
15	.260 x .723	TE-1156	30D156G015BB2
20	.260 x .723	TE-1157	30D206G015BB2
25	.260 x .723	TE-1157.1	30D256G015BB2
30	.322 x .723	TE-1158	30D306G015CB2
35	.322 x .723	TE-1159	30D356G015CB2
50	.322 x .723	TE-1160	30D506G015CB2
75	.322 x .848	TE-1161	30D756G015CC2
100	.385 x .848	TE-1162	30D107G015DC2
150	.385 x .973	TE-1163	30D157G015DD2
200	.385 x 1.286	TE-1164	30D207G015DF2

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
25 WVDC			
1	.260 x .536	TE-1200	30D105G025BA2
2	.260 x .536	TE-1201	30D205G025BA2
3	.260 x .536	TE-1201.1	30D305G025BA2
4	.260 x .536	TE-1201.2	30D405G025BA2
5	.260 x .536	TE-1202	30D505G025BA2
6	.260 x .536	TE-1203	30D605G025BA2
8	.260 x .536	TE-1203.5	30D805G025BA2
10	.260 x .723	TE-1204	30D106G025BB2
15	.260 x .723	TE-1205	30D156G025BB2
20	.322 x .723	TE-1206	.....
25	.322 x .723	TE-1207	30D256G025CB2
35	.322 x .723	TE-1208	30D356G025CB2
50	.322 x .848	TE-1209	30D506G025CC2
75	.385 x .848	TE-1210	30D756G025DC2
100	.385 x .973	TE-1211	30D107G025DD2
50 WVDC			
1	.260 x .536	TE-1300	30D105G050BA2
2	.260 x .536	TE-1301	30D205G050BA2
3	.260 x .536	TE-1302	30D305G050BA2
4	.260 x .536	TE-1302.1	30D405G050BA2
5	.260 x .723	TE-1303	30D505G050BB2
6	.260 x .723	TE-1303.1	30D605G050BB2
8	.260 x .723	TE-1303.3	30D805G050BB2
10	.322 x .723	TE-1304	30D106G050CB2
15	.322 x .723	TE-1304.2	30D156G050CB2
20	.322 x .848	TE-1305	30D206G050CC2
35	.385 x .848	TE-1306	30D356G050DC2
50	.385 x .973	TE-1307	30D506G050DD2
100 WVDC			
1	.260 x .536	TE-1400	30D105G100BA2
2	.260 x .723	TE-1401	30D205G100BB2
3	.322 x .723	TE-1402	30D305G100CB2
4	.322 x .723	TE-1403	30D405G100CB2
5	.322 x .848	TE-1404	30D505G100CC2
6	.322 x .848	TE-1405	30D605G100CC2
8	.385 x .848	TE-1406	30D805G100DC2
10	.385 x .848	TE-1407	30D106G100DC2
15	.385 x .973	TE-1408	30D156G100DD2
20	.385 x 1.286	TE-1409	30D206G100DF2
150 WVDC			
1	.260 x .536	TE-1500	30D105G150BA2
2	.260 x .723	TE-1501	30D205G150BB2
3	.322 x .723	TE-1502	30D305G150CB2
4	.322 x .848	TE-1503	30D405G150CC2
5	.322 x .848	TE-1504	30D505G150CC2
6	.385 x .848	TE-1505	30D605G150DC2
8	.385 x .848	TE-1506	30D805G150DC2
10	.385 x .973	TE-1507	30D106G150DD2
12	.385 x 1.286	TE-1508	.....

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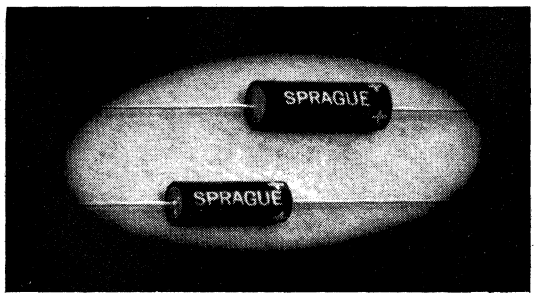
SPRAGUE CAPACITORS

TL TRANSI-LYTIC® ELECTROLYTICS



- Miniature Low-Cost Capacitors For Use in Transistorized Pocket and "Personal Portable" Radios
- Special Low-Leakage Current Construction to Meet The Requirements of Transistor Circuitry
- Sturdy Plastic Case With Thermo-setting Resin End Seals
- Excellent Resistance to High Humidity Conditions
- Polarity Stamped on Each Unit

µF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
3 WVDC			
1	.180 x .570	TL-1050	31D1
2	.180 x .570	TL-1051	31D2
3	.180 x .570	TL-1052	31D3
4	.180 x .570	TL-1052.1	31D4
5	.180 x .570	TL-1052.2	31D5
6	.180 x .570	TL-1052.3	31D6
8	.180 x .570	TL-1052.5	31D7
10	.180 x .570	TL-1053	31D8
15	.180 x .570	TL-1053.5	31D9
20	.210 x .700	TL-1054	31D10
25	.210 x .700	TL-1055	31D11
35	.250 x .820	TL-1056	31D12
50	.250 x .820	TL-1058	31D13
75	.250 x .820	TL-1059	31D14
100	.312 x .820	TL-1059.5	31D15
150	.375 x 1.070	TL-1061	31D16
200	.375 x 1.070	TL-1064	31D17
250	.375 x 1.070	TL-1065	31D18
300	.375 x 1.070	TL-1066	31D93
400	.437 x 1.070	TL-1067	31D94
500	.437 x 1.070	TL-1068	31D95
1000	.625 x 1.700	TL-1069	31D96
1500	.625 x 1.700	TL-1070	31D97
2000	.625 x 1.700	TL-1071	31D98
2500	.750 x 2.100	TL-1072	31D99
3000	.750 x 2.100	TL-1073	31D100
4000	.750 x 2.100	TL-1074	31D101
6 WVDC			
1	.180 x .570	TL-1080	31D19
2	.180 x .570	TL-1081	31D20
3	.180 x .570	TL-1082	31D21
4	.180 x .570	TL-1083	31D22
5	.180 x .570	TL-1084	31D23
6	.180 x .570	TL-1085	31D24
8	.180 x .570	TL-1086	31D25
10	.180 x .570	TL-1087	31D26
15	.210 x .700	TL-1089	31D27
20	.210 x .700	TL-1090	31D28
25	.250 x .820	TL-1091	31D29
35	.250 x .820	TL-1093	31D30
50	.250 x .820	TL-1100	31D31
75	.312 x .820	TL-1101.5	31D32
100	.375 x 1.070	TL-1102	31D33
150	.375 x 1.070	TL-1103	31D34
175	.375 x 1.070	TL-1103.5	31D35
200	.375 x 1.070	TL-1104	31D102
250	.437 x 1.070	TL-1105	31D103
300	.437 x 1.070	TL-1106	31D104
400	.500 x 1.440	TL-1107	31D105
500	.500 x 1.440	TL-1108	31D106
1000	.625 x 1.700	TL-1111	31D107
1500	.625 x 1.700	TL-1112	31D108
2000	.750 x 2.100	TL-1113	31D109
2500	.750 x 2.100	TL-1114	31D110
3000	.875 x 2.320	TL-1115	31D111
4000	.875 x 2.320	TL-1116	31D112
12 WVDC			
1	.180 x .570	TL-1120	31D36
2	.180 x .570	TL-1121	31D37
3	.180 x .570	TL-1122	31D38
4	.180 x .570	TL-1123	31D39
5	.180 x .570	TL-1127	31D40
6	.180 x .570	TL-1127.1	31D41
8	.210 x .700	TL-1127.3	31D42
10	.210 x .700	TL-1128	31D43
15	.210 x .700	TL-1129	31D44
20	.250 x .820	TL-1130	31D45
25	.250 x .820	TL-1131	31D46
35	.250 x .820	TL-1132	31D47
50	.312 x .820	TL-1133	31D48
75	.375 x 1.070	TL-1134	31D49
100	.375 x 1.070	TL-1135	31D50
150	.375 x 1.070	TL-1136	31D113
200	.437 x 1.070	TL-1137	31D114
250	.500 x 1.440	TL-1138	31D115
300	.500 x 1.440	TL-1139	31D116
400	.500 x 1.440	TL-1140	31D181
500	.625 x 1.700	TL-1141	31D117
1000	.625 x 1.700	TL-1142	31D118
1500	.750 x 1.440	TL-1143	31D119
2000	.750 x 2.100	TL-1144	31D120
2500	.875 x 2.320	TL-1145	31D121
3000	.875 x 2.320	TL-1146	31D122
4000	1.000 x 2.320	TL-1147	31D123
16 WVDC			
1	.180 x .570	TL-1148	31D51
2	.180 x .570	TL-1149	31D52
3	.180 x .570	TL-1150	31D53
4	.180 x .570	TL-1151	31D54
5	.180 x .570	TL-1152	31D55
6	.180 x .570	TL-1153	31D56
8	.210 x .700	TL-1154	31D57
10	.210 x .700	TL-1155	31D58
15	.250 x .820	TL-1156	31D59
20	.250 x .820	TL-1157	31D60
25	.250 x .820	TL-1157.1	31D61
35	.312 x .820	TL-1159	31D62
50	.312 x .820	TL-1160	31D63
75	.375 x 1.070	TL-1161	31D64
100	.375 x 1.070	TL-1162	31D65
150	.375 x 1.070	TL-1163	31D124
200	.437 x 1.070	TL-1164	31D125
250	.500 x 1.440	TL-1164.5	31D126
300	.500 x 1.440	TL-1165	31D127
400	.625 x 1.700	TL-1165.5	31D128
500	.625 x 1.700	TL-1166	31D129
1000	.750 x 1.700	TL-1166.5	31D130
1500	.750 x 1.700	TL-1167	31D131
2000	.875 x 2.320	TL-1167.5	31D132
2500	.875 x 2.320	TL-1168	31D133
3000	1.000 x 2.320	TL-1168.5	31D134
20 WVDC			
1	.180 x .570	TL-1170	31D66
2	.180 x .570	TL-1171	31D67
3	.180 x .570	TL-1172	31D68
4	.180 x .570	TL-1173	31D69
5	.180 x .570	TL-1174	31D70
6	.210 x .700	TL-1175	31D71
8	.210 x .700	TL-1176	31D72
10	.210 x .700	TL-1177	31D73
15	.250 x .820	TL-1178	31D74
20	.250 x .820	TL-1179	31D75
25	.250 x .820	TL-1180	31D76
35	.312 x .820	TL-1181	31D77
50	.312 x .820	TL-1182	31D78
75	.375 x 1.070	TL-1183	31D79
100	.375 x 1.070	TL-1184	31D135
150	.437 x 1.070	TL-1185	31D136
200	.500 x 1.440	TL-1186	31D137
250	.500 x 1.440	TL-1187	31D138
300	.500 x 1.440	TL-1188	31D139
400	.625 x 1.700	TL-1189	31D140
500	.625 x 1.700	TL-1190	31D141
1000	.750 x 1.700	TL-1191	31D142
1500	.750 x 2.100	TL-1192	31D143
2000	.875 x 2.320	TL-1193	31D144
2500	1.000 x 2.320	TL-1194	31D145
3000	1.000 x 2.320	TL-1195	31D146
25 WVDC			
1	.180 x .570	TL-1200	31D80
2	.180 x .570	TL-1201	31D81
3	.180 x .570	TL-1201.1	31D82
4	.180 x .570	TL-1201.2	31D83
5	.210 x .700	TL-1202	31D84
6	.210 x .700	TL-1203	31D85
8	.210 x .700	TL-1203.5	31D86
10	.250 x .820	TL-1204	31D87
15	.250 x .820	TL-1205	31D88
20	.250 x .820	TL-1206	31D89
25	.312 x .820	TL-1207	31D90
35	.375 x 1.070	TL-1208	31D91
50	.375 x 1.070	TL-1209	31D92
75	.375 x 1.070	TL-1210	31D147
100	.437 x 1.070	TL-1211	31D148
150	.500 x 1.440	TL-1212	31D149
200	.500 x 1.440	TL-1213	31D150
250	.625 x 1.700	TL-1214	31D151
300	.625 x 1.700	TL-1215	31D152
400	.625 x 1.700	TL-1216	31D153
500	.625 x 1.700	TL-1217	31D154
1000	.750 x 2.100	TL-1218	31D155
1500	.875 x 2.320	TL-1219	31D156
2000	1.000 x 2.320	TL-1220	31D157
50 WVDC			
1	.180 x .570	TL-1300	31D158
2	.180 x .570	TL-1301	31D159
3	.210 x .700	TL-1302	31D160
4	.210 x .700	TL-1302.1	31D161
5	.250 x .820	TL-1303	31D162
6	.250 x .820	TL-1303.1	31D163
8	.250 x .820	TL-1303.3	31D164
10	.250 x .820	TL-1304	31D165
15	.312 x .820	TL-1304.2	31D166
20	.375 x 1.070	TL-1305	31D167
25	.375 x 1.070	TL-1305.1	31D168
35	.375 x 1.070	TL-1306	31D169
50	.437 x 1.070	TL-1307	31D170
75	.500 x 1.440	TL-1308	31D171
100	.500 x 1.440	TL-1309	31D172
150	.625 x 1.700	TL-1310	31D173
175	.625 x 1.700	TL-1311	31D174
200	.625 x 1.700	TL-1312	31D175
250	.625 x 1.700	TL-1313	31D176
300	.750 x 1.195	TL-1314	31D177
400	.750 x 2.100	TL-1315	31D178
500	.750 x 2.100	TL-1316	31D179
1000	1.000 x 2.320	TL-1317	31D180

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

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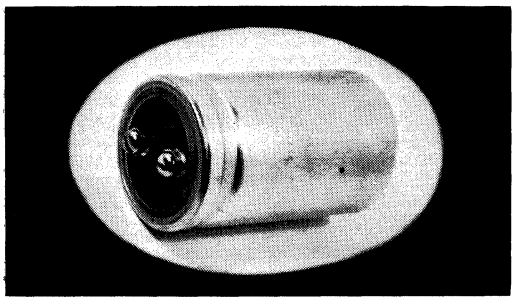
SPRAGUE CAPACITORS

TYPE 36D POWERLYTIC® ALUMINUM ELECTROLYTICS



- For Maximum Capacitance in a Given Case Size.
- Especially Suitable for Transistorized Circuitry where High Capacitance is Required.
- Maximum Space Economy at Operating Temperatures Up To 65 C.
- Low ESR and Leakage Currents. • Extremely Long Shelf Life.
- Uses Most Reliable Seal Developed by Sprague for Aluminum Electrolytic Capacitors. Pressure-type Safety Vents Employing Silicone Rubber Are Used On All Cases.
- High Screw Insert Terminal, 9/32" high. • Plastic Outer Tube.
- Superior Electrical and Life Characteristics Are Insured By Careful Raw Material Inspection, High Quality Control Standards and Close Manufacturing Supervision. For Complete Technical Data, Consult Sprague Engineering Bulletin 3431.

μF	Case Code	WVDC	Catalog No.
270,000	DF	3	36D274G003DF2A
120,000	DC	6	36D124G006DC2A
190,000	DF	6	36D194G006DF2A
6,000	AA	10	36D602G010AA2A
12,000	AB	10	36D123G010AB2A
18,000	AC	10	36D183G010AC2A
28,000	BB	10	36D283G010BB2A
42,000	BC	10	36D423G010BC2A
48,000	CB	10	36D483G010CB2A
100,000	DC	10	36D104G010DC2A
160,000	DF	10	36D164G010DF2A
4,600	AA	15	36D462G015AA2A
9,200	AB	15	36D922G015AB2A
13,000	AC	15	36D133G015AC2A
21,000	BB	15	36D213G015BB2A
31,000	BC	15	36D313G015BC2A
36,000	CB	15	36D363G015CB2A
54,000	CC	15	36D543G015CC2A
63,000	CD	15	36D633G015CD2A
80,000	DC	15	36D803G015DC2A
2,700	AA	25	36D272G025AA2A
5,500	AB	25	36D552G025AB2A
8,200	AC	25	36D822G025AC2A
18,000	BC	25	36D183G025BC2A
32,000	CC	25	36D323G025CC2A
47,000	DC	25	36D473G025DC2A
55,000	DD	25	36D553G025DD2A
71,000	DF	25	36D713G025DF2A
36,000	DC	30	36D363G030DC2A
42,000	DD	30	36D423G030DD2A
5,500	AC	40	36D552G040AC2A
8,400	BB	40	36D842G040BB2A
12,000	BC	40	36D123G040BC2A
21,000	CC	40	36D213G040CC2A
25,000	CD	40	36D253G040CD2A
1,300	AA	50	36D132G050AA2A
2,600	AB	50	36D262G050AB2A
3,900	AC	50	36D392G050AC2A
6,000	BB	50	36D602G050BB2A
9,000	BC	50	36D902G050BC2A
15,000	CC	50	36D153G050CC2A
22,000	DC	50	36D223G050DC2A
2,500	AC	75	36D252F075AC2A
3,900	BB	75	36D392F075BB2A
5,900	BC	75	36D592F075BC2A
11,000	CD	75	36D113F075CD2A
14,000	DC	75	36D143F075DC2A
22,000	DF	75	36D223F075DF2A

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μF	Case Code	WVDC	Catalog No.
450	AA	100	36D451F100AA2A
1,300	AC	100	36D132F100AC2A
3,000	BC	100	36D302F100BC2A
5,300	CC	100	36D532F100CC2A
7,800	DC	100	36D782F100DC2A
300	AA	150	36D301F150AA2A
900	AC	150	36D901F150AC2A
1,400	BB	150	36D142F150BB2A
2,100	BC	150	36D212F150BC2A
3,600	CC	150	36D362F150CC2A
5,300	DC	150	36D532F150DC2A
7,800	DF	150	36D782F150DF2A
250	AA	200	36D251F200AA2A
430	AB	200	36D431F200AB2A
640	AC	200	36D641F200AC2A
1,400	BC	200	36D142F200BC2A
1,600	CB	200	36D162F200CB2A
3,700	DC	200	36D372F200DC2A
5,500	DF	200	36D552F200DF2A
530	AC	250	36D531F250AC2A
1,200	BC	250	36D122F250BC2A
3,000	DC	250	36D302F250DC2A
4,500	DF	250	36D452F250DF2A
240	AB	300	36D241F300AB2A
820	BC	300	36D821F300BC2A
2,100	DC	300	36D212F300DC2A
95	AA	350	36D950F350AA2A
190	AB	350	36D191F350AB2A
420	BB	350	36D421F350BB2A
650	BC	350	36D651F350BC2A
1,100	CC	350	36D112F350CC2A
1,600	DC	350	36D162F350DC2A
2,500	DF	350	36D252F350DF2A
420	BC	400	36D421F400BC2A
50	AA	450	36D500F450AA2A
140	AC	450	36D141F450AC2A
220	BB	450	36D221F450BB2A
330	BC	450	36D331F450BC2A
860	DC	450	36D861F450DC2A

CALL YOUR SPRAGUE DISTRIBUTOR FOR QUANTITY PRICES

CASE CODE	BARE CAN D x L	CASE CODE	BARE CAN D x L	VERTICAL MOUNTING Cat. No.	CLAMPS Dia.
AA	1⅜ x 2⅛	CB	2½ x 3⅛	CMC-22	1⅜
AB	1⅜ x 3⅛	CC	2½ x 4⅛		
AC	1⅜ x 4⅛	CD	2½ x 4⅝	CMC-32	2
BB	2 x 3⅛	DC	3 x 4⅛	CMC-40	2½
BC	2 x 4⅛	DD	3 x 4⅝		
		DF	3 x 5⅝	CMC-48	3

Add 1/32" to diameter and 1/16" to length for plastic outer tube.

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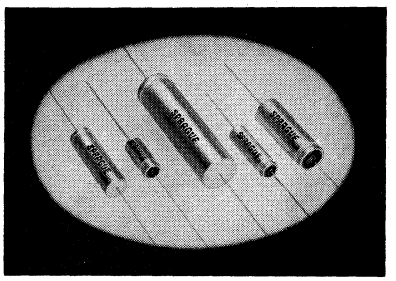
SPRAGUE CAPACITORS



TYPE 39D POWERLYTIC® CAPACITORS

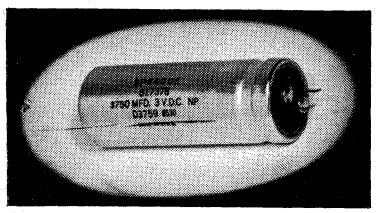
- Designed for Such Applications as Transistorized Apparatus, Which Require the Greatest Possible Capacitance in Small Case Size.
- Type 39D Capacitors Supplement the Original Type 36D Powerlytic by Offering Lower Capacitance Values in Small Case Size.
- Welds at all Critical Anode and Cathode Terminals Eliminates Riveted or Pressure Connections to Assure Freedom from Open Circuits Even During Operation in the Microvolt or Millivolt Signal Range.
- End-seals of an Improved Molded Phenolic
- Furnished with an Outer Insulation of Flexible Plastic.
- Operating Temperature Up to 85C
- These Capacitors are Provided with a Pressure-sensitive Safety Vent.
- For Additional Technical Data, Consult the Latest Issue of Sprague Electric Company Engineering Bulletin 3415.

μF	D. x L.	WVDC	Catalog Number
1,300	½ x 2 ⅛	3	39D138G003EL4
2,100	⅞ x 1 ⅛	3	39D218G003HE4
3,000	1 x 1 ⅛	3	39D308G003JE4
5,700	¾ x 2 ⅝	3	39D578G003GP4
10,000	⅞ x 3 ⅛	3	39D109G003HS4
18,000	1 x 3 ⅝	3	39D189G003JT4
600	½ x 1 ⅝	6	39D607G006EJ4
1,000	¾ x 1 ⅛	6	39D108G006GE4
2,000	¾ x 1 ⅝	6	39D208G006GJ4
4,000	¾ x 2 ⅝	6	39D408G006GP4
6,000	¾ x 2 ⅝	6	39D608G006HP4
10,000	1 x 3 ⅛	6	39D109G006JS4
500	½ x 1 ⅝	10	39D507G010EJ4
1,000	⅝ x 1 ⅝	10	39D108G010FJ4
1,600	⅝ x 2 ⅛	10	39D168G010FL4
2,500	¾ x 2 ⅛	10	39D258G010GL4
5,000	⅞ x 2 ⅝	10	39D508G010HP4
10,000	1 x 3 ⅝	10	39D109G010JT4
600	½ x 2 ⅛	15	39D607G015EL4
1,200	⅝ x 2 ⅛	15	39D128G015FL4
2,500	¾ x 2 ⅝	15	39D258G015GP4
4,000	1 x 2 ⅛	15	39D408G015JL4
8,000	1 x 3 ⅝	15	39D808G015JT4
200	½ x 1 ⅝	25	39D207G025EJ4
500	⅞ x 1 ⅛	25	39D507G025HE4
1,000	¾ x 2 ⅛	25	39D108G025GL4
2,200	⅞ x 2 ⅝	25	39D228G025HP4
4,000	1 x 3 ⅝	25	39D408G025JT4
75	½ x 1 ⅛	30	39D756G030EE4
150	½ x 1 ⅝	30	39D157G030EJ4
250	½ x 2 ⅛	30	39D257G030EL4

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

μF	D. x L.	WVDC	Catalog Number
500	⅝ x 2 ⅛	30	39D507G030FL4
1,100	¾ x 2 ⅝	30	39D118G030GP4
2,100	⅞ x 3 ⅛	30	39D218G030HS4
3,000	1 x 3 ⅛	30	39D308G030JS4
50	½ x 1 ⅛	50	39D506G050EE4
100	½ x 1 ⅝	50	39D107G050EJ4
150	½ x 2 ⅛	50	39D157G050EL4
250	⅞ x 1 ⅛	50	39D257G050HE4
500	¾ x 2 ⅛	50	39D507G050GL4
1,100	⅞ x 2 ⅝	50	39D118G050HP4
2,300	1 x 3 ⅝	50	39D238G050JT4
25	½ x 1 ⅝	150	39D256F150EJ4
50	⅝ x 1 ⅝	150	39D506F150FJ4
100	⅝ x 2 ⅝	150	39D107F150FP4
250	⅞ x 2 ⅝	150	39D257F150HP4
530	1 x 3 ⅝	150	39D537F150JT4
20	½ x 2 ⅛	250	39D206F250EL4
50	1 x 1 ⅛	250	39D506F250JE4
100	⅞ x 2 ⅛	250	39D107F250HL4
200	1 x 2 ⅝	250	39D207F250JP4
300	1 x 3 ⅝	250	39D307F250JT4
20	⅝ x 2 ⅛	350	39D206F350FL4
30	⅝ x 2 ⅝	350	39D306F350FP4
40	¾ x 2 ⅛	350	39D406F350GL4
50	¾ x 2 ⅝	350	39D506F350GP4
100	⅞ x 3 ⅛	350	39D107F350HS4
160	1 x 3 ⅝	350	39D167F350JT4
5	½ x 2 ⅛	450	39D505F450EL4
10	⅝ x 2 ⅛	450	39D106F450FL4
20	¾ x 2 ⅛	450	39D206F450GL4
50	1 x 2 ⅝	450	39D506F450JP4
75	1 x 3 ⅝	450	39D756F450JT4

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES



SPECIAL PURPOSE ELECTROLYTIC CAPACITORS

- Designed to Filter Low Voltage Power Supplies For Aircraft
- Solder Lug Terminals

μF	D. x L.	VDC	Catalog Number	
1250	1 x 2 ¾	3NP	D16255	(S17377)
3750	1 ⅜ x 3 ⅝	3NP	D3759	(S17378)

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IND-REM-16-6626

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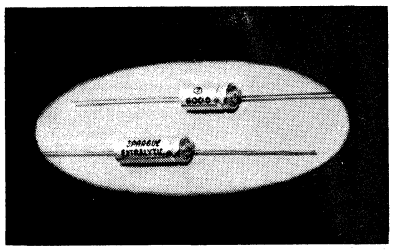
SPRAGUE CAPACITORS

TYPE 600D EXTRALYTIC® ALUMINUM ELECTROLYTIC CAPACITORS



- Extended Operating Temperature Range From —55C to +125C
- Dual Rating Makes Possible Operation At Either 85C or 125C
- Voltage Ratings Up to 150 Volts D-C
- Improved Oxide Systems, Etching Techniques, and End Seals; a New Electrolyte Makes The Type 600D Equivalent to Or Better Than Comparable Foil Tantalum Capacitors.
- Lower Cost and One Third The Weight of Comparable Foil Tantalums

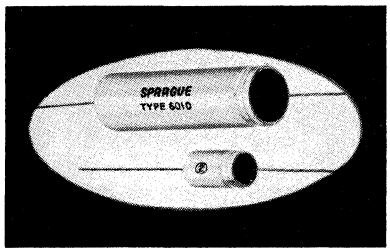
µF	Case Code	Catalog Number*
7 WVDC @ 85C, 5 WVDC @ 125C		
140	DC	600D147G007DC4
210	DD	600D217G007DD4
280	DE	600D287G007DE4
420	DG	600D427G007DG4
560	DJ	600D567G007DJ4
850	DL	600D857G007DL4
15 WVDC @ 85C, 10 WVDC @ 125C		
95	DC	600D956G015DC4
140	DD	600D147G015DD4
190	DE	600D197G015DE4
290	DG	600D297G015DG4
390	DJ	600D397G015DJ4
580	DL	600D587G015DL4
20 WVDC @ 85C, 15 WVDC @ 125C		
70	DC	600D706G020DC4
100	DD	600D107G020DD4
140	DE	600D147G020DE4
220	DG	600D227G020DG4
290	DJ	600D297G020DJ4
440	DL	600D447G020DL4
25 WVDC @ 85C, 20 WVDC @ 125C		
50	DC	600D506G025DC4
75	DD	600D756G025DD4
100	DE	600D107G025DE4
150	DG	600D157G025DG4
210	DJ	600D217G025DJ4
310	DL	600D317G025DL4
40 WVDC @ 85C, 30 WVDC @ 125C		
30	DC	600D306G040DC4
50	DD	600D506G040DD4
70	DE	600D706G040DE4
100	DG	600D107G040DG4
140	DJ	600D147G040DJ4
210	DL	600D217G040DL4
50 WVDC @ 85C, 40 WVDC @ 125C		
20	DC	600D206G050DC4
35	DD	600D356G050DD4
50	DE	600D506G050DE4
75	DG	600D756G050DG4
100	DJ	600D107G050DJ4
150	DL	600D157G050DL4
60 WVDC @ 85C, 50 WVDC @ 125C		
18	DC	600D186G060DC4
25	DD	600D256G060DD4
40	DE	600D406G060DE4
60	DG	600D606G060DG4
80	DJ	600D806G060DJ4
120	DL	600D127G060DL4
70 WVDC @ 85C, 50 WVDC @ 125C		
15	DC	600D156G070DC4
20	DD	600D206G070DD4
30	DE	600D306G070DE4
50	DG	600D506G070DG4
65	DJ	600D656G070DJ4
100	DL	600D107G070DL4
100 WVDC @ 85C, 75 WVDC @ 125C		
8	DC	600D186G100DC4
13	DD	600D136G100DD4
17	DE	600D176G100DE4
25	DG	600D256G100DG4
35	DJ	600D806G100DJ4
50	DL	600D506G100DL4
150 WVDC @ 85C, 100 WVDC @ 125C		
6	DC	600D605F150DC4
9	DD	600D905F150DD4
12	DE	600D126F150DE4
18	DG	600D186F150DG4
25	DJ	600D256F150DJ4
37	DL	600D376F150DL4
200 WVDC @ 85C, 150 WVDC @ 125C		
4	DC	600D405F200DC4
6	DD	600D605F200DD4
8	DE	600D805F200DE4
13	DG	600D136F200DG4
17	DJ	600D176F200DJ4
26	DL	600D266F200DL4

TABLE OF DIMENSIONS

Case Code	With Outer Insulation: Diam. (±0.031)	Length (Max.)
DC	.390	.875
DD	.390	1.000
DE	.390	1.187
DG	.390	1.437
DJ	.390	1.687
DL	.390	2.249

*Catalog numbers listed are for capacitors with Outer Insulation. For units with bare can substitute "0" for "4" at the end of the catalog number, and subtract 1/64" from diameter.

TYPE 601D EXTRALYTIC® ALUMINUM ELECTROLYTIC CAPACITORS



- Supplement Type 600D Extralytic Capacitors With Larger Case Sizes and Higher Capacitance Values
- Pressure-sensitive Safety Vent
- Designed to Operate at a Temperature Range of —55C to +85C
- Unique New Electrolyte, High-gain Etched Foil, Improved Oxide System Provide Long Life With Superior Electrical Characteristics
- For Complete Technical Data, See Latest Issue of Sprague Engineering Bulletin 3456
- Call Your Sprague Industrial Distributor For Current Prices

µF	Diam. (±0.031)	Length (±0.062)	Catalog Number
5 VOLTS D-C WORKING, 7 VDC SURGE			
1500	.687	1.250	601D158G005FJ4
2300	.687	2.250	601D238G005FL4
3500	.687	3.250	601D358G005FS4
5500	.812	3.250	601D558G005GS4
10000	1.062	3.250	601D109G005JS4
13000	1.062	3.750	601D139G005JT4
7.5 VOLTS D-C WORKING, 10 VDC SURGE			
650	.687	1.250	601D657G7R5FE4
1000	.812	1.250	601D108G7R5GE4
2000	.812	1.750	601D208G7R5GJ4
4000	1.062	1.750	601D408G7R5JJ4
6000	1.062	2.250	601D608G7R5JL4
11000	1.062	3.750	601D119G7R5JT4
10 VOLTS D-C WORKING, 15 VDC SURGE			
540	.687	1.250	601D547G010FE4
1000	.687	1.750	601D108G010FJ4
1600	.687	2.250	601D168G010FL4
2500	.812	2.250	601D258G010GL4
5000	1.062	2.250	601D508G010JL4
9100	1.062	3.750	601D918G010JT4
15 VOLTS D-C WORKING, 20 VDC SURGE			
650	.812	1.250	601D657G015GE4
1200	.687	2.250	601D128G015FL4
2500	1.062	1.750	601D258G015JJ4
4200	.937	3.250	601D428G015HS4
6900	1.062	3.750	601D698G015JT4
25 VOLTS D-C WORKING, 40 VDC SURGE			
220	.687	1.250	601D227G025FE4
500	.937	1.250	601D507G025HE4
1000	.812	2.250	601D108G025GL4
2200	.937	3.250	601D228G025HS4
3700	1.062	3.750	601D378G025JT4
30 VOLTS D-C WORKING, 45 VDC SURGE			
190	.687	1.250	601D197G030FE4
310	.812	1.250	601D317G030GE4
580	.687	2.250	601D587G030FL4
1000	.687	3.750	601D108G030FT4
2000	.937	3.250	601D208G030HS4
3300	1.062	3.750	601D338G030JT4
50 VOLTS D-C WORKING, 75 VDC SURGE			
110	.687	1.250	601D117G050FE4
170	.812	1.250	601D177G050GE4
250	.937	1.250	601D257G050HE4
500	.687	3.250	601D507G050FS4
1100	.937	3.250	601D118G050HS4
1800	1.062	3.750	601D188G050JT4
150 VOLTS D-C WORKING, 200 VDC SURGE			
18	.687	1.250	601D186F150FE4
55	.687	2.250	601D556F150FL4
100	.687	3.750	601D107F150FT4
260	.937	3.750	601D267F150HT4
360	1.062	3.750	601D367F150JT4
200 VOLTS D-C WORKING, 250 VDC SURGE			
16	.687	1.250	601D166F200FE4
50	.812	1.750	601D506F200GJ4
100	.812	3.250	601D107F200GS4
160	1.062	2.250	601D167F200JL4
210	.937	3.750	601D217F200HT4
290	1.062	3.750	601D297F200JT4

*Catalog numbers listed are for capacitors with Outer Insulation. For units with bare can substitute "0" for "4" at the end of the catalog number, and subtract 1/64" from diameter.

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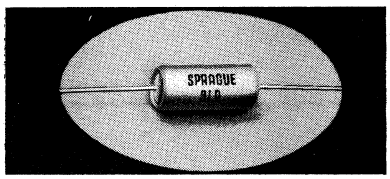
SPRAGUE CAPACITORS

VITAMIN Q® SUBMINIATURE PAPER CAPACITORS



These capacitors are the most widely used of all paper capacitors in commercial and military electronic equipment. Hermetically sealed in metal cases, they are electrically and mechanically designed to meet stringent operating requirements.

Impregnated with Vitamin Q, a substantially linear, controlled molecular weight, hydrocarbon polymer, which is exclusive with Sprague, these dependable capacitors are available for operation in two temperature ranges: −55°C to +85°C and −55°C to +125°C. Because of their Vitamin Q impregnation, these subminiature capacitors have a higher insulation resistance and longer life than comparable units with ordinary oils.

Sprague Subminiature paper capacitors exceed the performance requirements of military specification MIL-C-25A. A limited number of the ratings shown here are listed in the military specification and should be ordered by their MIL type designation where equipment specifications so require. (See page after next.)

Listed below are the most popular insulated section (ungrounded case) capacitors. For technical data on these and other types, ratings, and tolerances, as well as on wax-impregnated units for absolute minimum size, refer to the latest issue of Engineering Bulletin 2110.

Call your Sprague Industrial Distributor for Current Quantity Prices.

CHOICE OF INSERTED TAB OR EXTENDED FOIL CONSTRUCTION

In the past, inserted tab capacitors have not been recommended for low-voltage applications (e.g., below 10 volts) but recent improvements in design now make it possible to recommend them for operation at all voltages from 1 to rated, in nearly all applications.

From the application standpoint, the principal difference between the two construction types is that, at resonance, losses are likely to be lower in the extended foil type. This is because the resistive component of impedance is likely to be higher at resonance in the inserted tab type of construction. Unless unusual circuit requirements make the losses at resonance a critical factor, the inserted tab construction is recommended, primarily because of the smaller size of the capacitor roll.

TYPE 91P, INSERTED TAB CONSTRUCTION, 85°C OPERATION

			Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*		Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*	
μF	WVDC	Size D. x L.	Cat. No.		Cat. No.		Cat. No.		Cat. No.	
.001	100	.175 x ¾	91P10201S2	Call Your Sprague Industrial Distributor for Current Quantity Prices	91P10201S4	Call Your Sprague Industrial Distributor for Current Quantity Prices	91P10291S2	Call Your Sprague Industrial Distributor for Current Quantity Prices	91P10291S4	Call Your Sprague Industrial Distributor for Current Quantity Prices
	200	.235 x ¾	91P10202S2		91P10202S4		91P10292S2		91P10292S4	
	300	.235 x ¾	91P10203S2		91P10203S4		91P10293S2		91P10293S4	
	400	.235 x ¾	91P10204S2		91P10204S4		91P10294S2		91P10294S4	
	600	.235 x ¾	91P10206S2		91P10206S4		91P10296S2		91P10296S4	
.0015	100	.175 x ¾	91P15201S2		91P15201S4		91P15291S2		91P15291S4	
	200	.235 x ¾	91P15202S2		91P15202S4		91P15292S2		91P15292S4	
	300	.235 x ¾	91P15203S2		91P15203S4		91P15293S2		91P15293S4	
	400	.235 x ¾	91P15204S2		91P15204S4		91P15294S2		91P15294S4	
	600	.235 x ¾	91P15206S2		91P15206S4		91P15296S2		91P15296S4	
.0022	100	.175 x ¾	91P22201S2		91P22201S4		91P22291S2		91P22291S4	
	200	.235 x ¾	91P22202S2		91P22202S4		91P22292S2		91P22292S4	
	300	.235 x ¾	91P22203S2		91P22203S4		91P22293S2		91P22293S4	
	400	.235 x ¾	91P22204S2		91P22204S4		91P22294S2		91P22294S4	
	600	.235 x ¾	91P22206S2		91P22206S4		91P22296S2		91P22296S4	
.0033	100	.175 x ¾	91P33201S2		91P33201S4		91P33291S2		91P33291S4	
	200	.235 x ¾	91P33202S2		91P33202S4		91P33292S2		91P33292S4	
	300	.235 x ¾	91P33203S2		91P33203S4		91P33293S2		91P33293S4	
	400	.235 x ¾	91P33204S2		91P33204S4		91P33294S2		91P33294S4	
	600	.235 x ¾	91P33206S2		91P33206S4		91P33296S2		91P33296S4	
.0047	100	.175 x ¾	91P47201S2		91P47201S4		91P47291S2		91P47291S4	
	200	.235 x ¾	91P47202S2		91P47202S4		91P47292S2		91P47292S4	
	300	.235 x ¾	91P47203S2		91P47203S4		91P47293S2		91P47293S4	
	400	.235 x ¾	91P47204S2		91P47204S4		91P47294S2		91P47294S4	
	600	.235 x ¾	91P47206S2		91P47206S4		91P47296S2		91P47296S4	
.0068	100	.175 x ¾	91P68201S2		91P68201S4		91P68291S2		91P68291S4	
	200	.235 x ¾	91P68202S2		91P68202S4		91P68292S2		91P68292S4	
	300	.235 x ¾	91P68203S2		91P68203S4		91P68293S2		91P68293S4	
	400	.235 x ¾	91P68204S2		91P68204S4		91P68294S2		91P68294S4	
	600	.235 x ¾	91P68206S2		91P68206S4		91P68296S2		91P68296S4	

*For Style 4 units add .0625" to diameter and 1/16" to length.

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SPRAGUE CAPACITORS

TYPE 91P, continued

μF	WVDC	Size D. x L.	Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*		Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*	
			Cat. No.		Cat. No.		Cat. No.		Cat. No.	
.01	100	.175 x ¾	91P10301S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	91P10301S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	91P10391S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	91P10391S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
	200	.235 x ¾	91P10302S2		91P10302S4		91P10392S2		91P10392S4	
	300	.235 x ¾	91P10303S2		91P10303S4		91P10393S2		91P10393S4	
	400	.235 x ¾	91P10304S2		91P10304S4		91P10394S2		91P10394S4	
	600	.312 x ⅞	91P10306S2		91P10306S4		91P10396S2		91P10396S4	
.015	100	.175 x ¾	91P15301S2		91P15301S4		91P15391S2		91P15391S4	
	200	.235 x ¾	91P15302S2		91P15302S4		91P15392S2		91P15392S4	
	300	.235 x ¾	91P15303S2		91P15303S4		91P15393S2		91P15393S4	
	400	.312 x ⅞	91P15304S2		91P15304S4		91P15394S2		91P15394S4	
	600	.312 x ⅞	91P15306S2		91P15306S4		91P15396S2		91P15396S4	
.022	100	.195 x ¾	91P22301S2		91P22301S4		91P22391S2		91P22391S4	
	200	.235 x ¾	91P22302S2		91P22302S4		19P22392S2		91P22392S4	
	300	.312 x ⅞	91P22303S2		91P22303S4		91P22393S2		91P22393S4	
	400	.312 x ⅞	91P22304S2		91P22304S4		91P22394S2		91P22394S4	
	600	.312 x ⅞	91P22306S2		91P22306S4		91P22396S2		91P22396S4	
.033	100	.235 x ¾	91P33301S2		91P33301S4		91P33391S2		91P33391S4	
	200	.312 x ⅞	91P33302S2		91P33302S4		91P33392S2		91P33392S4	
	300	.312 x ⅞	91P33303S2		91P33303S4		91P33393S2		91P33393S4	
	400	.312 x ⅞	91P33304S2		91P33304S4		91P33394S2		91P33394S4	
	600	.400 x ⅞	91P33306S2		91P33306S4		91P33396S2		91P33396S4	
.047	100	.312 x ⅞	91P47301S2		91P47301S4		91P47391S2		91P47391S4	
	200	.312 x ⅞	91P47302S2		91P47302S4		91P47392S2		91P47392S4	
	300	.312 x ⅞	91P47303S2		91P47303S4		91P47393S2		91P47393S4	
	400	.400 x ⅞	91P47304S2		91P47304S4		91P47394S2		91P47394S4	
	600	.400 x 1⅜	91P47306S2		91P47306S4		91P47396S2		91P47396S4	
.068	100	.312 x ⅞	91P68301S2		91P68301S4		91P68391S2		91P68391S4	
	200	.312 x ⅞	91P68302S2		91P68302S4		91P68392S2		91P68392S4	
	300	.400 x ⅞	91P68303S2		91P68303S4		91P68393S2		91P68393S4	
	400	.400 x 1⅛	91P68304S2		91P68304S4		91P68394S4		91P68394S4	
	600	.400 x 1⅛	91P68306S2		91P68306S4		91P68396S2		91P68396S4	
.1	100	.312 x ⅞	91P10401S2		91P10401S4		91P10491S2		91P10491S4	
	200	.400 x ⅞	91P10402S2		91P10402S4		91P10492S2		91P10492S4	
	300	.400 x 1⅛	91P10403S2		91P10403S4		91P10493S2		91P10493S4	
	400	.400 x 1⅛	91P10404S2		91P10404S4		91P10494S2		91P10494S4	
	600	.562 x 1⅛	91P10406S2		91P10406S4		91P10496S2		91P10496S4	
.15	100	.400 x ⅞	91P15401S2		91P15401S4		91P15491S2		91P15491S4	
	200	.400 x 1⅛	91P15402S2		91P15402S4		91P15492S2		91P15492S4	
	300	.400 x 1⅜	91P15403S2		91P15403S4		91P15493S2		91P15493S4	
	400	.562 x 1⅛	91P15404S2		91P15404S4		91P15494S2		91P15494S4	
	600	.562 x 1⅜	91P15406S2		91P15406S4		91P15496S2		91P15496S4	
22	100	.400 x 1⅛	91P22401S2		91P22401S4		91P22491S2		91P22491S4	
	200	.400 x 1⅜	91P22402S2		91P22402S4		91P22492S2		91P22492S4	
	300	.562 x 1⅛	91P22403S2		91P22403S4		91P22493S2		91P22493S4	
	400	.562 x 1⅜	91P22404S2		91P22404S4		91P2249 4S2		91P22494S4	
	600	.562 x 1⅞	91P22406S2		91P22406S4		91P22496S2		91P22496S4	
.33	100	.400 x 1⅜	91P33401S2		91P33401S4		91P33491S2		91P33491S4	
	200	.562 x 1⅛	91P33402S2		91P33402S4		91P33492S2		91P33492S4	
	300	.562 x 1⅜	91P33403S2		91P33403S4		91P33493S2		91P33493S4	
	400	.562 x 1⅞	91P33404S2		91P33404S4		91P33494S2		91P33494S4	
	600	.670 x 1⅞	91P33406S2		91P33406S4		91P33496S2		91P33496S4	
.47	100	.562 x 1⅛	91P47401S2		91P47401S4		91P47491S2		91P47491S4	
	200	.562 x 1⅜	91P47402S2		91P47402S4		91P47492S2		91P47492S4	
	300	.562 x 1⅞	91P47403S2		91P47403S4		91P47493S2		91P47493S4	
	400	.670 x 1⅞	91P47404S2		91P47404S4		91P47494S2		91P47494S4	
	600	.750 x 2⅛	91P47406S2		91P47406S4		91P47496S2		91P47496S4	
68	100	.562 x 1⅜	91P68401S2		91P68401S4		91P68491S2		91P68491S4	
	200	.562 x 1⅞	91P68402S2		91P68402S4		91P68492S2		91P68492S4	
	300	.670 x 1⅞	91P68403S2		91P68403S4		91P68493S2		91P68493S4	
	400	.750 x 2 1/16	91P68404S2		91P68404S4		91P68494S2		91P68494S4	
	600	1.000 x 1 13/16	91P68406S2		91P68406S4		91P68496S2		91P68496S4	
1.0	100	.562 x 1⅞	91P10501S2		91P10501S4		91P10591S2		91P10591S4	
	200	.670 x 1⅞	91P10502S2		91P10502S4		91P10592S2		91P10592S4	
	300	.750 x 2 1/16	91P10503S2		91P10503S4		91P10593S2		91P10593S4	
	400	1.000 x 1 13/16	91P10504S2		91P10504S4		91P10594S2		91P10594S4	

*For Style 4 units add .0625" to diameter and 1/16" to length.

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SPRAGUE CAPACITORS

TYPE 96P, INSERTED TAB CONSTRUCTION, 125°C OPERATION

μF	WVDC	Size D. x L.	Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*		Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*	
			Cat. No.		Cat. No.		Cat. No.		Cat. No.	
	100	.175 x 3/4	96P10201S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	96P10201S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	96P10291S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	96P10201S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
	200	.235 x 3/4	96P10202S2		96P10202S4		96P10292S2		96P10202S4	
.001	300	.235 x 3/4	96P10203S2		96P10203S4		96P10293S2		96P10203S4	
	400	.235 x 3/4	96P10204S2		96P10204S4		96P10294S2		96P10204S4	
	600	.235 x 3/4	96P10206S2		96P10206S4		96P10296S2		96P10206S4	
.0012	600	.235 x 1 1/16	———		———		96P12296S2		96P12296S4	
	100	.175 x 3/4	96P15201S2		96P15201S4		96P15291S2		96P15291S4	
	200	.235 x 3/4	96P15202S2		96P15202S4		96P15292S2		96P15292S4	
.0015	300	.235 x 3/4	96P15203S2		96P15203S4		96P15293S2		96P15293S4	
	400	.235 x 3/4	96P15204S2		96P15204S4		96P15294S2		96P15294S4	
	600	.235 x 3/4	96P15206S2		96P15206S4		96P15296S2		96P15296S4	
.0018	600	.235 x 1 1/16	———		———		96P18296S2		96P18296S4	
	100	.175 x 3/4	96P22201S2		96P22201S4		96P22291S2		96P22201S4	
	200	.235 x 3/4	96P22202S2		96P22202S4		96P22292S2		96P22202S4	
.0022	300	.235 x 3/4	96P22203S2		96P22203S4		96P22293S2		96P22203S4	
	400	.235 x 3/4	96P22204S2		96P22204S4		96P22294S2		96P22204S4	
	600	.235 x 3/4	96P22206S2		96P22206S4		96P22296S2		96P22026S4	
.0027	600	.235 x 1 1/16	———		———		96P27296S2		96P27296S4	
	100	.175 x 3/4	96P33201S2		96P33201S4		96P33291S2		96P33291S4	
	200	.235 x 3/4	97P33202S2		96P33202S4		96P33292S2		96P33292S4	
.0033	300	.235 x 3/4	96P33203S2		96P33203S4		96P33293S2		96P33293S4	
	400	.235 x 3/4	96P33204S2		96P33204S4		96P33294S2		96P33294S4	
	600	.235 x 3/4	96P33206S2		96P33206S4		96P33296S2		96P33296S4	
.0039	600	.235 x 1 1/16	———		———		96P39296S2		96P33296S4	
	100	.175 x 3/4	96P47201S2		96P47201S4		96P47291S2		96P47291S4	
	200	.235 x 3/4	96P47202S2		96P47202S4		96P47292S2		96P47292S4	
.0047	300	.235 x 3/4	96P47203S2		96P47203S4		96P47293S2		96P47293S4	
	400	.235 x 3/4	96P47204S2		96P47204S4		96P47294S2		96P47294S4	
	600	.235 x 3/4	96P47206S2		96P47206S4		96P47296S2		96P47296S4	
.0056	600	.235 x 1 1/16	———		———		96P56296S2		96P56296S4	
	100	.175 x 3/4	96P68201S2		96P68201S4		96P68291S2		96P68391S4	
	200	.235 x 3/4	96P68202S2		96P68202S4		96P68292S2		96P68392S4	
.0068	300	.235 x 3/4	96P68203S2		96P68203S4		96P68293S2		96P68393S4	
	400	.235 x 3/4	96P68204S2		96P68204S4		96P68294S2		96P68394S4	
	600	.235 x 3/4	96P68206S2		96P68206S4		96P68296S2		96P68396S4	
.0082	400	.400 x 1 5/16	———		———		96P82294S2		96P82294S4	
	600	.562 x 1 1/16	———		———		96P82296S2		96P82296S4	
	100	.175 x 3/4	96P10301S2		96P10301S4		96P10391S2		96P10391S4	
	200	.235 x 3/4	96P10302S2		96P10302S4		96P10392S2		96P10392S4	
.01	300	.235 x 3/4	96P10303S2		96P10303S4		97P10393S2		96P10393S4	
	400	.235 x 3/4	96P10304S2		96P10304S4		96P10394S2		96P10394S4	
	600	.312 x 7/8	96P10306S2		96P10306S4		96P10396S2		96P10396S4	
.012	200	.235 x 1 1/16	———		———		96P12392S2		96P12392S4	
	600	.312 x 1 1/16	———		———		96P12396S2		96P12396S4	
	100	.175 x 3/4	96P15301S2		96P15301S4		96P15391S2		96P15391S4	
	200	.235 x 3/4	96P15302S2		96P15302S4		96P15392S2		96P15392S4	
.015	300	.235 x 3/4	96P15303S2		96P15303S4		96P15393S2		96P15393S4	
	400	.312 x 7/8	96P15304S2		96P15304S4		96P15394S2		96P15394S4	
	600	.312 x 7/8	96P15306S2		96P15306S4		96P15396S2		96P15396S4	
	1000	.400 x 1 1/16	———		———		96P153910S2		96P153910S4	
	200	.235 x 1 1/16	———		———		96P18392S2		96P18392S4	
.018	600	.312 x 1 3/16	———		———		96P18396S2		96P18396S4	
	1000	.400 x 1 1/16	———		———		96P183910S2		96P183910S4	
	100	.195 x 3/4	96P22301S2		96P22301S4		96P22391S2		96P22391S4	
	200	.235 x 3/4	96P22302S2		96P22302S4		96P22392S2		96P22392S4	
.022	300	.312 x 7/8	96P22303S2		96P22303S4		96P22393S2		96P22393S4	
	400	.312 x 7/8	96P22304S2		96P22304S4		96P22394S2		96P22394S4	
	600	.312 x 7/8	96P22306S2		96P22306S4		96P22396S2		96P22396S4	
	1000	.400 x 1 1/16	———		———		96P223910S2		96P223910S4	
	100	.235 x 1 11/16	———		———		96P27391S2		96P27391S4	
.027	400	.312 x 1 3/16	———		———		96P27394S2		96P27394S4	
	600	.312 x 1 3/16	———		———		96P27396S2		96P27396S4	
	1000	.400 x 1 1/16	———		———		96P273910S2		96P273910S4	
	100	.235 x 3/4	96P33301S2		96P33301S4		96P33391S2		96P33391S4	
	200	.312 x 7/8	96P33302S2		96P33302S4		96P33392S2		96P33392S4	
.033	300	.312 x 7/8	96P33303S2		96P33303S4		96P33393S2		96P33393S4	
	400	.312 x 7/8	96P33304S2		96P33304S4		96P33394S2		96P33394S4	
	600	.400 x 7/8	96P33306S2		96P33306S4		96P33396S2		96P33396S4	
	1000	.400 x 1 5/16	———		———		96P333910S2		96P333910S4	
	200	.312 x 1 3/16	———		———		96P39392S2		96P39392S4	
.039	400	.400 x 1 3/16	———		———		96P39394S2		96P39394S4	
	600	.400 x 1 1/16	———		———		96P39396S2		96P39396S4	
	1000	.562 x 1 1/16	———		———		96P393910S2		96P393910S4	
	100	.312 x 7/8	96P47301S2		96P47301S4		96P47391S2		96P47391S4	
	200	.312 x 7/8	96P47302S2		96P47302S4		96P47392S2		96P47392S4	
.047	300	.312 x 7/8	96P47303S2		96P47303S4		96P47393S		96P47393S4	
	400	.400 x 7/8	96P47304S2		96P47304S4		96P47394S2		96P47394S4	
	600	.400 x 1 1/8	96P47306S2		96P47306S4		96P47396S2		96P47396S4	
	1000	.562 x 1 5/16	———		———		96P473910S2		96P473910S4	
	200	.312 x 1 3/16	———		———		96P56392S2		96P56392S4	
.056	400	.400 x 1 1/16	———		———		96P56394S2		96P56394S4	
	600	.400 x 1 5/16	———		———		96P56396S2		96P56396S4	
	1000	.562 x 1 5/16	———		———		96P563910S2		96P563910S4	

*For Style 4 units add .0625" to diameter and 1/16" to length.

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SPRAGUE CAPACITORS

TYPE 96P, continued

μF	WVDC	Size D. x L.	Capacitance Tolerance ±20% Style 2 (bare metal case) Cat. No.		Capacitance Tolerance ±20% Style 4 (w/plastic sleeve)* Cat. No.		Capacitance Tolerance ±10% Style 2 (bare metal case) Cat. No.		Capacitance Tolerance ±10% Style 4 (w/plastic sleeve)* Cat. No.	
	100	.312 x 7/8	96P68301S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	96P68301S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	96P68391S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	96P68391S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
	200	.312 x 7/8	96P68302S2		96P68302S4		96P68392S2		96P68392S4	
.068	300	.400 x 7/8	96P68303S2		96P68303S4		96P68393S2		96P68393S4	
	400	.400 x 1 1/8	96P68304S2		96P68304S4		96P68394S2		96P68394S4	
	600	.400 x 1 3/8	96P68306S2		96P68306S4		96P68396S2		96P68396S4	
	1000	.562 x 1 5/16	———		———		96P68391OS2		96P68391OS4	
	100	.312 x 13/16	———		———		96P82391S2		96P82391S4	
	200	.400 x 13/16	———		———		96P82392S2		96P82392S4	
.082	400	.400 x 1 5/16	———		———		96P82394S2		96P82394S4	
	600	.562 x 1 1/16	———		———		96P82396S2		96P82396S4	
	1000	.562 x 1 9/16	———		———		96P82391OS2		96P82391OS4	
	100	.312 x 7/8	96P10401S2		96P10401S4		96P10491S2		96P10491S4	
	200	.400 x 7/8	96P10402S2		96P10402S4		96P10492S2		96P10492S4	
.1	300	.400 x 1 1/8	96P10403S2		96P10403S4		96P10493S2		96P10493S4	
	400	.400 x 1 3/8	96P10404S2		96P10404S4		96P10494S2		96P10494S4	
	600	.562 x 1 1/8	96P10406S2		96P10406S4		96P10496S2		96P10496S4	
	1000	.562 x 1 9/16	———		———		96P10491OS2		96P10491OS4	
	100	.400 x 13/16	———		———		96P12491S2		96P12491S4	
	200	.400 x 1 1/16	———		———		96P12492S2		96P12492S4	
.12	400	.562 x 1 1/16	———		———		96P12494S2		96P12494S4	
	600	.562 x 1 5/16	———		———		96P12496S2		96P12496S4	
	1000	.670 x 1 9/16	———		———		96P12491OS2		96P12491OS4	
	100	.400 x 7/8	96P15491S2		96P15401S4		96P15491S2		96P15491S4	
	200	.400 x 1 1/8	96P15492S2		96P15402S4		96P15492S2		96P15492S4	
.15	300	.400 x 1 3/8	96P15493S2		96P15403S4		96P15493S2		96P15493S4	
	400	.562 x 1 1/8	96P15494S2		96P15404S4		96P15494S2		96P15494S4	
	600	.562 x 1 3/8	96P15496S2		96P15406S4		96P15496S2		96P15496S4	
	1000	.670 x 1 9/16	———		———		96P15491OS2		96P15491OS4	
	100	.400 x 1 1/16	———		———		96P18491S2		96P18491S4	
	200	.400 x 1 5/16	———		———		96P18492S2		96P18492S4	
.18	400	.562 x 1 5/16	———		———		96P18494S2		96P18494S4	
	600	.562 x 1 13/16	———		———		96P18496S2		96P18496S4	
	1000	.750 x 2 1/16	———		———		96P18491OS2		96P18491OS4	
	100	.400 x 1 1/8	96P22401S2		96P22401S4		96P22491S2		96P22491S4	
	200	.400 x 1 3/8	96P22402S2		96P22402S4		96P22492S2		96P22492S4	
.22	300	.562 x 1 1/8	96P22403S2		96P22403S4		96P22493S2		96P22493S4	
	400	.562 x 1 3/8	96P22404S2		96P22404S4		96P22494S2		96P22494S4	
	600	.562 x 1 7/8	96P22406S2		96P22406S4		96P22496S2		96P22496S4	
	1000	.750 x 2 1/16	———		———		96P22491OS2		96P22491OS4	
	100	.400 x 1 1/16	———		———		96P27491S2		96P27491S4	
	200	.562 x 1 5/16	———		———		96P27492S2		96P27492S4	
.27	400	.562 x 1 5/16	———		———		96P27494S2		96P27494S4	
	600	.562 x 1 13/16	———		———		96P27496S2		96P27496S4	
	1000	.750 x 2 1/16	———		———		96P27491OS2		96P27491OS4	
	100	.400 x 1 3/8	96P33401S2		96P33401S4		96P33491S2		96P33491S4	
	200	.562 x 1 1/8	96P33402S2		96P33402S4		96P33492S2		96P33492S4	
.33	300	.562 x 1 3/8	96P33403S2		96P33403S4		96P33493S2		96P33493S4	
	400	.562 x 1 7/8	96P33404S2		96P33404S4		96P3349 4S2		96P33494S4	
	600	.670 x 1 7/8	96P33406S2		96P33406S4		96P33496S2		96P33496S4	
	1000	.750 x 1 9/16	———		———		96P334910S2		96P334910S4	
	100	.562 x 1 1/16	———		———		96P39491S2		96P39491S4	
	200	.562 x 1 5/16	———		———		96P39492S2		96P39492S4	
.39	400	.670 x 1 13/16	———		———		96P39494S2		96P39494S4	
	600	.750 x 2 1/16	———		———		96P39496S2		96P39496S4	
	1000	1.000 x 2 1/16	———		———		96P394910S2		96P394910S4	
	100	.562 x 1 1/8	96P47401S2		96P47401S4		96P47491S2		96P47491S4	
	200	.562 x 1 3/8	96P47402S2		96P47402S4		96P47492S2		96P47492S4	
.47	300	.562 x 1 7/8	96P47403S2		96P47403S4		96P47493S2		96P47493S4	
	400	.670 x 1 7/8	96P47404S2		96P47404S4		96P47494S2		96P47494S4	
	600	.750 x 2 1/8	96P47406S2		96P47406S4		96P47496S2		96P47496S4	
	1000	1.000 x 2 1/16	———		———		96P474910S2		96P474910S4	
	100	.562 x 1 5/16	———		———		96P56491S2		96P56491S4	
.56	200	.562 x 1 13/16	———		———		96P56492S2		96P56492S4	
	400	.750 x 2 1/16	———		———		96P56494S2		96P56494S4	
	600	1.000 x 1 13/16	———		———		96P56496S2		96P56496S4	
	100	.562 x 1 3/8	96P68401S2		96P68401S4		96P68491S2		96P68491S4	
	200	.562 x 1 7/8	96P68402S2		96P68402S4		96P68492S2		96P68492S4	
.68	300	.670 x 1 7/8	96P68403S2		96P68403S4		96P68493S2		96P68493S4	
	400	.750 x 2 1/16	96P68404S2		96P68404S4		96P68494S2		96P68494S4	
	600	1.000 x 1 13/16	96P68406S2		96P68406S4		96P68496S2		96P68496S4	
	100	.562 x 1 13/16	———		———		96P82491S2		96P82491S4	
.82	200	.670 x 1 13/16	———		———		96P82492S2		96P82492S4	
	400	1.000 x 1 13/16	———		———		96P82494S2		96P82494S4	
	100	.562 x 1 7/8	96P10501S2		96P10501S4		96P10591S2		96P10591S4	
1.0	200	.670 x 1 7/8	96P10502S2		96P10502S4		96P10592S2		96P10592S4	
	300	.750 x 2 1/16	96P10503S2		96P10503S4		96P10593S2		96P10593S4	
	400	1.000 x 1 13/16	96P10504S2		96P10504S4		96P10594S2		96P10594S4	

*For Style 4 units add .0625" to diameter and 1/16" to length.

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Net

SPRAGUE CAPACITORS

TYPE 191P, EXTENDED FOIL CONSTRUCTION, 85°C OPERATION

μF	WVDC	Size D. x L.	Capacitance Tolerance ±20% — Style 2 (bare metal case) Cat. No.	Capacitance Tolerance ±20% — Style 4 (w/plastic sleeve*) Cat. No.	Capacitance Tolerance ±10% — Style 2 (bare metal case) Cat. No.	Capacitance Tolerance ±10% — Style 4 (w/plastic sleeve*) Cat. No.
.001	100	.175 x ¾	191P10201S2	191P10201S4	191P10291S2	191P10291S4
	200	.235 x ¾	191P10202S2	191P10202S4	191P10292S2	191P10292S4
	300	.235 x ¾	191P10203S2	191P10203S4	191P10293S2	191P10293S4
	400	.235 x ¾	191P10204S2	191P10204S4	191P10294S2	191P10294S4
	600	.235 x ¾	191P10206S2	191P10206S4	191P10296S2	191P10296S4
.0015	100	.175 x ¾	191P15201S2	191P15201S4	191P15291S2	191P15291S4
	200	.235 x ¾	191P15202S2	191P15202S4	191P15292S2	191P15292S4
	300	.235 x ¾	191P15203S2	191P15203S4	191P15293S2	191P15293S4
	400	.235 x ¾	191P15204S2	191P15204S4	191P15294S2	191P15294S4
	600	.235 x ¾	191P15206S2	191P15206S4	191P15296S2	191P15296S4
.0022	100	.175 x ¾	191P22201S2	191P22201S4	191P22291S2	191P22291S4
	200	.235 x ¾	191P22202S2	191P22202S4	191P22292S2	191P22292S4
	300	.235 x ¾	191P22203S2	191P22203S4	191P22293S2	191P22293S4
	400	.235 x ¾	191P22204S2	191P22204S4	191P22294S2	191P22294S4
	600	.235 x ¾	191P22206S2	191P22206S4	191P22296S2	191P22296S4
.0033	100	.175 x ¾	191P33201S2	191P33201S4	191P33291S2	191P33291S4
	200	.235 x ¾	191P33202S2	191P33202S4	191P33292S2	191P33292S4
	300	.235 x ¾	191P33203S2	191P33203S4	191P33293S2	191P33293S4
	400	.235 x ¾	191P33204S2	191P33204S4	191P33294S2	191P33294S4
	600	.235 x ¾	191P33206S2	191P33206S4	191P33296S2	191P33296S4
.0047	100	.175 x ¾	191P47201S2	191P47201S4	191P47291S2	191P47291S4
	200	.235 x ¾	191P47202S2	191P47202S4	191P47292S2	191P47292S4
	300	.235 x ¾	191P47203S2	191P47203S4	191P47293S2	191P47293S4
	400	.235 x ¾	191P47204S2	191P47204S4	191P47294S2	191P47294S4
	600	.235 x ¾	191P47206S2	191P47206S4	191P47296S2	191P47296S4
.0068	100	.175 x ¾	191P68201S2	191P68201S4	191P68291S2	191P68291S4
	200	.235 x ¾	191P68202S2	191P68202S4	191P68292S2	191P68292S4
	300	.235 x ¾	191P68203S2	191P68203S4	191P68293S2	191P68293S4
	400	.235 x ¾	191P68204S2	191P68204S4	191P68294S2	191P68294S4
	600	.235 x ¾	191P68206S2	191P68206S4	191P68296S2	191P68296S4
.01	100	.175 x ¾	191P10301S2	191P10301S4	191P10391S2	191P10391S4
	200	.235 x ¾	191P10302S2	191P10302S4	191P10392S2	191P10392S4
	300	.235 x ¾	191P10303S2	191P10303S4	191P10393S2	191P10393S4
	400	.235 x ¾	191P10304S2	191P10304S4	191P10394S2	191P10394S4
	600	.312 x ⅞	191P10306S2	191P10306S4	191P10396S2	191P10396S4
.015	100	.175 x ¾	191P15301S2	191P15301S4	191P15391S2	191P15391S4
	200	.235 x ¾	191P15302S2	191P15302S4	191P15392S2	191P15392S4
	300	.235 x ¾	191P15303S2	191P15303S4	191P15393S2	191P15393S4
	400	.312 x ⅞	191P15304S2	191P15304S4	191P15394S2	191P15394S4
	600	.312 x ⅞	191P15306S2	191P15306S4	191P15396S2	191P15396S4
.022	100	.195 x ¾	191P22301S2	191P22301S4	191P22391S2	191P22391S4
	200	.235 x ¾	191P22302S2	191P22302S4	191P22392S2	191P22392S4
	300	.312 x ⅞	191P22303S2	191P22303S4	191P22393S2	191P22393S4
	400	.312 x ⅞	191P22304S2	191P22304S4	191P22394S2	191P22394S4
	600	.312 x ⅞	191P22306S2	191P22306S4	191P22396S2	191P22394S4

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*For Style 4 units add .0625" to diameter and 1/16" to length

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SPRAGUE CAPACITORS

TYPE 191P, continued

µF	WVDC	Size D. x L.	Capacitance Tolerance ±20% Style 2 (bare metal case) Cat. No.	Capacitance Tolerance ±20% Style 4 (w/plastic sleeve*) Cat. No.	Capacitance Tolerance ±10% Style 2 (bare metal case) Cat. No.	Capacitance Tolerance ±10% Style 4 (w/plastic sleeve*) Cat. No.
	100	.235 x ¾	191P33301S2	191P33301S4	191P33391S2	191P33391S4
	200	.312 x ⅞	191P33302S2	191P33302S4	191P33392S2	191P33392S4
.033	300	.312 x ⅞	191P33303S2	191P33303S4	191P33393S2	191P33393S4
	400	.312 x ⅞	191P33304S2	191P33304S4	191P33394S2	191P33394S4
	600	.400 x ⅞	191P33306S2	191P33306S4	191P33396S2	191P33396S4
	100	.312 x ⅞	191P47301S2	191P47301S4	191P47391S2	191P47391S4
	200	.312 x ⅞	191P47302S2	191P47302S4	191P47392S2	191P47392S4
.047	300	.312 x ⅞	191P47303S2	191P47303S4	191P47393S2	191P47393S4
	400	.400 x ⅞	191P47304S2	191P47304S4	191P47394S2	191P47394S4
	600	.400 x 1⅛	191P47306S2	191P47306S4	191P47396S2	191P47396S4
	100	.312 x ⅞	191P68301S2	191P68301S4	191P68391S2	191P68391S4
	200	.312 x ⅞	191P68302S2	191P68302S4	191P68392S2	191P68392S4
.068	300	.400 x ⅞	191P68303S2	191P68303S4	191P68393S2	191P68393S4
	400	.400 x 1⅛	191P68304S2	191P68304S4	191P68394S2	191P68394S4
	600	.400 x 1⅜	191P68306S2	191P68306S4	191P68396S2	191P68396S4
	100	.312 x ⅞	191P10401S2	191P10401S4	191P10491S2	191P10491S4
	200	.400 x ⅞	191P10402S2	191P10402S4	191P10492S2	191P10492S4
.1	300	.400 x 1⅛	191P10403S2	191P10403S4	191P10493S2	191P10493S4
	400	.400 x 1⅜	191P10404S2	191P10404S4	191P10494S2	191P10494S4
	600	.562 x 1⅛	191P10406S2	191P10406S4	191P10496S2	191P10496S4
	100	.400 x ⅞	191P15401S2	191P15401S4	191P15491S2	191P15491S4
	200	.400 x 1⅛	191P15402S2	191P15402S4	191P15492S2	191P15492S4
.15	300	.400 x 1⅜	191P15403S2	191P15403S4	191P15493S2	191P15493S4
	400	.562 x 1⅛	191P15404S2	191P15404S4	191P15494S2	191P15494S4
	600	.562 x 1⅜	191P15406S2	191P15406S4	191P15496S2	191P15496S4
	100	.400 x 1⅛	191P22401S2	191P22401S4	191P22491S2	191P22491S4
	200	.400 x 1⅜	191P22402S2	191P22402S4	191P22492S2	191P22492S4
.22	300	.562 x 1⅛	191P22403S2	191P22403S4	191P22493S2	191P22493S4
	400	.562 x 1⅜	191P22404S2	191P22404S4	191P22494S2	191P22494S4
	600	.562 x 1⅞	191P22406S2	191P22406S4	191P22496S2	191P22496S4
	100	.400 x 1⅜	191P33401S2	191P33401S4	191P33491S2	191P33491S4
	200	.562 x 1⅛	191P33402S2	191P33402S4	191P33492S2	191P33492S4
.33	300	.562 x 1⅜	191P33403S2	191P33403S4	191P33493S2	191P33493S4
	400	.562 x 1⅞	191P33404S2	191P33404S4	191P33494S2	191P33494S4
	600	.670 x 1⅞	191P33406S2	191P33406S4	191P33496S2	191P33496S4
	100	.562 x 1⅛	191P47401S2	191P47401S4	191P47491S2	191P47491S4
.47	200	.562 x 1⅜	191P47402S2	191P47402S4	191P47492S2	191P47492S4
	300	.562 x 1⅞	191P47403S2	191P47403S4	191P47493S2	191P47493S4
	400	.670 x 1⅞	191P47404S2	191P47404S4	191P47494S2	191P47494S4
	600	.750 x 2⅛	191P47406S2	191P47406S4	191P47496S2	191P47496S4
	100	.562 x 1⅜	191P68401S2	191P68401S4	191P68491S2	191P68491S4
.68	200	.562 x 1⅞	191P68402S2	191P68402S4	191P68492S2	191P68492S4
	300	.670 x 1⅞	191P68403S2	191P68403S4	191P68493S2	191P68493S4
	100	.562 x 1⅞	191P10501S2	191P10501S4	191P10591S2	191P10591S4
1.0	200	.670 x 1⅞	191P10502S2	191P10502S4	191P10592S2	191P10592S4

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*For Style 4 units add .0625" to diameter and 1/16" to length

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SPRAGUE CAPACITORS

TYPE 196P, EXTENDED FOIL CONSTRUCTION, 125°C OPERATION

µF	WVDC	Size D. x L.	Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve*)		Style 2 (bare metal case)		Style 4 (w/plastic sleeve*)	
			Cat. No.		Cat. No.		Cat. No.		Cat. No.	
	100	.175 x 3/4	196P10201S2		196P10201S4		196P10291S2		196P10291S4	
	200	.235 x 3/4	196P10202S2		196P10202S4		196P10292S2		196P10292S4	
.001	300	.235 x 3/4	196P10203S2		196P10203S4		196P10293S2		196P10293S4	
	400	.235 x 3/4	196P10204S2		196P10204S4		196P10294S2		196P10294S4	
	600	.235 x 3/4	196P10206S2		196P10206S4		196P10296S2		196P10296S4	
	1000	.400 x 1 3/16					196P102910S2		196P102910S4	
	600	.235 x 1 1/16					196P12296S2		196P12296S4	
.001	1000	.400 x 1 3/16					196P122910S2		196P122810S4	
	100	.175 x 3/4	196P15201S2		196P15201S4		196P15291S2		196P15291S4	
	200	.235 x 3/4	196P15202S2		196P15202S4		196P15292S2		196P15292S4	
	300	.235 x 3/4	196P15203S2		196P15203S4		196P15293S2		196P15293S4	
.0015	400	.235 x 3/4	196P15204S2		196P15204S4		196P15294S2		196P15294S4	
	600	.235 x 3/4	196P15206S2		196P15206S4		196P15296S2		196P15296S4	
	1000	.400 x 1 3/16					196P152910S2		196P152910S4	
	600	.235 x 1 1/16					196P18296S2		196P18296S4	
0018	1000	.400 x 1 3/16					196P182910S2		196P182910S4	
	100	.175 x 3/4	196P22201S2		196P22201S4		196P22291S2		196P22291S4	
	200	.235 x 3/4	196P22202S2		196P22202S4		196P22292S2		196P22292S4	
	300	.235 x 3/4	196P22203S2		196P22203S4		196P22293S2		196P22293S4	
.0022	400	.235 x 3/4	196P22204S2		196P22204S4		196P22294S2		196P22294S4	
	600	.235 x 3/4	196P22206S2		196P22206S4		196P22296S2		196P22296S4	
	1000	.400 x 1 3/16					196P222910S2		196P222910S4	
	400	.312 x 1 3/16					196P27294S2		196P27294S4	
.0027	600	.235 x 1 1/16					196P27296S2		196P27296S4	
	1000	.400 x 1 3/16					196P272910S2		196P272910S4	
	100	.175 x 3/4	196P33201S2		196P33201S4		196P33291S2		196P33291S4	
	200	.235 x 3/4	196P33202S2		196P33202S4		196P33292S2		196P33292S4	
	300	.235 x 3/4	196P33203S2		196P33203S4		196P33293S2		196P33293S4	
.0033	400	.235 x 3/4	196P33204S2		196P33204S4		196P33294S2		196P33294S4	
	600	.312 x 7/8	196P33206S2		196P33206S4		196P33296S2		196P33296S4	
	1000	.400 x 1 3/16					196P332910S2		196P332910S4	
	200	.235 x 1 1/16					196P39292S2		196P39292S4	
.0039	600	.235 x 1 1/16					196P39296S2		196P39296S4	
	1000	.400 x 1 3/16					196P392910S2		196P392910S4	
	100	.175 x 3/4	196P47201S2		196P47201S4		196P47291S2		196P47291S4	
	200	.235 x 3/4	196P47202S2		196P47202S4		196P47292S2		196P47292S4	
.0047	300	.235 x 3/4	196P47203S2		196P47203S4		196P47293S2		196P47293S4	
	400	.235 x 3/4	196P47204S2		196P47204S4		196P47294S2		196P47294S4	
	600	.235 x 3/4	196P47206S2		196P47206S4		196P47296S2		196P47296S4	
	1000	.400 x 1 3/16					196P472910S2		196P472910S4	
	200	.235 x 1 1/16					196P56292S2		196P56292S4	
.0056	600	.235 x 1 1/16					196P56296S2		196P56296S4	
	1000	.400 x 1 3/16					196P562910S2		196P562910S4	
	100	.175 x 3/4	196P68201S2		196P68201S4		196P68291S2		196P68291S4	
	200	.235 x 3/4	196P68202S2		196P68202S4		196P68292S2		196P68282S4	
.0068	300	.235 x 3/4	196P68203S2		196P68203S4		196P68293S2		196P68293S4	
	400	.235 x 3/4	196P68204S2		196P68204S4		196P68294S2		196P68294S4	
	600	.235 x 3/4	196P68206S2		196P68206S4		196P68296S2		196P68296S4	
	1000	.400 x 1 3/16					196P682910S2		196P682910S4	
	100	.175 x 1 1/16					196P82291S2		196P82291S4	
.0082	600	.312 x 1 3/16					196P82296S2		196P82296S4	
	1000	.400 x 1 3/16					196P822910S2		196P822910S4	
	100	.175 x 3/4	196P10301S2		196P10301S4		196P10391S2		196P10391S4	
	200	.235 x 3/4	196P10302S2		196P10302S4		196P10392S2		196P10392S4	
.01	300	.235 x 3/4	196P10303S2		196P10303S4		196P10393S2		196P10393S4	
	400	.235 x 3/4	196P10304S2		196P10304S4		196P10394S2		196P10394S4	
	600	.312 x 7/8	196P10306S2		196P10306S4		196P10396S2		196P10396S4	
	1000	.400 x 1 3/16					196P103910S2		196P103910S4	
	100	.175 x 1 1/16					196P12391S2		196P12391S4	
	400	.312 x 1 3/16					196P12394S2		196P12394S4	
.012	600	.312 x 1 3/16					196P12396S2		196P12396S4	
	1000	.400 x 1 3/16					196P123910S2		196P123910S4	
	100	.175 x 3/4	196P15301S2		196P15301S4		196P15391S2		196P15391S4	
	200	.235 x 3/4	196P15302S2		196P15302S4		196P15392S2		196P15392S4	
.015	300	.235 x 3/4	196P15303S2		196P15303S4		196P15393S2		196P15393S4	
	400	.312 x 7/8	196P15304S2		196P15304S4		196P15394S2		196P15394S4	
	600	.312 x 7/8	196P15306S2		196P15306S4		196P15396S2		196P15396S4	
	1000	.400 x 1 3/16					196P153910S2		196P153910S4	
	200	.235 x 1 1/16					196P18392S2		196P18392S4	
.018	600	.312 x 1 3/16					196P18396S2		196P18396S4	
	1000	.400 x 1 1/16					196P183910S2		196P183910S4	
	100	.195 x 3/4	196P22301S2		196P22301S4		196P22391S2		196P22391S4	
	200	.235 x 3/4	196P22302S2		196P22302S4		196P22392S2		196P22392S4	
.022	300	.312 x 7/8	196P22303S2		196P22303S4		196P22393S2		196P22393S4	
	400	.312 x 7/8	196P22304S2		196P22304S4		196P22394S2		196P22394S4	
	600	.312 x 7/8	196P22306S2		196P22306S4		196P22396S2		196P22396S4	
	1000	.400 x 1 1/16					196P223910S2		196P223910S4	
	200	.312 x 1 3/16					196P27392S2		196P27392S4	
.027	400	.312 x 1 3/16					196P27294S2		196P27394S4	
	600	.400 x 1 3/16					196P27396S2		196P27396S4	
	1000	.400 x 1 5/16					196P273910S2		196P273910S4	
	100	.400 x 1 3/8	196P33301S2		196P33301S4		196P33391S2		196P33391S4	
	200	.562 x 1 1/8	196P33302S2		196P33302S4		196P33392S2		196P33392S4	
.033	300	.562 x 1 3/8	196P33303S2		196P33303S4		196P33393S2		196P33393S4	
	400	.562 x 1 7/8	196P33304S2		196P33304S4		196P33394S2		196P33394S4	
	600	.670 x 1 7/8	196P33306S2		196P33306S4		196P33396S2		196P33396S4	
	1000	.400 x 1 5/16					196P333910S2		196P333910S4	

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*For Style 4 units add .0625" to diameter and 1/16" to length.

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SPRAGUE CAPACITORS

TYPE 196P, continued

μF	WVDC	Size D. x L.	Capacitance Tolerance ±20% — Style 2 (bare metal case) Cat. No.	Capacitance Tolerance ±20% — Style 4 (w/plastic sleeve*) Cat. No.	Capacitance Tolerance ±10% — Style 2 (bare metal case) Cat. No.	Capacitance Tolerance ±10% — Style 4 (w/plastic sleeve*) Cat. No.
.039	100	.312 x 13/16			196P39391S2	196P39391S4
	200	.312 x 13/16			196P39392S2	196P39392S4
	400	.400 x 13/16			196P39394S2	196P39394S4
	600	.400 x 1 1/16			196P39396S2	196P39396S4
	1000	.562 x 1 1/16			196P393910S2	196P393910S4
.047	100	.312 x 7/8	196P47301S2	196P47301S4	196P47391S2	196P47391S4
	200	.312 x 7/8	196P47302S2	196P47302S4	196P47392S2	196P47392S4
	300	.312 x 7/8	196P47303S2	196P47303S4	196P47393S2	196P47393S4
	400	.400 x 7/8	196P47304S2	196P47304S4	196P47394S2	196P47394S4
	600	.400 x 1 1/8	196P47306S2	196P47306S4	196P47396S2	196P47396S4
	1000	.562 x 1 1/16			196P473910S2	196P473910S4
.056	200	.312 x 13/16			196P56392S2	196P56392S4
	400	.400 x 1 1/16			196P56394S2	196P56394S4
	600	.400 x 1 3/16			196P56396S2	196P56396S4
	1000	.562 x 1 5/16			196P563910S2	196P563910S4
.068	100	.312 x 7/8	196P68301S2	196P68301S4	196P68391S2	196P68391S4
	200	.312 x 7/8	196P68302S2	196P68302S4	196P68392S2	196P68392S4
	300	.400 x 7/8	196P68303S2	196P68303S4	196P68393S2	196P68393S4
	400	.400 x 1 1/8	196P68304S2	196P68304S4	196P68394S2	196P68394S4
	600	.400 x 1 3/8	196P68306S2	196P68306S4	196P68396S2	196P68396S4
	1000	.562 x 1 5/16			196P683910S2	196P683910S4
.082	100	.312 x 13/16			196P82391S2	196P82391S4
	200	.400 x 13/16			196P82392S2	196P82392S4
	400	.400 x 1 5/16			196P82394S2	196P82394S4
	600	.562 x 1 1/16			196P82396S2	196P82396S4
	1000	.562 x 1 9/16			196P823910S2	196P823910S4
.1	100	.312 x 7/8	196P10401S2	196P10401S4	196P10491S2	196P10491S4
	200	.400 x 7/8	196P10402S2	196P10402S4	196P10492S2	196P10492S4
	300	.400 x 1 1/8	196P10403S2	196P10403S4	196P10493S2	196P10493S4
	400	.400 x 1 3/8	196P10404S2	196P10404S4	196P10494S2	196P10494S4
	600	.562 x 1 1/8	196P10406S2	196P10406S4	196P10496S2	196P10496S4
	1000	.562 x 1 9/16			196P104910S2	196P104910S4
.12	100	.400 x 13/16			196P12491S2	196P12491S4
	200	.400 x 1 1/16			196P12492S2	196P12492S4
	400	.562 x 1 1/16			196P12494S2	196P12494S4
	600	.562 x 1 5/16			196P12496S2	196P12496S4
	1000	.670 x 1 9/16			196P124910S2	196P124910S4
.15	100	.400 x 7/8	196P15401S2	196P15401S4	196P15491S2	196P15491S4
	200	.400 x 1 1/8	196P15402S2	196P15402S4	196P15492S2	196P15492S4
	300	.400 x 1 3/8	196P15403S2	196P15403S4	196P15493S2	196P15493S4
	400	.562 x 1 1/8	196P15404S2	196P15404S4	196P15494S2	196P15494S4
	600	.562 x 1 3/8	196P15406S2	196P15406S4	196P15496S2	196P15496S4
	1000	.670 x 1 9/16			196P154910S2	196P154910S4
.18	100	.400 x 1 1/16			196P18491S2	196P18491S4
	200	.400 x 1 5/16			196P18492S2	196P18492S4
	400	.562 x 1 5/16			196P18494S2	196P18494S4
	600	.562 x 1 13/16			196P18496S2	196P18496S4
	1000	.750 x 2 1/16			196P184910S2	196P184910S4
.22	100	.400 x 1 1/8	196P22401S2	196P22401S4	196P22491S2	196P22491S4
	200	.400 x 1 3/8	196P22402S2	196P22402S4	196P22492S2	196P22492S4
	300	.562 x 1 1/8	196P22403S2	196P22403S4	196P22493S2	196P22493S4
	400	.562 x 1 3/8	196P22404S2	196P22404S4	196P22494S2	196P22494S4
	600	.562 x 1 7/8	196P22406S2	196P22406S4	196P22496S2	196P22496S4
	1000	.750 x 2 1/16			196P224910S2	196P224910S4
.27	100	.400 x 1 5/16			196P27491S2	196P27491S4
	200	.562 x 1 1/16			196P27492S2	196P27492S4
	400	.562 x 1 13/16			196P27494S2	196P27494S4
	600	.670 x 1 13/16			196P27496S2	196P27496S4
	1000	.750 x 2 9/16			196P274910S2	196P274910S4
.33	100	.400 x 1 3/8	196P33401S2	196P33401S4	196P33491S2	196P33491S4
	200	.562 x 1 1/8	196P33402S2	196P33402S4	196P33492S2	196P33492S4
	300	.562 x 1 3/8	196P33403S2	196P33403S4	196P33493S2	196P33493S4
	400	.562 x 1 7/8	196P33404S2	196P33404S4	196P33494S2	196P33494S4
	600	.670 x 1 7/8	196P33406S2	196P33406S4	196P33496S2	196P33496S4
	1000	.750 x 2 9/16			196P334910S2	196P334910S4
.39	100	.562 x 1 1/16			196P39491S2	196P39491S4
	200	.562 x 1 5/16			196P39492S2	196P39492S4
	400	.670 x 1 13/16			196P39494S2	196P39494S4
	600	.750 x 2 1/16			196P39496S2	196P39496S4
	1000	1.000 x 2 1/16			196P394910S2	196P394910S4
.47	100	.562 x 1 1/8	196P47401S2	196P47401S4	196P47491S2	196P47491S4
	200	.562 x 1 3/8	196P47402S2	196P47402S4	196P47492S2	196P47492S4
	300	.562 x 1 7/8	196P47403S2	196P47403S4	196P47493S2	196P47493S4
	400	.670 x 1 7/8	196P47404S2	196P47404S4	196P47494S2	196P47494S4
	600	.750 x 2 1/8	196P47406S2	196P47406S4	196P47496S2	196P47496S4
	1000	1.000 x 2 1/16			196P474910S2	196P474910S4
.56	100	.562 x 1 9/16			196P56491S2	196P56491S4
	200	.670 x 1 9/16			196P56492S2	196P56492S4
.68	100	.562 x 1 3/8	196P68401S2	196P68401S4	196P68491S2	196P68491S4
	200	.562 x 1 7/8	196P68402S2	196P68402S4	196P68492S2	196P68492S4
	300	.670 x 1 7/8	196P68403S2	196P68403S4	196P68493S2	196P68493S4
.82	100	.670 x 1 9/16			196P82491S2	196P82491S4
	200	.750 x 2 1/16			196P82492S2	196P82492S4
1.0	100	.562 x 1 7/8	196P10501S2	196P10501S4	196P10591S2	196P10591S4
	200	.670 x 1 7/8	196P10502S2	196P10502S4	196P10592S2	196P10592S4

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*For Style 4 units add .0625" to diameter and 1/16" to length.

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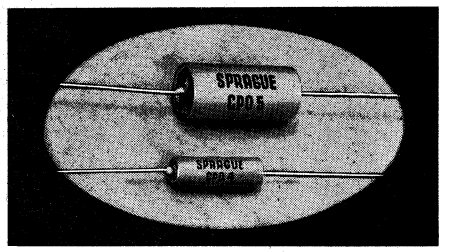
SPRAGUE CAPACITORS

TYPE CP04 CAPACITORS TO MIL-C-25C



- Impregnation wth Vitamin Q assures capacitors exceed MIL-C-25C performance requirements.
- Inserted tab construction for applications where minimum size is necessary.
- Positive hermetic closure of the metal cases assured by glass-to-metal solder-seal terminals.
- Type CP04 has plain metal case.
- Available in Characteristic K (−55C to +125C). ±10% Capacitance Tolerance.
- Only popular insulated section (ungrounded case) capacitors are listed. For information on grounded case units, consult your Sprague Industrial Distributor.
- Call your Sprague Industrial Distributor for Quantity Prices.

µF	WVDC	D. x L.	Cat. No.*
.001	600	.235 x ¾	CP04A1KF102K3
.0012	600	.235 x ¾	CP04A1KF122K3
.0015	600	.235 x ¾	CP04A1KF152K3
.0018	600	.235 x ¾	CP04A1KF182K3
.0022	600	.235 x ¾	CP04A1KF222K3
.0027	600	.235 x ¾	CP04A1KF272K3
.0033	600	.235 x ¾	CP04A1KF332K3
.0039	600	.235 x ¾	CP04A1KF392K3
.0047	600	.235 x ¾	CP04A1KF472K3
.0056	600	.235 x ¾	CP04A1KF562K3
.0068	600	.235 x ¾	CP04A1KF682K3
.0082	400	.235 x ¾	CP04A1KE822K3
	600	.312 x ⅞	CP04A1KF822K3
.01	400	.235 x ¾	CP04A1KE103K3
	600	.312 x ⅞	CP04A1KF103K3
.012	200	.235 x ¾	CP04A1KC123K3
	600	.312 x ⅞	CP04A1KF123K3
	200	.235 x ¾	CP04A1KC153K3
.015	600	.312 x ⅞	CP041AKF153K3
	1000	.400 x ⅞	CP04A1KG153K3
	200	.235 x ¾	CP04A1KC183K3
.018	600	.312 x ⅞	CP04A1KF183K3
	1000	.400 x 1⅛	CP04A1KG183K3
	200	.235 x ¾	CP04A1KC223K3
.022	600	.312 x ⅞	CP04A1KF223K3
	1000	.400 x 1⅛	CP04A1KG223K3
	100	.235 x ¾	CP04A1KB273K3
.027	400	.312 x ⅞	CP04A1KE273K3
	600	.400 x ⅞	CP04A1KF273K3
	1000	.400 x 1⅜	CP04A1KG273K3
	100	.235 x ¾	CP04A1KB333K3
.033	400	.312 x ⅞	CP04A1KE333K3
	600	.400 x ⅞	CP04A1KF333K3
	1000	.400 x 1⅜	CP04A1KG333K3
	200	.312 x ⅞	CP04A1KC393K3
.039	400	.400 x ⅞	CP04A1KE393K3
	600	.400 x 1⅛	CP04A1KF393K3
	1000	.562 x 1⅛	CP04A1KG393K3
	200	.312 x ⅞	CP04A1KC473K3
.047	400	.400 x ⅞	CP04A1KE473K3
	600	.400 x 1⅛	CP041AKF473K3
	1000	.562 x 1⅛	CP04A1KG473K3
	200	.312 x ⅞	CP04A1KC563K3
.056	400	.400 x 1⅛	CP04A1KE563K3
	600	.400 x 1⅜	CP04A1KF563K3
	1000	.562 x 1⅜	CP04A1KG563K3
	200	.312 x ⅞	CP04A1KC683K3
.068	400	.400 x 1⅛	CP04A1KE683K3
	600	.400 x 1⅜	CP04A1KF683K3
	1000	.562 x 1⅜	CP04A1KG683K3
	100	.312 x ⅞	CP04A1KB823K3
	200	.400 x ⅞	CP04A1KC823K3
.082	400	.400 x 1⅜	CP04A1KE823K3
	600	.562 x 1⅛	CP04A1KF823K3
	1000	.562 x 1⅝	CP04A1KG823K3

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µF	WVDC	D. x L.	Cat. No.*
	100	.312 x ⅞	CP04A1KB104K3
	200	.400 x ⅞	CP04A1KC104K3
.1	400	.400 x 1⅜	CP04A1KE104K3
	600	.562 x 1⅛	CP04A1KF104K3
	1000	.562 x 1⅝	CP04A1KG104K3
	100	.400 x ⅞	CP04A1KB124K3
	200	.400 x 1⅛	CP04A1KC124K3
.12	400	.562 x 1⅛	CP04A1KE124K3
	600	.562 x 1⅜	CP04A1KF124K3
	1000	.670 x 1⅝	CP04A1KG124K3
	100	.400 x ⅞	CP04A1KB154K3
	200	.400 x 1⅛	CP04A1KC154K3
.15	400	.562 x 1⅛	CP04A1KE154K3
	600	.562 x 1⅜	CP04A1KF154K3
	1000	.670 x 1⅝	CP04A1KG154K3
	100	.400 x 1⅛	CP04A1KB184K3
	200	.400 x 1⅜	CP04A1KC184K3
.18	400	.562 x 1⅜	CP04A1KE184K3
	600	.562 x 1⅞	CP04A1KF184K3
	1000	.750 x 2⅛	CP04A1KG184K3
	100	.400 x 1⅛	CP04A1KB224K3
	200	.400 x 1⅜	CP04A1KC224K3
.22	400	.562 x 1⅜	CP04A1KE224K3
	600	.562 x 1⅞	CP04A1KF224K3
	1000	.750 x 2⅛	CP04A1KG224K3
	100	.400 x 1⅜	CP04A1KB274K3
	200	.562 x 1⅛	CP04A1KC274K3
.27	400	.562 x 1⅞	CP04A1KE274K3
	600	.670 x 1⅞	CP04A1KF274K3
	1000	.750 x 2⅝	CP04A1KG274K3
	100	.400 x 1⅜	CP04A1KB334K3
	200	.562 x 1⅛	CP04A1KC334K3
.33	400	.562 x 1⅞	CP04A1KE334K3
	600	.670 x 1⅞	CP04A1KF334K3
	1000	.750 x 2⅝	CP04A1KG334K3
	100	.562 x 1⅛	CP04A1KB394K3
	200	.562 x 1⅜	CP04A1KC394K3
.39	400	.670 x 1⅞	CP05A1KE394K3
	600	.750 x 2⅛	CP04A1KF394K3
	1000	1.000 x 2⅛	CP04A1KG394K3
	100	.562 x 1⅛	CP04A1KB474K3
	200	.562 x 1⅜	CP04A1KC474K3
.47	400	.670 x 1⅞	CP04A1KE474K3
	600	.750 x 2⅛	CP04A1KF474K3
	1000	1.000 x 2⅛	CP04A1KG474K3
	100	.562 x 1⅜	CP04A1K5B64K3
.56	200	.562 x 1⅞	CP04A1KC564K3
	400	.750 x 2⅛	CP04A1KE564K3
	600	1.000 x 1⅞	CP04A1KF564K3
	100	.562 x 1⅜	CP04A1KB684K3
.68	200	.562 x 1⅞	CP04A1KC684K3
	400	.750 x 2⅛	CP04A1KE684K3
	600	1.000 x 1⅞	CP04A1KF684K3
	100	.562 x 1⅞	CP04A1KB824K3
.82	200	.670 x 1⅞	CP04A1KC824K3
	400	1.000 x 1⅞	CP04A1KE824K3
	100	.562 x 1⅞	CP05A1KB105K3
1.0	200	.670 x 1⅞	CP05A1KC105K3
	400	1.000 x 1⅞	CP04A1KE105K3

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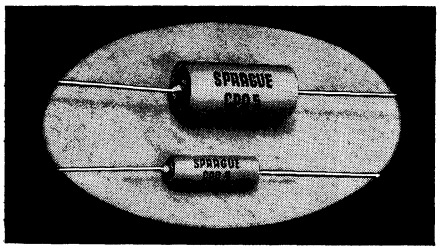
SPRAGUE CAPACITORS

TYPE CP05 CAPACITORS TO MIL-C-25C



- Vitamin Q impregnation assures performance above and beyond MIL-C-25C requirements.
- Inserted tab construction for applications where minimum size is necessary.
- Positive hermetic closure of the metal cases assured by glass-to-metal solder-seal terminals.
- Type CP05 has insulating sleeve.
- Capacitance Tolerance ±10%. Characteristic K Temperature Range (−55°C to +125°C).
- Only popular insulated section (ungrounded case) capacitors are listed. For information on grounded case units, consult you Sprague Industrial Distributor.
- Call your Sprague Industrial Distributor for Quantity Prices.

μF	WVDC	D. x L.	Cat. No.*
.001	600	.298 x 13/16	CP05A1KF102K3
.0012	600	.298 x 13/16	CP05A1KF122K3
.0015	600	.298 x 13/16	CP05A1KF152K3
.0018	600	.298 x 13/16	CP05A1KF182K3
.0022	600	.298 x 13/16	CP05A1KF222K3
.0027	600	.298 x 13/16	CP05A1KF272K3
.0033	600	.298 x 13/16	CP05A1KF332K3
.0039	600	.298 x 13/16	CP05A1KF392K3
.0047	600	.298 x 13/16	CP05A1KF472K3
.0056	600	.298 x 13/16	CP05A1KF562K3
.0068	600	.298 x 13/16	CP05A1KF682K3
.0082	400	.298 x 13/16	CP05A1KE822K3
	600	.375 x 15/16	CP05A1KF822K3
.01	400	.298 x 13/16	CP05A1KE103K3
	600	.375 x 15/16	CP05A1KF103K3
.012	200	.298 x 13/16	CP05A1KC123K3
	600	.375 x 15/16	CP05A1KF123K3
	200	.298 x 13/16	CP05A1KC153K3
.015	600	.375 x 15/16	CP05A1KF153K3
	1000	.463 x 15/16	CP05A1KG153K3
	200	.298 x 13/16	CP05A1KC183K3
.018	600	.375 x 15/16	CP05A1KF183K3
	1000	.463 x 13/16	CP05A1KG183K3
	200	.298 x 13/16	CP05A1KC223K3
.022	600	.375 x 15/16	CP05A1KF223K3
	1000	.463 x 13/16	CP05A1KG223K3
	100	.298 x 13/16	CP05A1KB273K3
.027	400	.375 x 15/16	CP05A1KE273K3
	600	.463 x 15/16	CP05A1KF273K3
	1000	1.463 x 17/16	CP05A1KG273K3
	100	.298 x 13/16	CP05A1KB333K3
.033	400	.375 x 15/16	CP05A1KE333K3
	600	.463 x 15/16	CP05A1KF333K3
	1000	1.463 x 17/16	CP05A1KG333K3
	200	.375 x 15/16	CP05A1KC393K3
.039	400	.463 x 15/16	CP05A1KE393K3
	600	.463 x 13/16	CP05A1KF393K3
	1000	.625 x 13/16	CP05A1KG393K3
	200	.375 x 15/16	CP05A1KC473K3
.047	400	.463 x 15/16	CP05A1KE473K3
	600	.463 x 13/16	CP05A1KF473K3
	1000	.625 x 13/16	CP05A1KG473K3
	200	.375 x 15/16	CP05A1KC563K3
.056	400	.463 x 13/16	CP05A1KE563K3
	600	.463 x 17/16	CP05A1KF563K3
	1000	.625 x 17/16	CP05A1KG563K3
	200	.375 x 15/16	CP05A1KC683K3
.068	400	.463 x 13/16	CP05A1KE683K3
	600	.463 x 17/16	CP05A1KF685K3
	1000	.625 x 17/16	CP05A1KG683K3
	100	.375 x 15/16	CP05A1KB823K3
	200	.463 x 15/16	CP05A1KC823K3
.082	400	.463 x 17/16	CP05A1KE823K3
	600	.625 x 13/16	CP05A1KF823K3
	1000	.625 x 111/16	CP05A1KG823K3
	100	.463 x 15/16	CP05A1KB104K3
	200	.463 x 15/16	CP05A1KC104K3
.1	400	.463 x 17/16	CP05A1KE104K3
	600	.625 x 13/16	CP05A1KF104K3
	1000	.625 x 111/16	CP05A1KG104K3
	100	.463 x 15/16	CP05A1KB124K3
	200	.463 x 13/16	CP05A1KC124K3
.12	400	.625 x 13/16	CP05A1KE124K3
	600	.625 x 17/16	CP05A1KF124K3
	1000	.733 x 111/16	CP05A1KG124K3
	100	.463 x 15/16	CP05A1KB154K3
	200	.463 x 1 1/8	CP05A1KC154K3
.15	400	.625 x 13/16	CP05A1KE154K3
	600	.625 x 17/16	CP05A1KF154K3
	1000	.733 x 111/16	CP05A1KG154K3
	100	.463 x 13/16	CP05A1KB184K3
	200	.463 x 17/16	CP05A1KC184K3
.18	400	.625 x 17/16	CP05A1KE184K3
	600	.625 x 115/16	CP05A1KF184K3
	1000	.813 x 23/16	CP05A1KG184K3
	100	.463 x 13/16	CP05A1KB224K3
	200	.463 x 17/16	CP05A1KC224K3
.22	400	.625 x 17/16	CP05A1KE224K3
	600	.625 x 115/16	CP05A1KF224K3
	1000	.813 x 23/16	CP05A1KG224K3
	100	.463 x 17/16	CP05A1KB274K3
	200	.625 x 13/16	CP05A1KC274K3
.27	400	.625 x 115/16	CP05A1KE274K3
	600	.733 x 115/16	CP05A1KF274K3
	1000	.813 x 211/16	CP05A1KG274K3
	100	.463 x 17/16	CP05A1KB334K3
	200	.625 x 13/16	CP05A1KC334K3
.33	400	.625 x 115/16	CP05A1KE334K3
	600	.733 x 115/16	CP05A1KF334K3
	1000	.813 x 211/16	CP05A1KG334K3
	100	.625 x 13/16	CP05A1KB394K3
	200	.625 x 17/16	CP05A1KC394K3
.39	400	.733 x 115/16	CP05A1KE394K3
	600	.813 x 23/16	CP05A1KF394K3
	1000	1.063 x 23/16	CP05A1KG394K3
	100	.625 x 13/16	CP05A1KB474K3
	200	.625 x 17/16	CP05A1KC474K3
.47	400	.733 x 115/16	CP05A1KE474K3
	600	.813 x 23/16	CP05A1KF474K3
	1000	1.063 x 23/16	CP05A1KG474K3
	100	.625 x 17/16	CP05A1KB564K3
	200	.625 x 115/16	CP05A1KC564K3
.56	400	.813 x 23/16	CP05A1KE564K3
	600	1.063 x 115/16	CP05A1KF564K3
	100	.625 x 17/16	CP05A1KB684K3
.68	200	.625 x 115/16	CP05A1KC684K3
	400	.813 x 23/16	CP05A1KE684K3
	600	1.063 x 115/16	CP05A1KF684K3
	100	.625 x 113/16	CP05A1KB824K3
.82	200	.733 x 115/16	CP05A1KC824K3
	400	1.063 x 115/16	CP05A1KE824K3
	100	.625 x 115/16	CP05A1KB105K3
1.0	200	.733 x 115/16	CP05A1KC105K3
	400	1.063 x 115/16	CP05A1KE105K3

*For Vibration Grade 1, change last digit of Catalog Number to "1."

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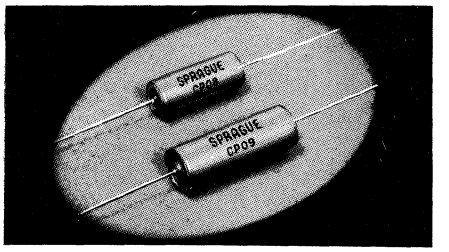
SPRAGUE CAPACITORS

TYPE CP08 CAPACITORS TO MIL-C-25C

- Vitamin Q impregnation assures performance above and beyond MIL-C-25C requirements.
- Positive hermetic closure of the metal cases with glass-to-metal solder-seal terminals.
- Capacitance Tolerance ±10%. Characteristic K Temperature Range (−55°C to +125°C).
- Type CP08 has plain metal case.
- Extended foil (so-called non-inductive section) construction.
- Listed below are popular insulated section (ungrounded case) capacitors. Consult you Sprague Industrial Distributor for information on grounded case units.
- Call your Sprague Industrial Distributor for Quantity Prices.



μF	WVDC	D. x L.	Cat. No.*
.001	600	.235 x 3/4	CP08A1KF102K3
	1000	.400 x 7/8	CP08A1KG102K3
.0012	600	.235 x 3/4	CP08A1KF122K3
	1000	.400 x 7/8	CP08A1KG122K3
.0015	600	.235 x 3/4	CP08A1KF152K3
	1000	.400 x 7/8	CP08A1KG152K3
.0018	600	.235 x 3/4	CP08A1KF182K3
	1000	.400 x 7/8	CP08A1KG182K3
.0022	600	.235 x 3/4	CP08A1KF222K3
	1000	.400 x 7/8	CP08A1KG222K3
	400	.235 x 3/4	CP08A1KE272K3
.0027	600	.312 x 7/8	CP08A1KF272K3
	1000	.400 x 7/8	CP08A1KG272K3
	400	.235 x 3/4	CP08A1KE332K3
.0033	600	.312 x 7/8	CP08A1KF332K3
	1000	.400 x 7/8	CP08A1KG332K3
	200	.235 x 3/4	CP08A1KC392K3
.0039	600	.312 x 7/8	CP08A1KF392K3
	1000	.400 x 7/8	CP08A1KG392K3
	200	.235 x 3/4	CP08A1KC472K3
.0047	600	.312 x 7/8	CP08A1KF472K3
	1000	.400 x 7/8	CP08A1KG472K3
	200	.235 x 3/4	CP08A1KC562K3
.0056	600	.312 x 7/8	CP08A1KF562K3
	1000	.400 x 7/8	CP08A1KG562K3
	200	.235 x 3/4	CP08A1KC682K3
.0068	600	.312 x 7/8	CP08A1KF682K3
	1000	.400 x 7/8	CP08A1KG682K3
	100	.235 x 3/4	CP08A1KB822K3
.0082	600	.312 x 7/8	CP08A1KF822K3
	1000	.400 x 7/8	CP08A1KG822K3
	100	.235 x 3/4	CP08A1KB103K3
.01	600	.312 x 7/8	CP08A1KF103K3
	1000	.400 x 7/8	CP08A1KG103K3
	100	.235 x 3/4	CP08A1KB123K3
.012	400	.312 x 7/8	CP08A1KE123K3
	600	.400 x 7/8	CP08A1KF123K3
	1000	.400 x 1 1/8	CP08A1KG123K3
	100	.235 x 3/4	CP08A1KB153K3
.015	400	.312 x 7/8	CP08A1KE153K3
	600	.400 x 7/8	CP08A1KF153K3
	1000	.400 x 1 1/8	CP08A1KG153K3
	200	.312 x 7/8	CP08A1KC183K3
0.18	600	.400 x 7/8	CP08A1KF183K3
	1000	.400 x 1 3/8	CP08A1KG183K3
	200	.312 x 7/8	CP08A1KC223K3
.022	600	.400 x 7/8	CP08A1KF223K3
	1000	.400 x 1 3/8	CP08A1KG223K3
	200	.312 x 7/8	CP08A1KC273K3
.027	400	.400 x 7/8	CP08A1KE273K3
	600	.400 x 1 1/8	CP08A1KF273K3
	1000	.562 x 1 1/8	CP08A1KG273K3
	200	.312 x 7/8	CP08A1KC333K3
.033	400	.400 x 7/8	CP08A1KE333K3
	600	.400 x 1 1/8	CP08A1KF333K3
	1000	.562 x 1 1/8	CP08A1KG333K3
	100	.312 x 7/8	CP08A1KB393K3
	200	.400 x 7/8	CP08A1KC393K3
.039	400	.400 x 1 1/8	CP08A1KE393K3
	600	.400 x 1 3/8	CP08A1KF393K3
	1000	.562 x 1 3/8	CP08A1KG393K3
	100	.312 x 7/8	CP08A1KB473K3
	200	.400 x 7/8	CP08A1KC473K3
.047	400	.400 x 1 1/8	CP08A1KE473K3
	600	.400 x 1 3/8	CP08A1KF473K3
	1000	.562 x 1 3/8	CP08A1KG473K3
	200	.400 x 7/8	CP08A1KC563K3
.056	400	.400 x 1 3/8	CP08A1KE563K3
	600	.562 x 1 1/8	CP08A1KF563K3
	1000	.562 x 1 5/8	CP08A1KG563K3
	200	.400 x 7/8	CP08A1KC683K3
.068	400	.400 x 1 3/8	CP08A1KE683K3
	600	.562 x 1 1/8	CP08A1KF683K3
	1000	.562 x 1 5/8	CP08A1KG683K3
	100	.400 x 7/8	CP08A1KB823K3
	200	.400 x 1 1/8	CP08A1KC823K3
.082	400	.562 x 1 1/8	CP08A1KE823K3
	600	.562 x 1 3/8	CP08A1KF823K3
	1000	.670 x 1 5/8	CP08A1KG823K3
	100	.400 x 7/8	CP08A1KB104K3
	200	.400 x 1 1/8	CP08A1KC104K3
.1	400	.562 x 1 1/8	CP08A1KE104K3
	600	.562 x 1 3/8	CP08A1KF104K3
	1000	.670 x 1 5/8	CP08A1KG104K3
	100	.400 x 1 1/8	CP08A1KB124K3
	200	.400 x 1 3/8	CP08A1KC124K3
.12	400	.562 x 1 3/8	CP08A1KE124K3
	600	.562 x 1 5/8	CP08A1KF124K3
	1000	.670 x 1 7/8	CP08A1KG124K3
	100	.400 x 1 1/8	CP08A1KB154K3
	200	.400 x 1 3/8	CP08A1KC154K3
.15	400	.562 x 1 3/8	CP08A1KE154K3
	600	.562 x 1 5/8	CP08A1KF154K3
	1000	.670 x 1 7/8	CP08A1KG154K3
	100	.400 x 1 3/8	CP08A1KB184K3
	200	.562 x 1 1/8	CP08A1KC184K3
.18	400	.562 x 1 5/8	CP08A1KE184K3
	600	.670 x 1 5/8	CP08A1KF184K3
	1000	.750 x 2 1/8	CP08A1KG184K3
	100	.400 x 1 3/8	CP08A1KB224K3
	200	.562 x 1 1/8	CP08A1KC224K3
.22	400	.562 x 1 5/8	CP08A1KE224K3
	600	.670 x 1 5/8	CP08A1KF224K3
	1000	.750 x 2 1/8	CP08A1KG224K3
	100	.562 x 1 1/8	CP08A1KB274K3
	200	.562 x 1 3/8	CP08A1KC274K3
.27	400	.670 x 1 5/8	CP08A1KE274K3
	600	.750 x 2 1/8	CP08A1KF274K3
	1000	1.000 x 2 1/8	CP08A1KG274K3

*For Vibration Grade 1, change last digit of Catalog Number to "1."

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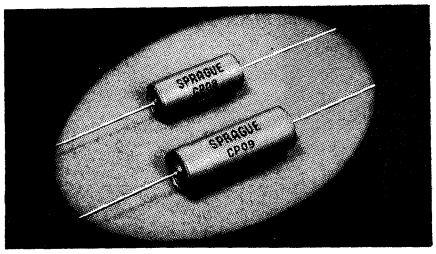
SPRAGUE CAPACITORS

TYPE CP09 CAPACITORS TO MIL-C-25C

- Vitamin Q impregnation assures performance above and beyond MIL-C-25C requirements.
- Positive hermetic closure of the metal cases with glass-to-metal solder-seal terminals.
- Available in Characteristic K (−55C to +125C). Capacitance Tolerance ±10%.
- Type CP09 has insulating sleeve.
- Extended foil, non-inductive section construction.
- Listed below are popular insulated section (ungrounded case) capacitors. Consult your Sprague Industrial Distributor for information on grounded case units.
- Call your Sprague Industrial Distributor for Quantity Prices.



µF	WVDC	D. x L.	Cat. No.
.001	600	.298 x 13/16	CP09A1KF102K3
	1000	.463 x 15/16	CP09A1KG102K3
.0012	600	.298 x 13/16	CP09A1KF122K3
	1000	.463 x 15/16	CP09A1KG122K3
.0015	600	.298 x 13/16	CP09A1KF152K3
	1000	.463 x 15/16	CP09A1KG152K3
.0018	600	.298 x 13/16	CP09A1KF182K3
	1000	.463 x 15/16	CP09A1KG182K3
.0022	600	.298 x 13/16	CP09A1KF222K3
	1000	.463 x 15/16	CP09A1KG222K3
.0027	400	.298 x 13/16	CP09A1KE272K3
	600	.375 x 15/16	CP09A1KF272K3
	1000	.463 x 15/16	CP09A1KG272K3
.0033	400	.298 x 13/16	CP09A1KE332K3
	600	.375 x 15/16	CP09A1KF332K3
	1000	.463 x 15/16	CP09A1KG332K3
.0039	200	.298 x 13/16	CP09A1KC392K3
	600	.375 x 15/16	CP09A1KF393K3
	1000	.463 x 15/16	CP09A1KG393K3
.0047	200	.298 x 13/16	CP09A1KC472K3
	600	.375 x 15/16	CP09A1KF472K3
	1000	.463 x 15/16	CP09A1KG472K3
.0056	200	.298 x 13/16	CP09A1KC562K3
	600	.375 x 15/16	CP09A1KF562K3
	1000	.463 x 15/16	CP09A1KG562K3
.0068	200	.298 x 13/16	CP09A1KC682K3
	600	.375 x 15/16	CP09A1KF682K3
	1000	.463 x 15/16	CP09A1KG682K3
.0082	100	.298 x 13/16	CP09A1KB822K3
	600	.375 x 15/16	CP09A1KF822K3
	1000	.463 x 15/16	CP09A1KG822K3
.01	100	.298 x 13/16	CP09A1KB103K3
	600	.375 x 15/16	CP09A1KF103K3
	1000	463 x 15/16	CP09A1KG103K3
.012	100	.298 x 13/16	CP09A1KB123K3
	400	.375 x 15/16	CP09A1KE123K3
	600	.463 x 15/16	CP09A1KF123K3
	1000	.463 x 13/16	CP09A1KG123K3
.015	100	.298 x 13/16	CP09A1KB153K3
	400	.375 x 15/16	CP09A1KE153K3
	600	.463 x 15/16	CP09A1KF153K3
	1000	.463 x 13/16	CP09A1KG153K3
.018	200	.375 x 15/16	CP09A1KC183K3
	600	.463 x 15/16	CP09A1KF183K3
	1000	.463 x 17/16	CP09A1KG183K3
.022	200	.375 x 15/16	CP09A1KC223K3
	600	.463 x 15/16	CP09A1KF223K3
	1000	.463 x 17/16	CP09A1KG223K3

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µF	WVDC	D. x L.	Cat. No.
.027	200	.375 x 15/16	CP09A1KC273K3
	400	.463 x 15/16	CP09A1KE273K3
	600	.463 x 13/16	CP09A1KF273K3
	1000	.625 x 13/16	CP09A1KG273K3
.033	200	.375 x 15/16	CP09A1KC333K3
	400	.463 x 15/16	CP09A1KE333K3
	600	.463 x 13/16	CP09A1KF333K3
	1000	.625 x 13/16	CP09A1KG333K3
.039	100	.375 x 15/16	CP09A1KB393K3
	200	.463 x 15/16	CP09A1KC393K3
	400	.463 x 13/16	CP09A1KE393K3
	600	.463 x 17/16	CP09A1KF393K3
	1000	.625 x 17/16	CP09A1KG393K3
.047	100	.375 x 15/16	CP09A1KB473K3
	200	.463 x 15/16	CP09A1KC473K3
	400	.463 x 13/16	CP09A1KE473K3
	600	.463 x 17/16	CP09A1KF473K3
	1000	.625 x 17/16	CP09A1KG473K3
.056	200	.463 x 15/16	CP09A1KC563K3
	400	.463 x 17/16	CP09A1KE563K3
	600	.625 x 13/16	CP09A1KF563K3
	1000	.625 x 111/16	CP09A1KG563K3
.068	200	.463 x 15/16	CP09A1KC683K3
	400	.463 x 17/16	CP09A1KE683K3
	600	.625 x 13/16	CP09A1KF683K3
	1000	.625 x 111/16	CP09A1KG683K3
.082	100	.463 x 15/16	CP09A1KB823K3
	200	.463 x 13/16	CP09A1KC823K3
	400	.625 x 13/16	CP09A1KE823K3
	600	.625 x 17/16	CP09A1KF823K3
	1000	.733 x 111/16	CP09A1KG823K3
.1	100	.463 x 15/16	CP09A1KB104K3
	200	.463 x 13/16	CP09A1KC104K3
	400	.625 x 13/16	CP09A1KE104K3
	600	.625 x 17/16	CP09A1KF104K3
	1000	.733 x 111/16	CP09A1KG104K3
.12	100	.463 x 13/16	CP09A1KB124K3
	200	.463 x 17/16	CP09A1KC124K3
	400	.625 x 17/16	CP09A1KE124K3
	600	.625 x 111/16	CP09A1KF124K3
	1000	.733 x 115/16	CP09A1KG124K3
.15	100	.463 x 13/16	CP09A1KB154K3
	200	.463 x 17/16	CP09A1KC154K3
	400	.625 x 17/16	CP09A1KE154K3
	600	.625 x 111/16	CP09A1KF154K3
	1000	.733 x 115/16	CP09A1KG154K3
.18	100	.463 x 17/16	CP09A1KB184K3
	200	.625 x 13/16	CP09A1KC184K3
	400	.625 x 111/16	CP09A1KE184K3
	600	.733 x 111/16	CP09A1KF184K3
	1000	.813 x 23/16	CP09A1KG184K3
.22	100	.463 x 17/16	CP09A1KB224K3
	200	.625 x 13/16	CP09A1KC224K3
	400	.625 x 111/16	CP09A1KE224K3
	600	.733 x 111/16	CP09A1KF224K3
	1000	.813 x 23/16	CP09A1KG224K3

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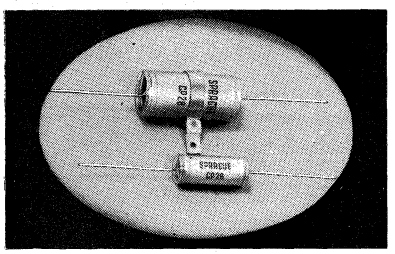
SPRAGUE CAPACITORS

MIL-C-25 CAPACITORS — TYPES CP26 and CP28



- Impregnated with specially processed mineral oil to exceed performance requirements of Specification MIL-C-25A
- Type CP26 has outer insulating sleeve — Type CP28 has insulating sleeve plus metal strap for radial mounting.
- Hermetically sealed for protection against leakage and contamination
- Meet temperature characteristic E (—55°C to +85°C operation)
- Capacitor sections are insulated from metal cases
- Call Your Sprague Distributor for Current Prices

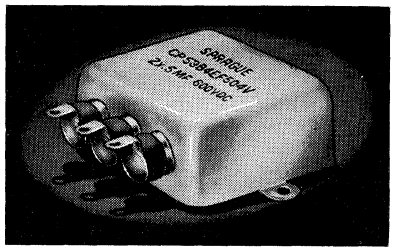
NOTE: Capacitors listed below have a capacitance tolerance of ±10%. For ±20% units, change last letter in catalog number from K to .M

*TYPE CP26 (without Mounting Bracket)				Call Your Sprague Distributor for Current Prices	*TYPE CP28 (Radial Mounting Bracket)				Call Your Sprague Distributor for Current Prices
μF	Volts	Diam. x Length	Cat. No.		μF	Volts	Diam. x Length	Cat. No.	
.006	600	½ x 1 5/16	CP26A1EF602K		.1	600	1 1/16 x 2 1/16	CP28A1EF104K	
.01	600	½ x 1 5/16	CP26A1EF103K		.25	600	1 1/16 x 2 5/16	CP28A1EF254K	
.02	600	½ x 1 13/16	CP26A1EF203K		.5	600	1 1/16 x 2 13/16	CP28A1EF504K	
.05	600	1 1/16 x 1 11/16	CP26A1EF503K						
.5	200	1 1/16 x 2 5/16	CP26A1EC504K						

*Availabe until present stock is exhausted.

MIL-C-25 CAPACITORS—TYPE CP53

- Impregnated with specially processed mineral oil to exceed performance requirements of MIL-C-25A
- Hermetically sealed, with silicone rubber compression terminals
- Rated for—55°C to +85°C operation
- Drawn metal cases have mounting flanges as integral part of containers
- Single and dual capacitance units have insulated sections — triple capacitance units have grounded cases
- Call Your Sprague Distributor for Current Prices



NOTE: Capacitors listed below have capacitance tolerances of +20%, —10% (V) or ±10% (K). For ±20% units, change last letter in catalog number from K to M or V to M.

μF	Volts	L. x W. x H.	Cat. No.	Call Your Sprague Distributor for Prices
Single Capacitance				
.05	600	1 13/16 x 1 x ¾	CP53B1EF503K	
.05	1000	1 13/16 x 1 x ¾	CP53B1EG503K	
.1	600	1 13/16 x 1 x ¾	CP53B1EF104K	
.1	1000	1 13/16 x 1 x ¾	CP53B1EG104K	
.25	600	1 13/16 x 1 x ¾	CP53B1EF254K	
.25	1000	1 13/16 x 1 x ⅞	CP53B1EG254K	
.5	400	1 13/16 x 1 x ⅞	CP53B1EE504K	
.5	600	1 13/16 x 1 x 1	CP53B1EF504K	
.5	1000	2 x 1¾ x ⅞	CP53B1EG504K	
1.0	600	2 x 1¾ x 1	CP53B1EF105K	
1.0	1000	2 x 2 x 1⅛	CP53B1EG105K	
2.0	100	2 x 1¾ x ⅞	CP53B1EB205K	
2.0	200	2 x 2 x 1	CP53B1EC205K	
2.0	600	2 x 2 x 1⅛	CP53B1EF205K	
4.0	100	2 x 2 x 1⅛	CP53B1EB405K	

μF	Volts	L. x W. x H.	Cat. No.	Call Your Sprague Distributor for Prices
Dual Capacitance				
.05 + .05	600	1 13/16 x 1 x ¾	CP53B4EF503V	
.05 + .05	1000	1 13/16 x 1 x ¾	CP53B4EG503V	
.1 + .1	600	1 13/16 x 1 x ¾	CP53B4EF104V	
.1 + .1	1000	1 13/16 x 1 x ⅞	CP53B4EG104V	
.25 + .25	600	1 13/16 x 1 x 1	CP53B4EF254V	
.25 + .25	1000	2 x 1¾ x ⅞	CP53B4EG254V	
.5 + .5	600	2 x 1¾ x 1	CP53B4EF504V	
.5 + .5	1000	2 x 2 x 1⅛	CP53B4EG504V	
1.0 + 1.0	600	2 x 2 x 1⅛	CP53B4EF105V	
Triple Capacitance				
.05 + .05 + .05	600	1 13/16 x 1 x ¾	CP53B5EF503V	
.1 + .1 + .1	600	1 13/16 x 1 x ⅞	CP53B5EF104V	
.5 + .5 + .5	600	2 x 2 x 1⅛	CP53B5EF504V	

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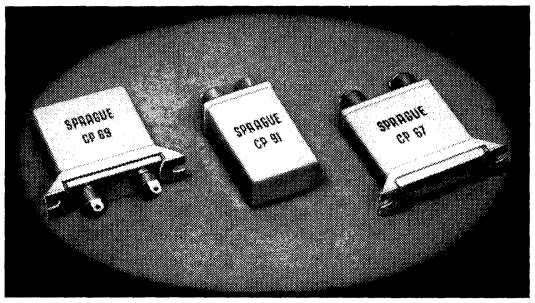
SPRAGUE CAPACITORS

TYPE CP67, CP69, CP91, CAPACITORS to MIL-C-25C

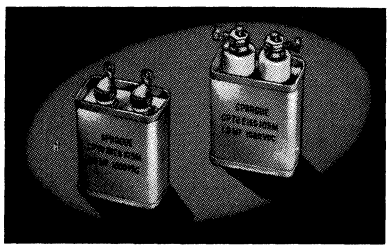


- Mineral Oil Impregnated for Minimum Capacitance Change with Temperature
- Hermetically Sealed in Drawn Metal Cases
- Have Silicone Rubber Compression Terminals for Positive Prevention Against Entrance of Moisture or Leakage of Impregnant
- Designed and Manufactured for Service Life Beyond Specification Requirements
- Units Listed are Most Popular Ratings. Complete Military Line Available from Sprague
- CP91 Capacitors Require Separate Mounting Brackets.
- CP67 and CP69 have integral channel brackets
- For quantity prices, see your Sprague Industrial Distributor.

NOTE: These units have capacitance tolerances of ±10% (K) or +20, −10% (V).

µF	WVDC	CAT. NO.	SIZE	Mounting Brackets CAT. NO.
TYPE CP67 Terminals opposite channel bracket				
.1	600	CP67B1EF104K1	1¾ x 41/64 x 1 1/16	Integral Channel Brackets
.25	600	CP67B1EF254K1	1¾ x 41/64 x 1½	
.5	600	CP67B1EF504K1	1¾ x 41/64 x 2	
1.0	600	CP67B1EF105K1	1¾ x 41/64 x 2¾	
TYPE CP69 Terminals on same end as channel bracket				
.05	600	CP69B1EF503K1	1¾ x 41/64 x 1 1/16	Integral Channel Brackets
.1	600	CP69B1EF104K1	1¾ x 41/64 x 1 1/16	
.25	600	CP69B1EF254K1	1¾ x 41/64 x 1½	
.5	600	CP69B1EF504K1	1¾ x 41/64 x 2	
1.0	600	CP69B1EF105K1	1¾ x 41/64 x 2¾	
TYPE CP91				
.05	600	CP91B1EF503K1	1 5/16 x 5/8 x 1 1/16	CP091SB1
.25	600	CP91B1EF254K1	1 5/16 x 5/8 x 1 5/8	CP091SB3
.5	600	CP91B1EF504K1	1 5/16 x 5/8 x 2	CP091SB4
1.0	600	CP91B1EF105K1	1 5/16 x 5/8 x 2¾	CP091SB6
.05-.05	600	CP91B6EF503V1	1 5/16 x 5/8 x 1 3/8	CP091SB2
.1-.1	600	CP91B6EF104V1	1 5/16 x 5/8 x 1 5/8	CP091SB3
.25-.25	600	CP91B6EF264V1	1 5/16 x 5/8 x 2	CP091SB4
.5-.5	600	CP91B6EF504V1	1 5/16 x 5/8 x 2¾	CP091SB6

Call Your Sprague Industrial Distributor for Quantity Prices



TYPE CP70 CAPACITORS to MIL-C-25

- Ruggedly Constructed for Exacting Heavy-Duty Applications
- Long Life and Reliable Service under High Ambient Temperatures
- Terminals have Ceramic Pillar Insulators (E) or Rubber Compression Seals (B)
- Impregnated with a Specially Processed Minera Oil to Withstand Severe Operating Conditions
- Char. F Units Recommended Primarily for Ground Equipment Where no Low Temperatures are Encountered
- For Quantity Prices, See Your Sprague Industrial Distributor.

NOTE: These units have a capacitance tolerance of ±10%. For ±20% tolerance, change the last letter in the catalog number from K to M.

µF	WVDC	Char. E (E Term.) Cat. No.	Char. E (E Term.) W x T x H	Char. F (B Term.) Cat. No.	Char. F (B Term.) W x T x H	Char. E (B Term.) Cat. No.	Char. E (B Term.) W x T x H
.1	1000	CP70E1EG104K	1 13/16 x 1 1/16 x 1 5/8				
.1	2000	CP70E1EJ104K	2½ x 1 3/16 x 2½				
.25	1000	CP70E1EG254K	1 13/16 x 1 1/16 x 2¼				
.25	2000	CP70E1EJ254K	2½ x 1 3/16 x 2½				
.5	600	CP70E1EF504K	1 13/16 x 1 1/16 x 2¼				
.5	1000	CP70E1EG504K	1 13/16 x 1 1/16 x 2¼			CP70B1EG504K	1 13/16 x 1 1/16 x 2¼
.5	1500	CP70E1EH504K	1 13/16 x 1 1/16 x 2 7/8				
.5	2000	CP70E1EJ504K	2½ x 1 3/16 x 2 7/8				
.5	2500	CP70E1EK504K	2½ x 1 3/16 x 3 7/8				
1.0	600	CP70E1EF105K	1 13/16 x 1 1/16 x 2¼			CP70B1EF105K	1 13/16 x 1 1/16 x 2¼
1.0	1000	CP70E1EG105K	1 13/16 x 1 1/16 x 2 7/8			CP70B1EG105K	1 13/16 x 1 1/16 x 2 7/8
1.0	1500	CP70E1EH105K	1 13/16 x 1 1/16 x 4¾				
1.0	2000	CP70E1EJ105K	2½ x 1 3/16 x 4¾				
1.0	2500	CP70E1EK105K	3¾ x 1¾ x 3 7/8				
2.0	600	CP70E1EF205K	1 13/16 x 1 1/16 x 3¼	CP70B1FF205K	1 13/16 x 1 1/16 x 2 7/8	CP70B1EF205K	1 13/16 x 1 1/16 x 3¼
2.0	1000	CP70E1EG205K	1 13/16 x 1 1/16 x 4¾	CP70B1FG205K	1 13/16 x 1 1/16 x 3 7/8	CP70B1EG205K	1 13/16 x 1 1/16 x 4¾
2.0	1500	CP70E1EH205K	2½ x 1 3/16 x 4¾			CP70B1EH205K	2½ x 1 3/16 x 4¾
2.0	2000	CP70E1EJ205K	3¾ x 1¼ x 4¾				
2.0	2500	CP70E1EK205K	3¾ x 2¼ x 4¾				
4.0	600	CP70E1EF405K	2½ x 1 3/16 x 3 7/8	CP70B1FF405K	2½ x 1 3/16 x 3½	CP70B1EF405K	2½ x 1 3/16 x 3 7/8
4.0	1000	CP70E1EG405K	3¾ x 1¼ x 3 7/8	CP70B1FG405K	2½ x 1 3/16 x 4¾	CP70B1EG405K	3¾ x 1¼ x 3 7/8
4.0	1500	CP70E1EH405K	3¾ x 1¾ x 4¼			CP70B1EH405K	3¾ x 1¾ x 4¼
4.0	2000	CP70E1EJ405K	3¾ x 2¼ x 5 1/8				
4.0	2500	CP70E1EK405K	4¾ x 3¾ x 4 3/8				
6.0	600	CP70E1EF605K	3¾ x 1¼ x 3 7/8	CP70B1FF605K	2½ x 1 3/16 x 4¾	CP70B1EF605K	3¾ x 1¼ x 3 7/8
6.0	1000	CP70E1EG605K	3¾ x 1¾ x 4	CP70B1FG605K	3¾ x 1¼ x 4¾	CP70B1EG605K	3¾ x 1¾ x 4
6.0	1500	CP70E1EH605K	3¾ x 2¼ x 4¾			CP70B1EH605K	3¾ x 2¼ x 4¾
8.0	600	CP70E1EF805K	3¾ x 1¼ x 4¼	CP70B1FF805K	3¾ x 1¼ x 3 7/8	CP70B1EF805K	3¾ x 1¼ x 4¼
8.0	1000	CP70E1EG805K	3¾ x 1¾ x 4¾	CP70B1FG805K	3¾ x 1¾ x 3 7/8	CP70B1EG805K	3¾ x 1¾ x 4¾
8.0	1500	CP70E1EH805K	3¾ x 2½ x 5¾			CP70B1EH805K	3¾ x 2½ x 5¾
10.0	600	CP70E1EF106K	3¾ x 1¾ x 4	CP70B1FF106K	3¾ x 1¼ x 4¾	CP70B1EF106K	3¾ x 1¾ x 4
10.0	1000	CP70E1EG106K	3¾ x 2¼ x 4¾	CP70B1FG106K	3¾ x 1¾ x 4¾	CP70B1EG106K	3¾ x 2¼ x 4¾
10.0	1500	CP70E1EH106K	3¾ x 3 3/16 x 5½			CP70B1EH106K	3¾ x 3 3/16 x 5½
12.0	1000	CP70E1EG126K	3¾ x 2¼ x 5 1/8			CP70B1EG126K	3¾ x 2¼ x 5 1/8
15.0	1000	CP70E1EG156K	3¾ x 3 3/16 x 4¾				

Call Your Sprague Industrial Distributor for Quantity Prices

Call Your Sprague Industrial Distributor for Quantity Prices

Call Your Sprague Industrial Distributor for Quantity Prices

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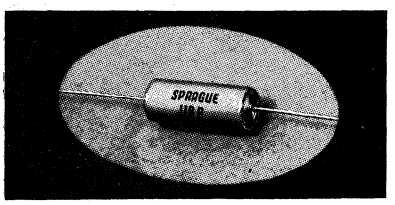
SPRAGUE CAPACITORS

118P DIFILM® METALLIZED CAPACITORS



- The Best of Their Type Possible to Produce at the Present State of the Art
- Rated for Operation at 125°C WITHOUT VOLTAGE DERATING
- Unique Dual Dielectric —a Combination of Metallized Paper and of Polyester Film, Impregnated With Special High-Temperature Mineral Wax
- Subjected to Stringent Quality Control During Manufacture
- Higher Insulation Resistance Than Any Other Metallized Paper Capacitors—at 125°C, Minimum Product of Insulation Resistance and Capacitance is 10 Megohm-microfarads for 200 V Units or 40 Megohm-microfarads for 400 and 600 V Units
- Capacitor Sections are Effectively of Non-inductive Construction, Resulting in Capacitors Unmatched in Performance Quality by any Other Metallized Capacitors
- Hermetically Sealed, with Glass-to-metal Solder-seal Terminals
- Have Unusual Self-healing Characteristics, in the Rare Event of Capacitor Dielectric Breakdown
- May be Used at Extremely Low Voltages Where Metallized Paper Construction has Previously Been Unsatisfactory
- For Complete Performance Characteristics, see Latest Issue of Engineering Bulletin 2211
- For Units With Outer Plastic Insulating Sleeves, Change Last Digit of Cat. No. From "2" to "4"
- Capacitors Listed Below Are Ungrounded Case (Insulating Section) Units Without Outer Insulating Sleeves. For Information on Other Styles Consult Your Sprague Industrial Distributor
- Call your Sprague Industrial Distributor for Quantity Prices.

200 WVDC

μF	D. x L.	±20% Tol. Catalog Number		±10% Tol. Catalog Number	
.01	.175 x 1 1/16	118P10302S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	118P10392S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES
.012	.195 x 1 1/16			118P12392S2	
.015	.195 x 1 1/16	118P15302S2		118P15392S2	
.018	.235 x 1 1/16			118P18392S2	
.022	.235 x 1 1/16	118P22302S2		118P22392S2	
.027	.235 x 1 1/16			118P27392S2	
.033	.235 x 1 1/16	118P33302S2		118P33392S2	
.039	.312 x 1 3/16			118P39392S2	
.047	.312 x 1 3/16	118P47302S2		118P47392S2	
.056	.312 x 1 3/16			118P56392S2	
.068	.312 x 1 3/16	118P68302S2		118P68392S2	
.082	.312 x 1 3/16			118P82392S2	
.1	.312 x 1 3/16	118P10402S2		118P10492S2	
.12	.312 x 1 1/16			118P12492S2	
.15	.312 x 1 1/16	118P15402S2		118P15492S2	
.18	.400 x 1 3/16			118P18492S2	
.22	.400 x 1 3/16	118P22402S2		118P22492S2	
.27	.400 x 1 1/16			118P27492S2	
.33	.400 x 1 1/16	118P33402S2		118P33492S2	
.39	.500 x 1 1/16			118P39492S2	
.47	.500 x 1 1/16	118P47402S2		118P47492S2	
.56	.500 x 1 1/16			118P56492S2	
.68	.500 x 1 1/16	118P68402S2		118P68492S2	
.82	.562 x 1 1/16			118P82492S2	
1.0	.562 x 1 1/16	118P10502S2		118P10592S2	
1.5	.562 x 1 9/16	118P15502S2		118P15592S2	
2.0	.670 x 1 9/16	118P20502S2		118P20592S2	
3.0	.670 x 1 13/16	118P30502S2		118P30592S2	
4.0	.750 x 1 13/16	118P40502S2		118P40592S2	
5.0	1.000 x 1 13/16	118P50502S2		118P50592S2	
6.0	1.000 x 1 13/16	118P60502S2		118P60592S2	
8.0	1.000 x 1 13/16	118P80502S2		118P80592S2	
10.0	1.000 x 2 5/16	118P10602S2		118P10692S2	
12.0	1.000 x 2 5/16	118P12602S2		118P12692S2	

400 WVDC

μF	D. x L.	±20% Tol. Catalog Number		±10% Tol. Catalog Number	
.01	.312 x 1 3/16	118P10304S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	118P10394S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES
.015	.312 x 1 3/16	118P15304S2		118P15394S2	
.022	.312 x 1 3/16	118P22304S2		118P22394S2	
.033	.312 x 1 1/16	118P33304S2		118P33394S2	
.047	.400 x 1 1/16	118P47304S2		118P47394S2	
.068	.400 x 1 1/16	118P68304S2		118P68394S2	
.1	.500 x 1 1/16	118P10404S2		118P10494S2	
.15	.500 x 1 1/16	118P15404S2		118P15494S2	
.22	.562 x 1 5/16	118P22404S2		118P22494S2	
.33	.562 x 1 9/16	118P33404S2		118P33494S2	
.47	.670 x 1 9/16	118P47404S2		118P47494S2	
.68	.670 x 1 13/16	118P68404S2		118P68494S2	
1.0	.750 x 1 13/16	118P10504S2		118P10594S2	
1.5	1.000 x 1 13/16	118P15504S2		118P15594S2	
2.0	1.000 x 1 13/16	118P20504S2		118P20594S2	
3.0	1.000 x 2 9/16	118P30504S2		118P30594S2	

600 WVDC

μF	D. x L.	±20% Tol. Catalog Number		±10% Tol. Catalog Number	
.01	.312 x 1 3/16	118P10306S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	118P10396S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES
.015	.312 x 1 3/16	118P15306S2		118P15396S2	
.022	.312 x 1 1/16	118P22306S2		118P22396S2	
.033	.312 x 1 1/16	118P33306S2		118P33396S2	
.047	.400 x 1 1/16	118P47306S2		118P47396S2	
.068	.400 x 1 1/16	118P68306S2		118P68396S2	
.1	.500 x 1 1/16	118P10406S2		118P10496S2	
.15	.562 x 1 1/16	118P15406S2		118P15496S2	
.22	.562 x 1 5/16	118P22406S2		118P22496S2	
.33	.562 x 1 9/16	118P33406S2		118P33496S2	
.47	.670 x 1 9/16	118P47406S2		118P47496S2	
.68	.670 x 1 13/16	118P68406S2		118P68496S2	
1.0	1.000 x 1 13/16	118P10506S2		118P10596S2	
1.5	1.000 x 1 13/16	118P15506S2		118P15596S2	
2.0	1.000 x 2 1/16	118P20506S2		118P20596S2	
2.5	1.000 x 2 9/16	118P25506S2		118P25596S2	

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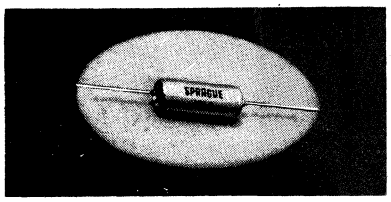
SPRAGUE CAPACITORS

121P METALLIZED PAPER CAPACITORS

- Designed to Operate at 125C WITHOUT VOLTAGE DERATING—Extremely Important in Military and Industrial Equipment Where Higher Temperatures Are Encountered.
- Quality of These Capacitors Is Surpassed only by Type 118P Units Described on Opposite Page.
- High Insulation Resistance—at 85C, Minimum Product of Insulation Resistance and Capacitance Is 20 Megohm-Microfarads. At 125C, Minimum Product is 1.0 Megohm-Microfarads.
- Hermetically Sealed With Glass-to-Metal Solder-Seal Terminals—Capacitor Cases Are of Corrosion Resistant Materials—Similar in Appearance to Type 118P.
- May Be Operated at Low Voltages, Unlike Many Other Metallized Capacitors.
- For Complete Technical Data, See Latest Issue of Engineering Bulletin 2210.
- Capacitors Listed Below Are Ungrounded Case (Insulated Section) Units Without Outer Insulating Sleeves. For Information on Other Styles Consult Your Sprague Industrial Distributor.

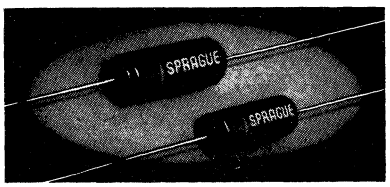


- Call Your Sprague Industrial Distributor For Quantity Prices.
- For Units With Outer Plastic Insulating Sleeve, Change Last Digit in Cat. No. From 2 to 4.

μF	D. x L.	±20% Tol. Cat. No.	±10% Tol. Cat. No.
150 WVDC			
1.5	.562 x 1⅛	121P15501R5S2	121P15591R5S2
2.0	.562 x 1⅜	121P20501R5S2	121P20591R5S2
2.5	.562 x 1⅝	121P25501R5S2	121P25591R5S2
3.0	.670 x 1⅜	121P30501R5S2	121P30591R5S2
3.5	.670 x 1⅝	121P35501R5S2	121P35591R5S2
4.0	.670 x 1⅝	121P40501R5S2	121P40591R5S2
5.0	.670 x 1⅞	121P50501R5S2	121P50591R5S2
6.0	.750 x 1⅞	121P60501R5S2	121P60591R5S2
8.0	.750 x 2⅜	121P80501R5S2	121P80591R5S2
10	.750 x 2⅝	121P10601R5S2	121P10691R5S2
12	1.000 x 1⅞	121P12601R5S2	121P12691R5S2
14	1.000 x 2⅛	121P14601R5S2	121P14691R5S2
16	1.000 x 2⅜	121P16601R5S2	121P16691R5S2
18	1.000 x 2⅝	121P18601R5S2	121P18691R5S2

TYPE 155P & 156P MOLDED METALLIZED PAPER CAPACITORS

- Superior to Most Competitive Units—Withstand Twice Rated Voltage Tests Giving Extra Design Safety Factor. Stand up Under High Humidity Condition.
- Self-generated Noise Practically Non-Existent. ● Sealed With Epoxy.
- Type 155P—Molded in Case. Type 156P in Premolded Case. Available in Kleer-Pak® Boxes. Complete Technical Data in Latest Issue of Sprague Bulletin 2030.
- Call Your Sprague Industrial Distributor For Current Quantity Prices.



μF	D. x L.	Ordering Information
200 VOLTS D-C		
.01	5/16 x 1	155P10302
.015	5/16 x 1	155P15302
.02	5/16 x 1	155P-.02-200
.022	5/16 x 1	155P22302
.03	5/16 x 1	155P-.03-200
.033	5/16 x 1	155P33302
.047	5/16 x 1	155P47302
.05	5/16 x 1	155P-.05-200
.068	5/16 x 1	155P68302
.1	5/16 x 1	155P10402
.15	3/8 x 1¼	155P15402
.22	3/8 x 1¼	155P22402
.25	7/16 x 1¼	155P-.25-200
.33	7/16 x 1¼	155P33402
.47	7/16 x 1¼	155P47402
.5	½ x 1½	155P-.5-200
.68	½ x 1½	155P68402
1.0	½ x 1½	155P10502
1.5	5/8 x 1⅞	155P15502
2.0	5/8 x 1⅞	155P20502
2.5	¾ x 2¼	156P25502
3.0	¾ x 2¼	156P30502
3.5	¾ x 2¼	156P35502
4.0	¾ x 2¼	156P40502
4.5	⅞ x 2½	156P45502
5.0	⅞ x 2½	156P50502
5.5	⅞ x 2½	156P55502
6.0	⅞ x 2½	156P60502
6.5	⅞ x 2½	156P65502
7.0	⅞ x 2½	156P70502
7.5	⅞ x 2½	156P75502
8.0	1 x 2½	156P80502
8.5	1 x 2½	156P85502
9.0	1 x 2½	156P90502
9.5	1 x 2½	156P95502
400 VOLTS D-C		
.01	5/16 x 1	155P10304
.015	5/16 x 1	155P15304
.02	5/16 x 1	155P-.02-400
.022	5/16 x 1	155P22304
.025	3/8 x 1¼	155P-.025-400
.03	3/8 x 1¼	155P-.03-400
.033	3/8 x 1¼	155P33304
.04	3/8 x 1¼	155P-.04-400
.047	3/8 x 1¼	155P47304
.05	3/8 x 1¼	155P-.05-400
.068	3/8 x 1¼	155P68304
.1	7/16 x 1¼	155P10404
.15	½ x 1½	155P15404
.2	½ x 1½	155P-.2-400
.22	½ x 1½	155P22404
.25	5/8 x 1⅞	155P-.25-400
.33	5/8 x 1⅞	155P33404
.47	5/8 x 1⅞	155P47404
.5	5/8 x 1⅞	155P-.5-400
.68	¾ x 2¼	156P68404
1.0	¾ x 2¼	156P10504
1.5	⅞ x 2½	156P15504
2.0	⅞ x 2½	156P20504
2.5	1 x 2½	156P25504
600 VOLTS D-C		
.01	5/16 x 1	155P10306
.015	3/8 x 1¼	155P15306
.02	3/8 x 1¼	155P-.02-600
.022	3/8 x 1¼	155P22306
.03	3/8 x 1¼	155P-.03-600
.033	3/8 x 1¼	155P33306
.04	3/8 x 1¼	155P-.04-600
.047	3/8 x 1¼	155P47306
.05	7/16 x 1¼	155P-.05-600
.06	7/16 x 1¼	155P-.06-600
.068	7/16 x 1¼	155P68306
.1	½ x 1½	155P10406
.15	½ x 1½	155P15406
.2	5/8 x 1⅞	155P-.2-600
.22	5/8 x 1⅞	155P22406
.25	5/8 x 1⅞	155P-.25-600
.33	5/8 x 1⅞	155P33406
.47	¾ x 2¼	156P47406
.5	¾ x 2¼	156P-.5-600
.68	¾ x 2¼	156P68406
1.0	⅞ x 2½	156P10506
1.5	1 x 2½	156P15506

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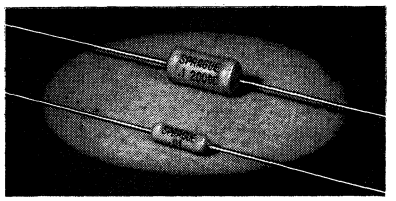
SPRAGUE CAPACITORS

TYPE 192P PACER® FILMITE® 'E' CAPACITORS



- New Minimum Construction Size. Extended Foil Film Sections Terminate in End Caps. Best Possible Non-Inductive Section. Rated for −55C to +85C.
- Controlled Dimensions—May Be Used With Automatic Insertion Equipment.
- Wound With Polyester Film Dielectric and Thin Gage Foil Under Controlled Atmospheric Conditions. Protected by Hard Durable Orange Epoxy Coating.
- Also Available in Kleer-Pak® Boxes.
- For Quantity Prices Call Your Sprague Industrial Distributor
- See Latest Issue of Sprague Engineering Bulletin 2066.

μF	Size D x L	Cat. No.
80 VOLTS D-C		
0.0022	0.138 x 5/16	192P2229R8
0.0027	0.138 x 5/16	192P2729R8
0.0033	0.138 x 5/16	192P3329R8
0.0039	0.138 x 5/16	192P3929R8
0.0047	0.138 x 5/16	192P4729R8
0.0056	0.170 x 3/8	192P5629R8
0.0068	0.170 x 3/8	192P6829R8
0.0082	0.170 x 3/8	192P8229R8
0.01	0.170 x 3/8	192P1039R8
0.012	0.170 x 7/16	192P1239R8
0.015	0.170 x 7/16	192P1539R8
0.018	0.170 x 1/2	192P1839R8
0.022	0.170 x 1/2	192P2239R8
0.027	0.204 x 7/16	192P2739R8
0.033	0.204 x 7/16	192P3339R8
0.039	0.204 x 9/16	192P3939R8
0.047	0.204 x 9/16	192P4739R8
0.056	0.225 x 9/16	192P5639R8
0.068	0.225 x 9/16	192P6839R8
0.082	0.290 x 1/2	192P8239R8
0.1	0.290 x 1/2	192P1049R8
0.12	0.290 x 5/8	192P1249R8
0.15	0.290 x 5/8	192P1549R8
0.18	0.318 x 5/8	192P1849R8
0.22	0.318 x 5/8	192P2249R8
0.27	0.318 x 7/8	192P2749R8
0.33	0.318 x 7/8	192P3349R8
0.39	0.318 x 1 3/16	192P3949R8
0.47	0.318 x 1 3/16	192P4749R8
200 VOLTS D-C		
0.00047	0.138 x 5/16	192P47192
0.00056	0.138 x 5/16	192P47192
0.00068	0.138 x 5/16	192P68192
0.00082	0.138 x 5/16	192P82192
0.001	0.138 x 5/16	192P10292
0.0012	0.138 x 5/16	192P12292
0.0015	0.138 x 5/16	192P15292
0.0018	0.170 x 5/16	192P18292
0.0022	0.170 x 5/16	192P22292
0.0027	0.170 x 5/16	192P27292
0.0033	0.170 x 5/16	192P33292
0.0039	0.170 x 7/16	192P39292
0.0047	0.170 x 7/16	192P47292
0.0056	0.170 x 7/16	192P56292
0.0068	0.170 x 7/16	192P68292
0.0082	0.170 x 1/2	192P82292
0.01	0.170 x 1/2	192P10392
0.012	0.204 x 7/16	192P12392
0.015	0.204 x 7/16	192P15392
0.018	0.204 x 9/16	192P18392
0.022	0.204 x 9/16	192P22392
0.027	0.225 x 9/16	192P27392
0.033	0.225 x 9/16	192P33392
0.039	0.290 x 1/2	192P39392
0.047	0.290 x 1/2	192P47392
0.056	0.290 x 5/8	192P56392
0.068	0.290 x 5/8	192P68392
0.082	0.318 x 5/8	192P82392
0.1	0.318 x 5/8	192P10492
0.12	0.318 x 7/8	192P12492
0.15	0.318 x 7/8	192P15492
0.18	0.318 x 1 3/16	192P18492
0.22	0.318 x 1 3/16	192P22492
400 VOLTS D-C		
0.00047	0.170 x 3/8	192P47194
0.00056	0.170 x 3/8	192P56194
0.00068	0.170 x 3/8	192P68194
0.00082	0.170 x 3/8	192P82194
0.001	0.170 x 3/8	192P10294
0.0012	0.170 x 3/8	192P12294
0.0015	0.170 x 3/8	192P15294
0.0018	0.170 x 7/16	192P18294
0.0022	0.170 x 7/16	192P22294
0.0027	0.204 x 7/16	192P27294
0.0033	0.204 x 7/16	192P33294
0.0039	0.204 x 7/16	192P39294
0.0047	0.204 x 7/16	192P47294
0.0056	0.225 x 9/16	192P56294
0.0068	0.225 x 9/16	192P68294
0.0082	0.225 x 9/16	192P82294
0.01	0.225 x 9/16	192P10394
0.012	0.290 x 1/2	192P12394
0.015	0.290 x 1/2	192P15394
0.018	0.290 x 5/8	192P18394
0.022	0.290 x 5/8	192P22394
0.027	0.318 x 5/8	192P27394
0.033	0.318 x 5/8	192P33394
0.039	0.318 x 7/8	192P39394
0.047	0.318 x 7/8	192P47394
0.056	0.318 x 1 3/16	192P56394
0.068	0.318 x 1 3/16	192P68394

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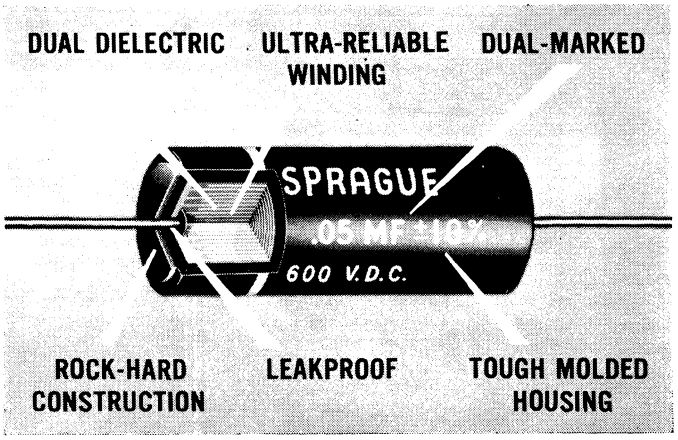
SPRAGUE CAPACITORS

DIFILM® BLACK BEAUTY® MOLDED TUBULARS



- Developed Especially for Long Life Under High Humidity and Temperature Operating Conditions
- Dual Dielectric (film and paper) Combines Best Features of Both Polyester Film and Paper Capacitors
- Exclusive HCX® Solid Impregnant Construction Results in Rock-hard Capacitor Section
- Won't Leak or Drip

LOOK FOR THE RED MARKINGS ON THE BLACK CASE

- Mica-filled, Non-flammable Molded Case. Won't Crack when Dropped; Soldering won't Harm it
- Every Capacitor Marked Twice. No Twisting the Case to Read Ratings
- Also Available in Handy Sprague Kleer-Pak®
- **Capacitance Tolerance:** ±10% from .001 μF up
  Except 2TM-M1 ±20%

For Complete Technical Data, See Latest Sprague Engineering Bulletin 2025

The World's Best Molded Tubular at No Extra Cost!

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
200 WVDC			
.01	5/16 x 1	2TM-S10	160P10392
.02	3/8 x 1 1/4	2TM-S20	.....
.022	3/8 x 1 1/4	2TM-S22	160P22392
.047	3/8 x 1 1/4	2TM-S47	160P47392
.05	3/8 x 1 1/4	2TM-S50	.....
.1	7/16 x 1 1/4	2TM-P10	160P10492
.15	1/2 x 1 1/2	2TM-P15	160P15492
.22	5/8 x 1 7/8	2TM-P22	160P22492
.25	5/8 x 1 7/8	2TM-P25	.....
.47	5/8 x 1 7/8	2TM-P47	160P47492
.5	5/8 x 1 7/8	2TM-P50	.....
1.0	3/4 x 2 1/4	2TM-M1	160P10502
400 WVDC			
.001	5/16 x 1	4TM-D10	160P10294
.005	5/16 x 1	4TM-D50	.....
.01	5/16 x 1	4TM-S10	160P10394
.015	3/8 x 1 1/4	4TM-S15	160P15394
.02	3/8 x 1 1/4	4TM-S20	.....
.022	3/8 x 1 1/4	4TM-S22	160P22394
.025	3/8 x 1 1/4	4TM-S25	.....
.03	3/8 x 1 1/4	4TM-S30	.....

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
400 WVDC (Cont.)			
.04	7/16 x 1 1/4	4TM-S40	.....
.047	7/16 x 1 1/4	4TM-S47	160P47394
.05	7/16 x 1 1/4	4TM-S50	.....
.068	1/2 x 1 1/2	4TM-S68	160P68394
.1	1/2 x 1 1/2	4TM-P10	160P10494
.15	5/8 x 1 7/8	4TM-P15	160P15494
.2	5/8 x 1 7/8	4TM-P20	.....
.22	5/8 x 1 7/8	4TM-P22	160P22494
.25	3/4 x 2 1/4	4TM-P25	.....
.47	3/4 x 2 1/4	4TM-P47	160P47494
.5	3/4 x 2 1/4	4TM-P50	.....
1.0	1 x 2 1/2	4TM-M1	160P10594
600 WVDC			
.0001	5/16 x 1	6TM-T10	.....
.00025	5/16 x 1	6TM-T25	.....
.0004	5/16 x 1	6TM-T40	.....
.0005	5/16 x 1	6TM-T50	.....
.001	5/16 x 1	6TM-D10	160P10296
.0015	5/16 x 1	6TM-D15	160P15296
.002	5/16 x 1	6TM-D20	.....

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μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
600 WVDC (Cont.)			
.0022	5/16 x 1	6TM-D22	160P22296
.0025	5/16 x 1	6TM-D25	.....
.003	5/16 x 1	6TM-D30	.....
.0033	5/16 x 1	6TM-D33	160P33296
.004	3/8 x 1 1/4	6TM-D40	.....
.0047	3/8 x 1 1/4	6TM-D47	160P47296
.005	3/8 x 1 1/4	6TM-D50	.....
.006	3/8 x 1 1/4	6TM-D60	.....
.0068	3/8 x 1 1/4	6TM-D68	160P68296
.008	3/8 x 1 1/4	6TM-D80	.....
.01	3/8 x 1 1/4	6TM-S10	160P10396
.015	3/8 x 1 1/4	6TM-S15	160P15396
.02	7/16 x 1 1/4	6TM-S20	.....
.022	7/16 x 1 1/4	6TM-S22	160P22396
.025	7/16 x 1 1/2	6TM-S25	.....
.03	7/16 x 1 1/4	6TM-S30	.....
.033	7/16 x 1 1/4	6TM-S33	160P33396
.035	7/16 x 1 1/4	6TM-S35	.....
.04	1/2 x 1 1/2	6TM-S40	.....
.047	1/2 x 1 1/2	6TM-S47	160P47396

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SPRAGUE CAPACITORS

DIFILM® BLACK BEAUTY® MOLDED TUBULARS, continued

600 WVDC (Cont.)

µF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
.05	½ x 1½	6TM-S50	.....
.06	½ x 1½	6TM-S60	.....
.068	½ x 1½	6TM-S68	160P68396
.1	⅝ x 1⅞	6TM-P10	160P10496
.15	⅝ x 1⅞	6TM-P15	160P15496
.2	¾ x 2¼	6TM-P20	.....
.22	¾ x 2¼	6TM-P22	160P22496
.25	¾ x 2¼	6TM-P25	.....
.47	1 x 2½	6TM-P47	160P47496
.5	1 x 2½	6TM-P50	.....
1.0	1 x 2½	6TM-M1	.....

µF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
.0005	⅜ x 1¼	MB-T5	.....
.001	⅜ x 1¼	MB-D1	160P102916
.0015	⅜ x 1¼	MB-D15	160P152916
.002	⅜ x 1¼	MB-D2	.....
.0022	⅜ x 1¼	MB-D22	160P222916
.003	7/16 x 1¼	MB-D3	.....
.0033	7/16 x 1¼	MB-D33	160P332916

Call Your Sprague Industrial Distributor for Current Quantity Prices

1000 WVDC

µF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
.0005	5/16 x 1	10TM-T50	.....
.001	5/16 x 1	10TM-D10	160P102910
.0015	5/16 x 1	10TM-D15	160P152910
.002	⅜ x 1¼	10TM-D20	.....
.0022	⅜ x 1¼	10TM-D22	160P222910
.003	⅜ x 1¼	10TM-D30	.....
.004	⅜ x 1¼	10TM-D40	.....
.0047	⅜ x 1¼	10TM-D47	160P472910
.005	⅜ x 1¼	10TM-D50	.....
.0068	⅜ x 1¼	10TM-D68	160P682910

1600 WVDC BUFFER CAPACITORS

µF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
.004	½ x 1½	MB-D4	.....
.0047	½ x 1½	MB-D47	160P472916
.005	½ x 1½	MB-D5	.....
.006	½ x 1½	MB-D6	.....
.0068	½ x 1½	MB-D68	160P682916
.007	½ x 1½	MB-D7	.....
.0075	½ x 1½	MB-D75	.....
.008	⅝ x 1⅞	MB-D8	.....

Call Your Sprague Industrial Distributor for Current Quantity Prices

1000 WVDC (cont.)

µF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
.01	7/16 x 1¼	10TM-S10	160P103910
.015	½ x 1½	10TM-S15	160P153910
.02	½ x 1½	10TM-S20	.....
.022	½ x 1½	10TM-S22	160P223910
.03	⅝ x 1⅞	10TM-S30	.....
.035	⅝ x 1⅞	10TM-S35	.....
.047	⅝ x 1⅞	10TM-S47	160P473910
.05	⅝ x 1⅞	10TM-S50	.....
.068	⅝ x 1⅞	10TM-S68	160P683910
.1	¾ x 2¼	10TM-P10	160P104910
.15	¾ x 2¼	10TM-P15	160P154910

µF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
.01	⅝ x 1⅞	MB-S1	160P103916
.015	⅝ x 1⅞	MB-S15	160P153916
.02	⅝ x 1⅞	MB-S2	.....
.022	⅝ x 1⅞	MB-S22	160P223916
.03	¾ x 2¼	MB-S3	.....
.04	¾ x 2¼	MB-S4	.....
.05	¾ x 2¼	MB-S5	.....

Call Your Sprague Industrial Distributor for Current Quantity Prices

MINERAL-OIL BLACK BEAUTY® MOLDED TUBULARS

● Kraftboard Sleeve and Epoxy End-Seal Gives Added Circuit Protection ● All Paper Dielectric, Impregnated With Mineral Oil For Best High Voltage Performance ● Maximum Operating Temperature: 85°C

6000 WVDC BUFFER

µF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
.0005	9/16 x 1⅞	TVM-356	.....
.001	9/16 x 1⅞	TVM-216	184P102060
.005	11/16 x 2¼	TVM-256	.....

10,000 WVDC BUFFER

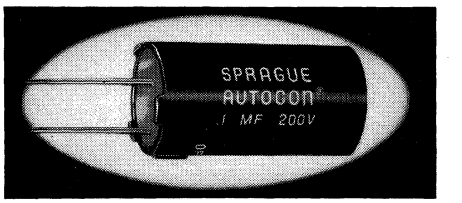
µF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
.0005	11/16 x 2¼	TVM-351	.....

12,500 WVDC BUFFER

µF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
.00025	11/16 x 2¼	12TVM-325	.....

AUTOCON® MOLDED TUBULAR CAPACITORS

- Generous 1" Lead Lengths Make Autocons Universal Replacements For All Single Ended Original Equipment Types Used on Printed Wiring Boards
- Pre-molded Thermosetting Plastic Shell with Plastic Resin Endseal for Humidity Protection, Outside Foil Identified by Index Key
- Autocons Have High Insulation Resistance, Low Power Factor, and a Flat Temperature-Capacitance Curve
- Impregnated with HCX®, an Exclusive Solid Dielectric Material
- "Standoff" Feet Prevent Dust and Moisture Traps. Also Prevent Printed Wiring Board Shorts



µF	WVDC	Diam.	Length	Cat. No.
.001	200	⅜	1⅜	2SE-D10
.0015	200	⅜	1⅜	2SE-D15
.0022	200	⅜	1⅜	2SE-D22
.0033	200	⅜	1⅜	2SE-D33
.0047	200	⅜	1⅜	2SE-D47
.0068	200	⅜	1⅜	2SE-D68
.01	200	⅜	1⅜	2SE-S10
.015	200	⅜	1⅜	2SE-S15
.022	200	⅜	1⅜	2SE-S22
.033	200	⅜	1⅜	2SE-S33
.047	200	7/16	1⅜	2SE-S47
.068	200	7/16	1⅜	2SE-S68
.1	200	½	1½	2SE-P10
.15	200	⅝	1⅞	2SE-P15
.22	200	⅝	1⅞	2SE-P22
.33	200	⅝	1⅞	2SE-P33
.47	200	¾	1⅞	2SE-P47
.001	400	⅜	1⅜	4SE-D10
.0015	400	⅜	1⅜	4SE-D15
.0022	400	⅜	1⅜	4SE-D22
.0033	400	⅜	1⅜	4SE-D33
.0047	400	⅜	1⅜	4SE-D47
.0068	400	⅜	1⅜	4SE-D68
.01	400	⅜	1⅜	4SE-S10

Call Your Sprague Industrial Distributor for Current Prices

µF	WVDC	Diam.	Length	Cat. No.
.015	400	⅜	1⅜	4SE-S15
.022	400	7/16	1⅜	4SE-S22
.033	400	7/16	1⅜	4SE-S33
.047	400	½	1½	4SE-S47
.068	400	½	1½	4SE-S68
.1	400	⅝	1⅞	4SE-P10
.15	400	⅝	1⅞	4SE-P15
.22	400	⅝	1⅞	4SE-P22
.33	400	¾	1⅞	4SE-P33
.001	600	⅜	1⅜	6SE-D10
.0015	600	⅜	1⅜	6SE-D15
.0022	600	⅜	1⅜	6SE-D22
.0033	600	⅜	1⅜	6SE-D33
.0047	600	⅜	1⅜	6SE-D47
.0068	600	⅜	1⅜	6SE-D68
.01	600	⅜	1⅜	6SE-S10
.015	600	7/16	1⅜	6SE-S15
.022	600	7/16	1⅜	6SE-S22
.033	600	½	1½	6SE-S33
.047	600	½	1½	6SE-S47
.068	600	⅝	1⅞	6SE-S68
.1	600	⅝	1⅞	6SE-P10
.15	600	¾	1⅞	6SE-P15

Call Your Sprague Industrial Distributor for Current Prices

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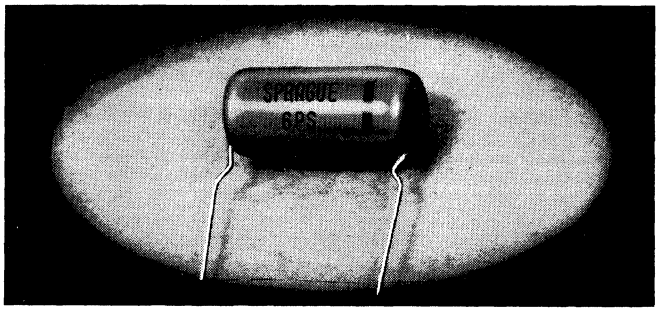
SPRAGUE CAPACITORS

DIFILM® ORANGE DROP® DIPPED TUBULARS



- Especially Made for Exact, Original Replacement
- Outperforms Any Other Dipped Tubular Capacitor
- Dual Dielectric (Film-paper) Solidly Impregnated With Exclusive HCX®—Produces Rock-Hard Capacitor Section
- Crimped Wire Leads for Correct Spacing When Mounted On Printed Wiring Boards.
- Voltage Ratings From 200 VDC to 2000 VDC
- Outside Foil on All Units Identified by Black Striping
- Double Dipped in Bright Orange Epoxy Resin—Beats Heat and Humidity
- Won't Leak or Drip
- Also Available in Handy Sprague Kleer-Pak® Boxes
- For Complete Technical Data, See Latest Issue of Engineering Bulletin 2004

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
	200 VOLTS D-C		
.02	3/8 x 7/8	2PS-S20	.....
.022	25/64 x 7/8	2PS-S22	220P22392
.047	29/64 x 7/8	2PS-S47	220P47392
.05	15/32 x 7/8	2PS-S50	.....
.1	31/64 x 1 3/16	2PS-P10	220P10492
.15	9/16 x 1 3/16	2PS-P15	220P15492
.2	19/32 x 1 5/16	2PS-P20	.....
.22	39/64 x 1 5/16	2PS-P22	220P22492
.25	5/8 x 1 5/16	2PS-P25	.....
.33	5/8 x 1 5/8	2PS-P33	220P33492
.47	45/64 x 1 5/8	2PS-P47	220P47492
.5	23/32 x 1 5/8	2PS-P50	.....
	400 VOLTS D-C		
.01	13/32 x 11/16	4PS-S10	220P10394
.015	29/64 x 11/16	4PS-S15	220P15394
.02	13/32 x 7/8	4PS-S20	.....
.022	27/64 x 7/8	4PS-S22	220P22394
.025	7/16 x 7/8	4PS-S25	.....
.03	29/64 x 7/8	4PS-S30	.....
.033	15/32 x 7/8	4PS-S33	220P33394
.04	27/64 x 1 3/16	4PS-S40	.....
.047	29/64 x 1 3/16	4PS-S47	220P47394
.05	29/64 x 1 3/16	4PS-S50	.....
.056	31/64 x 1 3/16	4PS-S56	220P56394
.068	33/64 x 1 3/16	4PS-S68	220P68394
.075	33/64 x 1 3/16	4PS-S75	.....
.1	37/64 x 1 3/16	4PS-P10	220P10494
.15	39/64 x 1 5/16	4PS-P15	220P15494
.2	19/32 x 1 5/8	4PS-P20	.....
.22	39/64 x 1 5/8	4PS-P22	220P22494
.25	41/64 x 1 5/8	4PS-P25	.....
	600 VOLTS D-C		
.001	21/64 x 11/16	6PS-D10	220P10296
.0012	21/64 x 11/16	6PS-D12	220P12296
.0015	21/64 x 11/16	6PS-D15	220P15296
.0018	21/64 x 11/16	6PS-D18	220P18296
.002	21/64 x 11/16	6PS-D20	.....
.0022	21/64 x 11/16	6PS-D22	220P22296
.0025	21/64 x 11/16	6PS-D25	.....
.0027	11/32 x 11/16	6PS-D27	220P27296
.003	11/32 x 11/16	6PS-D30	.....
.0033	23/64 x 11/16	6PS-D33	220P33296
.0039	3/8 x 11/16	6PS-D39	220P39296
.004	3/8 x 11/16	6PS-D40	.....
.0047	25/64 x 11/16	6PS-D47	220P47296
.005	25/64 x 11/16	6PS-D50	.....
.0056	25/64 x 11/16	6PS-D56	220P56296
.006	13/32 x 11/16	6PS-D60	.....
.0068	13/32 x 11/16	6PS-D68	220P68296
.0075	23/64 x 7/8	6PS-D75	.....
.008	23/64 x 7/8	6PS-D80	.....
.0082	3/8 x 7/8	6PS-D82	220P82296
.01	25/64 x 7/8	6PS-S10	220P10396
.012	25/64 x 7/8	6PS-S12	220P12396
.015	27/64 x 7/8	6PS-S15	220P15396
.02	31/64 x 7/8	6PS-S20	.....

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μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
	600 VOLTS D-C (cont.)		
.022	31/64 x 7/8	6PS-S22	220P22396
.025	17/32 x 7/8	6PS-S25	.....
.027	7/16 x 1 3/16	6PS-S27	220P27396
.03	7/16 x 1 3/16	6PS-S30	.....
.033	15/32 x 1 3/16	6PS-S33	220P33396
.035	15/32 x 1 3/16	6PS-S35	.....
.039	31/64 x 1 3/16	6PS-S39	220P39396
.04	1/2 x 1 3/16	6PS-S40	.....
.047	17/32 x 1 3/16	6PS-S47	220P47396
.05	17/32 x 1 3/16	6PS-S50	.....
.056	35/64 x 1 3/16	6PS-S56	220P56396
.06	9/16 x 1 3/16	6PS-S60	.....
.068	37/64 x 1 3/16	6PS-S68	220P68396
.075	9/16 x 1 5/16	6PS-S75	.....
.082	37/64 x 1 5/16	6PS-S82	220P82396
.1	5/8 x 1 5/16	6PS-P10	220P10496
.15	43/64 x 1 5/8	6PS-P15	220P15496
.2	3/4 x 1 5/8	6PS-P20	.....
.22	25/32 x 1 5/8	6PS-P22	220P22496
.25	13/16 x 1 5/8	6PS-P25	.....
.33	53/64 x 1 5/8	6PS-P33	.....
.47	61/64 x 1 5/8	6PS-P47	.....
	1000 VOLTS D-C		
.001	21/64 x 11/16	10PS-D10	220P102910
.0015	11/32 x 11/16	10PS-D15	220P152910
.002	3/8 x 11/16	10PS-D20	.....
.0022	3/8 x 11/16	10PS-D22	220P222910
.003	11/32 x 7/8	10PS-D30	.....
.004	3/8 x 7/8	10PS-D40	.....
.0047	13/32 x 7/8	10PS-D47	220P472910
.005	13/32 x 7/8	10PS-D50	.....
	1600 VOLTS D-C		
.0005	3/8 x 1 1/4	16PS-T50	.....
.001	3/8 x 1 1/4	16PS-D10	220P102916
.0015	3/8 x 1 1/4	16PS-D15	220P152916
.002	3/8 x 1 1/4	16PS-D20	.....
.0022	3/8 x 1 1/4	16PS-D22	220P222916
.003	7/16 x 1 1/4	16PS-D30	.....
.0033	7/16 x 1 1/4	16PS-D33	220P332916
.004	1/2 x 1 1/2	16PS-D40	.....
.0047	1/2 x 1 1/2	16PS-D47	220P472916
.005	1/2 x 1 1/2	16PS-D50	.....
.006	1/2 x 1 1/2	16PS-D60	.....
.0068	1/2 x 1 1/2	16PS-D68	220P682916
.007	1/2 x 1 1/2	16PS-D70	.....
.0075	1/2 x 1 1/2	16PS-D75	.....
.008	5/8 x 1 7/8	16PS-D80	.....
.01	5/8 x 1 7/8	16PS-S10	220P103916
.015	5/8 x 1 7/8	16PS-S15	220P153916
.02	5/8 x 1 7/8	16PS-S20	.....
.022	5/8 x 1 7/8	16PS-S22	220P223916
.03	3/4 x 2 1/4	16PS-S30	.....
.04	3/4 x 2 1/4	16PS-S40	.....
.05	3/4 x 2 1/4	16PS-S50	.....
	2000 VOLTS D-C		
.001	3/8 x 1 1/4	20PS-D10	.....

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

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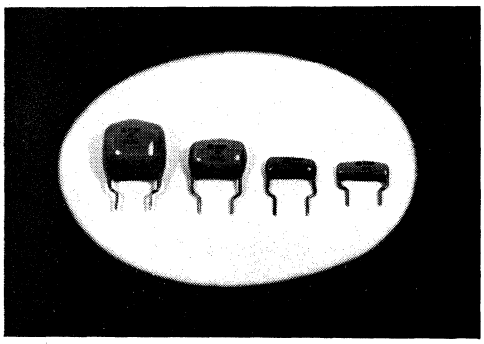
SPRAGUE CAPACITORS

TYPE 225P FILMITE® 'E' ORANGE DROP® CAPACITORS

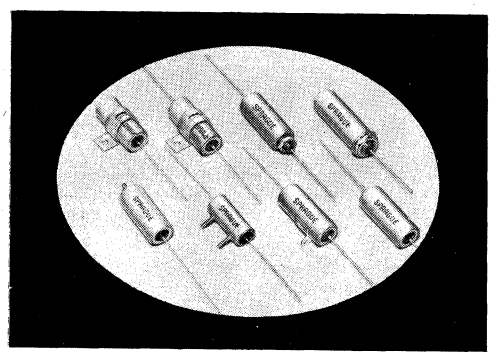
- Designed Specifically for Printed Wiring Board Applications and are Furnished with Radial Leads to Facilitate Insertion on Boards
- Find Wide Application in Television Receivers, Radio Sets, and Commercial Electronic Equipment
- Available in Voltage Ratings of 75 Volts and 100 Volts D-C for Operation up to 85C
- Capacitor Sections are Wound From Polyester Film and Thin-gage Foil Under Carefully Controlled Atmospheric Conditions
- Protected Against Moisture by a Wax-free Conformal Coating of Epoxy
- For Complete Technical Data, Refer to Latest Issue of Sprague Engineering Bulletin 2062
- Call Your Sprague Industrial Distributor for Current Quantity Prices



µF	Tol.	Size Height x Thickness x Length	Catalog Number
		75 VOLTS D-C	
.12	10%	5/8 x 25/64 x 3/4	225P1249R75
.15	10%	5/8 x 25/64 x 3/4	225P1549R75
.18	10%	43/64 x 27/64 x 3/4	225P1849R75
.22	10%	43/64 x 27/64 x 3/4	225P2249R75
.27	10%	27/32 x 31/64 x 3/4	225P2749R75
.33	10%	27/32 x 31/64 x 3/4	225P3349R75
.39	10%	27/32 x 19/32 x 3/4	225P3949R75
.47	10%	27/32 x 19/32 x 3/4	225P4749R75
.56	10%	57/64 x 9/16 x 1 3/16	225P5649R75
.68	10%	29/32 x 19/32 x 1 3/16	225P6849R75
.82	10%	61/64 x 21/32 x 1 3/16	225P8249R75
1.0	10%	63/64 x 47/64 x 1 3/16	225P1059R75
		100 VOLTS D-C	
.001	10%	5/16 x 13/64 x 45/64	225P10291
.0012	10%	5/16 x 13/64 x 45/64	225P12291
.0015	10%	5/16 x 13/64 x 45/64	225P15291
.0018	10%	5/16 x 13/64 x 45/64	225P18291
.0022	10%	5/16 x 13/64 x 45/64	225P22291
.0027	10%	5/16 x 13/64 x 45/64	225P27291

µF	Tol.	Size Height x Thickness x Length	Catalog Number
		100 VOLTS D-C (Cont.)	
.0033	10%	5/16 x 13/64 x 45/64	225P33291
.0039	10%	5/16 x 13/64 x 45/64	225P39291
.0047	10%	5/16 x 13/64 x 45/64	225P47291
.0056	10%	5/16 x 13/64 x 45/64	225P56291
.0068	10%	5/16 x 13/64 x 45/64	225P68291
.0082	10%	5/16 x 13/64 x 45/64	225P82291
.01	10%	5/16 x 13/64 x 45/64	225P10391
.012	10%	5/16 x 13/64 x 45/64	225P12391
.015	10%	5/16 x 13/64 x 45/64	225P15391
.018	10%	5/16 x 13/64 x 45/64	225P18391
.022	10%	5/16 x 13/64 x 45/64	225P22391
.027	10%	21/64 x 15/64 x 45/64	225P27391
.033	10%	21/64 x 15/64 x 45/64	225P33391
.039	10%	11/32 x 1/4 x 45/64	225P39391
.047	10%	11/32 x 1/4 x 45/64	225P47391
.056	10%	3/8 x 9/32 x 45/64	225P56391
.068	10%	3/8 x 9/32 x 45/64	225P68391
.082	10%	17/32 x 21/64 x 45/64	225P82391
.1	10%	17/32 x 21/64 x 45/64	225P10491

TYPE 260P
TUBULAR METAL-CLAD METALLIZED FILMITE® 'K' CAPACITORS



- Designed for Applications Such as Low-frequency Tuned Circuits, Analog Computer Reference Capacitors and Precision Timing and Integrating Circuits
- High Insulation Resistance, High Stability, Minimum Capacitance Change with Temperature, Low Dielectric Absorption and Low Dissipation Factor
- Capacitor Sections are of Non-inductive Construction
- Will Operate at Full Rated D-C Voltage Over the Temperature Range of −55C to +105C
- Capacitance Tolerance ±5%, Voltage Rating 200 WVDC
- For Complete Technical Data, Refer to the Latest Issue of Sprague Engineering Bulletin 2705
- Call Your Sprague Industrial Distributor for Current Quantity Prices

µF	WVDC	D. x L.	Catalog No.
.01	200	.175" x 3/4	260P10352S4
.015	200	.195" x 3/4	260P15352S4
.022	200	.235" x 3/4	260P22352S4
.033	200	.235" x 3/4	260P33352S4
.047	200	.312" x 7/8	260P47352S4
.056	200	.312" x 7/8	260P56352S4
.068	200	.312" x 7/8	260P68352S4
.1	200	.312" x 7/8	260P10452S4
.15	200	.312" x 1 1/8	260P15452S4
.22	200	.400" x 7/8	260P22452S4
.33	200	.400" x 1 1/8	260P33452S4

µF	WVDC	D. x L.	Catalog No.
.47	200	.400" x 1 3/8	260P47452S4
.68	200	.562" x 1 1/8	260P68452S4
1.0	200	.562" x 1 3/8	260P10552S4
2.0	200	.670" x 1 5/8	260P20552S4
3.0	200	.750" x 1 7/8	260P30552S4
4.0	200	.750" x 2 1/8	260P40552S4
5.0	200	.750" x 2 3/8	260P50552S4
7.0	200	1.000" x 1 7/8	260P70552S4
8.0	200	1.000" x 2 1/8	260P80552S4
10.0	200	1.000" x 2 5/8	260P10652S4

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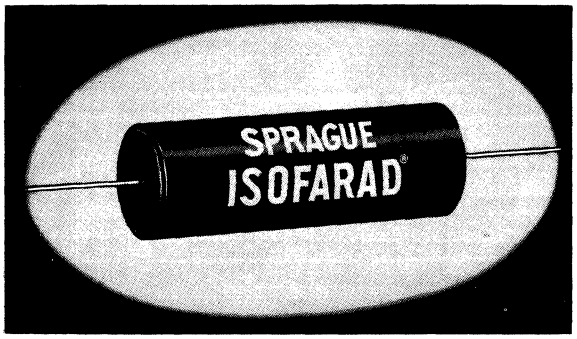
SPRAGUE CAPACITORS

BF ISOFARAD® PLASTIC FILM CAPACITORS

For Applications Where the Best in Tubulars is None Too Good



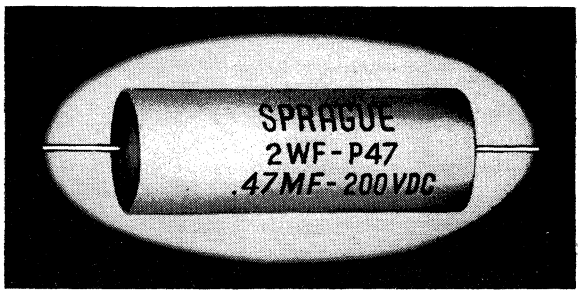
- Isofarad Quality is a Must in Color TV Synchroguide Circuits, Horizontal and Vertical Oscillators, Bridge and Parallel T Circuits and Other Tuned Circuit Applications Requiring Close Tolerance and Zero Temperature Coefficient of Capacitance
- Superior to Silvered Mica Capacitors, Yet Far Less Expensive
- Constant Capacitance—Will Not Change More Than ±0.2% from Room Temperature to + 80C at Maximum Rated Voltage Will Withstand Operating Temperatures to 85C (185F)
- **Capacitance Tolerance:** ±5%
- Also Available in Handy Sprague Kleer-Pak® Boxes
- For Complete Technical Data, See Latest Issue of Sprague Engineering Bulletin 2073

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
		500 WVDC	
.001	3/8 x 1	5BF-D10	145P10255
.0012	3/8 x 1	5BF-D12	145P12255
.0015	3/8 x 1	5BF-D15	145P15255
.0018	3/8 x 1	5BF-D18	145P18255
.0022	3/8 x 1	5BF-D22	145P22255
.0027	3/8 x 1	5BF-D27	145P27255
.0033	3/8 x 1	5BF-D33	145P33255
.0039	3/8 x 1	5BF-D39	145P39255
.0047	3/8 x 1	5BF-D47	145P47255
.0056	3/8 x 1 1/4	5BF-D56	145P56255
.0068	3/8 x 1 1/4	5BF-D68	145P68255
.0082	7/16 x 1 1/4	5BF-D82	145P82255
.01	7/16 x 1 1/4	5BF-S10	145P10355
.012	1/2 x 1 1/4	5BF-S12	145P12355
.015	1/2 x 1 1/4	5BF-S15	145P15355
.018	1/2 x 1 1/2	5BF-S18	145P18355
.022	1/2 x 1 1/2	5BF-S22	145P22355
.027	5/8 x 1 7/8	5BF-S27	145P27355
.033	5/8 x 1 7/8	5BF-S33	145P33355
.039	5/8 x 1 7/8	5BF-S39	145P39355
.047	5/8 x 1 7/8	5BF-S47	145P47355
.056	5/8 x 1 7/8	5BF-S56	145P56355
.068	5/8 x 1 7/8	5BF-S68	145P68355
.082	3/4 x 1 1/4	5BF-S82	145P82355
.1	3/4 x 2 1/4	5BF-P10	145P10455
.12	7/8 x 2 1/2	5BF-P12	145P12455
.15	7/8 x 2 1/2	5BF-P15	145P15455
.18	7/8 x 2 1/2	5BF-P18	145P18455
.22	7/8 x 2 1/2	5BF-P22	145P22455
.27	1 x 2 1/2	5BF-P27	145P27455
.33	1 x 2 1/2	5BF-P33	145P33455

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT PRICES

WF YELLOW-JACKET® FILMITE® 'E' CAPACITORS

- Excellent for Use in Transistorized Circuits and Low-Voltage Electron Tube Circuits
- Extended Foil Type Sections, Wound from Selected, Ultra-Thin Polyester Film and Thin Gage Foil
- Outer Plastic Film Wrap and Resin End Seals Protect Against Moisture and Humidity
- "Smaller Than Small" — These Capacitors Will Fit Anywhere
- Rated to **200 WVDC** — Capacitance Tolerance: ±10%
- Designed for Operation to 85C (185F)
- Available in Kleer-Pak® Boxes
- For Technical Data, See Latest Issue of Sprague Bulletin 2063



μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
		200 WVDC	
.01	13/64 x 11/16	2WF-S10	148P10392
.012	13/64 x 11/16	2WF-S12	148P12392
.015	13/64 x 11/16	2WF-S15	148P15392
.018	13/64 x 11/16	2WF-S18	148P18392
.022	13/64 x 11/16	2WF-S22	148P22392
.027	13/64 x 11/16	2WF-S27	148P27392
.033	13/64 x 11/16	2WF-S33	148P33392
.039	15/64 x 11/16	2WF-S39	148P39392
.047	15/64 x 11/16	2WF-S47	148P47392
.056	1/4 x 13/16	2WF-S56	148P56392
.068	1/4 x 13/16	2WF-S68	148P68392
.082	19/64 x 13/16	2WF-S82	148P82392
.1	19/64 x 13/16	2WF-P10	148P10492
.12	11/32 x 13/16	2WF-P12	148P12492
.15	11/32 x 13/16	2WF-P15	148P15492
.18	11/32 x 1 1/16	2WF-P18	148P18492
.22	11/32 x 1 1/16	2WF-P22	148P22492
.27	15/32 x 13/16	2WF-P27	148P27492
.33	15/32 x 13/16	2WF-P33	148P33492
.39	35/64 x 13/16	2WF-P39	148P39492
.47	35/64 x 13/16	2WF-P47	148P47492
.56	35/64 x 1 9/16	2WF-P56	148P56492
.68	35/64 x 1 9/16	2WF-P68	148P68492
.82	19/32 x 1 13/16	2WF-P82	148P82492
1.0	19/32 x 1 13/16	2WF-M1	148P10592

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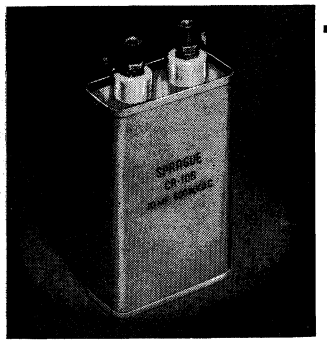
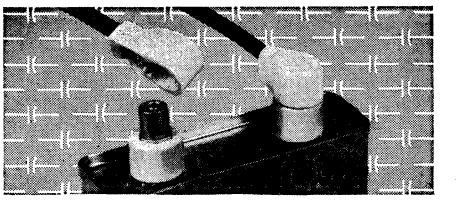
SPRAGUE CAPACITORS



TYPE CR RECTANGULAR OILS

- Hermetically sealed in Rugged Rectangular Metal Cans
- Oil-Impregnated and Oil-Filled
- Extremely High Insulation Resistance
- Will Withstand High Surge Voltages and High Ambient Temperatures
- Widely Used in Transmitter Power Supplies and Other High-Voltage Applications
- Furnished With Adapters (as shown below) to Fit Standard Transmitting Tube Plate Caps



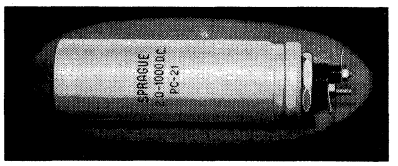
μF	WVDC	T. x W. x L.	Cat. No.
.5	600	1 1/16 x 1 13/16 x 2 1/4	CR-056
1.0	600	1 1/16 x 1 13/16 x 2 1/4	CR-16
2.0	600	1 1/16 x 1 13/16 x 2 7/8	CR-26
3.0	600	1 1/16 x 1 13/16 x 3 1/4	CR-36
4.0	600	1 3/16 x 2 1/2 x 3 1/2	CR-46
6.0	600	1 3/16 x 2 1/2 x 4 3/4	CR-66
8.0	600	1 1/4 x 3 3/4 x 3 7/8	CR-86
10.0	600	1 1/4 x 3 3/4 x 4 3/4	CR-106
.1	1000	1 1/16 x 1 13/16 x 1 5/8	CR-011
.25	1000	1 1/16 x 1 13/16 x 2 1/4	CR-0251
.5	1000	1 1/16 x 1 13/16 x 2 1/4	CR-051
1.0	1000	1 1/16 x 1 13/16 x 2 1/4	CR-11
2.0	1000	1 1/16 x 1 13/16 x 3 7/8	CR-21
4.0	1000	1 3/16 x 2 1/2 x 3 5/8	CR-41
8.0	1000	1 1/4 x 3 3/4 x 4 3/4	CR-81
10.0	1000	1 3/4 x 3 3/4 x 4 3/4	CR-101
12.0	1000	2 1/4 x 3 3/4 x 4 1/2	CR-121
15.0	1000	2 1/2 x 3 3/4 x 4 3/4	CR-151
.5	1500	1 1/16 x 1 13/16 x 2 7/8	CR-0515
1.0	1500	1 1/16 x 1 13/16 x 3 7/8	CR-115
2.0	1500	1 3/16 x 2 1/2 x 4 1/4	CR-215
4.0	1500	1 1/4 x 3 3/4 x 4 3/4	CR-415
5.0	1500	1 1/4 x 3 3/4 x 4 3/4	CR-515
8.0	1500	2 1/2 x 3 3/4 x 4 3/4	CR-815
10.0	1500	3 3/16 x 3 3/4 x 4 3/4	CR-1015
.1	2000	1 3/16 x 2 1/2 x 2 1/2	CR-012
.25	2000	1 3/16 x 2 1/2 x 2 1/2	CR-0252
.5	2000	1 3/16 x 2 1/2 x 2 7/8	CR-052
1.0	2000	1 3/16 x 2 1/2 x 3 1/2	CR-12
2.0	2000	1 1/4 x 3 3/4 x 4 1/4	CR-22

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT PRICES

μF	WVDC	T. x W. x L.	Cat. No.
3.0	2000	1 1/4 x 3 3/4 x 4 3/4	CR-32
4.0	2000	2 1/4 x 3 3/4 x 3 7/8	CR-42
6.0	2000	3 3/16 x 3 3/4 x 4 1/2	CR-62
10.0	2000	4 5/16 x 3 3/4 x 4 3/4	CR-102
.1	2500	1 3/16 x 2 1/2 x 2 1/2	CR-0125
.5	2500	1 1/4 x 3 3/4 x 3 1/4	CR-0525
1.0	2500	1 3/4 x 3 3/4 x 3 1/4	CR-125
2.0	2500	1 3/4 x 3 3/4 x 4 3/4	CR-225
4.0	2500	4 5/16 x 3 3/4 x 4 3/8	CR-425
.1	3000	1 3/16 x 2 1/2 x 2 1/2	CR-013
.25	3000	1 3/16 x 2 1/2 x 2 7/8	CR-0253
.5	3000	1 3/16 x 2 1/2 x 4 1/4	CR-053
1.0	3000	2 1/4 x 3 3/4 x 3 7/8	CR-13
2.0	3000	3 3/16 x 3 3/4 x 4 1/2	CR-23
4.0	3000	4 5/16 x 3 3/4 x 4 3/4	CR-43
.1	4000	2 1/4 x 3 3/4 x 2 3/4	CR-014
.25	4000	2 1/4 x 3 3/4 x 2 3/4	CR-0254
.5	4000	2 1/4 x 3 3/4 x 3 7/8	CR-054
1.0	4000	2 1/4 x 3 3/4 x 5 1/8	CR-14
2.0	4000	4 5/16 x 3 3/4 x 5 1/8	CR-24
.2	5000	1 3/4 x 3 3/4 x 3 7/8	CR-025
.5	5000	2 1/4 x 3 3/4 x 4 1/2	CR-055
1.0	5000	4 5/16 x 3 3/4 x 4 3/8	CR-15
2.0	5000	4 5/16 x 3 3/4 x 6	CR-25
.1	6000	2 1/4 x 3 3/4 x 3 3/8	CR-0160
.2	6000	1 3/4 x 3 3/4 x 4 1/4	CR-0260
1.0	6000	4 5/16 x 3 3/4 x 7 1/2	CR-160
.1	7500	2 1/4 x 3 3/4 x 3 7/8	CR-0175
.2	7500	1 3/4 x 3 3/4 x 4 3/4	CR-0275

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT PRICES

SCREWBASE PC OILS



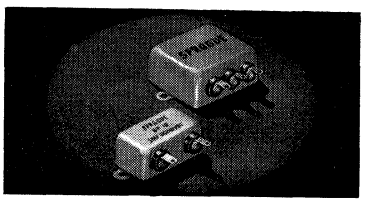
- Oil-Impregnated
- Oil-Filled
- Screwbase Can For Easy Single Hole Mounting
- Small Size — Will Fit Tight Spaces

μF	WVDC	Diam. x Lgth.	Cat. No.
2	600	1 1/2 x 2 7/8	PC-26
3	600	1 1/2 x 3 1/2	PC-36
4	600	1 1/2 x 5 1/4	PC-46
1	1000	1 1/2 x 2 7/8	PC-11
2	1000	1 1/2 x 4 1/2	PC-21
0.5	1500	1 1/2 x 2 3/8	PC-515
1	1500	1 1/2 x 3 7/8	PC-115

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT PRICES

TYPE BP BATHTUB CAPACITORS

- For Applications Where Severe Operating Conditions Are Encountered
- Hermetically Sealed for Extra Protection
- Seamless Drawn Metal Can
- Oil-Filled and Oil-impregnated for Long, Dependable Service Life
- Convenient Mounting Ears are Integral Part of Metal Container



μF	L. x W. x H.	Cat. No.
400 WVDC		
.1	1 13/16 x 1 x 3/4	BP-1
.25	1 13/16 x 1 x 3/4	BP-25
.5	1 13/16 x 1 x 7/8	BP-50
1.0	2 x 1 3/4 x 7/8	BP-10
.1 + .1	1 13/16 x 1 x 3/4	BP-21
.25 + .25	1 13/16 x 1 x 7/8	BP-225
.5 + .5	2 x 1 3/4 x 7/8	BP-250
.1 + .1 + .1	1 13/16 x 1 x 3/4	BP-31
600 WVDC		
.05	1 13/16 x 1 x 3/4	BP-56
.1	1 13/16 x 1 x 3/4	BP-16
.25	1 13/16 x 1 x 3/4	BP-256
.5	1 13/16 x 1 x 7/8	BP-506
1.0	2 x 1 3/4 x 7/8	BP-106
2.0	2 x 2 x 1 1/8	BP-206
.05 + .05	1 13/16 x 1 x 3/4	BP-2056

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT PRICES

μF	L. x W. x H.	Cat. No.
.1 + .1	1 13/16 x 1 x 3/4	BP-216
.25 + .25	1 13/16 x 1 x 7/8	BP-2256
.5 + .5	2 x 1 3/4 x 7/8	BP-2506
1.0 + 1.0	2 x 2 x 1 1/8	BP-116
.1 + .1 + .1	1 13/16 x 1 x 3/4	BP-316
.25 + .25 + .25	2 x 1 3/4 x 7/8	B2-3256
.5 + .5 + .5	2 x 2 x 1 1/8	BP-356
1000 WVDC		
.05	1 13/16 x 1 x 3/4	BP-51
.1	1 13/16 x 1 x 3/4	BP-11
.25	1 13/16 x 1 x 3/4	BP-251
.5	2 x 1 3/4 x 7/8	BP-501
1.0	2 x 2 x 1 1/8	BP-101
.05 + .05	1 13/16 x 1 x 3/4	BP-2051
.1 + .1	1 13/16 x 1 x 3/4	BP-211
.25 + .25	2 x 1 3/4 x 7/8	BP-2251
.5 + .5	2 x 2 x 1 1/8	BP-2501
.1 + .1 + .1	1 13/16 x 1 x 7/8	BP-311
.25 + .25 + .25	2 x 2 x 1 1/8	BP-3251

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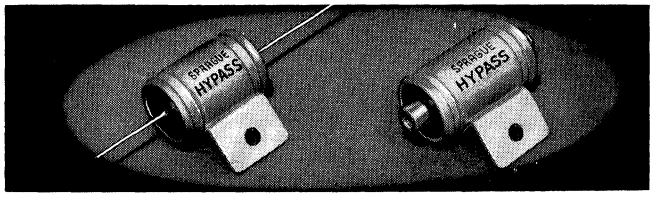
SPRAGUE FILTERS

HYPASS® CAPACITORS



- Exclusive Sprague 3-terminal Network Feed-thru Capacitors
- Bypass V-H-F Currents Where Ordinary Capacitors are Ineffective
- Suppress TVI from Short-wave Transmitters, Diathermy Machines, Electronic Heating Apparatus, etc.
- Eliminate Interference caused by Line-conducted Radiation Between Neighboring TV Sets
- Install Leads in Series with Circuit Being Filtered and Ground the Case

μF	Amps.	WVDC	Dia. x Length	Cat. No.
.5	40	50	1 x 1 13/16	*48P18
.5	60	50	1 x 1 13/16	48P100
.25	20	200	3/4 x 1 13/16	*48P10
.5	20	200	1 x 1 13/16	*48P14
.1	20	250(VAC)	1 1/16 x 1 13/16	*48P9
.1	20	400	1 1/16 x 1 13/16	*48P6
.1	20	400	1 1/16 x 1 13/16	†80P1
.002	15	600	1/4 x 1 3/8	46P12
.005	15	600	1/4 x 1 5/8	46P8
.01	20	600	7/16 x 1 1/4	47P6
.02	20	600	7/16 x 1 1/2	47P8
.1	20	600	1 1/16 x 1 13/16	*48P8
.1	20	600	1 1/16 x 1 13/16	*†80P3
.25	20	600	1 x 1 13/16	*48P12
.5	20	600	1 x 2 1/4	*48P16
.005	20	1000	7/16 x 1 1/4	47P12
.01	20	1000	7/16 x 1 1/2	47P13
.005	20	2500	1 x 1 9/16	47P14
.01	20	2500	1 x 1 9/16	47P15
.002	20	5000	1 x 1 9/16	47P16

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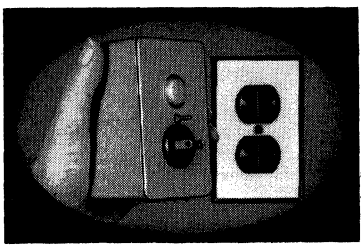
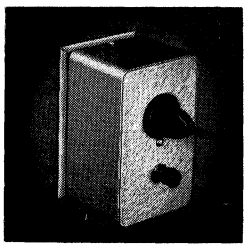
*Has female screw terminals †Bulkhead mounting.

TYPE F-400 MIRACLE FILTEROL®





A LINE FILTER THAT REALLY WORKS

- Effectively Suppresses Radio Interference by Filtering Power Lines of Receivers and Appliances
- Maximum Noise Eliminating Efficiency because of Practically Zero Length of Ground Lead
- Plugs into Standard Duplex Wall Outlet — Captive Screw Fastens Filterol F-400 to Outlet for Safe, Secure Mounting
- Direct Wall-Mounting Provides Neat Installation — No Unsightly Cord — Receiver or Appliance Plugs into Standard Outlet on Face of F-400
- Will Also Operate at Slightly Reduced Efficiency in Older Homes where Wiring is of Knob and Tube or 2-Conductor Non-Metallic Sheathed Cable Type by Using the External Grounding Post Provided for this Purpose
- Handsomely Finished in Tan Hammerloid Baked Enamel
- Rated at 5 Amperes, 125 Volts AC or DC

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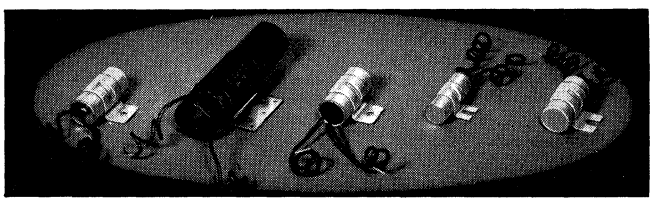
TYPE IF FILTERS



IF-15 IF-11 IF-21 IF-S1 IF-37

IF-15 — TRIPLE-SECTION FILTER for small motor-operated devices such as fans, drills, etc. designed to prevent shocks from discharge of filter capacitors.

IF-11 — DUAL HIGH-CAPACITY FILTER designed for use on motors over 1 hp up to 220 volts ac-dc. Also used on high-current arcing devices.

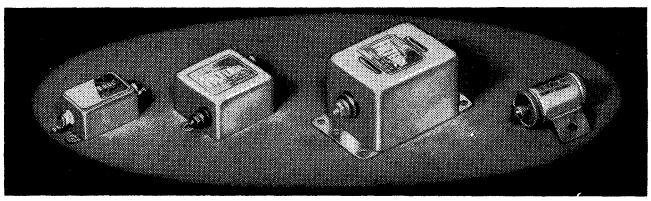
IF-21 — COMPACT DUAL FILTER for use on fractional horsepower motors with case grounded to motor frame. Also used across line terminals of motors.

IF-S1 — SINGLE SECTION 2-LEAD FILTER for use across make-and-break contacts, such as thermostats, circuit breakers, etc.

IF-37 — 3-SECTION DELTA-CONNECTED FILTER especially designed for fluorescent fixtures. Also used on governor-type motors. *UL Approved.*

Cat. No.	Volts AC or DC	Dia. x Length
IF-15	220	1 x 2 3/16
IF-11	220	1 3/8 x 5 1/4
IF-21	220	1 x 2 3/16
IF-S1	220	3/4 x 2 1/16
IF-37	220	1 x 2"

FILTEROL® FILTERS



FILTEROL 1 FILTEROL 2 FILTEROL 3 FILTEROL 4

Filterol Types 1, 2, and 3 — Designed for connection in series with power supply lines to interference-producing devices . . . A 3-terminal network with the case as one terminal . . . The selected filter should have a rating higher than the continuous operating current of the offending device . . . A single Filterol connected to the high side of the line is usually sufficient . . . In severe cases a Filterol in each leg of the power line may be necessary . . . For three or four-wire systems, a Filterol in each wire is necessary.

Filterol Type 4 — A new, exclusive Sprague development incorporating a Sprague HYPASS® Capacitor . . . Provides exceptionally high attenuation at frequencies above 5 megacycles . . . Intended for small devices with continuous current ratings up to 20 amperes.

Cat. No.	Amps.	Volts AC or DC	Size
Filterol 1	1	115	7/8 x 1 1/4 x 1 3/4
Filterol 2	10	115	1 1/8 x 2 x 2
Filterol 3	35	115	1 7/8 x 2 7/8 x 3 1/8
Filterol 4	20	115	1" dia. x 1 13/16" long

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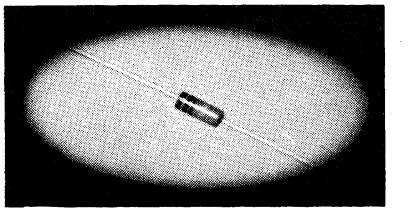
SPRAGUE CAPACITORS

TYPE 252C, MINIATURE MOLDED TUBULAR CERA-MITE® CAPACITORS

- Type 252C Capacitors Meet Basic Requirements for Modern Electronic Packaging
- Fully Molded Construction is Rugged and Offers Excellent Humidity Protection
- Ceramic Dielectric is Mechanically Strong and Electrically Stable
- Cordwood Size Permits Circuit Designer to Use These Capacitors in This New Packaging Concept
- Diameter, .094", Length, .250"
- For Complete Technical Data, See Latest Issue of Sprague Engineering Bulletin 6151

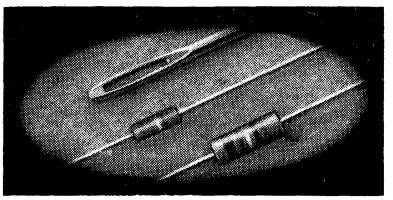


μμF	WVDC	Catalog Number ±5% Tol.	±10% Tol.	±20% Tol.
5	100	—	252C0555R0X9101B	252C0555R0X0101B
8	100		252C0558R0X9101B	—
10	100	252C055100X5101B	252C055100X9101B	252C055100X0101B
15	100	252C027150X5101B	252C027150X9101B	—
18	100	252C027180X5101B	—	—
22	100	252C027220X5101B	252C027220X9101B	252C027220X0101B
27	100	252C027270X5101B	—	—
33	100	252C028330X5101B	252C028330X9101B	—
39	100	252C028390X5101B	—	—
47	100	252C028470X5101B	252C028470X9101B	252C028470X0101B

μμF	WVDC	Catalog Number ±5% Tol.	±10% Tol.	±20% Tol.
56	100	252C028560X5101B	—	—
68	100	252C028680X5101B	252C028680X9101B	—
82	100	252C016820X5101B	—	—
100	100	252C016101X5101B	252C016101X9101B	252C016101X0101B
120	100	252C064121X5101B	—	—
150	100	252C064151X5101B	252C064151X9101B	—
220	100	—	—	252C040221X0101B
330	100	—	—	252C040331X0101B
360	100	—	—	252C040361X0101B

Call Your Sprague Industrial Distributor For Prices

TYPES 262C, 263C MINIATURE MOLDED MONOLYTHIC® CEROD® CERAMIC CAPACITORS



- Cerod Capacitors—Tiny, Molded Cylindrical Ceramics Now in Monolythic Construction. True Miniaturization Without Compromise
- Two Cordwood Sizes Available. Designers Can Make Full Use of This New Packaging Concept
- Ceramic Elements Fully Molded in Thermosetting Resin—Assures Good Mechanical and Electrical Properties Plus Precise Dimensions
- Two Ceramic Formulations Available Including a New Temperature-Stable Body
- Call Your Sprague Industrial Distributor for Quantity Prices
- For Complete Technical Data, See Latest Issue of Sprague Engineering Bulletin 6250

TYPE 262C—STANDARD RATINGS—100 VDC

μμF	Catalog Number ±5% Tol.	±10% Tol.	±20% Tol.
FORMULATION N030			
6.8	—	262C0256R8X9101B	262C0256R8X0101B
8.2	—	262C0258R2X9101B	262C0258R2X0101B
10	262C025100X5101B	262C025100X9100B	262C025100X0101B
12	262C025120X5101B	262C025120X9101B	262C025120X0101B
15	262C025150X5101B	262C025150X9100B	262C025150X0101B
18	262C025180X5101B	262C025180X9101B	262C025180X0101B
22	262C025220X5101B	262C025220X9101B	262C025220X0101B
27	262C025270X5101B	262C025270X9101B	262C025270X0101B
33	262C025330X5101B	262C025330X9101B	262C025330X0101B
39	262C025390X5101B	262C025390X9101B	262C025390X0101B
47	262C025470X5101B	262C025470X9101B	262C025470X0101B
56	262C025560X5101B	262C025560X9101B	262C025560X0101B
68	262C025680X5101B	262C025680X9101B	262C025680X0101B
82	262C025820X5101B	262C025820X9101B	262C025820X0101B
100	262C025101X5101B	262C025101X9101B	262C025101X0101B

μμF	Catalog Number ±5% Tol.	±10% Tol.	±20% Tol.
FORMULATION N030 (Cont.)			
120	262C025121X5101B	262C025121X9101B	262C025121X0101B
150	262C025151X5101B	262C025151X9101B	262C025151X0101B

μμF	Catalog Number ±10% Tol.	±20% Tol.	+80%, −20% Tol.
FORMULATION X5R			
470	262C067471X9101B	262C067471X0101B	262C067471D8101B
680	262C067681X9101B	262C067681X0101B	262C067681D8101B
1000	262C067102X9101B	262C067102X0101B	262C067102D8101B
1500	262C067152X9101B	262C067152X0101B	262C067152D8101B
2200	262C067222X9101B	262C067222X0101B	262C067222D8101B
3300	262C067332X9101B	262C067332X0101B	262C067332D8101B
4700	262C067472X9101B	262C067472X0101B	262C067472D8101B
6800	262C067682X9101B	262C067682X0101B	262C067682D8101B
10000	262C067103X9101B	262C067103X0101B	262C067103D8101B

TYPE 263C—STANDARD RATINGS—100 VDC

μμF	Catalog Number ±5% Tol.	±10% Tol.	±20% Tol.
FORMULATION N030			
180	263C025181X5101B	263C025181X9101B	263C025181X0101B
220	263C025221X5101B	263C025221X9101B	263C025221X0101B
270	263C025271X5101B	263C025271X9101B	263C025271X0101B
330	263C025331X5101B	263C025331X9101B	263C025331X0101B
390	263C025391X5101B	263C025391X9101B	263C025391X0101B
470	263C025471X5101B	263C025471X9101B	263C025471X0101B
560	263C025561X5101B	263C025561X9101B	263C025561X0101B
680	263C025681X5101B	263C025681X9101B	263C025681X0101B

μμF	Catalog Number ±10% Tol.	±20% Tol.	+80%, −20% Tol.
FORMULATION X5R			
15000	263C067153X9101B	263C067153X0101B	263C067153D8101B
22000	263C067223X9101B	263C067223X0101B	263C067223D8101B
33000	263C067333X9101B	263C067333X0101B	263C067333D8101B

DIMENSIONS

Type	Diameter	Length
262C	.090"±.009"	.250"±.015"
263C	.138"±.010"	.390"±.015"

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IND-REM-46A-6611

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SPRAGUE CAPACITORS

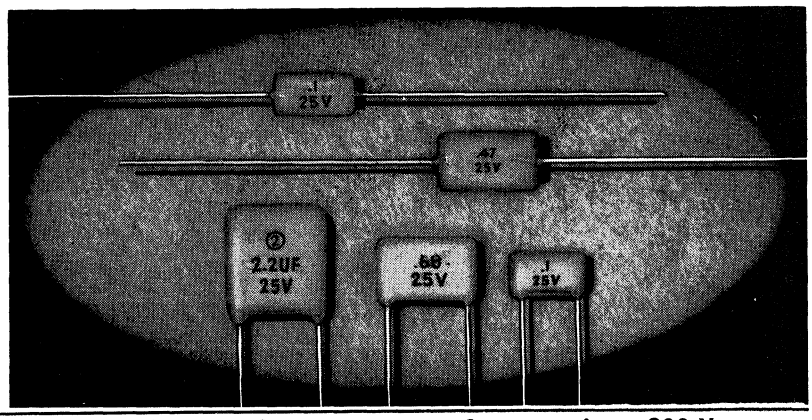
MONOLYTHIC® LAYER-BUILT CERAMIC CAPACITORS

Types 3C and 4C—Formulation N030

- Temperature Compensating Units, N030 Dielectric Offers Greater Capacitance Per Unit Volume and Greater Stability Than Previously Available.
- Highly Reliable, Small in Size, Axial or Radial Leads.
- Temperature Coefficient Guaranteed Less Than ±.6% Between −55C and +125C.

Types 2C, 3C, 4C, 5C—Formulation 023

- High-K General Application—High Capacitances in Small Physical Size, Axial or Radial Leads.
- Well Suited for By-pass and Filtering Applications
- For Complete Technical Data, See Latest Sprague Engineering Bulletin 6212 (N030) or 6201 (023)



Type 3C, 4C Monolythic Ceramic Capacitors—Formulation N030—Temperature Compensating—200 V

μμF	Tol.	Cat. No.
TYPE 3C AXIAL LEADS		
51	5%	3C5105BH1
51	2%	3C5102BH1
56	10%	3C5609BH1
56	5%	3C5605BH1
56	2%	3C5602BH1
62	5%	3C6205BH1
62	2%	3C6202BH1
68	10%	3C6809BH1
68	5%	3C6805BH1
68	2%	3C6802BH1
75	5%	3C7505BH1
75	2%	3C7502BH1
82	10%	3C8209BH1
82	5%	3C8205BH1
82	2%	3C8202BH1
91	5%	3C9105BH1
91	2%	3C9102BH1
100	10%	3C1019BH1
100	5%	3C1015BH1
100	2%	3C1012BH1
110	5%	3C1115BH1
110	2%	3C1112BH1
120	10%	3C1219BH1
120	5%	3C1215BH1
120	2%	3C1212BH1
130	5%	3C1315BH1
130	2%	3C1312BH1
150	10%	3C1519BH1
150	5%	3C1515BH1
150	2%	3C1512BH1
160	5%	3C1615BH1
160	2%	3C1612BH1
180	10%	3C1819BH1
180	5%	3C1815BH1
180	2%	3C1812BH1
200	5%	3C2015BH1
200	2%	3C2012BH1
220	10%	3C2219BH1
220	5%	3C2215BH1
220	2%	3C2212BH1
240	5%	3C2415BH1

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μμF	Tol.	Cat. No.
240	2%	3C2412BH1
270	10%	3C2719BH1
270	5%	3C2715BH1
270	2%	3C2712BH1
300	5%	3C3015BH1
300	2%	3C3012BH1
330	10%	3C3319BH1
330	5%	3C3315BH1
330	2%	3C3312BH1
360	5%	3C3615BH1
360	2%	3C3612BH1
390	10%	3C3919BH1
390	5%	3C3915BH1
390	2%	3C3912BH1
430	5%	3C4315BH1
430	2%	3C4312BH1
470	10%	3C4719BH1
470	5%	3C4715BH1
470	2%	3C4712BH1
510	5%	3C5115BH1
510	2%	3C5112BH1
560	10%	3C5619BH1
560	5%	3C5615BH1
560	2%	3C5612BH1
620	5%	3C6215BH1
620	2%	3C6212BH1
680	10%	3C6819BH1
680	5%	3C6815BH1
680	2%	3C6812BH1
TYPE 4C AXIAL LEADS		
750	5%	4C7515BH1
750	2%	4C7512BH1
820	10%	4C8219BH1
820	5%	4C8215BH1
820	2%	4C8212BH1
910	5%	4C9115BH1
910	2%	4C9112BH1
1000	10%	4C1029BH1
1000	5%	4C1025BH1
1000	2%	4C1022BH1
1100	5%	4C1125BH1
1100	2%	4C1122BH1
1200	10%	4C1229BH1

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μμF	Tol.	Cat. No.
1200	5%	4C1225BH1
1200	2%	4C1222BH1
1300	5%	4C1325BH1
1300	2%	4C1322BH1
1500	10%	4C1529BH1
1500	5%	4C1525BH1
1500	2%	4C1522BH1
1600	5%	4C1625BH1
1600	2%	4C1622BH1
1800	10%	4C1829BH1
1800	5%	4C1825BH1
1800	2%	4C1822BH1
TYPE 3C RADIAL LEADS		
51	5%	3C5105BH3
51	2%	3C5102BH3
56	10%	3C5609BH3
56	5%	3C5605BH3
56	2%	3C5602BH3
62	5%	3C6205BH3
62	2%	3C6202BH3
68	10%	3C6809BH3
68	5%	3C6805BH3
68	2%	3C6802BH3
75	5%	3C7505BH3
75	2%	3C7502BH3
82	10%	3C8209BH3
82	5%	3C8205BH3
82	2%	3C8202BH3
91	5%	3C9105BH3
91	2%	3C9102BH3
100	10%	3C1019BH3
100	5%	3C1015BH3
100	2%	3C1012BH3
110	5%	3C1115BH3
110	2%	3C1112BH3
120	10%	3C1219BH3
120	5%	3C1215BH3
120	2%	3C1212BH3
130	5%	3C1315BH3
130	2%	3C1312BH3
150	10%	3C1519BH3
150	5%	3C1515BH3

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μμF	Tol.	Cat. No.
150	2%	3C1512BH3
160	5%	3C1615BH3
160	2%	3C1612BH3
180	10%	3C1819BH3
180	5%	3C1815BH3
180	2%	3C1812BH3
200	5%	3C2015BH3
200	2%	3C2012BH3
220	10%	3C2219BH3
220	5%	3C2215BH3
220	2%	3C2212BH3
240	5%	3C2415BH3
240	2%	3C2412BH3
270	10%	3C2719BH3
270	5%	3C2715BH3
270	2%	3C2712BH3
300	5%	3C3015BH3
300	2%	3C3012BH3
330	10%	3C3319BH3
330	5%	3C3315BH3
330	2%	3C3312BH3
360	5%	3C3615BH3
360	2%	3C3612BH3
390	10%	3C3919BH3
390	5%	3C3915BH3
390	2%	3C3912BH3
430	5%	3C4315BH3
430	2%	3C4312BH3
470	10%	3C4719BH3
470	5%	3C4715BH3
470	2%	3C4712BH3
510	5%	3C5115BH3
510	2%	3C5112BH3
560	10%	3C5619BH3
560	5%	3C5615BH3
560	2%	3C5612BH3
620	5%	3C6215BH3
620	2%	3C6212BH3
680	10%	3C6819BH3
680	5%	3C6815BH3
680	2%	3C6812BH3
TYPE 4C RADIAL LEADS		
750	5%	4C7515BH3
750	2%	4C7512BH3
820	10%	4C8219BH3

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SPRAGUE CAPACITORS

MONOLYTHIC® CERAMIC CAPACITORS, TYPE 4C RADIAL LEADS (Cont.)

μμF	Tol.	Cat. No.
820	5%	4C8215BH3
820	2%	4C8212BH3
910	5%	4C9115BH3
910	2%	4C9112BH3
1000	10%	4C1029BH3
1000	5%	4C1025BH3
1000	2%	4C1022BH3
1100	5%	4C1125BH3
1100	2%	4C1122BH3
1200	10%	4C1229BH3
1200	5%	4C1225BH3
1200	2%	4C1222BH3
1300	5%	4C1325BH3
1300	2%	4C1322BH3
1500	10%	4C1529BH3
1500	5%	4C1525BH3
1500	2%	4C1522BH3
1600	5%	4C1625BH3
1600	2%	4C1622BH3
1800	10%	4C1829BH3
1800	5%	4C1825BH3
1800	2%	4C1822BH3
2000	5%	4C2025BH3
2000	2%	4C2022BH3
2200	10%	4C2229BH3
2200	5%	4C2225BH3
2200	2%	4C2222BH3
2400	5%	4C2425BH3
2400	2%	4C2422BH3
2700	10%	4C2729BH3
2700	5%	4C2725BH3
2700	2%	4C2722BH3
3000	5%	4C3025BH3
3000	2%	4C3022BH3
3300	10%	4C3329BH3
3300	5%	4C3325BH3
3300	2%	4C3322BH3
3600	5%	4C3625BH3
3600	2%	4C3622BH3
3900	10%	4C3929BH3
3900	5%	4C3925BH3
3900	2%	4C3922BH3
4300	5%	4C4325BH3
4300	2%	4C4322BH3
4700	10%	4C4729BH3
4700	5%	4C4725BH3
4700	2%	4C4722BH3
5100	5%	4C5125BH3
5100	2%	4C5122BH3

Call Your Sprague Industrial Distributor for Current Prices

TYPE 2C, 3C, 4C, 5C Monolythic Ceramic Capacitors
High-K Formulation 023 ±20% Cap. Tol.

μF	VDC	Catalog Number
TYPE 2C RADIAL LEADS		
.01	25	2C023103X0250A3
.015	25	2C023153X0250A3
.022	25	2C023223X0250A3
.033	25	2C023333X0250A3
.047	25	2C023473X0250A3
.068	25	2C023683X0250A3
.1	25	2C023104X0250A3
.15	25	2C023154X0250A3
.22	25	2C023224X0250A3
.33	25	2C023334X0250A3
.47	25	2C023474X0250A3
TYPE 3C RADIAL LEADS		
.01	25	3C023103X0250A3
.015	25	3C023153X0250A3
.022	25	3C023223X0250A3
.033	25	3C023333X0250A3
.047	25	3C023473X0250A3
.068	25	3C023683X0250A3
.1	25	3C023104X0250A3
.15	25	3C023154X0250A3
.22	25	3C023224X0250A3
.33	25	3C023334X0250A3
.47	25	3C023474X0250A3
TYPE 4C RADIAL LEADS		
.15	25	4C023154X0250A3
.22	25	4C023224X0250A3
.33	25	4C023334X0250A3
.47	25	4C023474X0250A3
.68	25	4C023684X0250A3
1.0	25	4C023105X0250A3
1.5	25	4C023155X0250A3
TYPE 5C RADIAL LEADS		
.1	25	5C023104X0250B3
.15	25	5C023154X0250B3
.22	25	5C023224X0250B3
.33	25	5C023334X0250B3
.47	25	5C023474X0250B3
.68	25	5C023684X0250B3
1.0	25	5C023105X0250B3
1.5	25	5C023155X0250B3
2.2	25	5C023225X0250B3
3.3	25	5C023335X0250B3
TYPE 5C RADIAL LEADS		
.1	50	5C023104X0500B3
.15	50	5C023154X0500B3
.22	50	5C023224X0500B3
.33	50	5C023334X0500B3
.47	50	5C023474X0500B3
.68	50	5C023684X0500B3
1.0	50	5C023105X0500B3
1.5	50	5C023155X0500B3
TYPE 3C AXIAL LEADS		
.01	25	3C023103X0250B1
.015	25	3C023153X0250B1
.022	25	3C023223X0250B1
.033	25	3C023333X0250B1
.047	25	3C023473X0250B1
.068	25	3C023683X0250B1
.1	25	3C023104X0250B1
.15	25	3C023154X0250B1
.22	25	3C023224X0250B1
TYPE 4C AXIAL LEADS		
.15	25	4C023154X0250B1
.22	25	4C023224X0250B1
.33	25	4C023334X0250B1
.47	25	4C023474X0250B1
.68	25	4C023684X0250B1

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

TYPE 2C, 3C, 4C, 5C Monolythic Ceramic Capacitors
Formulation 067 ±10% Cap. Tol. 100 VDC

- Temperature-Stable; Developed For Application Requiring Stability of Capacitance Over a Wide Temperature Range
- High Capacitance Values in Small Physical Size
- For Complete Technical Data, See Latest Issue of Engineering Bulletin 6205

μF	Catalog Number
TYPE 2C RADIAL LEADS	
0.0018	2C067182X9191A3
0.0022	2C067222X9191A3
0.0027	2C067272X9191A3
0.0033	2C067332X9101A3
0.0039	2C067392X9101A3
0.0047	2C067472X9101A3
0.0056	2C067562X9101A3
0.0068	2C067682X9101A3
0.0082	2C067822X9101A3
0.01	2C067103X9101A3
0.015	2C067153X9101A3
0.018	2C067183X9101A3
0.022	2C067223X9101A3
0.033	2C067333X9101A3
0.039	2C067393X9101A3
0.047	2C067473X9101A3
0.056	2C067563X9101A3
0.068	2C067683X9101A3
0.082	2C067823X9101A3
0.01	2C067104X9101A3
TYPE 3C RADIAL LEADS	
0.0027	3C067272X9101A3
0.0033	3C067332X9101A3
0.0039	3C067392X9101A3
0.0047	3C067472X9101A3
0.0056	3C067562X9101A3
0.0068	3C067682X9101A3
0.0082	3C067822X9101A3
0.010	3C067103X9101A3
0.012	3C067123X9101A3
0.015	3C067153X9101A3
0.018	3C067183X9101A3
0.022	3C067223X9101A3
0.027	3C067273X9101A3
TYPE 4C RADIAL LEADS	
0.033	4C067333X9101A3
0.039	4C067393X9101A3
0.047	4C067473X9101A3
0.056	4C067563X9101A3
0.068	4C067683X9101A3
0.082	4C067823X9101A3
0.10	4C067104X9101A3
0.12	4C067124X9101A3
0.15	4C067154X9101A3
0.18	4C067184X9101A3
TYPE 5C RADIAL LEADS	
0.027	5C067273X9101B3
0.033	5C067333X9101B3
0.039	5C067393X9101B3
0.047	5C067473X9101B3
0.056	5C067563X9101B3
0.068	5C067683X9101B3
0.082	5C067823X9101B3
0.1	5C067104X9101B3
0.12	5C067124X9101B3
0.15	5C067154X9101B3
0.18	5C067184X9101B3
0.22	5C067224X9101B3
0.27	5C067274X9101B3
0.33	5C067334X9101B3
0.39	5C067394X9101B3
0.47	5C067474X9101B3
0.56	5C067564X9101B3
TYPE 3C AXIAL LEADS	
0.0027	3C067272X9101B1
0.0033	3C067332X9101B1
0.0039	3C067392X9101B1
0.0047	3C067472X9101B1
0.0056	3C067562X9101B1
0.0068	3C067682X9101B1
0.0082	3C067822X9101B1
0.010	3C067103X9101B1
0.012	3C067123X9101B1
0.015	3C067153X9101B1
0.018	3C067183X9101B1
0.022	3C067223X9101B1
0.027	3C067273X9101B1
TYPE 4C AXIAL LEADS	
0.033	4C067333X9101B1
0.039	4C067393X9101B1
0.047	4C067473X9101B1
0.056	4C067563X9101B1
0.068	4C067683X9101B1
0.082	4C067823X9101B1
0.10	4C067104X9101B1
0.12	4C067124X9101B1
0.15	4C067154X9101B1
0.18	4C067184X9101B1

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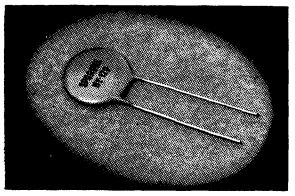
SPRAGUE CAPACITORS

HYPERCON® CERAMIC DISCS



- Superior to Electrolytic Capacitors of Similar Capacitance Values because of the Very Low Power Factor of Hypercons
- Ultra-miniature Ceramic Discs Ideal for use in Transistorized Circuitry
- Designed for By-pass and Coupling Applications but Particularly Well-suited for any Low Voltage use Where High Capacitance and Low Power Factor are Important Considerations
- Tolerance: +80−20%

μF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	D. x T.
3 VOLTS D-C			
.1	HY-120	C052B3R0C104Z	1/4 x 5/32
.22	HY-125	C052B3R0E224Z	5/16 x 5/32
.47	HY-130	C052B3R0G474Z	7/16 x 5/32
.68	HY-132	C052B3R0H684Z	1/2 x 5/32
1.0	HY-135	C052B3R0K105Z	5/8 x 5/32
2.2	HY-150	C052B3R0P225Z	7/8 x 5/32
10 VOLTS D-C			
.047	HY-310	C052B120E473Z	5/16 x 5/32
.068	HY-315	C052B120F683Z	3/8 x 5/32
.1	HY-320	C052B120G104Z	7/16 x 5/32
.22	HY-325	C052B120J224Z	9/16 x 5/32
.33	HY-327	C052B120L334Z	11/16 x 5/32
.47	HY-330	C052B120P474Z	7/8 x 5/32

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

μF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	D. x T.
16 VOLTS D-C			
.01	HY-420	C069B160C103Z	1/4 x 5/32
.022	HY-425	C069B160E223Z	5/16 x 5/32
.033	HY-430	C069B160F333Z	3/8 x 5/32
.047	HY-435	C069B160G473Z	7/16 x 5/32
.068	HY-440	C069B160H683Z	1/2 x 5/32
.1	HY-450	C069B160J104Z	9/16 x 5/32
25 VOLTS D-C			
.01	HY-520	C069B250E103Z	5/16 x 5/32
.022	HY-525	C069B250F223Z	3/8 x 5/32
.033	HY-530	C069B250G333Z	7/16 x 5/32
.047	HY-535	C069B250H473Z	1/2 x 5/32
.068	HY-540	C069B250J683Z	9/16 x 5/32
.1	HY-550	C069B250L104Z	11/16 x 5/32

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

SPECIAL APPLICATION CERA-MITE® DISC CAPACITORS

DISC CERAMICS FOR AC APPLICATIONS

- Rated at 125 VAC
- Standard Tolerance ±20%
- For AC Line Bypass Application—Unlike Standard DC Rated Discs. Type 125L Meets 1500 Volt AC Flash Test— Type 125M Meets UL 10KV Discharge Test.
- Call Your Sprague Industrial Distributor for Current Quantity Prices

μF	Sprague Products Catalog No.	Sprague O.E.M. Part No.	D. x L.
.001	125L-D10	19C251	3/8 x 7/32
.0015	125L-D15	19C252	3/8 x 7/32
.002	125L-D20	19C253	3/8 x 7/32
.0047	125L-D47	29C145	9/16 x 7/32
.005	125L-D50	29C145A	9/16 x 7/32
.01	125L-S10	36C218	3/4 x 7/32
.02	125L-S20	36C220	3/4 x 1/4
2 x .005	125L-2D50	29C147	9/16 x 1/4
2 x .01	125L-2S10	36C219	3/4 x 1/4
470μμF	125M-T47	20C235	7/16 x 1/4
.001	125M-D10	20C186	7/16 x 1/4
.0015	125M-D15	55C45	1/2 x 1/4
.002	125M-D20	29C304	9/16 x 1/4
.0047	125M-D47	33C114	11/16 x 1/4
.005	125M-D50	33C115	11/16 x 1/4
.01	125M-S10	41C157	7/8 x 1/4
.02	125M-S20	41C160	7/8 x 1/4

MINIATURIZED DISC CERAMIC CAPACITORS FOR TRANSISTORIZED CIRCUITRY

- For Coupling and By-Pass Applications

Type TG Standard Tolerance ±20%

μF	Volts	Sprague Products Catalog Number	Sprague O.E.M. Part Number	T x D
.005	50	TG-D50	40C172A5	1/8 x 9/32
.01	50	TG-S10	19C214A6	1/8 x 11/32
.02	50	TG-S20	55C21A2	1/8 x 15/32
.025	50	TG-S25	55C22A2	1/8 x 15/32
.03	50	TG-S30	29C229A	1/8 x 9/16
.05	50	TG-S50	55C23A1	1/8 x 1/2
.1	50	TG-P10	33C41A3	1/8 x 11/16
HIGH K TYPE				
.005	200	TH-D50	19C384	5/32 x 3/8
.01	200	TH-S10	19C385	5/32 x 3/8
.02	200	TH-S20	29C371	5/32 x 9/16
.025	200	TH-S25	44C85	5/32 x 5/8
.03	200	TH-S30	33C159	5/32 x 11/16
.05	200	TH-S50	33C160	5/32 x 11/16
.1	200	TH-P10	41C208	5/32 x 7/8

Call Your Sprague Industrial Distributor For Quantity Prices

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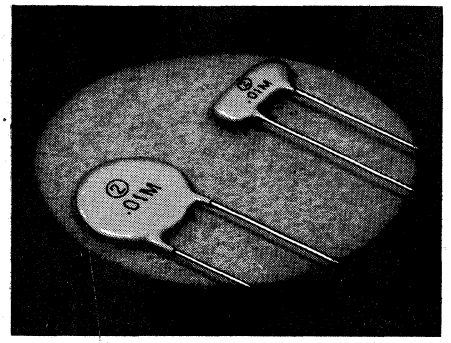
SPRAGUE CAPACITORS

CERA-MITE® CERAMIC CAPACITORS



- Tiny, Tough, Dependable In Every Application
- Low Self-Inductance Of Silvered Flat-plate Design Means Very High By-pass Efficiency In All TV Circuits
- Flat-plate Construction Permits Higher Self-resonant Frequency Than Tubular Ceramic Or Molded Mica Capacitors
- Tough Moisture-proof Coating Protects Against Short-circuiting And Assures Good Performance Under Severe Conditions Of Humidity And Vibration
- Cera-mite Capacitors Easily Fit Into Tight Spaces, Even Across Subminiature Tube Sockets
- Designed For 85C (185F) Continuous Operation
- **Call your Sprague Industrial Distributor for Current Quantity Prices**

GENERAL APPLICATION TYPES

- Excellent Where Temperature Coefficient Is Not Important, Such As By-pass and Coupling Applications
- Ideal For Replacing Older Types Of General Application Capacitors Such as Molded Micas, Tubular Ceramics, etc.

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No	Size T. x W. x L.
500 WVDC (plates) ±20% Tol.			
470	5GAB-T47*	35C11A1	5/32 x 9/32 x 1 1/32
.001μF	5GAB-D10*	35C35	5/32 x 9/32 x 1 1/32
.0022	5GAB-D22*	35C34	5/32 x 9/32 x 1 1/32
.0047	5GAB-D47*	25C166	5/32 x 9/32 x 9/16
.01	5GAB-S10	25C167	7/32 x 9/32 x 9/16
.022	5GAB-S22	38C32	5/32 x 9/16 x 1 3/16
.047	5GAB-S47	42C8A	5/32 x 27/32 x 1 1/8
.1	5GAB-P10	42C9A	7/32 x 27/32 x 1 1/8
.15	5GAB-P15	112C9	7/32 x 1 1/32 x 1 5/8

*Axial Leads

	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
1000 WVDC (discs) ±20% Tol.			
5	5GA-V50	40C32A4	5/16 x 5/32
6	5GA-V60	40C103	5/16 x 5/32
7.5	5GA-V75	40C155	5/16 x 5/32
8	5GA-V80	40C38A	5/16 x 5/32
10	5GA-Q10	40C67A	5/16 x 5/32
12	5GA-Q12	40C138	5/16 x 5/32
15	5GA-Q15	40C65A	5/16 x 5/32
18	5GA-Q18	40C132A	5/16 x 5/32
20	5GA-Q20	40C114	5/16 x 5/32
22	5GA-Q22	40C16A2	5/16 x 5/32
25	5GA-Q25	40C113A1	5/16 x 5/32
27	5GA-Q27	40C153	5/16 x 5/32
30	5GA-Q30	40C111A	5/16 x 5/32
33	5GA-Q33	40C42A	5/16 x 5/32
39	5GA-Q39	40C43A	5/16 x 5/32
47	5GA-Q47	40C44A	5/16 x 5/32
50	5GA-Q50	40C89	5/16 x 5/32
56	5GA-Q56	40C130A3	5/16 x 5/32
68	5GA-Q68	40C45A	5/16 x 5/32
75	5GA-Q75	40C46A	5/16 x 5/32
82	5GA-Q82	40C47A	5/16 x 5/32
91	5GA-Q91	40C112	5/16 x 5/32
100	5GA-T10	40C200	5/16 x 5/32
120	5GA-T12	40C91	5/16 x 5/32
130	5GA-T13	40C147	5/16 x 5/32
150	5GA-T15	40C202	5/16 x 5/32
180	5GA-T18	40C99	5/16 x 5/32
200	5GA-T20	40C102	5/16 x 5/32

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
1000 WVDC (discs) (cont.)			
220	5GA-T22	40C204	5/16 x 5/32
240	5GA-T24	40C167	5/16 x 5/32
250	5GA-T25	40C101	5/16 x 5/32
270	5GA-T27	40C93	5/16 x 5/32
300	5GA-T30	40C100	5/16 x 5/32
330	5GA-T33	40C207	5/16 x 5/32
350	5GA-T35	40C146	5/16 x 5/32
360	5GA-T36	40C154	5/16 x 5/32
390	5GA-T39	40C95	5/16 x 5/32
400	5GA-T40	40C104	5/16 x 5/32
470	5GA-T47	40C209A	5/16 x 5/32
500	5GA-T50	40C232A	5/16 x 5/32
560	5GA-T56	40C233A	5/16 x 5/32
600	5GA-T60	40C305	5/16 x 5/32
680	5GA-T68	40C212A	5/16 x 5/32
750	5GA-T75	40C235A	5/16 x 5/32
800	5GA-T80	40C213A	5/16 x 5/32
820	5GA-T82	40C237A	5/16 x 5/32
.001μF	5GA-D10	C023B102E102M	5/16 x 5/32
.0012	5GA-D12	C023B102E122M	5/16 x 5/32
.0013	5GA-D13	———	5/16 x 5/32
.0015	5GA-D15	C023B102E152M	5/16 x 5/32
.0016	5GA-D16	———	3/8 x 5/32
.0018	5GA-D18	C023B102F182M	3/8 x 5/32
.002	5GA-D20	C023B102F202M	3/8 x 5/32
.0022	5GA-D22	C023B102F222M	3/8 x 5/32
.0025	5GA-D25	———	7/16 x 5/32
.0027	5GA-D27	———	7/16 x 5/32
.003	5GA-D30	———	7/16 x 5/32
.0033	5GA-D33	C023B102G332M	7/16 x 5/32
.0039	5GA-D39	C023B102G392M	7/16 x 5/32
.004	5GA-D40	———	9/16 x 5/32
.0043	5GA-D43	———	9/16 x 5/32
.0047	5GA-D47	C023B102H472M	1/2 x 5/32
.005	5GA-D50	C023B102H502M	1/2 x 5/32
.01	5GA-S10	C023A102K103M	5/8 x 5/32
.015	5GA-S15	C023A102M153M	3/4 x 5/32

μF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
500 WVDC (discs) ±20% Tol.			
.02	5GA-S20	C023A102P203M	7/8 x 5/32
.04	5GA-S40	44C124	1 1/16 x 3/16
.05	5GA-S50	33C17A	1 1/16 x 3/16
.1	5GA-P10	41C92A10	7/8 x 3/16
3000 WVDC (discs) ±20% Tol.			
1.5μμF	30GA-V15	19C306	3/8 x 1/4
3.3	30GA-V33	19C307	3/8 x 1/4
4.7	30GA-V47	19C308	3/8 x 1/4
5.0	30GA-V50	19C309	3/8 x 1/4
6.0	30GA-V60	19C310	3/8 x 1/4
6.8	30GA-V68	19C311	3/8 x 1/4
7.5	30GA-V75	19C291	3/8 x 1/4
8.2	30GA-V82	19C290	3/8 x 1/4
10	30GA-Q10	19C312	3/8 x 1/4
12	30GA-Q12	19C313	3/8 x 1/4
15	30GA-Q15	19C314	3/8 x 1/4
18	30GA-Q18	19C292	3/8 x 1/4
20	30GA-Q20	19C315	3/8 x 1/4
22	30GA-Q22	19C316	3/8 x 1/4
25	30GA-Q25	19C317	3/8 x 1/4
27	30GA-Q27	19C318	3/8 x 1/4
30	30GA-Q30	19C319	3/8 x 1/4
33	30GA-Q33	19C320	3/8 x 1/4
39	30GA-Q39	19C321	3/8 x 1/4
47	30GA-Q47	19C322	3/8 x 1/4
50	30GA-Q50	19C323	3/8 x 1/4
56	30GA-Q56	19C324	3/8 x 1/4
60	30GA-Q60	19C325	3/8 x 1/4
62	30GA-Q62	19C326	3/8 x 1/4
68	30GA-Q68	19C327	3/8 x 1/4
75	30GA-Q75	19C328	3/8 x 1/4
82	30GA-Q82	20C184	7/16 x 1/4
100	30GA-T10	20C43	7/16 x 1/4
120	30GA-T12	20C44	7/16 x 1/4
150	30GA-T15	20C45	7/16 x 1/4
180	30GA-T18	20C46	7/16 x 1/4
200	30GA-T20	20C47	7/16 x 1/4

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SPRAGUE CAPACITORS

CERA-MITE® CERAMIC CAPACITORS, continued

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
3000 WVDC (cont.)			
220	30GA-T22	20C48	7/16 x 1/4
250	30GA-T25	20C49	7/16 x 1/4
270	30GA-T27	20C50	7/16 x 1/4
300	30GA-T30	20C51	7/16 x 1/4
330	30GA-T33	20C28A	7/16 x 1/4
390	30GA-T39	20C176	7/16 x 1/4
400	30GA-T40	20C175	7/16 x 1/4
470	30GA-T47	29C289	19/32 x 1/4
500	30GA-T50	29C90	19/32 x 1/4
560	30GA-T56	29C290	19/32 x 1/4
680	30GA-T68	29C288	19/32 x 1/4
750	30GA-T75	29C298	19/32 x 1/4
820	30GA-T82	29C299	19/32 x 1/4
.001 μF	30GA-D10	29C300	19/32 x 1/4
.0012	30GA-D12	29C301	19/32 x 1/4
.0015	30GA-D15	29C302	19/32 x 1/4
.002	30GA-D20	29C303	19/32 x 1/4
.0022	30GA-D22	29C255A	19/32 x 1/4
.0025	30GA-D25	44C63	21/32 x 1/4
.0027	30GA-D27	44C65	21/32 x 1/4
.003	30GA-D30	33C31A1	11/16 x 1/4
.0033	30GA-D33	33C32A2	11/16 x 1/4
.0039	30GA-D39	36C155A	25/32 x 1/4
.004	30GA-D40	36C78A	25/32 x 1/4
.0047	30GA-D47	36C339	25/32 x 1/4
.005	30GA-D50	36C124A	25/32 x 1/4
.006	30GA-D60	41C34A	27/32 x 1/4
.0068	30GA-D68	41C153	27/32 x 1/4
.008	30GA-D80	41C151	27/32 x 1/4
.0082	30GA-D82	41C150	27/32 x 1/4
.01	30GA-S10	41C121A2	27/32 x 1/4
6000 WVDC (discs) ±20% Tol.			
1.5	60GA-V15	29C406	9/16 x 5/16
4.7	60GA-V47	29C407	9/16 x 5/16
6.8	60GA-V68	29C408	9/16 x 5/16
8.2	60GA-V82	29C409	9/16 x 5/16
10	60GA-Q10	29C410	9/16 x 5/16
12	60GA-Q12	29C411	9/16 x 5/16
15	60GA-Q15	29C412	9/16 x 5/16
18	60GA-Q18	29C413	9/16 x 5/16
20	60GA-Q20	29C414	9/16 x 5/16
22	60GA-Q22	29C415	9/16 x 5/16
25	60GA-Q25	29C416	9/16 x 5/16
27	60GA-Q27	29C417	9/16 x 5/16
30	60GA-Q30	29C418	9/16 x 5/16
33	60GA-Q33	29C419	9/16 x 5/16
39	60GA-Q39	29C420	9/16 x 5/16
47	60GA-Q47	29C421	9/16 x 5/16
50	60GA-Q50	29C422	9/16 x 5/16
56	60GA-Q56	29C423	9/16 x 5/16
60	60GA-Q60	29C424	9/16 x 5/16
68	60GA-Q68	29C425	9/16 x 5/16
75	60GA-Q75	29C426	9/16 x 5/16
82	60GA-Q82	29C427	9/16 x 5/16
100	60GA-T10	29C428	9/16 x 5/16
120	60GA-T12	29C429	9/16 x 5/16
150	60GA-T15	33C187	11/16 x 5/16
180	60GA-T18	33C188	11/16 x 5/16
200	60GA-T20	33C189	11/16 x 5/16
220	60GA-T22	33C190	11/16 x 5/16

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
6000 WVDC (cont.)			
250	60GA-T25	33C191	11/16 x 5/16
270	60GA-T27	33C192	11/16 x 5/16
300	60GA-T30	36C265	3/4 x 5/16
330	60GA-T33	36C266	3/4 x 5/16
390	60GA-T39	41C9A1	7/8 x 5/16
400	60GA-T40	41C142	7/8 x 5/16
470	60GA-T47	41C80A1	7/8 x 5/16
500	60GA-T50	33C185	11/16 x 5/16
560	60GA-T56	33C186	11/16 x 5/16
680	60GA-T68	33C107	11/16 x 5/16
750	60GA-T75	33C108	11/16 x 5/16
820	60GA-T82	33C109	11/16 x 5/16
.001 μF	60GA-D10	33C90A	11/16 x 5/16
.0012	60GA-D12	33C101	11/16 x 5/16
.0015	60GA-D15	36C253A	3/4 x 5/16
.0022	60GA-D22	41C152	7/8 x 5/16
.0025	60GA-D25	41C250	7/8 x 5/16
.0027	60GA-D27	41C251	7/8 x 5/16
.003	60GA-D30	41C252	7/8 x 5/16
.0033	60GA-D33	41C253	7/8 x 5/16
.0039	60GA-D39	41C254	7/8 x 5/16
.0047	60GA-D47	41C255	7/8 x 5/16

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
7500 WVDC (discs ±20% Tol.			
4.7	75GA-V47	29C387	9/16 x 5/16
8.2	75GA-V82	29C380	9/16 x 5/16
10	75GA-Q10	29C382	9/16 x 5/16
12	75GA-Q12	29C383	9/16 x 5/16
15	75GA-Q15	29C378	9/16 x 5/16
18	75GA-Q18	29C379	9/16 x 5/16
20	75GA-Q20	29C405	9/16 x 5/16
22	75GA-Q22	29C118A	9/16 x 5/16
30	75GA-Q30	29C418A	9/16 x 5/16
33	75GA-Q33	29C419A	9/16 x 5/16
47	75GA-Q47	29C381	9/16 x 5/16
56	75GA-Q56	29C30A	9/16 x 5/16
100	75GA-T10	33C56A2	11/16 x 5/16
220	75GA-T22	33C224	11/16 x 5/16
470	75GA-T47	33C169	11/16 x 5/16
500	75GA-T50	44C89	21/32 x 5/16
560	75GA-T56	44C90	21/32 x 5/16
680	75GA-T68	44C92	21/32 x 5/16
750	75GA-T75	33C175	11/16 x 5/16
820	75GA-T82	33C177	11/16 x 5/16
.001 μF	75GA-D10	33C178	11/16 x 5/16
.0012	75GA-D12	36C334	3/4 x 5/16
.0015	75GA-D15	41C221	7/8 x 5/16
.0018	75GA-D18	41C223	7/8 x 5/16
.002	75GA-D20	41C224	7/8 x 5/16
.0022	75GA-D22	41C225	7/8 x 5/16
.0025	75GA-D25	41C226	7/8 x 5/16

NPO TYPES

- Zero Temperature-coefficient Capacitors Used Where Capacitance Change with Temperature is Undesirable
- Superior to Silvered-mica Types in Stability, High "Q," and Insulation Resistance
- Rated at **1000 WVDC**
- Standard Capacitance Tolerance of ±5%
- Units listed below are discs

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
1.0	10TCC-V10	C030B102S1R0D	3/8 x 1/4
1.2	10TCC-V12	C030B102S1R2D	3/8 x 1/4
1.5	10TCC-V15	C030B102S1R5D	3/8 x 1/4
1.8	10TCC-V18	C030B102S1R8D	3/8 x 1/4
2.2	10TCC-V22	C030B102S2R2D	3/8 x 1/4
2.7	10TCC-V27	C030B102S2R7D	3/8 x 1/4
3.0	10TCC-V30	C030B102S3R0D	3/8 x 1/4
3.3	10TCC-V33	C030B102E3R3D	5/16 x 5/32
3.9	10TCC-V39	C030B102E3R9D	5/16 x 5/32
4.7	10TCC-V47	C030B102E4R7D	5/16 x 5/32
5.0	10TCC-V50	C030B102E5R0D	5/16 x 5/32
5.6	10TCC-V56	C030B102E5R6D	5/16 x 5/32
6.8	10TCC-V68	C030B102E6R8D	5/16 x 5/32
8.2	10TCC-V82	C030B102E8R2D	5/16 x 5/32
10	10TCC-Q10	C030B102E100J	5/16 x 5/32
12	10TCC-Q12	C030B102E120J	5/16 x 5/32
15	10TCC-Q15	C030B102E150J	5/16 x 5/32
18	10TCC-Q18	C030B102F180J	3/8 x 5/32
20	10TCC-Q20	C030B102F200J	3/8 x 5/32
22	10TCC-Q22	C030B102F220J	3/8 x 5/32
25	10TCC-Q25	C030B102F250J	3/8 x 5/32
27	10TCC-Q27	C030B102G270J	7/16 x 5/32

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
30	10TCC-Q30	C030B102G300J	7/16 x 5/32
33	10TCC-Q33	C030B102G330J	7/16 x 5/32
39	10TCC-Q39	C030B102G390J	7/16 x 5/32
47	10TCC-Q47	C030B102H470J	1/2 x 5/32
50	10TCC-Q50	C030B102H500J	1/2 x 5/32
56	10TCC-Q56	C030A102J560J	9/16 x 5/32
68	10TCC-Q68	C030A102J680J	9/16 x 5/32
75	10TCC-Q75	C030A102J750J	9/16 x 5/32
82	10TCC-Q82	C030A102K820J	5/8 x 5/32
100	10TCC-T10	C030A102L101J	11/16 x 5/32
120	10TCC-T12	C030A102L121J	11/16 x 5/32
150	10TCC-T15	C030A102M151J	3/4 x 5/32
175	10TCC-T175	———	7/8 x 5/32
180	10TCC-T18	C030A102P181J	7/8 x 5/32
200	10TCC-T20	C030A102P201J	7/8 x 5/32
220	10TCC-T22	———	7/8 x 5/32
270	10TCC-T27	———	7/8 x 5/32
300	10TCC-T30	———	7/8 x 5/32
330	10TCC-T33	———	7/8 x 7/32
390	10TCC-T39	———	7/8 x 7/32

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SPRAGUE CAPACITORS

CERA-MITE® CERAMIC CAPACITORS, continued

TEMPERATURE-COMPENSATING TYPES

- Eliminate oscillator drift in TV, f-m, v-h-f, and a-m receivers
- Negative Temperature Coefficient is 30 ppm/°C for N030 types, 80 ppm/°C for N080 types, 150 ppm/°C for N150 types, 220 ppm/°C for N220 types, 330 ppm/°C for N330 types, 470 ppm/°C for N470 types, and 750 ppm/°C for N750 types
- Rated at **1000 WVDC**
- Standard Capacitance Tolerance ±5%

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
	N030		
1.0	10TCM-V10	C025B102S1R0D	3/8 x 1/4
1.2	10TCM-V12	C025B102S1R2D	3/8 x 1/4
1.5	10TCM-V15	C025B102S1R5D	3/8 x 1/4
1.8	10TCM-V18	C025B102S1R8D	3/8 x 1/4
2.2	10TCM-V22	C025B102S2R2D	3/8 x 1/4
2.7	10TCM-V27	C025B102S2R7D	3/8 x 1/4
3.0	10TCM-V30	C025B102S3R0D	3/8 x 1/4
3.3	10TCM-V33	C025B102S3R3D	3/8 x 1/4
3.9	10TCM-V39	C025B102S3R9D	3/8 x 1/4
4.7	10TCM-V47	C025B102E4R7D	5/16 x 5/32
5.0	10TCM-V50	C025B102E5R0D	5/16 x 5/32
5.6	10TCM-V56	C025B102E5R6D	5/16 x 5/32
6.8	10TCM-V68	C025B102E6R8D	5/16 x 5/32
8.2	10TCM-V82	C025B102E8R2D	5/16 x 5/32
10	10TCM-Q10	C025B102E100J	5/16 x 5/32
12	10TCM-Q12	C025B102E120J	5/16 x 5/32
15	10TCM-Q15	C025B102E150J	5/16 x 5/32
18	10TCM-Q18	C025B102F180J	3/8 x 5/32
20	10TCM-Q20	C025B102F200J	3/8 x 5/32
22	10TCM-Q22	C025B102F220J	3/8 x 5/32
25	10TCM-Q25	C025B102F250J	3/8 x 5/32
27	10TCM-Q27	C025B102G270J	7/16 x 5/32
30	10TCM-Q30	C025B102G300J	7/16 x 5/32
33	10TCM-Q33	C025B102G330J	7/16 x 5/32
39	10TCM-Q39	C025B102G390J	7/16 x 5/32
47	10TCM-Q47	C025B102H470J	1/2 x 5/32
50	10TCM-Q50	C025B102H500J	1/2 x 5/32
56	10TCM-Q56	C025B102H560J	1/2 x 5/32
68	10TCM-Q68	C025A102J680J	9/16 x 5/32
75	10TCM-Q75	C025A102J750J	9/16 x 5/32
82	10TCM-Q82	C025A102K820J	5/8 x 5/32
100	10TCM-T10	C025A102K101J	5/8 x 5/32
120	10TCM-T12	C025A102L121J	11/16 x 5/32
150	10TCM-T15	C025A102M151J	3/4 x 5/32
175	10TCM-T175	———	3/4 x 5/32
180	10TCM-T18	C025A102P181J	7/8 x 5/32
200	10TCM-T20	C025A102P201J	7/8 x 5/32
220	10TCM-T22	C025A102P221J	7/8 x 5/32
270	10TCM-T27	———	7/8 x 5/32
300	10TCM-T30	———	7/8 x 5/32
330	10TCM-T33	———	7/8 x 7/32
390	10TCM-T39	———	7/8 x 7/32
	N080		
2.2	10TCN-V22	C026B102S2R2D	3/8 x 1/4
2.7	10TCN-V27	C026B102S2R7D	3/8 x 1/4
3.0	10TCN-V30	C026B102S3R0D	3/8 x 1/4
3.3	10TCN-V33	C026B102S3R3D	3/8 x 1/4
3.9	10TCN-V39	C026B102S3R9D	3/8 x 1/4
4.7	10TCN-V47	C026B102S4R7D	3/8 x 1/4
5.0	10TCN-V50	C026B102E5R0D	5/16 x 5/32
5.6	10TCN-V56	C026B102E5R6D	5/16 x 5/32
6.8	10TCN-V68	C026B102E6R8D	5/16 x 5/32
8.2	10TCN-V82	C026B102E8R2D	5/16 x 5/32
10	10TCN-Q10	C026B102E100J	5/16 x 5/32
12	10TCN-Q12	C026B102E120J	5/16 x 5/32
15	10TCN-Q15	C026B102E150J	5/16 x 5/32
18	10TCN-Q18	C026B102F180J	3/8 x 5/32
20	10TCN-Q20	C026B102F200J	3/8 x 5/32
22	10TCN-Q22	C026B102F220J	3/8 x 5/32
25	10TCN-Q25	C026B102F250J	3/8 x 5/32
27	10TCN-Q27	C026B102F270J	3/8 x 5/32
30	10TCN-Q30	C026B102G300J	7/16 x 5/32
33	10TCN-Q33	C026B102G330J	7/16 x 5/32
39	10TCN-Q39	C026B102G390J	7/16 x 5/32
47	10TCN-Q47	C026B102H470J	1/2 x 5/32
50	10TCN-Q50	C026B102H500J	1/2 x 5/32
56	10TCN-Q56	C026B102H560J	1/2 x 5/32
68	10TCN-Q68	C026A102J680J	9/16 x 5/32
75	10TCN-Q75	C026A102J750J	9/16 x 5/32
82	10TCN-Q82	C026A102J820J	9/16 x 5/32
100	10TCN-T10	C026A102K101J	5/8 x 5/32
120	10TCN-T12	C026A102L121J	11/16 x 5/32
150	10TCN-T15	C026A102L151J	11/16 x 5/32
175	10TCN-T175	———	7/8 x 5/32
180	10TCN-T18	C026A102P181J	7/8 x 5/32
200	10TCN-T20	C026A102P201J	7/8 x 5/32
220	10TCN-T22	C026A102P221J	7/8 x 5/32
270	10TCN-T27	———	7/8 x 5/32
300	10TCN-T30	———	7/8 x 5/32
330	10TCN-T33	———	7/8 x 5/32
390	10TCN-T39	———	7/8 x 7/32
470	10TCN-T47	———	7/8 x 7/32
	N080 (cont.)		
30	10TCN-Q30	C026B102G300J	7/16 x 5/32
33	10TCN-Q33	C026B102G330J	7/16 x 5/32
39	10TCN-Q39	C026B102G390J	7/16 x 5/32
47	10TCN-Q47	C026B102H470J	1/2 x 5/32
50	10TCN-Q50	C026B102H500J	1/2 x 5/32
56	10TCN-Q56	C026B102H560J	1/2 x 5/32
68	10TCN-Q68	C026A102J680J	9/16 x 5/32
75	10TCN-Q75	C026A102J750J	9/16 x 5/32
82	10TCN-Q82	C026A102J820J	9/16 x 5/32
100	10TCN-T10	C026A102K101J	5/8 x 5/32
120	10TCN-T12	C026A102L121J	11/16 x 5/32
150	10TCN-T15	C026A102L151J	11/16 x 5/32
175	10TCN-T175	———	7/8 x 5/32
180	10TCN-T18	C026A102P181J	7/8 x 5/32
200	10TCN-T20	C026A102P201J	7/8 x 5/32
220	10TCN-T22	C026A102P221J	7/8 x 5/32
270	10TCN-T27	———	7/8 x 5/32
300	10TCN-T30	———	7/8 x 5/32
330	10TCN-T33	———	7/8 x 5/32
390	10TCN-T39	———	7/8 x 7/32
470	10TCN-T47	———	7/8 x 7/32
	N150		
2.2	10TCP-V22	C032B102S2R2D	3/8 x 1/4
2.7	10TCP-V27	C032B102S2R7D	3/8 x 1/4
3.0	10TCP-V30	C032B102S3R0D	3/8 x 1/4
3.3	10TCP-V33	C032B102S3R3D	3/8 x 1/4
3.9	10TCP-V39	C032B102S3R9D	3/8 x 1/4
4.7	10TCP-V47	C032B102S4R7D	3/8 x 1/4
5.0	10TCP-V50	C032B102S5R0D	3/8 x 1/4
5.6	10TCP-V56	C032B102E5R6D	5/16 x 5/32
6.8	10TCP-V68	C032B102E6R8D	5/16 x 5/32
8.2	10TCP-V82	C032B102E8R2D	5/16 x 5/32
10	10TCP-Q10	C032B102E100J	5/16 x 5/32
12	10TCP-Q12	C032B102E120J	5/16 x 5/32
15	10TCP-Q15	C032B102E150J	5/16 x 5/32
18	10TCP-Q18	C032B102E180J	5/16 x 5/32
20	10TCP-Q20	C032B102F200J	3/8 x 5/32
22	10TCP-Q22	C032B102F220J	3/8 x 5/32
25	10TCP-Q25	C032B102F250J	3/8 x 5/32
27	10TCP-Q27	C032B102F270J	3/8 x 5/32
30	10TCP-Q30	C032B102F300J	3/8 x 5/32
33	10TCP-Q33	C032B102G330J	7/16 x 5/32
39	10TCP-Q39	C032B102G390J	7/16 x 5/32
47	10TCP-Q47	C032B102G470J	7/16 x 5/32
50	10TCP-Q50	C032B102G500J	7/16 x 5/32
56	10TCP-Q56	C032B102H560J	1/2 x 5/32
68	10TCP-Q68	C032B102H680J	1/2 x 5/32
75	10TCP-Q75	C032A102J750J	9/16 x 5/32
82	10TCP-Q82	C032A102J820J	9/16 x 5/32
100	10TCP-T10	C032A102K101J	5/8 x 5/32
120	10TCP-T12	C032A102K121J	5/8 x 5/32
150	10TCP-T15	C032A102L151J	11/16 x 5/32
175	10TCP-T175	———	3/4 x 5/32
180	10TCP-T18	C032A102M181J	3/4 x 5/32
200	10TCP-T20	C032A102P201J	7/8 x 5/32
220	10TCP-T22	C032A102P221J	7/8 x 5/32
270	10TCP-T27	———	7/8 x 5/32
300	10TCP-T30	———	7/8 x 5/32
330	10TCP-T33	———	7/8 x 7/32
390	10TCP-T39	———	7/8 x 7/32
470	10TCP-T47	———	7/8 x 7/32
	N220		
3	10TCR-V30	C033B102S3R0D	3/8 x 1/4
3.3	10TCR-V33	C033B102S3R3D	3/8 x 1/4
3.9	10TCR-V39	C033B102S3R9D	3/8 x 1/4
4.7	10TCR-V47	C033B102S4R7D	3/8 x 1/4
5	10TCR-V50	C033B102S5R0D	3/8 x 1/4
5.6	10TCR-V56	C033B102S5R6D	3/8 x 1/4
6.8	10TCR-V68	C033B102E6R8D	5/16 x 5/32
8.2	10TCR-V82	C033B102E8R2D	5/16 x 5/32
10	10TCR-Q10	C033B102E100J	5/16 x 5/32
12	10TCR-Q12	C033B102E120J	5/16 x 5/32
15	10TCR-Q15	C033B102E150J	5/16 x 5/32
18	10TCR-Q18	C033B102E180J	5/16 x 5/32
20	10TCR-Q20	C033B102E200J	5/16 x 5/32
22	10TCR-Q22	C033B102F220J	3/8 x 5/32
25	10TCR-Q25	C033B102F250J	3/8 x 5/32
27	10TCR-Q27	C033B102F270J	3/8 x 5/32
30	10TCR-Q30	C033B102F300J	3/8 x 5/32
33	10TCR-Q33	C033B102F330J	3/8 x 5/32
39	10TCR-Q39	C033B102G390J	7/16 x 5/32
47	10TCR-Q47	C033B102G470J	7/16 x 5/32
50	10TCR-Q50	C033B102G500J	7/16 x 5/32
56	10TCR-Q56	C033B102G560J	7/16 x 5/32
68	10TCR-Q68	C033B102H680J	1/2 x 5/32
75	10TCR-Q75	C033B102H750J	1/2 x 5/32
82	10TCR-Q82	C033A102J820J	9/16 x 5/32
100	10TCR-T10	C033A102J101J	9/16 x 5/32
120	10TCR-T12	C033A102K121J	5/8 x 5/32
150	10TCR-T15	C033A102L151J	11/16 x 5/32
175	10TCR-T175	———	3/4 x 5/32
180	10TCR-T18	C033A102M181J	3/4 x 5/32
200	10TCR-T20	C033A102M201J	3/4 x 5/32
220	10TCR-T22	C033A102P221J	7/8 x 5/32
270	10TCR-T27	C033A102P271J	7/8 x 5/32
300	10TCR-T30	C033A102P301J	7/8 x 5/32
330	10TCR-T33	———	7/8 x 5/32
390	10TCR-T39	———	7/8 x 5/32
470	10TCR-T47	———	7/8 x 7/32
560	10TCR-T56	———	7/8 x 7/32
	N330		
3.0	10TCS-V30	C034B102S3R0D	3/8 x 1/4
3.3	10TCS-V33	C034B102S3R3D	3/8 x 1/4
3.9	10TCS-V39	C034B102S3R9D	3/8 x 1/4
4.7	10TCS-V47	C034B102S4R7D	3/8 x 1/4
5.0	10TCS-V50	C034B102S5R0D	3/8 x 1/4
5.6	10TCS-V56	C034B102S5R6D	3/8 x 1/4
6.8	10TCS-V68	C034B102S6R8D	3/8 x 1/4
8.2	10TCS-V82	C034B102E8R2D	5/16 x 5/32
10	10TCS-Q10	C034B102E100J	5/16 x 5/32
12	10TCS-Q12	C034B102E120J	5/16 x 5/32
15	10TCS-Q15	C034B102E150J	5/16 x 5/32
18	10TCS-Q18	C034B102E180J	5/16 x 5/32
20	10TCS-Q20	C034B102E200J	5/16 x 5/32
22	10TCS-Q22	C034B102E220J	5/16 x 5/32
25	10TCS-Q25	C034B102F250J	3/8 x 5/32
27	10TCS-Q27	C034B102F270J	3/8 x 5/32
30	10TCS-Q30	C034B102F300J	3/8 x 5/32
33	10TCS-Q33	C034B102F330J	3/8 x 5/32
39	10TCS-Q39	C034B102G390J	7/16 x 5/32
47	10TCS-Q47	C034B102G470J	7/16 x 5/32
50	10TCS-Q50	C034B102G500J	7/16 x 5/32
56	10TCS-Q56	C034B102G560J	7/16 x 5/32
68	10TCS-Q68	C034B102H680J	1/2 x 5/32
75	10TCS-Q75	C034B102H750J	1/2 x 5/32
82	10TCS-Q82	C034A102J820J	9/16 x 5/32
100	10TCS-T10	C034A102J101J	9/16 x 5/32
120	10TCS-T12	C034A102K121J	5/8 x 5/32
150	10TCS-T15	C034A102L151J	11/16 x 5/32
175	10TCS-T175	———	11/16 x 5/32
180	10TCS-T18	C034A102M181J	3/4 x 5/32
200	10TCS-T20	C034A102M201J	3/4 x 5/32
220	10TCS-T22	C034A102P221J	7/8 x 5/32
270	10TCS-T27	C034A102P271J	7/8 x 5/32

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SPRAGUE CAPACITORS

CERA-MITE® CERAMIC CAPACITORS, continued

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
N330 (cont.)			
300	10TCS-T30	C034A102P301J	7/8 x 5/32
330	10TCS-T33	———	7/8 x 5/32
390	10TCS-T39	———	7/8 x 5/32
470	10TCS-T47	———	7/8 x 7/32
560	10TCS-T56	———	7/8 x 7/32
N470			
3.0	10TCT-V30	C035B102S3R0D	3/8 x 1/4
3.3	10TCT-V33	C035B102S3R3D	3/8 x 1/4
3.9	10TCT-V39	C035B102S3R9D	3/8 x 1/4
4.7	10TCT-V47	C035B102S4R7D	3/8 x 1/4
5.0	10TCT-V50	C035B102S5R0D	3/8 x 1/4
5.6	10TCT-V56	C035B102S5R6D	3/8 x 1/4
6.8	10TCT-V68	C035B102S6R8D	3/8 x 1/4
8.2	10TCT-V82	C035B102S8R2D	3/8 x 1/4
10	10TCT-Q10	C035B102E100J	5/16 x 5/32
12	10TCT-Q12	C035B102E120J	5/16 x 5/32
15	10TCT-Q15	C035B102E150J	5/16 x 5/32
18	10TCT-Q18	C035B102E180J	5/16 x 5/32
20	10TCT-Q20	C035B102E200J	5/16 x 5/32
22	10TCT-Q22	C035B102E220J	5/16 x 5/32
25	10TCT-Q25	C035B102E250J	5/16 x 5/32
27	10TCT-Q27	C035B102F270J	3/8 x 5/32
30	10TCT-Q30	C035B102F300J	3/8 x 5/32
33	10TCT-Q33	C035B102F330J	3/8 x 5/32
39	10TCT-Q39	C035B102F390J	3/8 x 5/32
47	10TCT-Q47	C035B102F470J	3/8 x 5/32
50	10TCT-Q50	C035B102G500J	7/16 x 5/32
56	10TCT-Q56	C035B102G560J	7/16 x 5/32
68	10TCT-Q68	C035B102G680J	7/16 x 5/32
75	10TCT-Q75	C035B102G750J	7/16 x 5/32
82	10TCT-Q82	C035B102H820J	1/2 x 5/32
100	10TCT-T10	C035B102H101J	1/2 x 5/32
120	10TCT-T12	C035A102J121J	9/16 x 5/32
150	10TCT-T15	C035A102K151J	5/8 x 5/32
175	10TCT-T175	———	5/8 x 5/32
180	10TCT-T18	C035A102K181J	5/8 x 5/32
200	10TCT-T20	C035A102L201J	11/16 x 5/32
220	10TCT-T22	C035A102L221J	11/16 x 5/32
270	10TCT-T27	C035A102M271J	3/4 x 5/32
300	10TCT-T30	C035A102P301J	7/8 x 5/32
330	10TCT-T33	C035A102P331J	7/8 x 5/32
390	10TCT-T39	C035A102P391J	7/8 x 5/32
470	10TCT-T47	———	7/8 x 5/32
560	10TCT-T56	———	7/8 x 7/32
N750			
4.7	10TCU-V47	C036B102S4R7D	3/8 x 1/4
5.0	10TCU-V50	C036B102S5R0D	3/8 x 1/4
5.6	10TCU-V56	C036B102S5R6D	3/8 x 1/4
6.8	10TCU-V68	C036B102S6R8D	3/8 x 1/4
8.2	10TCU-V82	C036B102S8R2D	3/8 x 1/4
10	10TCU-Q10	C036B102S100J	3/8 x 1/4
12	10TCU-Q12	C036B102E120J	5/16 x 5/32
15	10TCU-Q15	C036B102E150J	5/16 x 5/32
18	10TCU-Q18	C036B102E180J	5/16 x 5/32
20	10TCU-Q20	C036B102E200J	5/16 x 5/32
22	10TCU-Q22	C036B102E220J	5/16 x 5/32
25	10TCU-Q25	C036B102E250J	5/16 x 5/32
27	10TCU-Q27	C036B102E270J	5/16 x 5/32
30	10TCU-Q30	C036B102E300J	5/16 x 5/32
33	10TCU-Q33	C036B102E330J	5/16 x 5/32
39	10TCU-Q39	C036B102F390J	3/8 x 5/32
47	10TCU-Q47	C036B102F470J	3/8 x 5/32
50	10TCU-Q50	C036B102F500J	3/8 x 5/32
56	10TCU-Q56	C036B102F560J	3/8 x 5/32
68	10TCU-Q68	C036B102G680J	7/16 x 5/32
75	10TCU-Q75	C036B102G750J	7/16 x 5/32
82	10TCU-Q82	C036B102G820J	7/16 x 5/32
100	10TCU-T10	C036B102H101J	1/2 x 5/32
120	10TCU-T12	C036B102H121J	1/2 x 5/32
150	10TCU-T15	C036A102J151J	9/16 x 5/32
175	10TCU-T175	———	9/16 x 5/32
180	10TCU-T18	C036A102K181J	5/8 x 5/32
200	10TCU-T20	C036A102K201J	5/8 x 5/32
220	10TCU-T22	C036A102K221J	5/8 x 5/32
270	10TCU-T27	C036A102L271J	11/16 x 5/32
300	10TCU-T30	C036A102M301J	3/4 x 5/32
330	10TCU-T33	C036A102M331J	3/4 x 5/32
390	10TCU-T39	C036A102P391J	7/8 x 5/32
N750 (cont.)			
470	10TCU-T47	C036A102P471J	7/8 x 5/32
560	10TCU-T56	———	7/8 x 5/32
680	10TCU-T68	———	7/8 x 5/32
.00075μF	10TCU-T75	41C293	7/8 x 5/32
.00082	10TCU-T82	41C294	7/8 x 5/32
.001	10TCU-D10	41C295	7/8 x 5/32

TEMPERATURE-STABLE TYPES

- Used where minimum capacitance change with temperature is an important consideration
- Standard capacitance tolerance: ±10% except 10TS-S15 10TS-S20, 10TS-S30 ±15%
- Rated at **1000 WVDC**

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
3.3	10TS-V33	40C300A	5/16 x 5/32
5.0	10TS-V50	40C49A1	5/16 x 5/32
6.0	10TS-V60	40C299A	5/16 x 5/32
6.8	10TS-V68	40C97A2	5/16 x 5/32
7.5	10TS-V75	40C133A	5/16 x 5/32
8.0	10TS-V80	40C38A2	5/16 x 5/32
10	10TS-Q10	40C219A3	5/16 x 5/32
12	10TS-Q12	40C252A	5/16 x 5/32
15	10TS-Q15	40C65A2	5/16 x 5/32
18	10TS-Q18	40C139A3	5/16 x 5/32
20	10TS-Q20	40C265A	5/16 x 5/32
22	10TS-Q22	40C56A	5/16 x 5/32
25	10TS-Q25	40C113A	5/16 x 5/32
27	10TS-Q27	40C287A	5/16 x 5/32
30	10TS-Q30	40C303	5/16 x 5/32
33	10TS-Q33	40C57A	5/16 x 5/32
39	10TS-Q39	40C58A	5/16 x 5/32
47	10TS-Q47	40C135A	5/16 x 5/32
50	10TS-Q50	40C157A	5/16 x 5/32
56	10TS-Q56	40C130A2	5/16 x 5/32
68	10TS-Q68	40C270A	5/16 x 5/32
75	10TS-Q75	40C46A1	5/16 x 5/32
82	10TS-Q82	40C281A	5/16 x 5/32
91	10TS-Q91	40C302	5/16 x 5/32
100	10TS-T10	40C200A	5/16 x 5/32
120	10TS-T12	40C60A	5/16 x 5/32
130	10TS-T13	40C147A	5/16 x 5/32
150	10TS-T15	40C202A	5/16 x 5/32
180	10TS-T18	40C99A1	5/16 x 5/32
200	10TS-T20	40C81A	5/16 x 5/32
220	10TS-T22	40C204A	5/16 x 5/32
240	10TS-T24	40C167A	5/16 x 5/32
250	10TS-T25	40C101A2	5/16 x 5/32
270	10TS-T27	C016B102E271K	5/16 x 5/32
300	10TS-T30	———	5/16 x 5/32
330	10TS-T33	C016B102E331K	5/16 x 5/32
350	10TS-T35	———	3/8 x 5/32
360	10TS-T36	———	3/8 x 5/32
390	10TS-T39	C016B102E391K	5/16 x 5/32
400	10TS-T40	———	3/8 x 5/32
470	10TS-T47	C016B102F471K	3/8 x 5/32
500	10TS-T50	C016B102F501K	3/8 x 5/32
560	10TS-T56	C016B102F561K	3/8 x 5/32
600	10TS-T60	———	3/8 x 5/32
680	10TS-T68	C016B102F681K	3/8 x 5/32
750	10TS-T75	C016B102F751K	3/8 x 5/32
800	10TS-T80	———	7/16 x 5/32
820	10TS-T82	C016B102G821K	7/16 x 5/32
.001μF	10TS-D10	C106B102G102K	7/16 x 5/32
.0012	10TS-D12	C016B102G122K	7/16 x 5/32
.0013	10TS-D13	———	9/16 x 5/32
.0015	10TS-D15	C016A102J152K	9/16 x 5/32
.0016	10TS-D16	———	9/16 x 5/32
.0018	10TS-D18	C016A102J182K	9/16 x 5/32
.0020	10TS-D20	C016A102J202K	9/16 x 5/32
.0022	10TS-D22	C016A102J222K	9/16 x 5/32
.0025	10TS-D25	———	11/16 x 5/32
.0027	10TS-D27	C016A102L272K	11/16 x 5/32
.0030	10TS-D30	———	3/4 x 5/32
.0033	10TS-D33	C016A102L332K	11/16 x 5/32
.0039	10TS-D39	C016A102M392K	3/4 x 5/32
.0040	10TS-D40	———	7/8 x 5/32
.0043	10TS-D43	———	7/8 x 5/32
.0047	10TS-D47	C016A102P472K	7/8 x 5/32
.0050	10TS-D50	C016A102P502K	7/8 x 5/32
.0056	10TS-D56	33C100	11/16 x 1/4
.0068	10TS-D68	36C108A	3/4 x 1/4
.0082	10TS-D82	41C306A	7/8 x 5/32
.0075	10TS-D75	41C148	7/8 x 1/4
.01	10TS-S10	41C121A1	7/8 x 5/32
.015	10TS-S15	41C123A1	7/8 x 5/32
.02	10TS-S20	36C340A	3/4 x 1/4
.03	10TS-S30	41C284A	7/8 x 1/4

HIGH-K TYPES

- Designed for By-Pass and Coupling Applications Where Additional Capacitance Will Not Affect Circuit Operation
- Smallest Physical Size
- 5HK-S15 thru 5HK-P10, **500 WVDC,** Capacitance Tolerance: +80 −20%
- All Other 5HK are **1000 WVDC,** Capacitance Tolerance: GMV

μF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
SINGLE UNITS			
.001	5HK-D10	C023B102E102P	5/16 x 5/32
.0015	5HK-D15	C023B102F152P	3/8 x 5/32
.002	5HK-D20	C023B102F202P	3/8 x 5/32
.0025	5HK-D25	———	7/16 x 5/32
.0033	5HK-D33	C023B102G332P	7/16 x 5/32
.004	5HK-D40	———	9/16 x 5/32
.0047	5HK-D47	C023A102J472P	9/16 x 5/32
.005	5HK-D50	C023A102J502P	9/16 x 5/32
.0068	5HK-D68	C023A102K682P	5/8 x 5/32
.01	5HK-S10	C023A102L103P	11/16 x 5/32
.015	5HK-S15	———	9/16 x 3/16
.02	5HK-S20	20C318A	7/16 x 3/16
.025	5HK-S25	———	11/16 x 3/16
SINGLE UNITS (cont.)			
.04	5HK-S40	44C124A	11/16 x 3/16
.05	5HK-S50	33C58	11/16 x 3/16
.1	5HK-P10	41C92	7/8 x 3/16
DUAL UNITS			
2 x 470μμF	5HK-2T47	19C166	3/8 x 5/32
2 x 800	5HK-2T80	19C167	3/8 x 5/32
2 x .001μF	5HK-2D10	20C253	7/16 x 5/32
2 x .0015	5HK-2D15	55C67	1/2 x 5/32
2 x .002	5HK-2D20	29C175	9/16 x 5/32
2 x .0022	5HK-2D22	29C27	9/16 x 5/32
2 x .004	5HK-2D40	33C111	11/16 x 5/32
2 x .0047	5HK-2D47	36C330	3/4 x 5/32
2 x .01	5HK-2S10	41C238	7/8 x 5/32
2 x .02	5HK-2S20	41C219	7/8 x 7/32

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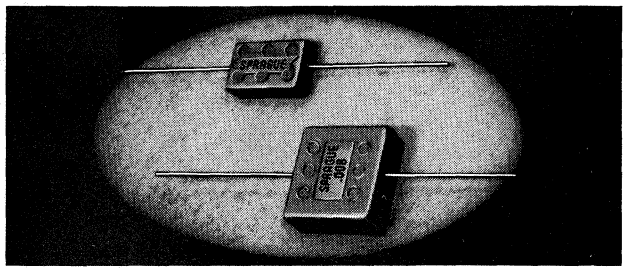
SPRAGUE CAPACITORS

MICA CAPACITORS TYPE MS and 1FM MICAS



- Each Mica Capacitor Section Receives a Radio Frequency Test Before Molding
- Careful Selection and Electrical Grading of Raw Mica Assures Maximum Quality
- Section Foils on Foil Micas are Connected to Terminals through Special Low-resistance R-F Bonds
- R-F Current Tested for Peak Ratings After Impregnation and Molding

TYPE MS — SILVERED MICA
(Standard Capacitance Tolerance ±5%)

μF	Cat. No.
500 WVDC, 1000 V Test	
.000005	MS-55
.000010	MS-41
.000012	MS-412
.000015	MS-415
.000018	MS-418
.000020	MS-42
.000022	MS-422
.000024	MS-424
.000025	MS-425
.000027	MS-427
.000030	MS-43
.000033	MS-433
.000036	MS-436
.000039	MS-439
.000040	MS-44
.000043	MS-443
.000047	MS-447
.000050	MS-45
.000051	MS-451
.000056	MS-456
.000060	MS-46
.000062	MS-462
.000068	MS-468
.000070	MS-47
.000075	MS-475
.000082	MS-482
.000091	MS-491
.000100	MS-31
.000110	MS-311
.000120	MS-312
.000130	MS-313
.000150	MS-315
.000160	MS-316
.000180	MS-318
.000200	MS-32
.000220	MS-322
.000240	MS-324
.000250	MS-325
.000270	MS-327
.000300	MS-33
.000330	MS-333
.000360	MS-336
.000390	MS-339
.000400	MS-34
.000430	MS-343
.000470	MS-347
.000500	MS-35
.000510	MS-351
.000560	MS-356
.000600	MS-36
.000620	MS-362
.000680	MS-368
.000700	MS-37
.000750	MS-375
.000800	MS-38
.000820	MS-382
.000900	MS-39
.000910	MS-391
.001000	MS-21
.001100	MS-211
.001200	MS-212
.001300	MS-213
.001500	MS-215
.001600	MS-216
.001800	MS-218
.002000	MS-22
.002200	MS-222
.002400	MS-224
.002500	MS-225
.002700	MS-227
.003000	MS-23
.003300	MS-233
.003600	MS-236
.003900	MS-239
.004000	MS-24
.004300	MS-243
.004700	MS-247
.005000	MS-25
.005100	MS-251
.005600	MS-256
.006000	MS-26
.006200	MS-262
300 WVDC, 600 V Test	
.006800	MS-268
.007000	MS-27
.007500	MS-275
.008000	MS-28
.008200	MS-282
.009000	MS-29
.009100	MS-291
.010000	MS-11

Call Your Sprague Distributor For Current Prices

TYPE 1FM
(Standard Capacitance Tolerance ±20%)

μF	Cat. No.
500 WVDC, 1000 V Test	
.000010	1FM-41
.000012	1FM-412
.000015	1FM-415
.000018	1FM-418
.000020	1FM-42
.000022	1FM-422
.000024	1FM-424
.000027	1FM-427
.000030	1FM-43
.000033	1FM-433
.000036	1FM-436
.000039	1FM-439
.000040	1FM-44
.000043	1FM-443
.000047	1FM-447
.000050	1FM-45
.000051	1FM-451
.000056	1FM-456
.000062	1FM-462
.000068	1FM-468
.000075	1FM-475
.000082	1FM-482
.000091	1FM-491
.000100	1FM-31
.000110	1FM-311
.000120	1FM-312
.000130	1FM-313
.000150	1FM-315
.000160	1FM-316
.000180	1FM-318
.000200	1FM-32
.000220	1FM-322
.000240	1FM-324
.000250	1FM-325
.000270	1FM-327
.000300	1FM-33
.000330	1FM-333
.000350	1FM-335
.000360	1FM-336
.000390	1FM-339
.000400	1FM-34
.000430	1FM-343
.000470	1FM-347
.000500	1FM-35
.000510	1FM-351
.000560	1FM-356
.000620	1FM-362
.000680	1FM-368
.000700	1FM-37
.000750	1FM-375
.000820	1FM-382
.000910	1FM-391
.001000	1FM-21
.001100	1FM-211
.001200	1FM-212
.001300	1FM-213
.001500	1FM-215
.001600	1FM-216
.001800	1FM-218
.002000	1FM-22
.002200	1FM-222
.002400	1FM-224
.002500	1FM-225
.002700	1FM-227
.003000	1FM-23
.003300	1FM-233
.003600	1FM-236
.003900	1FM-239
.004000	1FM-24
.004300	1FM-243
.004700	1FM-247
.005000	1FM-25
.005100	1FM-251
.005600	1FM-256
.006000	1FM-26
.006200	1FM-262
300 WVDC, 600 V Test	
.006800	1FM-268
.007000	1FM-27
.007500	1FM-275
.008000	1FM-28
.008200	1FM-282
.009000	1FM-29
.009100	1FM-291
.010000	1FM-11

Call Your Sprague Distributor For Current Prices

MS and 1FM Dimensions

Catalog Numbers	L x W x T
MS-55 thru MS-35	51/64 x 15/32 x 7/32
MS-351 thru MS-222	53/64 x 53/64 x 9/32
MS-224	53/64 x 53/64 x 11/32
MS-225 thru MS-227	53/64 x 53/64 x 9/32
MS-23	53/64 x 53/64 x 11/32
MS-233	53/64 x 53/64 x 9/32
MS-236 thru MS-282	53/64 x 53/64 x 11/32
MS-29 thru MS-11	1 x 5/8 x 5/16
1FM-41 thru 1FM-462	51/64 x 15/32 x 7/32
1FM-468 thru 1FM-475	53/64 x 53/64 x 9/32
1FM-482 thru 1FM-356	51/64 x 15/32 x 7/32
1FM-362 thru 1FM-233	53/64 x 53/64 x 9/32
1FM-236 thru 1FM-282	53/64 x 53/64 x 11/32
1FM-29 thru 1FM-11	1 x 5/8 x 5/16

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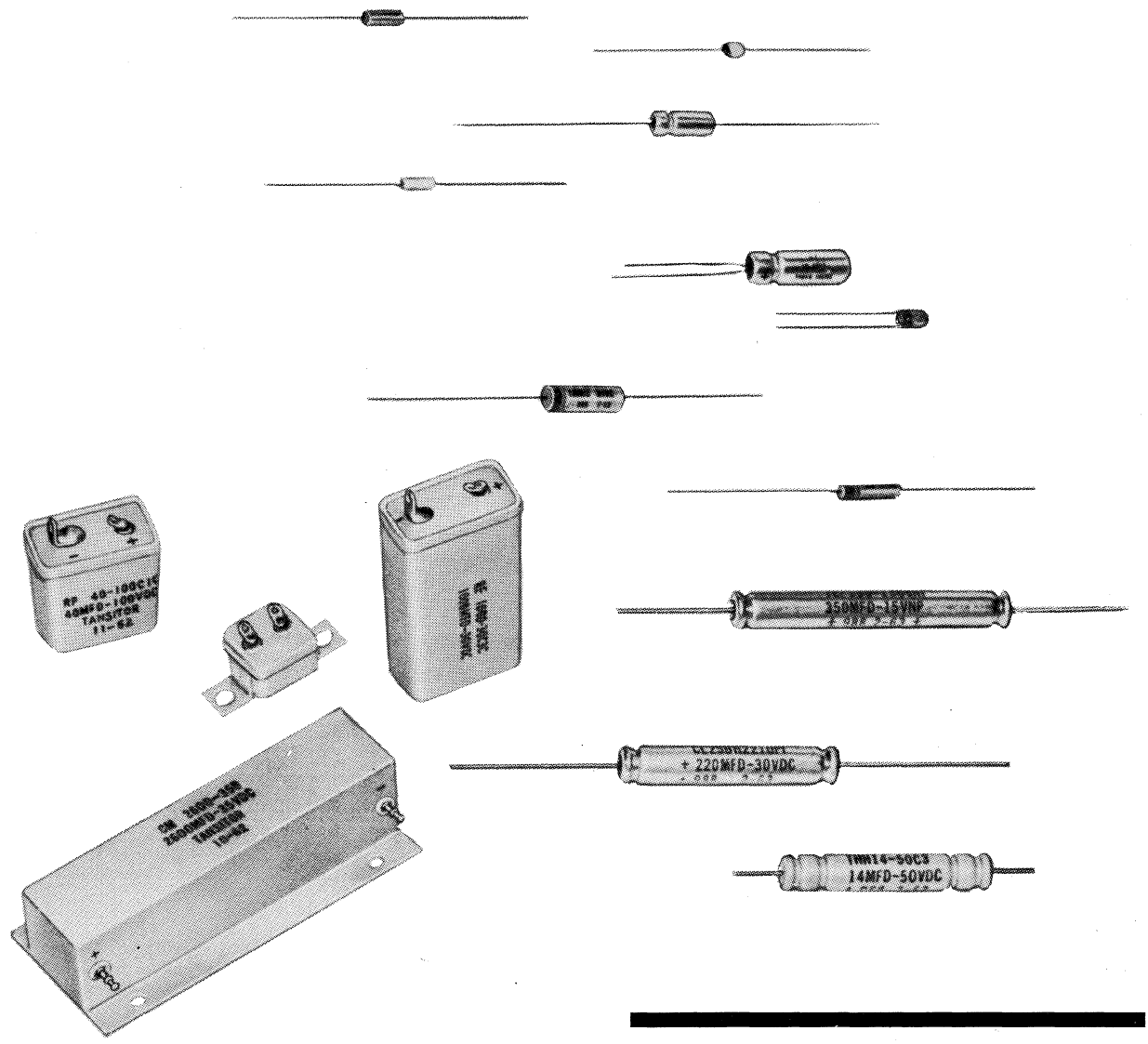
SECTION 1500

Tansitor

TANTALUM CAPACITORS

CONDENSED CATALOG



TANSITOR
ELECTRONICS, INC.

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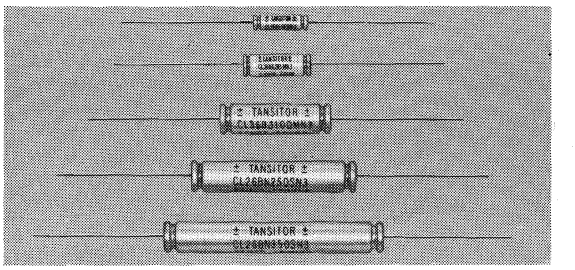
Tansitor ELECTRONICS, INC.

MIL-C-3965C
TANSITOR TANTALUM FOIL CAPACITORS

TYPES: CL24, CL25, CL26, CL27, CL34, CL35, CL36, CL37

−55°C to +85°C

Tansitor Military Type 85°C capacitors are tantalum foil capacitors which will operate reliably over the temperature range −55°C to +85°C. These units are equivalent to Tanistor Type TEF capacitors.



MILITARY DESIGNATION CODE

CL26	B	Q	180	S	N	3
Style	Temp. Characteristic	Voltage	Capacitance	Capacitance Tolerance	Polarity	Vibration Grade

CASE DIMENSIONS

CL24, CL26, CL34, CL36 — Uninsulated*

CASE SIZE	Dimensions (Nominal) Length x Diameter, Inches
C1	0.688 x 0.188
C2	0.875 x 0.281
C3	1.438 x 0.375
C4	2.125 x 0.375
C5	2.750 x 0.375

*For dimensions of insulated units add approximately 0.125" to length, 0.015" to diameter.

MIL-C-3965/2 — ETCHED FOIL, POLAR

TYPE: CL24 (Uninsulated) CL25 (Insulated)

All Parts Numbers are listed as CL24 Type. If insulating sleeve is required, change CL24 to CL25.

Designation Military	D.C. Volts	Mfds. Cap.	Size Case	Net (1-24)† Price
CL24BE150UP3	15	15	C1	$ 4.20
CL24BE600UP3	15	60	C2	7.55
CL24BE201UP3	15	200	C3	12.40
CL24BE401UP3	15	400	C4	20.55
CL24BE581UP3	15	580	C5	27.35
CL24BG100UP3	25	10	C1	4.20
CL24BG400UP3	25	40	C2	7.55
CL24BG121UP3	25	120	C3	12.40
CL24BG251UP3	25	250	C4	20.55
CL24BG351UP3	25	350	C5	27.35
CL24BH080UP3	30	8	C1	4.20
CL24BH320UP3	30	32	C2	7.55
CL24BH111UP3	30	110	C3	12.40
CL24BH221UP3	30	220	C4	20.55
CL24BH301UP3	30	300	C5	27.35
CL24BJ4R5TP3	50	4.5	C1	4.20
CL24BJ180TP3	50	18	C2	7.55
CL24BJ600TP3	50	60	C3	12.40

Military Designation	Volts D.C.	Cap. Mfds.	Case Size	Net Price (1-24)†
CL24BJ101TP3	50	100	C4	20.55
CL24BJ151TP3	50	150	C5	27.35
CL24BL030TP3	75	3	C1	4.20
CL24BL120TP3	75	12	C2	7.55
CL24BL300TP3	75	30	C3	12.40
CL24BL700TP3	75	70	C4	20.55
CL24BL101TP3	75	100	C5	27.35
CL24BN020SP3	100	2	C1	4.20
CL24BN080SP3	100	8	C2	7.55
CL24BN250SP3	100	25	C3	12.40
CL24BN500SP3	100	50	C4	20.55
CL24BN700SP3	100	70	C5	27.35
CL24BQ010SP3	150	1	C1	4.20
CL24BQ040SP3	150	4	C2	7.55
CL24BQ130SP3	150	13	C3	12.40
CL24BQ250SP3	150	25	C4	20.55
CL24BQ360SP3	150	36	C5	27.35

MIL-C-3965/12 — ETCHED FOIL, NON-POLAR

TYPE: CL26 (Uninsulated) CL27 (Insulated)

All Part Numbers are listed as CL 26 Type. If insulating sleeve is required, change CL 26 to CL27.

Military Designation	Volts D.C.	Cap. Mfds.	Case Size	Net Price (1-24)†
CL26BE100UN3	15	10	C1	$ 4.20
CL26BE400UN3	15	40	C2	7.55
CL26BE121UN3	15	120	C3	12.40
CL26BE251UN3	15	250	C4	20.55
CL26BE351UN3	15	350	C5	27.35
CL26BG050UN3	25	5	C1	4.20
CL26BG200UN3	25	20	C2	7.55
CL26BG700UN3	25	70	C3	12.40
CL26BG141UN3	25	140	C4	20.55
CL26BG201UN3	25	200	C5	27.35
CL26BH4R5UN3	30	4.5	C1	4.20
CL26BH180UN3	30	18	C2	7.55
CL26BH600UN3	30	60	C3	12.40
CL26BH121UN3	30	120	C4	20.55
CL26BH171UN3	30	170	C5	27.35
CL26BJ2R5TN3	50	2.5	C1	4.20
CL26BJ100TN3	50	10	C2	7.55
CL26BJ300TN3	50	30	C3	12.40

Military Designation	Volts D.C.	Cap. Mfds.	Case Size	Net Price (1-24)†
CL26BJ600TN3	50	60	C4	20.55
CL26BJ800TN3	50	80	C5	27.35
CL26BL1R5TN3	75	1.5	C1	4.20
CL26BL060TN3	75	6	C2	7.55
CL26BL150TN3	75	15	C3	12.40
CL26BL350TN3	75	35	C4	20.55
CL26BL500TN3	75	50	C5	27.35
CL26BN010SN3	100	1	C1	4.20
CL26BN040SN3	100	4	C2	7.55
CL26BN120SN3	100	12	C3	12.40
CL26BN250SN3	100	25	C4	20.55
CL26BN350SN3	100	35	C5	27.35
CL26BQ0R5SN3	150	0.5	C1	4.20
CL26BQ020SN3	150	2	C2	7.55
CL26BQ060SN3	150	6	C3	12.40
CL26BQ120SN3	150	12	C4	20.55
CL26BQ180SN3	150	18	C5	27.35

MIL-C-3965/3 — PLAIN FOIL, POLAR

TYPE: CL34 (Uninsulated) CL35 (Insulated)

All Part Numbers are listed as CL34 Type. If insulating sleeve is required, change CL34 to CL35.

Military Designation	Volts D.C.	Cap. Mfds.	Case Size	Net Price (1-24)†
CL34BA100MP3	3	10	C1	$ 4.20
CL34BA500MP3	3	50	C2	6.60
CL34BB080MP3	6	8	C1	4.20
CL34BB300MP3	6	30	C2	6.60
CL34BB101MP3	6	100	C3	10.45
CL34BB201MP3	6	200	C4	14.60
CL34BB301MP3	6	300	C5	19.60
CL34BD060MP3	10	6	C1	4.20
CL34BD250MP3	10	25	C2	6.60
CL34BD800MP3	10	80	C3	10.45
CL34BD161MP3	10	160	C4	14.60
CL34BD221MP3	10	220	C5	19.60
CL34BE4R5MP3	15	4.5	C1	4.20
CL34BE100MP3	15	10	C2	6.60
CL34BE180MP3	15	18	C2	6.60
CL34BE550MP3	15	55	C3	10.45
CL34BE111MP3	15	110	C4	14.60
CL34BE161MP3	15	160	C5	19.60
CL34BH2R5MP3	30	2.5	C1	4.20
CL34BH300MP3	30	30	C3	10.45
CL34BH600MP3	30	60	C4	14.60
CL34BH850MP3	30	85	C5	19.60

Military Designation	Volts D.C.	Cap. Mfds.	Case Size	Net Price (1-24)†
CL34BJ1R5MP3	50	1.5	C1	$ 4.20
CL34BJ060MP3	50	6	C2	6.60
CL34BJ200MP3	50	20	C3	10.45
CL34BJ400MP3	50	40	C4	14.60
CL34BJ550MP3	50	55	C5	19.60
CL34BL010MP3	75	1	C1	4.20
CL34BL040MP3	75	4	C2	6.60
CL34BL140MP3	75	14	C3	10.45
CL34BL280MP3	75	28	C4	14.60
CL34BL400MP3	75	40	C5	19.60
CL34BN0R8MP3	100	0.8	C1	4.20
CL34BN030MP3	100	3	C2	6.60
CL34BN100MP3	100	10	C3	10.45
CL34BN200MP3	100	20	C4	14.60
CL34BN300MP3	100	30	C5	19.60
CL34BQ0R5MP3	150	0.5	C1	4.20
CL34BQ020MP3	150	2	C2	6.60
CL34BQ040MP3	150	4	C3	10.45
CL34BQ070MP3	150	7	C3	10.45
CL34BQ080MP3	150	8	C4	14.60
CL34BQ120MP3	150	12	C4	14.60
CL34BQ140MP3	150	14	C4	14.60
CL34BQ200MP3	150	20	C5	19.60

MIL-C-3965/14 — PLAIN FOIL, NON-POLAR

TYPE: CL36 (Uninsulated) CL37 (Insulated)

All Part Numbers are listed as CL36 Type. If insulating sleeve is required, change CL36 to CL37.

Military Designation	Volts D.C.	Cap. Mfds.	Case Size	Net Price (1-24)†
CL36BA100MN3	3	10	C1	$ 4.20
CL36BA150MN3	3	45	C2	6.60
CL36BA141MN3	3	140	C3	10.45
CL36BA281MN3	3	280	C4	14.60
CL36BA401MN3	3	400	C5	19.60
CL36BB070MN3	6	7	C1	4.20
CL36BB250MN3	6	25	C2	6.60
CL36BB850MN3	6	85	C3	10.45
CL36BB171MN3	6	170	C4	14.60
CL36BB251MN3	6	250	C5	19.60
CL36BD040MN3	10	4	C1	4.20
CL36BD160MN3	10	16	C2	6.60
CL36BD550MN3	10	55	C3	10.45
CL36BD111MN3	10	110	C4	14.60
CL36BD151MN3	10	150	C5	19.60
CL36BE2R5MN3	15	2.5	C1	4.20
CL36BE100MN3	15	10	C2	6.60
CL36BE350MN3	15	35	C3	10.45
CL36BE700MN3	15	70	C4	14.60
CL36BE101MN3	15	100	C5	19.60
CL36BG1R5MN3	25	1.5	C1	4.20
CL36BG060MN3	25	6	C2	6.60
CL36BG200MN3	25	20	C3	10.45
CL36BG400MN3	25	40	C4	14.60
CL36BG600MN3	25	60	C5	19.60

Military Designation	Volts D.C.	Cap. Mfds.	Case Size	Net Price (1-24)†
CL36BH1R4MN3	30	1.4	C1	$ 4.20
CL36BH5R5MN3	30	5.5	C2	6.60
CL36BH180MN3	30	18	C3	10.45
CL36BH360MN3	30	36	C4	14.60
CL36BH450MN3	30	45	C5	19.60
CL36BJ0R8MN3	50	0.8	C1	4.20
CL36BJ030MN3	50	3	C2	6.60
CL36BJ100MN3	50	10	C3	10.45
CL36BJ200MN3	50	20	C4	14.60
CL36BJ300MN3	50	30	C5	19.60
CL36BL0R5MN3	75	0.5	C1	4.20
CL36BL020MN3	75	2	C2	6.60
CL36BL070MN3	75	7	C3	10.45
CL36BL140MN3	75	14	C4	14.60
CL36BL200MN3	75	20	C5	19.60
CL36BN0R4MN3	100	0.4	C1	4.20
CL36BN1R5MN3	100	1.5	C2	6.60
CL36BN050MN3	100	5	C3	10.45
CL36BN100MN3	100	10	C4	14.60
CL36BN150MN3	100	15	C5	19.60
CL36BQR25MN3	150	0.25	C1	4.20
CL36BQ010MN3	150	1	C2	6.60
CL36BQ3R5MN3	150	3.5	C3	10.45
CL36BQ070MN3	150	7	C4	14.60
CL36BQ100MN3	150	10	C5	19.60

†See your Tansitor Distributor for prices for 25 or more pieces.

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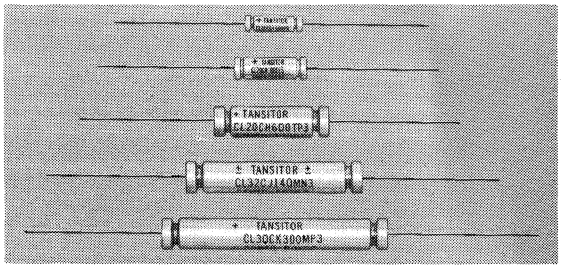
Tansitor ELECTRONICS, INC.

MIL-C-3965C
TANSITOR TANTALUM FOIL CAPACITORS

TYPES: CL20, CL21, CL22, CL23, CL30, CL31, CL32, CL33

Tansitor Military Type 125°C Foil Tantalum Capacitors are small foil capacitors which will operate reliably over the range −55°C to +125°C. These units are equivalent to Tanistor Type TH capacitors.



MILITARY DESIGNATION CODE

CL30	C	N	200	M	P	3
Style	Temp. Characteristic	Voltage	Capacitance	Capacitance Tolerance	Polarity	Vibration Grade

MIL-C-3965/17 — ETCHED FOIL, POLAR
TYPE: CL20 (Uninsulated) CL21 (Insulated)

All Part Numbers are listed as CL20 Type. If insulating sleeve is required, change CL 20 to CL21

Military Designation	Volts D.C.	Cap. Mfds.	Case Size	Net Price (1-24)†
CL20CE100UP3	15	10	D1	$ 7.37
CL20CE400UP3	15	40	D2	10.49
CL20CE121UP3	15	120	D3	16.16
CL20CE251UP3	15	250	D4	25.54
CL20CE351UP3	15	350	D5	31.75
CL20CH4R5TP3	30	4.5	D1	7.37
CL20CH180TP3	30	18	D2	10.49
CL20CH600TP3	30	60	D3	16.16
CL20CH101TP3	30	100	D4	25.54
CL20CH151TP3	30	150	D5	31.75
CL20CK020TP3	60	2	D1	7.37
CL20CK080TP3	60	8	D2	10.49
CL20CK250TP3	60	25	D3	16.16
CL20CK500TP3	60	50	D4	25.54
CL20CK700TP3	60	70	D5	31.75
CL20CN010SP3	100	1	D1	7.37
CL20CN040SP3	100	4	D2	10.49
CL20CN130SP3	100	13	D3	16.16
CL20CN250SP3	100	25	D4	25.54
CL20CN360SP3	100	36	D5	31.75

MIL-C-3965/18 — ETCHED FOIL, NON-POLAR
TYPE: CL22 (Uninsulated) CL23 (Insulated)

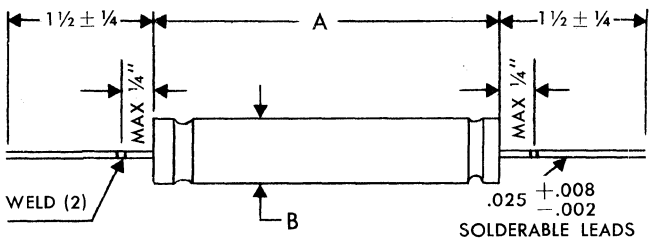
All Part Numbers are listed as CL22 Type. If insulating sleeve is required, change CL22 to CL23.

Military Designation	Volts D.C.	Cap. Mfds.	Case Size	Net Price (1-24)†
CL22CE050UN3	15	5	D1	$ 7.37
CL22CE200UN3	15	20	D2	10.49
CL22CE700UN3	15	70	D3	16.16
CL22CE141UN3	15	140	D4	25.54
CL22CE201UN3	15	200	D5	31.75
CL22CH2R5TN3	30	2.5	D1	7.37
CL22CH100TN3	30	10	D2	10.49
CL22CH300TN3	30	30	D3	16.16
CL22CH600TN3	30	60	D4	25.54
CL22CH800TN3	30	80	D5	31.75
CL22CK010TN3	60	1	D1	7.37
CL22CK040TN3	60	4	D2	10.49
CL22CK120TN3	60	12	D3	16.16
CL22CK250TN3	60	25	D4	25.54
CL22CK350TN3	60	35	D5	31.75
CL22CN0R5SN3	100	0.5	D1	7.37
CL22CN020SN3	100	2	D2	10.49
CL22CN060SN3	100	6	D3	16.16
CL22CN120SN3	100	12	D4	25.54
CL22CN180SN3	100	18	D5	31.75

CASE DIMENSIONS
CL20, CL21, CL22, CL23, CL30, CL31, CL32, CL33 — Uninsulated*

CASE SIZE	Dimensions (Nominal) Length x Diameter, Inches
D1	0.688 x 0.188
D2	0.938 x 0.281
D3	1.469 x 0.375
D4	2.156 x 0.375
D5	2.781 x 0.375

*For dimensions of insulated units add approximately 0.125″ to length, 0.015″ to diameter.



MIL-C-3965/15 — PLAIN FOIL, POLAR
TYPE: CL30 (Uninsulated) CL31 (Insulated)

All Part Numbers are listed as CL30 Type. If insulating sleeve is required, change CL30 to CL31.

Military Designation	Volts D.C.	Cap. Mfds.	Case Size	Net Price (1-24)†
CL30CH1R5MP3	30	1.5	D1	$ 7.37
CL30CH060MP3	30	6	D2	9.80
CL30CH200MP3	30	20	D3	14.18
CL30CH400MP3	30	40	D4	18.31
CL30CH550MP3	30	55	D5	23.54
CL30CK0R8MP3	60	0.8	D1	7.37
CL30CK030MP3	60	3	D2	9.80
CL30CK100MP3	60	10	D3	14.18
CL30CK200MP3	60	20	D4	18.31
CL30CK300MP3	60	30	D5	23.54
CL30CN0R5MP3	100	0.5	D1	7.37
CL30CN020MP3	100	2	D2	9.80
CL30CN070MP3	100	7	D3	14.18
CL30CN140MP3	100	14	D4	18.31
CY30CN200MP3	100	20	D5	23.54
CL30CQR35MP3	150	0.35	D1	7.37
CL30CQ1R5MP3	150	1.5	D2	9.80
CL30CQ050MP3	150	5	D3	14.18
CL30CQ100MP3	150	10	D4	18.31
CL30CQ150MP3	150	15	D5	23.54

MIL-C-3965/16 — PLAIN FOIL, NON-POLAR
TYPE: CL32 (Uninsulated) CL33 (Insulated)

All Part Numbers are listed as CL32 Type. If insulating sleeve is required, change CL32 to CL33.

Military Designation	Volts D.C.	Cap. Mfds.	Case Size	Net Price (1-24)†
CL32CH0R8MN3	30	0.8	D1	$ 7.27
CL32CH030MN3	30	3	D2	9.80
CL32CH100MN3	30	10	D3	14.18
CL32CH200MN3	30	20	D4	18.31
CL32CH300MN3	30	30	D5	23.54
CL32CK0R4MN3	60	0.4	D1	7.27
CL32CK1R5MN3	60	1.5	D2	9.80
CL32CK050MN3	60	5	D3	14.18
CL32CK100MN3	60	10	D4	18.31
CL32CK150MN3	60	15	D5	23.54
CL32CNR25MN3	100	0.25	D1	7.27
CL32CN010MN3	100	1	D2	9.80
CL32CN3R5MN3	100	3.5	D3	14.18
CL32CN070MN3	100	7	D4	18.31
CL32CN100MN3	100	10	D5	23.54
CL32CQR15MN3	150	0.15	D1	7.27
CL32CQR75MN3	150	0.75	D2	9.80
CL32CQ2R5MN3	150	2.5	D3	14.18
CL32CQ050MN3	150	5	D4	18.31
CL32CQ7R5MN3	150	7.5	D5	23.54

†See your Tansitor Distributor for prices for 25 or more pieces.

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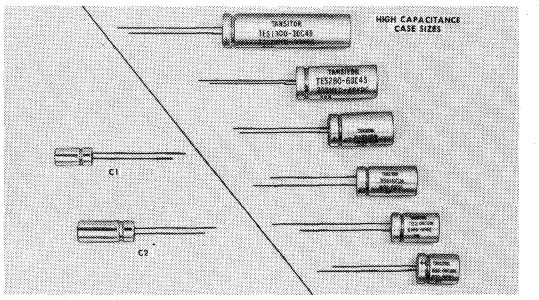
Tansitor ELECTRONICS, INC.

TANSITOR TANTALUM CAPACITORS

TYPE: TES −55°C to +85°C

Tansitor Type TES tantalum capacitors are unique small foil tantalum capacitors ideally suited for use in printed circuits. They are similar in performance to CL34 and CL24 type capacitors, but offer significant savings in space because both leads emerge from one end of the capacitors. They operate reliably over the temperature range of −55°C to +85°C.



CASE DIMENSIONS (Uninsulated)*

CASE SIZE	Dimensions (Nominal) Length x Diameter, Inches
C1	0.650 x 0.312
C2	1.000 x 0.375

*For dimensions of insulated units add approximately 0.125″ to length, 0.030″ to diameter.

HIGH CAPACITANCE TYPE

CASE DIMENSIONS (Uninsulated)*

CASE SIZE	Dimensions (Nominal) Length x Diameter, Inches
C30	0.813 x 0.563
C32	0.938 x 0.563
C33	1.188 x 0.563
C34	1.250 x 0.563
C35	1.563 x 0.563
C36	1.688 x 0.563
C37	1.938 x 0.563
C38	2.188 x 0.563
C39	2.438 x 0.563

CASE SIZE	Dimensions (Nominal) Length x Diameter, Inches
C40	0.813 x 0.625
C42	0.938 x 0.625
C43	1.188 x 0.625
C44	1.250 x 0.625
C45	1.563 x 0.625
C46	1.688 x 0.625
C47	1.938 x 0.625
C48	2.188 x 0.625
C49	2.438 x 0.625

*For dimensions of insulated units add approximately 0.065″ to length, 0.015″ to diameter.

ETCHED FOIL, POLAR*

VOLTS D.C.	CASE SIZE	CAP. MFDS.	TANSITOR[1] CATALOG NO.	NET PRICE (1-24)†
6	C1	220	TES220-6C1	$ 3.74
	C2	600	TES600-6C2	6.10
10	C1	140	TES140-10C1	3.74
	C2	375	TES375-10C2	6.10
15	C1	90	TES90-15C1	3.74
	C2	250	TES250-15C2	6.10
20	C1	70	TES70-20C1	3.74
	C2	180	TES180-20C2	6.10
35	C1	35	TES35-35C1	3.74
	C2	100	TES100-35C2	6.10
50	C1	25	TES25-50C1	3.74
	C2	60	TES60-50C2	6.10
60	C1	19	TES19-60C1	3.74
	C2	50	TES50-60C2	6.10
75	C1	14	TES14-75C1	3.74
	C2	35	TES35-75C2	6.10
100	C1	8.5	TES8.5-100C1	3.74
	C2	20	TES20-100C2	6.10
125	C1	5	TES5-125C1	3.74
	C2	14	TES14-125C2	6.10
150	C1	3.5	TES3.5-150C1	3.74
	C2	10	TES10-150C2	6.10

ETCHED FOIL, NON-POLAR*

6	C1	150	TES150-6C1N	$ 3.74
	C2	350	TES350-6C2N	6.10
10	C1	80	TES80-10C1N	3.74
	C2	200	TES200-10C2N	6.10
15	C1	50	TES50-15C1N	3.74
	C2	140	TES140-15C2N	6.10
20	C1	35	TES35-20C1N	3.74
	C2	100	TES100-20C2N	6.10
35	C1	18	TES18-35C1N	3.74
	C2	50	TES50-35C2N	6.10
50	C1	13	TES13-50C1N	3.74
	C2	30	TES30-50C2N	6.10
60	C1	9.5	TES9.5-60C1N	3.74
	C2	25	TES25-60C2N	6.10
75	C1	7	TES7-75C1N	3.74
	C2	18	TES18-75C2N	6.10
100	C1	4.2	TES4.2-100C1N	3.74
	C2	10	TES10-100C2N	6.10
125	C1	2.5	TES2.5-125C1N	3.74
	C2	7	TES7-125C2N	6.10
150	C1	1.8	TES1.8-150C1N	3.74
	C2	5	TES5-150C2N	6.10

*Ratings in plain foil also available.

HIGH CAPACITANCE FOIL, POLAR

VOLTS D.C.	CASE SIZE	CAP. MFDS.	TANSITOR[1] CATALOG NO.	NET PRICE (1-24)†
3	C40	2000	TES2000-3C40	$ 8.84
	C42	3000	TES3000-3C42	13.20
	C43	4000	TES4000-3C43	17.42
	C44	5000	TES5000-3C44	22.04
	C45	7000	TES7000-3C45	30.80
	C46	8000	TES8000-3C46	35.16
	C47	10000	TES10K-3C47	44.00
	C48	12000	TES12K-3C48	52.76
	C49	14000	TES14K-3C49	61.54
25	C30	170	TES170-25C30	$ 6.40
	C32	260	TES260-25C32	9.60
	C33	350	TES350-25C33	12.80
	C34	430	TES430-25C34	16.00
	C35	600	TES600-25C35	22.38
	C36	690	TES690-25C36	25.36
	C37	870	TES870-25C37	31.96
	C38	1000	TES1000-25C38	38.36
	C39	1200	TES1200-25C39	44.74
50	C40	100	TES100-50C40	8.84
	C42	150	TES150-50C42	13.20
	C43	210	TES210-50C43	17.42
	C44	260	TES260-50C44	22.04
	C45	360	TES360-50C45	30.80
	C46	410	TES410-50C46	35.16
	C47	520	TES520-50C47	44.00
	C48	620	TES620-50C48	52.76
	C49	720	TES720-50C49	61.54
100	C30	27	TES27-100C30	6.40
	C32	41	TES41-100C32	9.60
	C33	55	TES55-100C33	12.80
	C34	68	TES68-100C34	16.00
	C35	95	TES95-100C35	22.38
	C36	110	TES110-100C36	25.36
	C37	140	TES140-100C37	31.96
	C38	160	TES160-100C38	38.36
	C39	190	TES190-100C39	44.74
150	C40	23	TES23-150C40	8.84
	C42	34	TES34-150C42	13.20
	C43	46	TES46-150C43	17.42
	C44	57	TES57-150C44	22.04
	C45	80	TES80-150C45	30.80
	C46	92	TES92-150C46	35.16
	C47	115	TES115-150C47	44.00
	C48	140	TES140-150C48	52.76
	C49	160	TES160-150C49	61.54

HIGH CAPACITANCE FOIL, NON-POLAR

25	C40	140	TES140-25C40N	8.84
	C42	210	TES210-25C42N	13.20
	C43	280	TES280-25C43N	17.42
	C44	350	TES350-25C44N	22.04
	C45	490	TES490-25C45N	30.80
	C46	550	TES550-25C46N	35.16
	C47	690	TES690-25C47N	44.00
	C48	830	TES830-25C48N	52.76
	C49	970	TES970-25C49N	61.54
50	C30	37	TES37-50C30N	6.40
	C32	55	TES55-50C32N	9.60
	C33	75	TES75-50C33N	12.80
	C34	90	TES90-50C34N	16.00
	C35	130	TES130-50C35N	22.38
	C36	150	TES150-50C36N	25.36
	C37	180	TES180-50C37N	31.96
	C38	220	TES320-50C38N	38.36
	C39	260	TES260-50C39N	44.74
150	C30	8	TES8-150C30N	6.40
	C32	12	TES12-150C32N	9.60
	C33	16	TES16-150C33N	12.80
	C34	20	TES20-150C34N	16.00
	C35	28	TES28-150C35N	22.38
	C36	33	TES33-150C36N	25.36
	C37	41	TES41-150C37N	31.96
	C38	50	TES50-150C38N	38.36
	C39	57	TES57-150C39N	44.74

[1]When insulating tube is desired, add letter "I" as a suffix to catalog number.
†See your Tansitor Distributor for prices for 25 or more pieces.

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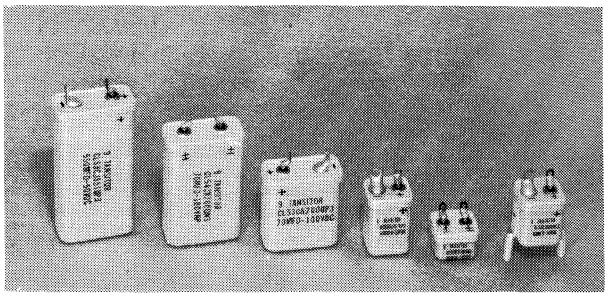
Tansitor ELECTRONICS, INC.

MIL-C-3965

TANSITOR TANTALUM CAPACITORS

TYPE: CL51, CL52, CL53, CL54; −55°C to +125°C

Tansitor's Type CL51, 52, 53 & 54 tantalum foil capacitors answer industry's need for packages of high capacitance in moderate size, hermetically sealed cases, and meet all the requirements of the current issue of MIL-C-3965. These units are equivalent to Tansitor Types RE & RP. Brackets available on request.



CASE SIZE	DIMENSIONS, INCHES	CASE SIZE	DIMENSIONS, INCHES
C1	0.750 x 0.750 x 0.500	D1	0.783 x 1.331 x 1.375
C2	0.750 x 0.750 x 0.875	D2	0.783 x 1.331 x 2.000
C3	0.750 x 0.750 x 1.125	D3	0.783 x 1.331 x 2.500

MILITARY DESIGNATION CODE

CL53	C	J	551	U	P	3
Style	Temp. Characteristic	Voltage	Capacitance	Capacitance Tolerance	Polarity	Vibration Grade

STANDARD MILITARY RATINGS

TYPE: CL53 — ETCHED FOIL*, POLAR

MIL-C-3965/11	D.C. VOLTAGE AT +125°C	CAPACITANCE MFDS.	CASE SIZE	NET PRICE (1-24)†
CL53CD122UP3	10	1200	D1	**$44.10**
CL53CD242UP3	10	2400	D2	**56.60**
CL53CD352UP3	10	3500	D3	**62.80**
CL53CF661UP3	20	660	D1	**44.10**
CL53CF132UP3	20	1300	D2	**56.60**
CL53CF182UP3	20	1800	D3	**62.80**
CL53CH351UP3	30	350	D1	**44.10**
CL53CH701UP3	30	700	D2	**56.60**
CL53CH102UP3	30	1000	D3	**62.80**
CL53CJ201UP3	50	200	D1	**44.10**
CL53CJ401UP3	50	400	D2	**56.60**
CL53CJ551UP3	50	550	D3	**62.80**
CL53CL121UP3	75	120	D1	**44.10**
CL53CL241UP3	75	240	D2	**56.60**
CL53CL321UP3	75	320	D3	**62.80**
CL53CN700UP3	100	70	D1	**44.10**
CL53CN141UP3	100	140	D2	**56.60**
CL53CN201UP3	100	200	D3	**62.80**
CL53CH550UP3	30	55	C1	**29.86**
CL53CH111UP3	30	110	C2	**41.16**
CL53CH181UP3	30	180	C3	**48.02**
CL53CJ300UP3	50	30	C1	**29.86**
CL53CJ600UP3	50	60	C2	**41.16**
CL53CJ101UP3	50	100	C3	**48.02**
CL53CL180UP3	75	18	C1	**29.86**
CL53CL360UP3	75	36	C2	**41.16**
CL53CL600UP3	75	60	C3	**48.02**
CL53CN120UP3	100	12	C1	**29.86**
CL53CN240UP3	100	24	C2	**41.16**
CL53CN360UP3	100	36	C3	**48.02**

TYPE: CL54 — ETCHED FOIL*, NON-POLAR

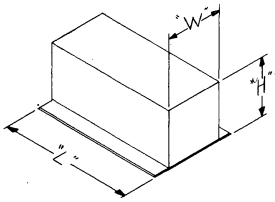
MIL-C-3965/12	D.C. VOLTAGE AT +125°C	CAPACITANCE MFDS.	CASE SIZE	NET PRICE (1-24)†
CL54CD751UN3	10	750	D1	**$56.49**
CL54CD152UN3	10	1500	D2	**50.18**
CL54CD212UN3	10	2100	D3	**43.90**
CL54CF361UN3	20	360	D1	**56.49**
CL54CF721UN3	20	720	D2	**50.18**
CL54CF102UN3	20	1000	D3	**43.90**
CL54CH201UN3	30	200	D1	**56.49**
CL54CH401UN3	30	400	D2	**50.18**
CL54CH551UN3	30	550	D3	**43.90**
CL54CJ101UN3	50	100	D1	**56.49**
CL54CJ201UN3	50	200	D2	**50.18**
CL54CJ271UN3	50	270	D3	**43.90**
CL54CL600UN3	75	60	D1	**56.49**
CL54CL121UN3	75	120	D2	**50.18**
CL54CL161UN3	75	160	D3	**43.90**
CL54CN350UN3	100	35	D1	**56.49**
CL54CN700UN3	100	70	D2	**50.18**
CL54CN101UN3	100	100	D3	**43.90**
CL54CH300UN3	30	30	C1	**41.52**
CL54CH600UN3	30	60	C2	**54.88**
CL54CH101UN3	30	100	C3	**62.44**
CL54CJ150UN3	50	15	C1	**41.52**
CL54CJ300UN3	50	30	C2	**54.88**
CL54CJ500UN3	50	50	C3	**62.44**
CL54CL090UN3	75	9	C1	**41.52**
CL54CL180UN3	75	18	C2	**54.88**
CL54CL300UN3	75	30	C3	**62.44**
CL54CN060UN3	100	6	C1	**41.52**
CL54CN120UN3	100	12	C2	**54.88**
CL54CN180UN3	100	18	C3	**62.44**

†See your Tansitor Distributor for prices for 25 or more pieces. *Ratings in plain foil (CL51, CL52) also available.

TANSITOR TANTALUM CAPACITORS

TYPE: CM, RECTANGULAR

−55°C to +125°C

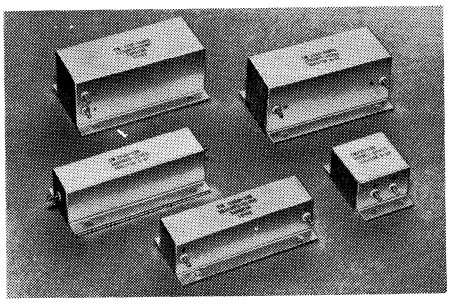


Tolerance on H, W & L dimensions is ±1/16″

SUGGESTED "STANDARD" CASE SIZES

DIMENSIONS IN INCHES H	W	L
9/16″	1 1/16″	3 7/8″
9/16″	1 9/16″	3 7/8″
1 1/16″	1 1/16″	3 7/8″
1 1/16″	1 9/16″	3 7/8″
1 9/16″	1 9/16″	3 7/8″
1 9/16″	2 1/16″	3 7/8″

DIMENSIONS IN INCHES H	W	L
2 1/16″	2 1/16″	3 7/8″
2 1/16″	2 9/16″	3 7/8″
2 9/16″	2 9/16″	3 7/8″
2 9/16″	3 1/16″	3 7/8″
3 1/16″	3 1/16″	3 7/8″
3 1/16″	3 9/16″	3 7/8″
3 9/16″	3 9/16″	3 7/8″



As the name implies, Tansitor Type CM or custom-made capacitor "packages" are designed to fill special or unusual tantalum capacitor needs, most frequently in the area of extra high capacitance.

In most cases, Type CM units have employed tantalum foil internally. By its nature, however, a CM unit may employ internal sections of solid or wet sintered anode tantalum capacitors where their respective characteristics are desired. Combinations of foil, solid and wet styles are also available, if needed.

A wide range of ratings are available, with capacitance values as high as 310,000 microfarads. The CM series, however is adaptable for many ratings beyond those suggested, even to 1 farad and above, if required.

Dual or plural ratings are available in a single case or other components can be potted in the same case with the capacitors. For specific applications contact Tansitor Electronics, Inc.

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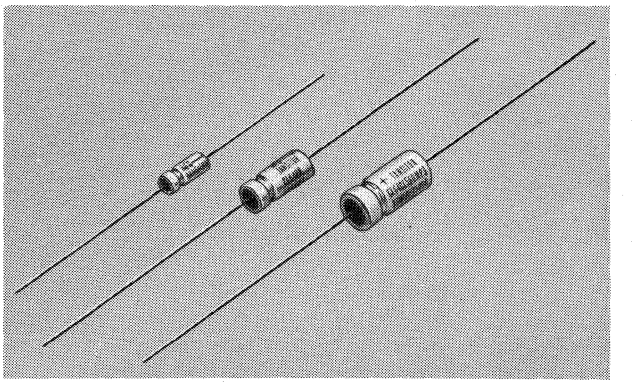
Tansitor ELECTRONICS, INC.

MIL-C-3965C
TANSITOR TANTALUM CAPACITORS
TYPES: CL64 & CL65 — CHARACTERISTICS "B" & "C"
−55°C to +85°C and −55°C to +125°C

Tansitor wet sintered anode capacitors listed herein are manufactured to meet all the requirements of MIL-C-3965C for MIL types CL64 and CL65. Encased in a fine silver can, the sintered porous tantalum anode provides exceptionally high capacitance per unit volume. These units exhibit extremely low leakage currents, low power factor, and little change in capacitance with frequency.

As opposed to "Shoulder Type" construction of other wet types, the CL64 and CL65 offer a straight cylindrical shape, readily lending them to flat circuit applications. CL 64 and CL65 styles are equivalent to Tansitor Type W. Tansitor Type WF equivalent with neutral electrolyte is also available.



CASE DIMENSIONS — CL64, CL65 (Uninsulated)*

CASE SIZE	Dimensions (Nominal) Length x Diameter, Inches
T1	0.453 x 0.188
T2	0.641 x 0.281
T3	0.766 x 0.375

*For dimensions of insulated units add approximately 0.065″ to length, 0.015″ to diameter. Basic case dimensions for insulated style are same as uninsulated.

MILITARY DESIGNATION CODE

CL65	C	J	050	M	P	3
Style	Temp. Characteristic	Voltage	Capacitance	Capacitance Tolerance	Polarity	Vibration Grade

STANDARD MILITARY 125°C RATINGS‡ TYPE: CL64 & CL65 — CHARACTERISTIC "C"

MIL-C-3965** DESIGNATION	VOLTS D.C. AT 125C°	CAPACITY MFDS.	CASE SIZE	NET PRICE (1-24)†
CL64(65)CB300MP3	4	30	T1	$2.30
CL64(65)CB680MP3	4	68	T1	2.30
CL64(65)CB141MP3	4	140	T2	3.52
CL64(65)CB271MP3	4	270	T2	3.52
CL64(65)CB331MP3	4	330	T3	5.56
CL64(65)CB561MP3	4	560	T3	5.56
CL64(65)CC250MP3	5	25	T1	2.30
CL64(65)CC560MP3	5	56	T1	2.30
CL64(65)CC221MP3	5	220	T2	3.52
CL64(65)CC431MP3	5	430	T3	5.56
CL64(65)CD200MP3	7	20	T1	2.30
CL64(65)CD470MP3	7	47	T1	2.30
CL64(65)CD101MP3	7	100	T2	3.52
CL64(65)CD181MP3	7	180	T2	3.52
CL64(65)CD251MP3	7	250	T3	5.56
CL64(65)CD391MP3	7	390	T3	5.56
CL64(65)CE150MP3	10	15	T1	2.30
CL64(65)CE330MP3	10	33	T1	2.30
CL64(65)CE700MP3	10	70	T2	3.52
CL64(65)CE121MP3	10	120	T2	3.52
CL64(65)CE171MP3	10	170	T3	5.56
CL64(65)CE271MP3	10	270	T3	5.56
CL64(65)CG100MP3	15	10	T1	2.30
CL64(65)CG220MP3	15	22	T1	2.30
CL64(65)CG101MP3	15	100	T2	3.52
CL64(65)CG181MP3	15	180	T3	5.56
CL64(65)CH080MP3	20	8	T1	2.30
CL64(65)CH150MP3	20	15	T1	2.30
CL64(65)CH400MP3	20	40	T2	3.52
CL64(65)CH680MP3	20	68	T2	3.52
CL64(65)CH101MP3	20	100	T3	5.56
CL64(65)CH151MP3	20	150	T3	5.56

MIL-C-3965** DESIGNATION	VOLTS D.C. AT 125C°	CAPACITY MFDS.	CASE SIZE	NET PRICE (1-24)†
CL64(65)CJ050MP3	30	5	T1	$2.30
CL64(65)CJ100MP3	30	10	T1	2.30
CL64(65)CJ250MP3	30	25	T2	3.52
CL64(65)CJ470MP3	30	47	T2	3.52
CL64(65)CJ600MP3	30	60	T3	5.56
CL64(65)CJ820MP3	30	82	T3	5.56
CL64(65)CK040MP3	40	4	T1	2.30
CL64(65)CK8R2MP3	40	8.2	T1	2.30
CL64(65)CK200MP3	40	20	T2	3.52
CL64(65)CK390MP3	40	39	T2	3.52
CL64(65)CK500MP3	40	50	T3	5.56
CL64(65)CK680MP3	40	68	T3	5.56
CL64(65)CL3R5MP3	50	3.5	T1	2.30
CL64(65)CL6R8MP3	50	6.8	T1	2.30
CL64(65)CL150MP3	50	15	T2	3.52
CL64(65)CL330MP3	50	33	T2	3.52
CL64(65)CL400MP3	50	40	T3	5.56
CL64(65)CL560MP3	50	56	T3	5.56
CL64(65)CN2R5MP3	70	2.5	T1	2.30
CL64(65)CN4R7MP3	70	4.7	T1	2.30
CL64(65)CN110MP3	70	11	T2	3.52
CL64(65)CN220MP3	70	22	T2	3.52
CL64(65)CN300MP3	70	30	T3	5.56
CL64(65)CN430MP3	70	43	T3	5.56
CL64(65)CP1R7MP3	85	1.7	T1	2.30
CL64(65)CP3R6MP3	85	3.6	T1	2.30
CL64(65)CP090MP3	85	9	T2	3.52
CL64(65)CP140MP3	85	14	T2	3.52
CL64(65)CP250MP3	85	25	T3	5.56

†See your Tansitor Distributor for prices for 25 or more pieces. **CL64 indicates uninsulated capacitors. If outer insulating sleeve is required, change CL64 to CL65.
‡Standard Military 85°C Ratings (formerly "B" characteristic) are also available.

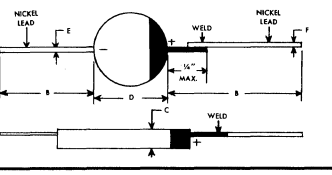
TANSITOR MICRO-MODULE — TANTALUM CAPACITORS DISC TYPE — −80°C to +125°C

Tansitor Disc Type are a new concept in tantalum capacitors. This capacitor has the best volumetric efficiency of any tantalum capacitor yet designed and produced for volume use. Specifically aimed at the micro-module market it supplements other Tansitor tantalum capacitors. Its characteristics include extremely low electrical leakage current, high capacitance per unit volume, exceptional stability over its temperature range −80°C to +125°C.

Unit	B, ±1/4″	DIMENSIONS FOR D TYPE C, Max.	D, ±0.015″	E, ±0.001″	F, ±0.001″	NET PRICE (1-24)†
C1	1½″	0.060″	0.100″	0.010″	0.010″	$4.00
C2	1½″	0.100″	0.100″	0.010″	0.010″	4.50
C3	1½″	0.060″	0.250″	0.010″	0.010″	5.00
C4	1½″	0.100″	0.250″	0.010″	0.010″	5.50
C5	1½″	0.060″	0.500″	0.010″	0.010″	6.00
C6	1½″	0.100″	0.500″	0.010″	0.010″	6.50

These capacitors are not intended to be mounted by their leads.

DISC CAPACITORS



RATINGS AT 85°C

RATED VOLTAGE AT 85°C	DIMENSIONS OF UNITS C1 0.100″ Dia. x 0.060″ CAP.	PART NO.	C2 0.100″ Dia. x 0.100″ CAP.	PART NO.	C3 0.250″ Dia. x 0.060″ CAP.	PART NO.	C4 0.250″ Dia. x 0.100″ CAP.	PART NO.	C5 0.500″ Dia. x 0.060″ CAP.	PART NO.	D6 0.500″ Dia. x 0.100″ CAP.	PART NO.
3VDC	2.5	D2.5-3C1	5	D5-3C2	20	D20-3C3	40	D40-3C4	80	D80-3C5	160	D160-3C6
5	1.5	D1.5-5C1	3	D3-5C2	12	D12-5C3	24	D24-5C4	48	D48-5C5	96	D96-5C6
6	1.2	D1.2-6C1	2.4	D2.4-6C2	10	D10-6C3	20	D20-6C4	40	D40-6C5	80	D80-6C6
10	0.8	D0.8-10C1	1.6	D1.6-10C2	6	D6-10C3	12	D12-10C4	24	D24-10C5	48	D48-10C6
15	0.5	D0.5-15C1	1	D1-15C2	4	D4-15C3	8	D8-15C4	16	D16-15C5	32	D32-15C6
20	0.4	D0.4-20C1	0.8	D0.8-20C2	3	D3-20C3	6	D6-20C4	12	D12-20C5	24	D24-20C6
25	0.3	D0.3-25C1	0.6	D0.6-25C2	2.4	D2.4-25C3	4.8	D4.8-25C4	9.5	D9.5-25C5	19	D19-25C6
30	0.25	D0.25-30C1	0.5	D0.5-30C2	2	D2-30C3	4	D4-30C4	8	D8-30C5	16	D16-30C6
35	0.2	D0.2-35C1	0.4	D0.4-35C2	1.5	D1.5-35C3	3	D3-35C4	7	D7-35C5	14	D14-35C6
35	0.15	D0.15-35C1	0.3	D0.3-35C2	1.2	D1.2-35C3	2.4	D2.4-35C4	5	D5-35C5	10	D10-35C6
35	0.12	D0.12-35C1	0.24	D0.24-35C2	1	D1-35C3	2	D2-35C4	4	D4-35C5	8	D8-35C6

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Tansitor ELECTRONICS, INC.

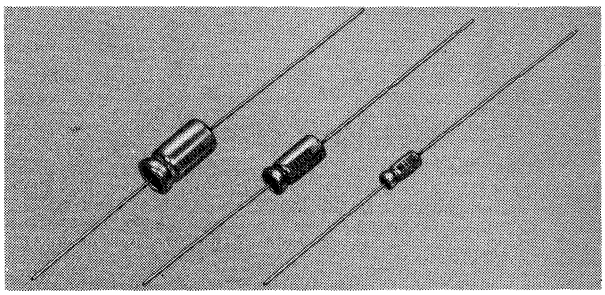
TANSITOR TANTALUM CAPACITORS — TYPE WF

(Equivalent to MIL Styles CL64 & CL65)

−55°C to +85°C and −55°C to +125°C

Tansitor type WF capacitors listed herein are manufactured to meet all the requirements of MIL-C-3965 for the ratings listed under MIL Types CL64 and CL65, except that tantalum foil is used in place of tantalum sintered slugs.

In addition to the advantages in volume, low leakage current and low power factor normally associated with this style of capacitor, the WF also offers an acid-free construction and voltage ratings up to 300 VDC at 85°C and up to 200 VDC at 125°C where 125 VDC and 85 VDC were previously considered the upper limits. The WF is lighter in weight, too, thus offering even more advantage for aerospace applications.



Case Dimensions (Uninsulated)†

CASE CODE	Length x Diameter, Inches, Nominal
D1	0.453 x 0.188
D2	0.641 x 0.281
D3	0.766 x 0.375

†For insulated case dimensions add 0.063″ to length, 0.015″ to diameter. Basic case dimensions for insulated style are same as uninsulated.

WF — Style

5 — Capacitance

TANSITOR PART NUMBER CODE

50 — Voltage

D1 — Case Size

M — Tolerance

I — Insulating Sleeve

STANDARD WF 125°C RATINGS

Tansitor Part No.*	Volts D.C. at 125°C	Cap. Mfds.	Case Size	Net Price 1-24†
WF30-4D1M	4	30	D1	$1.88
WF68-4D1M	4	68	D1	1.88
WF140-4D2M	4	140	D2	2.88
WF270-4D2M	4	270	D2	2.88
WF330-4D3M	4	330	D3	4.50
WF560-4D3M	4	560	D3	4.50
WF25-5D1M	5	25	D1	1.88
WF56-5D1M	5	56	D1	1.88
WF220-5D2M	5	220	D2	2.88
WF430-5D3M	5	430	D3	4.50
WF20-7D1M	7	20	D1	1.88
WF47-7D1M	7	47	D1	1.88
WF100-7D2M	7	100	D2	2.88
WF180-7D2M	7	180	D2	2.88
WF250-7D3M	7	250	D3	4.50
WF390-7D3M	7	390	D3	4.50
WF15-10D1M	10	15	D1	1.88
WF33-10D1M	10	33	D1	1.88
WF70-10D2M	10	70	D2	2.88
WF120-10D2M	10	120	D2	2.88
WF170-10D3M	10	170	D3	4.50
WF270-10D3M	10	270	D3	4.50
WF10-15D1M	15	10	D1	1.88
WF22-15D1M	15	22	D1	1.88
WF100-15D2M	15	100	D2	2.88
WF180-15D3M	15	180	D3	4.50
WF8-20D1M	20	8	D1	1.88
WF15-20D1M	20	15	D1	1.88
WF40-20D2M	20	40	D2	2.88
WF68-20D2M	20	68	D2	2.88
WF100-20D3M	20	100	D3	4.50
WF150-20D3M	20	150	D3	4.50
WF5-30D1M	30	5	D1	1.88
WF10-30D1M	30	10	D1	1.88
WF25-30D2M	30	25	D2	2.88
WF47-30D2M	30	47	D2	2.88
WF60-30D3M	30	60	D3	4.50
WF82-30D3M	30	82	D3	4.50

Tansitor Part No.*	Volts D.C. at 125°C	Cap. Mfds.	Case Size	Net Price 1-24†
WF4-40D1M	40	4	D1	$1.88
WF8.2-40D1M	40	8.2	D1	1.88
WF20-40D2M	40	20	D2	2.88
WF39-40D2M	40	39	D2	2.88
WF50-40D3M	40	50	D3	4.50
WF68-40D3M	40	68	D3	4.50
WF3.5-50D1M	50	3.5	D1	1.88
WF6.8-50D1M	50	6.8	D1	1.88
WF15-50D2M	50	15	D2	2.88
WF33-50D2M	50	33	D2	2.88
WF40-50D3M	50	40	D3	4.50
WF56-50D3M	50	56	D3	4.50
WF2.5-70D1M	70	2.5	D1	1.88
WF4.7-70D1M	70	4.7	D1	1.88
WF11-70D2M	70	11	D2	2.88
WF22-70D2M	70	22	D2	2.88
WF30-70D3M	70	30	D3	4.50
WF43-70D3M	70	43	D3	4.50
WF1.7-85D1M	85	1.7	D1	1.88
WF3.6-85D1M	85	3.6	D1	1.88
WF9-85D2M	85	9	D2	2.88
WF14-85D2M	85	14	D2	2.88
WF25-85D3M	85	25	D3	4.50
WF0.5-100D1M	100	0.5	D1	2.44
WF2.5-100D2M	100	2.5	D2	3.56
WF5-100D3M	100	5	D3	5.85
WF0.4-125D1M	125	0.4	D1	2.44
WF2-125D2M	125	2	D2	3.56
WF4-125D3M	125	4	D3	5.85
WF0.12-150D1M	150	0.12	D1	2.44
WF0.75-150D2M	150	0.75	D2	3.56
WF1.5-150D3M	150	1.5	D3	5.85
WF0.1-200D1M	200	0.1	D1	2.44
WF0.6-200D2M	200	0.6	D2	3.56
WF1.25-200D3M	200	1.25	D3	5.85

*When outer insulating sleeve is desired, add letter "I" as suffix to part number.

†See your Tansitor distributor for prices for 25 or more pieces.

SOLID CHIP TANTALUM CAPACITORS

TYPE TC: −55°C to +85°C

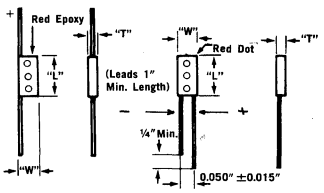
Performance Characteristics.

Tansitor's type TC solid tantalum capacitor is tailored to meet the demand for rectangular shaped, or "chip" components as often used in modular type assemblies. The small size facilitates high density packaging. Larger sizes with higher ratings available on request.

Partial List of Type TC Capacitors

Part No.*	Cap. (Mfd.)	Working Voltage DC	Net Price (1-24)†
TC .0047-20C1	0.0047	20	$1.00
TC .01-20C1	0.01	20	1.00
TC .033-20C1	0.033	20	1.00
TC .047-20C1	0.047	20	1.00
TC .068-20C1	0.068	20	1.00
TC .1-20C1	0.1	20	1.00
TC .33-10C1	0.33	10	1.00
TC .47-6C1	0.47	6	1.00
TC .68-4C1	0.68	4	1.00
TC 1-3C1	1.0	3	1.00
TC 1.5-2C1	1.5	2	1.00

Axial Leads — Radial Leads



Dimensions

Case Size	L (Max.)	W (Max.)	T (Max.)
C1	0.125″	0.070″	0.040″

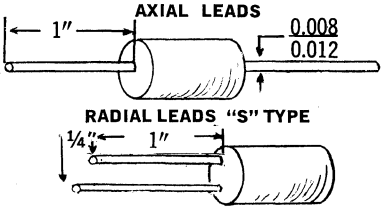
*NOTE: Part numbers as listed denote Axial Lead Configuration. When the Radial Lead Configuration is desired, add the suffix "S" to the part number. If a special capacitance tolerance is required, add the tolerance letter (see paragraph 2) at the end of the part number.

†See your Tansitor distributor for prices for 25 or more pieces.

Tansitor Solid Tantalum

Type HA: −55°C to +85°C

Tansitor's Type HA Solid Tantalum Capacitors are tailored for the Hearing Aid Industry and offer size reductions never before available. Without increasing unit length, Tansitor has decreased unit diameter while maintaining and, in some cases, increasing Capacitor ratings. Larger sizes beyond C6 with higher ratings available on request.



Axial Lead Dimensions

Case Size	Diameter +0.012 −0.000	Length ±0.010
C1	0.053	0.100
C2	0.053	0.125
C3	0.053	0.140
C4	0.063	0.170
C5	0.063	0.190
C6	0.063	0.240

Radial Lead Dimensions

Case Size	Diameter +0.012 −0.000	Length ±0.010
C1	0.063	0.100
C2	0.063	0.125
C3	0.063	0.140
C4	0.073	0.170
C5	0.073	0.190
C6	0.073	0.240

PARTIAL LIST TYPE HA SOLID TANTALUM CAPACITORS

Catalogue Number	Cap. Mfds.	Working Voltage DC	Net Price (1-24)†
HA 0.02-15C1	0.02	15	$0.80
HA 0.1-8C1	0.1	8	0.80
HA 0.1-4C1	0.2	4	0.80
HA 0.5-1.5C1	0.5	1.5	0.80
HA 0.05-15C2	0.05	15	0.80
HA 0.15-15C2	0.15	15	0.80
HA 0.5-6C2	0.5	6	0.80
HA 1-3C2	1	3	0.80
HA 2-1.5C2	2	1.5	0.80
HA 0.01-15C3	0.01	15	0.80
HA 0.05-15C3	0.05	15	0.80
HA 0.1-15C3	0.1	15	0.80
HA 0.8-15C3	0.8	15	0.80
HA 0.1-10C3	0.1	10	0.80
HA 0.5-10C3	0.5	10	0.80

Catalogue Number	Cap. Mfds.	Working Voltage DC	Net Price (1-24)†
HA 1-10C3	1.0	10	0.80
HA 0.05-8C3	0.05	8	0.80
HA 0.5-8C3	0.5	8	0.80
HA 1-8C3	1.0	8	0.80
HA 0.8-6C3	0.8	6	0.80
HA 1-6C3	1.0	6	0.80
HA 1.2-6C3	1.2	6	0.80
HA 0.04-4C3	0.04	4	0.80
HA 0.2-4C3	0.2	4	0.80
HA 0.4-4C3	0.4	4	0.80
HA 0.5-4C3	0.5	4	0.80
HA 0.8-4C3	0.8	4	0.80
HA 1.5-4C3	1.5	4	0.80
HA 2-4C3	2	4	0.80
HA 1-3C3	1.0	3	0.80

Catalogue Number	Cap. Mfds.	Working Voltage DC	Net Price (1-24)†
HA 1.5-3C3	1.5	3	0.80
HA 2-3C3	2.0	3	0.80
HA 2.5-3C3	2.5	3	0.80
HA 2-2C3	2.0	2	0.80
HA 3-2C3	3.0	2	0.80
HA 4-2C3	4.0	2	0.80
HA 0.8-15C4	0.8	15	0.80
HA 1-15C4	1.0	15	0.80
HA 1.5-8C4	1.5	8	0.80
HA 2-8C4	2.0	8	0.80
HA 4-4C4	4.0	4	0.80
HA 5-4C4	5.0	4	0.80
HA 6-3C4	6.0	3	0.80
HA 7-2C4	7.0	2	0.80

Catalogue Number	Cap. Mfds.	Working Voltage DC	Net Price (1-24)†
HA 1.5-15C5	1.5	15	0.80
HA 1.5-6C5	1.5	6	0.80
HA 2-4C5	2.0	4	0.80
HA 4-4C5	4.0	4	0.80
HA 5-4C5	5.0	4	0.80
HA 4-3C5	4.0	3	0.80
HA 5-3C5	5.0	3	0.80
HA 6-3C5	6.0	3	0.80
HA 8-2C5	8.0	2	0.80
HA 10-2C5	10.0	2	0.80
HA 2.5-15C6	2.5	15	0.80
HA 5-8C6	5.0	8	0.80
HA 10-4C6	10.0	4	0.80
HA 14-2C6	14.0	2	0.80

†See your Tansitor distributor for prices for 25 or more pieces.

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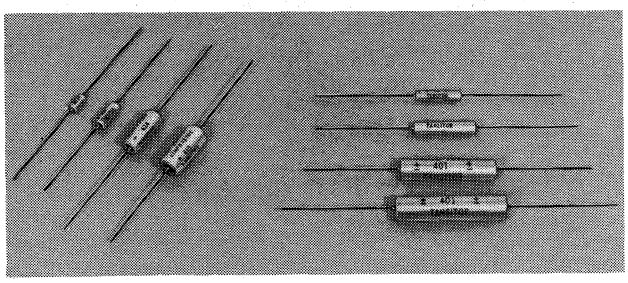
Net

Tansitor ELECTRONICS, INC.

TANSITOR TYPE S POLAR AND NON-POLAR SOLID TANTALUM CAPACITORS

Tansitor Type S Polar and Non-polar Solid Tantalum Capacitors are designed for continuous, dependable use over their full operating range of −80°C to +125°C. The units are similar to MIL Styles CS12 and CS13.

These advantages for the design engineer are further enhanced by the excellent showing made by S type units under conditions of high frequency application and when subjected to extensive vibration and shock, including all the stringent environmental requirements of MIL-C-26655, Styles CS12 and CS13.



TYPE S POLARIZED CAPACITORS

Net Price (1-24)†

Case Size	Price (±20% tol.)	Case Size	Price (±20% tol.)
C1	$1.29	C3	$2.18
C2	1.52	C4	4.70

NOTE: Add 2¢ to unit price if sleeving is required.

STANDARD RATINGS OF TYPE S POLARIZED SOLID ELECTROLYTE TANTALUM CAPACITORS*

Cap. Mfds.	6VDC	10VDC	15VDC	20VDC	35VDC
0.0047	S0.0047-6C1	S0.0047-10C1	S0.0047-15C1	S0.0047-20C1	S0.0047-35C1
0.0056	S0.0056-6C1	S0.0056-10C1	S0.0056-15C1	S0.0056-20C1	S0.0056-35C1
0.0068	S0.0068-6C1	S0.0068-10C1	S0.0068-15C1	S0.0068-20C1	S0.0068-35C1
0.0082	S0.0082-6C1	S0.0082-10C1	S0.0082-15C1	S0.0082-20C1	S0.0082-35C1
0.01	S0.01-6C1	S0.01-10C1	S0.01-15C1	S0.01-20C1	S0.01-35C1
0.012	S0.012-6C1	S0.012-10C1	S0.012-15C1	S0.012-20C1	S0.12-35C1
0.015	S0.015-6C1	S0.015-10C1	S0.015-15C1	S0.015-20C1	S0.015-35C1
0.018	S0.018-6C1	S0.018-10C1	S0.018-15C1	S0.018-20C1	S0.018-35C1
0.022	S0.022-6C1	S0.022-10C1	S0.022-15C1	S0.022-20C1	S0.022-35C1
0.027	S0.027-6C1	S0.027-10C1	S0.027-15C1	S0.027-20C1	S0.027-35C1
0.033	S0.033-6C1	S0.033-10C1	S0.033-15C1	S0.033-20C1	S0.033-35C1
0.039	S0.039-6C1	S0.039-10C1	S0.039-15C1	S0.039-20C1	S0.039-35C1
0.047	S0.047-6C1	S0.047-10C1	S0.047-15C1	S0.047-20C1	S0.047-35C1
0.056	S0.056-6C1	S0.056-10C1	S0.056-15C1	S0.056-20C1	S0.056-35C1
0.068	S0.068-6C1	S0.068-10C1	S0.068-15C1	S0.068-20C1	S0.068-35C1
0.082	S0.082-6C1	S0.082-10C1	S0.082-15C1	S0.082-20C1	S0.082-35C1
0.1	S0.1-6C1	S0.1-10C1	S0.1-15C1	S0.1-20C1	S0.1-35C1
0.12	S0.12-6C1	S0.12-10C1	S0.12-15C1	S0.12-20C1	S0.12-35C1
0.15	S0.15-6C1	S0.15-10C1	S0.15-15C1	S0.15-20C1	S0.15-35C1
0.18	S0.18-6C1	S0.18-10C1	S0.18-15C1	S0.18-20C1	S0.18-35C1
0.22	S0.22-6C1	S0.22-10C1	S0.22-15C1	S0.22-20C1	S0.22-35C1
0.27	S0.27-6C1	S0.27-10C1	S0.27-15C1	S0.27-20C1	S0.27-35C1
0.33	S0.33-6C1	S0.33-10C1	S0.33-15C1	S0.33-20C1	S0.33-35C1
0.39	S0.39-6C1	S0.39-10C1	S0.39-15C1	S0.39-20C1	S0.39-35C1
0.47	S0.47-6C1	S0.47-10C1	S0.47-15C1	S0.47-20C1	S0.47-35C1
0.56	S0.56-6C1	S0.56-10C1	S0.56-15C1	S0.56-20C1	S0.56-35C1
0.68	S0.68-6C1	S0.68-10C1	S0.68-15C1	S0.68-20C1	S0.68-35C1
0.82	S0.82-6C1	S0.82-10C1	S0.82-15C1	S0.82-20C1	S0.82-35C1
1.0	S1.0-6C1	S1.0-10C1	S1.0-15C1	S1.0-20C1	S1.0-35C1
1.2	S1.2-6C1	S1.2-10C1	S1.2-15C1	S1.2-20C1	S1.2-35C2

Cap. Mfds.	6VDC	10VDC	15VDC	20VDC	35VDC
1.5	S1.5-6C1	S1.5-10C1	S1.5-15C1	S1.5-20C1	S1.5-35C2
1.8	S1.8-6C1	S1.8-10C1	S1.8-15C1	S1.8-20C1	S1.8-35C2
2.2	S2.2-6C1	S2.2-10C1	S2.2-15C1	S2.2-20C1	S2.2-35C2
2.7	S2.7-6C1	S2.7-10C1	S2.7-15C1	S2.7-20C2	S2.7-35C2
3.3	S3.3-6C1	S3.3-10C1	S3.3-15C1	S3.3-20C2	S3.3-35C2
3.9	S3.9-6C1	S3.9-10C1	S3.9-15C2	S3.9-20C2	S3.9-35C2
4.7	S4.7-6C1	S4.7-10C1	S4.7-15C1	S4.7-20C2	S4.7-35C2
5.6	S5.6-6C1	S5.6-10C2	S5.6-15C2	S5.6-20C2	S5.6-35C2
6.8	S6.8-6C1	S6.8-10C2	S6.8-15C2	S6.8-20C2	S6.8-35C2
8.2	S8.2-6C2	S8.2-10C1	S8.2-10C2	S8.2-20C2	S8.2-35C3
10.0	S10-6C2	S10-10C2	S10-15C2	S10-20C2	S10-35C3
12.0	S12-6C2	S12-10C2	S12-15C2	S12-20C2	S12-35C3
15.0	S15-6C2	S15-10C2	S15-15C2	S15-20C2	S15-35C3
18.0	S18-6C2	S18-15C2	S18-15C2	S18-20C3	S18-35C3
22.0	S22-6C2	S22-10C2	S22-15C2	S22-20C3	S22-35C3
27.0	S27-6C2	S27-10C2	S27-15C3	S27-20C3	S27-35C4
33.0	S33-6C2	S33-10C2	S33-15C3	S33-20C3	S33-35C4
39.0	S39-6C2	S39-10C2	S39-15C3	S39-20C3	S39-35C4
47.0	S47-6C2	S47-10C3	S47-15C3	S47-20C3	S47-35C4
56.0	S56-6C2	S56-10C3	S56-15C3	S56-20C4	xxxxxxxxx
68.0	S68-6C3	S68-10C3	S68-15C3	S68-20C4	xxxxxxxxx
82.0	S82-6C3	S82-10C3	S82-15C4	S82-20C4	xxxxxxxxx
100.0	S100-6C3	S100-10C3	S100-15C4	S100-20C4	xxxxxxxxx
120.0	S120-6C3	S120-10C3	S120-15C4	xxxxxxxxx	xxxxxxxxx
150.0	S150-6C3	S150-10C4	S150-15C4	xxxxxxxxx	xxxxxxxxx
180.0	S180-6C3	S180-10C4	xxxxxxxxx	xxxxxxxxx	xxxxxxxxx
220.0	S220-6C4	S220-10C4	xxxxxxxxx	xxxxxxxxx	xxxxxxxxx
270.0	S270-6C4	xxxxxxxxx	xxxxxxxxx	xxxxxxxxx	xxxxxxxxx
330.0	S330-6C4	xxxxxxxxx	xxxxxxxxx	xxxxxxxxx	xxxxxxxxx

*TO COMPLETE PART NUMBERS, ADD APPLICABLE TOLERANCE LETTER, AND IF FLEXIBLE OUTER INSULATING SLEEVE IS REQUIRED, ADD FINAL SUFFIX LETTER "I".

POLAR
CASE DIMENSIONS (Uninsulated)*

CASE SIZE	Dimensions (Nominal) Length x Diameter, Inches	CASE SIZE	Dimensions (Nominal) Length x Diameter, Inches
C1	0.125 x 0.250	C3	0.279 x 0.650
C2	0.175 x 0.438	C4	0.341 x 0.750

NON-POLAR
CASE DIMENSIONS (Uninsulated)*

CASE SIZE	Dimensions (Nominal) Length x Diameter, Inches	CASE SIZE	Dimensions (Nominal) Length x Diameter, Inches
N1	0.145 x 0.540	N3	0.304 x 1.320
N2	0.197 x 0.915	N4	0.366 x 1.520

*For dimensions of insulated units add approximately 0.063" to length, 0.015" to diameter.

STANDARD RATINGS OF TYPE S NON-POLAR SOLID ELECTROLYTE TANTALUM CAPACITORS*

Cap. Mfds.	6 Volts	10 Volts	15 Volts	20 Volts	35 Volts
0.16	S0.16-6N1	S0.16-10N1	S0.16-15N1	S0.16-20N1	S0.16-35N1
0.24	S0.24-6N1	S0.24-10N1	S0.24-15N1	S0.24-20N1	S0.24-35N1
0.34	S0.34-6N1	S0.34-10N1	S0.34-15N1	S0.34-20N1	S0.34-35N1
0.50	S0.50-6N1	S0.50-10N1	S0.50-15N1	S0.50-20N1	S0.50-35N1
0.75	S0.75-6N1	S0.75-10N1	S0.75-15N1	S0.75-20N1	S0.75-35N2
1.1	S1.1-6N1	S1.1-10N1	S1.1-15N1	S1.1-20N1	S1.1-35N2
1.6	S1.6-6N1	S1.6-10N1	S1.6-15N1	S1.6-20N2	S1.6-35N2
2.4	S2.4-6N1	S2.4-10N1	S2.4-15N2	S2.4-20N2	S2.4-35N2
3.4	S3.4-6N1	S3.4-10N2	S3.4-15N2	S3.4-20N2	S3.4-35N2
5.0	S5-6N2	S5-10N2	S5-15N2	S5-20N2	S5-35N3
7.5	S7.5-6N2	S7.5-10N2	S7.5-15N2	S7.5-20N2	S7.5-35N3
11.0	S11-6N2	S11-10N2	S11-15N2	S11-20N3	S11-35N3
16.0	S16-6N2	S16-10N2	S16-15N3	S16-20N3	S16-35N4
24.0	S24-6N2	S24-10N3	S24-15N3	S24-20N3	S24-35N4
34.0	S34-6N3	S34-10N3	S34-15N3	S34-20N4	xxxxxxxxxx
50.0	S50-6N3	S50-10N3	S50-15N4	S50-20N4	xxxxxxxxxx
75.0	S75-6N3	S75-10N4	S75-15N4	xxxxxxxxxx	xxxxxxxxxx
110.0	S110-6N4	S110-10N4	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx
160.0	S160-6N4	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx

*To complete part numbers, add applicable tolerance letter, and if flexible outer insulating sleeve is required, add final suffix letter "I".
†See your Tansitor distributor for prices for 25 or more pieces.

Type S, Non-Polar Capacitors

Net Price (1-24)†

Case Size	Price (±20% tol.)
C1	$2.78
C2	3.24
C3	5.34
C4	9.70

NOTE: Add 2¢ to unit price if sleeving is required.

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CAIG LABORATORIES INC.

CRAMOLIN PRODUCTS

CRAMOLIN PRODUCTS • ELECTRONIC CONTACT CLEANERS

THE *BREAK-THRU* FOR

HIGHER PERFORMING ELECTRIC CONTACTS

Reduces contact resistance and sparking by dissolving oxide film formations. Temp. operating range −34°C. to 150°C. Effective on all metals and their alloys including gold, silver, copper, etc. Stays on moving contacts. Free of acids. Safe to use. Lasts for years.

FEATURES:

- CLEANER
- LUBRICANT
- PRESERVATIVE
- ANTI-CORROSIVE

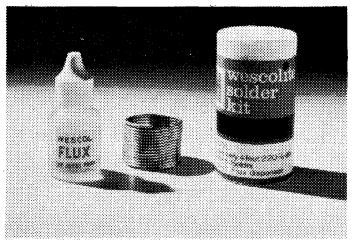
PRICES

CRAMOLIN: Fluid for protection & cleaning of old & new contacts.
CRAMOLIN-SPECIAL: Fluid for protection of new contacts.
CRAMOLIN-PASTE: Semi-solid for protection & cleaning High Voltage/Amperage contacts.

DESCRIPTION	CRAMOLIN (Red Color)	CRAMOLIN-SPECIAL (Blue Color)	CRAMOLIN-PASTE	*CAEON SOLVENT #27
2 oz. Glass Bottle	$1.95	$2.25		
4 oz. Glass Bottle				$1.60
½ pint, Glass Bottle	6.75	7.50		2.85
1 pint, Glass Bottle	13.00	14.50		4.00
1 quart, Glass Bottle	25.50	28.00		6.00
¼ Kg Can (½ lb.)			$2.90	
6 oz. Spray	3.00	3.50		
Engineers Kit {with tech facts}	6.75	(Contains: CRAMOLIN, CR-Special & Paste.)		

Wescolite Solder Kit

NEW!
from
CAIG



SOLDERING SIMPLIFIED

No Pre-cleaning.
No After Cleaning.
Removes oxides, promotes tinning and capillary flow.

Combines a New Wonder Flux and the finest silver solder for stronger bond. Fast and easy to use. Soldering of the difficult or impossible metals together or to each other.

$2.50 Kit

NEW!

Cramolin-Spray PLASTIK

An air drying, colorless special plastic spray coating for electronic circuits, T.V., Radio, Aerial construction, automotive and many electric applications • It seals, protects, insulates and coats • Is age and weatherproof, water repellent, will not fade, has excellent adherence properties. Tropics proof • Resists acid and alkaline solutions as well as mineral oils • Withstands temperatures up to +180°C. Assures long lasting protective coatings on all metals, alloys & chrome • Protects against creeping currents, short circuits, weakened insulation breakdowns • As a sealant it helps to eliminate corrosion.

Price: 6 oz. Spray Can $2.75

Cramolin Spray R

$3.00 6 oz. can

FREE! 6" Extension Spray Tube

Now — for those who prefer the spray can method of application. CRAMOLIN SPRAY R has same properties as CRAMOLIN FLUID. Packaged in neat spray can with automatic valve. Equipped with a whirl spray head, which will apply CRAMOLIN — breath thin — to most remote areas. The Hygrade propellant and speedy evaporating solvent leaves only a microfilm of actual CRAMOLIN on contact area.

CAEON SOLVENT #27

(Trichlorotrifluorethane)

A cleaning agent for removal of oil, grease, and dirt from objects without harm to metal, plastic, or elastomeric parts.

- NON-FLAMMABLE
- VIRTUALLY NON-TOXIC
- CHEMICALLY AND PHYSICALLY PURE
- CHEMICALLY AND THERMALLY INERT
- STABLE

SEE PRICE LIST ON THIS PAGE

The solvent exhibits a washing and penetrating action which aids its cleaning ability. High density and low surface tension enables Caeon #27 to wet the surface of most materials and wash away dirt and sludge.

The solvent is useful in ultrasonic and vapor degreasing equipment. Soils which are normally insoluable in any solvent can often be removed by this solvent with cavitation in ultrasonic units. Vapor rinsing is more easily accompilshed without exposing object to high temperatures.

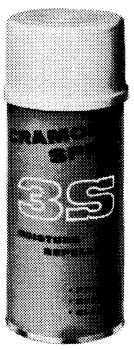
The solvent is compatible with most organic systems. It will remove soils or contaminants and leave the surface 'Residue-Free'. All standard methods of using a solvent may be employed.

Write for Tech Facts.

NEW!

Cramolin-Spray

— MOISTURE REPELLENT — PROTECT — RESTORE — CLEAN 3-S



For all electric and electronic equipment • Effective as a general cleaner, hydro-repellent, dielectric sealer and lubricant • Has excellent adherence. Safe to use on metals, rubber and synthetic materials • Reduces arcing, stops sparking and creeping currents in high voltage parts, switchboards, control panels, isolators, tube sockets, etc. • Temperature consistency between −50°C to +200°C • Can be used on all electronic equipment which is constantly used in high humidity and water, dust and gas fumes • Prevents corrosion, will not evaporate, will not gum, improves lubricating and sliding properties. Contains no silicon.

Write for Bulletin C-400

PRICE: 6 OZ. SPRAY CAN $4.25

CHEMTRONICS

CONTACT KLEEN *Electrical Contact and Control Cleaner That Leaves No Oily Residue*

CONTACT KLEEN restores and cleans relays, attenuators, controls, switches, prongs and all other contact devices.

• Will not harm plastic parts • Non-flammable

Cat. No.	Unit Size	Dealer Net
605	8-oz.	1.49

SUPER FROST AID *Cools Faster • Leaves No Liquid Residue* new

SUPER FROST AID is a faster circuit freezer designed to locate thermal intermittent components . . . without leaving a liquid residue.

Cat. No.	Unit Size	Dealer Net
1550	15-oz.	2.79

new New TUN-O-LUBE *Tuner Cleaner Specially Formulated for Sensitive Tuners*

- Leaves NO oily residual deposits
- Fast drying
- Will not detune the most critical tuners
- Safe for all plastics
- Non-flammable

Cat. No.	Unit Size	Dealer Net
800	8 oz.	1.98

FROST AID *Saves Hours in Locating Defective Components*

FROST AID is a circuit freezer used to instantly cool and pin-point suspected intermittent resistors, capacitors, coils and other components.

Cat. No.	Description	Unit Size	Dealer Net
850	8 oz. ECONOMY SIZE	8-oz.	1.39
1650	16 oz. GIANT SIZE	16-oz.	2.19

TUN-O-LUBE *Triple Action Tuner Cleaner*

Cleans • Lubricates • Protects

CHEMTRONICS "Non-Drift" TUN-O-LUBE is designed to clean and lubricate tuners in one simple operation.

- Will not harm plastic parts
- Non-flammable

AVAILABLE IN THREE SIZES

Cat. No.	Description	Unit Size	Dealer Net
301	Special "Caddy Size"	3 oz.	.98
810	8 oz. Economy Size	8 oz.	1.98
1610	16 oz. Giant Size	16 oz.	2.79

NO ARC *Hi-Voltage Insulator*

CHEMTRONICS' highly effective NO ARC provides a tough and protective insulating coating for hi-voltage transformers, yokes, chassis and leads in high voltage sections.

It is also recommended for printed circuits, waterproofing and exposed wiring.

- With more than 20,000 volts dielectric strength.
- Positively stops arcing and corona shorts in high voltage circuits.

NO ARC 830 is specifically designed to "jet-out" in a confined stream . . . for pin-point application. IT IS NOT A SPRAY!

Cat. No.	Unit Size	Dealer Net
501-1	2-oz.	.98
830	8-oz.	2.79

NO ARC is available in bulk quantities.

TROL AID *Activated Control-Contact Cleaner*

Cleans and lubricates controls, contacts, switches, relays and all other sliding contact devices . . . in one fast operation.

- Safe for all plastics
- Longer lasting protection against oxidation
- Non-flammable

Cat. No.	Description	Unit Size	Dealer Net
302	Special "Caddy Size"	3-oz.	.98
820	8 oz. Economy Size	8-oz.	1.98
506-5	Bottle	2-oz.	.79

KLEER SPRAY *Clear Acrylic Insulating and Protective Spray*

Dries in minutes • Will not "run" • Highest insulating properties • Fungus and chemical resistant.

CHEMTRONICS' KLEER SPRAY is highly recommended for:

- Insulating exposed wiring
- Waterproofing auto ignition systems
- Prevention of rust and corrosion
- Protective coating for antennas

KLEER SPRAY leaves a high-gloss protective coating on metal, wood and paper surfaces.

Cat. No.	Unit Size	Dealer Net
890	16-oz.	1.39

new COLOR LUBE *Non-Drift Color TV Tuner Cleaner*

A tuner cleaner specially formulated with TC-5 to safely clean and lubricate all color TV tuners.

- Will not detune tuners • Safe for all plastics
- Non-flammable

Cat. No.	Unit Size	Dealer Net
CL 8	8 oz.	2.39

MASK-N-GLAS *Anti-Static Glass & Plastic Cleaner & Polisher*

CLEANS and POLISHES Plastic TV Masks—Safety Glass—Face of Picture Tube.

MASK-N-GLAS is a non-abrasive dirt and grime remover . . . highly suitable for the cleaning of television masks, safety glass and the front of picture tubes.

FREE—Lint-Free Cleaning Cloth Attached!

Cat. No.	Unit Size	Dealer Net
840	6-oz.	1.79

Net

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FOR INDUSTRY·RESEARCH·TECHNICIANS·SERVICING — CHEMTRONICS

CHEMTRONICS' ACTIVATED RESIN CORE SOLDER

NEW IMPROVED! FAST FLOWING!

CHEMTRONICS' high quality solder is non-corrosive and non-hygroscopic. Easily solders such metals as Brass, Zinc, Copper and Ferrous Alloys. Exceeds requirements of Federal Specifications QQ-S-571d.

Composition	Diameter In Inches	Wt.	Dealer Net
40% Tin 60% Lead	.062	1 lb.	1.69
50% Tin 50% Lead	.062	1 lb.	2.03
60% Tin 40% Lead	062	1 lb.	2.31
60% Tin 40% Lead	.031	1 lb.	2.98

Cat. No.	Description	Unit Size	Dealer Net
S-100	60/40 Pure tin-lead alloy. A high quality activated resin core solder in a handy dispenser.	110"	.39

OTHER ALLOYS AND SIZES AVAILABLE.
PRICES SUBJECT TO CHANGE WITHOUT NOTICE

TV-RADIO CEMENT

CHEMTRONICS TV-RADIO CEMENT is an unexcelled high grade cement especially prepared for repairing speakers. It can also be used for glass or bakelite.

Cat. No.	Unit Size	Dealer Net
502-2	2-oz.	.55

ALL-PURPOSE GLUE

CHEMTRONICS ALL-PURPOSE GLUE is the best all-purpose glue for servicemen. It is stronger, faster drying and is excellent for joining plastic, wood and metals.

Cat. No.	Unit Size	Dealer Net
503-6	2-oz.	.55

CHEM-OIL *A Very Fine All-Purpose Lubricating-Penetrating Oil*

CHEMTRONICS' CHEM-OIL is highly recommended as a lubricant on record changers, tape recorders and delicate instruments... and also as a "Frozen Yoke Remover".

CHEM-OIL provides superior "lubricating-penetrating" action against rust and corrosion. Non-gumming • non-drying • excellent rust-inhibiting properties.

Cat. No.	Unit Size	Dealer Net
870	8-oz.	1.79

RECORD CLEANER *With FREE "Lint-Free" Record Cleaning Cloth*

CHEMTRONICS Anti-Static RECORD CLEANER is a specially formulated cleaner that is highly effective for cleaning phonograph records and keeping them static-free!

- Provides long lasting protection for all records
- Safe to use for all records

Cat. No.	Unit Size	Dealer Net
RC 33	6-oz.	.98

TAPE HEAD CLEANER

With Special Felt Applicator

CHEMTRONICS' TAPE HEAD CLEANER is scientifically designed to clean heads, tape guides, capstan rollers and all other critical parts of TAPE RECORDERS.

- Increases the life of tape and heads
- Improves fidelity and eliminates tape squeal
- Guaranteed not to affect plastic parts of tape recorder.

Cat. No.	Unit Size	Dealer Net
504-3	2-oz.	.89

NON-SLIP *For Record Changers and Tape Recorders*

new

Prevents slippage of rubber drives, belts and cords.

- Fast-drying
- Will not harm rubber
- Prevents slippage to insure uniform speed

Cat. No.	Unit Size	Dealer Net
507-7	2-oz.	.98

LUBRIPLATE

LUBRIPLATE—a white grease compound for electronic and electrical switches, tuners, contacts, etc. Prevents corrosion... prolongs life of contacts. Also excellent for record changers, phonograph motors, gears, bearings, synchronous motors, etc.

Cat. No.	Unit Size	Dealer Net
105	1¾-oz.	.75

NEW SUPER HUSH®

Has Everything

FIRST IN QUALITY

100% SILICONE OILS

8 oz. Spray Can $2.50
16 oz. Economy Spray Can.. $3.50

FREE 6" Plastic Extender With Every Can

MIRACLE T.V. TUNER CLEANER

ENGINEERED FOR TUNERS MADE WITH PLASTIC PARTS

YOU CAN BE SURE WITH NEW SUPER HUSH

THE ALL-PURPOSE TV TUNER-CLEANER for COLOR and BLACK/WHITE

PURITY	All New Super HUSH* and EVER-QUIET* is made with **SELECTED SAFE SOLVENT**** with added **PROTECTIVE LUBRICANT,** with the ability to clean, dissolve or flush away contaminants leaving a **RESIDUE-FREE** protective surface, and yet will not attack **METALS, PLASTICS,** or **ELASTOMERS.**
SAFETY	All New Super HUSH* and EVER-QUIET* **is NONFLAMMABLE** and virtually **NONTOXIC.**
ELECTRICAL PROPERTIES	All New Super HUSH* and EVER-QUIET* has excellent dielectric properties and high resistance to the flow of electric current.
REASEARCH AND TESTING	**New Super HUSH*** and **EVER-QUIET*** was researched, engineered and is continually being tested daily by our own personnel with 36 years experience in the Radio, Electronics and T.V. Service Field.
ACTION	TV tuners, Color & B/W, push button assemblies, band switches, relays, volume controls, sockets, phono-motors, etc. * Trade Mark ** No Carbon Tet

SINCE 1949 THE ORIGINAL

NEW SUPER EVER-QUIET®

CONTACT CLEANER and PROTECTIVE LUBRICANT

SAME AS HUSH WITHOUT 100% SILICONE OILS

FREE 6" Plastic Extender With Every Can

6 oz. SPRAY CAN $1.59 Net

FOR THE TECHNICIAN THAT WANTS A LOW PRICE CONTACT CLEANER WITH HIGH QUALITY

WRITE FOR CONFIDENTIAL COST PRICE LIST

CHEMICAL ELECTRONIC ENGINEERING, INC.

Net

© U.C.P., Inc.

INJECTORALL ELECTRONICS CORP.

INJECTORALL Chemicals

AIR CONDITIONER

Aero-Kleen

Oil spray for air-conditioner filters, dripless and scented.

495	16 oz. spray can	net $1.29

CEMENTS & GLUES

Phono Grip-Well

Non-slip compound for dial cords, and slipping phono turntables.

68-2	2 oz. glass bottle	net $ .90

Speaker Cement

Vibration proof, fast drying, forms flexible bond; brush in cap, a plastic glue.

201	2 oz. glass bottle	net $ .48

Stik-It Glue

All purpose glue in squeeze bottle, spreads white, dries clear, spout with attached cap.

39	2 oz. squeeze bottle	net $ .24

CIRCUIT COOLERS

Chill-It

A refrigerant spray, to pin-point defective electronic components.

179-6	6 oz. spray can	net $1.29
179-16	16 oz. spray can	net $1.79

COATINGS & INSULATORS

Clear Spray

A transparent plastic spray, waterproofs, insulates metal, wood, rubber, and paper surfaces.

399	16 oz. spray can	net $1.29

Red Hi-Volt

Fast drying insulator, prevents arcing and corona in high voltage circuits, has high dielectric strength.

129-2	2 oz. glass bottle	net $ .89
129-6	6 oz. spray can	1.29
129-16	16 oz. spray can	2.28
129G	1 gallon can	7.50

Poly Spray Insulator

For Coating Printed Circuits — a polyurethane resin forms a smooth, transparent coating, conforms to MIL 1-46058A specifications.

65-16	16 oz. spray can	net $2.28

FURNITURE POLISH

Renew

Scratch cover polish for dark finishes; with cloth.

30WC	6 oz. aerosol can	net $ .90

OILS & LUBRICANTS

Slide E-Z Grease

A Grease Gun In An Aerosol Can — contains ANTI-OXIDANT to prevent corrosion, extends part life.

666-4	4 oz. aerosol can	net $1.20

Spot Lubricating Oil

Non-gumming, for tape-recorders and record players; with plastic needle.

10-3	3 oz. spray can	net $ .90
10-16	16 oz. spray can	net $1.79

Squeal-Stop

Dry lubricant, leaves no oily film, won't affect wires; with plastic needle.

50	3 oz. spray can	net $ .90

CLEANERS

Contact Cleaner

Superior non-toxic spray solvent, dries quickly; with 4" steel needle.

999WN	6 oz. spray can	net $1.79

Degreaser No. 3

Air drying cleaning compound, excellent for ultrasonic application.

3	1 gal. can	net $6.90

Fidelity Record Cleaner

Antistatic spray, cleans and protects records; with record cleaning cloth.

70WC	3 oz. spray can	net $ .90

Hi-Fi Control Cleaner

Cleaner and lubricant for volume controls; with plastic needle.

799-3	3 oz. spray can	net $ .90

Lens Kleen

Plastic cleaner, antistatic, for plastic TV windows and meters; with cleaning cloth.

20	6 oz. aerosol can	net $ .99

Super 100

Tuner cleaner and lubricant, will not affect plastics, contains ANTI-STATIC agent, for color and black & white TV tuners.

		NET
100-3	3 oz. spray can with plastic Needle	$ .89
100-6	6 oz. spray can with steel Needle	1.95
100-8	8 oz. spray can with steel Needle	2.25
100-16	16 oz. spray can with steel Needle	2.99

Tape Head Cleaner

Cleans tape recorder heads, removes squeal, flutter, wow, safe to use, with cotton-covered wire brush.

250-2	2 oz. glass bottle	net $ .89
250-3	3 oz. spray can with plastic needle	1.19

Tuner Cleaner

Cleaner and lubricant for TV tuners and controls, non-toxic, non-flammable.

		NET
899-3WN	3 oz. spray can with plastic Needle	$ .89
899-6	6 oz. spray can only without Needle	1.79
899WN	6 oz. spray can with steel Needle	1.95
899-8WN	8 oz. spray can with steel Needle	2.25
899-16WN	16 oz. spray can with steel Needle	2.99

PAINTS & VARNISHES

Anti-Fungus Varnish

Conforms to MIL 173B specifications, natural color; prevents fungus growth.

15-16	16 oz. spray can	net $2.40

Siliconized Spray Paints

with FREE masking tape - 15 oz. ea. net $1.29

211 Transformer Black	225 Flat Black
212 Appliance White	226 Metal Primer Black
213 Antenna Aluminum	227 Metal Primer Grey
214 Metallic Gold	230 Metallic Grey
215 Ham Shack Grey	231 Metallic Green
219 Light Green	232 Metallic Blue

SERVICE AIDS

E-Z Off Yoke Remover

Loosens frozen yokes on picture tubes; with plastic needle.

40	3 oz. spray can	net $1.19

Injectorall Steel Needle

Stainless steel tube with special fitting for INJECTORALL spray cans.

6N	6 inch needle	net $ .66

© U.C.P., Inc.

GC ELECTRONICS

CHEMICALS AND KITS

GC Chemicals (Cements, Thinners, Paints, Oils, Varnishes, etc.), are available in handy 2 oz. bottles with brush-in-cap. Also supplied in larger sizes.

G-C RADIO-TELEVISION SERVICE CEMENT—This high grade cement is specially prepared for Radio, Television and Speaker Work. Unexcelled for cementing and replacing cones on dynamic speakers, repairing rattling or torn cones, cementing voice coils, spiders, etc.
Cat. No. 30-2 2-oz. Net $ .55

G-C PLASTIC CEMENT—Excellent for cementing broken plastic cabinets, cementing grille cloth in place, cementing dial and glass crystal assemblies, cementing knots in dial, cords, etc.
Cat. No. 32-2A 2-oz. Net $ .55

G-C "BAKELITE" CEMENT—This cement is especially made for cementing "BAKELITE" to "BAKELITE" and to other materials.
Cat. No. 32-2 2-oz. Net $ .87

G-C "VINYLITE" CEMENT—This new G-C Cement based upon "VINYLITE" vinyl resins, has great adhesion, high tackiness and extreme flexibility.
Cat. No. 58-2 2-oz. Net $ .55

G-C HOUSEHOLD and MODEL CEMENT—Fast-drying cement, suitable for many uses. Excellent "Household Cement"; will cement wood, paper, plastics, metal, china, crockery, ceramics, etc.
Cat. No. 45-2 2-oz. Net $ .55

G-C FABRIC AND GRILLE CLOTH CEMENT—For cementing grille cloth and fabrics to either metal, plastic or wood cabinets.
Cat. No. 22-2 2-oz. Net $ .60

G-C WOOD CABINET GLUE—This is the ordinary well-known wood glue that is used in repair of furniture, chairs, radio cabinets, etc.
Cat. No. 39-2 2-oz. Net $ .55

G-C No. 28 CEMENT THINNER— This thinner is made of same solvents as G-C Service Cement and makes the best thinner for G-C Service Cement.
Cat. No. 28-2 2-oz. Net $ .52

G-C RADIO SERVICE SOLVENT—The best solvent for loosening cement on speaker cones, frames, etc., made to dissolve all types of cements. Can also be used as a thinner for G-C Cement and other cements.
Cat. No. 31-2 2-oz. Net $ .52

G-C No. 29 LACQUER THINNER—Solvent for thinning all lacquers, lacquer enamels, telephone black and gray, touch-up lacquers.
Cat. No. 29-2 2-oz. Net $ .52

G-C No. 67 PAINT THINNER—Excellent for Ruf-Koat, Krome-Koat, B-K Cement, Insulating Varnish and Rubber Cements.
Cat. No. 67-2 2-oz. Net $ .52

G-C No. 41 Q-DOPE THINNER—Excellent solvent for Polystyrene, Q-Dope and any other Polystyrene Coil Dopes and Cements. Will soften and disolve polystyrene rods, sheets, etc. Clear water-white solvent will not change characteristics of original materials.
Cat. No. 41-2 2-oz. Net $ .52

G-C RUBBER-TO-METAL & PHONO DRIVE CEMENT Specially prepared for cementing ruber phono and dial drives to shafts and pulleys.
Cat. No. 35-2 2-oz. Net $ .60

G-C PLIOBOND CEMENT—Bonds anything to anything—iron, steel, plastic, glass, aluminum, cotton, vinyl sheets, stainless steel, etc. A truly universal cement.
Cat. No. 43-2 2-oz. Net $ .60

G-C ACRYLIC-PLEXIGLASS CEMENT — Specially prepared for cementing Lucite, Plexiglass and other arcylic materials.
Cat. No. 40-2 2-oz. Net $ .60

G-C NE-O-PRENE CEMENT—For cementing neoprene rubber to neoprene or neoprene to other products, such as metal, wood, paper, etc.
Cat. No. 52-2 2-oz. Net $ .87

G-C LABEL CEMENT—Here's a label cement that will make labels stick to anything—metal, glass, wood, tin, etc.
Cat. No. 46-2 2-oz. Net $ .55

G-C TV HIGH VOLTAGE CORONA DOPE—Prevents corona shorts on high voltage circuits in Television sets.
Cat. No. 47-2 2-oz. Net $ .78

G-C RED-X TV CORONA DOPE—Prevents corona shorts in high voltage circuits in TV sets. Coat surfaces and sharp corners to stop corona effect.
Cat. No. 50-2 2-oz. Net $ .78

G-C TV TUBE KOAT—For recoating the outside of TV picture tubes that have become scratched or the surface is peeling.
Cat. No. 49-2 2-oz. Net $ .72

G-C TV LINE SEAL FOR UHF AND VHF—Outdoor special acrylic sealer for sealing TV wires, terminals, screws, antennas, junction boxes.
Cat. No. 17-2 2-oz. Net $ .60

G-C PHONO NON-SLIP COMPOUND—Prevents slippage of phono drives on changers, tape recorders, and all types of recorder drives.
Cat. No. 86-2-S 2-oz. NET $ .96

G-C RED GLYPTAL INSULATING VARNISH—Most common of all protective insulating coatings, used on all solder connections, high voltage points, anti-corona.
Cat. No. 90-2 2-oz. Net $ .63

NON-SLIP COMPOUND FOR RADIO DIALS—Powder Compound for treating friction type dial drives such as cords, cabels and belts.
Cat. No. 1210 Non-Slip, 2-oz. Net $ .55

LIQUID NON-SLIP—Penetrating and fast-drying liquid dressing. Shrinks fibres, prolongs life of cables and belts and prevents slipping.
Cat. No. 1211 ½-oz. Net $ .38

G-C DE-OX-ID—Cleans and prevents oxidation on sensitive circuit contacts. Use in Television, Radio, Telephone, Relays, Instruments, etc.
Cat. No. 19-1 1-oz. Net $ .70
19-2 2-oz. Net $1.03

G-C CONTACT AND CRYSTAL CLEANER—A fast-evaporating cleaner specially prepared for cleaning contacts and crystals. Cleans easily and will not injure delicate parts, crystals, etc.
Cat. No. 127-2 2-oz. Net $ .52

NEW G-C ELECTRONIC CONTACT CLEANER—Most popular all-purpose contact cleaner on the market. Fast drying and fast acting. Leaves a non-corrosive film on the contacts that insures long, trouble-free action.
Cat. No. 210-2 2-oz. Net $ .60

G-C DE-NOIZ ELECTRONIC TV CONTACT AND DETENT CLEANER—Stops Noise on all types of contacts, volume controls, tuners, detents, switches, relays, etc.
Cat. No. 51-2 2-oz. Net $ .97

G-C CARBON CONTROL CLEANER—Makes it easy to repair most noisy volume controls, tone controls, switches, band switches, push-buttons—in fact, most all types of moving contacts. A special chemical that both removes oxidation and minimizes future trouble by coating the contacts.
Cat. No. 212-2 2-oz. Net $ .52

G-C CARBON TETRA-CHLORIDE—100% pure Carbon Tetra-Chloride, non-explosive and non-inflammable. For cleaning electrical controls and contacts.
Cat. No. 211-2 2-oz. Net $ .52

G-C GRAFOLINE—Insures proper and lasting repairs for all air-exposed contacts, switches, and wire-wound volume controls—wherever dust and dirt affect the quiet action of adjustable radio parts or controls.
Cat. No. 120-2 2-oz. Net $ .60

G-C CARBON-X—A practical method to touch up those worn and noisy spots on carbon volume controls.
Cat. No. 1205 2-oz. Net $ .80

G-C CONTACT DOPE—Ideal contact cleaner for electronic switches, controls and contacts. Specially prepared to resist corrosion and oxidation on contacts.
Cat. No. 1214 2-oz. Net $ .48

G-C NON-CORROSIVE LIQUID SOLDERING FLUX—Best quality non-corrosive flux for all types of radio and electrical soldering, for copper, brass, steel, nickel, etc.
Cat. No. 42-2 2-oz. Net $ .55

G-C Q-DOPE (COIL DOPE)—Specially prepared for coating, doping, sealing, cementing and impregnating coils and paints in "Very High" and "Ultra High" frequency ranges.
Cat. No. 37-2 2-oz. Net $ .55

G-C LIQUIDOPE—Gives coils a tough protective film that insures firmness and prevents characteristic changes due to weather.
Cat. No. 36-2 2-oz. Net $ .60

G-C INSULATING & DIPPING VARNISH—Produces a smooth, tough film that is water-proof, oil-proof and non-corrosive. Recommended for treating field coils, noisy or buzzing transformers and choke coils.
Cat. No. 56-2 2-oz. Net $ .60

G-C FUNGUS VARNISH—Used on all types of Radio, Electronics and Communication equipment to prevent moisture absorption and fungus growth, when equipment is used in hot and humid climates.
Cat. No. 57-2 2-oz. Net $ .66

G-C STRIP-X—Removes insulating enamel from wires for easy soldering. Use on magnet wire, etc.
Cat. No. 26-2 2-oz. Net $ .78

G-C RECO-STATIC CHASER—Minimize dust accumulation on records and picture tube. Reduces dust attracting static electricity.
Cat. No. 48-2 2-oz. Net $ .55

G-C MAG-NETIK RECORDING HEAD CLEANER—Cleans without injury to the recording head that gradually lose their sensitivity if oxide accumulates.
Cat. No. 53-1 1-oz. Net $ .67
53-2 2-oz. $1.03

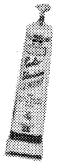
GC MAGNETIC CEMENT--Permanently bonds iron cores, broken loopsticks, slugs, flyback and yoke cores. Renews part to original function.
Cat.No. 38-2 2-oz. Net $.80

G-C No. 14-2 PRINT-KOTE SILICONE RESIN—After repairing or replacing parts in printed circuits, protect the panel joints and parts. Fast air drying.
Cat. No. 14-2 2-oz. Net $1.40

G-C No. 13-2 PRINT-KOTE SOLVENT FOR SILICONE RESIN—The only solvent for G-C 14-2 Silicone Resin. Will dissolve and remove silicone resin from printed circuits.
Cat. No. 13-2 2-oz. Net $ .42

G-C PRINT-KOTE SOLDERING FLUX—Non-corrosive liquid flux for easy soldering and repairing of printed circuits.
Cat. No. 12-2 2-oz. Net $ .60

G-C CEMENT KIT — A kit containing a complete selection for every application. Kit includes 2-oz. samples of Service, Pli-O-Bond, Acrylic, Plastic, Bakelite, Vinylite, Grille Cloth, Model, Wood, Rubber-to-Metal, Electrical and Resistor, Neoprene, Label and Vinyl Cements. Ideal for research and development.
Cat. No. 345 Net $5.97



G-C RADIO AND TELEVISION CEMENT—High grade speaker cement in a handy tube for those who prefer to use a tube. Cement can be applied directly from tube on the parts to be cemented without the use of a brush. Also used for television work, sealing nuts, bolts, etc., on antennas, rotators, etc.
Cat. No. 34-2
2-oz. tube Net $ .55

GC SPRAY CANS

NEW, ALL-PURPOSE SPRA-KLEEN-cleaner, lubricant. Excellent for business and industrial machines; motors, relays, switches, adding machines, comptometers, etc.
Cat. No. 32-8666 . 6 oz...Net $1.49

SPRA-KLEEN - eliminates noise due to dust, dirt and corrosion on contacts. Just spray, and work controls.
Cat. No. 8666...6 oz....Net $ .99
Cat. No. 8666-16.....Net $ 1.95
16 oz (sprays upside-down)

RELAY-KLEEN - contact cleaner; excellent for cleaning relays and contacts in switchboards, automatic pinball or bowling machines, rocket or satellite circuitry.
Cat. No. 8682....6 oz...Net $ 1.89
Cat. No. 8682-16..16 oz..... Net $3.49

JIF - contact and control cleaner - will not harm plastics. Contains no harsh solvents. Cleans, lubricates, long-lasting protection.
Cat. No. 8670-6...6 oz.. Net $ 1.79

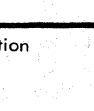
MP-5 outdoor metal protectant; provides chemisorption type bond to metal surfaces. Superior to other organic compounds. Contains - UCARSIL* silicones.
*Trademark of Union Carbide Corp.
Cat. No. 8681 ...6 oz..... Net $1.79

ZERO-MIST SPRA KOAT - instantly locates defective(intermittent) circuit components due to temperature change. Circuits cooled instantly. Components isolated.
Cat. No. 8667...16 oz... Net $ 2.42

REK-O-MAGIC ANTI-STATIC SPRAY eliminates abrasive dust that ruins records. Cleans, easy to use.
Cat. No. 98-12..12 oz... Net $ 1.88

RUF-KOAT WRINKLE VARNISH hard, durable finish.
Cat. No. 60-12.....Net $ 2.25
12 oz. Black
Cat. No. 60-13.....Net $ 2.25
12 oz. Gray

GC DE-OX-ID - electrical contact cleaner for silver, detent and radar contacts. For TV, radio, telephone, relays, contacts, etc.
Cat. No. 19-6....6 oz.... Net $ 2.45

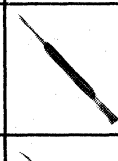


GC STANDARD PRINTED CIRCUIT KIT - contains foil, solder washers, solder wire, solder probe tool and brush, silcone resin lacquer and solvent, tweezers and instructions.
Cat. No. 682..... .....Net $ 5.35

PRINTED CIRCUIT SERVICE AIDS

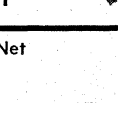
GC MASTER PRINTED CIRCUIT KIT includes all items in standard kit plus one Ungar Soldering iron with special tip and 6-ounce spray can of 14-6 Silicone Resin spray and instructions.
Cat. No. 683.....Net $10.25

GC PRINTED CIRCUIT SILICONE RESIN SERVICE KIT - used by leading TV set manufacturers. Everything necessary for printed circuit repairs.
Cat. No. 680..... ...Net $ 6.35



GC PRINT-KOTE SOLDER AID PROBE
Cat. No. 9093.....Net $ 1.00

GC PRINT-KOTE BRUSH & SCRAPER
Cat. No. 9094.....Net $ .98



GC PRINT-KOTE HEAVY DUTY SOLDERING AID TOOL
Cat. No. 9088..... ....Net $ 1.00

K-27 PRINT-KOTE - TV silicone resin for printed circuits. Insulates, protects, prevents shorts. As used by the original manufacturer.
Cat. No. 14-6...6 oz.....Net $ 2.42

GC PRINT-KOTE SOLDER - special non-corrosive flux and low-melting solder combined with Pure Silver.
Cat. No. 9131 11-foot coil Net $ .52

GC SILVER PRINT - for printed circuit repairs. Same Pure Silver as used by original printed circuit manufacturers
Cat No 21-1 ½ troy oz Net $ 3.30
Cat No. 21 2 1 troy oz. Net $ 5.75

GC COPPERPRINT - for repairing printed circuits High conductive; fast drying. 2 oz bottle
Cat No 20-2 Net $ 1.95

GC SOLDERING PASTE - high quality, non-corrosive soldering paste for TV, Radio and Electrical repairs.
Cat No. 1207 2 oz Net $ .42

© U.C.P., Inc.

GC ELECTRONICS

CHEMICALS AND KITS

GC NON-TOXIC ELECTRO-TET CLEANER

Closely parallels Carbon Tetrachloride, but much safer. Non-flammable, fast drying.
Cat. No. 10-G.. 1 gallon..Net $ **7.50**

GC KLEEN-TEX CLEANER

Removes grease, oil, wax. Safe, slow burning, high flash, inexpensive cleaner for motors, chassis, vacuum cleaners, etc.
Cat. No. 11-G.. 1 gallon..Net $ **3.75**

GC ELECTRONIC CONTACT CLEANER HYPODERMIC NEEDLE INJECTOR

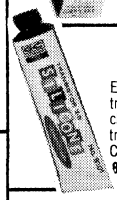
A handy applicator using the hypodermic injection method for cleaning and lubricating around controls and tight places.
Cat. No. 8383.....Net $ .48

GC DE-OX-ID KIT WITH NEEDLE INJECTOR

Contains 2-ounce bottle of De-Ox-Id cleaner and hypodermic type of applicator.
Cat. No. 8460.....Net $ **1.45**

GC PHONO TURNTABLE MOTOR & GEAR LUBRICANT

A specially developed lubricant for phonographs. Lubricant clings to surface of parts; eliminates future repairs.
Cat. No. **1203-S** 2-ounce Net $ **.55**



GC TRANSISTOR Z-5 SILICONE COMPOUND

Essential in maintaining efficient transfer of heat from transistor to chassis. Use whenever replacing transistors.
Cat. No. **8101-S** 1-ounce tube Net 2.17

GC SKRATCH STIK KIT

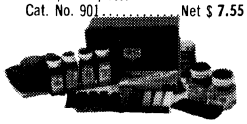
For Walnut, Mahogany and Light wood surfaces. Kit of 3 sticks.
Cat.No. 909-K ..... Net $1.35

GC MASTER DELUXE CABINET REPAIR KIT

Contains varnishes, enamels, spirit stains, all of the essentials needed to make cabinet repairs like a professional. Satisfy even the most exacting customer.
Cat. No. 900.....Net $ **9.65**

GC CABINET REPAIR KIT

Repair wood, plastic, or bakelite cabinets, knobs, etc. Contains the necessary equipment for repairing dents, nicks, etc.
Cat. No. 901.....Net $ **7.55**

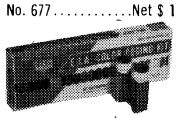


GC SCRATCH STIKS

For Walnut, Mahogany and Light Wood. Removes scratches on all shades and colors of wood.
Cat. No. 909 .....Net $ .48

GC E.I.A. COLOR CODING KIT

All standard E.I.A. colors: Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray and White. E.I.A. color chart included.
Cat. No. 677.....Net $ **1.47**

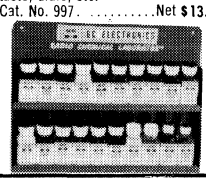


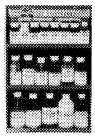
GC DIAL & SIGNAL LIGHT COLORING KITS

For signal systems, radio dials, decorative lighting, etc. Contains Red, Green, Blue, Amber, Purple and solvent.
Cat. No. 66-5, kit of 5, no purple Net $ **1.23**
Cat. No. 66-6, kit of 6... Net $ **1.43**

GC RADIO TV CHEMICAL LAB

Twenty, 2-ounce bottles in permanent bench rack. Every needed chemical and cement is included for all types of repairs on speakers, coils, contacts, dials, etc.
Cat. No. 997. .....Net $ **13.75**





GC DELUXE RADIO-TV CHEMICAL LAB

For service shop and industrial plant. Complete practical lab, designed for serviceman, engineer, technician. Contains solvents, cleaners, cements, etc.
Cat. No. 998..... ...Net $ **17.50**

NEW!

COLORMAGIC SPRA LUBE COLOR TV TUNER CLEANER

Non-Drift cleaner especially formulated for cleaning and lubricating all color TV Tuners. Completely safe for plastics used in tuners. Made of highest quality chemicals. Safe to use - non-flammable.

Cat. No. **8888** ... 8 oz spray can Net **1.95**

COLORMAGIC COLOR CLEAR COLOR TV TUBE CLEANER & ANTI-STATIC AGENT

Keeps away unsightly dust and lint. Cleans and destaticizes color TV picture tube surface sparkling clear.

Cat. No. **8890** ... 8 oz spray can Net **.99**

GC MOTOR CLEANER

Effectively and safely removes harmful, dangerous dust, metal and grease deposits. For electric motors, switches, generators, control panels, etc. Quick drying - leaves no oily residue.

Cat. No. **10-910** 16 oz spray can Net **1.89**

GC DRI-SPRA

FORMULA X-27
STOPS ELECTRICAL FAILURE?
Cleans and lubricates - seals out moisture - prevents rust and corrosion. New water displacement spray prevents 80% of electrical equipment failures.

Cat. No. **8678** 6 oz spray can Net **1.79**

GC PLASTIC & GLASS CLEANER

Spray on - wipe off dirt, dust and grime from all glass and plastic surfaces without streaks or dulling residue. Contains grease - cutting ammonia.

Cat. No. **9082** 16 oz spray can Net **.79**

GC PRESSURIZED LUBRICATING OIL

For complete, thorough lubrication. Reaches into smallest areas. Excellent for ball, bearings, moving machinery, gears, etc. A high-grade, light machine oil. No spilling, No waste.

Cat. No. **10-916** 6 oz spray can Net **.75**

GC BENCH FIRE EXTINGUISHER

Works on all types of fires; electrical, oil, grease. Fast, low-cost method of fighting small fires - excellent supplemental fire protection. Keep one in garage shop or home.

Cat. No. **10-914** 16 oz spray can Net **1.57**

GC INSTANT CONTACT CLEANER

Thorough cleaning action - completely evaporates - leaves no filmy deposits. Non-flammable! Economical instant contact cleaner penetrates even the most microscopic surface openings, cleans away all harmful dirt and grime.

Cat. No. **10-610** 6 oz spray can Net **1.79**

GC CARTON SAVER

Re-use old carton - cut packaging costs. Spray out stenciling and labels - renews cartons. Matches carton color - fast drying - maximum coverage. Will not rub off.

Cat. No. **10-912** 16 oz spray can Net **1.65**

THE FINISHING TOUCH THAT MARKS A PRO!

IN ELECTRICAL WORK—
IN PAINTING

Goes on in seconds—
dries in minutes!

KRYLON...
AMERICA'S NO. 1
SPRAY PAINT

BORDEN CHEMICAL

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Heeger, Inc., as national sales administrators, present the following chemicals that have found favor with engineers, laboratory technicians and production in industry, to assist them in procuring the best proven material to enable them to arrive at the best results.

From the laboratories of
H. M. H. INDUSTRIES

PROPELLON INSTANT FREEZE

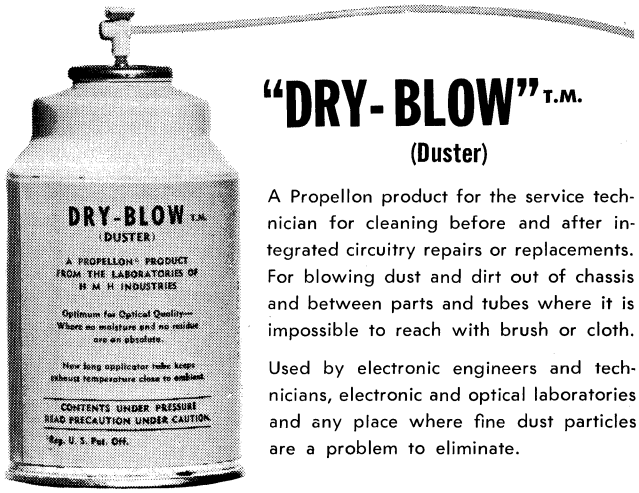
Used by electronic engineers and technicians for detecting defective electronic and electrical parts, due to thermal intermittance. Valuable in the laboratory, field testing, service bench or field work, maintenance of equipment and in the electronic and electrical analysis of trouble. Propellon "Instant Freeze" delivers the lowest temperature practical for above uses. Odorless, non-toxic and non-flammable.

The 12" extender facilitates in directing the spray directly onto the area tested. Also aids in getting into inaccessible places.

12 TO A CASE

PACKED IN 7 OZ. CANS AND 15 OZ. CANS — 12" EXTENDER FREE WITH EACH CAN

7 OZ. CAN, with 12" extender.....ea. $1.45
15 OZ. CAN, with 12" extender.....ea. $2.25



"DRY-BLOW" T.M.

(Duster)

A Propellon product for the service technician for cleaning before and after integrated circuitry repairs or replacements. For blowing dust and dirt out of chassis and between parts and tubes where it is impossible to reach with brush or cloth.

Used by electronic engineers and technicians, electronic and optical laboratories and any place where fine dust particles are a problem to eliminate.

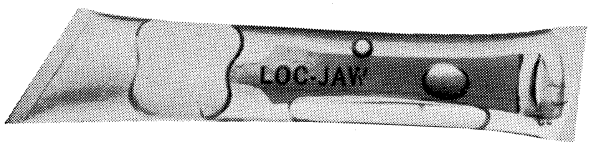
12 TO A CASE

PACKED in 15 OZ. CANS — 18" EXTENDER FREE WITH EACH CAN

15 OZ. CAN, with 18" extender.....ea. $2.25

From the laboratories of
HASCOL ENTERPRISES

LOC-JAW



A SCIENTIFICALLY COMPOUNDED ADHERENT FORMULA

"Loc-Jaw" is an "Epoxy" base compound for bonding metal to metal, glass to glass, glass to wood, wood to wood, metal to wood, etc. Properly proportioned, it hermetically seals small parts and connections. After setting, it actively resists salt water and salt air, gasoline, chemicals and solvents of all types and withstands temperatures up to 300° F. Applicable to many industrial uses. Packed in its own plastic container and applicator. Indispensable where an adherent or sealer is needed.

INDIVIDUAL PLASTIC CONTAINER.....ea. 50c
BAG OF 10.....per bag $4.50

From HASCOL LABORATORIES

SAL-MET

NON-CORROSIVE FLUX

- **SOLDERS COPPER TO ALUMINUM**
- **ALUMINUM TO ALUMINUM**
- **SOLDERS ALL METALS**

A scientific laboratory non-corrosive flux for soldering all metals. By using "SAL-MET," copper can be soldered to aluminum, aluminum to aluminum, copper to steel, copper to copper; in fact, any metal to metal is possible. No special preparation on material to be soldered. Use conventional solder, applied with quick heat, regular soldering iron, torch or pot.

1 oz. Tubes.....ea. $ .95
1 lb. Can.....ea. $7.88

WRITE FOR COMPLETE CATALOG

PRICES SUBJECT TO CHANGE

L M B®

QUIETROLE

the original LUBRICANT CLEANER

SPRAY IT OR DROP IT . . .

the NEW

BIG THREE AEROSOLS

for Electronic Servicing

MARK-II FOR TUNERS

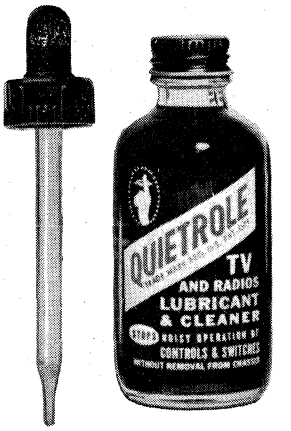
SPRAY-PACK FOR CONTROLS & SWITCHES

"HARMLESS TO PLASTICS"
"HARMLESS TO METAL"

SILITRON FOR GENERAL USE

OR

QUIETROLE BOTTLE with the Eye Dropper



"QUIETROLE" is the preferred, standard product of the industry! Your guarantee for quieting noisy television and radio controls, switches and other moving parts is QUIETROLE. Here is the original, non-inflammable, most reliable lubricant-cleaner on the market today — developed through years of factual and authentic research. Perfect for all servicing, including color.

NON-INFLAMMABLE — NON-CONDUCTIVE — NON-CORROSIVE

There is no substitute for QUALITY . . . get QUIETROLE TODAY

A First of the Industry. . . . A 19 Year Plus Record of Proven Superiority. Built to Meet a Demand, Not a Price.

QUIETROLE BOTTLE

Cat. No.	Size	Min. Order	Min. Re-order	Distr. Net Resale price
10-2	2 oz.	24	24	$1.69
10-3	4 oz.	16	8	2.54
10-4	8 oz.	8	6	5.07
QUIETROLE BOTTLE WITH BRUSH-N-CAP				
10-3A	4 oz.	16	8	2.64

QUIETROLE AEROSOLS

All include free plastic extender . . . HARMLESS TO PLASTICS . . . ZERO EFFECTS ON CAPACITY & RESISTANCE . . . Non-Inflammable . . . Non-Conductive . . . Non-Corrosive.

Cat. No.	Size	Order Min.	Min. Re-order	Distr. Net Resale price
10-5	6 oz.	12	12	2.89 Spray-Pack
10-7	6 oz.	12	12	2.89 Mark II
10-8	6 oz.	12	12	1.98 Silitron

QUIETROLE COMPANY

Net

© U.C.P., Inc.

Walsco ELECTRONICS

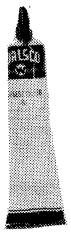
WALSCO CHEMICALS

CONTACTENE

Lubricates as it cleans; fast acting, quick drying. Eliminates volume control noise. Absolutely anti-oxidant.

No.	Desc	Net
80-02	2-oz bottle	.60
80-04	4-oz bottle	.90
80-08	8-oz bottle	1.65
80-16	16-oz can	2.50
80-06	6-oz spray can	.99
80-12	16-oz spray can	1.95

WALSCOLUB-B



Electrically neutral lubricant that prevents corrosion.. Makes for smooth, noise-free operation of electrical contacts, band switches, attenuators, push button tuners, remote control switches and other contacts.

No.	Desc	Net
22-01	1-3/4-oz tube	.55

WALSCO GLYPTAL

An outstanding insulating varnish. Resists heat oils and acid. High arc resistance makes it essential in electrical and electronic application.

No.	Desc	Net
134-02	2-oz bottle	.63
134-08	8-oz bottle	1.90

RED CORONA DOPE

Positively stops high voltage "Corona". Protects against "shorts" in high voltage circuits of TV sets. Completely coat surfaces and sharp corners to stop dangerous corona effect.

No.	Desc	Net
198-02	2-oz bottle	.78

CONTACTENE INJECTOR

A fine surgical-grade steel needle. For inserting into places where other applicators cannot reach. Makes lubrication of most volume controls and other parts possible without dismantling.

No.	Net
989	.48

"NO-OX"

A liquid, non-gumming chemical that dissolves corrosion with amazing speed without the use of drastic solvents. Lubricates and protects slide contacts long after application.

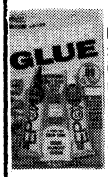
No.	Desc	Net
100-01	1-oz bottle	.70
100-02	2-oz bottle	1.03
100-16	1 pt. bottle	8.50
100-33	1 gal. can	40.65
100-34	5 gal. can	191.00
100-06	6-oz. spray can	2.33

AIR-DRY WRINKLE VARNISH

Factory like finish without baking.

No.	Desc	Net
145-06	Blk, 6-oz jar	1.87
145-12	Blk, 16-oz spray can	2.25
145-33	Blk, 1 gall. can	15.91
146-12	Gray, 16-oz spray can	2.25
146-33	Gray, 1-gall. can	16.49

SUPER GLUE



New miracle cement. Bond strength of over 3000 lbs. per square inch. Particularly suitable for cementing non-porous materials. Cures at room temperature through chemical action. Supplied in two ingredients which must be mixed before application.

No.		Std.Pkg.	Net
40-100	2 - ¾ oz. tubes	12	.99

CHLORO-KLEEN (NON-TOXIC)

A powerful solvent for cleaning of electronic components, switches, chassis, etc. Dissolves grease, dirt, oils, tar, and waxes. Safe indoors, under normal conditions.

No.	Desc.	Net
113-04	4-oz bottle	.65
113-16	16-oz bottle	1.55

LUBRIPLATE

Super lubricant, grease type, protective. Reduces friction loss, prevents rust and corrosion. Extends bearing life 50% ...increases mechanical efficiency 20% over ordinary lubricant.

No.	Desc	Net
23-02-S	2-oz tube	.75

WALSCO SOLVENTS AND THINNERS

TYPE CEMENT	USE SOLVENT	CAT.NO.	QTY.	NET
Plastic Cement	*Cement	201-02	2 oz.	.52
Radio Cement	Solvent	201-04	4 oz.	.83
		201-08	8 oz.	.95
		201-16	16 oz.	1.53
		201-33	1 gal	5.55
Polystyrene Cement	Polystrene	202-02	2 oz.	.52
	Solvent	202-04	4 oz.	.77
		202-33	1 gal	4.25
Vinylite Cement	Lacquer	203-02	2 oz.	.55
Radio Cement		203-33	1 gal.	5.28
Crystalizing Lacquer		203-34	5 gal.	22.75
Fungus Lacquer				
Telephone Black & Grey				
Light Bulb Coloring				
Anti-Corona Laquer				
CR-Tubecoat				
Rubber Cement		204-04	4 oz.	.71
Wrinkle Varnish	Thinner	204-33	1 gal.	3.96
Flock Undercoat				
Elec. & Resistor Cement				
Wood Glue	Water			
Aluma-Flux				

*Cement Solvent should be used to loosen hardened cement on speaker cones, voice coils, etc., Solvent will discolor Plastic and Radio cements if used as a thinner; Lacquer Thinner is recommended for this purpose.

RADIO CEMENT

A fast drying, elastic adhesive that will not become brittle with age. Compounded especially for speaker repair. Unaffected by cold or high temperature, moisture or oil.

No.	Desc.	Net
50-01	1-3/4-oz tube	.55
50-02	2-oz bottle	.55
50-04	4-oz bottle	.82
50-08	8-oz bottle	1.45
50-16	1 pt. bottle	2.50

DIAL CORD FRICTION STICK

To prevent slipping, simply rub Walsco Friction Stick on dial cord or belt. Increase grip, lengthens life of cord.

No.	Desc	Net
259-01		.25

WALSCO SPRAY CHEMICALS

KLEEN-TUNE

TUNER CLEANER completely cleans and lubricates all tuners. Kleen-Tune is a non-flammable, non-toxic cleaner.. formulated to clean, lubricate and renew all styles of TV tuners in one simple operation. Kleen-Tune provides a protective film against noise and oxidation and is not harmful to other components.

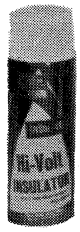
No.	Std.Pkg.	Net
40-800	12	1.98

OX-NOX

VOLUME CONTROL & CONTACT CLEANER for removing oxidation and noise from volume controls and electrical contacts. Ox-Nox cleans, lubricates and restores controls and tuning condensers. Non-flammable and non-toxic.

No.	Std.Pkg.	Net
40-802	12	1.98

INSUL-VOLT



20K high voltage insulator. Positive insulation against high-voltage leaks, arcing and corona shorts.

No.	Net
40-804 8-ounce Spray Can	1.99

NO-OX

Contact cleaner; dissolves corrosion quickly, efficiently with no harsh solvents. Lubricates and protects.

No.	Net
100-06 6-oz spray can	2.33

INSUL-VOLT

HI-VOLTAGE INSULATOR WITH SURE SHOT CONFINED STREAM Insul-Volt is specifically designed to meet the requirements of Military Specification MIL-V-1137-A, Grade BA, Types M & N. Insul-Volt is positive insulation against Hi-Voltage leaks, arcing and corona shorts such as Hi-Voltage sections of TV sets, or any electrical apparatus requiring this superior protection.

No.	Std.Pkg.	Net
40-804	12 8-oz spray can	1.99

FREEZE-MIST

CIRCUIT COOLER saves hours locating defective intermittent circuit components caused by temperature changes. Walsco Freeze-Mist cools instantly pinpointing faulty capacitors, resistors, transistors, cold solder and oxidized junctions, etc. due to temperature variances..

No.	Std.Pkg.	Net
40-808	12 8-oz spray can	1.98

PRINTED CIRCUIT INSULATING VARNISH

Silicone Resin type. Provides tough, protective coating for printed circuits. Fast air-drying.

No.	Net
120-06 6-ounce Spray Can	2.42

CONTACTENE

Fast action; cleans and lubricates noisy switches and controls, quick drying.

No.	Net
80-06 6-oz spray can	.99

WALSCO ACTION

Electronic Silicone Contact Cleaner--won't harm plastics, non-flammable. Provides long-lasting protection.

No.	Net
99-06 6-ounce Spray Can	.99
99-16 16-ounce Spray Can	1.49

WALSCO ACRY-SPRAY

Prevents corrosion, rust, oxidation on all metals.

No.	Net
140-12 Clear	1.50
141-12 Aluminum	1.63

CLEAN & QUIET

Contact cleaner; cleans, lubricates, protects. Leaves siliconized protection after application. Non-Flammable; will not harm plastic.

No.	Net
94-06 6-oz spray can	1.49

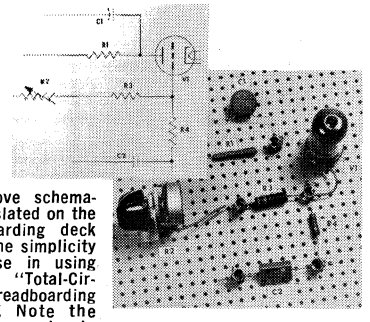
SUPER FREEZE MIST

Pinpoint defective (intermittent) components throught temperature changes. Cools circuits instantly.

No.	Net
216-06 6-oz spray can	1.26

SECTION 1700

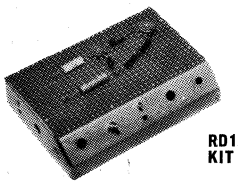
"Total-Circuit" BREADBOARDING



The above schematic translated on the breadboarding deck shows the simplicity and ease in using Aladin's "Total-Circuit" breadboarding system. Note the same approximate relationship between the schematic and the breadboarding deck.

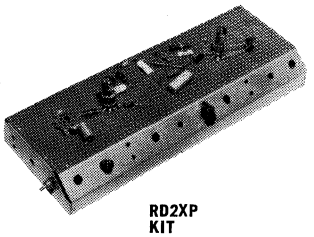
The Breadboarding Kits, Punched Board and Accessories shown and described here provide a simplified means of developing circuits. The Breadboarding Deck or work area is the standard "A" Pattern punched board. The rugged aluminum Base has ¼", ⅜" and ½" holes for mounting of potentiometers, switches and etc. Feed through terminals part #B200A, Terminal Boards part #526, "L" brackets part #BR-2, "V" brackets part #463, "Z" brackets part #422, and assembly screws are items that are found in each Slanting Base Kit. Exact quantities are specified below. See accessory and punched board pages for more exacting details and specifications.

SLANTING BASE BREADBOARDING KITS



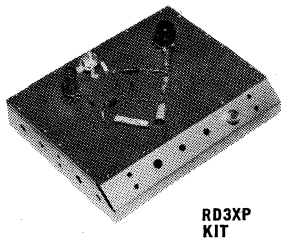
RD1XP KIT

RD1XP KIT measures 8½" long x 6⅛" wide x 2⅛" high and contains the following; A phenolic deck #32XX18, A metal base #RD1XP-B, A package of 25 terminals #B200A, A terminal board #526, 2 brackets #BR-2, 2 universal brackets #463, 6 universal brackets #422, and a package of screws for assembly of Kit and accessories, plus a plastic parts box.



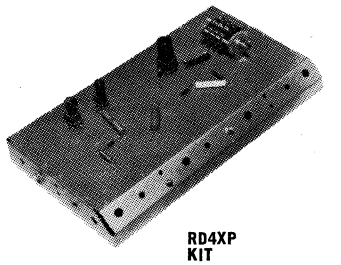
RD2XP KIT

RD2XP KIT measures 17" long x 6⅛" wide x 2⅛" high and contains the following; A phenolic deck #64XX18, A metal base #RD2XP-B, A package of 50 terminals #B200A, 2 terminal boards #526, 4 brackets #BR-2, 3 universal brackets #463, 8 universal brackets #422 and a package of screws for assembly of Kit and accessories, plus a plastic parts box.



RD3XP KIT

RD3XP KIT measures 12" long x 10" wide x 2⅛" high and contains the following; A phenolic deck #45XX32, A metal base #RD3XP-B, A package of 50 terminals #B200A, 2 terminal boards #526, 4 brackets #BR-2, 3 universal brackets #463, 8 universal brackets #422 and a package of screws for assembly of Kit and accessories, plus a plastic parts box.

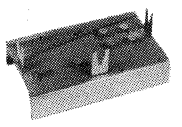


RD4XP KIT

RD4XP KIT measures 17" long x 10" wide x 2⅛" high and contains the following; A phenolic deck #64XX32, A metal base #RD4XP-B, a package of 75 terminals #B200A, 3 terminal boards #526, 6 brackets #BR-2, 3 universal brackets #463, 10 universal brackets #422 and a package of screws for assembly of Kit and accessories, plus a plastic parts box.

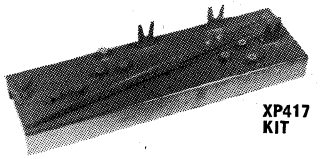
STANDARD LINE BREADBOARDING KITS

The inexpensive Breadboarding Kits, **XP48** and **XP417** described and shown here contain the same quality material and workmanship as used in our Slanting Base line of kits, shown elsewhere. Each Kit contains a phenolic deck, 2 aluminum rails, terminals, terminal insertion tool, "V" and "Z" brackets, screws for assembly of kit and accessories, plus a plastic parts box. See accessory and punched board pages for more exacting details and specifications.



XP48 KIT

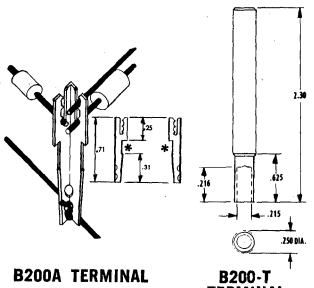
XP48 KIT measures 8½" long x 4 13/16" wide x 1¾" high and contains the following; A phenolic deck #32XX18, a metal base XP-48B, (two aluminum rails 8½" long), a package of 25 terminals #B200A, terminal insertion tool #B200-T, 3 universal brackets #463, 6 universal brackets #422 and screws for assembly of kit and accessories, plus a plastic parts box.



XP417 KIT

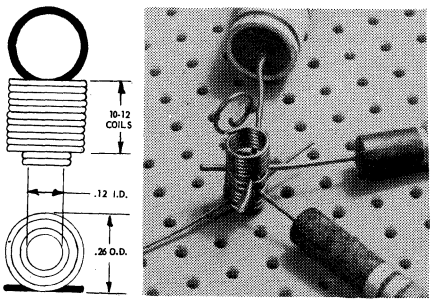
XP417 KIT measures 17" long x 4 13/16" high and contains the following; A phenolic deck #64XX18, a metal base #XP-417B, (two aluminum rails 17" long), A package of 50 terminals #B200A, terminal insertion tool #B200-T, 4 universal brackets #463, 8 universal brackets #422 and screws for assembly of kit and accessories, plus a plastic parts box.

ACCESSORIES FOR ALL BREADBOARDING KITS



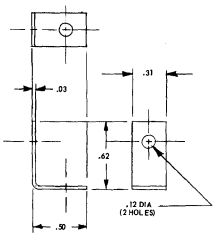
B200A TERMINAL — **B200-T TERMINAL INSERTION TOOL**

Our B200A is a feed through terminal stamped from half hard Brass and is plated. Two serrated slots .032" x .190" will accommodate 3 or more wires per slot. The serrations will hold wires in place until soldered. The two .062" dia. holes near the bottom end will accommodate 2 or more wires. Insertion or extraction of the B200A terminal is easily accomplished by using our B200-T insertion tool or a pair of long nose pliers. Because of the locking notch (*) terminals will not fall out of the breadboarding deck. B200A terminals are packaged in bags of 25, 100 and 1,000.



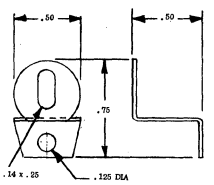
GS 200A SPRING

The GS200A "Genie Spring" is a solderless connector and will hold many wires from all directions. The Genie Spring can be secured to the breadboarding deck using our B200A terminal, a #4 self tapping sheet metal screw or a #3-48 screw and nut. GS200A "Genie Springs" are packaged in bags of 25, 100 and 1,000.



BR-2

PART #**BR-2** brackets — Right angle brackets for mounting of items on breadboarding deck. 10 brackets per package. Available in packages of 100.



PART #422

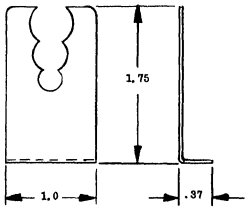
Part #422 — A universal "Z" Bracket designed to mount components on the breadboarding deck such as transformers, sockets, etc. For convenience "Z" brackets are packaged 10 per pkg. with assy. screws. "Z" brackets are available in bags of 100.

"The Largest and Most Complete Selection of

© U.C.P., Inc.

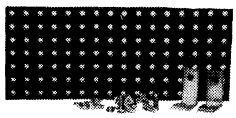
SECTION 1700

KITS & ACCESSORIES *by Aladin Kits Co.*



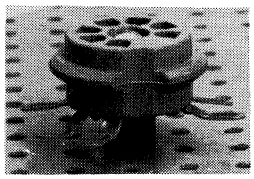
PART #463

PART #463 — A universal "V" bracket with ¼", ⅜" and ½" holes for deck mounting of switches, potentiometers, etc. Bracket is positive retaining and will not allow shafts to fall out. Packaged 5 per package with assembly screws. Available in bags of 100.



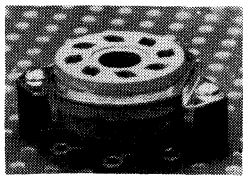
PART #526

PART #526—Terminal Boards, made from XXXP phenolic ("A" pattern) measures 1⅞" x 4½". Two boards per package with 4 brackets #BR-2 and 8 screws for mounting.



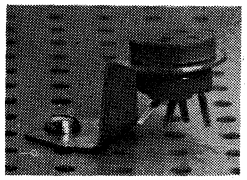
PART #360

PART #360 — 7-Pin sockets, 5 sockets per package with phenolic spacers and assembly screws. (As shown above).
PART #350 — 9-pin sockets, 5 sockets per package with phenolic spacers and assembly screws. (Mounts the same way as the 7-pin socket shown above).



PART #340

PART #340 — Octal sockets, 5 sockets per package with phenolic spacers and assembly screws.



PART #310

PART #310 — Transistor socket assembly, a universal four contact socket assembled to a plated steel bracket. The bracket is dimensionally similar to our Part #422, 5 socket assemblies per package with screws for mounting. Available in bags of 100.

ORDERING INFORMATION AND PRICES

Part Name/ Description	Part #	Price
Breadboard Kit	RD1XP	$6.60
Metal Base (Only)	RD1XP-B	2.40
Breadboard Kit	RD2XP	9.38
Metal Base (Only)	RD2XP-B	2.75
Breadboard Kit	RD3XP	9.90
Metal Base (Only)	RD3XP-B	2.95
Breadboard Kit	RD4XP	12.60
Metal Base (Only)	RD4XP-B	3.50
Breadboard Kit	XP 48	3.30
Metal Base (Only)	XP 48-B	.86
Breadboard Kit	XP 417	4.90
Metal Base (Only)	XP 417-B	1.16

Part Name/ Description	Part #	Pieces per pkg.	Cost
Terminals	B200A/25	25	$ .50
	**B200A/100	100	1.65
	**B200A/1000	1000	8.90
Genie Springs	GS200A/25	25	.80
	GS200A/100	100	2.95
	GS200A/1000	1000	24.95
Terminal Insertion Tool	B200-T	1	.50
"V" Brackets (for Switch and Potentiometers)	*463/5	5	.65
	463/100	100	9.75
"Z" Brackets (Universal Mtg.)	*422/10	10	.99
	422/100	100	8.40
"L" Brackets	BR-2/10	10	.25
	BR-2/100	100	2.00

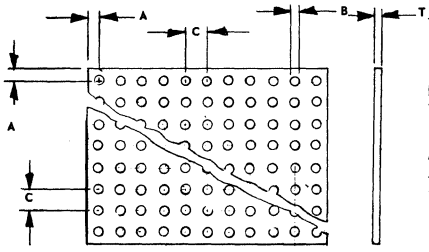
Part Name/ Description	Part #	Pieces per pkg.	Cost
Terminal Boards	*526/2	2	$ .65
Transistor	*310/5	5	1.50
Socket Assem.	310/100	100	19.95
Octal Sockets	***340/5	5	1.25
9-Pin Sockets	***350/5	5	1.20
7-Pin Sockets	***360/5	5	1.15

* Package contains sufficient screws for assembly of items to breadboarding deck.

** Terminal insertion tool B200-T is included with each package of 100 and 1000 terminals.

*** Package contains sockets plus phenolic spacers and screws for assembly to breadboarding deck.

"A" Pattern Punched Board has .093" dia. holes spaced on .265" grid centers. Tolerance between holes is ±.005 and on the overall length or width is ±.005. THERE IS NO ACCUMULATIVE TOLERANCE IN OUR PUNCHED BOARD. Should you have requirements for sizes and materials not listed, please consult the factory for prompt and competitive quotations.



A = .132
B = .093
C = .265
T = THICKNESS

"A" PATTERN PUNCHED BOARD

Material	Part No.	Dimensions "L"	"W"	"T"	No. of Holes	Price
Standard Phenolic Light tan color XXXP per MIL-P-3115C	18 x 18	4.77	4.77		18 x 18	$ .43
	32 x 3	8.48	1.06		32 x 3	.30
	32 x 7	8.48	1.88		32 x 7	.39
	32 x 9	8.48	2.41		32 x 9	.45
	32 x 18	8.48	4.77	1/16"	32 x 18	.72
	64 x 18	16.96	4.77		64 x 18	1.25
	45 x 32	11.92	8.48		45 x 32	1.60
	64 x 32	16.96	8.48		64 x 32	2.13
	**135 x 32	35.77	8.48		135 x 32	4.15
	32 xx5	8.48	1.35		32 x 5	.48
	32 xx7	8.48	1.88		32 x 7	.54
	32 xx9	8.48	2.41		32 x 9	.60
	32 xx18	8.48	4.77	3/32"	32 x 18	.84
	64 xx18	16.96	4.77		64 x 18	1.60
	45 xx32	11.92	8.48		45 x 32	1.99
	64 xx32	16.96	8.48		64 x 32	2.45
	**135 xx32	35.77	8.48		135 x 32	4.65
Epoxy Paper Ivory color MIL-P-22324 Type PEE	7 xx5EP	1.88	1.35		7 x 5	.18
	11 xx7EP	2.92	1.35		11 x 7	.33
	32 xx7EP	8.48	1.88		32 x 7	.75
	32 xx18EP	8.48	4.77	3/32"	32 x 18	1.40
	64 xx18EP	16.96	4.77		64 x 18	2.73
	64 xx32EP	16.96	8.48		64 x 32	4.39
	**135 xx32EP	35.77	8.48		135 x 32	7.85
Epoxy Glass greenish-white color MIL-P-18177 G-10 GEE	32 x 18EG	8.48	4.77		32 x 18	1.89
	64 x 18EG	16.96	4.77	1/16"	64 x 18	3.72
	64 x 32EG	16.96	8.48		64 x 32	5.86
	**135 x 32EG	35.77	8.48		135 x 32	9.95

** Minimum order of 5 pieces accepted. Combinations of different materials accepted to make up minimum of 5 piece order.

This punched copper clad board is the standard and more popular "A" pattern. The sizes listed below are stock items. All material used as per MIL-P-13949 Type PP (XXXP) or MIL-P-18177B-GEE (Epoxy Glass). The Copper laminate is 2 oz. per side. For materials and sizes not listed please consult the factory for prompt and competitive quotations.

"A" PATTERN PUNCHED COPPER CLAD BOARD

Material	Part No.	Dimensions "L"	"W"	"T"	No. of Holes	Price
(XXXP) Phenolic Copper Clad (one side)	HCP 10	5.03	3.45	.06	19 x 13	$ .58
	HCP 20	6.89	3.71	.06	26 x 14	.70
	HCP 30	6.89	5.03	.06	26 x 19	.96
	HCP 40	9.81	6.89	.06	37 x 26	1.75
	HCP 50	16.96	8.48	.06	64 x 32	3.65
(XXXP) Phenolic Copper Clad (two sides)	HCCP 10	5.03	3.45	.06	19 x 13	.70
	HCCP 20	6.89	3.71	.06	26 x 14	.85
	HCCP 30	6.89	5.03	.06	26 x 19	1.20
	HCCP 40	9.81	6.89	.06	37 x 26	2.05
	HCCP 50	16.96	8.48	.06	64 x 32	4.30
Epoxy Glass Copper Clad (one side)	HCG 10	5.03	3.45	.06	19 x 13	.95
	HCG 20	6.89	3.71	.06	26 x 14	1.20
	HCG 30	6.89	5.03	.06	26 x 19	1.80
	HCG 40	9.81	6.89	.06	37 x 26	3.25
	HCG 50	16.96	8.48	.06	64 x 32	6.75
Epoxy Glass Copper Clad (two sides)	HCCG 10	5.03	3.45	.06	19 x 13	1.04
	HCCG 20	6.89	3.71	.06	26 x 14	1.32
	HCCG 30	6.89	5.03	.06	26 x 19	1.98
	HCCG 40	9.81	6.89	.06	37 x 26	3.57
	HCCG 50	16.96	8.48	.06	64 x 32	7.35

UNPUNCHED COPPER CLAD BOARD

The unpunched copper clad board listed below is some of the more popular sizes used. All material used is per MIL-P-13949 Type PP (XXXP) or MIL-P-18177B-GEE (Epoxy Glass). The copper laminate is 2 oz. per side. For materials and sizes not listed please consult the factory for prompt and competitive quotations.

Material	Part No.	Dimensions "L"	"W"	"T"	Price
(XXXP) Phenolic Copper Clad (one side)	CP 100	4.50	2.0	.06	$ .24
	CP 101	3.0	2.25	.06	.22
	CP 102	4.50	3.0	.06	.30
	CP 103	6.50	4.50	.06	.55
	CP 104	6.87	3.62	.06	.49
	CP 105	8.5	4.5	.06	.70
	CP 106	12.0	9.0	.06	1.90
	CP 107	9.87	6.12	.06	1.19
	CP 108	17.0	8.5	.06	2.52
(XXXP) Phenolic Copper Clad (two sides)	CCP 100	4.50	2.0	.06	.30
	CCP 101	3.0	2.25	.06	.27
	CCP 102	4.50	3.0	.06	.40
	CCP 103	6.50	4.5	.06	.77
	CCP 104	6.87	3.62	.06	.65
	CCP 105	8.50	4.5	.06	.98
	CCP 106	12.0	9.0	.06	2.70
	CCP 107	9.87	6.12	.06	1.51
	CCP 108	17.0	8.5	.06	3.63

Material	Part No.	Dimensions "L"	"W"	"T"	Price
Epoxy Glass Copper Clad (one side)	CG 100	4.50	2.0	.06	$ .45
	CG 101	3.0	2.25	.06	.40
	CG 102	4.50	3.0	.06	.69
	CG 103	6.50	4.50	.06	1.34
	CG 104	6.87	3.62	.06	1.12
	CG 105	8.5	4.5	.06	1.71
	CG 106	12.0	9.0	.06	4.65
	CG 107	9.87	6.12	.06	2.60
	CG 108	17.0	8.5	.06	6.65
Epoxy Glass Copper Clad (two sides)	CCG 100	4.50	2.0	.06	.54
	CCG 101	3.0	2.25	.06	.45
	CCG 102	4.50	3.0	.06	.77
	CCG 103	6.50	4.50	.06	1.52
	CCG 104	6.87	3.62	.06	1.30
	CCG 105	8.5	4.5	.06	1.95
	CCG 106	12.0	9.0	.06	5.40
	CCG 107	9.87	6.12	.06	3.02
	CCG 108	17.0	8.5	.06	7.75

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air dux®

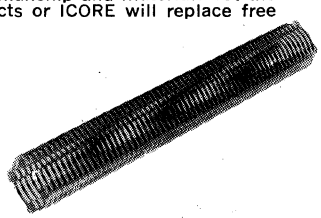
AIR WOUND COILS

ICORE Electro-Plastics offers a complete versatile series of air core inductors designed especially for RF transmission, or other equipment requiring high Q factors in the range from 100 to 500. Standard coils are available for prototype, production, or amateur use. These coils may be used for pi output circuits, conventional LC output circuits, interstage and oscillator circuits. All Air Dux coils are constructed of tinned copper wire wound on large low-loss polystyrene rods for the highest mechanical strength and lowest electrical losses.

AIR DUX is a trade name synonymous with quality. Workmanship and materials set the highest standards in the industry. Coils are free of defects or ICORE will replace free of charge.

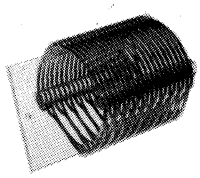
AIR DUX STICK COILS (T SERIES)

½" to 3" diameter tinned copper stick coils are stocked in various TPI (turns per inch), wire sizes and lengths. 4", 5" and 6" diameter coils, as well as silver plated coils, are available on special quotation.



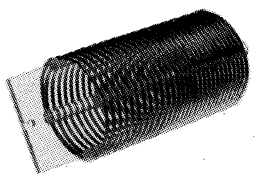
INDENTED PI DUX®

1" to 3" diameter precut coils with mounting plate are for direct use in pi networks. Each coil has an inductance of 18 micro henries. Alternate turns are indented for ease of tapping. Catalog numbers — 816A, 1014A, 1212A, 1411A, 1609A, 2007A, 2406A.



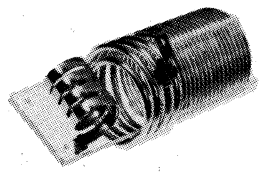
VARI-PITCH PI DUX

1" to 3" diameter precut coils are similar to indented pi dux except that each coil has two different pitches. The reduced inductance per turn of the wider pitch facilitates the tapping of low value inductances. The vari-pitch constructions give a higher Q due to space factor. Catalog numbers — 820D10, 1212D6, 1608D6, 2008D5, 2408D4.



195 SERIES PI DUX

The 500 and 1000 watt pi dux assemblies are compact yet conservatively rated. The high frequency coil sections are silver plated for high tank circuit efficiency. A complete technical sheet is included with each assembly. Catalog numbers — 195-1 (500 watt); 195-2 (1000 watt).

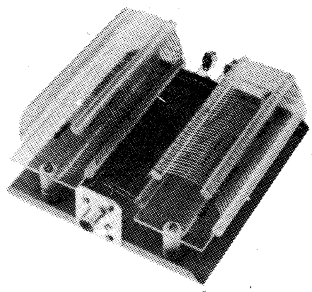


AIR DUX BALUN

Balun coils match impedance in both transmitters and receivers, without adjustment, from 10 through 80 meters. Also match 75 ohms unbalanced to 300 ohms, or 75 ohms balanced. Easily handle outputs from transmitters with power up to 750 watts if SWR is held low.

Cat. No. B2009—One balun coil (two required) with plastic mounting strips, insulator and hardware.

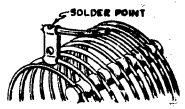
Cat. No. MB2009—Metal mounting plate with plastic terminal plate and hardware (less coax connector).



AIR DUX COIL CLIPS

Air dux coil clips permit convenient tapping of coils and rapid movement of tap from turn to turn, where soldering is undesirable. Because of large grasping area, clips will not slip. Special solder hole permits fast soldering of leads.

	1-24	Price 25 Pack	100-999
Cat. No. CC-A (AWG wire sizes #22-14)	$ .12 ea.	$ 2.75/pk.	$ 9.80/C
Cat. No. CC-B (AWG wire sizes #12- 8)	.12 ea.	2.75/pk.	9.80/C



SUGGESTED NET RESALE PRICES

Cat. #	Dia.	TPI	Wire Size (AWG)	Length of Coil (Inches)	Prices 1-49	50-249
195-1	3	—	—	—	$12.00	$ —
195-2	3	—	—	—	17.00	—
404 T	½	4	18	2	.50	.43
406 T	½	6	18	2	.50	.43
408 T	½	8	18	2	.50	.43
410 T	½	10	18	2	.55	.47
416 T	½	16	20	2	.55	.47
432 T	½	32	24	2	.55	.47
504 T	⅝	4	16	2	.60	.51
506 T	⅝	6	18	2	.60	.51
508 T	⅝	8	18	2	.60	.51
510 T	⅝	10	18	2	.60	.51
516 T	⅝	16	20	2	.60	.51
532 T	⅝	32	24	2	.60	.51
604 T	¾	4	16	2	.60	.51
606 T	¾	6	18	2	.65	.55
608 T	¾	8	18	2	.65	.55
610 T	¾	10	18	2	.70	.60
616 T	¾	16	20	2	.70	.60
632 T	¾	32	24	2	.70	.60
804 T	1	4	16	3	.75	.63
806 T	1	6	18	3	.80	.68
808 T	1	8	18	3	.80	.68
810 T	1	10	18	3	.80	.68
816 A	1	16	18	3 3/16	1.75	—
816 T	1	16	20	3	.85	.72
820 D10	1	20 & 10	18	3¼	2.15	—
832 T	1	32	24	3	.85	.72
					1-24	**25-99**
1004 T	1¼	4	14	10	2.05	1.75
1006 T	1¼	6	14	10	2.05	1.75
1008 T	1¼	8	16	10	2.10	1.79
1010 T	1¼	10	18	10	2.10	1.79
1014 A	1¼	14	18	2¾	1.95	—
1016 T	1¼	16	20	10	2.15	1.83
1032 T	1¼	32	24	10	2.20	1.87
1204 T	1½	4	14	10	2.20	1.87
1206 T	1½	6	14	10	2.35	2.00
1208 T	1½	8	16	10	2.35	2.00
1210 T	1½	10	18	10	2.40	2.04
1212 A	1½	12	16	2¾	2.15	—
1212 D6	1½	12 & 6	14	3 3/16	2.80	—
1216 T	1½	16	20	10	2.40	2.04
1232 T	1½	32	24	10	2.40	2.04
1404 T	1¾	4	14	10	2.50	2.13
1406 T	1¾	6	14	10	2.55	2.17
1408 T	1¾	8	14	10	2.55	2.17
1410 T	1¾	10	16	10	2.60	2.21
1411 A	1¾	11	14	2⅝	2.45	—
1416 T	1¾	16	18	10	2.60	2.21
1432 T	1¾	32	24	10	2.70	2.30
1604 T	2	4	12	10	2.35	2.00
1606 T	2	6	14	10	2.35	2.00
1608 D6	2	8 & 6	12	4¼	3.75	—
1608 T	2	8	14	10	2.35	2.00
1609 A	2	9	14	3	2.75	—
1610 T	2	10	16	10	2.35	2.00
1616 T	2	16	18	10	2.70	2.30
2004 T	2½	4	12	10	2.80	2.38
2006 T	2½	6	12	10	2.90	2.47
2007 A	2½	7	12	3¼	3.40	—
2008 D5	2½	8 & 5	12	3¾	4.80	—
2008 T	2½	8	12	10	2.90	2.47
2010 T	2½	10	16	10	3.25	2.76
2404 T	3	4	10	10	4.55	3.87
2406 A	3	6	10	3 3/16	4.35	—
2406 T	3	6	14	10	4.55	3.87
2408 D4	3	8 & 4	10	3¾	5.75	—
2408 T	3	8	14	10	4.55	3.87
2410 T	3	10	14	10	4.55	3.87
B2009	2½	4½	20	5¼	6.30	—
MB2009 (Mounting Plate)					3.20	—

Prices subject to change without notice.

CUSTOM COILS

Air dux coils can be designed to specification for commercial, industrial, and military applications with special indenting, plating, mounting brackets, pre-attached leads. For quotations or applications assistance, submit specifications and requirements. Air dux - High Temperature use Lexan support rods and mounting plates, allowing for operation at temperatures up to 280°F (140°C) before distortion, with a Q factor comparable to coils wound on polystyrene rods. These coils are applicable to high temperature environments or where heat from surrounding equipment must be considered. Normal operating temperatures are: Polystyrene: Up to 180°F (80°C)
Lexan: Up to 280°F (140°C)

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SPEER CARBON COMPANY, A DIVISION OF AIR REDUCTION CO., INC.

MOLDED INDUCTORS

JEFFERS inductors are for use at radio frequencies and in pulse circuitry. The listed standard inductors, in values from 0.1 μh through 10,000 μh, are designed to meet the requirements of MIL-C-15305 Revision C.

Important features of JEFFERS standard inductors.

- High Reliability, proven by over 157,000,000 unit test hours.
- High Q and SRF.
- Maximum protection with minimum dimension as a result of full encapsulation in a thermosetting mineral filled plastic jacket.
- Assured uniformity of product, a result of stringent Quality Control and Inspection procedures at every production stage.

Suffix letter on part number denotes standard tolerance. J = 5%, K = 10%, M = 20%.

These inductors, in standard tolerances, are available for immediate delivery from your local JEFFERS Distributor.

TYPE 09 — Dia. .095 ± .005 - Length .250 ± .010

Jeffers P/N	Lμh	Max. Oper. Temp, °C	Test Freq. (MC)	Q Min	SRF Min (MC)	DCR Max Ohms	Direct Current (MA)
4416-1K	0.10	125°	25.0	34	680	0.08	1315
4416-2K	0.12	125°	25.0	34	640	0.09	1240
4416-3K	0.15	125°	25.0	34	600	0.10	1170
4416-4K	0.18	125°	25.0	34	550	0.12	1070
4416-5K	0.22	125°	25.0	32	510	0.14	990
4416-6K	0.27	125°	25.0	30	460	0.16	925
4416-7K	0.33	125°	25.0	28	410	0.22	790
4426-1K	0.39	125°	25.0	35	355	0.30	675
4426-2K	0.47	125°	25.0	35	325	0.34	635
4426-3K	0.56	125°	25.0	34	310	0.40	585
4426-4K	0.68	125°	25.0	33	280	0.54	500
4426-5K	0.82	125°	25.0	32	260	0.63	465
4426-6K	1.00	125°	25.0	32	240	0.74	430
4436-1K	1.20	105°	7.9	32	150	0.18	875
4436-2K	1.50	105°	7.9	32	140	0.22	790
4436-3K	1.80	105°	7.9	32	125	0.28	700
4436-4K	2.20	105°	7.9	32	115	0.38	600
4436-5K	2.70	105°	7.9	40	100	0.55	500
4436-6K	3.30	105°	7.9	45	90	0.80	415
4436-7K	3.90	105°	7.9	45	82	1.00	370
4436-8K	4.70	105°	7.9	45	75	1.20	340
4446-1K	5.60	105°	7.9	50	67	1.50	300
4446-2K	6.80	105°	7.9	50	60	1.80	375
4446-3K	8.20	105°	7.9	60	55	2.40	240
4446-4K	10.0	105°	7.9	60	50	3.10	210
1316-1K	12.0	105°	2.5	40	40	2.40	240
1316-2K	15.0	105°	2.5	40	36	2.75	225
1316-3K	18.0	105°	2.5	50	32	3.00	215
1316-4K	22.0	105°	2.5	50	28	3.30	205
1316-5K	27.0	105°	2.5	50	24	3.60	195
1326-1K	33.0	105°	2.5	45	29	2.80	225
1326-2K	39.0	105°	2.5	45	26	3.10	210
1326-3K	47.0	105°	2.5	45	24	4.30	180
1326-4K	56.0	105°	2.5	45	22	5.30	160
1326-5K	68.0	105°	2.5	50	19	6.00	152
1326-6K	82.0	105°	2.5	50	17	6.70	144
1326-7K	100.0	105°	2.5	50	14	7.50	135

TYPE 15 — Dia. .156 ± .010 - Length .375 ± .010

Jeffers P/N	Lμh	Max. Oper. Temp. °C	Test Freq. (MC)	Q Min	SRF Min (MC)	DCR Max Ohms	Direct Current (MA)
4415-1M	0.15	125°	25.0	50	525	0.03	2450
4415-2M	0.22	125°	25.0	50	360	0.055	1900
4425-1M	0.33	125°	25.0	50	360	0.075	1410
4425-2M	0.47	125°	25.0	55	310	0.11	1225
4425-3K	0.56	125°	25.0	55	290	0.13	1220
4425-4K	0.68	105°	25.0	55	265	0.15	1100
4425-5K	0.82	125°	25.0	55	245	0.21	900
4425-6K	1.00	125°	25.0	55	220	0.29	830
4425-7K	1.20	125°	7.9	33	195	0.39	650
4425-8K	1.50	125°	7.9	33	180	0.49	600
4425-9K	1.80	125°	7.9	33	160	0.66	525
4425-10K	2.20	125°	7.9	33	145	0.96	435
4425-11K	2.70	125°	7.9	33	130	1.15	385
4425-12K	3.30	125°	7.9	33	115	1.90	300
4425-13K	3.90	125°	7.9	33	105	2.20	280
4425-14K	4.70	125°	7.9	33	100	2.50	260
4435-1K	5.60	125°	7.9	50	65	0.32	750
4435-2K	6.80	125°	7.9	50	60	0.46	600
4445-1K	8.20	125°	7.9	55	55	0.61	545
4445-2K	10.0	125°	7.9	60	49	0.90	445
4445-3K	12.0	125°	2.5	70	44	1.10	404
4445-4K	15.0	125°	2.5	70	40	1.40	370
4445-5J	18.0	125°	2.5	75	35	2.20	280
4445-6J	20.0	125°	2.5	80	34	2.30	275
4445-7J	22.0	125°	2.5	80	32	2.50	265
4455-1J	24.0	125°	2.5	65	27	2.20	265
4455-2J	27.0	125°	2.5	65	26	2.50	260
4465-1J	30.0	125°	2.5	70	22	2.80	255
4465-2J	33.0	125°	2.5	70	21	3.00	250
1315-1J	36.0	105°	2.5	60	15.5	2.50	180
1315-2J	39.0	105°	2.5	60	14.5	2.60	176
1315-3J	43.0	105°	2.5	60	13.7	2.70	172
1315-4J	47.0	105°	2.5	60	13.0	2.75	170
1315-5J	51.0	105°	2.5	55	12.7	3.00	167
1315-6J	56.0	105°	2.5	55	12.0	3.00	164
1315-7J	62.0	105°	2.5	55	11.5	3.15	160
1315-8J	68.0	105°	2.5	55	11.0	3.30	156
1315-9J	75.0	105°	2.5	55	10.5	3.70	147
1315-10J	82.0	105°	2.5	50	10.3	3.90	143
1315-11J	91.0	105°	2.5	50	10.0	4.30	136
1315-12J	100.0	105°	2.5	50	9.5	4.50	133
1315-13J	110.0	105°	.790	65	8.9	4.90	128
1315-14J	120.0	105°	.790	65	8.7	5.20	124
1315-15J	130.0	105°	.790	65	8.5	5.45	121
1315-16J	150.0	105°	.790	65	8.0	6.05	114
1315-17J	160.0	105°	.790	65	7.5	6.40	111
1315-18J	180.0	105°	.790	65	7.0	6.75	108
1315-19J	200.0	105°	.790	65	6.5	7.10	106
1315-20J	220.0	105°	.790	65	6.2	7.45	103
1315-21J	240.0	105°	.790	65	5.9	7.80	101

0.15 Thru 33.0 μ meet requirements of MS18130. 36.0 Thru 240.0 μh meet requirements of MS90538.

TYPE 19 — Dia. .190 ± .010 - Length .440 ± .010

Jeffers P/N	Lμh	Max. Oper. Temp. °C	Test Freq. (MC)	Q Min	SRF Min (MC)	DCR Max Ohms	Direct Current (MA)
4411-1M	0.15	125°	25.0	55	510	0.030	3000
4411-2M	0.22	125°	25.0	50	415	0.035	2940
4411-3M	0.33	125°	25.0	50	350	0.065	2020
4411-4M	0.47	125°	25.0	50	300	0.085	1740
4411-5K	0.56	125°	25.0	50	270	0.125	1450
4411-6K	0.68	125°	25.0	45	250	0.150	1300
4411-7K	0.82	125°	25.0	40	210	0.205	1100
4411-8K	1.00	125°	25.0	40	200	0.290	930
4411-9K	1.20	125°	7.9	30	180	0.400	785
4411-10K	1.50	125°	7.9	30	175	0.485	715
4411-11K	1.80	125°	7.9	30	150	0.740	580
4411-12K	2.20	125°	7.9	30	140	0.970	505
4411-13K	2.70	125°	7.9	30	120	1.200	460
4421-1K	3.30	105°	7.9	30	70	0.140	1350
4421-2K	3.90	105°	7.9	30	65	0.155	1250
4421-3K	4.70	105°	7.9	30	60	0.210	1100
4421-4K	5.60	105°	7.9	30	50	0.280	935
4421-5K	6.80	105°	7.9	30	50	0.375	810
4421-6K	8.20	105°	7.9	30	48	0.440	750
4421-7K	10.0	105°	7.9	30	42	0.600	640
4421-8K	12.0	105°	2.5	50	36	1.000	490
4421-9K	15.0	105°	2.5	55	30	1.200	460
4421-10K	18.0	105°	2.5	60	30	1.950	360
4421-11K	22.0	105°	2.5	60	24	2.200	335
4421-12K	27.0	105°	2.5	65	22	2.750	300
1331-21J	270.0	105°	.790	70	5.6	8.2	110
1331-22J	300.0	105°	.790	70	5.3	8.7	107
1331-23J	330.0	105°	.790	70	5.0	9.1	105
1331-24J	360.0	105°	.790	70	4.7	9.6	102
1331-25J	390.0	105°	.790	70	4.5	10.0	100
1331-26J	430.0	105°	.790	70	4.3	10.6	97
1331-27J	470.0	105°	.790	70	4.0	11.1	95
1331-28J	510.0	105°	.790	70	3.8	11.6	93
1331-29J	560.0	105°	.790	70	3.6	12.3	91
1331-30J	620.0	105°	.790	70	3.5	13.0	88
1331-31J	680.0	105°	.790	70	3.6	13.7	85
1331-32J	750.0	105°	.790	70	3.5	14.4	83
1331-33J	820.0	105°	.790	70	3.3	15.1	81
1331-34J	910.0	105°	.790	65	3.1	15.8	79
1331-35J	1000.0	105°	.790	65	3.0	16.5	78

0.15 Thru 27.0 meet requirements of MS75008 — 27.0 Thru 1000.0 μh meet requirements of MS90538.

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SPEER CARBON COMPANY, A DIVISION OF AIR REDUCTION CO., INC.

SPEER MOLDED INDUCTORS

JEFFERS ELECTRONICS

TYPE 22 — Dia. .220 ± .010 - Length .560 ± .010

Jeffers P/N	Lμh	Max. Oper. Temp, °C	Test Freq. (MC)	Q Min	SRF Min (MC)	DCR Max Ohms	Direct Current (MA)
4412-1K	0.47	125°	25.0	65	300	0.06	1970
4412-2K	0.56	125°	25.0	65	270	0.08	1850
4412-3K	0.68	125°	25.0	65	240	0.08	1700
4412-4K	0.82	125°	25.0	65	220	0.11	1520
4412-5K	1.00	125°	25.0	65	200	0.14	1290
4412-6K	1.20	125°	7.9	40	180	0.19	1120
4412-7K	1.50	125°	7.9	40	160	0.28	925
4412-8K	1.80	125°	7.9	40	150	0.37	790
4412-9K	2.20	125°	7.9	40	135	0.50	680
4412-10K	2.70	125°	7.9	40	120	0.65	600
4412-11K	3.30	125°	7.9	40	105	1.00	480
4412-12K	3.90	125°	7.9	40	100	1.20	440
4412-13K	4.70	125°	7.9	40	90	1.80	360
4422-1K	5.60	125°	7.9	35	55	0.13	1340
4422-2K	6.80	125°	7.9	35	50	0.20	1080
4422-3K	8.20	125°	7.9	35	44	0.22	1030
4422-4K	10.0	125°	7.9	35	42	0.26	950
4422-5K	12.0	125°	2.5	45	34	0.45	720
4422-6K	15.0	125°	2.5	45	32	0.52	670
4422-7K	18.0	125°	2.5	50	28	0.70	580
4422-8K	22.0	125°	2.5	60	24	1.00	480
4422-9K	27.0	125°	2.5	65	22	1.30	420
4422-10K	33.0	125°	2.5	65	20	1.50	390
4422-11K	39.0	125°	2.5	70	18	2.00	340
1312-20J	1100	105°	.250	65	2.8	21.0	78
1312-21J	1200	105°	.250	65	2.7	22.0	76
1312-22J	1300	105°	.250	65	2.6	23.0	75
1312-23J	1500	105°	.250	70	2.5	25.0	72
1312-25J	1800	105°	.250	70	2.4	26.0	70
1312-24J	1600	105°	.250	70	2.3	28.0	68
1312-26J	2000	105°	.250	70	2.2	29.0	67
1312-27J	2200	105°	.250	75	2.1	30.0	66
1312-28J	2400	105°	.250	75	2.0	31.0	64
1312-29J	2700	105°	.250	75	1.9	33.0	62
1312-30J	3000	105°	.250	75	1.8	35.0	61
1312-31J	3300	105°	.250	75	1.7	38.0	58
1312-32J	3600	105°	.250	75	1.6	40.0	57

0.47 Thru 39.0 μh meet requirements of MS90542 — 1100 Thru 3600 μh meet requirements of MS90540.

TYPE 24 — Dia. .240 ± .010 - Length .740 ± .010

Jeffers P/N	Lμh	Max. Oper. Temp, °C	Test Freq. (MC)	Q Min	SRF Min (MC)	DCR Max Ohms	Direct Current (MA)
1313-20J	3900	105°	.250	80	1.45	44	61
1313-21J	4300	105°	.250	80	1.40	46	59
1313-22J	4700	105°	.250	80	1.35	48	58
1313-23J	5100	105°	.250	80	1.30	50	57
1313-24J	5600	105°	.250	80	1.25	53	56
1313-25J	6200	105°	.250	80	1.20	56	54
1313-26J	6800	105°	.250	80	1.15	59	52
1313-27J	7500	105°	.250	80	1.10	62	51
1313-28J	8200	105°	.250	80	1.05	65	50
1313-29J	9100	105°	.250	80	1.00	68	49
1313-30J	10000	105°	.250	80	0.95	72	47

3900 Thru 10,000 μh meet requirements of MS90541.

TYPE 25 — Dia. .250 ± .010 - Length .560 ± .010

Jeffers P/N	Lμh	Max. Oper. Temp. °C	Test Freq. (MC)	Q Min	SRF Min (MC)	DCR Max Ohms at 25°C	Direct Current (MA)
25-A-470K	47	125°	2.5	18	13.5	5.9	195
25-A-560K	56	125°	2.5	18	13.0	6.4	185
25-A-680K	68	125°	2.5	70	13.0	3.3	255
25-A-820K	82	125°	2.5	65	11.7	3.5	245
25-A-101K	100	125°	2.5	65	10.7	3.8	235
25-A-121K	120	125°	.790	75	9.3	4.7	215
25-A-151K	150	125°	.790	75	8.3	5.3	200

47 Thru 150 μh meet the requirements of MS75052.

TYPE 28 — Dia. .280 ± .010 - Length .940 ± .010

Jeffers P/N	Lμh	Max. Oper. Temp, °C	Test Freq. (MC)	Q Min	SRF Min (MC)	DCR Max Ohms	Direct Current (MA)
4414-1K	1.20	125°	7.9	60	170	0.075	2400
4414-2K	1.20	125°	7.9	60	170	0.075	2200
4414-3K	1.80	125°	7.9	60	140	0.135	1780
4414-4K	2.20	125°	7.9	60	125	0.160	1650
4414-5K	2.70	125°	7.9	60	115	0.220	1415
1414-6K	3.30	125°	7.9	60	100	0.305	1195
4414-7K	3.90	125°	7.9	60	95	0.450	955
4414-8K	4.70	125°	7.9	60	90	0.560	880
4414-9K	5.60	125°	7.9	60	80	0.745	775
4414-10K	6.80	125°	7.9	60	75	1.050	660
4414-11K	8.20	125°	7.9	60	68	1.400	610
4414-12K	10.0	125°	7.9	60	60	1.900	520
4414-13K	12.0	125°	2.5	40	53	2.650	410
4414-14K	15.0	125°	2.5	40	50	3.250	370
4414-15K	18.0	125°	2.5	40	45	4.150	315
4424-1K	22.0	125°	2.5	50	24	0.295	1210
4424-2K	27.0	125°	2.5	50	24	0.295	1115
4424-3K	33.0	125°	2.5	60	19	0.550	865
4424-4K	39.0	125°	2.5	55	18	0.650	810
4424-5K	47.0	125°	2.5	65	16	1.000	650
4424-6K	56.0	125°	2.5	65	14	1.150	610
4424-7K	68.0	125°	2.5	75	13	1.850	475
4424-8K	82.0	125°	2.5	75	12	2.100	450
4424-9K	100.0	125°	2.5	75	12	2.500	420
4424-10K	120.0	125°	.790	95	10	4.100	350

1.20 Thru 120.0 μh meet the requirements of MS91189.

TYPE 31 — Dia. .310 ± .010 - Length .560 ± .010

Jeffers P/N	Lμh	Max. Oper. Temp. °C	Test Freq. (MC)	Q Min	SRF Min (MC)	DCR Max Ohms at 25°C	Direct Current (MA)
31-A-181K	180	125°	.790	80	6.0	5.5	225
31-A-221K	220	125°	.790	80	5.5	5.9	220
31-A-271K	270	125°	.790	80	5.1	6.6	210
31-A-331K	330	125°	.790	75	4.2	7.8	185
31-A-391K	390	125°	.790	75	3.9	8.7	180

180 Thru 390 μh meet the requirements of MS75053.

TYPE 37 — Dia. .375 ± .010 - Length .625 ± .010

Jeffers P/N	Lμh	Max. Oper. Temp. °C	Test Freq. (MC)	Q Min	SRF Min (MC)	DCR Max Ohms at 25°C	Direct Current (MA)
37-A-471K	470	125°	.790	80	3.7	9.0	190
37-A-561K	560	125°	.790	80	3.5	10.0	180
37-A-681K	680	125°	.790	75	3.2	11.2	170
37-A-821K	820	125°	.790	75	3.0	13.0	155
37-A-102K	1000	125°	.790	70	2.7	14.5	145

470 Thru 1000 meet the requirements of MS75054.

TYPE 46 — Dia. .468 ± .010 - Length .687 ± .010

Jeffers P/N	Lμh	Max. Oper. Temp. °C	Test Freq. (MC)	Q Min	SRF Min (MC)	DCR Max Ohms at 25°C	Direct Current (MA)
46-A-152K	1500	125°	.250	85	2.2	22.0	127
46-A-222K	2200	125°	.250	85	1.8	27.0	115
46-A-512K	2700	125°	.250	85	1.6	32.0	105
46-A-512K	5100	125°	.250	70	1.0	66.0	73
46-A-103K	10000	125°	.250	70	0.8	70.0	71

1500 Thru 10,000 μh meet the requirements of MS75055.

INDUCTOR LEAD MATERIAL

Standard All leads are 1 5/16" minimum length.

The leads of standard sizes cataloged, are 99.9% oxygen free copper. Before manufacturing, the coating is pure tin hot dipped to a minimum thickness of 0.0006 inch. After manufacturing into molded inductors the leads are hot dip coated with 60/40 tin-lead solder with a minimum thickness of 0.0006 inch.

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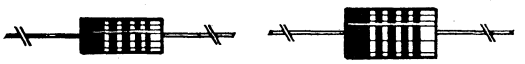
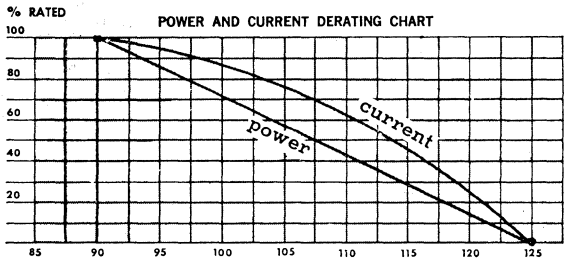
Miller

MIL-SPEC MOLDED CHOKES

MILLER MOLDED COILS CONFORM TO MIL-C-15305C



This group of molded chokes affords the design engineer a wide range of inductance values, current ratings, and sizes which will fulfill most normal design requirements. Manufactured under strict Quality Control supervision and tested in accordance with MIL Standard 105 the user is guaranteed uniformity and reliability in every coil. This series conforms to MIL-C-15305, Grade and Class 7.



Tabulated currents in milliamperes are maximum values based on a temperature rise not to exceed 35° C., nor wattage dissipation in excess of listed values.

"MICRO MITE" SERIES 9210

MOLDED R. F. CHOKES

Mold Size: .155 ±.010 diameter; .375 ±.010 length. Leads: AWG #22 TCW; 1.44 ±.125 length. Power Rating: .22 Watt Max. at 90° C. *Current based on (1) Temperature rise not to exceed 35° C at 90° ambient. (2) Overload not to exceed 1½ times rated current.

PART No.	L uh.	Q MIN.	TEST FREQ. (MHz.)	Fo. MIN. (MHz.)	Rdc. MAX.	*Ma. MAX.	CORE MTL.	NET PRICE
9210-54	36 ± 5%	60	2.5	16.0	2.50	250	IRON	$ .90
9210-56	39 ± 5%	60	2.5	15.0	2.60	245	IRON	.90
9210-58	43 ± 5%	60	2.5	13.7	2.70	242	IRON	.90
9210-60	47 ± 5%	55	2.5	13.0	2.75	240	IRON	.90
9210-62	51 ± 5%	55	2.5	12.7	2.85	235	IRON	.90
9210-64	56 ± 5%	55	2.5	12.0	3.00	230	IRON	.90
9210-66	62 ± 5%	55	2.5	11.0	3.15	225	IRON	.90
9210-68	68 ± 5%	55	2.5	11.0	3.30	220	IRON	.90
9210-70	75 ± 5%	55	2.5	10.5	3.70	205	IRON	.90
9210-72	82 ± 5%	50	2.5	10.3	3.90	200	IRON	.90
9210-74	91 ± 5%	50	2.5	10.0	4.30	190	IRON	.90
9210-76	100 ± 5%	50	2.5	9.5	4.50	185	IRON	.99
9210-78	110 ± 5%	60	.790	8.5	4.90	180	IRON	.99
9210-80	120 ± 5%	65	.790	8.5	5.20	175	IRON	.99
9210-82	130 ± 5%	65	.790	8.5	5.45	170	IRON	.99
9210-84	150 ± 5%	65	.790	8.0	6.05	165	IRON	.99
9210-86	160 ± 5%	65	.790	8.0	6.40	160	IRON	.99
9210-88	180 ± 5%	65	.790	7.0	6.50	155	IRON	.99
9210-90	200 ± 5%	65	.790	6.5	6.90	150	IRON	.99
9210-92	220 ± 5%	65	.790	6.0	7.20	145	IRON	.99
9210-94	240 ± 5%	65	.790	6.0	7.40	140	IRON	.99

"MICRO MITE" SERIES 9220

MOLDED R. F. CHOKES

*Current based on (1) Temperature rise not to exceed 35° C at 90° ambient. (2) Overload not to exceed 1½ times rated current.

MOLD SIZE	MOLD DIAMETER	MOLD LENGTH	LEAD SIZE	LEAD LENGTH	MAX. WATT AT 90° C.
A	.190 ± .010	.440 ± .010	AWG #22	1.44 ± .125	.25
B	.215 ± .010	.560 ± .010	AWG #21	1.44 ± .125	.40
C	.240 ± .010	.740 ± .010	AWG #20	1.44 ± .125	.45

PART No.	L uh	Q MIN.	TEST FREQ. (MHz.)	Fo. MIN. (MHz.)	Rdc. MAX.	*Ma. MAX.	MOLD SIZE	CORE MTL.	NET PRICE
9220-00	270 ± 5%	65	.790	5.3	8.0	150	A	IRON	$1.05
9220-02	300 ± 5%	65	.790	5.0	8.6	145	A	IRON	1.05
9220-04	330 ± 5%	65	.790	5.0	8.9	142	A	IRON	1.05
9220-06	360 ± 5%	65	.790	4.7	9.6	137	A	IRON	1.05
9220-08	390 ± 5%	65	.790	4.5	9.9	135	A	IRON	1.05
9220-10	430 ± 5%	65	.790	4.3	10.4	131	A	IRON	1.05
9220-12	470 ± 5%	65	.790	4.0	10.9	128	A	IRON	1.05
9220-14	500 ± 5%	65	.790	3.7	11.3	126	A	IRON	1.05
9220-16	560 ± 5%	65	.790	3.5	11.8	123	A	IRON	1.05
9220-18	620 ± 5%	60	.790	3.5	12.5	120	A	IRON	1.14
9220-20	680 ± 5%	60	.790	3.3	13.5	115	A	IRON	1.14
9220-22	750 ± 5%	60	.790	3.3	14.0	113	A	IRON	1.14
9220-24	820 ± 5%	60	.790	3.0	15.0	110	A	IRON	1.14
9220-26	910 ± 5%	60	.790	3.0	15.5	107	A	IRON	1.14
9220-28	1000 ± 5%	60	.790	2.8	16.5	104	A	IRON	1.14
9220-30	1100 ± 5%	60	.250	2.7	21.0	117	B	IRON	1.35
9220-32	1200 ± 5%	60	.250	2.7	22.0	114	B	IRON	1.35
9220-34	1300 ± 5%	60	.250	2.6	22.5	113	B	IRON	1.35
9220-36	1500 ± 5%	65	.250	2.3	24.5	108	B	IRON	1.35
9220-38	1600 ± 5%	65	.250	2.2	25.7	106	B	IRON	1.35
9220-40	1800 ± 5%	65	.250	2.2	27.3	102	B	IRON	1.35
9220-42	2000 ± 5%	65	.250	2.0	29.0	99	B	IRON	1.35
9220-44	2200 ± 5%	70	.250	2.0	30.0	98	B	IRON	1.35
9220-46	2400 ± 5%	70	.250	1.9	31.5	96	B	IRON	1.35
9220-48	2700 ± 5%	70	.250	1.9	33.0	93	B	IRON	1.35
9220-50	3000 ± 5%	70	.250	1.8	35.0	91	B	IRON	1.35
9220-52	3300 ± 5%	70	.250	1.6	37.8	87	B	IRON	1.35
9220-54	3600 ± 5%	70	.250	1.5	39.3	85	B	IRON	1.35
9220-56	3900 ± 5%	80	.250	1.5	43.0	86	C	IRON	1.50
9220-58	4300 ± 5%	80	.250	1.5	45.0	85	C	IRON	1.50
9220-60	4700 ± 5%	80	.250	1.4	47.0	83	C	IRON	1.50
9220-62	5000 ± 5%	80	.250	1.3	48.3	82	C	IRON	1.50
9220-64	5600 ± 5%	80	.250	1.3	52.0	79	C	IRON	1.50
9220-66	6200 ± 5%	80	.250	1.2	54.0	77	C	IRON	1.50
9220-68	6800 ± 5%	80	.250	1.2	56.5	75	C	IRON	1.50
9220-70	7500 ± 5%	80	.250	1.2	59.5	73	C	IRON	1.50
9220-72	8200 ± 5%	80	.250	1.1	62.5	72	C	IRON	1.50
9220-74	9100 ± 5%	80	.250	1.0	66.5	69	C	IRON	1.50
9220-76	10000 ± 5%	80	.250	1.0	70.0	68	C	IRON	1.50

MILLER SERIES 9230

Mold Size: .095 ±.010 Diameter; .250 ±.010 Length. Leads AWG #24 TCW; 1.500 ±.125 Length. Power Rating: .17 Watt Max. at 90° C. For —00 thru —70 .15 Watt Max. at 90° C. For —72 thru —92. *Current based on (1) Temperature rise not to exceed 35° C at 90° C ambient. (2) Overload not to exceed 1½ times rated current.

PART No.	L uh.	Q MIN.	TEST FREQ. (MHz.)	Fo. MIN. (MHz.)	Rdc. MAX.	*Ma. MAX.	CORE MTL.	NET PRICE
9230-94	.10 ± 10%	40	25.0	690	.07	1100	PHENOLIC	$1.02
9230-96	.12 ± 10%	40	25.0	650	.08	1100	PHENOLIC	1.02
9230-00	.15 ± 10%	38	25.0	600	.10	1100	PHENOLIC	1.02
9230-02	.18 ± 10%	35	25.0	550	.12	1010	PHENOLIC	1.02
9230-04	.22 ± 10%	33	25.0	510	.14	935	PHENOLIC	1.02
9230-06	.27 ± 10%	33	25.0	430	.16	875	PHENOLIC	1.02
9230-08	.33 ± 10%	30	25.0	410	.20	780	PHENOLIC	1.02
9230-10	.39 ± 10%	30	25.0	380	.30	640	PHENOLIC	1.02
9230-12	.47 ± 10%	30	25.0	340	.35	590	PHENOLIC	1.02
9230-14	.56 ± 10%	30	25.0	300	.50	495	PHENOLIC	1.02
9230-16	.68 ± 10%	28	25.0	275	.60	450	PHENOLIC	1.02
9230-18	.82 ± 10%	28	25.0	250	.85	380	PHENOLIC	1.02
9230-20	1.00 ± 10%	25	25.0	230	1.00	350	PHENOLIC	1.02
9230-22	1.20 ± 10%	25	7.9	150	.18	825	IRON	1.08
9230-24	1.50 ± 10%	28	7.9	140	.22	745	IRON	1.08
9230-26	1.80 ± 10%	30	7.9	125	.30	640	IRON	1.08
9230-28	2.20 ± 10%	30	7.9	115	.40	550	IRON	1.08
9230-30	2.70 ± 10%	37	7.9	100	.50	495	IRON	1.08
9230-32	3.30 ± 10%	45	7.9	90	.85	380	IRON	1.08
9230-34	3.90 ± 10%	45	7.9	82	1.00	350	IRON	1.08
9230-36	4.70 ± 10%	45	7.9	75	1.20	320	IRON	1.08
9230-38	5.60 ± 10%	50	7.9	68	1.80	260	IRON	1.23
9230-40	6.80 ± 10%	50	7.9	60	2.00	245	IRON	1.23
9230-42	8.20 ± 10%	55	7.9	55	2.70	210	IRON	1.23
9230-44	10.0 ± 10%	55	7.9	50	3.70	180	IRON	1.23
9230-46	12.0 ± 10%	45	2.5	40	2.70	210	IRON	1.32
9230-48	15.0 ± 10%	45	2.5	35	2.80	205	IRON	1.32
9230-50	18.0 ± 10%	50	2.5	32	3.10	195	IRON	1.32
9230-52	22.0 ± 10%	50	2.5	25	3.30	190	IRON	1.32
9230-54	27.0 ± 10%	50	2.5	22	3.50	185	IRON	1.32
9230-56	33.0 ± 10%	45	2.5	24	3.40	187	FERRITE	1.41
9230-58	39.0 ± 10%	45	2.5	22	3.60	180	FERRITE	1.65
9230-60	47.0 ± 10%	45	2.5	20	4.50	165	FERRITE	1.65
9230-62	56.0 ± 10%	45	2.5	18	5.70	145	FERRITE	1.65
9230-64	68.0 ± 10%	50	2.5	15	6.70	135	FERRITE	1.65
9230-66	82.0 ± 10%	50	2.5	14	7.30	130	FERRITE	1.65
9230-68	100.0 ± 10%	50	2.5	13	8.00	125	FERRITE	1.65
9230-70	120.0 ± 10%	30	.79	12	13.00	97	FERRITE	2.25
9230-72	150.0 ± 10%	30	.79	11	15.00	85	FERRITE	2.25
9230-74	180.0 ± 10%	30	.79	10	17.00	79	FERRITE	2.25
9230-76	220.0 ± 10%	30	.79	9	21.00	73	FERRITE	2.25
9230-78	270.0 ± 10%	30	.79	8	25.00	65	FERRITE	2.25
9230-80	330.0 ± 10%	30	.79	7	28.00	62	FERRITE	2.25
9230-82	390.0 ± 10%	30	.79	6.5	35.00	55	FERRITE	2.25
9230-84	470.0 ± 10%	30	.79	6	42.00	50	FERRITE	2.25
9230-86	560.0 ± 10%	30	.79	5	46.00	48	FERRITE	2.25
9230-88	680.0 ± 10%	30	.79	4.2	60.00	42	FERRITE	2.25
9230-90	820.0 ± 10%	30	.79	3.8	65.00	40	FERRITE	2.25
9230-92	1000.0 ± 10%	30	.79	3.4	72.00	38	FERRITE	2.25

MILLER SERIES 9240

Size: 0.157" Diameter, 0.375" Length. Inductance: 0.1 uh thru 10,000 uh (61) values.
Shielding: Less than 2% coupling. Environment: Grade 1, Class B, MIL-C-15305.
Power Rating: .20 watts @ 90° ambient and rated current flow.
*Current Based on (1) Temperature rise not to exceed 35° C at 90° C ambient.
(2) Overload not to exceed 1½ times rated current.
**Current required to decrease inductance 5%.

PART No.	L ±10%	Q MIN.	TEST FREQ. (MHz.)	Fo. MIN. (MHz.)	Rdc. MAX.	*Ma. MAX.	**Ma. APPROX.	NET PRICE
9240-770	.10 uh.	50	25	250	.015	3100	3100	$1.74
9240-771	.12 uh.	50	25	250	.020	2650	2650	1.74
9240-701	.15 uh.	50	25	250	.025	2400	2400	1.74
9240-772	.18 uh.	50	25	250	.030	2190	2190	1.74
9240-702	.22 uh.	50	25	250	.035	2030	2030	1.74
9240-773	.27 uh.	50	25	250	.045	1790	1790	1.74
9240-703	.33 uh.	45	25	250	.075	1380	1380	1.74
9240-774	.39 uh.	45	25	250	.085	1300	1300	1.74
9240-704	.47 uh.	45	25	235	.100	1200	1200	1.74
9240-705	.56 uh.	45	25	210	.180	890	890	1.74
9240-706	.68 uh.	45	25	190	.200	850	850	1.74
9240-707	.82 uh.	45	25	180	.280	710	710	1.74
9240-708	1.0 uh.	45	25	150	.070	1430	1430	1.86
9240-709	1.2 uh.	45	7.9	145	.080	1340	1340	1.86
9240-710	1.5 uh.	45	7.9	130	.100	1200	1200	1.86
9240-711	1.8 uh.	50	7.9	120	.120	1090	1090	1.86
9240-712	2.2 uh.	50	7.9	110	.150	980	980	1.86
9240-713	2.7 uh.	50	7.9	105	.220	800	800	1.86
9240-714	3.3 uh.	50	7.9	90	.270	730	730	1.86
9240-715	3.9 uh.	50	7.9	85	.290	700	700	1.86
9240-716	4.7 uh.	55	7.9	82	.320	670	670	1.86
9240-717	5.6 uh.	55	7.9	80	.560	500	500	1.86
9240-718	6.8 uh.	55	7.9	75	.700	450	450	1.86
9240-719	8.2 uh.	55	7.9	70	.820	410	410	1.86
9240-720	10.0 uh.	50	7.9	60	.900	400	400	1.86
9240-721	12 uh.	55	2.5	50	.950	380	380	1.86
9240-722	15 uh.	45	2.5	45	.750	430	225	1.89
9240-723	18 uh.	45	2.5	42	.850	410	190	1.89
9240-724	22 uh.	50	2.5	40	.950	380	170	1.89
9240-725	27 uh.	50	2.5	35	1.10	360	150	1.89
9240-726	33 uh.	45	2.5	33	1.30	330	130	1.89
9240-727	39 uh.	50	2.5	29	1.80	280	115	1.89
9240-728	47 uh.	50	2.5	27	2.00	260	110	1.89
9240-729	56 uh.	50	2.5	25	2.20	250	100	1.89
9240-730	68 uh.	50	2.5	20	2.50	240	87	1.89
9240-731	82 uh.	50	2.5	15	3.50	215	85	1.89
9240-732	100 uh.	50	2.5	11	2.20	200	80	1.89
9240-733	120 uh.	60	.79	10	2.50	265	74	2.25
9240-734	150 uh.	60	.79	9	2.80	240	68	2.25
9240-735	180 uh.	60	.79	9	3.20	215	50	2.25
9240-736	220 uh.	60	.79	8	3.70	205	46	2.25
9240-737	270 uh.	60	.79	7	4.60	200	40	2.25
9240-738	330 uh.	60	.79	7	5.00	195	37	2.25
9240-739	390 uh.	60	.79	6	5.50	190	34	2.25
9240-740	470 uh.	60	.79	5.8	6.00	180	32	2.25
9240-741	560 uh.	60	.79	5.5	7.50	160	32	2.25
9240-742	680 uh.	60	.79	5	8.50	145	30	2.25
9240-743	820 uh.	60	.79	4.3	12.00	135	26	2.25
9240-744	1000 uh.	65	.79	4.2	13.00	105	24	2.25
9240-745	1.2 mh.	50	.25	4	16.50	100	22	2.25
9240-746	1.5 mh.	50	.25	3.8	20	90	20	2.25
9240-747	1.8 mh.	50	.25	3.2	25	80	18	2.25
9240-748	2.2 mh.	50	.25	2.6	27	75	15	2.25
9240-749	2.7 mh.	50	.25	2.1	35	65	13	2.85
9240-750	3.3 mh.	45	.25	2	40	60	13	2.85
9240-751	3.9 mh.	45	.25	1.8	44	55	12	2.85
9240-752	4.7 mh.	45	.25	1.4	58	50	11	2.97
9240-753	5.6 mh.	45	.25	2.1	72	45	10	2.97
9240-754	6.8 mh.	45	.25	1.5	80	42	8.0	2.97
9240-755	8.2 mh.	40	.25	1.4	107	40	7.0	2.97
9240-756	10.0 mh.	40	.25	1.3	137	38	6.5	2.97

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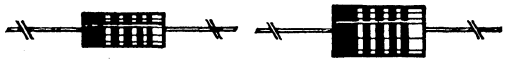
MIL-SPEC MOLDED CHOKES

MILLER MOLDED COILS CONFORM TO MIL-C-15305C



MILLER SERIES 9310

(MS 16225)

Mold Size: .155 ±.010 diameter; .375 ±.010 length. Leads: AWG #22 TCW; 1.437 ±.125 length. Power Rating: ¼ Watt Max. at 90° C. *Current based on (1) Temperature rise not to exceed 35°C at 90° ambient. (2) Overload not to exceed 1½ times rated current.

PART No.	MS TYPE	L uh	Q MIN.	TEST FREQ. (MHz.)	Fo. MIN. (MHz.)	Rdc. MAX.	*Ma. MAX.	CORE MTL.	NET PRICE
9310-00	18130- 1	.15 ± 20%	50	25	525	.03	2450	PHENOLIC	$ .60
9310-02	18130- 2	.22 ± 20%	50	25	450	.055	1900	PHENOLIC	.60
9310-04	18130- 3	.33 ± 20%	45	25	370	.09	1400	PHENOLIC	.60
9310-06	18130- 4	.47 ± 20%	45	25	310	.12	1225	PHENOLIC	.60
9310-07	18130- 5	.56 ± 10%	50	25	280	.135	1200	PHENOLIC	.60
9310-08	18130- 6	.68 ± 10%	50	25	250	.15	1100	PHENOLIC	.60
9310-10	18130- 7	.82 ± 10%	50	25	220	.22	900	PHENOLIC	.60
9310-12	18130- 8	1.00 ± 10%	50	25	200	.29	830	PHENOLIC	.60
9310-14	18130- 9	1.20 ± 10%	33	7.9	180	.42	650	PHENOLIC	.60
9310-16	18130-10	1.50 ± 10%	33	7.9	160	.50	600	PHENOLIC	.60
9310-18	18130-11	1.80 ± 10%	33	7.9	150	.65	525	PHENOLIC	.60
9310-20	18130-12	2.20 ± 10%	33	7.9	135	.95	435	PHENOLIC	.60
9310-22	18130-13	2.70 ± 10%	33	7.9	120	1.20	385	PHENOLIC	.60
9310-24	18130-14	3.30 ± 10%	33	7.9	110	2.00	300	PHENOLIC	.60
9310-26	18130-15	3.90 ± 10%	33	7.9	100	2.30	280	PHENOLIC	.60
9310-28	18130-16	4.70 ± 10%	33	7.9	90	2.60	260	PHENOLIC	.60
9310-30	18130-17	5.60 ± 10%	45	7.9	60	.32	750	IRON	.66
9310-32	18130-18	6.80 ± 10%	50	7.9	55	.50	600	IRON	.66
9310-34	18130-19	8.20 ± 10%	50	7.9	50	.60	545	IRON	.66
9310-36	18130-20	10.0 ± 10%	55	7.9	45	.90	445	IRON	.66
9310-38	18130-21	12.0 ± 10%	65	2.5	42	1.10	404	IRON	.66
9310-40	18130-22	15.0 ± 10%	65	2.5	40	1.40	370	IRON	.66
9310-42	18130-23	18.0 ± 10%	75	2.5	34	2.25	280	IRON	.66
9310-44	18130-24	22.0 ± 10%	75	2.5	30	2.50	265	IRON	.66
9310-46	-------	24.0 ± 5%	60	2.5	26	2.50	265	IRON	.75
9310-48	18130-25	27.0 ± 5%	60	2.5	25	2.60	260	IRON	.75
9310-50	-------	30.0 ± 5%	65	2.5	19	2.80	255	IRON	.75
9310-52	18130-26	33.0 ± 5%	65	2.5	19	3.00	250	IRON	.75

MILLER SERIES 9320

Mold Size: 0.185 ±.010 diameter; 0.437 ±.010 length. Leads: AWG #22 TCW; 1.437 ±.125 length. Power Rating: .25 Watt Max. at 90° C. *Current based on (1) Temperature rise not to exceed 35° C. at 90° ambient. (2) Overload not to exceed 1½ times rated current.

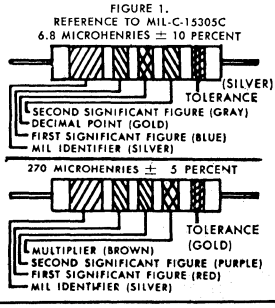
PART No.	MS TYPE	L uh	Q MIN.	TEST FREQ. (MHz.)	Fo. MIN. (MHz.)	Rdc. MAX.	*Ma. MAX.	CORE MTL.	NET PRICE
9320-00	75008-21	.15 ± 20%	55	25	510	.03	3000	PHENOLIC	$ .60
9320-02	75008-22	.22 ± 20%	55	25	415	.035	2800	PHENOLIC	.60
9320-04	75008-23	.33 ± 20%	55	25	350	.05	2000	PHENOLIC	.60
9320-06	75008-24	.47 ± 20%	55	25	300	.08	1700	PHENOLIC	.60
9320-07	75008-25	.56 ± 10%	55	25	270	.100	1450	PHENOLIC	.60
9320-08	75008-26	.68 ± 10%	55	25	250	.12	1300	PHENOLIC	.60
9320-09	75008-27	.82 ± 10%	55	25	220	.180	1100	PHENOLIC	.60
9320-10	75008-28	1.00 ± 10%	55	25	200	.25	930	PHENOLIC	.60
9320-11	75008-29	1.20 ± 10%	35	7.9	180	.400	785	PHENOLIC	.60
9320-12	75008-30	1.50 ± 10%	35	7.9	170	.485	700	PHENOLIC	.60
9320-13	75008-31	1.80 ± 10%	35	7.9	150	.740	580	PHENOLIC	.60
9320-14	75008-32	2.20 ± 10%	35	7.9	140	.90	505	PHENOLIC	.60
9320-16	75008-33	2.70 ± 10%	35	7.9	120	1.10	460	PHENOLIC	.60
9320-18	75008-34	3.30 ± 10%	35	7.9	70	.12	1350	IRON	.66
9320-20	75008-35	3.90 ± 10%	35	7.9	65	.155	1250	IRON	.66
9320-22	75008-36	4.70 ± 10%	35	7.9	60	.210	1100	IRON	.66
9320-24	75008-37	5.60 ± 10%	35	7.9	50	.280	935	IRON	.66
9320-26	75008-38	6.80 ± 10%	35	7.9	50	.375	810	IRON	.66
9320-28	75008-39	8.20 ± 10%	35	7.9	48	.400	750	IRON	.66
9320-30	75008-40	10.0 ± 10%	35	7.9	42	.60	640	IRON	.66
9320-32	75008-41	12.0 ± 10%	50	2.5	36	.85	490	IRON	.66
9320-34	75008-42	15.0 ± 10%	55	2.5	30	1.20	460	IRON	.66
9320-35	75008-43	18.0 ± 10%	60	2.5	30	1.80	360	IRON	.66
9320-36	75008-44	22.0 ± 10%	60	2.5	24	2.00	335	IRON	.66
9320-38	75008-45	27.0 ± 10%	65	2.5	22	2.750	300	IRON	.66

MILLER SERIES 9330

Mold Size: 0.215 ±.010 diameter; 0.560 ±.010 length. Leads: AWG #22 TCW; 1.437 ±.125 length. Power Rating: .33 Watt max. at 90° C. *Current based on (1) Temperature rise not to exceed 35° C at 90° ambient. (2) Overload not to exceed 1½ times rated current.

PART No.	MS TYPE	L uh	Q MIN.	TEST FREQ. (MHz.)	Fo. MIN. (MHz.)	Rdc. MAX.	*Ma. MAX.	CORE MTL.	NET PRICE
9330-00	16222- 1	.47 ± 20%	65	25	300	.06	1970	PHENOLIC	$ .66
9330-02	16222- 2	.68 ± 20%	65	25	240	.08	1700	PHENOLIC	.66
9330-04	16222- 3	1.00 ± 10%	65	25	200	.14	1290	PHENOLIC	.66
9330-06	16222- 4	1.50 ± 10%	40	7.9	160	.28	925	PHENOLIC	.66
9330-08	16222- 5	2.20 ± 10%	40	7.9	135	.50	680	PHENOLIC	.66
9330-10	16222- 6	2.70 ± 10%	40	7.9	120	.65	600	PHENOLIC	.66
9330-12	16222- 7	3.30 ± 10%	40	7.9	105	1.00	480	PHENOLIC	.66
9330-14	16222- 8	3.90 ± 10%	40	7.9	100	1.20	440	PHENOLIC	.66
9330-16	16222- 9	4.70 ± 10%	40	7.9	90	1.80	360	PHENOLIC	.66
9330-18	16222-10	5.60 ± 10%	35	7.9	55	.13	1340	IRON	.75
9330-20	16222-11	6.80 ± 10%	35	7.9	50	.20	1080	IRON	.75
9330-22	16222-12	8.20 ± 10%	35	7.9	44	.22	1030	IRON	.75
9330-24	16222-13	10.0 ± 10%	35	7.9	42	.26	950	IRON	.75
9330-26	16222-14	12.0 ± 10%	45	2.5	34	.45	720	IRON	.75
9330-28	16222-15	15.0 ± 10%	45	2.5	32	.52	670	IRON	.75
9330-30	16222-16	18.0 ± 10%	50	2.5	28	.70	580	IRON	.75
9330-32	16222-17	22.0 ± 10%	60	2.5	24	1.00	480	IRON	.75
9330-34	16222-18	27.0 ± 10%	60	2.5	22	1.30	420	IRON	.75
9330-36	16222-19	33.0 ± 10%	60	2.5	20	1.50	390	IRON	.75
9330-38	16222-20	39.0 ± 10%	70	2.5	18	2.00	340	IRON	.75

FIGURE 1.
REFERENCE TO MIL-C-15305C



Color	Significant Figure	(1) Multiplier	Inductance Tolerance (Percent)
BLACK	0	1	
BROWN	1	10	
RED	2	100	
ORANGE	3	1,000	
YELLOW	4		
GREEN	5		
BLUE	6		
VIOLET	7		
GRAY	8		
WHITE	9		
NONE (2)			± 20
SILVER			± 10
GOLD	DECIMAL POINT		± 5

(1) The multiplier is the factor by which the two significant figures are multiplied to yield the nominal inductance value.
(2) Indicates body color.

MILLER SERIES 9340

Mold Size: 0.280 ±.010 diameter; 0.900 ±.010 length. Leads: AWG #21 TCW; 1.437 ±.125 length. Power rating: ⅜ Watt Max. at 90° C. *Current based on (1) Temperature rise not to exceed 25° C at 90° ambient. (2) Overload not to exceed 1½ times rated current.

PART No.	MS TYPE	L uh	Q MIN.	TEST FREQ. (MHz.)	Fo. MIN. (MHz.)	Rdc. MAX.	*Ma. MAX.	CORE MTL.	NET PRICE
9340-00	91189-14	1.2 ± 10%	60	7.9	170	.075	2400	PHENOLIC	$ .78
9340-02	91189-15	1.5 ± 10%	60	7.9	160	.090	2150	PHENOLIC	.78
9340-03	91189-16	1.8 ± 10%	60	7.9	140	.135	1750	PHENOLIC	.78
9340-04	91189-17	2.2 ± 10%	60	7.9	125	.160	1600	PHENOLIC	.78
9340-06	91189-18	2.7 ± 10%	60	7.9	115	.220	1350	PHENOLIC	.78
9340-08	91189-19	3.3 ± 10%	60	7.9	100	.305	1150	PHENOLIC	.78
9340-10	91189-20	3.9 ± 10%	60	7.9	95	.45	955	PHENOLIC	.78
9340-12	91189-21	4.7 ± 10%	60	7.9	90	.560	860	PHENOLIC	.78
9340-14	91189-22	5.6 ± 10%	60	7.9	80	.745	745	PHENOLIC	.78
9340-16	91189-23	6.8 ± 10%	60	7.9	75	1.05	635	PHENOLIC	.78
9340-18	91189-24	8.2 ± 10%	60	7.9	68	1.4	550	PHENOLIC	.78
9340-20	91189-25	10.0 ± 10%	60	7.9	60	1.9	460	PHENOLIC	.78
9340-22	91189-26	12.0 ± 10%	40	2.5	53	2.65	395	PHENOLIC	.78
9340-24	91189-27	15.0 ± 10%	40	2.5	50	3.25	355	PHENOLIC	.78
9340-26	91189-28	18.0 ± 10%	40	2.5	45	4.15	315	PHENOLIC	.78
9340-28	91189-29	22.0 ± 10%	50	2.5	25	.295	1150	IRON	.84
9340-30	91189-30	27.0 ± 10%	45	2.5	22	.350	1050	IRON	.84
9340-32	91189-31	33.0 ± 10%	60	2.5	20	.550	865	IRON	.84
9340-34	91189-32	39.0 ± 10%	55	2.5	18	.65	810	IRON	.84
9340-36	91189-33	47.0 ± 10%	65	2.5	16	1.0	640	IRON	.84
9340-38	91189-34	56.0 ± 10%	65	2.5	14	1.15	620	IRON	.84
9340-39	91189-35	68.0 ± 10%	75	2.5	13	1.85	470	IRON	.84
9340-40	91189-36	82.0 ± 10%	75	2.5	13	2.10	440	IRON	.84
9340-42	91189-37	100.0 ± 10%	75	2.5	12	2.50	405	IRON	.84
9340-44	91189-38	120.0 ± 10%	95	.790	10	4.00	315	IRON	.84

MILLER SERIES 9350

*Current based on (1) Temperature rise not to exceed 35° C at 90° ambient. (2) Overload not to exceed 1½ times rated current.

COIL DIMENSIONS	A	B	C	D	LEAD DIMENSIONS
DIAMETER ± .010	.250	.310	.375	.468	AWG 20, 21, 22 TCW
LENGTH ± .010	.560	.560	.625	.687	1.437 ± .125
MAX. WATT. AT 90° C	.30	.40	.45	.55	

PART No.	MS TYPE	L uh	Q MIN.	TEST FREQ. (MHz.)	Fo. MIN. (MHz.)	Rdc. MAX.	*Ma. MAX.	MOLD SIZE	CORE MTL.	NET PRICE
9350-00	75052- 1	47 ± 10%	18	2.5	13.5	5.9	195	A	PHENOLIC	$1.02
9350-02	75052- 2	56 ± 10%	18	2.5	13	6.4	185	A	PHENOLIC	1.02
9350-04	75052- 3	68 ± 10%	70	2.5	13	3.3	255	A	IRON	1.08
9350-06	75052- 4	82 ± 10%	65	2.5	11.7	3.5	245	A	IRON	1.08
9350-08	75052- 5	100 ± 10%	65	2.5	10.7	3.8	235	A	IRON	1.08
9350-10	75052- 6	120 ± 10%	75	.790	9.3	4.7	215	A	IRON	1.08
9350-12	75052- 7	150 ± 10%	75	.790	8.3	5.3	200	A	IRON	1.08
9350-14	75053- 1	180 ± 10%	80	.790	6.0	5.5	225	B	IRON	1.08
9350-16	75053- 2	220 ± 10%	80	.790	5.5	5.9	220	B	IRON	1.08
9350-18	75053- 3	270 ± 10%	80	.790	5.1	6.6	210	B	IRON	1.08
9350-20	75053- 4	330 ± 10%	75	.790	4.2	7.8	185	B	IRON	1.08
9350-22	75053- 5	390 ± 10%	75	.790	3.9	8.7	180	B	IRON	1.08
9350-24	75054- 1	470 ± 10%	80	.790	3.7	9.0	190	C	IRON	1.11
9350-26	75054- 2	560 ± 10%	80	.790	3.5	10.0	180	C	IRON	1.11
9350-28	75054- 3	680 ± 10%	75	.790	3.2	11.2	170	C	IRON	1.11
9350-30	75054- 4	820 ± 10%	75	.790	3.0	13.0	155	C	IRON	1.11
9350-32	75054- 5	1000 ± 10%	70	.790	2.7	14.5	145	C	IRON	1.14
9350-34	75055- 1	1500 ± 10%	85	.250	1.9	26.0	125	D	IRON	1.14
9350-36	-------	2000 ± 10%	85	.250	2.2	22.0	127	D	IRON	1.14
9350-37	75055- 2	2200 ± 10%	85	.250	1.8	27.0	115	D	IRON	1.20
9350-38	-------	2500 ± 10%	85	.250	1.7	30.0	115	D	IRON	1.20
9350-39	75055- 3	2700 ± 10%	85	.250	1.6	32.0	105	D	IRON	1.20
9350-40	-------	5000 ± 10%	70	.250	1.2	65.0	78	D	IRON	1.20
9350-41	75055- 4	5100 ± 10%	70	.250	1.0	66.0	73	D	IRON	1.20
9350-44	75055- 5	10000 ± 10%	70	.250	.8	70.0	75	D	FERRITE	1.20

MILLER SERIES 9360

This series of molded chokes conforms to the requirements of Mil type LT8K.
Mold Size: 0.300 ±.010 Diameter; .968 ±.010 Length.
Leads: 1.400 ±.125.

PART No.	MS TYPE	L uh	Q MIN.	TEST FREQ. (MHz.)	Fo. ±10% (MHz.)	Rdc. MAX.	Ma. MAX.	CORE MTL.	NET PRICE
9360-01	91189- 1	1.1 ± 20%	60	10.0	200	0.09	2800	PHENOLIC	$1.26
9360-02	91189- 2	2.2 ± 20%	65	10.0	165	.20	1800	PHENOLIC	1.26
9360-03	91189- 3	3.3 ± 10%	50	5.0	130	.32	1500	PHENOLIC	1.26
9360-04	91189- 4	4.7 ± 10%	45	5.0	100	.60	1100	PHENOLIC	1.26
9360-05	91189- 5	6.8 ± 10%	40	4.0	90	1.10	800	PHENOLIC	1.26
9360-06	91189- 6	10.0 ± 10%	40	3.5	70	1.80	600	PHENOLIC	1.26
9360-07	91189- 7	15.0 ± 10%	40	3.0	55	3.00	500	PHENOLIC	1.26
9360-08	91189- 8	22.0 ± 10%	30	2.5	27	.30	1500	IRON	1.35
9360-09	91189- 9	33.0 ± 10%	45	2.0	21	.60	1100	IRON	1.35
9360-10	91189-10	47.0 ± 10%	70	1.5	16	1.20	700	IRON	1.35
9360-11	91189-11	82.0 ± 10%	85	1.2	14	2.20	600	IRON	1.35
9360-12	91189-12	100.0 ± 10%	85	1.0	14	2.80	500	IRON	1.35
9360-13	91189-13	120.0 ± 10%	85	1.0	13	4.00	400	IRON	1.35

For a Complete Listing of MILLER PRODUCTS ask for a copy of our Latest General Catalog at your Local Parts Distributor.

MOLDED CHOKE COILS COLOR CODING

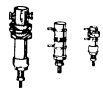
For cylindrical choke coils. Cylindrical choke coils shall be marked with five colored bands. A silver band MIL identifier of double the width of the other four bands, located near one end of the coil, identifies military radio-frequency coils; four other bands of equal width, three indicating the inductance in microhenries and the fourth band indicating the tolerance in percent. Color coding shall be in accordance with the color code of table. When either the first or second band of the three bands is gold, this band shall represent the decimal point for inductance values less than 10, and the other two bands shall represent significant figures. For inductance values of 10 or more, the first two bands shall represent significant figures, and the third band shall represent the multiplier. For small units, dots may be used instead of bands, when specified. The diameter of the MIL-identifier dot shall be larger than the other dots. The colors used shall be in accordance with MIL-STD-174. Typical color coding for units with inductance values less than 10 and for 10 or greater is shown on figure 1.

J. W. MILLER COMPANY

Miller

Industrial Adjustable R.F. Coils

Resinite Adjustable R.F. Coils



Resinite is a phenolic impregnated tubing which can be certified to MIL-P-79B type PBG. This material combines good mechanical and electrical characteristics along with the noncorrosive properties of cellulose acetate.

Miniature Adjustable R.F. Coils

Dimensions (form) ¼" dia. x 13/16" long

Part No.	L Min.	L Max.	Net Price
20A107RBI	.088 uh	.120 uh	$1.02
20A157RBI	.108 uh	.180 uh	1.02
20A227RBI	.162 uh	.264 uh	1.02
20A337RBI	.238 uh	.396 uh	1.08
20A477RBI	.356 uh	.564 uh	1.08
20A687RBI	.508 uh	.816 uh	1.08
20A827RBI	.735 uh	.984 uh	1.08
20A106RBI	.885 uh	1.20 uh	1.08
20A156RBI	1.08 uh	1.80 uh	1.08
20A226RBI	1.62 uh	2.64 uh	1.08
20A336RBI	2.38 uh	3.96 uh	1.08
20A476RBI	3.56 uh	5.64 uh	1.08
20A686RBI	5.08 uh	8.16 uh	1.08
20A826RBI	7.35 uh	9.84 uh	1.08
20A105RBI	8.85 uh	12.0 uh	1.20
20A155RBI	10.8 uh	18.0 uh	1.20
20A225RBI	16.2 uh	26.4 uh	1.20
20A335RBI	23.8 uh	39.6 uh	1.20
20A475RBI	35.6 uh	56.4 uh	1.20
20A685RBI	50.8 uh	81.6 uh	1.20
20A825RBI	73.5 uh	98.4 uh	1.20
20A104RBI	88.5 uh	120. uh	1.23
20A154RBI	108. uh	180. uh	1.23
20A224RBI	162. uh	264. uh	1.23
20A334RBI	238. uh	396. uh	1.23
20A474RBI	356. uh	564. uh	1.23
20A684RBI	508. uh	816. uh	1.23
20A824RBI	735. uh	984. uh	1.23
20A103RBI	885. uh	1.20 mh	1.23

Standard Adjustable R.F. Coils

Dimensions (form) ⅜" dia. x 1⅛" long

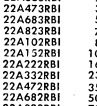
Part No.	L Min.	L Max.	Net Price
21A106RBI	.885 uh	1.20 uh	$1.11
21A156RBI	1.08 uh	1.80 uh	1.11
21A226RBI	1.62 uh	2.64 uh	1.11
21A336RBI	2.38 uh	3.96 uh	1.11
21A476RBI	3.56 uh	5.64 uh	1.11
21A686RBI	5.08 uh	8.16 uh	1.11
21A826RBI	7.35 uh	9.84 uh	1.11
21A105RBI	8.85 uh	12.0 uh	1.23
21A155RBI	10.8 uh	18.0 uh	1.23
21A225RBI	16.2 uh	26.4 uh	1.23
21A335RBI	23.8 uh	39.6 uh	1.23
21A475RBI	35.6 uh	56.4 uh	1.23
21A685RBI	50.8 uh	81.6 uh	1.23
21A825RBI	73.5 uh	98.4 uh	1.23
21A104RBI	88.5 uh	120. uh	1.30
21A154RBI	108. uh	180. uh	1.30
21A224RBI	162. uh	264. uh	1.30
21A334RBI	238. uh	396. uh	1.30
21A474RBI	356. uh	564. uh	1.30
21A684RBI	508. uh	816. uh	1.30
21A824RBI	735. uh	984. uh	1.38
21A103RBI	885. uh	1.20 mh	1.38
21A153RBI	1.08 mh	1.80 mh	1.38
21A223RBI	1.62 mh	2.64 mh	1.38
21A333RBI	2.38 mh	3.96 mh	1.38
21A473RBI	3.56 mh	5.64 mh	1.44
21A683RBI	5.08 mh	8.16 mh	1.44
21A823RBI	7.35 mh	9.84 mh	1.44
21A102RBI	8.85 mh	12.0 mh	1.50

Jumbo Adjustable R.F. Coils

Dimensions (form) ½" dia. x 1⅞" long

Part No.	L Min.	L Max.	Net Price
22A105RBI	8.85 uh	12.0 uh	$1.32
22A155RBI	10.8 uh	18.0 uh	1.32
22A225RBI	16.2 uh	26.4 uh	1.41
22A335RBI	23.8 uh	39.6 uh	1.41
22A475RBI	35.6 uh	56.4 uh	1.41
22A685RBI	50.8 uh	81.6 uh	1.41
22A825RBI	73.5 uh	98.4 uh	1.41
22A104RB'	88.5 uh	120. uh	1.41
22A154RBI	108. uh	180. uh	1.41
22A224RBI	162. uh	264. uh	1.41
22A334RBI	238. uh	396. uh	1.41
22A474RBI	356. uh	564. uh	1.41
22A684RBI	508. uh	816. uh	1.41
22A824RBI	735. uh	984. uh	1.41
22A104RBI	885. uh	1.20 mh	1.44
22A153RBI	1.08 uh	1.80 mh	1.44
22A223RBI	1.62 uh	2.64 mh	1.44
22A333RBI	2.38 uh	3.96 mh	1.47
22A473RBI	3.56 uh	5.64 mh	1.47
22A683RBI	5.08 uh	8.16 mh	1.47
22A823RBI	7.35 uh	9.84 mh	1.50
22A102RBI	8.85 uh	12.0 mh	1.50
22A152RBI	10.8 uh	18.0 mh	1.62
22A222RBI	16.2 uh	26.4 mh	1.62
22A332RBI	23.8 uh	39.6 mh	1.65
22A472RBI	35.6 uh	56.4 mh	1.68
22A682RBI	50.8 uh	81.6 mh	1.71
22A822RBI	73.5 uh	98.4 mh	1.80
22A101RBI	88.5 uh	120. mh	2.01

Shielded Subminiature Adjustable R.F. Coils

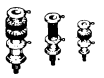


These compact adjustable coils offer a minimum two-to-one inductance range with relatively small changes in Q. The tuning adjustment is accessible from either the top or bottom of the coil assembly. Magnetic shielding is achieved through the use of cup cores while the metal shield offers effective electrostatic shielding. Printed circuit terminals on base and shield.

Dimensions: ½" sq. x ⅝" high.

Part No.	L Min.	L Max.	Typical Dist. C (pf)	Net Price
9050	1.5 uh	3.0 uh	3.5	$1.80
9051	3.0 uh	7.0 uh	4.3	1.80
9052	7.0 uh	14.0 uh	7.6	1.83
9053	14.0 uh	28.0 uh	10.3	1.83
9054	28.0 uh	60.0 uh	11.0	1.86
9055	60.0 uh	120.0 uh	10.3	1.86
9056	120.0 uh	280.0 uh	9.0	1.86
9057	280.0 uh	650.0 uh	8.0	1.95
9058	650.0 uh	1.3 Mh	8.0	1.95
9059	1.3 Mh	3.0 Mh	16.0	1.95
9060	3.0 Mh	10.0 Mh	7.0	2.10
9061	8.0 Mh	20.0 Mh	7.0	2.10
9062	15.0 Mh	40.0 Mh	7.0	2.10
9063	20.0 Mh	60.0 Mh	10.0	2.16

Ceramic Adjustable R.F. Coils



The forms used in this series feature terminal rings machined from the ceramic form material. Coils wound on these forms exhibit high Q and good stability. The adjusting core is held rigidly at any setting through the use of a newly designed tension device on the bushing.

Sub Miniature Adjustable R.F. Coils

Dimensions (form) 7/32" dia. x 19/32" long

Part No.	L Max. ± 5%	L Min. ± 10%	Net Price
40A000CBI	Coil Form w/hdw. and Core		$1.44
40A107CBI	.125 uh	.091 uh	1.98
40A157CBI	.188 uh	.124 uh	1.98
4uA227CBI	.275 uh	.184 uh	1.98
40A337CBI	.413 uh	.265 uh	1.98
40A477CBI	.587 uh	.327 uh	2.01
40A687CBI	.850 uh	.482 uh	2.01
40A827CBI	1.02 uh	.630 uh	2.10
40A106CBI	1.25 uh	.730 uh	2.10
40A156CBI	1.88 uh	1.06 uh	2.10
40A226CBI	2.75 uh	1.50 uh	2.13
40A336CBI	4.13 uh	2.15 uh	2.13
40A476CBI	5.87 uh	3.00 uh	2.22
40A686CBI	8.50 uh	4.40 uh	2.22
40A826CBI	10.2 uh	5.25 uh	2.22
40A105CBI	12.5 uh	8.06 uh	2.28
40A155CBI	18.8 uh	11.9 uh	2.28
40A225CBI	27.5 uh	17.1 uh	2.34
40A335CBI	41.3 uh	26.6 uh	2.34
40A475CBI	58.7 uh	39.0 uh	2.43
40A685CBI	85.0 uh	58.0 uh	2.43
40A825CBI	102 uh	69.0 uh	2.61
40A104CBI	125 uh	84.0 uh	2.61

Miniature Adjustable R.F. Coils

Dimensions (form)¼" dia. x 13/16" long

Part No.	L Max. ± 5%	L Min. ± 10%	Net Price
41A000CBI	Coil Form w/hdw. and Core		$1.50
41A106CBI	1.25 uh	.69 uh	2.10
41A156CBI	1.87 uh	1.20 uh	2.10
41A226CBI	2.75 uh	1.42 uh	2.10
41A336CBI	4.10 uh	2.00 uh	2.13
41A476CBI	5.80 uh	2.80 uh	2.13
41A686CBI	8.50 uh	4.00 uh	2.13
41A826CBI	10.0 uh	4.50 uh	2.16
41A105CBI	12.5 uh	6.50 uh	2.16
41A155CBI	18.7 uh	10.8 uh	2.16
41A225CBI	27.5 uh	15.2 uh	2.16
41A335CBI	41.0 uh	26.0 uh	2.22
41A475CBI	58.0 uh	32.5 uh	2.22
41A685CBI	85.0 uh	48.5 uh	2.28
41A825CBI	100 uh	61.0 uh	2.28
41A104CBI	125 uh	75.0 uh	2.34
41A154CBI	187 uh	110 uh	2.34
41A224CBI	275 uh	160 uh	2.43
41A334CBI	410 uh	253 uh	2.43
41A474CBI	580 uh	390 uh	2.55
41A684CBI	850 uh	560 uh	2.61
41A824CBI	1.00 mh	670 uh	2.67
41A103CBI	1.25 mh	700 uh	2.76

Standard Adjustable R.F. Coils

Dimensions (form) ⅜" dia. x 1" long

Part No.	L Max. ± 5%	L Min. ± 10%	Net Price
42A000CBI	Coil Form w/hdw. and Core		$1.56
42A106CBI	1.25 uh	.68 uh	2.10
42A156CBI	1.87 uh	1.00 uh	2.10
42A226CBI	2.75 uh	1.35 uh	2.10
42A336CBI	4.10 uh	2.12 uh	2.13
42A476CBI	5.80 uh	2.40 uh	2.13
42A686CBI	8.50 uh	3.60 uh	2.16
42A826CBI	10.0 uh	4.45 uh	2.16
42A105CBI	12.5 uh	6.05 uh	2.28
42A155CBI	18.7 uh	9.40 uh	2.28
42A225CBI	27.5 uh	12.9 uh	2.31
42A335CBI	41.0 uh	18.8 uh	2.31
42A475CBI	58.0 uh	27.5 uh	2.46
42A685CBI	85.0 uh	37.5 uh	2.49
42A825CBI	100 uh	45.0 uh	2.55
42A104CBI	125 uh	54.0 uh	2.64
42A154CBI	187 uh	92.0 uh	2.64
42A224CBI	275 uh	123 uh	2.64
42A334CBI	410 uh	200 uh	2.67
42A474CBI	580 uh	300 uh	2.67
42A684CBI	850 uh	430 uh	2.67
42A824CBI	1.00 mh	510 uh	2.73
42A103CBI	1.25 mh	780 uh	2.73
42A153CBI	1.87 mh	1.10 mh	2.76
42A223CBI	2.90 mh	1.66 mh	2.76
42A333CBI	4.10 mh	2.40 mh	2.76
42A473CBI	5.80 mh	3.46 mh	2.82
42A683CBI	8.50 mh	5.25 mh	2.82
42A823CBI	10.0 mh	6.00 mh	2.91
42A102CBI	12.5 mh	9.20 mh	2.91

Jumbo Adjustable R.F. Coils

Dimensions (form) ½" dia. x 1-⅛" long

Part No.	L Max. ± 5%	L Min. ± 10%	Net Price
43A000CBI	Coil Form w/hdw. and Core		$1.62
43A105CBI	12.5 uh	5.70 uh	2.25
43A155CBI	18.7 uh	9.00 uh	2.25
43A225CBI	27.5 uh	12.0 uh	2.25
43A335CBI	41.0 uh	17.0 uh	2.28
43A475CBI	58.0 uh	25.0 uh	2.28
43A685CBI	85.0 uh	38.0 uh	2.55
43A825CBI	100 uh	42.0 uh	2.55
43A104CBI	125 uh	65.0 uh	2.55
43A154CBI	187 uh	95.0 uh	2.67
43A224CBI	275 uh	138 uh	2.67
43A334CBI	410 uh	205 uh	2.67
43A474CBI	580 uh	240 uh	2.70
43A684CBI	850 uh	370 uh	2.70
43A824CBI	1.00 mh	450 uh	2.70
43A103CBI	1.25 mh	600 uh	2.70
43A153CBI	1.87 mh	900 uh	2.76
43A223CBI	2.75 mh	1.30 mh	2.76
43A333CBI	4.10 mh	1.95 mh	2.79
43A473CBI	5.80 mh	2.90 mh	2.79
43A683CBI	8.50 mh	4.30 mh	2.85
43A873CBI	10.0 mh	5.10 mh	2.85
43A102CBI	12.5 mh	6.50 mh	2.88
43A152CBI	18.7 mh	9.80 mh	2.88
43A222CBI	27.5 mh	13.0 mh	2.91
43A332CBI	41.0 mh	20.0 mh	2.91
43A472CBI	58.0 mh	29.0 mh	2.94
43A682CBI	85.0 mh	42.0 mh	3.00
43A822CBI	100 mh	50.0 mh	3.06
43A101CBI	125 mh	66.0 mh	3.27

Resinite Adjustable Printed Circuit R.F. Coils

This series of printed circuit coils are wound on a phenolic impregnated tubing which combines the mechanical and dielectric advantages.

Dimensions: Form length ¾", Collar ⅜" Dia.

Part No.	L Min.	L Max.	Net Price
23A107RPC	.095 uh	.125 uh	$ .99
23A157RPC	.130 uh	.170 uh	.99
23A227RPC	.185 uh	.265 uh	.99
23A337RPC	.285 uh	.410 uh	.99
23A477RPC	.420 uh	.580 uh	.99
23A687RPC	.540 uh	.850 uh	.99
23A827RPC	.640 uh	1.00 uh	.99
23A106RPC	.760 uh	1.25 uh	.99
23A156RPC	1.20 uh	1.87 uh	.99
23A226RPC	1.65 uh	2.75 uh	1.08
23A336RPC	2.40 uh	4.10 uh	1.08
23A476RPC	3.40 uh	5.80 uh	1.08
23A686RPC	4.60 uh	8.50 uh	1.08
23A826RPC	5.60 uh	10.0 uh	1.08
23A105RPC	7.10 uh	12.5 uh	1.08
23A155RPC	10.0 uh	18.7 uh	1.17
23A225RPC	14.8 uh	27.5 uh	1.17
23A335RPC	22.0 uh	41.0 uh	1.17
23A475RPC	31.0 uh	58.0 uh	1.17
23A685RPC	43.5 uh	85.0 uh	1.17
23A825RPC	61.0 uh	100.0 uh	1.17
23A104RPC	76.0 uh	125.0 uh	1.17
23A154RPC	105.0 uh	187.0 uh	1.17
23A224RPC	160.0 uh	275.0 uh	1.17
23A334RPC	240.0 uh	410.0 uh	1.17
23A474RPC	360.0 uh	580.0 uh	1.17
23A684RPC	530.0 uh	850.0 uh	1.17
23A824RPC	700.0 uh	1.00 mh	1.26
23A103RPC	910.0 uh	1.25 mh	1.26
23A153RPC	990.0 uh	1.87 mh	1.26
23A223RPC	1.60 mh	2.75 mh	1.26
23A333RPC	2.40 mh	4.10 mh	1.26
23A473RPC	3.40 mh	5.80 mh	1.26
23A683RPC	5.15 mh	8.50 mh	1.26
23A823RPC	7.40 mh	10.00 mh	1.26
23A102RPC	9.80 mh	12.50 mh	1.26
23A152RPC	12.00 mh	18.70 mh	1.26
23A222RPC	12.10 mh	27.50 mh	1.32
23A332RPC	18.20 mh	41.00 mh	1.32
23A472RPC	27.50 mh	58.00 mh	1.32
23A682RPC	40.00 mh	85.00 mh	1.32
23A822RPC	50.00 mh	100.00 mh	1.32
23A101RPC	62.00 mh	125.00 mh	1.32

Economy Adjustable R.F. Chokes

Through the use of a recently developed Nylon molding process we are able to offer an inexpensive line of adjustable chokes. They can be adjusted from either the top or bottom. This lends a degree of flexibility to your design. Mounting is achieved by means of a metal clip in a ⅛" hole.

Dimensions: ⅜" x 1⅜" long.

Cat. No.	L Min.	L Max.	Net Price
4201	.3 -	.58 uH.	$ .96
4201A	.55-	1.1 uH.	.96
4202	1-	2.5 uH.	.96
4203	2-	5.5 uH.	.99
4204	5- 12	uH.	1.02
4205	10- 25	uH.	1.05
4206	20- 55	uH.	1.14
4207	50-140	uH.	1.17
4208	120-330	uH.	1.20
4209	310-860	uH.	1.23

Ceramic Adjustable Printed Circuit R.F. Coils

The following adjustable printed circuit coils are constructed with three soldering terminals. To hold the core stationary is a locking insert that can be tightened against the core.

Form Dimensions: .260 x .625 long.

Part No.	L Min. uh.	L Max. uh.	Net Price
46A107CPC	.095	105	$1.59
46A127CPC	.114	.126	1.59
46A157CPC	.142	.158	1.59
46A187CPC	.171	.189	1.59
46A227CPC	.209	.231	1.62
46A277CPC	.256	.284	1.62
46A337CPC	.314	.347	1.62
46A397CPC	.370	.410	1.62
46A477CPC	.446	.495	1.62
46A567CPC	.532	.590	1.62
46A687CPC	.645	.715	1.62
46A827CPC	.770	.850	1.62
46A106CPC	.950	1.05	1.62
46A126CPC	1.14	1.26	1.62
46A156CPC	1.42	1.58	1.65
46A186CPC	1.62	1.98	1.65
46A226CPC	1.99	2.42	1.65
46A276CPC	2.42	2.96	1.65
46A336CPC	2.96	3.64	1.65
46A396CPC	3.50	4.27	1.65
46A476CPC	4.24	5.20	1.68
46A566CPC	5.00	6.30	1.68
46A686CPC	6.10	7.50	1.68
46A826CPC	7.30	8.90	1.68
46A105CPC	8.50	11.5	1.68
46A125CPC	10.8	13.2	1.68
46A155CPC	13.2	16.5	1.68
46A185CPC	16.2	19.5	1.68
46A225CPC	19.5	24.3	1.68
46A275CPC	24.2	29.5	1.71
46A335CPC	29.5	36.5	1.71
46A395CPC	35.0	43.0	1.71
46A475CPC	42.0	51.5	1.71
46A565CPC	50.0	62.0	1.71
46A685CPC	61.0	75.0	1.71
46A825CPC	74.0	90.0	1.71
46A104CPC	90.0	110.0	1.74
46A124CPC	108.0	132.0	1.74
46A154CPC	132.0	165.0	1.74
46A184CPC	162.0	198.0	1.74
46A224CPC	197.0	243.0	1.74
46A274CPC	242.0	295.0	1.74
46A334CPC	295.0	365 0	1.77
46A394CPC	350.0	430.0	1.77
46A474CPC	420.0	515.0	1.77
46A564CPC	500.0	620.0	1.77
46A684CPC	610.0	750.0	1.80
46A824CPC	740.0	900.0	1.80
45A103CPC	900.0	1100.0	1.80

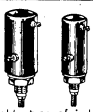
Ceramic Adjustable Printed Circuit R.F. Coils

To hold the core stationary is a locking insert that can be tightened against the core. Form

Dimensions: .430 x .563 x .625 long.

Part No.	L Min. uh.	L Max. uh.	Net Price
47A107CPC	.095	.105	$2.37
47A127CPC	.114	.126	2.37
47A157CPC	.142	.158	2.37
47A187CPC	.171	.189	2.37
47A227CPC	.209	.231	2.40
47A277CPC	.256	.284	2.40
47A337CPC	.314	.347	2.40
47A397CPC	.370	.410	2.40
47A477CPC	.446	.495	2.40
47A567CPC	.532	.590	2.40
47A687CPC	.645	.715	2.40
47A827CPC	.770	.850	2.40
47A106CPC	.950	1.05	2.40
47A126CPC	1.14	1.26	2.40
47A156CPC	1.42	1.58	2.43
47A186CPC	1.62	1.98	2.43
47A226CPC	1.99	2.42	2.43
47A276CPC	2.42	2.96	2.43
47A336CPC	2.96	3.64	2.43
47A396CPC	3.50	4.27	2.43
47A476CPC	4.24	5.20	2.46
47A566CPC	5.00	6.30	2.46
47A686CPC	6.10	7.50	2.46
47A826CPC	7.30	8.90	2.46
47A105CPC	8.50	11.5	2.46
47A125CPC	10.8	13.2	2.46
47A155CPC	13.2	16.5	2.46
47A185CPC	16.2	19.5	2.46
47A225CPC	19.5	24.3	2.46
47A275CPC	24.2	29.5	2.49
47A335CPC	29.5	36.5	2.49
47A395CPC	35.0	43.0	2.49
47A475CPC	42.0	51.5	2.49
47A565CPC	50.0	62.0	2.49
47A685CPC	61.0	75.0	2.49
47A825CPC	74.0	90.0	2.49
47A104CPC	90.0	110.0	2.55
47A124CPC	108.0	132.0	2.55
47A154CPC	132.0	165.0	2.55
47A184CPC	162.0	198.0	2.55
47A224CPC	197.0	243.0	2.55
47A274CPC	242.0	295.0	2.55
47A334CPC	295.0	365.0	2.61
47A394CPC	350.0	430.0	2.61
47A474CPC	420.0	515.0	2.61
47A564CPC	500.0	620.0	2.61
47A684CPC	610.0	750.0	2.64
47A824CPC	740.0	900.0	2.64
47A103CPC	900.0	1100.0	2.64

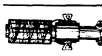
Encapsulated Adjustable R.F. Coils



This series of encapsulated coils offer the maximum possible performance from an adjustable type of inductor. The coil is wound on an epoxy form which is placed inside an epoxy cup and this area filled with epoxy resin. In this manner a complete seal against moisture is achieved and good mechanical stability is assured.

Part No.	L Min.	L Max.	Net Price
50A106EBI	.73 uh	1.02 uh	$3.60
50A156EBI	1.15 uh	1.65 uh	3.60
50A226EBI	1.88 uh	2.40 uh	3.60
50A336EBI	2.32 uh	3.20 uh	3.63
50A476EBI	3.20 uh	4.95 uh	3.63
50A686EBI	4.80 uh	7.05 uh	3.63
50A826EBI	5.41 uh	7.83 uh	3.63
50A105EBI	6.25 uh	10.0 uh	3.69
50A155EBI	9.25 uh	15.0 uh	3.69
50A225EBI	16.2 uh	24.4 uh	3.78
50A335EBI	22.3 uh	33.0 uh	3.78
50A475EBI	31.2 uh	46.5 uh	3.81
50A685EBI	46.7 uh	70.0 uh	3.81
50A825EBI	54.0 uh	83.5 uh	3.84
50A104EBI	76.8 uh	99.2 uh	4.23
50A154EBI	108. uh	142. uh	4.26
50A224EBI	169. uh	232. uh	4.26
50A334EBI	258. uh	346. uh	4.29
50A474EBI	344. uh	460. uh	4.29
50A684EBI	505. uh	655. uh	4.32
50A824EBI	650. uh	855. uh	4.32
50A103EBI	860. uh	1.10 mh	4.35
50A153EBI	1.2 mh	1.56 mh	4.35
50A223EBI	2.0 mh	2.40 mh	4.38
50A333EBI	3.0 mh	3.44 mh	4.38
50A473EBI	4.2 mh	4.81 mh	4.44
50A683EBI	6.1 mh	6.88 mh	4.44
50A823EBI	6.9 mh	8.75 mh	4.44

Wide Range Adj. Inductors



Due to the wide range of these coils they will find immediate application in many prototype designs where the exact value of the required inductance is not known.

Dimensions: Max. Dia. ¾"x2¼" long both types

Untapped Inductors

Cat. No.	L Min.	L Max.	Net Price
9001	40. uh	.240 mh	$1.32
9002	.180 mh	.800 mh	1.50
9003	.570 mh	2.80 mh	1.80
9004	2.10 mh	8.00 mh	2.10
9005	6.00 mh	16.0 mh	2.37
9006	12.0 mh	40.0 mh	2.76
9007	30.0 mh	105. mh	2.85
9008	78.0 mh	240. mh	2.88
9009	180. mh	750. mh	2.97

Tapped Osc. Inductors

9011	40. uh	.240 mh	$1.62
9012	.180 mh	.800 mh	1.80
9013	.570 mh	2.80 mh	2.10
9014	2.10 mh	8.00 mh	2.40
9015	6.00 mh	16.0 mh	2.67
9016	12.0 mh	40.0 mh	2.79
9017	30.0 mh	105. mh	2.82
9018	78.0 mh	240. mh	3.18
9019	180. mh	750. mh	3.27

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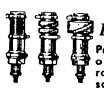
Miller

Industrial R.F. Chokes and Filters

Adjustable Ceramic Forms and R.F. Coils



Permeability tuned coils wound on silicone impregnated ceramic forms. Hardware necessary for assembly is supplied.

Sub-Miniature Adjustable R.F. Coils

Dimensions (form): ⅜" diameter x ⅝" long.

Cat No.	L Min.	L Max.	Net Price
4301	.190 uh	.250 uh	$1.50
4302	.300 uh	.390 uh	1.50
4303	.440 uh	.620 uh	1.56
4304	.770 uh	.900 uh	1.59
4305	1.00 uh	1.40 uh	1.65
4306	1.60 uh	2.40 uh	1.71
4307	2.70 uh	4.20 uh	1.77
4308	4.70 uh	6.80 uh	1.80
4309	7.80 uh	12.0 uh	1.83
4310	14.0 uh	19.0 uh	1.86
4311	22.0 uh	31.0 uh	1.89
4312	36.0 uh	49.0 uh	1.92
4313	56.0 uh	97.0 uh	1.95
4314	111. uh	171. uh	1.95
4315	196. uh	285. uh	1.95

Standard Adjustable Ceramic Form and R.F. Coils

Dimensions (form): ⅜" diameter x 1⅜" long.

Cat. No.	L Min.	L Max.	Net Price
4403	.990 uh	1.50 uh	$1.62
4404	1.60 uh	3.10 uh	1.65
4405	3.30 uh	6.50 uh	1.68
4406	7.30 uh	14.0 uh	1.74
4407	16.0 uh	29.0 uh	1.80
4408	33.0 uh	66.0 uh	1.83
4409	74.0 uh	124. uh	1.89
4410	138. uh	238. uh	1.92
4411	270. uh	451. uh	1.95
4412	495. uh	760. uh	1.98
4413	825. uh	1.30 mh	2.01
4414	1.40 mh	2.00 mh	2.01

Miniature Adjustable R.F. Coils

Dimensions (form): ¼" diameter x ⅞" long.

Cat No.	L Min.	L Max.	Net Price
4501	.440 uh	.760 uh	$1.50
4502	1.10 uh	1.50 uh	1.50
4503	1.70 uh	2.70 uh	1.56
4504	3.10 uh	4.80 uh	1.59
4505	5.50 uh	8.60 uh	1.65
4506	9.90 uh	15.0 uh	1.71
4507	17.0 uh	23.0 uh	1.77
4508	26.0 uh	33.0 uh	1.80
4509	38.0 uh	57.0 uh	1.83
4511	66.0 uh	114. uh	1.86
4512	120. uh	190. uh	1.89
4513	209. uh	314. uh	1.92
4514	350. uh	475. uh	1.95
4514-1	528. uh	760. uh	2.01

R.F. Chokes with Axial Leads

These chokes cover an inductance range from .1 microhenry to 10 millihenries in 5 decades with 8 coils per decade. Inductance values increase in steps of approximately 50%. Either single layer or 3-pi universal windings are used to insure low distributed capacity. Chokes are wound on low-loss molded phenolic or powdered iron core forms and are impregnated with a moisture- and fungus-resistant varnish. The type of powdered iron used allows the chokes to operate at all frequencies up into the ultra-high frequency region.

Dimensions: Phenolic form ⅜" diameter x ¾" long. Iron core form ⅜" diameter x ⅞" long. Leads are 1½" long.

Phenolic Form Single Layer Windings

Cat. No.	uH.*	Ohms Max.	mA.	Net Pr.
4580	0.1	.017	3000	$ .51
4582	0.15	.018	2900	.51
4584	0.22	.020	2800	.51
4586	0.33	.024	2600	.51
4588	0.47	.034	2500	.51
4590	0.68	.036	2400	.51
4592	0.75	.040	2200	.51
4594	0.82	.043	2100	.51
4602	1.	.050	2000	.51
4604	1.5	.093	1800	.51
4606	2.4	.190	1500	.51
4608	3.9	.450	1000	.51
4609	5.5	.670	850	.51
4610	6.2	.830	700	.54
4611	8.2	1.20	600	.54
4612	10	1.50	500	.54

Iron Core Form Single Layer Windings

Cat. No.	uH.*	Ohms Max.	mA.	Net Pr.
4622	10	.11	1500	$ .60
4624	15	.17	1000	.60
4626	24	.34	800	.63
4628	39	.65	600	.63
4629	55	1.0	500	.66
4630	62	1.2	475	.66
4631	82	1.9	450	.66
4632	100	3.0	400	.66

Phenolic Form 3-Section Windings

Cat. No.	mH.*	Ohms Max.	mA.	Net Pr.
4642	0.1	5.4	160	$ .66
4644	0.15	6.5	160	.66
4646	0.24	8.5	160	.66
4648	0.39	11	160	.72
4649	0.55	13	160	.72
4650	0.62	15	160	.72
4651	0.75	16	160	.72
4652	1.0	19	160	.72

Iron Core Form 3-Section Windings

Cat. No.	mH.*	Ohms Max.	mA.	Net Pr.
4662	1	8.6	160	$ .75
4664	1.5	11	160	.81
4666	2.4	15	160	.84
4668	3.9	20	160	.93
4669	5.5	25	160	1.05
4670	6.2	37	100	1.05
4671	8.2	46	100	1.11
4672	10	50	100	1.29

Ferrite Core R.F. Chokes

A new series of R.F. Chokes taking advantage of the high permeability of ferrite cores. These chokes combine high inductance and low D.C. resistance with a small physical size.

Dimensions of core: ¼" diameter x ⅞" long. 1½" long axial leads.

Cat. No.	mH.*	Ohms Max.	mA.	Net Pr.
6302	2.5	9.0	160	$ .93
6304	5	14	160	1.08
6306	10	31	100	1.20
6308	25	82	65	1.26
6310	50	127	65	1.44

Sub-Miniature R.F. Chokes

An extremely versatile series of iron core R.F. chokes designed to meet the industries' demand for high reliability, ultra-miniature components. The coils are ideally suited to network and filter design, delay lines, and computer applications. Rated at 75 milliamperes.

Part No	L*	Min. Q @ F	Net Pr.
70F106AI	1 uh	41 @ 7.9 MHz.	$ .60
70F126AI	1.2 uh	44 @ 7.9 MHz.	.60
70F156AI	1.5 uh	48 @ 7.9 MHz.	.60
70F186AI	1.8 uh	39 @ 7.9 MHz.	.60
70F226AI	2.2 uh	48 @ 7.9 MHz.	.60
70F276AI	2.7 uh	39 @ 7.9 MHz.	.60
70F336AI	3.3 uh	48 @ 7.9 MHz.	.60
70F396AI	3.9 uh	44 @ 7.9 MHz.	.60
70F476AI	4.7 uh	46 @ 7.9 MHz.	.60
70F566AI	5.6 uh	44 @ 7.9 MHz.	.60
70F686AI	6.8 uh	44 @ 7.9 MHz.	.60
70F756AI	7.5 uh	40 @ 7.9 MHz.	.60
70F826AI	8.2 uh	40 @ 7.9 MHz.	.60
70F916AI	9.1 uh	40 @ 7.9 MHz.	.60
70F105AI	10 uh	48 @ 2.5 MHz.	.69
70F125AI	12 uh	52 @ 2.5 MHz.	.69
70F155AI	15 uh	52 @ 2.5 MHz.	.69
70F185AI	18 uh	52 @ 2.5 MHz.	.69
70F225AI	22 uh	51 @ 2.5 MHz.	.69
70F255AI	25 uh	48 @ 2.5 MHz.	.69
70F275AI	27 uh	49 @ 2.5 MHz.	.69
70F335AI	33 uh	50 @ 2.5 MHz.	.69
70F395AI	39 uh	48 @ 2.5 MHz.	.69
70F475AI	47 uh	48 @ 2.5 MHz.	.69
70F565AI	56 uh	45 @ 2.5 MHz.	.69
70F685AI	68 uh	45 @ 2.5 MHz.	.69
70F755AI	75 uh	40 @ 2.5 MHz.	.69
70F825AI	82 uh	44 @ 2.5 MHz.	.69
70F915AI	91 uh	39 @ 2.5 MHz.	.69
70F104AI	100 uh	40 @ 790 kHz.	.69
70F124AI	120 uh	44 @ 790 kHz.	.69
70F154AI	150 uh	44 @ 790 kHz.	.69
70F184AI	180 uh	45 @ 790 kHz.	.69
70F204AI	200 uh	45 @ 790 kHz.	.69
70F224AI	220 uh	45 @ 790 kHz.	.69
70F254AI	250 uh	46 @ 790 kHz.	.69
70F274AI	270 uh	45 @ 790 kHz.	.69
70F304AI	300 uh	42 @ 790 kHz.	.69
70F334AI	.330 uh	47 @ 790 kHz.	.69
70F354AI	350 uh	44 @ 790 kHz.	.69
70F394AI	390 uh	42 @ 793 kHz.	.75
70F474AI	470 uh	47 @ 790 kHz.	.75
70F504AI	500 uh	42 @ 790 kHz.	.75
70F564AI	560 uh	39 @ 790 kHz.	.75
70F684AI	680 uh	44 @ 790 kHz.	.75
70F754AI	750 uh	35 @ 790 kHz.	.75
70F824AI	820 uh	42 @ 790 kHz.	.75
70F914AI	910 uh	35 @ 790 kHz.	.75
70F103AI	1.00 mh	40 @ 790 kHz.	.75
70F123AI	1.20 mh	37 @ 250 kHz.	.75
70F153AI	1.50 mh	40 @ 250 kHz.	.75
70F183AI	1.80 mh	40 @ 250 kHz.	.75
70F223AI	2.20 mh	40 @ 250 kHz.	.81
70F253AI	2.50 mh	48 @ 250 kHz.	.84
70F273AI	2.70 mh	50 @ 250 kHz.	.84
70F333AI	3.30 mh	56 @ 250 kHz.	.84
70F393AI	3.90 mh	47 @ 250 kHz.	.84
70F473AI	4.70 mh	54 @ 250 kHz.	.84
70F563AI	5.60 mh	46 @ 250 kHz.	.84
70F683AI	6.80 mh	51 @ 250 kHz.	.84
70F753AI	7.50 mh	44 @ 250 kHz.	.84
70F823AI	8.20 mh	48 @ 250 kHz.	.99
70F913AI	9.10 mh	37 @ 250 kHz.	.99
70F102AI	10.0 mh	48 @ 250 kHz.	.99
70F122AI	12 mh	39 @ 79 kHz.	1.08
70F152AI	15 mh	40 @ 79 kHz.	1.08
70F182AI	18 mh	41 @ 79 kHz.	1.08
70F222AI	22 mh	42 @ 79 kHz.	1.17

Single Pi R.F. Coils

These fixed inductors are wound on a mineral filled phenolic form which has axial leads. The coils are impregnated with an R.F. varnish to assure against moisture absorption.

Part No.	L*	Q Min.	Min. Fo. MHz.	Net Price
72F105AP	10 uh	23	13	$ .60
72F125AP	12 uh	21	12	.60
72F155AP	15 uh	20	11	.60
72F185AP	18 uh	20	9.8	.60
72F225AP	22 uh	18	9.6	.60
72F275AP	27 uh	17	8.9	.60
72F335AP	33 uh	16	8.1	.60
72F395AP	39 uh	15	7.5	.60
72F475AP	47 uh	14	7.2	.60
72F565AP	56 uh	13	6.5	.60
72F685AP	68 uh	12	6.1	.60
72F825AP	82 uh	12	5.8	.60
72F104AP	100 uh	20	5.3	.69
72F124AP	120 uh	19	5.0	.69
72F154AP	150 uh	18	4.6	.69
72F184AP	180 uh	17	4.3	.69
72F224AP	220 uh	17	4.0	.75
72F274AP	270 uh	16	3.5	.75
72F334AP	330 uh	16	3.3	.81
72F394AP	390 uh	16	3.1	.81
72F474AP	470 uh	15	2.9	.84
72F564AP	560 uh	14	2.6	.84
72F684AP	680 uh	14	2.4	.84
72F824AP	820 uh	13	2.2	.84
72F103AP	1000 uh	28	1.9	.84

Single Pi Ferrite Core R.F. Chokes

This series of R.F. chokes affords maximum Q with minimum resistance through the use of ferrite core material. The coils are impregnated in a fungus resistant lacquer. Form Dim: .187 x ⅝" long.

Part No.	L*	Min. Q @ F	Net Pr.
73F104AF	100 uh	140 @ 790 kHz.	$ .75
73F124AF	120 uh	140 @ 790 kHz.	.75
73F154AF	150 uh	160 @ 790 kHz.	.75
73F184AF	180 uh	160 @ 790 kHz.	.75
73F224AF	220 uh	160 @ 790 kHz.	.75
73F274AF	270 uh	160 @ 790 kHz.	.75
73F334AF	330 uh	160 @ 790 kHz.	.75
73F394AF	390 uh	160 @ 790 kHz.	.75
73F474AF	470 uh	150 @ 790 kHz.	.81
73F564AF	560 uh	140 @ 790 kHz.	.81
73F684AF	680 uh	140 @ 250 kHz.	.81
73F824AF	820 uh	140 @ 250 kHz.	.81
73F103AF	1.0 mh	140 @ 250 kHz.	.81
73F123AF	1.2 mh	100 @ 250 kHz.	.81
73F153AF	1.5 mh	100 @ 250 kHz.	.81
73F183AF	1.8 mh	100 @ 250 kHz.	.90
73F223AF	2.2 mh	160 @ 790 kHz.	.75
73F273AF	2.7 mh	160 @ 790 kHz.	.75
73F333AF	3.3 mh	160 @ 790 kHz.	.81
73F393AF	3.9 mh	95 @ 250 kHz.	.90
73F473AF	4.7 mh	95 @ 250 kHz.	.90
73F563AF	5.6 mh	95 @ 250 kHz.	.99
73F683AF	6.8 mh	95 @ 250 kHz.	.99
73F823AF	8.2 mh	70 @ 250 kHz.	1.05
73F102AF	10.0 mh	65 @ 250 kHz.	1.05

Single Layer Color Coded R.F. Chokes

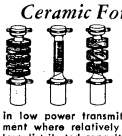
The following solenoid wound R.F. Chokes are impregnated with a thermosetting varnish and are color coded to EIA standards.

Form Dimensions: .156 x ½" long.

Part No.	L	Min. Q @ F	Net Pr.
74F106AP	1.0 uh	45 @ 7.9 MHz.	$ .45
74F126AP	1.2 uh	45 @ 7.9 MHz.	.45
74F156AP	1.5 uh	45 @ 7.9 MHz.	.45
74F186AP	1.8 uh	45 @ 7.9 MHz.	.45
74F226AP	2.2 uh	45 @ 7.9 MHz.	.45
74F276AP	2.7 uh	45 @ 7.9 MHz.	.45
74F336AP	3.3 uh	45 @ 7.9 MHz.	.45
74F396AP	3.9 uh	45 @ 7.9 MHz.	.45
74F476AP	4.7 uh	50 @ 7.9 MHz.	.45
74F566AP	5.6 uh	50 @ 7.9 MHz.	.45
74F686AP	6.8 uh	50 @ 7.9 MHz.	.45
74F826AP	8.2 uh	50 @ 7.9 MHz.	.48
74F105AP	10 uh	30 @ 2.5 MHz.	.48
74F125AP	12 uh	30 @ 2.5 MHz.	.48
74F155AP	15 uh	30 @ 2.5 MHz.	.51
74F185AP	18 uh	85 @ 2.5 MHz.	.51
74F225AI	22 uh	50 @ 7.9 MHz.	.45
74F275AI	27 uh	80 @ 2.5 MHz.	.54
74F335AI	33 uh	80 @ 2.5 MHz.	.54
74F395AI	39 uh	90 @ 2.5 MHz.	.57
74F475AI	47 uh	90 @ 2.5 MHz.	.60
74F565AI	56 uh	90 @ 2.5 MHz.	.60
74F685AI	68 uh	90 @ 2.5 MHz.	.60
74F825AI	82 uh	100 @ 2.5 MHz.	.60
74F104AI	100 uh	100 @ 2.5 MHz.	.60

L Tolerances: 1.0 to 2.2 uh ±20%, 2.7 to 100 uh ±10%.

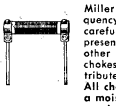
Ceramic Form R.F. Chokes



A series of high quality fixed coils wound on a silicone impregnated steatite form. The coils are the standoff type and are mounted by a single 6-32 screw. They find primary application in low power transmitters and associated equipment where relatively high current capacity and low distributed capacitance are important.

Part Number	mH.*	Ohms Max.	mA.	Net Price
4552	0.25	9.6	150	$ .93
4553	0.50	14.4	150	.93
4554	1.0	20.4	150	1.02
4555	2.5	33.6	150	1.14
4556	5.0	54.0	150	1.17
4557	0.25	4.20	300	1.02
4558	0.50	6.60	300	1.02
4559	1.0	11.5	300	1.20
4560	2.5	20.4	300	1.32
4561	5.0	22.8	300	1.35

Ceramic Core R.F. Chokes



Miller ceramic core radio frequency chokes are the result of careful research and design, and present advantages found in no other comparable chokes. These chokes have extremely low distributed capacity.

All chokes are impregnated with a moisture- and fungus-resistant varnish.

Dimensions: (form) ¼" diameter by 1½" long.

Single Layer Wound Chokes

Cat. No.	uH.*	Ohms Max.	mA.	Net Pr.
4528-1	1	.036	300	$ .63
4528	2.5	.108	300	.63
4529	5	.300	300	.63
4529-10	10	1.14	300	.63

Progressive Wound Chokes

Cat. No.	uH.*	Ohms Max.	mA.	Net Pr.
4515	25	1.92	300	$ .75
4517	50	2.52	300	.75
4519	100	3.60	300	.75

Light Duty Duo-Lateral Line Filter Chokes

Single Line Filter Chokes

Part No.	Dim: 1⅞" x 1¾" uh.	Rdc.	Amps.	Net Price
7825	600	.7	2	$2.16
7825-3	250	.25	3	2.16
7825-5	100	.1	5	2.16
7825-8	50	.05	8	2.25

Dual Line Filter Chokes

Part No.	Dim: 3¼" x 2⅛" uh.	Rdc.	Amps.	Net Price
D-7825	600	.7	2	$4.86
D-7825-3	250	.25	3	4.86
D-7825-5	100	.1	5	4.86
D-7825-8	50	.05	8	5.10

PC Air Core R.F. Chokes

The following R.F. Chokes have been designed to offer a wide range of inductance values for use in printed circuit applications. Our standard stock of these coils is impregnated with a high grade coil varnish to prevent moisture absorption. On special orders we can supply these items treated with fungus resistant material, or encapsulated in epoxy resin to meet MIL-C-15305

Cat. No.	mH.*	Ohms Max.	mA.	Net Pr.
970	1.0	20.6	125	$ .75
971	1.2	23.8	125	.75
972	1.5	26.4	125	.75
973	1.8	29.6	125	.81
974	2.2	32.9	125	.81
975	2.7	37.4	125	.81
976	3.3	41.8	125	.84
977	3.9	46.7	125	.84
978	4.7	51.8	125	.84
979	5.6	57.6	125	.84
980	6.8	64.4	125	.87
981	8.2	73.0	100	.87
982	10.0	81.6	100	.87
983	12.0	92.4	100	.87
984	15.0	105	100	.89
985	18.0	117	100	.89
986	22.0	130	75	.93
987	27.0	145	75	.98
988	33.0	251	75	1.02
989	39.0	277	75	1.05
990	47.0	316	50	1.08
991	56.0	351	50	1.14
992	68.0	391	50	1.20
993	82.0	442	50	1.26
994	100.0	473	50	1.32

Encapsulated R.F. Chokes

The following series of R.F. chokes range in value from 0.1 uh to 50 mh. Basically identical to our standard series of axial lead R.F. chokes bearing the equivalent number, these coils are encapsulated in epoxy resin and conform to MIL-C-15305.

Part No.	L*	R Max.	Current MA	Net Price
4580-E	0.1 uh.	.017	3000	$1.38
4582-E	0.15 uh.	.018	2900	1.38
4584-E	0.22 uh.	.020	2800	1.38
4586-E	0.33 uh.	.024	2600	1.38
4588-E	0.47 uh.	.034	2500	1.38
4590-E	0.68 uh.	.036	2400	1.38
4592-E	0.75 uh.	.040	2200	1.38
4594-E	0.82 uh.	.043	2100	1.38
4602-E	1.0 uh.	.050	2000	1.38
4604-E	1.5 uh.	.093	1800	1.38
4606-E	2.4 uh.	.190	1500	1.38
4608-E	3.9 uh.	.450	1000	1.38
4609-E	5.5 uh.	.670	850	1.41
4610-E	6.2 uh.	.830	700	1.41
4611-E	8.2 uh.	1.20	600	1.41
4612-E	10.0 uh.	1.50	500	1.41
4622-E	10.0 uh.	.110	1500	1.44
4624-E	15.0 uh.	.170	1000	1.44
4626-E	24.0 uh.	.340	800	1.47
4628-E	39.0 uh.	.650	600	1.47
4629-E	55.0 uh.	1.00	500	1.47
4630-E	62.0 uh.	1.20	475	1.47
4631-E	82.0 uh.	1.90	450	1.47
4632-E	100.0 uh.	3.00	400	1.47
4642-E	0.10 mh.	5.40	160	1.50
4644-E	0.15 mh.	6.50	160	1.50
4646-E	0.24 mh.	8.50	160	1.50
4648-E	0.39 mh.	11.0	160	1.65
4649-E	0.55 mh.	13.0	160	1.98
4650-E	0.62 mh.	15.0	160	1.98
4651-E	0.75 mh.	16.0	160	1.98
4652-E	1.0 mh.	19.0	160	1.98
4662-E	1.0 mh.	8.6	160	2.01
4664-E	1.5 mh.	11.0	160	2.04
4666-E	2.4 mh.	15.0	160	2.13
4668-E	3.9 mh.	20.0	160	2.19
4669-E	5.5 mh.	25.0	160	2.31
4670-E	6.2 mh.	37.0	100	2.31
4671-E	8.2 mh.	46.0	100	2.37
4672-E	10.0 mh.	50.0	100	2.70
6302-E	2.5 mh.	9.0	160	2.28
6304-E	5.0 mh.	14.0	160	2.37
6306-E	10.0 mh.	31.0	100	2.52
6308-E	25.0 mh.	82.0	65	2.70
6310-E	50.0 mh.	127.	65	2.94

Multiple Pi Chokes

These Multiple Pi duo-lateral chokes have a low distributed capacity of 1.2-1.3 mmf. The current carrying capacity is comparatively high for this type of choke. Inductance tol. ±5%.

Cat. No.	mH.*	Ohms Max.	mA.	Net Pr.
4531-0	.25	9.6	200	$ .87
4531	.5	14.4	200	.87
4531-1	1	20.4	200	.87
4532	1.5	25.2	200	.90
4537	2.5	33.6	200	.93
4538	5	50.4	125	1.08
4539	7.5	98.4	125	1.14
4540	10	114	125	1.20
4541	25	192	125	1.50

Heavy Duty Hash Chokes

Through the use of a molded powdered iron form we are able to offer a series of relatively high inductance, high current hash filter chokes.

Dim. 9/16" Diameter x 1¼" long.

Part No.	uh. ±20%	Rdc. Max.	Amps.	Net Price
5218	3.35	.010	13	$1.35
5219	4.9	.016	8	1.35
5220	8.8	.021	5	1.35
5230	4.0	.012	2	.99
5240	40.0	.082	2	1.05
5248	68.0	.054	2	1.17
5250	100.0	.216	2	1.17

*TOLERANCE 0.1 TO 1.0 UH ± 20%, 1.1 TO 10 UH ± 10%, OVER 10 UH ± 5%

For a Complete Listing of MILLER PRODUCTS ask for a copy of our Latest General Catalog.

J. W. MILLER COMPANY

Miller

R. F. and I. F. Transformers

Unshielded High-Q R.F. Coils

A complete line of Unshielded Permeability tuned coils for replacement use or as the front end components in new receiver design.
These #5495 series coils can be shielded in our #S-33 shields (1⅛" sq.) with very little loss in Q. Mounting is by means of a single ¼" hole.
Dimensions (form): ⅜" x 2".
Ranges shown are for use with a 365 mmfd. variable tuning condenser.

Long Wave Coils (140-420 KC)

Cat. No.	Use	Net Price
X-5495-A	Antenna Stage	$1.80
X-5495-RF	RF Stage	1.80
X-5495-C	Standard Osc. 455 KC	1.80
X-5496-C	Tapped Osc. 455 KC	1.80

Broadcast Band Coils (540-1700 KC)

A-5495-A	Antenna Stage	$1.80
A-5495-RF	RF Stage	1.80
A-5495-C	Standard Osc. 455 KC	1.80
A-5496-C	Tapped Osc. 455 KC	1.80

Medium Wave Coils (1.7-5.5 MC)

B-5495-A	Antenna Stage	$1.80
B-5495-RF	RF Stage	1.80
B-5495-C	Standard Osc. 455 KC	1.80
B-5496-C	Tapped Osc. 455 KC	1.80

Short Wave Broadcast Coils (5-15 MC)

C-5495-A	Antenna Stage	$1.80
C-5495-RF	RF Stage	1.80
C-5495-C	Standard Osc. 455 KC	1.80
C-5496-C	Tapped Osc. 455 KC	1.80

High Frequency Coils (12-36 MC)

D-5495-A	Antenna Stage	$1.80
D-5495-RF	RF Stage	1.80
D-5495-C	Standard Osc. 455 KC	1.80
D-5496-C	Tapped Osc. 455 KC	1.80

F.M. Stereo Multiplex Inductors

Basically the system involves pick-up of sound by two microphones, the left (L) and right (R). Subsequently the two audio signals are combined in such a way that L plus R frequency modulates an F-M carrier in the conventional way while L minus R amplitude modulates a 38KC stereophonic subcarrier, and the resulting double side-band AM signal (23-53KC) with suppressed carrier, likewise frequency modulates the FM carrier. A 19KC pilot sub-carrier signal also frequency modulates the FM carrier and at the receiver provides a means of controlling the frequency and phase of the 38 KC carrier for re-insertion. When broadcasting Stereo Multiplex the region of 53 to 75KC is allotted to the station for SCA signals.
Dimensions: ¾" Sq. x 17/32" High.

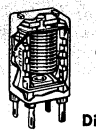
Cat. No.	Description	Net Price
1351	Low Pass Filter	$1.95
1352	BP Filter Series Element	1.80
1353	BP Filter Shunt Element	1.80
1354	Locked Osc. 19 kc.	2.55
1355	Output Trans.38 kc.	2.40

Printed Circuit Multiplex Inductors

The following coils are electrically the same as the regular point to point wiring type listed above. The printed circuit board PCM can be adapted for use with either the regular coils or the printed circuit type.
Dimensions: ¾" Sq. x 17/32" High.

Cat. No.	Description	Net Price
1351-PC	Low Pass Filter	$1.95
1352-PC	BP Filter Series Element	1.80
1353-PC	BP Filter Shunt Element	1.95
1354-PC	Locked Osc. 19 kc.	2.25
1355-PC	Output Trans. 38 kc.	2.25
PCM	Printed Circuit Board	5.55

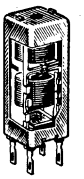
New F.M. Stereo Multiplex Inductors



For use in a newly designed circuit that eliminates the 19 kc Oscillator and resulting synchronizing problems. in conjunction with an improved low pass filter and detecting system improved separation can be achieved.
Dimensions: ¾" Sq. x 17/32" High

Cat. No.	Description	Net Price
1356	19 kc. Amplifier Coil	$2.31
1357	38 kc. Output Trans.	2.25
1358	67 kc. Low Pass Filter	2.40

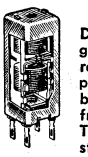
Communications I.F. Transformers



Designed for experimental use in communications equipment where selectivity and stability are important. The 100 kc. I.F. transformer and BFO coil are intended for tube application, while the 455 kc. crystal filter I.F. transformers have taps on the winding to allow for use with both tubes and transistors. The 1800 kc. I.F. transformer offers the best possible "Q" with stability to give a degree of selectivity that compares with lower frequency I.F. transformers. This transformer is for use with tubes only. Part number 1770 is a double tunel I.F. transformer having taps on both Primary and Secondary winding.
Dimensions: ¾" by ¾" by 2" high.

Cat No.	Description	Net Price
1709	100 KC I.F.—2.5 KC Bandwidth	$2.25
1710	100 KC I.F.—3 KC Bandwidth	2.10
1711	100 KC B.F.O.	1.95
1725	455 KC Crystal Filter I.F. Input	2.16
1726	455 KC Crystal Filter I.F. Output	1.95
1727	455 KC B.F.O.	1.80
1730	1800 KC I.F.—25 KC Bandwidth	2.10
1770	455 KC Double Tuned Transistor I.F.—30K:1K	2.55
1731	1610 KC Link Coupling Coil Unshielded	2.37
1732	1650 KC I.F. (C B Transceivers)	2.10
1733	1650 KC Printed Circuit I.F.	2.10
1740	9 Mc S.S.B. Input Trans.	2.10
1741	9 Mc S.S.B. Output Trans.	2.10

Miniature I.F. Trans.



Designed for experimental use and for general replacement in "personal" radio receivers, this series of shell core permeability tuned transformers are becoming increasingly popular. Tuning from top and bottom of the shield. Transformers are available for all standard I.F.
***(With diode filter capacitors)**
Dimensions: ¾" by ¾" by 2" high.

Cat. No.	Item	Net Price
12-H1	262 KC Input I.F. Trans.	$1.74
12-H2	262 KC Output I.F. Trans.	1.74
12-H6	262 KC Output I.F. Trans.*	1.80
12-C1	455 KC Input 16 KC @ 6db	1.62
12-C2	455 KC Output 21 KC @ 6db	1.62
12-C6	455 KC Output I.F. Trans.	1.71
12-C7	455 KC Input I.F. Battery	1.62
12-C8	455 KC Output I.F. Battery	1.62
12-C9	455 KC Input I.F. AC-DC	1.62
12-C10	455 KC Output I.F. AC-DC	1.62
12-C12	455 KC Tapped Pri. I.F. Trans.	1.95
12-C30	455 KC Input 11.4 KC @ 6db	1.62
12-C31	455 KC Output 13.6 KC @ 6db	1.62
12-C45	455 KC Discriminator	2.70
13-W1	155 KC Input or Interstage	1.65
13-W2	1500 KC Output I.F. Trans.	1.65
1463	10.7 MC Input or Interstage	1.95
1464	10.7 MC Discriminator	2.25
1465	10.7 MC Ratio Detector	2.34
6203	4.5 MC Input or Interstage	1.98
6204	4.5 MC Discriminator	2.25
6205	4.5 MC Ratio Detector	2.25
6260	21.25 MC I.F. Trans.	2.55
6261	21.25 MC Discriminator	2.70
6262	21.25 MC Radio Detector	2.70

Printed Circuit I.F. Trans.

Same as our regular miniature I.F. transformers shown above, except for terminals and mounting. Supplied in all standard frequencies.
***(With diode filter capacitors)**
Dimensions: ¾" sq. x 2" high.

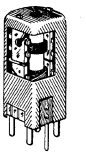
		Net Price
13-PH1	262 KC Input I.F. Trans.	$1.71
13-PH2	262 KC Output I.F. Trans.	1.71
13-PH6	262 KC Output I.F. Trans. *	1.80
13-PC1	455 KC Input I.F. Trans.	1.65
13-PC2	455 KC Output I.F. Trans.	1.65
13-PC6	455 KC Output I.F. Trans. *	1.74
13-PC7	455 KC Input I.F. Trans. Battery	1.65
13-PC8	455 KC Output I.F. Trans.Battery	1.65
13-PC9	455 KC Input I.F. Trans. AC-DC	1.65
13-PC10	455 KC Output I.F. Trans.AC-DC	1.65
1463-PC	10.7 MC Input or Interstage	1.95
1464-PC	10.7 MC Discriminator Trans.	2.25
1465-PC	10.7 MC Ratio Detector Trans.	2.34
6203-PC	4.5 MC Input or Interstage	2.07
6204-PC	4.5 MC Discriminator Trans.	2.25
6205-PC	4.5 MC Ratio Detector Trans.	2.25

J-Tran Top TunedI.F. Trans

The standard J-TRAN series of miniature I.F. transformers has hollow hexagonal-hole cores and thereby, with the aid of a suitable tuning tool (#182), permits either double or single ended tuning. The transformer is mounted with a unique snap fastener which is permanently attached to the shield.
Dimensions: ¾" by ¾" by 2" high. ***(With diode filter capacitors)**

Cat. No.	Item	Net Price
14-H1	262 kc Input I.F.	$1.80
14-H2	262 kc Output I.F.	1.80
14-H6	262 kc Output I.F.*	1.89
14-C1	455 kc Input I.F.	1.65
14-C2	455 kc Output I.F.	1.65
14-C6	455 kc Output I.F.*	1.80
14-C7	455 kc Input I.F. Battery Radios	1.65
14-C8	455 kc Output I.F. Battery Radios	1.65
14-C9	455 kc Input I.F. AC-DC Radios	1.65
14-C10	455 kc Output I.F. AC-DC Radios	1.65
6270	4.5 Mc Input or Interstage	1.80
6271	4.5 Mc Ratio Detector	2.97
1457	10.7 MC Input or Interstage	1.95
1458	10.7 MC Discriminator	2.25
1459	10.7 MC Ratio Detector	2.34
1464-WB	10.7 MC Disc. 900 KC. P/P	2.40
1465-WB	10.7 MC Ratio Det. 800 KC. P/P	2.34
6230	TV Converter I.F.	1.89
6231	TV 44 MC First I.F. Trap	1.89
6232	TV 42.5 MC Second I.F. 41.25 MC	1.59
6233	TV 45.5 MC Third I.F. 47.25 MC	1.92
6234	TV 44 MC Fourth I.F.	1.50

Top Tuned P.C. I.F. Transformers



The printed circuit series of miniature J-TRAN I.F. transformers is similar to the standard J-TRAN shown in that both cores may be tuned from either end of the shield.
Dimensions: ¾" by ¾" by 2" high. ***(With diode filter capacitors)**

Cat. No.	Item	Net Price
16-PH1	262 kc Input I.F.	$1.80
16-PH2	262 kc Output I.F.	1.80
16-PH6	262 kc Output I.F.*	1.89
16-PC1	455 kc Input I.F.	1.65
16-PC2	455 kc Output I.F.	1.65
16-PC6	455 kc Output I.F.*	1.80
16-PC7	455 kc Input I.F. Battery Radios	1.80
16-PC8	455 kc Output I.F. Battery Radios	1.80
16-PC9	455 kc Input I.F. AC-DC Radios	1.80
16-PC10	455 kc Output I.F. AC-DC Radios	1.80
6270-PC	4.5 Mc Input or Interstage	1.80
6271-PC	4.5 Mc Ratio Detector	2.97
6230-PC	TV 44 MC Converter I.F. Trans.	1.95
6231-PC	TV 44 MC First I.F. Trans. Trap	1.86
6232-PC	TV 42.5 MC Second I.F. 41.25 MC	1.68
6233-PC	TV 45.5 MC Third I.F. 47.25 MC	1.86
6234-PC	TV 44 MC Fourth I.F. Trans.	1.65

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J. W. MILLER COMPANY

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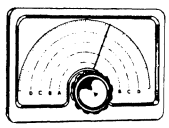
Miller

Variable Capacitors, Dials & Filters

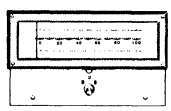
Front Panel Dials



High quality panel dials with black crackle finish on the exterior metal work while the calibration plate is finished in a light grey color with the calibration scale 0-100 printed in red. The self calibration scales are in black and a supply of numerals for use on these scales are included to give a professional finish. Dials MD-5 and MD-6 use a 9:1 drive mechanism while the MD-7 and 8 use a drive that features a combination 6:1 and 36:1 drive. **Dials MD-6 and MD-8 are 7 1/32" wide 4 7/8" high 1/2" deep.**
Dials MD-5 and MD-7 are 6 1/4" wide 4 1/8" high 1/2" deep.

Cat. No.	Scales	Net Price
MD-5	4	$ 8.25
MD-6	6	9.00
MD-7	6	15.00
MD-8	6	15.00

Slide Rule Dial



A top quality slide rule dial for use on projects where this feature would add to the appearance of the completed assembly. The dial face opening is 6 1/4" wide by 1 5/8" high and requires a slightly larger opening in the metal panel. The dial has a 10:1 turns ratio.

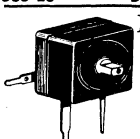
Cat. No.	Description	Net Price
SL-16	Slide Rule Dial	$6.00

Planetary Drive Knobs

A two piece knob that has been specifically designed for use with the planetary drives used on the variable capacitors. The larger knob #555-20 has a gold stamped calibration covering 550 to 1600 kc while #565-24 has a gold marker for use with a self calibrated scale on the front panel of a piece of equipment. The two drive knobs have a metallic inlaid insert.
Diameter of larger knob 2 1/2 inches.
Diameter of drive knob 1 1/4 inches.

Cat. No.	Description	Net Price
555-20	Calibrated knob	$1.20
555-21	Drive knob	.51
565-24	Marker knob	1.02
565-26	Drive knob	.51

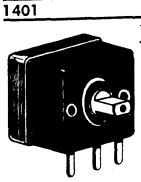
Micro Miniature F.M. Variable Capacitor



A companion variable capacitor to our part No. 2108 ceramic variable. The ceramic material has a temperature coefficient of —120 parts per million per degree C over the range—20 to +70°C. The use of silvered ceramic rotor and stator assemblies results in a capacitor that is completely free of microphonics. This is very important in the design of small F.M. receivers that are subject to shock and vibration. **Size .51" sq. x .39" deep**
Ant. Section 3.0 to 19.0 pf.
Osc. Section 3.0 to 19.0 pf.
Trimmers both sections 1.5 to 5.0 pf.

Cat. No.	Net Price
1401	$2.85

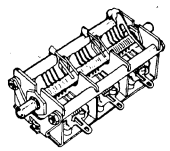
Micro Miniature B.C. Variable Capacitor



To our knowledge this unit represents the smallest two section Broadcast Band variable capacitor generally available. The capacitor is manufactured by evaporating silver on the ceramic plates, which are lapped to insure perfect mechanical register. This construction assures against shock and vibration with a complete absence of microphonics. **Dimensions .60" sq. by .43" deep**
Ant. Section 6.5 to 145 pf. use JWM #2010
Osc. Section 6.5 to 69.7 pf. use JWM #2069
Trimmers on both sections 1.5 to 6.5 pf.

Cat. No.	Description	Net Price
2108	2 Section Variable	$3.30
2069	Companion Osc. Coil	2.10

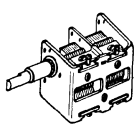
Precision Variable Capacitors



The capacitors we list in this group represent the highest standards that can be achieved in a commercial product. The rotor shaft revolves in a ball race at both front and back, with the torque controlled very closely. Each section has its own wipers grounded to the frame to assure that the rotor does not present ground loops. The stator in each section is supported on four ceramic pillars to assure excellent mechanical stability as well as insulation resistance better than 1000 megohms. The complete mechanical assembly is silver plated to keep R.F. losses to a minimum.
Dimensions 2101 1.5" x 1.26" x 1.0"
2102 1.5" x 1.26" x 3.0"

Cat. No.	Sections	Capacitance pf.	Net Price
2101	1	10.5 to 104	$6.65
2102	3	5 to 22.5	9.75

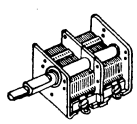
Cut Section Two Gang with Planetary Drive



A two section variable capacitor for use in broadcast band (535 to 1650 kc) receivers. The special design of the oscillator plate makes the use of a padding capacitor unnecessary. This capacitor features a planetary drive that has a 6:1 turning ratio and can be used with knobs #555-20 and 555-21.
Capacitance range RF section 10 to 365pf
Osc section 8.6 to 170.6pf
Trimmers on both sections 2-15pf

Cat. No.	Dimensions	Net Price
555-27	2 3/16 x 1 13/16 x 1 5/8	$3.15

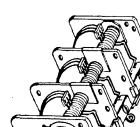
Two Section Variable Capacitor with Planetary Drive



A two section variable capacitor having equal values of capacitance for use in tuned radio frequency circuits or in superhet circuits where a series padder is used in the oscillator circuit. This capacitor features a planetary drive that has a 6:1 turning ratio and can be used with knobs #565-24 and 565-26.
Capacitance range 10 to 365pf. per section
Trimmers on both sections 2-15pf.

Cat. No.	Dimensions	Net Price
565-8	2 3/16 x 1 13/16 x 1 5/8	$3.15

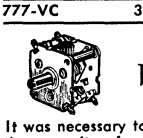
FM Three Gang Variable with Planetary Drive



A commercial quality FM variable having a delta C of 10 picofarads intended for use in circuits having a minimum amount of stray capacitance. Capacitor is an ideal unit for use as a bandspread variable in short wave receivers.
This capacitor features a planetary drive that has a 6:1 turning ratio. and can be used with knobs #565-24 and 565-26.
Capacitance range 7.0 to 17.7pf. per section
Trimmers on all three sections 2-15pf

Cat No.	Dimensions	Net Price
777-VC	3 3/16 x 1 13/16 x 1 5/8	$4.65

Sub-Miniature Variable Condenser

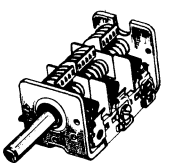


Shaft Dia. 1/4" x 1/2" Long

It was necessary to use a four point suspension for the capacitor frame to insure against the frame becoming distorted and resultant shorting of plates. R.F. Cap. (11 Plates) 5.3 mmf—122.4 mmf
Os. Cap. (9 Plates) 4.2 mmf—78.6 mmf
Effective trimmer range: 1.8—8 mmf

Cat.	Sections	Dimensions	Net
2109	2	1 1/8" x 1 1/8" x 3/4"	$2.19

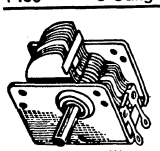
Sub-Miniature Three Gang Variable Capacitor



An extremely small but stable air dielectric variable capacitor. Each section is composed of 4 stator and 5 rotor plates. Trimmer capacitors are mounted on the antenna and R.F. sections only. Capacitor range: 5-20 mmfd.; Trimmer range: 1.5-8 mmfd. Shaft .250" diameter and 3/4" long.
Dimensions: 1 1/16" wide x 1 3/16" high x 2" deep.

Cat No.	Item	Net Price
1460	3-Gang Variable Capacitor	$3.96

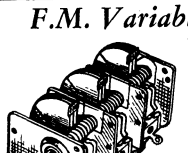
Midget Variable Condensers



Shaft dia. 1/4" x 1" long. The #2110, 2-gang variable condenser antenna section has a range of 10-130 mmf. The oscillator section has a range of 10-78 mmf. The #2111, #2112 and #2113 are the standard size condensers having a range of 10-365 mmf. Mounting is provided by tapped holes in the frame of the condensers. Counterclock rotation for capacity increase.

Cat. No.	Sections	Dimensions	Net Price
2110	2	15/16" x 1 3/8" x 1 15/16"	$2.10
2111	1	1 3/16" x 1 3/8" 1 5/16"	2.10
2112	2	2 3/16" x 1 13/16" x 1 5/8"	2.55
2113	3	3 3/16" x 1 13/16" x 1 5/8"	3.57

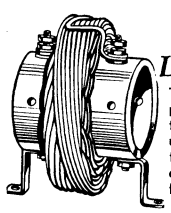
F.M. Variable Capacitor



This 3-gang 7-plate variable capacitor is rigidly constructed with widely spaced (.042 Air Gap) plates to assure highest stability. The plate contour results in an almost linear frequency versus rotation characteristics. Although the capacitor is supplied with 3 trimmer capacitors attached, it is recommended that the oscillator trimmer be replaced with a small NPO adjustable ceramic. The tuning capacitor has a 1/4" diameter shaft 15/16" long. Capacitor range is 6.6-23 mmfd. Trimmer capacitor will add to these values. **Dimensions: 3 3/16" x 1 13/16" x 1 5/8"**

Cat. No.	Item	Net Price
1461-BS	3-Gang FM Tuning Capacitor	$4.05

Medium Duty Duo-Lateral Line Filter Chokes



These chokes combine small physical size with low distributed capacity. They are used essentially for radio interference filtering. The chokes are wound on ceramic forms with suitable brass terminals. **Dim: 2 1/2" x 4"**

Part No.	uh.	Rdc.	Amps.	Net Price
7826	570	.28	5	$5.10
7827	370	.15	10	5.40
7828	200	.085	20	5.70
7829	135	.050	30	6.15

Dual Line Filter Chokes

The following Dual Duo-Lateral Line Filter Chokes are wound with two coils on the one ceramic form. They are identical in electrical specifications.
Dim: 4 1/2" x 4"

Part No.	uh.	Rdc.	Amps.	Net Price
D-7826	570	.28	5	$ 7.50
D-7827	370	.15	10	9.00
D-7828	200	.085	20	10.50
D-7829	135	.050	30	12.00

For a Complete Listing of MILLER PRODUCTS ask for a copy of our Latest General Catalog.

J. W. MILLER COMPANY

NORTH HILLS ELECTRONICS, INC.

ADJUSTABLE COILS and COIL FORMS

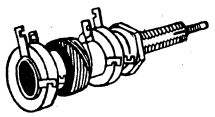
Cover Every Frequency Range from Audio to 200mc

These high quality coils enable engineers and experimenters to save valuable development time by filling a vast number of requirements with standard components from stock. All coils have the following features:

- *All metal parts plated to MIL specifications.*
- *Built-in "perma-tune" tension for smooth "stay-put" tuning.*
- *Litz wound higher inductance ranges.*
- *Extra terminals for tie points or additional winding on some types.*
- *Moisture and fungus resistant impregnant per MIL-V-173-A.*
- *Color coded ranges.*

COILS ON CERAMIC FORM PER JAN-I-10

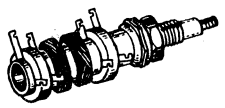
Subminiature 1100 Series



- 5/8" above mounting surface
- Mounting — 1/64" hole
- For R.F. and I.F. applications

Part No.	Nominal Microhenries	Average Q
1100-A	0.9- 1.4	45 @ 7.9 mc
1100-B	1.4- 1.9	50 @ 7.9 mc
1100-C	1.9- 2.6	55 @ 7.9 mc
1100-D	2.6- 3.7	65 @ 7.9 mc
1100-E	3.7- 5.5	65 @ 7.9 mc
1100-F	5.5- 7.4	70 @ 7.9 mc
1100-G	7.4-12.5	64 @ 5.0 mc
1100-H	12.5-18.0	72 @ 5.0 mc
1100-I	18.0-28.0	74 @ 5.0 mc
1100-J	28.0-38.0	72 @ 5.0 mc
1100-K	38.0-55.0	75 @ 2.5 mc

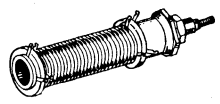
Miniature 1000 Series



- 7/8" above mounting surface
- Mounting — #10 hole
- For R.F. and I.F. applications

Part No.	Nominal Microhenries	Average Q
1000-A	1.0- 1.6	70 @ 7.9 mc
1000-B	1.6- 2.7	80 @ 7.9 mc
1000-C	2.7- 4.5	85 @ 7.9 mc
1000-D	4.5- 8.5	85 @ 7.9 mc
1000-E	8.5-14.5	75 @ 2.5 mc
1000-F	14.5-22	65 @ 2.5 mc
1000-G	22-29	65 @ 2.5 mc
1000-H	29-55	85 @ 2.5 mc
1000-I	55-110	80 @ 2.5 mc
1000-J	110-185	85 @ .79 mc
1000-K	185-305	85 @ .79 mc
1000-L	305-515	85 @ .79 mc
1000-M	515-820	85 @ .79 mc
1000-N	820-1100	75 @ .79 mc

Transmitter 1300 Series



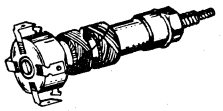
- 1¾" above mounting surface
- Mounting — ¼" hole
- For low power tansmitters and high Q receiver circuits

Part No.	Nominal Microhenries	Average Q
1300-A		For use from 90-200 mc
1300-B		For use from 40-90 mc
1300-C		For use from 20-40 mc
1300-D	0.7- 1.1	130 @ 20 mc
1300-E	1.1- 1.7	150 @ 18 mc
1300-F	1.7- 2.7	150 @ 16 mc
1300-G	2.7- 4.5	150 @ 14 mc
1300-H	4.5- 6.8	150 @ 12 mc
1300-I	6.8-10.8	150 @ 10 mc
1300-J	10.8-17.0	150 @ 7 mc
1300-K	17.0-29.0	125 @ 5 mc
1300-L	29.0-45.0	125 @ 4 mc
1300-M	45.0-75.0	125 @ 3 mc

See Section 5600 for Wideband Transformers

COILS ON MICA FILLED FORMS PER MIL-P-14-D

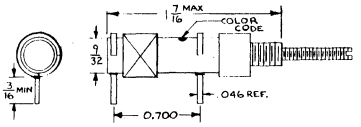
Standard 120 Series



- 1¼" above mounting surface
- Mounting #10 hole
- For R.F. and I.F. applications

Part No.	Nominal Microhenries	Average Q
120-A	2-3	75 @ 7.9 mc
120-B	3-5	85 @ 7.9 mc
120-C	5-9	90 @ 7.9 mc
120-D	9-18	75 @ 7.9 mc
120-E	18-36	75 @ 2.5 mc
120-F	36-64	75 @ 2.5 mc
120-G	64-105	90 @ 2.5 mc
120-H	105-200	90 @ 2.5 mc
120-I	200-500	90 @ .79 mc
120-J	500-1000	90 @ .79 mc
120-K	1000-2000	70 @ .79 mc

Printed Circuit PCS-120 Series



- Mounting — Terminals are soldered directly to printed circuit board.

Part No.	Nominal Microhenries	Average Q
PCS-120-A	2-3	75 @ 7.9 mc
PCS-120-B	3-5	85 @ 7.9 mc
PCS-120-C	5-9	90 @ 7.9 mc
PCS-120-D	9-18	75 @ 7.9 mc
PCS-120-E	18-36	75 @ 2.5 mc
PCS-120-F	36-64	75 @ 2.5 mc
PCS-120-G	64-105	90 @ 2.5 mc
PCS-120-H	105-200	90 @ 2.5 mc
PCS-120-I	200-500	90 @ .79 mc
PCS-120-J	500-1000	90 @ .79 mc
PCS-120-K	1000-2000	70 @ .79 mc

HI Q POT CORE

Adjustable Coils

1 MilliH. to 2.2 H

Q's to 500

Send for data sheet

MICROMINIATURE

Adjustable Coils

1 MicroH. to 1 MilliH.

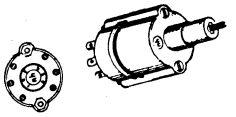
for printed circuitry, shielded, high Q

Send for data sheet

See eem Section 4000 for Precision AC & DC Power Sources.

ENCAPSULATED CUP-CORE COILS

Audio and Ultrasonic 700 Series

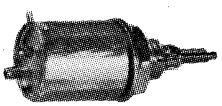


- 1½" above mounting surface
- Mounting Centers — Two #6 holes spaced 1¼"
- Magnetically shielded—High Q
- For standard or printed circuits

Part No.	Nominal Millihenries	Average Q
700-A	1.5-3	70 @ 100 kc
700-B	3-7	70 @ 100 kc
700-C	7-13	70 @ 60 kc
700-D	13-25	70 @ 60 kc
700-E	25-50	50 @ 40 kc
700-F	50-100	50 @ 15 kc
700-G	100-250	50 @ 10 kc
700-H	250-500	50 @ 5 kc
700-I	500-1000	50 @ 5 kc

SHIELDED COILS

900 Series



- 7/16" Diameter
- Shielded and Encapsulated

Part No.	Nominal Microhenries	Average Q
900-A	0.5- 0.8	80 @ 25 mc
900-B	0.8- 1.3	70 @ 18 mc
900-C	1.3- 2.0	60 @ 15 mc
900-D	2.0- 4.0	70 @ 8 mc
900-E	4.0- 7.0	70 @ 5 mc
900-F	7.0- 12.0	70 @ 4 mc
900-G	12.0- 20.0	70 @ 3 mc
900-H	20.0- 35.0	70 @ 2.5 mc
900-I	35.0- 60.0	70 @ 2.0 mc
900-J	60.0-100.0	70 @ 1.0 mc

1500 Series

- 5/8" Diameter
- Shielded and Encapsulated

Part No.	Nominal Millihenries	Average Q
1500-A	.100- .175	80 @ 790 kc
1500-B	.175- .300	80 @ 790 kc
1500-C	.300- .500	80 @ 790 kc
1500-D	.500- .800	75 @ 790 kc
1500-E	.800-1.15	55 @ 500 kc
1500-F	1.15-1.50	55 @ 250 kc
1500-G	1.50-2.50	55 @ 250 kc
1500-H	2.50-3.50	50 @ 250 kc
1500-I	3.50-7.50	40 @ 250 kc

See eem SECTION 5600 for Wideband RF Transformers in this edition of The Radio-Electronic Master.

See eem Section 2900 for Precision Bridges, Potentiometers, Galvanometers, Electromagnets, Line Stabilizers, etc.

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SANGAMO ELECTRIC COMPANY

inductors

ELECTRONIC COMPONENTS

Toroidal Inductors

Sangamo toroidal inductors are designed and manufactured to meet the highest standards of quality and reliability with maximum attention to user convenience. The use of powdered molybdenum permalloy cores assures inductors with a high Q factor and exceptional stability of inductance. Types ET and LT encapsulated toroids, specifically designed for printed circuit board mounting, feature a unique coil protection scheme and construction that is virtually impervious to moisture. Types WT (wax-impregnated) and NT (unimpregnated) units display the same electrical qualities.

ENCAPSULATED UNITS

Terminals—The terminals are soft brass with a hot solder finish and are made on automatic screw machines to a special design which minimizes moisture creepage. The terminal length beyond the mounting surface is 0.13" minimum. The 0.04" diameter permits use in printed circuit boards with or without eyelets. The terminal ends are rounded to simplify assembly.

Inserts—The inserts are also made on automatic screw machines to a design which minimizes moisture creepage and provides a convenient and rigid means of mounting the inductors.

Header and Terminal Assembly—The terminals and the insert are hot molded into the header, an important feature in making the unit moisture resistant.

Encapsulation—The coil is rigidly held and protected from shock or vibration damage by a specially selected epoxy encapsulating compound. Vacuum encapsulation assures a void-free envelope around the coil.

Mounting—All units are designed so the terminal area is elevated from the mounting surface. This permits easy flux removal and prevents moisture accumulation.

WAX-IMPREGNATED UNITS

Sangamo Type WT inductors are available in all standard core sizes described in bulletin 2721A. The electrical characteristics of these units are identical to those of corresponding Sangamo Type ET encapsulated inductors. Units can be supplied on special order without wax-impregnation. These are designated Type NT inductors.

Impregnation: All standard units are impregnated in a high quality, electrical grade, micro-crystalline wax which provides effective protection against moisture.

Leads: In accordance with MIL-W-16878, leads are stranded tinned copper lead wire with Type B insulation. Minimum length is 6 inches.

MAXIMUM OPERATING TEMPERATURE:

105°C for encapsulated units
65°C for wax-impregnated units.

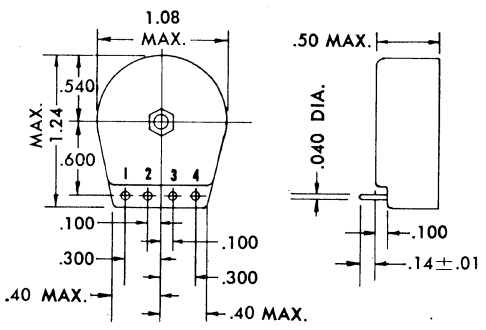
MILITARY APPLICATIONS

Sangamo inductors meet or exceed all requirements of military specification MIL-T-27B for grade 5, Class R and life expectancy X.

TERMINAL LOCATIONS AND PIN CONNECTIONS

(NOTE: Numbers refer to terminal locations and are not marked on unit).

TYPE LT-2

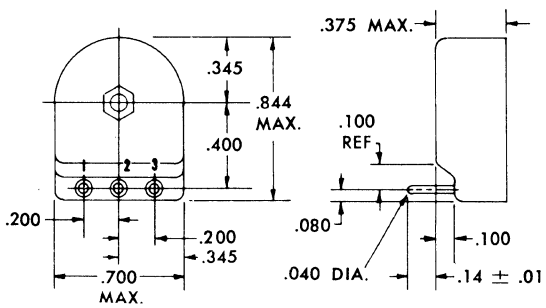


Number of Terminals	Terminal Locations
2	1, 4
3	1,2,4
4	1,2,3,4

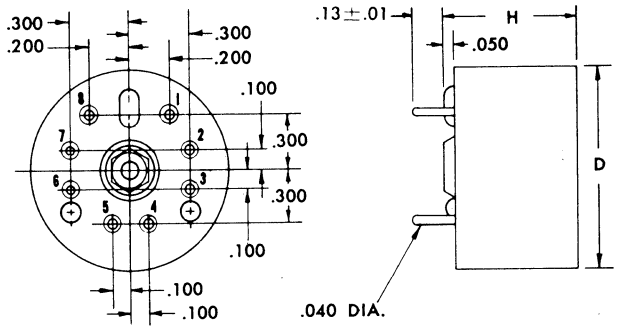
Type	D (max.)	H (max.)
ET-9	.950	.640
ET-2	1.080	.660
ET-3	1.210	.730
ET-4	1.340	.860
ET-5	1.710	.970

Number of Terminals	Terminal Locations
2	2, 6
3	1, 3, 6
4	1, 4, 5, 8
5	1, 3, 5, 6, 8
6	1, 3, 4, 5, 6, 8
7	1, 2, 3, 4, 5, 6, 7
8	1, 2, 3, 4, 5, 6, 7, 8

TYPE ET-1



TYPES ET-9, 2, 3, 4 & 5



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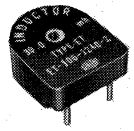
SANGAMO ELECTRIC COMPANY

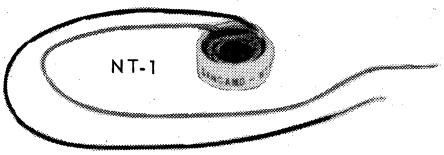
inductors

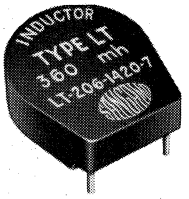
SANGAMO ELECTRONIC COMPONENTS

TYPE ET-1, WT-1, NT-1 AND LT-2 INDUCTORS

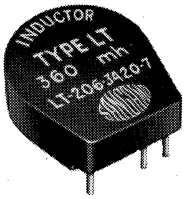


ET-1





LT-2

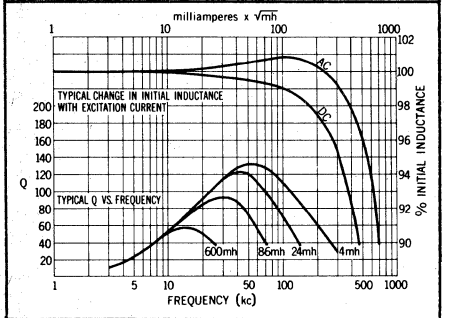


CENTER TAPPED LT-2

Sangamo type ET-1 and LT-2 encapsulated inductors are specifically designed for printed circuit card applications where board spacing is a critical factor. These Low-Profile packages are designed so the terminal area is elevated from the mounting surface. This permits easy flux removal and prevents accumulation of moisture. 72 hour delivery is available on all proto-type units.

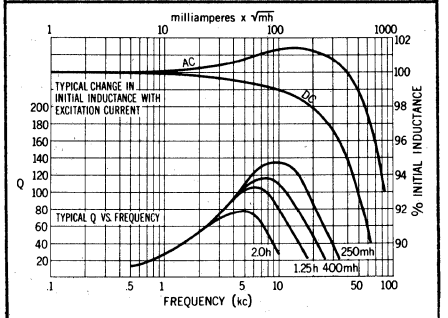
For complete information, including additional listings and sizes, write for bulletin 2721A.

TYPE 107



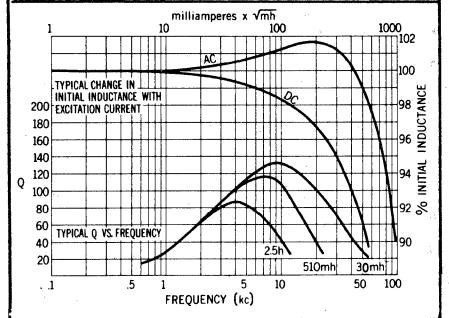
ET-WT-NT Specification Number ‡	Inductance	NET PRICE FOR TYPE ET ONLY 1-14	15-49
107-1050-2	2.40 mh	$ 7.12	$ 5.34
107-1070-2	3.00	7.12	5.34
107-1080-2	3.60	7.12	5.34
107-1090-2	4.00	7.12	5.34
107-1110-2	5.00	7.12	5.34
107-1120-2	6.00	7.12	5.34
107-1124-2	6.40	7.12	5.34
107-1140-2	7.50	7.12	5.34
107-1150-2	8.60	7.12	5.34
107-1160-2	10.00	7.12	5.34
107-1170-2	12.00	7.12	5.34
107-1190-2	15.00	7.12	5.34
107-1210-2	20.0	7.12	5.34
107-1230-2	25.0	7.12	5.34
107-1240-2	30.0	7.12	5.34
107-1250-2	36.0	7.12	5.34
107-1260-2	40.0	7.12	5.34
107-1280-2	50.0	7.12	5.34
107-1290-2	60.0	7.12	5.34
107-1310-2	75.0	7.58	5.69
107-1320-2	86.0	7.58	5.69
107-1330-2	100.0	7.58	5.69
107-1340-2	120.0	7.58	5.69
107-1350-2	125.0	7.58	5.69
107-1360-7	150.0	7.94	5.96
107-1370-2	175.0	7.94	5.96
107-1380-2	200.0	7.94	5.96
107-1390-2	240.0	7.94	5.96
107-1400-2	250.0	7.94	5.96
107-1410-2	300.0	8.28	6.21
107-1430-2	400.0	8.46	6.35
107-1450-2	500.0	8.70	6.53
107-1460-2	600.0	8.84	6.63
107-1480-2	750.0	9.04	6.78
107-1490-2	860.0	9.28	6.96
107-1496-2	960.0	9.46	7.10

TYPE 206 (CENTER TAPPED)



LT-WT-NT Specification Number ‡	Inductance	NET PRICE FOR TYPE LT ONLY 1-14	15-49
206-3210-7	20.0 mh	$ 6.16	$ 4.62
206-3230-7	25.0	6.16	4.62
206-3240-7	30.0	6.38	4.79
206-3260-7	40.0	6.38	4.79
206-3280-7	50.0	6.38	4.79
206-3290-7	60.0	6.58	4.94
206-3300-7	72.0	6.58	4.94
206-3320-7	86.0	6.58	4.94
206-3330-7	100.0	6.80	5.10
206-3340-7	120.0	6.80	5.10
206-3360-7	150.0	6.80	5.10
206-3370-7	175.0	6.80	5.10
206-3380-7	200.0	7.00	5.25
206-3390-7	240.0	7.00	5.25
206-3410-7	300.0	7.00	5.25
206-3420-7	360.0	7.22	5.42
206-3430-7	400.0	7.22	5.42
206-3450-7	500.0	7.22	5.42
206-3460-7	600.0	7.22	5.42
206-3480-7	750.0	7.42	5.57
206-3490-7	860.0	7.42	5.57
206-3500-7	1.000 h	7.42	5.57
206-3510-7	1.200	7.42	5.57
206-3520-7	1.250	7.42	5.57
206-3530-7	1.500	7.64	5.73
206-3540-7	1.750	7.64	5.73
206-3550-7	2.00	7.64	5.73
206-3560-7	2.40	7.64	5.73
206-3570-7	2.50	7.95	6.05
206-3580-7	3.00	7.95	6.05
206-3590-7	3.60	7.95	6.05
206-3600-7	4.00	8.70	6.53
206-3610-7	4.30	8.70	6.53
206-3620-7	5.00	8.70	6.53
206-3630-7	6.00	8.70	6.53
206-3634-7	6.40	8.70	6.53

TYPE 204



LT-WT-NT Specification Number ‡	Inductance	NET PRICE FOR TYPE LT ONLY 1-14	15-49
204-1124-7	6.40 mh	$ 5.22	$ 3.92
204-1140-7	7.50	5.22	3.92
204-1144-7	8.00	5.22	3.92
204-1160-7	10.00	5.42	4.07
204-1170-7	12.00	5.42	4.07
204-1190-7	15.00	5.42	4.07
204-1210-7	20.0	5.60	4.20
204-1230-7	25.0	5.60	4.20
204-1240-7	30.0	5.60	4.20
204-1250-7	36.0	5.80	4.35
204-1260-7	40.0	5.80	4.35
204-1280-7	50.0	5.80	4.35
204-1290-7	60.0	5.80	4.35
204-1310-7	75.0	5.98	4.49
204-1320-7	86.0	5.98	4.49
204-1330-7	100.0	5.98	4.49
204-1340-7	120.0	5.98	4.49
204-1360-7	150.0	6.18	4.64
204-1380-7	200.0	6.18	4.64
204-1400-7	250.0	6.36	4.77
204-1410-7	300.0	6.36	4.77
204-1430-7	400.0	6.36	4.77
204-1450-7	500.0	6.56	4.92
204-1460-7	600.0	6.56	4.92
204-1480-7	750.0	6.56	4.92
204-1500-7	1.000 h	6.74	5.06
204-1530-7	1.500	6.74	5.06
204-1550-7	2.00	6.94	5.21
204-1570-7	2.50	6.94	5.21
204-1580-7	3.00	6.94	5.21
204-1590-7	3.60	7.12	5.34
204-1600-7	4.00	7.12	5.34
204-1620-7	5.00	7.12	5.34
204-1630-7	6.00	7.12	5.34
204-1650-7	7.50	7.12	5.34
204-1655-7	8.20	7.12	5.34

*Prices for larger quantities are available on request. ‡ET = Encapsulated Toroid, WT = Wax-impregnated Toroid, NT = Non-impregnated Toroid, LT = Low-Profile Encapsulated Toroid – Please use correct prefix when ordering.

TYPES ET-1, WT-1, NT-1

Subminiature Inductors (.375" H x .690" W x .844" L)
4 Core Types – Frequence Range: to 500 KC.

104 – Inductance: 6.4 mh to 2.5 h
106 – Inductance: 5.0 mh to 2.0 h
107 – Inductance: 2.5 mh to 0.96 h
108 – Inductance: 1.0 mh to 0.43 h

LT (LOW PROFILE)

Toroidal Inductors (.5" H x 1.08" Dia x 1.24 L)
5 Core Types – Frequency Range: to 100 KC

203 – Inductance: 8.00 mh to 10.3 h
204 – Inductance: 6.40 mh to 8.2 h
206 – Inductance: 5.00 mh to 6.4 h
207 – Inductance: 2.40 mh to 3.0 h
208 – Inductance: 1.20 mh to 1.25 h

STANDARD SPECIFICATIONS FOR SIZE 1 INDUCTORS

Inductance Tol: ± 1%
Max. Oper. Temp.: 105°C type ET
65°C type WT
Freq. Range: 3 kc to 500 kc
Approx. Wt.: 0.30 oz. type ET
0.26 oz. type WT

NOTE: Type LT-2 Specs. same as size 2 Standard Specs. on following page

Net

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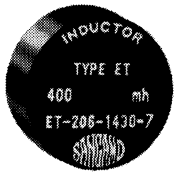
SANGAMO ELECTRIC COMPANY

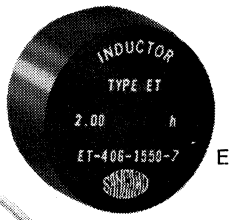
inductors

SANGAMO ELECTRONIC COMPONENTS

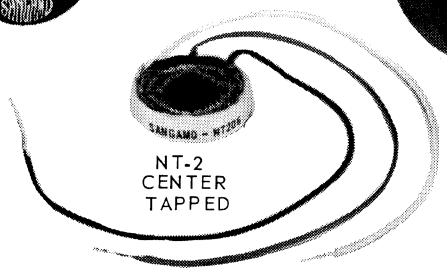
TYPE ET-2, WT-2, NT-2 / ET-4, WT-4, NT-4 INDUCTORS



ET-2



ET-4

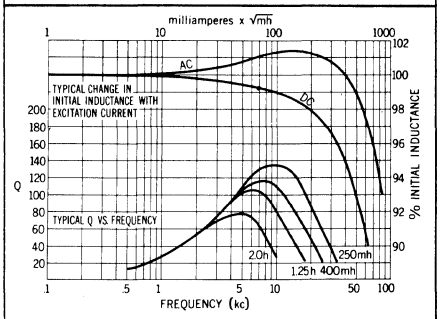


NT-2
CENTER
TAPPED

Sangamo size 2 and 4 inductors employ the most popular sizes of powdered molybdenum permalloy cores. The type ET-2 and ET-4 package is available with up to 8 terminals; permitting various designs such as center tapped inductors, or multiple winding transformers. Sangamo inductors are designed and manufactured in accordance with all requirements of Military Specification MIL-T-27B. 72 hour delivery is available on all prototype units.

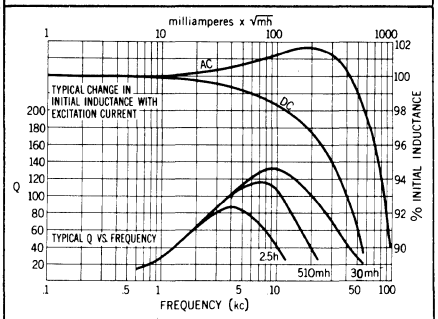
For additional information, including additional listings and sizes, write for bulletin 2721A.

TYPE 206



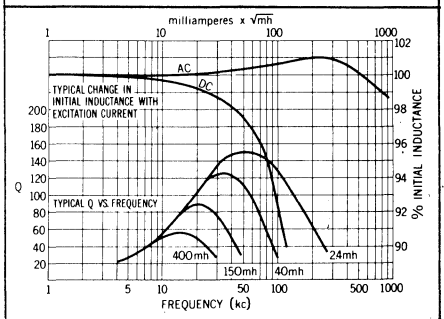
ET-WT-NT Specification Number ‡	Inductance	Net Price For Type ET Only 1-14	15-49*
206-1110-7	5.00 mh	$5.22	$3.92
206-1120-7	6.00	5.22	3.92
206-1124-7	6.40	5.22	3.92
206-1140-7	7.50	5.22	3.92
206-1150-7	8.60	5.42	4.07
206-1160-7	10.00	5.42	4.07
206-1170-7	12.00	5.42	4.07
206-1190-7	15.00	5.60	4.20
206-1200-7	17.50	5.60	4.20
206-1210-7	20.0	5.60	4.20
206-1230-7	25.0	5.60	4.20
206-1240-7	30.0	5.80	4.35
206-1260-7	40.0	5.80	4.35
206-1280-7	50.0	5.80	4.35
206-1290-7	60.0	5.98	4.49
206-1310-7	75.0	5.98	4.49
206-1320-7	86.0	5.98	4.49
206-1330-7	100.0	6.18	4.64
206-1340-7	120.0	6.18	4.64
206-1360-7	150.0	6.18	4.64
206-1380-7	200.0	6.36	4.77
206-1400-7	250.0	6.36	4.77
206-1410-7	300.0	6.36	4.77
206-1430-7	400.0	6.56	4.92
206-1450-7	500.0	6.56	4.92
206-1460-7	600.0	6.56	4.92
206-1480-7	750.0	6.74	5.06
206-1500-7	1.000 h	6.74	5.06
206-1530-7	1.500	6.94	5.21
206-1550-7	2.00	6.94	5.21
206-1570-7	2.50	7.12	5.34
206-1580-7	3.00	7.12	5.34
206-1590-7	3.60	7.12	5.34
206-1600-7	4.00	7.12	5.34
206-1620-7	5.00	7.12	5.34
206-1634-7	6.40	7.12	5.34

TYPE 204 (CENTER TAPPED)



ET-WT-NT Specification Number ‡	Inductance	Net Price for Type ET Only 1-14	15-49*
204-3240-7	30.0 mh	$6.16	$4.62
204-3260-7	40.0	6.38	4.79
204-3280-7	50.0	6.38	4.79
204-3290-7	60.0	6.38	4.79
204-3300-7	72.0	6.58	4.94
204-3320-7	86.0	6.58	4.94
204-3330-7	100.0	6.58	4.94
204-3340-7	120.0	6.58	4.94
204-3360-7	150.0	6.78	4.99
204-3370-7	175.0	6.78	4.99
204-3380-7	200.0	6.78	4.99
204-3390-7	240.0	7.00	5.25
204-3400-7	250.0	7.00	5.25
204-3410-7	300.0	7.00	5.25
204-3420-7	360.0	7.00	5.25
204-3430-7	400.0	7.00	5.25
204-3450-7	500.0	7.22	5.42
204-3460-7	600.0	7.22	5.42
204-3480-7	750.0	7.22	5.42
204-3490-7	860.0	7.42	5.57
204-3500-7	1.000 h	7.42	5.57
204-3510-7	1.200	7.42	5.57
204-3520-7	1.250	7.42	5.57
204-3530-7	1.500	7.42	5.57
204-3550-7	2.00	7.64	5.73
204-3560-7	2.40	7.64	5.73
204-3570-7	2.50	7.64	5.73
204-3580-7	3.00	7.64	5.73
204-3590-7	3.60	7.95	6.05
204-3600-7	4.00	7.95	6.05
204-3610-7	4.30	7.95	6.05
204-3620-7	5.00	7.95	6.05
204-3630-7	6.00	8.70	6.53
204-3640-7	7.20	8.70	6.53
204-3650-7	7.50	8.70	6.53
204-3655-7	8.20	8.70	6.53

TYPE 208



ET-WT-NT Specification Number ‡	Inductance	Net Price for Type ET Only 1-14	15-49*
406-1130-7	7.20 mh	$ 6.34	$ 4.76
406-1150-7	8.60	6.34	4.76
406-1170-7	12.00	6.34	4.76
406-1190-7	15.00	6.34	4.76
406-1210-7	20.00	6.34	4.76
406-1230-7	25.00	6.34	4.76
405-1240-7	30.0	6.34	4.76
406-1260-7	40.0	6.34	4.76
406-1280-7	50.0	6.34	4.76
406-1290-7	60.0	6.62	4.97
406-1310-7	75.0	6.62	4.97
406-1320-7	86.0	6.62	4.97
406-1330-7	100.0	6.62	4.97
406-1340-7	120.0	6.62	4.97
406-1360-7	150.0	6.88	5.16
406-1380-7	200.0	6.88	5.16
406-1390-7	240.0	6.88	5.16
406-1420-7	360.0	7.16	5.37
406-1430-7	400.0	7.16	5.37
406-1450-7	500.0	7.16	5.37
406-1460-7	600.0	7.16	5.37
406-1480-7	750.0	7.44	5.58
406-1490-7	860.0	7.44	5.58
406-1500-7	1.000 h	7.44	5.58
406-1530-7	1.500	7.72	5.79
406-1550-7	2.00	7.72	5.79
406-1570-7	2.50	7.98	5.99
406-1590-7	3.60	7.98	5.99
406-1600-7	4.00	7.98	5.99
406-1620-7	5.00	7.98	5.99
406-1650-7	7.50	8.26	6.20
406-1664-7	9.10	8.26	6.20
406-1680-7	12.00	8.26	6.20
406-1700-7	15.00	8.26	6.20
406-1710-7	17.50	8.26	6.20
406-1714-7	19.00	8.26	6.20

*Prices for larger quantities are available on request.
‡ET = Encapsulated Toroid, WT = Wax-impregnated Toroid, NT = Non-impregnated Toroid—Please use correct prefix when ordering.

Types ET-2, WT-2, NT-2

Toroidal Inductors (.66" H x 1.08" Dia.)
5 Core Types - Frequency Range: to 100 KC.
203 - Inductance: 8.00 mh to 10.3 h
204 - Inductance: 6.40 mh to 8.2 h
206 - Inductance: 5.00 mh to 6.4 h
207 - Inductance: 2.40 mh to 3.0 h
208 - Inductance: 1.20 mh to 1.25 h

Standard Specifications for Size 2 Inductors

Inductance Tol: ± 1%
Max. Oper. Temp: 105°C Type ET
65°C Type WT
Freq. Range: 1kc to 100kc
Approx. Wt: 0.95 oz. Type ET
0.64 oz. Type WT

Types ET-4, WT-4, NT-4

Toroidal Inductors (.86" H x 1.34" Dia.)
4 Core Types - Frequency Range: to 60 KC.
403 - Inductance: 12.0 mh to 30.40 h
404 - Inductance: 9.60 mh to 24.30 h
406 - Inductance: 7.20 mh to 19.00 h
407 - Inductance: 3.60 mh to 9.10 h

Standard Specifications for Size 4 Inductors

Inductance Tol: ± 1%
Max. Oper. Temp: 105°C Type ET
65°C Type WT
Freq. Range: 400 cps to 50 kc
Approx. Wt: 2.20 oz. Type ET
1.70 oz. Type WT

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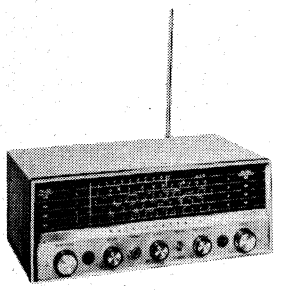
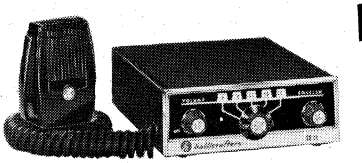
Net

Precision-Built Short Wave Receivers and Citizens Band Equipment



S-120

Broadcast 540-1650 kc, three S/W bands 1650 kc.–31 Mc. Three antennas ferrite loop for broadcast, adjustable whip for S/W and wire antenna. Front panel headphone jack, disconnects built-in speaker when headphones are plugged in. Four tubes plus selenium rectifier. 105/125V AC/DC. Gray steel cabinet with silver trim. 13½" x 5⅞" x 8¾". Shipping wt. 11¾ lbs. (U/L approved.) $69.95



NEW!

CB-20

Hallicrafters breaks the solid-state price barrier — a highly reliable, five channel all-transistorized 5-watt transceiver for under $100! Exceptionally low current drain. High-order modulation. Less than 1 μv sensitivity for 10 db S/N ratio. Size: 7" x 6" x 2⅛" LWH. Shipping wt. 4 lbs.....$99.95

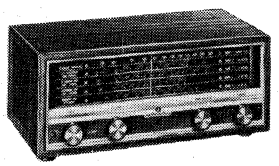
SX-122 (Less speaker)

Deluxe general coverage receiver. Broadcast (538-1580 kc.) plus three S/W bands (1720 kc.—34 Mc.). Dual conversion, superheterodyne over the entire frequency range. Product detector for SSB/CW. Envelope detector for AM. Series noise limiter. Heavy-duty tuning capacitor with copper plates in oscillator section for maximum electro-mechanical stability. Antenna trimmer, amplified AVC. 2nd conversion oscillator crystal-controlled. Removable top and bottom. Cabinet size: 18¾" wide, 8" high, 9¾" deep. Shipping wt. approx. 31 lbs. Provisions for 100 kc. crystal calibrator accessory (HA-7). Uses R-50 or R-51 speaker (see above). (U/L approved.) $289.95

NEW!

CB-14

Completely transistorized, highly compact deluxe CB transceiver featuring 23 channels, crystal control synthesizer. Receiver is dual conversion—sensitivity, 1 microvolt for 10 db. S/N. Full-time auto. noise limiter. Extremely low battery drain, instant warm-up. Built-in P.A. or loud hailer circuitry. Size: 9" x 3¾" x 7¾". AC power supply available. Ship. wt. 7.5 lbs.....$259.95



NEW!

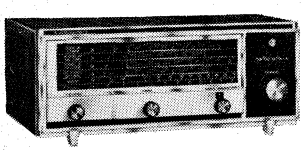
S-200

Broadcast 550 to 1600 kc, four S/W bands 5.9 Mc to 15.55 Mc. Expanded, precision slide-rule dial. Two antennas (ferrite loop and wire). Four tubes plus rectifier. Built-in speaker. Front panel headphone jack. 105/125V. AC/DC. Trim walnut wood-grained steel cabinet with silver trim measures 13½" x 5⅞" x 8¾". Shipping wt. 12 lbs. (U/L approved.) $59.95

NEW!

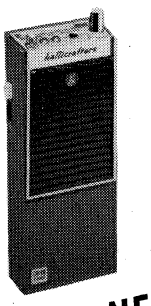
CB-17

Six channel fixed or mobile class "D" Citizens Band transceiver. All-electronic push-to-talk circuitry. 7 tubes and 4 silicon diodes. 5 watt power input. Dimensions: 12" x 7" x 5". Shipping wt. 15 lbs. $99.95



S-210

Exceptional FM entertainment plus AM plus most-wanted foreign broadcast frequencies in four SW bands. New Hallicrafters S-P-R-E-A-D Tuning greatly simplifies "zeroing-in" on foreign stations. Beautiful wood-grained vinyl-clad metal cabinet. Built-in speaker. Size: 13½" x 5⅞" x 8¾". Ship. wt. 12 lbs...$89.95



NEW!

CB-18

Brand new — a rugged, hand-held, 14-transistor CB transceiver for personal or industrial use. Full 2 watts input. You get two-channel operation, with plug-in crystals. Powered by self-contained, 500-hour nickel-cadmium batteries (batteries and charger included). Squelch control, provision for external antenna, earphone/speaker, microphone. Sizes: 8¾6" x 3⅜" x 1 13/16".....$119.95
Model CB11A, 100 mw unit.....$74.95/pr.

"Quality through Craftsmanship"

hallicrafters

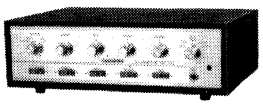
Prices subject to change without notice.

Net

© U.C.P., Inc.

Philmore Guaranteed ELECTRONIC COMPONENTS

80 WATT SOLID STATE STEREO AMPLIFIER
Model TA-1600



NEWLY developed circuitry incorporating 18 latest type transistors and 4 silicon diodes.
Custom oiled walnut wood cabinet and knurled metal knobs on etched aluminum front panel.

Rear Panel Inputs:
- **Tape Head**
- **Phono & Mag.**
- **Tuner**
- **Aux.**
- **Tape in**
- **Tape out**
- **Switched AC receptacle**

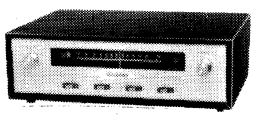
Front Panel:
- **Selector Switch:** Tape head — phono — Tuner Aux.
- **Controls:** Volume, Bass, Treble, Balance.
- **5 position mode:** Left, Right, Mono, Stereo, Reverse.
- **Rocker Switch Selections:** Tape monitor — Loudness — Rumble — Speaker Muting — Power.
- Stereo Headphone Jack

SPECIFICATIONS:

Power Output:	40 watts per channel IHFM music power
Frequency Response:	±1db, from 20 to 20,000 cps
Harmonic Distortion:	Less than 1%
Hum and Noise:	−70db
mag:	−56db
Voltage:	110-120 volts 50/60 cps — double-fused
Size:	13¾″ w x 4⅛″ H x 10″ D

Model No. TA-1600 .....Audiophile Net $99.95

FM/FM STEREO SOLID STATE TUNER
Model TT-1700



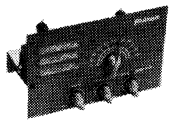
This perfectly matched companion to our Model TA1600 Solid State Stereo Amplifier features:
- FM Noise Filter Switch
- Stereo Indicator Light for Multiplex FM Broadcast
- AFC — assuring locked-in stations — even in fringe areas
- Tuning meter
- Latest advances in transistorized circuitry
- Built-in antenna for local stations.

SPECIFICATIONS:

Frequency Response:	30-20,000 cps ±1db
Sensitivity:	3uv
Image Rejection:	35db at 98mc
Channel Separation:	30db at 1000 cps
Semi-conductors:	13 transistors, 8 diodes

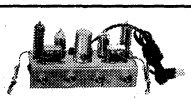
Custom oiled walnut wood with etched front panel and aluminum knobs to match.
Size: 13⅜″ W x 4″ H x 10¼″ D.
Model No. TT-1700 .....Audiophile Net $89.95

NEW IMPROVED THREE TUBE
(Including Rectifier Tube)
TWO-BAND AC-DC RADIO KIT



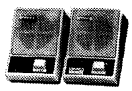
Provides signal strength sufficient to drive a 3½″ PM speaker.
Simplified instructions, fully illustrated with pictorial and schematic diagrams, speed assembly. Chassis is completely punched and plated. Panel is attractive gray hammertone, with white silk-screened lettering and dial. Here is a professional radio kit that is perfect for the beginner in radio. When assembled, you have a TWO BAND set, covering the standard broadcast band (550-1650 KC) and SHORT WAVE band (3-13 MC). (Complete with PM speaker, less tubes)
Uses 1 each: 35W4, 50C5 and 12AU6 tubes.
No. 7001-CR ..... Net Price $14.50

STEREO PHONO AMPLIFIER WITH TRANSFORMERS



4-tube Stereo Amplifier plus Silicon Rectifier. Neat, compact, fully assembled, furnished with tubes. Two volume controls with on-off switch, two tone controls, standard RCA type input jacks for phono cartridge; features two 2500-ohm output transformers to match 3.2 ohm voice coil.
No. PA63D ..... Net Price $11.95 ea.

TWO STATION TRANSISTORIZED INTERCOM
No. TC2
Net Price $10.95 Per Set



Beautifully styled high-impact plastic cabinets, with sloping design for full maximum speaker performance. Consists of a master control, and listen-talk push button switch and a remote (sub). Both stations can call each other, even when master is in off position, by pressing either one of the push buttons, which sends a signal. Provides excellent communication between two locations in home, shop or office. Supplied complete with 66 feet connecting cable and plugs, 9 Volt battery, insulated staples, plastic tape and instructions. Size of cabinets 1¾″ high x 4″ deep x 3″ wide. Eye appealing blister packed for quick sales.

30,000 OHMS PER VOLT MULTITESTER

Features a self-shielded core-magnet movement. Has flat frequency response in AC measurement provided by semi-conductor diodes. Incorporates single deck rotary switch which gives instant positive selection of desired range. Sensitivity is 30,000 ohms per volt DC, and 12,000 ohms per volt AC. Rugged compact black wrinkled metal case 2″ high x 5½″ long x 3¾″ wide.

SPECIFICATIONS:

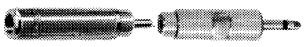
DC Voltage:	0.25V, 1V, 10V, 50V 250V, 1000V (30K ohms/V)
AC Voltage:	10V, 50V, 250V, 500V, 1000V (12K ohms/V)
DB	1. −20db + 22db on 10V AC range 2. +20db to 36db on 50V AC range
Reference:	odb = .775V or 1mw across 600 ohms
Resistance:	10K, 100K, 1meg, 10 meg
Capacitance:	250mmfd to .02mfd
Inductance:	50-5K henries
Output Scale:	10, 50, 250, 500 & 1000V AC Diode protected meter movement
DC Current:	50uA, 10mA, 250Ma
Battery:	2 penlite batteries

1% precision resistors used.
Includes test leads, batteries and instructions.
No. PNH301D .....Net Price $14.95 ea.

HI-FI TURNOVER CRYSTAL CARTRIDGE WITH TONE ARM

Contains the CX401 cartridge with two Sapphire needles, 30 to 11,000 cps., 6 Volt output. Includes arm rest and hardware. Spring counter balanced aluminum arm. Needles are very easily replaceable. Individually boxed.
No. C401 ..... Net Price $2.50

ADAPTERS



Phone Jack to Phono Plug: Shielded Phone Jack at rear takes standard (¼″) phone plug. Front is RCA type phono plug. Overall size 2⅛″.
No. 530A .....Net Price $.42
Phono Jack to Miniature Phone Plug: Shielded RCA type phono jack at one end. Shielded miniature phone plug (⅛″ diam.) at other end. Packed 5 to a bag, suitable for peg-rack sales.
No. 533A .....Net Price Per Adapter $.42

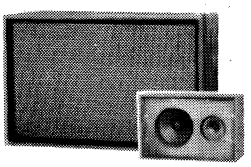
TELEPHONE EXTENSION CABLE (30 Feet)

Supplied completely assembled with telephone plug and jack.
Complete with simple hookup instructions. Individually blister packed for peg-rack sales.
No. TEC30 ..... Net Price $2.75 ea.

SUB-MINIATURE PUSH BUTTON SWITCH

Panel mount, momentary contact, single pole two circuit push to make and break switch. Has red button, washer, and mounting nut. Overall diameter ½″. Overall depth including knob 1 1/16″. Protrudes 5/16″ behind panel. Mounting hole dimension ¼″ diam.
No. 2291 .....Net Price $.25 ea.

Low Suspension Type 2-Way Speaker System



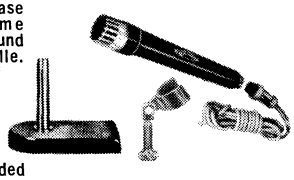
Highest quality 2-way acoustic suspension speaker system.
The size of this compact wonder of sound is 8¾″ x 13 3/16″ x 7¼″.
The enclsoure is made of genuine oiled walnut. Includes high compliance 6½″ woofer for clean full bass tone and a 4″ tweeter bringing out sounds that really mean HIGH fidelity.

Other specifications:
L-C Crossover network at 1900 CPS

Capacity:	20 watts
Frequency Response:	60 to 18,000 CPS
Magnet Structure:	1 Pound
Impedance:	8 Ohms

Model No. SS4 ..... Net Price $29.95

DUAL IMPEDANCE DYNAMIC MICROPHONE



Black die cast case with a chrome plated head around a black mesh grille.
- Built-in on/off Switch
- Swivel mike holder
- Separate mike stand
- 20 ft. of shielded cable.

SPECIFICATIONS:

Simplified change of Impedance:	(from 50,000 ohms to 600 ohms by merely rotating connector plug)
Sensitivity:	−60db at 1000 CPS
Frequency Resp.:	100 to 12,000 CPS
Fitting:	Standard ⅝″-27 thread
Size of Mike:	7¼″ long x 1¼″ dia. of head

Model DM16 .....Net Price $13.25 ea.

"ALL-PURPOSE" REMOTE CONTROL

- **Turns any Audio Device such as TV, Radio, Hi-Fi Equipment, etc., ON or OFF.**
- **Separate Controls regulate the Volume of all Audio Devices, as well as the Speaker built into the Remote Control Unit.**
- **Two Earphone Positions are available for Private Listening. Earphone and Main Speaker can be operated together or separately, with Individual Control of Volume on Each!**

Molded ivory plastic cabinet. 20 ft. of combination AC cut-off and attachment cable. Simple hookup instruction are included.
Packaged in an attractive self-display carton complete with cable and one earphone.
No. TRC .....Net Resale Price $7.50

J-38 TYPE TELEGRAPH KEY

Exact replacement of the famous J-38 Army Key.
Brass key and nickel plated metal parts are mounted on black polystyrene base. Adjustable coin silver contacts. Comes with lever switch and flat Navy type knob. Individually boxed.
Model No. JJ38 .....Net Price $3.10 ea.

HI-FI ALUMINUM KNOBS

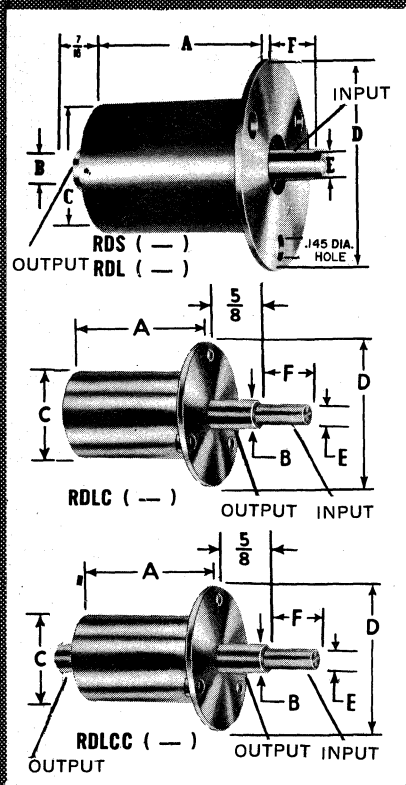
Individually packaged in a poly bag suitable for peg-rack sales.
Push-on soft gold finish knob with depressed indicator line on side of knob. Fits ¼″ shaft. Diameter ¾″. Height ⅝″.
No. 325 .....Net Price $.36 ea

Set Screw knob with dark gray depressed indicator line on the side. Fits ¼″ shaft. Diameter ¾″ tapered to ⅝″. Height ¾″.
No. 327 .....Net Price $.40 ea

PHILMORE MANUFACTURING CO. INC.

We will be pleased to send our latest Catalog upon request.

JAN HARDWARE MANUFACTURING COMPANY, INC.



RATIO DRIVES

for FINE INSTRUMENT AND MACHINE CONTROLS

Ball Bearing Type **Compact, durable, exceptionally smooth action**

These unique ratio drives employ precision ball bearings. Used for rotary control of components in instruments, they provide unexcelled smooth motion. Ruggedly built, permanently sealed and lubricated, JAN Ratio Drives accommodate applications where miniaturization is essential.

Input and output shafts of these units operate in the SAME DIRECTION. Types "RDL" and "RDS" provide "in-line" input-output shafts. Type "RDLC" is supplied with **concentric** shafts whereby the output envelopes the input shaft. An added feature of type RDLCC is the output shaft in the rear.

CAT. No.	RATIO	A	B O.D.	B I.D.	C	D	Input Shaft E	F	Bolt-Mtg. Dia.
RDL-1	2.6-1	1	3/8	1/4	1 1/8	1 13/16	1/4	3/4	1 15/32
RDL-2	7.0-1	1 13/32	3/8	1/4	1 1/8	1 13/16	1/4	3/4	1 15/32
RDL-3	17.0-1	1 13/16	3/8	1/4	1 1/8	1 13/16	1/4	3/4	1 15/32
RDLC-1	2.6-1	1	3/8	1/4	1 1/8	1 13/16	1/4	1 1/2	1 15/32
RDLC-2	7.0-1	1 13/32	3/8	1/4	1 1/8	1 13/16	1/4	1 5/64	1 15/32
RDLC-3	17.0-1	1 13/16	3/8	1/4	1 1/8	1 13/16	1/4	23/32	1 15/32
RDLCC-1	2.6-1	1 13/32	3/8	1/4	1 1/8	1 13/16	1/4	1 5/64	1 15/32
RDLCC-3	17.0-1	2 43/64	3/8	1/4	1 3/16	1 55/64	1/4	1 1/16	1 15/32

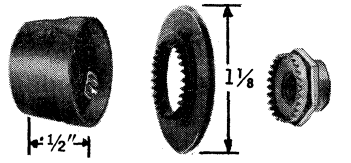
ALL RATIOS ARE ±10%

KNOB RATIO DRIVE
(9 to 1)
Cat. No. KRD-11
(plain gripping surface)
Cat. No. KRD-12
(knurled gripping surface)

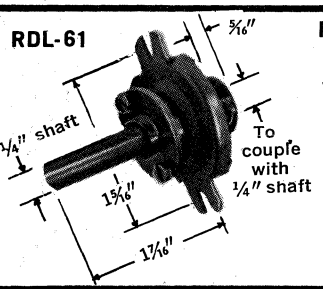
Exploded view shows engineered miniature gear system, to permit precise, fine tuning of controls. As shown, 9 to 1 ratio. Other ratios designed to specifications.

Brass gears; black anodized aluminum knob and dial. Available with knurled or non-knurled outside knob.

Available for 1/8" and 1/4" shafts.



RDL-61



IN-LINE RATIO DRIVE
6.3 : 1

Variations available to customers specifications.

For smooth rotary control of components requiring Vernier adjustments. Suitable for use where panel space is at a premium. Durable, ruggedized ball bearing mechanism.

LIMIT STOP COMPONENTS

Designers can now consider the limit stop as a component to design with, such as potentiometers, capacitors, or other standard units. The simplicity of adjustment and the large number of available turns enables the stop range to be set with extreme precision. Conveniently located dual locking screws maintain settings under all conditions of shock and vibration.

Available for 1/4" and 3/16" shafts.
Specify — (3) for 3/16"
— (4) for 1/4"

LS 552 Washer

LS 554 Collar

LS 556 Stop Plate

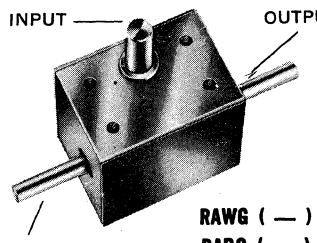
Typical End Product

RIGHT ANGLE RATIO DRIVES

Versatile, miniaturized, right angle rotary controls.

Featuring dual output stainless steel shafts at right angles to input, these engineered drives provide an ideal type of instrument control. Available with matched bevel or worm gears covering a wide range of ratios.

JAN'S RIGHT ANGLE DRIVES are especially useful for handling spring or gravity-loaded components since the output shaft automatically locks in any desired position yet remains free for smooth adjustment by the input shaft. Assembled in dust-proof housings, the gears are permanently pinned in place on stainless-steel shafts mounted in oilite bearings and held under constant pressure.

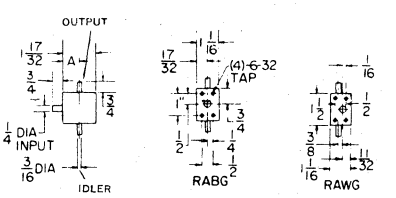


BEVEL GEAR RIGHT ANGLE DRIVES

CAT. No.	RATIO	"A"
RABG-1	1:1	7/8
RABG-2	2:1	7/8
RABG-3	3:1	7/8

WORM GEAR RIGHT ANGLE DRIVES

CAT. No.	RATIO	"A"
RAWG-1	5:1	3/4
RAWG-2	10:1	3/4
RAWG-22	12:1	3/4
RAWG-3	20:1	3/4



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JAN HARDWARE
MANUFACTURING COMPANY, INC.

U.S. PATENT NO. 2,681,378

HI-VOLTAGE INSULATED COUPLINGS

MEETS MIL SPECS:
TEMPERATURE - HUMIDITY
SHOCK - VIBRATION - FUNGUS

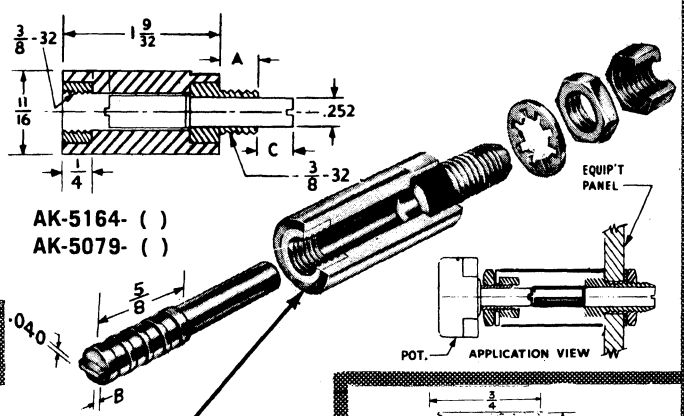
HI-VOLTAGE INSULATED COUPLINGS
15 KV Breakdown 10 inch pounds torque
Series No. AK-5079 & No. AK-5164

Engineered with stainless steel shaft and precision, screwdriver tip molded integrally with Diallyl Phthalate Material in accordance with Military Specifications. Completely shock, vibration and fungus proof, they operate with ease over an ambient temperature range of —75 to +175° C. Supplied complete with nickel plated mounting hardware.

Stainless steel screw driver tip fits all standard slotted shafts (potentiometer, etc.) without need for further machining. Ideally suited to adjust high voltage controls thus protecting operating personnel against danger. They are also used to reduce ground capacitance on other types of sensitive instrument controls.

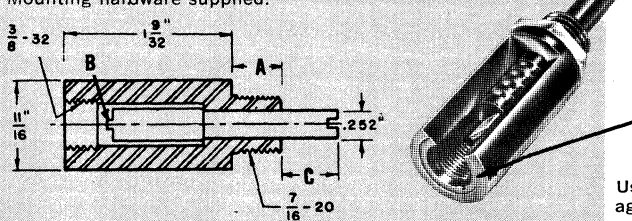
For Commercial Instrument Applications . . .
These couplings are available in general Purpose Black Bakelite.
Cat. No. 6164-(X or B)-( ) For Standard Type
Cat. No. 6079-(X or B)-( ) with Locking Type Bushing.
Dimensions are identical with 5000 series, in chart above.

	CAT No.	"A"	"B"	SHAFT	"C"
STANDARD TYPE	AK-5164-X-1	3/8"	3/16"	Slotted	5/16"
	AK-5164-B-1	3/8"	1/16"	Slotted	5/16"
	AK-5164-X-2	3/8"	3/16"	Slotted	15/32"
	AK-5164-B-2	3/8"	1/16"	Slotted	15/32"
	AK-5164-X-3	3/8"	3/16"	No Slot	15/16"
	AK-5164-B-3	3/8"	1/16"	No Slot	15/16"
	AK-5164-X-4	3/8"	3/16"	No Slot	1 7/16"
	AK-5164-B-4	3/8"	1/16"	No Slot	1 7/16"
	AK-5164-X-5	3/8"	3/16"	Slotted	Minus 1/16"
	AK-5164-B-5	3/8"	1/16"	Slotted	Minus 1/16"
WITH LOCKING TYPE BUSHING	AK-5079-X-1	9/16"	3/16"	Slotted	1/8"
	AK-5079-B-1	9/16"	1/16"	Slotted	1/8"
	AK-5079-X-2	9/16"	3/16"	Slotted	9/32"
	AK-5079-B-2	9/16"	1/16"	Slotted	9/32"

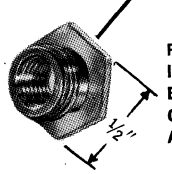


COMMERCIAL INSULATED COUPLINGS
30 KV Breakdown **Series No. AK-4160**
10 inch pounds torque **For TV and Industrial Applications**

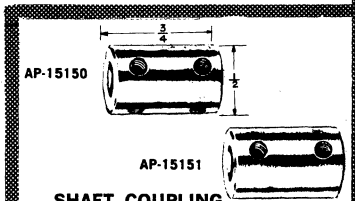
These handy couplings, capable of withstanding 30 KV, are made of high grade Bakelite throughout except for the stainless steel screwdriver tip molded within the drive shaft. Mounting hardware suppiled.



	CAT No.	"A"	"B"	SHAFT	"C"
STANDARD TYPE	AK-4160-X-1	3/8"	3/8"	Slotted	1/8"
	AK-4160-B-1	3/8"	3/16"	Slotted	
	AK-4160-X-2	3/8"	3/8"	No Slot	1/2"
	AK-4160-B-2	3/8"	3/16"	No Slot	



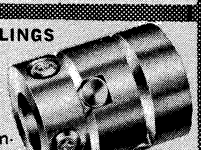
Used as an adapter with high voltage insulated couplings to accommodate miniature (1/8" shaft) potentiometers. External thread 3/8x32. Internal thread 1/4x32.



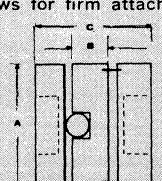
SHAFT COUPLING
Cat. No. AP-15150
A rugged, nickel plated brass coupling for joining two 1/4" shafts. Supplied with 4 set screws for firm attachment to shafts.

CAT. NO. AP-15151
Same as above, 2 set screws.

AUTOLINEAR (INSULATED) SHAFT COUPLINGS
2.5 - 5KV BREAKDOWN
Universal, miniature, self-aligning
Cat. No. AP-1530 & AP-1538



A unique series of shaft couplers that accommodate either similar or disimilar 1/8", 3/16" or 1/4" shafts. Permits offset misalignment to 1/16" and 5° angle. Operates free of backlash. Plastic insulator between precision cast aluminum hubs. Each hub has 2 set screws for firm attachment. Alodine finish.



PART NO.		DIA. HOLE	"A"	"B"	"C"
AP-1530	-2	1/8"	1/2"	15/64"	7/8"
	-3	3/16"			
	-4	1/4"			
AP-1538	-2	1/8"	1/2"	27/64"	1 1/64"
	-3	3/16"			
	-4	1/4"			

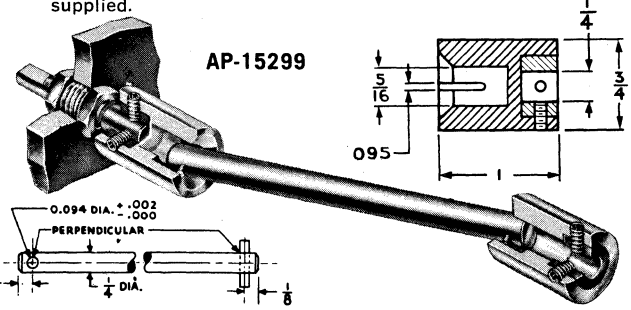
TYPICAL PART NUMBERS:
AP-1530-34
AP-1538-22

VOLTAGE RATING:
AP-1530 — 2500 VOLTS
AP-1538 — 5000 VOLTS

OFFSET-SHAFT (INSULATED) COUPLINGS
10 KV Breakdown—±30°Offset
Cat. No. AP-15299

Highly versatile, durable insulated couplings made with single-unit, molded Nylon-to-metal insert construction. Application requires two couplings—permits smooth control for two parallel shafts offset from each other up to 30 degrees at separations greater than 3 inches. Secured to component and control shafts by 2 set screws.

Note: Coupling is accomplished with a 1/4" shaft of any length (not furnished). Coupling shaft keyed to coupler by steel drive pins supplied.



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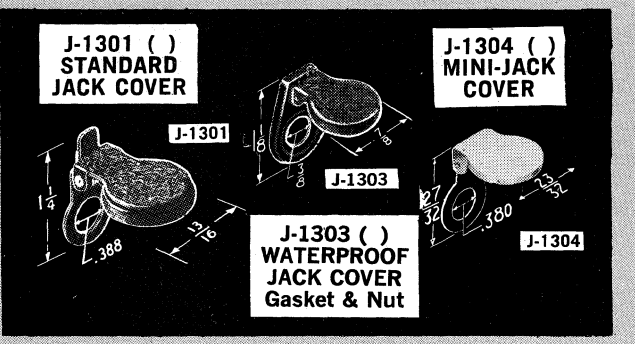
JAN HARDWARE
MANUFACTURING COMPANY, INC.

JACK COVERS (TRIMMER COVERS)

These sturdy Jack Covers fit jack or panel bushings and are used to keep out dust and moisture as well as to prevent inadvertent disturbance of control settings. Outer surfaces are finished in standard colors of baked enamel.

To Order Colors: Specify:
(-1) Black Wrinkle; (-2) Smooth Gray; (-3) Smooth Olive; (-4) Smooth Black. Other colors on request.

Example: Jack cover, color black wrinkle, order as J-1301 (-1)



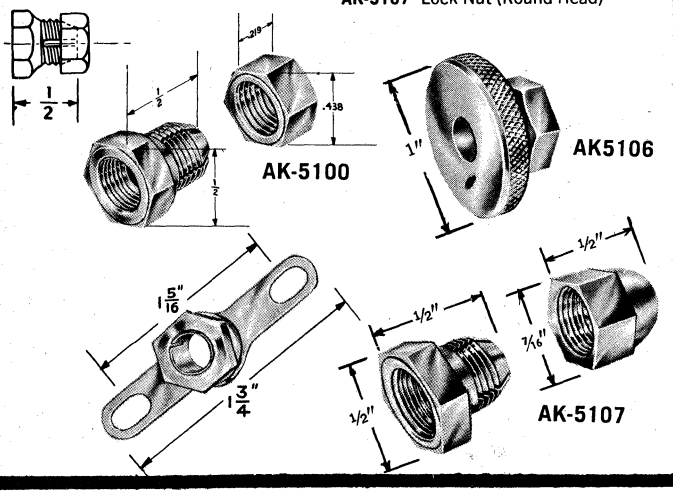
SHAFT LOCKS

Cat. No. AK-5100 thru No. AK-5107
Split-bushing, collet type locks.

Used to securely hold the shaft of volume controls, capacitors, switches, etc. in position. Body and lock nut are brass—nickel plated. Supplied with nickel plated internal tooth lock washers, upon request.

SPLIT BUSHING TYPE For ¼" shafts

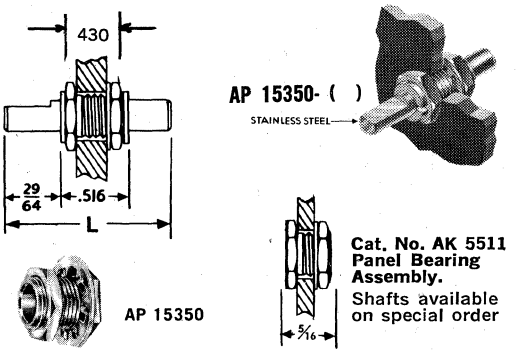
AK-5100 Standard Lock Nut
AK-5101 Panel Mount Type
AK-5106 Knurled Shaft Lock (1" O.D. Knurl)
AK-5107 Lock Nut (Round Head)



PANEL BEARING & SHAFT ASSEMBLIES

Cat. No. AP-15350 series

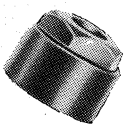
Used for rotary control of components. Passivated stainless steel shaft is ¼" dia. with one end flattened for attaching to knob control by set screws. Supplied completely assembled with two retaining rings, jam nut with lock washer and nickel plated, brass panel bearing. Fits panels up to 3/16" thick; mounts in 13/32" dia. hole.



Cat. No.	Item	"L" Shaft Length
AP 15350	Panel Bearing	—
AP 15350-1	Panel Bearing &	1 5/16"
AP 15350-2	Shaft Assembly	3"
AP 15350-3		6"

NYLON SHAFT LOCK

Cat. No. AK-1050



One-piece, black nylon; fits standard 3/8"-32 thread of shaft bushing. Friction grip holds ¼" shaft to prevent accidental or vibrational disturbance of control settings. Adjustment for semi-permanent locking, provided.

SHAFT KNOB LOCK

Cat. No. AK 1055-2 (⅛" shaft)
AK 1055-4 (¼" shaft)

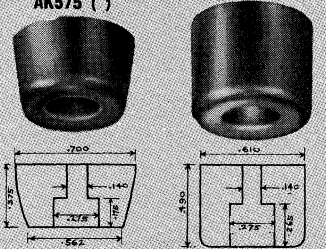
Prevents movement of controls due to shock...vibration ...or accidental manual contact. Available in matte or glossy finish, for commercial or military applications.

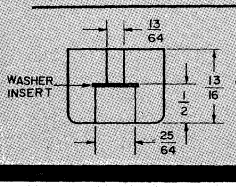
CHASSIS & CABINET BUMPERS

Durable, low-friction polyethylene. Guards against scuffing. Supplied in either black or russet brown, with recessed hole for screw or bolt usage.

To Order Colors:
Black, specify (4);
Brown specify (7).
Other colors on request.

Cat. No. AK575 ( ) **Cat. No. AK574 ( )**





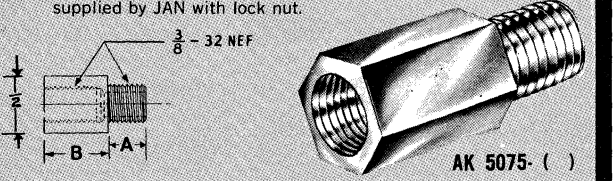
No. AK 576-4 HEAVY DUTY CHASSIS & CABINET BUMPER.
(with steel washer insert).
Molded neoprene. 1" Diameter, 13/16" high. Configuration similar to AK 574 above. Color, Black. Other colors on request.

BUSHING EXTENDERS

Cat. No. AK-5075-1 thru No. AK-5075-11

Permit staggered mounting of components having ¼" shafts, behind a panel. Useful in meeting problems of space economy. Supplied in nickel plated brass.

Note: Extender No. AK-5075-9 is a locking (collet) type and is supplied by JAN with lock nut.



Cat. No.	"B"	"A"
AK5075-1	5/8"	3/8"
AK5075-2	5/8"	1/4"
AK5075-3	5/8"	3/16"
AK5075-4	3/4"	1/4"
AK5075-5	2 1/4"	1/4"
AK5075-6	1 5/8"	1/4"
AK5075-7	1 7/16"	3/16"
AK5075-8	1 1/16"	1/4"
AK5075-9	11/16"	1/2"
AK5075-10	1 21/64"	7/16"
AK5075-11	55/64"	7/16"

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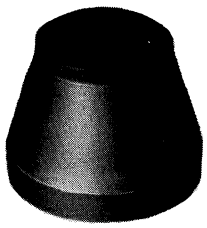
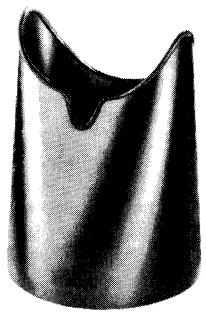


Cat. No. H 465
VIEWING HOOD and/or ADAPTER

Can be used as viewing hood, on 2¾" dia. bezels. (#1427; 1428; 1429). Also serves as adapter to permit use of face-fitting neoprene rubber viewing hoods. (see above). All aluminum. Dull black enamel finish.



VIEWING HOOD

No. H-689-1 (5⅝" I.D.)

Black neoprene rubber. contour-molded, fits shape of face. Keeps out ambient light when viewing scope.

Used with following Jan Bezels: 19636; 19495; 13584; 1465

No. H-689-2 (4⅞" I.D.)

Used with Jan Bezel #545

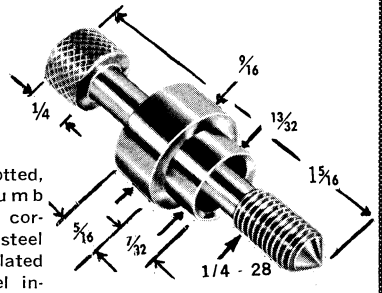
NEW!

VIEWING HOOD
to fit rectangular bezels
Cat. No. H-1008

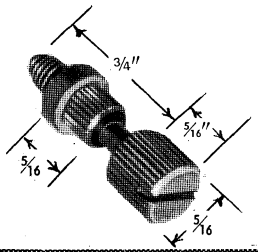
Black, contour molded neoprene rubber. Keeps ambient light out, when viewing scope. Fits shape of face. Can be adapted for smaller I.D.'S.

Used with Jan Bezel #1328. Can be adapted for #1533-P

CAPTIVE SCREW & NUT ASSEMBLIES



Cat. No. Ap-711
Consists of slotted, knurled thumb screws made of corrosion resistant steel bar, and nickle-plated (on brass) panel inserts.

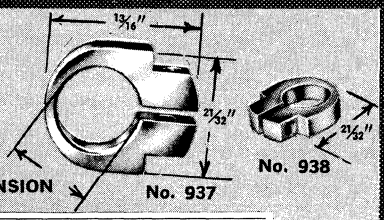


Cat. No. AP1039
Insert, Captive

Cat. No. AP1040
Screw, Captive

"NO-MAR" CLAMPS

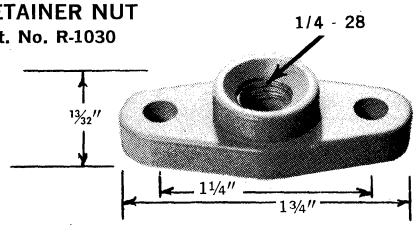
Set screw does not touch shaft.
Ideal for knob and gear applications.
Variety of sizes available.



Cat. No.	–2	–3	–4	–5	–6	–7	–8
937	1/8"	3/16"	1/4"	5/16"	3/8"	13/32"	7/16"
938	1/8"	3/16"	1/4"	5/16"	3/8"	13/32"	

RETAINER NUT

Cat. No. R-1030

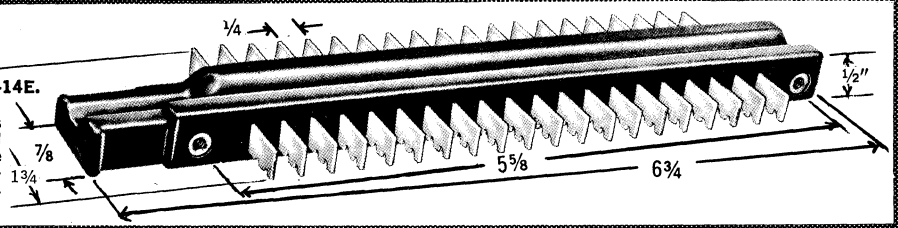


Used in conjunction with captive screw and nut assemblies. Die casting. Can be painted.

"FEED THROUGH" TERMINAL BOARDS

Cat. No. T-746
Molded of wood-filled melamine per MIL-M-14E.

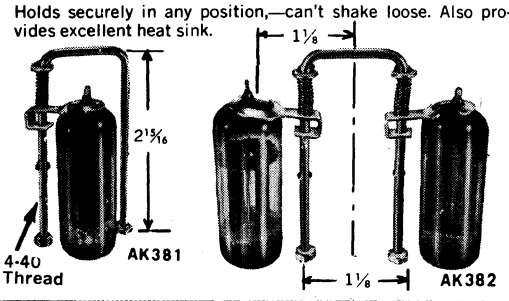
Avoid expensive tooling. Design around this integrally-molded 20 feed-through terminal board. Equally-spaced terminals can be used for wrap around and/or solder connections. Voltage Breakdown 4000 Volts.



TUBE BAIL ASSEMBLIES

Positive protection against vibration and shock.
Spring-loaded tube holders give positive protection that is free of strain on tube. Available as single and twin tube hold-downs.

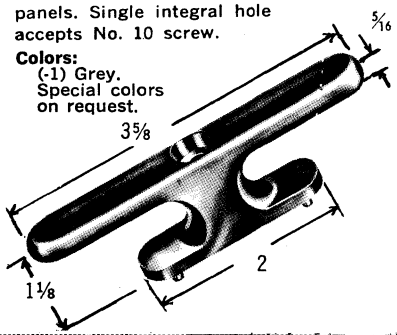
Holds securely in any position,—can't shake loose. Also provides excellent heat sink.



HANDLE, CORD Cat. No. H-692-1

This durable, die-cast aluminum handle is designed for use on small instrument panels. Single integral hole accepts No. 10 screw.

Colors:
(-1) Grey.
Special colors on request.



The service of JAN's design engineers is available to assist you with your Component requirements.

JAN will design and manufacture special Components to customers' specifications.

Complete facilities for prototype work.

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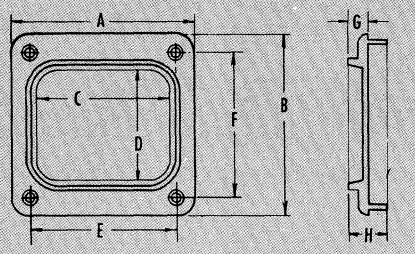
JAN HARDWARE MANUFACTURING COMPANY, INC.

JAN's Bezels enhance the appearance of the instruments on which they are used. These units are functionally designed to provide OPTIMUM UTILIZATION OF THE CRT SCREEN, as well as safety against tube breakage and danger to operating personnel.

JAN Bezel Assemblies are supplied with a **bezel, calibrated graticule,** (where applicable) **light filter** and **CRT cushion.** Bezels are finished in a smooth dull black non-reflecting surface. These units fit JAN Mu-Metal Shields.

Edge-lit Bezels (E.L.B.A.)** These Bezels are designed to provide edge lighting of the engraved scale-calibrated graticule by means of pilot lights.

Camera Mount Bezel These units provide an integral cast mounting flange that fits all standard 3", 5" and 7" CRT cameras.

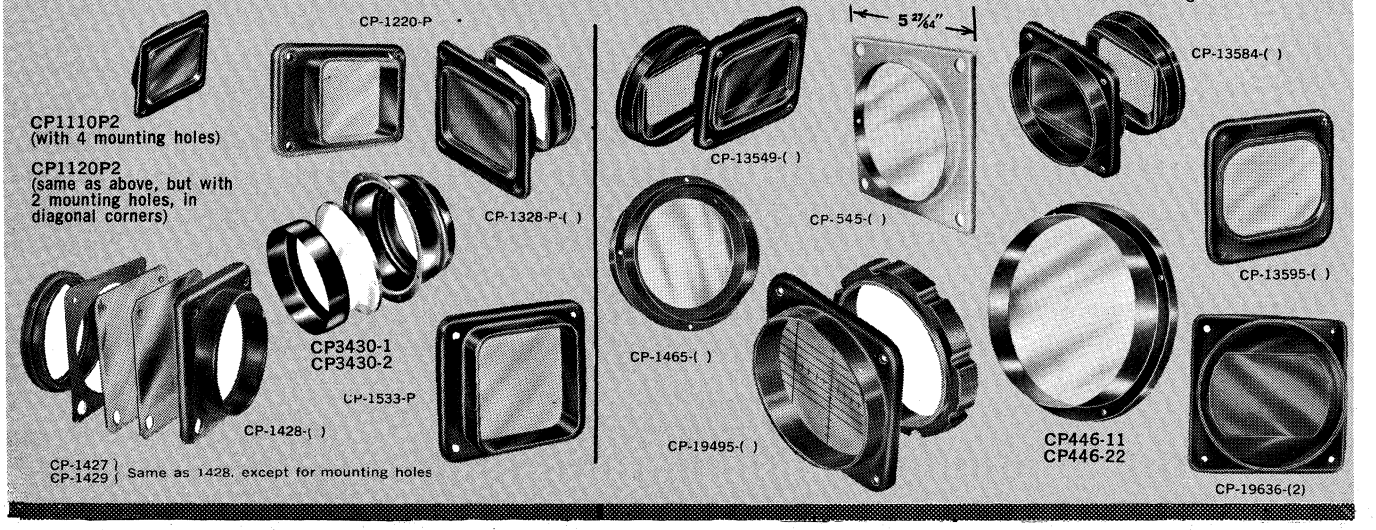


Catalog No.	CRT Face	Material	Type	Panel Opening	A Overall Width	B Overall Height	C D Visible Area (Bezel) Width	C D Visible Area (Bezel) Height	E Mounting Holes Width	F Mounting Holes Height	G- Thickness (Face Only)	H- Thickness (Incl. Flange)	Visible Area (Cushion) Height	Visible Area (Cushion) Width
BEZELS FOR 2" C.R.T.														
CP-1110-P-2	Flat	Plastic*	Standard	2 3/16"	2 5/8"	2 5/8"	1 3/4"	1 3/4"	2"	2"	5/16"	7/16"	1 3/4"	1 3/4"
BEZELS FOR 3" C.R.T.														
CP-1220-P‡	Curved or Flat	Plastic*	Camera Mount	—	4 7/8"	3 1/4"	2 3/4"	2 1/4"	4"	2 1/2"	5/16"	1 1/16"	—	
CP-1328-P-1 CP-1328-P-2	Curved Flat	Plastic*	Standard	3 33/64"	3 3/4"	3 3/4"	2 5/8"	2 3/16"	3"	3"	3/8"	45/64	2 1/2"	2 1/16"
CP-1427-1 CP-1427-2	Curved Flat	Aluminum	Camera Mount	3 17/64"	4"	4"	2 3/4" Dia.		3"	3"	9/16"	27/32"	2 25/32" Dia.	
CP-1428-1** CP-1428-2**	Curved Flat	Aluminum	Camera Mount E.L.B.A.**	3 17/64"	4"	4"	2 3/4" Dia.		3"	3"	9/16"	27/32"	2 25/32" Dia.	
CP-1429-1 CP-1429-2	Curved Flat	Aluminum	Camera Mount	3 17/64"	4"	4"	2 3/4" Dia.		3"	3"	9/16"	27/32"	2 25/32" Dia.	
CP-3430-1 CP-3430-2	Curved Flat	Steel	Standard	—	4 1/16" Dia.		3 3/8" Dia.		3 3/4"	3 3/4"	1 41/64"	1 41/64"	2 25/32" Dia.	
BEZELS FOR 4" C.R.T.														
CP-1533-P‡		Plastic*	Camera Mount	3 1/32"	4 9/16"	3 63/64"	3"	3"	4"		1 3/32"	1 3/32"	No Cushion	
BEZELS FOR 5" C.R.T.														
CP-13549-1 CP-13549-2	Curved Flat	Aluminum	Standard	6.0"	6 1/4"	6 1/4"	4 7/8"	3 3/4"	4 15/16"	4 15/16"	17/32"	1 3/32"	4 1/4"	3 3/16"
CP-13584-1 CP-13584-2	Curved Flat	Aluminum	Camera Mount	6.0"	6 1/4"	6 1/4"	4 7/8"	3 3/4"	4 15/16"	4 15/16"	1 5/32"	1 23/32"	4 1/4"	3 3/16"
CP-13595-1** CP-13595-2**	Curved Flat	Aluminum	Standard E.L.B.A.**	5 7/16"	6 1/4"	6 1/4"	4 7/8"	3 3/4"	4 15/16"	4 15/16"	17/32"	—	4 3/4" Dia.	
CP-1465 CP-1465-2	Curved or Flat Flat	Steel	Camera Mount	5 9/16" 5 17/32"	6 3/8" Dia.		5 35/64" Dia.		6"	6"	7/8"	7/8"	No Cushion 4 1/2" Dia.	
CP-19495-1** CP-19495-2**	Curved Flat	Aluminum	Camera Mount E.L.B.A.**	5 7/16"	6 1/4"	6 1/4"	5 1/4" Dia.		4 15/16"	4 15/16"	1 5/32"	—	4 3/4" Dia.	
CP-19636-2**	Flat	Aluminum	Camera Mount E.L.B.A.**	5 5/16"	5 7/8"	5 7/8"	4 1/2" Dia.	3"	4 7/8"	4 7/8"	1 1/4"	—	4 1/2" Dia.	
CP-446-11 CP-446-22	Flat	Steel	Camera Mount	—	6 9/16" Dia.		5 9/16" Dia.		6 5/32" 6 1/8"	6 5/32" 6 1/8"	1"	1 19/64" 1 3/16"	4 1/2" Dia.	

* All Plastic Bezels are furnished in shock resistant plastic, per MIL P-3414

** Edge Lit Bezel Assemblies

‡ Rectangular C.R.T.



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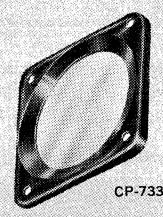
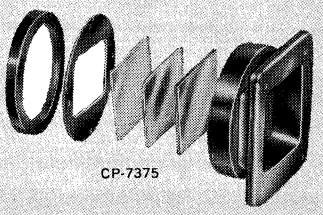
Catalog No.	CRT Face	Material	Type	Panel Opening	A Overall Width	B Overall Height	C D Visible Area (Bezel) Width	C D Visible Area (Bezel) Height	E F Mounting Holes Width	E F Mounting Holes Height	G- H- Thickness (Face Only)	G- H- Thickness (Incl. Flange)	Visible Area (Cushion) Height	Visible Area (Cushion) Width
BEZELS FOR 7" C.R.T.														
CP-7330-1 CP-7331-2**	Curved Flat	Aluminum	Standard E.L.B.A.**	7 13/32"	7 13/16"	7 13/16"	6 5/16" Dia.		6 3/16"	6 3/16"	3/4"	3/4"	6 3/8" Dia.	
CP-7375-1** -2**	Curved Flat	Aluminum	E.L.B.A.**	7 13/32"	8"	8"	4 1/2"	4 1/2"	6 3/16"	6 3/16"	1 17/32"	2 29/32"	4 1/2"	4 1/2"
CP-7420-1** -2**	Curved Flat	Aluminum	Camera Mount	7 13/32"	7 13/16"	7 13/16"	6 15/16" Dia.		6 3/16"	6 3/16"	3/4"	1 3/8"	6 3/8" Dia.	
CP-7550	Curved or Flat	Aluminum	Camera Mount	4 25/32"	7 3/8"	6 1/4"	4 3/4"	4 3/4"	6 1/4"	5 1/8"	1 3/16"	1 3/16"	No Cushion	
BEZEL FOR 10" C.R.T.														
CP-10860	Curved or Flat	Aluminum	Standard	11 1/32"	12 1/4" Dia.		8 1/16"	6 1/4"	11 1/2", B.C		1/16"	13/16"	No Cushion	

** Edge Lit Bezel Assemblies


CP-7330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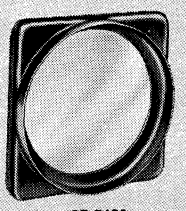
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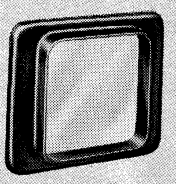
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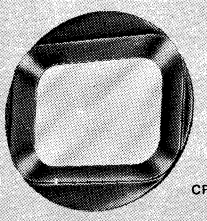
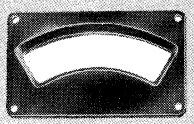

CP-10860

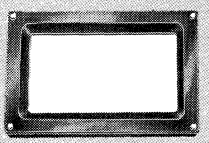
DISTINCTIVE FEATURES

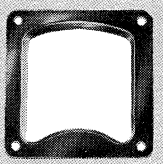
- Engineered for 2", 3", 4", 5", 7", 8" and 10" CRT
- Maximum display area
- Precision engraved, scale-calibrated graticules; standard or to customer's specifications
- Materials and finish to "Mil Spec"
- Heavy buna-S shock cushion
- Models for edge-lighting
- Phosphor-matched light filters
- Non-reflecting matte surfaces
- Rugged camera mounts
- Models for curved and flat-faced CRT

ESCUTCHEON PLATES For Elegant Framing of Panel Openings

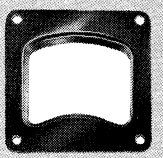
ET-120


ET-150


ET-160


EM-310

EM-320


EM-325

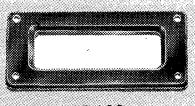
ET-125

ET-165

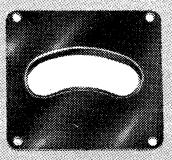
ET-140

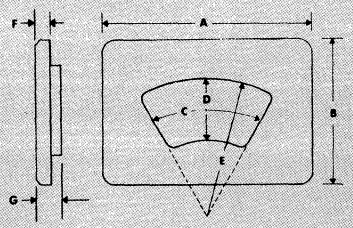
ET-155

ET-135


ET-130

ET-145


EM-315



SPECIFICATIONS — JAN ESCUTCHEONS

Escutcheon Cat. No.	A Overall Width	B Overall Height	C Window Width	D Window Height	E Effective Outer Dial Radius	Thickness F=Face Only	Thickness G=Incl. Flange	Panel Opening Width	Panel Opening Height	Mounting Holes Width	Mounting Holes Height	Type of Dial	Material
ET-120	2 27/32	1 7/8	1 3/4	1"	1 27/32	3/16	3/16	2 11/32	1 3/4	2 3/16 top 2 1/16 bottom	1 5/16		Injection
ET-125	3 7/8	2 15/16	2 7/8	1"	3 1/4	3/16	5/16	3 1/2	1 1/2	3 1/2	1 15/16		Molded
ET-135	2 3/4	1 7/8	1 1/2	7/8	1 7/8	3/16	1/4	1 31/32	1 7/32	2 1/4	1 3/8	Circular	Tenite II,
ET-150	3 7/8	2 5/16	2 7/8	3/4	3 1/8	3/16	5/16	3 1/2	1 7/32	3 1/2	1 15/16		Black Matte
ET-165	2 5/8	1 5/8	1 49/64	9/16	2 3/32	1/8	1/4	2 7/16	1 1/2	2 1/16	1 1/16		Finish
ET-130	4	1 13/16	2 1/4	13/16	—	3/16	1/4	2 13/32	1 11/32	3 1/2	1 5/16	Flexible Tape,	Injection
ET-140	2 1/2	1 1/2	1 1/4	5/8	—	1/8	5/16	1 17/32	1 1/32	2	1	Digital	Molded
ET-145	3 1/4	2 1/16	1 15/16	3/4	—	3/32	3/32	2 13/32	1 5/32	2 3/4	1 9/16	Counter,	Tenite II,
ET-155	2 1/2	1 3/16	1 1/16	1/2	—	3/32		2 1/32	2 3/32	2 1/4	13/16	Cylinder	Black Matte
ET-160	3 7/8	2 1/2	2 15/16	1 5/8	—	1/8	1/8	3	2 1/32	3 5/8	2 1/4	or Drum	Finish
EM-310	3	3	2 1/16	1 13/16	2 5/16	1/32	1/4	3 11/32	2 1/2	2 1/2	2 1/2	Helical	Soft Aluminum
EM-315	3 1/4	3	2 1/4	5/8	2 1/16	1/32	1/8	2 15/32	1 5/64	2 3/4	2 5/16	Circular	with Black
EM-320	3 1/4	2 3/4	2 1/4	5/8	2 1/16	1/32	1/8	2 23/64	1 5/64	2 3/4	2 1/4	Circular	Matte Enamel
EM-325	3	3	2 1/16	1 1/2	2 5/16	1/32	1/4	2 11/32	1 61/64	2 1/2	2 1/2	Helical	Finish

* **To Order** specify: (1) frame only; (2) frame with clear window; (3) frame with clear window scribed with a center line.

JAN'S molded, black, shock-resistant plastic escutcheons are available in an exceptionally wide variety of different types and sizes. They provide a pleasing window to frame dial plates mounted behind the panel.
Plastic escutcheons are available in the following ways: frame only; frame with clear windows; frame with clear window scribed with a center line.
For especially large working areas, stamped aluminum escutcheons, finished in dull black are available to meet the needs for space economy.
Withstands temperature shock −65° to +85° C.
NON INFLAMMABLE

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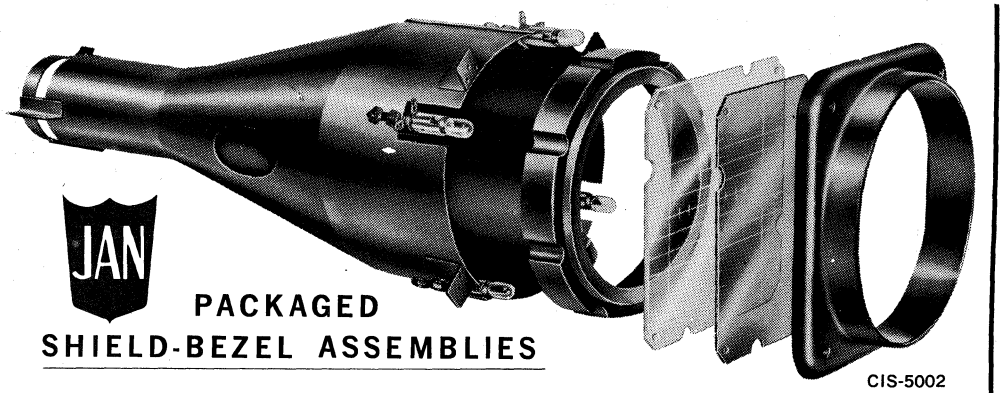
JAN HARDWARE MANUFACTURING COMPANY, INC.



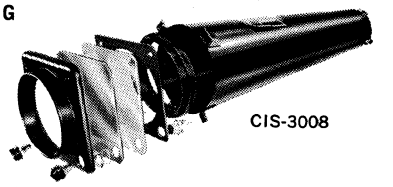
PACKAGED SHIELD-BEZEL ASSEMBLIES

CIS-5002

SAVES TIME / MONEY **ELIMINATES** MULTIPLE PURCHASING / COMPLEX ENGINEERING

All necessary items for CRT Magnetic Shield and Bezel applications are packaged in one unit.

EACH ASSEMBLY CONTAINS } Shield, JAN Bezel, CRT Rubber Cushion, Graticule, Filter, Light Sockets, Pilot Lamps (for edge-lit bezel-shield assemblies) plus Hardware.

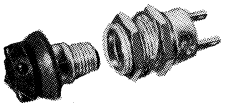


CIS-3008

When ordering specify:

"JAN PACKAGED UNIT" giving JAN shield No., JAN bezel No. and CRT tube type with which it is to be used.

PILOT LIGHT ASSEMBLIES FOR EDGE LIGHTING

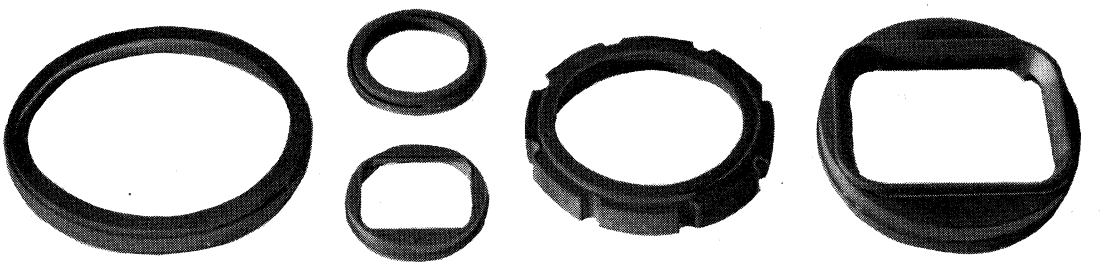


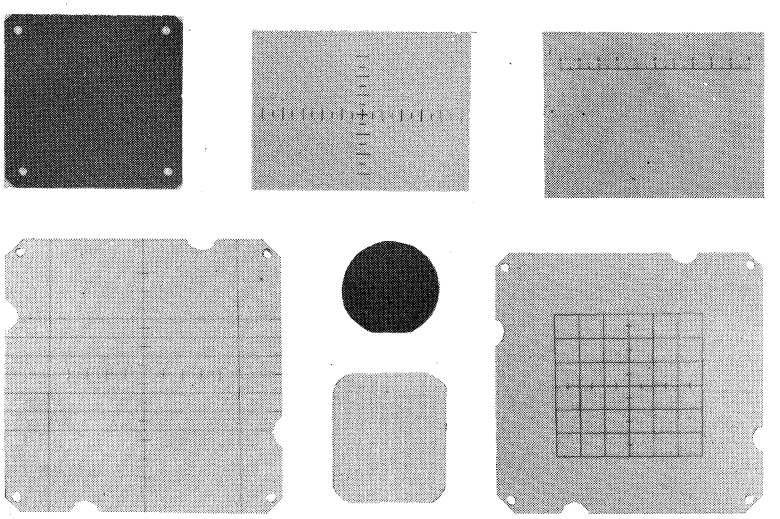
Cat. No. 100306

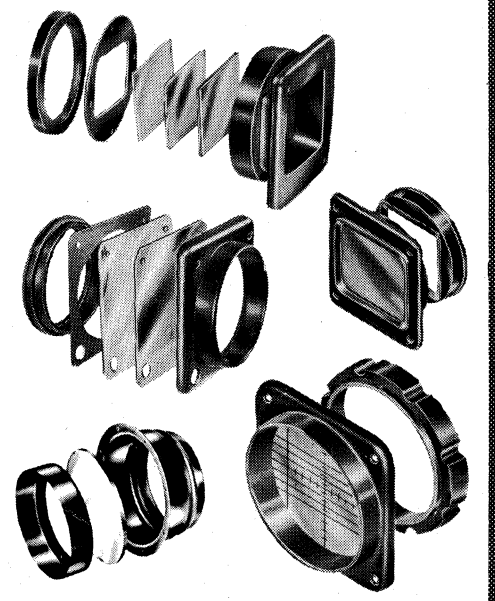
Cat. No. 100232

CUSHIONS — GRATICULES — FILTERS — SHIELD/BEZEL ASSEMBLIES

Available in Assorted Sizes and Shapes







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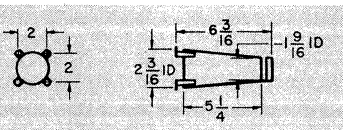
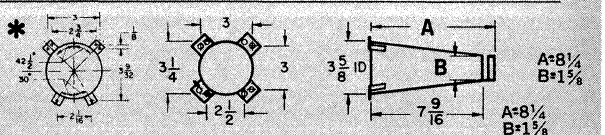
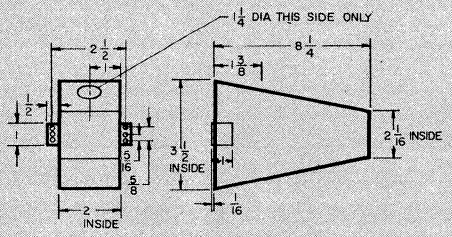
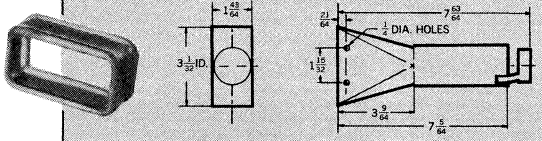
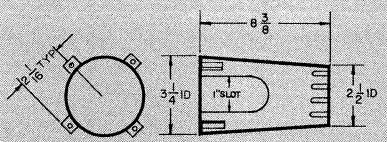
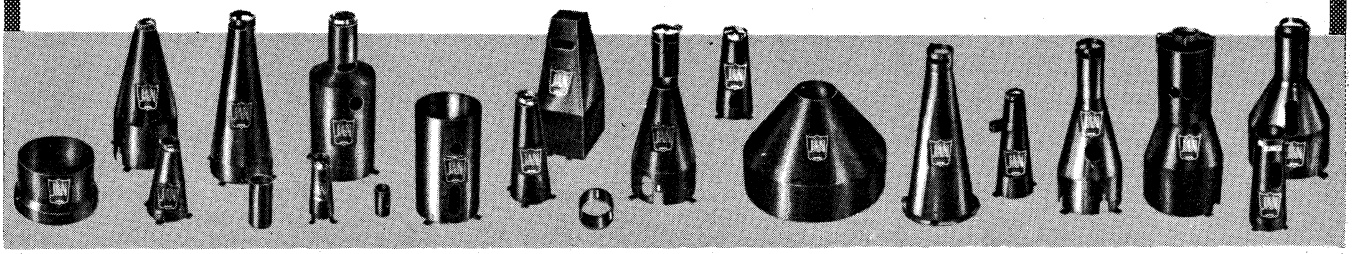
JAN HARDWARE MANUFACTURING COMPANY, INC.

JAN'S MAGNETIC SHIELDS are made of Mu-Metal and are hydrogen annealed by a special process to assure optimum orientation of the molecular structure of the alloy for best magnetic shielding. JAN'S MAGNETIC SHIELDS prevent distortion and intensity modulation of the electron beam due to stray magnetic fields.

In addition, the use of these shields protect personnel against the dangers of accidental tube breakage. Mounting holes are tapped for No. 6-32 screws as shown. These shields are designed to fit JAN'S standard bezels as listed below. See following pages for specifications on JAN'S BEZEL ASSEMBLIES.

SHIELD CAT. NO.	FOR USE WITH C.R.T. NO.	MATCHING JAN BEZEL	
S2001 S2001-1	902 2AP 2BP	CP1110P2 CP1120P2	
S3001 adaptable for edge-lighting graticule using S3010 with Bezel CP1428✱	3RP 3RPA	CP1328-P-1 C1427-1 CP1429-1 CP1328-P2 CP1427-2 CP1429-2 CP3430-1 CP3430-2	 A=8¼ B=1⅝ A=8¼ B=1⅝
S3003 S3003-1	3KP 908A 3AP	CP1328-P1 CP1427-1 CP1429-1	Same type as S-3001, except A=10⅛ B=2
S3004 adaptable for edge-lighting graticule using S3012 with Bezel CP1428✱	3BP 3JP 3ACP	Same as S3003 Same as S3005	Same type as S-3001, except A=8⅝ B=2⅜
S3005 adaptable for edge-lighting graticule using S3008 with Bezel CP1428✱	3WP	CP1328-P2 CP1427-2 CP1429-2	Same type as S-3001, except A=10⅝ B=1⅞
S3016	3ASP		
S3019	3XP	CP-725	
S3031	3BFP		

ALL SHIELDS ARE FABRICATED WITH OVERLAPPED AND SPOT WELDED CONSTRUCTION



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SHIELD CAT. NO.	FOR USE WITH C.R.T. NO.	MATCHING JAN BEZEL
S3027	4KP 4ER	CP1533P
S4001	SC3511 4MP	CP-1533P
S5001	5UP	**CP1465** **CP13584-1** **CP13549-1** **CP13595-1** **CP19495-1** **CP446-11** **CP446-22**
S5002 adaptable for edge-lighting	5BP 5CP 5ABP 5ADP	Same as S5001 Same as S5006
S5003	5UP	CP1465 CP13584-1 CP13549-1 CP13595-1 CP19495-1
S5005 adaptable for edge-lighting	5AQP 5ABP 5ADP	**CP1465-2** **CP13549-2** **CP13584-2** **CP13595-2** **CP19495-2** **CP446-11** **CP446-22**
S5006 adaptable for edge-lighting	5RPA 5 AWP	CP1465-2 CP13549-2 CP13584-2 CP13595-2 CP19495-2

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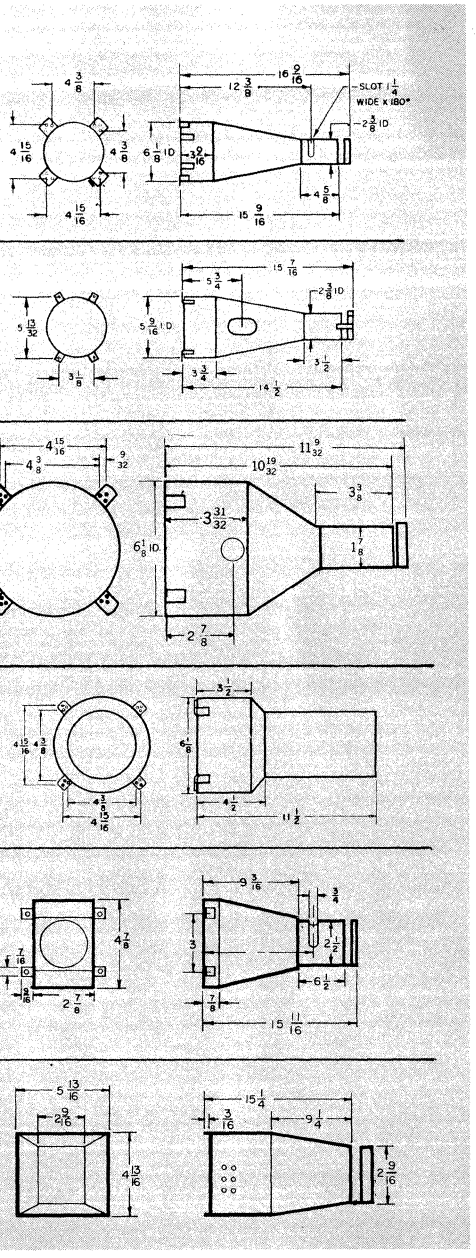
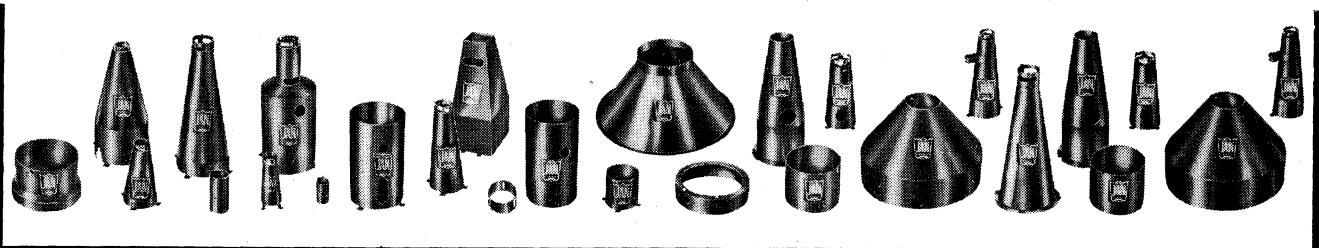
SHIELD CAT. NO.	FOR USE WITH C.R.T. NO.	MATCHING JAN BEZEL
S5008 adaptable for edge-lighting	5AMP	CP1465-2 CP13549-2 CP13584-2 CP13595-2 CP19495-2
S5017 adaptable for edge-lighting	5ABP 5ADP	CP1465-2 CP19636-2
S5027	5BTP	CP19495-2
S5032	5CEP	CP19495-2
S5500	5BXP	
S6600	6E17P	



ALL SHIELDS ARE FABRICATED WITH OVERLAPPED AND SPOT WELDED CONSTRUCTION

The service of JAN's design engineers is available to assist you with your Shield & Bezel requirements. We will design and manufacture special Shields & Bezels to customers specifications. Complete facilities for prototype work.



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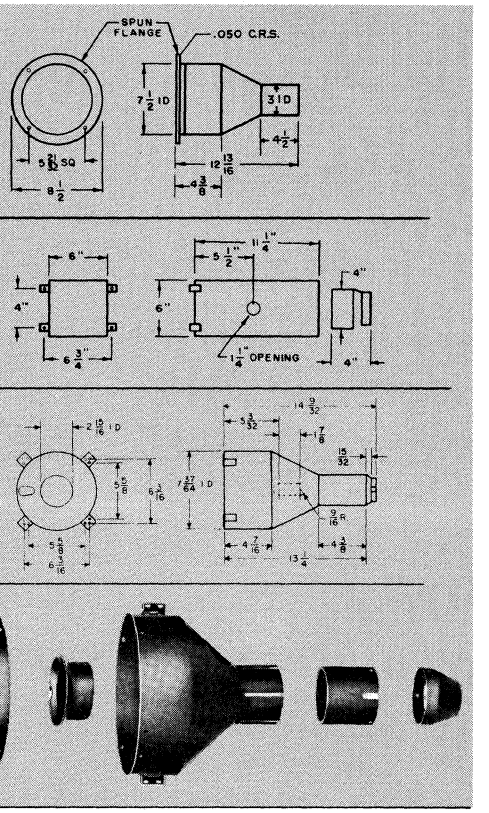
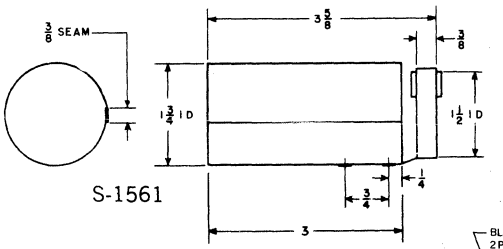
SHIELD CAT. NO.	FOR USE WITH C.R.T. NO.	MATCHING JAN BEZEL
S7001	7GP 7JP 7VP	CP7330 CP7445 CP7331 CP7550 CP7420
S7003 (Shield supplied as two separate sections)	7YP3	CP-7550
S7006	7AEP	CP7330 CP7445 CP7331 CP7550 CP7420
S10002	10KP 10WP	



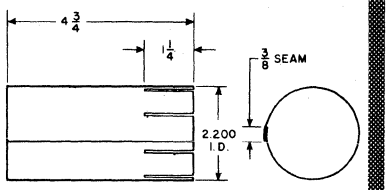
When ordering, be sure to specify CRT type number. Anode openings provided, where required.

MAGNETIC SHIELDS FOR PHOTO-MULTIPLIER & SPECIAL PURPOSE TUBES

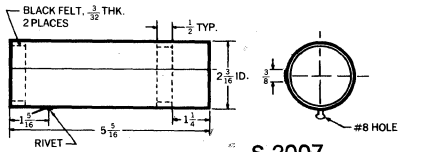
SHIELD	TUBE
S-1091	ICP1
S-1181	929 930 5581 5653 IP39 IP40
S-1500	6291
S-1561	6199 7102
S-1562	931 6323 6328 IP21 IP22 IP28
S-1563	1EP1
S-2002	6810 7264
S-2003	6903
S-2004	5819 6292 6342 6571 6655
S-2005	6372
S-2007	7850
S-2008	6217
S-3015	1197 6363
S-5013	1112
S-5018	1198 6364
S-7009	1238 1287



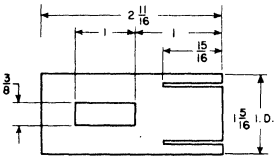
S-1561

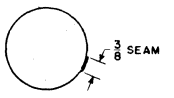


S-2004

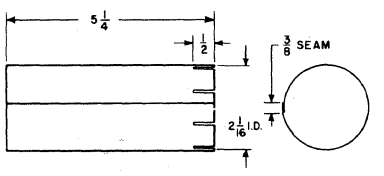


S-2007





S-1562



S-2002

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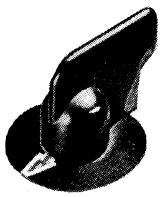
JAN HARDWARE
MANUFACTURING COMPANY, INC.

PARTIAL LIST OF GOV'T KNOBS MFG'D BY JAN

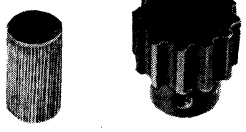
SMC 100446
SCB 104717
SMC 108874
SMC 108875
SMC 108876
SMC 108951
SMB 134093
SMB 134094
SMB 134171
SMB 134884
SMB 134957
SMB 143975
SMB 144318
SMB 144319
SMB 144358
SMB 144517
SMB 16505
SMB 16552
SMB 180288A2
SMB 180465A1
MS 25165
SMC 328371
SMC 344847
SMC 345389
SCB 35862
SCB 35863
SCB 40771
SCB 40859
SCB 40860
SMC 414393
SMC 414399
SMC 414401
SMC 414680-1 thru -10
SMD 415160
SMD 415161
SMD 415223
BU ORD 416956 PT2
SMC 447052
SMC 447226
SMB 456374
SMC 500407
SMC 502491
NAS 539 1B
NAS 539 1C
USAF 61D40474
SCB 16532
SCB 72585
SCB 72687
NAV ORD 814528
SCB 82716
SMC 91018
MS 91524
MS 91525-1 thru -4

KNOBS TO MILITARY SPECIFICATIONS

One of the largest assortment of Military Knobs in the country.

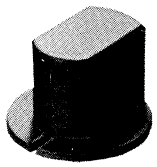


No. 1005
Available with or without skirt



No. 1006 **No. 1007**
MACHINED KNOBS

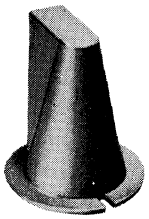
No. 1020



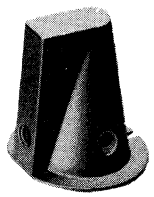
No. 1021

CAST ALUMINUM KNOBS

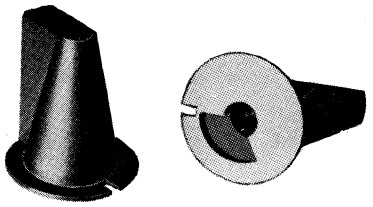
Available in black. Other colors on request. Specify shaft hole size required.



No. 1022
Full Round Skirt



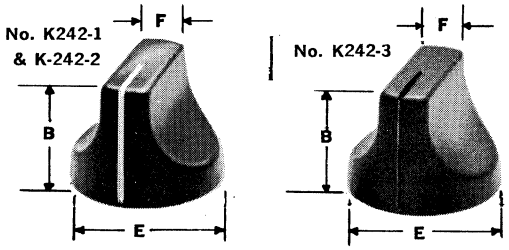
No. 1023
Flat Back Round Skirt



No. 1024
With Cam Shape Cut-out.

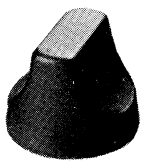
SIGNAL CORPS DIE CAST KNOBS

ZINC ALLOY



Cat. No.	B	E	F	Marking
242-1	3/4"	15/16"	5/16"	White
242-2	7/8"	1 1/8"	3/8"	White
242-3	3/4"	15/16"	5/16"	None

ALUMINUM



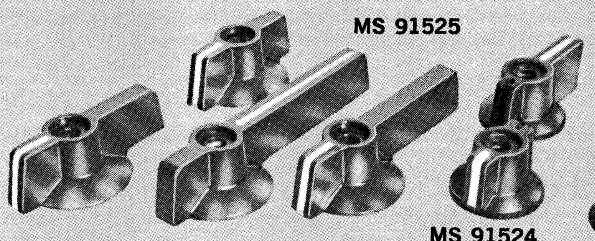
Cat. No. 984
Dimensions as per 242-3
No markings. Aluminum.

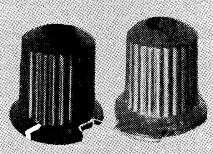
Manufactured in accordance with applicable military specifications.

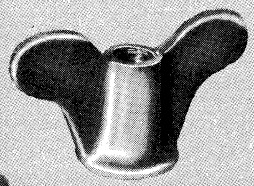
MS SIGNAL CORPS DIE-CAST ALUMINUM & ZINC ALLOY CONTROL KNOBS

Manufactured in accordance with applicable Military Specifications

Cat. No. 680







(Many sizes available. Lengths from 1 3/16" to 2 5/16").

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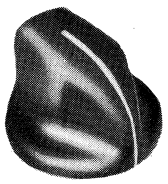
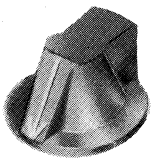
JAN HARDWARE MANUFACTURING COMPANY, INC.

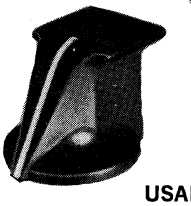
TRANSILLUMINATED POINTER KNOBS

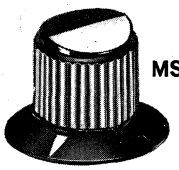


NAS 539-1B



MS25165-1





MS91528

USAF 61D 404 74

Precision molded of JAN's transparent plastic material, to NAS specs, with dull finish. Transilluminated pointers permit easy reading under subdued lighting conditions. For use on instrument panels, switchboards, electrical and electronic apparatus.

Cat. No. K936-1

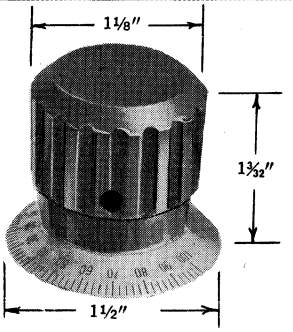
Black phenolic molded knob, with beveled satin aluminum skirt, anodized finish.

Deeply etched and filled contrasting markings.

Accurately centered brass insert, for 5/16" shafts.

Cat. No. 936-2 (1/4" shaft)

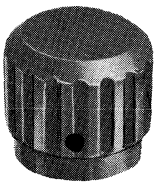
Variations on shaft sizes and markings available in production quantities.



KNOB ONLY

Cat. No. 929-1 (5/16" shaft) Same as above, less skirt

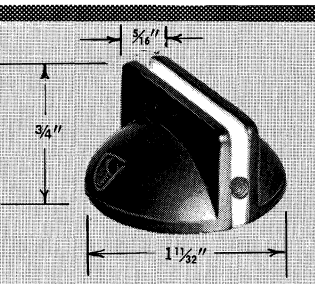
Cat. No. 929-2 (1/4" shaft)



CONTROL KNOBS

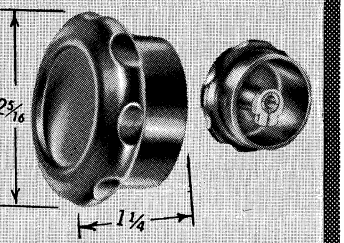
Cat. No. K-772

Positive action bar knob, furnished with protruding pin for setting of controls. Molded in Red, Yellow, Blue and Black, specify. Colors withstand MIL E-16400 environmental conditions.



TUNING KNOB Cat. No. K243

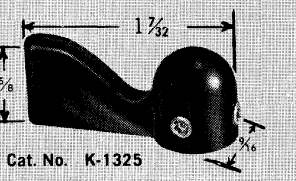
Die cast aluminum. Made to Fed. Spec. QQ-A-591 and MIL-F-14072. Mounted with no-mar clamp for 3/8" shaft.



BAR-KNOB

Cat. No. AK-1325

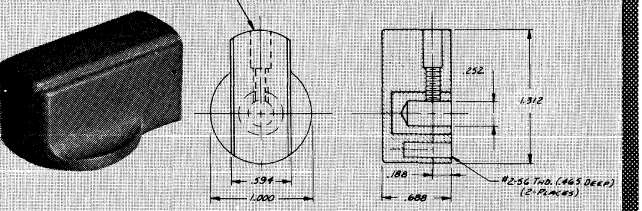
Precision cast aluminum for 1/4" shafts. Furnished with twin set screws for shaft attachment. Provides a 1.0" integrally cast lever arm for heavy-load switching. Finished to specifications.



Cat. No. K-1325

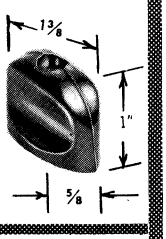
BAR KNOB Cat. No. K783

Phenolic molded knob, with metal insert. Set screw at back, for shaft attachment. Finished to specifications.



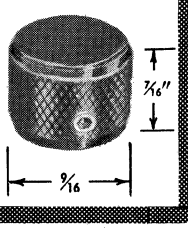
POINTER KNOB Cat. No. K-706

Molded thermosetting phenolic. Type CFG per MIL-P-14. Designed for square shaft, providing positive action.



KNOB Cat. No. K-897

Machined knurled edge for easy turning. Has set screw for firm attachment to 1/4" shafts. Height 7/16" x 9/16" diam.



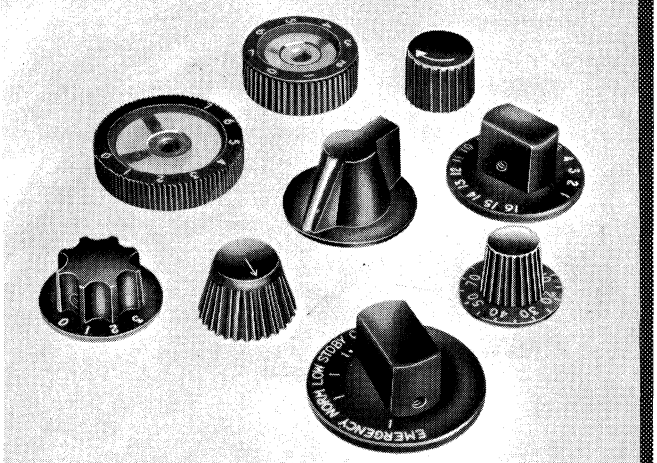
STANDARD PLASTIC KNOBS

Knobs to satisfy almost any design or demand. Can be produced in any color or finish, either illuminated or non-illuminated.

Knobs shown are only part of our stock.

Let us quote on your specifications.

Knobs Back Lighted on special request only



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JAN HARDWARE MANUFACTURING COMPANY, INC.

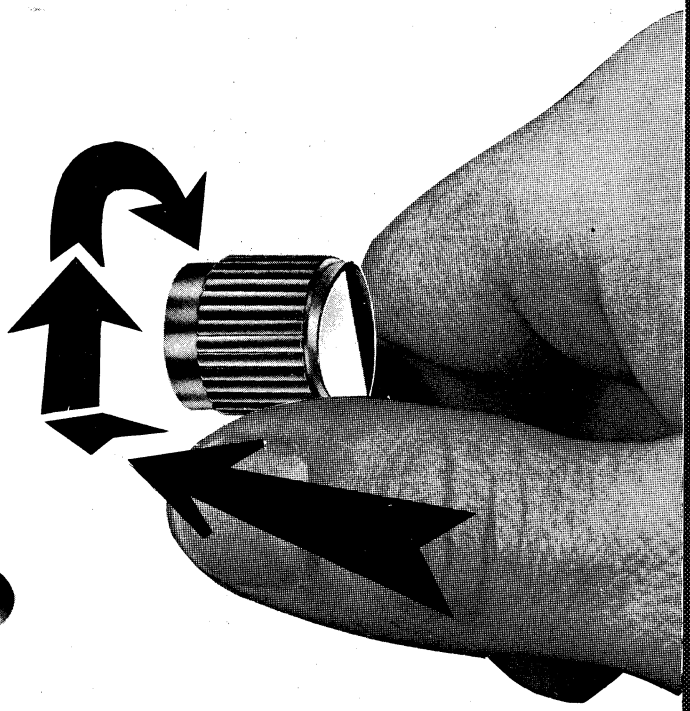
SAFETY KNOBS

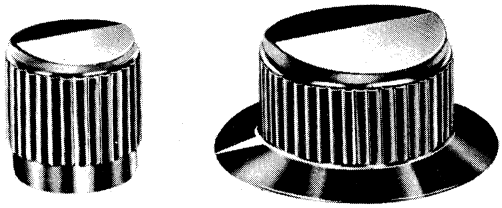
NEW!

"PRESS-TO-TURN" KNOBS.

Knobs spin freely... and **MUST BE PRESSED-IN** while making changes.

Developed specifically to prevent inadvertent changing of settings.





For basic dimensions, see our "Deluxe Instrument Knobs", (90, 125, 175 and 225 series).

SLIP-CLUTCH

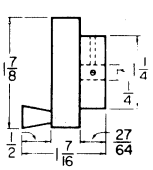
With Fixed or Retractable Spinners

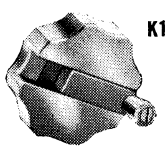
Cat. Nos. K-1375 & K-1376 (For ¼" shafts)

Designed for driving devices such as variable capacitors, inductors, potentiometers, etc., these knobs are based upon the principle of the "slip-clutch";* automatically disengaging and slipping when a pre-determined torque has been exceeded. JAN'S SLIP-CLUTCH SAFETY KNOBS are fluted to aid in sensitive adjustments and are equipped with either a fixed or retractable spinner for fast turning. Insert-molded-to-Bakelite construction provide durable, backlash-free units to safeguard delicate and costly instruments against careless or inadvertent cranking beyond their normal stops.

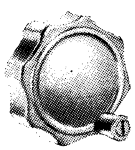
**Normally set for 2½ - 5" lbs. Can be modified for other requirements.*

Model No. K-1376 is identical with No. K-1375 but has the additional feature of a retractable spinner. Spring loading provides positive, toggle-type action to lock spinner in either open or closed position. Model No. K-1376 is designed for use where economy of space is essential.





K1376



K1375

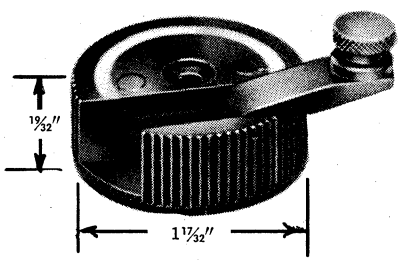
SPINNER KNOBS
With Fixed or Retractable Spinners

Cat. Nos. K-1275 & K-1276 (For ¼" shafts)

In appearance, these knobs are identical with No. K-1375 and No. K-1376 but without JAN'S Slip-Clutch mechanism. Made with single-unit, molded Bakelite-to-metal-insert construction, with two set screws for firm attachment to shafts.

Cat. No. MS 91522-1

SAFETY CRANK KNOB



Retractable Spinner. Aluminum. Olive Drab. Other colors on request. For ¼" shaft. Other shaft diameters on request.

© U.C.P., Inc.

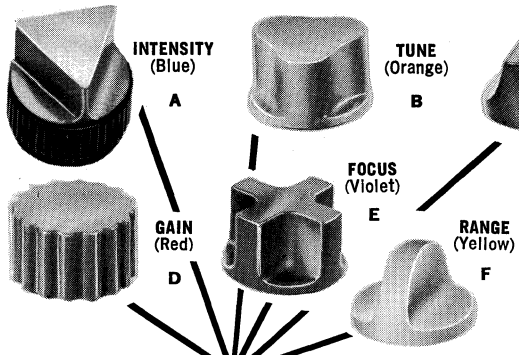
DELUXE INSTRUMENT KNOBS

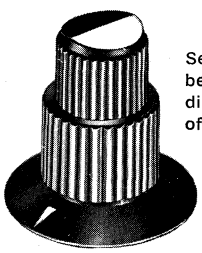
MEETS PERFORMANCE OF MIL-STD-242D (SHIPS) AND MS 91528C

JAN's Standard Instrument Control Knobs for use with electronic equipment. Molded of polycarbonate, these knobs will withstand the extreme environmental conditions of MIL-E-16400. Either knob-cap or entire knob is available in a variety of colors, in MATTE (M) or GLOSSY (G) finish. Complete range of sizes . . . send for catalog.

TACTILE SHAPE CONTROL KNOBS

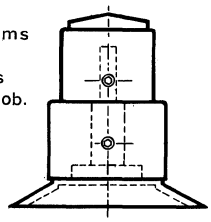
Expressly made for both visual and tactile function identification. Each Tactile knob is produced in the standard recognizable color identified with its configuration. Available in other colors on special order.
See column—below, for applicable tactile shape.





SUPER DELUXE
Aluminum Anodized Top.
(Numbering as below)

See diagrams below for dimensions of each knob.

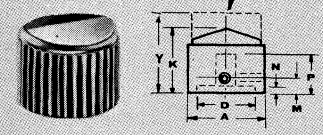


DUAL KNOBS FOR CONCENTRIC CONTROLS

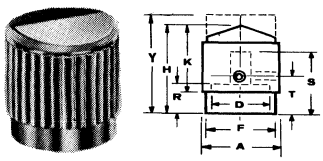
APPROVED FOR USE
MIL STD 242D and MS 91528C

Molded of polycarbonate plastic, these "piggy-back" knobs are used with dual concentric potentiometers and in other similar applications. Meet performance of military specs above.

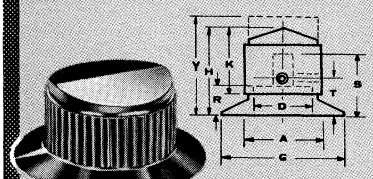
DIMENSIONS



NO SKIRT



PLAIN SKIRT



DIAL SKIRT

PART NO.	A	D	F	G	H	K	M	N	P	R	S	T	Y
5 1 A †	.505	.302				.509	.158	.026	.408				
7 1 A	.708	.486				.626	.158	.026	.406				.915
9 1 A	.911	.645				.798	.255	.114	.521				1.171
12 1 A	1.255	.974				.703	.260	.115	.458				1.220
17 1 A	1.755	1.465				.854	.255	.114	.521				
22 1 A	2.255	1.870				.885	.255	.114	.521				
5 1 B †	.505	.302	.450		.660	.509				.181	.563	.324	
7 1 B	.708	.486	.670		.805	.626				.188	.568	.340	1.100
9 1 B	.911	.654	.826		1.027	.798				.323	.730	.484	1.399
12 1 B	1.255	.974	1.155		.870	.703				.262	.605	.427	1.399
17 1 B	1.755	1.465	1.666		1.088	.854				.333	.740	.489	
22 1 B	2.255	1.870	2.153		1.114	.885				.333	.740	.489	
5 1 C †	.505	.302		.885	.660	.509				.181	.563	.324	
7 1 C	.708	.486		1.135	.805	.626				.188	.568	.340	1.100
9 1 C	.911	.645		1.510	1.027	.798				.323	.730	.484	1.399
12 1 C	1.255	.974		1.822	.870	.703				.262	.605	.427	1.399
17 1 C	1.755	1.465		2.453	1.088	.854				.333	.740	.489	
22 1 C	2.255	1.870		3.005	1.114	.885				.333	.740	.489	

SPECIFY AS REQUIRED

† Not suitable for 1/4"

1 TOP (Color or Tactile)	2 BODY DIA.	3 BODY STYLE	4 SKIRT	5 SHAFT HOLE DIA.	6 FINISH	7 COLOR
O=NO TOP	5=.51	1=ROUND	A=NONE	2=.128	M=MATTE	A=BLACK
*T=STANDARD	7=.72	2=POINTER	B=PLAIN	3=.190	G=GLOSSY	B=RED
A=(INTENSITY—Blue)	9=.90		C=DIAL W/ POINTER	4=.253		C=GREY
B=(TUNE—Orange)	12=1.25		D=DIAL W/O POINTER	5=.312		D=GREEN
C=(DIMMER-White)	17=1.75			6=.375		E=YELLOW
D=(GAIN—Red)	22=2.25			7=.268		F=PURPLE
E=(FOCUS—Violet)						G=BLUE
F=(RANGE—Yellow)				"D" FLAT SHAFT HOLES		H=WHITE
				B=.107 (3/32")		J=ORANGE
				D=.222 (1/4")		

M=ALUMINUM ANODIZED TOP

TYPICAL PART NUMBERS

91C4GA=.90 Dia./Round/Dial/1/4"/Glossy/Black
A71B4MA=Triangle Top Blue/.72/Round/Plain/1/4"/Matte/Black
BA71B4MA=Triangle Top Red/.72/Round/Plain/1/4"/Matte/Black
BT71B4MA=Standard Top Red/.72/Round/Plain/1/4"/Matte/Black
O71B4MA=No Top/.72/Round/Plain/1/4"/Matte/Black
(Specify whether Hole is drilled thru for Dual Knob Mounting)**

***—Specify if .127, .190, .250 hole is required for dual mounting*

*NOTE: *T—Preceded by color code (BT—would mean Standard RED top)*

IF WHITE DOTS ARE REQUIRED—ADD SUFFIX WD TO CATALOG NO.
FOR SPECIAL KNOBS—GIVE FULL DESCRIPTION OR SKETCH WITH ORDER.

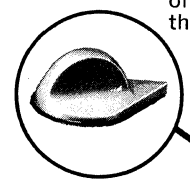
© U.C.P., Inc.

DELUXE INSTRUMENT KNOBS

MEETS PERFORMANCE OF MIL-STD-242D (SHIPS) AND MS 91528C

JAN's Standard Instrument Control Knobs for use with electronic equipment. Molded of polycarbonate, these knobs will withstand the extreme environmental conditions of MIL-E-16400. Either knob-cap or entire knob is available in a variety of colors, in MATTE (M) or GLOSSY (G) finish. Complete range of sizes . . . send for catalog.

POINTER KNOBS



POINTER

POINTER WITH SKIRT

DIMENSIONS

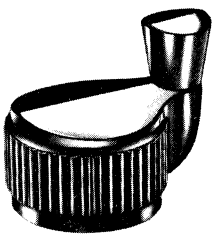
PART NO.					A	D	F	H	K	M	N	P	R	S	T	Y
5	2	A	†	SPECIFY AS REQUIRED	.750	.406			.505	.158	.026	.402				
7	2	A			1.038	.486			.619	.187	.026	.406				.918
9	2	A			1.344	.645			.796	.255	.114	.555				1.171
5	2	B	†		.750	.406	.669	.655	.505			.402	.177	.563	.324	
7	2	B			1.038	.486	.940	.791	.619			.406	.193	.573	.364	1.100
9	2	B			1.344	.645	1.251	1.015	.796			.555	.328	.796	.479	1.400

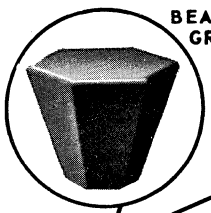
1 TOP (Color or Tactile)	2 BODY DIA.	3 BODY STYLE	4 SKIRT	5 SHAFT HOLE DIA.	6 FINISH	7 COLOR
G=(RANGE–Yellow)	5=.51 7=.72 9=.90	2=POINTER	A=NONE B=PLAIN C=DIAL W/ POINTER D=DIAL W/O POINTER	2=.128 3=.190 4=.253 5=.312 6=.375 7=.268	M=MATTE G=GLOSSY	A=BLACK B=RED C=GREY D=GREEN E=YELLOW F=PURPLE G=BLUE H=WHITE J=ORANGE

† Not suitable for ¼"

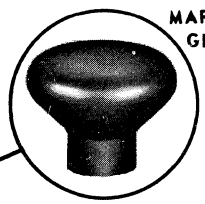
"D" FLAT SHAFT HOLES
B=.107 (⅛")
D=.222 (¼")

TYPICAL PART NUMBERS
72B4MA=Regular Top
G72A4MA=Tactile Top



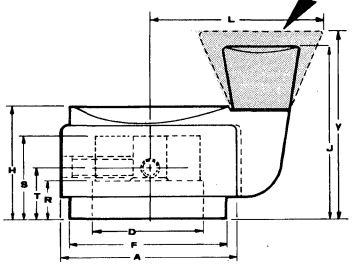


BEARING GRAY



MARKER GREEN

CRANK KNOBS



PART NO.				A	D	F	H	J	L	P	R	S	T	Y
12	4	B	SPECIFY AS REQUIRED	1.250	0.685	1.185	.850	1.350	1.275		.250	.605	.427	1.475
17	4	B		1.750	0.685	1.690	1.070	1.758	1.735		.320	.740	.489	1.940
22	4	B		2.250	0.685	2.185	1.095	1.782	1.970		.320	.740	.489	1.970

1 TOP (Color or Tactile)	2 BODY DIA.	3 BODY STYLE	4 SKIRT	5 SHAFT HOLE DIA.	6 FINISH	7 COLOR
H=GREEN J=GREY	12=1.25 17=1.75 22=2.25	4=SPINNER	B=PLAIN	4=253	M=MATTE G=GLOSSY	A=BLACK B=RED C=GREY D=GREEN E=YELLOW F=PURPLE G=BLUE H=WHITE J=ORANGE

TYPICAL PART NUMBERS
J174B4MA=Grey Tactile Handle
124B4MA=Standard Handle

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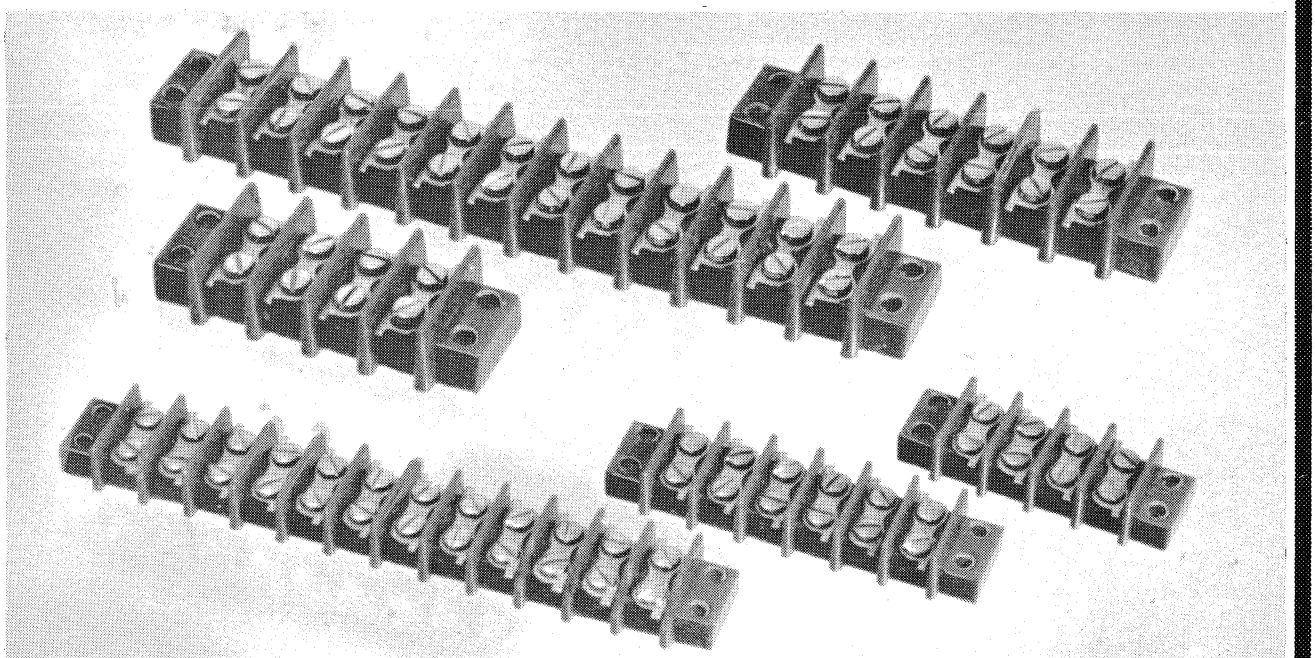
JAN HARDWARE MANUFACTURING COMPANY, INC.

IMPORTED PRODUCTS

Commercial Knobs — Available for Radio and HI-FI applications.



Terminal Blocks — Equally Spaced Terminals. Equipped with single screw surface connections.

© U.C.P., Inc.

JAN HARDWARE MANUFACTURING COMPANY, INC.

JOLTA SHOCK TEST MACHINES

For reproducible impact-shock test pulses

Four models engineered to reproduce the entire spectrum of all significant impact shock waves.

Designed for laboratory and production testing of light to medium weight components as well as complete instrumentation. Produced to meet practically all requirements of common Mil. Spec. qualification tests. Each JOLTA is electronically calibrated to certify compliance with test specifications.

JOLTA — Bench Model No. 1001 — Produced to meet JAN-S-44 & Mil-Std. 202 (202A). Standard model range-30-120G. Accessory plate springs available for test pulses to 500 G.

JOLTA — Bench Model No. M-500 — Produced to meet Mil-T-12679A (Sig. C) and Mil. T-19500A. Standard model range —200 to 1000 G at 1.0 millisecs. Alternate anvil and pad kits available to order.

JOLTA—Floor Model Nos. F-3003-C1, C2, C-3—Designed for high impact shock testing for small and moderate-sized components. Precision-machined magnesium casting utilized for higher shock amplitudes. Typical tests with these units 50 to 5000 G at .2 to 11.0 millisecs. For high impact testing, accessory springs and twin anvil combinations yield impulses of 0.2 millisecs to 5000 G.

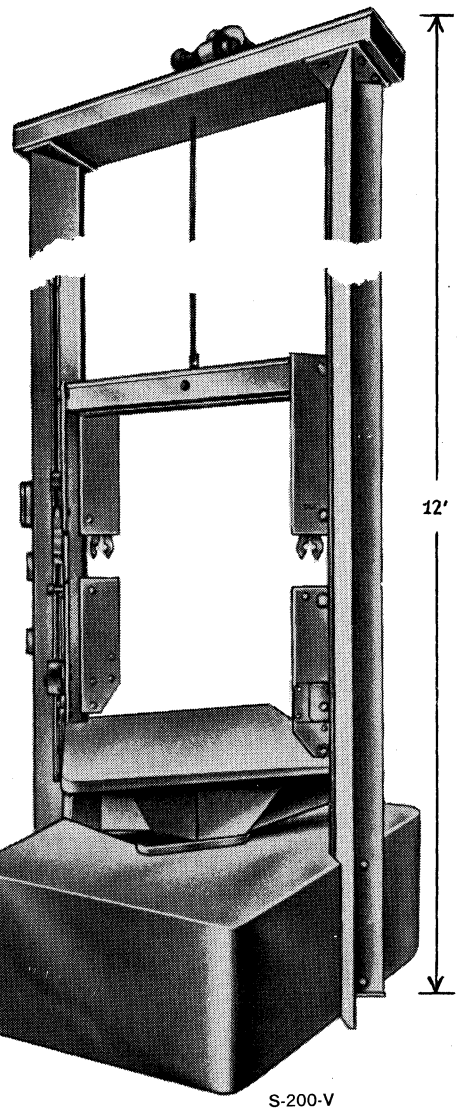
Note: New design allows for quick changeovers of accessories.

FEATURES

- Economical
- Simple to operate
- Rugged
- Uniformly accurate

JOLTA UNIVERSAL SHOCK TESTERS
No. S-200-V

A functionally engineered test machine for large components and complete instrumentation. Accepts specimens up to 200 lbs. and volume of 2 cubic feet. Standard model provides pulses of from 20 to 250 G at 3.0 to over 30.0 millisecs.

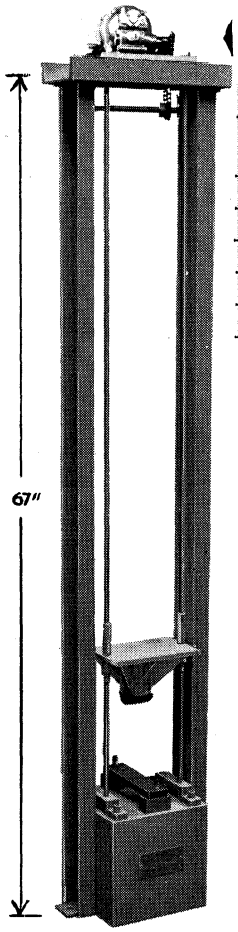


S-200-V

For Production Testing, JAN's Jolta Shock Test Machines can be automated for continuous operation.

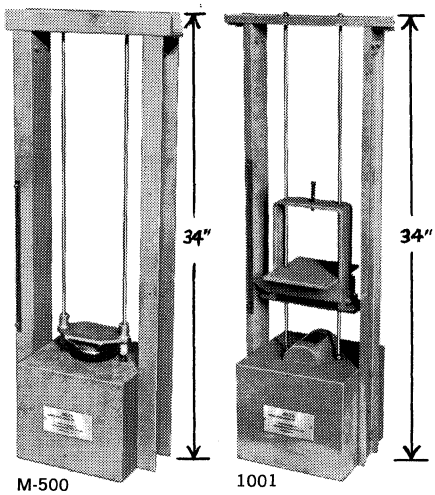
SPECIFICATIONS — JOLTA SHOCK TESTERS

Model No.	Carriage Volume	Test Weight	"G" Ranges
1001	4" x 4" x 5"	0-12 lbs.	25-500
M-500	3" cube	0-2.0 lbs.	100-1000
F-3003-C-1	5" cube	0-12 lbs.	50-1500
F-3003-C-2	5" cube	0-4.0 lbs.	350-5000
S-200-V	2 Foot cube	0-200 lbs.	20-250



F-3003-C

NEW! Plastic impact pad for clean 1/2 MS-2000 G impact shock.



M-500 1001

Free engineering services available to customers where adaptation or conversion of standard machines are needed to meet Mil. Spec. changes or other special needs.

© U.C.P., Inc.

THE TENNA MANUFACTURING CO. INC.

RANGER® *UNIVERSAL* ALL TRANSISTOR AUTO RADIOS

FOR ALL CARS, TRUCKS, BOATS & TRACTORS
PUSH-BUTTON and MANUAL — 6 VOLT & 12 VOLT

A WIDE RANGE OF SOUND — QUALITY BRANDED

● **ALL TRANSISTOR CIRCUITRY** on an etched board for total performance. Perfectly mated components assure constant uniformity of high quality sound. Low current consumption, low heat generation and minimum car battery drain.

● **AUTOMATIC VOLUME CONTROL** provides constant comfort-level listening regardless of the frequent and annoying changes in signal level.

● **CONTINUOUSLY VARIABLE TONE CONTROL** allows precision adjustment of both high and low frequencies, so that bass and treble may easily be adjusted to the individual choice of the listener.

● **WIDE RANGE SPEAKERS** — distortion is at a minimum, yet there is a greater dimension to the highs and a wonderful depth to the lows. Voice clarity is particularly evident.

● **FIVE QUICK-SET PUSH BUTTONS** mean instantaneous, finger-tip station tuning. They are a snap to adjust to the exact frequencies of your five favorite stations.

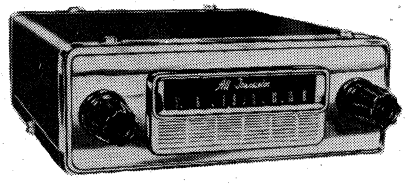
● **SIMPLIFIED INSTALLATION** — designed with careful attention to detail. Installs in a matter of minutes. Conveniently located antenna trimmer, with which a front or rear custom antenna can be tuned wih equal ease.

● **SEVEN AND EIGHT TUNED CIRCUITS,** including RF stage, give maximum sensitivity and selectivity in station choice. Local, as well as certain distant stations, can therefore be brought in with utmost clarity.

● **BUILT-IN RELIABILITY** — repeated quality control checks on all components and circuits, both in the factory and in the field, guarantee that these auto radios are engineered and manufactured to the highest standards of quality.

FULL TWO YEAR GUARANTEE

Note: Custom Installation Kits Available — Write for catalog

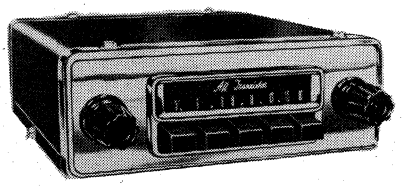


UNIVERSAL MANUAL
Model RR-1-M

12 Volt Negative Ground (5 transistors 2 diodes)

List: $29.95

Shipping wt. 5 lbs.

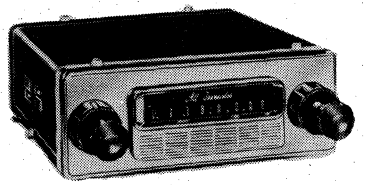


UNIVERSAL PUSH-BUTTON
Model RR-2-PB

12 Volt Negative Ground (5 transistors 2 diodes)

List: $49.95

Shipping wt. 6 lbs.

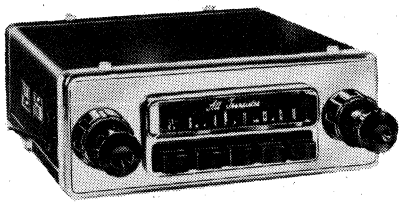


DELUXE MANUAL
Model RR-3-M

6-12 Volt Negative or Positive Ground (6 transistors 2 diodes)

List: $39.95

Shipping Wt. 6 lbs.

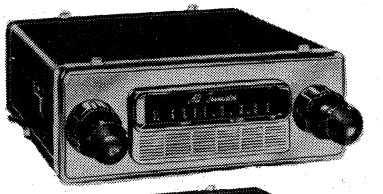


DELUXE PUSH-BUTTON
Model RR-4-PB

6-12 Volt Negative or Positive Ground (6 transistors 2 diodes)

List: $54.95

Shipping Wt. 6 lbs.

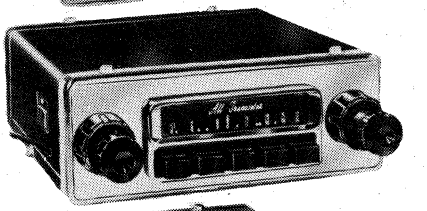


UNIVERSAL MANUAL
Model RR-6-M

12 Volt Negative Positive Ground with Polarity Switch (6 transistors, 2 diodes)

List: $39.95

Shipping Wt. 5 lbs.

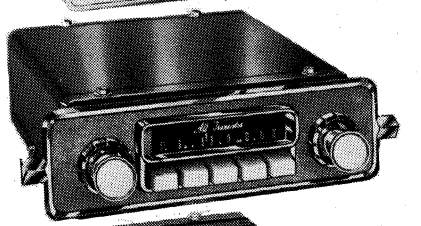


UNIVERSAL PUSH-BUTTON
Model RR-7-PB

12 Volt Negative Positive Ground with Polarity Switch, (6 transistors, 2 diodes)

List: $54.95

Shipping Wt. 6 lbs.



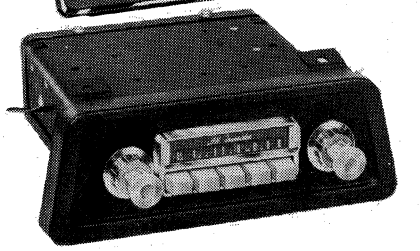
FOR VOLKSWAGEN CARS
Model RV-8-PB
For 1958 - 1966 Models

(except Volkswagen 1500)

A deluxe push-button radio with antenna to match for a complete custom installation.

List: $59.95

Shipping Wt. 6½ lbs.

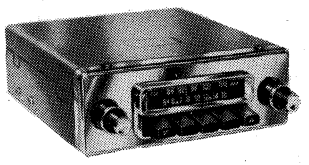


FOR VOLKSWAGEN 1500 CARS
Model RV-16-PB

The custom built radio for the Volkswagen 1500 car. Deluxe push-button model with antenna to fit for a complete custom installation.

List: $59.95

Shipping Wt. 6½ lbs.

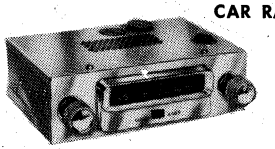


AM/FM *UNIVERSAL*

Pushbutton car radio with unique push-in control for constant volume level. Fits in-dash or under—accommodates custom trim plates—11 transistors, 8 diodes, 2 thermistors, 7 AM tuned circuits and 9 FM tuned circuits — 12 volt neg. pos. ground.

Model RR-FM
List.....$79.95

6/12 VOLT UNIVERSAL AM CAR RADIO



Manual reverse polarity in-dash or under—complete unit needs no trim plates, removable face plate can be used for in-dash installation. Built in permanent magnet speaker — plus external speaker jack — 7 transistors, 2 diodes.

Model RR-20M.....List.....$29.95

TRUCK ROOF MOUNT

Fits all trucks, all models. Can be used on tractors and boats. Includes antenna — transferable from one vehicle to another—by addition of RTK-9 kit.

Model RT-9-M
List $49.95

12 volt neg./pos. ground

PLAY-MATE In-out Portables

AM/FM PORTABLE R-501

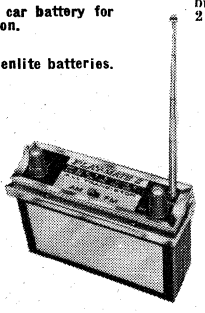
For cars, boats, trucks, tractors or house trailers. Installed like any car radio — used like any portable.

- **Locks in, operates on car battery for perfect in car reception.**
- **Key releases it.**
- **Portable: plays on 4 penlite batteries.**

6/12 volt neg./pos. ground. Black leatherette case with sparkling chrome and brushed aluminum, built-in antenna, 10 transistors, 6 diodes.

Model R-501 AM/FM

List.....$69.95



AM PORTABLE R-502

6/12 volt neg. pos. ground accepts rechargeable batteries. Black and Gold finish—with built-in antenna. 8 transistors, 2 diodes.

Model R-502 AM
List $49.95

Trade Discount Applies To List Prices Only

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RANGER®

The Hot Line

a new concept in auto radios & sound systems

QUALITY BRANDED — A WIDE RANGE OF SOUND

Introducing The World's First compatible 4 & 8 track

CAR STEREO TAPE PLAYER

Model RR-40-T

12 Volt Neg./Pos. Ground

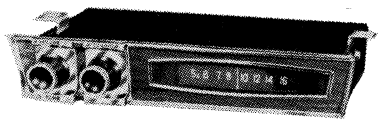
DIMENSION 48

PLAYS BOTH 4 AND 8 TRACK STEREO AND MONAURAL TAPES

- **FULLY AUTOMATIC** — Insertion of either 4 or 8 track cartridge activates appropriate mechanism and plays instantly — no extra switches or levers to operate — removal of the cartridge switches the unit off.
- **HIGH STYLING IN A COMPACT CASE** — Attractive black and chrome front piece enhances any automobile interior — the compact unit (1½" high x 7⅞" wide x 8" deep) may be mounted from either top or bottom — universal brackets permit a choice of 10 mounting angles.
- **ELECTRONIC PROGRAM SELECTION** — Channel automatically transfers at the end of each program — remote control circuit permits program changes by operating optional foot switches of "selector" bar — illuminated dial indicates the channel that is playing.
- **DUST-PROOF DOOR** — Seals cartridge opening when player is not in use to protect precision parts from harmful dust — swings away when cartridge is inserted — an additional door is conveniently located on top for cleaning of these parts.

Model RR-40T ..... **List**.....**$129.95**

ALL NEW UNDER-DASH CAR RADIOS AND SOUND SYSTEMS

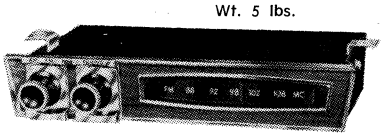


AM CAR RADIO

New superb quality in a completely self contained universal AM radio. Excellent audio, continuously variable tone control. Built-in speaker-solid state, AVC, 6/12 volt pos/neg ground, 6 transistors, 2 diodes. Installs easily under dash with 2 screws and adjustable bracket. Size 1⅞" x 4½" x 9".

Model RR-18-M ..... **List**.....**$39.95**

Wt. 5 lbs.

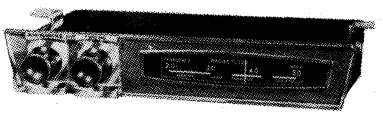


FM CONVERTER

Converts any existing 12 volt AM radio to FM band. AM/FM switch for instant selection, Multiplex plug, easy under dash mount AFC, 12 volt, neg/pos ground, 6 transistors, 8 diodes, Solid State. Size 1⅞" x 4" x 9".

Model RR-21FC ..... **List**.....**$49.95**

Wt. 4 lbs.

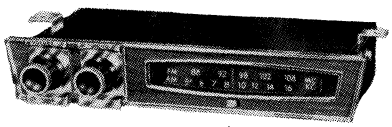


MARINE/ SHORT WAVE CONVERTER

Converts any AM radio to Marine/Shortwave reception. Selector switch allows instant selection of Marine, shortwave or AM programming, 12 volt neg ground, 3 transistors and 1 diode. RF stage permits drift free reception. Solid State. Size is 1⅞" x 4" x 9".

Model RR-30MC ..... **List Price**.....**$39.95**

Wt. 4 lbs.

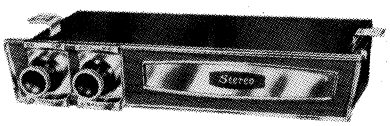


AM/FM CAR RADIO

Complete AM/FM auto radio in a compact under dash unit. Selector slide switch, Multiplex plug-in continuously variable tone control, external 5 x 7" speaker. Easy to mount under dash with 2 screws and adjustable bracket AVC, 12-volt, neg/pos ground, 11 transistors, 8 diodes, Solid State. Size 1⅞" x 4½" x 9".

Model RR-19FM ..... **List**.....**$79.95**

Wt. 6 lbs.



FM MULTIPLEX

Converts any AM/FM radio or FM converter to Stereophonic sound, dual channel controls, balance control, Hi Fi audio circuit, Solid State, Red "reminder light" indicates when unit is on. "Stereo" is illuminated in green when station is broadcasting Stereo Sound. Easy under dash mount and bracket. Size is 1⅞" x 6" x 10".

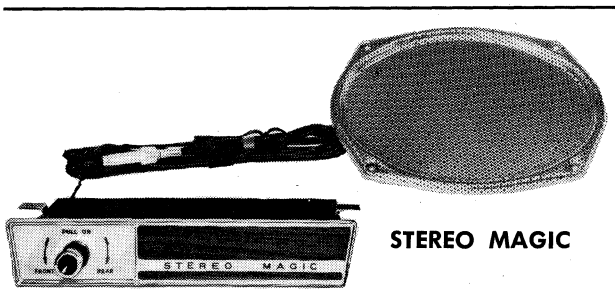
Model RR-23MX ..... **List**.....**$99.95**

Wt. 6 lbs.

TUNEABLE REVERBRATION UNIT

Verb-a-tone control, electronic tuning control custom fits the sound to your car . . . to your ear. Ruby indicator light reminds you when reverb is "on". Universal, matches all car speakers, no transformer required and solid state, 12 volt neg/pos ground, peak audio output 4 watts. Size 1⅞" x 4" x 9".

Model RR-22-R complete with 6 x 9" speaker and grille. Wt. 6 lbs... **List..$29.95**
Model RR-22-R6 complete with 6" round speaker. Wt. 6 lbs..... **List..$29.95**
Model RR-22-RO reverb unit less speaker. Wt. 4 lbs. ..... **List..$25.95**



STEREO MAGIC

REVERBRATION UNITS

The first under-dash reverb pioneered by Ranger called Stereo-Magic has all adjustable features of the above units with wood grained front plate for sparkling under dash installation. Fader command built-in solid state, can be used with any car radio AM, AM/FM, 12 volt. It's the nearest thing in Stereo in your car.

Model RR-13R with 6 x 9" speaker and grille. Wt. 4 lbs..... **List**.....**$29.95**
Model RR-14R with 6" round speaker. Wt. 4 lbs..... **List**.....**$29.95**
Model RR-15R no speaker. Wt. 3 lbs..... **List**.....**$25.95**

TRUNK MOUNT REVERB

The original reverb with switch plate only mounted under dash. Transducer box mounts in rear of car. Equipped with fader command and "jewel light" indicator lamp, Solid State.

Model RR-10-R with 6 x 9" speaker and grille. Wt. 6 lbs..... **List**.....**$29.95**
Model RR-11-R with 6" round speaker. Wt. 6 lbs..... **List**.....**$29.95**
Model RR-12-R with out speakers. Wt. 5½ lbs..... **List**.....**$25.95**

THE TENNA MANUFACTURING CO. INC.

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RCA CITIZENS' BAND RADIO

THE RCA MARK 10 ALL TRANSISTOR CB 2-WAY RADIO

The RCA MARK 10 is the latest in a long line of quality 2-way radios from RCA. Fully transistorized, the MARK 10 draws only a fraction of the current required to power tube units making it particularly useful for installation in automobiles and other vehicles. Because the MARK 10 uses all silicon transistors, dependable performance is assured at operating temperatures ranging from −23 degrees to +130 degrees F.

Among a host of operating features, the versatile RCA MARK 10 has provision for public address use with a PA switch on the front panel and an external speaker jack which de-activates the internal speaker. The MARK 10 may be connected to a standard 12-volt DC power source with either positive or negative ground. A separate, voltage-regulated matching AC power supply with auxiliary speaker is available for connection to a 120-volt AC, 60 cycle power source.

source.

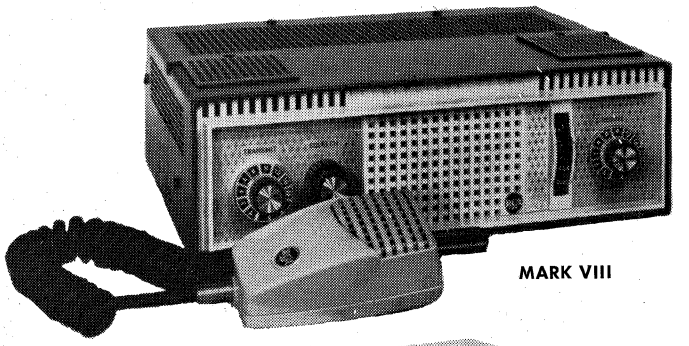
MARK 10 TRANSCEIVER **$189.95***
(RCA type CB-2601A complete)

MARK 10 ac POWER SUPPLY ..... **$ 40.65***
(RCA type CB-2602A complete)

FEATURES

- 12 crystal-controlled transmit and receive channels with illuminated channel selector
- All silicon transistors—provides dependable communications at temperatures ranging from −23 degrees to +130 degrees F
- Combination "S" meter and relative RF output meter
- Operates from 12-volts DC power source (positive or negative ground)
- Regulated receiver power section for maximum stability
- 3-watt public address system with volume level fully controllable by receiver volume control
- External speaker jack (de-activates internal speaker)
- Crystal-controlled double conversion, superheterodyne receiver provides frequency accuracies greater than 0.004%
- Separate AGC amplifier eliminates blasting and overloading and minimizes fading
- Six stage IF bandpass filter for maximum selectivity without ringing
- Low distortion, series type automatic noise limiter
- Acoustically designed cabinet with audio characteristics shaped for maximum intelligibility
- Full 5 Watt** transmitter
- Rugged metal cabinet
- Compact, lightweight—only 3⅜" high, 5¾" deep, 8½" wide—weighs less than 4½ lbs.
- Comes complete with push-to-talk ceramic microphone with coiled cord, and a trunnion-type mobile mounting bracket

** Maximum input power to final radio frequency stage as defined by FCC regulations



MARK VIII

The RCA Mark VIII

- **9 crystal-controlled transmit and receive channels**
- **Tuneable receiver for reception of 23 C-B channels, dial marked in both channel numbers and frequency**
- **Exceptionally good voice reproduction**
- **Highly selective superheterodyne receiver with one rf and two if amplifier stages**
- **Electronic switching—no relay noise or chatter**
- **Illuminated "working channel" feature**
- **Light and compact—only 3½ inches high, weighs only 8 pounds with mike; fits easily under the dashboard of even a compact car**
- **Improved Automatic Noise Limiter to reduce effects of ignition and similar interference**

MARK NINE

The RCA Mark Nine

- **Combination "S" Meter and Relative RF Output Meter. "S" Meter indicates the relative strength of incoming signal in "S" units. RF Output Meter (EO) indicates relative strength of the signal being transmitted.**
- **Spotting Switch. Permits precise manual tuning of receiver without use of receiver crystals. Receiver can be tuned (or "spotted") quickly to any incoming channel for which you have a transmit crystal.**
- **External Speaker Jack. Lets you connect an external speaker to the set, so incoming calls can be heard at remote locations.**

MARK VIII TRANSCEIVER ..... **$ 99.95***
(RCA type 17704 complete)

MARK NINE TRANSCEIVER **$114.50***
(RCA type CB-2600A complete)

DC POWER SUPPLY FOR MARK VIII OR MARK NINE ..... **$ 19.95***
(6 or 12 volt)

*Optional distributor resale price

Net

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APPLICATIONS • CHASSIS PARTS AND KNOBS

Make and Radio Model No.	Year	Description	Service Bulletin Number	Transistor	Resistor Fuse Type	Bias Control	Filter Capacitor	Speaker	AM	I.F. Coils	Audio Transformers		Volume Control	Knobs		
									1st	2nd	Input	Output		Control	Dummy (or Sensitivity)	Tone
BUICK																
981968	1959	Push Button	6D-946	DS501	7281890	1221422	7273847	6109	1221257	1221253	7272822	7273626	7273993	1186745	1186766	1186767
981969	1959	Wonder Bar	6D-947	DS501	7281890	1221422	7273847	6109	1221257	1221253	7272822	7273626	7272797	1186745	1186766	1186767
981970	1959	Auto-Portable	6D-948	DS501	7281890	7273796	7273793	[1] 7273926 [2] 6109	7274341 [4] 7273761	7273760 [5] 7273762	7273764	[1] 7273765 [2] 7273626	[1] 7274634 [2] 7273848	1186745	1186766	1186767
														[3] 7273881—Tuning		
														[3] 7273822—Volume		
980051	1960	Push Button	6D-949	DS501	7271375	1221422	7273847	1194080	1221257	1221253	7272822	1221428	7275219	1192976	1192588	1192589
980052	1960	Wonder Bar	6D-9001	DS501	7281890	1221422	7273847	1194080	1221257	1221253	7272822	1221428	7275219	1192976	1192588	1192589
980132	1961	P.B. Special	6D-9002	DS503	7276499	7275474	7273730	7276434	1221257	1221253	1221590	1221499	7276561	1192976	1192588	1102589
980134	1961	Push Button	6D-9003	DS501	7281890	1221422	7273847	6109	1221257	1221253	7272822	1221522	7277155	1199769	1199714	1199714
981035	1961	Wonder Bar	6D-9004	DS501	7281890	1221422	7273847	6109	1221257	1221253	7272822	1221522	7277155	1199769	1199714	1199714
980296	1962	Push Button	6D-9005	DS501	7281890	1221422	7283675	7277408	1221856	1221618	7277230	1221522	7279987	1250613	1350614	1350614
980297	1962	Wonder Bar	6D-9006	DS501	7281890	1221422	7273775	7277408	1221257	1221253	7272822	1221522	7279597	1250613	1350614	1350614
980316	1962	P.B. Special	6D-9007	DS503	7276499	7275474	7283675	7276434	1221856	1221618	1221590	1221535	7280042	1192976	1192588	1192589
980462	1963	Push Button	6D-9008	DS501	7281890	1221422	7282272	[3] 6127 / 6126	1221856	1221857	7280915	1222297	1221978	1355878	1355481	1355481
980463	1963	Wonder Bar	6D-9009	DS501	7281027	1221422	7283675	[3] 6127 / 6126	1221856	1221857	7280915	1222297	7282338	1355878	1355481	1355481
980464	1963	P.B. Special	6D-9011	DS503	7276499	7275474	7282272	6127	1221856	1221857	7280915	7282057	1221994	1355878	1355407	1355408
980626	1963	FM-AM	6D-9010	DS501	7281890	1221422	7283675	[3] 6127 / 6126	1221858	1221859	7283586	1222297	7284625	1355878	1355481	1355481
980649	1964	P.B. Special	6D-1964-1	DS503	7287480	7286601	7282272	6128	1221856	1221857	—	7282057	7285845	1363435	1366676	1366676
980655A	1964	Push Button	6D-1964-1	DS501	7286602	7286601	7282272	6127	1221856	1221857	—	1222297	7286594	1355878	1355481	1355481
980657	1964	Wonder Bar	6D-1964-2	DS501	7286602	7286601	7283675	6127	1221856	1221857	—	1222297	7286608	1355878	1355481	1355481
980659	1964	FM-AM	6D-1964-2	DS501	7286602	7268601	7283675	6127	1221858	1221859	—	1222297	7290522	1355878	1355481	1355481
7289714	1965	P.B. Special	6D-1965-1	DS503	7287480	7286601	7292515	6128	1221856	1221857	—	7282057	7285845	1370815	1370801	1370801
7289734	1965	P.B. Buick	6D-1965-1	DS501	7286602	7286601	7291786	6129	1221856	1221857	—	1222297	7292865	1370815	1371764	1369113
7285424	1965	P.B. Riviera	6D-1965-1	DS501	7286602	7286601	7291786	6129	1221856	1221857	—	1222297	7291951	1370756	1370850	1370850
7289754	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7292865	1370815	1371764	1369113
7285444	1965	W.B. Riviera	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7292201	1370756	1370850	1370850
7289774	1965	AM-FM Buick	6D-1965-1	DS501	7281890	7286864	7283675	6129	7288144	1221859	—	7289634	7291409	1370815	1371764	1369113
7288794	1965	AM-FM Riviera	6D-1965-1	DS501	7281890	7286864	7283675	6129	7288144	1221859	—	7289634	7291544	1370756	1370850	1370850
7283604	1966	P.B. Special	6D-1966-1	DS503	7287480	7286601	7292515	6129	1221856	1221857	—	7282057	7294493	1376892	1376900	—
7293614	1966	Push Button	6D-1966-1	DS501	7281890	7286601	7291786	6129	1221856	1221857	—	1222297	7294703	1376892	1376883	1376884
7293654	1966	P.B. Riviera	6D-1966-1	DS501	7281890	7286601	7291786	6129	1221856	1221857	—	1222297	7294151	1374934	1374935	1374935
7293914	1966	AM-FM Special	6D-1966-1	DS501	7281890	7286601	7283675	6129	7295169	7295170	—	1222297	7295837	1376892	1376900	—
7283634	1966	AM-FM	6D-1966-1	DS501	7281890	7286601	7283675	6129	7295169	7295170	—	1222297	7295177	1374934	1374935	1374935
7293674	1966	AM-FM Riviera	6D-1966-1	DS501	7281890	7286601	7283675	6129	7295169	7295170	—	1222297	7294649	1374934	1379938	1374935
7293644	1966	AM-FM Stereo	6D-1966-1	DS501	7281890	7286601	7283675	{F 6129 / R7294892}	7295169	7295170	—	1222297	7295771	1374934	1379935	1374935
7293684	1966	AM-FM Ster. Riv.	6D-1966-1	DS501	7281890	7286601	7283675	{F 6129 / R 6126}	7295169	7295170	—	1222297	7296059	1374934	1374935	1374935
CADILLAC																
7272505 / 7272535	1959	Wonder Bar	6D-1081	DS501	7281890	7273650	7273847	6109 / 6112	1221257	1221253	7274354	7274608	7272976	1471160	1471161	1471161
7272525	1959	Wonder Bar / Remote Control	6D-1081-2	DS501	7281890	7273650	7273847	6109 / 6112	1221257	1221253	7274354	7274608	7272976	1471160	1471161	1471161
7274905	1960	Wonder Bar	6D-1083	DS501	7281890	7276052	7273847	6109	1221257	1221253	1221425	7274608	7275243	1471160	1471161	1471161
7274925	1960	Wonder Bar / Remote Control	6D-1083-84	DS501	7281890	7276052	7273847	6109	1221257	1221253	1221425	7274608	{F.7275243 / R.7267083}	1471160	1471161	1471161
7276605	1961	Wonder Bar	6D-1085	DS501	7281890	7276052	7273847	7277395	1221257	1221253	1221590	7277396	7278314	1475852	1476056	1476056
7279605	1962	Wonder Bar	6D-1086	DS591	7281890	7276052	7273847	7277395	1221257	1221253	7277230	7277396	7278314	1475852	1477517	1477517
7282315	1963	Wonder Bar	6D-1087	DS501	7281027	1221422	7283675	{F.6127 / R.6126}	1221856	1221857	7280915	1222297	7282408	1480138	1480179	1480179
7283295	1963-4	AM-FM	6D-1088	DS501	7281890	1221422	7283675	{F.6127 / R.6126}	1221858	1221859	7283682	1222297	7283382	1480138	1480179	1480179
7286315	1964	Wonder Bar	6D-1090 / 6D-1964-2	DS501	7286602	7286601	7283675	{F.6127 / R.6126}	1221856	1221857	—	1222297	7287299	1480138	1480179	1480179
7290255	1965	Wonder Bar	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7290347	1483210	1483211	1483211
7290545	1965	AM-FM	6D-1965-1	DS501	7281890	7286864	7283675	6129	7295169	7295170	—	1222297	7290347	1483210	1483211	1483211
7293915	1966	Wonder Bar	6D-1966-1	DS501	7286602	7286601	7283675	{F7296870 / R7282501}	7295169	7295170	—	1222297	7290347	1485454	1485455	1485456
7293905	1966	AM-FM	6D-1966-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7294903	1485454	1485455	1485456
7293015	1966	AM-FM Stereo	6D-1966-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	7297572	7293721	1485454	1485455	1485456
7294535	1966	Wonder Bar / Remote Control	6D-1966-1	DS501	7281890	7286601	7291356	6129	1221858	1221859	—	1222297	7290847	1485454	1485455	1485456
CHEVROLET																
987575	1957	Push Button	6D-864	DS501	7281890	7269637	7269719	7269884	1221015	1221021	—	7269870	1220963	1990864	—	7268744
987727	1958	Push Button	6D-868	DS501	7281890	7269637	7270691	7270531	1221015	1221021	7269877	7271448	1221118	1990894	7270289	7270288
987730	1958	Wonder Bar	6D-869	DS501	7281890	7269637	7269719	7270531	1220990	1221124	1221159	7271448	1221125	1990894	7270289	7270288
987888	1959	Manual	6D-870	DS503	—	1221357	7273730	—	1221257	1221255	7273406	7273199	1221260	1990894	7272969	7272970
987891	1959	Push Button	6D-871	DS501	7271375	1221422	7273810	—	1221257	1221253	7274409	1221290	1221268	1990894	7272969	7272970
987893	1959	Wonder Bar	6D-872	DS501	7281890	1221422	7273775	—	1221257	1221253	7274354	1221290	7278528	1990894	7272969	7272970
988080	1960	Manual—Truck	6D-874	DS503	—	7275474	7273730	7275457	7275770	1221255	1221425	—	7275629	1990945	7274892	7274893
988275	1960	Manual	6D-875	DS503	—	7275474	7273730	7276057	1221257	1221255	1221425	—	1221260	1990894	7272969	7272970
988276	1960	Push Button	6D-876	DS501	7271375	1221422	7273810	7276057	1221257	1221253	1221425	1221428	7275710	1990894	7272969	7272970
985036	1961	Manual	6D-883	DS503	7274151	7275474	7273730	7277260	7275770	1221255	1221590	1221535	7278528	1990945	7274892	7274893
988413	1961	Manual	6D-878	DS503	7274151	7274574	7273730	6125	1221257	1221255	1221590	1221535	7277329	7277055	3785717	3785716
988414	1961	Push Button	6D-879	DS501	7271375	1221422	7273810	6125	1221257	1221255	1221590	7278020	7276939	7277055	3785717	3785716
985264	1962	Push Button	6D-885	DS501	7281890	1221422	7283675	7277075	1221856	1221618	7277230	1221535	7279855	7277055	3785717	3785716
985332	1962	Manual	6D-884	DS503	7276499	7275474	7280385	7277075	1221621	1221622	7277230	1221535	7280287	7277055	3785717	3785716
985227	1962	Manual—Truck	6D-889	DS503	7276499	7275474	7280385	7277260	1221621	1221622	7277230	7282057	1221989	7277055	3823169	3823170
985431	1963	Manual	6D-891	DS503	7276499	7275474	7282272	7282157	1221856	1221857	7280915	1222297	1221979	7277055	3823169	3823170
985432	1963	Push Button	6D-892	DS501	7281890	1221422	7282272	7282157	1221856	1221857	7280915	7282057	1221988	1990945	3825878	3793636
985471	1963	Manual—Truck	6D-896	DS503	7276499	7275474	7282272	6127	1221856	1221857	7280915	1222297	7285789	7277055	3823169	3823170
985694	1963	AM-FM	6D-898	DS501	7281890	1221422	7283675	7285340	1221858	1221859	7283586	7282057	7287962	1991037	3825878	3793636
985672	1964	Manual—Truck	6D-1964-1	DS503	7287480	7286601	7282272	7285671	1221856	1221857	—	7282057	7287355	3839323	3823169	3823170
985875	1964	Manual	6D-1964-1	DS503	7287480	7286601	7282272	1222047	1221856	1221857	—	1222297	7290251	3839323	3823169	3823170
985876	1964	Push Button	6D-1964-1	DS501	7286602	7286601	7282272	1222047	1221856	1221857	—	1222297	7290251	3839323	3823169	3823170
985877	1965	AM-FM	6D-1964-2	DS501	7286602	7286601	7283675	1222047	1221856	1221859	—	7282057	7289973	3860189	3860188	3860187
986096	1965	Manual	6D-1965-1	DS503	7287480	7286601	7292515	7291711	1221856	1221857	—	7282057	7291775	1991037	3825878	3793636
986330	1965	Manual—Truck	6D-1965-1	DS503	7287480	7286601	7292515	7285671	1221856	1221857	—	1222297	7290093	3860189	3860188	3860187
986099	1965	Push Button	6D-1965-1	DS501	7281890	7286601	7291786	7291711	1221856	1221857	—	1222297	7290093	3860189	3860188	3860187
986101	1965	AM-FM	6D-1965-1	DS501	7281890	7286864	7283675	7291711	7288144	1221859	—	7293024	7290633	3860189	3860188	3860187
986544	1966	Bel Air/Biscayne Manual	6D-1966-1	DS503	7281890	7286601	7292515	7291711	1221856	1221857	—	7282057	7294391	3860189	3860188	3860187
986545	1966	Bel Air/Biscayne Push Button	6D-1966-1	DS501	7281890	7286601	7291796	7291711	1221856	1221857	—	1222297	7294294	3860189	3860188	3860187
986546	1966	AM-FM	6D-1966-1	DS501	7281890	7286601	7283675	7291711	7295169	7295170	—	1222297	7296281	3860189	3860188	3860187
7296351	1966	AM-FM Stereo	6D-1966-1	DS501	7281890	7286601	7283675	F7292988	7295169	7295170	—	1222297	7291961	3860189	3860188	3860187
7296341	1966	Caprice AM-FM Stereo	6D-1966-1	DS501	7281890	7286601	7283675	R7294892	7295169	7295170	—	1222297	7296891	3860189	3860188	3860187
986771	1966	Chevy Truck Man.	6D-1966-1	DS503	7287480	7286601	7292515	7285671	1221856	1221857	—	7282057	7291775	1991037	3825878	3793636
986769	1966	Chevy Van Man.	6D-1966-1	DS503	7287480	7286601	7292515	6126	1221856	1221857	—	7282057	7291775	7277055	3825878	3793636
7293816	1966	Handy Van Man.	6D-1966-1	DS503	7287480	7286601	7292515	6127	1221856	1221857	—	7282057	7291775	7277055	3825878	3793636
CHEVELLE																
985773	1964	Manual	6D-1964-1	DS503	7287480	7286601	7282272	6129	1221856	1221857	—	7282057	7286089	3839323	—	3850638
985776	1964	Push Button	6D-1964-1	DS503	7287480	7286601	7282272	6129	1221856	1221857	—	7282057	7285880	3839323	—	3850638
986201	1965	Manual	6D-1965-1	DS503	7287480	7286601	7292515	7290681	1221856	1221857	—	7282057	7290616	3860189	3863270	3863269
986202	1965	Push Button	6D-1965-1	DS503	7287480	7286601	7292515	7290681	1221856	1221857	—	7282057	7290265	3860189	3863270	3863269
986203	1965	AM-FM	6D-1965-1	DS501	7281890	7286864	7283675	7290681	7288144	1221859	—	1222297	7291126	3860189	3863270	3863269
986527	1966	Manual	6D-1966-1	DS503	7287480	7286601	7292515	7293691	1221856	1221857	—	7282057	7294385	3860189	3882792	3876586
986528	1966	Push Button	6D-1966-1	DS503	7287480	7286601	7292515	7293691	1221856	1221857	—	7282057	7294185	3860189	3882792	3876586
986529	1966	AM-FM	6D-1966-1	DS501	7281890	7286864	7283675	7293691	7288144	1221859	—	1222297	7291126	3860189	3882792	3876586

[1] Portable (only) [2] In car [3] Riviera [4] 3rd I.F. Primary [5] 3rd I.F. Secondary F—Front R—Rear

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APPLICATIONS • CHASSIS PARTS AND KNOBS

Make and Radio Model No.	Year	Description	Service Bulletin Number	Transistor	Resistor Fuse Type	Bias Control	Filter Capacitor	Speaker	AM 1st	I.F. Coils 2nd	Audio Transformers Input	Audio Transformers Output	Volume Control	Knobs Control	Knobs Dummy (or Sensitivity)	Knobs Tone
CHEVY II																
985189	1962	Manual	6D-886	DS503	7276499	7275474	7280383	7280093	1221621	1221622	7277230	1221535	7280269	7277055	7274782	7272970
985315	1962	Push Button	6D-887	DS503	7276499	7275474	7280383	7280093	1221621	1221622	7277230	1221535	7281978	7277055	7274782	7272970
985453	1963	Manual	6D-893	DS503	7276499	7275474	7282272	6127	1221856	1221857	7280915	7282057	1221991	7277055	3793635	3793636
985455	1963	Push Button	6D-894	DS503	7276499	7275474	7282272	6127	1221856	1221857	7280915	7282057	1221980	7277055	3793635	3793636
985957	1964	Manual	6D-1964-1	DS503	7287480	7286601	7282272	7282159	1221856	1221857	—	7282057	7287947	7277055	3793635	3793636
985958	1964	Push Button	6D-1964-1	DS503	7287480	7286601	7282272	7282159	1221856	1221857	—	7282057	7287953	7277055	3793635	3793636
986248	1965	Manual	6D-1965-1	DS503	7287480	7286601	7292515	6127	1221856	1221857	—	7282057	7291843	3860189	3793635	3793636
986339	1965	Man. Chevy-Van	6D-1965-1	DS503	7287480	7286601	7292515	6126	1221856	1221857	—	7282057	7291775	7277055	3825878	3793636
986250	1965	Push Button	6D-1965-1	DS503	7287480	7286601	7292515	6127	1221856	1221857	—	7282057	7291841	3860189	3793635	3793636
986252	1965	AM-FM	6D-1965-1	DS501	7281890	7286864	7283675	6127	7288144	1221859	—	7289634	7290744	3860189	3793635	3793636
986521	1966	Manual	6D-1966-1	DS503	7287480	7286601	7292515	7293691	1221856	1221857	—	7282057	7293849	3860189	3860188	3793636
986522	1966	Push Button	6D-1966-1	DS503	7287480	7286601	7292515	7293691	1221856	1221857	—	7282057	7293880	3860189	3860188	3793636
CHRYSLER																
300, 331 / 332, 333	1963	AM-FM	6D-1802	DS501	7281890	1221422	7283675	—	1221858	1221859	7283586	7285451	7285860	—	—	—
335 / 336 / 351 / 352 / 353	1964	AM-FM	6D-1964-2	DS501	7286602	7286601	7283675	—	1221858	1221859	—	7286623	7290520 / 7290520 / 7290520 / 7286255 / 7290520	7288458 / 7288459 / 7288457 / — / 7288459	— / — / — / — / —	7288462 / 7288464 / 7288461 / — / 7288463
416	1965	W.B. Chrysler	6D-1965-1	DS501	7281890	7286601	7291356	—	1221856	1221857	—	7291585	7290437	—	—	—
417	1965	W.B. Imperial	6D-1965-1	DS501	7281890	7286601	7291356	—	1221856	1221857	—	7291585	7290437	—	—	—
416A	1966	Wonder Bar	6D-1966-1	DS501	7281890	7286601	7291356	7288454	1221856	1221857	—	7291585	7290437	7291720	7291717	7291718
417A	1966	Imperial W.B.	6D-1966-1	DS501	7281890	7286601	7291356	7288454	1221856	1221857	—	7291585	7290437	7291720	7291717	7291718
420	1966	{AM-FM W.B. / Imperial}	6D-1966-1	DS501	7281890	7286601	7283675	7288454	7288144	7293318	—	7296172	7293633	7291720	7291717	7291718
CORVAIR																
988062	1960	Manual	6D-873	DS503	—	7275474	7273730	6111	1221257	1221255	7275145	—	7274920	1990894	7274782	7272970
988336	1961	Manual—Truck	6D-877	DS503	—	7275474	7273730	7277515	1221257	1221255	1221590	1221535	7277288	7277055	7274782	7272970
988460	1961	Manual	6D-880	DS503	7274151	7275474	7273730	6111	1221257	1221225	1221590	1221535	7278058	7277055	7274782	7272970
988468	1961	Push Button	6D-881	DS503	7276499	7275474	7273730	6111	1221257	1221255	1221590	1221535	7278296	7277055	7274782	7272970
985158	1962	Manual	6D-886	DS503	7276499	7275474	7289385	7280092	1221621	1221622	7277230	1221535	7278296	7277055	7274782	7272970
985203	1962	Manual—Truck	6D-888	DS503	7276499	7275474	7289385	7277515	1221621	1221622	7277230	1221535	7271980	7277055	7274782	7272970
985159	1962	Push Button	6D-887	DS503	7276499	7275474	7280383	7280092	1221621	1221622	7277230	1221535	7271978	7277055	7274782	7272970
985447	1963	Manual	6D-893	DS503	7276499	7275474	7282272	7282158	1221856	1221857	7280915	7282057	1221990	7277055	3793635	3793636
985449	1963	Push Button	6D-894	DS503	7276499	7275474	7282272	7282158	1221856	1221857	7280915	7282057	1221976	7277055	3793635	3793636
985443	1963	Manual-Truck	6D-897	DS503	7276499	7275474	7282272	7282160	1221856	1221857	7280915	7282057	1221990	7277055	3793635	3793636
985815	1964	Manual—Truck	6D-1964-1	DS503	7287480	7286601	7282272	6126	1221856	1221857	—	7282057	7287428	7277055	3793635	3793636
985831	1964	Manual	6D-1964-1	DS503	7287480	7286601	7282272	7282158	1221856	1221857	—	7282057	7287428	7277055	3793635	3793636
985832	1964	Push Button	6D-1964-1	DS503	7287480	7286601	7282272	7282158	1221856	1221857	—	7282057	7287453	7277055	3793635	3793636
986113	1965	Manual	6D-1965-1	DS503	7287480	7286601	7292515	7289731	1221856	1221857	—	7282057	7290608	3860189	3860553	3860552
986338	1965	Manual—Truck	6D-1965-1	DS503	7287480	7286601	7292515	6126	1221856	1221857	—	7282057	7291771	7277055	3793635	3793636
986116	1965	Push Button	6D-1965-1	DS503	7287480	7286601	7292515	7289731	1221856	1221857	—	7282057	7290493	3860189	3860553	3860552
986118	1965	AM-FM	6D-1965-1	DS501	7281890	7286869	7283675	7289731	7288144	1221859	—	1222297	7290641	3860189	3860553	3860552
986113	1966	Manual	6D-1966-1	DS503	7287480	7286601	7292515	7289731	1221856	1221857	—	7282057	7290608	3860189	3860553	3860552
986116	1966	Push Button	6D-1966-1	DS503	7287480	7280601	7292515	7289731	1221856	1221857	—	728 057	7290493	3860189	3860553	3860552
986118	1966	AM-FM	6D-1966-1	DS501	7281890	7286864	7283675	7289731	7289141	1221859	—	122 297	7290641	3860189	3860553	3860552
CORVETTE																
3748611	1958-60	Wonder Bar	6D-869	DS501	7281890	7269637	7269719	7270428	1220990	1221124	1221159	7271448	1221125	1990864	7268744	7268744
985003	1961	Wonder Bar	{6D-869 / 6D-882}	DS501	7281890	7269637	7269719	6111	1220990	1221124	1221159	7271448	1221125	7277055	3774772	3774774
985383	1962	Wonder Bar	6D-890	DS501	7281890	1221422	7273775	7281141	1221257	1221253	7272822	7281131	7281066	7277055	3774772	3774774
985396	1963	Wonder Bar	6D-895	DS501	7281027	1221422	7283675	7282256	1221856	1221857	7280915	1222297	7282024	7277055	—	—
985686	1963	AM-FM	6D-899	DS501	7281890	1221422	7283675	7282256	1221858	1221859	7277230	1222297	7282024	7286030	—	—
985921	1964	AM-FM	6D-1964-2	DS501	7286602	7286601	7283675	7282256	1221858	1221859	—	1222297	7290296	7286030	—	—
986281	1966	AM-FM	6D-1966-1	DS501	7281890	7286864	7283675	7282256	7288144	1221859	—	1222297	7290296	—	—	—
GMC TRUCK																
2233850	1960	Manual	6D-1109	DS503	—	7275474	7273730	6112	7275770	1221255	1221425	—	7275629	1990957	7274892	7274893
2233944	1961	Manual	6D-1110	DS503	7274151	7275474	7273730	7277260	7275770	1221255	1221590	1221535	7278528	1990945	7274892	7274893
2233984	1962	Manual	6D-1111	DS503	7276499	7275474	7280385	7277260	1221621	1221622	7277230	1221535	7281979	1991012	7274892	7274893
2234003	1963	Manual	6D-1112	DS503	7276499	7275474	7282272	6127	1221856	1221857	7280915	7282057	1221988	1991012	3825878	3793636
2234040	1964	Manual	6D-1964-1	DS503	7287480	7286601	7282272	6127	1221856	1221857	—	7282057	7287962	1991012	3825878	3793636
7291556	1965	Manual	6D-1965-1	DS503	7287480	7286601	7292515	6127	1221856	1221857	—	7282057	7291775	1991012	3825878	3793636
7291576	1965	Man. Handy Van	6D-1965-1	DS503	7287480	7286601	7292515	6126	1221856	1221857	—	7282057	7291775	7277055	3825878	3793636
7293806	1966	Manual	6D-1966-1	DS503	7287980	7286601	7292515	7282121	1221856	1221857	—	7282057	7291175	1991012	3825878	3793636
LINCOLN																
6TDC	1966	Push Button	6D-1966-1	DS501	7282890	7286601	7291786	7293908	1221856	1221857	—	On Speaker	7294835	—	—	—
F6TDC	1966	AM-FM W.B.	6D-1966-1	DS501	7282890	7286601	7283675	7293908	7288144	7293318	—	On Speaker	7294429	—	—	—
OLDSMOBILE																
989127	1958	Push Button	6D-9500	DS501	7281890	7269637	7270691	—	1221015	1221021	7269877	7269650	7270679	572330	572995	572994
989129	1958	Wonder Bar	6D-9501	DS501	7281890	7269637	7269791	—	1220990	1221124	1221159	7269650	7270679	572330	572995	572994
989131	1958	Trans-Portable	6D-9502	DS501	7281890	7269743	7270954	7273926	7270814	[8] 7270815 / [9] 7270816	7270811	7270804 / 7269650	7270665	7270385	7270385	7270385
989170	1959	Push Button	6D-9503	DS501	7281890	1221422	7273810	6112	—	[9] 7270817	7274068	1221290	7272855	575091	575477	575476
989171	1959	Wonder Bar	6D-9504	DS501	7281890	1221422	7273847	6112	1221257	1221253	7274068	1221290	7272855	575091	575477	575476
989172	1959	Trans-Portable	6D-9505	DS501	7281890	7273796	7273793	[10] 7273926 / [11] 6112	{1221257 / 7274341 / [17] 7273761}	1221253 / 7273760 / [18] 7273762	7273764	[12] 7273765 / [13] 1221290	[12] 7274634 / [13] 7273986	[12] 575091 / 7274400—Volume / [13] 7273747—Tuning	575477	575476
989276	1960	Push Button	6D-9506	DS501	7281890	1221422	—	—	—	1221257	1221253	1221425	1221428	7275269	575091	575477	575476
989277	1960	Wonder Bar	6D-9507	DS501	7281890	1221422	7273847	—	—	1221257	1221253	1221425	1221428	7275269	575091	575477	575476
989387	1961-62	P.B. F-85	6D-9508	DS503	7276499	7275474	7273730	7276434	1221257	1221255	1221590	1221499	7276521	579159	579157	579156
989392	1961	Push Button	6D-9509	DS501	7271375	1221422	7273810	6125	1221257	1221255	1221590	1221428	7276997	580486	580485	580484
989393	1961	Wonder Bar	6D-9510	DS501	7281890	1221422	7273847	6125	1221257	1221255	1221590	1221428	7276997	580486	580485	580484
982029	1962	Push Button	6D-9511	DS501	7281890	1221422	7283675	7278943	1221856	1221618	1221590	7278974	7279778	580486	580485	580484
982030	1962	Wonder Bar	6D-9512	DS501	7281890	—	7273810	7278943	1221257	1221253	1221590	7278974	7279463	580486	580485	580484
982136	1963	Push Button	6D-9513	DS501	7281890	1221422	7282272	7282423	1221856	1221857	7280915	1222297	1221992	587467	587075	587074
982137	1963	Wonder Bar	6D-9514	DS501	7281027	1221422	7283675	7282423	1221856	1221857	7280915	1222297	7281868	587467	587075	587074
982149	1963	P.B. F-85	6D-9516	DS503	7276499	7275474	7282272	7282213	1221856	1221857	7280915	7282057	1221975	588115	579157	579156
982212	1963	AM-FM	6D-9515	DS501	7281890	1221422	7283675	7282423	1221858	1221859	7283586	1222297	7284310	587467	587075	587074
982249	1964	Push Button	6D-1964-1	DS501	7286602	7286601	7282272	6127	1221856	1221857	—	1222297	7287131	588637	588636	588635
982250	1964	Wonder Bar	6D-1964-2	DS501	7286602	7286601	7283675	6127	1221856	1221857	—	1222297	7287254	588637	588636	588635
982251	1964	AM-FM	6D-1964-2	DS501	7286602	7286601	7283675	6127	1221858	1221859	—	1222297	7290523	588637	588636	588635
982252	1964	P.B. F-85	6D-1964-1	DS503	7287480	7286601	7282272	6127	1221856	1221857	—	7282057	7287256	588633	588632	588631
7291063	1965	P.B. F-85	6D-1965-1	DS503	7287480	7286601	7292515	6127	1221856	1221857	—	7282057	7287256	387464	387466	387465
7289313	1965	Push Button	6D-1965-1	DS501	7281890	7286601	7291786	6129	1221856	1221857	—	1222297	7289769	589822	387513	387512
7289333	1965	Wonder Bar	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7289705	589822	387513	387512
7289353	1965	AM-FM	6D-1965-1	DS501	7281890	7286864	7283675	6129	7288144	1221859	—	7289634	7290216	589822	387513	387512
7289373	1966	F-85 P.B.	6D-1966-1	DS503	7287480	7286601	7292515	6129	1221856	1221857	—	7282057	7289358	509822	386242	386243
7294743	1966	Push Button	6D-1966-1	DS501	7281890	7286601	7291786	6129	1221856	1221857	—	1222297	7289769	509822	387513	387513
7292643	1966	Toronado P.B.	6D-1966-1	DS501	7281890	7286601	7291786	6129	1221856	1221857	—	1222297	7292735	389892	389894	389893
7294753	1966	Wonder Bar	6D-1966-1	DS501	7286602	7286601	7291356	7289969	1221856	1221857	—	1222297	7289705	387511	387513	387512
7293653	1966	AM-FM	6D-1966-1	DS501	7281890	7286601	7283675	7289969	7295169	7295170	—	1222297	7295254	387511	387513	387512
7292663	1966	{Torondao / AM-FM W.B.}	6D-1966-1	DS501	7281890	7286601	7283675	6129	7288144	7293318	—	1222297	7293469	389892	389894	389893

[8] 2nd [9] 3rd [10] Portable (only) [11] In Car [12] Portable (only) [13] In Car [17] 3rd I.F. Primary [18] 3rd I.F. Secondary

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APPLICATIONS • CHASSIS PARTS AND KNOBS

Make and Radio Model No.	Year	Description	Service Bulletin Number	Transistor	Resistor Fuse Type	Bias Control	Filter Capacitor	Speaker	AM 1st	I.F. Coils 2nd	Audio Transformers Input	Audio Transformers Output	Volume Control	Knobs Control	Knobs Dummy (or Sensitivity)	Knobs Tone
PONTIAC																
988671	1957	Push Button	6D-1042	DS501	7281890	7269637	7269719	6111	1221015	1221021	7269877	7269650	7269638	[16] 523150 [16] 523507	518914	518915
988822	1958	Push Button	6D-1044	DS501	7281890	7269637	7270691	6112	1221015	1221021	7269877	7271527	7271466	529079	529077	529078
988823	1958	Wonder Bar	6D-1045	DS501	7281890	7269637	7269719	6112	1220990	1221124	1221159	7271527	7270939	529079	529077	529078
988837	1958	Sportable	6D-1046	DS501	7281890	7269743	7270954	7273926	7270814	[12] 7270815 [13] 7270816 [13] 7270817	7270811	7270804 7269650	7270665	7271613	7271616	7272110
988976	1959	Push Button	6D-1047	DS501	7281890	1221422	7273810	6109	1221257	1221253	7274354	7273626	7273623	532456	532707	532455
988977	1959	Wonder Bar	6D-1048	DS501	7281890	1221422	7273810	6109	1221257	1221253	7274354	7273626	7273623	532456	532707	532455
988978	1959	Sportable	6D-1049	DS501	7281890	7273796	7273793	[10] 7273926 [11] 6109	[17] 7274341 [17] 7273761	[18] 7273760 7273762	7273764	[12] 7273765 [12] 7273765	[12] 7274634 [13] 7274024	532456 [12] 7273822—Volume [12] 7274023—Tuning	532707	532455
989613	1960	Sportable	6D-1049 6D-10003	DS501	7271375	1221422	7273793	[10] 7273926 [11] 6109	[17] 7274341 [17] 7273761	[18] 7273760 7273762	7273764	[13] 7273626 [13] 1221428	[12] 7274634 [13] 7274024	[13] 536196	[14] 532707 [15] 536108	[14] 532455 [15] 536278
989614	1960	Push Button	6D-10001	DS501	7281890	1221422	7273810	6109	1221257	1221253	1221425	1221428	7275708	536196	[19] 532707 [20] 536108	[19] 532455 [20] 536278
989615	1960	Wonder Bar	6D-10002	DS501	7281890	1221422	7273810	6109	1221257	1221253	1221425	1221428	7275708	536196	[14] 532707 [15] 536108	[14] 532455 [15] 536278
989692	1961	Wonder Bar	6D-10005	DS501	7281890	1221422	7273810	7276482	1221257	1221253	1221590	1221499	7277542	535908	538718	538621
989693	1961	Push Button	6D-10006	DS503	7271375	1221422	7273810	6125	1221257	1221253	1221590	1221428	7277542	535908	538718	538621
989792	1961-2	Man. Tempest	6D-10004	DS503	7274151	7275474	7273730	6125	1221257	1221253	1221590	1221428	7277112	535908	538718	538611
989831	1961	P.B. Tempest	6D-10007	DS503	7276499	7275474	7273730	7276547	1221257	1221253	1221590	1221535	7278930	535908	539610	539611
983579	1962	Push Button	6D-10009	DS501	7281890	1221422	7273810	7276482	1221257	1221253	1221590	1221428	7279749	535908	538718	538621
983578	1962	Wonder Bar	6D-10008	DS501	7281890	1221422	7283675	7276482	1221856	1221618	1221590	1221428	7280055	535908	538718	538621
983687	1962	P.B. Tempest	6D-10010	DS503	7276499	7275474	7283675	7276547	1221856	1221618	1221590	1221535	7281105	535908	539610	539611
983873	1963	Push Button	6D-10011	DS501	7281890	1221422	7282272	6127	1221856	1221857	7280915	1222297	1221977	544207	544472	544309
983874	1963	Man. Tempest	6D-10013	DS503	7276499	7275474	7282272	7281652	1221856	1221857	7280915	7282057	1221995	544207	544472	544309
983875	1963	P.B. Tempest	6D-10014	DS503	7276499	7275474	7282272	7281652	1221856	1221857	7280915	7282057	1221993	544207	544472	544309
983945	1963	AM-FM	6D-10012	DS501	7271890	1221422	7283675	6127	1221858	1221859	7283586	1222297	7282440	544207	544472	544309
984075	1964	Man. Tempest	6D-1964-1	DS503	7287480	7286601	7282272	6129	1221856	1221857	—	7282057	7286079	9775398	9773915	9773916
984076	1964	P.B. Tempest	6D-1964-1	DS503	7287480	7286601	7282272	6129	1221856	1221857	—	7282057	7286115	9775398	9773915	9773916
984077	1964	Push Button	6D-1964-1	DS501	7286602	7286601	7282272	6127	1221856	1221857	—	1222297	7286288	9775398	9773988	9773987
984078	1964	AM-FM	6D-1964-2	DS501	7286602	7286601	7283675	6127	1221858	1221859	—	1222297	7290525	9775398	9773988	9773987
7291562	1965	Man. Tempest	6D-1966-1	DS503	7287480	7286601	7292515	7286462	1221856	1221857	—	7282057	7291794	9775398	9773915	9773916
7291582	1965	P.B. Tempest	6D-1965-1	DS503	7287480	7286601	7292515	7286462	1221856	1221857	—	7282057	7291806	9775398	9773915	9773916
7289752	1965	Push Button	6D-1965-1	DS501	7281890	7286601	7291786	6129	1221856	1221857	—	1222297	7289887	9775398	9778957	9773916
7292112	1965	AM-FM Tempest	6D-1965-1	DS501	7281890	7286864	7283675	6129	7288144	1221859	—	7289634	7292423	9775398	9773915	9773916
7289772	1965	AM-FM	6D-1965-1	DS501	7281890	7286864	7283675	6129	7288144	1221859	—	7289634	7290475	9775398	9778957	9773916
7293492	1966	Tempest Man.	6D-1966-1	DS503	7287480	7286601	7292515	7286462	1221856	1221857	—	7282057	7294475	9783650	9782920	9782021
7293502	1966	Tempest P.B.	6D-1966-1	DS503	7287480	7286601	7292515	7286462	1221856	1221857	—	7282057	7293707	9783650	9782420	9782421
7293512	1966	Push Button	6D-1966-1	DS503	7287480	7286601	7291786	6129	1221856	1221857	—	1222297	7289887	9783650	9782420	9782421
7294332	1966	Wonder Bar	6D-1966-1	DS501	7286602	7286601	7291356	7291442	1221856	1221857	—	1222297	7289887	9783650	9782420	9782421
7293472	1966	Tempest AM-FM	6D-1966-1	DS501	7281890	7286601	7283675	7286462	7295169	7295170	—	1222297	7294820	9783650	9782420	9782421
7294342	1966	AM-FM	6D-1966-1	DS501	7281890	7286601	7283675	6129	7295169	7295170	—	1222297	7295968	9783650	9782420	9782421
STUDEBAKER																
AC-2906	1958-9	Push Button	6D-1404	DS501	7281890	7269637	7270691	6117	1221015	1221021	7269877	7271827	7271782	7271845	569555	7271847
AC-2907	1958-9	Wonder Bar	6D-1405	DS501	7281890	7269637	7269719	6117	1220990	1221124	1221159	7271827	7271831	7271845	569555	7271847
AC-2977	1960	Manual	6D-1406	DS503	7281890	7275474	7273730	6117	1221257	1221255	1221425	—	—	7271845	569555	7271847
AC-2978	1960	Push Button	6D-1407	DS501	7271375	1221422	7273810	6117	1221257	1221253	7269877	1221428	7276130	7271845	569555	7271847
AC-3084 AC-3086	1961	Manual	6D-1408	DS503	7274151	7275474	7273730	6109	1221257	1221255	1221590	1221535	7278074	7267414	569555	569554
AC-3085 AC-3087	1961	Push Button	6D-1409	DS503	7271375	1221422	—	6109	1221257	1221253	1221590	1221428	7278128	7267414	569555	7278228
AC-3217	1962	Manual	6D-1410	DS503	7274151	7275474	7273730	7278208	1221621	1221255	1221590	1221535	7280253	7280822	7280334	7280335
AC-3216	1962	Push Button	6D-1411	DS501	7281890	1221422	7283675	7278208	1221856	1221618	7277230	1221428	7280299	7280822	7280334	7280335
AC-3305	1962	P.B. Avanti	6D-1412	DS501	7281890	1221422	7283675	7282941	1221856	1221618	7277230	1221428	7280299	7282934	7282937	7282936
AC-3351 AC-3352	1963	Man. Lark Man. Hawk	6D-1413	DS503	7276499	7275474	7282272	6127 7284300	1221856	1221857	7280915	7282057	1221996	7282934	7282937	7282936
AC-3352 AC-3354 AC-3377	1963	P.B. Hawk P.B. Avanti	6D-1414	DS501	7281890	1221422	7282272	6127 7284380	1221856	1221857	7280915	1222297	1221997	7282934	7282937	7282936
AC-3473	1964	Manual	6D-1964-1	DS503	7287480	7286601	7282272	6129	1221856	1221857	—	7282057	7287965	7288340	7282937	7282936
AC-3474	1964	Push Button	6D-1964-1	DS503	7287480	7286601	7292515	7295184	1221856	1221857	—	7282057	7287998	7288340	7282937	7282936
AC-3500	1964	AM-FM	6D-1964-2	DS502	7286602	7286601	7283675	6127	1221858	1221859	—	1222297	7287998	7288340	7282937	7282936
AC-3506	1964	P.B. Avanti	6D-1964-1	DS501	7286602	7286601	7282272	6127	1221856	1221857	—	1222297	7287998	7288340	7282937	7282936
OPEL																
7294694	1966	Manual	6D-1966-1	DS503	7287480	7286601	7282272	6127	1221856	1221857	—	7282057	7289677	1363435	7274892	7274893

[10] Portable (only) [11] In Car [12] Portable (only) [13] In Car [14] Catalina [15] Bonneville & Star Chief [16] 523150 Chrome, 523507 Gray [17] 3rd I.F. Primary [18] 3rd I.F. Secondary [19] Catalina [20] Bonneville & Star Chief

NUMERICAL LIST OF CONTROLS (Volume, Tone & Switch)

Part No.		Application
1221113	58	GMC Truck Man.
1221113	58-62	Opel Man.
1221113	58-60	Vauxhall Man.
1221118	58	Chevrolet P.B.
1221125	58	Chevrolet W.B.
1221125	58-61	Corvette W.B.
1221260	59-60	Chevrolet Man.
1221268	59	Chevrolet P.B.
1221975	63	Olds F-85 P.B.
1221976	63	Corvair P.B.
1221977	63	Pontiac P.B.
1221978	63	Buick P.B.
1221979	63	Chevrolet P.B.
1221980	63	Chevy II P.M.
1221988	63	Chev. Truck Man.
1221988	63	GMC Truck Man.
1221989	63	Chevrolet Man.
1221990	63	Corvair Man.
1221990	63	Corvair Truck Man.
1221991	63	Chevy II Man.
1221992	63	Olds P.B.
1221993	63	Pont. Tempest Man.
1221994	63	Buick Special P.B.
1221995	63	Pont. Tempest Man.
1221996	63	Studebaker Man.
1221997	63	Studebaker P.B.
7267083	60	Cad. Remote W.B.
7270665	58	Olds & Pontiac Port.
7270679	58	Olds P.B.-W.B.
7270853	58	Cad. Remote W.B.
7270939	58	Pontiac W.B.
7271329	58	Buick P.B.-W.B.
7271446	58	Pontiac P.B.
7271782	58-59	Studebaker P.B.
7271831	58-59	Studebaker W.B.
7272797	59	Buick W.B.
7272855	59	Olds P.B.-W.B.
7272976	59	Cadillac W.B.
7273623	59	Pontiac P.B.-W.B.
7273993	59	Buick P.B.
7274634	59	Buick Portable
7274634	59	Olds Portable
7274634	59-60	Pontiac Portable
7274920	60	Corvair Man.
7275219	60	Buick P.B.-W.B.
7275243	60	Cadillac W.B.
7275269	60	Olds P.B.-W.B.
7275629	60	Chev. Truck Man.
7275629	60	GMC Truck Man.
7275708	60	Pontiac P.B.-W.B.
7275710	60	Chevrolet P.B.
7276130	60	Studebaker P.B.
7276142	60	Studebaker Man.
7276521	61-62	Olds F-85 P.B.
7276561	61	Buick Special P.B.
7276939	61	Chevrolet P.B.
7276997	61	Olds P.B.-W.B.
7277112	61-62	Pont. Tempest Man.
7277155	61	Buick P.B.-W.B.
7277288	61	Corvair Truck Man.
7277329	61	Chevrolet Man.
7277542	61	Pontiac P.B.-W.B.
7278058	61	Corvair Man.
7278074	61	Studebaker Man.
7278128	61	Studebaker P.B.
7278296	61	Corvair P.B.
7278314	61-62	Cadillac W.B.
7278528	59	Chevrolet W.B.
7278528	61	Chevrolet Man.
7278528	61	GMC Truck Man.
7278930	61	Pont. Tempest P.B.
7279114	61	Opel Man.
7279463	62	Olds W.B.
7279597	62	Buick W.B.
7279749	62	Pontiac P.B.
7279778	62	Olds P.B.
7279855	62	Chevrolet P.B.
7279987	62	Buick P.B.
7280055	62	Pontiac W.B.
7280253	62	Studebaker Man.
7280269	62	Corv., Chevy II Man.
7280287	62	Chevrolet Man.
7280299	62	Studebaker P.B.
7281066	62	Corvette W.B.
7281105	62	Pont. Tempest P.B.
7281868	63	Olds W.B.
7281978	62	Corv., Chevy II P.B.
7281979	62	Chev. Truck Man.
7281979	62	GMC Truck Man.
7281980	62	Corvair Truck Man.
7282024	63	Corvette W.B. AM-FM
7282338	63	Buick W.B.
7282408	63	Cadillac W.B.
7282440	63	Pontiac AM-FM
7283382	63-64	Cadillac AM-FM
7284310	63	Olds AM-FM
7284625	63	Buick AM-FM
7285789	63	Chevrolet AM-FM
7285845	64-65	Buick Special P.B.
7285860	64	Chrysler AM-FM
7285880	64	Chevelle P.B.
7286079	64	Pont. Tempest Man.
7286089	64	Chevelle Man.
7286115	64	Pont. Tempest P.B.
7286288	64	Pontiac P.B.
7286334	64	Pontiac AM-FM
7286594	64	Buick P.B.
7286608	64	Buick W.B.
7286636	64	Chrysler AM-FM
7287131	64	Olds P.B.
7287254	64	Olds W.B.
7287256	64-65	Olds F-85 P.B.
7287299	64	Cadillac W.B.
7287355	64	Chevrolet Man.
7287414	64	Chevrolet P.B. AM-FM
7287428	64	Corvair Man.
7287428	64	Corvair Truck Man.
7287453	64	Corvair P.B.
7287620	64	Corvette AM-FM
7287947	64	Chevy II Man.
7287953	64	Chevy II P.B.
7287962	64	Chev. Truck Man.
7287962	64	GMC Truck Man.
7287965	64	Studebaker Man.
7287998	64	Stude. W.B. AM-FM
7289358	66	Olds F-85 P.B.
7289705	65	Olds W.B.
7289769	65	Olds P.B.
7289887	65	Pontiac P.B.
7289973	65	Chevrolet Man.
7290093	65	Chevrolet P.B.
7290216	65	Olds AM-FM
7290265	65	Chevelle P.B.
7290296	65	Corvette AM-FM
7290347	65	Cadillac W.B.
7290475	65	Pontiac AM-FM
7290493	65	Corvair P.B.
7290522	64	Buick AM-FM
7290523	64	Olds AM-FM
7290608	65	Corvair Man.
7290616	65	Chevelle Man.
7290633	65	Chevrolet AM-FM
7290641	65	Corvair AM-FM
7290744	65	Chevy II AM-FM
7291126	65	Chevelle AM-FM
7291409	65	Buick AM-FM
7291544	65	Riviera AM-FM
7291771	65	Corvair Truck Man.
7291775	65	Chev. Truck Man.
7291775	65	Chevy Van Man.
7291775	65	GMC Truck Man.
7291794	65	Handy Van Man.
7291794	65	Pont. Tempest Man.
7291806	65	Pont. Tempest P.B.
7291841	65	Chevy II P.B.
7291843	65	Chevy II Man.
7291951	65	Riviera P.B.
7292201	65	Riviera W.B.
7292423	65	Pont. Temp. AM-FM
7292735	66	Olds Toronado P.B.
7292865	65	Buick P.B.-W.B.
7293469	66	Olds Toronado W.B. AM-FM
7293707	66	Pont. Tempest P.B.
7293849	66	Chevy II Man.
7293880	66	Chevy II P.B.
7294151	66	Buick Riviera P.B.
7294185	66	Chevelle P.B.
7294294	66	Chev. P.B.
7294385	66	Chevelle Man.
7294391	66	Chev. Man.
7294475	66	Pont. Tempest Man.
7294493	66	Buick Special P.B.
7294649	66	Buick Riviera AM-FM
7294703	66	Buick P.B.
7294820	66	Pont. Temp. AM-FM
7294835	66	Lincoln P.B.
7294903	66	Cad. AM-FM, Stereo
7295170	66	Buick AM-FM
7295254	66	Olds AM-FM
7295837	66	Buick Spec. AM-FM
7295968	66	Pontiac AM-FM
7296022	66	Chevelle AM-FM, Corvair AM-FM
7296281	66	Chev. AM-FM

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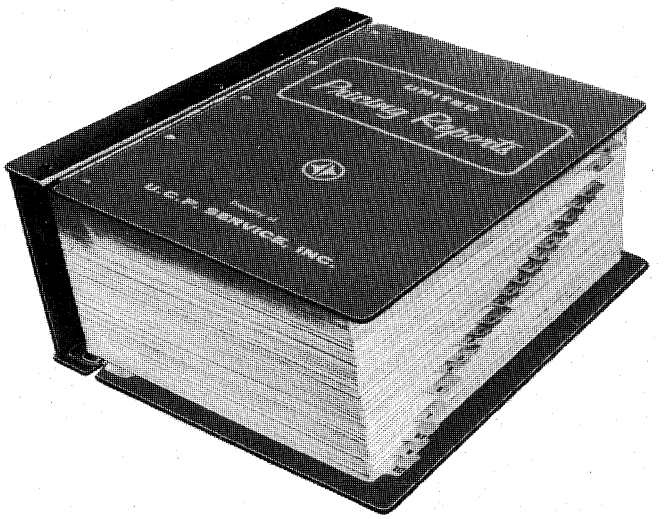

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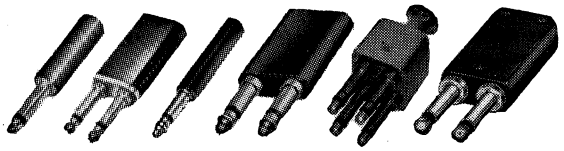
PLUGS



PJ-5 PJ-1 PJ-3 PJ-6 D7200 PJ-327

PJ-5 **Equivalent, PJ-055, WE-47,** fits ¼" phone jacks. Black plastic shell. Screw terminals. Two conductor. **Net $.78**

PJ-1 **Equivalent WE-241,** heavy duty die cast frame. Black phenolic shell. Self aligning plug prongs on ⅝" center for use with all standard jack panels. Two tip conductors, plus sleeve connection common to both sleeves. **Net $2.55**

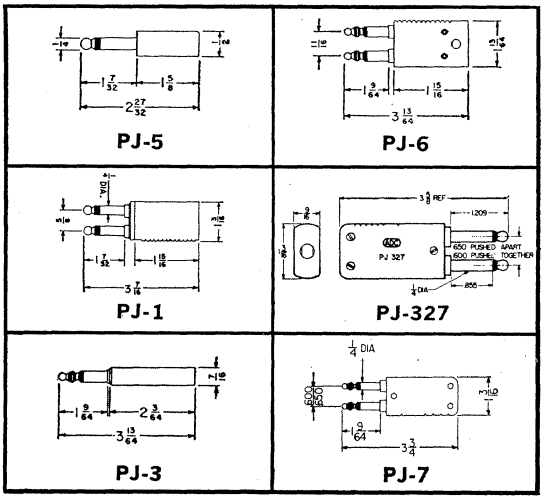
PJ-3 **Equivalent PJ-051, WE-310.** Designed for use with ¼" tip, ring and sleeve jacks. Molded insulation, red plastic shell. Three conductor. **Net $2.40**

PJ-6 **Equivalent WE-213.** Designed for applications requiring two separate 3 conductor circuits. Popularly used with operator's intercom/monitor headsets. Black shell notched for polarity identification. Self aligning plug prongs on 11/16" centers. **Net $9.78**

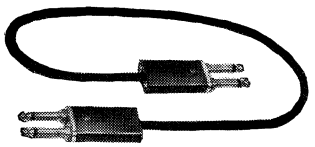
D7200 **Equivalent WE-315B.** Four prong, self aligning plug. Molded insulation. Brass shell notched for polarity is nickel plated and connected to plug stems to provide shielding for tip conductors. For use with four PJ-318 double jacks mounted on ⅝" centers. Five conductors. **Net $14.70**

PJ-327 **Equivalent WE-327.** The PJ-327 Twin Plugs provides two electrically independent, 2 conductor plugs in a black plastic shell which is notched to indicate polarity. Self aligning plug sleeves are on ⅝" centers. Designed and constructed in accordance with Specification MIL-P-642A. **Net $2.55**

PJ-7 Twin type plug with tip, ring and sleeve conductors on ⅝" centers for use with all standard jack panels. Designed to mate with three conductor jacks having ¼" diameter sleeves. Molded insulation. Black phenolic shell is notched to indicate polarity. **Net $7.20**



PATCH CORDS



Length	Cord With PJ-1 Plugs	Net Price	Cord With PJ-5 Plugs	Net Price	Replacement Cords Only	Net Price
6-inch	PJ-10½	$6.38	PJ-50½	$3.48	PJ-20½	$1.11
1-foot	PJ-11	6.60	PJ-51	3.63	PJ-21	1.50
2-feet	PJ-12	6.75	PJ-52	3.84	PJ-22	1.65
3-feet	PJ-13	6.90	PJ-53	4.11	PJ-23	1.74
4-feet	PJ-14	7.13	PJ-54	4.44	PJ-24	1.80
5-feet	PJ-15	7.28	PJ-55	4.77	PJ-25	1.89
6-feet	PJ-16	7.58	PJ-56	5.25	PJ-26	2.49
10-feet	PJ-10	8.10	PJ-50	5.82	PJ-20	3.15

ADC patch cords have become standards in the communications industry. Unmatched in quality, these shielded cords are made of tinned copper conductor wire with a heavy braided cover reinforced at each end. These cords, as well as cord assemblies with PJ-1 double plugs, PJ-5 or PJ-3 single plugs and standard black patch cords with shields grounded both ends, are considered standard. Unshielded cords or assemblies with shields grounded one end only available on special order. Gray, red, other color cords available on special order.

Length	Cord With PJ-3 Plugs	Net Price	Replacement Cords Only	Net Price
2-feet	PJ-82	$8.70	PJ-62	$2.10
4-feet	PJ-84	9.30	PJ-64	2.40
6-feet	PJ-86	9.90	PJ-66	2.82

Four tinsel wire conductors plus shield (shield grounded to both sleeves of PJ-7 plugs). Conductors are rubber insulated. Heavy black braided glazed cotton cover overall.

Length	Cord with PJ-7 Plugs
1 foot	PJ-171
2 feet	PJ-172
3 feet	PJ-173
4 feet	PJ-174
5 feet	PJ-175
6 feet	PJ-176

Four tinsel wire conductors, thermoplastic insulated. Slate colored Nylon braided cover overall resists wear.

Patch Cords Length	Nylon Cord With PJ-327 Plugs
1 foot	PJ-181
2 feet	PJ-182
3 feet	PJ-183
4 feet	PJ-184
5 feet	PJ-185
6 feet	PJ-186

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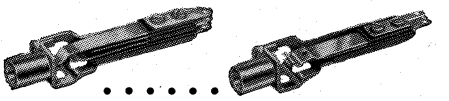
JACKS....



TELEPHONE TYPE

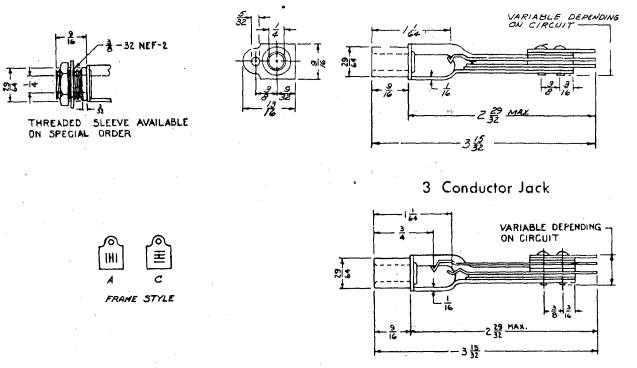
ADC is recognized as a leading supplier of long frame, telephone type jacks. As evidence of their outstanding quality, ADC jacks are used by the country's foremost manufacturers of communication equipment. The unique, ADC one piece frame is strong, dimensionally stable and readily interchangeable both mechanically and electrically with commonly used jacks. Plating withstands 50-hour salt spray tests. Coin silver contacts are welded to nickel silver springs. Lugs are hot tin dipped. Insulation is high grade phenolic.

Schematic Diagram	Jacks	W. E. Equiv.	Frame Style	Net Price
	PJ-115	215-A	A	$ .90
	PJ-116	216-A	A	.90
	PJ-117	217-A	A	.90
	PJ-123	223-A	A	.60
	PJ-125	225-A	A	1.02
	PJ-202	None	C	1.02
	PJ-203	303-A	A	.78
	PJ-204	None	A	1.02
	PJ-205	240-A	A	1.32
	PJ-206	242-A	A	1.32
	PJ-207	285-A	A	1.50
	PJ-208	284-A	A	1.50
	PJ-209	411-A	A	1.02
	PJ-226	226-A	A	1.02
	PJ-237	237-A	A	.87
	PJ-238	238-A	A	.66
	PJ-240	240-C	C	1.23
	PJ-241	241-A	A	1.02
	PJ-242	242-C	C	1.23
	PJ-318	218-A	A	.66
	PJ-336	236-C	C	1.14
	PJ-338	438-C	C	1.23
	PJ-339	239-A	A	.92
	PJ-418	218-C	C	.69

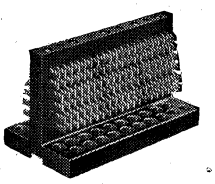
MILITARY JACKS

Designed to meet the rugged, exacting requirements of military applications. These ADC jacks are made in accordance with Mil-J-641B specifications. Highest quality materials and closely held tolerances on dimensions conform with military specifications.

Schematic Diagram	Mil Jacks	Net Price	Schematic Diagram	Mil Jacks	Net Price
	JJ-015	1.17		JJ-073	1.50
	JJ-016	.90		JJ-074	1.17
	JJ-017	1.17		JJ-075	1.50
	JJ-019	1.41		JJ-077	1.71
	JJ-022	.75		JJ-078	1.71
	JJ-024	.75		JJ-084	1.05
	JJ-035	1.17		JJ-085	1.05
	JJ-042	1.02		JJ-086	.66
	JJ-072	1.05		JJ-087	1.17



TERMINAL BLOCKS



Type	No. Rows	No. Terminals	Net Price
PJ-101	1	20	$3.45
PJ-102	2	40	4.65
PJ-103	3	60	5.85
PJ-104	4	80	7.05
PJ-105	5	100	8.25
PJ-106	6	120	9.45

Molded of durable black phenolic plastic material. Terminals are .040" plated brass. Rows of terminals are graduated in length for ease of wiring, and are identified by numbering along the top row. Base 3" x 6-1/16".

Net

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ADC PRODUCTS, INC.

new! BANTAM JACK PANELS

Bantam Jack Panels are designed to satisfy the increasing demand for more compact patchfields in modern electronic and communication equipment. Bantam Jack Panels, with miniaturized jacks, provide twice the number of jacks in a standard size panel. They require only ½ the rack space previously used by conventional panels. The new panel assemblies weigh 65% less when compared to an assembly using an equivalent number of jacks in a conventional jack panel. ■ Bantam Jack Panels are compact, lightweight, and yet provide the same dependable service as the long established telephone types. This new design offers 96 jacks (48 pairs) in a 1¾ inch x 19 inch standard sized panel. The jacks on this panel are spaced to prevent the cross patching of adjacent circuits when using double plugs.

BANTAM JACK PANEL SPECIFICATIONS

Panel: Aluminum alloy, extruded. 1¾ inches wide for standard 19 inch rack mounting.

Jack Mounting: Four molded plastic inserts, each provides for 24 jacks. Pairs of jacks on ⅝ inch centers. Double row panel provides 96 jacks total. Blank inserts can be furnished where only single row of jacks is required.

Panel mounting: Mounting brackets are integral part of panel.

Designation Strip: Extruded clear plastic.

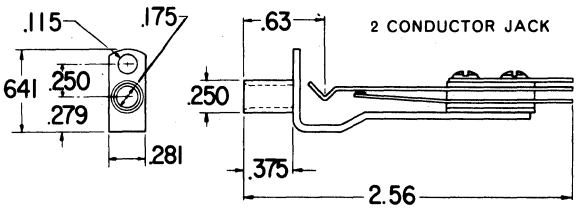
Panel Finish: Anodized, Black.

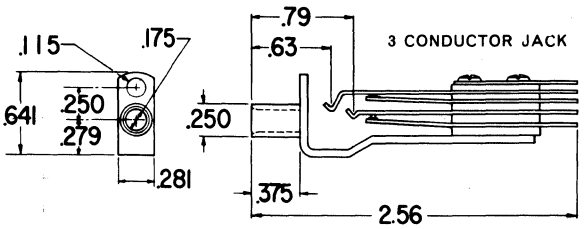
		NET
PJ-731	Double row panel, assembly less jacks, hold 96 jacks	$ 19.20
PJ-737	Double row panel, with 48 pair (96 total) PJ-818 jacks.	92.40
PJ-739	Double row panel, with 48 pair (96 total) PJ-839 jacks.	116.40
PJ-724	Panel inserts, less jacks, 24 holes.	2.40
PJ-700	Panel inserts, blank (same as PJ-724 without holes).	1.20

Custom panel assemblies with up to 104 jacks are available on special order.

BANTAM JACKS

Bantam Jacks will meet the electrical, mechanical and environmental requirements of the military specification for long frame telephone jacks. Although reduced in size these jacks will provide the same reliable service equal to that expected from regular size telephone jacks. These jacks are available in a variety of two and three conductor types, with isolated circuit contacts as well as normalling contact.





SPECIFICATIONS:

Frame: Steel, Cadmium plate with chromate conversion coating to withstand 50 hours of salt spray.

Springs: Nickel silver.

Contacts: Palladium, cross-bar contacts are welded to springs.

Insulation: Spacers, Phenolic Type PBE-P per Mil-P-3115B.

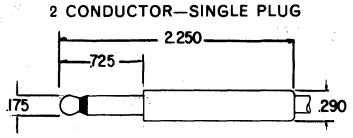
Bushing: Brass, silver soldered to frame. Finish same as frame.

2 conductor—tip and sleeve	PJ-803
2 conductor—tip and sleeve	PJ-818
2 conductor—tip and sleeve	PJ-823
3 conductor—tip, ring and sleeve	PJ-838
3 conductor—tip, ring and sleeve	PJ-839

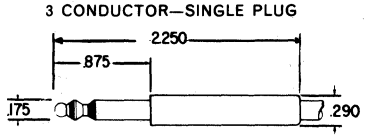
BANTAM PATCH CORDS

Bantam Patch Cords are plastic jacketed, shielded cords complete with molded-on plugs. The plugs are made with molded insulation between conductors. Bantam Patch Cords are available with single and double two conductor plugs and single three conductor plugs. A cord strain relief feature is included in the plug construction.

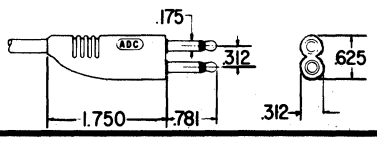
2 CONDUCTOR—SINGLE PLUG



3 CONDUCTOR—SINGLE PLUG



2 CONDUCTOR (DOUBLE)



SPECIFICATIONS:

Cord: Plastic jacketed, shielded tinned copper conductors. Jacket color, Gray.

Plugs: Conductor parts are precision machined of brass.

Plug Insulation: Molded polystyrene, black.

Internal connections: Soldered.

Plug shell: Plastic, molded to cord. Gray.

BANTAM PATCH CORDS

Length	Single (2) Conductor Plug	Net	Double (2) Conductor Plug	Net	Single (3) Conductor Plug	Net
6 inch	PJ-701	$3.30	PJ-751	$3.96	PJ-711	$3.90
12 inch	PJ-702	3.36	PJ-752	4.02	PJ-712	3.96
24 inch	PJ-704	3.42	PJ-754	4.08	PJ-714	4.02
36 inch	PJ-706	3.48	PJ-756	4.14	PJ-716	4.08
48 inch	PJ-708	3.54	PJ-758	4.20	PJ-718	4.20

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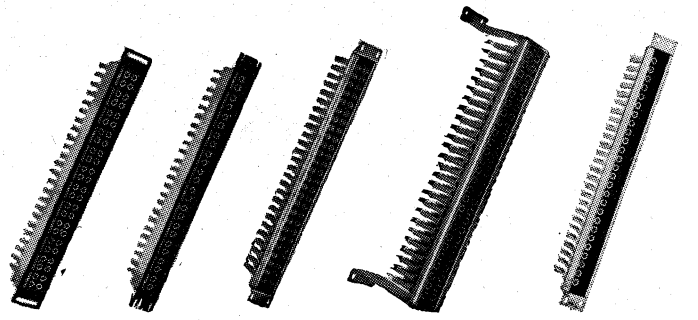
Net

ADC PRODUCTS, INC.

JACK PANELS...

ADC offers the most complete assortment of jack panels available today. ADC panels are used in television and broadcasting stations, recording studios, industrial paging systems, and communication equipment of all kinds where there is a need to efficiently switch and distribute audio signals. Molded of solid phenolic, reinforced with steel to provide maximum rigidity and strength. Jacks are spaced to permit use of any standard double plug with ⅝" spacing. Mounting brackets and designation strips furnished with each panel. All panels designed to fit standard 19" relay rack. Consult ADC for your standard and special jack panel requirements.

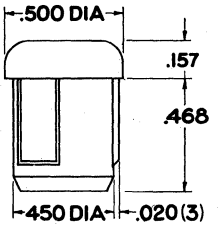


PJ-31 **PJ-341** **PJ-391** | **PJ-33** **PJ-343** **PJ-393** | **PJ-30** **PJ-340** **PJ-390** | **PJ-35** **PJ-350** **PJ-395** | **PJ-36** **PJ-360** **PJ-396**

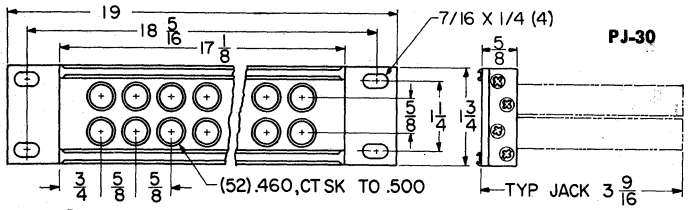
HOLE PLUG

Molded of black polyethylene plastic. Fits all ADC standard jack panels. Made to plug unused jack mounting holes in jack panels.

PJ-29 **Net $.15**

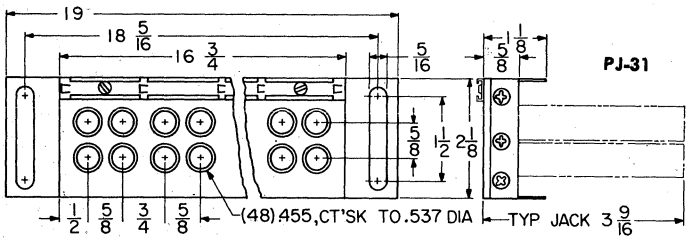


Panel less Jacks	Net Price	Panel with PJ-318 Jacks	Net Price	Panel with PJ-339 Jacks	Net Price
PJ-30	$12.90	PJ-340	$49.50	PJ-390	$64.80
PJ-31	9.45	PJ-341	42.75	PJ-391	57.30
PJ-33	8.52	PJ-343	25.14	PJ-393	32.40
PJ-35	15.60	PJ-350	52.50	PJ-395	67.50
PJ-36	8.70	PJ-360	27.90	PJ-396	35.10

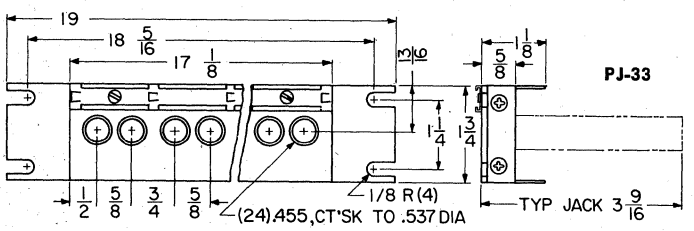


PJ-30
Double panel. Holds 52 jacks—requires 1¾" panel space. Double designation strip. Brackets for flush rack mounting. All jack mounting holes on ⅝" centers.

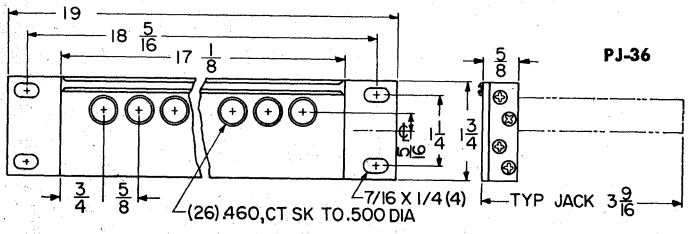
PJ-35
Double panel. Same as PJ-30 except with stand off brackets to hold panel 7" in front of mounting rack.



PJ-31
Double panel. Holds 48 jacks. Holes spaced to prevent patching adjacent circuits. Requires 2⅛" panel space.



PJ-33
Single panel. Holds 24 jacks. Holes spaced to prevent patching adjacent circuits. Requires 1¾" panel space.



PJ-36
Single panel. Holds 26 jacks—requires 1¾" panel space. Brackets for flush rack mounting. All jack mounting holes on ⅝" centers.

Panels with mil jacks and other telephone type jacks also available.

Net

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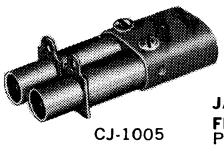
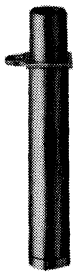
ADC COAX COAXIAL PATCHING COMPONENTS

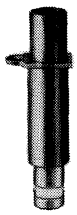
COAX JACKS



CJ-1005
CJ-1009



CJ-1000
CJ-1100



CJ-1011
CJ-1111

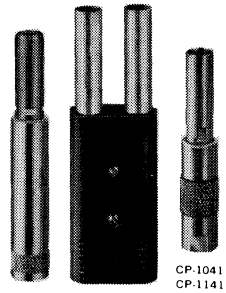
SPECIFICATIONS

JACK SLEEVE AND FRAME: Brass
FINISH (CONDUCTOR SURFACES): Gold Plating over Silver*
INSULATION: Teflon
CONTACT FINGERS: Phosphor Bronze (Gold Plating over Silver*)
CENTER CONDUCTOR: Beryllium Copper (Gold Plating over Silver*)
SHIELD TERMINATION: Brass (Gold Plating over Silver*) A sleeve is furnished for use when a crimped on solderless connection for shield is desired**

*Mil-G-45024, Type II

**For crimped solderless connections recommended tool: Thomas & Betts crimping tool #WT-412

	1-24	25-99
CJ-1000 Single Jack (WE 477B equivalent)	4.50	3.60
CJ-1011 Single Jack (with BNC connector)	5.00	4.00
CJ-1005 Dual Jack (WE 465C equivalent)	8.75	7.00
CJ-1009 Dual Jack (WE 491A equivalent)	8.50	6.80
CJ-1100 Single Jack	4.50	3.60
CJ-1111 Single Jack with BNC connector)	5.00	4.00



CP-1040 CP-1140 CP-1042 CP-1142 CP-1041 CP-1141 CP-1049 CP-1149

COAX PLUGS

SPECIFICATIONS

PLUG FINGERS: Brass
FINISH (CONDUCTOR SURFACES): Gold Plating over Silver*
CENTER CONDUCTOR—BRASS: Gold Plating over Silver*
INSULATION: Teflon
HANDLE: Single & Termination Plugs—Brass Nickel Plated
Looping Plugs—High Impact Resistant Plastic (Implex) Black
Dummy Plugs—Brass—Black Nickel

*Mil-G-45204, Type II

	WE Compatible Part Numbers	1-24	25-99
TERMINATION	CP-1040 (WE 340C)	4.50	3.60
SINGLE	CP-1041 (WE 358A)	3.00	2.80
LOOPING	CP-1042 (WE 372A)[3]	6.00	4.80
LOOPING WITH PIN JACKS[1]	CP-1043[3]	7.50	6.00
DUMMY[2]	CP-1049 (WE 339A)	2.25	1.80
	RCA Compatible Part Numbers		
TERMINATION	CP-1140	4.50	3.60
SINGLE	CP-1141	3.00	2.80
LOOPING	CP-1142[3]	6.00	4.80
LOOPING WITH PIN JACKS[1]	CP-1143[3]	7.50	6.00
DUMMY[2]	CP-1149	2.25	1.80

[1] Same as CP1042 with pin jacks [2] Same as single plug, except without center conductor or insulator [3] Both 50 and 75 ohm looping plugs are available. 75 ohm plug will be supplied unless order specifies 50 ohm version

COAX PANELS

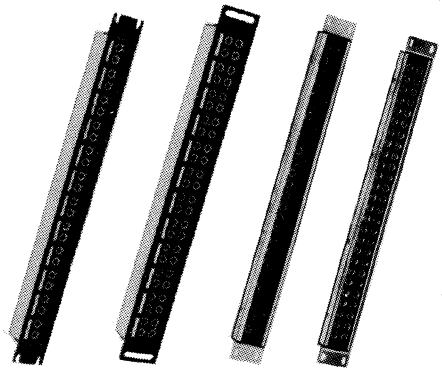


FIG. 1 FIG. 2 FIG. 3 FIG. 4

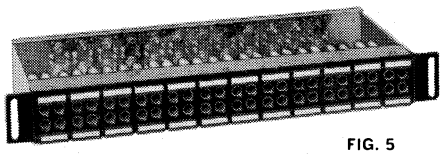
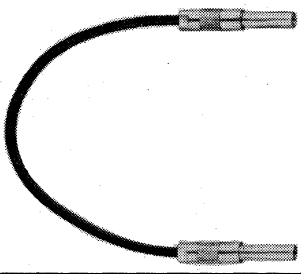


FIG. 5

Double and single row available.

CAT. NO.	FIG.	DESCRIPTION	1-4	5-9
CM-1020	1	1¾" wide Panel (Single Row) with 24 CJ-1000 jacks	115.00	92.00
CM-1022	5	1¾" wide Panel (Single Row) with 24 CJ-1000 jacks and Subchassis with 12 VHF Connectors	130.00	104.00
CM-1021	1	1¾" wide Panel (Single Row) with 24 CJ-1011 jacks	128.00	102.50
CM-1025	2	2⅛" wide Panel (Double Row) with 48 CJ-1000 jacks	225.00	180.00
CM-1027	5	2⅛" wide Panel (Double Row) with 48 CJ-1000 jacks and Subchassis with 24 VHF Connectors	255.00	202.00
CM-1026	2	2⅛" wide Panel (Double Row) with 48 CJ-1011 jacks	250.00	200.00
CM-1028	3	1¾" wide Panel (Single Row) with 26 CJ-1000 jacks	125.00	100.00
CM-1029	3	1¾" wide Panel (Single Row) with 26 CJ-1011 jacks	138.00	110.50
CM-1031	4	1¾" wide Panel (Double Row) with 52 CJ-1000 jacks	254.00	203.00
CM-1032	4	1¾" wide Panel (Double Row) with 52 CJ-1011 jacks	270.00	216.00
CM-1120	1	1¾" wide Panel (Single Row) with 24 CJ-1100 jacks	115.00	92.00
CM-1122	5	1¾" wide Panel (Single Row) with 24 CJ-1100 jacks and Subchassis with 12 VHF Connectors	130.00	104.00
CM-1121	1	1¾" wide Panel (Single Row) with 24 CJ-1111 jacks	128.00	102.50
CM-1125	2	2⅛" wide Panel (Double Row) with 48 CJ-1100 jacks	225.00	180.00
CM-1127	5	2⅛" wide Panel (Double Row) with 48 CJ-1100 jacks and Subchassis with 24 VHF Connectors	255.00	202.00
CM-1126	2	2⅛" wide Panel (Double Row) with 48 CJ-1111 jacks	250.00	200.00
CM-1128	3	1¾" wide Panel (Single Row) with 26 CJ-1100 jacks	125.09	100.00
CM-1129	3	1¾" wide Panel (Single Row) with 26 CJ-1111 jacks	138.00	110.50
CM-1131	4	1¾" wide Panel (Double Row) with 52 CJ-1100 jacks	254.00	203.00
CM-1132	4	1¾" wide Panel (Double Row) with 52 CJ-1111 jacks	270.00	216.00

COAX PATCH CORDS



Length	WE Compatible Part Numbers 50 ohm cable (RG-58U) with CP-1041 plugs	RCA Compatible Part Numbers 50 ohm cable (RG-58U) with CP-1141 plugs	WE Compatible Part Numbers 75 ohm cable (RG-59U) with CP-1041 plugs	RCA Compatible Part Numbers 75 ohm cable (RG-59U) with CP-1141 plugs	1-24	25-99
6"	CC-1051	CC-1151	CC-1071	CC-1171	6.00	4.80
12"	CC-1052	CC-1152	CC-1072	CC-1172	6.00	4.80
18"	CC-1053	CC-1153	CC-1073	CC-1173	6.25	5.00
24"	CC-1054	CC-1154	CC-1074	CC-1174	6.25	5.00
30"	CC-1055	CC-1155	CC-1075	CC-1175	6.50	5.20
36"	CC-1056	CC-1156	CC-1076	CC-1176	6.50	5.20

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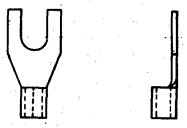
SOLDERLESS TERMINALS AND CONNECTORS

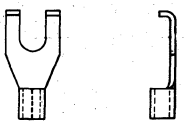
ARK-LES

Non-Insulated



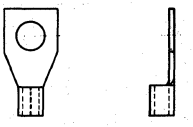
.240 Width

Wire Gauge	Stud Size	Spade	Flanged Spade	Square Spade	Ring
22-18	0	56001-1	56041-1	56079-1	56118-1
	2	56009-1	56048-1	56087-1	56126-1
	4	56017-1	56056-1	56095-1	56134-1
	6		56064-1		56142-1
16-14	0	56005-1	56044-1	56083-1	56122-1
	2	56013-1	56052-1	56091-1	56130-1
	4	56021-1	56060-1	56099-1	56138-1
	6		56068-1		56146-1



.300 Width

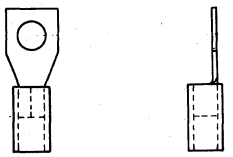
Wire Gauge	Stud Size	Spade	Flanged Spade	Square Spade	Ring
22-18	4	56165-1	56213-1	56261-1	56309-1
	6	56177-1	56225-1	56273-1	56321-1
	8	56189-1	56237-1	56285-1	56348-1
	10	56201-1	56249-1		56360-1
16-14	4	56169-1	56217-1	56265-1	56313-1
	6	56181-1	56229-1	56277-1	56325-1
	8	56193-1	56241-1	56289-1	56352-1
	10	56205-1	56253-1		56364-1
12-10	4	56173-1	56221-1	56269-1	56317-1
	6	56185-1	56233-1	56281-1	56329-1
	8	56197-1	56245-1	56293-1	56356-1
	10	56209-1	56257-1		56368-1



.380 Width

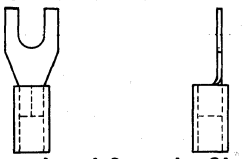
Wire Gauge	Stud Size	Spade	Flanged Spade	Square Spade	Ring
22-18	6	56387-1	56435-1	56483-1	56531-1
	8	56399-1	56447-1	56495-1	56543-1
	10	56411-1	56459-1	56507-1	56570-1
	¼				56582-1
16-14	6	56391-1	56439-1	56487-1	56535-1
	8	56403-1	56451-1	56499-1	56547-1
	10	56415-1	56463-1	56511-1	56574-1
	¼				56586-1
12-10	6	56395-1	56443-1	56491-1	56359-1
	8	56407-1	56455-1	56503-1	56551-1
	10	56419-1	56467-1	56515-1	56578-1
	¼				56590-1

Pre-Insulated Straight Sleeve



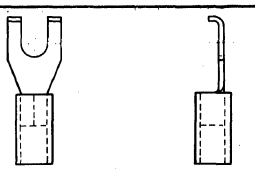
.240 Width

Wire Gauge	Stud Size	Spade	Flanged Spade	Square Spade	Ring
22-18	0	50001-1	50041-1	50079-1	50118-1
	2	50009-1	50048-1	50087-1	50126-1
	4	50017-1	50056-1	50095-1	50134-1
	6		50064-1		50142-1
16-14	0	50005-1	50044-1	50083-1	50122-1
	2	50013-1	50052-1	50091-1	50130-1
	4	50021-1	50060-1	50099-1	50138-1
	6		50068-1		50146-1



.300 Width

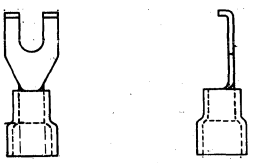
Wire Gauge	Stud Size	Spade	Flanged Spade	Square Spade	Ring
22-18	4	50165-1	50213-1	50261-1	50309-1
	6	50177-1	50225-1	50273-1	50321-1
	8	50189-1	50237-1	50285-1	50348-1
	10	50201-1	50249-1		50360-1
16-14	4	50169-1	50217-1	50265-1	50313-1
	6	50181-1	50229-1	50277-1	50325-1
	8	50193-1	50241-1	50289-1	50352-1
	10	50205-1	50253-1		50364-1
12-10	4	50173-1	50221-1	50269-1	50317-1
	6	50185-1	50233-1	50281-1	50329-1
	8	50197-1	50245-1	50293-1	50356-1
	10	50209-1	50257-1		50368-1



.380 Width

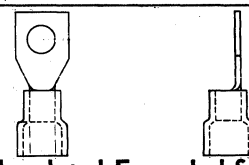
Wire Gauge	Stud Size	Spade	Flanged Spade	Square Spade	Ring
22-18	6	50387-1	50435-1	50483-1	50531-1
	8	50399-1	50447-1	50495-1	50543-1
	10	50411-1	50459-1	50507-1	50570-1
	¼				50582-1
16-14	6	50391-1	50439-1	50487-1	50535-1
	8	50403-1	50451-1	50499-1	50547-1
	10	50415-1	50463-1	50511-1	50574-1
	¼				50586-1
12-10	6	50395-1	50443-1	50491-1	50539-1
	8	50407-1	50455-1	50503-1	50551-1
	10	50419-1	50467-1	50515-1	50578-1
	¼				50590-1

Pre-Insulated Expanded Sleeve



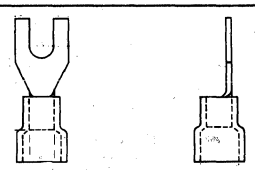
.240 Width

Wire Gauge	Stud Size	Spade	Flanged Spade	Square Spade	Ring
22-18	0	50003-1	50042-1	50081-1	50120-1
	2	50011-1	50050-1	50089-1	50128-1
	4	50019-1	50058-1	50097-1	50136-1
	6		50066-1		50144-1
16-14	0	50007-1	50046-1	50085-1	50124-1
	2	50015-1	50054-1	50093-1	50132-1
	4	50023-1	50062-1	50101-1	50140-1
	6		50070-1		50148-1



.300 Width

Wire Gauge	Stud Size	Spade	Flanged Spade	Square Spade	Ring
22-18	4	50167-1	50215-1	50263-1	50311-1
	6	50178-1	50227-1	50275-1	50323-1
	8	50191-1	50239-1	50287-1	50335-1
	10	50203-1	50251-1		50347-1
16-14	4	50171-1	50219-1	50267-1	50315-1
	6	50183-1	50231-1	50279-1	50327-1
	8	50195-1	50243-1	50291-1	50339-1
	10	50207-1	50255-1		50351-1
12-10	4	50175-1	50223-1	50271-1	50319-1
	6	50187-1	50235-1	50283-1	50331-1
	8	50199-1	50247-1	50295-1	50343-1
	10	50211-1	50259-1		50355-1



.380 Width

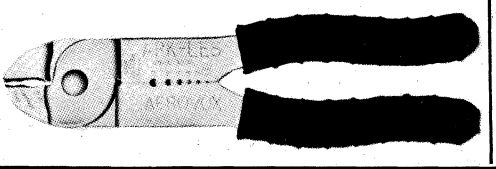
Wire Gauge	Stud Size	Spade	Flanged Spade	Square Spade	Ring
22-18	6	50389-1	50437-1	50485-1	50533-1
	8	50401-1	50449-1	50497-1	50545-1
	10	50413-1	50461-1	50509-1	50572-1
	¼				50584-1
16-14	6	50393-1	50441-1	50489-1	50537-1
	8	50405-1	50453-1	50501-1	50549-1
	10	50417-1	50465-1	50513-1	50576-1
	¼				50588-1
12-10	6	50397-1	50445-1	50493-1	50541-1
	8	50409-1	50457-1	50505-1	50553-1
	10	50421-1	50469-1	50517-1	50580-1
	¼				50592-1

Part numbers shown are for Terminals with butted seam. For the same Terminal with welded seam add 1 to each number. example: 56001-1 becomes 56002-1

TOOLS

Tool Model 10,000 - pre-insulated Terminals
Tool Model 10,001 - non-insulated Terminals

Also a complete selection of manual, electric and pneumatic tools available.



Contact your Local Authorized Aerovox Distributor for prices up to 10,000 pieces.

For complete information on our entire line of Solderless Terminals and Kits request Catalog AKD-566.

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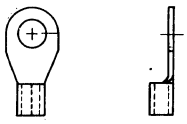
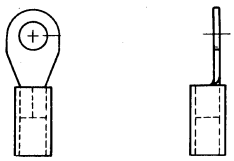
SOLDERLESS TERMINALS AND CONNECTORS



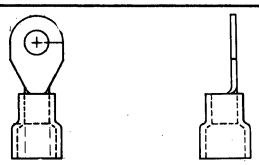
Non-Insulated .500 Width

Wire Gauge	Stud Size	Spade	Flanged Spade	Square Spade	Ring
22-18	10	56609-1	56648-1	56687-1	56726-1
	¼	56621-1	56660-1	56699-1	56738-1
	5/16				56750-1
16-14	10	56613-1	56652-1	56691-1	56730-1
	¼	56625-1	56665-1	56703-1	56742-1
	5/16				56754-1
12-10	10	56617-1	56656-1	56695-1	56734-1
	¼	56629-1	56668-1	56707-1	56746-1
	5/16				56758-1



Pre-Insulated Straight Sleeve .500 Width

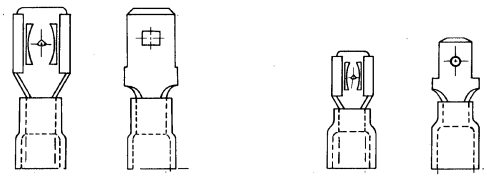
Wire Gauge	Stud Size	Spade	Flanged Spade	Square Spade	Ring
22-18	10	50609-1	50648-1	50687-1	50726-1
	¼	50621-1	50660-1	50699-1	50738-1
	5/16				50750-1
16-14	10	50613-1	50652-1	50691-1	50730-1
	¼	50625-1	50665-1	50703-1	50742-1
	5/16				50754-1
12-10	10	50617-1	50656-1	50695-1	50734-1
	¼	50629-1	50668-1	50707-1	50746-1
	5/16				50758-1



Pre-Insulated Expanded Sleeve .500 Width

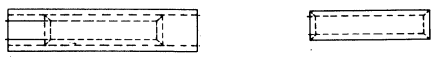
Wire Gauge	Stud Size	Spade	Flanged Spade	Square Spade	Ring
22-18	10	50611-1	50650-1	50689-1	50728-1
	¼	50623-1	50662-1	50701-1	50740-1
	5/16				50752-1
16-14	10	50615-1	50654-1	50693-1	50732-1
	¼	50627-1	50666-1	50705-1	50744-1
	5/16				50756-1
12-10	10	50619-1	50658-1	50697-1	50736-1
	¼	50631-1	50670-1	50709-1	50748-1
	5/16				50760-1

QUICK CONNECT TERMINALS – MALE & FEMALE



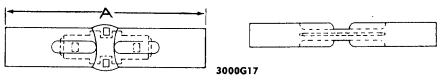
Wire Gauge	Size	Non-Insulated	Pre-Insulated Straight Sleeve	Pre-Insulated Expanded Sleeve
22-18	¼ Male	56952-1	50952-1	50954-1
	¼ Female	56902-1	50902-1	50904-1
	3/16 Male	56964-1	50964-1	50966-1
	3/16 Female	56914-1	50914-1	50916-1
16-14	¼ Male	56956-1	50956-1	50958-1
	¼ Female	56906-1	50906-1	50908-1

BUTT & LINE CONNECTORS



Butt Connectors

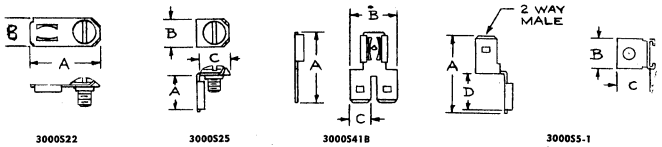
Wire Gauge	Non-Insulated	Pre-Insulated Straight Sleeve	Pre-Insulated Expanded Sleeve
22-18	59004	59002	59007
16-14	59005	59003	59008
12-10	59006	59004	59009



Line Connector

Part #	Series		A	
3000G17	3000	Polyvinyl Tube and Brass Tab	2.125	Line Connector for Two Inline Female Terminals

QUICK CONNECT ADAPTORS



Part #	Series	Material	A	B	C	D	Remarks
3000S22	–	Brass	.812	.328	–	–	Screw #6-32x¼"
3000S25	–	Brass	.391	.312	.359	–	Screw #6-32x¼"
3000S41B	–	Brass	.820	.562	.250	–	3000 Series
3000S5-1	–	Brass	.884	.343	.379	.391	

KITS

Kits available containing generous assortments of Terminals together with a Crimping Tool.

ATK-900 – Pre-Insulated Quick Connect
ATK-901 – Pre-Insulated Solderless Terminals
ATK-902 – Non-Insulated Solderless Terminals

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AMPHENOL RACK & PANEL CONNECTORS

AMPHENOL DISTRIBUTOR DIVISION

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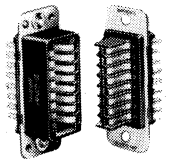
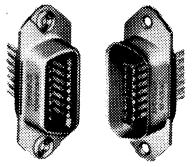


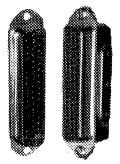
BLUE Ribbon® CONNECTORS

The Amphenol gold-plated ribbon connector provides more contact mating surface than any connector of its type. Applying the principle of the wedge, ribbon contacts exert a continuous flexing action against each other while mated, providing unusually low contact resistance. The Blue Ribbon® contact is self-wiping for reliability throughout its long life, and is available with 8 to 32 contacts. Cable to panel versions are also available.



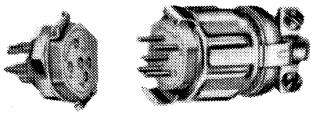
Micro RIBBON® CONNECTORS

Amphenol's Micro Ribbon® connector is a miniature version of the Blue Ribbon. It features 14 to 50 contacts, low contact resistance, self-wiping action and miniature size.



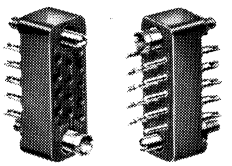
Min Rac 17 CONNECTORS

Amphenol's Min-Rac 17® connector is highly suited for saving needed space for proper ventilation, component mounting, or chassis size reduction. Mounting depth is less than most "shell-less" rack-and-panel connectors. It provides up to 50 Poke-Home® terminals in half the insert space required for standard rack-and-panel connectors. Poke-Home contacts are available in either crimp or solder versions.



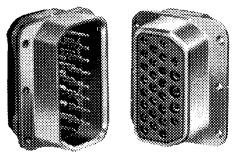
HEX-TYPE CONNECTORS

Amphenol provides a complete family of miniature rack-and-panel and cable-to-chassis connectors for interconnection in a wide range of applications. Hardware and contacts are interchangeable. Bodies are molded of diallylphthalate; gold-over-silver contacts will not tarnish or corrode and can be soldered without pre-tinning even after long storage. All hardware is nickle-plated solid brass.



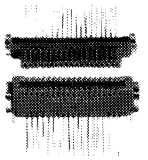
126 SERIES CONNECTORS

The 126 Series is a versatile group of connectors available in 11, 15, and 20 contacts —with or without protective can and cable clamp. Rated at 900 volts RMS, 60 CPS at sea level. Bodies are mica-filled phenolic; contacts are gold-plated.



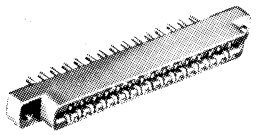
94 SERIES POKE-HOME® CONNECTORS

Amphenol's 94 Series rack-and-panel connectors feature Poke-Home contacts. Aluminum shells are cadmium plate, chromate treated. Useful for any rack-and-panel application, the 94 Series is especially valuable where circuits must be changed frequently within the connector. Poke-Home contacts can be wired and then inserted into the mounted or unmounted connectors in any desired position.



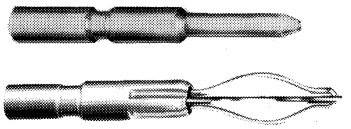
MICRO-MINIATURE CONNECTORS

Amphenol provides three additional complete series of subminiature connectors designed for modules, stick-circuitry, thin style printed circuit boards, and other micro-miniature applications. Use of the Micro-Mod®, Micro-Min® Series, and Micro-Edge® connectors is limited only by the imagination of the design engineer.



PRINTED CIRCUIT CONNECTORS

Amphenol's printed circuit connectors are available with ribbon or tuning fork contacts. The broad selection of contact tails represents the most complete line in the industry.



POKE-HOME® CRIMP MICRO-MINIATURE CONNECTORS

Amphenol micro-miniature connectors are now available with a choice of high-density contacts: Wire-Form for economically solving virtually every contact application or new Relia-Tac for extra high reliability. Both feature handy crimp termination on the following connectors:

Mighty-Mite®—cable-to-panel and cable-to-cable application; 7 to 61 contacts.
Tiny Tim®—module and rack-and-panel application; 5 to 33 contacts.
Micro-Rac®—rack-and-panel, cable, and module application; 52 to 104 contacts.
The 221 Series Strip—permits cutting and stacking in unlimited shapes.

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AMPHENOL POWER CONNECTORS

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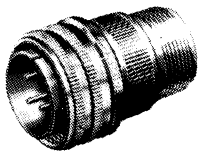


MS CONNECTORS

Amphenol builds MS connectors to the latest issue of MIL-C-5015 Specification. They are designed, manufactured, and approved under this specification for the armed forces, and are ideal for commercial and industrial applications which require the same versatility and dependability.

MS — E CONNECTORS

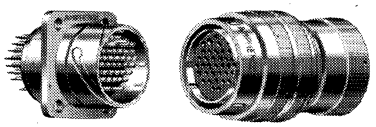
Amphenol's resilient dielectric MS connector meets all environmental requirements of the latest revision of MIL-C-5015. Its unitized grommet eliminates the use of bulky cable clamps, and results in a considerable reduction of length and weight in relation to standard MS connectors.

MS — R & 69 POKE-HOME® CONNECTORS

Amphenol Poke "R" solderless connectors provide all the lightweight environmental-resistant features of MIL-C-5015s "R" Class with two important additions: Poke-Home contacts and superior environmental performance. Incorporation of these two features make Poke "R" a highly preferred MIL-C-5015-type connector.

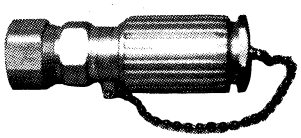
48 SERIES — MIL-C-26500 MIL-C-3830 (USAF)

Meeting or exceeding all MIL-C-26500 and MIL-C-38300 requirements, Amphenol's 48 Series combines miniature environmentally-resistant construction and Poke-Home crimp type contacts. MIL-C-26500 connectors perform with utmost reliability in temperatures of −55° C to +260° C, with no re-rating up to 360,000 ft. Available with threaded and bayonet coupling.



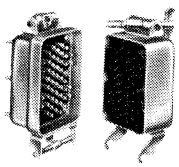
67 SERIES MINNIE® CONNECTORS

Amphenol 67 Series MinniE connectors are quick-disconnect, multi-contact, miniature bayonet types. MinniE connectors feature inclined stainless steel slots and spring loaded coupling rings. A bright orange visual indicator signals full coupling. The 67 Series has a wide variety of shell styles with environmental capability. Receptacles are available in hermetics.



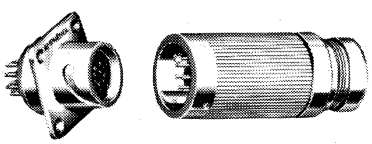
89 SERIES CONNECTORS

Rugged and completely leakproof, Amphenol 89 Series connectors provide efficient and dependable service even when entirely submerged in mud, ice, water, or mire. They are used extensively in missile ground-and-support systems, radar antenna installations, oil well and digging equipment, and other hard-service applications. Available in more than 70 insert configurations with 2 to 52 contacts.



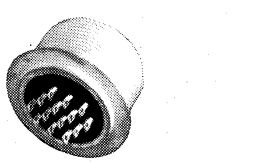
115 SERIES CONNECTORS

Amphenol 115 Series connectors accommodate 50 or 100 No. 16 contacts and are nominally rated at 750 volts RMS, 60 CPS at sea level. They provide maximum space efficiency for all applications where a large number of circuits must be broken quickly and conveniently. The vise-action of the screw lock permits a quick-make quick-break switching action of all contacts.



MINIATURE "AN" CONNECTORS

Compact, efficient Amphenol 165 Series connectors are miniature versions of standard AN/MS types. Because of their weight and space saving design they are widely used in aircraft and miniaturized electronic equipment. 165 Series connectors use bayonet couplings, and are both pressure-proof and completely waterproof—mated or apart. Hermetically sealed, 182 Series connectors mate with connectors of the 165 Series.



172 SERIES HERMETIC CONNECTORS

Amphenol 172 Series hermetic receptacles use an improved hard-glass compression seal with high visibility "Identoseal" contact identification. Both insert faces have ceramic white marking permanently fused to the dark brown glass. Receptacles mate with MIL-C-5015 MS plugs. The 172 Series is available in round flange, square flange, hex flange, and flangeless shells.

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AMPHENOL TUBE SOCKETS & MICROPHONE CONNECTORS

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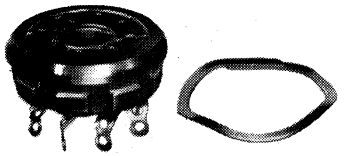
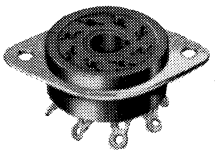


"S" TYPE TUBE SOCKETS

Amphenol "S" type tube sockets mount quickly and easily without screws or rivets by means of a patented "Retainer Ring Mounting." Sockets position to line up contacts for convenient wiring. The "S" type tube socket may be used with "Plug Caps" to make high-quality, low-cost cable connectors. Available also in mica-filled phenolic.

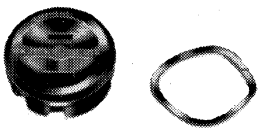


"MIP" SOCKETS

Amphenol's famous "MIP" socket (Molded-in-Plate) features Bakelite dielectric, and 4 to 20 contacts.

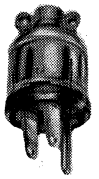
"CP" PLUGS

Amphenol "CP" plugs also mount simply through use of the patented "Retainer Ring Mounting." "CP" plugs are ideal as chassis connectors with plug-in units and are available optionally in mica-filled phenolic. They also adapt to cable applications when used with steel caps.



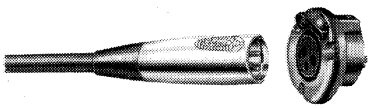
110/220 VOLT PLUGS & RECEPTACLES

Amphenol's 110/220 volt plugs and receptacles may be panel or cable mounted. Available with rubber grommeted or cable clamp type shields, recessed or raised mountings, two or three contacts.



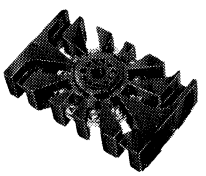
110 VOLT GROUND PLUGS & RECEPTACLES

Amphenol's 110 volt ground plugs and receptacles meet latest UL requirements. The 160 Series may be panel or cable mounted.



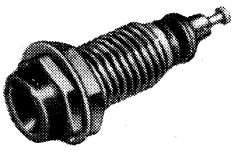
MIKE CONNECTORS

Designed for use with shielded microphone cables, Amphenol's family of microphone connectors are available in several series and include "Quick" Microphone Connectors with quick-button disconnect, 75 Series, single and double contact 80 Series, and its companion, 3, 4 and 6 contact 91 Series.



RELAY SOCKETS

Amphenol relay sockets are available in a broad range of contact styles and sizes, with up to 20 contacts.



MILITARY TIP JACKS

Amphenol military tip jacks feature a recessed silver-plated contact for top durability and high performance. Available in a wide range of colors, and other options. ¼ inch mounting hole.

FOR COMPLETE TECHNICAL INFORMATION . . . CONSULT AMPHENOL'S 20 PAGES OF PRODUCT AND ORDERING SPECIFICATIONS APPEARING IN THE ELECTRONIC ENGINEERS MASTER (eem).

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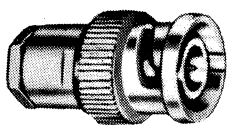
AMPHENOL RF PRODUCTS

AMPHENOL DISTRIBUTOR DIVISION™

For Immediate Service Contact Your Local Amphenol Sales Office

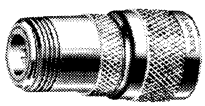
83 SERIES UHF CONNECTORS

Amphenol's UHF 83 Series consists of both small and large single and twin contact connectors. All are low-cost, general purpose connectors of non-constant impedance. They operate satisfactorily at frequencies up to 200 megacycles, can be used with caution up to 500 megacycles, and can be used at peak voltages up to 500 volts.



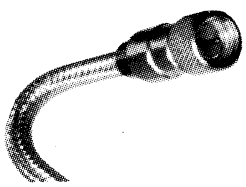
MIL-CRIMP, QUICK-CRIMP & SOLDER BNC CONNECTORS

Amphenol Series BNC connectors for small coaxial cables consist of non-constant impedance types and an improved constant 50 ohm impedance type. All incorporate quick-connect and disconnect bayonet-lock coupling and are weatherproof. Now you can have your MIL-spec and crimp it, too — with the first quick-crimp connector to meet MIL-C-23329A, Amphenol's MIL-Crimp.



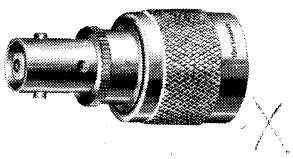
SERIES N CONNECTORS

Completely weatherproof Series N connectors are the most popular constant impedance connectors for medium size coaxial cables. They can be used throughout microwave frequencies with minimum line unbalance or increase in standing-wave ratio. Although Series N 50 ohm and 70 ohm connectors do not mate, 70 ohm cables may be used with 50 ohm Series N connectors where impedance matching is not critical.



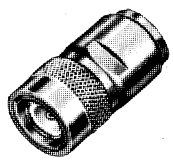
SUB*Minax*® RF CONNECTORS

Amphenol's SubMinax RF connector family provides the most complete subminiature line available from one source. The SubMinax 27 Series is gold-plated and uses a MIL-C-22557 screw-on and push-on coupling. The SubMinax 5116 is silver-plated and mates with competitive non-MIL-C-22557 screw-on, push-on coupling types. The 5116 contains only five components, saving as much as two-thirds assembly time.



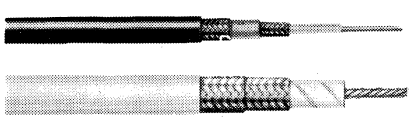
BETWEEN SERIES ADAPTERS

Amphenol can provide the most complete line available of between-series adapters.



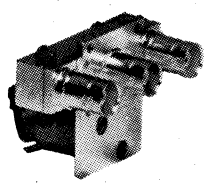
OTHER RF CONNECTORS

Types C, HN, LC, BN, TNC, LN, SKL, MB, MC, SM, TWINAX, MHV, and Terminations, as well as a variety of modifications, make up the complete Amphenol line.



COAXIAL CABLE

Amphenol provides the broadest line of RG and non-RG coaxial cable available, and is generally accepted as the quality leader in this field. Dielectric includes Teflon, Polyethylene, and Polyfoam.



COAXIAL SWITCHES

Amphenol coaxial switches provide remote and manual switching up through 4000 mc. Single pole, single throw–through 12 pole. Available with a variety of terminating connectors and relay voltages.

FOR COMPLETE TECHNICAL INFORMATION . . . CONSULT AMPHENOL'S 20 PAGES OF PRODUCT AND ORDERING SPECIFICATIONS APPEARING IN THE ELECTRONIC ENGINEERS MASTER (eem).

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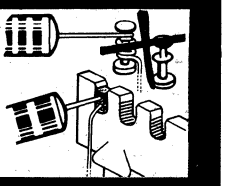
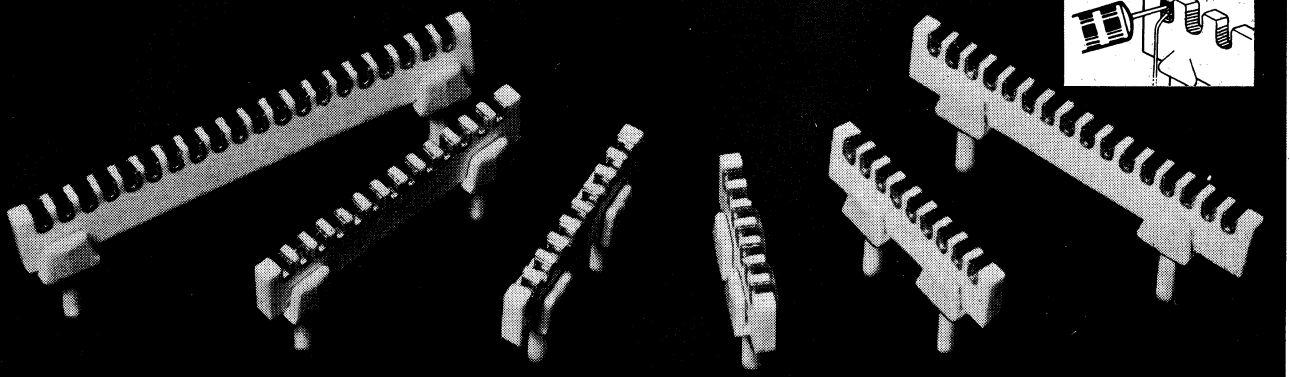
CERAMIC TERMINAL STRIPS

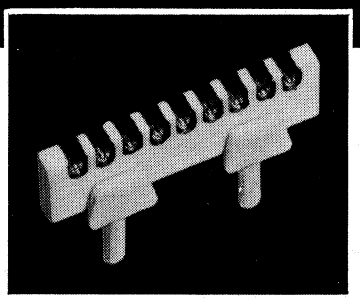
Simplify Component Replacement!





PERMANENT BOND BETWEEN METAL AND CERAMIC

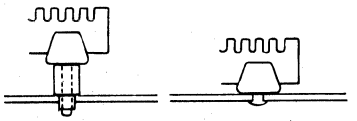
Not just an adhesion, but "fired" to prevent metal from loosening



SOLDERED 500 TIMES
STILL LOOKS LIKE NEW

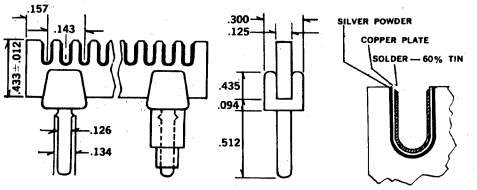
ALCOSTRIPS are especially suitable for experimental design where components need to be resoldered and removed. The unretouched photo tells the story — that **ALCOSTRIPS** can be used again and again. One experimental engineer soldered over 500 times on this unit — cleaned it, and has continued using it.

MOUNTING SUGGESTIONS



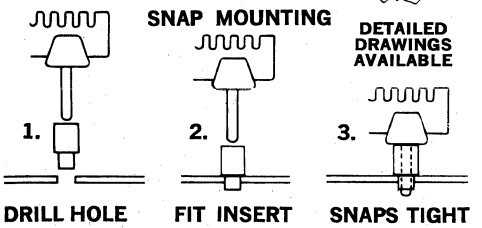
ELEVATED **FLUSH***
*Cut and fuse

MINIATURE SIZED — Electronic engineers who insist on high standards in manufactured products have found these new ceramic strips an answer to their "quality" problems. The uniform manufacturing of the terminal strips gives the row after row assembly a neater appearance and adds a quality look overall. Tinned copperplate on silvered ceramic facilitates soldering of components and leads. **ALCOSTRIPS** are superior to the commonly used temperature afflicted plastics. The high temperature qualifications allow these ceramic strips to withstand excess heat. Ideal for long life, low resistance. Recommended for prototypes and production uses.



SNAP MOUNTING

DETAILED DRAWINGS AVAILABLE



DRILL HOLE **FIT INSERT** **SNAPS TIGHT**

SPECIFICATIONS (MEP-NB Series)

Dielectric Strength:
More than 10 seconds at 1,500 VDC between terminals.
Insulation Resistance:
More than 1000 megohms at 500 VDC megger.
Tensile Strength:
10 Kg.
Terminals:
1st stage, silver powder, sintered.
2nd stage, copperplate, sintered.
3rd stage, dip-soldered.
Dip Soldering Test:
No exfoliation when subjected to temperatures of 250°C for 5 seconds.
Twisting:
Less than 1mm on MEP-NB-20
Bending:
Maximum spacing allowed when strip is placed on a flat surface plate:
0.5mm or less for MEP-NB-13
0.4mm or less for MEP-NB-9
0.2mm or less for MEP-NB-3
Materials:
Terminal Strip: steatite (ceramic)
Stud: polycarbonate
Mounting bushing: polypropolyne

INDUSTRIAL NET PRICE SCHEDULE

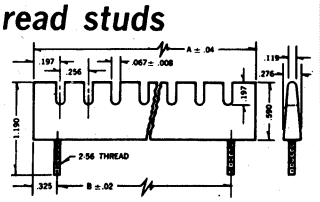
MODEL	TERMINALS	One-24	25-99	100-499	500-999
MEP-NB-3	3	.48	.325	.29	.26
MEP-NB-5	5	.66	.45	.395	.355
MEP-NB-7	7	.81	.545	.48	.435
MEP-NB-9	9	.87	.59	.52	.47
MEP-NB-13	13	1.11	.755	.665	.60
MEP-NB-16	16	1.35	.92	.81	.73
MEP-NB-20	20	1.65	1.12	.99	.89

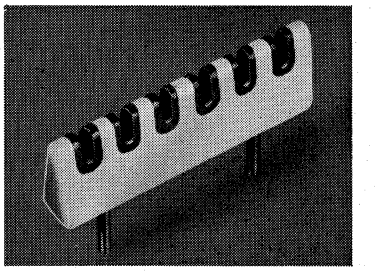
CERAMIC TERMINAL STRIPS

with extra long, standard 2-56 thread studs

MODEL	TERMINALS	One-24	25-99	100-499	500-999
MLP-2	2	36¢	24¢	21¢	17¢
MLP-4	4	45¢	30¢	25¢	21¢
MEP-6	6	60¢	40¢	34¢	28¢
MEP-8	8	75¢	50¢	42¢	35¢
MEP-10	10	87¢	58¢	49¢	41¢
MEP-12	12	99¢	66¢	56¢	46¢

MODEL	NO. SLOTS	"A"	"B"
MEP-2	2	.650	—
MEP-4	4	1.161	.512
MEP-6	6	1.673	1.024
MEP-8	8	2.185	1.535
MEP-10	10	2.697	2.047
MEP-12	12	3.209	2.560





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ALCOSTRIP

DIVISION OF ALCO ELECTRONIC PRODUCTS, INC.

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BEAUCHAINE Beauplugs PLUGS AND SOCKETS

1967 B-4 Beauchaine Catalog Available for Complete Information & Engineering Data

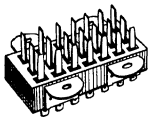
BEAUPLUGS / 3300 SERIES

BEAUPLUGS SERIES 3300 is interchangeable with Jones 300 series. Molded bakelite insulators; cadmium plated contacts; polypropylene caps; and bright-plated hardware. Rated 250 volts at 10 amps.

Series 3300 BEAUPLUGS and sockets are also made as: (-DB) deep bracket mounted; (-EB) end bracket; (-FHT) flared hole top; (-FHT-L) flared hole top-latch; (-FHT-K) flared hole top-keeper (-CCE) cable clamp end; (-CCT-L) cable clamp top-latch; (-CCT-K) cable clamp top-keeper. U/L and C.S.A. listed.

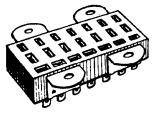
Beauchaine Number	Contacts	List	Each 1-49	Each 50-99	Each 100-249	Each 250-499
PLUGS — ANGLE BRACKETS MOUNTED (-AB)						
P-3303-AB	3	$.38	$.228	$.19	$.152	$.144
P-3304-AB	4	.42	.252	.21	.168	.16
P-3306-AB	6	.51	.306	.255	.204	.194
P-3308-AB	8	.61	.366	.305	.244	.232
P-3310-AB	10	.69	.414	.345	.276	.262
P-3312-AB	12	.77	.462	.385	.308	.293
P-3315-AB	15	1.05	.63	.525	.42	.399
P-3318-AB	18	1.30	.78	.65	.52	.494
P-3321-AB	21	1.65	.99	.825	.66	.627
P-3324-AB	24	2.00	1.20	1.00	.80	.76
P-3327-AB	27	2.35	1.41	1.175	.94	.893
P-3330-AB	30	2.70	1.62	1.35	1.08	1.026
P-3333-AB	33	3.05	1.83	1.525	1.22	1.159

S-3306-AB



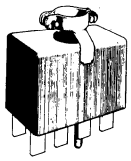
P-3321-AB

SOCKETS — ANGLE BRACKETS MOUNTED (-AB)						
S-3303-AB	3	$.40	$.24	$.20	$.16	$.152
S-3304-AB	4	.44	.264	.22	.176	.167
S-3306-AB	6	.55	.33	.275	.22	.209
S-3308-AB	8	.69	.414	.345	.276	.262
S-3310-AB	10	.82	.492	.41	.328	.312
S-3312-AB	12	.95	.57	.475	.38	.361
S-3315-AB	15	1.20	.72	.60	.48	.456
S-3318-AB	18	1.45	.87	.725	.58	.551
S-3321-AB	21	1.80	1.08	.90	.72	.684
S-3324-AB	24	2.15	1.29	1.075	.86	.817
S-3327-AB	27	2.50	1.50	1.25	1.00	.95
S-3330-AB	30	2.90	1.74	1.45	1.16	1.102
S-3333-AB	33	3.20	1.92	1.60	1.28	1.216



S-3321-AB

PLUGS — CABLE CLAMP TOP (-CCT)						
P-3303-CCT	3	$.75	$.45	$.375	$.30	$.285
P-3304-CCT	4	.83	.498	.415	.332	.315
P-3306-CCT	6	.92	.552	.46	.368	.35
P-3308-CCT	8	.99	.594	.495	.396	.376
P-3310-CCT	10	1.11	.666	.555	.444	.422
P-3312-CCT	12	1.22	.732	.61	.488	.464
P-3315-CCT	15	1.56	.936	.78	.624	.593
P-3318-CCT	18	1.83	1.098	.915	.732	.695
P-3321-CCT	21	2.20	1.32	1.10	.88	.836
P-3324-CCT	24	2.56	1.536	1.28	1.024	.973
P-3327-CCT	27	2.92	1.752	1.46	1.168	1.11
P-3330-CCT	30	3.36	2.106	1.68	1.424	1.277
P-3333-CCT	33	3.75	2.25	1.875	1.532	1.425

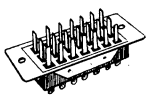


P-3321-CCT

SOCKETS — CABLE CLAMP TOP (-CCT)						
S-3303-CCT	3	$.77	$.462	$.385	$.308	$.293
S-3304-CCT	4	.84	.504	.42	.336	.319
S-3306-CCT	6	.95	.57	.475	.38	.361
S-3308-CCT	8	1.11	.666	.555	.444	.422
S-3310-CCT	10	1.23	.738	.615	.492	.467
S-3312-CCT	12	1.42	.852	.71	.568	.54
S-3315-CCT	15	1.72	1.032	.86	.688	.654
S-3318-CCT	18	2.00	1.20	1.00	.80	.76
S-3321-CCT	21	2.30	1.38	1.15	.92	.874
S-3324-CCT	24	2.72	1.63	1.36	1.088	1.034
S-3327-CCT	27	3.06	1.836	1.53	1.224	1.163
S-3330-CCT	30	3.56	2.136	1.78	1.344	1.353
S-3333-CCT	33	3.83	2.298	1.915	1.532	1.455

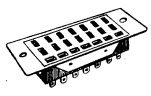
S-3321-CCT

PLUGS — SHALLOW BRACKETS MOUNTED (-SB)						
P-3315-SB	15	$1.38	$.828	$.69	$.552	$.524
P-3318-SB	18	1.70	1.02	.85	.68	.646
P-3321-SB	21	2.07	1.242	1.035	.828	.787
P-3324-SB	24	2.50	1.50	1.25	1.00	.95
P-3327-SB	27	2.80	1.68	1.40	1.12	1.064
P-3330-SG	30	3.20	1.92	1.60	1.28	1.216
P-3333-SB	33	3.55	2.13	1.775	1.42	1.349



P-3321-SB

SOCKETS — SHALLOW BRACKETS MOUNTED (-SB)						
S-3315-SB	15	$1.58	$.948	$.79	$.632	$.60
S-3318-SB	18	1.90	1.14	.95	.76	.722
S-3321-SB	21	2.25	1.35	1.125	.90	.855
S-3324-SB	24	2.67	1.602	1.335	1.068	1.015
S-3327-SB	27	3.00	1.80	1.50	1.20	1.14
S-3330-SB	30	3.40	2.04	1.70	1.36	1.292
S-3333-SB	33	3.75	2.25	1.875	1.50	1.425

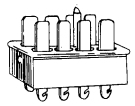


S-3321-SB

BEAUPLUGS / 5400 SERIES

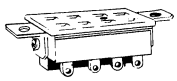
BEAUCHAINE SERIES 5400 is interchangeable with Jones 2400 series. Rated at 250 volts at 15 amps. Molded bakelite insulators; cadmium plated contacts; polypropylene caps; and bright-plated hardware.

Series 5400 BEAUPLUGS and sockets are also made as: (-DB) deep bracket mounted; (-LAB) less angle bracket; (-FHE) flared hole end; (-CCE) cable clamp end. U/L and C.S.A. listed.



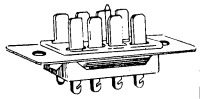
P-5408-LAB
(NOT LISTED)
SEE STORY ABOVE

Beauchaine Number	Contacts	List	Each 1-49	Each 50-99	Each 100-249	Each 250-499
PLUGS — ANGLE BRACKETS MOUNTED (-AB)						
P-5404-AB	4	$1.12	$.672	$.56	$.448	$.426
P-5406-AB	6	1.27	.762	.635	.508	.483
P-5408-AB	8	1.45	.87	.725	.58	.551
P-5410-AB	10	1.76	1.056	.88	.704	.669
P-5412-AB	12	1.98	1.188	.99	.792	.752



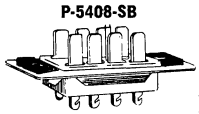
S-5408-AB

SOCKETS — ANGLE BRACKETS MOUNTED (-AB)						
S-5404-AB	4	$1.27	$.762	$.635	$.508	$.483
S-5406-AB	6	1.46	.876	.73	.584	.555
S-5408-AB	8	1.70	1.02	.85	.68	.646
S-5410-AB	10	1.90	1.14	.95	.76	.722
S-5412-AB	12	2.12	1.272	1.06	.848	.806



P-5408-SB

PLUGS — SHALLOW BRACKETS MOUNTED (-SB)						
P-5404-SB	4	$1.26	$.756	$.63	$.504	$.479
P-5406-SB	6	1.47	.882	.735	.588	.559
P-5408-SB	8	1.60	.96	.80	.64	.608
P-5410-SB	10	1.93	1.158	.965	.772	.733
P-5412-SB	12	2.11	1.266	1.055	.844	.802



P-5408-SB-WN
(NOT LISTED)
SEE STORY ABOVE

SOCKETS — SHALLOW BRACKETS MOUNTED (-SB)						
S-5404-SB	4	$1.38	$.828	$.69	$.552	$.524
S-5406-SB	6	1.61	.966	.805	.644	.612
S-5408-SB	8	1.87	1.122	.935	.748	.711
S-5410-SB	10	2.08	1.248	1.04	.832	.79
S-5412-SB	12	2.30	1.38	1.15	.92	.874

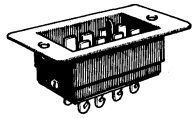
P-5408-CCT

PLUGS — CABLE CLAMP TOP (-CCT)						
P-5404-CCT	4	$1.70	$1.02	$.85	$.68	$.646
P-5406-CCT	6	1.93	1.158	.965	.772	.733
P-5408-CCT	8	2.04	1.224	1.02	.816	.775
P-5410-CCT	10	2.35	1.41	1.175	.94	.893
P-5412-CCT	12	2.59	1.554	1.295	1.036	.984

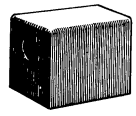
S-5408-CCT

SOCKETS — CABLE CLAMP TOP (-CCT)						
S-5404-CCT	4	$1.87	$1.122	$.935	$.748	$.711
S-5406-CCT	6	2.02	1.212	1.01	.808	.768
S-5408-CCT	8	2.28	1.368	1.14	.912	.866
S-5410-CCT	10	2.51	1.506	1.255	1.004	.954
S-5412-CCT	12	2.75	1.65	1.375	1.10	1.045

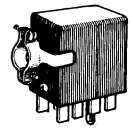
SEE YOUR LOCAL REPRESENTATIVE LISTED IN E. E. M. YELLOW PAGES!



P-5408-DB
(NOT LISTED)
SEE STORY ABOVE



S-5408-FHE
(NOT LISTED)
SEE STORY ABOVE



P-5408-CCE
(NOT LISTED)
SEE STORY ABOVE

WRITE FOR CATALOG LISTING BEAUCHAINE PLUGS AND SOCKETS

BEAUCAPS

Beaucaps are used on Octal type plugs and sockets (Beauchaine does not manufacture the octal plugs and sockets.) 2001-1 **Beaucaps** have no hole for cable: 2001-2 have cable hole in top: 2001-3 have cable hole on side; and 2001-4 have cable hole top with cable clamp. Four NEMA colors are offered: Black, Blue, Red and Green.

2001

2001-1	1	$.15	$.09	$.075	$.06	$.057
2001-2	2	.17	.102	.085	.068	.065
2001-3	3	.17	.102	.085	.068	.065
2001-4	4	.27	.162	.135	.108	.103

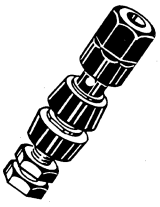
MADE IN U.S.A.

BEAUCHAINE

BINDING POSTS

BINDING POST

"Standard" Type



DESCRIPTION: Banana Plug Receptacle, .161 I.D.; Head non-removable from Stud; Molded in Brass Bushing in Head; Molded in Brass Bushing in Washers; For Panels 1/16" to 1/4" thick; Drill 1/2" hole for mounting washers; Wire Hole is at right angle to Flat on insulated Washers; Production Punch for keyed Slot for mounting Washers.

Cat. No. 274 Standard Brass Red or Black

BINDING POST

30 Amp. 2000 VDC

Molded Nylon Body Banana Plug Receptacle, .161 I.D.; Head non-removable from Stud; Molded in Brass Bushing in Head; Molded in Brass Bushing in Washers; For Panels 1/16" to 1/4" thick; Drill 1/2" hole for mounting washers; Wire Hole is at right angle to Flat on Insulated Washers; Production Punch for keyed Slot for mounting Washers.

WRAP AROUND TYPE COLORS

Cat. No. 275 Brass, Nickel Plated, Red, Black, Yellow, Green, White, Blue, Brown, Grey.

Cat. No. 275A Brass, Gold-Plated, Red, Black, Yellow, Green, White, Blue, Brown, Grey.

TIP JACK TYPE

Similar to 275A, gold plated, brass, except with Tip Jack receptacle.

Cat. No. 277 Red, Black

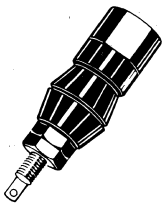
BINDING POST FLUTED HEAD

New fluted nut design is attractive and functional molded nylon body per MIL-P-20693A completely insulates panel from binding post. Makes ideal connection for electrical and electronic equipment. Brass nickel plated "Wrap Around Type" solder connection to stud rated 30 amp. 2000 VAC test capacitance 5.0 mmfd. Similar construction as our No. 275.

Cat. No. 273 Nickel plated Red, Black

BINDING POST

NEW! BIRNBACH "Multi-Use" Binding Posts
Safe-Positive-Heavy Duty

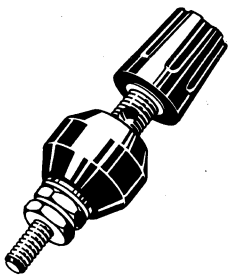


Rugged, versatile "Multi-Use" binding post made of molded nylon with molded-in brass inserts in head and washer for complete insulation from panel. For use on panels 1/16" to 1/4" thick. Mounting hole 1/2". Current Capacity: 30 Amps. Voltage: 2000 VAC. RMS Test. **No. 276 can be soldered directly to stud. Will permit six different methods of connection above panel and three below panel.**

Cat. No. 276 Nickel Plated; Red, Black, Yellow, Green, White, Blue, Brown, Grey.

BINDING POST

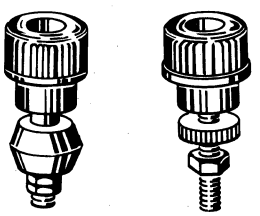
Wrap Around Type



Designed to accept phone tip plug, spade lug, banana plug, alligator clip and wire strand. Direct solder connection. Molded nylon head (non-removable from stud) and washer completely insulates post from panel. Mounts in 1/2" or keyed hole for panels 1/16-1/4" thick. Nickel-plated brass metal parts. Molded-in brass bushings in head and washers. Rated 2,000 volts AC RMS test. 30 amp safe current-carrying capacity.

Cat. No. 271 Red, Black

STANDARD DUTY 5-WAY BINDING POST



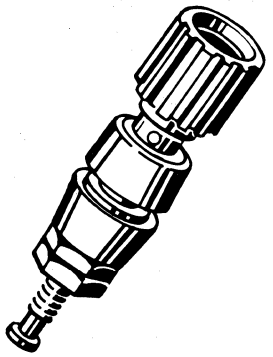
Molded-in brass bushings for complete insulation. Useful for standard duty work. Available in Red or Black. Specify color. Body is brass nickel plated.

6 AMPS

Cat. No. 278 Red, Black
Cat. No. 279* Red, Black

* Same as above, but normally grounded. (Without bottom insulating section.)

NYLON BINDING POST

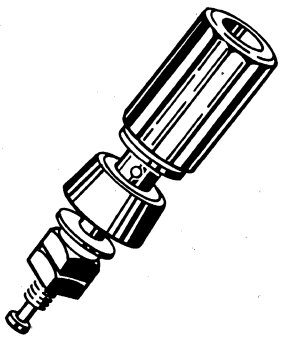


Head: MOLDED NYLON, with brass Gold-Plated insert. **Body:** Brass, Gold Plated. **Washers:** MOLDED NYLON, brass Gold-plated inserts. **Accepts:** Phone tip plug, spade lug, banana plug, alligator clip, or wire strand. **Rating:** 15 Amps AC for 10°C Temp. rise, continuous duty. 1 KV Volts 60 cycle AC continuous working voltage. CAPACITANCE 3.0 mmfd., Molded washers completely insulate post from panel. Miniature washers and narrow fluted head require minimum panel space. Mounts in 5/16" round or "D" hole in panel as indicated. Wrap-around solder terminal on stud for direct connection.

Cat. No. 280 Red, Black, Yellow, Green.

METAL BINDING POST

Grounded

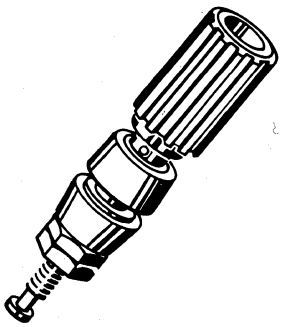


Head: Fluted Brass, Gold-plated. **Body:** Brass, Gold-plated. **Washer:** MOLDED BLACK NYLON, with brass Gold-plated insert. **Accepts:** Phone tip plug, spade lug, banana plug, alligator clip, or wire strand. **Rating:** 15 Amps AC for 10°C temp. rise, continuous duty, Fluted-head metal post to match our No. 280 For use where direct ground connection is made to panel or chassis. Supplied with brass, gold-plated flat metal washer for grounding.

Cat. No. 281

METAL BINDING POST

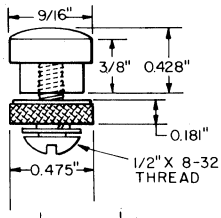
Insulated



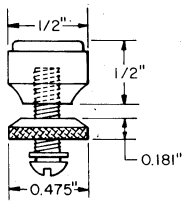
Head: Fluted Brass, Gold-plated. **Body:** Brass, Gold-plated. **Washer:** MOLDED BLACK NYLON, with brass Gold-plated insert. **Accepts:** Phone tip plug, spade lug, banana plug, alligator clip, or wire strand. **Rating:** 15 Amps AC for 10°C temp. rise, continuous duty. 1 K Volts, 60 cycle AC continuous working voltage. CAPACITANCE 3.0 mmfd, Fluted-head metal post to match our No. 280. Molded washers insulate post from panel for use where internal ground circuit is isolated from chassis or panel.

Cat. No. 282

INSULATED BINDING POST



Molded bakelite head with brass insert molded-in. Supplied complete with 8/32 x 1/2" screw, lock washer. Has brass insert molded-in. Supplied with washer. Available in black. **Cat. No. 184**



Binding Post Molded bakelite head with brass insert molded-in. Supplied complete with 8/32 x 1/2" screw, lock washer. Has brass nickel-plated retaining washer. Red, Black. **Cat. No. 185**

Binding Post Brass, heavily nickel-plated overall. Complete with screw and lock washer. Designed for high amperage, low resistance connections.

Cat. No. 186
Metal Binding Post

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH RADIO COMPANY INC.

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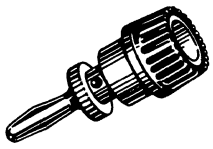
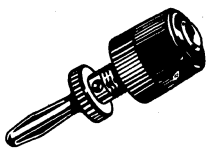
BINDING POSTS

COMBINATION POST-PLUG



Head: CAPTIVE, Molded Butyrate. **Body:** Brass, nickel plated. **Spring:** Four-leaved phosphor bronze, nickel plated. **Rating:** 15 Amps AC for 10°C Temp. rise, continuous duty. Converts any panel-mounted banana jack into a five-way binding post termination. Accepts phone tip, spade lug, banana plug, alligator clip, or solid or stranded wire.

Cat. No. 283 Red, Black



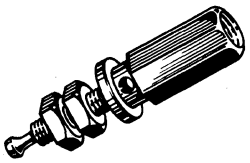
Head: Molded Nylon, SPECIFY COLOR. **Body:** Brass, nickel plated. **Spring:** Four - leaved phosphor bronze, nickel plated. **Rating:** 15 Amps AC for 10°C Temp. rise, continuous duty.

Converts any panel-mounted banana jack into a nylon five-way binding post terminatiion. Accepts phone tips, spade lugs, banana plug, alligator clips, or solid or stranded wires.

Cat. No. 284 Red, Black, Yellow, Green, Blue, White.

BINDING POST

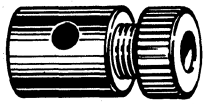
Metal Five-Way



Head: CAPTIVE, Hex brass nickel plated. **Body:** Brass, nickel plated. **Accepts:** Phone tip, spade lug, banana plug, alligator clip or wire strand.

Cat. No. 285 Wrap-around

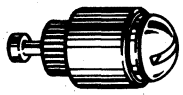
METAL BINDING POST



Head: BRASS nickel plated. **Body:** Brass nickel plated.
Accepts standard phone tips or banana plugs.

Cat. No. 286

COMBINATION TERMINALS

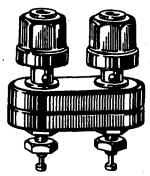


Material: BRASS, nickel plated. Combination Screw and Turret Terminal. Knurled shank prevents turning.

Cat. No.	A	B	C	D	E	F	G	Bhms	Panel Thk.
187	5/16	1/4	1/16	3/64	11/64	1/8	.220	6-32	3/32
188	3/8	3/8	3/32	15/64	13/64	5/32	.257	10-32	3/16

DUAL ASSEMBLY

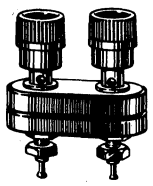
Nylon



MOLDED black STYRENE, cross slotted (+) to accept standard phone tips in post either forward or sideways. **Body:** Brass, nickel plated. **Head:** Captive: MOLDED NYLON, with molded in brass insert. **Rating:** 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 3.0 mmfd. to panel. Mounts in two ½" holes on ¾" mounting centers in panels up to ¼" thick. Accommodates single or dual banana plugs. Supplied with 4 hex nuts, 2 flat washers.

Cat. No. 188BB Two Black Heads
Cat. No. 188RR Two Red Heads
Cat. No. 188RB One Red, One Black Head

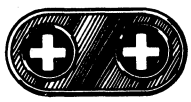
DUAL BINDING POST



MOLDED black STYRENE, cross slotted (+) to accept standard phone tips in post either forward or sideways. **Body:** Brass, nickel plated. **Head:** Captive: MOLDED BUTYRATE, Red, Black. **Rating:** 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 3.0 mmfd. to panel. Mounts in two ½" holes on ¾" mounting centers in panels up to ¼" thick. Accommodates single or dual banana plugs. Supplied with 4 hex nuts, 2 flat washers.

Cat. No. 189BB Two Black Heads
Cat. No. 189RR Two Red Heads
Cat. No. 189RB One Red, One Black Head

BLACK STYRENE INSULATOR

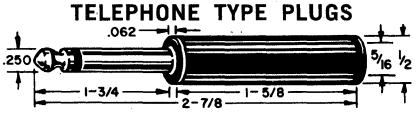


Insul: STYRENE. **Rating:** 2 K Volts 60 cycle AC continuous working voltage.
Mounts in two ½" holes on ¾" mounting centers in panels up to ¼" thick.

Cat. No. 190

TELEPHONE PLUGS & JACKS

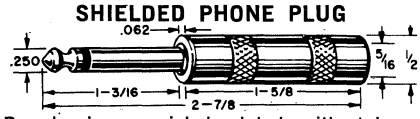
TELEPHONE TYPE PLUGS



Standard two and three conductor plugs fits all standard jacks. All metal parts brass with nickel plating except for contact screw.
Barrel — molded bakelite; Red, Black

Cat. No.	Circuit	Terminals
251	two	solder
251A	two	screw
253	three	solder
253A	three	screw

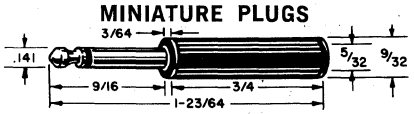
SHIELDED PHONE PLUG



Barrel — brass, nickel plated with tubuar insulator.

Cat. No.	Circuit	Terminals
252	two	solder
252A	two	screw
254	three	solder
254A	three	screw

MINIATURE PLUGS



MINIATURE PHONE PLUG

Insulated type, Solder terminals, two conductor mini. phone plug. Ideal for hearing aids, portable receivers, small instruments, etc. Rated 500 volts.

Cat. No. 130 Red, Black

SHIELDED MINIATURE PHONE PLUG

Same as **No. 130** except with brass, bright nickel plated barrel with insulating tube inside.

Cat. No. 131

MILITARY PLUGS

Barrel — Red, Black

Cat. No.	MIL Type	Circuit	Terminals
255	PJ054	2	Screw
256	PJ055	2	Screw

TELEPHONE TYPE JACKS

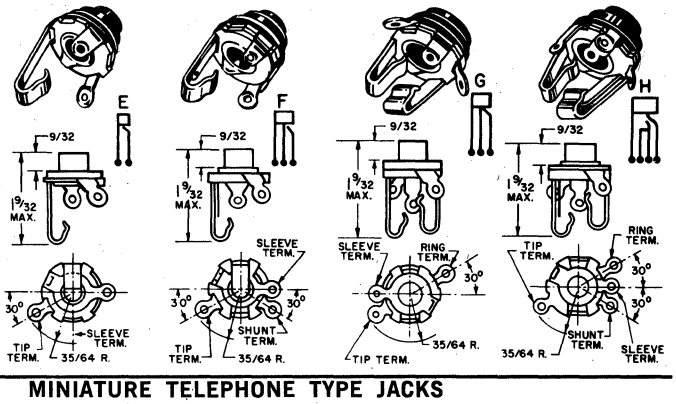
The body is brass nickel plated. Small, rugged and they are designed for long life, with low contact resistance snap springs made specially from nickel silver alloy which is corrosion resistant. Mounts in ⅜" hole.

E — Cat. No. 257
Open Circuit Two Conductor

F — Cat. No. 258
Single Closed Circuit Two Conductor

G — Cat. No. 259
Open Circuit Three Conductor

H — Cat. No. 260
Single Closed Circuit Three Conductor

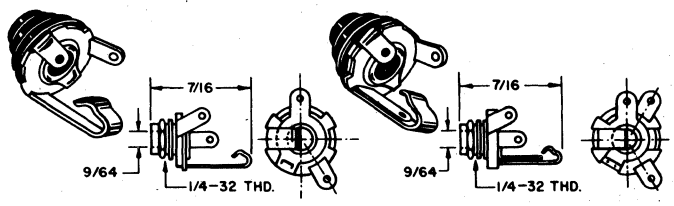


MINIATURE TELEPHONE TYPE JACKS

Rugged construction, smaller than standard type Jacks. Mount in ¼" dia. hole in panels up to ⅛" thick.

Cat. No. 132
Open circuit type.

Cat. No. 133
Single closed circuit type.



FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

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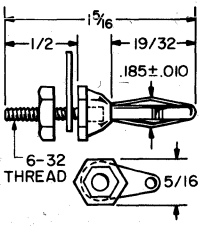
NON-INSULATED BANANA PLUGS

Variations of Standard Plugs Available to Order. Plated to Gov't. Specs.

BANANA PLUG No. 400

Hexed brass nickel plated. Fits all standard banana plugs. Complete with hex brass n.pl. nut and tinned copper lug. Spring is four-leaved nickel plated. Rated at 5 amps.

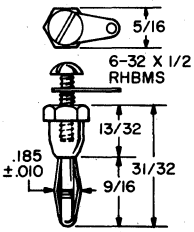
Cat. No.	Spring	Dim. "A"
400	Phos. Bronze	1/2"
400A	Phos. Bronze	3/8"
400B	Beryl. Copper	1/2"



BANANA PLUG No. 401

Hexed brass nickel plated. One-piece four-leaved spring. Complete with brass n.pl. screw and tinned copper lug. Rated at 5 amps. Fits all standard banana jacks.

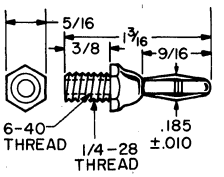
Cat. No.	Spring
401	Phos. Bronze
401B	Beryl. Copper



BANANA PLUG No. 404A

Hexed brass and four-leaved phosphor bronze spring all nickel plated. Rated at 5 amps. Fits all standard banana jacks.

Cat. No.	Spring
404A	Banana Plug

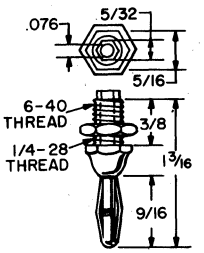


BANANA PLUG No. 404S

Hexed brass nickel pl. Complete with hex brass n.pl. nut. Has solderless Scrulok connection. Fits all standard banana plugs. Spring is four-leaved phosphor bronze nickel plated. Rated at 5 amps.

Cat. No.	Spring
404S	Phos. Bronze
404SB	Beryl. Copper

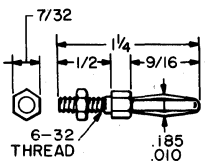
Scrulok Banana Plug



BANANA PLUG No. 414

Hexed brass, nickel plated. One-piece construction. Four - leaved phosphor bronze spring. Complete with brass hexed nut n.pl. Rated at 5 amps. Fits all standard banana jacks.

Cat. No.	Spring
414	Phos. Bronze

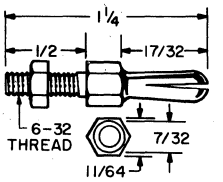


BANANA PLUG No. 416

Hexed brass nickel plated. Cross slotted for positive contact. One-piece construction. Fits all standard banana jacks. Complete with hexed brass n.pl. nut.

Cat. No.
416

Banana Plug

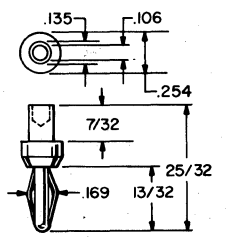


MIDGET BANANA PLUG
Rivet Type — No. 426

Brass silver plated body. One-piece four-leaved phosphor bronze spring silver plated. Also made to Rigid Jan specs.

Cat. No.	"A"
426	7/32"
426A	5/32"

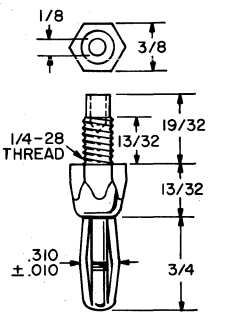
Midget Banana Plug Rivet Type



GIANT PLUG No. 392A

Body is hexed brass nickel plated. Rated at 25 amps. Has large soldering well in threaded shank. Fits all Giant Banana Jacks.

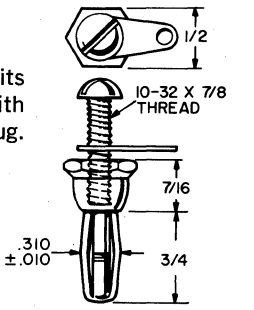
Cat. No.	Spring
392A	Phos. Bronze



GIANT PLUG No. 396

Body is hexed brass, nickel plated. Fits all giant banana jacks. Complete with nickel plated screw and soldering lug. Rated at 25 amps.

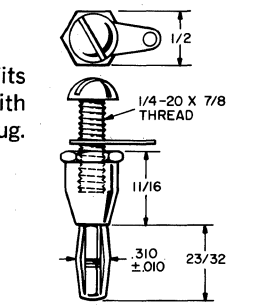
Cat. No.	Spring
396	Phos. Bronze
396B	Beryl. Copper



GIANT PLUG No. 397

Body is hexed brass, nickel plated. Fits all giant banana jacks. Complete with nickel plated screw and soldering lug. Heavy duty, 25 amp. rating.

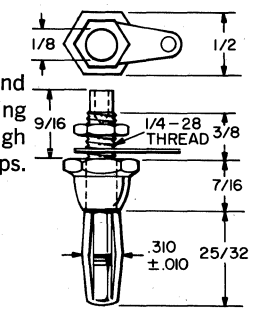
Cat. No.	Spring
397	Phos. Bronze
397B	Beryl. Copper



GIANT PLUG No. 398

Body is hexed brass, n.pl. nut and tinned copper lug. Has large soldering well in threaded shank. Used in high amperage circuits rated at 25 amps. Fits all giant banana jacks.

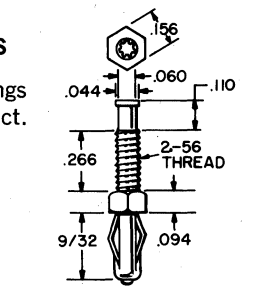
Cat. No.	Spring
398	Phos. Bronze
398B	Beryl. Copper



SUB MINIATURE BANANA PLUGS

One piece beryllium copper springs insure positive and lasting contact. Silver plated overall.

Cat. No.	Description
590	Rivet Type Plug
591	Screw Type Plug



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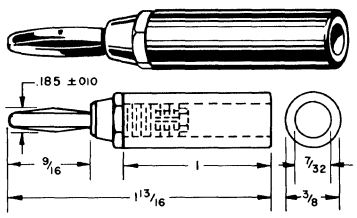
INSULATED BANANA PLUGS

INSULATED BANANA PLUG

Hexed brass n.pl. spring type. Fits standard banana jacks. Scrulok solderless connection. Molded handle.

Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No.	Spring	Plating
404	Phos. Brz.	Nickel
404CB	Beryl. Cop.	Nickel
404SP	Phos. Brz.	Silver
404CB-SP	Beryl. Cop.	Silver

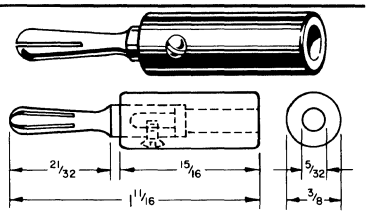


INSULATED BANANA PLUG

Split type plug brass n.pl. fits standard banana jacks. Set screw. Solderless connection. Molded handle.

Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No.	
604	Banana Plug

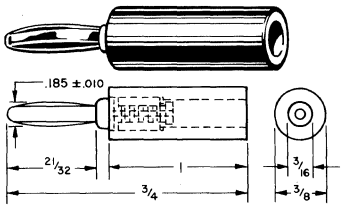


INSULATED BANANA PLUG

Brass n.pl. plug. Fits standard banana jacks. Spring type. Scrulok solderless connection. Molded handle.

Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No.	Spring	Plating
465	Phos. Brz.	Nickel
465B	Beryl. Cop.	Nickel
465SP	Phos. Brz.	Silver
465B-SP	Beryl. Cop.	Silver

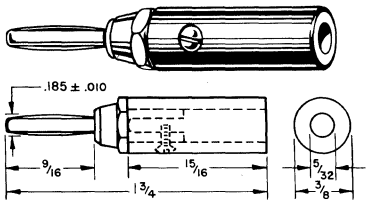


SPRING BANANA PLUG

Hexed brass n.pl. plug. Set screw solderless connection 404BC Beryllium springs, highly resilient. Molded handle.

Colors: Red, Black Yellow, Blue, Green, White.

Cat. No.	Spring
404B	Phos. Brz.
404BC	Beryl. Cop.

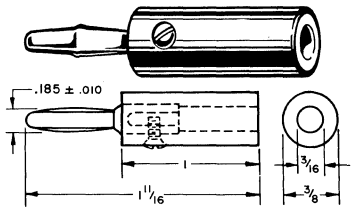


INSULATED BANANA PLUG

Plug brass n.pl. set screw solderless connection. Spring type. Fits standard banana jacks. Molded handle.

Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No.	Hdl.	Spring
466	1"	Ph. Brz.
466A	1½"	Ph. Brz.

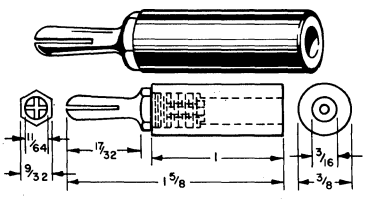


INSULATED BANANA PLUG

Split type, brass n.pl. Scrulok solderless connection. Fits standard jacks. Molded handle.

Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No.	
606	Banana Plug

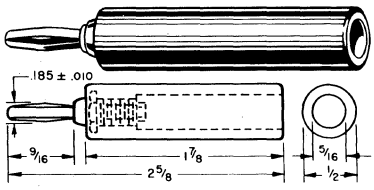


INSULATED BANANA PLUG

Plug brass n.pl. Scrulok solderless connection. Spring type. Fits standard jacks. Plastic handle.

Colors: Red, Black.

Cat. No.	Spring
341	Phos. Brz.
341B	Beryl. Cop.

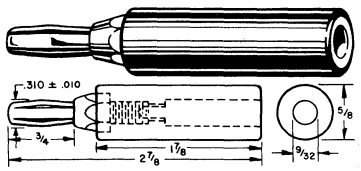


INSULATED GIANT PLUG

Plug brass n.pl. Wire can be soldered to plug. Spring type. Fits giant banana jacks. Plastic handle.

Colors: Red, Black.

Cat. No.	Spring
392	Phos. Brz.
392B	Beryl. Cop.

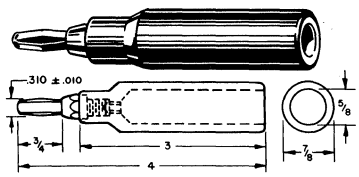


INSULATED GIANT PLUG

Plug brass n.pl. Wire can be soldered to plug. Spring type. Fits giant banana jacks. Polished giant hard rubber handle.

Colors: Red, Black.

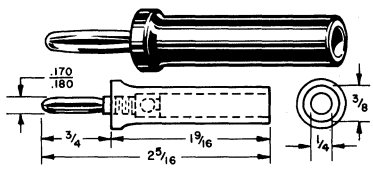
Cat. No.	Spring
342	Phos. Brz.
342B	Beryl. Cop.



Long Shoulder Handle INSULATED BANANA PLUG

Long shoulder handle insulated banana plug. Handle made of bakelite. Available in various colors. Red, Black, Yellow, Blue, Green, White.

Cat. No.	
424	

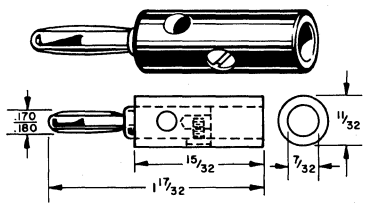


STACK BANANA PLUG Solderless

Brass, nickel plated, solderless connection. Accepts standard banana plugs in top and side. Interconnects unlimited amount of multiple circuits.

Colors: Red, Black, Yellow, Green.

Cat. No.	Spring
425	Phos. Brz.
425A	Bery. Cop.

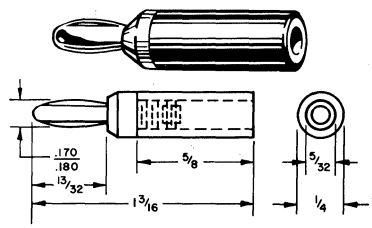


INSULATED MIDGET BANANA PLUG

Spring type. Fits all standard Banana jacks. Beryllium spring retains resiliency after thousands of insertions. Wire soldered directly into plug.

Colors: Red, Black.

Cat. No.	Spring	Plating
455	Phos. Brz.	Nickel
455BC	Beryl. Cop.	Silver
455A	Phos. Brz.	Silver
455A-BC	Beryl. Cop.	Nickel

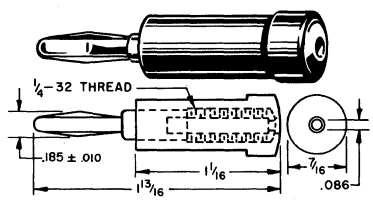


TIP PLUG TO BANANA PLUG ADAPTER

Fits standard banana jacks. Adapter for phone tip to banana plug. Molded handle.

Colors: Red, Black, Yellow, Blue, Green, White.

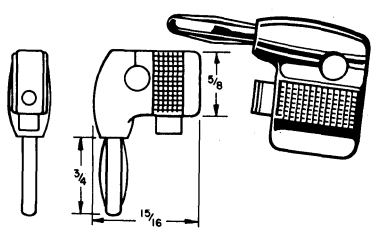
Cat. No.	Spring
467	Phos. Brz.
467B	Beryl. Cop.



PUSH BUTTON BANANA PLUG

Wire is fastened easily, speedily, and securely without soldering. Simply by pressing the push buttons the bare wire can be inserted into the opening of the plug.

Cat. No. 122 Push Button Banana Plug, Red, Black, Yellow, Green, White.
No. 122 Banana Plug will fit all Standard Banana Jacks.



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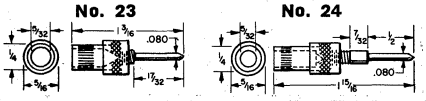
INSULATED PHONE TIPS, TEST PRODS

SOLDERLESS PHONE TIPS

Brass, nickel plated. Wire fits thru body of tip, tightened around screw with nickel plated knurled nut. Fits all standard phone tip jacks.

Cat. No.
23 Junior Solderless Phone Tip
24 Senior Solderless Phone Tip

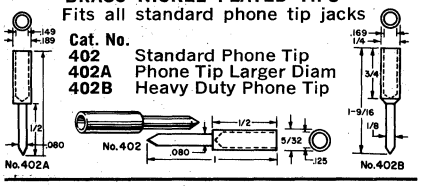
No. 23 **No. 24**



BRASS NICKEL PLATED TIPS

Fits all standard phone tip jacks

Cat. No.
402 Standard Phone Tip
402A Phone Tip Larger Diam
402B Heavy Duty Phone Tip



PHONE TIP

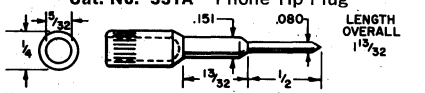
Plugs into standard phone tip jacks. Brass nickel plated plug. Accommodates standard banana plug in molded plastic handle.
Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No. 331

PHONE TIP PLUG No. 331A

Plugs into all standard phone tip jacks. Barrel of plug accommodates all standard banana jacks. Brass, nickel plated.

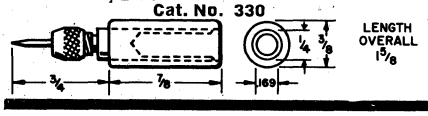
Cat. No. 331A Phone Tip Plug



NEEDLE POINT PLUG

Brass nickel plated body. Needle point tip. Accommodates standard banana plug in molded plastic handle.
Colors: Red, Black.

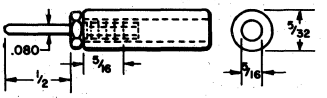
Cat. No. 330



SCRULOK PHONE TIP

Brass nickel plated. Fits standard phone tip jacks. Scrulok solderless connection. Molded handle.
Colors: Red, Black, Yellow, Blue, Green, White.

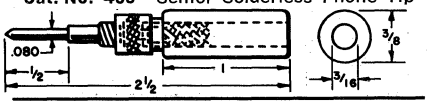
Cat. No. 412



INSULATED SOLDERLESS PHONE TIPS No. 409

Insulated handles, fitted to solderless phone tips. Made of Brass, Nickel Plated. Wire easily attached by threading through hole in handle and tightening knurled nut.
Colors: Red, Black, Yellow, Blue, Green, White

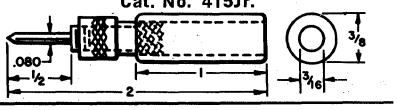
Cat. No. 409 Senior Solderless Phone Tip



JUNIOR SOLDERLESS PHONE TIP

Same as above except 2" overall length. Specify colors.

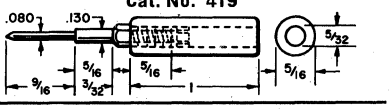
Cat. No. 415Jr.



SCRULOK PHONE TIP

Fits standard phone tip jacks. Plug is brass, nickel plated. Has Scrulok solderless connection. Molded handle.
Colors: Red, Black, Yellow, Blue, Green, White.

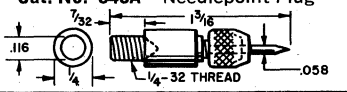
Cat. No. 419



NEEDLE POINT PLUG No. 345A

Has a brass, nickel plated body, steel nickel plated needle. Sharp point will pierce insulation or plating. Has removable chuck for replacing needle. Threaded to take handle.

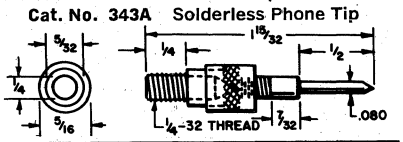
Cat. No. 345A Needlepoint Plug



SOLDERLESS PHONE TIP No. 343A

Brass, nickel plated. Wire easily attached by threading thru hole provided, and tightening knurled nut. Threaded to take plastic handle.

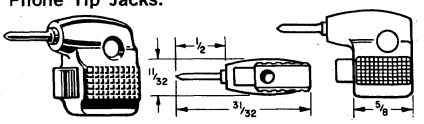
Cat. No. 343A Solderless Phone Tip



PUSH BUTTON PHONE TIP PLUGS

Wire is fastened easily, speedily, and securely without soldering. Simply by pressing the push buttons the bare wire can be inserted into the opening of the plug.
Colors: Red, Black.

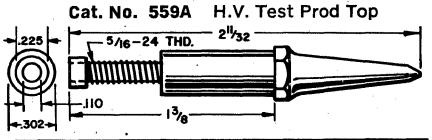
Cat. No. 121 Push Button Phone Tip Plug No. 121 Phone Tip Plug will fit all Standard Phone Tip Jacks.



HIGH VOLTAGE TEST PROD TIP No. 559A

Heavy brass, nickel plated. Large solder well accommodates heavy wires. As used on Birnbach High Voltage Test prod Handle. No. 559 and 562 Test Leads.

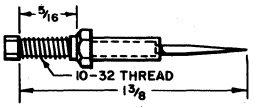
Cat. No. 559A H.V. Test Prod Top



NEEDLE POINT PROD TIP No. 439

Extra heavy needle point for piercing insulations or plating. Solderless Scrulok wire connection. Brass, nickel plated body; needle point, steel, nickel plated. Replacement tip for No. 408 Leads.

Cat. No. 439
Replacement Needle Point Prod Tip

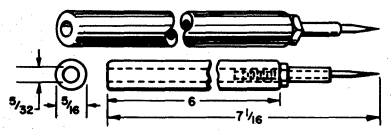


TEST PRODS

BAKELITE PENCIL TEST PROD

Body is brass nickel plated with steel n.pl. needle. Has Scrulok solderless connection. Bakelite handle.
Colors: Red, Black.

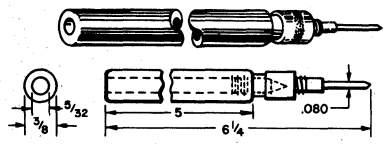
Cat. No. 411 Bakelite Pencil Test Prod



SOLDERLESS TEST PRODS

Body is brass nickel plated with solderless knurled nut connection. Heavy duty needlepoint, nickel plated.
Colors: Red, Black.

Cat. No.	(A) Overall	(B) Handle Length
410	5⅛"	4"
343	6¼"	5"

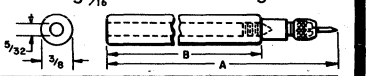


NEEDLEPOINT TEST PRODS

Brass nickel plated body with steel nickel plated needle. Chuck threaded in end of handle is removable for replacing needles. Polished cast phenolic handle.

Cat. No.	(A) Overall	(B) Handle Length
344	4 15/16"	4"
345	5 15/16"	5"

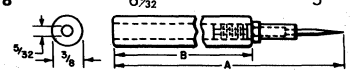
Colors: Red, Black.



SCRULOK NEEDLEPOINT TEST PRODS

Phenolic insulated prod, has Scrulok solderless connection. Body is brass nickel plated with steel n.pl. needle.
Colors: Red, Black.

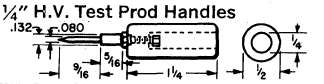
Cat. No.	(A) Overall	(B) Handle Length
417	5 3/32"	4"
418	6 3/32"	5"



HEAVY DUTY HIGH VOLTAGE TEST PROD HANDLES No. 558

These bakelite prods are the same as used on the meter end of high voltage test leads Cat. No. 562. Tips are heavy brass with nickel plating.
Colors: Red, Black.

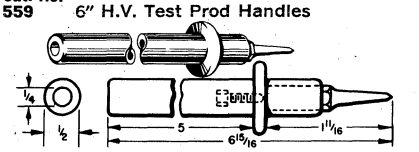
Cat. No.
558 1¼" H.V. Test Prod Handles



HEAVY DUTY HI-VOLTAGE TEST PROD HANDLE

Tip is heavy brass nickel plated. Bakelite finger guard. Accommodates IN-34 diode and condenser for use as RF Probe.
Colors: Red, Black.

Cat. No.
559 6" H.V. Test Prod Handles

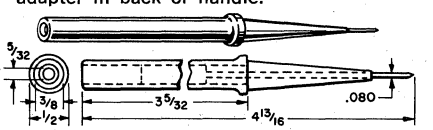


TEST PROD No. 424A

Shouldered insulated handle made of bake lite. Tip made of nickel-plated brass has set screw in side for securing conductor and thus making a solderless connection. Tip screw into handle. Available in Red and Black. Indicate color.

TEST PROD No. 424B with Banana Plug Adapter

Same as No. 424A except with a banana plug adapter in back of handle.



FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH RADIO COMPANY INC.

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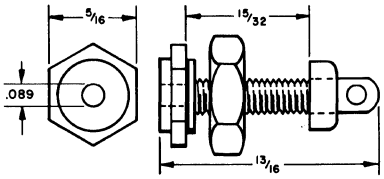
PHONE TIP JACKS AND BANANA JACKS

PHONE TIP JACK No. 26

Brass nickel pl. body. Double phosphor bronze springs, hot tinned. Fits standard phone tip plugs. Mounts in ¼" hole in panels up to ⅜" thick. Complete with hex n.pl. brass nut.

Cat. No. 26 Phone Tip Jack

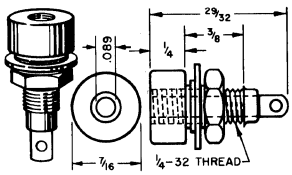


PHONE TIP JACK

Fits all standard phone tips. Body is brass, n.pl. Double Phosphor Bronze springs. Mounts in 5/16" hole in panels up to ⅜" thick. Molded head.

Colors: Red, Black, Yellow, Blue, Green, White.

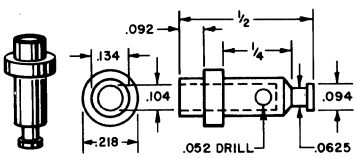
Cat. No. 407



SUB MINIATURE BANANA JACKS

One piece beryllium copper springs insure positive and lasting contact. Silver plated overall.

Cat. No.
592 Force Fit Jack
593 Rivet Type Jack

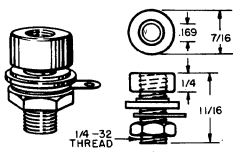


INSULATED BANANA JACK

Takes all standard banana plugs. Body is brass n.pl. Mounts in 5/16" hole in panels up to ⅜" thick. Molded head.

Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No. 406 Insulated Jack

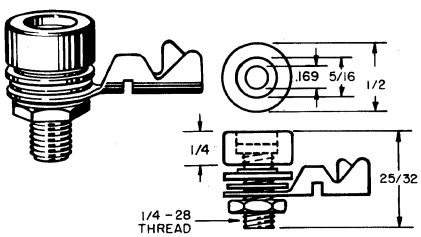


INSULATED BANANA JACK

Accommodates all standard banana plugs. Body is brass n.pl. Mounts in 5/16" hole in panels up to ⅜" thick. Complete with all hardware. Molded head.

Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No. 391 Insulated

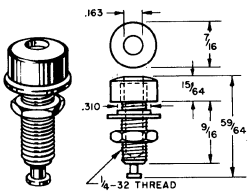


INSULATED BANANA JACK With Turret Terminal

Supplied with hex nut & fibre washer. Brass, nickel plated. Mounts in 5/16" hole in panels up to 5/8" thick. Solder direct to turret terminal. Accepts standard banana plugs.

Colors: Red, Black, Yellow, Green, Blue, White.

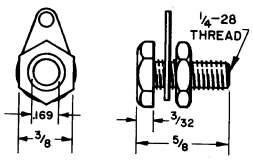
Cat. No. 390



BANANA JACK No. 403

Hexed brass n.pl., with brass n.pl. hex nut and tinned copper lug. Mounts in ¼" hole in panels up to ⅜" thick. Fits standard plugs.

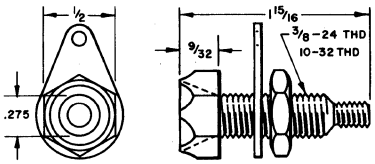
Cat. No. 403 Banana Jack



GIANT JACK No. 394

Hexed brass nickel plated. Fits all Giant Banana Plugs. Mounts in ⅜" hole in panels up to 7/8" thick. Complete with n.pl. nut and tinned copper lug.

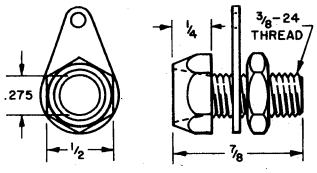
Cat. No. 394 Giant Jack



GIANT JACK No. 395

Fits all giant banana plugs. Hexed brass head nickel plated overall. Mounts in ⅜" hole. Complete with nut and tinned copper lug.

Cat. No. 395 Giant Jack



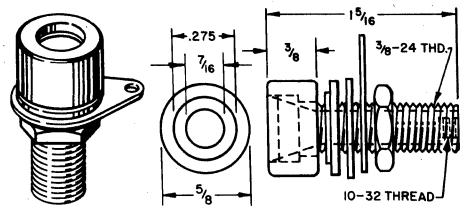
INSULATED GIANT JACK

Accommodates all giant plugs. Body is brass n.pl. Mounts in ⅜" hole in panels up to 5/8" thick. Molded plastic head.

Colors: Red, Black.

Cat. No. 393 Insulated Giant Jack

Cat. No. 393A Insulated Giant Jack

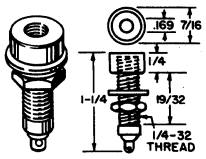


INSULATED COMBINATION JACK

Takes standard senior phone tip or banana plugs. Body is brass n.pl. Double Phosphor Bronze spring. Mounts in 5/16" hole in panels up to ½" thick. Molded head.

Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No. 333 Insulated Combination Jack

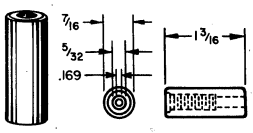


INSULATED HANDLE JACK

Jack brass, n.pl. Fits all standard banana plugs. Plastic handle.

Colors: Red, Black, Yellow, Blue, Green.

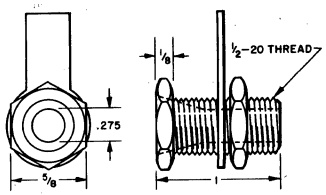
Cat. No. 605 Insulated Handle Jack



GIANT JACK No. 399

Hexed brass nickel plated. Complete with hex brass n.pl. nut and tinned copper lug. Fits all giant banana plugs. Mounts in ½"" hole in panels up to 21/32" thick.

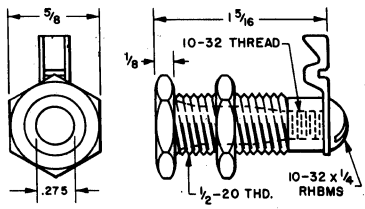
Cat. No. 399 Giant Jack



GIANT JACK No. 399A

Hexed brass nickel plated. Mounts in ½" hole. Fits panels up to ¾" thick. Tapped at end with screw and lug connection. Complete with hex brass n.pl. nut, screw and hot tinned copper lug.

Cat. No. 399A Giant Jack

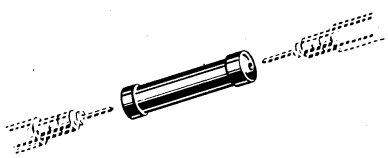


PHONE TIP PLUG SPLICE

Takes all standard phone tip plugs excellent for quick connections or test, lead extensions.

Colors: Red, Black, Yellow, Green.

Cat. No. 619 — Insulated Phone Tip Splice

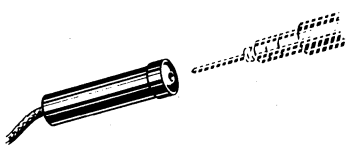


IN-LINE PHONE TIP JACK

Takes all standard phone tip plugs. Can be used as lead extension.

Colors: Red, Black, Yellow, Green.

Cat. No. 621—Insulated-In-Line Tip Jack



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BIRNBACH RADIO COMPANY INC.

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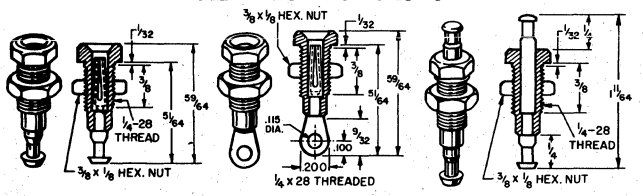
NYLON TIP JACKS AND PLUGS

ALL NYLON TIP JACKS



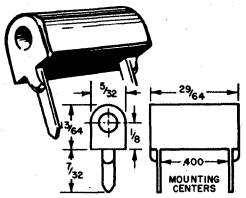
No. 1180 No. 1182 No. 1184

Completely Molded Nylon Jack. Fits all standard phone tip plugs. Contact recessed in head for safe contact. Hexagon head for grip in tightening. Mounts in ¼" hole in panels up to ¼" thick. Meets following requirements:

- Salt Spray Test — Withstands 100 hours
- Rated Voltage & Current — 1000 volts peak at 5 amps max.
- Test Voltage — 9000 volts DC peak
- Insulation Resistance — 5000 megohms
- Operating Temperature — 55 to +150C
- Nominal Capacity — 2.0 mmf.
- Material Specifications — A. Body: Nylon Grade FM 10001; A. Center Contact: Numbers 1180 and 1182 Heat Treated Beryllium Copper Silver plated per Spec 72-53. Number 1184 Brass Tin Pl.; Hex Nut: Brass Nickel Pl.
- **Colors:** Red, Black, Orange, Green, Blue, White, Brown, Yellow, Grey & Purple. Specify Color.

Cat. No. 1180 Wrap Around **Cat. No. 1182** Spade Terminal
Cat. No. 1184 Feed Through

PRINTED CIRCUIT TEST JACKS

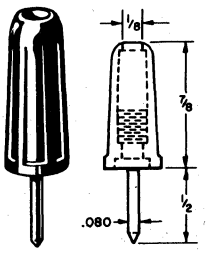


Designed for permanent, soldered assembly to printed circuit boards. Nylon bodies. Has gold over silver plated Beryllium copper contacts which provide low resistance contact. Takes standard .080" diameter test probes.

Colors: Red, Black, Green, Brown, Yellow, Blue, Purple, Grey, Orange, White.

Cat. No. 1177 Printed Circuit Jack
PER MIL-F-14072, M301

NYLON INSULATED PLUG

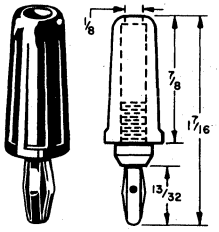


Molded of tough low-loss Nylon — provides high voltage insulation. Withstands extreme temperature changes without chipping or cracking. This series fits all standard Banana Jacks and standard Phone Tip Jacks.

Nylon Solderless Short Tip Plug. Molded nylon handle, recessed metal head provides flush contact without metal exposure in any standard tip jack brass nickel plated plug. Solderless wire fits thru handle.

NYLON PER MIL-P-20693A
Cat. No. 1169
Specify color as indicated below.

NYLON BANANA PLUG — MIDGET



NYLON PER MIL-P-20693A

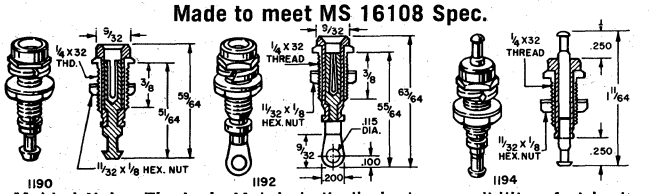
Molded Nylon Handle Brass N.Pl. Wire can be soldered directly into stud. Fits all Standard Banana Jacks.

Cat. No.	Spring Material	Plating
1172	Phospor Nickel Bronze	
1173	Phospor Silver Bronze	
1174	Berylium Nickel Copper	
1175	Berylium Silver	

Specify color as indicated in Color Code below.

NYLON TIP JACK WITH METAL SHELL

Made to meet MS 16108 Spec.

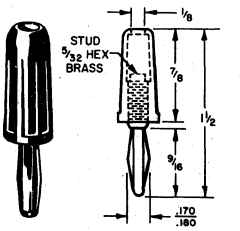


Molded Nylon Tip Jack. Metal shell eliminates possibility of stripping threads during assembly. Meets following requirements:

- Salt Spray Test—Withstands 100 hours.
- Rated Voltage & Current—1000 volt peak @ 5 amps. maximum.
- Test Voltage—2500 peak.
- Insulation Resistance—5000 megohms.
- Operating Conditions—A. Continuous; 23 hours on, 1 hour off; B. Elevation: Up to 15,000 feet; C. Temperature: —55 to +85 C; D. Humidity: Up to 95%.
- Material Specifications—A. Insulator: Nylon, Grade FM 10001; B. Shell & Nut: Brass Nickel Plated Per Spec 72-53; C. Lockwasher: Phosphor Bronze Nickel Plated Per Spec 72-53; D. Center Contact. Numbers 1190 and 1192 Heat Treated Bery. Copper Silver Plated per Spec 72-53. Number 1194 Brass, Tin Plated.
- Non-Operating Conditions—A. Elevation: Up to 50,000 feet; B. Temperature: Continuous exposure for 72 hours @ +160 F and 240 hours @ —80 F; C. Humidity: Up to 100%.
- **Colors:** Red, Black, Orange, Green, Blue, White, Brown, Yellow, Grey and Purple. Specify Color.

Cat. No. 1190 Wrap Around **Cat. No. 1192** Spade Terminal
Cat. No. 1194 Feed Through

NYLON BANANA PLUG



Molded Nylon handle, Brass N.Pl. plug. Springs Phosphor Bronze or Berylium Copper. Nickel or Silver plated. Wire can be soldered into plug or brass stud.

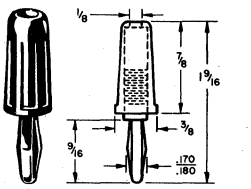
NYLON PER MIL-P-20693A

Cat. No.	Spring	Plating
1160	Phos. Brz.	Nickel
1161	Phos. Brz.	Silver
1162	Beryl. Cop.	Nickel
1163	Beryl. Cop.	Silver

Specify color as indicated in color code below.

Same as above with Solderless Scrulock Connection

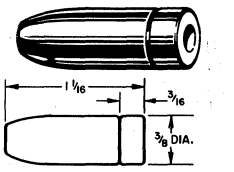
MIL-P-20693A



Cat. No.	Spring	Plating
1164	Phos. Brz.	Nickel
1165	Phos. Brz.	Silver
1166	Beryl. Cop.	Nickel
1167	Beryl. Cop.	Silver

Specify color as indicated in color code below.

NYLON HANDLE JACK

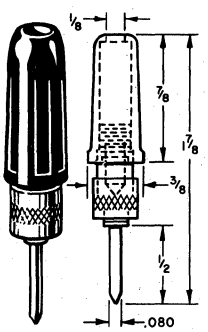


Made with our Nylon Tip Jack #1180 without mounting nut inside of threaded molded nylon insulated sleeve.

Cat. No.
1179 Nylon Handle Jack

Specify color as indicated below.
NYLON PER MIL-P-20693A

NYLON SOLDERLESS TIP PLUG

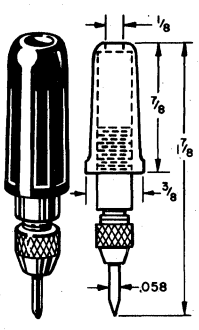


Molded Nylon handle, Brass N.Pl. Solderless plug. Wire fits thru body of tip and is wrapped around screw portion and then tightened. Fits all standard tip jacks.

Cat. No. 1170

Specify color as indicated above.

PHONE NEEDLE TIP PLUG

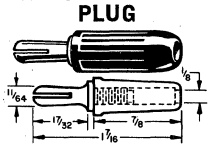


Molded Nylon Handle, Brass N.Pl. Plug. Has removable chuck for easy replacement of needles. Needle makes positive contact thru insulation or corrosion.

Cat. No. 1171
NYLON PER MIL-P-20693A

Specify color as indicated above.

NYLON BANANA PLUG



NYLON PER MIL-P-20693A

Molded Nylon handle, brass N.P. plug, split type with solderless scrulock connection.
Cat. No. 1168
Specify color as indicated above.

Color Code For NYLON HANDLE PLUGS

Add to Catalog Numbers

—01 White
—02 Red
—03 Black
—04 Dk. Green
—05 Lt. Blue
—06 Orange
—07 Yellow
—08 Brown
—09 Lt. Green
—10 Dk. Blue
—11 Ivory
—12 Violet (Purple)
—13 Grey

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH RADIO COMPANY INC.

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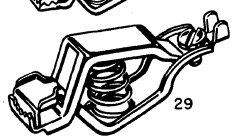
ALLIGATOR CLIPS—TEST CLIPS

TEST CLIPS

They are sturdily constructed. The teeth mesh correctly permitting good contact to be made. The No. 27-C is a solid copper clip with a brass screw designed for high frequency work.

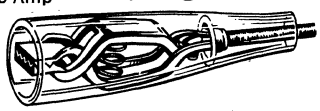
27

28


29

Cat. No.	Jaw Length	Jaw Spread	Capacity
27—Pee Wee	1½"	5/16"	5 Amp
28—Midget	2"	½"	10 Amp
29—Medium	2⅞"	¾"	25 Amp
30—Large	4"	1 1/16"	50 Amp
27C—Pee Wee Copper	1½"	¼"	10 Amp

27R—Vinyl Sleeve — Red or Black
28R—Vinyl Sleeve — Red or Black
29R—Vinyl Sleeve — Red or Black
30R—Vinyl Sleeve — Red or Black



MICRO-GATOR CLIPS

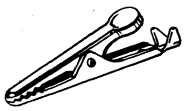
The Alligator Clip with the Microscopic Tip. Use it where no other clip can go — for tight spots, printed circuits, etc. Length, 1 3/32". Jaw spread, 1/32". Tiny tip, 1/32" across. New extra strong "keyed in" type hinge. Solder connection with clinching ears to relieve strain on wire.

Cat. No.	Type
31 MG/S	Steel, Cad. Plated
31 MG/C	Solid Copper
31 FB	Insulator Boots to Fit 31 MG/S or 31 MG/C

Specify Color: Red, Black, Blue, Yellow, White, Green for 31 FB.

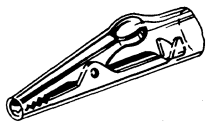
MINIATURE ALLIGATOR CLIPS

Very small and compact. Useful where space is important. Accurately matching jaws for finger-tight grip. Length 1 3/32". Jaws open to 3/16". Has lip for soldering.



Cat. No.	Type
31 MS	STEEL (Cad Plate)
31 MC	Solid Copper

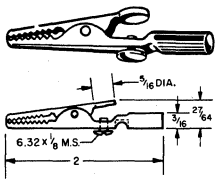
31 MB INSULATOR BOOT to fit **31 MS** or **31 MC.**



Specify Color: Black, Red, Blue, Yellow, White, Green for 31 MB.

ALLIGATOR CLIP

Made of cadmium plated steel. The jaws match accurately, permitting them to grip all kinds of wire securely. Has screw for solderless wire connection. Banana plug fits into rear of clip.



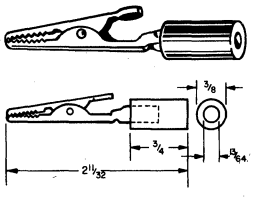
31 —Alligator Clip (no screw)
31S—Alligator Clip with screw
31C—Alligator Clip (Copper) with screw

INSULATED ALLIGATOR CLIP

Made of steel, cadmium plated. Insulated handle allows use of all banana plugs. Has small soldering lip.
Colors: Red, Black.

Cat. No.

310 —Insulated Alligator Clip
310B—1½" Insulated handle Alligator Clip



ALLIGATOR CLIP VINYL INSULATOR BOOT

Extremely flexible. Made to fit Nos. 31, 31S, 31C.
Colors: White, Red, Black, Yellow, Blue, Green.

Cat. No. 31R—Vinyl Insulator

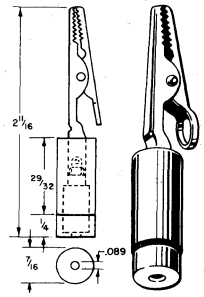
ALLIGATOR CLIP WITH PHONE TIP JACK

Handle has our No. 31 clip and our No. 407 tip jack in rear for all standard phone tip plugs.

Colors: Red, Black.

Cat. No.

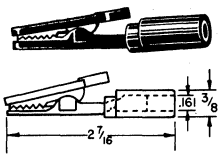
334—Alligator Clip with Phone Tip Jack
336—Same as above except with our #31C screw type Copper Alligator Clip



ALL INSULATED ALLIGATOR CLIP

Steel Cadmium plated alligator clip. All metal parts covered with vinyl plastic insuring against shock. Solder Type connection. Red or Black. Specify color.

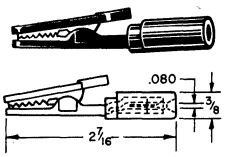
Cat. No. 123



PHONE TIP TO CLIP ADAPTER

Same as above with spring in rear of handle enabling the adapting of standard phone tip plugs to alligator clips. Red or Black. Specify color.

Cat. No. 124

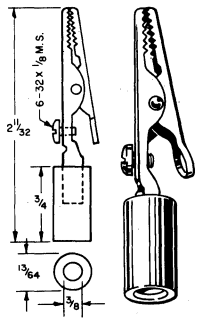


INSULATED ALLIGATOR CLIP
(Screw Type)

Made of steel, cadmium plated. Accurately matching jaws for tight grip. Has screw for solderless connection. Banana plug fits into rear of clip. Insulated handle. Colors: Red, Black.

Cat. No.

310S—Insulated Alligator Clip
310C—Insulated Copper Alligator Clip

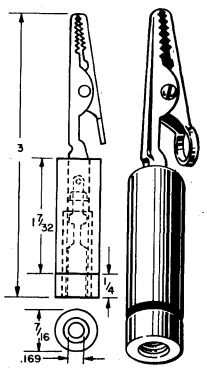


ALLIGATOR CLIP COMBINATION JACK

Insulated alligator clip is composed of our #31, steel, cadmium plated Alligator Clip with our #333 Combination Jack in rear allowing the adaption of both standard senior phone tip plugs and banana plugs to Alligator Clips. Colors: Red, Black.

Cat. No.

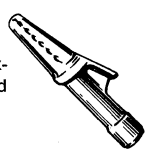
335—Alligator Clip Combination Jack
337—Same as above except with our #31C screw type Copper Alligator Clip



ALL INSULATED ALLIGATOR CLIP

Completely insulated. Made of finest materials. Extra strong grip, sharp teeth. Overall lgt. 2½". Red or Black—Specify Color.

Cat. No. 338



FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH RADIO COMPANY INC.

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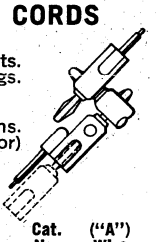
PATCH CORDS—TEST LEADS

MOLDED "STACKING TYPE" PATCH CORDS

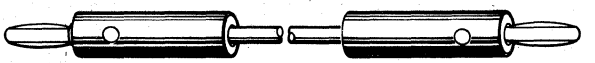


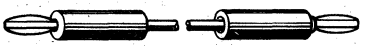
1. Never ending banana plug receptacle.
2. Interconnects unlimited amount of multiple circuits.
3. Positive & lasting contact for all standard banana plugs.
4. Four leaved heat treated beryllium copper spring.
   a. 360° spring contact.
   b. Maintains resiliency after thousands of insertions.
5. Supplied in Red, Black, Yellow or Green. (Specify Color) (Special colors on request)
6. Handle molded to body and to wire.
7. 10,000 volt rubber covered flexible wire.
   a. 65 strands #36 insulated to an O.D. of .140.

Cat. No.	("A") Wire	Cat. No.	("A") Wire	Cat. No.	("A") Wire	Cat. No.	("A") Wire
655-8	8"	**655-12**	12"	**655-24**	24"	**655-36**	36"

Provides a never-ending banana plug receptacle to interconnect an unlimited amount of multiple circuits. The cross hole is designed for positive contact of all standard banana plugs. Fits all standard banana jacks. Four-leaved phosphor bronze nickel plated spring. Red or Black assemblies. Specify color.

Cat. No.		Cat. No.	
653-8	8" Wire Length	**653-24**	24" Wire Length
653-12	12" Wire Length	**653-36**	36" Wire Length





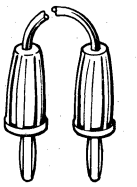
BIRNBACH PATCH CORDS

Birnbach No. 465 Banana Plugs connected to our kinkless test lead wire. Used to interconnect circuits. Fits all standard banana jacks. Specify red or black.

Cat. No.		Cat. No.	
607A	8" Wire Length	**609**	36" Wire Length
607	12" Wire Length	**610**	48" Wire Length
608	24" Wire Length		

BIRNBACH NYLON HANDLE PATCH CORDS

Birnbach #1162 Banana Plugs using molded nylon handles connected to our plastic kinkless test lead wire #18 65/36 TC. Suitable for 10 KV. Wire is same color as handle. For interconnecting circuits. Fits standard Banana Jacks. Color: Red, Blk., Yel., Green.

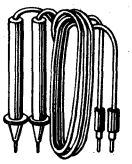


Cat. No.	Wire Length	Cat. No.	Wire Length
657-8	8"	**657-36**	36"
657-12	12"	**657-48**	48"
657-24	24"		

TEST LEADS

BIRNBACH HEAVY DUTY HIGH VOLTAGE TEST LEADS

Overall length 60". Tips are heavy solid brass nickel plated. Rugged, dependable heavy duty bakelite prods. Color coded Red and Black. Uses our Hi Volt kinkless test lead wire.



Cat. No.
562—Heavy Duty High Voltage Test Leads

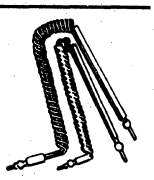
ALLIGATOR CLIP TEST LEADS

Black and Red kinkless test lead wire with Alligator Clips at each end.

Cat. No.	Wire	Cat. No.	Wire
675	12"	**677**	36"
676	24"	**678**	48"

STRETCH LEADS

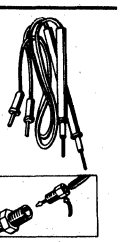
Kink-Proof Retracted 9" Coil
No tangling or knotting of wires. Lead coil only 9", extends to 6 feet.



Cat. No.
564—Solderless phone tip, retractile wire, solderless prod.

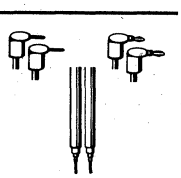
DELUXE AND BAKELITE PENCIL TYPE TEST LEADS

No. 408 Bakelite pencil test leads, color coded, Red, Black, all with kinkless test lead wire. Overall length 60". #560 and #561 polished cast phenolic resin handles, solderless type tips. 50" long. Color coded Red, Black.



Cat. No.
408 Bakelite Pencil Type Test Leads, 6" han.
560 Deluxe Solderless Prod Test Leads, 5" handles
561 Deluxe Needlepoint Prod Test Leads, 5" handles

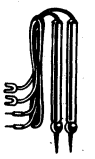
PUSH BUTTON KINKLESS TEST LEADS



556 Solderless phone tip one end, push button tip other end.
557 Solderless phone tip one end, push button banana plug other end.

BIRNBACH NEEDLEPOINT TEST LEADS

Have Red and Black 4" fibre handles. Use kinkless lead wire. Overall length 50". Good, dependable low priced leads.



Cat. No.
420 Needlepoint Phone Tip Test Leads
421 Needlepoint Spade Lug Test Leads
422 Solderless Phone Tip Test Leads
423 Solderless Spade Lug Test Leads

INSULATED ALLIGATOR CLIP TEST LEADS

CLIPS: STEEL, cadmium plated (#31).
BOOTS: Vinyl plastic, Red and Black (21R).

Cat. No.	Wire
424-12	12"
424-24	24"
424-36	36"
424-48	48"

MIDGET ALLIGATOR CLIP TEST LEAD

CLIPS: Steel, Cadmium Plated (#31MS).
BOOTS: Vinyl plastic (#31MB). Red and Black.

Cat. No.	Wire
425-12	12"
425-18	18"
425-24	24"
425-36	36"

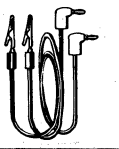
ALLIGATOR CLIP TEST LEAD

CLIP HANDLES: Red and Black. #310
PLUG HANDLES: Red and Black. #409
CLIPS: Steel, Cadmium Plated #310
TIPS: Solderless, Brass, Nickel Plated Cat. No. 427

ALLIGATOR CLIP TEST LEAD

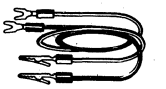
CLIP HANDLES: Red and Black. #310. Steel, Cadmium Plated.
ELBOWS: Red and Black. #121
TIPS: Brass, Nickel Plated Cat. No. 427A

ALLIGATOR CLIP TEST LEAD



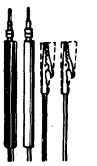
CLIP HANDLES: Molded, Red and Black. Steel, Cadmium Plated. #310
ELBOWS: Red and Black. #122 **Cat. No. 428**

ALLIGATOR CLIP TEST LEAD



CLIP HANDLES: Molded, Red and Black. #310 Steel, Cadmium Plated.
LUGS: #332 **Cat. No. 428A**

ALLIGATOR CLIP TEST LEAD



HANDLES: Molded, Red and Black. #410
TIPS: Solderless: Brass, nickel plated.
CLIPS: Steel, cadmium plated. #31
BOOT: Vinyl Plastic, Red & Black. #31R **Cat. No. 429**

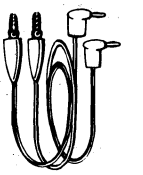
CROCODILE CLIP TEST LEAD

CLIP: Steel, cadmium plated.
BOOT: Vinyl plastic, Red and Black.
HANDLE: Spade Lug: Molded tenite ¾" long x ⅜ O.D. Red and Black. #332
Cat. No. 563

CROCODILE CLIP TEST LEAD

CLIP: Steel, cadmium plated.
BOOT: Vinyl Plastic, Red and Black.
ELBOW: Molded bakelite, Red and Black. #121
Cat. No. 563A

CROCODILE CLIP TEST LEAD



CLIPS: Steel, cadmium plated.
BOOTS: Vinyl Plastic, Red and Black.
ELBOWS: Molded Bakelite, Red and Black. #122
Cat. No. 563B

SPECIAL ASSEMBLIES AVAILABLE TO ORDER

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH RADIO COMPANY INC.

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TRANSISTOR HEAT SINKS & RETAINERS
TRANSMITTING SOCKETS & ADAPTER PLUGS

TRANSISTOR HEAT SINKS

Immediate Delivery from Stock

The standard "off the shelf" line of beryllia heat sinks are available in JEDEC-TO Numbers: 3, 5, 8, 9, 11, 12, 16, 18, 33, 38, 39, etc. Standard thickness 1/16". Also available in 1/32" thickness.

TRANSISTOR HEAT SINKS

Beryllium oxide is unique among inorganic materials in that it combines the characteristic pure oxide electrical properties of high resistivity and low dielectric loss with a thermal conductivity equal to aluminum metal. Where electronic applications require both dielectric insulatiion and high heat transfer from device to chassis, only Beryllium Oxide (BeO) can provide a satisfactory solution to the design engineers problems. Beryllium oxide, a high purity sintered BeO was developed to answer this problem. Its excellent physical and electrical properties are contained in the charts which follow.

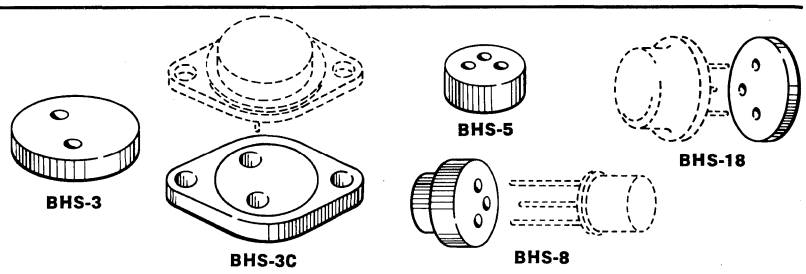
BERRYLLIUM OXIDE HEAT SINKS GIVE YOU THESE ADVANTAGES

- **Increased transistor life and output**
- **Freedom from outgassing**
- **Extremely resistant to shocks, vibratioin and moisture**
- **Infinite shelf life**

PHYSICAL PROPERTIES

Chemical Purity: 99+ per cent Beryllium Oxide
Density: 2.9 Grams/cc
Melting Point: 4650°F
Heat Capacity at 350°F: 0.3 BTU/lb
Thermal Expansion: 3.2 x 10^{-6}/°F
Thermal Conductivity: 140 BTU/FT²HR°F-FT
Transverse Strength: 25,000 PSI
Elastic Modulus: 40 x 10^6 PSI

Cat. No.	For Jedec Transistor Case Type	Cat. No.	For Jedec Transistor Case Type
BHS-1	MT-1	**BHS-10**	MT-10
BHS-3	TO-3	**BHS-11**	TO-11
BHS-3A	MT-3	**BHS-12**	TO-12
BHS-3C (With glass epoxy outline)	TO-3	**BHS-14**	MT-14
BHS-4	DO-4	**BHS-16**	TO-16
BHS-5	TO-5	**BHS-18**	TO-18
BHS-5A	DO-5	**BHS-33**	TO-33
BHS-5B	MT-5	**BHS-36**	TO-36
BHS-6	TO-6	**BHS-38**	TO-38
BHS-8	TO-8	**BHS-39**	TO-39
BHS-9	TO-9	**BHS-43**	TO-43
		BHS-46	TO-46



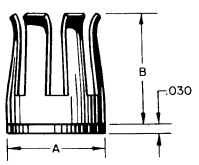
BERYLLIUM OXIDE TRANSISTOR RETAINERS for HEAT DISSIPATION AND ELECTRICAL INSULATION

TRANSISTOR RETAINERS

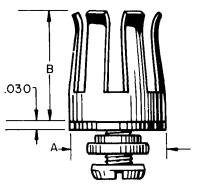
Optimum thermal conductivity, with absolute electrical insulation reliability, are offered by spring clip transistor retainers. The retainers provide electrical isolation for the semiconductor by means of a disc of beryllium oxide ceramic brazed to the base of the beryllium copper retainer. Solid ceramic disc, in contrast to a thin insulating coating, is practically immune to loss of insulating value through cracking, abrasion, chipping or other results of rough treatment in assembly. Heat transfer from the semiconductor to chassis or heat sink is not sacrificed since the high-purity (BeO) has thermal conductivity equal to that of aluminum metal.

Maximum soldering temperature — 300°C.

FOR SOLDERING MOUNTING



FOR MECHANICAL MOUNTING



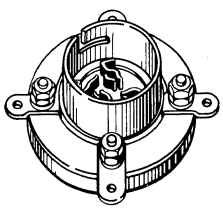
Type Part. No.	TO-5 BTR-21 Solder	TO-5 BTR-22 Screw	TO-18 BTR-26 Solder	TO-18 BTR-25 Screw
A. O.D.	3/8	3/8	.221	.221
B. Length	.37	.37	.28	.28
C. Screw Size	—	4-40 x 3/16	—	2-56 x 3/16

TRANSMITTING SOCKETS

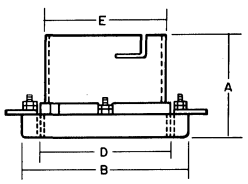
Medium 4 Pin Bayonet and Jumbo 4 Pin Bayonet

No. 434 — "50 watt" socket for medium power bayonet based tubes such as 575A, 805, 810, 838, 845, 872A, 8000 and others with Retma Base No. A4-29. Has heavy phospher bronze cadmium plated double wiping filament contacts will handle heavy currents. Terminals designed for solder or screw connections. Two mounting holes. Has polished nickel plated brass shell; white glazed porcelain base.

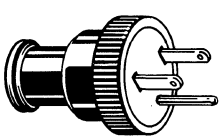
No. 435 — "10 watt" socket for economy, has heavy phospher bronze, cadmium plated side wiping contacts; white glazed porcelain base; heavy plated brass shell. Two mounting holes, for medium 4 pin bayonet based tubes such as 3B25, 3B28, 10Y, 801A, 808, 809, 811A, 812A, 834, 836, 860, 865, 866A, 1616, 8005 with Retma Base No. A4-10.



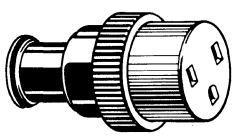
Nos. 434-435



Cat. No.	Watt Socket	A	B	D	E	Mtg. Holes	Pin	Tube Base
434	50	2 3/32"	3 1/8"	2 13/16"	1.886"	2	4	Std. Jumbo
435	10	1 7/8"	2 1/2"	2 1/16"	1.386"	2	4	Med. Bay

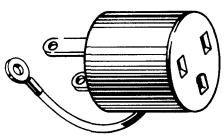


NEW TYPE 3 PRONG PLUG
No. 814T
Two parallel blades plus ground pin for safe grounding of appliance.



ADAPTER PLUGS

FEMALE CONNECTOR
No. 811
For new type 3 prong plug, Female mate to No. 814T.



ADAPTER FOR USING NEW TYPE 3 PRONG PLUG IN STANDARD OUTLET
No. 812

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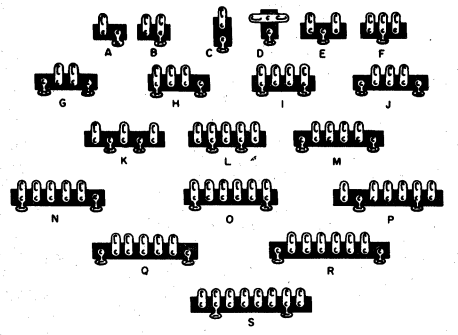
TERMINAL STRIPS • LUGS • CLAMPS



TIE DOWN LUG TERMINAL STRIPS
STANDARD TYPE

These lugs made of 1/16" (.062" thick) XP bakelite x 3/8" wide with cadmium plated brass lugs. Lugs are 3/8" centers with .140 diam. mounting holes. Strips illustrated are standard; special combinations on request.

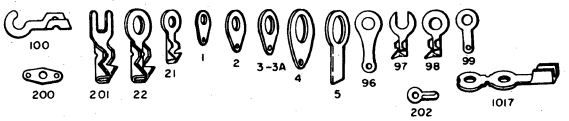
Cat. No.	Illustration	Std. Pkg.
1382	A	100
1382A	B	100
1382B	C	100
1382C	D	100
1383	E	100
1383A	F	100
1384	G	100
1384A	H	100
1384B	I	100
1385	J	100
1385A	K	100
1385B	L	100
1386	M	100
1386A	N	100
1386B	O	100
1387	P	100
1388	Q	100
5 Ter., 2 grds.		
1389	R	100
6 Ter., 2 grds.		
1390	S	100

MINIATURE TYPE

These lugs made of 1/16" (.062" thick) XP bakelite x 5/16" wide. Brass, cadmium plated lugs are 1/4" centers; .096 diam. mounting hole. Clearance for 3/32" rivet or No. 3 screw. Strips illustrated are standard; special combinations on request.

Cat. No.	Illustration	Std. Pkg.
1352	A	100
1352A	B	100
1352B	C	100
1352C	D	100
1353	E	100
1353A	F	100
1354	G	100
1354A	H	100
1354B	I	100
1355	J	100
1355A	K	100
1355B	L	100
1356	M	100
1356A	N	100
1356B	O	100
1357	P	100
1358	Q	100
1359	R	100
1360	S	100

BIRNBACH TINNED TERMINAL LUGS

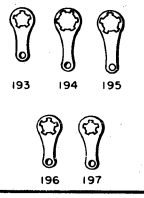


Cat. No.	Hole For Screw	Material	Thickness	Length	Std. Pkg.
1	6	Tinned Copper	.015"	17/32"	1000
2	10	Tinned Copper	.016"	5/8"	1000
3	.252	Tinned Copper	.015"	17/32"	1000
3A	1/4	Tinned Copper	.015"	13/16"	1000
4	3/8	Tinned Copper	.016"	7/8"	1000
5	1/2	Hot Tinned Copper	.024"	1 3/16"	1000
21	10	Hot Tinned Copper	.020"	13/16"	1000
22	1/4	Hot Tinned Copper	.025"	1 1/16"	1000
201	8	Brass Hot Tinned	.020"	13/16"	1000
96	4-6-8-10	Brass Hot Tinned	.020"	7/8"	1000
97	8	Tinned Copper	.016"	5/8"	1000
98	4-6-8-10	Brass Hot Tinned	.020"	11/16"	1000
99	4-6-8-10	Brass Hot Tinned	.020"	1 1/16"	1000
100	10	Brass Hot Tinned	.020"	7/8"	1000
1017	10	Nickel Plated Copper	.023"	13/16"	1000

LUGS IN PACKAGES

Cat. No.	Quan. In Env.	Lug No.	Cat. No.	Quan. in Env.
1-50	50	1	1-100	100
2-50	50	2	2-100	100
3-50	50	3	3-100	100
21-35	35	21	21-100	100
22-15	15	22	22-100	100
201-35	35	201	201-100	100
96-40	40	96	96-100	100
97-40	40	97	97-100	100
98-35	35	98	98-100	100
99-35	35	99	98-100	100
100-20	20	100	100-100	100
1017-10	10	1017	1017-100	100

BIRNBACH LOCKING TYPE TERMINAL LUGS
BRASS ELECTRO PLATED

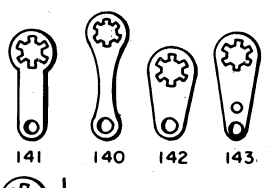


Cat. No.	Hole	Thickness	Length	Std. Pkg.
193	4	.020"	3/4"	1000
194	6	.020"	3/4"	1000
195	8	.020"	7/8"	1000
196	1/4	.020"	13/16"	1000
197	10	.020"	7/8"	1000

LOCKWASHER TERMINAL LUGS BRASS HOT TINNED

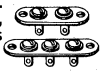
Std. Pkg. 1000

Cat. No.	Hole for Screw	Thickness	Lgth.
140-4	4	.018"	7/8"
140-6	6	.018"	7/8"
140-8	8	.018"	7/8"
140-10	10	.018"	57/64"
140-14	1/4"	.018"	13/16"
141-4	4	.018"	47/64"
141-6	6	.018"	47/64"
141-8	8	.018"	47/64"
142-4	4	.018"	5/8"
142-6	6	.018"	5/8"
142-8	8	.018"	5/8"
143-4	4	.018"	23/32"
143-6	6	.018"	23/32"
143-8	8	.018"	23/32"
144-4	4	.018"	13/16"
144-6	6	.018"	13/16"
144-8	8	.018"	13/16"
144-10	10	.018"	53/64"
145-4	4	.018"	23/32"
145-6	6	.018"	23/32"
145-8	8	.018"	23/32"
146-4	4	.018"	41/64"
146-6	6	.018"	41/64"
146-8	8	.018"	41/64"



BAKELITE TERMINAL STRIPS

Terminals are made of brass and cadmium plated. Available from 2 to 10 terminals either marked or plain. Terminals are mounted on 1/16" bakelite x 3/8" width, 7, 8, 9 and 10 terminals mounted on 3/32" bakelite. All terminals are spaced 7/16" center to center.



PLAIN

Cat. No.	Terminals	Mounting Center
1372	2	15/16"
1373	3	1 1/4"
1374	4	2 3/16"
1375	5	2 5/8"
1376	6	3 1/16"
1377	7	3 1/2"
1378	8	3 15/16"
1379	9	4 3/8"
1380	10	4 13/16"

MARKED

Cat. No.	Terminals Marked
1260	2; AG
1261	2; Output
1262	2; Input
1263	3; 1-2-3
1264	4; 1-2-3-4
1265	5; 1-2-3-4-5
1266	6; 1-2-3-4-5-6

TERMINAL STRIPS 2 POST

Excellent mounting for twin lead transmission lines. Brass hot tinned lugs spaced 7/16" center to center. 1/16" bakelite. 1 15/16" mounting center.

Cat. No. T16

BIRNBACH 3 POST

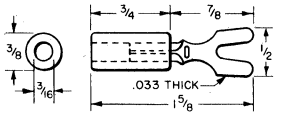
A synchronizing lock strip for RCA type television receivers. Brass hot tinned lugs. Spaced 7/16" center to center. Mounting center 1 3/4". 1/16" bakelite.

Cat. No. T16A

INSULATED SPADE LUG No. 332

This insulated Spade Lug accommodates all standard banana plugs into the rear of lug enabling same to be adapted to a spade lug. Lug is Steel Hot Tinned. **Colors:** Red or Black

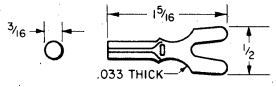
Cat. No. 332 Insulated Spade Lug



SPADE LUG No. 332A

Barrel accommodates all standard banana type plugs. Lug is Steel Hot Tinned.

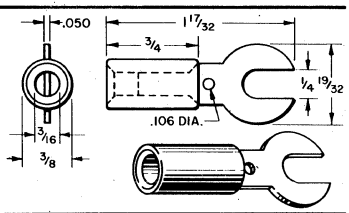
Cat. No. 332A Spade Lug 50



INSULATED SPADE LUG

Colors: Red or Black.
Lug: Brass, .050 thick, nickel plated.
Rating: 30 Amps AC for 10°C Temp. rise, continuous duty.
Descr.: 1/4" I.D. fits all standard Multi-purpose binding posts. Accepts up to #10 insulated wire, which solders in front hole.

Cat. No. 332B



BIRNBACH CABLE CLAMPS

Cat. No.	To Fit Cable Up To	Length	Width	Mtg. Hole
1153	3/32"	7/16"	1/4"	No. 4
1154	5/32"	5/8"	3/8"	No. 6
1155	1/4"	11/16"	3/8"	No. 6
1156	1/2"	15/16"	3/8"	No. 8
1157	3/4"	1 1/8"	3/8"	No. 10

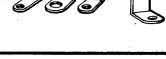
BIRNBACH TAPPED ANGLE BRACKET

Steel cadmium plated. 1/2" by 1/2". One plain .165 hole and one 8/32 tapped hole.

Cat. No. 1120

BRASS & STEEL ANGLES

Cat. No.	Material	Size	Mtg. Holes
1121	Brass N. Pl.	1/2" x 1/2"	.169
1122	Brass N. Pl.	5/8" x 5/8"	.169
1123	Steel H.T.	3/4" x 3/4"	.144
1124	Steel H.T.	5/8" x 1 1/8"	.169



SPRING WIRE CLIPS

They will hold a wire, up to No. 10 B&S Gauge, in a secure contact. All clips are brass nickel-plated.

Cat. No.		Length	Width	Mtg. Hole
32A	Spring Clip	3/4"	5/16"	6
32	Spring Clip	1"	3/8"	10
33	Twin Clip	1 3/4"	3/8"	10

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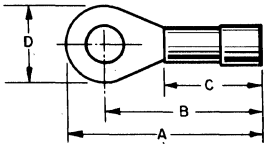
SOLDERLESS TERMINALS AND CONNECTORS

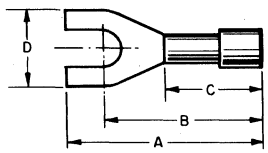
INSULATED

RING TONGUE



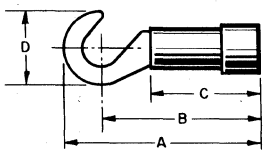
Cat. No.	Wire Size	Stud Size	A	B	C	D
5651-4	22-16	4	31/32	13/16	1/2	5/16
5651-6	22-16	6	31/32	13/16	1/2	5/16
5651-8	22-16	8	31/32	13/16	1/2	5/16
5652-4	16-14	4	27/32	23/32	1/2	1/4
5652-6	16-14	6	27/32	23/32	1/2	1/4
5653-6	16-14	6	27/32	51/64	1/2	11/32
5653-8	16-14	8	27/32	51/64	1/2	11/32
5653-10	16-14	10	27/32	51/64	1/2	11/32
5654-1/4	16-14	1/4	1 3/32	55/64	1/2	15/32
5655-6	12-10	6	61/64	49/64	1/2	3/8
5655-8	12-10	8	61/64	49/64	1/2	3/8
5655-10	12-10	10	61/64	49/64	1/2	3/8
5656-1/4	12-10	1/4	1 11/64	59/64	1/2	1/2
5657-3/8	12-10	3/8	1 1/4	61/64	1/2	19/32

SPADE TONGUE



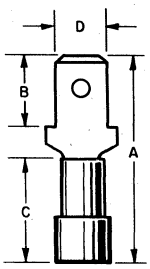
Cat. No.	Wire Size	Stud Size	A	B	C	D
5666-4	22-16	4	1"	13/16	1/2	5/16
5666-6	22-16	6	1"	13/16	1/2	5/16
5666-8	22-16	8	1"	13/16	1/2	5/16
5666-10	22-16	10	1"	13/16	1/2	5/16
5658-4	16-14	4	31/32	25/32	1/2	23/64
5658-6	16-14	6	31/32	25/32	1/2	23/64
5658-8	16-14	8	31/32	25/32	1/2	23/64
5658-10	16-14	10	31/32	25/32	1/2	23/64
5667-6	12-10	6	63/64	25/32	1/2	3/8
5667-8	12-10	8	63/64	25/32	1/2	3/8
5667-10	12-10	10	63/64	25/32	1/2	3/8

HOOK TONGUE

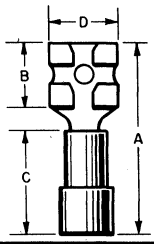


Cat. No.	Wire Size	Stud Size	A	B	C	D
5660-6	22-16	6	31/32	13/16	1/2	5/16
5660-8	22-16	8	31/32	13/16	1/2	5/16
5660-10	22-16	10	31/32	13/16	1/2	5/16
5661-6	16-14	6	31/32	25/32	1/2	23/64
5661-8	16-14	8	31/32	25/32	1/2	23/64
5661-10	16-14	10	31/32	25/32	1/2	23/64
5662-6	12-10	6	1"	13/16	1/2	3/8
5662-8	12-10	6	1"	13/16	1/2	3/8
5662-10	12-10	10	1"	13/16	1/2	3/8

QUICK DISCONNECT TERMINALS

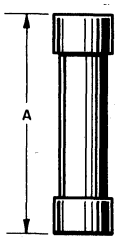


Cat. No.	Wire Size	A	B	C	D
5670	22-16	29/32	5/16	1/2	5/16
5672	16-14	29/32	5/16	1/2	5/16
5674	12-10	29/32	5/16	1/2	5/16



5671	22-16	1"	5/16	1/2	1/4
5673	16-14	1"	5/16	1/2	1/4
5675	12-10	1"	5/16	1/2	1/4

BUTT CONNECTOR

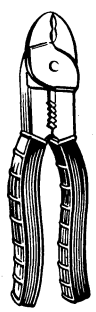


Cat. No.	Wire Size	A
5663	22-16	1 1/16
5664	16-14	1 1/16
5665	12-10	1 1/16

UNIVERSAL CRIMPING TOOL

Crimps both insulated and non-insulated terminals, wire sizes 22 thru 10. Cuts and strips wire.

Cat. No. 4676



Color coded for easy matching to wire sizes.

Red — 22-16
Blue — 16-14
Yellow — 12-10

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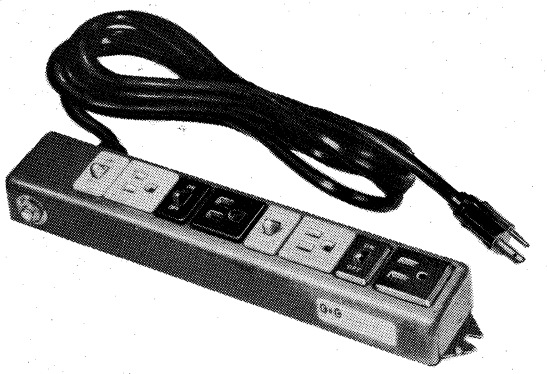
THE ORIGINAL AC POWER CONTROL UNITS

"Much more than an outlet box"

FEATURES

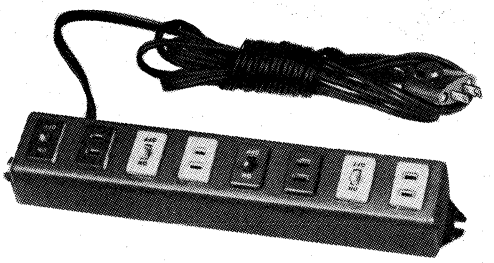
- PROTECTION BY FUSE OR CIRCUIT BREAKER
- U L APPROVED COMPONENTS
- PORTABLE OR STATIONARY
- SELF CONTAINED POWER SWITCHES
- RUGGED CONSTRUCTION
- REQUIRES LITTLE SPACE & EASY TO STORE
- LIFETIME NEON INDICATOR
- 2 PRONG & "U" GROUND OUTLETS
- EASY TO KEEP CLEAN
- FINISH OF BROWN HAMMERTONE OR CHROME
- RATED FOR 15 AMPS 130 VOLTS
- HEAVY DUTY LINE CORD



SS-GD Series — All models contain four colored sets of power switches and heavy duty "U" type outlets, paired for easy identification. Choice of fuse or circuit breaker protection. Dimension 13⅛" x 2¼" x 1½".

Model SS-GD (Fuse type, 10 Ft. cord)	**$ 8.95**
Model SS-GD-15 (Fuse type, 15 Ft. cord)	**9.95**
Model SS-GD-CB (Circuit breaker, 10 Ft. cord)	**10.75**
Model SS-GD-CB-15 (Circuit breaker, 15 Ft. cord)	**11.75**

Add suffix CR to model number for chrome plating plus an additional $1.50 to the net price.



SS Series — Provides four independently controlled 2 prong outlets, each set in a contrasting color for easy recognition. Choice of fuse or circuit breaker protection. Dimensions 13⅛" x 2¼" x 1½".

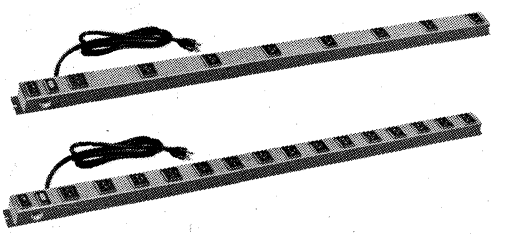
Model SS (Fused plug 10 Ft. cord)	**$ 6.75**
Model SS-F (Same as SS but with one fuse)	**6.25**
Model SS-CB (Circuit breaker 10 Ft. cord)	**8.75**

Add suffix CR to the model number for chrome plating plus an additional $1.50 to the net price.

Model SS-2 — Provides two independently controlled 2 prong outlets, each set in a contrasting color for easy recognition. Dimensions 5" x 2" x 1¼".

(Fused plug 6 Ft. cord)	**$ 4.15**

Add suffix CR to the model number for chrome plating plus an additional $1.00 to the net price.



LL-GD Series — 4' HEAVY DUTY LONG LINE — Each unit has a switch and pilot light. With "U" type grounded outlets. Choice of fuse or circuit breaker protection. Dimensions 49" x 2" x 1½".

8 OUTLETS	
LL-GD-8-10 (Fuse type, 10 Ft. cord)	**$14.95**
LL-GD-8-15 (Fuse type, 15 Ft. cord)	**15.95**
LL-GD-CB-8-10 (Circuit breaker, 10 Ft. cord)	**15.95**
LL-GD-CB-8-15 (Circuit breaker, 15 Ft. cord)	**16.95**
15 OUTLETS	
LL-GD-15-10 (Fuse type, 10 Ft. cord)	**18.95**
LL-GD-15-15 (Fuse type, 15 Ft. cord)	**19.95**
LL-GD-CB-15-10 (Circuit breaker 10 Ft. cord)	**19.95**
LL-GD-CB-15-15 (Circuit breaker 15 Ft. cord)	**20.95**

All prices are net and subject to change without notice.

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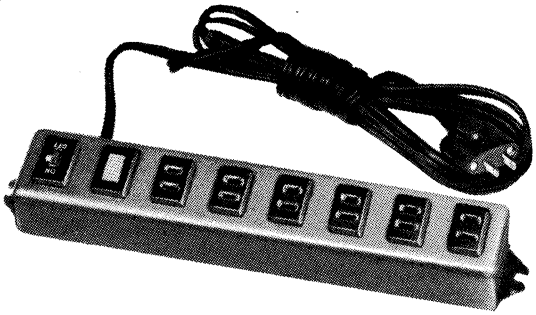


MO Series — One switch controls six 2 prong outlets. Pilot light indicates when power is on. Choice of fuse or circuit breaker protection. Dimensions 13⅛" x 2¼" x 1½".

Model MO (Fused plug 10 Ft. cord)	**$ 6.75**
Model MO-F (Same as MO but with one fuse)	**6.25**
Model MO-CB (Circuit breaker 10 Ft. cord)	**8.75**

Add suffix CR to model number for chrome plating plus an additional $1.50 to the net price.

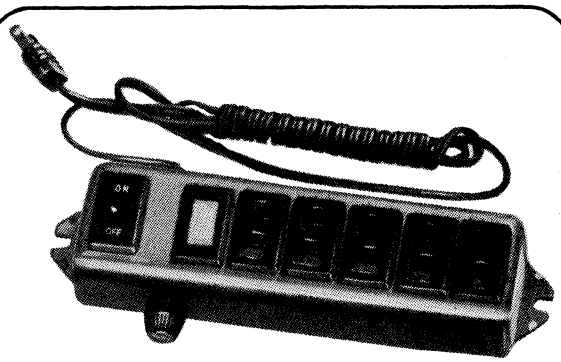
Model MO-4 — Four 2 prong outlets where just additional outlets are required. No switch. Dimensions 5" x 2" x 1¼".

(Fused plug, 6 Ft. cord) ..... **$ 3.75**

Model MO-3 — One switch controls three 2 prong outlets. Dimensions 5" x 2" x 1¼".

(Fused plug, 6 Ft. cord) ..... **$ 3.90**

Add suffix CR to the model numbers for chrome plating plus an additional $1.00 to the net price.



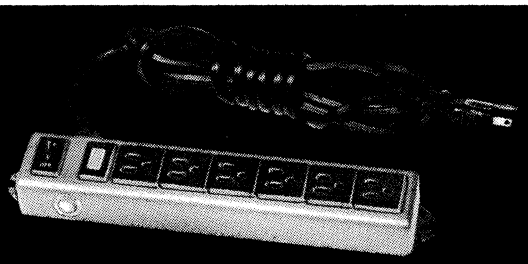
MO-5 Series — One switch controls five 2 prong outlets. Pilot light shows when power is on. Choice of fuse or circuit breaker protection. Dimensions 8⅝" x 2¼" x 1½".

Model MO-5-10 (Fused type, 10 Ft. cord)	**$ 5.95**
Model MO-5-15 (Fused type, 15 Ft. cord)	**6.95**
Model MO-CB-5-10 (Circuit breaker 10 Ft. cord)	**6.95**
Model MO-CB-5-15 (Circuit breaker 15 Ft. cord)	**7.95**

Add suffix CR to model number for chrome plating plus an additional $1.25 to the net price.

APPROVED UNITS FOR MILITARY APPLICATION

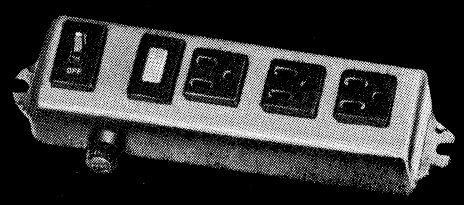
Model MO-GD-4 — 7 "U" type grounding outlets, 3 ten foot leads, grey housing.
Model MO-GD-5 — 3 "U" type grounding outlets, 3 ten foot leads, grey housing.
Used in Missile Ground Support Equipment ..... **$15.00 Each**



MO-GD Series — Six 3-wire "U" type ground outlets, switch and pilot light. Choice of fuse or circuit breaker protection. Dimensions 13⅛" x 2¼" x 1½".

Model MO-GD (Fuse type, 10 Ft. cord)	**$ 8.50**
Model MO-GD-15 (Fuse type, 15 Ft. cord)	**9.50**
Model MO-GD-CB-10 (Circuit breaker, 10 Ft. cord)	**10.50**
Model MO-GD-CB-15 (Circuit breaker, 15 Ft. cord)	**10.95**

Add suffix CR to model number for chrome plating plus an additional $1.50 to the net price.



MO-GD-3 Series — Three 3-wire "U" type ground outlets, switch and pilot light. Choice of fuse or circuit breaker protection. Dimensions 8⅝" x 2¼" x 1½".

Model MO-GD-3-10 (Fuse type, 10 Ft. cord)	**$ 5.95**
Model MO-GD-3-15 (Fuse type, 15 Ft. cord)	**6.95**
Model MO-GD-CB-3-10 (Circuit breaker, 10 Ft. cord)	**6.95**
Model MO-GD-CB-3-15 (Circuit breaker, 15 Ft. cord)	**7.95**

Add suffix CR to the model number for chrome plating plus an additional $1.25 to the net price.

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CBC *Industries Inc.*

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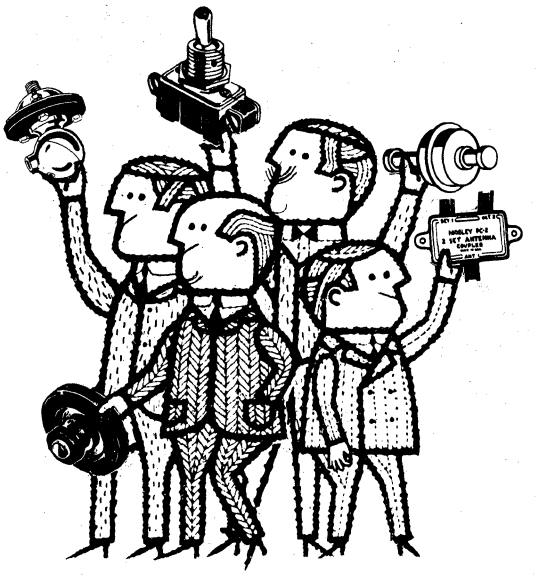
ELECTRONIC DISTRIBUTOR for ...

- *Instant off-the-shelf delivery*
- *In-depth inventories*
- *Wide varieties*
- *Prompt service*
- *Technical assistance*
- *Availability of the latest products*
- *Speedy purchasing — one order does the job*



Contact your local ELECTRONIC DISTRIBUTOR

for all your requirements!

CANNON® AUDIO CONNECTORS for low level circuit applications

CANNON® PLUGS

ITT Cannon Audio Connectors are designed for use on audio/video and other low level circuit applications in the electronic/industrial fields where reliability, quiet operation and the elimination of mechanical interference are necessary. Some common uses are: microphones, tape recorders, hi-fi equipment, medical instruments, cameras, test instrumentation and computers.

XLR CONNECTOR SERIES

The XLR incorporates the most advanced audio/electronic design concepts. Small and compact, it features resilient insulators on the socket side plus resilient ribs for shock protection and quiet operation.

Shells are aluminum alloy (receptacles), or steel or aluminum alloy (plugs), with satin nickel finish. Insulators are rigid molded plastic (pin side), or resilient polychloroprene (socket side). Contacts are brass, silver plated. Coupling is by the latch-lock method.

FEATURES

• QUIET OPERATION

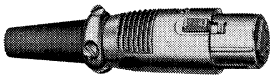
Thick aluminum cross sections for shell strength, plus resilient insulators and resilient ribs on the socket side, insure elimination of mechanical interference from shock.

• EASY TO WORK WITH

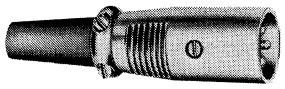
Finger grips for positive handling.

Integral cable clamp with two clamping positions for positive grip on cable sizes from 7/32 to 5/16 of an inch.

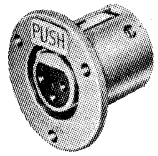
Large internal space for ease of wiring.



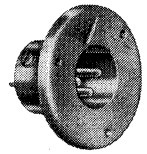
XLR-*-11C
XLR-*-11SC (steel shell)
SOCKET
Straight Cord Plug



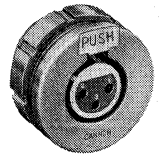
XLR-*-12C
XLR-*-12SC (steel shell)
PIN
Straight Cord Plug



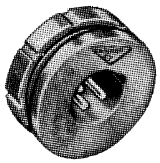
XLR-*-13
SOCKET
Wall Mounting Receptacle



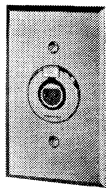
XLR-*-14
PIN
Wall Mounting Receptacle



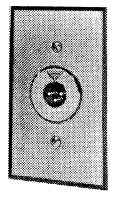
XLR-*-13N
SOCKET
Panel Mounting Receptacle



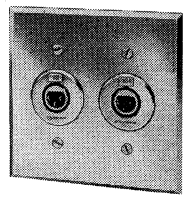
XLR-*-14N
PIN
Panel Mounting Receptacle



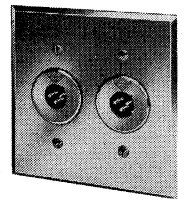
XLR-*-35
SOCKET
Wall Mounting Receptacle



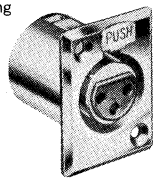
XLR-*-36
PIN
Wall Mounting Receptacle



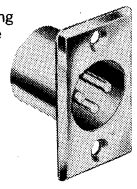
XLR-*-35-2G
SOCKET
Wall Mounting Receptacle



XLR-*-36-2G
PIN
Wall Mounting Receptacle



XLR-*-31
SOCKET
Wall Mounting Receptacle

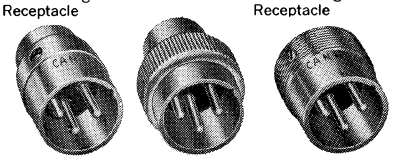


XLR-*-32
PIN
Wall Mounting Receptacle

XLR-*-42
PIN
90° Wall or Microphone Receptacle

XLR-*-15
SOCKET
90° Cord Plug

Adapter Receptacles

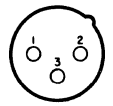


XLR*-50 (with plain shell)
XLRC*-50N (with coupling nut)
XLR*-50T (with threaded barrel)

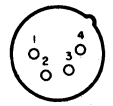
*Add contact arrangement to complete part number. Example XLR-4-12C

CONTACT ARRANGEMENTS

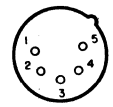
FACE VIEW OF PIN INSERTS



3
3-15 AMP CONTACTS



4
4-10 AMP CONTACTS



5
5-7½ AMP CONTACTS

P CONNECTOR SERIES

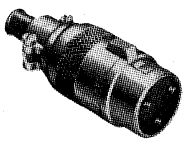
The ITT Cannon P is a versatile connector in terms of the wide range of contact arrangements offered. It is a proven connector and has been the standard of quality in the audio field for many years. Socket contacts are full floating and precision-made from milled bar stock.

Shells are zinc (receptacles), or steel or zinc (plugs), with satin chrome finish. Insulators are phenolic. Contacts are brass, silver plated. Coupling is by the latch-lock method.

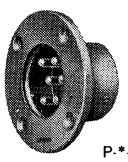
P Series connectors not shown.

P*-CG-12S	Straight cord plug. (Pin)
P*-13	Flush panel receptacle. (Socket)
P*-CG-15	90° angle cord plug. (Socket)
P*-CG-16	90° angle cord plug. (Pin)
P*-17	Surface panel receptacle. (Socket)
P*-18	Surface panel receptacle. (Pin)
P*-23	Straight cord plug. (Socket)
P*-24	Straight cord plug. (Pin)
P*-35	Single gang wall receptacle. (Socket)
P*-36	Single gang wall receptacle. (Pin)
P*-35-2G	Two gang wall receptacle. (Socket)
P*-36-2G	Two gang wall receptacle. (Pin)
P*-41	Microphone mounting receptacle. (Socket)
P*-42	Microphone mounting receptacle. (Pin)

*Add contact arrangement to complete part number. Example P2-CG-12S



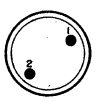
P-*-CG-11S
SOCKET
Straight Cord Plug



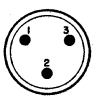
P-*-14
PIN
Wall Mounting Receptacle

CONTACT ARRANGEMENTS

FACE VIEW OF PIN INSERTS



2
2-30 AMP CONTACTS



3
3-30 AMP CONTACTS

4
4-30 AMP CONTACTS

5
5-30 AMP CONTACTS

6
6-30 AMP CONTACTS

8
8-15 AMP CONTACTS

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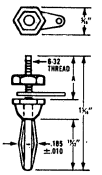
DABURN ELECTRONICS & CABLE CORP.

PHONE TIPS • BANANA PLUGS & JACKS

BANANA PLUG — No. 17-40

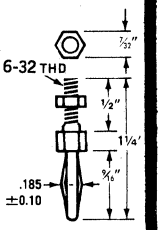


Fits all standard banana jacks. Hex brass, nickel plated. Comes thru with hex N. PL. nut and tinned copper lug. Spring is four leaf phosphor bronze, nickel plated.

RATED: 15 Amps. AC.

DABURN No.	Spring	Dim. A	Std. Pkg.
17-40	Phosphor Bronze	½″	100
17-40A	Phosphor Bronze	⅜″	100
17-40B	Beryllium Copper	½″	100

BANANA PLUG — No. 17-14

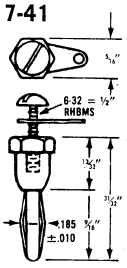


Nickel plated hex brass; spring is four leaf phosphor bronze, nickel plated Comes thru with hex nut, nickel plated. Fits all standard banana jacks.

RATED: 15 Amps. AC.

DABURN No.	Spring	Std. Pkg.
17-14	Phosphor Bronze	100

BANANA PLUG — No. 17-41



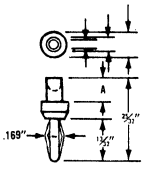
Body is hex brass, nickel plated, comes thru complete with N. PL. screw and tinned copper lug; spring is four leaf phosphor bronze or beryllium copper, nickel plated. Fits all standard banana jacks.

RATED: 15 Amps. AC.

DABURN No.	Spring	Std. Pkg.
17-41	Phosphor Bronze	100
17-41B	Beryllium Copper	100

MIDGET BANANA PLUG

RIVET TYPE



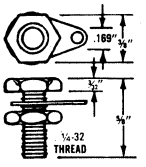
Brass silver plated body. Spring is four leaf phosphor bronze, silver plated.

RATED: 10 Amps. AC.

DABURN No.	Std. Pkg.
17-26 Rivet Type Midget Plug	100

Additional Midget Plugs & Jacks Available.
Also Sub-Miniature Plugs & Jacks.

BANANA JACK — No. 17-03

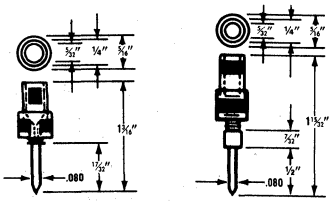


Hexed brass nickel plated hex nut and tinned copper lug. Has recessed head. Mounts in ¼″ hole in panels up to 5/16″ thick. Fits all standard banana plugs.

Rated: 15 amps AC.

DABURN No.		Std. Pkg.
17-03	Banana Jack	100

SOLDERLESS PHONE TIP PLUG

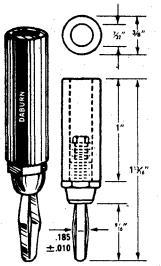


Brass nickel plated. Both fit all standard phone tip jacks. Slipping the wire thru body of tip, then wrapping same around screw, is tightened by knurled collar.

DABURN No.	Description Type	Std. Pkg.
17-33	Junior	100
17-34	Senior	100

INSULATED BANANA PLUG

SOLDERLESS



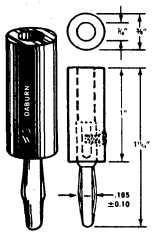
Fits standard banana jacks. Plug is hex brass, Nickel plated. Spring is four leaf phosphor bronze nickel plated. Molded plastic handle.
For solderless connection: wire can be passed thru hex brass N.P. stud and spread, which locks wire to plug. Wire can also be soldered directly to plug.

COLORS
Red, Black, Yellow, Green, Blue. (Specify)

DABURN No.	SPRING	Std. Pkg.
19-04	Phosphor Bronze N.P.	50
19-04B	Beryllium Copper S.P.	50

INSULATED BANANA PLUG

SOLDERLESS



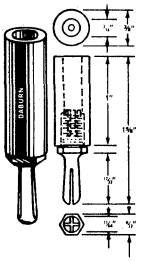
Fits standard banana jacks. Plug is brass nickel plated. Spring is four leaf phosphor bronze, nickel plated. Side set screw holds wire without soldering. Molded plastic handle.

COLORS
Red, Black, Yellow, Green, Blue (Specify)

DABURN No.	SPRING	Std. Pkg.
19-46	Phosphor Bronze N.P.	50
19-46A	Beryllium Copper N.P.	50

INSULATED BANANA PLUG

SOLDERLESS



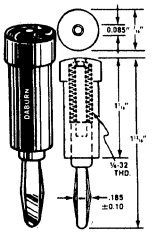
This split plug, brass N. PL., has internal brass N. PL., stud for solderless connection. Fits standard banana jacks. Molded plastic handle.

COLORS
Red, Black, Yellow, Green, Blue. (Specify)

DABURN No.	Std. Pkg.
19-47 BANANA PLUG	50

ADAPTER

TIP PLUG TO BANANA PLUG



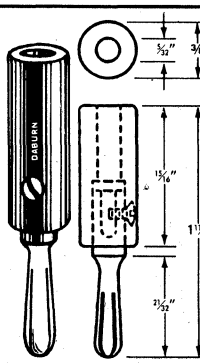
Fits standard banana jacks, accepts standard phone tips. Plug is brass nickel plated. Spring is four leaf phosphor bronze, nickel plated. Phone tip jack is phosphor bronze molded plastic handle and cap.

COLORS
Red, Black (Specify)

DABURN No.	Std. Pkg.
19-67 ADAPTER	50

INSULATED BANANA PLUG

SOLDERLESS



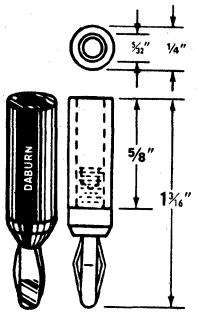
Split plug, brass N. PL., with side screw fits standard banana jacks. Plug is slotted, set screw holds wire without soldering. Molded plastic handles.

COLORS
Red, Black, Yellow, Green, Blue. (Specify)

DABURN No.	Std. Pkg.
19-44 BANANA PLUG	50

INSULATED MIDGET BANANA PLUG

SOLDERLESS



Spring is four leaf phosphor bronze, or beryllium copper, nickel plated. Wire can be soldered directly into plug. Molded plastic handle. Fits standard banana jacks.

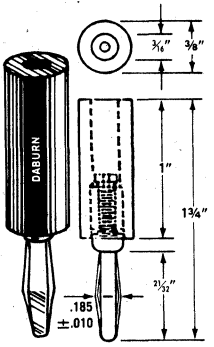
COLORS
Red, Black. (Specify)

SPRING

DABURN No.	Std. Pkg.
19-55 Phosphor Bronze N.P.	50
19-55B Beryllium Copper S.P.	50

INSULATED BANANA PLUG

SOLDERLESS



Fits standard banana jacks. Plug is brass nickel plated. Spring is four leaf phosphor bronze nickel plated. Molded plastic handle.

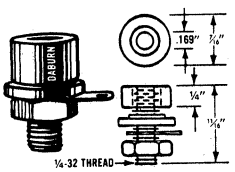
COLORS
Red, Black, Yellow, Green, Blue. (Specify)

For solderless connection same as our No. 19-04.

SPRING

DABURN No.	Std. Pkg.
19-65 Phos. Bronze N.P.	50
19-65B Beryllium Copper S.P.	50

INSULATED BANANA JACK

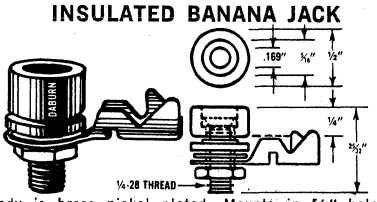


Body is brass nickel plated, mounts in 5/16″ hole in panels up to ⅜″ thick. Comes thru with hex nut, tinned copper lug and fibre washer. Takes all standard banana plugs. Molded plastic head.

COLORS
Red, Black, Yellow, Green, Blue. (Specify)

DABURN No.	Description	Std. Pkg.
19-06	Insulated Jack	50

INSULATED BANANA JACK

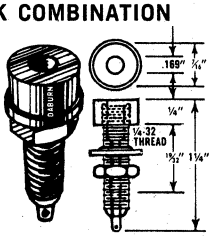


Body is brass nickel plated. Mounts in 5/16″ hole in panels up to ⅜″ thick. Comes thru with hex nut, tinned copper lug, lockwasher, fibre washer. Takes all standard banana plugs. Jack body is recessed for tight contact. Molded plastic head.

COLORS: Red, Black, Yellow, Green, Blue. (Specify)

DABURN No.	Description	Std. Pkg.
19-91	Insulated Jack	50

INSULATED JACK COMBINATION



Will take senior phone tips or standard banana plugs. Body is brass, nickel plated. Mounts in 5/16″ hole in panels up to ½″ thick. Springs are phosphor bronze. Comes thru with hex nut and fibre washer. Molded plastic head.

COLORS
Red, Black, Yellow, Green, Blue. (Specify)

DABURN No.	Description	Std. Pkg.
19-33	Insulated Combination Jack	50

See Pages 1724 and 1725 for Complete Price List

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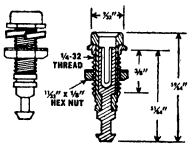
DABURN ELECTRONICS & CABLE CORP.

INSULATED BINDING POSTS • PHONE TIP PLUGS • TEST JACKS • PRODS

NYLON TIP JACK WITH METAL SHELL

Made to Meet MS-16108 Spec — Wrap Around



Molded nylon tip jack with metal shell eliminates possibility of threads stripping during assembly. Made to meet the requirements of MS-16108 specification. Contact recessed in head for safety. Nylon, grade FM 10001, brass N.P. Shell and nut per Spec. 72-53. Tough and rugged. Fits all standard phone tip plugs.

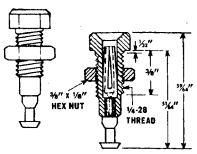
CENTER CONTACT: Heat treated beryllium copper, silver plated.

COLORS: Red, Black, Yellow, Green, Blue, White. (Specify Color)

Daburn No.		Std. Pkg.
19-90	Wrap Around	25

ALL NYLON TIP JACK

WRAP AROUND

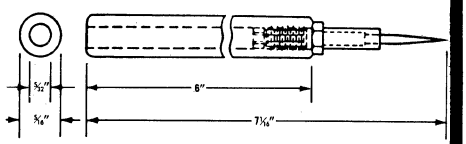


All nylon molded tip jack. Takes all standard phone tip plugs. Contact recessed in head for safety. Hex head for ease in tightening. Mounts in ¼" hole in panels up to ¼". Body is nylon, grade FM 10001. Tough and rugged. Complete with brass nickel plated hex nut. Center contact. Heat treated beryllium copper. silver plated.

COLORS: Red, Black, Yellow, Green, Blue, White. (Specify)

Daburn No.		Std. Pkg.
19-80	Wrap Around	25

BAKELITE PENCIL TYPE TEST PROD

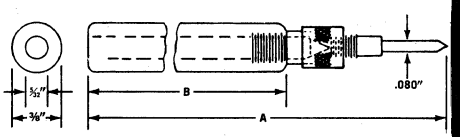


Body is brass nickel plated with heavy steel phono needle in tip. Handle is XX bakelite per MIL--P-79 Spec. Wire threaded thru stud and tightened allows for solderless connection.

COLOR: Red ,Black. (Specify)

Daburn No.		Std. Pkg.
19-11	Bakelite Pencil Type Prod	25

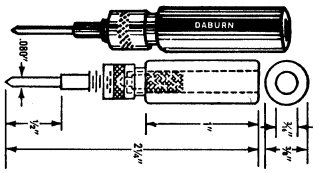
SOLDERLESS TEST PROD



Body is brass nickel plated with molded plastic handle. Solderless connection. for wire fits thru handle and plug body and wraps under knurled nut.

COLOR: Red, Black. (Specify)

Daburn No.	Handle (B)	Overall L'gth (A)	Std. Pkg.
19-10	4"	5 3/16"	50
19-43	5"	6½"	50



INSULATED PHONE TIP

SOLDERLESS — SENIOR

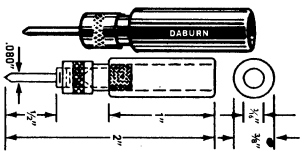
Fits standard phone tip jacks. Brass nickel plated. Solderless connection for wire which fits thru body of tip and fastens under knurled nut. Molded plastic handle.

COLORS: Red, Black, Yellow, Green, Blue. (Specify)

Daburn No.		Std. Pkg.
19-09	Senior	50

INSULATED PHONE TIP

SOLDERLESS — JUNIOR

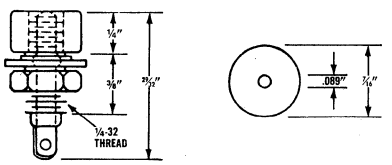


Fits standard phone tip jacks. Brass nickel plated. Solderless connection for wire which fits thru body of tip and fastens under knurled nut. Molded plastic handle.

COLORS: Red, Black, Yellow, Green, Blue. (Specify)

Daburn No.		Std. Pkg.
19-15	Junior	50

INSULATED PHONE TIP JACK

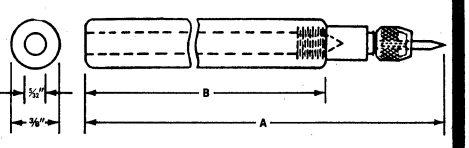


Fits all standard phone tips. Brass nickel plated body. Phosphor bronze spring provides positive contact. Comes thru complete with hex nut and fibre washer. Molded plastic head.

COLORS: Red, Black, Yellow, Green Blue. (Specify)

Daburn No.	Std. Pkg.
19-07	50

NEEDLEPOINT TEST PROD



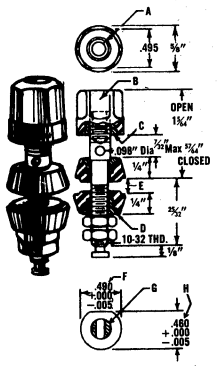
Brass nickel plated plug, chuck is removable for replacement of broken needles. Sharp needle pierces insulation or corrosion for testing purposes. Molded plastic handle.

COLORS: Red, Black. (Specify)

Daburn No.	Handle (B)	Overall L'gth (A)	Std. Pkg.
19-20	4"	4⅞"	50
19-21	5"	6⅜"	50

BINDING POSTS — MULTI-PURPOSE

WRAP AROUND TYPE

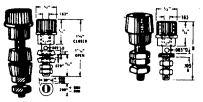


Molded nylon body. Accepts tip plug, spade lug, banana plug, wire alligator clip and direct solder connection. Has molded-in brass inserts in head and washer. Rated at 30 amps. AC, capacitance 5.0 MMFD. Banana plug receptacle .161" I.D. head non-removable from stud and washer completely insulates post from panel. For panels 1/16" to ¼" thick; drill ½" hole for mounting washers. Wire hole is at right angle to flat on insulated washer.

COLORS: Red, Black. (Specify)

Daburn No.	Description	Std. Pkg.
18-75	Nylon Binding Post	100
18-72	Nylon Fluted Head Post	100

STANDARD DUTY BINDING POST

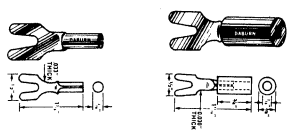


Molded-in brass bushings similar as above. Rated at 15 Amps. AC, capacitance 3.0 MMFD. Body is brass nickel plated. Mounts in 5/16" hole for locking. Has milled slot complete with two hex nuts.

COLOR: Red, Black. (Specify)

Daburn No.	Description	Std. Pkg.
18-78	All Insulated Type	100
18-79	Grounding Type	100

INSULATED SPADE LUG

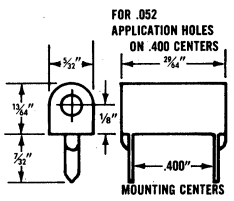


Molded plastic handle lug is steel hot tinned. Rated at 25 Amps. AC. Rear barrel accommodates all standard banana plugs.

COLORS — Insulated Spade: Red, Black.

Daburn No.		Std. Pkg.
19-32	Insulated Spade Lug	50
19-32A	Spade Lug Only	50

PRINTED CIRCUIT TEST JACKS



Nylon bodies, designed for permanent, soldered connection to printed circuit boards. Beryllium copper contacts have gold over silver plate. Accepts .080" diameter per MIL F-14072, M301 test probes. For .052 application holes on .400 centers.

COLORS: Red, Black, Green, Yellow, Blue. Additional colors available.

Daburn No.		Std. Pkg.
19-77	Printed Circuit Jacket	25

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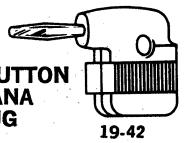
See Pages 1724 and 1725 for Complete Price List

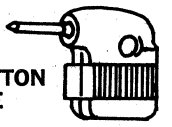
DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

METER TYPES



PUSH BUTTON BANANA PLUG 19-42



PUSH BUTTON PHONE TIP 19-41

Molded bakelite handles. Nickel plated brass bodies. Banana plug has phosphor bronze slotted spring, nickel plated fits standard banana jacks. Phone tip fits standard phone tip jacks. Push button allows wire connection without soldering.

Cat. No.		Std. Pkge.
19-42	Push button banana plug	100
19-41	Push button phone tip plug	100

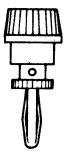
Colors: Red, black

INSULATED BANANA JACK TURRET TERMINAL

Body is brass nickel plated. Mounts in 3/16" hole in panels up to 3/8" thick. Molded plastic head. Takes standard banana plugs.

Cat. No.		Std. Pkg.
19-26	Banana jack	100

Colors: Red, black, yellow, green, blue, white.



COMBINATION POST — BANANA PLUG

Molded fluted nylon captive head rated at 15 amps ac. Body is brass nickel plated; spring — N.P.L. phosphor bronze. Converts a standard banana jack into a five way binding post.

Cat. No.		Std. Pkg.
18-40	Combination plug	100

Colors: Red, black.

COMBINATION POST — BANANA PLUG

Molded hex head nylon captive head. Rated at 15 amps ac. Body is brass nickel plated; spring — N.P.L. Phosphor bronze. Converts a standard banana jack into a five way binding post.

Cat. No.		Std. Pkg.
18-42	Combination plug	100

Colors: Red, black.

COMBINATION TERMINAL METAL BINDING POST

Brass nickel plated turret terminal screw head. Knurled shank. Knurled end. For 3/16" thick panel. 10-32 x 1/4" long BHM screw.

Cat. No.		Std. Pkg.
18-30	Combination terminal	100

COMBINATION TERMINAL METAL BINDING POST

Brass nickel plated turret terminal screw head. Knurled shank. Knurled end. 8-32 x 1/4" long BHM screw. For 1/8" thick panel.

Cat. No.		Std. Pkg.
18-32	Combination terminal	100

METAL BINDING POST — 5 WAY

Hex brass, nickel plated. Wrap around terminal. Captive head.

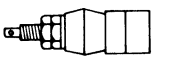
Cat. No.		Std. Pkg.
18-34	Binding post	100

BINDING POST — 5 WAY

Hex head molded nylon with spade lug. Brass nickel plated.

Colors: Red, black.

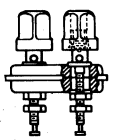
Cat. No.		Std. Pkg.
18-77	Binding Post	100



DUAL BINDING POSTS NYLON — 5 WAY

Hex nylon captive head. Brass nickel plated. Turret terminals — wrap around 15 amp rating ac. Mounts in 3/4" centers. Available in red or black combinations. Specify.

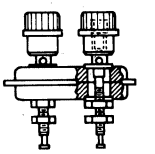
Cat. No.		Std. Pkg.
18-50	Dual binding post	100



DUAL BINDING POSTS NYLON — 5 WAY

Fluted nylon captive head. Brass nickel plated. Turret terminals — wrap around. 15 amp rating ac. Mounts in 3/4" centers. Available in red or black combinations. Specify.

Cat. No.		Std. Pkg.
18-52	Dual binding post	100

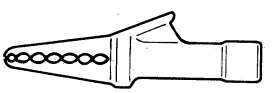


ALLIGATOR CLIP ALL INSULATED

Fully insulated. Cad. plated sharp steel jaws. Accepts banana plug in rear.

Cat. No.		Std. Pkg.
20-25	Insulated clip	100

Colors: Red, black



TEST LEADS

ALLIGATOR CLIP TEST LEADS

Black and red kinkless test lead wire with steel cadmium plated clips at each end.

DABURN No.	Wire Length	Pkg. Std.
17-275	12"	12
17-276	24"	12
17-277	36"	12
17-278	48"	12

TEST LEADS

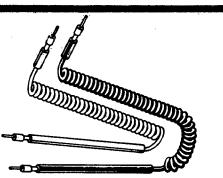
INSULATED ALLIGATOR CLIPS

Black and red kinkless test lead wire with steel, cadmium plated clips; vinyl plastic boot.

DABURN No.	Wire Length	Pkg. Std.
17-280	12"	12
17-281	24"	12
17-282	36"	12
17-283	48"	12

TEST LEADS

RETRACTILE KINKLESS WIRE

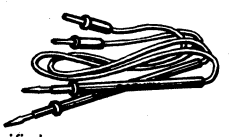


Black and red wire.

DABURN No.	Description	Std. Pkg.
17-364	Solderless Phone Tip, Retractile Wire, Solderless Prod	10

TEST LEADS

NEEDLEPOINT AND SOLDERLESS



Black and red kinkless test lead wire, handles as specified.

DABURN No.	Description	Std. Pkg.
17-308	Pencil Type Bakelite, 6" Handles	10
17-360	Deluxe Solderless Prod, 5" Handles	25
17-361	Deluxe Needlepoint Prod, 5" Handles	25
17-320	Needlepoint Prods, 4" Handles	25
17-322	Solderless Prods, 4" Handles	25

See Pages 1724 and 1725 for Complete Price List

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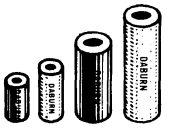
DABURN ELECTRONICS & CABLE CORP.

BUSHINGS • STRIPS LUGS • BEARINGS

DABURN BRASS BUSHINGS AND SPACERS



Suitable for raising sub panels, condensers, transformers, chassis, etc. Bushing hole accommodates a No. 4, No. 6 or No. 8 screw.

1/4" O.D.

Length	For No. 8 Screw Cat. No.	For No. 6 Screw Cat. No.	For No. 4 Screw Cat. No.
1/4"	14-320	14-315	14-310
3/8"	14-321	14-316	14-311
1/2"	14-322	14-317	14-312
3/4"	14-323	14-318	14-313
1"	14-324	14-319	14-314

Std. Pkg. 100

3/8" O.D.

1/4"	14-330	14-325	14-305
3/8"	14-331	14-326	14-306
1/2"	14-332	14-327	14-307
3/4"	14-333	14-328	14-308
1"	14-334	14-329	14-309

Std. Pkg. 100

THREADED BRASS SPACERS

Threaded spacers for 4-40, 6-32 and 8-32 application.

1/4" O.D.

Length	For 8-32 Cat. No.	For 6-32 Cat. No.	For 4-40 Cat. No.
1/4"	14-340	14-335	14-300
3/8"	14-341	14-336	14-301
1/2"	14-342	14-337	14-302
3/4"	14-343	14-338	14-303
1"	14-344	14-339	14-304

Std. Pkg. 100

DABURN FIBRE SPACERS

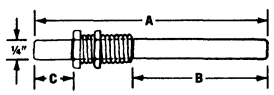
Fibre material per MIL-F-1148A, Grade CH.

1/4" O.D.

Length	For No. 8 Screw Cat. No.	For No. 6 Screw Cat. No.	For No. 4 Screw Cat. No.
1/4"	14-365	14-360	14-355
3/8"	14-366	14-361	14-356
1/2"	14-367	14-362	14-357
3/4"	14-368	14-363	14-358
1"	14-369	14-364	14-359

Std. Pkg. 100

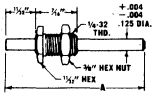
PANEL BEARINGS ASSEMBLY



Brass nickel plated for 1/4" shaft up to 3/8" panels.

Daburn No.	Description	Std. Pkg.
14-372	3" Overall Length	25
14-374	6" Overall Length	25

MINIATURE PANEL BEARING ASSEMBLY



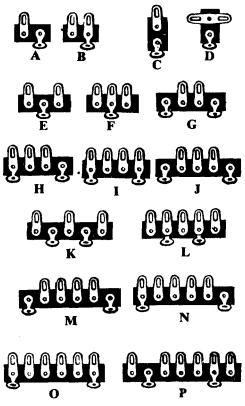
Daburn No.	Description	Std. Pkg.
14-376	2" Overall Length	25
14-377	4" Overall Length	25

LUG TERMINAL STRIP

STANDARD TYPE

Lugs are 3/8" centers with .140 diam. mounting holes. Lugs are 1/16" (.062") thick XP bakelite by 3/8" wide lugs. Special combinations available. Mount: .140 I.D. for #6 screw.

Daburn No.	Illustration	Std. Pkg.
15-82	A	100
15-82A	B	100
15-82B	C	100
15-82C	D	100
15-83	E	100
15-83A	F	100
15-84	G	100
15-84A	H	100
15-84B	I	100
15-85	J	100
15-85A	K	100
15-85B	L	100
15-86	M	100
15-86A	N	100
15-86B	O	100
15-87	P	100
15-88	Q	100
15-89	R	100
15-90	S	100



BAKELITE TERMINAL BOARD

SCREW TYPE

Terminals made of brass, hot tinned, mounted on X.P. Bakelite 5/8" wide x 1/16" thick, spaced 7/16" centers. Screws are 6-32 x 3/8" steel, cadmium plated.

Daburn No.	Terminals	Mtg. Center	Std. Pgk.
15-72	2	1 7/16"	50
15-73	3	1 3/4"	50
15-74	4	2 3/16"	50
15-75	5	2 5/8"	50
15-76	6	3 3/16"	50
15-77	7	3 1/2"	50
15-81	SHORTING LINK		100

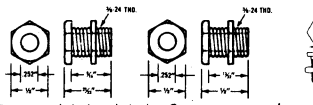
DABURN TERMINAL BOARD

HEAVY DUTY

Terminals made of brass, cadmium plated, .042" thick, spaced 1/2" centers. Mounted on XP bakelite 7/8" wide x 3/32" thick. Screws are 8-32 x 5/16" brass, nickel plated.

Daburn No.	Terminals	Mtg. Center	Std. Pkg.
15-61A	2	1 1/2"	25
15-61	3	2"	25
15-62	4	2 1/2"	25
15-63	5	3"	25
15-64	6	3 1/2"	25
15-65	7	4"	25
15-66	8	4 1/2"	25
15-67	9	5"	25
15-68	10	5 1/2"	25
15-69	11	6"	25
15-70	12	6 1/2"	25

PANEL BEARINGS



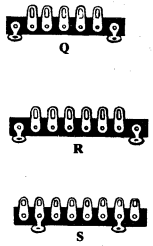
Brass nickel plated. Same as used on the above bearing assemblies.

Daburn No.	Description	Std. Pkg.
14-370	5/16" Threaded Length	50
14-370A	13/32" Threaded Length	50
14-370B	3/8-32 Thread 7/16" Threaded Length, 21/32" O.L.	50
14-370C	Miniature — 1/4-32 Thd., Threaded L'gth. 5/16", 3/8" O.L., .125" 11/32" Hex.	50

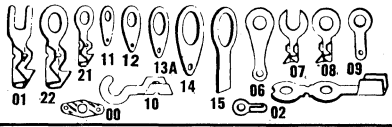
MINIATURE TYPE

Lugs are 1/4" centers. Lugs are .062" thick XP bakelite x 5/16" wide. Steel cadmium plated. Mount: .096 I.D. for 3/32" rivet or No. 3 screw.

Daburn No.	Illustration	Std. Pkg.
15-52	A	100
15-52A	B	100
15-52B	C	100
15-52C	D	100
15-53	E	100
15-53A	F	100
15-54	G	100
15-54A	H	100
15-54B	I	100
15-55	J	100
15-55A	K	100
15-55B	L	100
15-56	M	100
15-56A	N	100
15-56B	O	100
15-57	P	100
15-58	Q	100
15-59	R	100
15-60	S	100



DABURN TINNED TERMINAL LUGS



No. Daburn	Hole Standard	Material	L'gth	Thickness
101-11	6	Tinned Copper	17/32"	.015"
101-12	10	Tinned Copper	5/8"	.016"
101-13	.252	Tinned Copper	17/32"	.015"
101-13A	1/4	Tinned Copper	13/16"	.015"
101-14	3/8"	Tinned Copper	7/8"	.016"
101-15	1/2	Hot Tin. Copper	13/16"	.024"
101-21	10	Hot Tin. Copper	3/16"	.020"
101-22	1/4	Hot Tin. Copper	1 1/16"	.025"
101-00	8	Brass Hot Tin.	7/8"	.015"
101-01	10	Brass Hot Tin.	25/32"	.020"
101-02	6	Brass Hot Tin.	5/8"	.020"
101-06	4-6-8-10	Brass Hot Tin.	7/8"	.020"
101-07	8	Tinned Copper	5/8"	.016"
101-08	4-6-8-10	Brass Hot Tin.	1 1/16"	.020"
101-09	4-6-8-10	Brass Hot Tin.	1 1/16"	.020"
101-10	10	Brass Hot Tin.	7/8"	.020"

Std. Pkg. 1000

TERMINAL LUGS

LOCKWASHER - BRASS - HOT TINNED

Daburn No.	Hole	Thickness	Length
101-40-4	4	.018"	7/8"
101-40-6	6	.018"	7/8"
101-40-8	8	.018"	7/8"
101-40-10	10	.018"	57/64"
101-40-14	1/4"	.018"	13/16"
101-41-4	4	.018"	47/64"
101-41-6	6	.018"	47/64"
101-41-8	8	.018"	47/64"
101-42-4	4	.018"	5/8"
101-42-6	6	.018"	5/8"
101-42-8	8	.018"	5/8"
101-43-4	4	.018"	23/32"
101-43-6	6	.018"	23/32"
101-43-8	8	.018"	23/32"
101-44-4	4	.018"	13/16"
101-44-6	6	.018"	13/16"
101-44-8	8	.018"	13/16"
101-44-10	10	.018"	53/64"
101-45-4	4	.018"	23/32"
101-45-6	6	.018"	23/32"
101-45-8	8	.018"	23/32"
101-46-4	4	.018"	41/64"
101-46-6	6	.018"	41/64"
101-46-8	8	.018"	41/64"

Std. Pkg. 1000

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See Pages 1724 and 1725 for Complete Price List

DABURN

DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

DABURN SOLDERLESS TERMINALS

Material is pure electrolytic copper with heavy cadmium plating, chromate finish resists corrosion and assures long shelf life — one piece design for maximum conductivity and strength. Beveled edges to facilitate wire insertion, barrels are full ¼" length, "V" grooves for wire protection.

NON INSULATED • QUICK DISCONNECT TERMINALS

COLOR CODE: For matching to wire sizes.
RED: For 22-16 wire, .160" I.D. **BLUE:** For 16-14 wire, .185" I.D.
YELLOW: For 12-10 wire, .260" I.D.

Female disconnect terminals are .020" brass, cadmium plated. Male disconnect terminals are .032" copper, cadmium plated. Beveled mouth and "V" grooves plus full ¼" length barrels for all.

INSULATED TERMINALS • QUICK DISCONNECT TERMINALS

The insulated terminals have strong, permanently attached rigid vinyl insulating sleeves for increased vibration resistance.

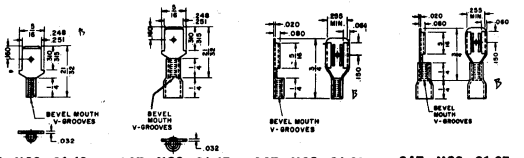
QUICK DISCONNECT TERMINALS

NON-INSULATED

Wire Size Range	Male Catalog No.	Female Catalog No.	Standard Package
22-16	21-12	21-22	100
16-14	21-13	21-23	100
12-10	21-14	21-24	100

INSULATED

Wire Size Range	Male Catalog No.	Female Catalog No.	Standard Package
22-16	21-17	21-27	100
16-14	21-18	21-28	100
12-10	21-19	21-29	100



CAT. NOS. 21-12, 21-13, 21-14 | CAT. NOS. 21-17, 21-18, 21-19 | CAT. NOS. 21-22, 21-23, 21-24 | CAT. NOS. 21-27, 21-28, 21-29

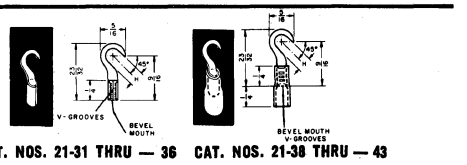
SOLDERLESS TERMINALS

NON-INSULATED — HOOK TONGUE

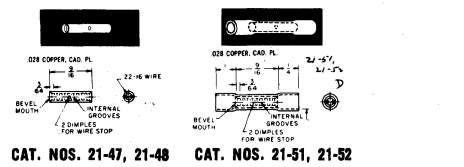
Wire Size Range	Stud Size	Catalog No.	Standard Package
22-16	6	21-31	100
	8	21-32	100
16-14	6	21-34	100
	8	21-35	100
	10	21-36	100

INSULATED

Wire Size Range	Stud Size	Catalog No.	Standard Package
22-16	6	21-38	100
	8	21-39	100
16-14	6	21-41	100
	8	21-42	100
	10	21-43	100



CAT. NOS. 21-31 THRU — 36 | CAT. NOS. 21-38 THRU — 43

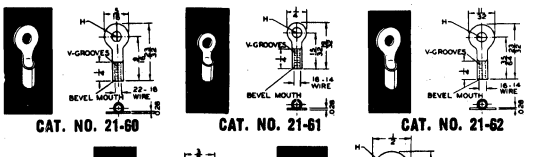


CAT. NOS. 21-47, 21-48 | CAT. NOS. 21-51, 21-52

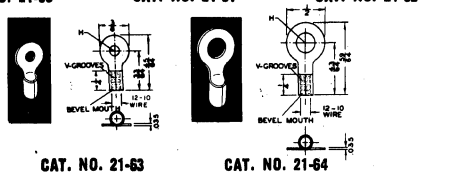
BUTT CONNECTORS

NON-INSULATED

Wire Size Range	Catalog No.	I.D.	Stub Clearance	Standard Package
22-16	21-47	.140"	37/64	100
16-14	21-48	.170"	37/64	100
INSULATED				
22-16	21-51	.140"	37/64	100
16-14	21-52	.170"	37/64	100



CAT. NO. 21-60 | CAT. NO. 21-61 | CAT. NO. 21-62

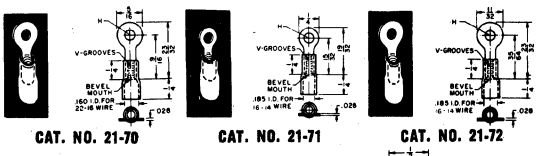


CAT. NO. 21-63 | CAT. NO. 21-64

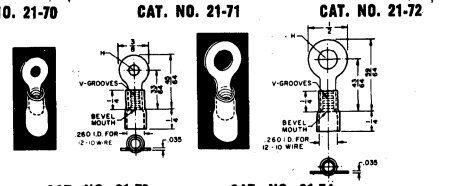
RING TONGUE

NON-INSULATED

Wire Size Range	Specify Stud Sizes	Catalog No.	Standard Package
22-16	4, 6, 8, 10	21-60	100
16-14	4, 6	21-61	100
16-14	6, 8, 10	21-62	100
12-10	6, 8, 10	21-63	100
12-10	¼	21-64	100
INSULATED			
22-16	4, 6, 8, 10	21-70	100
16-14	4, 6	21-71	100
16-14	6, 8, 10	21-72	100
12-10	6, 8, 10	21-73	100
12-10	¼	21-74	100



CAT. NO. 21-70 | CAT. NO. 21-71 | CAT. NO. 21-72

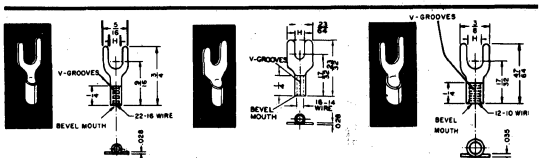


CAT. NO. 21-73 | CAT. NO. 21-74

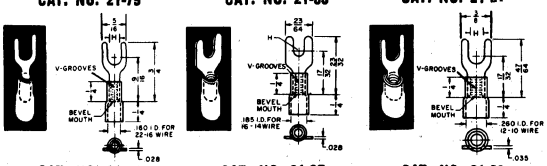
SPADE TONGUE

NON-INSULATED

Wire Size Range	"H" Stud Sizes Specify	Catalog No.	Standard Package
22-16	4, 6, 8, 10	21-79	100
16-14	4, 6, 8, 10	21-80	100
12-10	6, 8, 10	21-81	100
INSULATED			
22-16	4, 6, 8, 10	21-84	100
16-14	4, 6, 8, 10	21-85	100
12-10	6, 8, 10	21-86	100



CAT. NO. 21-79 | CAT. NO. 21-80 | CAT. NO. 21-81



CAT. NO. 21-84 | CAT. NO. 21-85 | CAT. NO. 21-86

See Pages 1724 and 1725 for Complete Price List

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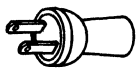
DABURN ELECTRONICS & CABLE CORP.

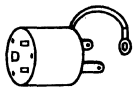
PLUGS • JACKS • SPIRAL WRAP • CLIPS

RUBBER MALE PLUG



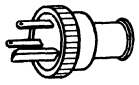
DABURN Cat. No.		Standard Package
9-30	2 Prong Male Plug — Brass Rated: 15 Amps, 125V.	100

ADAPTER FOR 3 PRONG PLUG IN STANDARD OUTLETS



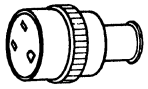
DABURN Cat. No.		Standard Package
9-19	Adapter	50

3 PRONG MALE PLUG



DABURN Cat. No.		Standard Package
9-17	2 Parallel Blades and Ground Pin	50

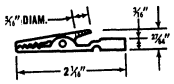
FEMALE CONNECTOR

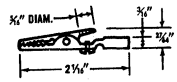


DABURN Cat. No.		Standard Package
9-31	Mate to 9-17	50

ALLIGATOR CLIPS

Steel, cadmium plated. 5 amp continuous duty. 1/2" jaw opening. Jaws match accurately, grips securely. Accepts standard banana plugs.



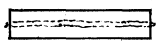


DABURN Cat. No.		Standard Package
20-3	Clip (no screw)	50
20-3S	Clip (with screw)	50

PLASTIC WIRE TIES

Useful for temporary or permanent installation. Can be adapted for immediate bundling or harnessing. Vinyl insulated. Has .016" steel gauge, 5/32" wide, 30 lb. test.

TEMPERATURE: −20°F to +90°C.

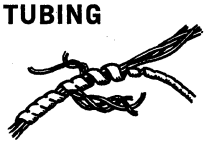


DABURN Cat. No.		Package Standard
603	Plastic Wire Ties	100′, 500′, 1000′

COLORS: White, Blue, Red, Green, Yellow.

SPIRAL WRAP — PLASTIC TUBING FOR HARNESSES

Available in two formulations: Polyethylene and Rulan (flame retardant) Polyethylene. Easily applied. Twists on easily. Can be flexed repeatedly without cracking or breaking. Reusable, bends around sharp corners. Expandable.



POLYETHYLENE (Clear)

DABURN Cat. No.	Covers Wire Groups	Outside Diam.	Wall	Standard Package
605-1/8"	1/16" to 1 1/2"	1/8"	.031"	100′, 500′, 1000′
605-1/4"	3/16" to 1 1/2"	1/4"	.058"	100′, 500′, 1000′
605-1/4" x	3/16" to 1 1/2"	1/4"	.045"	100′, 500′, 1000′
605-3/8"	5/16" to 2"	3/8"	.058"	100′, 500′, 1000′
605-1/2"	3/4" to 4"	1/2"	.058"	100′, 500′, 1000′
RULAN (White)				
606-1/4"	3/16" to 1 1/2"	1/4"	.058"	100′, 500′, 1000′
606-3/8"	5/16" to 2"	3/8"	.058"	100′, 500′, 1000′

PHONO JACKS

Female for our Nos. 9-148, 9-147. Positive grip, single prong 1/16" bakelite, 11/16" mounting center.

9-149

DABURN Cat. No.		Standard Package
9-149		100
9-149-1	Insulating Washer	100

MINIATURE PHONO JACK

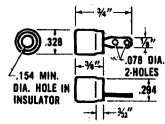
Small, compact 11/16" mounting centers.

9-149A

9-149A		100

PHONO INPUT JACK

Where space is at a premium. Mounts in 19/64" hole. Rivets and grounds to chassis.



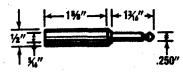
9-149B

9-149B		100

TELEPHONE TYPE PLUGS

Fits all standard phone jacks. Body, tip, sleeve is brass, nickel plated. 5 amp. AC rating, continuous duty. 750V. 60 cycle AC.

Bakelite Barrel — specify color red or black.

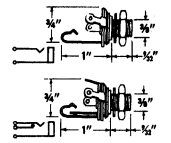


DABURN Cat. No.	Circuit	Terminals	Standard Package
19-81	2	Solder	100
19-81A	2	Screw	100

Additional types available

TELEPHONE TYPE JACKS

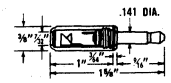
Body is brass nickel plated. Designed for long life. Nickel silver alloy spring. Rated 10 amp. AC continuous duty. Mounts in 3/8" hole in panels up to 5/32" thick.



DABURN Cat. No.		Standard Package
19-157	2 Cond., Open	50
19-158	2 Cond., Closed	50
19-159	3 Cond., Open	50
19-160	3 Cond., Closed	50

MINIATURE PHONE PLUGS

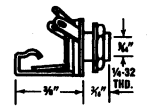
Insulated, molded plastic handle; brass nickel plated body; solder terminals; 5 amp rating continuous duty.



DABURN Cat No.		Standard Package
19-130	Solder Term.	50
19-131	Shielded	50

MINIATURE TELEPHONE JACKS

Brass, nickel plated, mounts in 1/4" hole in panels up to 1/8" thick.



DABURN Cat. No.		Standard Package
19-132	2 Cond., Open	50
19-133	2 Cond., Closed	50

PHONO PLUGS

STANDARD PHONO PLUGS

RCA Type — useful with record players, recording equipment. Extra large hole in cap .175" for coaxial cable.

DABURN Cat. No.		Standard Package
9-148	Long Pin 1" Overall	100
9-148S	Short Pin 13/16" Overall	100

NEW RCA TYPE PHONO PLUG

Easier to assemble, reduces production costs. Eliminates any damage to shielded cable when connecting and disconnecting equipment.

DABURN Cat. No.		Standard Package
9-147	Long Pin 1" Overall	100
9-147S	Short Pin 13/16" Overall	100

MOTOROLA TYPE PLUGS

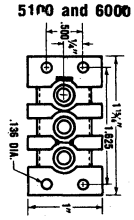
Nickel plated 1/8" tube pin extends from split brass shell, cadmium plated.

DABURN Cat. No.		Standard Package
9-146		100
9-146S	For Smaller Cable	100

PHONO JACKS

5100 and 6000

Used on recording equipment, phonographs, etc.



DABURN Cat. No.		Standard Package
9-150	Double Phono Jack	50
9-150A	Triple Phono Jack	50
9-150B	Quadruple Phono Jack	50
9-150-1	Insulating Washer for 9-150	50

Additional DABURN Products in Sections 2800, 3100,

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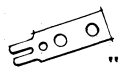
See Pages 1724 and 1725 for Complete Price List

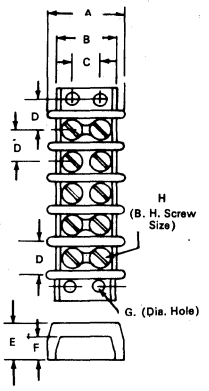
Barrier Terminal Blocks

Interposed barriers between terminal positions in Jones Barrier Terminal Blocks produce higher voltage ratings and protection from frayed wire faults. Bakelite base has eyelets and binder screws of nickel plated brass.



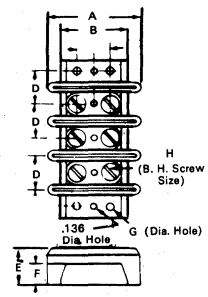
TERMINALS

Barrier type terminal blocks are also available where indicated with "Y", "W" or "¾ W" terminals. Made of hot-solder-dipped brass. For blocks with "W" terminals, change suffix "Y" to "W", for blocks with "¾ W" terminals, change suffix "Y" to "¾ W" (2-172-W, 2-172-¾ W, etc.); same price.



SERIES DIMENSIONS

	140	141	142	164
A	⅞"	1⅛"	1 5/16"	⅞"
B	11/16"	⅞"	1 1/16"	11/16"
C	5/16"	27/64"	½"	5/16"
D	⅜"	7/16"	9/16"	⅜"
E	13/32"	½"	⅝"	13/32"
F	¼"	5/16"	⅜"	¼"
G	.160"	.175/.185"	.209"	.171/.175"
H	5/40 x 3/16	6/32 x ¼	8/32 x 5/16	6/32 x ¼



SERIES DIMENSIONS

	150	151	152
A	1 13/16"	2"	2½"
B	1 5/16"	1½"	1 13/16"
C	⅝"	¾"	⅞"
D	11/16"	⅞"	1⅛"
E	¾"	1 5/16"	1⅛"
F	7/16"	½"	⅝"
G	.160"	.180"	.209"
H	10/32 x 3/16	12/32 x ⅜	¼/28 x ½

140 SERIES

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499	500-999
1-140	1	.188	.15	.125	.10	.095	.09
2-140	2	.225	.18	.15	.12	.114	.108
3-140	3	.263	.21	.175	.14	.133	.126
4-140	4	.33	.264	.22	.176	.167	.158
5-140	5	.405	.324	.27	.216	.205	.194
6-140	6	.465	.372	.31	.248	.236	.223
7-140	7	.533	.426	.355	.284	.27	.256
8-140	8	.608	.486	.405	.324	.308	.292
9-140	9	.675	.54	.45	.36	.342	.324
10-140	10	.75	.60	.50	.40	.38	.36
11-140	11	.81	.648	.54	.432	.41	.389
12-140	12	.885	.708	.59	.472	.448	.425
13-140	13	.953	.762	.635	.508	.483	.457
14-140	14	1.028	.822	.685	.548	.521	.493
15-140	15	1.095	.876	.73	.584	.555	.526
16-140	16	1.163	.93	.775	.62	.589	.558
17-140	17	1.23	.984	.82	.656	.623	.59
18-140	18	1.298	1.038	.865	.692	.657	.623
19-140	19	1.365	1.092	.91	.728	.692	.655
20-140	20	1.433	1.146	.955	.764	.726	.688
21-140	21	1.508	1.206	1.005	.804	.764	.724

141 SERIES

C-J No.	Contacts	Net Each, Lots of 1-24	24-49	50-99	100-249	250-499	500-999
1-141	1	.225	.18	.15	.12	.114	.108
2-141	2	.248	.198	.165	.132	.125	.119
3-141	3	.338	.27	.225	.18	.171	.162
4-141	4	.428	.342	.285	.228	.217	.205
5-141	5	.518	.414	.345	.276	.262	.248
6-141	6	.593	.474	.395	.316	.300	.284
7-141	7	.698	.558	.465	.372	.353	.335
8-141	8	.78	.624	.52	.416	.395	.374
9-141	9	.863	.69	.575	.46	.437	.414
10-141	10	.96	.768	.64	.512	.486	.461
11-141	11	1.043	.834	.695	.556	.528	.50
12-141	12	1.125	.90	.75	.60	.57	.54
13-141	13	1.215	.972	.81	.648	.616	.583
14-141	14	1.305	1.044	.87	.696	.661	.626
15-141	15	1.388	1.11	.925	.74	.703	.666
16-141	16	1.478	1.182	.985	.788	.749	.709
17-141	17	1.568	1.254	1.045	.836	.794	.752
18-141	18	1.658	1.326	1.105	.884	.84	.796
19-141	19	1.748	1.398	1.165	.932	.885	.839
20-141	20	1.838	1.47	1.225	.98	.931	.882

142 SERIES

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499	500-999
1-142	1	.248	.198	.165	.132	.125	.119
2-142	2	.30	.24	.20	.16	.152	.144
3-142	3	.405	.324	.27	.216	.205	.194
4-142	4	.51	.408	.34	.272	.258	.245
5-142	5	.615	.492	.41	.328	.312	.295
6-142	6	.728	.582	.485	.388	.369	.349
7-142	7	.84	.672	.56	.448	.426	.403
8-142	8	.945	.756	.63	.504	.479	.454
9-142	9	1.05	.84	.70	.56	.532	.504
10-142	10	1.17	.936	.78	.624	.593	.562
11-142	11	1.275	1.02	.85	.68	.646	.612
12-142	12	1.388	1.11	.925	.74	.703	.666
13-142	13	1.50	1.20	1.00	.80	.76	.72
14-142	14	1.613	1.29	1.075	.86	.817	.774
15-142	15	1.725	1.38	1.15	.92	.874	.828
16-142	16	1.838	1.47	1.225	.98	.931	.882
17-142	17	1.95	1.56	1.30	1.04	.988	.936

150 SERIES

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499	500-999
1-150	1	.563	.45	.375	.30	.285	.27
2-150	2	.75	.60	.50	.40	.38	.36
3-150	3	1.05	.84	.70	.56	.532	.504
4-150	4	1.358	1.086	.905	.724	.688	.652
5-150	5	1.665	1.332	1.11	.888	.844	.799
6-150	6	1.973	1.578	1.315	1.052	.999	.947
7-150	7	2.28	1.824	1.52	1.216	1.155	1.094
8-150	8	2.588	2.07	1.725	1.38	1.311	1.242
9-150	9	2.895	2.316	1.93	1.544	1.467	1.39
10-150	10	3.203	2.562	2.135	1.708	1.623	1.537

151 SERIES

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499	500-999
1-151	1	.825	.66	.55	.44	.418	.396
2-151	2	1.35	1.08	.90	.72	.684	.648
3-151	3	1.95	1.56	1.30	1.04	.988	.936
4-151	4	2.55	2.04	1.70	1.36	1.292	1.224
5-151	5	3.15	2.52	2.10	1.68	1.596	1.512
6-151	6	3.75	3.00	2.50	2.00	1.90	1.80
7-151	7	4.35	3.48	2.90	3.32	2.204	2.088
8-151	8	4.95	3.96	3.30	2.64	2.508	2.376

152 SERIES

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499	500-999
1-152	1	1.575	1.26	1.05	.840	.798	.756
2-152	2	2.25	1.80	1.50	1.20	1.14	1.08
3-152	3	3.075	2.46	2.05	1.64	1.558	1.476
4-152	4	3.90	3.12	2.60	2.08	1.976	1.872
5-152	5	4.725	3.78	3.15	2.52	2.394	2.268
6-152	6	5.55	4.44	3.70	2.96	2.812	2.664

140-Y, 3/4W, W SERIES

C-J No.*	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499	500-999
1-140-Y	1	.225	.18	.15	.12	.114	.108
2-140-Y	2	.285	.228	.19	.152	.144	.137
3-140-Y	3	.353	.282	.235	.188	.179	.169
4-140-Y	4	.465	.372	.31	.248	.236	.223
5-140-Y	5	.578	.462	.385	.308	.293	.277
6-140-Y	6	.668	.534	.445	.356	.338	.32
7-140-Y	7	.773	.618	.515	.412	.391	.371
8-140-Y	8	.878	.702	.585	.468	.445	.421
9-140-Y	9	.983	.786	.655	.524	.498	.472
10-140-Y	10	1.088	.87	.725	.58	.551	.522
11-140-Y	11	1.185	.948	.79	.632	.60	.569
12-140-Y	12	1.29	1.032	.86	.668	.654	.619
13-140-Y	13	1.395	1.116	.93	.744	.707	.67
14-140-Y	14	1.50	1.20	1.00	.80	.76	.72
15-140-Y	15	1.605	1.284	1.07	.856	.813	.77
16-140-Y	16	1.703	1.362	1.135	.908	.863	.817
17-140-Y	17	1.808	1.446	1.205	.964	.916	.868
18-140-Y	18	1.905	1.524	1.27	1.016	.965	.914
19-140-Y	19	2.01	1.608	1.34	1.072	1.018	.965
20-140-Y	20	2.108	1.686	1.405	1.124	1.068	1.012
21-140-Y	21	2.22	1.776	1.48	1.184	1.125	1.066

*For 3/4W or W Series, substitute for 4, such as 1-140-3/4W. Mounting Centers and Overall Lengths same as 140 Series.

141-Y, 3/4W, W SERIES

C-J No.*	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499	500-999
1-141-Y	1	.27	.216	.18	.144	.137	.13
2-141-Y	2	.338	.27	.225	.18	.171	.162
3-141-Y	3	.473	.378	.315	.252	.239	.227
4-141-Y	4	.608	.486	.405	.324	.308	.292
5-141-Y	5	.743	.594	.495	.396	.376	.356
6-141-Y	6	.863	.69	.575	.46	.437	.414
7-141-Y	7	1.005	.804	.67	.536	.509	.482
8-141-Y	8	1.140	.912	.76	.608	.578	.547
9-141-Y	9	1.268	1.014	.845	.676	.642	.608
10-141-Y	10	1.41	1.128	.94	.752	.714	.677
11-141-Y	11	1.538	1.23	1.025	.82	.779	.738
12-141-Y	12	1.665	1.332	1.11	.888	.844	.799
13-141-Y	13	1.80	1.44	1.20	.96	.912	.864
14-141-Y	14	1.935	1.548	1.29	1.032	.98	.929
15-141-Y	15	2.063	1.65	1.375	1.10	1.045	.99
16-141-Y	16	2.198	1.758	1.465	1.172	1.113	1.055
17-141-Y	17	2.333	1.866	1.555	1.244	1.182	1.12
18-141-Y	18	2.468	1.974	1.645	1.316	1.25	1.184
19-141-Y	19	2.603	2.082	1.735	1.388	1.319	1.249
20-141-Y	20	2.738	2.19	1.825	1.46	1.387	1.314

*For 3/4W or W Series, substitute for Y, such as 1-141-3/4W. Mounting Centers and Overall Lengths same as 141 Series.

142-Y, 3/4W, W SERIES

C-J No.*	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499	500-999
1-142-Y	1	.30	.24	.20	.16	.152	.144
2-142-Y	2	.405	.324	.27	.216	.205	.194
3-142-Y	3	.563	.45	.375	.30	.285	.27
4-142-Y	4	.72	.576	.48	.384	.365	.346
5-142-Y	5	.878	.702	.585	.468	.445	.421
6-142-Y	6	1.043	.834	.695	.556	.528	.50
7-142-Y	7	1.208	.966	.805	.644	.612	.58
8-142-Y	8	1.365	1.092	.91	.728	.692	.655
9-142-Y	9	1.523	1.218	1.015	.812	.771	.731
10-142-Y	10	1.695	1.356	1.13	.904	.859	.814
11-142-Y	11	1.853	1.482	1.235	.988	.939	.889
12-142-Y	12	2.018	1.614	1.345	1.076	1.022	.968
13-242-Y	13	2.183	1.746	1.455	1.164	1.106	1.048
14-142-Y	14	2.348	1.878	1.565	1.252	1.189	1.127
15-142-Y	15	2.513	2.01	1.675	1.34	1.273	1.206
16-142-Y	16	2.678	2.142	1.785	1.428	1.357	1.285
17-142-Y	17	2.843	2.274	1.895	1.516	1.44	1.364

*For 3/4W or W Series, substitute for Y, such as 1-142-3/4W. Mounting Centers and Overall Lengths same as 142 Series.

164 SERIES

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499	500-999
1-164	1	.195	.156	.13	.104	.099	.094
2-164	2	.225	.18	.15	.12	.114	.108
3-164	3	.30	.24	.20	.16	.152	.144
4-164	4	.375	.30	.25	.20	.19	.18
5-164	5	.45	.36	.30	.24	.228	.216
6-164	6	.525	.42	.35	.28	.266	.252
7-164	7	.60	.48	.40	.32	.304	.288
8-164	8	.675	.54	.45	.36	.342	.324
9-164	9	.75	.60	.50	.40	.38	.36
10-164	10	.825	.66	.55	.44	.418	.396
11-164	11	.90	.72	.60	.48	.456	.432
12-164	12	.975	.78	.65	.52	.494	.468
13-164	13	1.058	.846	.705	.564	.536	.508
14-164	14	1.14	.912	.76	.608	.578	.547
15-164	15	1.215	.972	.81	.648	.616	.583
16-164	16	1.298	1.038	.865	.692	.657	.623
17-164	17	1.365	1.092	.91	.728	.692	.655
18-164	18	1.448	1.158	.965	.772	.733	.695
19-164	19	1.523	1.218	1.015	.812	.771	.731
20-164	20	1.605	1.284	1.07	.856	.813	.77
21-164	21	1.688	1.35	1.125	.90	.855	.81

Mounting Centers and Overall Lengths same as 140 Series.

Net

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Barrier Terminal Blocks

The new 500 series Jones Barrier Terminal Blocks are designed for applications where electrical and mechanical performance requirements are especially critical. Bottoms are closed so that insulating strips are not required. Knockouts are molded into the base so that Y terminals can be accommodated if desired. The heavy construction adds strength to the block, minimizing warpage and shrinkage. A top-mounted marker strip can be furnished.

170 SERIES TERMINAL STRIPS

C-J No.	Contacts	Mtg. Ctrs.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
1-170	1	¾"	.213	.17	.142	.114	.108
2-170	2	1⅛"	.255	.204	.17	.136	.129
3-170	3	1½"	.308	.246	.205	.164	.156
4-170	4	1⅞"	.36	.288	.24	.192	.182
5-170	5	2¼"	.413	.33	.275	.22	.209
6-170	6	2⅝"	.465	.372	.31	.248	.236
7-170	7	3"	.518	.414	.345	.276	.262
8-170	8	3⅜"	.57	.456	.38	.304	.289
9-170	9	3¾"	.623	.498	.415	.332	.315
10-170	10	4⅛"	.675	.54	.45	.36	.342

171 SERIES

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499	500-999
2-171	2	.263	.21	.175	.14	.133	.126
3-171	3	.323	.258	.215	.172	.163	.155
4-171	4	.383	.306	.255	.204	.194	.184
5-171	5	.443	.354	.295	.236	.224	.212
6-171	6	.503	.402	.335	.268	.255	.241
7-171	7	.563	.45	.375	.30	.285	.27
8-171	8	.623	.498	.415	.332	.315	.299

172 SERIES

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499	500-999
2-172	2	.45	.36	.30	.24	.228	.216
3-172	3	.57	.456	.38	.304	.289	.274
4-172	4	.69	.552	.46	.368	.35	.331
5-172	5	.81	.648	.54	.432	.41	.389
6-172	6	.93	.744	.62	.496	.471	.446
7-172	7	1.05	.84	.70	.56	.532	.504
8-172	8	1.17	.936	.78	.624	.593	.562
9-172	9	1.29	1.032	.86	.688	.654	.619
10-172	10	1.41	1.128	.94	.752	.714	.677
11-172	11	1.53	1.224	1.02	.816	.775	.734
12-172	12	1.65	1.32	1.10	.88	.836	.792
13-172	13	1.77	1.416	1.18	.944	.897	.85
14-172	14	1.89	1.512	1.26	1.008	.958	.907

172-Y, 3/4W, W SERIES

C-J No.*	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499	500-999
2-172-Y	2	.51	.408	.34	.272	.258	.245
3-172-Y	3	.66	.528	.44	.352	.334	.317
4-172-Y	4	.81	.648	.54	.432	.41	.389
5-172-Y	5	.96	.768	.64	.512	.486	.461
6-172-Y	6	1.11	.888	.74	.592	.562	.533
7-172-Y	7	1.26	1.008	.84	.672	.638	.605
8-172-Y	8	1.41	1.128	.94	.752	.714	.677
9-172-Y	9	1.56	1.248	1.04	.832	.79	.749
10-172-Y	10	1.71	1.368	1.14	.912	.866	.821
11-172-Y	11	1.86	1.488	1.24	.992	.942	.893
12-172-Y	12	2.01	1.608	1.34	1.072	1.018	.965
13-172-Y	13	2.16	1.728	1.44	1.152	1.094	1.037
14-172-Y	14	2.31	1.848	1.54	1.232	1.17	1.109

*For 3/4W and W Series, substitute for Y, such as 2-172-3/4W. Mounting Centers and Overall Lengths same as 172 Series.

173 SERIES

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499	500-999
2-173	2	.255	.204	.17	.136	.129	.122
3-173	3	.345	.276	.23	.184	.175	.166
4-173	4	.435	.348	.29	.232	.22	.209
5-173	5	.525	.42	.35	.28	.266	.252
6-173	6	.615	.492	.41	.328	.312	.295
7-173	7	.705	.564	.47	.376	.357	.338
8-173	8	.795	.636	.53	.424	.403	.382
9-173	9	.885	.708	.59	.472	.448	.425
10-173	10	.975	.78	.65	.52	.494	.468

174 SERIES

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499	500-999
2-174	2	.21	.168	.14	.112	.106	.101
3-174	3	.278	.222	.185	.148	.141	.133
4-174	4	.345	.276	.23	.184	.175	.166
5-174	5	.413	.33	.275	.22	.209	.198
6-174	6	.48	.384	.32	.256	.243	.23
7-174	7	.548	.438	.365	.292	.277	.263
8-174	8	.615	.492	.41	.328	.312	.295
9-174	9	.683	.546	.455	.364	.346	.328
10-174	10	.75	.60	.50	.40	.38	.36

Mounting Centers and Overall Lengths same as 173 Series.

JUMPERS

C-J No.	Use With Series	Net Each, Lots of 1-499	500-999	1000-4999
95-B	142	.075	.068	.06
140J-1	140	.02	.018	.016
141-J	141	.025	.023	.02
141J-1	141	.035	.032	.028
142J-1	142	.035	.032	.028
142J-2	142	.03	.027	.024
540J	540	.15	.135	.12
541J	541	.16	.144	.128
542J	542	.17	.153	.136

540 SERIES

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249
1-540	1	.68	.54	.34	.26
2-540	2	.75	.60	.40	.32
3-540	3	.83	.66	.46	.38
4-540	4	.90	.72	.52	.44
5-540	5	.98	.78	.58	.50
6-540	6	1.05	.84	.64	.56
7-540	7	1.13	.90	.70	.62
8-540	8	1.20	.96	.76	.68
9-540	9	1.28	1.02	.82	.74
10-540	10	1.35	1.08	.88	.80
11-540	11	1.43	1.14	.94	.86
12-540	12	1.50	1.20	1.00	.92
13-540	13	1.58	1.26	1.06	.98
14-540	14	1.65	1.32	1.12	1.04
15-540	15	1.73	1.38	1.18	1.10
16-540	16	1.80	1.44	1.24	1.16
17-540	17	1.88	1.50	1.30	1.22
18-540	18	1.95	1.56	1.36	1.28
19-540	19	2.03	1.62	1.42	1.34
20-540	20	2.10	1.68	1.48	1.40
21-540	21	2.18	1.74	1.54	1.46
22-540	22	2.25	1.80	1.60	1.52
23-540	23	2.33	1.86	1.66	1.58
24-540	24	2.40	1.92	1.72	1.64
25-540	25	2.48	1.98	1.78	1.70
26-540	26	2.55	2.04	1.84	1.76
27-540	27	2.63	2.10	1.90	1.82
28-540	28	2.70	2.16	1.96	1.88
29-540	29	2.78	2.22	2.02	1.94
30-540	30	2.85	2.28	2.08	2.00
31-540	31	2.93	2.34	2.14	2.06

541 SERIES

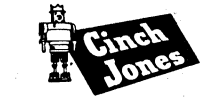
C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249
1-541	1	.73	.58	.38	.30
2-541	2	.80	.64	.44	.36
3-541	3	.88	.70	.50	.42
4-541	4	.95	.76	.56	.48
5-541	5	1.03	.82	.62	.54
6-541	6	1.10	.88	.68	.60
7-541	7	1.19	.95	.75	.67
8-541	8	1.27	1.01	.81	.73
9-541	9	1.34	1.07	.87	.79
10-541	10	1.42	1.13	.93	.85
11-541	11	1.49	1.19	.99	.91
12-541	12	1.58	1.26	1.06	.98
13-541	13	1.65	1.32	1.12	1.04
14-541	14	1.73	1.38	1.18	1.10
15-541	15	1.80	1.44	1.24	1.16
16-541	16	1.88	1.50	1.30	1.22
17-541	17	1.97	1.57	1.37	1.29
18-541	18	2.04	1.63	1.43	1.35
19-541	19	2.12	1.69	1.49	1.41
20-541	20	2.19	1.75	1.55	1.47
21-541	21	2.27	1.81	1.61	1.53
22-541	22	2.36	1.88	1.68	1.60
23-541	23	2.43	1.94	1.74	1.66
27-541	24	2.51	2.00	1.80	1.72
25-541	25	2.58	2.06	1.86	1.78
26-541	26	2.66	2.12	1.92	1.84
27-541	27	2.74	2.19	1.99	1.91
28-541	28	2.81	2.25	2.05	1.97
29-541	29	2.89	2.31	2.11	2.03
30-541	30	2.96	2.37	2.17	2.09

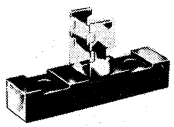
542 SERIES

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249
1-542	1	.75	.60	.40	.30
2-542	2	.85	.68	.48	.38
3-542	3	.95	.76	.56	.46
4-542	4	1.05	.84	.64	.54
9-542	5	1.15	.92	.72	.62
6-542	6	1.25	1.00	.80	.70
7-542	7	1.35	1.08	.88	.78
8-542	8	1.45	1.16	.96	.86
9-542	9	1.55	1.24	1.04	.94
10-542	10	1.65	1.32	1.12	1.02
11-542	11	1.75	1.40	1.20	1.10
12-542	12	1.85	1.48	1.28	1.18
13-542	13	1.95	1.56	1.36	1.26
14-542	14	2.05	1.64	1.44	1.34
15-542	15	2.15	1.72	1.52	1.42
16-542	16	2.25	1.80	1.60	1.50
17-542	17	2.35	1.88	1.68	1.58
18-542	18	2.45	1.96	1.76	1.66
19-542	19	2.55	2.04	1.84	1.74
20-542	20	2.65	2.12	1.92	1.82
21-542	21	2.75	2.20	2.00	1.90
22-542	22	2.85	2.28	2.08	1.98
23-542	23	2.95	2.36	2.16	2.06
24-542	24	3.05	2.44	2.24	2.14
25-542	25	3.15	2.52	2.32	2.22
26-542	26	3.25	2.60	2.40	2.30

SOLDER TERMINALS

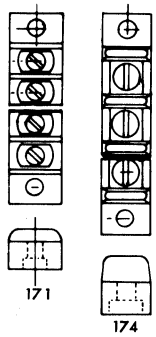
W-Type	C-J No. ¾W-Type	Y-Type	Net Each, Lots of 1-499	500-999	1000-4999
W-140	¾W-140	Y-140	.025	.023	.02
W-141	¾W-141	Y-141	.035	.032	.028
W-142	¾W-142	Y-142	.04	.036	.032
W-150	—	—	.075	.068	.06
W-151	—	—	.10	.09	.08
W-152	—	—	.175	.158	.14





170 SERIES SOLDER TERMINAL STRIPS

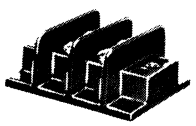
Heavy solder terminals are made of .032" brass, hot solder coated; mounted on ⅜" centers. Black molded Bakelite. Size, 5/16" w. x ¼" thick. Mounting holes, ⅜" from center of end terminals.

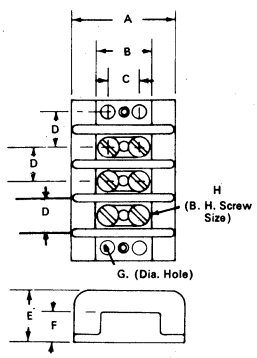


ELECTRICAL RATINGS

Series	Max. Volts r.m.s. Without Marker Strip	Max. Volts r.m.s. With Marker Strip	Max. Current in Amps.	Max. Watts per terminal
140	1100	1200	15	3,750
141	1100	1600	20	5,000
142	1600	2500	30	7,500
150	1700	2600	50	12,500
151	1800	3400	70	17,500
152	2100	3800	90	54,000
164	1100	1200	15	3,750
171				
174	1000	2000*	5	625
540	2300	—	15	—
541	2800	—	20	—
542	4000	—	30	—

*No marker strip available for Series 174.



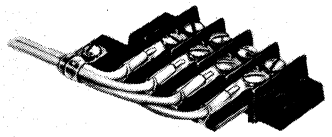


SERIES DIMENSIONS

	540	541	542
A	1⅛"	1⅜"	1⅝"
B	19/32"	¾"	⅞"
C	5/16"	27/64"	½"
D	⅜"	7/16"	9/16"
E	39/64"	11/16"	⅞"
F	21/64"	⅜"	½"
G	.160"	.175/.185"	.209"
H	5/40 x 3/16	6/32 x ¼	8/32 x 5/16

Cinch Jones

Barrier Block Fanning Strips



Fanning strips serve as a convenient means for rapidly making and removing connections from barrier terminal blocks. They facilitate cable or harness wiring and minimize the possibility of subsequent wiring errors. Both straight and angle type fanning strips are available. Terminals are made of .032" brass, cadmium-plated. The 3/32" thick, ½" wide XP black phenolic mounts are furnished with a hole, in either the right or left side, for securing the cable with lacing twine. For larger sizes, use of a cable clamp is recommended.

STRAIGHT TYPE FANNING STRIPS—160 SERIES

160 SERIES

Fits 140 Series Barrier Blocks ⅜" Terminal Centers

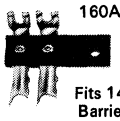
160B SERIES

Fits 140 Series Barrier Blocks ⅜" Terminal Centers

No. of Term.	160 Series C. C. Hole on left	160 Series C. C. Hole on right	160B Series C. C. Hole on left	160B Series C. C. Hole on right	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
2	2-160-L	2-160-R	2-160B-L	2-160B-R	.36	.29	.24	.23	.12
3	3-160-L	3-160-R	3-160B-L	3-160B-R	.39	.31	.26	.25	.14
4	4-160-L	4-160-R	4-160B-L	4-160B-R	.44	.35	.29	.28	.16
5	5-160-L	5-160-R	5-160B-L	5-160B-R	.47	.37	.31	.30	.17
6	6-160-L	6-160-R	6-160B-L	6-160B-R	.51	.41	.34	.33	.19
7	7-160-L	7-160-R	7-160B-L	7-160B-R	.54	.43	.36	.35	.21
8	8-160-L	8-160-R	8-160B-L	8-160B-R	.59	.47	.39	.38	.23
9	9-160-L	9-160-R	9-160B-L	9-160B-R	.62	.49	.41	.40	.26
10	10-160-L	10-160-R	10-160B-L	10-160B-R	.66	.53	.44	.43	.29
11	11-160-L	11-160-R	11-160B-L	11-160B-R	.69	.55	.46	.45	.31
12	12-160-L	12-160-R	12-160B-L	12-160B-R	.74	.59	.49	.48	.34
13	13-160-L	13-160-R	13-160B-L	13-160B-R	.77	.61	.51	.50	.37
14	14-160-L	14-160-R	14-160B-L	14-160B-R	.81	.65	.54	.53	.39
15	15-160-L	15-160-R	15-160B-L	15-160B-R	.83	.67	.56	.55	.42
16	16-160-L	16-160-R	16-160B-L	16-160B-R	.88	.70	.59	.58	.45
17	17-160-L	17-160-R	17-160B-L	17-160B-R	.94	.75	.63	.60	.47
18	18-160-L	18-160-R	18-160B-L	18-160B-R	.98	.79	.66	.63	.50
19	19-160-L	19-160-R	19-160B-L	19-160B-R	1.04	.83	.70	.65	.52
20	20-160-L	20-160-R	20-160B-L	20-160B-R	1.09	.87	.73	.68	.55
21	21-160-L	21-160-R	21-160B-L	21-160B-R	1.15	.92	.77	.70	.58

ANGLE TYPE FANNING STRIPS—160 SERIES

160A SERIES



Fits 140 Series Barrier Blocks ⅜" Terminal Centers

160BA SERIES

Fits 140 Series Barrier Blocks ⅜" Terminal Centers

No. of Term.	160A SERIES C. C. Hole on left	160A SERIES C. C. Hole on right	160BA SERIES C. C. Hole on left	160BA SERIES C. C. Hole on right	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
2	2-160-AL	2-160-AR	2-160B-AL	2-160B-AR	.39	.31	.26	.25	.14
3	3-160-AL	3-160-AR	3-160B-AL	3-160B-AR	.44	.35	.29	.28	.16
4	4-160-AL	4-160-AR	4-160B-AL	4-160B-AR	.48	.38	.32	.31	.18
5	5-160-AL	5-160-AR	5-160B-AL	5-160B-AR	.54	.43	.36	.34	.21
6	6-160-AL	6-160-AR	6-160B-AL	6-160B-AR	.60	.48	.40	.37	.25
7	7-160-AL	7-160-AR	7-160B-AL	7-160B-AR	.62	.49	.41	.40	.30
8	8-160-AL	8-160-AR	8-160B-AL	8-160B-AR	.66	.53	.44	.43	.34
9	9-160-AL	9-160-AR	9-160B-AL	9-160B-AR	.70	.56	.47	.46	.38
10	10-160-AL	10-160-AR	10-160B-AL	10-160B-AR	.75	.60	.50	.49	.42
11	11-160-AL	11-160-AR	11-160B-AL	11-160B-AR	.80	.64	.53	.52	.46
12	12-160-AL	12-160-AR	12-160B-AL	12-160B-AR	.83	.67	.56	.55	.51
13	13-160-AL	13-160-AR	13-160B-AL	13-160B-AR	.90	.72	.60	.59	.56
14	14-160-AL	14-160-AR	14-160B-AL	14-160B-AR	.99	.79	.66	.63	.60
15	15-160-AL	15-160-AR	15-160B-AL	15-160B-AR	1.08	.86	.72	.67	.64
16	16-160-AL	16-160-AR	16-160B-AL	16-160B-AR	1.16	.92	.77	.72	.68
17	17-160-AL	17-160-AR	17-160B-AL	17-160B-AR	1.21	.97	.81	.76	.72
18	18-160-AL	18-160-AR	18-160B-AL	18-160B-AR	1.28	1.02	.85	.80	.76
19	19-160-AL	19-160-AR	19-160B-AL	19-160B-AR	1.35	1.08	.90	.85	.81
20	20-160-AL	20-160-AR	20-160B-AL	20-160B-AR	1.41	1.13	.94	.89	.85
21	21-160-AL	21-160-AR	21-160B-AL	21-160B-AR	1.47	1.18	.98	.94	.89

STRAIGHT TYPE—161 SERIES

No. of Term.	C. C. Hole on left	C. C. Hole on right	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
2	2-161-L	2-161-R	.36	.29	.24	.23	.12
3	3-161-L	3-161-R	.39	.31	.26	.25	.14
4	4-161-L	4-161-R	.44	.35	.29	.28	.16
5	5-161-L	5-161-R	.47	.37	.31	.30	.17
6	6-161-L	6-161-R	.51	.41	.34	.33	.19
7	7-161-L	7-161-R	.54	.43	.36	.35	.21
8	8-161-L	8-161-R	.59	.47	.39	.38	.23
9	9-161-L	9-161-R	.62	.49	.41	.40	.26
10	10-161-L	10-161-R	.66	.53	.44	.43	.29
11	11-161-L	11-161-R	.69	.55	.46	.45	.31
12	12-161-L	12-161-R	.74	.59	.49	.48	.34
13	13-161-L	13-161-R	.77	.61	.51	.50	.37
14	14-161-L	14-161-R	.81	.65	.54	.53	.39
15	15-161-L	15-161-R	.83	.67	.56	.55	.42
16	16-161-L	16-161-R	.88	.70	.59	.58	.45
17	17-161-L	17-161-R	.94	.75	.63	.60	.47
18	18-161-L	18-161-R	.98	.79	.66	.63	.50
19	19-161-L	19-161-R	1.04	.83	.70	.65	.52
20	20-161-L	20-161-R	1.09	.87	.73	.68	.55

ANGLE TYPE—161 SERIES

No. of Term.	C. C. Hole on left	C. C. Hole on right	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
2	2-161-AL	2-161-AR	.39	.31	.26	.25	.14
3	3-161-AL	3-161-AR	.44	.35	.29	.28	.16
4	4-161-AL	4-161-AR	.48	.38	.32	.31	.18
5	5-161-AL	5-161-AR	.54	.43	.36	.34	.21
6	6-161-AL	6-161-AR	.60	.48	.40	.37	.25
7	7-161-AL	7-161-AR	.62	.49	.41	.40	.30
8	8-161-AL	8-161-AR	.66	.53	.44	.43	.34
9	9-161-AL	9-161-AR	.70	.56	.47	.46	.38
10	10-161-AL	10-161-AR	.75	.60	.50	.49	.42
11	11-161-AL	11-161-AR	.80	.64	.53	.52	.46
12	12-161-AL	12-161-AR	.83	.67	.56	.55	.51
13	13-161-AL	13-161-AR	.90	.72	.60	.59	.56
14	14-161-AL	14-161-AR	.99	.79	.66	.63	.60
15	15-161-AL	15-161-AR	1.08	.86	.72	.67	.64
16	16-161-AL	16-161-AR	1.16	.92	.77	.72	.68
17	17-161-AL	17-161-AR	1.21	.97	.81	.76	.72
18	18-161-AL	18-161-AR	1.28	1.02	.85	.80	.76
19	19-161-AL	19-161-AR	1.35	1.08	.90	.85	.81
20	20-161-AL	20-161-AR	1.41	1.13	.94	.89	.85

STRAIGHT TYPE—162 SERIES

No. of Term.	C. C. Hole on left	C. C. Hole on right	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
2	2-162-L	2-162-R	.39	.31	.26	.25	.12
3	3-162-L	3-162-R	.41	.32	.27	.26	.14
4	4-162-L	4-162-R	.44	.35	.29	.28	.16
5	5-162-L	5-162-R	.47	.37	.31	.30	.17
6	6-162-L	6-162-R	.50	.40	.33	.32	.19
7	7-162-L	7-162-R	.54	.43	.36	.34	.21
8	8-162-L	8-162-R	.56	.44	.37	.36	.24
9	9-162-L	9-162-R	.59	.47	.39	.38	.27
10	10-162-L	10-162-R	.62	.49	.41	.40	.29
11	11-162-L	11-162-R	.65	.52	.43	.42	.32
12	12-162-L	12-162-R	.68	.54	.45	.44	.35
13	13-162-L	13-162-R	.71	.56	.47	.46	.37
14	14-162-L	14-162-R	.74	.59	.49	.48	.40
15	15-162-L	15-162-R	.84	.67	.56	.50	.43
16	16-162-L	16-162-R	.90	.72	.60	.52	.45
17	17-162-L	17-162-R	.90	.75	.63	.54	.48

ANGLE TYPE—162 SERIES

No. of Term.	C. C. Hole on left	C. C. Hole on right	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
2	2-162-AL	2-162-AR	.48	.38	.32	.28	.16
3	3-162-AL	3-162-AR	.57	.46	.38	.32	.19
4	4-162-AL	4-162-AR	.66	.53	.44	.36	.22
5	5-162-AL	5-162-AR	.78	.62	.52	.40	.26
6	6-162-AL	6-162-AR	.87	.70	.58	.44	.29
7	7-162-AL	7-162-AR	.96	.77	.64	.48	.32
8	8-162-AL	8-162-AR	1.08	.86	.72	.52	.36
9	9-162-AL	9-162-AR	1.20	.96	.80	.56	.40
10	10-162-AL	10-162-AR	1.32	1.06	.88	.60	.44
11	11-162-AL	11-162-AR	1.44	1.15	.96	.64	.48
12	12-162-AL	12-162-AR	1.56	1.25	1.04	.68	.52
13	13-162-AL	13-162-AR	1.71	1.37	1.14	.72	.57
14	14-162-AL	14-162-AR	1.83	1.46	1.22	.76	.61
15	15-162-AL	15-162-AR	1.95	1.56	1.30	.80	.65
16	16-162-AL	16-162-AR	2.07	1.66	1.38	.84	.69
17	17-162-AL	17-162-AR	2.19	1.75	1.46	.88	.73

Net

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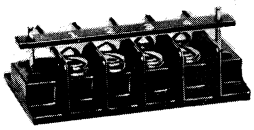
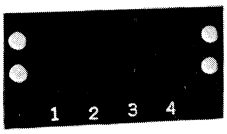
Marker Strips

Marker strips are used for the purpose of labelling terminal positions on barrier terminal blocks and insulating exposed portions of terminals from metallic mounting surface. Marker strip mounting holes correspond with those on appropriate barrier terminal block. Made of 1/32" vulcanized fibre and numbered sequentially from 1 with legible white numerals. Part number indicates number of terminal positions accommodated.

"500" series marker strips are made of 1/16" XP Bakelite, ¼" wide and numbered sequentially from 1 with ⅛" legible white numerals. Mounted on top of terminal strip as illustrated, with mounting screws furnished.





FOR 140 AND 164 SERIES TERMINAL BLOCKS (MARKER STRIPS)

C-J No.	Term.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
MS-2-140	2	.23	.22	.21	.20	.10
MS-3-140	3	.23	.22	.21	.20	.10
MS-4-140	4	.23	.22	.21	.20	.10
MS-5-140	5	.23	.22	.21	.20	.10
MS-6-140	6	.24	.23	.22	.21	.11
MS-7-140	7	.24	.23	.22	.21	.11
MS-8-140	8	.24	.23	.22	.21	.11
MS-9-140	9	.24	.23	.22	.21	.11
MS-10-140	10	.24	.23	.22	.21	.11
MS-11-140	11	.25	.235	.225	.215	.12
MS-12-140	12	.25	.235	.225	.215	.12
MS-13-140	13	.25	.235	.225	.215	.12
MS-14-140	14	.25	.235	.225	.215	.12
MS-15-140	15	.25	.235	.225	.215	.12
MS-16-140	16	.26	.24	.23	.22	.13
MS-17-140	17	.26	.24	.23	.22	.13
MS-18-140	18	.26	.24	.23	.22	.13
MS-19-140	19	.26	.24	.23	.22	.13
MS-20-140	20	.26	.24	.23	.22	.13
MS-21-140	21	.26	.24	.23	.22	.13

FOR 141 SERIES TERMINAL BLOCKS

C-J No.	Term.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
MS-2-141	2	.375	.30	.25	.20	.10
MS-3-141	3	.377	.302	.252	.201	.10
MS-4-141	4	.379	.304	.253	.202	.10
MS-5-141	5	.381	.305	.254	.203	.10
MS-6-141	6	.383	.306	.255	.204	.12
MS-7-141	7	.385	.308	.257	.205	.12
MS-8-141	8	.387	.31	.258	.206	.12
MS-9-141	9	.389	.311	.259	.207	.12
MS-10-141	10	.39	.312	.26	.208	.12
MS-11-141	11	.392	.314	.262	.209	.14
MS-12-141	12	.394	.316	.263	.21	.14
MS-13-141	13	.396	.317	.264	.211	.14
MS-14-141	14	.398	.318	.265	.212	.14
MS-15-141	15	.40	.32	.267	.213	.14
MS-16-141	16	.402	.322	.268	.214	.15
MS-17-141	17	.404	.323	.269	.215	.15
MS-18-141	18	.406	.324	.27	.216	.15
MS-19-141	19	.409	.327	.273	.218	.15
MS-20-141	20	.413	.33	.275	.22	.15

FOR 142 SERIES TERMINAL BLOCKS

C-J No.	Term.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
MS-2-142	2	.23	.22	.21	.20	.11
MS-3-142	3	.23	.22	.21	.20	.11
MS-4-142	4	.23	.22	.21	.20	.11
MS-5-142	5	.23	.22	.21	.20	.11
MS-6-142	6	.23	.22	.21	.20	.11
MS-7-142	7	.24	.23	.22	.21	.13
MS-8-142	8	.24	.23	.22	.21	.13
MS-9-142	9	.24	.23	.22	.21	.13
MS-10-142	10	.24	.23	.22	.21	.13
MS-11-142	11	.24	.23	.22	.21	.13
MS-12-142	12	.25	.24	.23	.22	.15
MS-13-142	13	.25	.24	.23	.22	.15
MS-14-142	14	.25	.24	.23	.22	.15
MS-15-142	15	.25	.24	.23	.22	.15
MS-16-142	16	.30	.29	.28	.27	.19
MS-17-142	17	.30	.29	.28	.27	.19

FOR 540 SERIES TERMINAL BLOCKS

C-J No.	Term.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
MSX-2-540	2	.28	.27	.26	.25	.12
MSX-3-540	3	.28	.27	.26	.25	.12
MSX-4-540	4	.28	.27	.26	.25	.12
MSX-5-540	5	.29	.28	.27	.26	.13
MSX-6-540	6	.29	.28	.27	.26	.13
MSX-7-540	7	.29	.28	.27	.26	.13
MSX-8-540	8	.29	.28	.27	.26	.13
MSX-9-540	9	.29	.28	.27	.26	.13
MSX-10-540	10	.29	.28	.27	.26	.13
MSX-11-540	11	.29	.28	.27	.26	.13
MSX-12-540	12	.29	.28	.27	.26	.13
MSX-13-540	13	.29	.28	.27	.26	.13
MSX-14-540	14	.29	.28	.27	.26	.13
MSX-15-540	15	.30	.29	.28	.27	.14
MSX-16-540	16	.30	.29	.28	.27	.14
MSX-17-540	17	.30	.29	.28	.27	.14
MSX-18-540	18	.30	.29	.28	.27	.14
MSX-19-540	19	.30	.29	.28	.27	.14
MSX-20-540	20	.30	.29	.28	.27	.14
MSX-21-540	21	.30	.29	.28	.27	.14
MSX-22-540	22	.30	.29	.28	.27	.14
MSX-23-540	23	.30	.29	.28	.27	.14
MSX-24-540	24	.36	.35	.34	.33	.17
MSX-25-540	25	.36	.35	.34	.33	.17
MSX-26-540	26	.36	.35	.34	.33	.17
MSX-27-540	27	.36	.35	.34	.33	.17
MSX-28-540	28	.36	.35	.34	.33	.17
MSX-29-540	29	.36	.35	.34	.33	.17
MSX-30-540	30	.36	.35	.34	.33	.17
MSX-31-540	31	.36	.35	.34	.33	.17

FOR 541 SERIES TERMINAL BLOCKS

C-J No.	Term.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
MSX-2-541	2	.28	.27	.26	.25	.12
MSX-3-541	3	.28	.27	.26	.25	.12
MSX-4-541	4	.28	.27	.26	.25	.12
MSX-5-541	5	.29	.28	.27	.26	.13
MSX-6-541	6	.29	.28	.27	.26	.13
MSX-7-541	7	.29	.28	.27	.26	.13
MSX-8-541	8	.29	.28	.27	.26	.13
MSX-9-541	9	.29	.28	.27	.26	.13
MSX-10-541	10	.29	.28	.27	.26	.13
MSX-11-541	11	.29	.28	.27	.26	.13
MSX-12-541	12	.29	.28	.27	.26	.13
MSX-13-541	13	.29	.28	.27	.26	.13
MSX-14-541	14	.29	.28	.27	.26	.13
MSX-15-541	15	.30	.29	.28	.27	.14
MSX-16-541	16	.30	.29	.28	.27	.14
MSX-17-541	17	.30	.29	.28	.27	.14
MSX-18-541	18	.30	.29	.28	.27	.14
MSX-19-541	19	.30	.29	.28	.27	.14
MSX-20-541	20	.30	.29	.28	.27	.14
MSX-21-541	21	.36	.35	.34	.33	.17
MSX-22-541	22	.36	.35	.34	.33	.17
MSX-23-541	23	.36	.35	.34	.33	.17
MSX-24-541	24	.36	.35	.34	.33	.17
MSX-25-541	25	.36	.35	.34	.33	.17
MSX-26-541	26	.36	.35	.34	.33	.17
MSX-27-541	27	.36	.35	.34	.33	.17
MSX-28-541	28	.36	.35	.34	.33	.17
MSX-29-541	29	.36	.35	.34	.33	.17
MSX-30-541	30	.36	.35	.34	.33	.17

FOR 542 SERIES TERMINAL BLOCKS

C-J No.	Term.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
MSX-2-542	2	.28	.27	.26	.25	.12
MSX-3-542	3	.28	.27	.26	.25	.12
MSX-4-542	4	.28	.27	.26	.25	.12
MSX-5-542	5	.29	.28	.27	.26	.13
MSX-6-542	6	.29	.28	.27	.26	.13
MSX-7-542	7	.29	.28	.27	.26	.13
MSX-8-542	8	.29	.28	.27	.26	.13
MSX-9-542	9	.29	.28	.27	.26	.13
MSX-10-542	10	.29	.28	.27	.26	.13
MSX-11-542	11	.29	.28	.27	.26	.13
MSX-12-542	12	.29	.28	.27	.26	.13
MSX-13-542	13	.29	.28	.27	.26	.13
MSX-14-542	14	.29	.28	.27	.26	.13
MSX-15-542	15	.29	.28	.27	.26	.13
MSX-16-542	16	.35	.34	.33	.32	.16
MSX-17-542	17	.35	.34	.33	.32	.16
MSX-18-542	18	.35	.34	.33	.32	.16
MSX-19-542	19	.35	.34	.33	.32	.16
MSX-20-542	20	.36	.35	.34	.33	.17
MSX-21-542	21	.36	.35	.34	.33	.17
MSX-22-542	22	.36	.35	.34	.33	.17
MSX-23-542	23	.36	.35	.34	.33	.17
MSX-24-542	24	.36	.35	.34	.33	.17
MSX-25-542	25	.36	.35	.34	.33	.17
MSX-26-542	26	.36	.35	.34	.33	.17

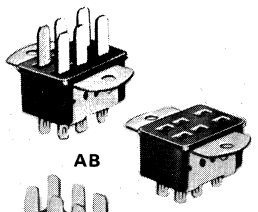
"Y" TYPE AVAILABLE AT SLIGHT EXTRA COST

"Jones" Type Plugs, Sockets

300 SERIES CONNECTORS are from the famous line of "Jones" plugs and sockets which have been a standard of the electrical and electronic industry for over a generation. For medium duty applications, they are small in size with good separation between contacts.

Molded bakelite insulator has 2 to 33 cadmium-plated phosphor-bronze contacts, for cap or panel mounting. All plugs and sockets are polarized so that plugs of one size cannot fit into sockets of another size. "Knife-switch" type socket contacts engage both sides of flat plug contacts, providing double contact area. Rated Voltage...730 Volts rms. Contact Resistance....016 Ohms max. Rated Current...10A max.

In accordance with UL Standard #498, (all contacts carrying "rated" current simultaneously) as follows: Current (2-12 contacts).....7.5 amperes Wattage (2-12 contacts).....1875 watts
(15-33 contacts).....4.5 amperes (15-33 contacts).....1125 watts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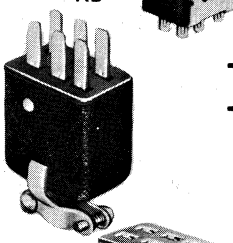
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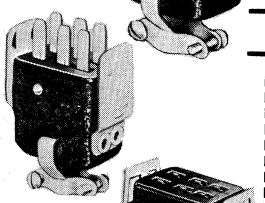
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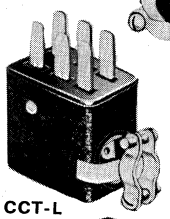
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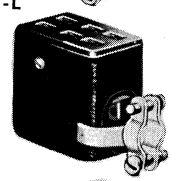

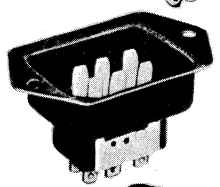
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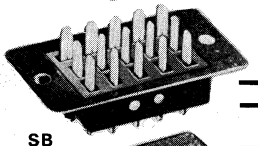
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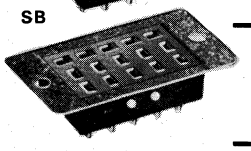

PLUGS WITH ANGLE BRACKETS

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
P-302-AB	2	.285	.228	.19	.152	.144
P-303-AB	3	.33	.264	.22	.176	.167
P-304-AB	4	.368	.294	.245	.196	.186
P-306-AB	6	.458	.366	.305	.244	.232
P-308-AB	8	.525	.42	.35	.28	.266
P-310-AB	10	.593	.474	.395	.316	.30
P-312-AB	12	.66	.528	.44	.352	.334
P-315-AB	15	.885	.708	.59	.472	.448
P-318-AB	18	1.065	.852	.71	.568	.54
P-321-AB	21	1.335	1.068	.89	.712	.676
P-324-AB	24	1.62	1.296	1.08	.864	.821
P-327-AB	27	1.898	1.518	1.265	1.012	.961
P-330-AB	30	2.175	1.74	1.45	1.16	1.102
P-333-AB	33	2.445	1.956	1.63	1.304	1.239

PLUGS WITH CABLE CLAMPS/TOP

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
P-302-CCT	2	.60	.48	.40	.32	.304
P-303-CCT	3	.66	.528	.44	.352	.334
P-304-CCT	4	.698	.558	.465	.372	.353
P-306-CCT	6	.795	.636	.53	.424	.403
P-308-CCT	8	.863	.69	.575	.46	.437
P-310-CCT	10	.953	.762	.635	.508	.483
P-312-CCT	12	1.028	.822	.685	.548	.521
P-315-CCT	15	1.373	1.098	.915	.732	.695
P-318-CCT	18	1.598	1.278	1.065	.852	.809
P-321-CCT	21	1.913	1.53	1.275	1.02	.969
P-324-CCT	24	2.243	1.794	1.495	1.196	1.136
P-327-CCT	27	2.565	2.052	1.71	1.368	1.30
P-330-CCT	30	2.888	2.31	1.925	1.54	1.463
P-333-CCT	33	3.203	2.562	2.135	1.708	1.623

PLUGS WITH CABLE CLAMPS/TOP & LOCKS

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
P-302-CCT-L	2	.75	.60	.50	.40	.38
P-303-CCT-L	3	.81	.648	.54	.432	.41
P-304-CCT-L	4	.848	.678	.565	.452	.429
P-306-CCT-L	6	.945	.756	.63	.504	.479
P-308-CCT-L	8	1.013	.81	.675	.54	.513
P-310-CCT-L	10	1.103	.882	.735	.588	.559
P-312-CCT-L	12	1.178	.942	.785	.628	.597
P-315-CCT-L	15	1.523	1.218	1.015	.812	.771
P-318-CCT-L	18	1.748	1.398	1.165	.932	.885
P-321-CCT-L	21	2.063	1.65	1.375	1.10	1.045
P-324-CCT-L	24	2.393	1.914	1.595	1.276	1.212
P-327-CCT-L	27	2.715	2.172	1.81	1.448	1.376
P-330-CCT-L	30	3.038	2.43	2.025	1.62	1.543
P-333-CCT-L	33	3.353	2.682	2.235	1.788	1.699

PLUGS WITH CABLE CLAMPS/END

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
P-306-CCE	6	.833	.666	.555	.444	.422
P-308-CCE	8	.90	.72	.60	.48	.456
P-310-CCE	10	.99	.792	.66	.528	.502
P-312-CCE	12	1.065	.852	.71	.568	.54
P-315-CCE	15	1.41	1.128	.94	.752	.714
P-318-CCE	18	1.635	1.308	1.09	.872	.828
P-321-CCE	21	1.95	1.56	1.30	1.04	.988
P-324-CCE	24	2.28	1.824	1.52	1.216	1.155
P-327-CCE	27	2.603	2.082	1.735	1.388	1.319
P-330-CCE	30	2.925	2.34	1.95	1.56	1.482
P-333-CCE	33	3.24	2.592	2.16	1.728	1.642

PLUGS WITH DEEP BRACKETS

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
P-302-DB	2	.72	.576	.48	.384	.365
P-303-DB	3	.728	.582	.485	.388	.369
P-304-DB	4	.765	.612	.51	.408	.388
P-306-DB	6	.855	.684	.57	.456	.433
P-308-DB	8	.923	.738	.615	.492	.467
P-312-DB	12	1.058	.846	.705	.564	.536
P-315-DB	15	1.298	1.038	.865	.692	.657
P-318-DB	18	1.553	1.242	1.035	.828	.787
P-321-DB	21	1.86	1.488	1.24	.992	.942
P-324-DB	24	2.183	1.746	1.455	1.164	1.106
P-327-DB	27	2.498	1.998	1.665	1.332	1.265
P-330-DB	30	2.813	2.25	1.875	1.50	1.425
P-333-DB	33	3.12	2.496	2.08	1.664	1.581

PLUGS WITH SHALLOW BRACKETS

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
P-315-SB	15	1.298	1.038	.865	.692	.657
P-318-SB	18	1.553	1.242	1.035	.828	.787
P-321-SB	21	1.86	1.488	1.24	.992	.942
P-324-SB	24	2.183	1.746	1.455	1.164	1.106
P-327-SB	27	2.498	1.998	1.665	1.332	1.265
P-330-SB	30	2.813	2.25	1.875	1.50	1.425
P-333-SB	33	3.12	2.496	2.08	1.664	1.581

SOCKETS WITH ANGLE BRACKETS

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
S-302-AB	2	.308	.246	.205	.164	.156
S-303-AB	3	.345	.276	.23	.184	.175
S-304-AB	4	.39	.312	.26	.208	.198
S-306-AB	6	.488	.39	.325	.26	.247
S-308-AB	8	.593	.474	.395	.316	.30
S-310-AB	10	.69	.552	.46	.368	.35
S-312-AB	12	.818	.654	.545	.436	.414
S-315-AB	15	1.035	.828	.69	.552	.524
S-318-AB	18	1.193	.954	.795	.636	.604
S-321-AB	21	1.47	1.176	.98	.784	.745
S-324-AB	24	1.748	1.398	1.165	.932	.885
S-327-AB	27	2.025	1.62	1.35	1.08	1.026
S-330-AB	30	2.325	1.86	1.55	1.24	1.178
S-333-AB	33	2.595	2.076	1.73	1.384	1.315

SOCKETS WITH CABLE CLAMPS/TOP

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
S-302-CCT	2	.623	.498	.415	.332	.315
S-303-CCT	3	.675	.54	.45	.36	.342
S-304-CCT	4	.72	.576	.48	.384	.365
S-306-CCT	6	.825	.66	.55	.44	.418
S-308-CCT	8	.93	.744	.62	.496	.471
S-310-CCT	10	1.05	.84	.70	.56	.532
S-312-CCT	12	1.185	.948	.79	.632	.60
S-315-CCT	15	1.523	1.218	1.015	.812	.771
S-318-CCT	18	1.725	1.38	1.15	.92	.874
S-321-CCT	21	2.048	1.638	1.365	1.092	1.037
S-324-CCT	24	2.37	1.896	1.58	1.264	1.201
S-327-CCT	27	2.693	2.154	1.795	1.436	1.364
S-330-CCT	30	3.038	2.43	2.025	1.62	1.539
S-333-CCT	33	3.353	2.682	2.235	1.788	1.699

SOCKETS WITH CABLE CLAMPS/TOP & KEEPERS

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
S-302-CCT-K	2	.773	.618	.515	.412	.391
S-303-CCT-K	3	.825	.66	.55	.44	.418
S-304-CCT-K	4	.87	.696	.58	.464	.441
S-306-CCT-K	6	.975	.78	.65	.52	.494
S-308-CCT-K	8	1.08	.864	.72	.576	.547
S-310-CCT-K	10	1.20	.96	.80	.64	.508
S-312-CCT-K	12	1.335	1.068	.89	.712	.676
S-315-CCT-K	15	1.673	1.338	1.115	.892	.847
S-318-CCT-K	18	1.875	1.50	1.25	1.00	.95
S-321-CCT-K	21	2.198	1.758	1.465	1.172	1.113
S-324-CCT-K	24	2.52	2.016	1.68	1.344	1.277
S-327-CCT-K	27	2.843	2.274	1.895	1.516	1.44
S-330-CCT-K	30	3.188	2.55	2.125	1.70	1.61
S-333-CCT-K	33	3.503	2.802	2.335	1.868	1.775

SOCKETS WITH CABLE CLAMPS/END

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
S-306-CCE	6	.863	.69	.575	.46	.437
S-308-CCE	8	.968	.774	.645	.516	.49
S-310-CCE	10	1.088	.87	.725	.58	.551
S-312-CCE	12	1.223	.978	.815	.652	.619
S-315-CCE	15	1.56	1.248	1.04	.832	.79
S-318-CCE	18	1.763	1.41	1.175	.94	.893
S-321-CCE	21	2.085	1.668	1.39	1.112	1.056
S-324-CCE	24	2.408	1.926	1.605	1.284	1.22
S-327-CCE	27	2.73	2.184	1.82	1.456	1.383
S-330-CCE	30	3.068	2.454	2.045	1.636	1.554
S-333-CCE	33	3.39	2.712	2.26	1.808	1.718

SOCKETS WITH DEEP BRACKETS

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
S-302-DB	2	.743	.594	.495	.396	.376
S-303-DB	3	.743	.594	.495	.396	.376
S-304-DB	4	.788	.63	.525	.42	.399
S-306-DB	6	.885	.708	.59	.472	.448
S-308-DB	8	.99	.792	.66	.528	.502
S-312-DB	12	1.215	.972	.81	.648	.616
S-315-DB	15	1.448	1.158	.965	.772	.733
S-318-DB	18	1.68	1.344	1.12	.896	.851
S-321-DB	21	1.995	1.596	1.33	1.064	1.011
S-324-DB	24	2.318	1.854	1.545	1.236	1.174
S-327-DB	27	2.625	2.10	1.75	1.40	1.33
S-330-DB	30	2.963	2.37	1.975	1.58	1.501
S-333-DB	33	3.27	2.616	2.18	1.744	1.657

SOCKETS WITH SHALLOW BRACKETS

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
S-315-SB	15	1.448	1.158	.965	.772	.733
S-318-SB	18	1.68	1.344	1.12	.896	.851
S-321-SB	21	1.995	1.596	1.33	1.064	1.011
S-324-SB	24	2.318	1.854	1.545	1.236	1.174
S-327-SB	27	2.625	2.10	1.75	1.40	1.33
S-330-SB	30	2.963	2.37	1.975	1.58	1.501
S-333-SB	33	3.27	2.616	2.18	1.744	1.657

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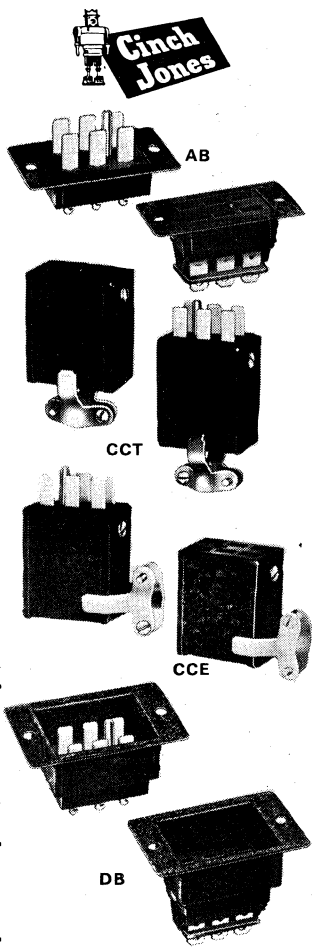
400 SERIES plugs and sockets are rated for duty beyond the range of the 300 series. Maximum rating is 1200 volts r.m.s. at 15 amperes. Average contact resistance is .001 ohms.

2, 4, 6, 8, 10 and 12 contact sizes are available, each size being polarized and suitable for either cap or panel mounting. "Knife-switch" type socket contacts are made of cadmium-plated phosphor bronze. These contacts engage both sides of the flat plug contacts, providing double the contact area.

Plug prongs are made of cadmium-plated brass ¼" wide by 1/16" thick. Caps are finished in black wrinkle and equipped with fibre lining.



PLUGS WITH ANGLE BRACKETS

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
P-402-AB	2	.675	.54	.45	.36	.342
P-404-AB	4	.825	.66	.55	.44	.418
P-406-AB	6	.975	.78	.65	.52	.494
P-408-AB	8	1.125	.90	.75	.60	.57
P-410-AB	10	1.275	1.02	.85	.68	.646
P-412-AB	12	1.425	1.14	.95	.76	.722

SOCKETS WITH ANGLE BRACKETS

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
S-402-AB	2	.788	.63	.525	.42	.399
S-404-AB	4	1.013	.81	.675	.54	.513
S-406-AB	6	1.238	.99	.825	.66	.627
S-408-AB	8	1.463	1.17	.975	.78	.741
S-410-AB	10	1.688	1.35	1.125	.90	.855
S-412-AB	12	1.913	1.53	1.275	1.02	.969

PLUGS WITH CABLE CLAMPS/TOP

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
P-402-CCT	2	1.125	.90	.75	.60	.57
P-404-CCT	4	1.283	1.026	.855	.684	.65
P-406-CCT	6	1.478	1.182	.985	.788	.749
P-408-CCT	8	1.635	1.308	1.09	.872	.828
P-410-CCT	10	1.89	1.512	1.26	1.008	.958
P-412-CCT	12	2.063	1.65	1.375	1.10	1.045

SOCKETS WITH CABLE CLAMPS/TOP

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
S-402-CCT	2	1.275	1.02	.85	.68	.646
S-404-CCT	4	1.523	1.218	1.015	.812	.771
S-406-CCT	6	1.77	1.416	1.18	.944	.897
S-408-CCT	8	2.018	1.614	1.345	1.076	1.022
S-410-CCT	10	2.265	1.812	1.51	1.208	1.148
S-412-CCT	12	2.513	2.01	1.675	1.34	1.273

PLUGS WITH CABLE CLAMPS/END

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
P-402-CCE	2	1.163	.93	.775	.62	.589
P-404-CCE	4	1.32	1.056	.88	.704	.669
P-406-CCE	6	1.515	1.212	1.01	.808	.768
P-408-CCE	8	1.673	1.338	1.115	.892	.847
P-410-CCE	10	1.928	1.542	1.285	1.028	.977
P-412-CCE	12	2.10	1.68	1.40	1.12	1.064

SOCKETS WITH CABLE CLAMPS/END

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
S-402-CCE	2	1.313	1.05	.875	.70	.665
S-404-CCE	4	1.56	1.248	1.04	.832	.79
S-406-CCE	6	1.808	1.446	1.205	.964	.916
S-408-CCE	8	2.055	1.644	1.37	1.096	1.041
S-410-CCE	10	2.303	1.842	1.535	1.228	1.167
S-412-CCE	12	2.55	2.04	1.70	1.36	1.292

PLUGS WITH DEEP BRACKETS

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
P-402-DB	2	.90	.72	.60	.48	.456
P-404-DB	4	1.095	.876	.73	.584	.555
P-406-DB	6	1.29	1.032	.86	.688	.654
P-408-DB	8	1.485	1.188	.99	.792	.752
P-410-DB	10	1.68	1.344	1.12	.896	.851
P-412-DB	12	1.875	1.50	1.25	1.00	.95

SOCKETS WITH DEEP BRACKETS

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
S-402-DB	2	1.013	.81	.675	.54	.513
S-404-DB	4	1.283	1.026	.855	.684	.65
S-406-DB	6	1.553	1.242	1.035	.828	.787
S-408-DB	8	1.823	1.458	1.215	.972	.923
S-410-DB	10	2.093	1.674	1.395	1.116	1.06
S-412-DB	12	2.363	1.89	1.575	1.26	1.197

PLUGS WITH SHALLOW BRACKETS

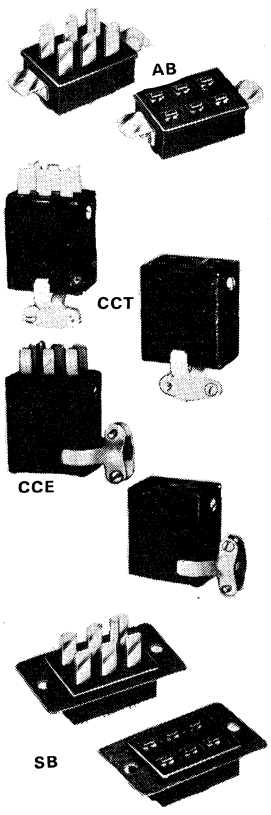
C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
P-402-SB	2	.863	.69	.575	.46	.437
P-404-SB	4	1.058	.846	.705	.564	.536
P-406-SB	6	1.253	1.002	.835	.668	.635
P-408-SB	8	1.448	1.158	.965	.772	.733
P-410-SB	10	1.643	1.314	1.095	.876	.832
P-412-SB	12	1.838	1.47	1.225	.98	.931

SOCKETS WITH SHALLOW BRACKETS

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
S-402-SB	2	.975	.78	.65	.52	.494
S-404-SB	4	1.245	.996	.83	.664	.631
S-406-SB	6	1.515	1.212	1.01	.808	.768
S-408-SB	8	1.785	1.428	1.19	.952	.904
S-410-SB	10	2.055	1.644	1.37	1.096	1.041
S-412-SB	12	2.325	1.86	1.55	1.24	1.178

2400 SERIES plugs and sockets are designed for excellent electrical and mechanical performance. Ratings for the 2400 Series are the same as for the 400 Series except for a higher voltage rating (400 volts).

All units of the 2400 series are interchangeable with corresponding units of the 400 series.



PLUGS WITH ANGLE BRACKETS

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
P-2402-AB	2	.765	.612	.51	.408	.388
P-2404-AB	4	.945	.756	.63	.504	.479
P-2406-AB	6	1.11	.888	.74	.592	.562
P-2408-AB	8	1.275	1.02	.85	.68	.646
P-2410-AB	10	1.44	1.152	.96	.768	.73
P-2412-AB	12	1.605	1.284	1.07	.856	.813

SOCKETS WITH ANGLE BRACKETS

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
S-2402-AB	2	.855	.684	.57	.456	.433
S-2404-AB	4	1.028	.822	.685	.548	.521
S-2406-AB	6	1.20	.96	.80	.64	.608
S-2408-AB	8	1.373	1.098	.915	.732	.695
S-2410-AB	10	1.545	1.236	1.03	.824	.783
S-2412-AB	12	1.718	1.374	1.145	.916	.87

PLUGS WITH CABLE CLAMPS/TOP

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
P-2402-CCT	2	1.245	.996	.83	.664	.631
P-2404-CCT	4	1.418	1.134	.945	.756	.718
P-2406-CCT	6	1.59	1.272	1.06	.848	.806
P-2408-CCT	8	1.763	1.41	1.175	.94	.893
P-2410-CCT	10	1.935	1.548	1.29	1.032	.98
P-2412-CCT	12	2.033	1.626	1.355	1.084	1.03

SOCKETS WITH CABLE CLAMPS/TOP

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
S-2402-CCT	2	1.358	1.086	.905	.724	.688
S-2404-CCT	4	1.50	1.20	1.00	.80	.76
S-2406-CCT	6	1.68	1.344	1.12	.896	.851
S-2408-CCT	8	1.86	1.488	1.24	.992	.942
S-2410-CCT	10	2.04	1.632	1.36	1.088	1.034
S-2412-CCT	12	2.22	1.776	1.48	1.184	1.125

PLUGS WITH CABLE CLAMPS/END

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
P-2402-CCE	2	1.283	1.026	.855	.684	.65
P-2404-CCE	4	1.455	1.164	.97	.776	.737
P-2406-CCE	6	1.628	1.302	1.085	.868	.825
P-2408-CCE	8	1.80	1.44	1.20	.96	.912
P-2410-CCE	10	1.973	1.578	1.315	1.052	.999
P-2412-CCE	12	2.145	1.716	1.43	1.144	1.087

SOCKETS WITH CABLE CLAMPS/END

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
S-2402-CCE	2	1.358	1.086	.905	.724	.688
S-2404-CCE	4	1.538	1.23	1.025	.82	.779
S-2406-CCE	6	1.718	1.374	1.145	.916	.87
S-2408-CCE	8	1.898	1.518	1.265	1.012	.961
S-2410-CCE	10	2.078	1.662	1.385	1.108	1.053
S-2412-CCE	12	2.258	1.806	1.505	1.204	1.144

PLUGS WITH DEEP BRACKETS

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
P-2402-DB	2	.975	.78	.65	.52	.494
P-2404-DB	4	1.14	.912	.76	.608	.578
P-2406-DB	6	1.305	1.044	.87	.696	.661
P-2408-DB	8	1.47	1.176	.98	.784	.745
P-2410-DB	10	1.635	1.308	1.09	.872	.828
P-2412-DB	12	1.86	1.488	1.24	.992	.942

SOCKETS WITH DEEP BRACKETS

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
S-2402-DB	2	1.05	.84	.70	.56	.532
S-2404-DB	4	1.223	.978	.815	.652	.619
S-2406-DB	6	1.395	1.116	.93	.744	.707
S-2408-DB	8	1.568	1.254	1.045	.836	.794
S-2410-DB	10	1.74	1.392	1.16	.928	.882
S-2412-DB	12	1.913	1.53	1.275	1.02	.969

PLUGS WITH SHALLOW BRACKETS

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
P-2402-SB	2	.90	.72	.60	.48	.456
P-2404-SB	4	1.065	.852	.71	.568	.54
P-2406-SB	6	1.23	.984	.82	.656	.623
P-2408-SB	8	1.395	1.116	.93	.744	.707
P-2410-SB	10	1.56	1.248	1.04	.832	.79
P-2412-SB	12	1.725	1.38	1.15	.92	.874

SOCKETS WITH SHALLOW BRACKETS

C-J No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
S-2402-SB	2	.975	.78	.65	.52	.494
S-2404-SB	4	1.148	.918	.765	.612	.581
S-2406-SB	6	1.32	1.056	.88	.704	.669
S-2408-SB	8	1.493	1.194	.995	.796	.756
S-2410-SB	10	1.665	1.332	1.11	.888	.844
S-2412-SB	12	1.838	1.47	1.225	.98	.931

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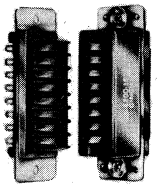
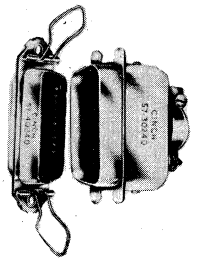
Cinch Jones Connectors

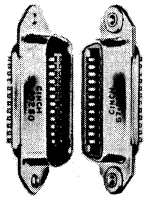
RACK and PANEL PLUGS and RECEPTACLES

BLUE Ribbon CONNECTORS

BARRIER POLARIZATION TYPE







Ideal and used universally in a wide variety of applications. Proven reliability combines with smooth, easy insertion action. Self-wiping and self-cleaning contacts available in linear arrays up to 32 per unit. Barrier-type polarization and interlocking mating of dielectric bodies gives easy alignment without visual aid. Ribbon contacts can't bend. Rectangular body for easy layout. Corrosion resistant, passivated stainless steel mounting plates are molded in. **Current:** 5 amps. **Voltage:** 800 VDC at sea level; 300 VDC at 70,000 ft. **Insulator:** Diallyl phthalate per MIL-M-14F, Type MDG. **Plug Contacts:** Gold per MIL-G-14204 over silver per QQ-S-365 on copper per ASTM-B-152, Type ETP. **Receptacle Contacts:** Gold per MIL-G-14202 over silver per QQ-S-365 on phosphor bronze per ASTM-B-103-51, MIL-B-892, Grade A. **Size:** (Other than shown in table below): Body ¾″ w. x ⅜″ d. below mtg. plate, socket; 25⁄64″ d., plug Mtg. plate ⅛″ wide. Plug mtg. holes .125″ dia.; socket, in bushing .116″ dia. **Code:** Suffix indicates number of contacts (**-8, -16,** etc.); **S,** socket; **P,** plug.

PLUGS

C-J No.	Contacts	Net Each, Lots of 1-9	10-49	50-99	100-249
26-4100-8P	8	1.01	.85	.69	.62
26-4100-16P	16	1.89	1.59	1.29	1.16
26-4100-24P	24	2.27	1.91	1.55	1.39
26-4100-32P	32	2.64	2.22	1.80	1.62

RECEPTACLES

C-J No.	Contacts	Net Each, Lots of 1-9	10-49	50-99	100-249
26-4200-8S	8	1.65	1.39	1.13	1.01
26-4200-16S	16	2.40	2.02	1.64	1.47
26-4200-24S	24	2.84	2.39	1.94	1.74
26-4200-32S	32	3.39	2.85	2.31	2.08

MicroRIBBON RACK and PANEL PLUGS and RECEPTACLES

Extremely small, ribbon-contact connectors suited for airborne and computer applications with high reliability. Shell type polarization; easily inserted or withdrawn without visual aid; self-wiping, self-cleaning contacts in units up to 50 per connector. Float-mounted receptacle prevents mis-alignment. **Current:** 5 amps. **Voltage:** 700 VDC at sea level; 200 VDC at 70,000 ft. **Insulator:** Diallyl phthalate per MIL-M-14F, Type MDG. **Contacts:** Gold plate per MIL-G-14204 over silver plate per QQ-S-365 on cadmium bronze, ASTM-B-105. **Shells:** Cadmium-plated brass (ASTM-B-36, Alloy 6) with clear chromate finish. **Size:** Dimensions on request. Cable plugs come with hoods; chassis-mounted sockets come with spring latches.

PLUGS

C-J No.	Contacts	Net Each, Lots of 1-9	10-49	50-99	100-249
57-10140	14	1.76	1.48	1.20	1.08
57-10240	24	2.35	1.98	1.61	1.44
57-10360	36	2.68	2.26	1.83	1.65
57-10500	50	3.54	2.98	2.42	2.17

RECEPTACLES

C-J No.	Contacts	Net Each, Lots of 1-9	10-49	50-99	100-249
57-20140	14	1.80	1.52	1.23	1.11
57-20240	24	2.40	2.02	1.64	1.47
57-20360	36	2.75	2.31	1.88	1.69
57-20500	50	3.59	3.02	2.45	2.20

CABLE TO CLASSIC PLUGS and RECEPTACLES

PLUGS WITH HOODS

C-J No.	Contacts	Net Each, Lots of 1-9	10-49	50-99	100-249
57-30140	14	3.37	2.83	2.30	2.07
57-30240	24	3.70	3.11	2.52	2.27
57-30360	36	4.53	3.81	3.09	2.78
57-30500	50	4.97	4.18	3.39	3.05

RECEPTACLES WITH HOODS

C-J No.	Contacts	Net Each, Lots of 1-9	10-49	50-99	100-249
57-40140	14	2.22	1.87	1.52	1.36
57-40240	24	2.64	2.22	1.80	1.62
57-40360	36	2.84	2.39	1.94	1.74
57-40500	50	3.72	3.13	2.54	2.28

With Crimp-On Snap-In Pins

High reliability edge connectors designed for exacting military and aerospace requirements. Crimp-on, snap-in removable wire pins insert into bifurcated twin-barrel contact receptacles, permitting 2 wires per contact, 4 wires per position. Meets MIL-C-20197, latest revision, handles double sided .062″ pc boards and is available in 8, 15 and 22-position sizes. 43-position size (Part No. 50-43TC) also available. Insulator is glass-filled diallyl phthalate, type GDI-30F per MIL-M-19833. Contacts are beryllium copper with 30 micro-inches gold over 200 micro-inches silver finish. Wire pins are of brass with same finish as contacts. *Patent Pending

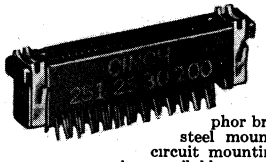
PRINTED CIRCUIT EDGE CONNECTORS

TWIN-CON EDGE CONNECTORS

C-J No.	Cont. Pos.	No. of Cont.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
50-8TC	8	16	5.88	4.70	3.93	3.14	2.98
50-15TC	15	30	7.33	5.86	4.88	3.91	3.71
50-22TC	22	44	8.97	7.18	5.99	4.79	4.55
50-43TC	43	86	18.04	14.43	12.02	9.62	9.14
50-MP	(No. 20 Wire Pin) 500-999 = .075 ea.; 1000-4999 = .06 ea.						
50-MP-1	(No. 22-24 Wire Pin) 500-999 = .075 ea.; 1000-4999 = .06 ea.						
50-PK-2	(Polarizing Key) 1-24 = .12 ea.; 25-49 = .096 ea.; 50-99 = .08 ea.						
50-IRT	(Insertion/Removal Tool) 26.00 All Quantities—Each Net						

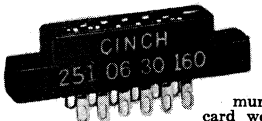
TYKON EDGE CONNECTORS

C-J No.	Cont. Pos.	No. of Cont.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
50-12A-40	6	12	3.38	2.70	2.26	1.81	1.71
50-20A-40	10	20	4.14	3.31	2.76	2.21	2.10
50-30A-40	15	30	5.03	4.02	3.36	2.69	2.55
50-40A-40	20	40	5.98	4.78	3.99	3.19	3.02
50-50A-40	25	50	6.90	5.52	4.61	3.69	3.50
50-MC	(Mounting Clip)		.075	.06	.05	.04	.038
50-PK	(Polarizing Key)		.09	.072	.06	—	—



High density edge connectors with .050″ centers for use with double-sided .062″ printed circuit boards. Conventional wiring tails. Insulator is diallyl phthalate, type SDG-F per MIL-M-14. Contacts are phosphor bronze with .00003″ gold plate. Carbon steel mounting for use in semi-flush printed circuit mounting, and cellulose acetate polarizing key available as separate items.

BIFURCATED CONTACT EDGE CONNECTORS



Designed for minimum printed circuit card wear, low insertion force and positive contact with printed circuit board. Insulation is glass-filled diallyl phthalate, type SDG-F per MIL-M-14. Contacts are of phosphor bronze with .00003″ minimum gold plated. Types 250, 251 and 252 utilize bifurcated contacts, permitting two flexing surfaces instead of one for positive contact.

Bifurcated contacts are especially recommended for added contact reliability where vibration or printed circuit board irregularities would otherwise cause trouble. Connectors meet requirements of MIL-C-21097A (Ships) where applicable. One plastic polarizing key furnished unassembled. Rating: 830 v. AC rms.

TYPE 250

C-J No.	Cont. Pos.	No. of Cont.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
50- 6A-20	6	6	1.19	.95	.79	.63	.60
50-10A-20	10	10	1.58	1.26	1.05	.84	.80
50-12A-20	12	12	1.78	1.42	1.19	.95	.90
50-15A-20	15	15	2.08	1.66	1.39	1.10	1.05
50-18A-20	18	18	2.36	1.89	1.58	1.26	1.20
50-22A-20	22	22	2.77	2.21	1.84	1.47	1.40
50-25A-20	25	25	3.79	3.03	2.33	2.02	1.92

TYPE 251

C-J No.	Cont. Pos.	No. of Cont.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
50-12A-30	6	12	1.19	.95	.79	.63	.60
50-20A-30	10	20	1.98	1.26	1.05	.84	.80
50-24A-30	12	24	1.78	1.42	1.19	.95	.90
50-30A-30	15	30	2.08	1.66	1.39	1.10	1.05
50-36A-30	18	36	2.36	1.89	1.58	1.26	1.20
50-44A-30	22	44	2.77	2.21	1.84	1.47	1.40
50-50A-30	25	50	3.79	3.03	2.53	2.02	1.92

TYPE 252

C-J No.	Cont. Pos.	No. of Cont.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
50-12B-10	6	12	1.19	.95	.79	.63	.60
50-20B-10	10	20	1.58	1.26	1.05	.84	.80
50-24B-10	12	24	1.78	1.42	1.19	.95	.90
50-30B-10	15	30	2.08	1.66	1.39	1.10	1.05
50-36B-10	18	36	2.36	1.89	1.58	1.26	1.20
50-44B-10	22	44	2.77	2.21	1.84	1.47	1.40

TYPE 253

C-J No.	Cont. Pos.	No. of Cont.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
50-12B-20	6	12	3.59	2.87	2.39	1.60	1.23
50-20B-20	10	20	4.29	3.43	2.86	1.97	1.59
50-24B-20	12	24	4.39	3.55	2.99	2.23	2.12
50-30B-20	15	30	5.27	4.21	3.51	2.49	2.08
50-36B-20	18	36	5.73	4.58	3.82	2.74	2.31
50-44B-20	22	44	5.99	4.79	3.99	2.88	2.44

Net

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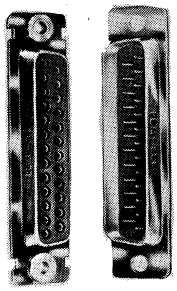
Cinch Jones Connectors

"D" SUBMINIATURE CONNECTORS



CINCH D Subminiature Connectors are designed for applications where space and weight are prime considerations. These high contact density connectors are especially well-suited for aircraft, missile and ground support installations. Although designed essentially for rack-and-panel installations, D series connectors may be adapted for cable attachment by means of accessory junction shells with integral clamps.

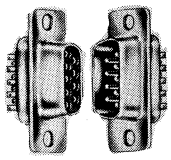
The original D series has two-piece nylon insulators and solder pot contact termination.

All D Subminiature connectors will inter-mate if insert arrangements correspond. These connectors are designed to meet or exceed most of the requirements of MIL-C-8384 Rev. B. Cinch current rating is 5 amps; military current rating is approximately 1.5 amp.

VOLTAGE RATINGS

Standard Layout Connectors measured from contact-to-contact, and contact-to-shell in unmated condition.

Connector Type		Altitude (feet)			
		Sea Level	20,000	50,000	70,000
D	Average Flashover	1700	1000	650	500
DSM	Test	1250	750	475	375

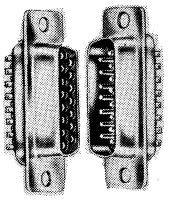


ORIGINAL "D" CONNECTORS (NYLON INSULATOR)

C-J No.	Contacts	Net Each, Lots of			
		10-49	50-99	100-249	250-499
DE-9P	9	.82	.74	.67	.59
DE-9S	9	1.21	1.10	.99	.88
DA-15P	15	1.09	1.00	.89	.80
DA-15S	15	1.61	1.47	1.33	1.18
DB-25P	25	1.61	1.47	1.33	1.18
DB-25S	25	2.63	2.42	2.19	1.97
DC-37P	37	2.22	2.01	1.81	1.61
DC-37S	37	3.31	3.01	2.70	2.41
DD-50P	50	2.89	2.64	2.37	2.11
DD-50S	50	4.31	3.92	3.53	3.14

STANDARD JUNCTION SHELLS

C-J No.	Net Each, Lots of		
	50-99	100-249	250-499
DAJ/S-19678-1	.53	.48	.42
DBJ/S-19678-2	.53	.48	.42
DCJ/S-19678-3	.74	.67	.59
DDJ/S-19678-4	.76	.68	.60

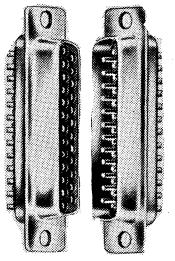


SCREW LOCK ASSEMBLIES

C-J No.	Net Each, Lots of		
	50-99	100-249	250-499
D-20418-2	.19	.17	.15
D-20419-0	.17	.15	.14
D-20420-0	.24	.22	.19

90° JUNCTION SHELLS

C-J No.	Net Each, Lots of		
	50-99	100-249	250-499
DA-90°J/S-19977-1	.68	.61	.54
DA-90°J/S-19977-2	.71	.64	.57
DA-90°J/S-19977-3	.75	.68	.60
DA-90°J/S-19977-4	.84	.75	.67
DA-90°J/S-19977-5	1.07	.96	.86



MARK I GOLDEN "D" CONNECTORS

Cinch golden D connectors have crimp, snap-in contacts in a monoblock, diallyl phthalate insulator for quick assembly in more critical applications. Voltage and current ratings are the same as for the D connectors.

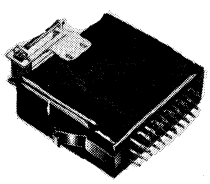
MARK I GOLDEN "D" CONNECTORS

C-J No.	Contacts	Net Each, Lots of			
		10-49	50-99	100-249	250-499
DEM-9P	9	1.40	1.27	1.14	1.02
DEM-9S	9	2.10	1.91	1.72	1.53
DAM-15P	15	1.96	1.79	1.62	1.43
DAM-15S	15	2.96	2.68	2.42	2.15
DBM-25P	25	2.99	2.72	2.45	2.17

C-J No.	Contacts	Net Each, Lots of			
		10-49	50-99	100-249	250-499
DBM-25S	25	5.05	4.59	4.13	3.67
DCM-37P	37	4.16	3.78	3.40	3.02
DCM-37S	37	6.25	5.69	5.12	4.55
DDM-50P	50	5.50	5.00	4.49	4.00
DDM-50S	50	8.26	7.52	6.76	6.01

HINGE CONNECTORS

No contact damage due to insertion and extraction. Maximum contact in minimum space; engaged with normal pressure. Simple locking device insures positive contact. Spring action contacts separate units after releasing the lock. Wiping contact action for clean contacts at all times. Castings are of black Bakelite, type CFG. Contacts are of phosphor bronze, cadmium plated (.0001). Current rating is 4.5 amps. **Alternate Lock:** For more secure locking, order Alternate Lock No. 37AL separately. It has a special device to prevent accidental unlocking. **Caps:** Furnished with formed fiber liners, nickel-plated cable clamps. Designed to take the alternate lock when required. Black wrinkle finish.

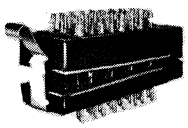


PLUG WITH LOCK

C-J No.	No. of Cont.	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
37-M20L	20	2.505	2.004	1.67	1.336	1.269
37-M30L	30	2.955	2.364	1.97	1.576	1.497
37-M40L	40	3.405	2.724	2.27	1.816	1.725
37-M50L	50	3.855	3.084	2.57	2.056	1.953
37-M60L	60	4.305	3.444	2.87	2.296	2.181
37-M70L	70	4.755	3.804	3.17	2.536	2.409
37-M80L	80	5.205	4.164	3.47	2.776	2.637
37-M90L	90	5.655	4.524	3.77	3.016	2.865
37-M100L	100	6.105	4.884	4.07	3.256	3.093

SOCKET WITH LOCK

C-J No.	No. of Cont.	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
37-F20L	20	2.505	2.004	1.67	1.336	1.269
37-F30L	30	2.955	2.364	1.97	1.576	1.497
37-F40L	40	3.405	2.724	2.27	1.816	1.725
37-F50L	50	3.855	3.084	2.57	2.056	1.953
37-F60L	60	4.305	3.444	2.87	2.296	2.181
37-F70L	70	4.755	3.804	3.17	2.536	2.409
37-F80L	80	5.205	4.164	3.47	2.776	2.637
37-F90L	90	5.655	4.524	3.77	3.016	2.865
37-F100L	100	6.105	4.884	4.07	3.256	3.093



PLUG WITHOUT LOCK

C-J No.	No. of Cont.	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
37-M20	20	2.25	1.80	1.50	1.20	1.14
37-M30	30	2.70	2.16	1.80	1.44	1.368
37-M40	40	3.15	2.52	2.10	1.68	1.596
37-M50	50	3.60	2.88	2.40	1.92	1.824
37-M60	60	4.05	3.24	2.70	2.16	2.052
37-M70	70	4.50	3.60	3.00	2.40	2.28
37-M80	80	4.95	3.96	3.30	2.64	2.508
37-M90	90	5.40	4.32	3.60	2.88	2.736
37-M100	100	5.85	4.68	3.90	3.12	2.964

SOCKET WITHOUT LOCK

C-J No.	No. of Cont.	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
37-F20	20	2.25	1.80	1.50	1.20	1.14
37-F30	30	2.70	2.16	1.80	1.44	1.368
37-F40	40	3.15	2.52	2.10	1.68	1.596
37-F50	90	3.60	2.88	2.40	1.92	1.824
37-F60	60	4.05	3.24	2.70	2.16	2.052
37-F70	70	4.50	3.60	3.00	2.40	2.28
37-F80	80	4.95	3.96	3.30	2.64	2.508
37-F90	90	5.40	4.32	3.60	2.88	2.736
37-F100	100	5.85	4.68	3.90	3.12	2.964

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Sockets and Terminal Strips

SOCKETS FOR SPECIAL PURPOSE TUBES

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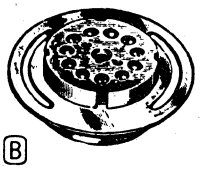
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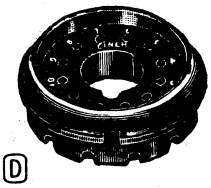
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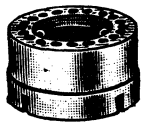
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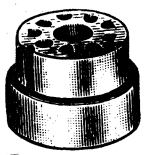
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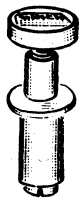
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14-PRONG DIHEPTAL (FIG. A)

Molded from high dielectric black Bakelite* or mica-filled low loss Bakelite. Same features as No. 3M11. Size: 2 7/32" w. x 1 1/16" h.
*Bakelite Corp. trademark.

C-J No. 3B14—Black Bakelite diheptal socket.
C-J No. 3M14—Mica-filled Bakelite diheptal socket.

MODEL 3M11 11-PRONG MAGNAL (FIG. B)

Molded from mica-filled low loss Bakelite. Full floating silver-plated beryllium copper contacts insure easy insertion of tubes and provide excellent electrical connections. For use with 5BP1 and 2AP1 cathode ray tubes. Size: 1 33/64" w. x 1 1/64" h.

MOUNTING RINGS

C-J No. 3R11—Steel mounting ring for No. 3M11.
C-J No. 3R14—Steel mounting ring for Nos. 3B14 and 3M14.

MODEL 3A1 SECOND ANODE CONNECTOR (FIG. C)

Snap over .096" dia. prong on side of diheptal tubes. Cadmium-plated brass contact surrounded by rubber insulator. Size, 3/4" w. x 1 1/4" lg.

12-PRONG DUODECAL (FIG. D)

Slightly larger in diameter than the tube base and only slightly longer than the tube pin. Integral wire strain relief contact. For use with 10BP4, 2BP1, 5TP4, etc. type tubes. Also RCA 6199 tube.
C-J No. 3B12—Bakelite duodecal socket.
C-J No. 3M12—Mica duodecal socket.

MODEL 20-PM PHOTO-MULTIPLIER (FIG. E)

Twenty-contact socket for RCA photo-multiplier tube Nos. 6810, C7187A, C7122 and 7265. Casting material is MAI-60 Alkyd Glass Fiber, JETEC No. is 20-120. Contacts are cadmium-plated brass.

MODEL 7-VT VIDICON (FIG. F)

Seven-contact socket for RCA vidicon tube Nos. 6198 and 7038. Casting material is mica. Contacts are silver-plated phosphor bronze. JETEC No. is E8-11.

MODEL 8-VT VIDICON (FIG. F)

Same as Model 7-VT, except eight-contact size.

NUVISTOR SOCKETS

Five-contact sockets. Socket body is of low-loss phenolic insulation (MFE). Cadmium-plated cold-rolled steel saddle. Contacts are of copper alloy with cadmium plating.
C-J No. 5NS (Fig. G)—Crimp-mounting type. Fastened to chassis by two tabs.
C-J No. 5NS-1 (Fig. H)—Conventional-mounting type. Mounts with screws, eyelets, rivets or self-tapping screws. Any #2 screw or 1/16" dia. rivet with head dia. of up to .190" may be used.
C-J No. 5NS-2 (Fig. I)—Standoff type. For printed circuit applications. Has two grounding terminals.
C-J No. 5NS-3 (Fig. J)—Heat dissipating type. Has fingered-style base. Reduces envelope temperature.

MODEL TP-1 NUVISTOR TUBE PULLER* (FIG. K)

Unique device for removing Nuvistor tubes from their sockets without scratching them. Size: Approximately 2 1/2" h. x 1" w.
*Patent Pending.

PRICING FOR SOCKETS AND PULLER

C-J No.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
3A1	List Price				$0.90*
3B12	$0.60	$0.48	$0.40	$0.32	.304
3B14			1.05	.84	.798
3M11	4.50	3.60	3.00	2.40	2.28
3M12	1.80	1.44	1.20	.96	.912
3M14			1.10	.88	.836
3R11	.30	.24	.20	.16	.152
3R14					.266
5NS	.138	.138	.138	.069	.069
5NS-1	.213	.213	.213	.1065	.1065
5NS-2	List Price				.70*
5NS-3				.0743	.0743
7-VT	2.10	1.68	1.40	1.12	1.064
8-VT	List Price				2.80*
20-PM	5.003	4.002	3.335	2.668	2.535
TP-1	.79	.79	.79	.79	.79

PRINTED CIRCUIT SOCKETS

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PRINTED CIRCUIT MINIATURE SOCKETS

C-J No. 7PC-B (Fig. A)—Seven-pin, brass contacts with hot-solder-coated finish. General purpose black phenolic casting. Special tabs prevent tube shields from contacting the printed wire chassis. Center shields provide mechanical retention of the socket in the chassis.
Net Each, Lots of 1-99.....**6.3c**; 100-999.....**3.15c**

C-J No. 7PC-B1 (Fig. A)—Same as 7PC-B but without center shield or tabs.
Net Each, Lots of 1-99.....**7.1c**; 100-999.....**3.5c**

C-J No. 7PC-B4 (Fig. B)—Seven-pin, brass contacts with hot-solder-dipped finish. Molded of general purpose black phenolic. No center shield. List Price.....**16.5c***

C-J No. 7PC-M4 (Fig. B)—Same as 7PC-B4, except molded of mica-filled, low-loss phenolic. List Price.....**16c***

C-J No. 7PC-B5 (Fig. B)—Same as 7PC-B4, except has brass center shield, hot-solder-dipped. List Price.....**16.5c***

C-J No. 7PC-M5 (Fig. B)—Same as 7PC-M4, except has brass center shield, hot-solder-dipped. List Price.....**23c***

PRINTED CIRCUIT NOVAL SOCKETS

C-J No. 9PC-B (Fig. C)—Same as 7PC-B but 9-pin noval.
Net Each, Lots of 1-99.....**8.58c**; 100-999.....**4.29c**
C-J No. 9PC-B1 (Fig. C)—Same as 7PC-B1 but 9-pin noval.
Net Each, Lots of 1-99.....**9.5c**; 100-999.....**4.7c**
C-J No. 9PC-B4 (Fig. D)—Same as 7PC-B4, but 9-pin noval.
List Price.....**19c***
C-J No. 9PC-M4 (Fig. D)—Same as 7PC-M4, but 9-pin noval.
List Price.....**19.5c***
C-J No. 9PC-B5 (Fig. D)—Same as 7PC-B5, but 9-pin noval.
List Price.....**20.5c***
C-J No. 9PC-M5 (Fig. D)—Same as 7PC-M5, but 9-pin noval.
List Price.....**22c***

PRINTED CIRCUIT SOCKETS WITH SHIELD BASES

C-J No. 7PC-M2 (Fig. E)—Seven-pin miniature standoff socket. Has an attached bayonet type shield base with ground tab. For use with 1/16" printed circuit boards. Castings are low-loss mica-filled phenolic (MFE). Contacts are phosphor bronze with a hot-tinned finish. Center shield and ground tab are brass, hot-tinned and base, nickel-plated brass.
Net Each, Lots of 1-99.....**$0.948**; 100-999.....**$0.474**
C-J No. 9PC-M2 (Fig. F)—Same as 7PC-M2 but 9-pin noval.
Net Each, Lots of 1-99.....**$1.17**; 100-999.....**$0.585**

Net
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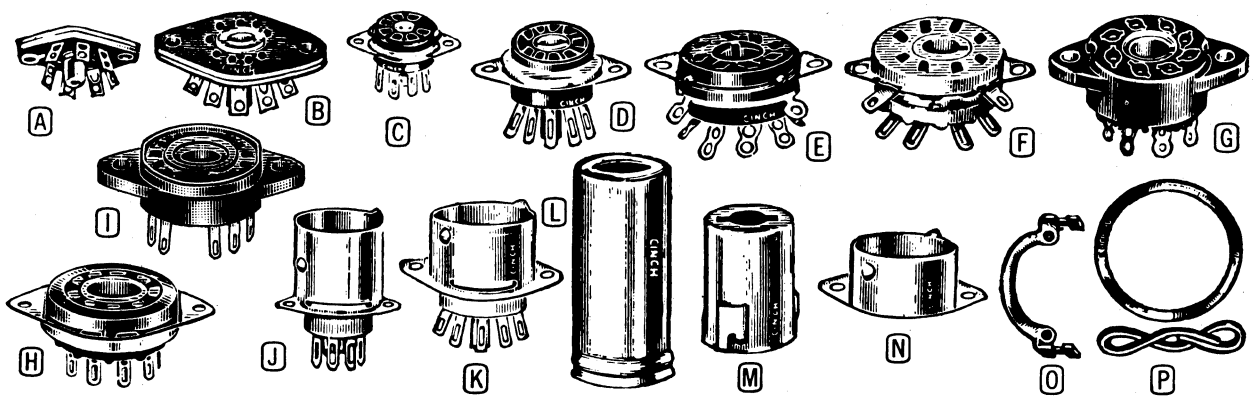
Tube Sockets, Accessories



WAFER TYPE SOCKETS

Cadmium-plated brass contacts; hot-solder-coated center shield.

C-J No.	Fig.	Description	Mtg. Ctrs.	Net Ea., Lots 1-99	Net Ea., Lots 100-999
7W2A	A	7-pin miniature. Chocolate XP Bakelite* laminations.	7/8"	6.8c	3.4c
7WL2	A		1"	6.8c	3.4c
7WL4	A		1 5/8"	8c	4c
9W1	B	9-pin miniature	1 1/8"	8.4c	4.2c
9W2	B	9-pin miniature	1 5/16"	9.3c	4.7c

*Bakelite Corp. trademark.

SADDLE TYPE SOCKETS

C-J No.	Fig.	Description	Mtg. Centers	Mounting	Net Each, Lots of 1-99	Net Each, Lots of 100-999
7EB	C	Black	7/8"	Bottom	9.4c	4.7c
7EC	C	Ceramic	7/8"	Bottom	.....	17.5c
7EM	C	Mica	7/8"	Bottom	11.3c	5.6c
7AB1	C	Black	7/8"	Top	List...	15.5c
7AM1	C	Mica	7/8"	Top	11.3c	5.6c
9EB	D	Black	1 1/8"	Bottom	12.5c	6.2c
9EM	D	Mica	1 1/8"	Bottom	14.5c	7.2c
9AB	D	Black	1 1/8"	Top	List....	19.9c*
9AM	D	Mica	1 1/8"	Top	List....	24c*
8AB	E	Black	1 5/16"	Bottom	List....	15c*
8AM	E	Mica	1 5/16"	Bottom	List....	20.1c*
8EB	E	Black	1 1/2"	Bottom	10.2c	5.1c
8EM	E	Mica	1 1/2"	Bottom	12.9c	6.5c

MIL-S-12883A SADDLE TYPE SOCKETS

MIL Type: 7-pin, TS102P03 (MFE), TS102C03 (ceramic); 9-pin, TS103P03 (MFE), TS103C03 (ceramic). Bottom mounting.

C-J No.	Fig.	Description	Mtg. Ctrs.	Mounting Holes	Net Each, Lots of 100-999
7JM-3	C	MFE	7/8"	.125" dia.	8.3c
7JC-3	C	Ceramic	7/8"	.125" dia.	14.3c
9JM-3	D	MFE	1 1/8"	.125" dia.	9.8c
9JC-3	D	Ceramic	1 1/8"	.125" dia.	16.5c

MIL MOLDED OCTAL SOCKETS (FIG. F)

Castings of molded thermosetting plastic (MFE). Silver-plated phosphor bronze contacts, with heavy tinned tails. Heavy brass saddle, hot-soldered-coated, with four hot tinned ground lugs. Mounting centers, 1 1/2".

C-J No.	MIL-S-12883A No.	Mtg. Hole, In.	Net Each, Lots of 1-99	Net Each, Lots of 100-999
8JM-2	TS101P01	.156 dia.	35.4c	17.7c
8JMN-2	TS101P02	6-32 tap	54c	27c

ALL-MOLDED OCTAL SOCKETS (FIG. G)

All-molded octal socket offers complete one-piece construction; the saddle and body are a single casting. The standard socket is molded of high dielectric black Bakelite. Contacts are brass, cadmium plated. No. 8XM mica filled phenolic insulation, prevents loss from leakage. Mounting holes, .144" dia. on 1 5/16" centers.

C-J No. 8XM Socket—Mica.
Net Each, Lots of 1-99.....**13.2c**; 100-999.....**6.6c**

C-J No. 8XB Socket—Black. List Price.....**14.5c***

NOVAR SOCKETS (FIG. H)

Molded from high dielectric black phenolic (CFG) or mica-filled, low loss phenolic. Top or bottom mounting. Cadmium-plated brass contacts. Mounting centers, 1 1/2".

Bottom Mounting			Top Mounting		
C-J No.	Type	List Pr.*	C-J No.	Type	List Pr.*
9NS-B	Black	22.5c	9NS-B1	Black	25.0c
9NS-M	Mica	27.5c	9NS-M1	Mica	30.0c

MODEL 8RO RETAINER RING (FIG. P)

A crimped retaining ring formed of .020" spring steel. Will securely anchor sockets designed for ring mounting. Standard finish is cadmium.

C-J No. 8RO—Net Each, Lots of 1-99..**3.5c**; 100-999....**1.7c**

COMPACTRON SOCKETS (FIG. I)

All-molded sockets for compactron tubes. High dielectric black phenolic (CFG) or mica-filled, low loss phenolic. Available in 12-contact or high voltage eight contact sizes. Mtg. ctrs., 1 5/16".

C-J No.	No. of Contacts	Description	Net Each, Lots of 50-99	Net Each, Lots of 100-249	Net Each, Lots of 250-499
8CS-B	8	Black	29.5c	23.6c	22.4c
8CS-M	8	Mica	32c	25.6c	23c
12CS-B	12	Black	36c	28.8c	27.4c
12CS-M	12	Mica	38.5c	30.8c	29.3c

SHIELD BASE TYPE SOCKETS

MINIATURE AND NOVAL TYPES

Miniature (Fig. J): Mtg. holes, .125" dia. on 7/8" mounting centers.
Noval (Fig. K): Mtg. holes, .093" dia. on 1 1/8" mounting centers.

Description	C-J No.	Fig.	Net Ea., Lots of 1-99	Net Ea., Lots of 100-999	C-J No.	Fig.	Net Ea., Lots of 1-99	Net Ea., Lots of 100-999
Black	7XB1	J	List...	25.5c*	9XB	K	20.9c	10.4c
Mica	7XM1	J	19.3c	9.6c	9XM	K	List...	37.8c*
Ceramic	7XC	J	33c	16.5c	9XC	K	35.7c	17.9c

MIL-S-12883A TYPE SOCKETS

Mounting centers, 7-pin, 7/8"; 9-pin, 1 1/8".

C-J No.	Fig.	MIL-S-12883A No.	Description	Net Each, Lots of 100-999
7JC-2	J	TS102C01	Ceramic	11.6c
7JMN-1	C	TS102P02	MFE	8.3c
7JM-2	J	TS102P01	MFE	9.8c
7JCN-1	C	TS102C02	Ceramic	14.3c
9JM-2	K	TS103P01	MFE	12.6c
9JMN-1	D	TS103P02	MFE	9.8c
9JC-2	K	TS103C01	Ceramic	19.4c
9JCN-1	D	TS103C02	Ceramic	16.5c

J-SLOT TUBE SHIELDS (FIG. M)

C-J No.	Description	Length, Inches	Net Each, Lots of 1-99	Net Each, Lots of 100-999
7S2	Steel	1 3/8	11c	5.5c
7S3	Steel	1 3/4	11.6c	5.8c
7S4	Steel	2 1/4	17.8c	8.9c
7SJ2-1	MIL*, brass	1 3/8	14.3c	7.2c
7SJ3-1	MIL*, brass	1 3/4	16.1c	8c
7SJ4-1	MIL*, brass	2 1/4	17.8c	8.9c
9S1	Steel	1 1/2	16.3c	8.2c
9S2	Steel	1 15/16	16.4c	8.2c
9S3	Steel	2 3/8	29.9c	15c
9SJ1-1	MIL*, brass	1 1/2	17.6c	8.8c
9SJ2-1	MIL*, brass	1 15/16	19.3c	9.7c
9SJ3-1	MIL*, brass	2 3/8	21.1c	10.5c

*JAN-S-28A.

SNAP ON TYPE TUBE SHIELD (FIG. L)

C-J No. 7S1—Size: 1 53/64" h.
Net Each, Lots of 1-99.....**9c**; 100-999.....**4.5c**

SHIELD BASES

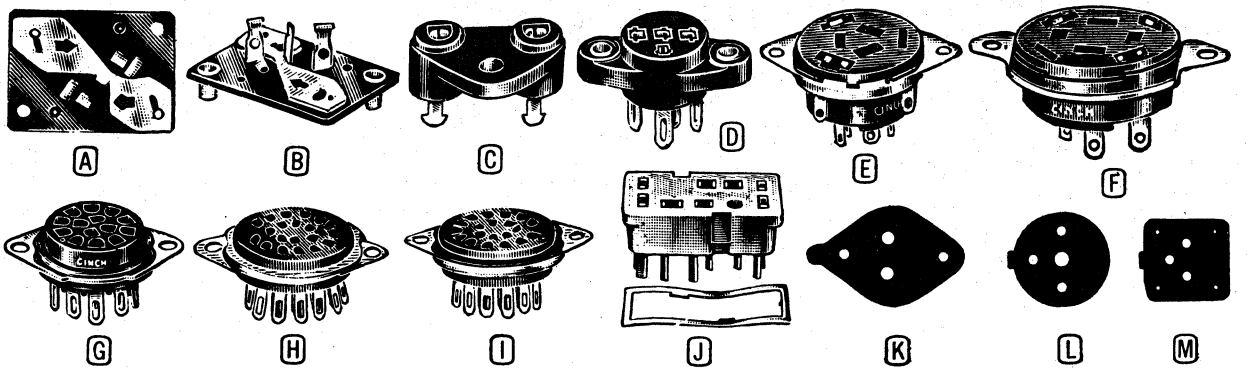
C-J No.	Fig.	Dimensions, In. H.	Mtg. Hole	Mtg. Ctrs.	Material	Net Each, Lots of 1-99	Net Each, Lots of 100-999
7SB1	N	3/8	.125 dia.	7/8	Steel	5.4c	2.7c
7SB2	N	3/8	.125 dia.	7/8	Brass	7.2c	3.6c
9SB1	N	....	1/8 dia.	1 1/8	Steel	7.2c	3.6c

STRAP NUTS (FIG. O)

C-J No. 7SN—Cadmium-plated brass strap nuts for use in mounting sockets with saddles or shield bases. One strap nut takes the place of two conventional type nuts. Mounting centers, 7/8". For 7-contact sockets. Ground lugs are hot-solder-dipped.
Net Each, Lots of 1-99.....**16.8c**; 100-999.....**8.4c**

C-J No. 9SN—Same as Model 7SN except mounting centers are 1 1/8" and are for 9-contact sockets.
Net Each, Lots of 1-99.....**18.3c**; 100-999.....**9.2c**

Sockets for All Purposes



POWER TRANSISTOR SOCKETS

LAMINATED TYPE

C-J No. 2TS-1 (Fig. A)—Top and bottom plates are of natural XP Bakelite*, vacuum wax impregnated. Contacts are of brass, cadmium plated. Formed thread for 6-20 screw. Has .104/.110" dia. hole in CR steel plate. Provides easy attachment to a heat sink. List Price.....**15c***

C-J No. 2TS-2 (Fig. B)—Identical with above except equipped with integral eyelets for easy assembly to chassis.
Net Each, Lots of 1-99.....**10.7c**; 100-999.....**5.4c**
*Bakelite Corp. trademark.

MODEL 2TS-3 MOLDED TYPE (FIG. C)

Molded power transistor socket. Casting is molded of general purpose Bakelite. Contacts are phosphor bronze, cadmium plated. Mounting holes are .098" dia.; mounting centers are .425/.435".
C-J No. 2TS-3—Net Each, Lots of 1-99, **9c**; 100-999, **4.5c**

MODEL 2TS-4 GENERAL PURPOSE (FIG. D)

This new transistor socket was originally designed for an all-transistor television set; however, its future applications are many. This socket may be used in industrial communications, test equipment, ham gear, etc. Socket has a triangular base layout with 0.2" by 0.1" (JETEC-30) contact centers, as well as three contacts in line (.048" by .192" contact centers). Casting is molded of general purpose Bakelite; contacts are phosphor bronze, cadmium plated. May be used with the following EIA base designations: E3-14, E3-15, E3-25, E3-32, E3-38, E3-39, E3-42, E3-43, E3-44, E3-51, E3-53, E4-13, E4-24, E4-31, E4-43, E4-52, ET-103-D.
C-J No. 2TS-4—List Price.....**25.5c***

CAPACITOR "PLUG-IN" SOCKETS

C-J No. 2C5 (Fig. E)—Designed for use with Mallory and Magnavox 1" FP type capacitors. Molded from high dielectric black Bakelite. Sturdy steel mounting saddle has four ground lugs. Mounting centers, 1½". Three recessed center contacts for extended prongs of capacitor and two outer contacts flush with surface for short prongs of capacitor. All contacts are cadmium plated for fast, easy soldering.
Net Each, Lots of 1-99.....**43.5c**; 100-999.....**21.8c**

C-J No. 2C7 (Fig. F)—Designed for use with Mallory and Magnavox 1⅜" FP type capacitors. Molded from high dielectric black Bakelite. Sturdy cadmium-plated steel saddle has 1 27/32" mounting centers. Four recessed center contacts for extended prongs of capacitor and three outer contacts flush with surface for short prongs of capacitor. All contacts are cadmium plated.
Net Each, Lots of 1-99.....**67.8**; 100-999.....**33.9c**

RELAY SOCKETS

SERIES 14RS RELAY SOCKETS (FIG. G)

C-J No. 14RS—Bottom-mount, 14-contact type with mica-filled, low-loss Bakelite casting. Beryllium-copper contacts silver-plated with hot-tinned tails. Saddle length 1 11/32". Mounting centers, 1⅛". Net Each, Lots 1-99....**$0.738**; 100-999.....**$0.369**

C-J No. 14RS-2—Same, but top mount instead of bottom mount.
Net Each, Lots of 250-999.....**$0.369**

MODEL 20RS TOP MOUNTED RELAY SOCKET (FIG. H)

A 20-pin top-mounted relay socket. Contacts are of beryllium copper, silver-plated with hot tinned tails. Steel saddle, cadmium plated; 1 5/16" mounting centers.
C-J No. 20RS—Net Each, Lots of 1-99, **$1.68**; 100-999, **$0.84**

BOTTOM-MOUNTED RELAY SOCKETS (FIG. I)

C-J No. 20RS-1—A 20-contact relay socket with mica-filled low-loss Bakelite casting. Contacts are of beryllium copper, silver-plated with hot-tinned tails. Mounting centers, 1 5/16".
Net Each, Lots of 1-99.....**$1.68**; 100-999.....**$0.84**

C-J No. 14RS-1—A 14-contact relay socket. Same as above except contacts 15 to 20 are omitted.
Net Each, Lots of 1-99.....**$1.32**; 100-999.....**$0.66**

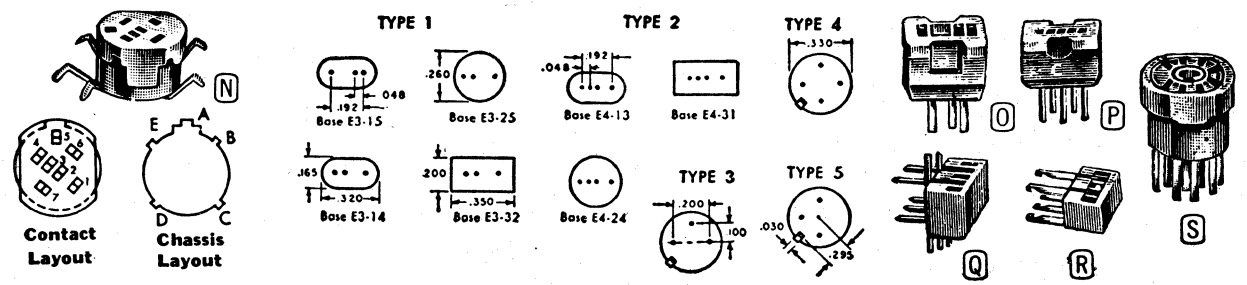
C-J No. 16RS-1—A 16-contact relay socket. Same as Model 20RS-1 except contacts 15, 17, 18 and 20 are omitted.
Net Each, Lots of 1-99.....**$1.44**; 100-999.....**$0.72**

MODEL 8RS RELAY SOCKET (FIG. J)

This relay socket is molded of mica filled phenolic and is attached to the chassis with a cold rolled steel clip that is cadmium plated. The contacts are beryllium copper, silver-plated. Mounting clip 20731 furnished with each socket. This socket fits the following relays: Advance MV-2C, AEMCO 95-3274, Brubaker K110A, Filtors P.26.A1.P.6A, G.E. D200A and G-203A, Potter & Brumfield SL and Ace Relay No. 50-6-A (single contact type).
C-J No. 8RS—Net Each, Lots of 1-99, **45c**; 100-999, **22.5c**

POWER TRANSISTOR HEAT SINKS

Hard anodized aluminum insulator wafers for use with power transistors. Feature high thermal conductivity, high dielectric resistance, high abrasion resistance and high corrosion resistance.
C-J No. 2W-1 (Fig. K)—For Motorola transistors 2N179, 2N176 and 2N554.
C-J No. 2W-2 (Fig. L)—For Delco transistor 2N174.
C-J No. 2W-3 (Fig. M)—For Texas Instruments transistor 2N389.
Any Model Listed Above—Net Each, Lots of 1-24, **31.5c**; 25-49, **25.2c**; 50-99, **21c**; 100-249, **16.8c**; 250-499, **16c**; 500-999, **15.1c**



UNIVERSAL TRANSISTOR SOCKETS (FIG. N)

Universal transistor socket that can be used with all transistor bases shown in illustration above. Casting is of mica-filled phenolic (MFE). Contacts are beryllium copper and are gold plated. Contacts may be used with either one or two-sided 1/16" printed circuit boards.

C-J No.	Base Types	Tabs Used (See Diag.)	Cont. Pos. Used	Net Ea., Lots of 1-99	100-999
7UTS	All	A, B, C, D, E	1, 3, 4, 7	67.5c	33.8c
7UTS-1	1 and 3	C, D, E	1, 3, 4, 7	45c	22.5c
7UTS-3	3	C, D, E	1, 4, 7	40.5c	20.25c
7UTS-4	4	A, B, C, D, E	1, 4, 5, 6, 7	54c	27c
7UTS-5	5	B, D, E	1, 6, 7	40.5c	20.25c
7UTS-6	1 and 3	C, D, E	1, 3, 4, 7	45c	22.5c

SUBMINIATURE TUBE SOCKETS

Use extensively for hearing aids, radios and other electronic apparatus. Molded from mica-filled low loss Bakelite with silver-plated beryllium copper contacts. No. 2H5 can be used for four prong tube or as a transistor socket. No. 5PC for printed circuits. No. 5WC for wired circuits.

C-J No.	Pin	Fig.	Net Ea., Lots of 1-99	100-999	C-J No.	Pin	Fig.	Net Ea., Lots of 1-99	100-999
2H3*	3	O	20.8c	10.4c	5PC	5	Q	39.6c	19.8c
2H5*	5	P	22.4c	11.2c	5WC	5	R	37.6c	18.8c
2H6*	6	...	29.8c	14.9c	8SM*	8	S	42c	21c
2H7*	7	...	31c	15.5c	8SM-P†	8	...	54c	27c

*Mounting ring included. †No. 8SM with a mounting plate.

Net
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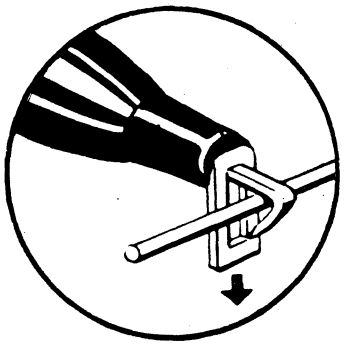
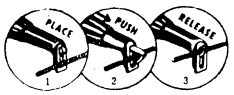
E-Z-HOOK

TEST AND PRODUCTION CONNECTORS

• CLIPS • ADAPTERS • TEST LEADS • PROBES



- **Instantly connects anywhere — Won't cut or nick.**
- **Won't short or jump off — Leaves your hands free.**
- **Saves time and temper — Money back guarantee.**



Patented hook tip connects anywhere. 1. Push to connect. 2. Push again to remove.

U.S. PATENT No. 2702892

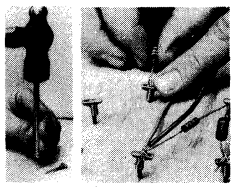
HARNESS BOARD CLIPS

- **Save Up to 30% in Board Construction Time!**
- **Speeds wiring... Improves Quality**

No need to waste valuable time drilling holes, placing screws, nuts, & washers. The "Nail" Clip drives into wood like a nail! Pulls out as easy. Make Eng. Changes in seconds. Use them to speed Processing—Save Construction & Production time.

Easy finger-tip operation speeds wire placing — makes it easier. Patented E-Z-HOOK holds firmly —won't cut nick or damage wire ends. L. 1 3-16". Made of tough Stainless Steel and Durable Nylon.

... Over 62,000 used by Company X ...



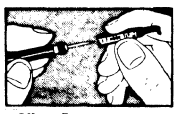
E-Z-HOOK "Nail" Clips

No. 81-1	E-Z-HOOK "Nail" Clip (Use T-20 Tool) 24¢ ea.	10 for 1.98
No. K8150T-1	"Nail" Clip Kit (50 Clips, Tool & Instr.) Wt. 2 oz.	ea. 8.95
No. T-20	E-Z-HOOK "Nail" Clip Driving Tool Wt. 1-3 oz.	ea. .35

TEST PROD TIP ADAPTERS

- **For testing as you like it**
- **Sharp point to an E-Z-HOOK in seconds**

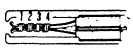
Handiest, most trouble-free adapter you can get. Convenient E-Z-HOOK Tip slips easily on, or off, — in seconds! Doubles regular test prod utility, 1. as a sharp point for probing, 2. as an extra hand when needed.



Slips Easily On—Off

Safer, too! . . . remote connections made easily while your hand stays out in the clear — safe from shock.

A smart investment in trouble-free design. Exclusive spring chuck eliminates loose, wobbly fit on Prod . . . insures pleasant, irritation-free performance.



Trouble Eliminator
4 springs insure firm grip

... Over 12,300 used by Company Y ...

Made of rust-proof Stainless Steel, Brass, and tough Zytel Nylon in Red, Black, Blue, Green, Orange, and Yellow. Lgth. 2 1-16", O.D. 19-64", Wt. 1-8 oz.

No. 55-0	E-Z-HOOK	Tip	(Needle—.060")	ea.	.69
No. 56-1	E-Z-HOOK	Tip	(Standard—.080")	ea.	.69
No. 57-10	E-Z-HOOK	Tip	(Tec—10-32 female thread)	ea.	.69
No. 59-4	E-Z-HOOK	Tip	(Banana—Standard.)	ea.	.69

PART SUBSTITUTION CLIPS

- **Eliminate Guessing**

You can be sure!—when you substitute, and this E-Z-H Sub is just the thing to use . . . quick, easy, temporary connections in seconds . . . no lead twisting or solder tacking to damage parts or wiring. Speeds trouble-shooting, makes it easier . . . saves hours and dollars in valuable production time and material.

Solderless Clips
Eliminate Broken Lugs

Long-lasting Zytel Nylon and tough Stainless Steel. In colors for easy lead identification: Red, Black, Blue, Green, Orange, and Yellow. Length 2 1-2", O.D. 19-64", Weight. 1-12th oz.

No. 71-1	E-Z-HOOK	Sub	ea.	.49

JUMPER - METER CLIPS

- **Convert needless delays . . . to pleasant productive checks**

Let carefree E-Z-HOOK Clips help speed your checks . . . make it easier. They quickly pay for themselves in savings.

Easy slip-on design saves in assembly and maintenance . . . safe solder connection and strain relief assures longer trouble-free lead life.

. . . Over 37,000 used by Company Z . . .

Made of tough Stainless, durable Nylon in colors for easy lead identification: Red, Black, Blue, Green, Orange, Yellow. Lgth. 2 1-8", OD 5-8", Wt. 1-13 oz.

No. 61-1	E-Z-HOOK	Clip	(Standard)	ea.	.39
No. 61-2	E-Z-HOOK	Clip	(Gold Plated)	ea.	.59

Miniature CLIP & LEADS

- **Make Impossible Connections . . . Easy**

Now enjoy famous E-Z-HOOK reliability and performance on your small, sub-miniature jobs, too. Easily make test connections never before possible.

Tiny E-Z-HOOK with the new "Hypo Action" gives you the small size and positive control needed to make such tedious work easier, more efficient, pleasant and profitable.

FULL SIZE

Use "Q" Balls two ways—1, as a versatile low voltage test connector, 2. as a tiny mechanical hand to handle small parts. Will save you hours of unnecessary delays and aggravation.

Durably constructed of the finest materials—Red Nylon insulation, Stainless Steel spring, & Beryllium Copper conductor to assure reliable performance.

Also available on 32" —Ready-to-Plug-In—Test Leads of flexible Red and Black striped, 24 AWG (19-36) thermoplastic wire—Standard or Banana Tip.

Over all length 2 1-4". Maximum width at hook only .079". Wt. 1-6th oz.

No. X-100	E-Z-HOOK 'Q' Ball Mini-HOOK	(No lead)	ea.	.49
No. AX-1	E-Z-HOOK 'Q' Ball Test Lead	(32" — Std. Tip)	ea.	.89
No. BX-1	E-Z-HOOK 'Q' Ball Test Lead	(32"—Ban. Tip)	ea.	.94

SCOPE - METER PROBES

- **Now—Special Probes assembled in minutes**

Custom PROBE

Never before such efficiency and convenience in a replacement probe . . . SPECIAL TERMINALS speeds assembly, makes it easier . . . E-Z-HOOK for easy time-saving care-free connections . . . SCREW-ON COVER for ready access and repair . . . STRAIN-RELIEF prolongs life of single or shielded leads.

Built-In Terminals
For easy assembly

For Professional or Production use. Finest streamlined feather-weight construction of rust proof Stainless, durable Zytel Nylon (slide), tough Tenite (body) in Red, Black, Blue, Green, Orange, & Silver. Lgth. 4 3-4", O.D. 15-32", Wt. 1-3 oz.

No. 54-1	E-Z-HOOK	Custom PROBE		ea.	.89
No. 54-2	E-Z-HOOK	Custom PROBE	(Gold Plated)	ea.	1.09

LET THEM HELP YOU CUT YOUR COSTS

To Order:- Order E-Z-HOOKs from your convenient Parts Distributor.
Factory Delivery:- Usually shipped -via Parcel Post- within 10 days.
Terms:- Rated Firms -- 2% 10th E.O.M. - Net 30 Days E.O.M. F.O.B. Covington, Ky.
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E-Z-HOOK Test Products

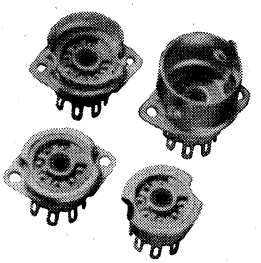
E-Z-HOOK TEST PRODUCTS

ELCO™ DISTRIBUTOR DIVISION
ELCO CORPORATION

JOIN THE "RELIABLES" BY RELYING ON ELCO PRODUCTS . . . world's standard of comparison for proven performance! Available from your Authorized ELCOneer Distributor together with engineering aid.

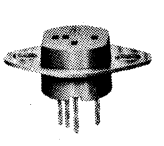
ELCO SOCKETS

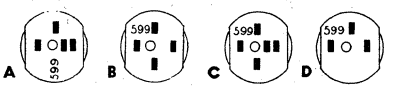
Commercial and MIL Types E-Z MATE* SOCKETS
(Patented)
7-Pin and 9-Pin Miniature Models



CONFORMING TO MIL-S-12883-A, our exclusive, patented E-Z MATE* design will be found in all our 7-Pin and 9-Pin Base-Shield and Saddle Type Sockets (except Ceramic). This ingenious design provides a positioning-key at the top of the socket which permits the tube to "find" its correct insertion point without loss of time or pin damage. And by virtue of the E-Z MATE* feature, tube locations may now be designed into "blind" or formerly inaccessible positions.

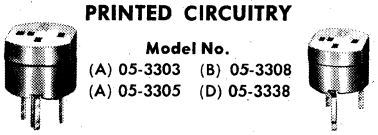
Series 05-3300 COMBINATION TRANSISTOR SOCKETS





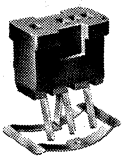
Model No.	Saddles	Mtg. Rings	Material: Mica Contacts:
(A) 05-3301	Flat		Beryllium, Copper, Gold Flashed over Silver Plate
(A) 05-3304		65-47202	
(B) 05-3307		65-47202	
(C) 05-3313		65-47202	

Series 05-3300 COMBINATION TRANSISTOR SOCKETS STANDOFF TYPE for PRINTED CIRCUITRY



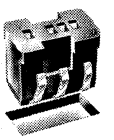
Model No.
(A) 05-3303 (B) 05-3308
(A) 05-3305 (D) 05-3338

3 and 4 PIN FLAT IN-LINE SOCKETS



3-Pin—for Point Contact Type and Junction Type Transistors. 4-Pin—for Linotetrar Type Transistors.

	Model No.	Mounting Rings
Mica filled casting, beryl, copper contacts	3-Pin, 05-0799	3-Pin, 65-0777
	4-Pin, 05-0803	4-Pin, 65-0777



PRINTED CIRCUIT SUB-MINIATURE SOCKETS

	Model No.
3-Pin	05-0786
4-Pin	05-0805

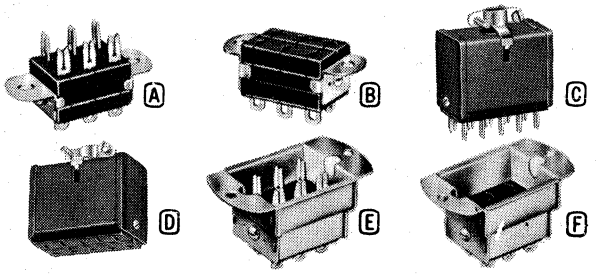
RIGHT-ANGLE PRINTED CIRCUIT SOCKETS

Model No.— with Continuous Contacts
05-4006 7-pin without shield base
05-4007 7-pin with shield base
05-4008 9-pin without shield base
05-4009 9-pin with shield base

Mica filled insulator, beryllium copper contacts, silver plated. Useable for 1/16 or 3/32 printed circuit cards.

FOR COMPLETE DATA, CONTACT YOUR ELCO DISTRIBUTOR FOR OUR TUBE-SOCKET CATALOG

ELCO VARICON* Connectors



ELCO VARICON* Connectors provide the most positive contact under all operating conditions. Contacts in use are always under pressure; cannot be over-stressed or over-strained. Have nickel-silver contacts. Covers have blue-black vinyl finish. U. L. Approved. Current Rating: 9 amps, 115 v., 30°C temperature rise. Voltage rating: 2000 volts at sea level. Contact resistance: .007 ohm.

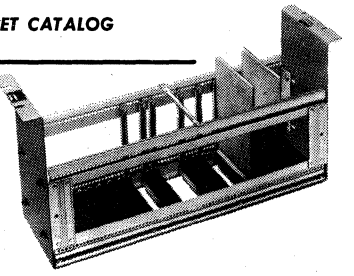
SINGLE TIER WITH STANDARD BRACKETS (FIGS. A, B)
Available in double tier for 20, 24, 28, 32 and 36 contacts. Plug type (Fig. A) mates with receptacle type (Fig. B) and Cover Type (Fig. D); (see other listings). Receptacle unit also mates with Cover Type (Fig. C.)

SINGLE TIER WITH COVERS AND CLAMPS (FIGS. C, D)
Plug unit (Fig. C) mates with receptacle unit (Fig. D), plus standard bracket type (Fig. B) and recessed housing type (Fig. F). Receptacle unit also mates with standard bracket type (Fig. A) and recessed housing type (Fig. E).

SINGLE TIER WITH RECESSED. HOUSING (FIGS. E, F)
Units available in double tier for 20, 24, 28, 32 and 36 contacts. Plug unit (Fig. E) does not mate with receptacle unit (Fig. F); mates with cover and clamp type (Fig. D) only. Receptacle unit mates with cover and clamp type (Fig. C) only.

FOR COMPLETE DATA, CONTACT YOUR ELCO DISTRIBUTOR FOR OUR VARICON* CONNECTOR CATALOG

Series 9016 ELCO VARIPAK* Printed Circuit Card Enclosure



Designed to be adapted to any packaging technique utilizing printed or etched circuitry, and to provide maximum density. It holds the printed circuit cards and printed circuit connectors in correct alignment, and its adaptability to any packaging program is universal.

Available in 4 standard sizes, making it possible to package all 4.500 wide printed circuit cards.

Made completely of aluminum. Guide Plate is extruded aluminum 6063-T6. Mounting Hanger and Connector Panel are made of No. 14 gauge aluminum 6061-T4.

CONNECTOR PANEL—Available for two types of connector mounting—panel type and strap type. Strap type 1/8" thick, 3/4" wide aluminum strap mounted to each Guide Plate. The Connector Panel is a precision blanked part.

GUIDE PLATE—Available in various sizes. Has provisions to mount VARIPAK* Guides in 82 different positions on a .200" grid. The greatest density possible is 41 guides on a .400" spacing.

GUIDES—made of polycarbonate with a temperature rating of 280°-300° F. Designed to snap in place in any of 82 positions provided in the Guide Plate. Available in three printed circuit card thicknesses—1/16", 3/32" and 1/8". Quickly removable from any position without damage to either Guide or Guide Plate.

ACCESSORIES—The following are accessory parts supplied on request at additional cost:

Marker Strip—63-9016.2402, an extruded flexible white polyvinyl strip provides an area upon which component identification can be imprinted.

Front Panel—63-9016.2201, a panel of 14 gauge aluminum 6061-T4. Hinge and mounting hardware can be provided to serve a decorative, protective or functional purpose.

FOR COMPLETE DATA, REQUEST BULLETIN 03-9016

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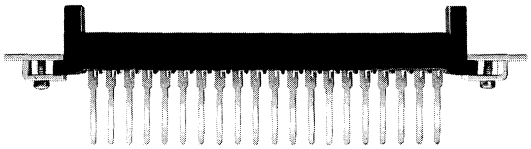
DISTRIBUTOR DIVISION
ELCO CORPORATION

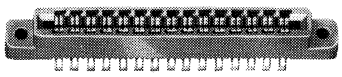
Series 00-5006, 00-5007 Miniature VARICON* Printed Circuit Connectors



One-piece molded insulator with integrally molded card guides as part of connector body. Mounting brackets attached to insulator in Series 00-5006; two .128 dia. mounting holes. Series 00-5007. Contact configuration is single row of contacts, .200 spacing. Contacts are miniature VARICON* type. Sizes 12 to 26 contacts. Module card sizes 1/16, 3/32. Base card sizes 1/16, 3/32, 1/8. Polarization accomplished by plastic insert within connector card slot.

FOR COMPLETE DATA, CONTACT YOUR DISTRIBUTOR FOR OUR PRINTED CIRCUIT CATALOG

Series 00-6007 Miniature Printed Circuit Card-Edge Connectors



Versatile design to provide optimum performance from single or double-sided printed circuit cards. One-piece molded connector body with mounting holes. One row of contacts of .156 spacing. Single, dual or switch type contacts. Also terminations for taper tab, wire hole and wire wrapping. Sizes 6/12 to 22/44 contacts. Module card size 1/16. Base and card sizes up to 1/8. Offers polarization feature.

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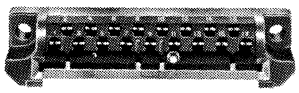
Series 00-7001, 00-7008 Miniature VARICON* Printed Circuit Connectors



SERIES 7001

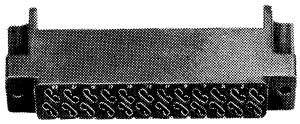
SERIES 7008

Designed for greater density. Provide double row of printed circuit contacts. One-piece molded connector body; available with or without integrally molded card guides. Two .128 dia. mounting holes. Double row of VARICON* miniature contacts on .200 centers, rows .125 apart, each row offset .100 from the other. 6 sizes from 17 to 47 contacts. Module card sizes: 1/16 and 3/32. Base card size: 1/16, 3/32 and 1/8. Offers polarization features.

FOR COMPLETE DATA, CONTACT YOUR DISTRIBUTOR FOR OUR PRINTED CIRCUIT CATALOG

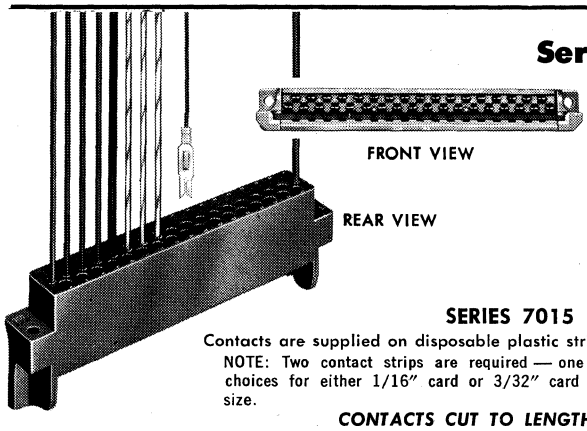
Series 00-7009 Miniature VARITWIN-PIN* Printed Circuit Connector

SERIES 7009



Bifurcated contact terminations accept two Series 53 wire taper pins. Designed to mate with Series 00-7008 upper and lower tier contacts staked to module card. One-piece molded connector body, with or without integrally molded card guides. Two .128 dia. mounting holes. Two rows of VARICON* noses with VARITWIN-PIN* terminations recessed into connector body. Contacts on .200 centers, with .125 between rows, one row offset .100 from the other. Standard sizes 16, 20, 24, 34, 40 contacts; others on request. Module card 1/16. Offers polarization feature.

FOR COMPLETE DATA, CONTACT YOUR DISTRIBUTOR FOR OUR PRINTED CIRCUIT CATALOG



Series 00-7015 Miniature VARILOK* Printed Circuit Connector

Similar to Series 00-7008, but accepts VARILOK* crimp-type, snap-in contacts, offering proven reliability of VARICON* contacts and which, in same size, accept all wires 16 to 30 gauge. Provide positive locking of contacts into connector; mates with itself or numerous other VARICON* connectors. Available with or without card guides. Mounting accomplished via two .128 diameter holes. Two rows of VARILOK* contacts in 17 to 47 contacts. Module card sizes 1/16 or 3/32. Offers polarization feature.

SERIES 7015 ELCO PLUG CONTACTS

Contacts are supplied on disposable plastic strips—See Series 7021-7022 for molded plugs.

NOTE: Two contact strips are required — one Lower Tier and one Upper Tier. The Lower Tier has two choices for either 1/16" card or 3/32" card sizes. The Upper Tier has only one contact for either card size.

CONTACTS CUT TO LENGTH BY YOUR DISTRIBUTOR

LOWER TIER				UPPER TIER	
1/16" CARD		3/32" CARD		1/16" CARD	3/32" CARD
02-???-135-5200	02-???-147-5200	02-???-136-5200	02-???-148-5200	02-???-137-5200	02-???-138-5200

???=No. of Contacts

FOR COMPLETE DATA, ASK YOUR DISTRIBUTOR FOR OUR CONTACT CATALOG

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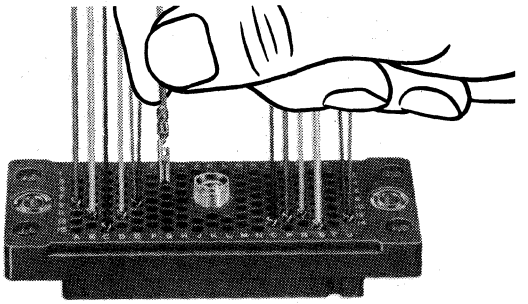
DISTRIBUTOR DIVISION
ELCO CORPORATION

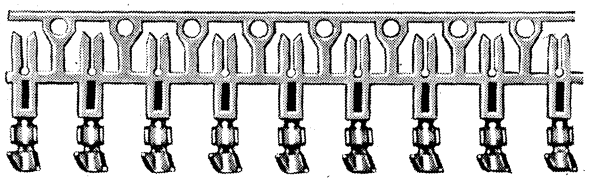
Series 00-8000 VARILOK* Contacts



Most recent development in applying VARICON* contact to self-locking, crimped-wire technique. Serves increasing need for advanced wiring technique of solderless connections. VARILOK* contacts may be crimped to wire independently; stored and stocked; inserted into insulator when needed. Insertion accomplished easily, speedily by inserting contact into any insulator hole selected; may be extracted with equal facility. Locks into insulator positively; will not twist, turn or bend out of alignment. Contacts available loose or on reels for use with automatic crimping machines. Many ELCO rack and panel plus printed circuit connectors available for use with VARILOK* contacts. Also available: Hand Crimping Tool; VARIMATIC* Automatic Crimping Machine; Insertion Tool; Extraction Tool; Concentricity Gage.

ELCO VARILOK* Self-Locking Crimped Wiring Contacts

60-8017.0313 SUPPLIED LOOSE
FOR USE WITH HAND-CRIMPING TOOL



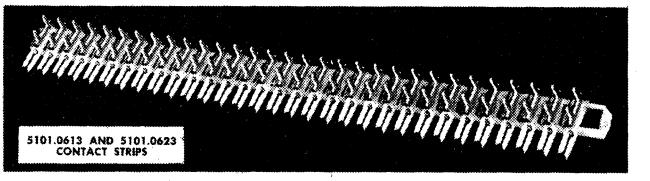
60-8017.0323 SUPPLIED IN CONTINUOUS STRIPS
FOR USE WITH VARIMATIC* AUTOMATIC CRIMPING MACHINE (1800 TO REEL)

FOR COMPLETE DATA, REQUEST OUR CONTACT CATALOG

ELCO VARICON* Printed Circuit Contact Strips

ELCO VARICON* Contacts are supplied on disposable plastic strips at .200" spacing, except ELCO MICROCON* Contacts, which are at .100" spacing. One to 60 contacts to a strip. Staking of the contacts to printed circuit card is made in accordance with modern mass-production techniques with the special staking tools. Contacts: Phosphor Bronze. Finish: Gold flash over nickel plate. Contact Resistance: .002 ohm max. Insertion and withdrawal force: 8 oz. per contact, average. Contact Life: Unchanged after 5000 insertions and withdrawals.

FOR COMPLETE DATA, REQUEST OUR CONTACT CATALOG

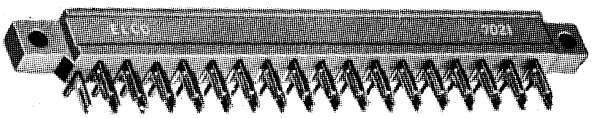


Model No.	Description
02-???-013-5200	Module Card 1/16"
02-???-014-5200	Module Card 3/32"
02-???-111-5200	45° for 1/16" Card
02-???-112-5200	45° for 3/32" Card
02-???-113-6200	Stand-off 1/16" Card
02-???-114-6200	Stand-off 3/32" Card
02-???-135-5200	Lower Tier—1/16" Card
02-???-136-5200	Lower Tier—3/32" Card
02-???-137-5200	Upper Tier—1/16" Card
02-???-138-5200	Upper Tier—3/32" Card
02-???-147-5200	Lower Tier—1/16" Card
02-???-148-5200	Lower Tier—3/32" Card
02-???-701-3100	MICROCON*—Stand-off 1/32" Card
02-???-702-5100	MICROCON*—1/32" Card
02-???-703-5100	MICROCON*—1/16" Card

??? = No. of Contacts.

CONTACTS CUT TO LENGTH BY YOUR DISTRIBUTOR

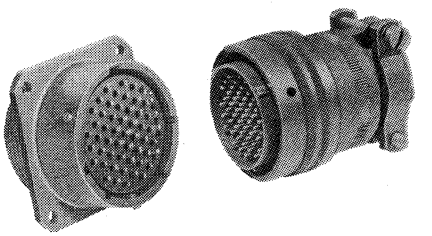
Series 00-7021, 00-7022, 00-7023, and 00-7024 Sub-Miniature VARICON* Printed Circuit Connectors



One fully assembled unit replaces lower and upper board contacts supplied on plastic strips. Contacts are bonded into insulator in our Series 00-7000 pattern, with only one leg on each contact for staking into module card. Offers simultaneous, simplified staking; maximum contact protection. Series 00-7021 for use with receptacles without card guides; Series 00-7022 for use with receptacles with card guides. Series 00-7023 has guide pins for use with Series 00-7024 receptacles. Series 00-7021 and 00-7023 have mounting holes at either end; Series 00-7022 mounted by staking of contacts to module card. 12 contact sizes, 16 to 47. Module card sizes 1/16 and 3/32. Polarization feature offered. Series 00-7023 and 00-7024 can be furnished per MIL-C-21097-B.

FOR COMPLETE DATA, REQUEST OUR PRINTED CIRCUIT CONNECTOR CATALOG

ELCO-WEBSTER Cylindrical Connectors



Precision cylindrical connectors for anyone who designs, specifies or purchases for governmental or equally rigid commercial manufacturing. This line covers the entire spectrum of audio and power connectors, from 4 to 30 contacts, and includes the new miniature cylindrical conforming to MIL-C-26482.

FOR COMPLETE DATA, REQUEST OUR CYLINDRICAL CONNECTOR CATALOG

*ELCO Corporation Trade-Mark

ELCO Maintains A Complete Inventory for Exclusive Use of ELCOneer Distributors

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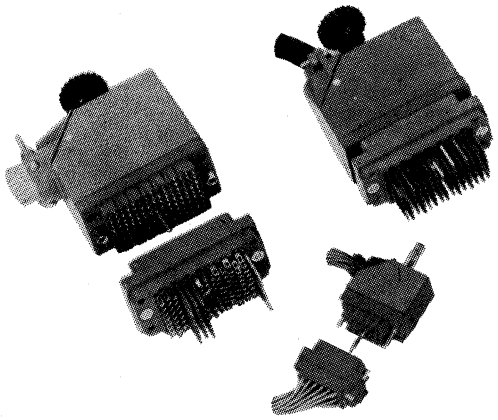
DISTRIBUTOR DIVISION
ELCO CORPORATION

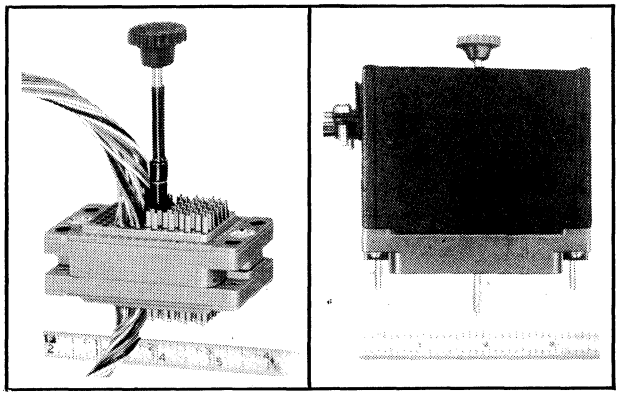
Series 00-8016 Miniature VARICON* Rack and Panel/Cable Connector



Embodies usage of VARILOK* crimp-type contacts in both plug and receptacle. Optional features include actuating screw and aluminum cover with reversible clamp for top or side cable entrance. One-piece molded connector body, with guide pins and sockets for proper mating alignment. Four .125 dia. mounting holes. Contacts on .150 honeycomb grid. Standard sizes include our new 20, 90, 120 contacts, as well as our popular 38, 56 contact models. All offer polarization feature.

FOR COMPLETE DATA, REQUEST OUR RACK-AND-PANEL/CABLE CONNECTOR CATALOG

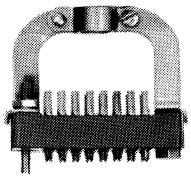
Series 00-8017, 00-8018 Miniature VARICON* Rack and Panel/Cable Connector



Embodies usage of VARILOK* crimp-type contacts in addition to factory installed contacts. One-piece connector body with guide pins and sockets for proper mating alignment. 4 to 8 contacts per row at .150 spacing, alternate rows offset .075. Series 00-8017, with 75, 100 or 130 contacts, provided with screw actuating device, and optional vinyl-coated cover. Series 00-8018, with 80, 110 or 140 contacts, provided with cover, may be used with or without hold-down device. Offer changeable polarization feature.

FOR COMPLETE DATA, REQUEST OUR RACK-AND-PANEL/CABLE CONNECTOR CATALOG

Series 00-8125 Sub-Miniature VARICON* Connectors



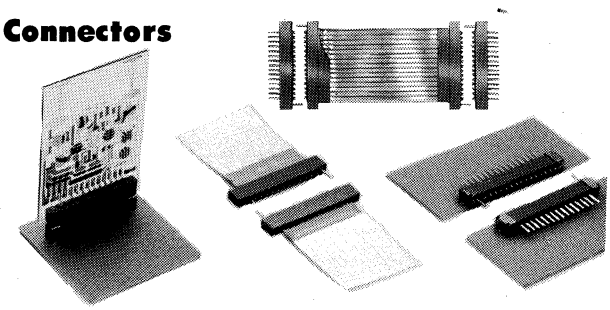
Consists of hermaphroditic plug and receptacle, each of one-piece molded construction. Provides extra-thick guide pins; with top or side cable clamp, locking clips, honeycomb insulator, potting shell with or without flange as optional features. 4 rows of 8 contacts each. Standard size 32 sub-miniature VARICON* contacts of 5 types. Offers polarizing feature.

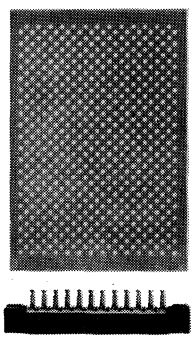
FOR COMPLETE DATA, REQUEST OUR PRINTED CIRCUIT CONNECTOR CATALOG

Series 00-8129 Subminiature VARICON* Connectors

Similar to our Series 8108 Hermaphroditic. For printed circuit, flexible welded cable, rack-and-panel and substrate application. One piece diallyl phthalate insulator. Pin and socket arrangement for mating; brackets for upright or side mounting. 6, 9, 12 or 15 subminiature Series 8100 VARICON* contacts in single row on .100" centers, contacts on 45° axis. 1/16", 3/32", 1/8" module and base card sizes. Write for

FOR COMPLETE DATA, REQUEST OUR PRINTED CIRCUIT CONNECTOR CATALOG





ELCO-VECTOR Plugboard and Receptacles

Ideal for printed circuit prototypes, plug-in test circuits and computer cards. Saves times and money. Permits circuit changes with simple hand tools. Several cards may be used in conjunction with each other by wiring connections between receptacles. CARD MATERIAL: Epoxy paper 1/16" thick, suffix WE (example: 837WE) indicates Epoxy glass card. Pattern "G," 0.062 holes on alternate 0.1" grid.

CONTACTS—ELCO VARICON* Contacts, phosphor bronze, .0002 nickel plated and gold flashed on both card and receptacle.

RECEPTACLE—One piece glass filled Diallyl Phthalate insulator with .078 base taper tab termination. Models R612-1 and R616-1 supplied without P. C. Card Guides, Model R635 with Guides.

USE: Graph paper 10 squares per inch, may be used for initial circuit layout. Push-in terminals are then positioned on card as designed in layout. Contacts are soldered to staked eyelets on bottom edge for terminations. Bare wire may be used for inter-component connections.

FOR COMPLETE DATA, REQUEST OUR BULLETIN 02-5000

*ELCO Corporation Trade-Mark

ELCO Maintains A Complete Inventory for Exclusive Use of ELCOneer Distributors

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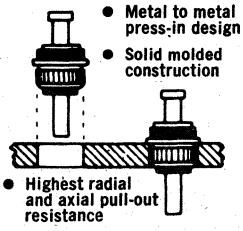
Nurl-Loc® TERMINALS

(Pats. and Pats. Pend.)

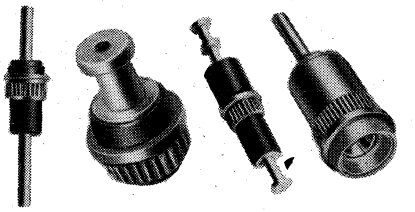
STANDOFFS
FEED-THRUS

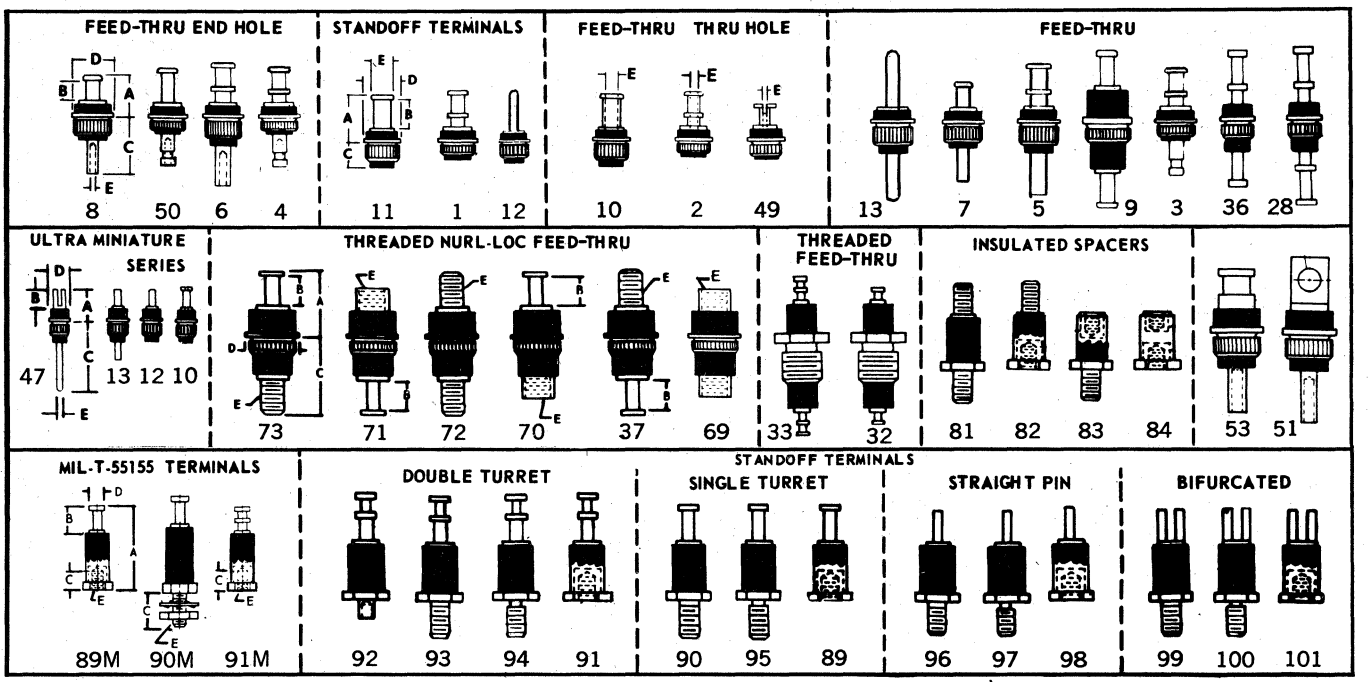


NURL-LOC DESIGN

Electronic Molding offers the largest variety of molded insulated terminals available anywhere. The metal inserts are molded into high-temperature Diallyl Phthalate, (500°F) forming a strong integral unit that will not crack while soldering. The metal to metal Nurl-Loc press-in feature (shown left) assures highest radial and axial pullout resistance of any terminal of this type. Ten colors are available, in a wide range of types for various applications, many designed to meet military specifications, plus mounting tools.

WRITE FOR COMPLETE CATALOG describing and illustrating over 800 items, and FREE SAMPLES for evaluation.





PART NO.	TYPE	A	B	C	D	E	MTG. HOLE	PART NO.	TYPE	A	B	C	D	E	MTG. HOLE	PART NO.	TYPE	A	B	C	D	E	MTG. HOLE
2781-4-1	1	.151	.075	.060	.155	.070	.136	3337-4-1	12	.145	.075	.090	.098	.030	.086	3327-53-1	84	17/32	5/32	5/32	1/4	6-32	.156
2772-4-1	1	.195	.120	.060	.155	.083	.136	2945-4-1	13	.250	.205	.265	.155	.040	.136	4096-52-1	89M	.593	.218	.156	.140	4-40	.125
4786-14-1	1	.437	.210	.105	.187	.093	.156	3336-4-1	13	.145	.075	.180	.098	.030	.086	2014-91-1	89	19/32	7/32	5/32	.140	4-40	.125
2912-4-1	1	.195	.120	.075	.155	.083	.136	4156-4-1	28	.380	.225	.420	.180	.072	.161	2175-91-1	89	25/64	5/32	5/64	.072	2-56	.093
2497-4-1	2	.151	.075	.060	.155	.025	.136	4363-64-1	32	.272	.077	.397	7/32	.080	.203	3045-92-1	90M	3/8	.156	.218	.093	2-56	.093
4361-4-1	2	.275	.200	.060	.155	.036	.136	3376-64-1	33	7/16	.130	5/8	.312	.078	.265	3046-92-1	90M	17/32	.156	.218	.093	2-56	.093
2598-4-1	2	.195	.120	.060	.155	.025	.136	4047-64-1	33	11/32	.123	17/32	.312	.092	.265	2050-91-1	90	19/32	7/32	7/32	.140	4-40	.125
2764-4-1	3	.195	.120	.185	.155	.050	.136	4388-14-1	36	.437	.210	.400	.187	.093	.156	2464-91-1	90	29/64	7/32	5/32	.072	2-56	.093
2767-4-1	3	.151	.075	.185	.155	.050	.136	4179-126-1	37	.065	.025	.150	.281	4-40	.250	2899-91-1	90	25/64	5/32	7/32	.072	2-56	.093
2526-4-1	4	.195	.120	.185	.155	.029	.136	4801-126-1	37	.275	.156	.406	.281	4-40	.250	2989-52-1	91M	.718	.343	.156	.140	4-40	.125
2599-4-1	4	.151	.075	.185	.155	.029	.136	3223-4-1	47	.145	.090	.365	.098	.030	.086	2990-52-1	91M	.937	.343	.218	.140	4-40	.125
2806-4-1	5	.210	.135	.200	.155	.055	.136	4295-4-1	47	.145	.090	.490	.098	.030	.086	2013-91-1	91	23/32	11/32	5/32	.140	4-40	.125
2809-4-1	5	.210	.135	.150	.155	.055	.136	4485-4-1	49	.135	.075	.060	.155	.031	.136	4064-91-6	91	23/32	7/32	1/8	7/64	4-40	.125
4490-4-1	5	.210	.135	1.000	.155	.055	.136	4174-4-1	49	.150	.090	.075	.155	.015	.136	2174-91-1	91	25/64	5/32	5/64	.072	2-56	.093
4495-4-1	5	.210	.135	1.125	.155	.055	.136	3034-4-1	50	.195	.117	.185	.156	.029	.136	2037-91-1	91	7/8	11/32	7/32	.140	4-40	.125
2798-4-1	6	.210	.135	.200	.155	.034	.136	4066-4-1	50	.115	.033	.185	.156	.029	.136	4554-54-5	92	1/2	.240	.165	.093	.113	.120
4031-4-1	6	.210	.135	1.000	.155	.034	.136	4338-4-1	51	.260	.182	.300	.187	.037	.156	2049-91-1	93	23/32	11/32	7/32	.140	4-40	.125
2803-4-1	6	.210	.135	.375	.155	.034	.136	4250-4-1	53	.218	.062	.277	.187	.037	.156	2162-91-1	93	25/64	5/32	7/32	.072	2-56	.093
2778-4-1	7	.150	.075	.200	.155	.040	.136	4803-126-1	69	.270	.125	.325	.281	4-40	.250	4463-91-1	93	19/32	7/32	5/16	.093	6-32	.156
2779-4-1	7	.150	.075	.100	.155	.040	.136	4804-126-1	69	.270	.125	.325	.281	6-32	.250	4661-91-1	94	25/64	5/32	7/32	.072	2-56	.093
4130-4-1	7	.140	.065	.500	.155	.040	.136	4805-126-1	70	.351	.156	.325	.281	4-40	.250	2606-91-1	95	19/32	7/32	7/32	.140	4-40	.125
2792-4-1	8	.150	.075	.200	.155	.025	.136	4806-126-1	70	.351	.156	.325	.281	6-32	.250	2702-91-1	95	29/64	7/32	1/8	.072	2-56	.093
2918-4-1	8	.150	.075	.100	.155	.025	.136	4807-126-1	71	.362	.187	.406	.281	4-40	.250	2696-91-1	95	25/64	5/32	1/8	.072	2-56	.093
3013-4-1	8	.185	.110	.090	.155	.016	.136	4808-126-1	71	.362	.187	.406	.281	6-32	.250	4720-91-1	96	5/8	1/4	7/32	.078	4-40	.125
4111-4-1	8	.187	.112	.485	.155	.033	.136	4809-126-1	72	.331	.156	.417	.281	4-40	.250	2154-91-1	96	27/64	3/16	5/32	.062	2-56	.093
2819-4-1	9	.255	.105	.295	.180	.072	.161	4810-126-1	72	.331	.156	.417	.281	6-32	.250	2630-91-1	97	.665	.290	7/32	.070	4-40	.125
2926-4-1	10	.171	.096	.075	.155	.030	.136	4811-126-1	73	.351	.156	.417	.281	4-40	.250	2738-91-1	97	27/64	3/16	3/16	.062	2-56	.093
4340-4-1	10	.225	.110	.120	.187	.030	.156	4812-126-1	73	.351	.156	.417	.281	6-32	.250	2762-91-1	98	5/8	1/4	5/32	.078	2-56	.093
2930-4-1	10	.115	.040	.060	.155	.025	.136	2479-53-1	81	5/8	1/4	7/32	1/4	4-40	.125	2178-91-1	98	27/64	3/16	5/64	.062	2-56	.093
4547-4-1	10	.160	.075	.090	.098	.023	.086	2480-53-1	81	25/32	1/4	7/32	1/4	4-40	.125	2539-91-1	99	5/8	1/4	7/32	3/16	4-40	.125
2932-4-1	11	.171	.096	.075	.155	.093	.136	3320-53-1	82	5/8	1/4	5/32	1/4	4-40	.125	2541-91-1	99	25/32	1/4	7/32	3/16	4-40	.125
2934-4-1	11	.115	.040	.075	.155	.083	.136	2485-53-1	82	3/4	1/4	7/32	1/4	4-40	.125	2666-91-1	100	5/8	1/4	7/32	3/16	4-40	.125
2996-4-1	11	.193	.117	.060	.155	.093	.136	3329-53-1	83	3/8	5/32	7/32	1/4	4-40	.125	2671-91-1	100	27/32	1/4	7/32	3/16	6-32	.156
4090-4-1	11	.193	.117	.075	.155	.093	.136	2482-53-1	83	1/2	7/32	7/32	1/4	4-40	.125	2304-91-1	101	9/16	3/16	5/32	3/16	4-40	.125
2939-4-1	12	.250	.205	.075	.155	.043	.136	3325-53-1	84	1/2	5/32	5/32	1/4	4-40	.125	2994-91-1	101	27/32	1/4	7/32	3/16	4-40	.125

ELECTRONIC MOLDING CORPORATION

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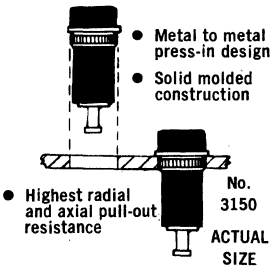
Nurl-Loc® TEST JACKS

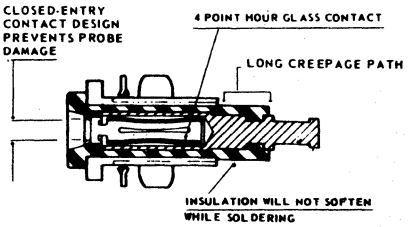
THREADED PUSH-ON NURL-LOC PRINTED CIRCUIT

(Pats. and Pats. Pend.)



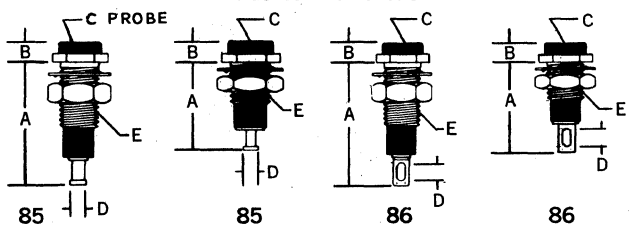
- Metal to metal press-in design
- Solid molded construction
- Highest radial and axial pull-out resistance

- Rugged Molded Construction assures high reliability.
- A wide range of colors for coding.
- High temperature Diallyl Phthalate (500°F).
- Closed entry feature guards against damaging contact with oversize test probe.
- Short test jack NO. 4274 allows minimum space requirements.
- Good resistance to shock and vibration.
- Hour Glass type spring contact maintains a low millivolt drop after repeated insertions and withdrawals.
- High temperature insulation allows long creepage path at solder terminal end of jack.
- High temperature rigid insulation will not soften and flow at soldering temperature.

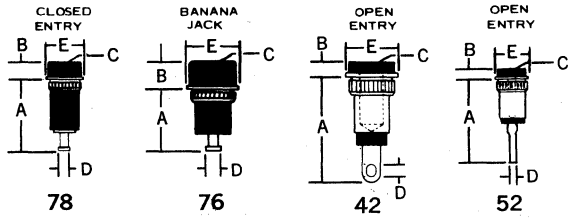


MILITARY CLOSED ENTRY TEST JACKS

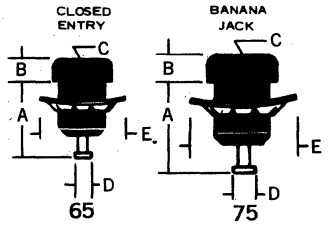
MS-16108 TEST JACKS



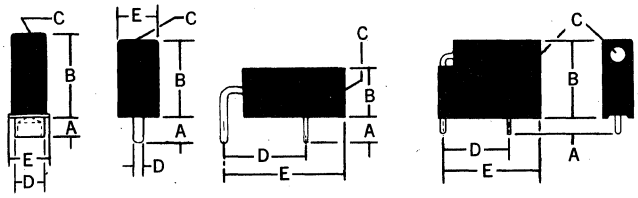
NURL-LOC TEST JACKS



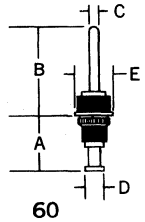
PUSH-ON TEST JACKS



PRINTED CIRCUIT TEST JACKS



NURL-LOC PROBE

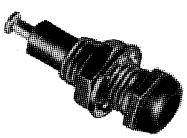


PART NO.	TYPE	A	B	C	D	E	MTG. HOLE
4762-104-*	42	35/64	.080	.080	.115	.218	.172
4516-104-*	52	1/2	.061	.040	.040	.203	.181
4763-116-*	65	9/16	.125	.080	.093	17/32	.266
4835-124-*	75	5/8	.187	.185	.093	17/32	.266
4836-126-*	76	39/64	.207	.185	.093	.375	.343
4879-125-*	77	.125	.230	.080	.400	.600	.052

PART NO.	TYPE	A	B	C	D	E	MTG. HOLE
3150-113-*	78	.574	.093	.080	.093	.281	.250
4928-144-*	78	.315	.098	.040	.079	.216	.172
4962-134-*	78	.400	.156	.080	.093	.281	.250
4242-86-*	85	13/16	9/64	.080	.116	1/4-32	.265
4274-86-*	85	35/64	9/64	.080	.093	1/4-32	.265
4876-86-*	85	13/16	9/64	.080	.116	1/4-32	.265

PART NO.	TYPE	A	B	C	D	E	MTG. HOLE
4653-86-*	86	27/32	9/64	.080	.120	1/4-32	.265
4825-86-*	86	19/32	9/64	.080	.120	1/4-32	.265
4349-139-*	87	.109	.500	.080	.145	.250	.149
5075-139-*	88	.12	.312	.080	.048	.195	.052
5173-125-*	104	.13	.467	.080	.400	.600	.052
NURL-LOC PROBE							
5194-148-1	60	.406	.675	.080	.140	.281	.250

*SPECIFY COLOR WHEN ORDERING

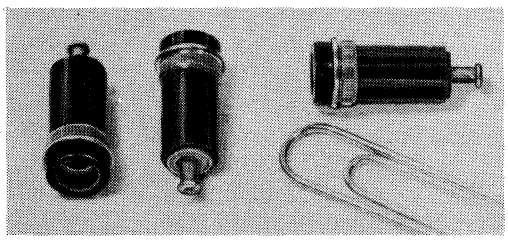


MIL-C-39024 SPECIFICATION

MIL-C-39024 NUMBER	EMC PART NUMBER
MIL-C-39024/1	4242 4274
MIL-C-39024/2	4876
MIL-C-39024/3	4877 4879
MIL-C-39024/5	3150 4928 4962

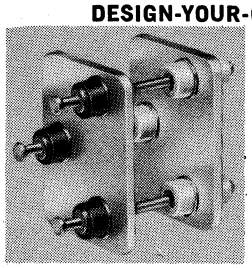
MS 16108 CROSS REF.

MILITARY STANDARD NUMBER	E M C NUMBER
MS 16108-1A	4242-86-9
MS 16108-2A	4242-86-2
MS 16108-3A	4242-86-0
MS 16108-4A	4242-86-1
MS 16108-5A	4242-86-5
MS 16108-6A	4242-86-3
MS 16108-7A	4242-86-6
MS 16108-8A	4242-86-4
MS 16108-9A	4242-86-8
MS 16108-10A	4242-86-7
MS 16108-1C	4653-86-9
MS 16108-2C	4653-86-2
MS 16108-3C	4653-86-0
MS 16108-4C	4653-86-1
MS 16108-5C	4653-86-5
MS 16108-6C	4653-86-3
MS 16108-7C	4653-86-6
MS 16108-8C	4653-86-4
MS 16108-9C	4653-86-8
MS 16108-10C	4653-86-7

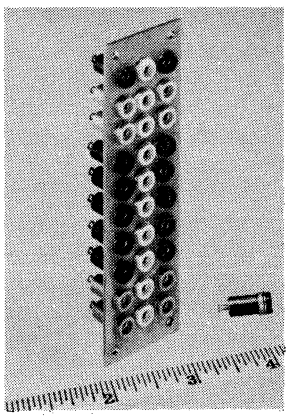


EMC Test Jacks are designed to offer the most rugged construction and dependable performance, combined with minimum size for the most sophisticated electronic applications. Samples are available upon request. Please indicate your basic requirements.

DESIGN-YOUR-OWN CONNECTORS



Male/female custom connectors may be fabricated "on-the-job" through the use of Nurl-Loc Probes and Jacks, to fulfill any immediate or specialized requirements. Merely drill or stamp holes and add Probes and jacks as required. While not a stock item, EMC can furnish preassembled connectors to your specifications on special order.



TEST/PATCH PANELS

Metal panels of desired size and shape may be drilled or stamped to specification with .250" mounting holes. Nurl-Loc closed entry test jacks are pressed in for fast installation. With connectors or test panels, an infinite combination of layouts is possible, with up to 10 colors of jacks for coding.

ELECTRONIC MOLDING CORPORATION

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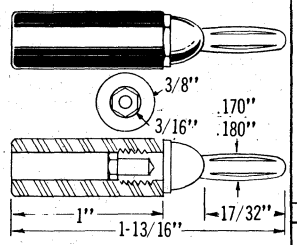
ELECTROCRAFT ELECTRONIC COMPONENTS

BANANA PLUGS

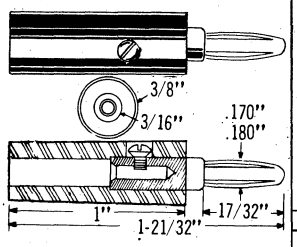
BANANA PLUG*



DESC: Hex brass body, separate internal brass stud for solderless or soldered connection.
RATING: 15 amps AC for 10 degrees C Temp. rise continuous duty.
HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
TIP: Four leaved, phosphor bronze nickel plated spring.

		Net per C 22.00	
No.	Color	No.	Color
33-000-BU	Red	33-002-BU	Blk

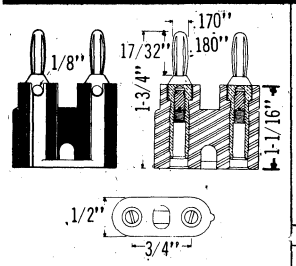
BANANA PLUG*



DESC: Lead wire connection with set screw through plastic handle.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
TIP: Four leaved, phosphor bronze nickel plated spring.

		Net per C 19.00	
No.	Color	No.	Color
33-006-BU	Red	33-008-BU	Blk

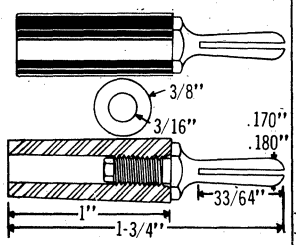
DUAL BANANA PLUG



DESC: Brass, nickel plated plug. Mates with standard dual binding posts.
RATING: 15 amps AC for 10 degrees C Temp. rise, continuous duty.
BODY: Molded cycoloc plastic, per MIL-M-22544, type 4.
TIPS: Four leaved, phosphor bronze nickel plated springs.

	Net per C 72.00
No.	
33-010-BU	

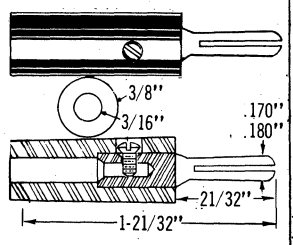
BANANA PLUG*



DESC: Separate internal brass stud for solderless or soldered connection.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
TIP: Cross slotted, nickel plated brass.

		Net per C 19.00	
No.	Color	No.	Color
33-012-BU	Red	33-014-BU	Blk

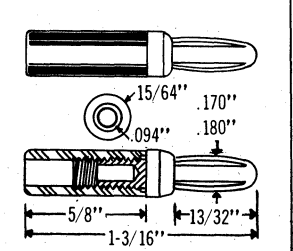
BANANA PLUG*



DESC: Lead wire connection with set screw through plastic handle.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
TIP: Cross slotted, nickel plated brass..

		Net per C 19.00	
No.	Color	No.	Color
33-018-BU	Red	33-020-BU	Blk

BANANA PLUG

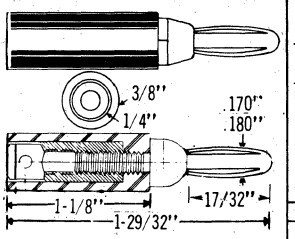


DESC: Midget type; lead wire connection solders to drilled body.
RATING: 10 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
TIP: Four leaved, phosphor bronze, nickel plated spring.

		Net per C 19.00	
No.	Color	No.	Color
33-024-BU	Red	33-026-BU	Blk

ILLUSTRATIONS	DESCRIPTION

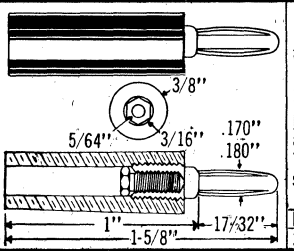
BANANA PLUG



DESC: Lead wire connection with set screw through plastic handle.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
TIP: Four leaved, nickel plated phosphor bronze spring.

		Net per C 35.00	
No.	Color	No.	Color
33-028-1BU	Red	33-028-2BU	Blk

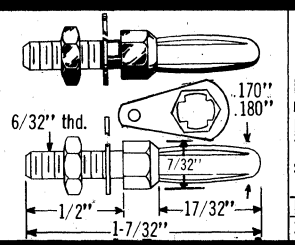
BANANA PLUG*



DESC: Wire solders to stud; or brass stud locks wire in place for solderless connection.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
TIP: Four leaved, nickel plated, phosphor bronze spring.

		Net per C 19.00	
No.	Color	No.	Color
33-032-1BU	Red	33-032-2BU	Blk

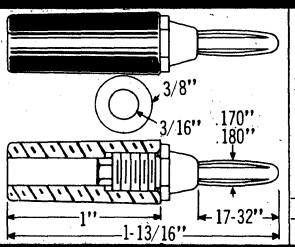
BANANA PLUG



DESC: Threaded shank type, supplied with terminal lug and hex nut.
BODY: Brass, nickel plated.
TIP: Four leaved, phosphor bronze nickel plated spring.

	Net per C 18.00
No.	
33-034-BU	

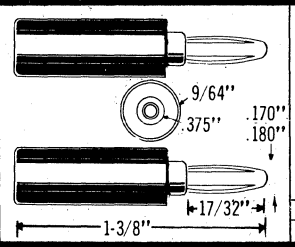
INSULATED BANANA PLUG



DESC: Nickel plated brass plug, fits standard Banana Jack.
HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
TIP: Four leaved beryllium copper, nickel plated spring.

		Net per C 19.00	
No.	Color	No.	Color
33-036-1BU	Red	33-036-2BU	Blk

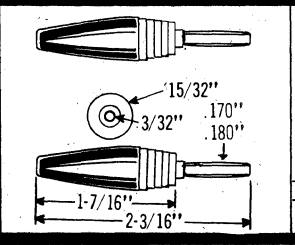
INSULATED BANANA PLUG*



DESC: Solderless connection, nickel plated brass plug. Fits standard Banana Jack.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Molded Nylon, per MIL-P-20693A.
TIP: Four leaved beryllium copper nickel plated spring.

		Net per C 23.40	
No.	Color	No.	Color
33-037-1BU	Red	33-037-2BU	Blk

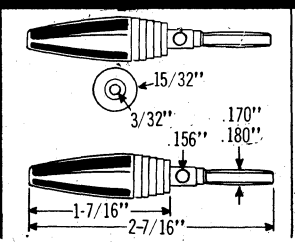
BANANA PLUG



DESC: Flexible handle type.
HANDLE: Unbreakable, shockproof plastic.
TIP: Phosphor bronze, nickel plated spring.

		Net per C 21.00	
No.	Color	No.	Color
33-040-1BU	Red	33-040-2BU	Blk

BANANA PLUG



DESC: Flexible handle, stack type.
HANDLE: Unbreakable, shockproof plastic
TIP: Phosphor bronze, nickel plated spring.

		Net per C 23.00	
No..	Color	No.	Color
33-042-1BU	Red	33-042-2BU	Blk

Also available in Bulk quantities in yellow, green, or blue. To order: add to part number, "-3BU" for yellow, "-4BU" for green, "-5BU" for blue. Example: No. 33-000-3BU (for yellow).

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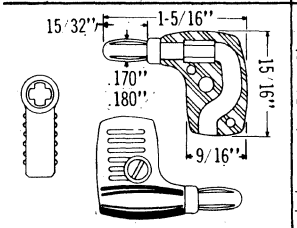
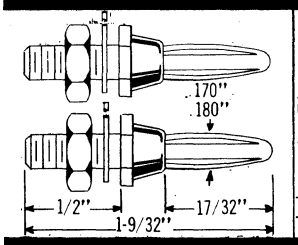
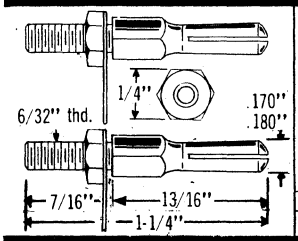
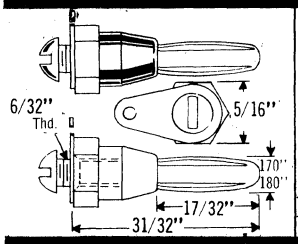
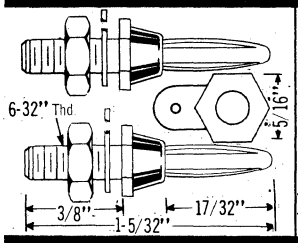
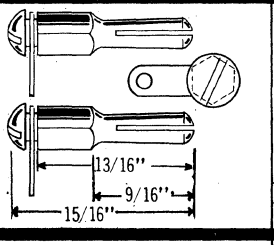
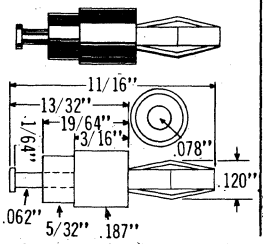
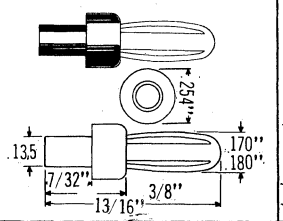
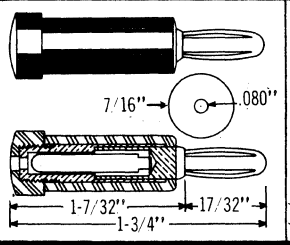
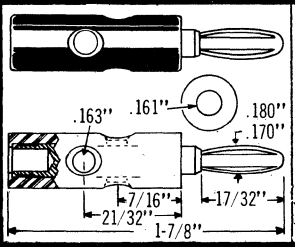
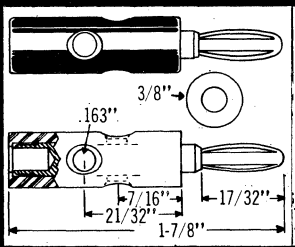
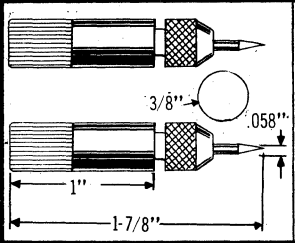
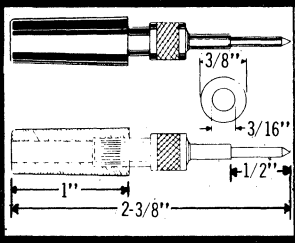
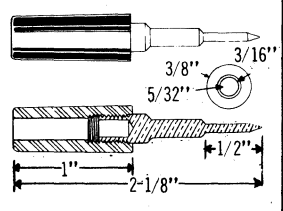
ELECTROCRAFT ELECTRONIC COMPONENTS

BANANA PLUGS

ILLUSTRATIONS	DESCRIPTION
	**BANANA PLUG** DESC: Right angle "Gun" Tip (meter plug), lead wire solders to body. RATING: 10 amps AC for 10 degree C Temp. rise, continuous duty. HANDLE: Molded plastic, per MIL-P-14 CFG. TIP: Four leaved, phosphor bronze, nickel plated springs. Net per C 36.00 No. 33-046-BU Color Red; No. 33-048-BU Color Blk
	**BANANA PLUG** DESC: All metal, threaded shank type, with terminal lug and hex nut. BODY: Brass, nickel plated. TIP: Four leaved, nickel plated phosphor bronze spring. Net per C 15.00 No. 33-058-BU
	**BANANA PLUG** DESC: Threaded shank type, supplied with terminal lug and hex nut. BODY: Brass, nickel plated. TIP: Cross slotted, brass, nickel plated. Net per C 14.00 No. 33-060-BU
	**BANANA PLUG** DESC: Panel mounting type, number 6-32 tapped body; with screw and terminal lug. BODY: Brass, nickel plated. TIP: Four leaved, phosphor bronze, nickel plated spring. Net per C 18.00 No. 33-062-BU
	**BANANA PLUG** DESC: Threaded shank type, with terminal lug and hex nut. BODY: Brass, nickel plated. TIP: Four leaved, phosphor bronze, nickel plated spring. Net per C 18.00 No. 33-064-BU
	**BANANA PLUG** DESC: Panel mounting type, tapped number 6-32, with screw and terminal lug. BODY: Brass, nickel plated. TIP: Cross slotted, brass, nickel plated. Net per C 15.00 No. 33-066-BU
	**BANANA PLUG** DESC: Printed circuit, sub-miniature rivet type, solder connection, fits jacks with .104 I.D. TIP: Four leaved, beryllium copper, silver plated spring. Net per C 18.00 No. 33-068-BU

ILLUSTRATIONS	DESCRIPTION
	**MIDGET BANANA PLUG** DESC: Rivet type, fits all standard Banana Jacks. TIP: Four leaved phosphor bronze silver plated spring. Net per C 16.00 No. 33-069-BU
	**BANANA PLUG ADAPTOR** DESC: Adapts tip plug to banana plug, ends are standard tip jack and banana plug. RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty. HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3. TIP: Standard tip jack one end; other end four leaved banana plug. Net per C 30.00 No. 33-072-BU Color Red; No. 33-074-BU Color Blk
	**STACK BANANA PLUG** DESC: Stack type, fits standard banana plugs in top and side. RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty. HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3. TIP: Four leaved phosphor bronze, nickel plated spring. Net per C 30.00 No. 33-084-1BU Color Red; No. 33-084-2BU Color Blk
	**STACK BANANA PLUG** DESC: Stack type, fits standard banana plugs in top and side. RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty. HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3. TIP: Four leaved beryllium copper, nickel plated spring. Net per C 33.00 No. 33-086-1BU Color Red; No. 33-086-2BU Color Blk

TIP PLUGS

	**PHONO NEEDLE TIP PLUG** DESC: Nickel plated brass body, chuck design to hold .058 replaceable phono needle. Wire solders to body. RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty. HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3. TIP: Phono needle, brass alloy. Net per C 18.00 No. 33-100-BU Color Red; No. 33-102-BU Color Blk
	**INSULATED TIP PLUG*** DESC: Solderless type, wire tightens under knurled collar; machined brass body, nickel plated. RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty. HANDLE: Molded Butyrate per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3. TIP: Phono needle, brass alloy. Net per C 15.00 No. 33-106-BU Color Red; No. 33-108-BU Color Blk
	**HEAVY DUTY PHONE TIP PLUG*** DESC: Standard tip, large diameter body for accepting heavy duty wire solder type. RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty. HANDLE: Molded Butyrate. per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3. TIP: Brass, nickel plated phono needle. Net per C 15.00 No. 33-110-1BU Color Red; No. 33-110-2BU Color Blk

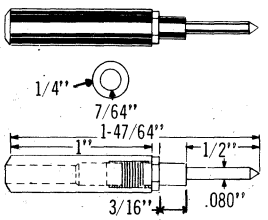
Also available in Bulk quantities in yellow, green, or blue. To order: add to part number, "-3BU" for yellow, "-4BU" for green, "-5BU" for blue. Example: No. 33-000-3BU (for yellow).

ELECTROCRAFT ELECTRONIC COMPONENTS

TIP PLUGS

ILLUSTRATIONS | DESCRIPTION

SUBMINIATURE PHONE TIP PLUG

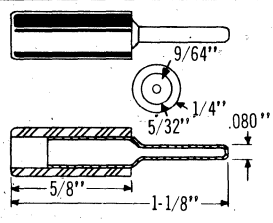


DESC: Standard tip, extra-small diameter, nickel plated, brass body. Solder-type.
RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Fibre, Per MIL-F-1148-A type BH.
TIP: Brass, nickel plated

Net per C 18.00

No.	Color	No.	Color
33-112-BU	Red	33-114-BU	Blk

INSULATED HOLLOW PHONETIP

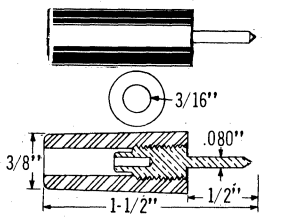


DESC: Drawn brass, nickel plated, solder type.
RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
TIP: Hollow, brass, nickel plated.

Net per C 11.00

No.	Color	No.	Color
33-116-1BU	Red	33-116-2BU	Blk

INSULATED SHORT TIP PLUG*

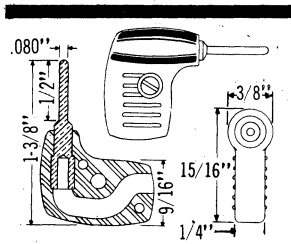


DESC: Specially designed where minimum amount of metal can be exposed. Solder type..
RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
TIP: Brass, nickel plated,

Net per C 12.00

No.	Color	No.	Color
33-118-BU	Red	33-120-BU	Blk

RIGHT ANGLE TIP PLUG

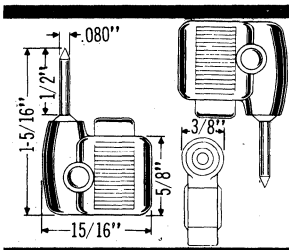


DESC: Right angle "gun" tip (meter plug). Lead wire solders to body.
RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Molded Plastic, per MIL-P-14 CFG.
TIP: Brass, nickel plated.

Net per C 27.00

No.	Color	No.	Color
33-128-BU	Red	33-130-BU	Blk

"TRIGGER-QUIK" TIP PLUG

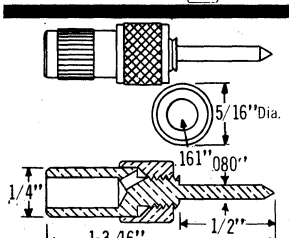


DESC: Right angle plug, spring loaded solderless wire connection.
RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Molded Plastic, per MIL-P-14 CFG.
TIP: Brass, nickel plated

Net per C 39.00

No.	Color	No.	Color
33-132-BU	Red	33-134-BU	Blk

"JR." SOLDERLESS PHONE TIP

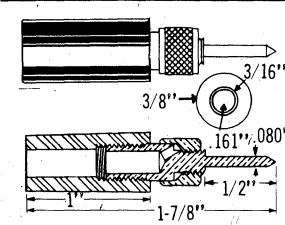


DESC: Press fit, nickel plated brass body; wire fastens under knurled collar.
RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.
TIP: Brass, nickel plated..

Net per C 11.00

No.			
33-142-BU			

"JR." SOLDERLESS PHONE TIP*



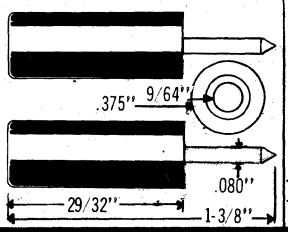
DESC: Threaded nickel plated brass body. Wire fastens under knurled collar.
RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
TIP: Brass, nickel plated.

Net per C 20.83

No.	Color	No.	Color
33-144-1BU	Red	33-144-2BU	Blk

ILLUSTRATIONS | DESCRIPTION

INSULATED TIP PLUG*

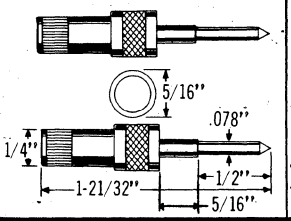


DESC: Short tip, nickel plated brass plug; fits standard phone tip jack. Solder type.
RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Nylon, per MIL-P-20693A.
TIP: Brass, nickel plated.

Net per C 10.50

No.	Color	No.	Color
33-145-1BU	Red	33-145-2BU	Blk

SOLDERLESS TIP PLUG

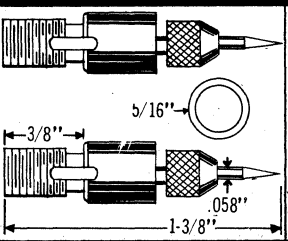


DESC: All metal;wire fastens under knurled collar.
BODY: Precision machined brass, nickel plated.
TIP: Brass, nickel plated.

Net per C 11.00

No.			
33-146-BU			

PHONO NEEDLE TIP PLUG

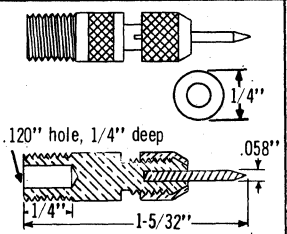


DESC: Threaded shank type with ¼-20 thread; chuck to hold phono needle.
BODY: Brass, nickel plated.
TIP: Steel, nickel plated phono needle.

Net per C 14.00

No.			
33-148-BU			

NEEDLE TIP AND CHUCK

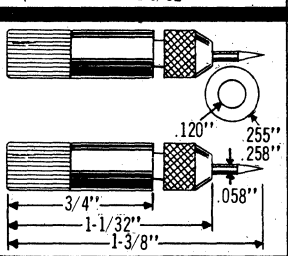


DESC: Threaded shank type..Tip is removable for quick replacement.
BODY: Brass, nickel plated
TIP: Steel, nickel plated phono needle.

Net per C 13.20

No.			
33-149-BU			

PUSH-ON NEEDLE CHUCK

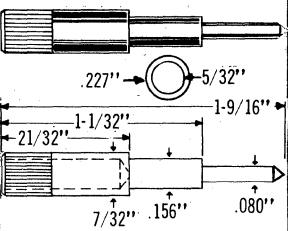


DESC: Knurled body for press fit into Test Prod handles drilled with ¼" hole.
BODY: Brass, nickel plated, solder connection.
TIP: Steel, nickel plated phono needle.

Net per C 13.20

No.			
33-150-BU			

HEAVY DUTY PHONE TIP PLUG

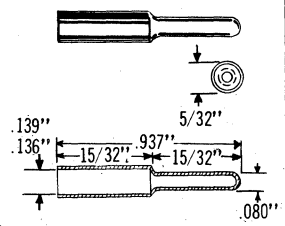


DESC: Knurled shank for press fit into Test Prod handles, drilled with 7/32" hole; extra large well for lead wires up to No. 10 gauge; solder connection.
BODY: Brass, nickel plated.
TIP: Brass, nickel plated phone tip.

Net per C 11.00

No.			
33-152-BU			

STANDARD HOLLOW PHONE TIP



DESC: Solder type, hollow design.
BODY: Drawn brass, nickel plated.
TIP: Hollow, brass, nickel plated.

Net per C 1.85

No.			
33-154-BU			

Also available in Bulk quantities in yellow, green, or blue. To order: add to part number, "-3BU" for yellow, "-4BU" for green, "-5BU" for blue. Example: No. 33-000-3BU (for yellow).

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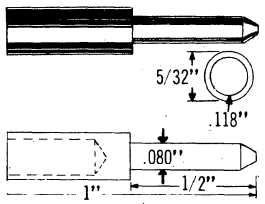
ELECTROCRAFT ELECTRONIC COMPONENTS

TIP PLUGS

STANDARD SOLID PHONE TIP

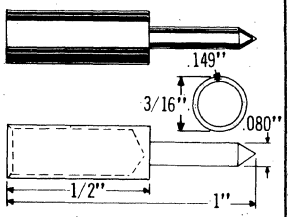


DESC: Solder type, solid metal tip.
BODY: Brass, nickel plated.
TIP: Solid, brass, nickel plated.

Net per C 3.20

No.	
33-156-BU	

HEAVY DUTY PHONE TIP PLUG

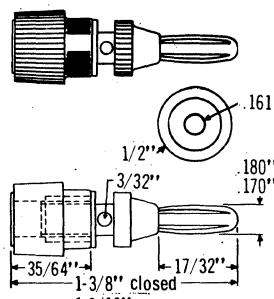


DESC: Solder type. Solid metal tip for heavy duty applications.
BODY: Brass, nickel plated.
TIP: Solid, brass, nickel plated.

Net per C 3.85

No.	
33-158-BU	

COMBINATION POST-PLUG

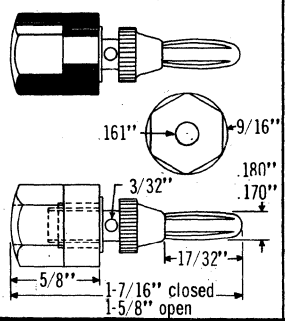


DESC: Captive head, type; for converting panel-mounted banana jack to 5-way binding post termination. Accepts solid or standard wire, spade lug, phone tip, banana plug or alligator clip. Brass, nickel plated body.
RATING: 15 amps AC for 10 degree C Temp, rise, continuous duty.
HANDLE: Nylon - Dupont Zytel No. 101, per MIL-M-20693A.
TIP: Four leaved, phosphor bronze, nickel plated spring.

Net per C 30.00

No.	Color	No.	Color
33-165-1BU	Red	33-165-2BU	Blk

COMBINATION POST-PLUG*

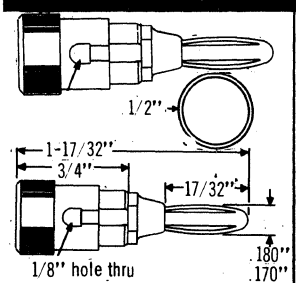


DESC: Captive head, type; for converting panel-mounted banana jack to 5-way binding post termination. Accepts solid or standard wire, spade lug, phone tip, banana plug or alligator clip. Brass, nickel plated body.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
HEAD: Molded nylon, per MIL-M-20693A.
TIP: Four leaved, phosphor bronze, nickel plated spring.

Net per C 30.00

No.	Color	No.	Color
33-166-1BU	Red	33-166-2BU	Blk

COMBINATION POST-PLUG

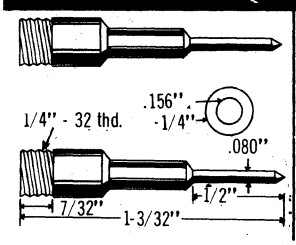


DESC: Captive head type. For converting panel-mounted banana jack to a spring-loaded push post. Accepts solid or stranded wire, standard phone tip which locks in place upon release of pressure on cap. Brass, nickel plated body.
HEAD: Molded styrene cap per MIL-L-416, type 1.
TIP: Four leaved phosphor bronze, nickel plated spring.

Net per C 42.00

No.	
33-167-BU	

HEAVY DUTY PHONE TIP PLUG



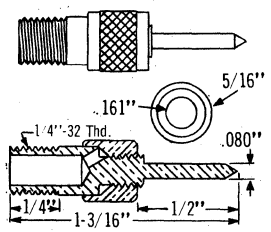
DESC: All metal, nickel plated brass body is large enough to accept standard banana plug. Body is threaded to fit into plastic handle.

Net per C 12.00

No.	
33-170-BU	

ILLUSTRATIONS	DESCRIPTION

"JR" SOLDERLESS PHONE TIP "THREADED"

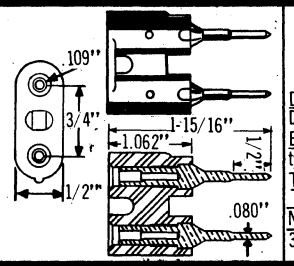


DESC: Threaded shank type. Wire fastens under knurled collar.
BODY: Brass, nickel plated.
RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.
TIP: Brass, nickel plated phone tip.

Net per C 12.00

No.	
33-172-BU	

DUAL STANDARD TIP PLUG

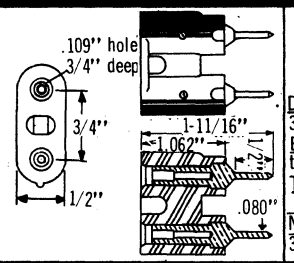


DESC: Solderless type; brass, nickel plated body Designed mates with No. 33-206.
BODY: Molded Cycolac plastic, per MIL-M-22544, type 4.
TIPS: 2 brass, nickel plated tips on ¾" centers.

Net per C 74.00

No.	
33-174-BU	

DUAL SHORT TIP PLUG SOLDERLESS TYPE

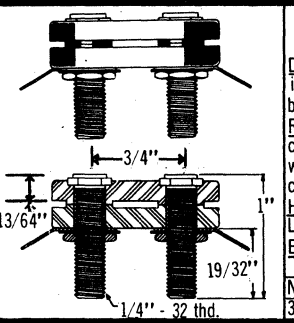


DESC: Brass, nickel plated body. Mates with No. 33-206.
BODY: Molded Cycolac plastic, per MIL-M-22544, type 4.
TIPS: 2 brass, nickel plated tips on ¾" centers.

Net per C 72.00

No.	
33-176-BU	

DUAL BANANA JACK



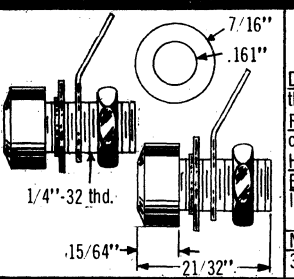
DESC: Mounts in 2 - 3/8" holes on 3/4" centers in panel up 1/4" thick. Accepts standard and dual banana plugs. Solder connection.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. Capacitance 2.0 mmfd. between conductors, 4.0 mmfd. to panel.
HEAD: Insulated, molded black styrene, per MIL-L-P416, type 1.
BODY: Brass, nickel plated.

Net per C 50.00

No.	
33-179-BU	

BANANA & TIP PLUG JACKS

BANANA JACK *

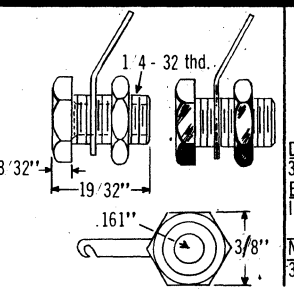


DESC: Mounts in 5/16" hole. Fits panel up to 3/8" thick. Accepts Standard Banana Plug.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
HEAD: Melamine MIL-14F, type CMC.
BODY: Brass, nickel plated; with tinned solder lug.

Net per C 14.00

No.	Color	No.	Color
33-180-BU	Red	33-182-BU	Blk

BANANA JACK



DESC: Mounts in 1/4" hole and fits panel up to 3/8" thick. Accepts standard banana plugs.
BODY: Brass, nickel plated; with tinned solder lug.

Net per C 11.00

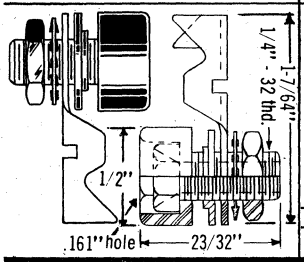
No.	
33-184-BU	

Also available in Bulk quantities in yellow, green, or blue. To order: add to part number, "-3BU" for yellow, "-4BU" for green, "-5BU" for blue. Example: No. 33-000-3BU (for yellow).

GC ELECTRONICS — ELECTROCRAFT ELECTRONIC COMPONENTS

BANANA & TIP PLUG JACKS

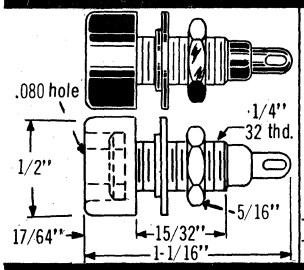
HEAVY DUTY BANANA JACK*



DESC: Exclusive hex design prevents turning in assembly; with fibre insulating washer.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
HEAD: Molded plastic per MIL-P-14 CFG.
BODY: Brass, nickel plated; with heavy duty solder lug.

		Net per C 16.00	
No.	Color	No.	Color
33-186-BU	Red	33-188-BU	Blk

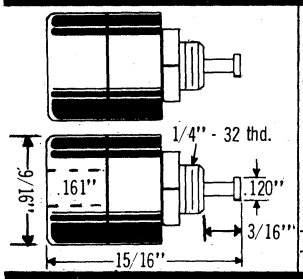
TIP JACK *



DESC: Positive-hold hex lock between molded head and jack body. Exclusive hex design prevents turning in assembly. Insulated.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
HEAD: Molded plastic, per MIL-P-14 CFG.
BODY: Brass, nickel plated.

		Net per C 15.00	
No.	Color	No.	Color
33-190-1BU	Red	33-190-2BU	Blk

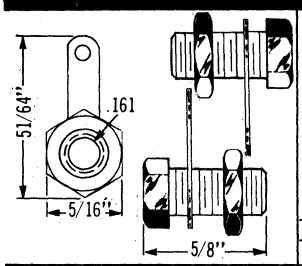
HIGH VOLTAGE NYLON BANANA JACK *



DESC: High voltage flashover to panel prevented by heavy molded nylon body and cup washer.
HANDLE: Molded nylon per MIL-P-20693A.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty. 5KV 60 cycle continuous working voltage. Millivolt drop per MIL-J-6751.
BODY: Brass, bright nickel plated per QQ-N-290, type V(FC).

		Net per C 45.00	
No.	Color	No.	Color
33-191-1BU	Red	33-191-2BU	Blk

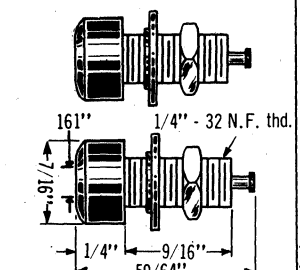
BANANA JACK



DESC: All metal body, with hex mounting nut. Mounts in 1/4" hole; fits panel up to 3/8".
BODY: Brass, nickel plated with tinned solder lug.

	Net per C 11.00
No.	
33-192-BU	

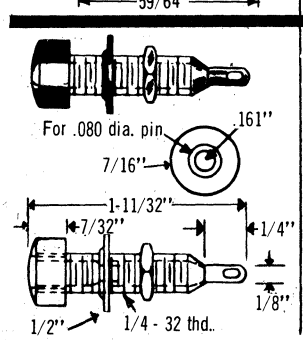
INSULATED BANANA JACK*



DESC: Mounts in 5/16" hole in panels up to 3/8" thick, solder direct to turret terminal. Supplied with hex nut and fibre washer. Accepts standard banana plugs.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
HEAD: TB-30 Melamine-MIL-14F type CMG - red and black. Urea - LU-671 type 1 - colors.
BODY: Brass, nickel plated.

		Net per C 15.00	
No.	Color	No.	Color
33-193-1BU	Red	33-193-2BU	Blk

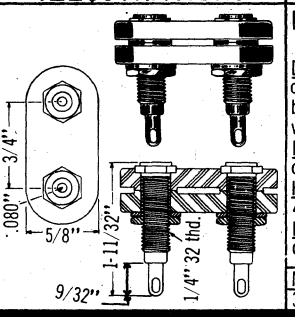
BANANA-TIP JACK COMBINATION*



DESC: Accepts both Banana Plug and Standard Tip Plug; with extruded fibre washer and mounting nut. Mounts in 5/16" hole; fits panel up to 5/8" thick.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
HEAD: TB-30 Melamine-MIL-14F type CMG - red and black. Urea - LU-671 type 1 - colors.
BODY: Brass, nickel plated; phosphor bronze contact..

		Net per C 17.00	
No.	Color	No.	Color
33-194-BU	Red	33-196-BU	Blk

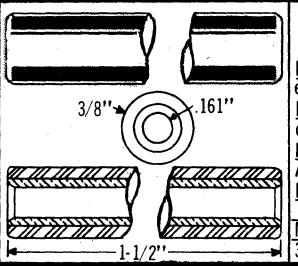
DUAL BANANA AND STANDARD TIP PLUG



DESC: Mounts in two 3/8" holes on 3/4" centers on panels up to 5/16" thick. Mates with dual banana plug No. 33-010 and dual tip plug 33-174; with two hex nuts and washers.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
HEAD: Molded black styrene body, per MIL-L-P 416, type 1.
BODY: Brass, nickel plated; phosphor bronze contacts.

	Net per C 73.00
No.	
33-197-BU	

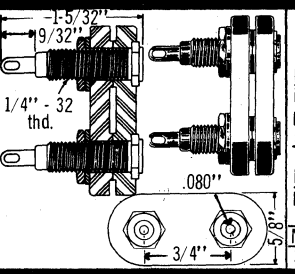
BANANA PLUG SPLICE



DESC: For coupling 2 standard Banana Plugs. For extending test leads, etc.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
BODY: Brass

		Net per C 26.66	
No.	Color	No.	Color
33-200-BU	Red	33-202-BU	Blk

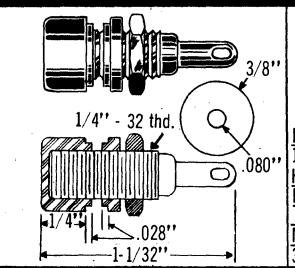
DUAL TIP JACK ASSEMBLY



DESC: Mounts in two 3/8" holes on 3/4" centers in panels up to 1/4" thick. Accepts phone tip plugs; with two hex nuts..
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
HEAD AND WASHER: Molded black styrene body, per MIL-L-P416, type 1..

	Net per C 55.00
No.	
33-206-BU	

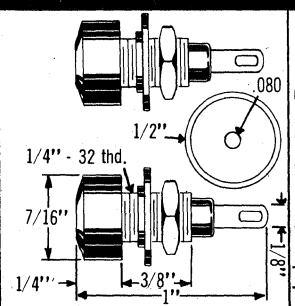
INSULATED TIP JACK*



DESC: Requires 5/16" hole; fits panels up to 1/4" thick; with hex nut.
HEAD: Dupont Nylon, per MIL-M-20693A.
BODY: Brass, nickel plated.

		Net per C 19.00	
No.	Color	No.	Color
33-208-1BU	Red	33-208-2BU	Blk

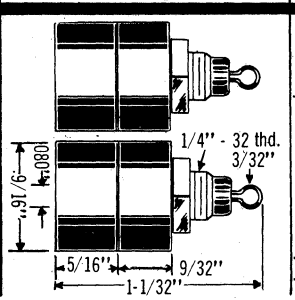
STANDARD TIP JACK*



DESC: Requires 5/16" mounting hole; fits panels up to 1/4" thick with insulating washer & hex nut.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
HEAD: Molded plastic, red and black per MIL-M-14F type CMG. Yellow, green and blue per LU-671 type 1.
BODY: Brass, nickel plated; phosphor bronze contact.

		Net per C 14.00	
No.	Color	No.	Color
33-210-BU	Red	33-212-BU	Blk

HIGH VOLTAGE NYLON PHONE TIP JACK*



DESC: High voltage flashover to panel prevented by heavy molded nylon body and cup washer. Colors conform to Federal Standard 595. Hex nuts and insert shell are nickel plated brass per QQ-N-290 type V (FC). Phosphor bronze contact, silver plated per QQ-S-365, overall gold plated. Withstands 100 hours salt spray test.
HANDLE: Molded nylon body per MIL-P-20693A.

		Net per C 75.00	
No.	Color	No.	Color
33-214-1BU	Red	33-214-2BU	Blk

Also available in Bulk quantities in yellow, green, or blue. To order: add to part number, "-3BU" for yellow, "-4BU" for green, "-5BU" for blue. Example: No. 33-000-3BU (for yellow).

Net
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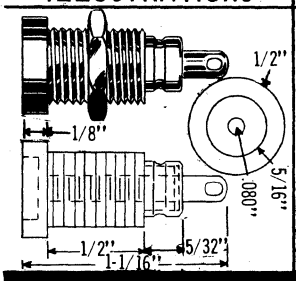
ELECTROCRAFT ELECTRONIC COMPONENTS

BANANA & TIP PLUG JACKS

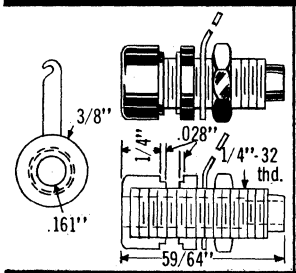
ILLUSTRATIONS	DESCRIPTION



TIP JACK, ALL-INSULATED*

DESC: Mounts in 3/8" hole; fits panel up to 5/16" thick; with mounting nut.
RATING: 10 amps AC for 10 degree C Temp. rise, continuous duty. 5K Volts 60 cycle AC continuous working voltage. Capacitance 3.0 mmfd.
BODY: Molded of nylon per MIL-M-20693A.
CONTACT: Phosphor bronze.

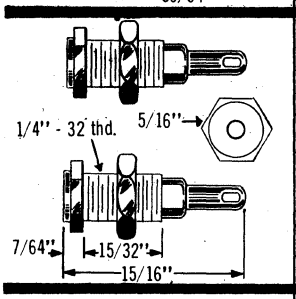
		Net per C 18.00	
No.	Color	No.	Color
33-216-BU	Red	33-218-BU	Blk



MINIATURE BANANA JACK*

DESC: Insulating washer provides isolation from panel. Fits 5/16" mounting hole; for panels up to 1/4" thick.
HEAD AND WASHER: Molded nylon per MIL-M-20693A.
BODY: Brass, nickel plated body; tinned solder lug.

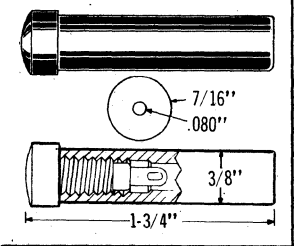
		Net per C 18.00	
No.	Color	No.	Color
33-220-1BU	Red	33-220-2BU	Blk



TIP JACK, ALL-METAL

DESC: Brass nickel plated body; mounts in 1/4" hole; fits panels up to 3/8" thick.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
TIP : Phosphor bronze contact.

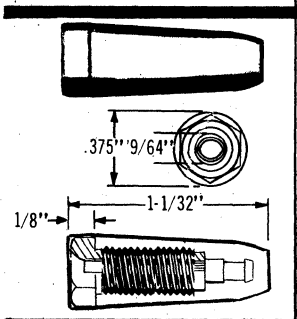
		Net per C 11.00	
No.			
33-226-BU			



TIP JACK, IN-LINE STYLE

DESC: Brass nickel plated body; mounts on end of cords. For test lead extensions, etc.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter, QUD4-59-4820 type 3.
CONTACT: Phosphor bronze.

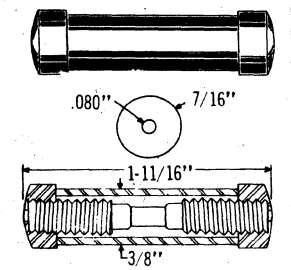
		Net per C 21.00	
No.	Color	No.	Color
33-228-BU	Red	33-230-BU	Blk



NYLON IN-LINE TIP JACK*

DESC: Accommodates all standard phone tip plugs; for extension cords or mounting on panel when wrap around terminal must be insulated in rear.
RATING: 15 amps AC for 10 degree C Temp, rise, continuous duty. 5 KV 60 cycle AC continuous working voltage.
BODY: Molded nylon per MIL-P-20693A.
CONTACT: Heat-treated, gold plated, phosphor bronze.

		Net per C 30.00	
No.	Color	No.	Color
33-231-1BU	Red	33-231-2BU	Blk

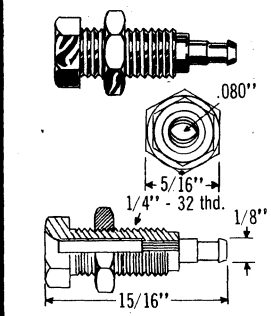


TIP PLUG SPLICE

DESC: Brass nickel plated body. For making extensions to test leads, etc.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
CONTACT: Phosphor bronze spring.

		Net per C 27.00	
No.	Color	No.	Color
33-232-BU	Red	33-234-BU	Blk

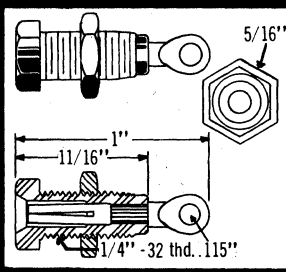
ILLUSTRATIONS	DESCRIPTION



NYLON TIP JACK (WRAP AROUND TYPE)*

DESC: Hex head for sure grip tightening. Mounts in 1/4" hole in panels up to 1/4" thickness.
SALT SPRAY TEST: 100 hours.
INSULATION RESISTANCE: 5000 Meg. Resistance Ohms.
RATED VOLTAGE & CURRENT: 1000 volts peak at 5 amp max.
OPERATING TEMPERATURE: -55 degree to + 150C
NOMINAL CAPACITY: -2.0 mmf
TEST VOLTAGE: 9000 volts DC peak.
BODY: Nylon per MIL-M-20693A.

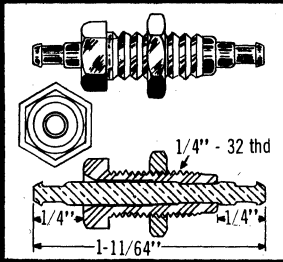
		Net per C 21.00	
No.	Color	No.	Color
33-240-BU	Red	33-242-BU	Blk



NYLON TIP JACK WITH SPADE TERMINAL*

DESC: Fits phone tip plugs. Mounts in 1/4" hole in panel up to 1/4" thick with hex nut.
BODY: Insulated molded nylon per MIL-M-20693A.
CONTACT: Spade terminal..

		Net per C 28.50	
No.	Color	No.	Color
33-245-1BU	Red	33-245-2BU	Blk

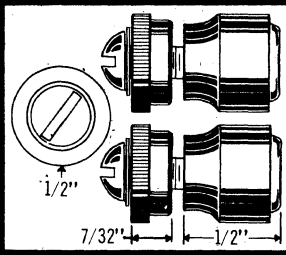


NYLON FEED-THRU JACK*

DESC: Feed-thru type. Fits all standard phone tip plugs. Mounts in 1/4" hole in panel up to 1/4" thick with hex nut.
BODY: Insulated nylon per MIL-M-20693A.
CONTACT: Brass, silver plated.

		Net per C 27.00	
No.	Color	No.	Color
33-247-1BU	Red	33-247-2BU	Blk

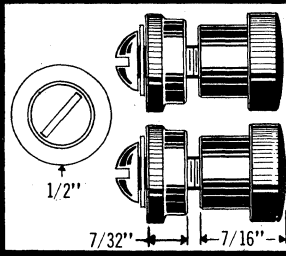
BINDING POSTS



BINDING POST

DESC: Brass nickel plated body, supplied with 8-32 mounting screw and lock washer.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
HEAD: Molded plastic.

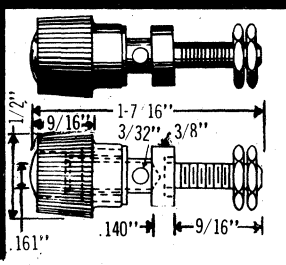
		Net per C 17.67	
No.	Color	No.	Color
33-250-BU	Red	33-252-BU	Blk



BINDING POST

DESC: Brass, nickel plated body, comes complete with 8-32 threaded screw- 1/2" long, nickel plated, brass lockwasher. Head diameter 1/2"
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
HEAD: Molded bakelite.

		Net per C 18.00	
No.	Color	No.	Color
33-254-BU	Red	33-255-BU	Blk



BINDING POST COMBINATION TYPE

DESC: Brass nickel plated body. Accepts banana plug, tip plug, bare wire, or spade lug. Threaded No. 8-32 mounting stud 1/2" long; supplied with 2 hex nuts.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
HEAD: Molded nylon per MIL-M-20693A.

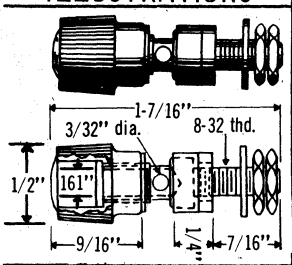
		Net per C 18.00	
No.	Color	No.	Color
33-256-BU	Red	33-258-BU	Blk

Also available in Bulk quantities in yellow, green, or blue. To order: add to part number, "-3BU" for yellow, "-4BU" for green, "-5BU" for blue. Example: No. 33-000-3BU (for yellow).

GC ELECTRONICS — ELECTROCRAFT ELECTRONIC COMPONENTS

BINDING POSTS

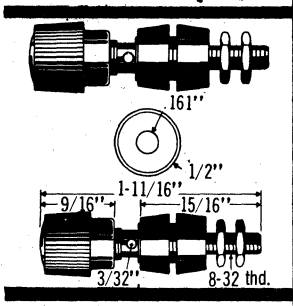
BINDING POST COMBINATION TYPE



DESC: Similar in design and construction as 33-256/8, except, supplied with molded shoulder-type plastic washers to insulate post from chassis.
RATING: 15 amps AC for 10 degree C Temp..rise, continuous duty.
HEAD: Molded nylon per MIL-M-20693A.

		Net per C 24.00	
No.	Color	No.	Color
33-260-BU	Red	33-262-BU	Blk

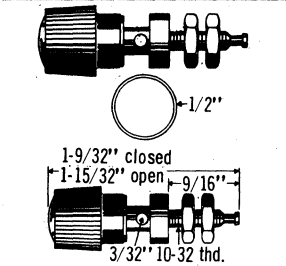
BINDING POST INSULATED UNIVERSAL TYPE



DESC: Brass, nickel-plated body with threaded No.8-32 mounting stud; accepts banana plug, tip plug, needle tip, spade lug, alligator clip or bare wire.Heavy duty spacers insulate post from chassis. Mounts in 5/16" hole.
RATING: 15 amps AC for 10 degree C Temp. rise continuous duty.
HEAD: Molded nylon per MIL-M-20693A.

		Net per C 30.00	
No.	Color	No.	Color
33-264-BU	Red	33-266-BU	Blk

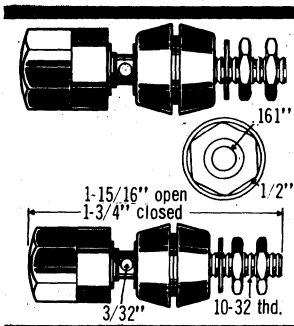
BINDING POST



DESC: Brass, nickel plated body with insulating washer and two hex nuts. 8-32 threaded stud. Accepts phone tip plug, spade lug, alligator clip, banana plug or stranded wire.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
HEAD AND WASHER: Molded nylon per MIL-M-20693A.

		Net per C 24.00	
No.	Color	No.	Color
33-265-BU	Red	33-267-BU	Blk

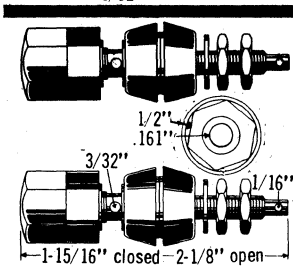
HEAVY DUTY BINDING POST*



DESC: Brass, nickel plated body; accepts standard banana or tip plug, spade lug alligator clip or bare wire; supplied with a thick molded insulating spacer; punched, keyed slot for mounting washers; spacer has "D" shaped shoulder; shoulder keys into chassis mounting hole and prevents post from turning; supplied with two hex nuts.
RATING: (Maximum) 30 amps...2000 RMS Volt.
HEAD AND WASHER: Molded nylon per MIL-M-20693A.

		Net per C 42.00	
No.	Color	No.	Color
33-268-BU	Red	33-270-BU	Blk

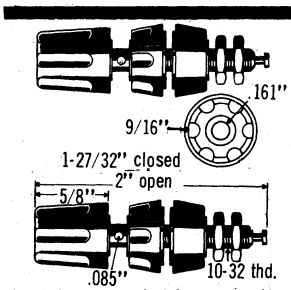
HEAVY DUTY BINDING POST*



DESC: Identical in design to binding post No. 33-268/270, except, that end of stud is milled flat and drilled for solder connection.
HEAD AND WASHER: Molded nylon per MIL-M-20693A.

		Net per C 42.00	
No.	Color	No.	Color
33-272-BU	Red	33-274-BU	Blk

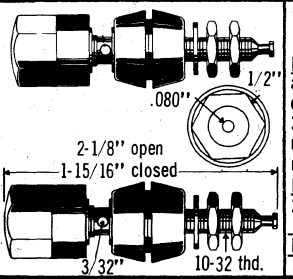
BINDING POST



DESC: 5-way, nylon. Fluted style, insulated, Banana adapter type. Wrap around tips, brass nickel plated.
HEAD AND WASHER: Molded nylon per MIL-M-20693A.

		Net per C 42.00	
No.	Color	No.	Color
33-279-1BU	Red	33-279-2BU	Blk

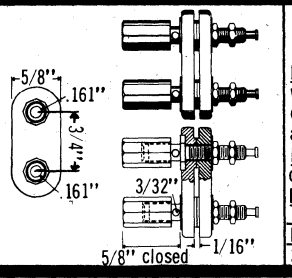
NYLON BINDING POST*



DESC: Tip plug receptacle .080" I.D. Wire hole at right angle to flat on insulated washers. Punched keyed slot for mounting washers. Mounts in 3/8" hole in panels up to 1/4" thick. Solder connection to stud. Body and inserts are brass, bright nickel plated.
HEAD AND WASHER: Molded nylon per MIL-M-20693A.

		Net per C 42.00	
No.	Color	No.	Color
33-275-1BU	Red	33-275-2BU	Blk

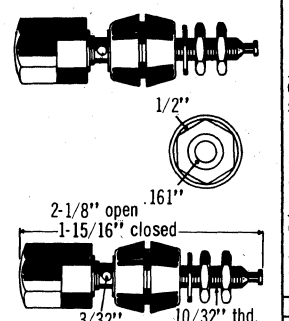
DUAL BINDING POST



DESC: Accepts standard dual banana plug and wire, etc. Mounts in two 3/8" holes on 3/4" centers in 1/16" to 1/4" panels. With wrap-around solder studs.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
BODY: Black plastic.

		Net per C 60.00	
No.			
33-276-BU			

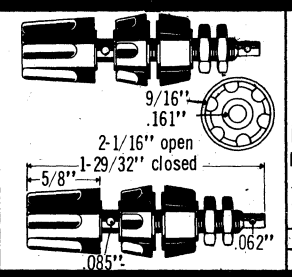
HEAVY DUTY BINDING POST*



DESC: Brass nickel plated body; accepts banana or tip plug, spade lug, alligator clip or bare wire; supplied with a thick molded insulating spacer with "D" shaped shoulder; shoulder keys into chassis mounting hole and prevents post from turning; maximum rating 30 amps...2000 RMS volts; with 2 hex nuts.
RATING: 30 amps AC for 10 degree C Temp. rise, continuous duty.
HEAD AND WASHER: Molded nylon per MIL-M-20693A.

		Net per C 36.00	
No.	Color	No.	Color
33-278-BU	Red	33-280-BU	Blk

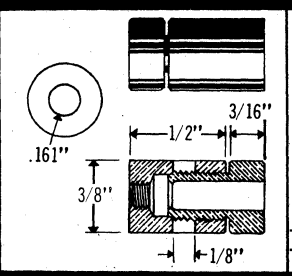
BINDING POST



DESC: 5-way, nylon. Fluted style, insulated, banana adapter type. Spade type tip...brass nickel plated.
HEAD AND WASHER: Molded nylon per MIL-M-20693A.

		Net per C 45.00	
No.	Color	No.	Color
33-281-1BU	Red	33-281-2BU	Blk

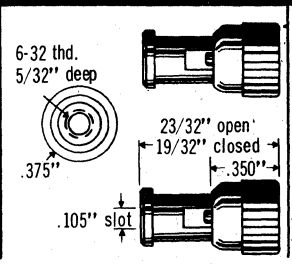
BINDING POST, ALL METAL



DESC: Knurled cap; accepts banana plug, phone tip or wire. Mounts to panel with No. 6-32 screw (not supplied).
BODY: Brass, nickel plated..

		Net per C 15.00	
No.			
33-282-BU			

BINDING POST



DESC: Compression type, captive brass, nickel plated knurled head. Screw head down to tighten wire between body and sliding contact. Threaded internally for No.6-32 mounting screw.
BODY: Brass, nickel plated.

		Net per C 21.00	
No.			
33-283-BU			

Also available in Bulk quantities in yellow, green, or blue. To order: add to part number, "-3BU" for yellow, "-4BU" for green, "-5BU" for blue. Example: No. 33-000-3BU (for yellow).

Net
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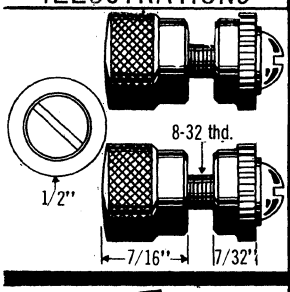
ELECTROCRAFT ELECTRONIC COMPONENTS

BINDING POSTS

BINDING POST, ALL METAL

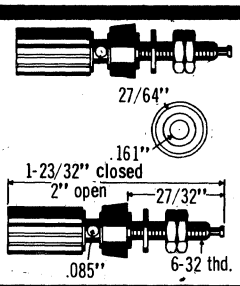


DESC: Knurleu cap; designed for connection of bare wires or spade lugs; No.8-32 x 1/2" mounting screw and lock washer supplied.
BODY: Heavy brass, nickel plated.

Net per C 18.00

No.	
33-284-BU	

METAL BINDING POST

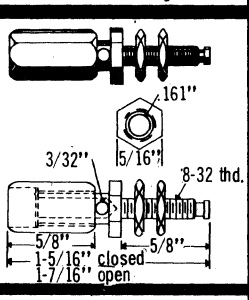


DESC: Gold plated, fluted brass, captive head. Molded black nylon washer with gold plated brass insert. Use where direct ground connection is made to panel or chassis. Complete with gold plated brass flat washer for grounding. Accepts phone tip plug, spade lug, banana plug, alligator clip or stranded wire.

Net per C 33.00

No.	
33-285-BU	

BINDING POST

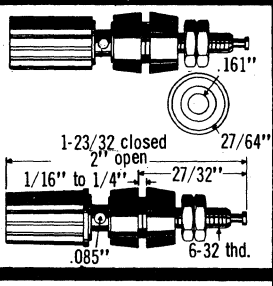


DESC: 5-way metal binding post. Can accept banana plug. Mounts in .171" hole in 1/16" to 3/8" panels. Has wrap-around solder stud 8-32 thread.

Net per C 21.60

No.	
33-286-BU	

METAL BINDING POST

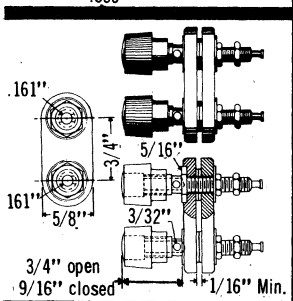


DESC: Gold plated, fluted brass, captive head, molded black nylon washer with gold plated brass insert. Use where internal ground circuit is isolated from chassis or panel. Accepts phone tip plug, spade lug, banana plug, alligator clip or wire strand.

Net per C 33.00

No.	
33-287-BU	

DUAL BINDING POST INSULATED

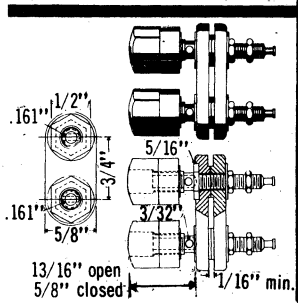


DESC: 5-way binding post with fluted heads. Accepts Dual Banana Plug. Mounts in two 3/8" holes, on 3/4" centers in panels from 1/16" to 1/4". Has soldered studs. With four hex nuts, black styrene washers.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
HEAD: Molded nylon per MIL-M-20693A.

Net per C 54.00

No.	
33-288-BU	

DUAL BINDING POST

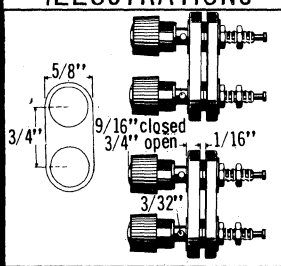


DESC: Accepts standard phone tips, forward or sideways. Brass, nickel plated body. Mounts in two 3/8" holes on 3/4" centers in panels up to 1/4" thick. Accommodates single or dual banana plugs.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
HEAD: Molded nylon per MIL-M-20693A.

Net per C 66.00

No.	Color	No.	Color
33-290-BU	Blk	33-299-BU	Red

DUAL BINDING POST

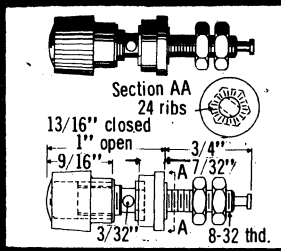


DESC: Brass, nickel plated body. Molded styrene washer; cross slot accommodates phone tip forward, back or sideways. With hex nuts and washers. Mounts in two 3/8" holes on 3/4" centers on panels up to 1/4" thick.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
HEAD: Nylon heads per MIL-M-20693A.

Net per C 50.00

No.	Color	No.	Color
33-291-BU	Blk	33-293-BU	Red

NYLON BINDING POST

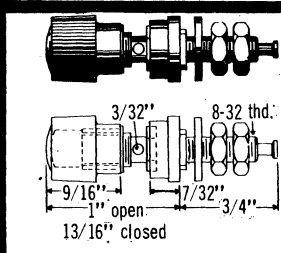


DESC: Grounding type, with molded nylon, non-removable head takes direct dolder connection to stud.
RATING: 15 amps AC for 10 desgree C Temp. rise, continuous duty.
HEAD AND WASHER: Molded nylon per MIL-M-20693A.

Net per C 30.00

No.	Color	No.	Color
33-294-1BU	Red	33-294-2BU	Blk

NYLON BINDING POST

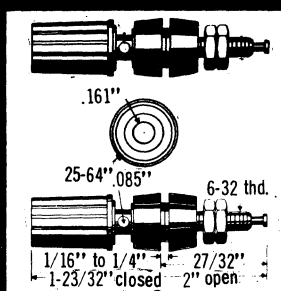


DESC: Brass, nickel plated body. Takes direct solder connection to stud.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
HEAD AND WASHER: Molded nylon per MIL-M-20693A.

Net per C 30.00

No.	Color	No.	Color
33-296-1BU	Red	33-296-2BU	Blk

NYLON BINDING POST*

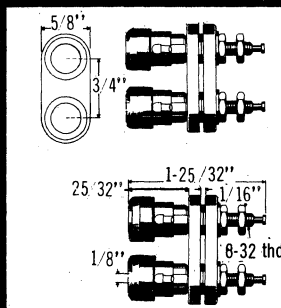


DESC: Gold plated body. Miniature washers and narrow head require minimum mounting space.. Requires 5/16" round or "D" hole in panel. Wrap around solder terminal. Accepts phone tip plug, banana plug, spade lug, alligator clip or stranded wire.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
HEAD: Molded nylon per MIL-M-20693A.

Net per C 33.00

No.	Color	No.	Color
33-297-1BU	Red	33-297-2BU	Blk

DUAL SPRING LOADED BINDING POST



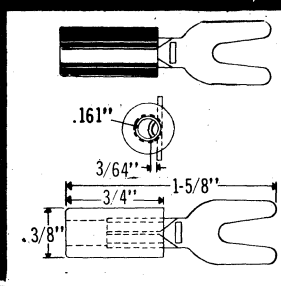
DESC: Cross-slotted to accept standard phone tips or wire either forward or sideways. Molded black styrene cap; nickel plated brass body. Requires 2-3/8" holes on 3/4" centers for mounting on panels up to 1/4" thick. Accommodates phone tips or wires in side holes and secures them when pressure on cap is released. With hex nuts and flat washers.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty. 5 KV 60 cycle AC continuous working voltage.

Net per C 75.00

No.			
33-298-BU			

SPADE LUGS, ALLIGATOR & BATTERY CLIPS

SPADE LUG, INSULATED



DESC: Tapered "fork" fits binding posts and terminal screws up to No. 10 size. Accepts soldered wire or banana plug.
RATING: 25 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Molded Butyrate, per MIL-LP-349A and ASESA letter QUD4-59-4820 type 3.
LUG: Brass, nickel plated.

Net per C 10.80

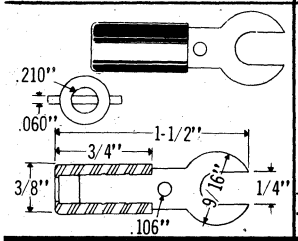
No.	Color	No.	Color
33-300-BU	Red	33-302-BU	Blk

Also available in Bulk quantities in yellow, green, or blue. To order: add to part number, "-3BU" for yellow, "-4BU" for green, "-5BU" for blue. Example: No. 33-000-3BU (for yellow).

ELECTROCRAFT ELECTRONIC COMPONENTS

SPADE LUGS, ALLIGATOR & BATTERY CLIPS

ILLUSTRATIONS | DESCRIPTION

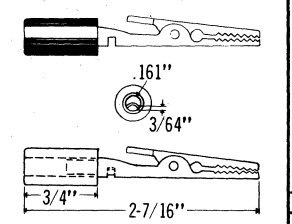


INSULATED SPADE LUG

DESC: Fits all standard multi-purpose binding posts. Wire up to No. 10 solders in front hole.
RATING: 30 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Molded Butyrate, per MIL-LP-349A and ASESA letter QUD4-59-4820 type 3.
LUG: Brass, nickel plated.

Net per C 12.00

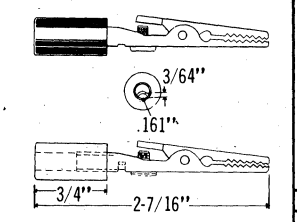
No.	Color	No.	Color
33-304-1BU	Red	33-304-2BU	Blk



DESC: 3/8" jaw opening; made of cadmium plated steel, accepts banana plug or wires. May be soldered to clip.
RATING: 5 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Molded Butyrate, per MIL-LP-349A and ASESA letter QUD4-59-4820 type 3.

Net per C 8.50

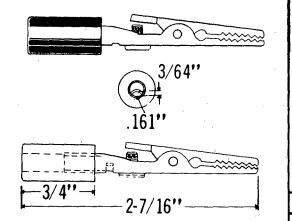
No.	Color	No.	Color
33-310-BU	Red	33-312-BU	Blk



DESC: Molded plastic handle; cadmium plated steel jaws with 3/8" opening. Wire fastens with screw or soldered to clip.
RATING: 5 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Molded Butyrate, per MIL-LP-349A and ASESA letter QUD4-59-4820 type 3.

Net per C 9.50

No.	Color	No.	Color
33-314-BU	Red	33-316-BU	Blk

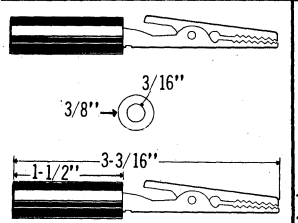


ALLIGATOR CLIP SOLID COPPER

DESC: Identical to No. 33-314/16, except, made of solid copper for higher current carrying capacity.
RATING: 5 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Molded Butyrate, per MIL-LP-349A and ASESA letter QUD4-59-4820 type 3.

Net per C 11.50

No.	Color	No.	Color
33-318-BU	Red	33-320-BU	Blk

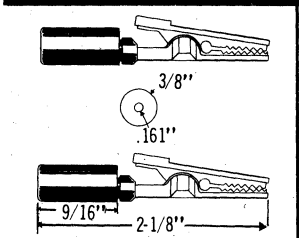


ALLIGATOR CLIP

DESC: With extra long insulated handle; cadmium plated steel jaws; 3/8" opening, wire solders to clip.
HANDLE: Molded Butyrate, per MIL-LP-349A and ASESA letter QUD4-59-4820 type 3.

Net per C 12.50

No.	Color	No.	Color
33-322-BU	Red	33-324-BU	Blk



DESC: Completely insulated with black molded plastic to insure against shock or grounding. Accepts banana plug in receptacle end.

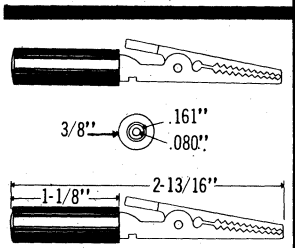
Net per C 45.00

No.	Color	No.	Color
33-326-1BU	Red	33-326-BU	Blk

Accepts tip plug in receptacle end.

Net per C 54.00

No.	Color	No.	Color
33-328-1BU	Red	33-328-BU	Blk



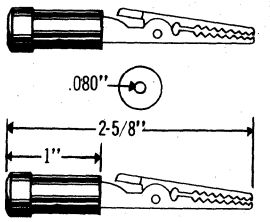
ALLIGATOR CLIP ADAPTOR

DESC: Accommodates standard tip plug, or banana plug; steel cadmium plated jaws.
RATING: 5 amps AC for 10 degree C Temp. rise, continuous duty..
HANDLE: Butyrate, per MIL-LP-349A and ASESA letter QUD4-59-4820 type 3.

Net per C 39.00

No.	Color	No.	Color
33-330-BU	Red	33-332-BU	Blk

ILLUSTRATIONS | DESCRIPTION

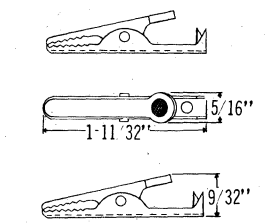


ALLIGATOR CLIP ADAPTOR

DESC: Adapts standard tip plug to alligator clips; steel cadmium plated jaws.
RATING: 5 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Butyrate, per MIL-LP-349A and ASESA letter QUD4-59-4820 type 3.

Net per C 33.00

No.	Color	No.	Color
33-334-BU	Red	33-336-BU	Blk



MINI-GATOR CLIP (MUELLER)

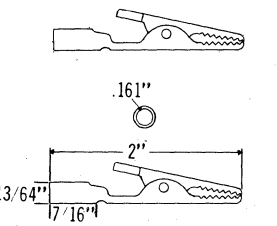
DESC: Miniature alligator clip. For use where space is a factor; wires solder to clip.

Net per C 7.20

No.	
33-342-BU	Steel

Net per C 8.00

No.	
33-344-BU	Copper

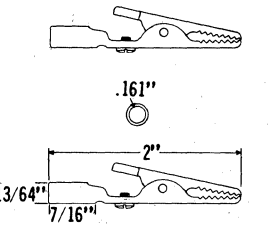


ALLIGATOR CLIP ALL METAL

DESC: Cadmium plated jaws with 3/8" opening accepts standard banana plug or wires may be soldered directly onto clip.

Net per C 5.40

No.	
33-346-BU	



ALLIGATOR CLIP-ALL METAL

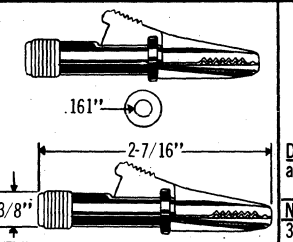
DESC: For solderless connection of wire by means of a No. 6-32 binding head screw; also accepts banana plug.

Net per C 6.00

No.	
33-348-BU	Steel

Net per C 9.00

No.	
33-350-BU	Copper

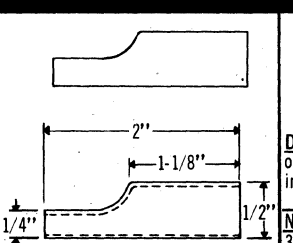


ALLIGATOR CLIP

DESC: All insulated with standard Banana Plug adaptor. Molded plastic over steel jaws and clips.

Net per C 41.00

No.	Color	No.	Color
33-352-1BU	Red	33-352-2BU	Blk

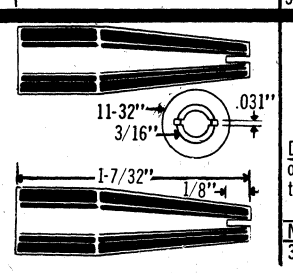


ALLIGATOR CLIP INSULATOR

DESC: Flexible molded vinyl insulator which fits over most standard alligator clips. It completely insulates. Permits maximum jaw opening.

Net per C 4.80

No.	Color	No.	Color
33-360-BU	Red	33-362-BU	Blk



MINIATURE ALLIGATOR CLIP BOOTS

DESC: Molded vinyl plastic; allow maximum jaw opening of clip while still insulating clip. Miniature size.

Net per C 4.00

No.	Color	No.	Color
33-363-1BU	Red	33-363-2BU	Blk.

Net
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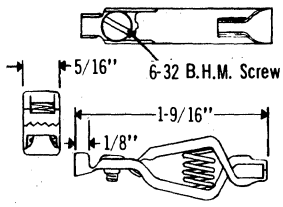
GC ELECTRONICS ELECTROCRAFT ELECTRONIC COMPONENTS

SPADE LUGS, ALLIGATOR & BATTERY CLIPS

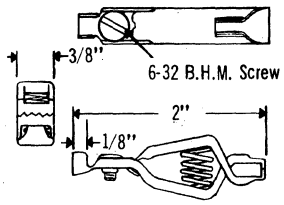
ILLUSTRATIONS | DESCRIPTION



BATTERY CONNECTING & TESTING CLIP

DESC: Steel cadmium plated jaws with 1/2" spread.
RATING: 5 amps

No.		Net per C 6.00
33-370-BU		

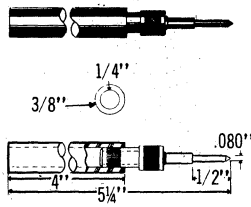


BATTERY CONNECTING & TESTING CLIP

DESC: Steel cadmium plated jaws with 9/16" spread.
RATING: 10 amps

No.		Net per C 8.00
33-372-BU		

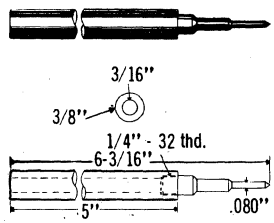
TEST PRODS, LEADS & ADAPTORS



SOLDERLESS FIBRE TEST PROD

DESC: Features 1/4" inside diameter for heavy duty wire. Overall length 5¼".
RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Fibre, per MIL-F-1148-A type BH.
TIP: Brass, nickel plated.

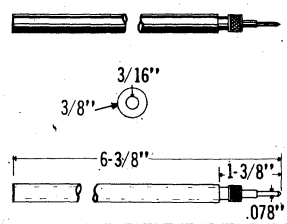
No.	Color	No.	Color	Net per C 30.00
33-376-1BU	Red	33-376-2BU	Blk	



HEAVY DUTY TEST PROD

DESC: Brass, nickel plated. Overall length 6-3/16".
RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Molded Butyrate, per MIL-LP-349A and ASESA letter QUD4-59-4820 type 3.
TIP: Extra heavy, brass, nickel plated.

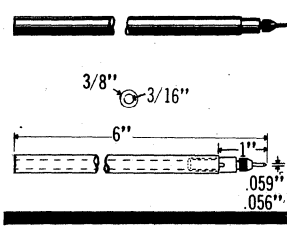
No.	Color	No.	Color	Net per C 33.00
33-378-1BU	Red	33-378-2BU	Blk	



DELUXE TEST PROD

DESC: Solderless design; wire fits through handle and is fastened to tip with knurled collar. 6-3/8" long.
RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Butyrate, per MIL-LP-349A and ASESA letter QUD4-59-4820 type 3.
TIP: Brass, nickel plated.

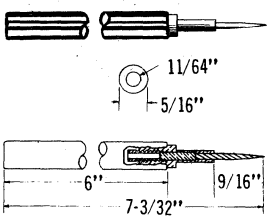
No.	Color	No.	Color	Net per C 33.00
33-380-BU	Red	33-382-BU	Blk	



NEEDLE POINT TEST PROD

DESC: Extra safe, long handle; wire solders to nickel plated brass chuck.
RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Butyrate, per MIL-LP-349A and ASESA letter QUD4-59-4820 type 2.
TIP: Replaceable Phono Needle.

No.	Color	No.	Color	Net per C 30.00
33-384-BU	Red	33-386-BU	Blk	

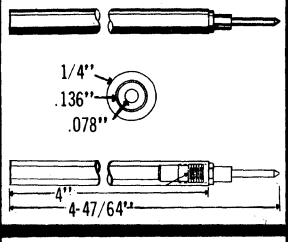


SOLDERLESS TEST PROD

DESC: Brass, nickel plated plug. Wire can be soldered to plug. Stud locks wire to pellet for solderless connections.
RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: XX-5 Spauldite - PB6-MIL-P-79.
TIP: Steel Phono Needle

No.	Color	No.	Color	Net per C 75.00
33-387-1BU	Red	33-387-2BU	Blk	

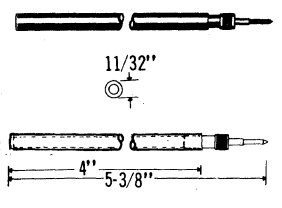
ILLUSTRATIONS | DESCRIPTION



SUBMINIATURE TEST PROD

DESC: Designed for checking all types of miniature products and equipment only. 4-2/3" long.
RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty..
HANDLE: Fibre, per MIL-F-1148-A type BH.
TIP: Brass, nickel plated.

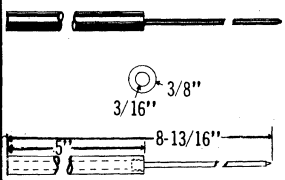
No.	Color	No.	Color	Net per C 30.00
33-388-1BU	Red	33-388-2BU	Blk	



THIN HANDLE TEST PROD

DESC: Solderless wire connection; slim type for hard-to-reach places. Ideal for portable testers.
RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Butyrate, per MIL-LP-349A and ASESA letter QUD4-59-4820 type 3.
TIP: Brass, nickel plated.

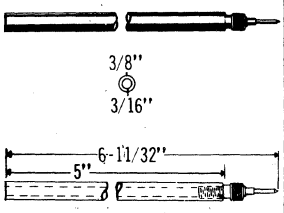
No.	Color	No.	Color	Net per C 21.60
33-392-BU	Red	33-394-BU	Blk	



LONG REACH TEST PROD

DESC: Has a long thin insulated extension beyond handle, to reach hard-to-get places or for work in crowded quarters. Wire solders to prod.
HANDLE: Butyrate, per MIL-LP-349A and ASESA letter QUD4-59-4820 type 3.
TIP: Brass, nickel plated.

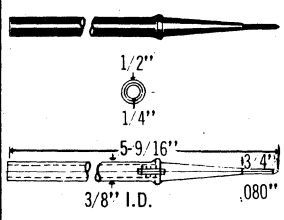
No.	Color	No.	Color	Net per C 24.60
33-396-BU	Red	33-398-BU	Blk	



SOLDERLESS TEST PROD

DESC: 5" long handle, 3/8" diameter. Wire fits through handle, wraps around screw portion of body.
RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.
HANDLE: Butyrate, per MIL-LP-349A and ASESA letter QUD4-59-4820 type 3..
TIP: Nickel plated phone tip.

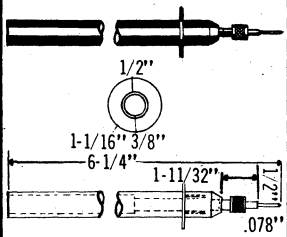
No.	Color	No.	Color	Net per C 30.00
33-404-1BU	Red	33-404-2BU	Blk	



TEST PROD

DESC: Tapered slim-type. Fully insulated plastic-solder type. 5-9/16" overall length.
TIP: Nickel plated brass.

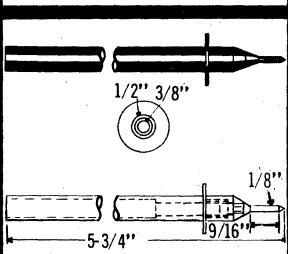
No.	Color	No.	Color	Net per C 75.00
33-406-1BU	Red	33-406-2BU	Blk	



HIGH VOLTAGE TEST PROD

DESC: Heavy duty type; has guard ring to prevent accidental touching of tip; accepts wires up to 3/8" diameter. Solderless connection.
RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty. 15 KV cycle AC continuous working voltage.
HANDLE: Fibre, per MIL-F-1148-A type BH.
TIP: Nickel plated brass.

No..	Color	No.	Color	Net per C 72.00
33-408-BU	Red	33-410-BU	Blk	



R.F. TEST PROBE

DESC: Heavily insulated Coax cable or IN-34 crystal for R.F. Probes may be used because of larger inside diameter.
HANDLE: Fibre, per MIL-F-1148-A type BH.
TIP: Heavy duty; removable. Brass, nickel plated.

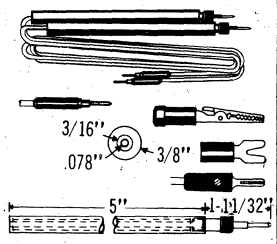
No.	Color	No.	Color	Net per C 63.00
33-411-1BU	Red	33-411-2BU	Blk	

GC ELECTRONICS

ELECTROCRAFT ELECTRONIC COMPONENTS

TEST PRODS, LEADS & ADAPTORS

ILLUSTRATIONS | DESCRIPTION

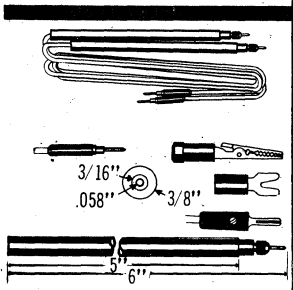


UNIVERSAL TEST LEADS

DESC: Interchangeable tips; one end solderless tip plug; other end banana plug; includes alligator clips, spade lugs and phono tip plugs, which fit on banana plug end.
HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
CABLE: 50" flexible

Net per pair 1.88

No.	
33-450-S	One pair, red and black

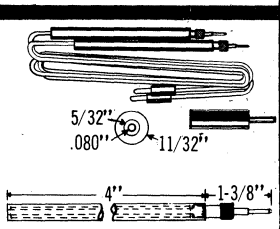


UNIVERSAL "NEEDLEPOINT" TEST LEADS

DESC: Interchangeable tips, one end interchangeable Phono needle type test prod,other end banana plug; includes spade lugs, alligator clips and phono tip plugs, which fit on banana plug end.
HANDLE: Butyrate, per MIL-LP-349A and ASESA letter QUD4-59-4820 type 3.
CABLE: 50" flexible

Net per pair 1.88

No.	
33-452-S	One pair, red and black

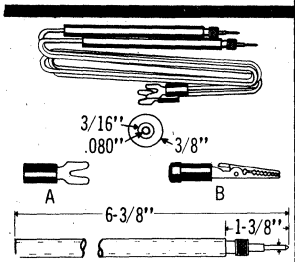


"THRIFTY" TEST LEADS

DESC: One end 4" test prods, other end terminated in standard phone tip.
HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
CABLE: 50" flexible

Net per pair .75

No.	
33-454-S	One pair, red and black



SOLDERLESS TIP TEST LEADS

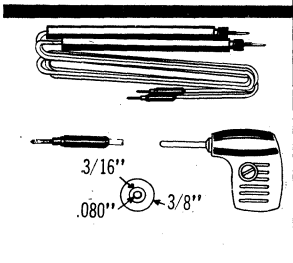
DESC: 5" x 3/8" diameter handle, available with either spade lugs or alligator clips.
HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
CABLE: 50" flexible

Net per pair .85

No.	
33-455-S	1 pair, red and black, W/spade lug A

Net per pair .91

No.	
33-457-S	1 pair, red and black, W/alligator clip B



HEAVY DUTY TEST LEADS

DESC: 6-11/32"long; solderless wire connections. Available in tip plug or right angle meter type.
HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
CABLE: 50" flexible

Net per pair 1.27

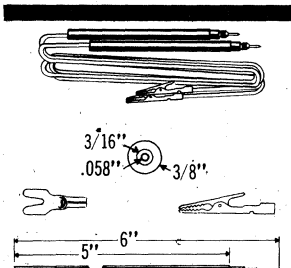
Pair of 1 red and 1 black with solderless straight tip plugs.

No.	
33-456-S	

Net per pair 1.38

Pair of 1 red and 1 black with right angle, meter-type, insulated tip plug.

No.	
33-458-S	



PHONO NEEDLE TEST LEADS

DESC: 5" x 3/8" diameter, tips are sharp phonograph needles. Available in spade lugs or alligator clips.
HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
CABLE: 50" flexible

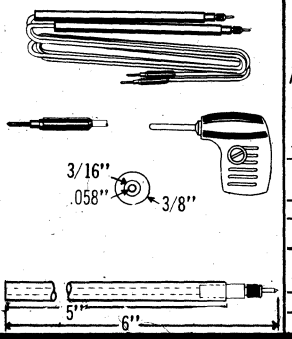
Net per pair .87

No.	
33-459-S	One pair, red and black With spade lug

Net per pair .93

No.	
33-461-S	One pair, red and black With alligator clip

ILLUSTRATIONS | DESCRIPTION



HEAVY DUTY "NEEDLEPOINT" TEST LEADS

DESC: 6" long, heavy duty needle point prods. Available in tip plugs or right angle meter plug.
HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
CABLE: 50" flexible

Net per pair 1.33

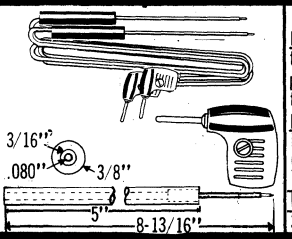
Pair of 1 red and 1 black with solderless straight tip plugs

No.	
33-460-S	

Net per pair 1.43

Pair of 1 red and 1 black with right angle, meter-type insulated tip plug.

No.	
33-462-S	

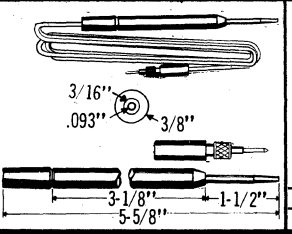


LONG REACH TEST LEADS

DESC: One end with 5" insulated test prod, very thin extension beyond handle to reach hard-to-get places; other end terminated in right angle, meter-type insulated tip plug.
HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
CABLE: 50" flexible

Net per pair 1.65

No.	
33-464-S	One pair, red and black

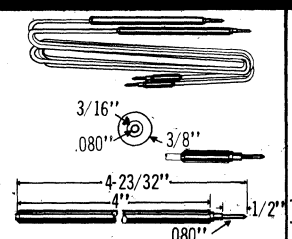


RETRACTABLE TEST PROD

DESC: Electrocraft's own printed circuit test prod with the exclusive retractable tip. This exclusive feature allows complete testing of printed circuitry without shorting or shock to the user.
HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
CABLE: 48" flexible

Net each 1.65

No.	Color	No.	Color
33-465-1-S	Red	33-465-2-S	Blk

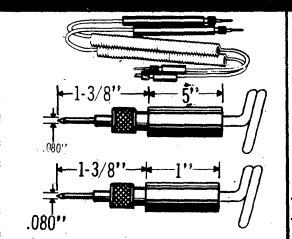


SUB-MINIATURE TEST LEADS

DESC: O.D. only 1/4"; insulated tips. Other end threaded phone tips.
HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
CABLE: 50" flexible

Net per pair 1.26

No.	
33-466-S	One pair, red and black

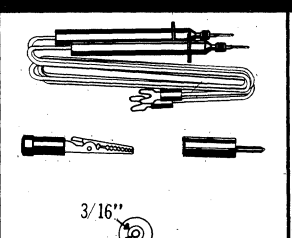


STRETCH TYPE TEST LEADS

DESC: One end 6-3/8" heavy duty test prods; other end insulated, solderless tip plug.
HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
CABLE: spiral type, 9"; 6" extended.

Net per pair 2.97

No.	
33-470-S	One pair, red and black



HIGH VOLTAGE TEST LEADS

DESC: Extra heavy-duty with finger guard type test prod handles. Available in tip plugs, spade lugs, or alligator clips.
HANDLE: Large-fibre, per MIL-F-1148-A type BH. Small Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
CABLE: 48" heavy insulated high tension wire (22,000 V)

Net per pair 2.57

Pair of 1 red, 1 black, terminated with tip plugs.

No.	
33-472-S	

Net per pair 2.40

Pair of 1 red, 1 black, terminated with insulated spade lugs.

No.	
33-474-S	

Net per pair 2.46

Pair of 1 red, 1 black, terminated with alligator clips.

No.	
33-476-S	

Net

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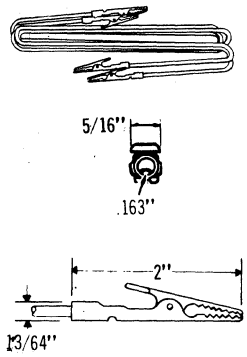
ELECTROCRAFT ELECTRONIC COMPONENTS

TEST PRODS, LEADS & ADAPTORS

ALLIGATOR CLIP TEST LEADS



DESC: Cadmium plated steel alligator clips on both ends of heavy duty test lead wire.
CABLE: Flexible, choice of lengths

Net per pair .55

No.		
33-496-S	12" length	One pair, red and black

Net per pair .61

No.		
33-497-S	24" length	One pair, red and black

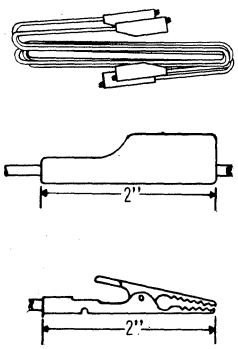
Net per pair .70

No.		
33-498-S	36" length	One pair, red and black

Net per pair .79

No.		
33-499-S	48" length	One pair, red and black

ALLIGATOR CLIP JUMPER LEADS



DESC: Terminated at each end with fully insulated steel nickel plated alligator clips.
CABLE: Flexible, choice of lengths

Net per pair .92

No.		
33-500-S	12" length	One pair, red and black

Net per pair .95

No.		
33-502-S	24" length	One pair, red and black

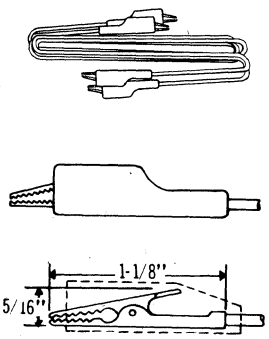
Net per pair 1.05

No.		
33-504-S	36" length	One pair, red and black

Net per pair 1.10

No.		
33-506-S	48" length	One pair, red and black

MIDGET ALLIGATOR CLIP TEST LEADS



DESC: Cadmium plated steel alligator clips with red vinyl plastic boots.
CABLE: Flexible, choice of lengths

Net per pair .81

No.		
33-501-S	12" length	One pair, red and black

Net per pair .84

No.		
33-503-S	18" length	One pair, red and black

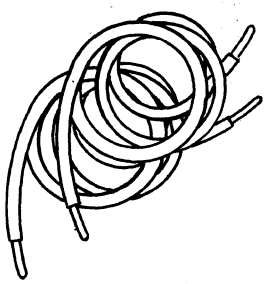
Net per pair .87

No.		
33-505-S	24" length	One pair, red and black

Net per pair .96

No.		
33-507-S	36" length	One pair, red and black

TEST LEAD WIRE



DESC: Flexible, rubber-coated and kink-resistant replacement wire for test leads.

Net per pair .60

Package of two, 50" length, red and black, 6000/V insulation.

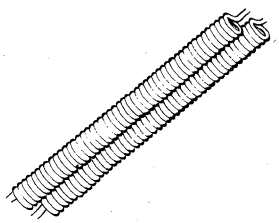
No.
33-518-S

Net per pair .87

Package of two, 48" length, red and black, heavy duty, 1/4" diameter, 22000/V test leads.

No.
33-520-S

STRETCH LEAD WIRE

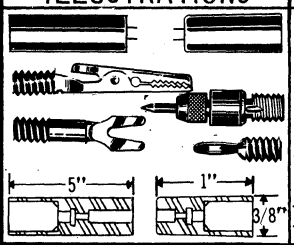


DESC: Coiled wire, for all applications where it is desirable to have leads retract. Package contains 1 red and 1 black lead..9" long - stretches to 6'.

Net per pair 1.95

No.
33-522-S

UNIVERSAL TEST LEAD KIT

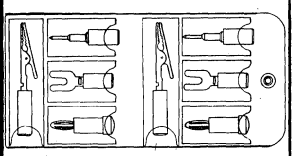


DESC: Two 55" leads and 12 interchangeable testing tips and connectors. Both ends convert to different types. Has four phone tips, two alligator clips, two needle tips, two banana plugs, two spade lugs. Plastic wallet-style kit.
HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
CABLE: 55" flexible

Net per pair 2.40

No.
33-528

TEST LEAD PLUG INTERCHANGE KIT



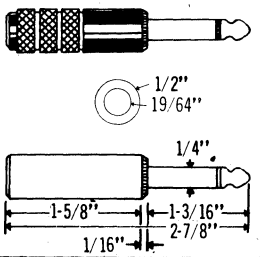
DESC: Contains pairs of alligator clips, banana plugs, spade lugs and phone tips, (1 each in red and black) to adapt standard test leads to different types of terminations. Attractive plastic case.
HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.

Net each 2.25

No.
33-530

PHONE PLUGS

2-COND., SCREW TERMINALS



RATING: 5 amps AC for 10 degree C Temp. rise, continuous duty. 750 volts 60 cycle AC continuous working voltage.
HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.

Net per C 44.83

No.	
33-600-BU	with black plastic handle.

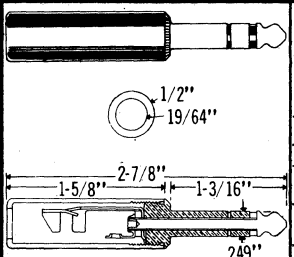
Net per C 44.83

33-602-BU	with red plastic handle.

Net per C 62.89

33-604-BU	with metal (shielded) handle.

2-COND., CLAMP OR SOLDER



DESC: Standard size plug, with large "grounding" terminals which clamps around cable insulation or shield, and acts as strain relief.
HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.

Net per C 39.90

No.	
33-606-BU	With black plastic handle.

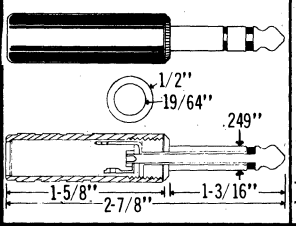
Net per C 39.90

33-608-BU	with red plastic handle.

Net per C 57.50

33-610-BU	with metal (shielded) handle.

TWO-CONDUCTOR PHONE PLUG, PLAIN SOLDER LUGS

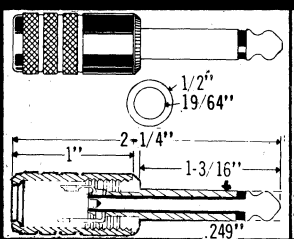


DESC: Standard size plug.
HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.

Net per C 39.17

No.	Color	No.	Color
33-612-1BU	Red	33-612-2BU	Black

"STUBBY" SHIELDED TWO-CONDUCTOR PHONE PLUG

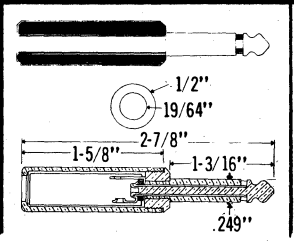


DESC: Standard phone plug with special, short metal handle; plain solder lugs.

Net per C 51.30

No.
33-614-BU

STANDARD SHIELD TWO-CONDUCTOR PHONE PLUG



DESC: Regular plug with metal (shielded) handle, plain solder lugs.

Net per C 57.00

No.
33-616-BU

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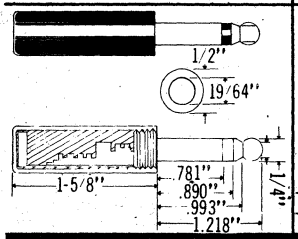
ELECTROCRAFT ELECTRONIC COMPONENTS

PHONE PLUGS

TWO-CONDUCTOR PHONE PLUG TYPE PJ-055B

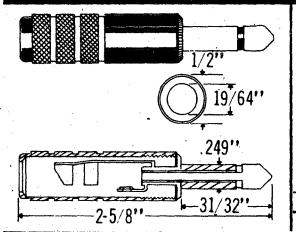


DESC: Solder terminal and screw connection; supplied with black, break-resistant molded shell.

Net per C 80.63

No.	
33-618-BU	

SHORT FINGER, 2-COND. PHONE PLUG

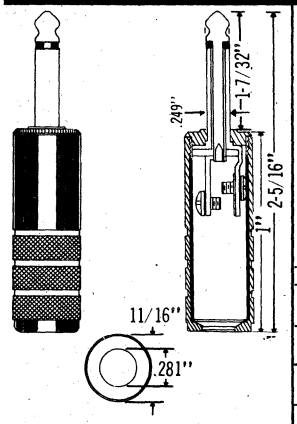


DESC: Special short finger (barrel) type plug to connect microphone or telephone pickup to Revere/Wollensack tape recorders. Combination clamp and solder lug connection; metal shielded handle.

Net per C 63.30

No.	
33-620-BU	

LARGE HANDLE 2-COND. PHONE PLUG



DESC: Standard size plugs with sturdy large handles where space is no factor; all supplied with screw type terminals.

RATING: 5 amps AC for 10 degree C Temp. rise, continuous duty. 750 volts 60 cycles AC working voltage.

HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.

Net per C 42.30

No.	
33-622-BU	with black plastic handle, 1-1/2" long

Net per C 42.30

33-624-BU	with red plastic handle, 1-1/2" long.

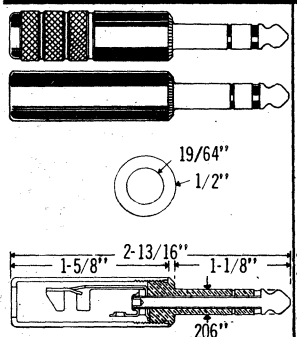
Net per C 63.00

33-626-BU	with metal (shielded) handle, 1" long

Net per C 69.00

33-628-BU	with metal (shielded) handle, 2-1/16"

"THIN-FINGER" 2-COND. PHONE PLUGS



DESC: Special plugs, with undersize barrel diameter of .206", for applications where polarized input is desired to distinguish between different connections. Plugs have combination clamp and solder lug connection and mate with jacks No. 33-700/2.

HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.

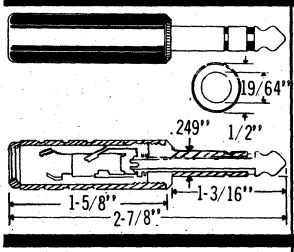
Net per C 41.40

No.	Color	No.	Color
33-630-1BU	Red	33-630-2BU	Blk

Net per C 51.00

33-632-BU	with metal (shielded) handle.

3-CONDUCTOR PHONE PLUG: COMB. CLAMP AND SOLDER LUG TERMINALS



HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.

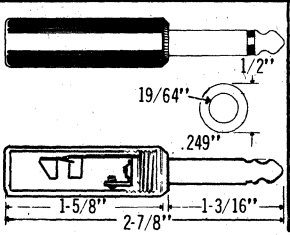
Net per C 58.35

No.	Color	No.	Color
33-640-1BU	Red	33-640-2BU	Blk

Net per C 73.35

33-642-BU	Metal

SCREW TERMINALS 3-CONDUCTOR PHONE PLUG



HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.

Net per C 70.83

No.	
33-644-BU	with black plastic handle

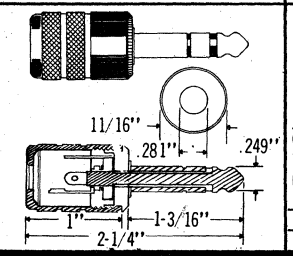
Net per C 70.83

33-646-BU	with red plastic handle

Net per C 83.17

33-648-BU	with metal (shielded) handle

LARGE HANDLE 3-CONDUCTOR PHONE PLUG

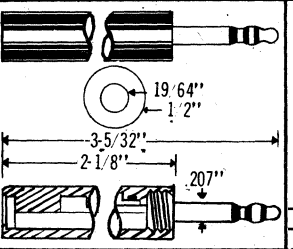


DESC: For heavy duty applicator; can accommodate large diameter cables, with room in handle for wired-in resistors or capacitors; with 1" long metal (shielded) handle.

Net per C 72.00

No.	
33-650-BU	

3-CONDUCTOR PHONE PLUG, TYPE PJ-068B

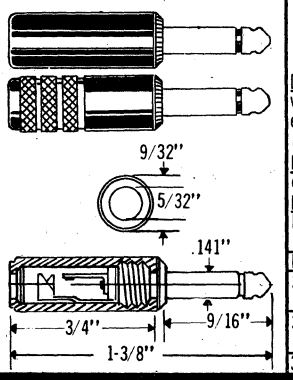


DESC: With solder terminal and screw connection; made in accordance with military specifications.

Net per C 209.99

No.	
33-654-BU	

MIN. PHONE PLUGS COMB. CLAMP & SOLDER TER.



DESC: These small plugs are designed for use with hearing aids, pocket radios, portable recorders, etc. Two-conductor style; tested for 500/V breakdown.

RATING: 5 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.

Net per C 51.66

No.	
33-660-BU	with metal (shielded) handle

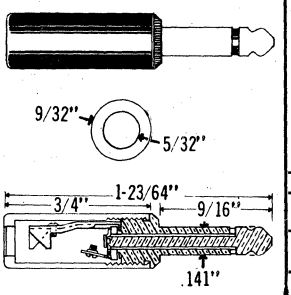
Net per C 40.02

33-662-BU	with black plastic handle

Net per C 40.02

33-664-BU	with red plastic handle

MIN. PHONE PLUGS COMB. CLAMP & SOLDER TER.



DESC: Same plug as 33-660 except for different style terminals.

HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.

Net per C 59.85

No.	
33-666-BU	with metal (shielded) handle.

Net per C 42.51

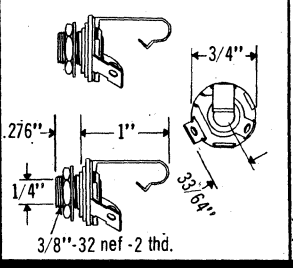
33-668-BU	with black plastic handle.

Net per C 42.51

33-670-BU	with red plastic handle.

PHONE JACKS

PANEL MOUNTING TWO-CONDUCTOR PHONE JACKS



DESC: Open circuit, 2-conductor.

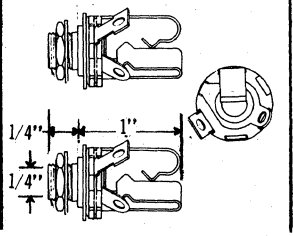
RATING: 10 amps AC for 10 degree C Temp. rise, continuous duty. 1.2 K Volts 60 cycle AC continuous working voltage.

WASHER: Phenolic, per MIL-LL-31 and ASTMD-709 type 1.

Net per C 27.00

No.	
33-690-BU	

PANEL MOUNTING TWO- CONDUCTOR PHONE JACKS



DESC: Panel mounting - two conductor Phone Jack. Use with Revere/Wollensach type. Will accommodate 33-620 phone plug.

Net per C 29.83

No.	
33-691-BU	

Net

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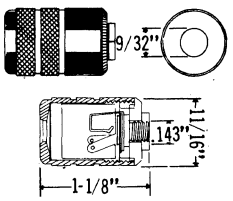
GC ELECTRONICS ELECTROCRAFT ELECTRONIC COMPONENTS

PHONE JACKS

ILLUSTRATIONS



DESCRIPTION

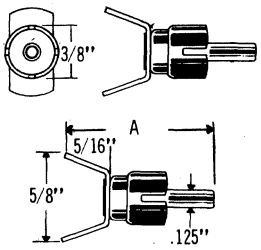
MINIATURE CORD MOUNTED JACKS

DESC: Miniature type, mates with plugs No. 33-660 through 33-670, with solder lugs and metal (shielded) handle.

Net per C 70.00

No.	
33-746-BU	

ILLUSTRATIONS



DESCRIPTION

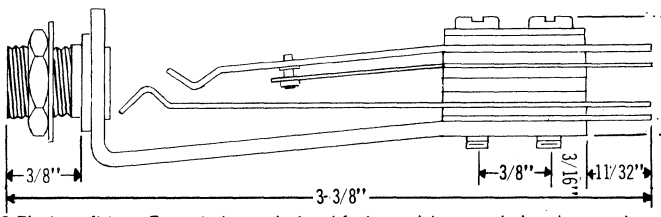
PHONO PLUG

DESC: New RCA type, 1/8" tube pin, nickel plated, brass, cadmium plated shell. Eliminates damaging shielded cable when connecting. Short Pin (13/16" overall) Long Pin (1" overall)

Net per C 7.50

No.	A
33-769-BU	short 1-1/16"

LONG FRAME JACKS

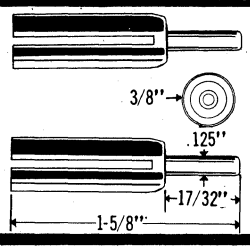


PART NO.	SCHEMATIC	DIM. A	PART NO.	SCHEMATIC	DIM. A	PART NO.	SCHEMATIC	DIM. A
33-750		21/32"	33-757		3/4"	33-760		3/4"
33-751		21/32"	33-756		3/4"	33-762		15/16"
33-753		21/32"	33-759		3/4"			
33-755		21/32"						
33-752		21/32"	33-761		23/32"	33-763		15/16"
33-754		21/32"	33-758		23/32"			

GC Electrocraft Long Frame Jacks are designed for heavy duty use and where long service is required. Special metal frame construction permits mounting on 5/8" centers. These jacks are made with nickel-silver alloy springs; mounted with phenolic insulator to cadmium plated steel frames. Steel nickel plated washer and nickel plated brass lock nut is supplied. Rating of standard jacks is 3 amps. On special orders, these jacks can be supplied with contacts up to 10 amps at 110/V AC non-inductive load. Also available, on special order, are jacks made in accordance with MIL-J-641 specifications. The jacks listed below are the most popular models, stocked at distributors. Many additional contact configurations and solder lug arrangements are available on order.

No.	Description	Net per C
33-750-BU	2-conductor, open circuit	44.16
33-751-BU	2-conductor, closed circuit	51.20
33-752-BU	3-conductor, single closed circuit	61.65
33-753-BU	2-conductor, closed circuit, grounded	51.20
33-754-BU	3-conductor, single closed circuit, ring grounded	61.65
33-755-BU	3-conductor, open circuit	51.20
33-756-BU	2-conductor, open circuit w/insulated break	61.65
33-757-BU	2-conductor, closed circuit and make	55.83
33-758-BU	3-conductor, 2 closed circuits	70.80
33-759-BU	2-conductor, insulated make	55.83
33-760-BU	2-conductor, closed circuit w/insulated break and make	70.80
33-761-BU	3-conductor, 2 closed circuit	66.60
33-762-BU	2-conductor, closed circuit w/insulated break and make	80.63
33-763-BU	3-conductor, 2 closed circuits w/insulated break and make	92.70

PHONO PIN PLUGS & JACKS

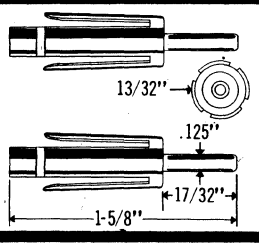


PHONO PLUGS

DESC: Motorola type, tube pin nickel plated-1/8". Pin extends from split brass, cadmium plated shell. Provides positive ground connection when inserted into connector.

Net per C 10.35

No.	
33-765-BU	

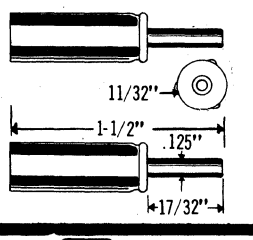


PHONO PLUG

DESC: Motorola type, tube pin nickel plated-1/8". Pin extends from split brass shell, designed for use with small dismeter cable. Shell is cadmium plated.

Net per C 10.35

No.	
33-766-BU	

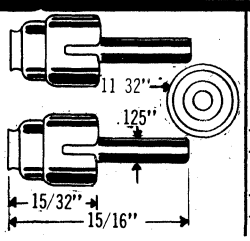


PHONO PLUG

DESC: Motorola type 1/8" tube pin extends from solid brase, cadmium plated shell, small ribbed.

Net per C 10.35

No.	
33-767-BU	



PHONO PLUG

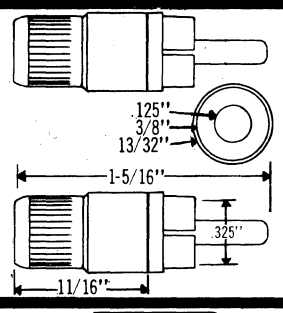
DESC: Solder type.

Net per C 5.80

No.	
33-768-BU	15/16" overall

Net per C 4.80

No.	
33-770-BU	13/16" overall

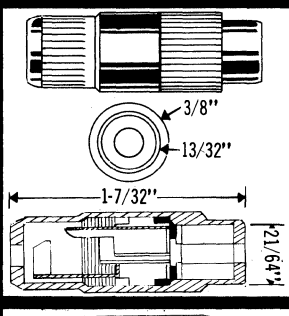


PHONO PLUG

DESC: Combination clamp, solder type, wtih removable metal (shielded) handle. Much easier to attach than the standard phono plug, and provides "finished" appearance. Mates with 33-774.

Net per C 28.50

No..	
33-772-BU	

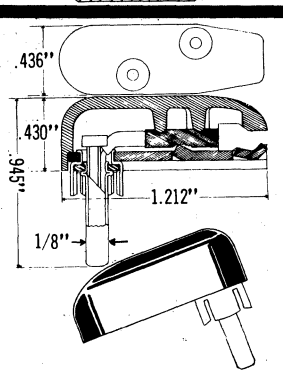


PHONO JACK, CORD MOUNTED

DESC: Also known as "extension" or "inline" jacks. Combination clamp and solder terminal; removable metal (shielded) handle.. Mates with 33-772.

Net per C 34.17

No.	
33-774-BU	



SOLDERLESS PHONO PLUGS

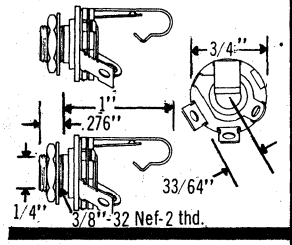
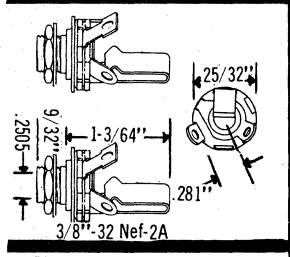
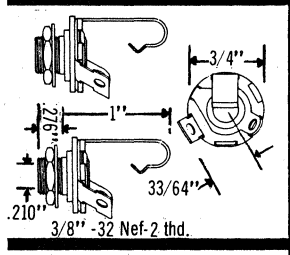
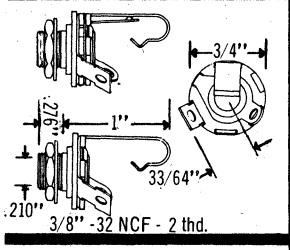
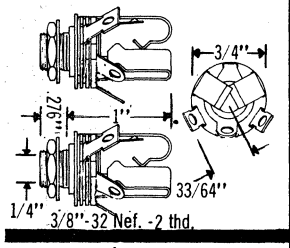
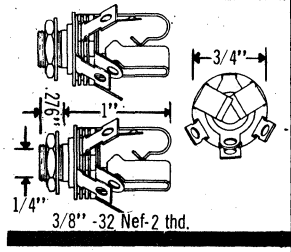
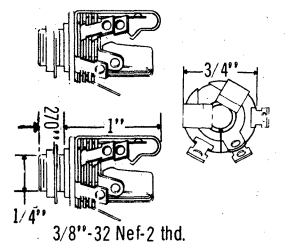
DESC: Completely new design, requires only stripping of cable, inserting in plastic shell, and tightening of assembly with 2 screws. Positive, noise-free pressure connection without soldering. Right angle style, designed for regular shielded cable with approximately 3/16" OD.

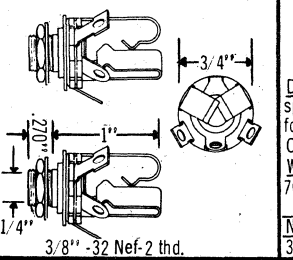
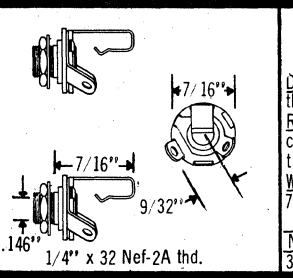
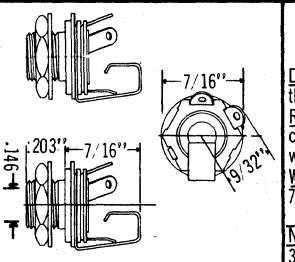
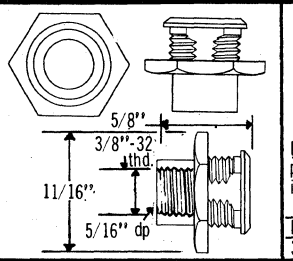
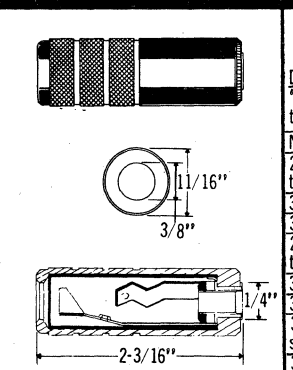
Net per C 23.40

No.	
33-776-BU	grey plastic shell
33-778-BU	black plastic shell
33-780-BU	red plastic shell
33-782-BU	yellow plastic shell
33-784-BU	blue plastic shell

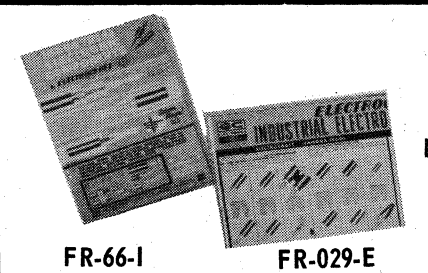
ELECTROCRAFT ELECTRONIC COMPONENTS

PHONE JACKS

ILLUSTRATIONS	DESCRIPTION
	**PANEL MOUNTING 2-CONDUCTOR PHONE JACKS** DESC: Closed circuit, 2-conductor. RATING: 10 amps AC for 10 degree C Temp. rise, continuous duty. 1.2 K Volts 60 cycle AC continuous working voltage. WASHER: Phenolic, per MIL-LL-31 and ASTMD-709 type 1. Net per C 29.83 No. 33-692-BU
	**PANEL MOUNTING TWO-CONDUCTOR PHONE JACKS** DESC: Open circuit, 2-conductor. WASHER: Per MIL type, JJ-034. Net per C 34.17 No. 33-694-BU
	**PANEL MOUNTING TWO-CONDUCTOR PHONE JACKS** DESC: Open circuit, 2-conductor .210" I.D. sleeve fit plugs No. 33-630/2. WASHER: Phenolic, per MIL-LL-31 and ASTMD-709, Washers type 1. Net per C 24.98 No. 33-700-BU
	**PANEL MOUNTING TWO-CONDUCTOR PHONE JACKS** DESC: Closed circuit, 2-conductor .210" I.D. sleeve...fits plugs No. 33-630/2. WASHER: Phenolic, per MIL-LL-31 and ASTMD-709 type 1. Net per C 26.67 No. 33-702-BU
	**PANEL MOUNTING 3-COND. PHONE JACKS** DESC: Open circuit, 3-conductor.. RATING: 10 amps AC for 10 degree C Temp. rise, continuous duty. 1.2 K Volts 60 cycle AC continuous working voltage. WASHER: Phenolic, per MIL-LL-31 and ASTMD-709 type 1. Net per C 36.00 No. 33-708-BU
	**PANEL MOUNTING 3-COND. PHONE JACKS** DESC: Single closed circuit, 3-conductor. RATING: 10 amps AC for 10 degree C Temp. rise, continuous duty. 1.2 K Volts 60 cycle AC continuous working voltage. WASHER: Phenolic, per MIL-LL-31 and ASTMD-709 type 1. Net per C 44.32 No. 33-710-BU
	**STEREO TELEPHONE JACK** DESC: New Jack designed for switching out speakers when connecting stereo headphones and for switching three stereo input circuits. Normally closed dual switch contacts open both stereo circuits separately when three circuit plug is inserted. WASHER: Phenolic per MIL-LL-31 and ASTMD-709 type 1. Net per C 54.00 No. 33-711-BU

ILLUSTRATIONS	DESCRIPTION
	**STEREO TELEPHONE JACK** DESC: New jack designed for switching out speakers when connecting stereo headphones and for switching three wire stereo input circuits. Open circuit, 3-conductor, MIL-type JJ-033. WASHER: Phenolic, per MIL-LL-31 and ASTMD-709 type 1. Net per C 39.98 No. 33-712-BU
	**MINIATURE PANEL MOUNTING JACKS** DESC: These jacks mate with plugs No. 33-660 through 33-670. Open circuit, 2-conductor. RATING: 5 amps AC for 10 degree C Temp. rise, continuous duty. 500 Volts 60 cycle AC continuous working voltage. WASHER: Phenolic, per MIL-LL-31 and ASTMD-709 type 1. Net per C 23.32 No. 33-720-BU
	**MINIATURE PANEL MOUNTING JACKS** DESC: These jacks mate with plugs No. 33-660 through 33-670- Closed circuit, 2-conductor. RATING: 5 amps AC for 10 degree C Temp. rise, continuous duty.500 Volts 60 cycle AC continuous working voltage. WASHER: Phenolic per MIL-LL-31 and ASTMD-709 type 1. Net per C 26.66 No. 33-722-BU
	**BUSHING AND NUT** DESC: Bushing and Nut assembly for controls, potentiometers, etc. Internally threaded to screw in control. Brass-bright nickel plated. Net per C 35.50 No. 33-724-BU
	**CORD MOUNTED JACKS** DESC: Often referred to as "extension jacks" or "inline jacks"; available in 2 or 3 conductor types.

No.		Net per C
2-conductor, open circuit style, with solder lug terminals.		
33-730-BU	metal	77.51
33-732-BU	plastic	55.83
2-conductor, open circuit style, with screw type terminals.		
33-734-BU	metal	90.00
33-736-BU	plastic	66.60
3-conductor, open circuit style, with screw or solder type terminals, and metal (shielded) handle.		
33-740-BU	solder	99.90
33-742-BU	screw	110.01



FR-66-I FR-029-E

SEND FOR FREE ELECTROCRAFT CATALOG & WALL CHART

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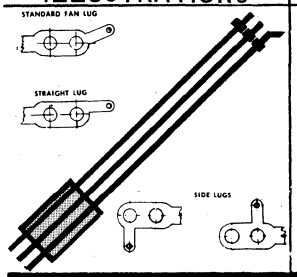
GC ELECTRONICS ELECTROCRAFT ELECTRONIC COMPONENTS

STACK ASSEMBLIES

ILLUSTRATIONS

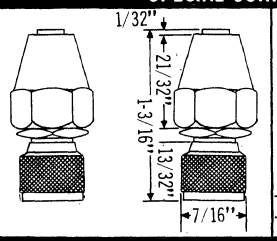


DESCRIPTION

STACK ASSEMBLIES

DESC: High grade stack assemblies can be supplied in a wide variety of circuit arrangements and contact ratings. Basic contacts can be placed at any one or more locations. Assemblies are tightly held together by press-fit insulator tubing. Length of blade is variable up to a maximum of 2-5/8". Available in lug design, as shown below. With a small tooling charge, blades are available in various forms to act as cam followers or other types of actuators.
We will be happy to consult with you on any special application where stack assemblies are used.

SPECIAL CONNECTORS & ADAPTORS

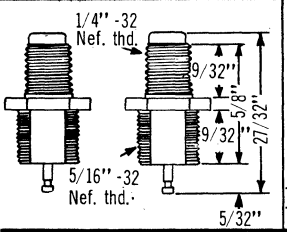


FEMALE COAXIAL CONNECTORS

DESC: Low-cost solderless coaxial cable connectors. For use with RG-8/U, RG-11/U and RG-59/U. Mates with No. 33-836 receptacle or No. 33-838 female coupler. Low-loss insulation.

Net per C 48.00

No. 33-834-BU

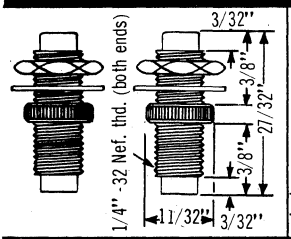


MALE CHASSIS FITTING

DESC: Silver-plated, low-loss insulated co-axial cable connector. Mates with No. 33-834. 5/8" threaded stem.

Net per C 48.00

No. 33-836-BU

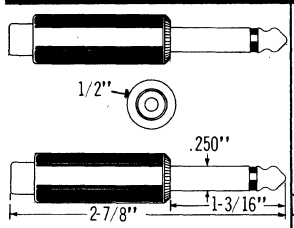


MALE COUPLER

DESC: Highly conductive, silver-plated cable connector. Mates at either end with No. 33-834 connector.

Net per C 60.00

No. 33-838-BU

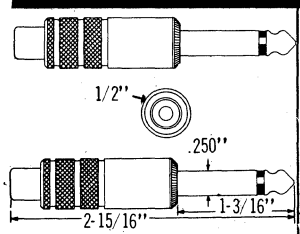


ADAPTOR

DESC: Phono jack input, standard phone plug output.
HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.

Net per C 67.50

No. 33-850-BU

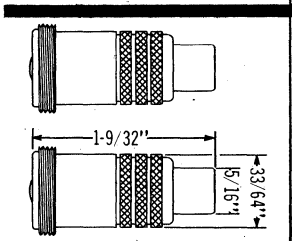


ADAPTOR

DESC: Phono jack input, standard phone plug output, heavy duty metal shielded type.

Net per C 78.30

No. 33-852-BU

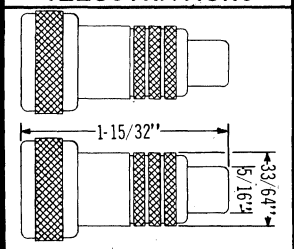


MALE ADAPTOR

DESC: Phone jack input, microphone connector output.

Net per C 59.40

No. 33-854-BU

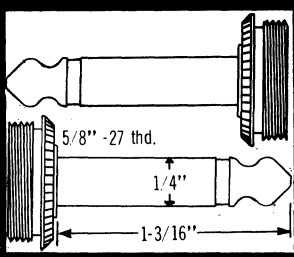


FEMALE ADAPTOR

DESC: Phono jack input, microphone connector output.

Net per C 67.50

No. 33-856-BU

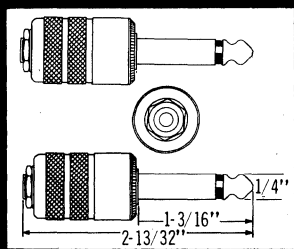


MALE ADAPTOR

DESC: Microphone connector input, standard phone plug output.

Net per C 30.00

No. 33-858-BU

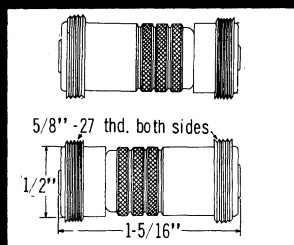


ADAPTOR

DESC: Miniature phone jack input, standard phone plug output.

Net per C 78.30

No. 33-860-BU

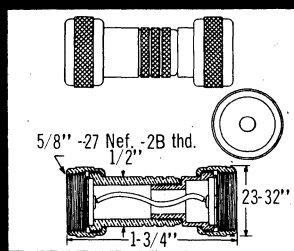


MALE CONNECTOR

DESC: Connects 2 female microphone connectors.

Net per C 40.00

No. 33-862-BU

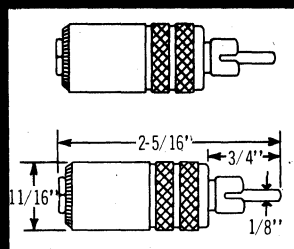


FEMALE CONNECTOR

DESC: Connects 2 male microphone connectors.

Net per C 44.17

No. 33-864-BU

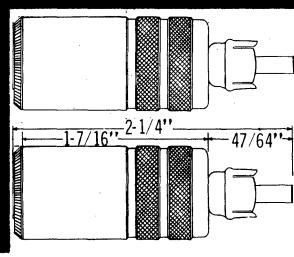


ADAPTOR

DESC: Miniature phone jack input, standard phono plug output.

Net per C 78.30

No. 33-865-BU



ADAPTOR

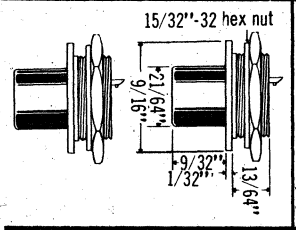
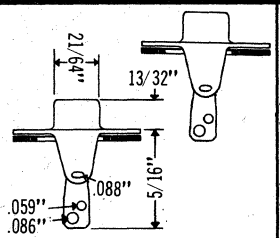
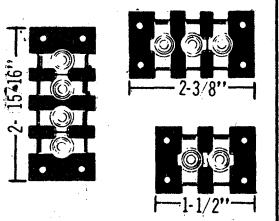
DESC: Standard phone jack input, phono plug output.

Net per C 105.84

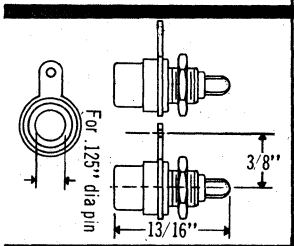
No. 33-866-BU

ELECTROCRAFT ELECTRONIC COMPONENTS

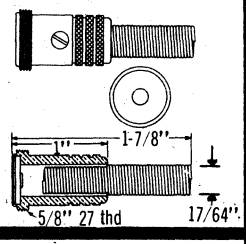
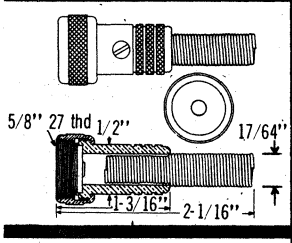
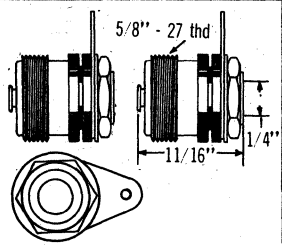
PHONO PIN PLUGS & JACKS

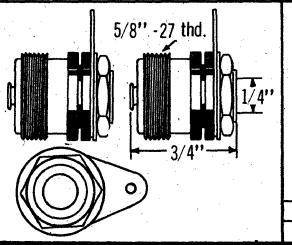
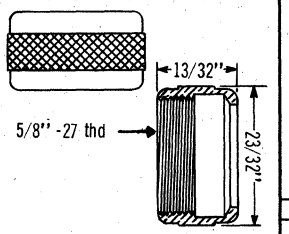
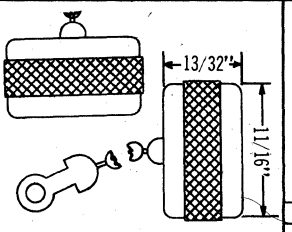
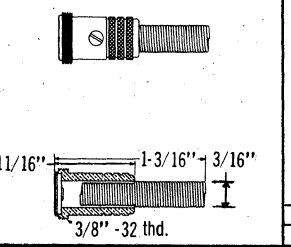
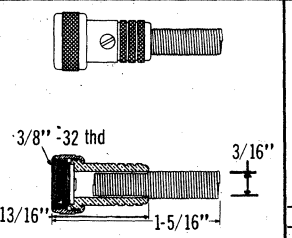
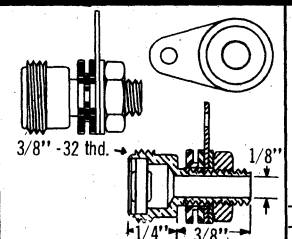
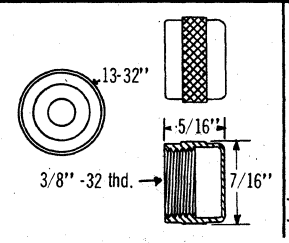
ILLUSTRATIONS	DESCRIPTION
	**PHONO JACK, SINGLE HOLE MOUNTING** DESC: Supplied with washer and mounting nut. Net per C 20.67 No. 33-790-BU
	**PHONO JACKS** DESC: Fastens to chassis with 2 rivets or 2 screws. Net per C 7.33 No. 33-792-BU W/oval, space saving metal mounting plate. Net per C 7.50 No. 33-796-BU W/regular, round mounting plate.
	**PHONO PIN JACKS**

No.		Net per C
33-798-BU	single phono pin jack	7.50
33-800-BU	double phono pin jack	12.00
33-802-BU	triple phono pin jack	15.00
33-803-BU	quadruple phono pin jack	24.00

	**SINGLE HOLE PANEL PHONO JACK** DESC: Mounts in 9/32" hole, requires only one hole drilled. Comes equipped with nut, washer and solder lug for ground. Net per C 16.20 No. 33-804-BU

STANDARD MICROPHONE CONNECTORS

	**CORD MOUNTED MALE MICROPHONE CONNECTOR** DESC: With flexible spring to protect cable; center conductor solders to contact; braid is clamped securely by set screw. Net per C 24.00 No. 33-810-BU
	**CORD MOUNTED FEMALE MICROPHONE CONNECTOR** DESC: With flexible spring to protect cable; center conductor solders to contact; braid is clamped securely by set screw. Net per C 31.50 No. 33-812-BU
	**PANEL MOUNTED MICROPHONE CONNECTOR** DESC: Requires 3/8" hole when grounded to chassis; or 7/16" hole if insulated with fibre washers; mates with No. 33-812 connector. Single contact connector. Net per C 19.38 No. 33-814-BU

ILLUSTRATIONS	DESCRIPTION
	**MICROPHONE AND CHASSIS CONNECTOR** DESC: Closed circuit type which grounds center contact when cable connector removed, thus eliminating noise. Net per C 26.50 No. 33-816-BU
	**COUPLING NUT** DESC: Converts No. 33-810 male connector to No. 33-812 female type, and No. 33-872 adapter to female No. 33-874. Net per C 8.33 No. 33-818-BU
	**CAP FOR PANEL CONNECTORS** DESC: Protects unused connectors from mechanical damage and dust. Net per C 42.48 No. 33-820-BU
	**MINIATURE MALE MICROPHONE CONNECTOR** DESC: These connectors are only about one-half the size of the standard microphone connectors. Particularly useful for portable equipment, lapel microphone, musical instruments, recorders, etc. Made to the same specifications and of same materials as standard size connectors. Net per C 26.00 No. 33-826-BU
	**MINIATURE FEMALE MICROPHONE CONNECTOR** DESC: These connectors are only about one-half the size of the standard microphone connectors. Particularly useful for portable equipment, lapel microphone, musical instruments, recorders, etc. Made to the same specifications and of same materials as standard size connectors. Net per C 33.15 No. 33-828-BU
	**MINIATURE MIKE CONNECTOR** DESC: These connectors are only about one-half the size of the standard microphone connectors. Particularly useful for portable equipment, lapel microphones, musical instruments, recorders, etc. Made to the same specifications and of same materials as standard size connectors. Panel mounted connector. Net per C 20.33 No. 33-830-BU
	**MINIATURE COUPLING NUT** DESC: Converts male connector No. 33-826 to female connector No. 33-828. Net per C 5.48 No. 33-832-BU

Net

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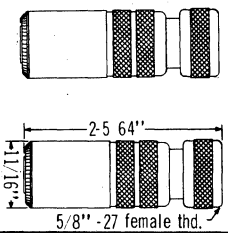
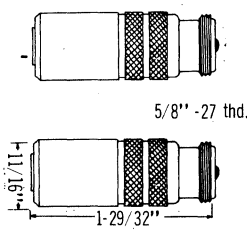
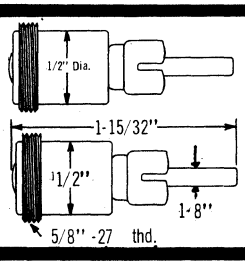
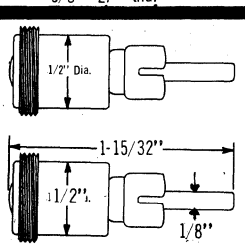
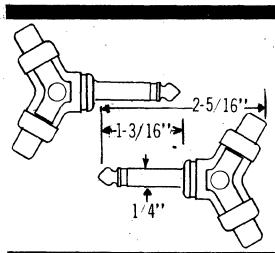
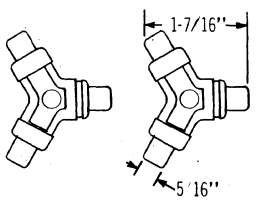
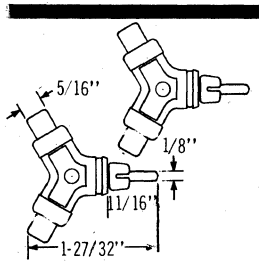
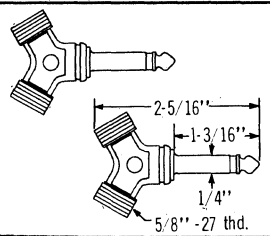
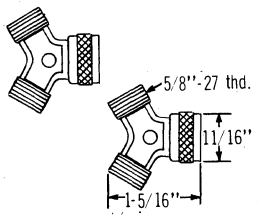
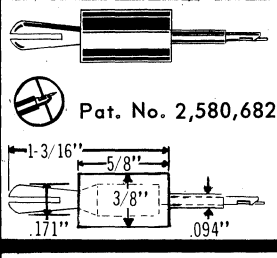
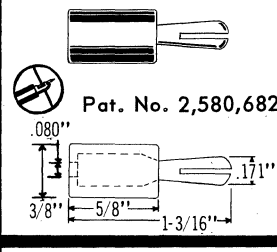
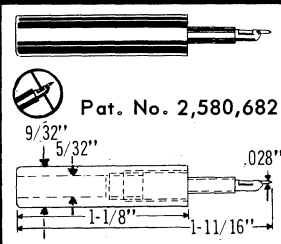
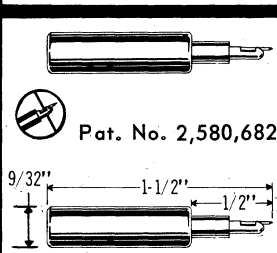
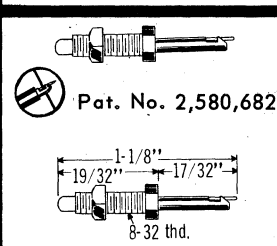
ELECTROCRAFT ELECTRONIC COMPONENTS

SPECIAL CONNECTORS & ADAPTORS

ILLUSTRATIONS	DESCRIPTION
	**FEMALE ADAPTOR** DESC: Standard phone jack input, microphone connector output. Net per C 99.17 No. 33-868-BU
	**MALE ADAPTOR** DESC: Standard phone jack input, microphone connector output. Net per C 89.10 No. 33-870-BU
	**MALE ADAPTOR** DESC: Microphone connector input, phone plug output. Net per C 67.50 No. 33-872-BU
	**FEMALE ADAPTOR** DESC: Microphone connector input, phone plug output. Net per C 99.17 No. 33-872-1BU
	**"Y" ADAPTOR** DESC: Input - 2 phono jacks (in parallel); output phone plug. Net per C 98.50 No. 33-880-BU
	**"Y" ADAPTOR** DESC: Input - 2 phono jacks (in parallel); output - single phono jack. Net per C 94.50 No. 33-882-BU
	**"Y" ADAPTOR** DESC: Input - 2 phono jacks (in parallel); output - standard phono pin plug. Net per C 94.50 No. 33-884-BU

ILLUSTRATIONS	DESCRIPTION
	**"Y" ADAPTOR** DESC: Input - 2 male microphone connectors (in parallel); output standard phone plug. Net per C 102.60 No. 33-886-BU
	**"Y" ADAPTOR** DESC: Input - 2 male microphone connectors (in parallel); output - female microphone connector. Net per C 89.63 No. 33-888-BU

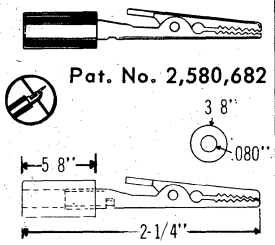
KLIPZON

ILLUSTRATIONS	DESCRIPTION
	**BANANA PLUG-KLIPZON ADAPTOR** DESC: Designed to adapt unterminated wire ends to Banana Jack. HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3. TIP: One end cross-slotted; brass, nickel plated banana plug; other end "Klipzon" self-holding wire piercing tip. Net per C 45.00 No. 33-076-BU Color Red — No. 33-078-BU Color Blk
	**ADAPTER, KLIPZON TIP TO BANANA PLUG** DESC: For connection of test leads terminated with Klipzon prods to equipment with banana jacks or standard tip plugs. HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3. TIP: Adapts tip plugs to banana plugs. Net per C 36.00 No. 33-080-BU Color Red — No. 33-082-BU Color Blk
	**KLIPZON MINI-PROD** DESC: Ingeniously designed; insulated tip plug which can be snapped securely on wires; sharp point to pierce insulation; fits standard tip jacks; wire solders to body. HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3. TIP: Wire piercing Klipzon Net per C 36.00 No. 33-138-BU Color Red — No. 33-140-BU Color Blk
	**KLIPZON MINI-PROD ADAPTOR** DESC: Converts standard Tip Plug and Test Prod to self-holding Klipzon wire piercing prod. HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3. TIP: Wire piercing Klipzon. Net per C 36.00 No. 33-160-BU Color Red — No. 33-162-BU Color Blk
	**KLIPZON PANEL MOUNTS** DESC: Wire holding patented Klipzon Test Prod with threaded shank (8-32 x 3/8") for panel mount. Designed for test setups. Quickly connects and disconnects Resistors, Capacitors, Diodes or Transistor leads. TIP: Wire piercing Klipzon. Net per C 45.00 No. 33-164-BU

GC ELECTRONICS ELECTROCRAFT ELECTRONIC COMPONENTS

KLIPZON

ILLUSTRATIONS | DESCRIPTION

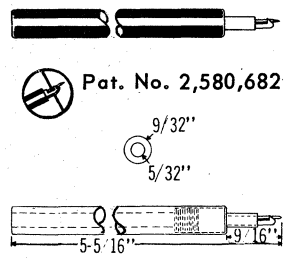


ALLIGATOR-KLIPZON PROD ADAPTOR

DESC: Adapts Klipzon Mini-Prod connectors and standard tip plugs to Alligator clip, has very short insulated handle and cadmium plated steel jaws.
HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.

Net per C 36.00

No.	Color	No.	Color
33-338-BU	Red	33-340-BU	Blk

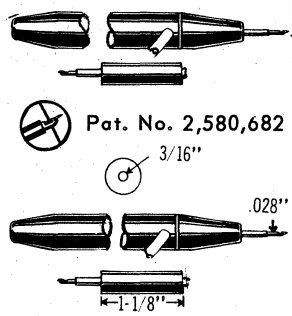


KLIPZON TEST PROD

DESC: Ingenious Klipzon tip has self-holding point which clips on wire or chassis; sharp point, easily penetrates insulation; has convenient, thin handle; wire solders to tip.
HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
TIP: Wire piercing Klipzon

Net per C 63.00

No.	Color	No.	Color
33-400-BU	Red	33-402-BU	Blk

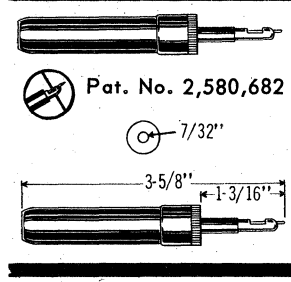


KLIPZON CRYSTAL PROD KIT

DESC: Self-holding prod in molded, streamlined handle with Germanium Diode and other parts to assemble a low capacity crystal probe.
HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
TIP: Self-holding, Patented Klipzon tip. Aluminum body, spring wire tip.

Net each 1.83

No.
RF Probe for use with Vacuum Tube Volt Meter 33-412
RF Probe for use with Vacuum Ohm Milliameter 33-414

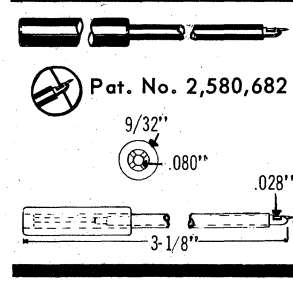


KLIPZON JUMBO PROD HANDLE

DESC: Solder type. Clips on wires up to .229" in diameter, chassis, screws, terminals, etc.
HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
TIP: Self-holding, patented Klipzon tip. Aluminum body; spring wire tip.

Net per C 66.00

No.	Color	No.	Color
33-416-BU	Red	33-418-BU	Blk

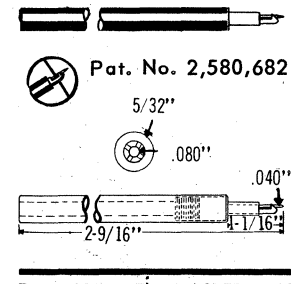


KLIPZON LONGIE ADAPTOR

DESC: Long, slender, self-holding point. Fits standard tip plug and test prod.
HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
TIP: Self-holding, patented Klipzon tip. Aluminum body; spring wire tip.

Net per C 45.00

No.	Color	No.	Color
33-420-BU	Red	33-422-BU	Blk



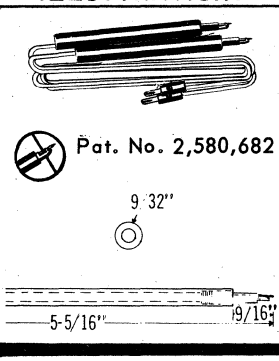
KLIPZON JUMBO ADAPTOR

DESC: Adapts regular Tip Plug or Test Prod to Jumbo self-holding Klipzon type. Designed to clip on large wires, chassis, screws, lugs, etc.
HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
TIP: Self-holding, patented "Jumbo" Klipzon tip. Aluminum body; spring wire tip.

Net per C 63.00

No.	Color	No.	Color
33-424-BU	Red	33-426-BU	Blk

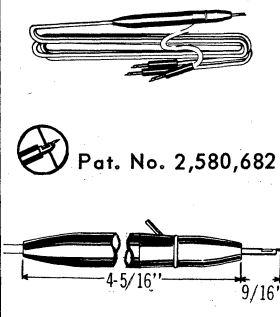
ILLUSTRATIONS | DESCRIPTION



KLIPZON TEST LEADS

DESC: 48" flexible leads. One end on all leads is 4-3/4" long handle with Klipzon tip; other end is 1-1/8" handle with choice of Klipzon tip, standard Phone Tip, or Banana Plug.
HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
PROD TIP: Self-holding, patented Klipzon. Aluminum body, spring wire tip.

No.	Net each
With Klipzon on 1-1/8" handle 33-480-S	2.03
With Insulated Standard Phone Tip Plug 33-482-S	1.65
With Banana Plug 33-484-S	1.95

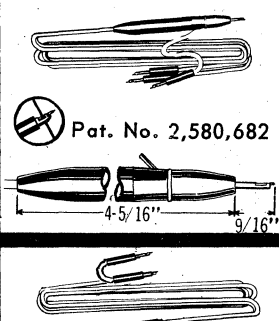


KLIPZON CRYSTAL PROBES

DESC: Germanium diode probe with Klipzon self-holding points, for measuring high frequency voltage with Vacuum Tube Volts Meter, flexible lead wires are terminated on meter end with Klipzon tip plug. Completely shielded model, with flexible coaxial cable and separate grounding terminals, on probe and cable end, for frequencies to 200 Mc.
HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.

Net each 4.35

No.
33-486-S

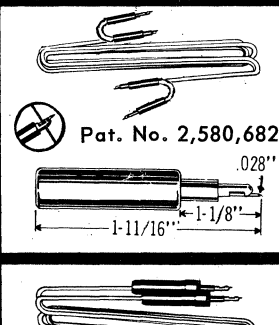


KLIPZON CRYSTAL PROBE

DESC: Standard type, consisting of lead, with Klipzon crystal probe on one end, plus ground lead terminated on each end with Klipzon tip plug; for use with regular v,lt meter. Frequency range to 200 Mc.
HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.

Net each 4.35

No.
33-488-S

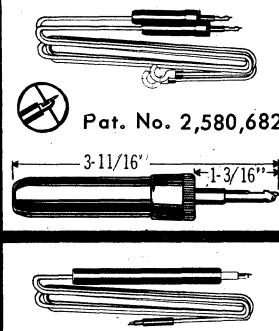


SHIELDED LOW CAPACITY

DESC: 36" low capacity, coazial type lead, terminated on each end with self-holding insulation piercing, Klipzon tip prods. Ground connection of each end with separate Klipzon plug tips.
HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
TIP: Self-holding, patented Klipzon Tip. Aluminum body; spring wire tip.

Net each 2.97

No.
33-490-S

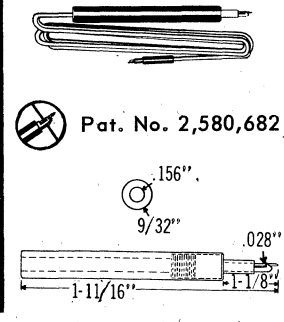


HEAVY DUTY KLIPZON LEADS

DESC: 48" leads with "Jumbo" Klipzon type terminals one end, hook type other end. One pair red and black.
HANDLE: Molded Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
TIP: Self-holding, patented Klipzon Tip. Aluminum body, spring wire tip..

Net each pair 2.87

No.	
33-492-S	One pair, red and black



KLIPZON JUMPER LEADS

DESC: 48" leads, terminated on each end with patented Klipzon tips, which clip on wires and terminals, have sharp insulation and corrosion piercing points, and will also plug in any standard tip jack. Single jumper.
HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3.
TIP: Self-holding, patented Klipzon Tip. Aluminum body, spring wire tip.

No.	Length	Color	Net each
33-510-S	12"	Red	.77
33-512-S	12"	Black	.77
33-514-S	24"	Red	1.12
33-516-S	24"	Black	1.12

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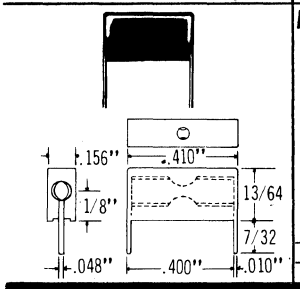
ELECTROCRAFT ELECTRONIC COMPONENTS

PRINTED CIRCUIT CONNECTORS

MINIATURE HORIZONTAL JACK*

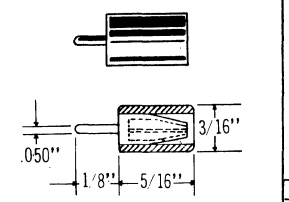


DESC: unique design accepts .080" diameter tip plug in either end,or from top or bottom.Only .400" in width, .156" in depth.
BODY: Tough, low-loss plastic, per MIL-P-17091.
CONTACT: Silver-plated, berylium copper formed contact. 2 terminals.
RATING: 5 amperes maximum current capacity.
OPERATING VOLTAGE: 1500 volts RMS 50,000 feet.

Net per C 9.90

No.	Color	No.	Color
33-235-1BU	Red	33-235-2BU	Blk

MINIATURE VERTICAL JACK*

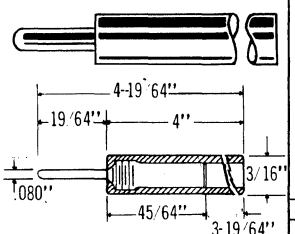


DESC: Mounts through single .052" hole, requires minmum mounting area. Overall length is 7/16".
BODY: Tough, low-loss plastic, per MIL-P-17091.
CONTACT: Silver-plated, machined berylium-copper contact.
RATING: 5 amperes maximum current capacity.
OPERATING VOLTAGE: 1500 volts RMS at 50,000 feet.

Net per C 13.60

No.	Color	No.	Color
33-237-1BU	Red	33-237-2BU	Blk

MINIATURE HANDLE TIP PLUG

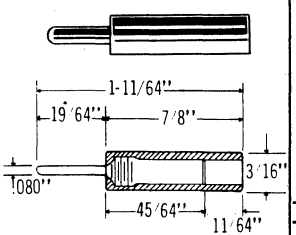


DESC: For use with horizontal, vertical or standard .080" diameter tip jacks. 4" handle for ready access to "hard-to-reach" test points. Overall length is 4-19/64", 3/16" diameter.
BODY AND CONTACT: Nickel plated machined brass, solder-type lead connector.

Net per C 28.90

No.	Color	No.	Color
33-238-1BU	Red	33-238-2BU	Blk.

SUB MINIATURE TIP PLUG*



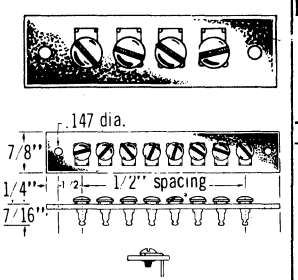
DESC: For use with horizontal, vertical or standard .080" diameter tip jacks. Overall length is 1-11/64", 3/16" diameter.
BODY AND CONTACT: Nickel plated machined brass, solder type lead connectors.

Net per C 16.80

No.	Color	No.	Color
33-239-1BU	Red	33-239-2BU	Blk

TERMINAL STRIPS

HEAVY DUTY TERMINAL BOARDS

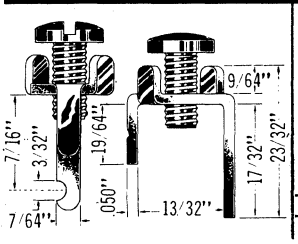


DESC: Brass and cadmium plated lug .042 thick with spaced 1/2" centers and numbered terminals. X.P. bakelite strip 7/8" wide x 3/32 thick and numbered. The brass screw is a nickel plated 8-32 x 5/16".

No.	Terminals	Mtg. Center	Net per C
33-930-BU	2	1½"	20.40
33-931-BU	3	2"	28.20
33-932-BU	4	2½"	34.20
33-934-BU	5	3"	40.20
33-935-BU	6	3½"	46.20
33-936-BU	7	4"	52.20
33-937-BU	8	4½"	58.80

TERMINAL LUGS & SCREWS

TERMINAL LUGS AND SCREWS



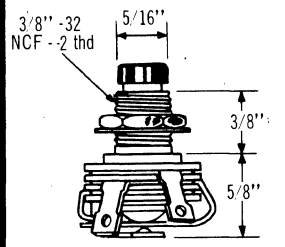
DESC: Designed for heavy duty terminal strips. Brass hot tinned lugs with screw inserted.

Net per C 5.40

No.	
33-940-BU	

PUSH BUTTON SWITCHES

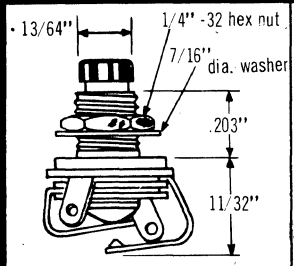
STANDARD SMALL PUSH BUTTON SWITCHES



DESC: Specially designed for test equipment, audio and inter-communication devices, electronic medical equipment, etc.. Standard design is with integral contacts for low level circuits, can also be supplied with silver contacts for 3 amps, 115/V. AC rating (on special orders in production quantities).
WASHERS: Phenolic, per MIL-LL-31 and ASTMD-709 type 1.

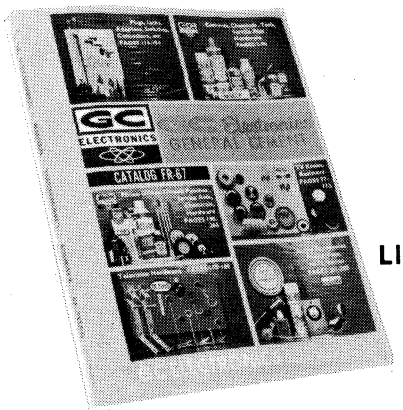
No.	Description	Net per C
34-000-BU	Single make - black button	51.66
34-002-BU	Single make - red button	51.66
34-004-BU	Single break - black button	51.66
34-006-BU	Single break - red button	51.66
34-008-BU	Single break-make-blk button	57.51
34-010-BU	Single break-make-red button	57.51

MINIATURE PUSH BUTTON SWITCHES



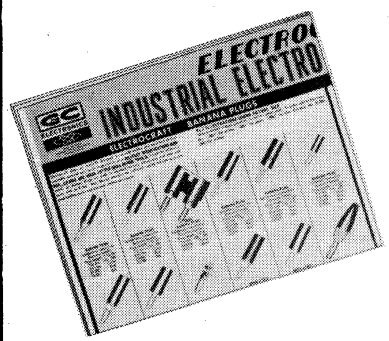
DESC: Designed for applications where space is extremely limited, such as aircraft, computers, portable test equipment, etc.. Made of the same specifications as standard small switches listed in this section.

No.	Description	Net per C
34-020-BU	Single make - black button	51.66
34-022-BU	Single make - red button	51.66
34-024-BU	Single break - black button	51.66
34-026-BU	Single break-make-blk button	57.51



SEND FOR FREE GC CATALOG FR-67 THE COMPLETE LINE OF ELECTRONIC PRODUCTS

ALSO AVAILABLE...



HANDY REFERENCE WALL CHART FR-029-E THE COMPLETE ELECTROCRAFT LINE

**Also available in Bulk quantities in yellow, green, or blue. To order: add to part number, "-3BU" for yellow, "-4BU" for green, "-5BU" for blue. Example: No. 33-000-3BU (for yellow).*

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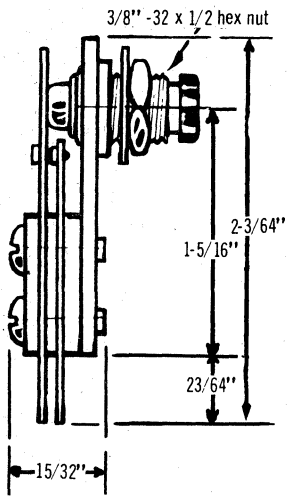
Net

ELECTROCRAFT ELECTRONIC COMPONENTS

PUSH BUTTON SWITCHES

ILLUSTRATIONS



PART NO.	PUSH BUTTON	SCHEMATIC CIRCUIT
34-028 34-028-1	Black Red	
34-030 34-030-1	Black Red	
34-032 34-032-1	Black Red	
34-034 34-034-1	Black Red	
34-036 34-036-1	Black Red	
34-038 34-038-1	Black Red	
34-040 34-040-1	Black Red	

DESCRIPTION

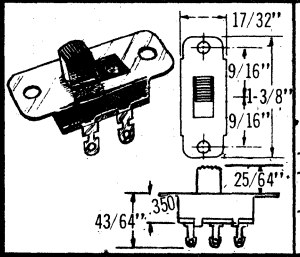
STRAIGHT FRAME PUSH BUTTON SWITCHES

DESC: Designed for heavy duty application where utmost reliability is required; straight frame design provides perfect spring and contact; fine silver contacts with minmum resistance rated at 3 amp, 115/V, AC, non-inductive load. Standard push button is black, however, other colors and higher ratings as well as many additional contact arrangements can be supplied on order.

No.		Net per C
34-028-BU	Single make, black button SPST, normally open	58.38
34-028-1BU	Single make, red button SPST, normally open	58.38
34-030-BU	Single break, black button SPST, normally closed	58.38
34-030-1BU	Single break, red button SPST, normally closed	58.38
34-032-BU	Single break-make Black button SPDT, spring return	69.00
34-032-1BU	Single break-make Red button SPDT, spring return	69.00
34-034-BU	DPST, normally open Black button	75.90
34-034-1BU	DPST, normally open Red button	75.90
34-036-BU	DPST, normally closed Black button	75.90
34-036-1BU	DPST, normally closed Red button	75.90
34-038-BU	DPDT, spring return Black button	90.00
34-038-1BU	DPDT, spring return Red button	90.00
34-040-BU	3PDT, spring return Black button	115.00
34-040-1BU	3PDT, spring return Red button	115.00

MISC. SMALL SWITCHES

ILLUSTRATIONS



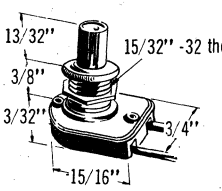
DESCRIPTION

SLIDE SWITCHES

DESC: Small switches of sturdy design; UL approved for 1/2 amp, 125/V. Mount with 2 screws, No. 6 or rivets 1/8" with 1-1/8" spacing.

No.		Amps	Net each
34-160	SPDT	AC 4.0 DC 1.0	.18
34-162	DPDT	AC 3.0 DC 0.5	.22

ILLUSTRATIONS



DESCRIPTION

ROTARY CANOPY SWITCH

DESC: With wire leads and 13/32" shank length. Standard replacement switch for lighting fixtures, bench lamps, small electrical appliances, instruments, etc. Rating: 3 amps, 125/V, 1 amp, 250/V. Mounts in 3/8" hole.

Net each .32

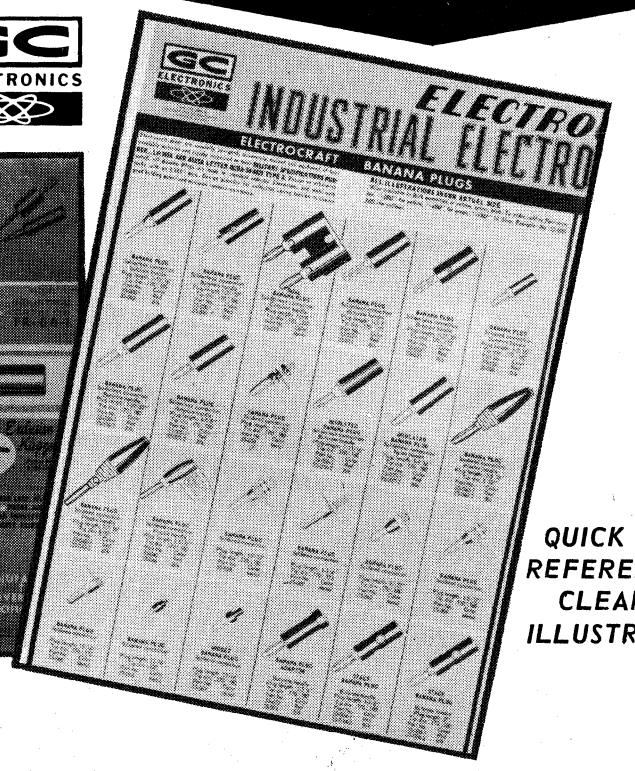
No.	
34-166	

ELECTROCRAFT WALL CHART

NOW AVAILABLE...

FOR ENGINEERS
DRAFTSMEN
INDUSTRIALISTS

SEND FOR WALL CHART FR-029-E



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INDUSTRIAL CATALOG FR-66-I ELECTRONIC INDUSTRIAL PRODUCTS

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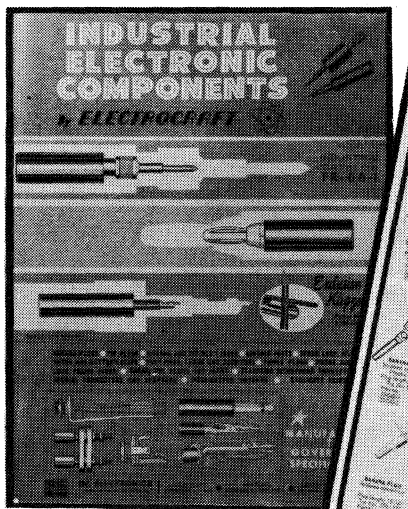

Net

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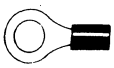
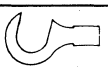
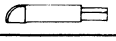
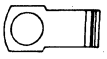
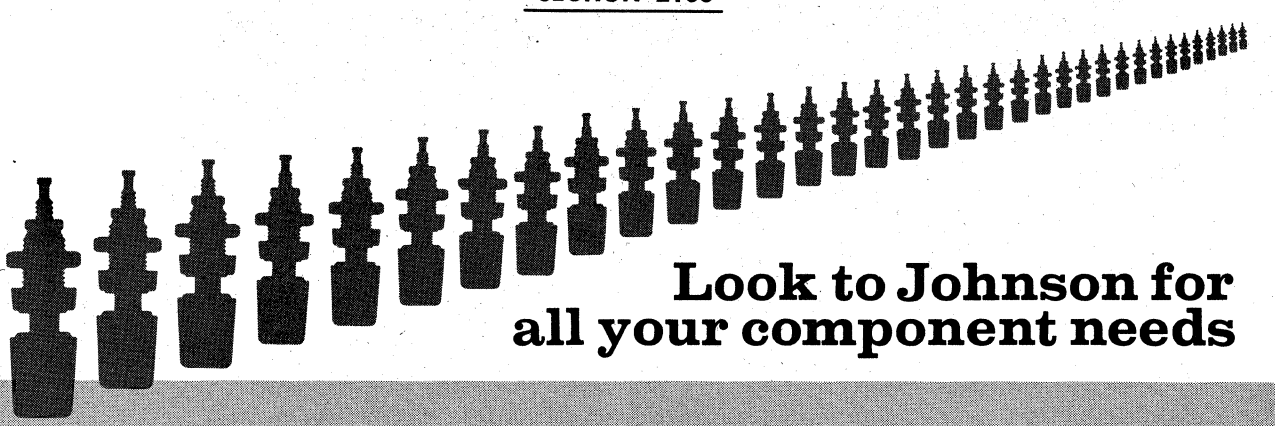
GC ELECTRONICS

SOLDERLESS TERMINALS and CONNECTORS

DESCRIPTION	WIRE SIZE	STUD SIZE	LENGTH	100 PACK PART. NO.	100 PACK NET/100	1000 PACK PART. NO.	1000 PACK NET/100
RING TONGUE NON INSULATED	22-16	4-6	17/32	13-000-C	2.43	13-000-M	20.79
	22-16	4-6	23/32	13-002-C	2.43	13-002-M	20.79
	22-16	8	41/64	13-004-C	2.43	13-004-M	20.79
	22-16	8	23/32	13-006-C	2.73	13-006-M	23.10
	22-16	8-10	23/32	13-008-C	2.43	13-008-M	20.74
	16-14	4-6	19/32	13-012-C	2.45	13-012-M	21.01
	16-14	4-6	45/64	13-014-C	2.45	13-014-M	21.01
	16-14	8	45/64	13-016-C	2.45	13-016-M	21.01
	16-14	10	45/64	13-018-C	2.45	13-018-M	21.01
	16-14	12-1/4	57/64	13-020-C	3.42	13-020-M	29.32
	12-10	4-6	3/4	13-022-C	3.42	13-022-M	29.32
	12-10	8-10	3/4	13-024-C	3.42	13-024-M	29.32
	12-10	1/4"	1-1/32	13-026-C	4.26	13-026-M	36.47
	16-14	10	55/64	13-030-C	7.21	13-030-M	61.71
RING TONGUE INSULATED 	22-16	4-6	45/64	13-050-C	5.54	13-050-M	47.52
	22-16	4-6	29/32	13-052-C	5.54	13-052-M	47.52
	22-16	8-10	29/32	13-054-C	5.54	13-054-M	47.52
	16-14	4-6	25/32	13-056-C	5.54	13-056-M	47.52
	16-14	4-6	57/64	13-058-C	5.54	13-058-M	47.52
	16-14	10	57/64	13-060-C	5.54	13-060-M	47.52
	16-14	12-14	1-5/64	13-062-C	6.47	13-062-M	55.44
	12-10	8-10	1-3/64	13-064-C	6.47	13-064-M	55.44
	12-10	1/4	1-21/64	13-066-C	7.41	13-066-M	63.36
SPADE TERMINAL NON-INSULATED	22-16	4-6	3/4	13-100-C	2.43	13-100-M	20.79
	22-16	8	3/4	13-102-C	2.13	13-102-M	18.26
	16-14	4-6	3/4	13-104-C	2.43	13-104-M	20.79
	16-14	8	3/4	13-105-C	2.43	13-105-M	20.79
	16-14	10	3/4	13-106-C	2.43	13-106-M	20.79
SPADE TERMINAL INSULATED	22-16	4-6	13/16	13-108-C	5.54	13-108-M	47.52
	22-16	8	13/16	13-109-C	5.54	13-109-M	47.52
	16-14	4-6	13/16	13-110-C	5.54	13-110-M	47.52
	16-14	8	13/16	13-111-C	5.54	13-111-M	47.52
	16-14	10	13/16	13-112-C	5.54	13-112-M	47.52
FLANGE SPADE TERMINAL NON INSULATED	22-16	4-6	5/8	13-114-C	2.43	13-114-M	20.79
	16-14	10	3/4	13-116-C	3.36	13-116-M	28.82
	16-14	4-6	3/4	13-118-C	4.99	13-118-M	42.68
	16-14	8	3/4	13-120-C	4.99	13-120-M	42.68
FLANGE SPADE TERMINAL INSULATED	22-16	4-6	13/16	13-124-C	8.16	13-124-M	67.87
	22-16	8-10	13/16	13-126-C	10.09	13-126-M	83.82
	16-14	4-6	13/16	13-128-C	8.72	13-128-M	74.58
	16-14	8	13/16	13-130-C	10.74	13-130-M	91.85
	16-14	10	13/16	13-132-C	10.74	13-132-M	91.85
HOOK TERMINAL 	22-16	4-6	23/32	13-200-C	2.13	13-200-M	18.26
	22-16	8-10	23/32	13-202-C	2.48	13-202-M	21.23
BUTT CONNECTOR NON-INSULATED	22-16	9/16		13-220-C	2.60	13-220-M	22.22
	16-14	9/16		13-222-C	2.13	13-222-M	18.26
	12-10	9/16		13-224-C	2.48	13-224-M	21.23
BUTT CONNECTOR INSULATED	22-16	1		13-226-C	6.47	13-226-M	55.44
	16-14	1		13-228-C	5.69	13-228-M	48.73
	12-10	1-1/16		13-230-C	6.93	13-230-M	59.40
PARALLEL CONNECTOR NON-INSULATED	22-16	5/16		13-240-C	2.62	13-240-M	22.44
	16-14	5/16		13-242-C	4.52	13-242-M	36.30
SNAP TERMINAL	16-14	5/8		13-250-C	2.16	13-250-M	18.46
TAB TERMINALS NON-INSULATED	18-14	male	23/32	13-260-C	2.54	13-260-M	21.78
	18-14	female	23/32	13-262-C	2.54	13-262-M	21.78
	18-14	90°male	9/16	13-264-C	2.77	13-264-M	23.76
	18-14	90°female	15/32	13-266-C	2.60	13-266-M	22.22
	18-14	male	7/8	13-268-C	5.83	13-268-M	49.72
	18-14	female	7/8	13-269-C	5.83	13-269-M	49.72
ADAPTER			7/8	13-270-C	4.40	13-270-M	37.62
			5/16	13-272-C	4.44	13-272-M	38.06
			7/8	13-274-C	4.40	13-274-M	37.62
			49/64	13-276-C	4.40	13-276-M	37.62
INSULATING TUBING	22-16		5/8	13-280-C	2.71	13-280-M	23.21
CONNECTOR INSULATOR	16-14		1-1/8	13-282-C	2.71	13-282-M	23.21
TERMINAL INSULATOR	16-14		1-5/8	13-284-C	2.71	13-284-M	23.21
KNIFE DISCONNECT 	22-16		5/8	13-290-C	8.09	13-290-M	69.30
FLAG TERMINAL 	22-16	8-10	5/8	13-294-C	2.60	13-294-M	22.22
	16-14	8-10	5/8	13-296-C	2.43	13-296-M	20.79



Look to Johnson for all your component needs

CONNECTORS

SUB-MINIATURE INSULATED TYPES – Designed for printed circuit applications. Operating voltages to 1500 volts RMS . . . 5 amperes current carrying capacity . . . contact resistance less than 2 milliohms. Capacitance between two adjacent jacks less than one pf at 1 Mc. 10 colors available. Test-Point Strip/Handle – rapid-mounting polyamide body contains 12 test points each rated at 5 amps., maximum current capacity. Operating voltage 1500 volts RMS at sea level, 350 volts RMS at 50,000 feet. Contact resistance less than 2 milliohms.

STANDARD INSULATED CONNECTORS – A complete line of connectors molded of tough, low-loss, shock-proof polyamide in 10 colors meeting Fed. Std. 595. Tip, Banana and Dual Banana Plugs; Tip and Banana Jacks; Metal-Clad Tip Jack, Military; Jack and Sleeve; Binding Posts.

RIB-LOC TERMINALS – A new line of miniature, one-piece, insulated terminals with a unique serrated conical design, which resists loosening and turning. Provides an inexpensive approach to convenient press-in type terminals. Six colors conforming to Federal Color Standard No. 595. Terminal styles include single and double turret feed-thrus and stand-offs, .040" dia. tip plug and mating jack for .040# tip plug.

CAPACITORS

MACHINED PLATE TRIMMER AND TUNER TYPES – U, UA, UB, U-LC, V, AND W – Available in both printed circuit and chassis mounting types. U types available in differential and butterfly printed circuit mounting types in addition to single section types. V and W capacitors available in single section type only. Maximum capacities of up to 54 pf. Tuners consist of a machined plate trimmer and high Q air wound silver plated inductor, in resonant frequencies of 100 to 750 Mc.

SOLDER PLATE TYPES – Type M: Capacity values to 30 pf. Voltage ratings to 1250 volts peak. Available in single section, differential and butterfly types.

Type S: Capacity values to 100 pf. Voltage ratings to 3000 volts peak. Available in single section, differential and butterfly types.

Type K: Capacity values to 150 pf. Voltage ratings to 3800 volts peak. Available only in single section types. May be furnished in production quantities in full compliance to MIL-C-92A.

Type R: Capacity values to 340 pf. Voltage ratings to 4400 volts peak. Available only in single section type.

Type L: Capacity values to 200 pf. Voltage ratings to 3500 volts peak. Available in single section differential, butterfly and dual section types.

SPACER TYPES – Type C: Capacity values to 1500 pf. Voltage ratings to 13,000 volts peak. Available in single section and dual section types.

Type D: Capacity values to 1700 pf. Voltage ratings to 9000 volts peak. Available in single section and dual section types.

STAKED PLATE TYPES – Type E: Capacity values to 1000 pf. Voltage ratings to 4500 volts peak. Available in single section and dual section types.

Type F: Capacity values to 400 pf. Voltage ratings to 3000 volts peak. Available in single section and dual section types.

TUBE SOCKETS, INSULATORS, PILOT LIGHTS AND HARDWARE

ULTRA HIGH FREQUENCY SOCKETS – Continuous heat resistance to 500°F. with low loss, glass filled silicone base and heat treated beryllium copper contacts. Low inductance screen bypass capacitor available for VHF and UHF operation.

KEL-F SERIES – Molded of low dielectric loss-factor Kel-F plastic – designed for use with a wide selection of high power transmitting tubes.

STEATITE WAFER TYPES – Available in 4, 5, 6, 7, and 8-pin standard socket types, as well as Super Jumbo 4-pin types. Also giant 5 pin, and 7 pin Septar and VHF Septar Sockets.

SPECIAL PURPOSE TYPES – Includes sockets for special purpose tubes.

Note: For detailed specifications, request Socket Standardization Booklet 536 on your company letterhead.

INSULATORS – Low loss, high-voltage breakdown in either steatite or porcelain. Complete line includes Thru-panel Bushings and Insulators, Antenna Strain and Feeder Types, Cone and Stand-off Insulators, Lead-in Bushings and Feed-Thru Bowl Assemblies.

PILOT LIGHTS – Over 47 separate assemblies. Continuous indication neon types, models for high and low voltage incandescent bulbs, standard or wide angle glass, and lucite jewels. Specials, including types meeting military specifications, also available in production quantities.

PANEL BEARINGS – For use on ¼" shafts and panels up to ⅜" thick. CRYSTAL SOCKETS – For low capacity, high voltage and high temperature operation. Glazed steatite, Grade L-423 or better, DC-200 impregnated. RF CHOKES – High quality construction. For 1.7 to 30 Mc range.

Johnson also offers a complete line of heavy-duty RF components for broadcast transmitting, RF heating, antenna phasing and other commercial applications.

Equipment in this line includes fixed and variable inductors, antenna phase sampling loops, isolation filter inductors, feed-thru bowl insulators, static drain chokes, RF contactors, and heavy duty make-before-break switches.

E. F. JOHNSON COMPANY

Net

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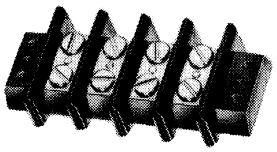
Kulka TERMINAL BOARDS

STANDARD

410, 600, 600A, 601, 602 Series. Current range 5 thru 30 Amps; Voltage Range 1000 thru; 600 RMS; Wire sizes 20-14 Ga.; 1 thru 26 Terminals.

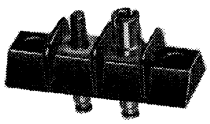


HEAVY DUTY

603, 604, 605 Series, Current range 50 thru 90 Amps, Voltage 1700 thru 2100 RMS; Wire Sizes #6 to 2 ga.; 1 thru 12 terminals.

SINGLE ROW

599, 699, 812 Series. Current range 15 thru 30 Amps; Voltage range 1100 thru 1600 RMS; Wire sizes: #22 to #12 ga.; 1 thru 23 terminals.

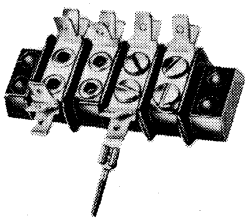


STUD and TURRET

For greater wiring convenience. Choice of terminals:

- Regular Screw Type
- Solder Turret • Feedthru
- Threaded Stud, etc.

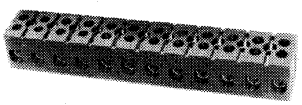
Also, choice of finishes: electro-tinned, silver-plated, even gold over silver. Our design facilities are available for your special requirements.



"KLIPTITE"

For fast connect and disconnect. Available on Kulka's full line of terminal boards.

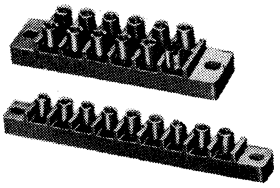
- Just clip on wire terminal fast for tight connection.
- Up to 6 connections per stage.
- Vari-angled tabs.
- Available rivetted to terminal hardware or with screw assembly.



PRESSURE CONTACT

9-85 SERIES

Ideal for power equipment. One-piece molded plastic for industrial or military use. Extra-safe, completely enclosed. 2 to 12 terminals. Rated at 85 Amps, 8000 Volts.

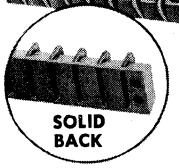


MILITARY BOARDS

Per MIL-T-16784B

Designed by the Bureau of Ships according to MIL-T-16784B, superseding MIL-T-16784A (Ships). They are made to BUSHIPS 9000-S6505-73214 drawings, with the latest revisions, and BUORD S64101.

MOLDED MATERIAL: MAI-60, in accordance with MIL-M-14F.



MILITARY BOARDS

SOLID BACK

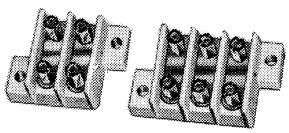
MADE to MEET or EXCEED

MIL-T-55164

Molded-in Terminals. Equal molded sections. Kulka improved design, for weight saving, greater strength, flexibility. All sizes available, classes 37TB thru 42TB.

CLOSED BACK TERMINAL BOARDS

670, 670A, 671, 672 Series. Current range 15 to 30 Amps, Voltage range 2500 to 3300 Volts RMS. Wire sizes #22 thru #12 ga.; 1 thru 30 terminals.

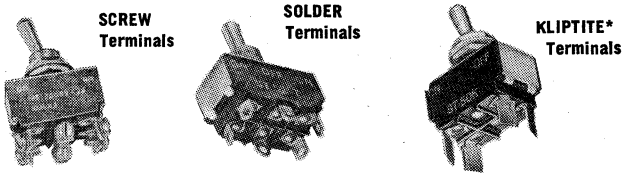


HIGH HEAT

1215 SERIES

For temperatures up to 850°. Made in two and three terminal units with incremental configuration. Stainless steel stud type terminals.

TOGGLE SWITCHES



Made to Military Specifications: JAN-S-23, MIL-S-21195, MIL-S-6745 and MIL-S-3950A. Available in SPST, SPDT, DPST and DPDT types. DA and AC up to 1600 cps. Your choice of terminals: Screw, solder or tab.

Also, MINIATURE, SUBMINIATURE, TAPER PIN, PRINTED CIRCUIT, WIRE-WRAP, SCREW CLAMP TERMINAL BOARDS AND ACCESSORIES. Available in a variety of Military and Commercial Grade materials.

Manufacturers of Wiring Devices for more than a Quarter Century

Kulka Electric Corporation

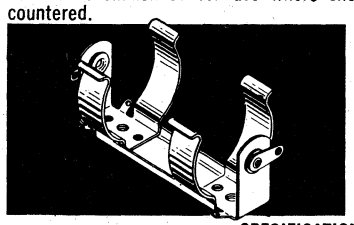
Write for **COMPLETE ENGINEERING DATASHEET** on any of these products.

© U.C.P., Inc.

KEYSTONE ALL STEEL BATTERY HOLDERS

STANDARDIZED ALL STEEL BATTERY HOLDERS

An important advance in design that has gained wide acceptance for military and commercial usage. Battery when installed is held under spring tension at a constant pressure assuring low resistance contact will hold up to 4 cells in series in sturdy insulating tube. Retainer clips available to lock battery securely. This prevents shifting or loosening of battery in holder. Recommended for use where shock or severe vibration is encountered.



- CORROSION RESISTANT NICKEL PLATED
- STAINLESS STEEL CONTACTS
- MOISTURE PROOF INSULATING WASHERS
- IDEAL FOR NI-CAD AND ALKALINE CELLS

SPECIFICATIONS

Made of SAE 1065 Carbon Steel to MIL Spec. 17919, heat treated to spring temper and nickel plated .0002 thick. Contact assembly consists of a stainless steel eyelet, moisture proof vulcoid washers and a coated copper solder lug. Ribbed carbon steel base for added support is nickel plated and has 2 mounting holes for ease in mounting.

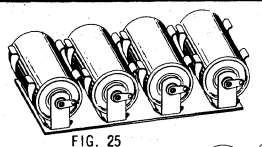


FIG. 25

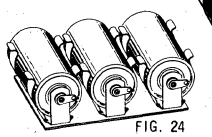


FIG. 24

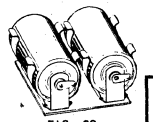


FIG. 23

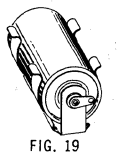


FIG. 19

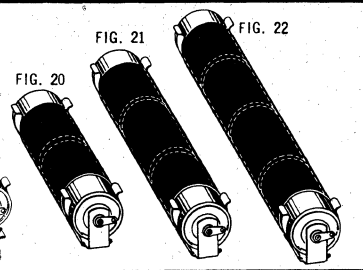
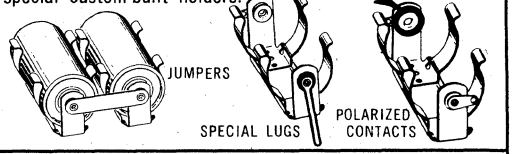


FIG. 20 FIG. 21 FIG. 22

MODIFICATIONS AVAILABLE

Variety of stock parts permits fast delivery on special requirements. Use our engineering service for your special custom-built holders.

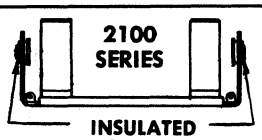


SPACE SAVER BATTERY CLIPS

These holders are available insulated contact or with a dimple contact. Provides positive contact in either case. They are compact and economical. The "AA", "C", "D", Mercury and Ni-Cad batteries are accommodated. Made of SAE 1065 steel heat treated to spring temper and nickel plated. Insulated type has steel nickel plated eyelet and resin impregnated vulcanized fibre insulation. Snap-on washer for polarization will be supplied upon request.

Cat. No.	Battery Types	Min. to max. Diameter	Net Each 5-19	Net Each 20-99
92*	AA	.531- .660	.05	.04
99*	AA	.531- .660	.05	.04
100†	AA	.531- .660	.08	.07
86*	C	.875-1.125	.08	.08
87†	C	.875-1.125	.12	.11
88†	D	1.187-1.375	.13	.12
89*	D	1.187-1.375	.10	.09

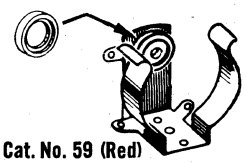
*Non-Insulated †Insulated



One Insulated Contact	Net Each 5-19	Net Each 20-99	All Contacts Insulated	Net Each 5-19	Net Each 20-99	Fig. No.	Holds No. of Cells	All Batteries in the Group are of Similar Size and Fit Holders Listed Burgess	Eveready	RCA
PENCELL HOLDERS										
Cat. No.			Cat. No.							
1139	.25	.23	2139	.30	.26	19	1	Z, HG9	E9, E12	VS034A
	—	—	2140*	.45	.43	23	2	CD6, 9R	E91, E133	VS144
	—	—	2171*	.70	.68	24	3	HG12R	E502, N46	VS149
	—	—	2182*	.80	.75	25	4	H133	515, 915	VS313A
1189	.40	.38	2189	.40	.38	20	2	HG502R	1015	VS334
1191	.45	.41	2191	.45	.40	21	3	920		
1194	.50	.48	2194	.55	.51	22	4	930		
"C" CELL HOLDERS										
1173	.35	.30	2173	.35	.33	19	1	1		VS035A
	—	—	2174*	.60	.59	23	2	P6	E233	VS300
	—	—	2187*	.80	.75	24	3	120	635	VS335
	—	—	2188*	1.05	.95	25	4	130	935	VS400
1185	.50	.45	2185	.50	.49	20	2	H233		
1195	.50	.48	2195	.55	.51	21	3	302599		
1198	.55	.51	2198	.60	.57	22	4			
"D" CELL HOLDERS										
1175	.35	.30	2175	.35	.33	19	1	2	E42	VS036
	—	—	2176*	.60	.59	23	2	2R	N56	VS036A
	—	—	2190*	.85	.80	24	3	CD7	E95	VS336
	—	—	2192*	1.05	.95	25	4	210	D99	
1186	.48	.44	2186	.50	.49	20	2	230	A100	
1199	.55	.51	2199	.60	.56	21	3		950	
1162	.60	.54	2162	.65	.62	22	4		1050	
1179	.35	.30	2179	.35	.34	19	1		E94	

*Clips mounted on phenolic 1/16" thick Mil Spec 3115B

INSULATED POLARIZING WASHERS

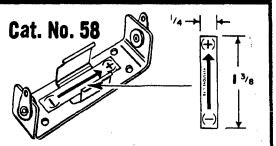


Cat. No. 59 (Red)
Cat. No. 60 (Black)

Molded Insulated Polarizing Washers. The washers hold securely when snapped over the eyelets used on our standardized battery holders.

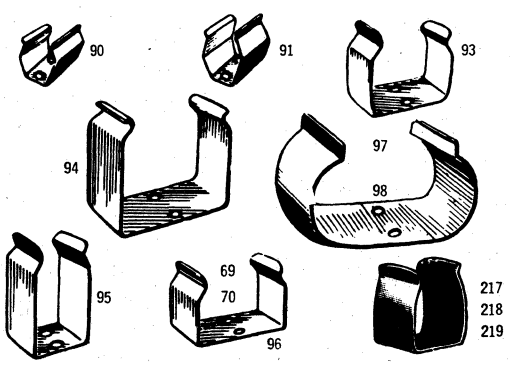
POLARITY LABELS

Cat. No. 58



- PRESSURE SENSITIVE
- WILL ADHERE TO ANY SURFACE
- NO GLUE OR DAMPING REQUIRED
- ECONOMICAL

Wherever circuit polarity is to to be shown labels colored Blue and Red.



BATTERY AND COMPONENT HOLDERS

Cat. No.	Battery Types	Min. to Max. Diameters	NET EACH 5-19	NET EACH 20-99	Cat. No.	Battery Types	Min. to Max. Diameters	NET EACH 5-19	NET EACH 20-99
69	2U6 or (2) AA	5/8 x 1 1/8	.07	.06	96	(1) K 20	5/8 x 1 13/64	.08	.07
70	(2) RM 12	5/8 x 1 5/16	.09	.08	97	(2) "C"	(2) 1 1/64 Dia.	.09	.08
90	#7	3/8 to 2 3/64	.06	.04	98	(2) D	(2) 1 21/64 Dia.	.11	.10
91	(1) AA	17/32 to 2 1/32	.07	.05	217	1 3/8 Dia.	1 3/8 Dia.	.18	.14
93	(1) C	7/8 to 1 1/8	.07	.06	218	1 1/2 Dia.	1 1/2 Dia.	.20	.15
94	(1) D	1 3/16 to 1 3/8	.08	.07	219	2" Dia.	2" Dia.	.22	.16
95	(1) U-15	5/8 x 1 1/32	.07	.06					

Clips are made of Aluminum except Nos. 69, 217, 218, 219 are made of Steel.

KEYSTONE ELECTRONICS CORP.

Net

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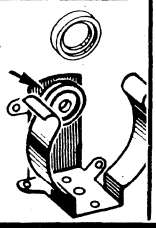
KEYSTONE BATTERY HOLDERS

Cat. No.	NET EACH 5-19	NET EACH 20-99	Holds No. of Cells	Fig. No.	ALL BATTERIES LISTED WITHIN BOXES ARE IN THE SAME SIZE GROUP BATTERY CROSS REFERENCE Burgess	Eveready	RCA
MINIATURE CELL HOLDERS							
137	.23	.21	1	1	7	912	VS074
138	.38	.34	2	2			
169	.49	.44	3	3			
170	.64	.57	4	4			
PENCELL HOLDERS							
139	.23	.21	1	1	CD6	E9, E12	VS034A
140	.38	.34	2	2	9R, Z	E91	VS144
171	.49	.44	3	3	HC9	E133	VS149
182	.64	.57	4	4	HG12R	333	VS313A
189	.45	.36	2	5	H133	E502	VS334
191	.49	.44	3	6	HG502R	515	
192	.64	.54	4	7	920	915, 1015	
193	.93	.81	6	8	930	N46	
"C" CELL HOLDERS							
173	.30	.26	1	1	1	226	VS035A
174	.38	.34	2	2	P6	E233	VS300
187	.45	.36	3	3	120	635	VS335
185	.45	.36	2	5	130	935	VS400
195	.49	.44	3	6	H233		
196	.64	.54	4	7	302599		
197	.93	.81	6	8			
"D" CELL HOLDERS							
175	.30	.26	1	1	2	E42	VS036A
176	.38	.34	2	2	2R	N56	VS036
190	.49	.44	3	3	CD7	E95	VS336
186	.46	.37	2	5	210	D99	
199	.50	.45	3	6	230	A100	
200	.65	.55	4	7		950	
201	.95	.85	6	8		1050	
205	.95	.85	6	12			
1½ VOLT CELL HOLDERS							
154	.21	.20	1	1	N	E340	VS073
155	.35	.32	2	2		E400	
156	.49	.44	3	3		E401	
160	.49	.44	1	1	21R	964	VS236
179	.30	.26	1	1		E94	
4½ VOLT CELL HOLDERS							
139	.23	.21	1	1		333	VS1149
9 VOLT CELL HOLDERS							
139A	.26	.24	1	1		206	VS327
203P	.44	.30	1	14	2U6	216	VS323
173P	.30	.29	1	1	P6M	226	VS300A
15 VOLT CELL HOLDERS							
163	.30	.26	1	11	K10	417	
161	.30	.26	1	11	U10	411	VS083
166	.30	.26	1	9			
167	.38	.34	2	10			
225	.21	.20	1	1	Y10	504	
226	.35	.32	2	2			
22½ VOLT CELL HOLDERS							
164	.30	.26	1	11	K15		
168	.30	.26	1	11		420	
177	.30	.26	1	9	U15	412	VS084
178	.38	.34	2	10			
139A	.26	.24	1	1	Y15	505	
140A	.41	.37	2	2			
171A	.52	.47	3	3			
182A	.67	.60	4	4			
30 VOLT CELL HOLDERS							
157	.30	.26	1	14	Y20	506	
165	.30	.26	1	11	K20	430	
183	.30	.26	1	9	U20	413	VS085
184	.38	.34	2	10			
134	.38	.34	1	1	Y20S	507	

INSULATED POLARIZING WASHERS

Insulated Polarizing Washers eliminate the danger of damage and short circuit to expensive transistor equipment. The washers hold securely when snapped over the eyelets used on our standardized battery holders.

Material: Precision molded of plastic.



Cat. No.	NET COST EACH 5-19	20-99
59	.04	.03

A standard line of battery holders available for immediate shipment from stock. Low cost, lightweight and sturdily constructed of quality materials. Good electrical contact, low leakage current and snap-fit clips are the outstanding features.

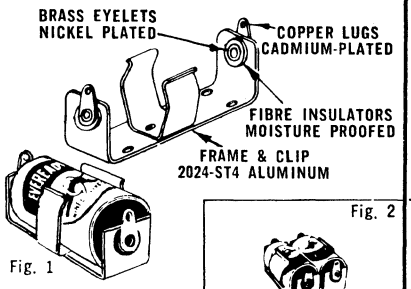


Fig. 1

Fig. 2

Fig. 3

Fig. 4

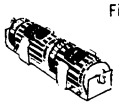


Fig. 5

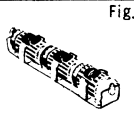


Fig. 6

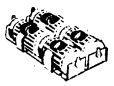


Fig. 7

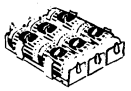


Fig. 8

Fig. 9

Fig. 10

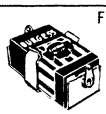


Fig. 11

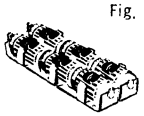


Fig. 12

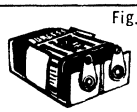
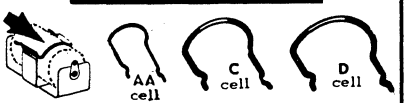


Fig. 14

RETAINER CLIPS



These retainers prevent the battery from shifting or loosening in the holder. Made of high carbon steel, heat treated to spring temper and nickel plated.

Cat. No. 61—Retainer for "A" or Mercury cells with diameters of 1/32" to 5/16" when used with Keystone #**91, 92, 99 or 100** clips also clip #**95** for rectangular battery.

Cat. No. 62—Retainer for C cells or other batteries with maximum diameter of 1 1/32" when used with Keystone #**93, 86 or 87** clips.

Cat. No. 63—Retainer for D cells or other batteries with maximum diameter of 1 11/32" when used with Keystone #**94, 88 or 89** clips.

Cat. No. 66—Retainer for mercury cells with .650 dia. when used with our #**91** clips.

Any above, Net Each (5-19) .05; (20-99) .04

MERCURY BATTERY HOLDERS

FIG. 13

FIG. 15

FIG. 16

FIG 17

FIG 18

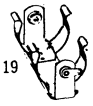


FIG. 19

Mallory Mercury Battery Listing	Aluminum and Phenolic Base Holders Cat. No.	Fig. No.	All Steel Holders One Insulated Contact Cat. No.	Fig. No.	All Steel Holders All Contacts Insulated Cat. No.	Fig. No.
RM1R	101*	13	1101	15	2101	16
RM3R	103*	13	1103	15	2103	16
RM4R	104*	13	1104	15	2104	16
ZM9	139	1	1139	19	2139	19
RM12R	139	1	1139	19	2139	19
RM42	175	1	1175	19	2175	19
TR113			1113	15	2113	16
TR114			1114	15	2114	16
TR115	132	1	1132	15	2132	16
TR132	132	1	1132	15	2132	16
TR133	139	1	1139	19	2139	19
TR134	134	1	1134	19	2134	19
TR135	135	5	1135	19	2135	19
TR136	189	5	1189	19	2189	19
TR137			1125	19	2125	19
TR145			1145	15	2145	16
TR152	124**	1				
TR153	106**	1				
TR162			1113	15	2113	16
TR163	132	1	1132	15	2132	16
TR164	109	1	1109	19	2109	19
TR165	110	1	1110	19	2110	19
TR169	189	5	1189	19	2189	19
TR175	124**	1				
TR177			1142	19	2142	19
TR233	173	1	1173	19	2173	19
TR234			1144	19	2144	19
RM400	111*	18				
RM401	124**	1				
RM411	166**	9				
RM412	177**	9				
RM413	183**	9				
RM450	112*	17				
RM502	139	1	1139	19	2139	19
RM601			1116	15	2116	16
RM625	117*	17				
RM630	126*	18				
RM640	118*	13				
RM675	127*	18				
302351	119	1	1119	19	2119	19
302478	120	5	1120	19	2120	19
302642	121	1	1121	19	2121	19
302435	122**	1				
302437	139	1	1139	19	2139	19
302599	173	1	1173	19	2173	19

*Bakelite Base Holders
**Available Only in Aluminum

NET EACH PRICE LIST
MERCURY BATTERY HOLDERS

No.	5-19	20-99	No.	5-19	20-99	No.	5-19	20-99
101	.35	.31	175	.30	.26	1175	.35	.30
103	.37	.33	177	.30	.26	1189	.40	.38
104	.38	.34	183	.30	.26	2101	.35	.34
106	.30	.26	189	.45	.36	2103	.35	.34
109	.30	.26	1101	.35	.30	2104	.35	.34
110	.38	.34	1103	.35	.30	2109	.35	.34
111	.35	.31	1104	.35	.30	2110	.35	.34
112	.35	.31	1109	.35	.30	2113	.35	.34
117	.35	.31	1110	.35	.30	2114	.35	.34
118	.35	.31	1113	.35	.30	2116	.35	.34
119	.38	.34	1114	.35	.30	2119	.35	.34
120	.38	.34	1116	.35	.30	2120	.45	.41
121	.38	.34	1119	.35	.30	2121	.45	.41
122	.38	.34	1120	.40	.38	2125	.35	.34
124	.23	.21	1121	.40	.38	2132	.35	.34
126	.35	.31	1125	.35	.30	2134	.35	.34
127	.35	.31	1132	.35	.30	2135	.40	.37
132	.30	.26	1134	.35	.30	2139	.30	.26
134	.38	.34	1135	.35	.30	2142	.30	.26
135	.38	.34	1139	.25	.23	2144	.30	.26
139	.23	.21	1142	.25	.23	2145	.35	.34
166	.30	.26	1144	.25	.23	2173	.35	.33
173	.30	.26	1145	.35	.30	2175	.35	.33
			1173	.35	.30	2189	.40	.38

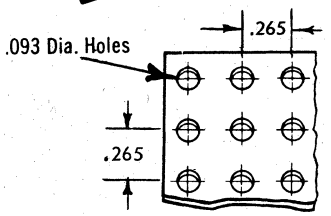
KEYSTONE ELECTRONICS CORP.

KEYSTONE ELECTRONICS CORP. DESIGNERS MANUFACTURERS

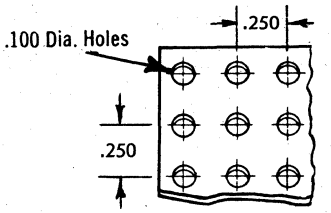
KEYBOARDS

PRE-PUNCHED TERMINAL BOARDS

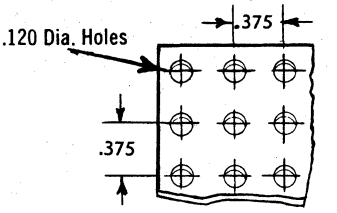
- COMPLETE RANGE OF SIZES AND SUITABLE HARDWARE
- "DO IT YOURSELF" STAKING TOOLS
- COPPER CLAD FOR PRINTED CIRCUITS
- UNCLAD TYPE FOR WIRED CIRCUITS
- STANDARD AND CUSTOM-MADE



"A" PATTERN .093 DIA. HOLES



"E" PATTERN .100 DIA. HOLES



"H" PATTERN .120 DIA. HOLES

"A" PATTERN .093 DIA. HOLES .265 x .265 C to C

Size Width & Length	No. of Holes W & L	XXXP Natural	Glass Epoxy	Paper Base Epoxy
		1/16" THICK		
		Cat. No.	Cat. No.	Cat. No.
.82 x 8.50	3 x 32	1731	1790	1796EP
1.88 x 8.50	7 x 32	1737	1791	1797EP
2.44 x 8.50	9 x 32	1738	1788	1798EP
3.25 x 8.50	13 x 32	1785	1789	1801EP
3.25 x 17.00	13 x 64	1786	1787	1802EP
4.88 x 4.88	18 x 18	1806	1807	1803EP
4.88 x 8.50	18 x 32	1784	1792	1804EP
4.88 x 17.00	18 x 64	1739	1793	1805EP
8.50 x 8.50	32 x 32	1732	1794	1808EP
8.50 x 17.00	32 x 64	1733	1795	1809EP
		3/32" THICK		
1.38 x 1.88	5 x 7	1758	—	1758EP
1.38 x 4.00	5 x 15	1760	—	1760EP
1.38 x 8.50	5 x 32	1749	—	1749EP
1.88 x 2.94	7 x 11	1759	—	1759EP
1.88 x 8.50	7 x 32	1740	—	1740EP
2.44 x 8.50	9 x 32	1741	—	1741EP
3.25 x 8.50	13 x 32	1814	—	1814EP
3.25 x 17.00	13 x 64	1816	—	1816EP
4.88 x 8.50	18 x 32	1756	—	1756EP
4.88 x 17.00	18 x 64	1742	—	1742EP
8.50 x 8.50	32 x 32	1817	—	1817EP
8.50 x 17.00	32 x 64	1757	—	1757EP

"E" PATTERN .100 DIA. HOLES .250 x .250 C to C

Size Width & Length	No. of Holes W & L	XXXP Natural
	1/16" THICK	
		Cat. No.
2.13 x 4.00	8 x 16	1750
2.13 x 8.50	8 x 34	1765
3.63 x 8.50	14 x 34	1766
8.50 x 8.50	34 x 34	1767
8.50 x 17.00	34 x 68	1768
	3/32" THICK	
2.13 x 8.50	8 x 34	1770
8.50 x 8.50	34 x 34	1771
8.50 x 17.00	34 x 68	1772

"H" PATTERN .120 DIA. HOLES .375 x .375 C to C

Size Width & Length	No. of Holes W & L	XXXP Natural	Paper Base Epoxy
	1/16" THICK		
		Cat. No.	Cat. No.
1.88 x 8.25	5 x 22	1743	—
2.25 x 8.25	6 x 22	1744	—
4.13 x 8.25	11 x 22	1782	—
4.13 x 16.50	11 x 44	1745	—
	3/32" THICK		
1.88 x 8.25	5 x 22	1746	1746EP
2.25 x 8.25	6 x 22	1747	1747EP
4.13 x 8.25	11 x 22	1783	1783EP
4.13 x 16.50	11 x 44	1748	1748EP
6.00 x 8.25	16 x 22	1941	1941EP
6.00 x 16.50	16 x 44	1942	1942EP
8.25 x 8.25	22 x 22	1943	1943EP
8.25 x 16.50	22 x 44	1939	1939EP

TERMINALS AND EYELETS For Boards with .093-.100 dia. Holes

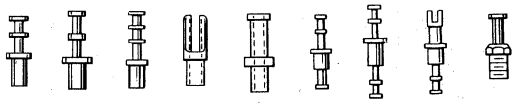
TERMINALS

Brass (Mil Spec QQ626) and Silver Plated.

NOTE: When ordering Turret Terminals **BE SURE TO SPECIFY Cat. No. of Terminal** and add **—2 for 1/16" thick Board** and **—3 for 3/32" thick Board**

I.E. 1598-2 for 1/16" thick Board and **1598-3** for 3/32" thick Board

ALL TERMINAL DRAWINGS ARE ACTUAL SIZE.

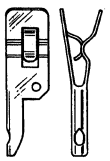


1502 1514 1598 1511 1540 1530 1512 1634 1595

PUSH-IN TERMINAL

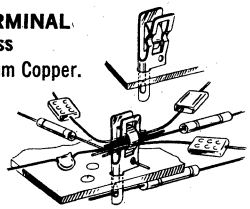
SOLDERLESS

Made of Beryllium Copper.



Cat. No. 1498-CP (cadmium plate)

Cat. No. 1498-SP (silver plate)



PRECISION MADE EYELETS

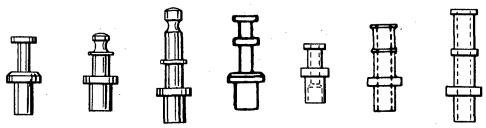
Made of Brass and Hot Tinned for easy solderability

Specify **Cat. No. 33** for 1/16" thick Board
Cat. No. 34 for 3/32" thick Board

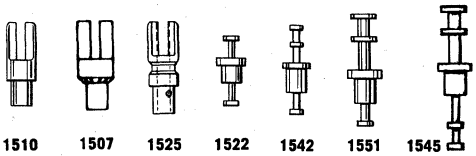
TERMINALS AND EYELETS For Boards with .120 dia. Holes

TERMINALS

ALL TERMINAL DRAWINGS ARE ACTUAL SIZE.



1532 1504 1505 1503 1553 1509 1541



1510 1507 1525 1522 1542 1551 1545

PRECISION MADE EYELETS

Specify **Cat. No. 43** eyelet for 1/16" thick Board
Cat. No. 44 eyelet for 3/32" thick Board

KEYSTONE ELECTRONICS CORP.

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KEYBOARDS

PRE-PUNCHED TERMINAL BOARDS

KEYSTONE ELECTRONICS CORP. DESIGNER MANUFACTURER

THE PRACTICAL APPROACH TO SIMPLE OR COMPLEX CIRCUITRY

LOW COST — IMMEDIATE DELIVERY — CHOICE OF SIX POPULAR PATTERNS AND MATERIALS

STANDARDIZED KEYBOARDS: Permits time saving, low cost, assembly of components. Used extensively in development of prototype breadboarding, test design or production runs. A large selection of sizes and materials offers the designer the flexibility and convenience needed to create special circuitry on short notice.

ELECTRONIC HARDWARE: A large selection of turret, push-in and stamped terminals, brackets, eyelets, etc. available from stock.

STAKING TOOLS: Inexpensive tooling supplied for staking eyelets, bushings, turret terminals, etc. You can do an entire assembly at your bench with ease, using our impact tool. Other tools for arbor, kickpress, drill press. See Staking Tool page

SPECIAL SERVICES: We will install eyelets or terminals to suit your application. We invite inquiries for special sizes or additional holes drilled. Prompt quotations rendered at no cost to you.

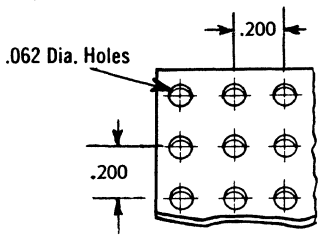
MATERIAL SPECIFICATIONS & TOLERANCES

XXXP Type PBE (Paper Base Elect.) Mil-P-3115C Temp. 250° F Max.
XXXPC Type PP Copper Clad Mil-P-13949 Temp. 250° F Max.
PAPER BASE EPOXY Mil-P-22324 (Type PEE) Temp. 250° F Max.
GLASS EPOXY UNCLAD Mil-P-18177 G-10 (GEE) Temp. 300° F. Max.
GLASS EPOXY Copper Clad Mil-P-13949B (GE) Temp. 300° F Max.

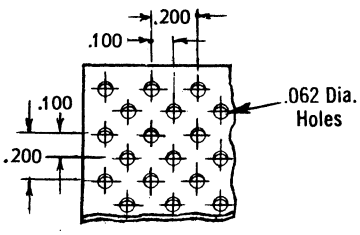
TOLERANCE: Length and width overall dimension after fabrication Plus or Minus .015.

HOLE SIZE: Plus or Minus .003.

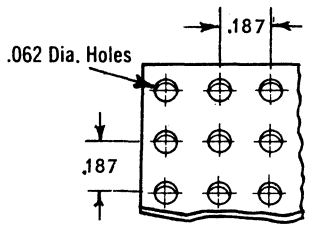
Thickness of standard sheet varies Plus or Minus .008 for 1/16 or .010 for 3/32" thick.



"F" PATTERN .062 DIA. HOLES



"G" PATTERN .062 DIA. HOLES



"B" PATTERN .062 DIA. HOLES

"F" PATTERN .062 DIA. HOLES .200 x .200 C to C

Size Width & Length	No. of Holes W & L	XXXP Natural	Glass Epoxy	Paper Base Epoxy	Glass Epoxy Cop. Clad (1 Side)	Glass Epoxy Cop. Clad (2 Sides)	XXXP Cop. Clad (1 Side)	XXXP Cop. Clad (2 Sides)
		1/16" THICK						
		Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.
1.25 x 8.50	8 x 42	1730	1844	1730EP	1846	1847	1848	1853
3.00 x 4.50	14 x 20	1835	1845	1835EP	1836	1837	1838	1839
3.63 x 8.50	18 x 42	1773	1854	1773EP	1855	1856	1857	1858
3.63 x 17.00	18 x 85	1775	1859	1775EP	1864	1865	1866	1867
4.50 x 6.50	22 x 30	1868	1870	1868EP	1876	1877	1878	1879
4.50 x 8.50	22 x 42	1869	1871	1869EP	1881	1886	1887	1888
4.88 x 8.50	24 x 42	1774	1872	1774EP	1882	1889	1894	1899
4.88 x 17.00	24 x 85	1776	1873	1776EP	1883	1891	1895	1902
8.50 x 8.50	42 x 42	1777	1874	1777EP	1884	1892	1896	1903
8.50 x 17.00	42 x 85	1778	1875	1778EP	1885	1893	1897	1904

"G" PATTERN .062 DIA. HOLES .100 GRID ALTERNATES

Size Width & Length	No. of Holes W & L	XXXP Natural	Glass Epoxy	Paper Base Epoxy	Glass Epoxy Copper Clad (1 Side)	Glass Epoxy Copper Clad (2 Sides)
		1/16" THICK				
		Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.
1.75 x 4.00	(8 x 19) x 2	1752	1909	1752EP	1919	1920
2.25 x 8.50	(11 x 42) x 2	1754	1910	1754EP	1921	1922
3.50 x 4.00	(17 x 19) x 2	1753	1911	1753EP	1923	1924
3.50 x 8.50	(17 x 42) x 2	1905	1912	1905EP	1925	1926
3.50 x 17.00	(17 x 85) x 2	1906	1913	1906EP	1927	1928
3.88 x 8.50	(19 x 42) x 2	1907	1914	1907EP	1929	1930
4.88 x 8.50	(24 x 42) x 2	1908	1915	1908EP	1931	1932
4.88 x 17.00	(24 x 85) x 2	1779	1916	1779EP	1933	1934
8.50 x 8.50	(42 x 42) x 2	1780	1917	1780EP	1935	1936
8.50 x 17.00	(42 x 85) x 2	1781	1918	1781EP	1937	1938

"B" PATTERN .062 DIA. HOLES .187 x .187 C to C

Size Width & Length	No. of Holes W & L	XXXP Natural	XXXP Copper Clad (1 Side)
	1/16" THICK		
		Cat. No.	Cat. No.
1.38 x 8.50	6 x 45	1761	1818
1.88 x 8.50	8 x 45	1734	1819
2.44 x 3.38	12 x 17	1812	1813
2.84 x 8.50	15 x 45	1735	1820
3.66 x 6.75	19 x 35	1824	1825
5.69 x 8.50	30 x 45	1762	1834
5.69 x 17.00	30 x 90	1736	1831
6.75 x 7.31	19 x 35	1826	1827
7.31 x 10.50	38 x 56	1828	1829
7.31 x 18.00	38 x 95	1832	1830
8.50 x 17.00	45 x 90	1763	1833

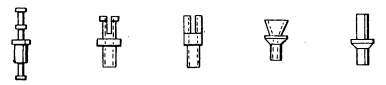
TERMINALS AND EYELETS
For Boards with .062 dia. Holes

TERMINALS

Brass, (Mil Spec QQ626) and Silver Plated.

ALL TERMINAL DRAWINGS ARE ACTUAL SIZE.

1508-2 1593-2 1584-2 1562-2 1633-2



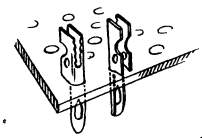
1613-2 1592-2 1526-2 1631-2 1632-2

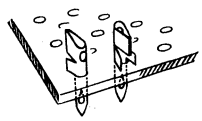
PUSH-IN TERMINALS

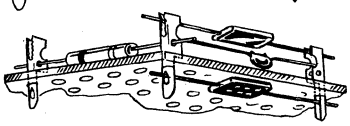
Made of Beryllium Copper.

Cat. No. 1499-FT (fused tin plate)
Cat. No. 1499-SP (silver plate)

Cat. No. 1500 (silver plate)







PRECISION MADE EYELETS

Made of Brass and Hot Tinned for easy solderability.

Cat. No. 23 For 1/16" thick Board

A variety of mounting brackets and staking tools are listed on the following pages.

© U.C.P., Inc.

STANDARDIZED TERMINAL BOARDS

STANDARDIZED TURRET TERMINAL BOARDS

Cut your production cost by eliminating the tooling and setup charge usually applied to nonstandardized boards. Terminals are securely riveted and hot tinned for easy soldering.

TERMINALS: Your choice of most popular types.
Made of Brass: QQ-626, comp. 22, ½ hard.
Hot Dip Solder finish: Mil-F-14072 Type 221.

Material: Your choice of either PBE or GEE Phenolic.

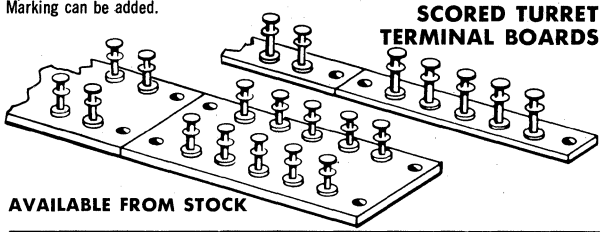
PBE: Paper base electrical, Mil-P-3115C, Temp. 250° F max. Type XXXP.

GEE: Glass Epoxy, Mil-P-18177, Temp. 300° F max. Type G-10.

Five sections **SCORED** for easy **separation** M'tg. holes in each section.

These boards **CAN BE MODIFIED** with terminals staked in all holes, scoring eliminated. Marking can be added.

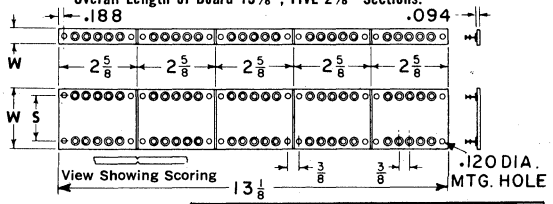
SCORED TURRET TERMINAL BOARDS



AVAILABLE FROM STOCK

3/8" SPACING AND SCORED

3/32" THICK PHENOLIC — Choice of 4 Types of Terminals
Overall Length of Board 13⅛", FIVE 2⅝" Sections.



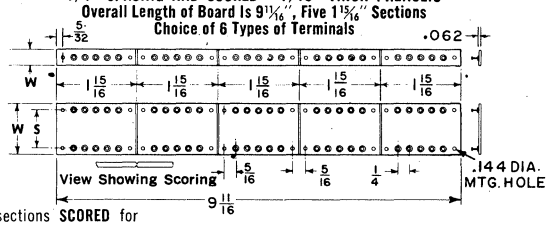
Five sections **SCORED** for easy operation.
M'tg. holes in each section.

CHOICE OF TERMINALS ▶ (Hole thru | Hole thru)

W	S	No. of Terms.	Material	With 1503 Term. Cat. No.	With 1509 Term. Cat. No.	With 1507 Term. Cat. No.	With 1545 Term. Cat. No.
½	Single Row	25	PBE	15031	15091	15071	15041
			GEE	15231	15291	15271	15241
1½	1	50	PBE	15032	15092	15072	15042
			GEE	15232	15292	15272	15242
1½	1 3/16	50	PBE	15036	15096	15076	15046
			GEE	15236	15296	15276	15246
2	1½	50	PBE	15033	15093	15073	15043
			GEE	15233	15293	15273	15243
2½	2	50	PBE	15034	15094	15074	15044
			GEE	15234	15294	15274	15244
3	2½	50	PBE	15035	15095	15075	15045
			GEE	15235	15295	15275	15245

MINIATURE TURRET TERMINAL BOARDS

1/4" SPACING AND SCORED — 1/16" THICK PHENOLIC
Overall Length of Board Is 9 11/16", Five 1 15/16" Sections
Choice of 6 Types of Terminals



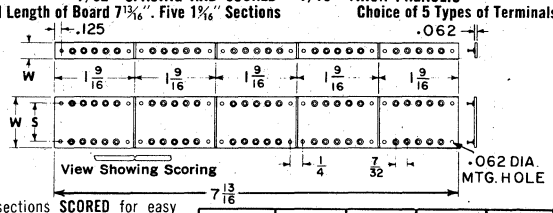
Five sections **SCORED** for easy operation.
M'tg. holes in each section.

CHOICE OF TERMINALS ▶

W	S	No. of Terms.	Material	With 1572 Term. Cat. No.	With 1573 Term. Cat. No.	With 1574 Term. Cat. No.	With 1575 Term. Cat. No.	With 1583 Term. Cat. No.	With 1559 Term. Cat. No.
5/16	Single Row	25	PBE	15047	15057	15067	15077	15087	15097
			GEE	15247	15257	15267	15277	15287	15297
7/8	9/16	50	PBE	15048	15058	15068	15078	15088	15098
			GEE	15248	15258	15268	15278	15288	15298
1⅛	13/16	50	PBE	15049	15059	15069	15079	15089	15099
			GEE	15249	15259	15269	15279	15289	15299

MINIATURE TURRET TERMINAL BOARDS

7/32" SPACING AND SCORED — 1/16" THICK PHENOLIC
Overall Length of Board 7 13/16". Five 1 9/16" Sections — Choice of 5 Types of Terminals



Five sections **SCORED** for easy operation.
M'tg. holes in each section

CHOICE OF TERMINALS ▶

W	S	No. of Terms.	Material	With 1502 Term. Cat. No.	With 1562 Term. Cat. No.	With 1526 Term. Cat. No.	With 1512 Term. Cat. No.	With 1533 Term Cat. No.
5/16	Single Row	25	PBE	15021	15023	15025	15063	15053
			GEE	15221	15223	15225	15263	15253
3/4	½	50	PBE	15028	15029	15026	15064	15054
			GEE	15228	15229	15226	15264	15254
1	3/4	50	PBE	15022	15024	15030	15065	15056
			GEE	15222	15224	15230	15265	15256

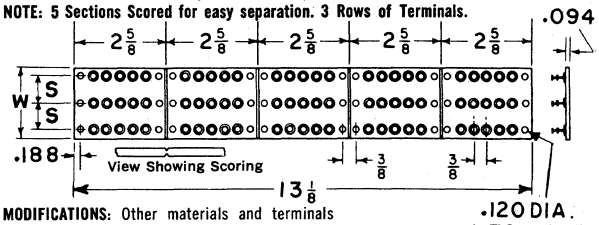
UNIVERSAL TERMINAL BOARDS

Designed for production or experimental use, these **standardized boards** are well suited for any electronic application requiring a sturdy mounting surface for resistors, condensers and components.

TERMINAL: 1503-3 HOT TIN DIP finish for easier soldering and infinite shelf life.

MATERIALS: **PBE** (Paper Base Elect. Mil-P-3115C type XXXP) or
GEE (Glass Epoxy Mil-P-18177 type G-10)

NOTE: 5 Sections Scored for easy separation. 3 Rows of Terminals.



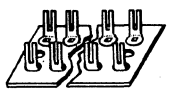
MODIFICATIONS: Other materials and terminals of your choice supplied. Marking may be added.

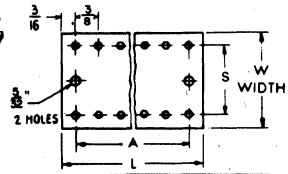
Assembled. with **TERMINAL** 1503-3

W	S	Total No. of Terms.	Material	Cat. No.
2½	1	75	PBE	15332
			GEE	15342
3½	1½	75	PBE	15333
			GEE	15343

READI-MADE TERMINAL BOARDS

• ECONOMICAL • SAVE TOOLING COST
• DELIVERY FROM STOCK • RANGE OF SIZES • APPROVED MATERIALS





Readi-Made Terminal Boards are ideal for General Use. Excellent for mounting resistors, condensers, etc. Choice of Terminals.

MATERIAL: 1/16" thick Bakelite (Mil Spec 3115C-Pbe-P grade).

TERMINALS: 1204 and 1268 are stamped from .023 thick brass. 1539 is turned from 3/16" dia. brass rod.

PLATING: 1204 is Cadmium plated. 1268 and 1539 are Hot Tinned for easy soldering.

CHOICE OF TERMINALS

W	L	S	A	Terminals Each Side	With 1268 Term. Cat. No.	With 1204 Term. Cat. No.	With 1539 Term. Cat. No.
1	1⅞	11/16	1½	5	1268-10	1204-10	1239-10
1	2¼	11/16	1⅞	6	1268-12	1204-12	1239-12
1	5¼	11/16	4⅞	14	1268-28	1204-28	1239-28
1¾	3¾	1⅜	3⅜	10	1268-20	1204-20	1239-20
1¾	4⅛	1⅜	3¾	11	1268-22	1204-22	1239-22
1¾	7⅛	1⅜	6¾	19	1268-38	1204-38	1239-38
½	7⅛	Single Row	6¾	19	1268-19	1204-19	1239-19

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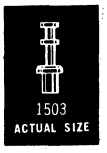
STANDARDIZED TERMINAL BOARDS AND BRACKETS

STANDARDIZED TURRET TERMINAL BOARDS


1503
ACTUAL SIZE

- SAVE TOOLING
- COMPLETE RANGE OF SIZES
- ECONOMICAL
- DELIVERY FROM STOCK

READI-MADE TERMINAL BOARDS are low cost and meet commercial and military specifications. They are produced in large quantities, making it possible to eliminate tooling and setup charges usually applied to non-standardized boards.

TERMINALS: Made of BRASS, QQ-B-626, COMP. 22, ½ HARD. Terminals are staked in all holes except end mounting holes.

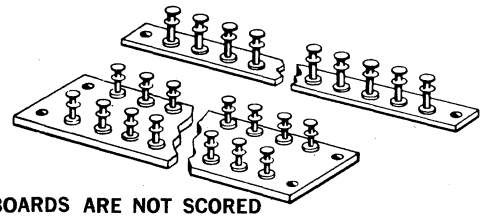
PLATING: HOT DIP SOLDER finish, MIL-F-14072. Recommended for longer shelf life and better solderability. Other platings can be furnished.

MATERIAL: Your choice of either PBE or GEE phenolic.

PBE: Paper base electrical, MIL-P-3115C, Type XXXP natural, Temp. 250 deg. F max.

GEE: Glass epoxy, MIL-P-18177, Type G-10, Temp. 300 deg. F max.

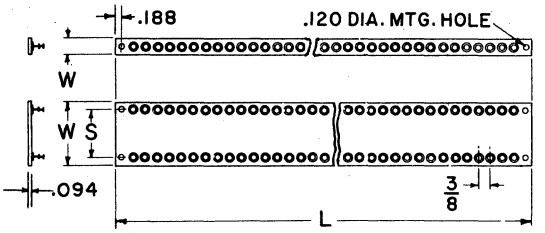
MODIFICATIONS: Other materials and terminals of your choice supplied. Marking may be added.



BOARDS ARE NOT SCORED

TERMINAL: 1503-3 HTD*used on these boards. Height above board 23/64" (MIL-T-55155 — SE12-X-C-08 style SE12-8).

MATERIAL: Choice of **PBE** or **GEE 3/32" thick.**



3/8" SPACING

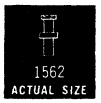
Terminals are staked in all holes except end mounting holes.

W	S	L	No. of Terms. Each Side	Material PBE Cat. No.	Material GEE Cat. No.
½	Single Row	2⅜	5	15101	15301
		5¼	12	15102	15302
		7⅞	19	15103	15303
		10½	26	15104	15304
		13⅛	33	15105	15305
1 3/16	¾	2⅜	5	15106	15306
		5¼	12	15107	15307
		7⅞	19	15108	15308
		10½	26	15109	15309
		13⅛	33	15110	15310
1½	1	2⅜	5	15111	15311
		5¼	12	15112	15312
		7⅞	19	15113	15313
		10½	26	15114	15314
		13⅛	33	15115	15315
2	1½	2⅜	5	15116	15316
		5¼	12	15117	15317
		7⅞	19	15118	15318
		10½	26	15119	15319
		13⅛	33	15120	15320
2½	2	2⅜	5	15121	15321
		5¼	12	15122	15322
		7⅞	19	15123	15323
		10½	26	15124	15324
		13⅛	33	15125	15325
3	2½	2⅜	5	15126	15326
		5¼	12	15127	15327
		7⅞	19	15128	15328
		10½	26	15129	15329
		13⅛	33	15130	15330

MINIATURE TURRET TERMINAL BOARDS

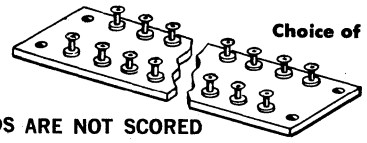
7/32" SPACING

These **GENERAL USE TERMINAL BOARDS** are made of certified materials to **JAN** and **MIL** specs. can be supplied in other grades of materials and with terminals of your choice; also marking when requested.


1562
ACTUAL SIZE

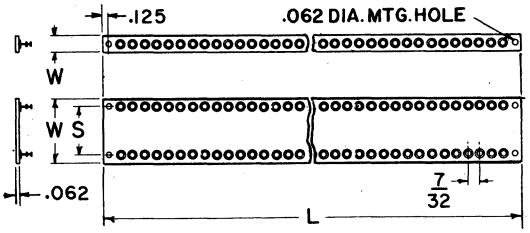
TERMINAL: Made of BRASS, QQ-B-626, COMP. 22, ½ Hard. HOT DIP SOLDER finish MIL-F-14072. Mounting holes in board at each end.

The **1562** terminal is often specified for support and connection of transistors, resistors and small component parts. There is a .043 dia. hole thru the terminal and it stands 5/32" above the board.



BOARDS ARE NOT SCORED

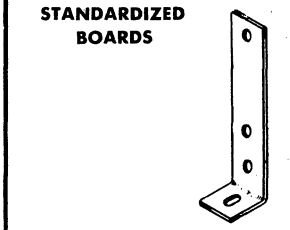
MATERIAL: Choice of **PBE** or **GEE 1/16" thick.**

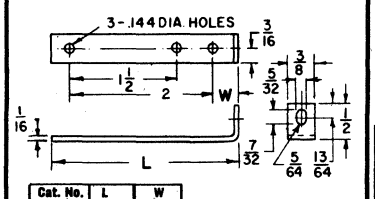


Terminals are staked in all holes except end mounting holes.

W	S	L	No. of Terms. Each Side	Material PBE Cat. No.	Material GEE Cat. No.
5/16	Single Row	1⅜	5	15401	15501
		3⅜	12	15402	15502
		4⅝	19	15403	15503
		6⅜	26	15404	15504
		7 11/16	33	15405	15505
3/4	1/2	1⅜	5	15406	15506
		3⅜	12	15407	15507
		4⅝	19	15408	15508
		6⅜	26	15409	15509
		7 11/16	33	15410	15510
1	3/4	1⅜	5	15411	15511
		3⅜	12	15412	15512
		4⅝	19	15413	15513
		6⅜	26	15414	15514
		7 11/16	33	15415	15515

BRACKETS FOR STANDARDIZED BOARDS



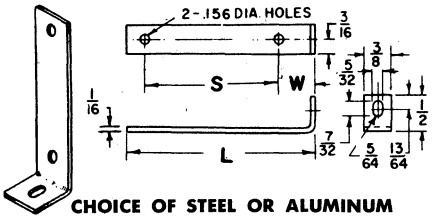


Cat. No.	L	W
1565	2⅝	3/8
1566	2 13/16	9/16

.062 THICK CADMIUM PLATED

BRACKETS FOR STANDARDIZED BOARDS

Originally designed for our line of standardized terminal boards; these brackets will find many uses for a variety of applications. Available in both steel with cad. plate finish or aluminum.



CHOICE OF STEEL OR ALUMINUM

.062 thick Steel — Per Mil Spec. QQ-S 633 B Grade FS-1010 cadmium plated per QQ P-416 A Type II, Class B.
.062 thick Aluminum — Per QQ-A-318.

Cat. No. Steel	Cat. No. Alum.	W	L	S	FOR BOARDS Cat. Nos.		
1556	622	3/8	1⅝	1	15032	15072	15092
1567	623	3/8	2⅛	1½	15033	15073	15093
1568	624	3/8	2⅝	2	15034	15074	15094
1569	625	3/8	3⅛	2½	15035	15075	15095
1570	626	9/32	1 3/16	¾	15022	15024	15030
1571	627	9/32	1⅝	1 3/16	15036	15076	15096

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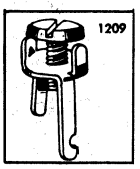
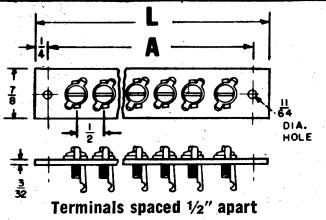
KEYSTONE TERMINAL BOARDS

BINDING POST STRIPS

Terminal supplied on these boards is **No. 1209**





Terminals spaced ½" apart

- Available from Stock
- Eliminate Costly Setup Charges

MATERIAL SPECIFICATIONS:

LOW COST TAN COLORED FIBERGLASS — Nema Grade GPO-1 a glass polyester rated for 300°F.

OR

GEE:

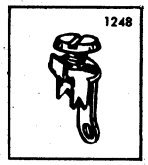
GLASS EPOXY: MIL-P-18177 temp., 300°F. MAX. Type G-10.

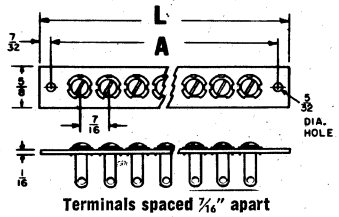
HEAVY DUTY 3/32" THICK MATERIAL 7/8" WIDE

Glass Epoxy Cat. No.	Fiberglass Cat. No.	L Length	A Mtg. C'trs	No. Term.
4147	4157	1½	1	1
4148	4158	2	1½	2
4149	4159	2½	2	3
4150	4160	3	2½	4
4151	4161	3½	3	5
4152	4162	4	3½	6
4153	4163	4½	4	7
4154	4164	5	4½	8
4155	4165	5½	5	9
4156	4166	6	5½	10

YOUR CHOICE OF GLASS EPOXY OR FIBERGLASS MATERIALS

Terminal supplied on these boards is **No. 1248**

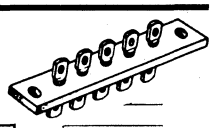




Terminals spaced 7/16" apart

STANDARD 1/16" THICK MATERIAL 5/8" WIDE

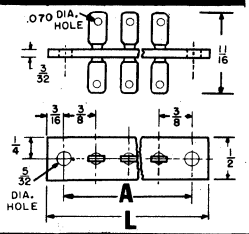
Glass Epoxy Cat. No.	Fiberglass Cat. No.	L Length	A Mtg. C'trs	No. Term.
4177	4167	1¼	⅞	1
4178	4168	1 11/16	1 5/16	2
4179	4169	2⅛	1¾	3
4180	4170	2 5/16	2 3/16	4
4181	4171	3	2⅝	5
4182	4172	3 7/16	3 1/16	6
4183	4173	3⅞	3½	7
4184	4174	4 5/16	3 15/16	8
4185	4175	4¾	4⅜	9
4186	4176	5 5/16	4 13/16	10



FEED-THRU TERMINAL BOARDS

- **Low Cost Feed-Thru Terminations**
- **For Light or Heavy Duty Applications**

Copper pins are forced into hole of the phenolic, then flattened and pierced. Terminals are hot tin dipped for good solderability.

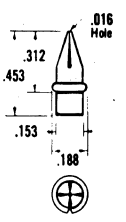


Cat. No.	No. Lugs	A Mtg. Ctr.	L Length
1220-1	1	¾	1⅛
1220-2	2	1⅛	1½
1220-3	3	1½	1⅞
1220-4	4	1⅞	2¼
1220-5	5	2¼	2⅝
1220-6	6	2⅝	3
1220-7	7	3	3⅜
1220-8	8	3⅜	3¾
1220-9	9	3¾	4⅛
1220-10	10	4⅛	4½

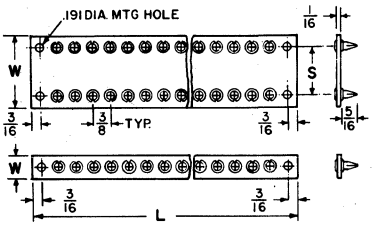
CONICAL GRIP BOARDS

W	S	L	No. of Term. Each Side	Cat. No.
½	Single Row	2⅝	5	4500
		5¼	12	4501
		7⅞	19	4502
		10½	26	4503
		13⅛	33	4504
1½	1	2⅝	5	4505
		5¼	12	4506
		7⅞	19	4507
		10½	33	4509
		13⅛	33	4509
2	1½	2⅝	5	4510
		5¼	12	4511
		7⅞	19	4512
		10½	26	4513
		13⅛	33	4514

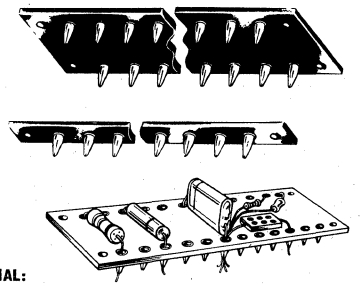
- **Spring Action Fingers Hold Leads**
- **Eliminates Time-consuming Wrapping of Wires**



CAT. NO. 1641



- **More Reliable**
- **Less Costly**
- **Time Saving**
- **Easily Serviced**

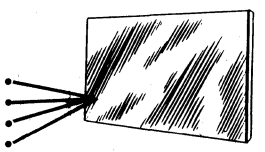


MATERIAL:

Brass, tinned Conical Terminals are firmly staked to **1/16" thick fiberglass insulator** that will withstand temperatures to 300 degrees F. Wire leads are retained until ready to multiple dip solder.

STANDARD LAMINATED PHENOLIC MATERIAL

- **RANGE OF SIZES**
- **CERTIFIED MATERIAL**
- **CHOICE OF —**
  - **XXXP**
  - **GLASS EPOXY**
  - **COPPER CLAD**
  - **FIBERGLASS**



The finest grade laminated phenolic sheets we use in our production fabrication are available to you in a range of standard sizes or special sizes cut to order; and in a variety of types.

NEMA GRADE XXXP-MIL-P-3115C, paper base electrical-color natural. Most commonly used for panels and terminal boards. Excellent electrical grade and dimensional stability. Max. operating temp. continuous 250 deg. F.

NEMA GRADE G-10, MIL-P-18177B-GEE, color green **GLASS CLOTH EPOXY.** Superior chemical resistance, excellent mechanical and electrical properties. Max. operating temp. continuous 300 deg. F.

COPPER CLAD LAMINATES, XXXP MIL-P-13949 TYPE PP and **GLASS EPOXY MIL-P-13949B TYPE FL-GE,** are used mainly for printed circuitry. The copper foil serves as the conductor and the laminate provides the insulating support. 2-ounce copper foil is laminated to one or both sides of the insulator. **We catalog both types in XXXP and G-10.**

FIBERGLASS REINFORCED POLYESTER NEMA GRADE GPO-1 with a class 155C (300°F) rating. Color is Tan. Excellent mechanical and electrical properties. Fabricates similar to Phenolic and can be punched cold.

- **SPECIFIED SIZES CUT TO ORDER**

Size Width & Length	XXXP Natural	Glass Epoxy	XXXP Cop. Clad (1 Side)	XXXP Cop. Clad (2 Sides)	Glass Epoxy Cop. Clad (1 Side)	Glass Epoxy Cop. Clad (2 Sides)	Fiberglass Polyester
1/16 THICK MATERIALS							
	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.
5/16 x 7 13/16	2006	2022	—	—	—	—	2304
¾ x 7 13/16	2020	2023	—	—	—	—	2305
1 x 7 13/16	2021	2024	—	—	—	—	2306
2 x 4½	1970	1978	1985	1992	1999	2013	2307
2¼ x 3	1971	1979	1986	1993	2007	2014	2308
3 x 4½	1972	1980	1987	1994	2008	2015	2309
4½ x 6½	1973	1981	1988	1995	2009	2016	2310
4½ x 8½	1974	1982	1989	1996	2010	2017	2311
8½ x 17	1975	1983	1990	1997	2011	2018	2312
9 x 12	1976	1984	1991	1998	2012	2019	2313
3/32 THICK MATERIALS							
	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.
½ x 13⅛	2025	2031					2314
1 3/16 x 13⅛	2026	2032					2315
1½ x 13⅛	2027	2033	NOT SUPPLIED IN				2316
2 x 13⅛	2028	2034	THESE TYPES				2317
2½ x 13⅛	2029	2035					2318
3 x 13⅛	2030	2036					2319

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STANDARDIZED PLUG-IN HOUSINGS

PLUG IN HOUSINGS

Enhance the appearance and give that professional look to your products using these molded housings. Ideally suited for packaging relays, logic packages, networks and miniature circuitry. Durable, lightweight covers that will withstand vibrations and rough usage. A most popular size metal cover is included in this listing of stock items.

HEADERS: Molded of G.P. black phenolic and fit standard sockets.

Pins are Brass, Nickel Plated. Guide hole tapped 8-32 for terminal board mounting stud.

- VARIETY OF MOLDED MATERIALS
- GOOD CHEMICAL RESISTANCE
- LOW WATER ABSORPTION

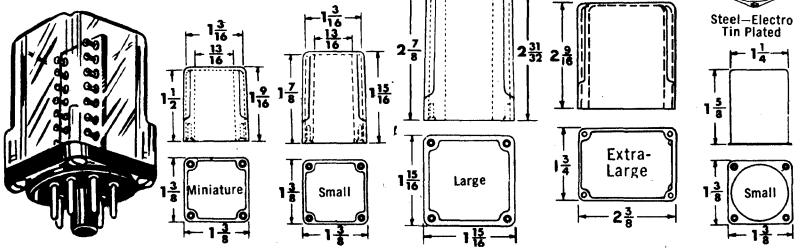


FIG. 1 FIG. 2 FIG. 3 FIG. 4 FIG. 5

MATERIAL CHARACTERISTICS:

POLYSTYRENE: For general purpose use where high impact strength is not required and temperature would not exceed 170°F.

BUTYRATE: 3 times the impact strength of Polystyrene and excellent electrical properties, use wherever temperatures of 210°F exist.

NYLON: Impact strength slightly less than Butyrate but recommended for use where temperatures are as high as 300°F.

Housing with Octal Header & 4 Screws CAT. NO.	Housing Only CAT. NO.	Fig. No.	Type	Material	Color
660	670	1	Mini	Butyrate	Clear
661	671	1	Mini	Nylon	White
662	672	1	Mini	Polystyrene	Clear
641	645	1	Mini	Polystyrene	Opaque Black
642	646	1	Mini	Polystyrene	Transp. Red
663	673	2	Small	Butyrate	Clear
664	674	2	Small	Nylon	White
665	676	2	Small	Polystyrene	Clear
643	647	2	Small	Polystyrene	Opaque Black
644	648	2	Small	Polystyrene	Transp. Red
650	649	3	Large	Butyrate	Clear
668	679	3	Large	Polystyrene	Clear
677	666	3	Large	Polystyrene	Opaque Black
678	667	3	Large	Polystyrene	Transp. Red
639	640	4	Extra-Large	Polystyrene	Clear
669	680	5	Small	Steel	Electro Tin Plate

HEADERS

HEADERS: Headers are available in two sizes and a variety of pin configurations that fit standard sockets. Molded of general purpose phenolic with brass nickel plated pins sturdily staked. Guide hole tapped 8-32 for terminal board mounting stud.

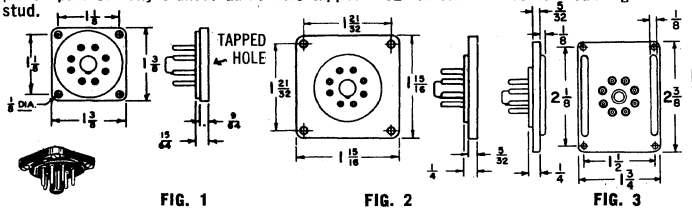


FIG. 1 FIG. 2 FIG. 3

1⅜ Sq. Headers for Mini & Small Housing (FIG. 1) CAT. NO.	Pin Configuration	1 15/16 Sq. Headers for Large Housing (FIG. 2) CAT. NO.	1¾ x 2⅜ Headers for Extra Large Housing (FIG. 3) CAT. NO.
681	Octal	685	690
682	Nine Pin	Not Available	Not Available
683	Eleven Pin	686	Not Available
684	Twenty Pin	687	691

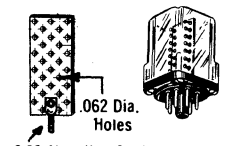
SELF-TAPPING SCREWS

CAT. NO. 688 — For miniature & small covers #4 x ⅜"
CAT. NO. 689 — For large covers #4 x ½"

TERMINAL BOARDS

(FOR USE WITH ABOVE HOUSINGS)

THESE BOARDS ARE STOCKED IN XXXP PAPERBASE AND GLASS EPOXY MATERIAL. SPACING OF HOLES IS .100 and .200 ALTERNATES. AN 8-32 THREADED STUD IS FIRMLY EYELETTED TO THE BOARD AND IS EASILY ASSEMBLED INTO THE TAPPED HOLE OF THE HEADERS.

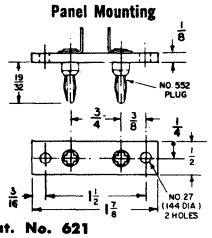


XXX PBE MIL-P-3115C Bakelite Cat. No.	Glass Epoxy G-10, GEE MIL-P-18177B Cat. No.	Size of Board with Stud	For Covers Listed Above
692	696	1 x 1 5/16	Miniature
693	697	1⅛ x 1¾	Small
694	698	1½ x 2¾	Large
695	699	1⅛ x 1 7/16	Metal Case
637	638	1 5/16 x 2⅜	Xtra Large

BANANA PLUG AND JACK STRIP

3/4" Centers — Mate with all Stack-Up Plugs

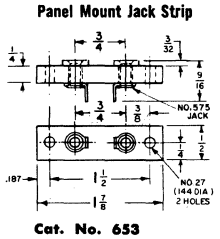
BANANA PLUG STRIP
Panel Mounting



Cat. No. 621

A much needed accessory for patch-cord boards and stack-up plugs. Low resistance banana plugs are spaced on ¾" centers, staked into ⅛" thick black bakelite and solder plugs.

JACK STRIP
Panel Mount Jack Strip



Cat. No. 653

These panel mounting strips mate with any ¾" spaced stack-up plug or individual patchcords. Silver plated jacks are staked into ¼" thick black bakelite with solder lugs. Multiples can be supplied in most instances without tooling or setup charges.

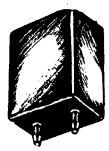
BANANA PLUG IN MODULES

- Suitable for test adaptors, modules, filters, etc.
- Low resistance Beryllium Copper spring plugs
- Shielded or molded hi-impact Butyrate cover
- Mates with all standard patch board plugs

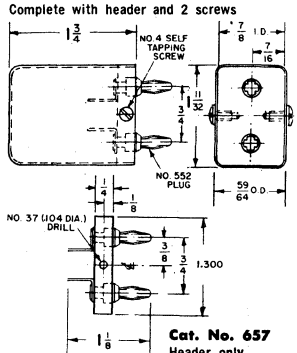
BANANA PLUG SPRINGS: One piece Beryllium Copper per QQ-C-533 and heat treated to 15N, 73-79.

PLUG BODY: Brass QQ-626 Comp. 22½ H; silver plated, MIL-P-14072 per QQ S-365.

ALUMINUM SHELL

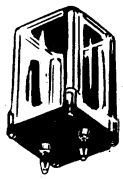


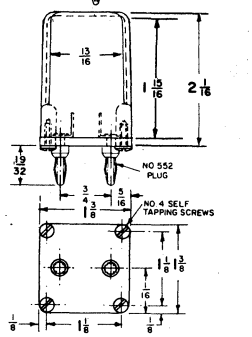
Cat. No. 659
Complete with header and 2 screws



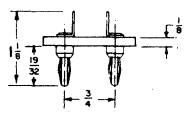
Cat. No. 657
Header only

PLASTIC HOUSING





Cat. No. 658
Complete with header and 4 screws



Cat. No. 656
Header only

KEYSTONE ELECTRONICS CORP.

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KEYBOARDS, STANDOFFS & SPACERS

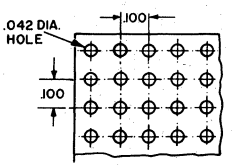
MICRO-MINIATURE KEYBOARDS

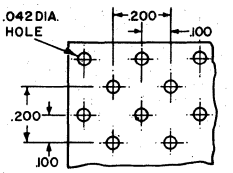
WITH .042 DIA. HOLES

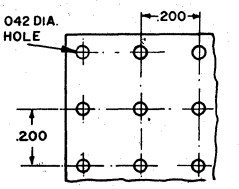
- PERMITS HIGHER COMPONENT DENSITY FOR SUBMINIATURE CIRCUITRY
- FOR MODULE STACKS
- SMALLER PLUG-IN CARDS POSSIBLE

Material:
GLASS EPOXY UNCLAD Mil-P-18177 G-10 (GEE) Temp. 300°F. Max.
GLASS EPOXY Copper Clad Mil-P-13949B (GE) Temp. 300°F. Max.

Tolerance: Length and width overall dimension after fabrication Plus or Minus .015



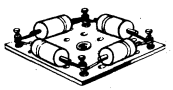




"P" PATTERN .042 HOLES .100 x .100				"M" PATTERN .042 HOLES .100 x .200				"J" PATTERN .042 HOLES .200 x .200			
Width & Length	No. Holes W & L	Glass Epoxy	Glass Epoxy Cop. Clad (1 Side)	Width & Length	No. Holes W & L	Glass Epoxy	Glass Epoxy Cop. Clad (1 Side)	Width & Length	No. Holes W & L	Glass Epoxy	Glass Epoxy Cop. Clad (1 Side)
1/32" Thick Material		Cat. No.	Cat. No.	1/32" Thick Material		Cat. No.	Cat. No.	1/32" Thick Material		Cat. No.	Cat. No.
2x4½	19x44	4225	4234	2x4½	9x22x2	4242	4250	2x4½	9x22	4258	4266
2x6	19x59	4226	4235	2x6	9x29x2	4243	4251	2x6	9x29	4259	4267
4½x6	44x59	4227	4236	4½x6	22x29x2	4244	4252	4½x6	22x29	4260	4268
6x17	59x169	4228	4237	6x17	29x84x2	4245	4253	6x17	29x84	4261	4269
3/64" Thick Material		Cat. No.	Cat. No.	3/64" Thick Material		Cat. No.	Cat. No.	3/64" Thick Material		Cat. No.	Cat. No.
2x4½	19x44	4229	4238	2x4½	9x22x2	4246	4254	2x4½	9x22	4262	4270
2x6	19x59	4230	4239	2x6	9x29x2	4247	4255	2x6	9x29	4263	4271
4½x6	44x59	4231	4240	4½x6	22x29x2	4248	4256	4½x6	22x29	4264	4272
6x17	59x169	4232	4241	6x17	29x84x2	4249	4257	6x17	29x84	4265	4273

EYELET KEYBOARDS

An essential building block that will assist the designer and engineer in planning and layout of electronic circuitry. Eyelets are tinned for each soldering. Boards can be stored indefinitely and will retain soldering characteristics.



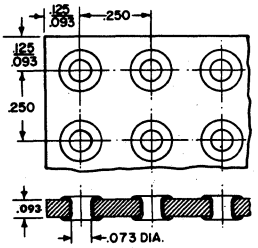
- Replaces Costly Terminal Board Assemblies
- For Lab or Production Use

Material: PBE XXXP Phenolic MIL-P-3115C.
Eyelets: Brass QQ626 Comp. 22 — ¼" Spacing in Both Directions
Finish: Tinned, Mil-P-14072, Type 221.

FOR MINIATURE CIRCUITRY

- Available from Stock
- Construct Modules—Bridge Circuits—Printed Circuit Layout

Cat. No.	No. of Holes W & L	Width	Length	No. of Eyelets
4283	5x5	1¼	1¼	25
4284	6x10	1½	2½	60
4285	10x13	2½	3¼	130
4286	13x18	3¼	4½	234
4287	14x16	3½	4	224
4288	16x24	4	6	384

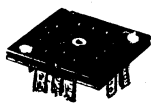


Eyelets Installed in all Holes

MODULE WAFER SOCKETS FOR .040 PINS

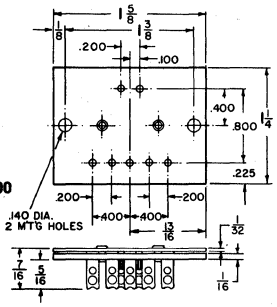
Precision drilled wafers hold contacts in perfect alignment. Insertion is easy and pins are grasped firmly.

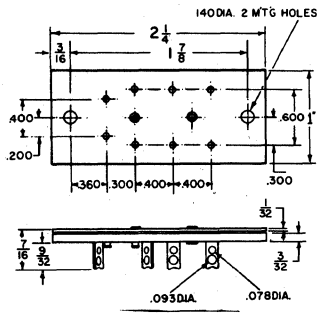
Most Standard Encapsulated Operational Amplifiers and Module Circuits



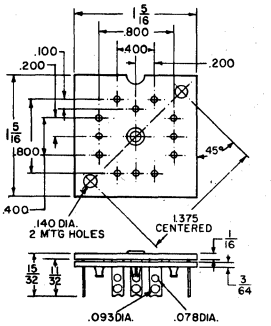
Material: NEMA Grade XP Phenolic Wafers.

Cat. No. 1400





Cat. No. 1401

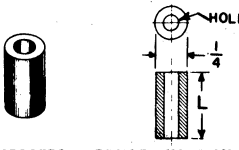


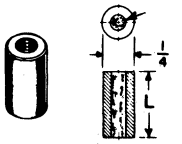
Cat. No. 1402

PHENOLIC SPACERS

- Good Mechanical Strength
- Resists Abrasions & Chemicals
- Excellent Dielectric
- Low Moisture Absorption

Material: PBE Grade MIL-P-79A Natural Color Phenolic — Special Sizes Made to Order — Promptly Quoted





Length Inches	SPACERS — DRILLED HOLE ONLY: For #4 Screw .120 Hole Cat. No.	For #6 Screw .140 Hole Cat. No.	For #8 Screw .171 Hole Cat. No.	SPACERS—WITH TAPPED HOLE: 4-40 Thread Cat. No.	6-32 Thread Cat. No.	8-32 Thread Cat. No.
¼ (.250)	360	367	1490	376	383	390
⅜ (.375)	361	368	1491	377	384	391
½ (.500)	362	369	1492	378	385	392
¾ (.750)	363	370	1493	379	386	393
1 (1.000)	364	371	1494	380	387	394
1½ (1.500)	365	372	374	381	389	395
2 (2.000)	366	373	375	382	389	396

1.500 and 2" are tapped ⅜ deep each end

ALUMINUM ECONOMY SPACERS

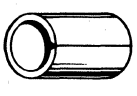
FOR No. 4, 6 or 8 SCREWS

- Precision Formed
- No Burrs

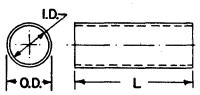
Made of flat strip aluminum and rolled on precision equipment. Assures maximum bearing surface, square ends.

Description and Tol.

Spacer For	I.D. ±.005	O.D. ±.007
#4	.125	.167
#6	.151	.193
#8	.178	.232



Tight Joint on Outside Diameter



L Length Inches	For #4 Cat. No.	For #6 Cat. No.	For #8 Cat. No.	L Length Inches	For #4 Cat. No.	For #6 Cat. No.	For #8 Cat. No.
3/16	397	—	—	¾	418	425	432
¼	398	405	412	⅞	419	426	433
5/16	399	406	413	1	420	427	434
⅜	400	407	414	1¼	421	428	435
7/16	401	408	415	1½	422	429	436
½	402	409	416	1¾	—	430	437
⅝	403	410	417	2	—	—	438

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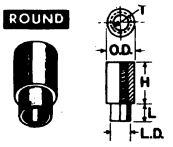
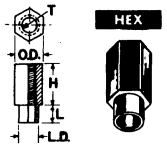
STANDOFFS & SPACERS

SWAGE TYPE THREADED STANDOFFS

MATERIAL: ALL HARDWARE ON THIS PAGE IS MADE OF: BRASS MIL SPEC. QQ-B-626A COMP. 22—½ HARD.



Nickel Plate Mil-F-14072
QQ-N-290 Type V



Cadmium plate per QQ-P-416 Type 2
Class B and clear chromate.

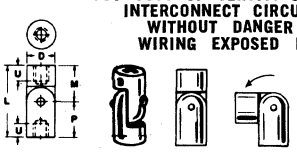
ROUND Nickel Plated Cat. No.	H Height Above Panel	L	For Panel Thickness	LD	OD	T Thread	HEX Cadmium Plated Cat. No.
1589-2	1/8	.109	1/16	.125	5/32	2-56	—
1589-3	1/8	.140	3/32	.125	5/32	2-56	—
1590-2	3/16	.109	1/16	.125	5/32	2-56	—
1590-3	3/16	.140	3/32	.125	5/32	2-56	—
1591-2	1/4	.109	1/16	.125	5/32	2-56	—
1591-3	1/4	.140	3/32	.125	5/32	2-56	—
1596-2	3/8	.109	1/16	.125	5/32	2-56	—
1596-3	3/8	.140	3/32	.125	5/32	2-56	—
1560 A	1/8	.109	1/16	.187	1/4	4-40	1653-2
1560 F	1/8	.140	3/32	.187	1/4	4-40	1653-3
1650-2	1/4	.109	1/16	.187	1/4	4-40	1627-2
1650-3	1/4	.140	3/32	.187	1/4	4-40	1627-3
1651-2	3/8	.109	1/16	.187	1/4	4-40	1628-2
1651-3	3/8	.140	3/32	.187	1/4	4-40	1628-3
1623-2	1/2	.109	1/16	.187	1/4	4-40	1629-2
1623-3	1/2	.140	3/32	.187	1/4	4-40	1629-3
1624-2	5/8	.109	1/16	.187	1/4	4-40	1654-2
1624-3	5/8	.140	3/32	.187	1/4	4-40	1654-3
1625-2	3/4	.109	1/16	.187	1/4	4-40	1655-2
1625-3	3/4	.140	3/32	.187	1/4	4-40	1655-3
1652-2	1	.109	1/16	.187	1/4	4-40	1630-2
1652-3	1	.140	3/32	.187	1/4	4-40	1630-3
1560 B	1/8	.109	1/16	.187	1/4	6-32	1620-2
1560 C	1/8	.140	3/32	.187	1/4	6-32	1620-3
1560 D	1/8	.171	1/8	.187	1/4	6-32	1620-4
1612-2	3/16	.109	1/16	.187	1/4	6-32	—
1612-3	3/16	.140	3/32	.187	1/4	6-32	—
1612-4	3/16	.171	1/8	.187	1/4	6-32	—
1546	1/4	.109	1/16	.187	1/4	6-32	1621-2
1546 B	1/4	.140	3/32	.187	1/4	6-32	1621-3
1546 D	1/4	.171	1/8	.187	1/4	6-32	1621-4
1561 B	3/8	.109	1/16	.187	1/4	6-32	1622-2
1561 C	3/8	.140	3/32	.187	1/4	6-32	1622-3
1561 D	3/8	.171	1/8	.187	1/4	6-32	1622-4
1604-2	1/2	.109	1/16	.187	1/4	6-32	—
1604-3	1/2	.140	3/32	.187	1/4	6-32	—
1604-4	1/2	.171	1/8	.187	1/4	6-32	—
1605-2	5/8	.109	1/16	.187	1/4	6-32	—
1605-3	5/8	.140	3/32	.187	1/4	6-32	—
1605-4	5/8	.171	1/8	.187	1/4	6-32	—
1608-2	3/4	.109	1/16	.187	1/4	6-32	—
1608-3	3/4	.140	3/32	.187	1/4	6-32	—
1608-4	3/4	.171	1/8	.187	1/4	6-32	—
1609-2	1	.109	1/16	.187	1/4	6-32	—
1609-3	1	.140	3/32	.187	1/4	6-32	—
1609-4	1	.171	1/8	.187	1/4	6-32	—

STAKING TOOLS FOR ABOVE STAND-OFFS

Precision made tools—heat treated and plated. Will give your job the professional appearance. Set of tools consist of: Top Staking Tool and Anvil.

Cat. No.	
TL-19	For Bushing 5/32 OD with 2-56 Thd.
TL-20	For Bushing 1/4 OD with 4-40 Thd.
TL-21	For Bushing 1/4 OD with 6-32 Thd.

CUT COST OF SERVICING • SPACE SAVER
INTERCONNECT CIRCUITS OR SERVICES
WITHOUT DANGER OF SHORTING
WIRING EXPOSED FOR EASY TEST



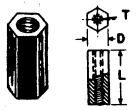
Material: Made of Brass
Finish: Nickel Plate

These standoffs mount at front of the board.

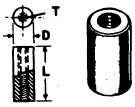
Hinge Cat. No.	T Thread	D Diam.	L Length	U	M	P	Standoff Only Cat. No.
351	4-40	.187	3/4	.172	.375	.375	1657A
352	4-40	.187	1	.250	.375	.625	1657B
353	6-32	.250	3/4	.172	.375	.375	1548E
354	6-32	.250	1	.250	.375	.625	1548F
355	8-32	.250	3/4	.172	.375	.375	1692D
356	8-32	.250	1	.250	.375	.625	1692E

THREADED SPACERS

THREADED SPACERS ¼" O.D. THREADED 4-40, 6-32, 8-32 AVAILABLE EITHER IN ROUND OR HEX. ROUND TYPE IS NICKEL PLATED, HEX TYPE IS CADMIUM.



Cadmium plate per QQ-P-416 Type 2
Class B and clear chromate.

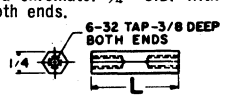


Nickel Plate Mil-F-14072
QQ-N-290 Type V

HEX Cadmium Plated Cat. No.	D	L	T Thread	ROUND Nickel Plated Cat. No.
1450	3/16	1/4	4-40	1547
1656	3/16	1/2	4-40	1657
1656A	3/16	3/4	4-40	1657A
1656B	3/16	1	4-40	1657B
1450A	1/4	1/4	4-40	1547A
1450B	1/4	3/8	4-40	1547B
1450C	1/4	1/2	4-40	1547C
1450D	1/4	3/4	4-40	1547D
1450E	1/4	1	4-40	1547E
1451A	1/4	1/4	6-32	1548A
1451B	1/4	3/8	6-32	1548B
1451C	1/4	1/2	6-32	1548C
1451D	1/4	5/8	6-32	1548D
1451E	1/4	3/4	6-32	1548E
1635	1/4	1	6-32	1548F
1474A	1/4	1/4	8-32	1692A
1474B	1/4	3/8	8-32	1692B
1474C	1/4	1/2	8-32	1692C
1474D	1/4	3/4	8-32	1692D
1474E	1/4	1	8-32	1692E
1452A	3/8	3/8	8-32	1549A
1452B	3/8	1/2	8-32	1549B
1452C	3/8	5/8	8-32	1549C
1452D	3/8	3/4	8-32	1549D
1452E	3/8	1	8-32	1549E

HEX SPACERS 6-32 TAPPED BOTH ENDS

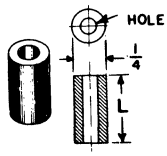
Extra long length spacers ideal as standoff legs for Keystone pre-punched boards or your special application. Brass cad. plated and chromate. ¼" O.D. with 6-32 x 3/8" deep tapped holes both ends.



Cat. No.	Length
1635	1
1636	1¼
1637	1½
1638	1¾
1639	2
1642	2¼
1643	2½

ROUND BRASS SPACERS

Made of Brass MIL Spec. QQ-2-626A Comb. 22 ½ Hard.
Finishes: Nickel Plate Mil-F-14072 QQ-N-233 Type V.

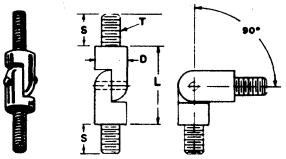


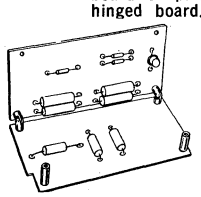
Length Inches	For #4 Sc'R .120 I.D. Cat. No.	For #6 Sc'R .140 I.D. Cat. No.	For #8 Sc'R .171 I.D. Cat. No.
1/4	1454A	1457A	1480
3/8	1454B	1457B	1481
1/2	1454C	1457C	1482
3/4	1457D	1457D	1483
1	1454E	1457E	1484

HINGED STANDOFFS FOR TERMINAL BOARDS

- **APPLICATIONS UNLIMITED**
- **TIME SAVING**

Only 2 screws used to fasten board in place or open the hinged board.





Hinge Cat. No.	T Thread	L Length	D Diam.	S	P	Standoff Only For Front of Board Cat. No.
357	4-40	1/2	.187	1/4	1/4	1657
—	—	—	—	—	—	—
358	6-32	1/2	.250	5/16	1/4	1548C
—	—	—	—	—	—	—
359	8-32	1/2	.250	5/16	1/4	1692C
—	—	—	—	—	—	—

© U.C.P., Inc.

mueller clips

a complete line of

ALLIGATOR TEST & BATTERY CLIPS

Mueller Electric Co.

"60 SERIES" ALLIGATOR CLIPS

No. 60—CONVENTIONAL TYPE

New slim design with full-meshing teeth. Convenient, round thumb grip, barrel connection for banana plug. Equipped with small soldering lip. Strong spring with a hard bite. Cadmium plated. 2" long.

EACH NET.....$0.07 LOTS OF 10.....$0.048

No. 60-S—SCREW CONNECTION

Eliminates necessity for soldering. Otherwise same as No. 60.

EACH NET....$0.08 LOTS OF 10....$0.058

No. 60-CS—COPPER ALLIGATOR CLIP

Solid copper version of No. 60-S. Screw connection. 2" long. 10 per box.

EACH NET.....$0.12 LOTS OF 10.....$0.086

No. 60PR-2—SPECIAL BARREL FOR TEST PROD OR PHONE TIP

Barrel crimped to provide friction fit on standard test prod or phone tip. Holds prod on test, frees hand for other work.

EACH NET.....$0.10 LOTS OF 10.....$0.072

No. 62 FLEXIBLE VINYL INSULATOR

Red and black insulators for Alligator Clips 60, 60-S, 60-CS, 60PR-2.

EACH NET.....$0.05 LOTS OF 10.....$0.035

No. 60-HS—STEEL ALLIGATOR CLIP WITH INSULATED HANDLE

Same as No. 60-S except equipped with red and black insulating sleeves on end. Very convenient for distinguishing leads. Has screw connection also. Cadmium plated. 2 11/32" long. Shipped half red, half black.

EACH NET.....$0.12 LOTS OF 10.....$0.08

No. 60-CHS—COPPER ALLIGATOR CLIP, INSULATED HANDLE

Solid copper version of No. 60-HS. Screw connection. Shipped with half red, half black insulating sleeves. 10 per box.

EACH NET.....$.15 LOTS OF 10.....$0.106

"70 SERIES" ALLIGATOR CLIPS

U.S. Patent No. 2,762,028

A trim, modern Alligator Clip.
Features simplified design, fast connection of wire with cord strain relief ears, patented hinge construction and lower cost.
Mueller's traditionally snappy spring, full jaw spread, fine meshing teeth, round thumb grip and trim shape give most wanted features for test work in close quarters.

No. 70—FOR SOLDERED CONNECTION

Steel, cadmium plated. 1 1/16" long.

EACH NET.....$0.07 LOTS OF 10.....$0.042

No. 70-S—SCREW CONNECTION

Otherwise same as No. 70.

EACH NET.....$0.08 LOTS OF 10.....$0.05

No. 70-CS—COPPER SCREW CONNECTION

Solid copper version of No. 70-S.

EACH NET.....$0.11 LOTS OF 10.....$0.077

No. 72— SKIN-TIGHT INSULATOR FOR 70 SERIES ALLIGATOR CLIPS!

For the first time complete, skin-tight, one-piece insulation for a standard size Alligator Clip! Covers entire clip right down to nose. Special tip slot permits full jaw opening without exposing teeth.

EACH NET.....$0.05 LOTS OF 10.....$0.035

WEE-PEE-WEE No. 88

Entirely Non-ferrous.

An extremely small clip for fine testing in radio and electrical work. Light-Weight; thin-nosed; spring-temper phosphor bronze. Ideal for close-wound coils. 1 1/16" long; jaw spread 1/8". 10 per box.

EACH NET.....$0.24 LOTS OF 10.....$0.167

Use No. 93 Insulator.

MICRO-GATOR CLIP

(Smallest Insulated Clip Ever Made)

U.S. Patent No. 2,762,028 Trademark Reg.

Micro-Gator

Micro-Gator with Insulator

The alligator clip with the microscopic tip! This is the alligator clip you now can use where no other clip will do . . . on printed circuits, in tight spots and on tiny terminals too crowded for anything but its microscopic tip. Including separate skin-tight insulator the tip is no bigger than the head of a pin! Yet the Micro-gator has ample thumb grip, and plenty of bite to stand up straight on the smallest terminals. Ample 7/32" jaw spread. 1 3/32" long. Solder connection. Skin-tight flexible vinyl insulator (sold separately) has "lip-action" tip slot so that jaws stay covered whether open or closed.

No. 34 (Steel, cadmium plated)

EACH NET.....$0.06 LOTS OF 10.....$0.041

No. 34-C (Solid Copper)

EACH NET.....$0.08 LOTS OF 10.....$0.053

No. 36 (Insulator for Nos. 34 and 34-C)

EACH NET.....$0.05 LOTS OF 10.....$0.03

MINI-GATOR CLIP

Mini-gator

Mini-gator with Insulator

Trademark Reg.

Indispensable for testing or incorporation into miniaturized equipment. New design features rivet hinge for greater strength, full-meshing teeth to grip finest wires. Skin-tight flexible Vinyl insulator (sold separately) covers completely — has slotted "lip action" tip. Clip weighs 1/20th oz., has tiny 1/64" O.D. nose, but ample 3/16" jaw spread 1 1/16" long. Crimping ears. Solder connection. Surprisingly strong bite penetrates corrosion and coatings.

No. 30 (Steel, cadmium plated)

EACH NET.....$0.07 LOTS OF 10.....$0.049

No. 30-C (Solid Copper)

EACH NET.....$0.09 LOTS OF 10.....$0.061

No. 32 (Insulator for Nos. 30 and 30-C)

EACH NET.....$0.05 LOTS OF 10.....$0.03

COMPLETELY INSULATED ALLIGATOR CLIPS

Patent Pending

No. 63 or 63-C Clip

Sold only as a unit, with factory-applied insulators.

Completely insulated right down to the nose. Flexible 2-piece skin-type vinyl insulator of high dielectric strength, with "lip action" slotted tip that permits opening of clip without exposing metal. Insulator nose is only 13/64" O.D. The tight fitting sheath preserves all the slimness of the Alligator Clip, still giving complete protection against shorts in even the tightest spots. Screw connection easily made by slipping insulator forward. 2 1/8" long.

No. 63—INSULATED ALLIGATOR CLIP (STEEL)

Composed of Mueller No. 60-S Alligator Clip steel, cadmium plated, screw connection, complete with 2-piece vinyl insulator. Shipped half with red insulators, half black. 10 per box.

EACH NET.....$0.19 LOTS OF 10.....$0.13

No. 63-C—INSULATED ALLIGATOR CLIP (COPPER)

Composed of Mueller No. 60-CS Alligator Clip, solid copper, screw connection. Shipped half with red insulators, half black. 10 per box.

EACH NET.....$0.22 LOTS OF 10.....$0.15

CROCODILE CLIPS

No. 85 or 85-C Clip with No. 87 Insulator

No. 85-T Clip

No. 85—A very small clip with slender, elongated jaws for getting into tight places in radio or electrical test work. Screw connection. 2 1/8" long.

EACH NET.....$0.10 LOTS OF 10.....$0.071

No. 85-C—Same as No. 85,, except solid copper with phosphor bronze spring, brass screw. A radio frequency, entirely non-ferrous test clip. 10 per box.

EACH NET.....$0.19 LOTS OF 10.....$0.13

No. 85-T—Crocodile "Tip-Clip"—equipped with standard phone tip on one jaw, otherwise same as No. 85. Ideal for use as a prod, for ordinary clip connections and for connections to insulated binding posts having non-removale heads. 2 5/8" long. 10 per box.

EACH NET.....$0.25 LOTS OF 10.....$0.173

Use No. 87 Insulators for clips 85, 85-C and 85-T. Red and Black. Cover entire clip except nose. Protect against short and shock. Help to distinguish leads.

Net

© U.C.P., Inc.

mueller clips

a complete line of

ALLIGATOR TEST & BATTERY CLIPS

Mueller Electric Co.

TEST CLIPS

No. 45 PEE WEE

A very small test clip for radio, ignition, meter and similar work. 1½" long. Jaw spread 5/16". Steel, cadmium plated.

EACH NET.....$0.09 **LOTS OF 10.....$0.06**

No. 45-C Clip
No. 47 Insulator

No. 45-C Solid Copper R.F. Test Clip

Solid copper radio frequency test clip. Phosphor bronze spring. brass screw. Will not heat up in high frequency test work, entirely non-ferrous. 1½" long. 10 per box.

EACH NET.....$0.14 **LOTS OF 10.....$0.10**

Use No. 47 Insulator for clips 45 and 45-C.

No. 48-B

A small test and battery clip for radio use and general testing purposes. 2" long. Jaw spread ½". Steel, cadmium plated. 10 per box.

EACH NET.....$0.12 **LOTS OF 10.....$0.086**

No. 48C—Solid Copper. Same size as 48-B.

EACH NET.....$0.17 **LOTS OF 10.....$0.12**

No. 50-C Needle Clip

Solid bronze. Needle pierces insulation of wire for quick test contact. 2¼" long. 10 per box.

EACH NET....$0.28 **LOTS OF 10....$0.20**

No. 51-C—Large crocodile clip. Same as 50-C but without needle. 10 per box.

EACH NET....$0.20 **LOTS OF 10....$0.137**

Use No. 49 insulator for Clips 48-B, 48-C, 50-C and 51-C.

No. 27

A high grade test clip with meshing teeth on three sides of jaws. For laboratory and shop test work 2 7/16" long. Jaw spread 5/8". Steel, cadmium plated. 10 per box.

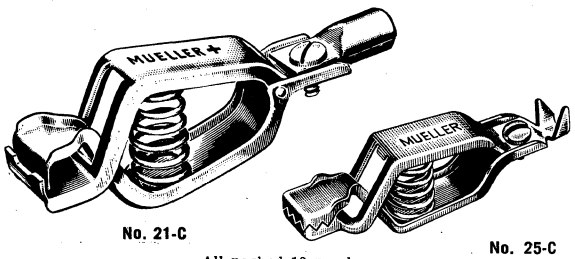
EACH NET.....$0.15 **LOTS OF 10.....$0.10**

No. 27-C—Solid copper. Same size as No. 27. 10 per box.

EACH NET.....$0.24 **LOTS OF 10.....$0.17**

Use No. 29 Insulator for clips 27 and 27-C.

LARGER SIZES OF CLIPS



No. 21-C

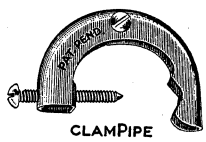
No. 25-C

All packed 10 per box.

		Each Net	Lots of 10
No. 24-A	— 25 Amp. Steel, lead plated, 2⅞" long	$0.24	$0.163
No. 25	— 40 Amp. Steel, cadmium plated, 3" long	.22	.16
No. 25-C	— 75 Amp. Solid Copper, 3" long	.43	.30
No. 21-A	— 50 Amp. Steel, lead plated, 4" long	.43	.30
No. 21-C*	—100 Amp. Solid Copper, 4½" long	1.05	.73
No. 11-A*	—100 Amp. Steel, lead plated, 6" long	1.12	.78
No. 11-C*	—200 Amp. Solid Copper, 6" long	1.96	1.37
No. 33-C*	—300 Amp. Solid Copper, 7¾" long	3.75	2.62

(*Furnished with detachable lug connection for easy securing to large cables.)

GROUND CLAMP



CLAMPIPE
No. 58

The ClamPipe will not spread, bend or lop over when applied. Point of large screw bites through corrosion into clean metal to insure good contact. Applicable to pipe ⅜" to 1⅜" O.D. The best ground clamp on the market!

EACH NET....$0.20 **LOTS OF 10....$0.14**

FLEXIBLE INSULATORS FOR CLIPS

A convenient protection against short circuit and electric shock. Colors help to distinguish leads. Packed half red and half black to indicate polarity. Long tail prevents breakage of wire. Constructed so that clip is held in firmly. NOW AVAILABLE also in blue, white, yellow and green at 10% above regular price are insulators marked * below.

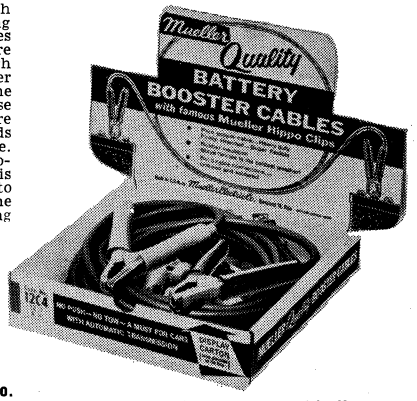
Insulator No.	For Use with Clip No.	Each Net	Lots of 10
13*	11-A, 11-C	$0.80	$0.56
23*	21-A, 21-C	.40	.28
26*	24-A, 25, 25-C	.21	.15
29*	27, 27-C	.13	.09
32*	30, 30-C	.05	.03
35	33-C	3.13	2.19
36*	34, 34-C	.05	.03
47*	45, 45-C	.06	.04
49*	48-B, 48-C, 50-C, 51-C	.09	.065
62*	60, 60-S, 60-CS, 60PR-2 (also 70 Series)	.05	.035
72*	70, 70-S, 70-CS	.05	.035
87*	85, 85-C, 85-T	.06	.04
93	88	.17	.12

*Also available in blue, white, yellow and green.

MUELLER *QUALITY* BATTERY BOOSTER CABLES

Highest quality cables, equipped with famous Hippo-Clips, for boosting "dead" 6 or 12-volt vehicle batteries with an external battery. Cables are pure copper, finely stranded for high flexibility and covered with rubber insulation which stays flexible in the coldest weather and resists oil, grease and acid. 413 strands of No. 30 wire in the 4-gauge cable and 259 strands of No. 30 wire in the 6-gauge cable. The many fine features of the Hippo-Clips alone are listed elsewhere on this page. The clips are both soldered to the cable and clinched around the cable insulation by means of clinching ears.

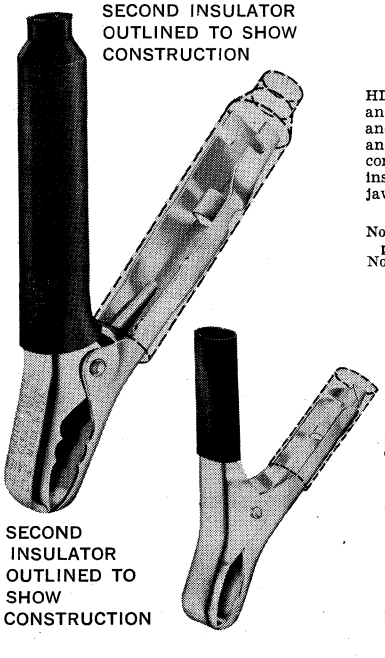
Packaged: pair of cables with clips in a bright, attractive display carton. Standard shipping container 10 cartons.



No. 8A6—8 ft., 6-gauge, with No. 41A Hippo-Clips (Steel, bright copper plated)
NET PRICE PER PAIR.....$5.70

No. 12A6—12 ft., 6-gauge, with No. 41A Hippo-Clips (Steel, bright copper plated)
NET PRICE PER PAIR.....$7.20

No. 12C4—12 ft., 4-gauge, with No. 41C Hippo-Clips (Solid Copper)
NET PRICE PER PAIR.....$12.60



HIPPO-CLIP

HIPPO-CLIP—For battery booster cables and fast chargers. Proved higher quality and superior design. Built-in solder strap and clinching ears for fast, sure cable connection. Supplied with vinyl handle insulators in red or black. Full 1-9/16" jaw spread. 6" long.

	Net price ea.
No. 41-A Steel, bright copper plated, 100 amp.	$ .45
No. 41-C Solid Copper, 200 amp.	.99

NEW!

PIGMY HIPPO-CLIP

PIGMY HIPPO-CLIP—A new small plier clip for battery operated equipment and automotive test. Flat, wide handle allows positive grip. Won't "squirt away". Built-in solder strap and wire clinching ears. Supplied with vinyl handle insulators in red or black. Ample 1⅛" jaw spread. 3" long.

	Net price ea.
No. 46-A Steel, bright copper plated, 50 amp.	$ .15
No. 46-C Solid Copper, 75 amp.	.24

A DIVISION OF

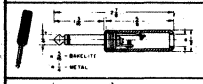
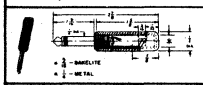
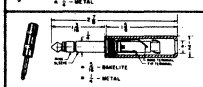
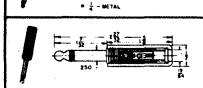
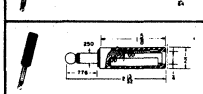
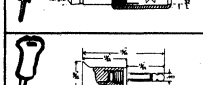
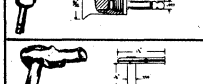
NATIONAL TEL-TRONICS CORP.

nt·t SALES CO.

The complete, economical line of hardware with many important extra features. NT•T Sales Co., Inc. offers a fully comprehensive and extensive line of electronic hardware and components to meet all the needs of the distributor and manufacturer. Every item offers important features, is excellently packaged, and is economically priced.

PHONE PLUGS

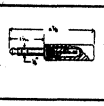
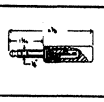
Widely used in hi-fi equipment, tape recorders, dictaphone machines, etc. Molded plastic shells in red or black are supplied for numbers 300, 301, 302, 304, 305, 307, and 308. Metal shells available for numbers 300, 301, 302, 307, and 309.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		TWO CONDUCTOR Screw Type Two conductor screw type, accommodates two conductor jacks #336 and #337.	300B 300R 300M	Black Red Metal	.45 .45 .63
		TWO CONDUCTOR Solder Type Two conductor solder type, accommodates two conductor jacks #336 and #337.	301B 301R 301M	Black Red Metal	.39 .39 .60
		THREE CONDUCTOR Solder Type Three conductor solder type, accommodates three conductor jacks #338 and #339.	302B 302R 302M	Black Red Metal	.63 .63 .78
		TWO CONDUCTOR Type PJ055 Two conductor solder type, made to military specifications. Solder terminals are silver plated to facilitate soldering.	304B 304R	Black Red	.81 .81
		TWO CONDUCTOR Type PJ054 Two conductor solder type, made to military specifications. Solder terminals are silver plated to facilitate soldering.	305B 305R	Black Red	.81 .81
		MINIATURE TWO CONDUCTOR Solder Type Two conductor solder type, accommodates sub-miniature jacks #311 and #313.	307B 307R 307M	Black Red Metal	.42 .42 .63
		ULTRA-MINIATURE, TWO CONDUCTOR Solder Type Two conductor solder type, accommodates ultra-miniature jack #310. Utilized on many tape recorders and transistor radios.	308B 308R 308T	Black Red Beige	.45 .45 .45
		RIGHT ANGLE, TWO CONDUCTOR Screw Type Right angle plug prevents protrusion, accommodates two conductor jacks #336 and #337.	309M	Metal	.54

Over the years original equipment manufacturers have looked to NT•T for the finest in all types of phono plugs. Now distributors, industrials, and consumers will be able to obtain the same high quality phono plugs as supplied to the equipment manufacturers.

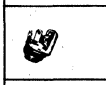
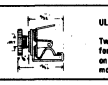
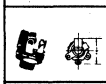
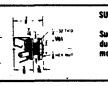
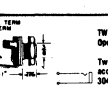
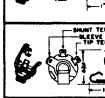
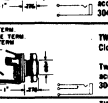
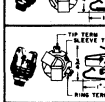
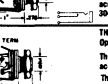
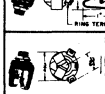
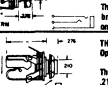
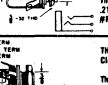
PHONE PLUGS

Widely used in hi-fi equipment, tape recorders, dictaphone machines, etc. Molded plastic shells in red or black are supplied for numbers 300, 301, 302, 304, 305, 307, and 308. Metal shells available for numbers 300, 301, 302, 307, and 309.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		THREE CONDUCTOR Screw Type Three conductor screw terminal phone plug. Accomodates jacks # 338 and # 339.	303-B 303-R 303-M	Black Red Metal	.72 .72 .84
		THREE CONDUCTOR Slot Car Package Same as above but packaged for use on slot car controls.	303-SP 303-MSP	Black Metal	.72 .84

PHONE JACKS

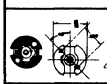
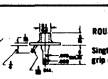
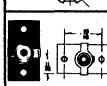
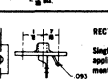
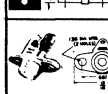
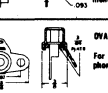
Telephone jacks are of two basic types, open circuit and closed circuit and are available as two conductor and three conductor jacks. The special nickel plated, spring brass springs are designed to retain their tension throughout unlimited use. Standard jacks mount in 3/8" holes.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		ULTRA-MINIATURE JACK Two conductor closed circuit jack for miniaturized applications. Used on many transistor radios. Accommodates plug #308.	310	Metal	.27
		SUB-MINIATURE JACKS Subminiature phone jack, two conductor closed circuit will accommodate plug #307.	311	Metal	.27
		SUB-MINIATURE JACKS Subminiature jacks, two conductor open circuit will accommodate plug #307.	313	Metal	.24
		TWO CONDUCTOR Open Circuit Two conductor, open circuit; will accommodate plugs #300, 301 and 304.	336	Metal	.24
		TWO CONDUCTOR Closed Circuit Two conductor, closed circuit; will accommodate plugs #300, 301 and 304.	337	Metal	.27
		THREE CONDUCTOR Open Circuit Three conductor, open circuit; will accommodate plug #302. Three conductor open circuit with brightbrass bushing. Will accommodate plug #302.	338 338-B	Metal Metal	.33 .36
		THREE CONDUCTOR Open Circuit Three conductor, open circuit with .210 I.D. Will accommodate plug #PJ068.	338-A	Metal	.42
		THREE CONDUCTOR Closed Circuit Three conductor closed circuit; will accommodate plug #302.	339	Metal	.45

NT•T provides the finest engineering and greatest number of years of experience in the manufacture of phone jacks. With NT•T parts you can now replace with jacks used by original equipment manufacturers throughout the country. Whether for research and development, industrials, repair, or hobbyist, always rely on NT•T.

PHONO JACKS

Insulator discs are XP laminated phenolic with ceramic insulator bushings. Shells are steel cadmium plated, and the contacts are spring brass, cadmium plated. Excellent for replacement and new equipment.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		ROUND TYPE JACK Single contact jack providing sure grip on all phono pin plugs.	318	---	.042
		RECTANGULAR JACK Single contact jack for replacement applications and use on new equipment.	319	---	.072
		OVAL TYPE JACK For smaller areas use this compact phono jack. .687 mounting centers.	326	---	.072

TERMINAL BOARDS

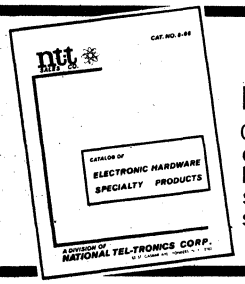
To your custom design or N.T.T. standard. Under-one-roof fabrication from any materials, with any type terminals. Paper; cloth; glass; nylon laminates bonded with phenolic resins, silicon or melamine resins. MIL, Jan, Commercial Specs. Lacquered, varnished or plain. Imprinted all ways.

FABRICATED PARTS

Terminal boards (without terminals), Jack panel boards, front panel plates, etc., all the above terminal board materials as well as aluminum, brass, copper, and steel. Metal parts may be finished in cadmium, anodized, iridite, lacquer, etc. All types of printing.

PRINTED CIRCUITS

Photographic, silk screen or other types on copper clad XXP or glass epoxy. One or two sides Sizes from ½" x ½" up to 12" x 24" thick.



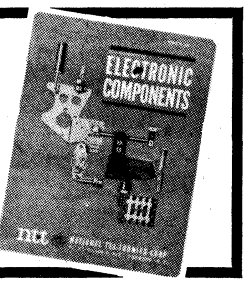
NEW CATALOGS

New Distributor Catalog

Complete, including resale prices and cross references. Thousands of items. Pictures, dimension drawings, full specification. Covers all the items sold by nt•t Sales Co.

New OEM Catalog

For engineering and purchasing departments. 48 pages of complete detailed information on the wide line of components, connectors, and hardware that is manufactured by National Tel-tronics, Inc.



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nt·t SALES CO.

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ntt SALES CO.

National Tel-tronics is a reliable, service oriented company devoted to the cost-conscious manufacture of component hardware for the electronics industry. We are equipped, experienced and eager to serve you with the largest, most comprehensive stocks of standard and custom designed items. Complete engineering assistance is at your service.

PHONO PLUGS

Shells are .016 Brass or Steel, Cadmium Plated, designed to have a wiping action with mating part for good ground. Pins are drawn brass, bright nickel plated. Insulating washer is .062 thick fibre.

ILLUSTRATION	DIMENSIONS	A	B	C	D	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
	CRIMP TYPE Standard	1/8	.175	11/16	1- 7/32	46A	Metal	.09
	CRIMP TYPE Short Pin	1/8	.175	3/8	29/32	46B	Metal	.09
	PLASTIC HANDLE Standard	1/8	.175	11/16	1-5/8	60A-R	Red	.18
		1/8	.175	11/16	1-5/8	60A-B	Black	.18
		1/8	.175	11/16	1-5/8	60A-G	Gray	.18
		1/8	.175	11/16	1-5/8	60A-W	White	.18
	PLASTIC HANDLE Short Pin	1/8	.175	3/8	1-5/16	60B-R	Red	.18
		1/8	.175	3/8	1-5/16	60B-B	Black	.18
		1/8	.175	3/8	1-5/16	60B-G	Gray	.18
		1/8	.175	3/8	1-5/16	60B-W	White	.18
	SHIELDED HANDLE PLUG Extremely easy to solder. Has a neat appearance and provides finger grip for easy removal.					5-005	Metal	.30

PHONO JACKS

Shells are .016 Brass or Steel Cadmium Plated, designed to have a wiping action with mating part for good ground. Pins are drawn brass, bright nickel plated. Insulating washer is .062 thick fibre.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		SINGLE HOLE JACK Front Mount Mounts in 3/8" hole. Supplied with nut, washer, and solder lug. Mounts through front of panel.	340	Metal	.30
		SINGLE HOLE JACK Rear Mount Mounts in 3/8" hole. Supplied with nut, washer, and solder lug. Mounts through rear of panel.	342	Metal	.33
		DUAL PHONO JACK Ideal for stereo applications; replacement and new projects.	352	---	.096
		QUADRUPLE PHONO JACK Versatile jack for all audio applications such as tuner, amplifier, and multiplex inputs.	384	---	.171
		SWITCHING JACKS 317 is two conductor closed and 316 is a three conductor closed jack. Used as stereo, phonograph, or amplifier input.	316 317	--- ---	.27 .21
		INLINE PHONO JACK Combination clamp and solder type shielded handle jack. Mates with all phono pin plugs.	5-006	Metal	.36

PHONO PLUGS

Shells are .016 Brass or Steel, Cadmium Plated, designed to have a wiping action with mating part for good ground. Pins are drawn brass, bright nickel plated. Insulating washer is .062 thick fibre.

ILLUSTRATION	DIMENSIONS	A	B	C	D	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		1/8	.175	11/16	15/16	36A	Metal	.06
		1/8	.175	3/8	5/8	36B	Metal	.06
		1/8	.145	11/16	1- 7/16	44A	Metal	.09
		1/8	.145	3/8	1- 1/8	44B	Metal	.09
		1/8	.145	11/16	1- 3/32	42A	Metal	.17
		1/8	.145	3/8	25/32	42B	Metal	.17

PILOT LIGHT SHIELDS

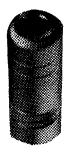
ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		LIGHT SHIELD Brass, cadmium plated shield intended for use in television, on radio receivers, meters, and all electronics equipment. Prevents glare and directs the light to the desired position.	3110	Metal	.036
		LIGHT SHIELD Bright brass dip shield intended for use in television, on radio receivers, meters, and all electronic equipment. Prevents glare and directs the light to the desired position.	3111	Metal	.033

*Indicate BU After Catalog No. When Ordering Bulk Quantities

EXTENSION JACKS

Extension jacks or in-line jacks are designed to accept all standard length 1/4" phone plugs. Available in two and three conductor types which can be ordered with plastic or shielded metal handles.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		TWO CONDUCTOR JACK Accommodates plug types 300,301, and 309. Has numerous audio applications.	6-100	Black	.54
			6-101	Metal	.75
		THREE CONDUCTOR JACK Accommodates plug type 302. Utilized in many audio and stereo applications.	6-102	Black	.75
			6-103	Metal	.87



SPADE LUGS

Because of the Spade Lug's wide and constant usage, NT•T has engineered it to provide reliability and versatility and to meet the requirements of the industry, repair shops, consumers, and hobbyists.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		INSULATED SPADE LUG Red or Black case in handle, indicate color desired. Hot-tinned steel lug is .020 thick. Banana plug can be inserted in spade lug through back of handle.	870-B	Black	.108
			870-R	Red	.108

Realistic pricing, extensive packaging, rapid turnover, and product reliability are only a few of the reasons why customers are continually asking for NT•T products. NT•T is specified on drawings by original equipment manufacturers throughout the country. Be sure and specify NT•T.

COAXIAL JACK

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		COAXIAL JACK Used extensively on AC adaptors, and battery chargers for transistorized tape recorders, television receivers, and radios.	6-200	Green	.39
		COAXIAL JACK Used extensively on AC adaptors, and battery chargers for transistorized tape recorders, television receivers, and radios.	6-201	Red	.39

MICROPHONE CONNECTORS

Use with single conductor, shielded microphone cable. Bodies are brass, nickel plated with phenolic insulators.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		CORD MOUNTED Male Flexible spring gives strain relief to cable. Shield is held securely by set screw. Used extensively for microphone, amplifier applications.	101	Metal	.30
		CORD MOUNTED Female Flexible spring gives strain relief to cable. Collar secures connector firmly to jack. Used extensively for microphone, amplifier applications.	102	Metal	.39
		PANEL MOUNT Single Conductor Mates with #102 connector. Mounts in 3/8" hole and may be isolated from chassis by insulation washer.	103	Metal	.30

Ease of handling, rapid insertion and removal, and positive locking are but a few of the features which have been designed in to the NT•T line of microphone connectors. The constant use that these connectors are subjected to requires that they must be extremely durable. NT•T designed their microphone connectors with these features in mind. When you desire reliability, depend on NT•T.

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ntt SALES CO.

NT•T Sales Co. products are merchandised to sell for the distributor. All the products are designed to be obviously better than competitive items in one or more ways. The line is composed of items that sell faster for more rapid turnover. Items are displayed on unique self-service racks with transparent, rack-cap and poly bag type product dispensers. Contact your National Tel-tronics Sales Co. representative for full, profitable details.

TEST PRODS

NT•T Prods have been engineered and manufactured to provide the most comprehensive and complete line, and which at the same time embodies design features which afford ease of handling and give years of service.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		TEST PROD No. 891 Shouldered insulated handle made of Bakelite. Tip made of nickel-plated brass has set screw in side for securing conductor and thus making a solderless connection. Tip screw into handle. Available in red and black. Indicate color.	891-B 891-R	Black Red	.60 .60
		TEST PROD *With Banana Plug Adaptor* Same as No. 891 except with a banana plug adaptor in back of handle.	892-B 892-R	Black Red	.66 .66
		TEST PROD; SOLDERLESS THREADED TYPE Handle: Molded plastic, red or black #905 solderless tip; nickel plated brass solderless tip plug. Wire fits through body and is then wrapped around threaded portion and knurled collar tightened. Fits standard phone tip jacks and is threaded for easier assembly into handle.	894-B 894-R 895-B 895-R 991-B 991-R 992-B 992-R	Black Red Black Red Black Red Black Red	.30 .30 .24 .24 .33 .33 .27 .27
		SOLDERLESS TEST PROD — *Force Fit Type* Handle: Molded plastic, red or black #806 solderless tip; force fit nickel plated brass tip plug. Fits standard phone tip jacks. Solderless wire fits through tip body and then wraps around screw portion. Knurled collar for tightening.	896-B 896-R 904-B 904-R 993-B 993-R 994-B 994-R	Black Red Black Red Black Red Black Red	.24 .24 .24 .24 .27 .27 .27 .27
		TEST PROD — HEAVY DUTY SOLDER TYPE Handle: Molded plastic, red or black #802 solder tip; heavy duty nickel plated brass with exceptionally large well for soldering. Threaded for easy assembly in handle. Fits standard phone tip jack.	897-B 897-R 898-B 898-R 995-B 995-R 996-B 996-R	Black Red Black Red Black Red Black Red	.30 .30 .30 .30 .33 .33 .33 .33
		TEST PROD — PHONO NEEDLE TYPE Handle: Molded plastic, red or black #806 tip; phono needle type with nickel plated steel needle. Chuck is removable for easy replacement. Needle pierces plating or corrosion for positive reading.	901-B 901-R 902-B 902-R 997-B 997-R 998-B 998-R	Black Red Black Red Black Red Black Red	.30 .30 .30 .30 .33 .33 .33 .33

ALLIGATOR CLIPS

The extensive use of alligator clips in the electronic industry requires that they must withstand constant use without a breakdown in their spring action and at the same time must provide positive jaw clamping action. All NT•T clips are manufactured of high grade cadmium plated steel.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		ALLIGATOR CLIP Solder Type. Cadmium-plated steel with 3/8" jaw opening. Accurately matched jaws grip securely.	740	Metal	.08
		ALLIGATOR CLIP Screw Type. Screw supplied for solderless connection. Accurately matched, cadmium-plated steel jaws with 3/8" opening provide secure grip.	741	Metal	.09
		INSULATED ALLIGATOR CLIP Solder Type. Accurately matched, cadmium-plated steel jaws, with 3/8" opening provide secure grip. Red and black molded plastic handles. Accepts standard banana plug in back.	742-B 742-R	Black Red	.12 .12
		INSULATED ALLIGATOR CLIP Screw Type. Supplied with screw for solderless connection. All other features the same as clip #742.	743-B 743-R	Black Red	.15 .15
		ALLIGATOR CLIP Special Screw Type. Jaws of cadmium-plated steel open to 3/8" and grip securely. Supplied with screw for solderless connection.	744	Metal	.144
		ALLIGATOR CLIP Fully Insulated Type. Cadmium-plated steel jaws open to 3/8" and grips securely. Accepts standard banana plug in back. Can be supplied in red or black.	745-B 745-R	Black Red	.48 .48
		MINIATURE CLIP Solder type clip where space is a factor. Excellent for all labs, shops, and hobbyists.	748	Metal	.06
		STANDARD INSULATORS Insulators for clips #740 and #741. Made of flexible polyvinyl and allows for full jaw opening. Completely insulates clips.	749-B 749-R	Black Red	.05 .05
		MINIATURE INSULATORS Insulators for clips #748. Made of flexible polyvinyl which allows for full jaw opening. Completely insulates clips.	750-B 750-R	Black Red	.05 .05

TIP PLUGS

The engineering and manufacturing of all NT•T tip plugs are based upon the highest standards and specifications of the industry. Close adherence is maintained on all tolerances and only the finest quality materials are used to provide years of service.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		TIP PLUG Heavy Duty, Insulated. Nickel-plated brass plug with molded Bakelite handles. Large diameter well permits soldering of heavy duty wire directly into plug. Accepts standard phone tip jacks. Choice of Blue, Black, Red, Green, Yellow and White handle. Indicate color.	857B 857BL 857GR 857R 857Y 857W	Black Blue Green Red Yellow White	.15 .15 .15 .15 .15 .15
		INSULATED TIP PLUG Plastic handle. Available in red or black. Nickel plated brass body.	858B 858R	Black Red	.12 .12
		NEEDLE TIP AND CHUCK Nickel-plated brass body, nickel-plated steel needle. Chuck is removable for easy replacement. Needle pierces plating or corrosion for positive reading.	866	Metal	.14
		INSULATED NEEDLE TIP PLUG Molded Bakelite handles in Red, Black, Yellow, White, Green and Blue, indicate color desired. Nickel-plated brass, body, nickel-plated steel needle. Chuck is removable for easy replacement. Needle pierces plating or corrosion for positive reading.	868B 868BL 868GR 868R 868Y 868W	Black Blue Green Red Yellow White	.18 .18 .18 .18 .18 .18

NYLON TIP JACKS

The NT•T Nylon Tip Jacks which are used throughout the electronic industry provide a very rugged, compact, and neat receptacle for all tip plugs. Note the wide assortment of types and colors.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		NYLON TIP JACK Wrap-Around Type with Metal Shell. Molded nylon tip jack with metal shell eliminates the possibility of threads stripping during assembly. Indicate color desired	883B 883BL 883GR 883OR 883Y 883R 883W	Black Blue Green Orange Yellow Red White	.288 .288 .288 .288 .288 .288 .288
		NYLON TIP JACK Spade Terminal Type with Metal Shell. Metal shell eliminates the possibility of threads stripping during assembly. Indicate color desired	884B 884BL 884GR 884OR 884Y 884R 884W	Black Blue Green Orange Yellow Red White	.42 .42 .42 .42 .42 .42 .42
		NYLON TIP JACK Feed-Through Type with Metal Shell. Thread stripping during assembly is eliminated with metal shell. Indicate color desired	885B 885BL 885GR 885OR 885Y 885R 885W	Black Blue Green Orange Yellow Red White	.39 .39 .39 .39 .39 .39 .39
		ALL NYLON TIP JACK Wrap-Around Type. Completely molded. Accepts all standard phone tip plugs. Contact recessed in hexagon head for safe contact and for grip in tightening. Mounts in panels up to 1/4" thick in 1/4" hole. Nylon Grade FM 10001 is used for body. Nickel-plated brass hex nut indicate color desired	886B 886BL 886GR 886OR 886Y 886R 886W	Black Blue Green Orange Yellow Red White	.21 .21 .21 .21 .21 .21 .21
		ALL NYLON TIP JACK Spade Terminal Type. Completely molded. Accepts all standard phone tip plugs. Contact recessed in hexagon head for safe contact and for grip in tightening. Mounts in panels up to 1/4" thick in 1/4" hole. Nylon Grade FM 10001 is used for body. Center contact is heat treated silver-plated phosphor bronze. Nickel plated brass hex nut.	887B 887BL 887GR 887OR 887Y 887R 887W	Black Blue Green Orange Yellow Red White	.30 .30 .30 .30 .30 .30 .30
		ALL NYLON TIP JACK Feed-Through Type. Completely molded. Contact recessed in hexagon head for both safe contact and grip in tightening. Mounts in panels up to 1/4" thick in 1/2" hole. Nylon Grade FM 10001 for body. Center contact is tin-plated brass. Nickel-plated brass hex nut.	888B 888BL 888GR 888OR 888Y 888R 888W	Black Blue Green Orange Yellow Red White	.282 .282 .282 .282 .282 .282 .282

TIP JACKS

As with all NT•T products, NT•T Tip Jacks are engineered and manufactured to the most exacting standards and specifications of the industry. All use the finest molds and spring contacts to provide years of service.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		PHONE TIP JACK Non-Insulated Type. A nickel plated brass body with a phosphor bronze spring, this phone tip jack provides positive contact with standard phone tip plug. Mounts in 1/4" hole in any panel up to 3/8" thick. Supplied with hex nut.	810	Metal	.11
		PHONE TIP JACK Insulated Type. Nickel-plated brass body jack has Molded Bakelite head in choice of colors. Spring of phosphor bronze assures gold contact. Mounts in 5/16" hole in panels up to 3/8" thickness. Supplied with hex nut and fibre washer. 7/16" diameter head.	842B 842BL 842GR 842R 842Y 842W	Black Blue Green Red Yellow White	.14 .14 .14 .14 .14 .14
		1/2" DIAMETER HEAD This nickel-plated brass body Phone Tip Jack has Molded Bakelite head in choice of colors: Black or Red, (indicate color desired.) Spring of phosphor bronze. Positive contact with and accepts standard phone tip plugs. Mounts in 5/16" hole in any panel up to 3/8" thick. Supplied complete with hex nut and fibre washer.	843B 843R	Black Red	.21 .21
		INSULATED JACK Combination Type. Accepts standard phone tip plugs or standard banana plugs. Molded Bakelite head in Red, Blue, Black, Yellow, Green, White, indicate color desired. Nickel-plated brass body, with phosphor bronze spring. Supplied with hex nut and fibre washer.	848B 848BL 848GR 848R 848Y 848W	Black Blue Green Red Yellow White	.17 .17 .17 .17 .17 .17

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The complete, economical line of hardware with many important extra features. NT•T Sales Co., Inc. offers a fully comprehensive and extensive line of electronic hardware and components to meet all the needs of the distributor and manufacturer. Every item offers important features, is excellently packaged, and is economically priced.

TIP PLUGS

The engineering and manufacturing of all NT•T Tip Plugs are based upon standards and specifications of the industry. Close adherence is maintained on all tolerances and only the finest quality materials are used to provide years of service.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		PHONE TIPS Solder Type A nickel-plated brass solder type phone tip 1" long.	801	Metal	.021
		TIP PLUG Threaded, Heavy Duty Nickel-plated brass with exceptionally large well for soldering. Threaded for easy assembly in plastic handle. Accepts standard phone tip jacks. Rear of plug accepts standard banana plugs.	802	Metal	.12
		SOLDERLESS TIP PLUG Large, Threaded A nickel-plated brass solderless tip plug. Wire fits through body of tip and is then wrapped around threaded portion and knurled collar tightened. Fits standard phone tip jacks and is threaded for easier assembly in plastic handle.	805	Metal	.12
		SOLDERLESS TIP PLUG Large, Knurled A force-fit type nickel-plated brass tip plug. Fits standard phone tip jacks. Solderless, wire fits through tip body and then wrapped around screw portion. Knurled collar for tightening.	806	Metal	.11
		SOLDERLESS TIP PLUG Small, Threaded Manufactured exactly like No. 805 Solderless Tip Plug except shorter, nickel-plated brass with wire going through tip, then wrapped around screw portion and held firmly by tightening knurled collar.	807	Metal	.12
		SOLDERLESS TIP PLUG Small, Knurled A solderless, nickel-plated brass Tip Plug which fits standard phone tip jacks. Made exactly like No. 805 except shorter length. Wire fits through body tip, rests around screw portion and then tightened with knurled collar.	808	Metal	.11
		INSULATED TIP PLUG Meter Type, Push Button Tip is brass, nickel-plated, with Molded Bakelite in Red or Black. (Indicate color desired.) Push button, then feed conductor through hole. Release button, conductor is held firmly in position. Fits standard phone tip jacks.	837B 837R	Black Red	.36 .36
		SOLDERLESS TIP PLUG Large Type Handles of Molded Bakelite in choice of Red, Black, Yellow, White, Green, Blue. Indicate color desired. Nickel-plated brass body. Wire fits through body tip, wraps around screw portion and tightened with knurled collar. Fits standard phone tip jacks.	855B 855BL 855GR 855Y 855R 855W	Black Blue Green Yellow Red White	.15 .15 .15 .15 .15 .15
		SOLDERLESS TIP PLUG Small Type Molded Bakelite handles indicate desired color. Nickel-plated brass body. Knurled collar when tightened holds wire which has been passed through body tip and wrapped around screw portion. Fits standard phone tip jacks.	856B 856BL 856GR 856Y 856R 856W	Black Blue Green Yellow Red White	.15 .15 .15 .15 .15 .15

*Indicate BU After Catalog No. When Ordering Bulk Quantities

BANANA PLUGS

NT•T can provide you with the widest selection of Standard, miniature, or dual Banana Plugs. All are designed, engineered, and manufactured to the most precise specifications in the industry. Only the finest molds and closest tolerances are used to provide for trouble free useage.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		MIDGET BANANA PLUG Rivet Type Nickel or silver-plated brass body with phosphor bronze spring. Fits all standard banana jacks.	809	Metal	.162
		BANANA PLUGS Nickel plated hex brass body with phosphor bronze spring supplied with or without soldering lug and nut. Threaded stud for panel mounting.	811	Metal	.18
		BANANA PLUG Solderless Nickel-plated phosphor bronze spring. Side screw holds wire eliminating soldering. Accepts standard bananajacks. Threaded shank to fit plastic handle.	812	Metal	.18
		MIDGET BANANA PLUG Threaded Type Nickel or silver-plated brass body with phosphor bronze spring.	814	Metal	.162
		BANANA PLUG Phosphor Bronze Nickel-plated hex brass body with phosphor bronze spring. Wire can be directly soldered to brass stud or directly to plug. Solderless connection is made possible because stud locks wire to plug.	815	Metal	.18
		BANANA PLUGS Nickel plated hex brass body with phosphor bronze spring. Wire can be fed through side hole or can be soldered to brass stud. Threaded to facilitate the use of an insulated handle.	816	Metal	.18
		BANANA PLUG Threaded Hole Nickel-plated brass banana plug fitting standard banana jacks. Four-leaf phosphor bronze spring. Threaded main enables it to be used on all size panels. Supplied with screw and tinned-brass lug.	819	Metal	.18
		BANANA PLUG 6-32 Thread, Lug, Nut Nickel-plated brass banana plug which fits standard banana jack. Four-leaf, nickel-plated phosphor bronze spring. A hex nut and phosphor bronze lug are supplied. Stud is threaded for panel mounting.	821	Metal	.18
		INSULATED BANANA PLUG Meter-Type, Push Button Nickel-plated brass body with nickel-phosphor bronze, slotted spring. Molded Bakelite handle in Red or Black. (Indicate color desired.) Push button, then feed conductor through hole. Release button, conductor is locked in position. Fits standard banana jacks.	836B 836R	Black Red	.54 .54

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BANANA PLUGS

Standard, miniature, or dual, NT•T can provide you with the widest selection of Banana Plugs. All are designed, engineered, and manufactured to specifications of the industry. Only the finest molds and closest tolerances are used to provide for trouble free useage.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		INSULATED BANANA PLUG Miniature Type Fits standard banana jacks with Wire soldered directly into stud. Machined Plastic handle in Red or Black. Indicate color desired. Nickel-plated brass plug with nickel-plated phosphor bronze spring.	840-B 840-R	Black Red	.19 .19
		INSULATED BANANA PLUG Fits all standard banana jacks. Molded bakelite handle can be furnished in Red, Black and Blue. Four-leaved spring is made of phosphor bronze and is nickel-plated.	851-B 851-BL 851-R	Black Blue Red	.19 .19 .19
		INSULATED BANANA PLUG With Side Screw Fitting standard banana jacks, set screw holds wire without soldering. This Banana Plug has Molded Bakelite handle in Red, White, Black, Blue, Yellow or Green. Indicate color desired. Plug is nickel-plated brass with four-leaved phosphor bronze spring.	852-B 852-BL 852-GR 852-Y 852-R 852-W	Black Blue Green Yellow Red White	.19 .19 .19 .19 .19 .19
		INSULATED BANANA PLUG Molded Bakelite handles in Red, White, Blue, Black, Yellow, Green. Indicate desired color. Nickel-plated brass body. Knurled collar when tightened holds wire which has been passed through body tip and wrapped around screw portion. Fits standard phone tip jacks.	853-B 853-BL 853-GR 853-Y 853-R 853-W	Black Blue Green Yellow Red White	.22 .22 .22 .22 .22 .22

BANANA JACKS

NT•T Banana Jacks are designed to mate with all NT•T Banana Plugs and also are engineered to match all other Banana Plugs manufactured to industry specifications and standards. NT•T Jacks are available in a number of color choices as noted.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		BANANA JACK Non-Insulated Type Mounting in 1/4" hole in any panel up to 3/8" thick. It will accept standard banana plug. Its body is HEX Brass, nickel-plated and is supplied with hex nut and tinned brass lug.	813	Metal	.11
		BANANA JACK Insulated Type Nickel-plated brass body. Accepts standard banana plug. Mounts in any panel up to 3/8" thick in 5/16" hole. Supplied with hex nut, fibre washer lock washer and tinned brass lug.	844-B 844-BL 844-R	Black Blue Red	.16 .16 .16
		BANANA JACK Insulated Type Molded Bakelite head. Nickel-plated brass body. Accepts standard banana plugs. Mounts in any panel up to 3/8" thick, in 5/16" hole. Supplied with hex nut, fibre washer and tinned brass lug.	845-B 845-BL 845-GR 845-R 845-Y 845-W	Black Blue Green Red Yellow White	.14 .14 .14 .14 .14 .14
		BANANA JACK Insulated Type With wrap-around terminal. Molded bakelite. Available in red, white, blue, green, yellow, black. Brass, nickel plated.	846-B 846-BL 846-GR 846-R 846-Y 846-W	Black Blue Green Red Yellow White	.15 .15 .15 .15 .15 .15

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BANANA PLUGS

NT•T banana jacks are designed to mate with all NT•T banana plugs and also are engineered to match all other banana plugs manufactured to industry specifications and standards. NT•T jacks are available in a number of color choices as noted.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		INSULATED JACK Combination Type Accepts standard phone tip plugs or standard banana plugs. Molded Bakelite head in Red, Blue, Black, Yellow, Green, White. Indicate color desired. Nickel-plated brass body with phosphor bronze spring. Supplied with hex nut and fibre washer.	848-B 848-BL 848-GR 848-R 848-Y 848-W	Black Blue Green Red Yellow White	.17 .17 .17 .17 .17 .17

All NT•T products are shelf items and are delivered from stock. This means faster delivery and better service for the distributor. In turn, the distributor can supply his customers faster and cheaper. Insist on NT•T.

BINDING POSTS

NT•T offers the most extensive line of binding posts designed with precision molds and engineered to provide complete versatility. For use on test equipment, meters, breadboards, and experimental situations.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		COMBINATION BINDING POST AND BANANA PLUG Converts any standard jack into 5-way binding post. Molded fluted captive nylon head. Phosphor Bronze, nickel plated spring. Available in red or black.	863-B 863-R	Black Red	.30 .30
		COMBINATION BINDING POST AND BANANA PLUG Molded captive nylon hex head. Converts any standard jack into 5-way binding post. Phosphor Bronze, nickel plated spring. Available in red or black.	864-B 864-R	Black Red	.30 .30
		METAL BINDING POST Combination Terminal Stake-In Binding Post Similar to 1-872 but smaller in size. Screw-head, turret terminal. Knurled shank. Lock-washer. Brass nickel plated. Knurled end. 8-32 x 1/4" BMS. For 1/8 thick panel.	872	Metal	.114
		METAL BINDING POST Combination Terminal Stake-In Binding Post Screw head, brass, nickel plated, furret terminal. Knurled shank. Knurled end. 10-32 x 1/4" long BMS. For 5/16 thick panel.	1-872	Metal	.114
		METAL BINDING POST Captive head. Wrap-around terminal. Hex shape. Brass, nickel plated. Accepts phone tip, spade lug, banana plug, alligator clip, or wire.	873	Metal	.25
		METAL BINDING POST Gold plated. Fluted brass. Molded black nylon insulator. 5-way will accept phone tip, spade lug, banana plug, alligator clip, or wire.	1-873	Metal	.30

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NT•T Sales Co. products are merchandised to sell for the distributor. All the products are designed to be obviously better than competitive items in one or more ways. The line is composed of items that sell faster for more rapid turnover. Items are displayed on unique self-service racks with transparent, rack-cap and poly bag type product dispensers. Contact your National Tel-tronics Sales Co. representative for full, profitable details.

BINDING POSTS

NT•T offers the most extensive line of binding posts designed with precision molds and engineered to provide complete versatility. For use on test equipment, meters, breadboards, and experimental situations.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		METAL BINDING POST Brass nickel plated. Accepts standard phone tips or banana plugs.	874	Metal	.15
		METAL BINDING POST Brass nickel plated. Supplied complete with screw and lockwasher.	875	Metal	.18
		5-WAY BINDING POST Accepts tip and banana plugs, spade lugs, alligator clips, and wire strands. Direct solder connection. Molded nylon head and washer completely insulated post from panel. Mounts in 1/2" dia. keyed hole for panels 1-1/16 to 1-1/4" thick. Nickel-plated brass metal parts. Molded-in brass bushings in head and washer.	876-B 876-BL 876-GR 876-Y 876-R 876-W	Black Blue Green Yellow Red White	.36 .36 .36 .36 .36 .36
		5-WAY BINDING POST Molded nylon. Hexagonal head. Screw-end. Accepts phone, tip, spade, lug, banana plug, alligator clip, or wire connections. Available in red or black.	1-876-B 1-876-R	Black Red	.40 .40
		5-WAY BINDING POST Molded nylon. Hexagonal head. Spade lug. Accepts phone, tip, spade lug, banana plug, alligator clip, or wire connections. Available in red or black.	2-876-B 2-876-R	Black Red	.42 .42
		5-WAY BINDING POST Molded nylon. Gold plated. Hexagonal head. Wrap-around lug. Accepts phone tip in head or shaft hole. Also alligator, spade, or wire connection. Available in red and black.	3-876-B 3-876-R	Black Red	.42 .42
		DUAL 5-WAY BINDING POST Nylon hexagonal captive head. Brass nickel plated. Wrap around type. Accepts phone, spade, banana, or wire connections. Available in red or black combination.	4-876-B 4-876-R 4-876-BR	Black Red Black/Red	.66 .66 .66
		5-WAY BINDING POST Molded nylon. Fluted head. Wrap-around end. Accepts phone tip, spade lug, banana plug, alligator clip, or wire connections. Available in red or black.	877-B 877-R	Black Red	.49 .49
		5-WAY BINDING POST Molded nylon. Fluted head. Screw end. Accepts phone tips, spade lug, banana plug, alligator clip, or wire connections. Available in red or black.	1-877-B 1-877-R	Black Red	.45 .45

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BINDING POSTS

NT•T offers the most extensive line of binding posts designed with precision molds and engineered to provide complete versatility. For use on test equipment, meters, breadboards, and experimental situations.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		5-WAY BINDING POST Molded nylon. Fluted head. Spade end. Accepts phone tip, spade lug, banana plug, alligator clip, or a wire connection. Available in red or black.	2-877B 2-877R	Black Red	.52 .52
		5-WAY GROUNDING TYPE Designed to accept phone tip plug, banana plug, spade lug, alligator clip, wire strand. Indicate color desired or molded plastic, captive head: Red, black, 8-32 threaded stud. Nickel-plated brass body and insert in head.	878-B 878-R	Black Red	.18 .18
		DUAL 5-WAY BINDING POST Nylon fluted, captive head. Brass, nickel plated. Wrap-around type. Accepts phone tip, spade lug, banana plug, alligator clip, or wire connections. Available in red or black combinations.	2-878-B 2-878-R 2-878B/R	Black Red Black/Red	.54 .54 .54
		FULLY INSULATED TYPE Designed to accept phone tip plug, banana plug, spade lug, alligator clip, wire strand. Molded plastic captive head. Nickel-plated brass body. Molded plastic washers with nickel-plated brass inserts. 8-32 threaded stud. Mounts in panel with milled slot for locking in 5/16" hole; supplied with two hex nuts.	879-B 879-R	Black Red	.25 .25
		BINDING POST Molded Bakelite with molded-in brass threaded insert. Available in red or black. Brass, nickel plated. Supplied complete with screw and lockwasher.	880-B 880-R	Black Red	.18 .18
		BINDING POST Molded Bakelite with molded-in brass threaded insert. Available in red or black. Brass, nickel plated. Supplied complete with screw and lockwasher.	881-B 881-R	Black Red	.18 .18
		5-WAY BINDING POST Self-locking. Molded nylon. Fluted head. Screw end. Accepts phone, spade, banana, alligator or wire connection. Available in red and black.	882-B 882-R	Black Red	.27 .27

The engineer, repairman, hobbyist and consumer can rely on NT•T to provide the items he needs to do the job and do it well. Every day more and more companies are placing the name NT•T on their prints for job specifications. Using NT•T products will show you the reasons.

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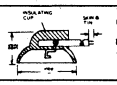
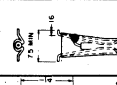
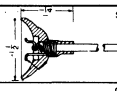
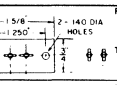
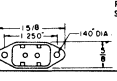
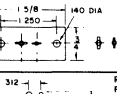
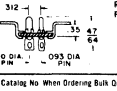
ANODE CONNECTORS

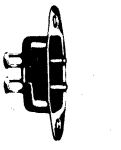
NT•T now offers this extensive line of Anode Connectors for conventional CRT applications and color. The large rubber mushroom caps on the connectors help alleviate the problem of corona. Insist on NT•T.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		**COLOR CONNECTOR** For use on color cathode ray tubes.	239-18"	---	.42
		**STANDARD CONNECTOR**	242-18"	---	.33
		**STANDARD CONNECTOR**	246-18"	---	.37
		COLOR CONNECTOR Large rubber cup for color tubes.	250-18"	---	.50

INTERLOCK RECEPTACLES

Pins are made from 1/4" hard-brass wire cadmium plated. Polarized interlocks are made in both flush and bath tub styles.

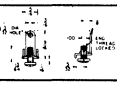
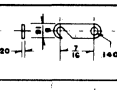
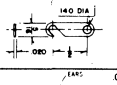
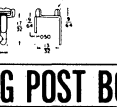
ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		**FLUSH RECEPTACLE** Standard	714	---	.054
		**RECESSED RECEPTACLE** Standard	718	---	.078
		**FLUSH RECEPTACLE** Polarized	731	---	.054
		**RECESSED RECEPTACLE** Polarized	733	---	.078



*Indicate BU After Catalog No. When Ordering Bulk Quantities

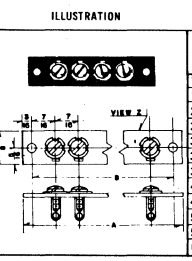
BINDING POST TERMINALS

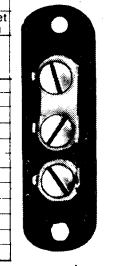
Lugs are tapped, with screws inserted ready for use, as replacement or in design of your own strips. All hot-tinned brass for ease in soldering.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		.032 BRASS 8-32x5/16 SCREW	4403	Metal	.0396
		SHORTING LINK 7/16" Centers	4515	Metal	.018
		SHORTING LINK 1/2" Centers	4516	Metal	.018
		.050 BRASS 8-32x3/8 SCREW	4418	Metal	.054

BINDING POST BOARDS

Boards are 1/16" thick XP Laminated Phenolic. Terminals are 1/32" thick, brass, cadmium plated. Screws are Steel nickel-plated.

ILLUSTRATION	DIMENSIONS A	DIMENSIONS B	LUG POSITIONS (As Per View "Z") 1 2 3 4 5 6 7 8 9 10 11 12	Cat. #	Std. 10 Pack USA Net Each
	1-1/4"	7/8"	● ● ●	2401	.04
	1-11/16"	1-5/16"	● ● ● ●	2402	.06
	2-1/8"	1-3/4"	● ● ● ● ●	2403	.09
	2-9/16"	2-3/16"	● ● ● ● ● ●	2404	.114
	3"	2-5/8"	● ● ● ● ● ● ●	2405	.132
	3-7/16"	3-1/16"	● ● ● ● ● ● ● ●	2406	.168
	3-7/8"	3-1/2"	● ● ● ● ● ● ● ● ●	2407	.21
	4-5/16"	3-15/16"	● ● ● ● ● ● ● ● ● ●	2408	.234
	4-3/4"	4-3/8"	● ● ● ● ● ● ● ● ● ● ●	2409	.246
	5-3/16"	4-13/16"	● ● ● ● ● ● ● ● ● ● ● ●	2410	.262
	5-5/8"	5-1/4"	● ● ● ● ● ● ● ● ● ● ● ● ●	2411	.286
	6-1/16"	5-11/16"	● ● ● ● ● ● ● ● ● ● ● ● ● ●	2412	.32



NT•T is proud to offer the distributor the most extensive Binding Post Board line available today. The extensive combination of terminals allows for faster development of new products and facilitates terminal board useage for the repairman and hobbyist.

*Indicate BU After Catalog No. When Ordering Bulk Quantities

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NATIONAL TEL-TRONICS CORP.

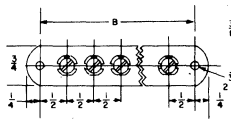
ntt SALES CO.

National Tel-tronics is a reliable, service oriented company devoted to the cost-conscious manufacture of component hardware for the electronics industry. We are equipped, experienced and eager to serve you with the largest, most comprehensive stocks of standard and custom designed items. Complete engineering assistance is at your service.

BINDING POST BOARDS

Boards are 1/16" thick XP laminated phenolic. Terminals are 1/32" thick, brass, cadmium plated. Screws are steel, nickel-plated.

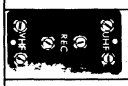
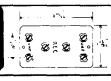
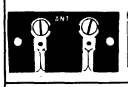
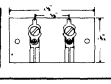
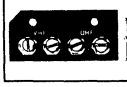
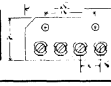
A	B	TERMINAL POSITIONS 1 2 3 4 5 6 7 8 9 10 11	Cat. #	Std. 10 Pk USA Net Each
1-1/2"	1"	● ● ●	2551	.042
2"	1-1/2"	● ● ● ●	2552	.066
2-1/2"	2"	● ● ● ● ●	2553	.09
3"	2-1/2"	● ● ● ● ● ●	2554	.114
3-1/2"	3"	● ● ● ● ● ● ●	2555	.132
4"	3-1/2"	● ● ● ● ● ● ● ●	2556	.174
4-1/2"	4"	● ● ● ● ● ● ● ● ●	2557	.216
5"	4-1/2"	● ● ● ● ● ● ● ● ● ●	2558	.234
5-1/2"	5"	● ● ● ● ● ● ● ● ● ● ●	2559	.252
6"	5-1/2"	● ● ● ● ● ● ● ● ● ● ● ●	2560	.270



Utilized as replacements for antenna terminals on the rear of many television receivers, and as speaker terminals on many amplifiers. Makes an excellent replacement and is ideal for the engineer or hobbyist in the construction of new equipment.

ANTENNA BINDING POSTS

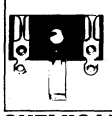
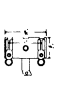
Exact, or in most cases suitable replacement for antenna strips on the majority of television receivers.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		UHF CONVERTER STRIP Replacement on many UHF converters on the market today.	001-3	—	.36
		STANDARD STRIP Used on many receivers providing only VHF reception. Tuner antenna wire plugs into strip allowing fast disconnect.	001-4	—	.18
		UHF-VHF STRIP Used on many of the new receivers with combination UHF-VNF tuners.	001-12	—	.28

*Indicate BU After Catalog No. When Ordering Bulk Quantities

CONTACT CONNECTORS

Contact strips are used as low cost connectors, provides 1/2" spacing. Contacts will accommodate 1/8" pins.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		TWO CONTACT STRIP Used on many television receivers for speaker hook-up or on the tuners to connect such circuits as AGC, pilot lights, or other voltage sources.	002-5	—	.066

CHEMICALS

ILLUSTRATION	DESCRIPTION	Catalog Number	Standard Pack
	LECTRO-KLEEN Tuner-Contact Cleaner There is no longer a need to stock a special contact cleaner for controls and another type for tuners. LECTRO-KLEEN will do all of your electronic cleaning jobs. LECTRO-KLEEN cleans, lubricates, and protects at the same time. Due to the low viscosity, UHF and VHF tuners will not drift. One swish shows the difference. Most important, LECTRO-KLEEN will not harm plastic ...and it's non-toxic...safe for you, too. Insist on LECTRO-KLEEN.	7-001	24-6 oz. Cans

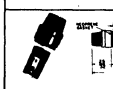
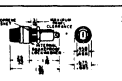
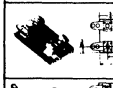
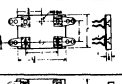
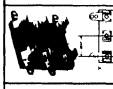
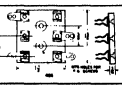
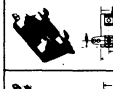
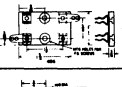
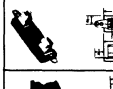
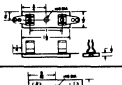
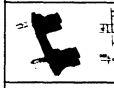
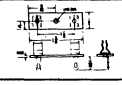
MAGNETIC MICROPHONE HOLDER

ILLUSTRATION	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
	Ideal for mobile communication. No more fumbling to find the microphone holder. NT•T's Magnetic-Microphone holder will adhere to most metal surfaces such as dash boards, and the sides of set. This holder was designed not only for standard CB type applications, but also for heavy two-way radio work such as cabs, ambulances, and industrial communication. This convenience allows the driver to keep his eye on the road and avoid accidents. Fits most microphones.	3-006	Metal	.99

*Indicate BU After Catalog No. When Ordering Bulk Quantities

FUSE MOUNTING BASES

3AG fuse mounting assemblies as used throughout industry. Fuse blocks available in one, two, and three pole assemblies.

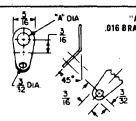
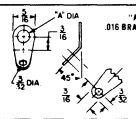
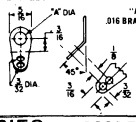
ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		PANEL MOUNTED HOLDERS 3AG Type Fuses Molded from black, general purpose phenolic powder. All metal parts are plated to resist corrosion and solder lugs are plated to facilitate soldering. Rated at 15 amps., 250 volts and is Underwriter Laboratories approved.	450	Black	.43
		Bases are manufactured from XP laminated phenolic, clips are made from .020 spring brass, cadmium or silver plated. Two .140 diameter mounting holes.	403	Black	.24
		Bases are manufactured from XP laminated phenolic, clips are made from .020 spring brass, cadmium or silver plated. Three pole unit with mounting holes for #6 screws.	405	Black	.48
		Bases are manufactured from XP laminated phenolic, clips are made from .020 spring brass, cadmium or silver plated. Two pole unit with mounting holes for #6 screws.	406	Black	.36
		Bases are manufactured from XP laminated phenolic, clips are made from .020 spring brass, cadmium or silver plated. Single pole with .140 diameter mounting holes.	408	Black	.13
		Bases are manufactured from XP laminated phenolic, clips are made from .020 spring brass, cadmium or silver plated. Single pole with solder connector below base.	410	Black	.13

Small parts-large headaches. This is often the plight of the distributor, manufacturer, engineer, repairman, and hobbyist. NT•T now offers a one-stop source for the majority of these small items which, no matter how small, are often needed. Relieve your purchasing problems by ordering from NT•T.

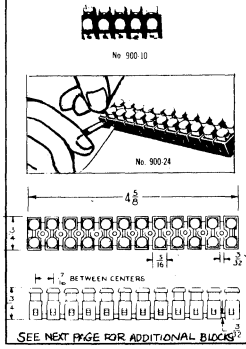
*Indicate BU After Catalog No. When Ordering Bulk Quantities

SOLDERING LUGS

Brass soldering lugs are utilized extensively for grounding or combining wires at one spot. All are tinned-brass for more efficient soldering. Available in bulk only.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	Std. 10 Pack USA Net Each
		"A" DIA "A" .016 BRASS .135	4501	Metal	Bulk Only
		"A" DIA "A" .016 BRASS .152	4502	Metal	Bulk Only
		"A" DIA "A" .016 BRASS .152	4504	Metal	Bulk Only

900 SERIES PUSH BUTTON MOLDED TERMINAL BLOCKS



Catalog Number	Color	Std. 10 Pack USA Net Each	Bulk Pack* Qty.	Bulk Pack* USA Net Each
900-4	Black	.52	100	.468
900-6	Black	.75	100	.675
900-8	Black	.98	100	.882
900-10	Black	1.28	100	1.08
900-12	Black	1.49	100	1.34
900-14	Black	1.64	100	1.48
900-16	Black	1.88	100	1.69
900-18	Black	2.11	100	1.90
900-20	Black	2.33	100	2.10
900-22	Black	2.54	100	2.29
900-24	Black	2.79	100	2.51

Like Type No. 905, the No. 900 terminal block is solderless, and is molded of hard black polyvinylchloride. Push buttons are molded of red polyvinylchloride.

These terminal blocks have extremely high dielectric properties and are approved to resist 440 volts or 500 volts when mounted on insulated surface. Maximum current 27 amperes, maximum heat capacity 70° C. Maximum wire size applicable AWG #12. Maximum contact pressure: 13.22 lbs. Connection of conductor is extremely fast. Press the red button and insert the wire. Release pressure for locking. The beryllium copper contacts are molded into the block. Type 900 is available for 24 connectors. It may be cut to smaller size if required.

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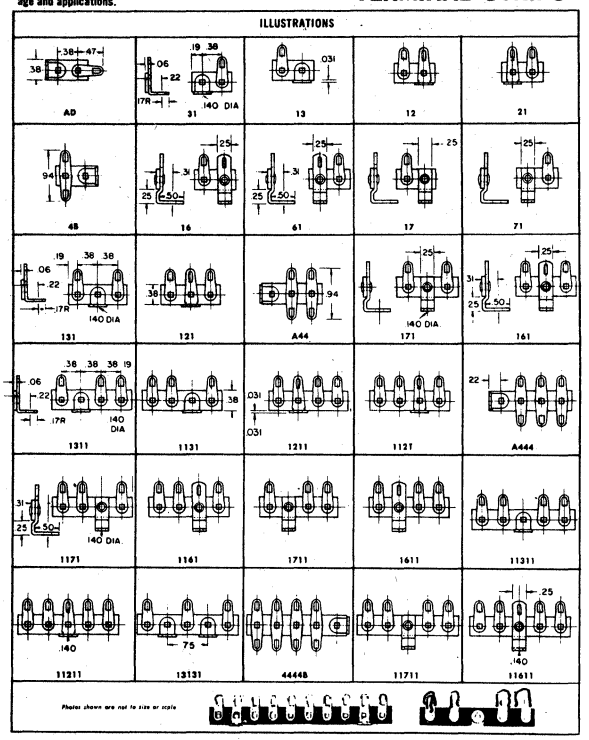
TERMINAL STRIPS

Strips are 1/16" by 3/8" NEMA grade XP laminated phenolic with brass or steel lugs. All are securely eyeletted in position. Lug spacing is .38". NT•T's vast assortment of strips allows for the most complete coverage and applications.



*Indicate BU After Catalog No. When Ordering Bulk Quantities

TERMINAL STRIPS

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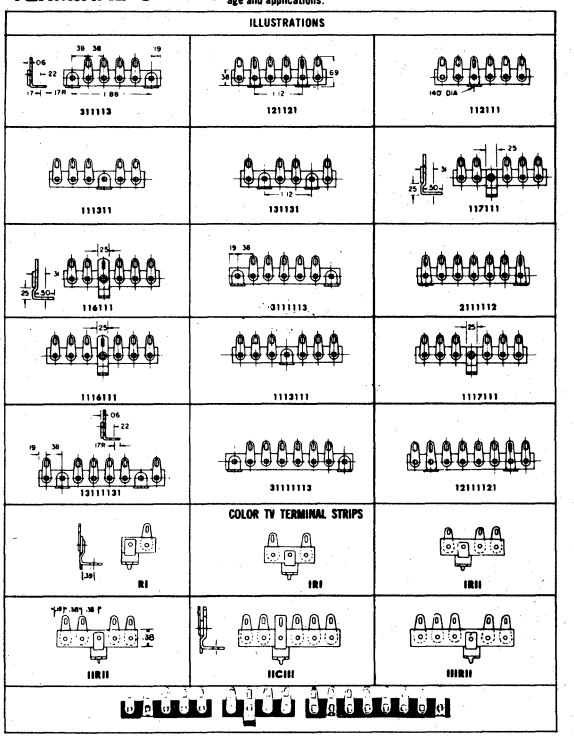
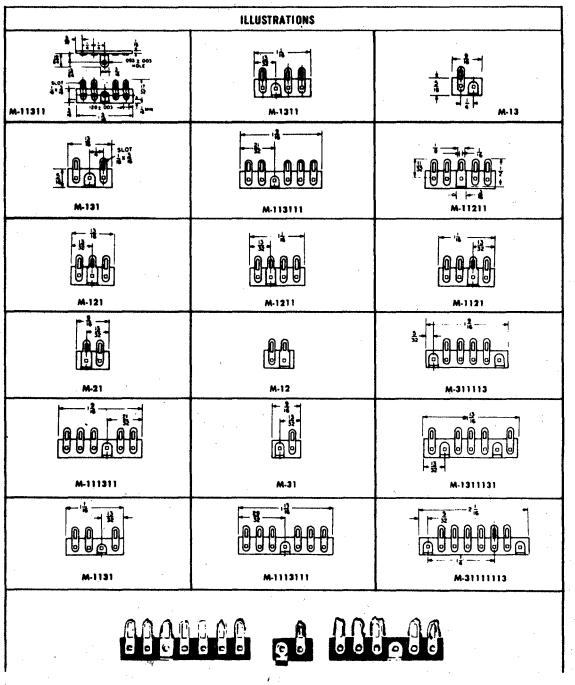


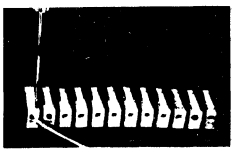
*Indicate BU After Catalog No. When Ordering Bulk Quantities

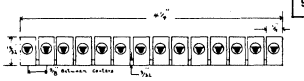
MINIATURE TERMINAL STRIPS



MOLDED TERMINAL BLOCKS

910 SERIES
PUSH TYPE RELEASE





Catalog Number	Color	Std. 10 Pack USA Net Each
910-4	Clear	.25
910-6	Clear	.48
910-8	Clear	.71
910-10	Clear	.94
910-12	Clear	1.17
910-14	Clear	1.40
910-16	Clear	1.63
910-18	Clear	1.86
910-20	Clear	2.09
910-22	Clear	2.32
910-24	Clear	2.55

Solderless, flexible, Thermoplastic Terminal Block. Accepts stranded tinned or solid wire to 13 AWG. Just press wire into opening. No wrapping, no soldering. Place small blade screw driver in top slot and press to release wire. Contacts are Copper nickel-plated. Maximum operating temperature 212° F. Transit resistance 0.7 Ohms. Units are rated at 380-440 Volts D.C. Ideal for labs, schools and hobyists. Type 910 is available up to 24 connectors and may be cut down as desired.

No. 910-4 —Four-connector terminal block
No. 910-6 —Six-connector terminal block
No. 910-8 —Eight-connector terminal block
No. 910-10—Ten-connector terminal block
No. 910-12—Twelve-connector terminal block
No. 910-14—Fourteen-connector terminal block
No. 910-16—Sixteen-connector terminal block
No. 910-18—Eighteen-connector terminal block
No. 910-20—Twenty-connector terminal block
No. 910-22—Twenty-two-connector terminal block
No. 910-24—Twenty-four-connector terminal block

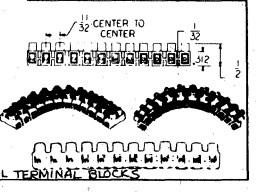
905 SERIES • FLEXIBLE

Catalog Number	Color	Std. 10 Pack USA Net Each	Bulk Pack* Qty.	Bulk Pack* USA Net Each
905	Gray	1.95	100	1.76

Type No. 905 Solderless Terminal Blocks are specially designed for applications where space and weight conservation are important factors. Because they are molded of flexible polyvinylchloride material they may be bent in any direction to fit contours and sharp angles. Typical applications for these terminal blocks include missile guidance systems, computers, aircraft communications, underwater detecting equipment, etc.

The shortest distance between the live parts of Type No. 905 Terminal Block is 3/8". Its brass terminals will accommodate a #10 wire as a maximum. The polyester material of which the blocks are made is rated at max. of 30 amps, 380 volts, or 440 volts if mounted on insulated surface. Maximum heat capacity: 60° C. Insert conductor in block and tighten the set screw.

Flexible Terminal Block No. 905 measures 3-3/4" long, 5/8" wide, 1/2" high and 11/32" between terminal centers. It may be cut to smaller sizes as required.



SEE PRECEEDING PAGE FOR ADDITIONAL TERMINAL BLOCKS

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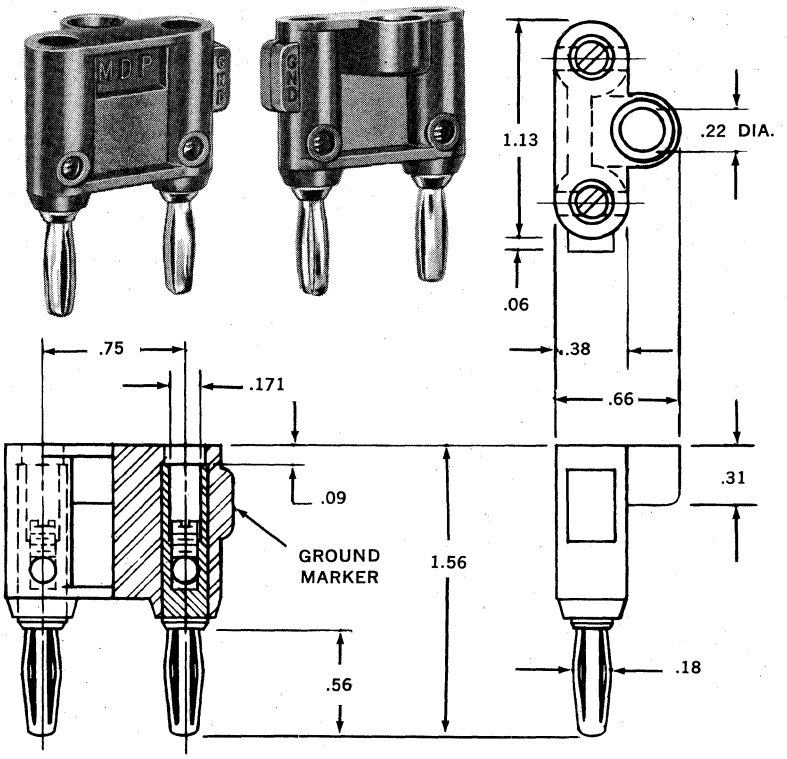
POMONA ELECTRONICS

¾" SPACED MOLDED DOUBLE BANANA PLUGS

Pomona Banana Plug and stack-up accessories are of the highest quality—tough thermoplastic—molded directly on to the metal body of plugs and connectors for maximum strength, moisture resistance and insulative properties:

General Specifications listed below apply to items using banana plugs in this catalog.

ACTUAL SIZE



FEATURES . . .

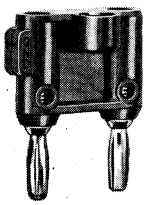
- One piece beryllium copper heat treated spring for maximum long life.
- Rounded spring design results in maximum contact area.
- STACK-UP feature allows an unlimited number of connections at the same electrical point.

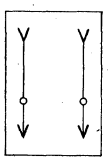
SPECIFICATIONS . . .

- Fits standard 0.166 dia. banana jacks.
- Spring, beryllium copper alloy 25 per QQ-C-533.
- Plug body, Brass per QQ-B-626 Comp. 22.
- Nickel plated per QQ-N-290, Class 2.
- Contact resistance less than 0.001 ohms per banana plug

RATINGS	Models: MDP; MDP-ST; 1330; 1330-ST
Capacity :	0.8 pf to 10 MC
Current :	15 Amps. Cont., 30 Amps. Int.
Voltage :	5000 W.V. D.C.
Temperature :	−25°C to +85°C, operating temp.

DOUBLE BANANA PLUG



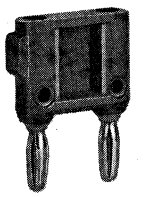


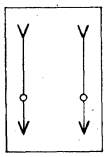
Double banana plug on ¾" centers; set screws secure leads; simplifies cable construction or component mounting; banana jacks permit top Stack-Up for multiple connections.

COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

MODEL MDP (Specify Color) QUANTITY DISC. CODE **A** **NET .75**

COMPONENT MOUNTING DOUBLE BANANA PLUG



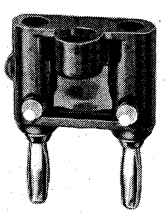


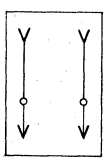
Double banana plug on ¾" centers; set screws secure leads; features recess for mounting small components; banana jacks permit top Stack-Up for multiple connections.

COLORS: Black, Red

MODEL 1330 (Specify Color) QUANTITY DISC. CODE **A** **NET .75**

DOUBLE BANANA PLUG WITH SOLDER TURRET TERMINALS



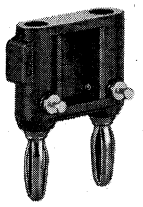


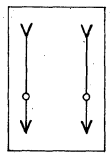
Similar to Model MDP, except has solder turret terminals for permanent noise-free connections of cables and components. Double banana plug on ¾" centers; banana jacks permit top Stack-Up for multiple connections.

COLOR: Black

MODEL MDP-ST QUANTITY DISC. CODE **A** **NET .85**

COMPONENT PLUG WITH SOLDER TURRET TERMINALS





Similar to Model 1330, except has solder turret terminals for permanent noise-free connections of components, etc. Double banana plug on ¾" centers: Banana jacks permit top Stack-Up for multiple connections.

COLORS: Black, Red.

QUANTITY DISC. CODE **A**

MODEL 1330-ST (Specify Color) **NET .85**

Net

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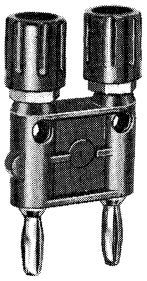
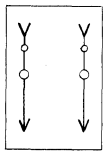
POMONA ELECTRONICS

¾" SPACED BANANA PLUG TEST ACCESSORIES

BINDING POSTS TO DOUBLE BANANA PLUG





Features insulated binding posts on ¾" centers for rapid mounting and interchangeability of components. Binding posts allow top Stack-Up for multiple connections. Side Stack-Up provided by thru-holes in plug body.

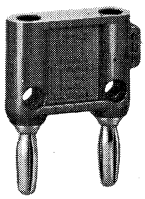
UPPER: Insulated double binding posts, on ¾" centers. Cross holes (.166 dia.) in body provide side Stack-Up connections.

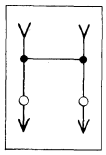
LOWER: Double banana plug, on ¾" centers.

COLORS: Body, Black. Binding Posts, Black/Red.

MODEL 1286 QUANTITY DISC. CODE **A** **NET 2.50**

INSULATED SHORTING BAR



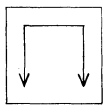


Ideal as a connecting link for use with ¾" spaced banana jacks. Banana plugs internally solder-bonded with #14 AWG wire. Banana jacks provide top Stack-Up. Cross holes (.166 dia.) in body provide side Stack-Up connections. Resistance less than 1.5 milliohms installed. Current rating 15 Amps. Cont., 30 Amps. Int. "Shorting Bar" marked on top of plug.

COLORS: Natural, Black, Red.

MODEL MDP-S (Specify Color) QUANTITY DISC. CODE **A** **NET .95**

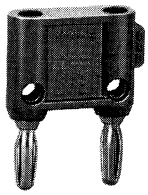
METAL SHORTING BAR

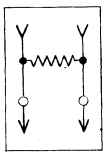


Low profile, nickel plated brass shorting bar. Double banana plugs on ¾" centers swaged to 3/32" thick brass bar. Resistance, less than 1.5 milliohms installed. Current rating: 15 Amps. Cont., 30 Amps. Int.

MODEL 1855 QUANTITY DISC. CODE **A** **NET .75**

MOLDED PRECISION RESISTOR



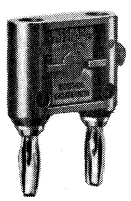


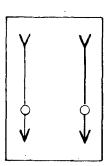
Ideal where rapid interchange of resistance values is required. Used in breadboarding, R & D labs., Standards, Terminations, etc. Deposited carbon 1% resistor, ½ watt, molded internally. Resistor soldered to double banana plug, on ¾" centers. Top Stack-Up provided for multiple connections. Cross holes (.166 dia.) in body provide side Stack-Up connections. Resistance value stamped on top of plug.

(OHMS)					
	50	200	1K	100K	1 Meg.
	75	250	5K	200K	2 Meg.
	120	500	10K	250K	5 Meg.
	130	600	20K	500K	10 Meg.
	150	900	50K		

MODEL MDP-R (Specify Value) QUANTITY DISC. CODE **A** **NET 2.75**

ADAPTER — .080 TIP JACKS TO DOUBLE BANANA PLUG





Permits .080 Tip plugs to be used with equipment having banana jacks.

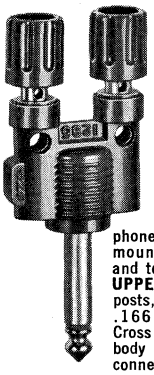
UPPER: Tip jacks, beryllium copper, gold flashed; spaced on ¾" centers to accept .080 dia. pin tip plugs.

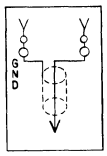
LOWER: Double banana plug, on ¾" centers, nickel plated. Cross holes (.166 dia.) in body provide side Stack-Up connections.

COLOR: Black.

MODEL 1845 QUANTITY DISC. CODE **A** **NET .85**

ADAPTER — BINDING POSTS TO PHONE PLUG





Permits single or double banana plug to be used with equipment having phone jacks. Ideal for rapid mounting of components and test leads.

UPPER: Insulated binding posts, on ¾" centers with .166 dia. banana jacks. Cross holes (.166 dia.) in body provide side Stack-Up connections.

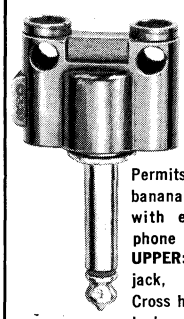
LOWER: ¼" dia. phone plug, 1-3/16" long.

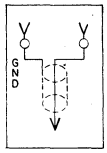
COLOR: Body, Black. Binding Posts: Black/Red.

QUANTITY DISC. CODE **A**

MODEL 1285 NET 4.85

ADAPTER — BANANA JACKS TO PHONE PLUG





Permits single or double banana plugs to be used with equipment having phone jacks.

UPPER: Double banana jack, on ¾" centers. Cross holes (.166 dia.) in body provide side Stack-Up connections.

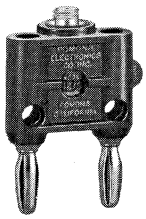
LOWER: Standard ¼" dia. phone plug, 1-3/16" long.

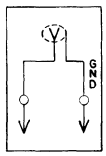
COLOR: Black.

QUANTITY DISC. CODE **A**

MODEL 1980 NET 2.85

ADAPTER — MICRODOT RECEPTACLE TO DOUBLE BANANA PLUG





Permits Microdot miniature coaxial plug to be used with equipment having banana jacks. Cross holes in body provide side Stack-Up connections.

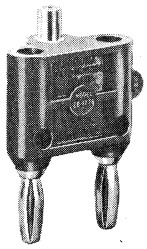
UPPER: Microdot receptacle, Screw-On Type.

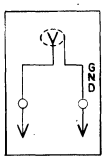
LOWER: Double banana plug, on ¾" centers. Cross holes (.166 dia.) in body provide side Stack-Up connections.

MODEL	Type (Ohms)	Body Color	Receptacle Thread	NET
1275	50	Green	10-32	6.85
1277	70	Violet	12-32	6.85
1279	93	White	¼-32	6.85

QUANTITY DISC. CODE **A**

ADAPTER — MICRODOT RECEPTACLE TO DOUBLE BANANA PLUG





Permits Microdot miniature coaxial plug to be used with equipment having banana jacks. Cross holes in body provide side Stack-Up connections.

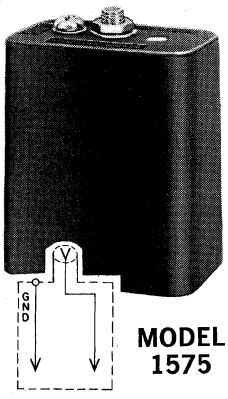
UPPER: Microdot Receptacle, Slide-On Type. Universally adapts to 50, 70 or 93 ohm type plug.

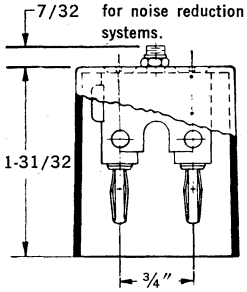
LOWER: Double banana plug, on ¾" centers. Cross holes (.166 dia.) in body provide side Stack-Up connections.

COLOR: Black.

MODEL 1276 QUANTITY DISC. CODE **A** **NET 7.85**

ADAPTER—MICRODOT RECEPTACLE TO SHIELDED BANANA PLUGS





Permits Microdot miniature coaxial plug, 50 ohm, to be used with equipment having banana jack binding posts. Black anodized aluminum shield reduces noise pick-up more than 70 DB. Ideal for noise reduction in low level acceleration systems.

UPPER: Microdot Receptacle, Screw-On Type, Receptacle Thread 10-32.

LOWER: Shielded Double banana plug, on ¾" centers.

COLOR: Black.

MODEL 1575 QUANTITY DISC. CODE **A** **NET 6.85**

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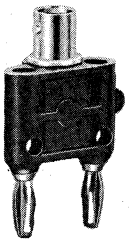
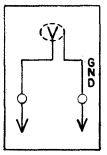
POMONA ELECTRONICS BNC ADAPTERS

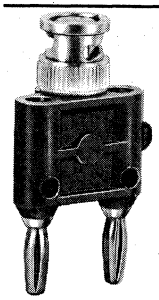


ADAPTER — BNC RECEPTACLE TO DOUBLE BANANA PLUG

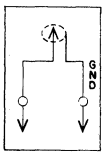


Permits BNC plug to be used with equipment having banana jacks. Excellent for adapting laboratory VTVM, oscilloscopes and signal generator inputs to readily available coaxial cables.
UPPER: BNC receptacle.
LOWER: Double banana plug, on ¾" centers. Cross holes (.166 dia.) in body provide side Stack-Up connections.
COLOR: Black.

MODEL 1269 QUANTITY DISC. CODE **A** **NET 2.85**

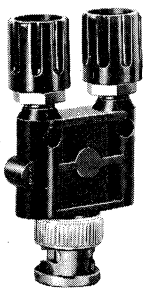


ADAPTER — BNC PLUG TO DOUBLE BANANA PLUG

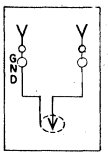


Permits BNC receptacle to be used with equipment having banana jacks. Minimizes number of coaxial connections for maximum efficiency.
UPPER: BNC plug.
LOWER: Double banana plug, on ¾" centers. Cross holes (.166 dia.) in body provide side Stack-Up connections.
COLOR: Black.

MODEL 1270 QUANTITY DISC. CODE **A** **NET 3.85**

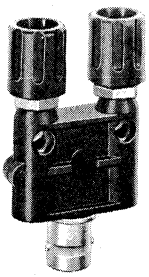


ADAPTER — BINDING POSTS TO BNC PLUG

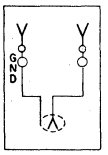


Permits single or double banana plugs to be used with equipment having BNC receptacle. Excellent for use with laboratory oscilloscopes.
UPPER: Insulated binding posts, on ¾" centers with .166 dia. banana jacks. Cross holes (.166 dia.) in body provide side Stack-Up connections.
LOWER: BNC plug.
COLOR: Body, Black. Binding Posts: Black/Red.

MODEL 1296 QUANTITY DISC. CODE **A** **NET 4.85**

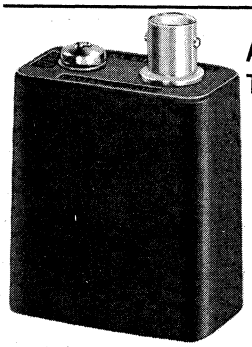


ADAPTER — BINDING POSTS TO BNC RECEPTACLE



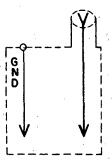
Permits single or double banana plugs to be used with equipment having BNC plug.
UPPER: Insulated binding posts, on ¾" centers with .166 dia. banana jacks. Cross holes (.166 dia.) in body provide side Stack-Up connections.
LOWER: BNC receptacle.
COLOR: Body, Black. Binding Posts: Black/Red.

MODEL 1452 QUANTITY DISC. CODE **A** **NET 4.85**



ADAPTER — BNC RECEPTACLE TO SHIELDED BANANA PLUGS

Permits BNC plug to be used with equipment having banana jack binding posts. Black anodized aluminum shield reduces noise Pick-up more than 70 DB. Ideal for low level inputs to oscilloscopes, wave analyzers, etc.



UPPER: BNC receptacle.
LOWER: Shielded double banana plug, on ¾" centers.

QUANTITY DISC. CODE **A**

MODEL 1645 **NET 3.45**

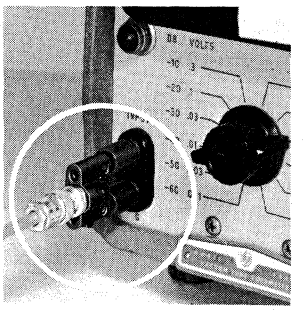
Now! Increase the flexibility of your laboratory with the use of POMONA molded test accessories.

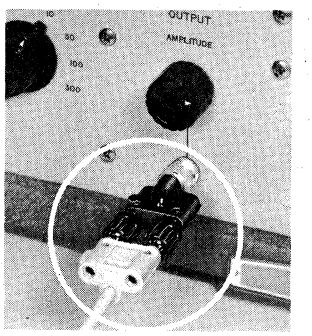
Minimize the necessity of stocking a large quantity and variety of coaxial cables by using POMONA molded adapters.

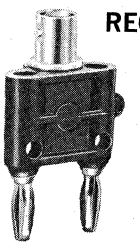
Tough thermo-plastic material molded to plug body or connectors insures maximum strength, moisture resistance and excellent insulative properties.

POMONA ELECTRONICS adapters are designed and engineered with you in mind, from the selection of the best in materials, incorporated with a quality control program that enables us to offer to you, products that are unequalled in reliability and quality.

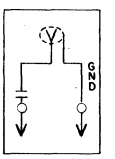
Complete engineering facilities are offered to our customers for special adapter problems that may arise.





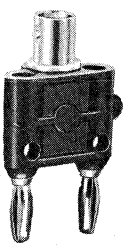


ADAPTER — SIGNAL ISOLATOR — BNC RECEPTACLE TO DOUBLE BANANA PLUG

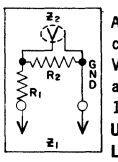


Permits BNC male connector to be used with equipment having banana jacks. General purpose ceramic capacitor molded internally. Rated @ .01 mfd ±20%, 200 WVDC. Insulation resistance 10,000 megohms min. Ideal for isolating DC signals from VTVM inputs and signal generator outputs.
UPPER: BNC receptacle.
LOWER: Double banana plug, on ¾" centers. Cross holes (.166 dia.) in body provide side Stack-Up connections.
COLOR: Blue.

MODEL 1868 QUANTITY DISC. CODE **A** **NET 7.85**

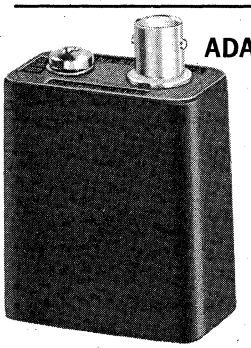


ADAPTER — BNC MATCHING PAD



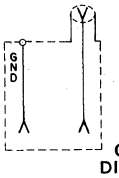
Adapts 600 OHM sources to 50, 75 or 93 OHM cables. Excellent for matching signal generators and VTVM's to standard coaxial cables. Ideal for receiver alignment. Molded in deposited carbon resistors 1%, ¼W.
UPPER: BNC receptacle.
LOWER: Double banana plug, on ¾" centers. Cross holes (.166 dia.) in body provide side Stack-Up connections.

MODEL	COLOR	RANGE — OHMS	NET	QUANTITY DISC. CODE
1656-1	Yellow	600 to 50	10.85	A
1656-2	Red	600 to 75	10.85	
1656-3	White	600 to 93	10.85	



ADAPTER — BNC RECEPTACLE TO SHIELDED BANANA JACKS

Permits BNC plug to be used with equipment having banana plugs. Black anodized aluminum shield reduces noise pick-up more than 70 DB. Ideal for low level inputs to oscilloscopes, wave analyzers, etc.



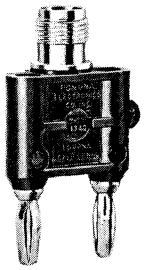
UPPER: BNC receptacle.
LOWER: Shielded double banana jacks, on ¾" centers.
COLOR: Black.

QUANTITY DISC. CODE **A** **NET 3.45**

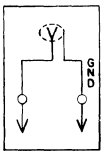
MODEL 1681

 © U.C.P., Inc.

POMONA ELECTRONICS — TNC & "N" ADAPTERS

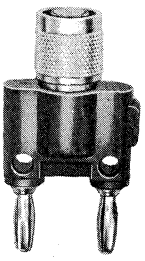


ADAPTER — TNC RECEPTACLE TO DOUBLE BANANA PLUG

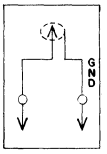


Permits TNC plug to be used with equipment having banana jacks. Perfect for connecting modern control systems to laboratory test equipment.
UPPER: TNC receptacle.
LOWER: Double banana plug, on ¾" centers. Cross holes (.166 dia.) in body provide side Stack-Up connections.
COLOR: Black.

MODEL 1340 QUANTITY DISC. CODE **A** **NET 5.85**

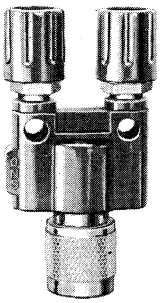


ADAPTER — TNC PLUG TO DOUBLE BANANA PLUG

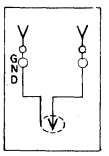


Permits TNC receptacle to be used with equipment having banana jacks. Minimizes your stock of coaxial cables.
UPPER: TNC plug.
LOWER: Double banana plug, on ¾" centers. Cross holes (.166 dia.) in body provide side Stack-Up connections.
COLOR: Black.

MODEL 1981 QUANTITY DISC. CODE **A** **NET 6.85**

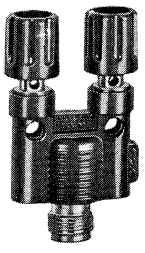


ADAPTER — BINDING POSTS TO TNC PLUG

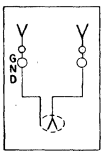


Permits single or double banana plugs to be used with equipment having a TNC receptacle. Exceptional for signal insertion with rapid interchangeability of terminations.
UPPER: Insulated binding posts, on ¾" centers with .166 dia. banana jacks. Cross holes (.166 dia.) in body provide side Stack-Up connections.
LOWER: TNC plug.
COLOR: Body, Black. Binding Posts: Black/Red.

MODEL 1982 QUANTITY DISC. CODE **A** **NET 6.85**

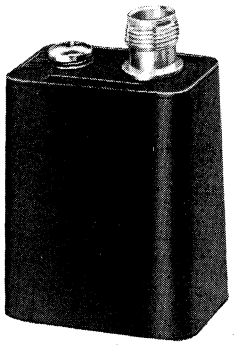


ADAPTER — BINDING POSTS TO TNC RECEPTACLE



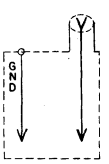
Permits single or double banana plugs to be used with equipment having TNC plug. Useful for rapid interconnection of systems and components.
UPPER: Insulated binding posts, on ¾" centers with .166 dia. banana jacks. Cross holes (.166 dia.) in body provide side Stack-Up connections.
LOWER: TNC receptacle.
COLOR: Body, Black. Binding Posts: Black/Red.

MODEL 1976 QUANTITY DISC. CODE **A** **NET 5.85**



ADAPTER — TNC RECEPTACLE TO SHIELDED BANANA PLUGS

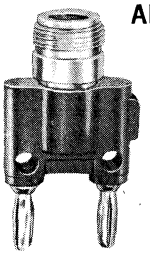
Permits TNC plug to be used with equipment having banana jack binding posts. Black anodized aluminum shield reduces noise pick-up more than 70 DB.



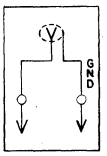
UPPER: TNC receptacle.
LOWER: Double banana plug, on ¾" centers.
COLOR: Black.

QUANTITY DISC. CODE **A**

MODEL 1975 **NET 4.85**

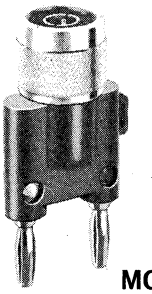


ADAPTER — TYPE "N" RECEPTACLE TO DOUBLE BANANA PLUG

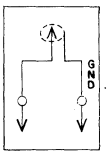


Permits Type "N" plug to be used with equipment having banana jacks. Ideal for connecting R.F. equipment to conventional test equipment.
UPPER: Type "N" receptacle.
LOWER: Double banana plug, on ¾" centers. Cross holes (.166 dia.) in body provide side Stack-Up connections.
COLOR: Black.

MODEL 1740 QUANTITY DISC. CODE **A** **NET 5.85**

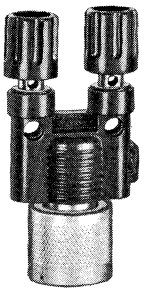


ADAPTER — TYPE "N" PLUG TO DOUBLE BANANA PLUG

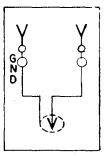


Permits type "N" receptacle to be used with equipment having banana jacks.
UPPER: Type "N" plug.
LOWER: Double banana plug, on ¾" centers. Cross holes (.166 dia.) in body provide side Stack-Up connections.
COLOR: Black.

MODEL 1770 QUANTITY DISC. CODE **A** **NET 5.85**

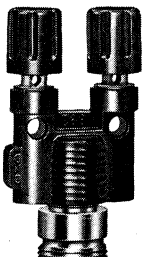


ADAPTER — BINDING POSTS TO TYPE "N" PLUG

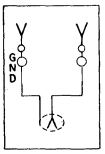


Permits single or double banana plugs to be used with equipment having Type "N" receptacle. Binding posts allow component insertion.
UPPER: Insulated binding posts, on ¾" centers with .166 dia. banana jacks. Cross holes (.166 dia.) in body provide side Stack-Up connections.
LOWER: Type "N" plug.
COLOR: Black. Binding Posts: Black/Red.

MODEL 1796 QUANTITY DISC. CODE **A** **NET 5.85**

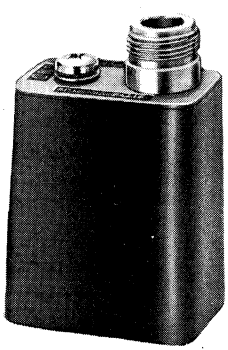


ADAPTER — BINDING POSTS TO TYPE "N" RECEPTACLE



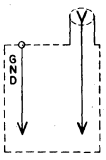
Permits single or double banana plugs to be used with equipment having type "N" plug. Useful for rapid interconnection of systems and components.
UPPER: Insulated binding posts, on ¾" centers with .166 dia. banana jacks. Cross holes (.166 dia.) in body provide side Stack-Up connections.
LOWER: Type "N" receptacle.
COLOR: Body, Black. Binding Posts: Black/Red.

MODEL 1992 QUANTITY DISC. CODE **A** **NET 5.85**



ADAPTER — TYPE "N" RECEPTACLE TO SHIELDED BANANA PLUGS

Permits type "N" plug to be used with equipment having banana jack binding posts. Black Anodized aluminum shield reduces noise pick-up more than 70 DB.



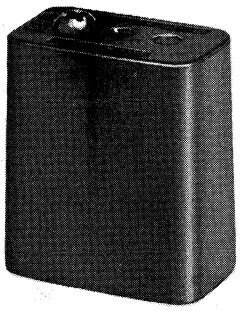
UPPER: Type "N" receptacle.
LOWER: Double banana plug, on ¾" centers.
COLOR: Black.

QUANTITY DISC. CODE **A**

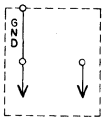
MODEL 1983 **NET 4.85**

POMONA ELECTRONICS

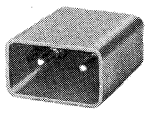
SHIELDED BANANA PLUGS UHF ADAPTERS

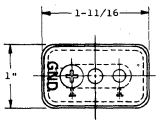


SHIELDED DOUBLE BANANA PLUG IN-LINE CABLE ENTRY

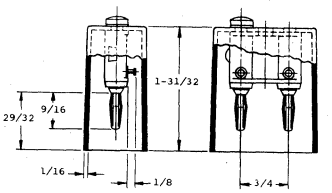


RATED: 15A CONTINUOUS
1200 WVDC
3400 VDC BREAKDOWN
2.5 PF @ 1 MC



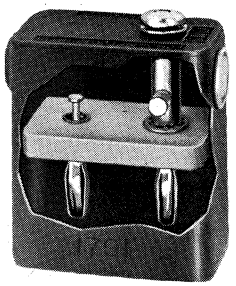


- Shielded double plug ¾" spaced
- Die cast aluminum shell, black anodized
- Noise pick-up reduced 70 DB
- Gold flashed solder turret terminals for positive reliable cable connections
- One piece nickel plated beryllium copper springs for use with standard 0.166 dia. banana jack binding posts.
- Rounded banana spring design results in maximum contact area and minimum contact resistance
- GND clearly molded in shell
- Cable opening, 7/32" diameter

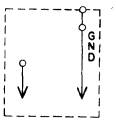


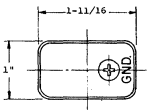
MODEL 1433 QUANTITY DISC. CODE **A** **NET 2.25**

SHIELDED DOUBLE BANANA PLUG RIGHT ANGLE CABLE ENTRY

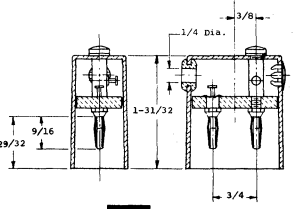


RATED: 15A CONTINUOUS
2800 PEAK WV
5000 VDC BREAKDOWN
2.0 PF @ 1 MC.



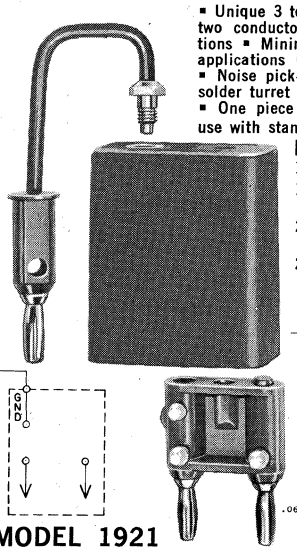


- Shielded double plug, ¾" spaced
- Ceramic insulating base
- Die cast aluminum shell, black anodized
- GND clearly molded in shell
- Noise pick-up reduced 70 DB
- One piece nickel plated beryllium copper springs for use with 0.166 diameter banana jack binding posts.
- Rounded banana spring design results in maximum contact area and minimum contact resistance
- Vinyl grommet and nickel plated snap button supplied



MODEL 1791 QUANTITY DISC. CODE **A** **NET 2.95**

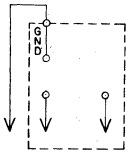
BALANCED LINE SHIELDED DOUBLE BANANA PLUG

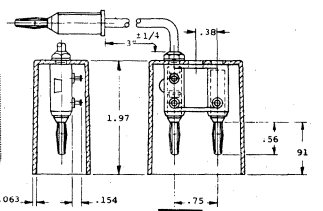


- Unique 3 terminal design allows connection to shielded two conductor cable while maintaining balanced conditions
- Minimizes ground loop errors in low signal level applications
- Die cast aluminum shell, black anodized
- Noise pick-up reduced at least 70 DB
- Gold flashed solder turret terminals for reliable noise free connections
- One piece nickel plated beryllium copper springs for use with standard 0.166 dia. banana jack binding posts.

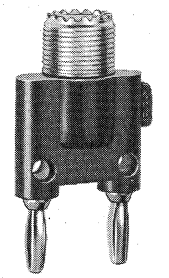
RATED:

15A Continuous
1000 WV Peak; line to shield
2000 WV peak; line to line
2500 V peak breakdown; line to shield
5000 V peak breakdown, line to line
2.0 pf @ 1 MC Capacity; line to line
3.0 pf @ 1 MC. capacity; both lines to shield.

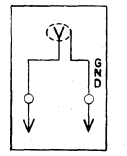




MODEL 1921 QUANTITY DISC. CODE **A** **NET 4.85**



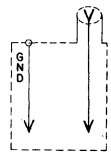
ADAPTER — UHF RECEPTACLE TO DOUBLE BANANA PLUG



Permits UHF plug to be used with equipment having banana jacks.
UPPER: UHF receptacle, ⅝" dia.
LOWER: Double banana plug, on ¾" centers. Cross holes (.166 dia.) in body provide side Stack-Up connections.
COLOR: Black.

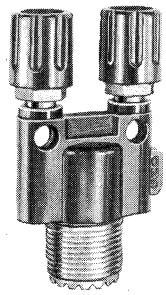
MODEL 1707 QUANTITY DISC. CODE **A** **NET 4.85**

ADAPTER — UHF RECEPTACLE TO SHIELDED BANANA PLUGS

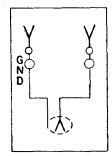


Permits UHF plug to be used with equipment having banana binding posts. Black anodized shield reduces noise pick-up at least 70 DB.
UPPER: UHF receptacle, ⅝" dia.
LOWER: Double banana plug on ¾" centers.
COLOR: Black.

MODEL 1708 QUANTITY DISC. CODE **A** **NET 4.85**

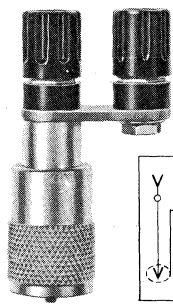


ADAPTER — BINDING POSTS TO UHF RECEPTACLE

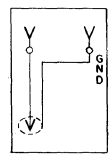


Permits single or double banana plugs to be used with equipment having UHF plug.
UPPER: Insulated binding posts, on ¾" centers with .166 dia. jacks. Cross holes (.166 dia.) in body provide side Stack-Up connections.
LOWER: UHF receptacle, ⅝" dia.
COLOR: Body, Black. Binding posts: Black/Red.

MODEL 1792 QUANTITY DISC. CODE **A** **NET 5.85**

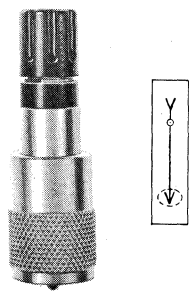


ADAPTER — BINDING POSTS TO UHF PLUG



Permits single or double banana plugs to be used with equipment having a UHF receptacle, ⅝" dia. Convenient for use with modern oscilloscopes. Center conductor binding post Red; Ground, Black.
UPPER: Insulated binding posts, on ¾" centers with .166 dia. jacks.
LOWER: UHF plug.

MODEL 1699 QUANTITY DISC. CODE **A** **NET 4.85**



ADAPTER — BINDING POST TO UHF PLUG

Permits single banana plug to be used with equipment having a UHF receptacle, ⅝" dia. Adds flexibility to your oscilloscope.
UPPER: Insulated binding post with .166 dia. banana jack.
LOWER: UHF plug.

MODEL 1698 QUANTITY DISC. CODE **A** **NET 3.85**

Net
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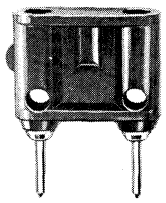
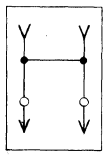
POMONA ELECTRONICS

.080 TIP AND BANANA PLUG ACCESSORIES

INSULATED SHORTING BAR





Used as a connecting link with equipment having tip jacks. Plugs internally solder bonded with 14 AWG wire. Top stack-up feature.

Current rating: 5 AMPS. cont., 10 AMPS. int. "Shorting Bar" marked on top of plug.

UPPER: Banana jacks, .166 dia. on ¾" centers. Brass, nickel plated.

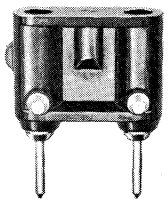
LOWER: Pin tips, .080 dia. on ¾" centers. Brass, nickel plated. Cross holes (.166 dia.) in body provide side Stack-Up connections.

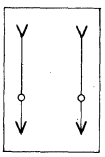
COLORS: Black, Red.

MODEL 1730 (Specify color)

QUANTITY DISC. CODE **A** NET **.75**

PLUG — COMPONENT MOUNTING — DOUBLE PIN TIP PLUG — SOLDER TURRETS





Features recess for mounting components. Gold flashed solder turrent terminals for permanent noise-free connections.

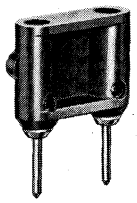
UPPER: Tip jacks, beryllium copper, gold flashed; spaced on ¾" centers to accept .080 dia. pin tip plugs.

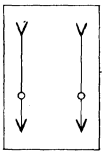
LOWER: Pin tips, .080 dia. brass, nickel plated.

COLORS: Black, Red.

MODEL 1904 (Specify color) QUANTITY DISC. CODE **A** NET **.85**

COMPONENT MOUNTING PLUG — BANANA JACKS TO DOUBLE PIN TIP — SET SCREWS





Permits single or double banana plugs to be used in equipment having tip jacks. Features recess for component mounting. Internal set screws firmly secure wire leads.

UPPER: Banana jacks, .166 dia., on ¾" centers. Brass, nickel plated.

LOWER: Pin tips .080 dia. on ¾" centers. Brass, nickel plated.

COLOR: Black.

MODEL 1858 QUANTITY DISC. CODE **A** NET **.75**

ADAPTER — BANANA JACK TO PIN TIP

Permits standard single banana plug patch cords to be used with equipment having tip jacks.

UPPER: Banana jack, .166 dia. Brass, nickel plated.

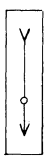
LOWER: Pin tip, .080 dia. Brass, nickel plated. Cross hole (.166 dia.) in body provides side Stack-Up connection.

COLORS: Black, Red.

Standard Package: 10 (per color)

MODEL 1432 (Specify Color) QUANTITY DISC. CODE **A** NET **.15**

SOLDERLESS PIN TIP PLUG — STACK-UP



Wire firmly held in place with internal set screw, eliminating soldering. Assembly of test leads simplified.

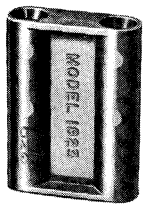
UPPER: Tip jack, beryllium copper, gold flashed; accepts .080 dia. pin.

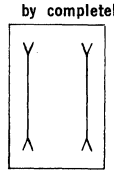
LOWER: Pin tip, .080 dia., brass, nickel plated.

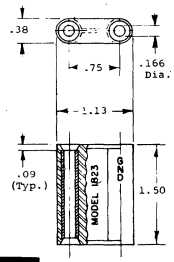
COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

MODEL 1922 (Specify color) QUANTITY DISC. CODE **A** NET **.50**

DOUBLE BANANA PLUG SPLICE





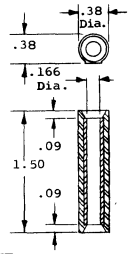


Provides rapid method for splicing cables. Reduces necessity of storing extra long cables. Molded thermo-plastic body eliminates shock hazard by completely enclosing banana plug contact. Brass, nickel plated banana jacks. .166 dia., on ¾" centers.

COLORS: Black, Red.

MODEL 1823 (Specify color) QUANTITY DISC. CODE **A** NET **.50**

SINGLE BANANA PLUG SPLICE



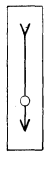
Provides rapid method for splicing single banana plug patch cords. Reduces the necessity of storing extra long patch cords. Molded thermo-plastic body eliminates shock hazard by completely enclosing banana plug contact. Brass, nickel plated banana jack, .166 dia.

COLORS: Black, Red.

Standard Package: 10 (per color)

MODEL 1829 (Specify color) QUANTITY DISC. CODE **A** NET **.25**

ADAPTER — .080 TIP JACK TO BANANA PLUG



Permits .080 dia. pin tip patch cords to be used with equipment having banana jacks. Insulation molded to plug body.

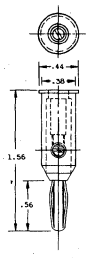
UPPER: Tip jack, beryllium copper, gold flashed. Accepts .080 dia. pin.

LOWER: Banana plug, one piece nickel plated beryllium copper spring for use with standard 0.166 dia. banana jack. Cross hole (.166 dia.) in body provides side Stack-Up connection.

COLORS: Black, Red.

MODEL 1809 (Specify Color) QUANTITY DISC. CODE **A** NET **.50**

SOLDERLESS BANANA PLUG — STACK-UP



Wire firmly held in place with internal set screw, eliminating soldering. Assembly of test leads simplified.

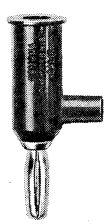
UPPER: Banana jack, .166 dia.; Brass, nickel plated.

LOWER: Banana plug, one piece nickel plated beryllium copper spring for use with standard 0.166 dia. banana jack.

COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

MODEL 1325 (Specify color) QUANTITY DISC. CODE **A** NET **.50**

SOLDERLESS BANANA PLUG WITH SAFETY COLLAR — STACK-UP



Features: Integral safety collar insulates exposed wire leads. Wire firmly held in place with internal set screw, eliminating soldering. Assembly of test leads simplified.

UPPER: Banana jack, .166 dia.; Brass, nickel plated.

LOWER: Banana plug, one piece nickel plated beryllium copper spring for use with standard 0.166 dia. banana jack.

COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

MODEL 1825 (Specify Color) QUANTITY DISC. CODE **A** NET **.50**

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POMONA ELECTRONICS

ISOLATION PLUGS— COMPONENT MOUNTINGS

CREATE passive and active networks, voltage dividers, isolation networks or attenuators with the Split-Terminal isolation plugs described below.

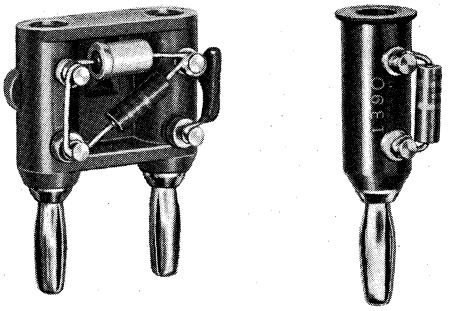
Gold flashed solder turret terminals provide permanent, reliable noise-free connections for component mounting.

Tough thermo-plastic material molded to plug body and connectors insures maximum strength, moisture resistance and excellent insulative properties.

Specifications for MDP-X, 1390, 1837, 1468:

- Fits standard 0.166 dia. banana jack.
- Spring, heat treated beryllium copper alloy 25 per QQ-C-533.
- Plug body, Brass per QQ-B-626 Comp. 22.
- Nickel plated per QQ-N-290, Class 2.
- Contact resistance less than 0.001 ohms per banana plug.

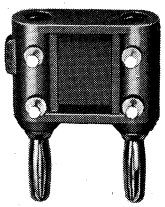
TYPICAL APPLICATION

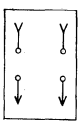


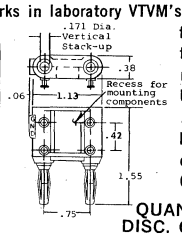
ACTUAL SIZE

MODEL MDP-X **MODEL 1390**

DOUBLE BANANA PLUG, FOUR TERMINAL ISOLATION







Provides four terminal isolation. Top Stack-Up receptacles isolated from lower plugs. Ideal for insertion of matching networks in laboratory VTVM's, signal generators, etc. Gold flashed solder turret terminals for permanent noise-free connections.

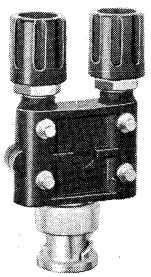
UPPER: Double banana jacks, .166 dia., on ¾" centers.

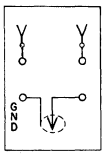
LOWER: Double banana plug on ¾" centers.

COLOR: Red.

MODEL MDP-X QUANTITY DISC. CODE **A** **NET 3.25**

ADAPTER — BINDING POSTS TO BNC PLUG, ISOLATION





Permits single or double banana plugs to be used with equipment having BNC receptacle. Provides isolation for a four terminal network. Binding posts facilitate connections of test leads or additional components. Gold flashed solder turret terminals provide permanent noise-free connections.

UPPER: Insulated binding posts, on ¾" centers with .166 dia. jacks.

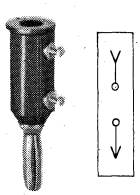
LOWER: BNC plug.

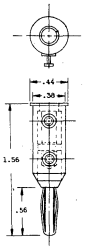
COLOR: Body, Black.

Binding Posts: Black/Red.

MODEL 1469 QUANTITY DISC. CODE **A** **NET 10.85**

PLUG — SINGLE BANANA, ISOLATION





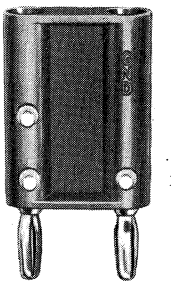
Provides two terminal isolation. Top Stack-Up receptacle is isolated from lower plug to permit addition of series resistors, diodes, etc. Ideal for computers, lab. circuit design and testing. Gold flashed solder turret terminals for permanent noise-free connections.

UPPER: Banana jack, .166 dia.

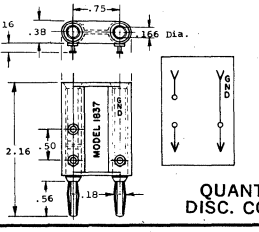
LOWER: Banana plug.

COLORS: Black, Red.

MODEL 1390 (Specify color) QUANTITY DISC. CODE **A** **NET .95**



DOUBLE BANANA PLUG, THREE TERMINAL ISOLATION



Provides three terminal isolation. Excellent for "L" and "Pi" networks. Plug and receptacle nickel plated. Gold flashed solder turret terminals for permanent noise-free connections. "Ground" is straight feed-thru. Hot side isolated.

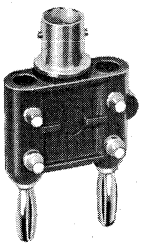
UPPER: Banana jacks, .166 dia. on ¾" centers.

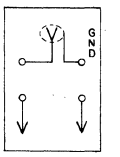
LOWER: Double banana plug on ¾" centers.

COLOR: Blue.

MODEL 1837 QUANTITY DISC. CODE **A** **NET 2.50**

ADAPTER — BNC RECEPTACLE TO DOUBLE BANANA PLUG, ISOLATION





Permits BNC plug to be used with equipment having banana jacks. Provides isolation for a four terminal network. Excellent for matching pad networks. Gold flashed solder turret terminals for permanent noise-free connnections.

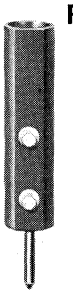
UPPER: BNC receptacle.

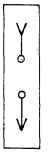
LOWER: Double banana plug, on ¾" centers.

COLOR: Black.

MODEL 1468 QUANTITY DISC. CODE **A** **NET 9.85**

PLUG — PIN TIP, ISOLATION



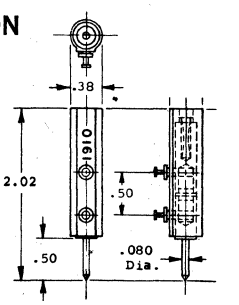


Pin tip jack is isolated from .080 pin tip plug. Provides for addition of series components. Ideal for use with computer boards, lab circuit designs, etc. Gold flashed solder turret terminals for permanent noise-free connections.

UPPER: Tip jack, beryllium copper, gold flashed; accepts .080 dia. pin.

LOWER: Pin tip, .080 dia. Brass, nickel plated.

COLORS: Black Red.



MODEL 1910 (Specify color) QUANTITY DISC. CODE **A** **NET .95**

Net

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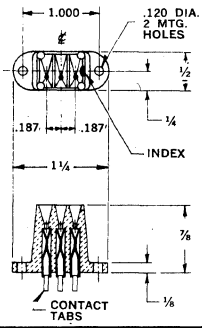
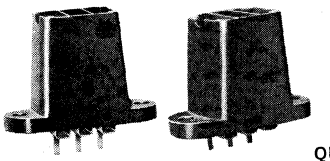
POMONA ELECTRONICS — TEST ACCESSORIES

TRANSISTOR SOCKET



For use in testing 3 lead transistors with .017 dia. leads. Beryllium copper springs for long life. Ideal for aging racks, incoming inspection, life testing, etc.

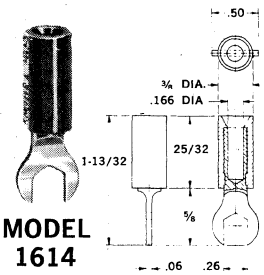


MODEL TS-187 **MODEL TS-187R**

QUANTITY DISC. CODE **A**

MODEL	TEMP. RANGE	INSULATION RESISTANCE	COLOR	NET
TS187	—100°C To +300°C.	1 x 10^5 Megohms Min. @ 500 V.D.C. @ 40% R.H., 24°C.	Black	1.75
TS187R	—125°C To +700°C.	1 x 10^6 Megohms Min. @ 500 V.D.C. @ 40% R.H., 24°C.	Red	3.75

INSULATED SPADE LUG ADAPTER



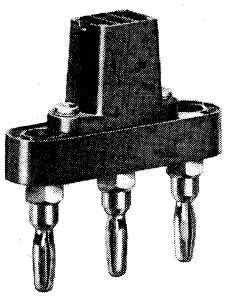
Permits single banana plug to be used with equipment having binding posts. Tough thermoplastic molded to body for maximum reliability and low shock hazard. Spade lug body, one piece machined brass, nickel plated.

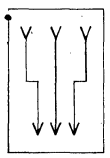
UPPER: Banana jack, .166 dia.
LOWER: Spade lug, .26 opening.
COLORS: Black, Red.

QUANTITY DISC. CODE **A**

MODEL 1614 (Specify color) **NET .35**

ADAPTER — TRANSISTOR TEST SOCKET





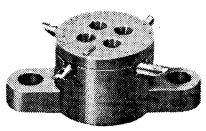
Permits the insertion of transistors with .017 dia. leads into equipment having banana jacks on ¾" centers. Ideal for incoming inspection. Transistor socket contact and banana spring made of beryllium copper. Heavy duty phenolic construction. Insulation resistance: 1 x 10^5 megohms min. @ 500 V.D.C., at 40% R.H., 24°C.

MODEL 1472 QUANTITY DISC. CODE **A** **NET 5.85**

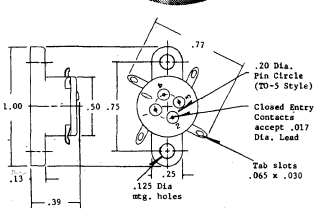
TRANSISTOR BREADBOARD SOCKET

For Transistors with TO-5, and TO-12 Lead Arrangement

Excellent for breadboarding. All connections made on top of breadboard for quick accessible test points.

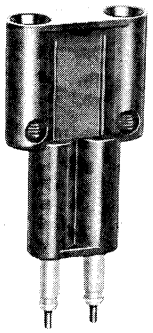


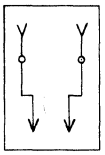
FEATURES:
- Closed entry contacts accept .016—.019 dia. leads.
- Beryllium copper contacts silver plated.
- Contact numbers on top of socket.
- Socket molded of low loss mica filled phenolic.
- Easily mounted with two #2 screws.



MODEL XS-T4 QUANTITY DISC. CODE **C** **NET .59**

ADAPTER — AMP PROGRAM BOARD





Permits single or double banana plugs to be used with AMP program boards having ¼" or ⅜" center to center spacing. Ideal for mounting components. Internal set screws secure leads. Useful in analog computer applications, etc.

UPPER: Banana jacks, on ¾" centers. Brass, nickel plated.
LOWER: Dual AMP pins, on ¼" or ⅜" centers.

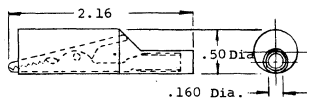
QUANTITY DISC. CODE **A**

MODEL	PIN SPACING	COLOR	NET
1977	⅜"	Black	3.85
1991	¼"	Gray	3.85

MODEL 1977
MODEL 1991

INSULATED ALLIGATOR CLIP TO BANANA JACK

Clip, No. 60 Mueller, Steel, Cadmium Plated. Vinyl insulators, No. 62 (5 Red, 5 Black). Unassembled.

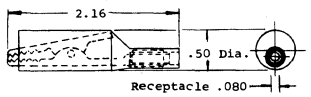


Standard Package of 10 clips and 10 insulators.

MODEL 2240 QUANTITY DISC. CODE **A** **NET .15**

INSULATED ALLIGATOR CLIP TO PIN TIP JACK

Alligator Clip, Steel, Cad. Plated. Tip Jack, Beryllium Copper, gold flashed, accepts .080 diam. Pin tip plug. Vinyl insulators (5 Red, 5 Black). Unassembled.

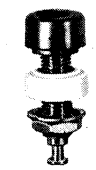


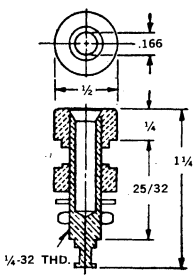
Standard Package of 10 clips and 10 insulators.

MODEL 1437 QUANTITY DISC. CODE **A** **NET .50**

INSULATED BANANA JACK ASSEMBLY

Used with standard banana plug. Body, one piece brass, silver plated. Heavy duty shouldered ceramic insulator. Nickel plated lockwasher and hex nut included.





FEATURES:
- Closed entry receptacle, .166 dia.
- Insulator head molded to body
- Mounts in ⅜" dia. hole, panels up to ⅜" thick.
- Solder turret terminal
- Rated: 2,500 WVDC

1581 — Black	1581-5 — Green
1581-1 — Brown	1581-6 — Blue
1581-2 — Red	1581-7 — Violet
1581-3 — Orange	1581-8 — Gray
1581-4 — Yellow	1581-9 — White

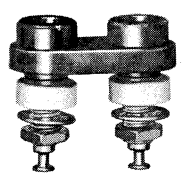
(Specify Color)

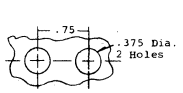
QUANTITY DISC. CODE **A**

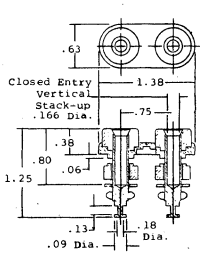
MODEL 1581 Standard Package: 10 (per color) Unassembled **NET .25**

NEW

INSULATED DOUBLE BANANA JACK ASSEMBLY







Double banana jack on ¾" centers with one red and one black jack. Choice of Black or Red plate.

MODEL 2269 Black Plate
MODEL 2269-2 Red Plate

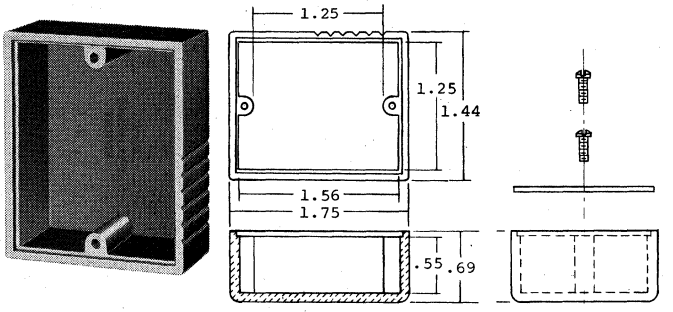
MODEL 2269 QUANTITY DISC. CODE **A** **NET .75**

POMONA ELECTRONICS "BLACK BOXES"

Boxes of unlimited uses for packaging of components and circuitry. Also ideal for potting and encapsulating. Available in three sizes as shown below. Housing molded of thermosetting electrical grade phenolic. Cover, punched XXP laminated paper base phenolic. Color, Housing and cover, Black. Cover plate and self tapping screws included.

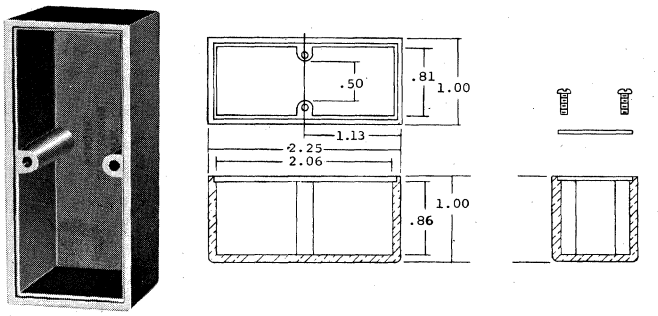
Operating Temperature: —25°C to +125°C.

BLACK BOX—JUNIOR SIZE



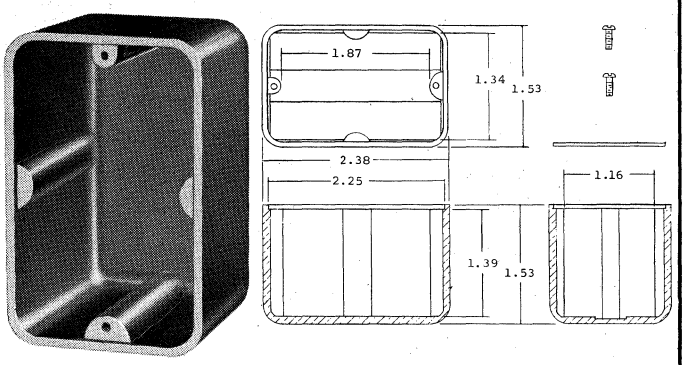
MODEL 2105 QUANTITY DISC. CODE **A** **NET .75**

BLACK BOX—QUEEN SIZE



MODEL 2103 QUANTITY DISC. CODE **A** **NET .75**

BLACK BOX—KING SIZE



MODEL 2104 QUANTITY DISC. CODE **A** **NET .75**

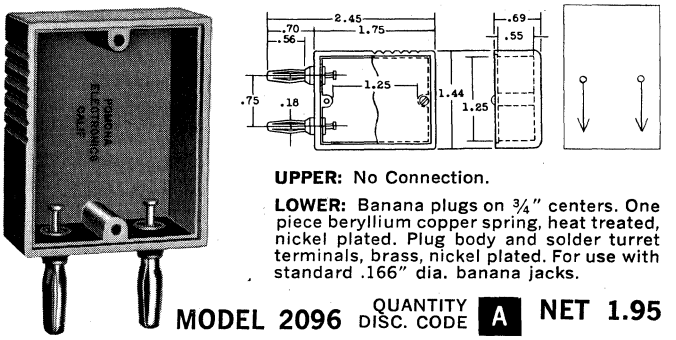
CREATE passive and active networks, voltage dividers, isolation networks or attenuators with these units. Solder turret terminals for permanent noise-free connection of components, etc. Entire unit may be potted or encapsulated.

Housing molded of thermosetting electrical grade phenolic. Cover, punched XXP laminated paper base phenolic. Color, housing and cover, BLACK. Cover plate and self tapping screws included.

APPLICABLE SPECIFICATIONS:

Operating Temp: —25°C to +125°C.
Working Voltage: 5000 VDC.
Current: 15 Amps Cont., 30 Amps Int.

COMPONENT MOUNTING—ACROSS BANANA PLUGS

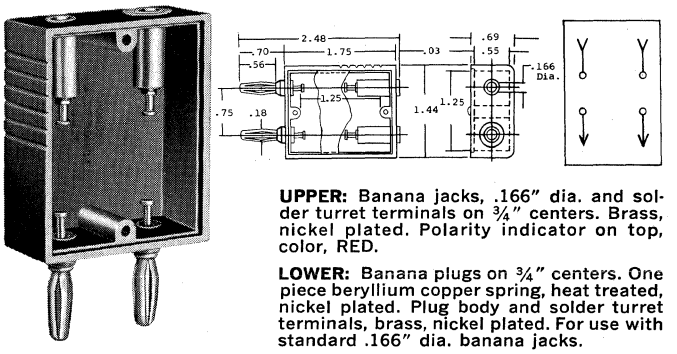


UPPER: No Connection.

LOWER: Banana plugs on ¾" centers. One piece beryllium copper spring, heat treated, nickel plated. Plug body and solder turret terminals, brass, nickel plated. For use with standard .166" dia. banana jacks.

MODEL 2096 QUANTITY DISC. CODE **A** **NET 1.95**

COMPONENT MOUNTING—BANANA JACKS TO DOUBLE BANANA PLUG—JUNIOR SIZE

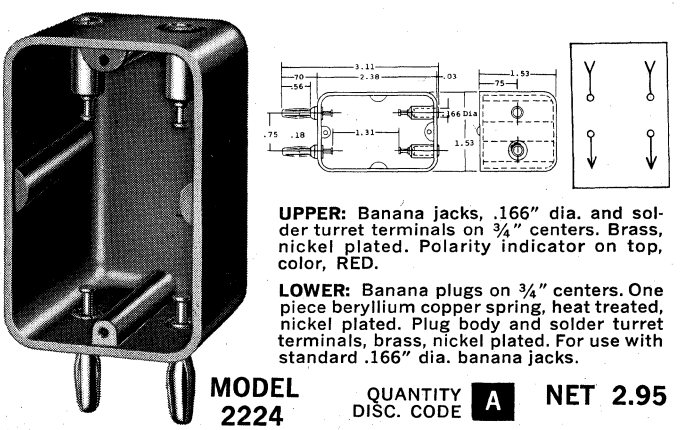


UPPER: Banana jacks, .166" dia. and solder turret terminals on ¾" centers. Brass, nickel plated. Polarity indicator on top, color, RED.

LOWER: Banana plugs on ¾" centers. One piece beryllium copper spring, heat treated, nickel plated. Plug body and solder turret terminals, brass, nickel plated. For use with standard .166" dia. banana jacks.

MODEL 2098 QUANTITY DISC. CODE **A** **NET 2.85**

COMPONENT MOUNTING—BANANA JACKS TO DOUBLE BANANA PLUG— KING SIZE



UPPER: Banana jacks, .166" dia. and solder turret terminals on ¾" centers. Brass, nickel plated. Polarity indicator on top, color, RED.

LOWER: Banana plugs on ¾" centers. One piece beryllium copper spring, heat treated, nickel plated. Plug body and solder turret terminals, brass, nickel plated. For use with standard .166" dia. banana jacks.

MODEL 2224 QUANTITY DISC. CODE **A** **NET 2.95**

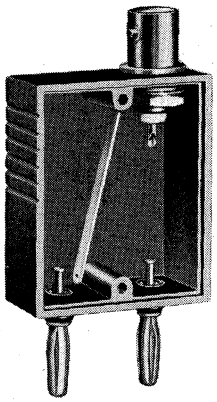
Net
© U.C.P., Inc.

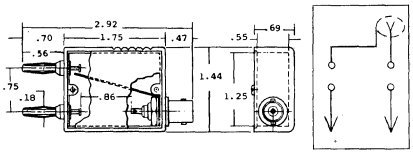
POMONA ELECTRONICS "BLACK BOXES"

CREATE passive and active networks, voltage dividers, isolation networks or attenuators with these units. Solder turret terminals for permanent noise-free connection of components, etc. Entire unit may be potted or encapsulated.

Housing molded of thermosetting electrical grade phenolic. Cover, punched XXP laminated paper base phenolic. Color, housing and cover, BLACK. Cover plate and self tapping screws included.

COMPONENT MOUNTING—BNC RECEPTACLE TO DOUBLE BANANA PLUG





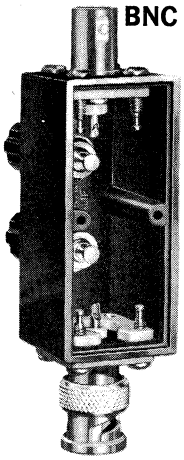
UPPER: BNC Receptacle UG1094/U

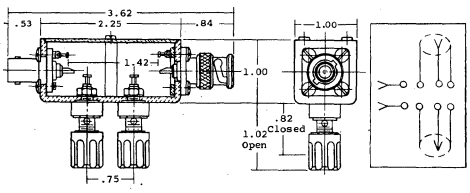
LOWER: Banana plugs on ¾" centers. One piece beryllium copper spring, heat treated, nickel plated. Plug body and solder turret terminals, brass, nickel plated. For use with standard .166" dia. banana jacks.

APPLICABLE SPECIFICATIONS:
Operating Temp: —25°C to +125°C.
Working Voltage: 500 V Peak.

MODEL 2097 QUANTITY DISC. CODE **A** **NET 3.85**

COMPONENT MOUNTING—BNC RECEPTACLE TO BNC PLUG WITH BINDING POSTS





UPPER: BNC Receptacle UG290A/U

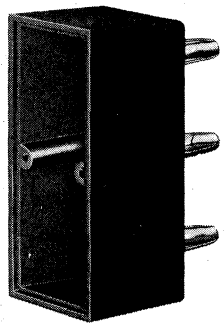
CENTER: Banana jack binding posts with solder turret terminals. Red and Black.

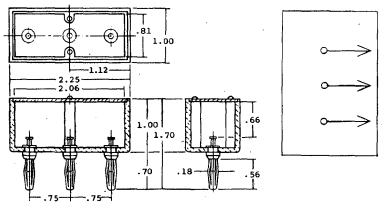
LOWER: BNC Plug. UG1104A/U.

APPLICABLE SPECIFICATIONS:
Operating Temp: —25°C to +125°C.
Working Voltage: 500 V Peak.

MODEL 2100 QUANTITY DISC. CODE **A** **NET 8.95**

COMPONENT MOUNTING—(3) ¾" SPACED BANANA PLUGS





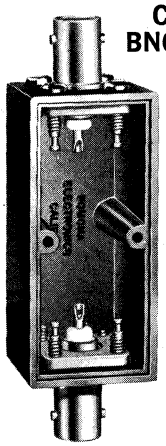
Three-in-line ¾" Spaced Banana Plugs.

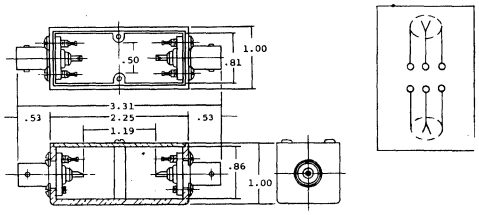
One piece beryllium copper spring, heat treated, nickel plated. Plug body and solder turret terminals, brass, nickel plated. For use with standard .166" dia. banana jacks.

APPLICABLE SPECIFICATIONS:
Operating Temp: —25°C to +125°C.
Working Voltage: 5000 VDC.
Current: 15 Amps Cont., 30 Amps Int.

MODEL 2095 QUANTITY DISC. CODE **A** **NET 2.75**

COMPONENT MOUNTING—BNC RECEPTACLE BOTH ENDS





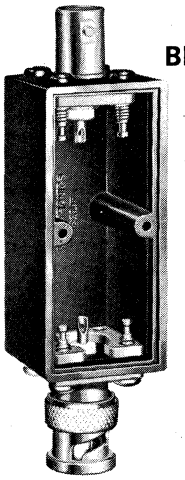
UPPER: BNC Receptacle UG290A/U

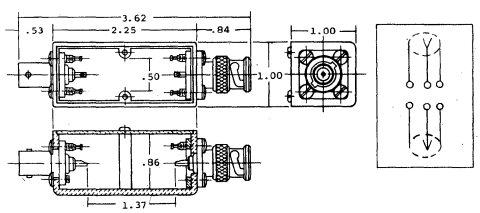
LOWER: BNC Receptacle UG290A/U

APPLICABLE SPECIFICATIONS:
Operating Temp: —25°C to +125°C.
Working Voltage: 500 V Peak.

MODEL 2101 QUANTITY DISC. CODE **A** **NET 4.85**

COMPONENT MOUNTING—BNC RECEPTACLE TO BNC PLUG





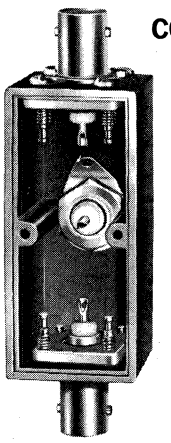
UPPER: BNC Receptacle UG290A/U

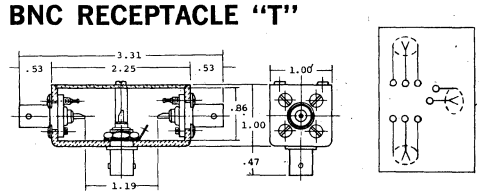
LOWER: BNC Plug UG1104A/U

APPLICABLE SPECIFICATIONS:
Operating Temp: —25°C to +125°C.
Working Voltage: 500 V Peak.

MODEL 2099 QUANTITY DISC. CODE **A** **NET 6.85**

COMPONENT MOUNTING—BNC RECEPTACLE "T"





UPPER: BNC Receptacle UG290A/U

CENTER: BNC Receptacle UG1094/U

LOWER: BNC Receptacle UG290A/U

APPLICABLE SPECIFICATIONS:
Operating Temp: —25°C to +125°C.
Working Voltage: 500 V Peak.

MODEL 2102 QUANTITY DISC. CODE **A** **NET 7.85**

POMONA ELECTRONICS

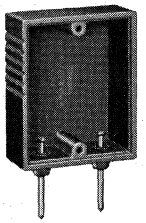
"BLACK BOXES" & 1/2" SPACED ACCESSORIES

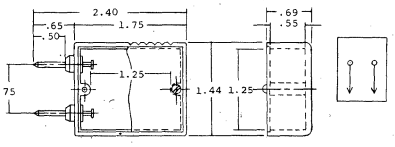
CREATE passive and active networks, voltage dividers, isolation networks or attenuators with these units. Solder turret terminals for permanent noise-free connection of components, etc. Entire unit may be potted or encapsulated.

Housing molded of thermosetting electrical grade phenolic. Cover, punched XXP laminated paper base phenolic. Color, housing and cover, BLACK. Cover plate and self tapping screws included.

COMPONENT MOUNTING—ACROSS PIN TIP PLUGS

NEW



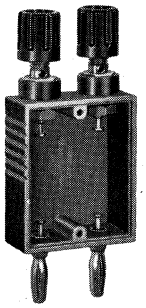


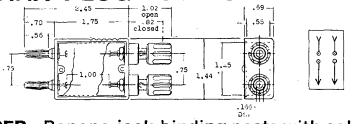
UPPER: No Connection.
LOWER: Pin tip plugs, .080 dia. on ¾" centers. Plug bodies and solder turret terminals, brass, nickel plated.
APPLICABLE SPECIFICATIONS:
Operating Temp.: —25°C to +125°C.
Working Voltage: 5000 VDC.
Current: 5 Amps Cont., 10 Amps Int.

MODEL 2268 QUANTITY DISC. CODE **A** **NET 1.95**

COMPONENT MOUNTING—BINDING POSTS TO DOUBLE BANANA PLUG—JUNIOR SIZE

NEW

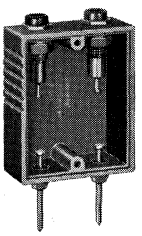


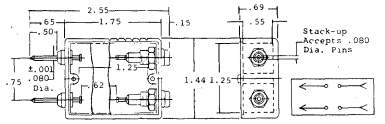


UPPER: Banana jack binding posts with solder turret terminals, on ¾" centers. Red and Black.
LOWER: Banana plugs on ¾" centers. One piece beryllium copper spring, heat treated, nickel plated. Plug body and solder turret terminals, brass, nickel plated. For use with standard .166" dia. banana jacks.
APPLICABLE SPECIFICATIONS:
Operating Temp.: —25°C to +125°C.
Working Voltage: 5000 VDC.
Current: 15 Amps Cont., 30 Amps Int.

MODEL 2259 QUANTITY DISC. CODE **A** **NET 4.85**

NEW COMPONENT MOUNTING—PIN TIP JACKS TO DOUBLE PIN TIP PLUG—JUNIOR SIZE



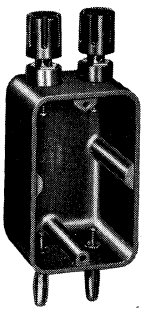


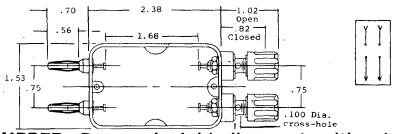
UPPER: Tip jacks, on ¾" centers, per MS-16108. One Red, one Black.
LOWER: Pin tip plugs, .080 dia. on ¾" centers. Plug bodies and solder turret terminals, brass, nickel plated.
APPLICABLE SPECIFICATIONS:
Operating Temp.: —25°C to +125°C.
Working Voltage: 5000 VDC.
Current: 5 Amps Cont., 10 Amps Int.

MODEL 2260 QUANTITY DISC. CODE **A** **NET 4.85**

COMPONENT MOUNTING—BINDING POSTS TO DOUBLE BANANA PLUG—KING SIZE

NEW

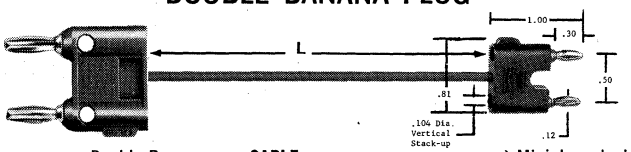




UPPER: Banana jack binding posts with solder turret terminals, on ¾" centers. Red and Black.
LOWER: Banana plugs on ¾" centers. One piece beryllium copper spring, heat treated, nickel plated. Plug body and solder turret terminals, brass, nickel plated. For use with standard .166" dia. banana jacks.
APPLICABLE SPECIFICATIONS:
Operating Temp.: —25°C to +125°C.
Working Voltage: 5000 VDC.
Current: 15 Amps Cont., 30 Amps Int.

MODEL 2262 QUANTITY DISC. CODE **A** **NET 4.85**

NEW DOUBLE BANANA PLUG TO MINIATURE DOUBLE BANANA PLUG

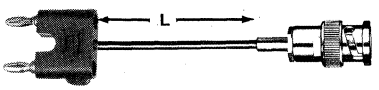


CONN: 1st END { Double Banana Plug, on ¾" Centers.
CABLE: Shielded Coax., RG174/U.
CONN: 2nd END { Miniature double banana plug on ½" Centers.

CABLE DESCRIPTION:	MODEL	LENGTH	NET
Shielded coax., RG174/U, Polyethylene Insulation.	2443-K-12	12"	4.85
Vinyl jacket. Nom. Cap. 29.5 pf/ft.	2443-K-24	24"	4.85
Nom. Imp. 50 Ohms. Nom. O.D. .100"	2443-K-36	36"	4.85
Color: Cable and Double Plug, Black.	2443-K-48	48"	5.00
	2443-K-60	60"	5.15

★ QUANTITY DISC. CODE **B**

MINIATURE—DOUBLE BANANA PLUG TO BNC MALE

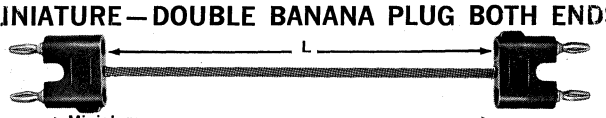


CONN: 1st END { Miniature Double Banana Plug on ½" centers.
CABLE: Shielded Coax., RG174/U
CONN: 2nd END { Male BNC

CABLE DESCRIPTION:	MODEL	LENGTH	NET
Shielded coax., RG174/U, Polyethylene Insulation.	2248-K-12	12"	5.85
Vinyl jacket. Nom. Cap. 29.5 pf/ft.	2248-K-24	24"	5.85
Nom. Imp. 50 Ohms. Nom. O.D. .100".	2248-K-36	36"	5.85
Color: Cable and Double plug, Black.	2248-K-48	48"	6.00
	2248-K-60	60"	6.15

MODEL 2248 ★ QUANTITY DISC. CODE **B**

MINIATURE—DOUBLE BANANA PLUG BOTH ENDS



CONN: 1st END { Miniature Double Banana plug on ½" centers.
CABLE: Shielded Coax., RG174/U.
CONN: 2nd END { Miniature double banana plug on ½" centers.

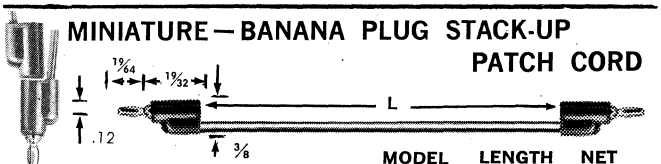
Banana jack body, one piece machined brass, gold flashed. .104 dia. banana jacks on ½" centers permit top Stack-Up for multiple connections. Tough thermoplastic molded to plug bodies. Molded double plug matches color of cable. RG174/U Cable, Black.
A miniature double banana plug on ½" centers. This patch cord enables miniaturization of test equipment and high density packaging for patch systems. Banana plug springs precision formed of one piece beryllium copper, heat treated for maximum life and low contact resistance.

RATINGS: Operating Temp: —25°C to +80°C. Working Voltage: 1500 VDC.

★ QUANTITY DISC. CODE **B**

MODEL	LENGTH	NET
2247-K-12	12"	4.85
2247-K-24	24"	4.85
2247-K-36	36"	4.85
2247-K-48	48"	5.00
2247-K-60	60"	5.15

MINIATURE—BANANA PLUG STACK-UP PATCH CORD



MODEL	LENGTH	NET
1081-4	4"	1.50
1081-8	8"	1.50
1081-12	12"	1.50

MODEL	LENGTH	NET
1081-18	18"	1.50
1081-24	24"	1.50
1081-36	36"	1.50
1081-48	48"	1.55
1081-60	60"	1.60

Fits miniature banana jacks with .104 dia. Compact size. For use where receptacles are spaced closely togetner.

BANANA PLUG: Spring, one piece beryllium copper heat treated. Gold flashed.
WIRE: 20 AWG, Strand. 41 x 36 T.C. Extra flexible polyvinyl insulation .087" O.D.
RATED: 5 A. Cont., 10 A. Int. 5,000 W.V.D.C.
OPERATING TEMP.: —0°C to +105°C.
COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

MODEL 1081 (Specify Color) ★QUANTITY DISC. CODE **A**

★ Various lengths may be aggregated for best quantity price.

Net
© U.C.P., Inc.

POMONA ELECTRONICS

1/2" SPACED MINIATURE BANANA PLUGS AND ACCESSORIES

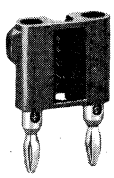
Miniature Double Banana plugs on ½" centers. A state of the art development for the ever increasing demand for miniaturization.

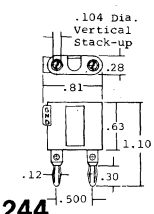
Banana plug springs precision formed of one piece beryllium copper, heat treated for maximum life and low contact resistance. Tough thermoplastic molded to plug bodies.

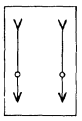
SPECIFICATIONS:

- Fits .104 dia. miniature banana jacks.
- Plug body brass, per QQ-B-626, Comp. #22.
- Gold flashed per MIL-G-45204 Type II (.00002/.00003).

MINIATURE—DOUBLE BANANA PLUG WITH SET SCREWS







Miniature double banana plug on ½" centers. Internal set screws to secure cable or component leads. .104 dia. banana jacks on ½" centers permit top Stack-Up for multiple connections.

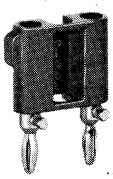
COLORS: Black, Red.

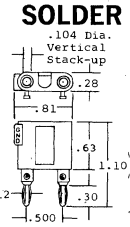
RATINGS:
Operating Temp: —25°C to +85°C.
Working voltage: 2500 VDC.
Current: 5 Amps Cont., 10 Amps Int.

MODEL 2244 Black
MODEL 2244-2 Red

MODEL 2244 QUANTITY DISC. CODE **A** **NET .75**

MINIATURE—DOUBLE BANANA PLUG WITH SOLDER TURRET TERMINALS





Miniature double banana plug on ½" centers. Solder turret terminals for permanent noise-free connections of cables or components. .104 dia. banana jacks on ½" centers permit top stack-up for multiple connections.

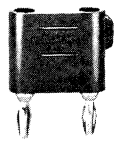
COLORS: Black, Red.

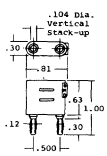
RATINGS:
Operating Temp: —25°C to +85°C.
Working voltage: 2500 VDC.
Current: 5 Amps Cont., 10 Amps Int.

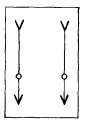
Model 2245 Black
Model 2245-2 Red

MODEL 2245 QUANTITY DISC. CODE **A** **NET .85**

MINIATURE—DOUBLE BANANA PLUG WITH MOLDED PRECISION RESISTOR







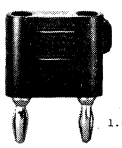
Ideal where rapid interchange of resistance values is required. Deposited carbon 1% ¼ watt, molded internally. .104 dia. banana jacks on ½" centers permit Top Stack-Up for multiple connections. Resistance value stamped on plug.

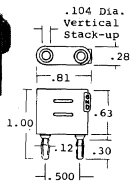
COLOR: Blue

(OHMS)		
50		10K
600		50K
1K		100K

MODEL 2246 (Specify Value) QUANTITY DISC. CODE **A** **NET 2.75**

MINIATURE—DOUBLE BANANA PLUG WITH SHORTING BAR





Ideal as a connecting link for use with ½" spaced banana jacks. .104 dia. banana jacks on ½" centers permit top Stack-Up for multiple connections. Banana plugs internally solder-bonded with #18 AWG wire. "Shorting Bar" stamped on plug.

COLORS: Black, Red.

RATINGS:
Operating Temp: —25°C to +85°C.
Current: 5 Amps Cont., 10 Amps Int.

MODEL 2035 Black
MODEL 2035-2 Red

MODEL 2035 QUANTITY DISC. CODE **A** **NET .95**

NEW ADAPTER—STANDARD BANANA JACK TO MINIATURE BANANA PLUG

Permits standard banana plug to be used with equipment having miniature banana jacks.

UPPER: Banana jack, .166 dia.; Brass, nickel plated.

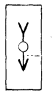
LOWER: Miniature banana plug, one piece nickel plated beryllium copper spring for use with .104 dia. miniature banana jacks.

COLORS: Black, Red.

MODEL 2138 2138-0 Black, 2138-2 Red **NET .50**

QUANTITY DISC. CODE **A**

ADAPTER—MINIATURE BANANA JACK TO STANDARD BANANA PLUG



Permits miniature banana plugs to be used with equipment having standard banana jacks.

UPPER: Miniature banana jack, .104 dia.; Brass, nickel plated.

LOWER: Standard banana plug, one piece nickel plated beryllium copper spring for use with .166 dia. banana jacks.

COLORS: Black, Red.

MODEL 2477 2477-0 Black, 2477-2 Red **NET .50**

QUANTITY DISC. CODE **A**

Developed by the need for miniaturization of test equipment and test panels. The new generation of test jacks. Built to Pomona Electronics high standard of quality.

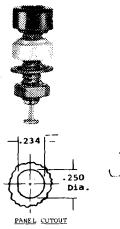
Wide selection of colors available.

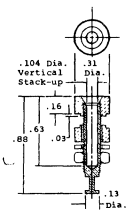
Molded of High Impact Polycarbonate Thermoplastic. Banana Jack body, one piece machined brass, gold flashed. Heavy duty shouldered ceramic insulator. Lockwasher and hex nut included, unassembled, nickel plated.

SPECIFICATIONS:

- Closed entry jack .104 dia.
- Insulator head molded to body
- Mounts in ¼" dia. hole
  Model 2142, Panels up to ¼" thick
  Model 2143, Panels up to 3/16" thick
- Solder turret terminal

RATINGS:
Operating Temp: —65°C to +150°C.
Working Voltage: 1500 VDC
Current :5 Amps Cont., 10 Amps Int.

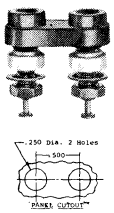


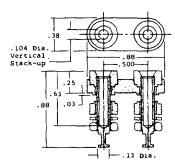


MINIATURE—INSULATED BANANA JACK

2142 —Black	2142-5—Green
2142-1—Brown	2142-6—Blue
2142-2—Red	2142-7—Violet
2142-3—Orange	2142-8—Gray
2142-4—Yellow	2142-9—White

MODEL 2142 **Standard Package: 10 (per color)** QUANTITY DISC. CODE **A** **NET .25**





MINIATURE—INSULATED DOUBLE BANANA JACK

Double banana jack on ½"centers with one red and one black jack. Choice of Black or Red plate.

MODEL 2143 —Black Plate
MODEL 2143-2—Red Plate

MODEL 2143 QUANTITY DISC. CODE **A** **NET .75**

A complete 5-way Binding Post in "Miniature." Captive Thumb Nut and Binding Post Body, machined brass; gold or nickel plated. Thumb Nut and Mounting Base molded of High Impact Polycarbonate Thermoplastic. Heavy Duty Shouldered Ceramic Insulator. Lockwasher and hex nut included, unassembled, nickel plated.

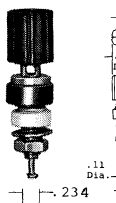
SPECIFICATIONS:

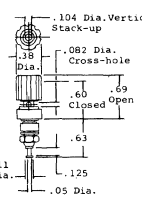
- 5-way Binding Post
- Mounts ¼" dia. "D" hole
- Panels up to 3/16" thick
- Captive Thumb Nut
- .082 dia. Cross hole
- Thumb Nut and Binding Post Body—
  Gold Flashed per MIL-G-45204 Type 2 over Copper per MIL-C-14450
  OR Nickel Plated per QQ-N-290 Class 2.

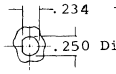
RATINGS:

- Operating Temp.: —65°C to +150°C.
- Working Voltage: 1500 VDC.
- Current: 5 Amps Cont., 10 Amps Int.

MINIATURE—INSULATED BINDING POST NEW







MODEL 2382-*
*(Specify Color)
Gold Flashed Assembly
NET .90

MODEL 2439-*
*(Specify Color)
Nickel Plated Assembly
NET .75

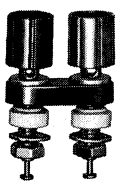
(*) COLORS

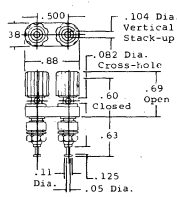
-0 Black	-4 Yellow	-8 Gray
-1 Brown	-5 Green	-9 White
-2 Red	-6 Blue	
-3 Orange	-7 Violet	

QUANTITY DISC. CODE **A**

NEW

MINIATURE—INSULATED DOUBLE BINDING POST





Double binding post body on ½" centers with one red and one black binding post. Choice of Black or Red plate.

MODEL 2383-*
*(Specify Color)
Gold Flashed Assembly
NET 1.80

MODEL 2440-*
*(Specify Color)
Nickel Plated Assembly
NET 1.50

COLORS
-0 Black Plate
-2 Red Plate

QUANTITY DISC. CODE **A**

POMONA ELECTRONICS — SHIELDED "BLACK BOXES"

NOW AVAILABLE, *SHIELDED* "BLACK BOXES." Boxes that fulfill the requirement for RF applications.

Ideal for compact packaging, eg., voltage dividers, isolation networks, impedance matching networks, and other varied uses.

Cover and self-tapping screws included.

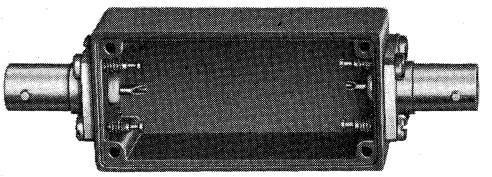
APPLICABLE SPECIFICATIONS: (ALL MODELS)

Operating Temp.: −55°C to +150°C.
Working Voltage: 500 V Peak (Model 2415, 1500 V Peak).
Noise Rejection: Greater than 70DB.

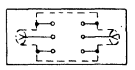
FEATURES:

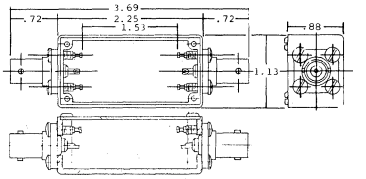
- SHIELDED HOUSING; Die Cast Aluminum. FINISH: BLUE baked enamel per Federal Standard 595 #25109 over phosphoric etch per MIL-C-15328A.
- COVER; .040 Thick Aluminum #6061-T6 with clear anodized finish per MIL-A-8625A.
- Four screws secure cover for proper shielding.
- Solder turret terminals for permanent noise free connection of components.

NEW — COMPONENT MOUNTING— BNC RECEPTACLE BOTH ENDS



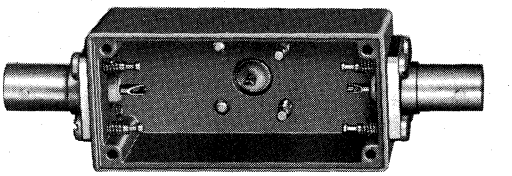
CONN: 1st END } BNC Receptacle Jack, UG290A/U.
CONN: 2nd END } BNC Receptacle Jack, UG290A/U.



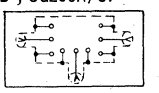


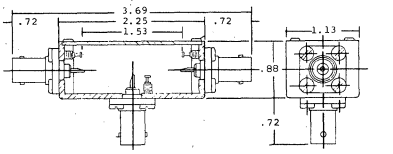
MODEL 2390 QUANTITY DISC. CODE **A** **NET 6.85**

NEW — COMPONENT MOUNTING— BNC RECEPTACLE "T"



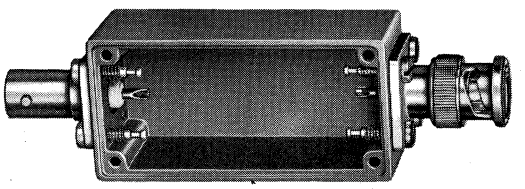
CONN: 1st END } BNC Receptacle Jack, UG290A/U.
CENTER: BNC Receptacle Jack, UG290A/U.
CONN: 2nd END } BNC Receptacle Jack, UG290A/U.



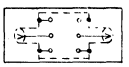


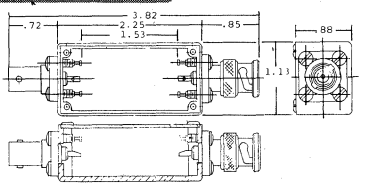
MODEL 2392 QUANTITY DISC. CODE **A** **NET 9.50**

NEW — COMPONENT MOUNTING— BNC RECEPTACLE TO BNC PLUG



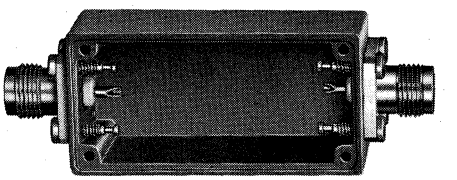
CONN: 1st END } BNC Receptacle Jack, UG290A/U.
CONN: 2nd END } BNC Receptacle Plug, UG1104A/U.



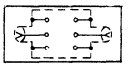


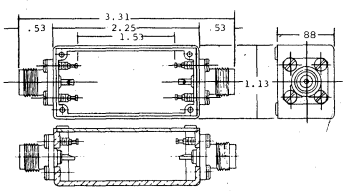
MODEL 2391 QUANTITY DISC. CODE **A** **NET 7.85**

NEW — COMPONENT MOUNTING— TNC RECEPTACLE BOTH ENDS



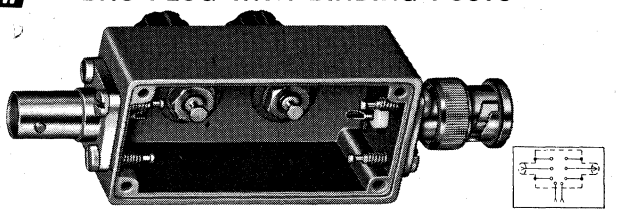
CONN: 1st END } TNC Receptacle Jack.
CONN: 2nd END } TNC Receptacle Jack.



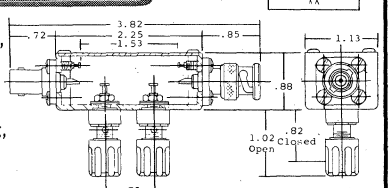


MODEL 2396 QUANTITY DISC. CODE **A** **NET 7.85**

NEW — COMPONENT MOUNTING—BNC RECEPTACLE TO BNC PLUG WITH BINDING POSTS

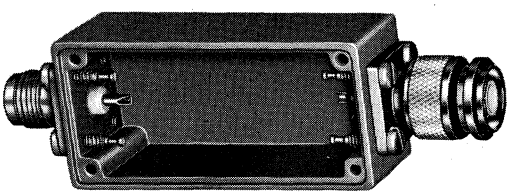


CONN: 1st END } BNC Receptacle Jack, UG290A/U.
CENTER: Banana jack binding posts with solder turret terminals. Red and Black.
CONN: 2nd END } BNC Receptacle Plug, UG1104A/U.

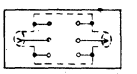


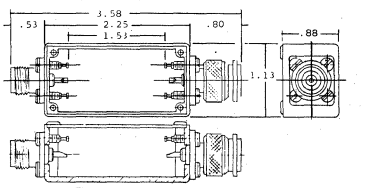
MODEL 2393 QUANTITY DISC. CODE **A** **NET 10.85**

NEW — COMPONENT MOUNTING— TNC RECEPTACLE TO TNC PLUG



CONN: 1st END } TNC Receptacle Jack.
CONN: 2nd END } TNC Receptacle Plug.





MODEL 2395 QUANTITY DISC. CODE **A** **NET 9.50**

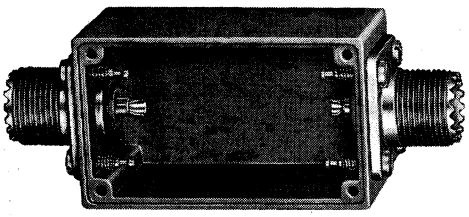
MODEL 2397 Above boxes available blank, less connectors. Finish; BLUE per above. Includes cover and mounting screws. QUANTITY DISC. CODE **A** **NET 1.50**

Net
© U.C.P., Inc.

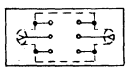
POMONA ELECTRONICS — SHIELDED "BLACK BOXES"

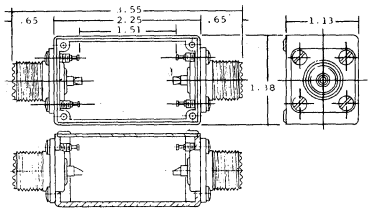
NEW

COMPONENT MOUNTING— UHF RECEPTACLE BOTH ENDS



CONN: 1st END } UHF Receptacle Jack.
CONN: 2nd END } UHF Receptacle Jack.

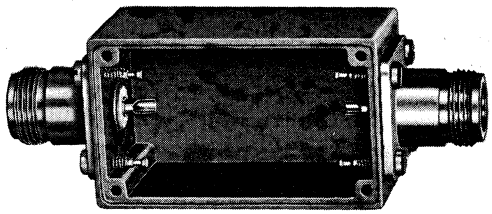




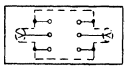
MODEL 2412 — QUANTITY DISC. CODE A — NET 6.85

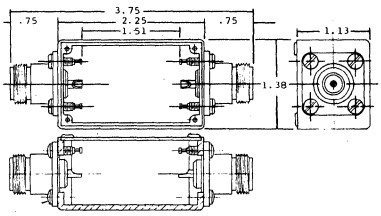
NEW

COMPONENT MOUNTING— TYPE "N" RECEPTACLE BOTH ENDS



CONN: 1st END } Type "N" Receptacle Jack, UG58A/U.
CONN: 2nd END } Type "N" Receptacle Jack, UG58A/U.

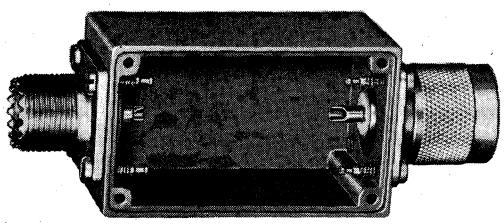




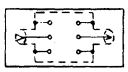
MODEL 2410 — QUANTITY DISC. CODE A — NET 6.85

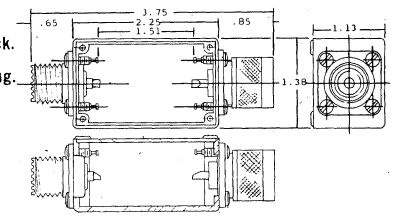
NEW

COMPONENT MOUNTING— UHF RECEPTACLE TO UHF PLUG



CONN: 1st END } UHF Receptacle Jack.
CONN: 2nd END } UHF Receptacle Plug.

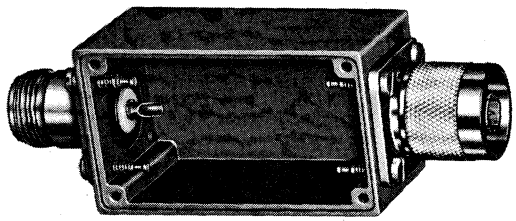




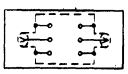
MODEL 2413 — QUANTITY DISC. CODE A — NET 9.50

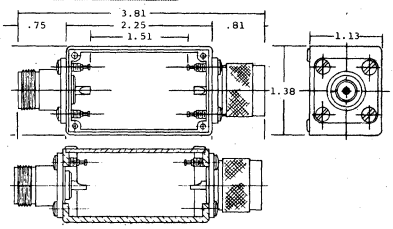
NEW

COMPONENT MOUNTING— TYPE "N" RECEPTACLE TO TYPE "N" PLUG



CONN: 1st END } Type "N" Receptacle Jack, UG58A/U.
CONN: 2nd END } Type "N" Receptacle Plug.

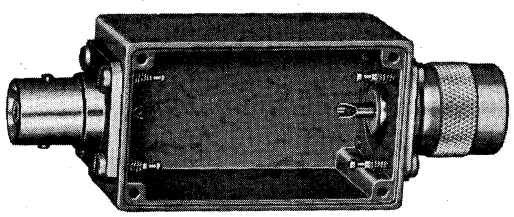




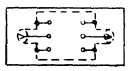
MODEL 2411 — QUANTITY DISC. CODE A — NET 9.85

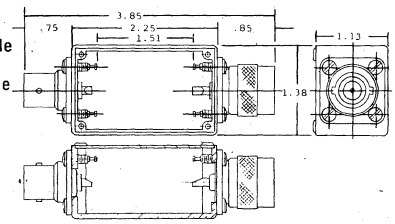
NEW

COMPONENT MOUNTING— TYPE "C" RECEPTACLE TO TYPE "C" PLUG



CONN: 1st END } Type "C" Receptacle Jack, UG568/U.
CONN: 2nd END } Type "C" Receptacle Plug.

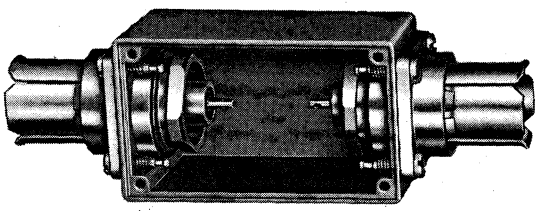




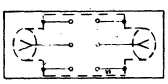
MODEL 2415 — QUANTITY DISC. CODE A — NET 11.75

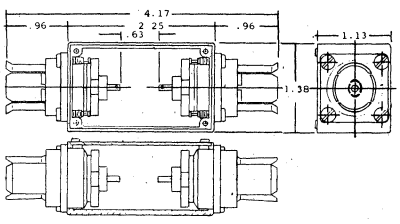
NEW

COMPONENT MOUNTING— GR-874 CONNECTOR BOTH ENDS



CONN: 1st END } Type GR-874 Connector.
CONN: 2nd END } Type GR-874 Connector.

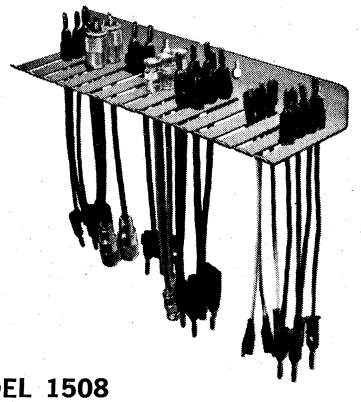




MODEL 2416 — QUANTITY DISC. CODE A — NET 24.75

MODEL 2417 — Above boxes available blank, less connectors. Finish; BLUE per above. Includes cover and mounting screws. — QUANTITY DISC. CODE A — NET 1.50

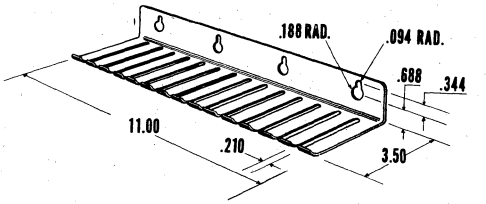
POMONA ELECTRONICS — MISCELLANEOUS ACCESSORIES



TEST LEAD HOLDER

No need to spend time searching for a particular test lead. With this new rack, all of your patch cords and cable assemblies can be conveniently filed for instant selection—within easy reach. Holder mounts quickly on any vertical surface. Test leads are easy to store, easy to remove. Accepts cables up to .210" in diameter.

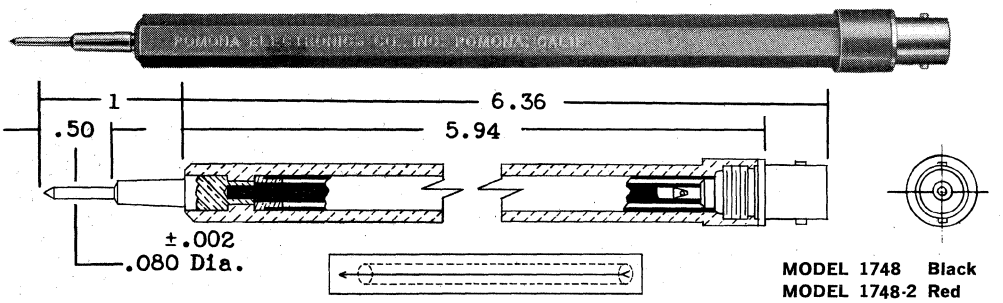
MATERIAL: Cold Rolled Steel.
FINISH: Baked Enamel.
COLOR: Orange.



QUANTITY DISC. CODE **A**

MODEL 1508 — **NET 2.50**

TEST PROBE TO BNC RECEPTACLE



BNC receptacle in handle connected to tip. Permits the use of coaxial cables with BNC plug for circuit testing as a test prod. Tough thermoplastic molded to BNC receptacle and tip.

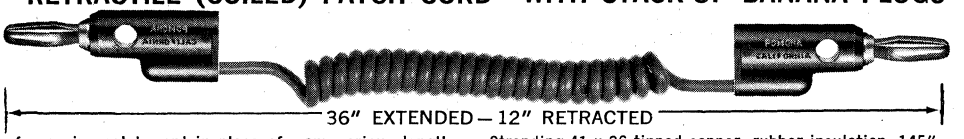
PIN TIP: .080" dia. x ½" long, brass, nickel plated.
RECEPTACLE: BNC, UG1094/U.

MODEL 1748 Black
MODEL 1748-2 Red

QUANTITY DISC. CODE **A** — **NET 4.85**

RETRACTILE (COILED) PATCH CORD—WITH STACK-UP BANANA PLUGS

QUANTITY DISC. CODE **A**



MODEL 2484-36

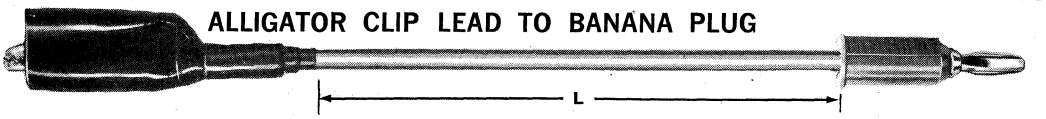
Permits the use of one size patch cord in place of many various lengths. **BANANA PLUGS:** Spring, one piece beryllium copper heat treated, nickel plated. Tough thermoplastic molded to body and wire. **WIRE:** 20 AWG; Stranding 41 x 36 tinned copper; rubber insulation .145" O.D. **RATED:** 4 A. Cont., 10 A Int./5000 WVDC. **OPERATING TEMP.:** —20°C to +60°C. **COLOR:** Red.

NET 2.95

ALLIGATOR CLIP LEAD TO BANANA PLUG

MODEL	LENGTH	NET
1959-4	4"	.95
1959-8	8"	.95
1959-12	12"	.95
1959-24	24"	.95
1959-36	36"	.95
1959-48	48"	1.00
1959-60	60"	1.05

MODEL 1959
(Specify Color)



QUANTITY DISC. CODE **A** ★

Adapts to equipment using standard banana jacks.
CLIP: Alligator, steel, cad plated.
BANANA PLUG: Spring, one piece beryllium copper, heat treated, nickel plated. Tough thermoplastic molded to body.

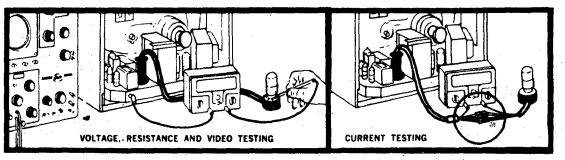
INSULATOR: Red vinyl with red wire. Black on all other colors.
WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible polyvinyl insulation .144" O.D.
OPERATING TEMP.: —25°C to +105°C.
COLORS: Black, Red.

Universal Harness

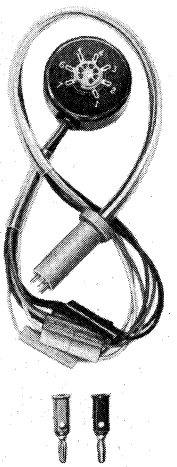
TESTING ADAPTER

Takes the Trouble out of Trouble Shooting!

TEST SOCKET: Extended test tabs, phosphor bronze contacts, heavy duty molded phenolic base with easy-to-read socket connections. **CURRENT MEASUREMENT CONNECTIONS:** Fully insulated, molded .080 phone tip plugs. **INSULATED PLUG:** Fits either shielded or unshielded tube sockets.

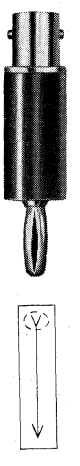


Model 1737 (7 Pin) **Model 1738 (8 Pin)** **Model 1739 (9 Pin)**



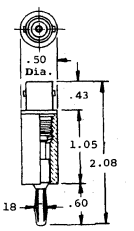
QUANTITY DISC. CODE **D** — **NET 9.95**

ADAPTER—BNC RECEPTACLE TO SINGLE BANANA PLUG



Permits BNC plug to be used with equipment having banana jacks. Inner conductor connected only. Excellent for adapting laboratory VTVM, oscilloscopes and signal generator inputs to readily available coaxial cables.

UPPER: BNC receptacle, UG1094/U.
LOWER: Single Banana Plug.
COLOR: Black.



QUANTITY DISC. CODE **A**

MODEL 1894 — **NET 2.50**

★ Various lengths may be aggregated for best quantity price.

Net
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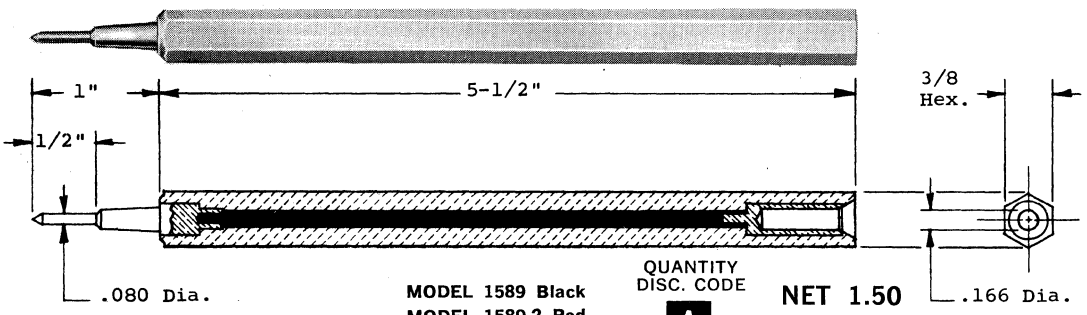
POMONA ELECTRONICS TEST PROBES

TEST PROBE TO BANANA JACK



Banana jack in handle connected to tip. Permits use of standard banana plugs for circuit testing as a test prod. Heavy duty insulated handle molded to banana jack and tip.

PIN TIP: .080 dia. x ½" long, brass nickel plated.

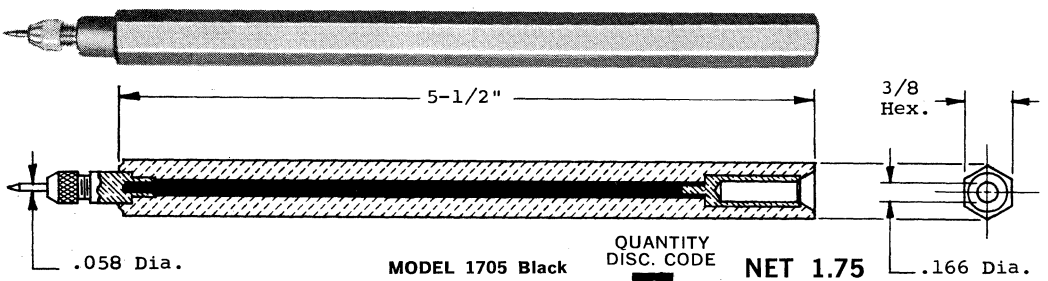
BANANA JACK: .166 dia. Brass nickel plated. Accepts standard banana plug.

MODEL 1589 Black
MODEL 1589-2 Red

QUANTITY DISC. CODE **A**

NET 1.50

NEEDLE TIP PROBE TO BANANA JACK



Sharp replaceable needle tip allows testing of encapsulated circuits. Banana jack in handle connected to tip. Permits use of standard banana plugs for circuit testing as a test prod. Heavy duty insulated handle molded to banana jack and tip.

PIN TIP: Replaceable needle tip, steel nickel plated.

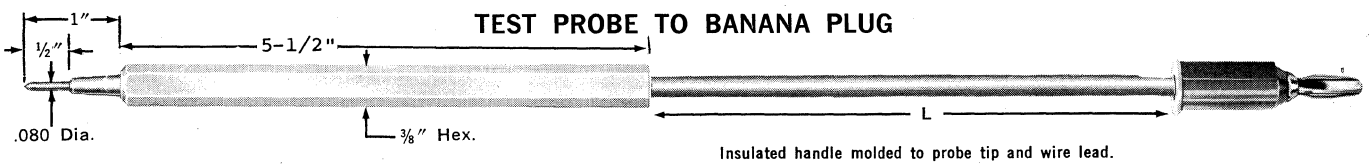
BANANA JACK: .166 dia. Brass nickel plated. Accepts standard banana plug.

MODEL 1705 Black
MODEL 1705-2 Red

QUANTITY DISC. CODE **A**

NET 1.75

TEST PROBE TO BANANA PLUG

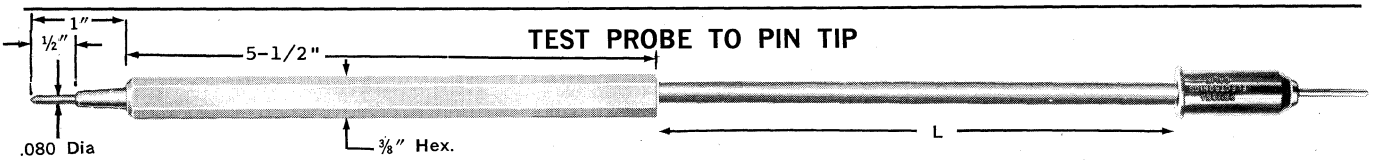


MODEL 1986-48-B	48" Long	Black	NET 1.75
MODEL 1986-48-R	48" Long	Red	NET 1.75

QUANTITY DISC. CODE **A**

Insulated handle molded to probe tip and wire lead.
PROBE PIN TIP: .080 dia. x ½" long. Brass nickel plated.
WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible polyvinyl insulation, .144" O.D.
BANANA PLUG: Spring, one piece beryllium copper, heat treated, nickel plated. Tough thermo-plastic molded to body.
COLORS: Black, Red.

TEST PROBE TO PIN TIP

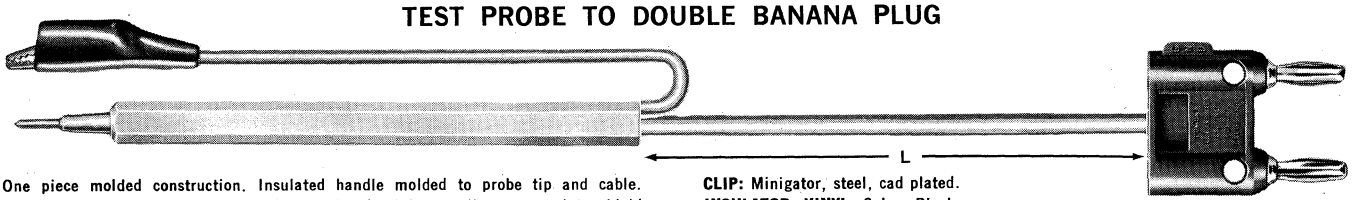


MODEL 1988-48-B	48" Long	Black	NET 1.75
MODEL 1988-48-R	48" Long	Red	NET 1.75

QUANTITY DISC. CODE **A**

Insulated handle molded to probe tip and wire lead.
PROBE PIN TIP: .080 dia. x ½" long. Brass nickel plated.
WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible polyvinyl insulation .144" O.D.
PIN TIP: .080 dia. x ½" long. Brass nickel plated. Tough thermo-plastic molded to body.
COLORS: Black, Red.

TEST PROBE TO DOUBLE BANANA PLUG



One piece molded construction. Insulated handle molded to probe tip and cable. Double banana plug molded to cable. Insulated minigator clip connected to shield lead.

PROBE PIN TIP: .080 dia. x ½" long. Brass nickel plated.

DOUBLE BANANA PLUG: On ¾" centers. Spring, one piece beryllium copper, heat treated, nickel plated. Tough thermo-plastic molded to double plug body. Color, Gray.

CLIP: Minigator, steel, cad plated.
INSULATOR, VINYL: Color, Black.
CABLE: Shielded microphone cable: Polyethylene insulation. Vinyl jacket. Nom. capacity 25 pf./ft. .205" O.D. Color, Gray.
HANDLE: Color, red, molded of tough thermo-plastic.

MODEL 1569-B-48 .....48" Long

QUANTITY DISC. CODE **B**

NET 5.85

OTHER LENGTHS AVAILABLE TO ORDER

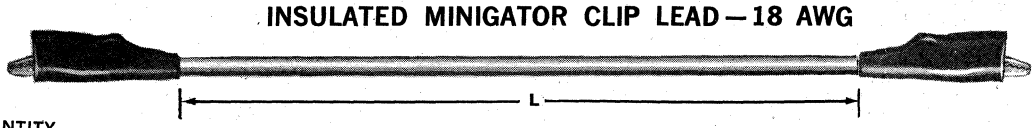
POMONA ELECTRONICS

JUMPERS— CLIP LEADS

INSULATED MINIGATOR CLIP LEAD—18 AWG

MODEL	LENGTH	NET
MG-B-4	4″	.95
MG-B-8	8″	.95
MG-B-12	12″	.95
MG-B-24	24″	.95
MG-B-36	36″	.95
MG-B-48	48″	1.00
MG-B-60	60″	1.05

(Specify Color)



QUANTITY DISC. CODE A ★

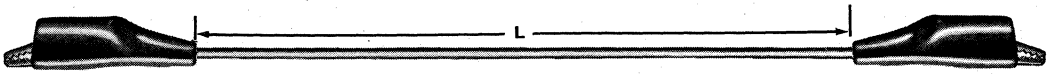
CLIP: Minigator, steel, cad plated.
WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible polyvinyl insulation .144″ O.D.

INSULATOR: Red vinyl with red wire. Black on all other colors.
OPERATING TEMP.: —25°C to +105°C.
COLORS: Black, Red.

INSULATED MINIGATOR CLIP LEAD—20 AWG

MODEL	LENGTH	NET
1236-4	4″	.95
1236-8	8″	.95
1236-12	12″	.95
1236-24	24″	.95
1236-36	36″	.95
1236-48	48″	1.00
1236-60	60″	1.05

(Specify Color)



QUANTITY DISC. CODE A ★

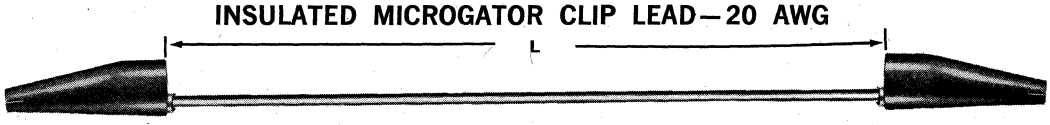
CLIP: Minigator, steel, cad. plated.
WIRE: 20 AWG, Strand. 41 x 36 T.C. Extra flexible polyvinyl insulation, .087″ O.D.

INSULATOR: Red Vinyl with Red Wire. Black on all other colors.
OPERATING TEMP.: —25°C to +105°C.
COLORS: Black, Red.

INSULATED MICROGATOR CLIP LEAD—20 AWG

MODEL	LENGTH	NET
1613-4	4″	.95
1613-8	8″	.95
1613-12	12″	.95
1613-24	24″	.95
1613-36	36″	.95
1613-48	48″	1.00
1613-60	60″	1.05

(Specify Color)



QUANTITY DISC. CODE A ★

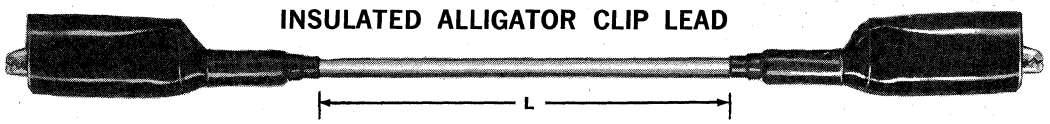
CLIP: Microgator, solid copper.
WIRE: 20 AWG, Strand. 41 x 36 T.C. Extra flexible polyvinyl insulation, .087″ O.D.

INSULATOR: Red Vinyl with Red Wire. Black on all other colors.
OPERATING TEMP.: —25°C to +105°C.
COLORS: Black, Red.

INSULATED ALLIGATOR CLIP LEAD

MODEL	LENGTH	NET
AL-B-4	4″	.95
AL-B-8	8″	.95
AL-B-12	12″	.95
AL-B-24	24″	.95
AL-B-36	36″	.95
AL-B-48	48″	1.00
AL-B-60	60″	1.05

(Specify Color)



QUANTITY DISC. CODE A ★

CLIP: Alligator, steel, cad plated.
WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible polyvinyl insulation .144″ O.D.

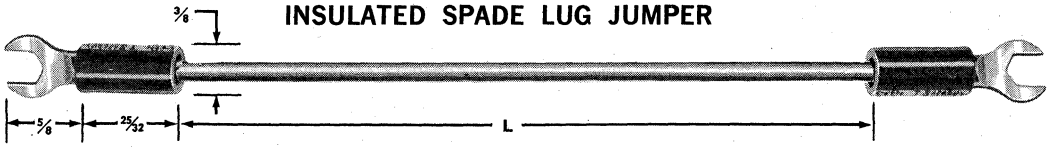
INSULATOR: Red vinyl with red wire. Black on all other colors.
OPERATING TEMP.: —25°C to +105°C.
COLORS: Black, Red.

INSULATED SPADE LUG JUMPER

MODEL	LENGTH	NET
1743-12	12″	.95
1743-24	24″	.95
1743-36	36″	.95
1743-48	48″	1.00
1743-60	60″	1.05

(Typical Dimensions spade lug)

(Specify Color)



QUANTITY DISC. CODE A ★

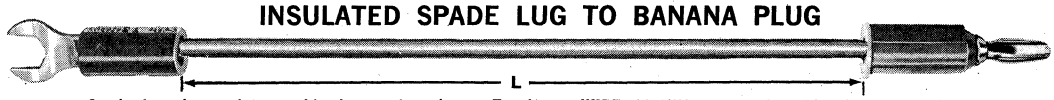
Spade lug heavy duty machined one piece brass. Tough thermo-plastic molded to spade lug body.
SPADE LUGS: Brass 1/16″ thick, nickel plated.
WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible polyvinyl insulation .144″ O.D.

RATED: 15 A. Cont., 30 A Int. 10,000 W.V.D.C.
OPERATING TEMP.: —25°C to +105°C.
COLORS: Black, Red, Green, White.

INSULATED SPADE LUG TO BANANA PLUG

MODEL	LENGTH	NET
1987-12	12″	.95
1987-24	24″	.95
1987-36	36″	.95
1987-48	48″	1.00
1987-60	60″	1.05

(Specify Color)



QUANTITY DISC. CODE A ★

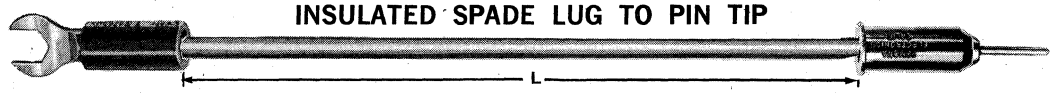
Spade lug, heavy duty machined one piece brass. Tough thermo-plastic molded to spade lug and banana plug body.
SPADE LUG: Brass 1/16″ thick, nickel plated.
BANANA PLUG: Spring one piece beryllium copper heat treated, nickel plated.

WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible polyvinyl insulation .144″ O.D.
RATED: 15 A. Cont., 30 A. Int. 10,000 W.V.D.C.
OPERATING TEMP.: —25°C to +105°C.
COLORS: Black, Red, Green, White.

INSULATED SPADE LUG TO PIN TIP

MODEL	LENGTH	NET
1989-12	12″	.95
1989-24	24″	.95
1989-36	36″	.95
1989-48	48″	1.00
1989-60	60″	1.05

(Specify Color)



QUANTITY DISC. CODE A ★

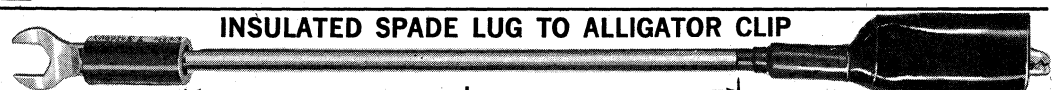
Spade lug, heavy duty machined one piece brass. Tough thermo-plastic molded to spade lug and pin tip body.
SPADE LUG: Brass 1/16″ thick, nickel plated.
PIN TIP: .080 dia. 1/2″ long. Brass nickel plated.

WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible polyvinyl insulation .144″ O.D.
RATED: 5 A. Cont., 10 A. Int. 10,000 W.V.D.C.
OPERATING TEMP.: —25°C to +105°C.
COLORS: Black, Red, Green, White.

INSULATED SPADE LUG TO ALLIGATOR CLIP

MODEL	LENGTH	NET
1960-12	12″	.95
1960-24	24″	.95
1960-36	36″	.95
1960-48	48″	1.00
1960-60	60″	1.05

(Specify Color)



QUANTITY DISC. CODE A ★

Spade lug, heavy duty machined one piece brass. Tough thermo-plastic molded to spade lug body.
SPADE LUG: Brass 1/16″ thick, nickel plated.
CLIP: Alligator, steel, cad plated.

INSULATOR: Red vinyl with red wire. Black on all other colors.
WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible polyvinyl insulation .144″ O.D.
OPERATING TEMP.: —25°C to +105°C.
COLORS: Black, Red, Green, White.

★ Various lengths may be aggregated for best quantity price.

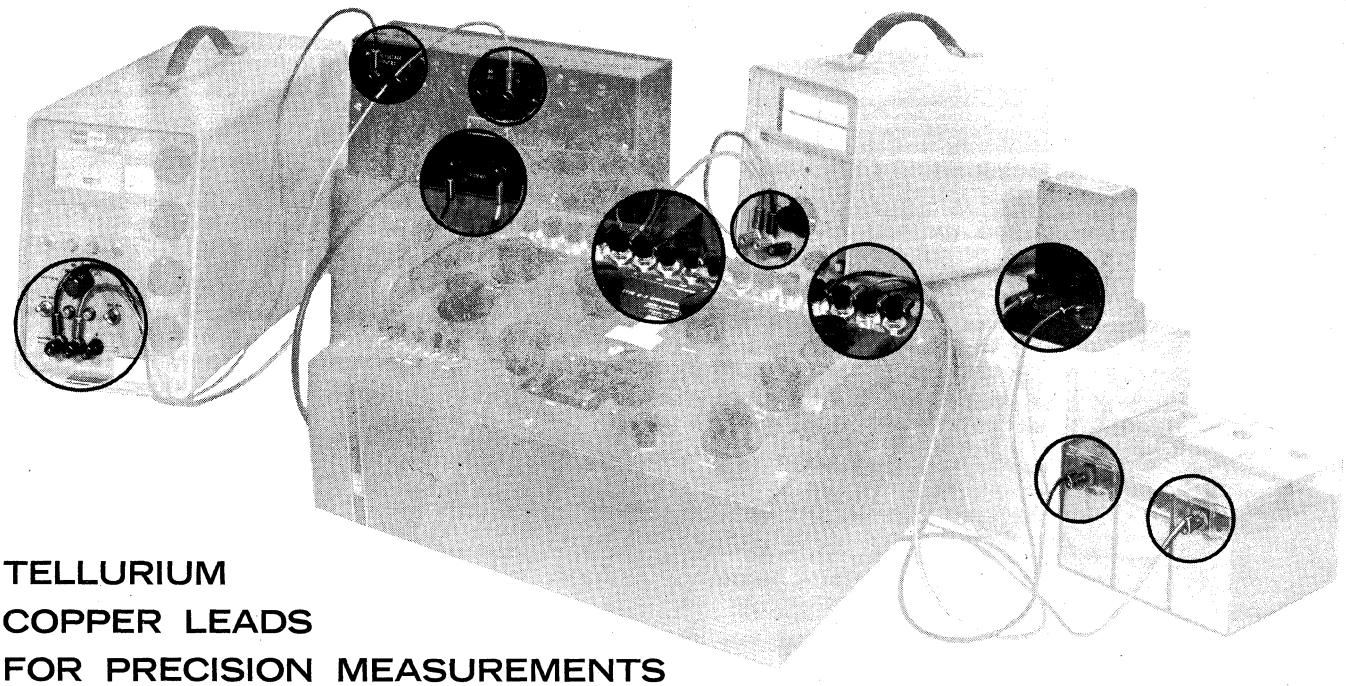
OTHER LENGTHS AVAILABLE TO ORDER

Net

© U.C.P., Inc.

POMONA ELECTRONICS

JUMPERS— LOW THERMAL E.M.F.



TELLURIUM COPPER LEADS FOR PRECISION MEASUREMENTS

POMONA ELECTRONICS has advanced the state of the art in measurements where Thermoelectric Effects are significant sources of error. Comparators designed for use with the Kelvin-Varley voltage divider and microvolt leads were tested with Primary Standards Laboratory equipment.

Thermoelectric voltages were not detected until the most sensitive galvanometer range was used.

THERMOELECTRIC PROPERTIES—Tellurium copper gold plated spade lugs cold-staked to multi-stranded 12 gauge COPPER wire minimize thermoelectric effects—an absolute necessity for low voltage, high precision measurements.

LOW RESISTANCE—12 gauge multi-stranded COPPER wire results in extremely low cable resistance. Spade lugs plated with 50 micro inches gold for minimum contact resistance and minimum thermal EMF when using copper binding posts. (Less than 0.01 μv/c°).

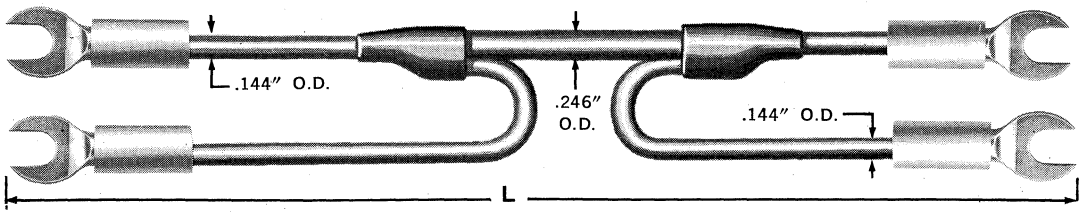
TELLURIUM COPPER SPADE LUGS, SHIELDED LEAD

MODEL	LENGTH
1756-24	24″
1756-48	48″

MODEL 1756
(Specify Length)

★ QUANTITY DISC. CODE **A**

NET 9.85



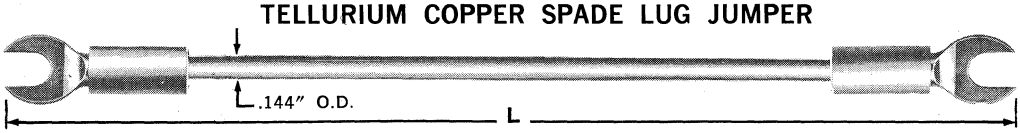
Designed for use with Kelvin Varley voltage dividers where extreme precision is required for low voltage measurements. Features guard shield to effectively reduce shunt resistance. Tough thermo-plastic molded to spade lug body, color; center conductor lug red, shield lug black. Tellurium copper heavy duty one piece machined spade lug gold plated per MIL-G-45204, Type II, Class I. Center conductor 12 AWG multi-stranded bare copper, shield lead wire, 18 AWG, stranded. Polyethylene primary insulation. Braided shield bare copper. Polyvinyl jacket, color black, per MIL-C-17C Type IIA.

TELLURIUM COPPER SPADE LUG JUMPER

MODEL	LENGTH	NET
1693-12	12″	2.50
1693-18	18″	2.50
1693-24	24″	2.50
1693-36	36″	2.50
1693-48	48″	2.55
1693-60	60″	2.60

MODEL 1693 (Specify Color)

★ QUANTITY DISC. CODE **A**



Single conductor tellurium copper spade lug jumper used in applications where guard shield is not required. Tough thermo-plastic molded to spade lug body. Color matches wire. Tellurium Copper heavy duty one piece machined spade lug gold plated per MIL-G-45204. Type II, Class I. Conductor, 12 AWG multi-stranded bare copper. Insulation polyvinyl, 105°C, .144″ O.D. **COLORS:** Black, Red, Green.

★ Various lengths may be aggregated for best quantity price.

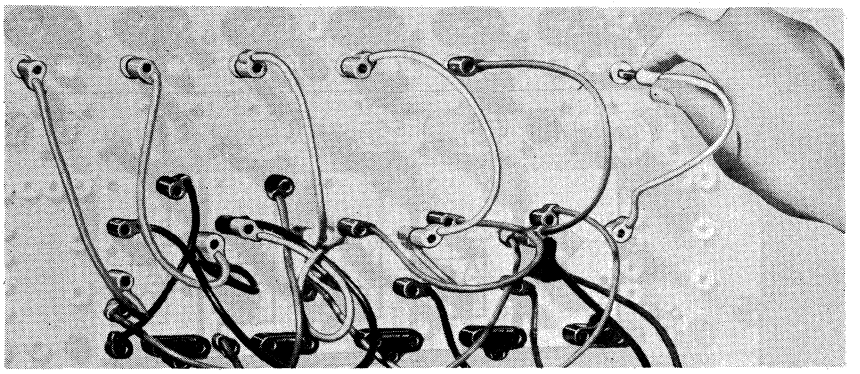
© U.C.P., Inc.

POMONA ELECTRONICS

PATCH CORDS BANANA PLUG

POMONA BANANA PLUG PATCH CORDS

Tough thermoplastic insulation molds the plug and leads into a strong moisture resistant integral unit. Excellent for computer board and test equipment applications. Used by leading industries in applications where extreme reliability is of prime importance.



FEATURES

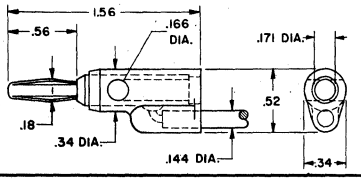
- One piece beryllium copper heat treated spring for maximum long life.
- Rounded spring design results in maximum contact area.
- Extra flexible polyvinyl insulation used on all leads.

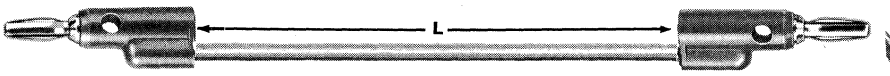
SPECIFICATIONS

- Fits standard 0.166 dia. banana jacks.
- Spring, beryllium copper alloy 25 per QQ-C-533.
- Plug body, brass per QQ-B-626, Comp. 22.
- Nickel plated per QQ-N-290, Class 2.
- Contact resistance less than 0.001 ohms per banana plug.
- Operating Temp.: −0°C to +105°C.
- Wire, 18 AWG, stranding 65 x 36 T.C.
- Insulation, polyvinyl .144" O.D.
- Ratings: 15 A. Cont., 30 A. Int. 10,000 W.V.D.C.

STACK-UP BANANA PLUG PATCH CORD

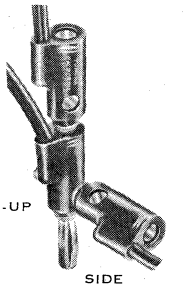
MODEL	LENGTH	NET
B-4	4"	1.50
B-8	8"	1.50
B-12	12"	1.50
B-18	18"	1.50
B-24	24"	1.50
B-36	36"	1.50
B-48	48"	1.55
B-60	60"	1.60





Multiple stacking feature accommodates the most complex stacking; keeps circuitry neater. Greatly simplifies circuit connections and changes. Reliable solder-bonded connections withstand pull test in excess of 50 lbs. Banana plugs both ends.

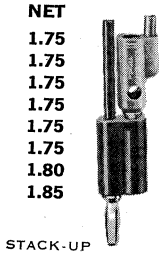
COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

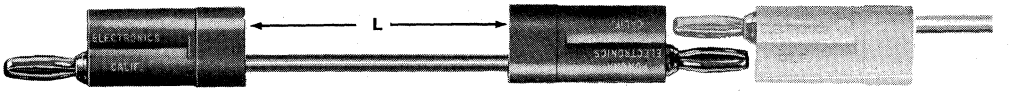


MODEL B (Specify Color) QUANTITY DISC. CODE **A** ★

EXTENSION STACKING BANANA PLUG PATCH CORD

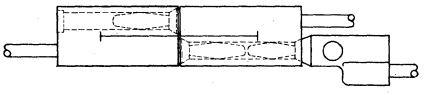
MODEL	LENGTH	NET
HB-4	4"	1.75
HB-8	8"	1.75
HB-12	12"	1.75
HB-18	18"	1.75
HB-24	24"	1.75
HB-36	36"	1.75
HB-48	48"	1.80
HB-60	60"	1.85





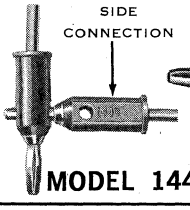
Dual purpose. Insulates all hot leads when used as an extension cord. Endless extension couplings possible with any banana plug patch cord. Provides vertical stacking from any jack. Reliable solder-bonded connections withstand pull test in excess of 50 lbs. Banana plugs both ends.

COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

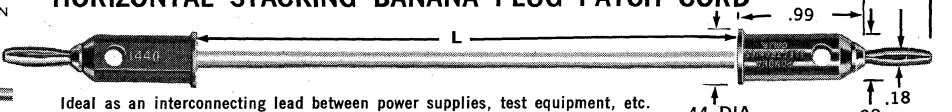


MODEL HB (Specify Color) QUANTITY DISC. CODE **A** ★

MODEL	LENGTH	NET
1440-4	4"	1.00
1440-8	8"	1.00
1440-12	12"	1.00
1440-18	18"	1.00
1440-24	24"	1.00
1440-36	36"	1.00
1440-48	48"	1.05
1440-60	60"	1.10



HORIZONTAL STACKING BANANA PLUG PATCH CORD



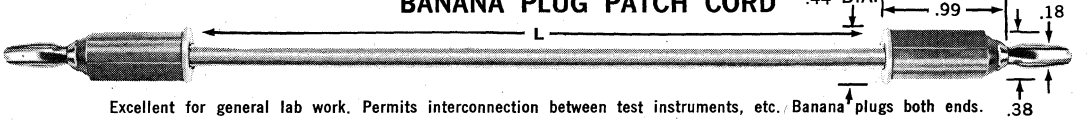
Ideal as an interconnecting lead between power supplies, test equipment, etc. Horizontal stacking feature. Banana plugs on both ends.

COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

MODEL 1440 (Specify Color) QUANTITY DISC. CODE **A** ★

MODEL	LENGTH	NET
1985-4	4"	.85
1985-8	8"	.85
1985-12	12"	.85
1985-18	18"	.85
1985-24	24"	.85
1985-36	36"	.85
1985-48	48"	.90
1985-60	60"	.95

BANANA PLUG PATCH CORD



Excellent for general lab work. Permits interconnection between test instruments, etc. Banana plugs both ends.

COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

MODEL 1985 (Specify Color) QUANTITY DISC. CODE **A** ★

★ Various lengths may be aggregated for best quantity price.

OTHER LENGTHS AVAILABLE TO ORDER

© U.C.P., Inc.

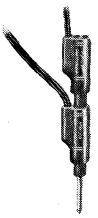
POMONA ELECTRONICS

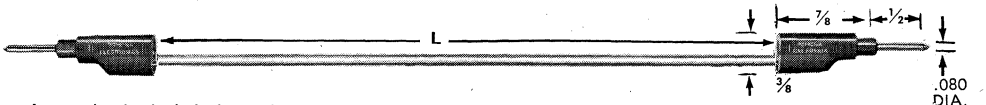
PATCH CORDS .080 TIP

PIN TIP VERTICAL STACKING PATCH CORD

MODEL	LENGTH	NET
P-4	4″	1.75
P-8	8″	1.75
P-12	12″	1.75
P-18	18″	1.75
P-24	24″	1.75
P-36	36″	1.75
P-48	48″	1.80
P-60	60″	1.85

MODEL P
(Specify Color)


STACK-UP



A must in circuit designing and testing, with instruments that utilize tip jacks.
PIN TIP: .080 dia., ½″ long, brass, gold flashed.
TIP JACK, STACK-UP: Beryllium copper, gold flashed. Accepts .080 dia. pin.

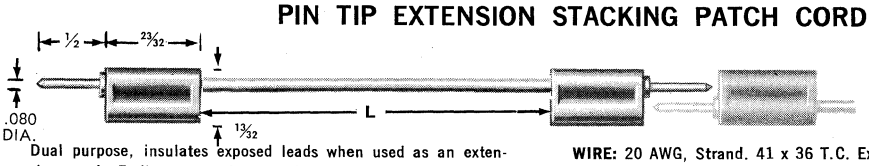
★QUANTITY DISC. CODE **A**

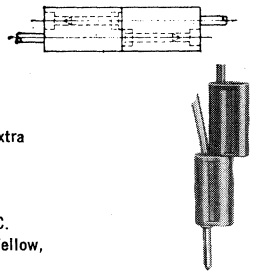
WIRE: 20 AWG, Strand. 41 x 36 T.C. Extra flexible polyvinyl insulation .087″ O.D.
RATED: 5 A. Cont., 10 A. Int.
5,000 W.V.D.C.
OPERATING TEMP.: —0°C to +105°C.
COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

PIN TIP EXTENSION STACKING PATCH CORD

MODEL	LENGTH	NET
1727-4	4″	1.85
1727-8	8″	1.85
1727-12	12″	1.85
1727-18	18″	1.85
1727-24	24″	1.85
1727-36	36″	1.85
1727-48	48″	1.90
1727-60	60″	1.95

MODEL 1727
(Specify Color)





Dual purpose, insulates exposed leads when used as an extension cord. Endless extension coupling possible. Also provides stacking from .080 jack.
PIN TIP: .080 dia., ½″ long, brass, gold flashed.
TIP JACK: Beryllium copper, gold flashed. Accepts .080 dia. pin.

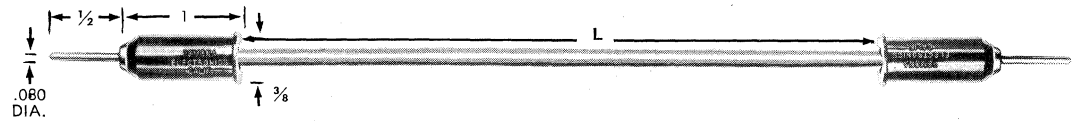
★QUANTITY DISC. CODE **A**

WIRE: 20 AWG, Strand. 41 x 36 T.C. Extra flexible polyvinyl insulation .087″ O.D.
RATED: 5 A. Cont., 10 A. Int.
5,000 W.V.D.C.
OPERATING TEMP.: —0°C to +105°C.
COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

PIN TIP PATCH CORD

MODEL	LENGTH	NET
1990-4	4″	.75
1990-8	8″	.75
1990-12	12″	.75
1990-18	18″	.75
1990-24	24″	.75
1990-36	36″	.75
1990-48	48″	.80
1990-60	60″	.85

MODEL 1990
(Specify Color)



QUANTITY DISC. CODE **A** ★

Heavy Duty patch cord. Excellent for general lab work. Permits interconnection between test instruments that utilize tip jacks.
PIN TIP: .080 dia., ½″ long, brass, nickel plated.
WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible polyvinyl insulation .144″ O.D.

RATED: 5 A. Cont., 10 A. Int.
10,000 W.V.D.C.
OPERATING TEMP.: —0°C to +105°C.
COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

PIN TIP PATCH CORD

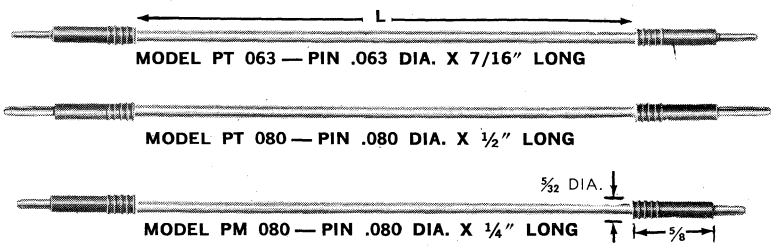
MODEL			LENGTH	NET
PT063-4	PT080-4	PM080-4	4″	.85
PT063-8	PT080-8	PM080-8	8″	.85
PT063-12	PT080-12	PM080-12	12″	.85
PT063-18	P8080-18	PM080-18	18″	.85
PT063-24	PT080-24	PM080-24	24″	.85
PT063-36	PT080-36	PM080-36	36″	.85
PT063-48	PT080-48	PM080-48	48″	.90
PT063-60	PT080-60	PM080-60	60″	.95

MODEL PT & PM
(Specify Color)

Small body style permits usage in equipment having receptacles spaced closely together. Three models shown.

PIN TIP: Brass, gold flashed.
WIRE: 22 AWG, Strand. 19 x 34 T.C. Insulation, polyvinyl .064″ O.D.
RATED: 3 A. Cont., 7.5 A. Int.
1,000 W.V.D.C.
OPERATING TEMP.: —0°C to +105°C.
COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

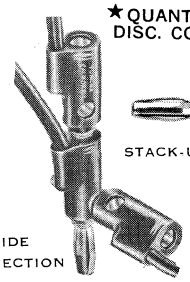
★QUANTITY DISC. CODE **A**



BANANA PLUG TO PIN TIP STACK-UP PATCH CORD

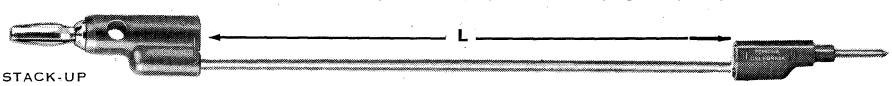
MODEL	LENGTH	NET
1126-4	4″	1.75
1126-8	8″	1.75
1126-12	12″	1.75
1126-18	18″	1.75
1126-24	24″	1.75
1126-36	36″	1.75
1126-48	48″	1.80
1126-60	60″	1.85

MODEL 1126
(Specify Color)


SIDE CONNECTION

★QUANTITY DISC. CODE **A**

Adapts to equipment using banana jacks and pin jacks. Banana plug and pin tip allow vertical stack-up.



BANANA PLUG: Spring, one piece beryllium copper, heat treated, nickel plated.
PIN TIP: .080 dia. ½″ long, brass, gold flashed.

TIP JACK, STACK-UP: Beryllium copper, gold flashed. Accepts .080 Dia. pin.
WIRE: 20 AWG, Strand. 41 x 36 T.C. Extra flexible polyvinyl insulation .087″ O.D.
RATED: 5 A. Cont., 10 A. Int.
5,000 W.V.D.C.
OPERATING TEMP.: —0°C to +105°C.
COLORS: Black, Red.

★ Various lengths may be aggregated for best quantity price.

OTHER LENGTHS AVAILABLE TO ORDER

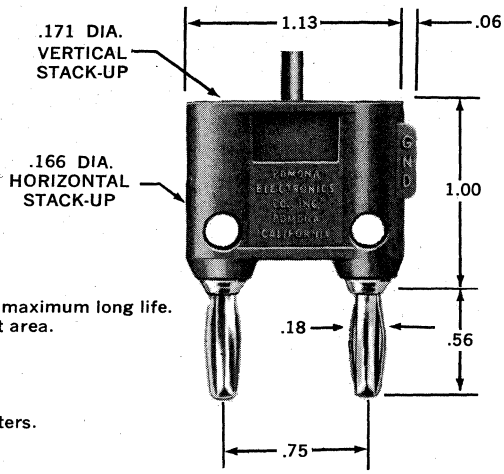
POMONA ELECTRONICS — PATCH CORDS DOUBLE BANANA PLUGS

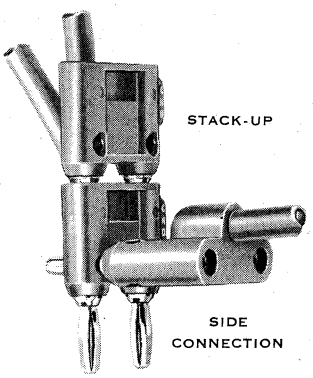
POMONA MOLDED DOUBLE BANANA PLUG PATCH CORDS AND TEST LEADS

. . . indispensable for bridge transformer connections, three terminal capacitor measurements and general hook-up for two wire systems. They are horizontally and vertically stackable in parallel.

Tough thermo-plastic material molded to plug body and cable insures maximum strength, moisture resistance and excellent insulative properties.

Used by leading industries in applications where extreme reliability is of prime importance.





FEATURES . . .

- One piece beryllium copper heat treated spring for maximum long life.
- Rounded spring design results in maximum contact area.
- GND., clearly molded on plug body and shell.
- Solder-bonded noise-free connections.

SPECIFICATIONS . . .

- Fits standard 0.166 dia. banana jacks, on ¾" centers.
- Contact resistance less than 0.001 ohms per plug.
- Spring beryllium copper alloy 25 per QQ-C-533.
- Plug body brass per QQ-B-626, Comp. 22.
- Nickel plated per QQ-N-290, Class 2.

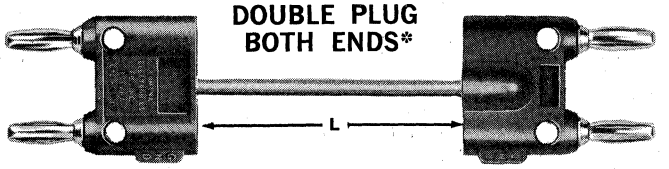
CABLE TYPE DESCRIPTION

TWO COND. TWISTED PAIR
18 AWG, Strand. 65 x 36 T.C. Vinyl insulation. Vinyl jacket, .250" O.D. Nom. Cap. 30 pf/ft.
COLOR: Gray.

SHIELDED MICROPHONE CABLE
Polyethylene insulation. Vinyl jacket, .205" O.D. Nom. Cap. 25 pf/ft.
COLOR: Gray.

SHIELDED COAXIAL CABLE
RG58C/U Polyethylene insulation. Vinyl jacket, .195" O.D. Nom. Cap. 28.5 pf/ft. **COLOR:** Black.

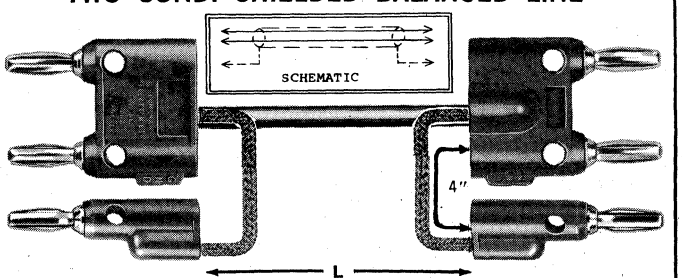
DOUBLE PLUG BOTH ENDS*



TWO COND. TWISTED PR.	SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
2BA-18	2BB-18	2BC-18	18"	4.85
2BA-24	2BB-24	2BC-24	24"	4.85
2BA-30	2BB-30	2BC-30	30"	4.85
2BA-36	2BB-36	2BC-36	36"	4.85
2BA-48	2BB-48	2BC-48	48"	5.00
2BA-60	2BB-60	2BC-60	60"	5.15

★ QUANTITY DISC. CODE **B**

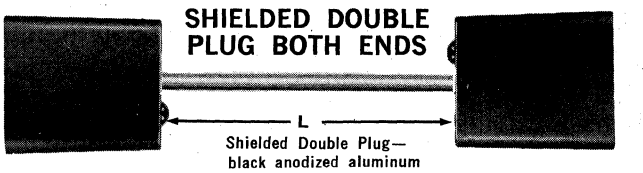
TWO COND. SHIELDED BALANCED LINE



CABLE DESCRIPTION	MODEL	LENGTH	NET
2-Cond. shielded mic. cable. Polyethylene insulation. Vinyl jacket, .231" O.D. Nom. Cap. between cond. 18 pf./ft. Nom. Cap. between one cond. and remaining cond. connected to shield, 32 pf./ft. COLOR: Cable and double plug, Gray. Single ground plug, Green.	1167-18	18"	7.85
	1167-24	24"	7.85
	1167-30	30"	7.85
	1167-36	36"	7.85
	1167-48	48"	8.10
	1167-60	60"	8.35

★ QUANTITY DISC. CODE **B**

SHIELDED DOUBLE PLUG BOTH ENDS

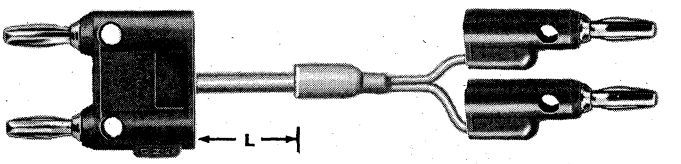


Shielded Double Plug—black anodized aluminum

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
1550-B-18	1550-C-18	18"	5.85
1550-B-24	1550-C-24	24"	5.85
1550-B-30	1550-C-30	30"	5.85
1550-B-36	1550-C-36	36"	5.85
1550-B-48	1550-C-48	48"	6.00
1550-B-60	1550-C-60	60"	6.15

★ QUANTITY DISC. CODE **B**

DOUBLE PLUG TO SINGLE BANANA PLUGS



CABLE DESCRIPTION		MODEL	LENGTH	NET
TWO COND. TWISTED PAIR	18 AWG, Strand. 65 x 36 T.C. Vinyl insulation. Vinyl jacket, .250" O.D. Nom. Cap. 30 pf/ft. **COLOR:** Double Plug: Gray Single Plugs: Red, Black	1368-18	18"	5.85
		1368-24	24"	5.85
		1368-30	30"	5.85
		1368-36	36"	5.85
		1368-48	48"	6.00
		1368-60	60"	6.15

★ QUANTITY DISC. CODE **B**

***NOTE:** Molded double plug matches color of cable.
Two cond. Twisted pair, GRAY. Shielded mic. cable, GRAY.
Coaxial RG58C/U Cable, BLACK.

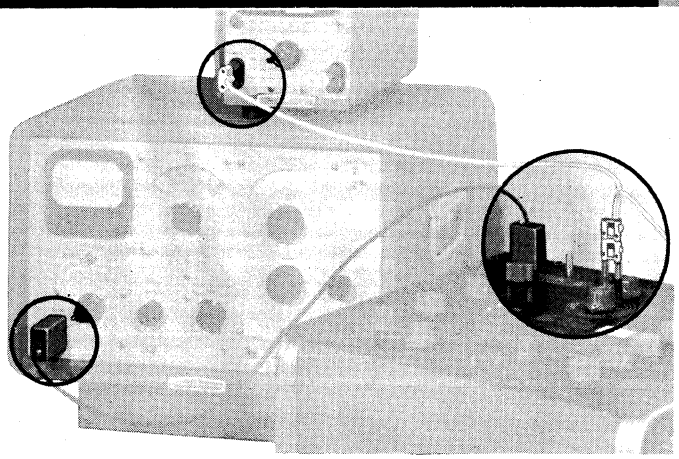
★ Various lengths may be aggregated for best quantity price.

1. Other cable colors available to order on the Two Cond. Twisted Pair and Shielded Mic. cable models with plug to match.
COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.
2. Other lengths and cable types available to order.

Net
© U.C.P., Inc.

POMONA ELECTRONICS

PATCH CORDS
BNC CONNECTING LEADS



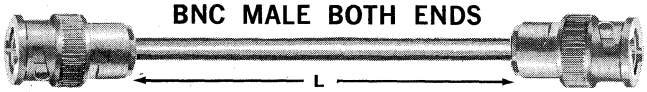
Standard video and RF connecting leads available in both shielded microphone and shielded coaxial cables. Designed to meet rigid industrial and military applications. Reliable solder-bonded connections minimize noise.

Pomona Electronics cable assemblies and patch cords are used in applications where extreme reliability is of prime importance.

CABLE TYPES

SHIELDED MICROPHONE CABLE	Polyethylene insulation, Vinyl jacket, .205″ O.D. Nom. Cap. 25 pf.ft. COLOR: Gray.
SHIELDED COAXIAL CABLE	RG58C/U Polyethylene insulation, Vinyl jacket, .195″ O.D. Nom. Cap. 28.5 pf./ft. COLOR: Black.
TWO COND. TWISTED PAIR	18 AWG, Strand. 65 x 36 T.C. vinyl insulation, vinyl jacket, .250″ O.D. Nom. Cap. 30 pf/ft. Color: Gray.

BNC MALE BOTH ENDS

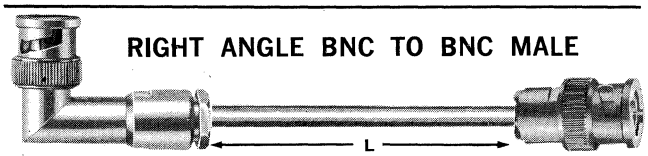


CONN.: 1ST END } UG88E/U, Male BNC — **CABLE:** Shielded Mic. or Shielded Coax, RG58C/U. — **CONN.:** 2ND END } UG88E/U, Male BNC

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
BNC-B-18	BNC-C-18	18″	5.85
BNC-B-24	BNC-C-24	24″	5.85
BNC-B-30	BNC-C-30	30″	5.85
BNC-B-36	BNC-C-36	36″	5.85
BNC-B-48	BNC-C-48	48″	6.00
BNC-B-60	BNC-C-60	60″	6.15

★QUANTITY DISC. CODE **B**

RIGHT ANGLE BNC TO BNC MALE

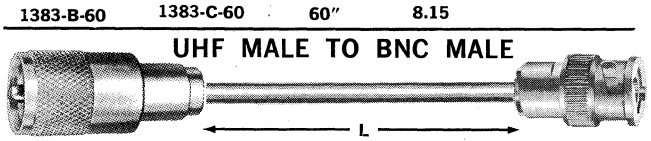


CONN.: 1ST END } UG913A/U, Angle Male BNC — **CABLE:** Shielded Mic. or Shielded Coax, RG58C/U. — **CONN.:** 2ND END } UG88C/U, Male BNC

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
1383-B-18	1383-C-18	18″	7.85
1383-B-24	1383-C-24	24″	7.85
1383-B-30	1383-C-30	30″	7.85
1383-B-36	1383-C-36	36″	7.85
1383-B-48	1383-C-48	48″	8.00
1383-B-60	1383-C-60	60″	8.15

★QUANTITY DISC. CODE **B**

UHF MALE TO BNC MALE

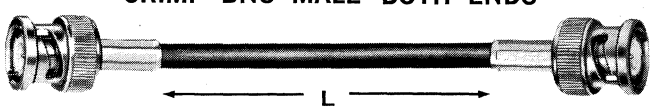


CONN.: 1ST END } PL259, UHF Male — **CABLE:** Shielded Mic. or Shielded Coax, RG58C/U. — **CONN.:** 2ND END } UG88C/U, Male BNC

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
1367-B-18	1367-C-18	18″	5.85
1367-B-24	1367-C-24	24″	5.85
1367-B-30	1367-C-30	30″	5.85
1367-B-36	1367-C-36	36″	5.85
1367-B-48	1367-C-48	48″	6.00
1367-B-60	1367-C-60	60″	6.15

★QUANTITY DISC. CODE **B**

CRIMP BNC MALE BOTH ENDS

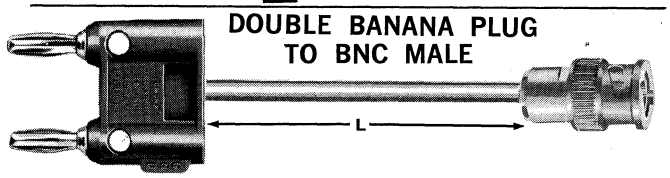


CONN.: 1st END } Crimp Male BNC (Comparable to UG88E/U) — **CABLE:** Shielded Coax, RG58C/U — **CONN.:** 2nd END } Crimp Male BNC (Comparable to UG88E/U)

CABLE DESCRIPTION:	MODEL	LENGTH	NET
Shielded coax., RG58C/U, Polyethylene Insulation. Vinyl Jacket, .195″ O.D., Nom. Cap. 28.5 pf/ft.	2249-C-12	12″	3.85
	2249-C-24	24″	3.85
	2249-C-36	36″	3.85
	2249-C-48	48″	4.00
	2249-C-60	60″	4.15

★QUANTITY DISC. CODE **B**

DOUBLE BANANA PLUG TO BNC MALE

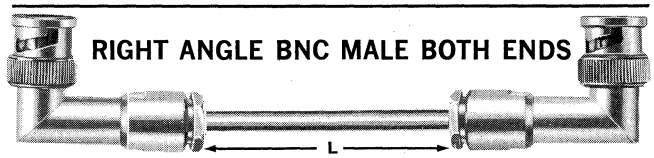


CONN.: 1ST END } Double Banana Plug, on ¾″ Centers. — **CABLE:** Shielded Mic. or Shielded Coax, RG58C/U. — **CONN.:** 2ND END } UG88C/U, Male BNC

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
2BB-BNC-18	2BC-BNC-18	18″	5.85
2BB-BNC-24	2BC-BNC-24	24″	5.85
2BB-BNC-30	2BC-BNC-30	30″	5.85
2BB-BNC-36	2BC-BNC-36	36″	5.85
2BB-BNC-48	2BC-BNC-48	48″	6.00
2BB-BNC-60	2BC-BNC-60	60″	6.15

★QUANTITY DISC. CODE **B**

RIGHT ANGLE BNC MALE BOTH ENDS

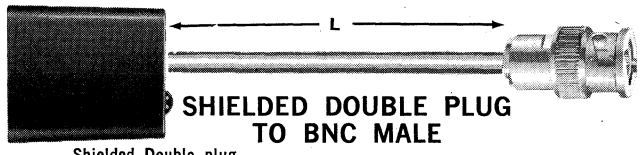


CONN.: 1ST END } UG913A/U, Angle Male BNC — **CABLE:** Shielded Mic. or Shielded Coax, RG58C/U. — **CONN.:** 2ND END } UG913A/U, Angle Male BNC

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
1155-B-18	1155-C-18	18″	10.85
1155-B-24	1155-C-24	24″	10.85
1155-B-30	1155-C-30	30″	10.85
1155-B-36	1155-C-36	36″	10.85
1155-B-48	1155-C-48	48″	11.00
1155-B-60	1155-C-60	60″	11.15

★QUANTITY DISC. CODE **B**

SHIELDED DOUBLE PLUG TO BNC MALE



CONN.: 1ST END } Shielded Double plug, on ¾″ centers. Black anodized aluminum. — **CABLE:** Shielded Mic. or Shielded Coax, RG58C/U. — **CONN.:** 2ND END } UG88C/U, Male BNC

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
1555-B-18	1555-C-18	18″	6.85
1555-B-24	1555-C-24	24″	6.85
1555-B-30	1555-C-30	30″	6.85
1555-B-36	1555-C-36	36″	6.85
1555-B-48	1555-C-48	48″	7.00
1555-B-60	1555-C-60	60″	7.15

★QUANTITY DISC. CODE **B**

★ Various lengths may be aggregated for best quantity price.

OTHER LENGTHS AND CABLE TYPES AVAILABLE TO ORDER

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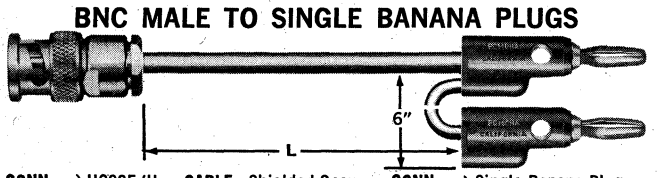
POMONA ELECTRONICS

PATCH CORDS CONNECTING LEADS

BNC MALE TO SINGLE BANANA PLUGS

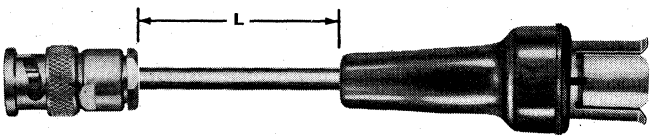


CONN: 1st END } UG88E/U Male BNC **CABLE:** Shielded Coax., RG58C/U **CONN: 2nd END** } Single Banana Plugs Color: 1 Black, 1 Red.

CABLE DESCRIPTION:	MODEL	LENGTH	NET
Shielded coax., RG58C/U, Polyethylene Insulation. Vinyl jacket, .195" O.D. Nom. Cap. 28.5 pf/ft.	2241-C-18	18"	5.85
	2241-C-24	24"	5.85
	2241-C-36	36"	5.85
	2241-C-48	48"	6.00

★ QUANTITY DISC. CODE **B**

BNC MALE TO GR-874

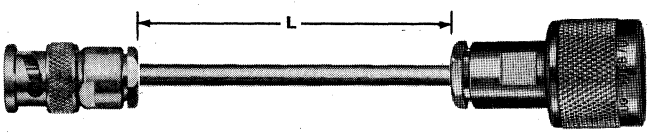


CONN: 1st END } UG88E/U Male BNC **CABLE:** Shielded Coax., RG58C/U **CONN: 2nd END** } GR-874

CABLE DESCRIPTION:	MODEL	LENGTH	NET
Shielded coax., RG58C/U, Polyethylene Insulation. Vinyl jacket, .195" O.D., Nom. Cap. 28.5 pf/ft.	1703-C-24	24"	9.85
	1703-C-36	36"	9.85
	1703-C-48	48"	10.00

★ QUANTITY DISC. CODE **B**

BNC MALE TO SERIES "N" MALE

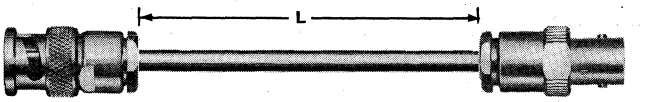


CONN: 1st END } UG88E/U Male BNC **CABLE:** Shielded coax., RG58C/U **CONN: 2nd END** } UG536B/U "N" Male

CABLE DESCRIPTION:	MODEL	LENGTH	NET
Shielded coax., RG58C/U, Polyethylene Insulation. Vinyl jacket, .195" O.D., Nom. Cap. 28.5 pf/ft.	1366-C-24	24"	6.85
	1366-C-36	36"	6.85
	1366-C-48	48"	7.00

★ QUANTITY DISC. CODE **B**

BNC MALE TO BNC FEMALE

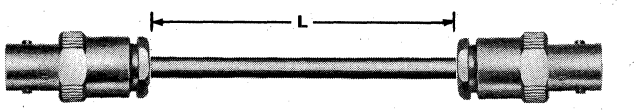


CONN: 1st END } UG88E/U Male BNC **CABLE:** Shielded coax., RG58C/U **CONN: 2nd END** } UG89C/U Female BNC

CABLE DESCRIPTION:	MODEL	LENGTH	NET
Shielded Coax., RG58C/U, Polyethylene Insulation. Vinyl jacket, .195" O.D., Nom. Cap. 28.5 pf/ft.	2223-C-12	12"	6.85
	2223-C-24	24"	6.85
	2223-C-36	36"	6.85
	2223-C-48	48"	7.00
	2223-C-60	60"	7.15

★ QUANTITY DISC. CODE **B**

BNC FEMALE BOTH ENDS

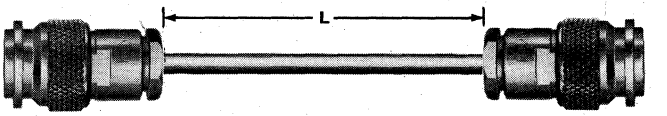


CONN: 1st END } UG89C/U Female BNC **CABLE:** Shielded Coax., RG58C/U **CONN: 2nd END** } UG89C/U Female BNC

CABLE DESCRIPTION:	MODEL	LENGTH	NET
Shielded coax., RG58C/U, Polyethylene Insulation. Vinyl jacket, .195" O.D., Nom. Cap. 28.5 pf/ft.	1808-C-12	12"	6.85
	1808-C-24	24"	6.85
	1808-C-36	36"	6.85
	1808-C-48	48"	7.00
	1808-C-60	60"	7.15

★ QUANTITY DISC. CODE **B**

TNC MALE BOTH ENDS



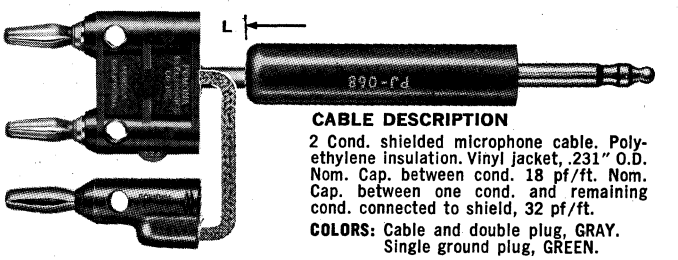
CONN: 1st END } Male TNC **CABLE:** Shielded coax., RG58C/U **CONN: 2nd END** } Male TNC

CABLE DESCRIPTION	MODEL	LENGTH	NET
Shielded coax., RG58C/U, Polyethylene Insulation. Vinyl jacket, .195" O.D., Nom. Cap. 28.5 pf/ft.	1944-C-12	12"	7.85
	1944-C-24	24"	7.85
	1944-C-36	36"	7.85
	1944-C-48	48"	8.00
	1944-C-60	60"	8.15

★ QUANTITY DISC. CODE **B**

DOUBLE PLUG BALANCED LINE TO PJ-068

CONN: 1st END } Double and Single Banana Plug **CABLE:** 2 Cond. Shielded Microphone **CONN: 2nd END** } PJ-068 Plug



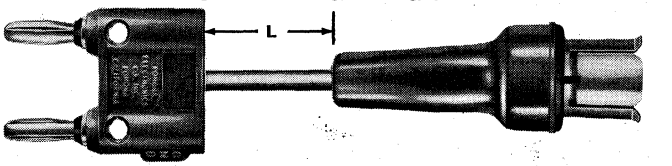
CABLE DESCRIPTION

2 Cond. shielded microphone cable. Polyethylene insulation. Vinyl jacket, .231" O.D. Nom. Cap. between cond. 18 pf/ft. Nom. Cap. between one cond. and remaining cond. connected to shield, 32 pf/ft.

COLORS: Cable and double plug, GRAY. Single ground plug, GREEN.

MODEL	LENGTH	NET	QUANTITY DISC. CODE
2174-36	36"	9.85	**B**

DOUBLE PLUG TO GR-874

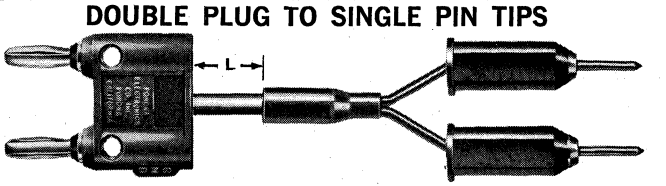


CONN: 1st END } Double Banana Plug, on ¾" Centers. **CABLE:** Shielded Coax., RG58C/U **CONN: 2nd END** } GR-874

CABLE DESCRIPTION	MODEL	LENGTH	NET
Shielded coax., RG58C/U, Polyethylene Insulation. Vinyl jacket, .195" O.D., Nom. Cap. 28.5 pf/ft.	2243-C-24	24"	9.50
	2243-C-36	36"	9.50
	2243-C-48	48"	9.65

COLOR: Cable and double plug, Black. ★ QUANTITY DISC. CODE **B**

DOUBLE PLUG TO SINGLE PIN TIPS

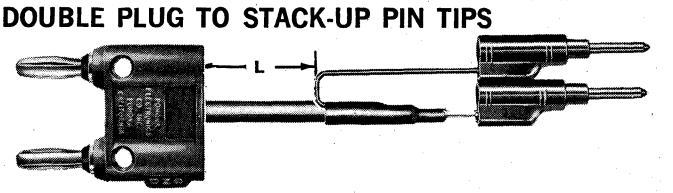


CONN: 1st END } Double Banana Plug, on ¾" Centers. **CABLE:** Two Cond. Twisted Pair **CONN: 2nd END** } Single Pin Tip Plugs, .080 Dia. Color: 1 Black, 1 Red

CABLE DESCRIPTION	MODEL	LENGTH	NET
Two Cond. Twisted pair, 18 AWG, Strand. 65 x 36 T.C. Vinyl insulation, vinyl jacket, .250" O.D. Nom. Cap. 30 pf/ft.	2184-A-24	24"	4.85
	2184-A-36	36"	4.85
	2184-A-48	48"	5.00

COLOR: Cable and Double plug, Gray. ★ QUANTITY DISC. CODE **B**

DOUBLE PLUG TO STACK-UP PIN TIPS



CONN: 1st END } Double Banana Plug, on ¾" Centers. **CABLE:** Shielded Coax., RG58C/U **CONN: 2nd END** } Single Stack-Up Pin Tip Plugs, .080 Dia. Color: 1 Black, 1 Red.

CABLE DESCRIPTION	MODEL	LENGTH	NET
Shielded coax., RG58C/U, Polyethylene insulation. Vinyl jacket, .195" O.D., Nom. Cap. 28.5 pf/ft.	2BC-PP-18	18"	7.50
	2BC-PP-24	24"	7.50
	2BC-PP-36	36"	7.50
	2BC-PP-48	48"	7.65

COLOR: Cable and Double Plug, Black. ★ QUANTITY DISC. CODE **B**

★ Various lengths may be aggregated for best quantity price.

OTHER LENGTHS AVAILABLE TO ORDER

Net

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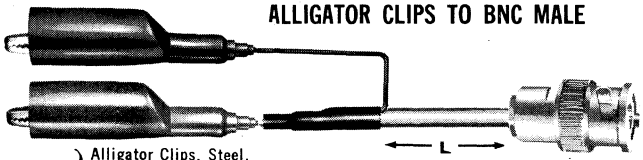
POMONA ELECTRONICS

PATCH CORDS CONNECTING LEADS

ALLIGATOR CLIPS TO BNC MALE

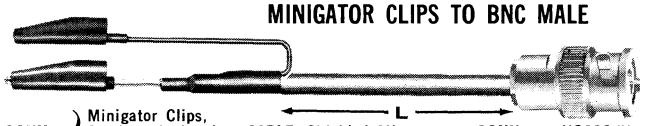


CONN.: 1ST END } Alligator Clips, Steel, cad plated. Insulators, Vinyl: Black/Red. **CABLE:** Shielded Mic. or Shielded Coax, RG58C/U. **CONN.:** 2ND END } UG88C/U, BNC, Male.

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
AL-B-BNC-18	AL-C-BNC-18	18″	5.85
AL-B-BNC-24	AL-C-BNC-24	24″	5.85
AL-B-BNC-30	AL-C-BNC-30	30″	5.85
AL-B-BNC-36	AL-C-BNC-36	36″	5.85
AL-B-BNC-48	AL-C-BNC-48	48″	6.00
AL-B-BNC-60	AL-C-BNC-60	60″	6.15

★ QUANTITY DISC. CODE **B**

MINIGATOR CLIPS TO BNC MALE

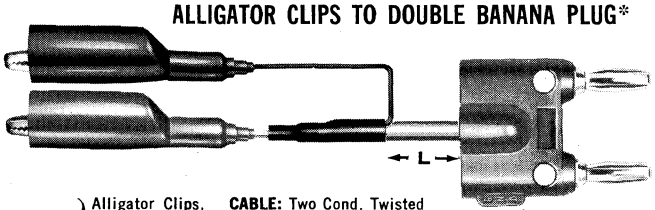


CONN.: 1ST END } Minigator Clips, Steel, cad plated Insulators, Vinyl: Black/Red. **CABLE:** Shielded Mic. or Shielded Coax, RG58C/U. **CONN.:** 2ND END } UG88C/U, BNC, Male

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
MG-B-BNC-18	MG-C-BNC-18	18″	5.85
MG-B-BNC-24	MG-C-BNC-24	24″	5.85
MG-B-BNC-30	MG-C-BNC-30	30″	5.85
MG-B-BNC-36	MG-C-BNC-36	36″	5.85
MG-B-BNC-48	MG-C-BNC-48	48″	6.00
MG-B-BNC-60	MG-C-BNC-60	60″	6.15

★ QUANTITY DISC. CODE **B**

ALLIGATOR CLIPS TO DOUBLE BANANA PLUG*

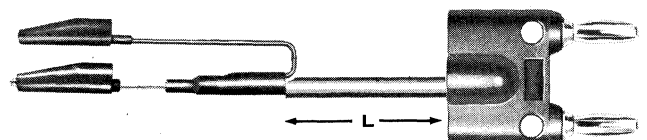


CONN.: 1ST END } Alligator Clips, Steel, cad plated Insulators, Vinyl: Black/Red. **CABLE:** Two Cond. Twisted Pair, Shielded Mic. or Shielded Coax, RG58C/U. **CONN.:** 2ND END } Double Banana Plug, on ¾″ centers.

TWO COND. TWISTED PAIR	SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
2BA-AL-18	2BB-AL-18	2BC-AL-18	18″	5.85
2BA-AL-24	2BB-AL-24	2BC-AL-24	24″	5.85
2BA-AL-30	2BB-AL-30	2BC-AL-30	30″	5.85
2BA-AL-36	2BB-AL-36	2BC-AL-36	36″	5.85
2BA-AL-48	2BB-AL-48	2BC-AL-48	48″	6.00
2BA-AL-60	2BB-AL-60	2BC-AL-60	60″	6.15

★ QUANTITY DISC. CODE **B**

MINIGATOR CLIPS TO DOUBLE BANANA PLUG*

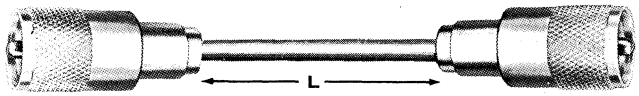


CONN.: 1ST END } Minigator Clips, Steel, cad plated Insulators, Vinyl: Black/Red. **CABLE:** Two Cond. Twisted pair, Shielded Mic. or Shielded Coax, RG58C/U. **CONN.:** 2ND END } Double Banana Plug, on ¾″ centers.

TWO COND. TWISTED PAIR	SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
2BA-MG-18	2BB-MG-18	2BC-MG-18	18″	5.85
2BA-MG-24	2BB-MG-24	2BC-MG-24	24″	5.85
2BA-MG-30	2BB-MG-30	2BC-MG-30	30″	5.85
2BA-MG-36	2BB-MG-36	2BC-MG-36	36″	5.85
2BA-MG-48	2BB-MG-48	2BC-MG-48	48″	6.00
2BA-MG-60	2BB-MG-60	2BC-MG-60	60″	6.15

★ QUANTITY DISC. CODE **B**

UHF MALE BOTH ENDS

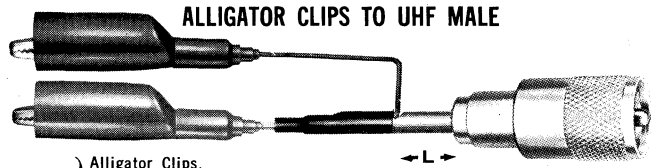


CONN.: 1ST END } PL259, UHF, Male **CABLE:** Shielded Mic. or Shielded Coax, RG58C/U. **CONN.:** 2ND END } PL259, UHF, Male

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
UHF-B-18	UHF-C-18	18″	5.85
UHF-B-24	UHF-C-24	24″	5.85
UHF-B-30	UHF-C-30	30″	5.85
UHF-B-36	UHF-C-36	36″	5.85
UHF-B-48	UHF-C-48	48″	6.00
UHF-B-60	UHF-C-60	60″	6.15

★ QUANTITY DISC. CODE **B**

ALLIGATOR CLIPS TO UHF MALE

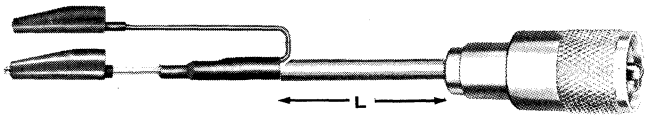


CONN.: 1ST END } Alligator Clips, Steel, cad plated Insulators, Vinyl: Black/Red. **CABLE:** Shielded Mic. or Shielded Coax, RG58C/U. **CONN.:** 2ND END } PL259, UHF, Male

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
AL-B-UHF-18	AL-C-UHF-18	18″	5.85
AL-B-UHF-24	AL-C-UHF-24	24″	5.85
AL-B-UHF-30	AL-C-UHF-30	30″	5.85
AL-B-UHF-36	AL-C-UHF-36	36″	5.85
AL-B-UHF-48	AL-C-UHF-48	48″	6.00
AL-B-UHF-60	AL-C-UHF-60	60″	6.15

★ QUANTITY DISC. CODE **B**

MINIGATOR CLIPS TO UHF MALE

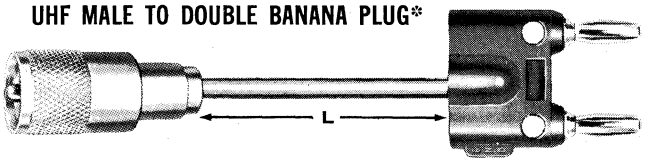


CONN.: 1ST END } Minigator Clips, Steel, cad plated Insulators, Vinyl: Black/Red. **CABLE:** Shielded Mic. or Shielded Coax, RG58C/U. **CONN.:** 2ND END } PL259 UHF, Male

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
MG-B-UHF-18	MG-C-UHF-18	18″	5.85
MG-B-UHF-24	MG-C-UHF-24	24″	5.85
MG-B-UHF-30	MG-C-UHF-30	30″	5.85
MG-B-UHF-36	MG-C-UHF-36	36″	5.85
MG-B-UHF-48	MG-C-UHF-48	48″	6.00
MG-B-UHF-60	MG-C-UHF-60	60″	6.15

★ QUANTITY DISC. CODE **B**

UHF MALE TO DOUBLE BANANA PLUG*



CONN.: 1ST END } PL259 UHF, Male **CABLE:** Shielded Mic. or Shielded Coax, RG58C/U. **CONN.:** 2ND END } Double Banana Plug, on ¾″ centers.

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
2BB-UHF-18	2BC-UHF-18	18″	5.85
2BB-UHF-24	2BC-UHF-24	24″	5.85
2BB-UHF-30	2BC-UHF-30	30″	5.85
2BB-UHF-36	2BC-UHF-36	36″	5.85
2BB-UHF-48	2BC-UHF-48	48″	6.00
2BB-UHF-60	2BC-UHF-60	60″	6.15

★ QUANTITY DISC. CODE **B**

***NOTE:** Molded double plug matches color of cable. Two cond. Twisted pair, GRAY. Shielded mic. cable, GRAY. Coaxial RG58C/U cable, BLACK.

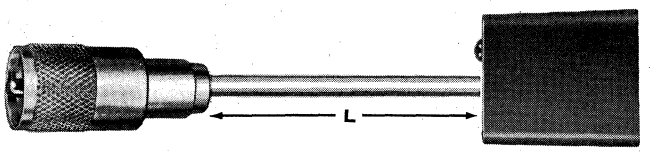
1. Other CABLE COLORS available to order on the Two Cond. Twisted Pair and Shielded Mic. cable models, with plug to match. COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.
2. Other lengths and cable types available to order.

★ **Various lengths may be aggregated for best quantity price.**

POMONA ELECTRONICS

PATCH CORDS CONNECTING LEADS

UHF MALE TO SHIELDED DOUBLE PLUG*

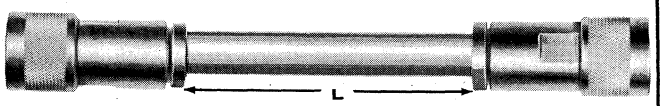


CONN.: 1ST END } PL259, Male, UHF **CABLE:** Shielded Mic. or Shielded Coax, RG58C/U. **CONN.:** 2ND END } Shielded Double Plug, on ¾" centers. Black anodized aluminum.

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
1556-B-18	1556-C-18	18"	6.85
1556-B-24	1556-C-24	24"	6.85
1556-B-36	1556-C-36	36"	6.85
1556-B-48	1556-C-48	48"	7.00
1556-B-60	1556-C-60	60"	7.15

★ QUANTITY DISC. CODE **B**

SERIES "N" MALE BOTH ENDS

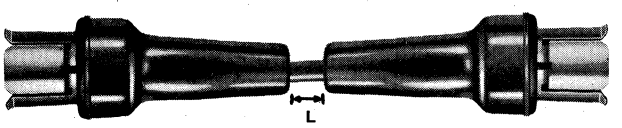


CONN.: 1ST END } UG21E/U "N" Male **CABLE:** Coax, RG213/U **CONN.:** 2ND END } UG21E/U "N" Male

CABLE DESCRIPTION	MODEL	LENGTH	NET
Shielded Coax. Polyethylene Insulation. Vinyl jacket, Black. Nom. Cap. 29.5 pf/ft. Nom. Imp. 50 ohms. Nom. O.D. .405".	1658-S-18	18"	10.85
	1658-S-24	24"	10.85
	1658-S-36	36"	10.85
	1658-S-48	48"	11.00
	1658-S-60	60"	11.15

★ QUANTITY DISC. CODE **B**

NEW GR-874 TO GR-874

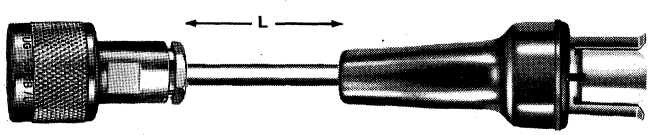


CONN: 1st END } GR-874 **CABLE:** Shielded coax., RG58C/U **CONN:** 2nd END } GR-874

CABLE DESCRIPTION:	MODEL	LENGTH	NET
Shielded coax., RG58C/U, Polyethylene Insulation. Vinyl jacket, .195" O.D., Nom. Cap. 28.5 pf/ft.	2316-C-24	24"	16.85
	2316-C-36	36"	16.85
	2316-C-48	48"	17.00
	2316-C-60	60"	17.15

★ QUANTITY DISC. CODE **B**

NEW SERIES "N" MALE TO GR-874

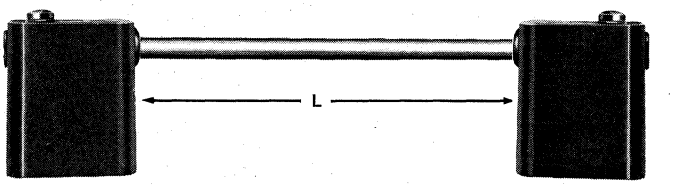


CONN: 1st END } UG536B/U "N" Male **CABLE:** Shielded Coax., RG58C/U **CONN:** 2nd END } GR-874

CABLE DESCRIPTION:	MODEL	LENGTH	NET
Shielded coax., RG58C/U, Polyethylene Insulation. Vinyl jacket, .195" O.D., Nom. Cap. 28.5 pf/ft.	2438-C-24	24"	10.85
	2438-C-36	36"	10.85
	2438-C-48	48"	11.00
	2438-C-60	60"	11.15

★ QUANTITY DISC. CODE **B**

RIGHT ANGLE SHIELDED DOUBLE PLUG BOTH ENDS

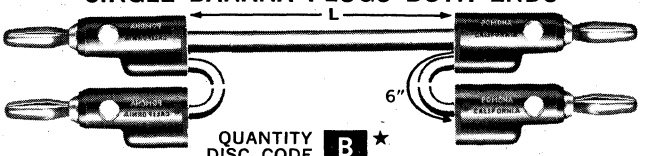


CONN: 1st END } Right Angle Shielded double plug on ¾" centers. Black anodized aluminum shield. **CABLE:** Shielded coax. RG58C/U. **CONN:** 2nd END } Right Angle Shielded double plug on ¾" centers. Black anodized aluminum shield.

CABLE DESCRIPTION:	MODEL	LENGTH	NET
Shielded coax., RG58C/U, polyethylene insulation. Vinyl jacket, .195" O.D., Nom. Cap. 28.5 pf/ft.	2204-C-24	24"	7.85
	2204-C-36	36"	7.85
	2204-C-48	48"	8.00
	2204-C-60	60"	8.15

★ QUANTITY DISC. CODE **B**

SINGLE BANANA PLUGS BOTH ENDS



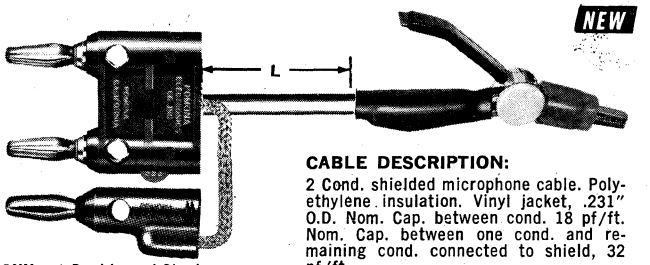
QUANTITY DISC. CODE **B** ★

CONN: 1st END } Single Banana Plugs Colors: Inner Conductor plug, Red. Ground Plug, Black. **CABLE:** Shielded Coax., RG122/U **CONN:** 2nd END } Single Banana Plugs. Colors: Inner Conductor Plug, Red. Ground Plug, Black.

CABLE DESCRIPTION:	MODEL	LENGTH	NET
Shielded coax., RG122/U polyethylene insulation. Vinyl jacket, .160" O.D., Nom. Cap. 29.5 pt/ft.	2239-R-24	24"	4.85
	2239-R-36	36"	4.85
	2239-R-48	48"	5.00
	2239-R-60	60"	5.15

TWO CONDUCTOR—SHIELDED TO KELVIN CLIP

NEW



CONN: 1st END } Double and Single Banana Plug.

CABLE: 2 Cond. Shielded Microphone

CABLE DESCRIPTION:
2 Cond. shielded microphone cable. Polyethylene insulation. Vinyl jacket, .231" O.D. Nom. Cap. between cond. 18 pf/ft. Nom. Cap. between one cond. and remaining cond. connected to shield, 32 pf/ft.

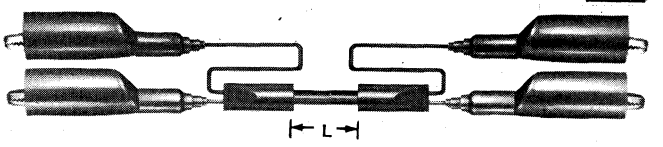
COLORS: Cable and double plug, GRAY. Single ground plug, GREEN.

CONN: 2nd END } Kelvin Clip QUANTITY DISC. CODE **B** ★

MODEL	LENGTH	NET
2476-J-24	24"	16.85
2476-J-36	36"	16.85

ALLIGATOR CLIPS BOTH ENDS

NEW



CONN: 1st END } Alligator Clips, Steel, cad plated Insulators, Vinyl: Black/Red. **CABLE:** Shielded Coax., RG58C/U **CONN:** 2nd END } Alligator Clips, Steel, cad plated Insulators, Vinyl: Black/Red.

CABLE DESCRIPTION:	MODEL	LENGTH	NET
Shielded coax., RG58C/U, Polyethylene Insulation Vinyl jacket, .195" O.D. Nom. Cap. 28.5 pf/ft.	1152-C-12	12"	5.85
	1152-C-24	24"	5.85
	1152-C-36	36"	5.85
	1152-C-48	48"	6.00
	1152-C-60	60"	6.15

★ QUANTITY DISC. CODE **B**

***NOTE:** Molded double plug matches color of cable. Two cond. Twisted pair, GRAY. Shielded mic. cable, GRAY. Coaxial RG58C/U cable, BLACK.

1. Other CABLE COLORS available to order on the Two Cond. Twisted Pair and Shielded Mic. cable models, with plug to match. COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.
2. Other lengths and cable types available to order.

★Various lengths may be aggregated for best quantity price.

Net

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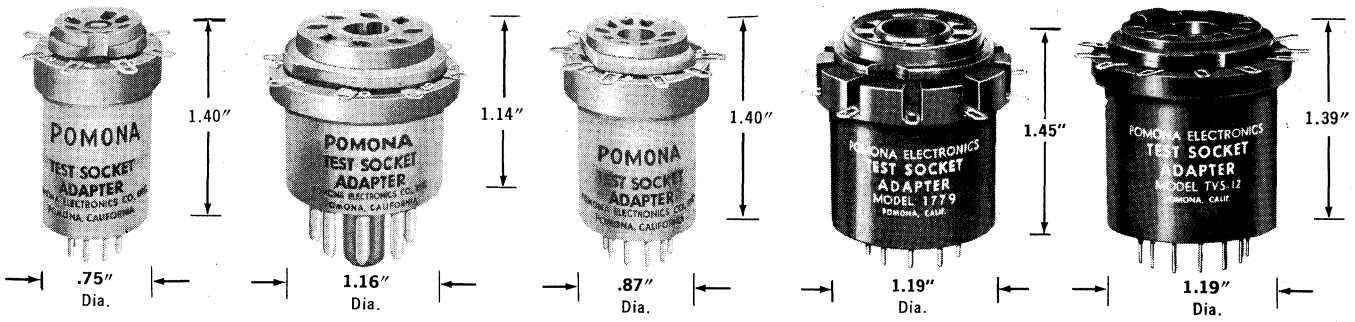
POMONA ELECTRONICS

TEST SOCKET TUBE ADAPTERS
BREADBOARD SOCKETS



MODEL TVS-7
7 PIN MIN.
QUANTITY DISC. CODE **C**
NET 1.65

MODEL TVS-8
8 PIN OCTAL
QUANTITY DISC. CODE **C**
NET 1.75

MODEL TVS-9
9 PIN MIN.
QUANTITY DISC. CODE **C**
NET 1.85

MODEL 1779
9 PIN NOVAR
QUANTITY DISC. CODE **C**
NET 2.25

MODEL TVS-12
12 PIN COMPACTRON
QUANTITY DISC. CODE **C**
NET 2.55

Pomona Test Socket Tube Adapters are ideal for making measurements of voltage, resistance, audio and video without tracing complicated circuits from the bottom of the chassis. They feature: Extended test tabs for easy use with either alligator clips or test prods; Low loss MICA-FILLED molded phenolic construction per MIL-M-14, MFE. Power factor less than 0.010 at 10 Mc; high insulation resistance, the I.R. exceeds 500,000 megohms at 40% R.H., at 24°C; Distributed capacity, inter-element approximately 1 micro-micro farad; high voltage operation, voltage breakdown elements exceeds 1700 volts AC or DC Model TVS-12 and 1779 molded of electrical grade Black phenolic.

TVS-789 KIT SET OF THREE 5.25
(TVS-7, TVS-8, TVS-9)

TUNER TV TEST SOCKET TUBE ADAPTERS

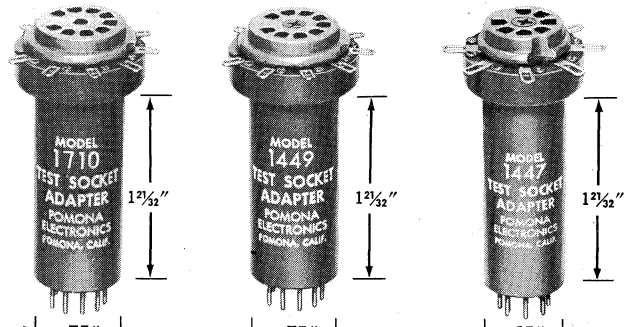
FOR USE WITH TUNERS HAVING CAPTIVE OR TELESCOPING TUBE SHIELDS

IT'S TALL • IT'S SLIM • IT FITS

- Extra height—exact fit—clears shields
- Ready access to socket connections
- Exposed operation saves time

A MUST for every modern TV Service Shop

- The 7-, 9- or 10-HIGH adapter rises above the shields and places testing in the open. Shields or tuner covers do not have to be removed. All construction is the highest quality. Interelement distributed capacity is approximately 1.5 micro-micro farad. Voltage breakdown elements exceed 1800 V. AC or DC. The insulation resistance exceeds 5 x 10^5 megohms at 40% R.H. at 24°C.



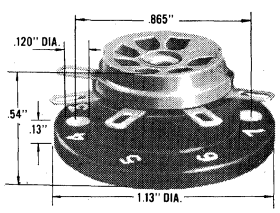
MODEL 1710
10 HIGH
10 pin, Miniature
QUANTITY DISC. CODE **C**
NET 2.25

MODEL 1449
9 HIGH
9 pin, Miniature
QUANTITY DISC. CODE **C**
NET 1.95

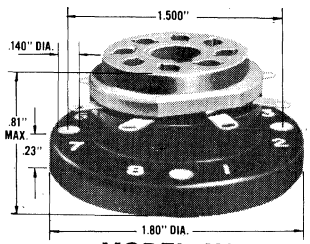
MODEL 1447
7 HIGH
7 pin, Miniature
QUANTITY DISC. CODE **C**
NET 1.85

SURFACE MOUNTED BREADBOARD SOCKETS
IDEAL FOR ELECTRONIC AND EXPERIMENTAL USE

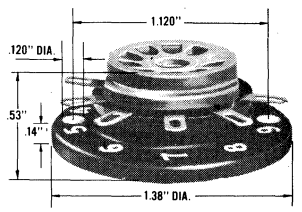
Surface Mounted Breadboard Sockets are used for experimental circuit design, portable and enclosed units, plug-in and packaged assemblies. They feature: An insulated base to prevent connections from shorting to chassis; Eliminates double chassis design; Circuits may be wired in an enclosed unit; The base connections are numbered for easy identification; Grade-A phosphor bronze spring contacts; Standard center to center mounting holes; For ease of installation the 7 and 9 Pin Miniatures may be mounted either in the center or on the sides, the 8 Pin Octal is mounted on the sides; Small mounting holes permit the re-use of experimental chassis.



MODEL XS-7
7 PIN MINIATURE
QUANTITY DISC. CODE **C** **NET .59**



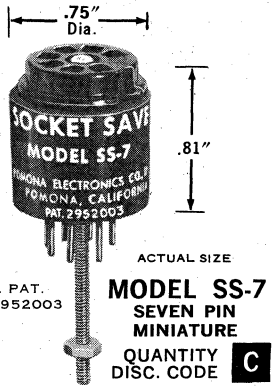
MODEL XS-8
8 PIN OCTAL
QUANTITY DISC. CODE **C** **NET .75**



MODEL XS-9
9 PIN MINIATURE
QUANTITY DISC. CODE **C** **NET .69**

POMONA ELECTRONICS SOCKET SAVERS

The Socket Saver® is designed to be installed on tube checkers and other electronic equipment to prevent wear and tear of sockets on original equipment. They are easy to install and remove. This eliminates the necessity of replacing and rewiring sockets on original equipment. Built of quality materials. BERYLLIUM COPPER LONG LIFE CONTACTS to give maximum service.

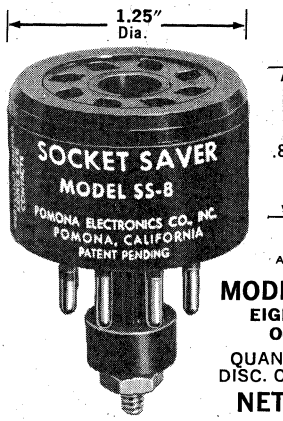


U.S. PAT. NO. 2952003

MODEL SS-7
SEVEN PIN MINIATURE

QUANTITY DISC. CODE **C**

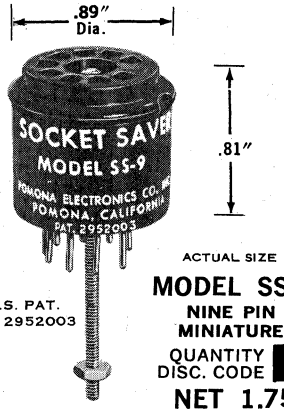
NET 1.75



MODEL SS-8
EIGHT PIN OCTAL

QUANTITY DISC. CODE **C**

NET 1.75



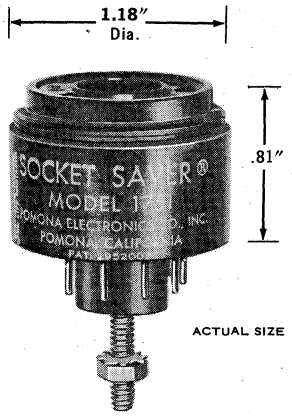
U.S. PAT. NO. 2952003

MODEL SS-9
NINE PIN MINIATURE

QUANTITY DISC. CODE **C**

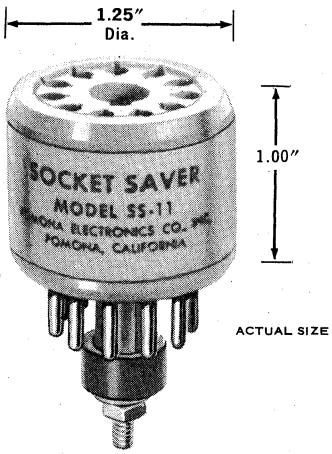
NET 1.75

MODEL SS-789 KIT SET OF THREE 5.25
(SS-7, SS-8, SS-9)



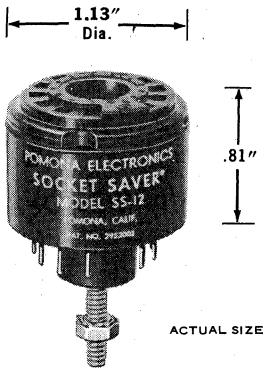
MODEL 1751
9 PIN NOVAR

QUANTITY DISC. CODE **C** **NET 1.95**



MODEL SS-11
11 PIN OCTAL STYLE

QUANTITY DISC. CODE **C** **NET 1.95**

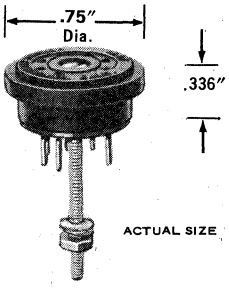


MODEL SS-12
12 PIN COMPACTRON

QUANTITY DISC. CODE **C** **NET 2.25**

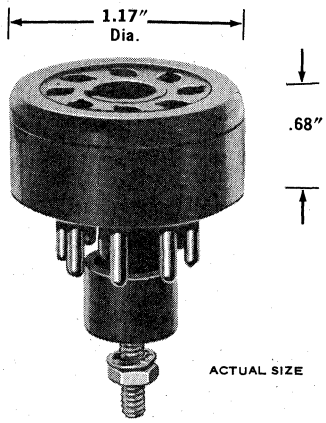
MINIATURIZED SOCKET SAVERS®

For use in applications where vertical height is restricted. Contacts made of beryllium copper, heat treated. Models 1847 and 1849 closed entry receptacles, contact and pin one piece formed beryllium copper, molded of black phenolic electrical grade.



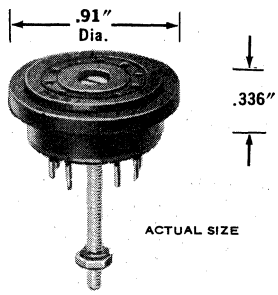
MODEL 1847
7 PIN MINIATURE

QUANTITY DISC. CODE **C** **NET 1.95**



MODEL 1848
8 PIN OCTAL

QUANTITY DISC. CODE **C** **NET 1.95**



MODEL 1849
9 PIN MINIATURE

QUANTITY DISC. CODE **C** **NET 1.95**

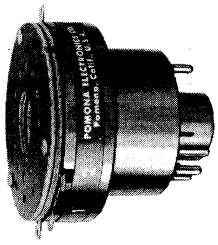
Net

© U.C.P., Inc.

POMONA ELECTRONICS

CATHODE RAY TUBE TEST ADAPTERS

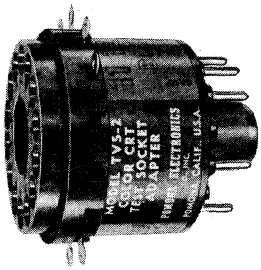
■ POMONA Test Socket Adapters are ideal for making measurements of voltage, resistance, and video from the base of the picture tube. The test socket adapter is inserted between the CR Tube base and its socket. This completes the circuit and makes all connections readily accessible. Measurements can be made without tracing circuit wiring to test points below the chassis, thereby saving valuable time and increasing efficiency in trouble shooting.



MODEL TVS-1

DUO DECAL
For Television
picture tubes

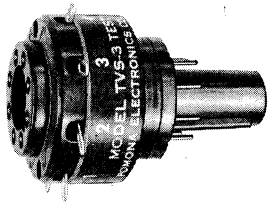
NET 1.95
QUANTITY DISC. CODE **D**



MODEL TVS-2

NEO-DIHEPTAL
For color Television
picture tubes

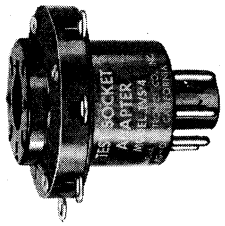
NET 7.45
QUANTITY DISC. CODE **D**



MODEL TVS-3

EIGHTAR (.040 PINS)
For 110° Television
picture tubes

NET 2.55
QUANTITY DISC. CODE **D**



MODEL TVS-4

7 PIN (.093 PINS)
For 110° Television
picture tubes

NET 1.95
QUANTITY DISC. CODE **D**

TUBE SOCKET CONVERSION ADAPTERS

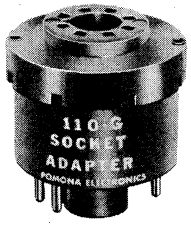
110° CRT SOCKET ADAPTER TO DUO DECAL BASE. **FOR TESTING NEW NARROW-NECK 110° TUBES.**

MODEL 110-E

Similar to 110-G, except 8KP Basing, tests 23EP4 etc.

NET 1.55 QUANTITY DISC. CODE **D**

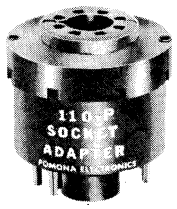
Modernize your present test equipment with these simple adapters. Just plug in adapter to convert to 110° socket. Used for testing, ageing, and lifetesting, etc.



MODEL 110-G

Eightar socket end, 8JS Basing, accepts pins with .040 dia., (.600 pin circle dia.). Wired to test 110° series similar to 17DLP4, 21ESP4, 23KP4, etc. Plug end wired to Duo Decal 12L Basing.

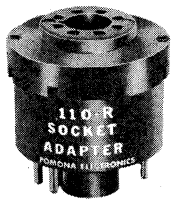
NET 1.55
QUANTITY DISC. CODE **D**



MODEL 110-P

Eightar socket end, 8JK Basing, accepts pins with .040 dia., (.600 pin circle dia.). Wired to test 110° Semi-Flat S-F series 17DAP4/SF17, 21EAP4/SF21, etc. Plug end wired to Duo Decal 12L Basing.

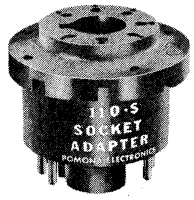
NET 1.55
QUANTITY DISC. CODE **D**



MODEL 110-R

Eightar socket end, 8HR Basing, accepts pins with .040 dia., (.600 pin circle dia.). Wired to test 110° series similar to 17BZP4, 21CEP4, 23CP4, etc. Plug end wired to Duo Decal 12L Basing.

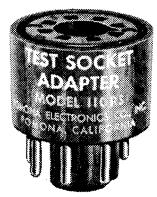
NET 1.55
QUANTITY DISC. CODE **D**



MODEL 110-S

Socket end, button base, 7FA Basing, accepts 7 pins .093 dia., (.820 pin circle dia.). Wired to test 110° series similar to 17BVP4, 21CSP4, 23JP4, etc. Plug end wired to Duo Decal 12L Basing.

NET 1.55
QUANTITY DISC. CODE **D**

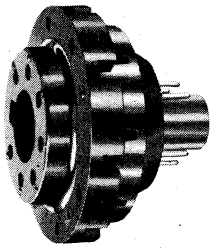


MODEL 110-RS

Eightar socket end, 8HR Basing, accept pins with .040 dia., (.600 pin circle dia.). Wired to test 110° series similar to 17BZP4, 21CEP4, 23CP4, etc. Plug end, 7 pin Button, 7FA Basing.

NET 1.95
QUAN. DISC. CODE **D**

SYLVANIA TO RCA 110° CRT—ADAPTER

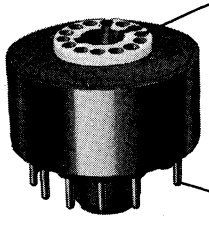


Socket End: Sylvania Type 7FA Basing.
Plug End: RCA Type 8HR Basing.

MODEL 110-SYR **NET 2.25**

QUANTITY DISC. CODE **D**

COLOR—TUBE SOCKET CONVERSION ADAPTER



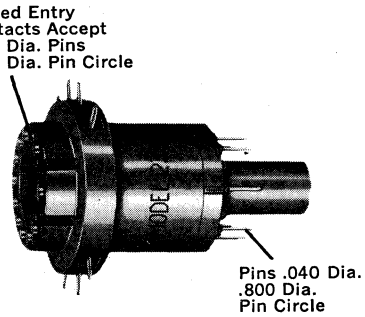
This single adapter will allow you to test both the new Motorola and RCA color tubes with your present test equipment. Provision for accepting bases equipped with spark gaps.

Socket End: Miniature Diheptal Socket, 14BE Basing.

Plug End: Neo-Diheptal Base, 14AL/AU Basing.

QUANTITY DISC. CODE **D** **MODEL 2276** **NET 5.95**

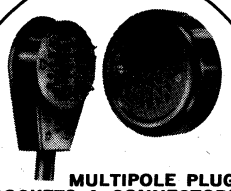
COLOR—TEST ADAPTER MINIATURE DIHEPTAL



MINIATURE DIHEPTAL
For Color Television
Picture Tubes
Provision for spark gaps.

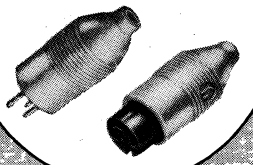
MODEL 2380

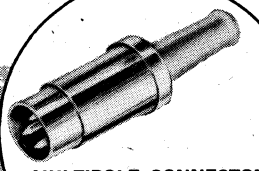
QUANTITY DISC. CODE **D** **NET 4.95**



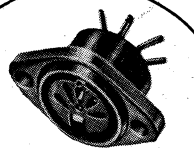
MULTIPOLE PLUGS SOCKETS & CONNECTORS UP TO 36 POLES

MULTIPOLE CONNECTORS UNSHIELDED

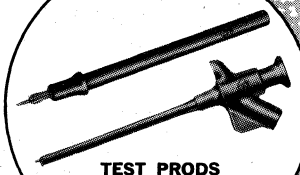




MULTIPOLE CONNECTORS DOUBLE-SHIELDED SHIELDED, UNSHIELDED



MINIATURE SOCKETS SHIELDED AND UNSHIELDED

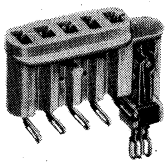


TEST PRODS THIRD HAND PROBES

PHONO PLUGS, SOCKETS AND ADAPTERS

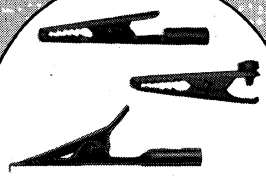
BANANA PLUGS & JACKS
More than a hundred configurations. Bunch pin, transverse slot, leaf spring, rigid handles, unbreakable handles, quick-acting, with or without strain-relief. Available in over 20 colors.

BANANA PLUGS & JACKS



I.E.C. CONNECTORS

MULTI-WAY BINDING POSTS AND TERMINALS

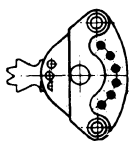


ALLIGATOR CLIPS STAINLESS OR PLATED

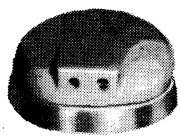
ULTRA-MINIATURE AND MICRO-MESH ALLIGATOR CLIPS

ALLIGATOR CLIPS INSULATED, QUICK-ACTING

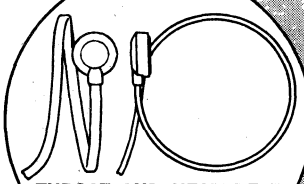
UNDER THE CHIN HEADSETS



MINIATURE SWITCHES
Ball bearing detent.

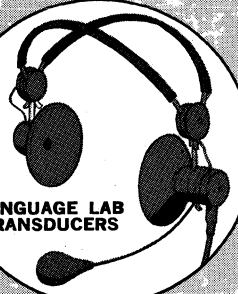


HIGH PERFORMANCE MINIATURE EARPHONES



THROAT AND HEARTBEAT MICROPHONES

rye INDUSTRIES



LANGUAGE LAB TRANSDUCERS

COMMUNICATION MICROPHONES

PROFESSIONAL MICROPHONES

Request:
☐ Plug, socket connector, test prod catalog. ☐ General catalog, including miniature switches. ☐ Professional and consumer microphones, headsets, transformers.

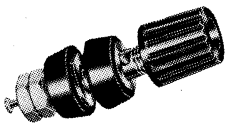
ACOUSTIC CONTROL BOX

Sound control boxes. Complete with volume control and driver units. With acoustical headset. As engineered and manufactured for a major American airline.

© U.C.P., Inc.

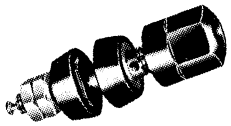
SUPERIOR 5-WAY® *Binding Posts*

5 WAYS TO CONNECT ● GOLD-PLATED BRASS PARTS ● RANGE OF COLORS



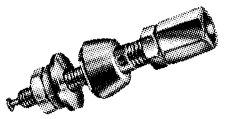
FLUTED NUT TYPES

Plastic parts of standard (not miniature) size types molded of Lexan polycarbonate resin; brass parts are gold-plated. Rated for 30 amperes, 1000 volts working. Nickel-plated brass types available on special order.



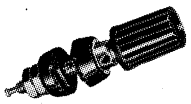
HEX NUT TYPES

Rated for 30 amperes, 1000 volts working. Brass parts are gold-plated; plastic parts are of nylon compounded to meet military specifications MIL-M-20693A, Type IV. Nickel-plated brass types available on order.



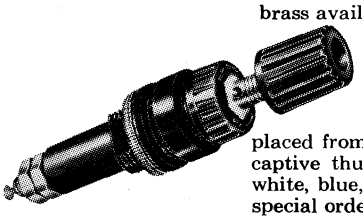
GROUNDING TYPE

For making rapid connections to ground. Made of finely machined brass nickel-plated and polished. Panel grounding collar frozen to shaft has "D" type shoulder for locking in keyed panel hole.



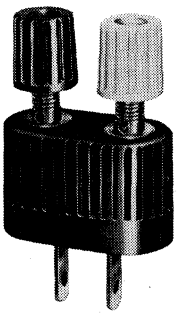
MINIATURE TYPES

Fluted nut design only. Rated for 15 amperes, 1000 volts working. Gold-plated brass parts; nylon plastic parts compounded to meet military specification MIL-M-20693A, Type IV. Types with nickel-plated brass available also.



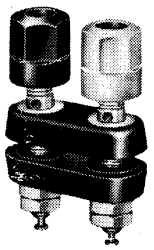
FUSED TYPE

Rated for 250 volts, 15 amperes maximum. Built-in fuseholder accepts standard type 3AG fuse (not supplied). Fuse can be replaced from front of panel. Type FP15BGC has black captive thumbnut; types with noncaptive black, red, white, blue, yellow and green thumbnuts available on special order.



DUAL ADAPTER TYPE

Designed to facilitate line voltage connections from output receptacles to binding posts. Has integral parallel-blade plug. Rating is 15 amperes, 125 volts. Body is black; captive black and white thumbnuts are mounted on ¾" centers. Brass parts are gold-plated. Ideal for safe, rigid connections to equipment lacking a parallel-blade plug and cord assembly.



DOUBLE ASSEMBLY TYPES

For instrument and equipment panels requiring binding posts mounted on ¾" centers. Rated for a current capacity of 30 amperes and a working voltage of 1000 volts. Brass parts are gold-plated; panel insulators in black only. Rugged, self-contained assembly makes mounting more accurate, faster and easier than two individual binding posts and gives maximum strength where connections are frequently made.

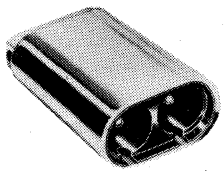
STYLE	TYPE
SUPERIOR 5-WAY® BINDING POSTS	
FLUTED NUT — STANDARD	DF31*
HEX NUT — STANDARD	DF30*
GROUNDING — ALL METAL	GP30NC
FLUTED NUT — MINIATURE	DF21*
FUSED TYPE	
BLACK FLUTED NUT	FP15BGC

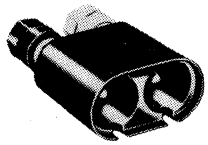
STYLE	TYPE
DUAL ADAPTER TYPE	
BLACK & WHITE FLUTED NUTS	DAP15BWC
DOUBLE ASSEMBLY TYPES	
BLACK & WHITE HEX NUTS	DF30-2-BWTC
TWO BLACK HEX NUTS	DF30-2-BBC
BLACK & RED HEX NUTS	DF30-2-BRC

*Add desired color suffix to series designation number: BC (black), BLC (blue), RC (red), WTC (white), YC (yellow), GNC (green). For example: DF21BLC.

DUB-L-PLUG *Dual Electrical Connectors*

SHIELDED INSULATE





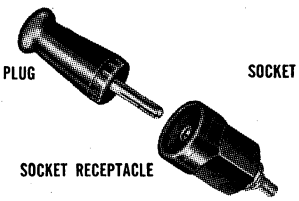
INSULATED

For safe, rapid connections to binding posts mounted on ¾" centers. Gold-plated current carrying parts, completely recessed integral banana plugs, captive black and white thumbnuts. Shielded/insulated type has die-cast, chrome-plated case; removable grounding banana plug; black nylon body. Insulated types have wire slots to permit stacking; nylon bodies in six colors.

NYLON BODY	INSULATED TYPE	SHIELDED/INSULATED
BLACK	IPG2BC	SPGK2BC
RED	IPG2RC	—
WHITE	IPG2WTC	—
BLUE	IPG2BLC	—
YELLOW	IPG2YC	—
GREEN	IPG2GNC	—

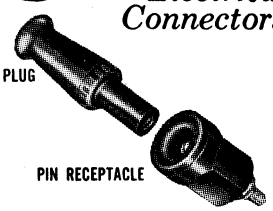
SUPERCON® *Electrical Connectors*

PIN PLUG



SOCKET RECEPTACLE

SOCKET PLUG



PIN RECEPTACLE

Nylon plastic parts; gold-plated brass current-carrying parts. Wiring connections to the same plug can be either soldered or solderless. Plug cable-fastening screws permit a wide range of cable sizes. Plug grips are of a simple, two-piece threaded construction for quick assembly. All receptacle plastic parts are molded of the same color to permit more rapid and accurate circuit identification front and back of panel when installed. The 25, 50 and 100 ampere types are listed by Underwriters' Laboratories, Inc.

AMPERES	PIN PLUGS TYPE†	SOCKET RECEPTACLES TYPE†	SOCKET PLUGS TYPE†	PIN RECEPTACLES TYPE†
25	PP25G	RS25G	PS25G	RP25G
50	PP50G	RS50G	PS50G	RP50G
100	PP100G	RS100G	PS100G	RP100G
250	PP250G	RS250G	PS250G	RP250G

†Add desired color suffix to series designation number: B (black), BL (blue), R (red), WT (white), Y (yellow), GN (green). For example: PS25GWT.

THE SUPERIOR ELECTRIC COMPANY

SEE OTHER SUPERIOR ELECTRIC PRODUCT PAGES IN SECTIONS 3500, 4000 AND 5600

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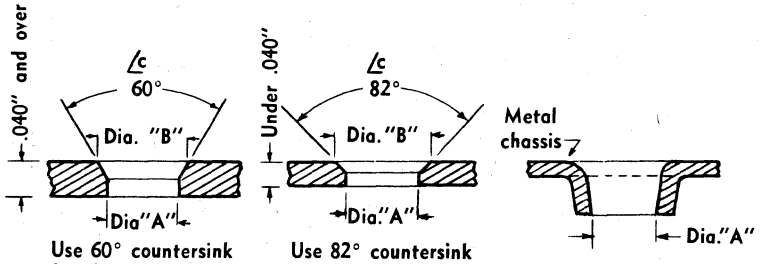
Sealectro PRESS-FIT® TEFLON† TERMINALS

†Reg. Trademark, E. I. Du Pont de Nemours & Co.

INSTALLATION PROCEDURE

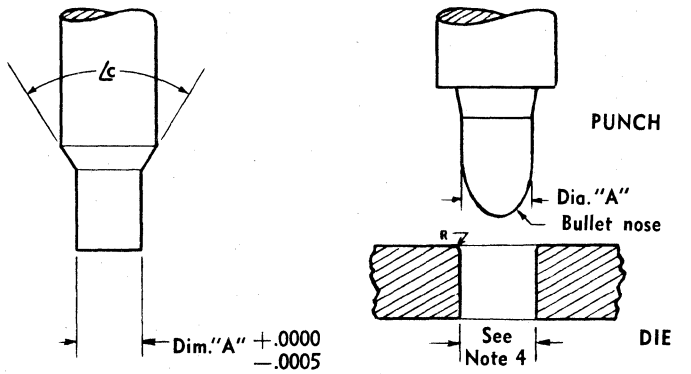
FEED-THRU AND STAND-OFF



Use 60° countersink for chassis thickness .040" and over.

Use 82° countersink for chassis thickness under .040".

Punched and Drawn Hole



PUNCH AND COUNTERSINK DETAIL

DRAW PUNCH AND DIE DETAIL

Bushing minor diameter +.002 −.000	Hole or punch Dia. "A" ±.002	Dia."B" +.010 −.000
.093	.086	.110
.104	.091	.115
.125	.113	.135
.127	.114	.140
.135	.122	.145
.148	.136	.160
.165	.152	.175
.171-.172	.158	.175
.175	.162	.195
.179	.166	.185
.185	.172	.195
.200	.187	.210
.204	.191	.235
.215	.203	.235
.217-.218	.205	.235
.234	.221	.240
.263	.250	.280
.266	.253	.280

NOTES

1. Teflon should protrude .040" min. below chassis.
2. Clearance between punch and die should be held to normal shop tolerances governed by material and thickness and type.
3. Predrawn hole size is governed by material type and thickness.
4. Die diameter is punch diameter plus double the metal thickness, tolerances being consistent with normal shop practice.

INSTALLATION PROCEDURE

Simplest, fastest, most economical terminal installation known, with practically no restriction as to chassis material and thickness.

Inexpensive insertion tool available from Sealectro, facilitates installation. Tool fits any drillpress (power off) or hand arbor press, to hold given PRESS-FIT Terminal. Centered over chassis hole, and with applied pressure, the PRESS-FIT Terminal slips into the hole for a rigid permanent, trouble-free installation. Just PRESS-FIT — that's it! In four easy steps:

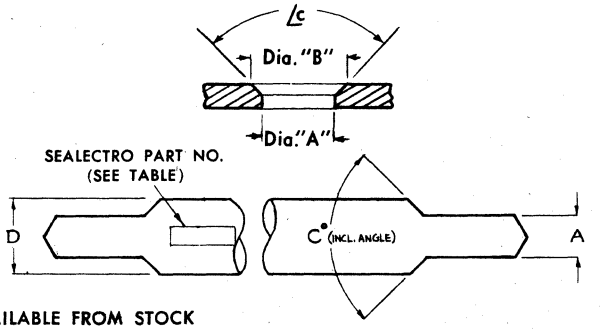
(1) PUNCH OR DRILL HOLE . . .
.013"±.002" less than diameter of terminal section (dia. "G" in tables) passing through chassis. Minimum protrusion of bushing passing through chassis, .040". Maximum thickness of chassis .125"; for greater thickness, ask for our recomcomendations. Countersink from breakout or die side of chassis (not from punch side).

(2) COUNTERSINK ENTRANCE EDGE . . .
Use 60° countersink when chassis thickness is .040" and over; use 82° countersink when chassis thickness is less than .040". This enables centering of terminal in hole and prevents scoring the Teflon bushing. Depth and maximum diameter of countersink is determined by thickness of chassis stock and bushing's major diameter.

(3) INSERTION TOOL . . .
Insertion tool is placed in chuck of drillpress (power off) or hand arbor press. Terminal is held by tool, leaving assembler's hands free to index and center chassis hole underneath tool. Proper pressure is applied and released just as soon as major diameter of terminal seats itself.

(4) PERMANENT INSTALLATION . . .
PRESS-FIT Terminal is now permanently secured in place.

DRILL AND COUNTERSINK IN 1 OPERATION



AVAILABLE FROM STOCK

SEALECTRO PART NO.	DIMENSION			
	A	B*	C°	D
086 - 115 - 60	.086	.115	60	.187
112 - 140 - 60	.112	.140	60	.187
136 - 160 - 60	.136	.160	60	.187
136 - 160 - 82	.136	.160	82	.187
152 - 175 - 60	.152	.175	60	.187
158 - 175 - 60	.158	.175	60	.187
172 - 195 - 60	.172	.195	60	.250

Note: B* is recommended diameter of countersink +.010 −.000

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STAND-OFFS MICROMINIATURE and SUBMINIATURE

FIG.	PART No.	TOOL NO.	CAPACITANCE mmf	V,RMS 60 CPS NOMINAL RATING	V,RMS 60 CPS FLASHOVER SEA LEVEL	A	B	B_1	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 —.000 G DIA.	K	K_1
1	ST-SM-3C1-L6	B3-10	0.35	750	2500	.213	.093			.031	.089	.040		.125	.093		
1	ST-SM-7	B3-1	0.30	1000	3000	.262	.147			.040	.075	.040		.125	.093		
1	ST-SM-7LT	B3-1	0.40	1000	3000	.299	.174			.040	.085	.040		.125	.093		
1	ST-SM-16	B3-1	0.60	1000	3000	.350	.210			.040	.100	.040		.125	.093		
1	ST-SM-3C1-L4	B3-4	0.50	750	2500	.250	.130			.031	.089	.040		.125	.104		
1	ST-SM-1	B-8	0.45	1000	3000	.350	.210			.040	.100	.040		.172	.148		
1	*ST-SM-1C2	B-8	0.50	1000	3000	.410	.210			.040	.160	.040		.172	.148		
1	ST-SM-1C6	B-8	0.50	1000	3000	.500	.210			.040	.250	.040		.172	.148		
1	ST-SM-1L2	B-8	0.40	1000	3000	.265	.125			.040	.100	.040		.172	.148		
1	ST-SM-1L2-C2	B-8	0.40	1000	3000	.280	.125			.040	.115	.040		.172	.148		
1	ST-SM-1L4	B-8	0.35	1000	3000	.250	.110			.040	.100	.040		.172	.148		
1	ST-SM-1L6	B-8	0.40	1000	3000	.285	.145			.040	.100	.040		.172	.148		
1	ST-SM-1L6-C2	B-8	0.30	1000	3000	.260	.145			.040	.075	.040		.172	.148		
1	ST-SM-1L8	B-8	0.50	1000	3000	.750	.610			.040	.100	.040		.172	.148		
1	ST-SM-1L10	B-8	0.50	1000	3000	.594	.450			.040	.100	.040		.172	.148		
1	ST-SM-1L12	B-8	0.40	1000	3000	.460	.320			.040	.100	.040		.172	.148		
1	ST-SM-2	B-8	0.35	1000	3000	.310	.210			.050	.050	.040		.172	.148		
1	ST-SM-2C2	B-8	0.50	1000	3000	.335	.210			.050	.075	.040		.172	.148		
1	ST-SM-2C2-L2	B-8	0.20	1000	3000	.230	.105			.050	.075	.040		.172	.148		
1	ST-SM-2C4	B-8	0.40	1000	3000	.370	.210			.050	.110	.040		.172	.148		
1	ST-SM-2C6	B-8	0.40	1000	3000	.305	.145			.050	.110	.040		.172	.148		
1	ST-SM-2C6-C2	B-8	0.30	1000	3000	.247	.147			.050	.050	.040		.172	.148		
1	**ST-SM-2L2	B-8	0.35	1000	3000	.250	.150			.030	.070	.040		.172	.148		
1	ST-SM-2L4	B8-G1	0.30	1000	3000	.210	.120			.030	.060	.040		.172	.148		
1	ST-SM-500	B8-18A	0.40	1000	3000	.360	.204			.046	.110	.046		.172	.148		
1	ST-SM-6	B-8	0.40	1200	3500	.345	.210			.060	.075	.040		.172	.148		
1	ST-SM-8	B-8	0.45	1000	3000	.370	.210			.040	.120	.040		.172	.148		
1	ST-SM-15	B-8	0.35	1500	4000	.350	.210			.078	.062	.040		.172	.148		
1	ST-SM-19	B-8	0.45	1000	3000	.365	.193			.040	.132	.040		.172	.148		
1	ST-SM-3	B-15	0.45	1000	3000	.350	.210			.040	.100	.040		.195	.172		
1	ST-SM-4	B-16	0.35	1200	3500	.350	.210			.040	.100	.040		.200	.179		
1	ST-SM-5	B-22	0.35	1200	3500	.350	.210			.040	.100	.040		.250	.218		
2	ST-SM-1SL	B8-16	0.40	1000	3000	.265	.125			.040	.100	.040		.172	.148	.010	.010
3	ST-MM-10-TUR	B3-2C	0.40	1000	3000	.310	.170	.020	.060	.040	.100	.030	.060	.125	.093		
3	ST-SM-16-TUR	B3-2B	0.60	1000	3000	.350	.210	.020	.100	.040	.100	.040	.080	.125	.093		
3	ST-SM-027-TUR	B8-A	0.60	1000	3000	.480	.250	.020	.093	.040	.190	.040	.093	.172	.130		
3	ST-SM-1 TUR	B-8	0.40	1000	3000	.350	.210	.020	.100	.040	.100	.040	.080	.172	.148		
3	ST-SM-1 TUR-C2	B-8	0.50	1000	3000	.375	.210	.020	.100	.040	.125	.040	.080	.172	.148		
3	ST-SM-TUR-C4	B-8	0.40	1000	3000	.360	.210	.020	.100	.040	.110	.040	.080	.172	.148		
3	ST-SM-19 TUR-C2	B-8	0.55	1000	3000	.500	.210	.020	.100	.040	.250	.040	.080	.172	.148		
3	ST-SM-22 TUR	B-8	0.50	1700	4500	.428	.210	.020	.100	.093	.125	.040	.080	.172	.148		
3	ST-SM-22 TUR-C2	B-8	0.30	1700	4500	.461	.210	.020	.100	.093	.158	.040	.080	.172	.148		
3	*ST-SM-25 TUR	B8-A	0.50	1000	3000	.334	.154	.020	.046	.040	.140	.046	.093	.172	.148		
3	ST-SM-25 TUR-C2	B8-A	0.35	1000	3000	.254	.154	.020	.046	.040	.060	.046	.093	.172	.148		
3	*ST-SM-29 TUR	B8-A	0.50	1000	3000	.455	.250	.020	.093	.040	.165	.040	.093	.172	.148		
3	ST-SM-29 TUR-C2	B8-A	0.60	1000	3000	.540	.250	.020	.093	.040	.250	.040	.093	.172	.148		
3	ST-SM-29 TUR-L2	B8-A	0.50	1000	3000	.470	.250	.020	.093	.040	.180	.040	.093	.172	.148		
3	ST-SM-51-TUR-C2	B8-A	0.45	1400	3800	.346	.156	.020	.047	.040	.150	.047	.093	.172	.152		
3	ST-SM-51-TUR-C4	B8-A	0.40	1000	3000	.296	.156	.020	.047	.040	.100	.047	.093	.172	.152		
3	ST-SM-51-TUR-C6	B8-A	0.50	1000	3000	.361	.156	.020	.047	.040	.165	.047	.093	.172	.152		
3	ST-SM-51-TUR-L2	B8-A	0.40	1000	3000	.335	.207	.020	.100	.040	.088	.047	.093	.172	.152		
3	ST-SM-52-TUR	B8-A	0.30	1000	3000	.347	.207	.020	.100	.040	.100	.047	.093	.172	.152		
3	ST-SM-4 TUR	B-16	0.35	1000	3000	.350	.210	.020	.100	.040	.100	.040	.080	.200	.179		
3	ST-SM-20 TUR	B-18	0.40	1000	3000	.350	.210	.020	.100	.040	.100	.040	.080	.218	.185		
3	ST-SM-21 TUR	B-18	0.40	1000	3000	.375	.210	.020	.100	.040	.125	.040	.080	.218	.185		
3	ST-SM-23 TUR	B-22	0.40	1200	3500	.350	.210	.020	.100	.040	.100	.040	.080	.250	.204		
4	ST-SM-50-TUR	B-8	0.30	1000	3000	.262	.125	.020	.085	.050	.087	.040	.080	.172	.148		
4	ST-SM-352-TUR	B-8	0.30	1000	3000	.250	.110	.020	.080	.040	.100	.040	.080	.172	.148		
4	ST-SM-36 TUR	B-16	0.35	1500	4000	.320	.120	.020	.080	.075	.125	.048	.090	.200	.172		
5	ST-SM-40 TUR	B-9	0.40	1000	3000	.392	.232	.029	.031	.050	.110	.070	.109	.172	.148		
5	ST-SM-45 TUR	B8-13B	0.40	1000	3000	.362	.232	.029	.031	.050	.080	.070	.109	.172	.148		
6	ST-SM-47 TUR	B-8	0.30	1000	3000	.328	.210	.020	.120	.040	.078	.040	.080	.172	.148		
6	ST-SM-47 TUR-C2	B-8	0.40	1000	3000	.350	.210	.020	.120	.040	.100	.040	.080	.172	.148		
6	ST-SM-47 TUR-C4	B-8	0.50	1000	3000	.415	.210	.020	.120	.040	.165	.040	.080	.172	.148		
6	ST-SM-47-TUR-C6	B-8	0.50	1000	3000	.428	.210	.020	.120	.093	.125	.040	.080	.172	.148		
7	ST-SM-42 TUR	B3-2A	0.40	1000	3000	.334	.153	.015	.031	.041	.140	.068	.078	.125	.093		
7	ST-SM-44 TUR	B-2	0.40	1000	3000	.255	.150	.015	.031	.030	.075	.068	.078	.125	.093		

Terminal Lug: Brass, Solder Finish (40 to 70% Tin Content) Electro-Plate .0003" Minimum Thick (*Silver—**Gold Flash over Silver)
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.

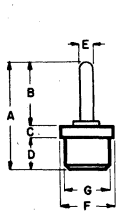

Fig. 1

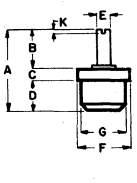

Fig. 2

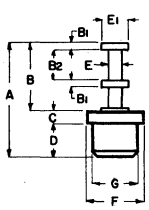

Fig. 3

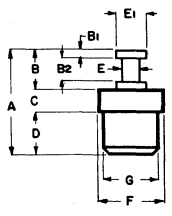

Fig. 4

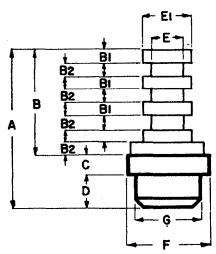

Fig. 5

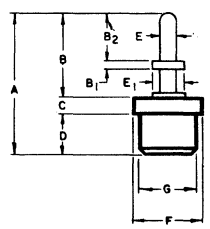

Fig. 6

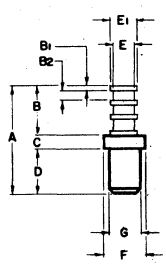

Fig. 7

Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

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STAND-OFFS MICROMINIATURE and SUBMINIATURE

FIG.	PART No.	TOOL NO.	CAPACITANCE mmf	V,RMS 60 CPS NOMINAL RATING	V,RMS 60 CPS FLASHOVER SEA LEVEL	A	B	B_1	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 −.000 G DIA.	K	K_1
51	RST-SM-3-C1	B-3-B	0.40	1000	3000	.250	.130			.031	.089	.040		.125	**.093**		
51	RST-SM-16	B-3-2X	0.40	1000	3000	.350	.210			.040	.100	.040		.125	**.093**		
51	RST-SM-3	B-3-B	0.30	1000	3000	.250	.130			.031	.089	.040		.125	**.104**		
51	RST-SM-3-C3	B-3-B	0.30	1000	3000	.250	.130			.031	.089	.040		.125	**.106**		
51	RST-SM-11C1	B8-G	0.45	1500	4000	.350	.210			.020	.120	.040		.172	**.112**		
51	RST-SM-39-C1	B-8-M	0.35	1000	3000	.350	.210			.015	.125	.040		.172	**.112**		
51	RST-SM-13	B6-X1	0.50	500	2000	.310	.210			.040	.060	.040		.150	**.125**		
51	RST-SM-1	B8-X1	0.40	1200	3500	.350	.210			.040	.100	.040		.172	**.148**		
51	RST-SM-1B2	B8-G	0.40	1200	3500	.330	.210			.020	.100	.040		.172	**.148**		
51	RST-SM-1-CB	B8-X1	0.30	1000	3000	.330	.210			.046	.074	.040		.170	**.148**		
51	RST-SM-1C6	B8-X1	0.40	2000	5000	.500	.210			.040	.250	.040		.172	**.148**		
51	RST-SM-1L2	B8-X1	0.50	1200	3500	.265	.125			.040	.100	.040		.172	**.148**		
51	RST-SM-1L8	B8-X1	0.50	1200	3500	.750	.610			.040	.100	.040		.172	**.148**		
51	RST-SM-2	B8-X2	0.40	1000	3000	.310	.210			.050	.050	.040		.172	**.148**		
51	RST-SM-6	B8-X	0.35	1200	3500	.345	.210			.060	.075	.040		.172	**.148**		
51	RST-SM-7C2	B8-X1	0.30	1200	3500	.382	.210			.040	.132	.045		.172	**.148**		
51	** RST-SM-11	B8-G	0.30	1200	3500	.350	.210			.020	.120	.040		.172	**.148**		
51	RST-SM-28	B8-X1	0.35	1500	4000	.390	.218			.040	.132	.040		.172	**.148**		
51	RST-SM-39	B-8-M	0.30	1200	3500	.350	.210			.015	.125	.040		.172	**.148**		
51	RST-SM-3CD3	B-15-X	0.45	1000	3000	.500	.360			.040	.100	.040		.195	**.172**		
52	RST-SM-3SL	B3-2X	0.50	500	2000	.350	.210			.040	.100	.080		.125	**.104**	.036	.180
52	RST-SM-41SL	B6-C	0.30	750	2500	.150	.062			.025	.063	.050		.150	**.125**	.020	.047
53	RST-SM-47-TUR	B8-X-1	0.40	1000	3000	.328	.210	.020	.120	.040	.078	.040	.080	.172	**.148**		
53	RST-SM-47-TUR-C2	B8-X-1	0.40	1200	3500	.350	.210	.020	.120	.040	.100	.040	.080	.172	**.148**		
54	RST-MM-10-TUR	B1-2	0.40	500	2000	.310	.170	.020	.060	.040	.100	.030	.060	.125	**.093**		
54	RST-SM-25-TUR-C4	B8-X-1	0.40	1500	4000	.295	.156	.020	.046	.040	.100	.046	.093	.172	**.148**		
54	RST-SM-38-TUR	B10	0.40	1500	4000	.405	.210	.020	.100	.040	.155	.040	.080	.188	**.171**		
54	RST-SM-1-TUR	B8-X-1	0.40	1200	3500	.350	.210	.020	.100	.040	.100	.040	.080	.172	**.148**		
54	RST-SM-4-TUR	B16	0.40	1500	4000	.350	.210	.020	.100	.040	.100	.040	.080	.200	**.179**		
54	RST-SM-20-TUR	B18	0.40	1500	4000	.350	.210	.020	.100	.040	.100	.040	.080	.218	**.185**		
54	RST-SM-21-TUR	B18	0.30	1700	4500	.375	.210	.020	.100	.040	.125	.040	.080	.218	**.185**		
54	RST-SM-23-TUR	B22-X-2	0.30	1500	4000	.350	.210	.020	.100	.040	.100	.040	.080	.250	**.204**		
55	RST-SM-31-TUR	B8-X-1	0.50	1700	4500	.455	.227	.020	.187	.040	.187	.040	.080	.172	**.148**		
55	RST-SM-31-TUR-CD1	B8-3	0.35	1500	4000	.382	.227	.020	.187	.025	.130	.040	.080	.172	**.148**		
55	RST-SM-31-TUR-L2	B8-X-1	0.40	1200	3500	.296	.156	.020	.116	.040	.100	.046	.093	.172	**.148**		
55	RST-SM-352-TUR	B8-X-1	0.40	1200	3500	.250	.110	.020	.080	.040	.100	.040	.080	.172	**.148**		
55	RST-SM-350-TUR	B10	0.20	1500	4000	.320	.125	.020	.080	.040	.155	.040	.080	.188	**.171**		
55	RST-SM-36-TUR	B16	0.30	1500	4000	.320	.120	.020	.080	.075	.125	.048	.090	.200	**.172**		

Terminal Lug: Brass, Solder Finish (40 to 70% Tin Content) Electro-Plate .0003" Minimum Thickness.
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.

**Gold flash over silver.

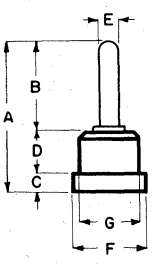

Fig. 51

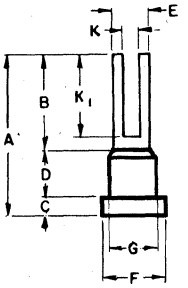

Fig. 52

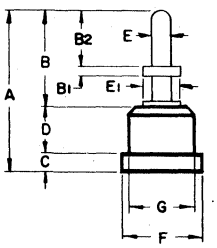

Fig. 53

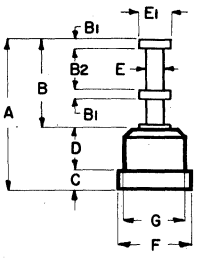

Fig. 54

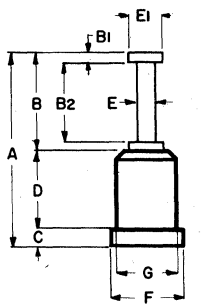

Fig. 55

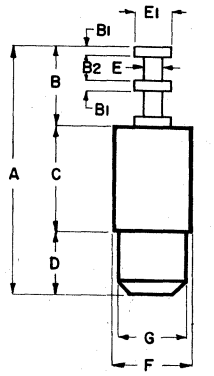

Fig. 101

Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

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STAND-OFFS MINIATURE

FIG. #	PART No.	TOOL NO.	CAPACITANCE mmf	V,RMS 60 CPS NOMINAL RATING	V,RMS 60 CPS FLASHOVER SEA LEVEL	A	B	B_1	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	G +.002 −.000 DIA.
101	ST-210	B3-A	0.50	1500	4000	.346	.156	.020	.046	.103	.087	.046	.093	.125	.104
101	ST-211	B3-A	0.50	1500	4000	.346	.156	.020	.046	.103	.087	.046	.093	.125	.104
101	ST-215	B3-A	0.50	1500	4000	.359	.156	.020	.046	.103	.100	.046	.093	.125	.104
101	ST-1200	B6-10	0.20	3000	7000	.531	.156	.020	.046	.219	.156	.046	.093	.156	.127
101	ST-1400L2	B12-3	0.30	2800	7500	.647	.250	.020	.093	.250	.150	.040	.093	.187	.135
101	ST-230L2	B9-3	0.50	2500	6000	.482	.250	.020	.094	.125	.110	.040	.093	.172	.148
101	ST-1175L2	B9-3	0.30	3200	7500	.598	.250	.020	.093	.187	.165	.040	.093	.172	.148
101	ST-250	B12	0.30	2500	6000	.431	.156	.020	.046	.125	.150	.046	.093	.187	.165
101	ST-250L2	B12	0.50	2500	6000	.522	.250	.020	.093	.125	.150	.040	.093	.187	.165
101	ST-250L3	B12-2	0.60	2000	5000	.556	.281	.031	.093	.125	.150	.046	.125	.187	.165
101	ST-250L6	B12	0.50	2500	6000	.485	.210	.020	.100	.125	.150	.040	.093	.187	.165
101	ST-260L3	B13	0.60	3000	7000	.556	.281	.031	.093	.175	.100	.046	.125	.187	.165
101	ST-1000	B13	0.20	2800	6700	.493	.156	.020	.046	.187	.150	.046	.093	.187	.165
101	ST-1000L2	B13	0.30	2800	6700	.584	.250	.020	.093	.187	.150	.040	.093	.187	.165
101	ST-1000L3	B13-3B	0.65	2500	6000	.616	.281	.031	.093	.187	.150	.046	.125	.187	.165
101	ST-1000-2C	B13	0.30	2800	6700	.468	.156	.020	.046	.187	.125	.046	.093	.187	.165
101	ST-1450L3	B13-3B	0.55	3000	7000	.681	.281	.031	.093	.200	.200	.046	.125	.187	.165
101	ST-1500	B12-3	0.20	3100	7300	.556	.156	.020	.046	.250	.150	.046	.093	.187	.165
101	ST-1500L2	B12-3	0.30	3100	7300	.647	.250	.020	.093	.250	.150	.040	.093	.187	.165
101	ST-1500L3	B13	0.35	3100	7300	.681	.281	.031	.093	.250	.150	.046	.125	.187	.165
101	ST-1525	B12-3	0.25	3000	7000	.706	.156	.020	.046	.250	.300	.046	.093	.187	.165
101	ST-1900	B13-4	0.20	3500	8000	.831	.281	.031	.093	.350	.200	.046	.125	.187	.165
101	ST-1901	B12	0.25	3500	8000	.893	.343	.031	.125	.350	.200	.047	.125	.187	.165
101	ST-2000	B13-3B	0.25	4500	10000	.831	.281	.031	.093	.400	.150	.046	.125	.187	.165
101	ST-2000L2	B12-3	0.20	4500	10000	.797	.250	.020	.093	.400	.150	.040	.093	.187	.165
101	ST-2000L2-C2	B12-3	0.20	4500	10000	.797	.250	.020	.093	.400	.100	.040	.093	.187	.165
101	ST-2000L3	B12-3	0.15	4500	10000	.706	.156	.020	.046	.400	.150	.046	.093	.187	.165
101	ST-2000L3-C2	B12-3	0.20	4500	10000	.656	.156	.020	.046	.400	.100	.046	.093	.187	.165
101	ST-250C1	B12	0.30	2500	6000	.431	.156	.020	.046	.125	.150	.046	.093	.187	.171
101	ST-250L3-C1	B12-2	0.60	2000	5000	.556	.281	.031	.093	.125	.150	.046	.125	.187	.171
101	ST-250L4	B12-2	0.60	2000	5000	.556	.281	.031	.093	.125	.150	.062	.125	.187	.171
101	ST-250L4-C2	B12	0.65	2000	5000	.621	.281	.031	.093	.125	.215	.062	.125	.187	.171
101	ST-250L5	B12	0.50	2500	6000	.485	.210	.020	.100	.125	.150	.040	.080	.218	.171
101	ST-251C1	B12	0.35	2500	6000	.485	.210	.020	.100	.125	.150	.040	.080	.187	.171
101	ST-1000C1	B13	0.20	2800	6700	.493	.156	.020	.046	.187	.150	.046	.093	.187	.171
101	ST-1000L2-C1	B13	0.35	2800	6700	.584	.250	.020	.093	.187	.150	.040	.093	.187	.171
101	ST-1500C1	B12-3	0.25	3100	7300	.556	.156	.020	.046	.250	.150	.046	.093	.187	.171
101	ST-1500L3-C1	B13	0.40	3100	7300	.681	.281	.031	.093	.250	.150	.046	.125	.187	.171
101	ST-1500L4-C1	B12-3	0.15	3200	7500	.610	.210	.020	.100	.250	.150	.040	.080	.187	.171
101	ST-1501C1	B13	0.20	3100	7300	.593	.156	.020	.046	.250	.187	.046	.093	.187	.171
101	ST-1525C1	B12-3	0.20	3000	7000	.706	.156	.020	.046	.250	.300	.046	.093	.187	.171
101	ST-2000C1	B13-3B	0.25	4500	10000	.831	.281	.031	.093	.400	.150	.046	.125	.187	.171
101	ST-2000C4	B13-3B	0.40	3000	7000	.831	.281	.031	.093	.250	.300	.046	.125	.187	.171
101	ST-2500C1	B26	0.20	5500	12000	.968	.281	.031	.093	.500	.187	.046	.125	.250	.171
101	ST-4000C1	B26	0.25	6000	13000	1.268	.281	.031	.093	.800	.187	.046	.125	.250	.171
101	ST-941	B19-A	0.60	2500	6000	.546	.281	.031	.093	.125	.140	.046	.125	.218	.185
101	ST-1510L3	B24-1	0.40	3000	7000	.718	.281	.031	.093	.250	.187	.046	.125	.250	.215
101	ST-2500	B26	0.20	5500	12000	.968	.281	.031	.093	.500	.187	.046	.125	.250	.215
101	ST-2500B2	B24-1	0.30	4000	9000	.968	.281	.031	.093	.370	.317	.046	.125	.250	.215
101	ST-2500L2	B26	0.20	5200	11500	.934	.250	.020	.093	.500	.187	.040	.093	.250	.215
101	ST-2500L3	B26	0.20	5200	11500	.843	.156	.020	.046	.500	.187	.046	.093	.250	.215
101	ST-4000	B26	0.30	6000	13000	1.268	.281	.031	.093	.800	.187	.046	.125	.250	.215
101	ST-4000L2	B26	0.25	6000	13000	1.234	.250	.020	.093	.800	.187	.040	.093	.250	.215
101	ST-4000L3	B26	0.15	6000	13000	1.143	.156	.020	.046	.800	.187	.046	.093	.250	.215

Terminal Lugs: Brass, Silver Plate .0003″ Min. Thick.

Capacitance and voltage measured with terminals installed in .050″ thick aluminum chassis.

See preceding page for figure drawing

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STAND-OFFS MINIATURE and SUBMINIATURE

FIG.	PART No.	TOOL NO.	CAPACITANCE mmf	V,RMS 60 CPS NOMINAL RATING	V,RMS 60 CPS FLASH OVER SEA LEVEL	A	B	B_1	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 —.000 G DIA.	J DIA.	K	K_1
102	**ST-1150**	B12	0.60	2500	6000	.555	.218	.020	.046	.187	.150	.046	.093	.187	**.171**			
103	**ST-1500TUR**	B12-3	0.20	2700	6500	.520	.120	.020		.250	.150	.048	.090	.187	**.165**			
103	**ST-1600-TUR**	B13-3B	0.20	2000	6000	.519	.120	.020		.187	.212	.048	.090	.187	**.171**			
104	**ST-251***	B13-3	0.45	2000	5000	.485	.210			.125	.150	.040		.187	**.165**			
104	**ST-1020L5***	B13-3	0.40	2200	5500	.547	.210			.187	.150	.040		.187	**.165**			
104	**ST-1181***	B13	0.70	2200	5500	.718	.312			.187	.218	.040		.187	**.165**			
104	**ST-1182***	B16-1	0.55	2500	5500	.600	.300			.125	.175	.062		.200	**.180**			
105	**ST-1500SL-C3**	B11	0.50	2700	6500	.603	.203			.250	.150	.148		.187	**.165**	.078		.156
105	**ST-250SL**	B11	0.70	2000	5000	.478	.203			.125	.150	.148		.187	**.171**	.078		.156
105	**ST-250SL-1L**	B11	0.70	2000	5000	.478	.203			.125	.150	.148		.187	**.171**	.046		.161
105	**ST-1000SL**	B11	0.70	2300	5600	.540	.203			.187	.150	.148		.187	**.171**	.078		.156
105	**ST-1000SL-1L**	B11	0.70	2300	5600	.540	.203			.187	.150	.148		.187	**.171**	.046		.161
105	**ST-1150SL-1L**	B11	0.50	2300	5600	.555	.203			.187	.165	.148		.187	**.171**	.046		.156
105	**ST-1180SL**	B11	0.70	2300	5600	.602	.203			.187	.212	.148		.187	**.171**	.078		.156
105	**ST-1180SL-C2**	B11	0.80	2300	5600	.620	.203			.187	.230	.148		.187	**.171**	.078		.156
105	**ST-1500SL**	B11	0.45	2700	6500	.603	.203			.250	.150	.148		.187	**.171**	.078		.156
105	**ST-1500SL-1L**	B11	0.45	2700	6500	.603	.203			.250	.150	.148		.187	**.171**	.046		.156
105	**ST-2000SL**	B11	0.30	4200	9500	.753	.203			.400	.150	.148		.187	**.171**	.078		.156
105	**ST-2000SL-1L**	B11	0.30	4200	9500	.753	.203			.400	.150	.148		.187	**.171**	.046		.161
105	**ST-2000SL-C2**	B11	0.30	4200	9500	.703	.203			.400	.100	.148		.187	**.171**	.078		.156
105	**ST-2500SL-C1**	B25	0.30	5000	11000	.890	.203			.500	.187	.148		.250	**.171**	.078		.156
105	**ST-4000SL-C1**	B25	0.25	6000	13000	1.190	.203			.800	.187	.148		.250	**.171**	.078		.156
105	**ST-2500SL**	B25	0.30	5000	11000	.890	.203			.500	.187	.148		.250	**.217**	.078		.156
105	**ST-2500SL-1L**	B25	0.30	5000	11000	.890	.203			.500	.187	.148		.250	**.217**	.046		.161
105	**ST-4000SL**	B25	0.20	6000	13000	1.190	.203			.800	.187	.148		.250	**.217**	.078		.156
105	**ST-4000SL-1L**	B25	0.25	6000	13000	1.190	.203			.800	.187	.148		.250	**.217**	.046		.161
106	**ST-35ML**	B11-C	0.85	2000	5000	.633	.296			.187	.150	.150		.187	**.171**		.090	.234
151	**RST-1**	B18-1B	0.40	3000	7000	.487	.154	.020	.046	.046	.287	.046	.093	.218	**†.185**			
151	**RST-1L2**	B18-1B	0.20	3000	7000	.583	.250	.020	.093	.046	.287	.046	.093	.218	**†.185**			
152	**RST-2**	B18	0.15	3200	7500	.543	.210			.046	.287	.040		.218	**.185**			
152	**RST-2C2**	B18-1B	0.50	4000	9000	.756	.210			.046	.500	.040		.218	**.185**			
152	**RST-2L2**	B18	0.70	2500	6000	1.133	.800			.046	.333	.040		.218	**.185**			
153	**RST-1150**	B13-X	0.70	1200	3500	.555	.218	.020	.046	.187	.150	.046	.093	.187	**.171**			
154	**RST-15ML**	B13-X-2	0.75	2000	5000	.629	.296			.093	.240	.150		.187	**.171**		.090	.234
155	**RST-250SL**	B12-X	0.75	1900	4800	.478	.203			.125	.150	.148		.187	**.165**	.078		.156
201	**DST-SM-110***	B8-16	0.20	1000	3000	.560	.180			.040	.160	.040		.172	**.148**			
201	**DST-SM-110-L4***	B8-11	0.15	1500	4000	.600	.155			.080	.210	.040		.172	**.148**			
201	**DST-1010-C2***	B13-3-1	0.20	2700	6400	.819	.210			.187	.212	.040		.187	**.148**			
201	**DST-1010-C4***	B9	0.20	2700	6400	.819	.210			.187	.212	.040		.172	**.148**			
201	**DST-SM-105***	B17	0.25	1000	3000	.640	.210			.050	.170	.040		.205	**.169**			
201	**DST-900***	B12	0.15	2000	5000	.572	.110			.140	.212	.040		.187	**.171**			
201	**DST-900-L2**	B12	0.20	2000	5000	.696	.172			.140	.212	.040		.187	**.171**			
201	**DST-1010***	B13-3-1	0.20	2700	6500	.819	.210			.187	.212	.040		.187	**.171**			
201	**DST-1010-L1***	B13	0.20	1500	4000	.587	.125			.187	.150	.040		.187	**.171**			
202	**DST-1001***	B13	0.20	2000	6000	.819	.210	.020	.120	.187	.212	.040	.080	.187	**.171**			
203	**DST-1000-C2***	B13	0.20	2000	5000	.819	.210	.020	.100	.187	.212	.040	.080	.187	**.148**			
203	**DST-SM-105-TUR***	B17	0.20	1000	3000	.640	.210	.020	.100	.050	.170	.040	.080	.205	**.169**			
203	**DST-1000***	B13	0.20	2500	6000	.819	.210	.020	.100	.187	.212	.040	.080	.187	**.171**			
203	**DST-1015***	B20	0.20	2700	6500	.819	.210	.020	.100	.187	.212	.040	.080	.218	**.187**			
203	**DST-1550**	B24-1	0.40	3500	8000	1.187	.281	.031	.093	.250	.375	.046	.125	.250	**.218**			
203	**DST-2550**	B26	0.35	5000	11000	1.687	.281	.031	.093	.500	.625	.046	.125	.250	**.218**			
203	**DST-4050**	B26	0.30	6000	13000	2.287	.281	.031	.093	.800	.925	.046	.125	.250	**.218**			
204	**DST-2560**	B28	0.15	4000	9000	1.377	.176			.500	.525	.085		.312	**.217**	.062	.156	
205	**DTS-SM-101SL***	B10-3	0.20	1000	3000	.480	.140			.040	.160	.060	.093	.185	**.165**		.032	.110
205	**DST-SM-100SL***	B17	0.20	1000	3000	.480	.140			.040	.160	.060	.093	.205	**.169**		.032	.110

Terminal Lug: Brass, Silver Plate .0003" Min. Thick.
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.

*Solder Finish (40 to 70% Tin Content) Electro-Plate .0003" Min. Thick.

Fig. 102

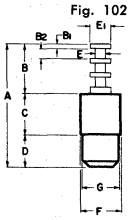


Fig. 103

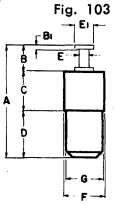


Fig. 104

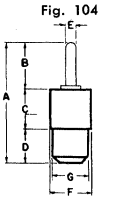


Fig. 105

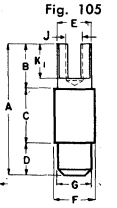


Fig. 106

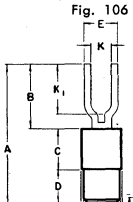


Fig. 151

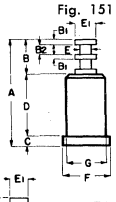


Fig. 152

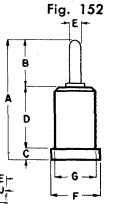


Fig. 153

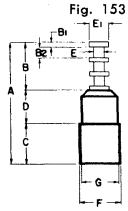


Fig. 154

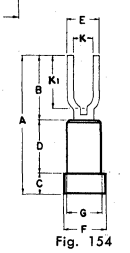


Fig. 155

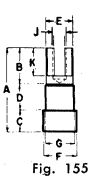


Fig. 201

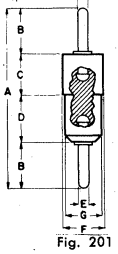


Fig. 202

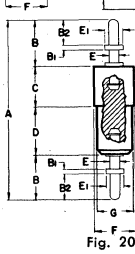


Fig. 203

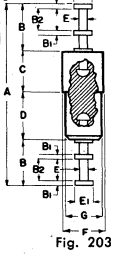


Fig. 204

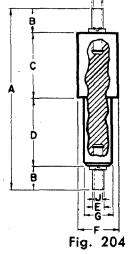
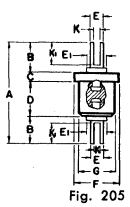


Fig. 205



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FEED-THRUS MICROMINIATURE and SUBMINIATURE

FIG.	PART No.	TOOL NO.	CAPACITANCE mmf	V.RMS NOMINAL RATING	60 CPS FLASHOVER SEA LEVEL	A	B	B_1*	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 −.000 G DIA.	J	K	K_1
301	FT-MM-3SL	BO-1	0.65	400	1800	.510	.100			.040	.090	.030	.060	.093	.075		.024	.080
301	FT-MM-3SL-2L	BO-1-A	0.75	400	1800	.635	.225			.040	.090	.030	.060	.093	.075		.024	.075
301	FT-MM-3SL-4L	BO-1	0.65	400	1800	.471	.110			.040	.090	.030	.060	.093	.075		.024	.080
302	FT-MM-5-TUR	BO	0.70	400	1800	.510	.100	.020	.060	.040	.100	.040	.060	.093	.075			
303	FT-MM-5SL	BO-1	0.70	400	1800	.510	.100			.040	.100	.030	.060	.093	.075		.024	.080
303	FT-MM-6SL	BO-1	0.70	400	1800	.552	.100			.040	.100	.030	.060	.093	.075		.024	.080
304	FT-MM-7	BO-1	0.70	400	1800	.588	.125			.040	.100	.030	.060	.093	.075	.040		.080
305	FT-MM-7ML	BO-1	0.70	400	1800	.588	.120			.040	.100	.030	.060	.093	.075	.040		.080
306	FT-MM-16L2	BO-2	0.70	400	1800	.550	.275			.040	.100	.030		.093	.075			
307	FT-MM-47-TUR	BO-A	1.05	500	2000	1.500	.210	.020	.100	.040	.125	.032	.060	.093	.075			
307	FT-MM-47-TUR-BC*	BO-A	1.10	500	2000	1.500	.210	.020	.100	.040	.125	.032	.060	.093	.075			
307	FT-MM-47-TUR-SS#	BO-A	1.00	500	2000	1.500	.210	.020	.100	.040	.125	.032	.060	.093	.075			
307	FT-MM-48-TUR-BC*	BO-5	0.70	500	2000	1.700	.210	.020	.100	.090	.125	.032	.060	.093	.075			
351	FT-SM-7	B3-1	0.50	500	2000	.375	.147			.040	.075	.040		.125	.093			
351	FT-SM-16	B3-1	0.75	500	2000	.515	.210			.040	.100	.040		.125	.093			
351	FT-SM-16L2	B3-1	0.65	500	2000	.453	.156			.040	.100	.040		.125	.093			
351	†FT-SM-16L6	B3-1	0.80	500	2000	.987	.687			.040	.100	.040		.125	.093			
351	†FT-SM-16L14	B3-1	0.80	500	2000	.438	.125			.040	.100	.040		.125	.093			
351	FT-SM-13	B6	0.50	750	2500	.515	.210			.040	.060	.040		.150	.125			
351	FT-SM-23	B6	0.45	750	2500	.335	.125			.040	.060	.040		.150	.125			
351	FT-SM-23L2	B6	0.60	750	2500	.375	.125			.040	.100	.040		.150	.125			
351	FT-SM-022	B8-A	0.65	1000	3000	.630	.210			.040	.170	.040		.172	.148			
351	FT-SM-023	B8	0.65	1000	3000	.630	.210			.040	.217	.040		.172	.148			
351	FT-SM-1	B8-16	0.50	1000	3000	.515	.210			.040	.100	.040		.172	.148			
351	FT-SM-1C6	B8-A	0.70	1000	3000	.710	.210			.040	.250	.040		.172	.148			
351	FT-SM-1L2	B8-16	0.50	1000	3000	.443	.210			.040	.100	.040		.172	.148			
351	FT-SM-1L3	B8-16	0.70	1000	3000	.725	.210			.040	.100	.040		.172	.148			
351	FT-SM-1L4	B8-16	0.70	1000	3000	1.000	.210			.040	.100	.040		.172	.148			
351	FT-SM-1L6	B8-16	0.55	1000	3000	.562	.210			.040	.100	.040		.172	.148			
351	FT-SM-2	B8-18	0.40	1000	3000	.515	.210			.050	.050	.040		.172	.148			
351	FT-SM-2C4	B8-18	0.50	1200	3500	.535	.210			.050	.110	.040		.172	.148			
351	FT-SM-2C4-L2	B8-13	0.50	1200	3500	.431	.106			.050	.110	.040		.172	.148			
351	FT-SM-2C6	B8-18	0.50	1200	3500	.410	.147			.050	.110	.040		.172	.148			
351	FT-SM-8	B8-16	0.60	1000	3000	.535	.210			.040	.120	.040		.172	.148			
351	FT-SM-9	B8-16	0.50	1000	3000	.535	.210			.040	.132	.040		.172	.148			
351	FT-SM-9L1	B8-16	0.55	1000	3000	.515	.210			.040	.132	.040		.172	.148			
351	FT-SM-9L2	B8-16	0.50	1000	3000	.407	.125			.040	.132	.040		.172	.148			
351	†FT-SM-14**	B8'16	0.50	1000	3000	.375	.125			.040	.100	.040		.172	.148			
351	†FT-SM-14L2**	B8-16	0.50	1000	3000	.325	.075			.040	.100	.040		.172	.148			
351	FT-SM-18	B8-16	0.55	1000	3000	.443	.093			.040	.100	.040		.172	.148			
351	FT-SM-19	B8-16	0.60	1000	3000	.535	.210			.040	.160	.040		.172	.148			
351	FT-SM-19L1	B8-16	0.60	1000	3000	.571	.210			.040	.160	.040		.172	.148			
351	FT-SM-35	B8	0.70	1200	3500	.890	.625			.040	.100	.045		.172	.148			
351	FT-SM-35L2	B8	0.60	1000	3000	.585	.320			.040	.100	.045		.172	.148			
351	FT-SM-1C1	B8-16	0.55	1000	3000	.515	.210			.040	.100	.040		.172	.157			
351	FT-SM-10	B18	1.10	1000	3000	2.500	.460			.040	.100	.040		.219	.169			
351	FT-SM-10L1	B18	1.30	1000	3000	2.500	.460			.040	.100	.049		.219	.169			
351	FT-SM-10L2	B18	1.00	1000	3000	1.875	.125			.040	.100	.049		.218	.169			
351	FT-SM-10L4	B18	0.65	1000	3000	.937	.125			.040	.100	.049		.218	.169			
351	FT-SM-10L6	B18-E	0.85	1000	3000	1.250	.125			.040	.100	.049		.218	.169			
351	FT-SM-27L2	B18-1	0.70	1000	3000	1.090	.680			.050	.110	.040		.218	.171			
351	FT-SM-3	B15	0.50	1200	3500	.515	.210			.040	.100	.040		.195	.172			
351	FT-SM-3L2	B15	0.55	1200	3500	.560	.210			.040	.100	.040		.195	.172			
351	FT-SM-4	B16	0.50	1200	3500	.515	.210			.040	.100	.040		.200	.179			
351	FT-SM-5	B22	0.50	1200	3500	.515	.210			.040	.100	.040		.250	.218			

Terminal Lug: Brass, Solder Finish (40 to 70% Tin Content) Electro-Plate .0003" Minimum Thick
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.
* Beryllium Copper
# Stainless Steel

**Gold Flash over Silver
† E Diameter ±.001

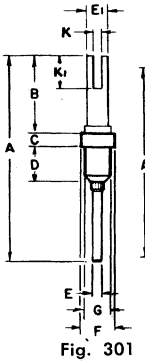

Fig. 301

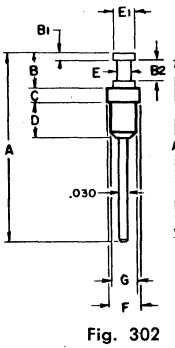

Fig. 302

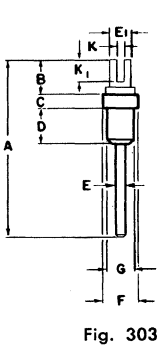

Fig. 303

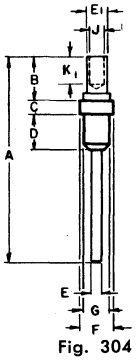

Fig. 304

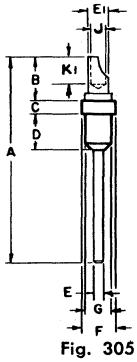

Fig. 305

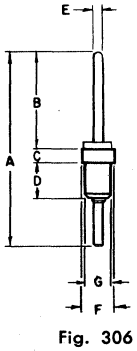

Fig. 306

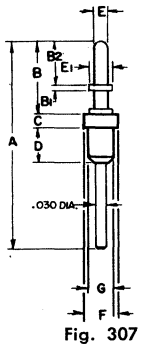

Fig. 307

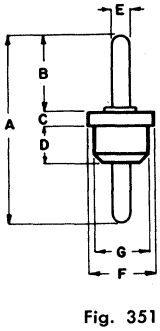

Fig. 351

Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

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FEED-THRUS SUBMINIATURE

FIG.	PART No.	TOOL NO.	CAPACITANCE mmf	V,RMS 60 CPS NOMINAL RATING	V,RMS 60 CPS FLASHOVER SEA LEVEL	A	B	B_1	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 —.000 G DIA.	K	K_1
352	FT-SM-024		—	—	—	.515	.210			.140		.040		.148			
352	FT-SM-17		—	—	—	.375	.200			.140		.040		.180			
353	FT-SM-80	B9-X	0.70	1700	4500	.531	.031			.156	.218	.050		.172	**.148**		
353	FT-SM-81	B9-X1	0.70	1000	3000	.281	.031			.040	.100	.040		.172	**.148**		
354	FT-SM-125	B3-1	0.50	500	2000	.306	.078			.040	.075	.040	.050	.125	**.093**		
354	FT-SM-021	B18	0.40	1200	3500	.449	.250			.046	.060	.051	.060	.218	**.185**		
355	FT-SM-706	B3-5	0.40	500	2000	.218	.031			.040	.060	.030	.040	.125	**.093**		
356	FT-SM-400	B18-H	1.00	1000	3000	.561	.053		.718	.040	.125	.040	.060	.218	**.185**		
356	FT-SM-400L2	B18-H	1.10	1000	3000	.718	.210		1.031	.040	.125	.040	.060	.218	**.185**		
356	FT-SM-400L4	B18-H	1.30	1000	3000	.998	.490		1.343	.040	.125	.040	.060	.218	**.185**		
357	FT-M-9L4	B10-2	0.80	1000	3000	.593	.250			.062	.140	.050		.187	**.148**		
357	FT-SM-9L6	B8-15-2	0.60	1000	3000	.479	.250			.040	.070	.050		.172	**.148**		
358	FT-SM-1SL	B3-1	0.60	500	2000	.312	.116			.040	.100	.040		.125	**.106**	.010	.020
358	FT-SM-100SL	B17	0.65	1500	4000	.480	.140			.040	.160	.060		.205	**.169**	.032	.110
359	FT-SM-1SL-1	B3-1	0.50	500	2000	.312	.116			.040	.100	.040		.125	**.106**	.010	.020
360	FT-SM-16-TUR	B-3-2B	0.70	500	2000	.500	.210	.020	.100	.040	.100	.040	.080	.125	**.093**		
360	FT-SM-1TUR-C6	B8	0.70	1000	3000	.500	.210	.020	.100	.040	.100	.040	.080	.172	**.116**		
360	FT-SM-028TUR	B8	0.60	1000	3000	.550	.245	.020	.070	.040	.125	.040	.080	.172	**.148**		
360	FT-SM-029TUR	B8	0.50	1000	3000	.812	.210	.020	.100	.040	.165	.040	.080	.172	**.148**		
360	FT-SM-1TUR	B8	0.50	1000	3000	.500	.210	.020	.100	.040	.100	.040	.080	.172	**.148**		
360	FT-SM-1TUR-C4	B8	0.50	1000	3000	.500	.210	.020	.100	.040	.165	.040	.080	.172	**.148**		
360	FT-SM-1-TUR-C10	B8	0.40	1000	3000	.438	.210	.020	.100	.040	.083	.040	.080	.172	**.148**		
360	FT-SM-1-TUR-L2	B8	0.50	1000	3000	.438	.210	.020	.100	.040	.100	.040	.080	.172	**.148**		
360	FT-SM-1-TUR-L6	B8	0.70	1000	3000	.609	.210	.020	.100	.040	.165	.040	.080	.172	**.148**		
360	FT-SM-22-TUR-C2	B9	0.70	1200	3500	.609	.210	.020	.100	.093	.158	.040	.080	.172	**.148**		
360	FT-SM-4-TUR	B16	0.50	1200	3500	.500	.210	.020	.100	.040	.100	.040	.080	.200	**.179**		
360	FT-SM-1TUR-C8	B18	0.50	1200	3500	.438	.210	.020	.100	.040	.100	.040	.080	.218	**.185**		
360	FT-SM-33-TUR	B22	0.50	1500	4000	.500	.210	.020	.100	.040	.100	.040	.080	.250	**.234**		
361	FT-SM-2-TUR-C1	B8	0.50	1000	3000	.531	.210	.020	.100	.040	.100	.040	.080	.172	**.112**		
361	FT-SM-23-TUR	B6	0.50	750	2500	.500	.210	.020	.100	.040	.060	.040	.080	.150	**.125**		
361	FT-SM-025-TUR	B8	0.65	1000	3000	.609	.210	.020	.100	.040	.165	.040	.080	.172	**.148**		
361	FT-SM-026-TUR	B8-A	0.55	1000	3000	.437	.156	.020	.047	.040	.065	.040	.080	.172	**.148**		
361	FT-SM-1-TUR-C2	B8	0.45	1000	3000	.500	.210	.020	.100	.040	.060	.040	.080	.172	**.148**		
361	FT-SM-2-TUR	B8	0.70	1000	3000	.531	.210	.020	.100	.040	.100	.040	.080	.172	**.148**		
361	FT-SM-2-TUR-C2	B8	0.70	1000	3000	.531	.210	.020	.100	.040	.125	.040	.080	.172	**.148**		
361	FT-SM-22-TUR	B9	0.65	1200	3500	.609	.210	.020	.100	.093	.125	.040	.080	.172	**.148**		
361	FT-SM-51-TUR	B8-A	0.55	1000	3000	.437	.156	.020	.047	.040	.088	.047	.093	.172	**.152**		
361	FT-SM-51-TUR-C2	B8-A	0.65	1000	3000	.500	.156	.020	.047	.040	.150	.047	.093	.172	**.152**		
361	FT-SM-51-TUR-C4	B8-A	0.60	1000	3000	.437	.156	.020	.047	.040	.100	.047	.093	.172	**.152**		
361	FT-SM-20-TUR-C1	B18	0.55	1200	3500	.531	.210	.020	.100	.040	.100	.040	.080	.218	**.175**		
361	FT-SM-20-TUR	B18	0.65	1200	3500	.531	.210	.020	.100	.040	.100	.040	.080	.218	**.185**		
361	FT-SM-21-TUR	B18	0.65	1200	3500	.531	.210	.020	.100	.040	.125	.040	.080	.218	**.185**		
361	FT-SM-34-TUR	B19-A	0.55	1500	4000	.609	.210	.020	.100	.093	.125	.040	.080	.218	**.185**		
361	FT-SM-26-TUR	B28-A	0.50	1500	4000	.531	.210	.020	.100	.040	.100	.040	.080	.312	**.264**		
362	FT-SM-1-TUR-L4	B8	0.50	1000	3000	.500	.210	.020	.100	.040	.100	.040	.080	.172	**.148**		
363	FT-SM-28-TUR	B6	0.45	750	2500	.350	.125	.020	.095	.040	.060	.040	.080	.150	**.125**		
363	FT-SM-18-TUR	B8	0.60	1000	3000	.443	.093	.020	.062	.040	.100	.040	.080	.172	**.148**		
363	FT-SM-37-TUR-C1	B8-G-1	0.65	750	2500	.493	.093	.020	.063	.020	.170	.040	.080	.172	**.148**		
363	FT-SM-84-TUR	B8	0.60	1000	3000	.640	.250	.020	.210	.040	.125	.040	.080	.172	**.148**		
363	FT-SM-36-TUR	B16	0.60	1200	3500	.500	.120	.020	.080	.075	.125	.048	.090	.200	**.172**		
363	FT-SM-36-TUR-L1	B16-1-A	1.00	1000	3000	.500	.120	.020	.080	.075	.125	.080	.125	.200	**.172**		
364	FT-SM- 16-TUR-L2	B3-5	0.60	500	2000	.350	.125	.020	.085	.040	.100	.040	.080	.125	**.093**		
364	FT-SM-32-TUR	B8	0.50	1000	3000	.350	.125	.020	.095	.040	.100	.040	.080	.172	**.148**		
364	FT-SM-32-TUR-L2	B8	0.60	1000	3000	.385	.160	.020	.130	.040	.100	.040	.093	.172	**.148**		
364	FT-SM-47-TUR-L2	B8	0.50	1000	3000	.380	.090	.020	.060	.040	.100	.040	.080	.172	**.148**		
365	FT-SM-47-TUR	B8	0.55	1000	3000	.500	.210	.020	.120	.040	.100	.040	.080	.172	**.148**		
365	FT-SM-47-TUR-L1	B8	0.50	1000	3000	.500	.210	.020	.120	.040	.100	.040	.080	.172	**.148**		
366	FT-SM-6-TUR-SL	B3-4-1	0.70	750	2500	.346	.093	.020	.060	.030	.130	.040	.080	.125	**.106**	.015	.047

Terminal Lug: Brass, Solder Finish (40 to 70% Tin Content) Electro-Plate .0003" Minimum Thick
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.

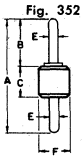
Fig. 352 

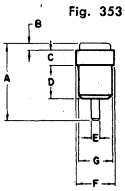
Fig. 353 

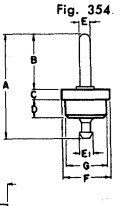
Fig. 354 

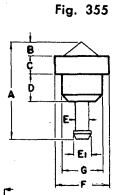
Fig. 355 

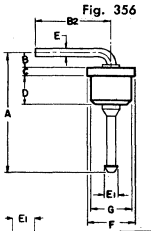
Fig. 356 

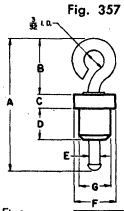
Fig. 357 

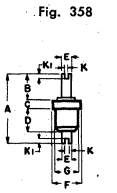
Fig. 358 

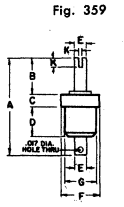
Fig. 359 

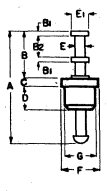
Fig. 360 

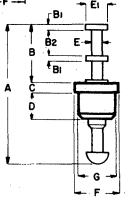
Fig. 361 

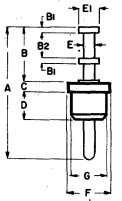
Fig. 362 

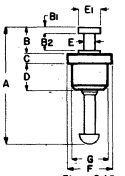
Fig. 363 

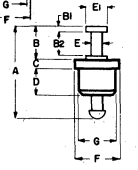
Fig. 364 

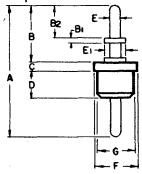
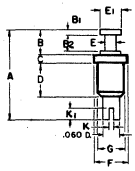
Fig. 365 

Fig. 366 

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FEED-THRUS SUBMINIATURE – SUBMINIATURE, MINIATURE (TUBULAR)

FIG.	PART No.	TOOL No.	CAPACI-TANCE mmf	V.RMS 60 CPS NOMINAL RATING	V.RMS 60 CPS FLASHOVER SEA LEVEL	A	B	B_1	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 —.000 G DIA.
451	RFT-SM-9	B8	0.50	1000	3000	.443	.093	.020	.062	.040	.100	.040	.080	.172	.148
452	RFT-SM-1	B8	0.50	1000	3000	.515	.210			.040	.100	.040		.172	.148
452	RFT-SM-2	B8	0.40	750	2500	.515	.210			.050	.050	.040		.172	.148
452	RFT-SM-9L4	B8-19	1.15	1200	3500	2.500	1.750			.040	.132	.040		.172	.148
453	RFT-SM-47-TUR-L1	B8	0.60	1200	3500	.500	.210	.020	.120	.040	.100	.040	.080	.172	.148
454	RFT-SM-16-TUR	B3-12	0.85	500	2000	.500	.210	.020	.100	.040	.100	.040	.080	.125	.093
454	RFT-SM-23-TUR	B6	0.50	1000	3000	.500	.210	.020	.100	.040	.060	.040	.080	.150	.125
454	RFT-SM-1-TUR	B8	0.50	1000	3000	.500	.210	.020	.100	.040	.100	.040	.080	.172	.148
454	RFT-SM-1-TUR-L6	B8	0.60	1200	3500	.609	.210	.020	.100	.040	.165	.040	.080	.172	.148
454	RFT-SM-2-TUR	B8	0.70	1000	3000	.531	.210	.020	.100	.040	.100	.040	.080	.172	.148
454	RFT-SM-2-TUR-C4	B8	0.60	1200	3500	.531	.210	.020	.100	.040	.165	.040	.080	.172	.148
454	RFT-SM-2-TUR-C6	B8	0.70	1200	3500	.531	.210	.020	.100	.040	.125	.040	.080	.172	.148
454	RFT-SM-22-TUR	B8	0.70	1200	3500	.609	.210	.020	.100	.093	.125	.040	.080	.172	.148
454	RFT-SM-21-TUR	B18	0.50	1500	4000	.531	.210	.020	.100	.040	.125	.040	.080	.218	.185
455	RFT-SM-18-TUR	B8	0.55	1000	3000	.443	.093	.020	.062	.040	.100	.040	.080	.172	.148
455	RFT-SM-32-TUR	B8	0.45	1000	3000	.350	.125	.020	.094	.040	.100	.040	.080	.172	.148
455	RFT-SM-35-TUR	B8	0.60	1000	3000	.500	.120	.020	.080	.040	.130	.040	.080	.172	.148
455	RFT-SM-37-TUR	B8	0.50	1200	3500	.493	.093	.020	.062	.040	.150	.040	.080	.172	.148
456	RFT-SM-18-TUR-L2##	B8-15-1	0.60	1000	3000	.378	.093	.020	.062	.040	.100	.040	.080	.172	.148

FIG.	PART No.	TOOL NO.	CAPACI-TANCE mmf	V.RMS NOMINAL RATING	60 CPS FRASHOVER SEA LEVEL	A	B	C	D	E DIA.	F DIA.	+.002 —.000 G DIA.	H	H_1 DIA.	J	K	K_1
501	FT-SM-59	B3-1	0.40	500	2000	.225	.125	.040	.060	.040	.125	.093			.030		
501	FT-SM-59C2	B3-1	0.40	500	2000	.215	.125	.040	.050	.040	.125	.093			.030		
501	FT-SM-59L2	B3-1	0.45	500	2000	.312	.207	.040	.060	.040	.125	.093			.030		
501	FT-SM-600	B3-1	0.45	500	2000	.317	.187	.040	.090	.040	.125	.093			.030		
501	FT-SM-601	B3-1	0.40	500	2000	.405	.275	.040	.090	.040	.125	.093			.030		
501	FT-SM-54	B4-1	0.40	750	2500	.310	.207	.050	.053	.040	.130	.120			.030		
501	FT-SM-52	B6	0.40	750	2500	.225	.125	.040	.060	.040	.150	.125			.030		
501	FT-SM-50L2	B8-13-A	0.30	750	2500	.250	.147	.050	.053	.040	.172	.148			.030		
501	FT-SM-55	B8-4	0.50	1000	3000	.296	.136	.060	.100	.040	.172	.148			.030		
501	FT-SM-55L2	B8-4	0.45	1000	3000	.234	.074	.060	.100	.040	.172	.148			.030		
501	FT-SM-62	B8-13-A	0.75	750	2500	.367	.207	.050	.110	.085	.172	.148			.063		
501	FT-SM-62C2	B8-13-A	0.90	1000	3000	.413	.207	.050	.156	.085	.172	.148			.063		
501	FT-SM-62C6	B8-13-A	0.70	1000	3000	.332	.207	.050	.075	.085	.172	.148			.063		
501	FT-SM-62C8	B8-13-A	0.60	1000	3000	.312	.207	.050	.055	.085	.172	.148			.063		
501	FT-SM-62L1	B8-13-A	0.70	1000	3000	.367	.207	.050	.110	.085	.172	.148			.070		
501	FT-SM-57	B18-2	0.40	1200	3500	.367	.207	.050	.110	.040	.218	.171			.030		
501	FT-SM-60	B18-1	0.70	1000	3000	.367	.207	.050	.110	.085	.218	.171			.063		
501	FT-SM-63	B21-A	0.65	1200	3500	.367	.207	.050	.110	.085	.240	.200			.063		
502	FT-SM-56	B8-13-A	0.35	1200	3500	.307	.207	.050	.110	.040	.172	.148	.057	.050	.030		
502	FT-SM-58	B8-4	0.30	1000	3000	.282	.147	.060	.075	.040	.172	.148	.042	.070	.030		
502	FT-SM-61	B18-1	0.75	1200	3000	.417	.207	.050	.160	.085	.218	.171	.050	.085	.063		
502	FT-SM-61L2	B18-1	0.95	1000	3000	.710	.500	.050	.160	.085	.218	.171	.050	.085	.063		
502	FT-SM-51	B21	0.35	1200	3500	.367	.207	.050	.110	.040	.240	.200	.057	.050	.030		
502	FT-SM-53	B22	0.35	1200	3500	.287	.147	.040	.100	.060	.250	.218	.030	.050	.030		
503	FT-SM-55-1A	B8-4	0.45	1000	3000	.296	.136	.060	.100	.040	.172	.148			.030		
503	FT-SM-50L2-1A	B8-13-A	0.30	1000	3000	.250	.147	.050	.053	.040	.172	.148			.030		
504	FT-SM-71L4	B8-A	0.55	1000	3000	.270	.100	.040	.100	.060	.172	.148			.030		
505	FT-SM-42SL	B3-3	0.65	1500	4000	.412	.065	.109	.238	.062	.125	.089			.030	.020	.050
505	FT-1025SL	B11	0.90	2000	5000	.602	.203	.187	.212	.148	.187	.171			.052	.072	.156
505	FT-150-SL*	B11-A	1.0	1000	3000	.426	.203	.060	.163	.148	.218	.185			.078		.156
506	FT-SM-59SL	B3-1	0.40	500	2000	.225	.125	.040	.060	.040	.125	.093			.030	.015	.115
506	FT-SM-52SL	B6	0.40	750	2500	.225	.125	.040	.060	.040	.150	.125			.030	.015	.115
506	FT-SM-50SL	B8-13-A	0.30	1000	3000	.310	.207	.050	.053	.040	.172	.148			.030	.010	.125
506	FT-SM-62C4SL	B8-13-A	0.75	1000	3000	.320	.190	.050	.080	.085	.172	.148			.050	.030	.175
506	FT-SM-50SL-C1	B8-13-A	0.30	1000	3000	.310	.207	.050	.053	.040	.172	.165			.030	.010	.125
506	FT-SM-60SL	B18-1	0.70	1000	3000	.367	.207	.050	.110	.085	.218	.171			.062	.030	.175

Terminal Lug: Brass, Solder Finish (40 to 70% Tin Content) Electro-Plate .0003" Minimum Thick
Cavacitance and voltage measured with terminals installed in .050" thick aluminum chassis.

*Silver Finish
Gold over Silver

Fig. 451

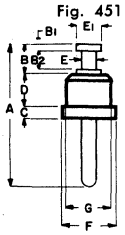


Fig. 452

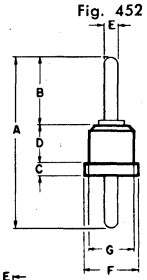


Fig. 453

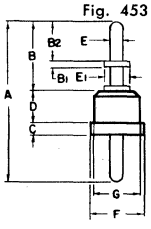


Fig. 454

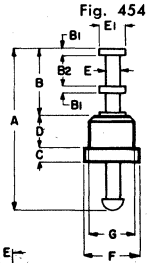


Fig. 455

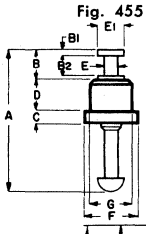


Fig. 456

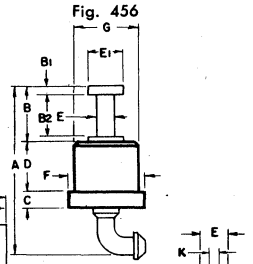


Fig. 501

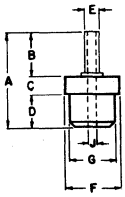


Fig. 502

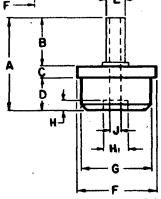


Fig. 503

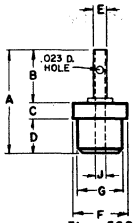


Fig. 504

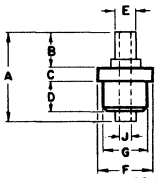


Fig. 505

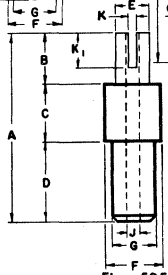
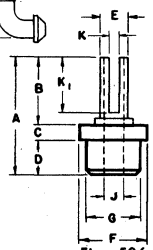


Fig. 506



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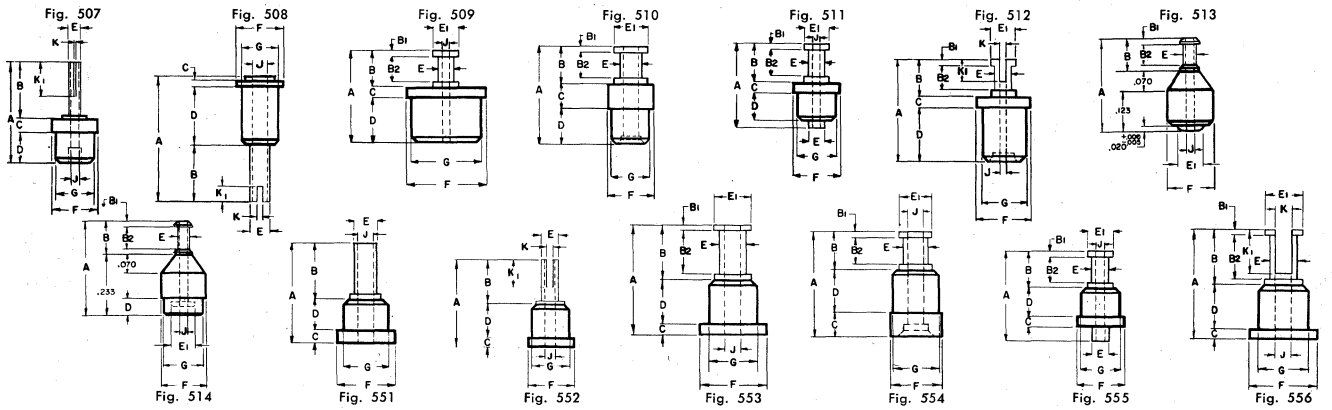
FEED-THRUS SUBMINIATURE (TUBULAR)

FIG.	PART No.	TOOL No.	CAPACITANCE mmf	V,RMS 60 CPS NOMINAL RATING	V,RMS 60 CPS FLASHOVER SEA LEVEL	A	B	B_1	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 —.000 G DIA.	J DIA.	K	K_1
507	FT-SM-65SL	B3-2B	0.40	750	2500	.294	.156			.078	.060	.060		.125	**.105**	.030	.015	.145
507	FT-SM-56SL	B8-13-A	0.25	1000	3000	.367	.207			.050	.110	.040		.172	**.148**	.030	.010	.125
508	FT-SM-66	B8-G-2	0.80	250	1500	.332	.072			.025	.220	.072		.172	**.148**	.052	.011	.062
508	FT-SM-66L2	B8-G-2	0.75	250	1500	.470	.210			.025	.220	.072		.172	**.148**	.052	.011	.062
508	FT-SM-66L4	B8-G-2	0.90	250	1500	.606	.346			.025	.220	.072		.172	**.148**	.052	.011	.062
509	FT-SM-702	B3-5	0.50	500	2000	.215	.125	.020		.040	.050	.040	.080	.125	**.093**	.030		
509	FT-SM-79	B6-A	0.50	750	2500	.273	.133	.020		.060	.080	.060	.090	.150	**.125**	.030		
509	FT-SM-79C4	B6-B	0.65	750	2500	.273	.133	.020	.093	.040	.100	.060	.090	.150	**.125**	.030		
509	FT-SM-701	B6	0.60	750	2500	.293	.133	.020		.050	.110	.060	.090	.150	**.125**	.030		
509	FT-SM-703	B6-B	0.50	750	2500	.233	.133	.020		.040	.060	.060	.090	.150	**.125**	.030		
509	FT-SM-704L2	B6-B	0.50	750	2500	.200	.090	.020	.050	.050	.060	.060	.090	.150	**.125**	.030		
509	FT-SM-71C2	B8-A	0.60	1000	3000	.303	.133	.020		.040	.130	.060	.090	.172	**.148**	.030		
509	FT-SM-71C4	B8-A	0.50	1000	3000	.238	.133	.020	.093	.040	.065	.060	.093	.172	**.148**	.040		
509	FT-SM-72L2	B8-13	0.50	1000	3000	.293	.133	.020	.093	.050	.110	.060	.093	.172	**.148**	.030		
509	FT-SM-71L2	B8-A	0.50	1000	3000	.273	.133	.020		.040	.100	.060	.090	.172	**.148**	.030		
509	FT-SM-350	B23-1	0.35	1200	3500	.273	.133	.020		.065	.075	.060	.090	.250	**.218**	.030		
509	FT-SM-70	B27	0.40	1700	4500	.333	.133	.020	093	.040	.160	.060	.090	.297	**.263**	.030		
510	FT-SM-74	B9-1	0.75	1000	3000	.351	.133	.020	.093	.093	.125	.082	.125	.172	**.148**	.062		
510	FT-SM-77	B10	0.80	1500	4000	.381	.133	.020	.093	.093	.155	.082	.125	.188	**.171**	.062		
511	FT-SM-79L2	B6-B	0.60	1000	3000	.303	.133	.020		.060	.080	.060	.090	.150	**.125**	.030		
511	FT-SM-71	B8-A	0.50	1000	3000	.303	.133	.020	.093	.040	.100	.060	.090	.172	**.148**	.030		
511	FT-SM-71L8	B8-A	0.70	1000	3000	.460	.133	.020	.093	.040	.100	.060	.090	.172	**.148**	.040		
511	FT-SM-72	B8-13	0.60	1200	3500	.333	.133	.020	.093	.050	.110	.060	.090	.172	**.148**	.030		
511	FT-SM-74L2	B8-13	0.85	1000	3000	.411	.133	.020		.093	.125	.082	.125	.172	**.148**	.062		
512	FT-SM-76SL	B17	0.75	1200	3500	.333	.133	.020	.093	.040	.160	.060	.093	.205	**.169**	.030	.032	.080
513	FT-SM-75		0.40	750	2500	.313	.120	.020	.080			.047	.090	.172		.031		
514	FT-EM-75L2		0.40	750	2500	.343	.120	.020	.080		.060	.047	.090	.172	**.150***			
551	FT-MM-8	B3-2X	0.50	750	2500	.360	.055			.045	.260	.045		.125	**.090**	.030		
551	FT-SM-96	B3-2X	0.30	750	2500	.252	.100			.040	.110	.043		.125	**.093**	.030		
551	RFT-SM-40	B6-C	0.30	750	2500	.193	.105			.025	.063	.050		.150	**.125**	.030		
551	RFT-SM-52B2	B6-C	0.30	750	2500	.225	.125			.025	.075	.040		.150	**.125**	.030		
551	RFT-SM-52B4	B6-C	0.30	500	2000	.247	.147			.025	.075	.040		.150	**.125**	.030		
551	RFT-SM-50	B8	0.40	1000	3000	.310	.207			.050	.053	.040		.172	**.148**	.030		
551	RFT-SM-50B2	B8-X-1	0.30	1000	3000	.250	.147			.045	.053	.040		.172	**.148**	.030		
551	RFT-SM-50L2	B8-X-2	0.30	1000	3000	.250	.147			.050	.053	.040		.172	**.148**	.030		
551	RFT-SM-55	B8-X	0.45	1000	3000	.296	.136			.060	.100	.040		.172	**.148**	.063		
551	RFT-SM-62	B8-X-2	0.70	1000	3000	.367	.207			.050	.110	.085		.172	**.148**	.063		
551	RFT-SM-62L2	B8-X-2	0.70	950	2900	.310	.150			.050	.110	.085		.172	**.148**	.063		
551	RFT-SM-66	B8-3	0.35	750	2500	.193	.105			.025	.063	.080		.172	**.148**	.052		
551	RFT-SM-60	B18-X	0.70	1000	3000	.367	.207			.050	.110	.085		.218	**.171**	.063		
552	RFT-SM-103SL	B3-1X	0.40	500	2000	.225	.115			.020	.090	.065		.108	**.093**	.018	.023	.090
552	RFT-SM-1B4SL	B2-5	0.40	500	2000	.266	.146			.020	.100	.060		.125	**.105**	.030	.015	.130
552	RFT-SM-40SL	B6-C	0.40	500	2000	.193	.105			.025	.063	.050		.150	**.125**	.030	.020	.050
552	RFT-SM-41SL	B6-C	0.30	500	2000	.150	.062			.025	.063	.050		.150	**.125**	.030	.030	.047
552	RFT-SM-52B2-SL	B6-C	0.40	750	2500	.310	.160			.025	.125	.060		.150	**.135**	.030	.028	.100
553	RFT-SM-602	B3-6	0.40	500	2000	.200	.100	.010		.020	.080	.050	.070	.125	**.093**	.030		
553	RFT-SM-78D1	B6-C	0.35	750	2500	.200	.100	.010	.080	.025	.075	.060	.090	.150	**.123**	.030		
553	RFT-SM-74	B9	1.00	750	2500	.351	.133	.020	.093	.093	.125	.082	.125	.172	**.148**	.062		
554	RFT-SM-72BC-2	B9	0.60	1200	3500	.392	.162	.020	.130	.100	.130	.060	.093	.172	**.148**	.042		
554	RFT-SM-77	B10	0.60	1200	3500	.381	.133	.020	.093	.093	.155	.090	.125	.188	**.177**	.062		
555	RFT-SM-71	B8	0.60	1000	3000	.333	.133	.020	.093	.040	.100	.060	.093	.172	**.148**	.030		
555	RFT-SM-71L2	B8-X-1	0.50	750	2500	.273	.133	.020	.093	.040	.100	.060	.093	.172	**.148**	.030		
555	RFT-SM-72C4	B8	0.50	1000	3000	.333	.133	.020		.040	.130	.060	.093	.172	**.148**	.030		
556	RFT-SM-602SL	B3-6	0.40	500	2000	.200	.100	.010	.080	.020	.080	.050	.070	.125	**.093**	.030	.030	.080
556	RFT-SM-602SL-C2	B3-6	0.50	750	2500	.260	.100	.010	.080	.020	.140	.050	.070	.125	**.093**	.030	.030	.040
556	RFT-SM-78SL	B7-B	0.55	500	2000	.200	.100	.010	.080	.020	.080	.085	.115	.160	**.143**	.060	.030	.090

Terminal Lug: Brass, Solder Finish (40 to 70% Tin Content) Electro-Plate .0003" Minimum Thick
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.

*±.005



Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

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FEED-THRUS MINIATURE

FIG.	PART No.	TOOL No.	CAPACITANCE mmf	V,RMS 60 CPS NOMINAL RATING	V,RMS 60 CPS FLASHOVER SEA LEVEL	A	B	B_1	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 —.000 G DIA.	J DIA.	K
601	FT-225*	B9	0.60	1500	4000	.619	.187			.140	.105	.040		.172	.148		
601	FT-800-L5*	B12	0.60	1700	4500	.675	.200			.125	.150	.040		.187	.165		
601	FT-311*	B10	0.60	1700	4500	.540	.133			.063	.171	.046		.187	.171		
601	FT-1000-L5*	B13-3A	0.80	2000	5000	.740	.125			.187	.212	.063		.187	.171		
601	FT-1500-L5*	B13	0.80	2500	6000	.865	.125			.250	.275	.050		.187	.171		
602	FT-1101	B12-3	0.75	2000	5000	.836	.250	.020	.093	.250	.150	.050	.093	.187	.171		
603	FT-992	B9-3	0.75	1700	4500	.836	.250	.020	.073	.187	.165	.050	.093	.172	.148		
603	FT-1001	B13	0.75	2000	5000	.836	.250	.020	.093	.187	.212	.050	.093	.187	.171		
604	FT-M-1*	B19	1.10	2000	5000	2.005	.125	.020	.085	.093	.287	.050	.093	.218	.185		
604	FT-M-1L2*	B19	0.75	2000	5000	1.000	.125	.020	.085	.093	.287	.050	.093	.218	.185		
604	FT-M-2BC*	B19	1.00	2000	5000	2.000	.125	.020	.085	.230	.150	.050	.093	.218	.185		
605	FT-M-3**	B18-1B	0.95	1000	3000	1.052	.281	.031	.093	.046	.287	.060	.125	.218	.185		
606	FT-310#	B10	0.75	1700	4500	.540	.133	.020	.093	.063	.171	.046	.093	.187	.171		
606	FT-320*#	B28-A	0.70	1700	4500	.540	.133	.020	.093	.063	.171	.046	.093	.312	.171		
606	FT-325**	B28	1.20	750	2500	.506	.099	.020	.048	.063	.171	.125	.188	.312	.171		
607	FT-960	B13	0.70	1500	4000	.740	.125	.031	.062	.187	.125	.050	.093	.187	.171		
607	FT-1000	B13	0.70	2200	5500	.740	.125	.031	.062	.187	.212	.050	.093	.187	.171		
607	FT-1000B1	B24	0.80	2500	6000	.740	.125	.031	.062	.187	.212	.050	.093	.250	.171		
607	FT-1100	B12-3	0.70	2500	6000	.740	.125	.031	.062	.250	.150	.050	.093	.187	.171		
607	FT-1500	B12-3	0.70	3000	7000	.865	.125	.031	.062	.250	.275	.050	.093	.187	.171		
607	FT-1990	B13	0.90	2500	6000	1.115	.125	.031	.062	.365	.318	.050	.125	.187	.171		
607	FT-1995	B13	0.90	2500	6000	1.115	.125	.031	.062	.375	.340	.050	.125	.187	.171		
607	FT-2000	B13-3B	0.95	3500	8000	1.115	.125	.031	.062	.375	.400	.050	.125	.187	.171		
607	FT-2000B2	B13-3B	0.80	2000	5000	1.115	.125	.031	.062	.562	.212	.050	.125	.187	.171		
607	FT-2500C1	B26	1.45	4500	10000	1.365	.125	.031	.062	.500	.525	.050	.125	.250	.171		
607	FT-4000C1	B26	1.65	6000	13000	1.965	.125	.031	.062	.800	.825	.050	.125	.250	.171		
607	FT-400	B19-A	0.80	2000	5000	.640	.133	.020	.093	.093	.210	.046	.093	.215	.185		
607	FT-410	B19-A	0.80	2000	5000	.718	.133	.020	.093	.093	.288	.046	.093	.215	.185		
607	FT-2500	B26	1.70	4500	10000	1.365	.125	.031	.062	.500	.525	.050	.125	.250	.217		
607	FT-4000	B26	1.50	6000	13000	1.965	.125	.031	.062	.800	.825	.050	.125	.250	.217		
608	FT-990-DTUR	B9-3	0.80	1500	4000	.836	.250	.020	.093	.187	.165	.050	.093	.172	.148		
608	FT-995-DTUR	B9-3	0.85	1500	4000	.836	.250	.020	.093	.125	.230	.050	.093	.172	.148		
608	FT-1000-DTUR-C3	B13-3B	0.75	2000	5000	.836	.250	.020	.093	.187	.212	.050	.093	.187	.165		
608	FT-1000-DTUR	B13-3B	0.80	2000	5000	.836	.250	.020	.093	.187	.212	.050	.093	.187	.171		
608	FT-1100-DTUR	B12-3	0.75	2000	5000	.836	.250	.020	.093	.250	.150	.050	.093	.187	.171		
608	FT-2000-DTUR	B13	1.00	3500	8000	1.337	.281	.031	.093	.375	.400	.050	.093	.187	.171		
608	FT-1050-DTCR	B24	0.80	2500	6000	.836	.250	.020	.093	.187	.212	.050	.093	.250	.204		
608	FT-1050-DTUR-C3	B24	0.70	2500	6000	.836	.250	.020	.093	.187	.212	.050	.093	.250	.230		
609	FT-950-DTUR*	B12	1.00	1500	4000	.828	.281	.031	.093	.125	.200	.062	.125	.187	.171		
609	FT-940-DTUR*	B19-A	1.00	1200	3500	.828	.281	.031	.093	.094	.210	.062	.125	.218	.185		
609	FT-996-DTUR*	B19-A	1.00	2500	6000	.828	.281	.031	.093	.187	.212	.062	.125	.218	.185		
610	FT-1550-DTUR	B24-A	1.25	3000	7000	1.187	.281	.031	.093	.250	.375	.062	.125	.250	.218		
610	FT-2550-DTUR	B26	1.60	5000	11000	1.687	.281	.031	.093	.500	.625	.062	.125	.250	.218		
610	FT-4050-DTUR	B40	1.90	6000	13000	2.287	.281	.031	.093	.800	.925	.062	.125	.250	.218		
611	FT-800	B12	0.75	1700	4500	.680	.207			.125	.150		.085	.187	.171	.063	.187
611	FT-801**	B12	0.70	1700	4500	.535	.062			.125	.150		.085	.187	.171	.067	.062

Terminal Lug: Brass, Silver Plate .0003" Min. Thick.
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis
**Gold flash over silver.

*Solder Finish (40 to 70% Tin Content) Electro-Plate .0003" Minimum Thick
#Seating Turret E1 dimension.

Fig. 601

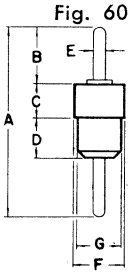


Fig. 602

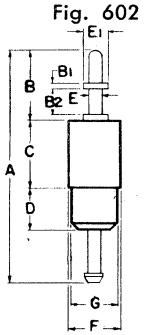


Fig. 603

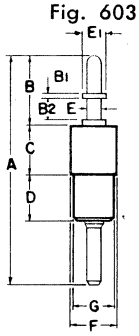


Fig. 604

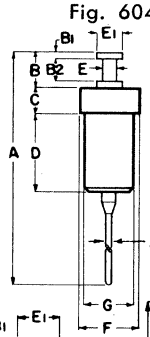


Fig. 605

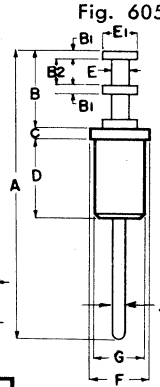


Fig. 606

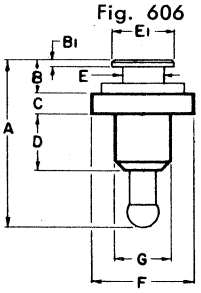


Fig. 607

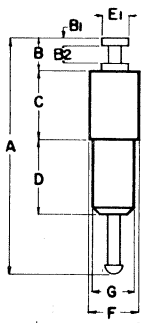


Fig. 608

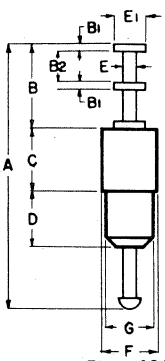


Fig. 609

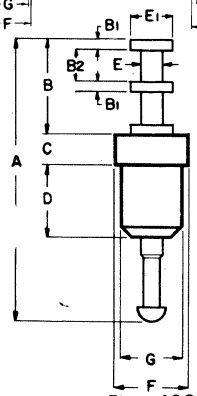


Fig. 610

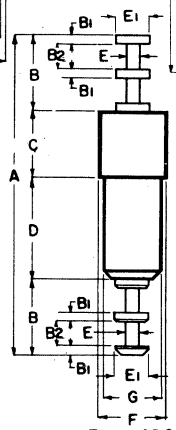
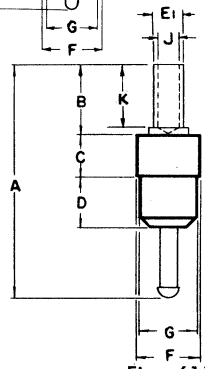


Fig. 611



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FEED-THRUS MINIATURE

FIG.	PART No.	TOOL No.	CAPACITANCE mmf	V,RMS 60 CPS NOMINAL RATING	V,RMS 60 CPS FLASHOVER SEA LEVEL	A	B	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 —.000 G DIA.	J DIA.	K	K_1	L Class 2
612	FT-E-4**	B19	1.00	1500	4000	.500		.281	.100	.050	.062	.218	.185				4-40
613	FT-1000T	B13-2	0.80	2000	5000	.899	.281	.187	.212	.050		.187	.171				4-36
613	FT-1000T1	B13-2	0.80	2000	5000	.899	.281	.187	.212	.050		.187	.171				4-40
613	FT-1500T	B13-2	0.90	2500	6000	1.024	.281	.250	.275	.050		.187	.171				4-36
613	FT-1500T1	B13-2	0.90	2500	6000	1.024	.281	.250	.275	.050		.187	.171				4-40
613	FT-1800T1	B13-6	0.90	2000	5000	1.039	.421	.187	.212	.050		.187	.171				4-40#
613	FT-2000T	B13-2	0.95	3500	8000	1.274	.281	.375	.400	.050		.187	.171				4-36
613	FT-2000T1	B13-2	0.95	3500	8000	1.274	.281	.375	.400	.050		.187	.171				4-40
614	FT-500T1	B13-4	0.80	1500	4000	.743	.281	.187	.150	.070		.187	.171				4-40
615	FT-1000SL	B11	0.80	2000	5000	.821	.203	.187	.212	.148		.187	.171	.078		.156	
615	FT-1000SL-1L	B11	0.75	2000	5000	.821	.203	.187	.212	.148		.187	.171	.046		.156	
615	FT-1000SL-C2	B11	0.80	2000	5000	.821	.203	.187	.230	.148		.187	.171	.078		.156	
615	FT-1500SL	B13-X-3	0.90	2500	6000	.947	.203	.250	.275	.148		.187	.171	.078		.156	
615	FT-1500SL-1L	B13-X-3	0.80	2500	6000	.947	.203	.250	.275	.148		.187	.171	.046		.156	
615	FT-2000SL	B11	1.20	3500	8000	1.197	.203	.375	.400	.148		.187	.171	.078		.156	
615	FT-2000SL-1L	B11	0.85	3500	8000	1.197	.203	.375	.400	.148		.187	.171	.046		.156	
615	FT-2030SL	B11	1.10	2500	6000	1.197	.203	.225	.550	.148		.187	.171	.078		.156	
615	FT-2035SL	B11	1.00	2500	6000	1.197	.203	.250	.525	.148		.187	.171	.078		.156	
616	FT-900SL	B11	0.90	1000	3000	.593	.203	.150	.100	.148		.187	.171	.078		.156	
617	FT-1500ML	B13-B	0.90	2500	6000	1.040	.296	.250	.275	.148		.187	.171		.110	.250	
618	FT-35ML	B11-C	1.40	2000	5000	1.015	.296	.187	.427	.150		.187	.171		.090	.234	
619	FT-2010ML*	B33	1.35	2500	6000	1.285	.281	.562	.250	.050		.250	.171				
625	FT-1600T10	B32-1	1.80	2000	5000	.737	.050	.125	.250	.125	.187	.375	.312	##			
630	FT-E-2**	B10	0.85	1000	3000	.225	.020	.040	.150	.125		.187	.165	†			
630	FT-E-1	B23-X-1	0.90	1000	3000	.225	.015	.040	.155	.195		.250	.203	.096			
630	FT-E-5	B23-X-1	0.75	1000	3000	.210	.010	.040	.155	.170		.250	.203	.072			
651	RFT-195SL	B10	0.60	1000	3000	.477	.125	.040	.187	.148		.187	.171	.078		.078	
651	RFT-200SL	B10	0.70	1000	3000	.532	.125	.040	.187	.148		.187	.171	.078		.078	
651	RFT-210SL	B10	0.70	1000	3000	.586	.125	.040	.140	.148		.187	.171	.078		.078	
652	RFT-1000SL	B13	0.80	2000	5000	.821	.203	.187	.212	.148		.187	.171	.078		.156	
652	RFT-1500SL	B13-X-1	1.00	2500	6000	.947	.203	.250	.275	.148		.187	.171	.078		.156	
652	RFT-2000SL	B13	1.00	3500	8000	1.197	.203	.375	.400	.148		.187	.171	.078		.156	
653	RFT-1500ML	B13	0.95	2500	6000	1.040	.296	.250	.275	.148		.187	.171		.110	.250	

Terminal Lug: Brass, Silver Plated .0003″ Min. Thick.
Capacitance and voltage measured with terminals installed in .050″ thick aluminum chassis.
** Gold Flash over Silver
# .156 Hex Brass Base.
† 0-80 Thread.
10/32 Thread
* Solder dip on tail only.

Fig. 612

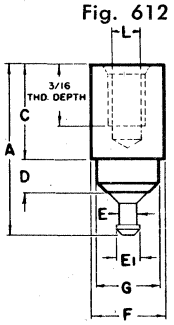


Fig. 613

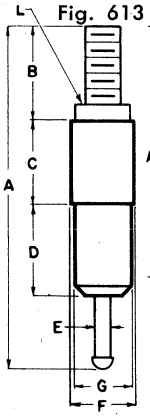


Fig. 614

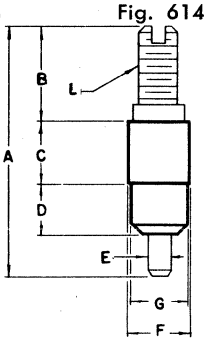


Fig. 615

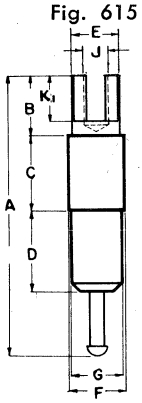


Fig. 616

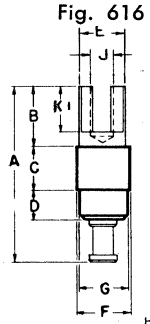


Fig. 617

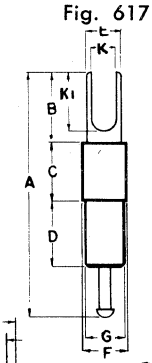


Fig. 618

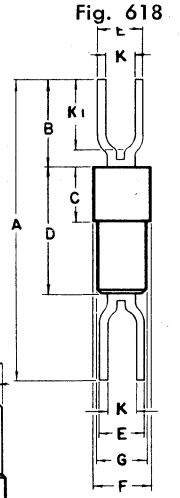


Fig. 619

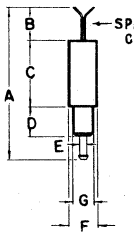


Fig. 625

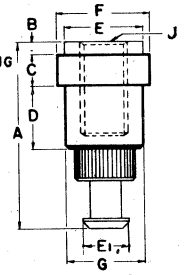


Fig. 630

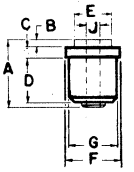


Fig. 651

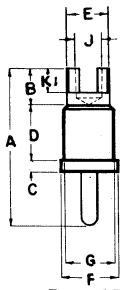


Fig. 652

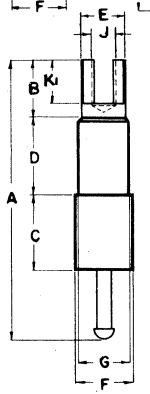
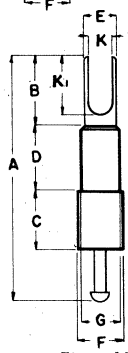


Fig. 653



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FEED-THRUS FOR WELDED CONNECTIONS

FIG.	Part No.	TOOL No.	CAPACITANCE mmf	V,RMS NOMINAL RATING	60 CPS FLASHOVER SEA LEVEL	A	B	B_1	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 −.000 G DIA.	J	J_1	K	K_1
660	FT-SM-705-L2	B10-5	.80	750	2500	.463	.100			.035	.155	.060	.149	.187	.172	.068	.100	.018	.125
660	FT-SM-705-L4	B10-6	.80	750	2500	.581	.218			.035	.155	.060	.149	.187	.172	.068	.100	.018	.125
307	FT-MM-47-TUR-BC*	B0-A	1.10	500	2000	1.500	.210	.020	.100	.040	.125	.032	.060	.093	.075				.080
307	FT-MM-48-TUR-BC*	B0-5	0.70	500	2000	1.700	.210	.020	.100	.090	.125	.032	.060	.093	.075				.080

Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis

*Beryllium copper gold plate over copper flash.

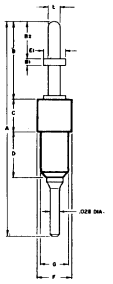


Fig. 307

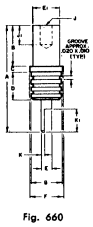


Fig. 660

"Press-Fit" installation for deep holes. As the terminal is pressfitted into the hole, the lands and grooves of the body are deflected upward, thus providing a high degree of pull-out strength as illustrated in the accompanying sketch.

Typical deep hole terminal Type FT-SM-705-L2 is a feedthru featuring a wield terminal at bottom. In this particular case, the wire is welded to the bottom terminal and drawn through the hole before terminal is pressfitted into place.

FEED-THRUS FOR WIRE-WRAP CONNECTIONS

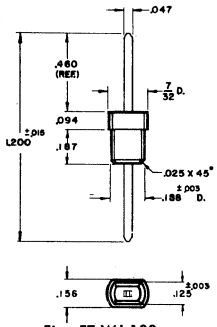
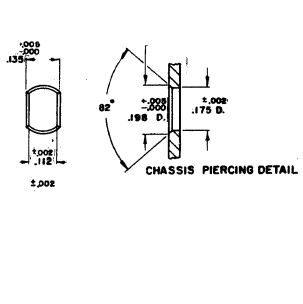


Fig. FT-WJ-100
Insertion Tool No. B-19



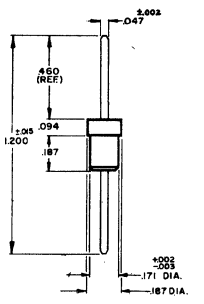
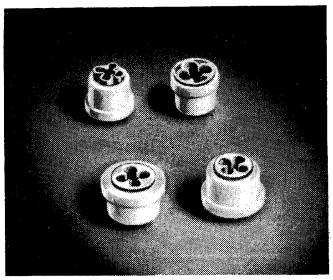


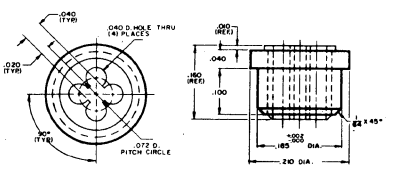
Fig. FT-WJ-200
Insertion Tool No. B13-5

CLOVERLEAF FEED-THRUS

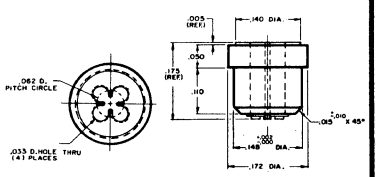


The "Press-Fit" Cloverleaf Receptacle provides economical, yet uniformly perfect solder joints by means by dip-soldering with metal chassis. The unique Cloverleaf configuration permits insertion of four, or more wire leads, plus an optional center pin post for mounting additional components after the dip-soldering operation.

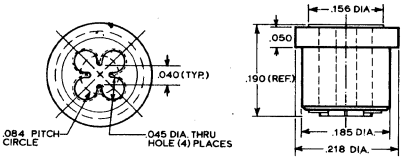
FT-E-10 For AWG-19 wire or smaller



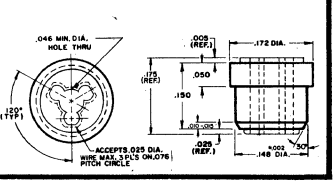
FT-E-12 For AWG-22 wire or smaller



FT-E-15 For AWG-20 wire or smaller



FT-E-16 For AWG-24 wire or smaller



BUSHINGS

FIG.	PART No.	A	D	D_1	F	G	G_1	J
1001	B-1440	.140	.100		.125	.093		.040
1001	B-1440-1	.140	.100		.125	.093		.035
1001	B-1441	.100	.060		.125	.093		.037
1001	B-1464	.100	.080		.125	.093		.038
1001	B-1414	.140	.100		.172	.148		.060
1001	B-1435	.140	.100		.172	.148		.040
1001	B-1439	.160	.120		.172	.148		.073
1001	B-1452	.125	.075		.172	.148		
1001	B-1455	.165	.125		.172	.148		.083
1001	B-1475	.140	.100		.172	.148		.073
1001	B-1446	.330	.250		.218	.185		
1001	B-1447	.225	.185		.218	.185		.120
1001	B-1447-1	.130	.090		.218	.185		.120
1001	B-1451	.327	.140		.218	.185		
1001	B-1473	.450	.400		.218	.185		.150
1001	B-1443	.140	.075		.250	.218		
1001	B-1454	.240	.200		.250	.218		
1002	B-1409	.080	.060		.172	.148		.030
1002	B-1447-2	.130	.090		.218	.185		.120
1003	B-1453	.082	.042	.017	.145	.103	.115	.067
1003	B-1449	.070	.040	.020	.187	.123	.143	.052
1003	B-1403	.104	.069	.040	.218	.154	.164	.120
1003	B-1401	.104	.054	.025	.218	.154	.164	.085
1003	B-1406	.094	.044	.015	.218	.154	.164	.099
1003	B-1407	.104	.069	.040	.218	.154	.164	.085
1003	B-1408	.094	.044	.015	.218	.154	.164	.085
1003	B-1413	.094	.044	.015	.218	.154	.164	.120
1003	B-1416	.104	.069	.040	.218	.154	.164	.099
1003	B-1418	.085	.035	.015	.195	.154	.164	.085
1003	B-1419	.134	.099	.070	.218	.154	.164	.120
1003	B-1420	.104	.054	.025	.218	.154	.164	.099
1003	B-1421	.104	.069	.040	.218	.154	.164	.120
1003	B-1424	.094	.044	.025	.195	.154	.164	.085
1003	B-1432	.104	.054	.025	.218	.154	.164	.120
1003	B-1437	.125	.075	.060	.218	.154	.164	.120
1003	B-1463	.104	.054	.035	.218	.154	.164	.099
1003	B-1466	.140	.105	.075	.218	.154	.164	.120
1003	B-1472	.135	.085	.060	.218	.154	.164	.085
1003	B-1462	.156	.106	.076	.218	.168	.178	.089
1003	B-1431	.104	.069	.040	.248	.184	.194	.150
1003	B-1467	.104	.054	.035	.250	.190	.200	.157
1003	B-1436	.104	.069	.040	.260	.199	.210	.128
1003	B-1450	.190	.140	.120	.230	.199	.210	.128
1003	B-1459	.104	.069	.040	.268	.204	.214	.170
1003	B-1459-1	.104	.069	.040	.268	.204	.214	.125
1004	#B-1470	.260	.140	.070	.500	.431	.450	.302

Can be used as Transistor Holder for TO-5 Header.

Fig. 1001

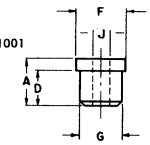


Fig. 1002

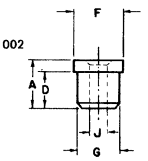


Fig. 1003

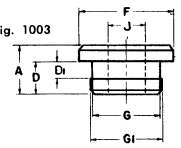
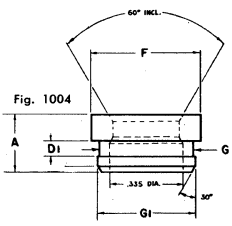


Fig. 1004



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TEST POINT JACKS

FIG.	PART No.	TOOL No.	CAPACITANCE mmf	V,RMS 60 CPS NOMINAL RATING	V,RMS 60 CPS FLASHOVER SEA LEVEL	REF. A	B	B_1	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 −.000 G DIA.	J* PROBE DIA.	J_1 PROBE LNGTH	K	K_1
701	SKT-13C3	S13-1	0.45	500	2000	.203	.060	.010	.040	.030	.113	.046	.080	.150	.120	.040	.078		
701	SKT-22	S4	0.20	1500	4000	.449	.120	.030	.060	.046	.283	.040	.060	.142	.120	.040	.245		
701	SKT-22C2	S22	0.30	1500	4000	.410	.120	.030	.060	.046	.244	.040	.060	.142	.120	.040	.205		
701	SKT-13B2	S14	0.30	750	2500	.253	.060	.010	.040	.050	.143	.046	.080	.172	.140	.040	.125		
701	SKT-14B2	S14	0.30	1000	3000	.345	.120	.023	.077	.046	.179	.040	.060	.172	.140	.040	.140		
701	SKT-13B4	S13	0.40	750	2500	.203	.060	.010	.040	.046	.097	.046	.080	.172	.148	.040	.078		
701	SKT-13L2	S13	0.40	750	2500	.190	.050	.010	.030	.046	.094	.046	.080	.172	.148	.040	.078		
701	SKT-14	S5	0.35	1000	3000	.345	.120	.023	.077	.046	.179	.040	.060	.172	.148	.040	.140		
701	SKT-12	S7	0.70	1000	3000	.375	.060	.010	.040	.046	.269	.046	.078	.218	.170	.090	.250		
701	SKT-2BC	S2	0.70	1000	3000	.437	.120	.037	.053	.046	.271	.054	.074	.218	.185*	.090	.195		
701	SKT-5BC	S2	0.60	1000	3000	.437	.120	.037	.053	.046	.271	.054	.074	.218	.185*	.080	.195		
701	SKT-5BC-C2	S35	0.45	1000	3000	.453	.120	.037	.053	.046	.287	.054	.074	.218	.185*	.050	.195		
701	SKT-10	S1	0.70	1200	3500	.640	.187	.037	.104	.050	.400	.054	.074	.218	.185*	.080	.287		
701	SKT-37C1	S12	0.55	1000	3000	.340	.120	.023	.077	.046	.174	.054	.074	.218	.185*	.090	.140		
701	SKT-41	S2	0.55	1200	3500	.467	.120	.035	.047	.046	.301	.054	.074	.218	.185*	.080	.225		
701	SKT-42	S23-1	0.40	2000	5000	.455	.105	.020	.065	.050	.300	.080	.125	.218	.185*	.080	.315		
701	SKT-27	S11	0.80	3200	7500	.761	.187	.035	.116	.187	.386	.054	.074	.218	.200	.093	.455		
701	SKT-27L1	S12	0.70	2000	5000	.699	.187	.035	.116	.125	.386	.054	.074	.218	.200	.093	.390		
701	SKT-0930	S37	0.70	3200	7500	.834	.187	.035	.116	.230	.417	.054	.074	.375	.200	.093	.518		
701	SKT-3BC	S2	0.60	1000	3000	.437	.120	.037	.053	.046	.271	.054	.074	.250	.204	.080	.195		
701	SKT-19	S9	0.60	1200	3500	.400	.060	.010	.037	.046	.294	.066	.098	.250	.218	.105	.250		
702	SKT-35	B8-14	0.25	1200	3500	.400	.150			.046	.204	.040		.172	.148	.032	.200		
703	SKT-1	S31	0.55	1200	3500	.687	.354			.046	.287	.115		.218	.185*	.050	.250	.140	.042
703	SKT-4	S30	0.40	1200	3500	.687	.354			.046	.287	.104		.218	.185*	.041	.250	.140	.050
703	SKT-8	S1	0.50	1200	3500	.687	.330			.046	.287	.103		.218	.185*	.080	.250	.156	.046
703	SKT-8B2	S1	0.55	2000	5000	.711	.354			.070	.287	.103		.218	.185*	.080	.274	.156	.048
703	SKT-18	S25	0.50	1500	4000	.687	.354			.052	.281	.115		.218	.185*	.050	.250	.140	.042
703	SKT-20	S27	0.80	1000	3000	.687	.330			.187	.146	.103		.218	.185*	.080	.187	.156	.046
703	SKT-20L1	S25	0.75	1000	3000	.687	.330			.187	.146	.110		.218	.185*	.050	.250	.156	
703	SKT-23	S28	0.65	1000	3000	.625	.355			.046	.224	.115		.218	.185*	.050	.200	.140	.042
703	SKT-26	S26	0.60	1000	3000	.718	.316			.046	.356	.104		.218	.185*	.060	.315	.125	.052
704	SKT-15	S32	0.60	3500	8000	.732	.188			.157	.387	.110		.250	.220	.050	.320	.140	.042
705	SKT-36	S28	0.80	1000	3000	.620	.287			.046	.287	.115		.218	.185*	.050	.250	.156	.052
706	SKT-31	S17	0.45	1000	3000	.408	.187			.046	.175	.060		.172	.148	.040	.135		
707	SKT-38					1.000	.060	.010			.940	.046	.078	.218	.125#	.090	.825		
707	SKT-38C1					1.000	.060	.010			.940	.046	.078	.187	.125#	.090	.825		
707	SKT-13					.203	.060	.010			.143	.046	.080	.140		.040	.075		
707	SKT-13C1					.203	.060	.010			.143	.046	.080	.120		.040	.075		
707	SKT-13L1					.203	.060	.010			.143	.046	.080	.140		.025	.075		
708	SKT-39					.370	.120	.023			.250	.040	.060	.250		.040	.165		
708	SKT-39C1					.370	.120	.023			.250	.040	.060	.270		.040	.140		
708	SKT-43B1					.460	.120	.037			.340	.054	.074	.400		.070	.250		

Terminal Lug: Beryllium Copper — Gold Flash over Silver Plate.
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.

*±.001
#±.005

Fig. 701

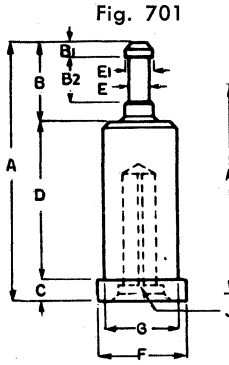


Fig. 702

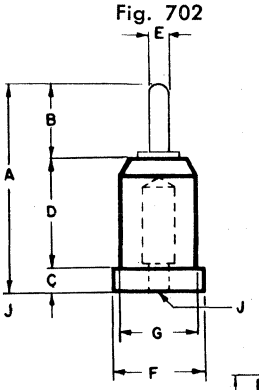


Fig. 703

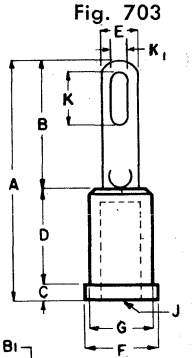
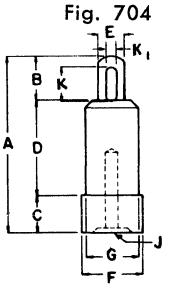


Fig. 704



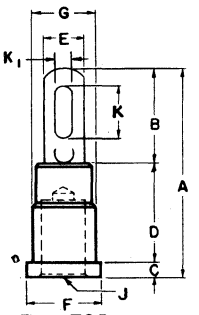


Fig. 705

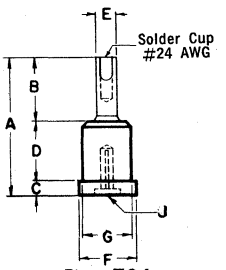


Fig. 706

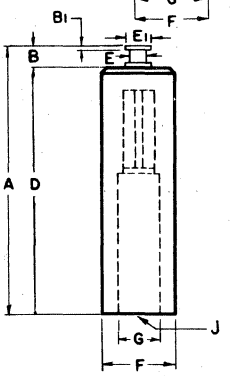


Fig. 707

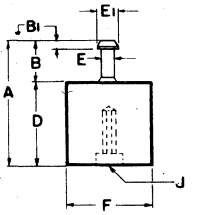
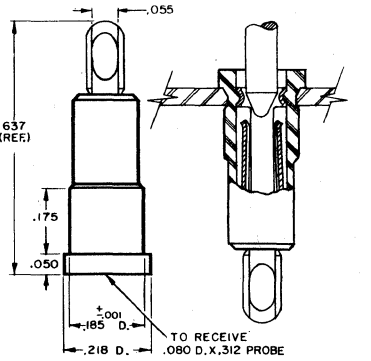


Fig. 708

SKT-0804—GUIDED ENTRY TEST POINT JACK FOR INCREASED CHASSIS PULL-OUT STRENGTH

Featuring a beryllium-copper formed lug with unique design configuration, the SKT-0804 test point jack offers greater pull-out strength and high torque resistance. The jack is designed to provide guided-entry for an .080" diameter probe. The SKT-0804 construction permits uniform retention and greater support of the Teflon bushing by the lug.

Insertion Tool No. S-38



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TEST POINT JACKS

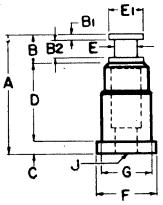


Fig. 709

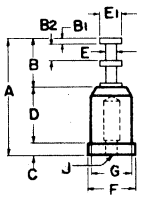


Fig. 710

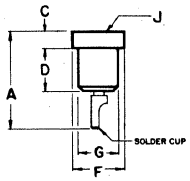


Fig. 713

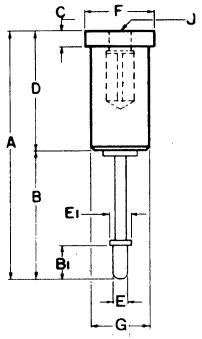


Fig. 711

FIG.	Part No.	Tool No.	Capacitance mmf	V,RMS 60 CPS Nominal Rating	V,RMS 60 CPS Flashover Sea Level	Ref. A	B	B_1	B_2	C	D	E Dia.	E_1 Dia.	F Dia.	+.002 −.000 G Dia.	J* Probe Dia.	J_1 Probe Lgth
709	SKT-50	S23	0.50	2700	5500	.435	.105	.020	.065	.046	.284	.080	.125	.218	.184	.080	.310
710	SKT-34	B8-14	0.25	1700	4500	.425	.175	.020	.060	.046	.250	.040	.080	.172	.184	.032	.200
710	SKT-24	S18	0.65	1000	3000	.437	.154	.020	.046	.046	.391	.050	.080	.250	.204	.080	.145
711	SKT-100	S8	0.60	2200	5500	.912	.534	.125		.060	.378	.050	.080	.250	.218	.080	.250
712	SKT-28	S20	0.70	1000	3000	.450	.180		.120	.046	.224	.110	.080	.218	.185*	.080	
713	SKT-401	S17	0.50	1000	3000	.359	.140			.065	.154			.172	.148	.040	.125
713	SKT-400	S17	0.50	1000	3000	.359	.140			.065	.154			.187	.148	.040	.125
713	SKT-620	S33	0.60	1200	3500	.437	.156			.065	.216			.218	.171	.062	.187
713	SKT-800	S18	0.60	1200	3500	.437	.156			.065	.216			.250	.185*	.080	.187
714	SKT-113PC					.381	.090			.281		.062		.187		.080	.250
714	SKT-110PC					.441	.078			.343		.112		.218		.080	.250
714	SKT-111PC					.381	.080			.281		.112		.218		.080	.250
730	SKT-16L2	S15	0.80	1200	3500	.640		.140		.050	.400	.031		.218	.185*	.050	.200
731	SKT-100PC	S8	0.55	2200	5500	.500	.250	.130		.062	.316	.050	.080	.250	.218	.080	.250
731	SKT-101PC	S8	0.45	2200	5500	.400	.250	.130		.062	.316	.050	.080	.250	.218	.080	.250
732	SKT-102PC		0.45	1200	3500	.500	.140	.125			.378	.050	.080	.218	.187†	.080	.250
732	SKT-102PC-B2		0.40	1500	4000	.520	.140	.130			.398	.040	.080	.218	.187†	.080	.250
732	SKT-103PC		0.50	1200	3500	.400	.140	.125			.378	.050	.080	.218	.187†	.080	.250
732	SKT-103PC-L1		0.50	1200	3500	.400	.140	.187			.378	.035	.080	.218	.187†	.080	.250
732	SKT-0802		0.50	2700	6500	.500	.140	.125			.689	.050	.080	.218	.187†	.080	.500
733	SKT-105PC					.385	.233	.125		.062		.050	.080	.219	.185*	.080	.250

Terminal Lug: Beryllium Copper, Gold Flash over Silver. *±.001 † Tolerance ±.005
Capacitance and voltage measured with terminals installed in .050″ thick aluminum chassis.

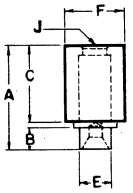


Fig. 714

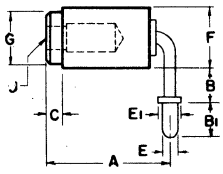


Fig. 733

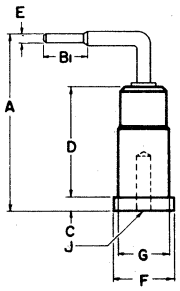


Fig. 730

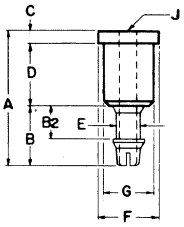


Fig. 712

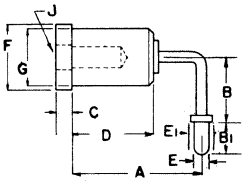
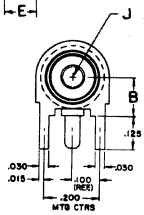


Fig. 731



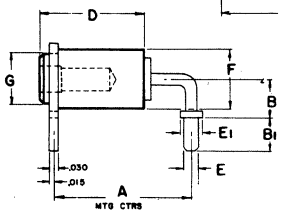


Fig. 732

TAPER PIN RECEPTACLES AND SPECIAL UNITS

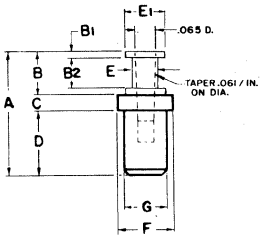


Fig. 752

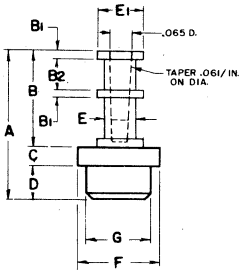


Fig. 753

Fig.	Part No.	TOOL No.	Capacitance mmf	V,RMS 60 CPS Nominal Rating	V,RMS 60 CPS Flashover Sea Level	A	B	B_1	B_2	C	D	E Dia.	E_1 Dia.	F Dia.	+.002 −.000 Dia. G
751	TP-ST-201	B22	0.70	1000	3000	.350	.133	.020	.093	.080	.140	.093	.149	.250	.200
752	TP-ST-203	B8-13	0.90	1500	4000	.383	.133	.020	.093	.050	.200	.093	.125	.172	.133
753	TP-ST-202	B22	0.65	1000	3000	.453	.293	.025	.093	.060	.100	.093	.149	.250	.200
753	TP-ST-202-B2	B23	0.75	1500	4000	.513	.293	.025	.093	.080	.140	.093	.149	.250	.200
754	TP-FT-200	S22	1.10	1000	3000	.593	.210	.020	.180	.040	.143	.093	.125	.250	.200
755	TP-FT-201	B22	0.70	1000	3000	.500	.133	.020	.093	.080	.140	.093	.149	.250	.200
756	TP-FT-100	B6A-1	1.10	1000	3000	1.798	.133	.020	.093		.171	.080	.093		.150
757	RFT-340**	B22	0.90	1500	4000	.650	.182			.040	.138	.093	.125	.250	.200
758	PL-20**	B23-B	1.40	1000	3000	.940	.140	.020		.050	.450	.050	.078	.250	.218

Terminal Lug: Brass, Solder Finish (40 to 70% Tin Content) Electro-Plate .0003″ Minimum Thick.
Capacitance and voltage measured with terminals installed in .050″ thick aluminum chassis.
**Gold Flash over Silver Plate.

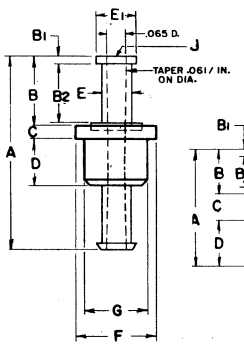


Fig. 754

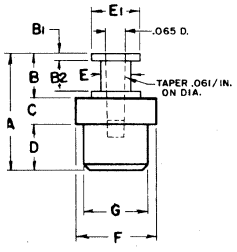


Fig. 751

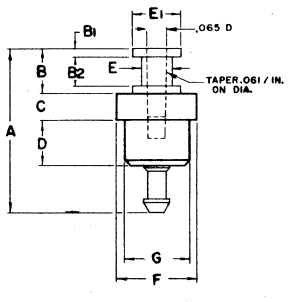


Fig. 755

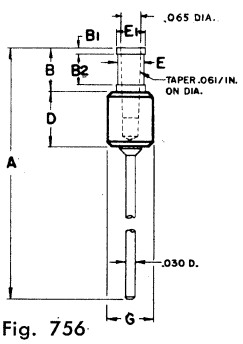


Fig. 756

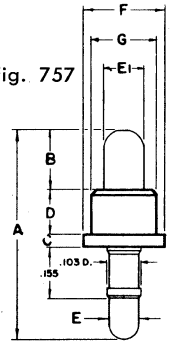


Fig. 757

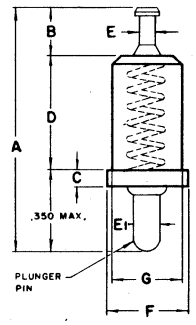


Fig. 758

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PROBES AND PLUGS

FIG.	PART No.	TOOL No.	CAPACITANCE mmf	V,RMS 60 CPS NOMINAL RATING	V,RMS 60 CPS FLASHOVER SEA LEVEL	A	B	B_1	C	D	±.001 E DIA.	E_1 DIA.	F DIA.	+.002 —.000 G DIA.	J DIA.	J_1 DIA.	K_1
801	FT-M-9C1	B8-16	1.0	1000	3000	1.937	.250		.046	.165	.050		.172	.148			
801	FT-M-9	B18-1B	1.0	1000	3000	1.937	.250		.046	.141	.050		.218	.185*			
801	FT-M-2	B18-1B	1.10	1000	3000	2.083	.250		.046	.287	.050*		.218	.185*			
801	FT-M-2L2	B18-1B	0.70	1000	3000	.906	.250		.046	.287	.050		.218	.185*			
801	FT-M-2L4	B18-1B	0.85	1000	3000	1.531	.250		.046	.287	.050*		.218	.185*			
801	FT-M-19	B18-1B	1.0	1000	3000	1.870	.120		.046	.250	.040		.218	.185*			
802	PR-15	B-23	0.90	3000	7000	1.531			.157	.375	.050*	.125	.250	.220			
803	RFT-M-14	B-18-1C	0.90	1700	4500	1.940	.120		.046	.320	.040*		.218	.185*			
804	FT-M-4#	B18-1B	0.80	1000	3000	.739	.281		.046	.287	.081*		.218	.185*			
804	FT-M-12	B-10	0.65	1000	3000	.687	.272		.040	.212	.040		.187	.171			
804	FT-M-7	B18-1B	0.80	1000	3000	.739	.281		.046	.287	.081*		.218	.185*			
804	FT-M-8	B18-1B	0.90	1000	3000	.562	.250		.046	.141	.050*		.218	.185*			
804	FT-M-8-L1	B18-E	0.90	1000	3000	.562	.250		.046	.141	.081		.218	.185*			
804	FT-M-11	B18-1B	0.90	1000	3000	.562	.250		.052	.135	.050*		.218	.185			
804	FT-M-14	B18-E	0.80	1000	3000	.906	.250		.046	.287	.050		.218	.185			
804	FT-M-16	B18-1B	0.80	1000	3000	.648	.190		.046	.287	.090*		.218	.185*			
804	FT-M-17	B18-1B	0.80	1000	3000	.612	.250		.046	.141	.062*		.218	.185*			
805	RFT-M-11	B18-E	0.80	1000	3000	.562	.250		.052	.135	.050*		.218	.185*			
806	FT-M-6##	B13-2	0.85	2000	5000	.867	.250		.187	.212	.100**		.187	.171			.203
807	PR-10	B8-14	0.70	1000	3000	.538	.130		.046	.175	.040		.172	.148			
807	PR-10-B-L2	B-9-3	0.70	1500	4000	.571	.125		.125	.160	.040		.172	.148			
807	PR-13	B-8	0.65	1000	3000	.416	.080		.040	.135	.040		.172	.148			
807	PR-13C1	B-8	0.65	1000	3000	.416	.080		.040	.135	.040		.172	.148			
808	PR-400	B13-3	0.55	1000	3000	.407	.125		.065	.090	.040		.187	.148			
808	PR-620	B18-1	0.55	1200	3500	.559	.187		.065	.176	.062		.218	.171			
808	PR-800	B23-A	0.70	1200	3500	.559	.187		.065	.169	.080		.250	.185*			
809	PR-300					.645	.270		.375		.080		.218		.062	.128	
809	PR-0900					.645	.270		.375		.090		.218		.062	.128	
810	PR-302	B22-X1				.645	.270		.050	.325	.080		.250	.218	.062	.128	
811	PR-100**	B6-X	0.75	750	2500	.365	.194		.046	.125	.077**		.150	.120	.030		
812	FT-M-5	B18-1B	0.70	1000	3000	.833	.250		.046	.287	.050		.218	.185			
812	FT-M-9L2	B18-1B	0.65	1000	3000	.682	.250		.046	.141	.050		.218	.185			
813	PR-28***					1.300		.030	.453		.080	.060					

Terminal Lug: Gold Flash over Silver Plate. *±.001
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.
No ball on end of Lug.
Silver Plate .0003" Min. Thick. **Beryllium Copper — E Dimension +.003 —.002 ***Gold over Copper.

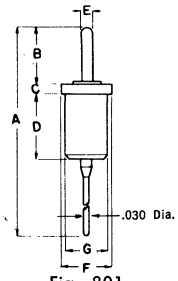

Fig. 801

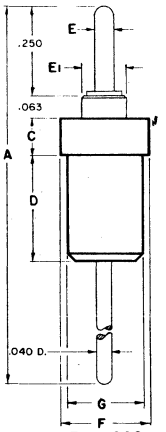

Fig. 802

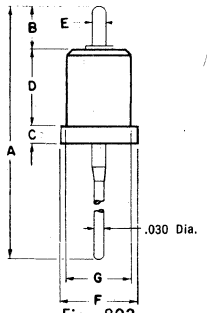

Fig. 803

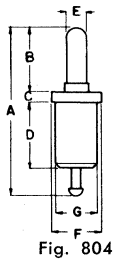

Fig. 804

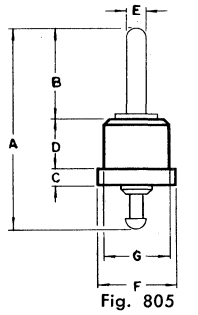

Fig. 805

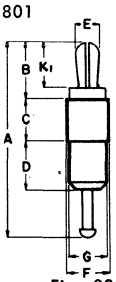

Fig. 806

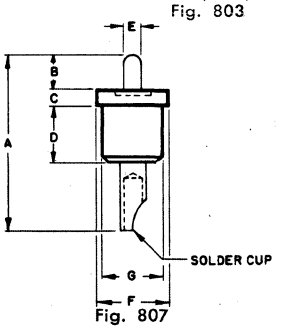

Fig. 807

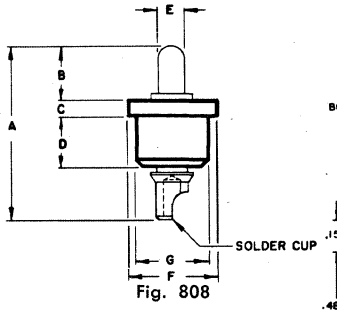

Fig. 808

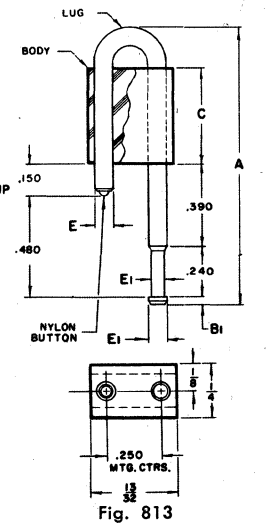

Fig. 813

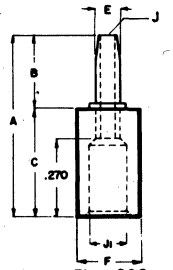

Fig. 809

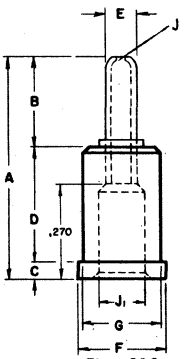

Fig. 810

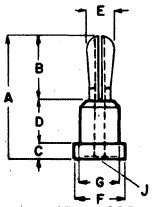

Fig. 811

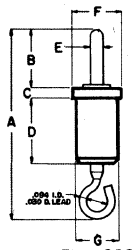

Fig. 812

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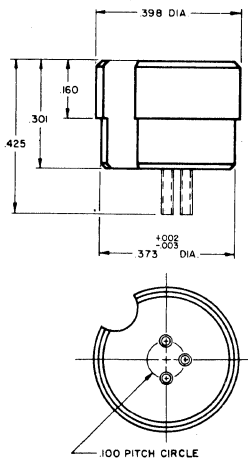
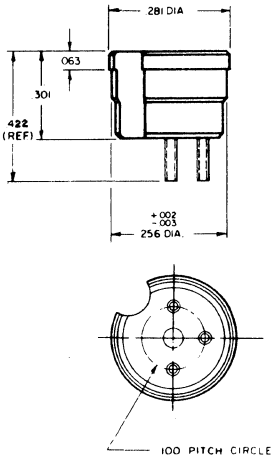
TRANSISTOR UNITS SOCKETS

NEW — SERIES 60 TRANSISTOR AND I.C. SOCKETS

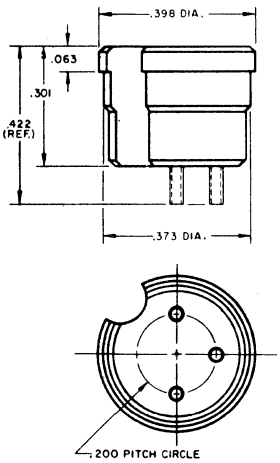
TS-363-1 — 3 Lead, TO-18



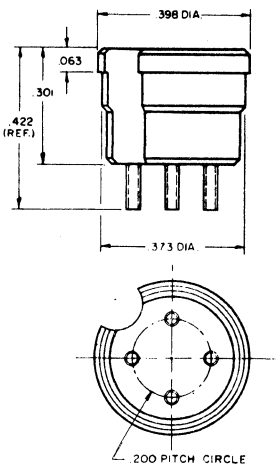
TS-365-1 — 3 Lead, TO-18



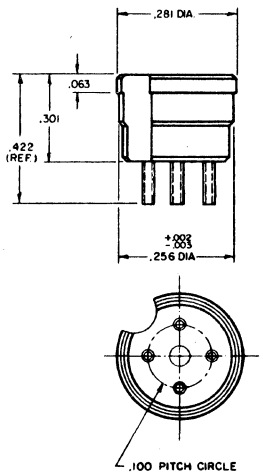
TS-366 — 3 Lead, TO-5



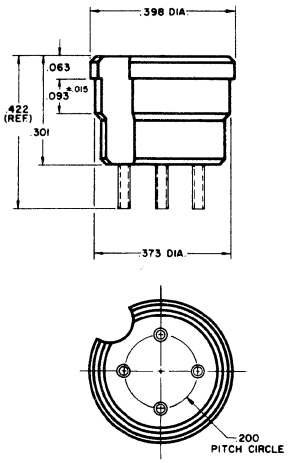
TS-461 — 4 Lead, TO-5



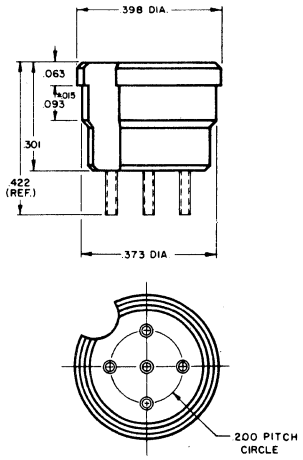
TS-461-1 — 4 Lead, TO-18



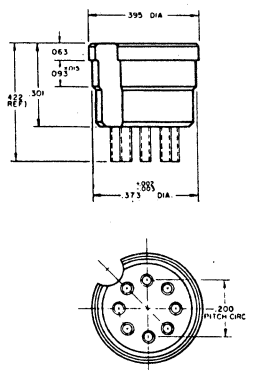
TS-463-1 — 4 Lead, TO-18



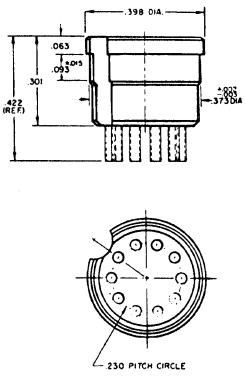
TS-560 — 510 Relay Can



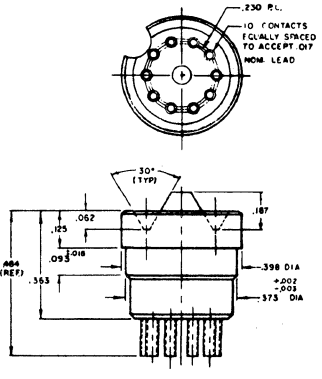
TS-860 — 8 Lead .200" Pitch Circle (TO-5 Package)



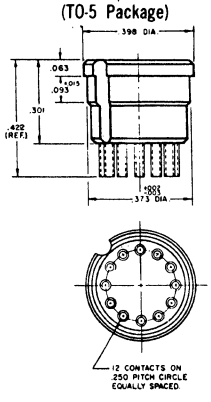
TS-1060 — 10 Lead, .230" Pitch Circle (TO-5 Package)



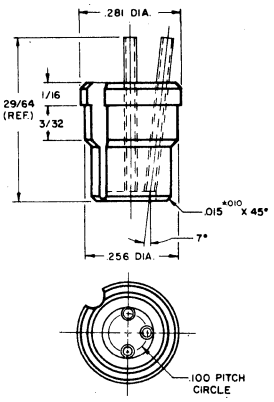
TS-1061 — 10 Lead, .230" Pitch Circle (TO-5 Package)



TS-1260 — 12 Lead, .250" Pitch Circle (TO-5 Package)



RTS-364-1 — 3 Lead, TO-18



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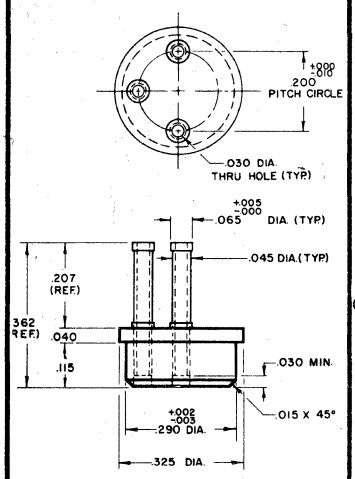
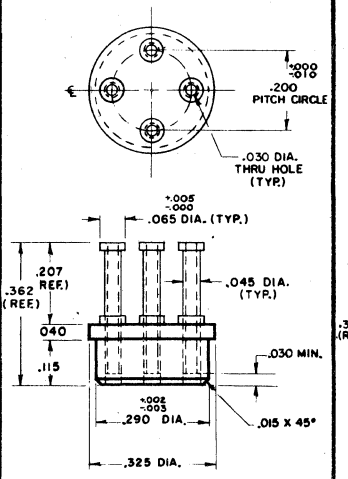
TRANSISTOR UNITS HOLDERS

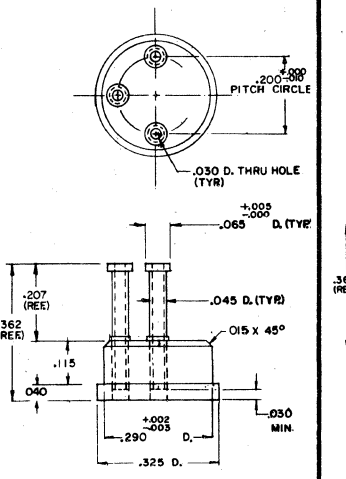
TC-300T — 3 Lead, TO-5



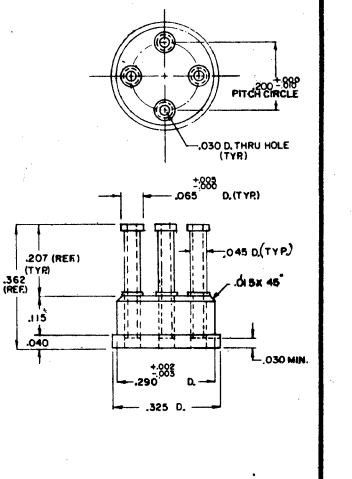
TC-400T — 4 Lead, TO-5



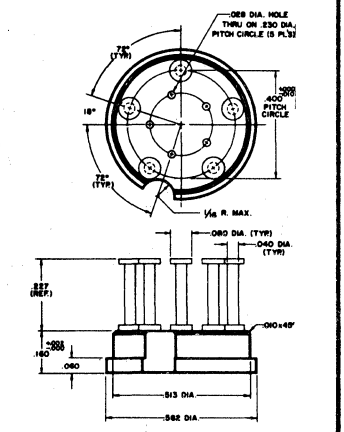
RTC-300T — 3 Lead, TO-5



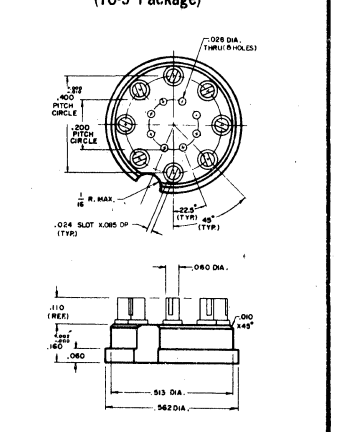
RTC-400T — 4 Lead, TO-5



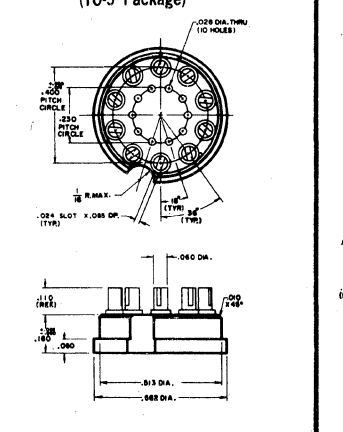
RTC-0505-TUR — 5 Pin, Integrated Circuit



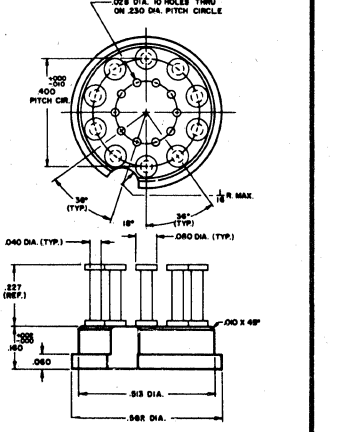
RTC-0808-SL — 8 Lead, .200" Pitch Circle (TO-5 Package)



RTC-1010-SL — 10 Lead, .230" Pitch Circle (TO-5 Package)

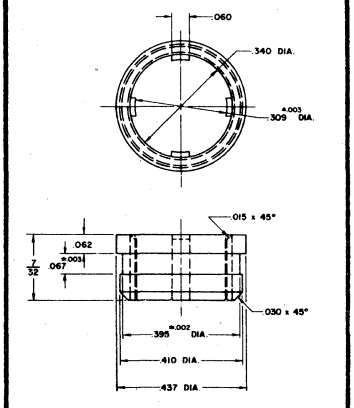


RTC-1010-TUR — 10 Pin. Integrated Circuit

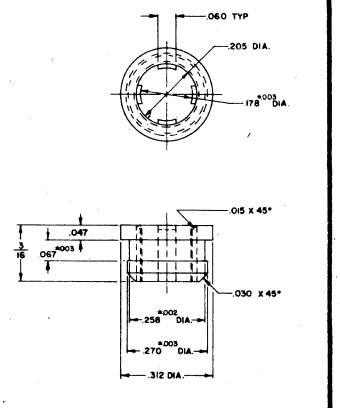


BUSHINGS AND PADS

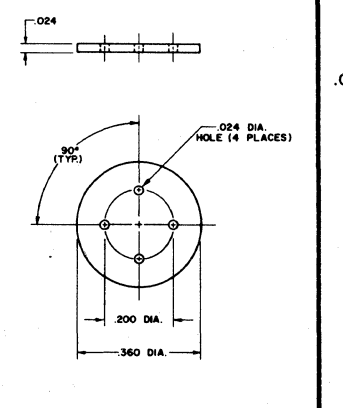
T-1532 — Holding Device for TO-5



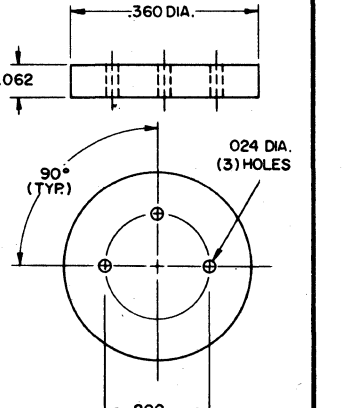
T-1533 — Holding Device for TO-18



T-1535 — Pad for 4 Pin TO-5



T-1499 — 3 Lead, TO-5



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Sealectro

CONHEX®

PLATING: 0.0001 Gold over 0.0001 Copper.

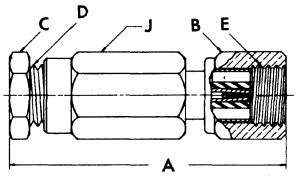
MATING CONNECTORS: All Screw-On (Snap-On) plugs will mate with all Screw-On (Snap-On) jacks & receptacles of the same resistance rating.

U. S. Pat. No. 2,937,360

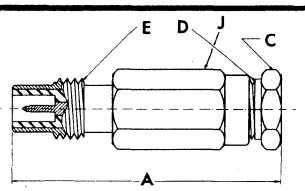
SUB-MINIATURE R. F. CONNECTORS

See listing on following page for typical cables.

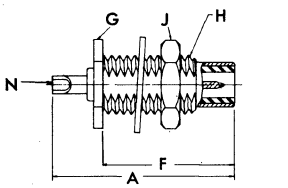
50 OHM / 75 OHM



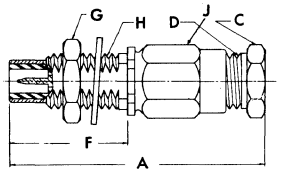
	50-007-0000	50-107-0000
A	7/8 approx.	13/16 approx.
B	15/64 HEX	11/32 HEX
C	15/64 HEX	5/16 HEX
D	#10-32, UNF-2A	#9/32-40 UNS-2A
E	#10-32, UNF-2B	#5/16-32, UNEF-2B
J	15/64 HEX	5/16 HEX



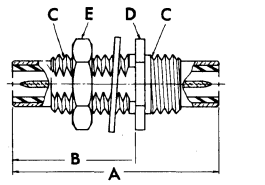
	50-008-0000	50-108-0000
A	27/32 approx.	51/64 approx.
C	15/64 HEX	5/16 HEX
D	#10-32, UNF-2A	#9/32-40, UNS-2A
E	#10-32, UNF-2A	#5/16-32, UNEF-2A
J	15/64 HEX	5/16 HEX



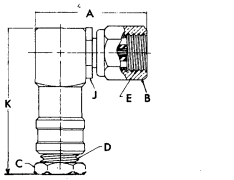
	50-043-0000	50-143-0000
A	19/32	19/32
F	.426	.426
G	1/4 HEX	3/8 HEX
H	#10-32, UNF-2A	#5/16-32, UNEF-2A
J	1/4 HEX	3/8 HEX
N	.060 O.D. x .040 I.D. x .078 Deep	.060 O.D. x .040 I.D. x .078 Deep



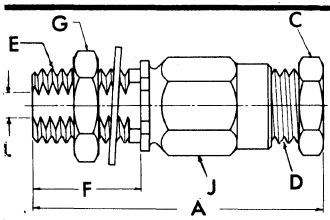
	50-010-0000	50-110-0000
A	7/8 approx.	7/8 approx.
C	15/64 HEX	5/16 HEX
D	#10-32, UNF-2A	#9/32-40, UNS-2A
F	.425	.425
G	1/4 HEX	3/8 HEX
H	#10-32, UNF-2A	#5/16-32, UNEF-2A
J	15/64 HEX	11/32 HEX



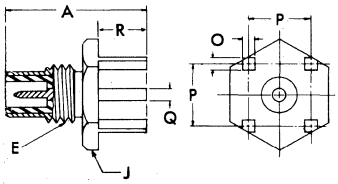
	50-075-0000	50-175-0000
A	.671	.671
B	.397	.397
C	#10-32, UNF-2A	#5/16-32, UNEF-2A
D	1/4 HEX	3/8 HEX
E	1/4 HEX	3/8 HEX



	50-011-0000	50-111-0000
A	39/64 approx.	23/32 approx.
B	15/64 HEX	11/32 HEX
C	15/64 HEX	5/16 HEX
D	#10-32, UNF-2A	#9/32-40, UNS-2A
E	#10-32, UNF-2B	#5/16-32, UNEF-2B
J	15/64 HEX	11/32 HEX
K	3/4 approx.	27/32 approx.



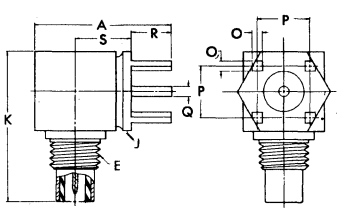
	55-013-0000	50-113-0000
A	49/64 approx.	3/4 approx.
C	15/64 HEX	5/16 HEX
D	#10-32, UNF-2A	#9/32-40, UNS-2A
E	#10-32, UNF-2A	#5/16-32, UNEF-2A
F	.277	.277
G	1/4 HEX	3/8 HEX
J	15/64 HEX	11/32 HEX
L	.067D.	.111D.



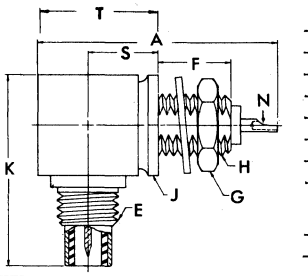
	50-051-0000	50-151-0000
A	.448	.448
E	#10-32, UNF-2A	#5/16-32, UNEF-2A
J	5/16 HEX	3/8 HEX
O	.040 (Typ.)	.040 (Typ.)
P	.200	.200
Q	.038D.	.038D.
R	.155	.155

See listing on following page for typical cables.

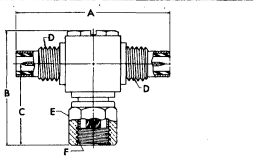
50 OHM / 75 OHM



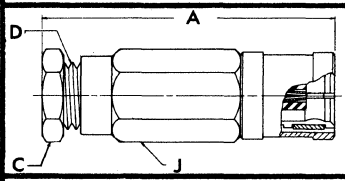
	50-053-0000	50-153-0000
A	17/32 approx.	19/32 approx.
E	#10-32, UNF-2A	#5/16-32, UNEF-2A
J	5/16 HEX	3/8 HEX
K	19/32	21/32
O	.040 (Typ.)	.040 (Typ.)
P	.200	.200
Q	.038D	.038D
R	.155	.155
S	.215	.247



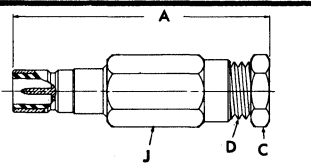
	50-047-0000	50-147-0000
A	3/4 approx.	13/16 approx.
E	#10-32, UNF-2A	#5/16-32, UNEF-2A
F	.228	.228
G	1/4 HEX	3/8 HEX
H	#10-32, UNF-2A	#5/16-32, UNEF-2A
J	5/16 HEX	3/8 HEX
K	19/32	21/32
N	.038 O.D. x .025 I.D. x .078 Deep	.038 O.D. x .025 I.D. x .078 Deep
S	.215	.247
T	.372	.435



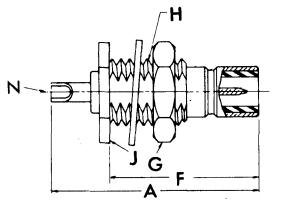
	50-085-0000	50-185-0000
A	.860	.923
B	21/32 approx.	23/32 approx.
C	15/32 approx.	1/2 approx.
D	#10-32, UNF-2A	#5/16-32, UNEF-2A
E	15/64 HEX	11/32 HEX
F	#10-32, UNF-2B	#5/16-32, UNEF-2B



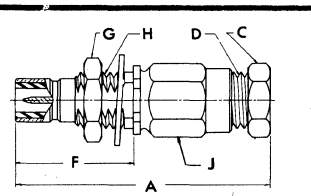
	51-007-0000	51-107-0000
A	7/8 approx.	27/32 approx.
C	15/64 HEX	5/16 HEX
D	#10-32, UNF-2A	#9/32-40, UNS-2A
J	15/64 HEX	11/32 HEX



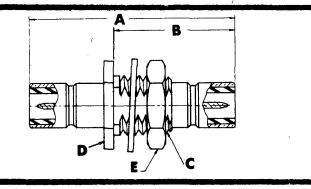
	51-008-0000	51-108-0000
A	7/8 approx.	51/64 approx.
C	15/64 HEX	5/16 HEX
D	#10-32, UNF-2A	#9/32-40, UNS-2A
J	15/64 HEX	5/16 HEX



	51-043-0000	51-143-0000
A	19/32	19/32
F	.426	.426
G	1/4 HEX	3/8 HEX
H	#10-32, UNF-2A	#5/16-32, UNEF-2A
J	1/4 HEX	3/8 HEX
N	.060 O.D. x .040 I.D. x .078 Deep	.060 O.D. x .040 I.D. x .078 Deep



	51-010-0000	51-110-0000
A	7/8 approx.	7/8 approx.
C	15/64 HEX	5/16 HEX
D	#10-32, UNF-2A	#9-32-40, UNS-2A
F	.425	.425
G	1/4 HEX	3/8 HEX
H	#10-32, UNF-2A	#5/16-32, UNEF-2A
J	15/64 HEX	11/32 HEX



	51-075-0000	51-175-0000
A	.671	.671
B	.430	.430
C	#10-32, UNF-2A	#5/16-32, UNEF-2A
D	1/4 HEX	3/8 HEX
E	1/4 HEX	3/8 HEX

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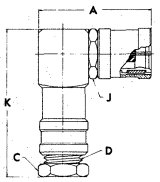
Sealectro

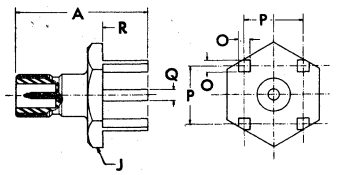
CONHEX®

SUB-MINIATURE R. F. CONNECTORS

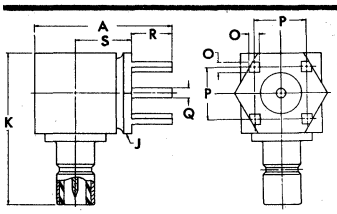
See listing below for typical cables.	50 OHM	75 OHM



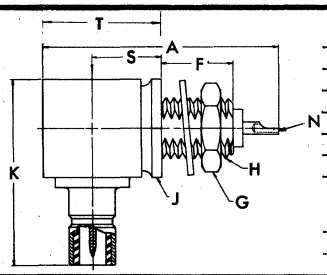
	51-011-0000	51-111-0000
A	19/32	11/16
C	15/64 HEX	5/16 HEX
D	#10-32, UNF-2A	#9/32-40, UNS-2A
J	15/64 HEX	11/32 HEX
K	3/4 approx.	27/32 approx.



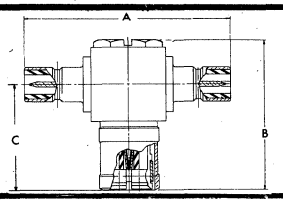
	51-051-0000	51-151-0000
A	.448	.448
J	5/16 HEX	3/8 HEX
O	.040 (Typ.)	.040 (Typ.)
P	.200	.200
Q	.038D	.038D
R	.155	.155



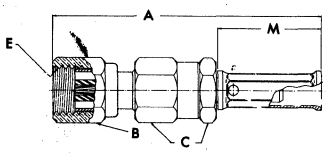
	51-053-0000	51-153-0000
A	17/32 approx.	19/32 approx.
J	5/16 HEX	3/8 HEX
K	19/32	21/32
O	.040 (Typ.)	.040 (Typ.)
P	.200	.200
Q	.038D	.038D
R	.155	.155
S	.215	.247



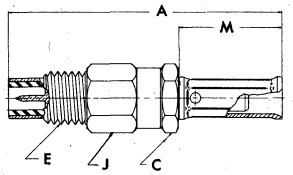
	51-047-0000	51-147-0000
A	3/4 approx.	13/16 approx.
F	.228	.228
G	1/4 HEX	3/8 HEX
H	#10-32, UNEF-2A	#5/16-32, UNEF-2A
J	5/16 HEX	3/8 HEX
K	19/32	21/32
N	.038 O.D. x .025 I.D. x .078 Deep	.038 O.D. x .025 I.D. x .078 Deep
S	.215	.247
T	.372	.435



	51-085-0000	51-185-0000
A	.860	.923
B	41/64	45/64
C	.456	.488

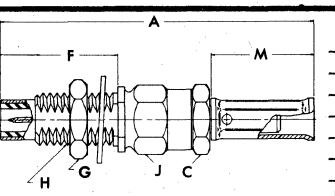


	50-024-0000	50-124-0000
A	1-1/32 approx.	1-1/16 approx.
B	15/64 HEX	11/32 HEX
C	7/32 HEX	5/16 HEX
E	#10-32, UNF-2B	#5/16-32, UNEF-2B
M	.375	.400

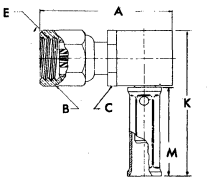


	50-025-0000	50-125-0000
A	63/64 approx.	1-1/64 approx.
C	7/32 HEX	5/16 HEX
E	#10-32, UNF-2A	#5/16-32, UNEF-2A
J	7/32 HEX	5/16 HEX
M	.375	.400

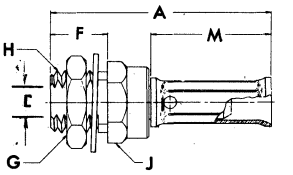
See listing below for typical cables.	50 OHM	75 OHM



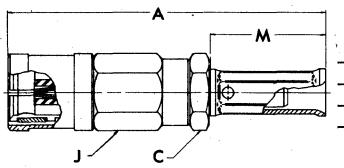
	50-027-0000	50-127-0000
A	1-1/8 approx.	1-5/32 approx.
C	7/32 HEX	5/16 HEX
F	.425	.425
G	1/4 HEX	3/8 HEX
H	#10-32, UNF-2A	#5/16-32, UNEF-2A
J	7/32 approx.	11/32 HEX
M	.375	.400



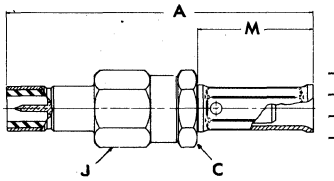
	50-028-0000	50-128-0000
A	39/64 approx.	21/32 approx.
B	15/64 HEX	11/32 HEX
C	15/64 HEX	11/32 HEX
E	#10-32, UNF-2B	#5/16-32, UNEF-2B
K	5/8 approx.	23/32 approx.
M	.375	.400



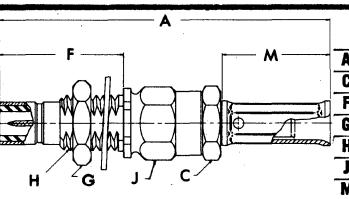
	55-031-0000	55-131-0000
A	47/64 approx	51/64 approx.
F	.228	.228
G	1/4 HEX	3/8 HEX
H	#10-32, UNF-2A	#5/16-32, UNEF-2A
J	7/32 HEX	11/32 HEX
L	.067D	.111D
M	.375	.400



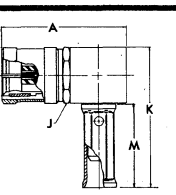
	51-024-0000	50-124-0000
A	1-1/64 approx.	1-3/64 approx.
C	7/32 HEX	5/16 HEX
J	7/32 HEX	11/32 HEX
M	.375	.400



	51-025-0000	51-125-0000
A	63/64 approx.	1-1/64 approx.
C	7/32 HEX	5/16 HEX
J	7/32 HEX	5/16 HEX
M	.375	.400



	51-027-0000	51-127-0000
A	1-1/8 approx.	1-5/32 approx.
C	7/32 HEX	5/16 HEX
F	.425	.425
G	1/4 HEX	3/8 HEX
H	#10-32, UNF-2A	#5/16-32, UNEF-2A
J	7/32 HEX	11/32 HEX
M	.375	.400



	51-028-0000	51-128-0000
A	19/32	41/64
J	15/64 HEX	11/32 HEX
K	5/8 approx.	23/32 approx.
M	.375	.400

CRIMP-ON ASSEMBLY TOOL— Part No. CT-6

TYPICAL SPEC CABLES FOR USE WITH "CONHEX" CONNECTORS

Standard 50 ohm **clamp-type** connectors accept:
RG-161/U, 174/U, 179/U, 188/U and 316/U cables.

Standard 50 ohm **crimp-type** connectors accept:
RG-161/U, 174/U, 179/U, 187/U, 188/U and 316/U cables.

Standard 75 ohm **clamp-type** connectors accept:
RG-180/U and 195/U cables.

Standard 75 ohm **crimp-type** connectors accept:
RG-180/U and 195/U cables.

Other cables having the same component diameters as those listed can also be used in the same series of connectors.

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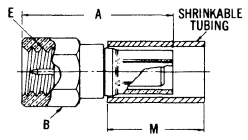
Sealectro

MICRO HEX®

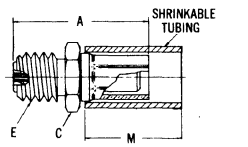
MICRO-MINIATURE R.F. CONNECTORS

VSWR: Better than 1.15:1 to 10 KMC
Impedance: 50 ohms
Dielectric Withstanding Voltage: 450 volts RMS @ Sea Level
Contact Current Rating: 1.0 amps DC max.
Contact Voltage Drop: 4 mv max. @ 1 amp

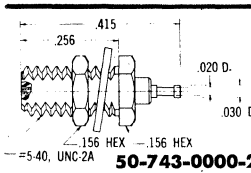
*For use with RG-196/U and RG-178/U cables



	FLEXIBLE CABLE* 50-724-0000-2G	SEMI-RIGID CABLE** 50-724-3701-2G
A	.39	.37
B	.156 Hex	.156 Hex
E	#5-40, UNC-2B	#5-40, UNC-2B
M	.31	.31

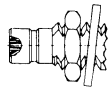


	FLEXIBLE CABLE* 50-725-0000-2G	SEMI-RIGID CABLE** 50-725-3701-2G
A	.34	.32
C	.156 Hex	.156 Hex
E	#5-40, UNC-2A	#5-40, UNC-2A
M	.31	.31



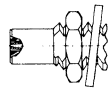
50-743-0000-2G

SNAP-ON

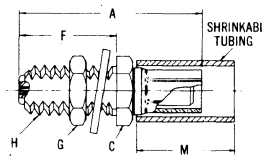


51-743-0000-2G

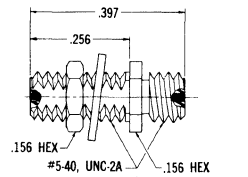
SLIDE-ON



52-743-0000-2G

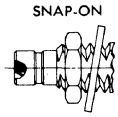


	FLEXIBLE CABLE* 50-727-0000-2G	SEMI-RIGID CABLE** 50-727-3701-2G
A	.48	.46
C	.156 Hex	.156 Hex
F	.256	.256
G	.156 Hex	.156 Hex
H	#5-40, UNC-2A	#5-40, UNC-2A
M	.31	.31



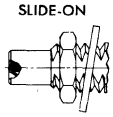
50-775-0000-2G

SNAP-ON



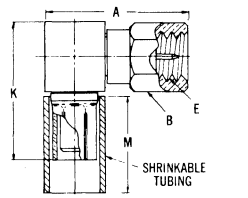
51-775-0000-2G

SLIDE-ON

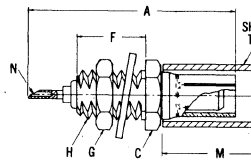


52-775-0000-2G

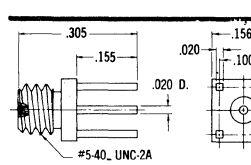
Designed for .062" thick panel.

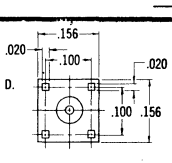


	50-728-0000-2G	50-728-3701-2G
A	.38	.38
B	.156 Hex	.156 Hex
E	#5-40, UNC-2B	#5-40, UNC-2B
K	.36	.34
M	.31	.31



	55-736-0000-2G	55-736-3701-2G
A	.53	.51
C	.156 Hex	.156 Hex
F	.177	.177
G	.156 Hex	.156 Hex
H	#5-40, UNC-2A	#5-40, UNC-2A
M	.31	.31
N	.013 I.D. x .020 O.D.	.013 I.D.x.020 O.D.



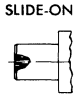


50-751-0000-2G

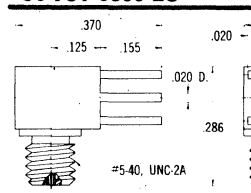
SNAP-ON

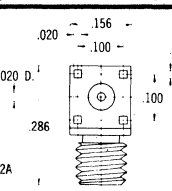
51-751-0000-2G

SLIDE-ON



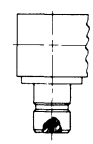
52-751-0000-2G





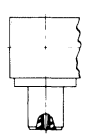
50-753-0000-2G

SNAP-ON



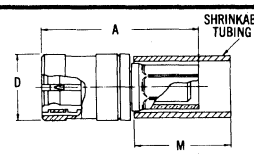
51-753-0000-2G

SLIDE-ON

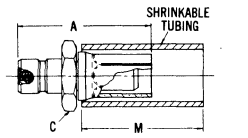


52-753-0000-2G

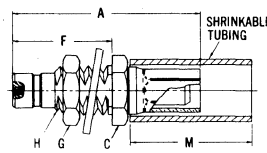
**For use with .056" diameter cable



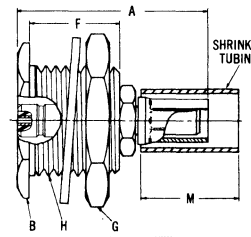
	FLEXIBLE CABLE* 51-724-0000-2G	SEMI-RIGID CABLE** 51-724-3701-2G
A	.40	.38
D	.168 D.	.168 D.
M	.31	.31



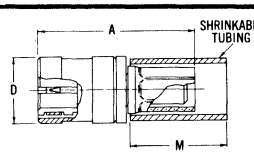
	FLEXIBLE CABLE* 51-725-0000-2G	SEMI-RIGID CABLE** 51-725-3701-2G
A	.34	.32
C	.156 Hex	.156 Hex
M	.31	.31



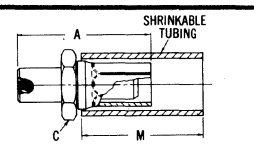
	FLEXIBLE CABLE* 51-727-0000-2G	SEMI-RIGID CABLE** 51-727-3701-2G
A	.48	.46
C	.156 Hex	.156 Hex
F	.256	.256
G	.156 Hex	.156 Hex
H	#5-40, UNC-2A	#5-40, UNC-2A
M	.31	.31



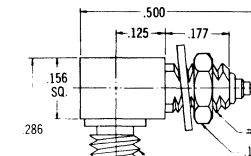
	FLEXIBLE CABLE* 51-733-0000-2G	SEMI-RIGID CABLE** 51-733-3701-2G
A	.49	.47
B	.343 Hex	.343 Hex
F	.228	.228
G	.375 Hex	.375 Hex
H	#3/32-40, UNS-2A	#3/32-40, UNS-2A
M	.31	.31



	FLEXIBLE CABLE* 52-724-0000-2G	SEMI-RIGID CABLE** 52-724-3701-2G
A	.40	.38
D	.168 D.	.168 D
M	.31	.31

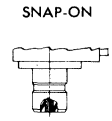


	FLEXIBLE CABLE* 52-725-0000-2G	SEMI-RIGID CABLE** 52-725-3701-2G
A	.34	.32
C	.156 Hex	.156 Hex
M	.31	.31



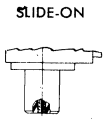
50-747-000-2G

SNAP-ON

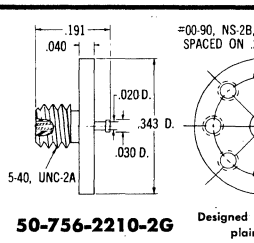


51-747-0000-2G

SLIDE-ON



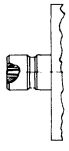
52-747-0000-2G



50-756-2210-2G

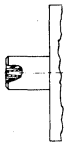
Designed for 1/16" ground plain spacing.

SNAP-ON

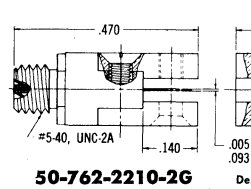


51-756-2210-2G

SLIDE-ON



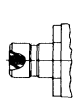
52-756-2210-2G



50-762-2210-2G

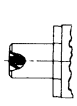
Designed for 1/16" ground plane spacing.

SNAP-ON



51-762-2210-2G

SLIDE-ON



52-762-2210-2G

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SEALECTRO PROGRAM SWITCHING

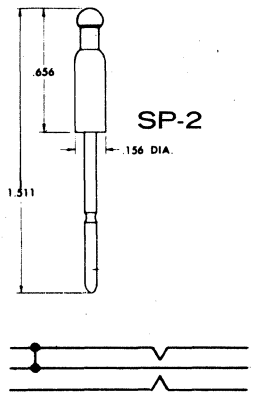
SEALECTOBOARD MODULAR CORDLESS PROGRAM BOARDS

"Sealectoboard" programming and switching provides complete ease and simplicity of operation with drastic reductions in hardware and space. The units consist of two decks of bussed contacts running at right angles to each other in the X and Y directions, forming an electrical matrix. A single shorting or component holding pin is used to complete the program circuit... move the pin to a new location and a new program function is generated.

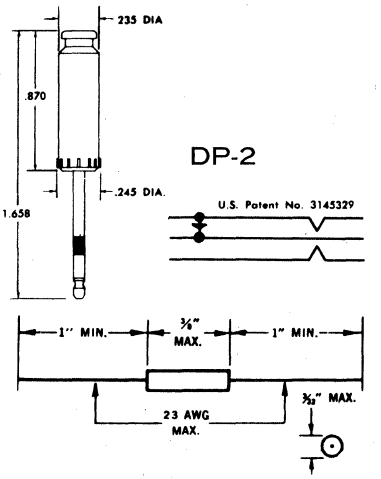
The "Modular Sealectoboard" provides an extremely flexible means of program system expansion with a built-in appearance. The system consists of only four standard component assemblies, designed such that when installed in a standard E.I.A. 19" relay rack, or bench cabinet, they result in a very attractive unit.

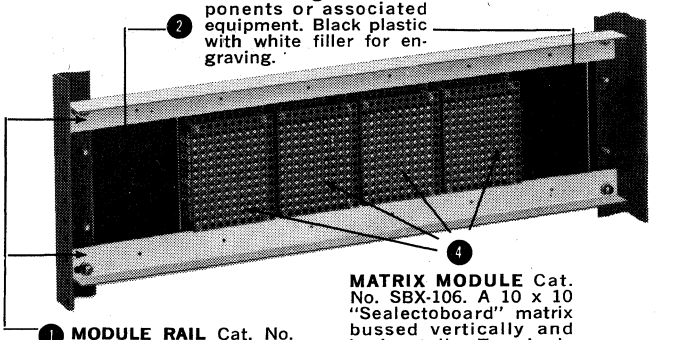
The "Modular Sealectoboard" can be expanded from a 10 x 10 hole matrix to a 10 x 60 hole matrix in one standard 5 7/32" x 19" rack panel. Additional panels can be added and interwired to expand program capacity as system requirements dictate.

SHORTING PIN



COMPONENT PIN



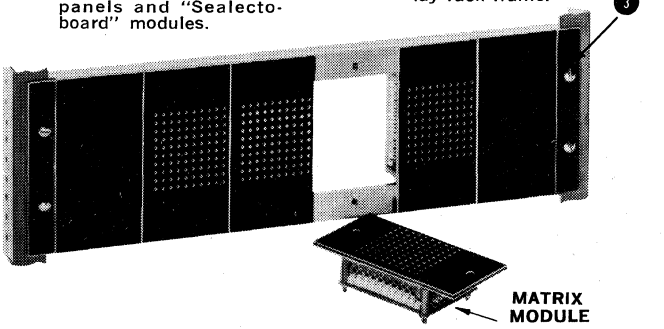


BLANK PANEL Cat. No. SBX-106-2. Fills in unused width. May be used for mounting other components or associated equipment. Black plastic with white filler for engraving.

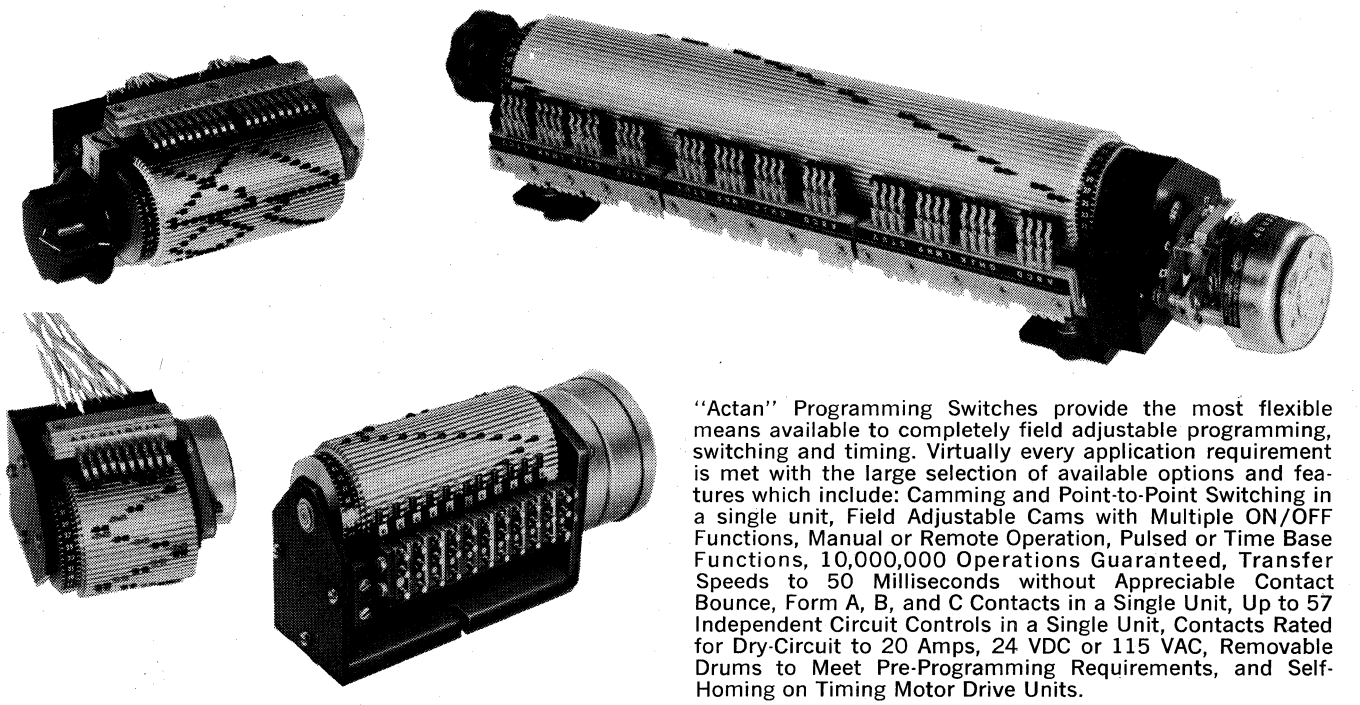
MATRIX MODULE Cat. No. SBX-106. A 10 x 10 "Sealectoboard" matrix bussed vertically and horizontally. Terminals are combination solder and Klip-on. Contact strips are silver plated.

MODULE RAIL Cat. No. SBX-106-1. Rails are designed for mounting on standard 19" relay racks. Offset is provided for flush panel installation. Mounting holes are provided for any combination (up to 6) of blank panels and "Sealectoboard" modules.

SIDE PLATE Cat. No. SBX-106-3. Provides end dressing, or return to relay rack frame.



ACTAN FIELD ADJUSTABLE PROGRAMMING SWITCHES



"Actan" Programming Switches provide the most flexible means available to completely field adjustable programming, switching and timing. Virtually every application requirement is met with the large selection of available options and features which include: Camming and Point-to-Point Switching in a single unit, Field Adjustable Cams with Multiple ON/OFF Functions, Manual or Remote Operation, Pulsed or Time Base Functions, 10,000,000 Operations Guaranteed, Transfer Speeds to 50 Milliseconds without Appreciable Contact Bounce, Form A, B, and C Contacts in a Single Unit, Up to 57 Independent Circuit Controls in a Single Unit, Contacts Rated for Dry-Circuit to 20 Amps, 24 VDC or 115 VAC, Removable Drums to Meet Pre-Programming Requirements, and Self-Homing on Timing Motor Drive Units.

Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

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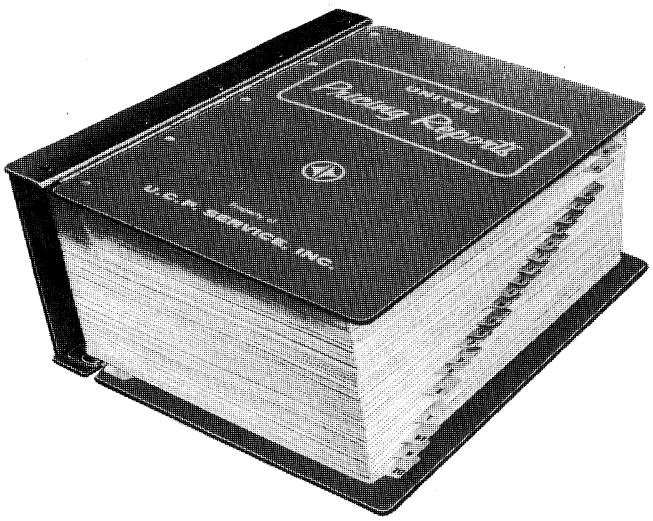

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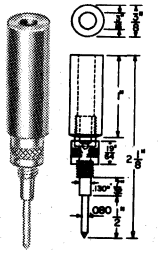
ELECTRONIC COMPONENTS

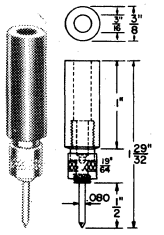
INSULATED TIP PLUG Solderless



HANDLE: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless: wire fits through body of tip then wrapped around screw portion and tightened with knurled collar. Threaded type. Fits standard phone tip jacks. **Std. Pkg. 100**

No.	Type	NET Per C
200	Senior	$15.00

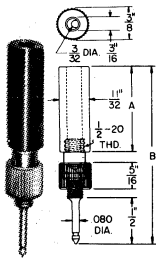
INSULATED TIP PLUG Solderless



HANDLE: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless: wire fits through body of tip then wrapped around screw portion and tightened with knurled collar. Threaded type. Fits standard phone tip jacks. **Std. Pkg. 100**

No.	Type	NET Per C
201	Junior	$15.00

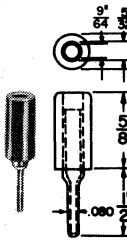
INSULATED TIP PLUG Signal Corps Approved



HANDLE: ETHYL CELLULOSE, Type EM-1, per MIL-P-3412. Red, Black. SPECIFY COLOR
PLUG: Steel, case hardened to Signal Corps specs.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Recess at end of prod tip holds plugs more firmly in jack spring. Prevents tip from falling out when in an inverted position. **Std. Pkg. 50**

No.	Handle (A)	Overall (B)	NET Per C
250	1 inch	2 1/8"	$54.00
358	3 inch	4 1/8"	84.00

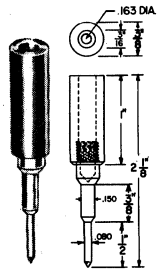
INSULATED TIP PLUG Solder Type



HANDLE: MOLDED BUTYRATE, per FED. SPEC. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR
BODY: Brass, nickel plated our No. 158.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Drawn hollow tip for easy soldering. Fits standard phone tip jack. **Std. Pkg. 100**

No.	NET Per C
237	$11.00

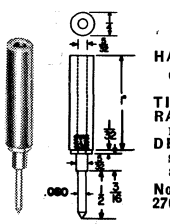
INSULATED TIP PLUG Heavy Duty Type



HANDLE: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUG: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Large diameter well enables soldering of heavy duty wire directly into plug. Fits standard phone tip jacks. **Std. Pkg. 100**

No.	NET Per C
229	$15.00

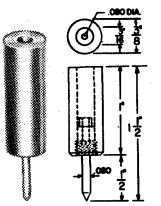
SUB-MINIATURE TIP PLUG



HANDLE: FIBRE, per MIL-F-148A, Grade CH. Red, Black. SPECIFY COLOR
TIP: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Ideally suited for checking sub-miniature equipment. Fits standard phone tip jacks. **Std. Pkg. 100**

No.	NET Per C
270	$18.00

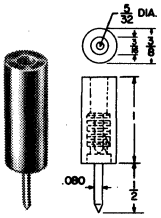
INSULATED SHORT TIP PLUG



HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUG: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Inserts flush to insulate handle, no metal exposed; eliminates possibility of shock or grounding. Fits standard phone tip jacks. **Std. Pkg. 100**

No.	NET Per C
203	$12.00

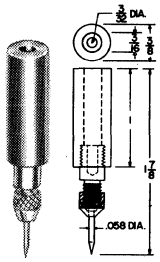
INSULATED SHORT TIP PLUG Solderless



HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUG: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless: wire fits through handle and body of tip then wrapped around screw portion. Inserts flush to insulated handle, no metal exposed, eliminates possibility of shock or grounding. Fits standard phone tip jacks. **Std. Pkg. 50**

No.	NET Per C
283	$14.00

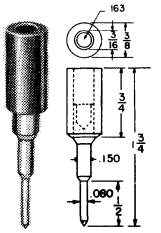
INSULATED TIP PLUG Phono Needle



HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Removable chuck for easy replacement of broken needle. Needle pierces corrosion or plating for positive reading. **Std. Pkg. 50**

No.	NET Per C
216	$18.00

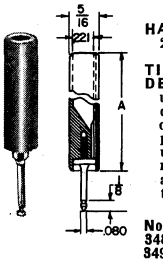
ADAPTER Banana Plug to Tip Plug



HANDLE: MOLDED BUTYRATE, per FED. SPEC. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Accepts standard banana plugs, adapts to standard tip plug. Std. Pkg. 100

No.	NET Per C
215	$15.00

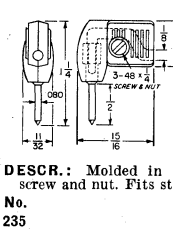
SUB-MINIATURE TIP PLUG AND TEST PROD



HANDLE: Molded Nylon, per MIL-P-20693A. Available in Red or Black. SPECIFY COLOR
TIP: Brass, Silver plated.
DESCR.: Solderless assembly. Ideal for use with sub-miniature printed-circuit tip jacks. Sharp tip breaks flux or oxide coating on printed-circuit pattern for positive contact when used as prod. Grooved head or prod makes positive contact when laid across wires. Fits all standard .080" tip jacks. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
348	1 inch	1 5/16"	$33.00
349	4 inches	4 5/16"	42.00

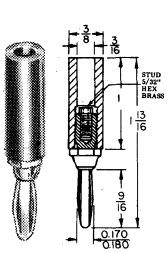
METER TIP PLUG



HANDLE: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black. SPECIFY COLOR
TIP: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Molded in two halves for easy assembly with screw and nut. Fits standard phone tip jacks. **Std Pkg. 50**

No.	NET Per C
235	$27.00

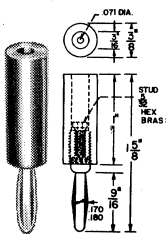
INSULATED BANANA PLUG



HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUG: Hex brass, nickel or silver plated.
SPRING: Four-leaved phosphor bronze or beryllium copper, nickel or silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection. Fits standard banana jacks. **Std. Pkg. 100**

No.	Spring Material	Plating	NET Per C
212	Phosphor Bronze	Nickel	$22.00
232	Phosphor Bronze	Silver	24.00
242	Beryllium Copper	Nickel	30.00
262	Beryllium Copper	Silver	33.00

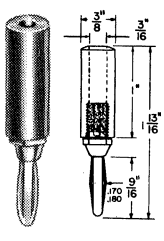
INSULATED BANANA PLUG



HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUG: Brass, nickel or silver plated.
SPRING: Four-leaved phosphor bronze or beryllium copper, nickel or silver plated.
RATING: 15 Amps AC for 10° Temp. rise, continuous duty.
DESCR.: Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection. Fits standard banana jacks. **Std. Pkg. 100**

No.	Spring Material	Plating	NET Per C
211	Phosphor Bronze	Nickel	$19.00
261	Phosphor Bronze	Silver	21.00
271	Beryllium Copper	Nickel	24.00
281	Beryllium Copper	Silver	27.00

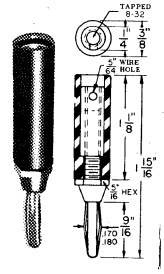
INSULATED BANANA PLUG Solderless



HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUG: Hex brass, nickel or silver plated.
SPRING: Four-leaved phosphor bronze or beryllium copper, nickel or silver plated.
RATING: 15 AC Amps for 10°C Temp. rise, continuous duty.
DESCR.: Solderless: Wire fits through handle and body of tip then wrapped around screw portion. Fits standard banana jacks. **Std. Pkg. 50**

No.	Spring Material	Plating	NET PER C
295	Phosphor Bronze	Nickel	$22.00
296	Phosphor Bronze	Silver	24.00
297	Beryllium Copper	Nickel	30.00
298	Beryllium Copper	Silver	33.00

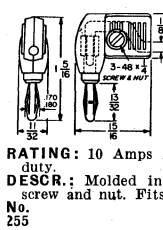
INSULATED BANANA PLUG Solderless



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red, Black. SPECIFY COLOR
BODY: Hex brass, nickel plated with mating brass spacer.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Cross drilled hole in spacer enables quick solderless connection of wire to plug. Fits standard banana jacks. **Std. Pkg. 100**

No.	NET Per C
256	$35.00

METER BANANA PLUG



HANDLE: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black. SPECIFY COLOR
PLUG: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Molded in two halves for easy assembly with screw and nut. Fits standard banana jacks. **Std. Pkg. 50**

No.	NET Per C
255	$36.00

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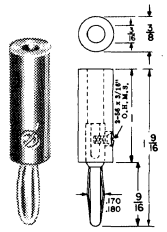
specify SMITH

HERMAN H. SMITH, INC.

ELECTRONIC COMPONENTS

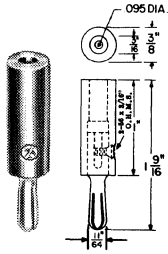
INSULATED BANANA PLUG With Side Screw



HANDLE: MOLDED THERMO-SETTING plastic, Red & Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUG: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze or beryllium copper, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Set screw secures wire without soldering. Fits standard banana jacks. **Std. Pkg. 100**

No.	Spring	NET Per C
204	Phosphor Bronze	$19.00
254	Beryllium Copper	27.00

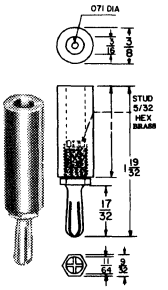
INSULATED BANANA PLUG Split Type With Side Screw



HANDLE: MOLDED THERMO-SETTING plastic, Red & Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUG: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Cross-slotted for spring tension. Set screw secures wire, without soldering. Fits standard banana jacks. **Std. Pkg. 100**

No.	NET Per C
213	$18.00

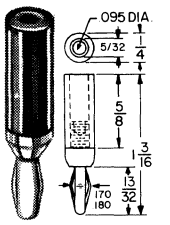
INSULATED BANANA PLUG Split Type With Internal Stud



HANDLE: MOLDED THERMO-SETTING plastic, Red & Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUG: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Cross-slotted for spring tension. Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection. Fits standard banana jacks. **Std. Pkg. 100**

No.	NET Per C
253	$19.00

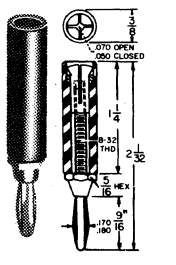
INSULATED BANANA PLUG Midget Type



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red, Black. SPECIFY COLOR
PLUG: Brass, nickel or silver plated.
SPRING: Phosphor bronze or beryllium copper, nickel or silver plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Wire soldered directly into stud. Fits standard banana jacks. **Std. Pkg. 50**

No.	Spring Material	Plating	NET Per C
291	Phosphor Bronze	Nickel	$19.00
292	Phosphor Bronze	Silver	21.00
293	Beryllium Copper	Nickel	24.00
294	Beryllium Copper	Silver	27.00

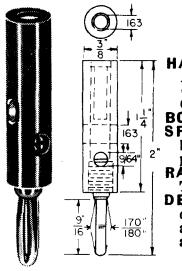
INSULATED BANANA PLUG With Internal Spring Collett



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red or Black. SPECIFY COLOR
BODY: Hex brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless: Spring collett provides quick connect and disconnect of wire. Tin wire for secure contact. Fits standard banana jack. **Std. Pkg. 100**

No.	NET Per C
239	$41.00

STACK BANANA PLUG Solderless



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II, Red, Black, Yellow or Green. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze or beryllium copper, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless connection. Accepts standard banana plugs in top and side. Interconnects unlimited amount of multiple circuits. **Std. Pkg. 50**

No.	Spring Material	NET Per C
1511	Phosphor Bronze	$33.00
1512	Beryllium Copper	36.00

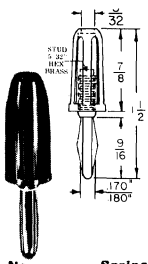
NYLON PLUGS COLOR CODE SUFFIX

Add to Catalog Number as required

— 101 WHITE	— 104 GREEN	— 106 ORANGE	— 112 PURPLE
— 102 RED	— 105 BLUE	— 107 YELLOW	— 113 GREY
— 103 BLACK		— 108 BROWN	

BANANA PLUG TYPE

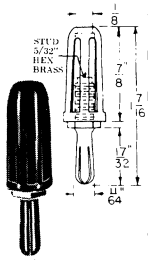
NYLON BANANA PLUG



HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
PLUG: Brass, nickel plated.
SPRING: Phosphor bronze or beryllium copper nickel or silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection. Fits standard banana jacks. **Std. Pkg. 100**

No.	Spring Material	Plating	NET Per C
476	Phosphor Bronze	Nickel	$21.00
477	Phosphor Bronze	Silver	24.00
478	Beryllium Copper	Nickel	27.00
479	Beryllium Copper	Silver	30.00

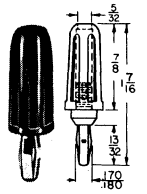
NYLON BANANA PLUG Split Type



HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
PLUG: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Cross-slotted for spring tension. Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection. Fits standard banana jacks. **Std. Pkg. 100**

No.	NET Per C
494	$18.00

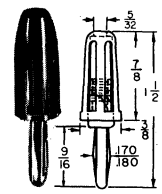
NYLON BANANA PLUG Midget



HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
PLUG: Brass, nickel or silver plated.
SPRING: Phosphor bronze or beryllium copper, nickel or silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Wire soldered directly into stud. Fits standard banana jacks. **Std. Pkg. 100**

No.	Spring Material	Plating	NET Per C
426	Phosphor Bronze	Nickel	$18.00
427	Phosphor Bronze	Silver	21.00
428	Beryllium Copper	Nickel	24.00
429	Beryllium Copper	Silver	27.00

NYLON BANANA PLUG Solderless

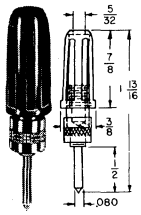


HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
PLUG: Brass, nickel or silver plated.
SPRING: Phosphor bronze or beryllium copper nickel or silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless: Wire fits through handle and body of tip then wrapped around screw portion. Inserts flush to handle, no metal exposed, eliminates possibility of shock or grounding. Fits standard banana jacks. **Std. Pkg. 100**

No.	Spring Material	Plating	NET Per C
455	Phosphor Bronze	Nickel	$21.00
456	Phosphor Bronze	Silver	24.00
457	Beryllium Copper	Nickel	27.00
458	Beryllium Copper	Silver	30.00

PIN TIP TYPE

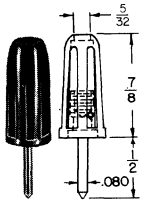
NYLON TIP PLUG Solderless



HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
PLUG: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless: wire fits through body of tip then wrapped around screw portions and tightened with knurled collar. Threaded type. Fits standard phone tip jacks. **Std. Pkg. 100**

No.	NET Per C
490	$16.80

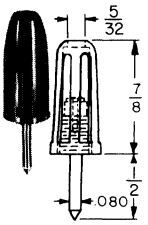
NYLON SHORT TIP PLUG Solderless



HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
PLUG: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless: Wire fits through handle and body of tip then wrapped around screw portion. Inserts flush to handle, no metal exposed, eliminates possibility of shock or grounding. Fits standard phone tip jacks. **Std.Pkg.100**

No.	NET Per C
492	$15.00

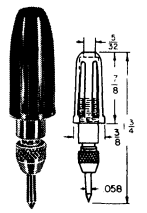
NYLON SHORT TIP PLUG



HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
PLUG: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Inserts flush to insulated handle, no metal exposed; eliminates possibility of shock or grounding. Fits standard phone tip jacks. **Std. Pkg. 100**

No.	NET Per C
491	$13.80

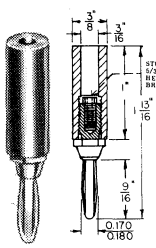
NYLON TIP PLUG Phono Needle



HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Removable chuck for easy replacement of broken needles. Needle pierces corrosion or plating for positive reading. **Std. Pkg. 50**

No.	NET Per C
493	$16.80

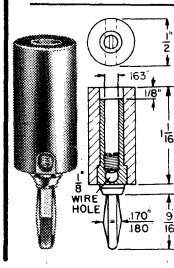
HIGH TEMPERATURE BANANA PLUG



HANDLE: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUG: Hex brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Withstands temperature to 1200 degrees F. Full resiliency—non-oxidizing. Excellent for thermocouple connection on plastic extruding die heads. **Std. Pkg. 10**

No.	NET Per C
388	$72.00

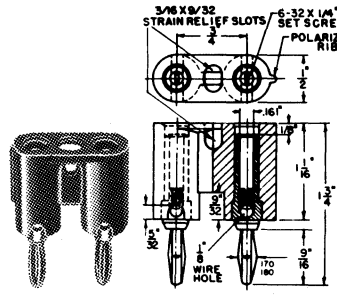
STACK BANANA PLUG



BODY: MOLDED POLYSTYRENE, per Fed. Spec. L-P416, Type 1 for electrical characteristics. Red or Black. SPECIFY COLOR
PLUG: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
SCREW: Steel, cadmium plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Internal set screw for wire or phone tip connection. Can be stacked for multiple connections. **Std. Pkg. 25**

No.	NET Ea.
324	$48.00

DUAL BANANA PLUG



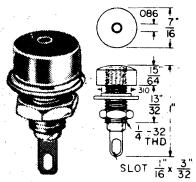
BODY: MOLDED POLYSTYRENE, per Fed. Spec. L-P416 Type I for electrical characteristics. Red or Black.
PLUG: Brass, nickel plated. SPECIFY COLOR
SPRING: Four-leaved phosphor bronze, nickel plated.
SCREW: Steel, cadmium plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 5K Volts 60 cycle AC continuous working voltage. CAPACITANCE 1.0 mmfd. between conductors.
DESCR.: Mates with standard dual binding post ¾" centers. Polarity indicated on top and side. Wire held with internal set screw. Can be stacked for multiple connections. **Std. Pkg. 25**

No.	NET Per C
210	$72.00

specify SMITH

HERMAN H. SMITH, INC.

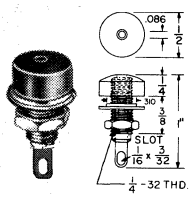
ELECTRONIC COMPONENTS



INSULATED PHONE TIP JACK

HEAD: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.
DESCR.: Positive contact with standard phone tip plugs. Supplied complete with hex nut and fibre washer. Mounts in 5/16" hole in panels up to 3/8" thick. Accepts standard phone tip plugs. **Std. Pkg. 100**

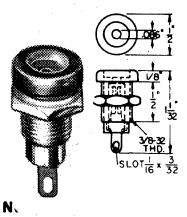
No.	NET Per C
202	$14.00



INSULATED PHONE TIP JACK

HEAD: MACHINED BUTYRATE, per MIL-P-10408A, Type 1, Class II. Red, Black Yellow, Green. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.
DESCR.: Complete with hex nut and fibre washer. Mounts in 5/16" hole in panels up to 3/8" thick. Accepts standard phone tip plugs. **Std. Pkg. 50**

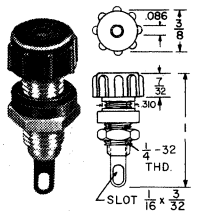
No.	NET Per C
228	$21.00



MOLDED NYLON TIP JACK

BODY: MOLDED NYLON, per MIL-P-20693A. Red, Black, Yellow, Green, Blue. SPECIFY COLOR
CONTACT: Phosphor bronze.
CAP: Brass, nickel plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty. 5 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 3.0 mmfd.
DESCR.: Mounts in 3/8" hole in panels up to 5/16" thick. Accepts standard phone tip plugs. **Std. Pkg. 100**

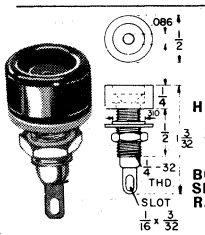
No.	NET Per C
240	$18.00



INSULATED PHONE TIP JACK

HEAD: Fluted Head, MOLDED NYLON, per MIL-P-20693A. With molded nylon washer. Red, Black, Yellow, Green, Blue. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.
DESCR.: Extruded portion of head and washer provides excellent insulation from panel. Supplied with hex nut. Mounts in 5/16" hole in panels up to 1/4" thick. Accepts standard tip plugs. **Std. Pkg. 100**

No.	NET Per C
241	$19.00

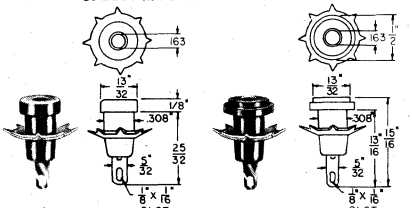


INSULATED TIP JACK Meter Type

HEAD: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue per LC-726-1. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.
DESCR.: Supplied complete with hex nut and fibre washer. Mounts in 5/16" hole in panels up to 3/8" thick. Recessed jack body prevents possibility of shock or grounding. Accepts standard phone tip plugs. **Std. Pkg. 50**

No.	NET Per C
282	$17.00

"SPEEDI-MOUNT" BANANA JACKS

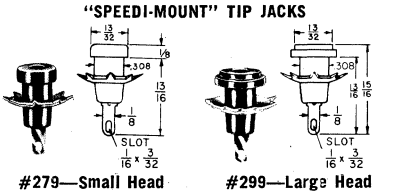


#398—Small Head #399—Large Head

BODY: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, per LC-726-1. SPECIFY COLOR
CONTACT: Brass, cadmium plated.
WASHER: Steel cadmium plated, internal and external tooth.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty. 3 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.
DESCR.: Unusual dished lockwasher permits fast assembly. Teeth embed into jack and panels, prevent pulling out and turning. Mounts in 5/16" hole in panels up to 3/16" thick. Accepts standard banana plug. **Std. Pkg. 100**

No.		NET Per C
398	Small Head 13/32"	$6.60
399	Large Head 1/2"	$6.60

"SPEEDI-MOUNT" TIP JACKS

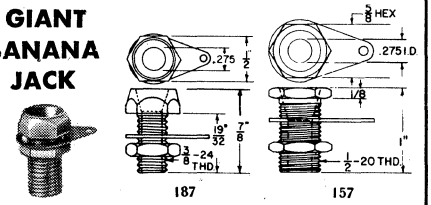


#279—Small Head #299—Large Head

BODY: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
SPRING: Phosphor bronze.
WASHER: Steel cadmium plated, internal and external tooth.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty. 3 K Volts 60 cycle AC continuous working voltage. CAACITANCE 3.0 mmfd.
DESCR.: Unusual dished lockwasher permits fast assembly. Teeth embed into jack and panels, prevents pulling out and turning. Mounts in 5/16" hole in panels up to 3/16" thick. Accepts standard phone tip plugs. **Std. Pkg. 100**

No.		NET Per C
279	Small Head 13/32"	$6.60
299	Large Head 1/2"	$6.60

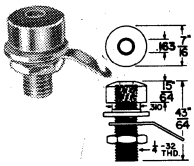
GIANT BANANA JACK



187 157

BODY: HEX BRASS, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and brass tinned lug. **Std. Pkg. 25**

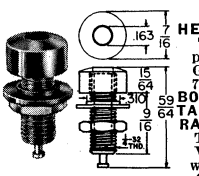
No.	Mtg. Hole	Panel	Net Per C
187	3/8"	1/2"	$30.00
157	1/2"	5/8"	30.00



INSULATED BANANA JACK

HEAD: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.
DESCR.: Supplied with hex nut, fibre washer, and brass tinned lug. Mounts in 5/16" hole in panels up to 3/8" thick. Accepts standard banana plugs. **Std. Pkg. 100**

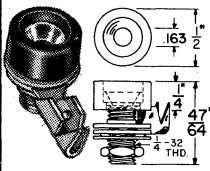
No.	NET Per C
205	$14.00



INSULATED BANANA JACK With Solder Tab

HEAD: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
BODY: Brass, nickel plated.
TAB: Brass, cadmium plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.
DESCR.: Supplied with hex nut and fibre washer. Mounts in 5/16" hole in panels up to 5/8" thick. Solder direct to tab Accepts standard banana plugs. **Std. Pkg. 100**

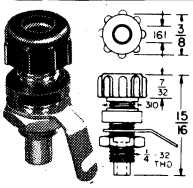
No.	NET Per C
256	$15.00



INSULATED BANANA JACK

HEAD: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue per LC-726-1. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.
DESCR.: Supplied with hex nut, fibre washer, lockwasher and brass tinned lug. Mounts in 5/16" hole in panels up to 3/8"thick. Jack body recessed for snug contact. Accepts standard banana plugs. **Std. Pkg. 100**

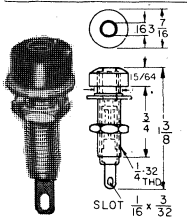
No.	NET Per C
219	$16.00



INSULATED MIDGET BANANA JACK

HEAD: Fluted Head, MOLDED NYLON, per MIL-P-20693A. With molded nylon washer. Red, Black, Yellow, Green, Blue. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.
DESCR.: Extruded portion of head and washer provides excellent insulation from panel. Supplied with hex nut, brass tinned lug. Mounts in 5/16" hole in panels up to 1/4" thick. Accepts standard banana plugs. **Std. Pkg. 100**

No.	NET Per C
221	$19.00



INSULATED JACK Combination Type

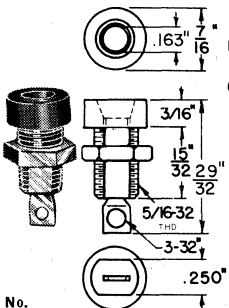
HEAD: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.
DESCR.: Supplied with hex nut and fbre washer. Accepts standard phone tip plugs or standard banana plugs. **Std. Pkg. 100**

No.	NET Per C
206	$17.00

NYLON BANANA JACKS

COLOR CODE SUFFIX — Add to Catalog Number as required

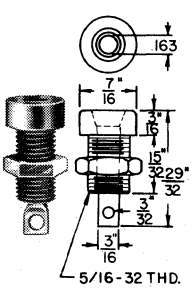
— 101 WHITE — 102 RED — 103 BLACK — 104 GREEN — 105 BLUE — 106 ORANGE — 107 YELLOW — 108 BROWN — 112 PURPLE — 113 GREY



"DOUBLE-D" BODY

BODY: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
CONTACT: Brass, cadmium plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous working voltage. CAPACITANCE 5.5 mmfd.
DESCR.: Mounts in 5/16" hole in panels up to 5/16" thick. Accepts standard banana plugs. Wide temperature and humidity range. "Double-D" body mounts in round or punched hole to fit. **Std. Pkg. 50**

No.	NET Per C
1509	$12.00



FULL ROUND BODY

BODY: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
CONTACT: Brass, cadmium plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 5.0 mmfd.
DESCR.: Mounts in panels up to 5/16" hole in panels up to 5/16" thick. Accepts standard banana plugs. Wide temperature and humidity range. **Std. Pkg. 50**

No.	NET Per C
1508	$12.00

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NYLON TIP JACKS

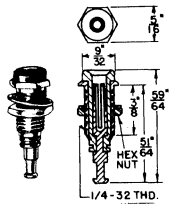
With Metal Shell

Made to Meet MS-16108 Spec.

COLOR CODE SUFFIX

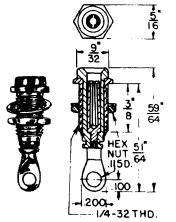
(Add to Catalog Number as Required)

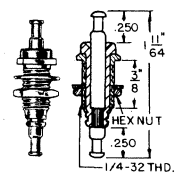
— 101 WHITE	— 105 BLUE	— 108 BROWN
— 102 RED	— 106 ORANGE	— 112 PURPLE
— 103 BLACK	— 107 YELLOW	— 113 GREY
— 104 GREEN		



Molded Nylon Tip Jack. Metal shell eliminates possibility of stripping threads during assembly. Meets following requirements:

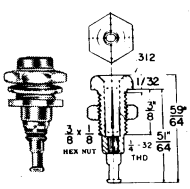
1. Salt Spray Test — Withstands 100 hours.
2. Rating — 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 10.0 mmfd.
3. Insulation Resistance — 5,000 megohms.
4. Operating Conditions —
   - A. Continuous: 23 hours on, 1 hour off.
   - B. Elevation: Up to 5,000 ft.
   - C. Temperature: —55 to + 85°C.
   - D. Humidity: Up to 95%.
5. Material Specifications —
   - A. Insulator: Molded Nylon, per MIL-P-20693A. Specify color as coded above.
   - B. Shell and Nut: Brass Nickel Plated per QQ-N-290, type V (FC).
   - C. Lockwasher: Phosphor Bronze Nickel Plated per Spec. QQ-N-290, type V (FC).
   - D. Center Contact: Heat Treated Bery, Copper, Silver plated per QQ-S-365, Gold plated overall.
6. Non-Operating Conditions —
   - A. Elevation: Up to 50,000 ft.
   - B. Temperature: Continuous exposure for 72 hours at +160°F and 240 hours at —80°F.
   - C. Humidity: Up to 100%.





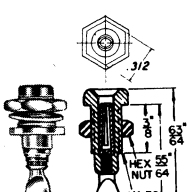
No.	Type	Std. Pkg.	NET Per C
1501	Wrap Around	25	$28.80
1502	Spade Terminal	25	42.00
1503	Feed Through	25	39.00

All Nylon



Completely Molded Nylon Jack. Fits all standard phone tip plugs. Contact recessed in head for safe contact. Hexagon head for grip in tightening. Mounts in ¼" hole in panels up to ¼" thick. Meets following requirements:

1. Salt Spray Test — Withstands 100 hours.
2. Rating: 15 Amps AC for 10°C Temp. rise, continuous duty. 5 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 3.0 mmfd.
3. Insulation Resistance — 5,000 megohms.
4. Operating Temperature— —55 to +150°C.
5. Material Specifications —
   - A. Body: Molded Nylon, per MIL-P-20693A. Specify Color as coded above.
   - B. Center contact: Heat treated Phosphor Bronze, Silver plated per QQ-S-365, Gold plated overall. No. 1507 Brass, per QQ-B-626, Comp. 22, plated as above.
   - C. Hex Nut: Brass Nickel Plated.



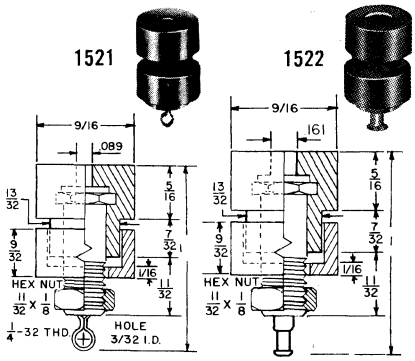
No.	Type	Std. Pkg.	NET Per C
1505	Wrap Around	25	$21.00
1506	Spade Terminal	25	30.00
1507	Feed Through	25	28.20

HIGH VOLTAGE NYLON JACKS

Color Code Suffix

Add to Catalog Number as Required

— 101 WHITE	— 105 BLUE
— 102 RED	— 106 ORANGE
— 103 BLACK	— 107 YELLOW
— 104 GREEN	— 108 BROWN



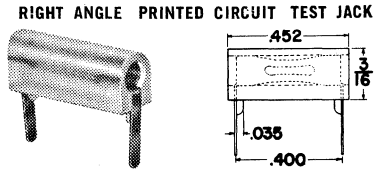
Made to meet MS-16107 Spec.

Heavy molded nylon body and cup washer prevent high-voltage flashover to panel. Meets following requirements:

1. Salt Spray Test — Withstands 100 hours.
2. Electrical Rating — 15 Amps AC for 10°C Temp. rise, continuous duty. 5 KV 60 cycle AC continuous working voltage. Millivolt drop per MIL-J-6751.
3. Material Specifications—
   - A. Insulator and Washer: Nylon Grade FM 10001, in accordance with MIL-P-17091 spec.
   - B. Insert Shell and Nut: Brass, Nickel plated per spec. QQ-N-290, type V (FC). Insert gold washed overall.
   - C. Contact: Phosphor bronze or beryllium copper, gold washed.
   - D. Terminal style: Optional formed cylinder or slotted flat terminals as shown.

No.		Std. Pkg. 25 NET Per C
1521	TIP JACK	$45.00
No.		NET Per C
1522	BANANA JACK	$45.00

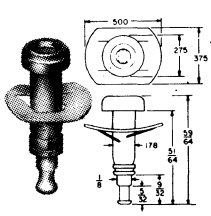
RIGHT ANGLE PRINTED CIRCUIT TEST JACK



BODY: MOLDED NYLON, PER MIL-P-20693A. Specify color as coded above.
SPRING: Beryllium Copper, per QQ-C-533.
FINISH: Silver underplate, .0002" min., per QQ-S-365, Type I, with .00003" Gold overplate; per MIL-F-14072, M810.
RATINGS: 5 Amps AC for 10°C Temp. rise, continuous duty. 1.5 KV, 60 cycle AC continuous working voltage. Contact resistance 5 milliohms max. at rated current. Capacitance less than 5 mmfd at 1 Mc.
MOUNTING: Mounts in .052" dia. holes, on .400" centers, in boards up to 3/16" thick. Can be spaced side-by-side .60" on centers min.
MECHANICAL DATA: Thermal shock, vibration, humidity, insulation resistance, and salt spray tests per MIL-STD-202B. Solderability per MIL-S-6872. Insertion and withdrawal force: 8 oz. min., 5 lbs. max. with .080" (±.001") dia. probe.
DESCR.: Double-entry design probe inserts from either end of jack. Closed entry construction will not accept probes larger than .084", will contact probes down to .074". Closed bottom construction keeps jack from fouling with solder or flux. Locking ears hold jack firmly in board until soldered. Precise dimensions allow for automated assembly on boards. Std. Pkg. 100

N.	NET Per C
430	$10.00

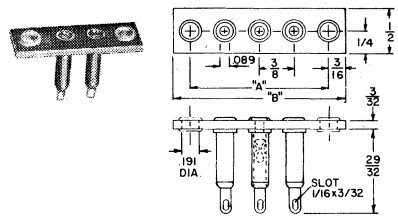
NYLON TEST TIP JACK



BODY: Nylon, Grade FM 10001. SPECIFY COLOR
CONTACT: Phosphor bronze, gold plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 3 KV 60 cycle AC continuous working voltage.
DESCR.: Mounts in 5/16" hole, with Tinnerman Speed Nut for fast permanent assembly. Teeth embed into jack body, preventing pulling out and turning. Accepts standard phone tip plugs. Std. Pkg. 25

No.	NET Per C
1598	$15.00

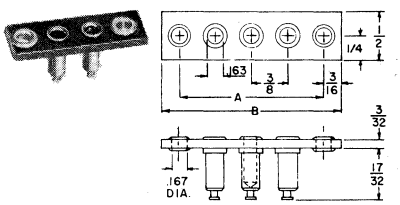
PIN JACK STRIPS



STRIP: LAMINATED PHENOLIC, XP, Black. Meets Federal Spec. L-L-31, Type I.
BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 KV, 60 cycle AC continuous working voltage.
DESCR.: From 2 to 10 pin jacks assembled on ⅜" centers on a heavy-duty board. Provides positive contact with standard phone tip plugs. Mounting holes accept screws up to #8. Std. Pkg. 25

No.	Jacks	Mtg. Ctrs. ("A")	Length ("B")	NET Per C
1982	2	1⅛"	1½"	$21.00
1983	3	1½"	1⅞"	27.00
1984	4	1⅞"	2¼"	36.00
1985	5	2¼"	2⅝"	45.00
1986	6	2⅝"	3"	51.00
1987	7	3"	3⅜"	60.00
1988	8	3⅜"	3¾"	69.00
1989	9	3¾"	4⅛"	75.00
1990	10	4⅛"	4½"	84.00

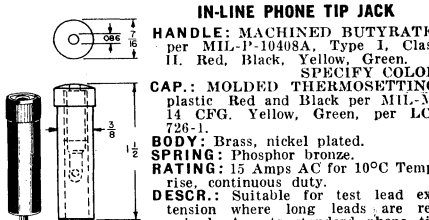
BANANA JACK STRIPS



STRIP: LAMINATED PHENOLIC, XP, Black, Meets Federal Spec. L-L-31, Type 1.
BODY: Brass, nickle plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 KV, 60 cycle AC continuous working voltage.
DESCR.: From 2 to 10 Banana jacks assembled on⅜" centers on a heavy-duty board. Provides positive contact with standard banana plugs. Mounting holes accept screws up to #8. Std. Pkg. 25

No.	Jacks	Mtg. Ctrs. ("A")	Length ("B")	Net Per C
1972	2	1⅛"	1½"	$21.00
1973	3	1½"	1⅞"	27.00
1974	4	1⅞"	2¼"	36.00
1975	5	2¼"	2⅝"	45.00
1976	6	2⅝"	3"	51.00
1977	7	3"	3⅜"	60.00
1978	8	3⅜"	3¾"	69.00
1979	9	3¾"	4⅛"	75.00
1980	10	4⅛"	4½"	84.00

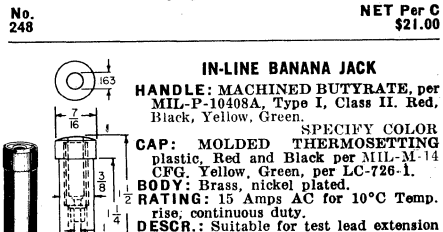
IN-LINE PHONE TIP JACK



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red, Black, Yellow, Green. SPECIFY COLOR
CAP.: MOLDED THERMOSETTING plastic Red and Black per MIL-M-14 CFG. Yellow, Green, per LC-726-1.
BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Suitable for test lead extension where long leads are required. Accepts standard phone tip plug. Std. Pkg. 50

No.	NET Per C
248	$21.00

IN-LINE BANANA JACK



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red, Black, Yellow, Green. SPECIFY COLOR
CAP: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, per LC-726-1.
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Suitable for test lead extension where long leads are required. Accepts standard banana plugs. Std. Pkg. 50

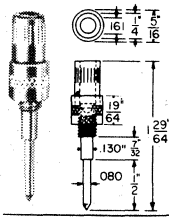
No.	NET Per C
251	$21.00

specify SMITH

HERMAN H. SMITH, INC.

ELECTRONIC COMPONENTS

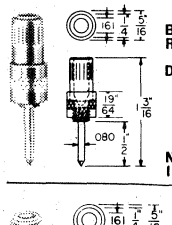
SOLDERLESS TIP PLUG



BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless; wire fits through body of tip then wrapped around screw portion and tightened with knurled collar. Force fit type. Fits standard phone tip jacks.
Std. Pkg. 100

No.	Type	NET Per C
105	Senior	$11.00

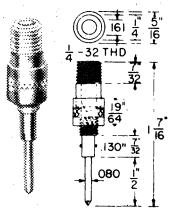
SOLDERLESS TIP PLUG



BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless; wire fits through body of tip then wrapped around screw portion and tightened with knurled collar. Force fit type. Fits standard phone tip jacks.
Std. Pkg. 100

No.	Type	NET Per C
106	Junior	$11.00

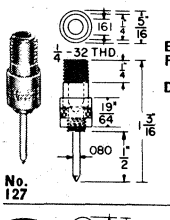
SOLDERLESS TIP PLUG
Threaded Sr.



BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless; wire fits through body of tip, then wrapped around screw portion and tightened with knurled collar. Threaded for easy assembly in plastic handle. Fits standard phone tip jacks.
Std. Pkg. 100

No.	Type	NET Per C
124	Senior	$12.00

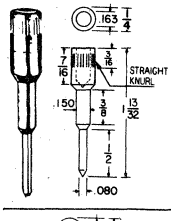
SOLDERLESS TIP PLUG
Threaded Jr.



BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless; wire fits through body of tip, then wrapped around screw portion and tightened with assembly in plastic handle. Fits knurled collar. Threaded for easy standard phone tip jacks.
Std. Pkg. 50

No.	Type	NET Per C
127	Junior	$12.00

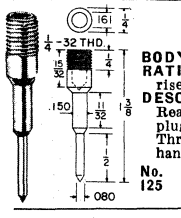
HEAVY DUTY TIP PLUG
Force-Fit



BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise continuous duty.
DESCR.: Extra large well for soldering. Rear of plug accepts standard banana plugs. Fits all standard phone tip jacks.
Std. Pkg. 25

No.	Type	NET Per C
156	Force Fit	$11.00

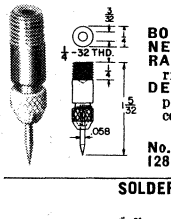
HEAVY DUTY TIP PLUG
Threaded



BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Extra large well for soldering. Rear of plug accepts standard banana plugs. Fits standard phone tip jacks. Threaded for easy assembly in plastic handle.
Std. Pkg. 50

No.	Type	NET Per C
125	Threaded	$12.00

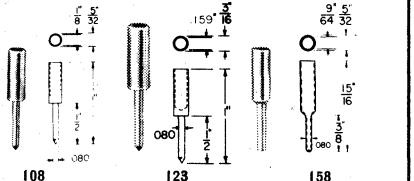
NEEDLE TIP AND CHUCK



BODY: Brass, nickel plated.
NEEDLE: Steel, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Removable chuck for easy replacement. Needle pierces plating or corrosion for positive reading.
Std. Pkg. 50

No.	NET Per C
128	$14.00

SOLDER TYPE PHONE TIPS

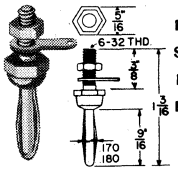


108 123 158

Brass, Nickel Plated
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
Std. Pkg. 100

No.	Type	NET Per C
108	Standard	$2.40
123	Large I.D.	2.70
158	Drawn	1.50

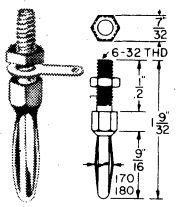
BANANA PLUG



BODY: HEX BRASS, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and phosphor bronze lug. Threaded stud for panel mounting. Fits standard banana jacks.
Std. Pkg. 100

No.	NET Per C
102	$18.00

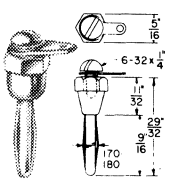
BANANA PLUG



BODY: HEX BRASS, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and phosphor bronze lug. Threaded stud for panel mounting. Fits standard banana jacks.
Std. Pkg. 100

No.	NET Per C
103	$18.00

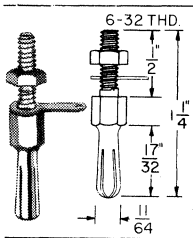
BANANA PLUG



BODY: HEX BRASS, nickel plated.
SPRING: Four-leaved phosphor bronze or beryllium copper, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with screw and phosphor bronze tinned lug. Internal female permits use on all size panels. Fits standard banana jacks.
Std. Pkg. 100

No.	Spring Material	NET Per C
100	Phosphor Bronze	$18.00
190	Beryllium Copper	24.00

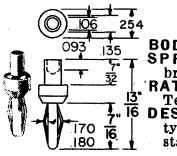
BANANA PLUG
Split Type



BODY: HEX BRASS, nickel plated, cross-slotted.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Fits all standard banana jacks. Supplied with hex nut and phosphor bronze lug, threaded stud for panel mounting. Fits standard banana jacks.
Std. Pkg. 100

No.	NET Per C
104	$14.00

MIDGET BANANA PLUG
Rivet Type



BODY: BRASS, silver plated.
SPRING: Four-leaved phosphor bronze, silver plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Can be furnished in varying types to meet Jan specs. Fits all standard banana jacks.
Std. Pkg. 100

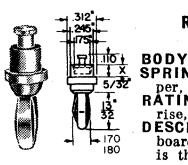
No.	NET Per C
121	$16.20

MIL-SPEC. TYPE

Same as above, made to meet Signal Corps Drawings SC-C2231.
Std. Pkg. 100

No.	NET Per C
122	$18.00

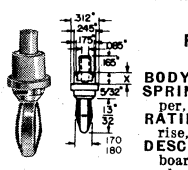
RIVET TYPE BANANA PLUG
Wrap Around Type



BODY: BRASS, nickel plated.
SPRING: Four leaved, beryllium copper, nickel plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Rivets to panel or bakelite board. Wire wraps around stud and is then soldered.
Std. Pkg. 100

No.	"X" Dim.	Panel	NET Per C
2082	.105	1/16"	$18.00
2083	.135	3/32"	18.00
2084	.165	1/8"	18.00

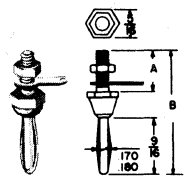
RIVET TYPE BANANA PLUG
Solder Well Type



BODY: BRASS, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Rivets to panel or bakelite board. Wire solders to well in rear of plug.
Std. Pkg. 100

No.	"X" Dim.	Panel	NET Per C
2067	.105	1/16"	$18.00
2068	.135	3/32"	18.00
2069	.165	1/8"	18.00

BANANA PLUG

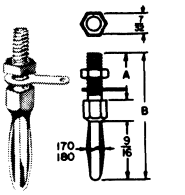


BODY: HEX BRASS, nickel or silver plated.
SPRING: Phosphor bronze or beryllium copper, nickel or silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and tinned phosphor bronze lug threaded stud for panel mounting. Fits standard banana jacks.
Std. Pkg. 50

PHOS. BR. SPRING Nickel Plated Overall				BERYL. COP. SPRING Nickel Plated Overall	
No.	NET Per C	A	B	No.	NET Per C
431	$18.00	6-32x5/8"	1 7/32"	443	$21.00
432	18.00	6-32x1/2"	1 1/32"	444	21.00
433	18.00	6-32x3/4"	1 1/32"	445	21.00
434	18.00	8-32x5/8"	1 7/32"	446	21.00
435	18.00	8-32x1/2"	1 1/32"	447	21.00
436	18.00	8-32x3/4"	1 9/32"	448	21.00

PHOS. BR. SPRING Silver Plated Overall				BERYL. COP. SPRING Silver Plated Overall	
No.	NET Per C	A	B	No.	NET Per C
437	$21.00	6-32x5/8"	1 7/32"	449	$24.00
438	21.00	6-32x1/2"	1 1/32"	450	24.00
439	21.00	6-32x3/4"	1 9/32"	451	24.00
440	21.00	8-32x5/8"	1 7/32"	452	24.00
441	21.00	8-32x1/2"	1 1/32"	454	24.00
442	21.00	8-32x3/4"	1 9/32"	453	24.00

BANANA PLUG

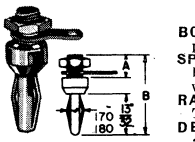


BODY: HEX BRASS, nickel or silver plated.
SPRING: Phosphor bronze or beryllium copper, nickel or silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and tinned phosphor bronze lug threaded stud for panel mounting. Fits standard banana jacks.
Std. Pkg. 50

PHOS. BR. SPRING Nickel Plated Overall				BERYL. COP. SPRING Nickel Plated Overall	
No.	NET Per C	A	B	No.	NET Per C
401	$18.00	6-32x5/8"	1 7/32"	414	$21.00
403	18.00	6-32x1/2"	1 1/32"	415	21.00
404	18.00	6-32x3/4"	1 9/32"	416	21.00
405	18.00	8-32x5/8"	1 7/32"	417	21.00
406	18.00	8-32x1/2"	1 1/32"	418	21.00
407	18.00	8-32x3/4"	1 9/32"	419	21.00

PHOS. BR. SPRING Silver Plated Overall				BERYL. COP. SPRING Silver Plated Overall	
No.	NET Per C	A	B	No.	NET Per C
408	$21.00	6-32x5/8"	1 7/32"	420	$24.00
409	21.00	6-32x1/2"	1 1/32"	421	24.00
410	21.00	6-32x3/4"	1 9/32"	422	24.00
411	21.00	8-32x5/8"	1 7/32"	423	24.00
412	21.00	8-32x1/2"	1 1/32"	424	24.00
413	21.00	8-32x3/4"	1 9/32"	425	24.00

MIDGET BANANA PLUG

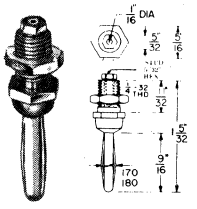


BODY: BRASS, nickel or silver plated.
SPRING: Phosphor bronze or beryllium copper. Nickel or silver plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and tinned phosphor bronze lug threaded stud for panel mounting. Fits standard banana jacks.
Std. Pkg. 50

PHOS. BR. SPRING Nickel Plated Overall				BERYL. COP. SPRING Nickel Plated Overall	
No.	NET Per C	A	B	No.	NET Per C
460	$18.00	4-40x5/8"	15/16"	468	$21.00
461	18.00	4-40x1/2"	1 1/16"	469	21.00
462	18.00	6-32x5/8"	15/16"	470	21.00
463	18.00	6-32x1/2"	1 1/16"	471	21.00

PHOS. BR. SPRING Silver Plated Overall				BERYL. COP. SPRING Silver Plated Overall	
No.	NET Per C	A	B	No.	NET Per C
464	$21.00	4-40x5/8"	15/16"	472	$24.00
465	21.00	4-40x1/2"	1 1/16"	473	24.00
466	21.00	6-32x5/8"	15/16"	474	24.00
467	21.00	6-32x1/2"	1 1/16"	475	24.00

BANANA PLUG



BODY: HEX BRASS, nickel plated.
SPRING: Phosphor bronze or beryllium copper, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut. Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection.
Std. Pkg. 50

No.	Spring Material	NET Per M
145	Phosphor Bronze	$18.00
135	Beryllium Copper	27.00

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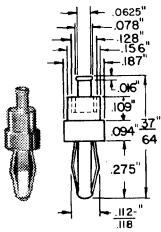
specify SMITH

HERMAN H. SMITH, INC.

ELECTRONIC COMPONENTS

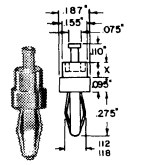
SUBMINIATURE PLUGS & JACKS



SUB MINIATURE BANANA PLUG
Rivet Type

BODY: BRASS, silver plated.
SPRING: Four leaved beryllium copper, silver plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: One piece beryllium copper spring insures positive and lasting contact. **Std. Pkg. 50**

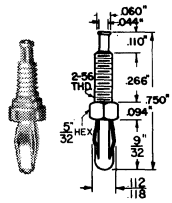
No.	NET Per C
191	$15.00



Swager Type
SUB MINIATURE BANANA PLUG

BODY: BRASS, silver plated.
SPRING: Four leaved beryllium copper, silver plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: One piece beryllium copper spring insures positive and lasting contact. **Std. Pkg. 100**

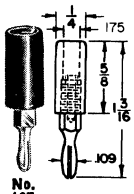
No.	"X" Dim.	Panel	NET Per C
2073	.105	1/16"	$15.00
2074	.135	5/32"	15.00
2075	.165	1/8"	15.00



SUB MINIATURE BANANA PLUG

BODY: BRASS, silver plated.
SPRING: Four leaved beryllium copper, silver plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: One piece beryllium copper spring insures positive and lasting contact. **Std. Pkg. 50**

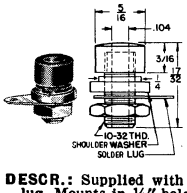
No.	NET Per C
192	$15.00



INSULATED BANANA PLUG
Sub Miniature

HANDLE: MACHINED BUTYRATE, per Fed. Spec. L-P344, Type I, Class MH. Red or Black. SPECIFY COLOR
PLUG: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Cross-slotted for spring tension. Wire solders directly into plug. Fits standard midget banana jacks. **Std. Pkg. 100**

No.	NET Per C
197	$16.00

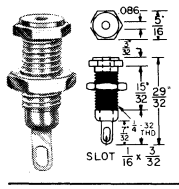


INSULATED BANANA JACK
Sub Miniature

HEAD: MACHINED BUTYRATE, per Fed. Spec. L-P344, Type I, Class MH. Red or Black. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous voltage. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 6.0 mmfd.
DESCR.: Supplied with hex nut, fibre washer and tinned lug. Mounts in ¼" hole in panels up to ⅛" thick. Accepts standard midget banana plugs. **Std. Pkg. 100**

No.	NET Per C
196	$16.00

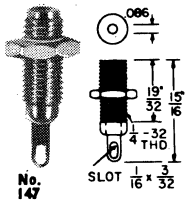
STANDARD TIP JACKS



PHONE TIP JACK

BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Positive contact with standard phone tip plugs. Supplied with hex nut. Mounts in ¼" hole in panels up to ⅜" thick. **Std. Pkg. 100**

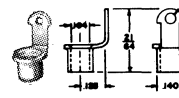
No.	NET Per C
107	$11.00



HEADLESS PHONE TIP JACK

BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut. Used with plastic molded instrument cases, where jack body is screwed into case. Accepts standard phone tip plugs. **Std. Pkg. 100**

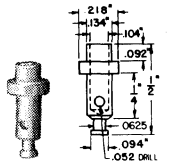
No.	NET Per C
147	$6.00



SUB MINIATURE BANANA JACK

BODY: BRASS, silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: This jack is riveted directly to chassis or to printed circuit board for easy assembly. **Std. Pkg. 100**

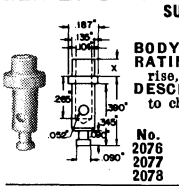
No.	NET Per C
194	$.90



SUB MINIATURE BANANA JACK

BODY: BRASS, silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: This jack is riveted directly to chassis or to printed circuit board for easy assembly. **Std. Pkg. 50**

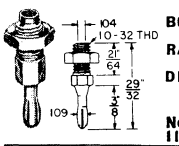
No.	NET Per C
198	$9.00



SUB MINIATURE BANANA JACK
Panel Mount

BODY: BRASS, silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: These jacks are riveted directly to chassis or bakelite board. **Std. Pkg. 100**

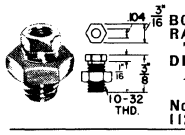
No.	"X" Dim.	Panel	NET Per C
2076	.105	1/16"	$9.00
2077	.135	5/32"	9.00
2078	.165	1/8"	9.00



MIDGET BANANA PLUG

BODY: BRASS, nickel plated, cross-slotted.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Cross-slotted, supplied with hex nut. Fits our No. 112 midget jack. **Std. Pkg. 50**

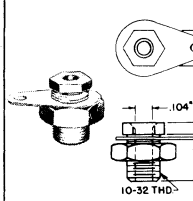
No.	NET Per C
111	$10.20



MIDGET BANANA JACK

BODY: BRASS, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut. Accepts our No. 111 midget plug. **Std. Pkg. 50**

No.	NET Per C
112	$7.80

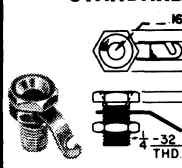


SUB MINIATURE BANANA JACK

BODY: HEX BRASS, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and tinned lug Mounts in .196 (#10) hole in panels up to ⅛" thick. Accepts standard midget banana plugs. **Std. Pkg. 100**

No.	NET Per C
195	$7.80

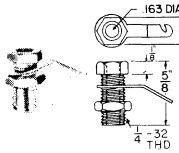
STANDARD BANANA JACKS



BANANA JACK

BODY: Hex brass nickel plated with recessed head.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and brass tinned lug. Mounts in ¼" hole; fits panels up to 5/16" thick. Accepts standard banana plugs. **Std. Pkg.100**

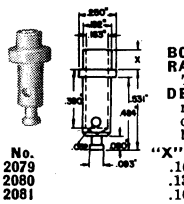
No.	NET Per C
101	$11.00



BANANA JACK

BODY: Hex brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and brass tinned lug. Mounts in ¼" hole in panels up to ⅜" thick. Accepts standard banana plugs.

No.	Std. Pkg. 100	NET Per C
109		$11.00

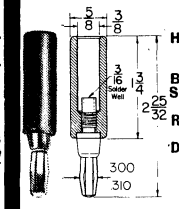


PANEL MOUNT BANANA JACK

BODY: BRASS, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Accepts all standard banana plugs. These jacks are riveted directly to chassis or bakelite board. **Std. Pkg. 100**

No.	"X" Dim.	Panel	NET Per C
2079	.105	1/16"	$10.80
2080	.135	5/32"	10.80
2081	.165	1/8"	10.80

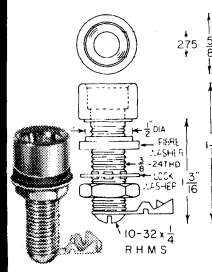
GIANT BANANA PLUGS & JACKS



INS. GIANT BANANA PLUG

HANDLE: MACHINED PHENOLIC plastic, per MIL-P-77B, Type I. Red or Black. SPECIFY COLOR
BODY: Hex brass, nickel plated.
SPRING: Six-leaved, phosphor bronze, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Large deep internal well for soldering heavy duty wire. Recessed so that no metal portions are exposed when plugged into mating jack, in order to prevent shocks or grounding. **Std. Pkg. 50**

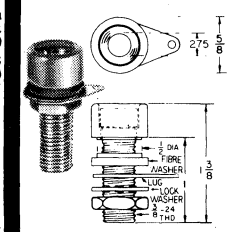
No.	NET Per C
285	$60.00



INS. GIANT BANANA JACK

HEAD: MACHINED BUTYRATE, per Fed. Spec. L-P344, Type I, class MH. Red or Black.
SPECIFY COLOR
BODY: Hex brass, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 7.0 mmfd.
DESCR.: Supplied with hex nut, fibre washer, lock-washer, screw and tinned copper lug. Jack body recessed for snug contact. Mounts in ½" hole in panel up to ¾" thick. **Std. Pkg. 50**

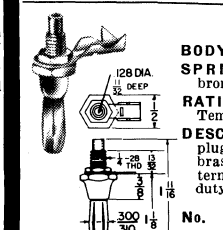
No.	NET Per C
286	$42.00



INS. GIANT BANANA JACK

HEAD: MACHINED BUTYRATE, per Fed. Spec. L-P344, Type 1, class MH, Red or Black.
SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 7.0 mmfd.
DESCR.: Supplied with hex nut, fibre washer, lock-washer, and brass tinned lug. Jack body recessed for snug contact. Mounts in ½" hole in panel up to ¾" thick. **Std. Pkg. 50**

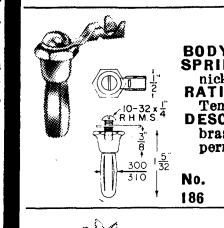
No.	NET Per C
287	$42.00



GIANT BANANA PLUG

BODY: HEX BRASS, nickel plated.
SPRING: Six-leaved phosphor bronze, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Plug portion of #285 plug. Supplied with hex nut and brass tinned lug. Large deep internal well for soldering heavy duty wire. **Std. Pkg. 25**

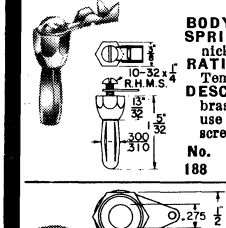
No.	NET Per C
185	$42.00



GIANT BANANA PLUG

BODY: HEX BRASS, nickel plated.
SPRING: Six-leaved phosphor bronze, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with screw and brass tinned lug. Internal female permits use on all size panels. **Std. Pkg. 25**

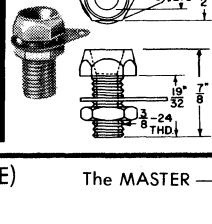
No.	NET Per C
186	$42.00



GIANT BANANA PLUG

BODY: HEX BRASS, nickel plated.
SPRING: Six-leaved phosphor bronze, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with screw and brass tinned lug. Female permits use on all size panels. Internal screw. **Std. Pkg. 25**

No.	NET Per C
188	$42.00



GIANT BANANA JACK

BODY: HEX BRASS, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and brass tinned lug, mounts in ⅜" hole in panels up to ½" thick. **Std. Pkg. 25**

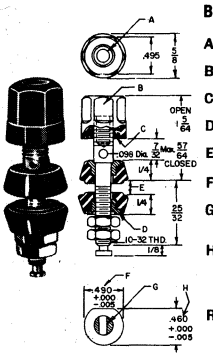
No.	NET Per C
187	$30.00

specify SMITH

HERMAN H. SMITH, INC.

ELECTRONIC COMPONENTS

BINDING POST - Multipurpose



NOTES:

- A Banana Plug Receptacle, .161 I.D.
- B Head non-removable from stud.
- C Molded-in Brass Bushing in Head.
- D Molded-in Brass Bushing in Washers.
- E For Panels 1/16" to 1/4" thick.
- F Drill 1/2" hole for mounting washers.
- G Wire Hole is at right angle to Flat on insulated Washers.
- H Production Punch for keyed Slot for mounting Washers. (Sample Washer Sent on Request.)

RATING: 30 Amps AC for 10°C Temp. rise, continuous working voltage. CAPACITANCE 5.0 mmfd.
CURRENT: 30 amps safe current carrying capacity.
ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip or wire strand.
DESCR.: MOLDED NYLON, per MIL-P-20693A, head and washer completely insulates post from panel. Mounts in ½" or keyed hole as indicated. Wrap around type—direct solder connection to stud. Metal parts brass.
COLORS: Red, Black, Yellow, Green, Blue, White. Specify color. **St. Pkg. 100**

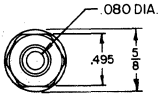
No. 257 NET Per C $40.00

MIL-SPEC BINDING POST

Same as our #257 above, made to meet MIL-P-55149/1. **Std. Pkg. 50**

No. 267 NET Per C $48.00

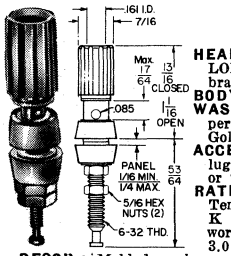
PIN JACK TYPE



Same as above, with Beryllium copper, gold plated pin tip receptacle replacing Note "A" above. All other specifications apply. **Std. Pkg. 100**

No. 258 NET per C $42.00

NYLON BINDING POST Insulated

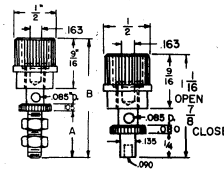


HEAD: CAPTIVE, MOLDED NYLON, per MIL-P-20693A, with brass Gold-Plated Insert.
BODY: Brass, Gold Plated
WASHERS: MOLDED NYLON, per MIL-P-20693A, with brass Gold-plated inserts.
ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip, or wire strand.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 3.0 mmfd.
DESCR.: Molded washers completely insulate post from panel. Miniature washers and narrow fluted head require minimum panel space. Mounts in 3/8" round or "D" hole in panel as indicated. Wrap-around solder terminal on stud for direct connection.
COLORS: Red, Black, Yellow, Green, Blue, White.

SPECIFY COLOR **Std. Pkg. 100**

No. 1517 NET Per C $33.00

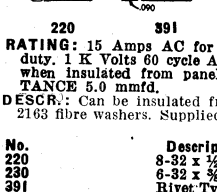
BINDING POST Five-Way Grounding Type



HEAD: CAPTIVE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black.
SPECIFY COLOR
BODY: Brass, nickel plated.
ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip or wire strand.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage, when insulated from panel as recommended. CAPACITANCE 5.0 mmfd.
DESCR.: Can be insulated from panel with our 2155 and 2163 fibre washers. Supplied with 2 hex nuts. **Std. Pkg. 100**

No.	Description	NET Per C
220	8-32 x ½ Stud	$18.00
230	6-32 x ⅜ Stud	18.00
391	Rivet Type	15.00
	With brass nickel plated insert in head	
280	8-32 Stud	$24.00
264	6-32 Stud	24.00
394	Rivet Type	15.00

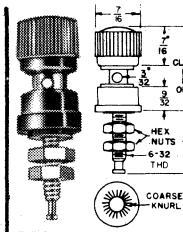
All Insulated Type



HEAD: As above.
BODY: As above.
WASHERS: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. With brass inserts.
ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip or wire strand.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 3.0 mmfd
DESCR.: Mounts in 9/16" hole in panel with milled slot for locking, supplied with two hex nuts. **Std. Pkg. 100**

No.	Description	NET Per C
260	8-32 Stud	$30.00
259	6-32 Stud	30.00
	With brass nickel plated insert in head	
290	8-32 Stud	$35.00
231	6-32 Stud	35.00

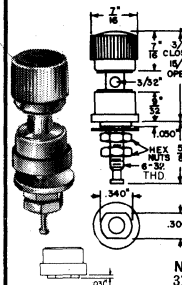
NYLON BINDING POSTS Grounding Type



HEAD: CAPTIVE: MOLDED NYLON, per MIL-P-20693A. Red or Black with brass nickel plated insert.
SPECIFY COLOR
WASHER: Molded nylon with brass nickel plated insert.
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage, when insulated from panel as recommended. CAPACITANCE 6.0 mmfd.
DESCR.: Supplied with 2 hex nuts. Grounds to panel but supplied with nylon washer for uniformity of height with No. 378 when used on same panel. Can be insulated from panel by using our No. 2150 shoulder washer. **Std. Pkg. 100**

No. 377 NET Per C $30.00

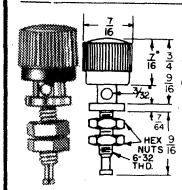
ALL INSULATED



HEAD: CAPTIVE: MOLDED NYLON, per MIL-P-20693A. Red or Black with brass nickel plated insert.
SPECIFY COLOR
WASHER: Molded nylon with brass nickel plated insert.
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.
DESCR.: Supplied with two hex nuts. Boss washer insulates post from chassis when used with bakelite washer supplied. **Min. Panel Std. Pkg. 100**

No.	Thickness	NET Per C
378	1/16"	$30.00
198	1/32"	30.00

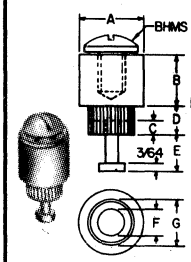
GROUNDING TYPE



HEAD: CAPTIVE: MOLDED NYLON, per MIL-P-20693A. Red or Black with brass nickel plated insert.
SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage, when insulated from panel as recommended. CAPACITANCE 7.0 mmfd.
DESCR.: Supplied with two hex nuts. Can be insulated from panel by using our No. 2150 shoulder washer and 2162 flat washer. **Std. Pkg. 100**

No. 379 NET Per C $24.00

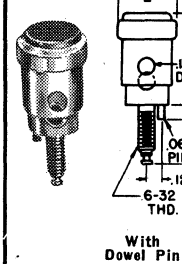
COMBINATION TERMINALS



MATERIAL: BRASS, alloy plate.
DESCR.: Combination Screw and Turret Terminal. Knurled shank prevents turning. Supplied complete with BHMS and Internal Tooth Lockwasher, unassembled. **Std. Pkg. 25**

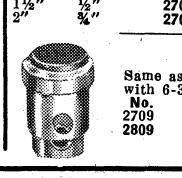
No.	A	B	C	D	E	F	G	BHMS	Thk	Net Panel Per C
2045	5/16	1/4	1/16	9/64	11/64	1/8	.220	6-32	3/32	$11.40
2046	11/32	5/16	5/64	11/64	13/64	9/64	.250	8-32	1/8	11.40
2047	3/8	3/8	3/32	13/64	13/64	5/32	.257	10-32	5/16	11.40

SPRING LOADED BINDING POSTS



HEAD: CAPTIVE, Brass nickel plated.
CAP: STYRENE, per Fed. Spec. L-P-4.6, Type I, Black.
BODY: Brass, nickel plated.
PIN: Nickel Silver.
ACCEPTS: Standard phone tip or wire in side hole and locks them in place on release of pressure on cap.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Side dowel pin locates and prevents post from turning when mounted in panel. **Std. Pkg. 50**

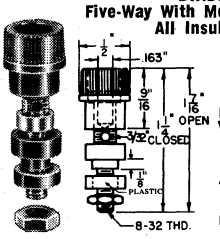
With Dowel Pin A	B	No.	NET Per C	Less Dowel Pin No.	NET Per C
¼"	⅛"	2701	$36.00	2801	$30.00
⅜"	⅛"	2702	39.00	2802	33.00
½"	⅛"	2703	42.00	2803	36.00
¾"	¼"	2704	45.00	2804	39.00
1"	⅜"	2705	48.00	2805	42.00
1¼"	⅝"	2706	51.00	2806	45.00
1½"	½"	2707	54.00	2807	48.00
2"	¾"	2708	57.00	2808	51.00



Same as above less threaded stud. Supplied with 6-32 internal mounting thread.

No.	Description	NET Per C
2709	With ⅛" lg. Dowel Pin	$33.00
2809	Without Dowel Pin	27.00

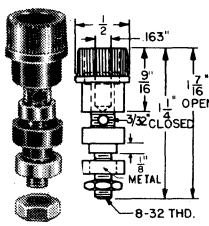
BINDING POST Five-Way With Molded Mounting Washers All Insulated Type



HEAD: CAPTIVE: MOLDED BUTYRATE, per Fed Spec. L-P349A, Type 3, Class MS. Red or Black.
SPECIFY COLOR
BODY: Brass, nickel plated.
WASHERS: MOLDED BUTYRATE, per Fed Spec. L-P349A, Type 3, Class MS.
ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip or wire strand.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 5.0 mmfd.
DESCR.: Mounts in ¼" hole in panel. Supplied with one hex nut. **Std. Pkg. 100**

No. 386 NET Per C $25.00

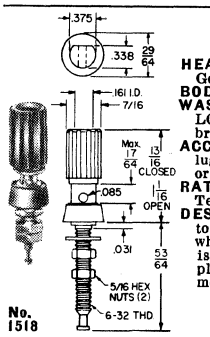
Grounding Type



HEAD: CAPTIVE: MOLDED BUTYRATE, per Fed Spec. L-P349A, Type 3, Class MS. Red or Black.
SPECIFY COLOR
BODY: Brass, nickel plated.
WASHERS: MOLDED BUTYRATE, per Fed Spec. L-P349A, Type 3, Class MS. Mounting Washer — Molded plastic. Back-up Washer — Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Mounts in ¼" hole in panel. Grounded to panel by back-up washer. Supplied with one hex nut. **Std. Pkg. 100**

No. 387 NET Per C $25.00

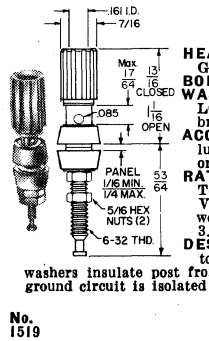
METAL BINDING POST Grounded



HEAD: CAPTIVE, Fluted Brass, Gold-plated.
BODY: Brass, Gold-plated.
WASHER: MOLDED BLACK NYLON, per MIL-P-20693A, with brass Gold-plated insert.
ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip, or wire strand.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Fluted-head metal post to match our No. 1517. For use where direct ground connection is made to panel or chassis. Supplied with brass, gold-plated flat metal washer for grounding. **Std. Pkg. 100**

No. 1518 NET Per C $40.00

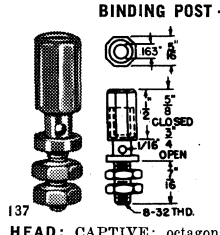
METAL BINDING POST Insulated



HEAD: CAPTIVE, Fluted Brass, Gold-plated.
BODY: Brass, Gold-plated.
WASHER: MOLDED BLACK NYLON, per MIL-P-20693A, with brass Gold-plated insert.
ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip, or wire strand.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts, 60 cycle AC continuous working voltage. CAPACITANCE 3.0 mmfd.
DESCR.: Fluted-head metal post to match our No. 1517. Molded washers insulate post from panel for use where internal ground circuit is isolated from chassis or panel. **Std. Pkg. 100**

No. 1519 NET Per C $45.00

BINDING POST - Metal Five-Way



HEAD: CAPTIVE: octagonal brass, nickel plated.
BODY: Brass, nickel plated.
ACCEPTS: Phone tip, spade lug, banana plug, alligator clip or wire strand.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage, when insulated from panel as recommended. CAPACITANCE 5.0 mmfd.
DESCR.: Can be completely insulated from panel by using our 2155 and 2163 fibre washers. Supplied with two hex nuts. **Std. Pkg. 100**

No.	Description	NET Per C
137	Standard	$25.00
208	Wrap-around	25.00

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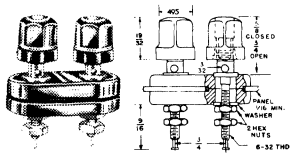
HERMAN H. SMITH, INC.

ELECTRONIC COMPONENTS

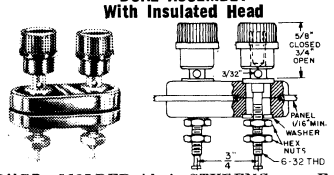
DUAL ASSEMBLY With Insulated Head



WASHER: MOLDED black STYRENE, per Fed. Spec. L-P416, Type I, cross slotted (+) to accept standard phone tips in post either forward or sideways.
BODY: Brass, nickel plated.
HEAD: Captive: MOLDED NYLON, per MIL-P-20693A, with molded in brass insert.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 3.0 mmfd. to panel.
DESCR.: Mounts in two ½" holes on ¾" mounting centers in panels up to ¼" thick. Accommodates single or dual banana plugs. Supplied with 4 hex nuts, 2 flat washers.
Std. Pkg. 10

No.	Description	NET Per C
269BB	Two Black Heads	$66.00
269RR	Two Red Heads	66.00
269RB	One Red, One Black Head	66.00

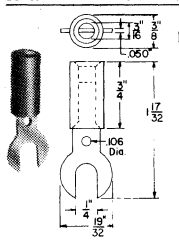
DUAL ASSEMBLY With Insulated Head



WASHER: MOLDED black STYRENE, per Fed. Spec. L-P416, Type I, cross slotted (+) to accept standard phone tips in post either forward or sideways.
BODY: Brass, nickel plated.
HEAD: Captive. MOLDED BUTYRATE, per Fed Spec. L-P349A, Type 3, Class MS. Red or Black.
SPECIFY COLOR
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 3.0 mmfd. to panel.
DESCR.: Mounts in two ½" holes on ¾" mounting centers in panels up to ¼" thick. Accommodates single or dual banana plugs. Supplied with 4 hex nuts, 2 flat washers.
Std. Pkg. 10

No.	Description	NET Per C
224BB	Two Black Heads	$54.00
224RR	Two Red Heads	54.00
224RB	One Red, One Black Head	54.00
	Same as above with brass nickel plated insert in head	
263BB	Two Black Heads	66.00
263RR	Two Red Heads	66.00
263RB	One Red, One Black Head	66.00

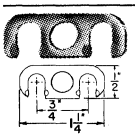
INSULATED SPADE LUG



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black.
SPECIFY COLOR
LUG: Brass, .050 thick, nickel plated.
RATING: 30 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: ¼" I.D. fits all standard Multi-purpose binding posts. Accepts up to #10 insulated wire, which solders in front hole.
Std. Pkg. 100

No.	NET Per C
400	$12.00

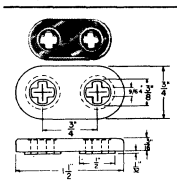
SHORTING LINK



MATERIAL: Spring brass, nickel plated, .033" thick.
RATING: 50 Amps AC continuous duty, for 10°C Temp. rise.
DESCR.: Snaps over contact barrels of dual binding posts with standard ¾" mounting centers.
Std. Pkg. 50

No.	NET Per C
327	$6.00

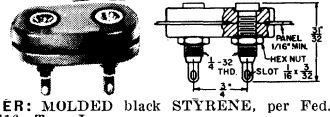
BLACK STYRENE INSULATOR



INSUL.: STYRENE, per Fed. Spec. L-P416, Type I.
RATING: 2 K Volts 60 cycle AC continuous working voltage.
DESCR.: Mounts in two 1/2" holes on 3/4" mounting centers in panels up to 1/4" thick.
Std. Pkg. 100

No.	NET per C
207	$6.00

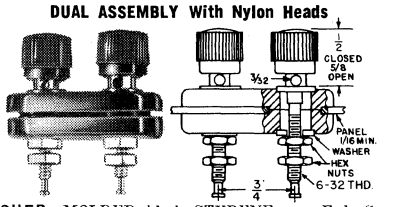
DUAL TIP JACK ASSEMBLY



WASHER: MOLDED black STYRENE, per Fed. Spec. L-P416, Type I.
BODY: Recessed, brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 4.0 mmfd. to panel.
DESCR.: Mounts in two ½" holes on ¾" mounting centers in panels up to ¼" thick. Accommodates standard phone tip plugs. Supplied with two hex nuts.
Std. Pkg. 10

No.	NET Per C
488	$55.00

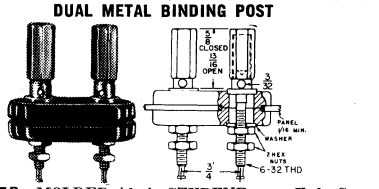
DUAL ASSEMBLY With Nylon Heads



WASHER: MOLDED black STYRENE, per Fed. Spec. L-P416, Type I, cross slotted (+) to accept standard phone tips in post either forward or sideways.
BODY: Brass, nickel plated.
HEAD: Captive: MOLDED NYLON, per MIL-P-20693A, with molded in brass insert.
RATING: 15 Amps AC for 10°C Temp. rise, continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 3.0 mmfd. to panel.
DESCR.: Mounts in two ½" holes on ¾" mounting centers in panels up to ¼" thick. Supplied with 4 hex nuts, 2 flat washers.
Std. Pkg. 10

No.	Description	NET Per C
284BB	Two Black Heads	$60.00
284RR	Two Red Heads	60.00
284RB	One Red, One Black Head	60.00

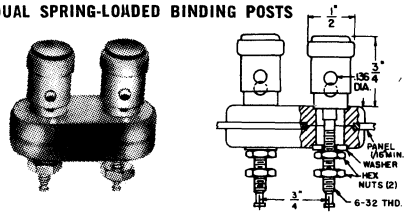
DUAL METAL BINDING POST



WASHER: MOLDED black STYRENE, per Fed. Spec. L-P416, Type I, cross slotted (+) to accept standard phone tips in post either forward or sideways.
BODY: Brass, nickel plated.
HEAD: Captive: Hex brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 3.0 mmfd. to panel.
DESCR.: Mounts in two ½" holes on ¾" mounting centers in panels up to ¼" thick. Accommodates single or dual banana plugs. Supplied with 4 hex nuts, 2 flat washers.
Std. Pkg. 10

No.	NET Per C
209	$60.00

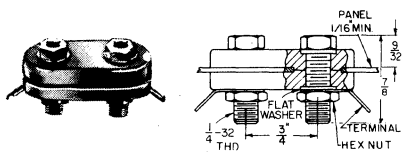
DUAL SPRING-LOADED BINDING POSTS



WASHER: MOLDED black STYRENE, per Fed Spec. L-P416, Type I, cross slotted (+) to accept standard phone tips or wire in post either forward or sideways. Supplied in colors on special order.
HEAD: Captive, brass, nickel plated.
CAP: Molded black styrene, per Fed. Spec. L-P416.
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 5 KV 60 cycle AC continuous working voltage.
DESCR.: Accepts standard phone tips or wires in side holes, and locks them in place when pressure on cap is released.
Std. Pkg. 10

No.	NET Per C
2713	$75.00

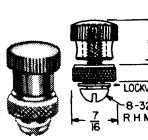
DUAL BANANA JACK ASSEMBLY



WASHER: MOLDED black STYRENE, per Fed. Spec. L-P416, Type I.
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 4.0 mmfd. to panel.
DESCR.: Mounts in two ½" holes on ¾" mounting centers in panels up to ¼" thick. Accommodates standard and dual banana plugs. Supplied with two hex nuts and brass tinned lugs.
Std. Pkg. 10

No.	NET Per C
489	$50.00

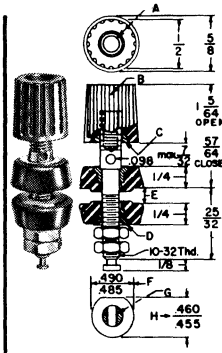
BINDING POST



HEAD: MOLDED THERMO-SETTING plastic, per MIL-M-14 CFG, with molded-in brass threaded insert, Red or Black. SPECIFY COLOR
WASHER: Brass, nickel plated
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied complete with screw and lockwasher.
Std. Pkg. 100

No.	NET Per C
265	$18.00

NYLON FLUTED HEAD MULTI-PURPOSE BINDING POST



NOTES:
A Banana Plug Receptacle, .161 I.D.
B Head non-removable from stud.
C Molded-in Brass Bushing in Head.
D Molded-in Brass Bushing in Washers.
E For Panels 1/16" to 1/4" thick.
F Drill 1/2" hole for mounting washers.
G Wire Hole is at right angle to Flat on insulated Washers.
H Production Punch for keyed Slot for mounting Washers. (Sample Washer Sent on Request.)

RATING: 30 Amps AC for 10°C Temp. rise, continuous working voltage. CAPACITANCE 5.0 mmfd.
CURRENT: 30 amps safe current carrying capacity.
ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip or wire strand.
DESCR.: MOLDED NYLON, per MIL-P-20693A, head and washer completely insulates post from panel. Mounts in ½" or keyed hole as indicated. Wrap around type—direct solder connection to stud. Metal parts brass.
COLORS: Red, Black, Yellow, Green, Blue, White. Specify color.
Std. Pkg. 100

No.	NET Per C
459	$36.00

MIL-SPEC BINDING POST

Same as our #459 above, made to meet MIL-P- 55149/1.
Std. Pkg. 50

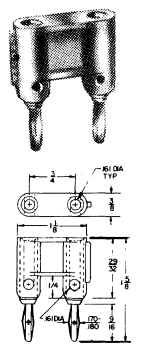
No.	NET Per C
495	$48.00

PIN JACK TYPE

Same as above with Beryllium copper, gold plated pin tip receptacle replacing Note "A" above. All other specifications apply.
Std. Pkg. 100

No.	NET Per C
497	$42.00

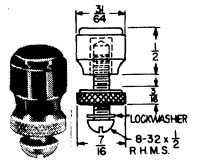
DUAL SHORTING PLUG



BODY: MOLDED BUTYRATE, per Fed. Spec. L-P416, Type I, Red, Black, Yellow, Green.
SPECIFY COLOR
PLUG: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 5 KV 60 cycle AC continuous working voltage.
DESCR.: Internally shorted plug mates with standard dual binding posts on ¾" centers. Used for grounding or shorting input and output connections. Can be stacked for additional current rating. Rear banana jack holes allow connection to shorted posts.
Std. Pkg. 25

No.	NET Per C
1516	$72.00

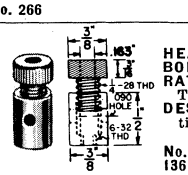
BINDING POST



HEAD: MOLDED THERMO-SETTING plastic, per MIL-M-14 CFG, with molded-in brass threaded insert, Red or Black. SPECIFY COLOR
WASHER: Brass, nickel plated
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied complete with screw and lockwasher.
Std. Pkg. 100

No.	NET Per C
266	$18.00

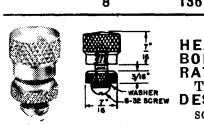
METAL BINDING POST



HEAD: BRASS, nickel plated.
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Accepts standard phone tips or banana plugs.
Std. Pkg. 50

No.	NET Per C
136	$15.00

METAL BINDING POST

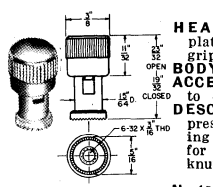


110

HEAD: BRASS, nickel plated.
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied complete with screw and lockwasher.
Std. Pkg. 25

No.	NET Per C
110	$18.00

BINDING POST Compression Type



HEAD: Captive, brass nickel plated. Straight knurled for finger grip.
BODY: Brass, nickel plated.
ACCEPTS: Phone tips or wire (up to #10 gauge).
DESCR.: Head screws down to compress wire between body and sliding contact. Internally threaded for 6-32 mounting screw. Base knurled for positive grip to panel.
Std. Pkg. 50

No.	NET Per C
159	$21.00

specify SMITH

HERMAN H. SMITH, INC.

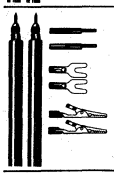
ELECTRONIC COMPONENTS

SOLDERLESS TIP TEST LEAD

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.
TIP: Solderless: Brass, nickel plated.
Std. Pkg. 6

No.	Meter End	NET Per Pr.
600	Phone Tips	$.87
601	Spade Lugs	.87
602	Alligator Clips	.93

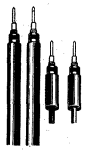
PHONO NEEDLE TEST LEAD



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.
BODY: Brass, nickel plated.
NEEDLE: Steel, nickel plated. Std. Pkg. 6

No.	Meter End	NET Per. Pr.
613	Phone Tips	$.87
614	Spade Lugs	.87
615	Alligator Clips	.93

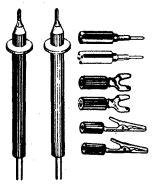
ALL SOLDERLESS TEST LEAD



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.
PLUG: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG.
TIP: Solderless: Brass, nickel plated.
Std. Pkg. 6

No.	NET Per Pr.
603	$1.26

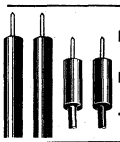
HIGH TENSION TEST LEAD



HANDLE: FIBRE, per MIL-F-1148A, Grade CH. Red and Black.
PLUG: FIBRE, per MIL-F-1148A, Grade CH. Red and Black.
TIP: Brass, nickel plated.
Std. Pkg. 1

No.	Meter End	NET Per Pr.
620	Ins. Phone Tips	$1.98
621	Ins. Spade Lugs	1.98
622	Ins. Alligator Clips	2.40

SHORT TIP TEST LEAD



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Grade CH. Red and Black.
PLUG: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG.
TIP: Brass, nickel plated. Std. Pkg. 6

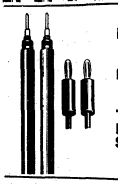
No.	NET Per Pr.
624	$1.05

SLIM HANDLE TEST LEAD

HANDLES: MACHINED BUTYRATE, per MIL-P10408A, Type 1, Class 2. Red and Black.
TIPS: Prod: Brass, Nickel Plated. Meter End: Drawn Brass Nickel Plated.

No.	NET Per Pr.
670	$.66

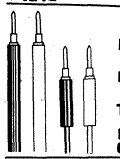
BANANA PLUG TEST LEAD



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.
PLUG: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG.
TIP: Solderless: Brass, nickel plated.
BODY: Brass, nickel plated.
SPRING: Four leaved phosphor bronze, nickel plated. Std. Pkg. 6

No.	NET Per Pr.
628	$1.50

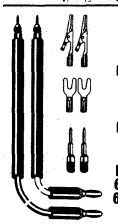
SUB MINIATURE TEST LEAD



HANDLE: FIBRE, per MIL-F-1148A, Grade CH. Red and Black.
PLUG: FIBRE, per MIL-F-1148A, Grade CH. Red and Black.
TIPS: Brass, nickel plated. Std. Pkg. 6

No.	NET Per Pr.
678	$1.26

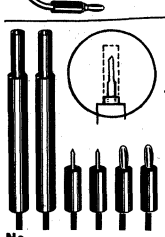
TEST LEAD KIT



DESCR.: Each kit is supplied with one pair of test leads. One end test prods, other end ins. banana plugs.
FITTINGS: Two each: Phone tips, alligator clips, spade lugs. Std. Pkg. 6

No.	Type	NET Ea.
610	Solderless Prods	$1.80
611	Needle Tip Prods	1.80

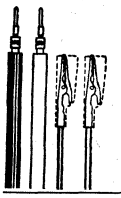
SHIELDED TEST LEADS



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.
TIP: Prod tip brass, nickel plated. Meter end, see type.
DESCR.: Plugs insert flush to insulated handle. Prods have retractable cover leaving no metal exposed. Eliminates possibility of shock or grounding. Supplied with either phone tip or banana plug meter ends. Other variations on special order. Std. Pkg. 6

No.	Type	NET Per Pr.
616	Phone Tip End	$1.80
617	Banana Plug End	1.86

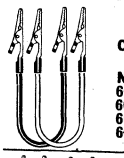
ALLIGATOR CLIP TEST LEAD



HANDLES: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.
TIPS: Solderless: Brass, nickel plated.
CLIPS: Steel, cadmium plated (No. 300).
BOOT: Vinyl Plastic. Red and Black
Std. Pkg. 6

No.	NET Per Pr.
672	$1.26

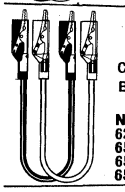
ALLIGATOR CLIP TEST LEAD



CLIPS: STEEL, cadmium plated.
Std. Pkg. 6

No.	Wire	NET Per Pr.
604	12 inches	$.57
605	24 inches	.63
606	36 inches	.72
607	48 inches	.81

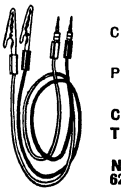
ALLIGATOR CLIP TEST LEAD
With Boots



CLIPS: Steel, Cadmium Plated
BOOTS: Vinyl plastic Red and Black.
Std. Pkg. 6

No.	Wire	NET Per Pr.
629	12 inches	$.81
657	24 inches	.87
658	36 inches	.96
659	48 inches	1.02

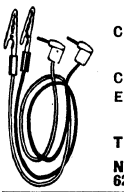
ALLIGATOR CLIP TEST LEAD



CLIP HANDLES: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS, Red and Black
PLUG HANDLES: MOLDED THERMOSETTING PLASTIC, per MIL-M-14 CFG. Red and Black
CLIPS: Steel, cadmium plated
TIPS: Solderless: Brass, nickel plated.
Std. Pkg. 6

No.	NET Per Pr.
627	$.99

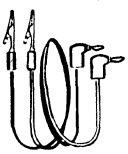
ALLIGATOR CLIP TEST LEAD



CLIP HANDLES: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS, Red and Black
CLIPS: Steel, cadmium plated.
ELBOWS: MOLDED THERMOSETTING PLASTIC, per MIL-M-14 CFG. Red and Black.
TIPS: Brass, nickel plated. Std. Pkg. 6

No.	NET Per Pr.
628	$1.20

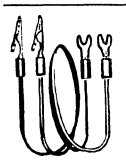
ALLIGATOR CLIP TEST LEAD



CLIP HANDLES: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS, Red and Black
CLIPS: Steel, cadmium plated.
ELBOWS: MOLDED THERMOSETTING PLASTIC, per MIL-M-14 CFG. Red and Black
Std. Pkg. 6

No. 647	NET Per Pr. $1.20

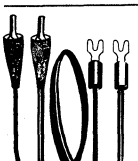
ALLIGATOR CLIP TEST LEAD



CLIP HANDLES: MOLDED BUTYRATE, per Fed. Spec. L-349A, Type 3, Class MS, Red and Black
CLIPS: Steel, cadmium plated
LUGS: Steel, hot tinned
Std. Pkg. 6

No.	NET Per C
649	$1.20

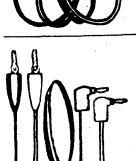
CROCODILE CLIP TEST LEAD



CLIP: STEEL, cadmium plated.
BOOT: Vinyl plastic. Red and Black.
HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black
LUG: Steel, Hot tinned
Std. Pkg. 6

No.	NET Per Pr.
671	$1.20

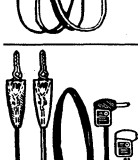
CROCODILE CLIP TEST LEAD



CLIPS: Steel, Cadmium plated.
BOOTS: Vinyl plastic, Red and Black.
ELBOWS: MOLDED THERMOSETTING PLASTIC, per MIL-M-14 CFG. Red and Black
Std. Pkg. 6

No.	NET Per Pr.
648	$1.14

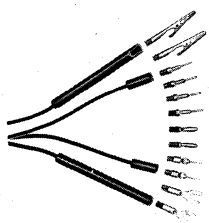
CROCODILE CLIP TEST LEAD



CLIPS: STEEL, cadmium plated.
BOOT: Vinyl plastic. Red and Black.
ELBOW: MOLDED THERMOSETTING PLASTIC, per MIL-M-14 CFG. Red and Black
TIP: Brass, nickel plated.
Std. Pkg. 6

No.	NET Per Pr.
675	$1.14

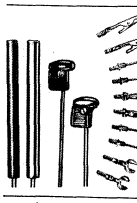
"UNIVERSAL TEST LEAD" Completely Interchangeable



Fifty Leads In One! One lead can make any required test lead combination. All parts adapt into prod handle or tip handle. Complete as shown. With plastic kit. Std. Pkg. 6

No.	NET Ea.
699	$3.00

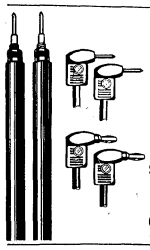
"UNIVERSAL TEST LEAD" Miniature Accessories Completely Interchangeable



Fifty Leads In One. One lead can make any required test lead combination. All parts adapt into prod handle or meter tip. Supplied with miniature tips, clips, banana plugs and spade tips. Complete as shown. With plastic kit. Std. Pkg. 6

No.	NET Ea.
679	$3.00

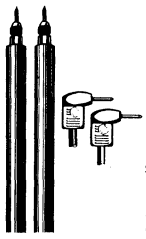
METER TEST LEADS Solderless Prod



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.
TIP: Solderless: Brass, nickel plated.
ELBOW: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black.
BODY: Brass, nickel plated.
SPRING: Four leaved, phosphor bronze, nickel plated. Std. Pkg. 6

No.	Type	NET Per Pr.
625	Phone Tip Meter Tip	$1.35
685	Banana Meter Tip	1.50

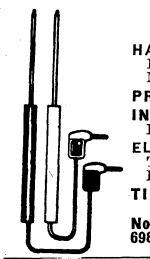
NEEDLE PROD



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.
NEEDLE: Steel, nickel plated.
ELBOW: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black.
BODY: Brass, nickel plated.
SPRING: Four leaved, phosphor bronze, nickel plated. Std. Pkg. 6

No.	Type	NET Per Pr
626	Phone Tip Meter Tip	$1.35
686	Banana Meter Tip	1.50

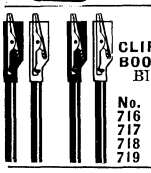
SLIM JIM TEST LEAD



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.
PROBE: Steel, cadmium plated.
INSULATOR: Vinyl spaghetti tubing, Red and Black.
ELBOWS: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black.
TIPS: Brass, nickel plated. Std. Pkg. 6

No.	NET Per Pr.
698	$1.14

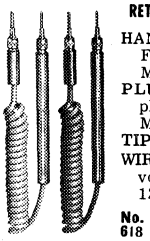
MIDGET ALLIGATOR CLIP TEST LEAD



CLIPS: STEEL, Cadmium plated
BOOTS: Vinyl plastic Red and Black.
Std. Pkg. 6

No.	Wire	NET Per Pr.
716	12 inches	$.81
717	18 inches	.84
718	24 inches	.87
719	36 inches	.96

RETRACTILE ALL SOLDERLESS TEST LEAD



HANDLE: MOLDED BUTYRATE per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.
PLUG: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG.
TIP: Solderless brass, nickel plated.
WIRE #20 gauge, 41/36 strand, 4000 volt, nom. O.D. .165. Retracts to 12". Extends to 6 ft. Std. Pkg. 6

No.	NET Per Pr.
618	$2.95

TEST LEAD WIRE SPECIFICATIONS

All test leads on this page are supplied with extra-flexible rubber-covered kinkless wire, 50-in. long, unless specified otherwise. **#20 wire, 26/34 strands, 5000 Volts, .125" O.D.**

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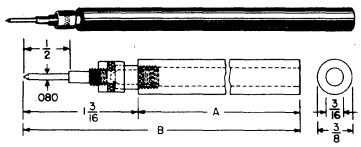
specify SMITH

HERMAN H. SMITH, INC.

ELECTRONIC COMPONENTS

SOLDERLESS TEST PROD—Threaded Type



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

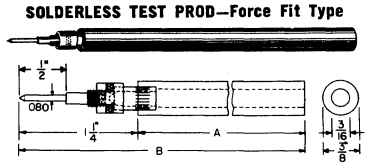
BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless: Wire fits through handle and body of plug then wrapped around screw portion and tightened with knurled collar. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
302	4"	5¼"	$30.00
303	5½"	6¾"	33.00

SOLDERLESS TEST PROD—Force Fit Type



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

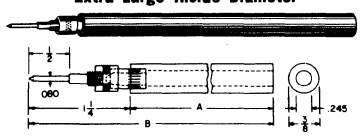
BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless: Wire fits through handle and body of plug then wrapped around screw portion and tightened with knurled collar. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
382	4"	5¼"	$24.00
383	5½"	6¾"	27.00

SOLDERLESS TEST PROD—Force Fit Type Extra Large Inside Diameter



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

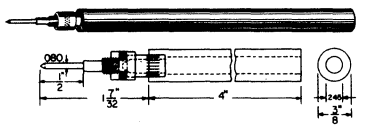
BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless: Wire fits through handle and body of plug then wrapped around screw portion and tightened with knurled collar. Extra large I.D. for heavy duty wire. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
352	4"	5¼"	$24.00
353	5½"	6¾"	27.00

SOLDERLESS FIBRE TEST PROD Extra Large Inside Diameter



HANDLE: FIBRE, per MIL-F-1148A, Grade CH. Red or Black. SPECIFY CLOR

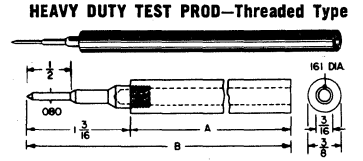
BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless: Wire fits through handle and body of plug then wrapped around screw portion and tightened with knurled collar. Large I.D. permits use of heavy duty wire. **Std. Pkg. 25**

No.	NET Per C
328	$30.00

HEAVY DUTY TEST PROD—Threaded Type



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

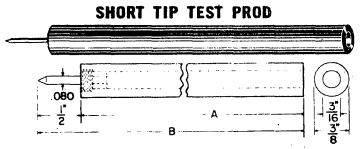
BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Large diameter well enables soldering of heavy duty wire directly into plug. Fits standard phone tip jacks. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
319	4"	5⅜"	$30.00
329	5½"	6¹¹⁄₁₆"	33.00

SHORT TIP TEST PROD



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

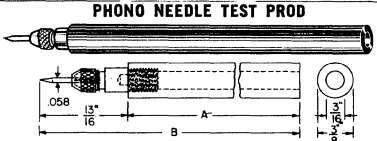
BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Inserts flush with insulated handle, no metal exposed; eliminates possibility of shock or grounding. Fits standard phone tip jacks. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
363	4"	4½"	$21.00
364	5½"	6"	24.00

PHONO NEEDLE TEST PROD



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

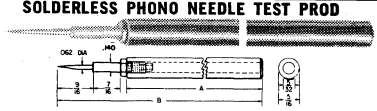
BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, cont. duty.

DESCR.: Removable chuck for easy replacement or broken needles. Needle pierces corrosion or plating for positive reading. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
317	4"	4¹³⁄₁₆"	$30.00
318	5½"	6¹¹⁄₁₆"	33.00

SOLDERLESS PHONO NEEDLE TEST PROD



HANDLE: XX BAKELITE, lacquered, per MIL-P-79, Form TR. Red or Black. SPECIFY COLOR

BODY: Brass, nickel plated.

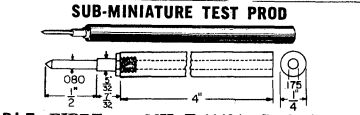
NEEDLE: Phono needle, steel.

RATING: 12 Amps AC for 10°C Temp. rise, cont. duty.

DESCR.: Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to pellet for solderless connections. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
314	4"	5¾₃₂"	$75.00
313	6"	7¾₃₂"	81.00

SUB-MINIATURE TEST PROD



HANDLE: FIBRE, per MIL-F-1148A, Grade CH. Red or Black. SPECIFY CLOR

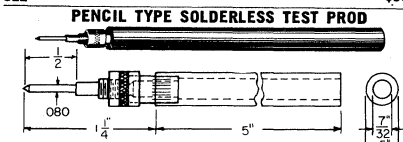
TIP: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, cont. duty.

DESCR.: Threaded for easy assembly. Ideally suited for checking all types sub-miniature equipment. **Std. Pkg. 25**

No.	NET Per C
322	$30.00

PENCIL TYPE SOLDERLESS TEST PROD



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class 2. Red or Black. SPECIFY COLOR

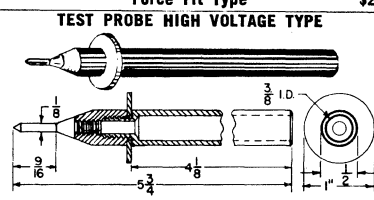
PLUG: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless: Wire fits through handle and body of plug, then wraps around screw portion and is tightened with knurled collar. **Std. Pkg. 25**

No.	Force Fit Type	NET Per C
384		$21.00

TEST PROBE HIGH VOLTAGE TYPE



HANDLE: FIBRE, per MIL-F-1148A, Grade CH. Red or Black. SPECIFY COLOR

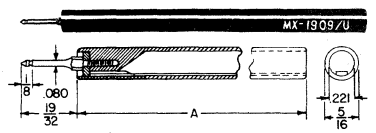
PROBE: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty. 15 KV 60 cycle AC continuous working voltage.

DESCR.: Heavy insulated fibre probe with flash-over shield for high-voltage applications. Large internal I.D. accommodates shielded cable or R.F. networks. Heavy duty removal tip. **Std. Pkg. 10**

No.		NET Ea.
630		$ .72
630D	Display of 12	8.64

NYLON HANDLE PRODS AND TIPS



HANDLE: MOLDED NYLON, per MIL-P20693A. Specify color as coded above.

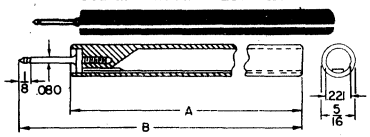
TIP: Brass, silver plated.

RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless. Made to meet Signal Corps Drawing SC-C-82761. **Std. Pkg. 25**

No.	Sig. Corps. Drawing and Part No.	Size ("A")	Color	NET Per C
176	MX-1906/U	1"	Red	$54.00
177	MX-1907/U	1"	Black	54.00
178	MX-1909/U	4"	Red	60.00
179	MX-1910/U	4"	Black	60.00

SUB-MINIATURE TEST PROD



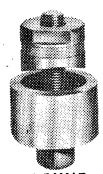
HANDLE: Molded Nylon, per MIL-P-20693A. Available in Red or Black. SPECIFY COLOR

TIP: Brass, Silver plated.

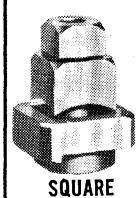
DESCR.: Solderless assembly. Ideal for use with sub-miniature printed-circuit tip jacks. Sharp tip breaks flux or oxide coating on printed-circuit pattern for positive contact when used as prod. Grooved head of prod makes positive contact when laid across wires. Fits all standard .080" tip jacks. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
348	1"	1⁵⁄₁₆"	$33.00
349	4"	4⁵⁄₁₆"	42.00

RADIO CHASSIS PUNCHES



ROUND



SQUARE

"KEY"

"D"

An assortment of round, square, "D", and Keyed holes can be punched by inserting in drilled pilot hole, and turning with wrench. Finished hole is smooth, accurately sized without burrs. Round punches are provided with center-line markings for enlarging holes larger than pilot hole. Individually packed.

ROUND HOLE PUNCHES

No.	Hole Size	NET Ea.	No.	Hole Size	NET Ea.
3801	½"	$2.60	3814	1¼"	$3.00
3802	⁹⁄₁₆"	2.60	3815	1⁵⁄₁₆"	3.60
3803	⅝"	2.60	3816	1⅜"	3.60
3804	1¹¹⁄₁₆"	2.60	3817	1½"	4.10
3805	¾"	2.60	3818	1⅝"	4.90
3806	1¹³⁄₁₆"	2.60	3819	1¾"	5.60
3807	⅞"	2.60	3820	1⅞"	7.00
3808	1¹⁵⁄₁₆"	2.90	3821	2"	7.50
3809	1"	2.90	3822	2⅛"	11.20
3810	1¹⁄₁₆"	3.00	3823	2¼"	8.10
3811	1⅛"	3.00	3824	2⅜"	13.20
3812	1³⁄₃₂"	3.00	3825	2½"	18.30
3813	1³¹⁄₃₂"	3.00	3826	3"	25.50

SQUARE PUNCHES

3827	½"	6.00	3830	⅞"	7.75
3828	⅝"	5.90	3831	1"	8.00
3829	¾"	6.65			

"KEY" PUNCHES

3832	1⁵⁄₃₂"	5.40	3834	1¹¹⁄₆₄"	6.00
3833	1⁵⁄₁₆"	5.35	3835	1¹⁷⁄₆₄"	6.70

METER HOLE PUNCH

3836	2³⁵⁄₃₂"	$12.60

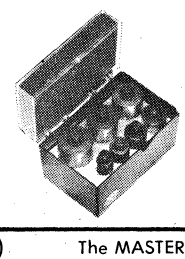
"D" PUNCHES

3837	½x1⁵⁄₃₂"	4.65	3838	⅝x1⁹⁄₃₂"	4.95

BALL BEARING DRIVE SCREWS

Reduces friction and effort when punching round holes 11/16" and larger. For use only with Round punches listed above.

No.	Use with Nos.	Net Ea.
3839	3804 to 3808	$1.05
3840	3809 to 3817	1.15
3841	3818 to 3819	2.60
3842	3820 to 3824 and 3836	2.75
3843	3825 to 3826	5.00



CHASSIS PUNCH SET

A set of 7 of the most often used chassis punch sizes for electronic construction. Packed in a plastic platform box to keep punches sharp and rust-free. Contains the following sizes: ½", ⅝", ¾", ⅞", 1", 1⅛", 1¼".

No.	NET Ea.
3844	$21.00

specify SMITH

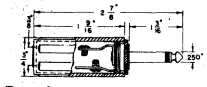
HERMAN H. SMITH, INC.

ELECTRONIC COMPONENTS

STANDARD PHONE PLUGS

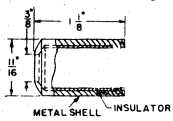
BODY: Body, tip, and sleeve—Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC working voltage.
DESCR.: Fits standard phone jacks. Molded styrene separator insures maximum insulation between elements.
LUGS: 2 circuit plugs are screw terminals with ribbed clips and cord anchor. 3 circuit plugs are solder lugs.

Std. Pkg. 25

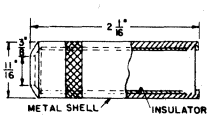

Barrel A

Plug D

Plug E



Barrel B



Barrel C

Bakelite Barrel

BARREL: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black. SPECIFY COLOR

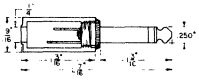
No.	Circuit	Terminals	Plug	Barrel	NET Per C
222	2	Screw	D	A	$39.00
227	3	Solder	E	A	84.00

Shielded Barrel

BARREL: BRASS, nickel plated with tubular insert.

No.	Circuit	Terminals	Plug	Barrel	NET Per C
252	2	Screw	D	B	$54.00
272	2	Screw	D	C	66.00
228	3	Solder	E	B	90.00
238	3	Solder	E	C	111.00

STANDARD PHONE PLUG
Baby Bakelite Barrel

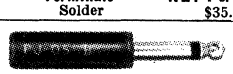


BARREL: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black. SPECIFY COLOR
BODY: Body, tip, sleeve—Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage.
DESCR.: Molded styrene separator insures maximum insulation between conductors. Fits standard phone jacks.

Std. Pkg. 25

No.	Circuit	Terminals	NET Per C
243	Two	Solder	$35.00

PJ055 AND PJ068 PLUGS

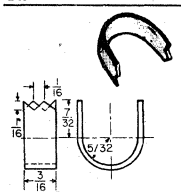


BARREL: MOLDED plastic.
BODY: Body, tip, sleeve—Machined brass.
TERM.: Brass, hot tinned.
INSUL.: Ethyl cellulose type EM-1 MIL-P-3412.
DESCR.: Designed especially for high quality communications equipment and to meet the exacting requirements of the armed services. Parts are assembled together in a mold, providing a finished plug with complete continuity of thermo plastic insulation between the tip rod and plug sleeve.

Std. Pkg. 25

No.	Type	Each
217	PJ055B	$ .90
247	PJ068B	2.19

CORD CLAMP STRAIN RELIEF

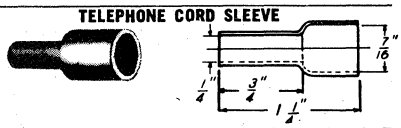


MATERIAL: Cold Rolled Steel, per QQ-S-636. Finish zinc per Spec. 7253, Table II, Type I.
DESCR.: Used on Government cord assemblies. Made in accordance with Signal Corps. Spec. SC-A-7674.

Std. Pkg. 100

No.	NET Per C
747	$1.80

TELEPHONE CORD SLEEVE

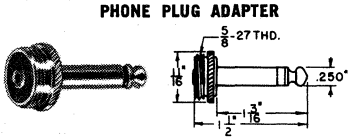


MATERIAL: Neoprene in accordance with Grade SC415AFF per MIL-R-3065.
DESCR.: Used on Government cord assemblies, for Strain Relief, Dust and Moisture Seal.

Std. Pkg. 100

No.	NET Per C
748	$6.60

PHONE PLUG ADAPTER

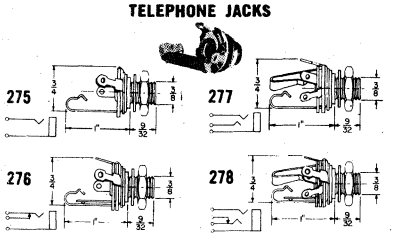


BODY: Body, Tip, Sleeve — Brass, nickel plated.
INSUL.: XXXP Bakelite.
DESCR.: Mates with No. 116 microphone connector. Fits standard phone jacks.

Std. Pkg. 25

No.	NET Per C
113	$30.00

TELEPHONE JACKS

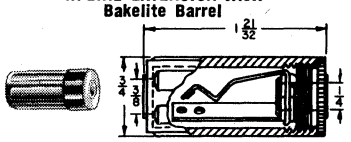


BUSHING: BRASS, nickel plated.
INSUL.: Bakelite, type PBE-P per MIL-P-3115B.
SPRING: Nickel-Silver alloy, spring temper. New tapered design provides for ease of insertion while eliminating possibility of shorts.
SLEEVE TERM.: Brass, hot tinned.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty. 1.2 K Volts 60 cycle AC continuous working voltage.
DESCR.: Notched insulating washers accurately locate all parts, and eliminate possibility of shorts and arc-over. Springs designed for firm, low-resistance electrical contact. Bushings ¼" long, threaded ⅜"-32. Mounts in ⅜" hole in panels up to 5/32" thick. Overall diameter ⅞", require 1" clearance behind panel. Supplied with ½" hex brass nut and ⅝" steel panel washer, all nickel plated.

Std. Pkg. 50

No.	Circuit	NET Per C
275	Two Conductor Open	$27.00
276	Two Conductor Closed	30.00
277	Three Conductor Open	36.00
278	Three Conductor Closed	45.00

IN-LINE EXTENSION JACK
Bakelite Barrel

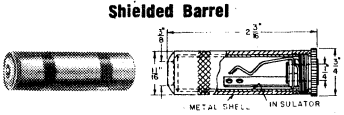


BARREL: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage.
SPRING: Nickel, silver, special alloy, spring temper.
INSUL.: XXP Bakelite.
DESCR.: For microphone and Hi-Fi extension cords. Mates with standard phone plugs.

Std. Pkg. 50

No.	Type	NET Per C
274	Solder Connection	$54.00
288	Screw Connection	66.00

Shielded Barrel



BARREL: Brass, nickel plated, with tubular insulator.
BODY: Brass, nickel plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage.
SPRING: Nickel, silver, special alloy, spring temper.
INSUL.: XXP Bakelite.
DESCR.: For microphone and Hi-Fi extension cords. Mates with standard phone plugs.

Std. Pkg. 25

No.	Type	NET Per C
273	Solder Connection	$75.00
289	Screw Connection	84.00

MINIATURE MICROPHONE CONNECTORS
⅜-32 THREAD

DESCR.: Ideal for lapel microphone, musical instruments, etc., wherever small cable is used. Accepts caple up to 3/16" diameter.

Std. Pkg. 50

No.	Type	Length	NET Per C
484	Single Contact Female	1¼"	$36.00
485	Single Contact Male	1⅛"	70.00

CHASSIS CONNECTOR

Mounts in 3/16" hole grounded; ¼" hole insulated with shoulder washer.

486	Single Contact Male	⅝"	21.00

CAP AND CHAIN

DESCR.: Brass, nickel plated. Seals chassis connectors against dust. Eliminates noisy connections. Used with any threaded one or two conductor chassis unit.

Std. Pkg. 10

No.		NET Per C
118	⅝-27 Thread	$45.00

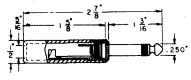
"SPECIALS are STANDARD with SMITH!"

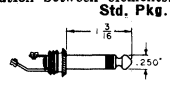
For VARIATIONS of these standard parts to meet your SPECIAL requirements, or for entirely NEW parts made to your specifications, WE WELCOME YOUR INQUIRY!

SLIM PHONE PLUGS
Cable Clamp Style

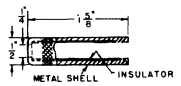
BODY: Body, tip, and sleeve—Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage.
DESCR.: Fits standard phone jacks. Molded styrene separator insures maximum insulation between elements.

Std. Pkg. 25

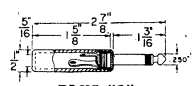

Barrel G


Plug F

Plug H



Barrel J

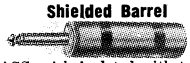

PLUG "O"

Bakelite Barrel

BARREL: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black. SPECIFY COLOR

No.	Circuit	Terminals	Plug	Barrel	NET Per C
225	2	Solder	F	G	$39.00
307	2	Screw	H	G	45.00

Shielded Barrel



BARREL: BRASS, nickel plated with tubular insert.

No.	Circuit	Terminals	Plug	Barrel	NET Per C
226	2	Solder	F	J	$60.00
316	2	Screw	H	J	63.00

ECONOMY TYPE

BODY: Body, tip, sleeve—Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage.
DESCR.: An inexpensive modified version of our popular #225 and 225 plugs shown above. Features two small solder lugs.

Std. Pkg. 25

Bakelite Barrel

BARREL: MOLDED THERMOSETTING plastic per MIL-M-14 CFG. Red and Black. SPECIFY COLOR

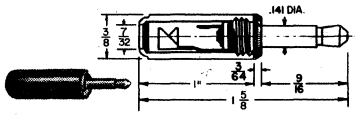
No.	Circuit	Terminals	Plug	Barrel	NET Per C
320	2	Solder	O	G	$30.00

Shielded Barrel

BARREL: BRASS, nickel plated with tubular insert.

No.	Circuit	Terminals	Plug	Barrel	NET Per C
330	2	Solder	O	J	$39.00

MINIATURE PHONE PLUG

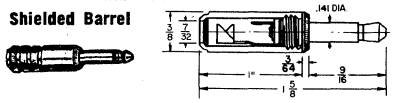


HANDLE: MOLDED plastic. Black.
BODY: Body, tip, sleeve—Brass, nickel plated.
TERM.: Brass, hot tin dipped.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 350 Volts 60 cycle AC continuous working voltage.
DESCR.: Designed for use with hearing aids, small meters, etc. Solder terminals.

Std. Pkg. 50

No.	NET Per C
480	$42.00

Shielded Barrel



BARREL: BRASS, nickel plated with tubular insulator.
BODY: Body, tip, sleeve—Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 350 Volts 60 cycle AC continuous working voltage.
DESCR.: Designed for use with hearing aids, small meters, etc. Solder terminals.

Std. Pkg. 50

No.	Circuit	NET Per C
481	Two Conductor	$51.00

MICROPHONE CONNECTORS

BODY: Brass, chrome plated.
SPRING: Steel cadmium plated.
INSUL.: XXXP Bakelite.
EYELET: Brass, hot tinned for easy soldering.

Standard Type ⅝-27 Thread

DESCR.: Designed for use with single conductor cable. Microphone connectors provided with flexible protector spring. Cable clamped firmly to connector by hollow point set screw.

Std. Pkg. 50

No.	Type	Length	NET Per C
115	Single Contact Male	1¾"	$21.00
116	Single Contact Female	2"	31.80

CHASSIS CONNECTORS

Mount in .385 hole grounded: .500 hole insulated with shoulder washer.

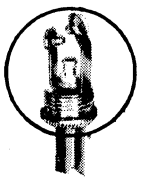
117	Single Contact Male	⅝"	21.00

© U.C.P., Inc.

specify SMITH

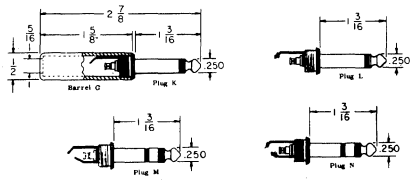
HERMAN H. SMITH, INC.

ELECTRONIC COMPONENTS



IMPROVED "TURRET-CENTER" STYLE

BODY: Body, Tip, Ring, and sleeve —Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 1.5 KV 60 cycle AC continuous working voltage.
DESCR.: New, improved construction has co-axial "turret-terminal" tip lug and widely separated contacts for maximum voltage ratings. Styrene separator, Mylar sleeves, and Nylon bushings used for increased performance. Fits standard phone jacks. **Std. Pkg. 25**



Bakelite Barrel

BARREL: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black. SPECIFY COLOR

No.	Circuit	Terminals	Plug	Barrel	NET Per C
171	2	Solder	K	G	$39.00
172	2	Screw	L	G	45.00
308	3	Solder	M	G	63.00
309	3	Screw	N	G	72.00

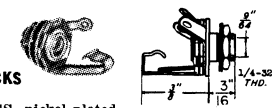
Shielded Barrel

Std. Pkg. 25

BARREL: BRASS, nickel plated with tubular insert.

No.	Circuit	Terminals	Plug	Barrel	NET Per C
173	2	Solder	K	J	$60.00
174	2	Screw	L	J	63.00
311	3	Solder	M	J	78.00
312	3	Screw	N	J	84.00

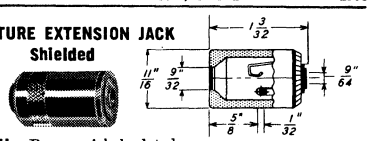
MINIATURE TELEPHONE JACKS



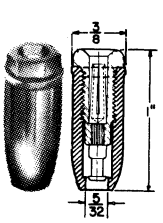
BUSHING: BRASS, nickel plated.
INSUL.: XXXP bakelite, type PBE-P per MIL-P-3115A.
SPRING: Nickel silver alloy, spring temper.
TERM.: Brass, hot tinned.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 500 Volts 60 cycle AC continuous working voltage.
DESCR.: Notched insulation washers interlock springs and lugs, eliminate possibility of shifting which result in electrical shorts. Springs firmly hold mating plug. Supplied with hex brass nut and steel mounting washer all nickel plated. **Std. Pkg. 50**

No.	Circuit	NET Per C
482	Two Conductor, Open	$25.00
483	Two Conductor, Closed	27.00

MINIATURE EXTENSION JACK
Shielded



BARREL: Brass, nickel plated.
BODY: Brass, nickel plated.
SPRING: Nickel silver alloy, spring temper.
INSUL.: Bakelite.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 500 Volts 60 cycle AC continuous working voltage.
DESCR.: Mates with Miniature Phone Plugs. **Std. Pkg. 25**
No. 487 **NET Per C $72.00**

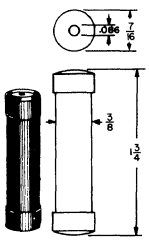


NYLON IN-LINE TIP JACK

Color Code Suffix
Add to Catalog Number as Required
— 101 WHITE
— 102 RED
— 103 BLACK
— 104 GREEN
— 105 BLUE
— 106 ORANGE
— 107 YELLOW
— 108 BROWN
— 112 PURPLE
— 113 GREY

All Nylon
HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
BODY: Molded Nylon, per MIL-P-20693A.
CONTACT: Heat treated beryllium copper, gold washed.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 5 KV 60 cycle AC continuous working voltage.
DESCR.: Fits all standard phone-tip plugs, with recessed contact for safe connection. Ideally suited for use in patch and extension cords. Can also be used for panel mounting where wrap-around terminal connection must be insulated at rear. **Std. Pkg. 50**
No. 1513 **NET Per C $30.00**

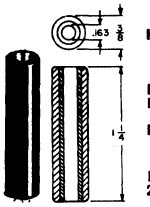
PHONE TIP PLUG SPLICE



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red, Black, Yellow, Green. SPECIFY COLOR
CAP: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, per LC-726-1.
BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Invaluable for quick splicing connections or for test lead extension. Accepts standard phone tip plugs. **Std. Pkg. 50**

No.	NET Per C
246	$27.00

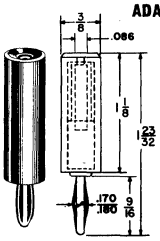
BANANA PLUG SPLICE



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red, Black, Yellow, Green. SPECIFY COLOR
INSERT: Brass.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Invaluable for quick splicing connections. Accepts standard banana plugs. **Std. Pkg. 50**

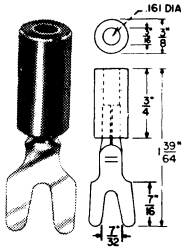
No.	NET Per C
245	$24.00

ADAPTER Tip Plug to Banana Plug



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR
CAP: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG.
PLUG: Brass, nickel plated.
CONTACT: Phosphor Bronze.
SPRING: Four-leaved phosphor bronze, nickel plated.
JACK: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Accepts standard phone tip plugs and adapts to standard banana plugs. **Std. Pkg. 50**
No. 214 **NET Per C $30.00**

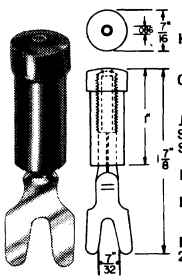
INSULATED SPADE LUG



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR
LUG: Steel, hot tinned, .030 thick.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Banana plug can be inserted into spade lug thru rear of handle. **Std. Pkg. 100**

No.	Description	NET Per C
218	Insulated Spade Lug	$10.80
129	Lug Only	1.20

ADAPTER
Phone Tip to Spade Lug



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3 Class MS. Red or Black.
CAP: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG.
JACK: Brass.
SPRING: Phosphor Bronze.
SPADE LUG: Steel hot tinned .030 thick.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Tip jack accepts standard phone tip plugs and adapts to spade lug. **Std. Pkg. 50**

No.	Descr.	NET Per C
249	Adapter	$35.00

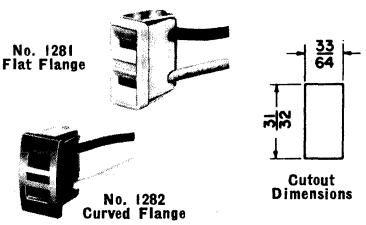
COMBINATION SPLICE
Phone Tip to Banana Plug

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR
BODY: Brass.
CONTACT: Beryllium copper, gold washed.
DESCR.: Invaluable for quick splice of test leads. Accepts standard Banana plug one end, .080 phone tip other end. **Std. Pkg. 50**
No. 496 **NET Per C $30.00**

CONVENIENCE OUTLETS

For small unit electrical appliances and Electronic devices. UL Approved RADIOS — CLOCK RADIOS — CLOCKS — T.V. SETS — LAMPS — TOASTERS, ETC.

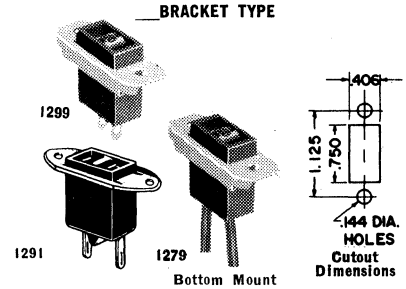
SINGLE SCREW BRACKET TYPE WIRE LEADS



Can be dropped into opening and held in place by metal bracket and single central screw, supplied. UL Approved.
RATING: 15 Amps, 125 Volts AC or DC.
LEADS: Plastic wire #14 gauge, 6" long. **Std. Pkg. 50**

No.	Color	NET Per C
1281-103	Black	$17.00
1281-101	White	19.00
1282-103	Black	17.00
1282-101	White	19.00

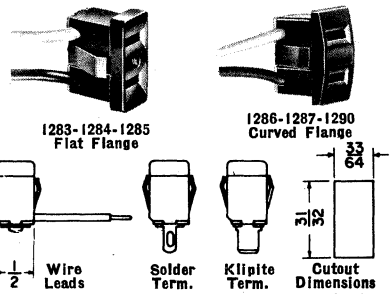
BRACKET TYPE



Flat steel bracket mounts with two #6 screws or equivalent size eyelets from bottom. UL Approved.
RATING: 15 Amps, 125 Volts AC or DC.
LEADS: No. 1279 has two leads, plastic wire #16 gauge, 8" long. UL Approved. **Std. Pkg. 50**

No.	Terminals	NET Per C
1299	Solder	$ 9.00
1279	Wire Leads	22.80
Top or Bottom Mount		
1291	Solder	10.00

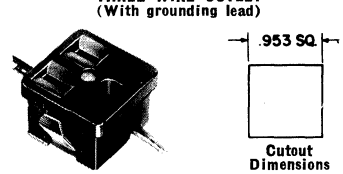
PUSH-IN SNAP-LOCK BRACKET TYPE



Carbon Steel spring clips lock unit securely in place when pushed into opening. UL Approved.
RATING: 15 Amps, 125 Volts AC or DC.
LEADS: Plastic wire #14 gauge, 6" long. **Std. Pkg. 50**

No.	Terminals	Color	NET Per C
1283-103	Wire Leads	Black	$17.00
1283-101	Wire Leads	White	19.00
1284-103	Solder	Black	15.00
1284-101	Solder	White	17.00
1285-103	Klipite	Black	15.00
1285-101	Klipite	White	17.00
1286-103	Wire Leads	Black	15.00
1286-101	Wire Leads	White	17.00
1287-103	Solder	Black	15.00
1287-101	Solder	White	17.00
1290-103	Kliptite	Black	15.00
1290-101	Kliptite	White	17.00

THREE WIRE OUTLET
(With grounding lead)



Carbon steel spring clips lock unit securely in place when pushed into opening. UL Approved.
RATING: 15 Amps, 125 Volts, AC or DC.
LEADS: Two #14 gauge 6" long plastic wire and one #16 gauge green ground lead 6" long. **Std. Pkg.50**

No.	Color	NET Per C
1280-103	Black	$32.00
1280-101	White	35.00

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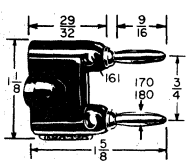
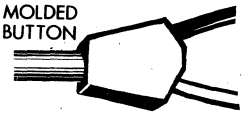
specify **SMITH**

HERMAN H. SMITH, INC.

ELECTRONIC COMPONENTS

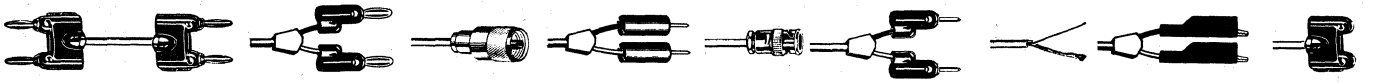
DOUBLE BANANA PATCH CORDS





CABLE TYPES AVAILABLE

	WIRE "A"	WIRE "B"	WIRE "C"
DESCRIPTION	2-cond. tw. 18 ga. 65/36 str.	Shielded audio cable	Coaxial Cable RG58C/U.
INSULATION	Vinyl	Polyethylene	Polyethylene
JACKET	Vinyl, Color Grey	Vinyl, Color Grey	Vinyl,Color Black
NOM. CAP.	30 mmf./ft.	25 mmf./ft.	28.5 mmf./ft.



A B C D E F G H I

A DOUBLE PLUG BOTH ENDS

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
PLUG: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: As specified above.
DESCR.: Mates with standard dual binding post having ¾" center. Polarity indicated by the word GROUND molded on side. Interconnects unlimited number of multiple circuits top and side. Each end terminates with molded double banana plug. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1530-12	1540-12	1580-12	12"	$2.15
1530-24	1540-24	1580-24	24"	2.28
1530-36	1540-36	1580-36	36"	2.40
1530-48	1540-48	1580-48	48"	2.52
1530-60	1540-60	1580-48	60"	2.65

B DOUBLE PLUG TO "CROSS-PATCH" BANANA PLUGS

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
BODY: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: As specified above.
PLUG: Our No. 1510.
DESCR.: Mates with standard dual binding post having ¾" centers.Polarity indicated by the word GROUND molded on side. Interconnects unlimited number of multiple circuits on top and side. One end terminates with double banana plug, other end with "Cross-Patch" banana plugs, color coded Red and Black **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1523-12	1524-12	1525-12	12"	$2.15
1523-24	1524-24	1525-24	24"	2.28
1523-36	1524-36	1525-36	36"	2.40
1523-48	1524-'8	1525-48	48"	2.52
1523-60	1524-60	1525-60	60"	2.65

C DOUBLE PLUG TO UHF MALE

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
PLUG: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: As specified above.
CONN.: PL-259A.
DESCR.: Mates with standard dual binding post having ¾" center. Polarity indicated by the word GROUND molded on side. One end terminates with double banana plug, other end with PL-259A. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
———	1545-12	1585-12	12"	$2.88
———	1545-24	1585-24	24"	3.00
———	1545-36	1585-36	36"	3.12
———	1545-48	1585-48	48"	3.24
———	1545-60	1585-60	60"	3.36

D DOUBLE PLUG TO PHONE TIP

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
PLUG: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: As specified above.
PLUG: Our No. 203.
DESCR.: Mates with standard dual binding post having ¾" center. Polarity indicated by the word GROUND molded on side. One end terminates with double banana plug, other end with insulated tip plug, one red and one black. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1533-12	1543-12	1583-12	12"	$1.55
1533-24	1543-24	1583-24	24"	1.68
1533-36	1543-36	1583-36	36"	1.80
1533-48	1543-48	1583-48	48"	1.92
1533-60	1543-60	1583-60	60"	2.05

E DOUBLE PLUG TO UG 88C/U

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
PLUG: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: As specified above.
CONN.: UG 88C/U.
DESCR.: Mates with standard dual binding post having ¾" center. Polarity indicated by the word GROUND molded on side. One end terminates with double banana plug, other end with UG 88 C/U. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
———	1544-12	1584-12	12"	$2.76
———	1544-24	1584-24	24"	2.88
———	1544-36	1584-36	36"	3.00
———	1544-48	1584-48	48"	3.12
———	1544-60	1584-60	60"	3.24

F DOUBLE PLUG TO "CROSS-PATCH" PIN PLUGS

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
BODY: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: As specified above.
PLUG: Our No. 1595.
DESCR.: Mates with standard dual binding post having ¾" centers. Polarity indicated by the word GROUND molded on side. Interconnects unlimited number of multiple circuits on top and side. One end terminates with double banana plug, other end with "Cross-Patch" Pin plugs with standard .080" tip and jack in rear, banana jack in side, color coded Red and Black. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1592-12	1593-12	1594-12	12"	$2.15
1592-24	1593-24	1594-24	24"	2.28
1592-36	1593-36	1594-36	36"	2.40
1592-48	1593-48	1594-48	48"	2.52
1592-60	1593-60	1594-60	60"	2.65

G DOUBLE PLUG TO TINNED LEADS

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
PLUG: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: As specified above.
DESCR.: Mates with standard dual binding post having ¾" center. Polarity indicated by the word GROUND molded on the side. One end terminates with double banana plug, other end stripped and tinned. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1532-12	1542-12	1582-12	12"	$1.19
1532-24	1542-24	1582-24	24"	1.32
1532-36	1542-36	1582-36	36"	1.44
1532-48	1542-48	1582-48	48"	1.56
1532-60	1542-60	1582-60	60"	1.69

H DOUBLE PLUG TO ALLIGATOR CLIPS

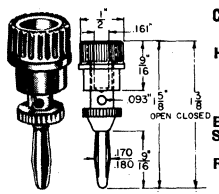
HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
PLUG: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
CLIP: Steel cadmium plated (No. 300).
INSUL.: Molded vinyl plastic (No. 331).
WIRE: As specified above.
DESCR.: Mates with standard dual binding post having ¾" center. Polarity indicated by the word GROUND molded on side. One end terminates with double banana plug, other end with insulated alligator clips, one red, one black. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1531-12	1541-12	1581-12	12"	$1.55
1531-24	1541-24	1581-24	24"	1.68
1531-36	1541-36	1581-36	36"	1.80
1531-48	1541-48	1581-48	48"	1.92
1531-60	1541-60	1581-60	60"	2.05

I DOUBLE PLUG TO DOUBLE JACK

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
PLUG: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: As specified above.
DESCR.: Mates with standard dual binding post having ¾" center. Polarity indicated by the word GROUND molded on side. Interconnects unlimited number of multiple circuits top and side. One end terminates with molded double banana plug, other end in double extension jack. **Std. Pkg. 10**

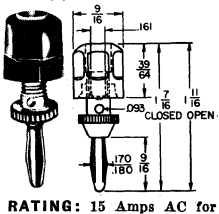
No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1881-12	1822-12	1883-12	12"	$2.15
1881-24	1882-24	1883-24	24"	2.28
1881-36	1882-36	1883-36	36"	2.40
1881-48	1882-48	1883-48	48"	2.52
1881-60	1882-60	1883-60	60"	2.65



COMBINATION BINDING POST AND BANANA PLUG

HEAD: CAPTIVE. Molded Butyrate, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 15 AMPS AC for 10°C Temp. rise, continuous duty.
DESCR.: Converts any panel-mounted banana jack into a five-way binding post termination. Accepts phone tip, spade lug, banana plug, alligator clip, or solid or stranded wire. **Std. Pkg. 25**

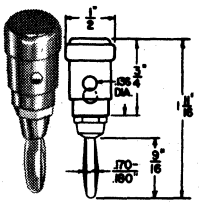
No. 233 — **NET Per C** $30.00



COMBINATION NYLON BINDING POST AND BANANA PLUG

HEAD: CAPTIVE, Molded Nylon, per MIL-P-20693A. Available in Red, Black, Yellow, Green, Blue, White. Molded-in brass nickel plated insert. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Converts any panel-mounted banana jack into a nylon five-way binding post termination. Accepts phone tips, spade lugs, banana plug, alligator clips, or solid or stranded wires. **Std. Pkg. 25**

No. 234 — **NET Per C** $30.00



COMBINATION PUSH POST AND BANANA PLUG

HEAD: Captive, brass nickel plated.
CAP: Molded Styrene, per Fed. Spec. L-P416, Type I, Black.
BODY: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Converts any panel-mounted banana jack into a spring loaded push-post. Accepts standard phone tip. solid or stranded wire, and locks them in place on release of pressure on cap. **Std. Pkg. 25**

No. 2714 — **NET Per C** $42.00

FOR YOUR SPECIAL REQUIREMENTS IN

PATCH CORDS • JUMPERS • TEST LEADS

consult **HERMAN H. SMITH, INC.**

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specify SMITH

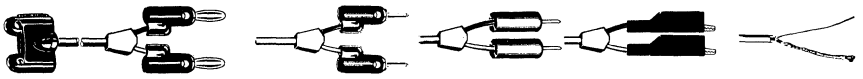
HERMAN H. SMITH, INC.

ELECTRONIC COMPONENTS

PATCH CORDS

CABLE TYPES AVAILABLE

	WIRE "A"	WIRE "B"	WIRE "C"
DESCRIPTION	2-cond. tw. 18 ga. 65/36 str.	Shielded audio cable	Coaxial Cable RG58C*U.
INSULATION	Vinyl	Polyethylene	Polyethylene
JACKET	Vinyl, Color Grey	Vinyl, Color Grey	Vinyl, Color Black
NOM. CAP.	30 mmf./ft.	25 mmf./ft.	28.5 mmf./ft.



A B C D E

A DOUBLE JACK TO "CROSS-PATCH" PLUGS

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
BODY: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: As specified above.
PLUG: Our No. 1510. Red and black.
DESCR.: Mates with standard dual banana plugs having ¾" centers. Polarity indicated by the word GROUND molded on side. Interconnects unlimited number of multiple circuits on top and side. One end terminates with double banana jacks, other end with "Cross-patch" banana plugs, color coded Red and Black. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1895-12	1896-12	1897-12	12"	$2.15
1895-24	1896-24	1897-24	24"	2.28
1895-36	1896-36	1897-36	36"	2.40
1895-48	1896-48	1897-48	48"	2.52
1895-60	1896-60	1897-60	60"	2.65

B DOUBLE JACK TO "CROSS-PATCH" PIN PLUGS

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
BODY: Brass, nickel plated.
WIRE: As specified above.
PLUG: Our No. 1595. Red and black.
DESCR.: Mates with standard dual banana plugs having ¾" centers. Polarity indicated by the word GROUND molded on side. Interconnects unlimited number of multiple circuits on top and side. One end terminates with double banana jacks, other end with "Cross-Patch" Pin plugs with standard .080" tip and jack in rear, banana jack in side, color coded Red and Black. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1861-12	1898-12	1899-12	12"	$2.15
1861-24	1898-24	1899-24	24"	2.28
1861-36	1898-36	1899-36	36"	2.40
1861-48	1898-48	1899-48	48"	2.52
1861-60	1898-60	1899-60	60"	2.65

C DOUBLE JACK TO PHONE TIPS

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
PLUG: Brass, nickel plated.
WIRE: As specified above.
PLUG: Our No. 203. Red and black.
DESCR.: Mates with standard dual banana plugs by the word GROUND molded on side. One end terminates with double banana jacks, other end with insulated tip plug, one red and one black. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1892-12	1893-12	1894-12	12"	$1.55
1892-24	1893-24	1894-24	24"	1.68
1892-36	1893-36	1894-36	36"	1.80
1892-48	1893-48	1894-48	48"	1.92
1892-60	1893-60	1894-60	60"	2.05

D DOUBLE JACK TO ALLIGATOR CLIPS

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
JACKS: Brass, nickel plated.
CLIP: Steel cadmium plated (No. 300).
INSUL.: Molded vinyl plastic (No. 331).
WIRE: As specified above.
DESCR.: Mates with standard dual banana plugs having ¾" center. Polarity indicated by the word GROUND molded o nside. One end terminates with double banana jacks, other end with insulated alligator clips, one red, one black. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1889-12	1890-12	1891-12	12"	$1.55
1889-24	1890-24	1891-24	24"	1.68
1889-36	1890-36	1891-36	36"	1.80
1889-48	1890-48	1891-48	48"	1.92
1889-60	1890-60	1891-60	60"	2.05

E DOUBLE JACK TO STRIPPED & TINNED LEADS

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
PLUG: Brass, nickel plated.
WIRE: As specifier above.
DESCR.: Mates with standard dual plugs having ¾" center. Polarity indicated by the word GROUND molded on side. One end terminates in double extension jack, other end in stripped and tinned leads. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1886-12	1887-12	1888-12	12"	$1.19
1886-24	1887-24	1888-24	24"	1.32
1886-36	1887-36	1888-36	36"	1.44
1886-48	1887-48	1888-48	48"	1.56
1886-60	1887-60	188-60	60"	1.69

UHF COAXIAL CABLE CONNECTORS

Solder Type

R.F. Connectors for use with RG-8, 9, 10, 11, 12, 63, 65/U coaxial cables. **Std. Pkg. 5**

1713

STRAIGHT COAXIAL CONNECTOR
Brass, Silver-plated shell.

No.	Type	NET Per C
1713	PL-259	$67.50

1715

CHASSIS TYPE COAXIAL RECEPTACLE

1715	SO-239	$67.50

1716

COAXIAL JUNCTION
For joining separate cable lengths.

1716	PL-258	$121.50

1719

CABLE REDUCING ADAPTER
5/16" I.D. For RG-58/U.
CABLE: Brass, Silver-plated.

No.	Type	NET Per C
1719	UG-175/U	$12.50

RF COAXIAL CABLE CONNECTORS

1710 1709 1717 1718

Small, weatherproof low-voltage connectors with bayonet action for quick-disconnect. Constant impedance, 50 ohms. Brass, silver-plated. For RG-55 and 58/U Cables. **Std. Pkg. 5**

No.	Type	Description	Each
1717	UG-88C/U	Plug	$.81
1718	UG-913/U	90° Plug	2.70
1709	UG-290AA/U	Receptacle	1.08
1710	UG-89B/U	Jack	1.35

SOLDERLESS COAXIAL CABLE CONNECTORS

For RG-8/U, RG-11/U, RG-13/U and RG-59/U Cables

Designed to use the inner conductor of the coaxial cable for the male pin. Can be wrench-tightened for positive contact. Brass, silver plated. **Std. Pkg. 25**

Crimp Type

MALE CONNECTORS

1652

Both types mate with female chassis fitting #1660 and Female Coupling #1680. Designed for quick and easy assembly using #1752 Crimping Tool. Withstands 350-lb pull when assembled. Packaged individually, with instruction sheet. **Std. Pkg. 25**

1656

No.	For Cables	NET Ea.
1652	RG-59/U	$ .48
1656	RG-6/U	.63

FEMALE CHASSIS FITTING

Mates with #1652 connector. Mounts in 5/16" hole. Threaded stem is ⅜".

No.		Net Ea.
1660	Individually Packaged	$ .48

FEMALE COUPLING

Accepts two #1680, 1652 or 1656 connectors.

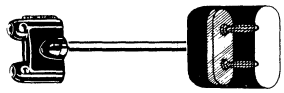
No.		Net Ea.
1680	Individually Packaged	$ .60

SHIELDED DOUBLE PLUG TO SHIELDED DOUBLE PLUG

SHIELD: Aluminum, black anodized.
BODY: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS.
PLUG: Brass,nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
DESCR.: Mates with standard dual binding post having ¾" center. Both ends terminate with double shielded banana plugs. **Std. Pkg. 10**

No. RG-58C/U Wire	No. RG-11/U Wire	Length	NET Ea.
1876-12	1877-12	12 inches	$7.50
1876-24	1877-24	24 inches	7.62
1876-36	1877-36	36 inches	7.75
1876-48	1877-48	48 inches	7.88
1876-60	1877-60	60 inches	8.00

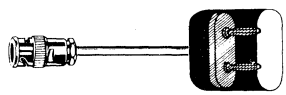
DOUBLE JACK TO SHIELDED DOUBLE PLUG



SHIELD: Aluminum, black anodized.
HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
PLUG: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: As specified above.
DESCR.: Mates with standard dual binding pos having ¾" center. Polarity indicated by the word GROUND molded on side. Interconnects unlimited number of multiple circuits top and side. One end terminates with molded double shielded banana plug, other end in double extension jack. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
———	1884-12	1885-12	12"	$5.15
———	1884-24	1885-24	24"	5.28
———	1884-36	1885-36	36"	5.40
———	1884-48	1885-48	48"	5.52
———	1884-60	1885-60	60"	5.65

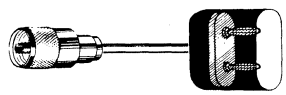
BNC MALE TO SHIELDED DOUBLE PLUG



BODY: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Assemblies.
SHIELD: Aluminum, black anodized.
PLUG: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: RG-58C/U.
CONN.: UG 88C/U. (BNC Series)
DESCR.: Mates with standard dual binding post having ¾" center. One end terminates with double shielded banana plug, other end with UG 88 C/U. **Std. Pkg. 10**

No.	Length	NET Ea.
1873-12	12 inches	$6.00
1873-24	24 inches	6.12
1873-36	36 inches	6.25
1873-48	48 inches	6.38
1873-60	60 inches	6.50

UHF MALE TO SHIELDED DOUBLE PLUG



SHIELD: Aluminum, black anodized.
BODY: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS.
CONN.: PL-259 (UHF Series).
PLUG: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
DESCR.: Mates with standard dual binding post having ¾" center. One end terminates with double shielded banana plug, other end in UHF Conn. **Std. Pkg. 10**

No. RG-58C/U Wire	No. RG-11/U Wire	Length	Ea. NET
1874-12	1875-12	12 inches	$6.00
1874-24	1875-24	24 inches	6.12
1874-36	1875-36	36 inches	6.25
1874-48	1874-48	48 inches	6.38
1874-60	1875-60	60 inches	6.50

LABORATORY INTERCHANGE KIT

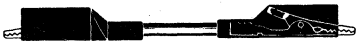
DESCR.: All parts interchangeable, converts any standard test lead to an all purpose unit. **Packaged in an electronically sealed vinyl kit.**
Consists of one Red, one Black of the following:
Phone tips No. 215 Spade lugs No. 218
Tip plug adapter No. 214
Alligator clip jack No. 305 **Std. Pkg. 1**

No. 640 **NET Ea. $2.25**

specify SMITH
HERMAN H. SMITH, INC.
ELECTRONIC COMPONENTS

JUMPERS & PATCH CORDS

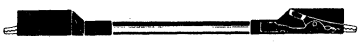
STANDARD ALLIGATOR CLIP TO PIN PLUG



CLIPS: STEEL, Cadmium plated.
BOOTS: Vinyl plastic. Boot colors match wire.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.
WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D of .140". Available in Red, Black, Yellow, Green, Blue, and White.
SPECIFY COLOR
Std. Pkg. 10

No.	Length	Net Ea.
1596-12	12 inches	$ .40
1596-24	24 inches	.43
1596-36	36 inches	.48
1596-48	48 inches	.51
1596-60	60 inches	.55

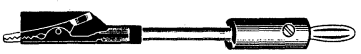
MINIATURE ALLIGATOR CLIP BOTH ENDS



CLIPS: STEEL, Cadmium plated.
BOOTS: Vinyl plastic. Boot colors match wire.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.
WIRE: General purpose, PVC insulated 1/64" wall, #18 AWG, 16/30 stranded conductor. Available in Red, Black, Yellow, Green, Blue, and White.
SPECIFY COLOR
Std. Pkg. 10

No.	Length	Net Ea.
1597-12	12 inches	$ .40
1597-18	18 inches	.42
1597-24	24 inches	.43
1597-36	36 inches	.48
1597-48	48 inches	.51
1597-60	60 inches	.55

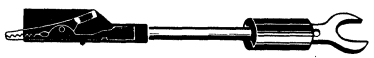
STANDARD ALLIGATOR CLIP TO BANANA PLUG



HANDLES: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue White per LC-726-1. SPECIFY COLOR
PLUG: Hex brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
CLIPS: STEEL, Cadmium plated.
BOOTS: Vinyl plastic. Boot colors match wire.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140". **Std. Pkg. 10**

No.	Length	Net Ea.
1866-12	12 inches	$ .45
1866-24	24 inches	.50
1866-36	36 inches	.55
1866-48	48 inches	.60
1866-60	60 inches	.65

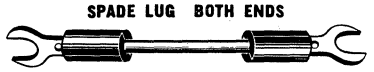
STANDARD ALLIGATOR CLIP TO SPADE LUG



HANDLES: MOLDED BUTYRATE, per Fed. Spec. L-P349A. Type 3, Class MS. Red, Black.
SPECIFY COLOR
LUG: Brass, .050 thick, nickel plated.
CLIPS: STEEL, Cadmium plated.
BOOTS: Vinyl plastic. Boot colors match wire.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty
WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140". **Std. Pkg. 10**

No.	Length	Net Ea.
1867-12	12 inches	$ .35
1867-24	24 inches	.40
1867-36	36 inches	.45
1867-48	48 inches	.50
1867-60	60 inches	.55

SPADE LUG BOTH ENDS



HANDLES: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red, Black,
SPECIFY COLOR
LUG: Brass, .050 thick, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.
WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140". **Std. Pkg. 10**

No.	Length	Net Ea.
1864-12	12 inches	$ .30
1864-24	24 inches	.35
1864-36	36 inches	.40
1864-48	48 inches	.45
1864-60	60 inches	.50

STANDARD ALLIGATOR CLIP TO PIN PLUG

HANDLES: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUG: Brass, nickel plated.
CLIPS: STEEL, Cadmium plated.
BOOTS: Vinyl plastic. Boot colors match wire.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG insulated to an O.D. of .140". **Std. Pkg. 10**

No.	Length	Net Ea.
1865-12	12 inches	$ .40
1865-24	24 inches	.45
1865-36	36 inches	.50
1865-48	48 inches	.55
1865-60	60 inches	.60

PIN PLUG BOTH ENDS

HANDLES: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUGS: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of 140". **Std. Pkg. 10**

No.	Length	Net Ea.
1862-12	12 inches	$ .50
1862-24	24 inches	.55
1862-36	36 inches	.60
1862-48	48 inches	.65
1862-60	60 inches	.70

PIN PLUG TO BANANA PLUG

HANDLES: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUGS: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, insulated to an O.D. of .140". **Std. Pkg. 10**

No.	Length	Net Ea.
1868-12	12 inches	$ .50
1868-24	24 inches	.55
1868-36	36 inches	.60
1868-48	48 inches	.65
1868-60	60 inches	.70

BANANA PLUG BOTH ENDS

HANDLES: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUGS: Brass, nickel plated.
SPRINGS: Four-leaved phosphor bronze, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140". **Std. Pkg. 10**

No.	Length	Net Ea.
1863-12	12 inches	$ .60
1863-24	24 inches	.65
1863-36	36 inches	.70
1863-48	48 inches	.75
1863-60	60 inches	.80

MINIATURE MOLDED PATCH CORDS

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red, Yellow, Black, Green, assemblies. SPECIFY COLOR
BODY: Brass, nickel plated.
SRING: Four-leaved beryllium copper, nickel plated.
WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, insulated to an O.D. of .140".
DESCR.: Interconnects banana jacks on closely spaced centers where space is at a premium. Fits standard banana jacks. **Std. Pkg. 10**

No.	WIRE	NET Per C
1860-8	8 inches	$30.00
1860-12	12 inches	32.00
1860-24	24 inches	35.00
1860-36	36 inches	38.00

COLOR CODE SUFFIX

Add to Catalog Number as required

—101 WHITE	—103 BLACK	—105 BLUE
—102 RED	—104 GREEN	—107 YELLOW

"CROSS PATCH" BANANA PLUG CORD

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red, Black, Yellow, Green, Blue, White SPECIFY COLOR
BODY: Brass, nickel plated.
WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140".
DESC.: Interconnects unlimited number of multiple circuits. Positive, lasting contact for all banana plugs on top and side. **Std. Pkg. 10**

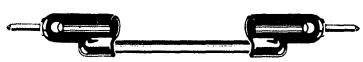
WITH PLUG SPRING 9/16" LONG

No.	Length ("A")	NET Per C
1510-8	8 inches	$100.00
1510-12	12 inches	100.00
1510-25	24 inches	105.00
1510-36	36 inches	110.00

WITH PLUG SPRING 13/32" LONG

No.	Length ("A")	NET Per C
1515-8	8 inches	$100.00
1515-12	12 inches	100.00
1515-24	24 inches	105.00
1515-36	36 inches	110.00

"CROSS PATCH" PIN TIP CORD



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Red, Black, Yellow, Green, Blue, White.
SPECIFY COLOR
BODY: Brass, nickel plated.
CONTACT: Beryllium copper.
WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, insulated to an O.D. of .140".
DESC.: Interconnects an unlimited number of multiple circuits .080" tip plug and female jack in rear of body fits all standard phone tips and jacks. Side holes accept standard banana plugs. **Std. Pkg. 10**

No.	Length ("A")	NET Per C
1595-8	8 inches	$90.00
1595-12	12 inches	90.00
1595-24	24 inches	96.00
1595-36	36 inches	102.00

"CROSS PATCH" CORD

HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red, Black assemblies.
SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Four-leaved, beryllium copper, nickel plated.
WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140".
DESCR.: Provides a never ending banana plug receptacle, and can be used to interconnect an unlimited amount of multiple circuits Accepts standard banana plug in side. **Std. Pkg. 10**

No.	Length ("A")	NET Per C
680	8 inches	$87.00
681	12 inches	93.00
682	24 inches	99.00
683	36 inches	105.00

FOR YOUR SPECIAL REQUIREMENTS IN

- **PATCH CORDS**
- **JUMPERS**
- **TEST LEADS**

WHAT DO YOU NEED?

We are equipped to manufacture Patch Cords, Jumpers and Test Leads in every conceivable combination of terminal ends —plugs, jacks, clips and connectors—to be found in our entire line.

What are YOUR special requirements? We welcome your inquiry!

© U.C.P., Inc.

specify **SMITH**

HERMAN H. SMITH, INC. — ELECTRONIC COMPONENTS

JUMPERS & PATCH CORDS

COLOR CODE SUFFIX
Add to Catalog Number as required

—101 WHITE	—106 ORANGE
—102 RED	—107 YELLOW
—103 BLACK	—108 BROWN
—104 GREEN	—112 PURPLE
—105 BLUE	—113 GREY

SUB-MINIATURE "CROSS PATCH" CORD

HANDLE: MOLDED BUTYRATE, per Fed Spec. L-P349A, Type 3, Class MS. Available in ten colors listed above. SPECIFY COLOR
BODY: Brass, silver plated.
SPRING: Four-leaved beryllium copper, silver plated.
WIRE: General purpose, PVC insulated, 1/64″ wall. #18 AWG, 41/34 stranded conductor. Voltage rating up to 1 KV RMS.
DESCR.: Interconnects unlimited number of multiple circuits. Positive, lasting contact for banana plugs on top and side. Special lengths on request. **Std. Pkg. 10**

No.	Length ("A")	NET Per C
1590-6	6 inches	$60.00
1590-12	12 inches	69.00
1590-18	18 inches	75.00
1590-24	24 inches	84.00

NYLON HANDLE PATCH CORD

HANDLE: MOLDED NYLON, per MIL-P-20693A. Red, Black, Yellow or Green. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140″.
DESCR.: Uses our standard No. 478 banana plug to interconnect circuits. Fits standard banana jacks. **Std. Pkg. 10**

No.	Length	NET Per C
1520-8	8 inches	$54.00
1520-12	12 inches	60.00
1520-24	24 inches	66.00
1520-36	36 inches	72.00

PATCH CORD

HANDLE: MOLDED THERMOSETTING plastic. Red and Black per MIL-M-14 CFG. Yellow, Green per LC-721-1. SPECIFY COLOR
BODY: Brass, nickel plated.
SRING: Four-leaved beryllium copper, nickel plated.
WIRE: 10 KV PVC flexible wire ,65 strands #36 copper, insulated to an O.D. of .140″.
DESCR.: Uses our standard No. 271 banana plug to interconnect circuits. Fits standard banana jacks. **Std. Pkg. 10**

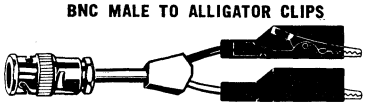
No.	Length ("A")	NET Per C
690	8 inches	$48.00
691	12 inches	54.00
692	24 inches	60.00
693	36 inches	66.00

HIGH-CURRENT PATCH CORD

HANDLE: MACHINED PHENOLIC plastic, per MIL-P-77B, Type 1. Red or Black assemblies SPECIFY COLOR.
BODY: Brass, nickel plated.
SPRINGS: Six-leaved, phosphor bronze, nickel plated.
WIRE: #10, PVC insulated stranded wire, 105 strands #30 tinned copper wire, insulated to an O.D of .215″.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Tapered recessed plug so that no metal portions are exposed when plugged into mating jacks. **Std. Pkg. 10**

No.	Length	NET Per C
1591-8	8 inches	$135.00
1591-12	12 inches	135.00
1591-24	24 inches	140.00
1591-36	36 inches	145.00

BNC MALE TO ALLIGATOR CLIPS



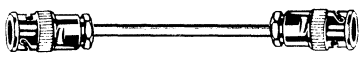
CONN.: UG-88C/U. (BNC Series)
CLIPS: Steel Cad. Plated (#300).
INSUL.: Molded Vinyl (#331).
WIRE: As specified above.
DESCR.: For testing of wave patterns etc. One end termination with UG-88C/U other end with insulated alligator clips, one red, one black. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
———	1537-12	1587-12	12″	$3.75
———	1537-24	1587-24	24″	3.96
———	1537-36	1587-36	36″	4.08
———	1537-48	1587-48	48″	4.20
———	1437-60	1587-60	60″	4.30

CABLE TYPES AVAILABLE

	WIRE "A"	WIRE "B"	WIRE "C"
DESCRIPTION	2-cond. tw. 18 ga. 65/36 str.	Shielded audio cable	Coaxial Cable RG58C/U.
INSULATION	Vinyl	Polyethylene	Polyethylene
JACKET	Vinyl, Color Grey	Vinyl, Color Grey	Vinyl, Color Black
NOM. CAP.	30 mmf./ft.	25 mmf./ft.	28.5 mmf./ft.

BNC MALE BOTH ENDS



CONN.: UG 88 C/U. (BNC Series)
Std. Pkg. 10

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
———	1539-12	1589-12	12″	$4.00
———	1539-24	1589-24	24″	4.20
———	1539-36	1589-36	36″	4.32
———	1539-48	1589-48	48″	4.44
———	1539-60	1589-60	60″	4.55

BNC FEMALE BOTH ENDS

CONN.: UG-89B/U. (BNC Series)
WIRE: RG-58C/U.

No.	Length	NET Ea.
1869-12	12 inches	$3.75
1869-24	24 inches	3.85
1869-36	36 inches	4.00
1869-48	48 inches	4.15
1869-60	60 inches	4.25

UHF MALE BOTH ENDS

CONN.: PL-259. (UHF Series)
Std. Pkg. 10

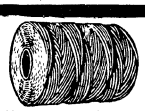
No. RG-58C/U Wire	No. RG-11/U Wire	Length	NET Ea.
1871-12	1870-12	12 inches	$4.50
1871-24	1870-24	24 inches	4.62
1871-36	1870-36	36 inches	4.75
1871-48	1870-48	48 inches	4.88
1871-60	1870-60	60 inches	5.00

BNC FEMALE TO BNC MALE

CONN.: UG-89B/U. (BNC Series)
UG-89B/U. (BNC Series)
WIRE: RG-58C/U.

No.	Length	NET Ea.
1878-12	12 inches	$4.00
1878-24	24 inches	4.20
1878-36	36 inches	4.32
1878-48	48 inches	4.44
1878-60	60 inches	4.55

NYLON LACING CORD



MIL-T-713A, Type S. Composition P, Classes 3, 2 and 1. Supplied in 1-lb. tubes.

Natural Color

No.	Class	Test	Yardage	NET Ea.
734	1	70 lb.	600	$9.00
735	2	48 lb.	800	9.30
736	3	32 lb.	1140	9.60

Black Color

791	1	70 lb.	600	$10.80
792	2	48 lb.	800	11.10
793	3	32 lb.	1140	11.40

NYLON LACING TAPE
Braided — MGD Finish

#18 size meets MIL-T-13 A, Type P, Class 2. 500-yard spools.

Natural Color

No.	Size	Width	Thick	Test	NET Each
766	18	.090	.0125	50 lbs.	$9.50
767	21	.0625	.009	25 lbs.	7.00

Black Color

769	18	.090	.0125	50 lbs.	$10.00
770	21	.0625	.009	25 lbs.	7.50

Commercial Type

Has all application of above but at a much lower cost. Supplied in 1-lb tubes in natural color.

No.	Width	Yardage	NET Ea.
743	1/8″	620	$5.10

DACRON LACING CORD

Conforms to the physical requirements of MIL-T-713A. Greater tensile strength with minimal stretch than nylon. Fungus, acid and abrasion resistance. Supplied in 1 lb. tubes in natural color.

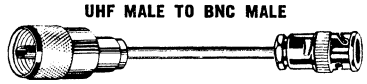
No.	Class	Test	Yardage	NET Ea.
722	1	78 lbs.	750	$9.60
723	2	57 lbs.	1000	9.90
724	3	37 lbs.	1500	10.20

RIGHT ANGLE BNC TO RIGHT ANGLE BNC

CONN.: UC-913/U. (BNC Series)
WIRE: As specified above.
DESCR.: Used for patching and jumping. Each end terminates with UG-913/U.

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
———	1538-12	1588-12	12″	$5.88
———	1538-24	1588-24	24″	6.00
———	1538-36	1588-36	36″	6.12
———	1538-48	1588-48	48″	6.24
———	1538-60	1588-60	60″	6.35

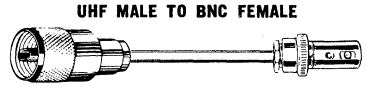
UHF MALE TO BNC MALE



CONN.: UG-88C/U. (BNC Series)
PL-259. (UHF Series)
WIRE: RG-58C/U.

No.	Length	NET Ea.
1879-12	12 inches	$4.00
1879-24	24 inches	4.20
1879-36	36 inches	4.32
1879-48	48 inches	4.44
1879-60	60 inches	4.55

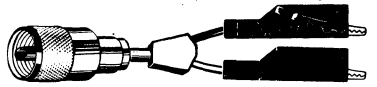
UHF MALE TO BNC FEMALE



CONN.: UG-89B/U. (BNC Series)
PL-259. (UHF Series)
WIRE: RG-58C/U.

No.	Length	NET Ea.
1880-12	12 inches	$4.20
1880-24	24 inches	4.40
1880-36	36 inches	4.52
1880-48	48 inches	4.64
1880-60	60 inches	4.75

UHF MALE TO ALLIGATOR CLIPS



CONN.: PL-259. (UHF Series)
CLIPS: Steel Cad. Plated (#300).
INSUL.: Molded Vinyl (#331).
WIRE: As specified above.
DESCR.: For testing of wave patterns, etc. One end terminates with PL-259, other end with insulated alligator clips one red, one black. **Std. Pkg. 10**

No. BG-11/U Wire	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1872-12	1536-12	1586-12	12″	$3.75
1872-24	1536-24	1586-24	24″	3.96
1872-36	1536-36	1586-36	36″	4.08
1872-48	1536-48	1586-48	48″	4.20
1872-60	1536-60	1586-60	60″	4.30

For VARIATIONS of these standard parts to meet your SPECIAL requirements, or for entirely NEW parts made to your specifications, WE WELCOME YOUR INQUIRY!

LINEN LACING CORD

Mildew proofed. Spec. MIL-T-713-A. Type N.

Natural Color

No.	Tube	Ply	Class	Ydg.	NET Ea.
725	4 oz.	4	—	210	$1.65
726	8 oz.	4	—	425	3.00
727	1 lb.	4	—	850	5.40
728	4 oz.	6	3	150	1.65
729	8 oz.	6	3	300	3.00
730	1 lb.	6	3	600	5.40
737	4 oz.	8	2	115	1.65
738	8 oz.	8	2	235	3.00
739	1 lb.	8	2	470	5.40
731	4 oz.	9	—	100	1.65
732	8 oz.	9	—	200	3.00
733	1 lb.	9	—	400	5.40
740	4 oz.	12	1	75	1.65
741	8 oz.	12	1	150	3.00
742	1 lb.	12	1	300	5.40

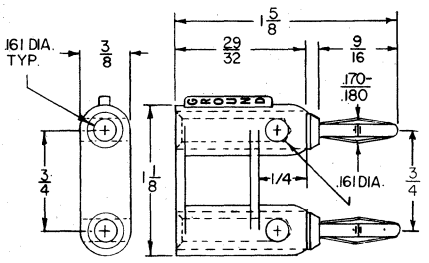
Black Color

794	1 lb.	4	—	850	$6.00
795	1 lb.	6	3	600	6.00
796	1 lb.	8	2	470	6.00
797	1 lb.	9	—	400	6.00
798	1 lb.	12	1	300	6.00

specify SMITH

HERMAN H. SMITH, INC. ELECTRONIC COMPONENTS

DUAL INSTRUMENT TEST ADAPTERS



MATERIALS:
BODY: Molded Butyrate, per Fed Spec. L-P349A, Type 3, Class MS. Color BLACK unless otherwise specified.
CONDUCTOR: Brass, per QQ-B-626, Comp. 22, ½ hard.
SPRING: Four-leaved beryllium copper, heat treated.
HEAD: Molded Nylon, per MIL-P-20693A.
SHIELD: Drawn Aluminum.
SCREWS: Steel, cadmium plated.

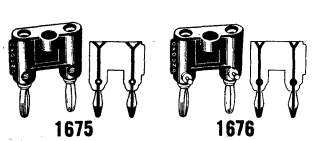
COLOR CODE SUFFIX

Add to Catalog Number as required

–101 WHITE	–105 BLUE	–108 BROWN
–102 RED	–106 ORANGE	–112 PURPLE
–103 BLACK	–107 YELLOW	–113 GREY
–104 GREEN		

FINISHES:
CONDUCTOR: Nickel plate, per QQ-N-290, Class I, Type VII.
SPRING: Nickel plate, as above.
TERMINAL: Gold washed.
CONNECTOR: Non-tarnish.
SHIELD: Black Anodized.

RATINGS:
CURRENT: 15 Amps AC for 10°C Temp. Rise, continuous duty, except where limited by co-axial connectors.
VOLTAGE: 5 KV, 60 cycle AC continuous working voltage, except where limited by co-axial connectors.
CAPACITY: 1.0 mmfd nominal between ¾" spaced conductors.
RESISTANCE: 1 milliohm or less per conductor.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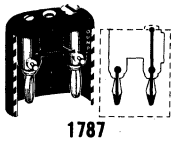
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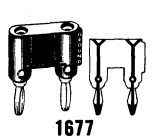
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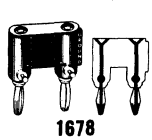
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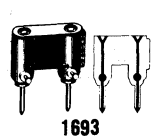
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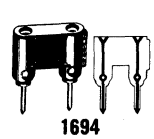
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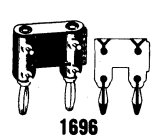
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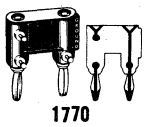
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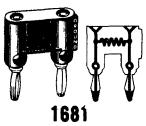
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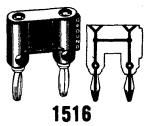
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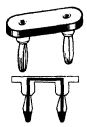
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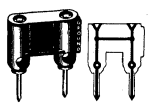
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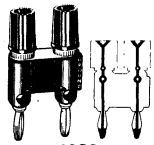
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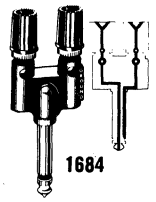
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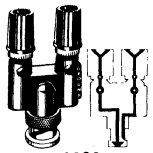
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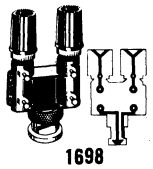
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CABLE MOUNTED DUAL BANANA PLUGS

SET-SCREW TYPE

REAR: 7/32 Dia. cable guide. Dual banana jacks on ¾" centers.
FRONT: Dual banana plugs on ¾" centers. Set-screws secure leads to conductors.
COLORS: Available in 10 std. colors as coded above. (Specify Color)

No.	Std. Pkg. 10	NET Ea.
1675		$.72

TURRET-TERMINAL TYPE

REAR: 7/32 Dia. cable guide. Dual banana jacks on ¾" centers.
FRONT: Dual banana plugs on ¾" centers, Turret terminals for permanent solder connection of leads.
COLORS: Available in 10 std. colors as coded above. (Specify color)

No.	Std. Pkg. 10	NET Ea.
1676		$.81

SHIELDED TYPE

REAR: Mounting screw and locating boss. Inline cable entry with flush cable guide.
FRONT: Dual banana plugs ¾" centers. Turret terminals for permanent solder connection of leads.
SHIELD: Aluminum shield electrically connected to GND conductor fully enclosed plug and mating binding posts to reduce noise pickup.

No.	Std. Pkg. 1	NET Ea.
1787		$2.25

COMPONENT MOUNTING DUAL PLUGS

SET-SCREW TYPE

REAR: Dual banana jacks on ¾" centers for stacking.
FRONT: Dual banana plugs on ¾" centers. Set-screws secure component leads to conductors.
COLORS: Available in 10 std. colors as coded above. (Specify color)

No.	Std. Pkg. 10	NET Ea.
1677		$.72

TURRET-TERMINAL TYPE

REAR: Dual banana jacks on ¾" centers for stacking.
FRONT: Dual banana plugs on ¾" centers. Turret terminals for permanent solder connection of component leads.
COLORS: Available in 10 std. colors as coded above. (Specify color)

No.	Std. Pkg. 10	NET Ea.
1678		$.81

.080" PHONE TIP TYPE

REAR: Dual phone tip jacks on ¾" centers for stacking.
FRONT: Dual .080" phone tips on ¾" centers. Turret terminals for permanent solder connections of component leads.
COLORS: Available in Red or Black only. (Specify color)

No.	Std. Pkg. 10	NET Ea.
1693		$.81

COMPONENT MOUNTING DUAL PLUGS

SET-SCREW PHONE TIP ADAPTER TYPE

REAR: Dual banana jacks on ¾" centers for stacking.
FRONT: Dual .080" phone tips on ¾" centers. Set-screws secure component leads to conductors.
COLORS: Available in Red or Black only. (Specify color)

No.	Std. Pkg. 10	NET Ea.
1694		$.72

FOUR TERMINAL ISOLATION TYPE

REAR: Dual banana jacks on ¾" centers for stacking.
CENTER: Turret-terminal connections to isolated front and rear conductors in both GND and HOT circuits allow insertion of matching pad or other 4-terminal networks in input circuits of instruments.
FRONT: Dual banana plugs on ¾" centers.
COLORS: Available in 10 colors as coded above. (Specify color)

No.	Std. Pkg. 1	NET Ea.
1696		$3.25

THREE TERMINAL ISOLATION TYPE

REAR: Dual banana jacks on ¾" centers for stacking.
CENTER: Turret-terminal connections to isolated front and rear conductors in HOT circuit, and straight-thru connection of GND circuit, with terminal, allow insertion of "T" and "P" networks in input-output circuits in instruments.
FRONT: Dual banana plugs on ¾" centers.
COLORS: Available in 10 colors as coded above.

No.	Std. Pkg. 1	NET Ea.
1770		$2.50

INTERNALLY-MOLDED COMPONENT DUAL PLUGS

(Note: Items shown below are representative stock units. Plugs can be molded to order with a variety of resistor, capacitor, or molded inductor values. Please write, detailing your requirements, for quotation.)

MOLDED-IN PRECISION RESISTORS

REAR: Dual banana jacks on ¾" centers for stacking.
INTERNAL: 1% precision deposited-carbon, ½ watt resistors, value as shown below. Resistors are shunted across line.
FRONT: Dual banana plugs on ¾" centers. Banana jack side holes for stacking.
RESISTANCE: (Value stamped on plug) Following values are stock:

Ohms	Ohms	K ohm	K ohm	Meg ohm
50	200	1	100	1
75	250	5	200	2
120	500	10	250	5
130	600	20	500	10
150	900	50		

(Specify resistance value)

No.	Std. Pkg. 1	NET Ea.
1681		$2.75

DUAL BANANA PLUG SHORTING TYPE

REAR: Dual banana jacks on ¾" centers for stacking.
INTERNAL: Busbar shorted across line.
FRONT: Dual banana plugs on ¾" centers. Banana jack holes for side stacking.
COLORS: Available in Red, Black, Yellow, and Green. (Specify color)

No.	Std. Pkg. 25	NET Ea.
1516		$.72

METAL SHORTING BAR TYPE

REAR: 3/32" thick brass busbar. 15 amps. continuous duty.
FRONT: Dual banana plugs on ¾" centers. Unit sits flush to panel.

No.	Std. Pkg. 10	NET Ea.
1683		$.66

.080" PHONE TIP SHORTING TYPE

REAR: Dual banana jacks on ¾" centers for stacking.
INTERNAL: Busbar shorted across line.
FRONT: Dual .080" phone tips on ¾" centers. Banana jack holes for side stacking.
COLORS: Available in Red, Black, Yellow, and Green. (Specify color)

No.	Std. Pkg. 10	NET Ea.
1692		$.72

DUAL BINDING POST ADAPTERS

BINDING POSTS TO DUAL BANANA PLUGS

REAR: Insulated dual 5-way binding posts, Red and Black heads on ¾" centers. Banana jack holes for side stacking.

No.	Std. Pkg. 1	NET Ea.
1682		$2.25

BINDING POSTS TO 2-CIRCUIT PHONE PLUG

REAR: Insulated dual 5-way binding posts, Red and Black heads on ¾" centers. Banana jack holes for side stacking.
FRONT: Standard ¼" 2-circuit phone plug.

No.	Std. Pkg. 1	NET Ea.
1684		$3.00

BINDING POSTS TO BNC MALE CONNECTOR

REAR: Insulated dual 5-way binding posts, Red and Black heads on ¾" centers. Banana jack holes for side stacking.
FRONT: BNC series co-axial plug.

No.	Std. Pkg. 1	NET Ea.
1688		$3.60

BINDING POSTS TO ISOLATED BNC MALE CONNECTOR

REAR: Insulated dual 5-way binding posts, Red and Black heads on ¾" centers.
CENTER: Turret-terminal connections to isolated front and rear conductors in both GND and HOT circuits allow insertion of matching pad or other 4-terminal networks in input circuits.
FRONT: BNC series co-axial plug.

No.	Std. Pkg. 1	NET Ea.
1698		$7.20

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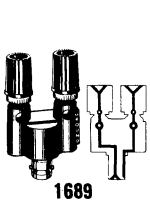
specify **SMITH**

HERMAN H. SMITH, INC.

ELECTRONIC COMPONENTS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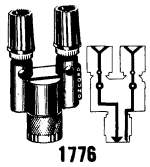
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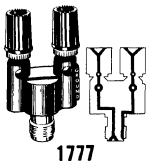
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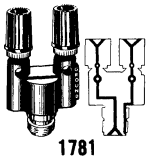
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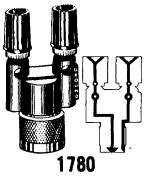
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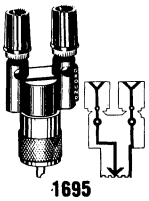
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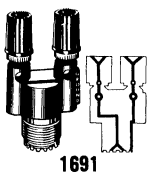
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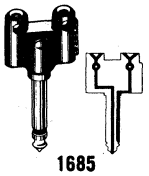
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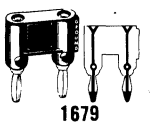
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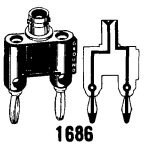
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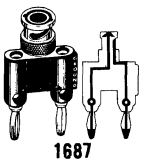
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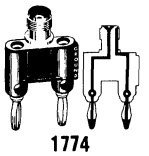
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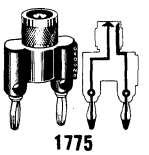
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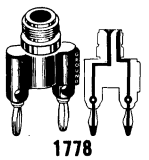
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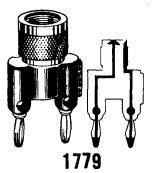
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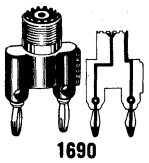
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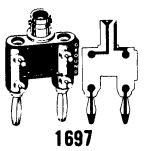
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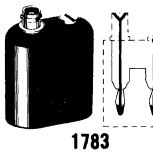
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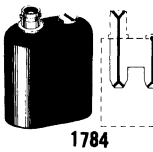
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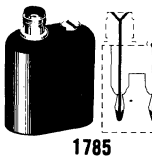
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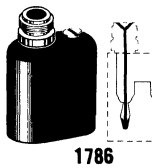
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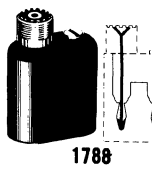
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DUAL BINDING POST ADAPTERS

BINDING POSTS TO BNC FEMALE CONNECTOR

REAR: Insulated dual 5-way binding posts, Red and Black heads on ¾" centers. Banana jack holes for side stacking.

FRONT: BNC series co-axial jack.

No.	Std. Pkg.	NET Ea.
1689	1	$3.60

BINDING POSTS TO TNC MALE CONNETOR

REAR: Insulated dual 5-way binding posts, Red and Black heads on ¾" centers. Banana jack holes for side stacking.

FRONT: TNC series co-axial plug.

No.	Std. Pkg.	NET Ea.
1776	1	$4.50

BINDING POSTS TO TNC FEMALE CONNECTOR

REAR: Insulated dual 5-way binding posts, Red and Black heads on ¾" centers. Banana jack holes for side stacking.

FRONT: TNC series co-axial jack.

No.	Std. Pkg.	NET Ea.
1777	1	$4.50

BINDING POSTS TO TYPE N MALE CONNECTOR

REAR: Insulated dual 5-way binding posts, Red and Black heads on ¾" centers. Banana jack holes for side stacking.

FRONT: Type N co-axial plug

No.	Std. Pkg.	NET Ea.
1780	1	$4.50

BINDING POSTS TO TYPE N FEMALE CONNECTOR

REAR: Insulated dual 5-way binding posts, Red and Black heads on ¾" centers. Banana jack holes for side stacking.

FRONT: Type N co-axial jack.

No.	Std. Pkg.	NET Ea.
1781	1	$4.50

BINDING POSTS TO UHF MALE CONNECTOR

REAR: Insulated dual 5-way binding posts, Red and Black heads on ¾" centers. Banana jack holes for side stacking.

FRONT: UHF series co-axial plug.

No.	Std. Pkg.	NET Ea.
1695	1	$3.60

BINDING POSTS TO UHF FEMALE CONNECTOR

REAR: Insulated dual-5-way binding posts, Red and Black heads on ¾" centers. Banana jack holes for side stacking.

FRONT: UHF series co-axial jack.

No.	Std. Pkg.	NET Ea.
1691	1	$3.60

ADAPTERS

DUAL BANANA JACKS TO 2-CIRCUIT PHONE PLUG

REAR: Dual banana jacks on ¾" centers, rear and side, for stacking.

FRONT: Standard ¼" 2-circuit phone plug.

No.	Std. Pkg.	NET Ea.
1685	1	$2.40

DUAL PHONE-TIP ADAPTER

REAR: Dual .080" phone tip jacks on ¾" centers.

FRONT: Dual banana plugs on ¾" centers. Banana jack holes for side stacking.

No.	Std. Pkg.	NET Ea.
1679	10	$.81

COAXIAL CONNECTOR ADAPTERS

BNC FEMALE TO BANANA PLUGS

REAR: BNC series co-axial jack. Banana jack holes for side stacking.

FRONT: Dual banana plugs on ¾" centers. Banana jack holes for side stacking.

No.	Std. Pkg.	NET Ea.
1686	1	$2.45

BNC MALE TO BANANA PLUGS

REAR: BNC series co-axial plug.

FRONT: Dual banana plugs on ¾" centers. Banana jack holes for side stacking.

No.	Std. Pkg.	NET Ea.
1687	1	$2.70

TNC FEMALE TO BANANA PLUGS

REAR: TNC series co-axial jack.

FRONT: Dual banana plugs on ¾" centers. Banana jack holes for side stacking.

No.	Std. Pkg.	NET Ea.
1774	1	$4.50

TNC MALE TO BANANA PLUGS

REAR: TNC series co-axial plug.

FRONT: Dual banana plugs on ¾" centers. Banana jack holes for side stacking.

No.	Std. Pkg.	NET Ea.
1775	1	$4.50

TYPE N FEMALE TO BANANA PLUGS

REAR: Type N co-axial jack.

FRONT: Dual banana plugs on ¾" centers. Banana jack holes for side stacking.

No.	Std. Pkg.	NET Ea.
1778	1	$4.50

TYPE N MALE TO BANANA PLUGS

REAR: Type N co-axial plug.

FRONT: Dual banana plugs on ¾" centers. Banana jack holes for side stacking.

No.	Std. Pkg.	NET Ea.
1779	1	$4.50

UHF FEMALE TO BANANA PLUGS

REAR: UHF series co-axial jack.

FRONT: Dual banana plugs on ¾" centers. Banana jack holes for side stacking.

No.	Std. Pkg.	NET Ea.
1690	1	$3.60

BNC FEMALE TO ISOLATED DUAL BANANA PLUGS

REAR: BNC series co-axial jack.

CENTER: Turret-terminal connections to isolated front and rear conductors in both GND and HOT circuits allow insertion of matching pad or other 4-terminal networks in input circuits.

FRONT: Dual banana plugs on ¾" centers.

No.	Std. Pkg.	NET Ea.
1697	1	$7.20

SHIELDED CO-AXIAL CONNECTOR ADAPTERS

BNC JACK TO DUAL BANANA PLUGS

REAR: BNC series co-axial jack.

FRONT: Dual banana plugs on ¾" centers.

SHIELD: Aluminum shield electrically connected to GND conductor fully encloses plug and mating binding posts to reduce noise pickup.

No.	Std. Pkg.	NET Ea.
1783	1	$3.25

BNC JACK TO DUAL BANANA JACKS

REAR: BNC series co-axial jack.

FRONT: Dual banana plugs on ¾" centers.

SHIELD: Aluminum shield electrically connected to GND conductor fully encloses jacks and mating plug to reduce noise pickup.

No.	Std. Pkg.	NET Ea.
1784	1	$3.25

TNC JACK TO DUAL BANANA PLUGS

REAR: TNC series co-axial jack.

FRONT: Dual banana plug ¾" centers.

SHIELD: Aluminum shield electrically connected to GND conductor fully encloses plug and binding posts to reduce noise pickup.

No.	Std. Pkg.	NET Ea.
1785	1	$4.50

TYPE N JACK TO DUAL BANANA PLUGS

REAR: Type N co-axial jack.

FRONT: Dual banana plugs on ¾" centers.

SHIELD: Aluminum shield electrically connected to GND conductor fully enclosed plug and binding posts to reduce noise pickup.

No.	Std. Pkg.	NET Ea.
1786	1	$4.50

UHF JACK TO DUAL BANANA PLUGS

REAR: UHF series co-axial jack.

FRONT: Dual banana plugs on ¾" centers.

SHIELD: Aluminum shield electrically connected to GND conductor fully encloses plug and mating binding posts to reduce noise pickup.

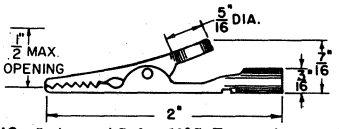
No.	Std. Pkg.	NET Ea.
1788	1	$4.50

specify SMITH

HERMAN H. SMITH, INC.

ELECTRONIC COMPONENTS

ALLIGATOR CLIPS
Solder Connection



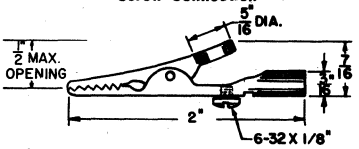
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: ½" jaw opening. Jaws match accurately and grip securely, accepts standard banana plugs in rear.

Std. Pkg. 100

No.	Type	NET Per C 10	100
300	Steel, Cad. Pl.	$5.00	$4.40
380	Solid Copper	7.50	6.50
332	Brass N.P.	10.40	8.40

Screw Connection



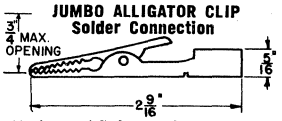
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: ½" jaw opening. Supplied with screw for solderless connection when required. Jaws match accurately and grip securely. Accepts standard banana plugs in rear.

Std. Pkg. 100

No.	Type	NET Per C 10	100
350	Steel, Cad. Pl.	$5.80	$4.80
360	Solid Copper	8.40	7.20
339	Brass N.P.	13.00	9.90

JUMBO ALLIGATOR CLIP
Solder Connection



RATING: 10 Amps AC for 10°C Temp. rise, continuous duty, #392.
15 Amps AC for 10°C Temp. rise, continuous duty, #396.

DESCR.: ¾" jaw opening. Jaws match accurately. For heavy terminal use.

Std. Pkg. 100

No.	Type	NET Per C
392	Steel. Cad. Pl.	$15.00
396	Solid Copper	18.00

Screw Connection

RATING: STEEL: 10 Amps AC for 10°C Temp. rise, continuous duty.
COPPER: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: ¾" jaw opening. Jaws match accurately. Supplied with screw for solderless connection. For heavy terminal use.

Std. Pkg. 100

No.	Type	NET Per C
368	Steel, Cad. Pl.	$18.00
356	Solid Copper	21.00

ALLIGATOR CLIP BOOTS

MATERIAL: MOLDED VINYL PLASTIC, Red, Black, Yellow, Green, Blue or White. SPECIFY COLOR

RATING: 1 K Volts 60 cycle AC continuous working voltage.

DESCR.: Fully insulated clip while allowing maximum jaw opening. No. 331 for use on standard size alligator clips such as our No. 300. No. 389 for use on miniature alligator clips, such as our No. 338.

Std. Pkg. 100

No.	Description	NET Per C 10	100
389	Miniature	$4.80	$4.00
331	Standard	4.80	4.00

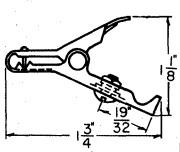
MIDGET ALLIGATOR CLIP

DESCR.: 5/16" jaw opening, jaws match accurately and grip securely. Unique SMITH spring construction. Solder connection and ears for crimping.

Std. Pkg. 100

No.	Type	NET 10 Ea.	Per C
338	Steel, Cad. Pl.	$.07	$4.20
367	Copper	.07	5.00

TL137 TEST CLIP
Signal Corps Approved



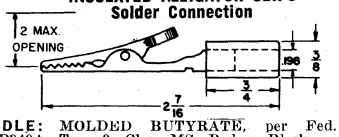
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Steel, nickel plated, made in accordance with government specs, ⅛" jaw opening. Needle for piercing corrosion.

Std. Pkg. 25

No.	NET Per C
315	$42.00

INSULATED ALLIGATOR CLIPS
Solder Connection



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

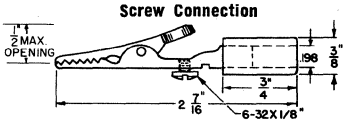
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: ½" jaw opening. Jaws match accurately and grip securely, accepts standard banana plugs in rear.

Std. Pkg. 100

No.	Type	NET Per C 10	100
301	Steel, Cad. Pl.	$8.50	$7.50
381	Solid Copper	10.50	9.00
354	Brass N.P.	15.00	11.40

Screw Connection



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

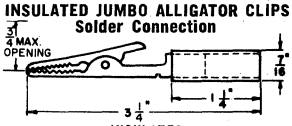
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: ½" jaw opening. Supplied with screw for solderless connection when required. Jaws match accurately and grip securely. Accepts standard banana plugs in rear.

Std. Pkg. 100

No.	Type	NET Per C 10	100
351	Steel, Cad. Pl.	$9.50	$8.00
361	Solid Copper	11.00	9.60
362	Brass N.P.	19.00	12.40

INSULATED JUMBO ALLIGATOR CLIPS
Solder Connection



INSULATED

HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red or Black. SPECIFY COLOR

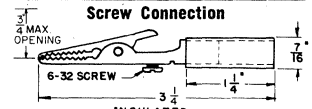
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty, #393.
15 Amps AC for 10°C Temp. rise, continuous duty, #397.

DESCR.: ¾" jaw opening. Jaws match accurately. For heavy terminal use.

Std. Pkg. 100

No.	Type	NET Per C
393	Steel, Cad. Pl.	$21.00
397	Solid Copper	24.00

Screw Connection



INSULATED

HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red or Black. SPECIFY COLOR

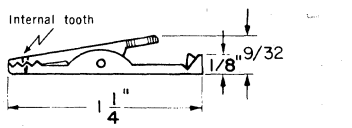
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty, #369.
15 Amps AC for 10°C Temp. rise, continuous duty, #357.

DESCR.: ¾" jaw opening. Jaws match accurately. Supplied with screw for solderless connection. For heavy terminal use.

Std. Pkg. 100

No.	Type	NET Per C
369	Steel, Cad. Pl.	$24.00
357	Solid Copper	27.00

MINIATURE INSULATION PIERCING ALLIGATOR CLIP



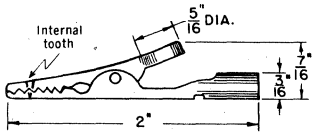
RATING: 1 Amp AC for 10°C Temp. rise, continuous duty.

DESCR.: 3/16" jaw opening. Jaws match accurately and grip securely. Internal tooth for piercing wire insulation. Solder connection and ears for crimping.

Std. Pkg. 100

No.	NET Per C
326	$11.00

INSULATION PIERCING ALLIGATOR CLIP



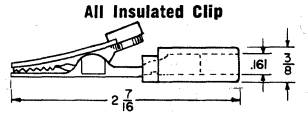
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

DESCR: 1/2" jaw opening. Jaws match accurately and grip securely. Internal tooth for piercing wire insulation. Accepts standard banana plug in rear.

Std. Pkg. 100

No.	NET Per C
347	$11.00

All Insulated Clip



INSULA.: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

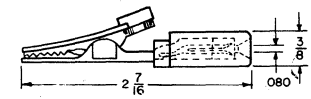
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage.

DESCR.: All metal parts fully insulated with molded plastic. Insures against shock or grounding. Solder type connection.

Std. Pkg. 25

No.	NET Per C
337	$24.00

ALL INSULATED ADAPTERS



Phone Tip to Alligator Clip

INSULA.: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

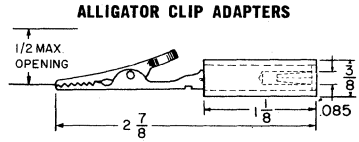
CLIP: Steel, cadmium plated.
BODY: Brass.
CONTACT: Phosphor bronze.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: All metal parts fully insulated with molded plastic. Insures against shock or grounding. Jack in rear permits adapting standard phone tip plugs to alligator clips.

Std. Pkg. 25

No.	NET Per C
336	$36.00

ALLIGATOR CLIP ADAPTERS



Phone Tip to Alligator Clip

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

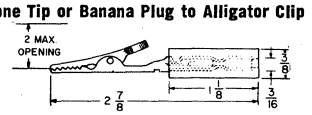
CAP: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG.
CLIP: Steel, cadmium plated or solid copper.
BODY: Brass.
SPRING: Phosphor bronze.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Jack in rear permits adapting standard phone tip plugs to alligator clips.

Std. Pkg. 25

No.	Description	NET Per C
304	Steel Clip	$33.00
334	Copper Clip	36.00

Phone Tip or Banana Plug to Alligator Clip



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

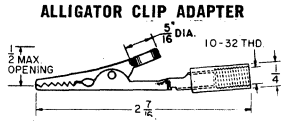
CLIP: Steel, cadmium plated or solid copper.
BODY: Brass.
SPRING: Phosphor bronze.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Combination jack in rear, permits the adapting standard phone tip plug or banana plugs to alligator clip.

Std. Pkg. 25

No.	Description	NET Per C
305	Steep Clip	$39.00
335	Copper Clip	42.00

ALLIGATOR CLIP ADAPTER



BUSHING: Brass, nickel plated.
CLIP: Steel cadmium plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Adapts standard solderless tips to alligator clip. This novel quick-adapter is a must for all types of bench work.

Std. Pkg. 50

No.	NET Per C
310	$13.20

BATTERY TEST CLIP

Std. Pkg. 100

MATERIAL: Steel, electro plated.

No.	Spread	Lgth.	Rating	Spring 10 Lbs	NET Ea.	Per C
365	5/8"	1½"	5 amp	7 lbs	$.08	$6.50
366	9/16"	2"	10 amp	10 lbs	.08	6.50

"SPECIALS are STANDARD with SMITH!"

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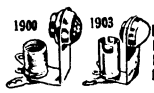
specify SMITH

HERMAN H. SMITH, INC.

ELECTRONIC COMPONENTS

PANEL INDICATORS

Indicators supplied with facetted jewels in Red, Green, Amber, Blue, Opal and White. SPECIFY COLOR. **Std. Pkg. 10**

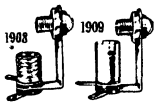


½" JEWEL—Mounts in 7/16" Hole

No.	Type	NET Per C
1900	Miniature Screw	$27.00
1901	Candelabra	33.00
1902	Candelabra w/Univ. Bkt.	34.80
1903	Bayonet	27.00
1904	Bayonet w/Univ. Bkt	30.00
1912	½" Jewel Only	21.00

¾" JEWEL—Mounts in 11/16" Hole

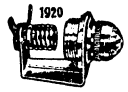
No.	Type	NET Per C
1905	Miniature Screw	$57.00
1906	Bayonet	60.00
1907	Candelabra	60.00
1914	¾" Jewel Only	42.00

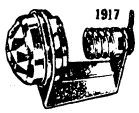


⅜" JEWEL—Mounts in 5/16" Hole

No.	Type	NET Per C
1908	Miniature Screw	$27.00
1909	Bayonet	28.80
1941	⅜" Jewel Only	21.00

OPEN TYPE





Jewel Removable From Front

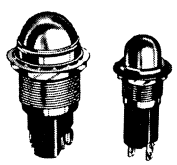
½" JEWEL—Mounts in 11/16" Hole
Std. Pkg. 10

No.	Type	NET Per C
1920	Miniature Screw Open Type	$39.00
1921	Bayonet, Open Type	39.00
1942	Bayonet, "U" Bkt.	54.00
1943	½" Jewel Only	35.00

1" JEWEL—Mounts in 1" Hole

No.	Type	NET Per C
1917	Miniature Screw	$96.00
1918	Bayonet	96.00
1919	Candelabra	102.00
1916	1" Jewel Only	75.00

NEON INDICATORS



UL Approved. Supplies 180 degree light spread. Available in Red, Amber, White, Yellow and Clear caps. Neon removable from front. Candelabra screw base; 105-125 volts 1" mtg. clearance hole. **Std. Pkg. 10**

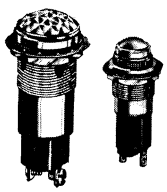
No.	Type	NET Per C
1953		$171.00
1954	Lens Cap Only	70.20

Built-in 56K ohm, ⅓ watt resistor
11/16" mtg. celarance hole.

No.	Type	NET Per C
1955		$135.00
1956	Lens Cap Only	22.20

INDICATOR ASSEMBLIES

Enclosed Type

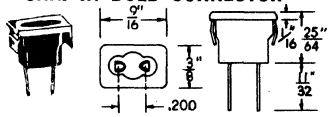


UL Approved. Available in Red, Green, Amber, Blue, Yellow, Clear and White. **Std. Pkg. 10**

Candelabra screw base; 1" mtg. clearance hole; 1" indicator. Uses No. 1916 Jewel. **NET Per C**
No. 1957 $172.20

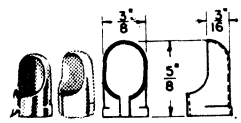
Bayonet base; 11/16" mtg. clearance hole; ½" indicator. Uses No. 1943 jewel.
No. 1958 NET Per C $128.40

SNAP-IN BULB CONNECTOR



Designed for use with the new Twin Pin Baseless Miniature Lamps (G.E. #10-25 volts, #12-6.3 volts, or #15-7.0 volts). Easily assembled to any unit for indicating purposes. Withstands excessive temperatures. Snaps into a .500x.296 rectangular hole in panels .032 to .062 thick. Bezel — brass, cad. plated; contacts — brass, silver plated. **Std. Pkg. 25**
No. 1504 NET Per C $17.00

PILOT LIGHT SHIELD

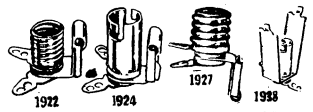


DESCR.: Prevents glare when used in radio receiver meters, etc. Ribbed bottom holds shield securely in place on bulb. **Std. Pkg. 100**

No.	Type	NET Per C
1963	Brass Cad. Plate	$3.60
1968	Plain Brass	3.30
1969	Flared Brass Cad. Plate	4.20

PILOT LIGHT SOCKETS

Clip-On Type

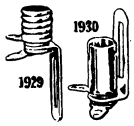


Can be used by clipping on to variable condenser or chassis. All brackets are cadmium plated. **Std. Pkg. 50**

No.	Type	NET Per C
1922	Miniature Screw Up Clip	$10.20
1923	Miniature Screw Down Clip	10.20
1924	Miniature Bayonet Up Clip	10.20
1925	Miniature Bayonet Down Clip	10.20
1926	Candelabra Up Clip	11.00
1927	Candelabra Down Clip	11.00
1938	Clip-in Socket	10.20

PILOT LIGHT SOCKETS

Bracket Type



Std. Pkg. 50

No.	Type	NET Per C
1928	Miniature Screw Up Bracket	$10.20
1929	Miniature Screw Down Bracket	10.20
1930	Miniature Bayonet Up Bracket	10.20
1931	Miniature Bayonet Down Bracket	10.20
1932	Candelabra Up Bracket	11.00
1933	Candelabra Down Bracket	11.00

UNMOUNTED TYPE SOCKETS

Std. Pkg. 50

No.	Type	NET Per C
1934	Miniature Screw Base	$10.20
1935	Miniature Bayonet Base	10.20
1936	Candelabra Base	11.00

NAVY TYPE LAMP SOCKETS

75W-125V
Bayonet Base

Vibration-proof socket for surface mounting. Made to rigid specifications of black phenolic. Has bayonet sleeve of brass and double contacts of heavy spring phosphor bronze. **Std. Pkg. 10**
No. 1950 NET Per C $135.00

SCREW BASE

Made of black phenolic to strict requirements. Instead of usual screw shell has phosphor bronze wire coiled spring for perfect contact and elimination of vibration. Designed for soldering wire leads. **Std. Pkg. 10**
No. 1951 NET Per C $84.00

SCREW BASE

Easily wired and mounted. A very practical unit made of black phenolic to rigid specifications. Has phosphor bronze spring contact to assure positive contact and elimination of vibration. **Std. Pkg. 10**
No. 1952 NET Per C $84.00

MINIATURE BAYONET BASE LAMPHOLDER

Surface mounted socket for miniature bayonet single contact lamp. Made to rigid specifications and constructed of massive bakelite insulation. Designed with screw terminals to facilitate wiring. **Std. Pkg. 10**
No. 1960 Net Ea. $3.00

MINI-SHIELDS FOR MINI-TUBES

These Mini-Shields fit snugly on all Mini-Tubes. Serrations in base clip prevent shielded tube from jiggling or working loose. Available in two sizes for 1½ & 2" long tubes.
Std. Pkg. 50

			NET Per C
550	for 2" tube	1¾"	$7.80
551	for 1½" tube	1¼"	6.60

MINI-SPRING FOR MINI-TUBES

Maintains a direct axial pressure downwards plus a sideways support that keeps the tube upright and perpendicular to the chassis. The spring action is constant and resilient permanently. **Std. Pkg. 50**

No.	Type	NET Per C
560	Short	$11.40
561	Medium	11.40
562	Long	11.40
563	9 Prong	11.63

MINIATURE WAFER SOCKETS

Miniature bakelite sockets, with brass cadmium plated contacts. XP bakelite top plate 1/16" thick, bottom plate 3/64" thick; high grade spring brass cadmium plated contact; .095 dia. mounting holes. Std. Pkg. 50

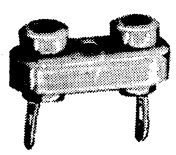
No.	Description	MTG. Cen.	SEVEN PIN NET Per C
880	Eyelet only	⅞"	$7.00
881	Eyelet and Shield	⅞"	6.90
882	Grd Strap and Shield	⅞"	7.50
887	Eyelet only	1"	7.00
888	Eyelet and Shield	1"	6.90
889	Grd Strap and Shield	1"	8.00
	NINE PIN		
890	Eyelet only	1⅛"	$ 8.55
891	Eyelet and Shield	1⅛"	8.85
892	Grd Strap and Shield	1⅛"	9.30

MOLDED MINIATURE SOCKETS

Saddle Type

Molded from either high dielectric black general purpose bakelite or low loss mica-filled bakelite. Both types supplied with center pin. .098 dia. mtg. holes. Std. Pkg. 50

No.	Type	Pin	Mtg. Ctrs.	Mtg. Hole	GENERAL PURPOSE BLACK BAKELITE NET Per C
895	Bottom Mount	7	⅞"	5/32"	$9.00
896	Top Mount	7	⅞"	5/32"	9.00
897	Bottom Mount	9	1⅛"	¾"	10.80
898	Top Mount	9	1⅛"	¾"	10.80
	LOW LOSS MICA-FILLED BAKELITE				
883	Bottom Mount	7	⅞"	5/32"	11.40
884	Top Mount	7	⅞"	5/32"	11.40
885	Bottom Mount	9	1⅛"	¾"	13.20
886	Top Mount	9	1⅛"	¾"	13.20

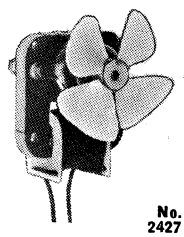


CRYSTAL SOCKET

Suitable for Citizen's Band

Glazed ceramic base. Phosphor bronze silver plated contacts spaced .486". Pin diameter .051. mtg. hole .125
Std. Pkg. 25 **NET Per C**
No. 1945 $15.00

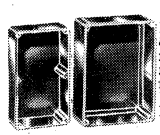
COOLING FAN



An exceptionally efficient fan for cooling tubes, rectifiers, etc. for Industrial equipment, Amateur Transmitters, and other devices requiring assisted convection flow of air. Permits more efficient RF shielding of equipment without depending on convection cooling. Shaded pole induction motor with Nylon Fan Blade runs 3000 RPM on 105-125 Volts, 60 cycle AC. Blade diameter 2½", over-all size 3½" x 2½" x 3". Mounts either horizontally, or vertically. Supplied complete with two 6-32 x 1½" screws and nuts, and two 1" fibre standoffs.

No. 2427
NET Each $4.40

INSTRUMENT CASES AND COVERS



Ideal for small instruments and test equipment. The right size and the right mounting for your requirements. Molded of high quality, glass finish, thermosetting plastic. Threaded brass insert for cover mounting. BLACK ONLY. **Std. Pkg. 5**

No.	H	W	D	Insert	Net Ea.
2255	6-1/4"	x 3-3/4"	x 2"	6-32	$1.03
2257	6-13/16"	x 5-9/32"	x 2-5/16"	4-36	1.28
2289	8-1/2"	x 7-7/16"	x 3"	6-32	2.40
2377	4"	x 2-7/8"	x 1-9/16"	4.40*	.43

*Tapped hole only (no insert).

COVERS

2256	For No. 2255	.59
2260	For No. 2257	.80
2390	For No. 2289	1.50
2378	For No. 2377	.30

PANEL PLATE

Brushed and lacquered Aluminum

2379	For No. 2255	1.00

GRID CAPS

Std. Pkg. 100

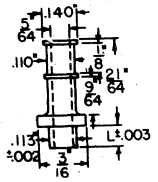
No.	Tube Type	NET Per C
1450	⅜" Glass Tubes	$1.20
1454	¼" Mini Tubes	1.20

specify SMITH
HERMAN H. SMITH, INC.
ELECTRONIC COMPONENTS

SWAGE TURRET TERMINALS

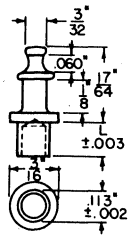
Terminals shown below are "stock" items, available for speedy delivery. All brass, silver-plated, precision made. See next page for Suggested Resale Prices. For quantities over 15,000 request special prices. Inquiries are invited, for special types and sizes to particular requirements. **L** indicates **Shank Length** of Lug. **T** indicates **Thickness** of mounting boards Minimum package 100

2000
HOLLOW LUG



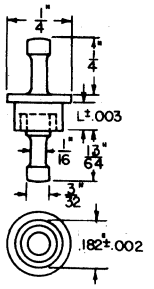
No.	L	T
2000A	.075	1/32
2000B	.105	1/16
2000C	.135	3/32
2000D	.165	1/8
2000E	.195	5/32
2000F	.230	3/16

2001
SHORT TERMINAL LUG



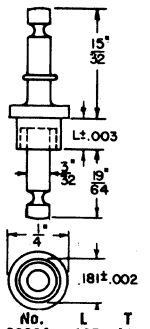
No.	L	T
2001A	.075	1/32
2001B	.105	1/16
2001C	.135	3/32
2001D	.165	1/8

2002
DOUBLE END TERMINAL LUG



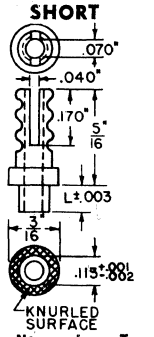
No.	L	T
2002A	.105	1/16
2002B	.135	3/32
2002C	.165	1/8
2002D	.195	5/32
2002E	.230	3/16

2003
DOUBLE END LUG, LONG



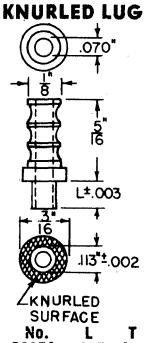
No.	L	T
2003A	.105	1/16
2003B	.135	3/32
2003C	.165	1/8
2003D	.195	5/32
2003E	.230	3/16

2004
SLOTTED TERMINAL LUG SHORT



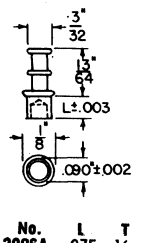
No.	L	T
2004A	.075	1/32
2004B	.105	1/16
2004C	.135	3/32
2004D	.165	1/8

2005
HOLLOW KNURLED LUG



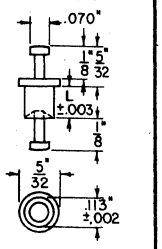
No.	L	T
2005A	.105	1/16
2005B	.135	3/32
2005C	.165	1/8

2006
SHORT TERMINAL LUG



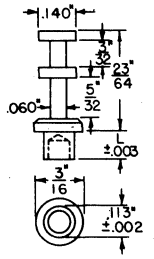
No.	L	T
2006A	.075	1/32
2006B	.105	1/16
2006C	.135	3/32
2006D	.165	1/8

2007
SHORT DOUBLE END LUG



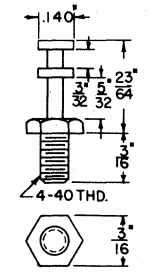
No.	L	T
2007A	.075	1/32
2007B	.105	1/16
2007C	.135	3/32
2007D	.165	1/8

2008
TERMINAL LUG



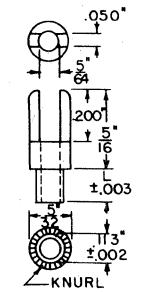
No.	L	T
2008A	.075	1/32
2008B	.105	1/16
2008C	.135	3/32
2008D	.165	1/8
2008E	.195	5/32
2008F	.230	3/16
2008G	.293	1/4

2009
TERMINAL LUG



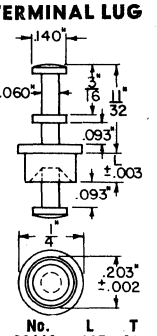
No. 2009

2010
SPLIT TERMINAL LUG



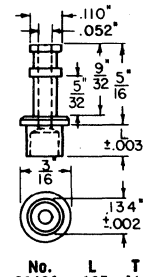
No.	L	T
2010A	.075	1/32
2010B	.105	1/16
2010C	.135	3/32
2010D	.165	1/8

2011
DOUBLE END TERMINAL LUG



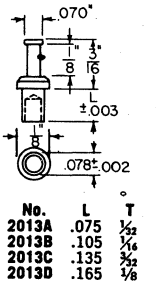
No.	L	T
2011A	.105	1/16
2011B	.135	3/32
2011C	.165	1/8
2011D	.195	5/32
2011E	.230	3/16

2012
TERMINAL LUG



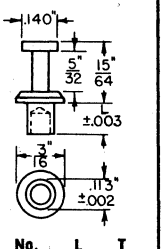
No.	L	T
2012A	.105	1/16
2012B	.135	3/32
2012C	.165	1/8

2013
TERMINAL LUG



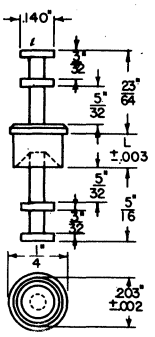
No.	L	T
2013A	.075	1/32
2013B	.105	1/16
2013C	.135	3/32
2013D	.165	1/8

2014
TERMINAL LUG



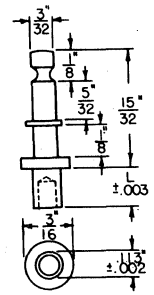
No.	L	T
2014A	.105	1/16
2014B	.135	3/32
2014C	.165	1/8
2014D	.195	5/32
2014E	.230	3/16

2015
TERMINAL LUG



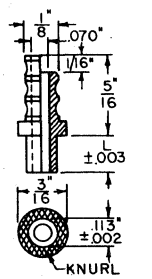
No.	L	T
2015A	.135	3/32
2015B	.165	1/8
2015C	.195	5/32
2015D	.230	3/16

2016
TERMINAL LUG



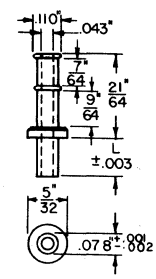
No.	L	T
2016A	.105	1/16
2016B	.135	3/32
2016C	.165	1/8

2017
HOLLOW KNURLED LUG



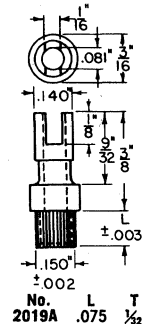
No.	L	T
2017A	.105	1/16
2017B	.135	3/32
2017C	.165	1/8
2017D	.195	5/32

2018
HOLLOW TERMINAL LUG



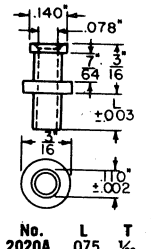
No.	L	T
2018A	.075	1/32
2018B	.105	1/16
2018C	.135	3/32
2018D	.165	1/8
2018E	.195	5/32
2018F	.230	3/16

2019
SPLIT TERMINAL LUG



No.	L	T
2019A	.075	1/32
2019B	.105	1/16
2019C	.135	3/32
2019D	.165	1/8
2019E	.195	3/32
2019F	.230	3/16

2020
TERMINAL LUG



No.	L	T
2020A	.075	1/32
2020B	.105	1/16
2020C	.135	3/32
2020D	.165	1/8

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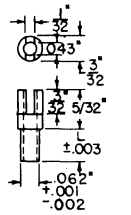
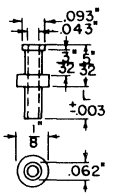
SWAGE TURRET TERMINALS

2021
MINIATURE SPADE LUG



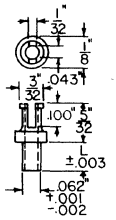
No.	L	T
2021A	.037	1/64
2021B	.053	1/32
2021C	.084	1/16
2021D	.115	3/32
2021E	.147	1/8

2022
MINIATURE HOLLOW LUG



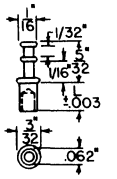
No.	L	T
2022A	.037	1/64
2022B	.053	1/32
2022C	.084	1/16
2022D	.115	3/32
2022E	.147	1/8

2023
MINIATURE HOLLOW SPLIT LUG



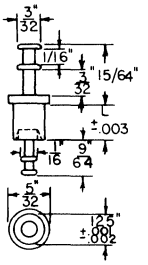
No.	L	T
2023A	.037	1/64
2023B	.053	1/32
2023C	.084	1/16
2023D	.115	3/32
2023E	.147	1/8

2024
MINIATURE DOUBLE TIE LUG



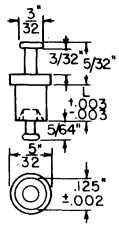
No.	L	T
2024A	.037	1/64
2024B	.053	1/32
2024C	.084	1/16
2024D	.115	3/32
2024E	.147	1/8

2025
MINIATURE THROUGH LUG



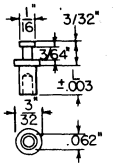
No.	L	T
2025A	.075	1/32
2025B	.105	1/16
2025C	.135	3/32
2025D	.165	1/8

2026
MINIATURE THROUGH LUG



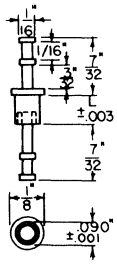
No.	L	T
2026A	.075	1/32
2026B	.105	1/16
2026C	.135	3/32
2026D	.165	1/8

2027
MINIATURE LUG



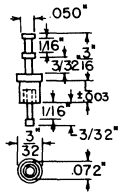
No.	L	T
2027A	.037	1/64
2027B	.054	1/32
2027C	.084	1/16
2027D	.115	3/32
2027E	.147	1/8

2028
FEED-THRU TERMINAL LUG



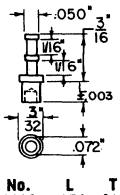
No.	L	T
2028A	.054	1/32
2028B	.084	1/16
2028C	.115	3/32
2028D	.147	1/8

2029
TERMINAL LUG



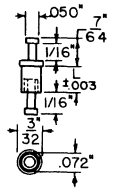
No.	L	T
2029A	.054	1/32
2029B	.084	1/16
2029C	.115	3/32
2029D	.147	1/8

2030
TERMINAL LUG



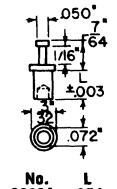
No.	L	T
2030A	.054	1/32
2030B	.084	1/16
2030C	.115	3/32
2030D	.147	1/8

2031
FEED TERMINAL LUG



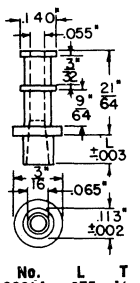
No.	L	T
2031A	.054	1/32
2031B	.084	1/16
2031C	.115	3/32
2031D	.147	1/8

2032
TERMINAL LUG



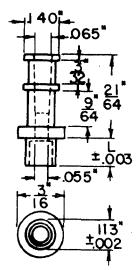
No.	L	T
2032A	.054	1/32
2032B	.084	1/16
2032C	.115	3/32
2032D	.147	1/8

2033
RECEPTACLE LUG



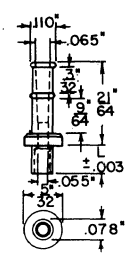
No.	L	T
2033A	.075	1/32
2033B	.105	1/16
2033C	.135	3/32
2033D	.165	1/8
2033E	.195	5/32
2033F	.230	3/16

2034
RECEPTACLE LUG



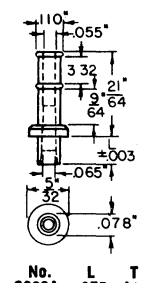
No.	L	T
2034A	.075	1/32
2034B	.105	1/16
2034C	.135	3/32
2034D	.165	1/8
2034E	.195	5/32
2034F	.230	3/16

2035
RECEPTACLE LUG



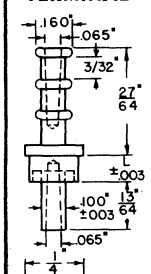
No.	L	T
2035A	.075	1/32
2035B	.105	1/16
2035C	.135	3/32
2035D	.165	1/8
2035E	.195	5/32
2035F	.230	3/16

2036
RECEPTACLE LUG



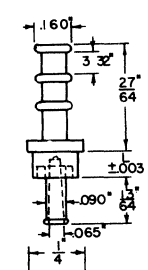
No.	L	T
2036A	.075	1/32
2036B	.105	1/16
2036C	.135	3/32
2036D	.165	1/8
2036E	.195	5/32
2036F	.230	3/16

2037
TAPERED TERMINAL



No.	L	T.
2037A	.105	1/16
2037B	.135	3/32
2037C	.165	1/8

2038
TAPERED TERMINAL



No.	L	T
2038A	.105	1/16
2038B	.135	3/32
2038C	.165	1/8

SUGGESTED RESALE PRICES OF TURRET TERMINALS

Cat. No. Series	100-999 Per C	1,000-4,999 Per M	5,000-15,000 Per M
2000	$2.50	$20.85	$16.67
2001	2.30	19.15	15.33
2002	3.30	27.50	22.00
2003	4.70	39.15	31.35
2004	2.80	23.35	18.67
2005	3.30	27.50	22.00
2006	1.40	11.65	9.33
2007	1.80	15.00	12.00
2008	2.20	18.35	14.67
2009	3.80	31.65	25.33
2010	3.00	25.00	20.00
2011	4.60	38.35	30.67
2012	4.00	33.35	26.67
2013	1.40	11.65	9.33
2014	1.90	15.85	12.67
2015	4.50	37.50	30.00
2016	2.70	22.50	18.00
2017	3.20	26.65	21.33
2018	3.20	26.65	21.33
2019	4.20	35.00	28.00
2020	2.10	17.50	14.00
2021	2.10	17.50	14.00
2022	1.90	15.85	12.67
2023	2.40	20.00	16.00
2024	1.40	11.65	9.33
2025	3.00	25.00	20.00
2026	3.20	26.65	21.33
2027	1.50	12.50	10.00
2028	2.10	17.50	14.00
2029	1.90	15.85	12.67
2030	1.40	11.65	9.33
2031	1.70	14.15	11.33
2032	1.50	12.50	10.00
2033	5.20	43.30	34.67
2034	6.50	54.15	43.33
2035	5.00	41.65	33.33
2036	5.00	41.65	33.33
2037	13.00	108.30	86.67
2038	14.00	116.60	93.35

ADDITIONAL NUMBERS

We invite your inquiries on other types of turret terminals not shown here.

© U.C.P., Inc.

specify SMITH

HERMAN H. SMITH, INC. — ELECTRONIC COMPONENTS

BODY: Pure virgin Teflon, meeting all requirements of MIL-P-19468 and AMS Specification 3651B.
TERMINALS: Precision machined of brass, meeting specification QQ-B-626, Composition 22, and gold-plated for maximum solderability and resistance to corrosion and tarnish.
DESCRIPTION: Terminals are easily inserted into punched or drilled holes, and are self-locking.
— Miniature and sub-miniature sizes allow for maximum space utilization.
— Excellent resistance to thermal and mechanical shock, vibration, corrosive atmospheres, moisture absorption.
— Exceptionally high dielectric strength for use well up into Kilovolt region, depending on size and design.

COLOR CODE SUFFIX (add to catalog number as required).

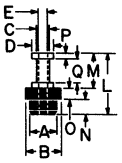
— 101 WHITE* — 104 GREEN — 107 YELLOW — 112 PURPLE
— 102 RED — 105 BLUE — 108 BROWN — 113 GREY
— 103 BLACK — 106 ORANGE

*White is natural Teflon, and will be supplied if no color is specified. Coloring does not affect electrical, mechanical, thermal or physical characteristics of Teflon.

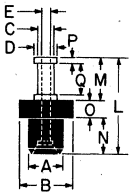
REVERSED STYLES: Most popular types are listed below. We can supply most standard types REVERSED on request. Send us your requirements for ANY style not shown and we will advise at once on availability.

NOTE: While this listing contains latest specifications on our Teflon Terminals, industry demands may create changes and revisions. We urge that you contact our Engineering Department before proceeding with prototype design or production.

FEED THRU, SUBMINIATURE



82-1048 Group



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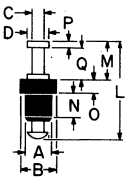

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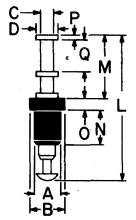
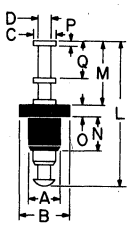


82-1500 Group



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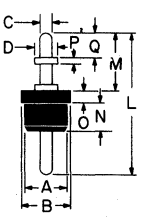

82-1544 Group

Cat. No.	DIMENSIONS A	B	C	D	E	L	M	N	O	P	Q	R	RESALE PER THOUSAND IN LOTS OF 1-99	100-499	500-999	1000-UP
FEED THRU, SUBMINIATURE, TUBULAR																
82-1048	.263	.297	.060	.090	.030	.333	.133	.160	.040	.020	.093	–	$140.00	$119.00	$105.00	$ 93.30
82-1049	.125	.150	.060	.090	.030	.273	.133	.080	.060	.020	–	–	130.00	110.00	97.50	86.60
82-1054	.148	.172	.060	.090	.030	.273	.133	.100	.040	.020	–	–	120.00	102.00	90.00	80.00
82-1092	.148	.172	.060	.090	.030	.303	.133	.130	.040	.020	–	–	120.00	102.00	90.00	80.00
82-1093	.148	.172	.060	.093	.040	.238	.133	.065	.040	.020	.093	–	120.00	102.00	90.00	80.00
82-1096	.148	.172	.060	.093	.030	.293	.133	.110	.050	.020	.093	–	130.00	110.00	97.50	86.60
82-1103	.125	.150	.060	.090	.030	.273	.133	.100	.040	.020	.093	–	130.00	110.00	97.50	86.60
82-1118	.125	.150	.060	.090	.030	.293	.133	.110	.050	.020	–	–	160.00	136.00	120.00	106.60
82-1119	.093	.125	.040	.080	.030	.215	.125	.050	.040	.020	–	–	130.00	110.00	97.50	86.60
82-1120	.125	.150	.060	.090	.030	.293	.133	.060	.040	.020	–	–	120.00	102.00	90.00	80.00
82-1122	.125	.150	.060	.090	.030	.200	.090	.060	.050	.020	.050	–	150.00	112.50	100.00	97.50
82-1150	.218	.250	.060	.090	.030	.273	.133	.075	.065	.020	–	–	130.00	110.00	97.50	86.60
FEED THRU, SUBMINIATURE, TUBULAR																
82-1050	.148	.172	.060	.090	.030	.303	.133	.100	.040	.020	.093	–	$120.00	$102.00	$ 90.00	$ 80.00
82-1051	.148	.172	.060	.090	.030	.333	.133	.110	.050	.020	.093	–	130.00	110.00	97.50	86.60
82-1055	.148	.172	.082	.125	.062	.411	.133	.125	.093	.020	–	–	130.00	110.00	97.50	86.60
82-1104	.125	.150	.060	.090	.030	.303	.133	.080	.060	.020	–	–	130.00	110.00	97.50	86.60
FEED THRU, SUBMINIATURE, SINGLE TURRET																
82-1083	.148	.172	.040	.093	–	.385	.160	.100	.040	.020	.130	–	$130.00	$110.00	$ 97.50	$ 86.60
82-1513	.148	.172	.040	.080	–	.350	.125	.100	.040	.020	.095	–	80.00	68.00	60.00	53.30
82-1540	.093	.125	.040	.080	–	.350	.125	.100	.040	.020	.085	–	110.00	93.50	82.50	73.30
82-1558	.148	.172	.040	.080	–	.380	.090	.100	.040	.020	.060	–	110.00	93.50	82.50	73.30
FEED THRU, SUBMINIATURE, TURRET																
82-1500	.148	.172	.040	.080	–	.500	.210	.100	.040	.020	.100	–	$ 75.00	$ 63.70	$ 56.20	$ 50.00
82-1501	.148	.172	.040	.080	–	.500	.210	.165	.040	.020	.100	–	80.00	68.00	60.00	53.30
82-1502	.179	.200	.040	.080	–	.500	.210	.100	.040	.020	.100	–	130.00	110.00	97.50	86.60
82-1509	.148	.172	.040	.080	–	.438	.210	.100	.040	.020	.100	–	100.00	85.00	75.00	66.60
82-1515	.185	.218	.040	.080	–	.438	.210	.100	.040	.020	.100	–	130.00	110.00	97.50	86.60
82-1516	.093	.125	.040	.080	–	.500	.210	.100	.040	.020	.100	–	100.00	85.00	75.00	66.60
82-1527	.148	.172	.040	.080	–	.609	.210	.158	.093	.020	.100	–	130.00	110.00	97.50	86.60
82-1533	.148	.172	.040	.080	–	.609	.210	.165	.040	.020	.100	–	130.00	110.00	97.50	86.60
82-1537	.148	.172	.040	.080	–	.550	.245	.125	.040	.020	.070	–	120.00	102.00	90.00	80.00
82-1538	.148	.172	.040	.080	–	.812	.210	.165	.040	.020	.100	–	130.00	110.00	97.50	86.60
82-1539	.148	.172	.040	.080	–	.438	.210	.083	.040	.020	.100	–	100.00	85.00	75.00	66.60
82-1551	.116	.172	.040	.080	–	.500	.210	.100	.040	.020	.100	–	110.00	93.50	82.50	73.30
83-1501	.234	.250	.040	.080	–	.500	.210	.100	.040	.020	.100	–	120.00	102.00	90.00	80.00
FEED THRU, SUBMINIATURE, TURRET																
82-1504	.148	.172	.040	.080	–	.531	.210	.100	.040	.020	.100	–	$110.00	$ 93.50	$ 82.50	$ 73.30
82-1505	.148	.172	.040	.080	–	.531	.210	.125	.040	.020	.100	–	110.00	93.50	82.50	73.30
82-1506	.185	.218	.040	.080	–	.531	.210	.100	.040	.020	.100	–	110.00	93.50	82.50	73.30
82-1507	.185	.218	.040	.080	–	.531	.210	.125	.040	.020	.100	–	110.00	93.50	82.50	73.30
82-1512	.148	.172	.040	.080	–	.609	.210	.125	.093	.020	.100	–	110.00	93.50	82.50	73.30
82-1514	.152	.172	.047	.093	–	.500	.156	.150	.040	.020	.047	–	120.00	102.00	90.00	80.00
82-1518	.148	.172	.040	.080	–	.500	.210	.060	.040	.020	.100	–	110.00	93.50	82.50	73.30
82-1519	.112	.172	.040	.080	–	.531	.210	.100	.040	.020	.100	–	110.00	93.50	82.50	73.30
82-1520	.175	.218	.040	.080	–	.531	.210	.100	.040	.020	.100	–	120.00	102.00	90.00	80.00
82-1521	.125	.150	.040	.080	–	.500	.210	.060	.040	.020	.100	–	120.00	102.00	90.00	80.00
82-1523*	.148	.172	.040	.080	–	.531	.210	.100	.040	.020	.100	–	110.00	93.50	82.50	73.30
82-1532	.148	.172	.040	.080	–	.609	.210	.165	.040	.020	.100	–	100.00	85.00	75.00	66.60
82-1534	.185	.218	.040	.080	–	.609	.210	.125	.093	.020	.100	–	140.00	119.00	105.00	93.30
82-1536	.148	.172	.040	.080	–	.685	.395	.065	.040	.020	.070	–	120.00	102.00	90.00	80.00
82-1546	.152	.172	.047	.093	–	.437	.156	.088	.040	.020	.047	–	120.00	102.00	90.00	80.00
82-1547	.152	.172	.047	.093	–	.437	.156	.100	.040	.020	.047	–	120.00	102.00	90.00	80.00
83-1500	.264	.312	.040	.080	–	.531	.210	.100	.040	.020	.100	–	140.00	119.00	105.00	93.30
* No ball on end																
FEED THRU, SUBMINIATURE																
82-1544	.148	.172	.040	.080	–	.500	.210	.100	.040	.020	.120	–	$110.00	$ 93.50	$ 82.50	$ 73.30
82-1545	.148	.172	.040	.080	–	.500	.210	.100	.040	.020	.120	–	110.00	93.50	82.50	73.30

SMITH PAGE 23 (COMPLETE SMITH INDEX ON LAST SMITH PAGE)
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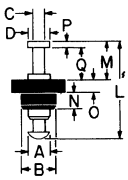
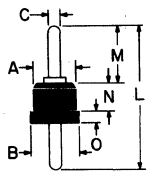
specify SMITH
HERMAN H. SMITH, INC.
ELECTRONIC COMPONENTS



82-1510 Group



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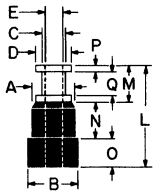
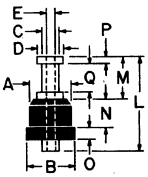
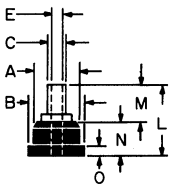


28-1016



28-1050 Group



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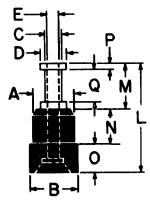

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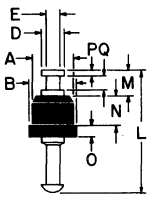
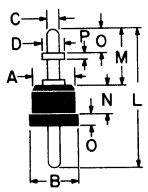
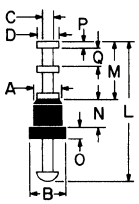


28-1510 Group



28-1545



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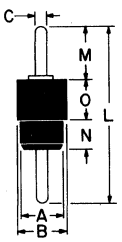
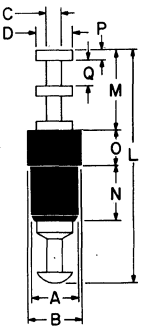


83-1000 Group



83-1515 Group

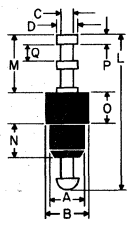
FEED THRU, SUBMINIATURE

Cat. No.	DIMENSIONS A	B	C	D	E	L	M	N	O	P	Q	R	RESALE PER THOUSAND IN LOTS OF 1-99	100-499	500-999	1000-UP
FEED THRU, SUBMINIATURE																
82-1510	.148	.172	.040	.080	_	.443	.093	.100	.040	.020	.062	–	$120.00	$102.00	$ 90.00	$ 80.00
82-1524	.125	.150	.040	.080	_	.350	.125	.060	.040	.020	.095	–	120.00	102.00	90.00	80.00
82-1525	.172	.200	.048	.090	_	.500	.120	.125	.075	.020	.080	–	140.00	119.00	105.00	93.30
82-1541	.172	.200	.080	.125	_	.500	.120	.125	.075	.020	.080	–	140.00	119.00	105.00	93.30
82-1542	.148	.172	.040	.080	_	.493	.093	.170	.020	.020	.063	–	110.00	93.50	82.50	73.30
82-1557	.148	.172	.040	.080	_	.640	.250	.125	.040	.020	.210	–	110.00	93.50	82.50	73.30
FEED THRU, SUBMINIATURE, REVERSED																
28-1002	.148	.172	.040	–	–	.515	.210	.050	.050	–	–	–	$120.00	$102.00	$ 90.00	$ 80.00
28-1003	.148	.172	.040	–	–	.515	.210	.100	.040	–	–	–	80.00	68.00	60.00	53.30
28-1086	.148	.172	.040	–	–	2.500	1.750	.132	.040	–	–	–	150.00	127.50	112.50	100.00
FEED THRU, SUBMINIATURE, REVERSED TUBULAR																
28-1016	.148	.172	.082	.125	.062	.351	.133	.125	.093	.020	.093	–	$120.00	$102.00	$ 90.00	$ 80.00
FEED THRU, SUBMINIATURE, REVERSED TUBULAR																
28-1050	.148	.172	.060	.093	.030	.333	.133	.100	.040	.020	.093	–	$130.00	$110.00	$ 97.50	$ 86.60
28-1128	.148	.172	.060	.093	.030	.273	.133	.100	.040	.020	.093	–	130.00	110.00	97.50	86.60
28-1130	.148	.172	.060	.093	.030	.333	.133	.130	.040	.020	–	–	160.00	136.00	120.00	106.60
FEED THRU, MINIATURE, TUBULAR, REVERSED																
28-1017	.148	.172	.085	–	.063	.367	.207	.110	.050	–	–	–	$120.00	$102.00	$ 90.00	$ 80.00
28-1034	.148	.172	.040	–	.030	.310	.207	.053	.050	–	–	–	120.00	102.00	90.00	80.00
28-1035	.148	.172	.040	–	.030	.250	.147	.053	.050	–	–	–	130.00	110.00	97.50	86.60
28-1038	.148	.172	.040	–	.030	.296	.136	.100	.060	–	–	–	120.00	102.00	90.00	80.00
28-1041	.171	.218	.085	–	.063	.367	.207	.110	.050	–	–	–	120.00	102.00	90.00	80.00
28-1088	.125	.150	.050	–	.030	.193	.105	.063	.025	–	–	–	140.00	119.00	105.00	93.30
28-1123	.148	.172	.040	–	.030	.245	.147	.053	.045	–	–	–	130.00	110.00	97.50	86.60
28-1124	.125	.150	.040	–	.030	.225	.125	.075	.025	–	–	–	110.00	93.50	82.50	73.30
28-1126	.125	.150	.040	–	.030	.247	.147	.075	.025	–	–	–	130.00	110.00	97.50	86.60
28-1127	.148	.172	.080	–	.052	.193	.105	.063	.025	–	–	–	120.00	102.00	90.00	80.00
FEED THRU, SUBMINIATURE, REVERSED TUBULAR																
28-1052	.177	.188	.090	.125	.062	.381	.133	.155	.093	.020	.093	–	$130.00	$110.00	$ 97.50	$ 86.60
28-1060	.148	.172	.060	.093	.042	.392	.162	.130	.100	.020	.130	–	160.00	136.00	120.00	106.60
FEED THRU, SUBMINIATURE, REVERSED																
28-1510	.148	.172	.040	.080	–	.443	.093	.100	.040	.020	.062	–	$110.00	$ 93.50	$ 82.50	$ 73.30
28-1511	.148	.172	.040	.080	–	.493	.093	.180	.040	.020	.062	–	130.00	110.00	97.50	86.60
28-1513	.148	.172	.040	.080	–	.350	.125	.100	.040	.020	.094	–	110.00	93.50	82.50	73.30
28-1549	.148	.172	.040	.080	–	.500	.120	.130	.040	.020	.080	–	110.00	93.50	82.50	73.30
FEED THRU, SUBMINIATURE, REVERSED																
28-1545	.148	.172	.040	.080	–	.500	.210	.100	.040	.020	.120	–	$120.00	$102.00	$ 90.00	$ 80.00
FEED THRU, SUBMINIATURE, REVERSED TURRET																
28-1085	.148	.172	.040	.080	–	.531	.210	.125	.040	.020	.100	–	$130.00	$110.00	$ 97.50	$ 86.60
28-1500	.148	.172	.040	.080	–	.500	.210	.100	.040	.020	.100	–	110.00	93.50	82.50	73.30
28-1504	.148	.172	.040	.080	–	.531	.210	.100	.040	.020	.100	–	120.00	102.00	90.00	80.00
28-1507	.185	.218	.040	.080	–	.531	.210	.125	.040	.020	.100	–	120.00	102.00	90.00	80.00
28-1512	.148	.172	.040	.080	–	.609	.210	.125	.093	.020	.100	–	120.00	102.00	90.00	80.00
28-1516	.093	.125	.040	.080	–	.500	.210	.100	.040	.020	.100	–	120.00	102.00	90.00	80.00
28-1521	.125	.150	.040	.080	–	.500	.210	.060	.040	.020	.100	–	140.00	119.00	105.00	93.30
28-1533	.148	.172	.040	.080	–	.609	.210	.165	.040	.020	.100	–	140.00	119.00	105.00	93.30
28-1550	.148	.172	.040	.080	–	.531	.210	.165	.040	.020	.100	–	130.00	110.00	97.50	86.60

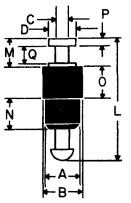
FEED THRU, MINIATURE

Cat. No.	DIMENSIONS A	B	C	D	E	L	M	N	O	P	Q	R	RESALE PER THOUSAND IN LOTS OF 1-99	100-499	500-999	1000-UP
FEED THRU, MINIATURE																
83-1000	.165	.187	.040	–	–	.675	.200	.150	.125	–	–	–	$160.00	$136.00	$120.00	$106.60
83-1537	.148	.172	.040	–	–	.619	.187	.105	.140	–	–	–	150.00	127.50	112.50	100.00
83-1538	.171	.187	.046	–	–	.540	.133	.171	.063	–	–	–	140.00	119.00	105.00	93.30
83-1543	.171	.187	.063	–	–	.740	.125	.212	.187	–	–	–	170.00	144.50	127.50	113.30
83-1549	.171	.187	.050	–	–	.865	.125	.275	.250	–	–	–	200.00	170.00	150.00	133.30
FEED THRU, MINIATURE, TURRET																
83-1515	.185	.218	.062	.125	–	.828	.281	.210	.094	.031	.093	–	$150.00	$127.50	$112.50	$100.00
83-1516	.171	.187	.062	.125	–	.828	.281	.200	.125	.031	.093	–	140.00	119.00	105.00	93.30
83-1542	.185	.218	.062	.125	–	.828	.281	.212	.187	.031	.093	–	200.00	170.00	150.00	133.30

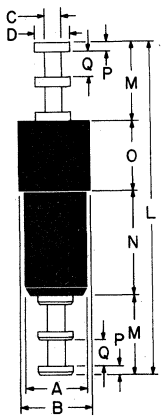
FEED THRU, MINIATURE



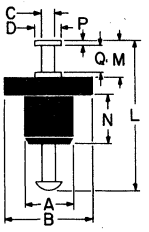
83-1500 Group



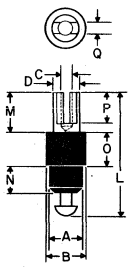
83-1502 Group



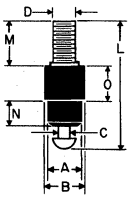
83-1525 Group



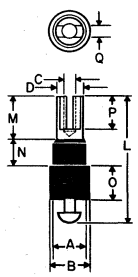
83-1531 Group



83-2000 Group



83-2500 Group



38-2000 Group

Cat. No.	DIMENSIONS A	B	C	D	E	L	M	N	O	P	Q	R	RESALE PER THOUSAND IN LOTS OF 1-99	100-499	500-999	1000-UP
FEED THRU, MINIATURE, TURRET																
83-1500	.264	.312	.040	.080	–	.531	.210	.100	.040	.020	.100	–	$140.00	$119.00	$105.00	$ 93.30
83-1501	.234	.250	.040	.080	–	.500	.210	.100	.040	.020	.100	–	120.00	102.00	90.00	80.00
83-1509	.148	.172	.040	.093	–	.836	.250	.165	.187	.020	.095	–	140.00	119.00	105.00	93.30
83-1510	.148	.172	.040	.093	–	.836	.250	.230	.125	.020	.095	–	150.00	127.50	112.50	100.00
83-1511	.171	.187	.040	.093	–	.836	.250	.212	.187	.020	.095	–	150.00	127.50	112.50	100.00
83-1512	.204	.250	.040	.093	–	.836	.250	.212	.187	.020	.095	–	180.00	153.00	135.00	120.00
83-1513	.230	.250	.040	.093	–	.836	.250	.212	.187	.020	.095	–	250.00	212.50	187.50	166.60
83-1524	.171	.187	.050	.093	–	.836	.250	.150	.250	.020	.093	–	180.00	153.00	135.00	120.00
83-1544	.165	.187	.050	.093	–	.836	.250	.212	.187	.020	.093	–	180.00	153.00	135.00	120.00
83-1553	.171	.187	.050	.093	–	1.337	.281	.400	.375	.031	.093	–	250.00	212.50	187.50	166.60
FEED THRU, MINIATURE, TURRET																
83-1502	.171	.187	.046	.093	–	.540	.133	.171	.063	.020	.093	–	$110.00	$ 93.50	$ 82.50	$ 73.30
83-1503	.185	.215	.046	.093	–	.640	.133	.210	.093	.020	.093	–	180.00	153.00	135.00	120.00
83-1504	.171	.187	.050	.093	–	.740	.125	.212	.187	.031	.062	–	140.00	119.00	105.00	93.30
83-1505	.171	.187	.050	.093	–	.740	.125	.150	.250	.031	.062	–	160.00	136.00	120.00	106.60
83-1506	.171	.187	.050	.093	–	.865	.125	.275	.250	.031	.062	–	150.00	127.50	112.50	100.00
83-1507	.171	.187	.050	.125	–	1.115	.125	.400	.375	.031	.062	–	240.00	204.00	180.00	160.00
83-1508	.217	.250	.050	.125	–	1.365	.125	.525	.500	.031	.062	–	310.00	263.50	232.50	206.60
83-1514	.217	.250	.050	.125	–	1.965	.125	.825	.800	.031	.062	–	440.00	374.00	330.00	293.30
83-1519	.185	.215	.046	.093	–	.718	.133	.288	.093	.020	.093	–	170.00	144.50	127.50	113.30
83-1520	.171	.250	.050	.093	–	.740	.125	.212	.187	.031	.062	–	180.00	153.00	135.00	120.00
83-1521	.171	.187	.050	.125	–	1.115	.125	.212	.562	.031	.062	–	240.00	204.00	180.00	160.00
83-1522	.171	.250	.050	.125	–	1.365	.125	.525	.500	.031	.062	–	300.00	255.00	225.00	200.00
83-1523	.171	.250	.050	.125	–	1.965	.125	.825	.800	.031	.062	–	440.00	374.00	330.00	293.30
83-1540	.171	.187	.050	.093	–	.740	.125	.125	.187	.031	.062	–	180.00	153.00	135.00	120.00
83-1551	.171	.187	.050	.125	–	1.115	.125	.318	.365	.031	.062	–	200.00	170.00	150.00	133.30
83-1552	.171	.187	.050	.125	–	1.115	.125	.340	.375	.031	.062	–	200.00	170.00	150.00	133.30
FEED THRU, MINIATURE, DOUBLE TURRET																
83-1525	.218	.250	.062	.125	–	1.187	281	.375	.250	.031	.093	–	$200.00	$170.00	$150.00	$133.30
83-1526	.218	.250	.062	.125	–	1.687	.281	.625	.500	.031	.093	–	350.00	297.50	262.50	233.30
83-1527	.218	.250	.062	.125	–	2.287	.281	.925	.800	.031	.093	–	470.00	399.50	352.50	313.30
FEED THRU, MINIATURE																
83-1531	.171	.312	.125	.188	–	.506	.099	.171	.063	.020	.048	–	$140.00	$119.00	$105.00	$ 93.30
83-1532	.171	.312	.046	.093	–	.540	.133	.171	.063	.020	.093	–	150.00	127.50	112.50	100.00
FEED THRU, MINIATURE, SLOTTED LUG																
83-2000	.171	.187	.078	.148	–	.821	.203	.212	.187	.156	.046	–	$160.00	$136.00	$120.00	$106.60
83-2001	.171	.187	.046	.148	–	.821	.203	.212	.187	.156	.030	–	200.00	170.00	150.00	133.30
83-2002	.171	.187	.078	.148	–	.947	.203	.275	.250	.156	.046	–	190.00	161.50	142.50	126.60
83-2003	.171	.187	.046	.148	–	.947	.203	.275	.250	.156	.030	–	210.00	178.50	157.50	140.00
83-2004	.171	.187	.078	.148	–	1.197	.203	.400	.375	.156	.046	–	260.00	221.00	195.00	173.20
83-2005	.171	.187	.046	.148	–	1.197	.203	.400	.375	.156	.030	–	270.00	229.50	202.50	180.00
83-2006	.171	.187	.078	.148	–	1.197	.203	.550	.225	.150	.046	–	260.00	221.00	195.00	173.20
83-2007	.171	.187	.078	.148	–	1.197	.203	.525	.250	.156	.046	–	260.00	221.00	195.00	173.20
FEED THRU, MINIATURE, THREADED LUG																
83-2500	.171	.187	.050	4-36 *	–	.899	.281	.212	.187	–	–	–	$200.00	$170.00	$150.00	$133.30
83-2501	.171	.187	.050	4-40 *	–	.899	.281	.212	.187	–	–	–	210.00	178.50	157.50	140.00
83-2502	.171	.187	.050	4-36 *	–	1.024	.281	.212	.250	–	–	–	240.00	204.00	180.00	160.00
83-2503	.171	.187	.050	4-40 *	–	1.024	.281	.212	.250	–	–	–	240.00	204.00	180.00	160.00
83-2504	.171	.187	.050	4-36 *	–	1.274	.281	.212	.375	–	–	–	300.00	255.00	225.00	200.00
83-2505	.171	.187	.050	4-40 *	–	1.274	.281	.212	.375	–	–	–	300.00	255.00	225.00	200.00
						* Thread Size										
FEED THRU, MINIATURE, REVERSED, SLOTTED LUG																
38-2000	.171	.187	.078	.148	–	.821	.203	.212	.187	.156	.046	–	$220.00	$187.00	$165.00	$146.60
38-2001	.171	.187	.046	.148	–	.821	.203	.212	.187	.156	.030	–	140.00	119.60	105.00	93.30
38-2002	.171	.187	.078	.148	–	.947	.203	.275	.250	.156	.046	–	240.00	204.00	180.00	160.00
38-2003	.171	.187	.046	.148	–	.947	.203	.275	.250	.156	.030	–	150.00	127.50	112.50	100.00
38-2004	.171	.187	.078	.148	–	1.197	.203	.400	.375	.156	.046	–	300.00	255.00	225.00	200.00
38-2005	.171	.187	.046	.148	–	1.197	.203	.400	.375	.156	.030	–	300.00	255.00	225.00	200.00
38-2006	.171	.187	.078	.148	–	1.197	.203	.550	.225	.156	.046	–	270.00	229.50	202.50	180.00
38-2007	.171	.187	.078	.148	–	1.197	.203	.525	.250	.156	.046	–	270.00	229.50	202.50	180.00

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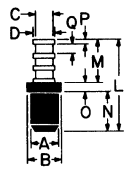
STANDOFF, MICROMINIATURE

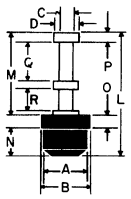


92-1515 Group

STANDOFF, MICROMINIATURE, TURRET

Cat. No.	DIMENSIONS A	B	C	D	E	L	M	N	O	P	Q	R	RESALE PER THOUSAND IN LOTS OF 1-99	100-499	500-999	1000-UP
92-1515	.093	.125	.068	.078	–	.344	.153	.140	.040	.015	.031	–	$100.00	$ 85.00	$ 75.00	$ 66.60
92-1516	.093	.125	.068	.078	–	.255	.150	.075	.030	.015	.031	–	110.00	93.50	82.50	73.30

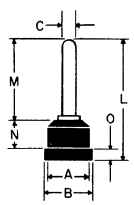
STANDOFF, MICROMINIATURE, TURRET



91-1500 Group

91-1500	.093	.125	.030	.060	–	.310	.170	.100	.040	.020	.060	–	$110.00	$ 93.50	$ 82.50	$ 73.30
92-1500	.148	.172	.040	.080	–	.350	.210	.100	.040	.020	.100	–	70.00	59.50	52.50	46.60
92-1501	.148	.172	.040	.080	–	.375	.210	.125	.040	.020	.100	–	100.00	85.00	75.00	66.60
92-1502	.179	.200	.040	.080	–	.350	.210	.100	.040	.020	.100	–	120.00	102.00	90.00	80.00
92-1503	.185	.218	.040	.080	–	.375	.210	.125	.040	.020	.100	–	110.00	93.50	82.50	73.30
92-1504	.148	.172	.046	.093	–	.334	.154	.140	.040	.020	.046	–	110.00	93.50	82.50	73.30
92-1505	.148	.172	.040	.080	–	.428	.210	.125	.093	.020	.100	–	110.00	93.50	82.50	73.30
92-1506	.148	.172	.040	.093	–	.455	.250	.165	.040	.020	.093	–	110.00	93.50	82.50	73.30
92-1507	.148	.172	.040	.080	–	.500	.210	.250	.040	.020	.100	–	110.00	93.50	82.50	73.30
92-1508	.185	.218	.040	.080	–	.350	.210	.100	.040	.020	.100	–	110.00	93.50	82.50	73.30
92-1512	.148	.172	.040	.093	–	.540	.250	.250	.040	.020	.093	–	110.00	93.50	82.50	73.30
92-1519	.148	.172	.046	.093	–	.254	.154	.060	.040	.020	.046	–	100.00	85.00	75.00	66.60
92-1524	.148	.172	.040	.080	–	.461	.210	.158	.093	.020	.100	–	120.00	102.00	90.00	80.00
92-1526	.204	.250	.040	.080	–	.350	.210	.100	.040	.020	.100	–	120.00	102.00	90.00	80.00
92-1528	.093	.125	.040	.080	–	.350	.210	.100	.040	.020	.100	–	110.00	93.50	82.50	73.30
92-1531	.152	.172	.047	.093	–	.346	.156	.150	.040	.020	.047	–	120.00	102.00	90.00	80.00
92-1532	.152	.172	.047	.093	–	.296	.156	.100	.040	.020	.047	–	100.00	85.00	75.00	66.60
92-1533	.152	.172	.047	.093	–	.361	.156	.165	.040	.020	.047	–	120.00	102.00	90.00	80.00
92-1534	.152	.172	.047	.093	–	.335	.207	.088	.040	.020	.100	–	100.00	85.00	75.00	66.60
92-1535	.152	.172	.047	.093	–	.347	.207	.100	.040	.020	.100	–	100.00	85.00	75.00	66.60
92-1540	.130	.172	.040	.093	–	.480	.250	.190	.040	.020	.093	–	130.00	110.00	97.50	86.60

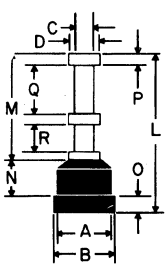
STANDOFF, MICROMINIATURE, REVERSED



19-1003 Group

19-1003	.104	.125	.040	–	–	.250	.130	.089	.031	–	–	–	$110.00	$ 93.50	$ 82.50	$ 73.30
29-1000	.148	.172	.040	–	–	.350	.210	.100	.040	–	–	–	80.00	68.00	60.00	53.30
29-1001	.148	.172	.040	–	–	.375	.210	.110	.050	–	–	–	85.00	72.20	63.70	56.60
29-1003	.172	.195	.040	–	–	.350	.210	.100	.040	–	–	–	110.00	93.50	82.50	73.30
29-1004	.179	.200	.040	–	–	.350	.210	.100	.040	–	–	–	110.00	93.50	82.50	73.30
29-1005	.218	.250	.040	–	–	.350	.210	.100	.040	–	–	–	130.00	110.00	97.50	86.60
29-1006	.148	.172	.040	–	–	.345	.210	.075	.060	–	–	–	100.00	85.00	75.00	66.60
29-1007	.148	.172	.040	–	–	.370	.210	.120	.040	–	–	–	90.00	76.50	67.50	60.00
29-1008	.148	.172	.040	–	–	.350	.210	.062	.078	–	–	–	110.00	93.50	82.50	73.30
29-1009	.148	.172	.040	–	–	.406	.210	.156	.040	–	–	–	85.00	72.20	63.70	56.60
29-1010	.148	.172	.040	–	–	.500	.210	.250	.040	–	–	–	130.00	110.00	97.50	86.60
29-1016	.148	.172	.040	–	–	.265	.125	.100	.040	–	–	–	110.00	93.50	82.50	73.30
29-1019	.148	.172	.040	–	–	.750	.610	.100	.040	–	–	–	140.00	119.00	105.00	93.30
29-1020	.148	.172	.040	–	–	.310	.210	.050	.050	–	–	–	110.00	93.50	82.50	73.30
29-1034	.093	.125	.040	–	–	.350	.210	.100	.040	–	–	–	120.00	102.00	90.00	80.00
29-1060	.148	.172	.040	–	–	.350	.210	.125	.015	–	–	–	110.00	93.50	82.50	73.30
29-1061	.112	.172	.040	–	–	.350	.210	.125	.015	–	–	–	120.00	102.00	90.00	80.00
29-1063	.148	.172	.040	–	–	.330	.210	.074	.046	–	–	–	110.00	93.50	82.50	73.30
29-1066	.093	.125	.040	–	–	.250	.130	.089	.031	–	–	–	110.00	93.50	82.50	73.30
29-1067	.106	.125	.040	–	–	.250	.130	.089	.031	–	–	–	120.00	102.00	90.00	80.00
29-1068	.148	.172	.045	–	–	.382	.210	.132	.040	–	–	–	120.00	102.00	90.00	80.00
29-1069	.148	.172	.040	–	–	.350	.210	.120	.020	–	–	–	110.00	93.50	82.50	73.30
29-1070	.112	.172	.040	–	–	.350	.210	.120	.020	–	–	–	130.00	110.00	97.50	86.60
29-1071	.125	.150	.040	–	–	.310	.210	.060	.040	–	–	–	110.00	93.50	82.50	73.30
29-1072	.148	.172	.040	–	–	.390	.218	.132	.040	–	–	–	110.00	93.50	82.50	73.30

STANDOFF, MICROMINIATURE, REVERSED TURRET



19-1500 Group

19-1500	.093	.125	.030	.060	–	.310	.170	.100	.040	.020	.060	–	$110.00	$ 93.50	$ 82.50	$ 73.30
29-1500	.148	.172	.040	.080	–	.350	.210	.100	.040	.020	.100	–	80.00	68.00	60.00	58.30
29-1501	.148	.172	.040	.080	–	.375	.210	.125	.040	.020	.100	–	110.00	93.50	82.50	73.30
29-1502	.179	.200	.040	.080	–	.350	.210	.100	.040	.020	.100	–	120.00	102.00	90.00	80.00
29-1503	.185	.218	.040	.080	–	.375	.210	.125	.040	.020	.100	–	110.00	93.50	82.50	73.30
29-1504	.148	.172	.046	.093	–	.334	.154	.140	.040	.020	.046	–	110.00	93.50	82.50	73.30
29-1505	.148	.172	.040	.080	–	.428	.210	.125	.093	.020	.100	–	110.00	93.50	82.50	73.30
29-1506	.148	.172	.040	.093	–	.455	.250	.165	.040	.020	.093	–	110.00	93.50	82.50	73.30
29-1507	.148	.172	.040	.080	–	.500	.210	.250	.040	.020	.100	–	120.00	102.00	90.00	80.00
29-1508	.185	.218	.040	.080	–	.350	.210	.100	.040	.020	.100	–	110.00	93.50	82.50	73.30
29-1511	.148	.172	.046	.093	–	.295	.156	.100	.040	.020	.046	–	90.00	76.50	67.50	60.00
29-1513	.171	.188	.040	.080	–	.405	.210	.155	.040	.020	.100	–	110.00	93.50	82.50	73.30
29-1526	.204	.250	.040	.080	–	.350	.210	.100	.040	.020	.100	–	120.00	102.00	90.00	80.00

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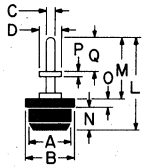
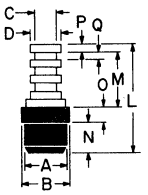
ELECTRONIC COMPONENTS

STANDOFFS, SUBMINIATURE



92-1509 Group



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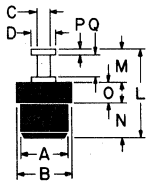

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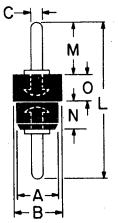
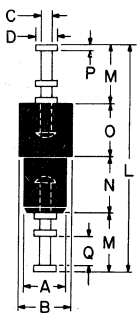
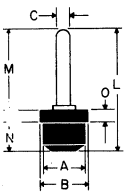


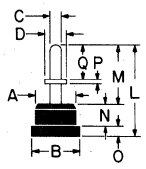
92-3000 Group



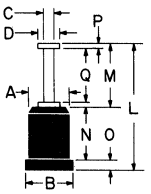
92-3500 Group



92-1000 Group



29-1509 Group



29-1520 Group

Cat. No.	DIMENSIONS A	B	C	D	E	L	M	N	O	P	Q	R	RESALE PER THOUSAND IN LOTS OF 1-99	100-499	500-999	1000-UP
STANDOFF, SUBMINIATURE																
92-1509	.148	.172	.040	.080	–	.328	.210	.078	.040	.020	.120	–	$100.00	$ 85.00	$ 75.00	$ 66.60
92-1545	.148	.172	.040	.080	–	.350	.210	.100	.040	.020	.120	–	100.00	85.00	75.00	66.60
92-1546	.148	.172	.040	.080	–	.415	.210	.165	.040	.020	.120	–	120.00	102.00	90.00	80.00
STANDOFF, SUBMINIATURE, TURRET																
92-1514	.148	.172	.070	.109	–	.392	.232	.110	.050	.029	.031	–	$120.00	$102.00	$ 90.00	$ 80.00
92-1517	.148	.172	.070	.109	–	.362	.232	.080	.050	.029	.031	–	120.00	102.00	90.00	80.00
STANDOFF, SUBMINIATURE																
92-1520	.172	.200	.048	.090	–	.320	.120	.125	.075	.020	.080	–	$110.00	$ 93.50	$ 82.50	$ 73.30
92-1525	.148	.172	.040	.080	–	.250	.110	.100	.040	.020	.110	–	130.00	110.00	97.50	86.60
92-1527	.148	.172	.040	.080	–	.262	.125	.087	.050	.020	.085	–	100.00	85.00	75.00	66.60
DOUBLE STANDOFF, SUBMINIATURE																
92-3000	.169	.205	.040	–	–	.640	.210	.050	.170	–	–	–	$180.00	$153.00	$135.00	$120.00
92-3001	.148	.172	.040	–	–	.560	.180	.040	.160	–	–	–	180.00	153.00	135.00	120.00
92-3002	.148	.172	.040	–	–	.600	.155	.080	.210	–	–	–	160.00	136.00	120.00	106.60
93-3504	.171	.187	.040	–	–	.819	.210	.187	.212	–	–	–	170.00	144.50	127.50	113.30
93-3507	.171	.187	.040	–	–	.572	.110	.140	.212	–	–	–	220.00	187.00	165.00	146.60
93-3508	.171	.187	.040	–	–	.696	.172	.140	.212	–	–	–	220.00	187.00	165.00	146.60
93-3511	.148	.187	.040	–	–	.819	.210	.187	.212	–	–	–	220.00	187.00	165.00	146.60
93-3512	.148	.172	.040	–	–	.819	.210	.187	.212	–	–	–	220.00	187.00	165.00	146.60
93-3513	.171	.187	.040	–	–	.587	.125	.187	.150	–	–	–	220.00	187.00	165.00	146.60
DOUBLE STANDOFF, SUBMINIATURE																
92-3500	.169	.205	.040	.080	–	.640	.210	.170	.050	.020	.100	–	$180.00	$153.00	$135.00	$120.00
93-3500	.171	.187	.040	.080	–	.819	.210	.212	.187	.020	.100	–	170.00	144.50	127.50	113.50
93-3501	.218	.250	.046	.125	–	1.187	.281	.375	.250	.031	.093	–	280.00	238.00	210.00	186.60
93-3502	.218	.250	.046	.125	–	1.687	.281	.625	.500	.031	.093	–	350.00	297.50	262.50	233.30
93-3503	.218	.250	.046	.125	–	2.287	.281	.925	.800	.031	.093	–	400.00	340.00	300.00	266.60
93-3505	.187	.218	.040	.080	–	.819	.210	.212	.187	.020	.100	–	190.00	161.50	142.50	126.60
93-3509	.148	.187	.040	.080	–	.819	.210	.212	.187	.020	.100	–	220.00	187.00	165.00	146.60
STANDOFF, SUBMINIATURE																
92-1000	.148	.172	.040	–	–	.350	.210	.100	.040	–	–	–	$ 70.00	$ 59.50	$ 52.50	$ 46.60
92-1001	.148	.172	.040	–	–	.370	.210	.110	.050	–	–	–	75.00	63.70	56.20	50.00
92-1003	.172	.195	.040	–	–	.350	.210	.100	.040	–	–	–	110.00	93.50	82.50	73.30
92-1004	.179	.200	.040	–	–	.350	.210	.100	.040	–	–	–	110.00	93.50	82.50	73.30
92-1005	.218	.250	.040	–	–	.350	.210	.100	.040	–	–	–	140.00	119.00	105.00	93.30
92-1006	.148	.172	.040	–	–	.345	.210	.075	.060	–	–	–	90.00	76.50	67.50	60.00
92-1007	.148	.172	.040	–	–	.370	.210	.120	.040	–	–	–	80.00	68.00	60.00	53.30
92-1009	.148	.172	.040	–	–	.406	.210	.156	.040	–	–	–	75.00	63.70	56.20	50.00
92-1010	.148	.172	.040	–	–	.500	.210	.250	.040	–	–	–	120.00	102.00	56.20	80.00
92-1011	.148	.172	.040	–	–	.594	.450	.100	.040	–	–	–	110.00	93.50	90.00	73.30
92-1012	.148	.172	.040	–	–	.335	.210	.075	.050	–	–	–	75.00	63.70	56.20	50.00
92-1015	.148	.172	.040	–	–	.250	.150	.070	.030	–	–	–	120.00	102.00	90.00	80.00
92-1016	.148	.172	.040	–	–	.265	.125	.100	.040	–	–	–	120.00	102.00	90.00	80.00
92-1017	.148	.172	.040	–	–	.250	.110	.100	.040	–	–	–	110.00	93.50	82.50	73.30
92-1018	.148	.172	.040	–	–	.285	.145	.100	.040	–	–	–	100.00	85.00	75.00	66.60
92-1019	.148	.172	.040	–	–	.750	.610	.100	.040	–	–	–	120.00	102.00	90.00	80.00
92-1020	.148	.172	.040	–	–	.310	.210	.050	.050	–	–	–	90.00	76.50	67.50	60.00
92-1021	.148	.172	.040	–	–	.305	.145	.110	.050	–	–	–	90.00	76.50	67.50	60.00
92-1022	.148	.172	.040	–	–	.247	.147	.050	.050	–	–	–	90.00	76.50	67.50	60.00
92-1025	.093	.125	.040	–	–	.262	.147	.075	.040	–	–	–	100.00	85.00	75.00	66.60
92-1034	.093	.125	.040	–	–	.350	.210	.100	.040	–	–	–	100.00	85.00	75.00	66.60
92-1035	.104	.125	.040	–	–	.250	.130	.089	.031	–	–	–	150.00	127.50	112.50	100.00
92-1036	.148	.172	.040	–	–	.365	.193	.132	.040	–	–	–	110.00	93.50	82.50	73.30
92-1037	.148	.172	.040	–	–	.260	.145	.075	.040	–	–	–	110.00	93.50	82.50	73.30
92-1038	.148	.172	.040	–	–	.230	.105	.075	.050	–	–	–	90.00	76.50	67.50	60.00
92-1050	.148	.172	.040	–	–	.460	.320	.100	.040	–	–	–	120.00	102.00	90.00	80.00
92-1051	.148	.172	.040	–	–	.280	.125	.125	.040	–	–	–	120.00	102.00	90.00	80.00
92-1052	.148	.172	.040	–	–	.210	.120	.060	.030	–	–	–	100.00	85.00	75.00	66.60
92-1053	.093	.125	.040	–	–	.213	.093	.089	.031	–	–	–	110.00	93.50	82.50	73.30
92-1054	.148	.172	.040	–	–	.350	.210	.062	.078	–	–	–	110.00	93.50	82.50	73.30
92-1055	.093	.125	.040	–	–	.299	.174	.085	.040	–	–	–	75.00	63.70	56.20	50.00
STANDOFF, SUBMINIATURE, REVERSED																
29-1509	.148	.172	.040	.080	–	.328	.210	.078	.040	.020	.120	–	$120.00	$102.00	$ 90.00	$ 80.00
29-1545	.148	.172	.040	.080	–	.350	.210	.100	.040	.020	.120	–	120.00	102.00	90.00	80.00
STANDOFF, SUBMINIATURE, REVERSED																
29-1520	.172	.200	.048	.090	–	.320	.120	.125	.075	.020	.080	–	$120.00	$102.00	$ 90.00	$ 80.00
29-1521	.148	.172	.040	.080	–	.455	.227	.187	.040	.020	.187	–	120.00	102.00	90.00	80.00
29-1525	.148	.172	.040	.080	–	.250	.110	.100	.040	.020	.080	–	110.00	93.50	82.50	73.30
29-1562	.148	.172	.040	.080	–	.382	.227	.130	.025	.020	.187	–	120.00	102.00	90.00	80.00
29-1563	.148	.172	.046	.093	–	.296	.156	.100	.040	.020	.116	–	120.00	102.00	90.00	80.00

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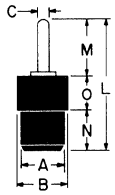
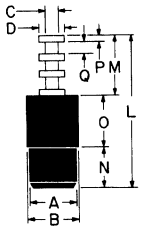
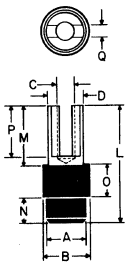
STANDOFFS, MINIATURE



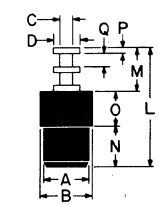
93-1544 Group



93-1554 Group

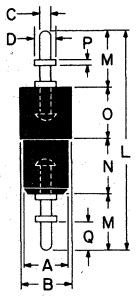


93-2000 Group

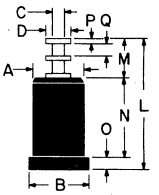


93-1500 Group

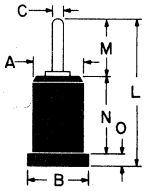
Cat. No.	DIMENSIONS A	B	C	D	E	L	M	N	O	P	Q	R	RESALE PER THOUSAND IN LOTS OF 1-99	100-499	500-999	1000-UP
STANDOFF, SUBMINIATURE,																
93-1544	.165	.187	.040	–	–	.485	.210	.150	.125	–	–	–	$120.00	$102.00	$ 90.00	$ 80.00
93-1545	.165	.187	.040	–	–	.547	.210	.150	.187	–	–	–	130.00	110.00	97.50	86.60
93-1546	.165	.187	.040	–	–	.718	.312	.218	.187	–	–	–	150.00	127.50	112.50	100.00
93-1547	.180	.200	.062	–	–	.600	.300	.175	.125	–	–	–	140.00	119.00	105.00	93.30
STANDOFF, MINIATURE, TURRET																
93-1554	.171	.187	.046	.093	–	.555	.218	.150	.187	.020	.046	–	$130.00	$110.00	$ 97.50	$ 86.60
STANDOFF, MINIATURE, SLOTTED LUG																
93-2000	.171	.187	.078	.148	–	.478	.203	.150	.125	.156	–	–	$120.00	$102.00	$ 90.00	$ 80.00
93-2001	.171	.187	.078	.148	–	.540	.203	.150	.187	.156	–	–	130.00	110.00	97.50	86.60
93-2002	.171	.187	.078	.148	–	.603	.203	.150	.250	.156	–	–	140.00	119.00	105.00	93.30
93-2003	.171	.187	.078	.148	–	.753	.203	.150	.400	.156	–	–	160.00	136.00	120.00	106.60
93-2004	.217	.250	.078	.148	–	.890	.203	.187	.500	.156	–	–	220.00	187.00	165.00	146.60
93-2005	.217	.250	.078	.148	–	1.190	.203	.187	.800	.156	–	–	300.00	255.00	225.00	200.00
93-2007	.171	.187	.046	.148	–	.478	.203	.150	.125	.161	–	–	120.00	102.00	90.00	80.00
93-2008	.171	.187	.046	.148	–	.540	.203	.150	.187	.161	–	–	130.00	110.00	97.50	86.60
93-2009	.171	.187	.046	.148	–	.603	.203	.150	.250	.156	–	–	140.00	119.00	105.00	93.30
93-2010	.165	.187	.078	.148	–	.603	.203	.150	.250	.156	–	–	140.00	119.00	105.00	93.30
93-2011	.171	.187	.046	.148	–	.753	.203	.150	.400	.161	–	–	180.00	153.00	135.00	120.00
93-2012	.171	.187	.078	.148	–	.703	.203	.100	.400	.156	–	–	180.00	153.00	135.00	120.00
93-2013	.217	.250	.046	.148	–	.890	.203	.187	.500	.161	–	–	220.00	187.00	165.00	146.60
93-2014	.171	.250	.078	.148	–	.890	.203	.187	.500	.156	–	–	220.00	187.00	165.00	146.60
93-2015	.217	.250	.046	.148	–	1.190	.203	.187	.800	.161	–	–	300.00	255.00	225.00	200.00
93-2016	.171	.250	.078	.148	–	1.190	.203	.187	.800	.156	–	–	300.00	255.00	225.00	200.00
93-2017	.171	.187	.046	.148	–	.555	.203	.165	.187	.156	–	–	140.00	119.00	105.00	93.30
93-2018	.171	.187	.078	.148	–	.602	.203	.212	.187	.156	–	–	140.00	119.00	105.00	93.30
93-2020	.171	.187	.078	.148	–	.620	.203	.230	.187	.156	–	–	140.00	119.00	105.00	93.30
STANDOFF, MINIATURE, TURRET																
93-1500	.165	.187	.046	.093	–	.431	.156	.150	.125	.020	.046	–	$120.00	$102.00	$ 90.00	$ 80.00
93-1501	.165	.187	.046	.093	–	.493	.156	.150	.187	.020	.046	–	130.00	110.00	97.50	86.60
93-1502	.165	.187	.040	.093	–	.522	.250	.150	.125	.020	.093	–	120.00	102.00	90.00	80.00
93-1503	.165	.187	.046	.125	–	.556	.281	.150	.125	.031	.093	–	120.00	102.00	90.00	80.00
93-1504	.165	.187	.040	.093	–	.584	.250	.150	.187	.020	.093	–	130.00	110.00	97.50	86.60
93-1505	.165	.187	.046	.093	–	.556	.156	.150	.250	.020	.046	–	140.00	119.00	105.00	93.30
93-1506	.165	.187	.046	.125	–	.616	.281	.150	.187	.031	.093	–	130.00	110.00	97.50	86.60
93-1507	.165	.187	.046	.125	–	.831	.281	.150	.400	.031	.093	–	150.00	127.50	112.50	100.00
93-1508	.215	.250	.046	.125	–	.968	.281	.187	.500	.031	.093	–	220.00	187.00	165.00	146.60
93-1509	.215	.250	.046	.125	–	1.268	.281	.187	.800	.031	.093	–	300.00	255.00	225.00	200.00
93-1510	.171	.187	.046	.093	–	.431	.156	.150	.125	.020	.046	–	120.00	102.00	90.00	80.00
93-1511	.171	.187	.046	.093	–	.493	.156	.150	.187	.020	.046	–	130.00	110.00	97.50	86.60
93-1512	.171	.187	.046	.093	–	.556	.156	.150	.250	.020	.046	–	140.00	119.00	105.00	93.30
93-1513	.171	.187	.046	.125	–	.831	.281	.150	.400	.031	.093	–	160.00	136.00	120.00	106.60
93-1514	.171	.250	.046	.125	–	1.268	.281	.187	.800	.031	.093	–	300.00	255.00	225.00	200.00
93-1515	.104	.125	.046	.093	–	.346	.156	.087	.103	.020	.046	–	110.00	93.50	82.50	73.30
93-1516	.171	.187	.040	.093	–	.584	.250	.150	.187	.020	.093	–	130.00	110.00	97.50	86.60
93-1518	.148	.172	.040	.093	–	.482	.250	.110	.125	.020	.093	–	120.00	102.00	90.00	80.00
93-1519	.165	.187	.046	.125	–	.556	.281	.150	.125	.031	.093	–	120.00	102.00	90.00	80.00
93-1520	.171	.187	.046	.125	–	.556	.281	.150	.125	.031	.093	–	120.00	102.00	90.00	80.00
93-1521	.171	.187	.062	.125	–	.556	.281	.150	.125	.031	.093	–	120.00	102.00	90.00	80.00
93-1522	.171	.218	.040	.080	–	.485	.210	.150	.125	.020	.100	–	120.00	102.00	90.00	80.00
93-1524	.165	.187	.046	.093	–	.468	.156	.125	.187	.020	.046	–	130.00	110.00	97.50	86.60
93-1525	.148	.172	.040	.093	–	.598	.250	.165	.187	.020	.093	–	130.00	110.00	97.50	86.60
93-1526	.127	.156	.046	.093	–	.531	.156	.156	.219	.020	.046	–	130.00	110.00	97.50	86.60
93-1527	.135	.187	.040	.093	–	.647	.250	.150	.250	.020	.093	–	140.00	119.00	105.00	93.30
93-1528	.165	.187	.046	.125	–	.681	.281	.200	.200	.031	.093	–	140.00	119.00	105.00	93.30
93-1529	.165	.187	.040	.093	–	.647	.250	.150	.250	.020	.093	–	140.00	119.00	105.00	93.30
93-1530	.165	.187	.046	.125	–	.681	.281	.150	.250	.031	.093	–	140.00	119.00	105.00	93.30
93-1531	.171	.187	.046	.125	–	.681	.281	.150	.250	.031	.093	–	140.00	119.00	105.00	93.30
93-1532	.165	.187	.046	.093	–	.706	.156	.300	.250	.020	.046	–	140.00	119.00	105.00	93.30
93-1533	.165	.187	.040	.093	–	.797	.250	.150	.400	.020	.093	–	180.00	153.00	135.00	120.00
93-1534	.165	.187	.046	.093	–	.706	.156	.150	.400	.020	.046	–	170.00	144.50	127.50	113.30
93-1535	.165	.187	.046	.093	–	.656	.156	.100	.400	.020	.046	–	170.00	144.50	127.50	113.30
93-1536	.171	.250	.046	.125	–	.968	.281	.187	.500	.031	.093	–	220.00	187.00	165.00	146.60
93-1537	.215	.250	.040	.093	–	.934	.250	.187	.500	.020	.093	–	220.00	187.00	165.00	146.60
93-1538	.215	.250	.046	.093	–	.843	.156	.187	.500	.020	.046	–	220.00	187.00	165.00	146.60
93-1539	.215	.250	.040	.093	–	1.234	.250	.187	.800	.020	.093	–	300.00	255.00	225.00	200.00
93-1540	.215	.250	.046	.093	–	1.143	.156	.187	.800	.020	.046	–	300.00	255.00	225.00	200.00
93-1542	.104	.125	.046	.093	–	.346	.156	.087	.103	.020	.046	–	110.00	93.50	82.50	73.30
93-1543	.171	.187	.062	.125	–	.621	.281	.215	.125	.031	.093	–	130.00	110.00	97.50	86.60
93-1547	.171	.187	.040	.080	–	.610	.210	.150	.250	.020	.100	–	140.00	119.00	105.00	93.30
93-1549	.104	.125	.046	.093	–	.359	.156	.100	.103	.020	.046	–	120.00	102.00	90.00	80.00
93-1551	.165	.187	.040	.093	–	.485	.210	.150	.125	.020	.100	–	120.00	102.00	90.00	80.00
93-1552	.171	.187	.040	.080	–	.485	.210	.150	.125	.020	.100	–	120.00	102.00	90.00	80.00
93-1553	.185	.218	.046	.125	–	.546	.281	.140	.125	.031	.093	–	120.00	102.00	90.00	80.00
93-1557	.171	.187	.046	.093	–	.593	.156	.187	.250	.020	.046	–	150.00	127.50	112.50	100.00
93-1558	.215	.250	.046	.125	–	.718	.281	.187	.250	.031	.093	–	150.00	127.50	112.50	100.00
93-1559	.171	.187	.046	.093	–	.706	.156	.300	.250	.020	.046	–	150.00	127.50	112.50	100.00
93-1560	.165	.187	.046	.125	–	.831	.281	.200	.350	.031	.093	–	150.00	127.50	112.50	100.00
93-1561	.165	.187	.047	.125	–	.893	.343	.200	.350	.031	.125	–	170.00	144.50	127.50	113.50
93-1562	.171	.187	.046	.125	–	.831	.281	.300	.250	.031	.093	–	160.00	136.00	120.00	106.60
93-1563	.165	.187	.040	.093	–	.797	.250	.100	.400	.020	.093	–	170.00	144.50	127.50	113.50
93-T564	.215	.250	.046	.125	–	.968	.281	.317	.370	.031	.093	–	240.00	204.00	180.00	160.00



93-3510 Group



39-1000 Group



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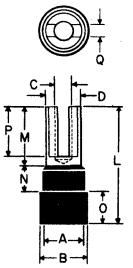

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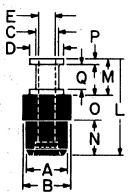
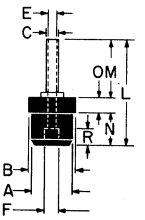


82-1016 Group



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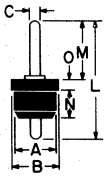

82-1000 Group

STANDOFF, MINIATURE

Cat. No.	DIMENSIONS A	B	C	D	E	L	M	N	O	P	Q	R	RESALE PER THOUSAND IN LOTS OF 1-99	100-499	500-999	1000-UP
DOUBLE STANDOFF, MINIATURE																
93-3510	.171	.187	.040	.080	–	.819	.210	.212	.187	.020	.120	–	$220.00	$187.00	$165.00	$146.60
STANDOFF, MINIATURE, REVERSED, TURRET																
39-1000	.185	.218	.046	.093	–	.487	.154	.287	.046	.020	.046	–	$100.00	$ 85.00	$ 75.00	$ 66.60
39-1005	.185	.218	.046	.093	–	.583	.250	.287	.046	.020	.093	–	100.00	85.00	75.00	66.60
STANDOFF, MINIATURE, REVERSED																
39-1001	.185	.218	.040	–	–	.543	.210	.287	.046	–	–	–	$100.00	$ 85.00	$ 75.00	$ 66.60
39-1002	.185	.218	.040	–	–	1.133	.800	.333	.046	–	–	–	150.00	127.50	112.50	100.00
STANDOFF, MINIATURE, REVERSED, SLOTTED LUG																
39-2000	.171	.187	.078	.148	–	.478	.203	.150	.125	.156	–	–	$130.00	$110.00	$ 97.50	$ 86.60
39-2001	.171	.187	.078	.148	–	.540	.203	.150	.187	.156	–	–	140.00	119.00	105.00	93.30
39-2002	.171	.187	.078	.148	–	.603	.203	.150	.250	.156	–	–	150.00	127.50	112.50	100.00
39-2003	.171	.187	.078	.148	–	.753	.203	.150	.400	.156	–	–	170.00	144.50	127.50	113.30
39-2004	.217	.250	.078	.148	–	.890	.203	.187	.500	.156	–	–	230.00	195.50	172.50	153.30
39-2005	.217	.250	.078	.148	–	1.190	.203	.187	.800	.156	–	–	310.00	263.50	232.50	206.60

FEED THRU, SUBMINIATURE

Cat. No.	DIMENSIONS A	B	C	D	E	L	M	N	O	P	Q	R	RESALE PER THOUSAND IN LOTS OF 1-99	100-499	500-999	1000-UP
FEED THRU, SUBMINIATURE, TUBULAR																
82-1016	.148	.172	.082	.125	.062	.351	.133	.125	.093	.020	.093	–	$110.00	$ 93.50	$ 82.50	$ 73.30
82-1052	.171	.188	.082	.125	.062	.381	.133	.155	.093	.020	.093	–	140.00	119.00	105.00	93.30
FEED THRU, SUBMINIATURE, TUBULAR																
82-1044	.200	.240	.040	.030	.050	.367	.207	.110	.050	–	–	.057	$140.00	$119.00	$105.00	$ 93.30
82-1045	.218	.250	.060	.030	.050	.287	.147	.100	.040	–	–	.030	140.00	119.00	105.00	93.30
82-1046	.148	.172	.040	.030	.070	.282	.147	.075	.060	–	–	.042	130.00	110.00	97.50	86.60
82-1047	.171	.218	.085	.063	.085	.417	.207	.160	.050	–	–	.050	120.00	102.00	90.00	80.00
82-1085	.148	.172	.040	.030	.050	.387	.207	.110	.050	–	–	.057	130.00	110.00	97.50	86.60
82-1088	.171	.218	.085	.063	.085	.710	.500	.160	.050	–	–	.050	150.00	127.50	112.50	100.00
FEED THRU, MINIATURE																
82-1000	.148	.172	.040	–	–	.443	.210	.100	.040	–	–	–	$ 80.00	$ 68.00	$ 60.00	$ 53.30
82-1001	.148	.172	.040	–	–	.410	.147	.110	.050	–	–	–	100.00	85.00	75.00	66.60
82-1003	.148	.172	.040	–	–	.515	.210	.100	.040	–	–	–	75.00	63.70	56.20	50.00
82-1004	.148	.172	.040	–	–	.535	.210	.110	.050	–	–	–	80.00	68.00	60.00	53.30
82-1005	.179	.200	.040	–	–	.515	.210	.100	.040	–	–	–	120.00	102.00	90.00	80.00
82-1006	.218	.250	.040	–	–	.515	.210	.100	.040	–	–	–	130.00	110.00	97.50	86.60
82-1007	.148	.172	.040	–	–	.535	.210	.120	.040	–	–	–	110.00	93.50	82.50	73.30
82-1008	.148	.172	.040	–	–	.535	.210	.132	.040	–	–	–	110.00	93.50	82.50	73.30
82-1009	.148	.172	.040	–	–	.535	.210	.160	.040	–	–	–	130.00	110.00	97.50	86.60
82-1010	.148	.172	.040	–	–	.725	.210	.100	.040	–	–	–	110.00	93.50	82.50	73.30
82-1011	.148	.172	.040	–	–	1.000	.210	.100	.040	–	–	–	130.00	110.00	97.50	86.60
82-1012	.171	.218	.040	–	–	2.000	.680	.110	.050	–	–	–	140.00	119.00	105.00	93.30
82-1013	.169	.219	.040	–	–	2.500	.460	.100	.040	–	–	–	140.00	119.00	105.00	93.30
82-1014	.169	.219	.049	–	–	2.500	.460	.100	.040	–	–	–	160.00	136.00	120.00	106.60
82-1015	.172	.195	.040	–	–	.515	.210	.100	.040	–	–	–	110.00	93.50	82.50	73.30
82-1018	.125	.150	.040	–	–	.515	.210	.060	.040	–	–	–	110.00	93.50	82.50	73.30
82-1021	.148	.172	.040	–	–	.375	.125	.100	.040	–	–	–	100.00	85.00	75.00	66.60
82-1022	.093	.125	.040	–	–	.515	.210	.100	.040	–	–	–	100.00	85.00	75.00	66.60
82-1023	.093	.125	.040	–	–	.375	.147	.075	.040	–	–	–	100.00	85.00	75.00	66.60
82-1026	.157	.172	.040	–	–	.515	.210	.100	.040	–	–	–	100.00	85.00	75.00	66.60
82-1027	.148	.172	.040	–	–	.515	.210	.132	.040	–	–	–	120.00	102.00	90.00	80.00
82-1028	.148	.172	.040	–	–	.407	.125	.132	.040	–	–	–	110.00	93.50	82.50	73.30
82-1030	.148	.172	.040	–	–	.571	.210	.160	.040	–	–	–	120.00	102.00	90.00	80.00
82-1031	.125	.150	.040	–	–	.335	.125	.060	.040	–	–	–	120.00	102.00	90.00	80.00
82-1033	.148	.172	.045	–	–	.890	.625	.100	.040	–	–	–	140.00	119.00	105.00	93.30
82-1064	.148	.172	.040	–	–	.630	.210	.170	.040	–	–	–	110.00	93.50	82.50	73.30
82-1065	.148	.172	.040	–	–	.630	.210	.217	.040	–	–	–	130.00	110.00	97.50	86.60
82-1067	.148	.172	.040	–	–	.710	.210	.250	.040	–	–	–	130.00	110.00	97.50	86.60
82-1068	.148	.172	.040	–	–	.562	.210	.100	.040	–	–	–	110.00	93.50	82.50	73.30
82-1069	.148	.172	.040	–	–	.431	.106	.110	.050	–	–	–	100.00	85.00	75.00	66.60
82-1070	.172	.195	.040	–	–	.560	.210	.100	.040	–	–	–	120.00	102.00	90.00	80.00
82-1071	.169	.218	.049	–	–	1.875	.125	.100	.040	–	–	–	160.00	136.00	120.00	106.60
82-1072	.169	.218	.049	–	–	.937	.125	.100	.040	–	–	–	160.00	136.00	120.00	106.60
82-1073	.169	.218	.049	–	–	1.250	.125	.100	.040	–	–	–	160.00	136.00	120.00	106.60
82-1075	.148	.172	.040	–	–	.325	.075	.100	.040	–	–	–	110.00	93.50	82.50	73.30
82-1076	.093	.125	.040	–	–	.453	.156	.100	.040	–	–	–	110.00	93.50	82.50	73.30
82-1077	.093	.125	.040	–	–	.987	.687	.100	.040	–	–	–	120.00	102.00	90.00	80.00
82-1080	.148	.172	.040	–	–	.443	.093	.100	.040	–	–	–	120.00	102.00	90.00	80.00
82-1081	.148	.172	.040	–	–	.535	.210	.160	.040	–	–	–	110.00	93.50	82.50	73.30
82-1082	.171	.218	.040	–	–	1.090	.680	.110	.050	–	–	–	140.00	119.00	105.00	93.30
82-1084	.148	.172	.045	–	–	.585	.320	.100	.040	–	–	–	140.00	119.00	105.00	93.30

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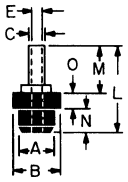
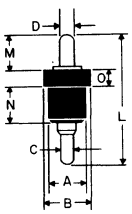
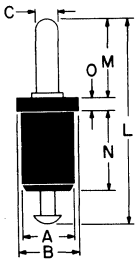


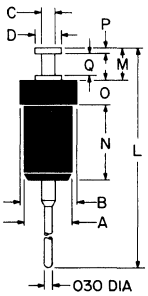
82-1017 Group



73-1000 Group



73-1006 Group



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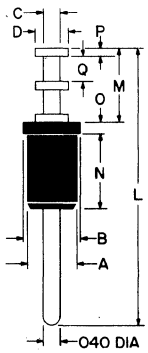
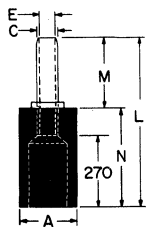
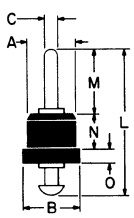


73-1010



73-3001 Group



37-1011

FEED THRU, SUBMINIATURE

Cat. No.	DIMENSIONS A	B	C	D	E	L	M	N	O	P	Q	R	RESALE PER THOUSAND IN LOTS OF 1-99	100-499	500-999	1000-UP
FEED THRU, MINIATURE, TUBULAR																
82-1017	.148	.172	.085	–	.063	.367	.207	.110	.050	–	–	–	$110.00	$ 93.50	$ 82.50	$ 73.30
82-1024	.200	.240	.085	–	.063	.367	.207	.110	.050	–	–	–	120.00	102.00	90.00	80.00
82-1035	.148	.172	.040	–	.030	.250	.147	.053	.050	–	–	–	110.00	93.50	82.50	73.30
82-1036	.125	.150	.040	–	.030	.225	.125	.060	.040	–	–	–	110.00	93.50	82.50	73.30
82-1037	.120	.130	.040	–	.030	.310	.207	.053	.050	–	–	–	110.00	93.50	82.50	73.30
82-1038	.148	.172	.040	–	.030	.296	.136	.100	.060	–	–	–	120.00	102.00	90.00	80.00
82-1039	.171	.218	.040	–	.030	.367	.207	.110	.050	–	–	–	130.00	110.00	97.50	86.60
82-1040	.093	.125	.040	–	.030	.225	.125	.060	.040	–	–	–	120.00	102.00	90.00	80.00
82-1041	.171	.218	.085	–	.063	.367	.207	.110	.050	–	–	–	120.00	102.00	90.00	80.00
82-1089	.148	.172	.085	–	.063	.413	.207	.156	.050	–	–	–	140.00	119.00	105.00	93.30
82-1090	.148	.172	.085	–	.063	.332	.207	.075	.050	–	–	–	140.00	119.00	105.00	93.30
82-1091	.148	.172	.085	–	.070	.367	.207	.110	.050	–	–	–	130.00	110.00	97.50	86.60
82-1115	.093	.125	.040	–	.030	.317	.187	.090	.040	–	–	–	130.00	110.00	97.50	86.60
82-1116	.093	.125	.040	–	.030	.405	.275	.090	.040	–	–	–	140.00	119.00	105.00	93.30
82-1134	.093	.125	.040	–	.030	.215	.125	.050	.040	–	–	–	120.00	102.00	90.00	80.00
82-1135	.093	.125	.040	–	.030	.312	.207	.060	.040	–	–	–	140.00	119.00	105.00	93.30

PROBES & PLUGS

Cat. No.	DIMENSIONS A	B	C	D	E	L	M	N	O	P	Q	R	RESALE PER THOUSAND IN LOTS OF 1-99	100-499	500-999	1000-UP
PROBES & PLUGS																
73-1000	.185	.218	.030	.050	–	1.531	.250	.287	.046	–	–	–	$150.00	$127.50	$112.50	$100.00
73-1001	.185	.218	.030	.050	–	.906	.250	.287	.046	–	–	–	150.00	127.50	112.50	100.00
73-1002	.185	.218	.030	.050	–	2.083	.250	.287	.046	–	–	–	150.00	127.50	112.50	100.00
73-1003	.185	.218	.030	.050	–	1.937	.250	.141	.046	–	–	–	130.00	110.00	97.50	86.60
73-1018	.148	.172	.030	.050	–	1.937	.250	.165	.046	–	–	–	180.00	153.00	135.00	120.00
73-1028	.185	.218	.030	.040	–	1.870	.120	.250	.046	–	–	–	160.00	136.00	120.00	106.60
PROBE & PLUG																
73-1006	.185	.218	.081	–	–	.739	.281	.287	.046	–	–	–	$150.00	$127.50	$112.50	$100.00
73-1011	.185	.218	.050	–	–	.562	.250	.135	.052	–	–	–	120.00	102.00	90.00	80.00
73-1015	.185	.218	.081	–	–	.739	.281	.287	.046	–	–	–	130.00	110.00	97.50	86.60
73-1016	.185	.218	.050	–	–	.562	.250	.141	.046	–	–	–	120.00	102.00	90.00	80.00
73-1017	.185	.218	.081	–	–	.562	.250	.141	.046	–	–	–	130.00	110.00	97.50	86.60
73-1022	.171	.187	.040	–	–	.687	.272	.212	.040	–	–	–	180.00	153.00	135.00	120.00
73-1023	.185	.218	.050	–	–	.906	.250	.287	.046	–	–	–	150.00	127.50	112.50	100.00
73-1026	.185	.218	.090	–	–	.648	.190	.287	.046	–	–	–	170.00	144.50	127.50	113.30
73-1027	.185	.218	.062	–	–	.612	.250	.141	.046	–	–	–	150.00	127.50	112.50	100.00

PROBES & PLUGS

Cat. No.	DIMENSIONS A	B	C	D	E	L	M	N	O	P	Q	R	RESALE PER THOUSAND IN LOTS OF 1-99	100-499	500-999	1000-UP
PROBES & PLUGS																
73-1007	.185	.218	.050	.093	–	2.005	.125	.287	.093	.020	.085	–	$150.00	$127.50	$112.50	$100.00
73-1008	.185	.218	.050	.093	–	1.000	.125	.287	.093	.020	.085	–	150.00	127.50	112.50	100.00
73-1009	.185	.218	.050	.093	–	2.000	.125	.150	.230	.020	.085	–	160.00	136.00	120.00	106.60
PROBES & PLUGS																
73-1010	.185	.218	.060	.125	–	1.052	.281	.287	.046	.031	.093	–	$150.00	$127.50	$112.50	$100.00
PROBES & PLUGS																
73-3001	.218	–	.080	–	.062	.645	.270	.375	–	–	–	–	$120.00	$102.00	$ 90.00	$ 80.00
73-3012	.218	–	.090	–	.062	.645	.270	.375	–	–	–	–	150.00	127.50	112.50	100.00
PROBE & PLUG, REVERSED																
37-1011	.185	.218	.050	–	–	.562	.250	.135	.052	–	–	–	$150.00	$127.50	$112.50	$100.00

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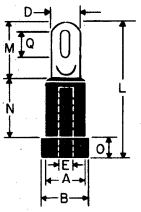
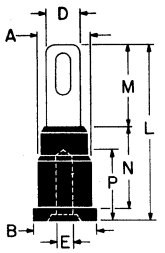
HERMAN H. SMITH, INC.
ELECTRONIC COMPONENTS

TEST JACKS



63-1000 Group

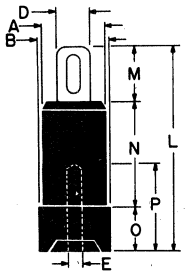


63-1052

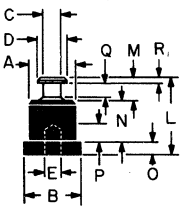
Cat. No.	DIMENSIONS A	B	C	D	E*	L	M	N	O	P**	Q	R	RESALE PER THOUSAND IN LOTS OF 1-99	100-499	500-999	1000-UP
TEST JACK, FLAT LUG																
63-1000	.185	.218	–	.105	.050	.687	.354	.287	.046	.250	–	–	$120.00	$102.00	$ 90.00	$ 80.00
63-1001	.185	.218	–	.105	.041	.687	.354	.287	.046	.250	–	–	160.00	136.00	120.00	106.60
63-1002	.185	.218	–	.110	.080	.687	.354	.287	.046	.250	–	–	160.00	136.00	120.00	106.60
63-1014	.185	.218	–	.115	.050	.687	.354	.281	.052	.250	–	–	160.00	136.00	120.00	106.60
63-1015	.185	.218	–	.103	.080	.687	.330	.146	.187	.187	–	–	160.00	136.00	120.00	106.60
63-1016	.185	.218	–	.115	.050	.625	.355	.224	.046	.200	–	–	160.00	136.00	120.00	106.60
63-1017	.185	.218	–	.104	.060	.718	.316	.356	.046	.315	–	–	180.00	153.00	135.00	120.00
63-1037	.185	.218	–	.110	.050	.687	.330	.146	.187	.250	–	–	160.00	136.00	120.00	106.60

*Probe Diameter **Probe Length

TEST JACK

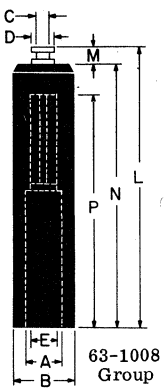


63-1035



63-1003 Group

Cat. No.	DIMENSIONS A	B	C	D	E*	L	M	N	O	P**	Q	R	RESALE PER THOUSAND IN LOTS OF 1-99	100-499	500-999	1000-UP
TEST JACK, FLAT LUG																
63-1052	.185	.218	–	.115	.050	.620	.287	.287	.046	.250	–	–	$160.00	$136.00	$120.00	$106.60
TEST JACK, FLAT LUG																
63-1035	.220	.250	–	.115	.050	.732	.188	.387	.157	.320	–	–	$200.00	$170.00	$150.00	$133.30
TEST JACK																
63-1003	.185	.218	.054	.074	.090	.437	.120	.271	.046	.195	.053	.037	$180.00	$153.00	$135.00	$120.00
63-1004	.185	.218	.054	.074	.080	.437	.120	.271	.046	.195	.053	.037	180.00	153.00	135.00	120.00
63-1005	.185	.218	.054	.074	.080	.640	.187	.400	.050	.287	.104	.037	180.00	153.00	135.00	120.00
63-1006	.204	.250	.054	.074	.080	.437	.120	.271	.046	.195	.053	.037	200.00	170.00	150.00	133.30
63-1007	.170	.218	.046	.078	.090	.375	.060	.269	.046	.250	.040	.010	220.00	187.00	165.00	146.60
63-1010	.148	.172	.040	.060	.040	.345	.120	.179	.046	.140	.077	.023	180.00	153.00	135.00	120.00
63-1011	.218	.250	.066	.098	.105	.400	.060	.294	.046	.250	.037	.010	220.00	187.00	165.00	146.60
63-1012	.120	.142	.040	.060	.040	.449	.120	.283	.046	.245	.060	.030	190.00	161.50	142.50	126.60
63-1013	.200	.218	.054	.074	.093	.761	.187	.386	.187	.455	.116	.035	270.00	229.50	202.50	180.00
63-1028	.200	.218	.054	.074	.093	.699	.187	.386	.125	.390	.116	.035	400.00	340.00	300.00	266.60
63-1029	.140	.172	.046	.080	.040	.253	.060	.143	.050	.125	.040	.010	220.00	187.00	165.00	146.60
63-1032	.148	.172	.046	.080	.040	.203	.060	.097	.046	.078	.040	.010	210.00	178.50	157.50	140.00
63-1033	.120	.150	.046	.080	.040	.203	.060	.113	.030	.078	.040	.010	210.00	178.50	157.50	140.00
63-1054	.185	.218	.054	.074	.090	.340	.120	.174	.046	.140	.077	.023	210.00	178.50	157.50	140.00
63-1057	.185	.218	.054	.074	.080	.467	.120	.301	.046	.225	.047	.035	210.00	178.50	157.50	140.00
63-1072	.120	.142	.040	.060	.040	.410	.120	.244	.046	.205	.060	.030	180.00	153.00	135.00	120.00
63-1077	.140	.172	.040	.060	.040	.345	.120	.179	.046	.140	.077	.023	180.00	153.00	135.00	120.00
63-1078	.148	.172	.046	.080	.040	.190	.050	.094	.046	.078	.030	.010	200.00	170.00	150.00	133.30
63-1079	.185	.218	.054	.074	.050	.437	.120	.271	.046	.195	.093	.037	190.00	161.50	142.50	126.60
63-1080	.185	.218	.080	.125	.080	.455	.105	.300	.050	.315	.065	.020	250.00	212.50	187.50	166.60
63-1081	.200	.375	.054	.074	.093	.834	.187	.417	.230	.518	.116	.035	350.00	297.50	262.50	233.30



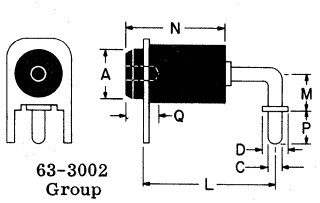
63-1008 Group

TEST JACK

Cat. No.	DIMENSIONS A	B	C	D	E*	L	M	N	O	P	Q**	R	RESALE PER THOUSAND IN LOTS OF 1-99	100-499	500-999	1000-UP
63-1008	–	.140	.046	.080	.040	.203	.060	.143	–	.075	–	–	$190.00	$161.50	$142.50	$126.60
63-1009	–	.120	.046	.080	.040	.203	.060	.143	–	.075	–	–	200.00	170.00	150.00	133.30
63-1034	–	.140	.046	.080	.025	.203	.060	.143	–	.075	–	–	200.00	170.00	150.00	133.30
63-1038	.125	.218	.046	.078	.090	1.000	.060	.940	–	.825	–	–	380.00	323.00	285.00	253.30
63-1039	.125	.187	.046	.078	.090	1.000	.060	.940	–	.825	–	–	360.00	306.00	270.00	240.00

*Probe Diameter **Probe Length

TEST JACK



63-3002 Group

Cat. No.	DIMENSIONS A	B	C	D	E*	L	M	N	O	P	Q**	R	RESALE PER THOUSAND IN LOTS OF 1-99	100-499	500-999	1000-UP
TEST JACK, PRINTED CIRCUIT																
63-3002	.187	.218	.050	.080	.080	.500	.140	.378	–	.125	.250	–	$350.00	$297.50	$262.50	$233.30
63-3003	.187	.218	.050	.080	.080	.400	.140	.378	–	.125	.250	–	350.00	297.50	262.50	233.30
63-3004	.187	.218	.040	.080	.080	.520	.140	.398	–	.130	.250	–	350.00	297.50	262.50	233.30
63-3005	.187	.218	.035	.080	.080	.400	.140	.378	–	.187	.250	–	360.00	306.00	270.00	240.00
63-3009	.187	.218	.050	.080	.080	.500	.140	.689	–	.125	.500	–	390.00	331.50	292.50	260.00

*Probe Diameter **Probe Length

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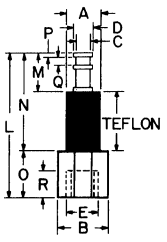
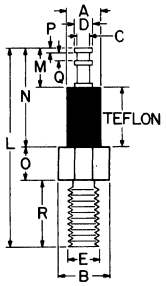
ELECTRONIC COMPONENTS

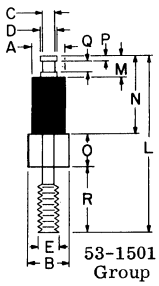
METAL HEX BASE, TEFLON INSULATED TERMINALS



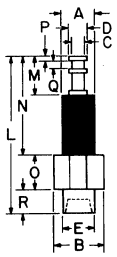
52-1500 Group



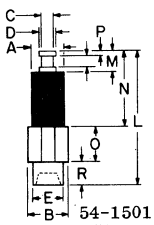
53-1500 Group



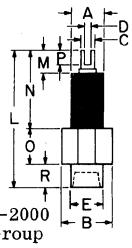
53-1501 Group



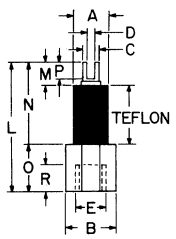
54-1500 Group



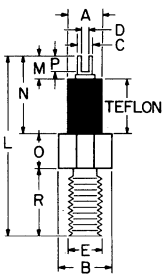
54-1501 Group



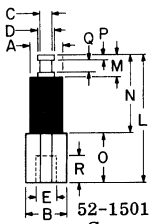
54-2000 Group



52-2000 Group



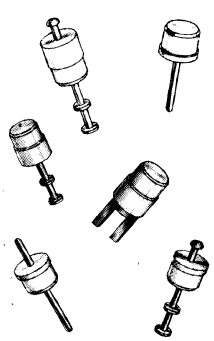
53-2000 Group



52-1501 Group

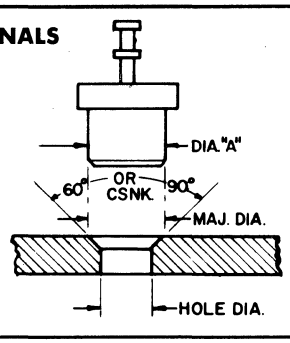
Cat. No.	A	B	C	D	E	L	M	N	O	P	Q	R	1-99	100-499	500-999	1000-UP
		Hex		Thread									RESALE PER THOUSAND IN LOTS OF			
DOUBLE TURRET TERMINAL, THREADED HOLE BASE																
52-1500	.125	.156	.045	.066	4-40	.547	.148	.366	.181	.018	.031	.100	$240.00	$204.00	$180.00	$160.00
52-1502	.245	.250	.069	.140	6-32	.719	.310	.461	.258	.025	.100	.156	245.00	208.20	183.70	163.30
52-1505	.245	.250	.069	.140	4-40	.719	.310	.461	.258	.025	.100	.156	245.00	208.20	183.70	163.30
52-1507	.245	.250	.069	.140	4-40	1.297	.310	1.039	.258	.025	.100	.156	278.00	236.30	208.50	185.30
52-1508	.245	.250	.069	.140	6-32	1.297	.310	1.039	.258	.025	.100	.156	278.00	236.30	208.50	185.30
DOUBLE TURRET TERMINAL, THREADED STUD BASE																
53-1500	.125	.156	.045	.066	4-40	.750	.148	.372	.128	.018	.031	.250	$250.00	$212.50	$187.50	$166.60
53-1502	.245	.250	.069	.140	6-32	.890	.310	.460	.180	.025	.100	.250	254.00	215.90	190.50	169.20
53-1505	.245	.250	.069	.140	4-40	.890	.310	.460	.180	.025	.100	.250	254.00	215.90	190.50	169.20
53-1506	.125	.156	.045	.066	6-32	.750	.148	.372	.128	.018	.031	.250	252.00	214.20	189.00	167.90
53-1507	.245	.250	.069	.140	4-40	1.469	.310	1.039	.180	.025	.100	.250	332.00	282.20	249.00	221.30
53-1508	.245	.250	.069	.140	6-32	1.469	.310	1.039	.180	.025	.100	.250	332.00	282.20	249.00	221.30
SINGLE TURRET TERMINAL, THREADED STUD BASE																
53-1501	.245	.250	.069	.140	6-32	.766	.180	.336	.180	.031	.120	.250	$256.00	$217.60	$192.00	$170.60
53-1503	.245	.250	.069	.140	4-40	.766	.180	.336	.180	.031	.120	.250	256.00	217.60	192.00	170.60
53-1504	.125	.156	.045	.066	4-40	.672	.079	.294	.128	.018	.049	.250	252.00	214.20	189.00	167.90
53-1509	.125	.156	.045	.066	6-32	.672	.079	.294	.128	.018	.049	.250	252.00	214.20	189.00	167.90
53-1510	.245	.250	.069	.140	4-40	1.344	.180	.914	.180	.031	.120	.250	334.00	283.90	250.50	222.60
53-1511	.245	.250	.069	.140	6-32	1.344	.180	.914	.180	.031	.120	.250	334.00	283.90	250.50	222.60
DOUBLE TURRET TERMINAL, RIVET BASE																
54-1500	.125	.156	.045	.066	.1205#	.594	.148	.376	.128	.018	.031	.090	$296.00	$251.60	$222.00	$197.30
54-1502	.245	.250	.069	.140	.1205#	.734	.310	.304	.180	.025	.100	.090	278.00	236.30	208.50	185.30
54-1508	.245	.250	.069	.140	.1205#	1.297	.310	1.027	.180	.025	.100	.090	353.00	300.00	264.70	235.30
SINGLE TURRET TERMINAL, RIVET BASE																
54-1501	.245	.250	.069	.140	.1205#	.609	.180	.339	.180	.031	.120	.090	$280.00	$238.00	$210.00	$186.60
54-1504	.125	.156	.045	.066	.1205#	.516	.079	.298	.128	.018	.049	.090	282.00	239.70	211.50	187.90
54-1510	.245	.250	.069	.140	.1205#	1.172	.180	.902	.180	.031	.120	.090	355.00	301.70	266.20	236.60
SLOTTED TURRET TERMINAL, RIVET BASE																
54-2000	.245	.250	.140	.060	.1205#	.609	.174	.339	.180	.101	–	.090	$301.00	$255.90	$225.80	$200.70
54-2002	.125	.156	.066	.036	.1205#	.516	.087	.298	.128	.067	–	.090	330.00	280.50	247.50	220.00
54-2004	.245	.250	.140	.060	.1205#	1.172	.174	.902	.180	.101	–	.090	377.00	320.40	282.70	251.30
SLOTTED TURRET TERMINAL, THREADED STUD BASE																
52-2000	.245	.250	.140	.060	6-32	.594	.174	.236	.258	.101	–	.156	$275.00	$233.70	$206.20	$183.30
52-2001	.245	.250	.140	.060	4-40	.594	.174	.236	.258	.101	–	.156	275.00	233.70	206.20	183.30
52-2002	.125	.156	.066	.036	4-40	.484	.087	.303	.181	.067	–	.100	275.00	233.70	206.20	183.30
52-2003	.245	.250	.140	.060	4-40	1.172	.174	.914	.258	.101	–	.156	353.00	300.00	264.70	235.30
52-2004	.245	.250	.140	.060	6-32	1.172	.174	.914	.258	.101	–	.156	353.00	300.00	264.70	235.30
SLOTTED TURRET TERMINAL, THREADED STUD BASE																
53-2000	.245	.250	.140	.060	6-32	.766	.174	.336	.180	.101	_	.250	$280.00	$238.00	$210.00	$186.60
53-2001	.245	.250	.140	.060	4-40	.766	.174	.336	.180	.101	_	.250	304.00	258.40	228.00	202.60
53-2002	.125	.156	.066	.036	4-40	.672	.087	.294	.128	.067	_	.250	287.00	243.90	215.20	191.20
53-2003	.245	.250	.140	.060	4-40	1.344	.174	.914	.180	.101	_	.250	355.00	301.70	266.20	236.60
53-2004	.245	.250	.140	.060	6-32	1.344	.174	.914	.180	.101	_	.250	355.00	301.70	266.20	236.60
53-2005	.125	.156	.066	.036	6-32	.672	.087	.294	.128	.067	_	.250	287.00	243.90	215.20	191.20
SINGLE TURRET TERMINAL, THREADED HOLE BASE																
52-1501	.245	.250	.069	.140	6-32	.594	.180	.336	.258	.031	.120	.156	$250.00	$212.50	$187.50	$166.60
52-1510	.245	.250	.039	.140	4-40	1.172	.180	.914	.258	.031	.120	.156	280.00	238.00	210.00	186.60
52-1503	.245	.250	.039	.140	4-40	.594	.180	.336	.258	.031	.120	.156	252.00	214.20	189.00	167.90
52-1504	.125	.156	.045	.066	4-40	.484	.079	.303	.181	.018	.049	.100	245.00	208.20	183.70	163.30
52-1511	.245	.250	.039	.140	6-32	1.172	.180	.914	.258	.031	.120	.156	280.00	238.00	210.00	186.60

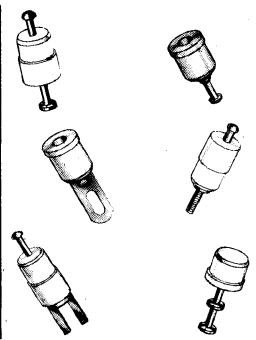
Rivet Shank ± .0015 tolerance.



INSTALLATION PROCEDURE FOR TEFLON TERMINALS

1. For chassis or panels ⅛" (.125") or less in thickness, punch or drill hole .013" ±.002" LESS than the diameter of the bushing (dimension "A" in the tables). Minimum protrusion of assembled terminal should be .040" (dimension "B" less chassis thickness) for greater holding power. Recommendations for panels greater than .125" thick are available on request.
2. Countersink the insertion side of the chassis. For chassis thicker than .040" use 60° countersink. For chassis less than .040" thick use 90° countersink. Countersink depth should be such that "Maj. Dia." shown in drawing is equal to bushing diameter (Dimension "A") of the terminal.
3. Insert terminal in countersunk side of chassis, and press until shoulder of terminal seats against chassis.



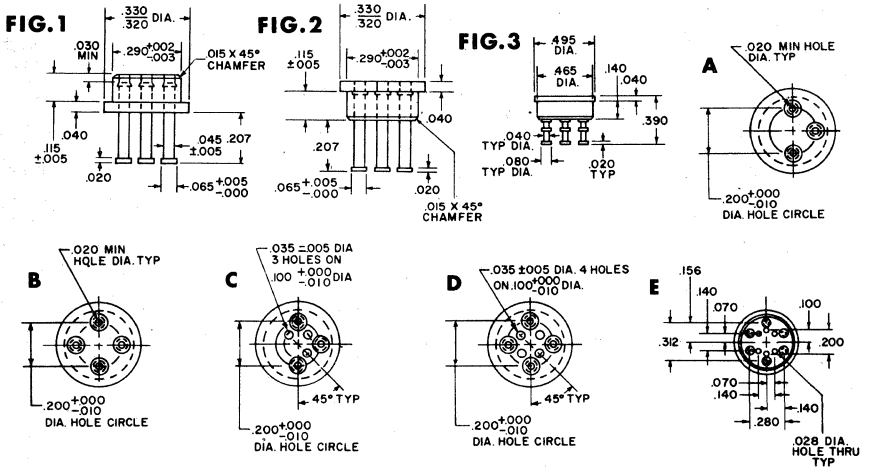


specify SMITH

HERMAN H. SMITH, INC.

ELECTRONIC COMPONENTS

TEFLON* TRANSISTOR SOCKETS



SMITH Teflon Transistor Sockets cut installation time and afford increased reliability. Sockets shown here represent the basic configurations available for JEDEC Packages TO-5 (.200" Dia. Pitch Circle) and TO-18 (.100" Dia. Pitch Circle). Other styles and variations are being added constantly. Consult our Engineering Dept., for your special requirements.

*Reg. Trademark E. I. DuPont Co.

Cat. No.	RESALE PER THOUSAND IN LOTS OF 1-99	100-499	500-999	1000-UP
FIG.1A	43-1000	$300.00	$255.00	$225.00	$200.00
FIG.2A	34-1000	310.00	263.50	232.50	206.60
FIG.1C	43-1003	380.00	323.00	285.00	253.30
FIG.2C	34-1003	390.00	331.50	292.50	260.00
FIG.1B	43-1100	350.00	297.50	262.50	233.30
FIG.2B	34-1100	360.00	306.00	270.00	240.00
FIG.1D	43-1104	430.00	365.50	322.50	286.60
FIG.2D	34-1104	440.00	374.00	330.00	293.30
FIG.3E	34-1650	840.00	714.00	630.00	560.00

GSA — SMITH TEFLON* TERMINALS

GSA is provided to insure "Guaranteed Stock Availability" for IMMEDIATE DELIVERY to our customers from stock on all standard parts.

PLATING FINISH

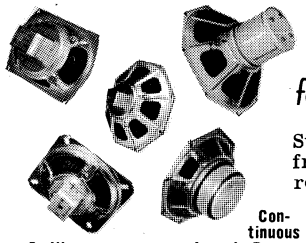
STANDARD—.0002 SILVER PLATE, GOLD FLASH
1—.0002 SILVER, 000005 GOLD FLASH
2—.000005 GOLD OVER .0002 SILVER
3—STANDARD ELECTRO SOLDER PLATE (40% TIN/60% LEAD)
4—SPECIAL—(FINISH REQUIREMENTS AS PER YOUR SPECIFICATIONS)

COLOR CODE SUFFIX

Add to Catalog Number as required

–101	WHITE	–106	ORANGE
–102	RED	–107	YELLOW
–103	BLACK	–108	BROWN
–104	GREEN	–112	PURPLE
–105	BLUE	–113	GREY

*Reg. Trademark E. I. DuPont Co.



Norelco Loudspeakers

featuring The World's Most Powerful Magnets

Standard EIA mounting . Tropic-proof cadmium-plated frames . Designed for use in original equipment and as replacements in Radio, TV, Hi-Fidelity, Car Radio, etc.

Smith No.	Size	Shape	Imped. Ohms	Continuous Power Watts*	Height	Width	Depth	Freq. Resp. CPS	Free Air Resonance CPS	Cone Types	Magnet Type†	Magnet Wgt. Oz.	Std. Pkg.	NET Each
4300	2"	Round	3.2	0.3	2 1/16"	2 1/16"	1 1/16"	500-4500	590	Single	Tic.	0.36	3	$2.16
4301	2 1/2"	Round	8	0.5	2 9/16"	2 9/16"	1 3/16"	400-7000	350	Single	Fer.	0.72	3	2.25
4302	3"	Square	3.2	2.0	3 1/8"	3 1/8"	1 11/16"	200-7000	275	Single	Tic.	0.72	6	2.22
4303	3"	Square	3.2	1.0	3 1/8"	3 1/8"	1 1/16"	265-6000	285	Single	Fer.	1.44	6	2.40
4304	4"	Square	3.2	3.0	4 1/8"	4 1/8"	1 13/16"	140-16500	165	Single	Tic.	0.72	6	2.22
4305	4"	Square	3.2	1.0	4 1/8"	4 1/8"	1 1/8"	200-6000	250	Single	Fer.	1.44	6	2.40
4306	4"	Square	3.2	3.0	4 1/2"	4 1/2"	1 5/8"	170-7000	165	Single	Fer.	5.35	6	3.36
4307	5"	Octag.	3.2	3.0	4 5/16"	4 5/16"	2"	100-14000	130	Single	Tic.	0.27	3	2.34
4308	5"	Octag.	3.2	3.0	4 3/4"	4 3/4"	2 1/16"	95-18000	124	Dual	Fer.	5.00	3	3.27
4309	8"	Octag.	3.2	6.0	7 3/4"	7 3/4"	3 1/4"	60-18000	72	Dual	Tic.	1.50	3	3.27
4310	8"	Octag.	8	0.6	7 3/4"	7 3/4"	2 7/8"	60-18000	72	Dual	Fer.	5.00	3	$3.84
4311	8"	Octag.	8	6.0	7 3/4"	7 3/4"	4 5/8"	55-18000	60	Dual	Tic.	13.20	1	14.40
4312	10"	Round	8	10.0	10 1/4"	10 1/4"	5 5/16"	45-18000	50	Dual	Tic.	15.10	1	15.75
4313	12"	Round	3.2	10.0	12 3/8"	12 3/8"	4 11/16"	40-18000	45	Dual	Tic.	9.30	1	10.65
4314	12"	Round	8	20.0	12 3/8"	12 3/8"	6 1/8"	35-17000	45	Dual	Tic.	15.10	1	16.05
4315	3x8	Oval	3.2	3.0	8 5/16"	3 1/4"	2 1/16"	120-12000	130	Single	Tic.	2.50	1	3.84
4316	4x6	Oval	3.2	3.0	6 1/8"	4 7/16"	2 1/2"	110-11000	130	Single	Tic.	1.50	3	2.70
4317	4x6	Oval	3.2	3.0	6 1/8"	4 7/16"	2 1/8"	105-18000	124	Dual	Fer.	5.00	3	3.36
4318	5x7	Oval	3.2	3.0	7 1/4"	5 1/4"	2 1/8"	50-15000	90	Dual	Tic.	1.50	3	3.24
4319	5x7	Oval	3.2	6.0	7 1/4"	5 1/4"	2 1/2"	50-18000	90	Dual	Fer.	5.00	3	3.75
4320	6x9	Oval	3.2	6.0	9 1/4"	6 3/8"	3 1/4"	65-18000	77	Dual	Tic.	1.50	3	3.99
4321	6x9	Oval	3.2	6.0	9 1/4"	6 3/8"	2 7/8"	65-18000	80	Dual	Fer.	5.00	3	4.50

† Tic. = Ticonal; Fer. = Ferroxdure. * DOUBLE these ratings for PEAK power.

TEFLON* SPAGHETTI TUBING

COLOR CODE CHART

–101 WHITE	–107 YELLOW
–102 RED	–108 BROWN
–103 BLACK	–112 PURPLE
–104 GREEN	–113 GREY
–105 BLUE	–115 NATURAL
–106 ORANGE	

(If no color is specified, Natural Teflon (–115) will be supplied.)

Meets and exceeds MIL-I-22129B. Ideal for slip-on insulation, and provides greater reliability and resistance to high temperatures. Shrink-back is virtually eliminated. Individually packed in dust-proof bags. SPECIFY COLOR

CAT. NO.	AWG WIRE SIZE	NOM I.D.	NOM. WALL THK.	STD. PKG. FT.	NET EA.
STANDARD WALL					
7701-24	24	.022	.012	100	$11.68
7701-22	22	.027	.012	100	12.95
7701-20	20	.034	.016	100	17.75
7701-19	19	.038	.016	100	19.38
7701-18	18	.042	.016	100	20.88
7701-17	17	.047	.016	100	22.93
7701-16	16	.053	.016	100	24.63
7701-15	15	.059	.016	100	25.30
7701-14	14	.066	.016	100	27.25
7701-13	13	.076	.016	100	30.30
7701-12	12	.085	.016	100	32.75
7701-11	11	.095	.016	100	36.38
7701-10	10	.106	.016	100	40.00
7701-09	9	.118	.020	100	57.10
7701-81	1/8"	.125	.020	100	61.00
7701-08	8	.133	.020	50	31.25
7701-07	7	.148	.020	50	33.69
7701-06	6	.166	.020	50	36.44
7701-05	5	.186	.020	50	40.10
7701-04	4	.208	.020	50	43.56
7701-03	3	.234	.020	50	49.88
7701-41	1/4"	.250	.020	50	52.88
7701.02	2	.263	.020	50	54.82
7701-01	1	.294	.020	50	60.94
7701-51	5/16"	.312	.020	50	67.50
7701-00	0	.330	.020	50	68.57
THINWALL					
7702-30	30	.012	.009	100	$10.53
7702-28	28	.015	.009	100	9.20
7702-26	26	.018	.009	100	8.88
7702-24	24	.022	.010	100	9.63
7702-22	22	.027	.010	100	10.75
7702-20	20	.034	.012	100	13.63
7702-19	19	.038	.012	100	14.68
7702-18	18	.042	.012	100	15.75
7702-17	17	.047	.012	100	17.38
7702-16	16	.053	.012	100	19.00
7702-15	15	.059	.012	100	19.63
7702-14	14	.066	.012	100	21.00
7702-13	13	.076	.012	100	23.75
7702-12	12	.085	.012	100	25.50
7702-11	11	.095	.012	100	28.38
7702-10	10	.106	.012	100	30.50
7702-09	9	.118	.015	100	44.00
7702-81	1/8"	.125	.015	100	45.00
7702-08	8	.133	.015	50	24.32
7702-07	7	.148	.015	50	26.63
7702-06	6	.166	.015	50	29.75
7702-05	5	.186	.015	50	33.50
7702-04	4	.208	.015	50	36.75
7702-03	3	.234	.015	50	40.75
7702-41	1/4"	.250	.015	50	43.75
7702-02	2	.263	.015	50	45.50
7702-01	1	.294	.015	50	50.69
7702-51	5/16"	.312	.015	50	55.12
7702-00	0	.330	.015	50	56.12
LIGHTWEIGHT					
7703-28	28	.015	.006	100	$ 7.63
7703-26	26	.018	.006	100	7.75
7703-24	24	.022	.006	100	8.13
7703-22	22	.027	.006	100	9.38
7703-20	20	.034	.006	100	11.13
7703-19	19	.038	.006	100	12.38
7703-18	18	.042	.006	100	13.38
7703-17	17	.047	.006	100	14.88
7703-16	16	.053	.006	100	16.13
7703-15	15	.059	.006	100	16.75
7703-14	14	.066	.008	100	19.50
7703-13	13	.076	.008	100	22.25
7703-12	12	.085	.008	100	24.38
7703-11	11	.095	.008	100	27.38
7703-10	10	.106	.008	100	29.50
7703-09	9	.118	.008	50	16.63
7703-81	1/8"	.125	.008	50	17.88
7703-08	8	.133	.008	50	18.44
7703-07	7	.148	.008	50	20.00
7703-06	6	.166	.010	50	25.88
7703-05	5	.186	.010	50	28.38
7703-04	4	.208	.010	50	31.38
7703-03	3	.234	.010	50	34.50
7703-41	1/4"	.250	.010	50	36.69
7703-02	2	.263	.010	50	37.57
7703-01	1	.294	.010	50	41.19
7703-51	5/16"	.312	.012	50	48.69
7703-00	0	.330	.012	50	49.63

*Reg. Trademark E. I. DuPont Co.

© U.C.P., Inc.

specify SMITH
HERMAN H. SMITH, INC.
ELECTRONIC COMPONENTS

EQUIPMENT HANDLES

MATERIALS AND FINISH SPECIFICATIONS

The following specifications are met by all panel handles, ferrules, and hardware where applicable:

Materials:

Brass: In accordance with Federal Spec. QQ-B-626, Composition 22, ½ Hard.
Aluminum: In accordance with Federal Spec. QQ-A-365, Composition A, Type 3.
Steel: Cold-Rolled, in accordance with QQ-S-633b, Grade FS-1010.

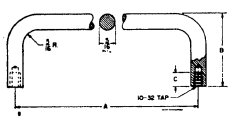
Finishes:

Nickel Plate: Polished Nickel Plate, in accordance with Federal Spec. QQ-N-290, Class I, Type VI.
Black Oxide: In accordance with MIL-F-495A.
Satin Etch: Commercial finish.
Black Anodize: In accordance with MIL-A-8625A.
Optical Black: Color in accordance with Fed. Std. 595, Type 37038. Paint complies with Fed. Spec. TT-E-527.

Note:

Aluminum Handles, either round or oval, and matching ferrules, can be supplied anodized in colors per MIL-A-8625A on special order.

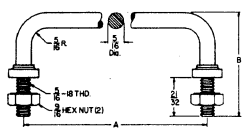
PANEL HANDLES



Brass Panel Handles, finished as shown, with internal 10-32 thread. Individually packaged. **Std. Pkg. 10**

No.	Mtg. Ctrs. (A)	Height (B)	Tap Depth (C)	Finish	NET Ea.
2050	3"	1-5/16"	7/16"	Nickel Plate	$ .90
1601	3"	1-5/16"	7/16"	Black Oxide	.90
2057	3"	1-1/2"	9/16"	Nickel Plate	.90
1602	3"	1-1/2"	9/16"	Black Oxide	.90
2056	4-1/4"	1-1/2"	9/16"	Nickel Plate	.95
1604	4-1/4"	1-1/2"	9/16"	Black Oxide	.95
2051	4-9/16"	1-1/2"	9/16"	Nickel Plate	1.00
1605	4-9/16"	1-1/2"	9/16"	Black Oxide	1.00
2052	6-7/16"	1-3/4"	9/16"	Nickel Plate	1.25
1606	6-7/16"	1-3/4"	9/16"	Black Oxide	1.25

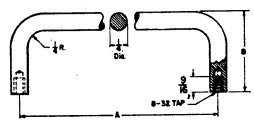
PANEL HANDLES



Brass Panel Handles, finished as shown with male threaded stud. Supplied complete with matching ferrules, and brass, nickel plated hex nuts. Mount in 9/16" panel holes. Individually packaged. **Std. Pkg. 10**

No.	Mtg. Ctrs. (A)	Height (B)	Finish	NET Ea.
1607	2"	2 1/16"	Nickel Plate	$1.20
1608	2"	2 1/16"	Black Oxide	1.20
1609	3"	2 1/16"	Nickel Plate	1.25
1610	3"	2 1/16"	Black Oxide	1.25
1611	4"	2 1/16"	Nickel Plate	1.30
1612	4"	2 1/16"	Black Oxide	1.30
2053	4 1/4"	2 1/16"	Nickel Plate	1.35
1613	4 1/4"	2 1/16"	Black Oxide	1.35
1614	6"	2 11/16"	Nickel Plate	1.40
1615	6"	2 11/16"	Black Oxide	1.40

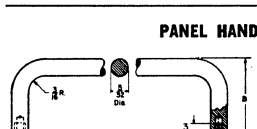
PANEL HANDLES



¼" Diameter panel handles, Brass and Aluminum, finished as shown, with internal 8-32 thread. Individually packaged. **Std. Pkg. 10**

No.	Mtg. Ctrs. (A)	Height (B)	Material	Finish	NET Ea.
1616	2"	1½"	Brass	Nickel Plate	$ .80
1617	2"	1½"	Brass	Black Oxide	.80
1618	2"	1½"	Aluminum	Satin	.60
1619	2"	1½"	Aluminum	Blk. Anodize	.65
1620	3"	1½"	Brass	Nickel Plate	.85
1621	3"	1½"	Brass	Black Oxide	.85
1622	3"	1½"	Aluminum	Satin	.65
1623	3"	1½"	Aluminum	Blk. Anodize	.70
1624	4"	1½"	Brass	Nickel Plate	.90
1625	4"	1½"	Brass	Black Oxide	.90
1626	4"	1½"	Aluminum	Satin	.70
1627	4"	1½"	Aluminum	Blk. Anodize	.75
1628	6"	1½"	Brass	Nickel Plate	.95
1629	6"	1½"	Brass	Black Oxide	.95
1630	6"	1½"	Aluminum	Satin	.75
1631	6"	1½"	Aluminum	Blk. Anodize	.80

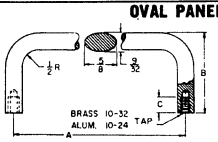
PANEL HANDLES



5/32" Diameter panel handles, Brass and Aluminum, finished as shown, with internal 4-40 thread. Individually packaged. **Std. Pkg. 10**

No.	Mtg. Ctrs. (A)	Height (B)	Material	Finish	NET Ea.
1632	1¼"	1"	Brass	Nickel Plate	$ .70
1633	1¼"	1"	Brass	Black Oxide	.70
1634	1¼"	1"	Aluminum	Satin	.65
1635	1¼"	1"	Aluminum	Blk. Anodize	.70
1636	2"	1"	Brass	Nickel Plate	.75
1637	2"	1"	Brass	Black Oxide	.75
1638	2"	1"	Aluminum	Satin	.70
1639	2"	1"	Aluminum	Blk. Anodize	.75
1640	3"	1"	Brass	Nickel Plate	.80
1641	3"	1"	Brass	Black Oxide	.80
1642	3"	1"	Aluminum	Satin	.75
1643	3"	1"	Aluminum	Blk. Anodize	.80

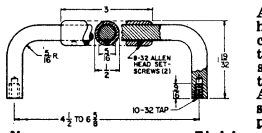
OVAL PANEL HANDLES



Flat, oval panel handles in Brass and Aluminum, finished as shown. Brass handles have internal 10-32 thread, Aluminum handles have internal 10-24 thread. Individually packaged. **Std. Pkg. 10**

No.	Mtg. Ctrs. (A)	Height (B)	Tap Depth (C)	Material	Finish	NET Ea.
1644	3"	1 9/32"	9/32"	Brass	Nickel Plate	$1.60
1645	3"	1 9/32"	9/32"	Brass	Black Oxide	1.60
1646	3"	1 9/32"	9/32"	Aluminum	Blk. Anodize	1.50
1647	4 9/16"	1 1/2"	1/2"	Brass	Nickel Plate	2.00
1648	4 9/16"	1 1/2"	1/2"	Brass	Black Oxide	2.00
1649	4 9/16"	1 1/2"	9/32"	Aluminum	Blk. Anodize	1.60
1651	6 1/16"	1 1/2"	1/2"	Brass	Nickel Plate	2.25
1653	6 1/16"	1 1/2"	1/2"	Brass	Black Oxide	2.25
1654	6 1/16"	1 1/2"	9/32"	Aluminum	Blk. Anodize	1.90
1655	9"	1 1/2"	1/2"	Brass	Nickel Plate	2.50
1657	9"	1 1/2"	1/2"	Brass	Black Oxide	2.50
1658	9"	1 1/2"	9/32"	Aluminum	Blk. Anodize	2.00

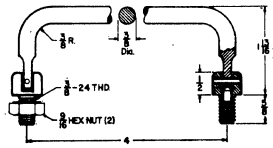
ADJUSTABLE HANDLES



Adjustable Brass Panel handles, with mounting center range from 4½" to 6⅝". Finished as shown. Internal 10-32 thread, supplied with Allen-Head locking screws. Individually packaged. **Std. Pkg. 10**

No.	Finish	NET Ea.
1659	Nickel Plate	$3.50
1661	Black Oxide	3.50

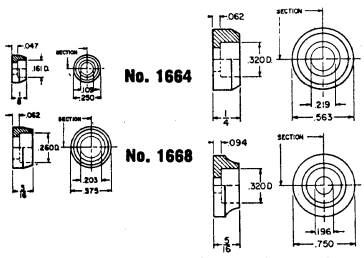
FOLDING HANDLES



Folding Brass panel handles, with spring-loaded detents which snap into upright or left-or-right folded position. Finished as shown. Supplied with brass, nickel plated hex nuts. Mounts in ⅜" panel holes. Individually packaged. **Std. Pkg. 10**

No.	Finish	NET Ea.
1662	Nickel Plate	$4.00
1663	Black Oxide	4.00

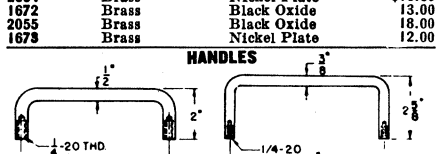
FERRULES



Brass and Aluminum ferrules, finished as shown, to match handles listed above. **Std. Pkg. 50**

No.	Material	Finish	NET Per C
		FOR 5/32" DIA. HANDLES	
1664	Brass	Nickel Plate	$15.00
1665	Brass	Black Oxide	12.00
1666	Aluminum	Satin	13.00
1667	Aluminum	Black Anodize	13.00
		FOR 1/4" DIA. HANDLES	
1668	Brass	Nickel Plate	$15.00
1669	Brass	Black Oxide	12.00
1670	Aluminum	Satin	13.00
1671	Aluminum	Black Anodize	13.00
		FOR 5/16" DIA. HANDLES	
2054	Brass	Nickel Plate	$15.00
1672	Brass	Black Oxide	13.00
2055	Brass	Black Oxide	18.00
1673	Brass	Nickel Plate	12.00

HANDLES

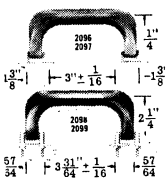


2061 — 2062

Steel handles painted with Optical Black finish. **Std. Pkg. 10**

No.	Diameter	NET Ea.
2061	½"	$2.00
2062	⅜"	1.75

MOLDED GRIP HANDLES

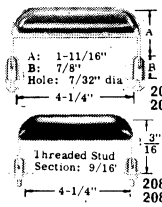


HANDLE: Molded High Impact styrene.
HDWRE.: Steel, nickel plated.
DESCR.: Designed for economy and rugged use. **Std. Pkg. 10**

ATTACHES WITH RIVETS OR SCREWS

No.	Color	NET Per C
2096	Black	$60.00
2097	Grey	60.00
	ATTACHES WITH THREADED STUD	
2098	Black	95.00
2099	Grey	95.00

MOLDED GRIP HANDLES



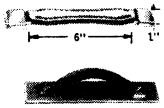
HANDLE: Molded high impact Styrene. Fungus Resistant.
HDWRE.: Steel, Nickel plated.
DESCR.: Rounded palm fitting design. Attaches to case with machine screws. **Std. Pkg. 10**

No.	Color	Each
2085	Black	$1.15
2086	Grey	1.15

HANDLE: Molded high impact Styrene. Fungus Resistant.
HDWRE.: Steel, Nickel plated.
DESCR.: Rounded palm fitting design. Attaches to case with washers and nuts supplied. Will support 100 lbs. **Std. Pkg. 10**

No.	Color	Stud Lgth.	NET Ea.
2087	Black	9/16"	$1.15
2088	Grey	9/16"	1.15

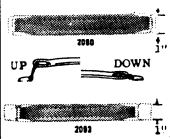
SPRING GLIDE HANDLE



HANDLE: Genuine leather, contoured BLACK, matching stitching, 6" long.
CAPS: Steel, chrome plated.
DESCR.: Strong, silent spring glide, frequency of decibel extremes will not induce handle rattle. Handle moves up for comfortable carrying down when not in use. **Std. Pkg. 10**

No.	Color	NET Ea
2089	Black	$2.50

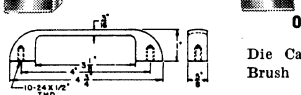
RETRACTO-LINK HANDLES



HANDLE: Genuine leather, matching stitching, BLACK.
HDWRE.: Steel, nickel plated.
DESCR.: Assemblies are shaped with all hardware installed except for decorative cover caps which are packed separately. Supplied in two styles—different lengths. **Std. Pkg. 10**

ATTACHES WITH PRONGS THAT BEND INSIDE CASE

No.	Length	Ea.
2090	4½"	$2.25
2091	5½"	2.25
2092	6¾"	2.25
	ATTACHES WITH RIVETS OR SCREWS	
2093	4½"	$2.25.
2094	5½"	2.25
2095	6¾"	2.25



OVAL HANDLE

Die Cast Zamac Handle. Brush chrome plated.

Std. Pkg. 10

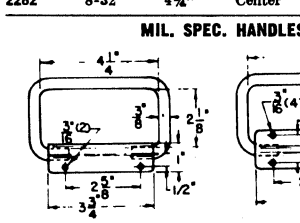
No.	NET Per C
2065	$90.00

BAKELITE HANDLE

Std. Pkg. 10

No.	Thread	O.D.	Mtg. Center	Color	NET Per C
2281	8-32	4¼"	2¾"	Black	$15.50
2282	8-32	4¼"	Center	Red	17.50

MIL. SPEC. HANDLES



MATERIAL: Aluminum.
FINISH: Alodine per MIL-C-5541 Spec. Sprayed to MIL-E-15090. Gloss gray color #1640 per MIL SPEC. PTC-595. **Std Pkg. 10**

No.	Type	NET Ea.
2063	Half Bracket	$1.65
2064	Full Bracket	1.65
	With Transflux Plastic Protector	
2048	Half Bracket	$1.80
2049	Full Bracket	1.80

specify SMITH

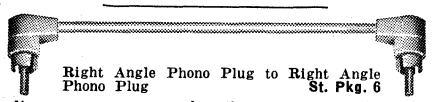
HERMAN H. SMITH, INC.

ELECTRONIC COMPONENTS

JUMPER CORDS

Male Phono Plug with fingergrip handle on each end. Std. Pkg. 6

No.	Length	NET Ea.
631	18 inches	$ .75
632	24 inches	.78
633	36 inches	.84
634	48 inches	.96
635	72 inches	1.05
636	120 inches	1.50
745	180 inches	1.78



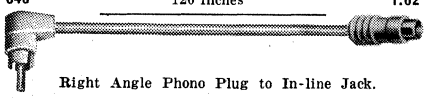
Right Angle Phono Plug to Right Angle Phono Plug. St. Pkg. 6

No.	Length	NET Ea.
2720	18 inches	$ .75
2721	24 inches	.78
2722	36 inches	.84
2723	48 inches	.96
2724	72 inches	1.05
2725	120 inches	1.50
2726	180 inches	1.78

EXTENSION CORDS

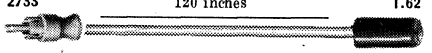
Male Phono Plug with fingergrip handle one end; Female In-line Jack other end. Std. Pkg. 6

No.	Length	NET Ea.
641	18 inches	$ .99
642	24 inches	1.02
643	36 inches	1.08
644	48 inches	1.20
645	72 inches	1.29
646	120 inches	1.62



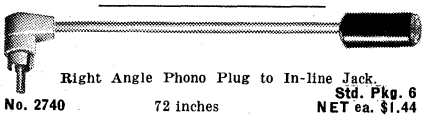
Right Angle Phono Plug to In-line Jack.

No.	Length	NET Ea. St. Pkg. 6
2728	18 inches	$ .99
2729	24 inches	1.02
2730	36 inches	1.08
2731	48 inches	1.20
2732	72 inches	1.20
2733	120 inches	1.62



Male Phono Plug one end; In-line Jack other end. Std. Pkg. 6

No.		NET ea.
No. 639	72 inches	$1.44



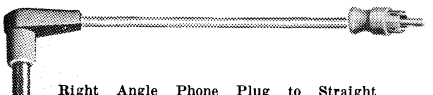
Right Angle Phono Plug to In-line Jack. Std. Pkg. 6

No.		NET ea.
No. 2740	72 inches	$1.44

INPUT-OUTPUT CORDS

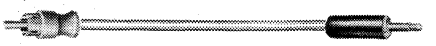
Male Phono Plug with fingergrip handle one end; Male Phono Plug other end. Std. Pkg. 6

No.		NET Ea.
No. 662	72 inches	$1.38



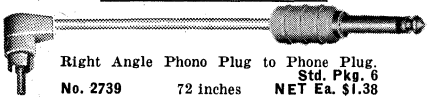
Right Angle Phone Plug to Straight Phono Plug. Std. Pkg. 6

No.		NET Ea.
No. 2786	6 feet	$1.38



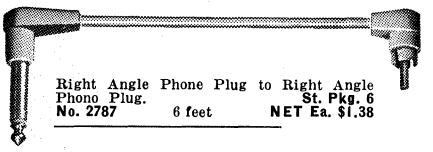
Male Phono Plug with Molded Fingergrip handle one end; Miniature Phone Plug other end. Std. Pkg. 6

No.		NET Ea.
No. 715	72 inches	$1.38



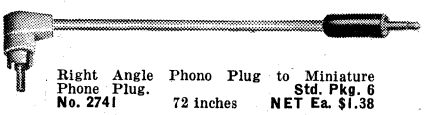
Right Angle Phono Plug to Phone Plug. Std. Pkg. 6

No.		NET Ea.
No. 2739	72 inches	$1.38



Right Angle Phone Plug to Right Angle Phono Plug. St. Pkg. 6

No.		NET Ea.
No. 2787	6 feet	$1.38

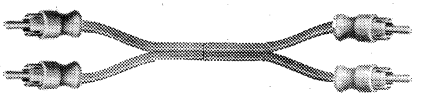


Right Angle Phono Plug to Miniature Phone Plug. Std. Pkg. 6

No.		NET Ea.
No. 2741	72 inches	$1.38

STEREO CONNECTOR CABLES

Twin shielded audio cables, individually color coded with molded connectors, for neat, simultaneous connections of both channels in Stereo Hi-Fi equipment.



Male Phono Plugs with finger grip handle on each end.

No.	Length	NET Each
754	36 inches	$1.80
755	72 inches	2.04
756	144 inches	2.70

Male Phono Plugs with finger grip handle, one end. Other end stripped and tinned with color-coded insulation.

No.	Length	NET Each
757	36 inches	$1.59
758	72 inches	1.74
759	144 inches	2.25

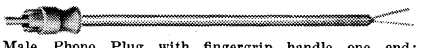
Male Phono Plugs with finger grip handle, one end. Female molded in-line jacks other end.

No.	Length	NET Each
760	36 inches	$2.25
761	72 inches	2.40
762	144 inches	3.00

PHONO PLUG CONNECTOR CORDS

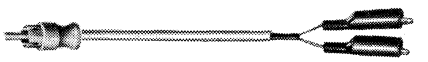
Male Phono Plug with fingergrip handle one end; Spade Lugs other end. Std. Pkg. 6

No.		NET Ea.
No. 668	72 inches	$.72



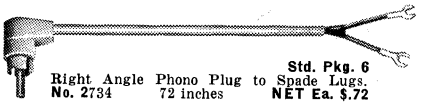
Male Phono Plug with fingergrip handle one end; other end stripped and tinned. Std. Pkg. 6

No.	Length	NET Ea.
637	36 inches	$.66
638	72 inches	.84



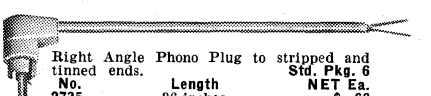
Male Phono Plug with fingergrip handle one end; Insulated Alligator Clips other end. Std. Pkg. 6

No.	Length	NET Ea.
673	36 inches	$.72
674	72 inches	.90



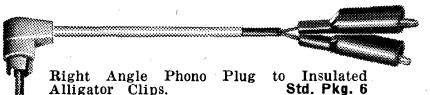
Right Angle Phono Plug to Spade Lugs. Std. Pkg. 6

No.		NET Ea.
No. 2734	72 inches	$.72



Right Angle Phono Plug to stripped and tinned ends. Std. Pkg. 6

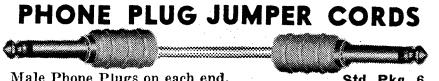
No.	Length	NET Ea.
2735	36 inches	$ .66
2736	72 inches	.84



Right Angle Phono Plug to Insulated Alligator Clips. Std. Pkg. 6

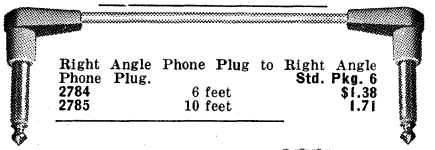
No.	Length	NET Ea.
2737	36 inches	$ .72
2738	72 inches	.90

PHONE PLUG JUMPER CORDS



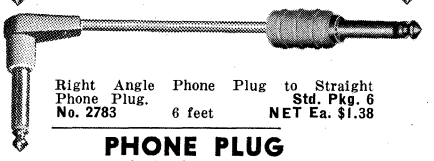
Male Phone Plugs on each end. Std. Pkg. 6

No.		NET Ea.
No. 677	72 incnes	$1.38



Right Angle Phone Plug to Right Angle Phone Plug. Std. Pkg. 6

2784	6 feet	$1.38
2785	10 feet	1.71



Right Angle Phone Plug to Straight Phone Plug. Std. Pkg. 6

No. 2783	6 feet	NET Ea. $1.38

PHONE PLUG EXTENSION CORDS

Male Phone Plug one end; Female In-line Jack other end. Std. Pkg. 6

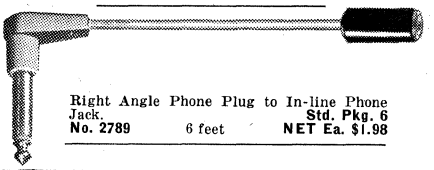
No.		NET Ea.
No. 663	72 inches	$1.80

Right Angle Phone Plug to In-line Phono Jack. Std. Pkg. 6

No.		NET Ea.
No. 2788	6 feet	$1.80

Male Phone Plug one end; In-line Jack other end. Std. Pkg. 6

No.		NET Ea.
No. 669	72 inches	$1.98



Right Angle Phone Plug to In-line Phone Jack. Std. Pkg. 6

No.		NET Ea.
No. 2789	6 feet	$1.98

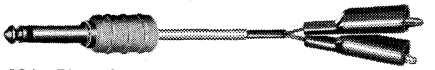
PHONE PLUG CONNECTOR CORDS

Male Phone Plug one end; Spade Lugs other end. Std. Pkg. 6

No.		NET Ea.
No. 665	72 inches	$1.08

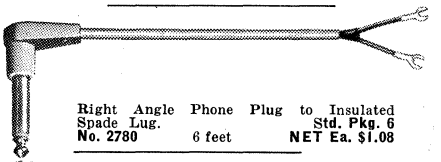
Male Phone Plug one end; other end stripped and tinned. Std. Pkg. 6

No.		NET Ea.
No. 667	72 inches	$1.20



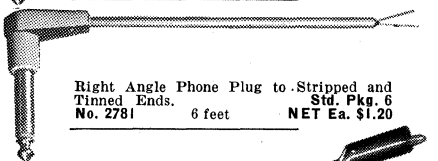
Male Phone Plug one end; insulated Alligator Clips other end. Std. Pkg. 6

No.		NET Ea.
No. 664	72 inches	$1.29



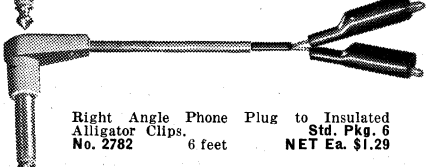
Right Angle Phone Plug to Insulated Spade Lug. Std. Pkg. 6

No.		NET Ea.
No. 2780	6 feet	$1.08



Right Angle Phone Plug to Stripped and Tinned Ends. Std. Pkg. 6

No.		NET Ea.
No. 2781	6 feet	$1.20



Right Angle Phone Plug to Insulated Alligator Clips. Std. Pkg. 6

No.		NET Ea.
No. 2782	6 feet	$1.29

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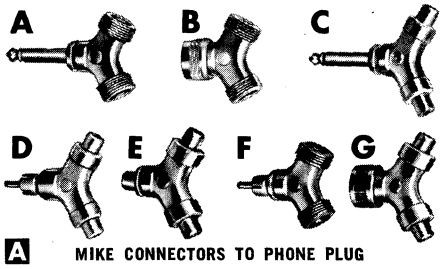
specify SMITH

HERMAN H. SMITH, INC.

ELECTRONIC COMPONENTS

"Y" CONNECTOR ADAPTERS

Three circuit, fully shielded connectors for parallel input, patching, and mixing various styles of audio cable terminations. All connectors are American made, precision die-cast, with bright nickel plated finish **Std. Pkg. 10**



A **MIKE CONNECTORS TO PHONE PLUG**

INPUT: Two Male threaded Microphone connectors paralleled.
OUTPUT: Single two-circuit phone plug.

No. 1250 **NET Each $1.14**

B **MIKE CONNECTORS TO MIKE CONNECTOR**

INPUT: Two Male threaded Microphone connectors, paralleled.
OUTPUT: Single Female threaded Microphone connector, captive ring.

No. 1251 **NET Each $ .99**

C **PHONO JACKS TO PHONE PLUG**

INPUT: Two standard phono jacks, paralleled.
OUTPUT: Single two-circuit phone plug.

No. 1252 **NET Each $1.14**

D **PHONO JACKS TO PHONO PLUG**

INPUT: Two standard phono jacks, paralleled.
OUTPUT: Single standard phono plug.

No. 1253 **NET Each $1.05**

E **PHONO JACKS TO PHONO JACK**

INPUT: Two standard phono jacks, paralleled.
OUTPUT: Single two-circuit phone plug.

No. 1254 **NET Each $1.05**

F **MIKE CONNECTORS TO PHONO PLUG**

INPUT: Two Male threaded Microphone connectors, paralleled.
OUTPUT: Single standard phono plug.

No. 1255 **NET Each $ .99**

G **PHONO JACKS TO MIKE CONNECTOR**

INUT: Two standard phono jacks, paralleled.
OUTPUT: Single Female threaded Microphone connector, captive ring.

No. 1256 **NET Each $1.14**

MICROPHONE CONNECTOR ADAPTERS

A

INPUT: Standard phono jack. **Std. Pkg. 10**
OUTPUT: Female microphone connector, with captive ring.

No. 1229 **NET Each $ .75**

B

INPUT: Standard phono jack.
OUTPUT: Male threaded microphone connector.

No. 1230 **NET Each $ .75**

C

INPUT: Female Microphone connector, with captive ring.
OUTPUT: Standard phono plug.

No. 1231 **NET Each $ .60**

D

INPUT: Male threaded Microphone connector.
OUTPUT: Standard phono plug.

No. 1232 **NET Each $ .60**

MICROPHONE CABLES

Coaxial Extension Cable

No.	Length	NET Ea.
687	36 inches	$1.44
688	72 inches	1.80
689	144 inches	2.58

Coaxial Jumper Cable

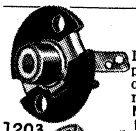
No.	Length	NET Ea.
694	36 inches	$1.62
696	72 inches	1.98
697	144 inches	2.52

PHONO PLUGS

RCA Type Phone Plug. For use with record players, recording and reproducing equipment, etc. Extra large hole in cap (.175") for coaxial cable. Std. Pkg. 100

No.	Type	NET Per C
1201	Long Pin (1" overall)	$3.60
1202	Short Pin (13/16" overall)	3.60

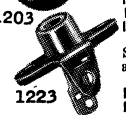
PHONO JACKS



1203

Female for No. 1201 plug. Single prong positive grip jack mounted on 1/16" bakelite with 11/16" mounting centers. Std. Pkg. 100

No.	NET Per C
1203	$4.20
1203-I Insulating Washer	1.80



1223

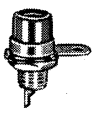
Small, compact . . . where space is at a premium. 7/16" Mtg. Ctrs. Std. Pkg. 100

No.	NET Per C
1223	$7.20

Space Saver . . . Rivets and grounds to chassis. Mounts in 19/64" hole. Std. Pkg. 50

No.	NET Per C
1233	$6.60

PANEL MOUNT PHONO JACK



Mounts in 29/64" hole (.453) with nut and washer. Easy installation for the home Hi-Fi enthusiast. **Std. Pkg. 50**

No.	NET Per C
1247	$30.00

HANDY GRIP PHONO PLUG

Quick connect: strip wire, solder inner conductor to pin and either solder braid to lug or crimp to lug. Fits all standard phone jacks. Std. Pkg. 100

No.	NET Per C
1246	$9.00

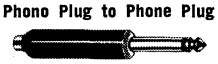
SHIELDED EXTENSION JACK

Brass shell, cadmium plated, 1 7/16" long, with black bakelite insert. Provides insulation for solder-coated positive grip contact. Uses No. 1201 phono plug. Std. Pkg. 50 **NET Per C**

No. 1237 ..... **$27.00**

PHONE ADAPTERS

Phono Plug to Phone Plug



Adapts standard phono plug to phone plug with built in resistor to adapt either crystal or magnetic pickups. Std. Pkg. 10

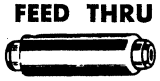
No.	Description	NET Ea.
707	With Resistor	$1.59
708	Without Resistor	.90

Min. Jack to Std. Plug

Adapter, miniature phone jack to standard phone plug.

No. 764 Std. Pkg. 10 **NET Ea. $.75**

FEED THRU

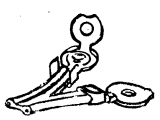


Accepts Phono Plug on Each End.

No. 661 Std. Pkg. 10 **NET Ea. $.72**

TV ANTENNA LUG

Solderless Type



A secure, swift, positive and permanent method of connecting TV wire to antenna. Simply strip wire, coil around groove and fold over. Insure positive contact. Std. Pkg. 100

No.	Type	Length	Hole	NET Per C
1460	Double Cup	13/16"	No. 10	$2.64
1461	Double Cup	1 1/16"	1/4"	$3.00

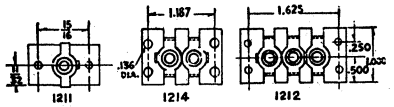
"OFF-THE-SHELF"

SMITH Standard Products are stocked nationally on the shelves of every major Parts Distributor. That's ONE reason why Engineers, Technicians and Purchasing Agents agree:

"IT'S SOUND PLANNING TO SPECIFY SMITH!"

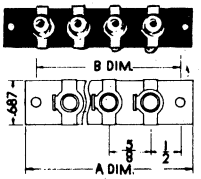
PHONO JACKS

Used on recording units, phono plays, etc. Std. pkg. 50



No.	NET Per C
1211—Single Jack	$ 7.20
1214—Double Jack	9.60
1212—Triple Jack	15.00
1214-1—Insulating Washer for No. 1214 ..	2.40

MULTIPLE PHONO JACKS



Individual phono jacks (no interconnected grounds) kmounted on narrow width bakelite strip. Std. Pkg. 50

No.	No. of Jacks	Dimensions "A"	Dimensions "B"	NET Per C
1261	1	1 3/8"	1.000	$4.80
1262	2	2"	1.625	8.70
1263	3	2 5/8"	2.250	14.10
1264	4	3 1/4"	2.875	17.10
1265	5	3 7/8"	3.500	21.60
1266	6	4 1/2"	4.125	25.20
1267	7	5 1/8"	4.750	29.40
1268	8	5 3/4"	5.375	33.60

"Y" CONNECTORS

Flexible "Y" connector, male phono plug to twin female phono jacks. 4" shielded wire.

No. 751 Std. Pkg. 6 **NET Ea. $1.20**

Flexible "Y" connector, male phono plug to twin male phono plugs. 4" shielded wire.

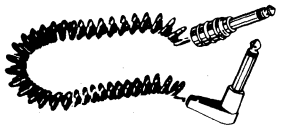
No. 752 Std. Pkg. 6 **NET Ea. $1.20**

Flexible "Y" connector, female phono jack to twin male phono plugs. 4" shielded wire.

No. 753 Std. Pkg. 6 **NET Ea. $1.20**

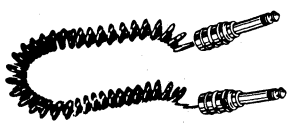
ELECTRIC GUITAR CABLES

Rubber covered spring-back type, designed for professional use with guitars, and other stringed instruments, accordions, electronic organs, etc. **St. Pkg. 6**



Right-angle phone plug one end, straight phone plug other end.

No.	Expanded Length	NET Each
2715	15-ft.	$4.50
2716	20-ft.	5.70



Straight phone plug at each end.

No.	Expanded Length	NET Each
2717	15-ft.	$4.50
2718	20-ft.	5.70

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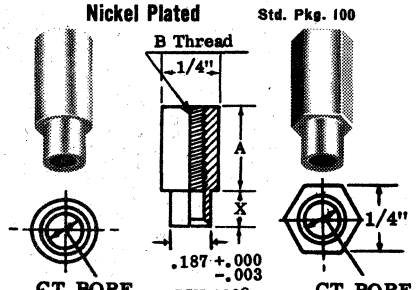
BRASS THREADED SWAGE STANDOFFS

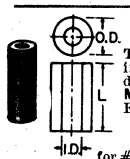
Nickel Plated — Std. Pkg. 100



No.	NET Per C	A	B	X	No.	NET Per C
4100	$ 6.50	1/4	4/40	.105	4200	$ 7.50
4101	6.50	1/4	4/40	.135	4201	7.50
4102	6.50	1/4	4/40	.165	4202	7.50
4103	7.50	3/8	4/40	.105	4203	8.50
4104	7.50	3/8	4/40	.135	4204	8.50
4105	7.50	3/8	4/40	.165	4205	8.50
4106	8.50	1/2	4/40	.105	4206	10.00
4107	8.50	1/2	4/40	.135	4207	10.00
4108	8.50	1/2	4/40	.165	4208	10.00
4109	10.00	5/8	4/40	.105	4209	11.50
4110	10.00	5/8	4/40	.135	4210	11.50
4111	10.00	5/8	4/40	.165	4211	11.50
4112	11.50	3/4	4/40	.105	4212	12.50
4113	11.50	3/4	4/40	.135	4213	12.50
4114	11.50	3/4	4/40	.165	4214	12.50
4115	15.50	1	4/40	.105	4215	15.50
4116	15.50	1	4/40	.135	4216	15.50
4117	15.50	1	4/40	.165	4217	15.50
4118	$ 6.50	1/4	6/32	.105	4218	$ 7.50
4119	6.50	1/4	6/32	.135	4219	7.50
4120	6.50	1/4	6/32	.165	4220	7.50
4121	7.50	3/8	6/32	.105	4221	8.50
4122	7.50	3/8	6/32	.135	4222	8.50
4123	7.50	3/8	6/32	.165	4223	8.50
4124	8.50	1/2	6/32	.105	4224	10.00
4125	8.50	1/2	6/32	.135	4225	10.00
4126	8.50	1/2	6/32	.165	4226	10.00
4127	10.00	5/8	6/32	.105	4227	11.50
4128	10.00	5/8	6/32	.135	4228	11.50
4129	10.00	5/8	6/32	.165	4229	11.50
4130	11.50	3/4	6/32	.105	4230	12.50
4131	11.50	3/4	6/32	.135	4231	12.50
4132	11.50	3/4	6/32	.165	4232	12.50
4133	15.50	1	6/32	.105	4233	15.50
4134	15.50	1	6/32	.135	4234	15.50
4135	15.50	1	6/32	.165	4235	15.50
4136	$ 6.50	1/4	8/32	.105	4236	$ 7.50
4137	6.50	1/4	8/32	.135	4237	7.50
4138	6.50	1/4	8/32	.165	4238	7.50
4139	7.50	3/8	8/32	.105	4239	8.50
4140	7.50	3/8	8/32	.135	4240	8.50
4141	7.50	3/8	8/32	.165	4241	8.50
4142	8.50	1/2	8/32	.105	4242	10.00
4143	8.50	1/2	8/32	.135	4243	10.00
4144	8.50	1/2	8/32	.165	4244	10.00
4145	10.00	5/8	8/32	.105	4245	11.50
4146	10.00	5/8	8/32	.135	4246	11.50
4147	10.00	5/8	8/32	.165	4247	11.50
4148	11.50	3/4	8/32	.105	4248	12.50
4149	11.50	3/4	8/32	.135	4249	12.50
4150	11.50	3/4	8/32	.165	4250	12.50
4151	15.50	1	8/32	.105	4251	15.50
4152	15.50	1	8/32	.135	4252	15.50
4153	15.50	1	8/32	.165	4253	15.50

CERAMIC STANDOFFS

SEE SMITH PAGE 51



FIBRE SPACERS

These fibre bushings are ideal for use in raising sub panels, chassis, condensers, transformers, etc.

MATERIAL: FIBRE, per MIL-F-1148A, Grade CH.

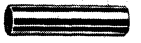
1/4" O.D.

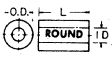
Std. Pkg. 100

Length "L"	for #4 Screw No.	for #6 Screw No.	for #8 Screw No.	NET Per C
.125	8880	8881	8882	$3.00
.187	8883	8884	8885	3.40
.250	2335	2130	2140	3.90
.312	8886	8887	8888	4.00
.375	2336	2131	2141	4.95
.437	8889	8890	8891	5.00
.500	2337	2132	2142	6.00
.562	8892	8893	8894	6.20
.625	8895	8896	8897	6.50
.687	8898	8899	8900	6.80
.750	2338	2133	2143	7.20
.812	8901	8902	8903	7.30
.875	8904	8905	8906	7.50
.937	8907	8908	8909	8.00
1.000	2339	2134	2144	8.25

BRASS SPACERS

Cadmium Plated





These brass bushings are ideal for use in raising sub panels, chassis, condensers, transformers, etc. Hole in bushing to accommodate a #4, #6, or #8 screw.

Std. Pkg. 100

1/4" O.D.

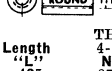
Length "L"	for #4 Screw No.	for #6 Screw No.	for #8 Screw No.	NET Per C
.125	8700	8701	8702	$2.50
.187	8703	8704	8705	2.80
.250	2340	2100	2105	3.30
.312	8706	8707	8708	3.70
.375	2341	2101	2106	4.35
.437	8709	8710	8711	4.70
.500	2342	2102	2107	5.28
.562	8712	8713	8714	5.50
.652	8715	8716	8717	5.70
.687	8718	8719	8720	6.00
.750	2343	2103	2108	6.30
.812	8721	8722	8723	6.70
.875	8724	8725	8726	6.90
.937	8727	8728	8729	7.00
1.000	2344	2104	2109	7.20

3/8" O.D.

.125	8730	8731	8732	$4.20
.187	8733	8734	8735	4.50
.250	2345	2110	2115	5.28
.312	8736	8737	8738	5.50
.375	2346	2111	2116	6.30
.437	8739	8740	8741	7.00
.500	2347	2112	2117	8.00
.562	8742	8743	8744	8.70
.625	8745	8746	8747	9.20
.687	8748	8749	8750	10.00
.750	2348	2113	2118	10.90
.812	8751	8725	8753	11.70
.875	8754	8755	8756	12.50
.937	8757	8758	8759	13.40
1.000	2349	2114	2119	14.20

BRASS THREADED SPACERS

Cadmium Plated

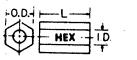


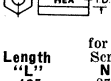
1/4" O.D.

Length "L"	THD 4-40 No.	THD 6-32 No.	THD 8-32 No.	NET Per C
.125	8760	8761	8762	$2.80
.187	8763	8764	8765	3.30
.250	2370	2120	2125	3.90
.312	8766	8767	8768	4.30
.375	2371	2121	2126	4.95
.437	8769	8770	8771	5.50
.500	2372	2122	2127	6.00
.562	8772	8773	8774	6.50
.625	8775	8776	8777	7.00
.687	8778	8779	8780	7.80
.750	2373	2123	2128	8.40
.812	8781	8782	8783	9.20
.875	8784	8785	8786	9.50
.937	8787	8788	8789	10.00
1.000	2374	2124	2129	10.40

BRASS HEX SPACERS

Cadmium Plated





1/4" HEX

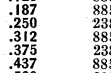
Length "L"	for #4 Screw No.	for #6 Screw No.	for #8 Screw No.	NET Per C
.125	8790	8791	8792	$3.00
.187	8793	8794	8795	3.20
.250	2380	2300	2305	3.60
.312	8796	8797	8798	4.00
.375	2381	2301	2306	4.65
.437	8799	8800	8801	5.00
.500	2382	2302	2307	5.58
.562	8802	8803	8804	5.80
.625	8805	8806	8807	6.00
.687	8808	8809	8810	6.40
.750	2383	2303	2308	6.75
.812	8811	8812	8813	7.00
.875	8814	8815	8816	7.30
.937	8817	8818	8819	7.50
1.000	2384	2304	2309	7.80

3/8" HEX

.125	8850	8851	8852	$4.40
.187	8853	8854	8855	5.00
.250	2385	2310	2315	6.18
.312	8856	8857	8858	6.30
.375	2386	2311	2316	7.20
.437	8859	8860	8861	7.90
.500	2387	2312	2317	8.25
.562	8862	8863	8864	10.00
.625	8865	8866	8867	10.90
.687	8868	8869	8870	11.70
.750	2388	2313	2318	12.50
.812	8871	8872	8873	13.40
.875	8874	8875	8876	14.20
.937	8877	8878	8879	15.00
1.000	2389	2314	2319	15.90

BRASS THREADED HEX SPACERS

Cadmium Plated



1/4" HEX

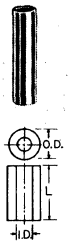
Std. Pkg. 100

Length "L"	THD 4-40 No.	THD 6-32 No.	THD 8-32 No.	NET Per C
.125	8820	8821	8822	$3.30
.187	8823	8824	8825	3.80
.250	2330	2320	2325	4.20
.312	8826	8827	8828	4.70
.375	2331	2321	2326	5.25
.437	8829	8830	8831	5.80
.500	2332	2322	2327	6.30
.562	8832	8833	8834	7.50
.625	8835	8836	8837	8.45
.687	8838	8839	8840	8.90
.750	2333	2323	2328	9.20
.812	8841	8842	8843	10.00
.875	8844	8845	8846	10.40
.937	8847	8848	8849	10.90
1.000	2334	2324	2329	11.20

ALUMINUM SPACERS

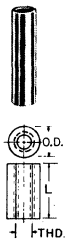
Irridite 14-2 per MIL-C-5541 — Std. Pkg. 100

ROUND—CLEAR HOLE



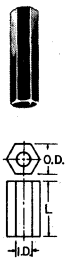
LENGTH "L"	.250 O.D. for #4 screw No.	for #6 screw No.	for #8 screw No.	NET Per C	.312 O.D. for #10 screw No.	NET Per C
.125	8480	8500	8520	$ 9.75	8540	$ 8.50
.250	8481	8501	8521	10.50	8541	10.75
.375	8482	8502	8522	11.00	8542	11.50
.500	8483	8503	8523	11.75	8543	12.25
.625	8484	8504	8524	12.50	8544	13.00
.750	8485	8505	8525	14.25	8545	14.50
.875	8486	8506	8526	14.50	8546	14.75
1.000	8487	8507	8527	15.00	8547	15.25
1.250	8488	8508	8528	20.00	8548	21.50
1.500	8489	8509	8529	21.50	8549	22.50
1.750	8490	8510	8530	21.75	8550	23.50
2.000	8491	8511	8531	22.25	8551	25.50
2.50	8492	8512	8532	24.00	8552	28.00
3.00	8493	8513	8533	28.00	8553	28.75
3.50	8494	8514	8534	30.00	8554	46.00
4.00	8495	8515	8535	32.00	8555	48.00
5.00	8496	8516	8536	40.00	8556	54.00
6.00	8497	8517	8537	44.00	8557	62.00

ROUND—TAPPED HOLE



LENGTH "L"	.250 O.D. 4-40 THD	6-32 THD	8-32 THD	NET Per C	.312 O.D. 10-32 THD	NET Per C
.125	8320	8340	8360	$ 8.75	8380	$ 9.00
.250	8321	8341	8361	12.00	8381	12.75
.375	8322	8342	8362	12.50	8382	13.00
.500	8323	8343	8363	13.00	8383	14.00
.625	8324	8344	8364	14.75	8384	15.25
.750	8325	8345	8365	15.50	8385	17.75
.875	8326	8346	8366	17.00	8386	18.75
1.000	8327	8347	8367	18.00	8387	19.75
1.250	8328	8348	8368	19.50	8388	20.50
1.500	8329	8349	8369	20.25	8389	21.50
1.750	8330	8350	8370	21.50	8390	22.50
2.00	8331	8351	8371	21.75	8391	24.00
2.50	8332	8352	8372	24.00	8392	26.00
3.00	8333	8353	8373	25.50	8393	28.00
3.50	8334	8354	8374	29.00	8394	31.00
4.00	8335	8355	8375	32.00	8395	34.00

HEX—CLEAR HOLE



LENGTH "L"	.250 O.D. for #4 screw	for #6 screw	for #8 screw	NET Per C	.312 O.D. for #10 screw	NET Per C
.125	8560	8580	8600	$ 9.25	8620	$11.50
.250	8561	8581	8601	11.00	8621	13.50
.375	8562	8582	8602	12.00	8622	14.25
.500	8563	8583	8603	12.25	8623	15.00
.625	8564	8584	8604	13.50	8624	16.00
.750	8565	8585	8605	15.00	8625	16.50
.875	8566	8586	8606	15.50	8626	17.00
1.000	8567	8587	8607	20.00	8627	17.50
1.250	8568	8588	8608	21.00	8628	22.00
1.500	8569	8589	8609	22.00	8629	23.75
1.750	8570	8590	8610	22.50	8630	25.50
2.00	8571	8591	8611	23.00	8631	26.00

HEX—TAPPED HOLE

LENGTH "L"	.250 O.D. 4-40 THD	6-32 THD	8-32 THD	NET Per C	.312 O.D. 10-32 THD	NET Per C
.125	8400	8420	8440	$11.00	8460	$12.25
.250	8401	8421	8441	12.00	8461	15.00
.375	8402	8422	8442	13.50	8462	16.00
.500	8403	8423	8443	14.00	8463	16.75
.625	8404	8424	8444	15.25	8464	17.50
.750	8405	8425	8445	16.00	8465	20.00
.875	8406	8426	8446	18.00	8466	20.50
1.000	8407	8427	8447	18.50	8467	21.00
1.250	8408	8428	8448	20.25	8468	21.75
1.500	8409	8429	8449	22.00	8469	22.75
1.750	8410	8430	8450	21.50	8470	26.00
2.00	8411	8431	8451	22.50	8471	28.00
2.50	8412	8432	8452	25.00	8472	30.00
3.00	8413	8433	8453	26.50	8473	32.00
3.50	8414	8434	8454	30.00	8474	33.00
4.00	8415	8435	8455	31.00	8475	38.00

FLAG, SPADE & HOLE LUGS

MATERIAL: Brass, hot-tin dipped.

Std. Pkg. 100

Smith No.	Style	A	D	NET Per C
		FLAG		
73134	1	9/16"	3/32"	$1.80
73135	1	9/16"	3/32"	1.80
73136	1	21/32"	9/64"	1.80
73138	1	47/64"	9/64"	2.10
73139	2	23/32"	11/64"	2.40
73140	2	1-1/32"	13/64"	3.00
73141	1	47/64"	9/64"	2.10
		SPADE		
73126	1	9/16"	3/32"	$1.80
73127	1	9/16"	3/32"	1.80
73128	1	21/32"	9/64"	1.80
73129	1	21/32"	9/64"	1.80
73130	1	47/64"	9/64"	2.10
73131	2	23/32"	11/64"	2.40
73132	2	1-1/32"	13/64"	3.00
73133	1	47/64"	9/64"	2.10
		HOLE		
73142	1	9/16"	3/32"	$1.80
73143	1	9/16"	3/32"	1.80
73144	1	21/32"	9/64"	1.80
73145	1	21/32"	9/64"	1.80
73146	1	47/64"	9/64"	2.10
73147	2	23/32"	11/64"	2.40
73148	2	1-1/32"	13/64"	3.00
73149	1	47/64"	9/64"	2.10

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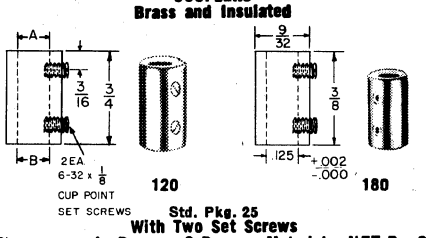
specify SMITH

HERMAN H. SMITH, INC.

ELECTRONIC COMPONENTS

COUPLERS
Brass and Insulated



Std. Pkg. 25

With Two Set Screws

No.	A B	O.D.	Material	NET Per C
120	¼"-¼"	7/16"	Brass N.P.	$18.00
140	¼"-¼"	7/16"	Fibre	20.00
131	⅜"-¼"	½"	Brass N.P.	18.00
141	⅜"-¼"	½"	Fibre	20.00
133	⅜"-⅜"	½"	Brass N.P.	18.00
142	⅜"-⅜"	½"	Fibre	20.00

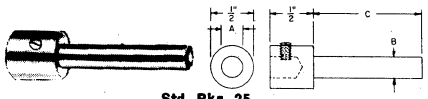
With Four Set Screws

138	¼"-¼"	7/16"	Brass N.P.	28.00

MINIATURE COUPLER
With Allen Head Set Screws

180	⅛"-⅛"	9/32"	Brass N.P.	$40.00

EXTENDERS
Brass and Insulated



Std. Pkg. 25

Long Shaft Type

No.	A B	C	Material	NET Per C
150	¼"-¼"	1½"	Brass N.P.	$25.00
130	¼"-¼"	1½"	Fibre	30.00
132	⅜"-¼"	1½"	Brass N.P.	25.00
134	⅜"-¼"	1½"	Fibre	30.00

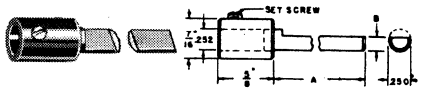
Short Shaft Type

No.	A B	C	Material	NET Per C
160	¼"-¼"	5/8"	Brass N.P.	$22.00
161	¼"-¼"	5/8"	Fibre	22.00
162	⅜"-¼"	5/8"	Brass N.P.	22.00
163	⅜"-¼"	5/8"	Fibre	22.00

MINIATURE EXTENDER With Allen Head Set Screws

189	⅛"-⅛"	⅜"	Brass N.P.	$25.00

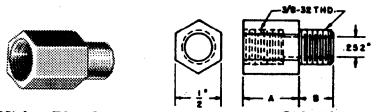
SHAFT EXTENDERS For Volume Controls



Brass, Nickel Plated. Std. Pkg. 25

No.	A	B	NET Per C
	FULL ROUND		
2356	2"	.250"	$21.00
2357	3"	.250"	24.00
2358	4"	.250"	27.00
2359	2"	.219"	21.00
	WITH FLAT		
2360	3"	.219"	24.00
2361	4"	.219"	27.00
2362	2"	.156"	21.00
2363	3"	.156"	24.00
2364	4"	.156"	27.00

BUSHING EXTENDERS For Volume Controls



Brass, Nickel Plated. Std. Pkg. 25

No.	A	B	NET Per C
2350	5/8"	5/16"	$36.00
2351	5/8"	3/8"	36.00
2352	5/8"	3/8"	36.00
2353	11/16"	3/8"	36.00
2354	11/16"	1/2"	36.00
2355	3/4"	1/4"	36.00

BRASS THREADED RODS

Std. Pkg. 10

1-Ft. Length No.	NET Ea.	Threaded	2-Ft. Length No.	NET Ea.
1400-1	$.30	6-32	1400-2	$.60
1401-1	.35	8-32	1401-2	.70
1402-1	.40	10-32	1402-2	.80
1403-1	.80	¼-20	1403-2	1.60

NYLON THREADED RODS
Std. Pkg. 10

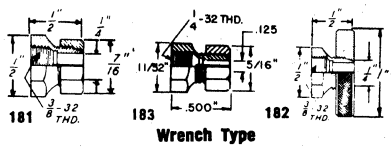
1-Ft. Length No.	NET Ea.	Threaded	2-Ft. Length No.	NET Ea.
1420-1	$ .90	6-32	1420-2	$1.80
1421-1	1.02	8-32	1421-2	2.40
1422-1	1.50	10-32	1422-2	3.00
1423-1	1.80	¼-20	1423-2	3.60

Brass Fibre and Nylon PLAIN RODS

Std. Pkg. 10

¼" DIA No.	Net Ea.	Type	Length	⅛" DIA No.	NET Ea.
1404	$.25	Brass N.P.	6"	1431	$.30
1405	.50	Brass N.P.	12"	1432	.60
1406	.15	Fibre	6"	1433	.15
1407	.30	Fibre	12"	1434	.30
1408	.30	Nylon	6"	1440	.30
1409	.60	Nylon	12"	1441	.60

SHAFT LOCKS Brass Nickel Plated



Wrench Type

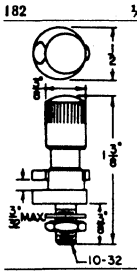
No.	Shaft	Std. Pkg.	NET Per C
181	¼"	100	$24.00

Miniature Wrench Type

183	⅛"	25	24.00

Thumb Type

182	¼"	25	33.00



DIAL LOCK

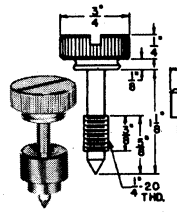
HEAD: Captive: Brass, nickel plated.

BODY: Brass nickel plated.

DESCR.: Prevents detuning of the dial when locked by means of the captive knurled nut.
Supplied with hex nut & lockwasher. Std. Pkg. 25

No.	NET Per C
199	$66.00

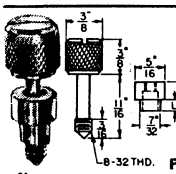
CAPTIVE SCREW & BUSHING
Large Head



BODY: BRASS, nickel plated.
DESCR.: Supplied with panel bushing as shown. Used extensively for quick removal of panels from chassis. Non-removable from panel. Std. Pkg. 50

No.	Panel Bushing Length (L)	NET Per C
2365-A	5/32"	$75.00
2365-B	7/32"	75.00
2365-C	9/32"	75.00

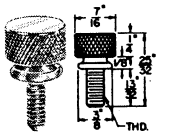
CAPTIVE SCREW & BUSHING
Small Head



BODY: BRASS, nickel plated.
DESCR.: Supplied with panel bushing as shown. Used extensively for quick removal of panels from chassis. Non-removable from panel. Std. Pkg. 50

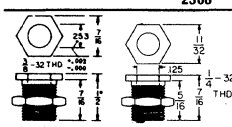
No.	Panel Bushing Length (L)	NET Per C
2375-A	5/32"	$75.00
2375-B	7/32"	75.00
2375-C	9/32"	75.00

THUMB SCREW



BODY: BRASS, nickel plated.
DESCR.: Used extensively for quick removal of panels from chassis. Std. Pkg. 25

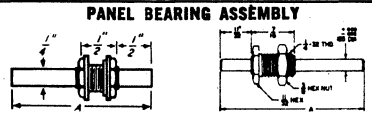
No.	Thread	NET Per C
2366	6-32	$24.00
2367	8-32	24.00
2368	10-32	24.00



PANEL BEARINGS
Brass, Nickel Plated

No.	Type	Std. Pkg.	NET Per C
119	Standard	100	$15.00
184	Miniature	25	15.00

PANEL BEARING ASSEMBLY



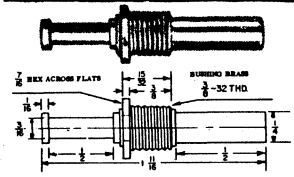
Uses our standard #119 Panel Bearing. Nickel plated overall. Std. Pkg. 25

No.	A	NET Per C
148	3"	$33.00
149	6"	39.00

MINIATURE PANEL BEARING ASSEMBLY

Miniature ⅛" shaft assembly, using our standard #184 Panel Bearing. Brass, nickel plated overall. Std. Pkg. 25

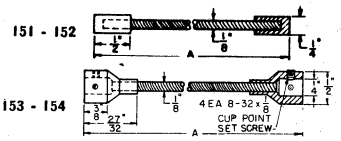
No.	Length "A"	NET Per C
1448	2"	$33.00
1449	4"	39.00



DIAL DRIVE ASSEMBLY
Brass, Nickel Plated
Std. Pkg. 25

No.	NET Per C
126	$33.00

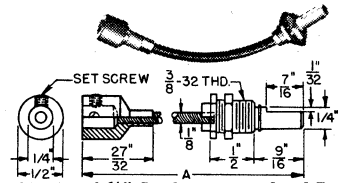
FLEXIBLE SHAFTS



High quality phosphor bronze non-magnetic, non-rusting flexible shafts. Remote control when necessary to mount condensers and potentiometers away from panel at unusual angles. Turns at any angle up to 90°; free from back lash. Std. Pkg. 25

No.	Size "A"	Description	NET Per C
151	3"	With ¼" hub	$45.00
152	6"	With ¼" hub	60.00
153	3⅝"	With ¼" coupler	90.00
154	6⅝"	With ¼" coupler	105.00

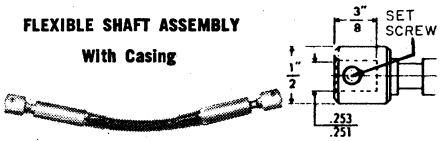
BI-DIRECTIONAL FLEXIBLE SHAFT AND PANEL BEARING



Combination of ¼" Coupler at one end and Panel Bearing Assembly at other. High quality phosphor bronze non-magnetic, non-rusting flexible shaft, turns at any angle up to 90°. Free from backlash. Std. Pkg. 25

No.	Length "A"	NET Ea.
165	4 1/16"	$1.35
166	7 1/16"	1.50

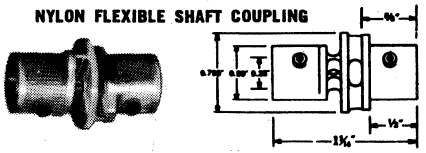
FLEXIBLE SHAFT ASSEMBLY
With Casing



Bi-directional high quality flexible shaft. Cable casing acts as a support and reduces amount of deflection in cable. Metal parts steel cadmium plated.

No.	Length	NET Ea.
169	8"	$6.00
170	12"	6.80

NYLON FLEXIBLE SHAFT COUPLING



DESCR.: Molded nylon with molded-in brass bushings. Hi-temp nylon not influenced by moisture. Designed for long reach shaft coupling. Supplied with 2 Allen head set screws. Std. Pkg. 25

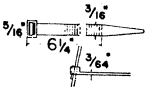
No.	NET Ea.
164	$1.15

SHAFT WRENCH

Specially designed offset, double-end wrenches for most hex sizes encountered in electronic construction. Made of heavy gauge, cadmium plated steel, clearly marked with size. No. 999 is especially useful for Toggle Switch and Volume Control mounting nuts. Std. Pkg. 25

No.	For Nut Sizes	NET Per C
997	Set of 2	$42.00
998	5/16" - 3/8"	21.00
999	1/2" - 9/16"	21.00

NYLON LOCKING CLAMP



Wedge and ratchet design makes for positive holding and locking. Accommodates cables from ⅛" to 1¼". No knot tying, just slip clamp around cable, insert tongue and pull tight. Std. Pkg. 100

No.	NET Per C
800	$9.00

NYLON MOUNTING TABS

For use with No. 800 locking clamp when premounted assembly points are desired. Furnished with .203 mounting hole. Std. Pkg. 100

No.	NET Per C
801	$3.00

NYLON PERFORATING STRAPPING

For bundling of wire, cable and tubing. Time saver for harnessing. Use No. 803 ratchet buckle for fast assembly. Supplied on 50' rolls.

No.	NET Per Roll
802	$16.00

NYLON RATCHET BUCKLE

For No. 802 strapping. Quick and easier assembly with this ingenious item. Std. Pkg. 100

No.		NET Per C
803	For ½" Strapping	$10.20

TIGHTENING TOOL

Used with strapping for fast assembly.

No.	NET Ea.
804	$18.00

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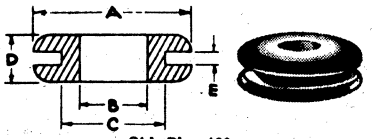
HERMAN H. SMITH, INC.

ELECTRONIC COMPONENTS

RUBBER GROMMETS



Std. Pkg. 100

No.	A	B	C	D	E	NET Per C
2185	5/16"	1/8"	3/16"	3/16"	1/16"	$2.31
2172	7/16"	3/16"	5/16"	3/16"	1/16"	1.98
2170	5/8"	1/4"	3/8"	1/4"	1/16"	2 31
2174	5/8"	5/16"	7/16"	1/4"	1/16"	2.16
2175	11/16"	3/8"	1/2"	1/4"	1/16"	2.31
2177	3/4"	7/16"	9/16"	1/4"	1/16"	2.16
2186	1 1/16"	1/2"	3/4"	5/16"	1/16"	4.80
2187	1 1/8"	5/8"	7/8"	5/16"	1/16"	4.20
2188	1 1/16"	5/16"	3/16"	5/16"	1/16"	4.20
2189	1 "	3/4"	7/8"	5/32"	1/32"	5.10

VINYL GROMMETS

DESCR.: Exceptional aging qualities. High dielectric properties. Oil resistant. Durameter hardness 45 to 85.

No.	A	B	C	D	E	NET Per C
2145	1 1/32	1/8	1/4	3/16	1/16	$.90
2146	7/16	3/16	5/16	7/32	1/16	.96
2147	9/16	1/4	3/8	1/4	1/16	1.32
2148	5/8	3/8	1/2	1/4	1/16	1.50
2149	13/16	1/2	5/8	9/32	1/16	2.28

GROMMETS

Formerly listed by Radio Essentials, Inc., and American Radio Hardware Inc., (Their catalog numbers as below, minus first digit.)

No.	A	B	C	D	E	NET Per C
91100	3/8"	13/16"	1/2"	13/32"	9/64"	$7.50
91101	7/8"	1 3/16"	1 1/4"	5/8"	3/16"	13.20
91102	9/32"	5/8"	13/32"	3/8"	5/32"	3.15
91103	3/16"	9/16"	13/32"	3/8"	1/8"	3.00
91104	1/4"	7/8"	5/8"	15/32"	3/16"	6.50
91106	5/16"	5/8"	1/2"	1/2"	3/16"	6.60
91107	3/8"	5/8"	7/16"	5/16"	3/32"	3.30
91108	1/4"	5/8"	7/16"	17/32"	5/32"	7.50
91109	3/8"	1 1/16"	7/8"	3/8"	1/4"	13.50
91110	13/64"	3/8 1/2"	9/32"	7/32"	3/32"	6.30
91111	3/8"	7/8 1"	11/16"	13/32"	9/64"	7.00
91112	49/64"	15/8"	1 3/32"	5/16"	1/16"	7.05
91113	21/64"	5/8"	13/32"	1/4"	1/16"	2.85
91114	1/2"	1 1/32"	1/4"	3/4"	1/16"	2.34
91115	1/4"	9/16"	3/8"	1/2"	7/32"	6.50
91116	5/16"	3/4"	1/2"	3/8"	1/8"	4 35
91117	5/16"	1 3/32"	7/16"	3/8"	1/8"	3.15
91118	3/16"	7/16"	5/16"	7/32"	1/16"	2.40
91119	17/64"	9/16"	13/32"	1/4"	1/16"	2.55
91120	13/64"	5/8"	7/16"	1/4"	1/16"	3.00
91121	3/8"	11/16"	1/2"	1/4"	1/16"	2.85
91122	1/4"	1/2"	11/32"	5/32"	1/32"	2.85
91123	9/32"	11/16"	1/2"	7/16"	1/4"	5.10
91124	7/16"	3/4"	9/16"	1/4"	1/16"	3.45

RECESS RUBBER BUMPERS

Std. Pkg. 100

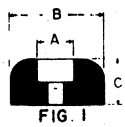


FIG. 1

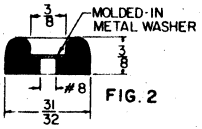


FIG. 2

No.	Fig.	A	B	C	NET Per C
2192	1	7/32"	17/32"	1/4"	$1.50
2193	1	1/4"	5/8"	5/16"	1.95
2194	1	9/32"	5/8"	3/8"	3.00
2184	1	5/16"	5/8"	9/32"	3.00
		With molded-in metal washer			
2135	2	3/8"	31/32"	3/8"	4.80

With Screw

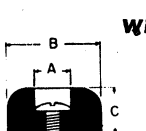


FIG 3

FIG. 4

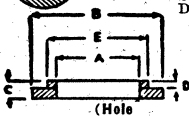
Supplied complete with 1/2" mounting screw and hex nut For panels up to 1/4" thick. Specify longer screw for thicker panels Std. Pkg. 100

No.	Fig.	A	B	C	Screw	NET Per C
2196	3	7/32"	17/32"	1/4"	6-32	$6.60
2197	3	1/4"	5/8"	5/16"	6-32	6.90
2198	3	9/32"	3/4"	5/8"	6-32	7.50
2199	3	1/4"	5/8"	9/32"	6-32	7.50
		With molded-in metal washer				
2195	4	3/8"	31/32"	5/8"	8-32	9.30

FIBRE WASHERS

SHOULDER WASHERS

All material based on N.E.M.A. Standard and A.S.P.M. Spec. D-710.



A. Inside Diameter
B. Outside Diameter
C. Thickness Overall
D. Height of Shoulder
E. Diameter of Shoulder

No.	A	(Hole Size)	B	C	D	E	NET Per C	NET Per M
2150	.140	No. 6	.375	.093	.031	.237	$.94	$6.90
2151	.110	No. 4	.250	.062	.031	.187	.82	5.70
2152	.136	No. 6	.250	.093	.031	.187	.85	6.00
2153	.136	No. 6	.312	.093	.031	.187	.91	6.60
2154	.250	1/4"	.500	.068	.028	.312	.97	7.20
2155	.172	No. 8	.375	.093	.031	.246	.91	6.60
2156	.196	No.10	.375	.093	.031	.308	.91	6.60
2159	.265	17/64"	.500	.097	.031	.365	1.09	7.20
2157	.375	3/8"	.750	.093	.031	.500	.97	8.70
2158	.385	3/8"	.625	.093	.031	.500	1.12	8.40

FLAT WASHERS

All material based on N.E.M.A. Standard and A.S.P.M. Spec. D-710.

No.	(Hole Size)	A I.D.	B O.D.	C Thickness	NET Per C	NET Per M
2160	No. 6	.136	.250	1/16	$ .82	$5.70
2161	No. 4	.110	.250	1/16	.82	5.70
2162	No. 6	.140	.375	1/16	.78	5.10
2163	No. 8	.172	.375	1/16	.76	5.10
2164	No. 10	.196	.375	1/16	.76	5.10
2165	1/4"	.250	.500	1/16	.79	5.40
2166	1/4"	.250	.500	3/32	.82	5.70
2167	5/16"	.312	.500	1/16	.79	5.40
2168	3/8"	.385	.625	1/16	.91	6.60
2169	3/8"	.375	.750	1/16	1.09	8.40

NYLON WASHERS

SHOULER WASHERS

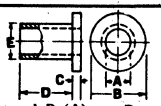
MATERIAL: Natural Nylon per MIL-P-20693A.

No.	A	(Hole Size)	B	C	D	E	NET Per C	NET Per M
2660	.140	No. 6	.375	.093	.031	.237	$2.25	$18.00
2661	.110	No. 4	.250	.062	.031	.187	1.90	15.00
2662	.136	No. 6	.250	.093	.031	.187	1.90	15.00
2663	.136	No. 6	.312	.093	.031	.187	2.05	16.20
2664	.250	1/4"	.500	.068	.028	.312	2.15	17.25
2665	.172	No. 8	.375	.093	.031	.246	2.25	18.00
2666	.196	No. 10	.375	.093	.031	.308	2.25	18.00
2669	.265	17/64"	.500	.097	.031	.365	3.15	25.00
2667	.375	3/8"	.750	.093	.031	.500	5.65	45.00
2668	.385	3/8"	.625	.093	.031	.500	3.75	30.00

FLAT WASHERS

No.	(Hole Size)	A I.D.	B O.D.	C Thickness	NET Per C	NET Per M
2514	No. 4	.115	.281	.047	$1.80	$18.00
2670	No. 6	.136	.250	1/16	1.60	12.90
2671	No. 4	.110	.250	1/16	1.60	12.90
2672	No. 6	.140	.375	1/16	2.05	16.30
2515	No. 6	.140	.312	.047	1.86	18.60
2673	No. 8	.172	.375	1/16	2.25	18.00
2516	No. 8	.170	.375	.062	2.10	21.00
2674	No. 10	.196	.375	1/16	2.05	16.30
2517	No. 10	.200	.437	.062	2.22	22.20
2675	1/4"	.250	.500	1/16	2.25	18.00
2676	1/4"	.250	.500	3/32	2.65	21.00
2518	1/4"	.260	.562	.062	2.40	24.00
2677	5/16"	.312	.500	1/16	2.25	18.00
2678	3/8"	.385	.625	1/16	2.45	19.50
2679	3/8"	.375	.750	1/16	2.70	21.75

NYLON SPACER BUSHINGS



Natural Color, MIL-P-20693A. Std. Pkg. 100

No.	I.D.(A)	B	C	D	E	NET Per C
2534	#4 (.115)	.235	3/64	1/4	.147	$2.10
2535	#6 (.140)	.290	3/64	1/4	.170	2.10
2536	#8 (.170)	.344	1/16	3/8	.205	2.22
2537	#10 (.200)	.399	1/16	3/8	.260	2.40
2538	1/4"(.260)	.513	1/16	3/8	.312	2.70

NYLON SCREWS

Natural Color, MIL-P-30693A. Std. Pkg. 100

Size	A No.	B No.	C No.	D No.	E No.	F No.	NET Per C
4-40 x 1/4	2500	2520	2540	2560	2580	2480	$3.00
4-40 x 3/8	2501	2521	2541	2561	2581	2481	3.06
4-40 x 1/2	2502	2522	2542	2562	2582	2482	3.12
6-32 x 1/4	2503	2523	2543	2563	2583	2483	3.06
6-32 x 3/8	2504	2524	2544	2564	2584	2484	3.06
6-32 x 1/2	2505	2526	2545	2565	2585	2485	3.12
6-32 x 5/8	2506	2526	2546	2566	2586	2486	3.12
6-32 x 3/4	2507	2527	2547	2567	2587	2487	3.18
8-32 x 1/4	2509	2529	2549	2569	2589	2489	3.06
8-32 x 3/8	2510	2530	2550	2570	2590	2490	3.12
8-32 x 1/2	2511	2531	2551	2571	2591	2491	3.12
8-32 x 5/8	2512	2532	2552	2572	2597	2492	3.18

NYLON HEX NUT

Natural Color, MIL-P-20693A. Std. Pkg. 100

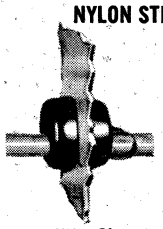
2554	4-40 x 1/4"	$6.00
2555	6-32 x 5/16"	6.30
2556	8-32 x 11/32"	6.60
2556	10-32 x 3/8"	6.90

FIBRE WASHER KIT

Each kit contains about 1,000 Flat and Shoulder Washers, packed in an 18-compartment plastic box, in the following approximate quantities of SMITH standard washers:
100 each #2151, 2161, 2153, 2160: 75 each #2150, 2162; 60 each #2155, 2163; 50 each #2156, 2164, 2154, 2165; 35 each #2159, 2167; 25 each #2158, 2168; 10 each #2157, 2169.

No.		NET Each
2173	Kit of 1,000 Washers	$6.50

NYLON STRAIN RELIEF BUSHINGS

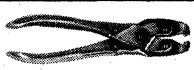


One piece construction. Eliminates grommets, wire knots and costly labor. Completely insulates wire from chassis and prevents cord pull push and twist. No. 937 ideal for small mike cables; No. 938 for line cords; No. 939 for Co-Ax Wire.

Std. Pkg. 50

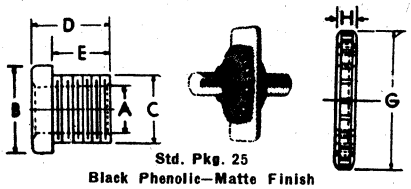
A: Chassis Hole
B: Diameter of head
C: Length
D: Chassis Thickness

No.	Wire Size	A	B	C	D	NET Per C
937	1/8-3/16"	.375	.440	.415	to 1/16"	$3.60
938	SP-1 & SPT-1	.437	.468	.406	to 1/16"	3.60
939	.235-.265	.500	.560	.438	to 3/32"	4.20



No. 940 Setting Pliers NET Each $16.80

INSULATED GROMMET BUSHINGS

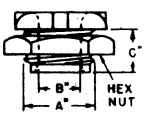


Std. Pkg. 25

Black Phenolic—Matte Finish

No.	BUSHING A	B	C	D	COLLAR E	G	H	NET Per C
931	1/8"	3/8"	1/4"-32	.3750"	1/4"	1/2"	1/2"	$23.00
932	5/16"	7/16"	5/16"-32	.4250"	5/16"	5/8"	1/2"	24.00
933	1/4"	1/2"	3/8"-27	.4375"	5/16"	11/16"	1/2"	25.00
934	5/16"	9/16"	15/32"-32	.4500"	5/16"	7/8"	1/2"	26.00
935	5/8"	3/4"	5/8"-27	.4500"	5/16"	1"	1/8"	27.00

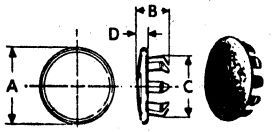
BAKELITE INSULATING BUSHINGS



BODY: MOLDED, bakelite, black. U.L. approved recommended for temperatures up to 300 degrees Fahrenheit.
NUT: Steel, cadmium plated.

Std. Pkg. 50

No.	A	B	C	NET Per C
2136	15/32"	17/64"	1/4"	$8.40
2137	17/32"	5/16"	5/16"	9.00
2138	21/32"	29/64"	5/16"	9.60
2139	21/32"	9/16"	11/32"	10.20



SNAP BUTTON HOLE PLUGS

Steel Nickel-plated plugs for covering punched or drilled holes in metal, plastic or wood.

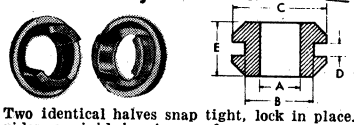
Std. Pkg. 100

No.	Hole	A	B	C	D Prongs	NET Per C
650	1/4"	13/32	1/4	17/64	6	$2.00
651	5/16"	7/16	1/4	21/64	6	2.00
652	3/8"	17/16	3/8	25/64	6	2.00
653	1/2"	21/32	17/64	17/32	8	2.00
654	5/8"	51/64	9/32	41/64	8	2.80
655	3/4"	15/16	19/64	49/64	12	2.80
608	7/8"	1 11/16	19/64	57/64	12	3.30
612	1"	15/32	19/64	11/64	12	4.50
*656	1"	15/32	19/64	1 1/32	12	13.80

* Vent

SNAP-LOCK PLASTIC GROMMETS

- Snaps in Place—FAST!
- Stays Put—LOCKED IN!



Two identical halves snap tight, lock in place. Provides a rigid bearing surface, greater dielectric, extreme chemical and wear resistance. Identical halves form complete grommet. Color, black.

Std. Pkg. 100

No.	A	B	C	D	E	NET Per C
2178	3/16"	5/16"	7/16"	1/16"	1/4"	$2.76
2179	1/4"	3/8"	1/2"	1/16"	1/4"	2.88
2180	3/8"	1/2"	5/8"	1/16"	1/4"	3.00

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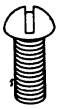
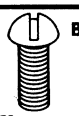
ELECTRONIC COMPONENTS



ROUND HEAD STEEL MACHINE SCREWS

CADMIUM PLATED

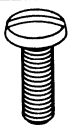
Size	No.	Net per C	No.	Net per M
2-56 x 1/4"	1173C	$.59	1173M	$5.30
2-56 x 1/2"	1174C	.62	1174M	5.60
2-56 x 3/4"	1175C	.72	1175M	6.50
3-48 x 3/4"	1176C	.76	1176M	6.85
4-36 x 1/4"	1177C	.62	1177M	5.60
4-36 x 3/8"	1178C	.65	1178M	5.85
4-36 x 1/2"	1183C	.68	1183M	6.15
4-36 x 5/8"	1184C	.87	1184M	7.85
4-36 x 3/4"	1185C	1.00	1185M	9.00
4-40 x 1/4"	1350C	.62	1350M	5.60
4-40 x 3/8"	1351C	.65	1351M	5.85
4-40 x 1/2"	1352C	.69	1352M	6.20
4-40 x 5/8"	1353C	.74	1353M	6.65
4-40 x 3/4"	1354C	1.01	1354M	9.00
6-32 x 1/4"	1000C	.70	1000M	5.85
6-32 x 3/8"	1001C	.84	1001M	7.00
6-32 x 1/2"	1002C	.94	1002M	7.80
6-32 x 5/8"	1355C	.88	1355M	8.00
6-32 x 3/4"	1356C	1.04	1356M	9.40
6-32 x 1"	1357C	1.08	1357M	9.80
6-32 x 2"	1358C	1.95	1358M	17.55
8-32 x 1/4"	1006C	.94	1006M	7.80
8-32 x 3/8"	1007C	.97	1007M	8.10
8-32 x 1/2"	1008C	1.02	1008M	8.50
8-32 x 3/4"	1359C	1.21	1359M	10.90
10-32 x 1/2"	1360C	1.24	1360M	11.20
10-32 x 3/4"	1361C	1.46	1361M	13.15
10-32 x 1"	1362C	1.63	1362M	14.70



BRASS MACHINE SCREWS

Round Head Nickel Plated

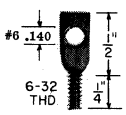
Size	No.	NET per C	No.	NET per M
4-36 x 1/4"	1044C	$1.02	1044M	$8.50
4-36 x 3/8"	1045C	.94	1045M	7.80
4-36 x 1/2"	1046C	1.32	1046M	11.20
4-40 x 1/4"	1047C	1.06	1047M	8.80
4-40 x 3/8"	1048C	1.26	1048M	10.50
4-40 x 1/2"	1049C	1.32	1049M	11.20
6-32 x 1/4"	1050C	1.56	1050M	13.00
6-32 x 3/8"	1051C	1.62	1051M	13.50
6-32 x 1/2"	1052C	1.50	1052M	12.50
8-32 x 1/4"	1056C	1.92	1056M	16.00
8-32 x 3/8"	1057C	2.30	1057M	19.20
8-32 x 1/2"	1058C	2.70	1058M	22.50



BINDING HEAD STEEL MACHINE SCREWS

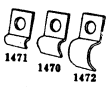
CADMIUM PLATED

Size	No.	Net per C	No.	Net per M
2-56 x 1/4"	1369C	$.59	1369M	$5.30
2-56 x 1/2"	1370C	.62	1370M	5.60
2-56 x 5/8"	1371C	.72	1371M	6.50
4-40 x 1/4"	1372C	.62	1372M	5.60
4-40 x 1/2"	1373C	.69	1373M	6.20
4-40 x 3/4"	1374C	1.01	1374M	9.10
6-32 x 3/16"	1375C	.72	1375M	6.50
6-32 x 1/4"	1425C	.77	1425M	6.40
6-32 x 3/8"	1426C	.84	1426M	7.00
6-32 x 1/2"	1427C	.85	1427M	7.15
6-32 x 5/8"	1376C	.88	1376M	7.95
6-32 x 3/4"	1377C	1.04	1377M	9.40
8-32 x 1/4"	1428C	.77	1428M	6.40
8-32 x 5/16"	1378C	.96	1378M	8.65
8-32 x 3/8"	1429C	.97	1429M	8.10
8-32 x 1/4"	1430C	1.01	1430M	8.40
8-32 x 3/4"	1379C	1.21	1379M	10.90
10-32 x 1/2"	1380C	1.24	1380M	11.20
10-32 x 3/4"	1381C	1.34	1381M	12.10



STEEL SPADE BOLTS

Size	No.	Net per C	No.	Net per M
6-32 x 5/16"	1500C	1.25	1500M	10.20



CABLE CLAMPS

Steel Cadmium Plated with No. 8 Mtg. Hole. Std. Pkg. 100

No.	Length	Width	Cable	NET Per C
1471	5/8"	3/8"	1/8"	$.78
1470	3/4"	3/8"	1/4"	.84
1472	1"	3/8"	1/2"	.90

SELF TAPPING SCREWS

ROUND HEAD—TYPE A—Sharp Point

Size	No.	NET per C	No.	NET per M
4 x 1/2	1801C	$.77	1801M	$6.00
6 x 1/4	1802C	.83	1802M	6.67
6 x 3/8	1803C	.87	1803M	7.00
6 x 1/2	1804C	.98	1804M	8.10
8 x 3/8	1805C	.92	1805M	7.50
8 x 1/2	1806C	1.12	1806M	9.45

ROUND HEAD—TYPE Z—Blunt Point

Size	No.	NET per C	No.	NET per M
4 x 1/2	1807C	$.87	1807M	$7.00
6 x 1/4	1808C	.87	1808M	7.00
6 x 3/8	1809C	.87	1809M	7.00
6 x 1/2	1810C	.98	1810M	8.10
8 x 3/8	1811C	.92	1811M	7.50
8 x 1/2	1812C	1.12	1812M	9.45

SLOTTED HEX HEAD — TYPE Z

Blunt Point

Size	No.	NET per C	No.	NET per M
6 x 1/4	1830C	$1.12	1830M	$9.45
6 x 3/8	1831C	1.12	1831M	9.45
6 x 1/2	1832C	1.12	1832M	9.45
8 x 3/8	1833C	.92	1833M	7.50
8 x 1/2	1834C	1.12	1834M	9.45

PAN HEAD SHEET METAL SCREWS

CADMIUM PLATED

Size	No.	Net per C	No.	Net per M
4 x 1/2"	1389C	$1.13	1389M	$10.20
6 x 1/4"	1390C	1.13	1390M	10.20
6 x 3/8"	1391C	1.17	1391M	10.55
6 x 1/2"	1392C	1.20	1392M	10.80
6 x 3/4"	1393C	1.30	1393M	11.70
8 x 1/4"	1394C	1.30	1394M	11.70
8 x 3/8"	1395C	1.37	1395M	12.35
8 x 1/2"	1396C	1.40	1396M	12.60
8 x 1"	1397C	1.80	1397M	16.20

ROUND HEAD STEEL WOOD SCREWS

Size	No.	Net per C	No.	Net per M
4 x 1/2"	1384C	$1.01	1384M	$9.10
4 x 3/4"	1385C	1.17	1385M	10.50
6 x 3/4"	1386C	1.26	1386M	11.35
6 x 1"	1387C	1.56	1387M	14.00
8 x 3/4"	1388C	1.50	1388M	13.50

OVAL HEAD STEEL NICKEL PLATED RACK SCREWS

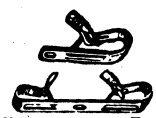
Size	No.	Net per C	No.	Net per M
6-32 x 3/4"	1382C	$.98	1382M	$8.85
8-32 x 3/4"	1383C	1.24	1383M	11.20
10-32 x 1/2"	1111C	1.14	1111M	9.50
10-32 x 3/4"	1112C	1.16	1112M	9.74

COUNTER SUNK WASHERS BRASS

NICKEL PLATED

Size	No.	Net per C	No.	Net per M
#6	1115C	$.61	1115M	$5.10
#8	1116C	.91	1116M	6.75
#10	1117C	.94	1117M	7.80

FAHNESTOCK SPRING BATTERY CLIPS



Clips are made of brass, nickel plated and are available in the single and double clip types.
Std. Pkg. 100

No.	Type	Length	NET Per C
539	Single	5/8"	$2.80
533	Single	3/4"	2.80
534	Single	1"	4.00
535	Double	1 1/2"	11.00
536	Double	2 1/16"	13.00

HEXAGON NUTS

Brass Nickel Plated

Size	No.	NET per C	No.	NET per M
4-36x1/4"	1188C	$1.10	1188M	$9.33
4-40x1/4"	1168C	1.10	1168M	9.25
6-32x1/4"	1189C	1.68	1189M	14.00
6-32x5/16"	1190C	1.28	1190M	11.08
8-32x5/16"	1192C	1.28	1192M	11.08
10-32x5/16"	1193C	1.38	1193M	12.08
1/4-32"	1187C	1.20	1187M	10.00
Steel Nickel Plated				
1/4-32"	1186C	1.50	1186M	$13.20

HEX NUTS STEEL

CADMIUM PLATED

Size	No.	Net per C	No.	Net per M
2-56 x 3/16"	1363C	.68	1363M	5.05
3-48 x 3/16"	1364C	.68	1364M	5.05
4-36 x 1/4"	1365C	.67	1365M	5.00
6-32 x 1/4"	1179C	.70	1179M	5.25
6-32 x 5/16"	1180C	.72	1180M	5.55
8-32 x 1/4"	1366C	.73	1366M	5.60
8-32 x 5/16"	1181C	.96	1181M	8.00
10-32 x 3/8"	1367C	.97	1367M	8.00
1/4-20 x 7/16"	1368C	1.33	1368M	11.50
1/4-32 x 7/16"	1186C	.75	1186M	6.00

VOL CONTROL & TOGGLE SWITCH NUTS

Nickel Plated

Type	No.	NET Per C	No.	NET Per M
Vol. Cont. Brass*	1195C	$1.65	1195M	$15.00
Vol. Cont. Steel*	1199C	1.32	1199M	12.00
Toggle Sw. Hex†	1196C	1.98	1196M	18.00
Toggle Sw. Ring‡	1197C	3.30	1197M	30.00

*3/8-32 x 1/2 x 3/32 †15/32 x 5/16 x 5/64 ‡15/32 x 5/8 x 1/16

FLAT STEEL WASHERS

NICKEL PLATED

Size	No.	Net per C	No.	Net per M
For #2 Screw	1138C	.65	1138M	4.80
For #4 Screw	1149C	1.02	1149M	8.50
For #6 Screw	1150C	.83	1150M	6.60
For #8 Screw	1151C	.65	1151M	4.80
For #10 Screw	1152C	.83	1152M	6.60
For 1/4" Screw	1147C	.83	1147M	6.60
For 3/8" Screw	1148C	.90	1148M	7.25

INTERNAL TOOTH LOCKWASHERS STEEL

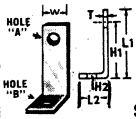
CADMIUM PLATED

Size	No.	Net per C	No.	Net per M
#4	1127C	.51	1127M	3.50
#6	1128C	.51	1128M	3.50
#8	1129C	.55	1129M	3.83
#10	1130C	.55	1130M	3.83
1/4"	1132C	.67	1132M	5.00
3/8"	1131C	1.02	1131M	8.50
Narrow Rim 3/8"	1145C	1.02	1145M	8.50
Narrow Rim 15/32"	1146C	1.02	1146M	8.50

EXTERNAL TOOTH LOCKWASHERS STEEL

CADMIUM PLATED

Size	No.	Net per C	No.	Net per M
#4	1139C	.51	1139M	3.50
#6	1140C	.51	1140M	3.50
#8	1141C	.55	1141M	3.83
#10	1142C	.55	1142M	3.83
1/4"	1144C	.67	1144M	5.00
3/8"	1143C	1.02	1143M	8.50



ANGLES

L1 — Length of leg H1 — Hole Location
L2 — Length of leg H2 — Hole Location
T — Thickness A — Hole Diameter
W — Width B — Hole Diameter

Std. Pkg. 100

STEEL, Cadmium Plated

No.	L1	L2	H1	H2	W	T	A	B	Net Per C
1444	7/16	7/16	17/64	1/4	3/8	.032	3/16	#4	$.72
1445	1/2	1/2	11/32	23/64	1/2	.050	#6	#4	.90
1446	49/64	27/64	39/64	15/64	5/16	.032	#6	#6	.90
1447	19/64	1/2	61/64	23/64	5/16	.050	#8	#8	1.02
1476	1 1/16	1 1/16	1/2	1/2	3/8	.032	#6	#6	1.50

Note: No. 1476 has Hot Tin Dipped finish

BRASS, Nickel Plated

1474	15/32	15/32	19/64	19/64	5/16	.025	#8	#8	1.80
1475	2 1/32	21/32	5/8	5/8	5/8	.050	#8	#8	3.60

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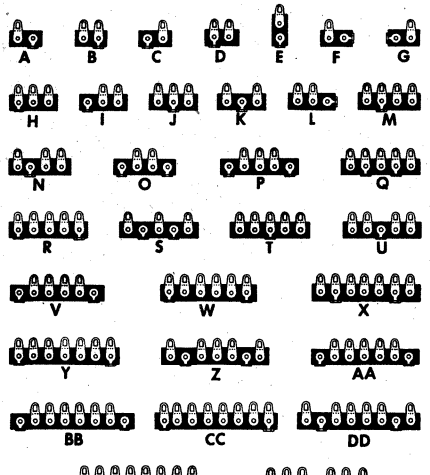
HERMAN H. SMITH, INC. — ELECTRONIC COMPONENTS

TIE DOWN TERMINAL STRIPS



Standard Type

LUG: Steel, Cadmium plated. Spaced 3/8" centers.
STRIP: XP Bakelite, 5/16" wide x .062 thick.
MOUNT: .140 I.D. for No. 6 Screw.

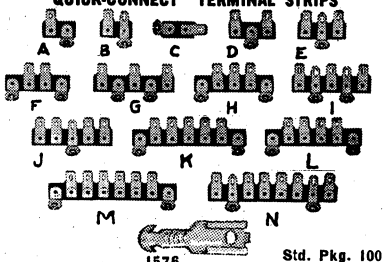
Miniature Type

LUG: Steel, Cadmium plated. Spaced 1/4" centers.
STRIP: XP Bakelite, 5/16" wide x .062 thick.
MOUNT.: .096 I.D. for No. 3 screw or 3/32" rivet.

Std. Pkg. 100

STANDARD TYPE No.	NET Per C	Illustration	MINIATURE TYPE No.	NET Per C
861	$2.20	A	1061	$2.40
862	2.40	B	1062	3.00
813	2.50	C	1003	3.30
820	2.50	D	1004	3.50
849	3.00	E	1039	4.00
828	2.40	F	1005	4.50
821	2.40	G	1009	3.50
830	3.00	H	1055	4.50
829	2.80	I	1043	4.50
864	3.00	J	1064	3.60
863	3.00	K	1063	3.00
846	3.50	L	1059	4.50
850	4.00	M	1074	5.50
857	4.00	N	1072	5.50
867	4.50	O	1067	4.20
853	4.50	P	1073	5.20
868	5.00	Q	1068	5.80
847	5.50	R	1071	5.80
865	4.50	S	1065	5.20
866	4.00	T	1066	6.50
855	3.50	U	1084	7.00
869	5.10	V	1069	6.20
854	5.50	W	1076	9.00
879	6.50	X	1158	9.50
859	6.00	Y	1156	9.50
871	5.50	Z	1157	9.50
860	6.00	AA	1060	7.00
848	6.70	BB	1078	7.20
900	6.50	CC	1075	10.50
858	7.00	DD	1096	10.20
870	7.20	EE	1070	8.40
901	6.00	FF	—	—

"QUICK-CONNECT" TERMINAL STRIPS



1576

Std. Pkg. 100

No.	Ill.	NET Per C	No.	Ill.	NET Per C	No.	Ill.	NET Per C
1085	A	$2.50	1090	F	$4.30	1095	K	$7.50
1086	B	3.10	1091	G	5.70	1097	L	7.50
1087	C	2.50	1092	H	5.70	1098	M	8.50
1088	D	3.30	1093	I	6.30	1099	N	9.00
1089	E	3.50	1094	J	5.00			

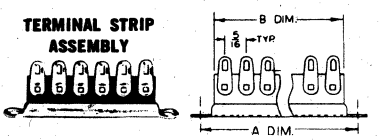
No.		NET Per C
1576	Terminal Strip Connectors	$3.80

BRACKET TYPE TERMINAL STRIPS

LUGS: STEEL, cadmium plated, spaced ⅜" centers.
BRACKETS: Brass, cadmium plated.
STRIPS: X.P. Bakelite ⅜" wide x .062 thick.
MOUNT.: .140 I.D. for No. 6 screw. Std. Pkg. 100

No.	Fig.	Lugs	NET Per C
1077	A	2	$3.20
1079	C	3	5.00
1080	B	3	5.00
1081	B	4	5.50
1082	B	5	6.20
1083	B	6	7.20

TERMINAL STRIP ASSEMBLY



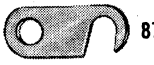
LUG: STEEL, cadmium plated.
BASE: STEEL, cadmium plated. Mounting holes for No. 6 screw.
STRIP: X.P. Bakelite. Std. Pkg. 100

No.	Terminals	Dimensions "A"	Dimensions "B"	NET Per C
3002	2	1.000	⅝"	$6.00
3003	3	1.312	1 5/16"	6.90
3004	4	1.625	1¼"	7.80
3005	5	1.937	1 9/16"	8.70
3006	6	2.250	1⅞"	9.60
3007	7	2.562	2 3/16"	10.50
3008	8	2.875	2½"	11.40
3009	9	3.187	2 13/16"	12.30
3010	10	3.500	3⅛"	13.20
3011	11	3.812	3 7/16"	14.10
3012	12	4.125	3¾"	15.00

SCREW TYPE TERMINAL BOARD

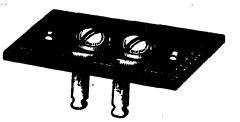
LUGS: BRASS, hot tinned, spaced 7/16" centers.
SCREW: Steel, cadmium plated 6-32x⅜.
STRIP: X.P. Bakelite ⅝" wide x .062 thick.

No.	Terminals	Mounting Center	Std. Pkg.	NET Per C
914	1	⅞"	50	$ 6.50
872	2	1 7/16"	50	7.00
873	3	1¾"	50	10.50
874	4	2 3/16"	50	12.50
875	5	2⅝"	25	16.50
876	6	3 1/16"	25	18.50
877	7	3½"	25	22.50
928	8	3 15/16"	25	24.00
929	9	4⅜"	25	28.00
930	10	4 13/16"	25	32.00



878 Shorting Link 1.80

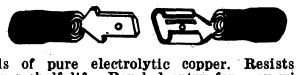
HEAVY DUTY TERMINAL BOARDS



LUG: BRASS, cadmium plated .042 thick spaced ½" centers. Terminals numbered.
STRIP: X.P. Bakelite ⅞" wide x 9/32" thick, numbered.
SCREW: Brass, nickel plated 8-32 x 5/16. Std. Pkg. 25

No.	Terminals	Mtg. Center	NET Per C
902	2	1½"	$20.00
903	3	2"	22.00
904	4	2½"	27.00
905	5	3"	33.00
906	6	3½"	39.00
907	7	4"	45.00
908	8	4½"	50.00
909	9	5"	60.00
910	10	5½"	62.00
911	11	6"	65.00
912	12	6½"	70.00

QUICK DISCONNECT TERMINALS



Terminals of pure electrolytic copper. Resists corrosion and insures shelf life. Beveled entry for easy wire threading and improved V-ridges for wire protection. Male tongue width .248/.251, female entry .225 Min.
Sd. Pkg. 100

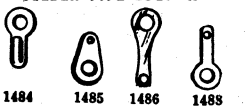
Male	Female	Wire-Size	NET Per C
		Non-Insulated	
2742	2745	22-16	$2.10
2743	2746	16-14	2.10
2744	2747	12-10	2.10
		Insulated	
2794	2797	22-16	4.50
2795	2798	16-14	4.50
2796	2799	12-10	4.50

"T" TYPE TERMINAL STRIPS

LUGS: STEEL, cadmium plated, spaced ⅜" centers.
STRIP: XP Bakelite ⅜" wide x .062 thick
MOUNT.: .140 I.D. for No. 6 screw. Std. Pkg. 100

No.	Lugs	NET Per C
815	1	$3.20
816	2	4.40
817	3	6.50
818	4	7.00
819	5	8.00

SOLDER TYPE LUGS—Hot Tinned



Std. Pkg. 1000

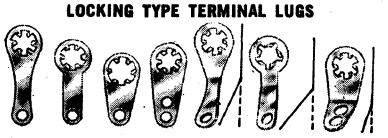
No.	Material	Length	Thick.	Hole	NET Per M
1484	Ph. Br.	5/8"	.020"	No. 6	$6.00
1485-4	Ph. Br.	17/32"	.012"	No. 4	8.00
1485-6	Ph. Br.	17/32"	.012"	No. 6	8.00
1485-8	Ph. Br.	17/32"	.012"	No. 8	8.00
1485-10	Ph. Br.	17/32"	.012"	No. 10	8.00
1486-4	Ph. Br.	13/16"	.012"	No. 4	8.00
1486-6	Ph. Br.	13/16"	.012"	No. 6	8.00
1486-8	Ph. Br.	13/16"	.012"	No. 8	8.00
1486-10	Ph. Br.	13/16"	.012"	No. 10	8.00
1488-4	Ph. Br.	9/16"	.012"	No. 4	8.00
1488-6	Ph. Br.	9/16"	.012"	No. 6	8.00
1488-8	Ph. Br.	9/16"	.012"	No. 8	8.00
1490	Brass	3/4"	.020"	No. 10	9.00
1491	Copper	15/16"	.020"	No. 10	12.00
1493	Brass	1-1/8"	.027"	¼"	16.80
1494-6	Brass	5/8"	.020"	No. 6	6.00
1494-8	Brass	5/8"	.020"	No. 8	6.00
1495	Brass	5/8"	.020"	No. 8	9.00
1496	Brass	3/4"	.020"	¼"	10.20
1497	Brass	7/8"	.017"	⅜"	24.00

SOLDER LUG ASSORTMENT

A complete assortment of the most widely used Solder Lug styles, with hole sizes from #4 thru #10. Packed in a re-usable clear plastic compartmented box.

No.	Approx Quantity of Terminals	NET
1546	1400	$9.00

LOCKING TYPE TERMINAL LUGS



BRASS HOT TINNED Std. Pkg. 1000

No.	Length	Thick	Hole	NET Per M
1410-4	7/16"	.018"	No. 4	$9.00
1410-6	7/16"	.018"	No. 6	9.00
1410-8	7/16"	.018"	No. 8	9.00
1410-10	57/64"	.018"	No. 10	9.00
1410-14	13/16"	.018"	½"	10.20
1411-4	47/64"	.020"	No. 4	9.00
1411-6	47/64"	.020"	No. 6	9.00
1411-8	47/64"	.020"	No. 8	9.00
1412-4	55/64"	.018"	No. 4	8.40
1412-6	55/64"	.018"	No. 6	8.40
1412-8	55/64"	.018"	No. 8	8.40
1413-4	29/32"	.018"	No. 4	9.00
1413-6	29/32"	.018"	No. 6	9.00
1413-8	29/32"	.018"	No. 8	9.00
1414-4	15/16"	.018"	No. 4	9.00
1414-6	15/16"	.018"	No. 6	9.00
1414-8	15/16"	.018"	No. 8	9.00
1414-10	59/64"	.018"	No. 10	9.00
1415-4	47/64"	.018"	No. 4	9.00
1415-6	47/64"	.018"	No. 6	9.00
1415-8	47/64"	.018"	No. 8	9.00
1416-4	1 1/16"	.020"	No. 4	9.00
1416-6	1 1/16"	.020"	No. 6	9.00
1416-8	1 1/16"	.020"	No. 8	9.00

LOCKING TYPE TERMINAL LUGS

Brass Electro Plated

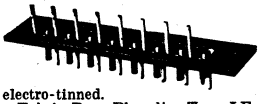
No.	Hole Size	Thick	Length	NET Per M
1465	No. 4	.020"	47/64"	$10.20
1466	No. 6	.020"	47/64"	10.20
1467	No. 8	.020"	⅞"	10.20
1468	¼"	.020"	1 1/16"	12.00

LOCKING TERMINAL LUG ASSORTMENT

A complete assortment of the most widely used Locking Terminal Lug styles, with hole sizes from #4 thru #10. Packed in a re-usable clear plastic compartmented box.

No.	Approx. Quantity of Terminals	NET
1547	900	$9.00

LAMINATED TERMINAL STRIPS WITH WIRE WRAP TERMINALS



LUG: Brass, electro-tinned.
STRIP: Cotton Fabric Base Phenolic, Type LE.
SCREW: Brass, nickel plated.
DESCR.: Accommodates lugs for wires, size AWG #18 to 22. Rated 750 volts RMS (½ breakdown voltage).
Std. Pkg. 25

No.	Term.	(A) Mtg Ctrs.	B	NET Per C
941	8	3½"	3⅜"	$40.00
942	10	4¼"	4⅝"	50.00
943	12	5"	5⅜"	60.00

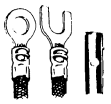
© U.C.P., Inc.

specify SMITH

HERMAN H. SMITH, INC. — ELECTRONIC COMPONENTS

SOLDERLESS TERMINALS

AMP "SOLISTRAND" Non-Insulated



The only terminal designed for use with solid, stranded or irregularly shaped wires, or combinations of wires. Corrosion resistant, high strength, electro-tinned; versatile — widely adaptable.
Std. Pkg. 100

RING TONGUE (A)

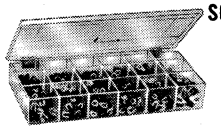
Wire Size	No.	AMP No.	Stud Size	Tong. W.	O'all L.	Stud Clear.	NET Per C
	2850	32989	4	7/32	17/32	5/32	$4.20
22	2851	34194	6	7/32	17/32	5/32	4.20
	2852	32990	8	9/32	11/16	15/64	4.80
to	2853	33214	10	9/32	11/16	9/32	4.80
	2854	33215	1/4	15/32	15/16	27/64	6.60
16	2855	33452	5/16	15/32	15/16	27/64	6.60
	2856	33453	3/8	17/32	1 1/16	17/32	6.60
	2857	32991	4	1/4	9/16	11/64	$4.80
16	2858	34197	6	1/4	9/16	11/64	4.80
	2859	32992	8	5/16	11/32	1/4	4.80
to	2860	320093	10	5/16	11/32	1/4	4.80
	2861	33218	1/4	15/32	15/16	7/16	6.60
14	2862	33454	5/16	15/32	15/16	7/16	6.60
	2863	33455	3/8	17/32	1 1/8	17/32	6.60

SPADE TONGUE (B)

22	2864	32897	6	11/32	5/8	13/64	$4.20
to	2865	32898	8	11/32	5/8	13/64	4.20
16	2866	32899	10	11/32	5/8	13/64	4.20
16	2867	32903	6	11/32	5/8	13/64	$4.20
to	2868	32904	8	11/32	5/8	13/64	4.20
14	2869	32905	10	11/32	5/8	13/64	4.20

BUTT CONNECTOR (C)

2870	31818	22-16 .140 I.D.	3/64	$5.10
2871	31819	16-14 .170 I.D.	3/64	5.10



SOLDERLESS TERMINAL ASSORTMENTS

A basic assortment of the most commonly used Ring Tongue and Spade Terminals for wire sizes 22 thru 14. Packed in a re-usable clear plastic compartmented box.

No.	Approx. Quantity of Terminals	Style	NET
1526	200	"PLASTI-GRIP"	$16.20
1527	300	"PLASTI-GRIP"	22.80
1528	200	"SOLISTRAND"	12.00
1529	300	"SOLISTRAND"	18.00
1577	200	"P.I.D.G."	21.00
1578	300	"P.I.D.G."	30.00

AMP Pre-Insulated Diamond Grip

Color-coded for wire size. **Std. Pkg. 100**

RING TONGUE (A)

Wire Size	No.	AMP No.	Stud Size	Tongue Width	Overall Length	Stud Clear.	NET Per C
22	1550	320882	4	3/16	21/32	5/32	$9.00
	1551	31881	6	7/32	21/32	5/32	9.00
to	1552	31886	8	9/32	25/32	1/4	9.00
	1553	31887	10	9/32	25/32	1/4	9.00
16	1554	31894	1/4	15/32	1 1/16	27/64	9.60
14	1555	32441	4	1/4	11/16	11/64	9.00
	1556	32442	6	1/4	11/16	11/64	9.00
to	1557	31902	8	11/32	27/32	9/32	9.00
	1558	322238	10	5/16		1/4	9.00
16	1559	31906	1/4	15/32	1/16	7/16	9.00

FLANGED SPADE (B)

22-16	1560	32562	6	1/4	23/32	13/64	$9.00
	1561	32498	8	27/64	13/16	1/4	9.60
	1562	320861	6	1/4	23/32	13/64	9.00
14-16	1563	320862	8	1/4	23/32	13/64	9.00
	1564	320863	10	1/4	23/32	13/64	9.00

SPADE TONGUE (C)

	1565	34541	6	1/4	53/64	1/4	$9.00
22-16	1566	32053	8	3/8	57/64	1/4	9.00
	1567	32054	10	3/8	57/64	1/4	9.00
	1568	35559	6	1/4	47/64	13/64	9.00
14-16	1569	321233	8	1/4	47/64	13/64	9.00
	1570	32060	10	3/8	57/64	5/16	9.00

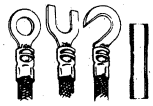
HOOK TONGUE (D)

22-16	1571	34313	6	9/32	47/64	13/64	$9.00
	1572	32456	8	11/32	55/64	9/32	9.00
	1573	320381	6	11/32	27/32	9/32	$9.00
14-16	1574	320306	8	11/32	27/32	9/32	10.20
	1575	35481	10	11/32	27/32	9/32	10.20
18-14	1576	42781-2	.250 Faston Receptacle (E) w/insulation support				$ 3.30

BUTT CONNECTOR (F)

22-16	1548	320559	.125 I.D.	36.00
16-14	1549	320562	.150 I.D.	$36.00

AMP "PLASTI-GRIP" (P.G.)



Insulated, strong, special plastic has high dielectric strength. Applied with single operation of press dies or hand tools. High tensile strength. High conductivity copper, electro-tinned. Color coded for wire size. **Std. Pkg. 100**

RING TONGUE (A)

Wire Size	No.	AMP No.	Stud Size	Tong. W.	O'all L.	Stud Clear.	NET Per C
	2750	34141	4	7/32	21/32	5/32	$6.60
22	2751	34142	6	7/32	21/32	5/32	6.60
	2752	34145	8	9/32	25/32	1/4	6.60
to	2753	34146	10	9/32	25/32	1/4	6.60
	2754	34150	1/4	15/32	1 1/16	27/64	7.80
16	2755	34151	5/16	15/32	1 1/16	27/64	7.80
	2756	34152	3/8	17/32	1 13/64	17/32	7.80
	2757	34157	4	1/4	11/16	5/32	$6.60
16	2758	34158	6	1/4	11/16	5/32	6.60
	2759	34160	8	11/32	27/32	17/64	6.60
to	2760	34161	10	11/32	27/32	17/64	6.60
	2761	34162	1/4	15/32	1 1/16	27/64	7.80
14	2762	34163	5/16	15/32	1 1/16	27/64	7.80
	2763	34164	3/8	17/32	1 13/64	33/64	7.80

SPADE TONGUE (B)

22	2764	34153	6	11/32	49/64	13/64	$6.60
to	2765	34155	8	3/8	57/64	19/64	6.60
16	2766	34156	10	3/8	57/64	19/64	6.60
16	2767	34165	6	3/8	57/64	19/64	$5.70
to	2768	34166	8	3/8	57/64	19/64	6.60
14	2769	34167	10	3/8	57/64	19/64	6.60

HOOK TONGUE (C)

20-16	2770	34501	6	9/32	47/64	3/16	$6.60
	2771	321699	8	11/32	55/64	9/32	6.60
16-14	2772	320263	8	11/32	55/64	17/64	$9.60

BUTT CONNECTOR (D)

2773	34070	22-16 .140 I.D.	1	$8.10
2774	34071	16-14 .70 I.D.	1 1/4	8.10

HAND CRIMPING TOOL

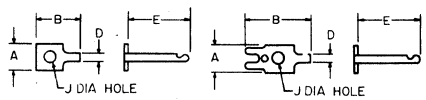
Makes strong, solderless connections; cuts and strips wire, and has threaded bolt cutter.

No.	Type	NET Ea.
1579	For P.I.D.G. & P.G.	$7.20
2872	For Solistrand Type	7.20

BARRIER TERMINAL LUGS & HARDWARE

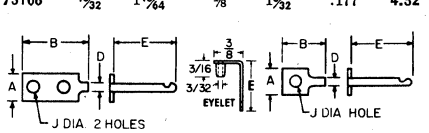
BARRIER TERMINAL BENT LUGS

MATERIAL: Brass, Hot-tin Dipped. **Std. Pkg. 100**



73101 SERIES — 73167 SERIES

Smith No.	A	B	D	E	J	NET Per C
			BENT			
73101	9/32"	31/64"	3/32"	39/64"	.141	$2.64
73102	3/16"	5/8"	7/64"	49/64"	.148	6.54
73103	5/16"	3/4"	1/8"	29/32"	.177	4.32
73178	29/64"	29/32"	9/64"	1 3/64"	.160	6.00
			COMBINATION BENT			
73167	5/32"	25/32"	3/32"	25/32"	.146	$2.64
73168	13/32"	1 1/64"	1/8"	1 3/32"	.177	4.32

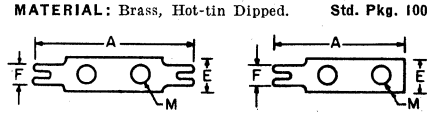


73170 SERIES — 73169 — 73175 SERIES

Smith No.	A	B	D	E	J	NET Per C
			OUTSIDE BENT			
73169	5/32"	3/8"	3/32"	17/32"	.094	$2.64
73170	9/32"	31/64"	3/32"	39/64"	.141	2.64
73171	9/32"	47/64"	9/64"	29/32"	.146	2.64
73172	5/16"	7/8"	5/32"	1"	.160	3.54
73172	5/16"	7/8"	5/32"	1"	.160	3.54
73173	13/32"	13/32"	3/64"	1 1/32"	.177	4.32
73174	5/16"	5/8"	7/64"	49/64"	.148	3.54
			LONG BENT			
73175	9/32"	15/32"	3/32"	5/32"	.146	$2.64
73176	5/16"	41/64"	7/64"	13/32"	.148	3.54
73177	13/32"	11/16"	1/8"	13/32"	.177	4.32

BARRIER TERMINAL LUGS

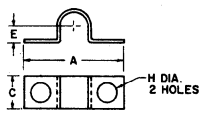
MATERIAL: Brass, Hot-tin Dipped. **Std. Pkg. 100**



73104 SERIES — 73115 SERIES

Smith No.	A	E	F	M	NET Per C
			TWO-SIDED		
73104	1/2"	.125	.125	.065	$2.64
73105	1 1/16"	.180	.180	.088	2.64
73106	1 1/32"	.185	.185	.095	2.64
73107	1 7/32"	.280	5/32"	.144	2.64
73108	1 7/32"	.280	5/32"	.144	2.64
73109	1 9/16"	.312	7/32"	.148	3.54
73110	1 7/8"	.406	9/32"	.177	4.32
73111	2 3/16"	.453	21/64"	.205	6.00
73112	2 1/2"	.546	3/8"	.187	10.80
73113	3"	.625	1/2"	.265	15.60
73114	1 7/32"	.280	5/32"	.144	3.54
			ONE SIDED		
73115	1 1/32"	.125	.125	.065	$2.64
73116	1 3/16"	.180	.180	.088	2.64
73117	2 3/32"	.185	.185	.095	2.64
73118	9/16"	.280	5/32"	.144	2.64
73119	5 9/64"	.280	5/32"	.144	2.64
73120	1 11/64"	.312	7/32"	.148	3.54
73125	1 1/64"	.312	7/32"	.148	3.54
73121	1 3/8"	.406	9/32"	.177	4.32
73122	1 5/8"	.453	21/64"	.205	6.00
73123	1 7/8"	.546	3/8"	.187	10.80
73124	2 1/4"	.625	1/2"	.265	15.60
73125	1 1/16"	.312	7/32"	.148	3.54

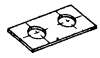
JUMPERS

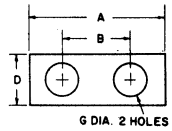


BRASS, Nickel Plated
Std. Pkg. 100

Smith No.	A	C	E	H	NET Per C
73150	27/64"	3/16"	1/32"	.091	$2.10
73151	7/16"	3/16"	1/32"	.062	2.10
73152	2 1/32"	1/4"	3/32"	.145	2.10
73153	2 1/32"	1/4"	3/32"	.145	2.10
73154	3/4"	5/16"	3/32"	.156	2.40
73155	5/8"	3/8"	11/64"	.180	2.70
73156	1 1/8"	7/16"	1/8"	.201	3.30
73157	1 3/8"	1/2"	13/64"	.234	4.50
73158	1 3/4"	5/8"	5/32"	.266	6.00
73159	3/4"	5/16"	3/32"	.156	2.40

STRADDLE PLATES





BRASS, Nickel Plated
Std. Pkg. 100

Smith No.	A	B	D	G	NET Per C
			STAINLESS STEEL		
73160	1/2"	.250	3/16"	.125	$2.10
73161	9/16"	.312	9/32"	.144	2.10
73162	23/32"	.421	5/16"	.148	2.40
73163	7/8"	.500	13/32"	.189	2.70
			BRASS, NICKEL PLATED		
73164	1 1/32"	.625	29/64"	.165	4.50
73165	1 7/32"	.750	35/64"	.187	9.00
73166	1 15/32"	.875	5/8"	.209	12.00

specify SMITH

HERMAN H. SMITH, INC. — ELECTRONIC COMPONENTS

INSTRUMENT KNOBS

Plain — **With Pointer** — **With Skirt**

Molded black bakelite instrument knobs with molded in brass insert for ¼" shafts. **Style B** pointer knobs have white vinyl pointer. **Style C** skirt type have white indicator line. **Style D** same as style A except with protruding brass insert for mounting special dials and pointers. **Std. Pkg. 10**

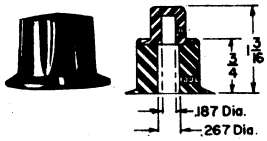
No.	Style	O.D.	Pointer Size	Height	Per C
2200	A	1⅛"		5/8"	$30.00
2201	A	1⅜"		11/16"	31.00
2202	A	1⅝"		¾"	36.00
2203	A	2⅜"		⅞"	53.00
2204	B	1⅜"	¾" pointer	11/16"	47.00
2205	B	1⅜"	1 1/16" pointer	¾"	48.00
2206	B	1⅝"	1 3/16" pointer	13/16"	52.00
2207	B	2⅜"	1 9/16" pointer	15/16"	70.00
2208	C	1⅛"	1½" Skirt	13/16"	58.00
2209	C	1⅜"	1¾" Skirt	⅞"	60.00
2210	C	1⅝"	2 1/16" Skirt	29/32"	71.00
2211	C	2⅜"	3" Skirt	1 1/32"	92.00
2212	D	1¼"		23/32"	38.00
2213	D	1⅜"		25/32"	39.00
2214	D	1⅝"		27/32"	43.00
2215	D	2⅜"		31/32"	60.00
			SKIRT ONLY		
2216		1½"	Skirt only		8.00
2217		1¾"	Skirt only		14.00
2218		2 1/16"	Skirt only		16.00
2219		3"	Skirt only		19.00

Matte Finish — Made to Meet MS-91531

Molded Black, Matte finish bakelite instrument knobs, with molded-in brass insert for ¼" shafts. All knobs supplied with two (2) Allen-head set-screws. Style B pointer knobs have white vinyl pointer. Style C skirt knobs have white indicator line on skirt. **Std. Pkg. 10**

No.	Style	O.D.	Pointer size	Height	NET Per C
2460	A	1⅛"		5/8"	$ 87.00
2461	A	1⅝"		¾"	106.00
2462	A	2⅜"		⅞"	129.00
2463	B	1⅛"	¾" pointer	11/16"	99.00
2464	B	1⅝"	1 3/16" pointer	13/16"	113.00
2465	B	2⅜"	1 9/16" pointer	15/16"	143.00
2466	C	1⅛"	1½" skirt	13/16"	139.00
2467	C	1⅝"	2 1/16" skirt	29/32"	172.00
2468	C	2⅜"	3" skirt	1 1/32"	210.00

FLUTED INSTRUMENT KNOBS



Molded black bakelite fluted instrument knobs, supplied with white-filled line on crown and skirt, opposite set-screw. Supplied with ¼" plain hole with set-screw. **Std. Pkg. 10**

No.	Skirt Dia.	Height	NET Per C
2391	¾"	¼"	$27.00
2392	1⅛"	⅝"	31.00
2393	1¼"	⅝"	34.00
2394	1½"	⅞"	35.00
2395	2"	15/16"	48.00
	With ⅛" plain hole with set-screw		
2396	¾"	½"	28.00

CONCENTRIC FLUTED

Molded black and Red bakelite dual-concentric fluted instrument knobs. Outside knob is black with white filled line on skirt. Inner knob is red with white-filled line on skirt and crown. Both knobs supplied with set-screws. **Std. Pkg. 10**

No.	NET Per C
2397	$55.00

POINTER KNOBS

A Length 1¼" Hgt. 5/8" — **B** Length 2" Hgt. 5/8" — **C** Length 1¼" Hgt. 5/8"

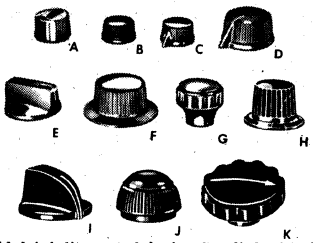
Molded bakelite pointer knobs, supplied with ¼" plain hole or brass inset. Complete with set screw. **Std. Pkg. 25**

No.	Style	Type Hole	Color	NET Per C
2220	A	¼" Plain	Black	$11.00
2221	A	¼" Plain	Walnut	12.00
2222	A	¼" Plain	Ivory	13.00
2223	A	¼" Brass Insert	Black	17.50
2224	A	¼" Brass Insert	Walnut	18.00
2225	A	¼" Brass Insert	Red	19.00
2226	B	¼" Plain	Black	22.00
2227	B	¼" Plain	Walnut	23.00
2228	B	¼" Brass Insert	Black	28.00
2229	B	¼" Brass Insert	Walnut	28.50
2230	C	¼" Plain	Black	14.00
2231	C	¼" Plain	Walnut	15.00

HERMAN H. SMITH, INC.

More than 5,000 electronic component parts manufactured under one roof.

CONTROL KNOBS



Molded bakelite control knobs. Supplied with ¼" molded hole; complete with set screw. *Recessed for locknut. **Std. Pkg. 25**

No.	Style	O.D.	Height	Color	NET Per C
2240	A	¾"	19/32"	Black	$15.00
2241	A	¾"	19/32"	Walnut	15.50
2242	B	11/16"	13/32"	Black	10.00
2243	B	11/16"	13/32"	Walnut	10.50
2244*	B	1"	½"	Black	14.00
2245*	B	1"	½"	Walnut	15.00
2275†	B	11/16"	13/32"	Black	23.00
2276†	B	11/16"	13/32"	Red	25.00
2246	C	11/16"	13/32"	Black	10.00
2247	C	11/16"	13/32"	Walnut	11.00
2273†	C	11/16"	13/32"	Black	23.00
2274†	C	11/16"	13/32"	Red	25.00
2248*	D	1"	½"	Black	18.00
2249*	D	1"	½"	Walnut	19.00
2250*	E	1⅛"	5/16"	Black	15.00
2251*	E	1⅛"	5/16"	Walnut	15.50
2252*	F	1½"	11/16"	Black	19.50
2253*	F	1½"	11/16"	Walnut	20.50
2254*	F	1½"	11/16"	Ivory	21.50
2258	G	⅞"	¾"	Black	16.00
2259	G	⅞"	¾"	Walnut	17.00
2265	H	29/32"	19/32"	Black	18.00
2266	H	29/32"	19/32"	Red	19.00
2267	J	13/16"	5/8"	Black	14.00
2268	J	13/16"	5/8"	Red	15.00
2269	K	⅞"	5/8"	Black	22.00
2270	K	⅞"	5/8"	Red	23.00
2283	L	⅞"	½"	Black	25.00
2284	L	⅞"	½"	Red	27.00

† Supplied with brass insert.

LEVER KNOBS

Molded bakelite lever knobs with ¼" brass insert, complete with set screw. **Std. Pkg. 25**

No.	Style	Length	Height	Color	NET Per C
2232	A	1⅝"	19/32"	Black	$25.00
2233	A	1⅝"	19/32"	Walnut	26.00
2234	B	1 13/16"	19/32"	Black	44.00
2235	B	1 13/16"	19/32"	Walnut	45.00
2236	C	2½"	5/8"	Black	26.00
2237	C	2½"	5/8"	Walnut	27.00
2238	D	2 13/16"	5/8"	Black	45.00
2239	D	2 13/16"	5/8"	Walnut	46.00

KNOB DIAL PLATES

2261 — 2262 — 2290

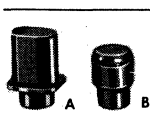
DIAL: BRASS, chrome silver, 1⅝" O.D.
KNOB: Molded bakelite black (our 2250).
DESCR.: For matching dials on instruments, receivers, amplifiers. Dial has clear black etched numbers. Knob fits 1'4" shaft. **Std. Pkg. 10**

No.	Type	NET Each
2261	10 to 0 180 Degrees	$.75
2262	10 to 0 270 Degrees	.75
	DIAL PLATES ONLY ½" I.D.	
2263	10 to 0 180 Degrees	.45
2264	10 to 0 270 Degrees	.45

DIAL: Nickel silver, 1⅝" O.D.
KNOB: Molded bakelite.
DESCR.: Engraved numerals, varnish coated. 10 to 0, in 360 degrees. Knob fits ¼" shaft. **Std. Pkg. 10**

No.	NET Each
2290	$.75

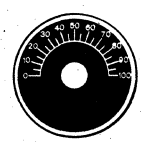
PUSH BUTTON KNOBS



Std. Pkg. 25

No.	Style	O.D.	Height	Color	NET Per C
2277	A	½"	51/64"	Black	$7.50
2278	A	½"	51/64"	Red	9.00
2279	B	31/64"	9/16"	Black	5.00
2280	B	31/64"	9/16"	Red	6.50

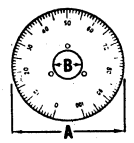
CONTROL PLATES



MATERIAL: Brass Black Satin Finish. Etched silver numerals.
DIMENSION: 13/32" I.D. x O.D. as specified, x .020" thick. **Std. Pkg. 5**

Clockwise Calib. 0-100 No.	Counter-Clockwise Calib. 100-0 No.	Degrees	Total Graduations	O.D.	NET Per C
2900	2906	180	20	2"	$50.00
2901	2907	270	20	2"	50.00
2902	2908	325	20	2"	50.00
2903	2909	180	100	3½"	100.00
2904	2910	270	100	3½"	100.00
2905	2911	325	100	3½"	100.00

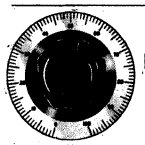
DIAL PLATES



MATERIAL: Brass Chrome Silver Finish. .020" thick.
DESCR.: Mounting Holes 9/64".
Std. Pkg. 5

Clockwise Calib. 0-100 No.	Counter-Clockwise Calib. 100-0 No.	Degrees	A	B	NET Per C
2912	2928	180	1⅛"	⅜"	$45.00
2913	2929	270	1⅛"	⅜"	45.00
2914	2930	325	1⅛"	⅜"	45.00
2915	2931	360	1⅛"	⅜"	45.00
2916	2932	180	1¾"	31/64"	60.00
2917	2933	270	1¾"	31/64"	60.00
2918	2934	325	1¾"	31/64"	60.00
2919	2935	360	1¾"	31/64"	60.00
2920	2936	180	2¾"	¾"	75.00
2921	2937	270	2¾"	¾"	75.00
2922	2938	325	2¾"	¾"	75.00
2923	2939	360	2¾"	¾"	75.00
2924	2940	180	4"	15/16"	120.00
2925	2941	270	4"	15/16"	120.00
2926	2942	325	4"	15/16"	120.00
2927	2943	360	4"	15/16"	120.00

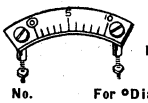
DIAL AND KNOB ASSEMBLY



DIAL: Brass Chrome Silver Finish, .020" thick.
KNOB: Molded Bakelite with ¼" Brass insert. **Std. Pkg. 5**

Clockwise Calib. 0-100 No.	Counter-Clockwise Calib. 100-0 No.	Degrees	O.D.	NET Each
2960	2976	180	1⅛"	$1.35
2961	2977	270	1⅛"	1.35
2962	2978	325	1⅛"	1.35
2963	2979	360	1⅛"	1.35
2964	2980	180	1¾"	1.41
2965	2981	270	1¾"	1.41
2966	2982	325	1¾"	1.41
2967	2983	360	1¾"	1.41
2968	2984	180	2¾"	3.00
2969	2985	270	2¾"	3.00
2970	2986	325	2¾"	3.00
2971	2987	360	2¾"	3.00
2972	2988	180	4"	3.45
2973	2989	270	4"	3.45
2974	2990	325	4"	3.45
2975	2991	360	4"	3.45

VERNIER DIAL MARKERS



MATERIAL: Brass Chrome Silver Finish. Supplied with hardware. **Std. Pkg. 5**

No.	For °Dials	Dial O.D.	Each
2944	180	1⅛"	$55.00
2945	270	1⅛"	55.00
2946	325	1⅛"	55.00
2947	360	1⅛"	55.00
2948	180	1¾"	55.00
2949	270	1¾"	55.00
2950	325	1¾"	55.00
2951	360	1¾"	55.00
2952	180	2¾"	55.00
2953	270	2¾"	55.00
2954	325	2¾"	55.00
2955	360	2¾"	55.00
2956	180	4"	55.00
2957	270	4"	55.00
2958	325	4"	55.00
2959	360	4"	55.00

BINDING POST KNOBS

Std. Pkg. 25

threaded 8-32 brass inserts

No.	Style	O.D.	Height	Color	NET Per C
2271	A	¾"	½"	Black	$ 9.00
2272	A	¾"	½"	Red	11.00
2285	B	½"	7/16"	Red	9.00
2286	B	½"	7/16"	Black	9.00
2287	C	½"	½"	Red	9.00
2288	C	½"	½"	Black	9.00

SMITH PAGE 43 (COMPLETE SMITH INDEX ON LAST SMITH PAGE)

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specify SMITH
HERMAN H. SMITH, INC.
ELECTRONIC COMPONENTS

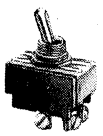
CUTLER-HAMMER SWITCHES

TOGGLE SWITCHES
STANDARD DUTY
15 Amps. 125 Volts — 10 Amps. 250 Volts

AC, UL Approved 15/32" shank; slow-make and break; bakelite case. AC rated only for longer life and greater capacity. **Std. Pkg. 10**

BACK CONNECTED LUG TERMINALS

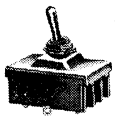
No.	C-H No.	Type	NET Each
966	7501K13	SPST	$ .69
967	7505K4	SPDT	.81
968	7561K4	DPST	1.08
969	7565K5	DPDT	1.26
970	7611K2	TPST	2.19
971	7615K2	TPDT	2.70



BACK CONNECTED SCREW TERMINALS

No.	C-H No.	Type	NET Each
972	7500K14	SPST	$ .81
973	7504K4	SPDT	.96
974	7560K5	DPST	1.26
975	7564K6	DPDT	1.56
976	7610K2	TPST	2.55
977	7614K2	TPDT	3.24

CENTER OFF STANDARD DUTY TOGGLE SWITCHES

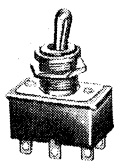


BACK CONNECTED LUG TERMINALS

No.	C-H No.	Type	NET Each
978	7503K13	SPDT	$ .81
979	7563K4	DPDT	1.26
980	7613K2	TPDT	2.70

BACK CONNECTED SCREW TERMINALS

No.	C-H No.	Type	NET Each
981	7502K13	SPDT	$ .96
982	7562K4	DPDT	1.56
983	7612K2	TPDT	3.24



TOGGLE SWITCHES
LIGHT DUTY

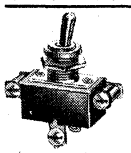
AC-DC, UL Approved; 15/32" shank; quick make — quick break; bakelite case. Unusually small size for electrical capacity. **Std. Pkg. 10**

BACK CONNECTED LUG TERMINALS
SMALL BAT HANDLE 15/32" LONG

No.	C-H No.	Type	Current Rating 125 V.	250 V	NET Each
950	8280K16	SPST		3 Amps.	$ .69
951	8381K8	SPST	6 Amps.	3 Amps.	.81
952	8282K14	SPDT	3 Amps.	1 Amp.	.87
953	8284K14	2 circ.	3 Amps.	1 Amp.	.93
954	8360K7	DPST		3 Amps.	1.26
955	8370K7	DPST	6 Amps.	3 Amps.	1.38
956	8363K7	DPDT		3 Amps.	1.44
957	8373K7	DPDT	6 Amps.	3 Amps.	1.56

STANDARD BAT HANDLE 11/16" LONG

					NET Each
1160	8280K38	SPST		3 Amps.	$ .69
1161	8381K38	SPST	6 Amps.	3 Amps.	.81
1162	8908K448	SPDT	3 Amps.	1 Amp.	.87
1163	8908K449	2 Circ.	3 Amps.	1 Amp.	.93
1164	8360K38	DPST		3 Amps.	1.26
1165	8908K451	DPST	6 Amps.	3 Amps.	1.38
1166	8363K38	DPDT		3 Amps.	1.44
1167	8908K453	DPDT	6 Amps.	3 Amps.	1.56



SIDE CONNECTED SCREW TERMINALS

No.	C-H No.	Type	Current Rating 125 V.	250 V.	NET Each
958	8285K8	SPST		3 Amps.	$ .84
959	8396K8	SPST	6 Amps.	3 Amps.	.96
960	8297K8	SPDT	3 Amps.	1 Amp.	1.11
961	8372K7	DPST	6 Amps.	3 Amps.	1.65
962	8365K7	DPDT		3 Amps.	1.89
963	8375K7	DPDT	6 Amps.	3 Amps.	2.01

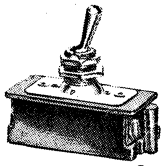
WIRE LEADS — SIX INCHES LONG
Small Bat Handle 15/32" Long

No.	C-H No.	Type	Current Rating 125 V.	250 V.	NET Each
964	8290K16	SPST		3 Amps.	$ .84
965	8391K8	SPST	6 Amps.	3 Amps.	.96

PUSH BUTTON MOMENTARY SWITCHES
Std. Pkg. 10

AC-DC, UL Approved, 15/32" shank; rated at ¾ Amp, 125 volts — ¼ Amp, 250 volts.

No.	C-H No.	Type	Term.	NET Each
992	8411K4	SP Norm. Op	Lug	$ .48
993	8411K3	SP Norm. Op	Screw	.54
994	8411K8	SP Norm. Cl	Lug	.36
995	8411K7	SP Norm. Cl	Screw	.39



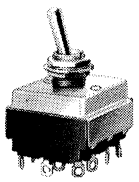
TOGGLE SWITCHES
HEAVY DUTY

AC - DC, UL Approved; 15/32" shank; quick make-quick break; bakelite case. Screw Terminals.

Std. Pkg. 10

No.	C-H No.	Type	Current Rating 125 V	250-V	NET Each
984*	7321K3	SPST	12 A	6 A	$1.41
985*	7320K3	DPST	12 A	6 A	1.41
986+	7361K5	SPST	15 A	10 A	2.46
987+	7360K8	DPST	15 A	10 A	2.46
988±	7402K4	DPST		20 A	3.24

*1 Hp — 125/250V. +1½ Hp — 125/250V. ±1½ Hp — 125V, 2 Hp — 250V.



FOUR POLE SWITCHES

AC-DC GOVERNMENT APPROVED PER MIL-S-6745. 15/32" shank. Rated 10 amps, 115 volt AC—20 amps, 28 volts DC (Nominal rating per pole) SEALED LEVER **Std. Pkg. 5**

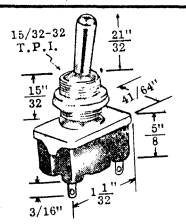
SOLDER LUGS

No.	C-H No.	"MS" No.	Type	Circuit†	NET Each
944	7661K6	—	4PST	A-D-A	$5.16
945	7665K4	—	4PDT	A-D-A	6.30
3922	7669K4	—	4PST	A-D-E	7.10
3923	7671K4	—	4PDT	A-B-C	7.80
3924	7673K4	—	4PDT	C-B-C	7.80
3925	7675K4	—	4PDT	A-D-C	7.80
		CENTER OFF			
948	7663K5	—	4PDT	A-B-A	6.30

SCREW TERMINALS (Per MIL-S-3950)

No.	C-H No.	"MS" No.	Type	Circuit†	NET Each
946	7660K12	MS25068- *	4PST	A-D-B	$6.00
947	7664K5	MS25068-23	4PDT	A-D-A	7.00
3926	7660K13	MS25068-24	4PST	A-B-D	5.60
3927	7666K6	MS25068- *	4PST	A-D-C	7.60
3928	7666K9	MS25068-28	4PST	D-B-C	7.60
3929	7668K7	MS25068-25	4PST	A-C-D	7.60
3930	7670K6	MS25068-31	4PDT	A-B-C	8.40
3931	7672K5	MS25068-27	4PDT	C-B-C	8.40
3932	7674K5	MS25068-26	4PDT	A-D-C	8.40
		CENTER OFF			
949	7662K7	MS25068-21	4PDT	A-B-A	7.00

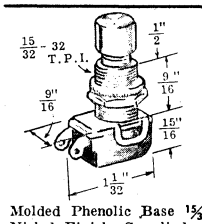
†Circuit Code: **A** = On **B** = Off **C** = Momentary On **D** = None **E** = Momentary Off



MIDGET TOGGLE SWITCH

Bat lever. Molded phenolic base. 15/32-32 x 15/32" long. Slotted sleeve, nickel finish. Supplied with hex nut and knurled nut. Back connected silver plated solder contacts. Rated 1 amp.-250 volts; 3 amps.-125 volts. **Std. Pkg. 10**

No.	Circuit	NET Each
920	SPST	$ .99
921	SPDT	1.19
922	2 Circ.	1.23
923	DPST	1.46
924	DPDT	1.68



MIDGET MOMENTARY SWITCH
SLOW MAKE AND BREAK

Molded Phenolic Base 15/32-32 x 9/16" slotted sleeve, Nickel Finish. Supplied with hex nut and knurled nut. Side connected silver plated solder contacts. Rated at 3 amps.-120 volts A.C. Supplied less button; order button separately. **Std. Pkg. 10**

Normally Closed (ON)

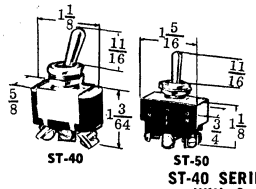
No.	Circuit	NET Each
925	SPST	$.82
926	2 Circ.	.88

Normally Open (OFF)

No.	Circuit	NET Each
927	SPST	$.82

Additional C-H Push Button Switches on Smith Page 46

"ST" SWITCHES



ST-40 ST-50

Nominal Rating Per. Pole:
10 Amps. 115 V. AC
20 Amps. 28V. DC
Std. Pkg. 10

ST-40 SERIES — Single Pole With Screw Terminals

HHS	C-H	JAN Type	Circuit	NET Each
1720	8801K13	ST40A SPST	On-None-Off	$1.90
1721	8813K12	ST40B SPST	On-None-Mom-Off	2.10
1722	8811K12	ST40C SPST	On-None-Mom-On	2.10
1723	8810K12	ST40D SPDT	On-None-On	2.30
1724	8800K13	ST40E SPDT	On-Off-On	2.30
1725	8804K12	ST40F SPDT	On-None-Mom-On	2.50
1726	8812K13	ST40G SPDT	Mom-On-Off-Mom-On	2.50
1727	8809K13	ST40H SPDT	Off-On-Mom-On	2.50

All ST-40 Switches have Sealed Lever.

ST-42 SERIES — Single Pole With Solder Lugs

HHS	C-H	JAN Type	Circuit	Each
1730	8803K6	ST42A SPST	On-None-Off	$1.62
1731	8819K5	ST42B SPST	On-None-Mom-Off	1.62
1732	8817K5	ST42C SPST	On-None-Mom-On	1.73
1733	8816K5	ST42D SPDT	On-None-On	1.68
1734	8802K6	ST42E SPDT	On-Off-On	1.68
1735	8805K5	ST42F SPDT	On-None-Mom-On	1.83
1736	8818K5	ST42G SPDT	Mom-On-Off-Mom-On	1.83
1737	8815K6	ST42H SPDT	On-Off-Mom-On	1.83

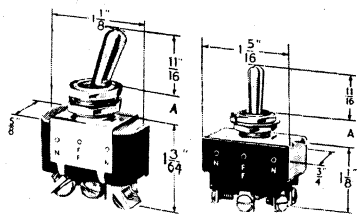
ST-50 SERIES — Double Pole With Screw Terminals

HHS	C-H	JAN Type	Circuit	Each
1740	8822K8	ST50K DPST*	On-None-Off	$2.55
1741	8828K5	ST50L DPST	On-None-Mom-Off	3.10
1742	8826K5	ST50M DPST	Off-None-Mom-On	3.10
1743	8824K8	ST50N DPDT*	On-None-On	3.10
1744	8820K10	ST50P DPDT*	On-Off-On	3.10
1745	8830K5	ST50R DPDT*	On-None-Mom-On	3.33
1746	8834K4	ST50S DPDT*	Mom-On-Off-Mom-On	3.33
1747	8832K4	ST50T DPDT*	On-Off-Mom-On	3.33

* These switches are equipped with Sealed Lever.

ST-52 SERIES — Double Pole With Solder Lugs

HHS	C-H	JAN Type	Circuit	Each
1760	8823K5	ST52K DPST	On-None-Off	$1.80
1761	8829K5	ST52L DPST	On-None-Mom-Off	1.90
1762	8827K5	ST52M DPST	Off-None-Mom-On	1.90
1763	8825K5	ST52N DPDT	On-None-On	1.90
1764	8821K5	ST52P DPDT	On-Off-On	1.90
1765	8831K5	ST52R DPDT	On-None-Mom-On	2.20
1766	8835K3	ST52S DPDT	Mom-On-Off-Mom-On	2.20
1767	8833K3	ST52T DPDT	On-Off-Mom-On	2.20



"MS" SERIES Made to Spec. MIL-S-3950B

Supersedes all previous specifications. Made to meet MIL-S-3950B. Provided with sealed lever for protection against sand, dust and moisture. **Std. Pkg. 10**

SINGLE POLE

No.	C-H No.	"MS" No.	Type	Circuit†	NET Each
3900	8800K16	MS35058-21	SPST	A-B-A	$2.30
3901	8801K22	MS35058-22	SPST	A-D-B	1.90
3902	8810K15	MS35058-23	SPST	A-D-A	2.30
3903	8801K23	MS35058-24	SPDT	A-B-D	1.90
3904	8813K18	MS35058-25	SPDT	A-E-D	2.10
3905	8804K13	MS35058-26	SPDT	A-D-C	2.50
3906	8812K14	MS35058-27	SPDT	C-B-C	2.50
3907	8811K18	MS35058-28	SPDT	D-B-C	2.10
3908	8813K17	MS35058-29	SPDT	A-D-E	2.10
3909	8811K17	MS35058-30	SPDT	B-D-C	2.10
3910	8809K16	MS35058-31	SPDT	A-B-C	2.50

DOUBLE POLE

No.	C-H No.	"MS" No.	Type	Circuit†	NET Each
3911	8820K16	MS35058-21	DPDT	A-B-A	$3.00
3912	8822K20	MS35059-22	DPST	A-D-B	2.50
3913	8824K14	MS35059-23	DPDT	A-D-A	3.00
3914	8822K21	MS35059-24	DPDT	A-B-D	2.50
3915	8828K12	MS35059-25	DPDT	A-E-D	3.00
3916	8830K13	MS35059-26	DPDT	A-D-C	3.30
3917	8834K5	MS35059-27	DPDT	C-B-C	3.30
3918	8826K14	MS35059-28	DPDT	D-B-C	3.00
3919	8828K13	MS35059-29	DPDT	A-D-E	3.00
3920	8826K15	MS35059-30	DPDT	B-D-C	3.00
3921	8823K6	MS35059-31	DPDT	A-B-C	3.30

†Circuit Code: **A** = On **B** = Off **C** = Momentary On **D** = **E** = Momentary Off

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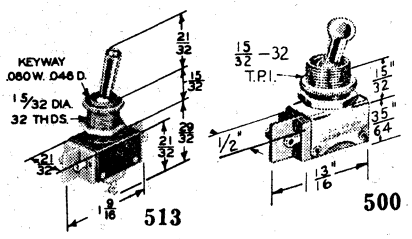
specify SMITH

HERMAN H. SMITH, INC. — ELECTRONIC COMPONENTS

ARROW HART & HEGEMAN SWITCHES

SMALL CANOPY TYPE SWITCHES



Laminated type 15/32-32 slotted sleeve, nickel finish. Supplied with hex nut and knurled nut. Solder terminals. SPST rated at 3 amps-250 volts AC-DC; all other rated at 1 amp-250 volts, 3 amps-125 volts AC-DC. **Std. Pkg. 10**

BAT LEVER POSITIVE ACTION

15/32" long shaft No.	NET Each	CIRCUIT	13/32" long shaft No.	NET Each
510	$ .75	SPST	584	$ .75
511	.95	SPDT	585	.95
542	1.00	2-Circ.	586	1.00
512	1.36	DPST	587	1.36
513	1.56	DPDT	588	1.56

BAT LEVER MOMENTARY ACTION

15/32" long shaft

Normally Closed (ON) NET Each	CIRCUIT	Normally Open (OFF) NET Each
1020 $1.20	SPST	1024 $1.20
1021 1.40	SPDT	— —
1022 1.80	DPST	1025 1.81
1023 2.02	DPDT	— —

BALL LEVER POSITIVE ACTION

15/32" long shaft NET Each	CIRCUIT	3/4" long shaft NET Each
500 $ .75	SPST	501 $ .90
502 .95	SPDT	503 1.20
540 1.00	2 Circ.	541 1.15
504 1.36	DPST	505 1.61
506 1.56	DPDT	507 1.51

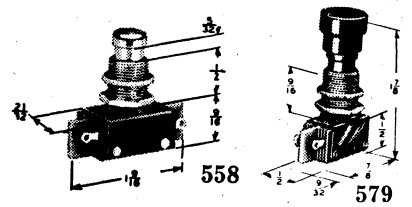
It's Sound Planning to SPECIFY SMITH FOR SWITCHES

To assist you in planning your prototypes and production, Smith maintains an inventory of all switches listed here —

IN STOCK — IN DEPTH

to meet your Immediate Requirements!

MOMENTARY PUSH SWITCHES



Laminated type 15/32-32 x 9/16" slotted sleeve, nickel finish. Supplied with hex nut and knurled nut. All switches accept snap on button. SPST rated at 3 amps-250 volts AC-DC. All others rated at 1 amp-250 volts. 3 amps-125 volts AC-DC. **Std. Pkg. 10**

SUPPLIED LESS BUTTON: ORDER BUTTON SEPARATELY.

QUICK MAKE AND BREAK

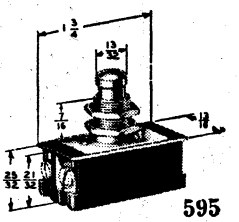
Normally Closed (ON) No.	NET Each	CIRCUIT	Normally Open (OFF) No.	NET Each
552	$1.46	SPST	555	$1.46
556	1.68	SPDT	—	—
557	1.72	2 Circ.	—	—
564	2.03	DPST	558	2.03
559	2.38	DPDT	—	—

SLOW MAKE AND BREAK

Rated at 1 amp.-125 volts AC

Normally Closed (ON) NET Each	CIRCUIT	Normally Open (OFF) NET Each
582 $ .82	SPST	579 $ .82
580 1.05	2 Circ.	— —

STANDARD DUTY MOMENTARY PUSH SWITCHES



Molded phenolic base. 15/32-32 x 7/16" long slotted sleeve, nickel finish. Screw terminals. Supplied with hex nuts.

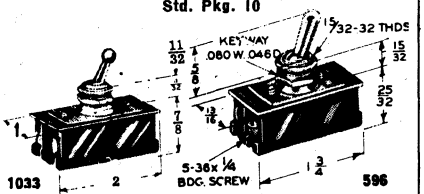
Two circ. rated at 3 amps.-250 volts, 6 amps-125 volts. AC-DC. All others rated at 6 amps-250 volts, 12 amps-125 volts AC-DC. DPST also rated at 1 HP at 250 volts AC-DC. **Std. Pkg. 10**

Normally Closed (ON) No.	NET Each	CIRCUIT	Normally Open (OFF) No.	NET Each
1026	$2.23	SPST	544	$2.13
1027	2.23	SPDT	—	—
1028	2.37	2 Circ.	—	—
1029	2.23	DPST	595	2.23

STANDARD DUTY TOGGLE SWITCHES

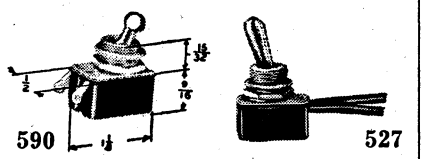
QUICK MAKE AND BREAK

Std. Pkg. 10



BALL LEVER NET Each	CIRCUIT	BAT LEVER NET Each
1030 $1.44	SPST	597 $1.44
1031 1.51	SPDT	598 1.44
1032 1.44	2 Circ.	599 1.51
1033 1.51	DPST	596 1.56

MIDGET SIZE TOGGLE SWITCHES



Molded phenolic base, 15/32-32 x 15/32" long slotted sleeve, nickel finish. Side connected silver plated solder contacts. Supplied with hex nut and knurled nut. SPST rated at 3 amps-250 volts; 6 amps.-125 volts; all others rated at 1 amp-250 volts, 6 amps.-125 volts. **Std. Pkg. 10**

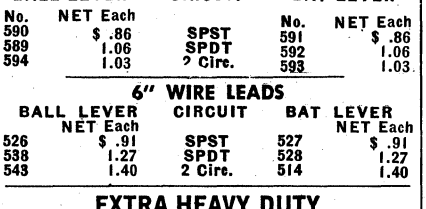
BALL LEVER No.	NET Each	CIRCUIT	BAT LEVER No.	NET Each
590	$ .86	SPST	591	$ .86
589	1.06	SPDT	592	1.06
594	1.03	2 Circ.	593	1.03

6" WIRE LEADS

BALL LEVER NET Each	CIRCUIT	BAT LEVER NET Each
526 $ .91	SPST	527 $ .91
538 1.27	SPDT	528 1.27
543 1.40	2 Circ.	514 1.40

EXTRA HEAVY DUTY POWER SWITCHES

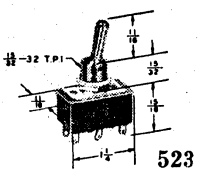
3 POSITION—POSITIVE CENTER OFF



Slotted sleeve 3/4-32, nickel finish. Screw terminals. Supplied with 2 hex nuts. Rated at 5 amps-250 volts. 10 amps-125 volts plus HP rating shown below. **Std. Pkg. 5**

No.	Circuit	Description	NET Each
574	DPDT	3/4 HP 250 volts AC-DS	$ 5.30
575	TPDT	1/2 HP 115/230 volts AC, 3 phase	8.20
576	4PDT	1/2 HP 115/230 volts AC, 2 phase	10.90

INTERMEDIATE SIZE TOGGLE SWITCHES

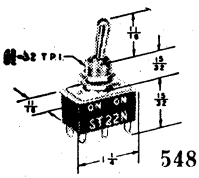


Molded phenolic base. 15/32-32 x 15/32" long slotted sleeve, nickel finish. Supplied with hex nut and knurled nut. Back connected silver plated solder contacts. SPDT rated at 1 amp-250 volts, 6 amps-125 volts AC-DC; all others rated at 3 amps-250 volts, 6 amps-125 volts AC-DC.

BAT LEVER **Std. Pkg. 10**

POSITIVE ACTION No.	NET Each	CIRCUIT	MOMENTARY ACTION No.		NET Each
520	$ .99	SPST	524	OFF	$1.43
521	1.19	SPDT	549	—	1.56
583	1.23	2 Circ.	—	—	—
522	1.46	DPST	537	OFF	2.05
523	1.68	DPDT	525	—	2.25

ST TYPE TOGGLE SWITCHES



MEETS AN SPEC. JAN-23

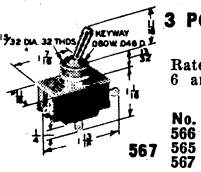
Rated at 3 amps-250 volts, 6 amps-125 volts AC-DC.

Std. Pkg. 10

No.	AWS No.	CIRCUIT	Position	NET Each
545	ST 12A	SPST	OFF-ON	$1.35
546	ST 12D	SPDT	ON-ON	1.53
1040	ST 12V	2-Circ.	ON-OFF	1.56
547	ST 22K	DPST	OFF-ON	1.91
548	ST 22N	DPDT	ON-ON	2.09

MOMENTARY NORMALLY OPEN (OFF)

1041	ST 12C	SPST	OFF-ON	$1.76
1042	ST 22M	DPST	OFF-ON	2.31



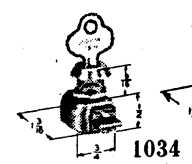
3 POSITION CENTER OFF

Rated at 3 amps-250 volts, 6 amps-125 volts AC-DC.

Std. Pkg. 10

No.	CIRCUIT	NET Each
566	SPDT	$1.82
565	2 Circ.	2.04
567	DPDT	2.25

CANOPY TYPE ROTARY SWITCHES



Laminated type. 11/32-32 x 15/32" sleeve, nickel finish. Solder lugs. Supplied with hex nut and dress nut. SPST rated at 3 amps-250 volts AC-DC, all others rated at 1 amp-250 volts, 3 amps-125 volts. AC-DC. Key removable in OFF position only on SPST and DPST—key removable in both positions on all others. 1⅛" shaft. **Std. Pkg. 10**

KEY TYPE No.	NET Each	CIRCUIT	ROTARY TYPE No.	NET Each
1034	$1.77	SPST	570	$1.02
1035	1.82	SPDT	571	1.14
1036	1.87	2 Circ.	—	—
1037	2.24	DPST	572	1.55
1038	2.25	DPDT	573	1.93

SWITCH ACCESSORIES

508 509 581 1146 1170 1171 1172 1196 1197 1198

No.	Description	Std. Pkg.	NET Per C
508	ON-OFF name plate	50	$ 5.40
509	HI-LO name plate	50	5.40
581	Snap-On Button (Red or Black)	20	24.00
1146	Narrow Rim Lockwasher	100	1.02
1170	Key—Remove off position	50	21.00
1171	Key—Remove both positions	50	21.00
1172	Locking Ring	100	2.40
1196	Hex Nut—Brass N.P.	100	1.98
1197	Ring Nut—Brass N.P.	100	3.30
1198	Dress Nut—Brass N.P.	100	18.00

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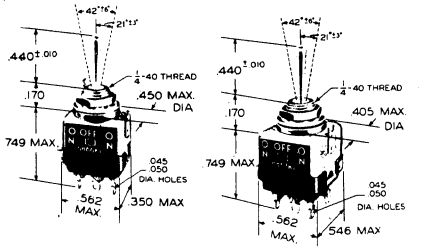
HERMAN H. SMITH, INC.

ELECTRONIC COMPONENTS

CUTLER-HAMMER

MINIATURE MILITARY SWITCHES



Extremely compact, highly reliable power or dry circuit switches. Usable as a pre-set switch in aircraft recognition systems; for walkie-talkies; for electronic instruments and communications systems.

RATINGS: Res. Load 4 Amps. @ 28 V.D.C. 1 Amp @ 50 V.D.C. 3 Amps. @ 115 V.A.C.

MINIMUM RATING: 25 Microamps. @ 5 Millivolts.

SINGLE POLE

WEIGHT: 5.0 Grams.
CUBIC CONTENT: .147 cubic inches "behind panel" volume.
Std. Pkg. 5

.440 LEVER APPROVED TO MIL-S-8834

No.	C-H No.	"MS" No.	Type	Circuit†	NET Each
1841	8866K1	MS24655-211	SPDT	A-B-A	$6.80
1842	8866K2	MS24655-271	SPDT	C-B-C	7.65
1843	8866K3	MS24655-311	SPDT	A-B-C	7.65
1844	8866K4	MS24655-231	SPDT	A-D-A	6.80
1845	8866K4	MS24655-241	SPST	A-B-D	7.65
1846	8866K6	MS24655-281	SPST	D-B-C	7.65
1847	8866K7	MS24655-221	SPST	A-D-B	6.80

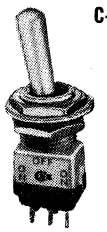
DOUBLE POLE

WEIGHT: 6.5 grams.
CUBIC CONTENT: .230 cubic inches "behind panel" volume.
Std. Pkg. 5

No.	C-H No.	"MS" No.	Type	Circuit†	NET Each
1851	8867K1	MS24656-211	DPDT	A-B-A	$8.50
1852	8867K2	MS24656-271	DPDT	C-B-C	9.90
1853	8867K3	MS24656-311	DPDT	A-B-C	9.90
1854	8867K4	MS24656-231	DPDT	A-D-A	8.50
1855	8867K5	MS24656-241	DPST	A-B-D	9.90
1856	8867K6	MS24656-281	DPST	D-B-C	9.90
1857	8867K7	MS24656-221	DPST	A-D-B	8.50

†Circuit Code: **A** = On **B** = Off **C** = Momentary On **D** = None **E** = Momentary Off

C-H MINIATURE MILITARY SWITCHES



Same as above, but with .687" lever. Total weight: 5.0 - 6.5 grams. Bushing dia. 15/32". Gold plated solder lug terminals.

SINGLE POLE

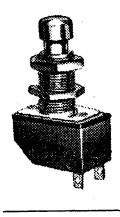
11/16" LEVER APPROVED TO MIL-S-8834

No.	C-H No.	Type	Circuit†	NET Each
3933	8868K1	SPDT	A-B-A	$6.90
3934	8868K2	SPDT	C-B-C	7.80
3935	8868K3	SPDT	A-B-C	7.80
3936	8868K4	SPDT	A-D-A	6.90
3937	8868K5	SPST	A-B-D	7.80
3938	8868K6	SPST	D-B-C	7.80
3939	8868K7	SPST	A-D-B	6.90

DOUBLE POLE

No.	C-H No.	Type	Circuit†	NET Each
3940	8869K1	DPDT	A-B-A	$ 8.60
3941	8869K2	DPDT	C-B-C	10.00
3942	8869K3	DPDT	A-B-C	10.00
3943	8869K4	DPDT	A-D-A	8.60
3944	8869K5	DPST	A-B-D	10.00
3945	8869K6	DPST	D-B-C	10.00
3946	8869K7	DPST	A-D-B	8.60

†Circuit Code: **A** = On **B** = Off **C** = Momentary On **D** = None **E** = Momentary Off



PUSH BUTTON SWITCHES

Push to make—Push to break

AC-DC, UL Approved; 11/16" shank; bakelite case. Pushing the button once closes the contacts. Pushing it again opens the contacts. Rated at 6 Amps. 125 Volts; 3 Amps. 250 Volts. **Std. Pkg. 10**

No.	C-H No.	Type	Term.	NET Each
989	7206K4	SPST	Lug	$ .96
990	7208K4	SPST	Screw	1.08
991	7207K4	SPST	Wire	1.08

QUALIFIED SALES ENGINEERS

The men and their organizations comprising the nationwide network of SMITH REPRESENTATIVES are technically qualified and eager to consult with you on your requirements for standard or special components manufactured by Herman H. Smith Inc.

MICRO TOGGLE SWITCHES

ROCKER-ACTUATED TOGGLE SWITCHES

Combines advantages of Toggle Switch circuitry and current capacity with pushbutton control. Snag-proof keys prevent false actuation. Translucent plastic keys feature edge light indication. Lower half of key emits soft glow from light source in panel. Enables easy identification of actuator position. Transparent plastic keys mounted above flush. An insert with signs, symbols, or letters can be placed under the key.
Temperature range —65°F to +160°F. Sealed between bushing and rocker actuator, and between cover and case.
Std. Pkg. 10

Circuit Code #	Circuit
1	ON-OFF-ON
2	ON-NONE-OFF
3	ON-NONE-ON
4	ON-OFF-NONE
5	ON-ON-NONE
6	ON-NONE-OFF(MOM)
7	ON-OFF-ON(MOM)
8	OFF-NONE-ON(MOM)
9	ON(MOM)OFF-ON (MOM
10	ON-NONE-ON(MOM)
11	ON-OFF(MOM)-NONE
12	ON(MOM)-ON-NONE
13	NONE-OFF-ON(MOM)

RATING: CURRENT CAPACITY (AMPS)

	CONTINUOUS	RESISTIVE LOAD 30 vdc	115 vdc	250 vdc	115 vac	230 vac	LAMP LOAD 30 vdc	115 vac	INDUCTIVE LOAD 30 vdc	115 vac
A	45	20	.75	.5	15	6	5	3	15	10
B	45	15	.75	.5	15	6	4	2	10	7
C	40	20	.75	.5	15	6	7	4	15	15
D	40	18	.75	.5	11	6	5	2	10	8
E	40	20	.75	.5	15	6	5	4	12	15
F	40	18	.75	.5	11	6	4	2	10	8

HHS	MICRO	Circuit	Rating	NET Each
	1 POLE TRANSLUCENT KEY			
3401	1TP1-1	1	A	$ 7.29
3402	1TP1-2	2	A	7.29
3403	1TP1-3	3	A	7.29
3404	1TP1-21	4	A	7.29
3405	1TP1-31	5	A	7.29
3406	1TP1-4	6	B	7.29
3407	1TP1-5	7	B	7.29
3408	1TP1-6	8	B	7.29
3409	1TP1-7	9	B	7.29
3410	1TP1-8	10	B	12.63
3411	1TP1-41	11	B	13.02
3412	1TP1-51	12	B	13.05
3413	1TP1-61	13	B	7.29
	TRANSPARENT KEY			
3414	1TP4-1	1	A	$ 7.29
3415	1TP4-2	2	A	7.29
3416	1TP4-3	3	A	7.29
3417	1TP4-21	4	A	15.57
3418	1TP4-31	5	A	15.57
3419	1TP4-4	6	B	7.29
3420	1TP4-5	7	B	7.29
3421	1TP4-6	8	B	7.29
3422	1TP4-7	9	B	7.29
3423	1TP4-8	10	B	15.15
3424	1TP4-41	11	B	15.57
3425	1TP4-51	12	B	15.63
3426	1TP4-61	13	B	13.02
	2 POLE TRANSLUCENT KEY			
3427	2TP1-1	1	C	$ 8.40
3428	2TP1-2	2	C	8.40
3429	2TP1-3	3	C	8.40
3430	2TP1-21	4	C	8.40
3431	2TP1-31	5	C	8.40
3432	2TP1-4	6	D	16.17
3433	2TP1-5	7	D	8.40
3434	2TP1-6	8	D	8.40
3435	2TP1-7	9	D	14.61
3436	2TP1-8	10	D	8.40
3437	2TP1-41	11	D	15.03
3438	2TP1-51	12	D	15.21
3439	2TP1-61	13	D	15.03
	TRANSPARENT KEY			
3440	2TP4-1	1	C	$ 8.40
3441	2TP4-2	2	C	8.40
3442	2TP4-3	3	C	8.40
3443	2TP4-21	4	C	17.58
3444	2TP4-31	5	C	17.58
3445	2TP4-4	6	D	17.19
3446	2TP4-5	7	D	8.40
3447	2TP4-6	8	D	17.19
3448	2TP4-7	9	D	8.40
3449	2TP4-8	10	D	8.40
3451	2TP4-51	12	D	17.73
3452	2TP4-61	13	D	17.58
	4 POLE TRANSLUCENT KEY			
3453	4TP1-1	1	E	$ 9.90
3454	4TP1-2	2	E	9.90
3455	4TP1-3	3	E	9.90
3456	4TP1-21	4	E	9.90
3457	4TP1-31	5	E	9.90
3458	4TP1-4	6	F	18.00
3459	4TP1-5	7	F	9.90
3461	4TP1-7	9	F	9.90
3462	4TP1-8	10	F	15.03
3463	4TP1-41	11	F	15.21
3464	4TP1-51	12	F	15.03
	TRANSPARENT KEY			
3466	4TP4-1	1	E	$ 9.90
3467	4TP4-2	2	E	9.90
3468	4TP4-3	3	E	9.90
3469	4TP4-21	4	E	20.16
3470	4TP4-31	5	E	22.05
3471	4TP4-4	6	F	19.77
3472	4TP4-5	7	F	9.90
3474	4TP4-7	9	F	9.90
3475	4TP4-8	10	F	19.89
3476	4TP4-41	11	F	20.91
3477	4TP4-51	12	F	22.44
3478	4TP4-61	13	F	20.16

BUSHING-MOUNTED TOGGLE SWITCHES

Tested and approved under MIL-S-3950A. Silicone sealed between cover and case, and between bushing and toggle lever. Integral terminals provide stronger wiring connections. Wide temperature range of —85°F to +250°F.
Std. Pkg. 10

Circuit Code #	Circuit
1	ON-OFF-ON
2	ON-NONE-OFF
3	ON-NONE-ON
4	ON-OFF-NONE
5	ON-ON-NONE
6	ON-NONE-OFF(MOM)
7	ON-OFF-ON(MOM)
8	OFF-NONE-ON(MOM)
9	ON(MOM)OFF-ON (MOM)
10	ON-NONE-ON(MOM)
11	ON-OFF(MOM)-NONE
12	ON(MOM)-ON-NONE
13	NONE-OFF-ON(MOM)

RATING: CURRENT CAPACITY (AMPS)

	CONTINUOUS	RESISTIVE LOAD 30 vdc	115 vdc	250 vdc	115 vac	230 vac	LAMP LOAD 30 vdc	115 vac	INDUCTIVE LOAD 30 vdc	115 vac
A	45	20	.75	.5	15	6	5	3	15	10
B	45	15	.75	.5	15	6	4	2	10	7
C	40	20	.75	.5	15	6	7	4	15	15
D	40	18	.75	.5	11	6	5	2	10	8

HHS	MICRO	"MS" No.	Circuit	Rating	NET Each
		1 POLE (MS 24523)			
3101	1TL1-1	MS24523-21	1	A	$5.13
3102	1TL1-2	MS24523-22	2	A	5.13
3103	1TL1-3	MS24523-23	3	A	5.13
3104	1TL1-21	MS24523-24	4	A	5.97
3105	1TL1-31	MS24523-33	5	A	5.97
3106	1TL1-4	MS24523-29	6	B	5.13
3107	1TL1-5	MS24523-31	7	B	5.13
3108	1TL1-6	MS24523-30	8	B	5.13
3109	1TL1-7	MS24523-27	9	B	5.13
3110	1TL1-8	MS24523-26	10	B	5.13
3111	1TL1-41	MS24523-25	11	B	5.97
3112	1TL1-51	MS24523-51	12	B	5.97
3113	1TP1-61	MS24523-28	13	B	5.97
		2 POLE (MS 24524)			
3114	2TL1-1	MS24524-21	1	C	$8.43
3115	2TL1-2	MS24524-22	2	C	8.43
3116	2TL1-3	MS24524-23	3	C	8.43
3117	2TL1-21	MS24524-24	4	C	8.43
3118	2TL1-31	MS24524-33	5	C	8.43
3119	2TL1-4	MS24524-29	6	D	8.43
3120	2TL1-5	MS24524-31	7	D	8.43
3121	2TL1-6	MS24524-30	8	D	8.43
3122	2TL1-7	MS24523-27	9	D	8.43
3123	2TL1-8	MS24524-26	10	D	8.43
3124	2TL1-41	MS24524-25	11	D	8.43
3125	2TL1-51	MS24524-32	12	D	8.43
3126	2TL1-61	MS24524-28	13	D	8.43
		4 POLE (MS 24525)			
3127	4TL1-1	MS24525-21	1	C	$13.35
3128	4TL1-2	MS24525-22	2	C	13.35
3129	4TL1-3	MS24525-23	3	C	13.35
3130	4TL1-21	MS24525-24	4	C	13.35
3131	4TL1-31	MS24525-33	5	C	13.35
3132	4TL1-4	MS24525-29	6	D	13.35
3133	4TL1-5	MS24525-31	7	D	13.35
3134	4TL1-6	MS24525-30	8	D	13.35
3135	4TL1-7	MS24525-27	9	D	13.35
3136	4TL1-8	MS24525-26	10	D	13.35
3137	4TL1-41	MS24525-25	11	D	13.35
3139	4TL1-51	MS24525-32	12	D	13.35
3139	4TL1-61	MS24525-28	13	D	13.35

BUSHING-MOUNTED "TS" TOGGLE SMITCHES

Tested and approved under MIL-S-3950A. Terminals plated to enable conversion to solder use by removing screws. Sealed toggle lever.
Std. Pkg. 10

RATING: CURRENT CAPACITY (AMPS)

	CONTINUOUS	RESISTIVE LOAD 30 vdc	125 vdc	250 vdc	125 vac	250 vac	LAMP LOAD 30 vdc	125 vac	INDUCTIVE LOAD 30 vdc	125 vac
A	40	20	.75	.5	15	6	5	3	15	10
B	40	15	.75	.5	15	6	4	2	10	7
C	30	30	.75	.5	25	9	7	4	15	15
D	30	20	.75	.5	15	6	5	2	10	8

HHS	MICRO	"MS" No.	Circuit	Rating	NET Ea.
		1 POLE (MS 35058)			
3141	511TS1-1	MS35058-21	1	A	$2.18
3142	511TS1-2	MS35058-22	2	A	1.82
3143	511TS1-3	MS35058-23	3	A	2.18
3144	511TS1-21	MS35058-24	4	A	1.82
3145	511TS1-4	MS35058-29	5	B	2.02
3146	511TS1-5	MS35058-31	6	B	2.37
3147	511TS1-6	MS35058-30	7	B	2.02
3148	511TS1-7	MS35058-27	8	B	2.37
3149	511TS1-8	MS35058-26	9	B	2.37
3150	511TS1-61	MS35058-28	10	B	2.02
3151	511TS1-41	MS35058-25	11	B	2.02
		2 POLE (35059)			
3152	512TS1-1	MS35059-21	1	C	$2.93
3153	512TS1-2	MS35059-22	2	C	2.44
3154	512TS1-3	MS35059-23	3	C	2.93
3155	512TS1-21	MS35059-24	4	C	2.44
3156	512TS1-4	MS35059-29	5	D	2.93
3157	512TS1-5	MS35059-31	6	D	3.15
3158	512TS1-6	MS35059-30	7	D	2.93
3159	512TS1-7	MS35059-27	8	D	3.15
3160	512TS1-8	MS35059-26	9	D	3.15
3161	512TS1-61	MS35059-28	10	D	2.93
3162	512TS1-41	MS35059-25	11	D	2.93

specify **SMITH**

HERMAN H. SMITH, INC.

ELECTRONIC COMPONENTS

MICRO TOGGLE SWITCHES

"TS" TOGGLE SWITCHES "UL" LISTED

"UL" listed "Commercial" type are identical to military type except for bat handle finish. Bright chrome plated to enhance panel appearance. Also certified by the Canadian Standards Association (CSA). **Std. Pkg. 10**

Circuit Code #	Circuit	Circuit Code #	Circuit
1	ON-OFF-ON	8	OFF-NONE-ON(MOM)
2	ON-NONE-OFF	9	ON(MOM)OFF-ON (MOM)
3	ON-NONE-ON		
4	ON-OFF-NONE	10	ON-NONE-ON(MOM)
6	ON-NONE-OFF(MOM)	13	NONE-OFF-ON(MOM)
7	ON-OFF-ON(MOM)		

RATING "A"	RATING "B"	RATING "C"
15 Amps., 125-250 VAC	10 Amps., 125-250 VAC	15 Amps., 125-250 VAC
½ HP, 125 VAC	¼ HP, 125 VAC	⅓ HP, 125 VAC
1 HP, 250 VAC	½ HP, 250 VAC	¾ HP, 250 VAC

HHS	MICRO	Circuit	Rating	Net Ea.
	1 POLE			
	SCREW TERMINALS			
3331	11TS15-1	1	A	$2.18
3332	11TS15-2	2	A	1.82
3333	11TS15-3	2	A	2.18
3334	11TS15-6	8	B	2.02
3335	11TS15-61	13	B	2.02
3336	11TS15-7	9	B	2.37
	QUICK DISCONNECT TERMINALS			
3337	11TS95-1	1	A	$2.11
3338	11TS95-2	2	A	1.76
3339	11TS95-21	4	A	1.76
3340	11TS95-3	3	A	2.11
3341	11TS95-4	6	B	1.95
3342	11TS95-5	7	B	2.31
3343	11TS95-6	8	B	1.95
3344	11TS95-61	13	B	1.95
3345	11TS95-7	9	B	2.31
3346	11TS95-8	10	B	2.31
	SOLDER TERMINALS			
3347	11TS115-1	1	A	$2.05
3348	11TS115-2	2	A	1.72
3349	11TS115-3	3	A	2.05
3350	11TS115-4	6	B	1.92
3351	11TS115-7	9	B	2.24
	2 POLE			
	SCREW TERMINALS			
3352	12TS15-1	1	A	$2.93
3353	12TS15-2	2	A	2.44
3354	12TS15-21	4	A	2.44
3355	12TS15-3	3	A	2.93
3357	12TS15-5	7	C	3.15
3359	12TS15-61	13	C	2.93
3360	12TS15-7	9	C	3.15
3361	12TS15-8	10	C	3.15
	QUICK DISCONNECT			
3362	12TS95-1	1	A	$2.76
3363	12TS95-2	2	A	2.31
3365	12TS95-3	3	A	2.76
3366	12TS95-4	6	C	2.83
3367	12TS95-5	7	C	3.02
3370	12TS95-7	9	C	3.02
	SOLDER TERMINALS			
3372	12TS115-1	1	A	$2.63
3373	12TS115-2	2	A	2.24
3374	12TS115-21	4	A	2.24
3375	12TS115-3	3	A	2.63
3376	12TS115-4	6	C	2.73
3377	12TS115-5	7	C	2.89
3378	12TS115-6	8	C	2.73
3379	12TS115-61	13	C	2.73
3380	12TS115-7	9	C	2.89
3381	12TS115-8	10	C	2.89

3-HOLE MOUNT "TS" TOGGLE SWITCHES

"An" Type tested and approved under MIL specs. "JAN" Type conform to JAN-S-23.—Sealed Lever. **Std. Pkg. 10**

Circuit Code #	Circuit	Circuit Code #	Circuit
1	ON-OFF-ON	8	OFF-NONE-ON(MOM)
2	ON-NONE-OFF	9	ON(MOM)OFF-ON (MOM)
3	ON-NONE-ON		
4	ON-OFF-NONE	10	ON-NONE-ON(MOM)
6	ON-NONE-OFF(MOM)	11	ON-OFF(MOM)-NONE
7	ON-OFF-ON(MOM)	13	NONE-OFF-ON(MOM)

RATING: CURRENT CAPACITY (AMPS)

	CONTINUOUS	RESISTIVE 30 vdc	RESISTIVE 125 vdc	RESISTIVE 250 vdc	RESISTIVE 115 vac	RESISTIVE 230 vac	LAMP LOAD 30 vdc	LAMP LOAD 125 vac	INDUCTIVE LOAD 30 vdc	INDUCTIVE LOAD 125 vac
A	55	40	.75	.5	20	7.5	7	7	20	15
B	55	30	.75	.5	20	7.5	5	4	18	11
C	55	40	.75	.5	25	8	10	7	20	15
D	55	30	.75	.5	20	7	7	4	18	11

1 POLE (MIL-S-6745)

HHS	MICRO	"AN" No.	"JAN" No.	Circuit	Rating	Net Ea.
3301	31TS1-1	3022-1	ST45E	1	A	$2.57
3302	37TS1-2	3022-2	ST45A	2	A	2.11
3303	31TS1-3	3022-3	ST45D	3	A	2.57
3304	31TS1-21	——	——	4	A	2.11
3305	31TS1-4	3022-9	ST45B	6	B	2.34
3306	31TS1-5*	——	ST45H	7	B	2.76
3307	31TS1-6	3022-8	ST45C	8	B	2.34
3308	31TS1-7	3022-7	ST45G	9	B	2.76
3309	31TS1-8	3022-11	ST45F	10	B	2.76
3310	31TS2-5	3022-6	——	7	B	2.96
3311	31TS1-61	——	——	13	B	2.34

*Has a jumper across the stationary contact terminals.

2 POLE (MIL-S-3950A)

HHS	MICRO	"MS" No.	Circuit	Rating	Net Ea.
3312	532TS1-1	MS25103-21	1	C	$5.33
3313	532TS1-3	MS25103-23	3	C	5.33
3314	532TS1-21	MS25103-24	4	C	4.45
3315	532TS1-5	MS25103-31	7	D	5.79
3316	532TS1-7	MS25103-27	9	D	5.79
3317	532TS1-8	MS25103-26	10	D	5.79
3319	532TS1-61	MS25103-28	13	D	5.23

RATING: CURRENT CAPACITY (AMPS)

	CONTINUOUS	RESISTIVE LOAD 30 vdc	RESISTIVE LOAD 115 vac	RESISTIVE LOAD 30 vdc	LAMP LOAD 115 vac	LAMP LOAD 30 vdc	INDUCTIVE LOAD 115 vdc
E	30	25	22	5	3	15	15
F	20	20	20	5	4	12	15
G	20	18	11	4	2	10	8

3 POLE (MIL-S-3950A)

HHS	MICRO	"MS" No.	Circuit	Rating	Net Ea.
3320	533TS1-1	MS25105-21	1	E	$4.97
3321	533TS1-3	MS25105-23	3	E	4.97
3322	533TS1-21	MS25105-24	4	E	4.16

4 POLE (MIL-S-6745)

HHS	MICRO	"AN" No.	Circuit	Rating	Net Ea.
3323	34TS1-1	3227-1	1	F	$6.66
3324	34TS1-2	3227-2	2	F	5.33
3325	34TS1-3	3227-3	3	F	6.66
3326	34TS1-21	3227-9	4	F	7.83
3327	34TS1-5	3227-5	7	G	8.03
3328	34TS1-6	3227-8	10	G	7.22
3329	34TS1-7	3227-7	9	G	8.03
3330	34TS1-61	3227-10	13	G	7.22

SEALED "TS" TOGGLE SWITCHES

These switches have a panel seal in addition to all other "TS" features. When mounted, the seal provides a dust, liquid and moisture seal at the panel. **Std. Pkg. 10**

Circuit Code #	Circuit	Circuit Code #	Circuit
1	ON-OFF-ON	7	ON-OFF-ON(MOM)
2	ON-NONE-OFF	8	OFF-NONE-ON(MOM)
3	ON-NONE-ON	9	ON(MOM)OFF-ON (MOM)
4	ON-OFF-NONE		
6	ON-OFF-ON(MOM)	10	ON-NONE-ON(MOM)

RATING: CURRENT CAPACITY (AMPS)

	CONTINUOUS	RESISTIVE LOAD 30 vdc	RESISTIVE LOAD 125 vdc	RESISTIVE LOAD 250 vdc	RESISTIVE LOAD 125 vac	RESISTIVE LOAD 250 vac	LAMP LOAD 30 vdc	LAMP LOAD 125 vac	INDUCTIVE LOAD 30 vdc	INDUCTIVE LOAD 125 vac
A	40	20	.75	.5	15	6	5	3	15	10
B	40	15	.75	.5	15	6	4	2	10	7
C	30	30	.75	.5	25	9	7	4	15	15
D	30	20	.75	.5	15	6	5	2	10	8

1 POLE

SCREW TYPE TERMINALS

HHS	MICRO	Circuit	Rating	NET Each
3201	211TS1-1	1	A	$3.45
3202	211TS1-2	2	A	3.06
3203	211TS1-3	3	A	3.45
3206	211TS1-5	7	B	3.61
3207	211TS1-6	8	B	3.25
3209	211TS1-8	10	B	3.61

SOLDER TYPE TERMINALS

HHS	MICRO	Circuit	Rating	NET Each
3211	211TS11-1	1	A	$3.28
3212	211TS11-2	2	A	2.96
3213	211TS11-3	3	A	3.28
3215	211TS11-4	6	B	3.15
3216	211TS11-5	7	B	3.48
3217	211TS11-6	8	B	3.15
3218	211TS11-7	9	B	3.48
3219	211TS11-8	10	B	3.48

2 POLE

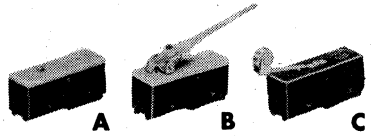
SCREW TYPE TERMINALS

HHS	MICRO	Circuit	Rating	NET Each
3221	212TS1-1	1	C	$4.13
3222	212TS1-2	2	C	3.64
3223	212TS1-3	3	C	4.13
3224	212TS1-21	4	C	3.64
3225	212TS1-4	6	D	4.13
3226	212TS1-5	7	D	4.39
3227	212TS1-6	8	D	4.13
3228	212TS1-7	9	D	4.39
3229	212TS1-8	10	D	4.39

SOLDER TYPE TERMINALS

HHS	MICRO	Circuit	Rating	NET Each
3231	212TS11-1	1	C	$3.84
3232	212TS11-2	2	C	3.45
3233	212TS11-3	3	C	3.84
3236	212TS11-5	7	D	4.06
3237	212TS11-6	8	D	4.39
3238	212TS11-7	9	D	4.06
3239	212TS11-8	10	D	4.06

ARROW H & H "SNAP-ACTING" Momentary Contact SWITCHES



A B C

TERMINAL CODE: S = solder lugs; L = screws, lock washers; C = screws, cup washers; Q = quick connect

Std. Pkg. 5

HIGH SENSITIVITY PIN TYPE (A)

RATINGS
LIMIT LOAD to 1 10 Amp, 125 V., A.C.
or 10 Watts, 125 V., A.C.
or 5 Watts, 25 V., D.C.

Operating Characteristics
Operating Force..... 7 to 12 oz.
Pretravel ..... .012" max.
Overtravel..... .005" min.
Diff. Travel.. .0002 to .0008 in.

WITH TERMINALS	S.P. NORM. OPEN No.	S.P. NORM. OPEN NET Ea.	S.P. NORM. CLOSED No.	S.P. NORM. CLOSED NET Ea.	S.P.D.T. No.	S.P.D.T. NET Ea.
S	4701	$5.82	4705	$5.82	4709	$6.06
C	4702	5.94	4706	5.94	4710	6.15
L	4703	5.94	4707	5.94	4711	6.15
Q	4704	5.82	4708	5.82	4712	6.06

ADJUSTABLE RIGID LEVER (B)

Heavy Duty 20 Amp

RATINGS
20 A., 480 V., A.C. — ¼ A., 250 V., D.C.
10 A, 125 V., A.C. "L" Load — 1 H.P., 120 V., A.C.
½ A, 125 V., D.C. — 2 H.P., 240 V., A.C.

Operating Characteristics
Operating Force.. 2½ oz. max.
Pretravel ..... 5/32" max.
Overtravel ..... .078" min.
Diff. Travel..... .109" max.

WITH TERMINALS	S.P. NORM. OPEN No.	S.P. NORM. OPEN NET Ea.	S.P. NORM. CLOSED No.	S.P. NORM. CLOSED NET Ea.	S.P.D.T. No.	S.P.D.T. NET Ea.
S	4721	$2.64	4725	$2.64	4729	$2.88
C	4722	2.76	4726	2.76	4730	3.00
L	4723	2.76	4727	2.76	4731	3.00
Q	4724	2.64	4728	2.64	4732	2.88

ROLLER LEAF ACTUATOR (C)

General Purpose 15 Amp

RATINGS
15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

Operating Characteristics
Operating Force..... 5 oz. max.
Pretravel ..... 5/32" max.
Overtravel..... not over 1/16 in.
Diff. Travel..... .050" max.

WITH TERMINALS	S.P. NORM. OPEN No.	S.P. NORM. OPEN NET Ea.	S.P. NORM. CLOSED No.	S.P. NORM. CLOSED NET Ea.	S.P.D.T. No.	S.P.D.T. NET Ea.
S	4501	$2.19	4533	$2.19	4565	$2.49
C	4502	2.25	4534	2.25	4566	2.52
L	4503	2.25	4535	2.25	4567	2.52
Q	4504	2.19	4536	2.19	4568	2.49

Heavy Duty 20 Amp

RATINGS
20 A., 480 V., A.C. — ¼ A., 250 V., D.C.
10 A, 125 V., A.C. "L" Load — 1 H.P., 120 V., A.C.
½ A, 125 V., D.C. — 2 H.P., 240 V., A.C.

Operating Characteristics
Operating Force..... 5 oz. max.
Pretravel ..... 11/32" max.
Overtravel..... not over 1/16 in.
Diff. Travel..... .065" max.

WITH TERMINALS	S.P. NORM. OPEN No.	S.P. NORM. OPEN NET Ea.	S.P. NORM. CLOSED No.	S.P. NORM. CLOSED NET Ea.	S.P.D.T. No.	S.P.D.T. NET Ea.
S	4601	$2.25	4633	$2.25	4665	$2.58
C	4602	2.31	4634	2.31	4666	2.64
L	4603	2.31	4635	2.31	4667	2.64
Q	4604	2.25	4636	2.25	4668	2.58

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specify SMITH

HERMAN H. SMITH, INC.

ELECTRONIC COMPONENTS

ARROW, HART & HEGEMAN "SNAP ACTING" MOMENTARY CONTACT SWITCHES

PRECISION SNAP-ACTING SWITCH A precision snap-acting switch is a mechanically operated electric switch having predetermined and accurately controlled characteristics, and having contacts other than the blade and jaw, or mercury type, where the maximum separation between any butting contacts is 1/8 inch.

MOMENTARY CONTACT SWITCH A momentary contact switch is a switch which returns from the operated condition to its normal circuit condition when the actuating force is removed.

ACTUATOR An actuator is the mechanism of the switch or enclosure which, when moved as intended, will operate the contacts.

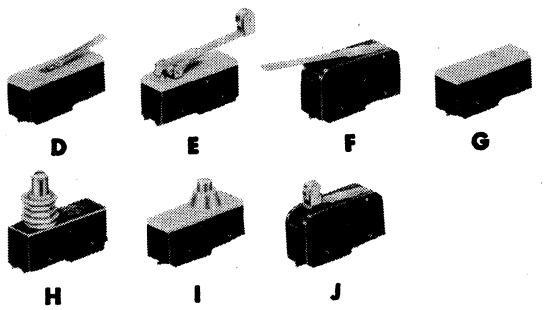
OPERATING FORCE Operating force is that straight line force in the designated direction applied to the actuator to cause the switch contacts to snap to the operated contact position.

PRETRAVEL Pretravel is the distance or angle through which the actuator moves from the actuator free position to the actuator operating position.

OVERTRAVEL Overtravel is the movement of the actuator beyond the operating position.

MOVEMENT DIFFERENTIAL Movement differential is the distance or angle from the operating position to the releasing position.

Std. Pkg. 5



TERMINAL CODE: L = screws, lock washers; S = solder lugs; C = screws, cup washers; Q = quick disconnect

FLEXIBLE LEAF ACTUATOR (D)

General Purpose 15 amp

RATINGS
15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

Operating Characteristics
Operating Force..... 5 oz. max.
Pretravel..... 5/32" max.
Overtravel ..... not over 1/16 in.
Diff. Travel..... .050" max.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4505	$1.62	4537	$1.62	4569	$1.95
C	4506	1.68	4538	1.68	4570	2.07
L	4507	1.68	4539	1.68	4571	2.07
Q	4508	1.62	4505	1.62	4572	1.95

Heavy Duty 20 Amp

RATINGS
20 A., 480 V., A.C. — ¼ A., 250 V., D.C.
10 A, 125 V., A.C. "L" Load — 1 H.P., 120 V., A.C.
½ A, 125 V., D.C. — 2 H.P., 240 V., A.C.

Operating Characteristics
Operating Force ... 9 oz. max.
Pretravel..... 11/32" max.
Overtravel ..... not over 1/16 in.
Diff. Travel..... .065" max.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4605	$1.68	4637	$1.68	4669	$2.07
C	4606	1.74	4638	1.74	4670	2.13
L	4607	1.74	4639	1.74	4671	2.13
Q	4608	1.68	4640	1.68	4672	2.07

STANDARD ROLLER (E)

General Purpose 15 Amp

RATINGS
15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

Operating Characteristics
Operating Force . 3½ oz. max.
Pretravel..... 9/32" max.
Overtravel..... .156" min.
Diff. Travel.... .004 to .040 in.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4521	$2.52	4553	$2.52	4585	$2.88
C	4522	2.64	4554	2.64	4586	3.00
L	4523	2.64	4555	2.64	4587	3.00
Q	4524	2.52	4556	2.52	4588	2.88

Heavy Duty 20 Amp

RATINGS
20 A., 480 V., A.C. — ¼ A., 250 V., D.C.
10 A, 125 V., A.C. "L" Load — 1 H.P., 120 V., A.C.
½ A, 125 V., D.C. — 2 H.P., 240 V., A.C.

Operating Characteristics
Operating Force.. 2½ oz. max.
Pretravel..... 15/32" max.
Overtravel..... 1/16" min.
Diff. Travel..... .085" max.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4621	$2.64	4653	$2.64	4685	$3.00
C	4622	2.70	4654	2.70	4686	3.06
L	4623	2.70	4655	2.70	4687	3.06
Q	4624	2.64	4656	2.64	4688	3.00

RIGID HINGE (F)

General Purpose 15 Amp

RATINGS
15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

Operating Characteristics
Operating Force..... 2½ oz.
Pretravel..... 3/8" max.
Overtravel..... .219" min.
Diff. Travel..... .007 to .050 in.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4525	$1.95	4557	$1.95	4589	$2.31
C	4526	2.01	4558	2.01	4590	2.37
L	4527	2.01	4559	2.01	4591	2.37
Q	4528	1.95	4560	1.95	4592	2.31

Heavy Duty 20 Amp

RATINGS
20 A., 480 V., A.C. — ¼ A., 250 V., D.C.
10 A, 125 V., A.C. "L" Load — 1 H.P., 120 V., A.C.
½ A, 125 V., D.C. — 2 H.P., 240 V., A.C.

Operating Characteristics
Operating Force.. 2½ oz. max.
Pretravel..... 5/8" max.
Overtravel..... .078" min.
Diff. Travel..... .109" max.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4625	$2.07	4657	$2.07	4689	$2.37
C	4626	2.13	4658	2.13	4690	2.43
L	4627	2.13	4659	2.13	4691	2.43
Q	4628	2.07	4660	2.07	4692	2.37

PIN TYPE (G)

General Purpose 15 Amp

RATINGS
15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

Operating Characteristics
Operating Force..... 9 to 13 oz.
Pretravel..... .015" max.
Overtravel..... .005" min.
Diff. Travel.. .0004 to .002 in.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4529	$1.50	4561	$1.50	4593	$1.77
C	4530	1.56	4562	1.56	4594	1.89
L	4531	1.56	4563	1.56	4595	1.89
Q	4532	1.50	4564	1.50	4596	1.77

Heavy Duty 20 Amp

RATINGS
20 A., 480 V., A.C. — ¼ A., 250 V., D.C.
10 A, 125 V., A.C. "L" Load — 1 H.P., 120 V., A.C.
½ A, 125 V., D.C. — 2 H.P., 240 V., A.C.

Operating Characteristics
Operating Force.... 14 to 22 oz.
Pretravel..... .050" max.
Overtravel..... .010" min.
Diff. Travel.. .002 to .0075 in.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4629	$1.56	4661	$1.56	4693	$1.86
C	4630	1.62	4662	1.62	4694	1.95
L	4631	1.62	4663	1.62	4695	1.95
Q	4632	1.56	4664	1.56	4696	1.86

PANEL MOUNTED TYPE (H)

General Purpose 15 Amp

RATINGS
15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

Operating Characteristics
Operating Force..... 9 to 13 oz.
Pretravel..... 1/64" max.
Overtravel..... 7/32" min.
Diff. Travel.... .0004 to .002 in.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4509	$3.54	4541	$3.54	4573	$3.96
C	4510	3.57	4542	3.57	4574	4.02
L	4511	3.57	4533	3.57	4575	4.02
Q	4512	3.54	4544	3.54	4576	3.96

Heavy Duty 20 Amp

RATINGS
20 A., 480 V., A.C. — ¼ A., 250 V., D.C.
10 A, 125 V., A.C. "L" Load — 1 H.P., 120 V., A.C.
½ A, 125 V., D.C. — 2 H.P., 240 V., A.C.

Operating Characteristics
Operating Force.... 14 to 22 oz.
Pretravel..... .050" max.
Overtravel..... .219" min.
Diff. Travel.. .002 to .0075 in.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4609	$3.63	4641	$3.63	4673	$4.08
C	4610	3.69	4642	3.69	4674	4.14
L	4611	3.69	4643	3.69	4675	4.14
Q	4612	3.63	4644	3.63	4676	4.08

SHORT OVERTRAVEL BUTTON (I)

General Purpose 15 Amp

RATINGS
15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

Operating Characteristics
Operating Force..... 9 to 13 oz.
Pretravel..... 1/64" max.
Overtravel..... 1/16" min.
Diff. Travel.. .0004 to .002 in.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4513	$1.86	4545	$1.86	4577	$2.19
C	4514	1.89	4546	1.89	4578	2.25
L	4515	1.89	4547	1.89	4579	2.25
Q	4516	1.86	4548	1.86	4580	2.19

Heavy Duty 20 Amp

RATINGS
20 A., 480 V., A.C. — ¼ A., 250 V., D.C.
10 A, 125 V., A.C. "L" Load — 1 H.P., 120 V., A.C.
½ A, 125 V., D.C. — 2 H.P., 240 V., A.C.

Operating Characteristics
Operating Force... 14 to 22 oz.
Pretravel..... .050" max.
Overtravel..... .093" min.
Diff. Travel.. .002 to .0075 in.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4613	$1.89	4645	$1.89	4677	$2.25
C	4614	1.95	4646	1.95	4678	2.31
L	4615	1.95	4647	1.95	4679	2.31
Q	4616	1.89	4648	1.89	4680	2.25

SHORT ROLLER (J)

General Purpose 15 Amp

RATINGS
15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

Operating Characteristics
Operating Force 6 oz. max.
Pretravel..... 9/64" max.
Overtravel..... 3/32" min.
Diff. Travel.... .003 to .020 in.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4517	$2.52	4549	$2.52	4581	$2.88
C	4518	2.64	4550	2.64	4582	3.00
L	4519	2.64	4551	2.64	4583	3.00
Q	4520	2.52	4552	2.52	4584	2.88

Heavy Duty 20 Amp

RATINGS
20 A., 480 V., A.C. — ¼ A., 250 V., D.C.
10 A, 125 V., A.C. "L" Load — 1 H.P., 120 V., A.C.
½ A, 125 V., D.C. — 2 H.P., 240 V., A.C.

Operating Characteristics
Operating Force 6 oz. max.
Pretravel..... 1/4" max.
Overtravel..... 1/32" min.
Diff. Travel..... 3/64" max.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4617	$2.64	4649	$2.64	4681	$3.00
C	4618	2.70	4650	2.70	4682	3.06
L	4619	2.70	4651	2.70	4683	3.06
Q	4620	2.64	4652	2.64	4684	3.00

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HERMAN H. SMITH, INC.

ELECTRONIC COMPONENTS

SINGLE RECORD 33-1/3 R.P.M.

TEN LESSONS UP TO 15 WORDS PER MINUTE Complete on Two Sides

This twelve inch long play record contains all ten of the Code Course Lessons listed above, five on each side. 20-Page SMITH Instruction Book is included, and the record is housed in attractive, sturdy jacket with International Morse Code table on reverse side.

No. 2420 NET Each $4.80

ADVANCED CODE COURSE

Single Record— 33⅓ R.P.M.

TWELVE LESSONS 16 to 25 Words Per Minute

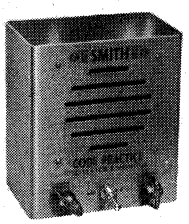
Specially prepared to increase skills in copying code at high speeds. 12 step-by-step lessons are provided plus specific directions with each. 20 page Advanced Code Instruction Book included. Record comes in sturdy jacket with International Morse Code table on reverse side.

No. 2435 Advanced Code Course complete with 20 page instruction Book ..... NET $4.80

BEGINNERS AND ADVANCED CODE COURSES IN COMBINATION PACKAGE

Advanced Code Course #2435 PLUS Beginners' Code Course #2420 (see above) both complete with 20-page instruction books, attractively packaged in combination carton.

No. 2436 NET $9.00



CODE PRACTICE OSCILLATOR & MONITOR

Ideal for the beginner as well as the experienced operator, this versatile instrument can be used as a code practice oscillator, as a keying monitor to check ICW signals, or as a monitor for phone signals.

Two tubes are used, in an up to date circuit that provides continuously variable tone and volume. Self-contained PM speaker affords ample volume for group use, with phone jack available for individual headphone listening.

The handsome Hammertone finish cabinet has additional provision for wall mounting, an exclusive SMITH feature that eliminates need for valuable desk space. The unit is designed for use on 110 Volts AC or DC, and is supplied complete with two tubes.

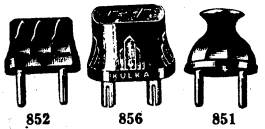
No.	Description	NET Each
2425	Kit	$13.50
2426	Wired	18.00

1228 1208

INTERLOCK PLUGS

Std. Pkg. 100

No.	Type	NET Per C
1208	Recessed	$7.80
1228	Flush	5.40



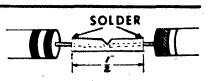
852 856 851

AMERICAN-FOREIGN PLUG ADAPTERS

Streamlined bakelite plug adapters. Adapts from American to Foreign type. **Std. Pkg. 25**

No.	Female End	Male End	NET Per C
852	American	Continental	$24.00
856	American	British	24.00
851	Continental Plug		18.00

"CLEAPS" (Connectors for Joining Severed Wires)



MATERIAL: Brass, cadmium plated.
WIRE SIZE: For wires, .010" to .050" (B&S Gauge 16 to 30).
DESCR.: Used to splice cut leads of condensers, resistors, etc., in process of trouble-shooting. Insert wire in each tapered end and solder thru center opening. **Std. Pkg. 100**

No. 1270 NET Per C $1.00

HIGH SENSITIVITY HEADPHONES

The latest in deluxe design, with many features of more expensive types. Featherweight construction assures fatigue-free use. Alnico V magnets, dual coil construction provide excellent tonal fidelity. Adjustable vinyl covered headband, molded plastic cases. Cord equipped with phone tips.

No.	Description	Ohms	NET Each
2441	Single	1000	$1.89
2440	Double	2000	3.45
2446	Single	2—4	1.89
2447	Double	4—8	3.45
2448	Single	2000	2.10
2449	Double	4000	3.75

FOR STEREO USE

Same as above, except each Phone has leads brought out separately.

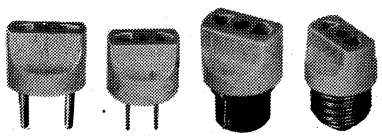
2477	Double	2000	$3.75
2478	Double	4—8	3.75
2479	Double	4000	4.20

RUBBER EAR CUSHIONS

Finest quality soft rubber ear cushions, fit all standard earphones. For comfortable listening over long periods of time.

No. 2410 Per Pair $1.08

"UNIVERSAL" FOREIGN ADAPTER PLUGS



1991 1992 1993 1994

Permits operation of American, British or Continental electric shavers, radios, record players and other small appliances, from any electrical outlet, anywhere in the world supplying the required voltage. All plugs are rated at 15 Amps/117 V., — 7.5 Amps/220 V. **St. Pkg. 25**

No.	Male Plug	Female Socket	NET Per C
1991	Continental	Universal	$51.00
1992	American	Universal	39.00
1993	Bayonet	Universal	60.00
1994	Screw	Universal	60.00
1995	Kit of 4 Adapters, 1 each of above		210.00

HEX AND SPLINE KEYS

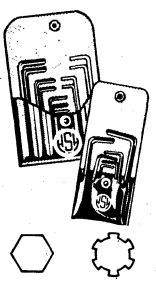
Made of special alloy steel, tempered to avoid brittleness and impose maximum resistance to torsional strain. Ends ground for easy insertion.

HEX KEYS **Std. Pkg. 50**

No.	Screw	O.D.	NET Per C
340	No. 2	.034	$7.80
341	No. 3, 4	.050	7.80
342	No. 5, 6	.062	7.80
343	No. 8	.078	7.80
344	No. 10	.093	9.00
345	No. ¼"	.125	9.00
346	No. 5/16"	.156	9.00

SPLINE KEYS

No.	Screw	O. D.	NET Per C
370	No. 4	.058	$7.80
371	No. 5	.068	7.80
372	No. 6	.075	7.80
373	No. 8	.093	7.80
374	No. 10	.109	9.00
375	No. ¼"	.143	9.00
376	No. 5/16"	.182	9.00



HEX KEYS SPLINE KEYS

HEX AND SPLINE KEY KITS

Attractive tearproof vinyl plastic kit with individual pockets for each of six keys in kit. Std. Pkg. 5

Kit of 6 hex keys for screws from No. 3 to 5/16".
No. 355 $60.00 NET Per C

Kit of 6 spline keys for screws from No. 5 to 5/16".
No. 385 $60.00 NET Per C

Combination Kit of 3 hex and 3 spline keys for No. 6-8-10 screws.
No. 390 $60.00 NET Per C

Kit of 7 hex keys for screws from No. 2 to 5/16" and 4 spline keys Nos. 4, 6, 8, and 10.
No. 395 $120.00 NET Per C

DISPLAY CARDS

No.		NET Each
355D	Display of 24 Hex Kits No. 355	$14.40
385D	Display of 24 Spline Kits No. 385	14.40
390D	Display of 24 Comb. Kits No. 390	14.40
395D	Display of 20 Comb. Kits No. 395	24.00

"PANELABELS"

Modern Panel Title Decals

New size type face on all word titles to match modern instrument panels and sound equipment.

Packaged individually in clear plastic boxes — instant selection — box itself can be used as water tray for applying the decals.

Standard Packages of 6.

Please order by catalog number.

NET, EACH PACKAGE **$1.50**

TRANSMITTER

For industrial prototype use, Hams, Citizens' Banders. Also for Microwave and Broadcast stations.

No. 3700	BLACK
No. 3701	WHITE

RECEIVER

Hams, Citizens' Banders, industrial prototypes, Hi-Fi and Experimenter applications.

No. 3702	BLACK
No. 3703	WHITE
No. 3704	RED
No. 3705	GOLD

DIALS

For all uses in transmitters, Ham and Citizens' Band industrial prototypes, Hi-Fi, electricians, experimenters.

No. 3706	BLACK
No. 3707	WHITE
No. 3708	RED
No. 3709	GOLD

ALPHABETS

Most popular item in the line! For all general uses above.

3710	2-inch	BLACK
3711	2-inch	WHITE
3712	2-inch	RED
3713	2-inch	GOLD
3714	⅝-inch	BLACK
3715	⅝-inch	WHITE
3716	⅝-inch	RED
3717	⅝-inch	GOLD
3718	Assorted	BLACK
3719	Assorted	WHITE
3720	Assorted	RED
3721	Assorted	GOLD

INSTRUMENTS

Primarily for Technicians, Hams and industrial use.

No. 3722	BLACK
No 3723	WHITE

HI-FI AND STEREO

For experimenters, commercial sound distributors, industrial prototypes.

No. 3724	BLACK
No. 3725	WHITE
No. 3726	RED
No. 3727	GOLD

SOUND SYSTEMS

For industrial use by commercial sound distributors, custom installers, electricians and experimenters.

No. 3728	BLACK
No. 3729	WHITE
No. 3730	RED
No. 3731	GOLD

TRANSISTORS AND DIODES

Used by Hams, experimenters, technicians, and industrial prototype use. Includes complete list of transistor and diode numbers plus symbols of PNP, NPN, 4 and 5 element transistors, diode symbols.

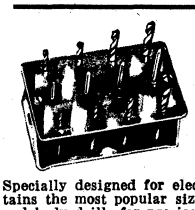
No. 3732	BLACK
No. 3733	WHITE

ELECTRICAL DISTRIBUTION

Used primarily by electricians and custom installers on the job and in distribution panel design.

No. 3734	BLACK
No. 3735	WHITE

BOOKLET OF COMPLETE TITLE LISTS OF ALL PANELABELS AVAILABLE ON REQUEST



DRILL & TAP KIT for

- **Hams**
- **Laboratories**
- **Servicemen**

Specially designed for electronic bench duty, this kit contains the most popular sizes of taps and corresponding tap and body drills for precise and speedy work. Drill and tap size identifications are engraved on the steel cadmium plated drill stand, to facilitate correct replacement as needed. **Contains: 4-40, 6-32, 8-32, 10-32 Taps with eight corresponding tap and body drills.**

No.		NET Ea.
750	Kit	$12.00
749	Stand Only	66

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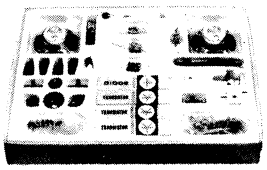
specify SMITH

HERMAN H. SMITH, INC.

ELECTRONIC COMPONENTS

Norelco ALL TRANSISTOR Electronic Educational kits



FUN TO BUILD!

FUN TO USE!

FOR AGES 9 AND OVER

With New Concept in Assembly

Complete, foolproof individual template provided for each circuit

- NO SOLDERING — NO TOOLS REQUIRED
- ABSOLUTELY SAFE • PEGBOARD ASSEMBLY

ALL THESE WORKING UNITS CAN BE MADE

ELECTRO ACOUSTICS
- EE20 Electronic Organ
- EE 8 Phono Amplifier
- EE20 Sound Amplifier
- EE20 Push-Pull Sound Amplifier
- EE20 Bi-Ampli Amplifier

TELECOMMUNICATION
- EE20 Intercom
- EE20 Morse Code Trainer, with loudspeaker
- EE 8 Morse Code Training Set
- EE20 Public Address and Telephone Amplifier

RADIO
- EE20 3-Transistor Radio Receiver
- EE 8 2-Transistor Sensitive Radio Receiver
- EE 8 1-Transistor Radio Receiver

ELECTRONIC SIGNALING
- EE20 Burglar Alarm
- EE20 Acoustic Relay
- EE20 Pilfering Alarm
- EE20 Pilfering Alarm with power-economizing circuit
- EE 8 Tell-tale Light
- EE 8 Flashing Beacon

ELECTRONIC MEASURING AND CONTROL
- EE 8 Rain or Moisture Indicator
- EE20 Time Switch
- EE20 Automatic Night Light
- EE20 Universal Measuring Equipment
- EE20 Light Meter

When a project loses its appeal, it can be stripped and the same parts used to rebuild other projects, over and over!

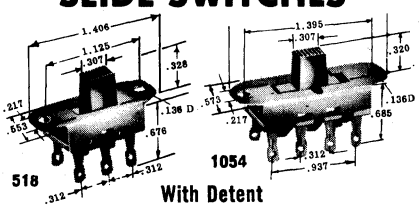
Smith No.	Kit	Description	Resale
2417	EE8	Starter Kit, makes up to 8 different circuits (Less Battery)	$16.95
2418	EE8/20	"Add-On" for EE8 Kit, to make up to 15 additional different circuits (Less Battery)	$10.95
2419	EE20	Complete Kit, makes up to 23 different circuits (Less Battery)	$24.95

NORELCO ALL TRANSISTOR Radio Kit

For ages 9 and over. Easy to assemble, using two-color pictorial charts and step-by-step assembly. No soldering. Can be set up, taken apart and re-assembled. Powered by standard 9-volt battery. Build any of these units:
- 2-transistor radio with earphones and cabinet.
- 3-transistor radio with speaker and cabinet.
- Record Player Amplifier. • Code Practice Oscillator.
- Public Address System. • Radio Direction Finder.

Complete with 24-page instruction manual.
Norelco Model RE-2
Cat. No. 2416 ..... Resale $24.95

CONTINENTAL-WIRT SLIDE SWITCHES



With Detent

UL APPROVED

General purpose switches, used on hi-fi equipment, test instruments, etc. Steel cadmium plated housings. Black phenolic buttons. **Std. Pkg. 25**

No.	Circuit	Rating @ 125 Volts AC Amps	DC Amps	NET Per C
515	SPST	.75	.75	$11.40
516	SPDT	.75	.75	12.00
517	DPST	.5	.5	15.00
518	DPDT	.5	.5	18.00
1105	SPST	6.0	1.0	14.40
1106	SPDT	6.0	1.0	15.00
1107	DPST	6.0	1.0	24.00
1108	DPDT	6.00	1.0	27.00

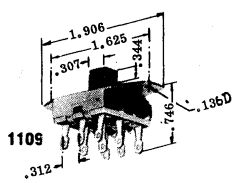
With Spring Return

No.	Circuit	Rating 125V ACDC	NET Per C
568	SPST	.5 Amp	$35.00
569	SPDT	.5 Amp	28.80

TRIPLE THROW With Detent

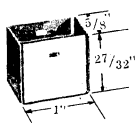
No.	Circuit	Rating 125V ACDC	NET Per C
1053	3PST	.5 Amp	$28.80
1054	DP3T	.5 Amp	30.00

MULTI-POLE SWITCHES With Detent



Unique construction, all poles are in the same plane, more compact, easier wiring. **Std. Pkg. 25**

No.	Circuit	Rating @ 125 Volts AC Amps	DC Amps	NET Per C
1109	3PDT	3.0	1.0	$48.00
1110	3PDT	.5	.5	45.00
	Same as above but 1.005" wide			
1104	4PDT	.5	.5	60.00



SLIDE SWITCH SHIELD

For terminal protection or electrostatic shielding. Shield is made of steel, cadmium plated, with fibre insulation. **Std. Pkg. 25**

No. 519 — NET Per C $7.80

SUBMINIATURE SLIDE SWITCHES

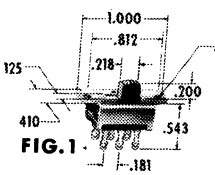


FIG. 1

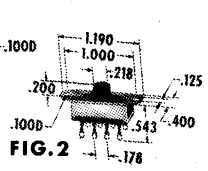


FIG. 2

Extremely small slide-switches for use in circuitry with critical space requirements. Approximately 1/3 the volume of standard slide switch. All switches UL approved, and rated at 0.5 amp, 125 volt, AC-DC. Available with printed-circuit terminals on special order. **Std. Pkg. 25**

No.	Circuit	Fig. No.	Net Per C
	With Detent		
1226	SPDT	1	$27.00
1227	DPDT	1	33.00
1238	SPST	2	40.00
1239	DP3T	2	40.00
	With Spring Return		
1236	SPDT	1	40.00

"OFF-THE-SHELF"

SMITH Standard Products are stocked nationally on the shelves of every major Electronic Parts Distributor

PLUG-IN MODULE HOUSING

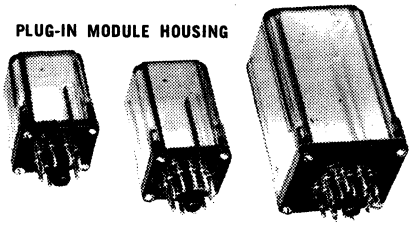


FIG. 1 FIG. 2 FIG. 3

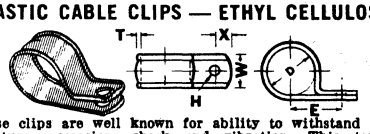
Molded plastic housings and pin headers fit standard tube sockets. For use in packaging relays, networks, miniature interchangeable circuits in plug-in, replaceable modules. Available in three sizes and materials for a wide range of temperature and environmental applications.

HEADERS: MOLDED THERMOSETTING plastic per MIL-M-14 CFG, Black.
HOUSINGS: MOLDED POLYSTYRENE, per Fed. Spec. L-P416, Type 1, Black.
MOLDED BUTYRATE, per Fed. Spec. L-349A, Type 3, Class MS, Clear.
MOLDED NYLON, per MIL-P-20693A, Natural.
Housings are supplied complete with header.
PINS: Brass, nickel plated.
SCREWS: Steel, Cadmium plated.

HOUSING	STYRENE Cat. No.	STYRENE NET Each	BUTYRATE Cat. No.	BUTYRATE NET Each	NYLON Cat. No.	NYLON NET Each
			Miniature (Fig. 1)			
8-Pin	2437-08	$.55	2421-08	$.59	2424-08	$.64
9-Pin	2437-09	.60	2421-09	.64	2424-09	.69
11-Pin	2437-11	.62	2421-11	.66	2424-11	.71
20-Pin	2437-20	.72	2421-20	.76	2424-20	.81
			Standard (Fig. 2)			
8-Pin	2438-08	.55	2422-08	.59	2432-08	.64
9-Pin	2438-09	.60	2422-09	.64	2432-09	.69
11-Pin	2438-11	.62	2422-11	.66	2432-11	.71
20-Pin	2438-20	.72	2422-20	.76	2432-20	.81
			Large (Fig. 3)			
8-Pin	2439-08	.74	2423-08	.88	—	—
11-Pin	2439-11	.82	2423-11	.96	—	—
20-Pin	2439-20	.87	2423-20	1.10	—	—

Std. Pkg. 5

PLASTIC CABLE CLIPS — ETHYL CELLULOSE



These clips are well known for ability to withstand age, moisture, corrosion, shock and vibration. This tough, light weight, durable clip withstands temperatures from —60 to +175 degrees F. Made to MIL Std. 242A (Ships).
T .060 — W ½" X 7/32" — H .204
Std. Pkg. 100

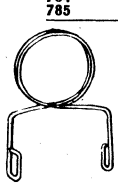
No.	Hole (D)	E	NET Per C
831	⅛	.360	$2.84
832	9/64	.423	2.40
833	¼	.457	2.58
834	9/64	.498	2.85
835	5/16	.529	3.00
836	7/64	.560	3.30
837	3/8	.592	3.60
838	9/64	.623	4.20
839	5/16	.654	4.50
840	11/64	.752	4.80
841	3/8	.783	5.10
842	7/16	.845	5.40
843	1	.908	5.70
844	1⅛	.970	6.00
845	1¼	1.062	6.30

NYLON CABLE CLIPS

These strong and tough molded nylon clamps hold their shape under severest stress. Do not support combustion. Withstands temperatures from —60 to +250 degrees F. Made to MIL P17091A amend. 2. Std. Pkg. 100

	⅛" to ½" (D)	9/16" to 1¼" (D)
T	.040	.060
W	3/16"	1/4"
X	9/32"	11/64"
H	.167	.204

No.	Hole (D)	E	NET Per C
771	⅛	.310	$3.60
772	9/64	.373	3.90
773	¼	.407	4.20
774	9/64	.448	4.65
775	5/16	.479	4.80
776	11/64	.510	5.10
777	½	.542	5.40
778	9/16	.623	6.60
779	5/8	.654	7.20
780	11/16	.752	7.50
781	¾	.783	8.10
782	7/8	.845	8.70
783	1	.908	10.20
784	1⅛	1.002	12.00
785	1¼	1.062	13.80



SPRING GRID CLIP

Small and large type grid clip used to replace clips that have lost their tension due to heat causing poor contact. Available in bulk or 24. $.45. List envelopes on attractive display card. **Std. Pkg. 100**

No.	Type Type	Per C	Display	NET
1288	1X2-6BQ6	$6.00	1288D	$6.48
1289	1B3-6BG6	6.00	1289D	6.48

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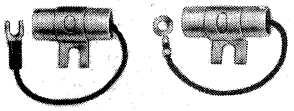
specify SMITH

HERMAN H. SMITH, INC.

ELECTRONIC COMPONENTS

AUTO RADIO CONDENSERS



Eliminates radio interference caused by auto electrical system. Fits all cars — Proven quality — Guaranteed long life. **Std. Pkg. 25**

No.	Cap.	Type	NET Per C
811	.5 MFD	General, Univ.	$35.00
812	.25 MFD	Universal	40.00

ANTENNA CONNECTOR

For use as connection of auto radio antenna lead-in to auto radio receiver. Std. Pkg. 50

No. 1300 ..... **$10.20 Per C**

FUSE RETAINER

Recommended for use in auto radio power supply cables. Std. Pkg. 50

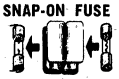
No. 1301 ..... **NET Per C $13.20**

PARTS FOR CONNECTOR & RETAINER

Std. Pkg. 100

No.	Type	NET Per C
1305	Male Cap for #1300 & #1301	$7.06
1306	Female Shell for #1300	2.31
1307	Contact for #1300 & #1301	3.30
1308	Spring for #1300 & #1301	.66
1309	Washer for #1300 & #1301	.33
1310	Insulating Tube for #1301	.60
1311	Female Shell for #1301	5.40

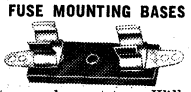
TV SNAP-ON FUSE HOLDER



Snap fuse clip over burned out fuse. Insert new fuse without soldering. **Std. Pkg. 50**

No.		NET Each
529		$ .16
529D	Display of 24 No. 529	3.89

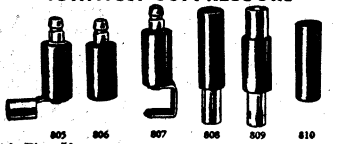
FUSE MOUNTING BASES



Black bakelite, panel mount type. Will accommodate the 3 A G Auto type cartridge fuse. **Std. Pkg. 25**

No.	Type	NET Per C
530	Single	$12.00
531	Double	24.00

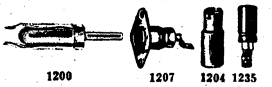
Auto Radio IGNITION SUPPRESSORS



Std. Pkg. 50

Cat. No.	Type	NET Per C
805	Snap-On Type Suppressor	$40.00
806	Univ. Type with Double Thrd.	40.00
807	Angle Type Suppressor	40.00
808	Distributor Screw Type	50.00
809	Distributor Plug-in Type	50.00
810	Double Screw Type	25.00

MOTOROLA PLUGS & JACKS



Std. Pkg. 50

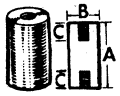
No.	Type	NET Per C
1200	Motorola Type Plug	$10.20
1207	Antenna Connector, Takes 1200 Plug	18.00
1204	Lead-in Adapter, converts Motorola pin plug to Delco	9.00
1235	Female for #1200 plug, without flange	7.20

BATTERY CONNECTING STRIPS

No.	Spacing	Eveready	Burgess	RCA	Std. Pkg. 25 NET Per C
1205	1-1/2"	455,467, 457,468	XX30,XX45 K45,V451	VS055, VS016, VS082, VS125	$18.00
1206	2-1/2"	490	N60	VS090	24.00
1210	15/16"	437,495, 477,2356, 479	XX50,N60X, P45,C6X,	VS217, VS316, VS218, VS219	18.00
1217	1-1/4"	707	D5	VS315	18.00
1218	1-3/8"	274,276	4D4,D6	VS306	18.00
1219	15/16"	243	2Z3	VS324	24.00
1234	1/2"	E126,415, 216,416 246	H126,U30, 2U6,UX45, 2N6	VS328, VS086, VS323, VS318, VS305	24.00

	CONNECTOR SNAPS			Std. Pkg. 100	
1296	Female	226,228	P6,PM3	VS300A, VS329	5.00
1297	Male	2709		VS326	5.00

CERAMIC STANDOFFS

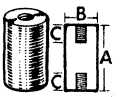


MADE TO JAN. SPECS.

Grade L-5 Ceramic made to JAN 1 - 8 and JAN 1 - 10 Specs. Outside of ceramic is glazed. **Std. Pkg. 50**

No.	Type	A	B	C	Thd.	NET Per C
2600	NL633W01-004	1/2"	3/8"	5/32"	6-32	$16.70
2601	NL633W01-005	5/8"	3/8"	1/4"	6-32	18.20
2602	NL633W01-006	3/4"	3/8"	1/4"	6-32	19.00
2603	NL633W01-008	1"	3/8"	3/8"	6-32	19.70
2604	NL633W01-010	1 1/4"	3/8"	3/8"	6-32	21.80
2605	NL633W01-012	1 1/2"	3/8"	3/8"	6-32	22.70
2606	NL633W01-016	2"	3/8"	3/8"	6-32	23.00
2607	NL633W02-005	5/8"	1/2"	3/16"	8-32	16.70
2608	NL633W02-006	3/4"	1/2"	1/4"	8-32	17.20
2609	NL633W02-008	1"	1/2"	3/8"	8-32	17.40
2610	NL633W02-010	1 1/4"	1/2"	3/8"	8-32	19.00
2611	NL633W02-012	1 1/2"	1/2"	3/8"	8-32	25.00
2612	NL633W02-016	2"	1/2"	3/8"	8-32	25.40
2613	NL633W02-020	2 1/2"	1/2"	3/8"	8-32	28.00
2614	NL633W02-024	3"	1/2"	3/8"	8-32	31.50
2615	NL633W03-008	1"	3/4"	3/8"	10-32	26.00
2616	NL633W03-010	1 1/4"	3/4"	3/8"	10-32	28.00
2617	NL633W03-012	1 1/2"	3/4"	3/8"	10-32	34.40
2618	NL633W03-016	2"	3/4"	3/8"	10-32	38.00
2619	NL633W03-020	2 1/2"	3/4"	3/8"	10-32	40.00
2620	NL633W03-024	3"	3/4"	3/8"	10-32	45.00
2621	NL633W03-032	4"	3/4"	3/8"	10-32	50.60
2622	NL633W04-010	1 1/4"	1"	7/16"	1/4-20	31.20
2623	NL633W04-012	1 1/2"	1"	1/2"	1/4-20	44.00
2624	NL633W04-016	2"	1"	5/8"	1/4-20	46.00
2625	NL633W04-020	2 1/2"	1"	5/8"	1/4-20	54.00
2626	NL633W04-024	3"	1"	5/8"	1/4-20	58.00
2627	NL633W04-032	4"	1"	5/8"	1/4-20	72.00
2628	NL633W04-040	5"	1"	5/8"	1/4-20	75.00
2629	NL633W04-048	6"	1"	5/8"	1/4-20	80.00

CERAMIC STANDOFFS

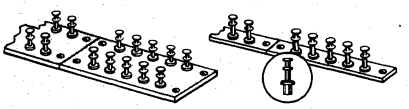


COMMERCIAL

Grade L5 Ceramic with outside glazed. **Std. Pkg. 50**

No.	A	B	C	Thd.	NET Per C
2640	1/4"	1/4"	Thru	6-32	$13.40
2641	1/2"	1/4"	3/32"	6-32	13.70
2642	3/8"	3/8"	3/32"	6-32	14.20
2643	1/2"	3/8"	3/16"	6-32	16.90
2644	1/2"	1/2"	3/64"	6-32	18.50
2645	3/4"	1/2"	1/4"	6-32	19.50
2646	1"	1/2"	3/8"	6-32	21.50
2647	1 1/2"	1/2"	9/16"	6-32	24.50
2648	2 1/2"	1/2"	1/2"	6-32	26.70
2649	2 1/2"	3/4"	3/4"	1/4-20	35.40
2650	4"	3/4"	3/4"	1/4-20	49.20

SCORED TERMINAL BOARDS

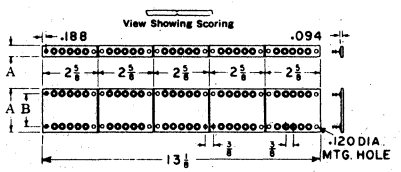


featuring

SNAP-APART SEPARATION

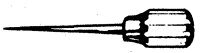
ASSEMBLED WITH TERMINAL LUGS & MOUNTING HOLES

SMITH Scored Boards are fabricated in PBE material per MIL-P-3115C, Temp. 250° F. Max., Type XXXP. Terminals are securely staked and are made of Brass per QQ-626 comp. 22, half-hard with hot-tinned dip solder finish, per MIL-F-14072 Type 221. Smith type 2008. **Std. Pkg. 6**



Cat. No.	Dimensions A	B	Terminals	Net Price Each
2810	1/2"	Single Row	25	$1.30
2811	1 1/2"	1"	50	2.30
2812	2"	1 1/2"	50	2.34
2813	2 1/2"	2"	50	2.50
2814	3"	2 1/2"	50	2.50

SCRATCH AWL



Scratch awl with unbreakable amber handle. Overall length 5". A "must" in a serviceman's tool kit.

No. 814 **Std. Pkg. 10** **NET Per C $45.00**

"IT'S SOUND PLANNING TO SPECIFY SMITH!"

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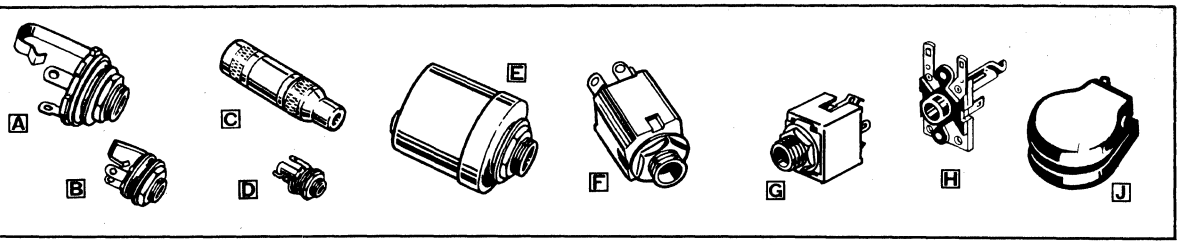
SWITCHCRAFT INC.

Phone Jacks



"LITTEL-JAX" PHONE JACKS

A Quality phone jacks that mate with standard ¼" phone plugs. Notched insulating washers mechanically interlock springs and solder lugs. "V" bend in tip spring firmly "holds" mating plug. Minimum space requirements. Economical. Mount in single ⅜" hole, panels up to 5/32" thick, except L-11 and L-12A in panels up to ¼" thick.

Nos. C-11 and C-12A mate with No. 440 (PJ-055B) Plug; C-12B, S-12B and S-13B mate with No. 480 (JAN-PJ-068) or No. 484 (W.E. No. 309) Plug. Nos. C-11 and C-12B have locating pins (non-turn devices). No. S-11 similar to No. 11 except .210" I.D. sleeve. C-11, C-12B and C-12A per JAN-J-641. All others mate with standard ¼" dia. plugs.

No. 14B Stereo Littel-Jax, switches-out speakers when connecting stereo headphones. Dual, N.O. switch contacts, open both stereo circuits independently when a 3-conductor plug is inserted.

TWO-CONDUCTOR TYPES

Part No.	Schematic No.	Typical Mating Plug	Mil-Type	U.S.A. List Price
11	I	250	—	$0.45
C-11	I	440	JJ-034	.65
L-11	I	250	—	.55
S-11	I	S-250	—	.50
12A	III	250	—	.50
C-12A	III	440	JJ-089	.80
L-12A	III	250	—	.60
13	V	250	—	1.00
13A	VI	250	—	.90
13E	IX	250	—	1.00

THREE-CONDUCTOR TYPES

12B	IV	267	—	.60
C-12B	IV	480	JJ-033	1.05
L-12B	IV	267	—	.75
S-12B	IV	480	—	.75
13B	VIII	267	—	.85
S-13B	VIII	480	—	1.05
14B	X	267	—	1.05

"TINI-JAX" MINIATURE PHONE JACKS

B Miniature 2-conductor Jacks, approximately ⅓ the size of the "Littel-Jax"; otherwise similar in construction. Mount in ¼" dia. hole; panel up to ⅛" thick. No. 43A has a unique spring design that requires a pear shaped tip, such as Switchcraft "Tini-Plug" No. 750.

Part No.	Schematic No.	Typical Mating Plug	Conductors	U.S.A. List Price
41	I	750	2	$0.45
42A	III	750	2	.50
43A	VI	750	2	.80

"TINI-EXTENSION JAX"

C An extension or cable jack to mate with "Tini-Plug". Two-conductor. Metal housing for ruggedness and electrical shielding. Solder lug terminals.

Switchcraft Part No. 125 ..... U.S.A. List Price **$1.35**

"MICRO-JAX" SUB-MINIATURE PHONE JACKS

D Precision manufactured jack for miniaturized applications. Two-conductor, single closed circuit. See Schematic Circuit III. Silver plating on special tempered nickel silver springs. Internally keyed nylon insulation interlocks springs and solder lugs to eliminate shorts. Fits .190" dia. hole in panels to 5/32" thick. Only 1/25th the size of standard phone jacks. Mates with "Micro-Plug", Series 850, 880.

Switchcraft Part No. TR-2A ..... U.S.A. List Price **$0.50**

"SHIELDED JAX"

E A unique modification of the "Littel-Jax". The shield is assembled into and made part of the jack. Ideal for high impedance circuits.

Part No.	Schematic No.	Typical Mating Plug	Conductors	U.S.A. List Price
CN-11	I	250	2	$0.90
CN-12A	III	250	2	.95
CN-12B	IV	267	3	1.05
CN-13B	VIII	267	3	1.30

"HI-D JAX" PHONE JACKS

F New smaller, more compact phone jacks, mate with std. ¼" phone plugs. Molded box body protects integral silver-plated, nickel silver springs. Low contact resistance and electrical leakage with little capacity between the springs. Mount on ⅝" centers in single ⅜" hole in panels up to 5/32" thick, depth behind panel 13/32". All part Nos. with **"L"** prefix mount in panels up to ¼" thick; part Nos. with **"N"** prefix feature a threaded nylon bushing to provide complete insulation of jack sleeve from mtg. panel. **Stereo "HI-D Jax", Nos. 114B, L-114B, N-114B,** switches out speakers when connecting stereo headphones. Dual N.O. switch contacts open both stereo circuits independently when a 3 cond. plug is inserted.

TWO CONDUCTOR TYPES

Part No.	Schematic	Typical Mating Plug	U.S.A. List Price
111	I	250	$0.45
L-111	I	250	.60
N-111	I	250	.60
112A	III	250	.50
L-112A	III	250	.65
N-112A	III	250	.65
113	V	250	1.00
113D	VI	250	1.00
113E	IX	250	1.00

THREE CONDUCTOR TYPES

112B	IV	267	.55
L-112B	IV	267	.70
N-112B	IV	267	.70
113B	VIII	267	.75
L-113B	VIII	267	.80
N-113B	VIII	267	.80
113F	VII	267	.75
114B	X	267	.85
L-114B	X	267	.95
N-114B	X	267	.95

"TINI-D JAX" SUBMINIATURE PHONE JACKS

G New, small completely enclosed, molded phone jack. Mate with Switchcraft "Tini-Plug", No. 750 etc. Phenolic housing protects the **bifurcated** beryllium copper springs from being bent during mounting. **No. 142A** has threaded bushing for conventional mtg.; **No. PC-142A,** with plain bushing. Both have tip spring terminals that "snap-in" P.C. boards. Mount on ⅜" centers, in ¼" dia. hole in panels up to ⅛" thick. Depth behind panel 1/16".

Part No.	Conductors	Schematic	Typical Mating Plug	U.S.A. List Price
142A	2	III	750	$0.50
PC-142A	2	III	750	.55

"R-JAX" ECONOMY PHONE JACKS

H Radically new jack design. Simple mounting needs only two (2) 3/32" dia. rivets to fasten securely to mounting panel. Accept standard ¼" dia. phone plugs.

Part No.	Schematic No.	Typical Mating Plug	Conductors	U.S.A. List Price
1	I	250	2	$0.40
2A	II	250	2	.45
2B	IV	267	3	.50
3A	VI	250	2	.70
3B	VIII	267	3	.60
3E	IX	250	2	.80
3F	VII	267	3	.60
4B	X	267	3	.70

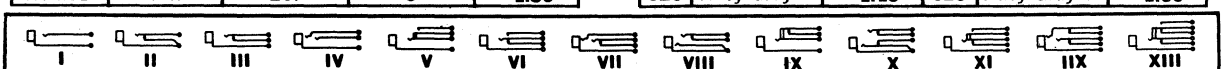
JACK COVERS

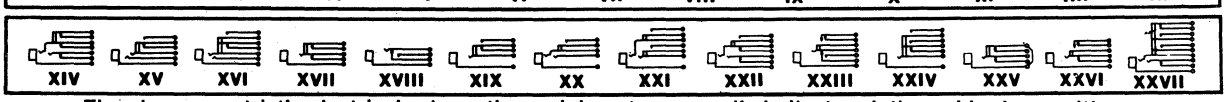
J Handy, rugged, spring-load phone jack covers. Covers jack openings when phone plug is removed. Protects against dust and moisture.

Series 500—Use with standard ⅜"-32 threaded bushing type phone jacks.

Series 600—Use with certain type tip jacks with ¼" mounting; height of tip jack head ⅛" to 3/16". Also used as covers for "Tini-Jax."

Part No.	Color	U.S.A. List Price	Part No.	Color	U.S.A. List Price
510	Olive Drab	$1.15	610	Olive Drab	$1.00
512	Bright Nickel	1.15	612	Bright Nickel	.85
515	Black	1.15	615	Black	1.00
520	Navy Gray	1.15	620	Navy Gray	1.00





The above are strictly electrical schematics and do not necessarily indicate relative solder lug positions.

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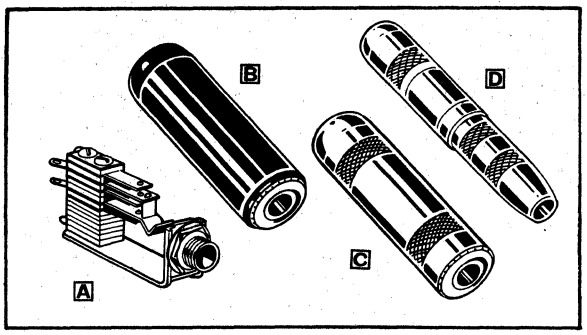
Phone Jacks

SWITCHCRAFT INC.



"LF-JAX" LONG FRAME JACKS

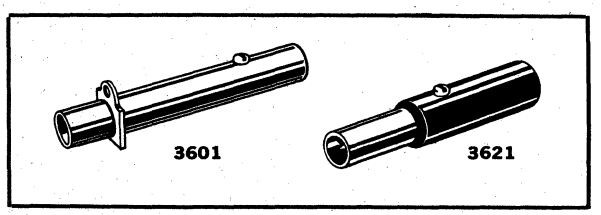
A Quality long frame phone jacks with a ground lug that is an integral part of the frame. Fine silver contacts rated at 3 amp., 300 watts, A.C., non-inductive load. Frame also available with a non-turn device, prefix **Part No.** with letter **"R"**. Standard types mount in single 3/8" dia. hole in panels up to 5/16" thick. Depth behind panel, only 2 25/32".

Part No.	Schematic No.	Typical Mating Plug	Conductors	U.S.A. List Price
31	I	250	2	$0.80
32	II	250	2	1.05
32A	III	250	2	1.05
32B	IV	267	3	1.05
33	V	250	2	1.15
33A	VI	250	2	1.15
33B	VII	267	3	1.15
33C	VIII	267	3	1.15
33E	IX	250	2	1.15
34	X	267	3	1.30
34A	XI	250	2	1.30
34B	XII	267	3	1.30
35	XIII	250	2	1.60
36	XIV	267	3	1.85

"EXTENSION JAX" CABLE EXTENSION JACKS

Standard 1/4", 2 and 3-conductor extension phone jacks with solder lugs or screw type terminals. Size 11/16" O.D., 2 5/32" long; 121 and 131 1/2" O.D., 2 1/32" long. Black handles are durable plastic. Shielded handles are brass, bright nickel plated.

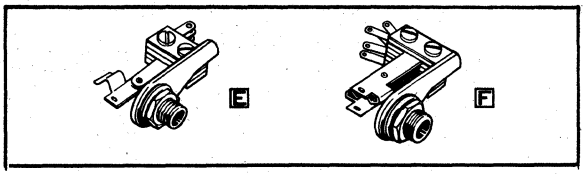
Part No.	Fig.	Cond.	Typical Mating Plug	Term.	Handle	U.S.A. List Price
80	B	2	250	Screw	Black	$1.25
88	B	2	250	Solder	Black	1.10
120	C	2	270	Screw	Shielded	1.70
121	D	2	270	Solder	Shielded	1.80
126	C	2	R-280	Solder	Shielded	1.90
128	C	2	270	Solder	Shielded	1.55
S-128	C	2	S-250	Solder	Shielded	1.65
131	D	3	290	Solder	Shielded	2.25
830	B	3	267	Screw	Black	1.70
S-830	B	3	480	Screw	Black	2.25
838	B	3	267	Solder	Black	1.55
1230	C	3	290	Screw	Shielded	2.20
S-1230	C	3	480	Screw	Shielded	2.75
1238	C	3	290	Solder	Shielded	2.00



CV JAX AND PLUGS

High quality **coaxial-video jacks** and **plugs** designed for use in patching high frequency signals, microwave, telemetry and data transmitting applications. Jacks are made for **50** and **70 ohm** circuits and use standard RG cables. No. **3601** accepts RG59/U; No. **3602** accepts RG62/U. Mate with Switchcraft CV Plugs. Mount in single 7/16" hole. Depth behind panel is 2 19/64". No **3621**, terminating plug with 75 ohm ± 1% 1/2 watt resistor; No. **3622**, feed through plug; No. **3623** same as **3621** but with tip jack for incircuit testing.

JACKS		PLUGS	
Part No.	U.S.A. List Price	Part No.	U.S.A. List Price
3601	$10.00	3621	$ 4.75
3602	10.00	3622	4.25
		3623	5.75



"SF-JAX" SHORT FRAME PHONE JACKS

E **Series 20**—High quality commercial jacks, solder lugs parallel to mounting surface. Mount in 3/8" dia. holes, panels up to 5/16" thick.

F **Series 50**—Similar to Series 20, except solder lug location necessitates more depth but requires less panel space. Mount in panels up to 1/4" thick.

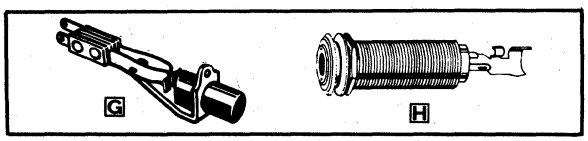
Series C-20 and C-50—MIL Types with Military insulation and finishes, otherwise similar to commercial Series 20 and 50; both will mount in panels up to 1/4" thick.

SERIES 20 and C-20

Part No.	Schematic No.	Typical Mating Plug	Mil-Type	U.S.A. List Price
21	I	250	—	$0.70
22	II	250	—	.90
22A	III	250	—	.90
22B	IV	267	—	.90
23	V	250	—	1.05
C-23	V	440	JJ-099	1.50
23A	VI	250	—	1.05
C-23A	VI	440	JJ-098	1.50
23B	VII	267	—	1.05
23C	VIII	267	—	1.05
23E	IX	250	—	1.05
C-23E	IX	440	JJ-102	1.50
24	X	267	—	1.20
24A	XI	250	—	1.20
24B	XII	267	—	1.20
25	XIII	250	—	1.45
26	XIV	267	—	1.55

SERIES 50 and C-50

51	I	250	—	$0.70
C-51	I	440	JJ-096	1.30
52	II	250	—	.90
52A	III	250	—	.90
C-52A	III	440	JJ-097	1.45
52B	IV	267	—	.90
C-52B	IV	482	JJ-103	1.45
53	V	250	—	1.05
53A	VI	250	—	1.05
C-53A	VI	440	JJ-092	1.70
53B	VII	267	—	1.05
53C	VIII	267	—	1.05
53E	IX	250	—	1.05
54	X	267	—	1.20
54A	XI	250	—	1.20
C-54A	XI	440	JJ-093	1.75
54B	XII	267	—	1.20
C-54B	XII	482	JJ-101	1.75
55	XIII	250	—	1.45
C-55B	XV	482	JJ-095	2.05
56	XIV	267	—	1.55



"LAMP JAX" SWITCHBOARD PANEL TYPES

G Quality long frame panel type lamp jacks. No. **LT-47,** black nylon lamp housing completely insulates lamp from frame. Interchangeable with W.E. Nos. 47A, 47B. Accepts std. lamps and lamp caps, W.E. Nos. 2, 72, etc. No. **LT-48,** new Ballast Lamp-Jax for use in circuits subjected to increasing temperature and wattage. Steel frame and bushing, Teflon sleeve. Accepts std. telephone lamps or ballast lamp No. 60XA. Both lamp jacks mount in std. Switchcraft jack panels.

Switchcraft Part No. LT-47.....U.S.A. List Price **$1.40**

Switchcraft Part No. LT-48.....U.S.A. List Price **$2.00**

"THICK PANEL JAX"

H Phone jacks with long bushing. Mount in single 15/32" dia. hole in panels up to 1 1/4" thick. Solder lug terminals. Ideal for use with microphones; extra shielding virtually eliminates audio hum. No. 151, 2-conductor mates with 240, 245, 250, 255, 270 and 280 Plugs. No. 152B, 3-conductor mates with 260, 267, 269 and 297 Plugs.

Part No.	Description	U.S.A. List Price
151	2-cond. Brass Nickel Plated	$1.50
152B	3-cond. Brass Nickel Plated	1.65

Trade Discount Applies To List Prices Only

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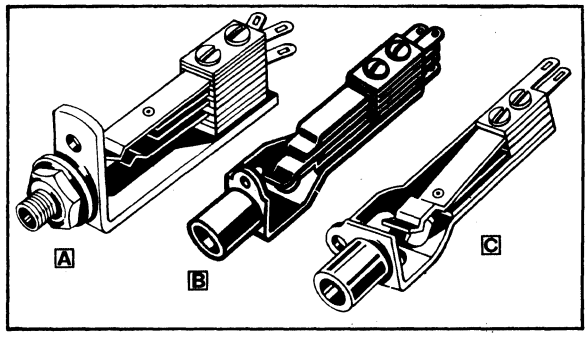
SWITCHCRAFT INC.

Phone Jacks and Plugs

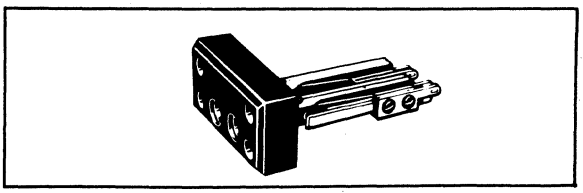


"T-JAX" TELEPHONE TYPE PHONE JACKS

C Long frame, switchboard type, phone jacks. For high quality communication equipment. Springs of nickel silver alloy for maximum life and corrosion resistance. Fine silver contacts are standard. Available in two frame designs. Part numbers in chart cover "A" frame design as shown in **Fig. C.** For frame design "C" as shown in **Fig. B,** add prefix letter "C" to part numbers. All jacks listed mate with standard ¼" dia. phone plugs.

Part No.	Schematic No.	Typical Mating Plug	Conductors	U.S.A. List Price
T-331	I	250	2	$1.05
T-332A	III	250	2	1.20
T-332B	IV	267	3	1.20
T-332C	XVIII	250	2	1.45
T-333	V	250	2	1.35
T-334A	XI	250	2	1.50
T-334B	XII	267	3	1.60
T-334C	XVII	250	2	1.50
T-334F	XIX	250	2	1.50
T-335	XIII	250	2	1.60
T-336	XXVI	250	2	1.75

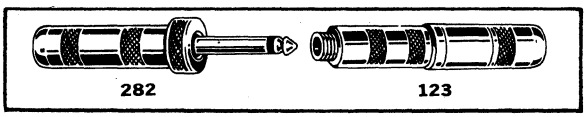
"DUAL-JACK BLOCKS"



Molded black phenolic jack blocks for mounting "MT-JAX" and "T-JAX" long frame phone jacks, on ⅝" centers. Can be rack panel mounted individually or in multiples. Blocks are 2¾" W. x 1¼" H. x ⅝" D. Mount with four No. 8-32 flat head screws.

Part No.	Description	U.S.A. List Price
2300	Jack Block, less jacks	$1.50
2331	Two MT-331 jacks	4.00
2332A	Two MT-332A jacks	4.40
2332B	Two MT-332B jacks	4.40
2333	Two MT-333 jacks	4.90

"LOCK PLUG AND EXTENSION JAX"



Standard size ¼", 2 and 3 conductor phone plugs and mating cable extension jacks with built-in device. Plug has coupling ring that can be threaded to the bushing of a "Littel-Jax" or to the mating end of the "Lock Extension Jax". Lock Plug handle, $1^{31}/_{64}$" long; ½" dia. Lock Extension Jax, ½" O.D.; 2½" long. All have solder lug terminals.

Part No.	Description	U.S.A. List Price
282	2-Conductor Lock Plug	$1.50
298	3-Conductor Lock Plug	2.00
123	2-Conductor Extension Jax	2.00
133	3-Conductor Extension Jax	2.50

"M-JAX" MILITARY TYPE PHONE JACKS

A Very heavy long frame jacks often referred to as the **Navy Jack.** Ideal for industrial and Military equipment. Long heavy duty springs with fine silver contacts. Mounts on single ⅜" hole, in panels up to ¼" thick.

Part No.	Schematic No.	Adjusted for Plug	Mil-Type No.	U.S.A. List Price
M-441	I	250	—	$1.50
M-442A	III	440	JJ-107	1.70
M-443A	VI	440	JJ-105	1.95
M-443B	VII	482	JJ-106	2.10
M-444*	XII	484 & 480	JJ-083	2.30
M-444B	XII	482	JJ-082	2.20
M-445	XIII	440	JJ-104	2.75
M-446	XIV	482	JJ-079	3.50
M-446A	XVI	482	JJ-081	3.90

*Bushing, .2085".

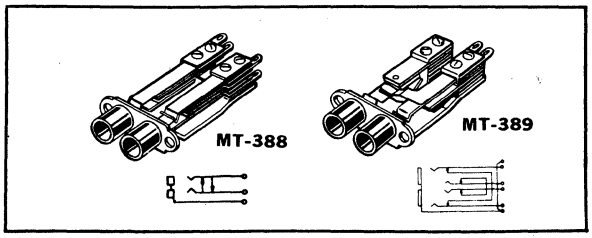
"MT-JAX" MILITARY TELEPHONE JACKS

C Long frame, telephone switchboard jacks designed for high quality communication and military equipment. Springs are of a special nickel silver alloy with welded cross bar palladium contacts. MT-Jax are available in two frame designs, namely "A" & "C". Part numbers in chart cover "A" frame design as shown in **Fig. C.** For frame design "C" as shown in **Fig. B,** add prefix letter "C" to part numbers.

Part No.	Schematic No.	Adjusted for Plug	Mil-Type No.	U.S.A. List Price
MT-331	I	440*	JJ-086	$1.25
MT-332	II	440	—	1.45
MT-332A	III	440	JJ-024	1.45
MT-332B	IV	482†	JJ-022	1.45
MT-332C	XVIII	440	JJ-016	1.70
MT-333	V	440	JJ-084	1.70
MT-333B	VII	482	—	1.70
MT-333E	IX	440	—	1.70
MT-334A	XI	440	—	1.75
MT-334B	XII	482	JJ-042	1.75
MT-334C	XVII	440	JJ-072	1.75
MT-334E	XXV	440	JJ-085	1.75
MT-334F	XIX	440	JJ-035	1.75
MT-335	XIII	440	—	2.00
MT-335A	XXVI	440	JJ-017	2.00
MT-336	XX	482	JJ-074	2.00
MT-336A	XIV	482	JJ-075	2.50
MT-336B	XXI	482	JJ-077	2.50
MT-336C	XXII	482	JJ-073	2.50
MT-336E	XXIII	440	—	2.50
CMT-336E	XXIII	440	JJ-019	2.50
MT-337	XXIV	440	JJ-087	2.50
CMT-337	XXIV	440	JJ-015	2.50
MT-339	XXVII	482	JJ-078	3.75
MT-342B§	IV	480‡	—	1.70
MT-344B§	XII	480	—	2.00

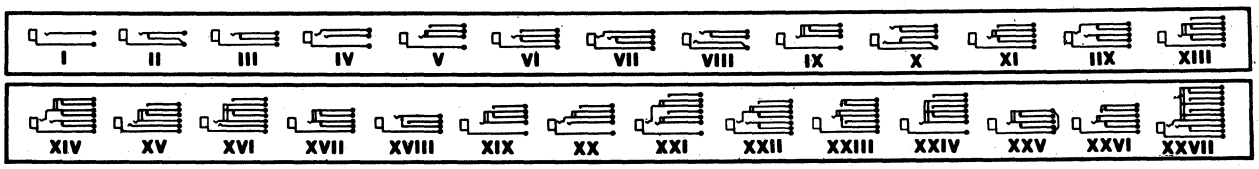
*MIL Type PJ-055. ‡MIL Type PJ-068.
†MIL Type PJ-051B. §Bushing, .2085".

"TWIN JAX" DUAL MILITARY JACKS



Similar in design to "MT-Jax" except frame is double width, with two mounting ears on 1⅜" centers; bushings are on ⅝" centers. MT-388, MIL-Type No. **JJ-088,** mates with Nos. 411, 412, 413, 420 and 425 plugs. MT-389 has two 3-conductor jacks interconnected; mates with No. 482 Plug.

Switchcraft Part No. MT-388.....U.S.A. List Price **$4.50**
Switchcraft Part No. MT-389.....U.S.A. List Price **5.00**



The above are strictly electrical schematics and do not necessarily indicate relative solder lug positions.

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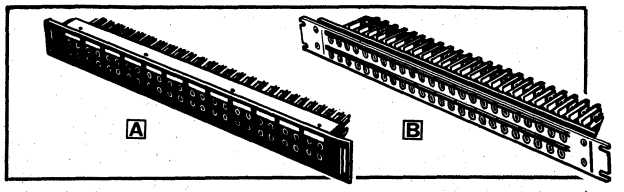
Jack Panels, Plugs, Patch Cords

SWITCHCRAFT INC.

"JACK PANELS"

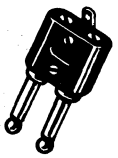


Rugged, heavy-duty jack panels for switching, distribution and control of audio signals in broadcasting stations, theaters, P. A. systems installations, etc. **Series 1200,** Fig. A, black phenolic panels reinforced with steel for the utmost rigidity. Mounting brackets slotted to fit all standard 19″ relay racks. Panel includes plastic covered designation strips. **Series 2800,** Fig. B, clear anodized aluminum panel. Extremely rugged, yet lightweight. Includes new narrow designation strip for each row. Add Prefix "X" to part numbers to indicate offset ground lugs on jacks. Aluminum panels available only with offset lugs.

Part No.	Fig.	Rows	Number of Jacks	Size, In. W x D x H	U.S.A. List Price
1200	A	Single	24 *	19x1¼x1¾	$ 14.50
1232A	A	Single	24 T-332A	19x1¼x1¾	40.00
1332A	A	Single	24 MT-332A	19x1¼x1¾	45.00
1400	A	Single	26 *	19x ⅝x1¾	15.00
1432A	A	Single	26 T-332A	19x ⅝x1¾	43.00
1532A	A	Single	26 MT-332A	19x ⅝x1¾	49.00
2400	A	Double	48 *	19x1¼x2⅛	15.00
2432A	A	Double	48 T-332A	19x1¼x2⅛	70.00
2532A	A	Double	48 MT-332A	19x1¼x2⅛	83.00
2600	A	Double	52 *	19x ⅝x1¾	18.00
2632A	A	Double	52 T-332A	19x ⅝x1¾	79.00
2732A	A	Double	52 MT-332A	19x ⅝x1¾	92.00
2800	B	Double	48 *	19x ⅝x1¾	40.00
X2832A	B	Double	48 T-332A	19x ⅝x1¾	95.00
X2932A	B	Double	48 MT-332A	19x ⅝x1¾	108.00

*Supplied less jacks.

MILITARY TYPE "TWIN-PLUGS"



412

Meet exact industrial and military requirements. **No. 411,** both design and materials, is manufactured in accordance with MIL-P-642(A) specs. **Nos. 412 and 413,** use identical materials. "Twin-Plug" sleeves spaced ⅝″ center to center with self-aligning feature.

Part No. 411—Two electrically independent 2-conductor plugs in black plastic handle. Has provision for Cord Clamp No. S-2674. Military Type **PJ-327** (Old Navy No. 491242). Interchangeable with W.E. 327.....U.S.A. List Price **$5.25**

Part No. 412—Two electrically independent 2-conductor plugs in black plastic handle. Has external cord clamp. Old Military Type PJ-289. Similar to W.E. 289B.....U.S.A. List Price **$4.90**

Part No. 413—Three circuit plug with two electrically independent tip circuits in heavy duty die cast frame. Molded black phenolic handle notched to indicate polarity. Interchangeable with MIL-Type PJ-421 and W.E. 241.....U.S.A. List Price **$4.90**

Part No. 414—Six circuit plug. Two electrically independent 3 conductor ¼″ dia. fingers. Black polarized handle. Interchangeable with WE-338A.....U.S.A. List Price **$9.25**

Part No. 415—Six circuit plug. Two electrically independent 3 conductor fingers. One ¼″ dia. finger, one .206″ dia. For automatic polarization. Black handle.....U.S.A. List Price **$10.25**

Part No. S-2674—Strain relief clamp, natural brass. For use with Nos. 411, 414, 415 "Twin-Plug". Pkg. of 10...U.S.A. List Price **$0.50**

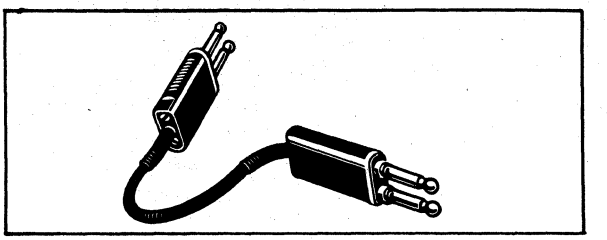
"DUMMY PLUGS"

C D E

Low cost, 2- and 3-conductor molded plastic, dummy plugs for use in switchboards, jack panels. Inserts in jack as does a phone plug to switch circuits, but can not couple incoming signals. Can also be used to plug up unused phone jacks to prevent accidental insertion of a phone plug. Series 491, 3-conductor, .207″ dia. finger. Series 492, 3-conductor, .250″ dia. finger. Series 493, 2-conductor, .250″ dia.

Part No.	Fig.	Handle	Typical Mating Jack	U.S.A. List Price
491-01	C	Red	MT-342B	$0.50
491-02	C	Black	MT-342B	.50
491-05	C	White	MT-342B	.50
492-01	D	Red	MT-332B	.50
492-02	D	Black	MT-332B	.50
492-05	D	White	MT-332B	.50
493-01	E	Red	MT-331	.50
493-02	E	Black	MT-331	.50
493-05	E	White	MT-331	.50

PATCH CORD SETS



All patch cords are constructed of bronze tinsel conductors, insulated and shielded, with a heavy black nylon braid overall.

Series 17Q—2-conductor patch cords have No. 413 "Twin-Plug" at each end with shields grounded both ends.

Series 17P—Same as 17Q, except shield grounded one plug only.

Series 18Q—2-conductor patch cords use Military Plug **PJ-051** (Switchcraft Part No. 482) at each end with shields grounded both ends.

Series 19Q—Single conductor patch cords utilize Military Plug **PJ-047B** (Switchcraft Part No. 420) connected to each end with shield grounded both ends.

Part No.	Length	Plugs Used	U.S.A. List Price
17QA17	6 inch	413	$11.00
17QB17	1 foot	413	11.25
17QD17	2 feet	413	11.50
17QF17	3 feet	413	11.75
17QH17	4 feet	413	12.15
17QK17	6 feet	413	13.00
17QN17	10 feet	413	13.75
17PA17	6 inch	413	11.00
17PB17	1 foot	413	11.25
17PD17	2 feet	413	11.50
17PF17	3 feet	413	11.75
17PH17	4 feet	413	12.15
17PK17	6 feet	413	13.00
17PN17	10 feet	413	13.75
18QA18	6 inch	482	11.50
18QB18	1 foot	482	12.00
18QD18	2 feet	482	12.50
18QF18	3 feet	482	13.00
18QH18	4 feet	482	13.50
18QK18	6 feet	482	14.50
18QN18	10 feet	482	16.50
19QA19	6 inch	420	6.00
19QB19	1 foot	420	6.25
19QD19	2 feet	420	6.75
19QF19	3 feet	420	7.25
19QH19	4 feet	420	7.75
19QK19	6 feet	420	9.10
19QN19	10 feet	420	10.50

REPLACEMENT PATCH CORDS

Patch cords are made of bronze tinsel conductors, insulated and shielded, with a heavy black nylon braid overall. Cords designed for use with Switchcraft plugs 413, 420 and 482 or equivalents. When used with No. 420, clip off unnecessary lead.

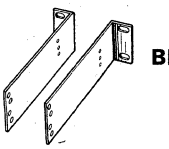
Series 89Q—2-conductor shielded cord with shield termination at both ends.

Series 89P—2-conductor shielded cord with shield termination at one end only.

Part No.		Length	U.S.A. List Price
Both Ends Shielded	One End Shielded		
89QA89	89PA89	6 inch	$2.25
89QB89	89PB89	1 foot	2.75
89QD89	89PD89	2 feet	3.00
89QF89	89PF89	3 feet	3.25
89QH89	89PH89	4 feet	3.50
89QK89	89PK89	6 feet	4.50
89QN89	89PN89	10 feet	6.50

JACK PANEL ACCESSORIES

HOLE PLUG



BRACKET KIT

Hole Plug, P-1801, molded nylon, fits all Switchcraft jack panels, Series 1200, 1400, 2400, 2600, 2800. Designed to plug unused holes in jack panels. Bracket Kit, K-107, consists of 2 long L-shaped steel, stand-off brackets and eight No. 6-32 self-tapping screws. To hold jack panels, Series 1400, 2600, 7″ in front of mounting rack.

Part No.	Description	U.S.A. List Price
P-1801	Hole Plug	$0.30
K-107	Bracket Kit	4.50

Net

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Phone Plugs

"LITTEL PLUG" PHONE PLUGS

Small size phone plugs fit standard ¼" phone jacks except *Nos. S-250, S-260, S-280 and S-290 which have a .206" dia. sleeve. **Nos. C-240, C-245 and C-270 feature an integral cable clamp with screw terminals. †No. R-280 has short sleeve for Revere Recorders. ‡No. 288 has a wide insulator between tip and sleeve for use in a 3-conductor jack to perform a 2-conductor function without shorting. Plugs with solder terminals have built-in cable clamp. Shielded metal handles are nickel plated brass; others are molded of durable plastic; ⅝" long x ½" dia.

TWO-CONDUCTOR TYPE

Part No.	Fig.	Typical Mating "Littel-Jax"	Handle	Terminals	U.S.A. List Price
240	A	11	Black	Screw	$0.85
C-240**	A	11	Black	Screw	1.00
245	A	11	Red	Screw	.85
C-245**	A	11	Red	Screw	1.00
250	A	11	Black	Solder	.80
255	A	11	Red	Solder	.80
270	B	11	Shielded	Screw	1.20
C-270**	B	11	Shielded	Screw	1.35
280	B	11	Shielded	Solder	1.15
288‡	B	11	Shielded	Solder	1.20
S-250	A	S-11	Black	Solder	.85
S-280	B	S-11	Shielded	Solder	1.15
R-280†	B	—	Shielded	Solder	1.50

THREE-CONDUCTOR TYPE

260	A	12B	Black	Screw	$1.35
S-260*	A	S-12B	Black	Screw	1.90
267	A	12B	Black	Solder	1.20
269	A	12B	Red	Solder	1.20
290	B	12B	Shielded	Screw	1.60
S-290*	B	S-12B	Shielded	Screw	2.15
297	B	12B	Shielded	Solder	1.50

STANDARD ¼" PHONE PLUGS

Available with phenolic or shielded, nickel plated over brass handle.

TWO-CONDUCTOR TYPE—SCREW TERMINALS

Typical mating jack "Littel-Jax" No. 11. Nos. 49 and 169 feature circuit closing device. Nos. 170 and 475 (MIL PJ-636) have two-piece handle with built-in clamp for ¼" cable. No. 180 has wide insulator between tip and sleeve for use in a 3-conductor jack to perform a 2-conductor function without shorting.

Part No.	Fig.	Handle	Length & Dia.	U.S.A. List Price
40	A	Black	2 1/16 x ¾	$0.85
45	A	Red	2 1/16 x ¾	.85
49	A	Black	2 1/16 x ¾	1.75
70	B	Shielded	2 1/16 x 1 1/16	1.40
160	C	Shielded	1 x 1 1/16	1.10
169	C	Shielded	1 x ¾	2.00
170	D	Shielded	2 1/16 x 1 1/16	1.85
180	—	Shielded	1 x ¾	1.25
475	D	Shielded	1 ¾ x ¾	2.20

THREE-CONDUCTOR TYPE—SOLDER TERMINALS

Typical mating jack "Littel-Jax" No. 12B. No. 190A has two-piece handle with built-in cable clamp for ¼" cable.

60	A	Black	2 1/16 x 1 1/16	$1.15
90	C	Shielded	1 x 1 1/16	1.50
190	B	Shielded	2 1/16 x 1 1/16	1.75
190A	D	Shielded	2 1/16 x 1 1/16	2.20

"LUG-PLUG" PHONE PLUGS

Low cost, two-conductor phone plugs. Fit all ¼" phone jacks.

No. 385 Plug has a .206" dia. sleeve and mates with S-11 "Littel-Jax". All have solder lug terminals. Handle: Shielded metal or phenolic.

Part No.	Fig.	Typical Mating "Littel-Jax"	Handle	Length & Dia.	U.S.A. List Price
350	A	11	Black	⅝ x ½	$0.65
355	A	11	Red	⅝ x ½	.65
380	—	11	Shielded	1 x ½	.85
385	—	S-11	Shielded	1 x ½	1.10

"TINI-PLUG" MINIATURE PHONE PLUGS

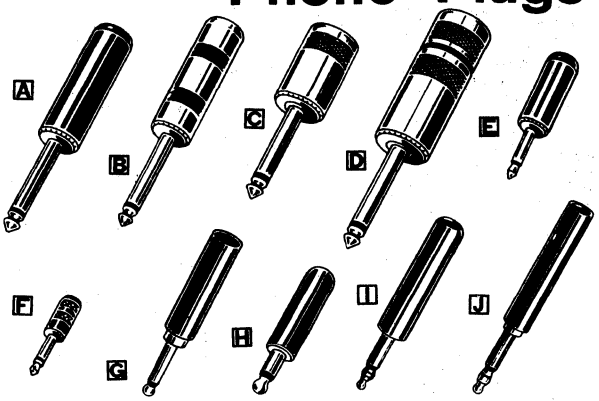
Miniature 2-conductor phone plugs for use with "TINI-JAX" only 1/3 the size of standard phone plugs. Handle 1⅝" overall length, are plastic or brass, nickel plated.

Part No.	Fig.	Terminal	Handle	U.S.A. List Price
740	E	Screw	Black	$0.85
745	E	Screw	Red	.85
750	E	Solder	Black	.80
755	E	Solder	Red	.80
770	E	Screw	Shielded	1.15
780	E	Solder	Shielded	1.15

"MICRO-PLUG" SUB-MINIATURE PHONE PLUGS

Sub-miniature 2-conductor phone plugs, only 1¼" long; ¼" O.D., .097" dia. sleeve. Mate with No. TR-2A. Have screw-on handles in black, red or natural anodized aluminum; accommodates cables up to 1/64" dia. All plugs have integral cable clamps.

Part No.	Fig.	Description	U.S.A. List Price
850	F	Black Handle	$0.75
855	F	Red Handle	.75
880	F	Natural Handle	.75



MILITARY TYPE "LITTEL-PLUG" AND EXTENSION JAX

Designed to meet exact industrial and military requirements. Plugs are made in accordance with MIL-P-642(A) specifications. One-piece tip rod and one-piece sleeve and plug body provide internal interlock to prevent parts shifting in position. Type 820 Extension Jack meets MIL-J-641A specifications and mates with "Littel-Plug" No. 430. No. 470 has shielded handle; all others plastic: †Red; ‡Black. All plugs have screw terminals.

Part No.	Fig.	Mil-Type No.	Typical Mating Jack	Cond.	U.S.A. List Price
420‡	G	PJ-047B	MT-388	2	$1.75
425†	G	PJ-047R	MT-388	2	1.75
430‡	H	PJ-054B	820	2	1.50
435†	H	PJ-054R	820	2	1.50
440‡	—	PJ-055B	MT-331	2	1.50
445†	—	PJ-055R	MT-331	2	1.50
450‡	H	PJ-540B	820	2	1.50
455†	H	PJ-540R	820	2	1.50
470	—	PJ-055M	MT-331	2	2.10
480‡	I	PJ-068	MT-342B	3	3.60
482†	J	PJ-051R	MT-332B	3	4.00
483‡	J	PJ-051B	MT-332B	3	4.00
484†	J	PJ-309	M-444	3	3.60
820‡	—	JJ-026	430 Plug	2	2.00

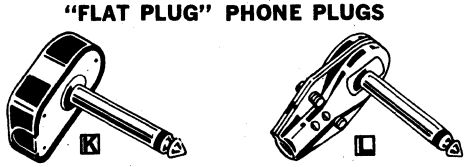
Switchcraft Part No. P-1074-1—Strain Relief Clamp. Nickel Plate Brass. Package of 25.....U.S.A. List Price **$0.85**

TYPE 410 PLUG AND TYPE 810 JACK

Miniature 2-conductor extension jack and mating plug; often referred to as "Throat Microphone Plug and Jack". Plug is Military Type PJ-291; jack is Type JJ-048. Each is of two-piece molded construction. Plug has solder-cup terminals; jack has solder lugs. After wiring, shells must be cemented and clamped till dry. Overall size (engaged), 2⅝" x 1 1/32" x ⅝".

Switchcraft Part No. 410 Plug.....U.S.A. List Price **$1.00**
Switchcraft Part No. 810 Jack.....U.S.A. List Price **1.20**

"FLAT PLUG" PHONE PLUGS



¼" phone plugs featuring flat, space-saving handles. Ideal for applications where conventional plugs would protrude too far. Nos. 220, 225 have adapter clips which make them convenient to clamp standard phone tips to terminals. Shielded flat plugs, Nos. 228 and 238 have nickel plated steel handles; all others have red or black plastic handles. Nos. S-230 and S-235 have .206" dia. sleeve.

TWO-CONDUCTOR TYPE

Part No.	Fig.	Typical Mating Jack	Handle	Terminals	U.S.A. List Price
220	K	11	Black	Screw	$1.25
225	K	11	Red	Screw	1.25
227	K	11	Black	Solder	1.00
228	L	11	Shielded	Solder	1.10
229	K	11	Red	Solder	1.00

THREE-CONDUCTOR TYPE

230	K	12B	Black	Screw	$1.55
S-230	K	S-12B	Black	Screw	2.00
235	K	12B	Red	Screw	1.55
S-235	K	S-12B	Red	Screw	2.00
237	K	12B	Black	Solder	1.50
238	L	12B	Shielded	Solder	1.65
239	K	12B	Red	Solder	1.50

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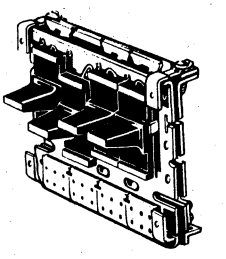
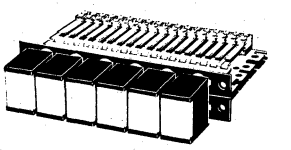
Switchcraft switches give you unlimited latitude in the selection of switching functions and actuations for customizing your equipment designs. Whether you choose pushbutton, slide or lever actuated switches, OUR specialized sales personnel can aid you in the selection and specification of the proper switch to fill your particular requirements. Call on us. We can supply any lever switch, or any size "Multi-Slide" and/or "Multi-Switch", with virtually unlimited functions, from stock, immediately, at factory prices.

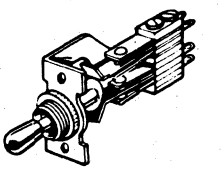
Only Switchcraft offers 3 complete lines of slide, multiple station pushbutton, and lever switches . . . 3 proven solutions to man-machine interface problems.



SLIDE ACTION . . . Series 39000 "Multi-Slide" switches provide design engineers with an entirely new switching method to solve man-machine system problems. "Multi-Slide" switches help eliminate operating confusion inherent in constant manipulation of pushbutton matrixes by providing slide-switch variety. **Series 39000 Switches** offer 3 types of actuation: interlock, all-lock, non-lock.



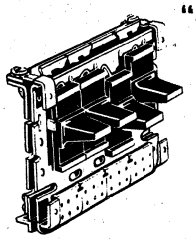
PUSHBUTTON ACTION . . . Whatever your requirements for switching, you will find Switchcraft "Multi-Switch" switches enable you to design a cybernetically correct, error-reducing panel. Both illuminated and non-illuminated types are available with non-lock, all-lock, interlock, push-to-lock, push-to-release functions. Illuminated types offer single or multiple lighting effects. **Series 7000 and 21000** frames are available from 1 to 37 stations in a row. Littel "Multi-Switch" **Series 35000, 36000, 37000,** are compact switching units offering 1 to 18 stations in a row.



LEVER ACTION . . . Switchcraft offers the largest selection of illuminated and non-illuminated lever-type switches in the industry. They come in a wide choice of sizes, 2 or 3 position, locking and non-locking types. They range in size and style from miniaturized **"Feather Lever"**, featuring changeable push-on color knobs to **"Lever-Lite"**, a 3-color illuminated type lever switch; to the industry standard **"Telever"**, a telephone type switch featuring field changeable functions.

"MULTI-SLIDE" SWITCHES

SERIES 39000



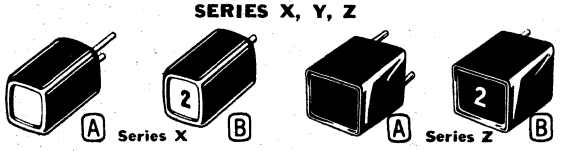
Revolutionary compact switching method provides versatile multiple station slide switching. Allows 1 to 18 stations per row standard on all but all-lock function which is limited to 12 stations. Requires only ¾" depth behind panel. Narrow frame design permits mounting on compact electronic equipment without sacrificing versatility or function. Three standard functions available: **Interlock:** actuating slidebutton automatically restores previously actuated station to normal. Only one slidebutton can be actuated at a time with standard interlock function. **Nonlock:** each station has momentary action with no interaction between stations. **All-lock:** all stations, except release, lock when depressed—restore to normal when release button is actuated. Special slide-to-release cancelling feature in interlock and all-lock frames permits immediate correction of switching error without cancelling actuated switches. Slidebuttons are on ⅝" centers. Up to 3 miniature switch stacks, rated at 3 amps; 300 watts max., AC non-inductive load, can be mounted at each station for a minimum of 1-A (SPDT) to a max. of 3-C (3PDT) per station. To order, refer to "SWITCH STACKS", Series 80P, 800P. For power switching, snap switch modules can be mounted to each station. Refer to "PIGGY BACK" SNAP-SWITCH MODULES, Series SA, SC and SD under littel "Multi-Switch" listing. Switch frames mount on panels up to ⅛" thick. End brackets have four 6-32 tapped mtg. holes. A black slidebutton is furnished for each station and a red slidebutton is supplied when switch requires a release. A kit of chromatic legend tabs, **Part No. K-120,** is available for positive color coding of an actuated station. Kit consists of 10 tabs each of 6 colors: Red, black, green, blue, white and yellow. Pressure sensitive tabs mount easily in recess of slidebutton; can be hot-stamped for identification. The following part numbers cover basic frame only. To complete assembly, order switch stacks for each station and/or snap-switch modules, as required. Only the most commonly used frames are listed here. For complete engineering information on Series 39000 switches, request Switchcraft Bulletin 158.

Part No. For Functions			No. of Stations	Part No. For Functions			No. of Stations
Inter-Lock*	Non-Lock	All-Lock		Inter-Lock*	Non-Lock	All-Lock	
39021	39022	39023	2	39081	39082	39083	8
39041	39042	39043	4	39101	39102	39103	10
39061	39062	39063	6	39121	39122	39123	12

*With lock-out feature.

"GLO-BUTTONS"

SERIES X, Y, Z



Economy of non-illuminated buttons with the vivid color-legend display of illuminated buttons. "Glo-Buttons" look and function like an illuminated button, but require no lamp or power. Mount on all pushbutton switches with std. .050" x .187" plungers, as Switchcraft Series 7000, 8000, and 35000 "Multi-Switch", and other switches having maintained plunger action with a max. of 1/16" **fallback.** "Glo-Buttons" have a translucent front screen on which a legend is marked in an opaque color. The opaque color provides a background for the legend while the legend itself remains clear **(Figs. A).** An internal fluorescent illuminator is carried on a pusher which has two legs extending from the rear. When the button is depressed, the rear legs of the pusher bring the fluorescent illuminator flush with the screen which then lights up due to reflected ambient light, and projects a clearly visible legend, see **Figs. B.** All "Glo-Buttons" have black button housings and are available with std. legends: **"A"** thru **"Z"**, **"0"** thru **"50"**, and **"ON"**, **"OFF"**. Eight basic types of buttons are offered: To order, specify part number and add suffix letter or numeral to part number which describes desired legend. Example: To order ½" sq. "Glo-Button" with black screen, orange-red illuminator and numeral "7", part number would read X21248-7.

Series No.	Size	Screen Color	Illuminator Color
X21248	½" square	Black	Orange-Red
X51248	½" square	White	Orange-Red
Y21248	¾" h. x ⅝" w.	Black	Orange-Red
Y28248	¾" h. x ⅝" w.	Black	Chartreuse
Y51248	¾" h. x ⅝" w.	White	Orange-Red
Z21248	⅝" h. x ¾" w.	Black	Orange-Red
Z28248	⅝" h. x ¾" w.	Black	Chartreuse
Z51248	⅝" h. x ¾" w.	White	Orange-Red

Trade Discount Applies To List Prices Only

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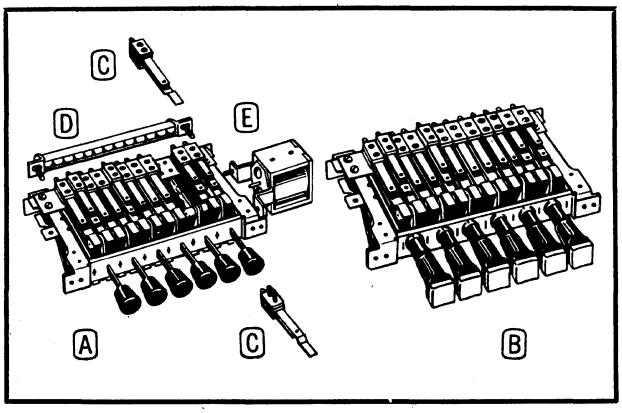
SWITCHCRAFT INC.

"MULTI-SWITCH" SWITCHES



Basic design simplicity provides a unique multiple station push-button switch that's rugged, compact, versatile and completely flexible in switching functions. Hundreds of circuit and function combinations are possible as **all switching components**—frame, switch stacks, lamps and other accessories **are changeable.** Order the "Multi-Switch" you now require, from stock, and later change circuits and/or functions in the field by simple positioning adjustments of stop plate, latch bar spring, and/or interchanging or adding-on switch stacks. **For a complete multiple station assembly, you must order the proper frame and the necessary switch stacks, for each station on the frame.** Optional accessories include: **Lock-out bar** which prevents operation of more than one station at a time, and a **solenoid release** to provide automatic remote release of activated stations. Standard "Multi-Switch" frames are available with these functions: **Interlock,** restores to normal any previously actuated station when another station is actuated. **Non-Lock,** momentary action of each station. **All-Lock,** accumulative locking of all stations with restoration of all stations to normal when release station is depressed. **Specify switching function when ordering frames listed below.**

SERIES 7000 NON-ILLUMINATED FRAMES

(A) Heavy gauge steel switch frames mount on panels up to 3/8" thick, with 3 1/4" depth behind the panel. Rugged, welded end-mounting brackets have four 8-32 tapped holes for ease of panel mounting. Attractive, round brown push-on-buttons supplied for each station, plus extra red button for use when switch requires a release station. Center-to-center distance between buttons is 5/8". Steel plunger .050" x .187" accepts standard push-on-buttons and "Glo-Buttons". Standard plunger is 1 1/8" long, but can be supplied up to 5 3/4" long on special order. Switch frames with buttons on 3/4" centers are available in Series 8000 which has all the same features as Series 7000. **Series 7000** "Multi-Switch" frames are available with from 1 to 37 stations; **Series 8000** from 1 to 31 stations. When ordering Series 8000 add 10% to prices. Only the most commonly used frames are listed below. For more detailed information, request Switchcraft catalog S-306.

Part No.	No. of Stations	Part No.	No. of Stations	Part No.	No. of Stations
7100	1	**7500**	5	**7900**	9
7200	2	**7600**	6	**71000**	10
7300	3	**7700**	7	**71100**	11
7400	4	**7800**	8	**71200**	12

SERIES 21000 ILLUMINATED FRAMES

(B) Similar in switching functions and characteristics to non-illuminated "Multi-Switch", but, with these outstanding features: modern square button design with bright uniform front and side illumination provided by lamp diffusers; knurled retaining collar for quick easy front-of-panel lamp replacement. Two lamp voltages: 6 V and 28 V. Buttons with white jewels and white diffusers are furnished for switching and release stations. Standard frames listed below provide **"L"** type lighting (pushbuttons light in "IN" position). To have pushbutton light in "OUT" position, prefix part No. with **M** (e.g., **M**21100). To have them light in both the "IN" and "OUT" positions, prefix with **N.** To avoid ordering "specials", order lighting stacks listed in next column to provide "M" and "N" lighting. Center-to-center distance between buttons is 3/4" on **Series 21000,** available with up to 37 stations in a row; **Series 22000,** buttons on 3/4" centers, available up to 31 stations only. Add 10% to price of Series 21000 when ordering Series 22000. Only the most commonly used frames are listed below. For more detailed information request Switchcraft catalog S-306. All frames are supplied less lamps and stack switches.

Part No.	No. of Stations	Part No.	No. of Stations	Part No.	No. of Stations
21100	1	**21500**	5	**21900**	9
21200	2	**21600**	6	**211000**	10
21300	3	**21700**	7	**211100**	11
21400	4	**21800**	8	**211200**	12

LAMPS FOR "MULTI-SWITCH" SWITCHES

Lamps are not furnished with **Series 21000** switches. For initial order or replacement specify **Part No. P-1593-1,** 28 V flange base lamp, Ind. No. 327; or, **Part No. P-1593-2,** 6 V flange base lamp, Ind. No. 328.

SWITCH STACKS

(C) Interchangeable switch stacks for mounting to "Multi-Switch" frames. Two types listed: **Series 70** stacks, fine silver contacts; **Series 70P,** welded cross-bar palladium contacts. Use where the switching circuits of a released station will return to normal before contacts of a newly operated station are actuated. Both series are rated at 3 amps, 300 watts, max., AC non-inductive load. Should more than one circuit be required, specify two (or more) stacks in order to balance the load on the plunger. With each switch, two mounting screws and one pressure plate is furnished. In addition to Series 70 and Series 70P Switch Stacks, four other Series are available, from stock.

SERIES 70—SILVER CONTACTS

Part No.	Circuits	Part No.	Circuits	Part No.	Circuits
71	1-A	**73D**	1-D	**76**	2-C
72	1-B	**74**	2-A	**76D**	2-D
73	1-C	**75**	2-B		

SERIES 70P—PALLADIUM CONTACTS

Part No.	Circuits	Part No.	Circuits	Part No.	Circuits
71P	1-A	**73PD**	1-D	**76P**	2-C
72P	1-B	**74P**	2-A	**76PD**	2-D
73P	1-C	**75P**	2-B		

LOCK-OUT BAR "K" SERIES

(D) Prevents operation of more than one switching station at a time. Mounts on back of standard "Multi-Switch" Series 7000, 8000, 21000 and 22000 frames with two screws (furnished). Available from 2 to 37 stations for a single frame. Lock-Out Bars listed are for 5/8" center plunger only; for 3/4" centers, order special.

Part No.	Stations	Part No.	Stations	Part No.	Stations
K-02	2	**K-06**	6	**K-10**	10
K-03	3	**K-07**	7	**K-11**	11
K-04	4	**K-08**	8	**K-12**	12
K-05	5	**K-09**	9		

SOLENOID RELEASE—"J" SERIES

(E) Two, simple solenoid assemblies are available that can be easily added on the end of a standard frame assembly by two screws. **Part No. J-1** is for use on interlocked switches; **Part No. J-3,** for use on all-lock switches with up to 12 stations. Both are for use in 115 volt, 60 cycle AC circuits. Complete with mounting bracket and screws.

LIGHTING STACKS

Prepackaged lighting stacks convert standard stock **Series 21000** frames from **"L"** type lighting to **"M"** or **"N"** lighting in the field. Use **"NB"** type stack to complete lighting circuit with all three types of lighting **"L", "M", "N".** All mount easily to frame. Two mounting screws and one pressure plate furnished with each switch. Order one stack for each station.

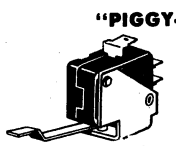
Part No.	Type of Lighting
LL	"L"—light on in "IN" position
MM	"M"—light on in "OUT" position
NN	"N"—light on in "IN" and "OUT" positions
NB	Completes lighting circuit

COMBINATION SWITCH STACKS

Consists of a lighting stack with a switching stack in a single pre-assembled pile-up. Designed to provide additional switching circuitry on **Series 21000** frames. Replaces original lighting stacks as furnished with frames. Available in all three lighting arrangements with fine silver contacts, **Series 70;** or, with welded cross-bar palladium contacts, **Series 70P.** Both rated at 3 amps, 300 watts, max., AC non-inductive load. Supplied with mounting screws and pressure plate.

Part No.	Circuits	Lighting	Part No.	Circuits	Lighting
LL71	1-A	L	**LL71P**	1-A	L
MM71	1-A	M	**MM71P**	1-A	M
NN71	1-A	N	**NN71P**	1-A	N
NB71	1-A	.....	**NB71P**	1-A	.....
LL73	1-C	L	**LL73P**	1-C	L
MM73	1-C	M	**MM73P**	1-C	M
NN73	1-C	N	**NN73P**	1-C	N
NB73	1-C	.....	**NB73P**	1-C	.....

"PIGGY-BACK" SNAP SWITCH MODULES



Two snap switch modules **Part Nos. 73SA** and **73SB** provide power switching for "Multi-Switch" and "Push-Push" Switches. Module consists of snap-action switch, actuator, mounting bracket and screws. **No. 73SA** mounts on Series 7000, 8000, 21000, 22000 frames and Series 5000 "Push-Push" Switch. **No. 73SB** mounts on Series 15000 "Push-Push" Switch. Both rated at 15 amps, 1/2 HP, 125/250 VAC. Each module provides a 1-C circuit. Supplied with mounting hardware and instruction sheet.

ESCUTCHEON PLATES

Attractive escutcheon plates for **Series 7000** non-illuminated "Multi-Switch". Black satin finish over a 1/32" thick aluminum plate; back side has paper backing, which when removed exposes a pressure sensitive adhesive which "sticks" plate to panel. Listed below are standard lengths.

Part No.	Stations	Part No.	Stations
ES-04	4	**ES-12**	12
ES-06	6	**ES-18**	18
ES-08	8		

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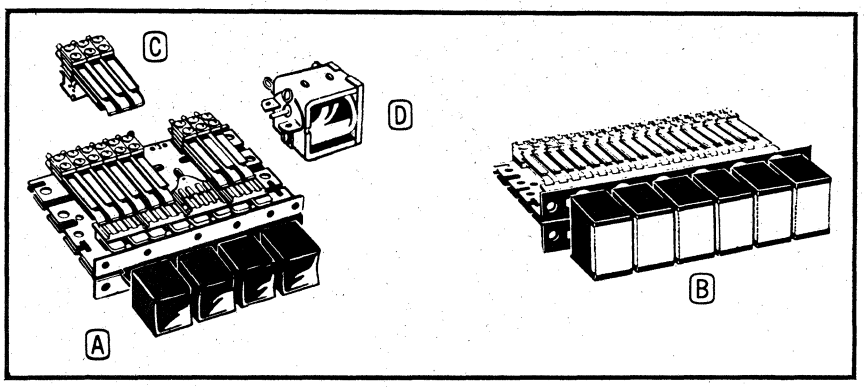
SWITCHCRAFT INC.

littel "MULTI-SWITCH" SWITCHES



Compact, versatile, low-cost multiple station pushbutton switches. Four standard functions available: **Interlock**—actuating a button automatically restores to normal the button previously actuated. **Lock-Out**—prevents operation of more than one button at a time. This feature is included on all interlock frames. **Non-Lock**—each button has momentary action. **All-Lock**—all buttons, except release, lock when depressed. All buttons restored to normal by actuating release button. **Push-to-Lock, Push-to-Release**—button locks when depressed and is released when again depressed. Buttons on ⅝" centers. **Frames available from 1 to 18 stations.**

SERIES 35000 NON-ILLUMINATED FRAMES

(A) Switch frames mount on panels up to ⅛" thick. Permits 6 PDT switching in .6 sq. in. Narrow rectangular silhouette permits stacking in parallel rows on ¾" centers. Only 2⁵⁄₁₆" depth behind panel. End brackets have four 6-32 tapped mounting holes. A square black pushbutton is furnished for each station and an extra red button is supplied for use when switch requires a release. The following part numbers cover basic frames only. To complete assembly, order switch stacks for each station, solenoid releases, and snap-switch modules if required. Only the most commonly used frames are listed here:

Part Numbers For Functions				
Interlock	Non-Lock	All-Lock	Push-to-Lock, Push-to-Release	No. of Stations
35021	35022	35023	35027	2
35041	35042	35043	35047	4
35061	35062	35063	35067	6
35081	35082	35083	35087	8
35101	35102	35103	35107	10
35121	35122	35123	35127	12

SERIES 37000 SINGLE LAMP ILLUMINATED FRAMES

(B) Identical in switching functions and characteristics as non-illuminated Series 35000, but feature large rectangular shaped pushbuttons which serve as a color or legend coded panel indicator light which actuates up to 6 PDT switching. Switch frames mount in parallel rows from **1" centers** and up. Depth behind panel 2⁵⁄₁₆". Pushbuttons with large transparent clear display screen and white legend insert, which can be hot stamped or engraved, are furnished for switching and release stations. A single **6 V** or **28 V** lamp can be used at each station. Lighting, such as **"L"**—pushbuttons light in "IN" position; **"M"**—pushbuttons light in "OUT" position; and **"N"**—pushbuttons light in both "IN" and "OUT" positions, can be effected by direct wiring to the lamp terminals or through the use of **Series H** Lighting Stacks. The following part numbers cover basic frames only. To complete assembly, order switch stacks, lighting stacks, and lamps for each station. Only the most commonly used frames are listed here:

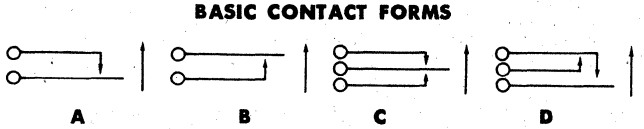
Part Numbers For Functions				
Interlock	Non-Lock	All-Lock	Push-to-Lock, Push-to-Release	No. of Stations
37021	37022	37023	37027	2
37041	37042	37043	37047	4
37061	37062	37063	37067	6
37081	37082	37083	37087	8
37101	37102	37103	37107	10
37121	37122	37123	37127	12

SERIES 38000 TWIN LAMP ILLUMINATED FRAMES

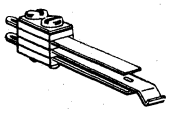
(B) Same compact assembly and versatility as Series 37000, except features twin lamp illumination at each station for redundant or two color, split-face lighting. Uses **Series H** lighting stacks and two long life Part No. **P-1890,** 6 V lamps for choice of **"L"**, **"M"**, or **"N"** lighting. Each button serves as a color legend coded indicator light which actuates up to 3 PDT switching where Series H lighting stacks are used. Switches can be stacked in parallel rows on 1" centers with only 2⁵⁄₁₆" depth behind panel. The following part numbers cover basic frames only. For complete switch assembly order switch stacks, lighting stacks, lamps for each station, plus solenoid release, if needed. Only the most commonly used frames are listed here:

Part Numbers For Functions				
Interlock	Non-Lock	All-Lock	Push-to-Lock, Push-to-Release	No. of Stations
38021	38022	38023	38027	2
38041	38042	38043	38047	4
38061	38062	38063	38067	6
38081	38082	38083	38087	8
38101	38102	38103	38107	10
38121	38122	38123	38127	12

BASIC CONTACT FORMS



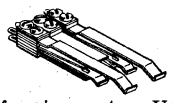
SWITCH STACKS



(C) Interchangeable switch stacks for littel "Multi-Switch" switches, **Series 35000, 37000, 38000. Series 80P,** constructed with cross-bar welded palladium contacts. For use where switch contacts of a released station will return to normal before contacts of a newly operated station are actuated. **Series 800P,** same as 80P, except designed to be used on push-to-lock, push-to-release function. Both Series rated 3 amps, 300 watts max., AC non-inductive load. Switch stacks fasten direct to removable switch mounting brackets. Supplied with two mounting screws and one pressure plate.

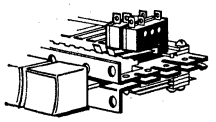
Series 80P Part No.	Series 800P Part No.	Circuits	Series 80P Part No.	Series 800P Part No.	Circuits
81P	801P	1-A	83P	803P	1-C
82P	802P	1-B	83PD	803PD	1-D

LIGHTING SWITCH STACKS



Two lighting switch stacks, **Part Nos. H-83P** and **H-803P** are available for convenient rear-of-frame lamp circuit wiring on **Series 37000** and **38000** frames. Stacks consist of standard Series 80P and 800P switch stacks with an extra long contact leaf spring on top. Use **No. H-83P** for all functions except push-to-lock, push-to-release; **No. H-803P** for push-to-lock, push-to-release. Each provide 1-C circuitry. Furnished with two screws and pressure plate.

"PIGGY-BACK" SNAP-SWITCH MODULES



Increases the switching load capacity of littel "Multi-Switch" switches from 3 amps to 15 amps. Module consists of snap-action switch, actuator and mounting bracket. Two types available: Miniature types **Nos. 83SA,** for all switching functions except push-to-lock, push-to-release; **No. 803SA,** for push-to-lock, push-to-release function. Both rated at 15 amps, ½ HP, 125/250 VAC. Subminiature types **Nos. 83SC** and **83SD,** are similar to No. 83SA in function, and **Nos. 803SC, 803SD** are similar to No. 803SA in function. Subminiature types are rated at 10 amps, ¼ HP, 125 VAC. All supplied with mounting hardware. Solder terminals.

Part No.	SPDT Circuits	Part No.	SPDT Circuits	Part No.	SPDT Circuits
83SA	1	83SC	1	803SC	1
803SA	1	83SD	2	803SD	2

SERIES NJ SOLENOID RELEASE

(D) A simple solenoid assembly which can be added to the end of a standard **Series 35000, 37000,** or **33000,** littel "Multi-Switch" frame to provide electrical release of activated stations. **No. NJ-1** designed for use with up to 18 interlock stations; **No. NJ-3** will handle up to 12 all-lock stations. Both are for use in 115 V, 60 cycle AC circuits. Mounting instructions and hardware furnished with each solenoid.

LAMP ADAPTER

Lamp Adapter, **Part No. T-1,** converts Series 21000 and 37000 lamp sockets that accommodate P-1593-2, -1 lamps, to accept the **P-1890** subminiature lamps. Order a **Part No. T-1** lamp adapter for each station of a Series 21000 and 37000 if long-life P-1890 lamp is specified.

LAMPS FOR littel "MULTI-SWITCH" SWITCHES

Lamps are not furnished with **Series 37000,** or **38000** switches. Series 37000 will accept lamps P-1593-2 (6 V) and P-1593-1 (28 V). Series 37000 uses long life P-1890 (6 V) lamp when used with **T-1** lamp adapter. Series 38000 accepts only the **P-1890 lamp.** For initial order or replacement, specify: **Part No. P-1593-2,** 6 V flange base lamp—Ind. No. 328; **Part No. P-1890,** subminiature 6 V flange base lamp—Ind. No. 718; **Part No. P-1593-1,** 28 V flange base lamp—Ind. No. 327.

Trade Discount Applies To List Prices Only

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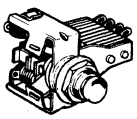
SWITCHCRAFT INC.

Pushbutton Switches

NEW ILLUMINATED "NF-LITE" SWITCHES

A


B

Series 4100 and 4200 "NF-LITE" illuminated switches indicate switching and circuit functions at a glance. Flat frame construction provides multiple pole momentary action switching. Lighting circuit is independent of switching circuit. Ideal for control panel or press-to-test applications. Contacts are fine silver rated at 3 amps, 300 watts max., A.C., non-inductive load.

Series 4100, Fig. A, uses single miniature lamp, 6V or 28V. Light from lamp is filtered through color chip to clear plastic push-button. Various colored chips can be inserted at any time. **Series 4200, Fig. B,** same as Series 4100, except utilizes two lamps for greater illumination or color coding of two circuit conditions. Both series require 11/16" min., 1 5/16" max. depth behind panel depending on size of stack; mounts in 3/8" hole in panels up to 1/4" thick. **Series 4100** furnished with **one kit of 4 color chips** (red, amber, green, and yellow). **Series 4200** furnished with **two kits. Lamps** must be **purchased separately.** See lamp listing below.

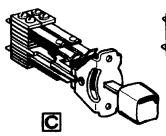
SERIES 4100

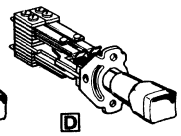
Part Number	Action	Schematic Circuit	U.S.A. List Price
4101	S.P.S.T.n.o.	1-A	$ 1.95
4103	S.P.D.T.	1-C	2.10
4104	D.P.S.T.n.o.	2-A	2.20
4106	D.P.D.T.	2-C	2.45
4109	3 P.D.T.	3-C	3.00

SERIES 4200

4201	S.P.S.T.n.o.	1-A	$2.85
4203	S.P.D.T.	1-C	3.00
4204	D.P.S.T.n.o.	2-A	3.10
4206	D.P.D.T.	2-C	3.35
4209	3 P.D.T.	3-C	3.90

"PUSH-PUSH" SWITCHES


C


D

Push-to-lock, push-to-release or momentary action push-button switches. Welded cross-bar palladium contacts rated at 3 amps, 300 watts, max., non-inductive load. Mount with two 3-48 screws (not supplied) on 5/8" centers. Depth behind panel, 2 1/8". **Series 5000, Fig. C,** non-illuminated, supplied with square brown button. **Series 15000, Fig. D,** illuminated; available in three lighting arrangements, **"L"** button lights in "IN" position; **"M"** button lights in "OUT" position; **"N"** button lights in "IN" and "OUT" positions. Series 15000 part numbers listed below provide "L" type lighting. For "M" type prefix part no. with "M"; for "N" type prefix part no. with "N". Series 15000 supplied less lamp. 6V or 28V lamps can be used.

*Add suffix letter "L" to part number to indicate locking type.

NON-ILLUMINATED SERIES 5000

Part Number Non-locking*	Action	Schematic Circuit	U.S.A. List Price
5003	S.P.D.T.	1-C	$ 6.00
5004	D.P.S.T.n.o.	2-A	6.50
5006	D.P.D.T.	2-C	6.75
5008	4 P.S.T.n.o.	4-A	7.60
5009	3 P.D.T.	3-C	7.75
5012	4 P.D.T.	4-C	9.00

ILLUMINATED SERIES 15000

15003	S.P.D.T.	1-C	$ 8.50
15004	D.P.S.T.n.o.	2-A	9.00
15006	D.P.D.T.	2-C	9.25
15008	4 P.S.T.n.o.	4-A	10.00
15009	3 P.D.T.	3-C	10.25
15012	4 P.D.T.	4-C	11,50

LAMPS FOR ILLUMINATED SWITCHES

The **"NF-Lite", "Littel-Lite"** and **"Push-Push"** Switches are not supplied with lamps. When ordering these switches, be sure to specify:

Part No.	Used with Switch	Voltage	Lamp Base	Ind. No.	U.S.A. List Price
P-1217	NF-Lite Littel-Lite	6	Screw	1768	$1.20
P-1218	NF-Lite Littel-Lite	28	Screw	335	2.00
P-1593-1	Push-Push	28	Flange	327	1.50
P-1593-2	Push-Push	6	Flange	328	1.20

"TINY SWITCH" PUSH-BUTTON SWITCHES

Series 950, red button, and **Series 960,** black button, sub-miniature push-button switches for limited space applications. Integral contacts suitable for low level circuits where contact resistance is not important. Mounts in 1/4" hole in panels up to 3/32" thick; depth behind panel 3/8".

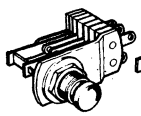
Part Number Red Button	Part Number Black Button	Action	Schematic Circuit	U.S.A. List Price
951	961	S.P.S.T.n.o.	1-A	$0.95
952	962	S.P.S.T.n.c.	1-B	.95
953	963	S.P.D.T.	1-C	1.10

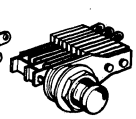
NEW ILLUMINATED "LITTEL-LITE" SWITCHES

Series 210 "Littel-Lite" Switches are unusually small, momentary contact, illuminated push-button types. Requires minimum panel space; ideal for limited space applications and press-to-test circuits. One-piece, clear plastic button and shaft is illuminated by a single miniature lamp, 6V or 28V. Lamps are **not** furnished, see lamp listing below. Includes kit of 4 color chips (red, amber, green, and yellow), can be inserted in switch at any time. Nickel silver spring contacts are recommended for low lever circuits where contact resistance is not important. Also available, fine silver contacts (Part No. suffix "S") rated at 3 amps, 300 watts, max., A.C. non-inductive load. Lighting circuit is independent of switching circuit. Mounts in single 3/8" hole in panels up to 1/4" thick; depth behind panel 1 3/16".

Part Number	Action	Schematic Circuit	U.S.A. List Price
211	S.P.S.T.n.o.	1-A	$1.70
212	S.P.S.T.n.c.	1-B	1.70
213	S.P.D.T.	1-C	2.00
211S	S.P.S.T.n.o.	1-A	1.95
212S	S.P.S.T.n.c.	1-B	1.95
213S	S.P.D.T.	1-C	2.25

NON-LOCKING FLAT FRAME SWITCHES


E

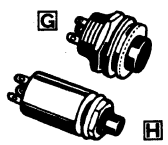

F

FF Switches. Fig. E, Series 1000. Flat frame construction provides multiple pole switching with minimum depth behind panel. Fine silver contacts rated at 3 amps, 300 Watts Max., A.C., non-inductive load. One piece black button and shaft. 3/8" diameter threaded shank; mounts in panels up to 1/4" thick.

NF Switches. Fig. F, Series 4000, same as FF Switches, except smaller spring design, ideal for mounting in ultra-compact equipment. Only 1/2" W.; 1 5/8" L.; mounts in 3/8" hole in panels up to 5/32" thick.

Part Numbers Series 1000	Part Numbers Series 4000	Action	Schematic Circuit	U.S.A. List Price
1001	4001	S.P.S.T.n.o.	1-A	$1.15
1002	4002	S.P.S.T.n.c.	1-B	1.15
1003	4003	S.P.D.T.	1-C	1.30
1004	4004	D.P.S.T.n.o.	2-A	1.45
1005	4005	D.P.S.T.n.c.	2-B	1.45
1006	4006	D.P.D.T.	2-C	1.70
1009	4009	3 P.D.T.	3-C	2.30

"BUTTON SWITCH" SWITCHES


G H

Series 903, 923. Unusually small, momentary action push button switches. Enclosed in metal housing; black or red plastic button. **Series 903, Fig. G.** back panel mounting; 15/32" hole, mounts in panels up to 19/64" thick. **Series 923, Fig. H.** front panel mounting; 1/4" hole, mounts in panels up to 5/32" thick. Both rated at 250 mils, AC, non-inductive load, 30 watts max.

Part Nos. Red Button	Part Nos. Black Button	Action	Schematic Circuit	U.S.A. List Price
903	913	S.P.D.T. "Break-Make"	1-C	$1.40
903D	913D	S.P.D.T. "Make-Break"	1-D	1.40
923	933	S.P.D.T. "Break-Make"	1-C	1.50
923D	933D	S.P.D.T. "Make-Break"	1-D	1.50

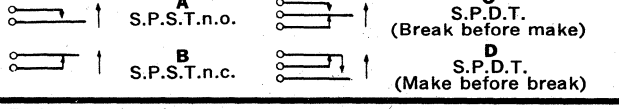
"LITTEL-SWITCH" SWITCHES

Series 100, 200, tiny momentary contact push button switches. Rugged, dependable action. All contacts insulated from panel bushing with interlocking phenolic washers. Series 100 and 200, springs are of nickel silver, recommended only for low level circuits where contact resistance is unimportant. **Series 100S and 200S** have fine silver contacts rated at 3 amps or 300 watts max., A.C., non-inductive load. One-piece plastic button and shaft in red or black. Mounts in 3/8" hole in panels up to 1/4".

Part Nos. Red Button	Part Nos. Black Button	Action	Schematic Circuit	U.S.A. List Price
101	201	S.P.S.T. n.o.	1-A	$0.95
101S	201S	S.P.S.T. n.o.	1-A	1.15
102	202	S.P.S.T. n.c.	1-B	.95
102S	202S	S.P.S.T. n.c.	1-B	1.15
103	203	S.P.D.T.	1-C	1.10
103S	203S	S.P.D.T.	1-C	1.35

BASIC SCHEMATIC CIRCUITS

Switch circuitry can be described as combinations of basic schematic circuits as shown below. N.O. means normally open; N.C. means normally closed.



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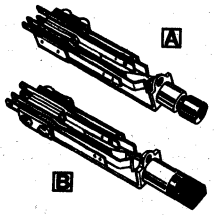
Pushbutton Switches

SWITCHCRAFT INC.



"T-SWITCH" SWITCHES

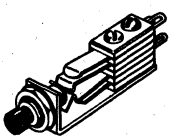
Rugged, long frame switches for quality communication equipment. Welded cross bar palladium contacts rated at 3 amps, 300 watts max., A.C., non-inductive load. Requires minimum of panel space, only $^{9}/_{16}$"x$^{13}/_{16}$"; 2$^{7}/_{8}$" depth behind panel. **Series 11000, Fig. A,** push button T-Switch. Available in momentary action and push-to-lock, pull-to-release action. **Series 11200, Fig. B,** two position turn button T-Switch. Available in non-locking and locking action. Black button with white arrow to indicate switching position.
*Add Suffix "L" to Part Numbers to Indicate Locking Type.

A PUSH BUTTON—SERIES 11000

Part No. Non-Locking*	Action	Schematic Circuit	U.S.A. List Price
11001	S.P.S.T. n.o.	1-A	$3.50
11002	S.P.S.T. n.c.	1-B	3.50
11003	S.P.D.T.	1-C	4.00
11003D	S.P.D.T.	1-D	4.00
11004	D.P.S.T. n.o.	2-A	4.50
11005	D.P.S.T. n.c.	2-B	4.50
11006	D.P.D.T.	2-C	5.00
11006D	D.P.D.T.	2-D	5.00
11008	4 P.S.T. n.o.	4-A	5.60
11009	3 P.D.T.	3-C	6.00
11012	4 P.D.T.	4-C	6.80

B TURN BUTTON—SERIES 11200

11201	S.P.S.T. n.o.	1-A	$3.50
11202	S.P.S.T. n.c.	1-B	3.50
11203	S.P.D.T.	1-C	4.00
11203D	S.P.D.T.	1-D	4.00
11204	D.P.S.T. n.o.	2-A	4.50
11205	D.P.S.T. n.c.	2-B	4.50
11206	D.P.D.T.	2-C	5.00
11206D	D.P.D.T.	2-D	5.00
11208	4 P.S.T. n.o.	4-A	5.60
11209	3 P.D.T.	3-C	6.00
11212	4 P.D.T.	4-C	6.80



MINIATURE "TF" BUTTON SWITCHES

"Tiny Frame" switches. Small, sturdily constructed, provides simple, direct acting push button switching for use where space is at a premium. Available in **Series 970L** push-to-lock, pull-to-release; or **Series 970,** momentary action. Nickel silver springs, integral contacts, recommended for low level circuits where contact resistance is unimportant. Requires only 1$^{15}/_{32}$" depth behind panel; mounts in single $^{1}/_{4}$" hole in panels up to $^{1}/_{32}$" thick.

SERIES 970—NON-LOCKING

Part No.	Action	Schematic Circuit	U.S.A. List Price
974	D.P.S.T. n.o.	2-A	$1.30
975	D.P.S.T. n.c.	2-B	1.30
976	D.P.D.T.	2-C	1.30

SERIES 970L—LOCKING

974L	D.P.S.T. n.o.	2-A	$1.55
975L	D.P.S.T. n.c.	2-B	1.55
976L	D.P.D.T.	2-C	1.55

"CordMASTER" PENDANT SWITCH

NEW

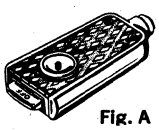


Fig. A

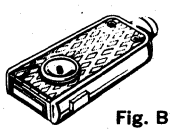


Fig. B

Extremely versatile pendant (cord) switch with top or edge operated pushbutton operation, illuminated and non-illuminated. Attractively patterned stainless steel sheath fits over white shock resistant thermoplastic switch housing to provide greater strength. **Series 42000, Fig. A,** has top operated pushbutton action. Three standard functions available: **non-lock**—momentary action; **locking**—button locks when depressed, releases when side button is depressed; **push-to-lock, push-to-release**—button locks when depressed and is released when depressed again. **Series 42000E, Fig. B,** has edge operation; supplied with "L" type illumination (top jewel lights when button is depressed). Illumination supplied by Ind. No. 377, 6 V miniature, T-1 $^{3}/_{4}$ flange base lamp (not supplied with switch). Part No. listed has locking function with front button release. Both Series have spring tempered nickel silver contact springs with cross-bar welded palladium contacts rated at 2 amps, 200 watts, max. A.C., non-inductive load. This switch is not recommended for 120 V A.C. line switching. Switches accept cables up to .270" dia. Overall dimensions: 1$^{3}/_{4}$"W. x 3$^{11}/_{16}$"L. x $^{5}/_{8}$"H.

Part No.	Function	Action	Schematic	U.S.A. List Price
42206	Non-Lock	DPDT	2-C	$ 9.00
42306	Locking	DPDT	2-C	9.50
42706	Push-to-Lock, Push-to-Release	DPDT	2-C	10.00
42306E	Locking	DPDT	2-C	10.50

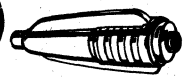
"CORD SWITCHES"

An attractive bright nickel plated housing supports **Series 903** and **913** button switches. Ideal for cord mounted or pendant switch on remote control applications. Sleeve $^{11}/_{16}$" diameter, 2$^{3}/_{16}$" long.

Part Nos. Red Button	Part Nos. Black Button	Action	Schematic Circuit	U.S.A. List Price
E-903	E-913	S.P.D.T. "Break-Make"	1-C	$2.25
E-903D	E-913D	S.P.D.T. "Make-Break"	1-D	2.25

"CORDETTE" PENDANT SWITCH

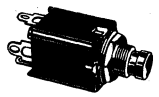
NEW



Small lightweight pendant, momentary action (cord) switch provides remote switching of industrial and commercial instrumentation and control devices. Attractive one-piece grey molded body protects switching controls from dirt and dust. Switch has 1-A (S.P.S.T.) circuit. Integral brass, hard gold contacts rated at 500 MA., 50 watts max., A.C. non-inductive load. Not recommended for use in high voltage circuits. Phono jax termination is molded to body. Mates with Switchcraft molded cable assemblies with phono plug terminations or industry standard phono plugs, 3501, 3501MC, etc. Overall dimensions 1$^{3}/_{16}$" wide by 2$^{15}/_{16}$" long.

Switchcraft Part No. 921.....U.S.A. List Price **$4.25**

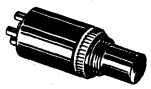
"HI-D SWITCH" SWITCHES



Series H-100, H-200—compact momentary action switches. Molded box body protects contact springs. Low electrical leakage, low capacity. Integral fine-silver plated contacts for use in circuits where contact resistance is not critical. One piece plastic button and shaft in Red—**Series H-100,** and Black—**Series H-200.** Mounts on $^{5}/_{8}$" **centers** in either of two planes; in a single $^{3}/_{8}$" hole in panels up to $^{5}/_{32}$" thick. Depth behind panel 1$^{1}/_{32}$".

Part Nos. Red Button	Part Nos. Black Button	Action	Schematic Circuit	U.S.A. List Price
H-101	H-201	S.P.S.T.n.o.	1-A	$1.00
H-102	H-202	S.P.S.T.n.c.	1-B	1.00
H-103	H-203	S.P.D.T.	1-C	1.15
H-103D	H-203D	S.P.D.T.	1-D	1.15

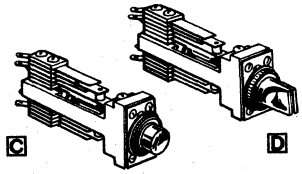
SERIES DA SWITCH



Series DA. Completely enclosed, momentary action push-button switch. Anodized aluminum body protects switch contacts from dirt, dust and from being bent. **A-B contact** arrangement provides a 1-A, 1-B or 1-C circuit when externally wired. Integral hard gold plated contacts rated at 500 MA., 50 watts max., A. C., non-inductive load. Terminals accept AMP Series 53 taper pins. Mount in $^{3}/_{8}$" hole on $^{17}/_{32}$" centers. Depth behind panel $^{15}/_{16}$".

Part No.	Button Color	Part No.	Button Color	U.S.A. List Price
DA-01-3	Red	DA-04-3	Blue	$2.25
DA-02-3	Black	DA-05-3	White	2.25
DA-03-3	Green	DA-08-3	Yellow	2.25

"T-LITE" SWITCHES



Series 32000, 32000TL. High-quality illuminated switches, ideal for instrumentation, communication equipment and telephone apparatus. Lightweight, extremely rugged aluminum **"T-Beam"** frame construction. Frame includes a non-turn device. "Frosted" plastic pushbuttons give quick visual indication of switching function or circuit condition. **Series 32000, Fig. C,** momentary action, pushbutton can be engraved. **Series 32000TL, Fig. D,** momentary push with turn-to-lock feature. Button has black indicator line to indicate switching position. Utilize T-2 telephone slide base lamp. Relamp from front of panel. Lamps not supplied with switch. Long leaf nickel silver springs with cross-bar palladium contacts rated at 3 amps, 300 watts, max., A.C. non-inductive load. Mount in single $^{5}/_{8}$" hole on $^{13}/_{16}$" centers in panels $^{1}/_{8}$" thick. Depth behind panel 3$^{7}/_{16}$".

SERIES 32000 PUSHBUTTON

Part No.	Action	Schematic Circuit	U.S.A. List Price
32004	D.P.S.T.n.o.	2-A	$10.00
32006	D.P.D.T.	2-C	10.75
32008	4P.S.T.n.o.	4-A	11.50
32012	4P.D.T.	4-C	13.00

SERIES 32000TL TURN BUTTON

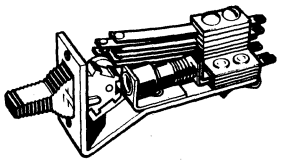
32004TL	D.P.S.T.n.o.	2-A	10.50
32006TL	D.P.D.T.	2-C	11.25
32008TL	4P.S.T.n.o.	4-A	12.00
32012TL	4P.D.T.	4-C	13.50

Trade Discount Applies To List Prices Only
© U.C.P., Inc.

Lever Switches

3-COLOR ILLUMINATED LEVER SWITCHES

"LEVER-LITE" SWITCHES SERIES 25000



UP POSITION
1st Color Shows

NEUTRAL POSITION
2nd Color Shows

DOWN POSITION
3rd Color Shows

"Lever-Lite", Series 25000. Illuminated switches indicate positions at a glance. Individual color chips can be inserted in each switch position. Available in 2 or 3 positions, locking and non-locking types. Reduces panel space; minimizes costly wiring. Supplied with 6V miniature screw base lamp and six color chips, Red, Green, Amber, Yellow, Blue and White; 28V lamp also available. See lamp listing below. Nickel-silver springs, silver contacts rated 3 amps, 300 watts max., A.C., non-inductive load. Requires only 2¼" depth behind panel, can be mounted on ⅝" centers in panels up to 3/32" thick.
Size: 2¼" L. x 39/64" W. x 17/32" H. *Add suffix letter "L" to Part No. to indicate locking type.

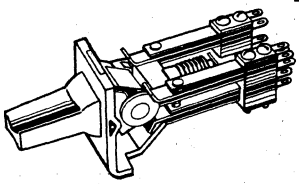
TWO POSITION TYPES

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
25201	S.P.S.T. n.o.	1-A		$4.00
25203	S.P.D.T.	1-C		4.25
25206	D.P.D.T.	2-C		5.00
25209	3 P.D.T.	3-C		5.75

THREE POSITION TYPES

25304	S.P.S.T. n.o. Ea. Sec.	1-A	1-A	$4.50
25306	S.P.D.T. Ea. Sec.	1-C	1-C	5.00
25308	D.P.S.T. n.o. Ea. Sec.	2-A	2-A	5.50
25312	D.P.D.T. Ea. Sec.	2-C	2-C	6.00

"LEVER-LITE" SWITCHES SERIES 27000



"Lever-Lite," Series 27000 illuminated lever switch, three color lighting identical to Series 25000, but utilizes a larger, contoured lever and larger, factory installed color filters. Available in 2 or 3 position, locking and non-locking types. Mounts on ¾" centers, in panels up to 3/32" thick. Depth behind panel 2 5/16". Nickel silver springs with fine silver contacts rated at 3 amps, 300 watts, max., A.C., non-inductive load. On standard 2 position type AMBER lights in the "NEUTRAL" position; GREEN lights in the "DOWN" position. On 3 position types, RED lights in the "UP" position, AMBER in "NEUTRAL" position and GREEN in the "DOWN" position. Supplied with a 6 V lamp. † n. o. center position off. *Add suffix "L" to part number to indicate locking type.

TWO POSITION TYPES

Part No. Non-locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
27206	D.P.D.T.	2-C		$6.50
27212	4 P.D.T.	4-C		8.00

THREE POSITION TYPES

27306	S.P.D.T. ea. sec.	1-C	1-C	6.50
27307	S.P.D.T. n.o. ea. sec.	1-C†	1-C†	6.65
27312	D.P.D.T. ea. sec.	2-C	2-C	8.00

LAMPS FOR "LEVER-LITE" SWITCHES

Lamps are mounted in a "snap-out" frame assembly. A 6V lamp is furnished with each of the above listed switches. Specify the following part numbers when ordering replacement lamps:

Part No.	Voltage	Base	Ind. No.	U.S.A. List Price
P-1217	6V	Screw	1768	$1.20
P-1218	28V	Screw	Hudson 369	2.00

ESCUTCHEON PLATES FOR "LEVER-LITE" SWITCHES

For easy and convenient mounting of Series 25000 and 27000 Switches. Satin black finish. Eliminates punching rectangular hole in mounting panel. **Part No. 531 for Series 25000,** complete with two No. 3-48 black machine screws. **Part No. 532 for Series 27000,** complete with two No. 2-56 machine screws.

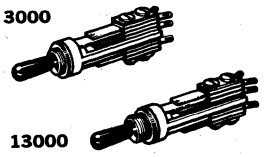
Switchcraft Part No. 531_____U.S.A. List Price **$0.15**
Switchcraft Part No. 532_____U.S.A. List Price **0.25**

AMBIENT LIGHT SHIELD

For use where **"LEVER-LITE" Series 27000** switches are mounted on minimum centers. Shield gives positive separation of lighting between switches. Shield is placed between panel and switch, held in place by mounting screws. Two shields can be used per switch if desired.

Switchcraft Part No. P-1864_____U.S.A List. Price **$0.10**

"LEV-R" SWITCHES



Small lever action switches in two and three position types, locking and non-locking action. Requires half the space usually needed for a lever switch; frame bushing and shaft nickel plated brass. Supplied with locknut and screw-on black knob. Fine silver contacts rated at 3 amps, 300 watts, max. A.C. non-inductive load. Non-locking types have spring return. **Series 3000** mounts in panels up to 3/32" thick; **Series 13000** mounts in panels up to ¼" thick. Both Series are ⅝" wide; requires 2¼" behind panel; mounts in single ½" dia. hole. †n.o. center position off. ‡Inter-communications "Talk-Listen" switches, lever locks on one side of neutral and operates non-locking on the other side. *Add suffix letter "L" to Part No. to indicte locking type.

SERIES 3000
TWO POSITION TYPES

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
3001	S.P.S.T. n.o.	1-A		$2.00
3002	S.P.S.T. n.c.	1-B		2.00
3003	S.P.D.T.	1-C		2.35
3003D	S.P.D.T.	1-D		2.50
3004	D.P.S.T. n.o.	2-A		2.60
3005	D.P.S.T. n.c.	2-B		2.60
3006	D.P.D.T.	2-C		2.85
3006D	D.P.D.T.	2-D		3.00
3009	3 P.D.T.	3-C		3.65

THREE POSITION TYPES

3033	S.P.D.T. n.o.	1-C†		$2.60
3034	S.P.S.T. n.o. Ea. Sec.	1-A	1-A	2.70
3035	S.P.S.T. n.c. Ea. Sec.	1-B	1-B	2.70
3036	S.P.D.T. Ea. Sec.	1-C	1-C	3.00
3036D	S.P.D.T. Ea. Sec.	1-D	1-D	3.35
3037	S.P.D.T. n.o. Ea. Sec.	1-C†	1-C†	3.05
30312	D.P.D.T. Ea. Sec.	2-C	2-C	4.00
30313	D.P.D.T. n.o. Ea. Sec.	2-C†	2-C†	4.00

SERIES 13000
TWO POSITION TYPES

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
13001	S.P.S.T. n.o.	1-A		$2.20
13002	S.P.S.T. n.c.	1-B		2.20
13003	S.P.D.T.	1-C		2.50
13003D	S.P.D.T.	1-D		2.60
13004	D.P.S.T. n.o.	2-A		2.75
13005	D.P.S.T. n.c.	2-B		2.75
13006	D.P.D.T.	2-C		2.85
13006D	D.P.D.T.	2-D		3.00
13009	3 P.D.T.	3-C		4.00

THREE POSITION TYPES

13033	S.P.D.T. n.o.	1-C†		$2.75
13034	S.P.S.T. n.o. Ea. Sec.	1-A	1-A	2.85
13035	S.P.S.T. n.c. Ea. Sec.	1-B	1-B	2.85
13036	S.P.D.T. Ea. Sec.	1-C	1-C	3.35
13036D	S.P.D.T. Ea. Sec.	1-D	1-D	3.50
13037	S.P.D.T. n.o. Ea. Sec.	1-C†	1-C†	3.35
130312	D.P.D.T. Ea. Sec.	2-C	2-C	4.25
130313	D.P.D.T. n.o. Ea. Sec.	2-C†	2-C†	4.25

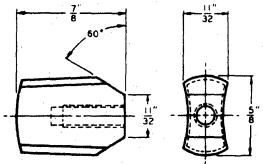
INTER-COM SWITCHES‡
SERIES 3000

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
3033T	S.P.D.T. n.o.	1-C†		$2.60
3037T	S.P.D.T. n.o. Ea. Sec.	1-C†	1-C†	3.05

SERIES 13000

13033T	S.P.D.T. n.o.	1-C†		$2.75
13037T	S.P.D.T. n.o. Ea. Sec.	1-C†	1-C†	3.35

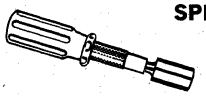
CONTOUR KNOBS FOR LEVER SWITCHES



Attractive contour knobs designed for today's modern equipment. Series M-1177 knobs, 8-32" tapped hole for use with "LEV-R" switches **Series 3000, 12000 and 13000.** Series M-1178 knobs, 6-32" tapped hole for use with "TEL-EVER" switches **Series 6000 and 16000.**

Part No. Series 1177	Part No. Series 1178	Color	U.S.A. List Price Per Pkg. of 10
M-1177-1	M-1178-1	Red	$3.50
M-1177-2	M-1178-2	Black	3.50
M-1177-15	M-1178-15	White	3.50

SPECIAL WRENCHES



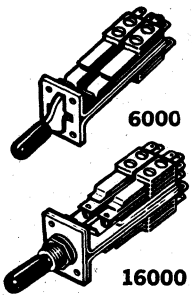
Special Switchcraft wrenches designed to assemble knurled locknuts normally furnished with lever and button switches and jacks. A-1070 wrench fits 15/32"-32 locknuts; A-1071 for use with ¼"-32 knurled locknuts.

Part No. A-1070.....U.S.A. List Price **$7.50**
Part No. A-1071.....U.S.A. List Price **7.50**

Lever Switches

SWITCHCRAFT INC.

"TELEVER" SWITCHES



Series 6000 and 16000. Rugged telephone type lever switches featuring **"T-Beam"** frame construction which results in a relatively light construction with sturdiness of a structural "T-Beam". Available in two and three positions, locking and non-locking types. **Nylon rollers** on the lever actuate the special nickel silver springs, providing smooth action; assures long dependable spring life. Welded cross bar palladium contacts are standard, rated at 3 amps, 300 watts max., A.C., non-inductive load. **Series 6000** mounts with four No. 3-48 machine screws. Mounting centers $^{17}/_{32}$" x $^{13}/_{16}$", mounts in panels up to ¼" thick. **Series 16000** features single hole mounting; $^{15}/_{32}$"-32 threaded bushing. Mounts in ½" dia. hole in panels up to ¼" thick. **Part No. 545, "Stop Plate"** provides positive "stops" for two position action. **Part No. 540, "Stop Plate"** provides non-locking or momentary action. The "Stop Plates" can be changed in the field. Both Series switches supplied with black insulated knob. All have tinned solder lug terminals. *Add suffix letter **"L"** to Part No. to indicate locking type. **Series 16000 non-locking type** can be converted to **locking type** by removing **"Stop Plate"**.

SERIES 6000
TWO POSITION TYPES

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
6006	D.P.D.T.	2-C		$5.00
6006D	D.P.D.T.	2-D		5.60
6008	4 P.S.T. n.o.	4-A		5.60
6009	3 P.D.T.	3-C		6.00
60012	4 P.D.T.	4-C		6.80
60012D	4 P.D.T.	4-D		7.50
60024	8 P.D.T.	8-C		10.00

THREE POSITION TYPES

6036	S.P.D.T. Ea. Sec.	1-C	1-C	$5.00
6036D	S.P.D.T. Ea. Sec.	1-D	1-D	5.60
6038	D.P.S.T. n.o. Ea. Sec.	2-A	2-A	5.60
60312	D.P.D.T. Ea. Sec.	2-C	2-C	6.80
60312D	D.P.D.T. Ea. Sec.	2-D	2-D	7.50
60316	4 P.S.T. n.o. Ea. Sec.	4-A	4-A	8.80
60324	4 P.D.T. Ea. Sec.	4-C	4-C	10.00

SERIES 16000
TWO POSITION TYPES

16006	D.P.D.T.	2-C		$5.00
16006D	D.P.D.T.	2-D		5.60
16008	4 P.S.T. n.o.	4-A		5.60
16009	3 P.D.T.	3-C		6.00
160012	4 P.D.T.	4-C		6.80
160012D	4 P.D.T.	4-D		7.50
160024	8 P.D.T.	8-C		10.00

THREE POSITION TYPES

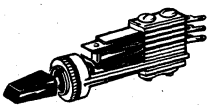
16036	S.P.D.T. Ea. Sec.	1-C	1-C	$5.00
16036D	S.P.D.T. Ea. Sec.	1-D	1-D	5.60
16038	D.P.S.T. n.o. Ea. Sec.	2-A	2-A	5.60
160312	D.P.D.T. Ea. Sec.	2-C	2-C	6.80
160312D	D.P.D.T. Ea. Sec.	2-D	2-D	7.50
160316	4 P.S.T. n.o. Ea. Sec.	4-A	4-A	8.80
160324	4 P.D.T. Ea. Sec.	4-C	4-C	10.00

Part No. 530 Escutcheon Plate. For Series 6000 Telever switches with 4 mounting screws.....U.S.A. List Price **$0.60**

Part No. 540 Stop Plate. For Series 16000 Telever switches. To convert from locking to non-locking action. Includes two mounting screws.....U.S.A. List Price **$0.25**

Part No. 545 Stop Plate. For Series 16000 Telever switches. To convert from 3-position to 2-position. Includes two mounting screws.....U.S.A. List Price **$0.25**

"LEV-R" SWITCHES



"LEV-R Switches." Series 28000. Compact, lever action switch in two and three position, locking and non-locking types. Smooth, easier lever action assured with special nylon roller. Supplied with locknut, non-turn ring (slips over slotted bushing to prevent switch from turning in mounting hole), and a black knob which is molded directly to the lever. Eliminates loose or lost knobs. Fine silver contacts rated at 3 amps, 300 watts, max., A.C., non-inductive load. Mounts on $^{5}/_{8}$" centers in panels up to $^{3}/_{32}$" thick. Requires only one $^{15}/_{32}$" dia. mounting hole for bushing and one ⅛" dia. hole for non-turn device; depth behind panel, 2¼". *Add suffix letter "L" to Part No. to indicate locking type. †Center position open (OFF).

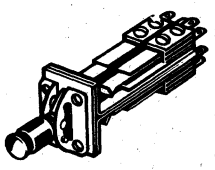
TWO POSITION TYPES

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
28201	S.P.S.T. n.o.	1-A		$2.80
28203	S.P.D.T.	1-C		3.25
28204	D.P.S.T. n.o.	2-A		3.50
28206	D.P.D.T.	2-C		2.75

THREE POSITION TYPES

28304	S.P.S.T. n.o. ea. sec.	1-A	1-A	$3.60
28306	S.P.D.T. ea. sec.	1-C	1-C	3.90
28307	S.P.D.T. n.o. ea. sec.	1-C†	1-C†	3.95
28312	D.P.D.T. ea. sec.	2-C	2-C	4.75

SERIES 26000 "LEVER-LOCK" SWITCHES



Rugged telephone-type lever switches. "Lever-Lock" feature guards against accidental switching due to **shock, vibrations, operator fatigue,** or **unintended operation.** Ideal for mobile communication equipment. **Index bracket** and **release plunger "locks" lever** in any position. Turning actuator knob to extreme left actuator will be permanently locked. To unlock, turn knob to the right. Pressing release plunger frees actuator from index bracket and allows actuator to be moved to another switching position. Welded cross bar palladium contacts rated at 3 amps, 300 watts max., A.C., non-inductive load. Mounts with four No. 3-48 screws in panels up to $^{3}/_{32}$" thick. Requires 3$^{1}/_{32}$" depth behind panel.

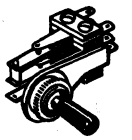
TWO POSITION TYPES

Part No. Locking Type Only	Action	Schematic Circuits Pos. 1	Pos. 2	U.S.A. List Price
26206L	D.P.D.T.	2-C		$8.50
26208L	4 P.S.T. n.o.	4-A		9.10
26212L	4 P.D.T.	4-C		10.30
26212DL	4 P.D.T.	4-D		11.00

THREE POSITION TYPES

26306L	S.P.D.T. Ea. Sec.	1-C	1-C	$8.50
26308L	D.P.S.T. n.o. Ea. Sec.	2-A	2-A	9.10
26312L	D.P.D.T. Ea. Sec.	2-C	2-C	10.30
26312DL	D.P.D.T. Ea. Sec.	2-D	2-D	11.00
26316L	4 P.S.T. n.o. Ea. Sec.	4-A	4-A	12.30
26324L	4 P.D.T. Ea. Sec.	4-C	4-C	13.50

"LEV-R" SWITCHES, SERIES 12000



Small **right-angle** action switches requiring minimum of depth behind panel. Available in two and three position, locking and non-locking types. Long leaf-type springs insure long switch life. Fine silver contacts rated at 3 amps, 300 watts max., A.C., non-inductive load. Requires only ⅞" depth behind panel; single ½" dia. mounting hole; mounts in panels up to $^{3}/_{32}$" thick. Supplied with nickel plated locknut and removable black plastic knob. †n.o. center position off. *Add suffix letter **"L"** to Part No. to indicate locking type.

TWO POSITION TYPES

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
12001	S.P.S.T. n.o.	1-A		$1.80
12002	S.P.S.T. n.c.	1-B		1.80
12003	S.P.D.T.	1-C		2.10
12003D	S.P.D.T.	1-D		2.35
12004	D.P.S.T. n.o.	2-A		2.35
12005	D.P.S.T. n.c.	2-B		2.35
12006	D.P.D.T.	2-C		2.60
12006D	D.P.D.T.	2-D		2.85

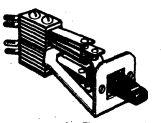
THREE POSITION TYPES

12033	S.P.D.T. n.o.	1-C†		$2.35
12034	S.P.S.T. n.o. Ea. Sec.	1-A	1-A	2.45
12035	S.P.S.T. n.c. Ea. Sec.	1-B	1-B	2.45
12036	S.P.D.T. Ea. Sec.	1-C	1-C	2.75
12036D	S.P.D.T. Ea. Sec.	1-D	1-D	2.95
12037	S.P.D.T. Ea. Sec.	1-C†	1-C†	2.85

THREE POSITION TYPES
LOCKING ONE SIDE—NON-LOCKING OTHER SIDE

12033T	S.P.D.T. n.o.	1-C†		$2.35
12037T	S.P.D.T. Ea. Sec.	1-C†	1-C†	2.85

"LK" LITTEL-KEY SWITCHES



Series 23000. Short frame lever-type switches available in 2 or 3 positions, locking or non-locking types. Ideal for applications where panel mounting space and depth behind panel is at a premium. Fine silver contacts, rated at 3 amps, 300 watts max., A.C., non-inductive load. Frame has 2 tapped No. 3-48 holes for easy mounting. Mounts in panels up to ⅛" thick. Depth behind panel only 2$^{3}/_{32}$". *Add suffix letter "L" to Part No. to indicate locking type.

TWO POSITION TYPES

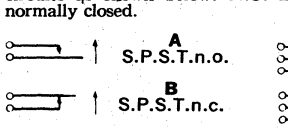
Part No. Non-Locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
23201	S.P.S.T. n.o.	1-A		$1.75
23203	S.P.D.T.	1-C		2.10
23206	D.P.D.T.	2-C		2.40

THREE POSITION TYPE

23304	S.P.S.T. n.o. Ea. Sec.	1-A	1-A	$2.25
23306	S.P.D.T. Ea. Sec.	1-C	1-C	2.40
23308	D.P.S.T. n.o. Ea. Sec.	2-A	2-A	2.60

BASIC SCHEMATIC CIRCUITS

Switch circuitry can be described as combinations of basic schematic circuits as shown below. N.O. means normally open; N.C. means normally closed.



Trade Discount Applies To List Prices Only
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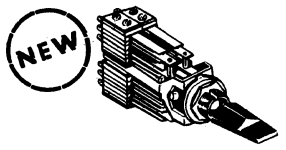
SWITCHCRAFT INC.

Switches

"LT SWITCH"



Series 41000. Smallest, high-quality, telephone type lever switch available. Two or three position types with positive locking and/or non-locking action. Special damping block guards against transient leaf bounce. **"Can't-Cheat"** detent guide prevents accidental actuator by-pass of switching positions. Switch has rigid **"U"-shaped,** twin girder frame. Its parallel steel members terminate in an interlocked box where spring combinations are mounted. The special long life, nickel-silver springs can be individually fastened to any one of the frame's four switch stacks mounting positions. Welded cross bar palladium contacts rated at 3 amps, 200 watts max., AC, non-inductive load are standard. Series 41000 mounts on $^{23}/_{32}$" centers in a $^{15}/_{32}$" dia. hole in panels up to $^{1}/_{4}$" thick. Requires only $2\,^{1}/_{8}$" depth behind panel. The bushing includes a keyway to accept the non-turn ring which prevents switch turning or twisting in panel. *Add suffix **"L"** to Part No. to indicate locking type.

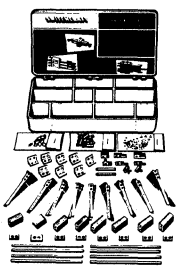
SERIES 41000

TWO POSITION TYPES

Part No. Non-Locking*	Action	Schematic Circuits Pos. 1	Pos. 2	U.S.A. List Price
41203	S.P.D.T.	1-C		$4.00
41206	D.P.D.T.	2-C		5.00
41208	4 P.S.T. n.o.	4-A		5.50
41212	4 P.S.T.	4-C		6.75

THREE POSITION TYPES

41306	S.P.D.T. Ea. Sec.	1-C	1-C	$5.00
41308	D.P.S.T. n.o. Ea. Sec.	2-A	2-A	5.50
41312	D.P.D.T. Ea. Sec.	2-C	2-C	6.75
41324	4 P.D.T. Ea. Sec.	4-C	4-C	10.00



STACK SWITCH KITS

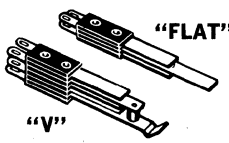
Experimental kits of component parts for assembling switch stacks. Designed to speed the assembly of engineering samples in the lab, aid maintenance men in the field and save time in general replacement. Ideal for mechanical engineers and coin machine servicing; used in relays, electronic organs, etc. Each kit consists of **136 springs** in different thicknesses, over **152 phenolic spacers** and insulators in various sizes, hard-rubber insulating tubing, two sets of stack assembling pins, two roller assemblies, assorted contacts, etc. **Kit No. K-119,** consisting of **"Tini-Stack"** components, are miniature variations of standard switch stack springs, spacers, etc. All in compartmented plastic box.

Kit No. K-101. Assorted ¼" and ⅜" mtg. center contact springs and associated parts..... NET **$11.10**

Kit No. K-102. Assorted ¼" mtg. center contact springs and associated parts..... NET **11.10**

Kit No. K-103. Assorted ⅜" mtg. center contact springs and associated parts..... NET **11.10**

Kit No. K-119. "Tini-Stack". Assorted 3/16" mtg. center contact springs and associated parts..... NET **11.10**



STACK SWITCHES

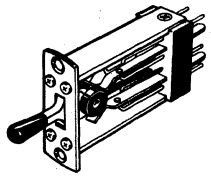
General purpose stack switch assemblies made from a pile-up of various actuator springs, contact springs and lifters. These stack switch assemblies can be used on manually operated devices where switching is operated by cams, levers, push buttons, and other mechanical devices. General purpose stack switches are available with a **"Flat"** or **"V"** actuator spring. Fine silver or palladium cross bar welded contacts are standard, rated at 3 amps., 300 watts max., A.C., non-inductive load. Supplied with pressure plate and two No. 5-40 screws; mount on ⅜" centers. **Height of stack** depends on switching circuit; 1-B circuit $^{21}/_{64}$" **H., min.;** 2-C circuit $^{45}/_{64}$" **H., max.**

FLAT ACTUATOR SPRING

Part No.	Contact Material	Action	Schematic Circuit	U.S.A. List Price
AA01AA	Silver	S.P.S.T. n.o.	1-A	$0.80
AA01AB	Palladium	S.P.S.T. n.o.	1-A	.90
AA02AA	Silver	S.P.S.T. n.c.	1-B	.80
AA02AB	Palladium	S.P.S.T. n.c.	1-B	.90
AA03AA	Silver	S.P.D.T.	1-C	1.00
AA03AB	Palladium	S.P.D.T.	1-C	1.20
AA06AA	Silver	D.P.D.T.	2-C	1.45
AA06AB	Palladium	D.P.D.T.	2-C	1.75

"V" FORMED ACTUATOR SPRING

AA01BA	Silver	S.P.S.T. n.o.	1-A	$0.90
AA01BB	Palladium	S.P.S.T. n.o.	1-A	1.00
AA02BA	Silver	S.P.S.T. n.c.	1-B	.90
AA02BB	Palladium	S.P.S.T. n.c.	1-B	1.00
AA03BA	Silver	S.P.D.T.	1-C	1.10
AA03BB	Palladium	S.P.D.T.	1-C	1.30
AA06BA	Silver	D.P.D.T.	2-C	1.65
AA06BB	Palladium	D.P.D.T.	2-C	1.85



"LO-CAP" SWITCHES

Series 10000. Low-capacity lever actuated switches, previously referred to as **Federal Anti-Capacity switches.** Specially designed flat actuator springs and round contact springs are wide spaced in a large molded insulating block. This construction eliminates the build-up of induced alternating current between springs. Rugged "U" shaped aluminum frame. Roller actuation for easy lever operation. Available in 2 and 3 position models, locking and non-locking types. Actuator springs have fine silver contacts rated at 1 amp, 100 watts, max., A.C., non-inductive load. Supplied with polished chrome escutcheon plate. Mounts with two No. 6-32 flat head screws (not supplied). Mounting centers $1\,^{15}/_{16}$". Depth behind panel $3\,^{1}/_{16}$". †n.o. center position off.
*Add suffix letter **"L"** to Part No. to indicate locking type.

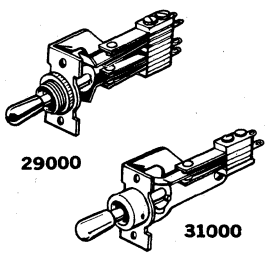
TWO POSITION TYPES

Part No. Non-Locking*	Old Federal No.**	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
10204	1427	D.P.S.T.n.o.	2-A		$ 6.80
10205	1426	D.P.S.T.n.o.	2-B		6.80
10206	—	D.P.D.T.	2-C		7.00

THREE POSITION TYPES

10306	—	S.P.D.T.Ea.Sec.	1-C	1-C	7.00
10307	1425	S.P.D.T.n.o.Ea.Sec.	1-C†	1-C†	7.00
10312	—	D.P.D.T.Ea.Sec.	2-C	2-C	7.50
10313	1424	D.P.D.T.n.o.Ea.Sec.	2-C†	2-C†	7.50
10324	—	4P.D.T.Ea.Sec.	4-C	4-C	16.50
10325	12494	4P.D.T.n.o.Ea.Sec.	4-C†	4-C†	16.50

**Old Federal Part No. refer to locking type switches only.



"FEATHER LEVER" SWITCHES

Miniature lever switches, lightweight, compact, mount on $^{7}/_{16}$" centers. Available in 2 and 3 position, locking and non-locking types. Actuator designed with nylon roller for smoother, easy lever operation over entire life of switch. Rugged steel frame withstands rough usage, shock and vibration. Nickel silver springs with fine silver contacts, rated at 2 amperes, 200 watts, max., A.C., non-inductive load. Supplied with black plastic push-on knob. Other push-on knobs, available in 10 colors. See listing below. **Series 29000,** with bushing, mounts in $^{5}/_{16}$" O.D. panel hole. Supplied with locknut. **Series 31000,** mounts with 2 No. 2-56 machine screws. Both Series supplied with black push-on knob. Require only $1\,^{9}/_{32}$" depth behind panel, mount in panels up to ⅛" thick. †n.o., center position off. ‡Inter-communications "Talk-Listen" switches, lever locks on one side of neutral and operates non-locking on the other side. *Add suffix letter "L" to Part No. to indicate locking type.

SERIES 29000, 31000 TWO POSITION TYPES

Part No. Non-Locking* 29000	31000	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
29201	31201	S.P.S.T. n.o.	1-A		$1.95
29203	31203	S.P.D.T.	1-C		2.25
29204	31204	D.P.S.T. n.o.	2-A		2.50
29206	31206	D.P.D.T.	2-C		2.75

THREE POSITION TYPES

29303	31303	S.P.D.T. n.o.	1-C†		$2.50
29304	31304	S.P.S.T. n.o. ea. sec.	1-A	1-A	2.60
29306	31306	S.P.D.T. ea. sec.	1-C	1-C	2.90
29307	31307	S.P.D.T. n.o. ea. sec.	1-C†	1-C†	2.95
29312	31312	D.P.D.T. ea. sec.	2-C	2-C	3.75

‡INTER-COMM SWITCHES

29303T	31303T	S.P.D.T. n.o.	1-C†		$2.50
29307T	31307T	S.P.D.T. n.o. ea. sec.	1-C	1-C	2.95

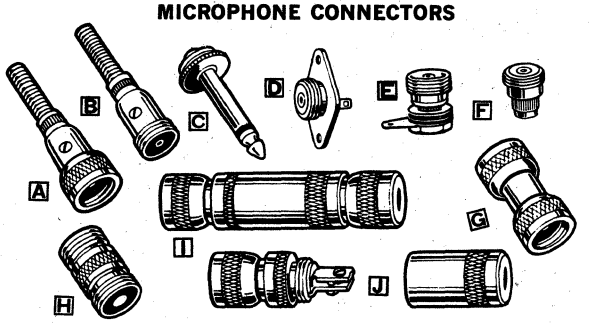
PUSH-ON COLOR KNOBS

Kit of molded plastic knobs. Available in 10 colors. For "Feather-Lever" Switches, Series 29000, 31000. Knobs can be changed quickly—simply pull off present knob and push-on new one. For permanence, use plastic cement.

Part No.	Color	Part No.	Color	U.S.A. List Price Per Pkg. of 10
K-108	One of ea. color	K-114	Brown	$0.80
K-109	Red	K-115	Orange	0.80
K-110	Black	K-116	Yellow	0.80
K-111	Green	K-117	Ivory	0.80
K-112	Blue	K-118	Gray	0.80
K-113	White	—	—	0.80

SWITCHCRAFT INC. Connectors and Switches

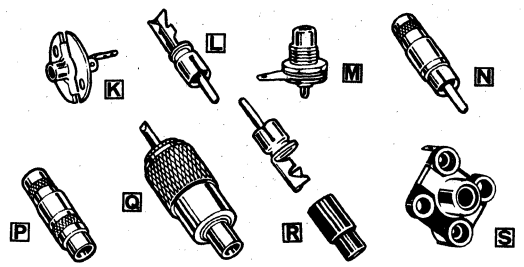
MICROPHONE CONNECTORS



Standard connectors with 5/8"-27 threads. Designed for use with single conductor microphone cable with 9/32" max. O.D. **Coupling ring** on 2501F removable for fast change of female to male type. Spring assembled into body, cable braid and spring clamped by hollow set screw. **No. 44** adapts 2501F to fit standard 2-cond. phone jack. No. 2501MP mounts in .385" dia. hole. ***No. 2501MPC** same as 2501MP except closed circuit type. **No. 2501FT,** coupler, two female connectors at each end. **No. 2501MT,** coupler, two male connectors at each end. **Nos. 2501FL, 2501FS,** for attaching cable to female connector without soldering; screw terminals. **No. 2501MBL,** insulated male panel receptacle. **No. 2501MPF,** male panel receptacle for PRESS-FIT mounting. ****Cable clamp.

Part No.	Fig.	Description	U.S.A. List Price
2501F	A	Female Connector	$ .65
2501M	B	Male Connector	.50
44	C	Phone Plug Adapter	.55
2501MBL	D	Panel Receptacle	.60
2501MP	E	Panel Receptacle	.50
*2501MPC	E	Panel Receptacle	.60
2501MPF	F	Panel Receptacle	.50
2501FT	G	Double Female Connector	1.25
2501MT	H	Double Male Connector	1.25
**2501FL	I	Screw Term. Female Connector	2.50
2501FS	J	Screw Term. Female Connector	1.80

PHONO JACKS AND PLUGS



Low cost 2-cond. jacks and plugs for record players, FM-AM tuners, tape recorders, test equipment, etc. **3501MC** has 1/8" O.D. shell and cable clamp. **3501FP** for front panel mount in 1/4" hole, in panels up to 1/8" thick. **3501FR** for rear panel mount in 3/8" hole, in panels up to 13/64" thick. **3502** has unique cable clamp with 13/32" O.D. shielded removable handle. 3503 ext. jack has shielded removable handle, 13/32" O.D. with cable clamp. **3508 Series,** new color coded phono plugs with cable clamp and **"snap-on"** plastic handles in Red, Black, and White. **Series 3511 "4-Leaf Clover" Jax.** Molded phono Jack with dual contact surfaces for minimum shunt resistance, greater reliability. Open and closed circuit types. Mate with all Switchcraft phono plugs.

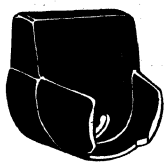
Part No.	Fig.	Description	U.S.A. List Price
3501F	K	Chassis jack	$0.15
3501M	—	Plug, less cable clamp	.10
3501MC	L	Plug with cable clamp	.15
3501FP	M	Chassis jack	.35
3501FR	—	As above, chassis jack	.40
3502	N	Plug	.50
3503	P	Extension jack	.65
3508-1	R	Plug, Red handle	.25
3508-2	R	Plug, Black handle	.25
3508-5	R	Plug, White handle	.25
3511	S	Chassis jack, open circuit	.30
3511A	S	Chassis jack, open circuit, grounded	.30
3512	S	Chassis jack, closed circuit	.35
3512A	S	Chassis jack, closed circuit, grounded	.35

RF-JACKS and RF-PLUGS

Standard phono jacks and plugs with **nylon insulation.** For use in radio frequency applications—low cost, max. insulation resistance. **No. 3504M,** 3/8" O.D. **No. 3505F** mounts front of panel in 3/8" hole—fits panel up to 11/64" thick. **No. 3506** adapter has coaxial connector (Amphenol 83-1SP) one end; 3505F at other end. **No. 3507** has 13/32" O.D. shielded, screw-on handle with cable clamp.

Part No.	Fig.	Description	U.S.A. List Price
3504M	L	Plug	$0.20
3505F	M	Chassis jack	.60
3506	Q	Adapter	2.25
3507	N	Plug	.80

NEW



CRADLE SWITCH

High quality Handset Cradle Switch holds W.E. and other standard telephone industry handsets. Sturdy housing is flexible enough to withstand shocks and vibrations. Housing includes Switchcraft's dependable "Hook Switch" (See Hook Switch listing below), with a 4C (4P.D.T.) contact arrangement. Switch has long nickel silver springs with gold alloy contacts rated at 1 amp. 100 watts max., A.C. non-inductive load. Ideal for use in critical low level audio circuits such as in communication and instrumentation applications.

Part No.	Description	U.S.A. List Price
14412G	Handset Cradle Switch. Black housing. 4-C (4P.D.T.) circuit.	$8.00
14512G	As above, except beige.	8.00
14612G	As above, except white.	8.00

"HOOK SWITCH" SWITCHES

Quality constructed leaf-type switch actuated by a hook (or hanger). Ideal for equipment where it is necessary to actuate a circuit by hanging an accessory on a "hook", as a headset, telephone or microphone. Fine silver contacts, rated at 3 amps, 300 watts, max., A.C., non-inductive load. Requires only 19/32" depth behind panel.

Part No.	Action	Schematic Circuit	U.S.A. List Price
14004	D.P.S.T. n.o.	2-A	$2.75
14005	D.P.S.T. n.c.	2-B	2.75
14006	D.P.D.T.	2-C	3.00
14012	4 P.D.T.	4-C	3.85

"RS-SWITCH" SWITCHES

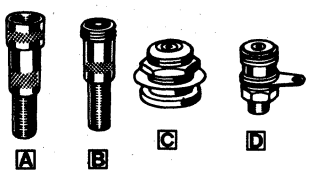
Rugged rotary switches, available in various multiple circuits, two and three position types, locking or non-locking action. Ideal for communication, musical and test equipment applications. **Fibre cam** actuates long, leaf-type springs resulting in easy action; good wiping action of contacts. Fine silver contacts rated at 3 amps, 300 watts max., AC, non-inductive load. Requires only 7/8" depth behind panel, mounts in single 3/8" hole in panels up to 1/4" thick.
*Add suffix letter **"L"** to part number to indicate locking type.

TWO POSITION TYPES

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
2001	S.P.S.T. n.o.	1-A		$1.40
2002	S.P.S.T. n.c.	1-B		1.40
2003	S.P.D.T.	1-C		1.65
2004	D.P.S.T. n.o.	2-A		1.65
2005	D.P.S.T. n.c.	2-B		1.65
2006	D.P.D.T.	2-C		2.15
THREE POSITION TYPES				
2034	S.P.S.T. n.o. Ea. Sec.	1-A	1-A	$1.65
2035	S.P.S.T. n.c. Ea. Sec.	1-B	1-B	1.65
2036	S.P.D.T. Ea. Sec.	1-C	1-C	2.15

"MINI-CON" MINIATURE CONNECTORS

Popular "Mini-Con" microphone-type connectors used with miniaturized audio equipment, lapel microphones, musical instruments, etc. About 1/2 the size of standard microphone connectors. Accepts single conductor shielded cables up to 3/16" O.D. Nickel plated brass bodies.



Coupling ring on 5501F removable for quick change of female to male type. Cable-braid spring clamped to body by hollow point set screw. 5501MF mounts by lock-nut front side of panel, in 3/8" dia. hole. 5501MP mounts back side of panel in 3/16" dia. hole. 5501MPC same as 5501MP except shorting type

Part Number	Fig.	Description	U.S.A. List Price
5501F	A	Female Cord Connector	$0.65
5501M	B	Male Cord Connector	.50
5501MF	C	Panel Connector, Male	.50
5501MP	D	Panel Connector, Male	.40
5501MPC	D	Panel Connector, Male	.80

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Q-G* Audio Connectors

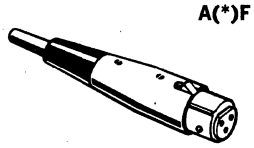
SWITCHCRAFT INC.

Patent No. 3,219,961

AUDIO CONNECTORS WITH COMPLETE GROUNDING PROVISIONS!

Switchcraft's* "Quick-Ground" connectors feature a separate "Ground-Terminal" electrically integral with the connector shell. Ground continuity between mating plugs automatically accomplished through the exclusive "Ground Contactors." Possible loss of insert screw is eliminated by new "Captive Design" Insert Screw. Socket and pin assemblies utilize "wedge-action" to insure firm, reliable positioning in connector shell. Q-G* Series 3 and 4-contact audio connectors, offer 4 and 5-contact versatility when "Ground Terminal" is utilized. Can be used interchangeably with Cannon type XLR-3, XLR-4 and Amphenol type 91-850 Series. ***Number of insert contacts or pins must be specified to complete Part Number.**

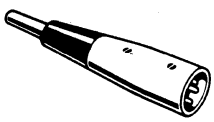
A(*)F CORD PLUGS



Fresh, streamlined design includes rugged, diecast zinc body, satin nickel finish, high-impact resistant thermo-setting plastic socket insert, molded latchlock, dual pressure plates, keyed neoprene relief bushing. Features "Ground Terminal" and "Ground Contactors" offers 4 and 5-contact versatility. Mates with Switchcraft A(*)M and other connectors with similar contact arrangements. Takes 7/32" O.D. cable. Overall length 3 7/32"; dia. 3/4".

Part No.	Insert Contacts	U.S.A. List Price
A3F	3	$2.30
A4F	4	2.85

A(*)M CORD PLUGS



Has "Captive Design" insert screw, one-piece pin insert assembly easily removable for fast soldering. Polarizing groove. Die-cast zinc shell, satin nickel finish. Mates with Switchcraft A(*)F and other connectors with similar contact arrangements. Brass, silver plated chromate dipped pins to resist tarnishing. Overall length 2 25/32"; dia. 3/4".

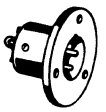
Part No.	Insert Pins	U.S.A. List Price
A3M	3	$2.00
A4M	4	2.10

B(*)M RECEPTACLES

For panel or chassis mounting; locknut accommodates panels up to 1/4" thick. Single hole mounting, can be keyed by using "D" shaped panel hole or S-3519 mounting adapter. Pin insert features "Captive Design" insert screw and "Ground Terminal." Mates with Switchcraft A(*)F and other connectors with similar contact arrangements. Diecast zinc shell, satin nickel finish. Dimensions: Flange 1 1/64" dia.; Barrel 13/16" overall; pin extensions 9/32".

Part No.	Insert Pins	U.S.A. List Price
B3M	3	$2.90
B4M	4	3.00

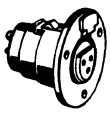
C(*)M RECEPTACLES



Mounts on wall, panel or chassis with three .136" dia. mounting holes. High impact thermosetting plastic pin insert. "Captive Design" insert screw, "Ground Terminal." Pins, brass, silver plated, chromate dipped; resists tarnishing. Mates with Switchcraft A(*)F and other connectors with similar contact arrangements. Dimensions: Flange 1 1/16" dia.; Barrel 13/16" overall; pin extensions 9/32".

Part No.	Insert Pins	U.S.A. List Price
C3M	3	$1.40
C4M	4	1.50

C(*)F RECEPTACLES



For panel or chassis mounting; has socket insert, push-type latch locking device. Flange has three .136" holes for mounting screws. Mates with Switchcraft A(*)M and other connectors with similar contact arrangements. Dimensions: Flange 1 1/16" dia.; Barrel 1 13/16" overall; pin extension 1/4".

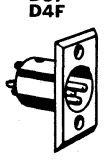
Part No.	Insert Pins	U.S.A. List Price
C3F	3	$3.10
C4F	4	3.20

D(*)F RECEPTACLES

Rectangular flange design receptacle permits close mounting on crowded panel or chassis. Features "Captive Design" loss-proof insert screw, positive latch locking device and high impact thermo-setting socket insert. Mates with Switchcraft A(*)M and other connectors with similar contact arrangements. Dimensions: Flange 1 1/16" x 1 1/16"; Barrel 1 13/64" overall; pin extension 1/4".

Part No.	Insert Contacts	U.S.A. List Price
D3F	3	$3.20
D4F	4	3.30

D(*)M RECEPTACLES



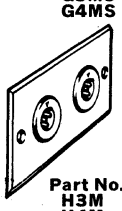
Narrow, rectangular flange design receptacle for mounting on compact panel or chassis. Mates with Switchcraft A(*)F and other connectors with similar contact arrangements. Dimensions: Flange 7/8" x 1 1/16"; Barrel 13/16" overall; pin extension 9/32".

Part No.	Insert Pins	U.S.A. List Price
D3M	3	$1.90
D4M	4	2.00

G(*)M TYPE WALL PLATES

Single gang wall plates with a B(*)M male receptacle. Fits standards electrical outlet box. Wall plates available in brushed brass or brushed stainless steel. Dimensions: Wall Plate 4 1/2"H x 2 3/4"W.

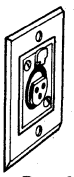
Part No.	Finish	Insert Pins	U.S.A. List Price
G3M	Brass	3	$5.00
G4M	Brass	4	4.75
G3MS	Stainless Steel	3	5.00
G4MS	Stainless Steel	4	5.25



H(*)M TYPE WALL PLATES

Two gang wall plates with two B(*)M male receptacles. Mounts in standard electrical switch box (single). Wall plates available in brushed brass or brushed stainless steel. Dimensions: Wall Plate 4 1/2"H x 2 3/4"W. Six contacts.

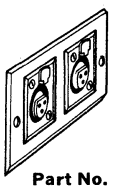
Part No.	Finish	Insert Pins	U.S.A. List Price
H3M	Brass	3 ea.	$6.50
H4M	Brass	4 ea.	7.00
H3MS	Stainless Steel	3 ea.	7.00
H4MS	Stainless Steel	4 ea.	7.50



J(*)F TYPE WALL PLATES

Single gang wall plates with a D(*)F female receptacle. Fits standard electrical outlet box. Wall plates available in brushed brass or brushed stainless steel. Dimensions: 4 1/2"H x 2 3/4"W.

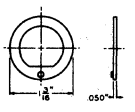
Part No.	Finish	Insert Contacts	U.S.A. List Price
J3F	Brass	3	$4.70
J3FS	Stainless Steel	3	5.20
J4F	Brass	4	4.95
J4FS	Stainless Steel	4	5.45



K(*)F TYPE WALL PLATES

Two gang wall plates with two D(*)F female receptacles. Mounts in standard electrical outlet junction box. Wall plates available in brushed brass or stainless steel. Dimensions: 4 1/2"H x 2 3/4"W.

Part No.	Finish	Insert Contacts	U.S.A. List Price
K3F	Brass	3 ea.	$6.90
K3FS	Stainless Steel	4 ea.	7.40
K4F	Brass	3 ea.	7.40
K4FS	Stainless Steel	4 ea.	7.90



MOUNTING ADAPTER

For use with B3M panel and chassis receptacle. Eliminates necessity of providing a flatted "D" shaped hole in panel to prevent turning of receptacle.

Switchcraft Part No. S-3519 ..... U.S.A. List Price **$0.40**

"SLIM-LINE" CONNECTORS

New, small 4-contact connectors for audio and communication equipment. Barrel insert assembly of high-impact. thermo-plastic. **No. 2504M, Fig. A,** 4-pin male plug with coupling ring. "D-Shaped" barrel assembly polarized for proper mating. Large, husky cable clamp. **No. 2504FP, Fig. B,** 4-contact female receptacle, only 49/64" dia., 3/4" depth behind panel. For front panel mount. No. 2504FR, same as 2504FP, except rear panel mount. All "Slim-Line" connectors bright nickel plated.

Switchcraft Part No. 2504M ..... U.S.A. List Price **$2.50**
Switchcraft Part No. 2504FP ..... U.S.A. List Price **$2.50**
Switchcraft Part No. 2504FR ..... U.S.A. List Price **$2.50**

AC RECEPTACLES

Highly dependable 3-pin receptacles for use in all electrical/electronic equipment. "Chassis hugging" recessed type mounting. Brass contact pins are silver plated, chromate dipped. **No. AC3,** ungrounded; **No. AC3G,** grounded, includes self-aligning feature. Pins #1 and #3 move, #2 is stationary. Receptacles mate with Belden cord No. 17258. Rating: 115V, 7 amps.

Switchcraft Part No. AC3 ..... U.S.A. List Price **$0.80**
Switchcraft Part No. AC3G ..... U.S.A. List Price **.75**

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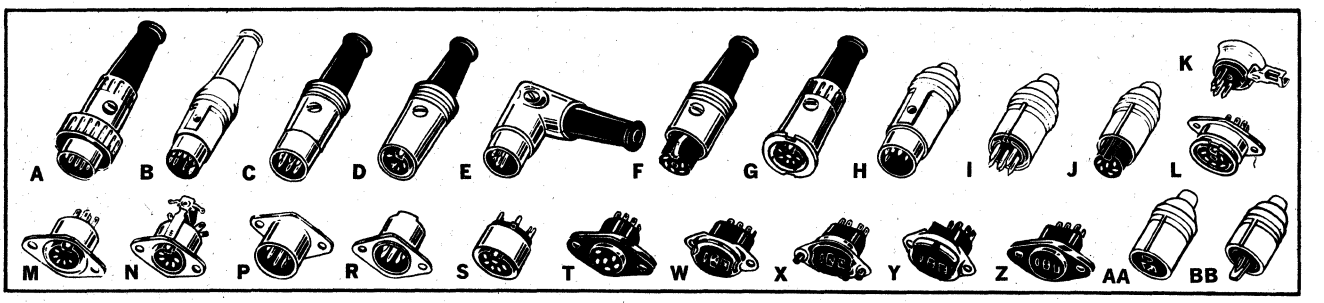
SWITCHCRAFT INC. Preh

Audio Connectors



Here is the most complete low-cost family of miniature audio connectors available today. Exact replacements for plugs and receptacles used on most foreign built tape recorders, radios and dictation equipment. Switchcraft/Preh 2 to 7 contact connectors include male and female plugs and receptacles with bright nickel-plated shells and plastic snap-on shells. Check these outstanding features . . . lock-ring coupling, silver plated contact pins for low contact resistance, contact friction coupling for low mechanical interference noise, exclusive "automatic" grounding and polarization provisions. Thirteen receptacles offer some form of internal switching. Positioning "Ground Key-Rib" or "Ground Contact"—electrically integral with the connector shell—is provided in each plug and receptacle (except those with plastic housings or shells) to ground or shield the connector shell. Designed for low level circuitry, they have unlimited use in commercial, industrial, consumer and military applications.

PLUGS

STRAIGHT CORD PLUGS with 30° Lock Ring

Part No.	Fig.	Description	Pin or Contact arrangement	U.S.A. List Price
03CL2M	A	2 pins with insulated switch actuator.	1	$1.75
05CL3M	A	3 pins at 180°	2	1.75
05CL5M	A	5 pins at 180°	5	1.95
09CL4M	A	4 pins at 210°	3	1.85
12CL5M	A	5 pins at 240°	4	1.95

STRAIGHT CORD PLUG with Shielded Barrel

05GM3M	B	3 pins at 180°. Gray shell and strain relief	2	$1.10
05GM5M	B	5 pins at 180°. Gray shell and strain relief.	5	1.30
09GM4M	B	4 pins at 210°. Gray shell and strain relief.	3	1.20
12GM5M	B	5 pins at 240°. Gray shell and strain relief.	4	1.30
12HN5M	B	5 pins at 240°. Beige shell and strain relief.	4	1.30
15GM7M	B	7 pins at 270°. Gray shell and strain relief.	7	1.50

STRAIGHT CORD PLUG with Extended Barrel

03BL2M	C	2 pins with insulated switch actuator	1	1.65
05BL3M	C	3 pins at 180°	2	1.65
05BL5M	C	5 pins at 180°	5	1.85
09BL4M	C	4 pins at 210°	3	1.75
12BL5M	C	5 pins at 240°	4	1.85
12BL6M	C	6 pins at 240°	6	1.95

STRAIGHT CORD PLUG with Flush Socket Insert

04AL2F	D	2 contacts with closed-circuit switch. (Schematic #4)	A	1.65
06AL3F	D	3 contacts at 180°	B	1.65
06AL5F	D	5 contacts at 180°	F	1.85
10AL4F	D	4 contacts at 210°	D	1.75
13AL5F	D	5 contacts at 240°	E	1.85
13AL6F	D	6 contacts at 240°	G	1.95

RIGHT ANGLE CORD PLUG with 8 Position Barrel

03DL2M	E	2 pins with insulated switch actuator	1	2.00
05DL3M	E	3 pins at 180°	2	2.00
05DL5M	E	5 pins at 180°	5	2.20
09DL4M	E	4 pins at 210°	3	2.10
12DL5M	E	5 pins at 240°	4	2.20

STRAIGHT CORD PLUG with Extended Socket

07FL3F	F	3 contacts at 180°	B	1.60
11FL4F	F	4 contacts at 210°	D	1.70
14FL5F	F	5 contacts at 240°	E	1.80

STRAIGHT CORD PLUG with Lock Flange

06EL3F	G	3 contacts at 180°	B	1.65
06EL5F	G	5 contacts at 180°	F	1.85
10EL4F	G	4 contacts at 210°	D	1.75
13EL5F	G	5 contacts at 210°	E	1.85

STRAIGHT CORD PLUG with Snap-Lock Plastic Shell

05LK3M	H	3 pins at 180°	2	.90
05LK5M	H	5 pins at 180°	5	1.10
09LK4M	H	4 pins at 210°	3	1.00
12LK5M	H	5 pins at 240°	4	1.10

STRAIGHT CORD PLUG with Short Plastic Shell

Part No.	Fig.	Description	Pin or Contact arrangement	U.S.A. List Price
05QK3M	I	3 pins at 180°	2	$ .60
05QK5M	I	5 pins at 180°	5	.80
09QK4M	I	4 pins at 210°	3	.70
12QK5M	I	5 pins at 240°	4	.80
12QK6M	I	6 pins at 240°	6	.90

STRAIGHT CORD PLUG with Extended Socket and Shell

07QK3F	J	3 contacts at 180°	B	.60
07QK5F	J	5 contacts at 180°	F	.80
08QK3F	J	3 contacts at 180° 2 extra blanks	C	.60
11QK4F	J	4 contacts at 210°	D	.70
14QK5F	J	5 contacts at 240°	E	.80
14QK6F	J	6 contacts at 240°	G	.90

RIGHT ANGLE CORD PLUG with Insulated Plastic Shell

05UK3M	K	3 pins at 180°	2	.60
05UK5M	K	5 pins at 180°	5	.80

RECEPTACLES

RECEPTACLE for Lockring Plugs

55HA2F	L	2 contacts with closed circuit switch. (Schematic #4)	A	1.00
57HA3F	L	3 contacts at 180°	B	1.00
60HA4F	L	4 contacts at 210°	D	1.10
61HA4F	L	5 contacts at 240°	E	1.20

RECEPTACLE for Shielded and Extended Barrel Plugs

55GA2F	M	2 contacts plus closed circuit switch. (Schematic #4)	A	.70
57GA3F	M	3 contacts at 180°	B	.70
57GB5F	M	5 contacts at 180°	F	.90
57NC5F	N	5 contacts at 180° Printed circuit terminals.	F	.80
58NC3F	N	3 contacts at 180°, 2 extra blanks. Printed circuit terminals.	C	.60
59GB3F	P	3 contacts at 180° plus closed-circuit switch. (Schematic #5)	B	1.30
59GB5F	P	5 contacts at 180° plus closed-circuit switch. (Schematic #5)	F	1.50

RECEPTACLE for Flush and Extended Socket Plugs

56KD2M	R	2 pins with insulated switch actuator.	1	1.00
57KD3M	R	3 pins at 180°	2	1.00
57KD5M	R	5 pins at 180°	5	1.20
60KD4M	R	4 pins at 210°	3	1.10
61KD5M	R	5 pins at 240°	4	1.20

RECEPTACLE with Recessed Mounting for Extended Socket Plugs

57JD3M	S	3 pins at 180°	2	1.00
60JD4M	S	4 pins at 210°	3	1.10
61JD5M	S	5 pins at 240°	4	1.20

RECEPTACLE for Short and Right Angle Plastic Shell Plugs

Part No.	Fig.	Description	Pin or Contact arrangement	U.S.A. List Price
57LA3F	T	3 contacts at 180°. Plastic Shell.	C	$ .40
60LA4F	T	4 contacts at 210°. Plastic Shell.	D	.50
61LA5F	T	5 contacts at 240°. Plastic Shell.	E	.60
61LA6F	T	6 contacts at 240°. Plastic Shell	G	.70

CONTROL AND SWITCHING RECEPTACLES FOR 01QK2M PLUG

Each receptacle includes an elongated center contact for positive polarization. When inserting mating plug, contact is made to terminals 1 and 2. Receptacle's built-in closed-circuit switch is not actuated. Plug may then be turned 180°, without a polarity change, and re-inserted to open switch and make contact to terminal 2. Convertible feature available in **Nos. 51DA2F, 52BA2F, 52CA2F and 52DA2F.**

RECEPTACLE with Metal Mounting Flange

52DA2F	W	2 contacts (Schematic #2) with closed-circuit switch. Convertible.	J	.65
53DA2F	W	2 contacts	K	.55
54DA2F	W	2 contacts (Schematic #3) with closed-circuit switch. Not Convertible.	L	.60

RECEPTACLE with Metal Rivet Mounting Flange

52BA2F	X	2 contacts (Schematic #2) with closed-circuit switch. Convertible.	J	.70
53BA2F	X	2 contacts	K	.60
54BA2F	X	2 contacts (Schematic #3) with closed-circuit switch. Not Convertible.	L	.65

RECEPTACLE with 1-C Circuit

51DA2F	Y	2 contacts (Schematic #1) with make-break circuit. Convertible.	M	.80

RECEPTACLE with Insulated Plastic Body

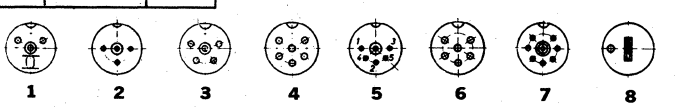
52CA2F	Z	2 contacts (Schematic #2) with closed-circuit switch. Convertible.	J	.60
53CA2F	Z	2 contacts	K	.50
54CA2F	Z	2 contacts (Schematic #3) with closed-circuit switch. Not Convertible.	L	.55

CONTROL AND SWITCHING PLUGS

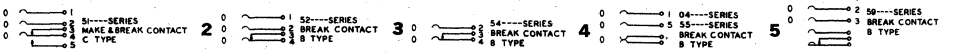
PLUGS with Snap-On Plastic Shells

01QK2M	AA	Male plug. 2 contacts	8	.40
02QK2F	BB	Female plug. 2 contacts	K	.50

PIN ARRANGEMENTS



SCHEMATIC CIRCUITS



CONTACT ARRANGEMENTS

Trade Discount Applies To List Prices Only

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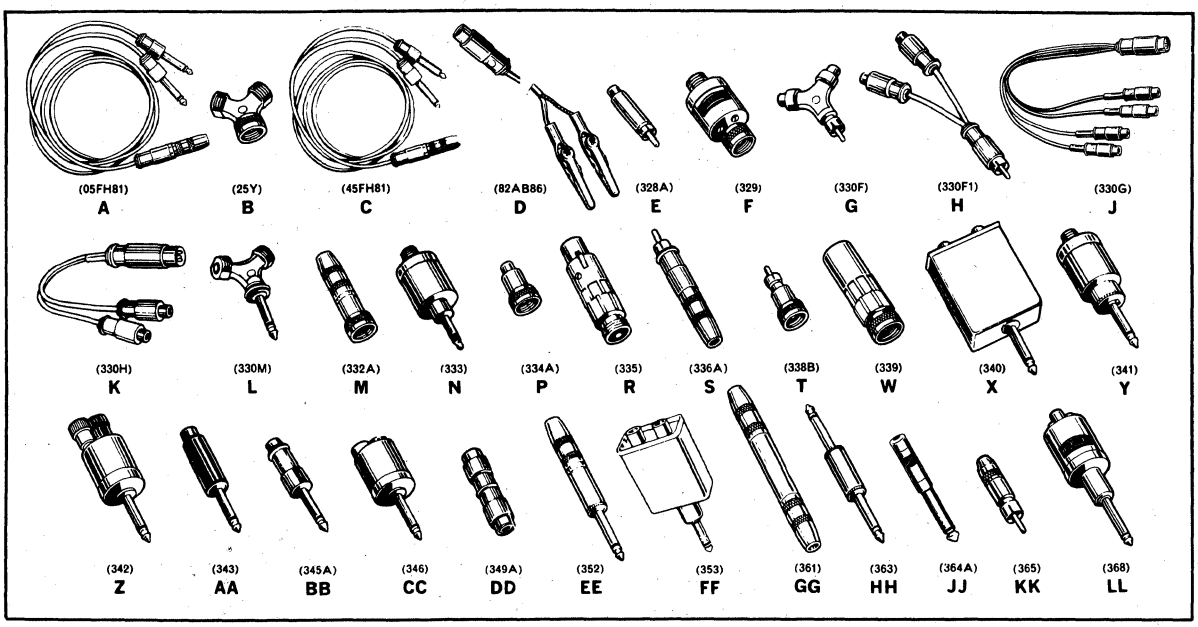
Adapters

SWITCHCRAFT INC.



A versatile and complete line of adapters for interconnecting components that do not have mating jacks and/or plugs. For hi-fi stereo, phonographs, tuners, tape recorders, amplifiers, P.A. systems, etc. Positive mating contacts of high quality material prevent resistive line-losses. **Nickel plated finish for long life. No. 328A,** audio equalizer, converts ceramic phono cartridge to magnetic input. **No. 329** Volume Control Adapter for use in high impedance circuits. **No. 330G** adapts European-type 5-contact sockets to standard Switchcraft phono plugs, color coded. Fits Norelco, Korting, Grundig, Sony, Elber tape recorders; Grundig radios. **No. 330H,** adapts 3-pin European type plug to standard Switchcraft phono plugs. **No. 335** has unsoldered internal wire at one end to permit user to convert terminal needed. **No. 341,** silent plug adapter, includes a circuit closing device to eliminate amplifier "squeals" when disconnecting. **No. 352,** converts stereo headphones and/or microphones to a monaural input. **No. 353** adapts stereo recorder for two headphones. **Nos. 332A, 334A, 338B** can be used as male or female connector; coupling ring screws back, converting to male mike connector.

Part No.	Fig.	Description	U.S.A. List Price
05FH81	A	Stereo Headphone Adapter Cable. Two std. 2-cond. phone plugs wired to a 3-cond. phone jack. Shielded, 4 ft. stereo cable.	$4.80
25Y	B	Y-Adapter, two male mike connectors in parallel to one female mike connector.	2.10
45FH81	C	Stereo Headphone Adapter Cable. Similar to 05FH81, except two 2-cond. "Tini-Plugs" wired to a 3-cond. std. ¼" phone jack. Shielded.	4.30
82AB86	D	Speaker Adapter Cable. Two alligator clips to a molded phono extension jack. 12" cable. Shielded.	1.20
328A	E	Audio Equalizer. Phone jack input to phone plug output.	3.30
329	F	Volume Control, female mike connector to male mike connector.	6.95
330F	G	Y-Adapter. Two phono jacks in parallel to a phono plug. Shielded.	1.95
330F1	H	Flexible Y-Adapter, phono plug in parallel to 2 phono jacks. Shielded 4" cable.	2.25
330F2	—	Same as above, but phono plug and phono jack to a phono plug.	2.25
330F3	—	Same as above, but 2 phono plugs to 1 phono plug.	2.25
330G	J	Stereo Adapter Cable. 5-pin European-type plug to four phono jacks. Shielded stereo cables, each 1 ft.	6.00
330H	K	Flexible Y-Adapter. 3-pin European-type plug to 2 phono jacks. Shielded 5" cable.	3.75
330M	L	Y-Adapter, two male mike connectors in parallel to a 2-cond. phone plug.	2.25
330PJ	—	Y-Adapter, as above, except two phono jacks in parallel to a 2-cond. phone plug. Shielded.	2.25
332A	M	Phone jack input to female mike connector output.	1.95
333	N	Phone jack input to special 2-cond. plug for American Geloso recorders.	2.60
334A	P	Phono jack input to female mike connector output. Shielded.	1.60
334B	—	Same as above, but phono jack input to male mike connector output. Shielded.	1.45
335	R	2-cond. input has Switchcraft 2501MP to output connector Cannon XL-3-11.	3.50
336A	S	2-cond. phone jack input to phono plug output. Shielded.	$1.95
336B	—	Same as above, but 2-cond. phone jack input to phono jack output.	1.95
338A	—	Phono plug input to male mike connector output. Shielded. Similar to 338B.	1.25
338B	T	Phono plug input to female mike connector output. Shielded.	1.40
339	W	Same as 335, but output connector Switchcraft 2501F to input connector Cannon XL-3-12.	3.50
340	X	Two 2-cond. phone jack inputs in parallel to a 2-cond. phone plug output. Shielded.	4.00
341	Y	Silent-Plug Adapter. 2-cond. phone jack input to 2-cond. phone plug output.	3.30
342	Z	Dual purpose binding post/banana jack input to 2-cond. phone plug output.	2.95
343	AA	Phono jack input to phone plug output. Built-in limiting resistor for Webcor tape recorders.	1.95
345A	BB	Phone plug output to phono jack input.	1.45
346	CC	Tip jack input to 2-cond. phone plug output.	2.50
349A	DD	Phono plug coupler, mates with phono plug at each end. Shielded.	1.25
352	EE	Stereo to monaural adapter. 3-cond. phone jack to 2-cond. phone plug output. Shielded.	2.25
353	FF	Stereo headphone adapter. 3-circuit plug wired to two 3-circuit jacks. Housed in shielded, metal case, tan finish.	4.75
361	GG	Coupler. 2-cond. phone jack at each end. Shielded.	2.50
362	—	Same as above, but 3-cond. phone jack at each end.	3.00
363	HH	Coupler, 2-cond. phone plug at each end. Shielded.	2.25
364A	JJ	2-cond. "Tini-Jax" 9/64" dia. sleeve, to 2-cond. ¼" O.D. phone plug. Shielded.	1.75
365	KK	2-cond. "Tini-Jax" (as above) input to phono jack output. Shielded.	1.75
368	LL	Input volume control. Phono jack input to a 2-cond. phone plug output. Shielded.	4.95

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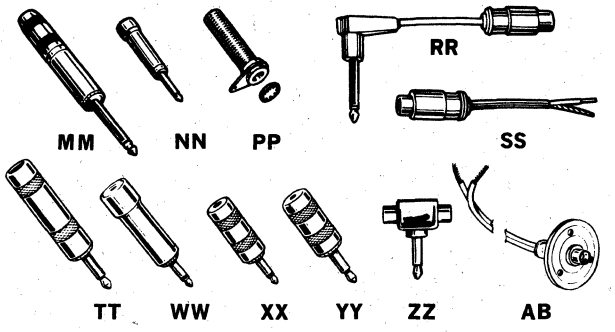
SWITCHCRAFT INC.

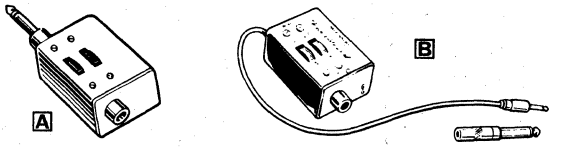
Adapters and Mixers



Versatile adapters for interconnecting components and cables that do not have mating jacks and/or plugs. Positive mating contacts prevent resistive line-losses. **Nos. 369, 374, 375, 376, 377,** have shielded, nickel plated brass handles. **No. 378,** "Tini-Tee", provides dual output jacks for two separate earphones. Allows two to listen at once from a single transistorized radio, tape recorder, etc.

Part No.	Fig.	Description	U.S.A. List Price
369	MM	2-cond. Revere/Wollensak phone jack input to a standard 2-cond. phone plug output. Shielded.	$2.25
370	NN	Phono jack input to a 2-cond. "Tini-Plug" (9/64" dia. finger) output. Shielded.	1.40
371	PP	Thick panel adapter for 3501P phono jack. Permits mounting of jack in panels up to 1¼" thick.	1.25
372	RR	2-cond. molded right angle phone plug to a molded phono jack. 2" shielded cable.	1.95
373	SS	2-cond. molded phono jack to 3" shielded cable, stripped and tinned leads.	.90
374	TT	Phone jack input to a 2-cond. "Tini-Plug" (9/64" dia. finger) output.	1.95
375	WW	Phono jack input to a 2-cond. "Micro-Plug" (.097 dia. finger) output.	1.75
376	XX	"Tini-Jax" input to a 2-cond. "Micro-Plug" (.097" dia. finger) output.	1.75
377	YY	"Micro-Jax" input to a 2-cond. "Tini-Plug" (9/64" dia. finger) output.	1.75
378	ZZ	"Tini-Tee" Adapter. 2-cond. "Tini-Plug" input to two 2-cond. "Tini-Jax" outputs.	2.40
NEW 379	AB	Speaker enclosure phono jack. Molded flanged phono jack to stripped and tinned leads. 24" cable.	1.50
381	—	Adapter Cable. 11' 2-cond. shielded cable from 3-cond. right angle phone plug to "Y" junction. Two single cond. shielded 1' cables from "Y" junction to two 2-cond. phone plugs.	7.00

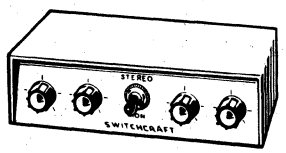
"MIX-AMP" MINIATURE TRANSISTORIZED AMPLIFIERS



Substitute gain for loss with "MIX-AMP" battery powered transistor amplifiers. **Part No. 501** for use in high impedance microphone circuits. Provides 3 db gain and accepts signals up to 2 V when used with "Mini-Mix". "On-Off" Switch, "Hi-Lo" impedance switch. Frequency response 20 to 20,000, c.p.s. 9 volt battery included. **Part Nos. 503** and **504** specially designed for use with miniature tape recorders. Provides a high signal to noise ratio; up to 25 db gain at "LO" impedance. Zero hum and noise—**20-20,000 c.p.s.** Single 1.5 V penlite cell powers 503 and 504. "ON-OFF" and impedance matching "LO"-"HI" switches.

Part No.	Fig.	Description	U.S.A. List Price
501	A	2-cond. phone jack input to extra long 2-cond. phone plug output to fit recorders with recessed jacks.	$20.00
NEW 503	B	2-cond. phone jack input to a 12" cable with 2-cond. "Tini-Plug" to fit most miniature tape recorders. Includes No. 364A adapter to convert "Tini-Plug" to std. 2-cond. phone plug.	16.50
504	A	Same as 503, but 2-cond. phone jack to a 2-cond. long shoulder phone plug.	14.50

MICROPHONE MIXERS



STEREOPHONIC MIXERS

MODEL 306. Two channel stereophonic, high impedance microphone mixers. Extremely versatile, feeds up to two pairs of stereo signals such as microphones, tuners, phonos into two outputs to a recorder or amplifier. Individual gain control for each channel. With a flip of a **lever switch,** converts to 4 monophonic channels. Four standard 2-cond. phone jack inputs on rear panel; two phono jacks for output to amplifier or tape recorder. Size: 2"x3"x6".

Switchcraft Part No. 306.....U.S.A. List Price **$25.00**

MODEL 306TR, same as above, but with two battery operated **transistor amplifiers.** Provides **6 db** gain. Permits use of microphone with up to 30' of cable without loss. Low noise level, low distortion, frequency response: **20 to 20,000 c.p.s.** On-Off switch lengthens battery life. Battery included. Tan finish, brown knobs with gold inserts. Rubber feet on base prevents scratching of finished surfaces.

Switchcraft Part No. 306TR.....U.S.A. List Price **$40.00**

MONOPHONIC MIXERS

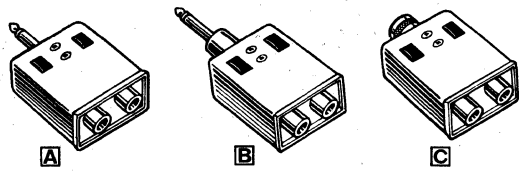
MODEL 301 (not illustrated). Similar to 306, except monaural only.

Switchcraft Part No. 301.....U.S.A. List Price **$22.00**

MODEL 301TR. Same as above, but with one battery powered **transistor-amplifier.** Battery included.

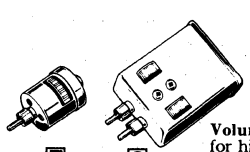
Switchcraft Part No. 301TR.....U.S.A. List Price **$32.50**

"MINI-MIX" AUDIO MIXERS



Miniature, high impedance microphone mixers. "Mini-Mix" accommodates two high impedance inputs with low loss factor. Feeds 2 signals into a single output. Each channel has separate gain controls to regulate audio input. Controls recessed in housing. Size 2$\frac{1}{16}$" x 1$\frac{13}{16}$" x 1$\frac{1}{16}$".

Part No.	Fig.	Description	U.S.A. List Price
310	A	Two 2-cond. phone jack inputs to 2-cond. phone plug output.	$8.95
311	B	As above, but has long plug output to fit recorders with recessed jacks.	9.95
312	B	Similar to above, except has special size plug and jacks for use with American Geloso recorders.	9.95
313	B	Similar to No. 311, except has short Revere plug and jacks for standard or short phone plugs.	9.95
315	C	Two 2-cond. phone jack inputs to a female mike connector.	8.95
316	—	(Not illustrated.) Two phono jack inputs to a phono plug output.	8.95
320	C	Similar to No. 315, except 2 male mike connector inputs to a female mike connector output.	8.95
326	B	Two 3-cond. phone jack inputs to long 2-cond. phone plug output. Internal resistor network for use with Webcor recorders.	10.95



STEREO LINE BALANCE CONTROLS

Volume Control Adapter. Fig. F. Single channel for high impedance circuits only, such as crystal mike, phono, etc. Ideal for use in balancing stereo channels; used in pairs for dual stereo channel control. Phono jack input to phono plug output. Shielded. Nickel plated.

Switchcraft Part No. 366.....U.S.A. List Price **$4.25**

Dual Volume Control Adapter. Fig. G. Twin-channel for high impedance circuits. Same as above, but two phono jack inputs and two phono plug outputs with recessed volume controls for each channel. Shielded housing, tan finished. Size: 2$\frac{1}{16}$"x1$\frac{13}{16}$"x1-1/6".

Switchcraft Part No. 367.....U.S.A. List Price **$7.95**

Trade Discount Applies To List Prices Only
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Hi-Fi Switches, Controls

SWITCHCRAFT INC.

HI-FI, STEREO SWITCHES AND CONTROLS

A B C D E

Quality Switchcraft Hi-Fi and Stereo volume controls and selector switches are completely wired and ready for use. Attractive tan finished metal housing. 2"x2"x1". Each unit is complete with mounting hardware and instruction sheet.

Stereo-Monaural Selector. Fig. A. Fast switching from monaural to stereo. Two phono jack inputs and two phono jack outputs.
Switchcraft Part No. 661.....U.S.A. List Price **$3.50**

Stereo-Monaural Selector with Reverse. Fig. B. Same as above, but provides channel reversing.
Switchcraft Part No. 662.....U.S.A. List Price **$4.50**

Phono-Tuner Adapter. Fig. A. Modernizes old sound equipment. Provides amplifier with two inputs for phono and tuner, etc. Switch selects either input. Phono jack output for amplifier; two phono jack inputs for phono and tuner.
Switchcraft Part No. 663.....U.S.A. List Price **$2.95**

Multiple Selector Control. Fig. B. Accepts up to 5 input circuits. Switch selects any one of the five inputs labeled **AM, FM, Phono, Tape, AUX** to amplifier output. Five phono jack inputs to one phono jack output.
Switchcraft Part No. 664.....U.S.A. List Price **$5.95**

Speaker Phase Control. Fig. A. Provides proper phasing in stereo and other speaker installations. Slide switch alters phasing. Screw terminals.
Switchcraft Part No. 665.....U.S.A. List Price **$2.95**

Speaker Volume Control with L-Pad. Fig. C. For volume control of remote or extra speakers. 5 watts peak, 8 ohm, screw terminals.
Switchcraft Part No. 666.....U.S.A. List Price **$6.95**

Speaker Selector Switch. Fig. D. Connects remote or extra speakers to radio, T.V. or Hi-Fi set. Three position switch selects either one or both speakers at same time. Screw terminals. Shielded housing.
Switchcraft Part No. 667.....U.S.A. List Price **$4.95**

Stereo Selector Switch. Fig. B. Switch permits selection of both channels of any one of three stereo sources such as FM tuner, tape recorder and record player to one pair of outputs such as a stereo amplifier. Three pairs of phono jack inputs to one pair of phono jack outputs.
Switchcraft Part No. 668.....U.S.A. List Price **$6.95**

Stereo Volume Control. Fig. C. Specially matched tandem control for high impedance circuits. Use as a master gain control for ceramic type stereo cartridges, stereo tape decks, etc., when connected to separate amplifiers. One pair of phono jack inputs to one pair of phono jack outputs.
Switchcraft Part No. 669.....U.S.A. List Price **$6.95**

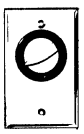
Stereo Speaker Selector Switch. Fig. E. Designed to connect two remote pairs of stereo speakers to a stereo amplifier. Three position switch selects either pair of stereo speakers or both pairs at the same time. Screw terminals.
Switchcraft Part No. 670.....U.S.A. List Price **$6.95**

Monaural Speaker Selector Switch. Fig. B. Five position tap switch selects any one of five monaural speakers. Inputs labeled 1 through 5. Five phono jack inputs to one phono jack output for amplifier.
Switchcraft Part No. 671.....U.S.A. List Price **$6.25**

STEREO SPEAKER SELECTOR SWITCH

7-position stereo speaker selector switch mtd. on wall plate. Selects any one, two or three pairs of stereo speakers, or any combination of three. Ivory and black dial; brushed brass wall plate. Screw terminals. Size: 4½"x2¾"x1⅝".
Switchcraft Part No. 657.....U.S.A. List Price **$9.95**

Same as above, except brushed stainless steel wall plate.
Switchcraft Part No. 657-S.....U.S.A. List Price **$9.95**



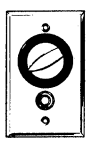
SPEAKER VOLUME CONTROLS

Designed for custom installations. Constant impedance **"T"-pad** controls speaker volume. Rated at **10** watts (20 watts, peak). Mounts in standard electrical outlet boxes, mounting center 3⅜", 8 ohms. Brushed brass wall plate; ivory and black dial. Screw terminals; mounting screws and instructions. Plate size: 2¾" x 4½" x 1⅝".
Switchcraft Part No. 651.....U.S.A. List Price **$10.95**

Same as above, except brushed stainless steel wall plate.
Switchcraft Part No. 651-S.....U.S.A. List Price **$10.95**

Constant impedance **"T"-pad** speaker volume control switch. All features of No. 651, but **16** ohms. Use with single 16 ohm speaker or two 8 ohm speakers in series. Brushed brass wall plate.
Switchcraft Part No. 652.....U.S.A. List Price **$10.95**

Same as No. 652, except brushed stainless steel wall plate.
Switchcraft Part No. 652-S.....U.S.A. List Price **$10.95**



SPEAKER VOLUME CONTROLS WITH JACK CONNECTION

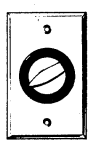
Mounts in standard electrical wall outlet box. Constant impedance **"T"-pad** controls volume of speakers. **Phone jack** mounted on wall plate permits use of external speaker or headphones: accepts standard 2-cord phone plug. Rated at **4** watts. Brushed brass wall plate; ivory and black dial. **8** ohms. Wall plate size: 4½" x 2¾" x 1⅝".
Switchcraft Part No. 653.....U.S.A. List Price **$12.95**

Same as above, but **16** ohm impedance.
Switchcraft Part No. 654.....U.S.A. List Price **$12.95**

MULTI-SPEAKER SELECTOR SWITCH

7-position switch mounted on wall plate; fits standard outlet box. Selects any combination of three speakers. Ivory and black dial; brushed brass plate. Screw terminals. Maintains constant impedance regardless of switch position. Size: 4½" x 2¾" x 1⅝".
Switchcraft Part No. 655.....U.S.A. List Price **$5.95**

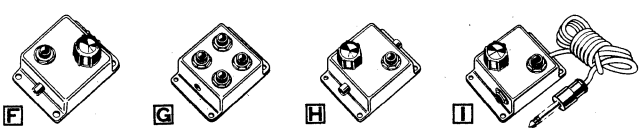
Same as above, except brushed stainless steel wall plate.
Switchcraft Part No. 655-S.....U.S.A. List Price **$5.95**



SPEAKER VOLUME CONTROL WITH QUALITY L-PAD

Specially designed **"L"-pad** volume control to prevent mismatch to amplifier at different volume settings. Brushed brass wall plate, ivory and black dial. Fits standard electrical outlet boxes. Solder lug terminals. Rated at **10** watts of peak audio power. **8** ohms. Size: 4½" x 2¾" x 1¼".
Switchcraft Part No. 656.....U.S.A. List Price **$7.50**

Same as above, except brushed stainless steel wall plate.
Switchcraft Part No. 656-S.....U.S.A. List Price **$7.50**



F G H I

LISTENING STATIONS

PRIVATE LISTENING STATION—Fig. F. Designed for individual listening when wired to TV or radio. For 600 ohm headphones or higher impedance. Consists of 10,000 ohm volume control and 2-cond. phone jack for headphone. Features special built-in resistor to prevent any possible damage to control. Two alternate input terminations: standard phono jack on one side and screw-type term. on other side. Completely enclosed in an attractive tan finish metal housing, 2" x 2" x 1". Shielded. Four mtg. screws included.
Switchcraft Part No. 672.....U.S.A. List Price **$5.00**

AUDIO JUNCTION BOX—Fig. G. A small compact junction box that provides four auxiliary outputs for multiple headphone use. Consists of four 2-cond. phone jacks wired in parallel and two side panel grommets for multiple wiring. Sturdy metal cabinet finished in tan lacquer, 2" x 2" x 1". Shielded. Complete with four mtg. screws.
Switchcraft Part No. 676.....U.S.A. List Price **$4.25**

AUDIO JUNCTION BOX. Same as Part 676, but with two phono jacks for easy "plug-in" of additional junction boxes. For multiple hook-ups, use Switchcraft molded cable assemblies.
Switchcraft Part No. 677.....U.S.A. List Price **$5.00**

DELUXE PRIVATE LISTENING STATION—Fig. H. Designed for use as a headphone monitor control with public address systems and tape recorders. Consists of a 10,000 ohm volume control to allow for full adjustment of headphone audio level and two phono jacks for feeding in and out for multiple hook-ups. A 2-cond. phone jack is mtd. on top of the cabinet. Completely enclosed tan lacquer finished metal housing, 2" x 2" x 1". Shielded. Four mtg. screws furnished.
Switchcraft Part No. 678.....U.S.A. List Price **$5.00**

DELUXE PRIVATE LISTENING STATION—Fig. I. Similar to Model 678 except features a 2-cond. phone jack and a 6-ft. shielded cable with molded 2-cond. straight phone plug in place of the phone jacks
Switchcraft Part No. 679.....U.S.A. List Price **$6.50**

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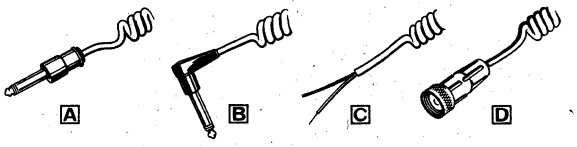
SWITCHCRAFT INC. Coiled Cords, Headphone Cords

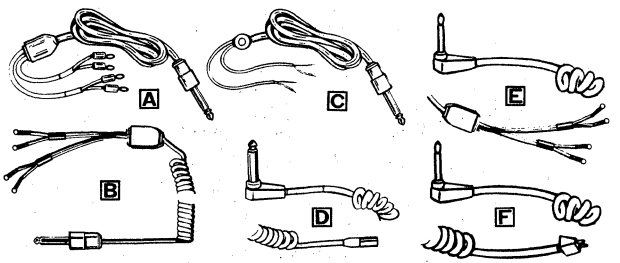
MOLDED COILED CORD ASSEMBLIES



Shielded, coiled cord assemblies with molded terminations and/or stripped and tinned ends. Various extended lengths from **4 ft. to 20 ft.** extended lengths. Single conductor shielded cable with black neoprene jacket. Coiled cord flexes to maximum length and retracts positively each time it is used.

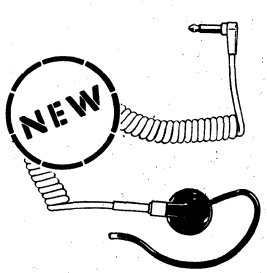
Part No.	Terminations		Extended Length	U.S.A. List Price
	End No. 1	End No. 2		
05LH84	A	C	4 ft.	**$ 3.60**
15LH84	B	C	4 ft.	**3.60**
87LH84	D	C	4 ft.	**3.70**
05LP05	A	A	12 ft.	**8.25**
05LP15	A	B	12 ft.	**8.25**
05LP87	A	D	12 ft.	**8.40**
05LT05	A	A	20 ft.	**11.50**
05LT15	A	B	20 ft.	**11.55**
05LT87	A	D	20 ft.	**11.70**

MOLDED HEADPHONE CABLES



Replace worn-out headphone cords with new molded cords from Switchcraft. **Part Nos. 05NJ88, 05NN88, 05KF88, 05KJ88, 13NJ88 and 13NN88** are direct replacements for cords used on Brush BA-200, BA-205, BA-206 headphones; RCA MI-38107B headphone. Standard Switchcraft straight or right angle 2-cond. phone plugs to color coded eyelet lugs. **Part Nos. 13NN78 and 13NJ78** are direct replacements of cables used on Clevite ED-300 and other headphones terminated with a Switchcraft "Micro-Plug". **Part No. 50MJ74** ideal for earphones used on dictation and office equipment. **Part No. 10FJ84** is a direct replacement for cords used on JENSEN HS-10, KNIGHT KN-840, SHARPE HA-8 and HA-10 Stereo Headphones.

Part No.	Fig.	Description	U.S.A. List Price
05KF88	A	Molded Headphone Cord. 2', 2-cond. cable from phone plug to "Y" junction. 1' cable from "Y" junction to eyelet plugs. Parallel wired.	**$3.30**
05KJ88	A	Same as above, except 4 ft. cable from phone plug to "Y" junction.	**3.50**
05NJ88	B	Straight 2-cond. phone plug to eyelet lugs. 5' (extended) coiled cord.	**4.10**
05NN88	B	Same as above except 10' (extended).	**5.10**
10FJ84	C	Molded Stereo Headphone Cord. 4' cable from phone plug to "molded band". 1' cable from bond to stripped and tinned leads.	**3.25**
13NJ78	D	Right angle 2-cond. phone plug to "Micro-Extension Jax". 5' (extended) coiled cord.	**3.70**
13NN78	D	As above, but 10' (extended).	**4.75**
13NJ88	E	Right angle 2-cond. phone plug to eyelet lugs. 5' (extended) coiled cord.	**4.10**
13NN88	E	As above, but 10' (extended).	**5.10**
50MJ74	F	Right angle "Tini-Plug" 2-cond. output, (9/64" dia. finger) to 2-cond. polarized ear receiver plug. Tinsel coiled cord extends to 5'.	**3.60**

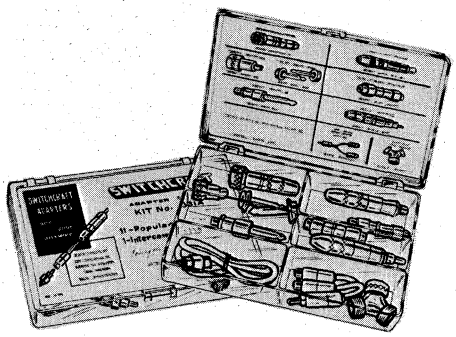


PERSONAL EARPHONE KIT

Ideal for use with transistor radio, tape recorder or any audio source with a "Tini-Jax" output. Consists of dynamic type, full fidelity (2000 ohm impedance) earphone with hygienic earpiece and flexible, tangle-free 5' (extended) coiled cord. Coiled cord has 2-cond. "Tini-Plug" at one end to a 2-cond. polarized ear receiver plug. Use with Switchcraft's new "Tini-Tee" adapter, Part No. 378, so two can listen privately from the same audio source.

Switchcraft Part No. 3843
U.S.A. List Price **$9.35**

ADAPTER AND CONNECTOR KITS



ADAPTER KIT NO. 331A

"Universal-Application" Kit featuring 11 of the most frequently used audio adapters and one molded interconnecting cord in a handy reusable plastic box. Solves 90% of the problems of interconnecting two pieces of equipment that do not have mating connectors.

Kit includes one each of Nos. 25AF25, 25Y, 330F1, 332A, 334A, 336B, 345A, and two each of 44 and 349A.

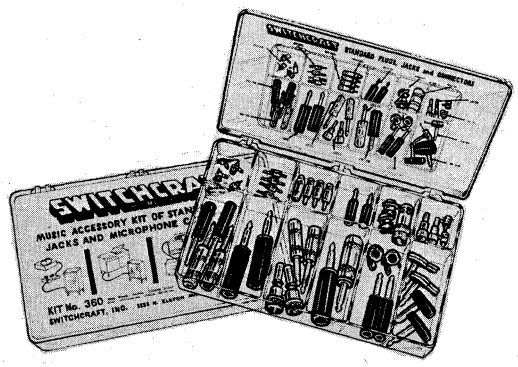
Switchcraft Part No. 331A.....U.S.A. List Price **$16.00**

CONNECTOR ACCESSORY KIT NO. 359

New, larger adapter-connector Kit for microphone connector adaptations in addition to interconnecting equipment, such as: Hi-Fi and Stereo, Tape Recorders, Sound and P.A. Equipment and Test Equipment.

Kit contains one each of Nos. 334A, 338B, 336A, 332A, 361, 25Y, 330F, 330M, 330PJ; two each of 349A, 44, and 345A . . . all in a heavy duty plastic box.

Switchcraft Part No. 359.....U.S.A. List Price **$25.00**



CONNECTOR ACCESSORY KIT NO. 360

Contains all phono plugs and jacks, phone plugs and jacks and microphone connectors and receptacles needed for most applications. Also included is Switchcraft's "Silent Plug", No. 169, with the special circuit closing device that eliminates "squeals" in audio circuits when the plug is disconnected.

There's 40 pieces in all—4 No. 3501FP phono jacks; 4 No. 3501MC phono plugs; 3 No. 3502 phono plugs; 1 No. 3503 phono extension jack; 2 No. 2501FS microphone adapters; 2 No. 2501F microphone connectors; 4 "Mini-Con" connectors; 8 "Littel-Plugs"; 2 each of Nos. 240, 250, and 280; 3 phone plugs; 1 Silent Plug; 2 No. 11 "Littel-Jax"; and 4 "Flat-Plugs" Nos. 228, 220.

Switchcraft Part No. 360.....U.S.A. List Price **$32.50**

Trade Discount Applies To List Prices Only
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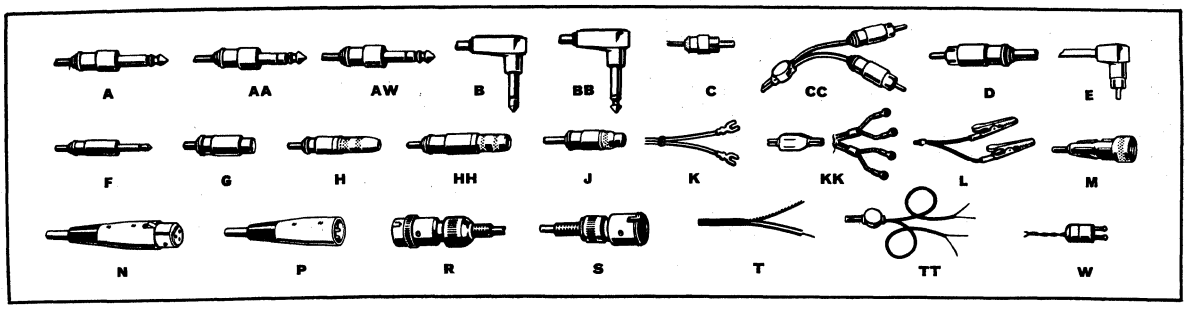
HI-FI MOLDED CABLES

SWITCHCRAFT INC.



Only Switchcraft quality molded cable assemblies offer built-in cable clamps to support cable and eliminate strain—functionally designed handles to provide an easy grip. Cable is chrome grey (unless otherwise specified) with matching plastic handles. **Fig. AW** Phone Plug with Resistor. 3-Conductor. **Fig. M** Microphone Connector—Female. **Fig. N** Switchcraft Q-G 3-Pin Audio Connector—Female. **Fig. P** Switchcraft Q-G 3-Pin Audio Connector—Male. **Fig. R** Amphenol 3-Pin Connector—Female. **Fig. S** Amphenol 3-Pin Connector—Male. **Fig. W** Ear-Receiver Plug.

Part Number	Terminations End No. 1 Fig.	End No. 2 Fig.	Length	U.S.A. List Price
STRAIGHT 2-CONDUCTOR PHONE PLUG TO VARIOUS CONNECTIONS				
05AC05	A	A	18″	$1.75
05AD05	A	A	24″	1.95
05AK05	A	A	6′	2.86
05AN05	A	A	10′	3.85
05AU05	A	A	25′	5.10
05AR05	A	A	15′	4.35
05AK15	A	BB	6′	2.85
05AN15	A	BB	10′	3.85
05AR15	A	BB	15′	4.35
05AK25	A	C	6′	2.20
05AN25	A	C	10′	3.00
05AR25	A	C	15′	3.30
05AK30	A	E	6′	2.20
05AN30	A	E	10′	3.00
05AK80	A	H	6′	2.85
05AN80	A	H	10′	3.85
05AR80	A	H	15′	4.40
05AU80	A	H	25′	5.10
05AK82	A	G	6′	2.40
05AN82	A	G	10′	3.30
05AR82	A	G	15′	3.60
05AK87	A	M	6′	2.85
05AN87	A	M	10′	3.85
05AR87	A	M	15′	4.35
05AU87	A	M	25′	5.10
05AK84	A	T	6′	1.95
05AN84	A	T	10′	2.50
05AR84	A	T	15′	3.00
05CK84*	A	T	6′	1.55
05CN84*	A	T	10′	2.10
05CK85*	A	K	6′	1.65
05CN85*	A	K	10′	2.20
05CK86*	A	L	6′	2.10
05CN86*	A	L	10′	2.65
05CR86*	A	L	15′	2.90
05CT86*	A	L	20′	3.30
STRAIGHT 3-CONDUCTOR PHONE PLUG TO VARIOUS CONNECTIONS				
10BD10	AA	AA	24″	$3.60
10BF10	AA	AA	36″	4.00
10BK10	AA	AA	6′	5.30
10BN10	AA	AA	10′	6.60
10BU10	AA	AA	25′	9.65
10BK81	AA	H	6′	5.30
10BN81	AA	H	10′	6.60
10BU81	AA	H	25′	9.65

Stereo Cable Assembly for use with stereo tape recorders using 3-conductor dual microphone inputs—Norelco, Webcor, Revere, Wollensak.

10FK25	AA	CC	6′	$4.40

Webcor cable assemblies. 3-Cond. phone plug with internal resistor to various connections.

11AK26	AW	D	6′	$3.60
11AN26	AW	D	10′	4.40
11CN86	AW	L	10′	3.60

2-Conductor Revere and Wollensak cables with R.A. Phone Plug to various connections.

12HK25	B	B	6′	$2.75
12HB79	B	HH	12′	3.60
12HR79	B	HH	15′	5.50
12HU79	B	HH	25′	6.55
12HD80	B	H	24′	4.35
RIGHT ANGLE 2-CONDUCTOR PHONE PLUG TO VARIOUS CONNECTIONS				
15AK15	BB	BB	6′	$2.85
15AN15	BB	BB	10′	3.85

*Parallel unshielded cable.

‡Hearing Aid Tinsel Cord. All other cables shielded.

Part Number	Terminations End No. 1 Fig.	End No. 2 Fig.	Length	U.S.A. List Price
15AU15	BB	BB	25′	$5.10
15AK25	BB	C	6′	2.20
15AN25	BB	C	10′	3.00
15AR25	BB	C	15′	3.30
15AK30	BB	E	6′	2.20
15AN30	BB	E	10′	3.00
15AK80	BB	H	6′	2.85
15AN80	BB	H	10′	3.85
15AU80	BB	H	25′	5.10
15AK82	BB	G	6′	2.40
15AN82	BB	G	10′	3.30
15AK87	BB	R	6′	2.85
15AN87	BB	R	10′	3.85
15AN84	BB	T	10′	2.50
15AR84	BB	T	15′	3.00
15CN84*	BB	T	10′	2.10
15CK85*	BB	K	6′	1.65
15CN85*	BB	K	10′	2.20
15CK86*	BB	L	6′	2.10
15CN86*	BB	L	10′	2.65
STRAIGHT PHONO PLUG TO VARIOUS CONNECTIONS				
25AC25	C	C	18″	$1.15
25AF25	C	C	36″	1.30
25AH25	C	C	4′	1.50
25AK25	C	C	6′	1.65
25AN25	C	C	10′	2.20
25AR25	C	C	15′	2.75
25AT25	C	C	20′	3.30
25AU25	C	C	25′	3.85
25AC30	C	E	18″	1.15
25AF30	C	E	36″	1.30
25AK30	C	E	6′	1.65
25AN30	C	E	10′	2.20
25AU30	C	E	25′	3.85
25AK80	C	H	6′	2.20
25AN80	C	H	10′	3.00
25AR80	C	H	15′	3.60
25AC82	C	G	18″	1.30
25AF82	C	G	36″	1.50
25AH82	C	G	4′	1.75
25AK82	C	G	6′	1.95
25AN82	C	G	10′	2.20
25AR82	C	G	15′	2.75
25AT82	C	G	20′	3.30
25AU82	C	G	25′	3.85
25AC84	C	T	18″	.90
25AF84	C	T	36″	1.05
25AH84	C	T	4′	1.10
25AK84	C	T	6′	1.25
25AN84	C	T	10′	1.80
25AR84	C	T	15′	2.50
25AT84	C	T	20′	3.00
25AU84	C	T	25′	3.60
25CF84*	C	T	36″	.85
25CK84*	C	T	6′	1.00
25CN84*	C	T	10′	1.55
25CK85*	C	K	6′	1.10
25CN85*	C	K	10′	1.65
25CK86*	C	L	6′	1.95
25CN86*	C	L	10′	2.50
25CR86*	C	L	15′	2.60
25CT86*	C	L	25′	2.85
25AK87	C	M	6′	2.70
25AN87	C	M	10′	3.70
25AU87	C	M	25′	5.00

Special Stereo Cables. Two shielded insulated cables inside a common grey plastic jacket. Provides two isolated channels for all stereo applications. Phono plugs color coded.

25FF25	CC	CC	36″	$3.60
25FK25	CC	CC	6′	4.15
25FN25	CC	CC	10′	4.95
25FF84	CC	TT	36″	3.20
25FK84	CC	TT	6′	3.60
25FN84	CC	TT	10′	4.15
STRAIGHT PHONO PLUG (LONG HANDLE) TO VARIOUS CONNECTIONS				
26AF26	D	D	36″	$1.45
26AK26	D	D	6′	1.75

Part Number	Terminations End No. 1 Fig.	End No. 2 Fig.	Length	U.S.A. List Price
26AN26	D	D	10′	$2.30
26AR26	D	D	15′	2.85
26AK05	D	A	6′	2.40
26AN05	D	A	10′	3.00
26AF82	D	G	36″	1.65
26AK82	D	G	6′	2.15
26AN82	D	G	10′	2.50
26AR82	D	G	15′	3.00
26AF84	D	T	36″	1.20
26AK84	D	T	6′	1.45
26AN84	D	T	10′	2.00
RIGHT ANGLE PHONO PLUG TO VARIOUS CONNECTIONS				
30AC30	E	E	18″	$1.15
30AF30	E	E	36″	1.30
30AH30	E	E	4′	1.50
30AK30	E	E	6′	1.65
30AN30	E	E	10′	2.20
30AR30	E	E	15′	2.75
30AT30	E	E	20′	3.30
30AU30	E	E	25′	3.85
30AK80	E	H	6′	2.20
30AN80	E	H	10′	3.00
30AC82	E	G	18″	1.40
30AF82	E	G	36″	1.50
30AK82	E	G	6′	1.95
30AN82	E	G	10′	2.20
30AR82	E	G	15′	2.75
30AT82	E	G	20′	3.30
30AU82	E	G	25′	3.85
30AF84	E	T	36″	1.05
30AK84	E	T	6′	1.25
30AN84	E	T	10′	1.80
30CF84*	E	T	36″	.85
30CK84*	E	T	6′	1.00
30CN85*	E	K	10′	1.65
30CK86*	E	L	6′	1.95
30CN86*	E	L	10′	2.50
STRAIGHT TINI-PLUG TO VARIOUS CON.				
40DK05	F	A	6′	$3.00
40DF25	F	C	36″	2.30
40DK25	F	C	6′	2.75
40DK40	F	F	6′	2.10
40DK80	F	H	6′	3.00
40DK82	F	G	6′	2.75
40DK83	F	J	6′	3.00
40DN83	F	J	10′	3.60
40DF84	F	T	36″	1.95
40DK84	F	T	6′	2.20
40DN84	F	T	10′	2.75
40DN86	F	W	10′	2.75
41EF75‡	F	W	36″	2.20
41EH75‡	F	W	4′	2.50
45AN25	F	C	10′	3.00
45AR25	F	C	15′	3.60
45AU25	F	C	25′	4.70
EXTENSION JACK CORDS				
82AC82	G	G	18″	$1.65
82AF82	G	G	36″	1.80
82AK82	G	G	6′	2.15
83DK05	J	A	6′	3.00
CORDS w/ SPADE LUGS, ALLIGATOR CLIPS				
85CN85*	K	K	10′	$1.00
85CT85*	K	K	20′	1.65
85CU85*	K	K	25′	2.00
86CN86*	L	L	10′	1.95
86CU86*	L	L	25′	2.80
MICROPHONE CONNECTOR TO VARIOUS CONNECTIONS				
87AF84	M	T	36″	$1.65
87AK84	M	T	6′	2.00
87AN84	M	T	10′	2.50
87AU84	M	T	25′	4.70
87AF87	M	M	36″	2.20
87AK87	M	M	6′	2.75
87AP87	M	M	12′	3.85
87AU87	M	M	25′	5.50
91BU92	N	P	25′	13.75
93BU94	R	S	25′	10.75

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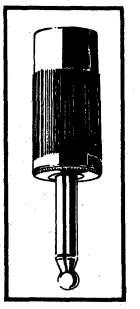
TRIMM INC.

A SELECTED LISTING FROM OVER 2500 TRIMM-MANUFACTURED COMPONENTS.

PLUGS AND JACKS: General Purpose Audio, Miniature, Adapters

"511" and "513" STANDARD PHONE PLUGS

General purpose. To fit standard 0.250" I.D. jacks. "511" two-conductor plugs have screw terminals and ribbed bakelite or knurled metal shell. The "513" three-conductor plugs use an identical shell, but the terminals are solder lug type only. All metal parts are bright plated brass. Stay cord anchorage is provided.

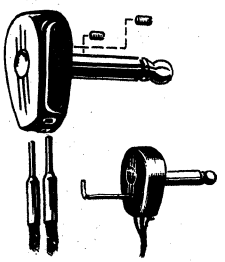


Two-Circuit Type

511	Black plastic shell	$.70
511-1	Red plastic shell	.70
511-2	Metal one piece shell	1.20
511-3	Metal two piece shell (With cable clamp)	1.65
511-4	Metal stubby shell	.90
511-5	Metal stubby. Has long tip to sleeve insulator which leaves "ring" spring open when inserted in 3-ckt. jack.	1.05

Three-Circuit Type

513	Black plastic shell	$1.05
513-1	Red plastic shell	1.05
513-2	Metal, one piece shell	1.50
513-3	Metal, two piece shell (With cable clamp)	1.95
513-4	Metal stubby shell	1.30
515	Adapter. Couples Amphenol mike plug to standard jacks.	.50



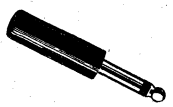
"512" FLAT PLUG

Compact, non protruding. Adapts phone pin tips, or any two conductors, to a two-circuit plug. One piece molded phenolic plastic. Fits standard jacks 0.250" I.D.

512	Black	$.90	512-2 With headset hanger	$1.35
512	Red	.90		

"514" MIN-A-PLUG

Small size for use with shielded microphone cable. Two and three conductor types, plastic or metal shell, solder or screw terminals. Types to fit jacks 0.250" I.D. or 0.206" I.D. Shield connection clamp.

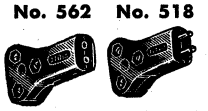


Two Conductor Types (0.250" dia.) Solder Terminals		List	Two Conductor Types (0.250" dia.) Solder Terminals		List
514	Black plastic	$.70	514-2	Shielded	$1.00
514-1	Red plastic	.70	514-4	Shielded, stubby	.90

"518" PLUG — "562" JACK

Two circuit miniature disconnect plug and jack. Unshielded. Parallel pin plug locks into jack springs. No. 518 and 562 acetate shells are cemented together. No. 518-7 and 562-7 bakelite shells are held together with screws. No. 518-8 plug set is polarized (one male and one female terminal per plug).

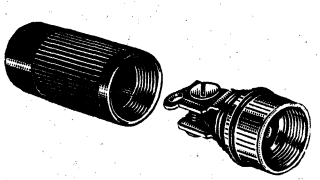
No. 562 No. 518



No. 562-7 No. 518-7

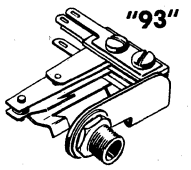
518 Plug $.60 518-7 Plug $.80 518-8 $1.00
562 Jack .80 562-7 Jack 1.00

"525" CONNECTOR



Adapts headset cords, or any two wires, to single contact microphone plugs — such as Amphenol 75MC series. Same shell as No. 511.

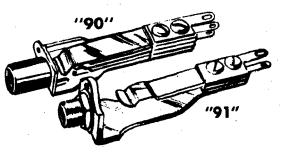
525	Black Plastic	$1.30
525-1	Red Plastic	1.30
525-2	Shielded one piece shell	1.70
525-3	Shielded, two piece shell (With cable clamp)	$2.25
525-4	Shielded stubby shell	1.65



"93" and "95" JACKS

Threaded bushing 3/8" in diameter mounts jack to panel or chassis. Ideal for limited space and depth. The "95" is only 15/16" deep behind panel. The "93" is offset to one side. Nickel silver springs, tinned terminals. Jack circuits described below.

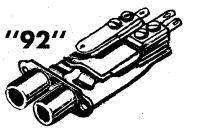
95-01	Open ckt., two conductor	$.40	93-01	$.65
95-02	Closed ckt., two conductor	.48	93-02	.80
95-25	Open ckt., three conductor (0.250" dia. plugs)	.55	93-06	1.00
			93-07	1.10
95-50	Open ckt., three conductor (0.206" dia. plugs)	.65	93-25	.85
			93-26	1.10
			93-27	1.40



"90" and "91" JACKS

Commonly known as the telephone jack. The "90" series nickel plated bushing fits a 29/64" dia. mounting hole and the jack is held to the panel with a mounting screw. The "91" series has a 3/8" threaded bushing for mounting and has the standard mounting screw hole in addition. Screws or nuts and washers furnished. Cadmium plated frame, nickel silver springs and tinned terminals.

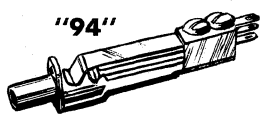
90SN-01	$1.05	90SN09B	$1.50	91-01	$.75	91-09B	$1.20
90SN-02B	1.20	90SN-14B	2.75	91-02B	.95	91-25	1.00
90SN-06B	1.35	90SN-25	1.20	91-05B	1.05	91-26B	1.20
90SN-07B	1.50	90SN-26B	1.60	91-06B	1.10	91-50	1.20
90SN-08B	1.45	90SN-27B	1.90	91-07B	1.20	91-51B	1.40



"92" JACKS

Twin jacks on a single frame used in toll and carrier frequency systems. 92-1009B provides **unbalanced** normal through circuitry while 92-1030B provides **balanced** normal through circuitry between jacks. A single plug inserted into either side of the jack opens circuit up to jack for testing up to that point. Brass bushing as in 92-1009B, or nickel plated as in 92N-1009B. G indicates gold contacts.

		Net
92-1009B	92N-1009B	$2.00
92-1009BG	92N-1009BG	2.20
92-1030B	92N-1030B	2.80
92-1030BG	92N-1030BG	3.20
92-25		2.00



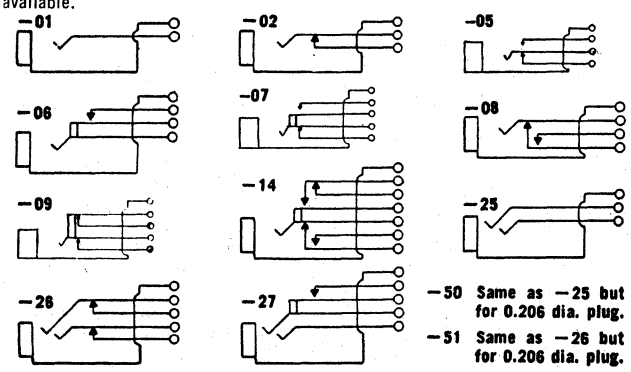
"94" MINIATURE JACKS

Uses one half the space of conventional jacks. Fits new 96-700 miniature jack mounting strips. Same high reliability. Cadmium plated steel frame. Welded gold crossbar contacts on nickel silver springs.

94S-01	$1.05	94S-08B	$1.45	94S-26B	$1.60
94S-02B	1.20	94S-25	1.20		

JACK CIRCUIT DIAGRAMS

Standardized coding: The jack series number PLUS a DASH NUMBER to indicate the spring arrangement. This is a limited listing of the many circuits available.



-50 Same as -25 but for 0.206 dia. plug.

-51 Same as -26 but for 0.206 dia. plug.

Trade Discount Applies To List Prices Only

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TRIMM INC.

A SELECTED LISTING FROM OVER 2500 TRIMM-MANUFACTURED COMPONENTS.

PATCH CORDS, JACK PANELS AND TELEPHONE PLUGS: Audio, Broadcast, Miniature

TRIMM patch cords feature telephone type plugs on cords built to withstand hard use. Two or more conductors of bronze tinsel are covered with numerous layers of insulation and waterproofing. The cords are color coded, shielded (if desired) then covered with a final braid of nylon to assure long service. The nylon is standard black unless a color is specified. Available at a slight extra charge are: Blue (BL), Brown (BR), Green (GR), Red (RD), Slate Gray (GY) and White (WH).

"840" PATCH CORDS

Broadcast type "506" twin plugs at both ends. Conductors are wired to tip and the shield (when used) is connected to the grounded shaft. Commonly supplied with shield attached at one end only. Available without shield (W in code number), or with shield attached at both ends (X in code number). PP indicates the cord has a plug at both ends.

Standard Shielding

840-05-PP	$10.90	840- 4-PP	$11.80	840-05X-PP	$10.90	840- 4X-PP	$11.80
840- 1-PP	11.00	840- 5-PP	12.10	840- 1X-PP	11.00	840- 5X-PP	12.10
840- 2-PP	11.25	840- 6-PP	12.40	840- 2X-PP	11.25	840- 6X-PP	12.40
840- 3-PP	11.50	840-10-PP	13.80	840- 3X-PP	11.50	840-10X-PP	13.80

"X" Shielding

Without Shield

840-2W-PP $11.25 840-3W-PP $11.50

"841" and "851" SPACESAVERS

841 patch cords use two No. 517 triple circuit plugs of special broadcast design. The unique plug tip contour reduces "clicks" in service. Conductors are wired to tip and ring. Shield (if used) is wired to plug shaft. 851 patch cords use two No. 516 triple circuit plugs with standard ball tip construction. Both types commonly have shield connected at one end only.

841 1-PP	$9.80	841- 6-PP	$12.00	851- 4-PP	$10.70
841-2-PP	10.20	841-10-PP	13.60	851- 5-PP	11.20
841-3-PP	10.60	851-01-PP	9.50	851- 6-PP	11.70
841-4 PP	11.00	851- 2-PP	9.90	851-10-PP	13.30
841-5-PP	11.50	851- 3-PP	10.30		

"X" Shielding

841-1X-PP $9.50 851-1X-PP $9.80
841-2X-PP 9.80 851-2X-PP 10.20

Without Shield

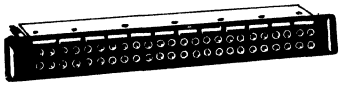
851-2W-PP $9.90
851-3W-PP 10.30

"866" - "867" MINIATURE PATCH CORDS

Two conductor (866) and three conductor (867) patch cords using new miniature "536" and "537" plugs. Have same high quality construction details and optional features as standard patch cords. Same coding. Contact your distributor for miniature line prices.

866-1-PP	867-1-PP	866- 5-PP	867- 5-PP
866-2-PP	867-2-PP	866-10-PP	867-10-PP

"96" JACK PANELS



⅝" thick bakelite panel with end brackets, side reinforcing strips and designation strips. Complete with jacks mounted and choice of jack circuits. All jacks insulated from each other. Ordinarily supplied with jack ground lug offset (to reduce wiring time). Straight ground lugs are available to duplicate W.E. jacks. Types 96-71 through 96-77 are three circuit types for No. 516 or 517 plugs. Types 96-01 through 96-07 usually used with No. 506 twin plugs although other standard two-circuit plugs will fit.

Code No.	Rows	No. of Jacks	Jack Type	Jack Mounting Strip Type	Width	List
96-01	1	24	90LN-02B	96-21	1¾"	$45.50
96-02	2	48	90LN-02B	96-22	2⅛"	76.00
96-03	2	48	90LN-02B	96-23	3½"	80.00
96-04	2	48	90LN-02B	96-24	3½"	82.00
96-06	1	26	90LN-02B	96-26	1¾"	50.00
96-07	2	52	90LN-02B	96-27	1¾"	86.00
96-71	1	24	90LN-26B	96-21	1¾"	56.50
96-72	2	48	90LN-26B	96-22	2⅛"	98.00
96-74	2	48	90LN-26B	96-24	3½"	104.00
96-76	1	26	90LN-26B	96-26	1¾"	61.00
96-77	2	52	90LN-26B	96-27	1¾"	108.00

"96-700" MINIATURE JACK MOUNTING STRIPS

Bakelite panels ⅜" thick, 1¾" wide. Fits standard 19" panel mountings. One or two rows of mounting holes for the installation of one or two rows of miniature jacks, 48 or 52 jacks per row. Standard designation strip is JP-35. Contact your distributor for miniature line prices.

	Rows	Total Jacks	No. Desig. Strips		Rows	Total Jacks	No. Desig. Strips
96-721-1	1	48	1	96-726	1	52	1
96-721-2	2	96	2	96-727	2	104	2

"96" JACK MOUNTING STRIPS—WITHOUT JACKS

Used as a mounting base where non-standard arrangements of jacks, lamp sockets, turn or push keys and coaxial jacks are combined on one panel. Supplied with end brackets, designation strips and side reinforcing strips mounted. Available in numerous other types than those listed.

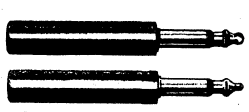
Code No.	Rows	Jack Holes per Row	Width	Desig. Qty.	Strip Type	List
96-21	1	24	1¾"	1	JP-30	$15.50
96-22	2	24	2⅛"	1	JP-30	16.40
96-23	2	24	3½"	1	JP-30	22.00
96-24	2	24	3½"	2	JP-30	24.00
96-26	1	26	1¾"	1	JP-34	17.00
96-27	2	26	1¾"	2	JP-34	18.00

DESIGNATION STRIPS

Manufactured in varying lengths and widths to meet all panel requirements. Choice of black **(JP-30, 33, 34 & 35)** or bright nickel plated **(JP-31, 32 & 37).**

TELEPHONE TYPE PLUGS

"516" and "517" PLUGS

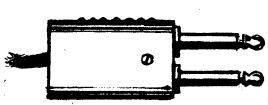


The three circuit 516 has been the accepted standard for telephone switchboards, instrument systems, and in other communication areas. Supplied on TRIMM 851 series patch cords. Red, black or gray shell which can be attached without removing cord. Interchangeable with WE 310. The three-circuit 517 plugs are identical with 516 types, but with a special tip contour that reduces "clicks" in service.

Net Prices

516	Red	$1.50	517	Red	$1.70	516-10 Red, marked PJ-051	$1.60
516-1	Black	1.50	517	Black	1.70	516-11 Black, marked PJ-051B	1.60

"506" TWIN 3-CKT. PLUG



A broadcast standard now widely used in instrumentation and missile control. Supplied on 840 patch cords. Electrically common plug shafts spaced ⅝" C to C. Self aligning. Bakelite shell notched on one edge to indicate polorization. Interchangeable with WE 241 and MIL PJ-241.

506 Black $2.60 Net
506-1 Red $2.60 Net

"536" - "537" MINIATURE PLUGS

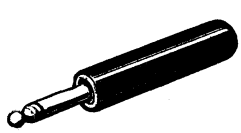
Used with "94" series jacks and "866"-"867" patch cords. Both two-circuit 536 and three-circuit 537 have molded in place insulation and screw terminals. Contact your distributor for miniature line prices.

536 Black
536-1 Red

537 Black
537-1 Red

"500" and "501" (PJ-055) TWO-CIRCUIT PLUGS

The 500 telephone plug — long the two-circuit switchboard standard has been replaced, for the most part, by the slightly shorter 501. The 501 has been widely used on high quality military communication equipment. Commonly referred to as PJ-055. Black or Red plastic shell or nickel plated brass for shielded types.



Net Prices

501	Black	$.72	501-10 Black, marked PJ-055B	$.76
501-1	Red	.72	501-11 Red, marked PJ-055R	.76
501-2	Metal shell	1.00	501-12 Metal, marked PJ-055M	1.00
500	Red	.90	500-10 Red, marked PJ-047R	.95
500-1	Black	.90	500-11 Black, marked PJ-047B	.95

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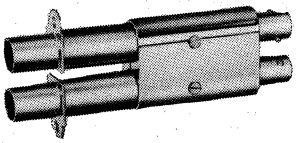
COAXIAL JACKS, PLUGS AND PANELS: Video Patch Cords, Hybrid Audio/Visual



COAXIAL JACKS: "89" SERIES

Developed for a wide range of RF applications including video frequencies, carrier and UHF frequencies. Triple layer plating of silver, palladium and hard gold on female contact assures extremely low contact resistance and long wear.

SINGLE JACKS		Net
89-01	RG 58 Cable	$ 6.00
89-02	RG 59 Cable	6.00
89-04	RG 62 Cable	6.00
89-05	RG 11 Cable	6.25
89-06	RG 8, 9 Cable	6.25
89-07	RG 54 (Also fits WE 724, Belden 8281. Jack similar to WE 477B.	6.25
89-08	RG 54 Cable Jack similar to WE 477C	15.00
89-09	RG 2-59. Paralleling 2-RG-59	6.25
89-11	RG 187	$ 6.00
89-12	RG 11, 13	6.25
89-14	Amphenol 2-597	6.00
89-15	Equiv. to WE 470B	5.00
89-31	Female UHF fitting	20.00

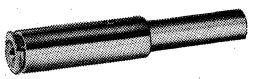
		Net
89-32	Female BNC fitting	7.00
89-33	Female C fitting	16.00
89-715	(*)	5.25
89-731	(*) Fem. UHF fitting	20.00
89-732	(*) Fem. BNC fitting	7.00
89-733	(*) Fem. C fitting	16.00

(*) RCA Compatible, otherwise WE

TWIN TYPES, Non-Switching		
89-51	RG 58 Cable	13.00
89-52	RG 59 Cable	13.00
89-57	RG 54, WE 724, Belden 8281. Equiv. WE 465C	13.50
89-82S	Single BNC at rear for paralleling	15.50

TWIN TYPES, Switching		
89-132	Double BNC rear	17.50
89-1010	Single BNC plus turret terminal	17.00
89-1011	Double turret terminal at rear	16.50

COAXIAL PLUGS: "530" SERIES



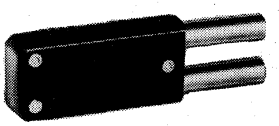
For use with "89" series jacks. Assembled on cords to form "849" series patch cords. Silver and hard gold plated contact pin assures minimum resistance and long wear.

Part No.	Cable	Notes	Net
530-1	RG-58		$4.60
530-2	RG-59		4.60
530-4	RG-62		4.60
530-5	RG-11		5.00
*530-6	RG-54 Belden 8281 / W.E. 724	Equiv. to W.E. 358A	3.60
530-7	RG-8 & 9		5.00
*530-9	RG-59	Similar to W.E. 337C	16.00
530-10	RG-55		5.00
*530-15	RG-58 & 59		4.20
*530-32	N/A	Mates with male BNC connection at rear end	5.00
†530-701	RG-58		4.60
†530-702	RG-59		4.60
†530-705	RG-11 & 13		5.00

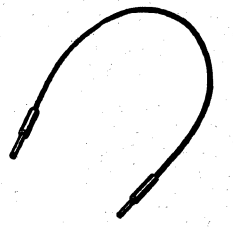
†Compatible with RCA; other types W.E.

COAXIAL BRIDGING PLUG: "531"

A twin coaxial plug (sometimes called a looping plug). Internally wired to connect two adjacent coaxial jacks spaced 5/8" C to C. Two plugs essentially similar to "530" series mounted in a plastic handle-like shell.



Part No.	Imp.	Notes	Net	Part No.	Imp.	Net
531-1	52 ohm	Compatible	$7.30	531-702	75 ohm	$7.30
531-2	75 ohm	with and	7.30	531-7	75 ohm	29.00
531-3	90 ohm	Equiv. to	7.60	531-707	75 ohm	29.00
531-701	50 ohm	W.E. 477B	7.30			



COAXIAL PATCH CORDS: "849"

The following cords use two, 530-2 (for WE), or two 530-702 (for RCA), plugs and RG59B/U cable (75 ohm).

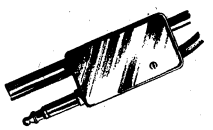
W.E.	Net	RCA	Net
849-05X-PPG	$ 9.60	849-1X-700PPG	$ 9.60
849-1X-PPG	9.60	849-105X-700PPG	9.60
849-105X-PPG	9.60	849-2X-700PPG	10.00
849-2X-PPG	10.00	849-3X-700PPG	10.00
849-3X-PPG	10.00		
849-4X-PPG	10.00		

The following cords, as above, but with RG-58C/U cable (50 ohm).

W.E.	Net	RCA	Net
84-1X58-PPG	$ 9.60	849-1X58-700PPG	$ 9.60
849-105X58-PPG	9.60	849-105X58-700PPG	9.60
849-2X58-PPG	10.00	849-2X58-700PPG	10.00
849-3X58-PPG	10.00	849-3X58-700PPG	10.00

HYBRID PATCH CORDS: "869" SERIES

Audio and Video patch cord. Twin plug contains a coax and a three-circuit telephone plug. On 5/8" centers. Will fit combination panels with "89" series coaxial jacks and "90" series telephone jacks. 75 ohm cable on section (RG-187) and audio is carried by two additional conductors with shield overall (but not common to coax shield).



	Net
869-1X-PPG	$30.00
869-105X-PPG	30.00
869-2X-PPG	30.00

COAXIAL JACK PANEL ASSEMBLIES

The "89" series coaxial jacks can be mounted on the "96" or "99" series strips in almost any specified configuration. Listed below are some of the more standard types already produced. Consult factory for information regarding price or your special requirements.

W.E.	RCA	Qty/Row	Rows	Jack Type	Jack Mtg. Strip
99-80		12	1	89-32	99-20
	99-780	12	1	89-732	99-20
98-84		24	2	89-02	96-24
	96-784	24	2	89-702	96-24
*96-94-2		24	2	89-02	96-524-2
	*96-794-2	24	2	89-702	96-524-2
96-85		12	2	89-02	96-25
	96-785	12	2	89-702	96-25
*96-95-2		12	2	89-02	96-525-2
	*96-795-2	12	2	89-702	96-525-2
*96-98-2		Top 24 Bottom 12	2	89-02	96-528-2
	*96-798-2	Top 24 Bottom 12	2	89-702	96-528-2

*Denotes sub-chassis with 24 UHF connectors.

COAXIAL JACK MOUNTING STRIPS—LESS JACKS

The "96" Series Panels, described and listed on a previous page are readily adaptable for coaxial use. In addition to the panels previously listed, the following ones are also available in this series.

Code No.	No. of Rows	Holes/Row	Jack Hole Spacing c. to c. Left to right	Width	Designation Strip Qty.	Type	List
96-20	1	12	1 3/8"	1 3/4"	1	JP-30	$27.00
96-20-1	1	12	5/8 - 2 1/4 - 5/8	1 3/4"	1	JP-35	27.00
96-28	2	upper 24 lower 24	5/8 - 3/4 - 5/8 1 3/8	3 1/2"	2	JP-35	33.00
96-32	2	24	5/8 - 3/4 - 5/8	2 1/8"	2	JP-33	18.40
*96-38	1	32	5/8	1 3/4"	1	JP-34-3	48.00
*96-39	2	32	5/8	1 3/4"	2	JP-34-3	54.00

*Fits 23" racks having 22 1/4" spacing between mounting screw holes.

ALUMINUM JACK MTG. STRIPS—LESS JACKS

The "99" series features a front aluminum panel 3/16" thick separated from a rear sub-panel 1/8" thick to which the jacks are mounted. Overall thickness of 19/32". Sub-panel forms common ground for jacks. Fits 19" rack. The "99-200" series backs the aluminum front panel with a 1/16" bakelite strip to isolate jacks from each other. Total thickness of 5/8".

Code No.	Rows	Jacks/ Row	Jack Hole Spacing c. to c.	Width	Designation Strip Qty.	Type	Notes	List
99-20	1	12	1 3/8"	1 3/4	1	JP-37		$26.00
99-20-1	1	12	5/8 - 2 1/4 - 5/8	1 3/4	1	JP-37		26.00
99-21	1	24	5/8 - 3/4 - 5/8	1 3/4	1	JP-37		27.00
99-22	2	24	5/8 - 3/4 - 5/8	2 1/8	1	JP-30		34.00
99-22-1	2	24	5/8 - 3/4 - 5/8	2 1/8	2	JP-33	1	35.50
99-22-2	2	23	5/8 - 3/4 - 5/8	2 1/8	2	JP-33	2	36.00
99-24	2	24	5/8 - 3/4 - 5/8	3 1/2	2	JP-37	1	40.00
99-26	1	26	5/8"	1 3/4	1	JP-34		27.00
99-27	2	26	5/8"	1 3/4	2	JP-34	1	36.00

NOTES 1. Designation strip above top, and below bottom row.
2. Designation strip above each row.

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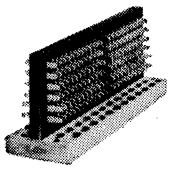
TERMINAL BLOCKS, TURN AND PUSH KEYS, LAMP SOCKETS: Related Panel Equipment



TERMINAL BLOCKS

Originally developed for telephone and telegraph exchange use, now are quite generally found in broadcast and microwave relay stations, large instrument systems —wherever very large numbers of circuits need convenient places of termination.

"421 SERIES"

Molded of black phenolic plastic material, including base. Provides 20 terminals per row, in two banks of ten, with up to ten rows. Base 6 1/16" long x 3" wide. Has steel mounting strip inset in groove in base, with standard mounting dimensions and accommodating #10-24 screws.

Terminals are of 0.040" tin plated brass, and are removable without dissassembly of block. Have "butterfly" notched design assuring better retention of wire. Lengths of terminals in three graduated lengths for ease of wiring, and are usually identified by numbering along top row. (Not illustrated). Interchangeable with W.E. "L" series, as indicated by ( ) following TRIMM No.

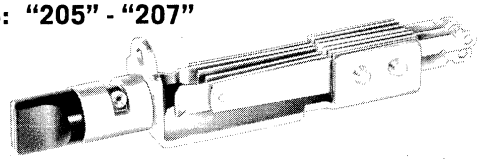
Code No.	No. Rows	No. Term	Base
421C-1	1	20	$ 4.40
421C-2	2	40	5.00
421C-3 (L34)	3	60	5.75
421C-4 (L4A)	4	80	6.50
421C-5 (L5A)	5	100	7.30
421C-6 (L6A)	6	120	8.00
421C-7	7	140	8.80
421C-8 (L8A)	8	160	9.60
421C-9	9	180	11.20
421C-10	10	200	12.00

OTHER SERIES

Summarized below are terminal arrangements and base dimensions for other series available. All bases 5/8" hard maple. Available in 1 to 10 rows. Write for additional information.

Series	Term per Row	Base Dim.	Notes
421A	20	6 1/16 x 2 5/8"	Eq. to W.E. "M" Type
421B	20	8" x 2 5/8"	Fits Cook Elec. Frame
425A	24	7 1/16" x 2 5/8"	
425B	24	8" x 2 5/8"	Fits Cook Elec. Frame
427B	26	8" x 2 5/8"	Fits Cook Elec. Frame
427D	26	8" x 3 1/16"	

TURN KEYS: "205" - "207"



Long frame rotating cam type keys or switches. Intended to be assembled on to standard 5/8" thick jack mounting strips having 29/64" dia. jack bushing holes. Hole for #6-32 screw 3/8" off center provided. Entirely interchangeable with telephone type jacks, and essentially similar to W.E. "552" series. See table below for cross reference.

Knob of molded black nylon, has two flat areas on each side to provide convenience in turning. White filled line on front of knob readily identifies in which of two positions key has been turned.
Requires 2 23/32" depth behind panel.

LOCKING TYPE, "205"

Part No.	Base	Part No.	Base	Part No.	Base	Part No.	Base
205-1A	$2.10	205-2A	$2.50	205-3A	$3.00	205-2A2B	$3.10
205-1B	2.10	205-2B	2.50	205-3C	3.50	205-1A2C	3.30
205-1C	2.30	205-2C	3.00	205-4A	3.50	205-1000	3.50
205-1D	2.30	205-2D	3.10	205-4C	4.10	205-1001	3.80

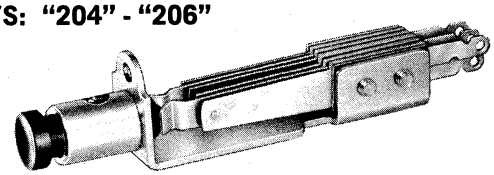
NON-LOCKING TYPE, "207"

Part-No.	Base	Part No.	Base	Part No.	Base
207-1A	$2.10	207-1B	$2.10	207-2C	$3.00

CROSS REFERENCE W.E. to TRIMM

TRIMM Code	W.E. Type	TRIMM Code	W.E. Type
205-2C	552A	205-1000	552E
205-3A	552B	205-1D	552G
205-1001	552C	205-2C1A	552H
205-2B 2C	552D		

PUSH KEYS: "204" - "206"



Long frame push button type key very similar to turn keys. The usual applications for push button type keys are as an impulse switch for relays, or motor starters; buzzer signals, test circuits requiring momentary contact, etc. Mounting, dimensional and contact data, similar to turn keys. Available in non-locking and locking forms. Knob of black plastic material with depressed dimple for finger.

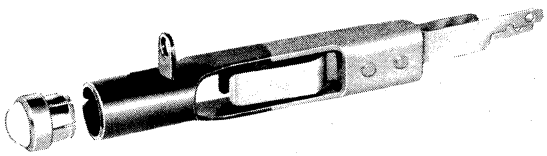
LOCKING TYPE, "204"

Part No.	Base	Part No.	Base
204-1A	$2.10	204-2A	$2.50

NON-LOCKING TYPE, "206"

Part. No.	Base	Part No.	Base
206-1A	$2.10	206-2A	$2.50
206-1B	2.10	206-2B	2.50
206-1C	2.30	206-2C	3.00
206-1D	2.30	206-3C	3.50
		206-4A	3.50

LAMP SOCKET: "247"



Switchboard type lamp socket; intended for use with standard No. 2 switchboard lamps, and to be assembled on to standard 5/8" thick jack mounting strips with 29/64" dia. jack bushing holes. Has lug for #6-32 mounting screw 3/8" off center line. May be mounted 5/8" c. to c. horizontally.

Frame, one piece steel construction. Springs nickel silver insulated from frame and each other with XXXP phenolic laminated spacers. Lamp mounts close to lens of lamp cap, giving maximum illumination.

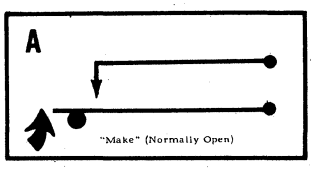
247	Lamp Socket	47B	.80

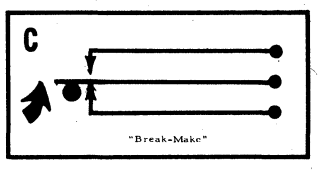
"240" GLASS LAMP CAP

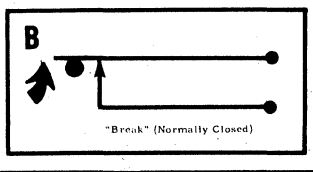
		W.E.EQ.	Base
240-AY	Lamp Cap White Opalescent	2-AY	.22
240-H	Lamp Cap Red Opalescent	2-H	.22
240-L	Lamp Cap Green Opalescent	2-L	.22
240-U	Lamp Cap Amber	2-U	.22
240-W	Lamp Cap Blue	2-W	.22

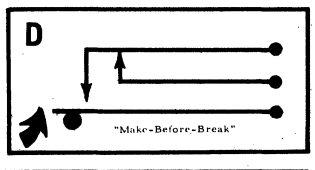
SWITCH DIAGRAMS

Basic switching for Turn Keys and Push Keys is described by these diagrams. Other combinations are available. Coding: The series number of the switch followed by a dash number. 205-4C is then a locking type Turn Key with a stacking of four 'C' switches.









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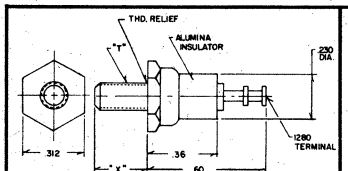
STANDARDIZED ELECTRO. VAC. HARDWARE
LITTON INDUSTRIES/USECO DIVISION

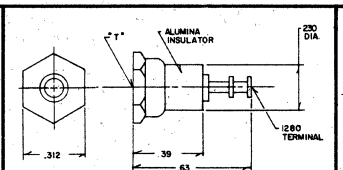
INSULATED TERMINALS • Hi-Alumina



PART NO.	"X"	"T"	PART NO.	"X"	"T"
1460 A	3/16	6-32	1460 E	3/16	4-40
1460 B	1/4	6-32	1460 F	1/4	4-40
1460 C	5/16	6-32	1460 G	5/16	4-40
1460 D	3/8	6-32	1460 H	3/8	4-40

VOLTAGE BREAKDOWN; 5000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS.

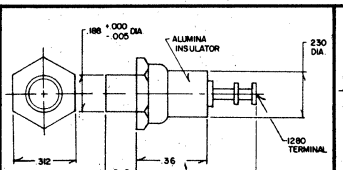
Part No. 1460



PART NO.	"T"
1461	6-32
1461 A	4-40

THREAD DEPTH, 3 THREADS MIN.
VOLTAGE BREAKDOWN; 5000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

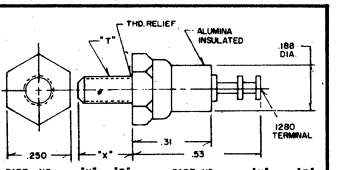
Part No. 1461



PART NO	"X"	BD.THICK	PART NO	"X"	BD.THICK
1462 A	.054	.031	1462 C	.125	.094
1462 B	.094	.062	1462 D	.156	.125

VOLTAGE BREAKDOWN; 5000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

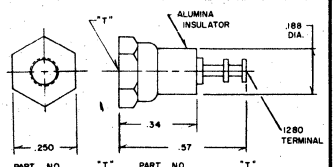
Part No. 1462



PART NO.	"X"	"T"	PART NO.	"X"	"T"
1440 A	.188	6-32	1440 E	.188	4-40
1440 B	.250	6-32	1440 F	.250	4-40
1440 C	.312	6-32	1440 G	.312	4-40
1440 D	.375	6-32	1440 H	.375	4-40

VOLTAGE BREAKDOWN; 4000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

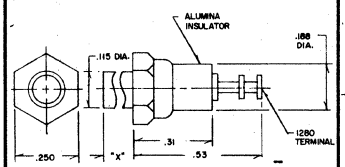
Part No. 1440



PART NO.	"T"	PART NO.	"T"
1441 A	2-56	1441 B	4-40

THREAD DEPTH, 3 THREADS MIN.
VOLTAGE BREAKDOWN; 4000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

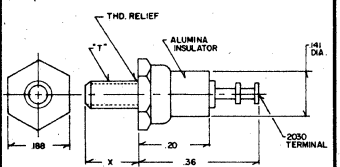
Part No. 1441



PART NO.	"X"	BD. THICK	PART NO.	"X"	BD. THICK
1442 A	.075	.031	1442 C	.135	.094
1442 B	.105	.062	1442 D	.165	.125

VOLTAGE BREAKDOWN; 4000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

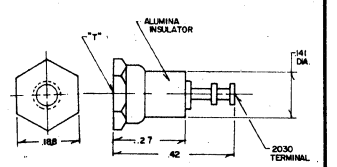
Part No. 1442



PART NO.	"X"	"T"	PART NO.	"X"	"T"
1480 A	1/8	2-56	1480 C	1/8	4-40
1480 B	7/32	2-56	1480 D	7/32	4-40

VOLTAGE BREAKDOWN; 1500 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

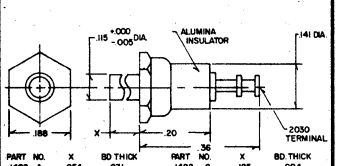
Part No. 1480



PART NO.	"T"
1481 A	4-40
1481 B	2-56

THREAD DEPTH, 3 THREADS MIN.
VOLTAGE BREAKDOWN; 1500 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

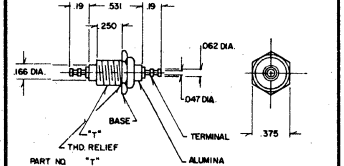
Part No. 1481



PART NO.	X	BD THICK	PART NO.	X	BD.THICK
1482 A	.054	.031	1482 C	.125	.094
1482 B	.094	.062	1482 D	.156	.125

VOLTAGE BREAKDOWN; 1500 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

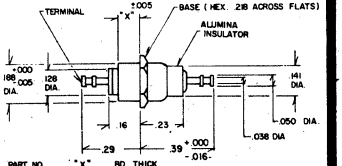
Part No. 1482



PART NO.	"T"
1483	1/4-28

FOR USE WITH .188 (MAX) THICK MTG. BOARD
MOUNTING HARDWARE FURNISHED WITH UNIT
VOLTAGE BREAKDOWN; 2500 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

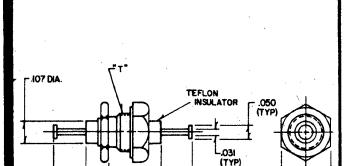
Part No. 1483



PART NO.	"X"	BD. THICK.
1484 B	.105	.062

MTG. HOLE DIA. .191 -.003 -.001
VOLTAGE BREAKDOWN; 1500 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

Part No. 1484

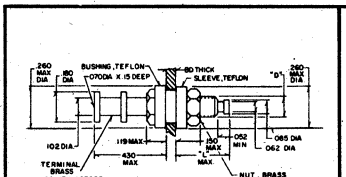


PART NO.	"T"	"INSUL."
1431	10-32	TEFLON

VOLTAGE BREAKDOWN; 2500 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS
FOR USE WITH .094 (MAX) THICK MTG. BOARD

Part No. 1431

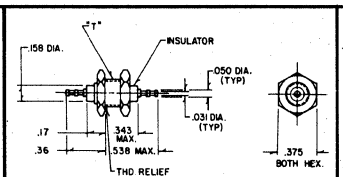
INSULATED TERMINALS • Teflon



PART NO.	"D" THD	"L"	BD.THICK	MTG. DIA.
1432	5-40	.348	.062	.195 .000 -.004

VOLTAGE BREAKDOWN; 1500 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

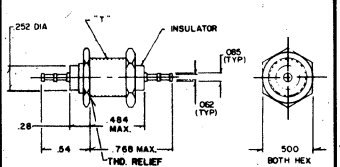
Part No. 1432



PART NO.	"T"	"INSUL"
1434	1/4-28	TEFLON

FOR USE WITH .188 (MAX) THICK MTG. BOARD
VOLTAGE BREAKDOWN; 4000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

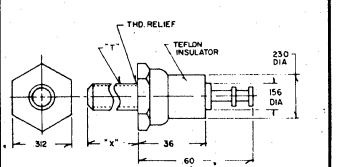
Part No. 1434



PART NO	"T"	"INSUL"
1436	3/8-32	TEFLON

FOR USE WITH .250 (MAX) THICK MTG. BOARD
VOLTAGE BREAKDOWN; 6000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

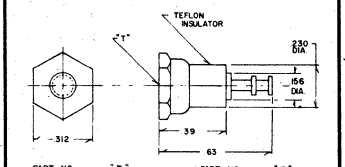
Part No. 1436



PART NO	"X"	"T"	PART NO	"X"	"T"
1450 A	3/16	6-32	1450 E	3/16	4-40
1450 B	1/4	6-32	1450 F	1/4	4-40
1450 C	5/16	6-32	1450 G	5/16	4-40
1450 D	3/8	6-32	1450 H	3/8	4-40

VOLTAGE BREAKDOWN; 6000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

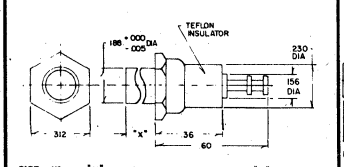
Part No. 1450



PART NO	"T"	PART NO	"T"
1451	6-32	1451 A	4-40

THREAD DEPTH, 3 THREADS MIN.
VOLTAGE BREAKDOWN; 6000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

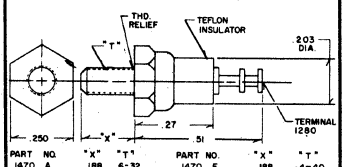
Part No. 1451



PART NO.	"X"	BD.THICK	PART NO	"X"	BD.THICK
1452 A	.054	.031	1452 C	.125	.094
1452 B	.094	.062	1452 D	.156	.125

VOLTAGE BREAKDOWN; 6000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

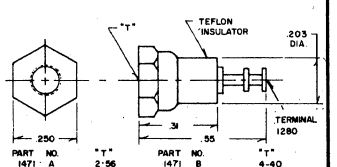
Part No. 1452



PART NO.	"X"	"T"	PART NO.	"X"	"T"
1470 A	.188	6-32	1470 E	.188	4-40
1470 B	.250	6-32	1470 F	.250	4-40
1470 C	.312	6-32	1470 G	.312	4-40
1470 D	.375	6-32	1470 H	.375	4-40

VOLTAGE BREAKDOWN; 4000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

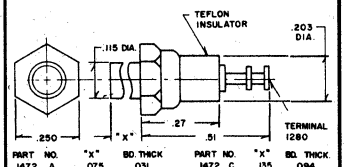
Part No. 1470



PART NO.	"T"	PART NO.	"T"
1471 A	2-56	1471 B	4-40

THREAD DEPTH, 3 THREADS MIN.
VOLTAGE BREAKDOWN; 4000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

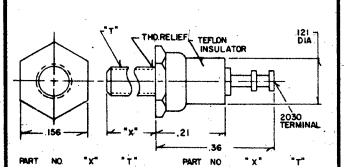
Part No. 1471



PART NO.	"X"	BD. THICK	PART NO.	"X"	BD. THICK.
1472 A	.075	.031	1472 C	.135	.094
1472 B	.105	.062	1472 D	.165	.125

VOLTAGE BREAKDOWN; 4000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

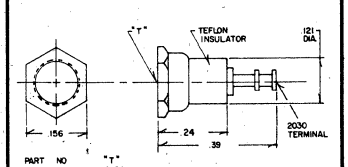
Part No. 1472



PART NO.	"X"	"T"	PART NO	"X"	"T"
1490 A	1/8	2-56	1490 C	1/8	4-40
1490 B	7/32	2-56	1490 D	7/32	4-40

VOLTAGE BREAKDOWN; 3000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

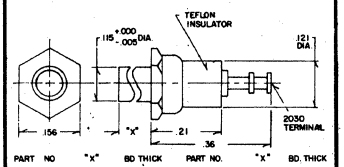
Part No. 1490



PART NO	"T"
1491 A	2-56

THREAD DEPTH, 3 THREADS MIN.
VOLTAGE BREAKDOWN; 3000 VOLTS A.C.
RESISTANCE (TERMJNAL TO BASE) $(10)^{12}$ OHMS

Part No. 1491



PART NO	"X"	BD THICK	PART NO.	"X"	BD.THICK
1492 A	.054	.031	1492 C	.125	.094
1492 B	.094	.062	1492 D	.156	.125

VOLTAGE BREAKDOWN; 3000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

Part No. 1492

Plating: Terminal, 0.000010/0.000020 gold over 0.00030/0.00050 silver; Base, 0.00030/0.00050 cadmium
Tolerance: .XXX ± .010; .XX ± .016 before plating

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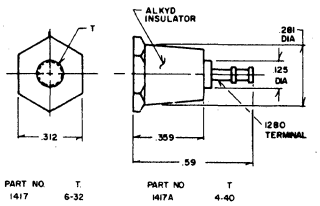
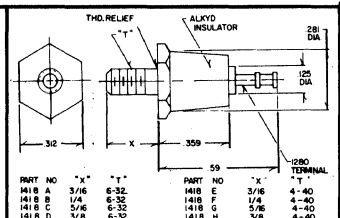


PART NO.	T	PART NO	T
1417	6-32	1417A	4-40

VOLTAGE BREAKDOWN, 6000 VOLTS A.C.
THREAD DEPTH, 3 THREADS MIN.

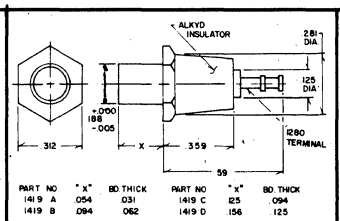
Part No. 1417



PART NO	"X"	"T"	PART NO	"X"	"T"
1418 A	3/16	6-32	1418 E	3/16	4-40
1418 B	1/4	6-32	1418 F	1/4	4-40
1418 C	5/16	6-32	1418 G	5/16	4-40
1418 D	3/8	6-32	1418 H	3/8	4-40

VOLTAGE BREAKDOWN; 6000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

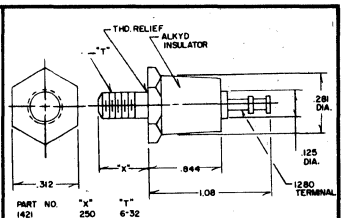
Part No. 1418



PART NO.	"X"	BD. THICK	PART NO	"X"	BD. THICK
1419 A	.054	.031	1419 C	.125	.094
1419 B	.094	.062	1419 D	.156	.125

VOLTAGE BREAKDOWN; 6000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

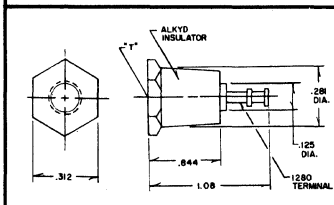
Part No. 1419



PART NO.	"X"	"T"
1421	.250	6-32

VOLTAGE BREAKDOWN; 10000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

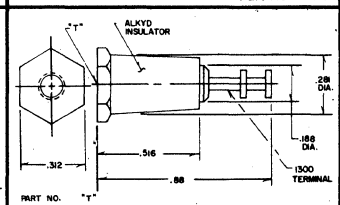
Part No. 1421



PART NO	"T"
1422	6-32

VOLTAGE BREAKDOWN: 11,000 VOLTS A.C.
THREAD DEPTH, 3 THREADS MIN.

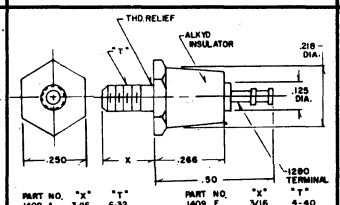
Part No. 1422



PART NO.	"T"
1423	6-32

VOLTAGE BREAKDOWN; 9000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

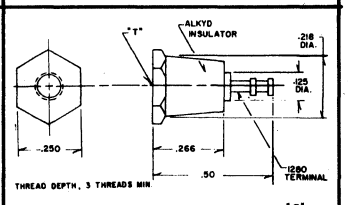
Part No. 1423



PART NO.	"X"	"T"	PART NO.	"X"	"T"
1409 A	3/16	6-32	1409 E	3/16	4-40
1409 B	1/4	6-32	1409 F	1/4	4-40
1409 C	5/16	6-32	1409 G	5/16	4-40
1409 D	3/8	6-32	1409 H	3/8	4-40

VOLTAGE BREAKDOWN; 6000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

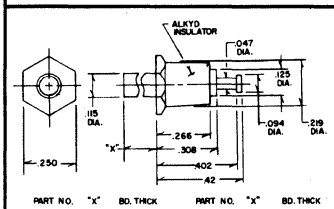
Part No. 1409



PART NO.	"T"	PART NO.	"T"
1411 A	6-32	1411 B	4-40

VOLTAGE BREAKDOWN; 6000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

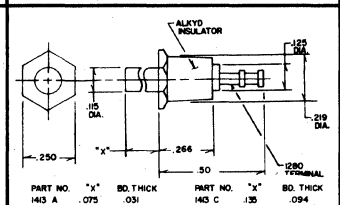
Part No. 1411



PART NO.	"X"	BD. THICK	PART NO.	"X"	BD. THICK
1412 A	.075	.031	1412 C	.135	.094
1412 B	.105	.062	1412 D	.165	.125

VOLTAGE BREAKDOWN; 5000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

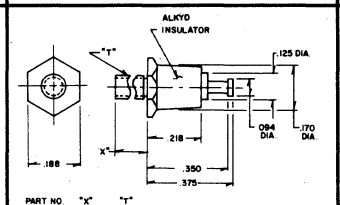
Part No. 1412



PART NO.	"X"	BD. THICK	PART NO.	"X"	BD. THICK
1413 A	.075	.031	1413 C	.135	.094
1413 B	.105	.062	1413 D	.165	.125

VOLTAGE BREAKDOWN; 5000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

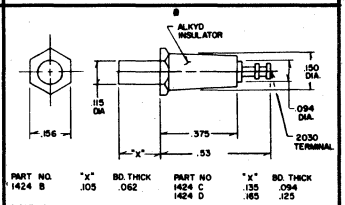
Part No. 1413



PART NO.	"X"	"T"
1414 A	.080	3-48

VOLTAGE BREAKDOWN; 4000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

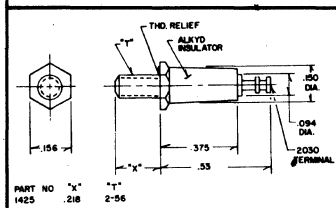
Part No. 1414



PART NO.	"X"	BD. THICK	PART NO	"X"	BD. THICK
1424 B	.105	.062	1424 C	.135	.094
			1424 D	.165	.125

VOLTAGE BREAKDOWN; 6000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

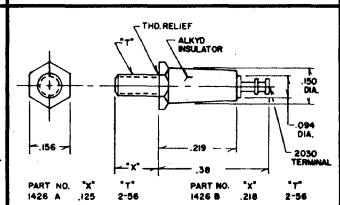
Part No. 1424



PART NO	"X"	"T"
1425	.218	2-56

VOLTAGE BREAKDOWN; 6000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

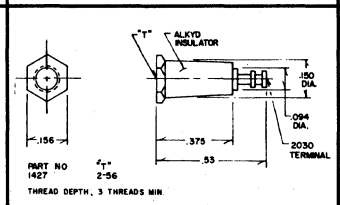
Part No. 1425



PART NO.	"X"	"T"	PART NO.	"X"	"T"
1426 A	.125	2-56	1426 B	.218	2-56

VOLTAGE BREAKDOWN; 6000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

Part No. 1426

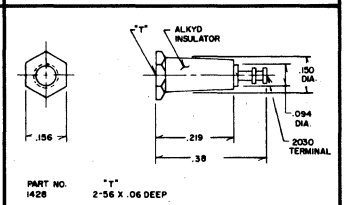


PART NO	"T"
1427	2-56

THREAD DEPTH, 3 THREADS MIN.

VOLTAGE BREAKDOWN; 6000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

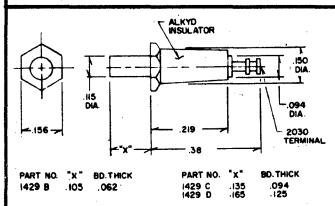
Part No. 1427



PART NO.	"T"
1428	2-56 X .06 DEEP

VOLTAGE BREAKDOWN; 6000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS
THREAD DEPTH, 3 THREADS MIN.

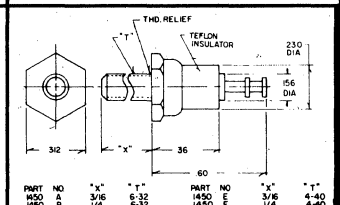
Part No. 1428



PART NO.	"X"	BD. THICK	PART NO.	"X"	BD. THICK
1429 B	.105	.062	1429 C	.135	.094
			1429 D	.165	.125

VOLTAGE BREAKDOWN; 6000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

Part No. 1429

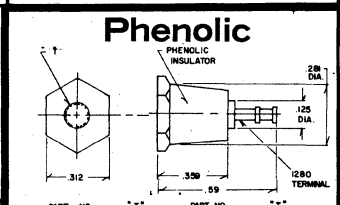


PART NO.	"X"	"T"	PART NO.	"X"	"T"
1450 A	3/16	6-32	1450 E	3/16	4-40
1450 B	1/4	6-32	1450 F	1/4	4-40
1450 C	5/16	6-32	1450 G	5/16	4-40
1450 D	3/8	6-32	1450 H	3/8	4-40

VOLTAGE BREAKDOWN; 6000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

Part No. 1450

Phenolic

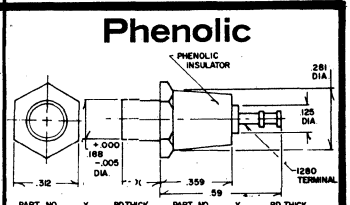


PART NO.	"T"	PART NO.	"T"
1401	6-32	1401 A	4-40

VOLTAGE BREAKDOWN; 6000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS
THREAD DEPTH, 3 THREADS MIN.

Part No. 1401

Phenolic

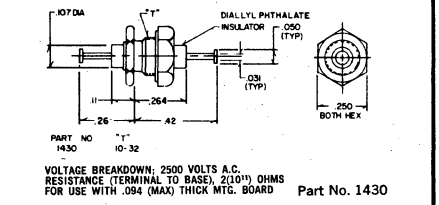


PART NO.	X	BD.THICK	PART NO.	X	BD THICK
1410 A	.054	.031	1410 C	.125	.094
1410 B	.094	.062	1410 D	.156	.125

VOLTAGE BREAKDOWN; 6000 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE) $(10)^{12}$ OHMS

Part No. 1410

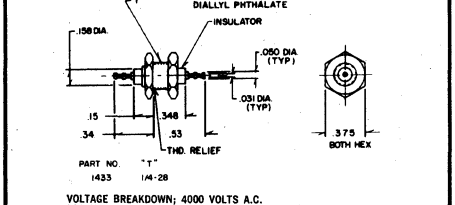
INSULATED TERMINALS • Diallyl Phthalate



PART NO	"T"
1430	10-32

VOLTAGE BREAKDOWN; 2500 VOLTS A.C.
RESISTANCE (TERMINAL TO BASE), $2(10^{11})$ OHMS
FOR USE WITH .094 (MAX) THICK MTG. BOARD

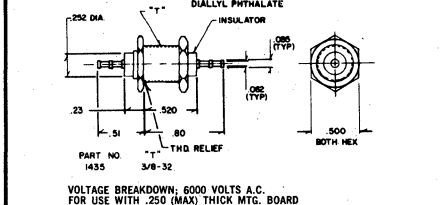
Part No. 1430



PART NO.	"T"
1433	1/4-28

VOLTAGE BREAKDOWN; 4000 VOLTS A.C.
FOR USE WITH .188 (MAX) THICK MTG. BOARD
RESISTANCE (TERMINAL TO BASE), 10^{12} OHMS

Part No. 1433



PART NO.	"T"
1435	3/8-32

VOLTAGE BREAKDOWN; 6000 VOLTS A.C.
FOR USE WITH .250 (MAX) THICK MTG. BOARD
RESISTANCE (TERMINAL TO BASE), 10^{12} OHMS

Part No. 1435

Plating: Terminal, 0.000010/0.000020 gold over 0.00030/0.00050 silver; Base, 0.00030/0.00050 cadmium
Tolerance: .XXX ± .010; .XX ± .016 before plating

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STANDARDIZED ELECTRONIC HARDWARE
LITTON INDUSTRIES/USECO DIVISION

INSULATED TERMINALS • MIL-T-55155

MIL-T-55155

Configurations, materials, platings and specifications conform to requirements of MIL-T-55155.

SPECIFICATIONS

Terminals

Material: Brass, ½ hard, composition 22, per QQ-B-626

Finish: Standard —4 (0.0005 Solder Plate) Optional at additional cost —10 (0.00003 gold)

Bases

Material: Brass ½ hard, composition 22, per QQ-B-626

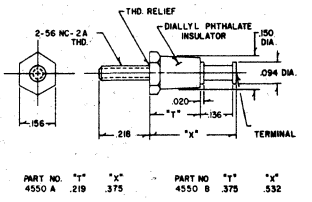
Finish: Standard —11.2 (0.0003 Cadmium with iridescent yellow coating)

Insulating Materials

TEFLON per MIL-M-14077

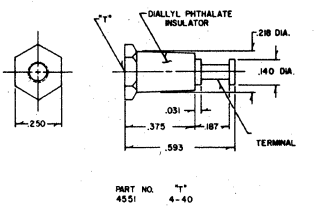
HI-ALUMINA per MIL-I-10

DIALLYL PHTHALATE per MIL-M-14F Type SDG-F



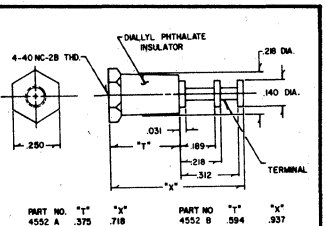
PART NO.	"T"	"X"	PART NO	"T"	"X"
4550 A	.219	.375	4550 B	.375	.532

MIL-T-55155/18-1 & -2 USECO Part No. 4550



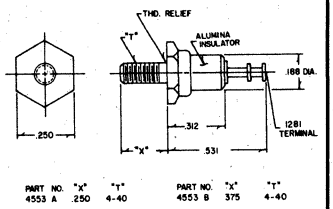
PART NO.	"T"
4551	4-40

MIL-T-55155/19-1 USECO Part No. 4551



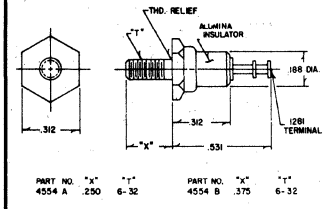
PART NO.	"T"	"X"	PART NO	"T"	"X"
4552 A	.375	.718	4552 B	.594	.937

MIL-T-55155/20-1 & -2 USECO Part No. 4552



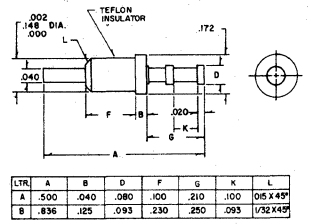
PART NO.	"X"	"T"	PART NO.	"X"	"T"
4553 A	.250	4-40	4553 B	375	4-40

MIL-T-55155/21-1 & -2 USECO Part No. 4553



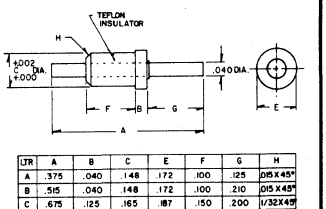
PART NO.	"X"	"T"	PART NO.	"X"	"T"
4554 A	.250	6-32	4554 B	.375	6-32

MIL-T-55155/21-3 & -4 USECO Part No. 4554



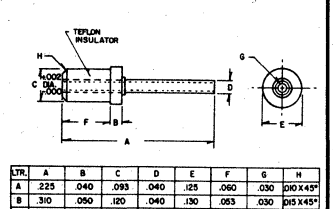
LTR.	A	B	D	F	G	K	L
A	.500	.040	.080	.100	.210	.100	.015 X 45°
B	.836	.125	.093	.230	.250	.093	1/32 X 45°

MIL-T-55155/4-1 & -2 USECO Part No. 4500



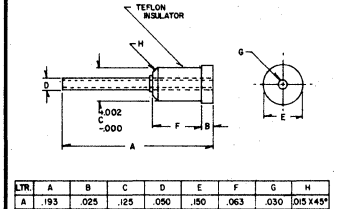
LTR.	A	B	C	E	F	G	H
A	.375	.040	.148	.172	.100	.125	.015 X 45°
B	.515	.040	.148	.172	.100	.210	.015 X 45°
C	.675	.125	.165	.187	.150	.200	1/32 X 45°

MIL-T-55155/3-1-2 & -3 USECO Part No. 4501



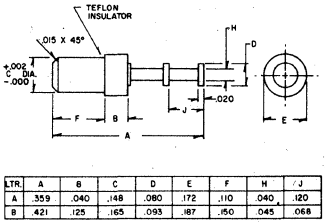
LTR.	A	B	C	D	E	F	G	H
A	.225	.040	.093	.040	.125	.060	.030	.010 X 45°
B	.310	.050	.120	.040	.130	.063	.030	.015 X 45°
C	.367	.050	.148	.085	.172	.110	.063	.015 X 45°

MIL-T-55155/21-1 & -2 -3 USECO Part No. 4502



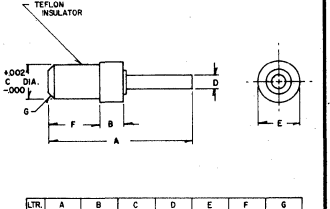
LTR.	A	B	C	D	E	F	G	H
A	.193	.025	.125	.050	.150	.063	.030	.015 X 45°
B	.367	.050	.148	.085	.172	.110	.063	1/64 X 45°

MIL-T-55155/6-1 & -2 USECO Part No. 4503



LTR.	A	B	C	D	E	F	H	J
A	.359	.040	.148	.080	.172	.110	.040	.120
B	.421	.125	.165	.093	.187	.150	.045	.068

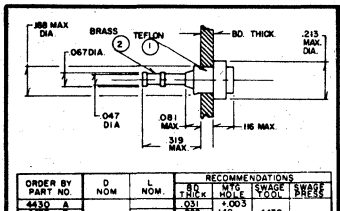
MIL-T-55155/7-1 & -2 USECO Part No. 4504



LTR.	A	B	C	D	E	F	G
A	.350	.040	.148	.040	.172	.100	.015 X 45°

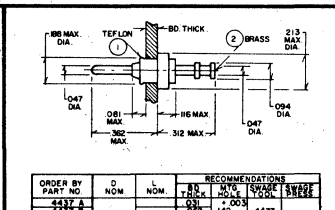
MIL-T-55155/8-1 USECO Part No. 4505

LOC-FIT® TERMINALS



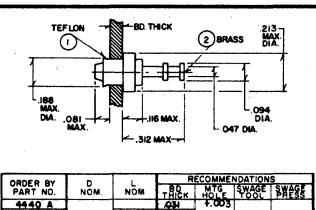
ORDER BY PART NO.	D NOM.	L NOM.	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS
4430 A			.031	+.003	4430	
4430 B			.062	.142 -.001 DIA		
4430 C			.094			
4430 D			.125			

Part No. 4430



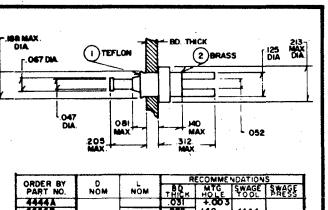
ORDER BY PART NO.	D NOM.	L NOM.	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS
4437 A			.031	+.003	4437	
4437 B			.062	.142 -.001 DIA		
4437 C			.094			

Part No. 4437



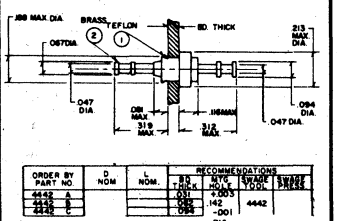
ORDER BY PART NO.	D NOM.	L NOM.	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS
4440 A			.031	+.003	4440	
4440 B			.062	.142 -.001 DIA		
4440 C			.094			

Part No. 4440



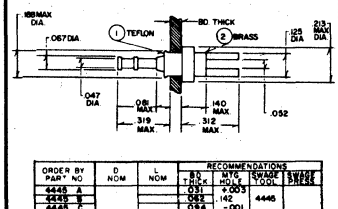
ORDER BY PART NO.	D NOM.	L NOM.	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS
4444 A			.031	+.003	4444	
4444 B			.062	.142 -.001 DIA		
4444 C			.094			

Part No. 4444



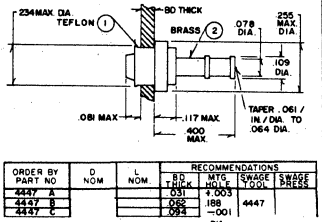
ORDER BY PART NO.	D NOM.	L NOM.	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS
4442 A			.031	+.003	4442	
4442 B			.062	.142 -.001 DIA		
4442 C			.094			

Part No. 4442



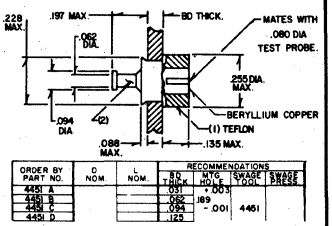
ORDER BY PART NO.	D NOM.	L NOM.	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS
4445 A			.031	+.003	4445	
4445 B			.062	.142 -.001 DIA		
4445 C			.094			

Part No. 4445



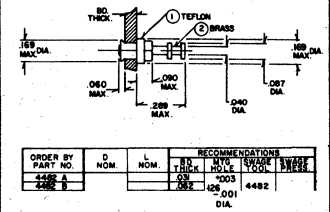
ORDER BY PART NO.	D NOM.	L NOM.	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS
4447 A			.031	+.003	4447	
4447 B			.062	.188 -.001 DIA.		
4447 C			.094			

Part No. 4447



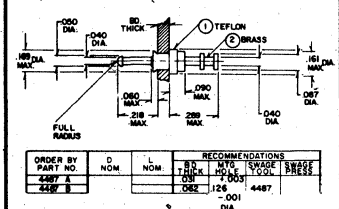
ORDER BY PART NO.	D NOM.	L NOM.	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS
4451 A			.031	+.003	4451	
4451 B			.062	.189 -.001 DIA		
4451 C			.094			
4451 D			.125			

Part No. 4451



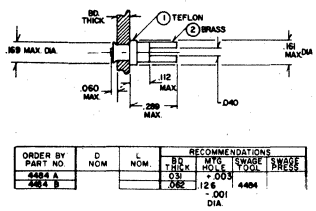
ORDER BY PART NO.	D NOM.	L NOM.	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS
4482 A			.031	+.003	4482	
4482 B			.062	.126 -.001 DIA.		

Part No. 4482



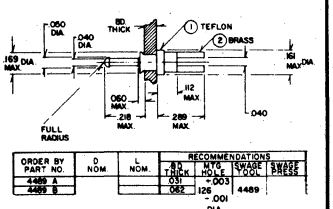
ORDER BY PART NO.	D NOM.	L NOM.	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS
4487 A			.031	+.003	4487	
4487 B			.062	.126 -.001 DIA.		

Part No. 4487



ORDER BY PART NO.	D NOM.	L NOM.	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS
4484 A			.031	+.003	4484	
4484 B			.062	.126 -.001 DIA.		

Part No. 4484



ORDER BY PART NO.	D NOM.	L NOM.	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS
4489 A			.031	+.003	4489	
4489 B			.062	.126 -.001 DIA.		

Part No. 4489

Loc Fit Specifications — Plating: 0.000010/0.000020 gold over 0.00030/0.00050 silver
Tolerance: .XXX ± .010· .XX ± .016 before plating

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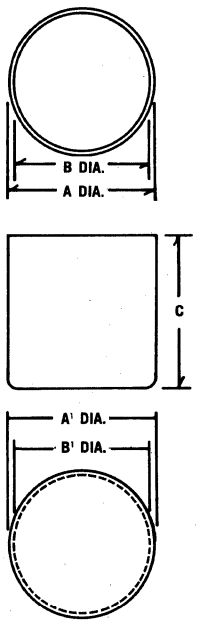
STANDARDIZED ELECTRONIC HARDWARE
LITTON INDUSTRIES/USECO DIVISION

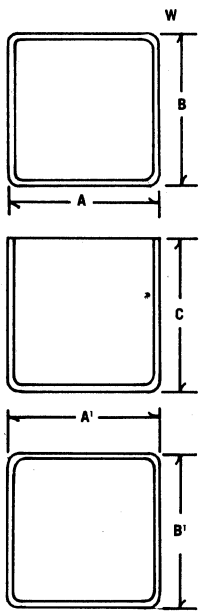
ENCAPSULATION CUPS

Series 100 Round
For special requirements please send your specifications for prompt quotation.
Tolerance; xxx ±.010, "C" DIM ±.020

PART No.	A	A¹	B	B¹	C
102	.625	.611	.565	.551	.750
103	.745	.731	.685	.671	.620
104	.750	.744	.690	.684	.375
105	.750	.742	.690	.682	.500
106	.750	.740	.690	.680	.625
108	.875	.861	.815	.807	.750
133	1.000	.986	.940	.926	.750
134	1.062	1.054	.992	.984	.500
137	1.062	1.044	.992	.974	1.000
141	1.115	1.099	1.055	1.039	.875
143	1.125	1.105	1.065	1.045	1.125
144	1.250	1.240	1.190	1.180	.531
145	1.250	1.240	1.190	1.180	.625
148	1.250	1.232	1.190	1.172	1.062
150	1.312	1.300	1.252	1.240	.719
152	1.375	1.361	1.315	1.301	.750
156	1.428	1.410	1.368	1.350	1.125
182	1.500	1.474	1.440	1.414	1.500
184	1.750	1.738	1.690	1.678	.687
186	1.750	1.732	1.700	1.672	1.000
187	1.750	1.720	1.690	1.660	1.750
188	2.000	1.982	1.940	1.922	1.000
191	2.000	1.964	1.940	1.904	2.000
193	2.500	2.474	2.420	2.394	1.500
195	2.500	2.456	2.420	2.376	2.500
197	2.750	2.720	2.670	2.640	1.750
198	2.750	2.716	2.670	2.636	2.000

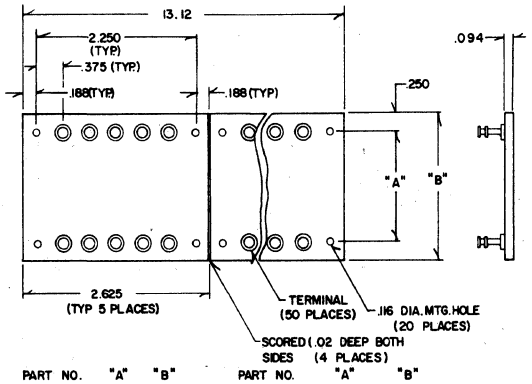


Series 200 Rectangular
For special requirements please send your specifications for prompt quotation.
Tolerance; xxx ±.010, "C" DIM ±.020



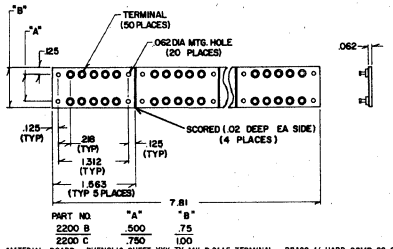
PART No.	W	A	A¹	B	B¹	C
202	.020	.375	.365	.375	.365	.625
204	.031	.437	.431	.437	.431	.437
209	.020	.500	.484	.500	.484	1.000
210	.020	1.500	1.492	.500	.492	.500
211	.020	2.000	1.992	.500	.492	.500
212	.020	3.000	2.992	.500	.492	.500
213	.020	.550	.544	.402	.396	.380
214	.031	.630	.619	.510	.499	.680
216	.031	.632	.618	.632	.618	.850
217	.031	.763	.755	.763	.755	.500
219	.031	.763	.745	.763	.745	1.000
220	.031	.870	.854	.740	.724	1.000
221	.031	.870	.852	.740	.722	1.125
222	.031	.870	.850	.740	.720	1.250
224	.031	1.062	1.036	.940	.914	1.630
226	.031	1.125	1.095	1.000	.970	1.750
227	.031	1.250	1.226	1.000	.976	1.500
229	.031	1.250	1.210	1.000	.960	2.500
232	.031	1.428	1.390	1.146	1.108	2.380
233	.062	1.250	1.218	1.250	1.218	2.016
234	.062	1.188	1.160	1.062	1.034	1.625
235	.047	1.438	1.396	1.156	1.114	2.375
236	.047	1.844	1.796	1.375	1.327	2.750
237	.047	1.844	1.796	1.625	1.577	2.750
238	.047	1.637	1.593	1.263	1.219	2.500
239	.047	1.500	1.456	1.500	1.456	2.500
240	.062	2.406	2.342	1.938	1.874	3.625

TERMINAL BOARDS



PART NO.	"A"	"B"	PART NO.	"A"	"B"
1100 A	1.000	1.50	1100 B	1.500	2.00
1100 C	2.000	2.50	1100 D	2.500	3.00

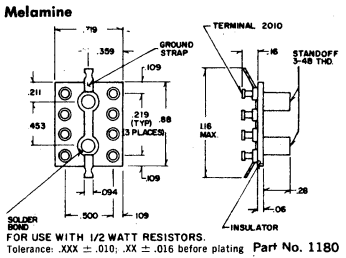
MATERIAL: BOARD—PHENOLIC SHEET, XXX, TY. MIL-P-3115. TERMINAL—BRASS, ½ HARD, COMP. 22, QQ-B-626.
TOLERANCE: .XXX ± .010, .XX ± .016.
TERMINAL (STANDARD): 1300.
SEE PART NO. 8001 FOR TABULATED VARIATIONS. Part No. 1100



PART NO.	"A"	"B"
2200 B	.500	.75
2200 C	.750	1.00

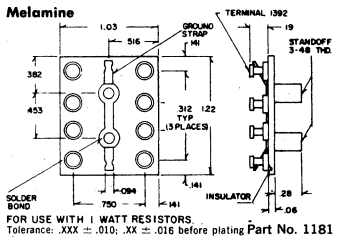
MATERIAL: BOARD—PHENOLIC SHEET, XXX, TY. MIL-P-3115. TERMINAL—BRASS, ½ HARD, COMP. 22, QQ-B-626.
TOLERANCE: .XXX ± .010, .XX ± .016.
TERMINAL (Standard): 2010.
SEE PART NO. 8003 FOR TABULATED VARIATIONS. Part No. 2200

Melamine



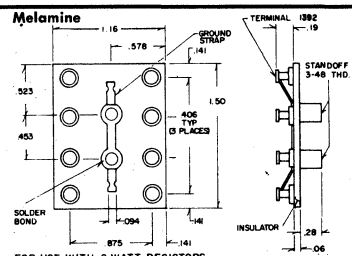
FOR USE WITH 1/2 WATT RESISTORS.
Tolerance: .XXX ± .010; .XX ± .016 before plating Part No. 1180

Melamine



FOR USE WITH 1 WATT RESISTORS.
Tolerance: .XXX ± .010; .XX ± .016 before plating Part No. 1181

Melamine



FOR USE WITH 2 WATT RESISTORS.
Tolerance: .XXX ± .010; .XX ± .016 before plating Part No. 1182

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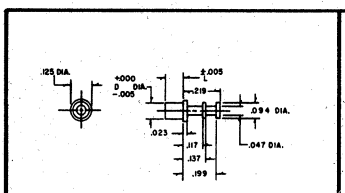
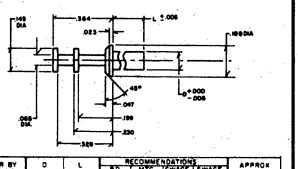
STANDARDIZED ELECTRONIC HARDWARE
LITTON INDUSTRIES/USECO DIVISION

TERMINALS



ORDER BY PART NO	D NOM	L NOM	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS	APPROX WT/1000
1281 A	.080 DIA.	.078	.062	+.003 -.001	1281	500 LBS.	8 OZ
1281 B		.140	.094				
1281 C		.171	.125				
1281 D							

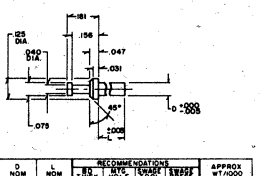
Part No. 1281



ORDER BY PART NO	D NOM	L NOM	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS	APPROX WT/1000
1300 A	.116 DIA. 4-40 THD	.075	.031	+.003 -.001	1300	800 LBS.	1 LB 10K
1300 B		.105	.062				1 LB 15K
1300 C		.135	.094				1 LB 20K
1300 D		.165	.125				
1300 T							

1300T SUPPLIED WITH .188 HEX. ACROSS FLATS, AND THREAD RELIEF.

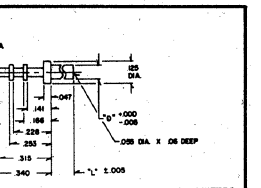
Part No. 1300



ORDER BY PART NO	D NOM	L NOM	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS	APPROX WT/1000
1340 A	.073DIA	.073	.031	+.003 -.001	1340	800 LBS.	1 LB
1340 B		.103	.062				1 LB 10K
1340 C		.133	.094				1 LB 15K
1340 D	2-56 THD	.163	.125				1 LB 20K
1340 T		.189	.094 DIA.				9 OZ

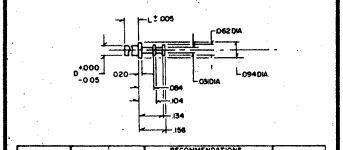
1340T SUPPLIED WITH .125 HEX. ACROSS FLATS, AND THREAD RELIEF.

Part No. 1340



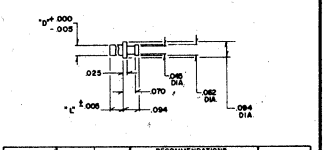
ORDER BY PART NO	D NOM	L NOM	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS	APPROX WT/1000
2035 A	.089 DIA.	.075	.031	+.003 -.001	2035	500 LBS.	
2035 B		.105	.062				
2035 C		.135	.094				10 OZ
2035 D		.165	.125				

Part No. 2035



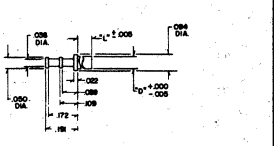
ORDER BY PART NO	D NOM	L NOM	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS	APPROX WT/1000
2030 AA	.062 DIA	.037	.016	+.003 -.001	2030	300 LBS.	
2030 A		.053	.031				
2030 B		.084	.062				
2030 C		.115	.094				2 OZ
2030 D		.147	.125				

Part No. 2030



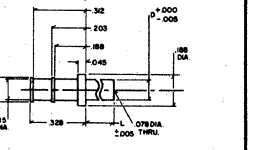
ORDER BY PART NO	D NOM	L NOM	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS	APPROX WT/1000
2060 AA	.083 DIA	.037	.016	+.003 -.001	2060	300 LBS.	
2060 A		.053	.031				
2060 B		.084	.062				
2060 C		.115	.094				2 OZ
2060 D		.147	.125				

Part No. 2060



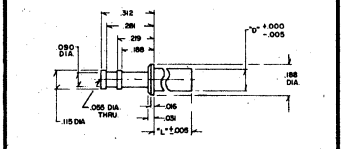
ORDER BY PART NO	D NOM	L NOM	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS	APPROX WT/1000
2520 A	.073DIA	.053	.031	+.003 -.001	2520	400 LBS.	
2520 B		.083	.062				
2520 C		.115	.094				3 OZ
2520 D		.147	.125				

Part No. 2520



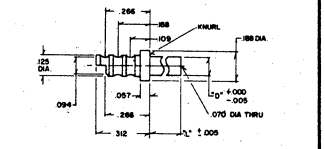
ORDER BY PART NO	D NOM	L NOM	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS	APPROX WT/1000
1200 A	.114 DIA.	.075	.031	+.003 -.001	1200	800 LBS.	
1200 B		.105	.062				
1200 C		.135	.094				1 LB 7 OZ
1200 D		.165	.125				

Part No. 1200



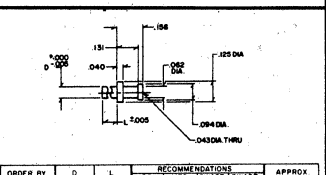
ORDER BY PART NO	D NOM	L NOM	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS	APPROX WT/1000
1330 B	.135 DIA	.105	.062	+.003 -.001	1330	800 LBS.	
1330 C		.135	.094				1 LB
1330 D		.165	.125				

Part No. 1330



ORDER BY PART NO	D NOM	L NOM	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS	APPROX WT/1000
1380 B	.116 DIA	.105	.062	+.003 -.001	1380	800 LBS.	
1380 C		.135	.094				1 LB
1380 D		.165	.125				

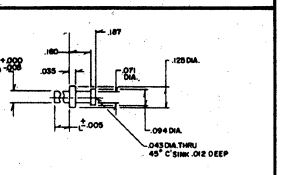
Part No. 1380



ORDER BY PART NO.	D NOM	L NOM	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS	APPROX WT/1000
2010 AA	.063DIA	.037	.016	+.003 -.001	2010	300 LBS	
2010 A		.053	.031				
2010 B		.084	.062				4 OZ
2010 C		.115	.094				
2010 D		.147	.125				
2010 E	4-40THD	.200					6 OZ

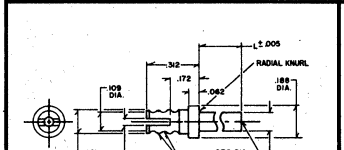
2010T SUPPLIED WITH .125 HEX ACROSS FLATS, AND THREAD RELIEF.

Part No. 2010



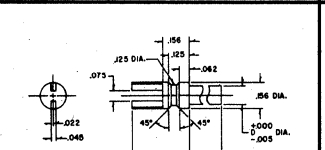
ORDER BY PART NO	D NOM	L NOM	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS	APPROX WT/1000
2011 AA	.073DIA	.037	.016	+.003 -.001	2011	500 LBS.	
2011 A		.053	.031				
2011 B		.084	.062				6 OZ
2011 C		.115	.094				
2011 D		.147	.125				

Part No. 2011



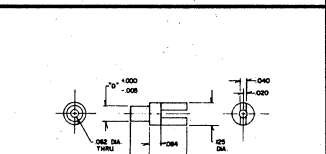
ORDER BY PART NO	D NOM	L NOM	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS	APPROX WT/1000
1250 A	.114DIA	.079	.031	+.003 -.001	1250	800 LBS.	
1250 B		.105	.062				
1250 C		.135	.094				1 LB 12 OZ
1250 D		.165	.125				

Part No. 1250



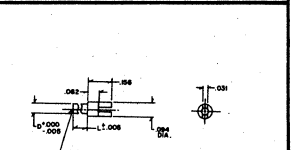
ORDER BY PART NO	D NOM	L NOM	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS	APPROX WT/1000
1304 B	.110 DIA	.105	.062	+.003 -.001	1304	1000 LBS.	
1304 C		.135	.094				1 LB 5 OZ
1304 D		.165	.125				

Part No. 1304



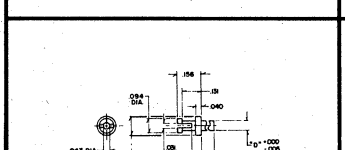
ORDER BY PART NO	D NOM	L NOM	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS	APPROX WT/1000
1309 A	.091 DIA	.053	.031	+.003 -.001	1309	800 LBS.	
1309 B		.083	.062				10 OZ
1309 C		.115	.094				
1309 D		.189	.169				

Part No. 1309



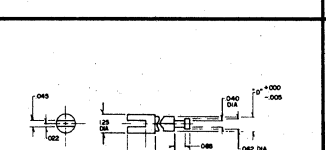
ORDER BY PART NO	D NOM	L NOM	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS	APPROX WT/1000
2000 AA	.083DIA	.037	.016	+.003 -.001	2000	300 LBS.	
2000 A		.053	.031				
2000 B		.084	.062				4 OZ
2000 C		.115	.094				
2000 D		.147	.125				

Part No. 2000



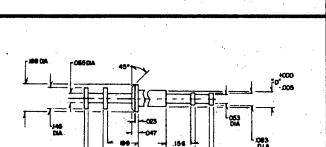
ORDER BY PART NO	D NOM	L NOM	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS	APPROX WT/1000
2020 AA	.083 DIA	.037	.016	+.003 -.001	2020	300 LBS.	
2020 A		.053	.031				
2020 B		.084	.062				4 OZ
2020 C		.115	.094				
2020 D		.147	.125				

Part No. 2020



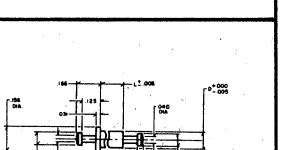
ORDER BY PART NO	D NOM	L NOM	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS	APPROX WT/1000
1315 B	.094 DIA	.084	.062	+.003 -.001	1315	400 LBS.	
1315 C		.115	.094				1 LB 2 OZ
1315 D		.156	.125				

Part No. 1315



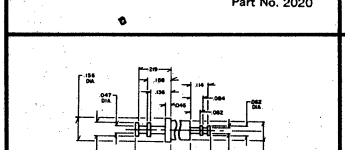
ORDER BY PART NO	D NOM	L NOM	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS	APPROX WT/1000
1301 C	.114 DIA	.084	.062	+.003 -.001	1301	1000 LBS	
1301 D		.165	.125				1 LB 8 OZ

Part No. 1301



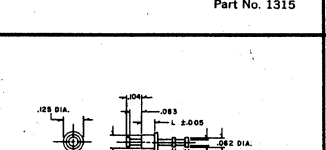
ORDER BY PART NO	D NOM	L NOM	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS	APPROX WT/1000
1290 A	.114 DIA	.075	.031	+.003 -.001	1290	800 LBS	
1290 B		.105	.062				
1290 C		.135	.094				8 OZ
1290 D		.165	.125				

Part No. 1290



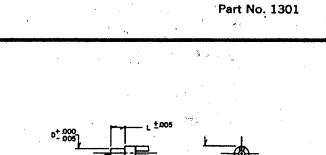
ORDER BY PART NO	D NOM	L NOM	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS	APPROX WT/1000
2040 A	.126 DIA	.075	.031	+.003 -.001	2040	800 LBS.	
2040 B		.105	.062				
2040 C		.135	.094				14 OZ
2040 D		.165	.125				

Part No. 2040



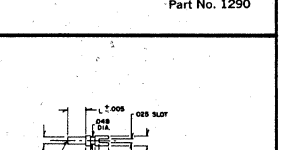
ORDER BY PART NO	D NOM	L NOM	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS	APPROX WT/1000
2501 A	.090 DIA	.062	.031	+.003 -.001	2501	400 LBS.	
2501 B		.093	.062				6 OZ
2501 C		.124	.094				
2501 D		.156	.125				

Part No. 2501



ORDER BY PART NO	D NOM	L NOM	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS	APPROX WT/1000
2002 AA	.042 DIA.	.037	.016	+.003 -.001	2002	200LBS	
2002 A		.053	.031				
2002 B		.084	.062				2 OZ
2002 C		.115	.094				
2002 D		.147	.125				

Part No. 2002



ORDER BY PART NO.	D NOM.	L NOM.	RECOMMENDATIONS BD THICK	MTG HOLE	SWAGE TOOL	SWAGE PRESS	APPROX WT/1000
2024 AA	.046DIA	.037	.016	+.003 -.001	2024	300 LBS	
2024 A		.053	.031				
2024 B		.084	.062				
2024 C		.115	.094				
2024 D		.147	.125				

Part No. 2024

Plating: 0.00030/0.00050 silver. Tolerance: .XXX ± .010 before plating.

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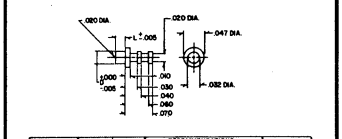
STANDARDIZED ELECTRONIC HARDWARE
LITTON INDUSTRIES/USECO DIVISION

TERMINALS



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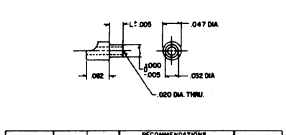

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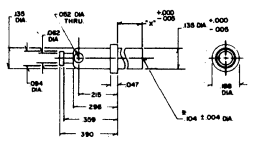

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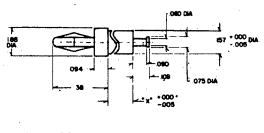

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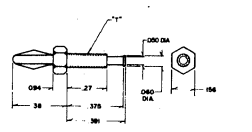

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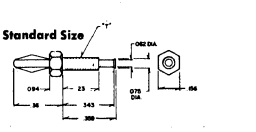

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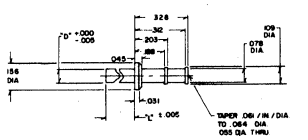

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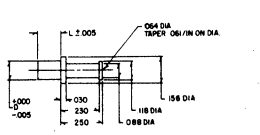

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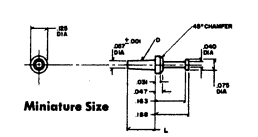
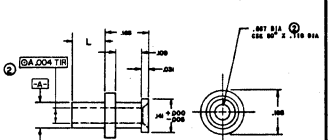


Part No. 2770



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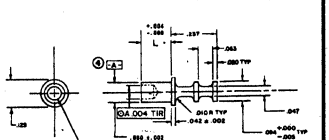

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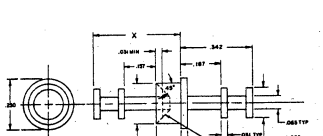

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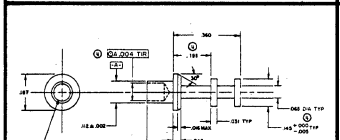

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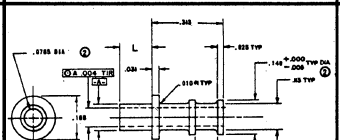

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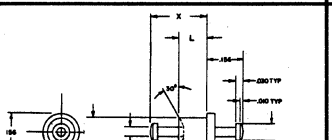

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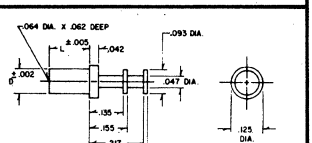
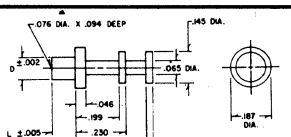
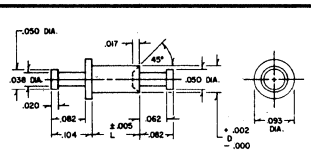


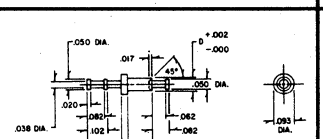
MIL-T-55155/12-4, -5, -6 · USECO Part No. 4522



MIL-T-55155/12-7, -8, -9 USECO Part No. 4523



MIL-T-55155/13-1, -2, -3 USECO Part No. 4524



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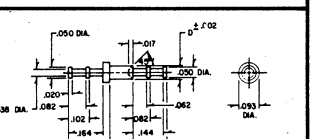

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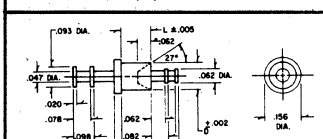
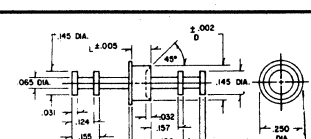
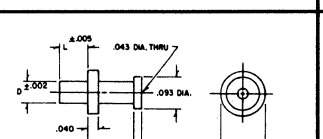


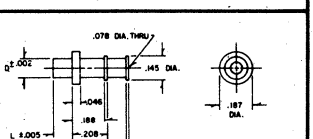
MIL-T-55155/15-4, -5, -6 USECO Part No. 4529



MIL-T-55155/15-7, -8, -9 USECO Part No. 4530



MIL-T-55155/16-1, -2, -3 USECO Part No. 4531



MIL-T-55155/17-1, -2, -3 USECO Part No. 4532

Plating: 0.00030/0.00050 silver. Tolerance: .XXX ± .010 before plating.

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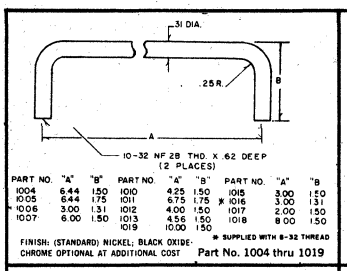
STANDARDIZED ELECTRONIC HARDWARE
LITTON INDUSTRIES/USECO DIVISION

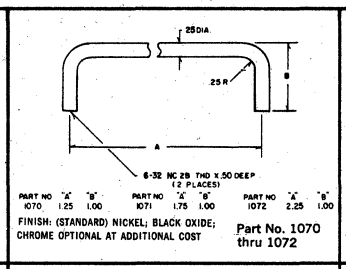
INSTRUMENT PANEL HARDWARE • Handles — Brass



PART NO.	"A"	"B"	PART NO.	"A"	"B"	PART NO.	"A"	"B"
1004	6.44	1.50	1010	4.25	1.50	1015	3.00	1.50
1005	6.44	.175	1011	6.75	1.75	* 1016	3.00	1.31
* 1006	3.00	1.31	1012	4.00	1.50	1017	2.00	1.50
1007	6.00	1.50	1013	4.56	1.50	1018	8.00	1.50
			1019	10.00	1.50			

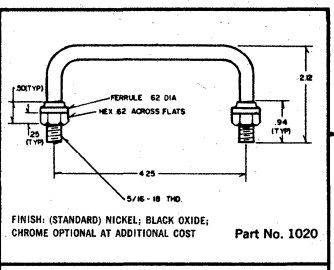
* SUPPLIED WITH 8-32 THREAD

FINISH: (STANDARD) NICKEL; BLACK OXIDE;
CHROME OPTIONAL AT ADDITIONAL COST Part No. 1004 thru 1019

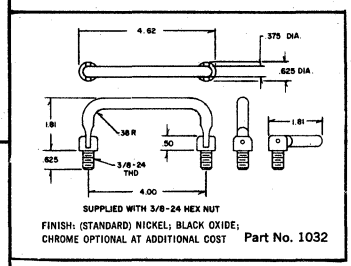


PART NO	"A"	"B"	PART NO	"A"	"B"	PART NO	"A"	"B"
1070	1.25	1.00	1071	1.75	1.00	1072	2.25	1.00

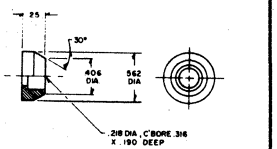
FINISH: (STANDARD) NICKEL; BLACK OXIDE;
CHROME OPTIONAL AT ADDITIONAL COST Part No. 1070 thru 1072



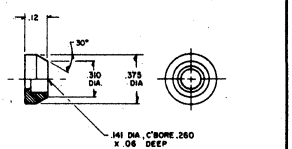
FINISH: (STANDARD) NICKEL; BLACK OXIDE;
CHROME OPTIONAL AT ADDITIONAL COST Part No. 1020



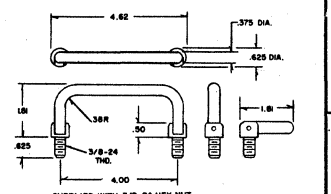
SUPPLIED WITH 3/8-24 HEX NUT
FINISH: (STANDARD) NICKEL; BLACK OXIDE;
CHROME OPTIONAL AT ADDITIONAL COST Part No. 1032



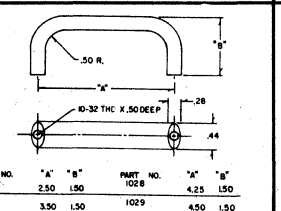
MAY BE USED WITH HANDLES 1004 through 1019
FINISH: (STANDARD) NICKEL; BLACK OXIDE;
CHROME OPTIONAL AT ADDITIONAL COST Part No. 900



MAY BE USED WITH HANDELS 1070/1072
FINISH: (STANDARD) NICKEL; BLACK OXIDE;
CHROME OPTIONAL AT ADDITIONAL COST Part No. 903

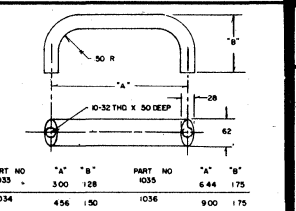


SUPPLIED WITH 3/8-24 HEX NUT
FINISH: (STANDARD) NICKEL; BLACK OXIDE;
CHROME OPTIONAL AT ADDITIONAL COST Part No. 1031



PART NO.	"A"	"B"	PART NO.	"A"	"B"
1026	2.50	1.50	1028	4.25	1.50
1027	3.50	1.50	1029	4.50	1.50

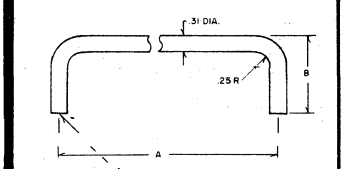
FINISH: (STANDARD) NICKEL; BLACK OXIDE;
CHROME OPTIONAL AT ADDITIONAL COST Part No. 1026 thru 1029



PART NO	"A"	"B"	PART NO	"A"	"B"
1033	3.00	1.28	1035	6.44	1.75
1034	4.56	1.50	1036	9.00	1.75

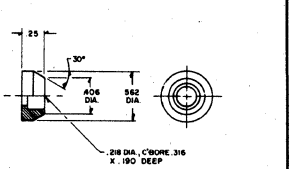
FINISH: (STANDARD) NICKEL; BLACK OXIDE;
CHROME OPTIONAL AT ADDITIONAL COST Part No. 1033 thru 1036

Handles — Aluminum



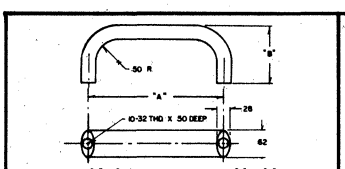
PART NO	"A"	"B"	PART NO	"A"	"B"	PART NO.	"A"	"B"
1060	6.44	1.50						
1061	6.44	1.75	1064	4.00	1.50	1067	2.00	1.50
1062	6.00	1.50	1065	4.56	1.50	1068	8.00	1.50
1063	4.25	1.50	1066	3.00	1.50	1069	10.00	1.50

STANDARD FINISH BUFFED — ANODIZED FINISH AVAILABLE
Part No. 1060 thru 1069



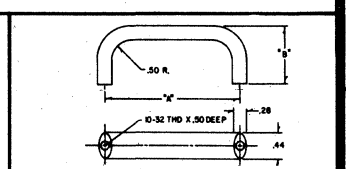
MAY BE USED WITH HANDLES 1060 THROUGH 1069
STANDARD FINISH BUFFED — ANODIZED FINISH AVAILABLE
Part No. 901

Handles — Stainless Steel



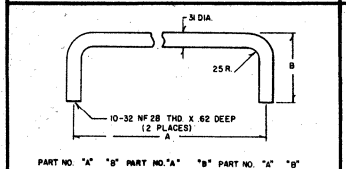
PART NO.	"A"	"B"	PART NO.	"A"	"B"
1075	3.00	1.28	1077	6.44	1.75
1076	4.56	1.50	1078	9.00	1.75

FINISH: BRIGHT: BRIGHT PASSIVATE PER MIL-F-14072 (E300)(STD.-17)
NON-REFLECTIVE BLACK:
BLACK PASSIVATE PER MIL-C-13924 CL. III(1-17.2)
Part No. 1075



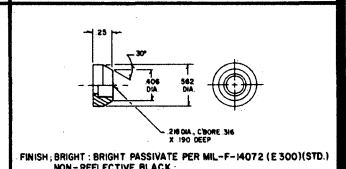
PART NO.	"A"	"B"	PART NO.	"A"	"B"
1080	2.50	1.50	1082	4.25	1.50
1081	3.50	1.50	1083	4.50	1.50

FINISH: BRIGHT: BRIGHT PASSIVATE PER MIL-F-14072 (E300)(STD.-17)
NON-REFLECTIVE BLACK:
BLACK PASSIVATE PER MIL-C-13924 CL. III(1-17.2)
Part No. 1080

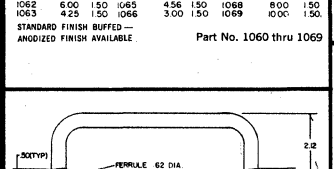


PART NO.	"A"	"B"	PART NO.	"A"	"B"	PART NO.	"A"	"B"
1090	2.00	1.50	1093	4.00	1.50	1096	6.00	1.50
*1091	3.00	1.31	1094	4.25	1.50	1097	8.00	1.50
1092	3.00	1.50	1095	4.56	1.50	1098	10.00	1.50

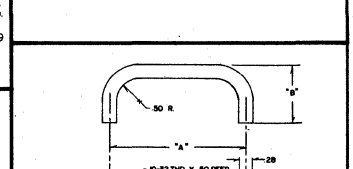
FINISH: BRIGHT: BRIGHT PASSIVATE PER MIL-F-14072 (E300) (STD.-17)
NON-REFLECTIVE BLACK:
BLACK PASSIVATE PER MIL-C-13924 CL. III (14.1)
* SUPPLIED WITH 8-32 THD. FOR MTG Part No. 1090



FINISH; BRIGHT: BRIGHT PASSIVATE PER MIL-F-14072 (E300)(STD.)
NON-REFLECTIVE BLACK:
BLACK PASSIVATE PER MIL-C-13924 CL. III (14.1)
TOL.(STD.), .XXX ±.010 , .XX ±.016 BEFORE FINISH.
PART MAY BE USED WITH HANDLES NO. 1090,1091,1092,1093,1094,
1095,1096, 1097, 1098
Part No. 904

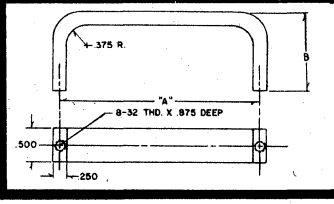


STANDARD FINISH BUFFED — ANODIZED FINISH AVAILABLE
Part No. 1021



PART NO.	"A"	"B"	PART NO.	"A"	"B"
1050	3.00	1.28	1052	6.44	1.75
1051	4.56	1.50	1053	9.00	1.75

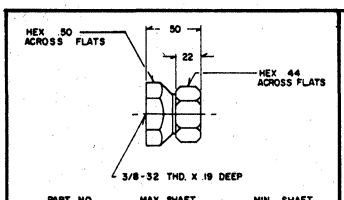
STANDARD FINISH BUFFED —
ANODIZED FINISH AVAILABLE Part No. 1050



PART NO.	"A"	"B"
1054	4.25	1.50
1055	6.00	1.50

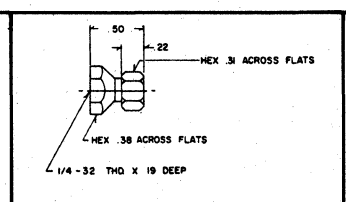
FINISH; BRIGHT: CHROMATE CONVERSION COATING PER MIL-C-5541
NON-REFLECTIVE BLACK: BLACK ANODIZE PER
MIL-A-8625 TYPE II
Part No. 1054 & 1055

Shaft Locks — Brass



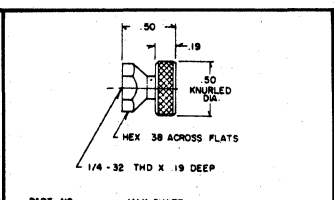
PART NO.	MAX. SHAFT DIA.	MIN. SHAFT EXT.
1510	.250	.32

STANDARD PLATING — 12 Part No. 1510



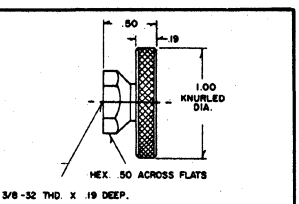
PART NO.	MAX SHAFT DIA.	MIN. SHAFT EXT.
1512	.125	.32

STANDARD PLATING — 12 Part No. 1512



PART NO	MAX SHAFT DIA.	MIN. SHAFT EXT.
1513	.125	.32

STANDARD PLATING — 12 Part No. 1513



3/8-32 THD. X .19 DEEP.

PART NO.	MAX. SHAFT DIA.	MIN. SHAFT EXT.
1520	.250	.32

STANDARD PLATING — 12 Part No. 1520

Tolerance: .XXX ± .010; .XX ± .016 before plating

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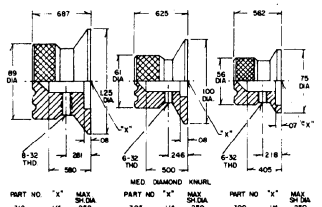
STANDARDIZED ELECTRONIC HARDWARE
LITTON INDUSTRIES/USECO DIVISION

INSTRUMENT PANEL HARDWARE • Knobs



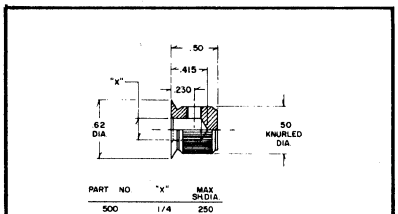
PART NO.	"X"	MAX SH DIA
310	1/4	250
311	3/16	188
312	1/8	125

PART NO	"X"	MAX SH DIA
305	1/4	250
306	3/16	188
307	1/8	125

PART NO	"X"	MAX SH DIA
300	1/4	250
301	3/16	188
302	1/8	125

STANDARD FINISH BUFFED — ANODIZED FINISH AVAILABLE

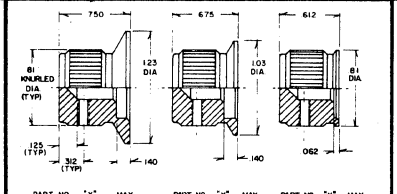
Part No. 300



PART NO	"X"	MAX SH DIA
500	1/4	250
501	3/16	188
502	1/8	125

STANDARD FINISH BUFFED — ANODIZED FINISH AVAILABLE

Part No. 500



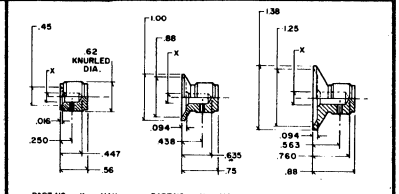
PART NO	"X"	MAX SH DIA
560	1/4	250
561	3/16	188
562	1/8	125

PART NO	"X"	MAX SH DIA
555	1/4	250
556	3/16	188
557	1/8	125

PART NO.	"X"	MAX SH DIA
550	1/4	250
551	3/16	188
552	1/8	125

STANDARD FINISH BUFFED — ANODIZED FINISH AVAILABLE

Part No. 550



PART NO.	X	MAX SH DIA
627	1/8	125
626	3/16	188
625	1/4	250

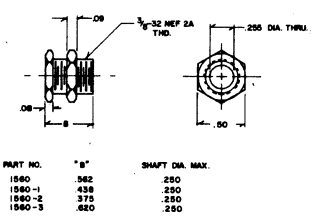
PART NO.	X	MAX SH DIA
1002	1/8	125
1001	3/16	188
1000	1/4	250

PART NO.	X	MAX SH DIA
1040	1/8	125
1039	3/16	188
1038	1/4	250

STANDARD FINISH BUFFED — ANODIZED FINISH AVAILABLE

Part No. 625

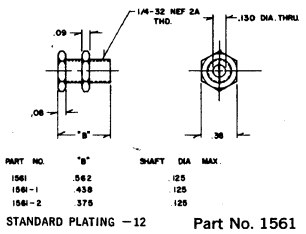
Accessory Hardware



PART NO.	"B"	SHAFT DIA. MAX.
1560	.562	.250
1560-1	.438	.250
1560-2	.375	.250
1560-3	.620	.250

STANDARD PLATING — 12

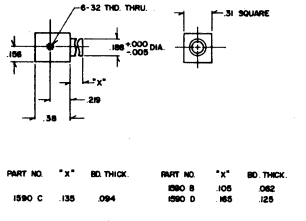
Part No. 1560



PART NO.	"B"	SHAFT DIA MAX.
1561	.562	.125
1561-1	.438	.125
1561-2	.375	.125

STANDARD PLATING — 12

Part No. 1561

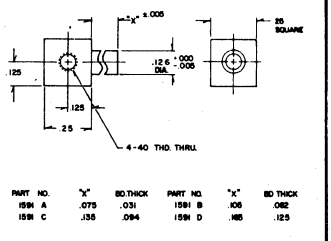


PART NO.	"X"	BD. THICK.
1590 C	.135	.094

PART NO.	"X"	BD. THICK.
1590 B	.106	.082
1590 D	.165	.125

STANDARD PLATING — 11

Part No. 1590

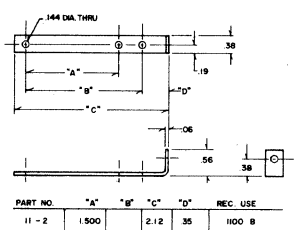


PART NO.	"X"	BD.THICK
1591 A	.075	.031
1591 C	.135	.094

PART NO.	"X"	BD THICK
1591 B	.106	.082
1591 D	.165	.125

STANDARD PLATING — 11

Part No. 1591

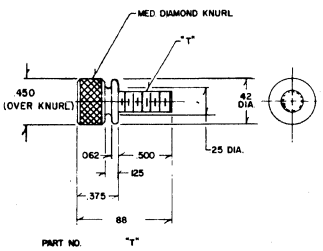


PART NO.	"A"	"B"	"C"	"D"	REC. USE
11-2	1.500		2.12	.35	1100 B
11-3	1.500	2.000	2.62	.35	1100 B & C
11-4	2.000	2.500	3.31	.56	1100 C & D
11-5	1.500	2.000	2.81	.56	1100 B & C

STANDARD PLATING — 11

Part No. 11

MATL.; 1020 COLD ROLLED STEEL PER QQ-S-633

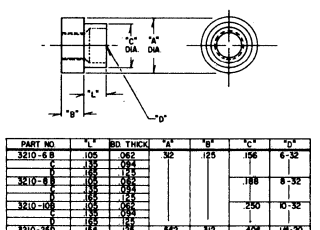


PART NO.	"T"
3100-6	6-32
3100-8	8-32
3100-10	10-32

STANDARD PLATING — 12

Part No. 3100

MATL.; BRASS, 1/2 HARD, COMP. 22, PER QQ-B-626

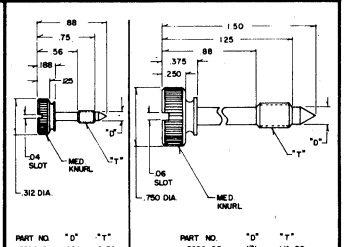


PART NO.	"L"	BD. THICK	"A"	"B"	"C"	"D"
3210-6 B	.105	.062	.32	.125	.156	6-32
C	.135	.094				
E	.165	.125				
3210-8 B	.105	.062			.188	8-32
C	.135	.094				
E	.165	.125				
3210-10 B	.105	.062			.250	10-32
C	.135	.094				
E	.165	.125				
3210-250 B	.105	.062	.562	.312	.406	1/4-20
C	.135	.094				
E	.165	.125				
F	.218	.188				
	.281	.250				

STANDARD PLATING — 12

Part No. 3210

MATL.; BRASS, 1/2 HARD, COMP. 22, PER QQ-B-626



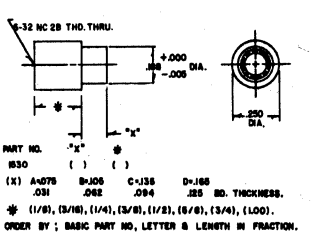
PART NO.	"D"	"T"
3200-6	.094	6-32
3200-8	.120	8-32
3200-10	.140	10-32

PART NO.	"D"	"T"
3200-25	.171	1/4-20

STANDARD PLATING — 12

Part No. 3200

MATL.; BRASS, 1/2 HARD, COMP. 22, PER QQ-B-626



PART NO.	"X"	*
1530	( )	( )

(X) A=.075 .031 B=.106 .062 C=.135 .094 D=.165 .125 SD. THICKNESS.

* (1/8), (3/16), (1/4), (5/16), (1/2), (6/8), (3/4), (1.00).

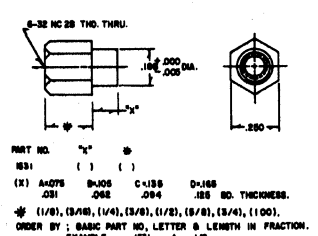
ORDER BY ; BASIC PART NO, LETTER & LENGTH IN FRACTION.

EXAMPLE ; 1530 — 1/8

MODEL NO. — "X" DIM. — * DIM.

STANDARD PLATING — 12

Part No. 1530



PART NO.	"X"	*
1531	( )	( )

(X) A=.075 .031 B=.106 .062 C=.135 .094 D=.165 .125 SD. THICKNESS.

* (1/8), (3/16), (1/4), (3/8), (1/2), (5/8), (3/4), (1.00).

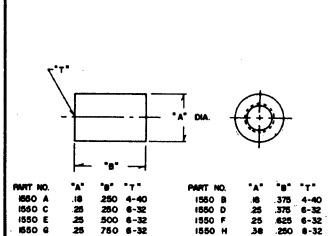
ORDER BY ; BASIC PART NO, LETTER & LENGTH IN FRACTION.

EXAMPLE ; 1531 — 1/8

MODEL NO. — "X" DIM. — * DIM.

STANDARD PLATING — 12

Part No. 1531

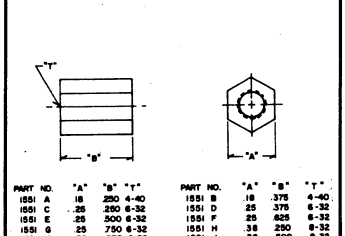


PART NO.	"A"	"B"	"T"
1550 A	.18	.250	4-40
1550 C	.28	.250	6-32
1550 E	.25	.500	6-32
1550 G	.25	.750	6-32
1550 I	.38	.375	8-32
1550 K	.38	.625	8-32

PART NO.	"A"	"B"	"T"
1550 B	.18	.375	4-40
1550 D	.25	.375	6-32
1550 F	.25	.625	6-32
1550 H	.38	.250	6-32
1550 J	.38	.500	8-32
1550 M	.38	.750	8-32

STANDARD PLATING — 12

Part No. 1550



PART NO.	"A"	"B"	"T"
1551 A	.18	.250	4-40
1551 C	.28	.250	6-32
1551 E	.25	.500	6-32
1551 G	.25	.750	6-32
1551 I	.38	.375	8-32
1551 K	.38	.625	8-32

PART NO.	"A"	"B"	"T"
1551 B	.18	.375	4-40
1551 D	.25	.375	6-32
1551 F	.25	.625	6-32
1551 H	.38	.250	8-32
1551 J	.38	.500	8-32
1551 M	.38	.750	8-32

STANDARD PLATING — 12

Part No. 1551

Tolerance: .XXX ± .010; .XX ± .016 before plating

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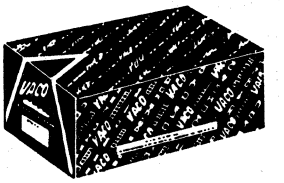
"C" PAK contains 100 terminals of a number and convenient for larger quantity users. Each carton readily identifiable from outside.

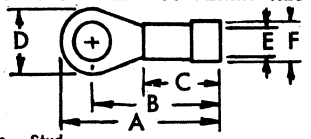


"MB" PAK contains 1000 terminals providing minimum terminal cost to large quantity users.

VACO® PRODUCTS CO.

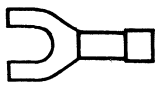
SOLDERLESS TERMINALS and CONNECTORS

DOUBLE-GRIP SOLDERLESS TERMINALS



RING TONGUE

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
41204	22-18	4	47/64	5/8	13/32	7/32	5/32	11/64
41205	22-18	5-6	47/64	5/8	13/32	7/32	5/32	11/64
41206	22-18	5-6	13/16	43/64	13/32	9/32	5/32	11/64
41208	22-18	8	13/16	21/32	13/32	21/64	5/32	11/64
41210	22-18	10	13/16	21/32	13/32	21/64	5/32	11/64
41304	16-14	4	23/32	19/32	13/32	15/64	3/16	13/64
41305	16-14	5-6	23/32	19/32	13/32	15/64	3/16	13/64
41306	16-14	5-6	53/64	21/32	13/32	21/64	3/16	13/64
41308	16-14	8	55/64	45/64	13/32	21/64	3/16	13/64
41310	16-14	10	55/64	45/64	13/32	21/64	3/16	13/64
41314	16-14	12-1/4	5/164	27/32	13/32	29/64	3/16	13/64
41338	16-14	3/8	13/164	15/16	13/32	17/32	3/16	13/64



SPADE TONGUE

43204	22-18	4	23/32	9/16	13/32	15/64	5/32	11/64
43206	22-18	5-6	49/64	39/64	13/32	19/64	5/32	11/64
43208	22-18	8	51/64	39/64	13/32	11/32	5/32	11/64
43210	22-18	10	27/32	41/64	13/32	13/32	5/32	11/64
43306	16-14	4-6	3/4	19/32	13/32	19/64	3/16	13/64
43308	16-14	8	51/64	5/8	13/32	11/32	3/16	13/64

SPADE TONGUE (cont.)

43310	16-14	10	27/32	21/32	13/32	13/32	3/16	13/64
44206	22-18	4-6	27/32	5/8	13/32	19/64	5/32	11/64

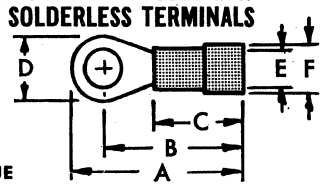
HOOK TONGUE

45208	22-18	4-8	7/8	45/64	13/32	11/32	5/32	11/64
45306	16-14	4-6	3/4	19/32	13/32	19/64	3/16	13/64
45308	16-14	8	51/64	5/8	13/32	11/32	3/16	13/64
45310	16-14	10	27/32	21/32	13/32	13/32	3/16	13/64

QUICK CONNECTORS

48301	16-14	29/32		13/32	1/4	3/16	13/64
48302	16-14	13/16		13/32	1/4	5/32	11/64

INSULATED DOUBLE-GRIP SOLDERLESS TERMINALS



RING TONGUE

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
91204	22-18	4	51/64	11/16	29/64	7/32	11/64	13/64
91205	22-18	5-6	51/64	11/16	29/64	7/32	11/64	13/64
91206	22-18	5-6	55/64	47/64	29/64	9/32	11/64	13/64
91208	22-18	8	7/8	23/32	29/64	21/64	11/64	13/64
91210	22-18	10	7/8	23/32	29/64	21/64	11/64	13/64
91304	16-14	4	25/32	21/32	29/64	15/64	13/64	15/64
91305	16-14	5-6	25/32	21/32	29/64	15/64	13/64	15/64

RING TONGUE (cont.)

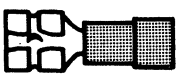
Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
91306	16-14	5-6	57/64	23/32	29/64	21/64	13/64	15/64
91308	16-14	8	59/64	49/64	29/64	21/64	13/64	15/64
91310	16-14	10	59/64	49/64	29/64	21/64	13/64	15/64
91314	16-14	12-1/4	1 1/8	29/32	29/64	29/64	13/64	15/64
91338	16-14	3/8	17/164	1	29/64	17/32	13/64	15/64

SPADE TONGUE

93204	22-18	4	3/4	5/8	29/64	15/64	11/64	13/64
93206	22-18	5-6	53/64	43/64	29/64	19/64	11/64	13/64
93208	22-18	8	27/32	43/64	29/64	11/32	11/64	13/64
93210	22-18	10	29/32	45/64	29/64	13/32	11/64	13/64
93306	16-14	4-6	13/16	21/32	29/64	19/64	11/64	13/64
93308	16-14	8	55/64	11/16	29/64	11/32	13/64	15/64
93310	16-14	10	29/32	45/64	29/64	13/32	13/64	15/64
94206	22-18	4-6	57/64	11/16	29/64	19/64	11/64	13/64

HOOK TONGUE

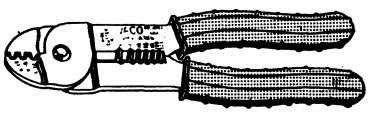
95208	22-18	4-8	15/16	49/64	29/64	11/32	11/64	13/64
95306	16-14	4-6	13/16	21/32	29/64	19/64	13/64	15/64
95308	16-14	8	55/64	11/16	29/64	11/32	13/64	15/64
95310	16-14	10	29/32	45/64	29/64	13/32	13/64	15/64



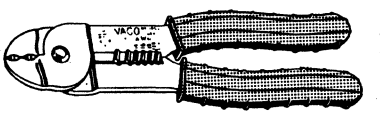
QUICK CONNECTOR

98301	16-14	61/64		29/64	1/4	13/64	15/64
98302	16-14	7/8		29/64	1/4	13/64	13/64

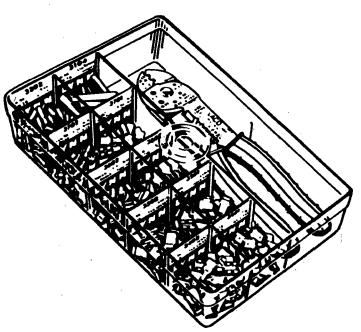
VACO CRIMPING TOOLS and KITS



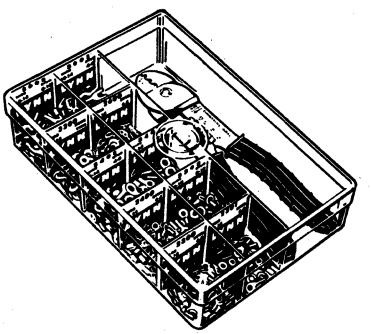
No. 1900 cuts wire, strips wire from 22 to 10 gauge, and crimps non-insulated solderless terminals. Plastic comfort handles are used on all Vaco crimping tools.



No. 1906 cuts and strips wire 22 to 10 gauge and crimps insulated solderless terminals. All Vaco tools are chrome plated, high quality steel.



No. 2195 Service Kit for Radio-TV and General Purpose Use. Contains No. 1900 crimping tool and one bin each of the following numbers: 11205, 11206, 11210, 11305, 11306, 11310, 14206, 13306, 13310, 15208.



No. 3185 Service Kit for Appliance, Automotive and Electrical Use. Contains No. 1900 crimping tool plus popular assortment of quick-connect terminals and adapters as follows: 18301, 18302, 18303, 18304, 18001, 18002, 18008, 18007, 19301, 19302.

FREE
NEW 5 STEP ENGINEERING DESIGN GUIDE and 12-PAGE COMPLETE LINE CATALOG

SAVES TIME,
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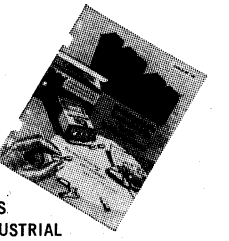
SOLDERLESS
TERMINALS AND
CONNECTORS
COVERS 6 BASIC CLASSES
SERVING OVER 90% INDUSTRIAL
AND MILITARY NEEDS



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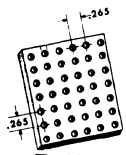
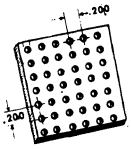
Vector Electronic Company
INCORPORATED

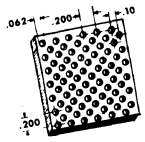
VECTORBORD



Pattern A



Pattern F



Pattern G

Pattern	Spacing	Pattern	Spacing	Pattern	Spacing
A	.265 Centers	B	.188 Centers	H	.100 Centers
C	.200 Centers	E	.141 Centers	G	.20 x .10
		F	.200 Centers	L	.250 Centers

Vectorbord (Pre-Punched Terminal Board) has precision pre-punched holes at various spacings on tan XXXP phenolic type PBE-P (Mil-P-3115B), ivory EXXXP Epoxy Paper type PEE (Mil-P-22324), G-10 Epoxy Glass type GEE (Mil-P-18177), Copper clad G-10 Epoxy Glass type FL-GE (Mil-P-13949C), copper clad XXXP phenolic type PP (Mil-P-13949B) and copper clad Epoxy Paper (Mil-P-13949B). Ideal for prototypes and many production uses. Vector Push-In Terminals or standard turned terminals and eyelets fit pre-punched holes. User can make own etched circuits with listed copper clad boards. May be sawed, drilled or punched.

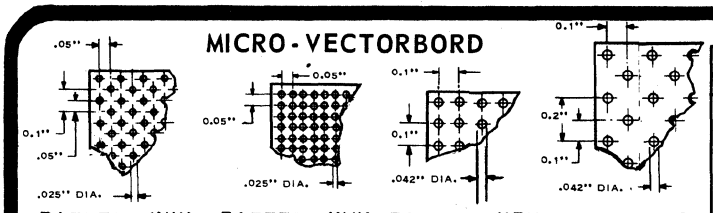
Cat. No.	Pattern	Hole Size	Dimensions	No. of Holes	Price 1-19
XXXP Phenolic					
18A18	A	.093	4.80 x 4.80 x 1/16	18 x 18	$ .43
32A9	A	.093	8.51 x 2.41 x 1/16	32 x 9	.45
32AA18	A	.093	8.51 x 4.80 x 3/32	32 x 18	.84
64A18	A	.093	4.8 x 16.99 x 1/16	64 x 18	1.25
64AA18	A	.093	4.8 x 16.99 x 3/32	64 x 18	1.60
64AA32	A	.092	16.99 x 8.51 x 3/32	64 x 32	2.45
45B30	B	.062	8.51 x 5.69 x 1/16	45 x 40	.84
90B30	B	.062	16.97 x 5.69 x 1/16	90 x 30	1.62
85C24	C	.093	16.99 x 4.80 x 1/16	85 x 23	1.25
95G175	G	.062	35.00 x 19.00 x 1/16	(94 x 175) x 2	7.62
18L26	L	.093	4.5 x 6.5 x 1/16	18 x 26	.75
19LL34	L	.093	4.8 x 8.5 x 3/32	19 x 34	.84
19LL67	L	.093	4.8 x 17.0 x 3/32	19 x 67	1.60
34LL67	L	.093	8.5 x 17.0 x 3/32	34 x 67	2.45

Cat. No.	Pattern	Hole Size	Dimensions	No. of Holes	Price 1-19
Epoxy Paper					
32AA18EP	A	.093	8.51 x 4.80 x 3/32	32 x 18	1.40
64AA18EP	A	.093	16.99 x 4.80 x 3/32	64 x 18	2.73
64AA32EP	A	.093	16.99 x 8.51 x 3/32	64 x 32	4.39
85F24EP	F	.062	16.99 x 4.80 x 1/16	85 x 23	2.06
85G24EP	G	.062	16.99 x 4.80 x 1/16	(85 x 23) x 2	2.06
85G42EP	G	.062	16.99 x 8.5 x 1/16	(85 x 42) x 2	3.17
120E33EP	E	.062	16.99 x 4-13/16 x 1/16	120 x 33	2.23
Epoxy Glass					
32A18WE	A	.093	8.51 x 4.80 x 1/16	32 x 18	1.89
42G24WE	G	.062	8.5 x 4.80 x 1/16	(42 x 23) x 2	1.94
85G24WE	G	.062	16.99 x 4.80 x 1/16	(85 x 23) x 2	3.81
170H48WE/032	H	.062	17.00 x 4.80 x 1/15	170 x 47	3.57
120E33WE	E	.062	16.99 x 4-13/16 x 1/16	120 x 33	3.99
Copper Clad XXXP Phenolic					
3106-1XXXP	F	.062	3 x 4½	18 x 14	.45
3106-2XXXP	F	.062	3 x 4½	18 x 14	.55
3070-1XXXP	F	.062	4½ x 6½	28 x 22	.84
3070-2XXXP	F	.062	4½ x 6½	28 x 22	1.04
42F22C1*	F	.062	4.5 x 8.5	42 x 22	1.05
42F22C2**	F	.062	4.5 x 8.5	42 x 22	1.32
Copper Clad Epoxy Paper					
3070-1EP	F	.062	4.5 x 6.5 x 1/16	28 x 22	1.39
3070-2EP	F	.062	4.5 x 6.5 x 1/16	28 x 22	1.67
Copper Clad Epoxy Glass					
42G22WEC1*	G	.062	8.5 x 4.5 x 1/16	(42 x 22) x 2	2.55
42G22WEC2**	GG	.062	8.5 x 4.5 x 1/16	(42 x 22) x 2	2.60
85F42WEC1*	F	.062	16.99 x 8.51 x 1/16	85 x 42	9.33
85F42WEC2**	F	.062	16.99 x 8.51 x 1/16	85 x 42	10.25

Copper Clad Unperforated				
4½" x 3"	XXXP Phenolic	CU45/30-1*	.30	CU45/30-2** .40
6½" x 4½"	XXXP Phenolic	CU65/45-1*	.60	CU65/45-2** .77
8½" x 4½"	XXXP Phenolic	CU85/45-1*	.70	CU85/45-2** .98
4½" x 3"	Epoxy Glass	CU45/30WE-1*	.69	CU65/45WE-2** 1.52
6½" x 4½"	Epoxy Glass	CU65/45WE-1*	1.34	CU85/45WE-2** 1.95
8½" x 4½"	Epoxy Glass	CU85/45WE-1*	1.71	

* Indicates 2 oz. Copper Clad 1 Side
** Indicates 2 oz. Copper Clad 2 Sides

MICRO-VECTORBORD

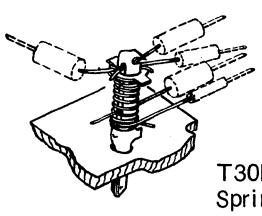


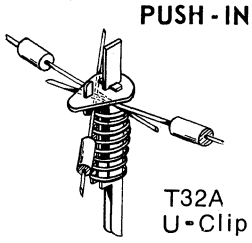
PATTERN "K" PATTERN "M" PATTERN "P" PATTERN "Q"

Micro-Vectorbord has been specially designed for the denser packaging required by cordwood construction and mounting micro-miniature components. All boards listed are 1/32" thick G-10 Epoxy Glass type GEE (Mil-P-18177) or copper clad G-10 Epoxy Glass type FL-GE (Mil-P-13949C). Other thicknesses available on order.

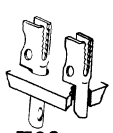
Cat. No.	Pattern	Hole Size	Dimension	No. of Holes	Price 1-19
59P19/032	P	.042"	6" x 2" x 1/32"	59 x 19	$1.09
169P59/032	P	.042"	17" x 6" x 1/32"	169 x 59	4.82
29Q9/032	Q	.042"	6" x 1" x 1/32"	(29 x 9) x 2	.90
84Q29/032	Q	.042"	17" x 6" x 1/32"	(84 x 29) x 2	4.39
76M38/032	M	.025"	4" x 2" x 1/32"	76 x 38	1.52
336M76/032	M	.025"	17" x 4" x 1/32"	336 x 76	8.50
38K19/032	K	.025"	4" x 2" x 1/32"	(38 x 19) x 2	1.30
168K38/032	K	.025"	17" x 4" x 1/32"	(168 x 38) x 2	6.42
EPOXY GLASS COPPER CLAD ONE SIDE					
169P59/032C1	P	.042"	17" x 6" x 1/32"	169 x 59	6.61
336M76/032C1	M	.025"	17" x 4" x 1/32"	336 x 76	9.69

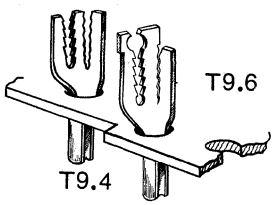
PUSH-IN TERMINALS


T30N-2 Springclip


T32A U-Clip

Mini-Klip


T28 T28-1


T9.6 T9.4

SOLDERLESS SPRINGCLIP TERMINALS—Reliable truly solderless terminals for fast setup of experimental circuitry. May be used over and over—permits reusing expensive components by eliminating heat damage. Extremely low contact resistance less than .002 ohms for T30-2. Order insertion tool P-92A for easy insertion in .093" holes. Suggested board thickness 3/32" for best support of terminal.

Cat. No.	Fits Holes	Description	Quan. Per Bag
T9.4	.093"	Brass, Tin Pltg.	100
T9.4A	.093"	Brass, Tin Pltg.	100
P122		Inserting tool for T9.4 & T9.4A	1
T9.6	.093"	Brass, Tin Pltg.	100
T28	.062"	Beryllium Copper, Tin Pltg.	100
T28S	.062"	Beryllium Copper silver Pltg.	100
T28-1	.062"	Beryllium Copper, Tin Pltg.	100
P91		Inserting tool for T28 series	1
T30-2	.093"	Brass, Silver Pltg.	10
T30-2	.093"	Brass, Silver Pltg.	100
T30N-2	.093"	Brass, Nickel Pltg.	10
T30N-2	.093"	Brass, Nickel Pltg.	100
P92A		Inserting tool for T30-2 series	1
T32A	.093"	Side Entry U-Clip (Solderless Springclip)	100

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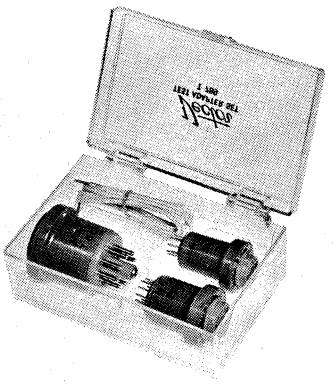
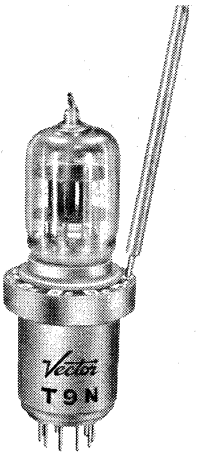
TUBE SOCKET TEST ADAPTERS



T-789



T9N

TUBE SOCKET TEST ADAPTERS are ideal for making voltage resistance and wave form measurements from the tube side of electronic equipment. To use, insert adapter between tube and socket, and replace tube in adapter socket. Special test tabs are recessed on the adapter skirt and have a hole to grip test probe and protect operator's fingers during insertion and withdrawal. Regular alligator test-clipped probes also hold on tab and socket. Castings are low loss phenolic and fit all shield bases for miniature and noval type or into standard tube clamps. Reduced body diameter permits insertion into new telescoping shields. Adapter socket contacts are beryllium copper, silver plated for long life and low resistance. Electrostatic capacity between adjacent leads of the adapter is approximately 1 micro-micro-farad. Flash over voltage between adjacent terminals is in excess of 1500 volts DC.

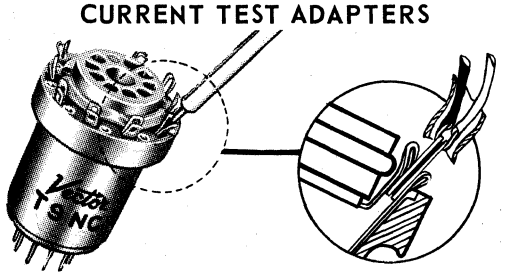
Kit T789 consists of the three popular "must have" sizes, 7-pin miniature, 8-pin octal, 9-pin noval and a P1 probe in a handy clear plastic carrying case.

Ordering Information

Cat. No.	Tube Type	Body Dia.	Skirt Dia.	Length Less Prongs	Price 1-19
T-4	4 Pin	1.26	1.56	1.50	3.04
T-5	5 Pin	1.26	1.56	1.50	3.10
T-6	6 Pin	1.26	1.56	1.50	3.18
T-7-0	7 Pin Small	1.26	1.56	1.50	3.25
T-7-L	7 Pin Large	1.45	1.75	1.50	3.25
T-7-M	7 Pin Min.	0.75	1.03	1.50	1.65
T-8-0	8 Pin Octal	1.25	1.56	1.50	1.75
T-9-N	9 Pin Noval	0.87	1.16	1.50	1.85
T789	Set of types T-7-M, T-8-0, T-9-N, P1, in case.				5.90
P1	Plug-in Probe with 30" lead.				.52

Special Adapters Designed to Customer Specifications—Write Factory.

CURRENT TEST ADAPTERS



Versatile VECTOR CURRENT TEST ADAPTERS make possible tube circuit current or voltage measurements without cutting leads or making computations. All measurements may be made from the tube side of the electronic equipment without disturbing the chassis.

Cat. No.	Type	Net Price 1-19
T-7-M-C	7 Pin Min.	2.53
T-8-0-C	8 Pin Octal	3.19
T-9-N-C	9 Pin Noval	2.70
P-2	Dual Sided Plug-in Probe, Required for above	.83
T-789-C	Set of Above 3 Adapters With P-2 Probe in Case	9.74

EXTENDED TUBE SOCKET TEST ADAPTERS

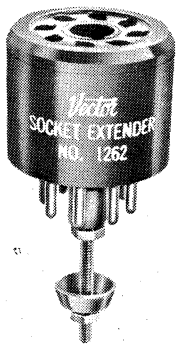
For most work the short, unshielded adapters are adequate. For hard to reach locations or where surrounding equipment restricts use of regular test adapters, the 3 to 4 inch extended adapter may be used. In these the leads between plug and socket are individually shielded to minimize coupling. The shield is brought out to a lug on the wall of the adapter and should be connected to the chassis being tested. Capacity to shield is approx. 8 mmf. per lead.

T7MS

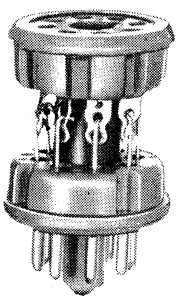
Ordering Information

Cat. No.	Tube Type	Body Dia.	Skirt Dia.	Length Less Prongs	Price 1-19
T-7-M-S	7 Pin Min.	0.75	1.03	3.25	5.91
T-8-0-S	8 Pin Octal	1.25	1.56	4.00	5.56
T-9-N-S	9 Pin Noval	0.87	1.16	3.25	6.60
P1	Plug-in Probe with 30" lead				.52
T-789-S	Set of above in case				19.00

SOCKET EXTENDERS EXPERIMENTER'S TEST ADAPTERS



1262



TX-8-0

Socket extenders provide a replaceable unit for use in tube testers and expensive meters. Wear is shifted from the socket in the tester to the one in the extender so that when it is worn out a new one can be easily inserted. Sockets have beryllium copper silver plated contacts for long life. An all molded outside shell is used with socket leads soldered to plug pins. All units provided with 1¾" long screw to hold unit firmly in place if desired.

EXPERIMENTER'S TEST ADAPTERS. These are similar to the Socket Test Adapter but are less the shells and tabs so that connections can be cross-connected in any desired way. User must solder connections.

Socket Extenders

Cat. No.	Socket Type	Net Price 1-19
1262	Octal 8	1.75
1263	9 P. Noval	1.75
1264	7 P. Miniature	1.75

Experimenter's Test Adapters

Cat. No.	Socket Type	Net Price 1-19
TX-8-0	Octal	1.43
TX-7-M	Miniature	.88
TX-9-N	Noval	.94
TX-789	Set of above three in kit	3.58

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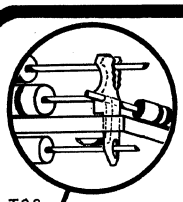
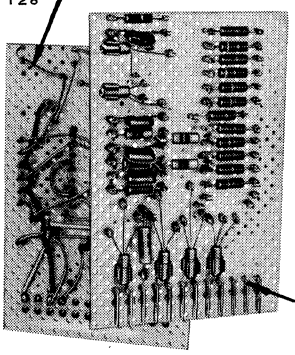
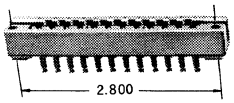
VECTOR PLUGBORDS



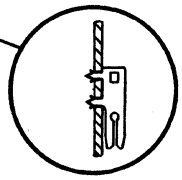
T28



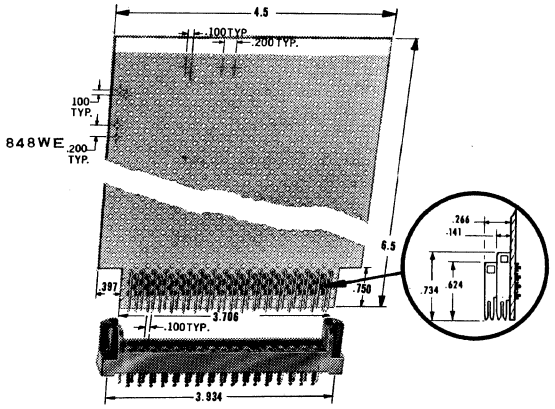
837 (WIRED)



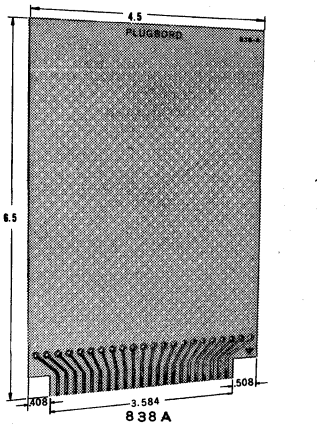
R612-1



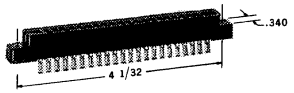
VARICON CONTACT



R635



838A



R644

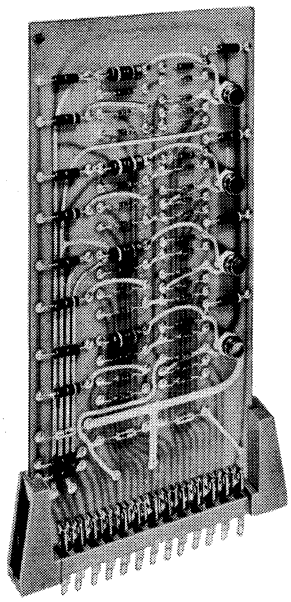
Use Plugbords with attached contacts for test circuits, P.C. Prototypes and short runs. Precision pre-punched 1/16" diameter holes on alternate 0.1" centers permit maximum flexibility of component location. Vector T28 MINI-KLIPS, eyelets, or standard turned terminals may be located wherever desired. For maximum economy use epoxy paper boards; for military specification requirements or additional strength use epoxy glass. All plugbords are 1/16" thick and are available with Elco Varicon, 2 oz. copper etched or Vector Edge-pin contacts. Epoxy paper boards meet requirements MIL-P-22323 type PEE; Epoxy glass is G-10 grade per MIL-P-18177. Copper clad Epoxy paper meets MIL-P-13949 type PX, and copper clad Epoxy glass meets MIL-P-13949B type FLGE-91.

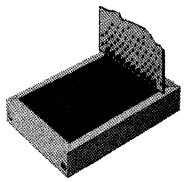
Receptacles listed are glass filled diallyl phthalate.

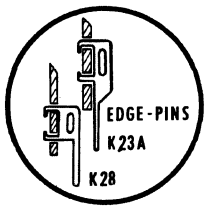
Ordering Information

Cat. No.	Description	Net Price 1-19
812	4½" x 6½" Epoxy Paper, 16 Varicon Contacts	2.73
812WE	4½" x 6½" Epoxy Glass, 16 Varicon Contacts	3.23
R616-1	Molded Receptacle for 812, 812WE	2.04
837	3" x 4½" Epoxy Paper, 12 Varicon Contacts	2.13
837WE	3" x 4½" Epoxy Glass, 12 Varicon Contacts	2.36
R612-1	Molded Receptacle for 837, 837WE	1.64
838	4½" x 6½" Epoxy Paper, 43 Etched Contacts, 2 Sides	3.34
838A	4½" x 6½" Epoxy Paper, 22 Etched Contacts, 1 Side	2.57
838AWE	4½" x 6½" Epoxy Glass, 22 Etched Contacts, 1 Side	3.19
838WE	4½" x 6½" Epoxy Glass, 43 Etched Contacts, 2 Sides	3.92
838PWE	4½" x 6½" Epoxy Glass, Etched Pads, 1 side	3.56
R644	Receptacle for above (fits all above etched boards)	2.62
848WE	4½" x 6½" Epoxy Glass, 35 Varicon Contacts	5.58
R635	Receptacle for 848WE	4.46

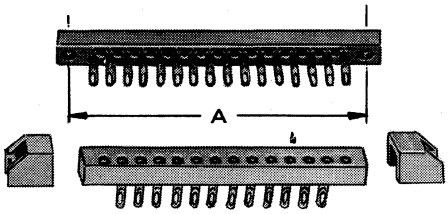
VECTORCONN CONNECTORS







INSTALLING TOOL



VERSATILE NEW VECTORCONN CONNECTORS
(For .040" diameter round pins)
Contact Reliability ● Large Variety of Sizes ● Top, Bottom, or Side Mounting Styles ● Solder Tab or Printed Circuit Tab ● Optional Card Guide Ends

VECTORCONNS employ wrap around contacts with outstanding reliability time proven in the tube socket industry. Receptacles accept available Vector Edgebord and Inbord pins or any .040" diameter round pins.

With a piece of "G" pattern Vectorbord and Edge Pins, user can quickly make any size plugbord required to fit various VECTORCONN Receptacles listed below.

MANY SIZES Standard off-the-shelf sizes are offered with .2" spaced contacts in single tiers of 4, 8, 12, 16, 20 or 41 contacts or double tiers (0.1" tier spacing) of contacts in blocks of 9, 17, 25, 33, or 41 contacts.

TAILOR-MAKE YOUR OWN Additional sizes with fewer contacts can be made from larger sizes by cutting off castings and installing end pieces.

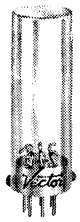
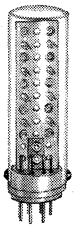
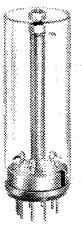
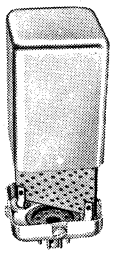
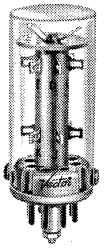
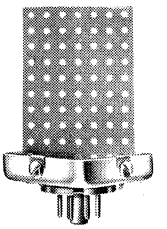
Receptacles can also be used as: Multiple test points on printed circuit boards. Front panel test points, in-out jacks, patch points.

Castings, end pieces and card guides are Diallyl Phthalate, glass filled per MIL-M-14 type SDG. Contacts are beryllium copper or phosphor bronze, nickel and gold plated.

Ordering Information

Cat No.	Description	A
	.296" Square Casting	
R112-S	12 Contact Single Row Solder Tab	2.742
R116-S	16 Contact Single Row Solder Tab	3.546
R217-S	17 Contact Double Row Solder Tab	1.942
R233-S	33 Contact Double Row Solder Tab	3.546
	.450 Square Casting	
RW120-S	20 Contact Single Row Solder Tab	
RW241-S	41 Contact Double Row Solder Tab	
	Accessories	
K-23A	Lower Row Edge Pin—Bags of 50	
K-28	Upper Row Edge Pin—Bags of 50	
P-93	Staking Pliers for K-23A, K-28	
B-61	End Brackets, Small for side mounting—Pkg. 10 and cut down VECTORCONNS—Pkg. 10	
B-60	Card Guide Brackets, Pkg. of 5 Pr.	

SMALL ROUND AND SQUARE PLUG-INS

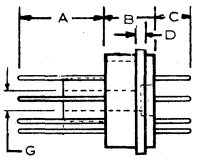
C12-KI.02 (with 514) G2-10-T-1 C12-KI.02 (with 511)

SMALL ROUND AND SQUARE PLUG-INS are ideal for packaging hand wired, printed, or solid state plug-in modules. Aluminum cases provide shielding and strength. Wide variety of internal structures eases circuit wiring. Plugs are standard tube base style with case sizes as follows: "B" type 8-pin Octal 1.42" square; "C" type 8-pin Octal 2" square; G2, 8-pin Octal 1¼" diameter; G2.1 9 pin Noval; G2.2 7 pin miniature Plug Key in square Octal based units points toward case corner.

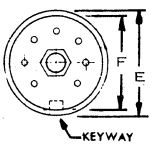
Catalog No.	Type of Socket	Internal Structure	Height	Net Price 1-49
B-8	None	None	2"	$1.46
B-10	None	None	2½"	1.30
B-10-N	7 p. Min.	Turret	2½"	2.46
B-10-T	None	Turret	2½"	1.90
B-10-4	None	Strip "A"	2½"	2.19
C-10	None	None	2½"	1.41
C-12	None	Noue	3"	1.44
C-12K1.02	None	None	3"	1.05
511*	None	None	3"	.69
514*	None	None	3"	.91
C-12-T	None	Turret	3"	2.11
C-12-4	None	Strip "A"	3"	3.14
G2-10	None	None	2½"	1.16
G2-10-T-1	None	Wafer	2½"	1.94
G2-10-4	None	Strip "D"	2½"	2.24
G2.1-8F	None	None	2"	1.49
G2.1-8-4	None	Strip "E"	2"	2.09
G2.2-8F	None	None	2"	1.49
G2.2-8-4	None	Strip "E"	2"	2.07

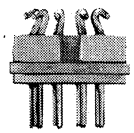
NOTE: *Indicates wall w/mtg. brackets attached for use in C-12-K1.02. 511 has holes per strip A — .093 holes spc. .265". 514 has 1/16" holes per strip G — Alternate .10" grid. to fit JEDEC Transistor leads. Strip "D" has .093" holes spaced 0.2" x 0.25". "Wafer" is 1" diameter used on Transistor Turret 654. Strip "E" has 1/16" holes spaced .141".

TUBE BASE PLUGS



P7



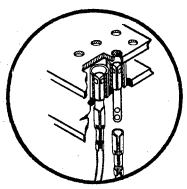

KI.434

VECTOR TUBE BASE PLUGS fit standard 7-pin miniature, 9-pin noval, and 14-pin relay sockets. Round metal cans may be attached with side screws in units with recessed 1/72" inserts in side with "KF" number. Plastic caps can also be epoxied in place. Plugs are mica-filled phenolic with phosphor bronze .040" diameter tinned pins. All except K1.14 have center screw hole 1/8" and recessed cavity for small pattern hex nut on underside.

Ordering Information

Catalog No.	Type	DIMENSIONS A	B	C	D	E	F	G	Net Price 1-49
P7	7 p. min.	17/32	.300	.265	1/16	.621	.575	.125	.47
P9	9 p. nov.	17/32	.300	.265	1/16	.748	.700	.125	.52
K1.402	(same as P9 except no center post)								.52
K1.334	7 Pin hooked		.300	.265	1/16	.621	.575	.125	.53
K1.434	9 Pin hooked		.300	.265	1/16	.748	.700	.125	.58
KR1.334	(same as K1.334 except with retaining ring)								.62
KR1.434	(same as K1.434 except with retaining ring)								.67
K1.14	14 pin	17/32	.300	.265	1/16	.750	.700		.63

PATCHBOARDS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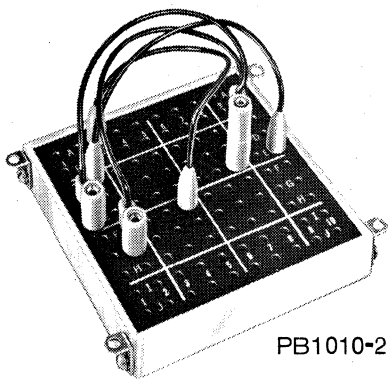
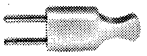
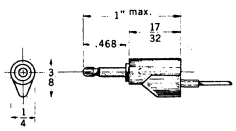

PB1010-2

PATCHCORD K2.06


JUMPER PLUG K2.02-1



PIGGY-BACK PLUG

Vector Fixed Panel style Patchboards provide simple but reliable low-cost units for multiple connection, single conductor patching for test panels, automation and telemetry equipment, low cost computers, numerical control equipment, paging and speaker systems or other equipment where economy and connection multiplicity are desired.

Extremely low contact resistance (less than .001 ohms) and long contact life (over 2000 insertions per contact without resistance change) assures reliability.

All boards are marked front and back with horizontal rows lettered alphabetically and vertical columns numbered. Brackets for mounting are supplied. Holes for plugs are .093" diameter, spaced on .265" centers. Front panels are removable and may be changed if necessary. Larger contact systems can be made by mounting standard panels adjacent. Special sizes, special marking and screening in colors are made to order at minimum cost.

SPECIFICATIONS:

Panels: Black XXXP phenolic, Type PBE-P. Grade 810 per MIL-P 3115, .093" thick with printed white numbers and letters. PB1010-1 has epoxy paper, ivory color, .093" thick with black numbers and letters.

Contacts: Beryllium copper, nickel plated gold flashed, 2 holes for soldering on leads. Add letter "A" to Cat. No. if wire wrap tabs are desired.

Dimensions: All boards 1" thick. See Description column for width and length.

Patchcords: Plugs .087"—.091" diameter x .468" long, nickel plated with standard #20 gage wire vinyl insulation. 6" black, 9" yellow, 15" blue.

Ordering Information

Cat. No.	No. of Contacts	Hole Layout	Size	Net Price 1-49
PB33-2	9	3 x 3	1.130 x 1.130	$ 2.95
PB110-2	10	10 x 1	2.985 x .600	3.25
PB210-2	20	20 x 2	2.985 x .865	4.25
PB510-2	50	10 x 5	2.985 x 1.660	6.45
PB1010-1	100	10 x 10	3.250 x 3.250	10.85
PB1010-2	100	10 x 10	2.985 x 2.985	10.85
PB1020-2	200	20 x 10	5.635 x 2.985	21.60
PB1520-2	300	20 x 15	5.635 x 4.310	32.35
*K2.06	Patchcord, single contact ea. end 6" (25 per bdl.)			bdl/2.60
*K2.09	Patchcord, single contact ea. end 9" (25 per bdl.)			bdl/2.68
*K2.15	Patchcord, single contact ea. end 15" (25 per bdl.)			bdl/3.08
†K9.06	Patchcord, Piggy-back each end 6"			ea. .93
†K9.09	Patchcord, Piggy-back each end 9"			ea. .93
†K9.15	Patchcord, Piggy-back each end 15"			ea. .93
*K2.02-1	Jumper Plug, Jumper type (25 per bdl.)			bdl/2.95

*Net any quantity

†Net price 1-999

Removable Pre-Programming Patchboard and patchcords also available with 204, 300, 450, 600 and 1200 contacts. Write factory.

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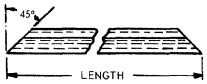
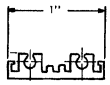
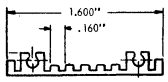
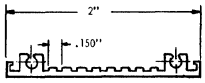
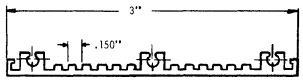
FRAME-LOC RAILS

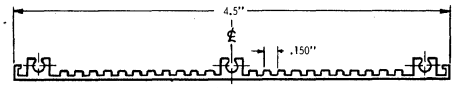


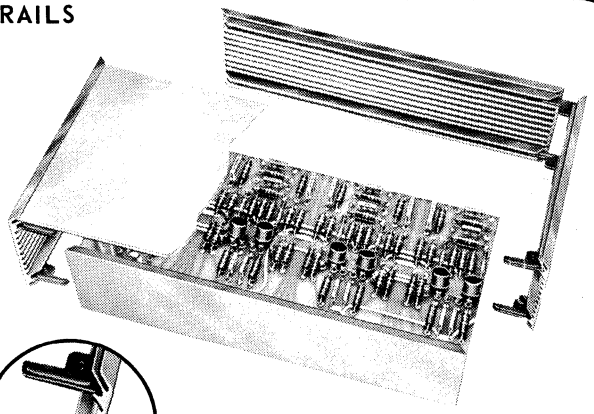


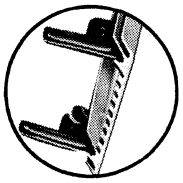












Make handsome, sleek aluminum cases for circuit boards in seconds with these new extruded aluminum rails. Each rail has extruded grooves running lengthwise so boards may be "stacked" if desired or shielded between with aluminum plates. Unique corner brackets and screws furnished with all mitred rails fasten corners together for chassis or complete boxes, or furnish your own covers. 24" unmitred pieces supplied for making required lengths.

FRAME-LOC CASE AND CHASSIS RAILS FOR 1/16" AND 3/32" BOARDS

Overall length /062 Series	1" Wide	1.6" Wide	2" Wide For 1/16" Boards	2" Wide For 3/32" Boards	3" Wide	4.5" Wide
24"	SR1-24/062 $ 2.10	SR1.6-24/062 $ 2.34	SR2-24/062 $ 2.52	SR2-24/093(24") $ 2.52	SR3-24/062 $ 4.08	SR4.5-24/062 $ 5.10
3.1" *Mitred	SR1-3.1/062 $ .90	SR1.6-3.1/062 $ .96	SR2-3.1/062 $ 1.02	SR2-3 /093(3.1") $ 1.02	SR3-3.1/062 $ 1.20	SR4.5-3.1/062 $ 1.32
4.6"	SR1-4.6/062 $1.02	SR1.6-4.6/062 $ 1.08	SR2-4.6/062 $ 1.14	SR2-4.8/093(4.8") $ 1.14	SR3-4.6/062 $ 1.38	SR4.5-4.6/062 $ 1.62
6.6"	SR1-6.6/062 $1.14	SR1.6-6.6/062 $ 1.20	SR2-6.6/062 $ 1.26	SR2-6.6/093(6.5") $ 1.26 SR2-8.5/093(8.5") $ 1.38	SR3-6.6/062 $1.68	SR4.5-6.6/062 $ 1.98
10.0"	SR1-10/062 $1.38	SR1.6-10/062 $1.44	SR2-10/062 $ 1.50	SR2-10/093(10") $ 1.50	SR3-10/062 $ 2.16	SR4.5-10/062 $ 2.64
14.0"	SR1-14/062 $1.50	SR1.6-14/062 $1.68	SR2-14/062 $ 1.80	SR2-14/093(13.9") $1.80 SR2-17/093(17") $ 2.10	SR3-14/062 $2.64	SR4.5-14/062 $ 3.74

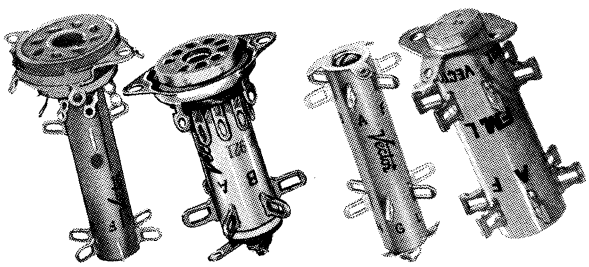
* 24" Lengths supplied square cut and no fasteners — all other mitred with corner brackets and screws.

Prices are per pair 1-49.

COVER PLATES (.064" Thick Aluminum)

Catalog No.	Length	Width	Price Each	Catalog No.	Length	Width	Price Each
PL2746	4.5	2.750	$ .96	PL4597	9.7	4.500	2.32
PL4546	4.5	4.500	1.22	PL8097	9.7	8.000	3.28
PL8046	4.5	8.000	1.97	PL27140	14.0	2.750	1.76
PL2766	6.5	2.750	1.13	PL45140	14.0	4.500	2.81
PL4566	6.5	4.500	1.51	PL80140	14.0	8.000	4.37
PL8066	6.5	8.000	2.48	PL4.8/17	17.0	4.800	1.28
PL4.8/8.5	8.5	4.8	.76	PL8.5/17	17.0	4.800	1.96
PL2797	9.7	2.750	1.39				

POST SOCKET TURRETS



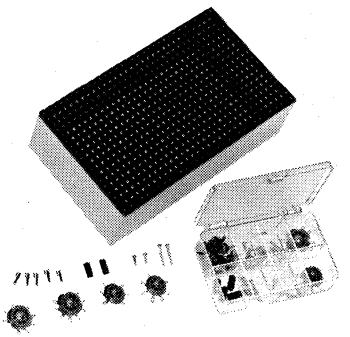
10-0-9T 6-N6T 10-12 8-A12T

Vector Socket, Terminal and Transistor Turrets simplify electronic construction. Faster wiring, greater component density and higher reliability are assured by their use. Transistor sockets accommodate 3-in-line or "top-hat" transistors. Commercial types have mica filled sockets, hot tin dipped steel saddles and XXXP phenolic turret posts with brass tinned terminals. Military types (premium grade) have MIL sockets with beryllium copper silver plated socket contacts, brass nickel plated hot tin dipped saddles and glass silicone turret posts with tinned brass terminals.

Catalog Numbers Comm. Types	Catalog Numbers Military Types	Turret Details Height	No. of Term.	No. of Rings	Space Between Rings	Net Price Comm. Type 1-49
		OCTAL SOCKET TURRETS				
*8-0-9T	681	2"	9	2	1"	$ .65
*10-0-9T	683	2½"	9	2	1⅜"	.69
		7-PIN SOCKET TURRETS				
*6-M-6T	687	1½"	6	1	—	.69
*8-M-9T	688	2"	9	2	1"	.76
		9-PIN SOCKET TURRETS				
*6-N-6T	693	1½"	6	1	—	.69
*8-N-9T	694	2"	9	2	1"	.76
		TERMINAL TURRETS				
8-12	677	1-27/32"	12	2	1"	.58
10-12		2"	12	2	1⅜	.62
		TRANSISTOR TURRETS				
8-A-12T	678	2-11/32"	12	2	1⅜"	1.19

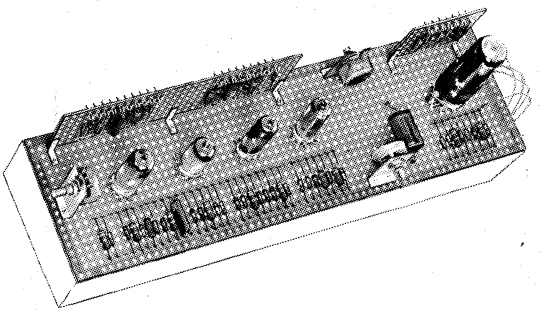
Note: Tolerance on dimensions 1/16"
*Indicates preferred types.
Longer or shorter types and other terminal configuration to order.

20X STARTER ASSORTMENT



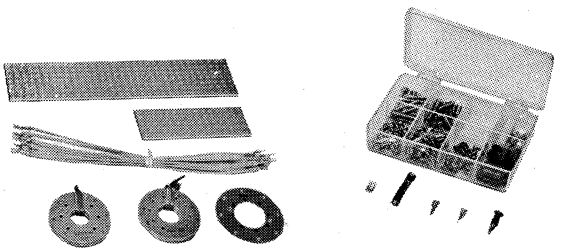
20X STARTER ASSORTMENT — 4.8 x 8½ x 2" extruded aluminum Frame-Loc Chassis with 3/32" thick Vectorbord deck plus many other parts including: 3 each 7 and 9 pin tube sockets and 2 octal sockets with mounting hardware; 75 patented T9.4 Zip Push-In Terminals; 20 new T30N-2 Solderless Springclip with hand insertion tool; 3 sheets layout paper; 54 assorted screws, nuts, spacers. Ideal for beginners or simple circuits. **$6.75**

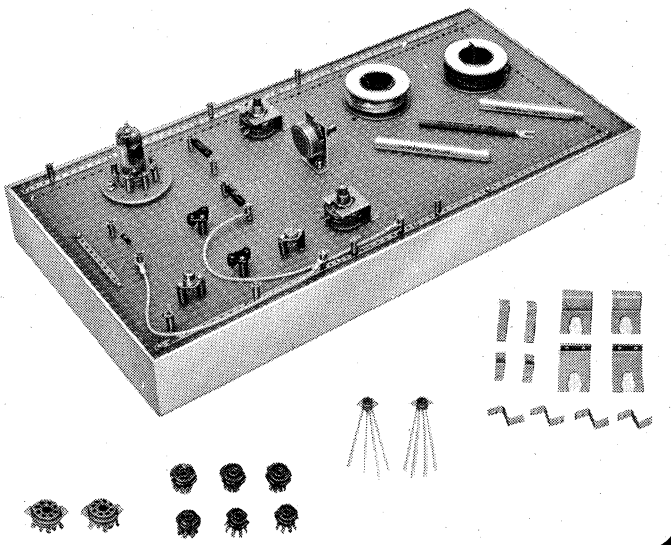
21X BASIC MODEL KIT



21X KIT BASIC MODEL FOR LABS—Large 4.8" x 17" x 2" new extruded aluminum Frame-Loc Rail chassis with 3/32" Vectorbord deck. Besides main deck, includes 2 extra Vectorbord pieces, more terminals and sockets. Detailed contents follow: 6 Transistor sockets include 2 power and 4 universal type; 3 each 7 and 9 pin skt. and 2 octal, 100 "Zip" Push-In Terminals, 50 solderless Springclips, 8 hookup patchcords, bus strip, terminal installing tools, grid layout paper, 4 pot and switch brackets, bare and insulated hookup wires, assorted screws, nuts, brackets, spacers. **$16.75**

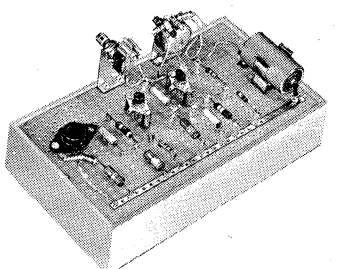
25X SOLDERLESS TUBE AND TRANSISTOR EXPERIMENTER'S CHASSIS KIT





25X SOLDERLESS TUBE AND TRANSISTOR EXPERIMENTER'S CHASSIS KIT—**$21.45** Dual type solderless kit with full compliment of tube and transistor sockets. Belongs in every electronics lab. Differs from other Vector kits because it includes large number of Solderless U-Clip terminals and special solderless connectors for pots and switches, plus more of all other components. Detail of contents: 8½" x 17" x 2" Extruded Aluminum chassis frame with 3/32" Vectorbord deck, 2 power and 6 universal transistor sockets with pigtails, 3 each 7 and 9 pin tube sockets, 2 8 pin octal; 104 Zip Push-In Terminals, 90 Solderless Springclip terminals, 10 Solderless U-Clips, 10 hookup patchcords, bus strip, 8 wafers to make solderless sockets, terminal installing tools, bare and insulated wire, grid layout paper, 4 pot and switch brackets, 204 assorted screws, nuts, brackets.

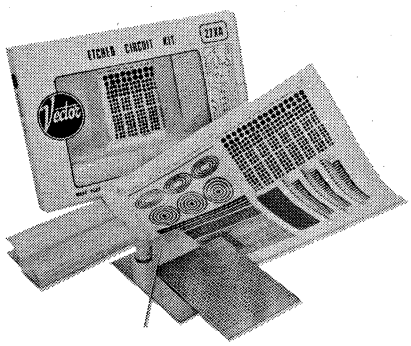
22X, 22XA TRANSISTOR CIRCUITRY KIT



22X KIT FOR TRANSISTOR CIRCUITRY—Special parts assortment for transistor circuitry. 4.8" x 8½" x 2" extruded aluminum Frame-Loc Chassis rail with 3/32" Vectorbord deck. Transistor sockets include 2 power type, 6 universal type, 75 Zip Push In Terminals, 20 Solderless Springclip terminals, 6 hookup patchcords, bus strip, terminal installing tools, bare and insulated hookup wire, 4 pot and switch brackets, 134 assorted screws, nuts, spacers, brackets. **$11.50**

22XA—**$28.00** (Not illustrated)—Larger professional sized version of 22X above. Chassis extruded Aluminum Frame-Loc type 17" x 8½" x 2" with Vectorbord deck. Includes 2 power transistor sockets, 6 universal type transistor sockets with pig tail leads, 124 Zip Push-In Terminals, 100 Solderless Springclips, 18 Solderless U-Clips, 14 hookup patchcords, bus strip, terminal installing tools, bare and insulated wire, layout paper, 4 pot and switch brackets, 160 assorted brackets, screws, nuts.

27XA ETCHED CIRCUIT KIT



27XA ETCHED CIRCUIT KIT—**$6.50**
LOW COST—FAST—HAS EVERYTHING EXCEPT HOT WATER. Specially designed for lab use in making uncomplicated etched circuits. Kit built around Vectoresist, Vector's rub-on resist transfer sheet. Resist lines, dots, or connector pattern transfer by rubbing to furnished 2 oz. copper clad prepunched boards in minutes. Then etch in etchant furnished in heavy plastic bag with special activator in as little as 30 minutes. Kit includes 2 copper clad boards, 4½" x 6½", .2 centers, 2 bags of etchant, 8½" x 11" sheet rub-on Vectoresist, layout paper, complete instructions. See Kit Accessories page for Vectoresist details.

Net
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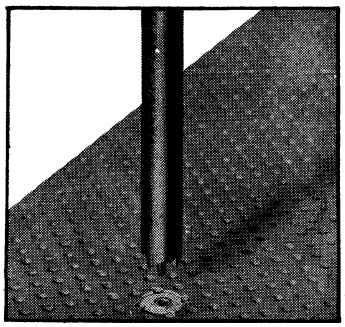
VECTOR "NUMLETR"	CAT. NO. R393A-1
AAAAAA -----	123456 32
BBBBB -----	12..... 32
EE ::::: -----	333435 64
FF ::::: -----	33 64
YY ::::: -----	97..... 128
ZZZZZZ -----	97 128

COMBINATION RESIST AND DISPLAY TYPE Semi transparent 10" x 15" sheets of 3/32" high letters and numbers spaced .265" intervals A through Z, AA to FF, 1-128 with duplicate lines of lower numbers and beginning letters. May be used on copper clad boards for resist in etching or for display use on prepunched Vectorbord with .265" spaced holes. Figures are "sharp" and transfer readily when sheet rubbed with ball pen or soft pencil. New white ink sheets can be used to specially label Vector Fixed Panel Patchboards with black surface.

Cat. No.	Description	Price per Sheet
R393A-1	Letters and numbers, black ink, Display and etch use	$2.00
R393A-2	Letters and numbers, white ink, Display and etch use	2.00

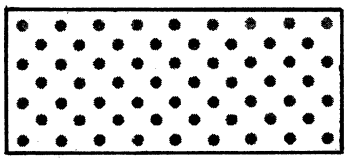


Use for isolating terminals from rest of copper cladding. Pilot pin fits .062 holes. Tool cuts ring of 3/16" or ¼" diameter and leaves center copper "donut" around hole to provide solder tie for terminal. Tool shank fits any hand or machine drill chuck accepting 3/16" or ¼" drill.

Cat. No.	Description	Price
P 116	Pad cutter tool cuts ¼" ring	$1.85
P 116A	Pad cutter tool cuts 3/16" ring	1.98

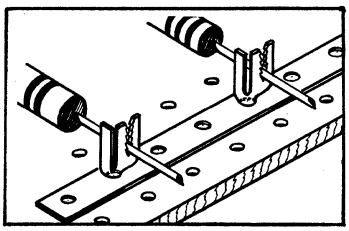
RUB-ON RESIST for making prototype etched circuits. Eliminates messy tape and eliminates undercutting at circuit junctions. Resist ink is printed on semitransparent film sheets 10" x 15" and transfers onto copper clad board when back is rubbed with ball point pen. Available in multipurpose printed sheets with assortment of various width lines, pads, circles and 43 contact connector with .156" spaced contacts or specialized sheets shown below. Works in ferric chloride or ammonium persulfate etchant.

Cat. No.	Description	Price per Sheet
R322	All purpose sheet with connect. pattern	$2.00/sheet
R405	Sheet of assorted straight lines 1/64" to ⅛" wide	2.00/sheet
R406	Transistor Pad patterns, 3/32" and ⅛" pads	2.00/sheet



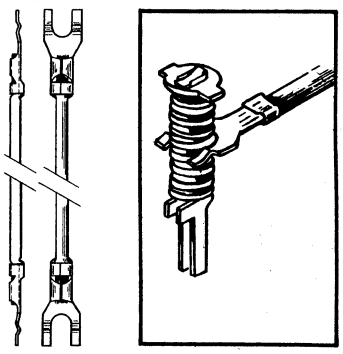
Light weight tracing paper overprinted with dots corresponding to hole layout of prepunched Vectorbord. Dots "wash out" in copying machine leaving circuit in relief. Saves time in circuit and component layout on pre-punched Vectorbord.

Cat. No.	Description	Price per Pad
R173G	Pad 50 sheets 8½"x11" "G" pattern	$1.45
R173F	Pad 50 sheets 8½"x11" "F" pattern	2.00
R173A	Pad 50 sheets 8½"x11" "A" pattern	1.45
R173A-1	Pad 50 sheets 8½"x17" "A" pattern	2.50
R173H	Pad 50 sheets 8½"x11" "H" pattern	2.67



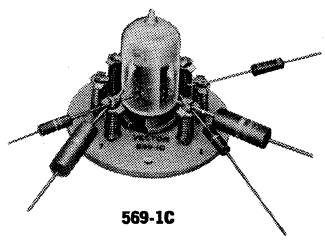
Prepunched narrow brass tinned strip mounts to prepunched boards with Zip Push-In terminals or screws. Make connections wherever required quickly. New T104 type has .2" spaced holes for convenient mounting on "E", "F", "G", or "H" pattern prepunched Vectorbord.

Cat. No.	Description	Price
T57	16" long. .093" holes spaced .265"	$1.10/Pkg. 10
T58	8" long. .093" holes spaced .265"	.70/Pkg. 10
T104	17" long. .062" holes spaced .2"	1.10/Pkg. 10



INTERCONNECTION BETWEEN SPRINGCLIP TERMINALS QUICK, EASY. Corrugated spade lug slips between spring coils of T30N Springclip or T32 U-Clip for fast interconnections. Vinyl insulated 20 gage wire, plated brass lugs.

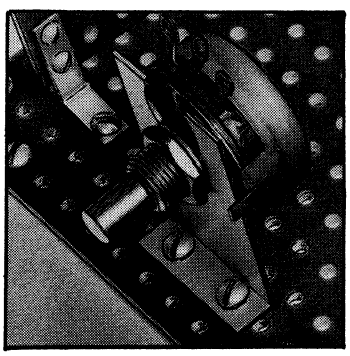
Cat. No.	Description	Price
K6.06	6" Overall Lug ea. end	$3.00/25
K6.09	9" Overall Lug ea. end	3.00/25
K6.15	15" Overall Lug ea. end	3.00/25



569-1C

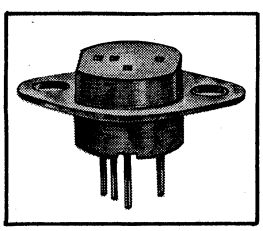
SOLDERLESS SOCKETS save experimental time. Multiple connections can be made to any pin by connecting wires to corresponding SOLDERLESS SPRINGCLIP TERMINAL which is permanently connected to socket contact. Tube socket types mount on Vectorbord with furnished hardware; 570B press fits.

Cat. No.	Description	Price
567-1C	Solderless Octal Socket	$1.50
568-1C	Solderless Noval (9 pin) Socket	1.65
569-1C	Solderless Miniature (7 pin) Socket	1.35
570B	Solderless Universal Transistor Socket	1.20



Handy brackets punched to accept ⅜" or ½" diameter shafts provide easy convenient mounts for "pots" or switches in vertical or horizontal position on prepunched chassis. Attach with screws through two ⅛" diameter holes spaced .265" in base.

Cat. No.	Description	Price
B-20	Vertical Mount	$ .58/Pkg. 4
B-20A	Horizontal Mount	.46/Pkg. 4



RA4.5

Mica-filled phenolic castings with beryllium copper silver plated contacts. Extra long socket tabs provide easy connection. Contact arrangement accepts 3 in-line or JEDEC based configuration with leads on .2 circle. Model RA4.51 has 4" pigtail leads attached to each contact for direct connection to terminals.

Cat. No.	Description	Price
RA4	Like RA4.5 except no saddle	$ .27
RA4.5	Dual type transistor socket with saddle	.25
RA4.51	Same as RA4.51 with 4" contact leads	.39

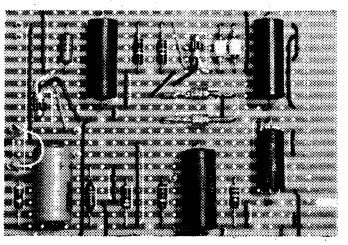
vero ELECTRONICS INC

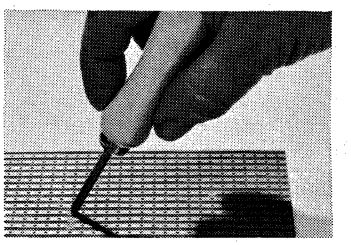
VEROBOARD
VEROBOARD KITS
UNIVERSAL WIRING BOARDS

BUILD ANY CIRCUIT IN 2 EASY STEPS
NO ETCHING — NO WIRES — NO TERMINALS

STEP NO. 1

Lay out components on the back (plain) side of the Veroboard across the copper strips inserting leads into appropriate holes. You have now connected your components as required using the copper strips as your interconnectors. Leads may be soldered directly to the strips using a light, printed circuit type iron. Careful soldering will enable you to remove components and replace them if required.

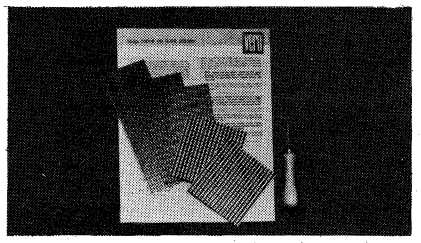




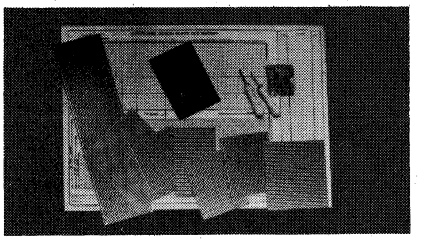
STEP NO. 2

Break the circuit where required by breaking the copper strips with the Vero spot-face cutter provided in your kit. The cutter is a precision, hardened steel tool which has a pilot pin that fits into any hole, and two cutting edges. Simply turn the cutter several times and the copper strip in the area of the chosen hole will be removed. Your circuit is now complete.

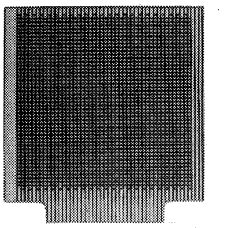
WITH THESE VEROBOARD KITS



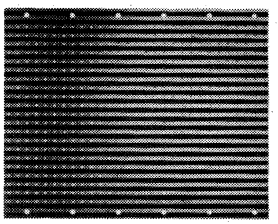
Model BK-6 contains 6 assorted Veroboard universal wiring boards, the Vero spot face cutter and instruction sheet. **Price 5.95**



Model BK-7 contains 8 assorted Veroboards up to 18" long, plain Veroboard with staggered grid, spot face cutter, terminal pin insertion tool, 500 terminal pins, reproducible design sheet and instructions. **Price 29.95**

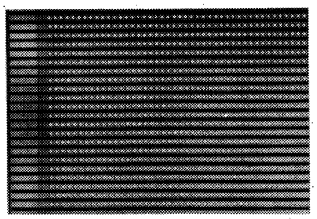


Model MC-9 Micro-circuit Veroboard consists of two plug-in boards, single and double sided 2.95" x 2.65" with 30 gold plated contacts as well as two fully pierced 6"x6" single and double sided and one plain board 6"x6" make up the introductory pak together with the spot face cutter. **Price $22.95**



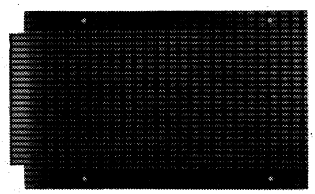
FULLY PIERCED VEROBOARD XXXP

PART	SIZE	MATRIX	PRICE 1-5	PRICE 6-25	PART	SIZE	MATRIX	PRICE 1-5	PRICE 6-25
No. 3	4.8x5.8	.2x.2	1.75	1.55	No. 91	3.59x17	.156x.1	4.05	3.55
No. 20	3x4.5	.2x.1	1.75	1.55	No. 103	4.7x6.4	.156x.1	2.55	2.25
No. 21	3x8	.2x.1	2.90	2.55	No. 6-2	2.5x4	.156x.1	.60	.52
No. 25	4.5x6.5	.2x.1	2.65	2.25	No. 6-3	2.5x5.9	.156x.1	.80	.70
No. 6-1	3.3x3.5	.2x.2	.75	.66	No. 6-4	2.5x6.9	.156x.1	.95	.85
					No. 125	4.7x5.9	.1x.1	2.50	2.20



PLUG-IN VEROBOARD XXXP

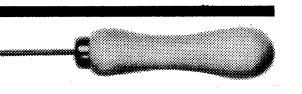
PART	SIZE	MATRIX	CONTACTS	PRICE 1-5	PRICE 6-25
No. 205	5x5.8	.2x2	24 gold contacts	4.00	3.50
No. 282	3.59x5.1	.156x.1	22 gold contacts	3.70	3.25
No. 292	4.7x7.85	.156x.1	22 gold contacts	4.85	4.25
No. 305	4.3x5.1	1.x.1	18 gold contacts	3.25	2.85
No. 310	5x7.85	1.x.1	32 gold contacts	5.15	4.50



VERO PAD BOARDS XXXP

	PART	SIZE	MATRIX	CONTACTS	PRICE 1-5	PRICE 6-25
Fully Pierced	No. 120	4.7x6.4	.156x.1		2.75	2.40
	No. 121	7.05x8.3	.156x.1		5.00	4.35
Plug-In	No. 320	4.7x7.85	.156x.1	22 gold contacts	5.15	4.45
	No. 321	7.05x7.85	.156x.1	36 gold contacts	6.60	5.50

SPOT FACE CUTTERS



No. 2020 for .2 and .156 Veroboard with .052 holes— 1.50

No. 2021 for .1 Veroboard with .040 holes— 2.25

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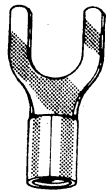
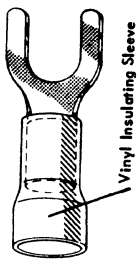
WALDOM SOLDERLESS TERMINALS AND CONNECTORS

COMPLETE LINE...IN STOCK FOR IMMEDIATE DELIVERY



KRIMPTITE ®

Basic non-insulated electro-tin plated copper terminal. One-piece construction for maximum strength and conductivity.



INSULKRIMP ®

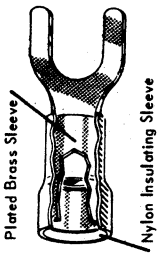
All advanced features of KRIMPTITE, plus permantly attached rigid vinyl plastic insulating sleeve for increased vibration resistance.

VERSAKRIMP ®

Advantageous features of KRIMPTITE plus the higher tensile strength afforded by BRAZED BARREL construction.

VIBRAKRIMP ®

Particularly suitable where high vibration is a factor. KRIMPTITE construction plus seamless annealed electro-tin plated brass sleeve.



AVIKRIMP ®

All VIBRAKRIMP features, tin-plated brass sleeve plus permanently attached overlapping nylon insulating sleeve.

Insulated terminals color coded: 22-18 Red, 16-14 Blue, 12-10 Yellow, 8 Red, 6 Blue

BASIC TERMINAL CONSTRUCTION DETAILS

Material: Annealed electrolytic copper, electro-tin finish. Modern one-piece design for maximum strength and conductivity. With strength gusset, open end rapid inspection, beveled edge to facilitate wire insertion. Circumferential serrations for maximum contact area and grip. Full 1/4 inch barrel length, wide crimping area, easy location.

Wire ranges 22-18, .032 stock. Wire Ranges 12-10, ,040 stock. Terminals Terminals in 22-18 and 16-14 wire ranges. Are available with 5/32" barrel by adding "S" to front of part desired. Listed by Underwriter Labs., Inc.

FOR CRITICAL APPLICATIONS – VERSAKRIMP® AND AVIKRIMP® TERMINALS

SPADE TONGUE TERMINALS (FIG. A)

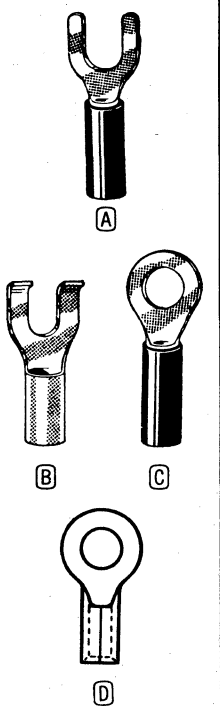
Basic Dimensions				Versakrimp®					Avikrimp®				
Wire Range	Stud Size	Width	Stud Clearance	Length	Part No.	100-999 Per C	1000-4999 Per M	5000 Up Per M	Length	Part No.	100-999 Per C	1000-4999 Per M	5000 Up Per M
22-18	5-6	1/4"	7/32"	5/8"	B-3118	3.18	25.44	19.08	13/16"	N-5118	6.55	53.19	39.91
22-18	10	5/16"	5/16"	3/4"	B-3032	3.18	25.44	19.08	15/16"	N-5032	6.55	53.19	39.91
16-14	5-6	1/4"	7/32"	5/8"	B-3123	3.18	25.44	19.08	13/16"	SN-5123	6.55	53.19	39.91
16-14	10	23/64"	9/32"	3/4"	B-3016	3.18	25.44	19.08	15/16"	SN-5016	6.55	53.19	39.91

FLANGED SPADE TERMINALS (FIG. B)

22-18	5-6	19/64"	7/32"	5/8"	B-3080	3.18	25.44	19.08	13/16"	N-5080	6.55	53.19	39.91

RING TONGUE TERMINALS (FIG. C)

22-18	1-2	7/32"	5/32"	33/64"	B-3099	3.18	25.44	19.08	45/64"	N-5099	6.55	53.19	39.91
22-18	3-4	7/32"	5/32"	33/64"	B-3047	3.18	25.44	19.08	45/64"	N-5047	6.55	53.19	39.91
22-18	5-6	7/32"	5/32"	33/64"	B-3001	3.18	25.44	19.08	45/64"	N-5001	6.55	53.19	39.91
22-18	8	9/32"	1/4"	41/64"	B-3097	3.18	25.44	19.08	53/64"	N-5097	6.55	53.19	39.91
22-18	10	9/32"	1/4"	41/64"	B-3098	3.18	25.44	19.08	53/64"	N-5098	6.55	53.19	39.91
22-18	1/4	15/32"	.400"	57/64"	B-3004	4.43	35.59	26.68	1-5/64"	N-5004	8.20	65.61	49.22
16-14	3-4	11/32"	5/16"	47/64"	B-3095	3.18	25.44	19.08	59/64"	N-5095	6.55	53.19	39.91
16-14	5-6	1/4"	7/32"	19/32"	B-3006	3.18	25.44	19.08	45/64"	SN-5006	6.55	53.19	39.91
16-14	10	5/16"	9/32"	45/64"	B-3008	3.18	25.44	19.08	13/16"	SN-5008	6.55	53.19	39.91
16-14	1/4	15/32"	.400"	57/64"	B-3009	4.43	35.59	26.68	1"	SN-5009	8.20	65.61	49.22
12-10	10	3/8"	5/16"	3/4"	B-3011	4.43	35.59	26.68	1-3/64"	N-5011	8.20	65.61	49.22
12-10	1/4	17/32"	13/32"	59/64"	B-3100	5.12	40.94	30.71	1-7/32"	N-5100	8.38	66.99	50.26
8	10	15/32"	11/32"	61/64"	B-3202	6.99	61.41	52.64					
8	1/4	15/32"	11/32"	61/64"	B-3203	6.99	61.41	52.64					
8	3/8	19/32"	13/32"	1-5/64"	B-3208	9.33	81.63	69.97					
6	10	5/8"	1/2"	1-1/4"	B-3228	10.81	94.58	81.07					
6	1/4	5/8"	1/2"	1-1/4"	B-3229	10.81	94.58	81.07					
6	3/8	5/8"	1/2"	1-1/4"	B-3231	10.81	94.58	81.07					
4	10	21/32"	1/2"	1-5/16"	B-3251	15.50	135.64	116.27					
4	1/4	21/32"	1/2"	1-5/16"	B-3252	15.50	135.64	116.27					
4	3/8	21/32"	1/2"	1-5/16"	B-3254	15.50	135.64	116.27					
2	1/4	5/8"	43/64"	1-17/32"	B-3281	20.76	181.69	155.74					
1/0	1/4	13/16"	5/8"	1-59/64"	B-3307	25.81	226.77	194.37					
2/0	1/4	29/32"	5/8"	1-15/16"	B-3322	32.92	289.24	247.92					



HIGH TEMPERATURE TERMINALS - RING TONGUE (FIG. D)

Wire Range	Stud Size	Part No.	100-999 Per C	1000-4999 Per M	5000 Up Per M
22-16	5-6	S-1165	2.05	14.77	11.54
22-16	8	S-1167	2.05	14.77	11.54
22-16	10	S-1168	2.05	14.77	11.54
16-14	5-6	S-1170	2.26	16.25	12.76
16-14	8	S-1172	2.26	16.25	12.76
16-14	10	S-1173	2.26	16.25	12.76
12-10	10	S-1177	3.01	21.67	17.01

MS TERMINALS AVAILABLE FROM STOCK FOR IMMEDIATE DELIVERY

Only a partial listing of more than 2000 items in the WALDOM line of solderless terminals and connectors. Includes many more sizes and types, including Heavy Duty, Flared Insulation, Military Types, Terminal Block Terminals, Flag Terminals, insulation sleeve and many more. Write for WALDOM CATALOG #6F5.

WALDOM KRIMPTITE® AND INSULKRIMP® TERMINALS

SPADE TONGUE TERMINALS (FIG. A)

Basic Dimensions				Krimptite®					Insulkrimp®				
Wire Range	Stud Size	Width	Stud Clearance	Length	Part No.	100-999 Per C	1000-4999 Per M	5000 Up Per M	Length	Part No.	100-999 Per C	1000-4999 Per M	5000 Up Per M
22-18	3-4	1/4"	7/32"	5/8"	S-1116	1.96	14.12	11.03	13/16"	T-2116	4.06	30.05	23.48
22-18	5-6	1/4"	7/32"	5/8"	S-1118	1.96	14.12	11.03	13/16"	T-2118	4.06	30.05	23.48
22-18	5-6	19/64"	7/32"	5/8"	S-1014	1.96	14.12	11.03	13/16"	T-2014	4.06	30.05	23.48
22-18	5-6	5/16"	5/16"	3/4"	S-1029	1.96	14.12	11.03	15/16"	T-2029	4.06	30.05	23.48
22-18	8	19/64"	7/32"	5/8"	S-1030	1.96	14.12	11.03	13/16"	T-2030	4.06	30.05	23.48
22-18	8	5/16"	5/16"	3/4"	S-1031	1.96	14.12	11.03	15/16"	T-2031	4.06	30.05	23.48
22-18	10	5/16"	5/16"	3/4"	S-1032	1.96	14.12	11.03	15/16"	T-2032	4.06	30.05	23.48
16-14	5-6	19/64"	7/32"	5/8"	S-1015*	2.05	14.77	11.54	13/16"	T-2015†	4.06	30.05	23.48
16-14	8	19/64"	7/32"	5/8"	S-1033	2.05	14.77	11.54	13/16"	T-2033	4.06	30.05	23.48
16-14	10	23/64"	9/32"	3/4"	S-1016*	2.05	14.77	11.54	15/16"	T-2016†	4.06	30.05	23.48
12-10	10	3/8"	5/16"	25/32"	S-1017	2.85	20.52	16.03	1-3/32"	T-2017	5.26	38.93	30.41
HOOK TONGUE TERMINALS (FIG. B)													
22-18	5-6	5/16"	5/16"	23/32"	S-1018*	1.96	14.12	11.03	29/32"	T-2018	4.06	30.05	23.48
16-14	5-6	23/64"	9/32"	23/32"	S-1038	2.05	14.77	11.54	29/32"	T-2038	4.06	30.05	23.48
FLANGED SPADE TERMINALS (FIG. C)													
22-18	5-6	19/64"	7/32"	5/8"	S-1080*	1.96	14.12	11.03	13/16"	T-2080†	4.06	30.05	23.48
22-18	8	19/64"	7/32"	5/8"	S-1081	1.96	14.12	11.03	13/16"	T-2081	4.06	30.05	23.48
22-18	10	3/8"	1/4"	23/32"	S-1582	1.96	14.12	11.03	29/32"	T-2582	4.06	30.05	23.48
16-14	5-6	19/64"	7/32"	5/8"	S-1083	2.05	14.77	11.54	13/16"	T-2083	4.06	30.05	23.48
16-14	8	19/64"	7/32"	5/8"	S-1084	2.05	14.77	11.54	13/16"	T-2084	4.06	30.05	23.48
16-14	10	3/8"	1/4"	23/32"	S-1585	2.05	14.77	11.54	29/32"	T-2585	4.06	30.05	23.48
12-10	10	3/8"	5/16"	3/4"	S-1088	2.85	20.52	16.03	1-1/16"	T-2088	5.26	38.93	30.41
RING TONGUE TERMINALS (FIG. D)													
22-18	1-2	7/32"	5/32"	33/64"	S-1099	1.96	14.12	11.03	45/64"	T-2099	4.06	30.05	23.48
22-18	3-4	7/32"	5/32"	33/64"	S-1047	1.96	14.12	11.03	45/64"	T-2047	4.06	30.05	23.48
22-18	5-6	7/32"	5/32"	33/64"	S-1001	1.96	14.12	11.03	45/64"	T-2001	4.06	30.05	23.48
22-18	5-6	9/32"	1/4"	41/64"	S-1002*	1.96	14.12	11.03	53/64"	T-2002†	4.06	30.05	23.48
22-18	8	9/32"	1/4"	41/64"	S-1097	1.96	14.12	11.03	53/64"	T-2097	4.06	30.05	23.48
22-18	8	5/16"	5/16"	23/32"	S-1021	1.96	14.12	11.03	29/32"	T-2021	4.06	30.05	23.48
22-18	10	9/32"	1/4"	41/64"	S-1098	1.96	14.12	11.03	53/64"	T-2098	4.06	30.05	23.48
22-18	10	5/16"	5/16"	23/32"	S-1003*	1.96	14.12	11.03	29/32"	T-2003†	4.06	30.05	23.48
22-18	1/4	15/32"	.400"	57/64"	S-1004	2.69	19.36	15.13	1-5/64"	T-2004	5.26	38.93	30.41
22-18	5/16	15/32"	.400"	57/64"	S-1005	2.69	19.36	15.13	1-5/64"	T-2005	5.26	38.93	30.41
22-18	3/8	9/16"	9/16"	1-7/64"	S-1143	3.54	25.49	19.91	1-19/64"	T-2143	5.26	38.93	30.41
16-14	3-4	1/4"	7/32"	19/32"	S-1048	2.05	14.77	11.54	25/32"	T-2048	4.06	30.05	23.48
16-14	3-4	11/32"	5/16"	47/64"	S-1095	2.05	14.77	11.54	59/64"	T-2095	4.06	30.05	23.48
16-14	5-6	1/4"	7/32"	19/32"	S-1006*	2.05	14.77	11.54	25/32"	T-2006†	4.06	30.05	23.48
16-14	5-6	5/16"	9/32"	45/64"	S-1007	2.05	14.77	11.54	57/64"	T-2007	4.06	30.05	23.48
16-14	8	5/16"	9/32"	45/64"	S-1024	2.05	14.77	11.54	57/64"	T-2024	4.06	30.05	23.48
16-14	10	5/16"	9/32"	45/64"	S-1008*	2.05	14.77	11.54	57/64"	T-2008†	4.06	30.05	23.48
16-14	1/4	15/32"	.400"	57/64"	S-1009	2.69	19.36	15.13	1-5/64"	T-2009	5.26	38.93	30.41
16-14	5/16	15/32"	.400"	57/64"	S-1041	2.69	19.36	15.13	1-5/64"	T-2041	5.26	38.93	30.41
16-14	3/8	9/16"	9/16"	1-7/64"	S-1147	3.54	25.49	19.91	1-19/64"	T-2147	5.26	38.93	30.41
12-10	5-6	3/8"	5/16"	3/4"	S-1049	2.85	20.52	16.03	1-1/16"	T-2049	5.26	38.93	30.41
12-10	8	3/8"	5/16"	3/4"	S-1050	2.85	20.52	16.03	1-1/16"	T-2050	5.26	38.93	30.41
12-10	10	3/8"	5/16"	3/4"	S-1011*	2.85	20.52	16.03	1-1/16"	T-2011†	5.26	38.93	30.41
12-10	1/4	17/32"	13/32"	59/64"	S-1100	3.76	27.08	21.15	1-15/64"	T-2100	5.57	41.22	32.20
12-10	5/16	17/32"	13/32"	59/64"	S-1101	3.76	27.08	21.15	1-15/64"	T-2101	5.57	41.22	32.20
12-10	3/8	19/32"	31/64"	1-1/32"	S-1013	4.14	29.81	23.29	1-11/32"	T-2013	6.19	45.81	35.79
QUICK DISCONNECTS - PUSH-ON TYPE (FIG. E & F)													
				Length									
18-14	Male .250"			21/32	S-1089*	2.25	16.21	12.66	27/32	T-2089†	4.36	32.28	25.21
18-14	Female .250"			41/64	SS-1090†	2.25	16.21	12.66	27/32	ST-2090†	4.36	32.28	25.21
18-14	Female .187"			17/32	SS-1187	2.25	16.21	12.66	47/64	ST-2187	4.36	32.28	25.21
18-14	Female .110-.125"			29/64	SS-1186	2.25	16.21	12.66	21/32	ST-2186	4.36	32.28	25.21
SNAP PLUG & RECEPTACLE (FIG. FF)													
16-14	Snap Plug			19/32	S-1055	1.85	13.33	10.41	27/32	T-2055	4.06	30.05	23.48
16-14	Plug Receptacle			1-3/8	PR-1426	7.77	55.98	43.60					
BUTT CONNECTORS (FIG. G)													
22-18				9/16	S-1019*	2.16	15.56	12.15	15/16	T-2019†	4.80	35.52	27.75
16-14				9/16	S-1020	2.16	15.56	12.15	15/16	T-2020	4.80	35.52	27.75
12-10				9/16	S-1046	3.84	27.65	21.60	1-1/16	T-2046	6.55	48.48	37.88

NYLON INSULATED CLOSED END CONNECTORS (FIG. H)

Wire Range	O.D.	Barrel Length	I.D.	Circular Mil Area	Length	Part No.	100-999 Per C	1000-4999 Per M	5000 Up Per M
22-14	5/16	11/32	1/4	600-5,180	39/64	CE-2214	3.36	24.20	18,90
16-10	7/16	3/8	3/8	2,400-13,000	23/32	CE-1610†	4.92	35.43	27.68

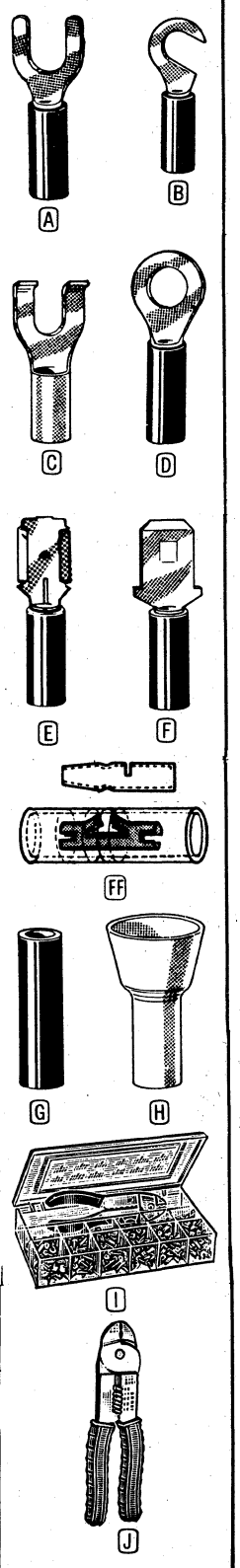
ASSORTMENTS (FIG. I)

Assortment K-170 (Fig. I) - Contains 215 Krimptite® (non-insulated) terminals of types indicated by astericks (*) in listings above, plus Universal Crimping Tool
Net Each. . . . . $ 8.95

Assortment K-180 (Fig. I) - Contains 138 Insulkrimp® (insulated) terminals of types indicated by daggers (†) in above listings plus Universal Crimping tool.
Net Each $10.95

UNIVERSAL CRIMPING TOOL (FIG. J)

Part No. CT-4050 - Crimps both insulated and non-insulated terminals, wire sizes 22 thru 10. Cuts and strips wire.
Net Each . . . . . $ 3.95



Only a partial listing of more than 2000 items in the WALDOM line of solderless terminals and connectors. Includes many more sizes and types, including Heavy Duty, Flared Insulation, Military Types, Terminal Block Terminals, Flag Terminals, insulation sleeve and many more. Write for WALDOM CATALOG #6F5.

Net
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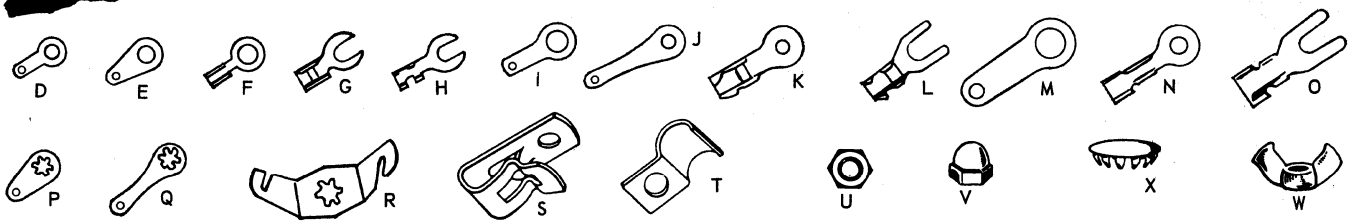
WALDOM ELECTRONIC HARDWARE



TERMINAL AND SPADE LUGS

Terminal lugs for all applications. Supplied with hot-tin dipping in brass, copper or steel as specified in Material (Mtl.) column below.

Waldom No.	Fig.	Mtl., In.	Hole Size	Length In.	Pkg. of 100	Per 1000 1000-4999	Per 1000 5000 Up
T-151	D	.020B	#6	1/2	$0.76	$ 6.23	$ 4.75
T-152	D	.020B	#8	13/16	.82	6.72	5.13
T-153	D	.020B	$10	13/16	.82	6.72	5.13
T-154	E	.020B	#6	9/16	.88	7.22	5.51
T-224	E	.015C	#8	17/32	.97	7.95	6.07
T-156	F	.032C	#6	1/2	.94	7.71	5.88
T-157	G	.020B	#8	41/64	.80	6.56	5.01
T-158	H	.020B	#6	21/32	.88	7.22	5.51
T-159	H	.020B	#8	21/32	.88	7.22	5.51
T-162	I	.015B	#8	47/64	.86	7.05	5.38
T-163	J	.025B	#6	1	.98	8.04	6.13
T-164	J	.025B	#8	1	.98	8.04	6.13
T-166	K	.020C	#6	15/16	1.62	13.28	10.13
T-167	K	.020C	#8	15/16	1.62	13.28	10.13
T-168	K	.020C	#10	15/16	1.62	13.28	10.13
T-170	L	.020B	3/16"	25/32	.94	7.71	5.88
T-173	M	.020B	#10	1-5/32	1.56	12.55	9.58
T-187	N	.032B	#8	15/16	2.81	23.04	17.58
T-188	N	.032B	#10	15/16	3.10	25.42	19.40
T-193	O	.032B	#8	1	4.25	34.85	26.59

LOCKING-TYPE LUGS

Locking-type construction eliminates need for additional washer. Fabricated from .018 phosphor bronze and tinned for ease in soldering.

Waldom No.	Fig.	Screw Size	Length, In.	Pkg. of 100	Per 1000 1000-4999	Per 1000 5000 Up
T-194	P	#6	5/8	$1.09	$ 7.89	$ 6.39
T-195	P	#8	5/8	1.09	7.89	6.39
T-196	Q	#4	7/8	1.16	8.04	6.50
T-197	Q	#6	7/8	1.16	8.04	6.50
T-198	Q	#8	7/8	1.16	8.04	6.50
T-223	Q	#10	7/8	1.18	8.15	6.60

SPRING CLIPS (FIG. S)

Brass, nickel-plated spring clips.

Waldom No.	Thickness	Ht., In.	W., In.	Mtg. Hole In.	Pkg. of 100	Per 1000 1000-4999	Per 1000 5000 Up
C-101	.016	45/64	7/32	.130	$1.37	$10.85	$ 8.28
C-102	.020	25/32	5/16	.144	1.82	14.35	10.95
C-103	.022	1	3/8	.144	2.67	22.23	16.96

METAL CABLE CLAMPS (FIG. T)

Mounting hole, .144". Material (Mtl.) abbreviations: B, brass, hot-tin dipped; S, steel, cadmium plated.

Waldom No.	Mtl., In.	Ht., In.	W., In.	Wire Hold Area	Pkg. of 100	Per 1000 1000-4999	Per 1000 5000 Up
C-201	.020B	7/16	1/4	3/32"	$0.81	$ 6.65	$ 5.07
C-202	.032S	5/8	3/8	10/64"	1.02	8.35	6.37
C-203	.032S	11/16	3/8	1/4"	1.17	9.60	7.32
C-204	.032S	15/16	3/8	10/32"	1.30	10.65	8.12

CONTROL AND SWITCH MTG. HEX NUTS (FIG. U)

		Pkg. of 100	Per 1000 1000-4999	Per 1000 5000 UP
F-565	3/8-32x 1/2x3/32	$1.47	$12.05	$ 9.19
F-566	15/32-32	1.80	14.76	11.26
F-567*	475-32X19/32x1/16	3.40	27.24	20.78

*Knurled ring nut (Fig. J)

ACORN NUTS NICKEL-PLATED (FIG. V)

F-574	6-32	$2.74	$ 22.47	$ 17.14
F-575	8-32	2.91	23.86	18.21
F-576	10-32	3.52	28.86	22.02

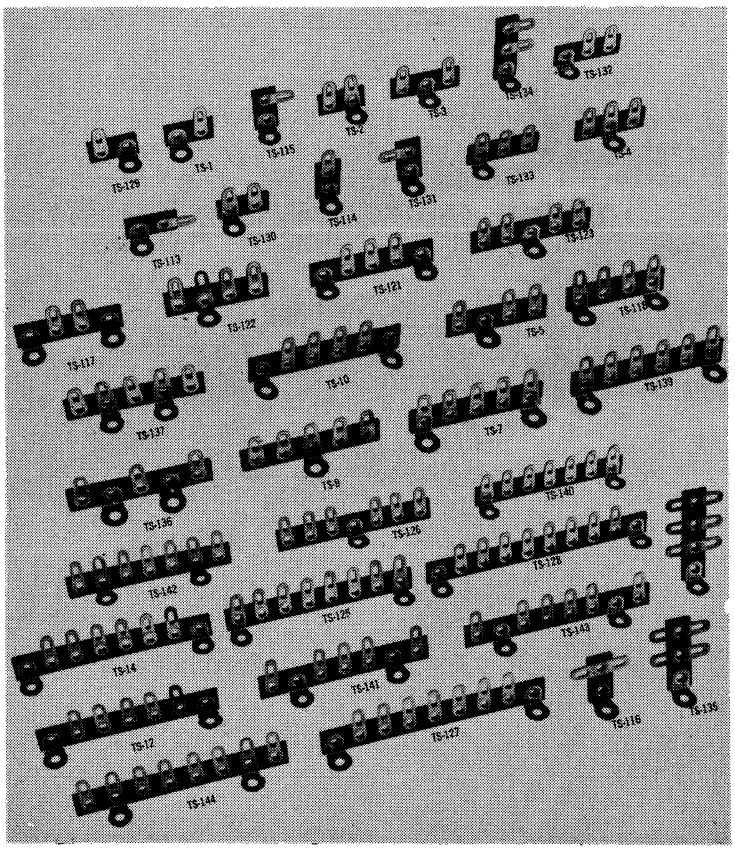
WING NUTS NICKEL-PLATED (FIG. W)

F-571	6-32	$2.63	$21.88	$16.69
F-572	8-32	2.63	21.88	16.69
F-573	10-32	2.63	21.88	16.69

SNAP BUTTON HOLE PLUGS (FIG. X)

HP-1	1/4" hole	$2.20	$18.04	$13.75
HP-2	3/8" hole	2.50	20.50	15.62
HP-3	1/2" hole	2.40	19.68	15.00
HP-4	3/4" hole	3.30	27.06	20.62
HP-5	1" hole	4.40	36.08	27.49

TERMINAL STRIPS



STANDARD TERMINAL STRIPS

Standard type lug mounting terminal strips. Fabricated from X Grade bakelite 1/16" thick, 3/8" wide. Square barrelled construction prevents twisting and slippage. End Terminals are spaced 3/16" from end of strip. All strips are furnished with lug holes spaced 3/8" center to center.

Catalog No.	Bag of 25	100-Over per/C
2 and 3 Position		
TS-1	.58	1.58
TS-129	.58	1.58
TS-2	.63	1.65
TS-130	.63	1.65
TS-113	.68	1.92
TS-114	.68	1.92
TS-115	.68	1.92
TS-131	.58	1.58
TS-3	.80	2.08
TS-132	.80	2.08
TS-4	.80	2.15
TS-133	.80	2.15
TS-134	.80	2.08
4, 5 and 6 Position		
TS-117	1.13	3.05
TS-5	.95	2.58
TS-122	1.00	2.65
TS-118	1.20	3.18
TS-136	1.33	3.55
TS-121	1.33	3.55

Catalog No.	Bag of 25	100-Over per/C
4, 5 and 6 Position		
TS-123	1.18	3.08
TS-9	1.18	3.15
TS-137	1.38	3.68
TS-7	1.38	3.68
TS-10	1.50	4.05
TS-139	1.55	4.18
7, 8 and 9 Position		
TS-141	1.70	4.55
TS-12	1.70	4.55
TS-126	1.55	4.08
TS-142	1.75	4.68
TS-140	1.75	4.68
TS-143	1.88	5.05
TS-14	1.88	5.05
TS-144	1.95	5.18
TS-125	1.95	5.18
TS-127	2.08	5.55
TS-128	2.25	6.05
TS-116	.88	2.30
TS-135	1.33	3.53
TS-138	1.80	4.75

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WABER DELUXE OUTLET BOXES

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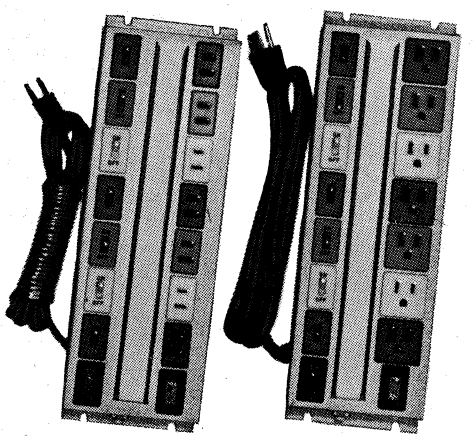
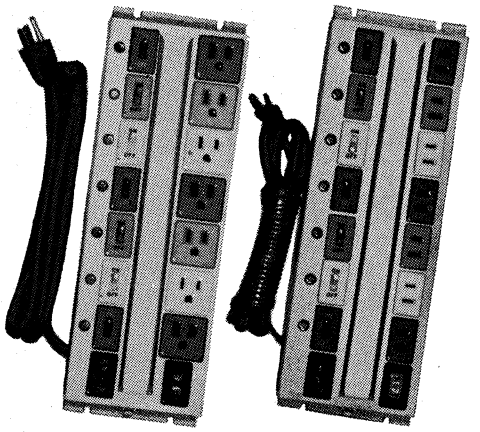


MODEL 35 SERIES MODEL 25 SERIES



MODEL 25P SERIES MODEL 35P SERIES

WABER HEAVY-DUTY DELUXE OUTLET BOXES FEATURE INDIVIDUAL CONTROL, MASTER CONTROL AND CENTER WRITE-ON STRIP

Waber Deluxe Models 25 and 35 provide 7 color-keyed switch-outlet groups, a panel mounted fuse or circuit breaker, pilot light, and a master "on-off" switch. These models feature a center "write-on" strip for immediate identification. The 25 series is the "U" ground type with your choice of a 6 or 15-foot Waber neoprene cord-set. Model 35 is the 2-wire type with 10-foot neoprene cord-set.

Waber Deluxe Models 25P and 35P series have the same configuration as the 25 and 35, with the addition of a bright pilot light for each switch-outlet set. All Waber outlet boxes are pre-wired, ready for use.

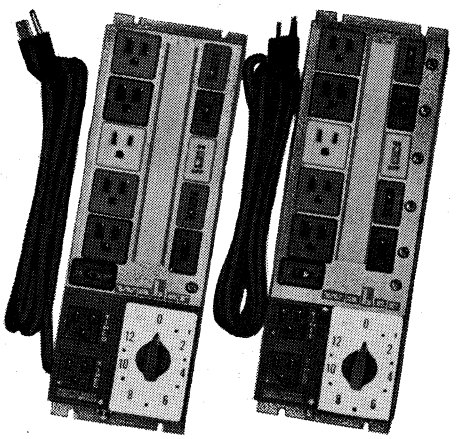
	NET
Model 25 (fuse, 6′ cord-set)	$15.50
Model 25-15 (fuse, 15′ cord-set)	16.50
Model 25CB (circuit breaker, 6′ cord-set)	16.50
Model 25CB-15 (circuit breaker, 15′ cord-set)	17.50
Model 35 (fuse, 10′ cord-set)	13.50
Model 35CB (circuit breaker, 10′ cord-set)	14.50
Model 25P (fuse, 6′ cord-set)	19.50
Model 25P-15 (fuse, 15′ cord-set)	20.50
Model 25PCB (circuit breaker, 6′ cord-set)	20.50
Model 25PCB-15 (circuit breaker, 15′ cord-set)	21.50
Model 35P (fuse, 10′ cord-set)	17.50
Model 35PCB (circuit breaker, 10′ cord-set)	18.50

SPECIFICATIONS Models 25 and 35 Series ■ Panel-Mounted Fuse or Circuit Breaker ■ Bright Neon Pilot Light ■ Master "On-off" Switch ■ 7 Color-Keyed Switch Outlet Groups ■ Tough Waber Neoprene Cord-set ■ UL-approved Components ■ 12¾" Mounting Centers ■ Size 13⅛"x4¾"x1⅝" ■ Rated at 15 Amperes, 130 Volts Continuous Duty ■ Steel Case Finished in Silver Gray Textured Hammertone.

NEW! These Waber Deluxe Units Now Equipped With Timers

Now you can have the popular Waber Deluxe Models with timers. You can set the timer for up to 12 hours. Two types are available. The timer in Model 26 Series turns power to the unit "on" at the end of the preset time and Model 27 is designed to turn power off at the end of the pre-set time.

	NET
Model 26 (fuse, 6′ cord-set)	$24.00
Model 26-15 (fuse, 15′ cord-set)	25.00
Model 26CB (circuit breaker, 6′ cord-set)	25.00
Model 26CB-15 (circuit breaker, 15′ cord-set)	26.00
Model 26P (fuse, 6′ cord-set)	28.00
Model 26P-15 (fuse, 15′ cord-set)	29.00
Model 26PCB (circuit breaker, 6′ cord-set)	29.00
Model 26PCB-15 (circuit breaker, 15′ cord-set)	30.00
Model 27 (fuse, 6′ cord-set)	24.00
Model 27-15 (fuse, 15′ cord-set)	25.00
Model 27CB (circuit breaker, 6′ cord-set)	25.00
Model 27CB-15 (circuit breaker, 15′ cord-set)	26.00
Model 27P (fuse, 6′ cord-set)	28.00
Model 27P-15 (fuse, 15′ cord-set)	29.00
Model 27PCB (circuit breaker, 6′ cord-set)	29.00
Model 27PCB-15 (circuit breaker, 15′ cord-set)	30.00



26 SERIES 27 SERIES 26P SERIES 27P SERIES

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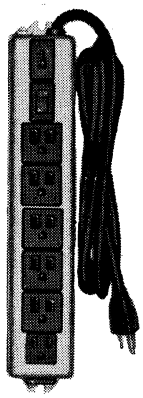
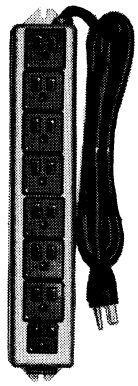
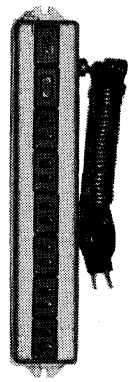
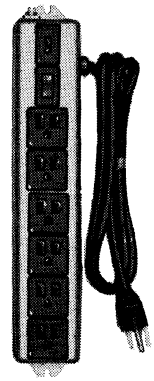
ELECTRONICS INC

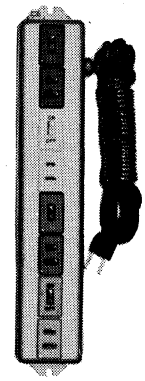
WABER HEAVY DUTY OUTLET BOXES

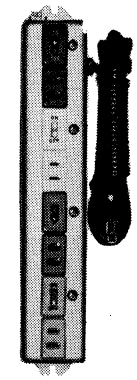

Model 15 Series

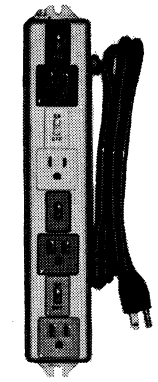

Model 17 Series

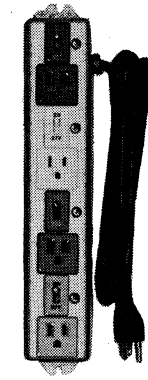

Model 20 Series


Model 24 Series


Model 30 Series


Model 30P Series


Model 32 Series


Model 32P Series

THESE POPULAR WABER HEAVY-DUTY ELECTRICAL OUTLET BOXES COMPLETELY WIRED FOR INSTANT USE...IDEAL FOR LAB, SCHOOL OR INDUSTRY

Here are eight series of Waber Models of proven utility. Models 15 and 17 are in-line units designed for series stringing with an outlet on one end and the cord-set coming out of the other. Model 15 is the control unit, with "on-off" switch, pilot light, fuse or circuit breaker, and seven "U" ground outlets. Model 17 is the slave unit, with 9 "U" ground outlets only.

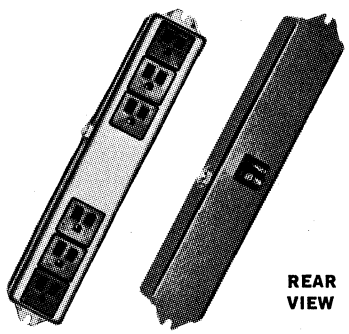
Waber Models 20 and 24 have 6 outlets controlled by an "on-off" switch, pilot light, and panel-mounted fuse or circuit breaker. Model 20 is of the 2-wire type and Model 24 is the 3-wire "U" ground type.

	NET
Model 15 (fuse, 6′ cord-set)	$ 8.75
Model 15-15 (fuse, 15′ cord-set	9.75
Model 15CB (circuit breaker, 6′ cord-set)	9.75
Model 15CB-15 (circuit breaker, 15′ cord-set)	10.75
Model 17 (6′ cord-set)	6.75
Model 17-15 (15′ cord-set)	7.75
Model 20 (fuse, 10′ cord-set)	5.95
Model 20CB (circuit breaker, 10′ cord-set)	6.95
Model 24 (fuse, 6′ cord-set)	8.50
Model 24-15 (fuse, 15′ cord-set)	9.50
Model 24CB (circuit breaker, 6′ cord-set)	9.50
Model 24CB-15 (circuit breaker, 15′ cord-set)	10.50
Model 30 (fuse, 10′ cord-set)	5.95
Model 30CB (circuit breaker, 10′ cord-set)	6.95
Model 30P (fuse, 10′ cord-set)	7.50
Model 30PCB (circuit breaker, 10′ cord-set)	8.50
Model 32 (fuse, 6′ cord-set)	8.50
Model 32-15 (fuse, 15′ cord-set)	9.50
Model 32CB (crct. brkr., 6′ cord-set)	9.50
Model 32CB-15 (crct. brkr., 15′ cord-set)	10.50
Model 32P (fuse, 6′ cord-set)	10.50
Model 32P-15 (fuse, 15′ cord-set)	11.50
Model 32PCB (crct. brkr., 6′ cord-set)	11.50
Model 32PCB-15 (crct. brkr., 15′ cord-set)	12.50

Waber Models 30 and 32 feature 4 color-coded switch-outlet sets, protected by either a fuse or circuit breaker. Model 30 is the 2-wire type and Model 32 is the 3-wire "U" ground type. These same units are available with a pilot light for each switch outlet group in the Models 30P and 32P series.

SPECIFICATIONS Panel-mounted fuse or circuit breaker ■ Tough Neoprene cord set ■ All snap-in components, fuse posts, circuit breakers, cord-sets UL approved ■ Rated 15 amperes 130 volts continuous duty ■ 12¾″ mounting centers ■ Size: 13⅛″x2⅜″x1⅝″ ■ Steel case finished in silver gray textured hammertone ■ Convenient mounting ears.

MAKE 6 OUTLETS FROM 1 WALL OUTLET WITH THIS NEW WABER MODEL 19


REAR VIEW

Male plug-in base enables you to multiply your outlets. Plug-in male outlet and secure mounting ears. You get 6 heavy duty "U" ground outlets, protected by a panel mounted fuse or circuit breaker.

Model 19 (fuse)	$6.75
Model 19CB (circuit breaker)	7.75
Model 19B (no fuse or crct. brkr.)	6.25

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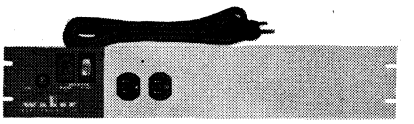
WABER RACK MOUNT OUTLET BOXES

waber ELECTRONICS INC

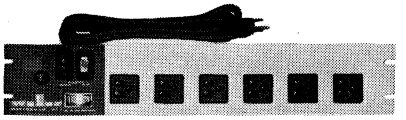
POWER UP YOUR RACKS WITH THESE PRE-WIRED WABER OUTLET PANELS

Waber pre-wired, ready-to-use, master power controls provide a quick and easy power source for standard relay racks. You have your choice from this great variety of configurations with outlets on the outside, inside, or combinations of both. Choose the Waber pre-wired panel you need from the many standard units shown here. UL Cord-set has neoprene-insulated conductors with an overall neoprene jacket. All rack panels are 3½" x 19" in size except series 903, 911, 912, 913 which are 1¾" x 19". All Waber outlet boxes are rated at 15 amperes, 130 volts continuous duty.

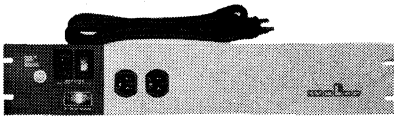
WABER 900 SERIES



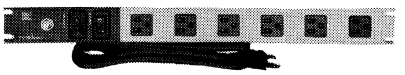
WABER 904 - 905 - 906 SERIES



WABER 901 SERIES



WABER 907 - 908 - 909 SERIES



WABER 903 SERIES

WABER 911 - 912 - 913 SERIES

WABER MODEL 900 SERIES RACK PANEL OUTLET BOXES

These units feature an "on-off" switch, pilot light, fuse or push-to-reset circuit breaker, 6 "U" ground outlets, and your choice of a 6 or 15-foot neoprene cord-set. All component parts UL approved.

	Net
Model 900 (fuse, 6' cord-set)	$10.95
Model 900-15 (fuse, 15' cord-set)	11.95
Model 900CB (circuit breaker, 6' cord-set)	11.95
Model 900CB (circuit breaker, 15' cord-set)	12.95

WABER 901 RACK MOUNT FEATURES AC VOLTMETER

This unit has all of the features of the 900 series, plus a handsome, edgewise reading AC Voltmeter for monitoring voltages of from 0 to 150 volts AC.

	Net
Model 901 (fuse, 6' cord-set)	$14.50
Model 901-15 (fuse, 15' cord-set)	15.50
Model 901CB (circuit breaker, 6' cord-set)	15.50
Model 901CB-15 (circuit breaker, 15' cord-set)	16.50

WABER MODEL 904 SERIES IN "U" GROUND, CROW'S FOOT, OR LOCKING TYPE

This popular series features an "on-off" switch pilot light, fuse or push-to-reset circuit breaker, 6 or 15-foot neoprene cord-set, and 6 outlets (2 in front and 4 in back). Size: 3½"x 19". All component parts UL approved.

"U" GROUND TYPE	Net
Model 904 (fuse, 6' cord-set)	$12.95
Model 904-15 (fuse, 15' cord-set)	13.95
Model 904CB (circuit breaker, 6' cord-set)	13.95
Model 904CB-15 (circuit breaker, 15' cord-set)	14.95
LOCKING TYPE	
Model 905 (fuse, 6' cord-set)	23.95
Model 905-15 (fuse, 15' cord-set)	24.95
Model 905CB (circuit breaker, 6' cord-set)	24.95
Model 905CB-15 (circuit breaker, 15' cord-set)	25.95
CROW'S FOOT TYPE	
Model 906 (fuse, 6' cord-set)	24.95
Model 906-15 (fuse, 15' cord-set)	25.95
Model 906CB (circuit breaker, 6' cord-set)	25.95
Model 906CB-15 (circuit breaker, 15' cord-set)	26.95

WABER MODELS 907-908-909 EQUIPPED WITH AC VOLTMETER

These Waber Models have all of the features of the 904-905-906 series with the addition of an edgewise reading 0-150 volt AC voltmeter.

"U"GROUND TYPE	Net
Model 907 (fuse, 6' cord-set)	$16.50
Model 907-15 (fuse, 15' cord-set)	17.50
Model 907CB (circuit breaker, 6' cord-set)	17.50
Model 907CB-15 (circuit breaker, 15' cord-set)	18.50
LOCKING TYPE	
Model 908 (fuse, 6" cord-set)	27.50
Model 908-15 (fuse, 15" cord-set)	28.50
Model 908CB (circuit breaker, 6' cord-set)	28.50
Model 908CB-15 (circuit breaker, 15' cord-set)	29.50
CROW'S FOOT TYPE	
Model 909 (fuse, 6' cord-set)	28.50
Model 909-15 (fuse, 15' cord-set)	29.50
Model 909CB (circuit breaker, 6' cord-set)	29.50
Model 909CB-15 (circuit breaker, 15' cord-set)	30.50

WABER SPACE-SAVER MODELS ONLY 1¾" WIDE

Waber Model 903 series features 6 "U" ground outlets (in the front) "on-off" switch, pilot light, fuse or circuit breaker, 6 or 15-foot neoprene cord-set. Models 911, 912, 913 have the same features except that the outlets are in the back and are available in "U" ground, locking, or crow's foot types. Component parts UL approved. Size: 1¾"x19".

WANT SOMETHING SPECIAL?
WE'LL MANUFACTURE TO YOUR SPECS.

	Net
Model 903 (fuse, 6' cord-set)	$10.95
Model 903 (fuse, 15' cord-set)	11.95
Model 903CB (circuit breaker 6' cord-set)	11.95
Model 903CB-15 (circuit breaker, 15' cord-set)	12.95
"U" GROUND TYPE	
Model 911 (fuse, 6' cord-set)	12.95
Model 911-15 (fuse, 15' cord-set)	13.95
Model 911CB (circuit breaker, 6' cord-set)	13.95
Model 911CB-15 (circuit breaker, 15' cord-set)	14.95

LOCKING TYPE	Net
Model 912 (fuse, 6' cord-set)	$23.95
Model 912-15 (fuse, 15' cord-set)	24.95
Model 912CB (circuit breaker, 6' cord-set)	24.95
Model 912CB-15 (circuit breaker, 15' cord-set)	25.95
CROW'S FOOT TYPE	
Model 913 (fuse, 6' cord-set)	24.95
Model 913-15 (fuse, 15' cord-set)	25.95
Model 913CB (circuit breaker, 6' cord-set)	25.95
Model 913CB-15 (circuit breaker, 15' cord-set)	26.95

Net

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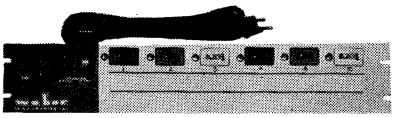
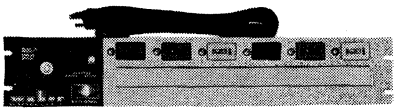
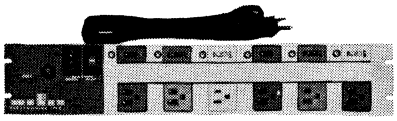
WABER RACK MOUNTS DELUXE



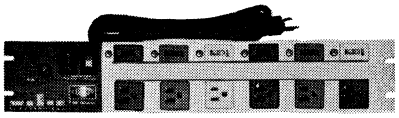
MODELS 914 - 915 - 916



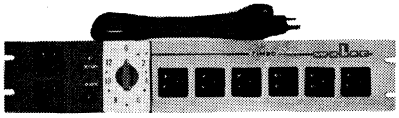
MODELS 917 - 918 - 919



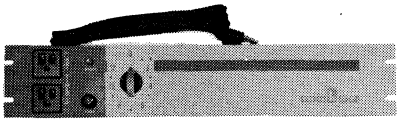
MODEL 920



MODEL 921



MODELS 922 - 923



MODELS 924 - 925

WABER MODEL 914 SERIES DELUXE RACK PANEL

6 color-coded switches provide individual control for outlets on the inside, with individual bright pilot lights and write-on strip. Master switch and pilot light control the entire unit. Choice of 6 or 15-foot neoprene cord-set, and fuse or push-to-reset circuit breaker. Sturdy steel panel finished in silver gray textured hammertone. Rated at 15 amperes, 130 volts continuous duty.

"U" GROUND TYPE	Net
Model 914 (fuse, 6' cord-set)	$22.00
Model 914-15 (fuse, 15' cord-set)	23.00
Model 914CB (circuit breaker, 6' cord-set)	23.00
Model 914CB-15 (circuit breaker, 15' cord-set)	24.00
LOCKING TYPE	
Model 915 (fuse, 6' cord-set)	32.00
Model 915-15 (fuse, 15' cord-set)	33.00
Model 915CB (circuit breaker, 6' cord-set)	33.00
Model 915CB-15 (circuit breaker, 15' cord-set)	34.00
CROW'S FOOT TYPE	
Model 916 (fuse, 6' cord-set)	33.00
Model 916-15 (fuse, 15' cord-set)	34.00
Model 916CB (circuit breaker, 6' cord-set)	34.00
Model 916CB-15 (circuit breaker, 15' cord-set)	35.00

WABER MODEL 917 DELUXE UNIT WITH METER

This model has all of the features of the 914 with the addition of a 0 to 150 volts AC Voltmeter.

"U" GROUND TYPE	Net
Model 917 (fuse, 6' cord-set)	$25.45
Model 917-15 (fuse, 15' cord-set)	26.45
Model 917CB (circuit breaker, 6' cord-set)	26.45
Model 917CB-15 (circuit breaker, 15' cord-set)	27.45
LOCKING TYPE	
Model 918 (fuse, 6' cord-set)	$40.00
Model 918-15 (fuse, 15' cord-set)	41.00
Model 918CB (circuit breaker, 6' cord-set)	41.00
Model 918CB-15 (circuit breaker, 15' cord-set)	42.00
CROW'S FOOT TYPE	
Model 919 (fuse, 6' cord-set)	41.00
Model 919-15 (fuse, 15' cord-set)	42.00
Model 919CB (circuit breaker, 6' cord-set)	42.00
Model 919CB-15 (circuit breaker, 15' cord-set)	43.00

WABER MODEL 920 HAS DELUXE FEATURES

6 color-coded switch and "U" ground outlet sets with individual pilot lights are featured in this deluxe model. The entire unit is controlled by a master switch and pilot light. You have a choice of fuse or push-to-reset circuit breaker, and 6 or 15- foot neoprene cord-set. Unit is rated at 15 amperes, 130 volts continuous duty.

	Net
Model 920 (fuse, 6' cord-set)	$18.50
Model 920-15 (fuse, 15' cord-set)	19.50
Model 920CB (circuit breaker, 6' cord-set)	19.50
Model 920CB-15 (circuit breaker, 15' cord-set)	20.50

WABER MODEL 921 HAS AC VOLTMETER

This unit has all of the features of the Model 920, with the addition of a 0 to 150 volt AC Voltmeter.

	Net
Model 921 (fuse, 6' cord-set)	$21.95
Model 921-15 (fuse, 15' cord-set)	22.95
Model 921CB (circuit breaker, 6' cord-set)	22.95
Model 921CB-15 (circuit breaker, 15' cord-set)	23.95

WABER MODELS 922 AND 923 ARE TIMER CONTROLLED

Put a timer model (up to 12 hours) to work for you in many different ways. These models have 6 "U" ground outlets and a master pilot light, plus 2 extra "always-on" outlets. You have your choice of fuse or push-to-reset circuit breaker protection, 6 or 15-foot neoprene cord-set. Model 922 is designed to turn power off after the timed interval, while Model 923 turns power on. Rated at 15 amperes, 130 volts continuous duty.

	Net
Model 922 (fuse, 6' cord-set)	$20.55
Model 922-15 (fuse, 15' cord-set)	21.55
Model 922CB (circuit breaker, 6' cord-set)	21.55
Model 922CB-15 (circuit breaker, 15' cord-set)	22.55
Model 923 (fuse, 6' cord-set)	20.55
Model 923-15 (fuse, 15' cord-set)	21.55
Model 923CB (circuit breaker, 6' cord-set)	21.55
Model 923CB-15 (circuit breaker, 15' cord-set)	22.55

WABER MODELS 924 AND 925 FEATURE 12-HOUR TIMER

These Models feature 6 heavy-duty "U" ground outlets, 2 "always-on" in the front and 4 timed outlets in the back. A bright neon pilot light shows when power is on. You have a choice of fuse or push-to-reset circuit breaker protection, and 6 or 15-foot neoprene cord-set. Model 924 utilizes the up-to-12-hour timer to turn power off after the timed interval, and Model 925 is designed to turn power on. Rating is 15 amperes, 130 volts continuous duty. Size is 3½"x19".

	Net
Model 924 (fuse, 6' cord-set)	$22.55
Model 924-15 (fuse, 15' cord-set)	23.55
Model 924CB (circuit breaker, 6' cord-set)	23.55
Model 924CB-15 (circuit breaker, 15' cord-set)	24.55
Model 925 (fuse, 6' cord-set)	22.55
Model 925-15 (fuse, 15' cord-set)	23.55
Model 925CB (circuit breaker, 6' cord-set)	23.55
Model 925CB-15 (circuit breaker, 15' cord-set)	24.55

DUST AND SAFETY COVERS **4.00**

DC-5 FOR MODELS 900, 901, 920, 921
DC-1 FOR 904, 907, 922, 923, 924, 925
Other 3½" models have dust covers attached

STEEL PANELS FINISHED IN TEXTURED HAMMERTONE GRAY

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WABER "LONG JOHN" OUTLET BOXES

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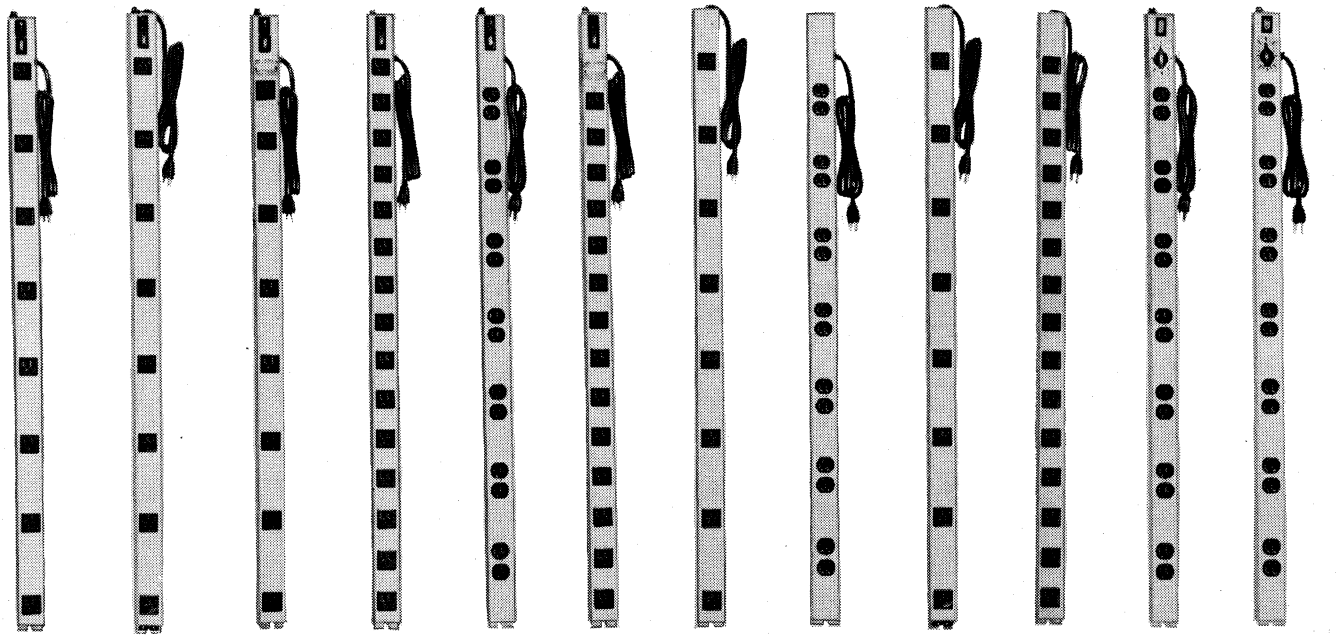
STURDY WABER "READY-TO-PLUG-IN" 4-FOOT HEAVY DUTY OUTLET BOXES



700 704 703 705 707 708 710 711 712 715 717 718

WABER MODEL 700 SERIES
This popular model has 8 "U" ground outlets, on-off switch, pilot light and your choice of fuse or circuit-breaker protection, and 6- or 15-foot neoprene cord-set. Component parts are UL approved.

	Net
Model 700 (fuse, 6' cord-set)	$14.95
Model 700-15 (fuse, 15' cord-set)	15.95
Model 700CB (circuit breaker, 6' cord-set)	15.95
Model 700CB-15 (circuit breaker, 15' cord-set)	16.95

WABER MODEL 704 SERIES
This unit has the same features as the "700" with the addition of an outlet on one end and the cord-set coming out the other end for "in-line" series stringing.

Model 704 (fuse, 6' cord-set)	$15.95
Model 704-15 (fuse, 15' cord-set)	16.95
Model 704CB (circuit breaker, 6' cord-set)	16.95
Model 704CB-15 (circuit breaker, 15' cord-set)	17.95

WABER MODEL 703 SERIES
This unit has all of the quality features of the Model 700 with the addition of a 0 to 150 volt edgewise reading AC Voltmeter.

Model 703 (fuse, 6' cord-set)	$18.50
Model 703-15 (fuse, 15' cord-set)	19.50
Model 703CB (circuit breaker, 6' cord-set)	19.50
Model 703CB-15 (circuit breaker, 15' cord-set)	20.50

SPECIFICATIONS Tough neoprene cord-set ■ Steel case finished in textured silver gray hammertone ■ Convenient mounting ears ■ Rated at 15 amperes 130 volts ■ Mounting centers 48¾" ■ Size: 49"x2"x1½" ■ All units pre-wired for instant use.

WABER MODEL 705 SERIES
This unit has 15 "U" ground outlets, on-off switch, bright pilot light, your choice of fuse or push-to-reset- circuit breaker protection, and 6 or 15-foot neoprene cord-set. Component parts are UL approved.

	Net
Model 705 (fuse, 6' cord-set)	$18.95
Model 705-15 (fuse, 15' cord-set)	19.95
Model 705CB (circuit breaker, 6' cord-set)	19.95
Model 705CB-15 (circuit breaker, 15' cord-set)	20.95

WABER MODEL 707 SERIES
This series features 14 "U" ground outlets, on-off switch, bright pilot light, your choice of fuse or circuit breaker protection, and 6 or 15-foot neoprene cord-set. Components are UL approved.

Model 707 (fuse, 6' cord-set)	$15.75
Model 707-15 (fuse, 15' cord-set)	16.75
Model 707CB (circuit breaker, 6' cord-set)	16.75
Model 707CB-15 (circuit breaker, 15' cord-set)	17.75

WABER MODEL 708 SERIES
This unit has all of the features of the "705" series with the addition of a 0 to 150 volt AC edgewise-reading Voltmeter.

Model 708 (fuse, 6' cord-set)	$22.50
Model 708-15 (fuse, 15' cord-set)	23.50
Model 708CB (circuit breaker, 6' cord-set)	23.50
Model 708CB-15 (circuit breaker, 15' cord-set)	24.50

WABER MODEL 710 SERIES
This unit has 8 "U" ground outlets only.

Model 710 (6' cord-set)	$12.95
Model 710-15 (15' cord-set)	13.95

WABER MODEL 711 SERIES
This series features 14 "U" ground outlets of the duplex type.

	Net
Model 711 (6' cord-set)	$13.95
Model 711-15 (15' cord-set)	14.95

WABER MODEL 712 SERIES
Model 712 is an in-line series stringing type with 8 "U" ground outlets plus a "U" ground outlet on one end and cord-set on other end. Designed as a slave unit for Model 704.

Model 712 (6' cord-set)	$13.95
Model 712-15 (15' cord-set)	14.95

WABER MODEL 715 SERIES
This unit features 15 "U" ground outlets only.

Model 715 (6' cord-set)	$16.95
Model 715-15 (15' cord-set)	17.95

WABER MODELS 717 AND 718 SERIES
These units feature 14 "U" ground outlets, pilot light, your choice of fuse or circuit breaker protection, and 6 or 15-foot neoprene cord-set. Also included is a timer with provisions for up to 12-hour control. Model 717 is designed to turn power off after the timed interval. Model 718 turns power on.

Model 717 (fuse, 6' cord-set)	$24.00
Model 717-15 (fuse, 15' cord-set)	25.00
Model 717CB (circuit breaker, 6' cord-set)	25.00
Model 717CB-15 (circuit breaker, 15' cord-set)	26.00
Model 718 (fuse, 6' cord-set)	24.00
Model 718-15 (fuse, 15' cord-set)	25.00
Model 718CB (circuit breaker, 6' cord-set)	25.00
Model 718CB-15 (circuit breaker, 15' cord-set)	26.00

Net
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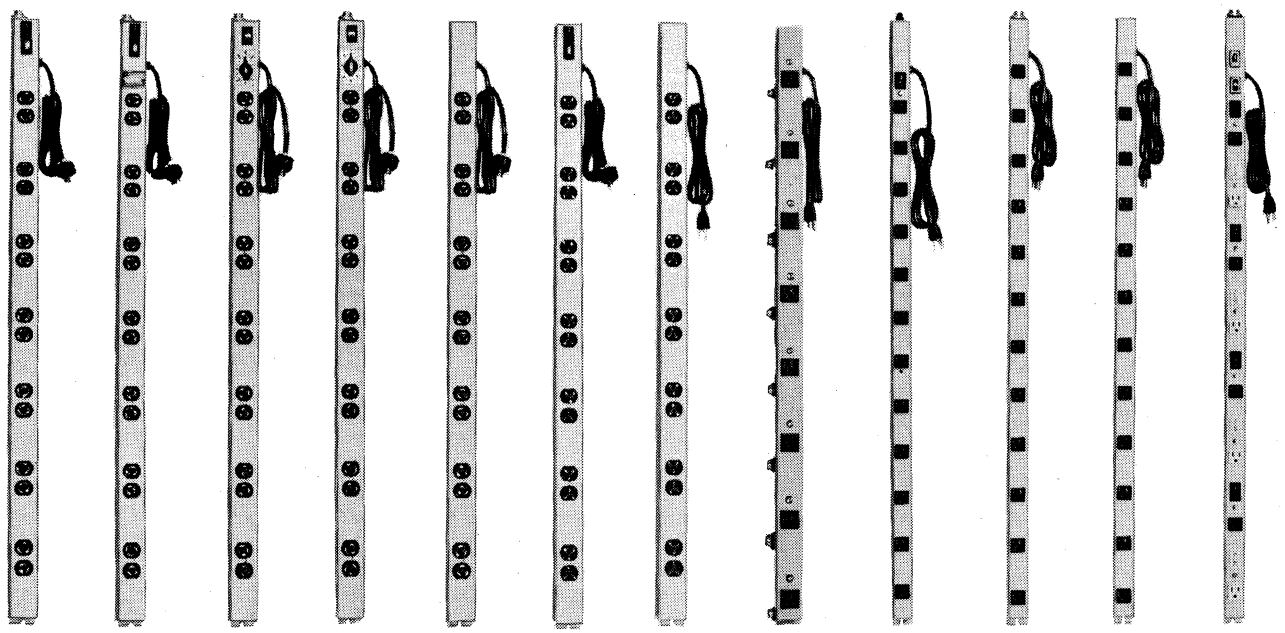
WABER "STRING BEAN" OUTLET BOXES



720 721 722 723 725 730 735 740 1000 1001 1002 1010

WABER MODEL 720 SERIES
This unit provides 14 locking-type outlets, an "on-off" switch, neon pilot light, fuse or push-to-reset circuit breaker, and 6 or 15-foot neoprene cord-set. Components are UL approved.

	Net
Model 720 (fuse, 6' cord-set)	$32.95
Model 720-15 (fuse, 15' cord-set)	33.95
Model 720CB (circuit breaker, 6' cord-set)	33.95
Model 720CB-15 (circuit breaker, 15' cord-set)	34.95

WABER MODEL 721 SERIES
All of the features of the Model 720 Series are included in this unit, with the addition of an edgewise-reading 0 to 150 volt AC Voltmeter.

Model 721 (fuse, 6' cord-set)	$36.50
Model 721-15 (fuse, 15' cord-set)	37.50
Model 721CB (circuit breaker, 6' cord-set)	37.50
Model 721CB-15 (circuit breaker, 15' cord-set)	38.50

WABER MODELS 722 AND 723
These handsome units feature 14 locking-type outlets, neon pilot light, fuse or push-to-reset circuit breaker and 6 or 15-foot neoprene cord-set. In addition, a 12-hour timer provides automatic power control. Model 722 is designed to turn power off and Model 723 on.

Model 722 (fuse, 6' cord-set)	$44.50
Model 722-15 (fuse, 15' cord-set)	45.50
Model 722CB (circuit breaker, 6' cord-set)	45.50
Model 722CB-15 (circuit breaker, 15' cord-set)	46.50
Model 723 (fuse, 6' cord-set)	44.50
Model 723-15 (fuse, 15' cord-set)	46.50
Model 723CB (circuit breaker, 6' cord-set)	46.50
Model 723CB-15 (circuit breaker, 15' cord-set)	46.50

WABER MODEL 725 SERIES
This model contains 14 duplex outlets of the locking type only.

	Net
Model 725 (6' cord-set)	$31.95
Model 725-15 (15' cord-set)	32.95

WABER MODEL 730 SERIES
14 crow's foot outlets are featured in this unit with on-off switch, pilot light, fuse or push-to-reset circuit breaker, and 6 or 15-foot cord-set. Component parts are UL approved.

Model 730 (fuse, 6' cord-set)	$32.95
Model 730-15 (fuse, 15' cord-set)	33.95
Model 730CB (circuit breaker, 6' cord-set)	33.95
Model 730CB-15 (circuit breaker, 15' cord-set)	34.95

WABER MODEL 735 SERIES
This model has 14 crow's foot outlets only.

Model 735 (6' cord-set)	$31.95
Model 735-15 (15' cord-set)	32.95

WABER MODEL 740 SERIES
This unique outlet box has 8 "U" ground outlets with each outlet individually fused. Each outlet also has its own neon indicator.

Model 740 (6' cord-set)	$19.75
Model 740-15 (15' cord-set)	20.75

WABER "STRING BEAN" FOUR-FOOTERS, 1⅛" DEEP, 1½" WIDE

WABER MODEL 1000 SERIES
This unit provides 12 "U" ground outlets, "on-off" switch, neon pilot light, fuse or push-to-reset circuit breaker, and 6 or 15-foot neoprene cord-set.

	Net
Model 1000 (fuse, 6' cord-set)	$15.95
Model 1000-15 (fuse, 15' cord-set)	16.95
Model 1000CB (circuit breaker, 6' cord-set)	16.95
Model 1000CB-15 (circuit breaker, 15' cord-set)	17.95

WABER MODEL 1001 SERIES
Provided with this model are 12 "U" ground outlets, with fuse or circuit breaker protection, and 6 or 15-foot neoprene cord-set.

Model 1001 (fuse, 6' cord-set)	$14.95
Model 1001-15 (fuse, 15' cord-set)	15.95
Model 1001CB (circuit breaker, 6' cord-set)	15.95
Model 1001CB-15 (circuit breaker, 15' cord-set)	16.95

WABER MODEL 1002 SERIES
This unit has 12 "U" ground outlets only. UL approved components.

Model 1002 (6' cord-set)	$13.95
Model 1002-15 (15' cord-set)	14.95

WABER DELUXE MODEL 1010 SERIES
This handsome model has 8 outlets, each individually controlled by its own switch and pilot light, with a master "on-off" switch and pilot light. Fuse or push-to-reset circuit breaker, and choice of 6 or 15-foot neoprene cord-set.

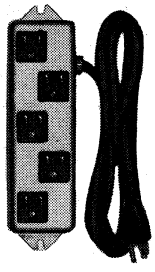
Model 1010 (fuse, 6' cord-set)	$19.95
Model 1010-15 (fuse, 15' cord-set)	20.95
Model 1010CB (circuit breaker, 6' cord-set)	20.95
Model 1010CB-15 (circuit breaker, 15' cord-set)	21.95

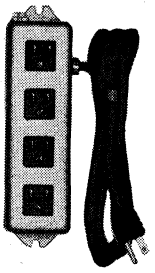
SPECIFICATIONS Sturdy steel case finished in silver gray textured hammertone ■ Size: 49x1½x1⅛" ■ 48¾" mounting centers rated at 15 amperes, 130 volts continuous duty.

WABER ELECTRONICS INC.

WABER Compact OUTLET BOXES

waber
ELECTRONICS INC


MODEL 602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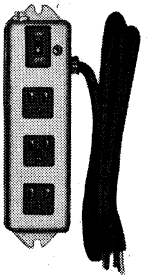
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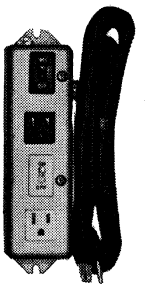
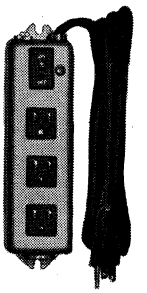

MODEL 606


MODEL 608

CHOOSE THE WABER "COMPACT" TAILOR MADE FOR YOUR APPLICATION FROM THESE POPULAR HEAVY-DUTY MODELS

Compact in size, these sturdy Waber units provide quality "U" ground type outlets in a variety of configurations for schools, labs, or industry. They are particularly useful for OEM applications. Custom variations can be made to meet your specific needs.

MODEL 602 SERIES, 5 "U" Ground Outlets Only

	Net
Model 602 (6' cord-set)	$4.80
Model 602-15 (15' cord-set)	5.80

MODEL 603 SERIES, 4 "U" Ground Outlets, Fuse or Push-To-Reset Circuit Breaker

Model 603 (fuse, 6' cord-set)	$5.25
Model 603-15 (fuse, 15' cord-set)	6.25
Model 603CB (circuit breaker, 6' cord-set)	6.25
Model 603CB-15 (circuit breaker, 15' cord-set)	7.25

MODEL 605 SERIES, 3 "U" Ground Outlets, Pilot Light, On-Off Switch, Fuse or Push-To-Reset Circuit Breaker

Model 605 (fuse, 6' cord-set)	$5.95
Model 605-15 (fuse, 15' cord-set)	6.95
Model 605CB (circuit breaker, 6' cord-set)	6.95
Model 605CB-15 (circuit breaker, 15' cord-set)	7.95

MODEL 606 SERIES, 2 Color-Coded Sets (Switch, Pilot Light, Outlet) Fuse or Push-To-Reset Circuit Breaker

Model 606 (fuse, 6' cord-set)	$5.95
Model 606-15 (fuse, 15' cord-set)	6.95
Model 606CB (circuit breaker, 6' cord-set)	6.95
Model 606CB-15 (circuit breaker, 15' cord-set)	7.95

MODEL 608 SERIES, Pilot Light, On-Off Switch, Fuse or Push-To-Reset Circuit Breaker, and 4 "U" Ground Outlets. Outlet On One End and Cord-Set Out Other End For Series-String Wiring.

Model 608 (fuse, 6' cord-set)	$6.50
Model 608-15 (fuse, 15' cord-set)	7.50
Model 608CB (circuit breaker, 6' cord-set)	7.50
Model 608CB-15 (circuit breaker, 15' cord-set)	8.50

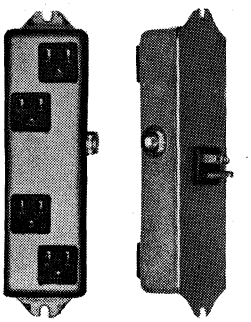
WABER ELECTRONICS INC.

ALL WABER MODELS COMPLETELY WIRED *Ready To Plug In!*

SPECIFICATIONS Tough Neoprene UL approved cord-set ■ Rated at 15 amperes, 130 volts continuous duty ■ Steel case finished in silver gray textured hammertone ■ Your choice of UL approved fuse or push-to-reset circuit breaker ■ All 600 series models have 8¼" mounting centers, Size 8⅝" x 2¼" x 1½".

NEW!

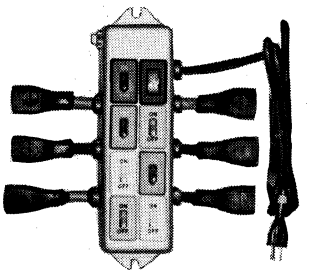
U-GROUND PLUG-IN WALL OUTLET

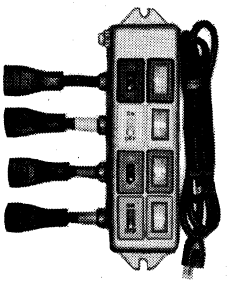

MODEL 611

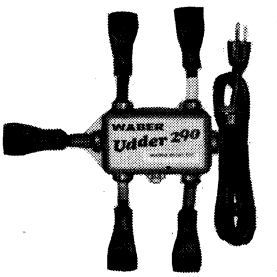
Get four "U" ground outlets from one wall outlet with this new Waber Model 611 outlet box. Mounting ears enable you to fasten unit to wall securely. Fuse or push-to-reset circuit breaker.

	Net
Model 611 (fuse)	$4.75
Model 611CB (circuit breaker)	5.75
Model 611B (no fuse or crct. brkr.)	4.25

NEW! WABER "UDDER" TYPE OUTLET BOXES


MODEL 609


MODEL 610



MODEL 290

PLENTY OF QUALITY FEATURES ARE PACKED INTO THESE NEW WABER HEAVY-DUTY UDDER MODELS

Flexible "U" ground outlets are the big feature in the new Waber "Udder" Line. Model 609 has 6 color-coded switch-outlet sets with master switch and pilot light, and choice of 6 or 15-foot cord-set, fuse or push-to-reset circuit breaker.

Waber Model 610 gives you 4 color-coded switch-outlet sets with individual pilot lights. Your choice of 6 or 15-foot cord-set, fuse or push-to-reset circuit breaker.

Waber Model 290 provides five "Udder" "U" ground color-coded outlets in a small case, size 4¾" x 2⅛" with 4⅜" mounting centers.

	Net
Model 609 (fuse, 6' cord-set)	$13.50
Model 609-15 (fuse, 15' cord-set)	14.50
Model 609CB (circuit breaker, 6' cord-set)	14.50
Model 609CB-15 (circuit breaker, 15' cord-set)	15.50
Model 610 (fuse, 6' cord-set)	12.50
Model 610-15 (fuse, 15' cord-set)	$13.50
Model 610CB (circuit breaker, 6' cord-set)	13.50
Model 610CB-15 (circuit breaker, 15' cord-set)	14.50
Model 290 (6' cord set)	5.25
Model 290-15 (15' cord-set)	6.25

Net

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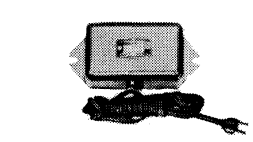
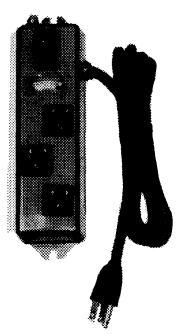
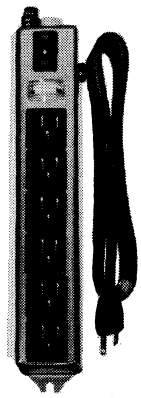
waber
ELECTRONICS INC

WABER METER AND TIMER OUTLET BOXES


Model 230M

Model 220M


Model 607M


Model 24M

WABER LINE VOLTAGE MONITORING METER MODELS FOR CONTINUOUS CHECKING

WABER MODEL 220M LINE VOLTAGE CHECKER

Crystal clear, easy to read, wide angle edgewise reading illuminated AC Voltmeter in a handsome chrome plated case. Reads from 0 to 150 volts. 6-foot cord-set. Size: 4¾"x2⅛" with 4⅜" mounting centers.
Model 220M ..... Net $5.95

WABER MODEL 230M OUTLET BOX FEATURES ILLUMINATED AC VOLTMETER

Continuous monitoring of AC line voltage is feature of this new model with the illuminated edgewise reading of from 0 to 150 volts. Unit includes "on-off" switch, "U" ground outlet, and your choice of 6 or 15-foot neoprene cord-set, fuse or push-to-reset circuit breaker. Case is handsomely chrome plated. Size: 4¾" x 2⅛" x 4⅜" mounting centers.

	Net
Model 230M (fuse, 6' cord-set)	$7.50
Model 230M-15 (fuse, 15' cord-set)	8.50
Model 230MCB (circuit breaker, 6' cord-set)	8.50
Model 230MCB-15 (circuit breaker, 15' cord-set)	9.50

WABER MODEL 607M OUTLET BOX WITH ILLUMINATED AC VOLTMETER

This highly useful outlet box features an "on-off" switch with three "U" ground outlets, with an illuminated edgewise reading 0 to 150 volts AC Voltmeter for continuous line voltage checks. Your choice of a 6 or 15-foot neoprene cord-set, fuse or push-to-reset circuit breaker protection. Size: 8⅝"x2¼"x1½" with 8¼" mounting centers.

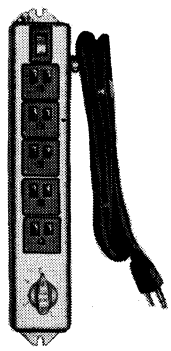
	Net
Model 607M (fuse, 6' cord-set)	$ 8.95
Model 607M-15 (fuse, 15' cord-set)	9.95
Model 607MCB (circuit breaker, 6' cord-set)	9.95
Model 607MCB-15 (circuit breaker, 15' cord-set)	10.95

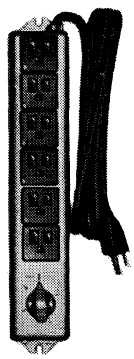
WABER MODEL 24M OUTLET BOX FEATURES ILLUMINATED AC VOLTMETER

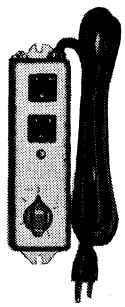
Our popular Model 24 series, now available with an illuminated voltmeter, provides continuous check of AC line voltage. The illuminated wide angle, edgewise reading meter monitors from 0 to 150 AC Volts. Included also are an "on-off" switch, 6 "U" ground outlets, and your choice of a 6 or 15-foot neoprene cord-set, fuse or circuit breaker.

	Net
Model 24M (fuse, 6' cord-set)	$11.95
Model 24M-15 (fuse, 15' cord-set)	12.95
Model 24MCB (circuit breaker, 6' cord-set)	12.95
Model 24MCB-15 (circuit breaker, 15' cord-set)	13.95

NEW! WABER 15-AMP MODELS NOW EQUIPPED WITH TIMERS!


Model 42
Model 43


Model 18
Model 19


Model 613
Model 614

WABER MODEL 42 AND 43 SERIES WITH UP TO 12-HOUR TIMER

5 "U" ground outlets, neon pilot light, your choice of 6 or 15-foot neoprene line cord, fuse or push-to-reset circuit breaker, and a reliable timer with settings of up to 12 hours. Model 42 is designed to turn power off at the conclusion of the timed interval, and Model 43 is designed to turn power on. Size: 13⅛" x 2⅜" x1⅝" with 12¾" mounting centers.

	Net
Model 42 (fuse, 6' cord-set)	$17.00
Model 42-15 (fuse, 15' cord-set)	18.00
Model 42CB (circuit breaker, 6' cord-set)	18.00
Model 42CB-15 (circuit breaker, 15' cord-set)	19.00
Model 43 (fuse, 6' cord-set)	17.00
Model 43-15 (fuse, 15' cord-set)	18.00
Model 43CB (circuit breaker, 6' cord-set)	18.00
Model 43CB-15 (circuit breaker, 15' cord-set)	19.00

WABER MODEL 18 AND 19 SERIES TIMER MODELS

These popular units provide up to 12 hours of timing, and have a neoprene cord-set. The 6 outlets are timer-controlled. Model 18 turns power off at the end of the timed interval, and Model 19 turns power on. Size: 13⅛" x 2⅜" x 1⅝" with 12¾" mounting centers.

	Net
Model 18 (6' cord-set)	$15.00
Model 18-15 (15' cord-set)	16.00
Model 19 (6' cord-set)	16.00
Model 19-15 (15' cord-set)	17.00

WABER MODEL 613 AND 614 COMPACT SERIES TIMER MODELS

2 timed outlets, fuse or push-to-reset circuit breaker, and your choice of 6 or 15-foot neoprene cord-set are featured in this compact unit with up to 12-hour timer control. Model 613 turns power off at the end of the preset interval. Model 614 turns power on. Size: 8⅝"x2¼"x1½" with 8¼" mounting centers.

	Net
Model 613 (fuse, 6' cord-set)	$13.00
Model 613-15 (fuse, 15' cord-set)	14.00
Model 613CB (circuit breaker, 6' cord-set)	14.00
Model 613CB-15 (circuit breaker, 15' cord-set)	15.00
Model 614 (fuse, 6' cord-set)	13.00
Model 614-15 (fuse, 15' cord-set)	14.00
Model 614CB (circuit breaker, 6' cord-set)	14.00
Model 614CB-15 (circuit breaker, 15' cord-set)	15.00

Need Outlets In A Hurry?
ALL WABER MODELS ARE PRE-WIRED . . . JUST PLUG IN!

WABER ELECTRONICS INC.

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OUTLET BOXES MOTOR SPEED CONTROLLERS

waber
ELECTRONICS INC

WABER 800 SERIES IN "U" GROUND, LOCKING, OR CROW'S FOOT TYPES

Ten duplex outlets, available in "U" ground, locking, or crow's foot types (with matching plug), are provided with "on-off" switch, neon pilot light, panel mounted fuse or circuit breaker, and your choice of a 6' or 15' Waber neoprene cord-set.

On-off Switch • Bright Pilot Light • Tough Neoprene Cord Set • UL Approved Components • Rated at 15 Amperes, 130 Volts Continuous Duty

• Steel Case Finished in Silver Gray Textured Hammertone • Your Choice of Fuse or Push to Reset Circuit Breaker • 12⅞ x 2⅞" Mounting Centers • Size: 13¼ x 4¼ x 1½".

MODEL 800 SERIES, "U" GROUND OUTLETS

	Net
Model 800 (fuse, 6' cord-set)	$13.50
Model 800-15 (fuse, 15' cord-set)	14.50
Model 800CB (crct. brkr., 6' cord-set)	14.50
Model 800CB-15 (crct. brkr., 15' cord-set)	15.50

MODEL 801 SERIES, LOCKING TYPE OUTLETS

Model 801 (fuse, 6' cord-set)	29.95
Model 801-15 (fuse, 15' cord-set)	30.95
Model 801CB (crct. brkr., 6' cord-set)	30.95
Model 801CB-15 (crct. brkr., 15' cord-set)	31.95

MODEL 802 SERIES, CROW'S FOOT TYPE OUTLETS

Model 802 (fuse, 6' cord-set)	34.95
Model 802-15 (fuse, 15' cord-set)	35.95
Model 802CB (crct. brkr., 6' cord-set)	35.95
Model 802CB-15 (crct. brkr., 15' cord-set)	36.95

WABER SUPERB QUALITY CORD-SETS AND EXTENSION CORDS

All Waber cord-sets and extension cords are UL approved and rated at 15 amperes. Insulation is finest heat and oil resistant neoprene. All plugs and receptacles are molded on.

Part No.	Net
3071 (6' 16-3 "U" Ground Cord-set)	$2.25
3072 (15', 16-3 "U" Ground Cord-set)	4.20
3073 (7', 16-3 "U" Ground Extension Cord)	2.61
3074 (16', 16-3 "U" Ground Extension Cord)	4.43
3075 (10', 16-2 Cord-set)	1.56

WABER ELECTRONICS INC.

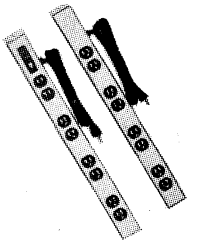
Need A Special?
Custom Outlet Boxes To Your Requirements

NEW! WABER COMPLETELY WIRED — READY TO USE — 68 INCHER!

Here is a completely new unit with the extra length that makes it so practical, so useful, for long work benches and full length racks. The 1040 series has an on-off switch, bright pilot light, 15 "U" ground outlets; your choice of a 6 or 15 foot cord-set, fuse or push-to-reset circuit breaker. You get all of this in the same slim design as the 1000 series. Mounting centers are 67" and overall size is 68 x 1½ x 1⅛". All component parts are UL approved and the sturdy steel case is finished in silver gray textured hammertone. Rating is 15 amperes, 130 volts.

	Net
Model 1040 (fuse, 6' cord-set)	$19.95
Model 1040-15 (fuse, 15' cord-set)	20.95
Model 1040CB (circuit breaker, 6' cord-set)	20.95
Model 1040CB-15 (circuit breaker, 15' cord-set)	21.95

WABER "SHORT JOHN" MODELS PACK GIANT FEATURES IN A STURDY TWO FOOT LENGTH



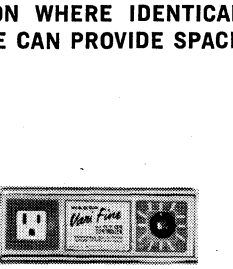
The new Waber 764 and 770 "Short John" series are similar to Waber series 707 and 711. This convenient two foot length provides a desirable in-between length to supplement our one foot and four foot series. These new units are ideal for racks, benches, and test set-ups where its 24x2x1½" size is advantageous. Mounting centers are 23¾".

	Net
Model 764 (fuse, 6' cord-set)	$13.35
Model 764-15 (fuse, 15' cord-set)	14.35
Model 764CB (circuit breaker, 6' cord-set)	14.35
Model 764CB-15 (circuit breaker, 15' cord-set)	15.35
Model 770 (6' cord-set)	11.90
Model 770-15 (15' cord-set)	12.90

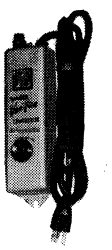
NEW! WABER VARI-FINE SOLID STATE AC-DC MOTOR SPEED CONTROLLERS

NOW AVAILABLE IN HIGH CURRENT RATINGS AND NEW TWINS FOR TEST AND PRODUCTION WHERE IDENTICAL TWIN UNITS IN A MODERN PACKAGE CAN PROVIDE SPACE SAVING CONVENIENCE.

Waber Vari-Fine Controllers are solid state devices for speed and light control, featuring stepless change from zero to maximum. They provide infinite control of motor speed and light intensity, and can be used to vary the speed of AC/DC motors of the universal type. They handle load currents up to the maximum rating at 117 volts 60 cps. These self contained units may be plugged into any wall outlet and are fused for circuit protection. They are compact and portable. Waber Vari-Fine Controllers have many applications in the home, laboratory, school, or factory where the regulation of motor or light is desirable.

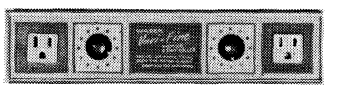


MODEL 201



MODEL 200

MODEL 202



MODEL 203

	Net
Model 200 (Rated at 7 amperes, 117 volts)	$14.95
Model 201 (Rated at 12 amperes, 117 volts)	19.95
Model 202 (Twin, rated 7 amperes each half)	$26.95
Model 203 (Twin, rated 12 amperes each half)	34.95

Net

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waber

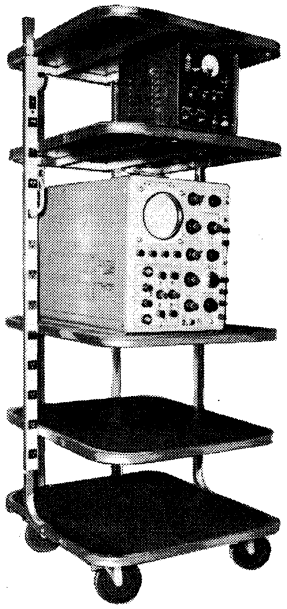
ELECTRONICS INC

LAB-ON-WHEELS PHOTO SWITCHES

SINGLE CANTILEVER

Lab on Wheels

DOUBLE CANTILEVER



LOW-3

WHEEL IT IN WHEEL IT OUT... AT YOUR CONVENIENCE

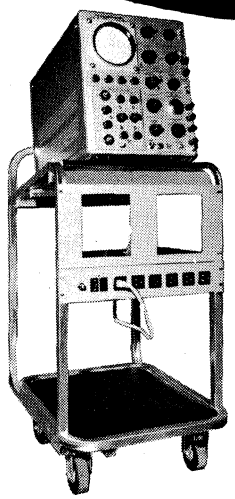
The WABER "Lab On Wheels" will greatly expand your present work area, rolls effortlessly, and will provide ample space for your instruments, supplies, assemblies, breadboards, prototypes, etc. Provisions are available for mounting a WABER Outlet Box (1,000 series) to supply power to the unit.

Shelves are adjustable to make every inch count. Each shelf is covered with tempered hardboard. Size: 28"Lx26"Wx66"H. This unit could prove a real workhorse for the school, lab, or industrial plant.

WABER Model LOW-3

Net

(less outlet box) $149.00



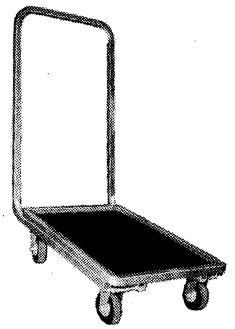
NEW! STURDY WABER "SCOPE" DOLLY EASILY TAKES ALL SIZES

This versatile scope dolly is designed to handle the big scopes and oversized test equipment with ease. The spacious non-skid deck, inclined at 22°, accommodates all instruments. The welded square tubing combines rigidity with functional design to permit the user free access to controls and an uncluttered view. It also allows 900 Series rack panels to be mounted as required. Size: 19¼"Wx29½"Lx 36½"H.

Net

LOW-6 ..... $89.00

Accessory shelf and outlet box not included.



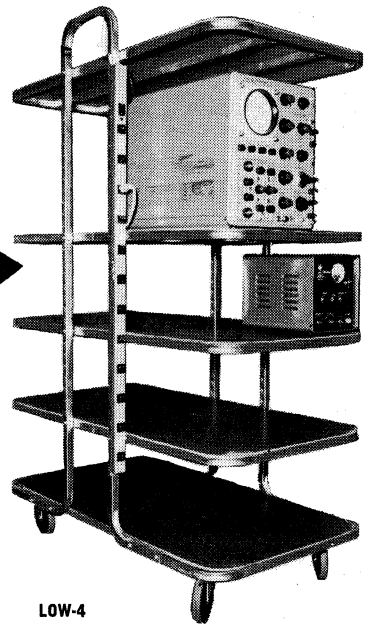
LOW-5

THIS WABER DOLLY HAS THE UTILITY YOU NEED

Transport stocks, instruments, assemblies with ease with this low cost WABER Basic Dolly. You can make your own adaptations to serve many purposes in your projects, where mobility would be desirable. Size: 32"Lx18½"Wx37½"H. Here is one of the most versatile and rugged units available to serve the needs of the lab, school or industry.

Net

WABER Model LOW-5 ..... $48.00



LOW-4

PAYS FOR ITSELF IN TIME SAVED... IN CONVENIENCE

This double cantilevered carrier is built to hold greater load capacities with sway-free rigidity, strength and durability. The tremendous area available will accommodate your projects with ease, and provisions for a WABER 1000 series Outlet Box will "power-up" the carrier. When your projects are held-up you can wheel it out of the way and your lab tables are cleared for action. When you're ready to go again, wheel it back in.

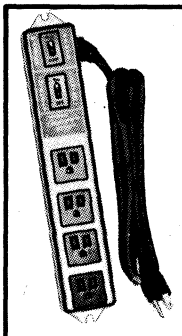
Size of the WABER Double Cantilevered Carrier is 48"Lx26"Wx71"H. Tempered hardboard is provided with each of the five shelves, and the shelves are adjustable.

WABER MODEL LOW-4

(less outlet box) $188.00

FEATURES:

1 INCH SQUARE STEEL TUBING FOR RIGIDITY, STRENGTH AND DURABILITY • ZINC PLATED WITH A CLEAR, IRRIDITE POST PLATE TREATMENT • HEAVY DUTY 5" WHEELS WITH HEAVY PLATE CASTERS. QUIET, FAST, EASY SWIVELING • PROVISIONS FOR MOUNTING WABER OUTLET BOXES.



MODEL 211

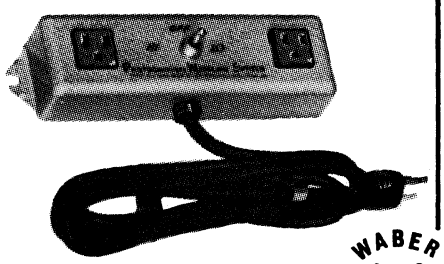
TWO WABER MODELING SWITCHES NEWEST PHOTO STUDIO ACCESSORIES

Photofloods last longer... lots, lots longer! And it licks the heat problem, too. Flick the switch to "low" and you have the shadows you need to properly position and focus your subject. When you're ready to shoot, flick the switch to "high" and the lights come on at maximum brilliance.

Net

Model 210 (for two bulbs of the same type. Up to 1650 watts, total.) $5.97

Model 211 (for up to four bulbs of any type. Max. 1650 watts, total.) 10.89



MODEL 210

WABER ELECTRONICS INC.

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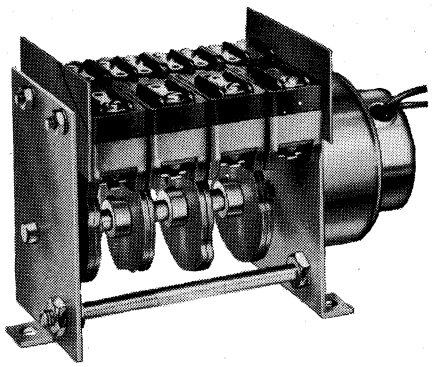
BRISTOL MOTORS / DIVISION OF VOCALINE

SYNCHRONOUS MOTORS AND TIMERS

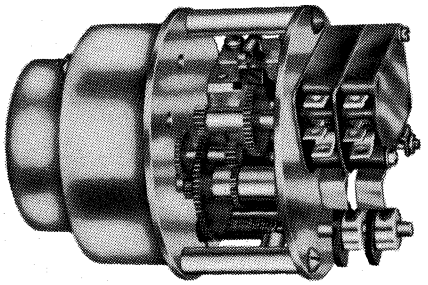
Versatility is the characteristic which design engineers need — and find — in Bristol Synchronous Motors and Timing Devices. Bristol's unusually broad experience and range of design and manufacturing skills are particularly valuable where special requirements must be met.

The devices shown are among the most widely used. All can be mounted in any position, and take a minimum of space. Materials are selected on the basis of their suitability to provide long service, and perform well under a variety of conditions. Bristol engineering service is available for applications that require custom design and manufacture.

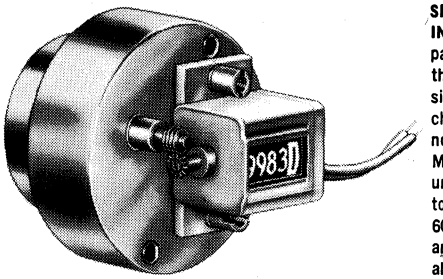


SERIES 31 REPEAT CYCLE TIMER. Low-cost multi-contact timer with high repeat accuracy. For vending machines, home appliances, industrial program controls. Speed Ranges: 1 Revolution Per Second to 1 Revolution Per Month. Motors standard, or high torque reversible. Switch Rating: 20 amp. at 115-230 V AC (also in ½ hp. at 125 V AC). Switches: enclosed snap action SPDT type. Cams: dual cams with set screws for field adjustment. Cut cams available on special order. Bulletin B-22.
One Switch Model $8.00
Four Switch Model $16.50

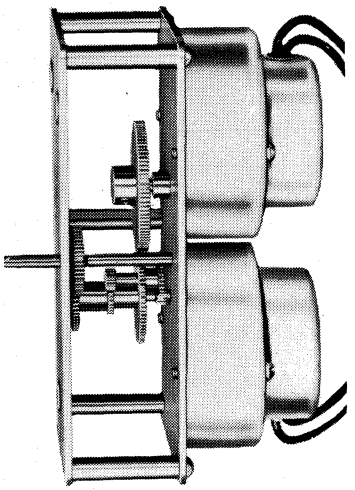
SERIES 6100 TIME DELAY RELAY. Universal Time Delay Relay provides self-holding solenoid starting with adjustable timed contact operation. Type 6110 provides three types of load contacts which give seven types of load circuit operation in a single unit. This model may be wired up to one of four basic types of operation: momentary start, automatic reset; momentary start, manual reset; sustained switching; and tandem or cascaded operation. Size 3" in diameter by 5 1/16 long. Timer case bezel 1 3/32 thick x 3 5/8 inches square. Universal mounting allows standard 3-stud or 4-stud panel mounting. For further information request Bulletin No. B-11.
$44.00 approx.



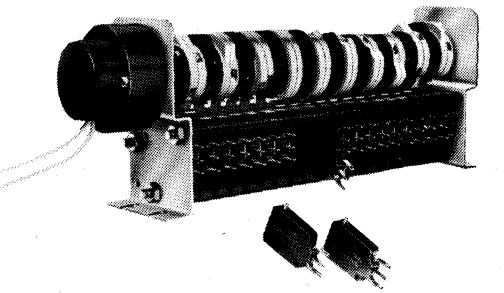
SERIES 21 TIME DELAY RELAY. General timer for instantaneous reset-type action, such as timers for photography, electronic safety, alarms, signals, etc. (Life expectancy over 1 million cycles.) Compact. Quick reset time (well under 1/5 second). Repeat accuracy better than 1% full scale. Time setting: 15 seconds to 3 months full scale. Rating: 10 amp (non-inductive load), Voltage: 115 V AC, 60 cycles standard. Optional adjustment feature available. Bulletin B-21.
One Switch Model $18.50 approx.
Two Switch Model $22.00 approx.



SERIES 41 ELAPSED TIME INDICATOR. Adaptable for panel or unit mounting, this low-cost series features simple installation, and a choice of four models with non-reset or reset counters. Maximum readings on both units from 9,999.9 minutes to 99,999 hours. 115 V AC, 60 Cycle standard. 50 Cycle and other voltages available. For further information on the three models above request Bulletin B-23.
Non-reset $14.00
Reset $20.00



MODEL 42 DUAL SPEED UNIT. Consists of two motors assembled to a common output shaft through a differential. Output speed is the sum of the two motor input speeds. Therefore, two different speed unidirectional motors provide a choice of 3 output speeds (either motor speed or the sum of the two motor speeds). Available with reversible motors for further variations in output speed. Standard units also available incorporating 3 and 4 motors providing up to 40 output speeds by electrical switching. Dimensions depend on the design of the unit in question. For further information request Bulletin B-24.
Basic Unit $18.00



SERIES 47 REPLACEABLE SWITCH REPEAT CYCLE TIMER is a multi-contact program timer which permits easy switch replacement without the necessity of disassembling. In addition one turn of the calibrated adjusting screw provides a 2% variation of cam time sequence. Switches are rated at 6 amps-115 volts. Available in a wide range of switches and speed combinations. Request Bulletin B-20
Two Switch Model $14.00
Six Switch Model $24.00

For Complete Bristol Line Write for Catalog

VOCALINE COMPANY OF AMERICA, INC., BRISTOL MOTOR/TIMER DIVISION

Timers and Motors to meet special applications are available from distributors. See Vocaline Bristol Motors Catalog for complete line of motors and timers.

IMMEDIATE DELIVERY FROM FRANCHISED VOCALINE\BRISTOL MOTORS DISTRIBUTORS

Net

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BRISTOL MOTORS / DIVISION OF VOCALINE

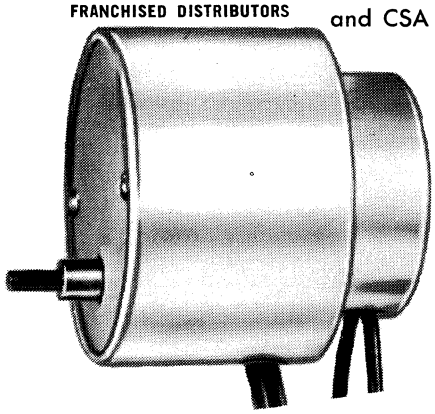
CATALOGED IN The MASTER

MOTOR FEATURES:

STANDARDS AVAILABLE "OFF THE SHELF" AT FRANCHISED DISTRIBUTORS

SYNCHRONOUS MOTORS AND TIMERS

Speeds from 1800 RPM to as low as 1 Revolution Per Month for 60-cycle operation • High starting torque with running torque considerably higher • Exceptionally compact size—the motor is 2 inches in diameter • May be operated in any position • Impregnated bronze-graphite rotor bearings • Most gears hobbed for efficient operation and long life • Moisture and dust-proof type construction throughout • All standard motors are approved by UL and CSA except Models 647 and 830.



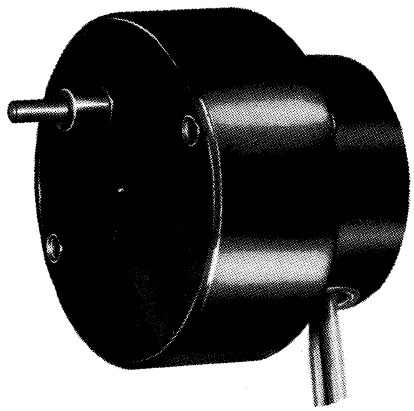
REVERSIBLE SYNCHRONOUS MOTOR. A versatile, low-cost motor for remote control and high torque applications. This motor operates by means of a condenser phase shift network, and offers positive reversibility in the following ratings:*

Model	Watts	Rated Starting Torque at 1 RPM
530	5	45 In. oz.
830	8	100 In. oz.

These are 2 inches in diameter, and 2 inches long.

*Torque ratings are developed motor torque. All standard gear trains are rated for 20 in. oz. maximum continuous running, 5 in. lbs., static torque rating.

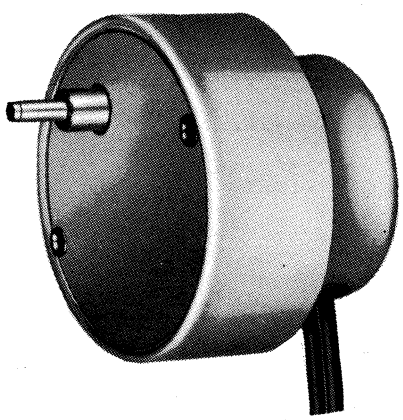
$7.00 approx.



MODEL 350 INTERNAL SHIFT MOTOR. The rotor is disengaged from the gear train when de-energized permitting restting. A built-in solenoid assures positive engaged and disengagement of the clutch in all positions. Output torque rated at 16 in. oz. Available in speeds of 1/24 RPM to 240 RPM. Dimensions 2″ dia. x 1-25/64″ long. (Similar shift type action available on Type 830 reversible motor.)

$7.00 approx.

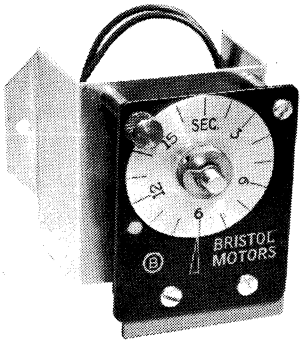
For further information on the models above request Bulletin B-10.



BASIC TIMING MOTOR. The standard Bristol motor for light and medium duty in uni-directional use, 2 in. diameter x 1 21/64 long, with through hole mounting. Avaliable in a wide variety of output shafts and the following torque rating:!*

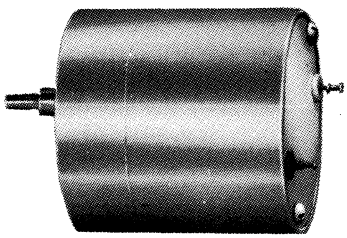
Model	Watts	Rated Starting Torque at 1 RPM
247	2.5	16 in. oz.
425	4	16 in. oz.
444	4	25 in. oz.
447	4	40 in. oz.
647	6	50 in. oz.

$5.00 approx.

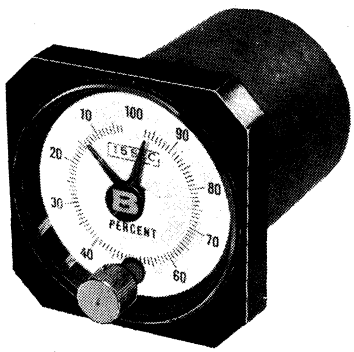


BRISTOL SERIES 55 DELAY TIMER, the low cost timer with the adjustable dial. For use when short time-delays are called for. This Delay Timer has a progress pointer which indicates the progress of a cycle, automatically re-sets when power to the duty-matched synchronous motor is interrupted and is manually adjusted by a selective dial which can be reset at will. The standard motor is for 115v/60 cycle, other voltages are available at small extra cost. Switch is SPDT rated 20 Amps resistive load at 115-230 VAC. Delay Timers are available in 15, 30, 60 and 120 second time delays. Bulletin B-32.

$13.50 approx.



MODEL 317 AND 318 TRANSISTORIZED DC MOTOR. This DC motor consists of a synchronous hysteresis motor with a transistorized inverter circuit. Ideal for long, reliable use in high humidity or saline atmosphere, with **no objectionable radio noise.** Speed ranges from 1 Rev per Month to 1500 RPM. Speed accuracy ±10%; 16 in. oz. starting toque at 1 RPM. Suitable for ambient temperatures ranging from −10 degrees C to +65 degrees C. Model 317 dimensions 3 5/16″ wide x 3″ high x 1 3/8″ deep. Model 318: 2″ in diameter x 2 3/8″ long. For further information request Bulletin B-26. **$30.00 approx.**



SERIES 63 PERCENTAGE TIMER has a progress indicator which always shows the present position of the timer. This is an easily adjustable repeat cycle timer which makes or breaks an electrical circuit for an adjustable percentage of the full time cycle. Available in 7.5 second to 31 day time ranges, they are ideal for control of blowers, ovens, dryers, heaters, pumps, etc. Have repeat accuracy within 1/4%. Panel mount. Automatic re-cycle. For complete information, request Bulletin B-30. **$27.00 approx.**

SEND FOR COMPLETE MOTOR AND TIMER CATALOG

VOCALINE COMPANY OF AMERICA, INC., BRISTOL MOTOR/TIMER DIVISION

Timers and Motors to meet special applications are available from distributors. See Vocaline Bristol Motors Catalog for complete line of motors and timers.

IMMEDIATE DELIVERY FROM FRANCHISED VOCALINE\BRISTOL MOTORS DISTRIBUTORS

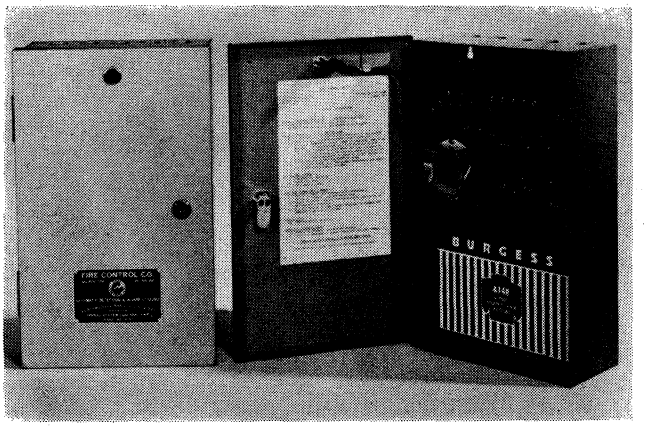
© U.C.P., Inc.

AUTOMATIC FIRE DETECTION & ALARM SYSTEMS

#SC-600R CONTROL UNIT
UNDERWRITERS' LABORATORIES APPROVED
MEETS & EXCEEDS NATIONAL FIRE CODES

FOR: Homes, Schools, Churches, Recreation Centers, Public Buildings, Nursing Homes, Restaurants, Stores, Motels, Clubs, Factories, Warehouses, Military, etc.

#SC-600R CONTROL UNIT $192.00



MAIN POWER SUPPLY

Input 115 V/AC, 60 cy. 0.25 amp. Transformed/rectified to 6 V/DC, maximum load 2.0 amp. The Supply is **Electrically Supervised,** so that a failure immediately sounds trouble alarms, and the System automatically transfers to Emergency Power, thus assuring continuity of fire protection. The Main Supply automatically returns when power is restored. Use #14 approved wire.

EMERGENCY POWER SUPPLY

6 Volt Battery: Burgess #4F4H; Eveready #706; or equivalent. Maximum load under alarm condition 2.0 amp. Obtain from local electrical or radio wholesale house.

CABINET

14" x 9" x 4". Gray Hammertone. Surface mount. Cylinder lock, 2 keys.

DETECTOR CIRCUIT

6 V/DC, 0.15 amp. Safety-Loop Circuit is **Electrically Supervised,** so that a wire break immediately sounds trouble alarms. Emergency circuits compensate for such fault (See N/E Switch), thus assuring continuity of fire protection. Maximum wire run 5000 ft. #FA-18/2 Approved Fire Detector Cable.

NORMAL/EMERGENCY SWITCH

Provides Emergency Operation:

(a) Compensates for wire break in Detector Loop. **permitting full response from all detectors** until repairs are made.

(b) Silences Trouble Buzzer, but maintains Red Lamp to show the emergency condition.

ALARM CIRCUITS

6 V/DC, maximum load 1.5 amp. If only one bell is used, it is **Electrically Supervised,** so that a failure immediately sounds trouble alarms. If two or more bells and/or #A-604 Annunciator are used, they are alternately connected to the two alarm circuits provided and the last operable alarm device is **Electrically Supervised.** Use #14 approved wire.

TEST/RESET/SILENCE SWITCH

Provides Simple Test Procedure:

(a) Test The System (once monthly)

(b) Silence all Firegongs.

(c) Reset to normal operation.

APPROVED FIRE ALARM SYSTEM

National Fire Codes Pamphlet 72A details the 'Local Automatic Fire Protective Signalling System' and its installation, acceptable to the Board of Fire Underwriters, and to Federal, State and Municipal authorities. This Standard is applicable to all industrial, commercial and military installations. Best practice throughout the country uses it in homes as well. Consult your Fire Chief.

Equipment bearing the UL Label has passed rigid inspection requirements and is of high professional quality.

Proper and correct tally of Automatic Fire Detectors is basic. The Code requires detectors in each room, hall, closet, stairwell, storage area, furnace room, basement, attic, loft, shaft, chute, etc. Do not exceed the space ratings given for each type of detector.

All wiring should be done in conduit as the best insurance for longevity and trouble-free service.

PRICING: FOB FACTORY

Pricing shown is Net. Standard Trade Discount to Electrical Contractors and Dealer-Installers. Subject to change without notice.

HOW TO ORDER

1. Order #SC-600R Control Unit.
2. Order #T111N Disconnect Switch Unit.
3. Order #A-(6"; 8"; 10" gong size) Inside Underdome Firegongs. Specify #AP for Weatherproof.
4. Order correct tally of Automatic Fire Detectors. Use Spot Fire Locators for industrial, commercial, and military installations. Use FyrGuard Detectors for homes.
5. Order #FA-18/2 Fire Detector Cable. A 250 ft. reel will cover the average three bedroom ranch home.
6. Optional equipment: #A-604 Annunciator; #529 Manual Pull Stations; #SFA-1 Smoke/Fire Alarms; #AR-2 Adapter Plates; etc.

TERMS

Net 30 days to accredited accounts. Check with order to others.

Our sole warranty is to repair or replace any equipment found defective in workmanship or materials within one year of invoice date. Tampering voids this obligation.

No merchandise may be returned without prior authorization from the Factory.

FIRE CONTROL CO.

Net

© U.C.P., Inc.

SPOT FIRE LOCATORS

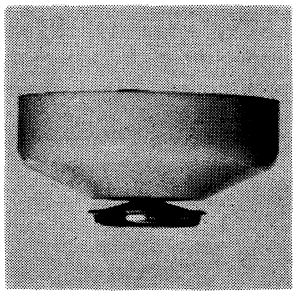
UL APPROVED

Famous dual-action Rate-of-Rise & Fixed-Temperature Automatic Fire Detector. Standard in the industry. Specified in industrial, commercial, and military installations.

Rated coverage: 2500 sq. ft. (Room 50 ft. x 50 ft.).

USE #501 (136°) in offices, showrooms, closets, halls.
USE #502 (190°) in furnace room, kitchen, attic.

SPOT FIRE LOCATORS **$5.20**



FYRGUARD DETECTORS

UL APPROVED

Fixed-Temperature Automatic Fire Detector. A small, unobtrusive and economical unit widely used in home installations. Self-resetting.

Rated coverage: 900 sq. ft.

(Room 30 ft. x 30 ft.).

USE #2S (135°) in living rooms, bedrooms closets, halls.
USE #2H (175°) in furnace room, kitchen, attic.

FYRGUARD DETECTORS **$3.20**

MANUAL PULL STATION

UL APPROVED

Non-coded fire stations. Modern design. Mounts on standard switch-box. Wire into the detector circuit exactly as an automatic fire detector. With 2 spare discs and key. Specify #BB Back Box for surface mount.

#529 MANUAL PULL STATION **$12.00**

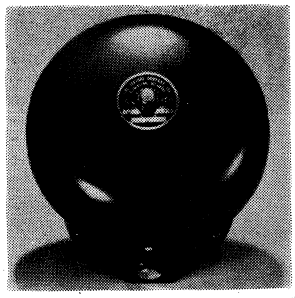
UNDERDOME FIREGONG

UL APPROVED

Finest quality Underdome Firegongs made today. Clear pitch, firm tone. Low current draw. Flush easy-mount on all standard outlet boxes.

Specify 6 V/DC; 115 V/AC; other.

Add $4.00 for #AP Weatherproof.

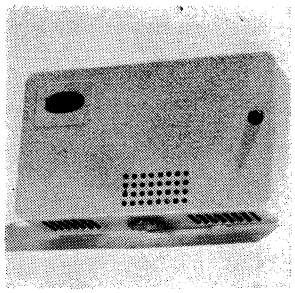


#A-6" INSIDE UNDERDOME FIREGONG **$28.00**
#A-8" **$32.00**
#A-10" **$36.00**

SMOKE/FIRE ALARM

SOLID-STATE CIRCUITRY

New dual unit detects Smoke and Fire before they reach danger levels! Sounds early warning alarm to save life! Simply hang on wall and plug into a 115 V/AC outlet. Has own alarm and can be used by itself, or easily tied into the detector circuit of a standard fire alarm system.



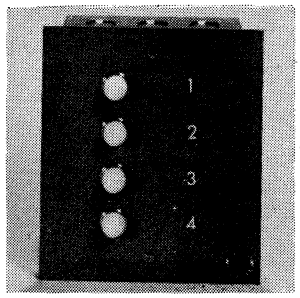
USE one unit in each bedroom, and one in the center hall on each floor (best near the stair landing).

#SFA-1 SMOKE/FIRE ALARM **$49.95**

4-ZONE ANNUNCIATOR

UL APPROVED

For use in large installations which require quick identification of the fire area. All detector circuits are **Electrically Supervised.** Easy tie connections to #SC-600R Control Unit.



#A-604 4-ZONE ANNUNCIATOR **$80.00**

#FA-18/2 FIRE DETECTOR CABLE **$16.00**

UL Approved Low-Energy Cable specified for Detector Circuits. Ivory plastic parallel cord. One tinned and one copper conductor for quick polarity identification. 250 ft. reel.

#T111N DISCONNECT SWITCH UNIT **$10.00**

Required by Code. Includes Box, Padlock, Disconnect Switch, Adapter with non-interchangeable Fuse, Spare. Mount adjacent to and take 115 V/AC from Line Side of Load Center, through Fuse to Terminals 1 & 2 in #SC-600R Control Unit. Use #14 approved wire.

#AR-2 ADAPTER PLATES **80c**

To easy-mount Spot Fire Locators on 3" or 4" octagon boxes. For conduit installations.

#1 IVORY INSULATED STAPLES **80c**

Decorator type. To secure Detector Cable to baseboards, moldings, rafters, etc. Box of 200.

#SFS HOME ALARM SYSTEM PACKAGE **$465.00**

Class 'A' Supervised (Fail-Safe) Home Alarm System. Incomparably the best protection for your family against death by smoke and poison gas inhalation, or by fire. Features both smoke and heat detection to give early warning against both slow-smoldering and fast fires.

The Package contains all equipment needed for a three bedroom ranch home except the emergency battery and #14 wire. Both are obtained at the local radio or electrical wholesale house. Simplified installation instructions.

Equipment List as follows: 1 #SC-600R Control Unit; 1 #T111N Disconnect Switch Unit; 1 #A-6" Inside Firegong; 4 #SFA-1 Smoke/Fire Alarms; 6 FyrGuard Detectors; 1 reel #FA-18/2 Fire Detector Cable; 1 box #1 Insulated Staples.

For other types of homes: Order 1 Smoke/Fire Alarm for each additional bedroom and floor center hall; 1 reel Fire Detector Cable; 1 box of Insulated Staples.

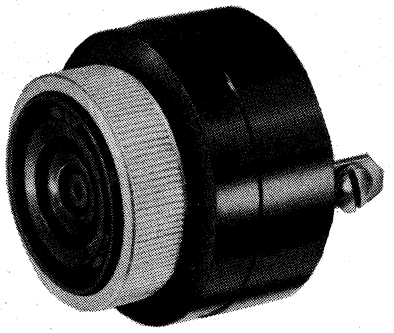
FIRE CONTROL CO.

MALLORY

Sonalert®
electronic audible signal

Sonalert is a startling innovation in the audible signal-warning field. It produces a penetrating sound by purely electronic means. Circuitry is all "solid-state" for maximum efficiency, lowest current requirements, and highest reliability. Because circuitry *is* solid-state, there is no arcing, no RF noise, and no mechanical wear.

Sonalert is very compact, very light, and highly versatile. Consuming less current than a normal indicator light, the device can be utilized to complement visual signals. Thus, positive audible warnings are instantly given in fault alarms for computers, fire signals, instruments, medical electronics, appliances, communications as well as telephone signals and protection equipment.



MILITARY APPLICATIONS

Sonalert signals are not covered by detailed military specifications as such. However, Sonalert signals are employed in many types of military electronic equipment. The signals* meet or exceed the following requirements:

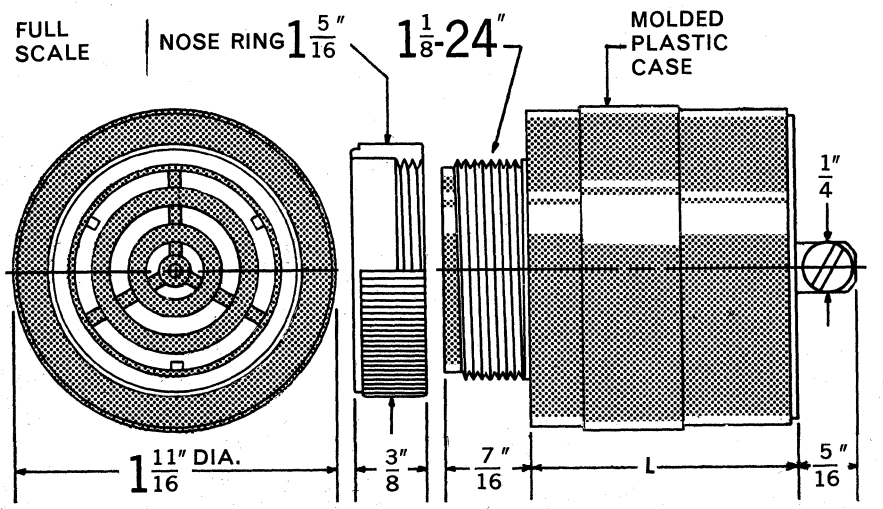
1. Vibration, per MIL-C-5422
2. Humidity, per MIL Standard 202A, Method 106A
3. Salt Spray, per MIL-E-4970
4. High Impact, per MIL-S-901B (Units withstand 600G impact).
5. Environmental, Per MIL-E-5400 with Class I equipment covering these criteria;
   a. Low temperature storage
   b. Low temperature operation
   c. High temperature storage
   d. High temperature operation
   e. Altitude
   f. High temperature humidity

*NOTE: Models SC628S, SC628SH, and SC110S are preferred types for military applications.

STANDARD SONALERT SIGNALS

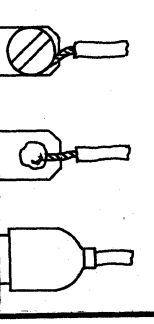
Catalog Number	Sound Freq. (cps)*	Oper. Voltage VDC	Oper. Voltage VAC	Oper. Current (ma)	Sound Intensity (db)	Vol. (in.)	Wt. (oz.)	Oper. Temp. (°F)	L (in.)	Net (ea.)
STOCKED BY FRANCHISED MALLORY DISTRIBUTORS										
SC628	2800	6-28	—	3-14	68-80	2.9	1.25	−40+120	.781	$ 5.50
SC628H	4500	6-28	—	3-14	68-80	2.9	1.25	−40+120	.781	6.35
SC628P	2800†	6-28	—	3-14	68-80†	4	2	−40+120	1.38	9.95
SC628A	2800	6-28	6-28	3-14	68-80	4	2	−40+120	1.38	8.75
SC628S‡	2800	6-28	—	3-14	68-80	2.9	1.25	−40+185	.781	6.75
SC110	2800	110	110	14	80	4	2	−40+120	1.38	8.75
AVAILABLE ON SPECIAL ORDER FROM MALLORY DISTRIBUTORS										
SC628HP	4500†	6-28	—	3-14	68-80†	4	2	−40+120	1.38	10.80
SC628AH	4500	6-28	6-28	3-14	68-80	4	2	−40+120	1.38	9.65
SC628AP	2800†	6-28	6-28	3-14	68-80	5.1	2.75	−40+120	1.94	13.20
SC628AHP	4500†	6-28	6-28	3-14	68-80†	5.1	2.75	−40+120	1.94	14.10
SC110H	4500	110	110	14	80	4	2	−40+120	1.38	9.65
SC110P	2800†	110	110	14	80†	5.1	2.75	−40+120	1.94	13.20
SC110HP	4500†	110	110	14	80†	5.1	2.75	−40+120	1.94	14.10
SC110S‡	2800	110	110	14	80	4	2	−40+185	1.38	10.10
SC628SH‡	4500	6-28	—	3-14	68-80	2.9	1.25	−40+185	.781	7.65
SC628SP‡	2800†	6-28	—	3-14	68-80†	4	2	−40+185	1.38	11.20
SC628SHP‡	4500†	6-28	—	3-14	68-80†	4	2	−40+185	1.38	12.10
SC628W*	2800*	6-28	—	3-14	68-80*	4	2	−40+120	1.38	10.85

*Tolerance: 2800 ± 300 cps, 4500 ± 500 cps
†Pulsating: 3 to 5 cps
‡Furnished with special silicon transistors
*Warbler unit, use with SC628H
Suffix: None = 2800 cps; H = 4500 cps; A = AC current model; S = Silicon transistor; P = Pulsating model; W = Warbling model
Note: Custom models to fit special applications also available.



MAXIMUM PANEL THICKNESS, ¼"

CONNECTIONS



1. Screw terminal
2. Solder
3. ¼" Quick Disconnect

Net
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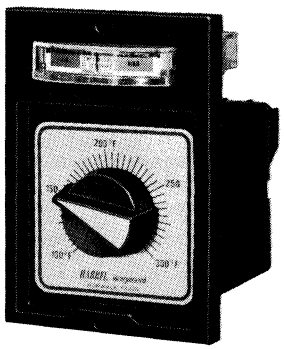
HARREL

PRECISION SOLID STATE TEMPERATURE CONTROLLERS

GENERAL

Harrel temperature controllers are intended for the precision temperature control of ovens, test fixtures, and all kinds of industrial machinery. They are arranged for easy mounting on any panel and are designed to require minimum panel space.

Temperature sensing is by means of a wire-type resistance sensor. This gives long-term stability and sensitivity which cannot be equalled by any other method of temperature sensing. The temperature sensor may be located as much as several hundred feet from the controller if desired. No special lead wires or shielding are required between controller and sensor.



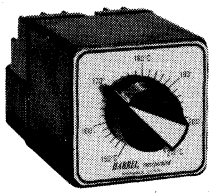
Indicating Controller

ON-OFF RELAY CONTROLLERS

Utilize a rugged, solid state amplifier controlling a 10-ampere relay. Relay is easily replaceable in the field.

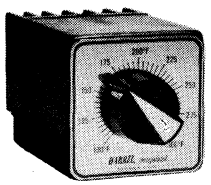
TIME PROPORTIONING RELAY TYPES

Similar to regular on-off controller, but controller operates on a regular cycle of on to off and back again, and it is the **proportion** of on-to-off time which is varied to control the temperature. Gives a characteristic which approximates true proportional control and in general gives greatly improved performance over regular on-off controllers.



TRUE PROPORTIONAL TYPES

Completely solid state. No relays, contacts, or moving parts whatsoever in the power control circuits. Output does not cycle on and off but remains steady at exactly the amount necessary to hold the temperature at precisely the desired value. True stepless control gives closest temperature control of any type of controller. Elimination of contacts and moving parts means life measured in years.



INDICATING FORMS

The system of display employed on indicating forms of the controller is designed especially for automated systems. The temperature is both set and read out on the large easy-to-read dial. The indicator is separate, and is of the go/no-go type which gives a visual alarm whenever the actual temperature is not at the set point. No skill or knowledge is required of the operator. All he has to do is be sure that the indicator stays out of the two red zones. Indicating forms are mounted on an attractive escutcheon arranged for easy panel mounting or indicator may be located remotely if desired.

SENSORS

A number of different forms of sensors are available for the above

a. **Patch Sensor:** For measuring the temperature of surfaces. Thin and flexible; may be attached by means of an adhesive or with tape (supplied).

b. **Oval:** Sensors wound on oval hollow ceramic core. Bracket mount for sensing air temperature.

c. **Tubular:** Cylindrical sensors in aluminum or stainless steel protecting jackets. May be mounted in solids, liquids, or gases.

STANDARD MODELS

115 volt, 60 cycle operation

Form		Type	Temperature Range	Switching or Proportional Band*	Power Output	Price	
Non-indicating	Indicating					Non-indicating	Indicating
TC-115Q	TC-115S	on-off	100-300°F	1°C	0 amps	75.00	92.00
TC-115R	TC-115T	on-off	100-500°F	1°C	10 amps	75.00	92.00
TC-116L	———	Time Proportioning, Relay	100-300°F	1.5°C	10 amps	80.00	——
TC-116M	———	Time Proportioning, Relay	100-500°F	1.5°C	10 amps	80.00	——
TC-396D	TC-496D	True Proportional	100-300°F	1.5°C	1000 watts**	149.00	166.00
TC-396E	TC-496E	True Proportional	100-500°F	1.5°C	1000 watts**	149.00	166.00

* For on-off, temperature change at sensor to go from on to off and vice versa. For time proportioning, temperature change for 30% to 75% power output. For true proportional, temperature change from 10% to 80% full power output. Note that temperature performance for proportional types will in general be much better than figure shown; full proportional band is seldom required to compensate for changes in external conditions.

** At 25°C ambient temperature. Derate linearly to zero at 100°C ambient temperature. For indicating types, heater must be arranged so that steady state power output (that is the power other than during warm-up and cool-down) is between 5% and 75% of full power output.

SENSORS

Form	Type	Max. Temperature	Dimensions	Price
TS-100B	Patch	300°F	¾" x ¾" x 1/16"	$19.80
TS-100F	Patch	500°F	1" x 1" x 1/16"	23.75
TS-103G	Oval	500°F	2" x ½" x 3/16"	4.50
TS-103J	Tubular, Aluminum Jacket	500°F	3/16" dia. x 1½" long	9.35
TS-103K	Tubular, Stainless Jacket	500°F	3/16" dia. x 1½" long	11.75

Other products manufactured by Harrel, Inc. — High Precision Proportional Temperature Controllers (ten-turn potentiometer forms), Laboratory-Style Temperature Controllers, Controllers for Thermoelectric Coolers, Programmable Controllers, Solid State Thermostats, Temperature-Controlled Enclosures, Temperature Indicators, Temperature Recorders, Temperature Sensors, Heaters. Write for further information.

All specifications and prices subject to change without notice.

HARREL, incorporated — PRECISION TEMPERATURE CONTROLS

• *Recorders* • *Indicators* • *Sensors* • *Heaters*
• *Programmers* • *Alarms* • *Thermoelectric Controllers* • *Enclosures*

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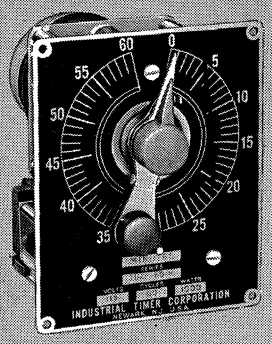
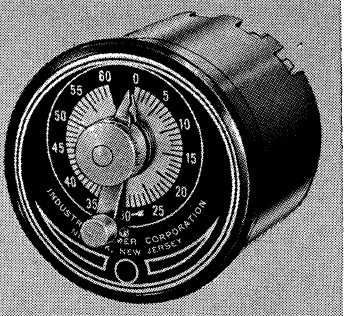
INDUSTRIAL TIMER CORPORATION



TDAF

TDAB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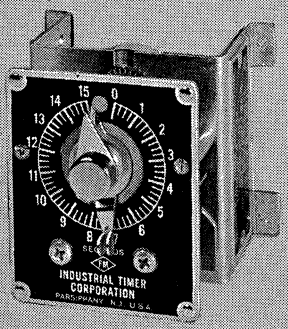
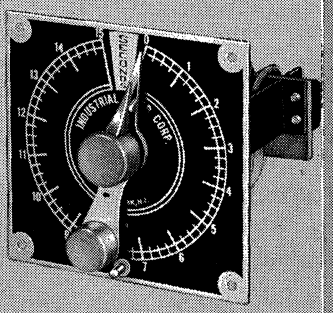
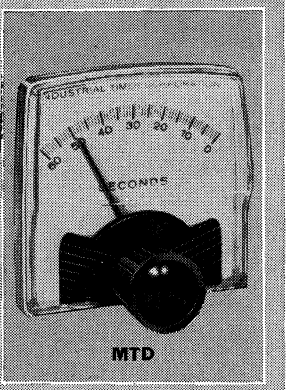
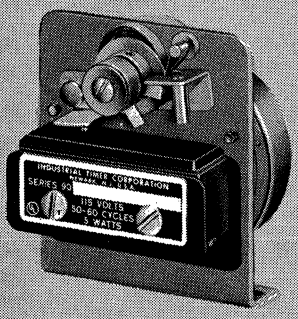


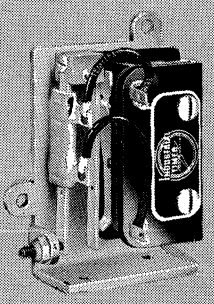
SF

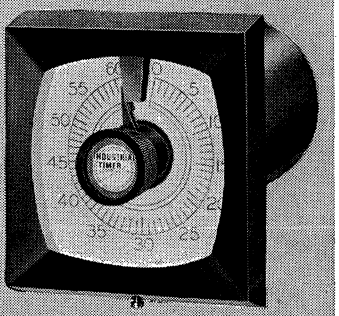

"H"


MTD



90


TH


GTD

DELAY TIMERS

This type of timer introduces a predetermined time delay between the closing of a switch and the opening or closing of a load switch. The sequence is: The timer is started by a switch closure, the load switch remains in normal condition until commencement of time delay, at which time it is operated.

TDAF (BULLETIN #300) Time cycles from 1/60 second to 3 hours, instant reset, 10 amp contact rating, panel mounting, extremely accurate. **$43.00**

TDAB (BULLETIN #300) Time cycles from 1/60 second to 3 hours, instant reset, 10 amp contact rating, back mounted or available in housing, extremely accurate. **$43.00**

TD (BULLETIN #305) Time cycles from 1/10 second to 5 minutes, 10 amp contact rating, auto-reset, mounts through a round hole. **$30.50**

SF (BULLETIN #305) Time cycles from 1/10 second to 5 minutes, 10 amp contact rating, panel mounted, auto-reset. **$23.00**

"H" (BULLETIN #305) Time cycles from 1/10 second to 5 minutes, 10 amp contact rating, panel mounted, auto-reset. **$26.50**

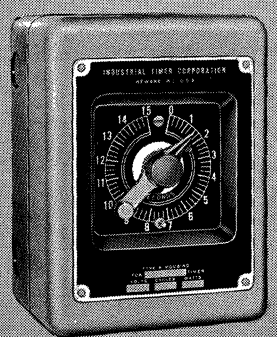
MTD (BULLETIN #304) Time cycles from 6 seconds to 3 hours. Automatic reset. 10 amp contact rating. Matches modern panel instruments. Plastic face. **$30.50**

90 (BULLETIN #305) Time cycles from 1/2 second to 90 seconds. 10 amp contact rating, auto-reset. **$17.00**

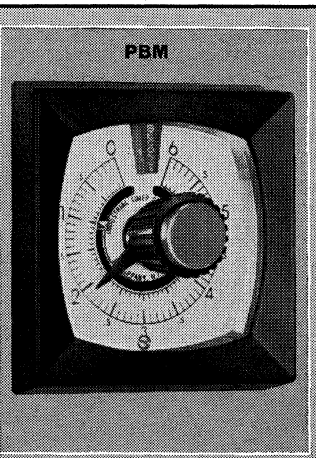
TH (BULLETIN #305) Thermal Time delay switch, snap action contact rated at 10 amps. Time cycles from 15 seconds to 2 minutes, temperature compensated, adjustable. **$8.50**

GTD (BULLETIN #302) Automatic reset, available in 11 models ranging in time cycles from 3 seconds to 3 hours. 10 amp isolated load contacts. Unit mounts through 3 inch hole in panel and features built-in self locking feature that eliminates mounting screws. A.C. voltages of 115 or 220. **$39.50**

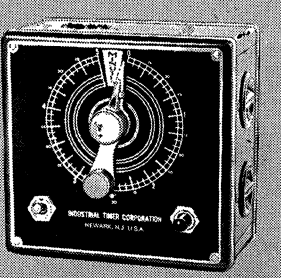
PAB



PBM



P & M



INTERVAL TIMERS

An Interval Timer closes (or opens) a load switch at the beginning of a time cycle; at the end of the time interval the load circuit is returned to its original condition.

PAB (BULLETIN #400) Time Intervals from 1/60 second to 3 hours. 15 amp non-inductive. Instant automatic reset. Available with housing. Momentary starting. **$55.00**

PBM (BULLETIN #404) Time cycles from 1/10 seconds to 3 hours. 25 amp non-inductive. Auto-reset. Combination set-start pushbutton knob with interval progress dial indicator. **$19.75**

P & M (BULLETIN #400) "P" Series — 1/10 second to 5 minutes, remote momentary start, auto-reset, 15 amp load rating. **$33.00**
"M" Series—1 second to 1 minute, push button start, auto-reset, 10 amp contact rating. **$26.50**

Trade Discount Applies To List Prices Only
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INDUSTRIAL TIMER CORPORATION

PROGRAMMING CAM TIMERS

A Recycling Timer opens and closes an electrical circuit in a continuous pre-set sequence.

TANDEM (BULLETIN #500) Interchangeable timing elements provide individual time cycles from 1/10 seconds to 3 hours. Elements operate in sequence. 15 amp load rating. **$142.50 complete**

CM (BULLETIN #200) Single switch rated at 10 amps. Adjustable cam provides 2% to 98% "ON"—"OFF" of any of 600 available time cycles. Each model has 50 available time cycles through use of interchangeable gear racks, cycles continuously. **$20.50**

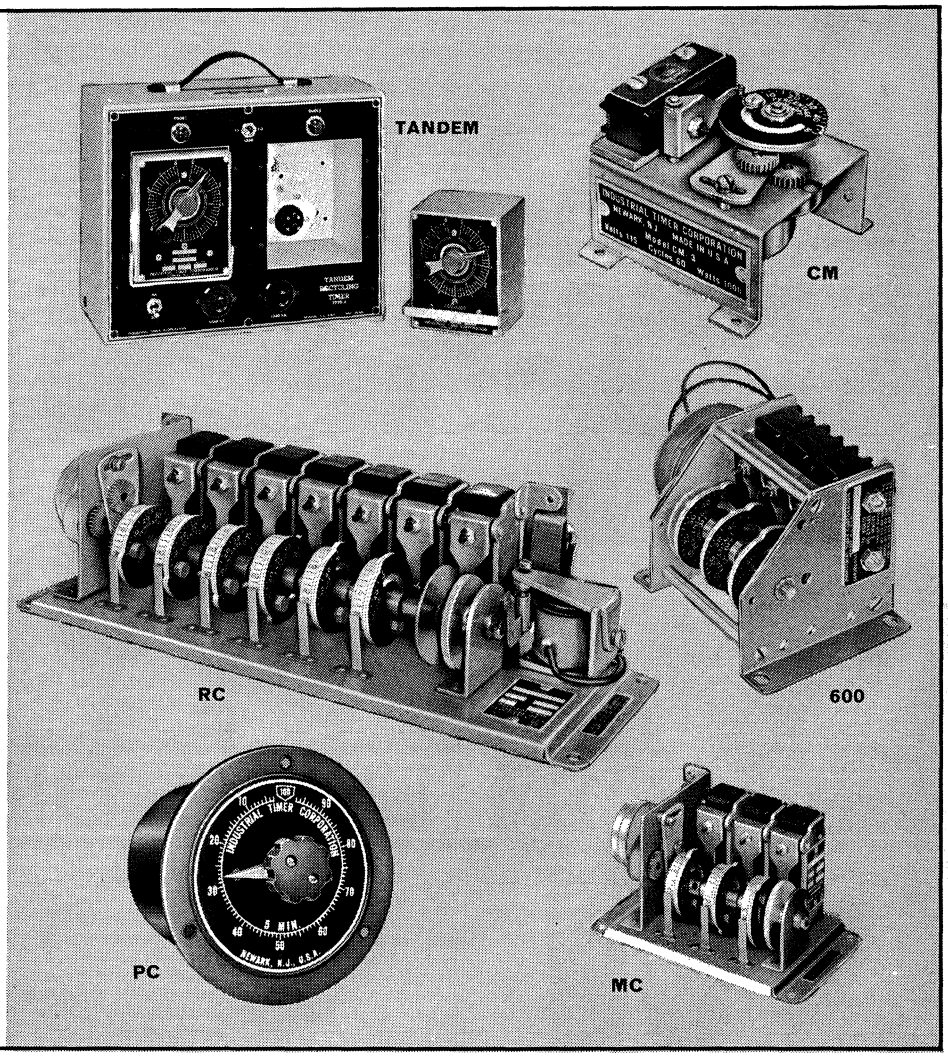
RC (BULLETIN #200) Similar to Series MC, but starts from momentary pulse, makes 1 revolution of cam shaft and stops. The timer recycles from a sustained start. Time cycles from 2/3 second to 72 hours are available, switch rating is 10 amps. **$30.50 to $198.50**

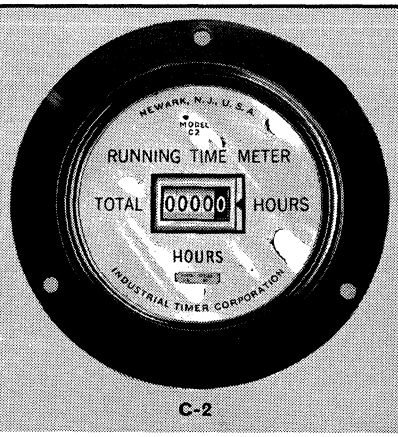
600 (BULLETIN #203) Simplified Recycling Cam Timer available with up to 7 switches from 15 seconds to 60 hours. **$17.00 to $53.00**

PC (BULLETIN #500) Opens and closes a 15 amp load switch continuously. Adjustable from 3% to 97% of time cycles from 15 seconds to 24 hours. Available in housing. **$31.00**

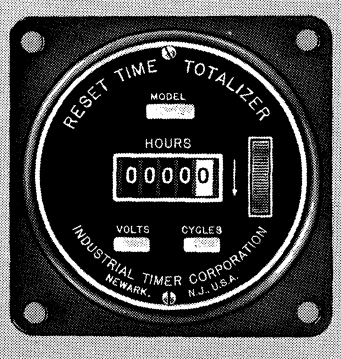
MC (BULLETIN #200, 201, 202) Available with up to 20 individual load circuits. Time cycles from 2/3 second to 72 hours. 10 amp load rating, available in Kit for prototype assembly, or with shaft extension for external drive.

$35.50 for 2 sw. unit up to $191.50 for 20 load switches

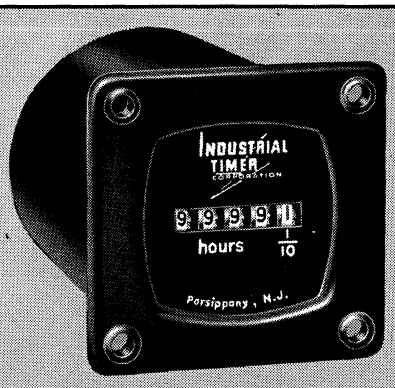




C-2



C-5



C-8 D.C.

TIME MEASUREMENT DEVICES

The running Time Meters and Reset Time Totalizers are used to record the operating time of equipment requiring periodic maintenance.

C-2 (BULLETIN #700) The Series C-2 Running Time Meter is available in counts from 1/10 second to 1 hour. Total accumulation ranges are 10,000 seconds to 100,000 hours. **$20.50**

C-5 (BULLETIN #700) This is a cased type instrument, mounted in a black, baked-finish housing. With heavy steel mounting flange. Screw terminals on back. Model C-5 incorporates a special type of counter that permits resetting to zero at any time. Offered for 115 and 220 volts, 60, 50, and 25 cycles. **$42.50**

C-8 D.C. (BULLETIN #701) The C-8 is a compact Running Time Meter for use on equipment using D.C. voltages. Available for 6, 12, 24, 28 or 32 VDC. Mounts through round 2-3/16" hole in panel, secures with 4 screws. The C-8 accumulates up to 9999.9 hours with a minimum count of 1/10 hour. **$19.25**

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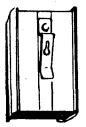
LUTRON SPEEDIAL ®MOTOR SPEED CONTROLS

MK-II/III



Clip-on Back For Use on Belt or Wall

SPEEDIAL MOTOR SPEED CONTROLS electronically vary the speed of any Universal (AC-DC) motor driven tool from zero to full speed without loss of power. Electronic feedback increases power as load increases.

Speed control saves drill bits, makes cleaner cuts, holes and sanded surfaces possible with inexpensive tools.

FOR HANDYMAN AND HOBBYIST

MODELS	MAXIMUM MOTOR NAMEPLATE RATING	50-60 CPS INPUT VOLTS	APPROXIMATE MAX. H.P.	APPROX. MAX. DRILL SIZE	TRADE NET
MK-II	5 Amps	120	.4 H.P.	¼", ⅜"	$11.96
MK-III	10 Amps	120	.8 H.P.	½"	19.46

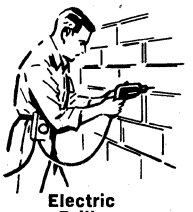
INDUSTRIAL — PROFESSIONAL — SCIENTIFIC MODELS
(Housed in 4½" x 2⅝" DEEP CAST ALUMINUM CASES)

MODELS	MAXIMUM MOTOR NAMEPLATE RATING	50-60 CPS INPUT VOLTS	APPROXIMATE MAX. H.P.	APPROX. MAX. DRILL SIZE	TRADE NET
MK-5	5 Amps	120	.4 H.P.	¼", ⅜"	$19.46
MK-10	10 Amps	120	.8 H.P.	½"	29.96
MK-15	15 Amps	120	1.2 H.P.	⅝"	42.90
MK-250-5	5 Amps	208-250	.8 H.P.	½"	24.00
MK-250-10	10 Amps	208-250	1.6 H.P.	⅝"	36.00
MK-250-15	15 Amps	208-250	2.5 H.P.		51.75

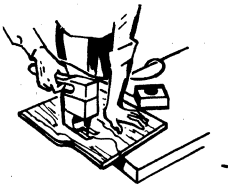
OPERATION: To be used on Universal (AC-DC) and on Series DC motors ONLY. Do not use on AC motors. Electric hand tools have Universal motors. May also be used on electric clutches and brakes requiring DC voltage.

TYPICAL APPLICATIONS: Mixing Liquids (Paints, Chemicals, etc.) Feeders, Flame Cutting Machines, Winding Machines, Controls, Electric Clutches and Brakes, Screwdrivers, Paper Cutters, Paper Pulp Mixing, Conveyor Belts. Also Mixers, Stirrers, Blenders.

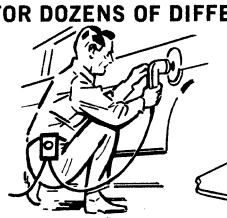
ONE INEXPENSIVE SPEED CONTROL FOR DOZENS OF DIFFERENT TOOLS



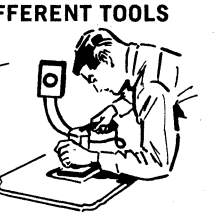
Electric Drills



Electric Saws

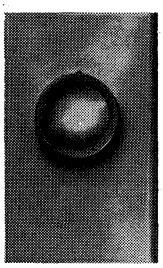


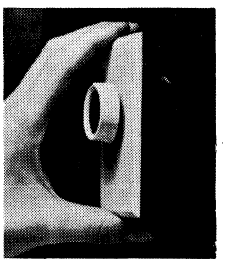
Electric Sanders



Motors in the Factory and Laboratory

LUTRON LIGHT DIMMERS





CAPRI
ELECTRONIC LIGHT CONTROLS

Continuous dimming controls for residential, commercial and industrial use. A popular accessory for hi-fi and TV rooms, dining rooms, kitchen, nursery, bedroom and office. Excellent for use in equipment and visual displays. Quickly and easily installed in the same manner as an ordinary switch, they fit standard depth wall boxes. For single or multi-ganged installation.

INCANDESCENT DIMMERS				*FLUORESCENT DIMMERS				HIGH POWER INCANDESCENT DIMMERS
MODEL NO.	DESCRIPTION	INSTALLATION	TRADE NET	MODEL NO.	DESCRIPTION	INSTALLATION	TRADE NET	
D-6P	600 Watts, Push On, Push Off	Single Gang Box 2 Wires	$ 7.47	FD-600	3 to 12 forty watt lamps or 600 watts incandescent	Single Gang Box 3 Wires	$ 24.75	
D-63P	600 Watts, 3-Way Push On, Push Off	Single Gang Box 3 Wires	$ 11.97					• Manual and Motor Driven
D-600P	600 Watts (UL) Push On, Push Off	Single Gang Box 2 Wires	$ 8.97	FD-900	10 to 18 forty watt lamps or 900 watts incandescent	Single Gang Box 3 Wires	$ 37.46	• 2500 to 75,000 Watts Incandescent • An Extremely New Approach
D-603P	600 Watts (UL) Push On, Push Off	Single Gang Box 3 Wires	$ 12.72	FD-1800	10 to 36 forty watt lamps or 1800 watts incandescent	Remote Control Single Gang Box	$108.75	• Both Modular and Expandable • Control up to 75,000 Watts Incandescent from one or more locations!
D-10P	1000 Watts Push On, Push Off	Single Gang Box 2 Wires	$ 29.96					
D-103P	1000 Watts, 3-Way Push On, Push Off	Single Gang Box 3 Wires	$ 32.96	FD-3600	10 to 72 forty watt lamps or 3600 watts incandescent	Remote Control Single Gang Box	$148.50	• Write for High Power Bulletin
D-1000	1000 Watts (UL)	Single Gang Box 2 Wires	$ 29.96					
D-1800	1800 Watts	Double Gang Box 2 Wires	$ 63.75	For proper fluorescent dimming, one of the following dimming ballasts must be used: Universal #661, #535, #550A, #502A. GE #6G5001, #6G3670, #89G718, #6G5007 Advance #DIM-140L or RSD-140 Jefferson #254-1171				
D-2500	2500 Watts	Remote Control Single Gang Box	$ 97.40					
D-3600	3600 Watts	Remote Control Single Gang Box	$144.00					

*Will control fluorescent and incandescent separately or together.

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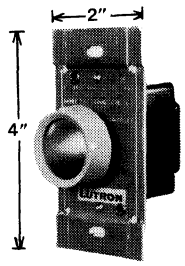
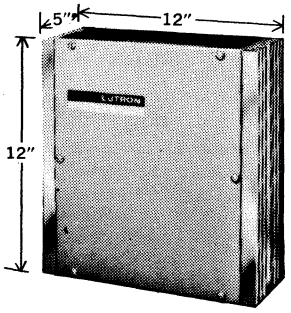
LUTRON POWERDIAL®

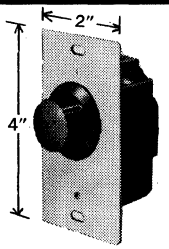
SCR* POWER CONTROLS

*Silicon Controlled Rectifier

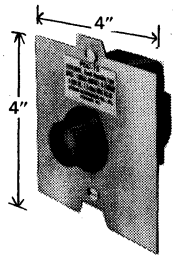
PDU-300
2PDU-300



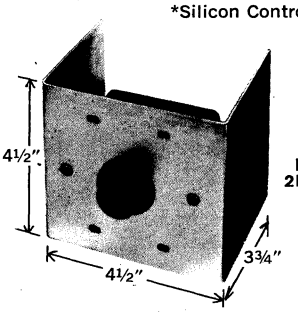




PDU-50
2PDU-50



PDU-75
2PDU-75
PDU-100
2PDU-100



PDU-150
2PDU-150

PDU SERIES

PDU Series is suitable for panel mounting. — May be wired for AC or DC output. Two wire connection.

MODEL	MAX. AC WATTS	RMS. AMPS. AC	RMS. AMPS. DC	AC INPUT VOLTS	AC OUTPUT VOLTS	RMS-DC OUTPUT VOLTS	WEIGHT LBS.	TRADE NET
PDU-50	600	0-5	0-5	120	0-120	0-85	.25	$ 15.75
PDU-75	900	0-7.5	0-7.5	120	0-120	0-85	.34	18.75
PDU-100	1200	0-10	0-7.5	120	0-120	0-85	.53	30.00
PDU-150	1800	0-15	0-10	120	C-120	0-85	1.0	60.00
PDU-300	3600	0-30	0-20	120	0-120	0-85	12.0	127.50
2PDU-50	1200	0-5	0-5	240	0-240	0-170	.25	30.00
2PDU-75	1800	0-7.5	0-7.5	240	0-240	0-170	.34	33.00
2PDU-100	2400	0-15	0-7.5	240	0-240	0-170	.53	39.00
2PDU-150	3600	0-15	0-10	240	0-240	0-170	1.0	78.00
2PDU-300	7200	0-30	0-20	240	0-240	0-170	12.0	162.00

NOTE: Above units are 60 cycle service. Please send 400 cycle or other special unit inquiries to our Engineering Dept.

POWERDIAL FEATURES

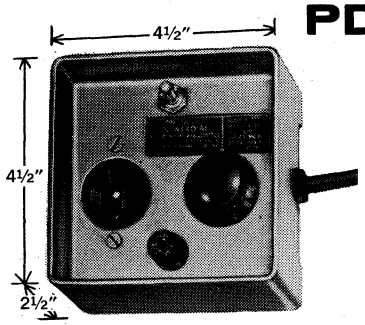
- **Output is continuously adjustable AC or DC**
- **No brushes to burn out or wear**
- **Rugged, reliable, solid state circuitry**
- **Lower installed cost**
- **1/10 the weight, ½ the size of conventional variable auto-transformer controls**

POWERDIAL WILL CONTROL:

- Universal and Series DC Motors
- Shaded Pole Motors*
- Permanent Split Capacitor Motors*
- Lamps
- Voltage
- Current
- Resistive Heaters & Infra-Red Lamps
- Soldering Irons
- Electric Solenoids & Brakes, D.C. Clutches
- Electroplaters
- Electric Punches & Actuators
- Vibratory Feeders
- Centrifuges

*Used only on fan and light loads, or where torque is proportional to speed.

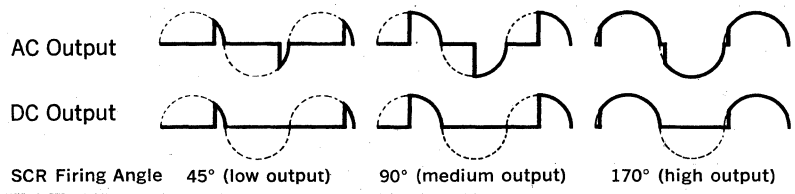
PD SERIES



MODEL	MAX. AC WATTS	RMS. AMPS. AC OUT	RMS. AMPS. DC OUT	AC INPUT VOLTS	AC OUTPUT VOLTS	RMS-DC OUTPUT VOLTS	WEIGHT LBS.	TRADE NET
PD-50	600	0-5	0-5	120	0-120	0-85	2.0	$24.00
PD-75	900	0-7.5	0-7.5	120	0-120	0-85	2.0	27.00
PD-100	1200	0-10	0-7.5	120	0-120	0-85	2.3	30.00
PD-150	1800	0-15	0-10	120	0-120	0-85	2.6	60.00
2PD-50	1200	0-5	0-5	240	0-240	0-170	2.0	33.00
2PD-75	1800	0-7.5	0-7.5	240	0-240	0-170	2.0	36.00
2PD-100	2400	0-10	0-7.5	240	0-240	0-170	2.3	39.00
2PD-150	3600	0-15	0-10	240	0-240	0-170	2.6	81.00

PD Series — Simply Switch to AC, DC or off. All units have fuse, 3 wire cord and receptacle.

Typical Waveforms



LUTRON ELECTRONICS CO., INC.

© U.C.P., Inc.

Net

THORDARSON MEISSNER

"SWITCHMASTER" TIME CYCLE CONTROLLERS

Automatically control and program machinery and processes in every phase of manufacturing. Total time cycle available up to 24 hours and down to a fraction of a second. Simple tool adjustment gives "on-off" period from 2% to 98% of total cycle time for adaption to every industrial need. Rugged, self-contained design assembled from interchangeable, standard component parts. Reliable and dependable for thousands of users for machine tools, chemicals, steel, rubber, plastic, conveyor, liquids, computing, packaging and other machine applications. Offer continuous, repeating or recycling of any number of circuits automatically; eliminates time delay mechanisms and other complex devices.

ENCLOSED, SINGLE-CIRCUIT TIMERS

For controlling single-circuit processes where frequent or periodic time changing is required. Lifetime lubricated gear train and motor. **Switch:** heavy-duty, snap-action switch rated 15 amps, 110, 220 or 440 v. AC. **Motor:** 110 v. AC, 60 cps standard: 220 and 440 v. AC, and 25 or 50 cps available at extra cost. Speeds as noted for each type. **Case:** Heavy-gauge steel with gray hammertone finish; 5" x 6½" x 4".

MODEL 201 — Gives split-second timing in compact design. "On" time adjustable 2% to 98% of total cycle time. Split cam directly driven and easily adjusted. Synchronous motor available in 100 rpm to 1/168 rph for 0.6 seconds to 1 week time cycles.

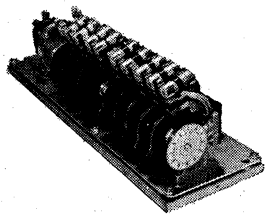
MODEL 101 — Basic type with dial calibrated in degrees for accuracy. "On-off" time changed easily without tools. Patented, slip-action cam driven directly from high-torque, fully enclosed motor. Two-way clutch prevents gear damage during reset. "On-off" time adjustable to 50% of total time cycle. Motor speeds of 1, 2, 3, 4 or 5 rpm for 60, 30, 20, 15 or 10 seconds cycle time.

MODEL 101-1 — Same as Model 101, but timing dial calibrated in seconds. For lab or manufacturing use. Ideal for hopper control, automatic livestock feeding, etc. Slipping clutch type cam adjusts instantly to 50% of total cycle time for "on-off."

SPST RECYCLING SEQUENCE TIMERS AND DRUM CONTROLLERS

Two basic drum controllers combine with various motor and cam combinations for recycling sequence timers to meet every need. Come with end-mounted timing dials and shock absorbing base (except Drum controllers 7-circuit size or below, which have rigid base); horizontal surface mounting by four ¼" screws. **Switches:** Staley Metal mercury types rated 20, 12, 7 and 5 amps non-inductive at 125, 250, 440 and 550 v. AC respectively. **Cycle Times:** From 0.6 seconds to 1 hour. **Motors:** Shaded-pole gear type for 110 v. AC, 60 cps, 35 watts. Drum controllers not supplied with motors. **Cams:** 3-piece split, single-lobe type. **Times Adjustment:** 1⅔% to 98⅓% of total cycle time for 12-second cycles or longer; "On" or "Off"; 3⅓% to 96⅔% for 3 to 12-second cycles. **Cam Switch Repeatability:** ±½° for 12-second and longer cycles, ±5° for 0.6-second cycle. **Number of SPST Circuits:** Up to 60 — see individual models for particulars. **Specify, when ordering:** Number of circuits required, time cycle and optional equipment must be specified when ordering. See price list cost variations and options available.

MODEL 200



Workhorse of the line. Versatile unit performs all required controller functions in 80% of all applications. Comes with single, mounted motor. Available in from 1 to 30 SPST circuit styles.

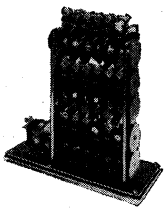
MODEL 635

Operated by two geared motors of different speeds. The faster motor is coupled to the cam shaft through overriding clutches to provide quick recycling. Automatic recycling is achieved with a switch on the controller itself. Comes with two, mounted motors. Available in from 2 30 SPST circuit styles.

MODEL 802

Actually two controllers (or more) in one. Employs two came shafts on a single motor with compound gear assembly for automatic control of two time cycles. Standard cycle times from 0.6 second to one hour on one shaft; up to 64 times as long on the other. Complete with single, mounted motor. Available in from 2 to 30 SPST circuit styles.

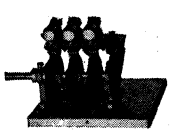
MODEL 702



Vertival stacked model for applications where limited horizontal space is available. Comes with single, mounted motor. Choice of from 2 to 60 SPST circuits arranged on 2, 3, or 4 levels.

MODEL 648 CONTROLLER

Same as Model 200 timer, but without motor. Used where on external power source, supplied by the equipment being controlled, is available. Without motor. Shaft ⅜" dia., extends 1½" beyond base. Available in from 1 to 30 SPST circuits (up through 7 circuits with rigid base; others, shock-absorbing base).



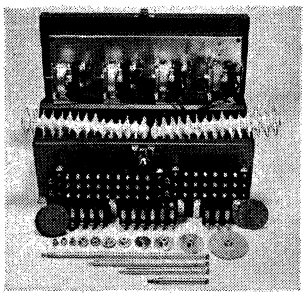
MODEL 748 CONTROLLER

Same as Model 702 timer, but without motor for use with external power sources; and where horizontal space is limited so as to require vertical stacking of cams. Without motor. Shaft, ⅜" dia., extends 1½" beyond base. Available in from 2 to 60 circuits arranged on 2, 3, or 4 levels (2-14 circuits on 2-level, 3-21 circuits on 3-level, and 4-28 circuits on 4-level versions come with rigid base; other, shock-absorbing base).

MODEL 300 SPDT SEQUENCE CONTROLLER

Used to control a number of electrical circuits in a predetermined sequence. Employing various motor speeds and gear combinations, any time cycle from 0.6 sec. to 24 hours can be arranged. High torque (15 in.-lbs.) motor drives a continuously rotating (as long as motor is energized) cam shaft. Adjustable cams determine the point of closing or opening of a switch on each cam revolution. Special terminal board permits changing snap-action switch in 3 minutes without disconnecting wiring or dismounting controller. Oversize, molded plastic cams adjustable to extreme accuracy with an allen wrench. Cam setting made easily with 360° dial for split-second timing. **Contacts:** Rated 15 amps, 115, 220 and 440 v. AC. Inrush loads to 30 amps on NC contacts. 15 amps NO contacts. Load circuits closed 50-98% of total time cycle are connected to NO contacts; if open less than 50%, connected to NC contacts. **Mounting:** May be wall or surface mounted; rigid base has 4 mounting holes.

MODEL TMK CONTROLLER KIT

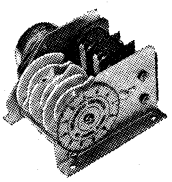


Includes all parts for construction of one each of a 3, 6, 9 and 12-circuit controller, with operating times from fractions of a second to 24 hours. Rugged design, for permanent or experimental use. Five heavy duty motors range from 1/6 rph to 20 rpm, with an adequate supply of change gears for any time cycle. Constructed in minutes without special tools.

T-M Switchmaster Model TMK Controller Kit.

MODEL 400 COMPACT SPDT TIME CYCLE CONTROLLER

Control from 1 to 10 circuits with dependable accuracy. Precision built with large cams of molded Deirin® and 360° dial for precise timing. Cam setting may be made with an alien wrench. Synchronous motor rotates a cam shaft continuously. Adjustable cams permit close, accurate timing with "on-off" time as close as 1/180 of a time cycle. Two-way clutch is built into gear box for manual resetting of cams. SPDT switches are snap-action type rated 20 amps, 110, 220 and 440 v. AC. **Standard Time Cycles:** 6, 10, 12, 15, 20, 30, 60, and 90 seconds; 2, 3, 4, 5, 10, 12, 15, 20, 30, and 60 minutes; 12 and 24 hours.



Enclosures: Supplied on Models 101, 101-1 and 201. Available for Models 200, 300, 400, 635 and 648 at extra cost. To order, specify; price method same as for controller.

ASK ABOUT BRAKES, OVERRIDE CLUTCHES & OTHER OPTIONAL EQUIPT.

See Our Complete Listing of Transformers Pages 1491-1520
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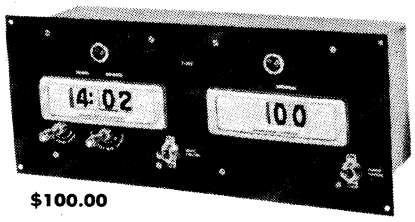
TYMETER GRADINETIC®

DIGITAL READ-OUT CLOCKS
ELAPSED TIME COMPUTERS
INTERVAL, COUNT DOWN, IMPULSE TIMERS

Featuring:
- ***FRONT PANEL MOUNT***
- ***DESK OR BENCH USE***
- ***DIGITS RESETTABLE INDIVIDUALLY***

CSA and UL approved motor & cord



$100.00

DIGITAL CLOCK SECOND BY SECOND

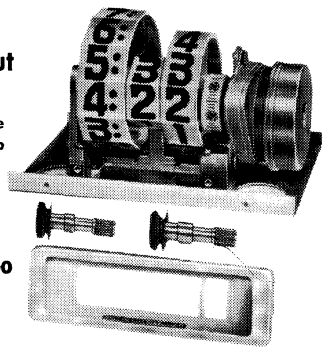
Time registered on 5 polygonal drums. One Hour drum, one 10-minute drum, one minute drum, two seconds drums. 4½"h, 12"w, 3¼"d. Wt. 6 lbs. Anodized metal dustproof case.

#110-12H ..... **12 Hour**
#110-24H ..... **24 Hour**

MOVEMENT

6-Digit Read Out

3" high
5½" wide
3½" deep
Wt. 2 lbs.

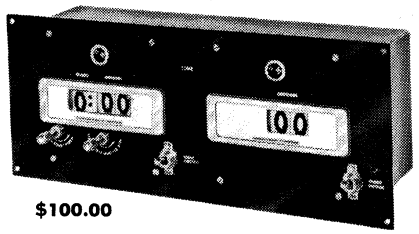


$16.00

Consists of Tymeter Digital Clock Movement, mounting bracket, window escutcheon assembly, 2 time reset assemblies

#130-12H ..... **12 Hour**
#131-24H ..... **24 Hour**

All Tymeters available in:
120 VAC, 50 or 60 CPS
240 VAC, 50 or 60 CPS
115 VAC, 400 CPS



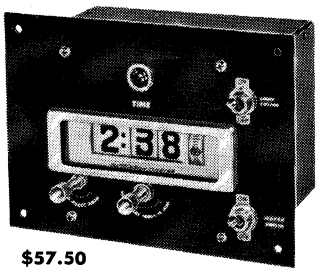
$100.00

ELAPSED TIME DIGITAL COMPUTER

Automatically calculates and registers elapsed time in hours, 10 minutes, minutes and seconds. Second by second. 4½"h, 12"w, 3½"d. Wt. 6 lbs.

Available In:

#115 **30 Minute** **12 Hour** **60 Minute** **24 Hour**



$57.50

DIGITAL CLOCK

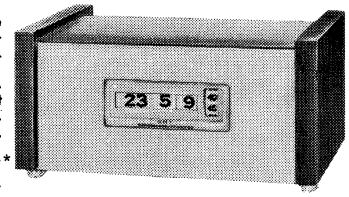
12 and 24 hour 6 digit read out . . . minutes, 10 minutes and hours. Rotating visual 1 RPM calibrated seconds drum. 4½"h, 6"w, 3¼"d. Wt. 3½ lbs. Anodized metal dustproof case.

#160-12H ..... **12 Hour**
#161-24H ..... **24 Hour**

24-HOUR DIGITAL READ OUT CLOCK

Calculates time automatically. Stainless steel case with walnut wood ends. 3⅞"h, 7¾"w, 3¾"d. Wt. 3 lbs. 110V 60 Cy. AC.

#920-24 Hour..... **$24.50***
#920-12 Hour..... **19.95***

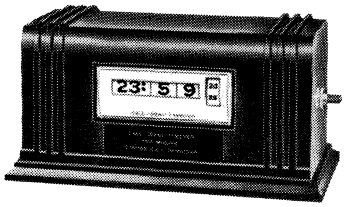


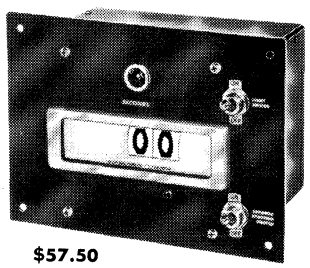
PAT. No. 2587277 Other Pats. Pend.

CALL-IDENT 24-HOUR CLOCK with 10-MINUTE STATION CALL REMINDER

Walnut or ebony plastic case. 4"h, 7¾"w, 4"d. Wt. 3 lbs.

#124 ..... **22.50***





$57.50

ELAPSED TIME DIGITAL COMPUTER

Automatically calculates and registers elapsed time in seconds. Second by second 2 digit read out . . . 00-59. 4"h, 6"w, 3¼"d. Wt. 3½ lbs. Anodized metal dustproof case.

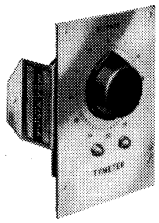
#10-60S..... **60 Seconds**

DIGITAL TIMER for All-Purpose Laboratory & Industrial TEST TIMING

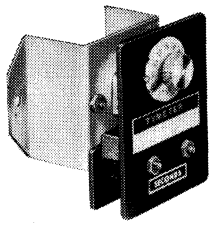
Automatically calculates and registers elapsed time . . . and repeats. Grey or ebony plastic case. Self starting electric. 3¾"h, 5⅝"w, 3¼"d. Wt. 3 lbs. 120V 60 cy. AC. Ranges available: 60 seconds, 10 minutes, 30 minutes, 60 minutes, 12 hour and 24 hour. UL approved motor and cord.

#80 ..... **$17.50***

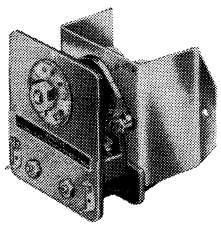
TIME DELAY, CYCLE, INTERVAL TIMERS



PN-11P Time Delay Timer**



PN-11 Time Delay Timer

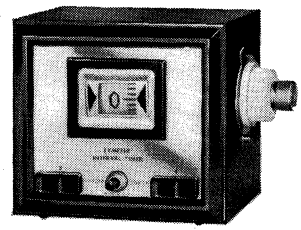


PN-21 Time Delay Timer

	PN-11P	PN-11	PN-21
Delay Ranges	0-14 sec. 0-57 sec. 0-4.5 min.	0.14 sec. 0-57 sec. 0-4.5 min.	0-14 sec. 0-57 sec. 0-4.5 min. 0-9.5 min.

** Optional Private Label on small and large requirements

Complete Line of Timers in All Ranges & Voltages.
Catalog and Specifications on Request



DIGITAL TIMER for All-Purpose Laboratory & Industrial TEST TIMING

Adjustable reset stop to enable rapid repeat timing. Closes' load circuit during OR after a preset interval. Buzzer sounds at end of interval. 120V 60 cy. AC. Ranges available: 60 seconds, 60 minutes, 6 hours, 12 hours, 24 hours and 60 hours. 5"h, 5½"w, 3½"d. Wt. 3½ lbs.

#90 ..... **$22.50***

WRITE FOR CATALOG OF COMPLETE LINE SHOWING SPECIFICATIONS

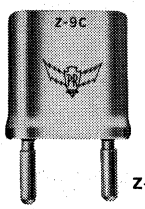
TYMETER ELECTRONICS-PENNWOOD NUMECHRON CO.

PR Crystals

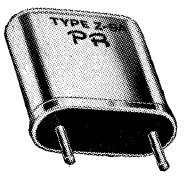
- AMATEUR • AIRCRAFT
- CITIZENS BAND • INDUSTRIAL
- RADIO CONTROL • DIATHERMY
- FREQUENCY STANDARD

PRICE LIST • Effective July 1, 1966 Subject to Change Without Notice • MINIMUM ORDER $10.00

FOR AMATEUR SERVICE



Z-9C



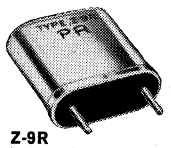
Z-9A

Z-9C and Z-9A Crystals are supplied ONLY in the following bands and calibrated INTEGRAL KILOCYCLES only, NO FRACTIONS. All Z-9C crystals are calibrated with a load of 32 mmfd.

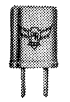
Type	Frequency Range	For	Price
Z-9C Fundamental	1750 to 2000 Kc. ±250 Cycles	160M.	$2.95
	3500 to 4000 Kc.	80M.	
	7000 to 7425 Kc.	40M.	
	8000 to 8222 Kc.	2M.	
	8334 to 9000 Kc. ±500 Cycles	6M.	

Type	Frequency Range	Price
Z-9A 3rd Overtone	24000 to 24666 Kc. / 25000 to 27000 Kc. ±3 Kc.	$3.95
	28000 to 29700 Kc. ±5 Kc.	
Z-9A 5th Overtone	50000 to 54000 Kc. ±15 Kc.	$4.95

CITIZENS BAND



Z-9R



Z-13

Supplied in all 23 assigned frequencies. **Be sure to specify channel desired, with name of manufacturer and model of equipment.** Type Z-9R Crystals have .486″ pin spacing; .050″ pin diameter; .758″ height, above pins; width .720″ and depth .309″. Z-13 Crystals have .192″ pin spacing; .040″ pin diameter; .530″ height above pins; width .402″ and thickness .150″. Z-13P Crystals are same as Z-13 except for having .017″ wire leads instead of pins.

Calibrated	.005%	.002%
Type Z-9R — Transmitter	$2.95	$3.95
Type Z-13 — Transmitter	2.95	3.95
Type Z-13P— Transmitter	2.95	3.95
Type Z-9R — Receiver	2.95	3.95
Type Z-13 — Receiver	2.95	3.95
Type Z-13P— Receiver	2.95	3.95

Type Z-9R, RADIO CONTROL

Supplied in all FCC assigned frequencies. Calibrated .005%. In ordering, be sure to specify frequency desired, with manufacturer and model number of equipment.

Type Z-9R — Radio Control	.005%	$2.95
Type Z-9R — Radio Control	.002%	3.95

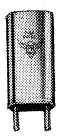
Type Z-1, TV MARKER

Channels 2 through 13	$6.45
4.5 Mc. Intercarrier, .01%	2.95
5.0 Mc. Signal Generator, .01%	2.95
10.7 Mc. FM, IF, .01%	2.95

VHF Types, AIRCRAFT

For Lear, Narco and similar equipment operating in the 121 Mc. region, requiring crystals in 30 Mc. range. Z-9R Crystals have .486″ pin spacing; .050″ pin diameter; .758″ height above pins; width .720″ and depth .309″. Z-13 Crystals have .192″ pin spacing; .040″ pin diameter; .530″ height above pins; width .402″ and thickness .150″. Z-13P Crystals are same as Z-13, except for having .017 wire leads instead of pins.

Type Z-9R—Aircraft	$4.95
Type Z-13—Aircraft	4.95
Type Z-13P —Aircraft	4.95

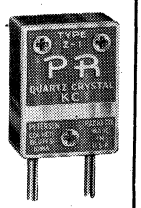


Type Z-6A, FREQUENCY STANDARD

Correlated in oscillator having load capacity of 32 mmfd. .486″ pin spacing; .050″ pins.

Type Z-6A — 100 Kc (.050″ Pins) $6.95

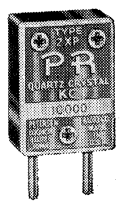
Z-1, MARS and CAP



Calibrated to .005% with 32 mmfd. crystal load capacity. Official assigned transmitter frequencies in the range.

1600 to 10000 Kc. $3.45

2XP, EXPERIMENTAL

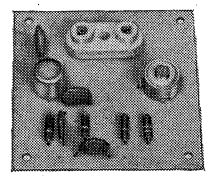


Suitable for converters, experimental, etc.

1600 to 12000 Kc. ± 5 Kc. (Fund.) $3.45

12001 to 25000 Kc. ±10 Kc. (3rd Overtone) 4.45

TRANSISTOR OSCILLATORS



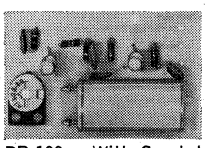
Temp. range −0°C./+35°C. Power req. 9V DC ±10% @ 4 Ma. Min. R.F. voltage no load, 2V. 1-1.5V with max. load of 1.5 K ohms. Width 2″, depth 2″, height 1 15/16″. Matching crystal required for frequency desired. Specify tolerance. Fully wired.

PR-455 — Frequency range 455 Kc. to 1 Mc., Less Crystal $4.95

PR 1-5 — Frequency range 1 Mc. to 5 Mc., Less Crystal $4.95

(Available to 17 Mc.)

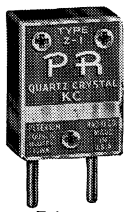
PR-100 TRANSISTORIZED OSCILLATOR



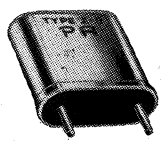
Fully wired, ready to install. Includes a Z-6A 100 Kc. Crystal. With it you can check harmonics from 100 Kc. through 54 Mc. Base 1⅞ x 2 13/16″.

PR-100 — With Crystal $12.95

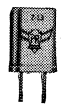
COMMERCIAL TYPES



Z-1



Z-9, Z-9R



Z-13

SPECIFICATIONS

Type	Pin Spacing	Pin Diameter	Height Above Pins
Z-1	.486″	.093″	1 3/16″
Z-1A	¾″	.125″	1 3/8″
Z-1B	¾″	.125″	1 3/8″
Z-1D	½″	.125″	1 3/16″
Z-1H	3-Pin W.E.	.157″	2 1/16″
Z-1M	⅞″	Std. Banana	2 3/32″
Z-1R	½″	.093″	1¼″
Z-9	.486″	.050″	.758″
Z-9R	.486″	.050″	.758″
Z-13	.192″	.040″	.530″
Z-13P	.192″	.017 wire	.530″
E-1	Interchange with FT-164 and AC-95		
Z-21	3-Pin W.E.	.157″	2″
Z-22	¾″	.125″	1¼″
Z-24	½″	.125″	1¼″
Z-30	¾″	.125″	1¼″

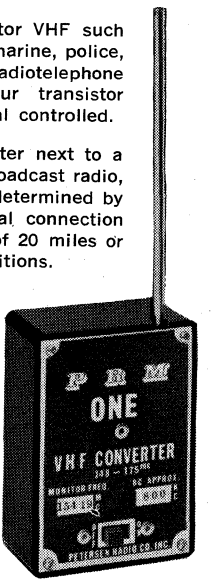
Note: Z-1A can be supplied with Standard Banana Pins. Specify when ordering. Z-9 and Z-9R can be supplied with .093 Pins. All Fundamental Crystals are correlated in oscillator having load capacity of 32 mmfd. **unless otherwise specified.**

Commercial Type Crystals are available from 800 Kc. to 150 Mc. Prices depend upon specifications and quantities. Ask for quotations.

PRM COMPACT CONVERTERS

With it you can monitor VHF such as aircraft, business, marine, police, railroad, taxicab, radiotelephone and others, with your transistor broadcast radio. Crystal controlled.

Place the PRM Converter next to a good 6-10 transistor broadcast radio, tuned to a frequency determined by the crystal. No internal connection needed. Performance of 20 miles or more under good conditions.



Powered by 9-volt transistor battery. Case 2⅞ x 1⅞ x 4 inches. Antenna extends to 36 inches. Weight 8½ ounces complete. Specify VHF frequency to be received, also broadcast frequency desired on transistor radio.

THREE FREQUENCY RANGES: PRM ONE — 148-175 mc.; PRM TWO — 25-50 mc. AM or FM; PRM THREE — 108-136 mc.

LESS BATTERY — $24.95

PETERSEN RADIO CO., INC. • MAKERS OF FINE CRYSTALS SINCE 1934

Trade Discount Applies To List Prices Only

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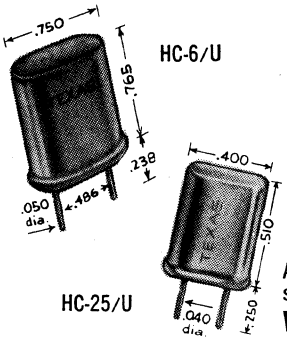
PRICE LIST • Subject to Change without Notice • **MINIMUM ORDER $10.00**

TEXAS CRYSTALS... *FOR EVERY PURPOSE*



2.95 EACH

CLASS "D" CITIZEN BAND CRYSTALS

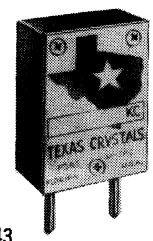
23 Frequencies — 3rd Overtone — .005% Tol.

All "Citizen Band" crystals supplied in Hermetically sealed holders for all 23 channels and C.A.P.

When ordering, specify make and Model of UNIT and CHANNEL NUMBERS desired.

We supply crystals for every popular make of Citizen Band Transceivers.

FT243 PRESSURE TYPE CRYSTALS MADE TO ORDER



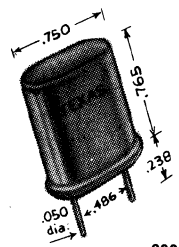
FT-243

1,001 to 1,600 KC .005% TOL.	$4.50	2,001 to 11,000 KC .005% TOL.	3.25
1,601 to 2,000 KC .005% TOL.	3.55		

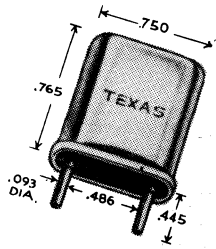
All TEXAS CRYSTALS are cut, lapped, and etched to exact frequencies. They are supplied for oscillator circuits having 32 MMFD capacity, unless otherwise ordered, as the crystal frequency will vary with capacity of the circuit.

Low frequency crystals from 1001 KC to 2100 KC are space mounted — all others are pressure mounted. The advantage of the pressure mount crystal is its ability to handle more current (up to 50 Milliwatts) without capacity (if known) or type of equipment in which it is to be used.

HERMETICALLY SEALED CRYSTALS MADE TO ORDER



In recent years, manufacturers have engineered new equipment utilizing the hermetically sealed plated crystal (HC6/U). This crystal is either gold or silver plated, the plating acting as electrodes. These crystals should be used in circuits designed for them as the maximum current capacity is 10 milliwatts (5 milliwatts for overtone type). High stability of frequency is a characteristic of this crystal. All TEXAS CRYSTALS are made to conform with military specifications. When ordering for G.E., Motorola, Link, etc., for split channel operation, a sample of both transmitting and receiving crystals known to be correct, be sent us with order specifying exact crystal frequency desired. We will correlate crystals and return your samples. Type HC6/U has .050 pins and fits CE-1 socket. Type HC17/U is the same physical size except the pins are .093 diameter. Specify type circuit, if known. Order by fundamental frequency, type circuit, type holder. All plated crystals are .005% tolerance.



FUNDAMENTAL FREQUENCY

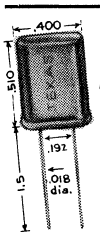
800KC thru	999KC	$9.50
1000KC thru	1399KC	$8.50
1400KC thru	1600KC	$6.50
1601KS thru	1900KC	$5.00
1901KC thru	6500KC	$4.50
6501KC thru	15,000KC	$3.50
15,001KC thru	20MC	$5.50

OVERTONE FREQUENCY

15MC thru	51,999KC (3rd Overtone)	$4.00
52MC thru	100MC (5th Overtone)	$6.00
101MC to	125MC	Price on Request

Add $2.00 per crystal when used in oven.

NOTE: When ordering Fundamental Frequency Crystals, specify Crystal Load Capacity. For tolerance of .01% and .02%, also for quantities of more than 100 of the same frequency, write for quotations.



MINIATURE CRYSTALS HC18/U

Miniature Type

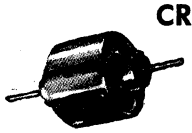
Sub Miniature Crystals will operate in the same circuits as HC6/U and HC17/U Crystals. They were designed for use where space is a factor. Supplied in either Pin Type or Wire Leads (½" length for soldering directly into circuit.).

Be sure to specify Pin Type or Wire Leads.

FUNDAMENTAL FREQUENCY	
3500KC thru 5999KC	$8.50
6000KC thru 8000KC	$6.00
8001KC thru 20MC	$4.50
OVERTONES	
20MC thru 51,999KC (3rd Overtone)	$4.25
52 MC thru 59,999KC (3rd Overtone)	$4.75
60MC thru 100MC (5th Overtone)	$6.00

BARREL TYPE CRYSTALS

CR24/U


CR24/U

Designed for the Armed Services the CR24/U is a Pressure Type plated crystal. From 15 to 25MC "AT" Crystal which will accommodate more current than the plated crystal. From 15 to 25MC the crystal is a third overtone—From 25.001 to 60MC the crystal is a fifth overtone.

All Frequencies from 15MC to 50 MC $5.95

TEXAS AMATEUR CRYSTALS

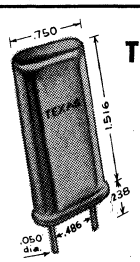
All Texas amateur crystals are lapped and etched to frequency and supplied in FT 243 holders ..... $2.25 ea.

MARINE CRYSTALS

Supplied in 4 types of holders — FT243, MC7, CR1/AR, HC6/U. .005% tolerance. Order by frequency for transmitter for transmitter types and actual crystal frequency for receiver (including 455 KC IF).

ANY MARINE FREQUENCY FROM 2000 KC to 3200 KC IN FT243, MC7 or CR1AR $3.25

HERMETICALLY SEALED CRYSTALS FOR MARINE IN ANY FREQUENCY. (Specify either .050 or 093 pins) $4.50



TEXAS LOW FREQUENCY CRYSTALS

Our own manufacture at military tolerances in HC6/U and HC13/U holders.

25 to 79 KC	Prices on Request
80 to 99 KC	$8.00
100 to 199 KC	7.00
200 to 1000 KC	6.00

TEXAS CRYSTALS

DIVISION OF WHITEHALL ELECTRONICS

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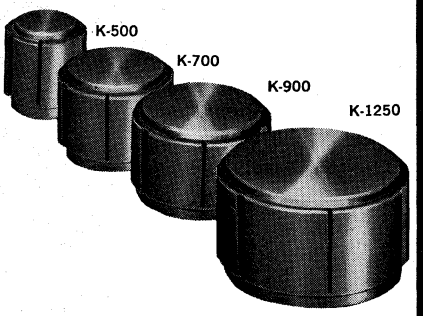
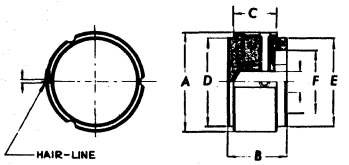
ALCOKNOB

ALUMINUM INSTRUMENT KNOBS MADE TO EXACTING REQUIREMENTS

STANDARD

ANODIZED

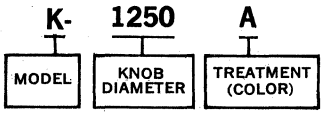




DIMENSIONS

	A	B	C	D	E	F
K-500	.500	.625	.492	.358	.433	.354
K-700	.750	.625	.429	.608	.608	.473
K-900	.937	.625	.429	.795	.795	.592
K-1250	1.250	.750	.554	1.108	1.108	.796

DESIGNATIONS



COLOR GUIDE

A Aluminum Clear Anodizing, Black Pointer
B Black Anodizing, White Pointer
G Gold Anodizing, Red Pointer

K SERIES

Upgrade your equipment with new, modernized decorative knobs of fabricated aluminum. 1-piece construction offers superior appearance, moderate pricing, and expensive styling.

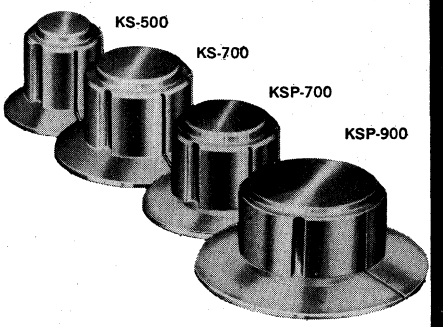
INDUSTRIAL NET PRICE SCHEDULE

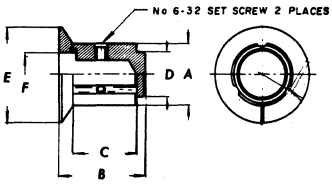
MODEL	SIZE	SHAFT	One-99	100-249	250-499	500-999
K-500	.500	1/4	.45	.39	.37	.35
K-700	.750	1/4	.49	.44	.41	.38
K-900	.937	1/4	.55	.49	.47	.45
K-1250	1.250	1/4	.65	.59	.56	.53

Quantity prices are for each individual type. Choice of stock colors at same prices.

SKIRTED

ACRYLIC OR ALUMINUM SKIRTS

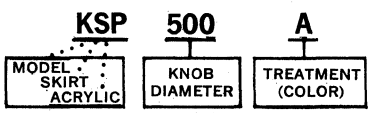




DIMENSIONS

	A	B	C	D	E	F
KS-500	.500	.625	.429	.358	.750	.354
KS-700	.750	.625	.429	.608	1.125	.473
KSP-700	.750	.625	.429	.608	1.125	.473
KSP-900	.937	.725	.429	.795	1.406	.592

DESIGNATIONS



COLOR GUIDE

A Aluminum Clear Anodizing, Black Pointer
B Black Anodizing, White Pointer
G Gold Anodizing, Red Pointer

KS SERIES AND KSP SERIES

Decorative knobs with skirts of natural or black aluminum, or acrylic plastic. Knobs have exceptional styling for the space-age look, yet are priced attractively for production use.

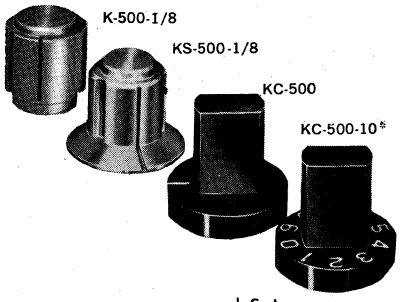
INDUSTRIAL NET PRICE SCHEDULE

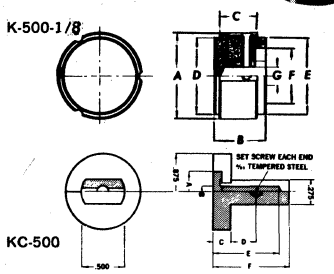
MODEL	SIZE	SHAFT	One-99	100-249	250-499	500-999
KS-500A	.500	1/4	.60	.55	.51	.49
KS-500B	.500	1/4	.60	.55	.51	.49
KS-700A	.750	1/4	.65	.59	.56	.53
KS-700B	.750	1/4	.65	.59	.56	.53
KSP-700A	.750	1/4	.60	.55	.51	.49
KSP-700B	.750	1/4	.60	.55	.51	.49
KSP-900A	.937	1/4	.65	.59	.56	.53
KSP-900B	.937	1/4	.65	.59	.56	.53

Quantity prices are for each individual type.

MINIATURE

ANODIZED, WITH 1/8" SHAFTS





	A	B	C	D	E	F
K-500	.500	.625	.492	.358	.433	.354
KC-500	.473	.125	.195	.295	.748	.867

DESIGNATIONS

K-⅛ SERIES

Machined aluminum knobs with anodized finish. Modern styling and hairline indicator. Usable with switches and potentiometers having a 1/8" dia. shaft.

KC SERIES

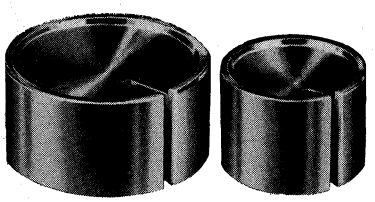
A new series of skirted knobs designed for MRA series Alcoswitches. Machined aluminum anodized with hairline indicator and 2 set screws. 1/8" shafts only.

INDUSTRIAL NET PRICE SCHEDULE

MODEL	DESCRIPTION	One-99	100-249	250-499	500-999
K-500A-1/8	Natural Aluminum	.45	.39	.37	.35
K-500B-1/8	Black Anodized	.45	.39	.37	.35
K-500G-1/8	Gold Anodized	.45	.39	.37	.35
KS-500A-1/8	Natural Aluminum	.60	.55	.51	.49
KS-500B-1/8	Black Anodized	.60	.55	.51	.49
KC-500A	Natural Aluminum	.55	.49	.47	.45
KC-500B	Black Anodized	.55	.49	.47	.45
KC-500-10	Black Anodized	.65	.59	.56	.53

*Engraved numerals 0-10

DELUXE KNOBS with a CUSTOM LOOK



ALCOKNOBS with unique, notched pointers are designed for consumer products. The emphasis is on style to enhance the overall equipment appearance. Surveys show customers first touch, twist, and use knobs when purchasing hi-fi/stereo products, tape recorders, test equipment, lab and medical instruments. These knobs are available from stock and have the custom design appearance. High quality throughout, yet allows the equipment manufacturer to reduce costs.

INDUSTRIAL NET PRICE SCHEDULE

MODEL	SIZE	SHAFT	One-99	100-249	250-499	500-999
KHF-500A	.500	1/4	.45	.39	.37	.35
KHF-500G	.500	1/4	.45	.39	.37	.35
KHF-700A	.750	1/4	.50	.44	.41	.38
KHF-700G	.750	1/4	.50	.44	.41	.38
KHF-900A	.937	1/4	.55	.49	.47	.45
KHF-900G	.937	1/4	.55	.49	.47	.45
KHF-1250A	1.250	1/4	.65	.59	.56	.53
KHF-1250G	1.250	1/4	.65	.59	.56	.53

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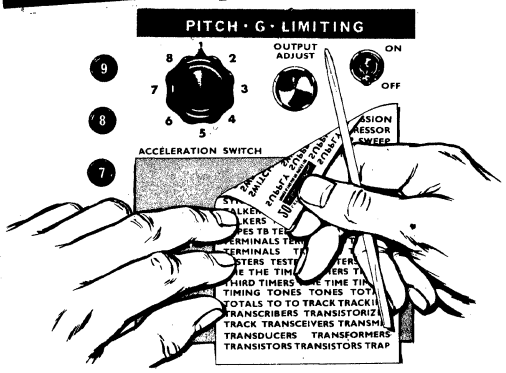

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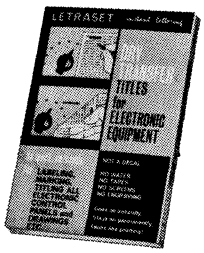
INSTANT LETTERING® marking kits bring you all the necessary elements for completely marking electronic equipment, prototypes, drawings, etc. in this fast new easy-to-use form. There's even a new drafting symbol kit for better more readable schematics.

Words, letters, numerals, switch patterns, arcs, drafting symbols, etc. are printed on a special transparent carrier film. Rubbing over one of these elements with a ballpoint pen releases it from the carrier film and adheres it to your working surface.

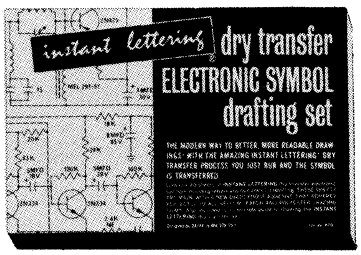
INSTANT LETTERING® words and symbols transfer to almost any surface including glass, plastic, even painted and bare metals. Now you can quickly mark all panels, even especially calibrated two-color nomenclatures, pilot light jewels, sub-assemblies, circuit boards, etc. Reproduction quality **INSTANT LETTERING®** transfers are clean and sharp, leave no background haze or film, make prototypes look like finished production equipment and give all equipment and drawings a professional look.



TITLES FOR ELECTRONIC EQUIPMENT

Hundreds of preprinted titles researched to give up to 95% of all electronic marking. For labeling, marking, titling all electronic control panels, drawings, prototypes, etc.

No. 958—Black **$4.95**
No. 959—White **$4.95**
No. 960—Refill Set (12 sheets, black alphabets) **$2.50**
No. 961—Refill Set (12 sheets, white alphabets) **$2.50**
No. 962—Refill Set (12 sheets, black numerals) **$2.50**
No. 963—Refill Set (12 sheets, white numerals) **$2.50**



dry transfer
ELECTRONIC SYMBOL DRAFTING SET

The quicker way to more readable schematics. Contains 40 sheets of electronic symbols including letters and numerals. These sheets are made with a new diazo-proof adhesive that adheres perfectly to all vellum, paper and polyester tracing films. Also included is a complete guide to drawing with dry transfer symbols. Designed to conform with MIL-STD-15-1.

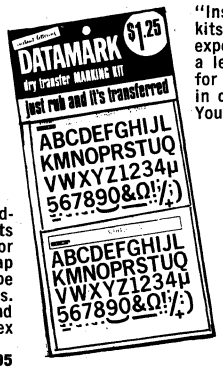
No. 970—Electronic Symbol Drafting Set **$15.95**
No. 970-2 Electronic Symbol Drafting Kit w/pen .. **$18.95**
No. 970R Refill Set for 970 Set (4 identical sheets—specify sheet No. on Order) ..... **$ 2.00**

TERMINAL & CHASSIS MARKING KIT

All the necessary letters, letter combinations and numerals for marking chassis, printed circuit and terminal boards, rotating components, etc.

No. 966—Black **$4.95**
No. 967—White **$4.95**

NEW DATAMARK KITS



"Instant Lettering" quality and speed in handy, economical kits at only $1.25 each. These kits are ideal for the home experimenter, student, hobbyist—in fact, almost anyone with a lettering or marking problem. Datamark Kits are also good for the industrial user who needs selected preset words, etc. in quantity and at a reasonable price, for marking equipment. You'll find a Datamark Kit to solve your marking problems.

K58B	**Audio, TV & Hi-Fi** (black)
K58W	**Audio, TV & Hi-Fi** (white)
K59B	**Amateur Radio & CB** (black)
K59W	**Amateur Radio & CB** (white)
K60B	**Experimenter, Home & Intercom** (black)
K60W	**Experimenter, Home & Intercom** (white)
K61B	**Test & Industrial Equipment** (black)
K61W	**Test & Industrial Equipment** (white)
K62	**Marks & Switch Patterns** (blk. & wht. asstd.)
K63	**Alphabets & Numerals, 1/8"** (blk., wht. & gold asstd.)
K64	**Alphabets & Numerals, 1/4"** (blk., wht. & gold asstd.)
K65	**Alphabets & Numerals, 1/2"** (blk., wht. & gold asstd.)

$1.25 Each

METER & DIAL MARKING KIT

Arcs, dial patterns, lines, wedges, graduation lines, switch symbols, alphabets and numerals in black, white and red for marking standard and special rotary tap switches, potentiometers and prototype and especially calibrated meter dials. Colors provide contrast on scales and switches simplifying usage of complex instruments.

No. 968—Meter & Dial Marking Kit **$4.95**
No. 968R—Refill Set for 968 Kit (4 identical sheets—specify sheet No. on Order) **$2.00**

instant lettering®

DATAKOAT

Clear Protective Coating

DATAKOAT protective coating is specially designed for "Instant Lettering." It is water-clear, dries quickly and protects "Instant Lettering" from abrasion and weathering.

DATAKOAT Protective Coating Kit contains a 1 ounce bottle of **DATAKOAT** with applicator brush in the cap and a 1 ounce bottle of Thinner.

No. 04176 ..... **$1.00**

DATAKOAT Spray Coating is the handy spray can form of **DATAKOAT.** 16 ounce spray can.

No. 04177 (Glossy) **$2.95**
No. 04178 (Matte) **2.95**

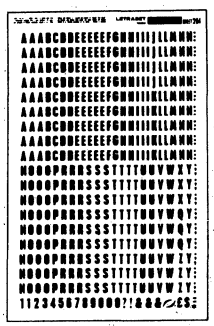
instant lettering®

STANDARD SHEETS

The amazing new "Instant Lettering" method of dry transfer lettering brings you unequalled quality and speed. By shading over the letter with a ballpoint pen anyone can produce reproduction quality lettering instantly!

"Instant Lettering" transfers dry to practically any surface, smooth or textured, even wood and metals, glass, plastics and cloth.

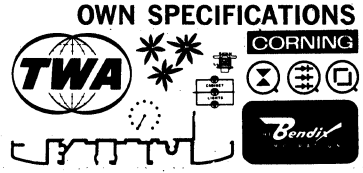
Standard 10" x 15" sheets are available in complete alphabets and/or numerals in a wide variety of type faces and colors. Letter sizes range from 8 point to 3 inch display letters.



FREE SAMPLE AND COMPLETE TYPE CHART AVAILABLE

instant lettering®

MADE TO YOUR OWN SPECIFICATIONS



"Instant Lettering" sheets can be made to meet all your own special needs. Hundreds of companies all over the country have had their logo, drawings, symbols, etc. made in 'Instant Lettering." They have found that "Instant Lettering" saves time and money. Hundreds of lettering and marking problems that were impossible or too expensive become possible and inexpensive with "Instant Lettering."

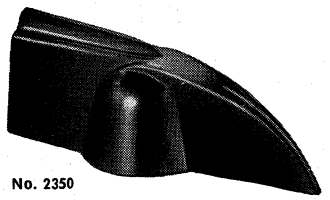
COMPLETE INFORMATION AVAILABLE UPON REQUEST.

THE DATAK CORPORATION

HARRY DAVIES MOLDING CO.

MOLDERS OF PLASTICS

POINTER AND BAR KNOBS



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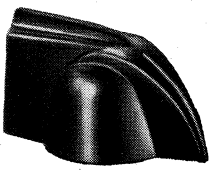
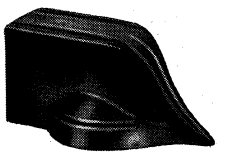
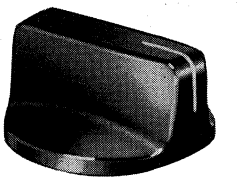


No. 2300

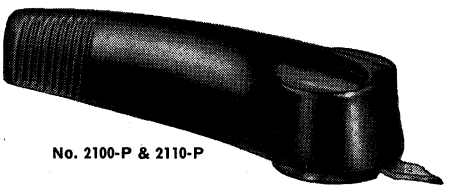


No. 2150

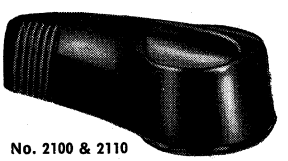
No. 1550



No. 1500, 1510 & 1520



No. 2100-P & 2110-P



No. 2100 & 2110

No. 2350
Length 2", hgt. 5/8", 1/4" molded hole or metal insert, set screw mounting, locknut recess.

No. 2300
Length 1 1/4", hgt. 5/8", 1/4" molded hole, also 1/4" metal insert, set screw or knurled hole mounting, locknut recess.

No. 2150
Length 1 1/4", hgt. 9/16", 1/4" molded hole, set screw mounting, locknut recess.

No. 1550
Dia. 1 1/8", hgt. 5/8", 1/4" molded hole or metal insert, set screw, spring or knurled hole mounting, locknut recess.

No. 1500
Dia. 1 1/8", hgt. 9/16", 1/4" molded hole. Set screw mounting. Locknut recess. Indicator line filled or unfilled.

No. 1510
Dia. 3/4", Hgt. 3/16", 1/8", 3/16" or 1/4" Molded Hole and Set Screw, 1/4" Knurled Hole Mounting.

No. 1520
Dia. 1 1/2", Hgt. 3/4", 1/4" Molded Hole or Brass Insert with Set Screw.

No. 2100-P
Length 2 1/2", hgt. 5/8", width 3/4", 1/4" metal insert and 5/16" pointer, set screw mounting.

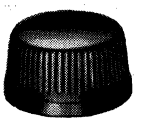
No. 2110-P
Length 1 5/8", hgt. 19/32", width 3/4", 1/4" metal insert and 5/16" pointer, set screw mounting.

No. 2100
Length 2 1/2", hgt. 5/8", width 3/4", 1/4" molded hole or metal insert, set screw mounting, locknut recess.

No. 2110
Length, 1 5/8", hgt. 19/32", width 1/4", 1/4" molded hole or metal insert, set screw or knurled hole mounting, locknut recess.

CONTROL KNOBS

No. 1400



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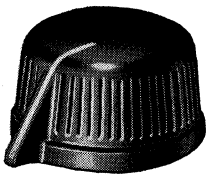

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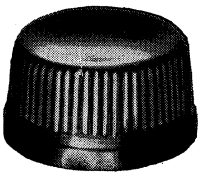
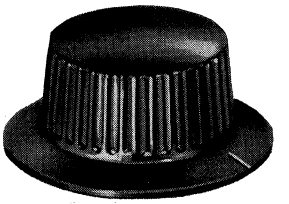
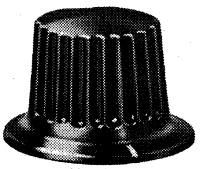


No. 1475



No. 1600



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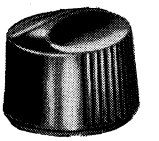
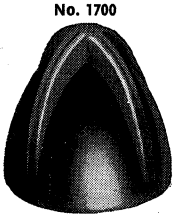


No. 1700



No. 2500 & 2600

No. 1400
Dia. 1 1/16", hgt. 13/32", 1/8" or 1/4" molded hole or brass insert, set screw, spring or knurled hole mounting.

No. 1450
Dia. 1 1/16", hgt. 13/32", 1/8" or 1/4" molded hole or brass insert, set screw, spring or knurled hole mounting.

No. 1470
Dia. 1", hgt. 1/2", 1/4" molded hole or brass insert, set screw, spring or knurled hole mounting, indicator line filled or unfilled, locknut recess.

No. 1475
Dia. 1", hgt. 1/2", 1/4" molded hole or brass insert, set screw, spring or knurled hole mounting, locknut recess.

No. 1600
Dia. 1 1/2", hgt. 11/16", 1/4" molded hole or metal insert, set screw mounting, locknut recess, indicator line filled or unfilled.

No. 1610
Dia. 15/16", hgt. 5/8", 1/8" or 1/4" molded hole or metal insert, set screw mounting, locknut recess, indicator line filled or unfilled.

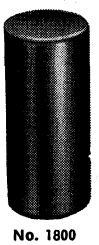
No. 1700
Dia. 3/4", hgt. 19/32", 1/4" molded hole or brass insert, set screw, spring or knurled hole mounting.

No. 2500
Dia. 3/4", hgt. 3/4", 1/4" molded hole, set screw, spring or knurled hole mounting.

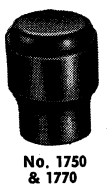
No. 2600
Dia. 7/8", hgt. 7/8", 1/4" molded hole, set screw, spring or knurled hole mounting.

PUSH BUTTONS

No. 5149-A



No. 1800



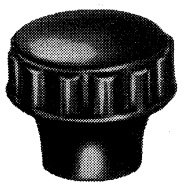
No. 1750 & 1770

No. 5149-A
Hgt. 51/64", oval touch tuning. Push-on to fit flatted shaft. .050" x .187".

No. 1800
Dia. 7/16", hgt. 1" to 1 3/8", touch tuning, plain or recessed top, push-on, to fit flatted shaft .050" x .187" patented friction fit. Also with studs of various lengths.

No. 1750
Dia. 31/64", hgt. 9/16" to 15/16", touch tuning, push on, to fit flatted shaft .050" x .187".

TERMINAL NUTS



No. 2960

No. 2710, 2720, & 2730

No. 1770
Dia. 31/64", hgt. 1/2" to 7/8", 6-32 or 8-32 female metal insert. 8-32 male stud.

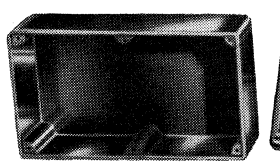
No. 2960
Dia. 7/8", hgt. 3/4", 8-32 or 10-32 female metal insert, 10-24 or 10-32 male stud.

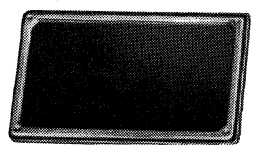
No. 2710
Dia. 3/4", hgt. 1/2", 8-32, 10-32, 10-24 metal insert.

No. 2720
Dia. 5/8", Hgt. 9/16", 10-24, 10-32 Female Metal Insert.

No. 2730
Dia. 13/16, Hgt. 33/64", 10-24, 10-32 Female Metal Insert, 10-32 Male Stud.

METER CASE AND COVERS





No. 240 Case
2" hgt. x 3 3/4" wide x 6 1/4" long. (Outside Dimensions) 1/8" (Wall Thickness).

No. 241
Mating cover with interlocking lip for No. 240 series cases.

No. 220 Case
1 1/16" hgt. x 2 7/8" x 4" long (outside dimensions) .109" (wall thickness).

No. 260 Case
2 5/16" hgt. x 5 3/32" w x 6 13/16" l. (Outside Dimensions)—5/32" (Wall Thickness).

No. 261
Mating cover with interlocking lip for No. 260 case.

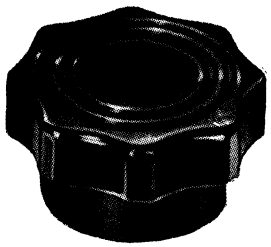
No. 221
Mating cover for 220 case. Laminated phenolic nests inside case.

© U.C.P., Inc.

HARRY DAVIES MOLDING CO.

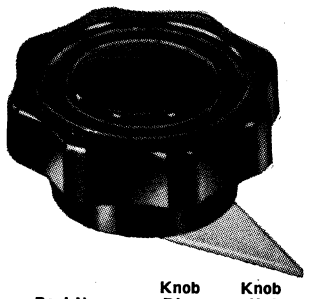
MOLDERS OF PLASTICS

INSTRUMENT KNOBS



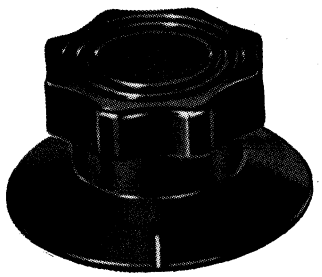
Part No.	Knob Dia.	Knob Hgt.
4100	1⅛"	⅝"
4101	1⅜"	11/16"
4102	1⅝"	¾"
4103	2⅜"	⅞"

Entire series available with ¼" molded hole or metal insert. Set screw mounting.



Part No.	Knob Dia.	Knob Hgt.
4100 W/PTR	1⅛"	⅝"
4101 W/PTR	1⅜"	11/16"
4102 W/PTR	1⅝"	¾"
4103 W/PTR	2⅜"	⅞"

White vinylite pointer available. Pointer lengths ⅝", ¾", ⅞", 1 1/16", 1 5/16".

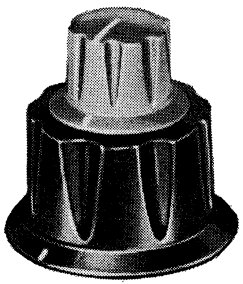


Part No.	Knob Dia.	Skirt Dia.
4104	1⅛"	1½"
4107	1⅜"	1¾"
4108	1⅝"	2 1/16"
4109	2⅜"	3"

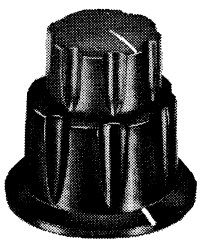
Skirt available with or without indicator line filled. Branding stamps constructed to your specifications.

This series can be furnished in compliance with MS 91531.

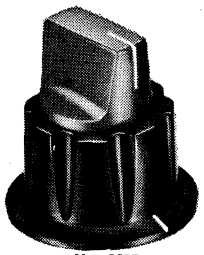
NEW FLUTED INSTRUMENT KNOBS



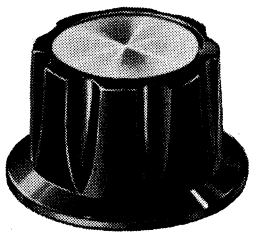
No. 1915 & 1935



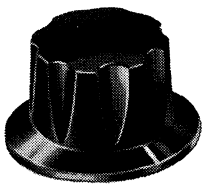
No. 1916



No. 1917

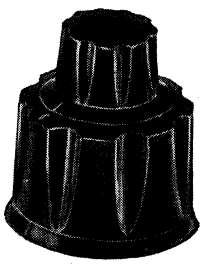


No. 1925-SS

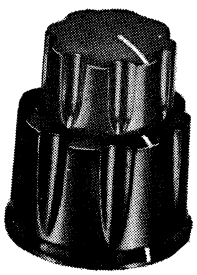


No. 1913

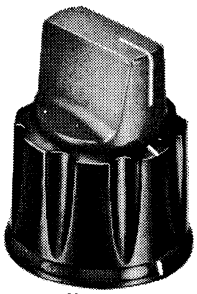
No. 1914



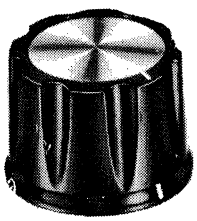
No. 1905



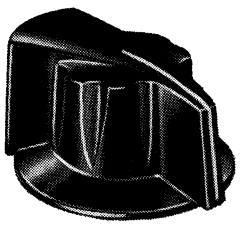
No. 1906



No. 1907

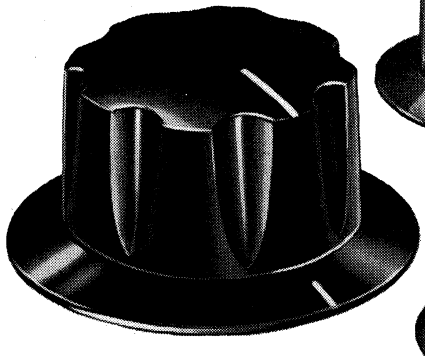


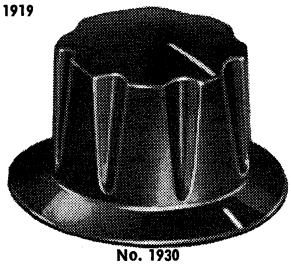
No. 1922-SS



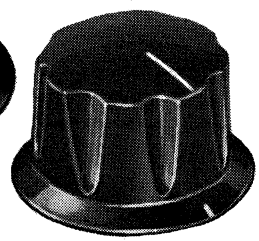
No. 1919

No. 1910





No. 1930



No. 1920

No. 1935
Dual control, dia. 1½", hgt. 1 5/16". See 1930 and 1910 for mountings.

No. 1915
Dual control, dia. 1¼", hgt. 1 3/16". See 1925 and 1910 for mountings.

No. 1905
Dual control, dia. 1 1/16", hgt. 1 3/16". See 1922 and 1910 for mountings.

No. 1916
Dual Control, Dia. 1¼", hgt. 1 3/4". See 1925 and 1914 for Mountings.

No. 1906
Dual Control, Dia. 1 1/16", hgt. 1 3/4". See 1922 and 1914 for Mountings.

No. 1917
Dual Control, Dia. 1¼", hgt. 1 5/16". See 1925 and 1510 for Mountings.

No. 1907
Dual Control, Dia. 1 1/16", hgt. 1 5/16". See 1922 and 1510 for Mountings.

No. 1913
Dia. 1⅛", hgt. ⅝". ¼" molded hole or brass insert. Set screw mounting ¼" CRL knurl.

No. 1919
Length 1¼", hgt. ⅝". ¼" molded hole or brass insert. Set screw mounting.

No. 1914
Dia. ¾", hgt. ½". ⅛", 3/16", ¼" molded hole or insert.

No. 1910
Dia. ¾", hgt. ½". ⅛", 3/16" or ¼", molded hole or brass insert, set screw, spring or knurled hole mounting.

No. 1930
Dia. 1½", hgt. ⅞". ¼" molded hole or brass insert, set screw.

No. 1940
Dia. 2", hgt. 1 5/16". ¼" molded hole or brass insert. Set screw mounting.

No. 1920
Dia. 1¼", hgt. ¾". ¼" molded hole or brass insert, set screw, spring or knurled hole mounting.

Please specify if paint filled indicator line is desired on top of knob and/or on skirt of knob.

Knobs shown are only part of our stock on hand. Our stock molds are interchangeable and meet most requirements with only minor tooling variations. Let us quote on your specifications.

Write for Free Catalog

HARRY DAVIES MOLDING CO.

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¼, ½, 1 & 2 watt resistors (10% Tol.) in *MOISTURE-PROOF* packages EIA approved MIL-R-IIE

RESISTORS

BULK RESISTOR PRICES

WATTAGE	EA. 1-9	10-49	50-99	100-UP
¼ WATT	.13	.09	.06	$4.32/C
½ WATT	.12	.085	.05	$4.15/C
1 WATT	.17	.10	.07	$6.47/C
2 WATT	.22	.19	.14	$12.28/C

OHM VALUE	¼ WATT MOISTURE-PROOF PACK OF 10 BULK PART NO.	¼ WATT BULK IBM CODE NO.	½ WATT MOISTURE-PROOF PACK OF 10 BULK PART NO.	½ WATT BULK IBM CODE NO.	1 WATT MOISTURE-PROOF PACK OF 10 BULK PART NO.	1 WATT BULK IBM CODE NO.	2 WATT MOISTURE-PROOF PACK OF 10 BULK PART NO.	2 WATT BULK IBM CODE NO.
2.7			BS2.7	26-160BU				
3.3			BS3.3	26-162BU				
3.9			BS3.9	26-164BU				
4.7			BS4.7	26-166BU				
5.6			BS5.6	26-168BU				
6.8			BS6.8	26-170BU				
8.2			BS8.2	26-172BU				
10	GG10	26-600-BU	BS10	26-000BU	BA10	26-200BU	BB10	26-400BU
12			BS12	26-002BU	BA12	26-202BU	BB12	26-402BU
15	GG15	26-604-BU	BS15	26-004BU	BA15	26-204BU	BB15	26-404BU
18			BS18	26-006BU	BA18	26-206BU	BB18	26-406BU
22			BS22	26-008BU	BA22	26-208BU	BB22	26-408BU
27	GG27	26-610-BU	BS27	26-010BU	BA27	26-210BU	BB27	26-410BU
33			BS33	26-012BU	BA33	26-212BU	BB33	26-412BU
39			BS39	26-014BU	BA39	26-214BU	BB39	26-414BU
47	GG47	26-616-BU	BS47	26-016BU	BA47	26-216BU	BB47	26-416BU
56			BS56	26-018BU	BA56	26-218BU	BB56	26-418BU
68			BS68	26-020BU	BA68	26-220BU	BB68	26-420BU
82			BS82	26-022BU	BA82	26-222BU	BB82	26-422BU
100	GG100	26-624-BU	BS100	26-024BU	BA100	26-224BU	BB100	26-424BU
120			BS120	26-026BU	BA120	26-226BU	BB120	26-426BU
150	GG150	26-628-BU	BS150	26-028BU	BA150	26-228BU	BB150	26-428BU
180			BS180	26-030BU	BA180	26-230BU	BB180	26-430BU
220	GG220	26-632-BU	BS220	26-032BU	BA220	26-232BU	BB220	26-432BU
270	GG270	26-634-BU	BS270	26-034BU	BA270	26-234BU	BB270	26-434BU
330	GG330	26-636-BU	BS330	26-036BU	BA330	26-236BU	BB330	26-436BU
390			BS390	26-038BU	BA390	26-238BU	BB390	26-438BU
470	GG470	26-640-BU	BS470	26-040BU	BA470	26-240BU	BB470	26-440BU
560			BS560	26-042BU	BA560	26-242BU	BB560	26-442BU
680	GG680	26-644-BU	BS680	26-044BU	BA680	26-244BU	BB680	26-444BU
820			BS820	26-046BU	BA820	26-246BU	BB820	26-446BU
1000	GG1000	26-648-BU	BS1000	26-048BU	BA1000	26-248BU	BB1000	26-448BU
1200			BS1200	26-050BU	BA1200	26-250BU	BB1200	26-450BU
1500	GG1500	26-652-BU	BS1500	26-052BU	BA1500	26-252BU	BB1500	26-452BU
1800			BS1800	26-054BU	BA1800	26-254BU	BB1800	26-454BU
2200	GG2200	26-656-BU	BS2200	26-056BU	BA2200	26-256BU	BB2200	26-456BU
2700	GG2700	26-658-BU	BS2700	26-058BU	BA2700	26-258BU	BB2700	26-458BU
3300	GG3300	26-660-BU	BS3300	26-060BU	BA3300	26-260BU	BB3300	26-460BU
3900	GG3900	26-662-BU	BS3900	26-062BU	BA3900	26-262BU	BB3900	26-462BU
4700	GG4700	26-664-BU	BS4700	26-064BU	BA4700	26-264BU	BB4700	26-464BU
5600			BS5600	26-066BU	BA5600	26-266BU	BB5600	26-466BU
6800	GG6800	26-668-BU	BS6800	26-068BU	BA6800	26-268BU	BB6800	26-468BU
8200			BS8200	26-070BU	BA8200	26-270BU	BB8200	26-470BU

OHM VALUE	¼ WATT MOISTURE-PROOF PACK OF 10 BULK PART NO.	¼ WATT BULK IBM CODE NO.	½ WATT MOISTURE-PROOF PACK OF 10 BULK PART NO.	½ WATT BULK IBM CODE NO.	1 WATT MOISTURE-PROOF PACK OF 10 BULK PART NO.	1 WATT BULK IBM CODE NO.	2 WATT MOISTURE-PROOF PACK OF 10 BULK PART NO.	2 WATT BULK IBM CODE NO.
10000	GG10000	26-672-BU	BS10000	26-072BU	BA10000	26-272BU	BB10000	26-472BU
12000			BS12000	26-074BU	BA12000	26-274BU	BB12000	26-474BU
15000	GG15000	26-676-BU	BS15000	26-076BU	BA15000	26-276BU	BB15000	26-476BU
18000			BS18000	26-078BU	BA18000	26-278BU	BB18000	26-478BU
22000	GG22000	26-680-BU	BS22000	26-080BU	BA22000	26-280BU	BB22000	26-480BU
27000	GG27000	26-682-BU	BS27000	26-082BU	BA27000	26-282BU	BB27000	26-482BU
33000	GG33000	26-684-BU	BS33000	26-084BU	BA33000	26-284BU	BB33000	26-484BU
39000	GG39000	26-686-BU	BS39000	26-086BU	BA39000	26-286BU	BB39000	26-486BU
47000	GG47000	26-688-BU	BS47000	26-088BU	BA47000	26-288BU	BB47000	26-488BU
56000	GG56000	26-690-BU	BS56000	26-090BU	BA56000	26-290BU	BB56000	26-490BU
68000	GG68000	26-692-BU	BS68000	26-092BU	BA68000	26-292BU	BB68000	26-492BU
82000	GG82000	26-694-BU	BS82000	26-094BU	BA82000	26-294BU	BB82000	26-494BU
100000	GG100000	26-696-BU	BS100000	26-096BU	BA100000	26-296BU	BB100000	26-496BU
120000			BS120000	26-098BU	BA120000	26-298BU	BB120000	26-498BU
150000	GG150000	26-700-BU	BS150000	26-100BU	BA150000	26-300BU	BB150000	26-500BU
180000			BS180000	26-102BU	BA180000	26-302BU	BB180000	26-502BU
220000	GG220000	26-704-BU	BS220000	26-104BU	BA220000	26-304BU	BB220000	26-504BU
270000	GG270000	26-706-BU	BS270000	26-106BU	BA270000	26-306BU	BB270000	26-506BU
330000	GG330000	26-708-BU	BS330000	26-108BU	BA330000	26-308BU	BB330000	26-508BU
390000			BS390000	26-110BU	BA390000	26-310BU	BB390000	26-510BU
470000	GG470000	26-712-BU	BS470000	26-112BU	BA470000	26-312BU	BB470000	26-512BU
560000			BS560000	26-114BU	BA560000	26-314BU	BB560000	26-514BU
680000	GG680000	26-716-BU	BS680000	26-116BU	BA680000	26-316BU	BB680000	26-516BU
820000			BS820000	26-118BU	BA820000	26-318BU	BB820000	26-518BU
1.0 Meg.	GG 1.0 Meg.	26-720-BU	BS 1.0 Meg.	26-120BU	BA 1.0 Meg.	26-320BU	BB 1.0 Meg.	26-520BU
1.2 Meg.			BS 1.2 Meg.	26-122BU	BA 1.2 Meg.	26-322BU	BB 1.2 Meg.	26-522BU
1.5 Meg.			BS 1.5 Meg.	26-124BU	BA 1.5 Meg.	26-324BU	BB 1.5 Meg.	26-524BU
1.8 Meg.			BS 1.8 Meg.	26-126BU	BA 1.8 Meg.	26-326BU	BB 1.8 Meg.	26-526BU
2.2 Meg.			BS 2.2 Meg.	26-128BU	BA 2.2 Meg.	26-328BU	BB 2.2 Meg.	26-528BU
2.7 Meg.			BS 2.7 Meg.	26-130BU	BA 2.7 Meg.	26-330BU	BB 2.7 Meg.	26-530BU
3.3 Meg.			BS 3.3 Meg.	26-132BU	BA 3.3 Meg.	26-332BU	BB 3.3 Meg.	26-532BU
3.9 Meg.			BS 3.9 Meg.	26-134BU	BA 3.9 Meg.	26-334BU	BB 3.9 Meg.	26-534BU
4.7 Meg.			BS 4.7 Meg.	26-136BU	BA 4.7 Meg.	26-336BU	BB 4.7 Meg.	26-536BU
5.6 Meg.			BS 5.6 Meg.	26-138BU	BA 5.6 Meg.	26-338BU	BB 5.6 Meg.	26-538BU
6.8 Meg.			BS 6.8 Meg.	26-140BU	BA 6.8 Meg.	26-340BU	BB 6.8 Meg.	26-540BU
8.2 Meg.			BS 8.2 Meg.	26-142BU	BA 8.2 Meg.	26-342BU	BB 8.2 Meg.	26-542BU
10.0 Meg.			BS 10.0 Meg.	26-144BU	BA 10.0 Meg.	26-344BU	BB 10.0 Meg.	26-544BU
12.0 Meg.			BS 12.0 Meg.	26-146BU	BA 12.0 Meg.	26-346BU	BB 12.0 Meg.	26-546BU
15.0 Meg.			BS 15.0 Meg.	26-148BU	BA 15.0 Meg.	26-348BU	BB 15.0 Meg.	26-548BU
18.0 Meg.			BS 18.0 Meg.	26-150BU	BA 18.0 Meg.	26-350BU	BB 18.0 Meg.	26-550BU
22.0 Meg.			BS 22.0 Meg.	26-152BU	BA 22.0 Meg.	26-352BU	BB 22.0 Meg.	26-552BU

GC ELECTRONICS

GEE-LAR KURZ-KASCH INSTRUMENT & POINTER KNOBS

POINTER KNOB BRASS INSERT
1-1 4" Length. 5 8" Height. MIL Spec. AN3219-1.
Cat. No. 25-088 ...Black Net $ .32

POINTER KNOB BRASS INSERT
1-1 2" Length. 7 8" Height.
Cat. No. 25-092 ...Black.... Net $ .42

BAR KNOB BRASS INSERT
1-1 4" Length. 21 32" Height.
Cat. No. 25-098....Black.... Net $ .83

BRASS INSERT NO ARROW
3 4" Diameter. 9 16" Height.
Cat. No. 25-102....Black.... Net $ .45

BRASS INSERT WITH ARROW
1-1 8" Diameter. 9 16" Height.
Cat. No. 25-104.....Net $ .42
1-1 2" Diameter. 3 4" Height.
Cat. No. 25-106....Black.... Net $ .47

POINTER KNOB BRASS INSERT
1-1 4" Length. 5 8" Height.
Cat. No. 25-108....Black.... Net $ .43

POINTER KNOB 1 8" BRASS INSERT
3 4" Diameter. 7 16" Height.
Cat. No. 25-116....Black.. Net $ .50

BAKELITE POINTER KNOB
11 16" Diameter. 13 32" Height. Fine serrations. Fits 1 4" shaft.

SET SCREW
Cat. No. 24-430....Walnut....Net $ .17
24-432....Black....Net .17
24-434....Red..... .18
24-436....Ivory..... .18

BAKELITE POINTER KNOB
11 16" Diameter. 13 32" Height. Fits 1 4" shaft.

No Insert–Set Screw
Cat. No. 24-440....Walnut....Net $ .15
24-444....Red..... .15
24-446....Ivory..... .15

Brass Insert
Cat. No. 24-448....Walnut....Net $ .23
24-452....Red..... .23
24-454....Ivory..... .28

POINTER BAR KNOB BRASS BUSHING
2-3 4" Length. Fits 1 4" shaft. Metal pointer can be removed.
Cat. No. 24-456....Black.. Net $ .55
24-458....Walnut.... .58

POINTER BAR KNOB BRASS BUSHING
1-5 8" Length. Fits 1 4" shaft. Metal pointer can be removed.

Set Screw
Cat. No. 24-460....Black.... Net $ .55

BAKELITE POINTER KNOB
1-3 4" Diameter. 7 8" Height. with 1-3 4" Diameter. 7 8" Height. with molded white arrow. brass bushing. Black only.
Cat. No. 25-000.....Net $ .47
Set Screw Type

BAKELITE SKIRT KNOBS
1-1 2" Skirt Diameter. 11 16" Height.
Cat. No. 25-004.....Net $ .27
Set Screw Type

POINTER KNOBS
1-3 8" Diameter. 11 16" Height. 1-1 16" Pointer.
Cat. No. 25-008.....Net $ .65

SKIRT KNOBS
1-1 8" Diameter. 13 16" Height. 1-1 2" Skirt.
Cat. No. 25-014.....Net $ .78
1-1 8" Diameter. 13 16" Height. 1-3 4" Skirt.
Cat. No. 25-016.....Net $ .78
1-3 8" Diameter. 7 8" Height. 1-1 2" Skirt.
Cat. No. 25-018.....Net $ .80
1-3 8" Diameter. 7 8" Height. 1-3 4" Skirt.
Cat. No. 25-020.....Net $ .80
1-5 8" Diameter. 29 32" Height. 2-1 16" Skirt.
Cat. No. 25-022.....Net $ .95

BAKELITE KNOB
1-1 8" Diameter. 5 8" Height.
Cat. No. 25-026.....Net $ .40
1-3 8" Diameter. 11 16" Height.
Cat. No. 25-028.....Net $ .45
2-3 8" Diameter. 7 8" Height.
Cat. No. 25-032.....Net $ .72

POINTER KNOBS–INDICATOR LINE
3 4" Diameter. 7 16" Height.
Cat. No. 25-034.....Net $ .48

1" Diameter. 19 32" Height.
Cat. No. 25-036.....Net $ .55
1-1 4" Diameter. 21 32" Height.
Cat. No. 25-038.....Net $ .55
1-1 2" Diameter. 3 4" Height.
Cat. No. 25-040.....Net $ .55
2" Diameter. 7 8" Height.
Cat. No. 25-042.....Net $1.03

No Indicator Line
1-1 2" Diameter. 3 4" Height.
Cat. No. 25-044.....Net $ .52

POINTER KNOBS
1" Diameter. 5 8" Height. 3 4" Pointer.
Cat No. 25-048.....Net $ .70
1-1 8" Diameter. 5 8" Height, 3 4" Pointer.
Cat. No. 25-050.....Net $ .70
1-3 8" Diameter. 11 16" Height. 1-1 16" Pointer.
Cat. No. 25-052.....Net $ .95
2-3 8" Diameter. 7 8" Height. 1-9 16" Pointer.
Cat. No. 25-056.....Net $1.28

NO POINTER
1-1 8" Diameter. 5 8" Height.
Cat. No. 25-060.....Net $ .73
1-3 8" Diameter. 11 16" Height.
Cat. No. 25-062.....Net $ .97
1-5 8" Diameter. 3 4" Height.
Cat. No. 25-064.....Net $ .80

SKIRT KNOBS
1-1 8" Diameter. 13 16" Height. 1-1 2" Skirt.
Cat. No. 25-068.....Net $1.42
1-3 8" Diameter. 27 32" Height. 1-3 4" Skirt.
Cat. No. 25-070.....Net $1.37
1-5 8" Diameter. 7 8" Height. 2-1 16" Skirt.
Cat. No. 25-072.....Net $1.53
2-3 8" Diameter. 15 16" Height. 3" Skirt
Cat. No. 25-074.....Net $2.33

POINTER KNOB BRASS INSERT
1-1 8" Diameter. 5 8" Height.
Cat. No 25-076.....Net $ .63

POINTER KNOB NO BRASS INSERT
1-1 8" Diameter. 11 16" Height. 1 Set Screw.
Cat. No. 25-078.....Net $ .18

BAR KNOB NO BRASS INSERT
1-1 2" Length. 5 8" Height. 1 Set Screw
Cat. No. 25-080.....Net $ .33

TENITE POINTER KNOB
1" Diameter. 1 2" Height. Fits 1 4" shafts.

Knurl
Cat. No. 24-464....Walnut....Net $ .12
24-466....Ivory..... .12

Set Screw
Cat. No. 24-468....Walnut....Net $ .20
24-470....Ivory..... .20

TENITE POINTER KNOB
23 32" Diameter. 3 8" Height. Fits 1 4" shafts.

Knurl
Cat. No. 24-472....Walnut....Net $ .08
24-474....Ivory..... .08

Set Screw
Cat. No. 24-476....Walnut....Net $ .17
24-478....Ivory..... .17

TENITE POINTER KNOB
15 16" Diameter. 7 16" Height. Fits 1 4" shafts.

Knurl
Cat. No. 24-482....Ivory..... .08

BAKELITE POINTER KNOB
1" Diameter. 1 2" Height. Fits 1 4" shafts.

No Insert–Set Screw
Cat. No. 24-484....Walnut....Net $ .17

BAKELITE POINTER KNOB
1-1 4" Diameter. 5 8" Height. Fits 1 4" shafts.

No Insert–Set Screw
Cat. No. 24-492....Walnut....Net $ .37
24-494....Black..... .37
24-496....Ivory..... .37

Brass Insert–Set Screw
Cat. No. 24-498....Walnut....Net $ .37
24-502....Ivory..... .37

BAKELITE POINTER KNOB
Line filled. 1-1 8" Diameter. 9 16" Height. Fits 1 4" shafts.

Set Screw
Cat. No. 24-504....Walnut....Net $ .25
24-506....Black..... .25
24-508....Red..... .25
24-510....Ivory..... .25

Net

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GEE-LAR KURZ-KASCH INSTRUMENT & POINTER KNOBS

BAKELITE POINTER KNOB
13 16" Length, 3 4" Height, Fits 1 4' shafts.
Set Screw
Cat. No. 24-512....Walnut....Net $ .18
24-514....Black.... .18

TENITE POINTER KNOB
1-1 4" Diameter, 9 16" Height, Fits 1 4" shafts.
Set Screw
Cat. No. 24-516....Walnut....Net $ .27
24-518....Black.... .27
24-522....White..... .27

BAKELITE POINTER KNOB
1-1 4" Length, 11 16" Height, Fits 1 4" shafts.
Set Screw
Cat. No. 24-524....Black.... Net $ .25
24-526....Red..... .25
24-528....Ivory..... .25

BAKELITE POINTER KNOB
1-1 4" Length, 9 16" Height, Fits 1 4" shafts.
Set Screw
Cat. No. 24-530....Black.... Net $ .22
24-532....Walnut.... .22
24-534....Red..... .22
24-536....Ivory..... .22

BAKELITE POINTER KNOB
1-1 4" Length, 5 8" Height. Fits 1 4" shafts.

Set Screw
Cat. No. 24-538....Black.... Net $ .20
24-540....Walnut.... .20
24-542....Red..... .20
24-544....Ivory..... .20

BAKELITE BRASS INSERT
2" Length, 5 8" Height Fits 1 4" shafts
No Insert—Set Screw
Cat. No. 24-546....Black.... Net $ .33
24-548....Walnut.... .33
24-550....Red..... .33
24-552....Ivory..... .33

Brass Insert—Set Screw
Cat. No 24-554....Black.... Net $ .42
24-556....Walnut.... .42
24-558....Red..... .42
24-560....Ivory .... .42

BAKELITE BRASS INSERT
1-1 4" Length. 5 8" Height. Fits 1 4" shafts.
Set Screw
Cat. No. 24-562 ...Black.... Net $ .27
24-566....Red..... .27

BAKELITE POINTER KNOB
1-1 4" Length, 5 8" Height. Fits 1 4" shafts.

No Insert—Set Screw
Cat. No. 24-570....Walnut....Net $ .18
24-572....Black.... .18
24-576....Ivory..... .18

PLASTIC POINTER KNOB
15 16" Diameter, 1 2" shank extension for 1 4" knurled shaft.
Knurl
Cat. No. 24-586....Walnut....Net $ .12
24-588....Ivory..... .12

TENITE KNOB
1" Diameter, 11 16" Height. Fits 1 4" shaft.
Knurl
Cat. No. 24-780....Walnut....Net $ .13
24-782....Ivory..... .13
Spring Type
Cat. No. 24-786....Ivory..... Net $ .13

BAKELITE KNOB
7 8" Diameter, 5 8" Height. Fits 1 4" shaft.
Set Screw
Cat. No. 24-788....Walnut....Net $ .30
24-790....Ivory..... .30

BAKELITE KNOB
7 8" Diameter, 5 8" Height. Fits 1 4" shaft.
Set Screw
Cat. No. 24-792....Walnut....Net $ .15

BAKELITE KNOB
1-1 4" Diameter, 5 8" Height. Fits 1 4" shaft.
Set Screw—No Insert
Cat. No. 24-796....Walnut....Net $ .28
24-798....Black.... .28
Brass Insert—Set Screw
Cat. No. 24-800....Walnut....Net $ .32
24-802....Black.... .32

BAKELITE KNOB
1" Diameter, 1 2" Height, Fits 1 4" shaft.
Set Screw—No Insert
Cat. No. 24-804....Black.... Net $ .25
24-806....Red..... .25

BAKELITE KNOB
5 8" Diameter, 13 32" Height. Fits 1 4" shaft.
Set Screw—No Insert
Cat. No. 24-812....Walnut....Net $ .15
24-814....Black.... .15
24-816....Red..... .17
24-818....Ivory..... .17
Set Screw—Brass Insert
Cat. No. 24-820....Walnut....Net $ .22
24-822....Black.... .22
24-824....Red..... .22
24-826....Ivory..... .22

GENERAL PURPOSE KNOBS

BAKELITE KNOB
2-1/2" Length, 5/8" Height, Fits 1/4" shafts.
No Insert—Set Screw
Cat. No. 24-590....Black... Net $ .20

BAKELITE KNOB
1-5/8" Length, 19/32" Height, Fits 1/4" shaft.
Set Screw
Cat. No. 24-598... Black....Net $ .25
24-600....Walnut... .25

BAKELITE BRASS INSERT
1-5/8" Length, 19/32" Height, Fits 1/4" shafts.
Set Screw
Cat. No. 24-602....Black....Net $ .37
24-604....Walnut....Net $ .37

TENITE KNOB
1-3/16" Shank, 1-1/8" Diameter, 7/16" Height, Fits 1/4" shafts.
Knurl
Cat. No. 24-606....Walnut... Net $ .18
24-608....Ivory..... .18

TENITE KNOB
15/16" Diameter, 7/16" Height, 1/2" Shank Extension, Fits 1/4" shafts.
Knurl
Cat. No. 24-610....Walnut....Net $ .13
24-612....Ivory..... .13

TENITE KNOB
3/4" Diameter, 7/16" Height, 1/2" Shank Extension, Fits 1/4" shafts.
Cat. No. 24-620....Ivory.....Net $ .12

PLASTIC KNOB
15/16" Diameter, 1/2" Shank Extension for 1/4" knurled shaft.
Knurl
Cat. No. 24-628....Ivory.....Net $ .12

PLASTIC KNOB MIDGET TYPE
3/4" Diameter, 3/8" Shank Extension, Fits 1/4" shafts.
Knurl
Cat. No. 24-634....Walnut...Net $ .12
24-636....Ivory .12

TENITE KNOB
1-1/8" Diameter, 1/2" Height, Fits 1/4" shafts.
Knurl
Cat. No. 24-642....Walnut... Net $ .12
24-644....Ivory..... .12
Spring Type
Cat. No. 24-646....Walnut... Net $ .18
24-648....Ivory..... .18
Set Screw
Cat. No. 24-650....Walnut... Net $ .18
24-652....Ivory..... .18

TENITE KNOB
1" Diameter, 7/16" Height, Fits 1/4" shafts.
Knurl
Cat. No. 24-654....Walnut... Net $ .12
24-656....Ivory..... .12
Spring Type
Cat. No. 24-658....Walnut... Net $ .15
Set Screw
Cat. No. 24-662....Walnut... Net $ .18
24-664....Ivory..... .18

TENITE KNOB
23/32" Diameter, 13/32" Height, Fits 1/4" shaft.
Knurl
Cat. No. 24-666....Walnut... Net $ .12
24-668....Ivory..... .12
Set Screw
Cat. No. 24-670....Walnut... Net $ .18
24-672....Ivory.....N .18

TENITE KNOB
15/16" Diameter, 7/16" Height, Fits 1/4" shaft.
Knurl
Cat. No. 24-674....Walnut... Net $ .12
24-676....Ivory..... .12
Spring Type
Cat. No. 24-678....Walnut... Net $ .12
24-680....Ivory..... .12

TENITE KNOB
3/4" Diameter, 1/2" Height, Fits 1/4" shaft.
Knurl
Cat. No. 24-682....Walnut... Net $ .12
24-684....Ivory..... 12
Set Screw
Cat. No. 24-686....Walnut... Net $ .15
24-688....Ivory.... .15

TENITE KNOB
15/16" Diameter, 7/16" Height, Fits 1/4" shaft.
Knurl
Cat. No. 24-692 ...Ivory.....Net $ .12
Spring Type
Cat. No. 24-694....Walnut... Net $ .12

TENITE KNOB
1-1/8" Diameter, 9/16" Height, Fits 1/4" shafts.
Knurl
Cat. No. 24-700....Walnut... Net $ .12
Spring Type
Cat. No. 24-704....Walnut... Net $ .12
24-706....Ivory..... .12
Set Screw
Cat. No. 24-708....Walnut... Net $ .18
24-710....Ivory..... .18

BAKELITE KNOB
11/16" Diameter, 13/32" Height, Fits 1/4" shafts.
Set Screw
Cat. No. 24-712....Walnut... Net $ .17
24-714....Black.... .17
24-716....Red..... .17
24-718....Ivory..... .17

Set Screw with Arrow
Cat. No. 24-720....Walnut... Net $ .23
24-722....Black.... .23
24-724....Red..... .23
24-726....Ivory..... .28

BAKELITE KNOB
1" Diameter, 1/2" Height, Fits 1/4" shafts.
Set Screw
Cat. No. 24-728....Black....Net $ .25
24-732....Ivory..... .25

BAKELITE KNOB
3/4" Diameter, 19/32" Height, Fits 1/4" shaft.
Set Screw
Cat. No. 24-734....Walnut... Net $ .22
24-736....Black.... .22
24-738....Ivory..... .22

TENITE KNOB
1-3/16" Diameter, 1/2" Height, Fits 1/4" shaft.
Knurl
Cat. No. 24-740....Walnut... Net $ .13
24-742....Ivory.....N .13

TENITE KNOB
1-1/16" Diameter, 1/2" Height, Fits 1/4" shaft.
Knurl
Cat. No. 24-746....Ivory.....Net $ .13
Set Screw with Arrow
Cat. No. 24-748....Walnut... Net $ .15
24-750....Ivory..... .15

BAKELITE KNOB
7/8" Diameter, 1/2" Height, Fits 1/4" shaft.
Set Screw
Cat. No. 24-752....Walnut... Net $ .23
24-754....Black.... .23
24-756....Ivory..... .25
Set Screw with Arrow
Cat. No. 24-758....Walnut... Net $ .30
24-760....Black.... .30
24-762....Ivory..... .30

BAKELITE KNOB
1" Diameter, 9/16" Height, Fits 1/4" shaft.
Set Screw
Cat. No. 24-764....Walnut... Net $ .28
24-766....Ivory..... .28

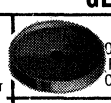
GENERAL ELECTRIC KNOB REPLACEMENTS

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. G 1002, Color Black & Silver.
Cat. No. 27-066 Channel Knob Net $ .92

FINE TUNING KNOB
Original Mfg.'s Part No. G 1003, Color Silver.
Cat. No. 27-068 Fine Tuning Net $ .92

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. GWT43x246, Color Green & Gold.
Cat. No. 27-070 Channel Knob Net $1.25

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. GWT43x269, Color Clear & Gold.
Cat. No. 27-072 Channel Knob Net $2.10



FINE TUNING KNOB
Original Mfg.'s Part No. WT43x40 (RDK222), Color Fawn.
Cat. No. 27-074 Fine Tuning Net $ .57

OFF-ON VOLUME KNOB
Original Mfg.'s Part No. Wt43x41 (RDK223), Color Fawn.
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Original Mfg.'s Part No. WT43x42 (RDK224), Color Fawn.
Cat. No. 27-078 Channel Knob Net $ .87

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Original Mfg.'s Part No. WT43x43 (RDK225), Color Fawn.
Cat. No. 27-080..... Net $ .57
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Original Mfg.'s Part No. Wt43x54 (RDK264), Color Brown & Fawn.
Cat. No. 27-084 Channel Knob Net $1.50

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Cat. No. 27-086 Channel Knob Net $1.92

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Original Mfg.'s Part No. WT43x152 (RDK455), Color Brown.
Cat. No. 27-090 Channel Knob Net $2.85

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. WT43x139 (RDK434), Color Brown & Gold.
Cat. No. 27-092 Channel Knob Net $2.10

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. WT43x141 (RDK438), Color Fawn & Gold.
Cat. No. 27-094 Channel Knob Net $2.28

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. WT43x159 (RDK469), Color Brown
Cat. No. 27-096 Channel Knob Net $1.77

ON-OFF VOLUME OR BRIGHTNESS
Original Mfg.'s Part No. WT43x158 (RDK467), Color Mahogany & Gold.
Cat. No. 27-462 Off-On Volume Net $1.27

ON-OFF VOLUME OR BRIGHTNESS
Original Mfg.'s Part No. WT43x163 (RDK473), Color Brown.
Cat. No. 27-464 On-Off Volume Net $1.00

ON-OFF VOLUME KNOB
Original Mfg.'s Part No. WT43x165 (RDK475), Color Mahogany H Gold.
Cat. No. 27-468 On-Off Volume Net $1.27

UHF CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. WT43x169 (RDK479), Color Mahogany & Gold.
Cat. No. 27-470 UHF Channel Net $1.77

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Net

GC ELECTRONICS

REPLACEMENT KNOBS

GENERAL ELECTRIC KNOB REPLACEMENTS

UHF CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. WT43X176 (RDK521), Color Mahogany & Gold.
Cat. No. 27-474 UHF Channel Net **$1.77**

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. WT43x179 (RDK524), Color Mahogany.
Cat. No. 27-476 Channel Knob Net **$1.50**

UHF CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. WT43x182 (RDK527), Color Gold.
Cat. No. 27-478 UHF Channel Net **$1.77**

CONTRAST TUNING KNOB
Original Mfg.'s Part No. WT43x184 (RDK530), Color Clear.
Cat.No.27-480 Contrast Tuning Net **$ .90**

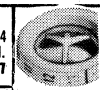
UHF CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. WT43x187 (RDK540), Color Navy Blue.
Cat. No. 27-482 UHF Channel Net **$1.17**

UHF CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. WT43x192 (RDK550), Color Bronze & Gold
Cat. No. 27-484 UHF Channel Net **$1.77**

UHF CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. WT43x194 (RDK552), Color Peacock Blue & Gold.
Cat. No. 27-486 UHF Channel Net **$1.77**

BRIGHTNESS KNOB
Original Mfg.'s Part No. WT43x209 (RDK569), Color Navy Blue.
Cat. No. 27-488 Net **$1.00**
Brightness Knob

UHF CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. WT43x207 (RDK567), Color Cream & Gold.
Cat. No. 27-490 UHF Channel Net **$1.77**



VHF CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. WT43x217 (RDK587), Color Cream & Gold.
Cat. No. 27-492 VHF Channel Net **$1.77**

UHF CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. WT43x219 (RDK599), Color Green & Gold.
Cat. No. 27-494 UHF Channel Net **$1.77**

BRIGHTNESS KNOB
Original Mfg.'s Part No. WT43x226 (RDK609), Color Clear.
Cat. No. 27-496 Net **$ .42**
Brightness Knob

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CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. 76770, Color Dark Maroon & Gold
Cat. No. 27-200 Channel Knob Net **$ .76**

FINE TUNING KNOB
Original Mfg.'s Part No. 77707, Color Brown with Polished Brass Shell.
Cat. No. 27-202 Fine Tuning Net **$1.57**

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. 77708, Color Red with Polished Brass Shell.
Cat. No. 27-204 Channel Knob Net **$1.50**

ON-OFF VOLUME KNOB
Original Mfg.'s Part No. 77710, Color Black with Polished Brass Shell.
Cat. No. 27-206 On-Off Volume Net **$1.57**

FINE TUNING KNOB
Original Mfg.'s Part No. 79464, Color Gold & Maroon.
Cat. No. 27-208 Fine Tuning Net **$1.26**

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. 79466, Colors Amber, Gray, Maroon & Gold.
Cat. No. 27-210 Channel Knob Net **$1.77**

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. 100627, Color Maroon & Polished Brass.
Cat. No. 27-212 Channel Knob Net **$2.70**

FINE TUNING KNOB
Original Mfg.'s Part No. 100629, Color Clear with Gold Edge.
Cat. No. 27-214 Fine Tuning Net **$1.27**

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. 100637, Color Brown.
Cat. No. 27-216 Channel Knob Net **$1.77**

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. 100944, Color Dark Wine.
Cat. No. 27-218 Channel Knob Net **$1.35**

FINE TUNING KNOB
Original Mfg.'s Part No. 101015, Color Gold & Clear
Cat. No. 27-220 Fine Tuning Net **$1.26**

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. 101150, Color Dark Wine.
Cat. No. 27-222 Channel Knob Net **$ .90**

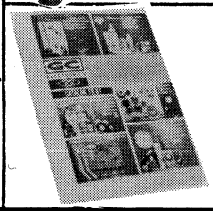
FINE TUNING KNOB
Original Mfg.'s Part No. 101154, Color Gold & Maroon.
Cat. No. 27-224 Fine Tuning Net **$1.00**

FINE TUNING KNOB
Original Mfg.'s Part No. 101276, Color Gold & Maroon.
Cat. No. 27-226 Fine Tuning Net **$1.26**

FINE TUNING KNOB
Original Mfg.'s Part No. 77717, Color Beige & Gold.
Cat. No. 27-702 Fine Tuning Net **$1.35**

BRIGHTNESS KNOB
Original Mfg.'s Part No. 77718, Color Beige & Gold.
Cat. No. 27-704 Brightness Net **$1.35**

ON-OFF VOLUME KNOB
Original Mfg.'s Part No. 101138, Color Brown.
Cat. No. 27-708 On-Off Volume Net **$ .67**



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BRIGHTNESS KNOB
Original Mfg.'s Part No. 101124, Color Clear & Gold.
Cat. No. 27-710 Brightness Net **$1.17**

FINE TUNING KNOB
Original Mfg.'s Part No. 100639, Color Brown.
Cat. No. 27-712 Fine Tuning Net **$1.26**

CONTRAST-BRIGHTNESS
Original Mfg.'s Part No. 79470, Color Mahogany.
Cat. No. 27-714 Net **$1.50**
Contrast-Bright

HORIZONTAL CONTROL KNOB
Original Mfg.'s Part No. 101010, Color Maroon.
Cat. No. 27-716 Horizontal Net **$ .82**

FINE TUNING KNOB
Original Mfg.'s Part No. 79864, Color Brown.
Cat. No. 27-718 Fine Tuning Net **$1.26**

CONTRAST KNOB
Original Mfg.'s Part No. 100622, Color Mahogany.
Cat. No. 27-720 Contrast Net **$ .82**

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. 104304, Color Mahogany.
Cat. No. 27-724 Channel Knob Net **$1.35**

UHF CHANNEL SELECTOR
Original Mfg.'s Part No. 104305, Color Mahogany.
Cat. No. 27-726 Channel Knob Net **$1.35**

UHF CHANNEL SELECTOR
Original Mfg.'s Part No. 104306, Color Gray.
Cat. No. 27-728 Channel Knob Net **$1.35**

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. 102503 Color Gray.
Cat. No. 27-730 Channel Knob Net **$3.00**

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. 102502, Color Mahogany
Cat. No. 27-732 Channel Knob Net **$3.00**

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. 104303, Color Gray.
Cat. No. 27-734 Channel Knob Net **$1.35**

CONTRAST KNOB
Original Mfg.'s Part No. 104386, Color Maroon.
Cat. No. 27-736 Contrast Knob Net **$ .82**

BRIGHTNESS KNOB
Original Mfg.'s Part No. 79080, Color Beige.
Cat. No. 27-738 Net **$1.35**

VOLUME KNOB
Original Mfg.'s Part No. 79445, Color Beige & Gold.
Cat. No. 27-742 Volume Knob Net **$1.35**

VOLUME KNOB
Original Mfg.'s Part No. 79471, Color Mahogany & Gold.
Cat. No. 27-744 Volume Knob Net **$1.35**

FINE TUNING KNOB
Original Mfg.'s Part No. 79077, Color Beige.
Cat. No. 27-746 Fine Tuning Net **$1.35**

BRIGHTNESS KNOB
Original Mfg.'s Part No. 77718M, Color Mahogany & Gold.
Cat. No. 27-748 Net **$1.35**

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. 79222BL, Color Black.
Cat. No. 27-752 Channel Knob Net **$1.17**

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. 79222, Color Mahogany.
Cat. No. 27-754 Channel Knob Net **$1.17**

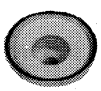
ON-OFF VOLUME KNOB
Original Mfg.'s Part No. 77710B, Color Beige & Gold.
Cat. No. 27-756 On-Off Volume Net **$1.35**

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. 77708B, Color Beige & Gold.
Cat. No. 27-758 Channel Knob Net **$1.35**

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. 77708M, Color Brown & Gold.
Cat. No. 27-760 Channel Knob Net **$1.35**

NEW! GC EXACT REPLACEMENT KNOBS

THE VERY LATEST TV KNOBS



EMERSON FINE TUNER
Original Mfg. No. 461707
No. 27-053.....Net **1.80**

EMERSON CHANNEL SELECTOR
Original Mfg. No. 461701
No. 27-057.....Net **1.80**

EMERSON CHANNEL SELECTOR
Original Mfg. No. 461573
No. 27-061.....Net **1.65**

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Original Mfg. No. 43X405
No. 27-088.....Net **2.37**

G.E. FINE TUNER
Original Mfg. No. 43X480
No. 27-098.....Net **1.77**

PHILCO FINE TUNER
Orig. Mfg. No. 424-8178
No. 27-196.....Net **2.37**

PHILCO CHANNEL SELECTOR
Orig. Mfg. No. 424-8444
No. 27-197.....Net **1.80**

PHILCO CHANNEL SELECTOR
Orig. Mfg. No. 424-8332
No. 27-198.....Net **2.10**

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Vertical - Horizontal
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RCA CHANNEL SELECTOR
Original Mfg. No. 112570
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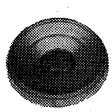
SILVERTONE FINE TUNER
Original Mfg. No. 52-1810
No. 27-1010....Net **1.80**

SILVERTONE CHANNEL SELECTOR
Original Mfg. No. 52-1750
No. 27-1012....Net **1.95**



SILVERTONE FINE TUNER
Original Mfg. No. 52-1049
No. 27-1014....Net **2.10**

SILVERTONE CHANNEL SELECTOR
Original Mfg. No. 52-1405
No. 27-1016....Net **1.80**

ZENITH ON-OFF VOLUME
Original Mfg. No. 46-1335
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ZENITH CHANNEL SELECTOR
Original Mfg. No. 553116
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POINT SIZE COMPARISON TABLE

Point size	Approximate size in inches
8	3/32"
10	7/64"
12	1/8"
16	5/32"
24	1/4"
36	5/16"
42	3/8"
48	1/2"
60	5/8"
72	3/4"
96	1"
120	1 1/16"
180	1 3/4"

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Cat. #FOB60-L/60 Pt. Lower Case Letters Only
Cat. #FOB48-C/48 Pt. Capital Letters Only
Cat. #FOB36-CL/36 Pt. Capitals And Lower Case
Cat. #FOB30-CL30 Pt. Capitals And Lower Case
Cat. #FOB24-CL/24 Pt. Capitals And Lower Case
Cat. #FOB12-CL/12 Pt. Capitals And Lower Case

Cat. #NOB48-C/48 Pt. Capital Letters Only
Cat. #NOB48-L/48 Pt. Lower Case Letters Only
Cat. #NOB42-CL/42 Pt. Capitals And Lower Case
Cat. #NOB36-CL/36 Pt. Capitals And Lower Case
Cat. #NOB24-CL/24 Pt. Capitals And Lower Case
Cat. #NOB16-CL/16 Pt. Capitals And Lower Case

Cat. #CON48-C/48 Pt. Capital Letters Only
Cat.#CON48-L/48 Pt. Lower Case Letters Only
Cat. #CON36-CL/36 Pt. Capitals And Lower Case
Cat. #CON24-CL/24 Pt. Capitals And Lower Case

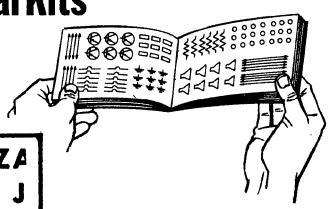
Cat. #FG72-C/72 Pt. Capital Letters Only
Cat. #FG72-L/72 Pt. Lower Case Letters Only
Cat. #FG60-C/60 Pt. Capital Letters Only
Cat. #FG60-L/60 Pt. Lower Case Letters Only
Cat. #FG48-C/48 Pt. Capital Letters Only
Cat. #FG48-L/48 Pt. Lower Case Letters Only
Cat. #FG36-CL/36 Pt. Capitals And Lower Case
Cat. #FG18-CL/18 Pt. Capitals And Lower Case

Cat. #FGC-C/72 Pt. Capital Letters Only
Cat. #FGC72-L/72 Pt. Lower Case Letters Only
Cat. #FGC60-C/60 Pt. Capital Letters Only
Cat. #FGC60-L/60 Pt. Lower Case Letters Only
Cat. #FGC48-C/48 Pt. Capital Letters Only
Cat. #FGC48-L/48 Pt. Lower Case Letters Only
Cat. #FGC42-CL/42 Pt. Capitals And Lower Case
Cat. #FGC36-CL/36 Pt. Capitals And Lower Case
Cat. #FGC24-CL/24 Pt. Capitals And Lower Case

Cat. #FDB72-C/72 Pt. Capital Letters Only
Cat. #FDB72-L/72 Pt. Lower Case Letters Only
Cat. #FDB60-C/60 Pt. Capital Letters Only
Cat. # FDB60-L/60 Pt. Lower Case Letters Only
Cat. #FDB48-C/48 Pt. Capital Letters Only
Cat. #FDB48-L/48 Pt. Lower Case Letters Only
Cat. #FDB36-CL/36 Pt. Capitals And Lower Case
Cat. #FDB30-CL/30 Pt. Capitals And Lower Case
Cat. #FDB24-CL/24 Pt. Capitals And Lower Case

Cat. #FM72-C/72 Pt. Capital Letters Only
Cat. #FM72-L/72 Pt. Lower Case Letters Only
Cat. #FM60-C/60 Pt. Capital Letters Only
Cat. #FM60-L/60 Pt. Lower Case Letters Only
Cat. #FM48-C/48 Pt. Capital Letters Only
Cat. #FM48-L/48 Pt. Lower Case Letters Only
Cat. #FM48-CL/48 Pt. Capitals And Lower Case

DRI-TRANSFER® LETTERING ELECTRONIC MarKits®



ON JUMP IONIZA
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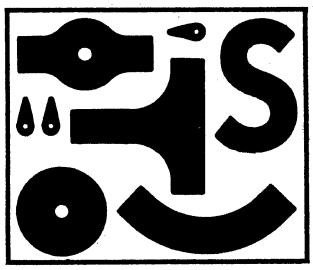

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An electronics glossary containing 27 3" x 6" pages with over a thousand words from "AC" to "zooms" in alphabetical order for easy application to control panels, prototypes, drawings, terminal boards, electrical and mechanical components. In loose leaf form with plastic spiral ring.

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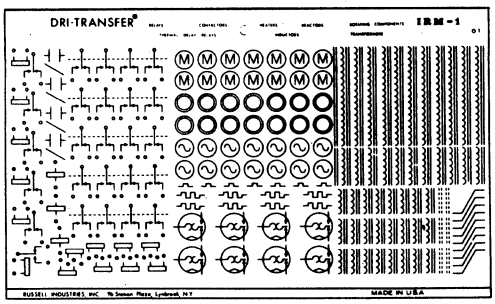

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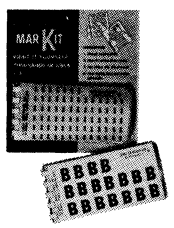


ALPHABET BLACK	ALPHABET WHITE	NUMERALS BLACK	NUMERALS WHITE	SIZE
AM-1	AM-1W	NM-1	NM-1W	1/8"
AM-2	AM-2W	NM-2	NM-2W	1/4"
AM-3	AM-3W	NM-3	NM-3W	3/8"
AM-4	AM-4W	NM-4	NM-4W	1/2"
AM-5	AM-5W	NM-5	NM-5W	21/32"
AM-6	AM-6W	NM-6	NM-6W	29/32"

Russell Industries, Inc.

KURZ-KASCH INSTRUMENT and CONTROL KNOBS

*"WARRANTED FOR LIFE"**

***KURZ-KASCH "Exclusive Warranty"** — Exclusive in the industry, Kurz-Kasch, Inc. warrants all Kurz-Kasch knobs for the life of the product on which they are used.

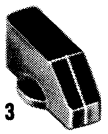
KURZ-KASCH, Inc. manufactures thermosetting plastic knobs for all instrument and control requirements. Kurz-Kasch offers the most versatile and complete line available.

Material: Black type CFG phenolic to meet MIL-M-14E specifications is standard.

Set Screws: Slotted head set screws supplied standard.

1

2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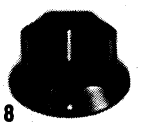
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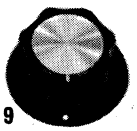
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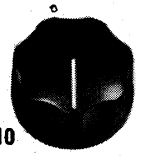
10

POINTERS and BAR KNOBS

	PART NO.	SIZE (inches) OD	HEIGHT	NET per 1000 1-99	100-499	500-999
1	S-292-1L	1-1/4	5/8	$106.50	$ 79.90	$ 74.55
	S-292-3L	1-1/4	5/8	159.20	119.40	111.45
	S-293-1L	2-1/4	5/8	179.65	134.70	125.75
	S-293-3L	2-1/4	5/8	269.75	202.35	188.85
	S-246-1L	1-1/2	7/8	205.05	153.85	143.55
	S-246-3L	1-1/2	7/8	283.35	212.55	198.33
1	AN-3219-1	1-1/4	5/8	$225.40	$169.05	$157.80
	AN-3220-1	1-1/2	7/8	322.00	241.50	225.40
	AN-3220-3	1-1/2	7/8	230.20	172.65	161.15
2	S-658-1L	1-1/8	11/16	$123.10	$ 91.95	$ 85.80
3	S-626-1L	1-1/2	5/8	$191.35	$143.55	$133.95
4	S-400-1L	15/16	3/4	$394.50	$295.85	$276.15
5	S-657-1L	1-1/8	5/8	$227.95	$171.00	$159.65
	S-657-3L	1-1/8	5/8	285.35	214.00	199.75
6	S-1657-1L	1-1/8	5/8	$426.40	$319.80	$277.15
	S-1657-3L	1-1/8	5/8	498.20	373.65	323.85

PUSH BUTTONS

7	S-328-30	1/2	15/32	$85.90	$64.45	$60.15
	S-330-30	7/16	15/32	91.45	68.60	63.95
	S-343-30	7/16	5/8	91.45	68.60	63.95

INSTRUMENT KNOBS Series 600

Supplied standard with white indicator line, may be ordered without indicator line.

8	S-645-1L	3/4	7/16	$166.65	$125.00	$116.65
	S-645-3L	3/4	7/16	231.20	173.40	161.80
	S-645-5L	3/4	7/16	231.20	173.40	161.80
	S-645-21L	3/4	7/16	166.65	125.00	116.65
	S-647-1L	1	19/32	168.30	126.25	117.85
	S-647-3L	1	19/32	228.45	171.35	159.90
	S-648-1L	1-1/4	21/32	175.10	131.35	122.55
	S-648-3L	1-1/4	21/32	235.21	176.45	164.67
	S-653-1L	1-1/2	3/4	191.05	143.30	133.75
	S-653-3L	1-1/2	3/4	262.90	197.15	184.00
	S-649-1L	2	7/8	456.80	342.65	296.95
	S-649-3L	2	7/8	546.00	409.55	354.90

INSTRUMENT KNOBS Series 1600 (with decorative aluminum inlay)

Supplied standard with white indicator line, may be ordered without indicator line.

9	S-1645-1L	3/4	7/16	$331.15	$248.35	$231.80
	S-1645-3L	3/4	7/16	401.55	300.35	280.30
	S-1645-5L	3/4	7/16	402.40	301.20	281.15
	S-1645-21L	3/4	7/16	331.15	248.35	231.80
	S-1647-1L	1	19/32	332.80	249.60	232.95
	S-1647-3L	1	19/32	397.70	298.30	278.40
	S-1648-1L	1-1/4	21/32	356.30	267.25	249.40
	S-1648-3L	1-1/4	21/32	421.65	316.25	295.15
	S-1653-1L	1-1/2	3/4	374.10	280.55	261.90
	S-1653-3L	1-1/2	3/4	451.25	338.45	293.30
	S-1649-1L	2	7/8	660.25	495.15	429.15
	S-1649-3L	2	7/8	755.35	566.50	491.00

INSTRUMENT KNOBS Series 700

Supplied standard with white indicator line, may be ordered without indicator line.

10	S-745-1L	5/8	7/16	$230.60	$173.00	$161.45
	S-745-3L	5/8	7/16	299.25	224.45	209.45
	S-745-5L	5/8	7/16	299.25	224.45	209.45
	S-745-21L	5/8	7/16	230.60	173.00	161.45
	S-747-1L	13/16	19/32	239.60	179.70	167.70
	S-747-3L	13/16	19/32	301.80	226.35	211.25
	S-748-1L	1	21/32	251.95	188.95	176.35
	S-748-3L	1	21/32	314.30	235.75	220.00
	S-753-1L	1-1/4	3/4	272.55	204.40	190.75
	S-753-3L	1-1/4	3/4	346.75	260.05	242.60
	S-749-1L	1-5/8	7/8	546.60	410.00	355.30
	S-749-3L	1-5/8	7/8	638.45	478.85	415.00

Net

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KURZ-KASCH INSTRUMENT and CONTROL KNOBS

*"WARRANTED FOR LIFE"**

INSTRUMENT KNOBS Series 1700 (with decorative aluminum inlay)

Supplied standard with white indicator line, may be ordered without indicator line.

PART NO.	SIZE (inches) OD	HEIGHT	NET per 1000 1-99	100-499	500-999	
S-1745-1L	5/8	7/16	$395.10	$296.35	$276.55	
S-1745-3L	5/8	7/16	468.50	351.40	304.55	
S-1745-5L	5/8	7/16	468.50	351.40	304.55	
S-1745-21L	5/8	7/16	395.10	296.35	276.55	
S-1747-1L	13/16	19/32	404.05	303.05	282.85	
S-1747-3L	13/16	19/32	471.05	353.20	306.20	11
S-1748-1L	1	21/32	433.10	324.85	281.55	
S-1748-3L	1	21/32	500.75	375.55	325.45	
S-1753-1L	1-1/4	3/4	455.55	341.70	296.15	
S-1753-3L	1-1/4	3/4	535.10	401.30	347.80	
S-1749-1L	1-5/8	7/8	749.95	562.50	487.45	
S-1749-3L	1-5/8	7/8	847.80	635.85	551.05	

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WING KNOB SERIES

S-1750-3L-BB, S-1751-3L-BB with decorative aluminum inlay

S-750-3L-BB	1-1/4	3/4	$604.70	$453.55	$393.10	12
S-751-3L-BB	1-1/2	3/4	626.40	469.85	407.20	
S-1750-3L-BB	1-1/4	3/4	$826.80	$620.10	$537.40	13
S-1751-3L-BB	1-1/2	3/4	848.00	636.00	551.20	

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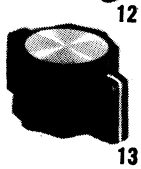
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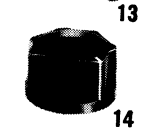
CONCENTRIC SERIES

S-656-1L*	1	39/64	$312.70	$234.55	$221.95	14
S-656-3L*	1	39/64	392.60	294.45	274.85	
S-750-3L-BB/**CONCT.	1-1/4	3/4	$718.10	$538.60	$466.75	15
S-751-3L-BB/*CONCT.	1-1/2	3/4	739.90	554.95	480.95	

*Use with S-645, 1645 as top knob **Use with S-745, 1745 as top knob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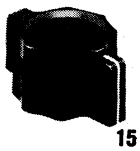
HEAVY DUTY INSTRUMENT KNOBS Series 300

Skirted knobs supplied standard with white indicator line, may be ordered without indicator line.

S-319-3	1	5/8	$226.30	$169.75	$158.40	
S-308-3	1-1/8	5/8	230.85	173.15	161.60	
S-385-3	1-3/8	11/16	360.60	270.45	252.85	16
S-309-3	1-5/8	3/4	306.85	230.20	214.80	
S-310-3	2-3/8	7/8	468.95	351.70	304.80	
S-380-3L	1-1/8	13/16	$618.80	$464.10	$402.20	
S-381-70L	1-3/8	27/32	757.40	568.05	492.30	17
S-311-3L	1-5/8	7/8	690.00	517.50	448.50	
S-312-70L	2-3/8	15/16	1209.20	906.90	786.00	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HEAVY DUTY INSTRUMENT KNOBS Series 1300 (with decorative aluminum inlay)

S-1319-3	1	5/8	$412.75	$309.60	$288.95	
S-1308-3	1-1/8	5/8	419.25	314.45	293.45	
S-1385-3	1-3/8	11/16	613.75	460.30	398.95	18
S-1309-3	1-5/8	3/4	526.40	394.80	342.15	
S-1310-3	2-3/8	7/8	722.30	541.70	469.50	

17

ALUMINUM KNOBS Series 1000

Supplied standard with white indicator line, may be ordered without indicator line.

S-1000-21L	7/16	5/8	$ 875.00	$ 656.25	$ 568.75	
S-1001-21L	3/4	9/16	1000.00	750.00	650.00	
S-1001-1L	3/4	9/16	1000.00	750.00	650.00	19
S-1002-1L	1	11/16	1125.00	843.75	731.25	
S-1003-1L	1-1/4	3/4	1500.00	1125.00	975.00	
S-1004-1L	1-1/2	13/16	1675.00	1256.75	1088.75	

18

GEAR and CONTROL BALLS

Supplied standard with molded threads.

PART NO.	SIZE (inches) OD	HEIGHT	THREAD	NET per 1000 1-99	100-499	500-999	
S-446-3	1-3/4	1-3/4	3/8-16	$363.70	$272.80	$254.60	20
S-446-5	1-3/4	1-3/4	1/2-13	363.70	272.80	254.60	
S-442-4	2	1-5/16	3/8-24	$268.75	$201.90	$188.15	21
S-801-15C	1	1	5/16-18	$154.70	$116.05	$108.30	
S-801-15D	1	1	#10-32	135.25	101.45	94.65	
S-801-15E	1	1	#10-24	135.25	101.45	94.65	
S-801-15F	1	1	3/8-24	154.70	116.05	108.30	
S-801-15G	1	1	#8-32	135.25	101.45	94.65	22
S-801-15Q	1	1	1/4-28	154.70	116.05	108.30	
S-801-15T	1	1	1/4-20	154.70	116.05	108.30	
S-801-15Z	1	1	5/16-24	154.70	116.05	108.30	
S-801-15EE	1	1	3/8-16	154.70	116.05	108.30	

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SUFFIX	FEATURE
—1	Molded hole for 1/4" shaft
—3	Brass insert for 1/4" shaft
—5	Brass insert for 1/8" shaft
—21	Molded hole for 1/8" shaft
—30	Flatted to .052 x 3/16"
—70	Heavy duty brass insert for 1/4" shaft
—BB	2 slotted head set screws available at extra cost 1-99 $80.00 per 1000, 100-499 $60.00 per 1000, 500-999 $56.00 per 1000

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Dial Labels
42-132 ..... White
42-133 ..... Black

Alphabet and Numerals, Large
42-134 ..... White
42-135 ..... Black

Alphabet and Numerals, Medium
42-136 ..... White
42-137 ..... Black

Alphabet and Numerals, Small
42-138 ..... White
42-139 ..... Black

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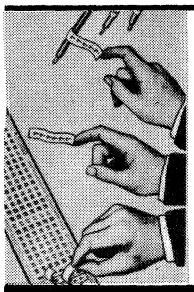

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Letters or numbers for identification of wiring, resistors, condensers, etc. *Permanent, legible, foolproof.* Made of durable, vinyl cloth with plastic coating. Pre-cut to exact size. Meets MIL-E-5272-A.

Cat. No.	Description	Net
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2211	Numbers 34 to 66	.38
2212	Numbers 67 to 99	.38
2213	Letters A to Z	.38

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Cat. No.	Description	Net
2201	1 package — White	1.50
2201-D	Display box of 10 pkgs.	
2202	1 package — Black	1.50
2202-D	Display box of 10 pkgs.	
2203	1 package — Gold	1.50
2203-D	Display box of 10 pkgs.	

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Same quality as used on original equipment, in variety of sizes and types and conveniently packaged.

"SPECIAL THIN"
Diameter .025", Breaking Strength 15 lbs.
Cat. No. 656-02 25 feet Net $ .75
Cat. No. 656-10 100 feet Net 2.37
Cat. No. 656-50 500 feet Net 8.58

MEDIUM
Diameter .040", Breaking Strength 35 lbs.
Cat. No. 652-02 25 feet Net $ .75
Cat. No. 652-10 100 feet Net 2.37
Cat. No. 652-50 500 feet Net 10.57

PHOSPHOR BRONZE CABLE
42-strand, .032" diameter, 40 lb. breaking strength. Numerous strands give cable extra-ordinary flexibility.
Cat. No. 662-02 25 feet Net $ 1.23
Cat. No. 662-10 100 feet Net 3.52
Cat. No. 662-50 500 feet Net 16.20

BRAIDED BRONZE CABLE
16-strand, .039" O.D., 50 lb. breaking strength. Good flexibility, excellent abrasion resistance.
Cat. No. 660-02 25 feet Net $ .97
Cat. No. 660-02 100 feet Net 2.70
Cat. No. 660-50 500 feet Net 12.00

STANDARD
Diameter .028", Breaking Strength 20 lbs.
Cat. No. 654-02 100 feet Net $ .75
Cat. No. 654-10 100 feet Net 2.37
Cat. No. 654-50 50 feet Net 8.58

HEAVY
(Used on many Philco and Majestic sets.) Diameter .060".
Cat. No. 650-02 25 feet Net $ 1.02
Cat. No. 650-10 100 feet Net 2.97

THIN BRONZE CABLE
An extra-thin cable with diameter of only .022". Surprisingly strong and flexible. Non-raveling.
Cat. No. 664-02 25 feet Net $ .97
Cat. No. 664-10 100 feet Net 2.70
Cat. No. 664-50 500 feet Net 12.00

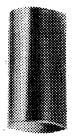
FLAT NYLON LACING CORD
Waxed and fungus resistant flat cord for tying harnesses, wrapping coils, etc. Breaking strength 50 lbs., approx. width, .085", approx. thickness, .0125".
Cat. No. 666-15...Net $2.97
150 ft. spool
Cat. No. 666-75...Net 9.00
750 ft. spool

STANDARD LACING CORD
Meets specifications JAN T-713–type N–Class 3. In natural gray color Approximately .040". Min. tensile strength 32 lbs., low stretch.
Cat. No. 665-10.....Net $1.05
100 ft spool
Cat. No. 665-45.....Net 2.00
450 ft. spool
Cat. No. 665-80.....Net 6.60
1800 ft. spool

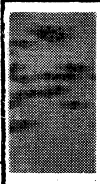
DIAL CORD CLIPS
This assortment of 24 Walsco Dial Cord Clips contains the proper sizes for all standard thicknesses of cords.
Cat. No. 7745-F..Net $ .39

WALSCO SAFETY GLASS REMOVER
Chrome plated, steel handle is combined with two powerful, long lasting suction cups to insure trouble free removal of safety glass on TV sets
Cat. No. 2575 ...Net $ .90

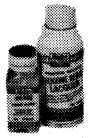
PRINTED CIRCUIT REPAIR SOLDER – Especially compounded 11' solder wire with flux core to give a perfect solder joint and flow quickly and easily at lower temperatures required for printed circuit work.
Cat. No. 649..... Net $ .52



PRINTED CIRCUIT REPAIR FOIL – Copper foil with thermo-plastic backing 24 sq. in. For use in repair of damaged or burned out sections of a printed circuit. Bonds permanently to panel with heat of soldering iron.
Cat. No. 647..... Net $ .48



PRINTED CIRCUIT SOLDER WASHERS – Supplies the exact amount solder and flux when replacing components on printed circuit board. Center hole permits passage of most standard wire leads. Box of 60 washers
Cat. No. 648..... Net $ .60

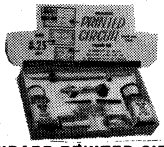


PRINTED CIRCUIT INSULATING VARNISH – A special formula insulating varnish designed for the protection of printed circuits after they have been worked upon in repair or replacement of parts.
Cat. No. 120-02W..Net $1.30
2 oz. bottle with brush
Cat. No. 120-06...Net $2.42
6 oz. spray can

INSULATING VARNISH SOLVENT
Excellent for dissolving and removing insulating varnish from printed circuits, etc. Also thinner for the Walsco Printed Circuit insulating Varnish.
Cat. No. 205-02 2 oz. Net $ .45 each

WALSCO SILVER AND COPPER PRINT – The same "Pure Silver" or Copper compound as used in Printed Circuit design.
Cat. No. 36..... Net $3.30
1-2 Troy oz. Silver Print
Cat. No. 36-1.....Net $5.75
1 Troy oz. Silver Print
Cat. No. 37-02....Net $1.95
2 oz. bottle Copper Print

PRINTED CIRCUIT SOLDER-AID
Has probe on one end for tightening contacts, etc., and a fork on opposite end for handling wires or wire leads while soldering and unsoldering. 8" long plastic handle.
Cat. No. 2530.....Net $1.00



STANDARD PRINTED CIRCUIT REPAIR KIT
Contains one box each of foil, solder washers, solder wire, 1 solder-ease tool, fiber glass brush, printed circuit insulating varnish and solvent, tweezers and complete instructions.
Cat. No. 13-K.....Net $5.33

MASTER PRINTED CIRCUIT REPAIR KIT
Contains all items above plus 1 Ungar soldering iron with 1 special tip and a 6 oz. spray can of printed circuit insulating varnish. Also includes practice wiring board.
Cat. No. 12-K.....Net $10.58

Net
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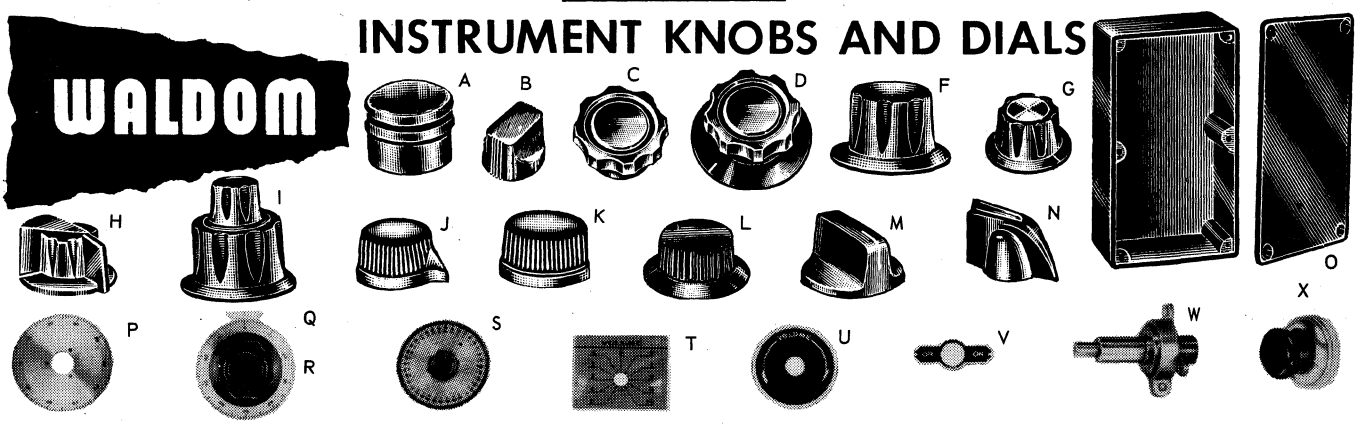
INSTRUMENT KNOBS AND DIALS

WALDOM



MODERN KNOBS—FIG. A
Styrene 1/4" brass insert, slotted set screw

Part No.	Diameter	Height		1-99 Ea.	100-Up
6126	5/8"	7/16		.25	.20
6126 Red	5/8"	7/16"		.29	.23
6129	5/8"	19/32"		.40	.32
BAR KNOB – FIG. B					
BK-1B	11/16"	1/2"		.31	.25
FULL FLUTED KNOBS – FIG. C					
Black bakelite, 1/4" brass insert, slotted set screw					
WA-4100	1-1/8"	5/8"		.35	.28
WA-4101	1-3/8"	11/16"		.36	.29
WA-4102	1-5/8"	3/4"		.41	.33
WA-4103	2-3/8"	7/8"		.59	.47
W/Skirt – FIG. D					
WA-4104	1-1/2"	51/64"		.56	.45
WA-4107	1-3/4"	55/64"		.63	.50
WA-4108	2-1/16"	7/8"		.73	.58
WA-4109	3"	1"		.95	.75
W/Pointer (plastecele)					
6566-P	1-1/8"	5/8"		.63	.50
6571-P	1-3/8"	11/16"		.68	.54
6570-P	1-5/8"	3/4"		.73	.58
6559-P	2-3/8"	7/8"		.98	.78

LATEST SERIES INSTRUMENT KNOBS
Black bakelite, slotted set screw, white marker line on skirt

			Fig.		
WA-101	3/4"	1/2"	F	.22	.17
WA-101B*	3/4"	1/2"	F	.29	.23
WA-101C+	3/4"	1/2"	F	.23	.18
WA-102	1-1/8"	5/8"	F	.23	.18
WA-102B*	1-1/8"	5/8"	F	.32	.25
WA-103	1-1/4"	3/4"	F	.25	.20
WA-103B*	1-1/4"	3/4"	F	.33	.26
WA-104	1-1/2"	7/8"	F	.27	.21
WA-104B*	1-1/2"	7/8"	F	.36	.29
WA-105	2"	15/16"	F	.47	.37
WA-105B*	2"	15/16"	F	.58	.46
WA-106S	1-1/4"	3/4"	G	.40	.32
WA-106G	1-1/4"	3/4"	G	.40	.32
WA-109	1-1/4"	5/8"	H	.31	.25
WA-109B*	1-1/4"	5/8"	H	.39	.31

*1/4 Brass Insert, +1/8" molded hole, all other 1/4" molded hole. S-Silver Inlay. G-Gold Inlay.

DUO CONCENTRIC KNOB
Small knob WA-101C - large knob for 1/4" shaft

WA-107	1-1/4"	1-3/16"	C	.49	.39

POINTER AND LEVER CONTROL KNOBS—FIG. N
Black bakelite, white filled pointer
For 1/4" shaft, set screw

Part No.	Diameter	Height	1-99 Ea.	100-Up
WA-2300	1-1/4"	5/8"	.13	.10
WA-2300A*	1-1/4"	5/8"	.20	.16
WA-2350	2"	5/8"	.26	.27
WA-2350A*	2"	5/8"	.33	.26

*Brass insert

STANDARD KNOBS – FIG. J
Small Pointer knobs - 11/16" dia., 13/32" high

WA-1400	1/4" molded hole	.11	.09
WA-1400W	1/4" brass insert	.28	.22
WA-1400R	1/8" molded hole	.17	.13
Pointer knob - 1" diameter 1/2" high - Fig. J			
WA-1470	1/4" molded hole	.22	.17
WA-1470C	1/4" brass insert	.30	.24
Small Round knob - 11/16" diameter, 13/32" high - Fig. K			
WA-1450	1/4" molded hole	.11	.09
WA-1450W	1/4" brass insert	.28	.22
WA-1450G	1/8" molded hole	.17	.13
Round knob - 1" diameter, 1/2" high - Fig. K			
WA-1475	1/4" molded hole	.17	.13
WA-1475C	1/4" brass insert	.25	.20

SKIRTED KNOBS - Fig. L
1-1/2" O.D. x 3/4" high.

WA-1600	1/4" molded hole	.22	.17
WA-1600A	1/4" brass insert	.26	.21
7/8" diameter x 9/16" high			
WA-1610	1/4" molded hole	.20	.16
WA-1610A	1/4" brass insert	.25	.21

MATCHING BAR AND POINTER KNOBS
Black bakelite, set screw, white indicator line.
For 1/4" shaft. 1-1/8" diameter, 9/16" high.

WA-1500	Bar knob - Fig. M	.19	.15
WA-1550	Pointer knob	.15	.12

ALUMINUM DIAL PLATES – FIG. T
2-3/16" H. x 2-5/8W.

Part No.	Description	Calibration	1-49 Ea.	100-Up
410	Title	0-10	.34	.27
426	Volume	0-10	.34	.27

ROUND ALUMINUM CONTROL PLATES – FIG. U
1-3/4" Diameter

25	Volume	.28	.22
26	Off-Tone Control	.28	.22
569	0-100 thru 180°	.28	.22
905	0-100 thru 270°	.28	.22

HORIZONTAL SWITCH PLATE – FIG. V
"Off-On" Switch Plate. Etched aluminum with black background and polished aluminum letters and border. 11/16" x 1-11/16".

278		.17	.14	.14

AUXILIARY PLANETARY DRIVES – FIG. W
Fits 1/4" shafts: Operates at 5:1 ratio. Maximum smoothness with adequate torque. 2 Speed drive. Slow speed 5:1, High Speed 1:1

Part No.	1-24 Ea.	25-99 Ea.	100-Over-Ea.
599	8.00	7.50	6.30
Single speed. Threaded sleeve w/shoulder for mounting dial or pointer			
27067	7.60	7.15	5.85

PAIR OF KNOBS – FIG. X

Duo-Concentric knobs for 599	1-99 Ea.	100-Over
6665	1.00	.72

INSTRUMENT CASES – PANELS – COVERS – FIG. O
Wall thickness 1/8" w/highly polished finish. Will withstand rugged usage.

Type	Description	1-49 Ea.	100-Up
BC-138	6"L x 3½"W x 1-7/8"D	.92	.65
BC-138B1	W/Brass inserts in 4 corners	1.03	.72
BP-137	Flat panel for above	.56	.39
BP-137A	Molded cover for above	.61	.43
BC-140	6-½"L x 4-31/32"W x 2-5/32"D	1.22	.85
BC-140B1	W/Brass inserts in 4 corners	1.35	.94
BP-138	Flat panel for above	.75	.53
BP-139A	Molded Cover for above	.82	.57

HIGH QUALITY DIALS – FIG. P*
Aluminum w/hand spun finish. Black numerals.

Type	Calibration	Diameter	1-49,Ea.	100-Up
DO-15	0-100/180°	1-1/8	.45	.36
DO-16	0-100/270°	1-1/8	.45	.36
DO-17	0-100/325°	1-1/8	.45	.36
DO-18	0-100/360°	1-1/8	.45	.36
DO-1	0-100/180°	1-3/4	.60	.48
DO-2	0-100/270°	1-3/4	.60	.48
DO-19	0-100/325°	1-3/4	.60	.48
DO-20	0-100/360°	1-3/4	.60	.48
DO-3	0-100/180°	2-3/4	.75	.60
DO-4	0-100/270°	2-3/4	.75	.60
DO-21	0-100/325°	2-3/4	.75	.60
DO-5	0-100/360°	2-3/4	.75	.60
DO-6	0-100/180°	4	1.20	.96
DO-7	0-100/270°	4	1.20	.96
DO-22	0-100/325°	4	1.20	.96
DO-8	0-100/360°	4	1.20	.96
DO-8A	0-360/360°	4	1.20	.96

AZIMUTH DIALS – FIG. S
Precision Test Dial. Outer numbers 0-360 in counter-clockwise direction; inner numerals 0-360 in clockwise direction. Etched in heavy aluminum. Complete w/attached knob, indicator.

27010	6" dia. 3/8" shaft d.	4.50	3.60
27011	6" dia. 1/4" shaft d.	4.50	3.60
KD-12	4" dia. 1/4" shaft	3.29	2.53

*For reverse calibration add suffix R to type or part number.

DIRECT DRIVE DIAL ASSEMBLIES – FIG. R*
Above dials with knob attached and supplied complete w/indicator. Dials under 2-3/4" supplied with knob only, others w/knob and skirt.

Part No.	Calibration	Diameter	1-49 Ea.	100-Up
27084	0-100/180°	1-1/8	1.30	1.04
27085	0-100/270°	1-1/8	1.30	1.04
27086	0-100/325°	1-1/8	1.30	1.04
27087	0-100/360°	1-1/8	1.30	1.04
27068	0-100/180°	1-3/4	1.40	1.12
27069	0-100/270°	1-3/4	1.40	1.12
27080	0-100/325°	1-3/4	1.40	1.12
27081	0-100/360°	1-3/4	1.40	1.12
294	0-100/180°	2-3/4	2.30	1.84
295	0-100/270°	2-3/4	2.30	1.84
27082	0-100/325°	2-3/4	2.30	1.84
303	0-100/360°	2-3/4	2.30	1.84
292	0-100/180°	4	3.00	2.40
293	0-100/270°	4	3.00	2.40
27083	0-100/325°	4	3.00	2.40
302	0-100/360°	4	3.00	2.40
302A	0-360/360°	4	3.00	2.40

INDICATORS – FIG. Q*
Dials below 2-3/4" D take SL-1, 2-3/4 & 4"
Dials take calibrated indicator matched w/its number

SL-1	Single line indicator	.10	.08
VI-3	For DO-3	.30	.24
VI-4	For DO-4	.30	.24
VI-21	For DO-21	.30	.24
VI-5	For DO-5	.30	.24
VI-6	For DO-6	.30	.24
VI-7	For DO-7	.30	.24
VI-22	For DO-22	.30	.24
VI-8	For DO-8	.30	.24
VI-8A	For DO-8A	.30	.24

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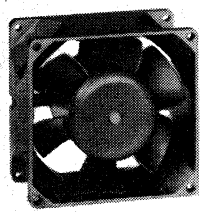
Net

PAMOTOR

Miniature Axial Fans for High-Reliability Applications



ALL METAL CONSTRUCTION: Precision die cast housing, hub and impellers • Corrosion resistant • Warp free • Natural heat sink

POWERFUL MOTOR: Shaded pole and induction types • Hand fitted sleeve bearings • Extremely low internal heat rise • Impedance protected • Efficient inside-out design

LONG LIFE: 20,000 + operational hours, continuous duty at 45° C (115° F) without maintenance

RELIABILITY: Precision engineered and tested • Large oil lubrication reservoir • Dynamically balanced rotor

EFFICIENCY: Maximum air delivery at higher back pressures • 60 cycle performance at 50 cycles

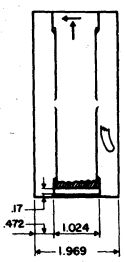
SPECIFICATIONS: Tested to applicable portions of MIL specifications • Tested to U. L. acceptance

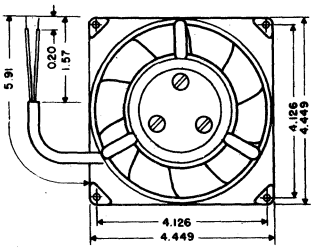
INTERCHANGEABILITY: Universal 4⅛" mounting on all 4½" models

VERSATILITY: 50, 60, and 400 cycle operation • 110 or 220 volt • 3½", 4½", and 5½" size • 2" maximum depth

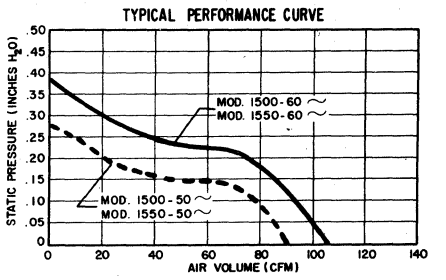
WARRANTY: 1 full year against defects in workmanship and materials

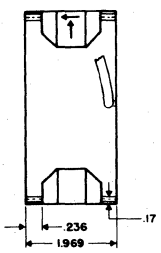
SHADED-POLE TYPES

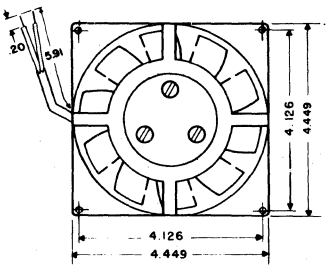




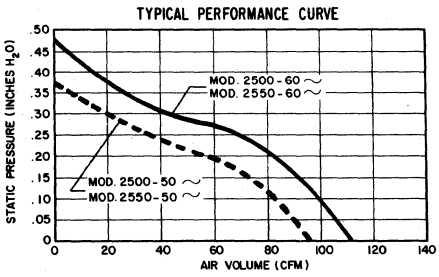
4½" Models 1500 1550



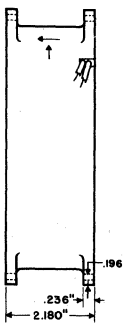


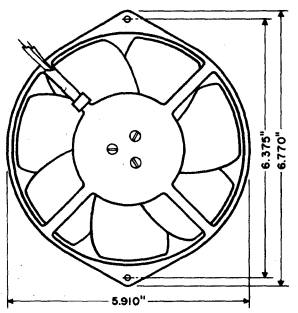


4½" Models 2500 2550

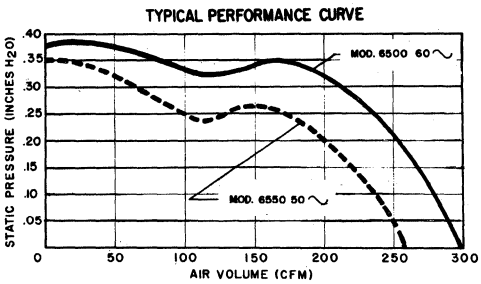


Characteristic	MODEL 1500		MODEL 1550		MODEL 2500		MODEL 2550	
Voltage	115 volts	115 volts	220 volts	220 volts	115 volts	115 volts	220 volts	220 volts
Frequency	60 cycle	50 cycle	60 cycle	50 cycle	60 cycle	50 cycle	60 cycle	50 cycle
Air Flow	105 cfm	90 cfm	105 cfm	90 cfm	115 cfm	95 cfm	115 cfm	95 cfm
Speed	3400 rpm	2850 rpm	3400 rpm	2850 rpm	3400 rpm	2850 rpm	3400 rpm	2850 rpm





5½" Models 6500 6550



Characteristic	MODEL 6500	MODEL 6550
Voltage	115 volts	220 volts
Frequency	60 cycle	50 cycle
Air Flow	300 cfm	260 cfm
Speed	3000 rpm	2700 rpm

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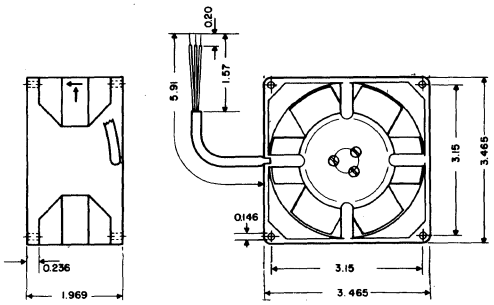
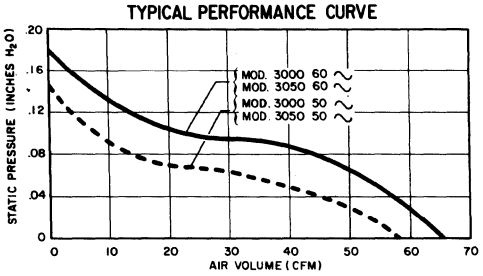
INDUCTION TYPES

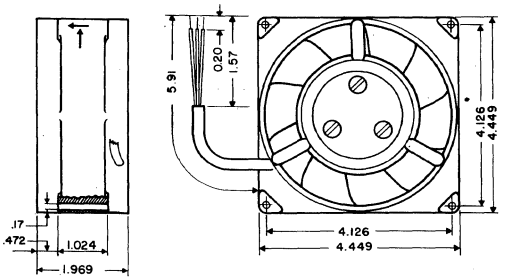


3½" Models 3000 3050

TYPICAL PERFORMANCE CURVE

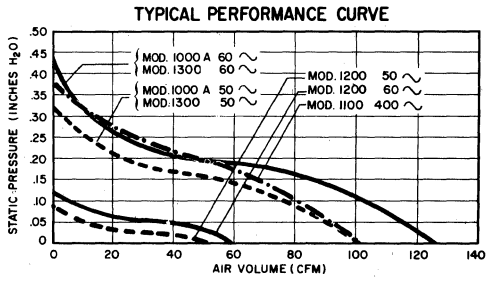


Characteristic	MODEL 3000		MODEL 3050	
Voltage	115 volts	115 volts	220 volts	220 volts
Frequency	60 cycle	50 cycle	60 cycle	50 cycle
Air Flow	65 cfm	58 cfm	65 cfm	58 cfm
Speed	3200 rpm	2800 rpm	3200 rpm	2800 rpm

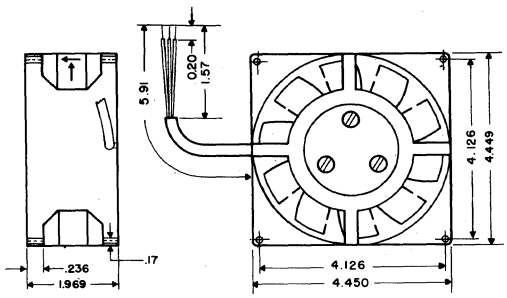


4½" Models 1000A 1100 1200 1300

TYPICAL PERFORMANCE CURVE

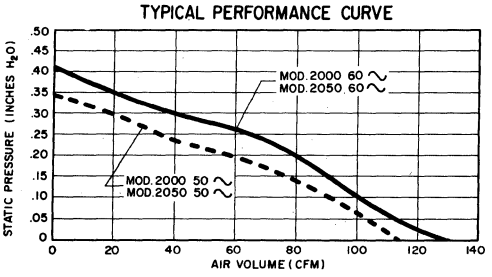


Characteristic	MODEL 1000A		MODEL 1100	MODEL 1200		MODEL 1300	
Voltage	115 volts	115 volts	115 volts	115 volts	115 volts	220 volts	220 volts
Frequency	60 cycle	50 cycle	400 cycle	60 cycle	50 cycle	60 cycle	50 cycle
Air Flow	125 cfm	100 cfm	100 cfm	60 cfm	50 cfm	125 cfm	110 cfm
Speed	3400 rpm	2900 rpm	3200 rpm	1700 rpm	1450 rpm	3400 rpm	2900 rpm



4½" Models 2000 2050

TYPICAL PERFORMANCE CURVE



Characteristic	MODEL 2000		MODEL 2050	
Voltage	115 volts	115 volts	220 volts	220 volts
Frequency	60 cycle	50 cycle	60 cycle	50 cycle
Air Flow	130 cfm	110 cfm	134 cfm	116 cfm
Speed	3500 rpm	2900 rpm	3500 rpm	2900 rpm

PAMOTOR FANS ARE STOCKED FOR IMMEDIATE DELIVERY FROM LEADING ELECTRONICS DISTRIBUTORS THROUGHOUT THE UNITED STATES AND CANADA. CONTACT YOUR LOCAL DISTRIBUTOR FOR COMPLETE ENGINEERING DATA AND PRICES.

PAMOTOR INC.

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CDE CORNELL-DUBILIER

Radio Interference Filters

RESIDENTIAL, LIGHT COMMERCIAL RFI FILTERS

These QUIETONE® Radio Interference filters are designed for residential and light commercial applications on appliances and office machines. Noise from small portable electrical appliances can usually be reduced through use of a circuit 1 filter. The circuit 2 filter, IF-6, will provide slightly more reduction. The greatest attenuation will be achieved through the use of circuit 4 filters — IF-18 and 19.

CDE Type	Circuit Diagram	Voltage	Cap. Mfd.	Current	Description
IF-4	1	110 AC/DC	.1	5	Plastic cylindrical filter with plug and receptacle
IF-6	2	110 AC/DC	2 x .1	5	Plastic cylindrical filter with plug, receptacle and side ground terminal
IF-18	4	115 AC/DC	2 x .25	5	Rectangular plastic cased filter with line cord and plug, receptacle and ground terminal.
IF-19	4	115 AC/DC	2 x .1	5	Smaller rectangular plastic cased filter with line cord and plug, receptacle and ground terminal.

COMMERCIAL RADIO INTERFERENCE FILTERS

The NF-1C230 is designed for installation in vacuum cleaners, floor polishers, etc. Other filters listed are UL listed for fluorescent fixtures but are frequently applied to other equipment. The vehicular filters listed on the following page also find wide industrial applications.

CDE Type	Voltage	Cap. (Mfd.)	Current	Description
IF-24	110 AC/DC	2 x .1	—	Cylindrical metal cased with flexible leads and bracket
IF-54	110-220 AC/DC	2 x .25	2	Rectangular metal cased filter with flexible leads
NF-10431	280 AC/DC	2 x .02 each line	2 x 3.5	Fluorescent light filter rectangular metal case with flexible leads
NF-10431-1	280 AC/DC	2 x .02 each line	2 x 3.5	Same as NF10431, but with mounting for direct replacement of GE Catalog 89G365
NF-1C230	125 AC/DC	.09 line to line 2 x .005 line to grd.	—	Cardboard cased filter for vacuum cleaners and other light appliances
NF-10280-1	125 AC/300 DC	2 x 1.0 each line	2 x 2.5	Fluorescent light filter with solder lug terminals

VEHICULAR FILTERS

The most frequent Radio Interference problem encountered by the service technician is the improvement in signal to noise ratio in mobile applications of Citizen's Band, commercial, and amateur high frequency communications equipment. The vehicular filters listed will solve the problems encountered provided good grounding and bonding practices are followed and use made of suppressors.

CDE Type	Voltage	Capacitance	Amperes	List Price	Net Price
FEED-THROUGH TYPES					
NFF-055B-1	50v DC	.5 mfd.	40	$3.90	**$2.35**
NFF-315D	600v DC	.1 mfd.	20	2.95	**1.77**
NFT-1F246	115v AC				
	200v DC	.25 mfd.	20	6.10	**3.66**
BY-PASS TYPES					
MC-8D98	100v DC	.1 mfd.	—	2.40	**1.44**
IC-2P5C	200v DC	.5 mfd.	—	.90	**.54**
IN-2P5-6	200v DC	.5 mfd.	—	1.10	**.66**
INS-2W1	200v DC	1.0 mfd.	—	2.10	**1.26**
ICH-2W1A	200v DC	1.0 mfd.	—	2.10	**1.26**

Trade Discount Applies To List Prices Only
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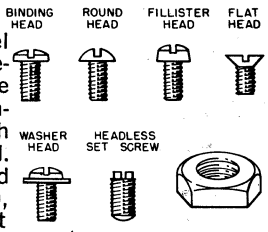
ALL-NYLON FASTENINGS — Screws and Nuts - Washers - Standoffs Cable and Tubing Clamps - Wire Ties

ALL NYLON FASTENINGS



Zytel 101 per MIL P 20693 Spec., MIL S 7742 Spec. Birnbach All-Nylon Fastenings are made of Zytel 101*, a Polymide plastic of the Nylon 6.6 Type. They offer outstanding insulating properties plus resistance to heat, shock, vibration and chemical solvents plus lightness elasticity and superior torque strength. In most cases, because of their high dielectric strength, they eliminate the need of bushings, washers or other insulation. They are corrosion resistant, non-magnetic and good torque strength thru a wide temperature range. Continuous service temperature to 300°F (150°C). Stock color: Natural. Additional colors & types available to order. Zytel 101 per MIL-D-7019B. — All parts are manufactured to American Thread Standards to a class 2A or 2B fit. B 18.2 (hex nuts), B 18.6 (machine screws), B 1.1 (thread specs.)

*Reg. T.M. of DuPont

ALL NYLON MACHINE SCREWS

STANDARD PKG.: 100, 1000

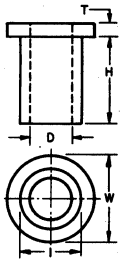
Cat. No.	Size	Type
6640	2-56x¼"	Round Head
6640A	2-56x¼"	Fillister Head
6640B	2-56x¼"	Binding Head
6641	2-56x⅜"	Round Head
6641A	2-56x⅜"	Fillister Head
6641B	2-56x⅜"	Binding Head
6550	2-56x½"	Round Head
6551	2-56x½"	Fillister Head
6551A	2-56x½"	Binding Head
6643	4-40x¼"	Round Head
6643A	4-40x¼"	Fillister Head
6643B	4-40x¼"	Binding Head
6644	4-40x⅜"	Round Head
6644A	4-40x⅜"	Fillister Head
6644B	4-40x⅜"	Binding Head
6552	4-40x½"	Round Head
6552A	4-40x½"	Fillister Head
6552B	4-40x½"	Binding Head
6646	6-32x¼"	Round Head
6646A	6-32x¼"	Fillister Head
6646B	6-32x¼"	Binding Head
6553	6-32x⅜"	Round Head
6554	6-32x⅜"	Binding Head
6555	6-32x"⅜	Fillister Head
6556	6-32x⅜"	Flat Head
6557	6-32x½"	Round Head
6558	6-32x½"	Binding Head

ALL NYLON MACHINE SCREWS

STANDARD PKG.: 100, 1000

Cat. No.	Size	Type
6559	6-32x½"	Fillister Head
6560	6-32x½"	Flat Head
6648	6-32x¾"	Round Head
6648A	6-32x¾"	Fillister Head
6648B	6-32x¾"	Binding Head
6561	6-32x 1"	Round Head
6561C	6-32x 1"	Flat Head
6650	8-32x¼"	Round Head
6650A	8-32x¼"	Fillister Head
6650B	8-32x¼"	Binding Head
6562	8-32x⅜"	Round Head
6563	8-32x⅜"	Binding Head
6564	8-32x⅜"	Flat Head
6565	8-32x⅜"	Fillister Head
6566	8-32x½"	Round Head
6567	8-32x½"	Binding Head
6568	8-32x½"	Flat Head
6569	8-32x½"	Fillister Head
6570	8-32x⅝"	Round Head
6571	8-32x⅝"	Fillister Head
6572	8-32x¾"	Round Head
6572A	8-32x¾"	Fillister Head
6572B	8-32x¾"	Binding Head
6573	8-32x 1"	Flat Head
6573A	8-32x 1"	Fillister Head
6574	10-32x⅜"	Round Head
6575	10-32x½"	Round Head
6576	10-32x½"	Flat Head
6577	10-32x⅝"	Round Head
6578	10-32x 1"	Round Head
6579	10-32x 1"	Flat Head

BIRNBACH NYLON BUSHINGS AND SPACERS



Designed with wide flanges to completely isolate screw from mounting surface, useful where hi tensile and torque requirements require high strength non-insulating screws Natural color.

Cat. No.	Used with Screw Size I	W	T	H	D
6549A	#6 .140"	.290"	3/64"	¼"	.170"
6549B	#8 .173"	.344"	1/16"	⅜"	.205"
6549C	#10 .200"	.399"	1/16"	⅜"	.260"
6549D	¼" .260"	.513"	1/16"	⅜"	.312"
6549	#4 .115"	.235"	3/64"	¼"	.146"

Birnbach All-Nylon Hex Nuts

STANDARD PKG.: 100, 1000

Cat. No.	Size	Cat. No.	Size
6585	2-56	6588	8-32
6586	4-40	6589	10-32
6587	6-32	6590	¼-20

Birnbach All-Nylon Washers

STANDARD PKG.: 100, 1000

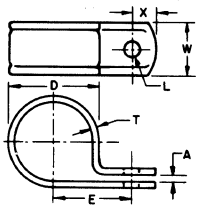
Cat. No.	Fits Screw No.	O.D.	I.D.	Thickness
6592	2	¼"	3/32"	.016"
6593	4	¼"	⅛"	.016"
6594	6	5/16"	5/32"	.031"
6595	8	3/16"	.170"	.031"
6596	10	3/16"	.195"	.031"
6597	¼"	⅝"	3/32"	.063"

NYLON CABLE AND TUBING CLAMPS MEETS MIL-P-20693A

MEETS MIL-P-20693A

Made of DuPont Nylon Formula FM 10001 (Zytel 101)

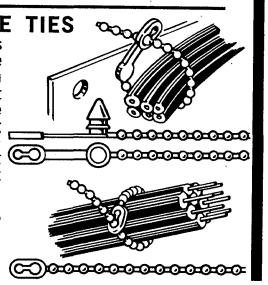
Used as a clamp, strain relief, clip fastener, strap, these nylon cable clamps are light and tough. Have smooth, non-abrasive surfaces, rounded edges will not chafe conductors or cause shorts or grounds in cable. Insoluble in solvents, oils, gasoline, alcohol, hydraulic fluids, alkalies, acids. Temperature resistant from —60°F to +300°F. Do not support combustion. Moisture and heat resistant. Inside matte finish surfaces prevent slippage under vibration and are self aligning when tightened by screw. Snaps onto cable. Meets MIL-P-20693A specs. Fungus resistant.



Cat. No.	Put-Up	To Fit Size	D	E	W	T	L	X	A
725	100	⅛"	.125	.316	3/16	.050	.177	.227	.062
726	100	3/16"	.187	.378	3/16	.050	.177	.227	.062
727	100	¼"	.250	.409	3/16	.050	.177	.227	.062
728	100	5/16"	.312	.441	3/16	.050	.177	.227	.062
729	100	⅜"	.375	.471	3/16	.050	.177	.227	.062
730	100	7/16"	.437	.519	3/16	.050	.177	.227	.062
731	100	½"	.500	.550	3/16	.050	.177	.227	.062
731A	100	9/16"	.563	.625	½	.060	.177	.227	.062
732	100	⅝"	.625	.634	½	.060	.177	.227	.062
732A	100	11/16"	.687	.752	½	.060	.177	.227	.062
733	100	¾"	.750	.718	½	.060	.177	.227	.062
734	100	⅞"	.875	.760	½	.060	.177	.227	.062
735	100	1"	1.000	.802	½	.060	.177	.227	.062
736	100	1⅛"	1.125	.968	½	.062	.204	.250	.125
737	100	1¼"	1.250	1.156	½	.062	.204	.250	.125
738	100	1½"	1.500	1.188	⅝	.070	.204	.250	.125

PUSH BUTTON-E-Z WIRE TIES

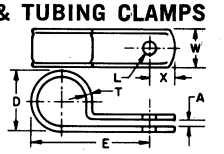
Push Button Wire Ties useful for harnessing wires fast; saves labor; eliminates screws and usual time required for string tying. Measures 4½" in length and is adjustable to 30 different diameters. Insert the tie in the hole for anchoring; wires can be replaced or added by loosening the tie and pulling tight again. Constructed of tough Polyethylene; chemically inert, heat resistant; breaking point 45 to 95 lbs. Push button ties are designed to fit a .250"-.265" hole in a .031 to .140 thick panel.



Cat. No.	Color (Specify)	Std. Pkg.
PBT-4 Push Button	Red, Blue, Yellow	100, 1000
MATERIAL CONFORMS TO SPEC. LP 590		
PBT-5 E-Z	Red, Blue, Yellow	100, 1000

ETHYL CELLULOSE PLASTIC CABLE & TUBING CLAMPS

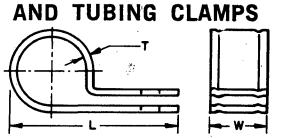
Recommended for general use. They withstand age, shock and vibration. Moisture and corrosion. This tough, lightweight and durable clamp withstands temperatures from —60° to +175°F. Approved 7-21-44 Army-Navy aeronautical AN-742. Approved for inside-outside, hi-tension, primary and secondary. Standard pkge. 100, 1000.



Cat. No.	To Fit Size	D	E	W	T	L	X	A
715	⅛"	.125	.325	½	.060	.204	7/32	.062
715A	3/16"	.188	.390	½	.060	.204	7/32	.062
715B	¼"	.250	.421	½	.060	.204	7/32	.062
715C	5/16"	.313	.457	½	.060	.204	7/32	.062
715D	⅜"	.375	.483	½	.060	.204	7/32	.062
715E	7/16"	.438	.531	½	.060	.204	7/32	.062
716	½"	.500	.562	½	.060	.204	7/32	.062
716A	9/16"	.563	.625	½	.060	.204	7/32	.062
716B	⅝"	.625	.610	½	.060	.204	7/32	.062
716C	11/16"	.688	.666	½	.060	.204	7/32	.062
716D	¾"	.750	.766	½	.060	.204	7/32	.062
716E	⅞"	.875	.813	½	.060	.204	7/32	.062
717	1"	1.000	.906	½	.060	.204	7/32	.062
717A	1⅛"	1.125	.969	½	.060	.204	7/32	.062
717B	1¼"	1.250	1.156	½	.060	.204	7/32	.062
717C	1½"	1.5	1.0625	⅝	.070	.204	7/32	.062
717D	2"	2.0	1.313	⅝	.070	.204	7/32	.062
717E	2½"	2.5	1.563	⅝	.070	.204	7/32	.062

BIRNBACH ALUMINUM CABLE AND TUBING CLAMPS

These Tube Clamps are made of hard drawn aluminum and are found to be extremely desirable when mounting resonant lines, or elements of directive beam antennas. The ⅛" thru ⅝" clamps have a clearance for No. 10 Screw. The ¾" to the 1¼" clamps have a clearance for ¼" bolts.



Cat. No.	To Fit Tube	Width "W"	Length "L"	Thickness "T"	Std. Pkg.
51A	⅛"	½"	13/16"	.050"	100
51	¼"	½"	⅞"	.050"	100
52	5/16"	½"	15/16"	.050"	100
53	⅜"	½"	1"	.050"	100
54	½"	½"	1⅛"	.050"	100
54A	⅝"	½"	1¼"	.050"	50
55	¾"	¾"	1⅛"	.090"	50
57	⅞"	¾"	1⅝"	.090"	50
56	1"	¾"	1¾"	.090"	50
56A	1⅛"	¾"	1⅞"	.090"	50
56B	1¼"	¾"	2"	.090"	50

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH RADIO COMPANY INC.

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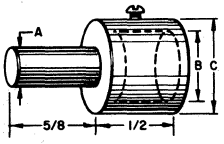
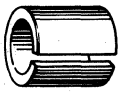
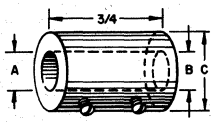
SHAFT ACCESSORIES & HANDLES



SHAFT COUPLINGS REDUCERS & EXTENDERS

By use of these units all ¼" and ⅜" dia. shafts and knobs can be assembled together. The insulated units are for use where electrical isolation is desired. Furnished complete with set screws shown. Be sure to specify whether Brass or Insulated is desired.





SHAFT COUPLINGS

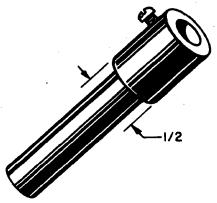
Cat. No. Brass	Cat. No. Insulated	Shaft A	Hole B	O.D. C
534	634	¼"	¼"	½"
535	635	¼"	⅜"	9/16"
536	636	⅜"	¼"	½"
537	Reducer for ⅜" Diam. Hole to ¼" Diam. Hole			⅜"

COUPLINGS

531	631	¼"	¼"	½"
532	632	¼"	⅜"	9/16"
533	633	⅜"	¼"	9/16"

EXTENDERS

Cat. No.		Overall Length	Shaft Length	Hole I.D.	Shaft O.D.
538	Brass	1¾"	1¼"	¼"	¼"
539	Insulated	1¾"	1¼"	¼"	¼"



BRASS SHAFTING

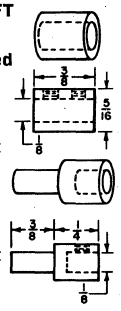
Cat. No.	Dia.	Length
540	¼"	6"
541	¼"	12"
542	⅜"	8"

FIBRE SHAFTING

Cat. No.	Dia.	Length
543	¼"	6"
544	¼"	12"
545	⅜"	8"

MINIATURE SHAFT ACCESSORIES

Brass Nickel plated for ⅛" shafts



MINIATURE BRASS COUPLER
with allen head set screws
Cat. No. 531A

MINIATURE SHAFT EXTENDER
with allen head set screws
Cat. No. 538A

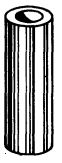
BIRNBACH THREADED RODS

These brass nickel plated threaded rods are standard parts of our insulator assemblies.

Cat. No.	Length	Thread
16	4"	¼-20
17	5½"	¼-20
18	10"	¼-20
113	15"	¼-20
114	1⅜"	10-32
115	1⅝"	10-32
116	2¼"	10-32
117	8"	10-32
118	8"	8-32
119	8"	6-32
15	2"	6-32

BIRNBACH BRASS BUSHINGS & SPACERS

An ideal brass bushing for raising sub panels, chassis, condensers, transformers, etc. Hole will accommodate a No. 6 or No. 8 screw.



¼" O.D.

For No. 6 Cat. No.	Length	For No. 8 Cat. No.
1125	¼"	1130
1126	⅜"	1131
1127	½"	1132
1128	¾"	1133
1129	1"	1134

⅜" O.D.

1135	¼"	1140
1136	⅜"	1141
1137	½"	1142
1138	¾"	1143
1139	1"	1144

THREADED BRASS SPACERS ¼" O.D.

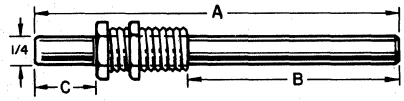
For No. 6-32 Cat. No.	Length	For No. 8-32 Cat. No.
1125T	¼"	1130T
1126T	⅜"	1131T
1127T	½"	1132T
1128T	¾"	1133T
1129T	1"	1134T

BIRNBACH INSULATED FIBRE BUSHINGS & SPACER ¼" O.D.

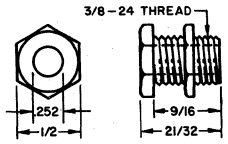
For No. 6 Cat. No.	Length	For No. 8 Cat. No.
1145	¼"	1149
1146	⅜"	1150
1147	½"	1151
1148	¾"	1152

FRONT PANEL BEARING

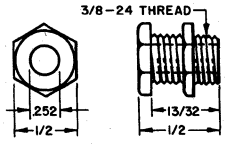
Nickel plated brass for panels up to ¾" in thickness and for ¼" dia. shafts. The No. 551 and No. 552 are complete assemblies of the No. 550 and ¼" dia. brass shaft nickel plated.



Cat. No.	A	B	C
551	3"	1¾"	½"
552	6"	4¾"	½"



No. 550



No. 550 A

(Same as used on No. 551 and No. 552)

Cat. No.	Description
550	—Front Panel Bearing, threaded length 9/16"
550A	—Front Panel Bearing, threaded length 13/32"
550B	—Front Panel Bearing, ⅜-32 threaded length 7/16"-21/32" O.L.
550C	—Front Panel Bearing, Miniature ¼-32 thd length 5/16-⅜" O.L. .125 opening 11/32" hex.
551	—Front Panel Bearing, ¼" Shaft, 3" long
552	—Front Panel Bearing, ¼" Shaft, 6" long

SHAFT LOCKS

WRENCH TYPE

Brass, nickel plated. ½" length overall. Rear: ½" hex brass with ⅜-32 thread. Front: 7/16" hex brass.

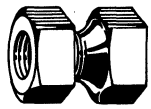
Cat. No. 546 For ¼" Shaft

D — THUMB TYPE

Brass, nickel plated. ½" length overall. Rear: ½" hex brass with ⅜-32 thread. Front: 1" diam. knurled nut.

Cat. No. 547 For ¼" Shaft

MINIATURE WRENCH TYPE



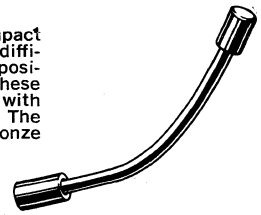
Brass Nickel plated for ⅛" shafts

MINIATURE LOCK — WRENCH TYPE

Cat. No. 546A

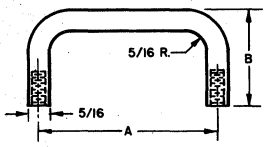
BIRNBACH FLEXIBLE SHAFTS

Modern construction calls for more compact arrangement of parts. At times there is difficulty getting the controls to the proper position on the panel. With couplings and these flexible shafts, locations can be made with ease on an offset and angles up to 90°. The flexible shafts are made of phosphor bronze and fitted into ¼" dia. hubs.



Cat. No. 553 Flexible Shaft 3" long
Cat. No. 554 Flexible Shaft 6" long

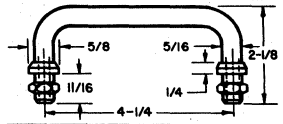
HANDLES



Material: BRASS
FINISH: NICKEL PLATED
Has 10-32 thread.

Cat. No.	A	B
1065-3	3"	1 5/16"
1065-4	4 3/16"	1½"
1065-6	6 3/16"	1¾"
1065-9	9"	1¾"

CABINET HANDLE



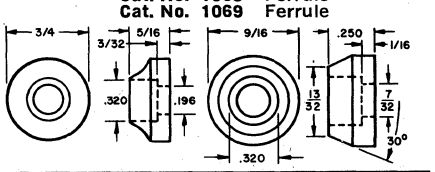
Material: BRASS
Finish: NICKEL PLATED
Mounts in 5/16" Hole.
Supplied with Hex Nut and Washer.
Cat. No. 1066 Handle

FERRULE

Material: BRASS
Finish: NICKEL PLATED

Used for mounting handles.

Cat. No. 1068 Ferrule
Cat. No. 1069 Ferrule



FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH RADIO COMPANY INC.

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SCREWS - NUTS - WASHERS

ROUND HEAD MACHINE SCREWS

STANDARD PKG. 1000

Steel Nickel Plated		Brass Nickel Plated	
Cat. No.	Size	Cat. No.	Size
6300	2-56 x 3/16	6400	4-36 x 1/4
6301	2-56 x 3/8	6401	4-36 x 3/8
6302	2-56 x 1/2	6402	4-36 x 1/2
6303	3-48 x 3/4	6403	4-36 x 3/4
6304	4-36 x 1/4	6404	4-36 x 1
6305	4-36 x 1/2	6312	4-40 x 1/4
6306	4-36 x 3/4	6313	4-40 x 3/8
6307	4-40 x 1/4	6314	4-40 x 1/2
6308	4-40 x 1/2	6315	4-40 x 3/4
6309	4-40 x 3/4	6405	6-32 x 1/4
6420	6-32 x 1/4	6406	6-32 x 3/8
6421	6-32 x 3/8	6407	6-32 x 1/2
6422	6-32 x 1/2	6408	6-32 x 5/8
6423	6-32 x 5/8	6409	6-32 x 3/4
6424	6-32 x 3/4	6410	6-32 x 1
6425	6-32 x 1	6410A	6-32 x 1 1/8
6426	8-32 x 1/4	6411	6-32 x 1 1/4
6427	8-32 x 3/8	6412	6-32 x 1 1/2
6428	8-32 x 1/2	6413	8-32 x 1/4
6429	8-32 x 5/8	6414	8-32 x 3/8
6430	8-32 x 3/4	6415	8-32 x 1/2
6431	8-32 x 1	6416	8-32 x 5/8
6432	8-32 x 1 1/2	6417	8-32 x 3/4
6433	10-32 x 1/4	6418	8-32 x 1
6434	10-32 x 3/8	6316	10-32 x 1/4
6435	10-32 x 1/2	6317	10-32 x 3/8
6436	10-32 x 5/8	6318	10-32 x 1/2
6437	10-32 x 3/4	6318	10-32 x 1/2
6438	10-32 x 1	6319	10-32 x 3/4
6439	1/4-20 x 1/2	6319A	12-24 x 1
6310	1/4-20 x 1 1/4	6320	10-32 x 1
6311	1/4-20 x 2 1/2	6320A	1/4-20 x 7/8
		6320B	1/4-20 x 1 1/4
		6320C	1/4-20 x 1 1/2

BINDING HEAD MACHINE SCREWS

STANDARD PKG. 1000

Steel Nickel Plated

Cat. No.	Size	Cat. No.	Size
6321	6-32 x 1/4"	6324	8-32 x 1/4"
6322	6-32 x 3/8"	6325	8-32 x 3/8"
6323	6-32 x 1/2"	6326	8-32 x 1/2"

OVAL HEAD RACK SCREWS

Steel Nickel Plated

Widely used for mounting panels on racks and cabinets. Screws are nickel-plated steel.

STANDARD PKG. 1000

Cat. No.	Size	Cat. No.	Size
6600	6-32 x 1/4"	6607	8-32 x 1"
6601	6-32 x 1/2"	6608	10-32 x 1/4"
6602	6-32 x 3/4"	6609	10-32 x 1/2"
6603	6-32 x 1"	6610	10-32 x 5/8"
6604	8-32 x 1/4"	6611	10-32 x 3/4"
6605	8-32 x 1/2"	6611A	10-32 x 1"
6606	8-32 x 3/4"		

FINISHING RACK WASHERS

Brass Nickel Plated

STANDARD PKG. 1000

Cat. No.	Size
6612	6-32 Cup Washer
6613	8-32 Cup Washer
6614	10-32 Cup Washer

SHEET METAL SELF TAPPING SCREWS

Steel Cadmium Plated

Type A — Sharp Point

STANDARD PKG. 144

Cat. No.	Size	Cat. No.	Size
6500	#4 x 1/2	6541	#8 x 1/2
6501	#6 x 1/4	6505	#8 x 1
6502	#6 x 3/8	6542	#10 x 3/8
6503	#6 x 1/2	6543	#10 x 1/2
6504	#6 x 3/4	6506	#10 x 3/4
6540	#8 x 3/8	6507	#10 x 1

HEX HEAD SELF TAPPING SCREWS

Type B — Blunt Point Slotted

Steel Cadmium Plated

STANDARD PKG. 144

Cat. No.	Size	Cat. No.	Size
6510	#6 x 3/8	6515	#8 x 1/2
6511	#6 x 1/2	6516	#8 x 3/4
6512	#6 x 3/4	6517	#8 x 1
6513	#8 x 1/4	6518	#10 x 1/2
6514	#8 x 3/8	6519	#10 x 1

BRASS & STEEL WOOD SCREWS

Available in round, flat and oval heads.

STANDARD PKG. 144

Brass Nickel Plated		Steel Nickel Plated	
Cat. No.	Size	Cat. No.	Size
6460	3/8 x #4	6470	3/8 x #4
6461	1/2 x #4	6471	1/2 x #4
6462	5/8 x #5	6472	5/8 x #5
6463	3/4 x #5	6473	3/4 x #5
6464	1 x #5	6474	1 x #5
6465	1 1/4 x #6	6477	1 x #6
6466	1 1/2 x #6	6475	1 1/4 x #6
		6476	1 1/2 x #6
		6478	3/4 x #8

SET SCREWS

Made of steel and hardened with a plain finish. Sold only in standard packages of 100.

STANDARD PKG. 100

Cat. No.	Size	Cat. No.	Size
6525	6-32 x 1/8	6530	8-32 x 1/4
6526	6-32 x 3/16	6531	8-32 x 3/8
6527	6-32 x 1/4	6532	8-32 x 5/16
6528	8-32 x 1/8	6533	8-32 x 7/16
6529	8-32 x 3/16	6534	10-32 x 1/4

HEXAGON MACHINE SCREW NUTS

Brass — Nickel Plated

STANDARD PKG. 1000

Cat. No.	Thread Size	Width Across Flats	Thickness
6440	4-36	1/4"	3/32"
6442	4-40	1/4"	3/32"
6441	6-32	1/4"	5/64"
6443	6-32	5/16"	7/64"
6444	8-32	11/32"	1/8"
6445	10-32	5/16"	7/64"
6446	10-32	3/8"	1/8"
6447	1/4-20	7/16"	1/8"

WING NUTS

It is a high quality brass nickel plated wing nut used extensively on portable and test instruments.

STANDARD PKG. 100

Cat. No.	Thread	Cat. No.	Thread
6	6-32	10	10-32
8	8-32	11	1/4-20

HEXAGON STEEL MACHINE SCREW NUTS

Nickel Plated

STANDARD PKG. 1000

Cat. No.	Thread Size	Width Across Flats	Thickness
6330	2-56	3/16"	1/16"
6331	3-48	3/16"	1/16"
6332	4-36	1/4"	3/32"
6333	4-40	1/4"	3/32"
6448	6-32	1/4"	3/32"
6449	6-32	5/16"	7/64"
6334	8-32	1/4"	3/32"
6450	8-32	5/16"	7/64"
6335	10-32	3/8"	1/8"
6336	1/4-20	7/16"	3/16"

VOLUME CONTROL AND TOGGLE NUTS

Brass — Nickel Plated

STANDARD PKG. 1000

Cat. No.	Type	Size
6337	Volume Control-Brass	3/8-32 x 1/2 x 3/32
6337A	Volume Control-Steel	3/8-32 x 1/2 x 3/32
6338	Toggle Switch	15-32 x 3/16 x 3/64
6339	Toggle Ring Nut	15-32 x 5/8 x 1/16

BRASS NICKEL PLATED FLAT WASHERS

STANDARD PKG. 1000

Cat. No.	Fits Screw No.	Hole Size	O.D.	Thickness
6479	4	.118"	5/32"	.025"
6480A	6	.145"	5/32"	.025"
6480	6	.145"	3/8"	.025"
6481	8	.172"	3/8"	.032"
6482	10	.203"	7/16"	.036"
6483	1/4-20	.265"	9/16"	.040"

SHAKEPROOF LOCKWASHERS

Internal Teeth

STANDARD PKG. 1000

Cat. No.	Screw Size	Cat. No.	Screw Size
6355	2	6491	8
6356	3	6492	10
6357	4	6493	1/4
6490	6	6494	3/8
6494/1	Narrow rim control shaft lockwasher		3/8
6494/2	Narrow rim toggle switch lockwasher		15/32

SHAKEPROOF LOCKWASHERS

External Teeth

STANDARD PKG. 1000

Cat. No.	Screw Size	Cat. No.	Screw Size
6358	4	6361	10
6359	6	6362	1/4
6360	8	6363	3/8

STEEL KANTLINK LOCKWASHERS

STANDARD PKG. 1000

Cat. No.	Screw Size	O.D.	Thickness
6484	4	3/16"	1/32"
6485	6	15/64"	1/32"
6486	8	15/64"	.025"
6487	10	5/16"	.050"
6488	1/4	7/16"	3/64"

SPEED NUTS

Tempered Steel — Parkerized

Self Locking — speed assembly time. Vibration proof, no washer necessary. Two types available — For use with machine or sheet metal screws. **For use with machine screws.**

STANDARD PKG. 1000

Cat. No.	Thread Size	Length	Width	Thickness
6350	4-36	3/8"	1/4"	.012"
6351	6-32	7/16"	9/32"	.017"
6352	8-32	1/2"	5/16"	.017"
6353	10-24	5/8"	3/8"	.022"
6354	1/4-20	3/4"	1/2"	.025"

SPEED NUTS

Tempered Steel — Parkerized

For use with sheet metal screws.

STANDARD PKG. 1000

Cat. No.	Thread Size	Length	Width	Thickness
6350A	4A	3/8"	3/4"	.022"
6351A	6A	1/2"	5/16"	.025
6352A	8A	5/8"	13/32"	.028"
6353A	10A	3/4"	1/2"	.031"
6354A	14A	7/8"	9/16"	.037"

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BIRNBACH RADIO COMPANY INC.

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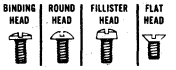
DABURN ELECTRONICS & CABLE CORP.

NYLON FASTENINGS • STEATITE STANDOFFS • TEFLON* TERMINALS

DABURN NYLON FASTENINGS

ZYTEL 101 PER MIL-P-17019B



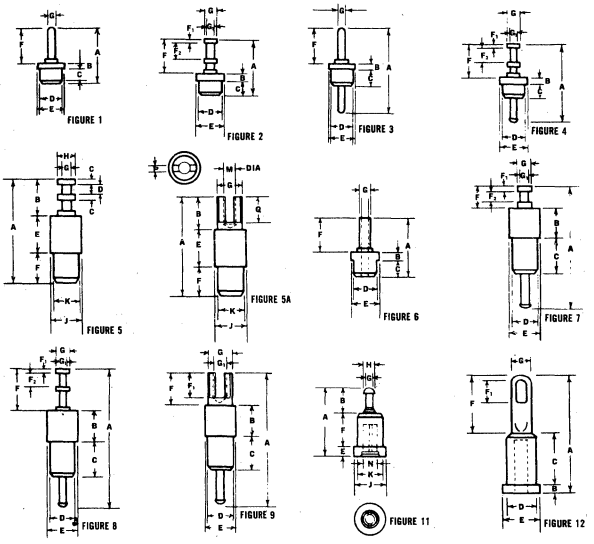
Has outstanding insulation specs. hi-resistance to heat, shock, vibration, chemical. Is light in weight, superior torque strength. Corrosion resistant, non magnetic. Continuous service temperature to 300°F. All parts made to American thread standards to Class 2A or 2B fit. B18.2 (hex nuts), B18.6 (machine screws), B1.1 (thread specs.).

DABURN No.	Size	Type
14-40	2-56 x 1/4"	Rd. Hd.
14-40A	2-56 x 1/4"	Fill. Hd.
14-40B	2-56 x 1/4"	Bind. Hd.
14-41	2-56 x 3/8"	Rd. Hd.
14-41A	2-56 x 3/8"	Fill. Hd.
14-41B	2-56 x 3/8"	Bind. Hd.
14-42	2-56 x 1/2"	Rd. Hd.
14-42A	2-56 x 1/2"	Fill. Hd.
14-42B	2-56 x 1/2"	Bind. Hd.
14-43	4-40 x 1/4"	Rd. Hd.
14-43A	4-40 x 1/4"	Fill. Hd.
14-43B	4-40 x 1/4"	Bind. Hd.
14-44	4-40 x 3/8"	Rd. Hd.
14-44A	4-40 x 3/8"	Fill Hd.
14-44B	4-40 x 3/8"	Bind. Hd.
14-45	4-40 x 1/2"	Rd. Hd.
14-45A	4-40 x 1/2"	Fill. Hd.
14-45B	4-40 x 1/2"	Bind. Hd.
14-46	6-32 x 1/4"	Rd. Hd.
14-46A	6-32 x 1/4"	Fill. Hd.
14-46B	6-32 x 1/4"	Bind. Hd.
14-47	6-32 x 3/8"	Rd. Hd.
14-47A	6-32 x 3/8"	Bind. Hd.
14-47B	6-32 x 3/8"	Fill. Hd.
14-47C	6-32 x 3/8"	Flat. Hd.
14-48	6-32 x 1/2"	Rd. Hd.
14-48A	6-32 x 1/2"	Bind. Hd.
14-48B	6-32 x 1/2"	Fill. Hd.
14-48C	6-32 x 1/2"	Flat. Hd.
14-49	6-32 x 3/4"	Rd.Hd.
14-49A	6-32 x 3/4"	Fill. Hd.
14-49B	6-32 x 3/4"	Bind. Hd.
14-50	6-32 x 1"	Rd. Hd.
14-50C	6-32 x 1	Flat. Hd.
14-51	8-32 x 1/4"	Rd. Hd.
14-51A	8-32 x 1/4"	Fill. Hd.
14-51B	8-32 x 1/4"	Bind. Hd.
14-52	8-32 x 1/2"	Rd. Hd.
14-52A	8-32 x 1/2"	Fill. Hd.
14-52B	8-32 x 1/2"	Bd. Hd.
14-52C	8-32 x 1/2"	Flat Hd.
14-54	8-32 x 5/8"	Rd. Hd.
14-54A	8-32 x 5/8"	Fill. Hd.
14-55	8-32 x 3/4"	Rd. Hd.
14-55A	8-32 x 3/4"	Fill. Hd.
14-55B	8-32 x 3/4"	Bd. Hd.
14-56A	8-32 x 1"	Fill. Hd.
14-56C	8-32 x 1"	Flat. Hd.
14-57	10-32 x 3/8"	Rd. Hd.
14-58	10-32 x 1/2"	Rd. Hd.
14-58C	10-32 x 1/2"	Flat. Hd.
14-59	10-32 x 5/8"	Rd. Hd.
14-60	10-32 x 1"	Rd. Hd.
14-60C	10-32 x 1"	Flat Hd.

STOCK COLOR: Natural — Std. Pkg.: 100, 1000

Additional sizes available to order.

SUB-MINIATURE TEFLON* TERMINALS



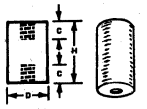
Material, pure virgin Teflon, conforms to MIL-P-19468 and AMS 3651B spec. This terminals series provides instant mounting without any extra fastening hardware. Easily inserted into punched or drilled holes, self locking. unaffected by soldering. Resistant to thermal-mechanical shock, vibration, corrosion moisture. Speeds up assembly — cuts production costs. Suitable for crowded assemblies. Brass meets QQ-B-626 comp. 1/2 H.

Daburn No.	Fig.	Cap. MMF.	A	B	C	D	E	F	G
11-06	1	.41	.35	.04	.10	.148	.172	.210	.040
11-07	1	.39	.41	.04	.16	.148	.172	.210	.040
11-08	1	.32	.50	.04	.25	.148	.172	.210	.040
11-10	2	.41	.35	.04	.10	.148	.172	.210	.040
11-11	2	.36	.375	.04	.125	.148	.172	.210	.040
11-12	2	.36	.35	.04	.100	.179	.200	.210	.040
11-10-01	2	.45	.428	.093	.125	.148	.172	.210	.040
11-10-02	2	.37	.50	.040	.250	.148	.172	.210	.040
11-11-01	5	.58	.522	.125	.150	.165	.187	.250	.040
11-15	3	.55	.443	.04	.100	.148	.172	.210	.040
11-14	3	.73	.515	.04	.100	.148	.172	.210	.045

Std. Pkg.: 100, 1000

DABURN STEATITE STANDOFFS

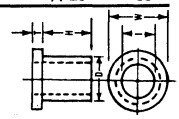
JAN-I-8 AND JAN-I-10 SPECS.



These threaded Steatite pillars are made of L5 glazed Steatite with threaded holes on both sides have one hole mounting. **COLOR:** White

DABURN No.	Conforms to NEW Type	Hgt.	Diam.	L'gth. of Thread	Thread	Std. Pkg.
10-41		1/4"	1/4"	All	6-32	100
10-41B		3/8"	1/4"	5/32"	6-32	100
10-41A		1/2"	1/4"	5/32"	6-32	100
10-44A		3/4"	1/4"	1/4"	6-32	100
10-45A		1"	1/4"	1/4"	6-32	100
10-42		3/8"	3/8"	5/32"	6-32	100
10-42A	NL633W01-004	1/2"	3/8"	5/32"	6-32	100
10-43A	NL633W01-005	5/8"	3/8"	1/4"	6-32	100
10-44B	NL633W01-006	3/4"	3/8"	1/4"	6-32	100
10-45B	NL633W01-008	1"	3/8"	3/8"	6-32	100
10-46B	NL633W01-010	1 1/4"	3/8"	3/8"	6-32	100
10-46A	NL633W01-012	1 1/2"	3/8"	3/8"	6-32	100
10-46C	NL633W01-016	2"	3/8"	3/8"	6-32	100
10-43		1/2"	1/2"	1/4"	6-32	100
10-44		3/4"	1/2"	1/4"	6-32	100
10-45		1"	1/2"	3/8"	6-32	100
10-46		1 1/2"	1/2"	3/8"	6-32	100
10-47		2 1/2"	1/2"	3/8"	6-32	100
10-40	NL633W02-005	5/8"	1/2"	3/16"	8-32	100
10-40A	NL633W02-006	3/4"	1/2"	1/4"	8-32	100
10-40B	NL633W02-008	1"	1/2"	3/8"	8-32	100
10-40C	NL633W02-010	1 1/4"	1/2"	3/8"	8-32	100
10-40D	NL633W02-012	1 1/2"	1/2"	3/8"	8-32	100
10-40E	NL633W02-016	2"	1/2"	3/8"	8-32	100
10-40F	NL633W02-020	2 1/2"	1/2"	3/8"	8-32	100
10-40G	NL633W02-024	3"	1/2"	3/8"	8-32	100
10-44C		3/4"	3/4"	1/4"	10-32	100
10-45C	NL633W03-002	1"	3/4"	3/8"	10-32	100
10-45D	NL633W03-010	1 1/4"	3/4"	3/8"	10-32	100
10-45E	NL633W03-012	1 1/2"	3/4"	3/8"	10-32	100
10-45F	NL633W03-016	2"	3/4"	3/8"	10-32	100
10-45G	NL633W03-020	2 1/2"	3/4"	3/4"	10-32	100
10-45H	NL633W03-024	3"	3/4"	3/8"	10-32	100
10-45S	NL633W03-032	4"	3/4"	3/8"	10-32	100
10-47B	NL633W04-012	1 1/2"	1"	1/2"	1/4-20	50
10-47B	NL633W04-012	1 1/2"	1"	1/2"	1/4-20	50
10-47D	NL633W04-020	2 1/2"	1"	5/8"	1/4-20	50

DABURN NYLON SPACER/BUSHINGS



Wide flanges isolates screw from mounting surface. Has hi-tensile and torque strength.
COLOR: Natural. Std. Pkg.: 100, 1000.

Daburn No.	Screw Size I.D.	A	B	C	D
14-79	# 4 (.115")	.235"	3/64"	1/4"	.146"
14-79A	# 6 (.140")	.290"	3/64"	1/4"	.170"
14-79B	# 8 (.173")	.344"	1/16"	3/8"	.205"
14-79C	#10 (.200")	.399"	1/16"	3/8"	.260"
14-79D	1/4" (.260")	.513"	1/16"	3/8"	.312"

DABURN NYLON HEX NUTS

Daburn No.	Size	Daburn No.	Size
14-85	2-56	14-88	8-32
14-86	4-40	14-89	10-32
14-87	6-32	14-90	1/4-20

COLOR: Natural — Std. Pkg.: 100, 1000

DABURN NYLON FLAT WASHERS

Daburn No.	For Screw Size	I.D.	O.D.	Thickness
14-92	2	3/32"	1/4"	.016"
14-93	4	1/8"	1/4"	.016"
14-94	6	5/32"	5/16"	.031"
14-95	8	.170"	3/8"	.031"
14-96	10	.195"	3/8"	.031"
14-97	1/4	9/32"	5/8"	.063"

COLOR: Natural — Std. Pkg.: 100, 1000

JACK MATERIAL: Beryllium copper with .000030 min. gold flash over .0003 min. silver plate.
PLATING: Solder finish electro solder plate. Available in all other platings.

COLOR: Natural (White). Std. Pkg.: 100, 1000.

Daburn No.	Fig.	Cap. MMF.	A	B	C	D	E	F	G
11-16	3	.71	.725	.04	.100	.148	.172	.210	.040
11-18	4	.62	.500	.04	.100	.148	.172	.210	.040
11-19	4	.69	.500	.04	.165	.148	.172	.210	.040
11-17	6		.193	.025	.063	.125	.150	.105	.040
11-20	7	.80	.540	.063	.171	.171	.187	.133	.046
11-21	8	.72	.836	.187	.165	.148	.172	.250	.040
11-22	9	.81	.821			.171	.187	.203	.148
11-25-01	11	.70	.637	.050	.40	.185	.218	.187	.054
11-25-02	11	.80	.437	.046	.271	.185	.218	.120	.054
11-25-03	11	.50	.345	.046	.179	.148	.172	.120	.046
11-23	12	.50	.687	.046	.287	.185	.218	.354	.105

See Pages 1724 and 1725 for Complete Price List

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DABURN

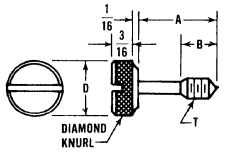
DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

CAPTIVE HARDWARE - WASHERS - ASS'T SPAGHETTI - ANTENNA KIT

CAPTIVE SCREW

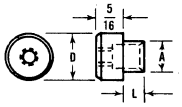
NEW



DABURN Cat. No.	A	B	D	T	Material
14-555	3/4	5/16	7/16	6-32	Brass
14-555SS	3/4	5/16	7/16	6-32	St. St.
14-556	3/4	3/8	7/16	8-32	Brass
14-556SS	3/4	3/8	7/16	8-32	St. St.
14-557	7/8	3/8	5/8	10-32	Brass
14-557SS	7/8	3/8	7/16	10-32	St. St.
14-558	7/8	3/8	5/8	1/4-20	Brass
14-558SS	7/8	3/8	1/2	1/4-20	St. St.

MATERIAL: Brass per QQB-626A, Comp. 22, 1/2 Hard.
FINISH: Nickel Plate and Polish per MIL-QQN-290, Type VI.
Stainless Steel per QQS-763, Class 7, Type A available. **Standard Package 100**

CAPTIVE BUSHING

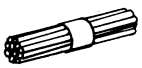


DABURN Cat. No.	D	A	L	T	Panel Thickness
14-560	3/8	5/16	5/32	6-32	1/8
14-561	3/8	5/16	5/32	8-32	1/8
14-562	5/16	13/32	5/32	10-32	1/8
14-563	5/16	13/32	5/32	1/4-20	1/8
14-564	3/8	5/16	7/32	6-32	3/16
14-565	3/8	5/16	7/32	8-32	3/16
14-566	5/16	13/32	7/32	10-32	3/16
14-567	5/16	13/32	7/32	1/4-20	3/16
14-568	3/8	5/16	9/32	6-32	1/4
14-569	3/8	5/16	9/32	8-32	1/4
14-570	5/16	13/32	9/32	10-32	1/4
14-571	5/16	13/32	9/32	1/4-20	1/4

MATERIAL: Brass per QQB-626A, Comp. 22, 1/2 Hard.
FINISH: Nickel Plate per MIL-QQN-290, Type VI.
Available in Stainless Steel, add suffix -S to part number.
SPECIAL SIZES ALSO AVAILABLE. **Standard Package 100**

DABURN ASSORTED SPAGHETTI PACKS

25-9" lengths per pack consists of varnished sleeving of assorted sizes and colors.

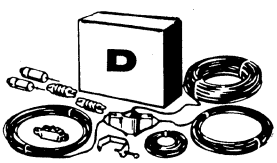


DABURN Cat. No.		Standard Package
9-07	Pack	25
9-08	25 Packs in Display Carton	1

DABURN ALL-WAVE ASSEMBLED ANTENNA KIT

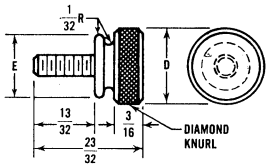
Designed for reception of overseas radio signals & programs. Utilizes the Hertz principle — balanced line consists of:

- 2—30' coils 7/24 copper wire
- 1—40' coil transmission cable
- 1—Center insulator
- 2—Porcelain insulators
- 2—Lead-in strips
- 1—Ground clamp
- 2—Nail-on knobs



DABURN Cat. No.		Standard Package
9-09	All Wave Kit	12

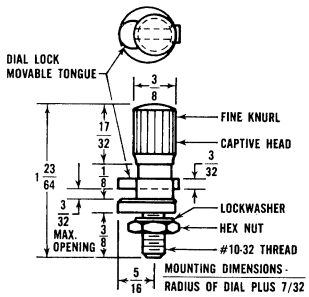
THUMB SCREW



DABURN Cat. No.	D	E	Thread
14-501	3/8	5/16	6-32
14-502	3/8	5/16	8-32
14-503	3/8	5/16	10-32
14-504	7/16	3/8	6-32
14-505	7/16	3/8	8-32
14-506	7/16	3/8	10-32
14-507	1/2	7/16	6-32
14-508	1/2	7/16	8-32
14-509	1/2	7/16	10-32

MATERIAL: Brass per QQB-626A, Comp. 22, 1/2 Hard.
FINISH: Nickel Plate per MIL-QQN-290, Type VI. **Std. Pkg. 100**

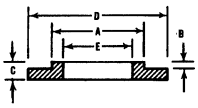
DIAL LOCK

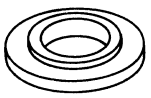


MATERIAL: Brass per QQB-626A, Comp. 22, 1/2 Hard.
FINISH: Nickel Plate per MIL-QQN-290, Type VI.
DABURN Cat. No. 14-500.
Standard Package 100

DABURN NYLON SHOULDER WASHERS

Natural Nylon Per MIL-P-20693A
Standard Package 1000

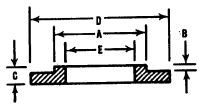


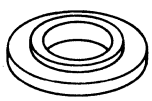


DABURN Cat. No.	E	Hole Size	D	C	B	A
14-540	.140	6	.375	.093	.031	.237
14-541	.110	4	.250	.062	.031	.187
14-542	.136	6	.250	.093	.031	.187
14-543	.136	6	.312	.093	.031	.187
14-544	.250	1/4"	.500	.068	.028	.312
14-545	.172	8	.375	.093	.031	.246
14-546	.196	10	.375	.093	.031	.308
14-547	.265	17/64"	.500	.097	.031	.365
14-548	.375	3/8"	.750	.093	.031	.500
14-549	.385	3/8"	.625	.093	.031	.500

FIBRE SHOULDER WASHERS

Fibre Material Per NEMA Standard and ASTM Spec. D-710

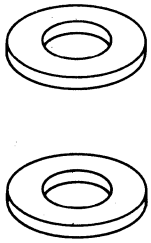




DABURN Cat. No.	E	Hole Size	D	C	B	A
14-530	.140	6	.375	.093	.031	.237
14-531	.110	4	.250	.062	.031	.187
14-532	.136	6	.250	.093	.031	.187
14-533	.136	6	.312	.093	.031	.187
14-534	.250	1/4"	.500	.068	.028	.312
14-535	.172	8	.375	.093	.031	.308
14-536	.196	10	.375	.093	.031	.308
14-537	.265	17/64"	.500	.097	.031	.365
14-538	.375	3/8"	.750	.093	.031	.500
14-539	.385	3/8"	.625	.093	.031	.500

Standard Package 1000

FLAT FIBRE WASHERS



DABURN Cat. No.	Hole Size	I.D.	O.D.	Thickness
14-510	6	.136	.250	1/16
14-511	4	.110	.250	1/16
14-512	6	.140	.375	1/16
14-513	8	.172	.375	1/16
14-514	10	.196	.375	1/16
14-515	1/4"	.250	.500	1/16
14-516	1/4"	.250	.500	3/32
14-517	5/16"	.312	.500	1/16
14-518	3/8"	.385	.625	1/16
14-519	3/8"	.375	.750	1/16

Standard Package 1000

Additional DABURN Products in Sections 2100, 3100, 5100 and 6000

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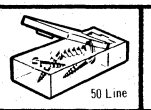
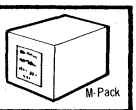
See Pages 1724 and 1725 for Complete Price List

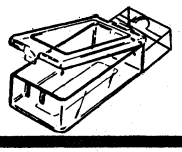
GC ELECTRONICS

RADIO & TV HARDWARE

ALL 50 LINE BOXES - .39 Net

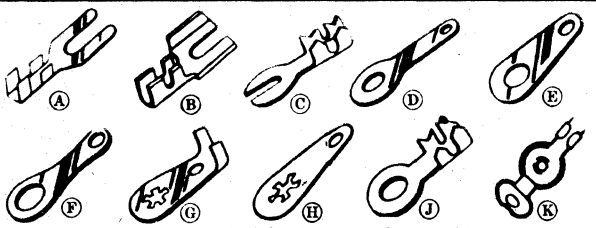






50 LINE

HINGED COVER
PLASTIC BOXES
— 50 LINE —
Dir. Net Price. 39c
Per Box



No. 1020, 100 Asst.
Dir. Net ..... $ .67

GC SOLDERING LUGS *TINNED*

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
No. 6, 5/8" Length (A)	H100-F	30	8466-C	$ 1.74	8466-M	$ 13.89
No. 6, 23/32" Length (B)			8467-C	3.10	8467-M	24.75
No. 8, 23/32" Length (B)			8468-C	2.92	8468-M	23.27
No. 6, 23/32" Length (C)	H104-F	25	1021-BC	1.16	1021-BM	9.24
No. 8, 23/32" Length (C)	H106-F	25	7445-C	1.32	7445-M	10.53
No. 10, 23/32" Length (C)			8473-C	1.29	8473-M	10.23
No. 6, 1/2" Length (D)			5708-C	1.85	5708-M	14.85
No. 8, 13/16" Length (D)			5704-C	1.85	5704-M	14.85
No. 10, 13/16" Length (D)			5705-C	1.85	5705-M	14.85
No. 6, 11/16" Length (D)	H108-F	30	1021-CC	1.02	1021-CM	8.88
No. 6, 9/16" Length (E)	H112-F	30	1021-FC	1.01	1021-FM	8.12
No. 8, 9/16" Length (E)	H113-F	30	7451-C	.96	7451-M	7.68
No. 6, 1" Length (F)	H114-F	25	7454-C	.74	7454-M	5.86
No. 8, 1" Length (F)	H117-F	25	7455-C	.95	7456-M	7.15
No. 10, 1" Length (F)	H118-F	25	7456-C	.95	7455-M	7.15
No. 4, 13/16" Length (G)			7458-C	2.04	7458-M	16.34
No. 8, 13/16" Length (G)			7460-C	2.06	7460-M	16.37
No. 10, 13/16" Length (G)			7461-C	2.06	7461-M	16.37
No. 6, 5/8" Length (H)	H122-F	20	7462-C	1.18	7462-M	9.37
No. 8, 5/8" Length (H)			7463-C	1.18	7463-M	9.37
No. 4, 7/8" Length (E)			5706-C	1.85	5706-M	14.85
No. 8, 7/8" Length (E)			5707-C	1.85	5707-M	14.85
No. 6, 7/8" Length (E)			5708-C	1.85	5708-M	14.85
No. 6, 11/16" Length (J)	H124-F	25	7441-C	1.30	7441-M	10.40
No. 8, 11/16" Length (J)	H134-F	25	7442-C	1.24	7442-M	10.03
No. 10, 11/16" Length (J)	H102-F	25	1021-AC	1.24	1021-AM	10.03
Solderless TV Line Lug (K)	H225-F	10	8633-C	1.82	8633-M	14.44

GC CABLE HOLDER CLAMPS *NICKEL PLATED*

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted	H500-F	20				
To Fit Cable / Mounting Hole						
1/8" to 3/16" No. 6	H502-F	25	6251-C	$ 1.08	6251-M	$ 8.61
3/16" to 1/4" No. 6	H503-F	20	6252-C	1.23	6252-M	9.77
1/4" to 5/16" No. 6			7503-C	1.90	7503-M	15.18
5/16" to 1/2" No. 6	H506-F	15	6253-C	1.40	6253-M	11.14
Baseboard Clips Blk.	H509-F	20	8345-C	2.28	8345-M	17.79

GC ROUND HEAD MACHINE SCREWS *STEEL-NICKEL PLATED*

Description and Spec.	50-Line No.	Qty. In Box
Assorted Screws	H1000-F	35
Assorted Screws & Nuts	H1001-F	40
Assorted No. 2 & 4 Screws & Nuts	H1002-F	35
Assorted 4-36 Screws	H1010-F	40
Assorted 6-32 Screws	H1012-F	40
Assorted 8-32 Screws	H1016-F	40
Assorted 10-32 Screws	H1018-F	25

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
2-56 x 1/4"	H1022-F	40	7130-C	$ .50	7130-M	$ 3.88
2-56 x 1/2"	H1024-F	40	7131-C	.53	7131-M	4.24
2-56 x 3/4"	H1026-F	40	7132-C	.61	7132-M	4.87
3-48 x 3/4"	H1028-F	40	7124-C	.64	7124-M	5.12
4-36 x 1/4"	H1032-F	40	6005-IC	.53	6005-M	4.26
4-36 x 3/8"	H1033-F	35	7138-C	.55	7138-M	4.37
4-36 x 1/2"	H1034-F	35	6006-C	.57	6006-M	4.60
4-36 x 5/8"			5651-C	.96	5651-M	8.10
4-36 x 3/4"	H1036-F	35	6007-C	.85	6997-M	7.29
4-40 x 1/4"	H1042-F	40	6005-AC	.53	6005-AM	4.26
4-40 x 1/2"	H1044-F	35	6005-BC	.58	6005-BM	4.64
4-40 x 5/8"			5652-C	.63	5652-M	4.98
4-40 x 3/4"	H1046-F	35	6005-CC	.86	6005-CM	7.26
6-32 x 1/4"	H1062-F	40	6008-C	.58	6008-M	4.68
6-32 x 1/2"	H1064-F	30	6009-C	.68	6009-M	5.42
6-32 x 5/8"			5653-C	.75	5653-M	5.94
6-32 x 3/4"	H1066-F	30	6010-C	.88	6010-M	7.55
6-32 x 1"	H1068-F	30	6011-C	.91	6011-M	7.34
6-32 x 1 1/4"	H1070-F	30	7141-C	1.10	7141-M	8.80
6-32 x 2"	H1076-F	20	7148-C	1.65	7148-M	13.28
8-32 x 1/4"	H1082-F	30	6013-C	.77	6013-M	6.11
8-32 x 3/8"	H1083-F	25	6014-C	.86	6014-M	7.13
8-32 x 1/2"	H1084-F	25	6015-C	.90	6015-M	7.13
8-32 x 5/8"			5654-C	.96	5654-M	7.65
8-32 x 3/4"	H1086-F	25	6016-C	1.02	6016-M	8.16
8-32 x 1"	H1088-F	20	6017-C	1.18	6017-M	9.35
8-32 x 1 1/4"	H1090-F	20	7142-C	1.35	7142-M	10.86
10-32 x 1/2"	H1104-F	20	6020-C	1.05	6020-M	8.39
10-32 x 5/8"			5655-C	1.13	5655-M	9.15
10-32 x 3/4"	H1106-F	20	6021-C	1.23	6021-M	9.82
10-32 x 1"	H1108-F	17	6022-C	1.38	6022-M	11.06
10-32 x 1 1/2"	H1112-F	15	7143-C	1.82	7143-M	14.54

GC ROUND HEAD MACHINE SCREWS *BRASS-NOT PLATED*

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted	H1210-F	30				
2-56 x 1/4"			5657-C	.77	5657-M	$ 6.15
2-56 x 1/2"			5658-C	.92	5658-M	7.41
2-56 x 5/8"						
2-56 x 3/4"			5660-C	1.08	5660-M	8.69
3-48 x 3/4"			5661-C	1.21	5661-M	9.63
4-36 x 1/4"			5662-C	.92	5662-M	7.45
4-36 x 1/2"			5663-C	1.18	5663-M	9.36
4-36 x 5/8"			5664-C	1.28	5664-M	10.19
4-36 x 3/4"			5665-C	1.39	5665-M	11.00
4-40 x 1/4"			5666-C	1.08	5666-M	8.69
4-40 x 1/2"			5667-C	1.18	5667-M	9.36
4-40 x 5/8"			5668-C	1.65	5668-M	14.77
4-40 x 3/4"			5669-C	1.46	5669-M	12.47
6-32 x 1/4"			8501-C	1.24	8501-M	9.97
6-32 x 3/8"			5670-C	1.33	5670-M	10.65
6-32 x 1/2"			8502-C	1.51	8502-M	11.99
6-32 x 5/8"			5671-C	1.65	5671-M	13.24
6-32 x 3/4"			8503-C	1.83	8503-M	14.63
6-32 x 1"			8504-C	2.07	8504-M	17.33
6-32 x 1 1/4"			5672-C	2.52	5672-M	20.58
6-32 x 2"			5673-C	4.24	5673-M	33.96
8-32 x 1/4"			8505-C	1.85	8505-M	14.76
8-32 x 3/8"			5674-C	1.94	5674-M	15.51
8-32 x 1/2"			8506-C	2.22	8506-M	17.75
8-32 x 5/8"			5675-C	2.45	5675-M	19.55
8-32 x 3/4"			8507-C	2.72	8507-M	21.66
8-32 x 1"			8508-C	3.23	8508-M	25.82
8-32 x 1 1/4"			5676-C	3.80	5676-M	28.88
10-32 x 1/2"			5677-C	2.81	5677-M	22.53
10-32 x 5/8"			5678-C	3.12	5678-M	25.03
10-32 x 3/4"			5679-C	3.41	5679-M	27.20
10-32 x 1"			5680-C	4.07	5680-M	32.43
10-32 x 1 1/2"			5681-C	5.54	5681-M	44.35

GC PHILLIPS TYPE ROUND HEAD MACHINE SCREWS *STEEL-NICKEL PLATED*

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted	H1180-F	25				
6-32 x 1/4"			8511-C	1.30	8511-M	$ 10.42
6-32 x 1/2"			8512-C	1.18	8512-M	9.38
6-32 x 5/8"						
6-32 x 3/4"			8513-C	1.34	8513-M	10.73
6-32 x 1"			8514-C	1.51	8514-M	11.96
8-32 x 5/16"			8515-C	1.13	8515-M	9.15
8-32 x 1/2"			8516-C	1.40	8516-M	11.77
8-32 x 5/8"			5690-C	1.35	5690-M	10.89
8-32 x 3/4"			8517-C	1.46	8517-M	11.72
8-32 x 1"			8518-C	1.60	8518-M	14.93

Net

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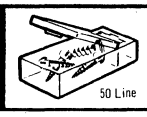
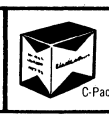
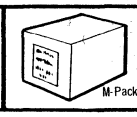
ALL 50 LINE BOXES - .39 Net







GC BINDING HEAD MACHINE SCREWS
STEEL-NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted	H1168-F	35				
5-36 x 1/4"	H1170-F	35	7154-C	.58	7154-M	$ 4.62
6-32 x 3/16"			7151-C	.58	7151-M	4.62
6-32 x 1/4"	H1172-F	35	7152-C	.58	7152-M	4.62
6-32 x 3/8"			7153-C	.63	7153-M	4.95
7-32 x 3/8"	H1174-F	30	7155-C	1.73	7155-M	13.73
8-32 x 5/16"			7158-C	.96	7158-M	8.15

GC BINDING HEAD MACHINE SCREWS
BRASS-NICKEL PLATED

Description and Spec.	Part No.	Net Per 100	No.	Net Per M
2-56x1/4"	7160-1-C	$ .97	7160-1-M	8.06
2-56x1/2"	7161-1-C	1.11	7161-1-M	9.56
2-56x3/4"	7162-1-C	1.29	7162-1-M	11.03
4-36x1/4"	7163-1-C	1.12	7163-1-M	9.61
4-36x1/2"	7164-1-C	1.38	7164-1-M	11.76
4-36x3/4"	7165-1-C	1.62	7165-1-M	13.90
4-40x1/4"	7170-1-C	1.12	7170-1-M	9.61
4-40x1/2"	7171-1-C	1.38	7171-1-M	11.76
4-40x3/4"	7172-1-C	1.62	7172-1-M	14.04
5-36x1/4"	7154-1-C	1.62	7154-1-M	14.04
6-32x3/16"	7151-1-C	1.55	7151-1-M	13.24
6-32x1/4"	7152-1-C	1.46	7152-1-M	12.58
6-32x3/8"	7153-1-C	1.56	7153-1-M	13.33
6-32x1/2"	7118-1-C	1.75	7118-1-M	14.89
6-32x3/4"	7173-1-C	2.11	7173-1-M	18.07
8-32x1/4"	7174-1-C	2.13	7174-1-M	18.14
8-32x3/8"	7119-1-C	2.24	7119-1-M	19.23
8-32x1/2"	7120-1-C	2.54	7120-1-M	21.71
8-32x5/16"	7158-1-C	2.17	7158-1-M	18.71
8-32x3/4"	7175-1-C	3.11	7175-1-M	26.74
10-32x1/2"	7176-1-C	2.94	7176-1-M	25.18
10-32x3/4"	7177-1-C	3.96	7177-1-M	34.08

GC DUAL HEAD RACK AND CABINET SCREWS
STEEL-NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted Screws and Washers	H1005-F	15				
6-32 x 1/2"			6540-C	.68	6540-M	$5.42
6-32 x 5/8"			5691-C	.96	5691-M	8.17
6-32 x 3/4"			6541-C	.80	6541-M	6.38
8-32 x 5/8"			5692-C	1.05	5692-M	8.69
8-32 x 3/4"			6542-C	1.02	6542-M	8.16
10-32 x 1/2"			8848-C	1.29	8848-M	10.23
10-32 x 5/8"			5693-C	1.13	5693-M	9.15
10-32 x 3/4"			6543-C	1.23	6543-M	9.82

GC ORNAMENTAL HEAD SCREWS
STEEL-BRONZE PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted	H1250-F	20				
6-32 x 3/4"	H1252-F	25	1097-C	1.41	1097-M	$ 11.30
6-32 x 1"	H1253-F	20	1098-C	1.54	1098-M	12.41
8-32 x 1 1/4"	H1255-F	12	1099-C	2.44	1099-M	16.83

GC ROUND HEAD WOOD SCREWS
STEEL-NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted	H1502-F	25				
No. 4 x 1/2"			6114-C	.86	6114-M	$ 6.85
No. 4 x 5/8"			5694-C	.99	5694-M	8.06
No. 4 x 3/4"			6115-C	.99	6115-M	7.92
No. 6 x 3/4"			6116-C	1.07	6116-M	8.50
No. 6 x 1"			6117-C	1.32	6117-M	10.53
No. 8 x 3/4"			6118-C	1.27	6118-M	10.07
No. 8 x 1 1/4"			8071-C	1.74	8071-M	13.95
No. 10 x 1 1/2"			8073-C	2.33	8073-M	18.64
No. 12 x 1 1/2"			8075-C	2.97	8075-M	23.76
No. 14 x 1 3/4"			8076-C	4.18	8076-M	33.50

GC SPADE BOLTS OR MOUNTING SCREWS
STEEL-NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted	H1570-F	15				
A B C D E No.						
6-32 6 9/32" 1 1/16" 9/16"			6081-C	1.27	6081-M	$ 10.07
6-32 6 13/32" 7/8" 1 1/16"			6082-C	1.93	6082-M	16.13
8-32 8 7/16" 1 5/32" 1 5/16"			6084-C	3.22	6084-M	25.74

GC SHEET METAL SCREWS POINTED TYPE "A" HEX HEAD-SLOTTED-SELF-TAPPING
NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Asstd	H1300-F	25				
No. 4 x 1/2"	H1350-F	35	6090-C	$ .96	6090-M	$ 7.68
No. 6 x 1/4"	H1362-F	30	6091-C	.96	6091-M	7.68
No. 6 x 3/8"	H1363-F	25	6092-C	.99	6092-M	8.43
No. 6 x 1/2"	H1364-F	25	6093-C	1.01	6093-M	8.53
No. 6 x 3/4"	H1366-F	20	6094-C	1.10	6094-M	8.80
No. 8 x 1/4"	H1382-F	20	8102-C	1.10	8102-M	8.80
No. 8 x 3/8"	H1383-F	20	6095-C	1.16	6095-M	9.16
No. 8 x 1/2"	H1384-F	20	6096-C	1.19	6096-M	9.49
No. 8 x 5/8"			5696-C	1.21	5696-M	9.66
No. 8 x 1"	H1388-F	15	6097-C	1.52	6097-M	12.13
No. 10 x 3/8"	H1403-F	15	6098-C	1.38	6098-M	11.00
No. 10 x 1/2"	H1404-F	15	6099-C	1.93	6099-M	15.35
No. 10 x 3/4"	H1406-F	12	6100-C	1.54	6100-M	12.29

GC ROUND HEAD-SLOTTED ESCUTCHEON PLATE SCREWS *BRONZE PLATED*

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Asstd.	H1500-F	25				
No. 2 x 1/4"			1091-C	$ .96	1091-M	$ 7.68
No. 2 x 3/8"			1093-C	.88	1093-M	7.27

GC RADIO KNOB SET SCREWS SLOTTED-HEADLESS-CUP POINT STANDARD

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Asst. 6-32, 8-32, 10-32	H1605-F	15				
6-32 x 3/16"	H1623-F	15	6072-C	$ 1.98	6072-M	$ 15.84
8-32 x 3/16"	H1633-F	15	6075-C	1.98	6075-M	15.84
8-32 x 1/4"	H1634-F	15	6076-C	1.98	6076-M	15.84
10-32 x 1/4"			6079-C	1.98	6079-M	15.84

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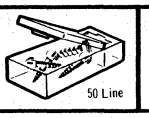

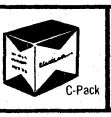

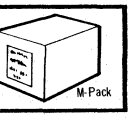

GC ALLEN HEX SET SCREWS
STEEL - HEADLESS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Asstd. Lengths, 4-36	H1674-F	5				
Asstd. Lengths, 6-32	H1676-F	5				
Asstd. Lengths, 8-32	H1678-F	5				
8-32 x 1/8"			7201-C	$5.42	7201-M	$ 43.40
8-32 x 3/16"			7202-C	5.42	7202-M	43.40

GC PHONO CARTRIDGE MOUNTING SCREWS
STEEL - NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted	H1560-F	60				
4-36 x 1/4"	H1562-F	40	6005-1C	.53	6005-M	$ 4.26
4-40 x 1/4"	H1564-F	40	6005-AC	.53	6005-AM	4.26

GC PHONOGRAPH NEEDLE & STYLUS SET SCREWS
STEEL - BRONZE PLATED

Description and Spec.	50-Line No.	Qty. In Box
Assorted	H1550-F	12
2-56 x 9/16"	H1551-F	12
2-64 x 3/4"	H1553-F	12
1-72 x 29/32"	H1555-F	5

GC HEXAGON NUTS
STEEL - NICKEL PLATED

Description and Spec.			50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted			H1800-F	30				
Thread	Width	Thickness						
2-56	3/16"	1/16"	H1802-F	30	7225-C	$ .75	7225-M	$ 6.07
3-48	3/16"	1/16"	H1803-F	30	7226-C	.75	7226-M	6.07
4-36	1/4"	3/32"	H1805-F	30	6041-C	.74	6041-M	5.81
4-40	1/4"	3/32"	H1804-F	30	6041-AC	.74	6041-AM	5.81
5-40	5/16"	7/64"			6045-BC	.80	6045-BM	6.40
6-32	1/4"	3/32"	H1806-F	30	6042-C	.75	6042-M	6.07
6-32	5/16"	7/64"	H1807-F	30	7230-C	.80	7230-M	6.40
8-32	1/4"	3/32"	H1803-F	30	6043-C	.80	6043-M	6.40
8-32	11/64"	1/8"	H1809-F	30	7233-C	.80	7233-M	6.40
10-32	3/8"	5/64"	H1810-F	30	6044-C	1.07	6044-M	8.45
10-32	3/8"	1/8"			6049-C	.96	6049-M	7.68
1/4-20	7/16"	3/16"	H1820-F	25	7235-C	1.46	7235-M	11.68
11/32-32	7/16"	1/16"			7236-C	2.15	7236-M	17.16
3/8-32	9/16"	3/32"	H1923-F	15	6050-AC	1.62	6050-AM	12.87
7/16-27	9/16"	1/8"	H1924-F	10	7238-C	3.63	7238-M	29.04
15/32-32	9/16"	5/64"			6050-BC	1.98	6050-BM	15.84

GC BRASS HEXAGON NUTS
NOT PLATED

Description and Spec.			50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Thread	Width	Thickness						
2-56	3/16"	1/16"			7241-C	$1.13	7241-M	$ 9.04
3-48	3/16"	1/16"			7242-C	1.05	7242-M	8.24
4-36	1/4"	3/32"	H1842-F	35	7243-C	1.36	7243-M	10.88
4-40	1/4"	3/32"	H1844-F	25	7244-C	1.35	7244-M	10.78
6-32	1/4"	3/32"	H1846-F	25	7245-C	1.35	7245 M	10.78
6-32	5/16"	7/64"			5697-C	1.62	5697-M	12.91
8-32	1/4"	3/32"			5693-C	1.35	5698-M	10.78
8-32	5/16"	7/64"	H1848-F	15	7248-C	1.62	7248-M	12.93
10-32	3/8"	1/8"	H1850-F	15	7249-C	1.77	7249-M	14.17
1/4-20	7/16"	3/16"			5699-C	3.62	5699-M	28.90

GC MOUNTING NUTS
STEEL - NICKEL PLATED

Description and Spec.			50-Line No.	Qty. InBox	Part No.	Net Per 100	No.	Net Per M
Assorted			H1920-F	12				
Thread	Width	Thickness						
11/32-32	7/16"	1/16"			7236-C	$ 2.15	7236-M	$ 17.16
(Rotary Switch Size)								
3/8-32	9/16"	3/32"	H1923-F	15	6050-AC	1.62	6050-AM	12.87
(Volume Control Size)								
7/16-27	9/16"	1/8"			7238-C	3.63	7238-M	29.04
(Pilot Light Size)								
15/32-32	9/16"	5/64"	H1924-F	10	6050-BC	1.98	6050-BM	15.84
(Toggle Switch Size)								
15/32-32	Round Ring Nut	1/16"	H1926-F	8	6050-CC	3.82	6050-CM	30.56
(Toggle Switch Size)								

GC TINNERMAN SPEED NUTS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted	H1960-F	30				
No. 4			6051-C	$ .73	6051-M	$ 6.27
No. 6			6052-C	.86	6052-M	6.85
No. 8			6053-C	.86	6053-M	6.85

GC ACORN NUTS
SOLID BRASS - NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted	H1950-F	10				
6-32			6031-C	$ 3.10	6031-M	$24.75
8-32			6032-C	3.30	6032-M	26.40
10-32			6033-C	3.99	6033-M	32.01

GC KNURLED THUMB NUTS
BRASS - NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted	H1941-F	10				
6-32	H1943-F	8	6655-C	$ 2.50	6655-M	$ 19.97
8-32	H1944-F	8	6656-C	2.50	6656-M	19.97
10-32	H1945-F	5	6657-C	5.48	6657-M	43.89

GC WING NUTS *NICKEL PLATED*

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted	H1931-F	10				
6-32	H1933-F	10	6658-C	$ 3.64	6658-M	$ 29.17
8-32	H1934-F	10	6659-C	2.70	6659-M	21.52
10-32	H1935-F	8	6660-C	3.00	6660-M	24.09

GC METAL WASHERS *NICKEL PLATED*

Description and Spec.					50-Line No.	Qty. InBox	Part No.	Net Per 100	No.	Net Per M
Asstd. Screw Size No.	Hole Size	O.D.	Thickness		H870-F	80				
4	1/8"	9/32"	1/32"		H874-F	80	6154-C	$ .55	6154-M	$ 4.43
6	5/32"	3/8"	1/32"		H876-F	80	6155-C	.55	6155-M	4.43
8	3/16"	7/16"	1/32"		H878-F	80	6156-C	.55	6156-M	4.43
10	13/64"	3/8"	1/32"		H880-F	70	7306-C	.52	7306-M	4.31
10	13/64"	7/16"	1/32"				7307-C	.52	7307-M	4.31
10	13/64"	1/2"	.049				6157-C	.55	6157-M	4.43
12	.228	7/16"	.021				7308-C	.52	7308-M	4.31
1/4"	9/32"	5/8"	1/16"		H882-F	50	6158-C	.63	6158-M	4.76
1/4"	17/64"	1/2"	1/16"				7311-C	.69	7311-M	5.58
5/16"	5/16"	11/16"	1/16"				7312-C	.64	7312-M	5.15

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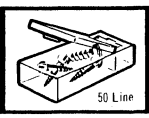
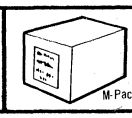
ALL 50 LINE BOXES - .39 Net





GC INTERNAL LOCK WASHERS
CADMIUM PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Asstd. All Types	H918-F	45				
Asstd. Internal Screw	H920-F	50				
Screw Size O.D.						
2	H922-F	35	7322-C	$ .79	7322-M	$ 6.36
3			7323-C	.69	7323-M	5.53
4	H924-F	50	7324-C	.50	7324-M	3.99
6 9/32"	H926-F	50	7326-C	.50	7326-M	3.99
8 21/64"	H928-F	50	7328-C	.55	7328-M	4.38
10 3/8"	H930-F	45	7330-C	.55	7330-M	4.38
1/4" 9/16"			7332-C	.72	7332-M	5.78
5/16" 19/32"			7333-C	.90	7333-M	7.18
3/8" 11/16"			7334-C	1.21	7334-M	9.66
3/8" 9/16"	H938-F	25	7335-C	1.38	7335-M	10.98
15/32" 19/32"			7338-C	1.74	7338-M	13.89

GC EXTERNAL LOCK WASHERS
CADMIUM PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Asstd.	H950-F	60				
No. 4			7354-C	$ .50	7354-M	$ 3.99
No. 6			7356-C	.50	7356-M	3.99
No. 8			7358-C	.55	7358-M	4.38
No. 10			7360-C	.53	7360-M	4.26
No. 1/4" 1/2"			7361-C	.72	7361-M	5.74
No. 3/8" 11/16"			7363-C	1.07	7363-M	8.45

GC SPLIT TYPE LOCK WASHERS
CADMIUM PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Asstd.	H960-F	60				
Screw Size O.D. Thick.						
No. 4 3/16" 1/32"			6503-C	$ .63	6503-M	$ 4.95
No. 6 15/64" 1/32"			6504-C	.53	6504-M	4.29
No. 8 11/32" .025			6505-C	.52	6505-M	4.07
No. 10 5/16" .050			6506-C	.58	6506-M	4.75
No. 1/4" 7/16" 5/64"			6507-C	.88	6507-M	7.02

GC SPRING FRICTION WASHERS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Asstd.	H750-F	12				
A B C Thick.						
3/64" 5/16" 1/32" .012			7385-C	$ 2.15	7385-M	$ 17.16
3/16" 3/8" 1/32" .008			7386-C	1.82	7386-M	15.26
3/16" 7/16" 1/16" .008			7387-C	1.78	7387-M	14.22
1/4" 9/16" 1/16" .012			7389-C	2.06	7389-M	16.25

GC CUP FINISHING WASHERS
NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Asstd. Screws & Washers	H1005-F	15				
Asstd. Washers	H805-F	40				
No. 6	H806-F	45	6161-C	$ .52	6161-M	$ 4.16
No. 8	H808-F	45	6162-C	.58	6162-M	4.62
No. 10	H810-F	35	6163-C	.61	6163-M	4.92

GC "C" WASHERS AND RETAINING RINGS
STEEL-CADMIUM PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Asst'd. C-Washers	H770-F	25				
Shaft Diam. A B C D						
3/16" .171 .125 .062 .031	H772-F	15	6182-C	$ 1.05	6182-M	$ 9.32
1/4" .234 .156 .046 .031	H774-F	15	6183-C	1.18	6183-M	9.44
1/4" .260 .187 .062 .031			6184-C	1.21	6184-M	10.81
1/4" 9/32" O.D. Wire Ring .029	H778-F	50	6185-C	.46	6185-M	3.63

GC HAIR PIN COTTERS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Asstd. **A B C**	H380-F	50				
9/32" 1/16" .026			7375-C	$ .53	7375-M	$ 4.29
3/8" 1/16" .026			7376-C	.46	7376-M	3.63
13/32" 3/32" .026			7377-C	.52	7377-M	4.16
1/2" 3/32" .026			7378-C	.53	7378-M	4.29
21/32" 5/16" .032			7379-C	.55	7379-M	4.40

GC FLAT FIBRE WASHERS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Asstd.	H820-F	35				
Screw Size I.D. O.D. Thick.						
6 .140 1/4" 1/32"	H824-F	30	6513-C	$ .55	6513-M	$ 4.40
8 11/64" 3/8" 1/32"	H825-F	30	6514-C	.55	6514-M	4.40
10 .196 3/8" 1/32"	H826-F	30	6515-C	.55	6515-M	4.40
1/4" 1/4" 1/2" 3/64"	H827-F	24	6516-C	.58	6516-M	4.62
3/8" .390 25/64" 3/64"	H828-F	20	6517-C	.85	6517-M	6.73
15/32" 15/32" 1/4" 1/32"			6518-C	.85	6518-M	6.73

GC EXTRUDED FIBRE WASHERS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Asstd. Extruded & Flat	H854-F	30				
Asstd. Extruded	H855-F	30				
Screw Size A B C D						
6 5/16" .187 .140 .039			6525-C	$ .96	6525-M	$ 7.59
8 3/8" .250 .169 .031			6526-C	.96	6526-M	7.59
10 7/16" .255 .196 .032			6527-C	1.05	6527-M	8.28
1/4" 1/2" .375 .250 .032			6528-C	1.05	6528-M	8.28
3/8" 5/8" .437 .380 .031	H864-F	20	6529-C	1.08	6529-M	8.71

GC SNAP BUTTON HOLE PLUGS
NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Asstd.	H300-F	8				
No. 1710 Asst. 50 Plugs in Box Dlr. Net $3.05						
1/4" 13/32" 1/4" 17/64" 3/64"	H306-F	8	1711-AC	$ 2.48	1711-AM	19.80
5/16" 7/16" 1/4" 21/64" 1/16"			1711-BC	2.64	1711-BM	21.12
3/8" 17/32" 3/8" 25/64" 3/64"	H308-F	8	1711-C	3.39	1711-M	27.06
1/2" 21/32" 17/64" 17/32" 3/64"	H310-F	6	1712-C	3.39	1712-M	27.06
5/8" 51/64" 9/32" 41/64" 3/64"	H312-F	6	1713-C	3.63	1713-M	29.04
3/4" 15/16" 19/64" 49/64" 3/32"	H314-F	5	1714-C	3.96	1714-M	31.68
7/8" Fits Switch Box Knockout Hole			1714-AC	5.08	1714-AM	40.59
1" 1 5/32" 19/64" 1 1/32" 3/64"	H316-F	5	1715-AC	5.45	1715-AM	43.56
1 1/8" 1 5/16" 13/32" 1 9/32" 3/32"			1715-BC	6.52	1715-BM	65.34
1 1/4" 1 7/16" 5/16" 1 17/64" 3/32"			1715-C	7.10	1715-M	56.76
1 3/8" 1 9/16" 13/32" 1 13/32" 3/32"			5700-C	7.84	5700-M	62.70
1 7/16" 1 39/64" 27/64" 1 15/32" 7/64"			5701-C	8.00	5701-M	64.02
1 1/2" 1 41/64" 13/32" 1 17/32" 3/32"			5702-C	10.32	5702-M	82.50

GC SNAP-IN VENTILATING PLUGS
NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
1" Punched Holes	H334-F	4	1709-C	$ 8.91	1709-M	$ 71.68
1" Screen Vent			1708-C	23.52	1708-M	188.09

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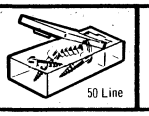
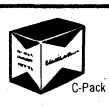
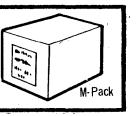




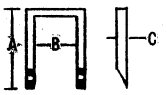


GC FAHNESTOCK CLIPS *NICKEL PLATED*

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted L W Hole Wire	H590-F	12				
(A) ½" 7/32" 4 16	H592-F	15	6301-C	1.65	6301-M	14.36
(B) ¾" 5/16" 6 14	H594-F	14	6302-C	1.90	6302-M	15.38
(C) 1 1/16" 3/8" 8 10			6303-C	3.27	6303-M	26.24
(D) 1½" ¾" 6 10			6304-C	12.12	6304-M	107.87
(E) ¾" 5/16" 6 14			6306-C	4.43	6306-M	35.51

GC SNAP-IN TRIMOUNTS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
No. 1720 Asst. 100 Trimounts Net Price ..... $ .82						
Assorted	H370-F	20				
To Fit Hole A B						
1/8" 5/32" 3/16"				$		$
1/8" 5/32" 13/64"	H373-F	25	1722-C	1.32	1722-M	10.89
.136 11/32" 17/64"						
.136 23/64" 9/32"	H375-F	20	1724-C	1.60	1724-M	12.79
5/32" 3/16"x1/32" 25/64"	H378-F	17	1726-C	1.95	1726-M	15.51
5/32" 3/16"x1/32" 21/32"	H379-F	15	1727-C	1.95	1727-M	15.51

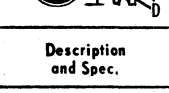


GC DIAL CORD CLIPS *NICKEL PLATED*

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Used on Cord No. A B C						
75-75A 1/8" 7/64" 3/32"	H745-F	30	6221-C	$ .75	6221-M	$ 5.97
74-74L 1/4" 5/32" 5/32"	H746-F	40	6222-C	.85	6222-M	6.80
73-73X 3/16" 9/64" 3/16"			6223-C	.86	6223-M	6.88

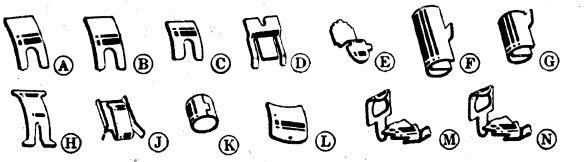
GC TERMINAL STRIP ASSORTMENT *1/16" INSULATION - 3/8" SPACING*

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100
Assorted	H250-F	4		
1 Lug			1781-C	$ 2.97
2 Lugs			1782-C	2.97
3 Lugs			1783-C	3.10
4 Lugs			1784-C	4.29
5 Lugs			1785-C	4.95
6 Lugs			1786-C	5.28
7 Lugs			1787-C	9.57
8 Lugs			1788-C	10.56



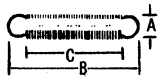
GC DIAL PULLEYS *BRASS*

Description and Spec.	50-Line No.	Part No.	Net Per 100	No.	Net Per M
Assorted	H1966-F				
A B C (Groove D Wd.)					
3/8" .120 1/8" 3/32"		6057-AC	5.08	6057-AM	40.67
7/16" .067 13/64" 1/8"		6057-BC	7.54	6057-BM	60.37
1/2" 1/8" 3/16" 3/32"		6057-GC	9.33	6057-GM	74.72
.620 .128 .165 1/16"		6057-CC	10.29	6057-CM	82.24
.860 .128 5/32" .050		6057-FC	17.66	6057-FM	141.17



GC RADIO KNOB SPRINGS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Asst.	H480-F	18				
TV Spring Asst.	H460-F	12				
No. 1050 Kit of 35 Springs						
No. 1051 Kit of 100 Springs						
Width Length For Knob Shaft Dia.						
(A) 5/32" Light 7/16" 1/4"	H482-F	20	6460-C	1.16	6460-M	$ 9.22
(B) 5/32" Heavy 7/16" 1/4"	H484-F	20	6461-C	1.21	6461-M	9.66
(C) 5/32" 5/16" 1/4"	H487-F	20	6462-C	.97	6462-M	7.81
(D) 3/8" 5/32" 1/4"	H489-F	10	6463-C	1.30	6463-M	10.34
(E) 7/32" 13/32" 1/4"			6464-C	2.04	6464-M	16.66
(F) 5/32" 3/8" 1/4"	H492-F	8	6465-C	2.59	6465-M	20.71
(G) 5/32" 1/4" 1/4"			6466-C	3.08	6466-M	24.67
(H) 5/32" 1/2" 1/4"			6467-C	1.40	6467-M	11.11
(J) 5/32" 3/8" 1/4"	H494-F	10	6468-C	1.65	6468-M	13.13
(K) 11/32" 1/4" 1/4"			6469-C	2.59	6469-M	20.71
(L) 3/8" 3/8" 1/4"	H497-F	10	6470-C	1.65	6470-M	13.13
(M) 3/8" 7/16" 1/4"	H498-F	10	6471-C	2.81	6471-M	22.44
(N) 3/8" 7/16" 3/16"	H499-F	10	6472-C	2.56	6472-M	20.55
TV Knob Spring .202" Shaft	H462-F	10				
TV Knob Spring 3/8" Flat Shaft	H464-F	10	8542-C	1.67	8542-M	13.29



GC DIAL DRIVE TENSION PHONO SPRINGS *STEEL-CADMIUM PLATED*

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Asst. Reg. Dial Drive						
Asst. Small Dial Drive						
No. 1055 Kit of 25 Asst. Net $1.23	H401-F	8				
No. 1056 Kit of 100 Asst. Net $3.57	H400-F	10				
Asst. Lge. Tension Spgs.	H421-F	10				
Asst. Sm. Tension Spgs.	H420-F	10				
A B C Wire Size						
1/8" 1/2" 1/4" .019	H403-F	10	6450-C	$ 5.53	6450-M	$ 44.36
1/8" 1" 3/4" .019	H406-F	8	6451-C	4.16	6451-M	33.33
3/16" 1" 5/8" .020	H408-F	8	6452-C	4.65	6452-M	37.20
3/16" 13/8" 1" .020	H410-F	8	6453-C	4.76	6453-M	38.19
1/4" 1 1/2" 1" .026	H412-F	6	6454-C	6.16	6454-M	49.33
1/4" 2" 1 1/2" .026			6455-C	7.61	6455-M	60.89

GC COMPRESSION SPRINGS

Description and Spec.	50-Line No.	Qty. In Box
Asst. Small	H440-F	20
Asst. Large	H441-F	15

GC FUSE CLIPS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
For 1/4" Fuses, No. 6 Mounting Hole TV Fuse Clip, No. 8618 ($ .25) Net)	H600-F	12	6311-C	$ 2.30	6311-M	$ 18.40

GC PHONO TURNTABLE MOUNTING SPRINGS

Description and Spec.	Part No.	Net Per 100	No.	Net Per M
O.D. Lgth. Wire Size No. of Coils				
1"x1 1/16" 13/16" .079 4	7497-C	$ 3.49	7497-M	$ 27.90

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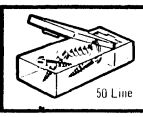
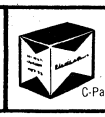
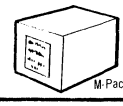






GC EYELETS *BRASS*

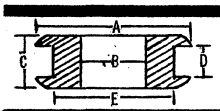
Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Asst. Rivets and Eyelets	H526-F	55				
Asst. Eyelets and Clamps	H744-F	60				
Eyelet Asst.	H510-F	50				
Shank Dia. / Length Under Head / Head Dia.						
.087 / 1/8" / .145			7251-C	$ .32	7251-M	$ 2.62
.087 / 5/32" / .145			7252-C	.41	7252-M	3.30
.087 / 7/32" / .145			7253-C	.54	7253-M	3.70
.087 / 11/32" / .180			7254-C	1.24	7254-M	10.04
.123 / 5/32" / .197	H515-F	50	7257-C	.58	7257-M	4.60
.123 / 7/32" / .195			7259-C	.46	7259-M	3.70
.123 / 1/4" / .195			7260-C	.61	7260-M	4.83
.123 / 9/32" / .195			7261-C	.62	7261-M	4.91
.125 / 5/16" / .289			7264-C	1.07	7264-M	8.44
.127 / 13/32" / .222			7265-C	1.30	7265-M	10.32
.182 / 3/16" / .315			7269-C	.37	7269-M	2.93

GC RIVETS *NICKEL PLATED*

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Asst. Rivets and Eyelets	H526-F	55				
Rivet Assortment	H525-F	50				
TV Interlock Receptacle Rivets	H527-F	Asst.				
Shank Dia. / Length Under Head						
.059 / 5/32"			7276-C	$ .97	7276-M	$ 7.68
.059 / 3/16"			7277-C	.97	7277-M	7.68
.060 / 1/4"			7278-C	.64	7278-M	5.19
.088 / 3/16"			7280-C	1.05	7280-M	8.28
.098 / 3/16"			7283-C	1.08	7283-M	8.71
.121 / 1/8"			7286-C	.85	7286-M	6.82
.121 / 3/16"			7288-C	.66	7288-M	5.23
.121 / 1/4"			7290-C	.77	7290-M	6.27
.121 / 1/2"			7293-C	.72	7293-M	5.67
.146 / 5/16"			7296-C	.90	7296-M	7.51

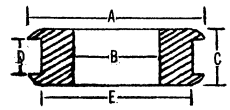
GC GRID CAPS *NICKEL PLATED*

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Asstd. Glass Metal TV Spring Type, Asstd.	H609-F	8				
1/4" High-Voltage	H610-F		8838-IRC	4.18	8838-IRM	33.39
3/8" High-Voltage			8838-2RC	4.37	8838-2RM	34.93
1/4" Insulated High-Voltage	H612-F	1	8834-C	27.64	8834-M	251.86
3/8" Insulated High-Voltage	H614-F	1	8835-C	27.64	8835-M	251.86



GC RUBBER GROMMETS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Asstd. Soft Grommets No. 1040 Kit of 50 Asstd. Grommets Net $.75	H025-F	15				
A / B / C / D / E						
11/32" / 1/8" / 3/16" / 1/16" / 1/4"	H030-F	16	1041-2C	$ 1.23	1041-2M	$ 9.82
7/16" / 3/16" / 7/32" / 1/16" / 5/16"	H032-F	14	1041-C	1.40	1041-M	11.09
7/16" / 1/4" / 1/4" / 1/16" / 3/8"	H034-F	12	1042-C	1.84	1042-M	14.85
5/8" / 3/8" / 1/4" / 1/16" / 1/2"	H036-F	10	1043-C	2.09	1043-M	16.66
1/2" / 3/16" / 1/4" / 1/16" / 5/16"			5710-C	4.18	5710-M	37.57
1/2" / 1/4" / 5/16" / 1/8" / 3/8"			7566-C	2.70	7566-M	21.48
7/8" / 3/16" / 13/64" / 1/16" / 3/4"			5711-C	3.88	5711-M	35.00
3/4" / 7/16" / 1/4" / 1/16" / 9/16"			5712-C	5.67	5712-M	45.34
13/16" / 1/2" / 9/32" / 1/16" / 5/8"	H038-F	8	1043-IC	3.17	1043-IM	29.04
1 1/16" / 3/8" / 5/16" / 1/16" / 13/16"			7569-C	6.33	7569-M	50.52
3/4" / 5/16" / 11/32" / 3/32" / 15/32"			5715-C	7.48	5715-M	59.80
1 1/8" / 5/8" / 5/16" / 1/16" / 7/8"			5716-C	6.30	5716-M	50.49
1 5/16" / 1 1/16" / 3/8" / 1/16" / 1"			5717-C	12.70	5717-M	108.31



GC PURE GUM GROMMETS

Soft rubber grommets for shock dampening. For mounting tuning condensers, sockets, phono motors, etc.

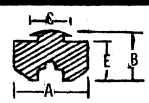
Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Asst. No. 7581 Kit of 100 Asst. Grommets. $1.62	H040-F	12				
A / B / C / D / E						
7/16" / 3/16" / 7/32" / 1/16" / 5/16"	H042-F	12	7582-C	1.78	7582-M	14.19
5/16" / 1/4" / 1/4" / 1/16" / 3/8"	H043-F	10	7584-C	2.53	7584-M	20.22

GC RADIO KNOB FELTS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
3/4" O.D. x 1/4" Hole, Brown	H760-F	40	1065-C	.42	1065-M	3.54

GC RUBBER FEET *SCREW TYPE*

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
	H050-F	8				
O.D. / High						
3/8" / 3/16"	H052-F	8	1075-BC	1.45	1075-BM	11.88
1/2" / 1/4"	H054-F	8	1075-CC	1.91	1075-CM	15.84
5/8" / 5/16"	H056-F	8	1075-FC	2.71	1075-FM	21.89



GC RUBBER BUTTON BUMPERS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
A O.D. / B Height / C Hole / E Height						
3/8" / 3/8" / 3/16" / 3/16"			7596-C	1.57	7596-M	12.65
1/2" / 7/16" / 1/4" / 1/4"	H058-F	8	7597-C	2.31	7597-M	18.54
5/8" / 9/16" / 3/8" / 5/16"			7598-C	3.72	7598-M	29.81

GC RUBBER TACK BUMPERS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
3/8" O.D.	H071-F	10	1075-C	2.04	1075-M	16.26

GC FELT PADS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Asstd. Felt Pads 1/2" O.D. x 1/4" Thick Felt Pads	H074-F	40	1071-C	.33	1071-M	2.62

GC CORD STRAIN RELIEFS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Will Fit P.O.S.J. Cord	H048-F	5	6675-C	5.80	6675-M	46.32

GC ANGLES AND BRACKETS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Asstd.	H570-F	12				
A / B / C Hole Size						
1/4" / 3/16" / 9/32" 6			6261-C	1.23	6261-M	9.87
3/8" / 1/4" / 9/32" 6			6262-C	1.54	6262-M	12.23
1/2" / 7/16" / 3/8" 6			6263-C	1.74	6263-M	13.95

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Net

Walsco ELECTRONICS — ELECTRONIC HARDWARE

WALSCO BINDING HEAD MACHINE SCREWS — STEEL NICKEL PLATED

SIZE	BOX OF 100 PART NO.	BOX OF 100 NET/100	BOX OF 1000 PART NO.	BOX OF 1000 NET/1000
2-56 x 1/4"	8151-C	$ .69	8151-M	5.86
2-56 x 1/2"	8152-C	.69	8152-M	5.86
2-56 x 3/4"	8154-C	.69	8154-M	5.86
4-36 x 1/4"	8155-C	.69	8155-M	5.86
4-36 x 1/2"	8156-C	.69	8156-M	5.86
4-36 x 3/4"	8157-C	.69	8157-M	5.86
4-40 x 1/4"	8158-C	.69	8158-M	5.86
4-40 x 1/2"	8159-C	.69	8159-M	5.86
4-40 x 3/4"	8160-C	.70	8160-M	5.89
5-36 x 1/4"	8161-C	.58	8161-M	4.62
6-32 x 3/16"	8162-C	.58	8162-M	4.62
6-32 x 1/4"	8163-C	.58	8163-M	4.62
6-32 x 3/8"	8164-C	.63	8164-M	4.95
6-32 x 1/2"	8166-C	.72	8166-M	5.63
6-32 x 3/4"	8167-C	.79	8167-M	6.34
7-32 x 3/8"	8165-C	1.73	8165-M	13.73
8-32 x 1/4"	8168-C	.79	8168-M	6.18
8-32 x 3/8"	8169-C	.83	8169-M	6.44
8-32 x 1/2"	8170-C	.86	8170-M	6.90
8-32 x 5/16"	8171-C	.96	8171-M	8.15
8-32 x 3/4"	8172-C	1.05	8172-M	8.33
10-32 x 1/2"	8173-C	1.09	8173-M	8.72
10-32 x 3/4"	8174-C	1.27	8174-M	10.12

HEX NUTS — BRASS

Thread	Width	Thickness				
2-56	3/16"	1/16"	8802-1-C	1.13	8802-1-M	9.04
4-36	1/4"	3/32"	8845-C	1.36	8845-M	10.88
4-40	1/4"	3/32"	8844-C	1.35	8844-M	10.78
6-32	1/4"	3/32"	8846-C	1.35	8846-M	10.78
6-32	5/16"	7/64"	8826-1-C	1.62	8826-1-M	12.91
8-32	5/16"	7/64"	8848-C	1.62	8848-M	12.91
10-32	3/8"	1/8"	8850-C	1.77	8850-M	14.17

WALSCO BINDING HEAD MACHINE SCREWS — BRASS NICKEL PLATED

SIZE	BOX OF 100 PART NO.	BOX OF 100 NET/100	BOX OF 1000 PART NO.	BOX OF 1000 NET/1000
2-56 x 1/4"	8151-1-C	.97	8151-1-M	8.06
2-56 x 1/2"	8152-1-C	1.11	8152-1-M	9.56
2-56 x 3/4"	8154-1-C	1.29	8154-1-M	11.03
4-36 x 1/4"	8155-1-C	1.12	8155-1-M	9.61
4-36 x 1/2"	8156-1-C	1.38	8156-1-M	11.76
4-36 x 3/4"	8157-1-C	1.62	8157-1-M	13.90
4-40 x 1/4"	8158-1-C	1.12	8158-1-M	9.61
4-40 x 1/2"	8159-1-C	1.38	8159-1-M	11.76
4-40 x 3/4"	8160-1-C	1.62	8160-1-M	14.04
5-36 x 1/4"	8161-1-C	1.62	8161-1-M	15.00
6-32 x 3/16"	8162-1-C	1.55	8162-1-M	13.24
6-32 x 1/4"	8163-1-C	1.46	8163-1-M	12.58
6-32 x 3/8"	8164-1-C	1.56	8164-1-M	13.33
6-32 x 1/2"	8166-1-C	1.75	8166-1-M	14.89
6-32 x 3/4"	8167-1-C	2.11	8167-1-M	18.07
8-32 x 1/4"	8168-1-C	2.13	8168-1-M	18.14
8-32 x 3/8"	8169-1-C	2.24	8169-1-M	19.23
8-32 x 1/2"	8170-1-C	2.54	8170-1-M	21.71
8-32 x 5/16"	8171-1-C	2.17	8171-1-M	18.71
8-32 x 3/4"	8172-1-C	3.11	8172-1-M	26.74
10-32 x 1/2"	8173-1-C	2.94	8173-1-M	25.18
10-32 x 3/4"	8174-1-C	3.96	8174-1-M	34.08

HEX NUTS — STEEL NICKEL PLATED

Thread	Width	Thickness				
2-56	3/16"	1/16"	8802-C	.75	8802-M	6.07
4-36	1/4"	3/32"	8824-C	.74	8824-M	5.81
4-40	5/16"	7/64"	8804-C	.74	8804-M	5.81
6-32	1/4"	3/32"	8806-C	.75	8806-M	6.07
6-32	5/16"	7/64"	8826-C	.80	8826-M	6.40
8-32	1/4"	3/32"	8808-C	.80	8808-M	6.44
8-32	11/32"	1/8"	8828-C	.80	8828-M	6.40
10-32	3/8"	5/64"	8810-C	1.07	8810-M	8.45
10-32	3/8"	1/8"	8830-C	.96	8830-M	7.68

WALSCO 50 LINE HARDWARE

	DIMENSIONS	50 LINE .39/Pkg. Cat. No.	Qty. Pkg.	100 Pack Cat. No.	Qty. Pkg.	Net	BULK PACK Cat. No.	Std. Pack	Net Per 1000
WALSCO CABLE CLAMPS	1/8" to 3/16" cable diameter — Mtg. Hole Size #6 3/16" to 1/4" cable diameter — #8 1/4" to 5/16" cable diameter — #8 Assorted	7502-F 7503-F 7505-F 7500-F	25 20 16 20	7502-C 7503-C 7505-C	100 100 100	$ 1.08 1.23 2.29	7502-M 7503-M 7505-M	1000 1000 1000	$ 8.61 9.77 18.32
VINYL GROMMETS	A 11/32 B 1/8 C 3/16 D 1/16 E 1/4 7/16 3/16 7/32 1/16 5/16 5/16 1/4 1/4 1/16 3/8 5/8 3/8 1/4 1/16 1/2 13/16 1/2 9/32 1/16 5/8 Assorted	7030-F 7032-F 7034-F 7036-F 7038-F 7025-F	14 12 12 10 8 12	7030-C 7032-C 7034-C 7036-C 7038-C	100 100 100 100 100	$ 1.10 1.38 1.51 1.62 2.50	7030-M 7032-M 7034-M 7036-M 7038-M	1000 1000 1000 1000 1000	$ 8.94 11.00 11.97 12.90 20.40
CABINET FEET — SCREW TYPE Made of synthetic rubber. Easily installed with wood screws, metal screws or tacks. Screw type is supplied with wood screws on "50" and "99" line packages.	Diameter 3/8 Height 3/16 1/2 1/4 5/8 5/16 3/4 3/8 Assorted	7052-F 7054-F 7056-F 7050-F	8** 8** 8** 8**	7052-C 7054-C 7056-C 7058-C	100** 100** 100** 100**	$ 1.45 1.91 2.71 3.10	7052-M* 7054-M* 7056-M* 7058-M*	1000 1000 1000 1000	$ 11.88 15.84 21.89 24.75
		** Wood screws included					* No screws included		
TACK TYPE Same as above, but with handy tacks molded in feet.	Diameter 3/8 1/2 Assorted	7070-F	8	7071-C 7072-C	100 100	$ 2.04 2.15	7071-M 7072-M	1000 1000	$ 16.26 17.13
WALSCO INSULATING WASHERS (Flat and Extruded)	Fits Screw Size #6 — A 5/16 B 3/16 C .140 D .039 — Extruded Flat 5/16 .140 Fl & Ex.	7824-F	30	7856-C 7836-C	100 100	$ .96 .46	7856-M 7836-M	1000 1000	$7.59 3.63
	#8 — 3/8 1/4 .169 1/32 — Extruded Flat 3/8 .166 Fl. & Ex.	7825-F	30	7858-C 7838-C	100 100	.96 .46	7858-M 7838-M	1000 1000	7.59 3.63
	#10 — 3/8 .308 .195 1/32 — Extruded Flat 3/8 .195 Fl. & Ex.	7826-F	30	7860-C 7840-C	100 100	1.05 .46	7860-M 7840-M	1000 1000	8.28 3.63
	1/4" — 1/2 11/32 .250 1/32 — Extruded Flat 1/2 .250 Fl. & Ex.	7827-F	24	7862-C 7842-C	100 100	1.05 .52	7862-M 7842-M	1000 1000	8.28 4.05
	3/8" — 5/8 1/2 .380 1/32 — Extruded Flat 5/8 .380 Fl. & Ex.	7828-F	20	7864-C 7844-C	100 100	1.08 .85	7864-M 7844-M	1000 1000	8.71 6.73
WALSCO SPADE BOLTS	Size — A — B — C — D 6-32 Straight — 3/4" — 5/16" — 5/32" — 1/4" 6-32 Offset — 3/4" — 5/16" — 5/16" — 15/64" Assorted	8570-F	15	8572-C 8573-C	100 100	$ 1.34 2.81	8572-M 8573-M	1000 1000	$ 13.45 22.36
WALSCO SNAP-HOLE PLUGS	The quickest, simplest way ever devised to cover a hole in chassis or panel. Spring flanges hold polished nickel-plated flat-head button firmly in place. Use Walsco Snap-Hole Plugs to seal adjustments, cover unused holes, etc.	Fits Hole Diameter 1/8" 3/16" 1/4" 3/8" 1/2" 5/8" 3/4" 7/8" 1" 1 1/8" 1 1/4" Assorted					7302-M 7304-M	1000 1000	$ 28.22 26.82
		7306-F 7308-F 7310-F 7312-F 7314-F 7316-F 7300-F	8 8 6 6 5 4 6	7306-C 7308-C 7310-C 7312-C 7314-C 7315-C 7316-C 7318-C 7320-C	100 100 100 100 100 100 100	$ 2.48 3.39 3.39 3.63 3.96 5.08 5.45 6.52 7.10	7306-M 7308-M 7310-M 7312-M 7314-M 7315-M 7316-M 7318-M 7320-M	1000 1000 1000 1000 1000 1000 1000 1000 1000	19.80 27.06 27.06 29.04 31.68 40.59 43.56 65.34 56.76
VENTILATING HOLE PLUGS	Fig. No. — Type — Hole Size — Finish 1 — Screened — 1" — Steel 2 — Eyelet — 19/32" — Brass—Not Plated 2 — Eyelet — 3/4" — Brass Assorted	7330-F	3	7331-C 7332-C 7333-C		$ 23.52 5.20 7.36	7331-M 7332-M 7333-M		$ 188.09 46.70 66.10

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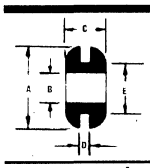
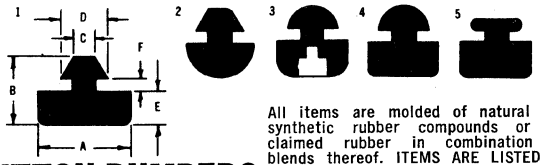


GROMMETS

All items are molded of natural and synthetic rubber compounds or reclaimed rubber in combination or blends thereof. Items are listed in ascending order of diameter and height.

Part No.	A O.D.	B I.D.	C Height	D Groove Width	E Groove Diam.	Per 100 100/999	Per 100 1000/4999
GOB-2101	1/4	1/8	1/8	1/32	3/16	$1.95	$1.56
GOB-2104	11/32	7/64	3/16	1/16	13/64	1.35	1.08
GOB-2105	11/32	1/8	3/16	1/16	3/16	1.50	1.20
GOB-210	11/32	1/8	3/16	1/16	1/4	2.70	2.16
GOB-2158	13/32	3/16	13/64	1/16	5/16	1.80	1.44
GOB-2157	7/16	1/8	7/32	1/16	5/16	1.95	1.56
GOB-2156	7/16	3/16	3/16	1/32	5/16	1.95	1.56
GOB-215	7/16	3/16	7/32	1/16	5/16	1.80	1.44
GOB-415	7/16	3/16	1/4	3/32	5/16	1.95	1.56
GOB-2160	7/16	7/32	3/16	1/16	5/16	1.80	1.44
GOB-2161	7/16	13/64	5/32	1/32	21/64	1.80	1.44
GOB-2153	15/32	9/64	1/4	1/16	5/16	2.10	1.68
GOB-2151	15/32	9/64	9/32	3/32	5/16	1.80	1.44
GOB-2154	15/32	7/32	1/8	1/32	5/16	1.80	1.44
GOB-2174	1/2	3/32	3/16	1/16	3/8	2.70	2.16
GOB-2171	1/2	3/16	3/16	1/32	3/8	2.10	1.68
GOB-2173	1/2	3/16	7/32	1/16	5/16	2.25	1.80
GOB-217	1/2	3/16	7/32	1/16	3/8	2.25	1.80
GOB-2172	1/2	1/4	7/32	1/32	5/16	2.25	1.80
GOB-2191	17/32	7/32	25/64	3/64	11/32	2.85	2.28
GOB-219	17/32	7/32	13/32	3/32	11/32	2.85	2.28
GOB-2201	9/16	3/16	3/8	1/8	7/16	2.85	2.28
GOB-220	9/16	1/4	1/4	1/16	3/8	2.40	1.92
GOB-221	9/16	9/32	1/4	1/16	3/8	2.40	1.92
GOB-2211	9/16	9/32	1/4	1/16	13/32	2.85	2.28
GOB-321	9/16	9/32	5/16	1/8	3/8	2.85	2.28
GOB-523	19/32	1/4	11/64	3/64	13/32	2.85	2.28
GOB-324	19/32	5/16	3/8	1/8	7/16	2.85	2.28
GOB-3241	19/32	5/16	11/32	3/32	7/16	2.85	2.28
GOB-2253	5/8	3/32	1/4	3/64	7/16	4.35	3.48
GOB-2254	5/8	7/32	11/64	3/64	7/16	3.15	2.52
GOB-2260	5/8	1/4	9/32	1/16	3/8	3.75	3.00
GOB-2251	5/8	1/4	11/32	1/16	3/8	4.50	3.60
GOB-3251	5/8	1/4	3/8	1/8	3/8	4.50	3.60
GOB-2257	5/8	1/4	17/32	9/32	1/2	4.50	3.60
GOB-2255	5/8	17/64	5/16	1/16	7/16	3.90	3.12
GOB-2352	5/8	5/16	7/32	1/32	7/16	2.85	2.28
GOB-2252	5/8	5/16	1/4	1/16	7/16	3.60	2.88
GOB-225	5/8	3/8	1/4	1/16	3/8	2.85	2.28
GOB-2258	5/8	3/8	11/32	1/16	17/32	2.85	2.28
GOB-226	23/32	21/64	5/16	1/16	9/16	3.75	3.00
GOB-2261	3/4	1/4	11/64	1/16	9/16	3.90	3.12
GOB-3262	3/4	5/16	7/16	1/16	17/32	8.25	6.60
GOB-3261	3/4	5/16	9/16	3/16	17/32	5.10	4.08
GOB-1101-1	3/4	3/8	1/2	1/8	17/32	4.95	3.96
GOB-1101	3/4	7/16	1/4	1/16	9/16	4.05	3.24
GOB-230	13/16	1/2	9/32	1/16	5/8	4.80	3.84
GOB-2274	7/8	5/16	5/16	1/16	5/8	6.00	4.80
GOB-2272	7/8	5/16	11/32	3/32	11/16	6.00	4.80
GOB-2271	7/8	3/8	5/16	1/16	5/8	6.30	5.05
GOB-1102-5	1 1/16	5/16	1/2	5/32	3/4	8.70	6.96
GOB-1102	1 1/16	1/2	5/16	1/16	13/16	7.05	5.64
GOB-1102-2	1 1/16	1/2	11/32	1/8	13/16	7.05	5.64
GOB-2301	1 1/16	11/16	1/4	1/16	13/16	10.20	8.16
GOB-1103	1 1/8	5/8	5/16	1/16	7/8	10.50	8.40
GOB-1105	1 1/8	13/16	1/4	3/64	15/16	10.50	8.40
GOB-1104	2 1/8	1 1/2	7/16	1/16	1 3/4	21.90	17.52

NOTE: 1. A full range of AN Grommets and MS-35489 Grommets (to specification: Mil G-3036) for military use are available for immediate shipment.
2. Prices on military and special commercial grommets are available on request.



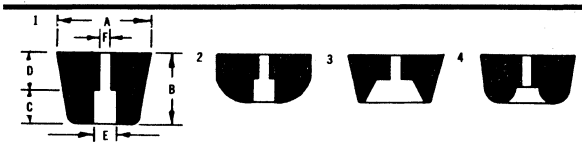
BUTTON BUMPERS

All items are molded of natural and synthetic rubber compounds or reclaimed rubber in combination or blends thereof. ITEMS ARE LISTED IN ASCENDING ORDER OF DIAMETER AND HEIGHT FOR EACH FIGURE NUMBER.

Part No.	A Max. Diam.	B Hgt.	C Insert Head	D Insert Head Base	E Base Hgt.	F Channel Width	PRICES Per 100 100/999 Black	Per 100 100/999 White	Per 100 1000/4999 Black	Per 100 1000/4999 White
FIG. 1										
BUT-3169	3/8	1/4	1/4	5/16	1/16	.070	$1.20	$1.35	$ .96	$1.08
BUT-3062	3/8	1/4	1/4	5/16	3/32	3/64	1.05	1.35	.84	1.08
BUT-3061	3/8	9/32	3/16	1/4	1/8	3/64	1.05	1.35	.84	1.08
BUT-4061	3/8	5/16	3/16	1/4	1/8	1/16	1.05	1.35	.84	1.08
BUT-4062	3/8	5/16	1/4	5/16	1/8	1/16	1.20	1.50	.96	1.20
BUT-4161	3/8	11/32	3/16	1/4	1/8	3/32	1.05	1.35	.84	1.08
BUT-4162	3/8	11/32	1/4	5/16	3/32	1/16	1.20	1.50	.96	1.20
BUT-4163	3/8	3/8	17/64	11/32	3/16	1/32	1.65	1.95	1.32	1.56
BUT-4262	3/8	13/32	1/4	5/16	7/32	1/16	1.50	1.80	1.20	1.44
BUT-3068	3/8	7/16	5/32	7/32	1/4	1/32	1.35	1.50	1.08	1.20
BUT-3168	3/8	15/32	7/64	19/64	7/32	1/16	1.50	1.65	1.20	1.32
BUT-4164	3/8	5/8	17/64	11/32	7/16	1/32	1.05	1.35	.84	1.08
BUT-3163	7/16	19/64	1/4	5/16	1/8	3/64	1.35	1.50	1.08	1.20
BUT-3063	7/16	1/2	1/4	5/16	3/16	3/64	1.20	1.50	.96	1.20
BUT-3072	1/2	21/64	9/32	3/8	1/8	3/64	1.50	1.95	1.20	1.56
BUT-4071	1/2	3/8	3/16	1/4	1/8	1/16	1.65	1.95	1.32	1.56
BUT-3071	1/2	25/64	9/32	3/8	3/16	3/64	1.65	1.95	1.32	1.56
BUT-4078	1/2	13/32	1/4	3/8	1/8	1/16	1.80	1.95	1.44	1.56

BUTTON BUMPERS (Continued)

Part No.	A Max. Diam.	B Hgt.	C Insert Head	D Insert Head Base	E Base Hgt.	F Channel Width	PRICES Per 100 100/999 Black	Per 100 100/999 White	Per 100 1000/4999 Black	Per 100 1000/4999 White
BUT-4167	1/2	27/64	9/32	13/32	1/4	3/64	1.65	1.95	1.32	1.56
BUT-4171	1/2	7/16	3/16	1/4	3/16	1/16	1.65	1.95	1.32	1.56
BUT-4176	1/2	7/16	1/4	5/16	3/16	1/16	1.50	1.80	1.20	1.44
BUT-4165	1/2	7/16	1/4	5/16	11/64	1/16	1.80	2.10	1.44	1.68
BUT-4075	1/2	9/16	13/64	1/4	5/16	1/16	1.95	2.40	1.56	1.96
BUT-3058	17/32	17/64	15/64	19/64	1/16	3/64	1.65	1.95	1.35	1.56
BUT-3056	17/32	5/16	15/64	19/64	7/64	3/64	1.65	1.95	1.32	1.56
BUT-4081	9/16	1/4	9/32	3/8	1/16	1/16	1.80	2.25	1.44	1.80
BUT-4085	9/16	5/16	11/32	27/64	5/32	1/16	2.25	2.40	1.80	1.92
BUT-4082	5/8	15/32	3/16	1/4	1/4	.025	2.70	3.60	2.16	2.80
BUT-4084	5/8	15/32	15/64	5/16	1/4	.040	2.70	3.60	2.16	2.80
BUT-1160	3/4	1/2	.480	9/16	1/8	.050	2.70	3.75	2.16	3.00
BUT-1161	3/4	9/16	.480	37/64	5/16	.050	2.70	3.75	2.16	3.00
BUT-611	7/8	1/2	5/16	17/32	1/4	3/64	3.75	4.65	3.00	3.72
FIG. 2										
BUT-4076	1/2	7/16	1/4	5/16	3/16	1/16	1.50	1.80	1.20	1.44
BUT-3167	5/16	9/16	3/16	1/4	5/32	1/32	1.65	—	1.32	—
BUT-3064	7/16	19/64	15/64	19/64	3/32	3/64	1.35	1.50	1.08	1.20
BUT-4067	7/16	21/64	15/64	9/32	1/8	3/64	1.20	1.50	.96	1.20
BUT-3065	7/16	11/32	1/4	5/16	1/8	1/16	1.35	1.50	1.08	1.20
BUT-6112	13/16	11/32	1/4	5/16	5/32	1/16	3.15	—	2.52	—
FIG. 3										
BUT-306	3/8	3/8	3/16	17/64	3/16	.040	1.50	1.65	1.20	1.32
BUT-406	3/8	3/8	3/16	17/64	3/16	1/16	1.50	1.65	1.20	1.32
BUT-417	3/8	7/16	3/16	17/64	3/16	1/8	1.50	1.65	1.20	1.32
BUT-307	1/2	7/16	1/4	11/32	1/4	.040	1.80	2.55	1.44	2.04
BUT-407	1/2	7/16	1/4	11/32	1/4	1/16	1.65	2.55	1.32	2.04
BUT-317	1/2	1/2	1/4	11/32	1/4	1/8	1.80	2.55	1.44	2.04
BUT-408	5/8	5/16	3/8	15/32	5/16	1/16	3.75	4.05	3.00	3.24
FIG. 4										
BUT-4068	7/16	17/64	3/16	1/4	3/32	3/64	1.20	1.50	1.96	1.20
BUT-3263	7/16	7/16	1/4	5/16	5/16	1/8	1.50	1.80	1.20	1.44
BUT-4166	7/16	21/32	1/4	11/32	1/2	1/32	3.15	3.75	2.52	3.00
FIG. 5										
BUT-3166	3/8	5/16	1/4	5/16	1/8	1/8	1.50	1.65	1.20	1.32
BUT-4083	5/8	9/32	13/32	17/32	1/8	3/32	2.55	3.30	2.04	2.64



RECESSED BUMPERS

Part No.	A Max. Diam.	B Hgt.	C Screw Head Depth	D Screw Shaft Depth	E Screw Base Opening	F Screw Shaft Width	PRICES Per 100 100/999 Black	Per 100 100/999 White	Per 100 1000/4999 Black	Per 100 1000/4999 White
FIG. 1										
REC-2062	3/8	1/4	3/16	1/16	1/4	5/32	$1.80	$2.40	$1.44	$1.92
REC-2082	5/8	1/2	1/4	1/4	5/16	5/32	2.10	2.70	1.68	2.16
REC-2082S	5/8	1/2	1/4	1/4	5/16	5/32	3.60	4.50	2.90	3.60
REC-2090	5/8	5/8	7/16	3/16	5/16	.147	3.30	4.50	2.64	3.60
REC-2090S	5/8	5/8	7/16	3/16	5/16	.147	4.95	6.30	3.96	5.04
REC-2184	3/4	1/4	3/16	1/16	13/32	1/8	3.45	4.05	2.76	3.24
REC-2184S	3/4	1/4	3/16	1/16	13/32	1/8	6.00	6.60	4.80	5.28
REC-2084	3/4	3/8	3/16	3/16	7/16		3.60	5.10	2.92	4.08
REC-2096	5/16	5/8	7/16	3/16	7/16	7/32	6.15	7.50	4.93	6.00
REC-2084S	3/4	3/8	7/16	3/16	7/16	7/32	6.75	9.30	5.40	7.44
REC-2096S	15/16	5/8	7/16	3/16	7/16	7/32	9.60	12.00	7.68	9.60
FIG. 2										
REC-206	3/8	3/16	3/32	3/32	3/16	5/64	.90	1.20	.72	.96
REC-2061	7/16	5/32	3/32	1/16	1/4	5/32	1.35	1.65	1.08	1.32
REC-2061S	7/16	5/32	3/32	1/16	1/4	5/32	3.45	4.05	2.76	3.24
REC-207	1/2	1/4	1/8	1/8	1/4	1/8	1.50	1.80	1.20	1.44
REC-207S	1/2	1/4	1/8	1/8	1/4	1/8	2.55	3.00	2.04	2.40
REC-208	5/8	5/16	3/16	1/8	1/4	5/32	2.25	3.00	1.80	2.40
REC-2081	5/8	5/16	3/16	1/8	1/4	3/16	1.95	2.70	1.56	2.16
REC-2081S	5/8	5/16	3/16	1/8	1/4	3/16	3.45	4.20	2.76	3.36
REC-2088	5/8	5/16	3/16	1/8	1/4	1/8	1.95	2.70	1.56	2.16
REC-2088S	5/8	5/16	3/16	1/8	1/4	1/8	3.60	4.20	2.88	3.36
REC-2085	3/4	3/8	3/16	3/16	5/16	5/32	3.00	—	2.40	—
REC-2085S	3/4	3/8	3/16	3/16	5/16	5/32	4.80	6.15	3.84	4.92
REC-209	13/16	1/2	1/4	1/4	5/16	5/32	3.75	5.10	3.00	4.08
REC-209S	13/16	1/2	1/4	1/4	5/16	5/32	6.15	7.35	4.92	5.88
REC-2097	1	1	5/8	3/8	5/16	5/32	7.65	10.50	6.12	8.40
REC-2097S	1	1	5/8	3/8	5/16	5/32	9.90	12.60	7.92	10.08
REC-2099	1	1 1/2	5/8	7/8	5/16	5/32	10.50	13.50	8.40	10.80
REC-2099S	1	1 1/2	5/8	7/8	5/16	5/32	14.75	17.10	11.76	13.68
FIG. 3										
REC-2194	15/16	1/4	3/32	5/32	1/2	5/16	—	4.35	—	3.48
REC-2195	15/16	1/4	1/8	1/8	1/2	1/4	4.80	6.30	3.84	5.04
FIG. 4										
REC-2087	3/4	9/32	5/32	1/8	1/4	1/8	3.60	4.65	2.88	3.72
REC-2198	7/8	13/32	3/16	7/32	3/8	3/16	4.80	6.30	3.84	5.04
REC-2198S	7/8	13/32	3/16	7/32	3/8	3/16	6.90	—	5.52	—
REC-2196	15/16	11/32	3/16	7/32	3/8	3/16	3.90	5.10	3.12	4.08
REC-2095	15/16	3/8	3/16	3/16	3/8	5/32	3.75	4.95	3.00	3.96
REC-2095S	15/16	3/8	3/16	3/16	3/8	5/32	4.05	5.40	3.24	4.32
REC-2197	1	1/2	1/4	1/4	3/8	3/16	5.10	6.90	4.08	5.52
REC-2197S	1	1/2	1/4	1/4	3/8	3/16	5.70	7.50	4.56	6.00

Russell Industries, Inc.

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WALDOM Electronic Hardware

ROUND HEAD STEEL MACHINE SCREWS Nickel Plated		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-579	2-56 x 1/8"	.64	4.70	3.59
F-461	2-56 x 1/4"	.47	3.54	2.70
F-462	2-56 x 1/2"	.50	3.85	2.94
F-463	2-56 x 3/4"	.58	4.47	3.41
F-464	3-48 x 3/4"	.58	4.47	3.41
F-465	4-36 x 1/4"	.50	3.85	2.94
F-466	4-36 x 3/8"	.52	4.03	3.08
F-467	4-36 x 1/2"	.54	4.18	3.19
F-580	4-36 x 5/8"	.57	4.51	3.44
F-468	4-36 x 3/4"	.64	5.00	3.81
F-469	4-40 x 1/4"	.50	3.85	2.94
F-581	4-40 x 3/8"	.52	4.03	3.07
F-470	4-40 x 1/2"	.54	4.18	3.19
F-582	4-40 x 5/8"	.57	4.54	3.44
F-471	4-40 x 3/4"	.64	5.00	3.81
F-472	6-32 x 1/4"	.53	4.25	3.24
F-583	6-32 x 3/8"	.57	4.50	3.43
F-473	6-32 x 1/2"	.62	4.92	3.75
F-584	6-32 x 5/8"	.68	5.41	4.13
F-474	6-32 x 3/4"	.72	5.87	4.48
F-475	6-32 x 1"	.83	6.64	5.07
F-476	6-32 x 1-1/4"	1.00	8.04	6.13
F-477	6-32 x 2"	1.50	12.06	9.20
F-478	8-32 x 1/4"	.70	5.58	4.26
F-479	8-32 x 3/8"	.78	6.15	4.69
F-480	8-32 x 1/2"	.82	6.56	5.00
F-585	8-32 x 5/8"	.87	6.97	5.32
F-481	8-32 x 3/4"	.93	7.38	5.63
F-482	8-32 x 1"	1.07	8.50	6.48
F-483	8-32 x 1-1/4"	1.23	9.95	7.59
F-484	10-32 x 1/2"	.95	7.54	5.75
F-586	10-32 x 5/8"	1.03	8.20	6.26
F-485	10-32 x 3/4"	1.12	8.98	6.85
F-486	10-32 x 1"	1.25	9.92	7.57
F-487	10-32 x 1-1/2"	1.65	13.12	10.01
F-587	12-24 x 3/4"	1.49	12.22	9.32
F-588	12-24 x 1"	1.73	14.60	11.14
F-589	12-24 x 1-1/2"	2.30	18.86	14.39
F-590	12-24 x 2"	2.71	22.22	16.95
F-488	1/4-20 x 1/2"	1.81	14.84	11.32
F-489	1/4-20 x 3/4"	2.06	16.89	12.88
F-490	1/4-20 x 1"	2.35	19.27	14.69
F-491	1/4-20 x 1-1/4"	2.67	21.89	16.70
F-492	1/4-20 x 1-3/4"	3.24	26.57	20.27
F-493	1/4-20 x 2-1/2"	4.08	33.40	25.53

BRASS ROUND HEAD MACHINE SCREWS Nickel Plated		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-461B	2-56 x 1/4"	.70	5.49	4.19
F-462B	2-56 x 1/2"	.80	6.45	4.92
F-463B	2-56 x 3/4"	.93	7.63	5.82
F-464B	3-48 x 3/4"	1.05	8.61	6.57
F-465B	4-36 x 1/4"	.80	6.45	4.92
F-466B	4-36 x 3/8"	1.02	8.10	6.18
F-467B	4-36 x 1/2"	1.12	8.36	6.38
F-580B	4-36 x 5/8"	1.20	9.02	6.88
F-468B	4-36 x 3/4"	1.27	9.84	7.51
F-469B	4-40 x 1/4"	.80	6.45	4.92
F-470B	4-40 x 1/2"	1.02	8.10	6.18
F-582B	4-40 x 5/8"	1.20	9.02	6.88
F-471B	4-40 x 3/4"	1.27	9.84	7.51
F-472B	6-32 x 1/4"	1.08	8.63	6.58
F-583B	6-32 x 3/8"	1.15	9.22	7.03
F-473B	6-32 x 1/2"	1.30	10.38	7.92
F-584B	6-32 x 5/8"	1.51	11.47	8.75
F-474B	6-32 x 3/4"	1.58	12.76	9.67

BRASS ROUND HEAD MACHINE SCREWS (Continued)		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-475B	6-32 x 1"	1.88	15.00	11.44
F-476B	6-32 x 1-1/4"	2.18	17.82	13.18
F-477B	6-32 x 2"	3.68	29.40	22.43
F-478B	8-32 x 1/4"	1.69	13.12	10.01
F-479B	8-32 x 3/8"	1.68	13.43	10.25
F-480B	8-32 x 1/2"	1.92	15.37	11.73
F-585B	8-32 x 5/8"	2.24	17.36	13.25
F-481B	8-32 x 3/4"	2.35	18.75	14.30
F-482B	8-32 x 1"	2.80	22.35	17.05
F-483B	8-32 x 1-1/4"	3.28	26.25	20.03
F-484B	10-32 x 1/2"	2.43	19.50	14.88
F-586B	10-32 x 5/8"	2.70	21.67	16.53
F-485B	10-32 x 3/4"	2.95	23.55	17.97
F-486B	10-32 x 1"	3.52	28.08	21.42

BINDER HEAD STEEL MACHINE SCREWS Nickel Plated		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-591	2-56 x 1/8"	.64	4.70	3.59
F-592	2-56 x 1/4"	.47	3.54	2.70
F-593	2-56 x 1/2"	.50	3.85	2.94
F-594	2-56 x 5/8"	.58	4.43	3.38
F-020	4-40 x 1/4"	.50	3.85	2.94
F-021	4-40 x 1/2"	.54	4.18	3.19
F-022	4-40 x 3/4"	.64	5.00	3.81
F-502	6-32 x 3/16"	.55	4.26	3.25
F-503	6-32 x 1/4"	.53	4.25	3.24
F-504	6-32 x 3/8"	.57	4.50	3.43
F-014	6-32 x 1/2"	.62	4.92	3.75
F-015	6-32 x 3/4"	.72	5.87	4.48
F-621	6-32 x 5/8"	.68	5.41	4.13
F-023	8-32 x 1/4"	.70	5.55	4.23
F-505	8-32 x 5/16"	.78	6.15	4.69
F-024	8-32 x 3/8"	.78	6.15	4.69
F-025	8-32 x 1/2"	.82	6.56	5.00
F-026	8-32 x 3/4"	.93	7.38	5.63
F-577	10-32 x 1/2"	.95	7.54	5.75
F-578	10-32 x 3/4"	1.12	8.98	6.85

BINDER HEAD BRASS MACHINE SCREWS Nickel Plated		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-503B	6-32 x 1/4"	1.08	8.63	6.58
F-504B	6-32 x 3/8"	1.15	9.22	7.03
F-014B	6-32 x 1/2	1.30	10.38	7.92
F-015B	6-32 x 3/4"	1.58	12.67	9.67
F-023B	8-32 x 1/4"	1.60	13.12	10.01
F-024B	8-32 x 3/8"	1.68	13.43	10.25
F-025B	8-32 x 1/2"	1.92	15.37	11.73
F-026B	8-32 x 3/4"	2.35	18.75	14.30
F-020B	4-40 x 1/4"	.80	6.45	4.92
F-021B	4-40 x 1/2"	1.02	8.10	6.18
F-022B	4-40 x 3/4"	1.27	9.84	7.51

FLAT HEAD STEEL MACHINE SCREWS Nickel Plated		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-622	4-40 x 1/4"	.50	3.85	2.94
F-623	4-40 x 3/8"	.52	4.03	3.07
F-624	4-40 x 1/2"	.54	4.18	3.19
F-625	6-32 x 1/4"	.53	4.25	3.24
F-626	6-32 x 3/8"	.57	4.50	3.43
F-627	6-32 x 1/2"	.62	4.92	3.75
F-628	6-32 x 3/4"	.72	5.87	4.48
F-629	8-32 x 3/8"	.78	6.15	4.69
F-630	8-32 x 1/2"	.82	6.56	5.00
F-631	8-32 x 3/4"	.93	7.38	5.63
F-632	10-32 x 1/2"	.95	7.54	5.75

OVAL HEAD STEEL MACHINE SCREWS Nickel Plated		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-506	6-32 x 1/2"	.62	4.92	3.75
F-507	6-32 x 3/4"	.72	5.87	4.48
F-508	8-32 x 3/4"	.93	7.38	5.63
F-509	10-32 x 1/2"	.95	7.54	5.75
F-510	10-32 x 3/4"	1.12	8.98	6.85

PHILLIPS HEAD ROUND STEEL M.S. Cadmium Plated		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-494	6-32 x 1/4"	1.18	9.35	7.13
F-018	6-32 x 5/16"	1.18	9.51	7.26
F-495	6-32 x 1/2"	1.07	8.61	6.57
F-496	6-32 x 3/4"	1.22	9.68	7.39
F-497	6-32 x 1"	1.37	10.91	8.32
F-019	8-32 x 1/4"	1.30	10.66	8.13
F-499	8-32 x 1/2"	1.22	9.75	7.44
F-500	8-32 x 3/4"	1.33	10.58	8.07
F-501	8-32 x 1"	1.48	12.14	9.26

SLOTTED HEX HEAD SHEET METAL SCREWS (Type A) Nickel Plated		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-016	4 x 3/8"	.77	6.25	4.77
F-523	4 x 1/2"	.82	6.72	5.13
F-524	6 x 1/4"	.87	7.25	5.53
F-525	6 x 3/8"	.89	7.30	5.57
F-526	6 x 1/2"	.94	7.75	5.91
F-595	6 x 5/8"	.95	7.80	5.95
F-527	6 x 3/4"	1.00	7.95	6.06
F-528	8 x 1/4"	1.00	7.95	6.06
F-529	8 x 3/8"	1.05	8.36	6.38
F-530	8 x 1/2"	1.08	8.61	6.57
F-017	8 x 5/8"	1.10	8.77	6.69
F-531	8 x 1"	1.41	11.13	8.49
F-532	10 x 3/8"	1.17	9.35	7.13
F-533	10 x 1/2"	1.27	10.09	7.70
F-534	10 x 3/4"	1.40	11.15	8.51

HEX WASHER HEAD SHEET METAL SCREW (Type A) Steel– Indented Slotted Head Nickel Plated		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-056	6 x 1/4"	.91	7.38	5.63
F-057	6 x 3/8"	.94	7.75	5.91
F-050	6 x 1/2"	.99	7.89	6.02
F-058	6 x 5/8"	1.02	8.36	6.38
F-054	6 x 3/4"	1.07	8.77	6.69
F-051	8 x 1/4"	1.07	8.77	6.69
F-052	8 x 3/8"	1.12	9.18	7.00
F-053	8 x 1/2"	1.16	8.51	6.49
F-055	8 x 5/8"	1.18	9.68	7.39
F-059	8 x 3/4"	1.32	10.82	8.26

PAN HEAD SHEET METAL SCREWS (Type A) Nickel Plated		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-596	4 x 1/2"	.77	6.25	4.77
F-033	6 x 1/4"	.82	6.72	5.13
F-597	6 x 3/8"	.84	6.89	5.26
F-034	6 x 1/2"	.89	7.30	5.57
F-035	6 x 3/4"	.97	7.85	5.99
F-036	8 x 1/4	.97	7.85	5.99
F-598	8 x 3/8"	1.02	8.25	6.29
F-037	8 x 1/2"	1.05	8.36	6.38
F-038	8 x 1"	1.34	10.99	8.38

WALDOM ELECTRONICS INC.

Net

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WALDOM Electronic Hardware

ROUND HEAD STEEL WOOD SCREWS
Nickel Plated

	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-514 4 x 1/2"	.78	6.26	4.78
F-515 4 x 3/4"	.90	7.23	5.52
F-516 6 x 3/4"	.97	7.76	5.92
F-517 6 x 1"	1.20	9.60	7.32
F-518 8 x 3/4"	1.15	9.18	7.00
F-047 8 x 1"	1.33	11.07	8.45
F-519 8 x 1-1/4"	1.58	12.72	9.70
F-520 10 x 1-1/2"	2.12	16.99	12.96
F-521 12 x 1-1/2"	2.70	21.67	16.53
F-522 14 x 1-3/4"	3.80	30.53	23.29

FLAT HEAD STEEL WOOD SCREWS
Cadmium Plated

	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-027 4 x 1/2"	.78	6.26	4.78
F-031 8 x 3/4"	1.15	9.18	7.00
F-048 8 x 1"	1.35	11.07	8.45
F-032 8 x 1-1/4"	1.58	12.72	9.70
F-044 10 x 1-1/2"	2.12	16.99	12.96

HEX STEEL NUTS
Nickel Plated

Thrd. Width Thk.	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-554 2-56 x 3/16 x 1/16"	.68	5.41	4.13
F-555 3-48 x 3/16 x 1/16"	.68	5.41	4.13
F-556 4-36 x 1/4 x 3/32"	.67	5.33	4.07
F-557 4-40 x 1/4 x 3/32"	.67	5.33	4.07
F-559 6-32 x 1/4 x 3/32"	.67	5.33	4.07
F-560 6-32 x 5/16 x 7/64"	.73	5.82	4.44
F-561 8-32 x 1/4 x 3/32"	.67	5.33	4.07
F-562 8-32 x 5/16 x 7/64"	.73	5.82	4.44
F-563 10-32 x 3/8 x 1/8"	.85	6.80	5.19
F-619 12-24 x 7/16 x 5/32"	1.13	9.27	7.07
F-564 1/4-20 x 7/16 x 3/16"	1.22	9.76	7.44
F-565 3/8-32 x 1/2 x 3/32"	1.47	12.05	9.19

HEX BRASS NUTS
Nickel Plated

Thrd. Width Thk.	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-554B 2-56 x 3/16 x 1/16"	.98	7.86	6.00
F-555B 3-48 x 3/16 x 1/16"	.89	7.18	5.48
F-556B 4-36 x 1/4 x 3/32"	1.18	9.45	7.21
F-557B 4-40 x 1/4 x 3/32"	1.17	9.36	7.14
F-559B 6-32 x 1/4 x 3/32"	1.16	9.33	7.12
F-560B 6-32 x 5/16 x 7/64"	1.40	11.26	8.59
F-561B 8-32 x 1/4 x 3/32"	1.16	9.33	7.12
F-562B 8-32 x 5/16 x 7/64"	1.40	11.26	8.59
F-563B 10-32 x 3/8 x 1/8"	1.53	12.32	9.40

STEEL LOCK WASHERS – (INTERNAL AND EXTERNAL)
Cadmium Plated

INTERNAL Screw Size	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
MW-428 #2	.73	4.51	3.13
MW-416 #4	.44	2.88	2.00
MW-417 #6	.44	2.88	2.00
MW-418 #8	.48	2.98	2.07
MW-419 #10	.48	2.98	2.07
MW-420 1/4	.63	4.04	2.80
MW-421 3/8	.94	7.10	4.93
EXTERNAL Screw Size			
MW-422 #4	.44	2.88	2.00
MW-423 #6	.44	2.88	2.00
MW-424 #8	.48	2.98	2.07
MW-425 #10	.48	2.98	2.07
MW-426 1/4	.63	4.04	2.80
MW-427 3/8	.94	7.10	4.93

STEEL CUP WASHERS
Nickel Plated

		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
CW-6	For #6 Oval Head or Flat Head Screws	.46	3.78	2.88
CW-8	For #8 Oval Head or Flat Head Screws	.49	4.05	3.09
CW-10	For #10 Oval or Flat Head Screws	.55	4.35	3.32

FLAT STEEL WASHERS
Nickel Plated

Screw Size	I.D.	O.D.	Thick.	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
MW-400 #2	.092	7/32"	.018	.43	3.55	2.71
MW-401 #4	.125	9/32"	.025	.33	2.75	2.10
MW-402 #6	.150	3/8"	.032	.33	2.75	2.10
MW-403 #8	.170	3/8"	.032	.33	2.75	2.10
MW-404 #10	.204	7/16	.032	.37	3.12	2.38
MW-408 1/4	.281	5/8"	.050	.67	5.33	4.07
MW-410 3/8	.392	11/16"	.050	.70	5.63	4.30

FLAT BRASS WASHERS
Nickel Plated

Screw Size	I.D.	O.D.	Thick.	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
MW-400B #2	.092"	7/32"	.018"	.45	3.70	2.82
MW-401B #4	.125"	9/32"	.025"	.47	3.85	2.94
MW-402B #6	.150"	3/8"	.032"	.62	4.92	3.75
MW-403B #8	.170"	3/8"	.032"	.62	4.92	3.75
MW-404B #10	.204"	3/8"	.032"	.67	5.33	4.07

Insulating Fibre Washers – Precision made insulating washers, both flat and extruded, for insulation of components and controls from chassis or from each other.

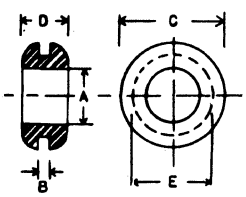
FLAT

Screw Size	I.D.	O.D.	Thick.	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
FW-374 #4	.020"	1/4"	1/32"	.44	3.60	2.75
FW-375 #6	.145"	1/4"	1/32"	.44	3.60	2.75
FW-376 #8	3/16"	3/8"	1/32"	.47	3.85	2.94
FW-377 #10	.192"	3/8"	1/32"	.47	3.85	2.94
FW-378 1/4	.255"	1/2"	1/32"	.52	4.03	3.07
FW-379 3/8	3/8"	5/8"	1/32"	.77	6.15	4.69
FW-380 7/16	.440"	3/4"	1/32"	.83	6.75	5.15

EXTRUDED

Screw Size	A	B	C	D	E	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
FW-384 #4	9/32"	13/64"	1/8"	1/32"	5/64"	.87	6.89	5.26
FW-385 #6	5/16"	7/32"	9/64"	1/32"	5/64"	.87	6.89	5.26
FW-386 #8	3/8"	1/4"	11/64"	1/32"	3/32"	.87	6.89	5.26
FW-387 #10	7/16"	9/32"	13/64"	1/32"	3/32"	.95	7.54	5.75
FW-388 1/4"	1/2"	.375"	.256"	1/32"	3/32"	.95	7.54	5.75
FW-389 3/8"	5/8"	.437"	.375"	1/32"	3/32"	.98	7.79	5.94

VINYL GROMMETS



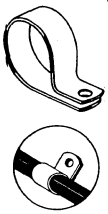
- Exceptional Aging Qualities*
- High Dielectric Properties
- Oil Resistant
- Durometer Hardness 45 to 85
- Cost Less Than Rubber
- Will Not Stain Most Surfaces

*These grommets were tested by Underwriters Laboratories in a circulating air oven at 212 degree F. for seven days with no visible change.

Cat. No.	A	B	C	D	E	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
G-401	1/8	1/16	11/32	3/16	1/4	.90	7.40	5.65
G-402	3/16	1/16	7/16	7/32	5/16	.99	8.25	6.29
G-403	1/4	1/16	9/16	1/4	3/8	1.32	9.51	7.26
G-404	5/16	1/16	5/8	1/4	7/16	1.44	10.17	7.76
G-405	3/8	1/16	5/8	1/4	1/2	1.44	10.17	7.76
G-406	1/2	1/16	13/16	9/32	5/8	2.27	17.71	13.51
G-407	5/8	1/16	1-1/8	9/32	7/8	3.71	30.42	23.21

NY-GRIP NYLON CABLE CLAMPS

- Made of tough nylon with a sharp melting point, below which it remains relatively rigid.
- Ideal for applications at temperatures below 300°F. (150°C.). When subjected to load, the service temperature should not exceed 275°F. (135°C.). and may go as low as -60°F. (-51°C).
- Solvent-resistant nylon is insoluble in common solvents, alkalies, dilute mineral acids, and most organic acids.
- Unaffected by petroleum oils and greases at temperatures as high as 300°F. (150°C.); and lubricants are unaffected by the nylon.
- Ny-Grip nylon cable clamps meet MIL-P-17091A and Amendment 2, MIL-P-17091B/MIL-P-20693, Type 1, MIL-STD-242A (SHIPS)/MIL-STD-242B (SHIPS)/MS-39014 (ORD).
- Available for immediate delivery in natural nylon; special quotations for color coding.

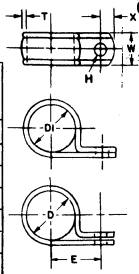


Part No.	D	D1	E	Pkg. of 100 or as Shown	1000 TO 4999	5000 OR OVER
CCN-31	1/8	.115	.310	2.85	24.30	19.24
CCN32	3/16	.172	.373	3.00	25.72	20.36
CCN-33	1/4	.234	.407	3.30	28.12	22.26
CCN-34	5/16	.297	.448	3.66	31.06	24.59
CCN-35	3/8	.359	.479	2.03 (50)	32.65	25.85
CCN-36	7/16	.422	.510	2.11 (50)	34.53	27.34
CCN-37	1/2	.484	.542	2.23 (50)	36.75	29.09
CCN-38	9/16	.547	.623	1.70 (25)	45.37	35.93
CCN-39	5/8	.609	.654	1.80 (25)	53.16	42.08
CCN-40	11/16	.672	.752	1.62 (20)	57.70	45.68
CCN-41	3/4	.734	.783	1.73 (20)	63.09	49.94
CCN-42	7/8	.859	.845	1.84 (20)	68.35	54.10
CCN-43	1	.984	.908	1.63 (15)	77.00	60.95

Width: Up to CCN-37, 3/8". All others are 1/2". 3/8" width have .167 mounting hole, 1/2" width have 13/64" mounting hole. 3/8" width are .040 thickness, 1/2" width are .060 thickness.

BUTRATE CABLE CLAMPS

- Ideal for outdoor and indoor use; ultra-violet stabilized for extreme weather resistance.
- Butyrate formula used in making these cable clamps is approved under Military Specification L-P-349a, Type III–Class MH.

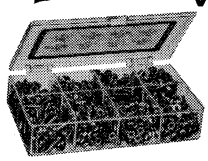


Part No.	D	D1	E	Pkg. of 100 or as Shown	1000 TO 4999	5000 OR OVER
CCB-1	1/8	.115	.360	1.87	16.03	12.69
CCB-2	3/16	.172	.423	1.89	16.14	12.78
CCB-3	1/4	.234	.457	2.08	17.79	14.09
CCB-4	5/16	.297	.498	1.21 (50)	19.63	15.55
CCB-5	3/8	.359	.529	1.26 (50)	21.69	16.35
CCB-6	7/16	.422	.560	1.09 (40)	22.54	17.85
CCB-7	1/2	.484	.592	1.24 (40)	24.00	19.00
CCB-8	9/16	.547	.623	1.23 (30)	28.09	22.24
CCB-9	5/8	.609	.654	1.17 (25)	31.81	25.54
CCB-10	11/16	.672	.752	1.14 (20)	34.59	27.38
CCB-11	3/4	.734	.783	1.17 (20)	36.25	28.70
CCB-12	7/8	.859	.845	1.24 (20)	39.36	31.15
CCB-13	1	.984	.908	1.12 (15)	41.79	33.08
CCB-14 1-1/8	1.102	.970	1.12 (15)	41.91	35.31
CCB-15 1-1/4	1.227	1.062	1.27 (10)	47.14	37.31

Thickness .060. Width 1/2". Mounting Hole 13/64", 7/32" from end of clamp.

*Ethyl cellulose clamps also available at similar pricing. Change prefix to CCE when ordering.

WALDOM Skru-Box
VARIETY ASSORTMENTS SCREWS & NUTS



ROUND HEAD MACHINE SCREWS, NUTS, SHEET METAL SCREWS. R.H.SM.S 4-40 x 1/2, 6-32 x 1/4, 6-32 x 3/4, 8-32 x 1/2, Sheet Metal Screw #6 x 1/2, Nuts 4-40, 6-32, 8-32. 265 Total Pieces.
No. HD-4013 Net 1.59

BINDER-HEAD SCREWS – Same assortment as above, but machine screws have binder-head!
No. HD-4018 Net 1.59

SHEET METAL SCREWS – Slotted Hex Head Sheet Metal Screws Type A in 4 x 3/8", 6 x 1/4", 6 x 1/2", 6 x 3/4", 8 x 3/8", 8 x 1/2", 8 x 5/8". 165 Total Pieces.
No. HD-4014 Net 1.59

WASHER-HEAD SHEET METAL SCREWS – Slotted Hex Head Type A w/flat washer attached, sizes 6 x 1/4, 6 x 3/8, 6 x 1/2, 6 x 3/4, 8 x 1/4, 8 x 3/8, 8 x 1/2, 8 x 5/8. 120 Total Pieces.
No. HD-4011 Net 1.59

WOOD SCREW ASSORTMENT – Round Head Wood Screws 4 x 1/2, 6 x 3/4, 6 x 6 x 1. 8 x 3/4, 8 x 1¼. Flat Head 8 x 1, 8 x 1¼. 139 Total Pieces.
No. HD-4019 Net 1.59

GENERAL HARDWARE KIT – 260 Fasteners – Round Head, Binder Head, and Phillips Head Machine Screws. Hex Steel Nuts, Hex Head (slotted) and Hex Washer Head (slotted) Sheet Metal Screws, Flat Head and Round Head Wood Screws. All popular diameters and lengths.
No. HD-4020 Net 1.59

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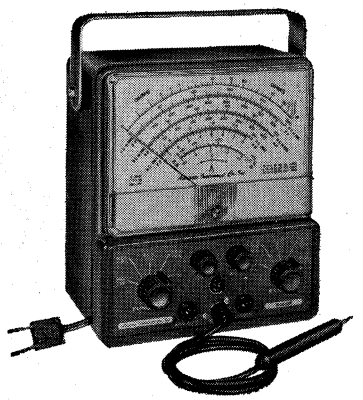
THE NEW ACCURATE LINE . . .
COMPARE PRICES, FEATURES AND SPECIFICATIONS WITH ANY OTHER LINE OF TESTERS, DOMESTIC OR FOREIGN!



Model 152 A Modern, Streamlined SENIOR V.T.V.M.

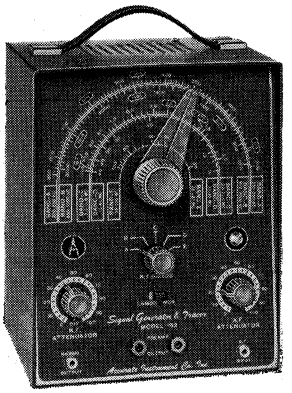
FEATURES GIANT 6½" METER

Only $29.95 COMPLETE! Not a kit . . . the 152 *is a completely Wired and Calibrated Tester . . . Ready to use!*

MODEL 152 FEATURES AND SPECIFICATIONS

● **D.C. VOLTMETER:** Ranges 0 to 3, 30, 150, 300, 1500 volts; Accuracy ± 3% of full scale; Input resistance: 11 megohms. ● **ZERO CENTER VOLTMETER** (For discriminator alignment): Ranges 0 to 1.5, 15, 75, 150, 750 volts; Accuracy ± 3% of full scale. Input resistance: 11 megohms ● **A.C. VOLTMETER:** R.M.S. Ranges: 0 to 3, 30, 150, 300, 1500 volts; Peak to Peak Ranges: 0 to 8, 80, 400, 800 volts; Accuracy: ± 3% of full scale. ● **OHMMETER:** Ranges: 0 to 1000 megohms (5 overlapping ranges); Center Scale Values: 10, 100, 1000, 100,000 ohms, 10 megohms. ● **DECIBEL METER** (for all audio measurements); Ranges —10 to +5, +6 to +25, +26 to +45 decibels. All based on zero db at 1.73 volts on 500 ohm line; ● Pilot light indicates when unit is "on". ● Housed in beautiful grey high-impact case, with color matched etched aluminum panel and portable handle.

Model 152 comes complete with D.C. V.T.V.M. Probe and cable, pair of standard test leads for all other services, detailed instructions. Net Price **$29.95**



Model 153—A Combination

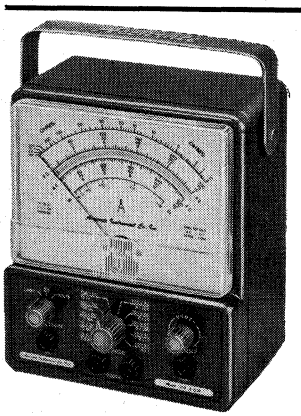
SIGNAL GENERATOR and SIGNAL TRACER

The true test of the claim "two instruments in one" is: can each of the two units be used separately as well as in conjunction with each other? In the case of this versatile combination instrument, the answer is emphatically yes, for, the Signal Generator will function as a full service instrument with a range of 250 Kilocycles to 120 Megacycles and the Signal Tracer will follow any signal whether generated by a broadcasting station or injected by the Signal Generator section of Model 153. When used in combination with no dependence on outside signals, the compatibility of Model 153 provides ideal service, for unlike any standard signal tracer, the Model 153 first injects its own signal then traces that controllable signal to locate the source of trouble whether due to component or circuit by standard signal tracing technique.

SPECIFICATIONS:

SIGNAL TRACER: ● Hi-gain cascode pre-amplifier ● Pre-amplifier output available at front panel jacks for use with VTVM, oscilloscope or phones. ● Low distortion triode output stage. ● Audio Attenuator provided to prevent high signal overloading. ● 4½ inch permanent magnet speaker. ● Separate R.F. and Audio Signal tracing probes.
SIGNAL GENERATOR ● Covers from 250 KC to 120 MC in 5 bands. ● All popular and most used frequencies marked on panel in color. ● High stability electron coupled R.F. oscillator. ● Attenuator used on both R.F. and Audio circuits.

Model 153 comes complete with all necessary probes. Net Price **$28.40**



Model 154, A Modern, Streamlined

20,000 OHMS-PER-VOLT V.O.M.

FEATURES GIANT 6½" METER . . . only $29.95 COMPLETE!

The 20,000 Ohms-per-Volt-V.O.M. has been the one "must have" tester for all Radio and TV technicians since 1935 . . . and now . . . we proudly announce the most recent, streamlined edition of this all-around useful standard with a 6½" meter and at an unbelievably low price.

Model 154 Features and Specifications

● Mirrored Scale permits fine accurate measurements where fractional readings are important. ● Selected resistors are used as multipliers to assure unchanging accurate readings on all ranges. ● 6 D.C. VOLTAGE RANGES (at 20,000 Ohms per Volt) 0 to 15/75/150/300/750/3000 Volts. 6 A.C. VOLTAGE RANGES (at 5,000 Ohms per Volt) 0 to 15/75/150/300,/750/300 Volts. ● 5 RESISTANCE RANGES: 0 to 2000/20,000/200,000 Ohms. 0 to 2/20 Megohms. ● 5 D.C. CURRENT RANGES: 0 to 75/750 Microamperes; 0 to 7.5/75 Milliamperes; 0 to 7.5 Amperes; ● 3 DECIBEL RANGES: —6 db to +18 db; +14 db to +38 db; +28 db to +52 db.

Model 154 comes complete with operating instructions and test leads. Net Price **$29.95**

Employs 6½" Meter

New Model 155—Combination

VOLT-OHM MILLIAMMETER

plus **CAPACITY, REACTANCE, INDUCTANCE and DECIBEL MEASUREMENTS.**

Also Tests

SELENIUM and SILICON RECTIFIERS, SILICON and GERMANIUM DIODES.

SPECIFICATIONS:

√	D.C. Volts:	0 to 7.5/15/75/150/750/1,500.
√	A.C. Volts:	0 to 15/30/150/300/1,500/3,000.
√	D.C. Current:	0 to 1.5/15/ 150 Ma.: 0 to 1.5/15 Amperes.
√	Resistance	0 to 2,000/200,000 Ohms. 0 to 20 Megohms.
√	Capacity:	.001 to 1 Mfd. 1 to 20 Mfd.
√	Reactance:	130 to 2,600 Ohms, 2600 Ohms to 2.6 Megohms.
√	Inductance:	.35 to 7 Henries, 7 to 7,000 Henries.
√	Decibels:	— 6 to + 18, + 14 to + 38, + 34 to + 58.

The following components are all tested for QUALITY at appropriate test potentials. Two separate BAD-GOOD scales on the meter are used for direct readings.
√ All Electrolytic Condensers from 1 Mfd to 1000 Mfd.
√ All Selenium Rectifiers
√ All Silicon Rectifiers
√ All Germanium Diodes √ All Silicon Diodes

Model 155 comes complete with operating instructions and test leads. Use it on the bench—use it on calls. Complete with all instructions and leads. Net Price **$28.40**

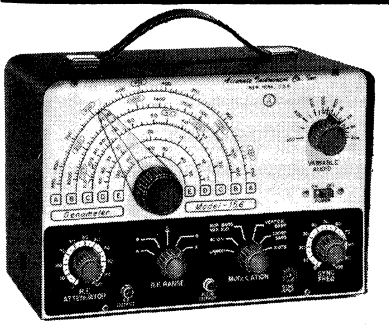
Manufactured By: ACCURATE INSTRUMENT CO., INC.

Net

© U.C.P., Inc.

THE NEW ACCURATE LINE . . .

COMPARE PRICES, FEATURES AND SPECIFICATIONS WITH ANY OTHER LINE OF TESTERS, DOMESTIC OR FOREIGN!



The Model 156 comes absolutely complete with shielded leads and operating instructions. Net Price **$38.50**

New Model 156 SEVEN (7) SIGNAL GENERATORS IN ONE!

• R.F. Signal Generator for A.M. • R.F. Signal Generator for F.M. • Audio Freq. Generator • Bar Generator • Cross Hatch Generator • Color Dot Pattern Generator • Marker Generator

SPECIFICATIONS:

R. F. SIGNAL GENERATOR: The Model 156 Genometer provides complete coverage for A.M. and F.M. alignment. Generates Radio Frequencies from 250 Kilocycles to 45 Megacycles on fundamentals and from 35 Megacycles to 120 Megacycles on powerful harmonics.

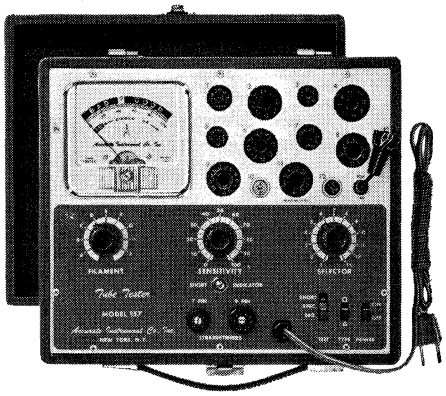
CROSS HATCH GENERATOR: The Model 156 Genometer will project a cross-hatch pattern on any TV picture tube.

VARIABLE AUDIO FREQUENCY GENERATOR: In addition to a fixed 400 cycle sine-wave audio, the Model 156 Genometer provides a variable 300 cycle to 20,000 cycle peaked wave audio signal.

DOT PATTERN GENERATOR (FOR COLOR TV): The Dot Pattern projected on any color TV Receiver tube by the Model 156 will enable you to adjust for proper color convergence.

BAR GENERATOR: The Model 156 projects an actual Bar Pattern on any TV Receiver Screen. Pattern will consist of 4 to 16 horizontal bars or 7 to 20 vertical bars.

MARKER GENERATOR: The Model 156 includes all the most frequently needed marker points. The following markers are provided: 262 Kc., 456 Kc., 600 Kc., 1000 Kc., 1600 Kc., 2500 Kc., 3.579 Mc., 4.5 Mc., 10.7 Mc., (3.579 Mc is the color burst frequency.)



Model 157, A Modern, Streamlined TUBE TESTER

Not a kit . . . The Model 157 is a completely wired and calibrated Tester . . . Ready to use!

TESTS ALL MODERN TUBES INCLUDING THE NEW

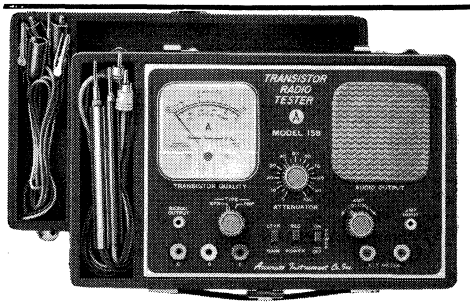
√ Novars √ Nuvistors √ Compactrons √ 10 Pins √ Magnovals

MODEL 157 FEATURES AND SPECIFICATIONS:

• Tests over 1,000 tube types. • Makes **all** necessary tests. Checks for shorts and leakages between **all** elements; tests for filament continuity; indicates the quality (emission) of all tubes. • Checks all modern tubes including 7-pin miniatures; octals, lock-ins, 9-pin noval miniatures; new T-9 types; novars, nuvistors, compactrons; 10 pins, magnovals. • **Speedy** operation assured by use of a new improved circuit which enables us to use a single **rotary** switch in place of the one-at-a-time slide switches previously used. • 7 and 9 pin tube straighteners permanently mounted on front panel. • Employs a rugged, accurate, highly damped meter movement with **sealed** air-damping chamber. • Comes housed in a beautiful portable carrying case with slip-on cover.

Model 157 comes complete — absolutely no extras. Net Price **$28.40**

PICTURE TUBE ADAPTER DESIGNED ESPECIALLY FOR MODEL 157 . . . ONLY $3.85



Model 158 comes housed in a handsome portable case. Complete with a set of clip-on cables for testing transistors; an R.F. diode probe for R.F. and I.F. signal tracing; an audio probe for amplifier tracing and a signal injector cable. Complete. Nothing elese to buy! Net Price **$29.95**

TEST ALL TRANSISTORS . . . ANY TYPE WITHOUT EXCEPTION . . . AND ALL . . .

TRANSISTOR OPERATED DEVICES

With New Model 158 TRANSISTOR RADIO TESTER

SEE Read the relative gain and leakage of any transistor directly on the meter.

HEAR All audio stage signals through the front panel speaker

Simplified procedure —

Model 158 ① Injects a signal ② Follows the injected signal through each and every stage including all transistors!

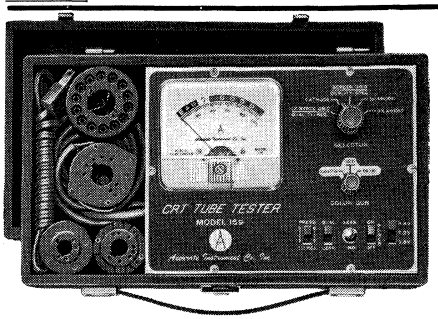
Specifications:

TESTING TRANSISTORS WITH MODEL 158

The Model 158 will test **all** transistors including NPN and PNP, Silicon and Germanium types, **without referring to characteristic data sheets.** The time-saving advantage of this method is self-evident. A further benefit of this service is that it will enable you to test new transistors as they are released, since no characteristic sheets are required.

TESTING TRANSISTOR RADIOS AND OTHER TRANSISTOR DEVICES WITH MODEL 158

An R.F. signal source modulated by an audio tone is injected into the transistor radio from the antenna through the R.F. stage past the mixer into the I.F. amplifier and detector stages and on to the audio amplifier. This injected signal is followed and traced through the receiver by means of the signal tracing section incorporated in the Model 158. The injected signal is heard on the front panel speaker as it is followed through the various stages.



Model 159 comes housed in a beautiful portable carrying case. Complete with sockets for all black and white tubes and all color tubes. Net price **$29.95**

Model 159 TESTS AND REJUVENATES

ALL PICTURE TUBES

***ALL* BLACK AND WHITE TUBES . . .**

From 50 degree to 110 degree types — from 8" to 30" types.

***ALL* COLOR TUBES . . .**

Test *ALL* picture tubes — in the carton — out of the carton — in the set!

Specifications:

Provides **separate** filament operating voltages for the older 6.3 types and the newer 8.4 types.

Properly tests the red, green and blue sections of color tubes individually—for eacn section of a color tube contains its own filament, plate, grid and cathode.

Detects tubes which are apparently good but require rejuvenation. Such tubes will provide a picture seemingly good but lacking in proper definition, contrast and focus.

Rejuvenation: Model 159 applies a **selective** low voltage uniformly to assure increased life with no danger of cathode damage.

Manufactured By: ACCURATE INSTRUMENT CO., INC.

It's so easy to order from this catalog . . .

When ordering products shown in this book or writing for additional information, please be sure to specify:

1. **Manufacturer's Catalog Numbers and Page Numbers.**
2. **The Year and Edition of This MASTER.**

This will avoid confusion and expedite delivery.

Thank you!

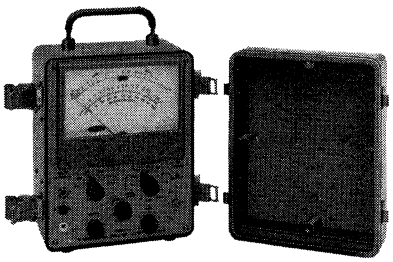
The
RADIO-ELECTRONIC
MASTER

AEL SEMICONDUCTOR TESTERS

featuring

- **IN-CIRCUIT MEASURING CAPABILITY**
- **SIMPLICITY... AUTOMATIC LEAD SELECTION**
- **COMPLETE SAFETY... CANNOT DAMAGE SEMICONDUCTORS**

for quantitative and qualitative testing of transistors... diodes... rectifiers



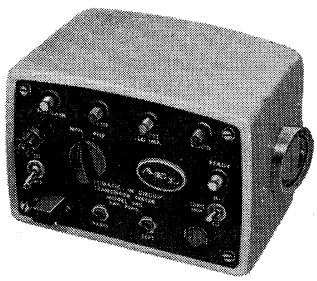
MODEL 259 SEMICONDUCTOR TESTER

Measures transistors, diodes and F.E.T.'s, in-circuit, for reverse leakage down to 500 ohms of loading. Also measures F.E.T.'s for transconductance (Gm) to 10,000 micromhos. Both high and low power transistors may be measured for 1000 cycles Beta (h_{fe}) within a range of 1 to 1000. Unit is housed in a splash-proof, high impact plastic case and cover. It is lightweight, portable and battery operated (uses type "C" batteries). Also available is Model 259C which includes automatic Beta calibration circuit.*

Prices: Model 259 . . . . . $280.
Model 259C . . . . . $345.

Optional accessory . . .
Model 246 In-Circuit Test Probe.

*Sets collector current of transistor under test at 1 milliampere

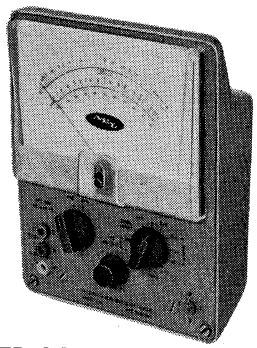


MODEL 240 IN-CIRCUIT TEST SET

This tester features qualitative checks of virtually every type of transistor both in-circuit and out-of-circuit. It indicates presence of gain, shorts and opens. This is a sequential, logic device featuring automatic lead finding in-circuit transistor checking. Lead orientation or device polarity need not be known; test set automatically applies proper voltage and completes test in less than three (3) seconds. Lights show GO—NO—GO indication and fault finding. Makes every operator an expert in finding catastrophic failures quickly.

Price: Model 240 . . . . . $425.

Optional accessory . . .
Model 242 In-Circuit Test Probe



MODEL 245 SEMICONDUCTOR TESTER

Measures high and low-power transistors, diodes and rectifiers both in- or out-of-circuit in wide range of Beta measurements (1 to 1000). Transistors with a Beta between one and one hundred may be measured in-circuit, with as low as 50 ohms of loading between emitter and base electrodes with ±10% accuracy. Transistor shorts and opens are immediately detected by inability to measure Beta. Only three controls. Easy to read measurements. No critical nulling adjustments required. Completely safe for all semiconductors.

Price: Model 245 . . . . . $175.

Optional accessory . . .
Model 246 In-Circuit Test Probe

IN-CIRCUIT TEST PROBES

Developed by AEL, these In-Circuit test probes are designed specifically for tests conducted on printed-circuit boards. Three stainless steel probe tips are controlled by two conveniently located thumb wheels, which can be operated by one hand. Adjustments provide a lateral spread up to 5/8", and a vertical extension up to 3/4" on the center contact, which is insulated to prevent shorting.

Model 242 Probe (shown here) . . . for use with Model 240 Semiconductor Tester.

Model 246 Probe . . . for use with Models 245, 259, and 259C Semiconductor Testers.

Price: Models 242 and 246 Probes . . . $29.50.

These prices are list and subject to change without notice.

AEL AMERICAN ELECTRONIC LABORATORIES, INC.

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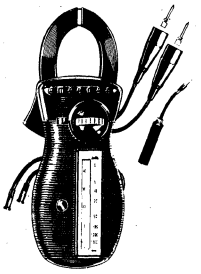
AMPROBE* INSTRUMENT

DIVISION OF SOSS MANUFACTURING COMPANY

*REGISTERED TRADEMARK OF AMPROBE INSTRUMENT, DIVISION OF SOSS MANUFACTURING COMPANY

ROTARY SCALE MODELS

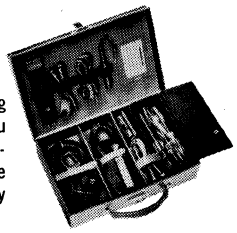


Offer you these outstanding features. • Only the Ohms scale plus one voltage scale or current scale is visible at any one time, providing greater reading speed and accuracy; on models other than RS-3 or RS-1000 only scale selected appears. • Magnified unbreakable window. • Pointer-lock "freezes" pointer at reading. • Accurate within ±3% full scale reading. • One hand operation.

MODEL	RANGES	PRICE
RS-1	0-6/15/40/100 Amps A.C. 0-150/600 Volts A.C.	$43.85
RS-2	0-6/15/40/100 Amps A.C. 0-150/300 Volts A.C.	$43.85
RS-3	0-6/15/40/100/300 Amps A.C. 0-150/300/600 Volts A.C. 25Ω Mid-Scale	$57.50
RS-300	0-6/15/40/100/300 Amps A.C. 0-150/300/600 Volts A.C.	$52.50
RS-1000	0-15/40/100/300/1000 Amps A.C. 0-150/300/600 Volts A.C. 25Ω Mid-Scale	$76.50

Price includes Carrying Case and Test Leads.

AMPROBE® TEST-MASTER KITS



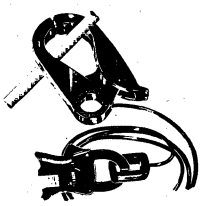
Truly the sign of the professional, these good-looking rugged, sturdy cases contain all the equipment you need to do all your electrical testing jobs with precision and accuracy. The Test-Master has a separate covered section to hold your small hand tools easily within reach.

CONTAINS:	Model TM-33	Model TM-43	Model TM-53
RS-1	–	–	–
RS-3	one	one	one
PSA-1	–	one	one
Energizer	one	one	one
Deca-Tran A50-1	one	one	–
Price	$94.50	$103.85	$76.85

PHASE SEQUENCE ADAPTOR

The Model PSA-1 Phase Sequence Adaptor is used to determine the phase sequence of polyphase circuits. When used in conjunction with any AMPROBE RS model it permits you to determine phase sequence of motors and other electrical equipment using three phase lines up to 550 volts. **Price** w/ case: **$11.85**

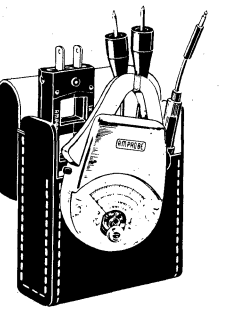
AMPROBE® DECA-TRAN



The Model A-50-1 AMPROBE Deca-Tran can be used with any model AMPROBE to extend the amperage ranges 10 times up to 1200 amps, intermittent, 600 amps continuous.

Model A-50-1 w/2' Line Cord **Price: $30.50**

AMPROBE® JUNIOR TEST-MASTER KITS



The AMPROBE Jr. Test-Master Kit consists of a specially designed leather case that contains one of the all new **YO AMPROBE Jr.** voltage testers, an **AMPROBE Energizer,** battery attachment and test leads.

The New YO models are the only precision instruments in their price class that measure voltage, amperage and resistance, instantly and accurately on a calibrated scale. **Price: $37.85**

MODEL	3 AMMETER RANGES (full scale) BASIC INST.	2 VOLTAGE RANGES
TM-YO "525"	0-25	0-150/600
TM-YO "550"	0-50	0-150/600
TM-YO "500"	0-100	0-150/600
TM-YO "25"	0-25	0-125/250
TM-YO "50"	0-50	0-125/250
TM-YO "100"	0-100	0-125/250

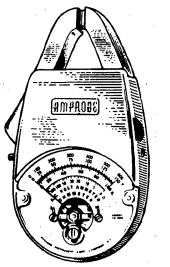
OHMMETER RANGE: 25 Ohms Mid-Scale
Frequency—60 cycles A.C. (other frequencies available)

AMPROBE® JUNIOR "YO" MODELS

The only precision instruments in their price class that measure voltage, amperage and resistance instantly and accurately on a calibrated scale. **Price** w/test leads: **$27.50**
P-1 and K cases available. Order separately.

MODEL	AMPS, AC	VOLTS, AC
YO "525"	0-25	0-150/600
YO "550"	0-50	0-150/600
YO "500"	0-100	0-150/600
YO "50"	0-50	0-125/250

OHMMETER RANGE: 25 Ohms Mid-Scale

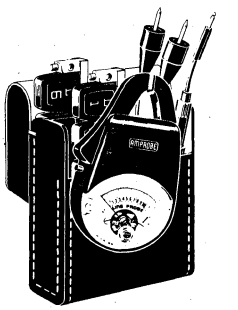


AMPROBE® JUNIOR

An advanced snap-around volt-ammeter that everyone can afford. **Price** w/test leads: **$22.50**
P-1 and K cases available. Order separately.

MODEL	AMPS, AC	VOLTS, AC
Y25	0-25	0-125/250
Y50	0-50	0-125/250
Y500	0-100	0-150/600
Y525	0-25	0-150/600
Y550	0-50	0-150/600

AMPROBE® JUNIOR LINE-PROBE



Unique, versatile four-in-one pocket-sized tester. Not only lets one man trace up to 10 circuits at one time... it measures voltage (±3% FS)...gives current readings "in-a-snap"...and checks for continuity. Pick from four models... all furnished with 10 station markers, two station marker holders, voltage leads, grounding leads, fused battery attachment and case.

Price: $38.50

MODEL	VOLTS, AC	AMPS, AC
ALP50	0-125/250	0-50
ALP550	0-150/600	0-50

AMPROBE® ENERGIZER

The **Model A-45L ENERGIZER** permits current readings on permanently wired low-current electrical equipment by simplifying series connection. It increases the sensitivity of your ammeter 5x or 10x for more precise readings directly at outlets by "splitting" double conductor line cords while the appliance is connected to the line. Capacity 10 amps. **Price** w/weatherproof pouch: **$6.75**

All prices slightly higher outside the U.S.

CANADIAN SALES DIVISION: ATLAS RADIO CORP.

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AMPROBE® INSTRUMENT/ SERVICE & INDUSTRIAL RECORDERS

DIVISION OF SOSS MANUFACTURING COMPANY

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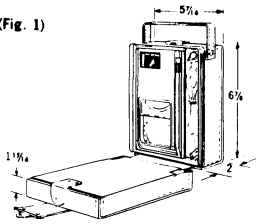
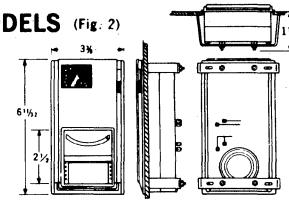
LEATHER-CASED MODELS (Fig. 1)

Supplied with permanently attached motor line cord and one roll each of necessary strip charts. Meter line cord, extensions, adaptors, transducers, etc. supplied when indicated.



FLUSH-MOUNTING MODELS (Fig. 2)

Supplied with one roll each of necessary strip charts and mounting hardware. Transducers, probes, etc. supplied when indicated. Motor leads not furnished.



Recommended Panel Opening Size: 3⅝"x6⅜"

*Indicates the availability of this model in flush-mount version. Ranges and Specifications same as Leather cased models. See fig. 2 for configuration First prefix letter "L" of model number indicates Leather Cased. Prefix letter "F" indicates Flush-Mounting.

AC VOLTMETERS

Model No.	Description	Range
LAV2X*	Dual Range, Expanded Scale AC Voltmeter.	95-130 Volts AC 190-260 Volts AC
LAV3X*	Three Range, Expanded Scale AC Voltmeter.	95-130 Volts AC 190-260 Volts AC 380-520 Volts AC
LAV8600*	Three Range, AC Voltmeter. 1380Ω/V	0-150/300/600 Volts AC

AC AMMETERS All models supplied with appropriate transducer.

LAA81*	AC Ammeter. With A-70FL Transducer	0-10/50/250/500 Amps AC
LAA82*	AC Ammeter. With A-60FL Transducer	0-5/25/100/250 Amps AC
LAA830*	AC Ammeter. For use with external current transformer 2VA (Not supplied).	0-5 Amps AC Scale: 0-150/300/600
LAA840*		0-5 Amps AC Scale: 0-200/400/800
LAA850*		0-5 Amps AC Scale: 0-100/250/500

AC VOLT/AMMETERS All models supplied with appropriate transducer.

LAVA81*	AC Volt/Ammeter. With A-70FL Transducer	Volts: 95-130; 190-260 Amps: 0-10/50/250/500
LAVA82*	AC Volt/Ammeter. With A-60FL Transducer	Volts: 95-130; 190-260 Amps: 0-5/25/100/250
LAVA83*	AC Volt/Ammeter. With A-70FL Transducer	Volts: 95-130; 190-260; 380-520 Amps: 0-10/50/250/500
LAVA84*	AC Volt/Ammeter. With A-60FL Transducer	Volts: 95-130; 190-260; 380-520 Amps: 0-5/25/100/250

TEMPERATURE RECORDERS All models supplied with appropriate probe.

LT8100*	Dual Range Temperature Recorder. With FL-RBT-1 Probe.	−50° to +100°F +50° to +250°F

AC WATTMETERS Furnished with calibrated transducer, Energizer, leads and probe tips.

LAW50	Basic Four Range AC Wattmeter	0 to 2.5 kw (115v, 0 to 25 Amps); 0-5 kw (115v, 20-50 Amps); 0-5 kw (230v, 0-25 Amps); 0-10kw (230v, 20-50 Amps).

DC MICROAMMETERS

Model No.	Description	Range
LDC850*	DC Microammeter (Tautband Movement). Resistance: 900Ω	0-50ua DC
LDC8100*	DC Microammeter. Resistance: 2750Ω	0-100ua DC
LDC8500*	DC Microammeter. Resistance: 103Ω	0-500ua DC

DC MILLIAMMETERS

LDB81*	DC Milliammeter. Resistance: 30Ω	0-1 ma DC

DC AMMETERS For use with 50 mv shunts. Furnished with calibrated (0.065Ω) five foot leads.

LDM830*	DC Millivoltmeter. Resistance: 10Ω	0-50 mv DC Scale 0-30 Amps DC
LDM840*		0-50 mv DC Scale: 0-40 Amps DC
LDM850*		0-50 mv DC Scale: 0-50 Amps DC

PYROMETERS Not supplied with Thermocouples.

LP8400*	Three Range Pyrometer. (External Resistance: 3.50Ω) Uses Iron-Constantan Type J Thermocouples.	0° to 400°F 0° to 800°F 0° to 1200°F
LP81000*	Pyrometer. (External Resistance: 6.07Ω) Uses Iron-Constantan Type J Thermocouples.	0° to 1000°F 0° to 530°C
LP82000*	Pyrometer. (External Resistance: 10:34Ω) Uses Chromel Alumel Type K Thermocouples.	0° to 2000°F 0° to 1080°C

"SELECTRO-PRINT" RECORDERS Designed to print only on a signal from an external source.

These Recorders are available in most of the above flush-mounting models. Write factory for details on prices and specifications.

EVENTS RECORDERS Designed to monitor and document from one to 10 separate operations.

LEV10*	Events Recorder, 10 channel operation.	
LDL10	DIRECT-O-LOG® Recorder. Features 10 self-clearing channel selector buttons with lights.	

AMPROBE® RECORDER STRIP CHARTS

Individually packaged 30′ chart rolls packed six (6) to a box. Sold in multiples of six (6) only.

Type	Cat. No.	Description	For Use With Model No.
Voltage	835X3A	Marked: 95-130/190-260/380-520 Volts AC	LAV2X, FAV2X, LAV3X, FAV3X, LAVA81, FAVA81, FAVA82, LAVA82, FAVA83, LAVA83, FAVA84, LAVA84
	830AV600	Marked: 0-150/300/600 Volts AC	LAV8600, FAV8600
Current	850A	Marked: 0-5/25/100/250 Amps AC	LAA81, FAA81, LAA82, FAA82, LAVA81, FAVA81, FAVA82, LAVA82, LAVA83, FAVA83, LAVA84, FAVA84
	830AA	30 Division for AC Amperes. Marked: 0-150/300/600/1200	LAA830, FAA830
	840AA	40 Division for AC Amperes. Marked: 0-200/400/800	LAA840, FAA840
	850AA	50 Division for AC Amperes. Marked: 0-100/250/500	LAA850, FAA850
DC Variable	850D	50 Division for DC variables. (Millivolts, Milliamperes, Microamps). Marked: 0-1/5/25; 25-0-25	LDM850, FDM850, LDC850, FDC850, LDC8100, FDC8100, LDC8500, FDC8500, LDB81, FDB81
	840D	40 Division for DC variables. (Millivolts, Milliamperes, Microamps). Marked: 0-20/40/80; 20-0-20	LDM840, FDM840
	830D	30 Division for DC variables. (Millivolts, Milliamperes, Microamps). Marked: 0-15/30/60; 15-0-15	LDM830, FDM830
Kilowatts, AC	850AW	Marked: 0-2.5/0-5/0-10 KW, AC	LAW50
Pyrometer	840F	Marked: 0°F to 400°F; 0°F to 800°F; 0°F to 1200°F	LP8400, FP8400
	850P1&2	Marked: 0°F to 1000°F; 0°F to 2000°F	LP81000, FP81000, LP82000, FP82000
	856C1	Marked: 0 to 530°C	LP81000, FP81000
	857C2	Marked: 0 to 1080°C	LP82000, FP82000
Temperature	823T1	Marked: −50°F to +100°F	LT8100, FT8100
	833T2	Marked: +50°F to +250°F	LT8100, FT8100
Events	EV10	Marked from 0 to 10	LEV10, FEV10, LDL10

SPECIFICATIONS

Accuracy:

DC Instruments: ±2% FS

AC Ammeters: ±3% FS

AC Expanded Scale Voltmeters: ±1.25% FS

AC Voltmeters: ±3% FS

AC Wattmeters: ±5% FS

Pyrometers: ±3% FS

Temperature Recorders:

High Range: +50°F to +250°F: ±5°F

Low Range: −50°F to + 20°F: ±4°F
+20°F to +100°F: ±3°F

Strip Chart Size: 2½" wide x 30′ long.

Standard Chart Speeds: 1 inch or 12 inches per hour. (Other speeds available.) Unless otherwise specified 12 inches per hour chart speed will be shipped.

Impression Rate: Once every 5 seconds at 12 inches per hour.

Once every minute at 1 inch per hour.

Power Requirements: 115v AC, 60 cycles.

2.5 Watts. (Unless otherwise specified.)

AAD-39R

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Beckman® TEST and MEASURING INSTRUMENTS

RESISTANCE DECADES Model DR Series

High-Precision and Stability • Low Zero-Resistance • Long-Life Switches.

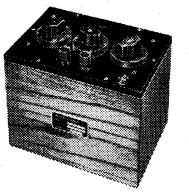
DR units provide convenient selection of precise resistance values. Typical applications are found in the areas of circuit design in simulation of various factors, and as standards in bridge-type measurements.

Standard units are available with 3, 5, or 7-dials. Each decade inserts a precise ohmic resistance in series with the terminals. The basic ohmic value of any decade may be multiplied by factors of 0, 1, 2, 3, thru 10, by setting its dial at the appropriate step. Switches are 12 position, 360-degree type. Actual resistance is the sum of zero-resistance and indicated resistance. Model DR units provide zero-resistance of less than 0.003 ohm per decade.

Model No.	Maximum Resistance	Decade Steps
DR-1D	1,110,000	10 x (1K+10K+100K)
DR-2D	111,000	10 x (100+1K+10K)
DR-3D	11,100	10 x (10+100+1K)
DR-4D	1,110	10 x (1+10+100)
DR-50D	11,111	10 x (0.1+1+10+100+1K)
DR-51D	111,110	10 x (1+10+100+1K+10K)
DR-52D	1,111,100	10 x (10+100+1K+10K+100K)
DR-70D	1,111,111	10 x (0.1+1+10+100+1K+10K+100K)
DR-71D	11,111,110	10 x (1+10+100+1K+10K+100K+1M)

Model No.	Accuracy	Overall Dimensions	Weight Lbs. Net	Weight Lbs. Ship	Price
DR-1D	±0.1%	8 x 5½ x 4½	4	6	$78.00
DR-2D	±0.1%	8 x 5½ x 4½	4	6	67.00
DR-3D	±0.1%	8 x 5½ x 4½	4	6	65.00
DR-4D	±0.25 & ±0.1%	8 x 5½ x 4½	4	6	65.00
DR-50D	±0.25 & ±0.01%	9 x 6 x 4½	5	7	95.00
DR-51D	±0.25 & ±0.1%	9 x 6 x 4½	5	7	100.00
DR-52D	±0.1%	9 x 6 x 4½	5	7	112.00
DR-70D	±0.25 & ±0.1%	17¼ x 5 x 4½	6	8	165.50
DR-71D	±0.25 & ±0.1%	17¼ x 5 x 4½	6	8	215.25

CAPACITANCE DECADES Model DK Series

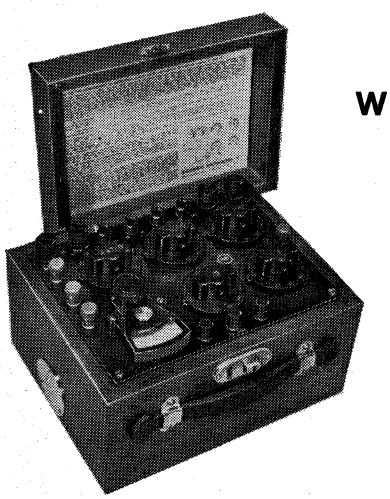


Model DK units provide convenient selection of precise capacitance values with direct reading on the dials. Typical applications are found in bridge measurements and in experimental work such as circuit design. Standard units are 3-dial types. Paralleling switches provide steps of 0 to 10 by combinging four capacity values. All capacitance is connected across the terminals.

Capacitors are adjusted to the accuracies listed so that increments are correctly indicated on the dials. Zero-capacitance is less than 35 pf. Silver-mica and mylar dielectrics are used to obtain low-loss, high-stability characteristics.

Model	Maximum Capacity μf	Decade Steps μf	Accuracy	Power Factor	Peak Volts	Dielectric
DK-2A	1.11	0.001 10x 0.01 0.1	All ±1%	All 0.2%	700 700 500	All Silver Mica
DK-4	1.11	0.001 10x 0.01 0.1	±1% ±1% ±3%	0.2% 0.2% 1%	700 700 400	Silver Mica Silver Mica Mylar
DK-5A	11.1	0.01 10x 0.1 1.0	±1% ±3% ±3%	0.2% 1% 1%	700 400 400	Silver Mica Mylar Mylar
DK-11A	11.1	0.01 10x 0.1 1.0	±0.5% ±0.5% ±2%	0.2% 0.2% 1%	700 500 400	Silver Mica Silver Mica Mylar
DK-10	0.111	0.0001 10x 0.001 0.01	±10 μμf ±0.5% ±0.5%	2% 0.2% 0.2%	700 700 700	All Silver Mica

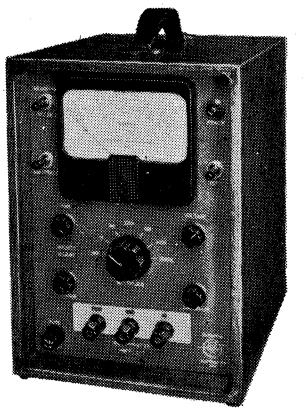
Model	Overall Dimensions	Weight Lbs. Net	Weight Lbs. Ship	Price
DK-2A	8 x 5½ x 7½	8	10	$175.00
DK-4	8 x 5½ x 7½	8	10	80.00
DK-5A	10¾ x 7¾ x 7½	10	12	95.00
DK-11A	10¾ x 7¾ x 7½	10	12	185.00
DK-10	8 x 5½ x 7½	8	10	95.00



WHEATSTONE BRIDGES TYPE RN

Universally used for the measurement of all types of resistance devices and circuits where high accuracy is required. Models available for performing Murray-Varley Loop tests.

Model	Total Resistance of Decade	Ratio Dial Settings	Circuits	Dimensions	Price
RN-1	9x(1+10 +100 +1000)	.001, .01, .1, 1, 10, 100, 1000	.....	9"x8"x6½"	$176.50
RN-2	9x(1+10 +100 +1000)	.001, .01, .1, 1, 10, 100, 1000, M10, M100, M1000	Murray & Varley	9"x8"x6½"	193.25
RN-3	10x(1+10 +100) +9(1000)	1/1000, 1/100, 1/10, 1/9, 1/4, 1/1, 10/1, 100/1, 1000/1, M10, M100, M1000	Murray & Varley	9½"x8"x6½"	226.00



TYPE L MEGOHMMETERS

Type L Megohmmeters are used for both laboratory and high speed production testing of motor and transformer winding insulation, cable insulation, high value resistors, capacitor insulation, and for the measurement of surface and volume leakage of insulating materials. These instruments meet the requirements for testing insulation resistance in accordance with ASTM D-257, and Federal Specification LP-406B, Method 4041.

ELECTRICAL SPECIFICATIONS AND PRICES

Model	TEST Voltage	RANGE Low in meg.	RANGE High in meg.	POWER Consumption	WEIGHT Net	WEIGHT Ship.	Size	Price
L-4A	200 and 500 fixed	1 2.5	100,000 250,000	50 Watts	14	17	15"x8"x10"	215.
L-6B	100 to 600*	1	100,000	80 Watts	15	18	15"x8"x10"	310.
L-7	100 to 600*	1	5×10^{13}	75 Watts	20	24	8"x10½" x11½"	383.

*Continuously variable, built-in voltmeter for accurate setting.

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CEDAR GROVE OPERATIONS

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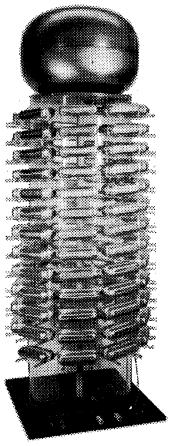
Beckman® TEST and MEASURING INSTRUMENTS

KILOVOLTMETERS

MEASURE 100,000 VOLTS AC OR DC

KILOVOLTMETER



MODEL DV-100KV DIVIDER

Large rugged 6 inch precision mirror scale meter, ideal for use in lab or field testing. Completely transistorized with stabilized anti-drift circuitry resulting in sensitivity in the order of a few microamperes. Battery operated unit using long life, self-contained mercury batteries. Panel mounted trimmers provide for recalibration when required. Uses fast spike bypass circuitry and a novel automatic voltage coefficient compensator for the multipliers. Special high voltage probes supplied with instrument. The low voltage probe is used on the 5 and 10 KV range, with the larger high voltage probe used in the higher ranges. The accuracy of the basic instrument is ±1% of full scale on DC, ±2% of full scale on 60 cycles. The probe accuracy is ±2% on the 5 and 10 KV range and ±4% on the 50 and 100 KV range.

Where greater than the usual accuracy is required a Model DV-100KV Standard Divider is available as an accessory for use with the Model 50 and 60 KV meter. The Model DV-100KV Divider is used in place of the probe normally supplied with the instrument. This unit consists of a series of wire-wound standard resistors arranged in a spiral with a special corona guard ring. Accuracy ±0.05%.

RANGES: 0 to 5,000/10,000/50,000/100,000 volts DC or 60 cycles AC.

Model 60 - DC only	Model 50 - AC and DC	Model DV-100KV
$350.00	**$400.00**	**$2850.00**

INSULATION TEST SETS

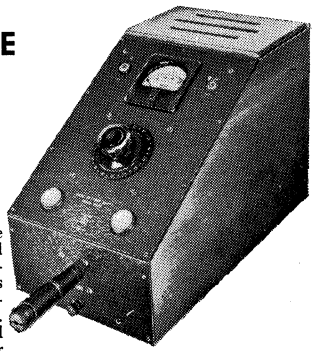
AC or DC up to 100,000 VOLTS

Used in testing insulation where AC voltages are desired. Dual instruments are also available which provide choice of AC or DC output. Includes kilovoltmeter, current meter and automatic overload limiter circuits. Metering accuracies are ±3%.

The basic model number covers A.C. types. Add the prefix AC/DC to the basic model number for the dual output type.

MODEL	VOLTAGE	VA	AC	AC and DC
3000	0 to 3,000	75	$165.00	$ 250.00
3010	0 to 3,000	300	250.00	400.00
3050	0 to 3,000	1,500	500.00	650.00
3100	0 to 6,000	3,000	700.00	1,100.00
5000	0 to 5,000	75	175.00	300.00
1000	0 to 10,000	75	250.00	375.00
1500-AC	0 to 15,000	75	285.00	AC only
2500-AC	0 to 25,000	75	400.00	AC only
2500-DC	0 to 25,000	2.5	DC only	420.00
4000-DC	0 to 40,000	2.5	DC only	600.00
F-6100-T	0 to 100,000	10.0	DC only	1300.00

TYPE P—VOLTAGE BREAKDOWN TESTERS



The Type P Series Voltage Breakdown Testers are designed for safe, accurate and fast testing of materials, components and circuits both in the laboratory and on the production line. All types have self-contained metered high-voltage power supply with safety features including interlock switches and pilot warning lights. Load current is limited to values shown in table below. Output voltage continuously variable over range listed for each model.

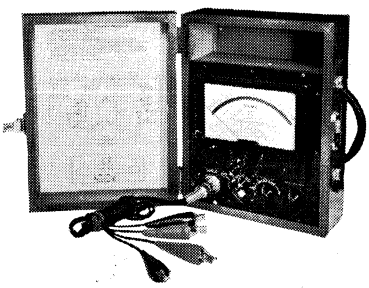
ELECTRICAL SPECIFICATIONS AND PRICES

	VOLTAGE RANGE		CURRENT RANGE		
Model	AC volts RMS	DC volts	AC	DC	Price
P1		0-4000		5 ma (max)*	$218.00
P2	0-3000	0-4000	7 ma (max)	5 ma (max)*	264.00
P3B	0-8000	0-10,000	60 ma (max)	50 ma (max)*	488.00

*Models P1, P2 and P3B incorporate a variable series resistance which limits short circuit current independently of voltage.

Other power supplies up to 100 KV can be supplied to your specifications. Send complete details for quotation.

TYPE LRO-1 LOW RESISTANCE OHMMETER



The Type LRO-1 Low Resistance Ohmmeter is useful for the measurement of resistance of sensitive relay contacts, fuses, bus-bars and connections, rail joints, pipe or conduit, switch contacts, transformer windings, motor windings, bonding, grounding and similar applications. The current through the unknown resistance never exceeds 110 ma.

Price $156.00

FEATURES: Extreme accuracy for the most critical measurements. • Entirely self-contained, including 1½ volt flashlight battery • Ranges: .1 ohm, 1 ohm and 10 ohms. 100 meter scale divisions. • Accuracy of plus/minus 1½% on LRO-1 based on full scale values. • Full Scale Readings. • Maximum current through piece under test = 0.11 amp.

• Other electrical test equipment manufactured by Beckman Instruments, Inc., Cedar Grove Operations can be found in current editions of the MASTER. For complete technical details and specifications on test equipment listed here and others request a copy of Catalog 29.

Beckman® INSTRUMENTS, INC.
CEDAR GROVE OPERATIONS

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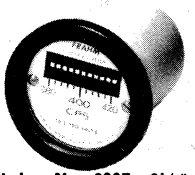
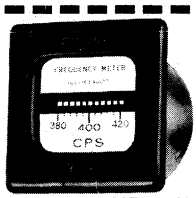
BIDDLE INSTRUMENTS for FRAHM® RESONANT REED FREQUENCY METERS

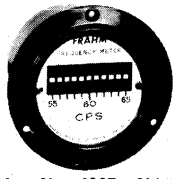
NEW... 1½", 5, 7, or 9 reeds, 60 and 400 cycle Frahm Miniature Frequency Meter with metal case, hermetically sealed.



Catalog No. 2997—2½", 11 reeds, 400 cycle Frahm Miniature Frequency Meter with metal case.



Catalog No. 4997-2—3½", 11 reeds, 400 cycle, Frahm Frequency Meter with square plastic case.



Catalog No. 4967—3½", 11 reeds, 60 cycle, Frahm Frequency Meter with plastic case.

3½" meters available in round plastic, or metal (sealed or unsealed), or round plastic with square bezel. Portable instruments available in all ranges shown with 3½" cases.

15 to 1500 cps (Special up to 1700 cps) 2 to 63 reeds.
Molded Plastic or Metal Cases. Sealed if Required.
1½" to 8½" • Panel Mounting or Portable.

The first resonant reed instrument in the U.S.A. was introduced 50 years ago by James G. Biddle Co. We have maintained this leadership ever since, to place at your service the greatest knowledge of materials, processes, and controls—the finest facilities to produce quality instruments for unfailing accuracy and long life.

Basic specifications are shown in the table at right.

Specially designed instruments will be made to your requirements.

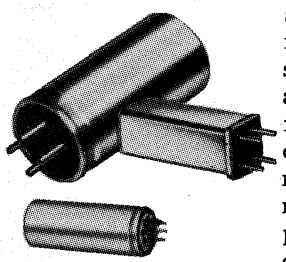
Write or phone if you have applications which require special modifications of range, methods of actuating, scale graduations or other design characteristics.

For standard specs and prices write or phone for BULLETIN 32 REM.

Cat. Number	Range Cycles	Number of Reeds	Interval Between Reeds Cycles	Type of Case	Sealed	Accuracy %
2864	58-62	9	0.5	1½" metal	Yes	0.3
2896	380-420	9	5.0	1½" metal	Yes	0.3
2955	45-55	11	1.0	2½" metal	Yes	0.3
2956	47.5-52.5	11	0.5	" "	Yes	0.3
2966	57.5-62.5	11	0.5	" "	Yes	0.3
2967	55-65	11	1.0	" "	Yes	0.3
2997	380-420	11	4.0	" "	Yes	0.3
4850	49-51	21	0.1	3½" metal	Yes	0.1
4860	59-61	21	0.1	" "	Yes	0.1
4861	58-62	21	0.2	" "	Yes	0.1
4890	390-410	21	1.0	" "	Yes	0.1
4956	47.5-52.5	11	0.5	3½" plastic	No	0.3
4957	48.0-52	11	0.4	" "	No	0.3
4959	48.0-52.0 58.0-62.0	10	1.0 1.0	" "	No	0.3
4964	58.0-62.0	9	0.5	" "	No	0.3
4965	56.0-64.0	9	1.0	" "	No	0.3
4966a	58.0-62.0	11	0.4	" "	No	0.3
4966	57.5-62.5	11	0.5	" "	No	0.3
4967	55.0-65.0	11	1.0	" "	No	0.3
4996	375-425	11	5	" "	No	0.3
4997	380-420	11	4	" "	No	0.3

Voltages 100 to 150 v—D.C. resistance 100 ohms per volt. Instruments meet MIL Specifications. Cases meet ASA standard diameter dimensions.

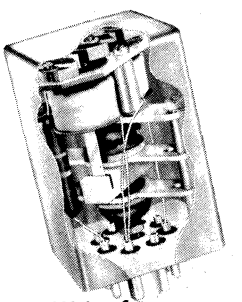
BIDDLE INSTRUMENTS for FREQUENCY SENSITIVE RELAYS and OSCILLATORS



Write for BULLETIN 33 REM

Resonant Reed Relays...

simplify and improve the transmission of information over a single communication circuit of any type. For example, in the range 200-500 cps, up to 16 channels can be operated with no interference between channels. Reed relays can be supplied with any nominal frequency between 200 and 1100 cps. Your inquiries are invited on special requirements.



Write for BULLETIN 34 REM

Resonant Reed Oscillator Controls Electro-Mechanical Band Pass Filters

Maintain the output frequency of electric oscillator circuits within close limits. Made with any one nominal control frequency between 20 and 2400 cps—constant within ± 0.15% of the nominal control frequency.

New Transistorized Oscillators and Band Pass Filters

615

Relay Type	Input Impedance Range	Frequency Range	Typical Input Millivolt-Amperes
RR1	1 to 10,000 ohms depending on selection of coil and frequency	67 to 640 cps	Varies over wide range depending on selection of coil and frequency
RR10	12.5 ohms d-c	300-1100 cps	

JAMES G. BIDDLE CO.
Electrical Testing and Speed Measuring Instruments

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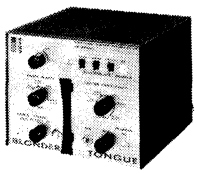
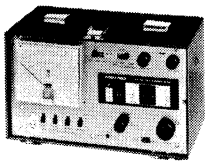
BLONDER-TONGUE

"Standards for Industry" Lab-Line

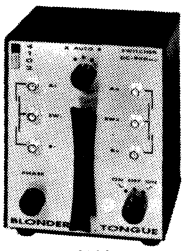
Designed specifically for the cable distribution industry and for those working with RF in research, development and production. All items are designed to match to 75 ohms and are not merely an adaptation of 50-ohm gear to our standard impedance. Units are of wide band design to cover all TV channels.



4122



FSM-2



4102

4122 U/V Sweep Generator—Solid-state all channel sweep generator has two switch-selected, electronically swept ranges: entire UHF TV Spectrum (470 to 890 mc); entire VHF TV Spectrum including subchannels (20 to 240 mc).

Sweep widths are continuously variable from 5 mc to the entire VHF or UHF range in one sweep. Center frequency can be tuned across the complete band on each range regardless of the sweep width setting. An output level attenuator is adjustable over a 60 db range. Automatic Level Control (ALC) on both ranges assures constant output. Fully regulated power supply for stable operation.

The sweep oscillator is varactor-tuned (no moving parts) for silent operation and long life. For VHF output, the UHF sweep is mixed with a fixed oscillator signal and the resultant difference signal is amplified and level controlled to cover the complete VHF TV spectrum.

The horizontal sweep rate of 60 cps derived from the power line, is available as a sine-wave at the front panel for connection to the oscilloscope. Use of the sine-wave horizontal permits oscilloscopes to be fed by available local line voltage for summation sweeps of large distribution systems. This feature makes the 4122 ideal for feeding a production test line. **$595.**

4114 UHF Sweep Generator—Same features as Model 4122, but the range of 470-890 mc only. Provision is made for sweep widths down to a few mc or up to the complete 420-mc range. The center frequency can be tuned across the complete range. **$325.**

FSM-2 UHF/VHF Field Strength Meter—Instantly convertible from VHF to UHF with the flip of a switch. Accurate and portable. Measures RF signals at 75 ohms impedance (VHF/UHF balun supplied for 300 ohm measurements) in two ranges: VHF (54-216 mc) and UHF (470-890 mc). Sensitivity variable from 100 microvolts to 3 v for full scale meter deflection. Reads both average and peak level by means of separate built-in detectors. Solid state circuitry. Very stable in operation. Battery and power line operation. Fully regulated power supply. **$395.**

4102 R. F. Switcher—Double-pole, double-throw, 75-ohm coaxial switch with a frequency range of DC-900 mc. It can be operated manually or automatically at a 30-cps rate. Fully solid state.

Ideally suited for making direct, immediate comparisons between input and output voltages of any circuit under test; for precisely measuring VSWR, amplifier gain or attenuation; and other application involving equipment performance evaluation against given standards. It can serve as a general laboratory oscilloscope switch. It permits two signals to be simultaneously displayed on an oscilloscope. Switching between the two signals is at the rate of 30 cps.

Either signal can be seen independently, or both may be seen superimposed. Employs four hermetically sealed S.P.S.T. switches, activated by solid state circuitry for accurate, dependable performance. Comparison measurements are free from errors due to scope calibration, nonlinearity or detector law characteristics. Provision for 360° phase adjustment. **$250.**

4107 Delay Line—Precision 75-ohm coaxial delay line for use as a match cable for impedance measurements and other laboratory applications where a standard cable of superior quality is required. Provides an accurate impedance standard for making fast and accurate VSWR measurements over a very wide bandwidth. **$125.**

4113 50/75 ohm Matchpad (DC-900mc)—Precision resistive, minimum loss, 50 to 75-ohm matchpad for the frequency range DC-900 mc. Used to match other test equipment with 50-ohm impedance to 75-ohm equipment. **$25.**

4111 Fixed Attenuators (DC-900mc)—Precision attenuator pads for 75-ohm applications available in values of 1, 2, 3, 6, 10 and 20 db attenuation. **Accuracy:** 1 db ± 0.1 db thru 20 db ± 1 db. **$20.00.**

4121 UHF/VHF Switch Attenuator (DC-900mc)—Covers entire UHF/VHF frequency range. 62 db total attenuation, switchbale in 1 db steps. 75-ohm impedance. BTF connectors are used with mating male connectors supplied. **$40.**

4123 High Output Detector (20-216mc)—Extremely sensitive, enables VSWR measurement of some devices without using external amplifier and gives usable output from extremely small input signals. **$50.**

4124 VHF Return Loss Bridge (30-216mc)—Fast, accurate wide band measurement of return loss (VSWR). Especially useful when the return loss is high. Standard 75-ohm impedance. **$50.**

4105 75/300 ohm Matching Transformer (10-216mc)—Wide band VHF transformer for precision applications. Matches balanced signals at 300 ohm to unbalanced signals at 75 ohms, or vice versa. **$30.**

4104 75-Ohm Detector (10-900mc)—Sensitive, thru-line type, RF detector used for insertion into a line or as terminated detector (precision termination plug supplied). Type BTF coax connectors. **$40.**

4103 50-75 ohm Transformer (10-216mc)—Wide band VHF 50- to 75-ohm transformer for critical laboratory applications. Matches test equipment with 50-ohms impedance to 75-ohm equipment. **$30.**

4112 UHF Matching Transformer (470-900mc)—Low-loss, wide band, UHF, 75- to 300-ohm transformer (balun). Matches balanced UHF signals at 300-ohms impedance, to unbalanced signals at 75-ohms impedance, or vice-versa. **$35.**

4106 75-ohm Two-Way Hybrid Splitter/Mixer (10-216mc)—VHF 75-ohm, two-way hybrid splitter/mixer. Useful for critical lab test set-ups where low VSWR and high isolation are needed. **$30.**

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Net

Tracks 'em Down Dead or Alive

ONLY THE VERSATILE DESCO* Circuitracer*

GIVES YOU A 3-IN-1 ELECTRICAL TEST LABORATORY

LIST PRICE $4.95 Weighs only 2½ ozs.

Satisfaction Unconditionally Guaranteed

DON'T SEND A MAN TO DO A BOY'S JOB!

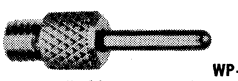
Are the technicians in your laboratories and shops using expensive meters and instruments for sample continuity and voltage checks? Speed up production through the use of the tool specifically designed for this application. A meter should be used only when the value of voltage, resistance or current must be known. Under any other conditions a Circuitracer will provide the required information faster and easier than expensive, bulky meters.

CIRCUIT TESTING WITH A CIRCUITRACER IS FASTER because the signal light is in the tip at the point of contact. This makes it possible to determine the existence of a circuit or voltage without removing the eyes from the test point to read a meter.

SAVE METER REPAIR MONEY BY USING DESCO CIRCUITRACERS. An overvoltage across a meter usually results in extensive damage which takes the meter out of service until repaired or replaced. The worst that can happen to your Circuitracer is a burned out lamp that can be replaced by the operator in less than a minute. Total cost, ten or fifteen cents for the lamp!

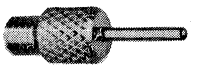
The CIRCUITRACER is the only electrical tester (other than expensive meters) that can test dead circuits, low voltage live circuits AND high voltage live circuits. It is made of the finest materials available and is designed for long life.

WS-12
Socket to fit 12 ga. connector pin

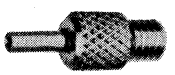


WP-12
Pin to fit 12 ga. connector socket

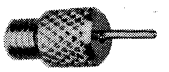
WS-16
Socket to fit 16 ga. connector pin



WP-16
Pin to fit 16 ga. connector socket



WS-20
Socket to fit 20 ga. connector pin



WP-20
Pin to fit 20 ga. connector socket

WRITE FOR CATALOG WITH FULL INFORMATION
*T.M. Reg.

DESCO TEST PROBE ADAPTERS

INSURE CONNECTOR RELIABILITY

Manual probing of harness connectors while circuit testing can damage connectors and impair reliability. Desco Test Probe Adapters were developed to provide a test fitting identical to the pins and sockets in the connectors being tested. They make the same electrical and mechanical contact as the mating connector, and insure against scratching, bending and warping.

The adapters are made in three sizes to fit connectors using #12, #16 and #20 wire gauges. The sockets are gold plated copper with a brass sheath which retains a berylium copper spring. The pins are stainless steel to insure long life. All are made to rigid MIL-SPECS. The adapters will fit Desco Jumper Wires and the Desco Circuitracer* Tester interchangeably.

Several aircraft and missile manufacturers specify Desco Test Probe Adapters for most manual test connections. (names on request)

DESCO*

DESCO MFG. CO.

Trade Discount Applies To List Prices Only
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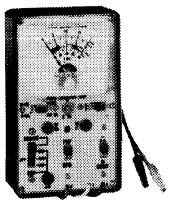
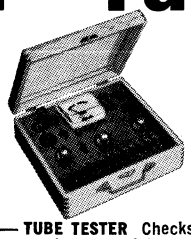
Transistor—Tube Testers



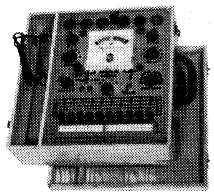
MODEL 212 — TRANSISTOR ANALYZER Checks DC current gain (BETA) in 3 ranges to 200; leakage on 3 colored scale; all transistors — high or low power for gain and leakage; all transistors as AC current amplifiers (OSCILLATOR CHECK); and all transistors in circuit without removing them. Can be used to signal trace AF, IF or RF circuits; measure battery voltage on 0-12 volt scale; measure DC current drain on 0-80 milliampere scale. Checks condition of diodes. Supplied with 3 external leads and socket for checking transistors. Comes complete with instruction manual and transistor listing. Size: 3¾"x6¼"x2". Weight: 1½ lbs.

Wired $19.50 **Kit form $13.50**



MODEL 213 — TUBE TESTER Checks all the new 12 prong (compactron), nuvistor, novar and 10 prong tubes, in addition to octal, loctal, miniature, and 9 prong tubes. Tests each tube for shorts, leakages intermittents, and quality. Tube quality is indicated directly on a three color metal dial. Each section of a multi-purpose tube is checked separately. Magic eye, voltage regulator and hi-fi tubes are also tested. Unique switching arrangement makes the checker obsolescent proof. Panel is etched for long wear. Comes complete with instructions and tube charts in ring-bound manual. Size: 8½"x7½"x 4". Weight: 4½ lbs.

MODEL 213 (in high impact bakelite case with strap). Wired $28.90. Kit $18.90. MODEL 213P (illustrated in wood carrying case). Wired $32.25. Kit $21.90. MODEL CRT picture tube adapter $4.50.

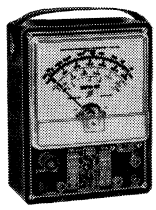


MODEL 206AP — DYNAMIC MUTUAL CONDUCTANCE TUBE TESTER This completely flexible model, using lever-type switches, offers extremely accurate results with ease of operation. Checks all compactrons, novar, nuvistor, 10 pin octal and loctal tubes; mutual conductance on a calibrated micromho and "reject-good" scale; checks tubes for gas content; detects both shorted and open elements. Complete switching flexibility allows all present and future tubes to be tested. Tests tubes for radio frequency and other noise. Size: 6"x14½"x15". Weight: 13½ lbs.

MODEL 206AP (With hand-rubbed oak carrying case) $93.90. MODEL CTA (Cathode ray tube adapter for MODEL 206AP) $4.50.

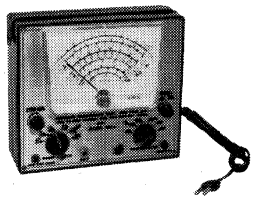
MODEL 102A — VOLOMETER Features a 3½" 2% accurate — 800 microamperes D'Arsonval type plastic front meter with 3 AC current ranges, and the same zero adjustment for both resistance ranges. A sturdy, durable pocket instrument from EMC's economy line is housed in a molded bakelite case. AC VOLTAGE — 5 RANGES: 0 to 12-120-600-1200-3000 volts. DC VOLTAGE — 5 RANGES: 0 to 6-60-300-600-3000 volts. AC CURRENT — 3 RANGES: 0 to 30-150-600 ma. DC CURRENT — 4 RANGES: 0 to 6-30-130 ma: 0 to 1.2 amps. TWO RESISTANCE RANGES: 0 to 1000 ohms, 0 to 1 megohms. Weight: 1 lb. 5 oz. Size: 3¾"x6¼"x2".

MODEL 102A — With Diode Protected Meter. Wired $16.95. Kit form $14.40



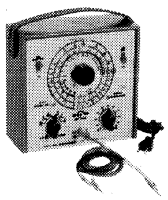
MODEL 109A — VOLOMETER Features 20,000 OHMS volts DC sensitivity and 10,000 OHMS per volt AC sensitivity. Uses a 4½", 40 microampere meter, with 3 AC current ranges; and 3 resistance ranges to 20 megohms. DC VOLTAGE: 5 ranges (20,000 ohms per volt); 0 to 6-60-300-600-3000 volts. AC VOLTAGE: 5 ranges (10,000 ohms per volt); 0 to 12-120-600-1200-3000 volts. DC CURRENT: 3 ranges — 0 to 6-60-600 ma. AC CURRENT: 3 ranges — 0 to 30-300 ma: 0 to 3 amps. 3 RESISTANCE RANGES: 0 to 20K, 0 to 200K, 0 to 20 megs. 5 DB RANGES: —4 to +67 db. Weight: 2 lbs. 5 oz. Size: 5¼"x6¾"x 2⅞".

MODEL HVT — 30,000 Volt Probe for MODEL 109A $7.95. MODEL 109A — With Diode Protected Meter $28.95. MODEL 109AK $21.15.



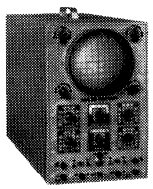
MODEL 107A — PEAK TO PEAK VACUUM TUBE VOLT-OHM CAPACITY METER Direct p-p measurements of complex wave forms; capacity and resistance measurements; 6" meter cannot burn out. P-P AC VOLTS — 6 Ranges: 0 to 4, 28, 84, 280, 840, 2800 V. Input res. 1.5 megohms. AC RMS VOLTS — 6 Ranges: 0 to 1.5, 10, 30, 100, 300, 1000 V. Input res. 1.5 megohms. CAPACITY — 6 Ranges: .00005 to .005 mfd.; .0005 to .05, .005 to .5, .05 to 5, 5 to 500, 50 to 5000 mfd. RESISTANCE — 6 Ranges: 0-1000, 10,000, 1 meg, 10 meg, 1000 megs, 10 megs center on 1000 megs range. DC VOLTS — 6 Ranges: 0 to 1.5, 10, 30, 100, 300, 1000 V. (up to 30,000 V with accessory probe). Input res. 16.5 megs or 1⅔ megohms per volt. 1 meg isolating resistor in probe. Size: 8¼"x7¼"x3½" deep. Weight: 4½ lbs.

107A Wired $51.40. Kit $36.50. RFP HIGH FREQUENCY PROBE (useful to 200mc) $6.95. PROBE HVP — 30,000 Volt Probe $8.75.



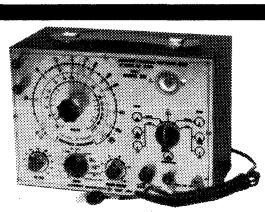
MODEL 502 — RF SIGNAL GENERATOR Has 6 bands from 115 kc to 110 mc on fundamentals and up to 220 mc on second harmonic. Individual slug tuned coils for each band. Colpitts RF oscillator for high stability. Planetary drive tuning condenser for fine adjustment of frequencies. 400 cycle internal modulation available. RF accuracy within 1½%. 2-color etched panel for long durability. Provision made for external modulation. Compact: 6⅝"x6⅝"x4" deep. Supplied with RF output lead. Cathode follower output and RF attenuator. Weight: 4 lbs.

MODEL 502 wired is priced at $26.95 and in kit form $18.95.



MODEL 601 — WIDE BAND OSCILLOSCOPE For Color TV and Monochrome. Full 5 mc bandwidth for color TV servicing. Push-pull vertical amplifier with sensitivity of .02 volts per inch. Retrace blanking amplifier eliminates confusion and gives clearer pictures. Multivibrator sweep from 15 cycles to over 75 kilocycles. 5UP1 cathode ray. SWEEP GENERATOR — Multivibrator type: frequency range 15 to over 75,000 cycles. VERTICAL AMPLIFIER — Maximum sensitivity: .02 volts RMS per inch; frequency response: flat within 1.5 db from 15 cycles to 5 megacycles; input impedance: 2 megohms — 30 mmfd. SYNCHRONIZATION — Positive or negative from vertical amplifier or from external source; 105-130 volts 50/60 cycles 50 watts. Size: 8¾" wide x 14" high x 15½" deep. Weight: 29 lbs.

MODEL D — Direct Probe $3.95. MODEL DEM — Demodulator Probe $5.75. MODEL LC — Low Capacity Probe $5.75. MODEL 601 — Wired $117.90.



MODEL 801—COMPARATOR BRIDGE & IN-CIRCUIT CAPACITY CHECKER Comprehensive resistance and capacity checker. Measures condensers for actual value, leakage, and power factor. As an in-circuit checker: detects open condensers above 50 mmfd not shunted by an excessively low resistance value; detects shorted condensers up to 20 mfd that are not shunted by less than 10 ohms; detects condensers that are intermittent in operation. Checks: capacity values in 4 ranges from 10 mmfd to 5000 mfd; resistance in 4 ranges from .5 ohm to 500 megs; ratio between any two capacitors, inductors or resistors or transformer windings having a ratio of 20 to 1 or less; power factor from 0 to 60% on condensers between .1 mfd and 5000 mfd; leakage of all types of condensers at rated voltages between 0 and 500 VDC. Uses a 2-color deep-etched, satin finish, aluminum panel. Size: 10"x 7"x5" deep. Weight: 7 lbs.

Wired $38.95. **Kit $24.95.**

EMC **ELECTRONIC MEASUREMENTS CORPORATION**

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PRECISION-PLUS

PRECISION

the Recognized Leader . . .

ELECTRO-MECHANICAL INSTRUMENT CO., INC.

PRICE LIST

PRICES—Prices listed are net and include all hardware and individual boxing. Resistance approximate. If important request factory engineering confirmation.

DC AMMETERS

Range	Approximate Resist. Ohms	MODEL NF-2C Catalog Number	NF-2C Dealers' Net Price	MODEL RF-2C Catalog Number	RF-2C Dealers' Net Price	MODEL RF-2¼C Catalog Number	RF-2¼C Dealers' Net Price	Approximate Resist. Ohms	MODEL 13 Catalog Number	Dealers' Net Price
0-1	.15	2101	$1.90	2201	$2.00	2301	$2.30			
0-3	.032	2101-A	1.90	2201-A	2.00	2301-A	2.30			
0-5	.016	2102	1.90	2202	2.00	2302	2.30			
0-10	.00115	2103	1.90	2203	2.00	2303	2.30	.0025	2403	$2.30
0-15	.00115	2103-A	1.90	2203-A	2.00	2303-A	2.30	.0025	2403-A	2.30
0-20	.00115	2104	1.90	2204	2.00	2304	2.30			
0-25	.00115	2104-A	1.90	2204-A	2.00	2304-A	2.30	.0006	2405	2.30
0-30	.00115	2105	1.90	2205	2.00	2305	2.30			
0-60	.000116	2106-A	2.60	2206-A	2.70	2306-A	3.00			
1-0-1	.08	2109	1.90	2209	2.00	2309	2.30			
3-0-3	.00115	2110	1.90	2210	2.00	2310	2.30			
6-0-6	.00115	2111	1.90	2211	2.00	2311	2.30			
10-0-10	.00115	2112	1.90	2212	2.00	2312	2.30			
15-0-15	.00115	2113	1.90	2213	2.00	2313	2.30			
20-0-20	.00115	2114	1.90	2214	2.00	2314	2.30	.0006	2414	2.30
30-0-30	.00115	2115	1.90	2215	2.00	2315	2.30	.0006	2415	2.30
75-0-75	.000116	2116-A	2.95	2216-A	3.05	2316-A	3.35			

DC MILLIAMMETERS

0-1	850	2120	$3.70	2220	$3.75	2320	$4.05	950	2420	$4.05
0-3	425	2121	2.60	2221	2.65	2321	2.95	130	2425	2.70
0-5	925	2125	2.35	2225	2.40	2325	2.70	75	2426	2.55
0-5	1300					2326	2.55	23	2427	2.30
0-10	300	2126	2.20	2226	2.25	2327	2.30			
0-10	350					2327-A	2.30	12	2428	2.30
0-20	95	2127	1.90	2227	2.00	2328	2.30	5.5	2429	2.30
0-20	105					2329	2.30	1.8	2430	2.30
0-25	65	2127-A	1.90	2227-A	2.00	2330	2.30	1.0	2430-A	2.30
0-30	37	2128	1.90	2228	2.00	2330-A	2.30	.5	2430-B	2.30
0-30	45					2330-B	2.30	.35	2431	2.30
0-50	14.5	2129	1.90	2229	2.00	2331	2.30	.12	2432	2.30
0-50	18.0					2332	2.30			
0-100	7.0	2130	1.90	2230	2.00					
0-100	8.3									
0-150	1.8	2130-A	1.90	2230-A	2.00					
0-150	2.15									
0-200	1.5	2130-B	1.90	2230-B	2.00					
0-200	1.7									
0-300	.61	2131	1.90	2231	2.00					
0-300	.8									
0-500	.21	2132	1.90	2232	2.00					
0-500	.27									

DC VOLTMETERS (HIGH RESISTANCE)

(100 ohms/volt except 150 and 300 volt ranges are 200 ohms per volt)

0-10	1050	2140	$2.75	2240	$2.85	2340	$3.15
0-30	2800	2141	2.75	2241	2.85	2341	3.15
0-50	4000	2142	2.95	2242	3.05	2342	3.35
0-150	28000	2143	3.10	2243	3.20	2343	3.60
0-300	55000	2144	3.20	2244	3.30	2344	3.60

DC VOLTMETERS (LOW RESISTANCE)

Range	Approximate Resist. Ohms	MODEL NF-2C Catalog Number	NF-2C Dealers' Net Price	MODEL RF-2C Catalog Number	RF-2C Dealers' Net Price	MODEL RF-2¼C Catalog Number	RF-2¼C Dealers' Net Price			
0-1	33	2134	$1.90	2234	$2.00	2334	$2.30			
0-3	100	2135	1.90	2235	2.00	2335	2.30	150	2435	$2.30
3-0-3	30	2136	1.90	2236	2.00	2336	2.30			
0-5	140	2136-A	1.90	2236-A	2.00	2336-A	2.30			
0-8	225	2136-B	1.90	2236-B	2.00	2336-B	2.30			
0-10	280	2137	1.90	2237	2.00	2337	2.30	500	2437	2.30
0-15	450	2137-A	1.90	2237-A	2.00	2337-A	2.30	750	2437-A	2.30
0-20	600	2137-B	1.90	2237-B	2.00	2337-B	2.30	1000	2437-B	2.30
0-30	1000	2137-C	1.90	2237-C	2.00	2337-C	2.30	1500	2437-C	2.30
0-50	1400	2138	1.90	2238	2.00	2338	2.30	2500	2438	2.30

AC AMMETERS

0-1	.365	6101	$3.05	6201	$3.15	6301	$3.45			
0-3	.078	6102	3.05	6202	3.15	6302	3.45			
0-5	.023	6103	3.05	6203	3.15	6303	3.45	.023	6404	$3.45
0-10	.013	6104	3.05	6204	3.15	6304	3.45			

AC MILLIAMMETERS

0-25	750	6125	$3.05	6225	$3.15	6325	$3.45			
0-50	175	6126	3.05	6226	3.15	6326	3.45			
0-100	58	6127	3.05	6227	3.15	6327	3.45			
0-250	12	6128	3.05	6228	3.15	6328	3.45			
0-500	1.75	6129	3.05	6229	3.15	6329	3.45	1.15	6429	$3.45

AC VOLTMETERS

0-5	50	6135	$3.05	6235	$3.15	6335	$3.45			
0-10	175	6136	3.05	6236	3.15	6336	3.45	300	6437	$3.45
0-15	300	6137	3.05	6237	3.15	6337	3.45			
0-25	920	6137-A	3.05	6237-A	3.15	6337-A	3.45			
0-50	1800	6138	3.05	6238	3.15	6338	3.45			
0-150	9530	6139	3.60	6239	3.70	6339	4.00	15000	6439	4.00
0-300	32000	6140	4.20	6240	4.25	6340	4.55	32000	6440	4.55

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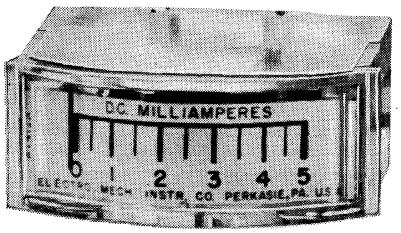
METERS

in Precision Products

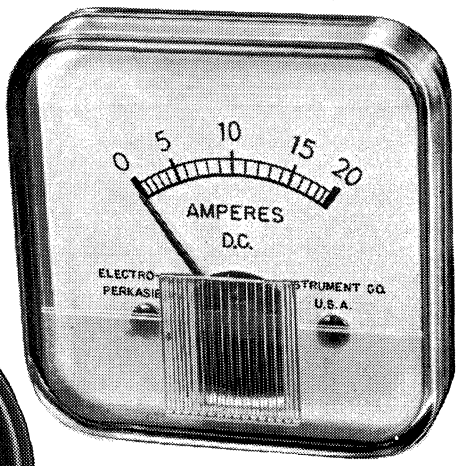
EMICO

PRECISION-PLUS

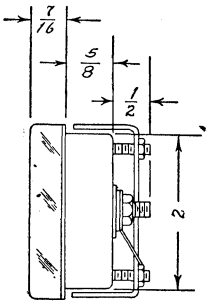
ELECTRO-MECHANICAL INSTRUMENT CO., INC.

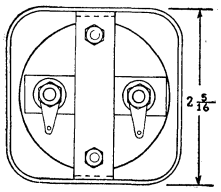


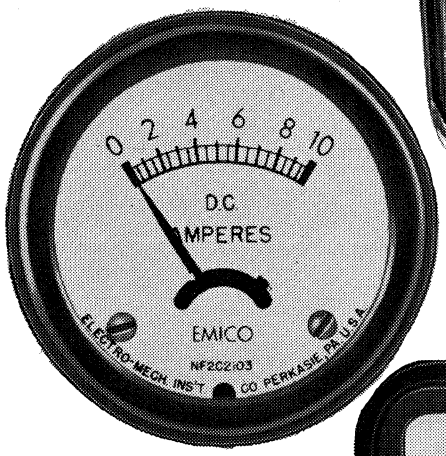
MODEL 13
Edge Reading Type



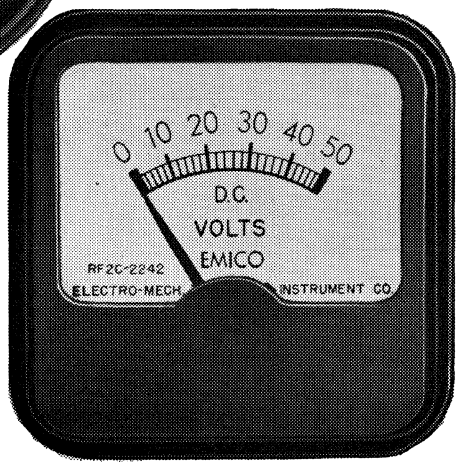
MODEL RF2¼C



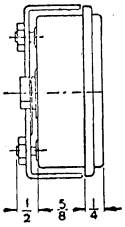


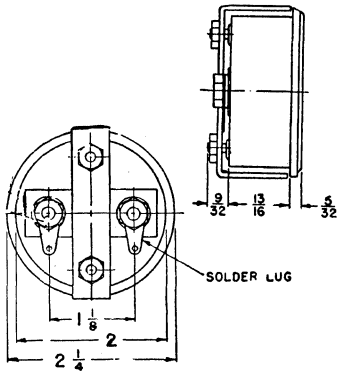


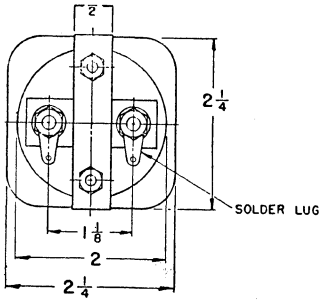
MODEL NF2C



MODEL RF2C







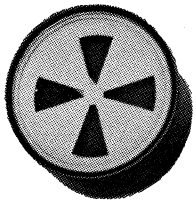
Precision instruments engineered for

- **accuracy**
- **long life**
- **economy**

EMICO Miniature Circuit Indicator
MODEL 801

Gives snap-action response at .001 (milliwatt) to monitor all circuit malfunctions or on-off conditions. Dependable through millions of on-off cycles. Simplified panel installation.

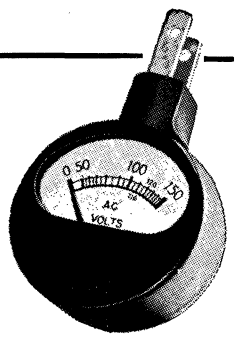
Dealer's Net **$5.00**



EMICO A.C. Voltage Tester

Accurate, precision mechanism plug-in type with damped meter movement. Convenient 90° swivel prongs for ease of reading from any position.

Dealer's Net **$3.45**



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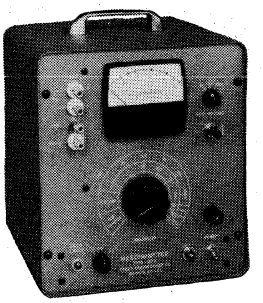
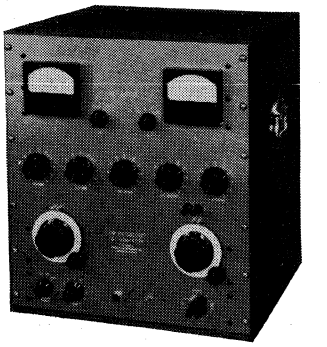
1620-A-B-C-E



1020-C

2030



1030A

MEGOHMMETERS

Freed manufactures a complete range of insulation resistance measuring equipment with fixed and variable d.c. test voltages from 5 to 2500 volts. Insulation and leakage measurements can be made on transformers, motors, cables, electronic assemblies and components, dielectric materials, electrical appliances and tools, capacitors and resistors.

Type	Resistance Range	Test Voltage	Accuracy	Power and Requirements	Size and Weight	Price
1620	0.1 to 4,000,000 megohms 1 to 2,000,000 megohms @ 500 volts	Variable 50 to 1000 volts d.c.	±5% at full scale	105-125 volts 50-60 cycles	15" x 9" x 7½" 24 lbs. *	335.00
1620-A	0.01 to 4,000,000 megohms 0.1 to 200,000 megohms @ 50 volts 1 to 2,000,000 megohms @ 500 volts	Variable 5-100 volts d.c. 100-1000 volts d.c.	±5% at full scale	105-125 volts 50-60 cycles	15" x 9" x 7½" 24 lbs. *	350.00
1620-B	1 to 2,000,000 megohms 10 to 2,000,000 megohms @ 2500 volts	Variable 250-2500 volts d.c.	±5% at full scale	105-125 volts 50-60 cycles	15" x 9" x 7½" 24 lbs. *	385.00
1620-C	All features same as Type 1620 with additional circuitry for capacitor measurements	Variable 50 to 1000 volts d.c.	±5% at full scale	105-125 volts 50-60 cycles	15" x 9" x 7½" 24 lbs. *	360.00
1620-E	10K ohms to 0.4 teraohms 100K ohms to 0.02 teraohms @ 50 volts 1 megohm to 0.2 teraohms @ 500 volts	Variable 5-100 volts d.c. 100-1000 volts d.c.	±5% at full scale except highest range ±10%	105-125 volts 50-60 cycles	15" x 9" x 7½" 25 lbs. *	405.00
1020-C	0.1 to 2,000,000 megohms 0.1 to 200,000 megohms @ 50 or 100 volts d.c. 1 to 2,000,000 megohms @ 500 volts d.c.	Fixed 50, 100, 500 volts Regulated	±3% all ranges except highest range ±5%	105-125 volts 50-60 cycles	9½" x 10½" x 8" 18 lbs. **	250.00
1020-D	0.1 to 2,000,000 megohms 0.1 to 200,000 megohms @ 100 or 200 volts d.c. 1 to 2,000,000 megohms @ 500 volts d.c.	Fixed 100, 200, 500 volts Regulated	±3% all ranges except highest range ±5%	105-125 volts 50-60 cycles	9½" x 10½" x 8" 18 lbs. **	265.00
2030-A	10 to 2,000,000 megohms	Fixed 500 volts d.c.	±5% full scale	battery operated transistor supply	6" x 8" x 4" 8 lbs.	195.00
2030-B	1 to 20,000,000 megohms	Fixed 500 volts d.c.	±5% full scale	battery operated transistor supply	6" x 8" x 4" 8 lbs.	250.00
2030-C	1 to 2,000,000 megohms	Fixed 50 volts d.c.	±5% full scale	battery operated transistor supply	6" x 8" x 4" 8 lbs.	215.00
2030-D	1 to 2,000,000 megohms	Fixed 100 volts d.c.	±5% full scale	battery operated transistor supply	6" x 8" x 4" 8 lbs.	215.00
2030-E	1 to 2,000,000 megohms	Fixed 200 volts d.c.	±5% full scale	battery operated transistor supply	6" x 8" x 4" 8 lbs.	215.00
2035	10,000 ohms to 10,000 megohms single scale, no multiplier	Fixed 50 volts d.c.	±20%	battery operated transistor supply	6" x 8" x 4" 8 lbs.	215.00

*Rack models available, 19" x 10½" x 9½". Weight 25 lbs. **1020 Series 19" x 7" x 9⅛". Weight 18 lbs.

Freed invites requests for quotations on special insulation testing instruments, either deviations of above listed standard units or new designs for system applications.

NON-DESTRUCTIVE D.C. VOLTAGE BREAKDOWN EQUIPMENT

Freed can supply non-destructive voltage breakdown testers for applications where the d.c. test voltage must be removed within microseconds in the event of a breakdown. Simultaneously the component under test is short circuited to prevent it from being damaged by its own capacitive charge.

The instrument contains a variable slope ramp generator to apply the test voltage in applications where the capacitive current in the test sample exceeds the preset leakage current limit. An indicating voltmeter holds the reading of the breakdown voltage until reset.

Type	Leakage Current	Test Voltage	Output Accuracy	Power Requirements	Size and Weight
1625	10, 100 & 500 microamperes	*2500 volts d.c.	±5% Full Scale	105-125 volts 50-60 cycles	19" x 8¾" 25 lbs.

*Other test voltages available. Write for specifications.

LOW FREQUENCY "Q" INDICATORS

Direct indication of "Q" at low frequencies, inductance, distributed capacity, impedance and dielectric loss can also be measured. Instrument may be used to study the magnetic properties of iron core material for stability as a function of applied voltage and losses as a function of the frequency.

Two units are available, the 1030-A indicates "Q" as a product of meter readings multiplied by dial settings, the 1030-B displays "Q" directly in digital readout.

Type	Test Frequency	Q Range	Accuracy	Test Voltage	Power Requirements	Dimensions and Weight
1030-A	20 cycles to 200 K.C.	1-1000	±5% 20 cycles to 50 KC— to 200 KC at reduced accuracy	Voltage to series circuit, 0.01 to 10 volts voltage across coil variable to 100 volts	105-125 volts 50-60 cycles	21" x 23" x 15" 120 lbs.

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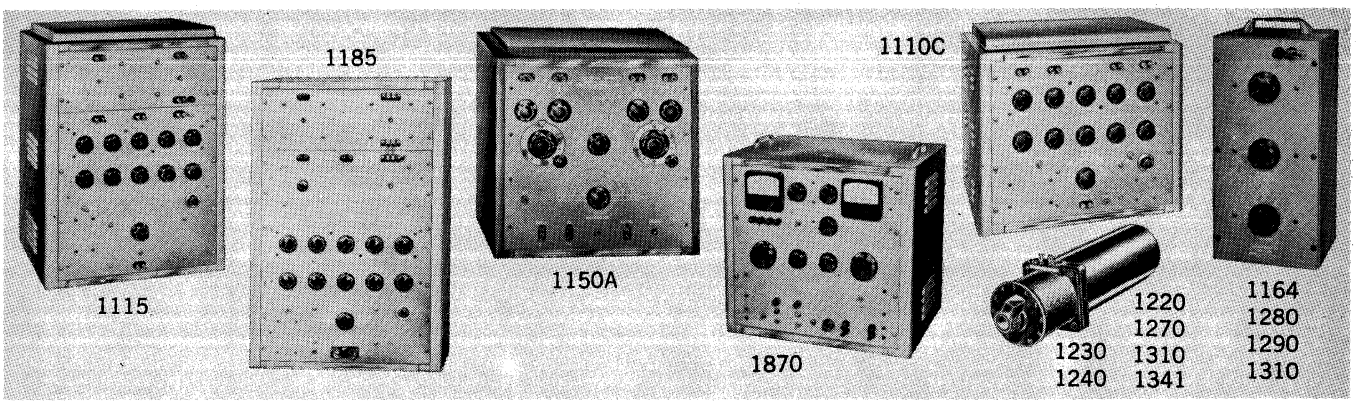

INCREMENTAL INDUCTANCE BRIDGES

Direct in-line readings of inductance and conductance of iron core component at audio frequencies with or without superimposed direct current. The bridge uses the Owens circuit with provisions for measuring the series or parallel inductance and conductance of the unknown inductor; five precision resistance and capacitance decades are provided to indicate these values. "Q" or storage factor can be measured as the product of the inductive reactance and the conductance.

Type	Inductance Range	Conductance Range	Frequency Range	D.C. Current	Accuracy	Dimensions and Weight
1110-C	1111.1 h to 1 mh 5 decades 1.1 h to 1 μh 2 decades	0.015 μmho—100 mho "Q" = 600 max @ 100 cycles	20 cycles to 10KC	up to 2 amperes	±5% to 5 KC ±2% to 10 KC	21¾" x 17½" x 15¼" 50 lbs.
1115	111.1 h to 100 μh 5 decades 0.11 h to 0.1 μh 2 decades	0.15 μmho—1000 mho "Q" = 600 max @ 100 cycles	20 cycles to 10 KC	up to 15 amperes	±1% to 5 KC ±3% to 10 KC	21¾" x 28" x 15¼" 80 lbs.
1185	111.1 h to 100 μh 5 decades 0.11 h to 0.1 μh 2 decades	0.15 μmho—1000 mho "Q" = 600 max @ 100 cycles	20 cycles to 10 KC	up to 30 amperes	±1% to 5 KC ±3% to 10 KC	21¾" x 33¼" x 15¼" 100 lbs.
1115-A		Same specifications as type 1115 except excitation range to 1000 volts.				

UNIVERSAL BRIDGE

The Freed Type 1150-A Universal Bridge offers the laboratory a combination of eight bridges in one instrument. This bridge will measure the reactive and resistive component of impedances, capacitance, resistance and phase angle. In the Hay and/or Owen bridge configuration the incremental permeability of an inductance can be measured.

Type	Inductance Range	Capacitance Range	Resistance Range	"D" Hay Bridge
1150-A	5 μh 1110 h	5 pf-10 mf	0.05 Ω-1 MΩ	0.001-10 Q = 0.1-1000
	"Q" Maxwell 0.01-50	**"Q" Series Owen** 0.01-600 @ 100 cycles	**"Q" Parallel Owen** 80 @ 100 cycles	**"Q" Parallel Resistor-Condensor Bridge** 0.01-11.1
	Accuracy Inductance ±.5% up to 1 KC. ±2% to 10 KC. Capacitance ±1% @ 1 KC. "D"-"Q" ±5% @ 1 KC. Resistance (ac.) ±1% @ 1 KC.			**Dimensions and Weight** 21¾" x 24½" x 17" 65 lbs.

INDUCTANCE COMPARISON BRIDGE

A complete production unit for comparing transformer and inductor impedances under dynamic conditions against a standard resistor. The instrument has a self-contained metered 500 Ma. d.c. supply, metered 135 volt a.c. source and a direct reading percentage deviation indicator, provision for connecting external test frequencies up to 10 Kc. is provided.

Type	Inductance Range	Deviation Range	Test Frequency	D.C. Current Range	Dimensions and Weight
1870	25 mh - 100 h	±20%, accuracy 1% ±30%, accuracy 5%	60-10,000 cycles	0.5 ma., 0-25 ma., 0-100 ma., 0-500 ma.	22" x 19½" x 15" 150 lbs.

NULL DETECTORS

Sensitive null detectors for bridge measurements, with self contained selective filters to limit the amplifier characteristics at various bridge measuring frequencies.

Type	Sensitivity	Frequency Range	Filter	Power Requirements	Dimensions and Weight
1140-B	10μ volts @ 1 KC for 15% meter deflection filter in	20 to 20,000 cycles	Fixed 60, 400, 1000 cycles Adjustable ±5% of center Other frequencies available	105-125 volts 50-60 cycles	Cabinet 12" x 8½" x 10"—18 lbs. Rack—19" x 6" x 10"
2076	1μ volts @ 1 KC for 15% meter deflection filter in	20 to 20,000 cycles	Fixed 60, 400, 1000 cycles Adjustable ±5% of center Other frequencies available	Transistorized Battery operated	Cabinet—8" x 6" x 8" Rack—19" x 5¼" x 8"

NULL DETECTOR — VACUUM TUBE VOLTMETER

Designed primarily for a.c. bridge measurements, a dual purpose instrument for indicating bridge balance and the a.c. excitation across the unknown.

Type	Null Sensitivity	Frequency Range	Filter	Power Requirements	Dimensions and Weight
1210-B	10 M volts @ 1 KC for 15% meter deflection	20-20,000 cycles	Fixed 60, 400, 1000 cycles provision for other frequencies	105-125 volts 50-60 cycles	*21" x 12" x 13" 37 lbs.
	Voltage Range	**Input Impedance**	**Frequency Range**	**Accuracy**	
	0.1 to 150 volts ac. 0.15-1.5-15-150 volts full scale	50 K Ω parallel with 25 PF.	20 to 20,000 cycles ±1 db	2% of full scale	

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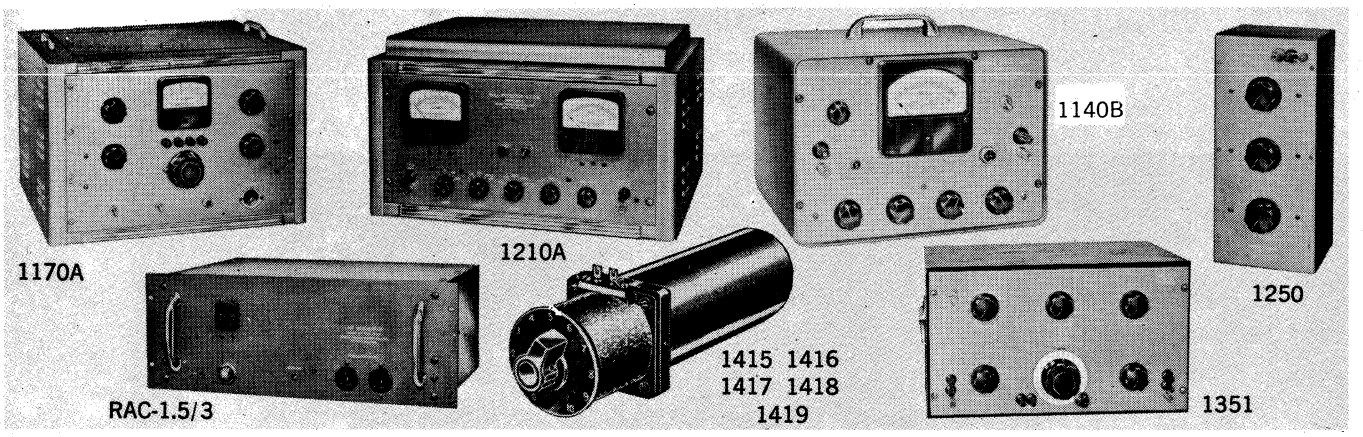

D.C. SUPPLY

A constant voltage transformer regulated current source designed for use with the Freed Incremental Inductance Bridges. Solid state bridge rectification, L-C filters and low internal impedance provides good current regulation with a minimum of circuit complexity.

Type	Current Ranges	Voltage Ranges	Regulation	Power Requirement	Dimensions and Weight
1170-A	4 ranges, 0-5, 25, 100 and 1000 milliamperes	Maximum no load voltage, 1000 Ma, 270V, 100 Ma, 270V, 25 Ma, 85 V, 5 Ma, 48 V	±1% for line variation 105-125 V	105-125 volts 60 cycles	19″ x 10½″ x 13½″ 66 lbs.

A.C. LINE REGULATOR

A distortion free 60/400 cycle electromechanical a.c. line regulator. Features a tubeless fast response phase reversible magnetic preceded by a transistor comparison amplifier with zener reference.

Type	Nominal Input Voltage	Input Frequency	Output Voltage	Regulation Accuracy	Dimensions and Weight
RAC—1.5/3	115 volts	60 or 400 cycles	Adjustable 110-120 volts	±0.25% for a ±10% Regulation Range ±50% for a ±20% Regulation Range	19″ x 7″ x 13″ 45 lbs.

KUA Rating and Regulation Range	Regulation Accuracy	Response Speed volts/sec.
3 KUA for a Regulation Range of ±10% 1.5 KUA for a Regulation Range of ±20%	±0.25% for ±10% Regulation Range ±0.5% for ±20% Regulation Range	10 @ ±10% 20 @ ±20%

DECADE INDUCTORS

Each unit is an assembly of four toroids wound on a stabilized Molybdenum permalloy dust core. The coils have a nominal inductance of 1-2-3-4 and are connected in series and switched to vary the inductance from 0-10.

Type	Frequency Range, Cycles	Maximum Q*	Inductance per Step	Total Inductance	Accuracy	Dimensions and Weight	
1220	500-20,000	230 @ 4 KC	0.001 h	0.01 h	±2%	3″ x 3″ x 9″	4½ lbs.
1230	500-20,000	280 @ 3 KC	0.01 h	0.1 h	±1%	3″ x 3″ x 9″	4½ lbs.
1240	500-20,000	260 @ 3 KC	0.1 h	1. h	±0.5%	3″ x 3″ x 9″	4½ lbs.
1270	500-20,000	190 @ 2 KC	1. h	10 h	±0.25%	3″ x 3″ x 9″	4½ lbs.
1341	100-2,000	100 @ 1 KC	10 h	100 h	±0.25%	3″ x 3″ x 9″	4½ lbs.
1280	500-20,000	280 @ 3 KC	0.001 h	1.11 h	See note	13¾″ x 6⅛″ x 5½″	16 lbs.
1290	500-20,000	280 @ 3 KC	0.001 h	11.11 h	See note	15″ x 7″ x 5½″	20 lbs.
1310	500-20,000	280 @ 3 KC	0.01 h	11.1 h	See note	13¾″ x 6⅛″ x 5½″	16 lbs.
1164†	30-2,000	60 @ 300	0.1 h	111 h	±1%	15″ x 7″ x 5½″	28 lbs.

†Type 1164 inductors are wound on special nickel alloy laminated cores.

Inductance per step:	1 mh	10 mh	100 mh	1 h	10h
Nominal Accuracy:	±2%	±1%	±0.5%	±0.25%	±0.25%

*Maximum Q depending on inductance value and a.c. voltage across coil.

DECADE CAPACITORS

The Freed series of Decade Capacitors cover a wide range of values and can be supplied as individual decades from 0.0001 PF. per step to 1 mf. per step or in various combinations of assembled decade boxes. All capacitors are non-inductively wound and heat treated for stability.

Type	Total Capacity	Dielectric	Dissipation Factor	Accuracy	Dimensions and Weight	
1415	10 μf in steps of 1 μf	Mylar	<0.005	±1%	3″ x 3″ x 7″	2 lbs.
1416	1 μf in steps of 0.1 μf	Polystyrene	<0.0002	±1%	3″ x 3″ x 7″	2 lbs.
1417	0.1 μf in steps of 0.01 μf	Polystyrene	<0.0002	±1%	3″ x 3″ x 7″	2 lbs.
1418	0.01 μf in steps of 0.001 μf	Polystyrene	<0.0002	±1%	3″ x 3″ x 7″	2 lbs.
1419	0.001 μf in steps of 0.0001 μf	Polystyrene	<0.0002	±1%	3″ x 3″ x 7″	2 lbs.
1250	1.110 μf in steps of 0.001 μf	Polystyrene	<0.0002	±1%	13¾″ x 6″ x 4½″	8 lbs.
1351	11.111 μf in steps of 0.0001 μf plus 100 pf variable air capacitor	Mylar Polystyrene Air	<0.005	±1%	19″ x 10¾″ x 8″	25 lbs.
1352	1.111 μf in steps of 0.0001 μf	Polystyrene	<0.0002	±1%	19″ x 5¼″ x 10″	13 lbs.
1353	11.111 μf in steps of 0.0001 μf	Mylar Polystyrene	<0.005	±1%	19″ x 5¼″ x 10″	14 lbs.

Maximum operating voltage, 500 VDC or peak. Capacitors can be supplied to better than ±1%, write for complete information.

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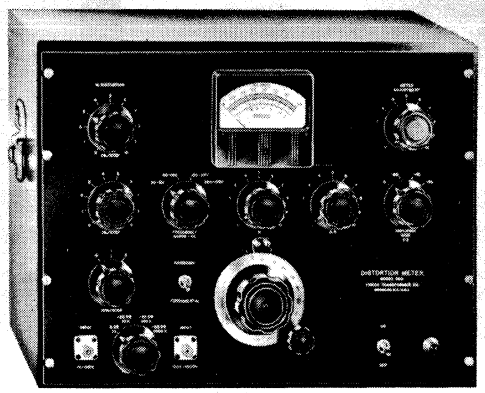

1410

COMPARISON & LIMIT BRIDGE

A rapid and convenient method for laboratory or production testing of resistors, capacitors and inductors. Components may be sorted for tolerances up to ±20% or selected in matched pairs.

Type	Inductance Range	Capacitance Range	Resistance Range	Test Frequency	Accuracy	Dimensions and Weight
1010-A	10 μh-100 h	10 Pf-100 mf.	1 Ω-20 MΩ	50 or 60 cycles 1 KC-10 KC	±0.1% on 5% range	10½" x 12" x 12" 17 lbs.

IMPEDANCE & ADMITTANCE BRIDGE

An audio frequency bridge for measuring the complex impedances of inductors, transformers, filter networks and capacitors.

Type	Frequency Range	Impedance and Admittance	Accuracy	Maximum Applied Voltage	Dimensions and Weight
1120	20 to 20,000 cycles	XL, XC and R up to 1000 ohms, BL, BC and G up to 1000 microhms	R: ±1% G: ±2% X: ±1% up to 5 KC B: ±1% up to 5 KC	125 Volts	10½" x 12" x 12" 25 lbs.

DISTORTION METERS

The type 1410 Distortion Meter measures distortion in the ultra-sonic or carrier frequency range and features high input impedance with high sensitivity. Having a wide input voltage range it can be used for distortion measurements in low output oscillators, carrier frequency amplifiers and transmitters.

Type	Frequency Range	Input Impedance	Input Voltage	Sensitivity	Power Requirements	Dimensions and Weight
1410	20 KC to 1 MC	50 KΩ shunted by 70 Pf	0.2 to 1000 volts	Distortion level of 0.1% for 0.2 volts input	105-125 volts 50-60 cycles	21" x 16¼" x 15" 60 lbs.

The type 1970 Distortion Meter is a wide range low input impedance instrument, designed with passive circuitry resulting in high stability, low residual distortion and hum levels.

Type	Frequency Range	Input Impedance	Input Voltage	Sensitivity	Dimensions and Weight
1970	20 cycles to 1 megacycle	75-150 300-600	1 to 200 volts	Distortion level of 0.02% for 1 volt input	19" x 10½" x 12" 30 lbs.

PRICE LIST

RAC-1.5/3	AC Line Regulator	$ 425.00
1010-A	Comparison Bridge	350.00
1020-C	Megohmmeter	280.00
1020-D	Megohmmeter	290.00
1030-A	Low Frequency "Q" Indicator	1250.00
1110-C	Incremental Inductance Bridge	525.00
1120	Impedance and Admittance Bridge	455.00
1115	Incremental Inductance Bridge	825.00
1140-B	Null Detector Amplifier	250.00
1150-A	Universal Bridge	825.00
1164	Decade Inductor	285.00
1170-A	D.C. Supply	350.00
1180	A.C. Supply	115.00
1185	Incremental Inductance Bridge	1250.00
1210-B	Null Detector — UTUM	350.00
1220	Decade Inductor	100.00
1230	Decade Inductor	95.00
1240	Decade Inductor	100.00
1250	Decade Capacitor	180.00
1270	Decade Inductor	110.00
1280	Decade Inductor	325.00
1290	Decade Inductor	425.00
1310	Decade IInductor	325.00

1341	Decade Inductor	$ 120.00
1351	Decade Capacitor	305.00
1352	Decade Capacitor	220.00
1353	Decade Capacitor	275.00
1410	Distortion Meter	875.00
1415	Decade Capacitors	40.00
1416	Decade Capacitors	55.00
1417	Decade Capacitors	40.00
1418	Decade Capacitors	40.00
1419	Decade Capacitors	45.00
1620	Megohmmeter	350.00
1620-A	Megohmmeter	365.00
1620-B	Megohmmeter	395.00
1620-C	Megohmmeter	375.00
1620-D	Megohmmeter	415.00
1625	Non Destricutive Breakdown Tester	795.00
1820	Inductance Comparison Bridge	550.00
1970	Distortion Meter	525.00
2030-A	Megohmmeter	205.00
2030-B	Megohmmeter	250.00
2030-C	Megohmmeter	225.00
2030-D	Megohmmeter	225.00
2030-E	Megohmmeter	225.00
2076	Null Detector — Amplifier	295.00

We reserve the right to change specifications or design, without incurring any obligation to incorporate new features in instruments sold.

FREED TRANSFORMER COMPANY, INC.

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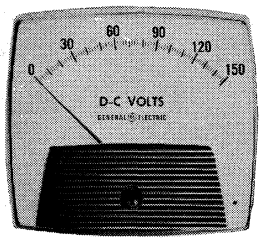
PANEL METERS

ELECTRONIC INNOVATIONS IN ACTION

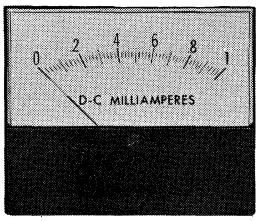


BIG LOOK¶

Handsome, easy-to-read meters in two styles for all panel and control applications. All DC meters have self-shielded movement with pivot and jewel or taut-band suspension. Taut-band designs give great resistance to shock and increased sensitivity. Zener-diode, expanded-scale voltmeters available for improved narrow-range accuracy on 3½" and 4½" sizes. Snap-on, snap-off covers on meters. All types meet ASA Specification C-39.1.

Accuracy: ±2% FS, all DC and AC iron vane; ±3% FS, AC rectifier type (with 60-cycle sine wave at 25° C); ±0.5% of midspan, expanded-scale types. **Overload:** 20% momentary and sustained, voltmeters; 10 times rated current for 10 consecutive intervals of ½-sec. with 1-min. interval between successive applications, momentary; 20% for 8 hours, sustained, ammeters. **Scale:** Pivot and jewel, 90° rotation; taut-band, 100°.

Insulation: 2600 V rms hi-pot for all but 1½" models (1600 V rms). **Response Time:** Meet or exceed ASA requirements: 3 sec. max. for microammeters; 2 sec. max. all other DC ratings; 2.5 sec. max. AC ratings. **Damping:** 40% max. overshoot; 2.5 min. damping factor. **Burden:** 5 amps, 0.5 VA, 0.5 power factor for AC ammeter; unity power factor, AC voltmeter.



HORIZON LINE¶

BIG LOOK PANEL METERS

Accurate, qick reading with wide, border-to-border scales; free from shadows. Most popular meter design with low-profile, easy-to-read sense. Aluminum frame holds reflections to a minimum. Big, bold numerals over cleanly marked divisions for fast reading. Tapered pointers assure high accuracy. Taut-band suspension provided on all models except 1½" size. Standard 2½" and 3½" models come with sealed cases to protect against hair, dust, chemicals or other foreign particles. Shelf-shielded DC mechanisms; snap-on, snap-off covers.

Meter Size and Type	Scale Length: Pivot Jewel	Scale Length: Taut-band	Max. Meter Dimensions, Inches: Face Size H. x W.	Cutout O.D.	Back* Depth	Front* Depth
1½" DW-90	1.400"	.....	1.750 x 1.750	1.530	1.230	0.375
2½" DW-91§	2.100"	2.300"	2.702 x 2.702	2.195	2.002	0.478
3½" DO-91†	2.900"	3.200"	3.512 x 3.512	2.786	2.002	0.478
4½" DO-92‡	3.930"	4.360"	4.408 x 4.846	2.786	1.965	0.573

§Or AW-91. †Or AO-91. ‡Or AO-92. *Back-of-panel and front-of-panel, respectively.

HORIZON LINE PANEL METERS

Distinctive, low profile design for sophisticated styling. Best readability with swept-back windows to deflect light from line of sight. Both 3½" and 4½" meters may be mounted semi-flush or back-of-panel, recessed with face silhouetted by half-bezel frame to conserve space and improve readability. DC types have core-magnet d'Arsonval movement with pivot and jewel, or taut-band suspensions; self-shielded for use on any panel. Zener-diode, expanded-scale voltmeters available. Snap-on, snap-off covers supplied on 4½" size.

G.E. No. 1012K11702 Bezel — For flush mtg. 2½" size. List.....**$1.25**
G.E. No. 1012K11700 Bezel — For flush mtg. 3½" size. List..... **1.50**
G.E. No. 1012K11701 Bezel — For flush mtg. 4½" size. List..... **1.50**

Meter Size and Type	Scale Length: Pivot Jewel	Scale Length: Taut-band	Max. Meter Dimensions, Inches: Face Size H. x W.	Cutout O.D.	Back* Depth	Front* Depth
2½" NO. 157	2.013"	2.284"	2.256 x 2.892	2.031	2.048	0.545
3½" NO. 167	2.725"	3.060"	3.006 x 3.756	2.781	1.963	0.740
4½" NO. 178	3.502"	3.800"	3.756 x 4.632	2.781	1.963	0.831

*Back-of-panel and front-of-panel, respectively.

DC VOLTMETERS

ZERO-LEFT, SELF CONTAINED

Scale Volts	Scale Div.	Term. Resis., Ohms	§ Add Suffix	BIG LOOK List Price: 1½" DW-90 Prefix: 50-188 011§	2½" DW-91 Prefix: 50-152 011§	3½" DO-91 Prefix: 50-162 011§	4½" DO-92 Prefix: 50-171 011§	HORIZON LINE List Price: 2½" No. 157 Prefix: 50-157 011§	3½" No. 167 Prefix: 50-167 011§	4½" No. 178 Prefix: 50-178 011§
0-1	50		**LALA**	**$18.00**	**$18.00**	**$19.00**	**$21.00**	**$18.00**	**$19.00**	**$21.00**
0-1.5	75†		**LCLC**	**18.00**	**18.00**	**19.00**	**21.00**	**18.00**	**19.00**	**21.00**
0-3	60		**LJLJ**	**18.00**	**18.00**	**19.00**	**21.00**	**18.00**	**19.00**	**21.00**
0-5	50		**LSLS**	**18.00**	**18.00**	**19.00**	**21.00**	**18.00**	**19.00**	**21.00**
0-8	40		**MJMJ**	**18.00**	**18.00**	**19.00**	**21.00**	**18.00**	**19.00**	**21.00**
0-10	50		**MTMT**	**18.00**	**18.00**	**19.00**	**21.00**	**18.00**	**19.00**	**21.00**
0-15	75†	1000	**NDND**	**18.00**	**18.00**	**19.00**	**21.00**	**18.00**	**19.00**	**21.00**
0-30	60	ohms	**NLNL**	**18.00**	**18.00**	**19.00**	**21.00**	**18.00**	**19.00**	**21.00**
0-50	50	per	**NTNT**	**18.00**	**18.00**	**19.00**	**21.00**	**18.00**	**19.00**	**21.00**
0-80	40	volt	**PDPD**	**18.00**	**18.00**	**19.00**	**21.00**	**18.00**	**19.00**	**21.00**
0-100	50		**PKPK**	**18.00**	**18.00**	**19.00**	**22.00**	**18.00**	**19.00**	**22.00**
0-150	75†		**PZPZ**	**18.00**	**18.00**	**19.00**	**22.00**	**18.00**	**19.00**	**22.00**
0-200	40		**RLRL**	**18.00**	**18.00**	**19.00**	**22.00**	**18.00**	**19.00**	**22.00**
0-250	50		**RSRS**	**18.00**	**18.00**	**19.00**	**22.00**	**18.00**	**19.00**	**22.00**
0-300	60		**RXRX**	**19.00**	**19.00**	**20.00**	**23.00**	**19.00**	**20.00**	**23.00**
0-500	50		**SFSF**	.....	.....	**21.00**	**24.00**	.....	**21.00**	**24.00**
0-600	60		**SJSJ**	.....	.....	**21.00**	**24.00**	.....	**21.00**	**24.00**
0-500*	50	125	**FASF**	**17.00**	**17.00**	.....	.....	**17.00**	.....	.....
0-600*	60	125	**FASJ**	**17.00**	**17.00**	.....	.....	**17.00**	.....	.....
0-750*	75†	125	**FASM**	**17.00**	**17.00**	**18.00**	**20.00**	**17.00**	**18.00**	**20.00**

ZERO-CENTER, SELF CONTAINED

Scale Volts	Scale Div.	Term. Resis., Ohms	§ Add Suffix	BIG LOOK List Price: 1½" DW-90 Prefix: 50-188 012§	2½" DW-91 Prefix: 50-152 012§	3½" DO-91 Prefix: 50-162 012§	4½" DO-92 Prefix: 50-171 012§	HORIZON LINE List Price: 2½" No. 157 Prefix: 50-157 012§	3½" No. 167 Prefix: 50-167 012§	4½" No. 178 Prefix: 50-178 012§
5-0-5	50		**LSLS**	**$18.00**	**$18.00**	**$19.00**	**$21.00**	**$18.00**	**$19.00**	**$21.00**
10-0-10	40		**MTMT**	**18.00**	**18.00**	**19.00**	**21.00**	**18.00**	**19.00**	**21.00**
30-0-30	60	1000	**NLNL**	**18.00**	**18.00**	**19.00**	**21.00**	**18.00**	**19.00**	**21.00**
50-0-50	50	ohms	**NTNT**	**18.00**	**18.00**	**19.00**	**21.00**	**18.00**	**19.00**	**21.00**
80-0-80	40	per	**PDPD**	**18.00**	**18.00**	**19.00**	**21.00**	**18.00**	**19.00**	**21.00**
150-0-150	60	volt	**PZPZ**	**18.00**	**18.00**	**19.00**	**22.00**	**18.00**	**19.00**	**22.00**
300-0-300	60		**RXRX**	**19.00**	**19.00**	**20.00**	**23.00**	**19.00**	**20.00**	**23.00**
500-0-500	50		**SFSF**	.....	.....	**21.00**	**24.00**	.....	**21.00**	**24.00**
600-0-600	60		**SJSJ**	.....	.....	**21.00**	**24.00**	.....	**21.00**	**24.00**
500-0-500*	50	64	**FASF**	**17.00**	**17.00**	.....	.....	**17.00**	.....	.....
600-0-600*	60	64	**FASJ**	**17.00**	**17.00**	.....	.....	**17.00**	.....	.....
750-0-750*	60	64	**FASM**	**17.00**	**17.00**	**18.00**	**20.00**	**17.00**	**18.00**	**20.00**

EXPANDED-SCALE, SELF CONTAINED

Zener-diode type. Accuracy ±0.5% of mid-span.

Scale Volts	Scale Div.	Term. Resis., Ohms	§ Add Suffix	BIG LOOK List Price: 1½" DW-90 Not Available	2½" DW-91 Not Available	3½" DO-91 Prefix: 50-162 091§	4½" DO-92 Prefix: 50-171 091§	HORIZON LINE List Price: 2½" No. 157 Not Available	3½" No. 167 Prefix: 50-167 091§	4½" No. 178 Prefix: 50-178 091§
24-30	60	100	**NNNN**	.....	.....	**$52.00**	**$55.00**	.....	**$52.00**	**$55.00**
110-130	40	ohms/	**PNPN**	.....	.....	**52.00**	**55.00**	.....	**52.00**	**55.00**
220-260	40	volt	**RTRT**	.....	.....	**52.00**	**55.00**	.....	**52.00**	**55.00**

*Not self contained, for use with external resistor, not supplied; rated 0-1 mADC (or 1-0-1 mADC, center scale types); when ordering, change last prefix indicator to 111 or 112 (i.e., 50-152 111 FASF; 50-162 112 FASM; etc.).
†75 divisions on all 3½" and 4½" meters; 30 divisions on 2½" and 1½".
§**When ordering show complete number, prefix plus suffix;** example: **50-157 012 LSLS** for 5-0-5 self contained 2½" HORIZON LINE DC voltmeter.
¶Trade-mark of General Electric Co.

Trade Discount Applies To List Prices Only
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PANEL METERS

ELECTRONIC INNOVATIONS IN ACTION

DC MICROAMMETERS

ZERO-LEFT, PIVOT AND JEWEL TYPE

Scale μA	Scale Div.	Term. Resis., Ohms	§ Add Suffix	BIG LOOK List Price 1½" DW-90 Prefix: 50-188 111§	2½" DW-91 Prefix: 50-152 111§	3½" DO-91 Prefix: 50-162 111§	4½" DO-92 Prefix: 50-171 111§	HORIZON LINE List Price 2½" No. 157 Prefix: 50-157 111§	3½" No. 167 Prefix: 50-167 111§	4½" No. 178 Prefix: 50-178 111§
0-20	40	3400	CFCF	$30.00	$30.00	$31.00	.....	$30.00	$31.00	.....
0-50	50	1600	CYCY	24.00	24.00	25.00	$28.00	24.00	25.00	$28.00
0-100	50	1525	DRDR	20.00	20.00	21.00	24.00	20.00	21.00	24.00
0-200	40	690	EAEA	18.00	18.00	19.00	22.00	18.00	19.00	22.00
0-500	50	220	EMEM	17.00	17.00	18.00	20.00	17.00	18.00	20.00

ZERO-LEFT, TAUT-BAND TYPE

Taut-band suspension is also available in other DC ratings; prices on request.

Scale μA	Scale Div.	Term. Resis., Ohms	§ Add Suffix	BIG LOOK List Price 1½" DW-90 Not Available	2½" DW-91 Prefix: 50-156 111§	3½" DO-91 Prefix: 50-166 111§	4½" DO-92 Prefix: 50-173 111§	HORIZON LINE List Price 2½" No. 157 Prefix: 50-192 111§	3½" No. 167 Prefix: 50-193 111§	4½" No. 178 Prefix: 50-194 111§
0-20	40	3400	CFCF	.....	$33.00	$34.00	$37.00	$33.00	$34.00	$37.00
0-50	50	2600	CYCY	.....	27.00	28.00	31.00	27.00	29.00	31.00
0-100	50	1170	DRDR	.....	23.00	24.00	27.00	23.00	24.00	27.00

ZERO-CENTER, PIVOT AND JEWEL TYPE

Scale μA	Scale Div.	Term. Resis., Ohms	§ Add Suffix	BIG LOOK List Price 1½" DW-90 Prefix: 50-188 112§	2½" DW-91 Prefix: 50-152 112§	3½" DO-91 Prefix: 50-162 112§	4½" DO-92 Prefix: 50-171 112§	HORIZON LINE List Price 2½" No. 157 Prefix: 50-157 112§	3½" No. 167 Prefix: 50-167 112§	4½" No. 178 Prefix: 50-178 112§
20-0-20	40	3330	CFCF	27.00	$27.00	$28.00	.....	$27.00	$28.00	.....
50-0-50	50	1525	CYCY	20.00	20.00	21.00	$24.00	20.00	21.00	$24.00
100-0-100	40	690	DRDR	18.00	18.00	19.00	22.00	18.00	18.00	22.00
200-0-200	40	221	EAEA	17.00	17.00	18.00	21.00	17.00	18.00	21.00
500 0-500	50	64	EMEM	17.00	17.00	18.00	20.00	17.00	18.00	20.00

DC MILLIAMMETERS

ZERO-LEFT, PIVOT AND JEWEL TYPE

Scale mA	Scale Div.	Term. Resis., Ohms	§ Add Suffix	BIG LOOK List Price 1½" DW-90 Prefix: 50-188 111§	2½" DW-91 Prefix: 50-152 111§	3½" DO-91 Prefix: 50-162 111§	4½" DO-92 Prefix: 50-171 111§	HORIZON LINE List Price 2½" No. 157 Prefix: 50-157 111§	3½" No. 167 Prefix: 50-167 111§	4½" No. 178 Prefix: 50-178 111§
0-1	50	64	FAFA	$17.00	$17.00	$18.00	$20.00	$17.00	$18.00	$20.00
0-1.5	75†	64	FDFD	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-3	60	2.5	FNFN	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-5	50	2.5	FXFX	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-10	50	1.8	GZGZ	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-20	40	1.5	HFHF	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-25	50	2.0	HJHJ	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-30	60	1.67	HMHM	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-50	50	1.00	HYHY	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-80	40	0.62	JJJJ	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-100	50	0.50	JRJR	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-150	75†	0.33	JXJX	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-200	40	0.25	KAKA	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-250	50	0.20	KDKD	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-300	60	0.167	KGKG	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-500	50	0.100	KMKM	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-800	40	0.062	KWKW	17.00	17.00	18.00	20.00	17.00	18.00	20.00

ZERO-CENTER, PIVOT AND JEWEL TYPE

Scale mA	Scale Div.	Term. Resis., Ohms	§ Add Suffix	BIG LOOK List Price 1½" DW-90 Prefix: 50-188 112§	2½" DW-91 Prefix: 50-152 112§	3½" DO-91 Prefix: 50-162 112§	4½" DO-92 Prefix: 50-171 112§	HORIZON LINE List Price 2½" No. 157 Prefix: 50-157 112§	3½" No. 167 Prefix: 50-167 112§	4½" No. 178 Prefix: 50-178 112§
1-0-1	40	64	FAFA	$17.00	$17.00	$18.00	$20.00	$17.00	$18.00	$20.00
3-0-3	60	2.6	FNFN	17.00	17.00	18.00	20.00	17.00	18.00	20.00
5-0-5	50	1.8	FXFX	17.00	17.00	18.00	20.00	17.00	18.00	20.00
10-0-10	40	1.5	GZGZ	17.00	17.00	18.00	20.00	17.00	18.00	20.00
20-0-20	40	1.25	HFHF	17.00	17.00	18.00	20.00	17.00	18.00	20.00
25-0-25	50	1.0	HJHJ	17.00	17.00	18.00	20.00	17.00	18.00	20.00
30-0-30	60	0.83	HMHM	17.00	17.00	18.00	20.00	17.00	18.00	20.00
50-0-50	50	0.50	HYHY	17.00	17.00	18.00	20.00	17.00	18.00	20.00
100-0-100	40	0.25	JRJR	17.00	17.00	18.00	20.00	17.00	18.00	20.00
150-0-150	60	0.167	JXJX	17.00	17.00	18.00	20.00	17.00	18.00	20.00
200-0-200	40	0.125	KAKA	17.00	17.00	18.00	20.00	17.00	18.00	20.00
250-0-250	50	0.100	KDKD	17.00	17.00	18.00	20.00	17.00	18.00	20.00
300-0-300	60	0.083	KGKG	17.00	17.00	18.00	20.00	17.00	18.00	20.00
500-0-500	50	0.050	KMKM	17.00	17.00	18.00	20.00	17.00	18.00	20.00

DC AMMETERS

ZERO-LEFT, SELF-CONTAINED

Scale Amps	Scale Div.	Term. Resis., Ohms	§ Add Suffix	BIG LOOK List Price 1½" DW-90 Prefix: 50-188 111§	2½" DW-91 Prefix: 50-152 111§	3½" DO-91 Prefix: 50-162 111§	4½" DO-92 Prefix: 50-171 111§	HORIZON LINE List Price 2½" No. 157 Prefix: 50-157 111§	3½" No. 167 Prefix: 50-167 111§	4½" No. 178 Prefix: 50-178 111§
0-1	50	.0500	LALA	$17.00	$17.00	$18.00	$20.00	$17.00	$18.00	$20.00
0-1.5	75†	.0333	LCLC	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-2	40	.0250	LELE	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-3	60	.0167	LJLJ	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-5	50	.0100	LSLS	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-10	50	.0050	MTMT	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-15	75†	.0033	NDND	.....	17.00	18.00	20.00	17.00	18.00	20.00
0-20	40	.0025	NGNG	.....	17.00	18.00	20.00	17.00	18.00	20.00
0-30	60	.00167	NLNL	.....	17.00	18.00	20.00	17.00	18.00	20.00
0-50	50	.00100	NTNT	.....	.....	18.00	20.00	.....	18.00	20.00

† 75 divisions on 3½" and 4½" sizes; 30 divisions on 1½" and 2½" sizes.
§ **When ordering show complete number, prefix plus suffix;** example: **50-188 111 LALA** for BIG LOOK 1½" DW-90 zero-left, self-contained DC ammeter with 0-1 scale.
¶ Trade-mark of General Electric Co.

GENERAL ELECTRIC

© U.C.P., Inc.

PANEL METERS

ELECTRONIC INNOVATIONS IN ACTION

DC AMMETERS (CONT'D)

ZERO-LEFT, SHUNT-RATED

For use with 2-way shunt-lead resistance .065 ohm. Does not include shunt or shunt leads.

Scale Amps	Scale Div.	Term. Resis., Ohms	§ Add Suffix	BIG LOOK List Price 1½" DW-90 Prefix: 50-188 121§	2½" DW-91 Prefix: 50-152 121§	3½" DO-91 Prefix: 50-162 121§	4½" DO-92 Prefix: 50-171 121§	HORIZON LINE List Price 2½" No. 157 Prefix: 50-157 121§	3½" No. 167 Prefix: 50-167 121§	4½" No. 178 Prefix: 50-178 121§
0-20	40		ECNG	$17.00	$17.00	$18.00	.....	$17.00	$18.00	$20.00
0-30	60		ECNL	17.00	17.00	18.00	.....	17.00	18.00	20.00
0-50	50		ECNT	17.00	17.00	18.00	$20.00	17.00	18.00	20.00
0-75	75†		ECPB	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-100	50		ECPK	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-150	75†	50 mV	ECPZ	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-200	40	shunt-	ECRL	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-250	50	rated	ECRS	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-300	60	12.5	ECRX	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-400	40	ohms	ECSC	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-500	50		ECSF	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-600	60		ECSJ	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-800	40		ECSN	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-1000	50		ECVA	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-1500	75†		ECVC	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-2000	40		ECVE	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-20	40		GBNG	17.00	17.00	18.00	.....	17.00	18.00	20.00
0-40	40		GBNP	17.00	17.00	18.00	.....	17.00	18.00	20.00
0-50	50		GBNT	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-75	75†		GBPB	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-100	50		GBPK	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-150	75†	100 mV	GBPZ	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-200	40	shunt-	GBRL	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-250	50	rated	GBRS	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-300	60	25	GBRX	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-400	40	ohms	GBSC	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-500	50		GBSF	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-600	60		GBSJ	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-800	40		GBSN	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-1000	50		GBVA	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-2000	40		GBVE	17.00	17.00	18.00	20.00	17.00	18.00	20.00

ZERO-CENTER, SELF CONTAINED

Scale Amps	Scale Div.	Term. Resis., Ohms	§ Add Suffix	BIG LOOK List Price 1½" DW-90 Prefix: 50-188 112§	2½" DW-91 Prefix: 50-152 112§	3½" DO-91 Prefix: 50-162 112§	4½" DO-92 Prefix: 50-171 112§	HORIZON LINE List Price 2½" No. 157 Prefix: 50-157 112§	3½" No. 167 Prefix: 50-167 112§	4½" No. 178 Prefix: 50-178 112§
1-0-1	40	.0500	LALA	$17.00	$17.00	$18.00	$20.00	$17.00	$18.00	$20.00
2-0-2	40	.0250	LELE	17.00	17.00	18.00	20.00	17.00	18.00	20.00
5-0-5	50	.010	LSLS	17.00	17.00	18.00	20.00	17.00	18.00	20.00
10-0-10	40	.0050	MTMT	17.00	17.00	18.00	20.00	17.00	18.00	20.00
15-0-15	60	.0033	NDND	.....	17.00	18.00	20.00	17.00	18.00	20.00
20-0-20	40	.0025	NGNG	.....	17.00	18.00	20.00	17.00	18.00	20.00
30-0-30	60	.00167	NLNL	.....	17.00	18.00	20.00	17.00	18.00	20.00
50-0-50	50	.00100	NTNT	.....	.....	18.00	20.00	17.00	18.00	20.00

ZERO-CENTER, 50 mV SHUNT-RATED

For use with 2-way shunt-lead resistance of .065 ohm. Does not include shunt or shunt leads.

Scale Amps	Scale Div.	Term. Resis., Ohms	§ Add Suffix	BIG LOOK List Price 1½" DW-90 Prefix: 50-188 122§	2½" DW-91 Prefix: 50-152 122§	3½" DO-91 Prefix: 50-162 122§	4½" DO-92 Prefix: 50-171 122§	HORIZON LINE List Price 2½" No. 157 Prefix: 50-157 122§	3½" No. 167 Prefix: 50-167 122§	4½" No. 178 Prefix: 50-178 122§
20-0-20	40		ECNG	$17.00	.....	.....	.....	.....	.....	.....
50-0-50	50	25	ECNT	17.00	$17.00	$18.00	$20.00	$17.00	$18.00	$20.00
75-0-75	60	ohms	ECPB	17.00	17.00	18.00	20.00	17.00	18.00	20.00
100-0-100	40		ECPK	17.00	17.00	18.00	20.00	17.00	18.00	20.00
150-0-150	60		ECPZ	17.00	17.00	18.00	20.00	17.00	18.00	20.00

AC VOLTMETERS

SELF CONTAINED, IRON VANE

Scale Volts	Scale Div.	Term. Resis., Ohms	§ Add Suffix	BIG LOOK List Price 1½" DW-90 Not Available	2½" AW-91 Prefix: 50-152 031§	3½" AO-91 Prefix: 50-162 031§	4½" AO-92 Prefix: 50-171 031§	HORIZON LINE List Price 2½" No. 157 Prefix: 50-157 031§	3½" No. 167 Prefix: 50-167 031§	4½" No. 178 Prefix: 50-178 031§
0-3	60	11.1	LJLJ	.....	$16.00	$17.00	$20.00	$16.00	$17.00	$20.00
0-5	50‡	29	LSLS	.....	16.00	17.00	20.00	16.00	17.00	20.00
0-10	50	110	MTMT	.....	16.00	17.00	20.00	16.00	17.00	20.00
0-15	75†	251	NDND	.....	16.00	17.00	20.00	16.00	17.00	20.00
0-30	60	779	NLNL	.....	16.00	17.00	20.00	16.00	17.00	20.00
0-50	50	2,500	NTNT	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-150	75†	15,000	PZPZ	.....	18.00	19.00	22.00	18.00	19.00	22.00
0-300	60	70,260	RXRX	.....	20.00	21.00	24.00	20.00	21.00	24.00
0-500	50	117,260	SFSF	.....	.....	26.00	29.00	.....	26.00	29.00
0-600	60	140,000	SJSJ	.....	.....	26.00	29.00	.....	26.00	29.00

SELF CONTAINED, 400 CYCLES

Scale Volts	Scale Div.	Term. Resis., Ohms	§ Add Suffix	BIG LOOK List Price 1½" DW-90 Not Available	2½" AW-91 Prefix: 50-152 061§	3½" AO-91 Prefix: 50-162 061§	4½" AO-92 Prefix: 50-171 061§	HORIZON LINE List Price 2½" No. 157 Prefix: 50-157 061§	3½" No. 167 Prefix: 50-167 061§	4½" No. 178 Prefix: 50-178 061§
0-150	75†	15,000	PZPZ	.....	$18.00	$19.00	$22.00	$18.00	$19.00	$22.00
0-300	60	70,260	RXRX	.....	20.00	21.00	24.00	20.00	21.00	24.00

†75 divisions, 3½" and 4½" sizes; 30 divisions, 1½" and 2½" sizes.

‡50 divisions, 3½" and 4½" sizes; 25 divisions, 2½" size.

§**When ordering show complete number, prefix plus suffix;** example: **50-171 031 LJLJ** for 4½" BIG LOOK 0-3 voltmeter.

¶Trade-mark of General Electric Co.

Trade Discount Applies To List Prices Only

© U.C.P., Inc.

PANEL METERS

ELECTRONIC INNOVATIONS IN ACTION

AC VOLTMETERS (CONT'D)

TRANSFORMER-RATED, 0-150 VOLTS

Scale Volts	Scale Div.	Term. Resis., Ohms	§ Add Suffix	BIG LOOK List Price 1½" DW-90 Not Available	2½" AW-91 Prefix: 50-152 031§	3½" AO-91 Prefix: 50-162 031§	4½" AO-92 Prefix: 50-171 031§	HORIZON LINE List Price 2½" No. 157 Prefix: 50-157 031§	3½" No. 167 Prefix: 50-167 031§	4½" No. 178 Prefix: 50-178 031§
0-600	60	15,000	PZSJ	.....	$18.00	$19.00	$22.00	$18.00	$19.00	$22.00
0-750	75†	15,000	PZSM	.....	18.00	19.00	22.00	18.00	19.00	22.00
0-3000	60	15,000	PZVJ	.....	18.00	19.00	22.00	18.00	19.00	22.00

SELF CONTAINED, RECTIFIER TYPE

Accuracy ±3% (60-cycle sine wave, 25°C).

Scale Volts	Scale Div.	Term. Resis., Ohms	§ Add Suffix	BIG LOOK List Price 1½" DW-90 Prefix: 50-188 051§	2½" AW-91 Prefix: 50-152 051§	3½" AO-91 Prefix: 50-162 051§	4½" AO-92 Prefix: 50-171 051§	HORIZON LINE List Price 2½" No. 157 Prefix: 50-157 051§	3½" No. 167 Prefix: 50-167 051§	4½" No. 178 Prefix: 50-178 051§
0-10	50		MTMT	$23.00	$23.00	$24.00	$27.00	$23.00	$24.00	$27.00
0-15	75†		NDND	23.00	23.00	24.00	27.00	23.00	24.00	27.00
0-20	40		NGNG	23.00	23.00	24.00	27.00	23.00	24.00	27.00
0-25	50		NJNJ	23.00	23.00	24.00	27.00	23.00	24.00	27.00
0-30	60	1000	NLNL	23.00	23.00	24.00	27.00	23.00	24.00	27.00
0-50	50	ohms	NTNT	23.00	23.00	24.00	27.00	23.00	24.00	27.00
0-80	40	per	PDPD	23.00	23.00	24.00	27.00	23.00	24.00	27.00
0-100	50	volt	PKPK	24.00	24.00	25.00	28.00	24.00	25.00	28.00
0-150	75†		PZPZ	24.00	24.00	25.00	28.00	24.00	25.00	28.00
0-200	40		RLRL	.....	.....	25.00	28.00	.....	25.00	28.00
0-250	50		RSRS	.....	.....	25.00	28.00	.....	25.00	28.00
0-300	60		RXRX	.....	.....	26.00	29.00	.....	26.00	29.00

EXPANDED SCALE

Accuracy ±0.5% of mid-span.

Scale Volts	Scale Div.	Term. Resis., Ohms	§ Add Suffix	Not Available	Not Available	Prefix: 50-162 071§	Prefix: 50-171 071§	Not Available	Prefix: 50-167 071§	Prefix: 50-178 071§
110-130	40	100	PNPN	.....	.....	$52.00	$55.00	.....	$52.00	$55.00
105-125	40	ohms/V	PTPT	.....	.....	52.00	55.00	.....	52.00	55.00

AC AMMETERS (SELF CONTAINED, 25-400 CYCLES)

Scale Amps	Scale Div.	Term. Resis., Ohms	§ Add Suffix	BIG LOOK List Price 1½" DW-90 Not Available	2½" AW-91 Prefix: 50-152 141§	3½" AO-91 Prefix: 50-162 141§	4½" AO-92 Prefix: 50-171 141§	HORIZON LINE List Price 2½" No. 157 Prefix: 50-157 141§	3½" No. 167 Prefix: 50-167 141§	4½" No. 178 Prefix: 50-178 141§
0-1	50	0.16	LALA	.....	$17.00	$18.00	$21.00	$17.00	$18.00	$21.00
0-3	60	0.015	LJLJ	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-5	50‡	0.007	LSLS	.....	17.00	18.00	21.00•	17.00	18.00	21.00
0-8	40	0.003	MJMJ	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-10	50	0.0024	MTMT	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-15	75†	0.0016	NDND	.....	17.00	19.00	22.00	17.00	18.00	21.00
0-20	40	0.001	NGNG	.....	18.00	19.00	22.00■	18.00■	19.00■	22.00■
0-30	60	0.0006	NLNL	.....	18.00	21.00	24.00■	18.00■	19.00■	22.00■
0-50*	50	0.0004	NTNT	.....	.....	21.00	24.00■	.....	21.00■	24.00■
0-80*	.....	0.0004	PDPD	.....	.....	24.00	27.00■	.....	24.00■	27.00■

TRANSFORMER-RATED, 0-5 AMPERES, 25-400 CYCLES

0-10	50		LSMT	.....	$17.00	$18 00	$21.00	$17.00	$18.00	$21.00
0-15	75†		LSND	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-20	40		LSNG	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-30	60		LSNL	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-40	40		LSNP	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-50	50		LSNT	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-75	75†		LSPB	.....	17.00	18.00	21.00	17.00	18.00	21.00
0 80	40		LSPD	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-100	50		LSPK	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-150	75†		LSPZ	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-200	40	0.007	LSRL	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-300	60		LSRX	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-400	40		LSSC	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-500	50		LSSF	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-600	60		LSSJ	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-800	40		LSSN	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-1000	50		LSVA	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-1200	60		LSVB	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-1500	75†		LSVC	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-2000	40		LSVE	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-3000	60		LSVJ	.....	17.00	18.00	21.00	17.00	18.00	21.00

AC MILLIAMMETERS (SELF CONTAINED, 25-400 CYCLES)

0-10 mA	50	2158	GZGZ	.....	$17.00	$18.00	$21.00	$17.00	$18.00	$21.00
0-25 mA	50	341	HJHJ	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-50 mA	50	84	HYHY	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-100 mA	50	21	JRJR	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-200 mA	40	4.1	KAKA	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-500 mA	50	0.7	KMKM	.....	17.00	18.00	21.00	17.00	18.00	21.00

AC MILLIAMMETERS AND MICROAMMETERS (RECTIFIER TYPE)

Accuracy ±3% (60-cycle sine wave, 25°C).

Scale mA	Scale Div.	Term. Resis., Ohms	§ Add Suffix	BIG LOOK List Price 1½" DW-90 Not Available	2½" AW-91 Prefix: 50-152 151§	3½" AO-91 Prefix: 50-162 151§	4½" AO-92 Prefix: 50-171 151§	HORIZON LINE List Price 2½" No. 157 Prefix: 50-157 151§	3½" No. 167 Prefix: 50-167 151§	4½" No. 178 Prefix: 50-178 151§
0-1 mA	50	570	FAFA	.....	$22.00	$23.00	$26.00	$22.00	$23.00	$26.00
0-1.5 mA	75†	375	FDFD	.....	22.00	23.00	26.00	22.00	23.00	26.00
0-2 mA	40	325	FGFG	.....	22.00	23.00	26.00	22.00	23.00	26.00
0-3 mA	60	197	FNFN	.....	22.00	23.00	26.00	22.00	23.00	26.00
0-5 mA	50	139	FXFX	.....	22.00	23.00	26.00	22.00	23.00	26.00
0-10 mA	50	90	GZGZ	.....	22.00	23.00	26.00	22.00	23.00	26.00
0-20 mA	40	62	HFHF	.....	22.00	23.00	26.00	22.00	23.00	26.00
0-500 μA	50	985	EMEM	.....	22.00	23.00	26.00	22.00	23.00	26.00
0-800 μA	40	655	EWEW	.....	22.00	23.00	26.00	22.00	23.00	26.00

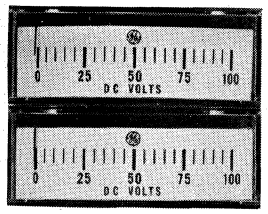
† 75 divisions, except 30 on 1½" and 2½" sizes.
‡ 50 divisions, except 25 on 2½" size.
§ **When ordering show complete number, prefix plus suffix;** example: **50-171 151 EMEM** for μA 4" BIG LOOK AC ammeter.
¶ Trade-mark of General Electric Co.
• Do not have sealed terminal studs.
■ With external magnetic shield assembled to meter base.

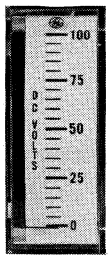
GENERAL ELECTRIC

© U.C.P., Inc.

PANEL METERS

ELECTRONIC INNOVATIONS IN ACTION





NEW 185 SERIES EDGEWISE METERS

Slim, miniature design can be mounted individually or in space-saving clusters. Choice of horizontal or vertical placement. Flush sides assure tight, case-to-case stacking without mechanism bulge. Magnetically shielded to prevent interaction between meters; no need for special calibration. Optional bezel and mounting brackets available for one, two or three-unit stacking. Meet applicable portions of ASA C-39.1. **Accuracy:** ±2% of full scale, DC meters; ±3% with 60-cycle sine wave at 25°C, AC rectifier-type meters. **Overload:** 20% momentary and sustained, voltmeter; 1000% momentary and 20% sustained, ammeter. **Insulation:** 1800 V rms hi-pot. **Scale:** 1.785" long, 53° rotation. **Response Time and Damping:** Meet or exceed ASA requirements. Response time 3 sec. max., μA meters; 2 sec. max., all other DC ratings; 2.5 sec. max., AC ratings. Damping 40% max. overshoot; damping factor, 2.5 minimum. **Size:** 0.92" w. x 2.258" lg. x 3.44" D., overall. Bezel 1.255" w. x 3.005" lg., single; 2.155" w., double; 3.055" w., triple-unit mounting.

DC VOLTMETERS (SELF CONTAINED)

Scale Range	Term. Resis., Ohms	Horizontal Zero-Left* Number	Vertical Zero-Bottom* Number	List Price
0-10		50-185 011 MTMT	50-185 013 MTMT	$19.00
0-15		50-185 011 NDND	50-185 013 NDND	19.00
0-30	1000	50-185 011 NLNL	50-185 013 NLNL	19.00
0-50	ohms/	50-185 011 NTNT	50-185 013 NTNT	19.00
0-100	volt	50-185 011 PKPK	50-185 013 PKPK	19.00
0-150		50-185 011 PZPZ	50-185 013 PZPZ	19.00
0-300		50-185 011 RXRX	50-185 013 RXRX	20.00
15-0-15	2000	50-185 012 NDND	50-185 014 NDND	19.00
50-0-50	ohms/	50-185 012 NTNT	50-185 014 NTNT	19.00
150-0-150	volt	50-185 012 PZPZ	50-185 014 PZPZ	20.00

DC VOLTMETERS (FOR EXTERNAL RESISTORS)

Rated 0-1 mA for use with external resistor, not supplied.

0-500	40	50-185 111 FASF	50-185 113 FASF	$18.00
0-600	40	50-185 111 FASJ	50-185 113 FASJ	18.00
0-750	40	50-185 111 FASM	50-185 113 FASM	18.00

DC MICROAMMETERS (SELF CONTAINED)

0-20	2030	50-185 111 CFCF	50-185 113 CFCF	$31.00
0-50	1625	50-185 111 CYCY	50-185 113 CYCY	25.00
0-100	1350	50-185 111 DRDR	50-185 113 DRDR	21.00
0-500	200	50-185 111 EMEM	50-185 113 EMEM	18.00
50-0-50	1350	50-185 112 CYCY	50-185 114 CYCY	21.00
500-0-500	40	50-185 112 EMEM	50-185 114 EMEM	18.00

DC MILLIAMMETERS (SELF CONTAINED)

0-1	40	50-185 111 FAFA	50-185 113 FAFA	$18.00
0-5	2.0	50-185 111 FXFX	50-185 113 FXFX	18.00
0-10	1.0	50-185 111 GZGZ	50-185 113 GZGZ	18.00
0-20	0.5	50-185 111 HFHF	50-185 113 HFHF	18.00
0-50	1.0	50-185 111 HYHY	50-185 113 HYHY	18.00
0-100	0.5	50-185 111 JRJR	50-185 113 JRJR	18.00
0-300	0.167	50-185 111 KGKG	50-185 113 KGKG	18.00
0-500	0.099	50-185 111 KMKM	50-185 113 KMKM	18.00
5-0-5	1.0	50-185 112 FXFX	50-185 114 FXFX	18.00
10-0-10	0.5	50-185 112 GZGZ	50-185 114 GZGZ	18.00
50-0-50	0.5	50-185 112 HYHY	50-185 114 HYHY	18.00
500-0-500	0.049	50-185 112 KMKM	50-185 113 KMKM	18.00

DC AMMETERS (SELF CONTAINED)

0-1	0.049	50-185 111 LALA	50-185 113 LALA	$18.00
0-5	0.0099	50-185 111 LSLS	50-185 113 LSLS	18.00
0-10	0.0049	50-185 111 MTMT	50-185 113 MTMT	18.00
5-0-5	0.0049	50-185 112 LSLS	50-185 114 LSLS	18.00

DC AMMETERS (50 mV SHUNT-RATED)

Shunt not supplied. Calibrated for use with 2-way shunt-lead resistance of 0.065 ohm.

0-20	12.5	50-185 121 ECNG	50-185 123 ECNG	$18.00
0-50	12.5	50-185 121 ECNT	50-185 123 ECNT	18.00
0-300	12.5	50-185 121 ECRX	50-185 123 ECRX	18.00
0-500	12.5	50-185 121 ECSF	50-185 123 ECSF	18.00

AC RECTIFIER TYPE INSTRUMENTS

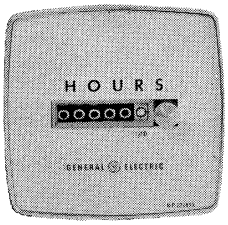
Self-contained with linear scale. Accuracy, ±3%.

0-10 V		50-185 051 MTMT	50-185 053 MTMT	$24.00
0-15 V		50-185 051 NDND	50-185 053 NDND	24.00
0-30 V	1000	50-185 051 NLNL	50-185 053 NLNL	24.00
0-50 V	ohms/	50-185-051 NTNT	50-185 053 NTNT	24.00
0-100 V	volt	50-185 051 PKPK	50-185 053 PKPK	25.00
0-150 V		50-185 051 PZPZ	50-185 053 PZPZ	25.00
0-50 μA	985	50-185 151 EMEM	50-185 153 EMEM	23.00
0-1 mA	570	50-185 151 FAFA	50-185 153 FAFA	23.00
0-5 mA	139	50-185 151 FXFX	50-185 153 FXFX	23.00
0-10 mA	90	50-185 151 GZGZ	50-185 153 GZGZ	23.00
0-20 mA	62	50-185 151 HFHF	50-185 153 HFHF	23.00

*Zero-center as listed.

¶ Trade-mark of General Electric Co.

TYPE 236 BIG LOOK¶ ELAPSED TIME METERS



Offers distinctive appearance and excellent readability; designed to match ammeters and voltmeters with "Big Look" styling. Models are available for every time-measuring application. Both 2½" and 3½" sizes for panel mounting, plus 2½" size for use with conduit type case or portable stand. All panel mounted timers meet requirements of ASA specification C39.1 for four-stud mounting. Available in reset and non-reset types, measuring either minutes or hours. Types listed are 60 cps operation, for 50 cps, add **$1.00** to list price. For 208-volt type specify model desired and add **$1.50** to list price of 240-volt model.

NONRESET TYPE — COMMERCIAL CASE

G.E. Model Number		Size	Voltage	List
Minutes	Hours	In.	VAC	Price
50-236401AAAA1	50-236402AAAA1	2½	120	$23.00
50-236401ABAA1	50-236402ABAA1	2½	240	24.00
50-236401ACAA1	50-236402ACAA1	2½	480	25.00
50-236301AAAA1	50-236302AAAA1	3½	120	23.00
50-236301ABAA1	50-236302ABAA1	3½	240	24.00
50-236301ACAA1	50-236302ACAA1	3½	480	25.00

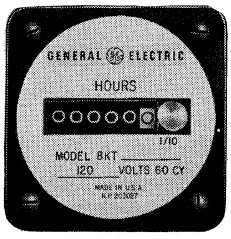
SEALED CASE

50-236421AAAA1	50-236422AAAA1	2½	120	$26.00
50-236421ABAA1	50-236422ABAA1	2½	240	27.00
50-236421ACAA1	50-236422ACAA1	2½	480	28.00
50-236321AAAA1	50-236322AAAA1	3½	120	26.00
50-236321ABAA1	50-236322ABAA1	3½	240	27.00
50-236321ACAA1	50-236322ACAA1	3½	480	28.00

RESET KNOB TYPE — COMMERCIAL CASE

50-236411AAAA1	50-236412AAAA1	2½	120	$31.00
50-236411ABAA1	50-236412ABAA1	2½	240	32.00
50-236411ACAA1	50-236412ACAA1	2½	480	33.00
50-236311AAAA1	50-236312AAAA1	3½	120	31.00
50-236311ABAA1	50-236312ABAA1	3½	240	32.00
50-236311ACAA1	50-236132ACAA1	3½	480	33.00

TYPE KT-11 TIME METERS



Ideal indicator for proper servicing and preventive maintenance in industry or for indicating component life. Available in 2½" and 3½" sizes, round or square cases, for flush mounting on panel board or in equipment case. Diecast zinc bezel with aluminized dial face. Wide temperature operating range with 6-digit register. Extra large counter numbers, white on black background for excellent readability. Last digit in contrasting color to indicate tenths. Bezel and plastic case provide dust-resistant enclosure for mechanism. Available with or without reset knob. Meet ASA panel mounting specifications. For 60 cps operation. For 50 cps operation, add **$1.00** to list price. For 208-volt type specify model desired and add **$1.50** to list price of 240-volt model.

NON-RESET TYPE — ROUND CASE

G.E. Model Number		Size	Voltage	List
Minutes	Hours	In.	VAC	Price
50-235011AAAA1	50-235012AAAA1	2½	120	$26.00
50-235011ABAA1	50-235012ABAA1	2½	240	27.00
50-235011ACAA1	50-235012ACAA1	2½	480	28.00
50-235091AAAA1	50-235092AAAA1	3½	120	26.00
50-235091ABAA1	50-235092ABAA1	3½	240	27.00
50-235091ACAA1	50-235092ACAA1	3½	480	28.00

SQUARE CASE

50-235051AAAA1	50-235052AAAA1	2½	120	$26.00
50-235051ABAA1	50-235052ABAA1	2½	240	27.00
50-235051ACAA1	50-235052ACAA1	2½	480	28.00
50-235131AAAA1	50-235132AAAA1	3½	120	26.00
50-235131ABAA1	50-235132ABAA1	3½	240	27.00
50-235131ACAA1	50-235132ACAA1	3½	480	28.00

RESET KNOB TYPE — ROUND CASE

50-235021AAAA1	50-235012AAAA1	2½	120	$34.00
50-235021ABAA1	50-125012ABAA1	2½	240	35.00
50-235021ACAA1	50-235012ACAA1	2½	480	36.00
50-235101AAAA1	50-235102AAAA1	3½	120	34.00
50-235101ABAA1	50-235102ABAA1	3½	240	35.00
50-235101ACAA1	50-235102ACAA1	3½	480	36.00

SQUARE CASE

50-235061AAAA1	50-235062AAAA1	2½	120	$34.00
50-235061ABAA1	50-235062ABAA1	2½	240	35.00
50-235061ACAA1	50-235062ACAA1	2½	480	36.00
50-235141AAAA1	50-235142AAAA1	3½	120	34.00
50-235141ABAA1	50-235142ABAA1	3½	240	35.00
50-235141ACAA1	50-235142ACAA1	3½	480	36.00

Trade Discount Applies To List Prices Only

© U.C.P., Inc.

METER RELAYS

TYPE 195 METER RELAYS

ELECTRONIC INNOVATIONS IN ACTION

New General Electric 195 Meter Relays feature a **solid-state, light-sensitive switch** for optimum control simplicity and reliability. This switch controls the load relay directly; no amplifiers, no pointer contacts . . . no mechanical interference with meter movement. Pointer travel is unrestricted across the entire scale . . . you get **continuous indication** above and below the setpoints! Control action is dependable and repeatable over entire range!

Unique **piggy-back control modules** on 3½-inch and 4½-inch 195's, eliminate mounting and wiring of separate components . . . speed up and simplify installation. Control mounts directly on rear of indicator; no soldering, no complicated connections . . . just plug-in and they're mated! Control module may be removed without interrupting measurement circuit.

Other 195 features include: **ON-OFF** (automatic reset) **or Alarm** (manual reset) **Control . . . 120-volt A-c Operation!** No special power supply needed . . . **Long Lamp Life!** Conservatively estimated at 5 years . . . **Fail-safe Operation.**

Rating and Scale	Meter Size 2½-inch*	3½-inch	4½-inch
	List Price (With Single Set-point)†		
D-C VOLTMETERS, ZERO-CENTER For use with external resistors. (Resistors **not** included.)			
500-0-500 Volts	$112	.....	.....
600-0-600 Volts	112	.....	.....
750-0-750 Volts	112	$108	$110
D-C MICROAMMETERS, ZERO-LEFT			
20 ua	$123	.....	.....
50 ua	119	$115	.....
100 ua	115	111	$114
200 ua	113	109	112
500 ua	112	108	110
D-C MICROAMMETERS, ZERO-CENTER			
50-0-50 ua	$115	$111	$114
100-0-100 ua	113	109	112
200-0-200 ua	112	108	110
500-0-500 ua	112	108	110
D-C MILLIAMMETERS, ZERO-LEFT			
1 Ma	$112	$108	110
1.5 Ma	112	108	110
3 Ma	112	108	110
5 Ma	112	108	110
10 Ma	112	108	110
20 Ma	112	108	110
25 Ma	112	108	110
30 Ma	112	108	110
50 Ma	112	108	110
80 Ma	112	108	110
100 Ma	112	108	110
150 Ma	112	108	110
200 Ma	112	108	110
250 Ma	112	108	110
300 Ma	112	108	110
500 Ma	112	108	110
800 Ma	112	108	110
D-C VOLTMETERS, ZERO-LEFT			
1.0 Volts	$113	$109	$111
1.5 Volts	113	109	111
3 Volts	113	109	111
5 Volts	113	109	111
8 Volts	113	109	111
10 Volts	113	109	111
15 Volts	113	109	111
30 Volts	113	109	111
50 Volts	113	109	111
80 Volts	113	109	111
100 Volts	113	109	112
150 Volts	113	109	112
200 Volts	113	109	112
250 Volts	113	109	112
300 Volts	114	110	113
500 Volts	.....	111	114
600 Volts	.....	111	114
D-C VOLTMETERS, ZERO-LEFT For use with external resistors. (Resistors **not** included.)			
500 Volts	$112	.....	.....
600 Volts	112	.....	.....
750 Volts	112	$108	$110
D-C VOLTMETERS, ZERO-CENTER			
5-0-5 Volts	$113	$109	$111
10-0-10 Volts	113	109	111
30-0-30 Volts	113	109	111
50-0-50 Volts	113	109	111
80-0-80 Volts	113	109	111
150-0-150 Volts	113	109	112
300-0-300 Volts	114	110	113
500-0-500 Volts	.....	111	114
600-0-600 Volts	.....	111	114

Rating and Scale	Meter Size 2½-inch*	3½-inch	4½-inch
	List Price (With Single Set-point)†		
D-C MILLIAMMETERS, ZERO-CENTER			
1-0-1 Ma	$112	$108	$110
3-0-3 Ma	.....	.....	110
5-0-5 Ma	112	108	110
10-0-10 Ma	112	108	110
20-0-20 Ma	112	108	110
25-0-25 Ma	112	108	110
30-0-30 Ma	112	108	110
50-0-50 Ma	112	108	110
100-0-100 Ma	112	108	110
150-0-150 Ma	112	108	110
200-0-200 Ma	112	108	110
250-0-250 Ma	112	108	110
300-0-300 Ma	112	108	110
500-0-500 Ma	112	108	110
D-C AMMETERS, ZERO-LEFT			
1 Amp	$112	$108	$110
1.5 Amp	112	108	110
2 Amp	112	108	110
3 Amp	112	108	110
5 Amp	112	108	110
10 Amp	112	108	110
15 Amp	112	108	110
20 Amp	112	108	110
30 Amp	112	108	110
50 Amp	.....	108	110
D-C AMMETERS, 50-MV SHUNT-RATED, ZERO-LEFT (Shunt and leads **not** included)			
20 Amp	$112	$108	.....
30 Amp	112	108	.....
50 Amp	112	108	$110
75 Amp	112	108	110
100 Amp	112	108	110
150 Amp	112	108	110
200 Amp	112	108	110
250 Amp	112	108	110
300 Amp	112	108	110
400 Amp	112	108	110
500 Amp	112	108	110
600 Amp	112	108	110
800 Amp	112	108	110
1 KA	112	108	110
1.5 KA	112	108	110
2.0 Ka	112	108	110
D-C AMMETERS, 100-MV SHUNT-RATED, ZERO-LEFT (Shunt and leads **not** included)			
20 Amp	$112	$108	$110
40 Amp	112	108	110
50 Amp	112	.....	110
75 Amp	112	108	110
100 Amp	112	108	110
150 Amp	112	108	110
200 Amp	112	108	110
250 Amp	112	108	110
300 Amp	112	108	110
400 Amp	112	108	110
500 Amp	112	108	110
600 Amp	112	108	110
800 Amp	112	108	110
1 Ka	112	108	110
2 Ka	112	108	110
D-C AMMETERS, ZERO-CENTER			
1-0-1 Amp	$112	$108	$110
2-0-2 Amp	112	108	110
5-0-5 Amp	112	108	110
10-0-10 Amp	112	108	110
15-0-15 Amp	112	108	110
20-0-20 Amp	112	108	110
30-0-30 Amp	112	108	110
50-0-50 Amp	.....	108	110

Rating and Scale	Meter Size 2½-inch*	3½-inch	4½-inch
	List Price (With Single Set-point)†		
D-C AMMETERS, 50-MV SHUNT-RATED, ZERO-CENTER (Shunt & leads **not** included)			
50-0-50 Amp	$112	$108	$110
75-0-75 Amp	112	108	110
100-0-100 Amp	112	108	110
150-0-150 Amp	112	108	110
A-C VOLTMETERS, RECTIFIER-TYPE			
10 Volts	$118	$114	$117
15 Volts	118	114	117
20 Volts	118	114	117
25 Volts	118	114	117
30 Volts	118	114	117
50 Volts	118	114	117
80 Volts	118	114	117
100 Volts	119	115	118
150 Volts	119	115	118
200 Volts	.....	115	118
250 Volts	.....	116	119
300 Volts	.....	116	119
A-C MICROAMMETERS, RECTIFIER-TYPE			
500 ua	$117	$113	$116
800 ua	117	113	116
A-C MILLIAMMETERS, RECTIFIER-TYPE			
1 Ma	$117	$113	$116
1.5 Ma	117	113	116
2 Ma	117	113	116
3 Ma	117	113	116
5 Ma	117	113	116
10 Ma	117	113	116
20 Ma	117	113	116
A-C AMMETERS, RECTIFIER-TYPE (Rectifier-type milliammeter with external 5A/20 ma transformer **included**)			
Combined Rating 5 Amp	$129	$125	$128
TRANSFORMER-RATED AMMETERS (Same as above except scales marked as follows:)			
10 Amp	$129	$125	$128
15 Amp	129	125	128
20 Amp	129	125	128
30 Amp	129	125	128
40 Amp	129	125	128
50 Amp	129	125	128
75 Amp	129	125	128
80 Amp	129	125	128
100 Amp	129	125	128
150 Amp	129	125	128
200 Amp	129	125	128
300 Amp	129	125	128
400 Amp	129	125	128
500 Amp	129	125	128
600 Amp	129	125	128
800 Amp	129	125	128
1 Ka	129	125	128
1.2 Ka	129	125	128
1.5 Ka	129	125	128
2.0 Ka	129	125	128
3.0 Ka	129	125	128

* Two and one-half-inch meter relays include mounting bracket and six-foot plug-in lead — accessory kit 1012K10G701.

† Prices listed are for meter relays with single set-point. For double set-point, **add $25.**

GENERAL ELECTRIC

© U.C.P., Inc.

HICKOK TUBE TESTERS

MODEL 580A

Laboratory and Industrial Portable Tube Tester

An entirely new instrument which can be set up directly to any tube test condition without having to rely upon the built-in roll chart. All tube potentials individually variable. Accommodates 4, 5, 6, 7-pin, loctal, octal, 7, 9 and 10-pin miniature, 7 and 8-pin sub-miniature, 5 and 7-pin Nuvistors, Compactrons and Novars. Leakage test sensitivity to 50 megohms. Gas test circuit detects grid current to 0.05 microamperes. Gm ranges to 60,000 umhos. Cathode reserve test. Push button feature speeds check on dual section tubes. In black leatherette portable case, 19" x 15½" x 7". 105-125v, 60 cycles. 60 watts. Shipping weight, 35 lbs.

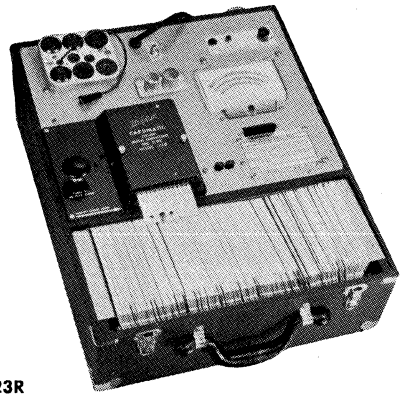
Model 580A Laboratory and Industrial Portable Tube Tester—Net Each..... $585.00

MODEL 539C

New Industrial and Laboratory Portable Tube Tester

Tests VR tubes, low power thyratrons, "4 digit" types. VR test evaluates voltage regulator tubes under actual operating conditions. Tests Nuvistors, Novars, Compactrons, 10-pin types. Provision for separate monitoring of plate current. Panel terminals provide access to grid, plate, cathode and heater circuits, permitting direct measurement of voltages and current for "non-standard" or "tailored" tests. Covers 600 to 60,000 umhos in six ranges. Dual leakage readings: directly on meter or by neon short indicators (Sensitivity to 50 megohms). Complete with socket savers. In black leatherette portable case, 16¾" x 18⅜" x 7½". 105-125v, 50-400 cycles, 40 watts. Shipping weight, 35 lbs.

Model 539C Industrial and Laboratory Tube Tester—Net Each..... $525.00



MODEL 123R

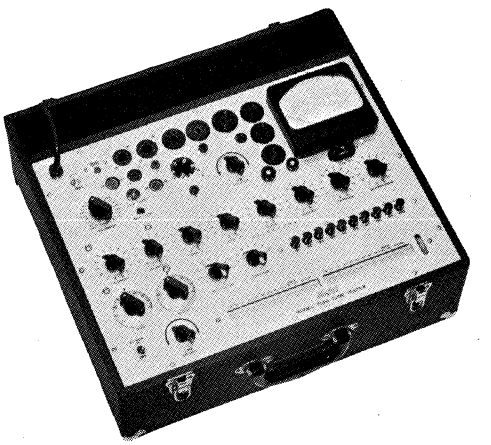
Cardmatic® Automatic Tube Tester

Ideal for Industrial and laboratory application. A genuinely complete tube tester, card-programs complete "fringe" tests, saturation and cut-off tests, in addition to basic Gm measurement. Gm ranges: 500-26,000 umhos; Current ranges: 100 ua to 510MA. Complete with pin straighteners, socket savers and 500 selected cards. In black leatherette portable case, 19½" x 16½" x 9¼". 105-125v, 50-60 cycles, 55 watts. Shipping weight, 57 lbs.

Model 123R—Cardmatic® Automatic Tube Tester—Net Each..... $595.00

Model 121 Cardmatic® Automatic Tube Tester. Low-priced version of the Model 123R. Measures Gm plus saturation, cut-off and important "fringe" tests. Also Tests transistors and diodes. Supplied with 342 selected cards covering popular entertainment tube types. In red leatherette portable case, 19¾" x 13¼" x 8". Shipping weight, 39 lbs.

Net Each $359.50



NEW MODEL 752A

New Industrial Communications Portable Tube Tester

Designed for use in maintaining communications equipment and industrial electronic apparatus. New voltage regular test circuit tests VR tubes to handbook specifications, including firing point, regulating voltage and current range. Tests Nuvistors, Compactrons, Novars, 10-pin types. Push button test for dual-section tubes speeds selection of tubes for balanced or matched characteristics. Covers 1500 to 30,000 umhos in five ranges. Interelement leakage read directly on the meter (Sensitivity to 10 megohms). Illuminated meter and roll chart. Complete with socket savers and pin-straighteners. In black leatherette portable case, 18⅜" x 16¾" x 7½". 105-125v, 50-60 cycles, 40-70 watts. Shipping weight, 27 lbs.

Model 752A Industrial and Communication Portable Tube Tester—Net Each..... $365.00

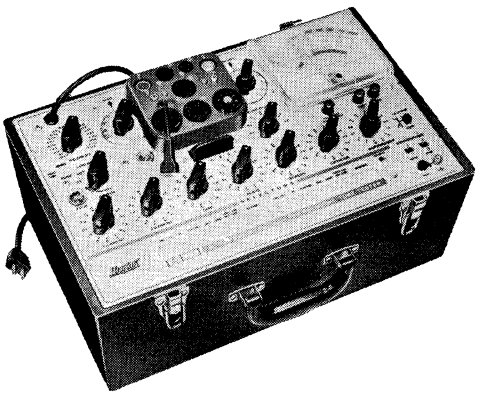
THE HICKOK ELECTRICAL INSTRUMENT CO.

Net

© U.C.P., Inc.

TUBE TESTERS

HICKOK

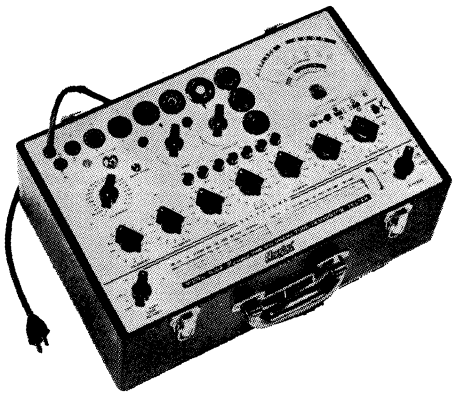


MODEL 6000A

Service Technician's Deluxe Portable Tube and Transistor Tester

Has replaceable socket plate for obsolescence protection. Sensitive, instantaneous inter-element leakage and shorts test (Sensitivity—in excess of 3 megohms) filament continuity test. Covers 3,000 to 15,000 umhos in 3 ranges. Tests Compactrons, Nuvistors, Novars and 10-pin types. 14-position selector switches, no paralleled elements. Also tests transistors and diodes. In red leatherette portable case, 16¾" x 11¾" x 7½". 105-125v, 50-70 cycles, 40 watts. Shipping weight, 21 lbs.

Model 6000A Deluxe Portable Tube and Transistor Tester—Net Each $239.50



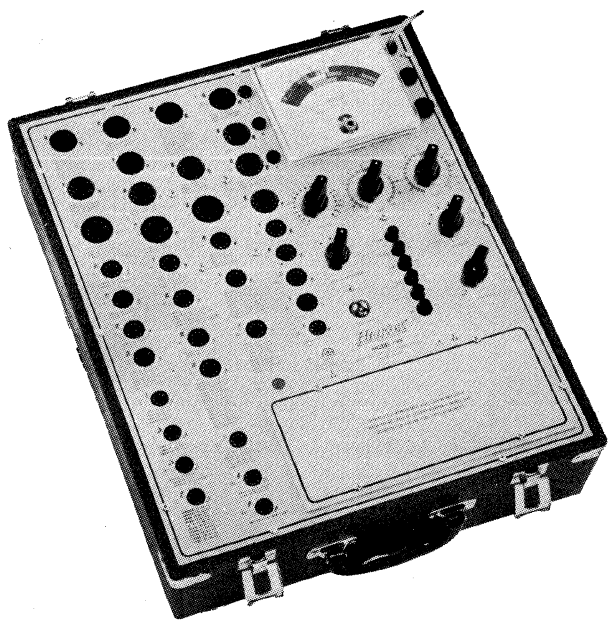
MODEL 800A

Service Technician's Portable Tube, Transistor and Diode Tester

Tests 4, 5, 6, 7-pin, octal, loctal, compactrons, 10-pin "headers," 5 and 7-pin Nuvistors and Novars. 14-position selector switches, no paralleled elements. Provides direct meter reading of inter-element leakage and shorts. New filament continuity test speeds test of series string tubes. Also tests transistors and diodes. Complete with test leads. In red leatherette portable case, 16¾" x 11¾" x 7½". Shipping weight, 21 lbs.

Model 800A Portable Tube, Transistor and Diode Tester—Net Each..... $219.95

NEW!

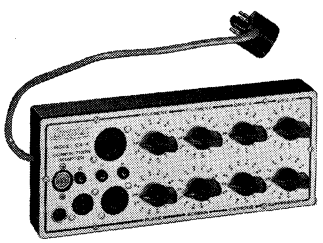


MODEL 799

"Mustang" Multi-Socket Tube Tester

Mutual Conductance tests in a unique solid-state design. Transistorized sensing circuit provides 50 megohm leakage tests, 0.1 ua gas and emission tests. 39 sockets includng new *decal* 10-pin socket. Color-coded "permutator" switch triples effective socket coverage. Two continuously variable Gm ranges to 20,000 umhos. Replaceable panel plate accommodates socket assembly for future tube additions. 15⅝" x 18½" x 6⅛". Shipping weight, 21 lbs.

Model 799 Multi-Socket Tube Tester—Net Each $199.95



MODEL CA-4

Universal Adapter

For testing Compactrons, Novars, 5- and 7-pin Nuvistors, 10-pin types. No paralleled connections — gives an honest, complete mutual conductance test when used with a Hickok Tube Tester. Suitable for Cardmatic models and most other models except Models 532, 533, 534, 536, 538, 539A, 546, 600 and 605. Shipping weight, 6 lbs.

Model CA-4 Universal Adapter—Net Each..... $59.50

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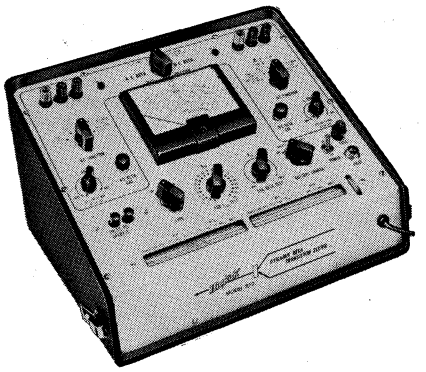
HICKOK TRANSISTOR TESTERS



MODEL 870

Dynamic Beta Transistor Tester

Measures AC and DC Beta. Collector test current variable up to 2 amperes, permitting Beta measurement on power transistors rated 5 amperes or more. Variable collector voltage and current permit tests according to manufacturers' specifications—Tests switching transistors, measures large signal DC Beta on power transistors—small signal AC Beta on low and medium power transistors. Icbo Ranges: 100ua, 1ma, 10ma; Beta Ranges: 0-100, 0-300. Complete with replaceable roll chart and test leads in black leatherette portable case 14 9/16" x 11¾" x 7⅞". 115v-60 cycles, 40 watts. Shipping weight, 22 lbs.

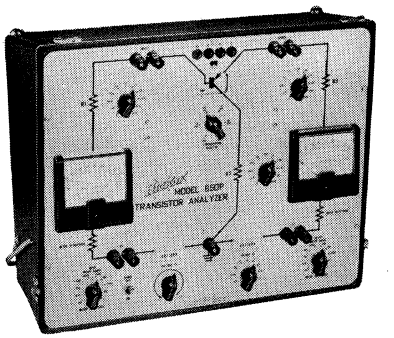
Model 870 DYNAMIC BETA Transistor Tester—Net Each $355.00

MODEL 850P

Engineer's Portable Transistor Analyzer

Ideal for use as a "breadboard" in transistor circuit design and development. Checks basic transistor parameters in any of three configurations; common base, common emitter and common collector. Identical input and output meters cover 100ua to 1 ampere in 5 ranges. Battery operated. Furnished complete with leads in black leatherette portable case, 16½" x 8" x 13½". Shipping weight 20 lbs.

Model 850P Engineer's Portable Transistor Analyzer—Net Each $169.50



MODEL 890

Dynamic Beta In-Circuit Transistor Test

Utilizes unique new test circuit to measure AC Beta in OR OUT of circuit with 5% accuracy. Measures these in-circuit parameters: AC Beta, Ic, Rin (transistor input impedance), Z Ohms (base-emitter circuit impedance). Measures AC Beta, Ic, Rin and Icbo out of circuit. Portable, completely self-contained, fully-transistorized — battery operated. 10¾" x 9" x 6½". Shipping weight 8 lbs.

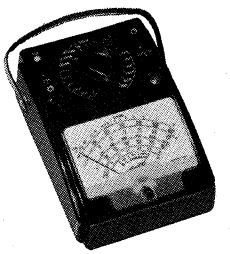
Model 890 Dynamic Beta In-Circuit Transistor Tester—Net Each..... $155.00

MODEL 455A

Burn-Out Proof Volt—Ohm—Milliammeter

Has Hickok's exclusive overload cut-out and protection system providing complete safety against burnouts for the meter and all multipliers, shunts and other components. 20,000 ohms/volt AC and DC. AC/DC Volts: 3, 15, 60, 150, 600, 1200v: Resistance, 0-100 megohms in 4 ranges: Center Scale Ranges: 5, 500, 5000, 500,000 ohms. Current Ranges: 50ua, 1, 10, 100, 100 MA, 10 amperes. Attractive, streamlined case, large easy to read meter. Battery operated. 8½"L x 5⅞"W x 3"H tapering to 1¾"H. Complete with leads. Shipping weight (two per carton), 12 lbs.

Model 455A Burn-Out Proof Volt-Ohm-Milliammeter—Net Each $89.50



MODEL 470A

Electronic Volt-Ohmmeter

A major advance in VTVM design, the 470A provides increased ranges in all functions—using just two basic scales to cover eight ranges. AC and DC values are read from the same scales—AC errors due to crowding are eliminated. Ranges: DC, AC rms and AC peak-to-peak, 0.5-1500v. New AC-DC—Ohms single unit probe eliminates the need for multiple leads. Ohmmeter: Center Scale, 10 Ohms, Ohms X1, X10, X100, X1000, X10,000, X100,000, X1M, X10M. Readability 0.2 ohms to 100 megohms. Input impedance DC volts 15 megohms, AC volts 15 megohms. DC resistance paralleled with approximately 150 uufd. 105-125v, 50-400 cycles, 15 watts, 6⅜" x 7½" x 4½". Complete with single unit probe and test leads. Shipping weight, 8 lbs.

Model 470A Electronic Volt-Ohmmeter—Net Each..... $89.50

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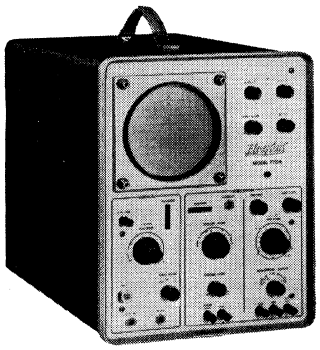
VTVM - VOM - OSCILLOSCOPES

HICKOK



MODEL 770A

5", Wide-band Industrial and General Purpose Oscilloscope.

Calibrated 4MC DC vertical amplifier has Gaussian roll-off for optimum pulse response. Eight-step attenuator with ranges from 0.01V to 50V/div accurate to within 5%. Built-in square calibrator accurate to ±3%. Time base with 5X magnifier, provides 18 calibrated writing speeds from 0.2 usec/div to 1.5 sec/div at ±3% accuracy. Choice of free-running, driven, or automatic sweep modes is also provided. Has flat-face, post-accelerated CRT, illuminated graticule. 13¾" x 11" x 17½". Shipping weight, 57 lbs.

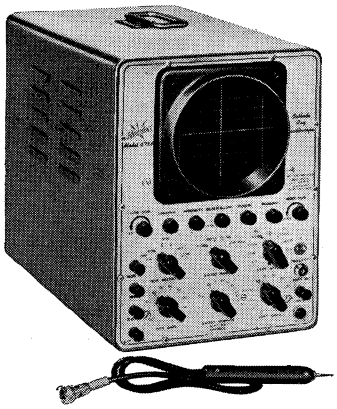
Model 770A 5". Wide-band Industrial and General Purpose Oscilloscope—Net Each..... $585.00

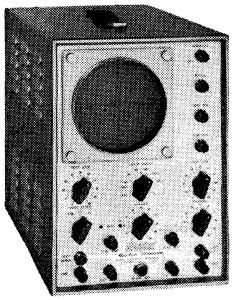
MODEL 675A

Wide Band, High Sensitivity Oscilloscope

5" scope with an illuminated, calibrated screen. Vertical amplifier response within 3 db, DC through 4.5MC, flat through 3.58MC color burst frequency. Astigmatic control provides a new standard of undistorted trace detail. 105-125v, 50-400 cycles, 125 watts. In steel case, 10" x 16" x 13" complete with low capacity probe and ground lead. Shipping weight 45 lbs.

Model 675A, Wide Band, High Sensitivity Oscilloscope—Net Each..... $345.00



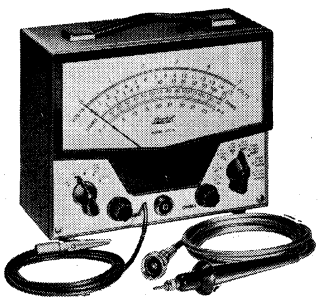


MODEL 677

Wide-Band Service Technicians 5" AC Oscilloscope

5 cps to 4.5MC within 3db. New 1-2-3 circuit approach simplifies peak-to-peak measurements. Pre-set horizontal and vertical sweep positions. Sharp, bright trace with astigmatic correction, facilitates detailed observations of TV sync wave forms, including 3.58MC color burst. Furnished complete with detailed application and instruction book and test leads. 14" x 9½" x 18½". Shipping weight, 36 lbs.

Model 677 Wide-Band Service Technicians 5" Oscilloscope—Net Each..... $214.50

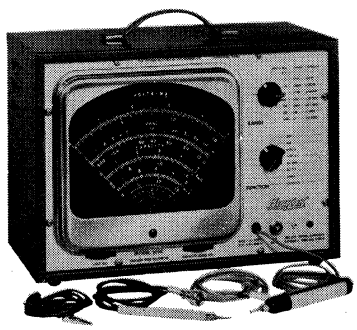


MODEL 209C

True Vacuum Tube Volt-Ohm-Milliampere and Capacitance Meter

New 500 millivolt range plus 8 additional ranges to 1,500 volts DC. Seven AC ranges from 1.5 to 1,500 volts with response within 3 db from 10 cycles to 200 mc. Seven resistance ranges, 10 ohms to 10 megohms center scale. Seven capacitance ranges cover approximately 50 pf to 2000 ufd. Ohmmeter applies no more than ½ volt, safe for all semiconductor usage. Input impedance, 11 megohms DC, 11 megohms at 5 pf AC. 18" x 13½" x 8". Shipping weight, 26 lbs.

Model 209C True Vacuum Tube Volt-Ohm-Milliampers and Capacitance Meter—Net Each..... $184.50



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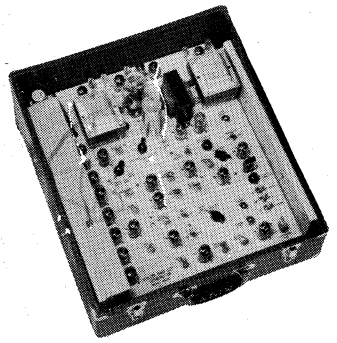
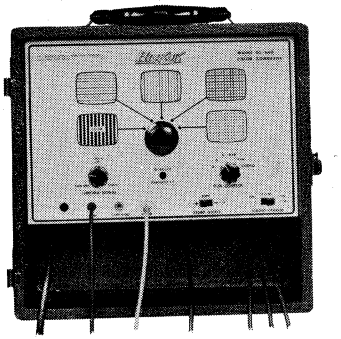
HICKOK SIGNAL GENERATORS



MODEL 656XC
Color Bar-White Dot Generator

Produces 100% fully-saturated NTSC standard patterns. Provides complete range of signals for chroma alignment, including R-Y, B-Y, G-Y demodulation systems. 105-125v, 60 cycles, 40 watts. Furnished in black leatherette portable case, 16¾" x 18⅜" x 7¼", complete with cable. Shipping weight, 48 lbs.

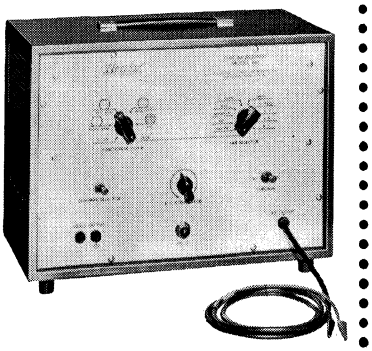
Model 656XC Color Bar-White Dot TV Generator—Net Each $549.50



MODEL GC660
Color Bar Dot/Crosshatch Generator

A completely new design that sets a new standard of stability through liberal use of high-speed silicon switching devices and unijunction transistors. Uses 300-dot, short-step timer system to assure complete screen coverage, especially important on rectangular tubes. "No flicker" crosshatch pattern because of 60-cycle time base. Dot size based on 0.1 usec pulse is only one line thick and one line wide for maximum convergence accuracy. Standard 10-bar pattern with controllable chroma level for color sync and killer threshold checks. Gun killer permits fast purity checks and actually allows use of picture tube as a 'scope for chroma demodulator alignment. Tuneable RF output at 300 ohms, ±video output, special sync output for Zenith receivers. 10¾" x 10⅜" x 5". Shipping weight, 6¼ lbs.

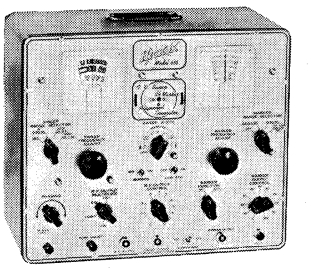
Model GC660 Color Bar Dot/Crosshatch Generator—Net Each..... $149.50



MODEL 661
Chrom-Aligner NTSC Color Bar-White Dot Generator

Generates individual 100% saturated color bars to NTSC standards. Provides the following demodulator alignment signals: R-Y, B-Y, G-Y, G-Y at 90°, RF output on channels 3 or 4. Crystal-controlled chroma and sync. Separate video output. 110v, 60 cycles, 20 watts. Complete with leads and 3.58MC crystal. Shipping weight, 20 lbs.

Model 661 Chrom-Aligner Generator—Net Each $349.50



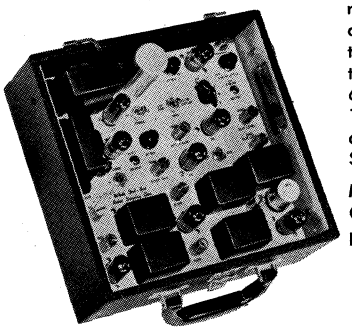
MODEL 615
Sweep and Marker Alignment Generator

For complete TV, IF and RF alignment, including color TV alignment. Also provides harmonic output on UHF. All electronic Sweep with no moving parts. Amplitude modulation less than 0.1db/MC. 110-120v, 60 cycles, 40 watts. Furnished in steel carrying case, 16¼" x 8" x 13½" complete with leads. Shipping weight 39 lbs.

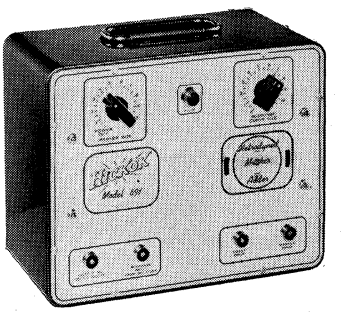
Model 615 Sweep and Marker Alignment Generator—Net Each $359.50

MODEL 660
White Dot/Color Display Generator

A stable, crystal-controlled white dot and crosshatch generator employing the same dot and sync generating circuitry as the Model 656XC described above. Color display is rainbow type. Lightweight and portable for installation, convergence and in-the-home service. 105-125 v, 60 cycles, 40 watts. 10½" x 10½" x 5¼", complete with crystal and output cable. Shipping weight, 21 lbs.



Model 660 White Dot/Color Display Generator—Net Each $245.00



MODEL 691
Heterodyne Marker-Adder

Provides continuously visible marker (including trap points) that will not distort the receiver's response curve. Functions with any marker and sweep equipment with output capability of 0.5 volts, or more. 105-125v, 50-60 cycles, 25 watts. Furnished in steel case, 11¼" x 7" x 8¼", complete with leads. Shipping weight, 16 lbs.

Model 691 Heterodyne Marker Adder—Net Each $129.50

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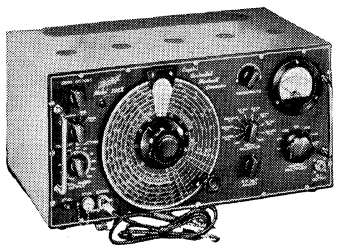
SIGNAL GENERATORS

HICKOK

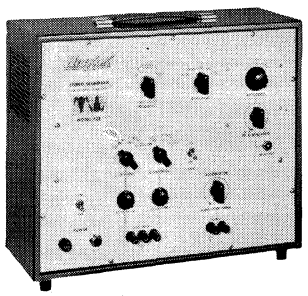


MODEL 295X

Microvolt and Crystal Controlled Generator

Provides continuous frequency coverage in 8 bands from 125KC to 175 MC. Calibrated, metered output from 0.1 to 100,000 microvolts. 1% Dial calibration accuracy. Built-in 1MC crystal standard. Precision step attenuator, direct reading, vernier tuning. 105-125v, 50-400 cycles, 90 watts in steel case 19" x 12½" x 9". Complete with 1MC crystal, 48-inch output cable with 2 connectors. Shipping weight, 47 lbs.

Model 295X Microvolt and Crystal Controlled Generator—Net Each **$655.00**



MODEL 725

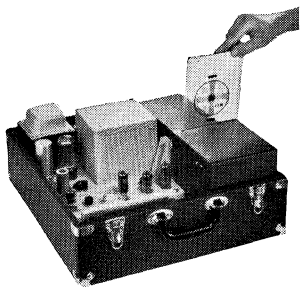
Stereo Standard FM Multiplex Generator

Generates complete composite FM Multiplex signal to FCC specifications. Can be externally modulated with a stereo mike, tape player or record player to demonstrate FM Stereo. 16¼" x 13¼" x 7". Shipping weight, 27 lbs.

Model 725 Stereo Standard FM Multiplex Generator—Net Each **$495.00**

MODEL 760

Video Scanner



Generates and scans at the 525 line, 60 field 30 frame system. Produces slide pictures for closed circuit television systems. Uses high definition, flying spot scanning method, providing 450 line resolution (5MC band width).

Choice of video or RF output. Crystal-controlled Sync Generator. Complete with output cable, pattern slides. 17" x 18¾" x 8½". Shipping weight, 51 lbs.

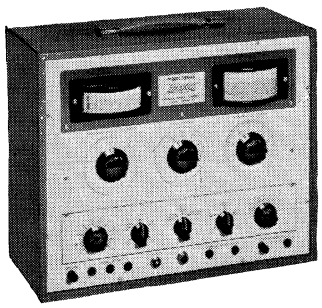
Model 760 Video Scanner—Net Each **$455.00**

MODEL 860

"Injecto-Tracer" Signal Tracer

An all solid-state instrument for complete trouble shooting of all types of AM and FM radios, including auto radios, and TV sound circuits. Unlike other signal tracers that only inject the test signal, the 860 also picks up, amplifies and detects signals through a tuneable amplifier and allows a complete job of signal tracing. Covers range from 200 KC to 1700 KC, plus 10.7 MC IF. Regulated, high-current power supply is variable to permit checking distortion, oscillator drop-out, etc. 11" x 8½" x 5½". Shipping weight, 9½ lbs.

Model 860 "Injecto-Tracer" Signal Tracer—Net Each **$149.50**



MODEL 288AX

Crystal Controlled AM-FM Sweep and Marker Generator

A complete alignment instrument with built-in decibel meter and crystal frequency standard (100KC and 1000KC). Covers 35KC to 110MC in 8 bands frequency modulated and 35KC to 160MC in 8 bands amplitude modulated. *Includes new ultrasonic range* from 35KC to 125KC. Supplied with 100KC/1000KC crystal, cable assembly and meter leads. Case size, 16" x 7" x 13". Shipping weight, 33 lbs.

Model 288AX Crystal Controlled AM-FM Sweep and Marker Generator—Net Each **$315.00**

MODEL CR-35

CRT Analyzer/Rejuvenator

A complete picture tube tester, analyzer, rejuvenator and repair instrument covering both black-and-white and color picture tubes, including the new GE color tube. Checks gas, emission, shorts, opens, grid cut-off and cathode life. Also rejuvenates, repairs shorts and determines booster effectiveness. Continuously variable, meter-monitored, test voltages assure protection against obsolescence. This includes heater voltage which is supplied through an SCR circuit, assuring correct heater temperature so critical in color tubes. All solid-state. 10¾" x 10½" x 5¼". Shipping weight, 9 lbs.

Model CR-35 CRT Analyzer/Rejuvenator—Net Each **$99.95**

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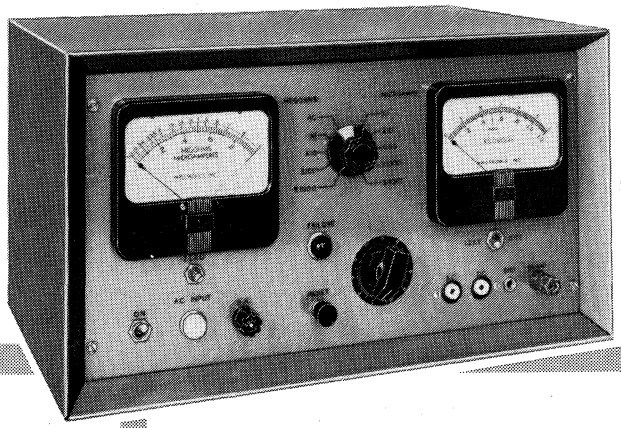
HIPOTRONICS AC/DC HIPOT TESTERS & MEGOHMMETERS

MODEL 306B



300 SERIES

The 300 series of Hipot Testers and Megohmmeters are voltage test sets which perform three different functions. They may be used for AC Hipot, DC Hipot and DC megohm tests. The "A" units perform IR tests to 1000 megohms and the "B" units to 100,000 megohms at 500 volts. Megohms at any other voltage may be determined from the volt and current meter readings.

- The sensitive thyratron operated overload relay adjustable from 20 microamperes to 5 milliamperes, will in many applications, permit non-destructive hipot tests to be performed.
- When the overload is set to 20 ua, the high voltage will generally trip on the build-up of leakage current before actual arc-over occurs.
- The "B" series has a quadruple range current meter which permits leakage currents as low as 0.01 ua to be read.
- The "A" series permits the reading of currents down to 1.0 ua.
- The KV meter has two ranges and is connected directly at the output for maximum accuracy.
- Other features include an AC input switch, fuse and pilot light, front panel output jacks, continuously adjustable output control, guard circuit on "B" series, and a failure light with reset button.
- Housed in a totally enclosed dust-proof cabinet.

Size: 17" W x 9½" H x 11" D
Weight: 115 volts, 60 cps, 1 ampere – all models
Input: 20 pounds

- Voltage to 6 KV, megohms to 100,000
- Overload adjustable from 20 microamperes to 5 ma.
- Performs non-destructive quantitative tests.
- continuously adjustable output from 0 to maximum
- Overload light with reset button, 2% meter accuracies

SPECIFICATIONS & MODELS

Model No.	Voltage DC	Voltage RMS	DC Current Meter ua.	AC Current Meter	Megohms at 500V	Size Ranges	Size W x H x D"	Price
301A	1.5 KV	1.0 KV	0-50/500	5 ma.	1-1000	2	17 x 9½ x 11	$390
301B	1.5	1.5	0-.5/5/50/500	5 ma.	1-100,000	4	17 x 9½ x 11	510
303A	3	2.5	0-50/500	5 ma.	1-1000	2	17 x 9½ x 11	410
303B	3	2.5	0-.5/5/50/500	5 ma.	1-100,000	4	17 x 9½ x 11	530
306A	6	5	0-50/500	5 ma.	1-1000	2	17 x 9½ x 11	440
306B	6	5	0-.5/5/50/500	5 ma.	1-100,000	4	17 x 9½ x 11	565

HIPOTRONICS, INC.

Net

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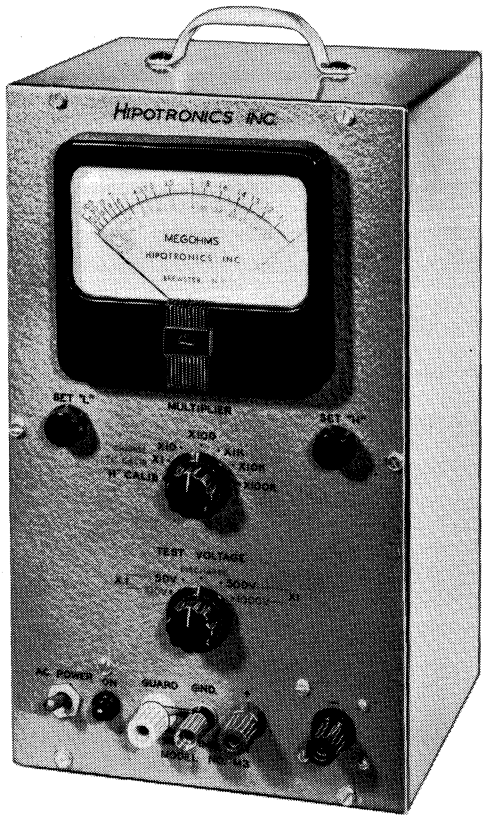
HIPOTRONICS MEGOHMMETERS

Hipotronics megohmmeters are precision instruments for use in production or laboratory testing of cables, capacitors, printed circuits, transformers, electronic assemblies, etc.

- The output voltages are both regulated with a ferro-resonant line and a solid state electronic regulator. Even with large capacitive loads on the 20 million range, there is no bounce.
- The indicating device is a high quality Weston with better than 2% accuracies on all ranges below 1 million and 3% on 10 million. The VTVM circuit driving the meter on the higher range models has no zero shift on any range.
- The short circuit protection is such that the output may be continuously shorted without injury to any component.
- Self contained calibrating resistors in the quadruple range models permit the operator to periodically verify the calibration.
- A three terminal output network (positive, negative and guard) permits grounded or ungrounded tests to be made.
- Dual color scale on multiple output voltage models improves readability.
- The units also contain a resistor and switch position for discharging both the internal and load capacitance.
- Available in 7 models, all with 115 Volt, 60 cps input and AC input switch, fuse and pilot light.



OUTPUT VOLTAGES	MEGOHMS	RANGES	MODEL	PRICE
500	1-1000	2	M-1	$150
1000	2-2000	2	M-2	160
500/1000	1-2000	2	M-4	170
50/500	1-100 50V	2	M-1A	160
	1-1000 500V	2		
100/1000	2-200 100V	2	M-2A	175
	2-2000 1000V	2		
50/100/500	1-10 million	4	M-6	235
50/100/500/1000	1-20 million	4	M-3	295

OPTIONAL EXTRAS
Lever switches for mandatory two hand hold operation and rapid discharge . . $25

HIPOTRONICS, INC.

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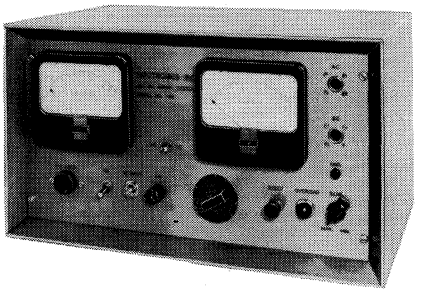
HIPOTRONICS NON-DESTRUCTIVE HIPOT & INSULATION TESTERS

NON-DESTRUCTIVE HIPOT TESTERS



Non destructive hipot tests may be made on many materials, components, test specimens etc. if a sensitive overload, coupled with a high speed HV cut-off is incorporated into an insulation tester. Hipotronics 100 series of hipot testers have a thyratron operated overload relay which cuts-out the HV in 5 milliseconds or less with leakage currents as low as 20 microamperes. The overload, when set on 20 ua, will generally trip the HV on corona and leakage currents which precede an actual breakdown, puncture or flash-over. The overload is continuously adjustable from 20 ua to 5 ma which enables the user to draw 5 milliamperes for capacitor charging, cable testing, power supply etc.

FEATURES

- **AC input switch, fuse and pilot light**
- **Continuously adjustable output control from zero to maximum**
- **Output connected KV meter, 2% accuracy**
- **Current meter in HV return, 2% accuracy**
- **Meter re-calibration facilities**
- **Continuously adjustable overload relay from 20 ua. to 5 ma.**
- **Failure light with reset button**
- **Re-entrant output jacks with shielded HV output lead and plug**
- **AC/DC meter switch on AC/DC units**
- **Surge limiting resistor in DC output**
- **115 volt, 60 cps input**
- **Deluxe 17" W x 9" H x 11" D cabinet**

FEATURES — OPTIONALLY AVAILABLE

Zero start interlock with HV on and off push buttons — compels operator to always raise voltage from zero $30
Triple range KV Meter $20
Triple range current meter, 50/500/5000 ua on DC models $20
Output shorting relay with discharge resistor — A "must" when testing capacitive loads with DC $30
Audible failure signal $15
HV test probe $10
Rack Mount on 19" x 8¾" panel $10

AC OUTPUT

VOLTAGE	MODEL	PRICE
0-2.5KV @ 5 ma.	102A	$200
0-5KV @ 5 ma.	105A	225
0-10KV @ 5 ma.	110A	275
0-25KV @ 5 ma.	125A	500
0-15KV @ 500 va.	115A	500

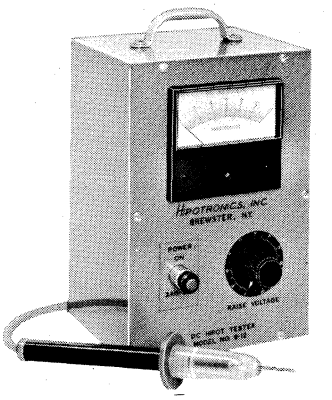
DC OUTPUT

VOLTAGE	MODEL	PRICE
0-3 @ 5 ma	103D	$200
0-6 @ 5 ma	106D	220
0-12 @ 5 ma	112D	290
0-20 @ 5 ma	120D	350
0-30 @ 5 ma	130D	400
0-50 @ 5 ma	150D	600

AC/DC OUTPUT

VOLTAGE	MODEL	PRICE
0-3 DC, 2.5 AC	103	$230
0-6 DC, 5 AC	106	250
0-15 DC, 10 AC	115	330
0-25 DC, 10 AC	125	425
0-40 DC, 15 AC	140	600
All have 5 ma. capacity. Heavier current models available.		

PRODUCTION HIPOT TESTERS



Model B12

Designed for use by inexperienced production personnel for mass testing of components, transformers, U.L. appliances etc. Simple to operate; arcing and leakage lights readily discernable. The short circuit current is limited to a maximum of 18 ma. on AC units and 5 ma. on DC models.

FEATURES

- **Continuously adjustable output from zero to maximum**
- **Output connected KV meter for maximum accuracy**
- **Arc light employing corona pick-up network — much more sensitive than usual method**
- **Leakage current lamp factory set to fire on 1 ma. ($5 extra for continuously adjustable light from 500 ua. to 5 ma.)**
- **Three wire grounding cord and plug**
- **Shielded output lead**
- **AC input switch, fuse and pilot light**

AC MODELS

KV	MODEL	PRICE
0-1	A1	$100
0-3	A3	110
0-5	A5	120
0-10	A10	150
0-15	A15	210

DC MODELS

KV	MODEL	PRICE
0-1.5	B1	$110
0-4	B4	125
0-6	B6	145
0-12	B12	185
0-20	B20	235
0-30	B30	335

OPTIONAL EXTRAS

Audible Failure Signal $40
Test Probe $10
Continuously adjustable leakage light. 500 ua to 5 ma ..... $ 5

SIZE

Units with outputs of 12 KV and below in 5" W x 6" D x 9" H cabinet.
15 KV and up in 6" x 7" x 12" cabinet
30 KV model in 7" x 9" x 15" cabinet

HIPOTRONICS, INC.

Net

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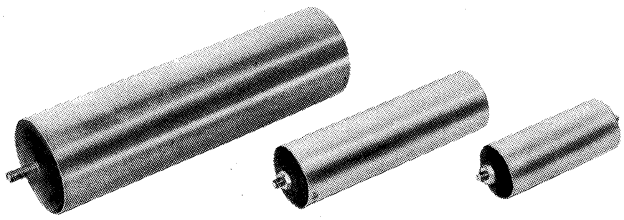
HIPOTRONICS HIGH VOLTAGE COMPONENTS



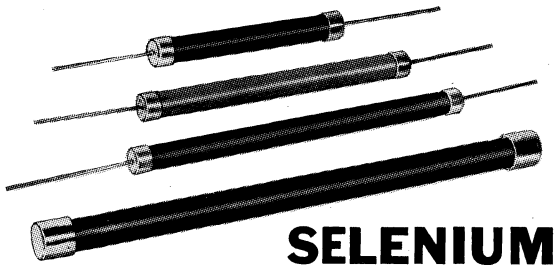
CAPACITORS

Bakelite tubes with studs

.01 mfd at 10 KV	$ 4.00
.03 mfd at 10 KV	6.00
.02 mfd at 15 KV	7.00
.02 mfd at 20 KV	8.50
.02 mfd at 30 KV	15.00
.01 mfd at 60 KV	50.00

Mylar wraps, epoxy end seal for oil or epoxy encapsulation

.05 mfd at 5 KV	$ 4.00
.01 mfd at 15 KV	5.00
.01 mfd at 25 KV	10.00



SELENIUM RECTIFIERS

3.6 ma air type with pigtails

5 KV PIV	$2.25
10 KV PIV	4.00
15 KV PIV	6.00
20 KV PIV	8.00

1 ma air 2 ma oil

12 KV PIV	$2.00

7 ma oil type, pigtails

15 KV PIV	$6.00
20 KV PIV	8.00

10 ma air type with ferrules

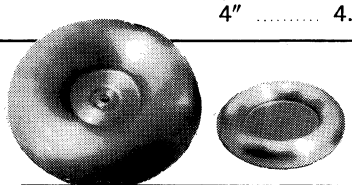
25 KV PIV $20.00 each

CORONA HARDWARE

SPHERES

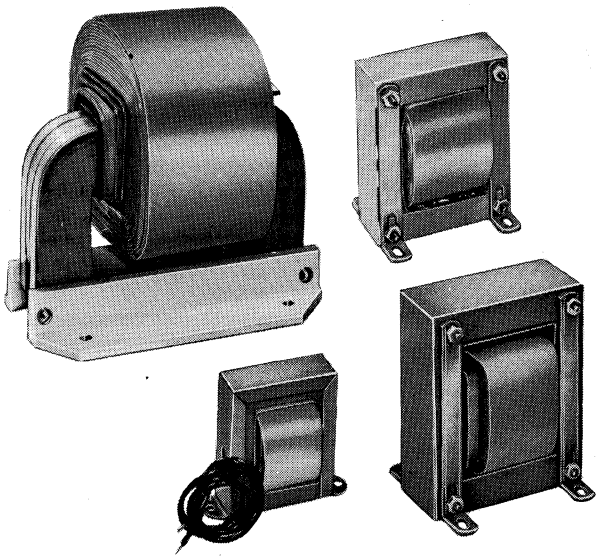
Nickel plated with threaded insert

Diameter		Diameter	
1″	$1.50	6″	$ 8.00
2″	2.50	8″	20.00
3″	3.50	10″	40.00
4″	4.50	12″	50.00



TOROIDS

Cross Section Diameter	Outside Diameter	Inside Diameter	Price
¾″	½″	¼″	$ 1.00 Doz
3/16″	7/8″	5/8″	$ 1.00 Doz.
2″	10″	6″	$ 30.00
5″	20″	10″	$200.00



TRANSFORMERS

All Primaries for 115 volts, 60 cycles

Air type, start insulated 1000 volts

1 KV rms, 10 ma	$ 8.00
2.5 KV rms, 10 ma	10.00
5 KV rms, 10 ma	15.00
10 KV rms, 7 ma	25.00
(Full wave doubler type, makes 25 KV DC supply)	
25 KV, 25 ma	125.00

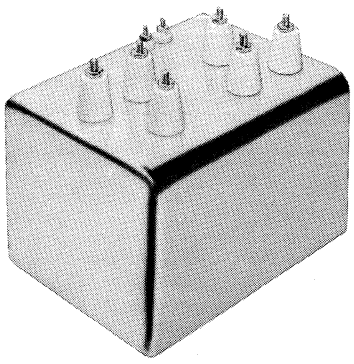
Oil type — one end near ground
115 Volts, 60 cps primary

30 KV rms, 20 ma	$ 85.00
40 KV rms, 20 ma	110.00
50 KV rms, 20 ma	150.00

TANKED UNIT WITH OIL — Apply for prices

Oil type for full wave doubler

25 KV rms, 20 ma	$ 75.00
50 KV rms, 20 ma	200.00



HV RELAYS

24 volt DC coil, oil insulated

S.P.D.T. 20 KV, 2 amp	$20.00
D.P.D.T. 20 KV, 2 amp	35.00

HIPOTRONICS, INC.

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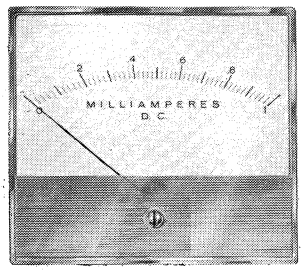
Hoyt SINCE 1904

PRICES SUBJECT TO CHANGE

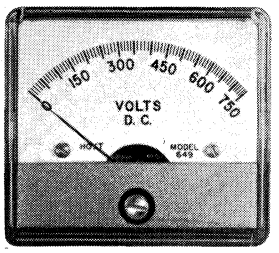
HOYT ELECTRICAL INSTRUMENTS

For Original Equipment and Replacement Applications

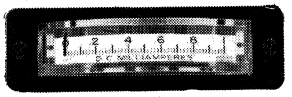
HOYT moving-coil Meters are built on the d'Arsonval principle using carefully selected jewel bearings and polished steel pivots. Accuracy within 2%. Alnico Magnets with soft-iron pole-pieces of uniform flux density used in all movements. Permanently correct balance assured by HOYT "cross arm" spiral wire balance. High torque to weight ratio. Quick response and good damping under all conditions. Choice of "knife-edge" or "lance" type pointers. Full 100° movements standard on most models. Many special type cases available. Inquiries invited.



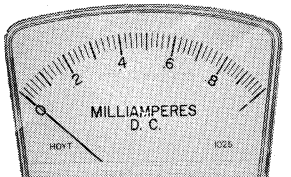
MODEL Nos. 2025, 2035, 2045, 2060, 2080 DC/2026, 2036, 2046, 2061, 2081 AC—Clear Plastic Styrene Cases, Available with Bezel for mounting behind panel (2)



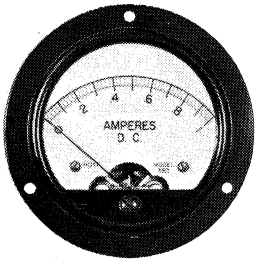
MODEL No. 649, 653, 645 DC/ 650, 654, 646 AC Clear Plastic Styrene Case



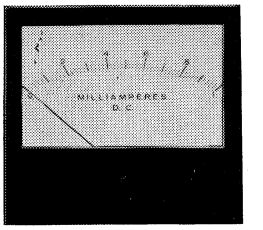
Model No. 673 D.C., 674 AC MODEL No. 673/S Edgewise Meters



MODEL Nos. 1025, 1037, 1045, 1060 DC/1026, 1038, 1046, 1061 A.C. Clear Plastic Styrene Case



MODEL Nos. 582 & 17/3, D.C. MODEL Nos. 584 and 552, A.C.



MODEL 680 D.C., 681 A.C.

PRICE LIST:

PANEL MOUNTING

Size:	1½"	2½"	3½"	3¾"	4½"	6"	8"	6¾"—8½" ROUND PANEL METERS	3" x 4" PORTABLE METERS	5" x 4" PORTABLE METERS
					#2045					
			#2035		#1045					
		#2025	#1037		# 574					
		#1025	# 17L		# 641					
		#17/3	# 653	# 673	# 645					
		# 635	# 582	# 570	# 600					
Approx. Range Resist.	#668	# 649	# 597	# 607	# 647	#2060	#2080	#583*	#602*	#578*
					# 680	#1060				#515*

*Prices on request.

D.C. MILLIAMMETERS

0/1	*60*	$12.00	$11.30	$12.00	$12.55	$13.25	$15.85

Above prices also apply to 0/3, 0/5, 0/10, 0/15 MA Standard ranges.

0/25	*1.7*	12.30	11.60	12.30	12.85	13.55	16.35

Above prices also apply to 0/25, 0/30, 0/50, 0/100, 0/150, 0/200, 0/300. 0/500 MA Standard ranges.

D.C. MICROAMMETERS

0/20	*3000*		20.15	20.90	21.55	22.15	—
0/50	*2000*		17.10	17.65	18.25	18.90	—
0/100	*2000*	15.45	14.90	15.45	16.05	16.70	19.35
0/200	*1000*	13.40	12.70	13.40	13.95	14.65	17.25
0/500	*200*	12.70	12.10	12.70	13.25	13.95	16.55

Zero center microammeters available for most models in 25/0/25,50/0/50, 100/0/100, 500/0/500 UA. Prices on request.

D.C. MILLIVOLTMETERS

0/50	*3*	12.00	11.30	12.00	12.55	13.25	15.85

D.C. AMMETERS

0/1	*0.005*	12.00	11.30	12.00	12.55	13.25	15.85
0/5	*0.004*	12.35	11.75	12.35	12.95	13.65	16.65

Above prices for 0/5 amp. range also apply to standard ranges of 0/10, 0/15, 0/25, 0/30*, 0/50* amps on all models.
No. 668 uses external shunt over 5 amps. See Shunt Table below.

D.C. VOLTMETERS

0/1	*1000Ω/V.*	12.80	12.25	12.80	13.40	14.05	16.65

Above prices also apply to standard ranges of 0/3, 0/5, 0/10, 0/15, 0/25, 0/30*, 0/50*, 0/100, 0/150*, 0/300* volts on all models.

0/500	*2000Ω/V.*		12.80	13.05	14.05	14.75	17.40

Above prices also apply to standard ranges at 0/600, 0/750 volts on all models except #668.

Quantity Prices on Request

NOTE:

If "in-between" ranges are required, add $3.00 to price of next higher range listed. If "zero-center" ranges are required, add $5.00 to price of that range. For in-between ranges on moving-coil type Voltmeter 150 volts and up, add $5.00 to next higher range.

Please specify type of case on order from chart above.

All prices are net — subject to change or withdrawal without notice.

(1) Models marked also available in surface mounting metal case. Unless specified, all meters are calibrated on non-magnetic panels. If steel panels are used, give thickness of steel and size of panel hole (No extra charge).

(2) Bezels for behind panel mounting of models 2015, 2025, 2035, 2045 add /B to model no. $1.95 extra.

* These ranges carried IN STOCK . . . Models #582, 597, and 647 only (For non-magnetic panels).

METER SIZE		MODEL DC	MODEL AC	CASE TYPE PANEL MTG.	SCALE LENGTH DC	FLANGE	BODY DIAM. AC - DC	BODY DEPTH AC - DC
1½"		668	669R	Styrene Sq.	1.800"	1.740"	1.500"	1.000"
1½"	(2)	2015B	—	Styrene Sq.	1.800"	1.740"	1.500"	1.000"
2½"		17/3	552	Bakelite Rd.	2.015"	2.690"	2.200"	1.375"
2½"		1025	1026	Styrene	2.500"	2.87" x 2.59"	2.160"	1.120"
2½"	(2)	2025	2026	Styrene	2.500"	2.81" x 2.37"	2.160"	1.120"
2½"		635	636	Bakelite Sq.	2.015"	2.375"	2.200"	1.400"
2½"		649	650	Styrene Sq.	2.480"	2.625" x 2.375"	2.200"	1.125"
2½"		673-S	674	Styrene Edgewise	2.500"	3.25" x 1.00"	2.500"	3.210"
3½"	(1)	17/L	560	Metal Rd. Flush	2.480"	3.219"	2.500"	1.500"
3½"		582	584	Bakelite Rd.	2.720"	3.500"	2.750"	1.375"
3½"		1037	1038	Styrene	3.812"	3.500"	2.750"	1.125"
3½"	(2)	2035	2036	Styrene	3.435"	3.50" x 2.97"	2.750"	1.100"
3½"		597	598	Bakelite Sq.	2.720"	3.000"	2.750"	1.375"
3½"		653	654	Styrene Sq.	3.435"	3.375" x 3.125"	2.750"	1.125"
3¾"	(1)	570	580	Metal Rd. Flush	2.850"	3.750"	3.000"	1.688"
3¾"		607	610	Bakelite Sq.	2.850"	3.625" x 3.313"	2.250"	1.063"
4¼"		641	642	Styrene	4.250"	4.500" x 3.844"	2.750"	1.125"
4½"	(1)	574	617	Metal Rd. Flush	3.875"	4.500"	3.750"	1.594"
4½"		600	601	Bakelite Sq.	4.034"	4.500" x 4.000"	2.750"	1.063"
4½"		645	646	Styrene Sq.	4.470"	4.625" x 4.188"	2.750"	1.125"
4½"		647	648	Bakelite Sq.	4.470"	4.500" x 4.188"	2.750"	1.125"
4½"		680	681	Bakelite Sq.	4.470"	4.652" x 4.188"	2.750"	1.125"
4½"		1045	1046	Styrene	4.500"	4.81"	2.750"	1.125"
4½"	(2)	2045	2046	Styrene	4.500"	4.50" x 4.03"	2.750"	1.090"
6"		1060	1061	Styrene	5.375"	6.000" x 4.500"	2.750"	1.100"
6"		2060	2061	Styrene	5.375"	5.72" x 4.49"	2.750"	1.100"
8"		2080	2081	Lucite	9.125"	7.75" x 6.56"	3.500"	1.100"

STANDARD SWITCHBOARD SHUNTS AND AMMETER RANGES

On High Current Ammeters, add 0/50 millivoltmeter price to external shunt price below. Shunts include 3 ft. leads. Standard Ammeter and Shunt Ranges on types 17/3, 582 and 647 only; others listed are special ranges at slight extra cost.

0/25 —$9.50	0/30 —$9.50	0/50 —$ 8.35	0/75 —$ 8.35	0/100—$ 8.35	0/150 —$ 8.35
0/200—$8.35	0/300—$9.70	0/500—$14.60	0/600—$17.55	0/800—$22.20	0/1000—$32.25

Hoyt SINCE 1904

HOYT ELECTRICAL INSTRUMENT WORKS, INC.

BURTON-ROGERS COMPANY SALES DIVISION

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HOYT ELECTRICAL INSTRUMENTS

Precision Quality and Craftsmanship Since 1904

PRICES SUBJECT TO CHANGE

Hoyt SINCE 1904

HOYT A.C. Meters for indicating 60 cycle Voltage and Current are of the repulsion type with pneumatic damping. Furnished in the same case styles and sizes as HOYT D.C. Meters, they match the D.C. meter where both types are used on the same panel. See DC-AC Specification Chart on opposite page. Accuracy is 2%. A choice of pointers is available, and special shields can be supplied at additional cost.

VU METERS, with "A" scale, available in #649, #653, #645, #647, and #680 case styles. Prices on request.

NOTE: A. C. Meters calibrated at any special frequency. Prices on request.

PRICE LIST:

Range	Approx. Resist.	PANEL MOUNTING 2½"	3½"	3¾"	4½"	6"	8"	PORTABLE 3" x 4"	5" x 4"
					# 617			#562*	#517*
			#2036		# 601			*Prices on request	
		#2026	# 560		# 648			**NOTE:** Bezels for behind panel mounting of models 2026 - 2036 - 2046 — add /B to model no. $1.95 extra.	
		#1026	#1038		# 642				
		# 552	# 654		# 646				
		# 636	# 584	# 580	#1046	#1061			
		# 650	# 598	# 610	#2046	#2061	#2081		

A.C. MILLIAMMETERS

0/6	*6000*	$12.10	$12.95	$13.55	$14.40	—	—	—
0/10	*2700*	10.90	11.80	12.40	13.25	15.85	—	—

Prices for ranges: 0/30, 0/50, 0/100, 0/150, 0/200, 0/300, 0/500 MA for all models — same as 0/10 MA. range above

A.C. AMMETERS

0/1	*0.271*	10.90	11.80	12.40	13.25	15.85	—	—

Above prices also apply to all models of standard single ammeter ranges—0/3, 0/5*, 0/10, 0/15, 0/25, 0/30*, 0/50* amps. A.C. Ammeters are self-contained to 50 amps.

For High Current Ranges—See Transformer Section below.

A.C. VOLTMETERS (Repulsion Type)

0/25	*1476*	11.30	11.80	12.55	13.25	15.85	—	—

Above prices also apply to all models in standard ranges of 0/30, 0/50, 0/100 volts.

0/150*	*25,000*	12.35	13.00	13.60	14.40	16.90	—	—
0/300*	*50,000*	12.35	13.00	13.60	14.40	18.20	—	—
0/500	*83,300*	—	18.75	19.30	19.95	22.65	—	—
0/600*	*99,960*	—	18.75	19.30	19.95	22.65	—	—

Quantity Prices on Request

*These ranges carried IN STOCK on Models #584, #598 and #648 only (calibrated for non-magnetic panels).

NOTE: If "in-between" ranges are required, add $3.00 to next higher price as shown above (add $5.00, if above 150 volts). Standard calibration is for non-magnetic panels. Steel panel calibration at no extra charge if order specifies thickness of steel and size of panel hole. Please specify type of meter case.

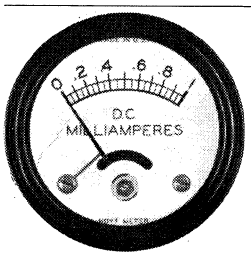
DIAL COSTS: Standard range dials only—$1.00 each; special hand drawn single range dials Prices on Request; other custom dials on special order.

HIGH CURRENT DONUT TYPE TRANSFORMERS (In Stock)

For prices on HIGH CURRENT AC AMMETERS, add price of ammeter model above to transformer price below, plus an additional $4.00 except on model #552, #584, and #648. Transformers have 2-ft. leads and 2 VA burden. Other ranges available on request.

50/5	$10.10	100/5	$10.10	200/5	$10.10	500/5	$18.20
75/5	10.10	150/5	10.10	300/5	10.10	600/5	18.20

MOVING MAGNET INDICATORS



MODEL No. 640, D.C. 2¼" Metal Case

Feature long scales, accuracy within 5%. Attractive appearance with sturdy movement; round or square cases at low cost. Standard finish on metal cases is black. Chrome Plate is available at slight additional cost. Many types of mounting arrangements available.

MODEL DC	MODEL AC	CASE TYPE PANEL MTG.	SCALE LENGTH DC	SCALE LENGTH FLANGE	BODY DIA. DC	BODY DEPTH DC
640	531AC	Nar. Metal Rd.	1.400"	2.281"	2.000"	1.078"
640	531AC	Metal Surface	1.400"	2.375"	2.000"	—
693	594	Metal Sq.	1.400"	2.625"	2.000"	0.563"
793†	794	Plastic Sq.	1.715"	2.375"	2.000"	0.500"
740	741	Plastic Rd.	1.715"	2.375"	2.000"	0.520"
795	796	Plastic Sq.	1.715"	2.375"x2.81	2.000"	0.520"

D.C. MILLIAMMETERS

Range	Approx. Resist.	#640	#693	#740 #793†
0/1	*1000*	$4.45	$4.50	$4.85
0/3	*700*	3.30	3.40	3.70
0/5	*480*	3.05	3.10	3.40
0/10	*180*	2.85	2.75	3.20
0/15	*130*	2.40	2.45	2.85

Prices for 0/25, 0/30, 0/50, 0/100, 0/150, 0/200, 0/300, 0/500 MA. ranges:

	$2.35	$2.40	$2.80

† or 793-M Masked Front - Specify

D.C. AMMETERS

Range	#640	#693	#740 #793†
0/1	$2.35	$2.40	$2.80

Above prices also apply to 1/0/1, 3/0/3, 0/5, 5/0/5, 0/10, 10/0/10, 0/15 amp. ranges.

20/0/20	3.00	3.05	3.30

Above prices also apply to 0/25, 0/30, 30/0/30 amp. ranges.

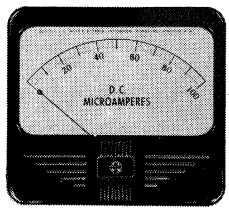
0/50	3.20	3.25	3.55
50/0/50	3.20	3.25	3.55
0/75	3.70	3.80	4.20
0/100	4.30	4.40	4.75

D.C. VOLTMETERS

Range	Approx. Resist.	#640	#693	#740 #793†
0/1		$2.35	$2.40	$2.80

Above prices also apply to 0/3, 0/5, 0/10, 0/15 volt ranges.

0/25	*1375*	2.80	2.85	3.15
0/30	*1650*	2.80	2.85	3.15
0/50	*2200*	3.00	3.05	3.30
0/100	*20,000*	3.00	3.05	3.30
0/150	*30,000*	3.05	3.10	3.40
0/300	*60,000*	4.10	4.20	4.50



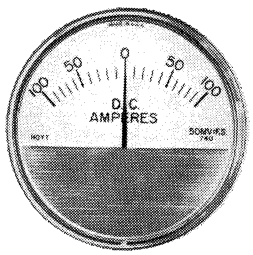
MODEL 647 D.C., 648 A.C.

5% RECTIFIER TYPE VOLTMETERS

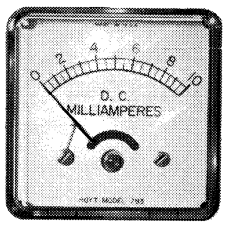
Available in the following ranges: 0/5, 0/10, 0/15, 0/25, 0/30, 0/50, 0/100, 0/150, 0/300 volts.

Above ranges apply to models #584-R, #598-R, #654-R at $17.00 ea.

Above ranges apply to models #642-R, #646-R, #648-R at $18.85 ea.



MODEL No. 740 D.C. Indicator. 2¼" Metal Case w/Plastic Front.



MODEL No. 793 D.C., Shown. No. 793-M type masked front. Also available, 2¼" Metal Case, or Metal Look but with Rectangular Plastic Front, Model 795.

NOTE: A.C. Vane Meters are furnished in quantity only. Prices on request.

NOTE: If in-between ranges are required—add $5.00 to next higher range price; for "zero-center ranges, add $5.00 to same range price.

NOTE: D.C. Ammeters up to 100 amps, have internal shunts.

HOYT ELECTRICAL INSTRUMENT WORKS, INC.

BURTON-ROGERS COMPANY SALES DIVISION

Hoyt SINCE 1904

© U.C.P., Inc.

J-B-T
28th Year

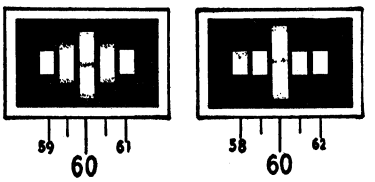
VIBRATING REED FREQUENCY METERS

J-B-T INSTRUMENTS, INC.

• **USES** — J-B-T Vibrating Reed Frequency Meters are used extensively in radio, telephone, and television service, on engine generator sets, in laboratories, in many types of electronic equipment, on panel and control boards, in inspection set-ups—wherever constant or known frequency is important to efficient operation of equipment. More than 25 years of continuous experience covering many thousands of these instruments are your assurance of quality for both commercial and defense applications.

• **OPERATING PRINCIPLE** — The patented, simplified design used in the J-B-T meter operates on AC or interrupted DC. Each reed is adjusted to respond by resonance to but one frequency. As the current excites the driving coil, the reed "in tune" with the frequency in the coil will respond by vibrating rapidly because of permanent magnet polarization and induced magnetism from the coil. The instrument is adapted to specified operating voltage by a series resistor. To determine frequency, simply read the reed.

• **RESPONSE PATTERNS** — These patterns differ with the increments of frequency between reeds. For example, at 60 cycles, half-cycle steps give the broad response shown below at left, whereas full cycle steps bring the sharp response at right. In general, the lower the frequency the greater the amplitude, the higher the frequency the less the amplitude. Thus a 12 cycle reed normally will have substantially greater amplitude than a 1000 cycle reed.



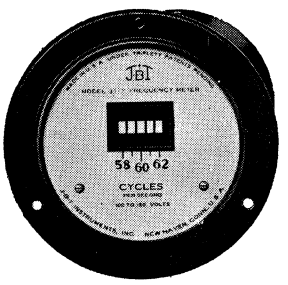
• **ADVANTAGES** — Guaranteed accuracy at reference temperatures of 77°F is ±0.3% or better of the AC frequency being measured, unless otherwise stated. Accuracy on interrupted DC may be somewhat less. High fatique safety factor for continuous operation. Temperature compensations are not required as temperature coefficient of reeds is only approximately 75 parts per million per degree F., negative.

• **STABILITY** — All meters are permanently calibrated at the factory and do not require subsequent adjustment. J-B-T reeds have relatively high Q characteristics, an especially desirable factor in electronic circuits. Wave form or external fields do not ordinarily have an adverse effect. Built with no pivoted parts and with lock washers at every critical point, these rugged meters can take rougher treatment than many instruments.

• **TRUST THE METER** — If a meter plugged in on a 60-cycle AC power line does not indicate exactly 60 cycles, trust the meter! Power supply may momentarily be off-frequency due to changing load conditions. All J-B-T Frequency Meters are meticulously calibrated at the factory, entirely independent of frequency of power supply. Production and inspection equipment are checked regularly against National Bureau of Standards frequency signals.

5 OR 7 REEDS

Used on standby power equipment. Handy for accurately measuring frequency of power source. 5 reeds (as illustrated), 58-62 cycles, or 7 reeds, 57-63 cycles, 100-130 volts. Other characteristics and accuracy same as Model 30-F. See Table of Dimensions, lines 4 and 5.



31-F, (illustrated) 58-62 cy., 5 reeds, 3-1/4" metal case **$26.65**

31-FX, 58-62 cy., 5 reeds, 3-1/2" Molded case, MIL-M-6B mtg.. **$23.65**

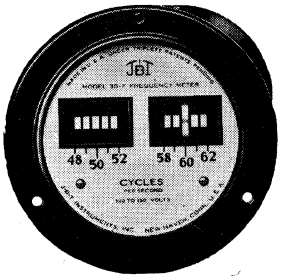
31-FX-7, 57-63 cy., 7 reeds, 3-1/2" Molded case, MIL-M-6B mtg.. **$25.85**

3" SQUARE-CASED FREQUENCY METERS

The meters described above are also available with square black molded cases designated as **FS series** per print SK-59, Rev. E For example, 30-FS is same as 30-FX except for the case.

REVISED DIAL APPEARANCE

Certain shipments during the life of this catalog will contain different dials from those pictured on these pages. Dials are being modified to show the revised J-B-T trademark adopted during the Silver Anniversary Year. At the same time, some 3½" frequency meters may also carry the phrase Series A after the model number (as in **34-FX** below) to denote improved ruggedness and sensitivity. Such instruments are completely interchangeable as to mounting dimensions and circuit requirements with the meters in this publication.



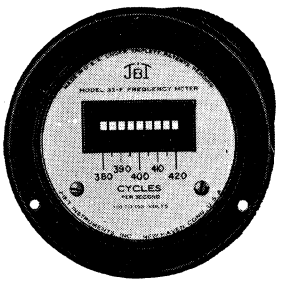
(Meter operating at 60 cycles)

10 REEDS

Range: 48-52 and 58-62 cycles. Double window for ease of reading either range. Often specified for export. 100-130 volts; 130 ohms per volt; 1 watt power consumption. Other voltages available on special order. Accuracy ±0.3% at reference temperature. Flush panel mounting. See Table of Dimensions, lines 4 and 5.

30-F, (illustrated), 48-52 and 58-62 cy., 3¼" Metal Case..... **$30.50**

30-FX, 48-52 and 58-62 cy., 3½" Molded Case, MIL-M-6B mtg..... **$27.50**

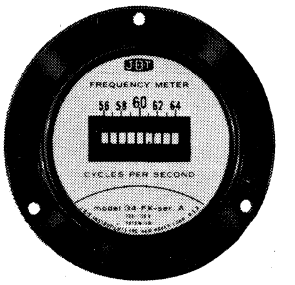


9 REEDS — 400 CY.

Used for measuring frequency of high-cycle power sources, particularly aircraft. Accuracy ±0.3% at reference temperature. Nine reeds, 380-420 cycle range. 100-130 volts; 90 ohms per volt; 1.5 watts power consumption. Other voltages available on special order. Flush panel mounting. See Table of Dimensions, lines 4 and 5.

33-F, (illustrated). 380-420 cy., 3¼" Metal Case **$37.10**

33-FX, 380-420 cy., 3½" Molded Case, MIL-M-6B mtg. **$34.10**



9 REEDS — 60 CY.

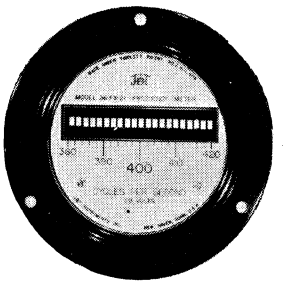
Covers a broad frequency band. Nine reeds, 56-64 cycles, or in half-cycle steps (accuracy ±0.2%) 58-62 cycles. 100-130 volts; 110 ohms per volt; 1 watt power consumption. Flush panel mounting. See Table of Dimensions, lines 4 and 5.

34-F, 56-64 cy., 3¼" Metal Case 1-cycle steps. **$30.25**

34-FX, (illustrated). 56-64 cy., 3½" Molded Case, MIL-M-6B mtg. **$27.25**

34-F-Z, 58-62 cy., 3¼" Metal Case, ½-cycle steps. **$31.90**

34-FX-Z, 58-62 cy., 3½" Molded Case, MIL-M-6B mtg. **$28.90**



18 OR 21 REEDS

Advanced design offers 21 reeds as an interchangeable 3½" panel meter with 2-cycle intervals for close reading over the band of 380 to 420 cycles per second. Accuracy ±0.3% at reference temperature. The reed flag size is necessarily smaller than in a 9-reed 400-cycle meter, such as the model 33-FX, but the 21 reeds are located in an enlarged window 2" wide with flags 3/32" high x 1/16" wide to give maximum readability. A patented internal construction for mounting the reeds in one clamp assures ruggedness. These instruments and their variations are particularly useful where unusually close indication of frequency throughout the band is desirable. See Table of Dimensions, line 5. All have 3½" Molded Case, MIL-M-6B mounting.

36-FX-21, (as illustrated). 380-420 cycles, 21 reeds, 28 volts operation, 3½" Molded Case; 18 ohms per volt; 1.6 watts power consumption. **$43.75**

36-FX-21-115, 380-420 cycles, 21 reeds, 100-130 volts; 90 ohms per volt; 1.5 watts power consumption **$45.00**

30-FX-18, (not illustrated). 46-54 and 56-64 cycles, 18 reeds in one window with two groupings, 100-130 volts; 320 ohms per volt; 0.35 watts power consumption **$47.50**

Prices Net, F.O.B. Factory; Individually Boxed, Domestic Packed, Effective January 1, 1966

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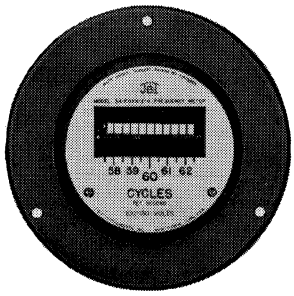
VIBRATING REED FREQUENCY METERS

J-B-T INSTRUMENTS, INC.

J-B-T 28th Year

3½" SEALED FREQUENCY METERS



FHXX TYPE Sealed meters, glass-to-metal construction, with solder terminals and detachable flange, supersede the former FHX sealed meters. While JAN-I-6, MIL-M-6B, and MIL-M-10304B (Type MR36) do not refer specifically to frequency indicators, the FHXX series uses the front mounting dimensions of these specifications, and meets or exceeds the sealing and electrical requirements including 3000 volt breakdown. Electrical characteristics and accuracy are the same as for corresponding F models without the HXX designation. Sampling procedure includes a test in water where the absolute pressure of the air above the water is reduced to 2.5 inches of mercury (approx. 57,000 ft. altitude) and is maintained for one minute. For dimensions, see Table, Line 8, and Print SK-51 Rev. E. Standard voltage is 100-130.

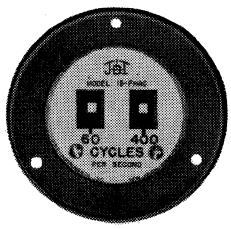
30-FHXX, 10 reeds, 48-52 cy. and 58-62 cy. **$34.30**
31-FHXX, 5 reeds, 58-62 cy. **30.45**
33-FHXX, 9 reeds, 380-420 cy. **40.90**
34-FHXX, 9 reeds 56-64 cy. **34.05**
34-FHXX-11, 11 reeds, 55-65 cy. **36.25**
34-FHXX-Z-11, illustrated, 11 reeds, 57.5-62.5 cy. **37.90**
36-FHXX-21, 21 reeds, 380-420 cy., 28 volts **50.55**
36-FHXX-21-115, 21 reeds, 380-420 cy., 100-130 volts **51.80**

2½" SEALED METERS

J-B-T manufactures 2½" sealed frequency meters which are similar to the 3½" sealed above, except with dimensions per Line 3 of Table.

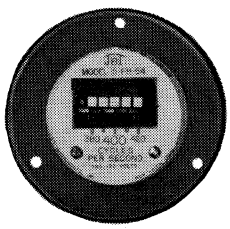
21-FHXX, 5 reeds, 58-62 cy., 100-130 volts **$34.85**
23-FHXX, 5 reeds, 380-420 cy., 100-130 volts (normally stocked) **$39.80**

1½" SEALED METERS



MODEL 15-FHAC. Widely used as the frequency standard on audio-oscillators, the model illustrated operates 2 reeds, 60 and 400 cycles, at approximately 8-10 volts on 0.04 watts for a cathode follower circuit. Accuracy ±0.5% at 77°F. Steel case has telephone black finish, solder terminals. Barrel is 1½" diameter; 2-3/32" detachable flange FL-4 covers glass-to-metal seal. See Table of Dimensions, line 1

15-FHAC **$20.30**



15-FH-5 METERS (lower photo) also use the 1½" black metal case with 2-3/32" detachable flange and glass-to-metal seal. The 15-FH-5 series features 5 reeds in a row for 100-130 volt operation. Specified where size and weight are important. Same sampling procedure as FHXX types above. Standard meters, but not regularly stocked. See Table of Dimensions, line 1.

15-FH-54, 5 reeds, 390-410 cycles, 1.25 watts power consumption **$25.85**
15-FH-56, 5 reeds, 58-62 cycles, 0.25 watts power consumption **$21.45**
15-FH-400, 5 reeds, 380-420 cy., 1.25 watts power consumption **$25.85**

RUGGEDIZED AND ILLUMINATED METERS

Model with "RUG"—Sealed vibrating reed frequency meters and sealed elapsed time meters are available, when so ordered, to the intent of MIL-M-10304B, which covers ruggedization of other kinds of meters. This feature usually is specified only for extra-severe shock and vibration.

LL Construction—Requirements for lighted meter dials have led to illuminating the 3½" FHXX Series of sealed meters. Light from a source behind the panel is admitted through a sealed window built into the meter case. Inquiries are invited.

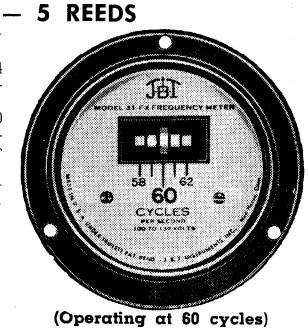
400 CYCLES, IN 1 CYCLE STEPS; 800 CYCLES

Among the variations which J-B-T produces on special order, are 21-reed, 390-410 cycles in 3½" case; and 11-reed; 780-820 cycles with 4-cycle increments. Quotations on request.

NOTE ON METER VOLTAGE

J-B-T Vibrating Reed Frequency Meters of all sizes normally are made with two studs and are designed to be connected across one phase of a multi-phase line. The single phase voltage where the meter will be used thus becomes the voltage to be specified for the meter. Special meters with extra studs are made for the purpose of using at two or more voltages, not additional phases.

2½" METERS — 5 REEDS

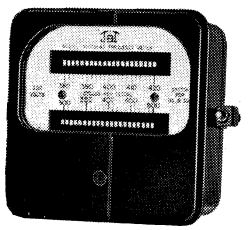


MODEL 21-FX, 23-FX. Matches other 2½" panel instruments. Meets ASA C39.1-1951 and MIL-M-6B (Type MR 24 or MR 25) in depth of case and mounting dimensions. Weighs only 4½ ozs.; 5 reeds, 58-62 cycles, 100-130 volts, 600 ohms per volt, 0.25 watt power consumption. At 400 cycles, 120 ohms per volt, 0.7 watts power consumption. Flush panel mounting; see print MD-20, Rev. B, also Table of Dimensions, Line 2.

21-FX, 58-62 cy.; 2-11/16" Molded Case, 1 cy. steps **$22.55**
23-FX-54, 390-410 cy., 2-11/16" Molded Case, 5 cy. steps **$27.50**
23-FX, 380-420 cy., 2-11/16" Molded Case, 10 cy. steps **$27.50**

(Operating at 60 cycles)

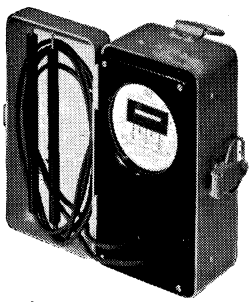
400 CYCLE BROAD AND VERNIER INDICATORS



MODEL 41-FX-42 (supersedes Model 41-FX) Widely used in commercial and military testing, this model provides two windows: for 300-500 cycles, 21 reeds in 10-cycle steps, and, for a vernier effect, 380-420 cycles with 21 reeds in 2-cycle steps. Black molded case, flush front is 4³⁄₆₄" high x 4³⁄₆₄" wide x 2¹⁷⁄₃₂" deep behind panel over studs. 100-130 volts is standard; also made with 4 studs for 200-240, 115 and 30 volts, 4.5 watts at 115 volts, 7.7 watts at 200 volts, 2 watts at 30 volts. For mounting, see Print MD-38-11.

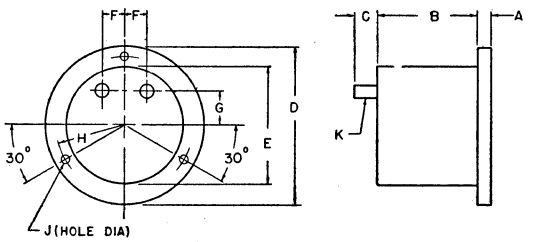
41-FX-42, 100-130 volts **$125.00**
41-FX-42, 3 voltages, without switch **140.00**

PORTABLE FREQ. TESTERS



FP SERIES, METAL OR MOLDED CASE. Accuracy of ±0.3% meets the exacting test requirements of aviation, signal, and communication equipment. **M-Types** use anodized gray aluminum case, 6³⁄₈" long x 4" wide x 3-9/32" deep. Leads permanently attached. See Print SK-63-10. With pertinent name plate, **33-FP-9M** is known as **TS-328 A/U. L-Types,** sturdy molded case within top grain leather carrying case 6-3/32" x 4¼" x 2¾"; 4' leads with 5" test picks and banana plugs.

33-FP-9M, (illustrated) 380-420 cy., 9 reeds, 100-130 volts, 70 ohms per volt, 1.5 watts power consumption; coml. quality and packing.... **$49.25**
34-FP-9M, 56-64 cy., 9 reeds, 100-130 volts, 130 ohms per volt, 1 watt power consumption, coml. quality and packing **$42.35**
33-FP-9L, 380-420 cy., 9 reeds, 100-130 volts **$47.60**
34-FP-9L, 56-64 cy., 9 reeds, 100-130 volts **$40.70**



FREQUENCY METERS AND FREQUENCY — TIME METERS, TABLE OF DIMENSIONS, INCHES

	MODEL	MIL-M-6B* MOUNTING	A	B	C	D	E	F	G	H	J	K	TERMINAL DESCRIPTION
Line 1	15-FH Series	—	⅛+	1⁵⁄₁₆	⅜	2³⁄₃₂	1½	⅜	⅜	0.875	·0.125		Solder, 1⁄₁₆" dia. hole
Line 2	21-FX and 23-FX Series	MR24, MR25	13⁄64	1⅜	23⁄32	2¹¹⁄₁₆	2⅝₃₂	7⁄16	9⁄16	1.220	0.116		10-32 NF-2A studs
Line 3	21-FHXX, 23-FHXX Series	MR26**	3⁄32+	1²⁷⁄₃₂	11⁄16	2¹¹⁄₁₆	2⅛	½	½	1.220	0.125		Solder, 3⁄32 dia. hole
Line 4	30-F to 34-F Series	—	7⁄64	2³⁄₃₂	23⁄32	3¼	2⁹⁄₁₆	7⁄16	⅞	1.453	0.150		10-32 NF-2A studs
Line 5	30-FX to 36-FX Series	MR34, MR35	19⁄64	2	23⁄32	3½	2¹¹⁄₁₆	7⁄16	⅞	1.580	0.150		10-32 NF-2A studs
Line 6	31-FE Series	—	7⁄64	3⅞	23⁄32	3¼	2⁹⁄₁₆	7⁄16	⅞	1.453	0.150		10-32 NF-2A studs
Line 7	31-FEX-1 Series	MR34, MR35	5⁄32	3⅞	23⁄32	3½	2⁹⁄₁₆	7⁄16	⅞	1.580	1.150		10-32 NF-2A studs
Line 8	30-FHXX to 36-FHXX Series	MR36**	3⁄32+	2¼	⅝	3½	2¹¹⁄₁₆	½	¾	1.580	0.150		Solder, 3⁄32 dia. hole

*Also JAN-I-6 and ASA C39.1-1951 Mounting **Also MIL-M-10304B Mounting †Without gasket

Prices Net, F.O.B. Factory; Individually Boxed, Domestic Packed, Effective January 1, 1966

© U.C.P., Inc.

J-B-T
28th Year

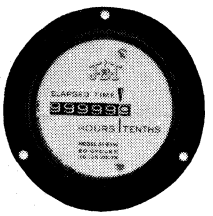
ELAPSED TIME METERS AND REED RELAYS

J-B-T INSTRUMENTS, INC.

• USES AND ADVANTAGES OF ELAPSED (OR RUNNING) TIME METERS

To record operating time of AC electrical and electronic equipment, these self-starting synchronous instruments normally register in 1/10th hour steps to 9,999.9 or 99,999.9 hours, then automatically reset. They are widely used for tube life, TV equipment, punch presses, conveyors, oil burners, ground support equipment, maintenance schedules, etc. J-B-T engineers recommend the AC type of elapsed time meter for superior accuracy, especially where voltage or ambient temperature vary widely.

6-Digit WIDE-NUMERAL ELAPSED TIME METERS

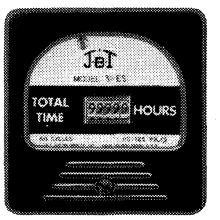


MODEL 31-EXW. Newest most easily-read, and most versatile of J-B-T elapsed time meters is Model 31-EXW, illustrated. Easily-read, wide 6-digit numerals register to 99,999.9 hours then automatically reset. Distinctive contemporary dial shows tenths in black on white, and units in white on black. The 3½" black molded case is interchangeable with Model 31-EX and FX types of frequency meters. Print SK-125 gives mounting information.

Model 31-EXW, 6-digits, 0-99,999.9 hours, 60 cy., 110-125 volts **$16.95**

SQUARE-CASED ELAPSED TIME METERS

MODEL 31-ES. A square black molded case, matching other 3" x 3" meters, differentiates this model from the round 31-EX. Ask for Print SK-110, Rev. F showing standard rear mounting 2¼" bet. centers of molded-in studs, new rugged case with overall depth 3-11/32" behind flange, and electrical studs on center line. Variations can be made for 99,999 hours (suffix U), 230 volts, minutes, matte finish, or 50 cycles.



31-ES, 60 cy., 110-125 volts, 0-9,999.9 hours. **$17.50**

3½" SEALED ELAPSED TIME METERS — 60 Cycles

MODEL 31-EHXX. Where rugged requirements make a completely sealed elapsed time meter desirable, this glass-to-metal construction with flat glass front and 3½" diameter separable flange, often is specified. Heavy-duty solder terminals are supplied. Every instrument is checked in a vacuum chamber. Overall dimensions and appearances match the FHXX series sealed frequency meters. Maximum voltage between terminals and case, 1,000 volts, R.M.S. The meter registers in 1/10 hour steps to 9,999.9 hours, then automatically resets. Tenths indicator is red on white, all others in white on black. Mount according to SK-85, Rev. C.

31-EHXX, 60 cy., 110-125 volts..... **$19.75**

3½" SEALED ELAPSED TIME METERS — 400 Cycles

MODEL 33-EHXX. This stable, self-starting 400-cycle elapsed time meter is extensively used for preventive maintenance and for reliability testing and checking in a wide variety of equipment. The instrument is entirely enclosed in a 3½" flanged case, glass-to-metal sealed construction with separable flange; heavy-duty solder terminals; flat glass front. 1/10 hours are shown in red on white, all other numerals white on black. The external appearance matches FHXX frequency meter series. For dimensional details see SK-61, Rev. B.

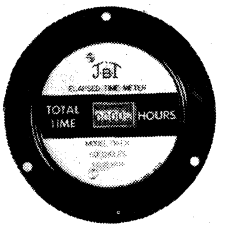
33-EHXX, 400 cy., 0-9,999.9 hours, 1/10 hour steps, 110-125 volts **$58.00**

2½" SEALED ELAPSED TIME METERS

MODEL 21-EHXX. A full size counter reading 9,999.9 hours in 1/10 hour steps and a rugged self-starting synchronous motor are built into this 2½" sealed meter. Its front mounting dimensions are the same as Type MR26 electrical indicating instruments in MIL-M-6B. Glass-to-metal seal makes the instrument completely tamper-proof. Ask for Print SK-68, Rev. G. (2½" 400-cycle meter, **Model 23-EHXX** also is made on special order.)

21-EHXX, 60 cy., 110-125 volts **$26.00**

BASIC 3½" ELAPSED TIME METERS



MODEL 31-EX. This self-starting instrument registers to 9,999.9 hours in 1/10 hour steps before automatically resetting. Red numerals on white are used for tenths, all others are white on black. Black molded case matches FX series 3½" frequency meters and completely encloses all parts. This case, with centered terminals, meets type MR34 or MR35 mounting dimensions of MIL-M-6B, also JAN-I-6. Referring to line 5 of the Table of Dimensions on the preceding page, barrel depth (B) is 2½", stud height above center (G) is zero, dimension (F) is ½", and all other measurements are as shown. Types for 99,999 hours, or 50 cycles, or special voltages are available on special order. Mount according to SK-80, Rev. E.

31-EX, 60 cy., 110-125 volts **$16.75**

31-EX-200, 60 cy., 230 volts (not regularly stocked) **$17.50**

New **MODEL 31-EXW-5.** This model with five wide numerals is electrically and mechanically interchangeable with Model 31-EX and is highly recommended for new equipment. Because of its superior visibility, rugged construction, and attractive price, it is expected to supplant the 31-EX. Mounting is also the same as Model 31-EXW, per Print SK-125.

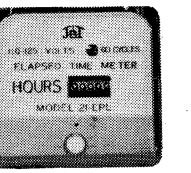
31-EXW-5, 60 cy., 110-125 volts **$16.50**

ELAPSED TIME METERS — Tenths of Minutes

MODEL 31-EXM, 60 cycles, 110-125 volts, reading 0-9,999.9 **minutes;** for short-run applications or readings at closer intervals than 31-EX. Tenths of minutes in red on white, minutes in white on black numerals, otherwise identical with 31-EX **$17.05**

CLEAR-PLASTIC ELAPSED TIME METERS

EPL TYPE. The modern clear-plastic front gathers light from every side and is compatible with many other instruments. A sturdy metal case with solder terminals is used behind the panel. The 2½" size is 2-19/32" wide x 2⅜" high with 2⅛" diam. meter barrel, per print SK-102, Rev. C. The 3½" is per print SK-108, Rev. C.



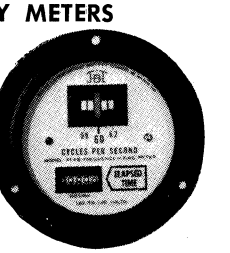
21-EPL, 2½" size (illus.), 60 cy., 110-125 v., 0-9,999.9 hrs. **$25.75**

31-EPL, 3½" size (not illus.), 60 cy., 110-125 v., 0-9.999.9 hrs. **$28.75**

RUGGEDIZED METERS TO MIL-M-7793C

This specialized specification at present omits the popular 3½" sealed sizes. J-B-T 2½" and 3½" round sealed and ruggedized types can be certified as to various test conditions under present MIL-M-7793C and General Meter Specification MIL-M-10304B. Inquiries are invited on smaller sizes to MIL-M-7793C and subsequent revisions as they are released.

ELAPSED TIME — FREQUENCY METERS

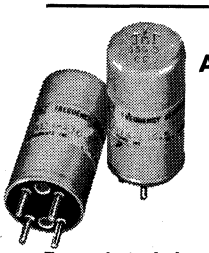


31-FE SERIES. To conserve panel space and centralize information, this panel instrument combines elapsed time or running time meter with frequency reeds. It is used on motor generator sets and on electrical equipment where maintenance routine calls for periodic servicing. The J-B-T design, proved by years of field experience, uses a separate exciting coil for the reeds to achieve close control of reed amplitude and frequency. Reads 0-9,999.9 hours and 58-62 cy. with 5 reeds, for 100-130 volt operation; self starting. Tenths shown in red on white, all other numerals in white on black. Black metal case with front mounting per Table of Dimensions, line 6. Power consumption is 4.7 watts. For variations having 7, 9, or 11 reeds, not regularly stocked, such as Model 34-FE, see print SK-45. Rev. D.

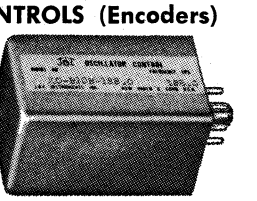
31-FE, 3¼" metal case 4-19/32" deep, ... **$33.00**

31-FEX-1, (per print SK-44 Rev. F—not regularly stocked) like Model 31-FE, except with 3½" metal flange permanently attached for MIL-M-6B front mounting per line 7, Table of Dimensions **$34.10**

RESONANT — REED RELAYS (Decoders) AND OSCILLATOR CONTROLS (Encoders)



Typical Frequency Sensitive Relays RR-A11A-136.5



Typical Sealed Oscillator Control RO-B10B-188.0

For technical description of J-B-T frequency-sensitive electromechanical control devices, see Bulletins 162R and D664A; for representative models and prices, see Section 5100 of this book.

Prices Net, F.O.B. Factory; Individually Boxed, Domestic Packed, Effective January 1, 1966

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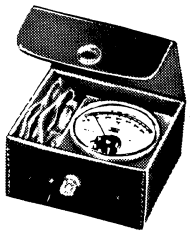
TEMPERATURE TESTERS AND ACCESSORIES

J-B-T INSTRUMENTS, INC.

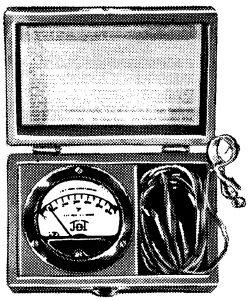
J-B-T 28th Year

FOR APPLIANCE SERVICING, QUALITY INSPECTION, AND LABORATORY SET-UPS

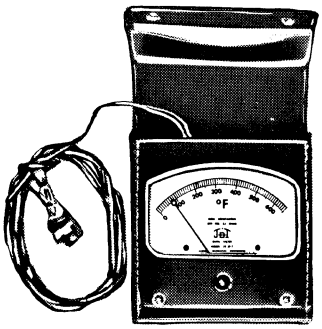


OVEN OR HEAT CHAMBER TESTERS

MODEL 23-JP-1. This popular portable indicating pyrometer saves time and furnishes reliable information in testing and setting thermostats on electric or gas ranges and other appliances by showing oven temperatures as they change. Standard size dial, 0-650°F., with 2⅜" scale arc reading, is used but covered by clear-plastic instrument front. The indicator is mounted on a black metal panel affixed inside a pocket-sized, black top-grain leather case 4½" x 2⅞" x 4¼" over hardware. Characteristic of more expensive pyrometers, the 23-JP-1 is automatically compensated for ambient temperature. Thus the tester eliminates calculations, avoids likelihood of serious error as temperature changes inside the instrument itself, and gives reliable direct readings. Supplied with attached SA-116, 5½' calibrated thermocouple, clip, and convection shield **$26.00**

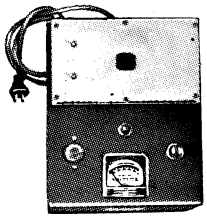


MODEL 32-JP-3. This time-tested model uses a rigid outer carrying case 6"x3⅞"x3¾". The glass-covered indicator shows 0-650°F. range in 10° divisions readable to 2½° on a 2⅜" scale arc. Exceptionally fast, continuous response. Automatic compensation for ambient temperature is a valuable feature whether the tester is used for service work, sales demonstrations, or inspection. Attached SA-116, 5½' thermocouple, clip for affixing to grill and convection shield included **$28.00**



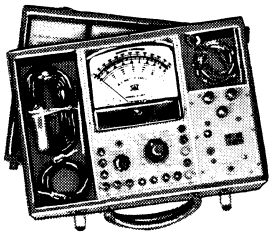
NEWEST MODEL 32-JP-7. Most versatile, and easiest to read of J-B-T temperature testers, Model 32-JP-7 offers a 650°F scale more than 4" long. Automatic compensation for ambient temperature is included, so that temperatures are read directly and without calculations. The 32-JP-7 also provides color-coded external binding posts. These permit quick attachment or interchanging of various J-B-T thermocouples placed in one or more of the heat zones to be checked. An SA-116 5½' thermocouple with attachment clip and convection shield is supplied and is left attached when the tester is carried. For maximum usefulness in checking irons, washers, toasters, clothes dryers, etc., use appropriate accessory thermocouples. Tester price includes stitched Ever-ready case, 5" wide x 5½" high x 2¾" deep, of sturdy, scuff resistant black vinyl. **$29.50**

IRON TESTER



MODEL 32-JIT. Self-contained bench-type tester; checks all makes of irons; measures thermostat temperatures; shows open or short circuits. Automatically compensated for room temperature. Also indicates operating temperature of the sole plate (working surface) on non-electric or cordless irons. Black metal base; overall size 10" x 12" x 5½", scale 0-650°F, 15 amp fuse, 6' cord, 110 volt, 50-60 cycles. **$34.50**

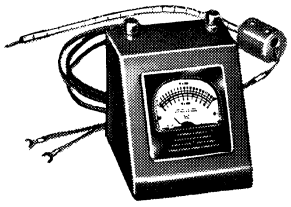
MULTI-PURPOSE TESTER



MODEL 61-JRT. A 9-in-1 tester to speed accurate temperature adjustment and electrical analysis of ranges, refrigerators, test apparatus, etc. Rapidly reads four cold zones —100°F, +80°F. up to 14' distant; two heat zones 0-600°F. up to 5½' distant; one voltage range 0-300 AC; and, with transformer, two current ranges, 0-30 and 0-60 amps, AC. Sturdy, polished walnut case, 15½" x 10-3/16" x 4¾". Two color etched metal panel. Separate switches protect bulb and ammeter circuits. Requires one standard flashlight cell, replaceable in the field. Temperature accuracy ±2% of full scale; rectified AC readings ±5%. Accessories as listed may be added for testing appliances. Includes two SA-162 resistance bulbs, two SA-116 thermocouples, electrical leads, and AS-TR-2 built-in transformer. **$124.00**

MODEL 61-JRT (LESS TRANSFORMER). Same unit, same scales except no reading in amperes; AS-TR-2 transformer omitted. **$110.00**

HEAT INDICATORS



MODEL 32-J PYROMETER IN SN-7 STAND. Mounted in sloping front black metal stand, 4¼" high x 4⅜" deep x 4⅛" wide. Compensated for ambient temperature. Medium resistance system, damped for quick reading on 2⅜" scale, assures ruggedness and pointer stability. For ±2% accuracy, use only the type and resistance of thermocouple and lead provided; if extra length—coil it—to maintain calibration. A protection tube usually is not required. For convenience keep an extra thermocouple and lead on hand.

MODEL 32-J IN SN-7 STAND (Supersedes SN-3 Stand)

0° — 650°F-350°C, includes SA-91 thermocouple, SA-84 lead, and CB-1 connector block **$33.50**

0°-1200°F-650°C, includes SA-87, SA-82, and CB-1 ..... **33.50**

0°-2000°F-1100°C, includes SA-87, SA-82, and CB-1 ..... **33.50**

MODEL 32-J IN·SN-8 STAND (not illustrated). With 3 binding posts to accommodate flexible extra lead and thermocouple for hard-to-reach locations. 0°-650°F including SA-91 thermocouple, SA-84 lead, CB-1 connector block, and SA-86 flexible leads and thermocouple. **$37.50**

TEMPERATURE TESTER ACCESSORIES

Model No.	Range F°	CONDUCTORS Length	Wire Gage Size	Positive	Negative	Use With	Construction	Price
LEAD WIRES†								
SA-82	194°	6'	14 Ga. Stranded	Red-Copper	Yellow-Const.	32-J in SN-7; 60-JP; 60-JPS	Compensating Lead for use with chromel-alumel thermocouples;	**$1.70**
SA-83	194°	26'	14 Ga. Stranded	Red-Copper	Yellow-Const.	70-J	flexible duplex with moisture and flameproof outer braid.	**5.35**
SA-84	392°	6'	14 Ga. Stranded	White-Iron*	Red-Const.	32-J in SN-7; 32-J in SN-8	Extension lead for use with iron-constantan thermocouples; flexible	**1.70**
SA-85	392°	26'	14 Ga. Stranded	White-Iron*	Red-Const.	70-J	duplex with moisture and flame-proof outer braid.	**5.35**
THERMOCOUPLES†								
AS-TH-1	0-1200	30"	20 Ga. Solid	Iron-Black*	Const.-Yellow	31-JPP; 31-JPP-C	Welded inside seamless steel tube ¼" O.D. for immersion in molten metal.	**On Appl.**
IT-1	0-650	—	—	—	—	32-JP-7; 61-JRT	Accessory Iron Tester, same as 32-JIT except there is no meter.	**18.00**
SA-86	0-650	7'	20 Solid	Iron-Black*	Const.-Yellow	32-J in SN-8; 60-JP; 60-JPS	General purpose combination thermocouple and lead.	**2.05**
SA-87	0-1200, 0-2000	12"	14 Solid	Chromel	Alumel	32-J in SN-7	For high temperatures, insulated and protected with 2-hole ceramic	**3.40**
SA-88	0-1200, 0-2000	24"	14 Solid	Chromel	Alumel	60-JP; 60-JPS	beads; fits 5/16" hole.	**4.25**
SA-91	0-650, 0-1200	12"	14 Solid	Iron-Black*	Const.-Yellow	32-J in SN-7; 32-J in SN-8	For intermediate temperatures, insulated and protected with 2-hole	**2.90**
SA-92	0-650, 0-1200	24"	14 Solid	Iron-Black*	Const.-Yellow	70-J	ceramic beads; fits 5/16" hole.	**3.75**
SA-113	0-650	35'	20 Ga. Solid	Iron-Black*	Const.-Yellow	Former Model 32-J	Disc-type junction for attachment flush to surface.	**5.75**
SA-114	0-650	35'	20 Ga. Solid	Iron-Black*	Const.-Yellow	Former Model 32-J	Needle-type junction for soft material or crevices.	**5.75**
SA-115	0-650	35'	20 Ga. Solid	Iron-Black*	Const.-Yellow	Former Model 32-J	Ball-type, all-purpose junction. (asbestos-insulated twisted pair)	**5.50**
SA-116	0-650	5½'	22 Ga. Solid	Iron-Black*	Const.-Yellow		Convection shield & clip for attachment. (asbestos-insulated twisted pair)	**2.00**
SA-175	0-650	5½'	22 Ga. Solid	Iron-Black*	Const.-Yellow	23-JP-1;	Ball-type tip, for roasters, waffle irons, etc. (asbestos-insulated twisted pair)	**1.60**
SA-176	0-650	5½'	22 Ga. Solid	Iron-Black*	Const.-Yellow	32-JP-3; 32-JP-7	Disc-type tip, for toasters, etc. (asbestos-insulated twisted pair)	**3.00**
SA-188	0-650	5½'	22 Ga. Solid	Iron-Black*	Const.-Yellow	60-JRT; 61-JRT	Copper tube enclosed tip, for automatic washers, etc. (asbestos-insulated twisted pair)	**4.50**
SA-199	0-650	5½'	22 Ga. Solid	Iron-Black*	Const.-Yellow		Shield and clip, duplex nonfraying glass braid, for frequent use above 400°F.	**2.65**
SA-300	0-650	5'	22 Ga. Solid	Iron-Black*	Const.-Yellow		Spring type in transite tip with handle, for rapid reading of surfaces.	**8.00**
SA-304	0-650	25'	20 Ga. Solid	Iron-Black*	Const.-Yellow	32-JD in SN-7	Disc-type junction for attachment flush to surface. (asbestos-insulated twisted pair)	**5.25**
SA-305	0-650	25'	20 Ga. Solid	Iron-Black*	Const.-Yellow	32-JD in SN-7	Needle-type junction for soft material or crevices. (asbestos-insulated twisted pair)	**5.25**
SA-306	0-650	25'	20 Ga. Solid	Iron-Black*	Const.-Yellow	32-JD in SN-7	Ball-type, all-purpose junction. (asbestos-insulated twisted pair)	**5.00**
RESISTANCE BULBS								
SA-142	—100 to +160	14'	Polyethylene Ribbon Lead	No Polarity		60-JRT only	Thin, flat, copper clad bulb 3x1⅜x⅛"; with polyethylene ribbon lead. Doors of appliances may be closed without damaging it.	**6.50**
SA-162	—100 to +160	14'				61-JRT		**6.50**
SA-190**	—100 to +160	8'				Custom		**6.50**
SA-308	—100 to +160	8'				Custom		**5.25**
SA-309	—100 to +160	8'				Custom	Thin, fast-responding, plastic-sheathed bulb.	**4.50**
CONNECTOR BLOCKS								
CB-1	0-2000	1½"lg. x 1⅜" Dia.	—	As marked	As marked	All ceramic bead type thermocouples	Lava block, includes heavy brass connectors for low contact resistance.	**1.85**

NOTES: *Iron constantan is RP1080 calibration †For best results thermocouples and leads should be as stated on instrument dials.
**Has plug terminals; all other accessories have spade terminals.

Prices Net, F.O.B. Factory; Individually Boxed, Domestic Packed, Effective January 1, 1966

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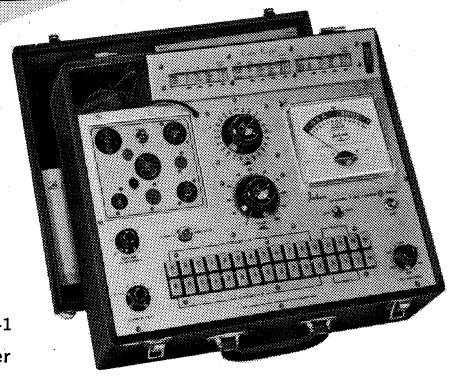
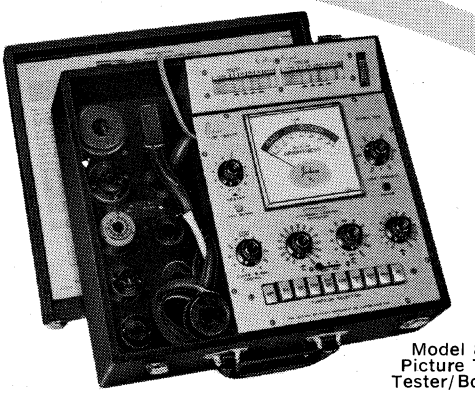
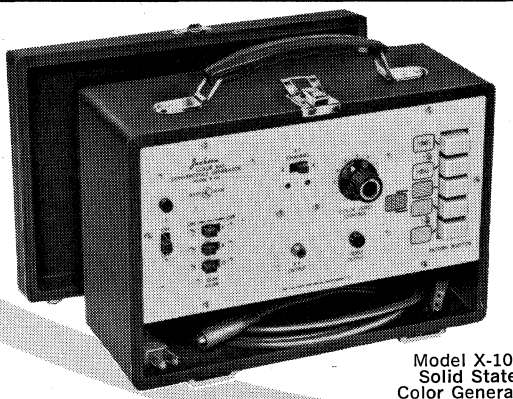
Jackson "Serviced Engineered" Test Equipment



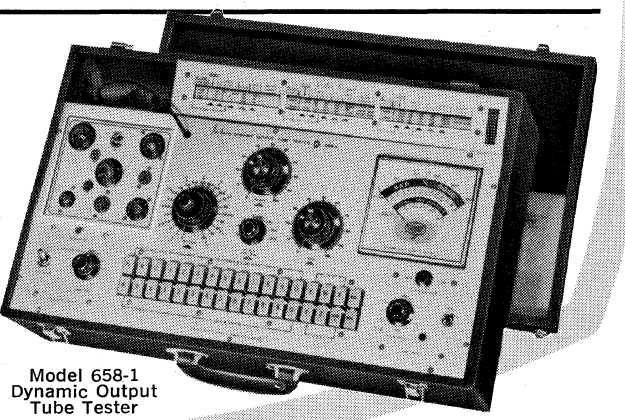
Model 648-1
Dynamic
Tube Tester



Model 825
Picture Tube
Tester/Booster



Model X-100
Solid State
Color Generator



Model 658-1
Dynamic Output
Tube Tester

Model 648-1 DYNAMIC TUBE TESTER

The Model 648S reflects over fourteen years of constant improvement and development. Its outstanding quality and versatility has been proven right in the field by thousands of servicemen.
• Exclusive color keyed panel makes this unit faster to set up—easier to use... and applicable for *do-it-yourself* operation • Best for servicemen... more accurate and completely versatile for all new tubes • First with push-button sequence switching... makes set-up time less than tube warm-up time • Semi-conductor rectifier for instant warm-up • 23 separate heater voltages from .75 to line voltage • Variable sensitivity shorts test... up to 2 megohms • Automatic line voltage indicator • Angled view zig-zag *exclusive color coded* roll chart. Size: 16¼"Wx14"Dx6¾"H.

Shipping Wt. 21½ lbs. *Dealer Net* **$179.95**

Model 825 PICTURE TUBE TESTER/BOOSTER

The Model 825 is designed to test and repair both black/white and color picture tubes. It has features most desired by the TV servicemen. It will make more accurate checks than any other make. Color keyed... pushbutton operation for fast, easy use.
• 12 separate heater voltages, including color • Continuity and leakage checks • Line indicator control for accurate voltages • FM tuning eye tube indicates continuity or leakage... no separate lights to interpolate • Emission test • Picture tube cut-off test • Life test • Removes shorts • Welds cathodes • Boosts picture tubes back to life • Grid guard limits peak current for protection of picture tube • Separate variable voltages applied to G1-G2 of picture tube • Angled view roll chart... tube set-up information always at your finger tips • Checks each color gun separately • Plug-in socket cable for easy replacement or repair • Easy to keep up-dated. Size: 14¾"Wx13½"Dx5¾"H.

Shipping Wt. 16 lbs. *Dealer Net* **$119.95**

Model 658-1 DYNAMIC OUTPUT TUBE TESTER

The Model 658-1 was designed for the engineer, laboratory technician and serviceman who wants the finest tube tester available. It features the Jackson Dynamic Output test, which applies variable DC bias and AC signal voltage to the control grid, variable DC voltages to the plate and screen. A *low impedance bridge circuit* measures only the AC component of the plate current. This is the most valid kind of test as it checks the entire output curve of the tube. • Dynamic output merit test on all tube types • AC rectification test for diodes • 231 heater voltage settings • Grid leakage test up to 80 megohms • Actual operation on 'eye' tubes • Tests striking point and operating range for regulator and reference tubes • Push-button sequence switching for rapid set-up • Famous Jackson life-line test • Triple shorts sensitivity test • Angled view zig-zag roll chart • Line voltage control. Size: 20⅝"Wx13"Dx7⅜". **Shpg. Wt. 25 lbs.** *Dealer Net* **$234.95**

Model X-100 SOLID STATE COLOR GENERATOR

The Model X-100 provides an extraordinary range of patterns, enabling the serviceman to install and troubleshoot Color TV faster and more accurately. • Convenient push-button selector switches • *Solid State Circuit* • Crystal controlled... 3.58 MC color signal... 315 KC oscillator for positive stability • Color bars (NTSC colors)... each button provides 3 colors • Crosshatch provides perfect square for linearity adjustments • Horizontal lines can be adjusted from double to single line thickness • Small uniform dot pattern for more simple and accurate convergence • Gun killer switches • Lead piercing clips • Color video control • Blank raster • Video output • RF output on channel 3 or 4 controlled with convenient slide switch—adjusts for channel 5 through opening on panel • Line isolated. Size: 10"Wx6¼"Hx4½"D. **Shipping Wt. 9 lbs.** *Dealer Net* **$149.95**
Complete with Gun Killers

JACKSON ELECTRICAL INSTRUMENT COMPANY

Net

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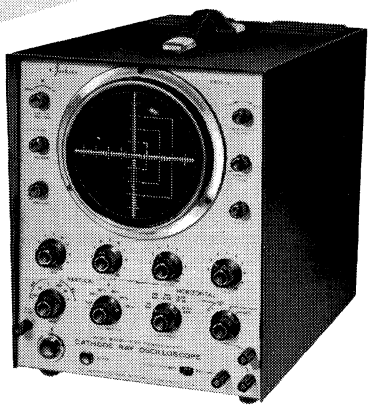
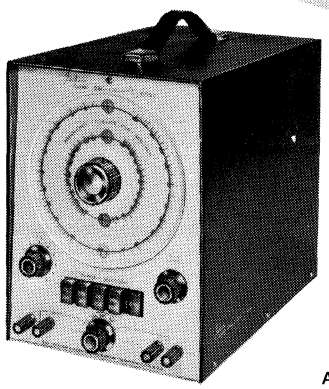
...for Service - Laboratory - Industry

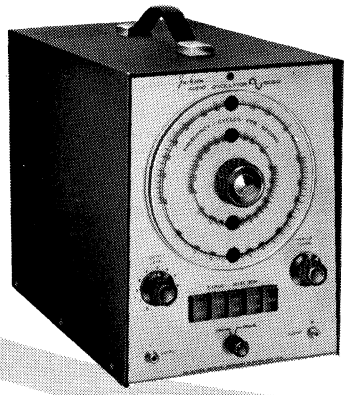
Jackson



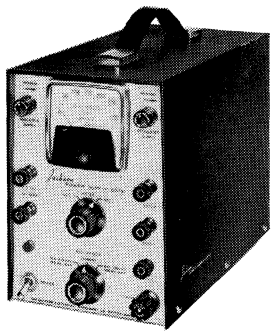
Model CRO-3
5-Inch Wide-Band
Sensitivity
Oscilloscope



Model 655D
Wide Range
Audio Oscillator



Model 605D
Audio Sine/Square
Wave Oscillator



Model 607D
Variable Regulated
Power Supply

Model CRO-3 5-INCH WIDE-BAND HIGH SENSITIVITY OSCILLOSCOPE

The Model CRO-3 is a laboratory quality scope with highly stable circuitry. It includes every feature required for accurate color and black/white TV work. Also widely used in many laboratory and industrial applications.

• Wide Band Amplifier, flat within 1 db 20 cycles to 5 mc • Two-range vertical deflection sensitivity from 0.018 rms volts-per-inch • Highly stable amplifier circuits...no balancing required • Positive or negative internal horizontal sync • Linear sawtooth oscillator, 20 cycles through 50 kc • Input calibrating voltage, 10 volts peak-to-peak • Vertical polarity reversal • Vertical sweep expansion • Return trace blanking • Z-axis modulation—internal, external or 60-cycle • Direct connection to deflection plates when required • Includes **LC10-P High Voltage Low Capacity Probe** • **DEM-P Demodulation Probe.**

Shipping Wt. 23 lbs. *Dealer Net* **$254.95**

Model 655D WIDE RANGE AUDIO OSCILLATOR

• Push button range selection • Exceptionally stable RC tuned sine wave generator • Frequency range 20 cycles to 200,000 cycles in 4 steps • Up to 500 milliwatt output • Output impedances of 10, 250, 500, or 5,000 ohms plus resistive output • Frequency characteristic within 1 db 30 to 15,000 cycles on transformer output • Accuracy, 3% or 1 cycle, whichever is greater • Sinusoidal Waveform • Hum level down 60 db at maximum output • Logarithmic calibration curve • Continuously variable output • Factory-calibrated for guaranteed accuracy. **Shipping Wt. 21½ lbs.**

Size: 7⅝"Wx13⅛"Dx10⅜"H. *Dealer Net* **$179.95**

Model 605D AUDIO SINE/SQUARE WAVE OSCILLATOR

The Model 605D is a precision audio generator with a choice of either sine wave or true square wave output. Square wave is *not* a clipped sine wave but is generated by a special Schmitt Trigger circuit. Features push-button range selection and variable output.

Range: 20 cycles to 200,000 cycles, sine or square wave in 4 ranges • **Accuracy:** 3% or 1 cycle, whichever is greater • **Output:** High impedance, continuously variable. Sine wave 0 to 5.0 RMS volts, Square Wave 20 mv to 7.0 P-P • **Sine Waveform:** Less than 1% distortion • **Output Level Characteristic:** ±1 db over full range • **Hum Level:** Down more than 50 db at all output levels • **Square Wave Rise Time:** Less than 0.2 μsec • **Square Wave Tilt:** 5% at 60 cycles. Less than 1% above 200 cycles.

Size: 7⅝"Wx13⅛"Dx10⅜"H.

Shipping Wt. 17½ lbs. *Dealer Net* **$144.95**

Model 607D VARIABLE REGULATED POWER SUPPLY

The Model 607D is a compact, easy-to-use, complete laboratory power supply which provides heater bias and variable regulated B+ voltages in one compact package.

DC Regulated Output: Low position 150 to 225 VDC, 0 to 100 ma. maximum, High position 225 to 300 VDC, 0 to 100 ma. Regulation—within 1.5%, no load to 100 ma. at 300 volts • **Ripple Content:** Bias supply—less than 0.003% at 20 ma. Regulated supply—less than 0.005% at 100 ma. • **Metered Output:** For Bias and Regulated B+ supply • **AC Heater Output:** 6.3 VAC at 3 amps maximum • **DC Bias Output:** 30 to 275 VDC, no load, 15 to 150 VDC at 20 ma. Size: 5⅛"Wx10⅝"Dx7⅝"H.

Shipping Wt. 11½ lbs. *Dealer Net* **$79.95**

All prices and specifications subject to change without notice.

JACKSON ELECTRICAL INSTRUMENT COMPANY

Mercury TUBE TESTERS FOR EVERY PURPOSE

Available KIT and WIRED

Model 1101 TUBE TESTER

A deluxe tube tester...will test the new DECALS, the new MAGNOVALS, new 7-PIN NUVISTORS and all popular PICTURE TUBES

Also tests Novars, Nuvistors, Compactrons, 10-pin types, battery type tubes, auto radio hybrid tubes, foreign and hi-fi tubes and most industrial tube types • Tests all tubes for dynamic cathode emission, shorts, grid leakage and gas • Exclusive 2-point test principle, greatest safeguard against obsolescence...assures full test of all sections of multi-section tubes • Shorts are detected in tubes even where internal pins are tied or heater is tapped • Long lasting phosphor bronze tube sockets • Two tone etched aluminum panel: Size 8⅛"x11⅜"x3¼"... Shipping Wt. 6 lbs.

KIT *Dealer Net* **$39.95** • **WIRED** *Dealer Net* **$69.95**

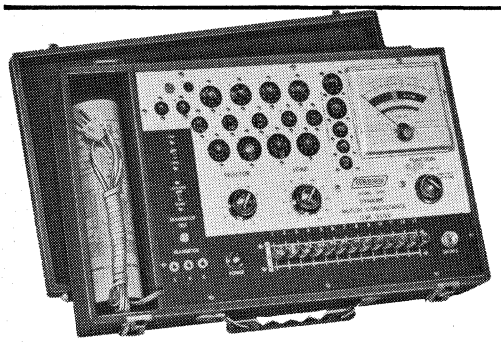
Model 1100A TUBE TESTER

Available KIT and WIRED

A dependable, professional performing tube tester at an economy price!

Tests more tube types than any other tester in its price range...Novars and Nuvistors, Compactrons and 10-pin types, Battery type, foreign and hi-fi tubes, Auto radio hybrid tubes and most industrial types • Tests all tubes for dynamic cathode emission, shorts, grid leakage and gas • Checks each section of multi-section tubes separately • Will detect any short in a tube, even where internal pins are tied or heater is tapped • Exclusive meter bridge circuit provides accuracy found only in more expensive testers • Size: 9"x8¼" x3¼"...Shipping Wt. 6 lbs.

KIT *Dealer Net* **$24.95**
WIRED *Dealer Net* **$34.95**

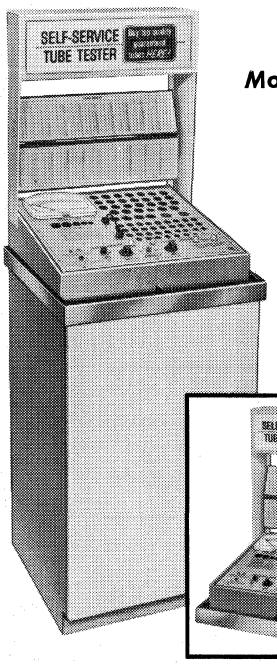


Model 2000 MUTUAL CONDUCTANCE TUBE TESTER

...engineered to test all the latest tube types...plus transistors

Tests all tube types, old and new, including the new **Magnovals**—new 7-pin Nuvistors—new 10-pin Decals—Compactrons, Novars, 10-pin types, foreign and hi-fi tubes, voltage regulators, battery type tubes, auto radio hybrid tubes, thyratrons and industrial tube types • Tests transistors • Tests tubes for true dynamic mutual conductance (GM) • Tests for shorts, leakage and gas • Tests Color and B/W picture tubes with the use of the MH-3 Multi-Head Adapter (optional) • Lever switch test principle overcomes obsolescence • Automatic line voltage regulation • Long lasting phosphor bronze tube sockets • Two tone aluminum panel • Size: 18¼"x10¾"x4¾"...Shipping Wt. 12½ lbs.

No additional charge for gun killers **WIRED** *Dealer Net* **$99.95**



MERCURY SELF-SERVICE TUBE TESTERS

Modern eye-stopping testers . . . big income producers in any location

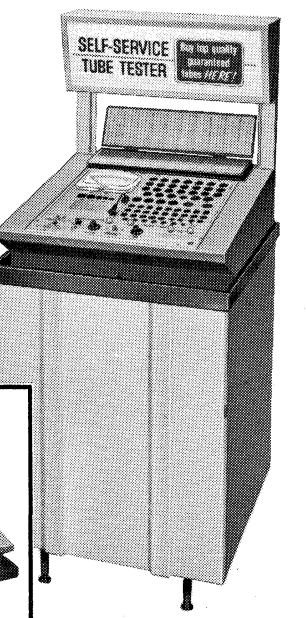
Here is everything you want in self-service tube testers at down-to-earth prices. **VERSATILITY**—Tests emission, shorts and gas of over 1700 tube types including the very latest NUVISTORS, NOVARS, COMPACTRONS, 10-PIN type, etc....Also tests fuses, pilot lights, 6 and 12 volt auto radio vibrators. **SMART APPEARANCE**—Modern cabinet design finished in rich 2 tone color combination. **QUALITY FEATURES**—Completely self-service...only two easy-to-use controls are required to test any tube...Easy-to-read quick flip tube charts list over 1700 tube types...Engineered to accommodate new tube types as they are introduced...Handsome aluminum panel always retains its rich appearance...68 phosphor-bronze and beryllium tube sockets assure positive contacts and long life.

Model 204LB
(Lo-Boy Floor Model)
Dealer Net **$209.95**

Model 204C
(Counter Model)
Dealer Net **$159.95**

Model 204X
(Deluxe Lo-Boy Floor Model)
Dealer Net **$239.95**

Model 204XC
(Deluxe Counter Model)
Dealer Net **$189.95**



UL and CSA approved

All prices and specifications subject to change without notice.

MERCURY ELECTRONICS CORP.

Net

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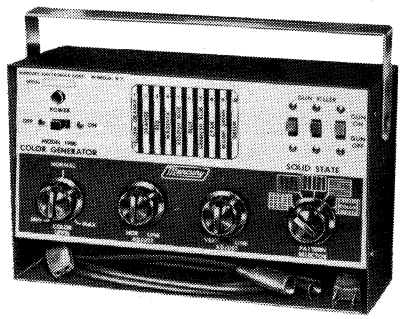
Mercury Technician Approved Test Equipment...TOPS in PERFORMANCE... QUALITY... and VALUE

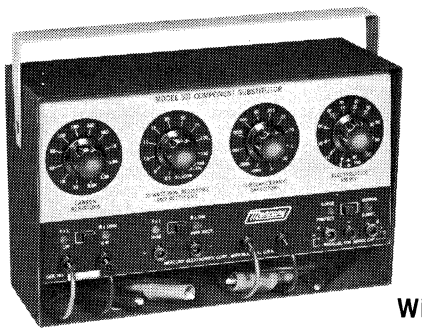
Model 1900 SOLID STATE COLOR GENERATOR

Offers every essential feature needed to install and service Color TV



EXCLUSIVE FEATURE! Line width adjuster...enables you to select vertical and horizontal line thickness—or dot size from the smallest to the largest • Provides more flexibility in choice of patterns than units costing much more • Crystal controlled keyed rainbow color display • Color coded gun killer switches conveniently located on panel • Connects easily to TV antenna • **EXCLUSIVE**...all calibrations can be made rapidly without removing unit from cabinet • Lead piercing clips for quick and positive grid connections • Line isolated to prevent shock hazard • High RF output on channels 3, 4 or 5...factory set at channel 3...adjusts for channels 4 or 5 without removing unit from cabinet • Size 10″x6¼″x4½″ ...Shipping Wt. 8 lbs. *No additional charge for gun killers*

WIRED *Dealer Net* **$99.95**



Available KIT and WIRED

Model 501 COMPONENT SUBSTITUTOR

Places a complete range of components at your fingertips for fast substitution

CARBON RESISTORS: 24 values from 10 ohms to 5,600,000 ohms • **POWER RESISTORS:** 20 values from 2.5 ohms to 15,000 ohms • **ELECTROLYTICS:** 17 values from 4 mfd. to 230 mfd. • **RECTIFIERS**—(Universal): **Crystal diodes**—all general purpose low voltage types **Selenium power rectifiers**—up to 500 ma., 800 PIV **Silicon power rectifiers**—up to 750 ma., 800 PIV

KIT *Dealer Net* **$29.95**

WIRED *Dealer Net* **$44.95**

SPECIAL FEATURES: Substitutes up to 4 different components at the same time • A surge protector switch prevents arcing, sparking or healing of electrolytics • Electrolytics are discharged automatically • Size 10″x6¼″x4½″. Shipping Wt. 7 lbs.

Model 1400 IN-CIRCUIT CAPACITOR TESTER

Eliminates the time consuming method of unsoldering and resoldering when checking capacitors...

Available KIT and WIRED

EXCLUSIVE—HI-LEAK TEST

Detects those hard-to-find leaky capacitors (out-of-circuit)...leakage sensitivity to 150 megohms.

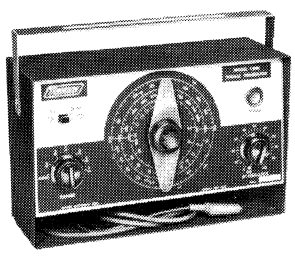
EXCLUSIVE

Special low test voltage of 2.9 volts provided to prevent damage to the new low voltage electrolytics used in transistorized equipment.

SPECIFICATIONS

SHORTS TEST—Detects shorted capacitors of all types **in-circuit** with shunt resistance as low as 6 ohms.
OPEN TEST—Detects open capacitors for all values **in-circuit** down to 7 mmfd., with shunt resistance as low as 150 ohms.
VALUE TEST—Indicates value of electrolytics **in-circuit** from 2 mfd. to 450 mfd.
HI-LEAK TEST—Detects those hard-to-find leaky capacitors **out-of-circuit:** Sensitive to 150 megohms...Tests made at 300V D.C. Size: 10″x6¼″x4½″...Shipping Wt. 7 lbs.

KIT *Dealer Net* **$24.95** • **WIRED** *Dealer Net* **$39.95**



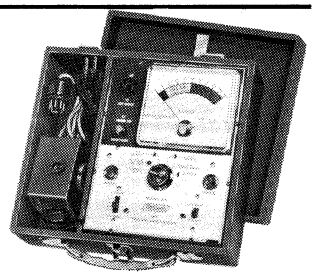
Model 1500 SIGNAL GENERATOR

for troubleshooting Black/White and Color TV, AM-FM and Transistor Radio, Communications and Hi-Fi Equipment. Separate high level 400 cycle output for troubleshooting Hi-Fi and video amplifiers • Seven overlapping bands cover all popular frequencies...115KC to 110MC on fundamentals...much higher on harmonics • Accurate marker generator for alignment work • A switch controls generator output from pure RF to 400 cycle AM modulated RF • Modulated signals to check RF, IF, converter and detector • Line isolated. Size: 10″x6½″x4½″, Wt. 7½ lbs.

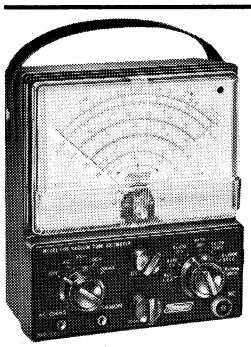
WIRED *Dealer Net* **$39.95**

Model 801A COLOR CRT TESTER-REACTIVATOR

Tests, repairs and reactivates all B/W and all Color Picture Tubes.
TESTS—cathode emission, inter-element leakage, screen grid continuity, opens and visual life expectancy • **REPAIRS**—inter-element shorts and open elements • **REACTIVATES**—low emission tubes to restore brightness • **SPECIAL FEATURES**—reactivation process indicated on the meter • No adapters required • Provides 2V, 8V and 12V filament voltages.
Size: 11″x9½″x4½″, Wt. 6 lbs.



WIRED *Dealer Net* **$64.95**



Model 1700 VACUUM TUBE VOLTMETER

An advanced design VTVM to meet the technician's most rigid requirements.

AC RANGES: 0 to 1.5, 5, 15, 50, 150, 1500v • **Peak to Peak**—0-4, 14, 40, 140 400, 1400, 4000v • **Output (DBM)** —20db to 65db ODB = 1mw across 600Ω • **Input Impedance**—1.4 megohms • **Accuracy**—within 5%
DC RANGES: 0-1.5, 5, 15, 50, 150, 500, 1500v • **Input Impedance**—11 megohms • **Accuracy**—2%
RESISTANCE RANGES: 0-1k, 10k, 100k, 1 meg, 10 meg, 1000 meg • **Accuracy**—2%
Size: 7½″x6½″x4″, Wt. 4 lbs.

Available KIT and WIRED

KIT *Dealer Net* **$29.95**

WIRED *Dealer Net* **$39.95**

Model 1800 VOLT-OHM MILLIAMMETER

AC VOLT: 0-2.5, 10, 50, 250, 1000, 5000v. • **Input Resistance**—5k Ohms/Volt • **Accuracy**—Better than 5%
DC VOLTAGE: 0-0.25, 1, 2.5, 10, 50, 250, 1000, 5000v • **Input Resistance**—20,000 Ohms/Volt • **Accuracy**—2%
DC CURRENT: 0-50ua, 1ma, 10ma, 100ma, 500ma, 10a • **Accuracy**—2%
OUTPUT: Decibels——20 to +10db, —8 to +22db, +6 to +36db, +20 to +50db • ODB = 1mw across 600Ω load
RESISTANCE: 0-2k, 200k, 20 megohms • **Accuracy**—2% Size: 7½″x6½″x4″, Wt. 4 lbs.

KIT *Dealer Net* **$26.95**

WIRED *Dealer Net* **$34.95**

Available KIT and WIRED

MERCURY ELECTRONICS CORP.

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PRICES

Prices in this MASTER should not be considered as final. INQUIRE ABOUT LATEST PRICES AND DELIVERY.

DISCOUNTS

Trade discounts apply in most cases where LIST PRICES are shown.

ORDERING

Since previous editions of the MASTER are frequently referred to, it is important, when ordering, to mention specifically the edition and page number, also the catalog number of each item. This will avoid possible confusion and delay.

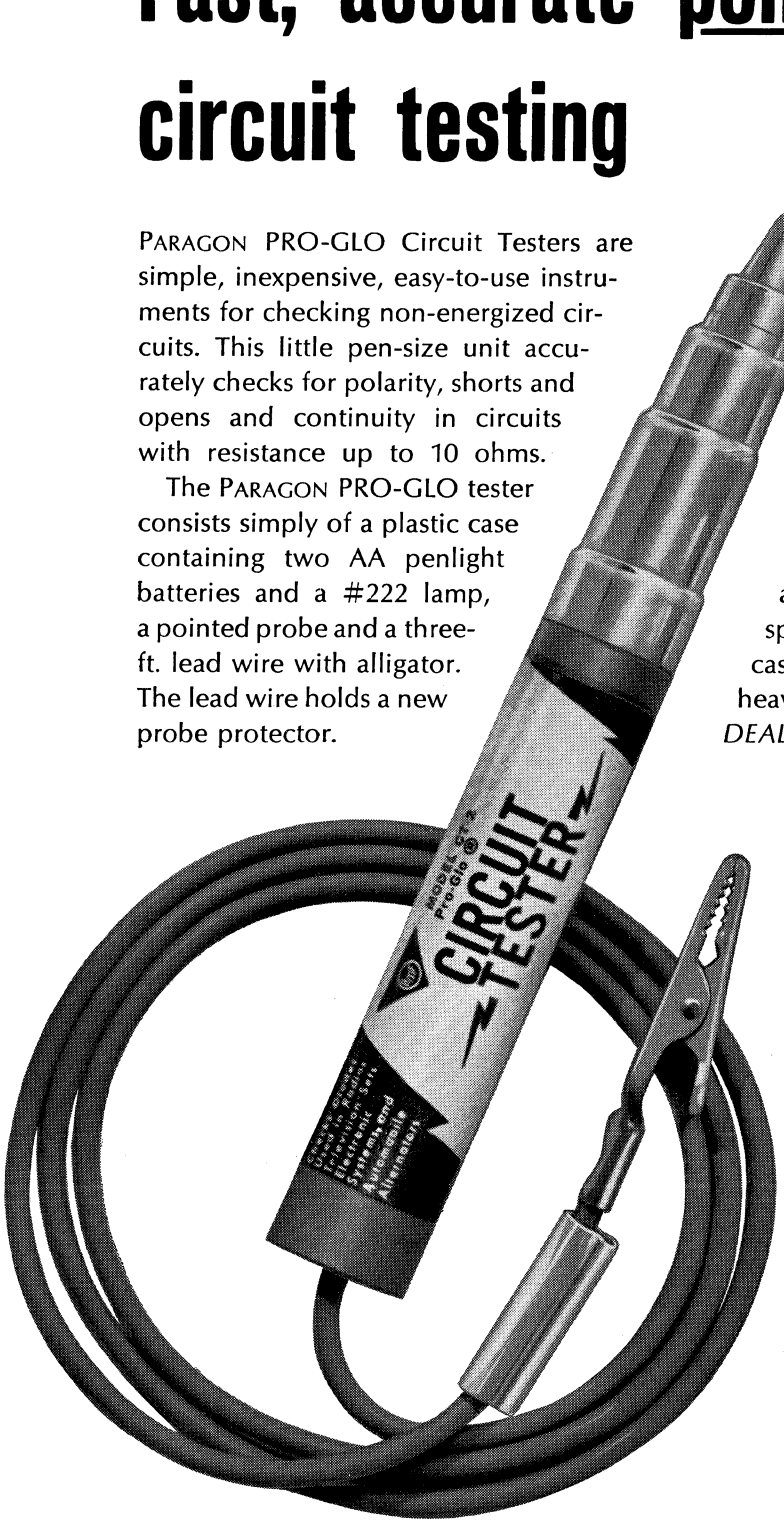
INVENTORY

While most distributors maintain a large and varied stock, they do not represent that they stock all manufacturers' products shown in this MASTER catalog.

Fast, accurate point to point circuit testing

PARAGON PRO-GLO Circuit Testers are simple, inexpensive, easy-to-use instruments for checking non-energized circuits. This little pen-size unit accurately checks for polarity, shorts and opens and continuity in circuits with resistance up to 10 ohms.

The PARAGON PRO-GLO tester consists simply of a plastic case containing two AA penlight batteries and a #222 lamp, a pointed probe and a three-ft. lead wire with alligator. The lead wire holds a new probe protector.

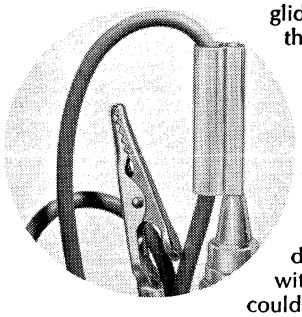


Servicemen and home repairmen appreciate the ease of use of this simple tester. Signal light at point of contact eliminates necessity for shifting eyes to read meter. Speed and accuracy of testing is increased. Low cost of device makes it practical for mass distribution in large service centers. Long operating life is assured — probe and battery contact spring are tin-plated beryllium copper, case is high-impact plastic and wire is heavy-duty, flexible test lead.

DEALER NET PRICE $1.33

- FOR SERVICE SHOPS
- HOME TESTING
- GARAGES
- HOBBYISTS
- FARM USES

Probe-Protector Included



New! Vinyl extrusion Probe - Protector glides easily on the cord—can't be mislaid. Slips over Probe when circuit tester is not being used. This prevents accidental contact with metal that could create a circuit thus minimizing unnecessary battery burn-out.

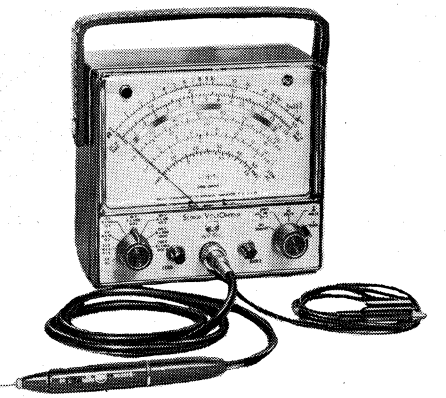
PARAGON®
ELECTRIC COMPANY, INC.
Subsidiary of American Machine & Foundry Co.

© U.C.P., Inc.

RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WV-98C Senior VoltOhmyst® (Kit or Wired)



Application: provides direct reading of peak-to-peak voltages of complex waveforms found in video, sync and deflection circuits. Includes an improved circuit providing ±3% accuracy full scale on both ac and dc measurements with less than 1% tracking error. Separate color-coded, peak-to-peak and rms-voltage scales in two distinctive colors simplify readings. Features die-cast aluminum case; high input resistance; electronic protection against burnout; rugged 200-microampere meter movement; precision multiplier resistors with accuracy of ±1% and 0.5-volt full-scale dc range for checking transistor circuits.

NEW . . . MIRRORED SCALE

- **Large 6½" easy-to-read, full vision meter (26 sq. in.).**
- **Measures complex waveforms directly from 0.2 volt to 4200 volts peak-to-peak in 7 overlapping ranges.**
- **Measures rms values of sine waves from 0.1 volt to 1500 volts in 7 overlapping ranges.**
- **Measures from 0.02 volt to 1500 volts dc on two scales in 7 overlapping "3-to-1" ranges.**
- **INPUT RESISTANCE — 11 megohms on all dc ranges.**
- **Measures resistance from 0.2 ohm to 1000 megohms on single scale, with 7 overlapping ranges.**
- **FREQUENCY RESPONSE — 30 cps to 250 Mc with WG-301A Crystal-Diode Accessory Probe.**
- **Compact design: 7" wide, 3¾" deep, 6½" high.**

$57.95* WV-98C(k) Senior VoltOhmyst Kit.
$84.00* WV-98C Senior VoltOhmyst (Factory Wired).

Kit features pre-assembled DC/AC-OHMS Probe

WV-77E VoltOhmyst® (Kit or Wired)

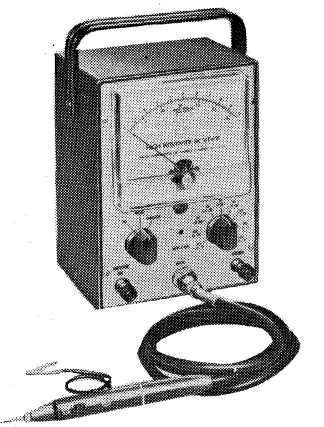
The WV-77E features flat frequency response ±5% from 40 cps to 5 Mc on the 1.5, 5, and 15-volt rms ranges and the 4, 14, and 40-volt peak-to-peak ranges. The WV-77E measures dc from 0.02 volt to 1500 volts, rms ac from 0.1 volt to 1500 volts, peak-to-peak ac from 0.2 volt to 4000 volts, and resistance from 0.2 ohm to 1000 megohms—all in seven overlapping ranges! Full-scale accuracy is ±3% on dc and ±5% on ac. Meter is electronically protected against burnout. Separate scales are provided for low ac measurements. Input resistance is standard 11 megohms. Width 5⅝", Height 7¾", Depth 4¾", Weight 5 lbs.

- **Fuse in ohms circuit prevents accidental burnout**
- **Circuit minimizes effect of residual gas in bridge tube**
- **Color-coded scales for easier, faster readings**
- **Ultra-slim probes and extra-flexible cables**

$38.00* WV-77E(K) VoltOhmyst Kit
$52.00* WV-77E VoltOhmyst (Factory-Wired)

(Prices for WV-77E(K) and WV-77E include dc probe and cable, ac/ohms probe and cable, ground lead and clip, and instruction booklet. Assembly instruction sheet is provided with the WV-77E(K) VoltOhmyst Kit.)

WV-76A HIGH-SENSITIVITY AC VACUUM-TUBE VOLTMETER



This RCA high-sensitivity AC Vacuum-Tube Voltmeter is designed for audio application in industry, laboratories and schools. It is also useful in broadcast, design and development, production, and servicing applications. Typical uses include frequency response test of pre-amplifiers, power amplifiers and tone-control circuits; feedback circuit design, signal tracing, audio-level and power-level measurements, gain measurements, amplifier balancing application and general audio voltage measurements.

- **Nine overlapping AC voltage ranges — from 10 millivolts to 100 volts full scale. When the WG-300B input probe is set in the "Low-Cap" position, up to 500 volts or +56 db may be measured.**
- **Frequency response is flat from 10 cps to 500 Kc with "Low-Cap" probe, 10 cps to 1.5 Mc with "Direct" probe.**
- **May be used as preamplifier: 38 db maximum gain on 10-millivolt range**
- **High input impedance—permits measurements in circuits sensitive to loading**
- **Probe and cable shielded throughout its length—eliminates pick-up from stray fields**
- **Feedback loop from metering circuit provides additional stability and linearity**
- **Heavy filtering in power-supply section keeps hum to extremely low level**

$79.95* factory wired and calibrated.

EQUIPMENT SUPPLIED:
The RCA WG-300B shielded direct/low capacitance probe and cable is supplied with the WV-76A. A switch in the probe housing provides for switching from direct to low-capacitance input. In "DIRECT" position, probe measures up to 100 volts; in "LOW-CAP" position, probe can be used to measure up to 500 volts or +56 db.

**Optional distributor resale price. All prices subject to change without notice. Prices may be slightly higher in Alaska, Hawaii and the West.*

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RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WV-38A V-O-M (KIT or WIRED)

NEW FEATURES:

- **Meter movement protected against burnout**
- **New 2-color front panel**

Ohms-divider network fuse-protected. Easier-to-read scales on extra-large 5¼ inch meter. Polarity reversal switch. Full-wave bridge rectifier. Less circuit loading. Standard dbm ranges.

Extra 1-volt and 0.25-volt (250 mv) ranges.

Handle clips accommodate probes and test leads for extra carrying convenience.

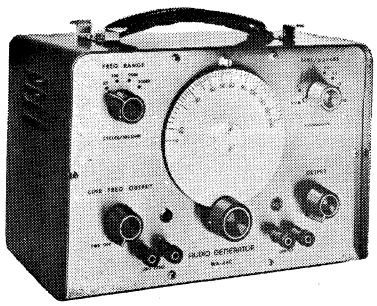
The WV-38A VOM has an input resistance of 20,000 ohms-per-volt on dc and 5,000 ohms-per-volt on ac and an accuracy of ±3% of full scale on dc, ±5% of full scale on ac. Regular scales: 2.5, 10, 50, 250, 1000, 5000 volts, ac and dc; 50 μamp, 1, 10, 100, 500 ma, 10 amps (dc); plus extra scales of 250 mv and 1-volt (dc)! Frequency response (ac), flat from 10 cps to 50 Kc with usable response at 500 Kc. Ohms—3 ranges—R x 1 (0-2,000 ohms), R x 100 (0-200,000 ohms), R x 10,000 (0-20,000,000 ohms). Dimensions: W 5¼" x H 6⅞" x D 3⅛".

$38.00* WV-38A(K) VOM Kit

$52.00* WV-38A VOM (factory wired and calibrated)

WG-270A Accessory Carrying Case for WV-38A VOM **$4.95***

WA-44C AUDIO SIGNAL GENERATOR SINE/SQUARE WAVE OUTPUT



$98.50* Complete with 20 page instruction booklet.

The Compact WA-44C is ac operated from a 50-to-60 cycle, 105-125 volt source, and covers in four bands a range from 20 cps to 200,000 cps. Can be used for a wide variety of applications, including the measurement of frequency response characteristics of audio amplifiers, and the testing of loudspeakers and enclosures or finding the impedance of LC combinations. Width 10$^{11}/_{16}$", Height 7", Depth 6⅛".

The circuit of the sine-wave function consists of a "Bridged-T" oscillator with a cathode follower output stage. The square-wave output is developed by using the sine-wave oscillator output to drive a clipping and shaping circuit. Produces a stable signal with an amplitude variation of not more than ±1.5 db. Total harmonic distortion is limited to 0.25% over the range of 30 cps to 15 kc.

- Switch selection for sinewave or squarewave output
- Simple one-scale dial
- Separate 60 cps output for intermodulation distortion measurements
- Wide frequency range, 20 cps to 200,000 cps.
- Less than ¼ of 1% distortion over the audio-frequency range

WR-64B COLOR-BAR/DOT/CROSSHATCH GENERATOR

$189.50*

Complete with RF output cable, cable-carrying bracket attachment and instruction booklet.

NEW FEATURES:

- **Crystal-controlled RF oscillator for stable picture carrier**
- **Convenient front-panel gun killing switches.**

For checking over-all operation of Color-TV receivers. A "must" for adjusting and trouble-shooting color phasing and matrixing circuits. Generates signals for producing ten bars of different colors simultaneously. Also provides extremely stable fine-line crosshatch and dot patterns free from "jitter" and "crawl". Fixed number of bars and dots facilitate adjustment of over-scan (height and width) and linearity in both color and black-and-white sets.

The Color-Bar and Dot/Crosshatch generating functions require no external sync connections. All three patterns are RF outputs, factory set to channel 3 (can be set to channel 4). A sound carrier is provided to permit accurate adjustment of the fine-tuning control on the receiver.

The WR-64B features a chroma control helpful in checking color sync lock and color AFC alignment. The color sub-carrier frequency, the horizontal sync-pulse frequency, and the "bar" frequency are all crystal controlled. A shielded output cable is provided with the instrument. Width 13½", Height 10", Depth 7½". Weight only 13 pounds.

**Optional distributor resale price. All prices subject to change without notice. Prices may be slightly higher in Alaska, Hawaii and the West.*

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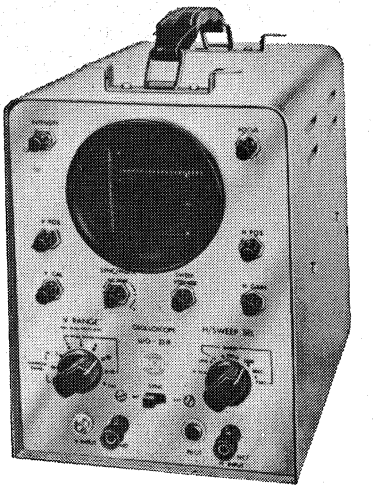
RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WO-33A OSCILLOSCOPE (Kit or Wired)

The WO-33A 3-inch Oscilloscope is the "all purpose" scope! All the bandwidth you need for servicing color-TV, video broadcast monitors and cameras; and for square-wave testing of audio and ultrasonic equipment! All the gain you need for low-level audio work – servicing pickups, microphones, preamps; plus signal-tracing radios, amplifiers—trouble shooting communications signaling systems, ham radio and hi-fi equipment, industrial electronics machinery and other applications.
With vertical amplifier in narrow-band position, sensitivity is 3 rms millivolts/inch; bandwidth within –3 db, 20 cps to 150 Kc. Wide band position: sensitivity 100 rms millivolts/inch; bandwidth within –3 db, 5.5 cps to 5.5 Mc. Sweep circuit: Sawtooth range from 15 cps to 75 Kc; sync – external, ± internal; line sweep – 160° adjustable phase; sync range—to 4.5 Mc.

- **for accuracy—voltage-calibrated frequency-compensated, 3-to-1 step attenuator**
- **for measurements—scaled graph screen and calibrating voltage source allows direct reading of peak-to-peak voltages**
- **for stability—"plus-minus" internal sync . . . holds sync to 4.5 Mc**
- **for completeness—shielded input cable with low-capacitance probe included**
- **for portability—compact size—W 6½" x H 8¾" x D 10¼"—weight only 14 lbs. Plus built-in brackets to hold power cord and cables**

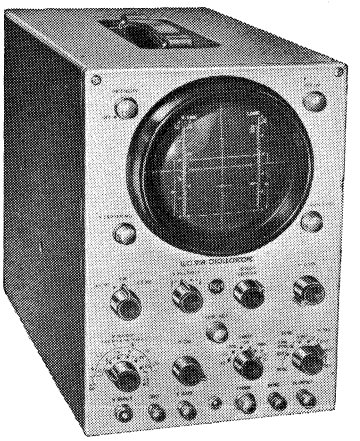


$99.00* —WO-33A(K) Oscilloscope Kit

$139.00* —WO-33A Oscilloscope

(Prices for the WO-33A(K) and WO-33A include Direct Low-Cap probe and cable, and instruction booklet.

WO-91B 5" OSCILLOSCOPE



$269.00* complete with WG-300B two-way Direct/Low-Capacitance Probe and Cable; alligator clip and insulator, ground cable; green graph screen. Instruction booklet.

NEW FEATURE:

- **Provision for connecting signals directly to the vertical deflection plates of the CRT**

Application: for production and servicing both black-and-white and color TV receivers. Used to measure color burst signals and for trouble-shooting wide-band color circuits, signal tracing and aligning wide-band video amplifiers, and chrominance circuits. A multi-scale graph screen makes peak-to-peak voltage measurements as simple as with a VTVM. Response: Wide-band within ±1 db from 10 cps to 4.5 Mc; High sensitivity within –1 db from 10 cps to 0.5 Mc: within –6 db to 1.5 Mc. Sensitivity: 0.05 volt peak-to-peak per inch (0.018 volts rms) in high-sensitivity position; 0.15 volt peak-to-peak per inch (0.053 rms volts in wide-band position).

- **Voltage - calibrated, frequency - compensated, 3-to-1 step attenuator for "V" amplifier.**
- **Shielded vertical-input connector and shielded cable minimize hum, stray field pickup.**
- **Input Resistance—1 megohm shunted by 40 $\mu\mu$f. Low capacitance position—10 megohm shunted by 11 $\mu\mu$f.**
- **Z-Axis input 12 volts for blanking.**
- **Preset "V" and "H" sweep positions.**
- **"Plus" or "Minus" internal-sync selector.**
- **Positive-lock internal sync.**
- **Sweep Frequency: 10 cps to 100 Kc.**
- **Maximum ac input: 600 volts peak-to-peak.**
- **Weight: 30 lbs. Size 13½" x 16½" x 9".**

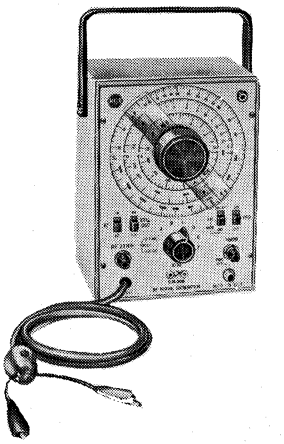
WR-50B SIGNAL GENERATOR (Kit or Wired)

The RCA WR-50B RF Signal Generator is a highly versatile, readily portable test instrument designed for use in the shop or in the field for general television and radio servicing and other applications which require a continuous-wave or modulated RF sine-wave signal from 85 kHz to 40 MHz.

The unit is particularly well suited for such applications as alignment and signal tracing of AM, FM, High-Fidelity and Citizens' Band receivers, alignment of low-frequency IF amplifiers in television receivers, and signal tracing and trouble-shooting in nearly all sections of television receivers.

- **Wide frequency range—continuous coverage 85 kHz to 40 MHz in 6 overlapping ranges**
- **Built-in crystal calibrating oscillator circuit with front panel crystal socket**
- **Internal 400 Hz audio oscillator**
- **Sweep output at 10.7 MHz with return trace blanking for sweep alignment of FM receivers**
- **Sweep output at 455 kHz with return trace blanking for sweep alignment of AM receivers**
- **Built-in DC blocking capacitors**
- **Two-step RF attenuator switch plus a continuously variable attenuator control**
- **Additional switch for further attenuation of the crystal oscillator output**

$65.00* —WR-50B RF Signal Generator **$45.00*** —WR-50B(K) RF Signal Generator Kit



**Optional distributor resale price. All prices subject to change without notice. Prices may be slightly higher in Alaska, Hawaii and the West.*

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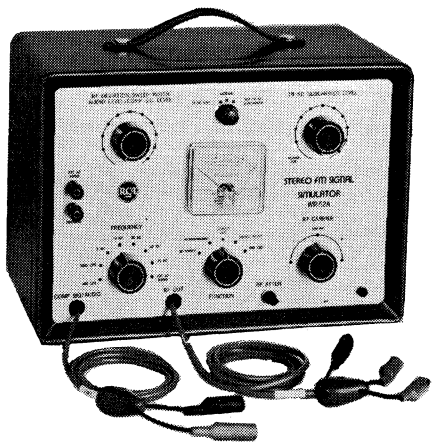
RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WR-52A — STEREO FM SIGNAL SIMULATOR

The RCA WR-52A Stereo FM Signal Simulator is a compact, lightweight instrument designed to generate the signals necessary for complete service and maintenance of stereo multiplex FM receivers and adaptors.

- **COMPOSITE STEREO OUTPUT — for direct connection to multiplex circuit**
  - **Choice of left stereo and right stereo signals**
- **RF OUTPUT — for connection to receiver antenna terminals**
  - **100 Mc carrier, tuneable**
  - **Choice of FM signals — left stereo, right stereo, monaural FM, internal test and 60 cycle FM sweep**
  - **FM stereo deviation adjustable from 0-100%**
  - **100 Mc sweep signal adjustable from 0 to more than 750 Kc at a 60 cps rate**
  - **RF output attenuator**
- **CRYSTAL-CONTROLLED 19 Kc SUBCARRIER (±.01%)**
- **SINE WAVE FREQUENCIES**
  - **Three low distortion frequencies — 400 cps, 1 Kc, 5 Kc**
  - **Two crystal-controlled frequencies — 19 and 38 Kc**
  - **Additional frequencies — 67 and 72 Kc for trap alignment**
- **READILY PORTABLE — weighs only 12¾ pounds, measures 13¼" by 10" by 8"**
- **COMPLETE WITH CONNECTING CABLES**

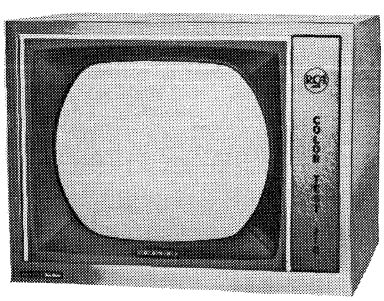


$227.00*

11A1015 COLOR TEST JIG

A "must" for any serviceman now servicing or planning to service Color TV receivers, the RCA Color Test Jig makes a one man service call out of costly two man cabinet pulling jobs. Eliminates necessity of removing picture tube from cabinet and of reconverging tube when chassis is returned. Convergence control panel provides dynamic as well as state convergence.

- Versatile — Can be used with CTC-4, 5, 7, 9, 10, 11 and 12 chassis.
- Safe — Supplied with factory-installed safety glass and kine mask.



$135.00*

Includes kit with all necessary components, hardware and instructions for installation of an RCA Tri-Color Kinescope (Kine not included).

SERVICE ACCESSORIES AVAILABLE FOR USE WITH RCA COLOR TEST JIG:

13A-100 High Voltage Extension Cable
13A-101 High Voltage Extension Cable
205-W1 Degaussing Coil
220-X1 Kinescope Socket Extension Cable
221-X1 Deflection Yoke Extension Cable
222-X1 Convergence Magnet Extension Cable
223-X1 High Voltage Extension Cable
224-X1 Convergence Magnet Extension Cable
225-X1 High Voltage Extension Cable
226-X1 Grid Shunt Switch & Cable
238-X1 Deflection Yoke Extension Cable
237-X1 Color Equalizer Magnet Kit

**Optional distributor resale price. All prices subject to change without notice. Prices may be slightly higher in Alaska, Hawaii and the West.*

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RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

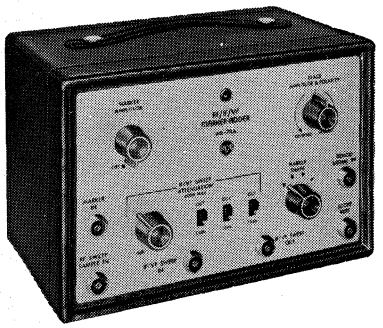
WR-99A CRYSTAL-CALIBRATED MARKER GENERATOR

Application: supplies a fundamental frequency rf carrier of crystal accuracy for use in aligning and trouble-shooting TV (color and black-and-white) and FM receivers, and other electronic equipment operating in the range of 19 to 260 Mc. Built-in crystal calibrator, heterodyne detector, amplifier and speaker provides calibrating beats at 1 Mc or 10 Mc intervals throughout entire tuning range which is covered by 8 bands. A built-in 4.5 Mc crystal provides necessary accuracy for alignment of intercarrier-if amplifiers and discriminators.

- **At least 0.1 volt output, into 95 ohms terminated.**
- **Provides signals for adjusting vertical or horizontal linearity.**
- **Precision matched impedance/resistance pad attenuator, 0-60 db in 5 db steps.**
- **Special modulation input available for re-transmission.**
- **Provision for use as Heterodyne Frequency Meter.**
- **Provides dual markers for band-width checks and rf alignment.**
- **Triple markers for sound-if alignment and band-width checks.**
- **Adjustable dial pointer for accurate registration with crystal-calibration check points.**

$256.50* complete with rf output cable, instruction booklet.

WR-70A RF/IF/VF MARKER ADDER



$87.00* complete with four coaxial cables and instruction booklet.

Application: for rf, if and video sweep alignment of both color and black-and-white TV receivers. Provides sharp, easy-to-read markers for alignment. A choice of four different marker shapes is available, permitting use of marker type best suited to the response curve. Designed for use with conventional marker and sweep generators, such as the RCA WR-39 and WR-89 series marker generators and the WR-59 and WR-69 series TV sweep generators. With the WR-70A, the marker signal is added to the sweep-response curve after the sweep signal is taken out of the receiver under test.

- **Eliminates or reduces distortion of sweep curve by the marker.**
- **Permits trap alignment without marker "suckout."**
- **Hi-Q markers — high in amplitude, narrow in width.**
- **Four marker choices — positive peak, negative peak, positive and negative peaks (wide band), positive and negative peaks (narrow band).**
- **Voltage stabilized for rock-steady trace display.**

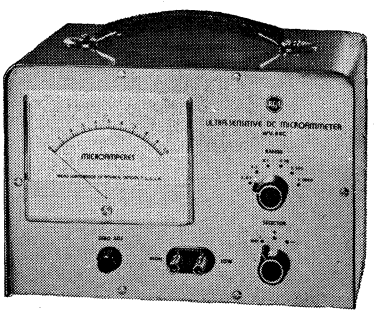
SPECIFICATIONS

IF/VF sweep input — 50 Kc to 50 Mc. RF input — 50 Mc to 250 Mc.

MINIMUM INPUT VOLTAGES — IF/VF — 0.1 volts rms. RF Sweep sample input—0.005 volts rms. Marker input—0.1 volts rms. Maximum demodulator signal input—8 volts peak-to-peak.

MAXIMUM SIGNAL OUTPUT — Marker signal — 2.5 volts rms. Demodulator signal — 10 volts peak-to-peak. Input and output impedances all 100 ohms except demodulator signal input of 0.5 megohm.
Weight: 8 lbs. Size: 7½" x 10½" x 6¼".

WV-84C ULTRA-SENSITIVE DC MICROAMMETER



$110.00* includes 50- and 950-megohm multiplier resistors, instruction booklet. (less batteries)

Application: a battery-operated vacuum tube microammeter designed for measuring minute direct currents, for making current and voltage measurements in electrolysis and corrosion investigations, and for checking currents in light meters, ultra-violet and infrared detectors, and spectrophotometric devices. Self-contained batteries permit use almost anywhere. Low-drain tubes extend battery life and protect the delicate meter against burnout due to accidental overloads. When used as a voltmeter, it is especially suited to measurements in circuits where loading is a critical factor. Can also be used as an ohmmeter to measure extremely high resistances, such as leakage and insulation resistance.

- **Six direct-current ranges for measuring currents from 0.0002 to 1000 microamperes.**
- **Can be used as ohmmeter to measure resistance in the order of billions of ohms.**
- **Voltage drop for full-scale deflection only 0.5 volts.**
- **Input resistance of 100 megohms for measurement of voltages from 0.1 to 1 volt; 1000 megohms input resistance for voltages from 1 to 10 volts, 1005 megohms for voltages from 1 to 100 volts.**
- **Over-all microammeter accuracy on .01 range ±5% or better; accuracy on all other ranges ±4% or better.**
- **Size 7½" x 10½" x 6¼". Weight: 10 lbs. including batteries.**

**Optional distributor resale prices. All prices subject to change without notice. Prices may be slightly higher in Alaska, Hawaii and the West.*

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RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WT-115A COLOR PICTURE TUBE TESTER

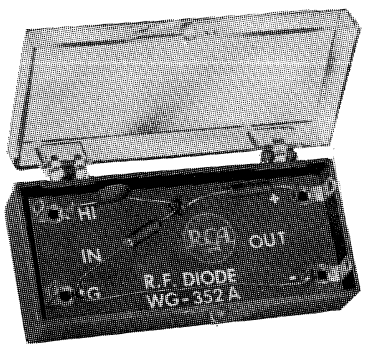
The RCA WT-115A Color Picture Tube Tester is designed specifically for the testing of color picture tubes, including types 21AXP22, 21AXP22A, 21CYP22, 21CYP22A, 21FBP22, 21FKP22, and 21FJP22. The RCA WT-115A offers a quick, reliable means of testing each gun of the color picture tube for emission quality (including warm-up performance), interelectrode leakage, and shorted elements. Readily portable, the WT-115A provides distributors and dealers with an accurate instrument for the testing of color picture tubes in the customer's home or in the store.

- **Designed specifically for testing TV color picture tubes**
- **Tests each gun for emission quality, interelectrode leakage, and shorts**
- **Large, 3-color, sensitive meter with two scales:**
  - **Red/green "quality" scale, with reference marks from 0 to 10**
  - **Separate yellow scale to indicate interelectrode leakage**
- **Sensitive meter and cut-off adjustment control for evaluating the true emission of each gun**
- **Neon shorts indicator**
- **AC line-voltage adjustment for accurate measurements**
- **Test procedure includes 2-minute and 4-minute tests for determining warm-up performance of tube**
- **Tests color picture tube in-set or out-of-set**
- **Built-in cable and socket assembly**

$89.50* Complete with sturdy laminated vinyl case with convenient cable storage compartment.

***User Price (Optional)**

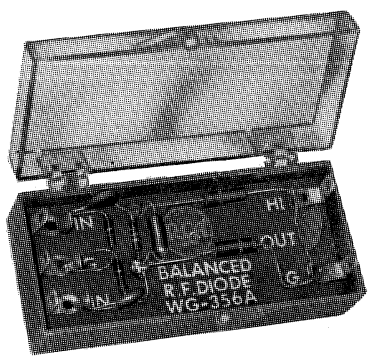
WG-352A
RF DIODE



The RCA WG-352A RF Diode is designed for use with the RCA WV-38A or WV-38A(K) Volt-Ohm-Milliammeter in rf applications from approximately 100 kc to 100 Mc. When the WG-352A is connected in a high frequency circuit, it will provide rectified output which can be read directly from the meter scales of the WV-38A.

$2.95*

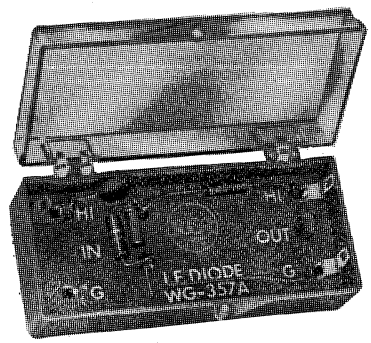
WG-356A
BALANCED RF DIODE



The RCA WG-356A Balanced RF Diode is designed for use with an oscilloscope, such as the RCA WO-33A or WO-91A, in measuring the voltage output of sweep-frequency generators having balanced, 300-ohm output circuits, and for checking the bandpass and gain characteristics of VHF TV rf preamplifiers and antenna distribution amplifiers. The diode is useful through the video/if/rf frequency range up to approximately 250 Mc.

$3.95*

WG-357A
IF DIODE



The RCA WG-357A IF Diode is an unbalanced detector-demodulator designed primarily for use with an oscilloscope, such as the RCA WO-33A or WO-91A, in displaying the sweep output from an if/video sweep generator having an unbalanced output circuit. The WG-357A, which is usable up to approximately 100 Mc, can also be used to observe the rf/if response of individual amplifier stages. It has a maximum input signal rating of 20 rms volts, and a maximum dc voltage rating of 250 volts.

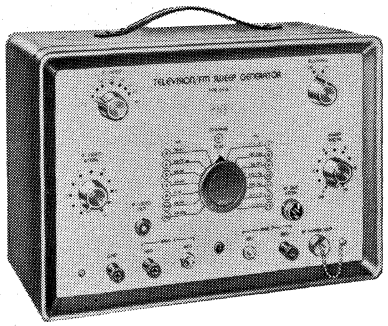
$3.95*

**Optional distributor resale price. All prices subject to change without notice. Prices may be slightly higher in Alaska, Hawaii and the West.*

RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WR-69A
TELEVISION/FM SWEEP GENERATOR



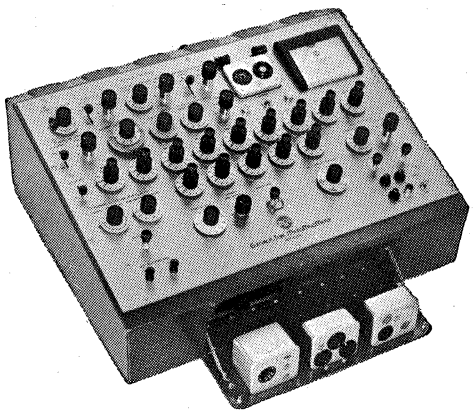
Tops for visual alignment of both TV and FM receivers, the WR-69A has preset switch positions for all VHF TV channels, the FM broadcast band, and TV video, chrominance, and if frequencies. VHF output is on fundamental frequencies only; no beat notes or harmonics are used. Exceptionally good linearity is provided by a precision vibrator capacitor. Continuously adjustable sweep width and flat output make for accurate sweep response portrayals. The WR-69A is especially suited to alignment of color receivers. Special sample-voltage terminal on panel permits use with marker-adder units in alignment. Dual-piston attenuator provides smooth even attenuation over 60 db range. Width 13⅝", Height 10", Depth 7".

- **IF/Video output frequency continuously tunable from 50 Kc to 50 Mc.**
- **Sweep-frequency bandwidth continuously adjustable from 50 Kc to 20 Mc on if/video and fm - 12 Mc max. on TV channels.**
- **Return trace blanking.**
- **Two adjustable bias voltages available on front panel.**

$295.00*

(complete with RF Output cable, IF/Video Output cable and instruction booklet.)

WT-100A Electron-Tube MicroMhoMeter

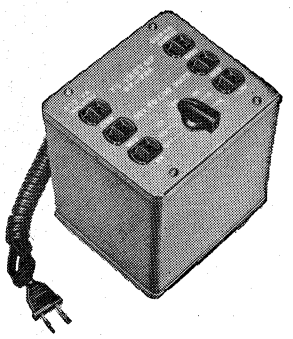


A precision laboratory measuring instrument which tests tubes under typical operating conditions as specified in the tube manufacturers' technical data manuals. It is particularly useful in production line testing, design and development work, pre-selecting for critical applications, quality control programs, and preventive maintenance. MEASUREMENTS PERFORMED: ac heater current from 0.02 ampere to 5 amperes • dc filament current up to 250 ma • voltage drop across rectifier tubes and semiconductor diodes • transconductance from 10 micromhos to 100,000 micromhos. Within the range of its facilities it will test: vacuum tubes—diodes, triodes, tetrodes, pentodes, heptodes, spetodes, octodes, and multi-unit types; gas tubes—thyratrons, voltage regulators, cold-cathode and hot cathode rectifiers; in these bases and envelopes—bases with 4, 5, and 6 pins, lock-in, miniature, sub-miniature, pencil and lighthouse; and semi-conductor diodes—small dry-disc rectifiers, germanium and silicon diode types. Size: W 23½" x H 8" x D 18½". Weight: 50 lbs.

$989.00* Electron-Tube MicroMhoMeter

(complete with 4 multiple-socket plug-in units, instruction booklet.)

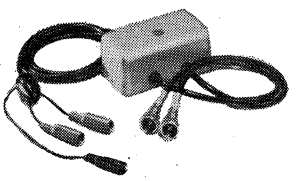
- **measures transconductance to an accuracy of *better* than ± 3%**
- **accurate measurement of "hybrid" auto receiver tube types under actual operating conditions**
- **built-in shorts test for any combination of tube elements**
- **measures transconductance up to 100,000 micromhos in six ranges**
- **measures both control-grid-to-plate and suppressor-grid-to-plate transconductance**
- **built-in calibrating circuit—no null meters or extra devices required**
- **meter completely burnout-proof**
- **regulated power supplies for dc plate and screen test voltages**



WP-25A
TV ISOTAP

Speeds up servicing, prevents damage to test equipment, minimizes shock hazard, cuts down costly returns. The WP-25A may be used as a high-medium-low voltage isolation transformer or as an auto-transformer for testing radio and TV receivers at various settings of line voltage. Supplies outputs of 130, 115, and 105 volts at maximum load and is tapped to match line voltages from 105 to 130 volts in six steps **$27.50***

WG-304B
RF MODULATOR



An accessory used to check the over-all frequency response of TV receivers from antenna to picture tube grid. The unit permits modulation of an rf marker signal from a marker generator (such as WR-89A or WR-99A) by a signal from a video sweep generator (such as WR-59C or WR-69A).

$16.50*

**Optional distributor resale prices. All prices subject to change without notice. Prices may be slightly higher in Alaska, Hawaii and the West.*

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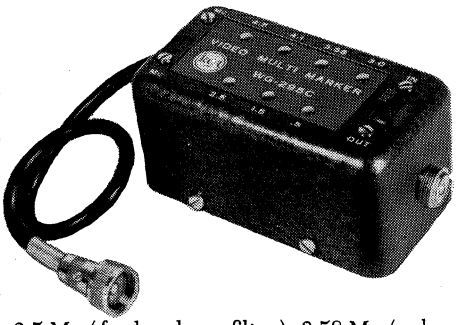
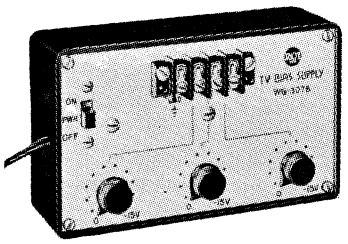
RCA TEST EQUIPMENT ACCESSORIES

WG-295C VIDEO MULTIMARKER



Provides seven simultaneous absorption-type markers at accurately preset frequencies for marking video response curves in color receivers. Markers are at 0.5 Mc (For (Q, R-Y, B-Y, G-Y filters). 1.5 Mc (for J filter), 2.5 Mc (for bandpass filter), 3.58 Mc (color subcarrier frequency), 3 and 4.1 Mc (video and bandpass amplifiers), and 4.5 Mc (sound-trap frequency). Each marker is identified simply by touching a corresponding contact on the WG-295C case. This reduces the amplitude of the particular marker. The WG-295C connects between the IF/VF output on the sweep generator and the video output cable. Equipped with shorting switch. With instruction booklet **$32.50***

WG-307B(K) TV BIAS SUPPLY KIT



Three separate dc output voltages each adjustable from 0 to −15 V. Panel isolated from all circuits. Measures 6⅛" x 3¾" x 2". Weight: 22 ounces. **$11.95***

WG-301A CRYSTAL-DIODE PROBE

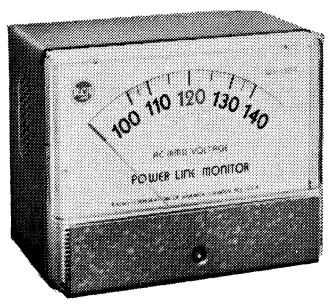
"Slip-on" type for use with the WG-299A, B or C DC/AC Ohms Probe and Cable extending the frequency range of VoltOhmysts® to 250 Mc. $7.75*

WG-299D DC/AC OHMS PROBE AND CABLE

The WG-299D is a single-unit probe for use with Volt Ohmysts® except WV-77E. Switch provides instant selection of dc or ac/ohms operation. The WG-299D replaces the WG-299A, WG-299B and WG-299C. **$7.95***

WG-300B DIRECT/LOW CAPACITANCE PROBE AND CABLE

Designed for use with the RCA Scopes. Cable is 48" long, completely shielded from microphone connector to probe tip to minimize hum and stray field pick-up. Built-in switch provides instant selection of direct or low-capacitance operation. Input characteristics: 10 megohms resistance, less than 12.5 $\mu\mu$f capacitance in low capacitance position. Includes ground lead and clip. **$9.95***



WV-120A POWER LINE MONITOR

For constant indication of power line voltage

Features: • expanded scale 100 to 140 volts indicates true rms values • accuracy ±2% at 120 volts, ±3% at 100 and 140 volts • readable from 10 feet or more • plugs in to power line outlet • wide frequency range, 25 to 400 cps.
H 3 5/16", W 5", D 3 1/16"; Weight: 1½ lbs. $16.50*

WG-289, WG-297 HIGH-VOLTAGE PROBES

The WG-289 extends the dc-voltage range of the WV-77A, WV-77B, WV-77C, WV-87A, WV-87B, WV-97A, WV-98A and WV-98B VoltOhmysts to 50,000 volts. The WG-297 extends the range of the WV-77E Volt-Ohmyst® and WV-38A volt-ohms-milliammeter to 50,000 volts dc.

The WG-289 is provided with a microphone-type connector, and the WG-297 is provided with banana-plugs for use with appropriate VoltOhmysts and other VTVM's, VOM's.

A choice of three multiplier resistors is available, enabling these probes to be used with many popular electronic and non-electronic volt-ohm-meters!

WG-206—1090-megohm multiplier resistor for VTVM's having 11-megohm input (multiplying factor 100).

WG-210—900-megohm resistor multiplies 5000-volt dc range of 20,000-ohms-per-volt VOM's by a factor of 10.

WG-211—495-megohm resistor multiplies 250-volt dc range of 20,000-ohms-per-volt VOM's by a factor of 100.

WG-289 or WG-297, Probe Only **$11.95***

WG-206, WG-210, or WG-211, Multiplier Resistor Only (each) ... **$ 3.50***

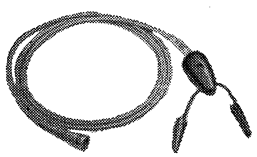
*User Price (Optional)

WG-349A DIRECT/LOW-CAPACITANCE PROBE

A 48-inch, small diameter, extremely flexible shielded cable designed for use with the WO-33A Oscilloscope. The probe consists of three short leads with alligator clips for ground, direct, and low-capacitance connections. For convenient use, the WG-394A eliminates the need for switching. It connects to the oscilloscope by means of a miniature-type microphone connector. Input characteristics: 10 megohms, 12 uuf capacjtance, when used with the WO-33A and WO-33A(K). **$5.95***

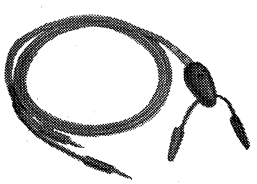
WG-302A RF/IF/VF SIGNAL TRACING PROBE

"Slip-on" type high-frequency probe designed for use with the WG-300A and B probe and cable to permit visual signal tracing for rapid isolation of trouble in radio receivers and in television if and video stages..... $8.50*



WG-350A DEMODULATOR PROBE

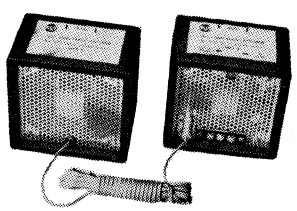
For use with the WO-33A Super-Portable Oscilloscope for demodulation and signal tracing of radio/TV rf and if signals. **$4.95***



WG-351A CRYSTAL DIODE PROBE

For extending the rf measuring capability of the WV-77E VoltOhmyst, and WV-77E(K) VoltOhmyst Kit, to over 100 Mc. **$4.95***

WG-360A PHASE CHECKER



Used for a dynamic check of phasing in any audio system from input to the output of the speakers.

Features:

• sound powered; requires no external voltage source
• any VOM, VTVM, or oscilloscope may be used as the indicator

$14.95*

**Optional distributor resale prices. All prices subject to change without notice. Prices may be slightly higher in Alaska, Hawaii and the West.*

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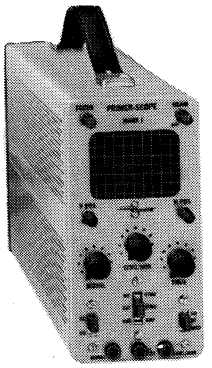
Net

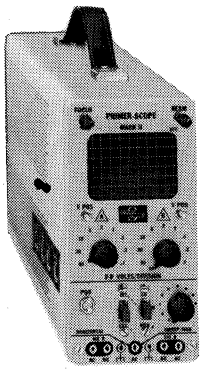
PRECISION OSCILLOSCOPES FOR EVERY PURPOSE



PRIMER SCOPE MARK I

PRIMER-SCOPES

PRIMER-SCOPES are the ideal choice for all applications where portability, simplicity and reliability are required. Students, hi-fi fans, amateur radio operators, electronics enthusiasts and servicemen will welcome these versatile, factory-wired, factory-tested and guaranteed oscilloscopes with features usually found only on expensive industrial models.



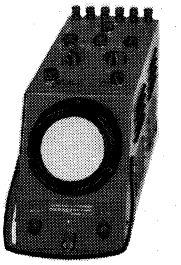
PRIMER SCOPE MARK II

The skillfully engineered PRIMER-SCOPE line is American-made with American parts assemb'ed under exacting quality control, and the cathode ray tube is shielded for maximum protection from interference. Controls are simple to operate and clearly marked. All units come in professional-quality industrial gray cases with convenient carrying handles attached for easy portability.

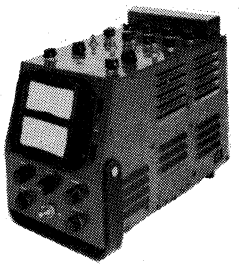
POCKETSCOPES

The Schaevitz POCKETSCOPE line of industrial oscilloscopes has for years been the choice of exacting engineers and technicians. Quality-engineered to precise standards, the rugged POCKETSCOPE line offers versatility, accuracy and reliability sufficient for the most demanding industrial application.

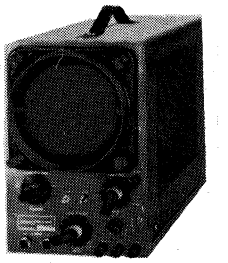
Controls on all models have been operationally simplified and functionally laid out to insure quick, convenient handling. Rugged construction insures low maintenance under a wide range of environmental conditions. All models come with a convenient leather carrying handle attached. Optional probes are available.



S-11-A



S-15-A



S-16-A

	PRIMER-SCOPES		POCKETSCOPES					CRAFTSCOPE
	MARK I	MARK II	S-11-A	S-14-A	S-14-B	S-14-C	S-15-A	S-16-A
CRT Size — inches	3	3	3	3	3	3	1¼x3*	5"
Vert. Sensitivity — mv rms/Div.	6	36*	50	6	25	35†	6*	2.5
Vert. Sensitivity — mv DC/Div.	25	100*	140	14	70	100	14*	100
Vert. Response — Hz-3db	DC-75K	DC-75K	DC-200K	DC-180K	DC-700K	DC-700K	DC-180K	DC-5M
Vert. Input — Z-ohms-pf	0.5 Meg-100	1 Meg-90	0.5 Meg-35 or 10 Meg-10	1 Meg-25	1 Meg-25	1 Meg-25	1 Meg-25	1 Meg-40
Horz. Sensitivity — mv rms/Div.	150	150	50	8	75	—	500	10
Horz. Sensitivity — mv DC/Div.	—	—	140	21	210	—	1400	—
Horz. Response — Hz-3db	20-75K	20-75K	DC-200K	DC-180K	DC-200K	—	DC-150K	3-180K
Sweep — Hz	20-20K	20-20K	3-50K	0.5-50K	0.5-50K	20μ S-2S	0.5-50K	5-50K
Line Voltage	117	117	117	117	117	117	117	117
Frequency — Hz	60	60	50-400	50-400	50-400	50-400	50-400	50-400
Watts	30	60	30	50	65	85	75	68
Height — inches	7¼	7¼	7	7	7	7	7	10½
Width — inches	3½	3½	5	6	6	6	6	6⅞
Depth — inches	11½	13½	11	12	12	12	12	12⅜
Weight — pounds	5	7¼	8¾	12¼	14	16	16¼	18
Shipping Wt. — pounds	7	9	10	16	17	19	19	21
Net Prices	99.00	189.00	169.75	282.75	277.75	289.00	195.00	265.00

*Both Channels †Accessory Amplifier Probe Improves Ten Times

Engineers and developers of oscilloscopes, indicators and electronic test equipment.

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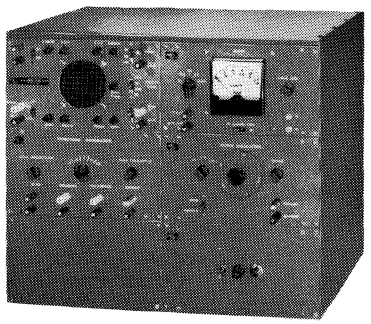
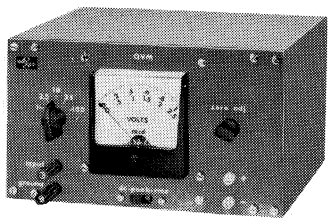
POLYLAB SOLID STATE INSTRUMENTS



POLYLAB is a self contained, *SOLID STATE* electronic test center, designed by Schaevitz M.C.D. to fill the electronic requirements of a school or medical lab — a technician's or engineer's test bench. For the first time, a QVM (SOLID STATE VTVM), a SOLID STATE oscilloscope, a SOLID STATE function generator and a SOLID STATE sine-square wave oscillator, packaged with a common power supply, for less than the cost of any single SOLID STATE component presently available. Each component may be purchased separately with its own, built-in power supply.

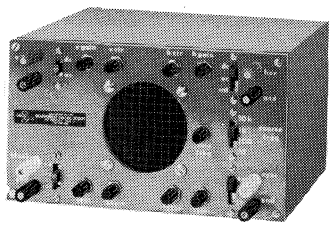
Model QEL 100



POLYLAB QVM is a *SOLID STATE* voltmeter which automatically indicates + DC, —DC or AC without switching. High impedance input and four selectable full-scale ranges for 0 to 100 V measurements.

RANGES: 0.1, 2.5, 10, 25, 100 volts DC-PEAK-RMS
ACCURACY: ±3% of full scale nominal
INPUT IMPEDANCE: 10 megohms

Model QVM 101



POLYLAB 3″ OSCILLOSCOPE is a *SOLID STATE* DC oscilloscope for both AC and DC measurements, with identical vertical and horizontal amplifiers for all scope applications to 100 KC. Internal repetitive sweeps with excellent linearity and intensity modulation. Extended range when used with Polylab Function Generator, QFG 101, below.

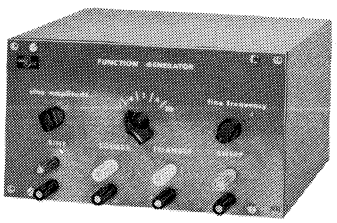
VERTICAL or HORIZONTAL
Bandpass: DC — 100 KHz or 10 Hz — 100 KHz
Sensitivity: 40 mv/div. to 4 v/div.
Centering Range: 2 diameters
Phase Linearity: V to H ±3° to 100 KC

SWEEP
10 Hz to 10 KHz in 3 ranges

SYNC:
+ int, + ext or + line
Sensitivity: 600 mv to sync

INTENSITY MODULATION
Sensitivity: 800 mv
Bandpass: 30 Hz — 20 KHz
Polarity: either (selectable)

Model QOS 101

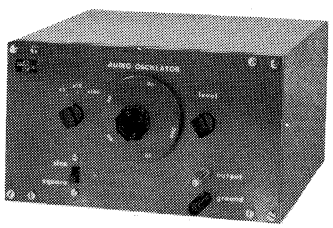


POLYLAB FUNCTION GENERATOR, a *SOLID STATE,* multi-wave form output generator, covers sub-sonic frequencies. Sine, square and triangular outputs cover from 0.1 to 10 seconds. Sweep (sawtooth) output from 0.05 to 5 seconds. All outputs are synchronous.

SINE WAVE OUTPUT: 0-1 volt p-p
SQUARE WAVE OUTPUT: 0-1 volt p-p
TRIANGULAR WAVE OUTPUT: 0-1 volt p-p

RANGE: .1 — 10 Hz in four ranges
SWEEP (sawtooth): 0-1 volt p-p (sweep frequency is ½ signal frequency)
RANGE: 0.05 — 5 Hz in four ranges

Model QFG 101



POLYLAB SINE-SQUARE WAVE GENERATOR is a precision, *SOLID STATE* audio generator with a choice of either sine wave or square wave output. It features a clearly readable dial with range selection and variable output.

RANGE: 20 Hz — 20 KHz in three ranges
SINE WAVE OUTPUT: 0-1 volt p-p
SQUARE WAVE OUTPUT: 0-1 volt p-p

Model QAG 101

Engineers and developers of oscilloscopes, indicators and electronic test equipment.

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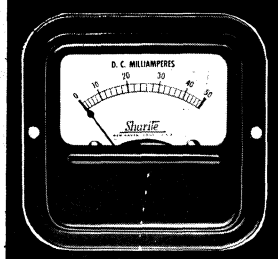
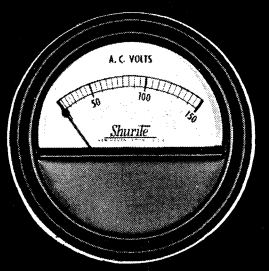
PANEL Shurite® METERS



MODEL 950 SERIES
WITH ZERO ADJUSTER
(metal-case)



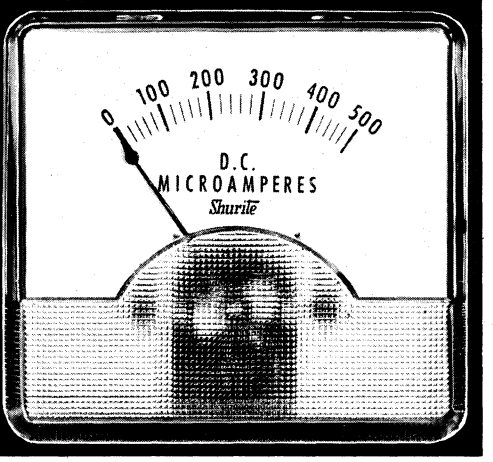
MODEL 550 SERIES
(Rimless Round)
(metal-case)

MODEL
850

(Actual Size)

MICRO-
AMMETER
SHOWN

ZERO
ADJUSTER
OPTIONAL



• **SHURITE** makes attractive, rugged, dependable instruments with accuracy well within ±5%, and the ability to duplicate readings. DC meters are polarized-vane solenoid type (moving-magnet or bridge-type construction where indicated): AC meters are double-vane repulsion type with jeweled bearing. The jewel construction costs more to build, but it pays off in continuing accuracy during a longer useful life. Models 550 and 950 fit 2-5/32" hole; Model 850 fits 2-5/32" to 2-1/32" hole. All are guaranteed.

*** * * NEW PRODUCTS — More sensitive meters without sacrifice of ruggedness, include: *A) three 0-500 DC Microammeters with 1000 ohms int. res.; *B) a 0-1 DC Milliammeter, Stock No. 8334, 800 ohms int. res., with Bridge-Type design to minimize effect of external magnetic forces; and *C) a Field Strength Meter, Stock No. 8903Z. Not cataloged but produced in quantity at extra cost are expanded scale meters, such as 10-12.5 DC Volts, accuracy ± .125 Volt. A handy new Cold Zone Tester is announced on the next page.**

FEATURES

GUARANTEE: Meters are guaranteed to users against defective workmanship and material, and will be repaired or replaced if sent to the factory postpaid with 50¢ handling charge within one year after purchase . . . **ALL METAL DIALS**—age and moisture resistant, lithographed in black on white for high visibility . . . **STURDY DESIGN**—with husky coil frames designed to prevent breakage, rigidly mounted in cases with anti-turning square head studs . . . **VISCOSITY DAMPING**—careful application of new silicone compound on bearing surfaces damps pointer overtravel . . . **WIDE SELECTION**—Shurite offers the broadest line of standard meters in the economy-priced field. Distributor stocks are backed by an extensive factory inventory.

CLEAR PLASTIC INSTRUMENTS

. . . The 850 snap-on front of crystal-clear high temperature polystyrene 2-17/32" wide by 2-5/16" high, admits light from all sides and accentuates the appearance of the dial which has the longest scale arc in its field. The case back is black, but of similar high-temperature, high-impact material.

TYPICAL USES

Amateur radio rigs . . . Citizens Band equipment . . . battery eliminators . . . battery chargers . . . volt-ohm-milliammeters and kits . . . model train equipment . . . tuning circuits for stereo and tape recorders . . . burglar, fire alarm, or emergency lighting systems . . . transistor testers . . . plating equipment . . . voltage regulators . . . detergent strength analyzers . . . demonstrators . . . many other applications.

DC MICROAMMETERS

RANGE Ua.	RESIST. Approx. Ohms	Model 550* Stock No.	Model 950* Stock No.	Model 950* Net Each	Model 850* Stock No.	Model 850* Net Each
0-500**	1000	5902	9902	$4.10	8902	$4.30

* For zero adjuster, add 35c to price and Z to stock number
** Sensitive type, note internal resistance. DC bridge-type construction.

DC MILLIAMMETERS

RANGE Ma.	RESIST. Approx. Ohms	MODEL 550* Stock No.	MODEL 950* Stock No.	MODEL 950* Net Each	MODEL 850* Stock No.	MODEL 850* Net Each
0-1#	800	—	—	—	8334	$3.95
0-1**	1000	5300Z	9300Z	$4.00	8300Z	4.15
0-3L**	500	5332Z	9332Z	4.00	8332Z	4.15
0-3	4500	5301	9301	3.10	8301	3.25
0-5	3650	5302	9302	2.85	8302	3.00
0-10	920	5303	9303	2.60	8303	2.75
0-15	485	5304	9304	2.40	8304	2.55
0-25	172	5305	9305	2.40	8305	2.55
0-50	46	5306	9306	2.40	8306	2.55
0-100	10.4	5307	9307	2.40	8307	2.55
0-150	4.7	5308	9308	2.40	8308	2.55
0-200	2.8	5309	9309	2.40	8309	2.55
0-300	1.5	5310	9310	2.40	8310	2.55
0-400	.46	5311	9311	2.40	8311	2.55
0-500	.30	5312	9312	2.40	8312	2.55

#Bridge-type construction; recommended to minimize effects of external magnetic forces. Price does not include zero adjuster.
*For zero adjuster, add 35¢ to price and Z to stock number.
**Sensitive type, moving-magnet construction; zero adjuster built-in.

AC MILLIAMMETERS

RANGE Ma.	RESIST. Approx. Ohms	MODEL 550 Stock No.	MODEL 950 Stock No.	MODEL 950 Net Each	MODEL 850* Stock No.	MODEL 850* Net Each
0-10	4800	5607	9607	$3.75	8607	$3.90
0-25	750	5601	9601	3.60	8601	3.75
0-50	150	5602	9602	3.60	8602	3.75
0-100	37	5603	9603	3.60	8603	3.75
0-250	5.4	5604	9604	3.60	8604	3.75
0-500	1.34	5605	9605	3.60	8605	3.75

NO ZERO ADJUSTER ON AC METERS, EXCEPT ON MODEL 850.
* For zero adjuster add 35c to price and Z to stock number.

DC AMMETERS

RANGE Amps.	RESIST. Approx. Ohms	MODEL 550* Stock No.	MODEL 950* Stock No.	MODEL 950* Net Each	MODEL 850* Stock No.	MODEL 850* Net Each
0-1	.105	5201	9201	$2.40	8201	$2.55
0-3	.02 Max.	5202	9202	2.40	8202	2.55
0-5	.02 Max.	5203	9203	2.40	8203	2.55
0-8	.02 Max.	5204	9204	2.40	—	—
0-10	.02 Max.	5205	9205	2.40	8205	2.55
0-15	.02 Max.	5206	9206	2.40	8206	2.55
0-25	.02 Max.	5207	9207	2.85	8207	3.00
0-50	.02 Max.	5208	9208	2.85	8208	3.00
3-0-3	.02 Max.	5210	9210	2.50	—	—
5-0-5	.022 Max.	5211	9211	2.50	—	—
6-0-6	.02 Max.	5212	9212	2.50	—	—
10-0-10	.02 Max.	5213	9213	2.85	8213	3.00
20-0-20	.02 Max.	5214	9214	2.85	8214	3.00
30-0-30	.02 Max.	5215	9215	2.85	8215	3.00
50-0-50	.02 Max.	5216	9216	3.00	8216	3.15

* For zero adjuster, add 35c to price and Z to stock number.

AC AMMETERS

RANGE Amps	RESIST. Approx. Ohms	MODEL 550 Stock No.	MODEL 950 Stock No.	MODEL 950 Net Each	MODEL 850* Stock No.	MODEL 850* Net Each
0-1	.42 Max.	5501	9501	$3.50	8501	$3.65
0-3	.072 Max.	5502	9502	3.50	8502	3.65
0-5	.041 Max.	5503	9503	3.50	8503	3.65
0-10	.02 Max.	5504	9504	3.50	8504	3.65
0-15	.02 Max.	5508	9508	3.50	8508	3.65
0-30	.02 Max.	5505	9505	3.60	8505	3.75
0-50	.02 Max.	5506	9506	4.00	8506	4.15
0-80	.02 Max.	—	—	—	8507	4.35

NO ZERO ADJUSTER ON AC METERS, EXCEPT ON MODEL 850.
* For zero adjuster add 35c to price and Z to stock number.

Prices in Effect Since Sept. 1, 1963; F.O.B. Factory; Individually Boxed.

Net

© U.C.P., Inc.

DC VOLTMETERS

RANGE Volts	RESIST. Approx. Ohms	MODEL 550* Stock No.	MODEL 950* Stock No.	MODEL 950* Net Each	MODEL 850* Stock No.	MODEL 850* Net Each
0-1	10	5101	9101	$2.40	—	—
0-3	93	5102	9102	2.40	8102	$2.55
3-0-3	250	5103	9103	2.40	—	—
0-5	300	5104	9104	2.40	8104	2.55
0-6	390	5105	9105	2.40	—	—
0-8	600	5106	9106	2.40	8106	2.55
0-10	880	5107	9107	2.40	8107	2.55
0-15	2370	5108	9108	2.40	8108	2.55
0-20	3500	5121	9121	2.40	8121	2.55
0-25	1420	5109	9109	2.70	8109	2.85
0-25H**	5000	5110	9110	3.10	8110	3.25
0-50	2920	5122	9122	2.65	8122	2.80
0-50H**	10000	5111	9111	3.35	8111	3.50
0-75	4280	5112	9112	2.70	—	—
0-100	5740	5113	9113	2.70	—	—
0-100H**	20000	5114	9114	3.25	—	—
0-150	8500	5115	9115	2.85	8115	3.00
0-150H**	30000	5116	9116	3.50	8116	3.65
0-300H**†	60000	5117	9117	3.60	8117	3.75
0-500H**†	100000	5118	9118	3.85	8118	4.00
0-750H**†	154000	5119	9119	4.35	—	—

* For zero adjuster add 35c to price and Z to stock number.
** H denotes high resistance.
† Supplied with external resistors.

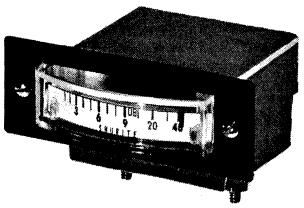
AC VOLTMETERS

RANGE Volts	RESIST. Approx. Ohms-Volt	MODEL 550 Stock No.	MODEL 950 Stock No.	MODEL 950 Net Each	MODEL 850* Stock No.	MODEL 850* Net Each
0-4	11	5401	9401	$3.65	—	—
0-6	15.8	5402	9402	3.65	—	—
0-10	27	5403	9403	3.65	8403	$3.80
0-15	35	5404	9404	3.65	8404	3.80
0-25	53	5412	9412	3.65	8412	3.80
0-50	96	5405	9405	3.85	8405	4.00
0-150	100	5406	9406	4.05	8406	4.20
0-300**	100	5407	9407	4.60	8407	4.75
0-600**	100	5408	9408	5.15	—	—
0-750**	100	5409	9409	5.75	—	—

NO ZERO ADJUSTER ON AC METERS, EXCEPT ON MODEL 850
*For zero adjuster add 35c to price and Z to stock number.
**Supplied with external resistors.

EDGEWISE

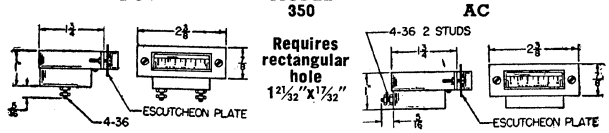
MODEL 350



STOCK NO. 3333

High-temperature crystal polystyrene front adds beauty to panel designs and 1.2" scale length offers easy reading. Uses less than half the panel space of other Shurite meters. Horizontal mounting; weight under 2 ozs.; accuracy well within ±5%; black escutcheon plate supplied. Case back normally black; available in light-transmitting frosted polystyrene on special order.

RANGE	Resistance Approx. Ohms	Stock No.	Net Each
0-1 DC Milliamperes	500	3300	$3.70
0-5 DC Milliamperes	3100	3302	3.45
0-10 DC Milliamperes	700	3303	3.45
0-25 DC Milliamperes	150	3305	3.35
0-50 DC Milliamperes	28	3306	3.35
0-100 DC Milliamperes	7	3307	3.35
0-200 DC Milliamperes	3	3309	3.35
0-300 DC Milliamperes	2	3310	3.35
0-500 DC Milliamperes	1.5	3312	3.35
0-100 AC Milliamperes	32	3603	3.45
0-3 DC Amperes	.02 Max.	3202	3.35
0-5 DC Amperes	.02 Max.	3203	3.35
0-10 DC Amperes	.02 Max.	3205	3.45
10-0-10 DC Amperes	.02 Max.	3213	3.55
0-5 AC Amperes	.04	3503	3.45
0-5 DC Volts	725	3104	3.35
0-10 DC Volts	1200	3107	3.35
0-15 DC Volts	2200	3108	3.35
0-15 AC Volts	728	3404	3.45
0-150 AC Volts	14000	3406	4.10
VU Meter —20 to +3 VU	1400	3801	5.50
S Meter 0—40 db	1000	3333	3.45



POCKET TYPE METERS

Please ask for Catalog 94-F which describes 13 types of battery testers (pocket meters.) Their stock numbers begin with the digit 4. Typical is **Stock No. 4151,** 0-7 DC volts, approx. res. 670 ohms. **$3.00**

Shurite®

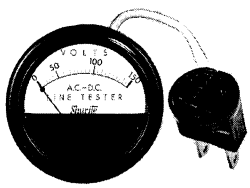
COLD-ZONE TESTER

PRICED UNDER $20.00

STOCK NO. 8380-RT—Place the thin, flat resistance bulb inside a refrigerator, deep freezer, air conditioner or other cooling equipment, close the door on the polyethylene ribbon lead, allow the bulb temperature to stabilize, and get a direct reading from —40 to +120°F. Saves time, builds customer confidence. Red pointer; 2⅛" scale arc, readable to ±2°; accuracy well within commercially accepted standards of ±5° (±3%). For further details, ask for Bulletin CT-1. Tester comes in gray vinyl case 5"x5"x4½" complete with 8 ft. detachable bulb and 7½ volt standard battery **$19.50**

Interchangeable 14 ft. extra bulb ..... **$ 6.50**

HANDY AC-DC LINE VOLTAGE TESTER



STOCK NO. 5406-LT—Plug-in to read line voltage, then find (and demonstrate) voltage drop or inadequate wiring by plugging in TV set, iron, toaster, washer, air-conditioner, shop equipment, etc. Features of this tester: (a) attached plug-receptacle permits continuous reading while loads are changed; (b) reads 150 V AC or DC; (c) cord allows convenient angle for reading; (d) jewel bearing construction provides continuing accuracy. Standard package of 6 meters comes with convenient counter display.

Per meter **$4.25**

VU, S, and FIELD STRENGTH METERS

VU METERS — Read volume levels in audio transmission circuits; scale —20 to +3 VU, red and black. AC rectifier type; pointer normally at —20 VU; 1400 ohms ±5% int. res., see Bulletin VUS-63 for application circuitry.

STOCK NO. 8801Z. Model 850, zero adjuster included **$5.85**
STOCK NO. 3801. Edgewise case; zero adjuster not available. **5.50**

S METERS — To measure relative signal strength; black and red scale, basic movement is 0-5 Ma. DC with 1000 ohms int. res. ±5%; for application notes and circuits, see Bulletin VUS-63.

STOCK NO. 3333. Model 350 as illustrated, pointer normally at 40 ..... **$3.45**
STOCK NO. 8333*. 850 Series case, 0-60 db., pointer normally at 60. (Formerly supplied with pointer at zero) **$3.35**
* For zero adjuster, add 35c to price and Z to stock number.

FIELD STRENGTH METER - When this variation of a 0-1 D.C. milliammeter is built into an elementary circuit (supplied on request), antenna systems may be easily checked, tuned, phased, or matched to transmission lines.

STOCK NO. 8903Z. Model 850. Topside marked .1, .5, 1, 2, 3, 4, 5, 7, 10; bottom scale marked 2, 4, 6, 8, 10; zero adjuster included; meter only **$3.95**

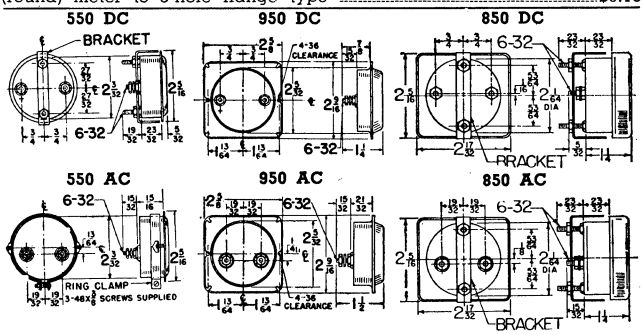
RESISTANCE METERS

RANGE Ohms	Volts	MODEL 550* Stock No.	MODEL 950* Stock No.	MODEL 950* Net Each	MODEL 850* Stock No.	MODEL 850* Net Each
10,000	4.5**	5701	9701	$3.00	8701	$3.15

*For zero adjuster add 35c to price and Z to stock number.
**Requires 3 flashlight cells for resistance readings but does not require resistor for voltage readings.

3-HOLE MOUNTING ADAPTER

Model 5-A. 2¾" black flange attaches from front, converts Model 550 (round) meter to 3-hole flange type $0.18



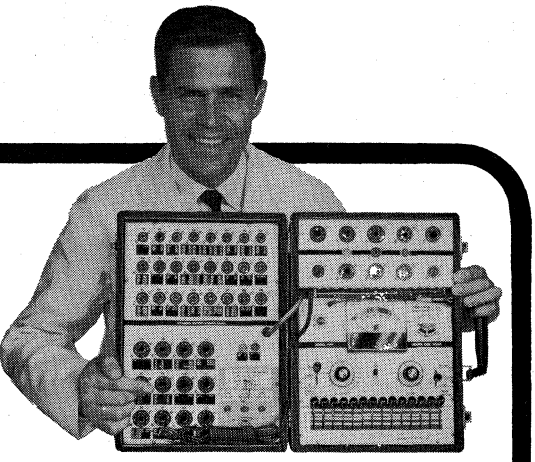
IMPORTANT — HOW TO ORDER

Give (1) Model Number, (2) Range, (3) Stock Number.
ZERO ADJUSTER (Z) 35c extra; see footnotes as to availability.
PANEL CALIBRATION (S) Normally for non-magnetic panels. If steel panel mounting, give thickness and size; add S to stock number.
SEE YOUR DISTRIBUTOR Authorized Shurite distributors carry most models and can obtain your other needs promptly.

Shurite® METERS

Prices in Effect Since Sept. 1, 1963; F.O.B. Factory; Individually Boxed.

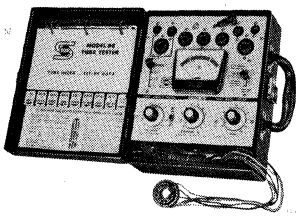
SECO TEST EQUIPMENT AND SERVICE AIDS



Deluxe! Only tester with "eye" tube to spot momentary shorts; constant voltage transformer for greatest stability and accuracy!

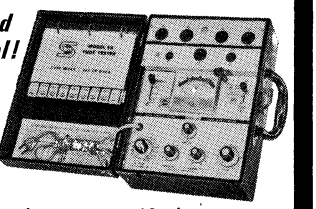
Here's the unit that gives you speed, sensitivity and reliability in a compact, portable tester. Instantaneous "eye" tube spots momentary shorts which normal meter lag misses—constant voltage transformer eliminates need for "line-adjust", provides proper filament and test voltages for greatest accuracy! Patented Grid Circuit Test makes up to 11 simultaneous checks for leaks, shorts and grid emission —locates hard-to-find faults. Dynamic Mutual Conductance and Cathode Emission Tests, too. 38 socket pre-wired panel accommodates 80 base arrangements for testing more than 1000 tubes without setup. Replaceable 10-socket plug-in panel permits complete test on all modern TV, Radio, Hi-Fi, Industrial and Foreign Tubes, including novar, nuvistor, compactron, 10-pin, magnoval, decal and low voltage hybrid types. Size: 13″x9″x7″. Shipping Wt.: 12 lbs. **Model 107C . . $189.50 NET**

Popular low cost Grid Circuit and Tube Merit Tester!



Complete coverage of all popular receiving tubes including novars, nuvistors, newest 10-pin types, compactrons, decal and magnovals—PLUS adaptor with 12-pin socket for more than 400 picture tubes, including 110° deflection types. Patented Grid Circuit Test makes up to 11 simultaneous checks for leaks, shorts and grid emission—plus Tube Merit and Filament Continuity Tests. Complete with speed-indexed setup data. Size: 9″ x 10½″ x 5″. Shipping Wt.: 6 lbs. **Model 88 . . . $74.50 NET**

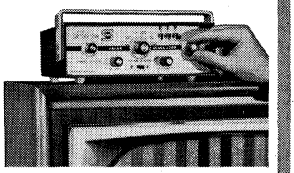
Grid Circuit, Heater Current and Merit Tester—replaceable panel!



Comprehensive analysis of all modern TV and Radio tubes—measures heater current for series string tubes. Tests over 400 picture tubes, including 110° deflection types. Plug-in panel is replaceable for new tubes or customized uses! Covers novars, nuvistors, new 10-pin types, compactrons, decal and magnovals. Patented Grid Circuit; Tube Merit; and Heater Current Tests—dial controls isolate or transpose tube circuits and select test current. Removeable cover with speed-indexed setup data. Size: 9½″ x 12″ x 5½″. Shipping Wt.: 10 lbs. **Model 98 . . . $99.50 NET**

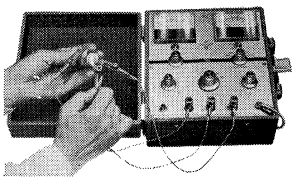
COLOR BAR GENERATOR

Rugged, completely solid-state, the 900's unique circuitry provides: bright, "rock-solid" single burst dots; and purest color quality with positive graduation from color-to-color. Single trace horizontal lines are bright and sharp. All-transistor circuit delivers highest reliability and instant operation with no warm-up. Zener regulated power supply and crystal controlled oscillators provide outstanding stability. Channel Tuner permits exact match of generator frequency to receiver for precise channel tuning. With combination Tilt Bracket/Carrying Handle. Size: 8″x 10½″x 3½″. Shipping Wt.: 7 lbs.



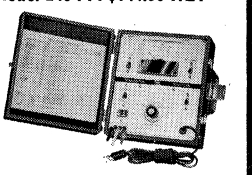
Model 900 . . . $129.95 NET

SCR ANALYZER



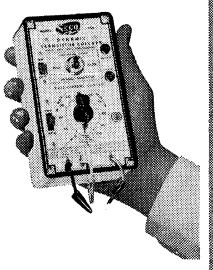
Yields rapid information on: Gate Firing Voltage and Current; Peak Forward Voltage; and Peak Reverse Voltage. Analyzes critical SCR properties to match voltage and current parameters, or for sorting to matched pairs or threes for full wave or three phase applications. Size: 9″ x 10½″ x 5″. Shipping Wt.: 8 lbs. **Model 240 . . . $144.50 NET**

TRANSISTOR ANALYZER



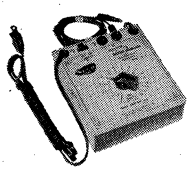
Provides safe, fast and accurate method for analyzing power and signal transistors under conventional circuit conditions. Provides Dynamic go-no-go test without removing transistor from circuit —immediately lets you identify NPN and PNP types as well as lead connections. Beta test accurately measures DC gain—Iceo and Icbo Tests provides direct reading of leakage. Size: 8¾″ x 7⅜″ x 4¼″. Shipping Wt.: 5 lbs. **Model 260 . . . $69.50 NET**

DYNAMIC TRANSISTOR CHECKER



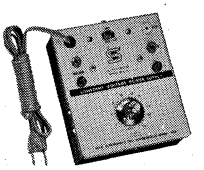
Safely, automatically tests PNP and NPN transistors "in or out" of circuit. No set-up necessary. Covers small signal, including "drift" types; medium power and power types. Positive check for "opens" shorts and gain. Also provides go-no-go test at practical collector currents. Size: 3¼″ x 6¼″ x 2¼″. Shipping Wt.: 1½ lbs. Powered by 1.5 V "C" cell. **Model 100 . . . $19.95 NET**

BATTERY ELIMINATOR



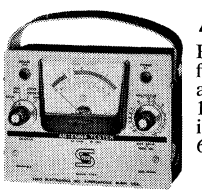
Variable 0 to 15 volts. Cannot be damaged by short circuit. Replaces battery normally used to power transistor equipment, or for equipment check under varying conditions. With plug-in jack for ext. volt meter. Size: 4½″ x 5″ x 1½″. Shipping Wt.: 2 lbs. **Model PS-2 . . . $19.95 NET**

VARIABLE DC POWER SUPPLY



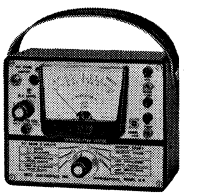
Variable 0 to 25 volts. Delivers clean, filtered DC at up to 100 MA average, with no hum or "motor-boating". Transistor circuit maintains constant voltage over wide load range. Size: 4½″ x 5½″ x 7¾″. Shipping Wt.: 2 lbs. **Model RPS-2 . . . $26.95 NET**

ANTENNA TESTER



Provides direct reading of forward or reflected power and SWR. For: 50 ohm lines and equipment in 3½ to 160 MC range. 1000 watts maximum RF output. Negligible insertion loss—may be left in line. Size: 6¾″ x 5¼″ x 2¼″. Shipping Wt.: 2½ lbs. **Model 520A . . . $49.95 NET**

AM TRANSMITTER TESTER



For Citizens Band and low power transmitters, 3½ to 160 MC, 5 watts max. RF output to self-contained dummy load. Provides direct reading of positive and negative modulation percentage and RF power output. Size: 6¾″ x 5¼″ x 2¼″. Shipping Wt. 2 lbs. **Model 510B . . . $48.95 NET**

SECO ELECTRONICS CORPORATION

Net

© U.C.P., Inc.

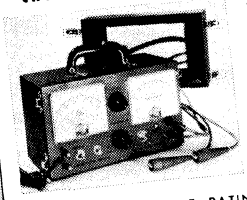
Insulation Testers

WRITE FOR DATA SHEETS ON THE INSTRUMENTS SHOWN . . . ALL ARE STANDARD PRODUCTION MODELS, AVAILABLE FOR IMMEDIATE DELIVERY FROM STOCK . . . LET US QUOTE ON YOUR REQUIREMENTS FOR MODIFIED UNITS OR SPECIAL TEST EQUIPMENT.

SLAUGHTER Company
TEST WITH CONFIDENCE

High-voltage Leakage Tester

checks insulation for...leakage
...grounds
.....arcing



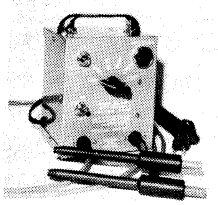
MODEL **122**

16 lb. Portable for lab and field work

VARIABLE VOLTAGE RATINGS TO 5 KV AC & D.C. DUAL RANGE LEAKAGE METER 0/100/1000 μa. . . . CAPACITY COMPENSATION. . . MEASURES INSULATION RESISTANCE, CAPACITY, POWER FACTOR.

High-voltage Insulation Tester

with buzzer signal on breakdowns
...grounds
....shorts



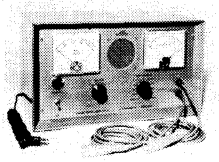
MODEL **101**

Watch what you are doing . . . not the tester

SIX TEST VOLTAGES . . 500 to 2500 V.A.C. PRICED SO YOU CAN AFFORD TO SPOT A FEW ALONG YOUR ASSEMBLY LINES.

High-voltage Leakage Tester

audibly signals excess leakage
...grounds
.....arcing



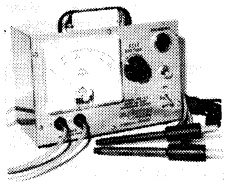
MODEL **103**

Measures Leakage . . . not capacity current

TEST VOLTAGE CONTINUOUSLY VARIABLE ADJUSTABLE LEAKAGE LIMIT. . CAPACITY COMPENSATION ON AC TESTS. . .RATINGS TO 10,000 VOLTS AC & DC. . . . LIMITED ENERGY. . NON-DESTRUCTIVE. . . FOR LAB AND PRODUCTION LINE SERVICE. . . . . .

Adjustable High-voltage Tester

with buzzer signal on breakdowns
...grounds
....shorts



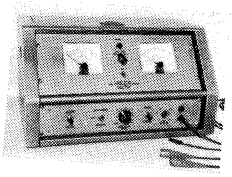
MODEL **106**

Voltmeter shows actual Test Voltage

CONTINUOUSLY VARIABLE TEST VOLTAGE RATINGS TO 10,000 VOLTS AC & DC . . RECOMMENDED FOR BREAKDOWN TESTING AT FINAL ASSEMBLY AND INSPECTION

Automatic H-V Insulation Tester

for precision checking . . . breakdowns
. . . leakage
. . . grounds



MODEL **103-MP**

Automatic Test Cycle

FULLY AUTOMATIC TEST CYCLE. . . CONTROLLED RATE-OF-RISE. . . ADJUSTABLE TEST VOLTAGE, DWELL TIME, & LEAKAGE LIMIT. . . CAPACITY COMPENSATION ON AC TEST. . . FOR PRECISION TEST OF CRITICAL PARTS & ASSEMBLIES. . .

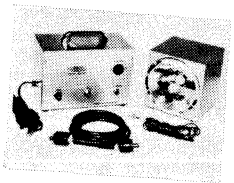
Stroboscopes

WRITE FOR DATA SHEETS ON THE INSTRUMENTS SHOWN . . . ALL ARE STANDARD PRODUCTION MODELS, AVAILABLE FOR IMMEDIATE DELIVERY FROM STOCK . . . LET US QUOTE ON YOUR REQUIREMENTS FOR MODIFIED UNITS OR SPECIAL TEST EQUIPMENT.

SLAUGHTER Company
TEST WITH CONFIDENCE

Inspection Stroboscope

...with extra high intensity daylight lamp



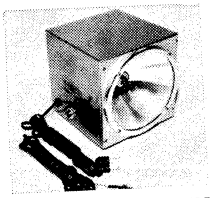
MODEL **167**

0/600 Flashes per Minute

SUPER INTENSITY TRIGGERED FLASH UNIT ... PUSH—TO—SEE SWITCH.... FOR INSPECTION ON-THE-GO UNDER HIGH AMBIENT LIGHT CONDITIONS.

Inspection Stroboscope

.....with high intensity daylight lamp



MODEL **161**

0/2,000 Flashes per Minute

LIGHT WEIGHT INEXPENSIVE TRIGGERED FLASH UNIT.....PUSH-TO-SEE SWITCH.... INTENSE WHITE LIGHT FOR INSPECTION ON —THE —GO

MIDGET STROBOSCOPE FLASH HEAD

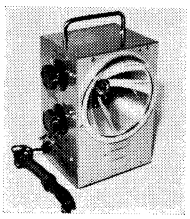
MODEL **166**

0/10,000 Flashes per Minute

FOR WORK ON MINIATURIZED EQUIPMENT .... FOR PRINTING TRADES.... FOR BIO—MEDICAL WORK.. ADAPTS TO ANY SLAUGHTER STROBOSCOPE...

Universal Stroboscope

...with high intensity daylight lamp



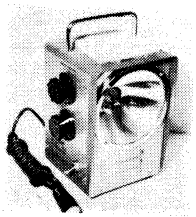
MODEL **163**

50/16,000 Flashes per Minute

UNIVERSAL UNIT FOR MOTION STUDY & INSPECTION ON-THE-GO...INSTANT STARTING ... HIGH INTENSITY WHITE LIGHT .... TRIGGER EXTERNALLY OR OPERATE FROM INTERNAL OSCILLATOR

Metered Precision Stroboscope

.....with high intensity daylight lamp



MODEL **165**

50/16,000 Flashes per Minute

PRECISION STROBOSCOPE TACHOMETER INSTANT STARTING. . .HIGH INTENSITY WHITE LIGHT. . . OPERATES FROM EXTERNAL CONTACTS OR INTERNAL OSCILLATOR. . EASILY SYNCHRONIZED. .OUTPUT JACKS TO COUPLE SCOPE, ETC....

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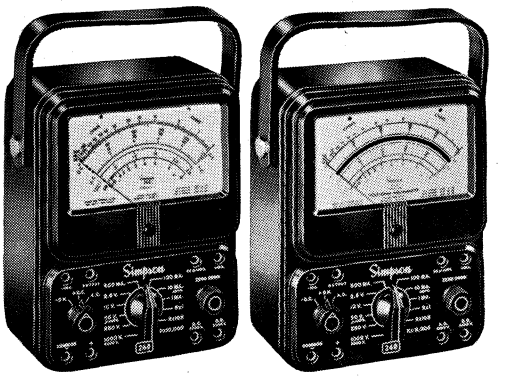
Simpson VOMs

All Prices Net

World Famous 260® VOM TWO VERSIONS

- New Diode Overload Protection
- New Self-Shielded Movement
- New Higher Accuracy: 2% DC, 3% AC
- New Ruggedness from Spring-Backed Jewels
- Greater Repeatability
- Increased Linearity and Stability
- Input Protected with Internal 1-amp fuse



Series 5 (Std. Scale) | Series 5M (Mirror Scale)

260® VOM

OTHER FEATURES

- **Converts to 9 Different Testers (See Adapters on next page.)**
- **Over a Million Purchased . . . Recognized Reliability**
- **20,000 opv, DC; 5,000 opv, AC**
- **Adjust-A-Vue Handle**
- **Polarity Reversing Switch**
- **50 Microampere-250 Millivolt Range**
- **Easy-to-Read Scales:** Black and red, spread out for faster reading, less errors.
- **Popular DBM Ranges:** −20 Dbm to +50 DBM, one milliwatt in 600 ohms!
- **Improved Frequency Response in AC Measurements:** 5 to 500,000 cps.
- **Full-Wave Bridge Rectifier System.**

VOLTAGE RANGES

DC: 0-250mv; 0-2.5v; 0-10v; 0-50v; 0-250v; 0-1000v; 0-5000v.
AC: 0-2.5v; 0-10v; 0-50v; 0-250v; 0-1000v; 0-5000v.
AF: 0-2.5v; 0-10v; 0-50v; 0-250v.
DB (1MW—600Ω): −20 to +10 db; −8 to +22 db; +6 to +36 db; +20 to +50 db.

CURRENT RANGES

DC: 0-50ua; 0-1ma; 0-10ma; 0-100ma; 0-500ma; 0-10 amps.

RESISTANCE RANGES

0-2000Ω (12Ω ctr.); 0-200KΩ (1200Ωctr.); 0-20 meg. (120KΩ ctr.)

FREQUENCY RESPONSE

Essentially flat through 50,000 cps.

ACCURACIES

DC Volts ±2% of full scale. DC current ±1.5% of full scale. AC Volts ±3% of full scale. DC resistance ±2% of arc length.

Size: 5¼" x 7" x 3⅛" . . . Net Wt.: 3½ lbs.

260 (Series 5) with Std. Scale complete with test leads No. 7500 and operator's manual . . . **$55.00** (in roll-top case . . . **$61.00**)

260 (Series 5M) with MIRROR SCALE complete with No. 7500 lead and operator's manual . . . **$57.00** (in roll-top case . . . **$63.00**)

ACCESSORIES

Leads, Probes and Cases	Part No.	Price
Banana plugs and alligator clip	7500	$ 2.10
Banana plugs and test prods	7538	2.50
10,000 VDC High voltage probe	0507	10.20
25,000 VDC High voltage probe	0508	11.50
50,000 VDC High voltage probe	0509	12.50
10,000 VAC High voltage probe	0161	11.75
Leather Carrying Case	1818	9.00
Ever-Redy Carry Case	0805	10.00
Roll-top safety case only for 260, Series 3, 4, 4M, 5, 5M and model 261	0249	10.00

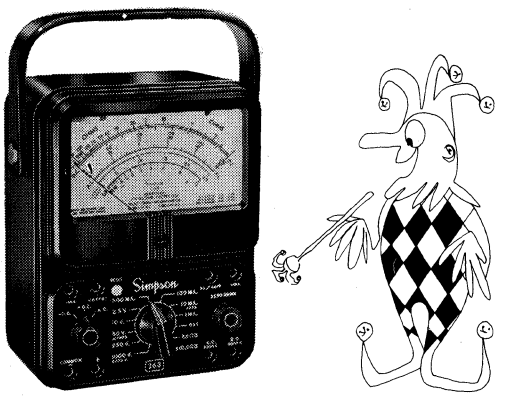
Increased Accuracy MODEL 261 VOM

ACCURACY (77°F): DCV, 0-1000 v, ±1½% F.S., 5000 v, ±2½% F.S.; DC MA & AMP, ±1½% F.S.; ACV, ±3%; ohms, ±1½% of linear arc.

OTHER SPECIFICATIONS: See 260 VOM.

PRICE: Complete with leads and manual **$65.00**

GOOF-PROOF VOM 260®-5P



FOR RANGES: SEE 260 VOM ABOVE

This Simpson Instrument has built-in meter protection approaching 100% which virtually makes this VOM GOOF-PROOF. The 260-5P will be of particular value in situations where the instrument may be used by inexperienced people; students, apprentices, and new employees. Technicians, too, will find the instrument ideal for exploring unfamiliar equipment, especially when lack of a schematic diagram poses the hazard of encountering unexpected high voltages when making tests.

Combined protection not found in any other VOM.

1. Reset button pops out to indicate overload.
2. You cannot reset circuits while overload is present.
3. Protective circuit does not require massive overloads which can cause hidden damage to the instrument.
4. All ranges are protected except those not feasible in a portable instrument — 10,000 and 5000 volts DC and AC; 10 Amps DC.

The 260-5P has the same ranges and takes the same accessories as the Simpson 260-5VOM.

Complete with test leads 7500 and operator's manual.

260-5P Protected (GOOF-PROOF) **$85.00**
260-5PRT Protected Roll Top **$91.00**

SIMPSON ELECTRIC CO.

Net

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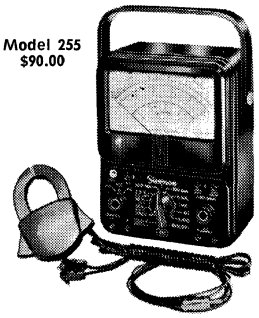
Simpson VOMs (cont'd)

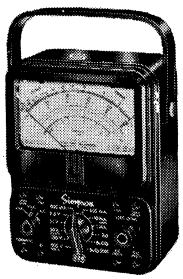
All Prices Net

NEW AND UNUSUAL VOMs

Model 255 $90.00



Model 250 — $60.00



COMBINATION ELECTRICAL AND TEMPERATURE TESTER — MODEL 255

Model 255 is well suited for the servicemen in many fields, such as gas appliance servicing and installation, electrical utilities, and heating service and installation. This tester includes the important VOM functions of the 260 as well as providing a temperature range of +100°F to +1050°F. A low millivolt drop is provided on the direct current ranges. By using the AC clamp-on adapter, AC currents through 250 amperes can be checked without disconnecting the leads or otherwise opening the circuit. ADJUST-A-VUE HANDLE.

Complete with test leads with prods (Cat. No. 0115), 5 Ft. thermocouple lead (0163), and operator's manual.

Model 255 ..... **$90.00**

AC Clamp-on Adapter, Cat. No. 0531 ..... **$30.00**
10,000 VAC High Voltage Probe, Cat. No. 0161 ..... **$11.75**

NEW...50 MILLIVOLT DROP VOM...MODEL 250

This is Simpson's answer to transistor circuitry testing requiring a VOM with a low millivolt drop on current ranges. Model 250 contains all of the built-in features of the World's Largest Selling VOM, the 260, plus the provision for using the add-a-tester adapters, the 260 high voltage probes and other accessories. ADJUST-A-VUE HANDLE.

Complete with test leads and operator's manual.

Model 250 ..... **$60.00**

VOLT-OHM-MILLIAMMETER SPECIFICATIONS
20,000 Ω/V DC • 5,000 Ω/V AC

RANGES:	250	255
DC VOLTS	0-0.050; 0-0.250; 0-2.5; 0-10; 0-50; 0-250; 0-500; 0-1000	0-0.050; 0-0.250; 0-1; 0-2.5; 0-10; 0-50; 0-250; 0-1000
AC VOLTS	0-2.5; 0-10; 0-50; 0-250; 0-500; 0-1000	0-2.5: 0-10; 0-50; 0-250; 0-1000
DC MICROAMPERES	0-50 (Both 50 and 250 MV Drop)	
DC MILLIAMPERES	0-1; 0-10; 0-100; 0-500 (50 MV Drop)	
DC AMPERES	0-10 (50 MV Drop)	NONE
AC AMPERES	NONE	0-250
DB SCALE (1MW-600Ω)	−20 to +10; −8 to +22; +6 to +36; +20 to +50	NONE
OUTPUT RANGES	NONE	NONE
RESISTANCE RANGES	R×1 0-2000Ω (12Ω center) R×100 0-200KΩ (1200Ω center) R×10K 0-20 megΩ (120KΩ center)	
TEMPERATURE RANGE	NONE	+100° F. to +1050° F.
ACCURACIES:		
0-50 MV; 0-250 MV; 0-2.5 to 0-1000 V DC	±2% F.S.	±2% F.S.
0-5000 V DC	—	—
0-50 MICROAMPERES	±1% F.S.	±1% F.S.
0-1 MA to 0-10 A DC	±2% F.S.	±2% F.S.
R×1 R×100, R×10,000	±2.5° of Arc ±2.0° of Arc	±2.5° of Arc ±2.0° of Arc
0-2.5 to 0-1000 V AC	±3% F.S.	±3% F.S.
0-5000	—	—
MOVEMENT TYPE	Self Shielding Annular — Taut Band	
TEMPERATURE COMPENSATED	NO	NO
DIODE PROTECTED	YES	YES
MIRROR SCALE	NO	NO
SCALE LENGTH	4.2 Inches	
DIMENSIONS	5¼" x 7" x 3⅛"	
NET WEIGHT	3½ lbs.	
PRICE	$60.00	$90.00

270 Series 3 — HIGH ACCURACY VOM

- Annular TAUT BAND, Self-Shielded Movement.
- Spring-Backed Jewels
- Diode Overload Protection
- Special Calibration Circuit for Increased Accuracy
- Mirror Scale, Knife-Edge Pointer
- Gold Bonded Diodes for AC
- Excellent Repeatability
- Greater Accuracy Predictable Over a Wide Temperature Range
- DC Accuracy, 1¼%* Full Scale
- AC Accuracy, 2% * Full Scale
- Resistance Accuracy, ±1° of Arc

*At an Ambient Temperature of 77°F

RANGES

DC Voltage (20,000 opv): 0-250 mv; 0-2.5 v; 0-10 v; 0-50 v; 0-250 v; 0-1000 v; 0-5000 v.

AC Voltage (5000 ohms-per-volt): 0-2.5 v; 0-10 v; 0-50 v; 0-250 v; 0-1000 v; 0-5000 v.

AF Output Voltage (With .1 mfd. int. series capacitor): 0-2.5 v; 0-10 v; 0-50 v; 0-250 v.

Volume Level, Decibels (Zero DB equal to 1 mw across a 600 ohm line): −20 to +10 DB; −8 to +22 DB; +6 to +36 DB; +20 to +50 DB.

DC Resistance: 0-2000 ohms (12 ohms center); 0-200,000 ohms (1200 ohms center); 0-20 megohms (120,000 ohms center).

Direct Current: 0-50 mu a; 0-1 ma; 0-10 ma; 0-100 ma; 0-500 ma; 0-10 amp.

270, Series 3, complete with test leads and Operator's Manual **$68.00**

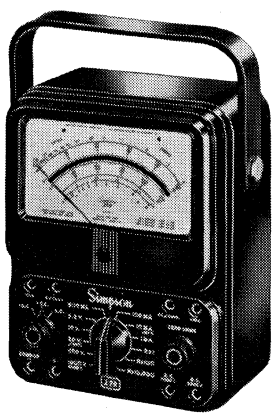
270 RT, in Roll-Top Case **74.00**

See accessories under 260 VOM on preceding page.

270
SERIES 3
VOM

CONVERTS TO 9 DIFFERENT TESTERS WITH ADAPTERS BELOW

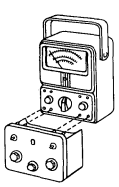
ADJUST-A-VUE HANDLE

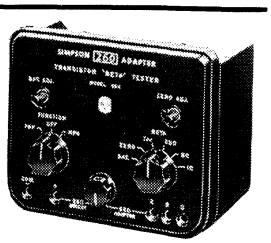


PLUG-IN ADAPTERS FOR ALL 260®, 250, 255, 261 AND 270 VOMs ABOVE

Transistor Testers, Model 650 ..... **$35.00**
DC VTVM, Model 651 ..... **40.00**
Temperature Tester, Model 652 ..... **40.00**
AC Ammeter, Model 653 ..... **23.00**
Battery Tester, Model 656 ..... **23.00**
Microvolt Attenuator, Model 655 ..... **$23.00**
Audio Wattmeter, Model 654 ..... **25.00**
Milliohmmeter, Model 657 ..... **45.00**
DC Ammeter, Model 661 ..... **25.00**

See your distributor or write for Bulletin 2072A giving specifications





SIMPSON ELECTRIC CO.

Simpson VOLT-OHM-MILLIAMMETERS

All Prices Net

Dual Sensitivity VOM, Model 263

Overlapping ranges offer greater accuracy expressed as a percentage of reading. Diode overload protection (Prevents movement burnout even on 200,000% overload). External battery compartment makes battery replacement easier. Uses 1½ volt alkaline battery. Complete with test leads No. 0115 and operator's manual

$85.00

RANGES

DC Volts: 0-0.15 / 0-.75 / 0-3 / 0-7.5 / 0-30 / 0-75 / 0-300 / 0-750 / 0-3000 @ 20KΩ/V . . . 0-0.3 / 0-1.5 / 0-6 / 0-15 / 0-60 / 0-150 / 0-600 / 0-1500 / 0-6000 @ 10KΩ/V
AC Volts: 0-2.5 / 0-7.5 / 0-30 / 0-150 / 0-750 @ 10KΩ/V . . . 0-5 / 0-15 / 0-60 / 0-300 / 0-1500 @ 5KΩ/V
DC Microamperes: 0-75 @ 150 MV; 0-150 @ 300 MV
DC Milliamperes: 0-0.75 / 0-7.5 / 0-75 / 0-750 @ 150 MV; 0-1.5 / 0-15 / 0-150 @ 300 MV
DC Amperes: 0-7.5 @ 150 MV; 0-1.5 / 0-15 @ 300 MV
DB Scale (1MW-600): −20 to +75.5 db in 10 ranges
Output Ranges: 0.1 mfd capacitor in series with all AC Voltage ranges through 300 Volts
Resistance Ranges (4.5Ω center): R×1 0-500Ω, R×10 0-5000Ω, R×100 0-50KΩ, R×1K 0-500KΩ, R×10K 0-5 megΩ, R×100K 0-50 megΩ

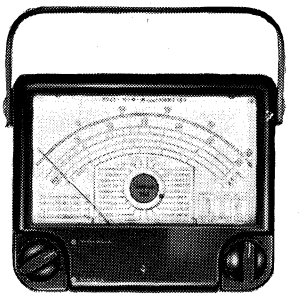
ACCURACIES

DC Volts: 0-0.15 to 1500 ±1½%; 0-3000 to 6000 ±2½%
AC Volts: ±3%
DC Current: ±1½%
R×1: ±3° of Arc
R×10, R×100K: ±2½° of Arc

ACCESSORIES

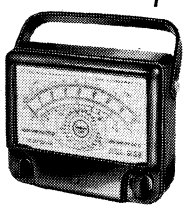
High Voltage Probes: 30KV @ 10KΩ/V, 15KV @ 20KΩ/V
Cat. No. 0141 ..... **$12.00**

Carrying Cases: Ever-Redy Vinyl Carrying Case
Cat. No. 5262 ..... **$10.00**

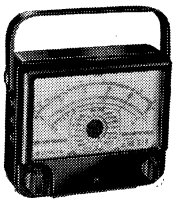


20,000 Ω/VDC
10,000 Ω/VDC
10,000 Ω/VAC
5,000 Ω/VAC

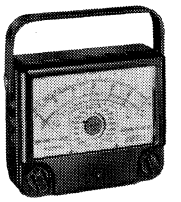
AC/DC VOLT-OHM-MILLIAMMETERS AND TESTERS*



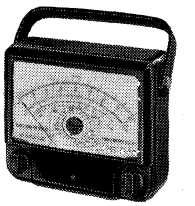
NEW, IMPROVED MODEL 269-2 VOM
100,000 opv



MODEL 267 VOM
20,000 opv



MODEL 268 VOM
20,000 opv



MODEL 262-3 VOM
20,000 opv

MODEL 269-2

VOLTAGE RANGES

DC: 1.6v; 8v; 40v; 160v; 400v; 800v; 1600v; 4000v.
AC: 3v; 8v; 40v; 160v; 400v; 800v.
DB: (1MW-600Ω): −12 to +45.5 db in four ranges.

CURRENT RANGES

DC: 0-16ua; 0-160ua; 0-1.6ma; 0-16ma; 0-160ma; 0-1.6 amps; 0-8 amps.

RESISTANCE RANGES (12 Ω Center)

0-200Ω; 0-20KΩ; 0-200KΩ; 0-2 megΩ; 0-20 megΩ; 0-200 megΩ.

ACCURACIES

DC Volts ±2% and ±3% of full scale. **DC Current** ±2%. **AC Volts** ±3% of full scale. **DC Resistance** ±2.5% and ±3% of arc length.

Complete with test leads No. 0115, 4000 V DC probe extension and operator's manual.

$90.00

MODEL 267

DC Volts: 0-.25/2.5/10/50/250/500/1000.
AC Volts: 0-2.5/10/50/250/500/1000.
DC Microamperes: 0-50.
DC Milliamperes: 0-1/10/100/500.
DC Amperes: 0-10.
DB Scale: −20 +10, 1 mw, 600 ohms.
Output Ranges: AC volt ranges to 250 V with .1/mfd condenser in series.

RESISTANCE RANGES

0-2000Ω (12Ω ctr.); 0-200KΩ (1200Ω ctr.); 0-20 meg. (120KΩ ctr.)

FREQUENCY RESPONSE

2.5/10 VAC 20 cps — 500 KC ±5%
50 VAC 20 cps — 150 KC ±5%

ACCURACY

DC V, Milliamperes, Amperes ±3% F.S.; **DC Mics** ±2% F.S.; **AC Volts** ±5% F.S.; **Ohms** ±2.5 and ±3% of linear arc.

Complete with test leads No. 7500 and operator's manual **$60.00**

MODEL 262-3

VOLTAGE RANGES

DC: 1.6v; 8v; 40v; 160v; 400v; 1600v; 4000v.
AC: 3v; 8v; 40v; 160v; 800v.
AF: 3v; 8v; 40v; 160v.
DB: (1 MW-600Ω): −12 to +45.5 db in four ranges.

CURRENT RANGES

DC: 80ua; 160 ua; 1.6 ma; 16 ma; 160 ma; 1.6 amps; 16 amps.

RESISTANCE RANGES

DC: 0-500Ω (4.5Ω ctr.); 0-5KΩ (45Ω ctr.); 0-50KΩ (450Ω ctr.); 0-500KΩ (4,500Ω ctr.); 5 megΩ (45Ω ctr.); 0-50 megΩ (450KΩ ctr.).

FREQUENCY RESPONSE

Essentially flat through 50 kc.

ACCURACIES

DC Volts ±3% of full scale. **AC Volts** ±5% of full scale. **DC Resistance** ±2.5% and ±3% of arc length. Complete with test leads No. 8463, 4000 V DC probe extension and operator's manual.

$70.00

MODEL 268

AC Volts: 0-3/12/60/300/600/1200
DC Volts: 0-3/12/60/300/600/1200
DC Microamperes: 0-60.
DC Milliamperes: 0-1.2/12/120
DC Amperes: 0-12
DB Scale: −12 +11, 1 mw, 600 ohms

OUTPUT RANGES

AC Volt: Ranges to 300 V with .1/mfd condenser in series

RESISTANCE RANGES

0-2000Ω (12Ω ctr.); 0-200KΩ (1200Ω ctr.); 0-20 meg (120KΩ ctr.)

FREQUENCY RESPONSE

2.5/10 VAC 20 cps — 500 kc ±5%; 50 VAC 20 cps — 150 kc ±5%

ACCURACY

DC V, Milliamperes, Amperes ±3% F.S.; **DC Mics** ±2% F.S.; **AC Volts** ±5% F.S.; **Ohms** ±2.5% and ±3% of linear arc.

Complete with test leads No. 7500 and operator's manual

$60.00

WRITE FOR BULLETIN 2072

*See "ACCESSORIES" Section for carrying cases, etc.

SIMPSON ELECTRIC CO.

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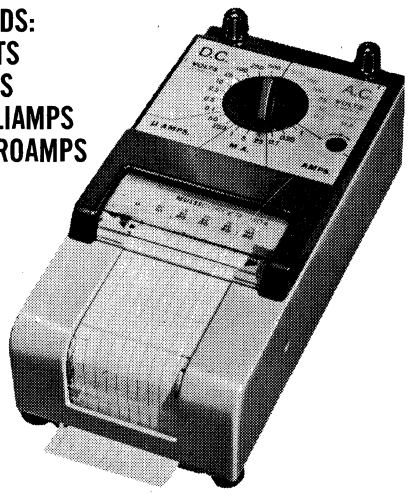
Simpson INSTRUMENTS

All Prices Net

NEW! Voltage-Current Recorder

MULTICORDER®

RECORDS:
- **VOLTS**
- **AMPS**
- **MILLIAMPS**
- **MICROAMPS**



FEATURES:

- **A permanent record of range and measured value.**
- **Inkless recording via fast sequential impressions on pressure sensitive strip chart paper (no pen and ink maintenance problems).**
- **A high torque meter movement, with a shock-proof taut band suspension moving coil system.**

SIMPSON **MULTI**CORDER Model 604 contains a unique range marking system that indicates the range being used as the value is being recorded. Compact, rugged design, easy-to-operate and accurate, the **Multi**corder is an indicating instrument with a wide band of ranges and functions for measurements that eliminates the need for a separate recorder for each of the functions and ranges. You get visual readout in addition to the recording action that offers three chart speeds: 1"/3"/12" per hour. This Simpson **Multi**corder is the only multi-function recorder available for less than $200.00.

RANGES:

D. C. Volts: 0-.1/.5/2.5/10/25/100/250/500 @ 20,000 ohms per volt.
A. C. Volts: 0-10/25/100/250/500 @ 5,000 ohms per volt.
Direct Current: 0-50/250 Mics, 1/5/25 Milliamps, .1/.25/1.0 Amps. 350 MV Drop maximum.
Alternating Current: 0-2 Milliamps. 450 MV drop. Complete with test leads (#7500) and two rolls of Chart Paper.

Model 604 Multicorder **$200.00**
Additional Chart Paper #02612.....$2.50 ea. (Box of 10).....$30.00
Special Gear Unit 30/60/90 in/hr. Cat. #0683.....$29.95

SPECIFICATIONS

ACCURACY OF INDICATION:	
DC	±1.5% F.S.
AC (45 to 65 cps Sine Wave)	±1.5% F.S.
ACCURACY of RECORDING:	±2.5% F.S.
TEMPERATURE INFLUENCE:	
DC — for 10°C change (18°F)	1 max (% of true value)
AC — for 10°C change (18°F) (Influence is positive from 20°C to 0, (68°F to 32) and negative from 20 to 50°C. (68 to 122°F)	1 max
FREQUENCY INFLUENCE:	
Flat from 15 to 10,000 cps. 2.5% of full scale from 10,000 to 20,000 cps.	

RECORDER: Chart paper and chopper bar action can be driven either by the self-contained synchronous motor or by external driving means.

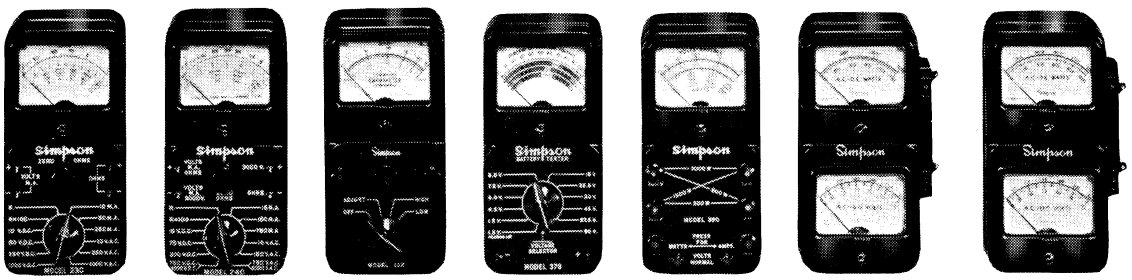
MOTOR DRIVE: Self-starting synchronous motor, 115 volts, 60 cps, contained in recorder. Grounded line cord is provided with recorder.

CHART SPEED: 1/3/12 inch/hour. Chart impressions are made every two seconds.

CHART PAPER: Type — Pressure sensitive paper. Width of recording — 2.3 inches. Length of paper on roll — 50 feet approximately. Divisions — 50.

SIZE: 9¾" x 4¾" x 4". **NET WEIGHT:** 5½ lbs.

HAND-SIZE MICROTESTERS — DIMENSIONS, 3" x 5⅞" x 2½"



AC-DC Volt-Ohm-Milliammeter, Model 240 — 1000 ohms per volt, AC and DC.

AC Volts: 15, 150, 750, 3000.

DC Volts: 15, 75, 300, 750, 3000.

DC Milliamperes: 15, 150, 750.

Ohms: 0-3000 (center scale 30); 0-300,000 (center scale 3000). With Leads.....**$35.00**

AC-DC Volt-Ohm-Milliammeter, Model 230 — AC Volts: 10, 250, 1000 (400 ohms per volt) — DC Volts: 10, 50, 250, 1000 (1000 ohms per volt) — DC Milliamperes: 10, 50, 250 — Ohms: 0-1000, 0-100,000—With Leads..**$34.00**

DC Ammeter, Model 375 — 0-1, 2.5, 5, 10, 25 amps **$25.00**

DC Milliammeter, Model 373 — 0-1, 5, 10, 25, 50, 100, 250, 1000 ma **$25.00**

DC Microammeter, Model 374 — 0-50, 100, 250, 500, 1000 ua **$30.00**

AC Ammeter, Model 370 — 0-1, 0-2.5, 0-5, 0-10, 0-25 amps **$26.00**

AC Milliammeter (Self-contained transformer), Model 378 — 0-5, 25, 100, 250, 1000 ma **$30.00**

DC Voltmeter (Res. 1000 ohms per volt), Model 377 — 0-1, 2.5, 5, 10, 25, 50, 100, 250, 500, 1000 DC volts **$30.00**

Millivoltmeter, Model 387 — 10, 30, 100, 1000 mv; with leads and manual **$30.00**

AC Voltmeter (Rec. Type — 1000 ohms per volt), Model 376 — 0-5, 10, 25, 50, 100, 250, 500, 1000 AC volts **$28.00**

AC Voltmeter, Model 371 — 0-150, 0-300, 0-600 volts **$26.00**

Ohmmeter, Model 372 — 0-500 ohms (5 ohms center); 0-5000 ohms (50 ohms center); 0-50,000 ohms (500 ohms center); 0-500,000 ohms (5,000 ohms center); 0-5 meg. (50,000 ohms center); 0-50 meg. (500,000 ohms center) — with Leads **$33.00**

Low Ohmmeter, Model 362 — 0-5, 0-25 ohms, with Leads and Manual **$28.00**

AC Volt-Amp-Wattmeter, Model 390 — Volts: 0-150, 300 — Amps: 0-0.3, 15 — Watts: 0-300, 600, 1500, 3000 — with break-in plug and Leads **$55.00**

AC-DC Volt-Wattmeter, Model 391 — AC or DC — Volts: 0-130, 0-260 — Watts: 0-1500, 0-3000 — with Cord and Plug **$50.00**

AC-DC Volt-Wattmeter, Model 392 — AC or DC — Volts: 0-130, 0-260 — Watts: 0-1000, 0-5000 — with Cord and Plug **$55.00**

Battery Tester, Model 379 — (Seperate arcs for Radio A Batteries, Hearing Aid A Batteries, and for all B Batterics) — with Leads....**$30.00**

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Simpson VTVMs

All Prices Net

NEW...VTVM offers 40% less circuit loading than most conventional VTVMs

INPUT RESISTANCE IS 16 MEGOHMS, NOT THE USUAL 11

This instrument has a large easy-to-read seven-inch scale and was especially designed to meet today's solid state circuitry requirements with a ½ volt range and improved AC accuracies of ±3% of full scale.

MODEL 312 with AC ohms/DC probe No. 0150 and operator's manual **$85.00**
R. F. Probe, Cat. No. 0152.....**$ 8.75**
High Voltage Probe, Cat. No. 0155.....**$11.75**
Carrying Case, Vinyl with Lead Storage Space, Cat. No. 0577....**$13.00**

LINE VOLTAGE

105/125V, 50/60 cps. **Size:** 7¾" x 6¾" x 3¾". **Weight:** 4¾ lbs.

VOLTAGE RANGES

DC: 0-0.5, 1.5, 5, 15, 50, 150, 500, 1500 (16 Megohms input impedance).
AC: (R.M.S.): 0-1.5, 5, 15, 50, 150, 500, 1500 (1 Megohm minimum input impedance).
AC: (Peak to Peak): 0-4, 14, 40, 140, 400, 1400, 4000.

RESISTANCE RANGES

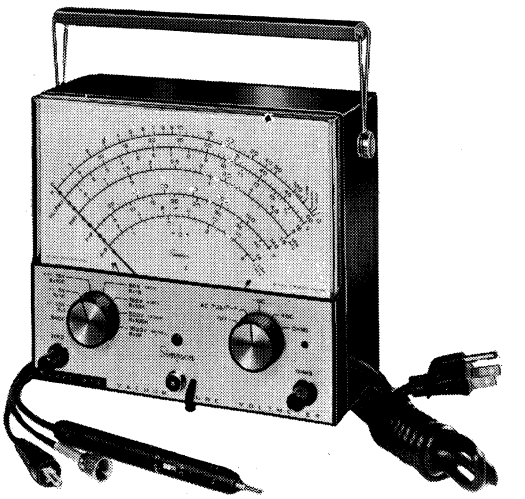
RX1, RX10, RX100, RX1K, RX10K, RX100K, RX1M (10 ohm center).

FREQUENCY RESPONSE

±3% from 15 cps to 3 megacycles per second on all AC voltage ranges through 150 volts.
With R.F. Probe: 10KC to 250 MC ±1 db. R.F. probe usable up to 40 volts rms.

ACCURACIES

DC: ±3% of full scale; **AC:** ±3% of full scale; **Resistance:** ±3° of arc.



AC/DC VTVM — Model 312

$85.00

OTHER SIMPSON VACUUM TUBE VOLT-OHMMETERS*

MODEL 311 VOLTAGE RANGES

DC: 0-1.5v; 5v; 15v; 50v; 150v; 500v; 1500v. (22 megΩ input impedance)
AC: 0-1.5v; 5v; 15v; 50v; 150v; 500v; 1500v; (RMS) (Min. 2.2 megΩ input impedance)
PP: 0-4v; 14v; 40v; 140v; 400v; 1400v; 4000v. (Min. 2.2 megΩ input impedance)
AF: 0-1.5v; 5v; 15v; 50v; 150v; 500v; 1500v. (30 cycles to 100Kc ±5%)
RF: 1.5v; 5v; 15v; 50v; 150v.
with probe (50 cycles to 100mc, 0-150 VRMS)

RESISTANCE RANGES

1KΩ (10Ω center); 10KΩ (100Ω center); 100KΩ (1KΩ center); 1 megΩ (10KΩ center); 10 megΩ (100KΩ center); 100 megΩ (1 megΩ center); 1000 megΩ (10 megΩ center).

FREQUENCY RESPONSE

±5% to 100 kc (with RF probe, usable to 250 mc)

LINE VOLTAGE

105/125 v, 50/60 cycles.

ACCURACIES

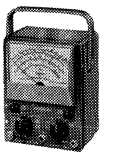
DC Volts: ±3% of full scale.
AC Volts: ±5% of full scale.
DC Resistance: ±3% of arc length (resistance).

Model 311 with AC/DC ohms probe No. 0734, ground lead No. 0733 and operator's manual. **$75.00**

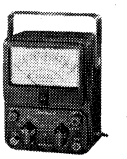
MODEL 303 VOLTAGE RANGES

AC-DC: 1.2v; 12v; 60v; 300v; 1200v.
AF: 1.2v; 12v; 60v.

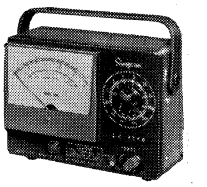
MODEL 311 AC-DC



MODEL 303 AC-DC



MODEL 715 AC ONLY



RF: 20 volts maximum. (With RF Probe)
DB: −20 to +63 db in five ranges.

RESISTANCE RANGES

1KΩ (10Ω center); 100KΩ (1000Ω center); 1 megΩ (10KΩ center); 10 megΩ (100KΩ center); 1000 megΩ (10 megΩ center).

INPUT IMPEDANCE

10 megohms (all ranges) on DCV; 275K ohms shunted by 210 uuf on ACV.

FREQUENCY RESPONSE

AF: Flat to 100 Kc on the three low AC ranges
RF: 20 Kc to 100 Mc (with RF probe)

LINE VOLTAGE

105/125 v, 50/60 cycles.

ACCURACIES

DC Volts: ±3% of full scale.
AC Volts: ±5% of full scale.
DC Resistance: ±3% of arc length (resistance).

Model 303 with DCV probe No. 0067, ACV-ohm probe No. 0068, ground lead No. 0069 and operator's manual. **$85.00**

Model 303RT (in roll top safety case) **$90.00**

MODEL 715 RANGES

Volts: 0-.01/.03/.1/.3/1/3/10/30/100/300 rms.
Decibels: Total Range −52 to +52 DBM.
Zero DBM: 1 millivolt in 600 ohms.
Scale Markings: −12 to +2 DB.

ACCURACY

±5% of full scale.

TESTER SENSITIVITY

10 millivolts full scale on lowest range.

INPUT IMPEDANCE

Minimum 1 meg @ 1 KC shunted by 25 uuf.

INTERNAL MULTIPLIERS

±1% precision resistors.

FREQUENCY RESPONSE

10 cps to 400 KC ±1 DB.

INPUT POWER REQUIREMENTS

110 to 125 VRMS, 50/60 cps @ 10 watts.

Complete with operator's manual and shielded input cable. **$70.00**

*Also See "ACCESSORIES" Section.

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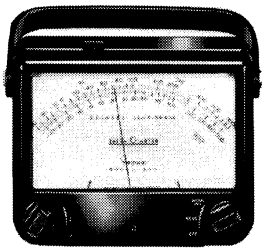
Simpson TEST EQUIPMENT and ACCESSORIES

All Prices Net

TEMPERATURE TESTERS

Model 385-3L



Models 388-3L and 389-3L

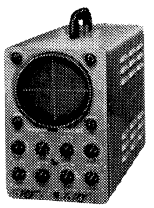
MODEL 385-3L — Accuracy: ±1°F about center scale; ±2°F at either end. For measuring temperatures from +70°F to as low as −50°F. Available in 3 lead model only. Supplied with one No. 0010 15 ft. thermistor probe and operator's manual. **$36.00***

MODEL 388-3L — Therm-O-Meter — Measures Temperatures −50°F to +1000°F. **Accuracy:** +1½ scale divisions. Standard models have combination Fahrenheit and Centigrade scale. Sensing Element: Thermocouple (Iron-Constanan). Supplied with internal battery and one 8" general purpose probe No. 0190, and operator's manual. Order additional probes as required. Model 388-3L: For three probes. **$70.00***

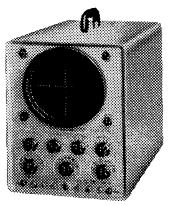
MODEL 389-3L — This dual range instrument provides a means for temperature measurements between −50°F and +100°F and between +100°F and +250°F. Accuracy is ±2°F. Supplied with internal battery and one 15' thermistor type probe (No. 0010). Order additional probes as required. Model 389-3L (for 3 leads). **$65.00***

*See accessories for other types of probe leads.

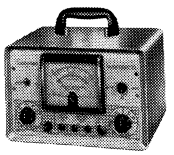
SCOPES, COLOR BAR GENERATOR, CAPACITOR LEAKAGE TESTER



Model 466
General Purpose Scope



Model 458
Color Scope



Model 383A Capacitor Leakage Tester

Model 466 GENERAL PURPOSE SCOPE

Freq. Resp. of Vert. Ampl.: From 15 cycles/sec to 100 kc/sec, flat within ±1 db; 6 db down at 250 kc/sec; usable to 1 Mc/sec.
Maximum Vertical Deflection Sensitivity: 30 Millivolts RMS/inch.
Frequency Response of Horizontal Amplifier: From 15 cycles/sec to 20 Kc, flat within ±1 db; 6 db down at 100 Kc/sec.
Maximum Horizontal Deflection Sensitivity: 0.7 volt RMS/inch.
Z-Axis Sensitivity (Voltage Required to Extinguish Beam): 20 volts RMS.
Calibrating Voltage (at 117.5 VAC power source): 1 volt P-P ±10%.
Maximum Input Voltage: 400 volts peak.
Input Resistance: 0.1 Meg (at atten. x 1); 0.5 Meg (at atten. x 100).
Input Capacitance: 40 uuf (at atten. x 1); 35 uuf (at atten. x 100).

Sawtooth Sweep Range: 15 cps to 80 Kc/sec.
Size: 7⅞" x 12¼" x 16⅛". **Net Wt:** 19 lbs.
For use on 110 volts, 60 cycles.
Complete with input cable No. 0100 and operator's manual . . . **$170.00**
Dual Voltage Model for 220/110 volts, 50/60 cycle . . . **$180.00**

MODEL 458 COLOR SCOPE

- 7" Cathode Ray Tube.
- Wide band operation, the frequency response is flat within ±1.0 db to 4.5 Mc. Faithfully displays COLOR BURST frequency with a sensitivity greater than 40 Mv rms per inch of vertical deflection.
- Narrow band operation, the frequency response is flat within ±2 db from 10 cycles to 300 Kc with a sensitivity greater than 15 Mv rms per inch.
- Good square wave response provides accurate representation of sync pulses and composite wave-form pattern for trouble-shooting video, sync, and sweep circuits.
- Horizontal sweep, to 250 Kc, for expansion of high frequency wave-form detail and color burst.
- Vernier and Compensated Decimal Step Attenuator for better signal controls.
- Provision for Intensity Modulation of CRT.
- 1 volt peak calibrating voltage.

Line Voltage: 105/125v, 50/60 cycle.
Size: 11" x 16½" x 14½". **Weight:** 29 lbs.
Complete with operator's manuel . . . **$375.00**

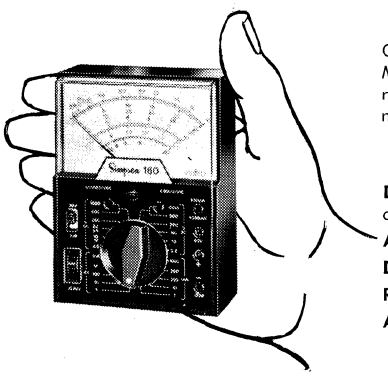
Model 383A CAPACITOR LEAKAGE TESTER

- Measures the leakage resistance of defective paper, mica, or ceramic capacitors. Indicates directly the capacitance of good paper, mica, or ceramic capacitors over a range of 10.0 mmf to 10.0 mf.

Pulse technique detects many marginal capacitors. All measurements are made under load conditions. No adjusting of a bridge circuit and balancing controls. **Line Voltage:** 105/125 v, 60 cycle only. Complete with test leads and operator's manual . . . **$100.00**

NEW HAND-SIZE VOM

SIMPSON 160
(3⅝" x 4⅜" x 1⅜")



Compact version of world famous 260® VOM. Improved range coverage. Meter is diode overload protected. Polarity reversal switch. Taut band meter movement. Separate battery compartment. Complete with leads manual..... **$50.00**

RANGES

DC VOLTS: 0-0.25 / 1.0 / 2.5 / 10 / 50 / 250 / 500 / 1000 @ 20,000 ohms/V.
AC VOLTS: 0-2.5 / 10 / 50 / 250 / 500 / 1000 @ 5,000 ohms/V.
DC MILLIAMPS: 0-50 ua / 1 / 10 / 100 / 250 / 500 @ 250 MV drop.
RESISTANCE: Rx 1 / 10 / 100 / 1K / 10K ohms (30 ohms center).
ACCURACY: 3% DC; 4% AC.

SIMPSON ELECTRIC CO.

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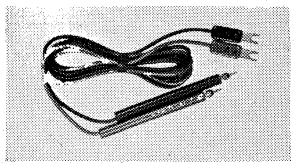
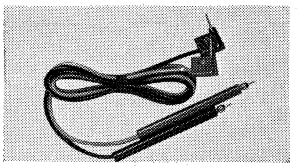
Simpson TEST EQUIPMENT ACCESSORIES and METERS





LEADS

For Models	Cat. No.	Price
260 Series 3, 4, 5, 261, 270 Banana plugs and alligator clip	7500	$2.10
260 Series 3, 267, 268 Banana plugs and test prods	7538	2.50
355 Test prods.	8600	2.10
255 only, thermocouple lead (5 ft.)	0163	4.00
385-3L, 389-3L Free Air Temperature Probe	0789	7.45
385-3L, 389-3L, 15 ft. Thermistor lead	0010	5.50
385-3L, 389-3L, 30 ft. Thermistor lead	0216	6.45
385-3L, 389-3L, 50 ft. Thermistor lead	0415	7.60
385-3L, 389-3L, 100 ft. Thermistor lead	0416	10.40
385-3L, 389-3L, 150 ft. Thermistor Lead	0417	12.90
388-3L Rugged Service Lead (8 ft.)	0496	7.00
388-3L General purpose thermocouple	0190	5.00
388-3L Surface temperature themocouple (300°F. Max.)	0187	8.90
385-3L, 389-3L Surface temperature probe	0790	6.00
650 Test Lead	7545	1.20
651 Ground Lead	7547	1.20
466, 715 Input cable	0100	2.85
Test prods and elbow terminals 230/240/260-2/372	8381	2.50
Test prods and spade terminals — all microtesters	8379	2.50
Alligator clips and elbow terminals — 230/240/260-2/372	8375	1.75
Alligator clips and spade terminals — all microtesters	8376	1.75
Combination test prods with removable alligator clips and elbow terminals 262/269	8463	2.30
263, 269-2 Combination test prods with removable alligator clips and elbow terminals	0115	2.30
"SAFE/GUARD" VOM METER OVERLOAD PROTECTOR	12621	1.95

PROBES (High Voltage Types) & MULTIPLIERS

For Models	Cat. No.	Price
221 (30,000v)	0009	$12.55
260 Series 2 (25,000v)	0007	10.75
260 Series 2 (50,000v)	0179	12.50
260 Series 3, 4, 4M, 5, 5M, 250, 255, 261, 267, 270 (10,000 V DC)	0507	10.20
260 Series 3, 4, 4M, 5, 5M, 250, 255, 261, 267, 270 (25,000 V DC)	0508	$11.50
260 Series 3, 4, 4M, 5, 5M, 250, 255, 261, 267, 270 (50,000 V DC)	0509	12.50
260 Series 3, 4, 4M, 5, 5M, 250, 255, 261, 267, 270 (10,000 V AC)	0161	11.75
262, Series 1 and 2 (16,000v)	0172	12.00
262, Series 1 and 2 (40,000v)	0180	12.50
263, 30 KV at 10K Ω/V and 15 KV at 20 Ω/V	0141	12.00
267 2500 V DC Multiplier	8568	3.60
267 5000 V DC Multiplier	8569	3.60
267 2500 V AC Multiplier	8570	3.60
267 5000 V AC Multiplier	8571	3.60
267 10,000 V DC	0507	10.20
267 25,000 V DC	0508	11.50
267 50,000 V DC	0509	12.50
268 3000 V DC Multiplier	8572	3.60
268 6000 V DC Multiplier	8573	3.60
268 3000 V AC Multiplier	8574	3.60
268 6000 V AC Multiplier	0004	3.60
268 12,000 V DC	0510	13.00
268 30,000 V DC	0511	13.00
269, Series 1 (16,000v)	0173	12.00
269, Series 1 (40,000v)	0181	13.50
269, Series 2 (16,000v)	0119	12.00
269, Series 2 (40,000v)	0120	12.50
270 (10,000v)	0507	10.20
270 (25,000v)	0508	11.50
270 (50,000v)	0509	12.50
303 (30,000v)	0074	12.00

PROBES — Miscellaneous Types

For Models	Cat. No.	Price	For Models	Cat. No.	Price
303 High frequency	0073	$8.75	312 High Frequency	0152	$8.75
303 AC Probe	0068	3.55	312 High Voltage	0155	11.75
303 DC Probe	0067	3.55	2610 Low Capacity	0299	17.55
303 Ground lead	0069	1.00	Voltage Doubler	0740	14.65
311 High Frequency	0731	11.50	Low Capacitance	0741	14.00
311 High voltage	0732	11.75	100:1 Voltage Divider	0742	15.20
311 DC-AC/OHMS	7594	8.50			
311 Ground lead	0733	1.50	Direct Resistive Dual Purpose	0743	11.55
312 DC/AC ohms	0150	8.50			

OSCILLOSCOPE PROBE KIT — Model 739

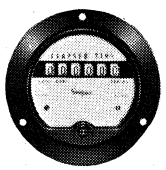
For use with Model 458 Oscilloscope. Includes *low capacity probe, voltage doubler, detector, 100:1 voltage divider and dual direct — resistive. (isolation)

Complete with 4 probes, plastic roll, and operator's manual.....$45.15

*For Model 458 only.

CARRYING CASES FOR SIMPSON TEST EQUIPMENT

For	Cat. No.	Price
250, 255, 260s, 261, 270, 303 — Utility Vinyl	0549	$16.00
0549 Snap-on High Voltage Probe Case	0574	4.00
260, 261, 270 — Leather	1818	9.00
250, 255, 260s, 261, 270, 303 — Ever-Redy Leather	0805	10.00
262, 267, 268, 269, 388-3L, 289-3L — Every-Redy Vinyl	5262	10.00
312 Vinyl	0577	13.00
385-3L — Ever-Redy Leather	8073	8.75
391, 392 — Leatherette-Covered	3413	8.00
355 — Ever-Redy Leather	6355	4.00
All Microtesters — Ever-Redy Leather	4299	9.00
All Microtesters — Leatherette-Covered	3011	6.00
Roll Top Safety Case For 260-2, 9, 10, 880's	6192	10.00
Roll Top Safety Case for 260-3, 261, 270	0249	10.00
Roll Top Safety Case For 303	6379	10.00



Model 55ET

Model 57ET

3½" ELAPSED TIME METERS

These meters use self-starting synchronous clock motors. They indicate up to 99999.9, then recycle and begin again at 00000.0. Molded bakelite case.

Range	Model 55 ET	Model 57 ET
120V-60 cps	$20.85	$20.85
240V-60 cps	21.15	21.15

SIMPSON ELECTRIC CO.

Net

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Simpson

1½", 2½", 3½", 4½" WIDE-VUE PANEL METERS

All Prices Net

WIDE-VUE SPECIFICATIONS

Size	Model No.	Accuracy	Scale Length
1½"	1212	±2% of full scale	1.5" @ 90° Arc (38.1 mm)
	1214	±3% F. S. @ 25°C. & 60 cy. Sine Wave	
2½"	1227 1257	±2% of full scale	2.5" (63.8 mm)
3½"	1327 1337	±2% of full scale	3.04" (77.2 mm)
	1347	±3% F. S. @ 25°C. & 60 cy. Sine Wave	
	1357	±2% of full scale	
4½"	1329 1339	±2% of full scale	3.93" (100 mm)
	1349	±3% F. S. @ 25°C. & 60 cy. Sine Wave	
	1359	±2% of full scale	

CALIBRATION AND DIALS — All DC Wide-Vue meters listed below have the Simpson self-shielded movement (Calibration not affected by stray magnetic fields or magnetic mounting). All AC Wide-Vue meters have the Simpson Iron-vane type movement. AC Milliammeters and Ammeters, except 0-10 amps, are calibrated for use on 25 through 800 cps; 0-10 AC Ammeters and all AC Voltmeters are calibrated for use on 25 through 125 cps. For other specified frequencies up to 800 cps add $1.65 to the list price.

DC VOLTMETERS — Self-Shielded Movement

Range	Resistance	1½" Model 1212	2½" Model 1227	3½" Model 1327	4½" Model 1329
0-5		$14.10	$15.30	$15.75	$17.40
0-8		—	—	15.75	17.40
0-10		14.10	15.30	15.75	17.40
0-15		14.10	15.30	15.75	17.40
0-25	1000	14.10	15.30	15.75	17.40
0-30	ohms	14.10	15.30	15.75	17.40
0-50	Per	14.10	15.30	15.75	17.40
0-100	volt	14.10	15.30	15.75	17.40
0-150		14.10	15.30	15.75	17.40
0-200		—	15.30	15.75	17.40
0-250		—	15.30	15.75	17.40
0-300		—	15.30	15.75	17.40
0-300	2000	14.10	—	—	—
0-500	ohms	17.70	15.75	16.50	17.85
0-750	Per	—	19.35	16.50	17.85
0-1000	volt	—	19.65	20.55	21.90

External Multipliers, Model 183 on 1½" DC meters 500 volts or higher; on 2½" DC meters 750 volts or higher; and on 3½" and 4½" DC meters 1000 volts or higher. All others are self contained.

DC AMMETERS — Self-Shielded Movement

0-1	.050	$14.10	$14.55	$15.30	$16.50
0-1.5	.033	—	14.55	15.30	16.50
0-2	.025	14.10	14.55	15.30	16.50
0-3	.0166	14.10	14.55	15.30	16.50
0-5	.010	14.10	14.55	15.30	16.50
0-10	.005	14.10	14.55	15.30	16.50
0-15	.0033	14.10	14.55	15.30	16.50
0-25	.0020	14.10	14.55	15.30	16.50
0-30	.0017	—	14.55	15.30	16.50
0-50	.001	14.10	14.55	15.30	16.50
0-100	10.0	—	14.55	15.30	16.50
0-150	10.0	—	14.55	15.30	16.50
0-200	10.0	—	14.55	15.30	16.50
0-300	10.0	—	14.55	15.30	16.50
0-500	10.0	—	—	15.30	16.50
15-0-15	.0033	—	—	16.05	—
30-0-30	.0017	—	—	16.05	—
50-0-50	.001	—	—	16.05	—

1½" DC Ammeters are self contained through 10 amps. 15 Amps and higher are supplied as 50 MV meters to be used with external shunts. 2½", 3½" and 4½" DC ammeters are self contained through 50 amps. Higher range DC ammeters are 50 MV meters to be used with external shunts.

DC MILLIAMMETERS—Self-Shielded Movement

0-1	43.0	$13.65	$14.25	$14.85	$15.75
0-3	2.0	—	14.25	14.85	15.75
0-5	2.0	13.65	14.25	14.85	15.75
0-10	10.0	13.65	14.25	14.85	15.75
0-15	6.6	13.65	14.25	14.85	15.75
0-20	5.0	—	14.25	14.85	15.75
0-25	4.0	14.10	14.55	15.30	16.50
0-50	2.0	14.10	14.55	15.30	16.50
0-100	1.0	14.10	14.55	15.30	16.50
0-150	0.66	14.10	14.55	15.30	16.50

DC MILLIAMMETERS (Continued)

Range	(ohms) Approx. Resistance	1½" Model 1212	2½" Model 1227	3½" Model 1327	4½" Model 1329
0-200	0.5	$14.10	$14.55	$15.30	$16.50
0-250	0.4	14.10	14.55	15.30	16.50
0-300	0.33	14.10	14.55	15.30	16.50
0-500	0.2	14.25	14.55	15.30	16.50
0-750	0.13	—	—	15.30	16.50
0-1000	0.05	—	14.55	15.30	16.50

DC MICROAMMETERS Self-Shielded Movement

0-50‡	1800	$17.85	$18.45	$18.90	$20.40
0-100	1800	15.90	16.50	17.25	19.20
0-200	1100	14.40	15.15	15.75	17.40
0-500	90	14.10	14.85	15.45	16.80
25-0-25	1800	18.00	—	19.05	20.55
50-0-50	1800	—	16.80	17.40	19.35
100-0-100	1100	14.55	15.30	15.90	17.55
500-0-500	43	13.80	14.40	15.15	15.90

DC MILLIVOLTMETERS Self-Shielded Movement

0-50	10	$14.10	$14.40	$15.15	$16.50
50-0-50	20	—	—	15.15	16.50

Simpson VU meters meet all the Electrical and Ballistic specifications established by Bell Laboratories and American Standards Association as required by broadcasting, communication and sound engineers. They are available with either type A or B scales. Type A scale stresses the level in VU for monitoring wire lines. Type B scale stresses per cent use of transmitter output and is the standard for broadcast service.

VOLUME LEVEL INDICATORS; DECIBEL METERS

Zero Power Level—6 MW. 500 Ohm Line—Core Magnet Type Movement

Range	1½" Model 1214	2½" Model 1247	3½" Model 1347	4½" Model 1349
General-Purpose 5000 ohms	—	$20.40	$21.60	$22.35

VOLUME LEVEL INDICATORS—V. U. METERS

Reference Level—1 MW. 600 Ohms Line. External Magnet Type Movement except Model 1214C which is core magnet type movement.

Range	1½" Model 1214	2½" Model 1247	3½" Model 1347	4½" Model 1349
A—Scale	$21.90	$24.15	$24.75	$26.85
B—Scale	—	—	24.75	26.85

DC GALVANOMETERS Self-Shielded Movement

Scale	Sensitivity Micro-Amperes	Resistance (ohms)	1½" Model 1212	2½" Model 1227	3½" Model 1327	4½" Model 1329
50-0-50	500-0-500	43	$13.80	$14.25	$15.15	$15.90
50-0-50	75-0-75	1800	14.55	15.45	16.80	18.45

RF AMMETERS — Self-Shielded Movement

Range Amperes	(ohms) Approx. Resistance	1½" Model 1212	2½" Model 1237	3½" Model 1337	4½" Model 1339
0-1	.343	—	—	$17.55	$20.10
0-1.5	.200	—	—	17.55	20.10
0-2	.120	—	—	17.55	20.10

RF AMMETERS (Continued)

0-3	.10	—	—	$17.55	$20.10
0-2.5	.08	—	—	17.55	20.10
0-5	.045	—	—	17.55	20.10
0-8	.031	—	—	17.55	20.10
0-10	.023	—	—	17.55	20.10

RF MILLIAMMETERS

0-500	.63	—	—	$20.70	$23.40

AC VOLTMETERS—Iron Vane Type Movement

Range	(ohms) Approx. Resistance	2½" Model 1257	3½" Model 1357	4½" Model 1359
0-5	33	—	$14.40	$16.20
0-10	133	$13.80	14.40	16.20
0-15	300	13.80	14.40	16.20
0-25	833	13.80	14.40	16.20
0-50	3,333	13.80	14.40	16.20
0-100	16,666	14.10	15.15	16.20
0-150	25,000	14.40	15.45	16.50
0-250	41,166	14.40	15.45	16.50
0-300	50,000	14.40	15.45	16.50
0-500	83,333	18.45	19.65	21.00

External Multipliers, Model 183 (Featured on back page) are furnished on AC meters having a range of 500 volts or higher. All others are self contained.

AC AMMETERS—Iron Vane Type Movement

0-1	.287	$12.75	$13.50	$15.90
0-1.5	.185	12.75	13.50	15.90
0-2	.115	—	13.50	15.90
0-3	.027	12.75	13.50	15.90
0-5	.012	12.75	13.50	15.90
0-10	.0031	12.75	13.50	15.90
0-15	.0022	12.75	13.50	15.90
0-25	.0003	13.05	13.80	16.50
0-30	.0003	13.05	13.80	16.50
0-50	.0006	13.05	13.80	16.50
0-75	.012	—	13.50	15.90
0-100	.012	12.75	13.50	15.90
0-150	.012	12.75	13.50	15.90
0-200	.012	12.75	13.50	15.90
0-300	.012	—	13.50	15.90

2½" AC ammeters are self contained through 50 amps. 3½" and 4½" AC ammeters self contained through 75 amps. Higher range AC ammeters are 5 amp meters to be used with external current transformer.

AC MILLIAMMETERS — Iron Vane Movement

0-10	2,000	$12.75	—	$15.90
0-50	80	12.75	$13.50	15.90
0-100	20	12.75	13.50	15.90
0-250	5	12.75	13.50	15.90
0-500	.9	12.75	13.50	15.90

AC VOLTMETERS—RECTIFIER TYPE Self-Shielded Movement

Range Volts	Resistance	1½" Model 1214	2½" Model 1247	3½" Model 1347	4½" Model 1349
0-5		19.50	18.15	$20.85	$22.95
0-10	2000	19.50	18.15	20.85	22.95
0-15	ohms	—	—	20.85	22.95
0-50	per	—	—	20.85	22.95
0-150	volt	14.10	14.40	20.85	22.95
0-300		14.10	14.40	20.85	22.95

(continued on next page)

Ranges listed without prices (—) are available on special order only. †1½" DC Milliammeters all self contained. Voltage drop 150 MV or less. ‡Resistance of Model 1212 0-50 MIC Meter is 5300 ohms.

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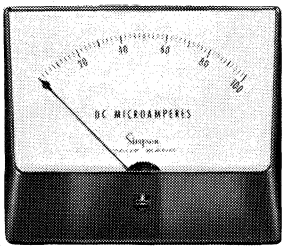
Simpson METERS and METER RELAYS

All Prices Net

WIDE-VUE METERS—TAUT BAND and WATTMETERS



TAUT BAND — DC MICROAMMETERS

Self-Shielded TAUT BAND Movement

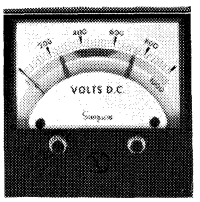
Range	Resist-ance	1½" Model 1212T	2½" Model 1227T	3½" Model 1327T	4½" Model 1329T	8" Model 728T
0-5	5750	—	—	—	$37.50	—
0-10	4900	—	$29.75	$35.25	33.45	—
0-15	1960	$26.85	26.85	27.75	30.30	—
0-25	1960	25.05	25.50	26.70	29.10	$33.60
0-50	1100	19.50	20.10	20.55	22.05	29.55
0-100	500	17.55	18.15	18.90	20.85	28.50
0-200	234	16.20	17.10	17.70	19.50	—

NOTE: Wattmeters calibrated for either magnetic or nonmagnetic panels and for frequency range of 25-125 cycles.

WATTMETERS, Dynamometer Type, Single Phase

Watts	Range Volts	Max. Amps	2½" Model 1277	3½" Model 1377	4½" Model 1379
0-75	150	1.0	—	—	$38.55
0-150	150	2.0	—	—	38.55
0-300	150	4.0	—	—	38.55
0-750	150	10.0	—	—	38.55
0-600	300	4.0	—	—	41.25
0-1500	300	10.0	—	—	41.25
0-3000	300	20.0	—	—	41.25
0-10	300	0.175	—	—	51.45
0-20	300	0.400	—	—	51.45
0-30	300	0.650	—	—	51.45
Compensated Wattmeters					

CONTACTLESS METER RELAYS—Self-Contained, 3½"



RUGGED SEAL CONSTRUCTION

Set points are adjusted thru external, front-adjusted gear drive. Set point is indicated by separate lance pointers. Sensing is accomplished thru an infinite life lamp and photo-conductors. A solid state switching circuit and D.P.D.T. slave relay are provided (internally) for each control point. Slave relays will switch 10 amperes @ 115 volts A.C.

ELECTRICAL SPECIFICATIONS

Calibration Accuracy. ±2% of full scale.

Control Point Adjustment: Control points are externally adjustable over 95% of the scale arc. Control point indication is within 2% of actual switching.

Control Point Differential: Difference between "on" and "off" is within .5% of full scale.

Power Requirements: 115 Volts A.C.; 50-500 CPS.

Output: D.P.D.T. relay contacts for each control point. Contacts rated @ 10 amperes, 115 volts A.C. resistive.

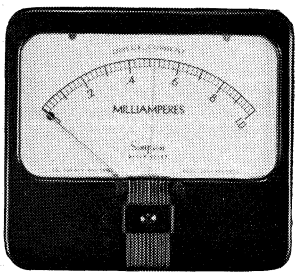
Meter Indication: Continuous, unaffected by control point setting.

Control Circuitry: Fail-safe. Both slave relays "open" in event of power failure.

CONTACTLESS TYPE — MODEL 3324XA

Range	SINGLE CONTROL Resist. Approx. Ohms	SINGLE CONTROL Price	DOUBLE CONTROL Price
0-50	3000	$99.00	$136.35
0-100	1300	96.15	133.65
0-200	570	96.15	133.50
0-500	220	96.15	133.50
0-1	80	95.10	132.45
0-50	10	95.40	132.75

4½ METER RELAY—FRONT ADJUSTABLE—MODEL 29XA



General: Model 29XA Relays are of the D'Arsonval Type. Externally adjusted limit setting contacts are non-locking and intended for circuits with external locking provisions or for light duty non-locking applications.

Calibration: Accuracies ±2% of full scale.

Contacts: Gold Alloy. For use @ 15 volts DC @ 10 milliamperes maximum on resistive or diode protected inductive loads.

Contact Adjustment: Contacts are externally adjustable over 95° of 100° scale arc, and within 5° of each other. The pointer will indicate the contact make position within 2° of actual contact intercept.

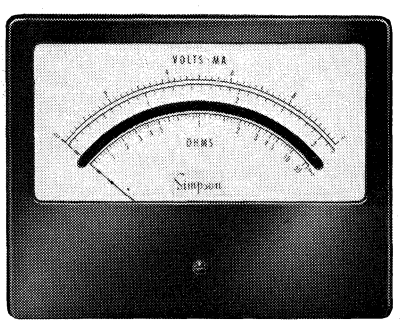
Contact Differential: Normally, contacts will close within 2% of full scale value and break within 10% of full scale value.

Insulation: Breakdown 300 volts AC from Relay contacts to meter circuit. 3 KV AC from Relay terminals to mounting panel. (All Tests at 60 cycles.)

Range	Description	Approx. Resistance (ohms)	Price
0-50	DC Microammeter	5200	$48.60
0-100	DC Microammeter	1800	46.50
0-200	DC Microammeter	1000	43.65
0-500	DC Microammeter	280	42.90
0-1	DC Milliammeter	140	42.00
0-50	DC Millivoltmeter	10	42.15

1% AND 2% PANEL METERS—6" SIZE

Red knife-edge pointers; 1/4-28 studs; front surface glass mirrors on 1% meters; molded black phenolic case; scale length, 4.6" (114.8 mm).



6 INCH RECTANGULAR PANEL METERS — 1% & 2% Tolerance — Self Shielding Movement

Range	Approx. Resist.	DC Volt-meters Model 1150 2%	DC Millivolt-meters Model 1150 Resist. (ohms)	DC Millivolt-meters Model 1150 2%	DC Am-meters Model 1150 2%
0-1		—	—	—	.050	$21.75
0-5		—	—	—	.010	21.75
0-10		$20.85	—	—	.005	21.75
0-15		—	—	—	.0033	21.75
0-25	1000	20.85	—	—	.0020	21.75
0-30	OHMS	—	—	—	.0016	21.75
0-50	PER	20.85	10	$21.75	.001	21.75
0-100	VOLT	20.85	—	—	—	—
0-150		20.85	—	—	—	—
0-200		—	—	—	—	—
0-300		20.85	—	—	—	—
0-500	2000 Ω/V	21.45	—	—	—	—

Range	Approx. Resist.	DC Milli-ammeters Model 1150 2%	DC Milli-ammeters Model 1150-1 1%	Re-sist. (ohms)	DC Micro-ammeters Model 1150, 2%	DC Micro-ammeters Model 1150-1, 1%
0-1	46	$20.85	$26.25	—	—	—
0-10	10	20.85	—	—	—	—
0-15	—	—	—	5500	$33.00	—
0-25	—	—	—	5500	29.55	—
0-50	2.0	20.85	—	5000	27.00	$32.40
0-100	1.0	20.85	26.25	2800	25.80	31.20
0-200	—	—	—	1200	22.50	27.90
0-500	.2	20.85	26.25	200	21.90	27.30

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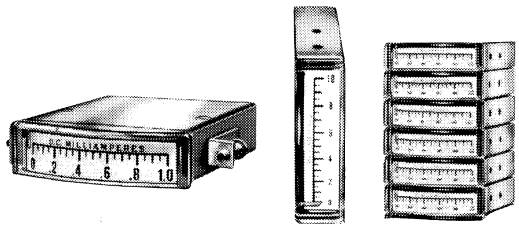
Simpson EDGEWISE METERS BEHIND-PANEL BEZELS

NEW! STACKABLE EDGEWISE METERS

1½", 2½" Horizontal and Vertical



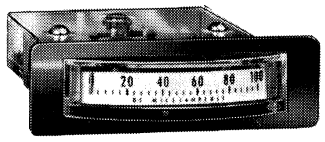
New miniature edgewise meters have a unique Self-Shielding core magnet movement* that eliminates the need for a protruding barrel. Extremely compact. Meter scale extends nearly the full width and height of the meter. Accuracy, ±2% F. S. Steel housing, rustproofed finish; dustproof construction.

* Patent Pending

Range	(Ohms) Approx. Resistance	1½" Model 1921	2½" Model 1622
DC VOLTMETER			
0-10	500 Ohms	$18.45	$19.50
0-15	per	18.45	19.50
0-25	Volt	18.45	19.50
0-50	500 Ohms	18.45	19.50
0-150	per	18.45	19.50
0-500	Volt	—	19.65
DC MILLIAMMETERS			
0-1	18.0	$18.15	$19.35
0-5	2.0	18.15	19.35
0-10	5.0	18.15	19.35
0-25	2.0	18.90	20.10
0-50	1.0	18.90	20.10
0-100	0.5	18.90	20.10
0-500	0.1	18.90	20.10
DC MILLIVOLTMETERS			
0-50	400 Ohms/volt	$19.20	$20.40
DC MICROAMMETERS			
0-25	7760	$23.70	$24.75
0-50	2020	23.40	24.45
0-100	1060	21.00	22.20
0-200	310	19.20	20.40
0-500	63	18.75	19.80
AC VOLTMETERS — Rectifier Type			
Range	**(Ohms) Approx. Resistance**	**1½" Model 1941**	**2½" Model 1642**
0-150	5000 ohms/volt	$22.95	$24.15

EDGEWISE METERS — 1½" and 2½" Horizontal

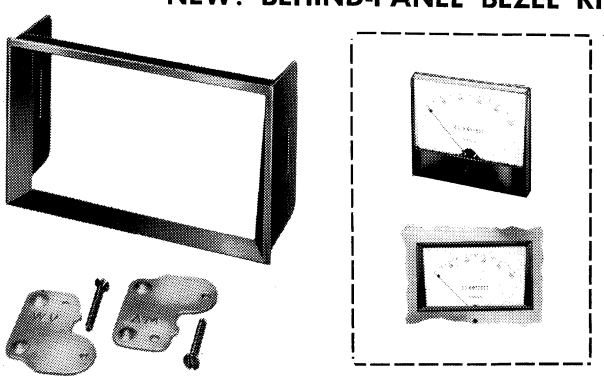
Barrel Type Construction



Where your panel designs call for making every square inch count, or where saving weight is important, choose a Simpson edgewise meter. Supplied with complete hardware. Accuracy: DC ±2% of full scale; AC rectifier type ±3% of full scale @ 25° and 60 cycle sine wave. Self shielding meter movement. Case Construction: Dustproof, molded acrylic.

Range	(Ohms) Approx. Resistance	1½" Model 1521	2½" Model 1522
DC VOLTMETERS			
0-10	1000 ohms/volt	$15.45	$16.50
0-15	1000 ohms/volt	15.45	16.50
0-25	1000 ohms/volt	15.45	16.50
0-50	1000 ohms/volt	15.45	16.50
0-150	1000 ohms/volt	15.45	16.50
0-500	2000 ohms/volt	15.60	16.80
DC MILLIAMMETER			
0-1	20.0	$15.30	$16.35
0-5	2.5	15.30	16.35
0-10	13.5	15.30	16.35
0-25	5.4	15.90	17.10
0-50	2.7	15.90	17.10
0-100	1.35	15.90	17.10
0-500	.27	15.90	17.10
DC AMMETERS			
0-5	0.010	—	$17.40
0-25	0.002	—	17.40
DC MILLIVOLTMETERS			
0-50	10 ohms	$16.20	$17.40
DC MICROAMMETER			
0-25	3150	$23.40	$24.45
0-50	1800	20.40	21.45
0-100	1100	18.00	19.20
0-200	290	16.20	17.40
0-500	90	15.75	16.95
VOLUME LEVEL INDICATORS (VU METERS)			
Range	**(Ohms) Approx. Resistance**	**1½" Model 1541**	**2½" Model 1542**
"A" SCALE		—	$27.30
"B" SCALE		—	27.30
AC VOLTMETERS — Rectifier Type			
0-150	1000 ohms/volt	$20.10	$21.15
0-300	1000 ohms/volt	—	21.15

NEW! BEHIND-PANEL BEZEL KITS FOR 3½" & 4½" WIDE-VUE METERS



Mounting bezels are made for Wide-Vue panel meters but are interchangeable with flush and recess type meters of many popular styles. Designed for behind panel mounting on material thickness of ⅛" to 3/16". Groove and flange style construction. Each bezel of die cast metal has an attractive black enamel satin finish and is supplied with mounting hardware and template.

Bezel Mount Kit consists of bezel brackets and screws and installation instructions.

Meter Size	For Meter Models	Part No.	Price
3½"	1327, 1337, 1347, 1357	1253	$1.65
4½"	1329, 1339, 1349, 1359, 1379	1123	1.65

SIMPSON ELECTRIC CO.

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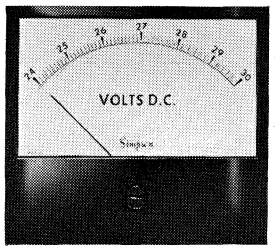
Simpson "RUGGED SEAL" and SEGMENTAL VOLTMETERS

"RUGGED SEAL" METERS—3½", 4½", 4" x 6" (Sq. and Rect.)



Completely sealed and commercially ruggedized. Metal cased and shielded. Not affected by steel panel mounting. DC meters have ±2% F.S. accuracy; AC meters, ±2% F.S. at 25°C and 60-cycle sine wave. Scale lengths: 3½" meter, 2.9" (74 mm); 4½" meter, 3.9" (101 mm); 4" x 6" meter, 4.7" (120 mm).

Movement is external magnet type shielded by metal case. All AC meters are rectifier type, and maintain accuracy from 25 to 2000 cps (except AC ammeter, 50 to 500 cps).

DC VOLTMETERS

Range	Approx. Resist.	3½" Model 3323	4½" Model 3324	4"x6" Model 3326
0-1.5		$18.90	$20.55	$22.50
0-10	(1000	18.90	20.55	22.50
0-15	ohms	18.90	20.55	22.50
0-25	per	18.90	20.55	22.50
0-50	volt)	18.90	20.55	22.50
0-100		18.90	20.55	22.50
0-500		18.90	20.55	22.50

DC AMMETERS

0-5	(Int. shunt	$19.20	$20.85	$23.10
0-10	75 mv. max.)	19.20	20.85	23.10

DC MILLIAMMETERS

0-1	80 ohms	$18.15	$19.80	$22.05
0-100	0.5 ohms	19.50	20.85	23.10

DC MICROAMMETERS

0-50	3000 ohms	$24.45	$26.10	$28.65
0-100	1300 ohms	22.20	23.85	26.40

AC VOLTMETERS, RMS SENSING (RECT. TYPE)

Range	Approx. Resist.	3½" Model 3343	4½" Model 3344	4"x6" Model 3346
0-150	(1000 ohms	$22.80	$24.15	$26.40
0-300	per volt)	22.80	24.15	26.40

AC AMMETERS (RECT. TYPE)

0-1	(Int. Trans.	$28.50	$29.70	$32.10
0-5	Burden, 0.5 VA Max.)	28.50	29.70	32.10

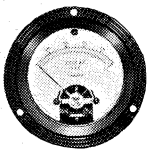
AC MILLIAMMETERS (Rect. TYPE)

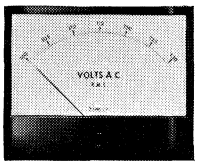
0-1	600 ohms	$22.50	$23.85	$25.80

AC MICROAMMETER (RECT. TYPE)

0-100	4000 ohms	$23.85	$24.75	$27.15

SEGMENTAL VOLTMETERS – "Rugged Seal" Construction





The significant portion of the overall voltage scale of these meters is expanded to occupy the full scale length. In addition to the stock expansions and accuracies shown, special segmental voltmeters can be built on order.

Meters are completely sealed and commercially ruggedized; metal cased and shielded; and are not affected by mounting on steel panels. Movement is external magnet type shielded by the metal case.

Accuracies shown are in percent of center scale value.

All of these AC segmental voltmeters are the RMS sensing type which are preferred when working with distorted waveforms.

AC VOLTMETERS, RMS SENSING, RECTIFIER (ROUND)

Center Scale Value — 115 V

Range	Sensitivity	Accuracy	2½" Model 3282	3½" Model 3283	4½" Model 3284
100-130	50 opv	1.0%	$77.10	$70.95	$78.75
105-125	65 opv	0.5%	77.10	70.95	78.75
110-120	80 opv	0.3%	77.10	70.95	78.75

DC VOLTMETERS (ROUND)

Range	Center Scale Value	Accuracy	2½" Model 3222	3½" Model 3223	4½" Model 3224
24-30	27 V	0.5%	$66.00	$60.15	$67.65

FREQUENCY METERS (ROUND)

Range cps	Center Scale cps	Accuracy	....	3½" Model 3283	4½" Model 3284
380-420	400	0.25%	—	$167.85	$175.50

AC VOLTMETERS, RMS SENSING, RECTIFIER (RECTANGULAR)

Center Scale Value — 115 V

Range	Sensitivity	Accuracy	3½" Model 3383	4½" Model 3384	4"x6" Model 3386
100-130	50 opv	1.0%	$64.95	$71.55	$76.50
105-125	65 opv	0.5%	64.95	71.55	76.50
110-120	80 opv	0.3%	64.95	71.55	76.50

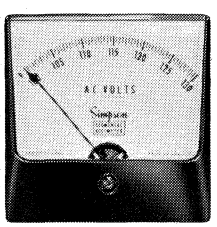
DC VOLTMETERS (RECTANGULAR)

Range	Center Scale value	Accuracy	Model 3½" 3323	Model 4½" 3324	Model 4"x6" 3326
24-30	27 V	0.5%	$54.15	$60.75	$65.40

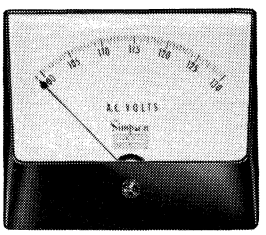
FREQUENCY METERS (RECTANGULAR)

Range cps	Center Scale cps	Accuracy	3½" Model 3383	4½" Model 3384	4"x6" Model 3386
380-420	400	0.25%	$163.20	$168.30	$173.25

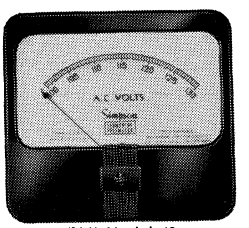
SEGMENTAL VOLTMETERS (Average Sensing) 100-130 AC Volts



3½" Model 1347
Wide-Vue



4½" Model 1349
Wide-Vue



4½" Model 49
Rectangular

WIDE-VUE					RECTANGULAR	
Size	(Single Range) Model	Price	(Multi-Range) Model	Price	Model (Single Range)	Price
3½"	1347	$45.00	—	—	—	—
4½"	1349	45.15	1349	$55.80	49	$44.55

Simpson Segmental AC Voltmeters improve meter accuracy and readability over most conventional type meters. Used primarily in monitoring line voltage, these segmental Voltmeters increase the efficiency, reliability and life of costly components .

MODEL NO.	1347	1349	49
Scale Length	3.14" (79.7 mm)	3.93" (100 mm)	3.5" (89.0 mm)
Operating Frequency Range	20-2000 cps		
Accuracy	±.5% of Center scale value at 25°C and 60 cps sine wave		
Movement Type	Core Magnet Meter Movement		
Frequency Influence	Less than 0.5% of Center scale value for temperature range of ±20° from 25°C.		
Sensitivity	160 to 100 ohms/volt end scale values. Sensitivity decreases as input voltage increases.		
Intermittent Input Voltage (max.)	150 volt RMS for 10 seconds		

SIMPSON ELECTRIC CO.

Net

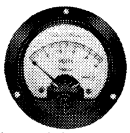
© U.C.P., Inc.

Simpson

2½", 3½", 4½" ROUND AND RECTANGULAR PANEL METERS

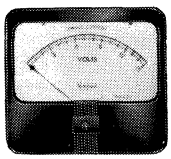
All Prices Net

ACCURACY: DC METERS OR AC IRON VANE TYPE METERS ±2% OF FULL SCALE; RECTIFIER TYPE ±3% OF FULL SCALE @ 25°C. AND 60 CYCLE SINE WAVE.



2½" Models 125, 135, 145, 155, 175
3½" Models 25, 35, 45, 55, 75

2½" Models 127, 137, 147, 157, 177
3½" Models 27, 37, 47, 57, 77



4½" Models 29, 39, 49, 59, 79, 142

All DC meters listed below, except wattmeters, have the Simpson self shielding movement. Calibration not affected by stray magnetic fields or magnetic mounting. All AC meters have iron vane movement. Wattmeters listed below have the Simpson dynamometer movement calibrated for either magnetic or non-magnetic panels and for a frequency range of 25—125 cycles.

AC VOLTMETERS—RECTIFIER TYPE

Range	Ohms	2½" Models 145/147	3½" Models 45/47	4½" Model 49
0-1		—	$20.70	$22.65
0-3		—	20.70	22.65
0-5		—	20.70	22.65
0-10	2000	—	20.70	22.65
0-15	ohms	—	20.70	22.65
0-50	per volt	—	20.70	22.65
0-100		—	20.70	22.65
0-150		—	20.70	22.65
0-300		—	20.70	22.65

AC MILLIAMMETERS—RECTIFIER TYPE

0-1	600	—	$19.80	$21.45
0-2	400	—	19.80	21.45
0-5	200	—	19.80	21.45

AC MICROAMMETERS—RECTIFIER TYPE

0-100	3400	—	$22.65	$24.30
0-200	2400	—	—	21.90
0-300	1800	—	19.80	21.45
0-500	1200	—	19.50	21.15

AC VOLTMETERS

Range	Approx. Resistance	2½" Models 155/157	3½" Models 55/57	4½" Model 59
0-1.5	3 ohms	—	—	$16.20
0-10	133	—	$14.10	16.20
0-15	300	—	—	16.20
0-3	12	—	14.10	16.20
0-5	33	$13.50	14.10	16.20
0-25	833	13.50	14.10	16.20
0-50	3,333	13.50	14.10	15.60
0-100	16,666	14.55	15.30	16.20
0-150	25,000	14.25	15.15	16.35
0-250	41,166	14.25	15.15	16.35
0-300	50,000	14.25	15.15	16.35
0-500	83,333	19.20	19.50	20.25
0-750	125,000	—	21.30	22.20
0-1000	166,666	—	22.95	24.00

AC AMMETERS

†0-1	.287	$12.75	$13.50	$15.90
†0-1.5	.185	—	13.50	15.90
†0-2	.115	12.75	13.50	15.90
†0-3	.027	12.75	13.50	15.90
†0-5	.012	12.75	13.50	15.90
†0-10	.003	12.75	13.50	15.90
†0-15	.0022	12.75	13.50	15.90
†0-25	.0003	13.05	13.80	16.50
†0-30	.0003	13.05	13.80	16.50
†0-50	.0006	13.05	13.80	16.50
0-75	.0005	—	14.55	17.40
†0-75	.012	12.75	13.50	15.90
0-100	.012	12.75	13.50	15.90
0-150	.012	12.75	13.50	15.90
0-200	.012	—	13.50	15.90
0-250	.012	12.75	13.50	15.90
0-300	.012	12.75	13.50	15.90
0-500	.012	12.75	13.50	15.90

AC MILLIAMMETERS

0-10	2,000 ohms	$12.75	$13.50	$15.90
0-15	875	—	13.50	—
0 25	390	—	13.50	15.90
0-50	80	12.75	13.50	15.90
0-100	20	12.75	13.50	15.90
0-250	5	12.75	13.50	15.90
0-500	.9	12.75	13.50	15.90

DC VOLTMETERS

Range	(ohms) Approx. Resistance	2½" Models 125/127	3½" Models 25/27	4½" Model 29
0-1.5	1000	$14.40	$14.85	$16.35
0-3	1000	14.40	14.85	16.35
0-5	1000	14.40	14.85	16.35
0-8	1000	14.40	14.85	16.35
0-10	1000	14.40	14.85	16.35
0-15	1000	14.40	14.85	16.35
0-25	1000	14.40	14.85	16.35
0-30	1000	14.40	14.85	16.35
0-50	1000	14.40	14.85	16.35
0-100	1000	14.40	14.85	16.35
0-150	1000	14.40	14.85	16.35
0-200	1000	14.40	14.85	16.35
0-250	1000	14.40	14.85	16.35
0-300	1000	14.40	14.85	16.35
0-500	2000	15.25	15.60	16.95
0-750	2000	—	15.60	16.95
0-1000	2000	—	19.35	21.15
0-1500	2000	—	19.65	21.45
0-2000	2000	19.35	20.10	21.90
0-2500	2000	—	20.40	22.20
0-3000	2000	—	20.70	22.50
0-4000	2000	—	—	22.80
0-5000	2000	—	21.30	23.10

DC MILLIAMETERS

0-1	43	$13.50	$14.10	$15.45
0-1.5	2.0	13.50	14.10	15.45
0-3	2.0	13.50	14.10	15.45
0-5	2.0	13.50	14.10	15.45
0-10	10.0	13.50	14.10	15.45
0-15	6.6	13.50	14.10	15.45
0-20	5.0	—	14.10	15.45
0-25	4.0	14.25	14.70	16.35
0-50	2.0	14.25	14.70	16.35
0-75	1.3	—	14.70	16.35
0-100	1.0	14.25	14.70	16.35
0-150	.66	14.25	14.70	16.35
0-200	.5	14.25	14.70	16.35
0-250	.4	14.25	14.70	16.35
0-300	.33	14.25	14.70	16.35
0-500	.2	14.25	14.70	16.35
0-750	.13	—	14.70	16.35
0-1000	.05	14.25	14.70	16.35

DC AMMETERS

0-1	.050	$14.25	$14.70	$16.35
0-1.5	.033	14.25	14.70	16.35
0-2	.025	14.25	14.70	16.35
0-3	.0166	14.25	14.70	16.35
0-5	.010	14.25	14.70	16.35
0-10	.005	14.25	14.70	16.35
0-15	.0033	14.25	14.70	16.35
0-25	.0020	14.25	14.70	16.35
0-30	.0017	14.25	14.70	16.35
0-50	.001	14.25	14.70	16.35
0-75	10.0	13.80	14.25	15.90
0-100	10.0	13.80	14.25	15.90
0-150	10.0	13.80	14.25	15.90
0-200	10.0	13.80	14.25	15.90
0-250	10.0	13.80	14.25	15.90
0-300	10.0	13.80	14.25	15.90
0-500	10.0	13.80	14.25	15.90
0-750	10.0	—	14.25	15.90
0-1000	10.0	—	14.25	15.90
15-0-15	.0033	—	15.15	16.80
30-0-30	.0017	14.55	15.15	16.80
50-0-50	.001	14.55	15.15	16.80

DC MICROAMMETERS

0-50	1800	$18.90	$19.35	$20.85
0-100	1800	16.35	17.10	19.05
0-200	1100	14.55	15.45	17.10
0-500	90	14.10	15.15	16.35
25-0-25	1800	19.20	19.50	21.00
50-0-50	1800	16.50	17.25	19.20
100-0-100	1100	14.25	15.60	17.40
500-0-500	43	13.65	14.25	15.60

(TAUT BAND) DC MICROAMMETERS

0-5	57.50	—	$35.70	$37.95
0-10	4900	$30.45	31.65	33.90
0-15	1960	27.15	28.35	30.80
0-25	1960	26.10	27.15	29.85
0-50	1100	20.55	21.00	22.50
0-100	500	18.00	18.75	20.70

DC MILLIVOLTMETERS

0-50	10	$13.80	$14.25	$15.60
0-100	20	—	14.25	15.60

RF AMMETERS — Internal Thermocouple Type

Range	Approx. Resistance	2½" Model 135/137	3½" Model 35/37	4½" Model 39
0.1	.343 ohms	$15.60	$16.50	$19.05
0-1.5	.200	15.60	16.50	19.05
0-2	.120	15.60	16.50	19.05
0-2.5	.10	15.60	16.50	19.05
0-3	.08	15.60	16.50	19.05
0-5	.045	15.60	16.50	19.05
0-8	.031	15.60	16.50	19.05
0-10	.023	15.60	16.50	19.05

RF MILLIAMMETERS 0-100 linear scale

0-115	4.0 ohms	—	$31.20	$32.85
0-150	4.5	—	19.80	22.50
0-250	3.5	—	19.80	22.50
0-500	.63	—	19.80	22.50

VOL. LEVEL INDICATORS — DECIBEL METERS

Zero Power Level — 6 MW 500 Ohm Line

Range	2½" Models 145/147	3½" Models 45/47	4½" Model 49
—10 to +6 db 5000 ohms	$20.25	$20.40	$22.20

VOLUME LEVEL INDICATORS — VU METERS

Reference Level — 1 MW 600 Ohm Line

Range Scale 3900 ohms	2½" Models 145/147	3½" Models 45/47	4½" Model 142
"A" Scale; Not Illuminated	—	$24.60	$26.70
"B" Scale; Not Illuminated	—	24.60	26.70
"A" Scale; Illuminated	—	—	29.40
"B" Scale; Illuminated	—	—	29.40

WATTMETERS — DYNAMOMETER TYPE

Single Phase

Range Watts	Max. Volts	Max. Amps.	2½" Model 175/177	3½" Model 75/77	4½" Model 79
0-70	150	1.0	$28.95	$30.45	$37.35
0-150	150	2.0	28.95	30.45	37.35
0-300	150	4.0	28.95	30.45	37.35
0-750	150	10.0	28.95	30.45	37.35
0-600	300	4.0	31.65	33.00	40.20
0-1500	300	10.0	31.65	33.00	40.20
0-3000	300	20.0	31.65	33.00	40.20

COMPENSATED WATTMETERS — Single Phase

0-10	300	.175	—	$48.60	$50.40
0-20	300	.400	—	48.60	50.40
0-20	500	.175	—	48.60	50.40
0-30	300	.650	—	48.60	50.40
0-30	500	.300	—	48.60	50.40
0-50	500	.500	—	48.60	50.40

DC GALVANOMETERS

Scale	Sensitivity Micro-Amperes	Res. Ohms	2½" Models 125/127	3½" Models 25/27	4½" Model 29
50-0-50	75-0-75	1800	$15.15	$16.50	$17.10
50-0-50	500-0-500	43	14.10	14.55	16.35

†AC ammeters are self-contained. Higher range AC ammeters can be supplied with external current transformers and include 2 foot leads. External current transformers should be ordered separately. DC ammeters are self-contained for ranges up to and including 50 amperes. Higher range DC ammeters (50MV) listed above can be supplied with external shunts and include 5 foot leads. *These meters use the Hi Flux magnet and cannot be recalibrated for use on steel panels.

SPRAGUE TEST EQUIPMENT

TO-6 TEL-OHMIKE® CAPACITOR ANALYZER

The TO-6 TEL-OHMIKE capacitor analyzer is a must for checking all capacitors. It is a moderately priced instrument with laboratory quality and accuracy—the highest accuracy of any instrument of its type available to the service trade!

- **LEAKAGE CURRENT** of electrolytics measured directly on meter. Four ranges; .06, .6, 6, and 60mA. Three ranges of DC voltage (continuously variable within each range) permit testing capacitors at exact rated voltage up to 600 volts.
- **POWER FACTOR** of electrolytics, up to 50% measured by Wien Bridge.
- **METER PROTECTOR** of solid-state design allows severe accidental over-loads without burn-outs.
- **MAGIC-EYE TUBE** simplifies bridge balancing for capacitance and power factor measurements. High gain amplifier provides greatly improved sensitivity.
- **PUSH-BUTTONS** color-keyed for instant range selection.
- **MODERN CASE:** Silver-grey hammertone finish, panel is charcoal grey with highly contrasting white designations. Measures 8 7/8" high, 14 5/8" wide, 6 1/8" deep. Weight only 13 pounds.

MODEL TO-6 ..... **115 VAC/50-60 cy**
MODEL TO-6S ..... **115-230V/50 cy**

Call Your Sprague Distributor for Current Prices

- **CAPACITANCE BRIDGE** measures up to 2000 μF. Five overlapping ranges include exclusive 1 pF to 100 pF range. Special shielded transformer for bridge voltage. Extremely low AC voltage; 1.35 volts for electrolytic capacitors, 2.85 for all others, permits safe testing of all low voltage capacitors.
- **INSULATION RESISTANCE** of papers, ceramics and micas directly read on large meter. No guessing with neon lamps. Dual range—to 10KMΩ@ 30V for low voltage units . . . to 50KMΩ@ 150V for higher voltage components. Fast charge feature speeds testing of high capacitance units.

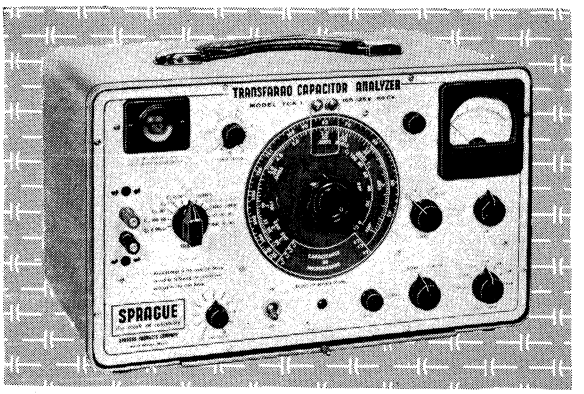
TEL-OHMIKES FOR RACK MOUNTING

Electrically identical to TO-6 and TO-6S. These models have a standard 19"w. x 10½"h. panel so that it can be mounted in standard relay racks.

MODEL TO-6RM.....**115 VAC/50-60 cy**
MODEL TO-6SRM.....**115-230 V/50 cy**

Call Your Sprague Distributor for Current Prices

TCA-1 TRANSFARAD®



The Transfarad is specifically designed to safely test all low-voltage, low-leakage aluminum, tantalum, film, paper, and ceramic capacitors used in transistorized circuits. A must for modern industrial laboratories and electronic service shops.

- **INSULATION RESISTANCE** directly read from 50 megohms to 20,000 megohms. Only 25v d-c is applied, permitting measurements on low voltage ceramic, mica, and film capacitors. IR of ceramics rated below 25v may be calculated from leakage current measurement at exact rated voltage.
- **LEAKAGE CURRENT** measured directly on meter at exact rated d-c voltage of capacitor. Sensitive circuit makes full scale measurements from 0.6 μA to 600μA in seven ranges.
- **POWER FACTOR** measured by Wien bridge from 0 to 50 per cent.
- **MAGIC EYE** null detector in high-gain amplifier has sensitivity control permitting accurate measurement of small capacitors.
- **SHORT-TIME STABILITY** is assured by dual regulation of the power supply. Specially processed etched circuits and complete encapsulation of the critical bridge-null amplifier insure long-time stability.
- **BINDING POSTS** are shielded against strays, assuring greater accuracy during low capacitance measurements.
- **FOR SAFETY** the capacitor under test is automatically discharged after testing. Three wire line cord grounds instrument case.
- **OPERATING PROCEDURES** are clearly shown on convenient pull-out slide.

SAFELY TESTS TRANSISTOR CIRCUIT CAPACITORS INCLUDING TANTALUM TYPES

- The only analyzer which gives the complete story on tantalum and other low leakage current capacitors.
- **CAPACITANCE BRIDGE** measures 1μμF to 2000μF in five overlapping ranges. Only 0.5 volt is applied to the bridge from a continuously adjustable power supply. The voltage across the capacitor is less than this applied voltage, the amplitude depending on the capacitance being measured. No possibility of overheating or deforming any low voltage capacitor during measurements.

MODEL TCA-1 TRANSFARAD 115 VAC/60cy
MODEL TCA-1S TRANSFARAD 115/230 VAC, 50cy

Call Your Sprague Distributor for Current Prices

TRANSFARADS FOR RACK MOUNTING
Electrically identical to the above instruments, these models have a standard 19"w. x 10½"h. panel so that they can be mounted in the conventional relay rack.

MODEL TCA-1RM **115VAC/60cy**
MODEL TCA-1SRM .....**115/230 VAC, 50cy**

Call Your Sprague Distributor for Current Prices

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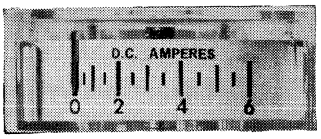
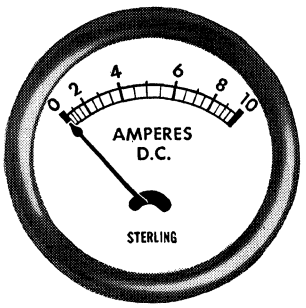
STERLING PANEL METERS



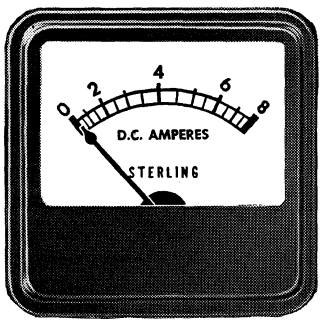
MODEL 95

1-15/16″ clear plexiglas face. Fits mounting hole 1-27/32″ x 25/32″.



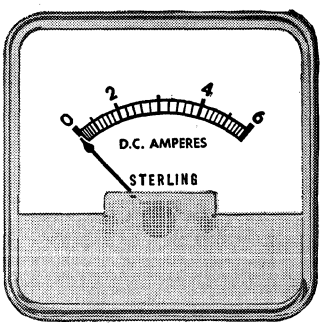
MODEL 80

2-5/32″ dia. flange, flush case. Fits mounting hole 2-1/32″ dia. Black enamel finish.



MODEL 75

2-¼″ square flange, fits mounting hole 2-1/32″ dia. Black enamel finish.



MODEL 55

2-¼″ clear plasitc face. Fits. mounting hole 2-1/32″ dia.

All Sterling meters have rugged, time-proven linear-power movement. Calibration accuracy is within 5%. Back clamp mounting is provided.

PRICE LIST

Range	Approximate Ohms Resist.	Model 55 Part No.	Model 95 Part No.	NET PRICE	Model 75 Part No.	Model 80 Part No.	NET PRICE
D.C. AMMETERS							
0-1	.02 Max.	55-855	95-855	$2.05	75-855	80-855	$1.80
0-3	.02 Max.	55-856	95-856	2.05	75-856	80-856	1.80
0-6	.02 Max.	55-857	95-857	2.05	75-857	80-857	1.80
0-8	.02 Max.	55-928	95-928	2.05	75-928	80-928	1.80
0-10	.02 Max.	55-858	95-858	2.05	75-858	80-858	1.80
0-15	.02 Max.	55-864	95-864	2.05	75-864	80-864	1.80
0-25	.02 Max.	55-865		2.05	75-865	80-865	1.80
0-50	.02 Max.	55-866		2.65	75-866	80-866	2.40
3-0-3	.02 Max.	55-860	95-860	2.05	75-860	80-860	1.80
10-0-10	.02 Max.	55-862	95-862	2.05	75-862	80-862	1.80
20-0-20	.02 Max.	55-863		2.05	75-863	80-863	1.80
30-0-30	.02 Max.	55-867		2.05	75-867	80-867	1.80
50-0-50	.02 Max.	55-925		2.85	75-925	80-925	2.55
D.C. VOLTMETERS							
0-1	105	55-801	95-801	$2.05	75-801	80-801	$1.80
0-3	520	55-802	95-802	2.05	75-802	80-802	1.80
0-5	945	55-804	95-804	2.05	75-804	80-804	1.80
0-10	1925	55-807	95-807	2.05	75-807	80-807	1.80
0-15	3425	55-808	95-808	2.05	75-808	80-808	1.80
0-25	4825	55-809	95-809	2.05	75-809	80-809	1.80
0-50	10,000	55-811	95-811	2.05	75-811	80-811	1.80
0-100	20,000	55-813	95-813	2.35	75-813	80-813	2.10
0-150	30,000	55-815	95-815	2.55	75-815	80-815	2.25
0-300	100,000	55-817		3.30	75-817	80-817	3.00
0-500	160,000	55-818		3.85	75-818	80-818	3.60
D.C. MILLIAMMETERS							
0-1	1000	55-834	95-834	$3.85	75-834	80-834	$3.60
0-2	500	55-835	95-835	2.95	75-835	80-835	2.70
0-5	125	55-836	95-836	2.55	75-836	80-836	2.25
0-10	28	55-837	95-837	2.40	75-837	80-837	2.10
0-15	12	55-838	95-838	2.05	75-838	80-838	1.80
0-25	4.5	55-839	95-839	2.05	75-839	80-839	1.80
0-50	1.3	55-840	95-840	2.05	75-840	80-840	1.80
0-100	.37	55-841	95-841	2.05	75-841	80-841	1.80
0-150	.14	55-842	95-842	2.05	75-842	80-842	1.80
0-200	.09	55-843	95-843	2.05	75-843	80-843	1.80
0-300	.04	55-844	95-844	2.05	75-844	80-844	1.80
0-400	.03	55-845	95-845	2.05	75-845	80-845	1.80
0-500	.02	55-848	95-848	2.05	75-848	80-848	1.80
A.C. VOLTMETERS							
0-5	28	55-871		$3.15	75-871	80-871	$2.85
0-10	104	55-872		3.15	75-872	80-872	2.85
0-15	210	55-873		3.15	75-873	80-873	2.85
0-25	1750	55-910		3.15	75-910	80-910	2.85
0-50	2750	55-879		3.15	75-879	80-879	2.85
0-150	11,500	55-874		3.90	75-874	80-874	3.60
0-300	19,400	55-875		4.35	75-875	80-875	4.05
0-500	34,400	55-913		4.95	75-913	80-913	4.65
A.C. AMMETERS							
0-1	.7	55-886		$3.15	75-886	80-886	$2.85
0-3	.09	55-887		3.15	75-887	80-887	2.85
0-5	.04	55-888		3.15	75-888	80-888	2.85
0-10	.02	55-889		3.15	75-889	80-889	2.85
0-15	.02	55-917		3.15	75-917	80-917	2.85
0-30	.02	55-892		3.30	75-892	80-892	3.00
A.C. MILLIAMETERS							
0-100	104	55-882		$3.15	75-882	80-882	$2.85
0-250	16	55-883		3.15	75-883	80-883	2.85
0-500	3	55-884		3.15	75-884	80-884	2.85

For meters with special scales, ranges or construction, contact the factory or local Sterling representative.

POCKET METER BATTERY TESTERS

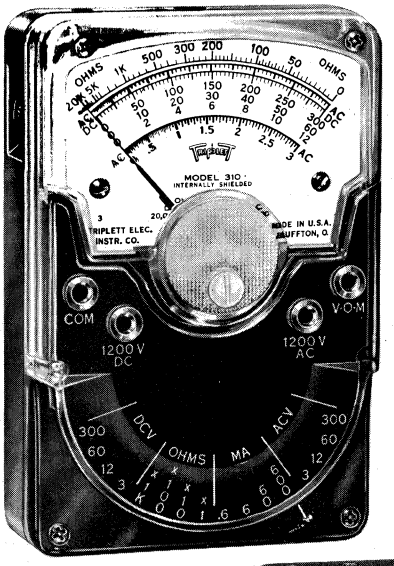
No. 10 Dual A and B for Hearing Aids. Has 2-0-2 and 50-0-50 scales.....Net Price $3.30
No. 13 Transistor Hearing Aid tester. Has 0-7 volt scale.....Net Price $3.00
No. 24 Ammeter 0-35 amp. for No. 6 dry cells. Scale has 1 amp. divisions.....Net Price $2.25
No. 34 Voltmeter for "hot-shot" batteries. 0-10 volt scale with 1/5 volt divisions.....Net Price $2.40
No. 16 General voltmeter. Has geeen color zones for batteries from 1.5 to 90 volts.....Net Price $4.05
No. 44 Voltammeter. 0-35 amp. scale, 1 amp. divisions, 0-10 volt scale, 1/5 volt divisions.....Net Price $2.76

SEND FOR CATALOGS OF OUR COMPLETE LINE OF POCKET METERS AND PORTABLE BATTERY TESTERS.

THE **STERLING** MANUFACTURING COMPANY

NO 16 GENERAL TESTER

WORLD'S MOST POPULAR MINIATURE V-O-M



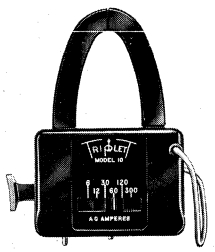
310

Volt-Ohm-Milliammeter — MODEL 310

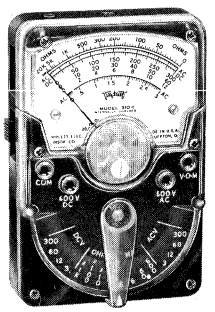
1. One selector switch. **2.** 20,000 ohms per volt DC sensitivity. **3.** Shirt pocket size VOM with provision for attaching AC clamp-on ammeter.
Self-shielded for checking in strong magnetic fields.
Rugged, high torque, bar-ring instrument.
Unbreakable plastic meter window.
Fitting interchangeable test prod into top of tester makes it the common probe, freeing one hand.
Standard sensitivity 20,000 ohms per volt DC, and 5,000 ohms per volt AC.
Spring-backed instrument jewels for ruggedness.
Accuracy 3% DC, 4% AC.

RANGES

DC Volts: 0-3-12-60-300-1,200 (at 20,000 ohms per volt). **AC Volts:** 0-3-12-60-300-1,200 (at 5,000 ohms per volt). **Ohms:** 0-20,000-200,000. **Megohms:** 0-2-20. **DC Microamperes:** 0-600 at 250 millivolts. **DC Milliamperes:** 0-6-60-600 at 250 millivolts. **Weight**—Approx. 14 oz., complete with batteries.
Case—Molded, black, 2¾" x 4¼" x 1 5/16".
Complete with leads, battery and instruction manual. Shipping wt. 2 lbs.
$40.00



Model 10

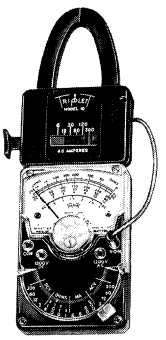


310-C

Volt-Ohm-Milliammeter — MODEL 310-C

New 310-C is the same as Model 310, above, (except 600 volt ranges replace 1200 volt ranges of model 310) plus the following features:
1. Fully enclosed lever range switch.
2. 15,000 Ohms per volt AC (20,000 O/V DC same as 310). **3.** Reversing switch for DC measurements. Handsize and lightweight, but with the features of a full size V-O-M. **$50.00**

100

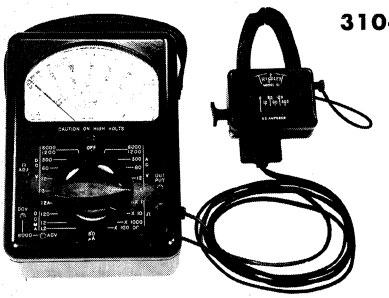


310-10

V-O-M and Clamp-On Ammeter Set — MODEL 100

Handsomely packaged set includes: Model 310 V-O-M, Model 10 Clamp-on Ammeter Adapter; Model 101 Line Separator; Model 379 Leather Case; Model 311 Leads. ($73.50 Value Separate Unit Purchase Price.)

MODEL 100, as above, you save **$3.50.** Shipping wt. 7 lbs. **$70.00**
MODEL 100-C Same as above but with Model 310-C. **$80.00**

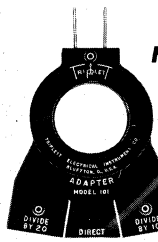


630 Series VOM & Model 10

Clamp-On Adapter — MODEL 10

CHECKS LINE LOADS WITH MODEL 310 OR 310-C
(Also can be used with Models 630, 630-A, 630-NA, 631, 630-PL, 630-APL, 630-M, 630-NS, 630-PLK, 630-L by means of 611 leads.)

Checks all line loads instantly, accurately, safely—without breaking the circuit or interrupting work. Easy range switching. Model 10 Clamp-On Adapter AC Ammeter ranges: 0-6-12-30-60-120-300. Clips around single wire to read A.C. Amperes direct. Used with Adapter 101 to divide instantly two-conductor cords. A lever securely locks the Model 10 to Model 310 when used in combination. Model 10 can be left attached to Model 310 when the latter tester is used as an AC-DC V-O-M only. The only change is to remove the lead plug from the Model 310 V-O-M jack and insert it in the jack provided in the Model 10 housing.
Case black molded plastic with engraved white markings. **$17.00**



Model 101

611 Leads

No. 611 LEADS

In addition to use with the Model 310, the No. 10 Adapter also can be used as a Clamp-On Ammeter with any Volt-Ohm-Milliammeter having a 3 AC Volt scale at 5,000 Ohms per Volt or above, such as Triplett Models 630, 630-A, 630-NA, 630-PL, 630-APL, 630-NS, 630-M, 630-PLK, 630-L, 631, etc. (see illustration). This is done by means of a long lead attachment (No. 611) making possible easy readings in difficult locations. **$2.50**

No. 311 LEADS

The Model 10 can be separated from the Model 310 (in the same way as above) by using No. 311 lead attachment. This permits readings in difficult locations. **$2.50**

Line Separator — MODEL 101

Plugs into AC outlet to divide instantly two-conductor cords. Increases ammeter sensitivity 10X and 20X. Use up to 30 AC Amperes from 0.3 to 30 in nine steps. Also has provision for Voltmeter prods for voltage measurements. Case, black molded plastic with engraved markings. **$7.00**

All Prices Are Suggested U.S.A. User Net Subject To Change. Specifications Subject To Revision. (Slightly Higher West of Rockies and in Canada)

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THE WORKHORSE OF THE ELECTRONIC INDUSTRY

Volt-Ohm-Milliammeter — MODEL 630

630

1. One selector switch minimizes chance of incorrect settings and burnouts. **2.** 5,000 ohms per volt AC sensitivity; 20,000 DC. **3.** Four resistance ranges to 100 megohms.
Popular streamlined tester with long meter scales arranged for easy reading.
Outstanding resistance ranges: low reading .1 ohm, high 100 megs. Fuse affords protection to the resistors in the ohmmeter circuit, especially the X1 setting.
Spring-backed instrument jewels for ruggedness. Accuracy ±2% DC, ±3% AC.

RANGES

DC Volts: 0-3-12-60-300-1,200-6,000 at 20,000 ohms per volt.
AC Volts: 0-3-12-60-300-1,200-6,000 at 5,000 ohms per volt.
Ohms: 0-1,000-10,000.
Megohms: 0-1-100.
DC Microamperes: 0-60 at 250 millivolts.
DC Milliamperes: 0-1.2-12-120 at 250 millivolts.
DC Amperes: 0-12.
DB: −20 to +77 (600 ohm line at 1 MW).
Output Volts: 0-3-12-60-300-1,200; jack with condenser in series with AC ranges.
Usable with frequencies through 500 Kc.
CASE—Molded, black, 3-7/32" x 5½" x 7½".

Complete with leads, alligator clips, rubber feet, batteries and instruction manual. Shipping wt. 5 lbs. **$55.00**

LABORATORY TYPE V-O-M
Volt-Ohm-Milliammeter — MODEL 630-A TYPE 2

630-A

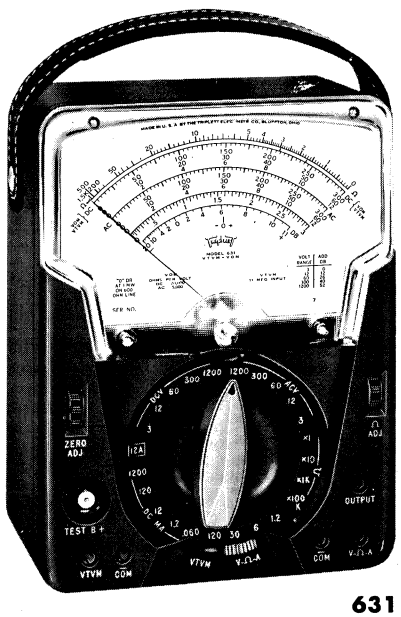
1. New Rugged 5½" suspension meter with 4½" mirror scale. **2.** ±1½% DC, ±3% AC accuracy. **3.** A laboratory type V-O-M with ½% resistors for greater accuracy.
Other features same as described for Model 630 above.

RANGES

DC Volts: 0-3-12-60-300-1,200-6,000 at 20,000 ohms per volt.
AC Volts: 0-3-12-60-300-1,200-6,000 at 5,000 ohms per volt.
Ohms: 0-1,000-10,000.
Megohms: 0-1-100.
DC Microamperes: 0-60 at 250 millivolts.
DC Milliamperes: 0-1.2-12-120 at 250 millivolts.
DC Amperes: 0-12.
DB: −20 to +77 (600 ohm line at 1 MW).
Output Volts: 0-3-12-60-300-1,200; jack with condenser in series with AC ranges.
Usable with frequencies through 500 Kc.
CASE—Molded, black, 3-7/32" x 5½" x 7½".

Complete with leads, alligator clips, rubber feet, batteries and instruction manual. Shipping wt. 5 lbs. **$65.00**

Combination V-O-M and VTVM — MODEL 631



631

1. One selector switch. **2.** Complete V-O-M in combination with battery operated VTVM. **3.** 11 megohm input to VTVM.
Two fundamental units at the price of a single tester; VTVM stability assured by long life battery operation.
Sensitivity plus — sensitivity of the 1.2 volt (VTVM) range is equal to over nine million ohms per volt. Usable with frequencies through 500 Kc.
A V-O-M for general use and a VTVM when needed; ranges entirely adequate for servicing needs.
Large meter easy to read; unbreakable meter face.
Spring-backed instrument jewels for ruggedness. Accuracy 3% DC, 4% AC, VTVM 4%.

V-O-M RANGES

DC Volts: 0-3-12-60-300-1,200 (20,000 ohms per volt).
AC Volts: 0-3-12-60-300-1,200 (5,000 ohms per volt).
Ohms: 0-1,500-15,000.
Megohms: 0-1.5-150.
DC Microamperes: 0-60 at 250 MV.
DC Milliamperes: 0-1.2-12-120-1,200 at 250 MV.
DC Amperes: 0-12 at 250 MV.
DB: −20 to +63. (600 ohm line at 1 MW).
Output Volts: 0-3-12-60-300-1,200; jack with condenser in series with AC ranges.

VTVM RANGES

DC Volts: 0-1.2-6-30-120.
Case: Molded, black, 3-11/32" x 5½" x 7½".

Complete with leads, alligator clips, rubber feet, batteries and instruction manual. Shipping wt. 5 lbs. **$75.00**

RF PROBE FOR 631

With this probe and Model 631 RF measurements can be made up to 20 volts at 250 MC. Pt. T-79-A-145 **$8.50**

All Prices Are Suggested U.S.A. User Net Subject To Change. Specifications Subject To Revision. (Slightly Higher West of Rockies and in Canada)

TRIPLETT ELECTRICAL INSTRUMENT COMPANY

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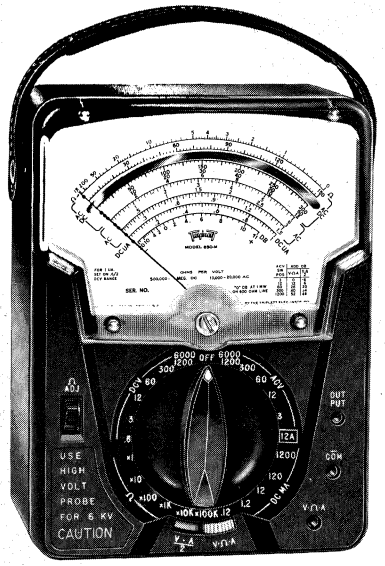


630-M

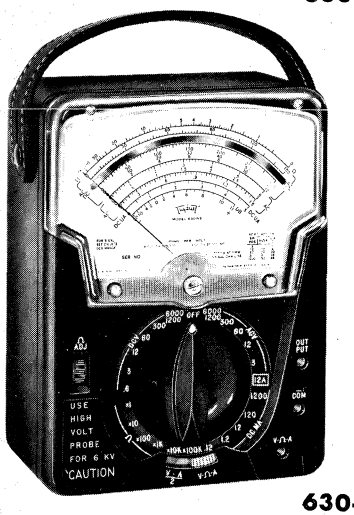
ONE MILLION OHMS PER VOLT SENSITIVITY

Volt-Ohm-Milliammeter — MODEL 630-M TYPE 1

1. 1,000,000 Ohms per volt DC for greater acuracy on high resistance circuits. 20,000 ohms per volt AC.
2. 1μa Suspension Meter Movement. No pivots, bearings, or rolling friction. Extremely rugged. Greater sensitivity and repeatability.
3. 61 Ranges, usable with frequencies through 100 Kc. Temperature compensated. 1½% DC accuracy, 3% AC in horizontal position.
Now the input impedance of a VTVM with the convenience of a V-O-M. Reads as low as 20 nanoamperes. Components mounted on quality glass epoxy etched circuit board. Meter protected by diodes against accidental overload.

RANGES

D.C. Volts: 0-0.6-3-12-60-300 at 500,000 Ohms/Volt.
0-0.3-1.5-6-30-150 at 1,000,000 Ohms/Volt.
0-1200 at 125,000 Ohms/Volt.
0-600 at 250,000 Ohms/Volt.
A.C. Volts: 0-3-12-60-300-1200 at 10,000 Ohms/Volt.
0-1.5-6-30-150-600 at 20,000 Ohms/Volt.
DB: −20 to +63 in 10 ranges
D.C. Microamperes: 0-1 at 300 M.V.
0-60-600 at 300 M.V.
0-120 at 600 M.V.
D.C. Milliamperes: 0-6-60-600 at 300 M.V.
0-1.2-12-120-1200 at 600 M.V.
D.C. Amperes: 0-6 at 300 M.V.
0-12 at 600 M.V.
Ohms: 0-1K-10K-100K (4.4-44-440 at center scale)
Megohms: 0-1-10-100 (4400-44,000-440,000 Ohms center scale)
Output: Condenser in series with AC Volt ranges **$200.00**
Case—Heavy, molded black case, 3-11/32" x 5½" x 7½", with removable black leather strap handle. Shipping wt. 5 lbs.



630-NS

NOT 20,000 BUT 200,000 OHMS PER VOLT

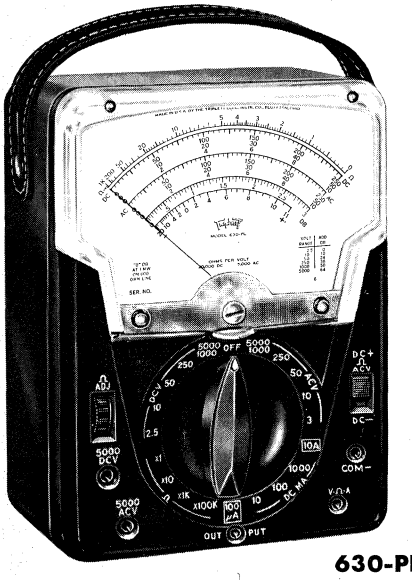
Volt-Ohm-Milliammeter — MODEL 630-NS

1. 200,000 ohms per volt DC for greater accuracy on high resistance circuits. 20,000 ohms per volt AC. **2.** Suspension Meter Movement. No pivots, no bearings, no hairsprings; no rolling friction. Extremely rugged. Greater sensitivity and repeatability. **3.** 62 ranges. Temperature and frequency compensated.
The unit is precision designed to give maximum coverage, to withstand accidental overloads and to offer greater reading accuracy. Usable with frequencies through 100 Kc. Accuracy 1½% DC, 3% AC.

RANGES

DC Volts: 0-0.6-3-12-60-300-1200 at 100,000 Ohms/Volt.
0-0.3-1.5-6-30-150-600 at 200,000 Ohms/Volt.
0-0.150 at 60 microamperes.
AC Volts: 0-3-12-60-300-1200 at 10,000 Ohms/Volt.
0-1.5-6-30-150-600 at 20,000 Ohms/Volt.
DB: −20 to +63 in 10 ranges.
DC Microamperes: 0-60-600 at 150 Mv.
0-5-120 at 300 Mv.
DC Milliamperes: 0-6-60-600 at 150 Mv. 0-1.2-12-120-1200 at 300 Mv.
DC Amperes: 0-6 at 150 Mv. 0-12 at 300 Mv.
Ohms: 0-1K-10K-100K (4.4-44-440 at center scale).
Megohms: 0-1-10-100 (4400-44,000-440,000 Ohms center scale).
Output: Condenser in series with AC Volt ranges. **$100.00**

CASE—Molded, black, 3-11/32' x 5½" x 7½". Shipping wt. 5 lbs.



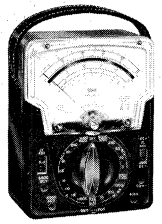
630-PL

Volt-Ohm-Milliammeter — MODEL 630-PL TYPE 2

1. Meter movement diode protected against instantaneous overloads. **2.** One selector switch minimizes chance of incorrect settings and burnouts. **3.** Four outstanding resistance ranges, from .1 ohm to 100 megs.
Polarity reversing switch. Tester usable with frequencies through 500 Kc. Instant-vision, wider spread scales; streamlined case, handsome modern design. Unbreakable plastic window.
Fuse affords extra protection to the resistors in the ohmmeter circuit, especially the X1 setting. Spring-backed instrument jewels for ruggedness.
High Sensitivity: 5,000 ohms per volt AC; 20,000 ohms per volt DC.
Accuracy ±2% DC, ±3% AC.

RANGES

DC Volts: 0-2.5-10-50-250-1,000-5,000—at 20,000 ohms/volt.
0-0.25 at 100 microamperes.
AC Volts: 0-3-10-50-250-1,000-5,000 — at 5,000 ohms/volt.
Decibels: −20 to +11, +21, +35, +49, +61, +75; "0" DB at 1 MW on 600 ohm line.
DC Microamperes: 0-100—at 250 millivolts.
DC Milliamperes: 0-10-100-1,000 — at 250 millivolts.
DC Amperes: 0-10—at 250 millivolts.
Ohms: 0-1,000-10,000—(4.4-44 at center scale).
Megohms: 0-1-100—(4,400-440,000 at center scale).
Output V (AC): 0-3-10-50-250-1,000—at 5,000 ohms/volt, jack with condenser in series with AC ranges.
Case: Molded, black, 3-11/32" x 5½" x 7½".
Complete with leads, alligator clips, rubber feet, batteries and instruction manual. Shipping wt. 5 lbs. **$55.00**



630-APL

Laboratory Type V-O-M — MODEL 630-APL TYPE 3

1. New rugged 5½" suspension meter with 4½" mirror scale. **2.** Meter movement diode protected against instantaneous overloads. **3.** ±1½% DC, ±3% AC accuracy.

A laboratory type V-O-M featuring ½% resistors for greater accuracy. Ranges and other features same as Model 630-PL above. **$65.00**

Net
© U.C.P., Inc.

OVERLOAD PROTECTED V-O-M

Volt-Ohm-Milliammeter

MODEL 630-PLK
TYPE 2

630-PLK

1. Comprehensive overload protection. **2.** One selector switch minimizes chance of incorrect settings. **3.** Polarity reversing switch.
Transistorized electronic switching circuit (patent pending) guards against accidental burn-outs. Now you can virtually eliminate bent pointers, burned-out resistors, damaged pivots, overheated springs, burned-out coils, changes in accuracy due to overheating, in fact nearly any need for repairs. Life of transistor circuit battery is nearly that of shelf life. Automatically checked by using X100K ohms range. Overload protection on meter in addition to transistorized circuit that protects tester.
Accuracy ±2% on DC, ±3% AC. High sensitivity: 20,000 O/V DC; 5,000 O/V AC. Shipping weight 5 lbs.

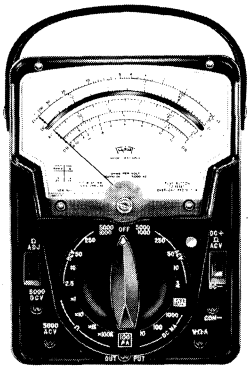
RANGES

DC Volts: 0-2.5-10-50-250-1,000-5,000 at 20,000 ohms/volt; 0-0.25 at 100 microamperes.
AC Volts: 0-3-10-50-250-1,000-5,000 at 5,000 ohms/volt.
Decibels: —20 to +11, +21, +35, +49, +61, +75; "0" DB at 1 MW on 600 ohm line.
DC Microamperes: 0-100 at 250 Mv.
DC Milliamperes: 0-10-100-1000 at 250 Mv.
DC Amperes: 0-10 at 250 Mv.
Ohms: 0-1,000-10,000 (4.4-44 at center scale).
Megohms: 0-1-100 (4,400-440,000 at center scale).
Output Volts (AC): 0-3-10-50-250-1,000 at 5,000 ohms/volt; jack with condenser in series with AC ranges.
Case: Molded, black, 3-11/32" x 5½" x 7½".
Complete with leads, alligator clips, rubber feet, batteries and instruction manual. Shipping wt. 5 lbs. **$85.00**

LABORATORY TYPE V-O-M WITH OVERLOAD PROTECTION

Volt-Ohm-Milliammeter

MODEL 630-APLK
TYPE 1

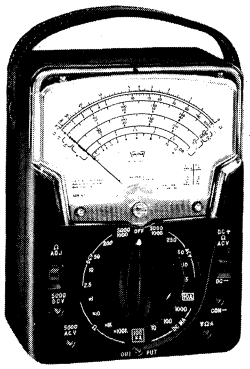


630-APLK

1. Comprehensive overload protection. **2.** Polarity reversing switch. Suspension Meter Movement. **3.** One selector switch minimizes chance of incorrect settings. 4½" mirror scale. Lab type V-O-M with ½% resistors for greater accuracy. ±1½% DC, ±3% AC accuracy. Other features same as described for Model 630-PLK above.
Complete with leads, alligator clips, rubber feet, batteries and instruction manual. Shipping wt. 5 lbs. **$95.00**

Volt-Ohm-Milliammeter

MODEL 630-L



630-L

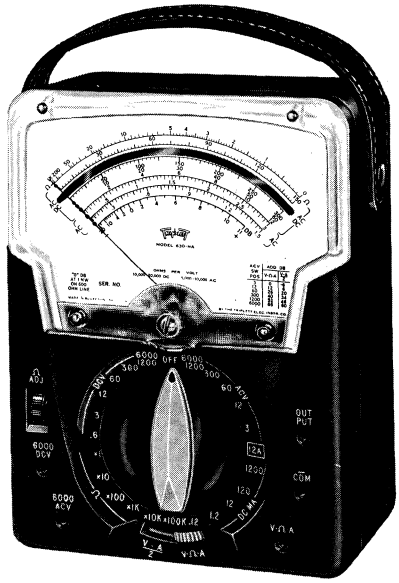
1. 2 low power ohms ranges (X1 and X10). 140 Mv. ohmmeter circuit voltage. **2.** One selector switch minimizes chance of incorrect settings. **3.** Exclusive shielded BAR-RING movement. Accuracy ±2% on DC; ±3% on AC. Sensitivity: 20,000 Ω/V DC, 5,000 Ω/V AC.

RANGES

DC Volts: 0-2.5-10-50-250-1,000-5,000 at 20,000 ohms/volt.
AC Volts: 0-3-10-50-250-1,000-5,000 at 5,000 ohms per volt.
Decibels: —20 to +75; "0" Db at 1 Mw on 600 ohm line.
DC Microamperes: 0-100 at 120 millivolts.
DC Milliamperes: 0-10-100-1000 at 120 millivolts.
DC Amperes: 0-10 at 120 millivolts.
Ohms: 0-1,000-10,000 (13-130 at center scale).
Megohms: 0-1-100 (4,400-440,000 at center scale).
Output V (AC): 0-3-10-50-250-1,000 at 5,000 ohms/volt, jack with condenser in series with AC ranges.
Case: Black molded, 3-11/32" x 5½" x 7½". **$60.00**

Volt-Ohm-Milliammeter

MODEL 630-NA



630-NA

1. One selector switch. **2.** 70 ranges: 1½% DC accuracy on meter; with mirror scale and overload protection. **3.** Temperature and frequency compensation.
The super deluxe of V-O-Ms. Usable with frequencies through 500 Kc.
Large open front meter easy to read.
Unbreakable window. Mirror scale.
Meter has special diode protection against the most severe overloads. A fuse affords protection to resistors in the ohmmeter circuit (especially the X1 setting) should too high a voltage be applied.
Spring-backed instrument jewels for ruggedness. Accuracy 1½% DC, 3% AC.

RANGES

DC Volts: 0-.6-3-12-60-300-1,200-6,000 at 10,000 ohms per volt.
0-.3-1.5-6-30-150-600-3,000 at 20,000 ohms per volt.
0-0.120 at 60 microamperes.
AC Volts: 0-3-12-60-300-1,200-6,000 at 5,000 ohms per volt.
0-1.5-6-30-150-600-3,000 at 10,000 ohms per volt.
Ohms: 0-1K-10K-100K.
Megohms: 0-1-10-100.
DC Microamperes: 0-120 at 240 millivolts.
0-60-600 at 120 millivolts.
DC Milliamperes: 0-1.2-12-120-1,200 at 240 millivolts.
0-6-60-600 at 120 millivolts.
DC Amperes: 0-12 at 240 millivolts.
0-6 at 120 millivolts.
DB: —20 to +77 (600 ohm line at 1 MW).
Output Volts: 0-3-12-60-300-1,200; jack with condenser in series with AC ranges.
Case—Molded, black, 3-11/32" x 5½" x 7½".

Complete with leads, alligator clips, rubber feet, batteries and instruction manual. Shipping wt. 5 lbs. **$85.00**

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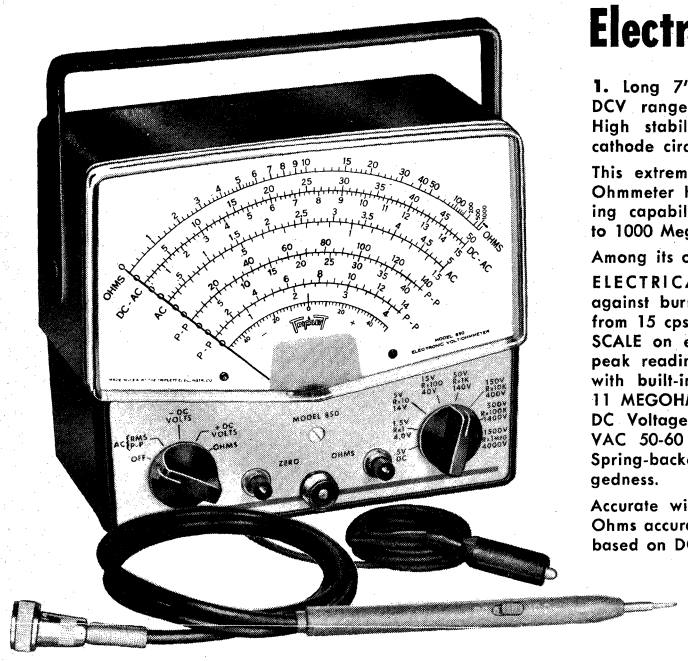
Electronic Volt-Ohmmeter MODEL 850



850

1. Long 7" easy-to-read scale. **2.** .5 DCV range for transistor circuits. **3.** High stability — meter connected in cathode circuit of 12AU7.

This extremely versatile Electronic Volt-Ohmmeter has superior voltage measuring capabilities, plus resistance ranges to 1000 Megohms.

Among its outstanding features:

ELECTRICAL PROTECTION of meter against burnout. FREQUENCY RANGE—from 15 cps to 3 Megacycles. SEPARATE SCALE on easy-view meter for Peak-to-peak readings. SINGLE UNIT PROBE—with built-in switch for AC/DC/OHMS. 11 MEGOHM INPUT RESISTANCE on all DC Voltage ranges. Line voltage: 115 VAC 50-60 cycles. Ground type plug. Spring-backed instrument jewels for ruggedness.

Accurate within ±3% on AC and DC. Ohms accurate within ±3% of full scale based on DC scale.

RANGES

Eight DC Volts Ranges: 0-.5-1.5-5-15-50-150-500-1500. **Seven AC RMS Volts Ranges:** 0-1.5-5-15-50-150-500-1500. **Seven Peak-to-Peak Volts Ranges:** 0-4-14-40-140-400-1400-4000. **Seven Resistance Ranges:** 0-1000-10,000-100,000-1 Meg-10 Meg-100 Megohms-1000 Megohms. **Frequency Range:** 15 CPS to 3 MC; (Up to 250 MC with accessory diode probe available extra). **Input Impedance:** DC Volts 11 Megohms; AC Volts minimum of .83 Megohms. **CASE**—Molded black case, 7⅝" x 6$\frac{7}{16}$" x 3¾". Carrying handle also can be used to place the tester at 25° angle for ease in reading.

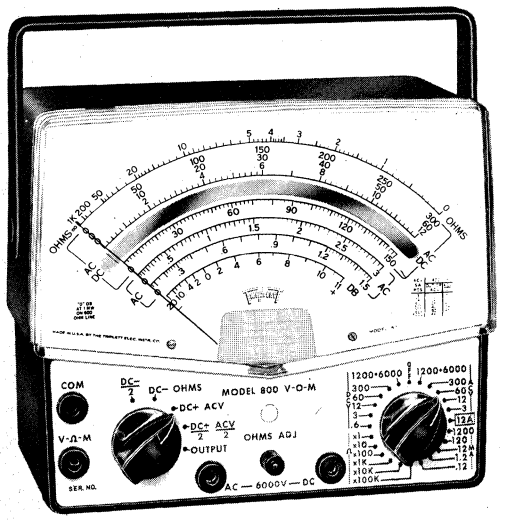
PANEL—Etched aluminum. Shipping wt. 7 lbs. **$85.00**

MODEL 850 (Foreign — 220V, 50 to 60 N) **$90.00**

Auxiliary Diode Probe for voltages to 20 volts with frequencies to 250 MC. Pt. T-79-215 **$8.00**

High Voltage Probe for DC Voltages to 50 KV. Pt. 79B-196 **$23.00**

Volt-Ohm-Milliammeter MODEL 800 TYPE 2



800

1. 8" Suspension Meter with 6.95" mirror scale for greater readability plus diode overload protection.
2. 1½% DC and 3% AC accuracy with temperature and frequency compensation.
3. 67 Ranges with a DC polarity reversing switch and fused ohmmeter circuit.
No other V-O-M offers all the Deluxe features of the Model 800. 3% AC ACCURACY to 1200 volts; mirror and knife-edge pointer to eliminate parallax; USABLE with frequencies to 100 Kc; WIRED CIRCUIT (not printed); HIGH FLUX BARRING self shielded magnet; DUAL SENSITIVITY provides extra ranges, DC volts at 20,000 and 10,000 ohms per volt, AC at 10,000 and 5,000 ohms per volt. Shatterproof meter window, molded transparent plastic; fully antistat treated.

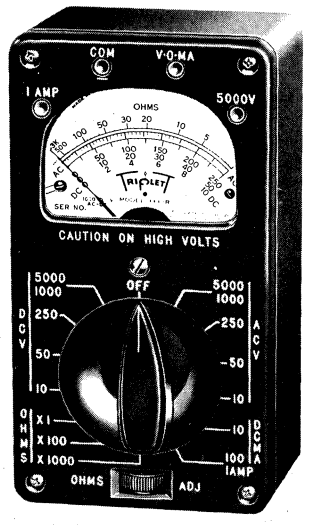
RANGES

DC Volts: 0-0.6-3-12-60-300-1200-6000 at 10,000 Ohms per Volt. 0-0.3-1.5-6-30-150-600-3000 at 20,000 Ohms per Volt. 0-.120 at 60 Microamperes. **AC Volts:** 0-3-12-60-300-1200-6000 at 5,000 Ohms per Volt. 0-1.5-6-30-150-600-3000 at 10,000 Ohms per Volt. **DB:** −20 to +70 in 10 ranges. **DC Microamperes:** 0-60-600 at 120 MV. 0-120 at 240 MV. **DC Milliamperes:** 0-6-60-600 at 120 MV. 0-1.2-12-120-1200 at 240 MV. **DC Amperes:** 0-6 at 120 MV. 0-12 at 240 MV. **Ohms:** 0-1K-10K-100K (4.4-40-440 at center scale). **Megohms:** 0-1-10-100 (4400-44,000-440,000 Ohms center scale). **Output:** Condenser in series with AC volt ranges.

CASE—Heavy, molded black case, 7½" x 6¼" x 3⅞", with an insulated, movable handle, which can also serve as a tester stand. Shipping wt. 7 lbs. **$100.00**

Pocket Volt-Ohm-Milliammeter

MODEL 666-R



666-R

1. One selector switch. **2.** Three resistance ranges to 3 megohms. **3.** Five volt ranges to 5,000 AC & DC volts.
Hand-size—the ideal tester for electrical maintenance. Recessed range knob enables tester to fit in tool kit.
AC rectifier pre-calibrated unit for easy replacement.
Banana jacks at top of the panel lessen possibility of leads falling over the meter dial. Accuracy 3% DC, 4% AC.

RANGES

DC Volts: 0-10-50-250-1,000-5,000 at 1,000 ohms per volt. **AC Volts:** 0-10-50-250-1,000-5,000 at 1,000 ohms per volt. **Ohms:** 0-3,000-300,000. **Megohms:** 0-3. **DC Milliamperes:** 0-10-100 at 250 MV. **DC Amperes:** 0-1 at 250 MV. **Output Volts:** 0-10-50-250-1,000.

CASE—Black molded, streamlined, handy pocket size, 3$\frac{1}{16}$" x 5⅞" x 2$\frac{9}{16}$".

Complete with leads, alligator clips, batteries and instruction manual. Shipping wt. 3 lbs. **$40.00**

All Prices Are Suggested U.S.A. User Net Subject To Change. Specifications Subject To Revision. (Slightly Higher West of Rockies and in Canada)

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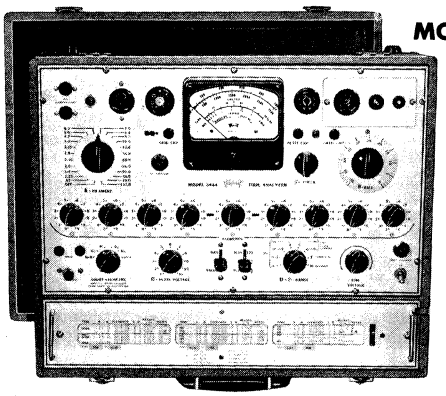
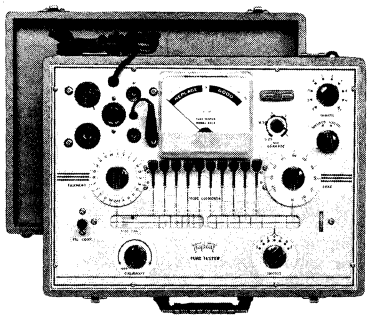
MODEL 3444



TRIPLETT TEST EQUIPMENT

TRUE DYNAMIC MUTUAL CONDUCTANCE TUBE ANALYZER MODEL 3444

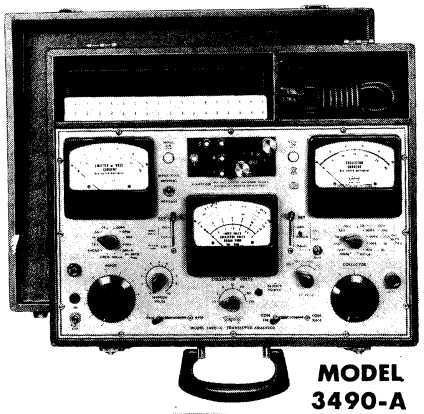
The only tube tester under $1,000 that is simple and fast to operate and **1.** Will measure tube characteristics at KNOWN readable potentials. **2.** Provides readings to: (a) Plot the tube characteristic curves. (b) Measure grid current at known potentials. (c) Compare cutoff characteristics of dual tubes. **3.** Reads directly in micromhos with a self checking Gm circuit. CHECKS PLATE current cutoff. CHECKS GAS under actual operating conditions (measures to approximately one UA of gas current). CHECKS RECTIFIERS under load. CHECKS THYRATRON firing voltage and grid current. (To 50 ma. anode current.) CHECKS DUAL section tubes with only one lever movement. PROVIDES SHORTS and leakage measurements from 0-10 megohms using a filtered DC supply of 85 volts. PROVIDES cut off measurements on voltage amplifiers. **RECESSED SOCKET SAVERS** (under-the-panel-mounted) are easily removable for replacement.
Case: Wood, gray leatherette covered, $15\frac{3}{16}$" x $18\frac{13}{16}$" x 7¾". Shipping wt. 30 lbs. **$350.00**



MODEL 3414

FASTER, FLEXIBLE TUBE TESTER MODEL 3414

1. Rapid easy testing-setups can be made while tube is heating. **2.** Input filament continuity test. **3.** Modified circuit for better correlation on Gm. Rejects burned out tubes instantly without waiting for the filaments to heat. NEON INDICATOR SHORTS TEST, new, fast and accurate. Full range filament voltages—0.65 to 117 in 23 steps. Improved lever switching for complete control of each tube element. Quick-change roll chart. TV picture tube test by means of adapter (available extra, see below) without removing tube from receiver. Large, clearview meter has three-color GOOD-?-BAD scale.
COUNTER-PORTABLE TYPE CASE. Ultra-professional appearance; Wood, dark gray leatherette covered; 15⅞" x 11½" x 6½". Hinged removable cover. Chrome hardware and feet. Etched panel. Shipping wt. 17 lbs. **$120.00**



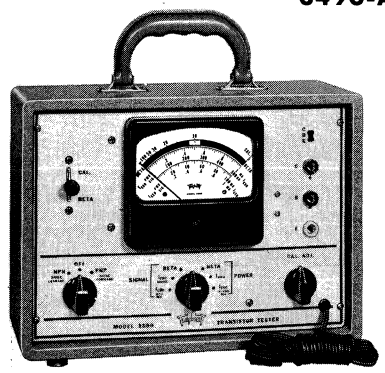
MODEL 3490-A

NEW TRANSISTOR ANALYZER FOR COMPLETE TRANSISTOR ANALYSES MODEL 3490-A

1. Reads leakage current down to 100 **nanoamperes** on a 6ua full scale meter. **2.** Analyzes both power & signal types at specified voltages and currents. **3.** Continuous current—up to 30 amp collector—and voltage control for transistor supply electrodes. Test DC Beta, AC Beta at 1KC, leakages (Ico, Ieo, Iceo), Alpha, Reach Through Voltage, Saturation Voltage, Floating Potential. The 3490-A's flexibility allows plotting of transistor characteristic curves along with setting up nearly any type of transistor test. Input bias reversing switch gives added versatility. THREE INDEPENDENT Power Supplies. Model 3490-A also tests diodes, recifiers, zener diodes, SCR, etc.

RANGES

Input Current (Emitter or Base): 0-100-300 ua, 0-1-3-10-30 Ma, 0-.1-.3-1-3 Amp. **Collector Current:** 0-300 ua, 0-1-3-10-30 Ma, 0-.1-.3-1-3-10-30 Amp. **Iceo, Ico (Icbo):** 0-6 Ma, 0-600 ua, 0-60 ua, 0-6 ua. **Collector Voltage:** 0-120 V, 0-60 V, 0-30 V, 0-12 V, 0-6 V, 0-3 V, 0-1.2 V. **Emitter or Base Voltage:** 0-12 V, 0-1.2 V. **Tetrode:** 0-10 V Calibrated Control. Shipping wt.: 30 lbs.
Case: Wood, gray leatherette covered, $18\frac{3}{16}$" x $15\frac{7}{16}$" x 8" with removable cover, and sloping etched aluminum panel. **$400.00**



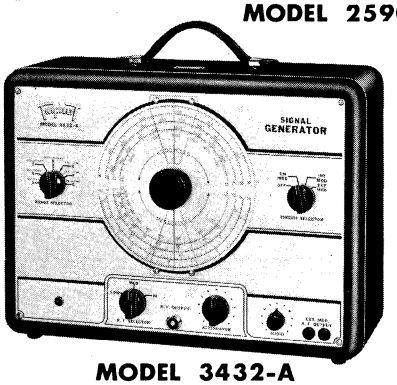
MODEL 2590

TRANSISTOR TESTER MODEL 2590

1. Tests Beta amplification, ICBO, ICEO for both power and signal type transistors. Tests for shorts and leakage. Checks leakage and forward currents on diodes. **2.** Simulated operating test conditions. **3.** Simple and straightforward operation. No roll chart or special data needed, always up-to-date.
Case: 11⅝" x 8⅝" x 5⅛".

FIVE SCALES

0-1 MA for Signal Transistor ICEO
0-100 MA for Power Transistor ICEO
0-500 Microamp for Signal Transistor ICBO
0-1 MA for Power Transistor ICBO
5-100 Beta Range; also shows on GOOD—?—BAD scale
Shipping wt. 9 bs. Power—115 volts, 50-60 cycle AC. **$65.00**



MODEL 3432-A

SIGNAL GENERATOR MODEL 3432-A

Complete frequency coverage 160 KC to 10 MC fundamental with seven bands (220 MC harmonics). R.F. circuits are double shielded with copper steel shields. Large easily read etched aluminum dial. Cathode follower output provides good stability by acting as a buffer to the oscillator. 400 cycle audio frequency with variable control for 0-100 per cent modulation.

Band

A	160-370 KC
B	360-735 KC
C	715-1875 KC
D	1825-4950 KC
E	4.85-13 MC
F	12.5-35 MC
G	34-110 MC
G (Harmonics)	68-220 MC

Case: Metal with black baked enamel suede finish, $15\frac{11}{32}$" x $11\frac{1}{32}$" x 6¼". Black leather strap handle, rubber feet. Shipping wt. 30 lbs. **$130.00**

All Prices Are Suggested U.S.A. User Net Subject To Change. Specifications Subject To Revision.

TRIPLETT ELECTRICAL INSTRUMENT COMPANY

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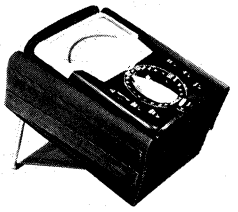
Leather Cases

For Testers 630, 630-A, 630-PL, 630-APL, 630-NA, 630-M, 630-NS, 631, 630-L, 630-PLK, 630-APLK



639-N

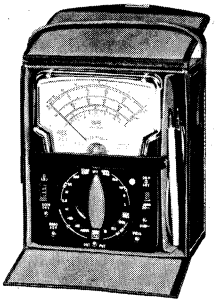
MODEL 639-N

Model 639-N black cowhide leather carrying case. Center-cover flaps snap back allowing full view of scales and permitting complete access to instrument without removal from case. Tester stand is included at no extra cost. **$11.00**

639/639-P

Model 639 black leather case. **$11.00**

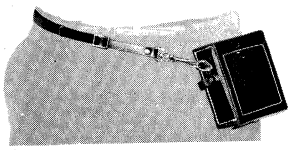
Model 639-P black cowhide leather carrying case lined with 3/8" sponge rubber. **$16.00**

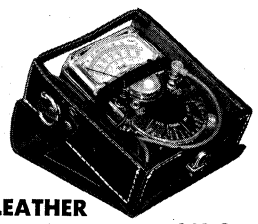


639-OS

Model 639-OS — Black leather case, has built-in stand on back. Flaps open to permit use of tester in case. Compartment for accessories. **$13.00**

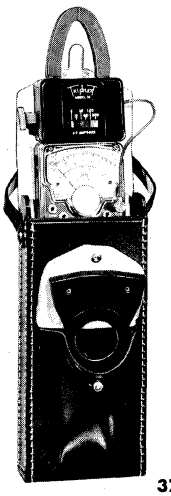
For Models 310-310-C





LEATHER CASE 369-S

Model 369-S leather carrying case for use with Models 310 or 310-C. Has removable leather shoulder strap. The case flap folds back to form a handy stand. Contains a retractable hook for hanging from nails, pipes, etc., freeing both hands. Test leads store in case and remain plugged into tester jacks while flap is closed keeping your 310 or 310-C ready for instant use. Soft shock absorbent lining. **$9.00**



379

Model 379 as above, large enough for 310-10 in combination. Has pocket for 101. **$7.00**

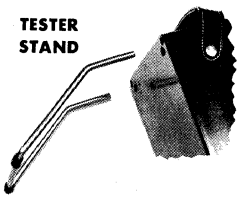
Model 369-T Neckstrap Carrying Case for Model 310. **$8.50**

369

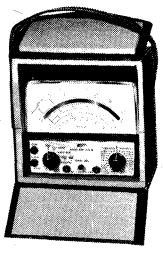
369-T

Model 369 — Handsome black cowhide leather carrying case for Model 310. Trouser belt slips through loop on back of the case for out-of-the-way carrying. **$3.50**

TESTER STAND



Models 800 and 850



Model 859-OP

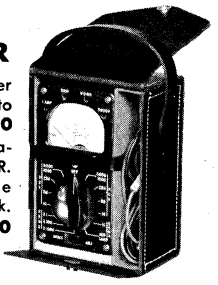
Black Leather Carrying Case, lined with sponge rubber. Flaps open to permit use of tester without removal from case. Built-in stand on back. Model 859-OP. **$21.00**

859-OP

For Model 666-R

Model 669 black leather case for 666-R. (Similar to Model 639 above). **$7.50**

Model 669-OS black leather case for Model 666-R. Tester can be used in the case. Built-in stand on back. **$8.00**



669-OS

ACCESSORIES

EXTERNAL SHUNTS—For 630, 630-A

Pt. T-91-247 30 Amperes (Plug-in) **$11.00**
Pt. T-91-248 60 Amperes (Portable) **$14.50**
Pt. T-91-255 120 Amperes (Portable) ..**$14.50**

EXTERNAL SHUNTS FOR 631

Pt. T-91-248 60 Amperes (Portable) **$14.50**
Pt. T-91-255 120 Amperes (Portable) ..**$14.50**

EXTERNAL SHUNTS FOR 630-NA, 800

Pt. T-91-429
0-15-30 Amperes (Plug-in) **$15.00**
Pt. T-91-430
0-30-60 Amperes (Portable) **$20.00**
Pt. T-91-431
0-60-120 Amperes (Portable) **$20.00**

EXTERNAL SHUNTS FOR 666-R, 630-PL, 630-APL, 630-PLK

Pt. T-91-243 25 Amperes (Plug-in) **$11.00**
Pt. T-91-244 50 Amperes (Portable) **$14.50**
Pt. T-91-191 100 Amperes (Portable) **$14.50**

REPLACEMENT LEADS

LEADS for Models 630, 630-A, 630-PL, 630-APL, 630-PLK, 630-APLK, 631, 666-R, 630-NA, 630-M & 630-NS Rubber (T-79-127). **$2.50**

REPLACEMENT LEADS for Models 310, 310-C, T-79A-153. Suggested U. S. A. User Net **$2.50**

REPLACEMENT AC-DC — Ohms probe for Model 850 Pt. #T-79-192, lead assembly. **$6.50**

REPLACEMENT LEADS for Model 631 Pt. #T-79-142 .....**$6.00**

RF PROBE FOR 631

With this probe and Model 631 RF measurements can be made up to 20 volts at 250 MC. Pt. T-79-145. **$8.50**

HIGH VOLTAGE PROBES

Completely insulated polystyrene test probe with guard-type handle. Probe is 11¾" long, with 48" hi-voltage wire lead with banana plug at tester end.

MODELS 630, 630-A, and 631

Part T-79-70....0-30,000 D.C. Volts **$16.00**
Part T-79-71....0-30,000 A.C. Volts **$16.00**
Part T-79-152....0-60,000 A.C. Volts **$16.00**

Models 630-PL, 630-APL, 630-PLK, 630-L

Part T-79-83....0-10,000 D.C. Volts **$16.00**
Part T-79-130....0-25,000 D.C. Volts **$16.00**
Part T-79-166....0-25,000 A.C. Volts **$16.00**

Models 630-NA and 800

Part T-79-152....0-30,000 D.C. Volts **$16.00**
Part T-79-71....0-30,000 A.C. Volts **$16.00**
Part T-79-152....0-60,000 A.C. Volts **$16.00**

For Model 630-NS

Part T-79-229....0- 6,000 D.C. Volts **$16.00**
Part T-79-230....0- 6,000 A.C. Volts **$16.00**
Part T-79-152....0-30,000 A.C. Volts **$16.00**

For Model 630-M

Part T-79-152....0-30,000 A.C. Volts **$16.00**
Part T-79-230....0- 6,000 A.C. Volts **$16.00**
Part T-79-247....0- 6,000 D.C. Volts **$16.00**

TESTER STAND

Metal stand holds Model 630, 630-A, 630-PL, 630-APL, 630-NA, 630-NS, 630-PLK, 630-APLK, 631, 630-M or 630-L tester in approximately a 45° angle; will enable you to make easier readings.

STAND ONLY—Pt. T-255-A-35
Shipping wt. 1 lb. **$1.50**

PROBES FOR MODELS 310 AND 310-C

PROBE EXTENSIONS for 310 & 310-C leads, insulated, 3 inches long. Pt. 11254A (Red) Pt. 11255A (Black) **$1.50**

MINIATURE ALLIGATOR CLIPS for use with 310-310-C Probe extensions. Pt. 2451-57 (black), 2451-58 (red). **$.50**

PROBES FOR MODEL 850

Auxiliary Diode Probe for voltages to 20 volts with frequencies to 250 MC. Pt. T-79-215. **$8.00**

High Voltage Probe for DC Voltages to 50 KV. Pt. 79-196. **$23.00**

All Prices Are Suggested U.S.A. User Net Subject To Change. Specifications Subject To Revision. (Slightly Higher West of Rockies and in Canada)

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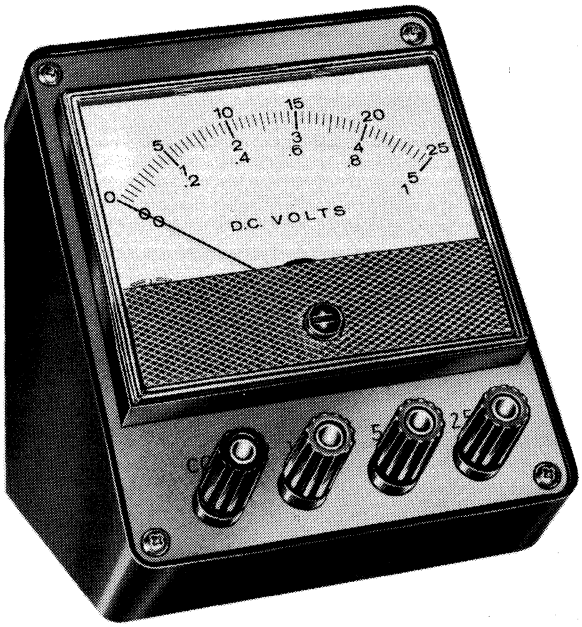
TRIPLETT INSTRUMENTS

NEW! G/P SERIES

PORTABLE INSTRUMENTS

For School, Lab, or Shop.

1. **Wide clear view plastic meter, with Bar-Ring DC movements.**
2. **Overload protection on all models. (Diodes on DC, Fused AC)**
3. **Unbreakable molded black plastic cases with aluminum panels.**



Now you can make all types of electrical measurements right in your own lab or shop set-up with these new economically priced portable instruments. Rugged case and movement construction safeguards against rough handling. Overload protection of all models guards against electrical damage from misuse.

These instruments are of the highest quality and contain the craftsmanship of 60 years of instrument manufacturing. Use them for . . . complete shop set-ups . . . with breadboard wiring devices . . . to supplement limited training devices . . . production line checking . . . professional lab use. All these and many other uses are available with the Triplett G/P SERIES portables.

SPECIFICATIONS

- 52 Standard ranges available in 23 units.
- ±2% accuracy on DC and AC Iron Vane Type.
- ±3% accuracy on AC Rectifier Type and Ohms.
- Wide clear view plastic 3½" Model 320-G panel instrument.
- Bar-Ring construction in DC movements assures self-shielding.
- Five-way binding posts.
- Knife-edge pointers.
- Diodes protect against instantaneous overloads on DC movements.
- AC movements are fuse protected.
- Unbreakable black molded ¼" x 3⅞" x 4¼" plastic case.

RANGES AND PRICES

DC 320-G/P

0-1-5-25 Volts (1000 ohms/volt)	$29.30
0-25-100-500 Volts (1000 ohms/volt)	30.00
0-6-60-600 Volts (1000 ohms/volt)	30.00
0-10-50-250 Microamperes (Suspension Type)	56.10
0-50 Microamperes	27.30
500-25-0-25-500 Microamperes	30.90
0-.25-1-5 Milliamperes	28.50
0-25-100-500 Milliamperes	28.90
0-1-10-100 Milliamperes	28.90
0-1-5-25 Amperes	29.30
0-50-100-250 Millivolts (125 ohms/volt)	28.90

AC RECTIFIER TYPE 350-G/P

0-6-60-600 Volts (1000 ohms per volt)	$47.60

AC IRON VANE TYPE 330-G/P

0-120-600 Volts (83 ohms/volt) & 0-12 Milliamperes	$39.60
0-5-25 Volts (4 ohms/volt) & 0-250 Milliamperes	29.60
0-30-120 Volts (17 ohms/volt) & 0-60 Milliamperes	30.80
0-150 Volts (125 ohms/volt)	23.50
0-1 Ampere	22.30
0-5 Amperes	22.30
0-25 Amperes	22.30

OHMS 320-G/P

0-1K-100K (10-1000 at center scale) Includes 1.5 V battery and test leads	$32.50
0-1Meg-100Meg (5K-500K at center scale) Includes 30 V battery and test leads	37.50

R. F. VOLTS 340-G/P

0-2.5 Volts (240 ohms per volt)	$45.10

WATTS 360-G/P

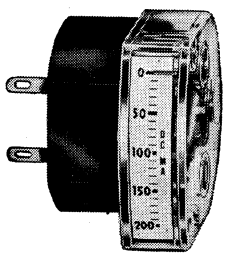
0-150 Watts (Max. 150 volts 2 amperes)	$47.70

Special ranges to customer requirements on request.

Special charges will apply.

Test Leads (pt. no. T-79-127) are available for use with the G/P SERIES portables..... $2.50

NOTE: The 0-50-100-250 DC millivolt model may be used with any of several standard switchboard shunts to extend range into higher current areas.



MINIATURE EDGEWISE PANEL INSTRUMENTS

If space on your panel is at a premium here is a miniature meter that will fit into even the most restricted area—yet give you the readability, performance and reliability you expect from the conventional 2½" sizes.

Weighing only four ounces this meter also is of value to the user who has a weight limitation factor on his hands.

Accuracy—DC 2% of full scale; AC Rectifier type 3% of full scale.

Self-Shielded Bar-Ring Magnet—Not affected by magnetic panels. High torque, exceedingly rugged and accurate.

Mounting—Horizontal, zero at left and barrel down is standard.

Vertical mounting or other special adaptations in quantity orders.

Panel Hole Required—Only 5/16" x 1 1/16".

DC-MA	Suggested U.S.A. User Net
0-1	$12.00
0-10	12.00
0-25	12.40
0-50	12.40
0-100	12.40
0-150	12.40
0-200	12.40
0-300	12.40
0-500	12.40
DC-VM	
0-10	$13.00
0-50	13.00
0-150	13.00

DC-UA	Suggested U.S.A. User Net
0-50	$18.00
0-100	15.70
0-200	13.40
DC-AM	
0-10	$13.00
AC-VM (Rect. Type)	
0-150	$21.70
0-300	22.80
VU Meters	
A or B Scales	$24.10

ALL PRICES ARE SUGGESTED U.S.A. USER NET, SUBJECT TO CHANGE. MODELS SUBJECT TO REVISION.

TRIPLETT ELECTRICAL INSTRUMENT COMPANY

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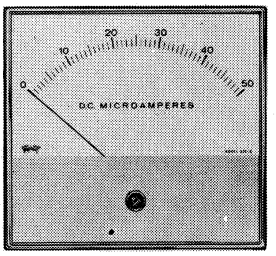
TRIPLETT INSTRUMENTS

DC MILLIVOLTMETERS

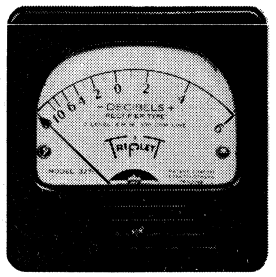


DC 220-G, 320-G, 420-G

AC 230-G, 330-G, 430-G

Range	Approx. Res.	Scale Div.	1½" Model 120-M	2½" Models 220-G 221-T 227-T	2½" Models 220-M 227-PL	3½" Models 320-M 321-T 327-T	3½" Models 320-G 327-PL	4½" Model 420-G 420	4½" Models 420-M 420-PL
0-50	6.7	50	$12.00	$12.00	$12.00	$12.80	$12.80	$14.10	$14.10
0-100	13.5	50	12.00	12.00	12.00	12.80	12.80	14.10	14.10
0-150	20.2	75(30)**	12.00	12.00		12.80		14.10	

DC VOLTMETERS (1000 Ohms per Volt) — FILM TYPE RESISTORS

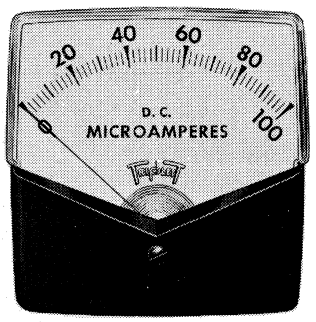


DC 227-T, 327-T

AC 237-S, 337-S

Range	Scale Div.	1½" Model 120-M 120-G	2½" Models 220-G 221-T 227-T	2½" Models 220-M 227-PL	3½" Models 320-G 321-T 327-T	3½" Models 320-M 327-PL	4½" Models 420-M, 420, 420-G 420-PL
0-1	50	$13.00	$13.00	$13.00	$13.50	$13.50	$14.90
0-3	60(30)**	13.00	13.00	13.00	13.50	13.50	14.90
0-5	50	13.00	13.00	13.00	13.50	13.50	14.90
0-10	50	13.00	13.00	13.00	13.50	13.50	14.90
0-15	75(30)**	13.00	13.00	13.00	13.50	13.50	14.90
0-25	50	13.00	13.00	13.00	13.50	13.50	14.90
0-50	50	13.00	13.00	13.00	13.50	13.50	14.90
0-100	50	13.00	13.00	13.00	13.50	13.50	14.90
0-150	75(30)**	13.00	13.00	13.00	13.50	13.50	14.90
0-200	40	13.00	13.00	13.00	13.50	13.50	14.90
0-250	50	13.00	13.00	13.00	13.50	13.50	14.90
0-300	60(30)	13.00	13.00	13.00	13.50	13.50	14.90
0-500	50	15.50***	15.50***	15.50***	14.30	14.30	15.60
0-750	75(30)**	16.10	16.10	16.10	14.30***	14.30***	15.60
0-1000	50	16.40	16.40	16.40	17.10	17.10	18.40
0-2000	40	17.10	17.10	17.10	17.80	17.80	19.10
0-3000	60(30)**	17.80	17.80	17.80	18.50	18.50	19.80
0-5000	50	20.70	20.70	20.70	19.30	19.30	20.60

DC MICROAMMETERS (PIVOT & JEWEL TYPE)



DC 120-M, 220-M, 320-M, 420-M

AC 230-M, 330-M, 430-M

To be discontinued January, 1968

Range	Approx. Reg.	Scale Div.	1½" Model 120-G 120-M	2½" Models 220-G 220-M 227-PL 221-T 227-T	3½" Models 320-G 320-M 327-PL 321-T 327-T	4½" Models 420 420-G 420-M 420-PL
0-50	2300	50	$18.00	$18.00	$18.80	$20.10
0-100	825	50	15.70	15.70	16.50	17.80
0-200	360	40	13.40	13.40	14.20	15.50
0-500	156	50	12.90	12.90	13.60	15.00
50-0-50	825	50	15.70	15.70	16.50	17.80
100-0-100	360	50	13.40	13.40	14.20	15.50
500-0-500	55	50	12.00	12.00	12.80	14.10

DC MICROAMMETERS (SUSPENSION)

Range	Approx. Res.	Scale Div.	2½" Models 220-G 220-M 227-PL 221-T 227-T	3½" Models 320-G 320-M 327-PL 321-T 327-T	4½" Models 420 420-G 420-M 420-PL
0-5	15000	50	$36.10	$36.70	$37.90
0-10	7500	50	32.10	32.70	33.90
0-20	2500	40	25.00	25.70	26.90
0-50	825	50	23.00	23.70	24.90
0-100	360	50	20.90	21.60	22.80
0-200	156	40	18.80	19.50	20.70
0-500	40	50	18.30	19.00	20.20
50-0-5	360	50	20.90	21.60	22.80
100-0-100	156	50	18.80	19.50	20.70
500-0-500	12.5	50	17.50	18.20	19.40
0-1000†	12.5	50	17.50	18.20	19.40

†SCALE READS 0-1 Ma.

DC MILLIAMMETERS

DC 227-PL, 327-PL

AC 237-PL, 337-PL

To be discontinued January, 1968

Range	Approx. Res.	Scale Div.	1½" Model 120-M 120-G	½" Models 220-G 221-T 227-T	2½" Models 220-M 227-T	3½" Models 320-G 321-T 327-T	3½" Models 320-M 327-PL	4½" Models 420-G 420	4½" Models 420-M 420-PL
0-1	55	50	$12.00	$12.00	$12.00	$12.80	$12.80	$14.10	$14.10
0-1.5	30	75(30)**	12.00	12.00	12.00	12.80	12.80	14.10	14.10
0-3	14	60(30)**	12.00	12.00	12.00	12.80	12.80	14.10	14.10
0-5	8.5	50	12.00	12.00	12.00	12.80	12.80	14.10	14.10
0-10	3.1	50	12.00	12.00	12.00	12.80	12.80	14.10	14.10
0-15	3.3	75(30)**	12.00	12.00	12.00	12.80	12.80	14.10	14.10
0-25	2	50	12.40	12.40	12.40	13.20	13.20	14.50	14.50
0-50	1	50	12.40	12.40	12.40	13.20	13.20	14.50	14.50
0-75	0.67	75(30)**	12.40	12.40	12.40	13.20	13.20	14.50	14.50
0-100	0.50	50	12.40	12.40	12.40	13.20	13.20	14.50	14.50
0-150	0.33	75(30)**	12.40	12.40	12.40	13.20	13.20	14.50	14.50
0-200	0.25	40	12.40	12.40	12.40	13.20	13.20	14.50	14.50
0-250	0.20	50	12.40	12.40	12.40	13.20	13.20	14.50	14.50
0-300	0.17	60(30)**	12.40	12.40	12.40	13.20	13.20	14.50	14.50
0-400	0.12	40	12.40	12.40	12.40	13.20	13.20	14.50	14.50
0-500	0.10	50	12.40	12.40	12.40	13.20	13.20	14.50	14.50
0-750	0.07	75(30)**	12.40	12.40	12.40	13.20	13.20	14.50	14.50
0-1000	0.1	50	12.40	12.40	12.40	13.20	13.20	14.50	14.50

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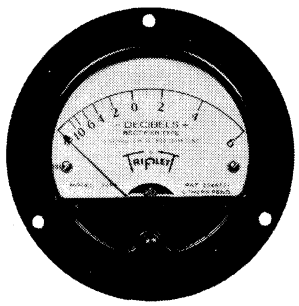
TRIPLETT INSTRUMENTS



D.C. 221-T, 321-T
A.C. 231-S, 331-S

DC AMMETERS

Range	Scale Div.	1½" Model 120-G 120-M	2½" Models 221-T, 227-T	2½" Models 220-G, 220M, 227-PL	3½" Models 321-T, 327-T	3½" Models 320-G, 320-M, 327-PL	4½" Model 420, 420-G	4½" Models 420-M, 420-PL
0-1	50	$12.40	$12.40	$12.40	$13.20	$13.20	$14.50	$14.50
0-3	60(30)**	12.40	12.40	12.40	13.20	13.20	14.50	14.50
0-5	50		13.00	13.00	13.50	13.50	14.90	14.90
0-10	50		13.00	13.00	13.50	13.50	14.90	14.90
0-15	75(30)**		13.00	13.00	13.50	13.50	14.90	14.90
0-25	50		13.00	13.00	13.50	13.50	14.90	14.90
0-30	60(30)**		13.00	13.00 } NA	13.50	13.50 } NA	14.90	14.90 } NA
0-50	50		13.00	13.00	13.50	13.50	14.90	14.90

D.C. Ammeters are self-contained up to and including 50 Amperes. Shunts 75 Amperes (50 M.V.) and higher are switchboard type with 5 ft. leads. NA—Not available in 227-PL, 327-PL, and 420-PL.

AC VOLTMETERS

Range	Approx. Ohms/Volt	Scale Div.	2½" Models 231-S, 237-S	2½" Models 230-G, 237-PL, 230-M	3½" Models 331-S, 337-S	3½" Models 330-G, 337-PL, 330-M	4½" Model 430	4½" Models 430-G, 430-PL, 430-M
0-1.5	1.33	75(30)**	$12.50	$12.50	$13.30	$13.30	$14.10	$14.10
0-3	3.33	60(30)**	12.50	12.50	13.30	13.30	14.10	14.10
0-5	4	50	12.50	12.50	13.30	13.30	14.10	14.10
0-10	10	50	12.50	12.50	13.30	13.30	14.10	14.10
0-15	16	75(30)**	12.50	12.50	13.30	13.30	14.10	14.10
0-25	20	50	12.50	12.50	13.30	13.30	14.10	14.10
0-50	50	50	12.50	12.50	13.30	13.30	14.10	14.10
0-100	91	50	12.50	12.50	13.30	13.30	14.10	14.10
0-150	125	75(30)**	13.80	13.80	14.50	14.50	15.30	15.30
0-250	144	50	14.40	14.40	15.20	15.20	15.80	15.80
0-300	144	60(30)**	15.00	15.00	15.70	15.70	16.50	16.50
0-500*	125	50	19.50	19.50	20.20	20.20	21.00	21.00
0-750*	125	75(30)**	22.60	22.60	23.30	23.30	24.10	24.10
0-1000*	125	50	24.30	24.30	25.10	25.10	25.90	25.90

These A.C. Voltmeters are for use on frequencies from 25 to 133 cycles. *Supplied with external resistor boxes at prices shown above. All other instruments are self-contained.

AC AMMETERS

Range	Approx. Res.	Scale Div.	2½" Models 231-S, 237-S	2½" Models 230-G, 237-PL, 230-M	3½" Models 331-S, 337-S	3½" Models 330-G, 337-PL, 330-M	4½" Models 430, 430-G	4½" Models 430-PL, 430M
0-1	.38	50	$12.50	$12.50	$13.30	$13.30	$14.10	$14.10
0-2	.092	40	12.50	12.50	13.30	13.30	14.10	14.10
0-3	.039	60(30)**	12.50	12.50	13.30	13.30	14.10	14.10
0-5	.014	50	12.50	12.50	13.30	13.30	14.10	14.10
0-10	.004	50	12.50	12.50	13.30	13.30	14.10	14.10
0-15	.003	75(30)**	12.50	12.50	13.30	13.30	14.10	14.10
0-25	,002	50	12.50	12.50	13.30	13.30	14.10	14.10
0-30	.001	60(30)**	12.50	12.50	13.30	13.30	14.10	14.10
0-50	.00035	50	12.50	12.50	13.30	13.30	14.10	14.10
0-75	.00020	75			14.60		16.00	

AC MILLIAMMETERS

Range	Approx. Res.	Scale Div.	2½" Models 231-S, 237-S	2½" Models 230-G, 237-PL, 230-M	3½" Models 331-S, 337-S	3½" Models 330-G, 337-PL, 330-M	4½" Models 430, 430-G	4½" Models 430-PL, 430M
0-10	4000	50	$12.50	$12.50	$13.30	$13.30	$14.10	$14.10
0-15	1600	75(30)**	12.50	12.50	13.30	13.30	14.10	14.10
0-25	470	50	12.50	12.50	13.30	13.30	14.10	14.10
0-50	120	50	12.50	12.50	13.30	13.30	14.10	14.10
0-100	40	50	12.50	12.50	13.30	13.30	14.10	14.10
0-200	9.5	40	12.50	12.50	13.30	13.30	14.10	14.10
0-250	5.9	50	12.50	12.50	13.30	13.30	14.10	14.10
0-500	1.55	50	12.50	12.50	13.30	13.30	14.10	14.10

THERMO AMMETERS (R.F.)

Range	Approx. Res.	Scale Div.	2½" Models 240-G, 240-M, 247-PL, 241-T, 247-T	3½" Models 341-T, 347-T	3½" Models 340-G, 340-M, 347-PL	4½" Models 440, 440-G	4½" Models 440-PL, 440-M
0-.5 Amps	.93	50	$13.30	$14.10	$14.10	$15.40	$15.40
0-1 Amps	.35	50	13.30	14.10	14.10	15.40	15.40
0-1.5 Amps	.21	75(30)**	13.30	14.10	14.10	15.40	15.40
0-2.5 Amps	.13	50	13.30	14.10	14.10	15.40	15.40
0-5 Amps	.06	50	13.30	14.10	14.10	15.40	15.40
0-10 Amps	.03	50	13.30	14.10	14.10	15.40	15.40

Internal couples are normally furnished at prices shown. If external couples are required, please specify on order, adding $6.10 net to price of instrument shown above. External couples only less meter, with leads, $7.30 net each.

**Scale divisions for 2-inch Models in parentheses.

***Supplies with external resistors.

ALL PRICES ARE SUGGESTED U.S.A. USER NET, SUBJECT TO CHANGE, SPECIFICATIONS SUBJECT TO REVISION.

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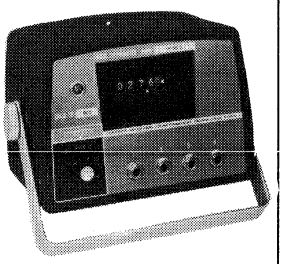

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*Thermocouple model -300° to +2000° F

From ***$345.00***

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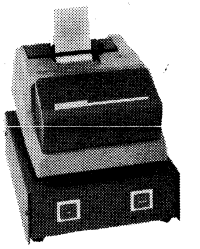

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*Rack and Flange Mounts Available
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*Specific Variations to Your OEM Requirements

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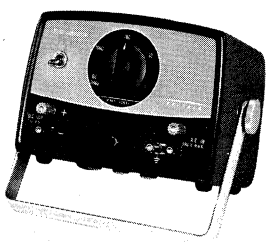

*4 Ranges—1, 10, 100, 1000 V
*0.3% Accuracy
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*Rack and Flange Mounts Available

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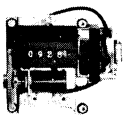

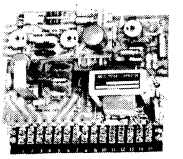

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ACCURACY. Warranted accuracy is maintained for all internal contributing factors and the listed external conditions.
(1) Ambient Temperature—60° to 115° F.
(2) Power Source—105 to 125 V—50 to 60 CPS.

READING AMBIGUITY. There is no ambiguity or reading (even for small changes) and no allowance need be made. Bi-directional voltage variations are followed without distracting backtracking. Input voltage drift can be continuously observed.

RESOLUTION AND REPEATABILITY. The instrument can be easily read and is sensitive to small voltage changes. For short term observation, under stabilized ambient conditions, unit will repeat and is easily read to .05% or less. Thus, for many applications, the instrument can be used to a comparative accuracy of .05% full scale.

CALIBRATION EASE. High input impedance permits direct calibration with Standard Cell. Under normal usage, recalibration is required only at 6 month intervals.

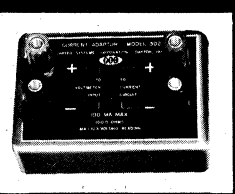
RELIABILITY. High reliability is achieved by a silicon transistor amplifier and the absence of stepping switches and relays. Normal overloads or incorrect polarity will not damage instrument.

READING SPEED. Instrument comes to reading balance quickly and without annoying creep. Average reading time is approximately 2 seconds.

INPUT. A 3-terminal color coded input group is furnished whereby choice is provided for grounded or floating input. A jumper link is furnished so that either negative or positive side of the input can be grounded.

DECIMAL POINT. Decimal points are illuminated by a single, long-life easy-to-replace bulb. The decimal point shifts with range selector.

OTHER USES. By use of compatible transducers, the DigiTec can be used to display readings of current, pressure, speed, position, flow, angle or any parameter. Current adaptors are available to provide readings of from .1 μ A to 2 AMP.



READING RETENTION. A jack is located on the rear of the case to permit holding of a displayed voltage by means of an external switch. Suitable switches complete with cord and plug are available as optional accessories.

CARRYING HANDLE. For the portable models, the convenient carrying handle also serves to set the viewing angle for optimum readability.

Certificate of Accuracy furnished with each instrument (traceable to NBS)

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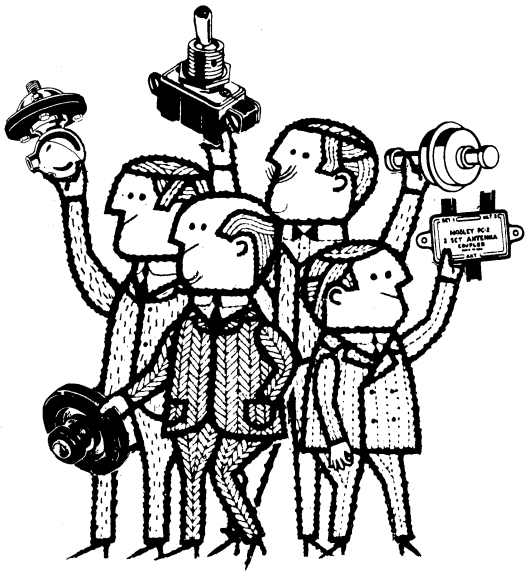

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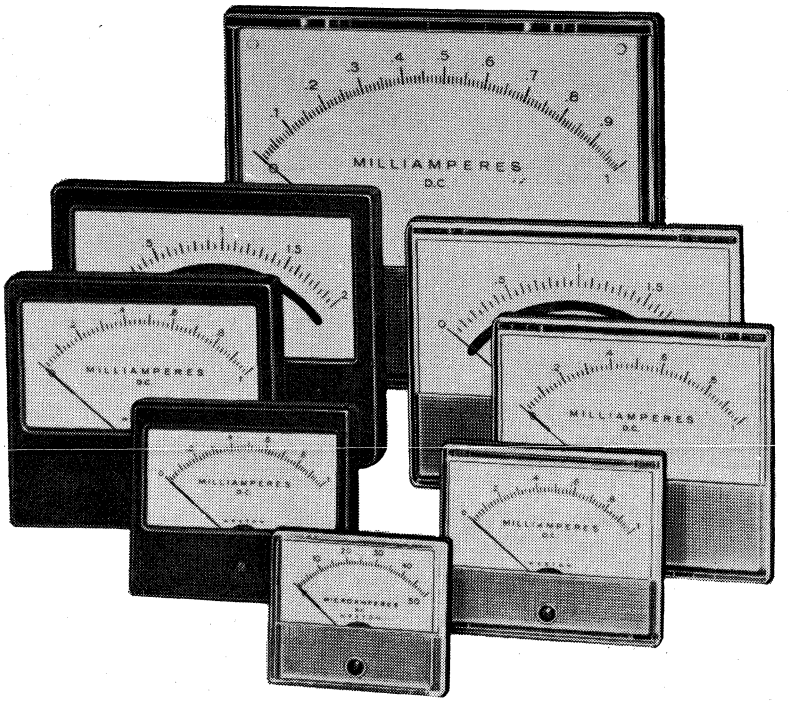
WESTON INSTRUMENTS, INC.

MODEL 1900 PANEL INSTRUMENT SERIES

GENERAL

The 1900 Series is an integrated line of a-c and d-c panel instruments, providing a carefully selected choice of sizes, case styles, accuracies, pointers, scales and ranges. Particular attention has been paid to designing instruments that will present an overall appearance of harmony, even when random sizes are mounted side by side. Mounting bezels provide three types of mounting—recess, flush and conventional.

One of the many features of this new Weston series is the method of construction which provides quick interchangeability of fronts and easy access for adjustment or service, if ever required. From their spring-backed jewels to their unique fastening clips, the 1900 Series incorporate the fine workmanship and quality that has always been associated with Weston.



SPECIFICATIONS

2½" SIZE	Function & Mechanism	Accuracy (Full scale value)	Scale Length (100° arc)	Pointer	Type Scale	Case Front
Model 1921	D-C CORMAG®	2%	2.3"	Lance	Plain	Plastic/Bakelite
Model 1922	A-C Rect. CORMAG®	3%**	2.3"	Lance	Plain	Plastic/Bakelite
Model 1924	A-C Iron Vane	2%	2.3"	Lance	Plain	Plastic/Bakelite
3½" SIZE						
Model 1931	D-C CORMAG®	2%	2.7"	Lance	Plain	Plastic/Bakelite
Model 1932	A-C Rect. CORMAG®	3%**	2.7"	Lance	Plain	Plastic/Bakelite
Model 1934	A-C Iron Vane	2%	2.7"	Lance	Plain	Plastic/Bakelite
Model 1936	D-C Ext. Mag.	2%	2.7"	Lance	Plain	Plastic/Bakelite
4½" SIZE						
Model 1941	D-C CORMAG®	2%*	3.9"	Lance	Plain	Plastic/Bakelite
Model 1942	A-C Rect. CORMAG®	2%**	3.9"	Lance	Plain	Plastic/Bakelite
Model 1944	A-C Iron Vane	2%	3.9"	Lance	Plain	Plastic/Bakelite
Model 1946	D-C Ext. Mag.	1%	3.9"	Knife-edge	Mirrored	Plastic/Bakelite
5½" SIZE						
Model 1951	D-C CORMAG®	2%*	4.7"	Lance	Plain	Plastic/Bakelite
Model 1954	A-C Iron Vane	2%	4.7"	Lance	Plain	Plastic/Bakelite
Model 1956	D-C Ext. Mag.	1%	4.7"	Knife-edge	Mirrored	Plastic/Bakelite
7½" SIZE						
Model 1971	D-C CORMAG®	1%†	7.2"	Lance	Plain	Plastic
Model 1976	D-C Ext. Mag.	1%†	7.2"	Lance	Plain	Plastic

*1% when knife-edge pointer and mirrored scale is specified.
**on sine wave 60 cycle source at normal room temperature of 25 C.
†½% with knife-edge pointer and mirrored scale on special order ONLY.

NOTE: If Models 1924, 34, 36, 44, 46, 54, 56 and 76 are used on steel panels, order should specify panel thickness to assure proper adjustment.

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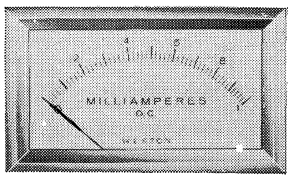
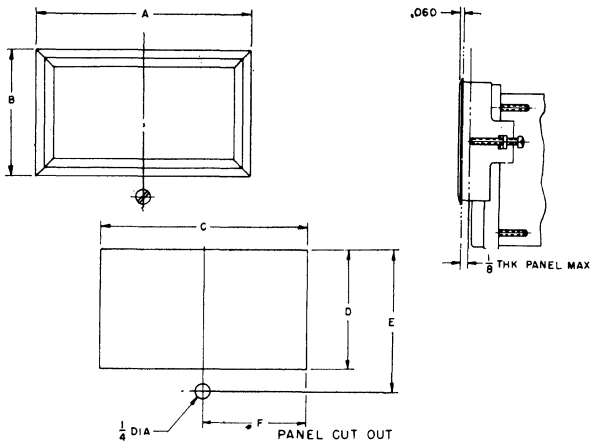
WESTON INSTRUMENTS, INC.

THREE TYPES OF MOUNTINGS

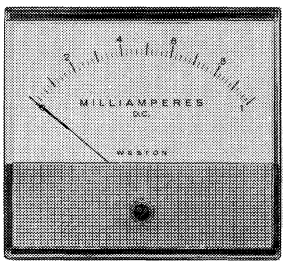


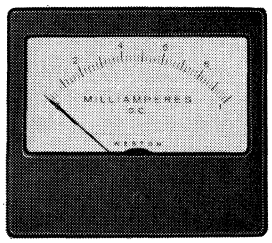
RECESS (Plastic front only)

Only the scale is visible since meter is mounted behind the panel . . . half bezel fits into window.



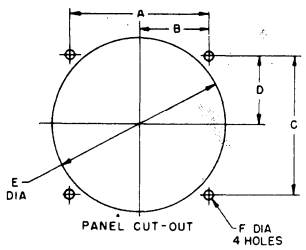
MODEL	A	B	C	D	E	F
1921 1922 1924	3.120	1.720	3.000	1 19/32	2.070	1 1/2
1931 1932 1934 1936	3.860	2.265	3 23/32	2 5/32	2.550	1 55/64
1941 1942 1944 1946	4.960	2.900	4 13/16	2 3/4	3.290	2 13/32
1951 1952 1954 1956	6.060	3.300	5 7/8	3 5/32	3.950	2 15/16

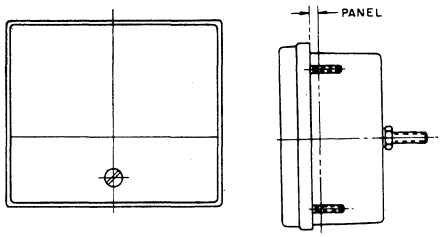




CONVENTIONAL

Use same dimensions, whether you choose a meter with taut band or pivot and jewel movement.





MODEL	A	B	C	D	E	F
1921 1922 1924	1.880	.940	1.880	.940	2.220 DIA	.125 DIA
1931 1932 1934 1936	2.250	1.125	2.250	1.125	2.820 DIA	.125 DIA
1941 1942 1944 1946	4.000	2.000	3.560	2.020	2.820 DIA	.154 DIA
1951 1954 1956	5.250	2.625	3.000	2.150	2.820 DIA	.154 DIA
1971 1972	6.000	3.000	4 500	3.500	3.560 DIA	.156 DIA

WESTON 1900 T SERIES WITH TAUT BAND MECHANISMS

Available in Bakelite or static-free clear plastic cases in sizes from 3½″ through 7½″.

Taut-Band instruments are completely interchangeable with the 1900 Series with conventional pivot and jewel movements.

Taut-Band mechanisms are free from friction and inertia. They offer outstanding sensitivity, reliability and uniformity from zero to full scale.

Your distributor can provide complete information on Weston 1900 T Series with Taut Band Mechanisms listed on the following pages. ⟶

MORE WESTON ON FOLLOWING PAGES

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WESTON INSTRUMENTS, INC.

MODEL 1900 STOCK PANEL INSTRUMENT SERIES

D-C (Cormag) MODELS 1921 - 2½"/1931, 1931T - 3½"/1941, 1941T - 4½"/1951*, 1951T - 5½"/1971**, 1971T** - 7½"/ Pivot & Jewel; 1209 PMS Taut Band

	Nominal Resistance Ohms					PRICES						
Ranges	1921 1931	1931T 1%	1941	1941T 1951T 1%	1209	1921	1931	1931T 1%	1941	1941T 1%	1951T 1%	1209
μa												
50	4800	1950	2500	950	5700	$18.60	19.1	$21.00	$20.10	$22.10	—	$61.50
100	1225	538	2500	950	1160	17.40	17.90	19.70	18.80	26.75	$31.80	60.00
200	600	440	850	350	231	16.60	17.10	18.80	18.10	26.30	30.80	58.50
500	240	—	240	40	73	15.60	16.10	—	17.10	24.80	—	57.00
25-0-25	—	—	2500	—	—	—	—	—	20.10	—	—	—
50-0-50	1225	—	2500	—	1160	17.40	17.90	—	18.80	—	—	60.00
100-0-100	600	—	850	—	—	16.60	17.10	—	18.10	—	—	—
500-0-500	88	—	115	—	—	14.60	15.10	—	16.10	—	—	—
ma‡												
1	88	29	115	12.5	21	$14.60	$15.10	$16.60	$16.10	$23.90	$27.80	$55.50
2	45	—	16	4.9	8.6	14.60	15.10	—	16.10	23.90	—	55.50
3	—	—	16	—	—	—	—	—	16.10	—	—	—
5	8.5	3.3	11	3.0	3.96	14.60	15.10	16.60	16.10	23.90	—	55.50
10	2.5	—	2.7	2.4	2.3	14.60	15.10	—	16.10	23.90	27.80	55.50
15	2.3	—	2.7	—	—	14.60	—	—	16.10	—	—	—
20	2.2	—	2.7	2.4	2.2	14.60	15.10	—	16.10	23.90	—	55.50
50	2.0	1.0	2.0	2.0	2.0	14.60	15.10	16.60	16.10	23.90	—	57.00
100	1.0	—	1.0	1.0	—	14.60	15.10	—	16.10	23.90	27.80	—
200	.5	2.5	.5	.5	—	14.60	15.10	16.60	16.10	23.90	—	—
300	.33	—	.33	—	—	14.60	15.10	—	16.10	—	—	—
500	.2	1.0	.2	.2	—	14.60	15.10	16.60	16.10	23.90	—	—
amps†												
1	↓	↓	↓	↓	—	$14.60	$15.10	$16.60	$16.10	$23.90	$28.60	—
2	↓	↓	↓	↓	—	14.60	15.10	16.60	16.10	23.90	—	—
5	↓	↓	↓	↓	—	14.60	15.10	16.60	16.10	23.90	—	—
10	↓	↓	↓	↓	—	14.60	15.10	16.60	16.10	23.90	—	—
20	Approx.	Approx.	Approx.	Approx.	—	14.60	15.10	16.60	16.10	23.90	28.60	—
25	50mv	50mv	50mv	50mv	—	—	15.10	—	16.10	23.90	—	—
30	drop	drop	drop	drop	—	14.60	15.10	16.60	16.10	23.90	—	—
100	↑	↑	↑	↑	—	14.60	15.10	—	16.10	—	—	—
200	↑	↑	↑	↑	—	14.60	15.10	—	16.10	—	—	—
300	↑	↑	↑	↑	—	—	15.10	—	—	—	—	—
500	↑	↑	↑	↑	—	—	15.10	—	—	—	—	—
volts												
50mv	↓	↓	↓	↓	—5Ω—	—	—	—	—	—	—	$57.00
1	↓	↓	↓	↓	↓	—	—	—	—	—	—	58.00
2	↓	↓	↓	↓	↓	$15.40	$15.90	$17.40	$16.90	$24.65	—	58.00
5	↓	↓	↓	↓	↓	15.40	15.90	—	16.90	24.65	$28.60	58.00
10	↓	↓	↓	↓	↓	15.40	15.90	—	16.90	24.65	—	58.00
15	1000	1000	1000	1000	1000	15.40	15.90	17.40	16.90	24.65	28.60	—
20	Ohms	Ohms	Ohms	Ohms	Ohms	—	—	—	—	—	—	58.00
25	Per	Per	Per	Per	Per	15.40	15.90	—	16.90	24.65	—	—
30	Volt	Volt	Volt	Volt	Volt	15.40	15.90	17.40	16.90	24.65	28.60	—
50	↑	↑	↑	↑	↑	15.40	15.90	17.40	16.90	24.65	28.60	58.00
100	↑	↑	↑	↑	↑	15.40	15.90	17.40	16.90	24.65	—	58.00
150	↑	↑	↑	↑	↑	15.40	15.90	17.40	16.90	24.65	28.60	—
200	↑	↑	↑	↑	↑	15.40	—	—	16.90	24.65	—	58.00
300	↑	↑	↑	↑	↑	15.40	15.90	17.40	16.90	24.65	—	—
500	↑	↑	↑	↑	↑	15.40	15.90	17.40	16.90	24.65	—	58.00

50 mv range to be used with external shunts and .065 ohm leads.

* 1 & 2 ma., 115 & 16 ohms respectively, Model 1951 at $24.30.

** 100 & 200 μa., 4650 & 200 ohms respectively, Model 1971 at $45.20; 1 ma., 95 ohms, Model 1971T at $44.30.

‡ NOTE: Range of 50 ma. and up are shunted and have a drop of approximately 50 mv on Model 1971, and 100 mv on Models 1921, 1931, 1941 and 1951.

† For ranges above 30 amps use 50 mv instrument, with required external shunt.

D-C (External magnet) MODELS 1936T - 3½"/1946T - 4½"/Taut Band — 1946/1947 Pivot Jewel - 7½"

	Nominal Resistance Ohms				PRICES			
Ranges	1936T	1946 1%	1946T	1976	1936T	1946	1946T	1976
μa								
5	13500	—	13500	—	$32.00	—	$35.00	—
10	5300	—	5300	—	28.00	—	31.00	—
20	2100	5400	2100	—	24.00	$24.00	27.00	—
50	—	2180	870	2720	—	30.50	33.60	$56.40*
100	—	870	320	—	—	29.80	32.70	—

* Available with knife-edge pointer and ½% accuracy at $63.70 list.

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WESTON INSTRUMENTS, INC.

MODEL 1900 STOCK PANEL INSTRUMENT SERIES

RECTIFIER TYPE A-C (Cormag) — MODELS 1922 - 2½"/1932 - 3½"/1942 - 4½"

	Nominal Resistance Ohms			PRICES		
Ranges	1922	1932	1942	1922	1932	1942
μa						
100	4000	—	—	$22.50	—	—
200	2000	—	—	22.50	—	—
500	800	—	—	22.50	—	—
ma						
5	475	—	—	$19.30	—	—
volts						
10	1000	—	1000	$20.20	—	$21.70
15	ohms	—	ohms	—	—	21.70
100	per	—	per	20.20	—	—
150	volt	—	volt	20.20	—	21.70
300		—		20.20	—	—

A-C (Iron Vane) MODELS 1924 - 2½"/1934 - 3½"/1944 - 4½"/1954 - 5½"

	Approximate Resistance Ohms		PRICES		
Ranges	1924 1934 1944 1945	1924	1934	1944	1945
ma					
10	2550	$14.35	$14.65	$15.40	—
50	100	14.35	14.65	15.40	—
100	25	14.35	14.65	15.40	—
200	6.33	14.35	14.65	—	—
250	4.0	14.35	14.65	—	—
500	1.0	14.35	14.65	15.40	—
amps					
1	.25	$14.35	$14.65	$15.40	—
2	.062	14.35	14.65	—	—
3	.025	14.35	14.65	15.40	—
5	.016	14.35	14.65	15.40	—
10	.0045	14.35	14.65	15.40	—
15	.0025	14.35	14.65	—	—
20	.0011	14.35	14.65	15.40	—
25	.0011	14.35	14.65	15.40	—
30	.00056	14.35	14.65	15.40	—
50	.00027	14.35	14.65	15.40	—
100*	.016	14.35	14.65	15.40	—
200*	.016	14.35	14.65	—	—
300*	.016	14.35	14.65	—	—

* 5 ampere range for use with current transformer.

	Approximate Resistance Ohms			PRICES			
	1924 1934	1944	1954	1924	1934	1944	1954
volts							
3	6	10.5	10.5	$15.00	$15.40	$16.15	$20.70
5	—	—	—	—	—	16.15	—
7.5	37	35	—	15.00	15.40	16.15	—
8	—	—	—	—	—	—	—
10	66.5	66.5	—	15.00	15.40	16.15	—
15	150	143	143	15.00	15.40	16.15	20.70
25	500	500	—	15.00	15.40	16.15	—
30	600	560	560	15.00	—	16.15	20.70
50	1665	1665	—	15.00	15.40	16.15	—
75	3750	—	—	15.00	—	—	—
100	—	6700	—	—	—	16.15	—
130	—	—	—	—	—	—	—
150	15,000	14,300	14,300	15.00	15.40	16.15	20.70
300	60,000	56,000	56,000	15.00	15.40	16.15	20.70
500	100,000	93,500	—	15.00	—	16.15	—

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WESTON INSTRUMENTS, INC.

MODELS 201/301 PANEL INSTRUMENT SERIES

MODELS 201/301
D-C VOLTMETERS — 1000 OHMS PER VOLT

Range	Scale Div. 201	Scale Div. 301	Price 201	Price 301
1.5	30	75	$13.90	$14.90
3	30	60	13.90	14.90
5	25	50	13.90	14.90
8	40	40	13.90	14.90
10	20	50	13.90	14.90
15	30	75	13.90	14.90
25	30	75	13.90	14.90
30	30	60	13.90	14.90
50	25	50	13.90	14.90
100	20	50	13.90	14.90
150	30	75	13.90	14.90
200	40	40	14.40	15.40
250	25	50	14.40	15.40
300	30	60	14.40	15.40
500	25	50	14.90	15.40
1KV	—	50	——	19.80

MODELS 201/301 — D-C MILLIAMMETERS

Range	Scale Div. 201	Scale Div. 301	Approx. Resis. Ohms 201	Approx. Resis. Ohms 301	Price 201	Price 301
1	20	50	100	88	$13.40	$14.40
1.5	—	75	—	88	——	14.40
2	40	40	40	45	13.40	14.40
3	—	60	—	45	——	14.40
5	25	50	6	8	13.40	14.40
10	20	50	2.5	2.5	13.40	14.40
15	30	75	2.5	2.5	13.40	14.40
20	40	40	2.5	2.5	13.40	14.40
30	30	60	2.5	2.5	13.40	14.40
50	25	50	2	2	13.40	14.40
100	20	50	1	1	13.40	14.40
150	30	75	0.66	0.66	13.40	14.40
200	—	40	—	0.5	——	14.40
300	—	60	—	0.33	——	14.40
500	25	50	0.2	0.2	——	14.40
1-0-1	40	40	40	45	13.40	14.40
10-0-10	—	50	—	2.5	13.40	14.40
50-0-50	—	50	—	2.0	——	14.40
100-0-100	40	40	1	1	13.40	14.40

MODELS 201/301 — D-C AMMETERS

Range	Scale Div. 201	Scale Div. 301	Price 201	Price 301
1	20	50	$13.40	$14.40
1.5	30	75	13.40	14.40
2	40	40	13.40	14.40
3	30	60	13.40	14.40
5	25	50	13.40	14.40
10	20	50	13.40	14.40
15	30	75	14.40	15.40
20	20	40	14.40	15.40
30	30	60	14.40	15.40
50	25	50	14.40	15.40
75*	—	—	——	14.40
100*	—	—	13.20	14.40
150*	—	—	——	14.40
200*	—	—	13.20	14.40
300*	—	—	13.20	14.40
500*	—	—	13.20	14.40
10-0-10	—	40	——	15.40
30-0-30	—	60	——	15.40
50-0-50	—	50	——	15.40

*50 mv range to be used with external shunts and .065 ohm leads.

MODELS 201/301—206*/306* D-C MICROAMMETERS

Range	Scale Div. 201/206	Scale Div. 301/306	Approx. Resis. 201	Approx. Resis. 206	Approx. Resis. 301	Approx. Resis. 306	Price 210	Price 206	Price 301	Price 306
20	40	40	—	1480	5500	1480	$ —	$25.50	$23.70	$26.40
30	—	60	—	—	5500	—	—	—	22.50	25.50
50	25	50	4150	1175	4800	1175	19.30	23.40	20.30	23.40
100	20	50	870	660	1230	660	16.40	21.50	17.30	21.50
200	40	40	600	—	600	55	13.90	—	14.90	21.50
500	25	50	160	—	230	—	13.90	—	14.90	—
10-0-10	—	40	—	—	5500	—	—	—	23.70	—
25-0-25	—	50	4150	—	4800	—	19.30	—	20.30	—
50-0-50	20	50	870	—	1230	—	16.40	—	17.30	—
100-0-100	40	40	600	—	600	—	13.90	—	14.90	—
500-0-500	20	50	100	—	88	—	13.40	—	14.40	—

*External magnet type, unshielded

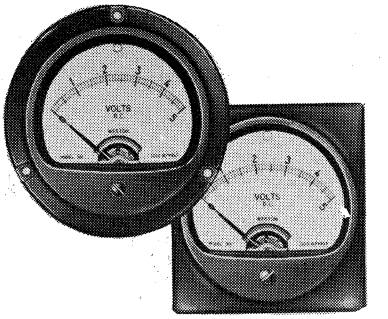
MODEL 302 RECTIFIER TYPE A-C VOLTMETER

1000 ohms per volt

Range	Scale Div. 302	Price 302
1*	50	$21.30
5	50	20.70
10	50	20.70
15	75	20.70
30	60	20.70
50	50	20.70
100	50	20.70
150	75	20.70
300	60	21.30

*2000 ohms per volt

- 2½" and 3½" Sizes
- 2% Accuracy Full Scale
- Spring Back Jewels
- Long Term Stability
- Self Shielded Mechanism
- Cases Sealed Against Dust
- Minimum Power Consumption
- Minimum Response Time
- Note: Specify Round or Square Case



MODEL 302 RECTIFIER TYPE A-C MILLIAMMETER

Range	Scale Div. 302	Approx. Resis. 302	Price 302
1	50	470	$20.70
2	40	270	20.70
5	50	150	20.70
0.5	50	1030	20.70

MODELS 202/302
RECTIFIER TYPE A-C MICROAMMETERS

Range	Scale Div. 302	Approx. Resis. 302	Price 302
100	50	3400	$24.40
200	—	2400	——
300	—	2000	——
500	50	1030	20.70

MODELS 204/304—A-C VOLTMETERS—25-125 CYCLES

Range	Scale Div.	OHMS/V 204	OHMS/V 304	Price 204	Price 304
1.5	30	—	3	—	$14.10
3	30	—	15	—	14.10
5	50	26	26	13.35	14.10
10	50	100	100	13.35	14.10
15	30	250	250	13.35	14.10
30	30	—	790	—	14.10
50	50	2124	2124	13.35	14.10
75	25	5074	5074	13.35	14.10
100	50	10065	10065	13.35	14.10
130	26	—	13065	—	14.45
150	30	20295	20295	13.75	14.45
300	30	81550	81550	13.75	14.45
500	50	—	131550	—	17.50

MODELS 204/304—A-C AMMETER—25-500 CYCLES

Range	Amps Scale 204	Amps Scale 304	Scale Div. 204	Scale Div. 304	Approx. Resis. 204	Approx. Resis. 304	Price 204	Price 304
1	1	1	50	50	0.130	0.130	$12.95	$13.75
1.5	—	1.5	—	30	—	0.055	—	13.75
2	2	2	40	40	0.026	0.026	12.95	13.75
3	3	3	30	30	0.013	0.013	12.95	13.75
5	5	5	50	50	0.005	0.005	12.95	13.75
10	10	10	50	50	0.0014	0.0014	12.95	13.75
15	15	15	30	30	0.0015	0.0015	12.95	13.75
20	20	20	40	40	0.0005	0.0005	12.95	13.75
30	30	30	30	30	0.0004	0.0004	12.95	13.75
50	50	50	50	50	0.0002	0.0002	12.95	13.75
100*	—	100	—	50	—	0.005	——	13.75
200*	—	200	—	40	—	0.005	——	13.75
300*	—	300	—	30	—	0.005	——	13.75

*For use with Current Transformer. Above prices do not include Transformer.

MODELS 204/304 — A-C MILLIAMMETERS

Range	Scale Div. 204	Scale Div. 304	Approx. Resis. 204	Approx. Resis. 304	Price 204	Price 304
50	—	50	—	34	—	$13.75
100	—	50	—	8.5	—	13.75
500	50	50	0.42	0.42	12.95	13.75

MODELS 208/308 — THERMO-AMMETERS

Range	Scale Div. 208	Scale Div. 308	Price 208	Price 308
1	—	50	—	$29.30
3	—	60	—	29.30
5	25	50	$28.40	$29.30
8	—	40	—	29.30
10	—	50	—	29.30
15	—	60	—	29.30

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WESTON INSTRUMENTS, INC.

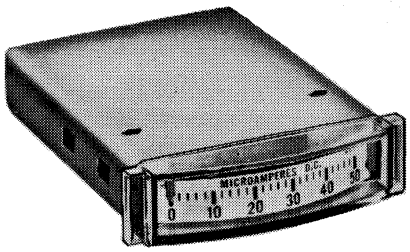
THIN LINE PANEL METER MODEL 111

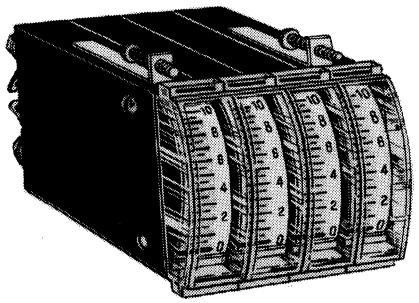
Completely Flat — Can Be Stacked Side-by-Side

New Self-Shielded Mechanism

Saves Panel Space

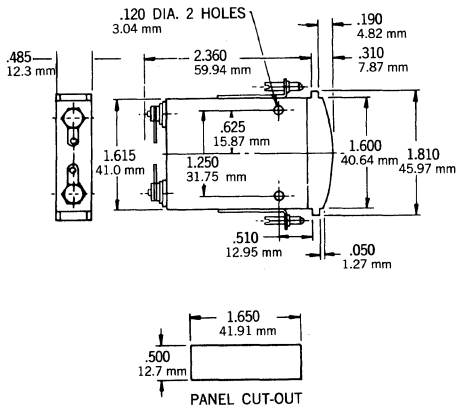
Designed to Meet ASA C39.1 Specifications

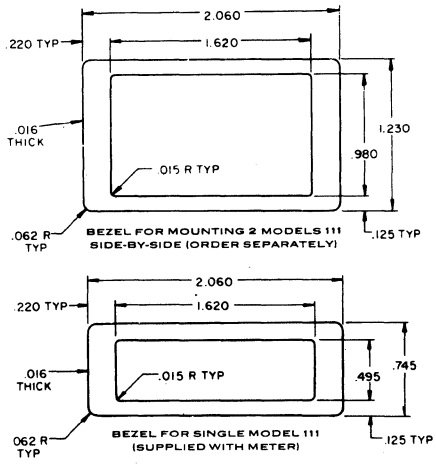




The Model 111 utilizes a completely new mechanism design. This is the only edgewise instrument incorporating a flat cormag mechanism design for shielding purposes. The magnet is inside the moving coil as in all Weston CORMAG® designs and the resulting inherent shielding allows mounting on magnetic or non-magnetic panels without need for adjustment, as well as the ability to "stack" meters side-by-side without any interaction. The mechanism also has a shock absorption jewel arrangement to assure long life.

ALL DIMENSIONS ARE APPROXIMATE





SPECIFICATIONS

Accuracy: 2% of full scale value for DC
3% of full scale value for AC Rectifier Type

Scale Length: 1.25 inches

Pointer: Red Lance Type

Movement: New self shielded thin line Cormag mechanism. Shock mounted jewel arrangement.

Ranges: Voltage: 50 mv minimum
300 volts maximum
self-contained
Current: 50 ua minimum
2 amps maximum
self-contained

Mounting: Meter can be mounted either horizontally or vertically. Order proper meter from price list for the required type mounting. Most ranges stocked for horizontal mounting.
Mounting clips fasten to meter behind panel —no screws on front of panel. For "stacking", thru-holes are provided so stack can be bolted together.

D-C VOLTMETERS	Ranges RESISTANCE
0-10	5000 Ω/v
0-25	5000 Ω/v
0-50	5000 Ω/v
0-100	5000 Ω/v
0-150	5000 Ω/v
0-300	5000 Ω/v

D-C MILLIAMMETERS	RESISTANCEE
0-1	39 Ohms
0-5	5.2 Ohms
0-10	2 Ohms
0-25	2 Ohms
0-100	.5 Ohms
0-150	.33 Ohms
0-250	.20 Ohms
0-500	.10 Ohms

D-C MICROAMMETERS	Ranges RESISTANCE
0-5	2300 Ohms
0-100	900 Ohms
0-200	600 Ohms
0-500	134 Ohms
50-0-50	900 Ohms

D-C AMMETERS	RESISTANCE
0-1	.05 Ohms

AC VOLTMETERS (Rectifier Type)	RESISTANCE
0-150	2000 Ω/v
0-300	2000 Ω/v

All resistances are approximate

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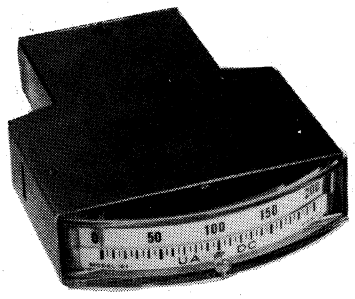
WESTON INSTRUMENTS, INC.

THIN LINE PANEL METERS

MODEL 121 EDGEWISE

- **Completely Flat—Can Be Stacked Side-by-Side**
- **Parallax Eliminated—In-Line Pointer and Scale**
- **New Self-Shielded Mechanism**
- **Saves Panel Space**
- **Illumination Available (Self-Contained)**
- **Designed to Meet ASA C39.1 Specifications**
- **Front Mounted Zero Corrector**



The Model 121 is basically a 2½ inch flat edgewise meter offering many benefits not generally offered in this type of meter. To eliminate parallax normally associated with edgewise meters an "in-line" scale is standard; a red pointer increases readability. For those requiring lighting, self-contained illumination is available as an optional feature. The bulbs are removable while the meters are mounted in the panel — even when "stacked" side-by-side. • The Model 121 utilizes a completely new mechanism design. This is the only edgewise instrument incorporating a true flat CORMAG® mechanism design for shielding purposes. The magnet is inside the moving coil as in all Weston Cormag designs and the resulting inherent shielding allows mounting on magnetic or non-magnetic panels wihtout need for adjustment, as well as the ability to "stack" meters side-by-side without any interaction. The mechanism also has a shock absorption jewel arrangement to assure long life.

SPECIFICATIONS

Accuracy: 2% of full scale value for DC
3% of full scale value for AC rectifier Type

Scale Length: 1.9 inches; Anti-parallax in-line scale

Pointer: Red Lance Type

Movement: New self shielded thin line Cormag mechanism. Shock mounted jewel arrangement.

Ranges:

Voltage	Current:
50 mv minimum	50 ua minimum
500 volts maximum	20 amps maximum
self-contained	self-contained

Mounting: Meter can be mounted either horizontally or vertically. Crder proper meter from price list for the required type mounting. Mounting clips fasten to meter behind panel — no screws show on front of panel. For "stacking" thru holes are provided so stack can be bolted together.

Illumination: Two G.E. 328 lamps are used. Recommended operating voltage — 5 volts (less than 200 ma per bulb). Expected life greater than 5,000 hours.

Dielectric: 2000 volts RMS

RANGES

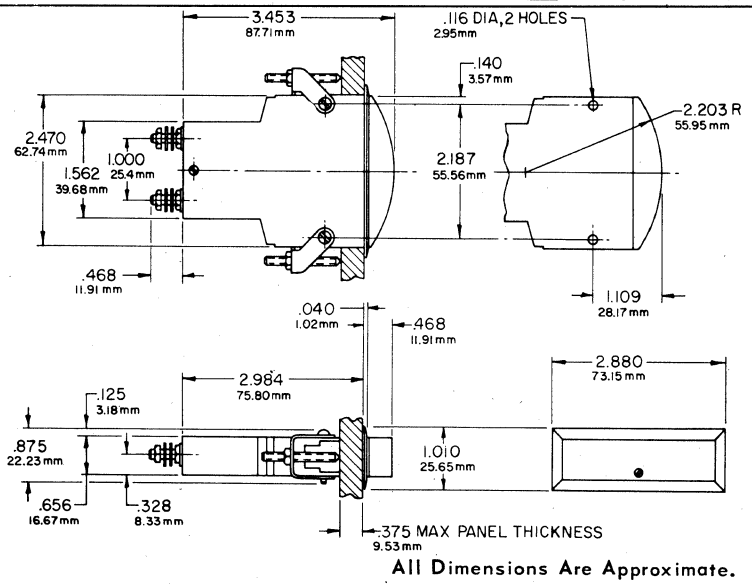
DC VOLTMETERS	RESISTANCE
0-10	5000 Ω/v
0-25	5000 Ω/v
0-50	5000 Ω/v
0-100	5000 Ω/v
0-150	5000 Ω/v
0-300	5000 Ω/v

DC MILLIAMMETERS	RESISTANCE
0-1	39 Ohms
0 5	5.2 Ohms
0-10	.2 Ohms
0-25	.2 Ohms
0-100	.5 Ohms
0-150	.33 Ohms
0-250	.20 Ohms
0-500	.10 Ohms

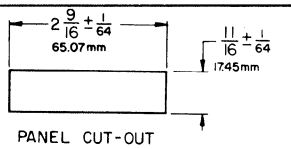
DC MICROAMMETERS	RESISTANCE
0-50	2300 Ohms
0-100	900 Ohms
0-200	600 Ohms
0-500	134 Ohms
50-0-50	900 Ohms

DC AMMETERS	RESISTANCE
0-1	.05 Ohms

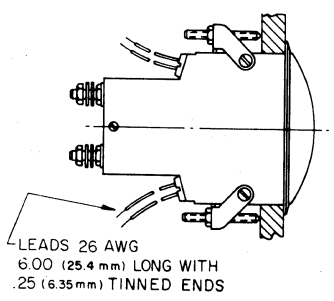
AC VOLTMETERS (Rectifier type)	RESISTANCE
0-150	2000 Ω/v
0-300	2000 Ω/v



All Dimensions Are Approximate.



PANEL CUT-OUT



View showing illumination feature

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WESTON INSTRUMENTS, INC.

FLAT SCALE EDGEWISE PROJECTED MOVING POINTER

Model 1201

True Flat Scale Presentation

No Parallax

1% Accuracy (Horizontal or Vertical)

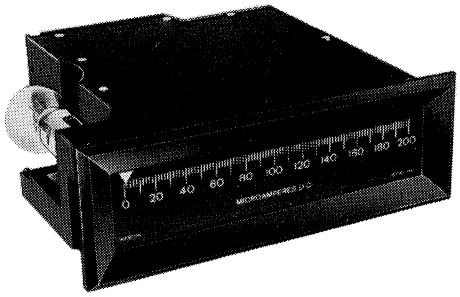
Thermosetting Plastic Case with Glass Window

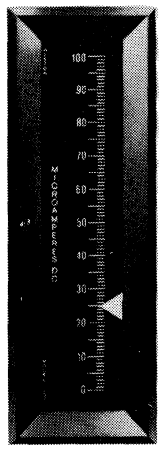
Designed to Meet ASA C39.1

10,000 Hours Bulb Life

Shielded Cormag® Mechanism

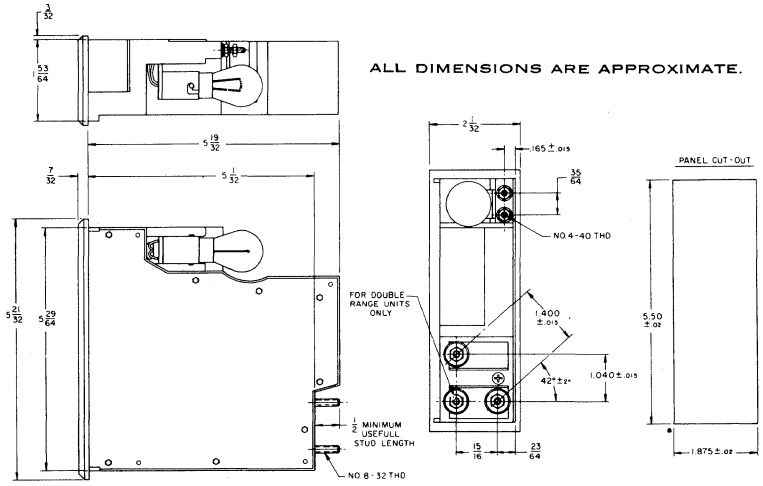
All Glass Optical System

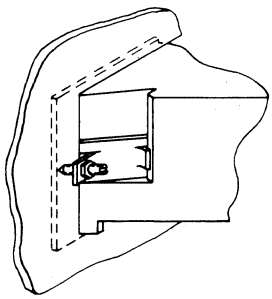




The basic mechanism is of the standard Weston CORMAG design which offers inherent self-shielding. This means that these units will be unaffected by panel material, normal magnetic fields created by current carrying conductors and can be mounted side-by-side with no loss of accuracy.

SPECIAL FEATURE: Filters may be placed behind the scale so that the pointer will change color at a fixed point. Up to two colors (plus a white pointer area) can be provided. Standard colors are red, green or amber.





No mounting screws are visible from front of the panel—two clips behind the panel securely lock the meter in place.

SPECIFICATIONS

Accuracy: 1% of full scale value*
2% of full scale value for AC Rectifier
*½% available (horizontal only)

Scale Length: 4½ inches
Scale Color: White figures and divisions on black background.
Pointer: White, triangular shape. Colored pointers available.

Movement: Self-shielding CORMAG mechanism.

Ranges: 50 Microamperes through 50 Amperes D-C self-contained/50 Millivolts through 500 Volts D-C self-contained/Rectifier and Thermo RF types available.

Mounting: Horizontal or Vertical. Specify mounting position when ordering. Most ranges stocked for hoizontal mounting.
No mounting screws are visible from front of the panel — two clips behind the panel securely lock the meter in place.
Lamps: G.E. No. 6 operated at 5 Volts, 2.86 Amperes, A-C or D-C, 10,000 hours minimum expected life.

D-C AMPERES

Ranges up to 50 Amperes can be self-contained. For higher ranges meters with approx. 50 mv drop can be supplied for use with standard switchboard shunts.

D-C MILLIAMPERES	Ranges RESISTANCE
0-1	18.8
0-10	2.3
0-20	5.0
0-50	2.0
0-500	2

D-C MICROAMPERES	RESISTANCE
0-50	2300
0-100	640
0-200	415
0-500	88
50-0-50	640

D-C VOLTS	Ranges RESISTANCE
0-1	1000 Ohms/Volt
0-5	1000 Ohms/Volt
0-10	1000 Ohms/Volt
0-20	1000 Ohms/Volt
0-50	1000 Ohms/Volt
0-100	1000 Ohms/Volt
0-500	1000 Ohms/Volt

A-C VOLTS (rectifier type)	RESISTANCE
0-150	1000 Ohms/Volt
0-300	1000 Ohms/Volt

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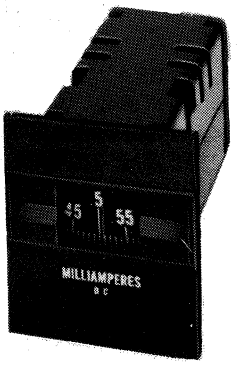
WESTON INSTRUMENTS, INC.

MODEL 1209 SERIES (Projected Moving Scale Meter)

...8" OF SCALE IN A 2½" FRONT

- RETAINS ALL THE ADVANTAGES OF AN 8-INCH METER
- ELIMINATES PARALLAX
- 1% ACCURACY (½% OPTIONAL)
- SELF-ILLUMINATED SCALE
- REQUIRES ONLY 7 SQUARE INCHES PANEL SPACE
- SELF-SHIELDED MECHANISM
- SELF-CONTAINED



Standard meters use black background scales with white figures. White background scales available.

APPLICATIONS

For the first time, designers can standardize on one meter which fills the complete range of requirements: small size • long scale length • accuracy • self illumination • versatility in styling (proprietary bezels available at a normal cost). With Weston's new PMS instruments, equipment dimensions can now be based on optimum space requirements rather than on meter size.

DC VOLTMETERS

MODEL 1209 (1% ACCURACY)		
Range	**Resis.**	**Price**
50 MV	5 Ohms	$57.00
1	↑	58.00
2		58.00
5		58.00
10	1000 Ohms Per Volt	58.00
20		58.00
50		58.00
100		58.00
200		58.00
500	↓	58.00

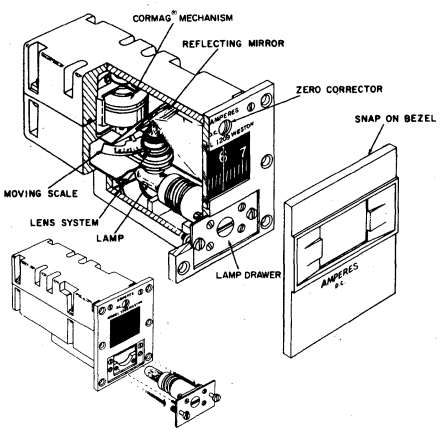
DC MILLIAMMETERS

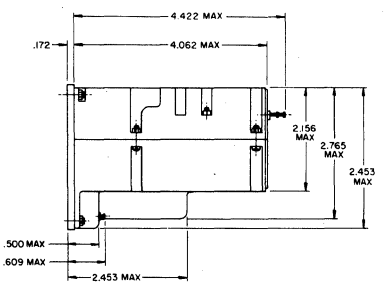
MODEL 1209 (1% ACCURACY)		
Range	**Resis.**	**Price**
1	21	$55.00
2	8.6	55.50
5	3.96	55.50
10	2.3	55.50
20	2.2	55.50
50	2.0	57.00

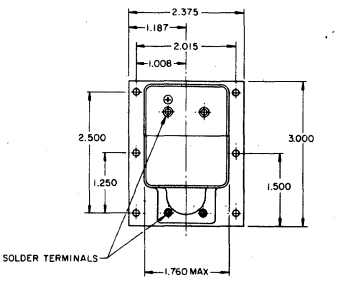
DC MICROAMMETERS

MODEL 1209 (1% ACCURACY)		
Range	**Resis.**	**Price**
50	5700	$61.50
100	1160	60.00
200	231	58.50
500	73	57.00
50-0-50	1160	60.00

Note: All Resistance Values Are Approximate.







HOW THE PMS MODEL 1209 WORKS

A simple optical system projects a moving scale onto a coated window. The scale is rotated by a self-shielded Weston Cormag mechanism of proved design and reliability. Pivot roll is eliminated in PMS panel meters, because the mechanical axis is vertical.

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WESTON INSTRUMENTS, INC.

RUGGEDIZED PANEL INSTRUMENTS

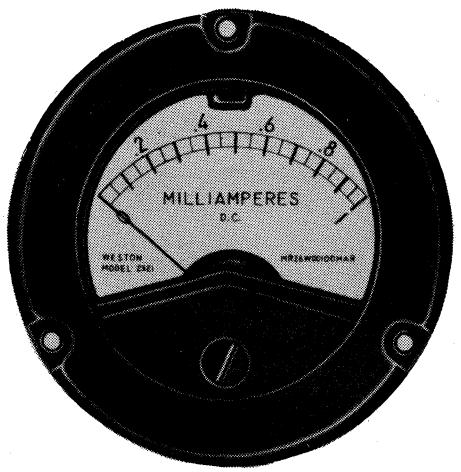
Ammeters — Voltmeters — Milliammeters — Microammeters

A-C and D-C 2½" and 3½"

2½" Size	3½" Size	Mechanism	Accuracy (full scale value)	Scale Arc
Model 2521	Model 2531	Permanent Magnet Moving Coil	2%	100°
Model 2522	Model 2532	A-C Rectifier	3%†	100°
Model 2524	Model 2534	A-C Moving Iron	2%	100°

- Spring-back jewels with locking nuts for fine adjustments
- Specially treated Alnico 5 magnets for long term stability
- Die cast parts in critical structural members assure complete interchangeability, permanent alignment
- Designed for minimum power consumption — minimum response time
- 2½" and 3½" sizes, in both A-C and D-C have 100° scale arcs for uniformity of appearance
- Identical case depth for both A-C and D-C models
- Designed to meet new MIL-M-1030B specification. Many functions and ranges are Qualified Products Listed, others are in process of approval.
- Highest QPL sensitivities.

This completely new 2521/2531 Series of Weston ruggedized instruments is built to "take-it". New design concepts, new materials insure dependable, accurate service under extremes of shock, vibration, temperature, humidity and general abuse. Simplified design allows moderate prices.



Designed to comply with MIL-M-10304B, they are made from non-brittle materials... all components are secured with demountable and reusable fasteners... scale plate, mechanism and shatter-proof mounting base are easily removed as a complete sub-assembly for quick repair. The 2521/2531 Series is another example of famous Weston quality, and is keynoted by the fact that even 20 microampere sensitivities are ruggedized. For applications in the vicinity of strong rf fields, these meters can be completely shielded by specifying conductive glass windows.

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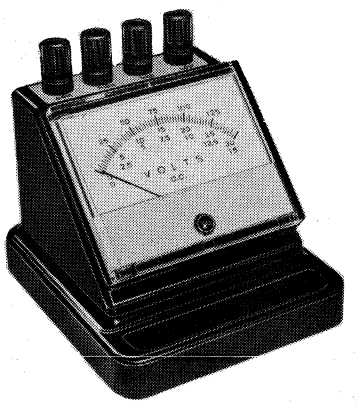
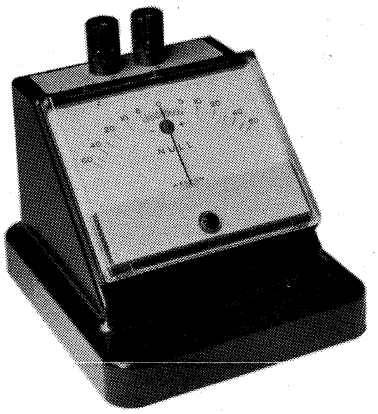
WESTON INSTRUMENTS, INC.

LABORATORY-PRODUCTION BENCH TESTERS

Model 2930 Series

STANDARDS
PORTABLES





FEATURES

- TOP QUALITY COMPONENTS FOR LONG SERVICE
- RUGGED MECHANISM — SPRING BACK JEWELS WITH LOCKING NUTS FOR FINE ADJUSTMENT
- SLOPED PANEL FOR EASE OF READING
- LARGE SCALE — READABLE AT A DISTANCE
- COLOR CODED FOR DC AND AC APPLICATIONS
- ZERO CORRECTOR PROVIDED

GENERAL

2930 Series comprises a group of AC and DC panel meters mounted in a sloped front mounting base constructed of high impact resistant plastic. These instruments are primarily designed for "bench testing" requirements both in educational and industrial laboratories. They use quality components throughout — the indicating instrument is one of the well known Weston 1900 Series of panel meters which have a proven history of accuracy and reliability.

The ranges listed are stocked by authorized Weston Distributors and special ranges can be obtained through local Weston Modification Centers. The cataloged meters are supplied with standard scales and lance type pointer, except the null indicators, which have a knife edge pointer and mirror dot at null.

A colored plastic insert is supplied on all units — yellow denotes a DC unit and red an AC unit.

DC RANGES — MODEL 2931
(Self-shielded CORMAG® Mechanism) 2% Accuracy

Function	Range	Approx. Resistance	Scale Div.
Volts	150/15/1.5	1000Ω/v	75
	30/15/3		60
	30/3/1.5		60
↓	15	↓	75
Millivolts	50*	.....	50(0-100) 75(0-150)**
Amps	30/3/1.5	.....	60
	15	50 mv	75
↓	3	50 mv	60

AC RANGES — MODEL 2932
(Rectifier Type—Shielded Mechanism) 2% Accuracy

Function	Range	Approx. Resistance	Scale Div.
Volts	300/150/30	1000Ω/v	60
Volts	150/15/3	1000Ω/v	75

* For use with external shunts adjusted for standard 0.065Ω, 5 foot shunt leads. See circular 01-407 for available shunts.

AC RANGES — MODEL 2934
(Iron Vane Type Mechanism) 2% Accuracy

Function	Range	Approx. Resistance	Scale Div.
Amps	30	.00056Ω	60
↓	5	.016Ω	50(0-100) 75(0-150)**

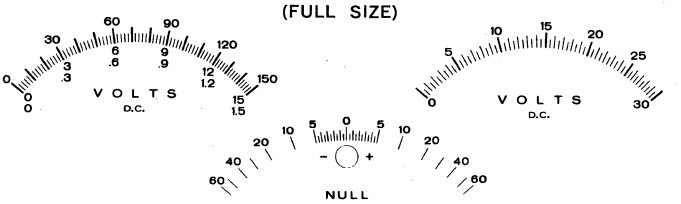
** Double scale for use with external accessories (eliminates interpolation problems).

NULL INDICATORS

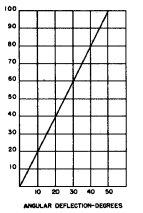
Model	Scale	ua/mm and Division	Resistance of Moving Coil	End Scale Sensitivity	External Critical Damping Resistance
2931	30-0-30	2.5 ua/mm 2 ua/div	1200Ω ± 20%	60-0-60 ua ±2%	50,000 Ω
2936	30-0-30	1.25 ua/mm 1 ua/div	2000Ω ± 20%	30-0-30 ua ±2%	50,000 Ω
2936	See Scale Mod. 2936	0.4 ua/mm 0.5 ua/div	2300Ω ± 20%	†	35,000 Ω

† This unit has a special characterized mechanism (approx. Sq. Law).
Current values are: 10 ua (±10%) at ±20° deflection points.
60 ua (±(20%) at ±50° deection points.

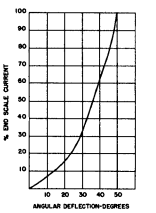
TYPICAL SCALES
(FULL SIZE)



DEFLECTION CURVES



LINEAR MECHANISM

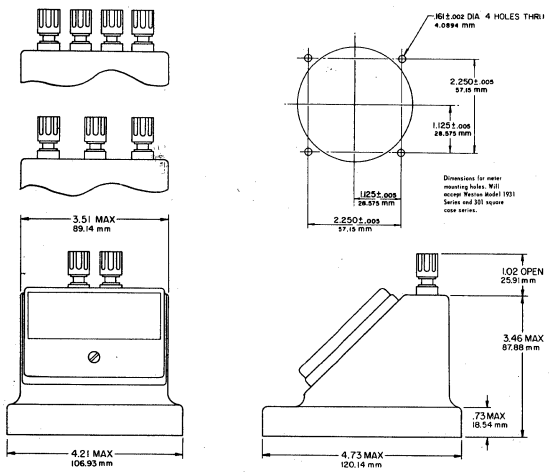


CHARACTERIZED MECHANISM

ANGULAR DEFLECTION-DEGREES
LINEAR MECHANISM

ANGULAR DEFLECTION-DEGREES
CHARACTERIZED MECHANISM

DIMENSIONAL DRAWINGS
(all dimensions are approximate)



MOUNTING BASE PARTS

BASE ONLY—MODEL 9999

No. of Terminal Holes*	Part No.
2	187233-901
3	187234-901
4	187235-901

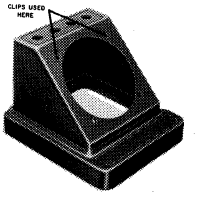
5 WAY BINDING POSTS—MODEL 9999

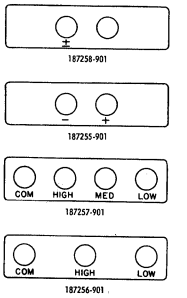
Color	Part No.
Red	ND 37919-901
Black	ND 37919-902

TERMINAL IDENTIFICATION FOILS—MODEL 9999

Terminals	Part No.
Two	187255-901
Three	187256-901
Four	187257-901
Two	187258-901

* Terminal cut outs are keyed for binding posts, listed at right.





MOUNTING CLIPS MODEL 9999
(Two required per base).
Part No. ND 38664
Minimum Package of 20.

TWO TERMINAL ASSEMBLED BASE — MODEL 9986
Includes base, terminals, internal leads from terminals to meter (meter not supplied) — Part No. 187269-901.

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WESTON INSTRUMENTS, INC.

WESTON MULTI-RANGE ANALYZERS

MODEL 80 SERIES

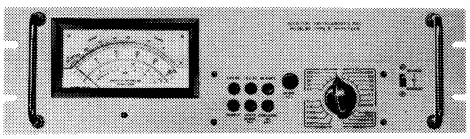
— FEATURE FOR FEATURE —

ACCURACY — High accuracy capabilities—see individual specifications.

READABILITY — Console type presentation provides optimum readability of scael and control deck, whether sitting or standing; large 5½" meter.

RELIABILITY — Sound, basic design, with hi-impact ABS plastic cases, spring backed jewels, precision components.

PARALLAX CORRECTION — Unique refractive-type anti-parallax scale for "on the mark" readings.



SPECIFICATIONS

MODEL 80 — VOLT-OHM-MILLIAMMETER
Accuracy—1% DC, 1.5% AC Ohmmeter—1% of Linear Scale 1 & 5 KV—2% DC and 2.5% AC.
Scale Length—4.9".
Ranges—DC Volts—0.25/1/2.5/10/25/50/100/250/1 KV/5 KV @ 20,000Ω/volt.
AC Volts—2.5/10/50/250/500/1 KV/5 KV/@ 5,000 Ω/volt.
DC Current—50μa/1/10/100 ma/1 and 10 amps.
Ohmmeter—Five Ranges; 2 k to 20 meg, full scale; 20 to 200 k center scale.
DB Scale—10 to + 10 DB.
Price—Cat. No. 80-9008001 s **$79.50**

MODEL 80 TYPE R — RACK MOUNTING
Model 80 Type R for rack mounting has the same specification as Model 80 except that the 5,000 volt ranges have been eliminated.
Size—19" wide x 5⅞" high x 3½" deep.
Price—Cat. No. 80-9008002s **$94.50**

MODEL 81 — DC VOLTMETER
Accuracy—1% except 2.0% on the 1000 volt range.
Scale—50 divisions.
Ranges—0.25/1/2.5/5/10/25/50/100/250/1000.
Sensitivity—20,000 ohms per volt.
Price—Cat. No. 81-9008102 s **$68.50**

MODEL 81 — D-C MILLIAMMETER/AMMETER
Accuracy—1 %.
Scale—100 and 60 divisions. NOTE: The 10 ma range has a drop of 50 mv so that the meter can be used with external shunts.
Ranges—10/30/100/300 milliamperes, 1/3/10 amperes.
Price—Cat. No. 81-9008101 s **$68.50**

MODEL 81 — D-C MICROAMMETER/MILLIAMMETER
Accuracy—1%.
Scale—100 and 60 divisions.
Resistance—2500/1390/475/164/50/16.6/5 ohms.
Ranges—.1/.3/1/3/10/30/100 milliamperes.
Price—Cat. No. 81-90081003 s **$68.50**

MODEL 82 — A-C VOLTMETER
Accuracy—1.5% The combination of resistors and selected germaninum diodes results in temperature and frequency error usually less than 1% for a change of 10°C and frequencies from 25 to 2000 cycles. Ranges below 250V are useable to 15kc.

MODEL 82 — A-C VOLTMETER (Cont.)
Scale—50 divisions.
Ranges—2.5/10/50/250/500/1000 volts.
Sensitivity—5000 ohms per volt.
Type—Rectifier Type.
Price—Cat. No. 82-9008201 s **$71.50**

MODEL 82 — A-C MILLIAMMETER/AMMETER
Accuracy—2% from 60 to 400 cps; from 25 to 1000 cps the frequency error is 1.5%. The instrument is useable to 5 kc.
Loss—From approximately 0.5 va for the low ranges up to 1.5 va for the 5 ampere range at 60 cps.
Scale—100 divisions.
Ranges—50/100/200/500 milliamperes, 1/2/5 amperes.
Type—Transformer—rectifier.
Price—Cat. No. 82-9008202 s **$71.50**

MODELS 432 - 433 - 931 PORTABLE INSTRUMENTS

MATCHED A-C AND D-C PORTABLE INSTRUMENTS

MODEL 433—A-C INSTRUMENTS
Scale Length 4.04"—Accuracy within ¾ of 1% — Movable Iron Type — Shielded Case Size 5¼" x 5¼" x 3¼"—Weight 2½ lbs.—Hand Calibrated Mirror Scales Bakelite Case with Carrying Strap.
Note: These instruments are calibrated for use in a horizontal position.

A-C VOLTMETERS
Made with single, double and triple ranges. For use on frequencies from 25 to 125 cycles.

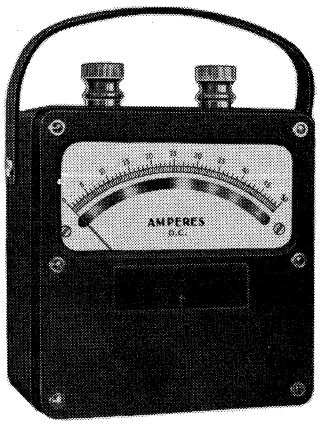
Range	Price
30/15	$103.00
150/75	103.00
300/150	103.00
600/300/150	121.00
750/300/150	121.00

A-C MILLIAMMETERS
Made in single and double ranges only, for use on frequencies from 25 to 500 cycles.

Range	Price
30, 500	$ 95.00
150/75	108.00
500/250	108.00

A-C AMMETERS
Made in single, double and triple ranges for use on frequencies from 25 to 500 cycles. All instruments have two binding posts; double and triple range instruments are provided with a range selector switch.

Range	Price
5	$ 96.00
50	96.00
10/5	110.00
10/5/1	151.00
50/20/5	151.00



MODEL 432—D-C AND SINGLE PHASE A-C WATTMETERS
Double voltage and single or double current ranges, self-contained up to 300 volts and 50 amperes, frequencies from 25 to 125 cycles.
Electrodynamometer Type
Accuracy ½ of 1%....Scale Length 4.04"
Case Size 5¼" x 5¼" x 3¼" .....Wt. 3¼ lbs.

Normal Volts	Normal Amps	Price
150/75	1	$216.00
Double Current Ranges		
300/150	5/2.5	$239.00

MODEL 931—D-C INSTRUMENTS
Scale Length 4.04"—Accuracy within ½ of 1% Core Magnet Moving Coil Type. Case Size: 5⅛" x 5¼" x 3¼"—Weight 2 lbs. — Hand Calibrated Mirror Scales — Bakelite Case with Carrying Strap.
Note: These instruments are calibrated for use in a horizontal position.

D-C VOLTMETERS

Range	Price 1,000 Ohms Per Volt	5,000 Ohms Per Volt
3/15/150	$109.00	$122.00
300/150/3	109.00	122.00
750/300/150	109.00	122.00

D-C AMMETERS

	Price
.1/1/10	$110.00
.05/.5/5	110.00
50/20/5	110.00

Self-contained up to 50 amperes inclusive, but can be supplied with external 50 mv shunts and 5 ft. leads.

D-C MILLIAMMETERS

Range	Price
1.5/15/150	$107.00
1500/150/15	107.00
15/1.5/.15	119.00

Single range, Milliammeters with ranges above can be supplied with external 50 mv shunts and 30 ma are shunted and have a drop of 50 mv ±5%.

D-C MICROAMMETERS

High Resistance Range	Approx. Res. Ohms	Price	Low Resistance Approx. Res. Ohms	Price
30	2300	$119.00	490	$122.00
100	2000	107.00	60	119.00
200	600	107.00	15	107.00

PRICE SUBJECT TO CHANGE WITHOUT NOTICE

WESTON INSTRUMENTS, INC.

MODELS 901/904/905 PORTABLE INSTRUMENTS

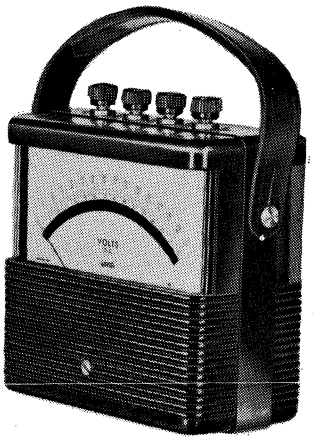
¼ - ½% ACCURACY

Size: 7½" x 7¼" x 3⅝" Scale Length: 5½"

D-C 901, ¼% Accuracy, Self Shielded Permanent Magnet Moving Coil Type

A-C 904, ½% Accuracy, Movable Iron Type

These modern style instruments are used for general testing and for checking other meters in daily use in industry where easy reading and high shielding are desired. Long 5½" hand calibrated mirror scales combined with knife-edge pointers eliminate reading errors. Leather carrying cases are available, specify instrument model and range—Price $24.50.



Model 901

D-C VOLTMETER (7 RANGE)—Model 901

(5000 ohms per volt)

Range (Volts)	Price
750/300/150/75/30/15/3	$197.00

D-C AMMETER—Model 901

Range (Amperes)	Price
50 mv/20/5/2	$179.00

D-C MILLIAMMETERS (7 RANGE)—Model 901

Range (Ma)	Approx. Res. Ohms	Price
1000/500/200/100/50/20/10	.049/.099/.244/.475/.9/1.88/2.5	$186.00
100/50/20/10/5/2/1	1.49/2.96/7.28/14.1/26.4/52.5/60	186.00

A-C VOLTMETER—Model 904

Range (Volts)	Approx. Res. Ohms	Price
750/300/150*	3400/13,600/6,800	$174.00
750/300/150/75/ 30/15/7.5/3**	117,500/18,400/5180/ 1145/182/46/11.1/1.76	267.00

†Other frequency ranges available. Prices on request.
*Frequency 25-125 cps.
**Frequency 50-125 cps, accuracy ½%; 125-450 cps, accuracy 1%.

A-C MILLIAMMETERS—Model 904

(Frequency 25 to 500 cycles)

Range (Ma)	Approx. Res. Ohms	Price
150/75	16/64	$191.00
300/150*	4/16	191.00

*Also stocked for 25-1000 cycles at $191.50.

A-C AMMETERS—Model 904

Range (Amperes)	Price
200/100/50/20/10/5/2**	$240.00
(Frequency 25 to 1000 cycles)	
50/20/10/5/2/1	233.00

**Frequency is 50-450 cps.

D-C AND SINGLE PHASE A-C WATTMETERS—Model 905

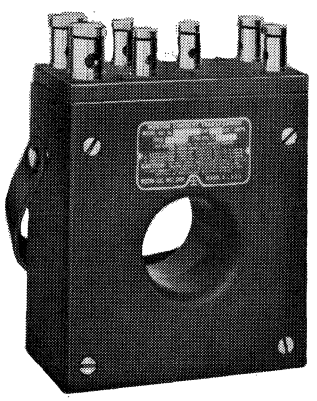
(Frequency 25-60 cycles)

Volts		Amperes		Watts		
Normal	Max.	Normal	Max.	High Range	Low Range	Price
200/100	300/150	25	50	5 KW	2.5 KW	$213.00
		5	10	1 KW	.5 KW	213.00
		10/5	20/10	2/1 KW	1/.5 KW	229.00
		5/2.5	10/5	1000/500	500/250	229.00

MODEL 461 CURRENT TRANSFORMERS

Size: 7.97" x 6.63" x 2.75" Weight: Type 1—8 lbs.; Type 2—8.4 lbs. Core Opening: 2.12"

Models 461 are used with A-C instruments as multipliers. Four self-contained primary ranges are brought out to binding posts. A secondary short circuiting switch is provided. Black bakelite case.



Range (Amps)	Type*	Price
800/400/200/ 100/50/20/10 Pri. to 5 Sec.	1	$127.00
800/400/200/ 100/50/20/10 Pri. to 5 Sec.	2	159.00
1000/500/250/ 100/50/25/10 Pri. to 5 Sec.	1	127.00

Range (Amps)	Type*	Price
1000/500/250/ 100/50/25/10 Pri. to 5 Sec.	2	$159.00
500/250/100/ 50/25/10/5/ 2.5/1/0.5 Pri. to 5 Sec.	5	170.00

*Type 1—Primarily used for Ammeter applications.
Type 2—Primarily used for Wattmeter applications.
Type 5—Similar to Type 2 except for additional ranges.

PRICE SUBJECT TO CHANGE WITHOUT NOTICE

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WESTON INSTRUMENTS, INC.

D-C PORTABLE INSTRUMENTS MODEL 1 (Class 50)

Rated Accuracy, 0.25% of Full Scale Value
Horizontal Position.....Scale 5.18" (132 mm)
Self-Shielded Core Magnet Type
(Shielded from External Magnetic Fields)

Approx. Size { 6⅝ x 6 x 3½" / 170 x 152 x 89 mm }.....Approx. Weight { 3 lbs. / 1.4 kgs.

D-C VOLTMETERS — MODEL 1 (Class 50)

500 Ohms per Volt

Ranges	Scale Div.
300/150/3 volts	150
750/300/150/15/3 volts	150

1000 Ohms per Volt

150/30/15/7.5/3 volts	150
750/300/150/75/15 volts	150

Self-contained up to 1000 volts inclusive. For higher ranges use multiplier. For higher sensitivities use Model 622 (see Circular A-20).

D-C MILLIVOLTMETERS — MODEL 1 (Class 50)

Ranges	Resistance	Scale Div.
* 50 mv	10 ohms	100/150
*100 mv	20 ohms	100/150
200/20 mv	200 ohms per volt	100
200/100/50/20 mv	200 ohms per volt	100

Supplied with 5' (0.026 ohm) leads

* These instruments are for use with external shunts and are normally supplied having scale captions of "AMPERES DIRECT CURRENT". Unless otherwise specified, scales are supplied having dual calibrations figured 0-100 and 0-150 for greater versatility. Portable testing and rotary switch shunts are adjusted to a 50 millivolt drop. Portable precision shunts are of the 100 mv variety. Selection of instrument should be based on the millivolt rating of shunt or shunts with which the instrument is to be used.

D-C AMMETERS — MODEL 1 (Class 50)

Self-Contained Type

Self-contained type ammeters have an accuracy of 0.25%.

Ranges	Scale Div.
1 ampere	100
5 amperes	100
10 amperes	100
50 amperes	100
150 amperes	150
500 amperes	100
20/5/1 amperes	100

Regularly supplied self-contained up to and including 500 amperes. Ammeters up to and including 150 amperes have a drop of 50 mv ±5%; 500 amperes has a drop of 40 mv ±5%.

***External Shunt Type**

External Shunt Type ammeters using 50 mv portable testing external shunts or portable multiple range rotary switching shunts have an accuracy of 0.33% (combination of instrument and shunt). Those using 100 mv precision shunts have an accuracy of 0.25%.

* External shunts are listed on Next Page.

D-C MILLIAMMETERS—MODEL 1 (Class 50)

Ranges	Scale Div.
300/30 ma	150
500/50 ma	150
1000/200/50/10/2 ma	100
1500/150/15 ma	150

For microammeters and multi-range milliammeters other than those listed above, Model 622 is recommended (see Circular 06-202).

DIRECT READING OHMMETERS—MODEL 1 (Class 50)

Approx. Size { 6⅝ x 8⅜ x 3½" / 170 x 213 x 89 mm }.....Approx. Weight { 3.6 lbs. / 1.7 kgs.

For resistance measurements where direct reading and accuracy are essential. Operated on ordinary dry cells, the changes in voltage are compensated for by means of a self-contained adjustable rheostat.

Ohm Ranges	Scale Div.	Volts Necessary to Operate
0-2.5, 0-25, 25-50	125	1.5
0-10, 0-50, 50-100	100	1.5
0-100, 0-500, 500-1000	100	3.0

Higher as well as lower ohmmeters can be provided, but are subject to individual negotiation.

ELECTROLYSIS INSTRUMENTS—MODEL 1 (Class 50)

Approx. Size { 9⅝ x 11 x 4¾" / 237 x 279 x 121 mm }.....Approx. Weight { 9 lbs. / 4 kgs.

Especially designed for locating and measuring stray currents in pipes, cables, steel structures, etc. Electrolysis instruments are mounted in a sturdy oak carrying case with a removable cover. Request Circular 06-205 for further details on Portable Electrolysis Instruments.

D-C VOLT-AMMETERS

All ranges are ⅓ zero advanced — 300 Ohms per Volt

Ranges	Scale Div.
(50-0-100) (5-0-10) (0.5-0-1) (.05-0-.10) (.005-0-.01) volts (50-0-100) 5-0-10) (.5-0-1) amperes)	150

D-C VOLT-MILLIVOLTMETERS

All ranges are zero center — 400 Ohms per Volt

Scale Division 100, 50 Each Side of Zero

Ranges

(50-0-50) (5-0-5) (.5-0-.5) (.05-0-.05) (.005-0-.005) volts

Model 1 — Volt-Millivoltmeter

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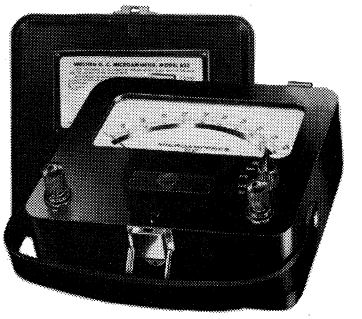
WESTON INSTRUMENTS, INC.

Model 622 D-C Instruments



Accuracy ½ of 1%.....Scale Length 6.1" (155 mm) Dimensions { 8.75" x 7.75" x 4.06" / 222 x 197 x 103 mm } Approx. Weight { 8.5 lbs. / 4 kgs.

Permanent Magnet Moving Coil Type — Molded Bakelite Case
Electrostatically and Magnetically Shielded)

D-C VOLTMETERS

1,000 Ohms Per Volt — Multi-Range with 4 Binding Posts

1000 Ohms Per Volt

Multi-Range with 4 Binding Posts

Ranges	Scale Div.
75/30/7.5	150
150/15/3	150
300/150/3	150
750/300/150	150

Multi-Range with Range Changing Switch and 2 Binding Posts

Ranges	Scale Div.
300/150/75/30/15/7.5/3/1.5	150
500/200/100/50/20/10/5/2	100
750/300/150/75/30/15/7.5/3/1.5	150
1000/500/200/100/50/20/10/5/2	100

Available at higher sensitivities. Correspondence invited.

D-C MILLIVOLTMETERS

Multi-Range with Range Changing Switch and 2 Binding Posts

Ranges	Resistance Ohms	Scale Div.
50/20/10/5/2	250/100/50/25/10	100
500/100/20/5/1	2500/500/100/25/5	100
500/100/50/20/5	2500/500/250/100/25	100
1000/200/50/10/1	5000/1000/250/50/5	100
2000/500/100/20/2	10,000/2500/500/100/10	100
1000/200/50/10/2	5000/1000/250/50/10	100

Each millivoltmeter includes 1 pair of 5 foot leads.

D-C MILLIAMMETERS

Multi-Range — Low Resistance Type

With Range Changing Switch and 2 Binding Posts

Ranges	Approx. Res. Ohms	Scale Div.
30/3/0.3/0.03	3.4/33.2/306/556	150
100/10/1/0.1	0.20/1.98/18.4/40.0	100
200/20/2/0.2	0.099/0.99/9.1/10	100
200/20/2/0.2	(10 ohms for all ranges)	100
500/50/5/0.5	0.10/1.0/9.8/80	100

D-C MICROAMMETERS

Model 622 microammeters, low resistance type, are designed to function on the lowest amount of energy consistent with reasonable performance. They should be used in circuits when but little energy may be abstracted by the instrument such as in the output of vacuum thermocouples.

High resistance microammeters should be used wherever circuit conditions will permit. They will stand more severe service and in general are more rapid in indication than low resistance instruments.

Single Range with 2 Binding Posts

Range	Scale Divs.	Low Resis. Type Approx. Resis. Ohms	High Resis. Type Approx. Resis. Ohms.
* 5	100	4000	.....
* 10	100	3900	.....
* 15	150	2600	.....
20	100	280	2600
30	150	150	1800
50	100	90	1100
100	100	45	600
150	150	30	240
200	100	10	175

* These instruments have a scale length of 5.2"

Multi-Range with Range Changing Switch and 2 Binding Posts

Ranges	Resistance
**1000/500/200/100/50	96/184/400/600/400 ohm
1000/500/200/100/20	618/1214/2870/5160/3150 ohm

** Can be supplied with resistance of 100 ohms for all ranges. Recommended for telephone and PHOTRONIC® photo-electric cell circuits.

20 RANGE D-C VOLT-MILLIAMMETER

This instrument has 2 range changing switches and four binding posts marked (—), 50 millivolts), 100 millivolts), (volts-milliamperes).

Accuracy ¼ of 1%.

Voltage Ranges (200 ohms per volt): 750/300/150/75/30/15/7.5/3/1.5 volts; 100/50 mv*

Current Ranges: 3000/1500/750/300/150/75/30/15/7.5 ma.

Resistance (approx.): 0.33/0.066/0.132/0.332/0.655/1.28/3.0/5.35/8 ohms.

Scale Divisions: 150 for 300/150/75 volt — milliamperes d-c.

*For use with external shunts.

ELECTROLYSIS VOLT-MILLIVOLTMETERS

Model 622 D-C Instruments can be provided with a selection of ranges covering practically all electrolysis and corrosion investigations and cathodic protection testing. Request "Portable Electrolysis Instruments" circular for complete details.

Only the most commonly used ranges are listed — any practical range can be supplied.

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WESTON INSTRUMENTS, INC.

Model 622 Thermo Instruments

Accurate within ½ of 1% on a-c of frequencies stated and within 1% on d-c at 25°C.; within 1% on a-c of frequency stated and 1.5% on d-c from 20° to 30°C — Scale length 6.1" (155 mm).

Dimensions { 8.75 x 7.75 x 4.06" / 222 x 197 x 103 mm } Approx. Weight { 8.5 lbs. / 4 kgs.

Thermocouple Type — Molded Bakelite Case

Model 622 thermo instruments are basically ultra-sensitive temperature compensated d-c millivoltmeters calibrated with replaceable thermoelements.

Plug-in vacuum type elements, in which the heater and couple are contained in an evacuated glass bulb, are used in thermo milliammeters and thermo voltmeters. The overload capacity of these thermo-elements as used in Model 622 is exceptionally high, at least 2 times normal for all ranges.

External compensated type elements are used for the thermo ammeters. Temperature compensation is obtained through use of compensating strips which maintain the cold ends of the thermocouples at the temperature of the heater blocks. Overload rating is 1.5 times normal.

THERMO AMMETERS

External Thermoelement Type

Supplied with one Type C thermoelement of range desired and 5 foot shielded leads for connecting thermocouple to instrument. Multi-range combinations obtained by use of additional thermoelements of ranges desired. Instrument scales are directly calibrated to original thermoelements, or to average data where additional couples are supplied for multi-range combinations. Can be used on d-c and a-c ranges below 20 amperes; on a-c only for higher ranges. Frequency errors less than ½ of 1% up to 35 megacycles and less than 2% up to 65 megacycles.

Range	Scale Div.
5	100
10	100
25	125
50	100

THERMO MILLIAMMETERS

Plug-In Thermoelement Type

Instrument scale is directly calibrated to the original Type V themoelement. Multi-range combinations available by use of additional thermoelements of desired ranges. Instrument scales are calibrated to average data for the multi-range combinations and correction charts are supplied to obtain the guaranteed accuracy of ½ of 1% on d-c and a-c of any frequency up to 2000 kilocycles.*

Range	Scale Div.	Approx. MV Drop
1.5	150	2250
2	100	1650
7.5	150	300
10	100	250
50	100	180
150	150	110
500	100	110

* A low loss adapter providing direct connection to the couple is recommended for plug-in couples for frequencies above 2000 kilocycles. Low loss adapter P/N D-80804.

Insulated heater Type V-1 thermoelements are also available.

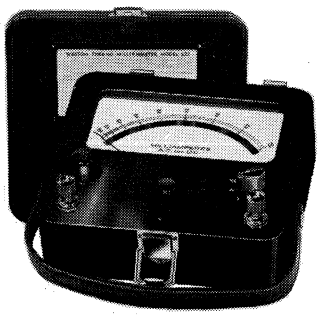
THERMO MILLIAMMETERS

Plug-In, Shunted Type

With Range Changing Switch and 2 Binding Posts

Ring type shunt is incorporated in instrument, making possible several ranges with a single plug-in element. This type milliammeter is limited to d-c and audio frequencies, to 15 kilocycles, and is calibrated directly with the replaceable element supplied.

Range	Scale Div.	Approx. Res. Ohms
100/50/10/5	100	19.8/37/120/80
500/100/20/5	100	4/19.3/80/80
1000/200/50/10	100	.7/3.3/12.3/40
500/200/100/50	100	.9/2.1/4.2/8



Model 622 Thermo Instrument
(Type V Element Plugged In)

THERMO VOLTMETERS

Plug-In Thermoelement Type

Multi-Range with Range Changing Switch and 2 Binding Posts

Directly calibrated with single Type V thermoelement. Regularly supplied for d-c and a-c frequencies to 5000 cycles, on special order to 15,000 cycles.

Range	Scale Div.	Sensitivity In Ohms per Volt
20/5/2/0.5	100	50
50/10/5/1	100	100
100/20/10/2	100	100
100/50/10/5	100	500

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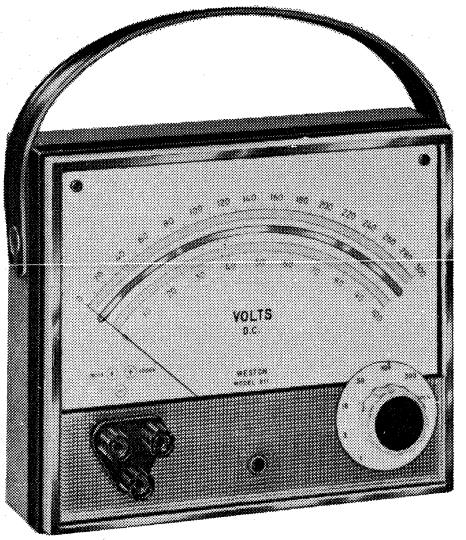
WESTON INSTRUMENTS, INC.

MODELS 911/912 PORTABLE/PANEL INSTRUMENTS

Newly designed Weston Portable/Panel instruments now provide a combination of features never before offered in portable test equipment. Equally valuable in shop or field, these units feature high accuracy, long-scale length and modern styling. And, these instruments are designed for . . . Panel or switchboard mounting without special adaptors or attachments! Simply remove meter from case and mount on panel . . . all hardware is supplied. The compact steel case may be attached behind panel when mechanical protection is required.



Model 911/912

SPECIFICATIONS

ACCURACY—±1% of full scale value on d-c voltmeters and milliammeters (±2% of full scale value on 300 and 1000 volts d-c).
±2% of full scale value on rectifier type a-c voltmeters 10 through 300 volts.
±3% of full scale value on rectifier type a-c voltmeters for 1000 volt range and 3 volt range above mid-scale.

COMPACT CASE—Modern designed instrument front of clear durable plastic provides unlimited natural illumination which, coupled with knife-edge pointers and mirror scale, provide unexcelled readability. The instrument is cased in heavy duty, grey finished steel. Handle can be swung under instrument so that it may be tilted for easy reading. Size: 7½" x 6½" x 2⅜".

COMPONENTS—Weston VAMISTOR® precision metal film resistors and other long-life components are used.
Adjustable resistors provide for easy calibration, if required.

BINDING POSTS—Screw type with captive heads can use all types of leads. Triangular base allows greater torque when securing leads. Wide ¾" spacing permits use of plug type leads. Cross hole located so fine wire is not cut.

SCALE—Large 7.2" mirror back with knife-edge pointer.

MECHANISM—CORMAG® self-shielding, with spring-backed jewels.

RANGE SWITCH—Large, sure-grip knob.

SIZE—7½" x 6½" x 2⅜".

RANGES AND PRICES

Model 911 D-C VOLTMETER (20,000 ohms per volt)
1000/300/100/30/10/3/1 Volts ..... Price $68.50

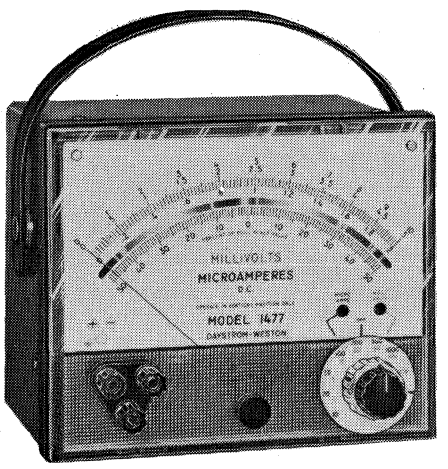
Model 911 D-C AMMETER
10/3/1 amps., 300/100/30/10 ma ..... Price $68.50

Model 911 D-C MILLIAMMETER
100/30/10/3/1/.3/.1 milliamperes ..... Price $68.50

Model 912 A-C VOLTMETER (5,000 ohms per volt)
1000/300/100/30/10/3 Volts ..... Price $78.50

Model 912 A-C AMMETER
5/2/1 (Amperes) 500/200/100/50 (ma) ..... Price $78.50

MODEL 1477 D-C MILLIVOLT/MICROAMMETER



Size: 7½" x 6½" x 4⅜" **Weight: 5½ lbs.** **Scale Length: 7.2"**

A portable test instrument designed to measure potentials and currents in the low-level millivolt and microampere ranges. No energy is drawn from the input circuit during steady-state operation. Only with an initial input application is there a small current taken during the transient period prior to steady state indication.

D-C Input Ranges
Millivolts 1/2/5/10/20/50/100/200/500/1000
Microamperes 10/20/50/100/200/500/1000

D-C Output
(Rear Terminals) ..... 1 MA DC for full scale input (into a load up to 5000 ohms)

Power Requirements ..... 120 volts AC, 50 or 60 cycles, 19 watts

Accuracy
Panel Indicator (Both Scales) ..... ±1% of full scale value on ranges of 2-1000 MV and 20-1000 μA
±2% of full scale value on ranges of 1 MV and 10 μA
1 MA Output ..... ±0.25% on ranges of 5-1000 MV and 50-1000 μA
±0.5% on ranges of 1-2 MV and 10-20 μA

Operating Position ..... Vertical

Cat. No. 1477-9900001 ..... Price **$513.25**

PRICE SUBJECT TO CHANGE WITHOUT NOTICE

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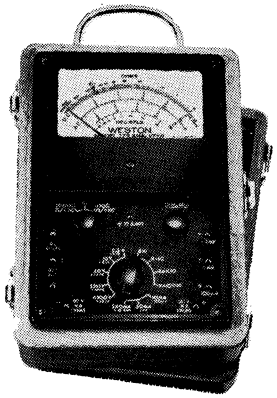
WESTON INSTRUMENTS, INC.

MODEL 779 SUPER-SENSITIVE ANALYZER



Model 779 Type 8
Price.....$194.25

ACCURACY: A-C within 3%; D-C within 2% to 250 volts; 3% on 1,000 volt range.
Size: 6⅜" x 9⅛" x 4⅞" (162 x 232 x 124 mm)
Approx. Wt.: 6 lbs. (2.72 kgs.)

A compact 26 range ultra-sensitive analyzer with five d-c voltage ranges at a sensitivity of either 1,000 or 20,000 ohms per volt. A-C temperature compensated; precision resistors throughout. Supplied in a rugged solid oak case with a removable cover and convenient carrying handle. Test leads are provided.

RANGES

Volts D-C	Volts A-C	Current D-C Only	Decibels	Ohms
2.5	2.5	.1 Ma	— 14 to + 2*	0-3000
10	10	1 Ma	— 2 to + 14*	0-30,000
50	50	10 Ma	+ 12 to + 28*	0-300,000
250	250	50 Ma	+ 26 to + 42†	0-30 Meg
1000	1000	250 Ma	+ 38 to + 54††	
		1 Amp	(6 milliwatts,	
		10 Amp	500 ohms, zero level)	

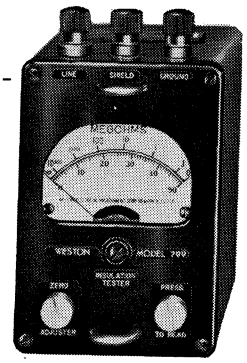
*Substantially flat to 10,000 cycles.
†Substantially flat to 3,000 cycles. ††Substantially flat to 1,000 cycles.

MODEL 799 INSULATION TESTER

ACCURACY: Within ⅛" of scale length.
SCALE: 2.375" (60.3 mm)
Size: 3⅜" x 5¼" x 5" (86 x 133 x 127 mm)
Approx. Wt.: 3.8 lbs. (1.7 kgs.)

For leakage measurements up to 10,000 megohms at low voltage at a maximum test potential 50 volts. Test leads, tubes, batteries and oak case are supplied.
RANGES: 0-10,000 megohms (Logarithmic scale)

Price.....$108.75



Model 799

MARK II ANALYZER

The new thin-line Mark II is a highly sensitive and extremely rugged volt-ohm-milliammeter designed for a wide range of accurate test measurements in the electronic field.

Famous CORMAG® mechanism protects the instrument against false readings due to magnetic disturbances. Electrostatic shielding assures accurate measurements at high d-c voltages. Fuses in the low ohmmeter circuits prevent burnout if voltages are mistakenly applied. Interchangeable parts eliminate all need for parts selection in the event replacements are ever necessary. The breakproof case will withstand dropping and thus eliminate the major source of repair and maintenance costs.

FEATURES

- Modern Thin-Line Design
- Spring Back Jewels for Maximum Shock Resistance
- Fused Resistance Ranges
- Transit Switch Position to Dampen Movement During Transportation
- Fully Insulated Crackproof Case
- Single Selector Knob for all Functions and Ranges
- Wide Angle Scale for Maximum Visibility
- Precision Components —No Parts Selection Required
- Single Board Etched Wiring Circuit for Easy Maintenance
- Static Shielded for Accurate High Voltage Measurement
- 4-Way Combination Tilt Stand and Protective Cover Available

SPECIFICATIONS

Accuracy: 2%, d-c; 3%, a-c & 4000 v d-c.
Scale Length: 4.63"
Ranges:
D-C Volts: 1.6, 8, 40, 160, 400, 800, 4000 . . . at 20,000 ohms/volt.
A-C Volts: 1.6, 8, 40, 160, 400, 1600 . . . at 1,000 ohms/volt.
DB Range: —15 db to +54 db (in six ranges).
D-C Amperes: 8
D-C Milliamperes: 1.6, 8, 80, 800.
D-C Microamperes: 80.

Ohms Range	Center Scale	Full Scale
R x 1	25	1,000
R x 10	250	10,000
R x 100	2,500	100,000
R x 1,000	25,000	1 megohms
R x 10,000	250,000	10 megohms

Case: Black impact resistant plastic, with carrying strap.
Panel: Black impact resistant plastic with engraved white markings.
Size: 6.25" x 7.50" x 3.0".
Approx. Weight: 2.5 lbs.
Ohms: Five decade ranges: 1K to 10 meg full scale; 25 ohms to 250K center scale

Model 980 Mark II

Price.....$53.50
Combination protective front cover and tilt stand $5.50
Eveready leather carrying case—Model 9959—Part No. 249350.....$9.75

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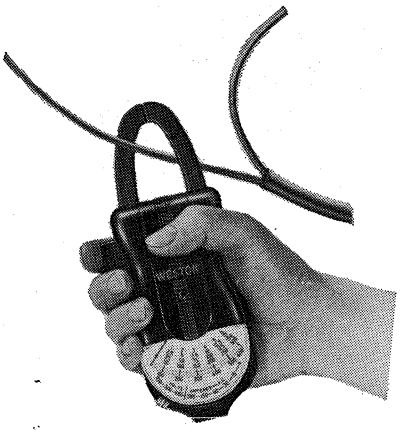
WESTON INSTRUMENTS, INC.

Model 749
Miniature Clamp Volt-Ammeter



Light weight and rugged pocket-size instrument for quick easy servicing. Has self-shielded core magnet mechanism with spring backed jewels, and shatter-proof Plexiglas window. Only one scale for all ranges and functions. Jaws take up to 1" round, or 1¾" x ⅜" rectangular conductors. Furnished with test leads in scuff proof case.

Plug-In Adapter available for making both current and voltage measurements . . . has female receptacles on both sides for plugging in load without disturbing circuit being tested . . . convenient for lead insertion for voltage checks . . . serves as 10 to 1 divider for low current measurements.

RATED ACCURACY: (Model 749) ±3% full scale deflection.
RANGES: Current 300/150/60/30/15/6 amperes a-c.
Voltage 600/300/150 volts a-c.
Model 749—$51.50 complete Plug-In Adapter—$6.00

Model 633 Clamp Volt-Ammeter and Clamp-Ammeter

Model 633 Type VA-1

	Price
Model 633 Type VA-1 (Incl. Potential Leads)—1000/250/100/25/10 amperes a-c 700/350/175 volts a-c	$141.50
Model 633 Type A-3—2000/1000/500/250/100/50 amperes a-c	133.50
Model 9958, 50 foot Extension Cable, Plug & Receptacle for Model 633 Type A-3	79.25
Leather Carrying Case (Model 633 Types VA-1, A-3)	13.50
Leather Carrying Case (Model 9958—Cable, Plug and Receptacle)	22.50

NOTE—Model 633 instruments may be used for continuous duty up to 500 amperes.

Approximate Dimensions and Weights

Model 633 Types VA-1, A-3	15⅝"x4⅜"x2½" 3¾ lbs.
Leather Carrying Case (Types VA-1, A-3)	14½"x5½"x3⅝" 2¼ lbs.
Model 9958, 50 Foot Extension Cable, Plug & Receptacle	4¼ lbs.
Leather Carrying Case (Model 9958—Cable, Plug & Receptacle)	14"x8½"x3¾" 4¼ lbs.

Model 614 — Foot-Candle Meters

Size: 7⅜" x 3⅜" x 2¼" Scale Length: 2.36"
Weight: 1 lb. 13 ozs.

This unit is ideal for general commercial lighting surveys where wide ranges of light values exxist. Completely self-contained, no outside power or batteries being required. Available for checking two different light situations.

†VISCOR filtered, 0-60/120/600 foot-candles, for visual correction for color ..... Price $160.00

†VISCOR and Cosine correction filtered, 0-100/250/500 foot-candles for visual correction for color and direction correction.
Price $164.00

Model 614

Model 703 — Sightmeters

Size: 4⅝" x 2⅝" x 1 5/16" Scale Length: 1.57"
±75% of full scale accuracy

This pocket sized meter is ideal for checking illumination levels at work stations. It is available for checking three different light situations. Leather case available ..... Price $3.25

Unfiltered, Type 3A, 0-75 foot-candles. ..... Price $52.00

†VISCOR filtered, Type 6A, 0-75 foot-candles for visual response correction for color ..... Price $65.00

†VISCOR and Cosine correction filters Type 7, 0-100 foot-candles for visual response correction for color and direction correction ..... Price $69.00

Model 9924 Multiplier Disc fits Type 3A and Type 6A and multiplies scale readings by 10 ..... Price $2.20

†VISCOR—A registered trademark.

Model 703

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PRICES

Prices in this MASTER should not be considered as final. INQUIRE ABOUT LATEST PRICES AND DELIVERY.

DISCOUNTS

Trade discounts apply in most cases where LIST PRICES are shown.

ORDERING

Since previous editions of the MASTER are frequently referred to, it is important, when ordering, to mention specifically the edition and page number, also the catalog number of each item. This will avoid possible confusion and delay.

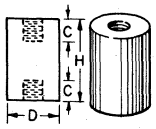
INVENTORY

While most distributors maintain a large and varied stock, they do not represent that they stock all manufacturers' products shown in this MASTER catalog.

FEEDTHRU - STEATITE PILLARS - CORRUGATED CERAMIC - STANDOFF INSULATORS

BIRNBACH STEATITE PILLARS

JAN-1-8 and JAN-1-10 SPECS. (Less Hardware)

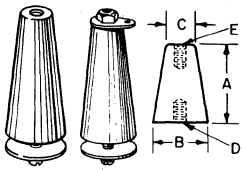


In many constructions, these unmounted threaded Steatite pillars will facilitate assembly because of the one hole mounting and parallel mounting surfaces. They are made of L5 glazed Steatite with threaded holes on both sides.

Cat. No.	Old Jan Type Designation	New Mil Type Designation	H	D	Length of Thread	Thread
441			1/4"	1/4"	All	6-32
441B			3/8"	1/4"	5/32"	6-32
441A			1/2"	1/4"	5/32"	6-32
444A			3/4"	1/4"	1/4"	6-32
445A			1"	1/4"	1/4"	6-32
442			3/8"	3/8"	5/32"	6-32
442A	NS5W0104	NL633W01-004	1/2"	3/8"	5/32"	6-32
443A	NS5W0105	NL633W01-005	5/8"	3/8"	1/4"	6-32
444B	NS5W0106	NL633W01-006	3/4"	3/8"	1/4"	6-32
445B	NS5W0108	NL633W01-008	1"	3/8"	3/8"	6-32
446B	NS5W0110	NL633W01-010	1 1/4"	3/8"	3/8"	6-32
446A	NS5W0112	NL633W01-012	1 1/2"	3/8"	3/8"	6-32
446C	NS5W0116	NL633W01-016	2"	3/8"	3/8"	6-32
443			1/2"	1/2"	9/64"	6-32
444			3/4"	1/2"	1/4"	6-32
445			1"	1/2"	3/8"	6-32
446			1 1/2"	1/2"	3/8"	6-32
447			2 1/2"	1/2"	3/8"	6-32
440	NS5W0205	NL633W02-005	5/8"	1/2"	3/16"	8-32
440A	NS5W0206	NL633W02-006	3/4"	1/2"	1/4"	8-32
440B	NS5W0208	NL633W02-008	1"	1/2"	3/8"	8-32
440C	NS5W0210	NL633W02-010	1 1/4"	1/2"	3/8"	8-32
440D	NS5W0212	NL633W02-012	1 1/2"	1/2"	3/8"	8-32
440E	NS5W0216	NL633W02-016	2"	1/2"	3/8"	8-32
440F	NS5W0220	NL633W02-020	2 1/2"	1/2"	3/8"	8-32
440G	NS5W0224	NL633W02-024	3"	1/2"	3/8"	8-32
444C			3/4"	3/4"	1/4"	10-32
445C	NS5W0308	NL633W03-008	1"	3/4"	3/8"	10-32
445D	NS5W0310	NL633W03-010	1 1/4"	3/4"	3/8"	10-32
445E	NS5W0312	NL633W03-012	1 1/2"	3/4"	3/8"	10-32
445F	NS5W0316	NL633W03-016	2"	3/4"	3/8"	10-32
445G	NS5W0320	NL633W03-020	2 1/2"	3/4"	3/8"	10-32
445H	NS5W0324	NL633W03-024	3"	3/4"	3/8"	10-32
445S	NS5W0332	NL633W03-032	4"	3/4"	3/8"	10-32
448			2 1/2"	3/4"	3/4"	1/4-20
449			4"	3/4"	3/4"	1/4-20
447A	NS5W0410	NL633W04-010	1 1/4"	1"	7/16"	1/4-20
447B	NS5W0412	NL633W04-012	1 1/2"	1"	1/2"	1/4-20
447D	NS5W0416	NL633W04-016	2"	1"	5/8"	1/4-20
447E	NS5W0420	NL633W04-020	2 1/2"	1"	5/8"	1/4-20
447F	NS5W0424	NL633W04-024	3"	1"	5/8"	1/4-20
447G	NS5W0432	NL633W04-032	4"	1"	5/8"	1/4-20
447H	NS5W0440	NL633W04-040	5"	1"	5/8"	1/4-20
447J	NS5W0448	NL633W04-048	6"	1"	5/8"	1/4-20

BIRNBACH CONE STANDOFF INSULATORS

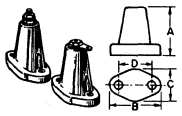
(Steatite)



Made of low absorption high tensile strength steatite with a smooth glaze. All heights except the No. 430 are available with a Jack or a threaded hole top. Available in a white glaze and are complete with screws, metal & cork washers.

Cat. No.	Height A	Base Dimensions B	C	Threaded Holes D	E	Mounting Hole
430	5/8"	5/8"	7/16"	6-32	6-32	5/32"
431	1"	11/16"	1/2"	8-32	8-32	3/16"
431J	1"	11/16"	1/2"	8-32	No. 403 Jack	3/16"
432	1 1/2"	7/8"	5/8"	10-32	10-32	7/32"
432J	1 1/2"	7/8"	5/8"	10-32	No. 403 Jack	7/32"
433	2 3/4"	1 1/4"	3/4"	1/4-20	1/4-20	9/32"
433J	2 3/4"	1 1/4"	3/4"	1/4-20	No. 395 Jack	9/32"

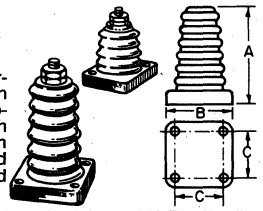
BIRNBACH STANDOFF INSULATORS



Made of highly vitrified low absorption glazed porcelain. No washers necessary—mounting surface is ground flat; for No. 966 it is advisable to use cork washers which are available. All brass nickel-plated hardware supplied.

Cat. No.	Height A	Base Dimension B	C	D	Mounting Holes	Hardware
405	5/8"	1"	17/32"	11/16"	5/32"	6-32
965	1"	1 1/4"	3/4"	13/16"	5/32"	8-32
966	1"	1 3/8"	7/8"	1"	5/32"	8-32
966J	1"	1 3/8"	7/8"	1"	5/32"	No. 403 Jack
866	1 1/2"	1 3/4"	1 1/8"	1 1/4"	5/32"	10-32
866J	1 1/2"	1 3/4"	1 1/8"	1 1/4"	5/16"	No. 403 Jack
866SJ	1 1/2"	1 3/4"	1 1/8"	1 1/4"	5/32"	No. 395 Jack
4275	2 3/4"	2 3/4"	2"	2 1/8"	1/4"	1/4-20
4275J	2 3/4"	2 3/4"	2"	2 1/8"	1/4"	No. 399 Jack
4450	4 1/2"	3 5/8"	2 1/2"	2 5/8"	9/32"	1/4-20
4450J	4 1/2"	3 5/8"	2 1/2"	2 5/8"	9/32"	No. 399 Jack

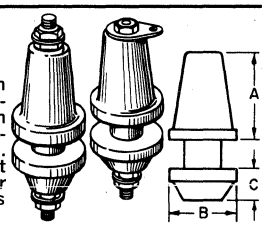
BIRNBACH METAL BASE INSULATORS



Designed to replace conventional porcelain insulators where base cracks when fastened down. Corrugated surface provides long leakage path. Made of high tensile strength low absorption porcelain fully glazed. Supplied with nickel-plated brass screws and nuts, cadmium plated drawn steel bases.

Cat. No.	Height A	Base Dimension B	C	Mounting Screw D	Hardware
867	1 3/8"	1 7/8" x 1 5/16"	1 1/2"	2 No. 8	10-32
867J	1 3/8"	1 7/8" x 1 5/16"	1 1/2"	2 No. 8	No. 403 Jack
4176	2 3/4"	1 3/4" x 1 3/4"	1 3/8"	4 No. 10	1/4-20
4176J	2 3/4"	1 3/4" x 1 3/4"	1 3/8"	4 No. 10	No. 395 Jack
4451	4 1/2"	2 1/4" x 2 1/4"	1 3/4"	4 No. 10	1/4-20
4451J	4 1/2"	2 1/4" x 2 1/4"	1 3/4"	4 No. 10	No. 395 Jack

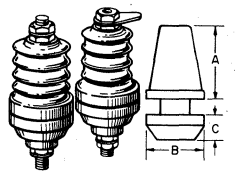
BIRNBACH FEEDTHRU INSULATORS



Made of highly vitrified, low absorption porcelain smoothly glazed to prevent accumulation of dust or dirt. Maximum strength is achieved by the proper proportions and flat mounting surfaces. Long insulating sleeves on the lower part of the insulator contribute much to their performance on high voltages. Brass nickel-plated hardware.

Cat. No.	Height A	Dimen. B	C	Mounting Hole	Hardware
458	5/8"	11/16"	1/4"	5/16"	6-32
478	1"	13/16"	5/16"	7/16"	10-32
478J	1"	13/16"	5/16"	7/16"	No. 403 Jack
4125	1 1/4"	7/8"	3/8"	7/16"	10-32
4125J	1 1/4"	7/8"	3/8"	7/16"	No. 403 Jack
4234	2 3/4"	2"	1"	3/4"	1/4-20
4175	2 3/4"	1 1/4"	3/4"	5/8"	1/4-20
4175J	2 3/4"	1 1/4"	3/4"	5/8"	No. 394 Jack

CORRUGATED FEEDTHRU INSULATORS



The six new corrugated type feed-thru insulators have more than twice the leakage path of the straight type because of increased surface of the corrugations and recommends itself where a straight side insulator of equal height is not satisfactory because of its shorter leakage path. Brass nickel-plated hardware and cork mounting washers supplied.

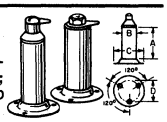
Cat. No.	Height A	Dimen. B	C	Mounting Hole	Hardware
479	1 3/8"	1 1/4"	11/16"	9/16"	10-32
479J	1 3/8"	1 1/4"	11/16"	9/16"	No. 403 Jack
4276	2 3/4"	1 5/8"	1"	3/4"	1/4-20
4276J	2 3/4"	1 5/8"	1"	3/4"	No. 394 Jack
4452	4 1/2"	2 1/8"	1 1/2"	1"	1/4-20
4452J	4 1/2"	2 1/8"	1 1/2"	1"	No. 394 Jack

HIGH VOLTAGE FEEDTHRU INSULATOR

This insulator has been designed to meet the demand for an insulator having high dielectric and mechanical strength. The extra long leakage path is made possible by the corrugations on the top insulator. The bottom sleeve taper from a base dia. of 1 3/16" where the electric stress is greatest.

Cat. No.	Height	Base Dia.	Mounting Hole	Hardware
4233	1 5/8"	2"	1 1/4"	1/4-20

STEATITE PILLARS



Have great tensile strength with extremley low losses at very high frequencies. Tapped on both ends; supplied with nickel plated mounting base and top hardware.

Cat. No.	Height A	Dimen. B	Base Dia. C	D	Hardware
450	1"	1/2"	1 1/8"	7/8"	6-32
450J	1"	1/2"	1 1/8"	7/8"	No. 403 Jack
451	1 1/2"	1/2"	1 1/8"	7/8"	6-32
451J	1 1/2"	1/2"	1 1/8"	7/8"	No. 403 Jack
452	2 1/2"	1/2"	1 1/8"	7/8"	6-32
452J	2 1/2"	1/2"	1 1/8"	7/8"	No. 403 Jack
453	2 1/2"	3/4"	1 5/16"	1 3/16"	1/4-20
453J	2 1/2"	3/4"	1 5/16"	1 3/16"	No. 395 Jack
454	4"	3/4"	1 5/16"	1 3/16"	1/4-20
454J	4"	3/4"	1 5/16"	1 3/16"	No. 395 Jack

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH RADIO COMPANY INC.

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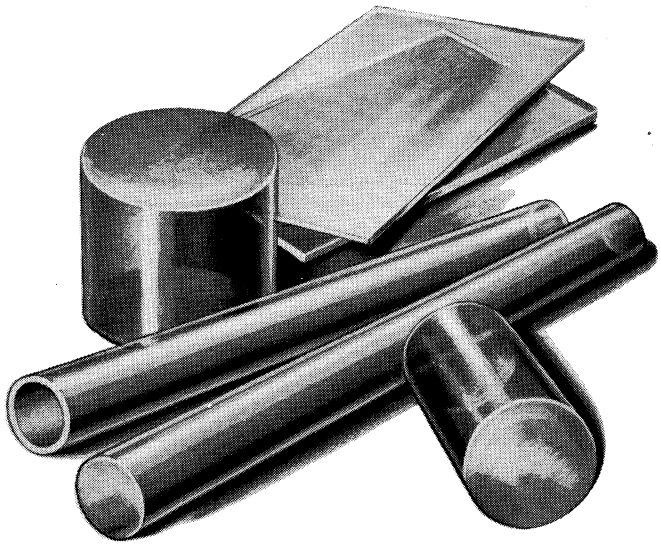
Polystyrene

ROD TUBING SHEET



For radio and electronic applications, because of its very low loss factor at ultra high frequencies, Polystyrene is the ideal material for insulators, coil forms, shields, etc. It has excellent arc resistance, is non-tracking and has splendid insulating properties. Because its water absorption is practically zero it has excellent dimensional stability.

POLYSTYRENE ROD — Transparent

AVAILABLE IN 12″ OR 48″ LENGTHS

Catalog Number	Diameter	Net Price 12″ lgth.	Net Price 48″ lgth.
JB-100	1/8″	$ .03	$ .12
JB-101	3/16″	.07	.28
JB-102	1/4″	.12	.48
JB-103	5/16″	.18	.72
JB-104	3/8″	.26	1.04
JB-106	1/2″	.48	1.92
JB-107	5/8″	.72	2.88
JB-108	3/4″	1.00	4.00
JB-109	7/8″	1.42	5.68
JB-110	1″	1.90	7.60
JB-111	1 1/8″	2.50	10.00
JB-112	1 1/4″	3.00	12.00
JB-113	1 3/8″	3.60	14.40
JB-114	1 1/2″	4.30	17.20
JB-116	1 3/4″	6.00	24.00
JB-118	2″	7.50	30.00

POLYSTYRENE TUBING — Satin Finish

AVAILABLE IN 12″ OR 48″ LENGTHS

Catalog Number	O.D.	I.D.	Net Price 12″ lgth.	Net Price 48″ lgth.
JB-201	1/4″	1/8″	$ .10	$ .40
JB-202	5/16″	3/16″	.14	.56
JB-203	3/8″	1/4″	.18	.72
JB-205	1/2″	3/8″	.26	1.04
JB-206	5/8″	1/2″	.32	1.28
JB-207	3/4″	5/8″	.40	1.60
JB-208	1″	7/8″	.56	2.24
JB-220	1 1/2″	1 1/4″	1.50	6.00
JB-222	2″	1 3/4″	2.20	8.80

POLYSTYRENE SHEET*

Catalog Number	Thickness	Sheet Size	Net Price
JB-125	1/16″	12″ x 12″	$ 4.15
JB-126	3/32″	12″ x 12″	4.80
JB-127	1/8″	12″ x 12″	5.50
JB-128	3/16″	12″ x 12″	7.15
JB-129	1/4″	12″ x 12″	8.15
JB-245	1/16″	12″ x 24″	7.80
JB-246	3/32″	12″ x 24″	9.15
JB-247	1/8″	12″ x 24″	10.50
JB-248	3/16″	12″ x 24″	13.15
JB-249	1/4″	12″ x 24″	15.65
JB-315	1/32″	24″ x 24″	9.65
JB-301	1/16″	24″ x 24″	11.15
JB-302	3/32″	24″ x 24″	13.00
JB-303	1/8″	24″ x 24″	14.80
JB-304	3/16″	24″ x 24″	18.75
JB-305	1/4″	24″ x 24″	23.00
JB-309	3/8″	24″ x 24″	31.25
JB-311	1/2″	24″ x 24″	38.65
JB-317	5/8″	24″ x 24″	50.00
JB-318	3/4″	24″ x 24″	69.25
JB-319	1″	24″ x 24″	94.15

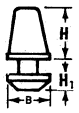
*Sheets are all crystal clear with smooth surfaces fully protected against abrasion by masking paper on both sides.

JULIUS BLUM & CO., INC.

DABURN ELECTRONICS & CABLE CORP.

CERAMIC STANDOFFS • INSULATORS • GUYWIRE • COMPONENT CLIPS

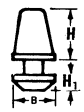
DABURN FEED-THRU INSULATORS



These are quality porcelain insulators smoothly glazed. Heavy nickel plated brass hardware used. Cushion washers supplied.

DABURN No.	Hgt. H	B	H_1	Mounting Hole	H'dwe	Std. Pkg.
10-58	5/8"	11/16"	1/4"	5/16"	6-32	50
10-78	1"	13/16"	5/16"	7/16"	10-32	25
10-125	1 1/4"	7/8"	3/8"	7/16"	10-32	25
10-234	2 3/4"	2"	1"	1 1/4"	1/4-20	10

CORRUGATED FEED-THRU INSULATOR



These numbers have twice the leakage path of the straight type due to the increased surface area. Brass nickel plated hardware and cushion washers supplied.

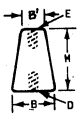
DABURN No.	Hgt. H	B	H_1	Mounting Hole	H'dwe	Std. Pkg.
10-79	1 3/8"	1 1/4"	11/16"	9/16"	10-32	25
10-76	2 3/4"	1 5/8"	1"	3/4"	1/4-20	10
10-52	4 1/2"	2 1/8"	1 1/2"	1"	1/4-20	5

DABURN METAL BASE INSULATORS

Made of hi tensile strength, low absorption ceramic, fully glazed corrugated surface. Provides longer leakage path. Drawn metal bases.

Daburn No.	Hgt. H	B	D	Mtg. Screw	H'dwe	Std. Pkg.
10-67	1 3/8"	1 7/8" x 1 5/16"	1 1/2"	2 #8	10-32	25
10-176	2 3/4"	1 3/4" x 1 3/4"	1 3/8",	4 #10	1/4-20	10
10-451	4 1/2"	2 1/4" x 2 1/4"	1 3/4"	4 #10	1/4-20	5

DABURN STEATITE CONE INSULATORS



Steatite cones have smooth glaze white. Come complete with brass nickel plated screws and cushion washers

Daburn No.	Hgt. H	B	B_1	T	Mtg. Hole	Std. Pkg.
10-30	5/8"	5/8"	7/16"	6-32	5/32"	100
10-31	1"	11/16"	1/2"	8-32	3/16"	50
10-32	1 1/2"	7/16"	5/8"	10-32	7/32"	50
10-33	2 3/4"	1 1/4"	3/4"	1/4-20	9/32"	25

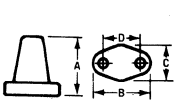
DABURN LEADIN INSULATORS

Sections are each 2 3/4" high hi vitrified porcelain glazed. Comes thru with 2 additional bushings 1/4" and 1/2" long, permitting complete insulation of the threaded rod of any length in multiples of 1/4". Complete with brass nickel plated hardware. Lead and cushion washers permit a water tight seal.

Daburn No.	Description	Std. Pkg.
10-237	10" Rod/Bushings	10
10-238	15" Rod/Bushings	10

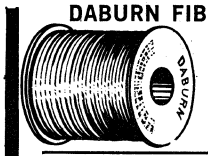
DABURN STANDOFF INSULATORS

Quality glazed porcelain insulators — mounting surface ground flat. Brass nickel plated hardware supplied.



Daburn No.	H	B	B_1	D	Hole	Mtg. H'dwe	Std. Pkg.
10-16	1"	1 3/8"	7/8"	1"	5/32"	8-32	50
10-17	1 1/2"	1 3/4"	1 1/8"	1 1/4"	5/32"	10-32	25

DABURN FIBERGLASS GUY WIRE

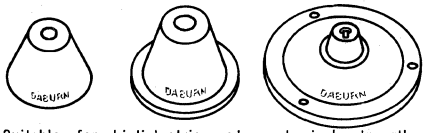


Gives complete isolation for any antenna system. Non-radiating, non-absorbing, no rot, no shrink, no sag. This non metallic guy wire has an overall (PVC) polyvinylchloride jacket.

Daburn No.	Put-Up	Tensile Strength	Color	Nom. O.D.
10-01	100', 500', 1000'	500 lbs.	Green	.125"
10-02	100', 500', 1000'	1000 lbs.	Gray	.218"
10-03	100', 500', 1000'	2500 lbs.	White	.313"

Doubling the cable will double the strength.

STEATITE FEED-THRU INSULATORS



Suitable for hi-dielectric and mechanical strength. Made of L5 glazed Steatite. No hardware included.

Daburn No.	Figure	Hgt. H.	Base Diam.	Screw Size Max.	Std. Pkg.
10-200	I	7/8"	1 1/4"	10-32	25
10-201	I	1 1/8"	1 3/4"	1/4-20	25
10-202	II	1 5/8"	2 1/2"	3/8-16	25
10-203	III	1"	3 1/8"	8-32	12

DABURN STEATITE FEED-THRU INSULATORS

Feedthrus come thru with tops and bottoms for chassis, panel, shields, rack mounting. No hardware included. Made of L5 glazed Steatite.

Daburn No.	Hgt. Top	Diam.	Hole Panel	T'kness Panel To	Screw Size Max.	Std. Pkg.
10-204	1/8"	1/2"	5/16"	1/8"	6-32	50
10-205	7/32"	5/8"	7/16"	1/8"	8-32	50
10-206	3/8"	1/2"	1/4"	3/16"	6-32	50
10-207	3/8"	5/8"	3/8"	3/8"	8-32	50
10-208	3/4"	1 1/8"	3/4"	3/8"	10-32	50
10-209	1 5/8"	1 1/4"	1/2"	2"	10-32	50

DABURN FISH SPINE BEADS

Made of L5 Steatite. Suitable for buss and heavy lines insulation. Beads follow bends and curves because of ball and socket style interlocks. Four beads cover approximately 1". 100 will cover 25" of wire. Size: 5/16" O.D. x 1/8" I.D. Beads treated with Dow Corning compound to prevent accumulation of surface moisture.

Daburn No.		Std. Pkg.
10-215	Fish Spine Beads	100, 1000

DABURN AIRPLANE INSULATORS

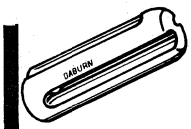
Suitable for mobile and aircraft or guy wire application. compression type strain insulators. Nos. 10-73, 10-74 made of white glazed low absorption porcelain. No. 10-72 made of wet process porcelain.

10-73, 10-74

10-72

Daburn No.	Description	Std. Pkg.
10-73	2" White	100
10-74	1 1/2" White	100
10-72	2 1/4" Brown	25

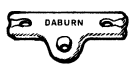
DABURN STEATITE AIRPLANE INSULATOR



Compression type Steatite insulator has small wind resistance. Fully glazed.

Daburn No.	Description	Std. Pkg.
10-63	1 1/2" Lgth.; 17/32" Diam. 3/4" Line Spacing	25

ANTENNA STRAIN INSULATORS



10-68

10-69

10-70, 10-71

Porcelain glazed to prevent moisture absorption. All have long leakage path — small cross section strength under continuous tension — white glaze prevents accumulation of dirt and ice.

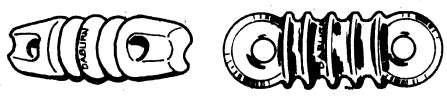
Daburn No.	Description	Std. Pkg.
10-68	4 1/2" Long Center Ins.	10
10-69	4 1/4" Long	25
10-70	7" Long	10
10-71	12" Long	10

FEEDER SPREADER INSULATORS

Made of highly vitrified — low absorption — hi tensile strength porcelain, with white glaze overall.

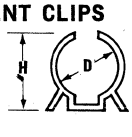
Daburn No.	Description	Std. Pkg.
10-62	2" Long Spreader	25
10-64	4" Long Spreader	25
10-65	6" Long Spreader	25

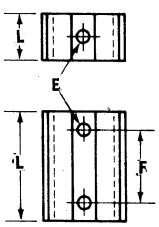
ANTENNA INSULATORS



Daburn No.	Description	Std. Pkg.
10-0	Glass Insulator	100
10-06	Porcelain Insulator — White	100

DABURN COMPONENT CLIPS





Hold and insulate, electrical and electronic components, accessories — spare parts. Holds firmly and still permits fast and easy insertion. Convenient for fastening. Clips and retainers for transistors, batteries, fuses, capacitors, resistors, lamps, etc., These Daburn clips are made of black vinyl (polyvinylchloride). Has high dielectric strength. Can be mounted with screws, rivets or other fastening means.

MATERIAL: Rigid Vinyl.
TEMPERATURE RANGE: −20° to +165°F.
STANDARD PACKAGE: 100, 1000.

Daburn Stock Number	D Diam.	H Height	L L'gth.	E Diam. of Hole	F Dist. Bet. Holes
600-1/4"	1/4"	13/32"	1/2"	3/32"	—
600-5/16"	5/16"	15/32"	1/2"	3/32"	—
600-3/8"	3/8"	1/2"	1/2"	3/32"	—
600-7/16"	7/16"	1/2"	1/2"	3/32"	—
600-1/2"	1/2"	5/8"	1/2"	3/32"	—
600-9/16"	9/16"	5/8"	1/2"	3/32"	—
600-5/8"	5/8"	5/8"	1/2"	3/32"	—
600-11/16"	11/16"	3/4"	1/2"	5/32"	—
600-3/4"	3/4"	7/8"	1/2"	5/32"	—
600-7/8"	7/8"	1"	1/2"	5/32"	—
600-1"	1"	1 1/4"	1 1/8"	5/32"	3/4"
600-1 3/8"	1 3/8"	1 15/32"	1 1/8"	5/32"	3/4"

See Pages 1724 and 1725 for Complete Price List

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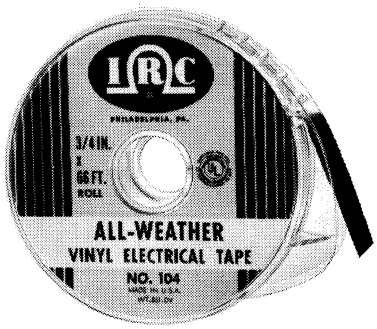
VINYL ELECTRICAL TAPE

IRC, Inc.



- Saves space in confined areas . . . ends "twice-around" wraps with bulky tapes,
- Provides a tight insulated plastic seal . . . resistant to abrasion, water, acids, alkalies, corrosion and aging.
- Gives a neater wrap . . . adheres readily to irregular surfaces and contours.
- Makes an excellent wrap for insulating tools.

TAPE-AND-TEAR DISPENSER. For one-hand taping IRC Vinyl Electrical Tape comes in a sturdy tape-and-tear dispenser that keeps tape clean and prevents stretching. Cutting blade is shielded. Dispenser is loaded with 66 feet of ¾" tape. Also Available in cellophane wrapped rolls:

STOCK NUMBER	SIZE	PACKAGING
VT 104 "All-Weather"	¾" x 66'	Dispenser
VT 103	¾" x 66'	Dispenser
VT 103	¾" x 20'	Cellophane Wrapped
VT 103	⅜" x 20'	Cellophane Wrapped
VT 103	⅜" x 36 YDS.	Cellophane Wrapped

PROPERTIES OF IRC VINYL ELECTRICAL TAPE

DESCRIPTION	GENERAL PURPOSE TYPE 103	ALL-WEATHER TYPE 104
PHYSICAL PROPERTIES		
Thickness	.007"	.0085"
Tensile Strength	19 lb./in. of width	22 lb./in. of width
Elongation at Break	150%	200%
Adhesion to Steel	32 oz./in. of width	20 oz./in. of width
Low Temperature (4 hrs. @ 0°F)		Unrolling & Application Satisfactory
ELECTRICAL PROPERTIES		
Dielectric Strength	10,000v/mil (min.)	10,000v/mil (min.)
Power Factor @ 60 Cycles	.07	.07
Power Factor @ 10^6 Cycles	.03	.03
Dielectric Constant at 60 Cycles	3.2	3.2
Dielectric Constant at 10^6 Cycles	2.3	2.3
Insulation Resistance	Over 10^6 Megohms	Over 10^6 Megohms
Electrolytic Corrosion Factor	1.0	1.0
Resistance to Penetration at Elevated Temperatures	90°C (Avg.)	90°C (Avg.)
CHEMICAL PROPERTIES		
Sunlight	Not Affected	Not Affected
Corrosive Effect on Electrical Conductors	None	None
Resistance to Water	Excellent	Excellent
Resistance to Acids	Excellent	Excellent
Resistance to Alkalies	Excellent	Excellent
Resistance to Oils	Excellent	Excellent
Resistance to Aging at Room Temperature	Excellent	Excellent

Both Types 103 and 104 Meet MIL-I-7798A
SAVES TIME. Quicker than friction and rubber tape combinations. Takes only one operation instead of two. Adheres readily to irregular surfaces and contours. Makes a neater job.

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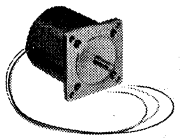
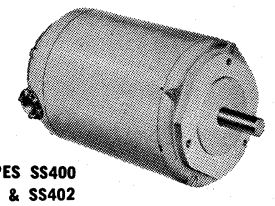
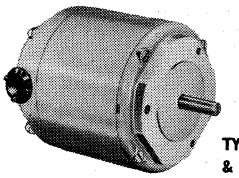
SLO-SYN®



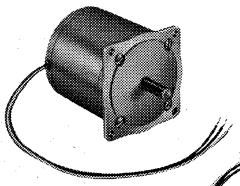
TYPE SS25



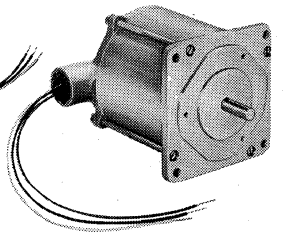
TYPES SS400 & SS402



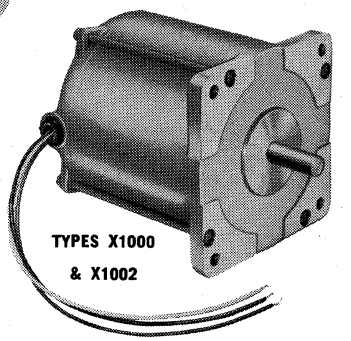
TYPES SS150 & SS152



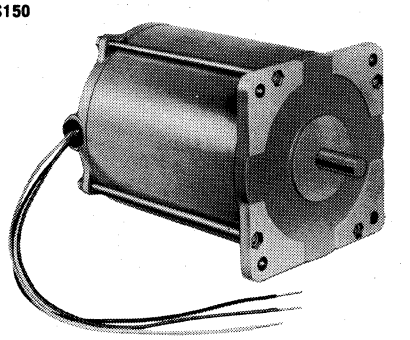
TYPES HS50 & HS52



TYPES X250 & X252



TYPES X1000 & X1002



TYPES SS1800 & SS1802

A-C OPERATION — Standard SLO-SYN Synchronous/Stepping Motors are permanent magnet a-c motors having extremely rapid starting, stopping and reversing characteristics and a slow basic shaft speed of 72 rpm synchronous with a line frequency of 60 cycles. Three-lead types need only a single-pole, three-position switch for complete forward, reverse and "off" control. No excessive inrush current when energized because starting and operating current are nearly identical. Can be completely stalled without overheating and with no harmful effects on components. Starts or stops in less than 5° of shaft rotation; no need for mechanical or electrical braking. When used with an auxiliary high speed motor, the SLO-SYN motor can remain coupled to the load and safely overdriven. Phase shifting resistor and capacitor must be used when operating from a single-phase source but not from two-phase. All standard motors are rated for continuous duty at maximum ambient temperature of 40°C. Types SS150 and SS152 use Class A insulation; all others have Class B.

D-C STEPPING — When used for phase-switched d-c stepping, the motors can be connected to provide either 100 or 200 steps per revolution. Accuracy of the steps is ±.09° noncumulative. Three-lead types require a center-tapped d-c supply and single-pole, double-throw switching; four-lead types require a single-ended power supply and single pole, double-throw switching. Bifilar motors can also be used with transistorized switching circuits. With a suitable control potentiometer instead of switches, a SLO-SYN motor can be made to rotate steplessly, permitting extremely accurate positioning. All motors have lubricated-for-life bearings.

Types TS50 and TS52 are similar to standard models but operate at synchronous speeds of 200 rpm and take 36 or 72 steps per revolution when used for d-c stepping.

RATINGS AND SPECIFICATIONS FOR A-C APPLICATIONS

TYPE	MAXIMUM AMPERES	TORQUE (Oz-in)	MAXIMUM MOMENT OF INERTIA OF A RIGIDLY ATTACHED LOAD (Lb-in²)	PHASE-SHIFTING COMPONENTS*				APPROXIMATE MOTOR WEIGHT (POUNDS)	
				RESISTOR	RESISTOR PART NUMBER	CAPACITOR	CAPACITOR PART NUMBER	NET	SHIPPING
120 Volts, 50/60 Cycles, 1 Phase, 200 RPM at 60 Cycles									
TS50	0.3	50	0.25	300 ohm ±5%, 25 watt	R-TS50	3.75 mfd ±6%, 330 VAC	C-SS150/TS50	4¾	5¾
120 Volts, 50/60 Cycles, 1 Phase, 72 RPM at 60 Cycles									
SS25	0.1	25	0.25	500 ohm ±5%, 5 watt	R-SS25	0.75 mfd ±6%, 330 VAC	C-SS25	1¼	1½
SS50	0.3	50	0.5	250 ohm ±5%, 25 watt	R-SS50/150	2.6 mfd ±6%, 330 VAC	C-SS50	3	3½
SS50M†	0.3	50	0.5	250 ohm ±5%, 25 watt	R-SS50M/150M	2.6 mfd ±6%, 330 VAC	C-SS50M	3	3½
SS150	0.4	150	1.5	250 ohm ±5%, 25 watt	R-SS50/150	3.75 mfd ±6%, 330 VAC	C-SS150/TS50	6½	8
SS150M†	0.4	150	1.5	250 ohm ±5%, 25 watt	R-SS50M/150M	3.75 mfd ±6%, 330 VAC	C-SS150M	6½	8
SS250	0.6	250	3	150 ohm ±5%, 50 watt	R-SS250/400	6.5 mfd ±6%, 330 VAC	C-SS250/400	6½	8
SS250M†	0.6	250	3	150 ohm ±5%, 50 watt	R-SS250M	6.5 mfd ±6%, 330 VAC	C-SS250M	6½	8
X250‡	0.6	250	3	150 ohm ±5%, 50 watt	R-SS250/400	6.5 mfd ±6%, 330 VAC	C-SS250/400	7¾	9
SS400	0.6	400	4.5	150 ohm ±5%, 50 watt	R-SS250/400	6.5 mfd ±6%, 330 VAC	C-SS250/400	12¼	13¾
X1000‡§	3.0	1000	9	65 ohm ±5%, 160 watt	R-X1000	30 mfd ±5%, 330 VAC	C-X1000	31	33
SS1800§	4.0	1800	16	40 ohm ±5%, 375 watt	R-SS1800	60 mfd ±6%, 330 VAC	C-SS1800	45	50
240 Volts, 50/60 Cycles, 1 Phase, 200 RPM at 60 Cycles									
TS52	0.2	50	0.25	1200 ohm ±5%, 25 watt	R-SS152/TS52	1.0 mfd ±6%, 660 VAC	C-SS152/TS52	4¾	5¾
240 Volts, 50/60 Cycles, 1 Phase, 72 RPM at 60 Cycles									
SS52§	0.2	50	0.5	1000 ohm ±5%, 10 watt	R-SS52	0.67 mfd ±6%, 660 VAC	C-SS52	3	3½
SS152	0.2	150	1.5	1200 ohm ±5%, 25 watt	R-SS152/TS52	1.0 mfd ±6%, 660 VAC	C-SS152/TS52	6½	8
SS252	0.3	250	3	500 ohm ±5%, 50 watt	R-SS252/402	1.75 mfd ±6%, 660 VAC	C-SS252/402	6½	8
X252‡	0.3	250	3	500 ohm ±5%, 50 watt	R-SS252/402	1.75 mfd ±6%, 660 VAC	C-SS252/402	7¾	9
SS402	0.3	400	4.5	500 ohm ±5%, 50 watt	R-SS252/402	1.75 mfd ±6%, 660 VAC	C-SS252/402	12¼	13¾
X1002‡§	1.5	1000	9	250 ohm ±5%, 200 watt	R-X1002	8 mfd ±6%, 660 VAC	C-X1002	31	33
SS1802	2.0	1800	16	130 ohm ±5%, 320 watt	R-SS1802	15 mfd ±6%, 660 VAC	C-SS1802	45	50

*External resistor and capacitor must be ordered separately. †Militarized. ‡Explosion-proof. §For 60 cycles. Other phase-shifting components required for 50 cycles.

THE SUPERIOR ELECTRIC COMPANY

SEE OTHER SUPERIOR ELECTRIC PRODUCT

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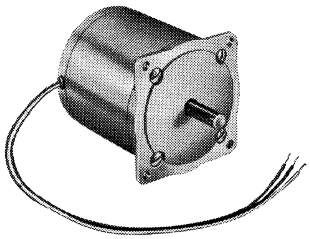
Synchronous / Stepping Motors FOR A-C CONSTANT SPEED • FOR D-C STEPPING



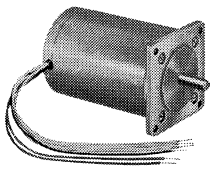
TYPES LS50 & LS52

24 RPM

When used as an a-c motor, a type LS50 or LS52 motor has a shaft speed of 24 rpm synchronous with a line frequency of 60 cycles. When used for d-c stepping the motors take 600 incremental steps to make one shaft revolution. These 0.6° steps are accurate within ±0.03° noncumulative. Ratings for stepping applications are 30 volts d-c, 0.25 amp. per winding for type LS50; 60 volts d-c, 0.15 amp. per winding for type LS52 and 3 volts d-c, 4.0 amp. per winding for type LS50-1001. Ratings for a-c applications shown in chart.

TYPE	INPUT VOLTS	FREQUENCY (CYCLES)	MAX. AMPERES	TORQUE (OZ-IN)	SHAFT SPEED (RPM)	MAX. INERTIA OF RIGID LOAD (LB-IN²)	NET WEIGHT (LBS)	PHASE SHIFTING COMPONENTS	
								RESISTOR	CAPACITOR*
LS50	120	60	0.4	75	24 at 60 cycles†	1.5	4¾	300 ohm ±5%, 25 watt	3.75 mfd ±6%, 330 VAC
LS52	240	60	0.2	75	24 at 60 cycles†	1.5	4¾	1200 ohm ±5%, 25 watt	1.0 mfd ±6%, 660 VAC

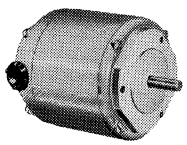
*Resistor and capacitor must be ordered separately. †20 RPM at 50 cycles.



TYPE HS25

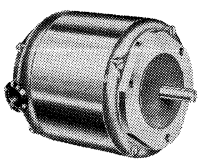
PRECISION STEPPING

For phase-switched d-c stepping, types HS25 and HS50 make 200 precise steps per shaft revolution. Each 1.8° step is accurate within ±3% (.06°) noncumulative. May be operated at speeds greater than 500 steps per second if accelerating and decelerating circuits are used. With proper circuitry, the motors may be operated at speeds of 1000 steps per second or higher without missing any steps. Ratings for d-c stepping are 5.4 volts d-c, 1.3 amp. per winding for type HS25 and 3 volts d-c, 4 amp. per winding for type HS50.



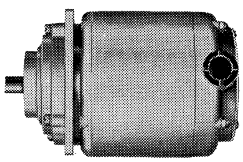
BIFILAR

Used for d-c stepping where use of push-pull circuitry and center-tapped power supply is not possible or where increased torque at high stepping speeds is required.



SPECIAL ENVIRONMENT

High Vacuum types for vacuums to 10^{-8} Torr; High Temperature types for temperatures to 130°C; High Radiation types withstand dosage of 3,000 megarads. All available from 50 to 1800 oz-in; High Vacuum 25 oz-in also.

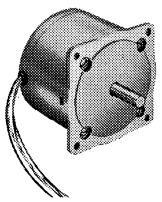


PLANETARY GEAR

Basic 50 and 150 oz-in types and type X250 available with planetary gear assemblies in speeds of 16.6, 3.32, 0.665, 0.133 or 0.027 rpm; 16.6 rpm available in other 250 and on 400 oz-in types.

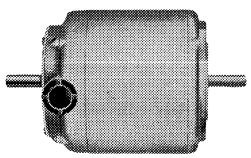
FOUR-LEAD

Designed for d-c stepping to provide the flexibility needed for use with equipment requiring isolated windings with no common connection.



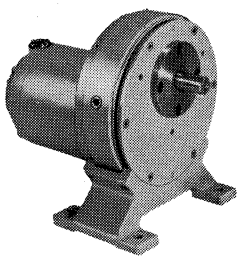
DOUBLE END

Three-lead, bifilar and four-lead types with output shaft at each end of motor available in all listed torque ratings. 50, 150 and 250 oz-in types available also with planetary gear assemblies in 16.6, 3.32, 0.665, 0.133 or 0.027 rpm speeds.



HIGH TORQUE GEARMOTORS

Speeds from 0.5 to 36 rpm, torque ratings from 25 to 1600 lb-in. Consist of single- or double-reduction, parallel-shaft gearbox driven by a SLO-SYN motor. Face or foot mounting possible.



PAGES IN SECTIONS 2100, 4000 AND 5600

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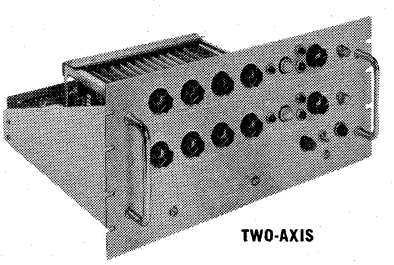
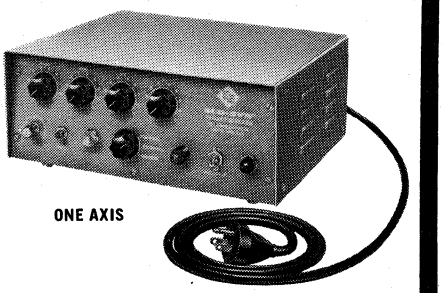
SLO-SYN® *Preset Indexers*

Provide precise control of digital indexing in applications using SLO-SYN motors for positioning. Desired indexing movement up to 99,999 steps of 1.8° each can be preset on the control panel. Speed adjustable from 4 steps/second to maximum possible with motors used. Either manual or automatic recycling possible. Single- and two-axis types offered. Two-axis types are also available with backlash take-up circuit.



TWO-AXIS

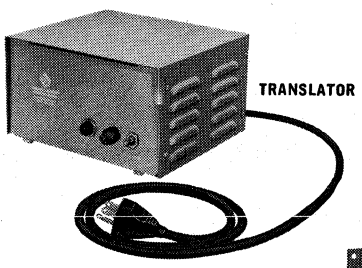


ONE AXIS

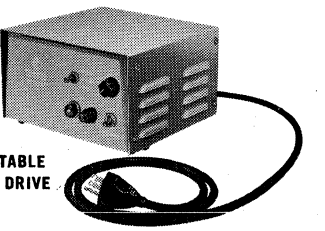
SLO-SYN

Translators, Adjustable Speed Drives and Translators Modules

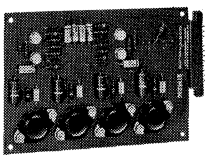
Pulse-to-step converters for use with bifilar SLO-SYN motors connected for incremental stepping. Used in programmed positioning, indexing and indicating operations. Translators use an external signal source; Adjustable Speed Drivers have oscillator to provide signals; Translator Modules are plug-in printed circuit boards with logic capabilities for stepping SLO-SYN motors.



TRANSLATOR



ADJUSTABLE SPEED DRIVE



TRANSLATOR MODULE

POWERSTAT *DC Motor Speed Controllers*

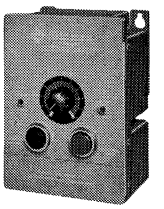
Provide continuously adjustable speed control of d-c shunt-wound motors from a-c power lines. Full rated torque available at any speed. Feature instantaneous start, stop and reverse, tubeless transient-protected circuitry. Instantly resettable, fast-opening overload protection is provided in the armature circuit in addition to fuse protection.

Rated for 120 volt, 60 cycle single phase input. Type MSC16 for motors to ⅙ hp, type MSC33 to ⅓ hp and type MSC75 to ¾ hp. NEMA frame, 1725 rpm, dc motors in ⅙, ⅓ and ¾ hp also available.

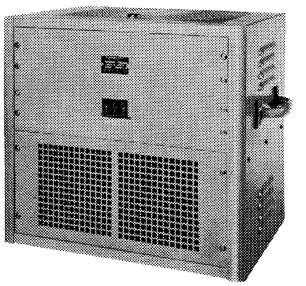
TYPE MSC33

POWERSTAT *Automatic DC Motor Speed Controllers*

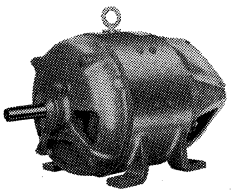
Automatically maintain a preset d-c motor speed regardless of output load variations. Provide adjustable speed drive for heavy-duty equipment. Feature a speed range of 30:1 at constant torque, speed regulation of ±1% of selected speed over the range from zero to full load at nominal input voltage. Have adjustable acceleration control, transient-protected circuitry. Magnetic circuit breaker protects against a suddenly stalled rotor or transient overload. Have built-in synthesized tachometer feedback circuit. Models to 100 hp can be supplied.



OPERATOR'S STATION



POWER AND CONTROL UNIT



MOTOR

THE SUPERIOR ELECTRIC COMPANY

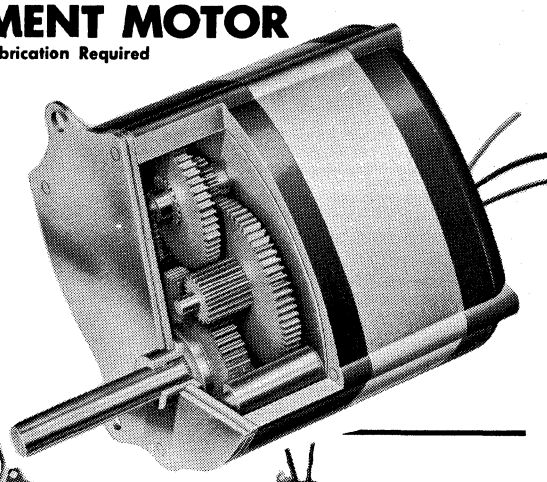
SEE OTHER SUPERIOR ELECTRIC PRODUCT PAGES IN SECTIONS 2100, 4000 AND 5600

© U.C.P., Inc.

NEW Hurst 600 In. Oz. Model GA HYSTERESIS REVERSIBLE SYNCHRONOUS INSTRUMENT MOTOR

HEAVY DUTY SYNCHRONOUS MOTORS

● Heavy Duty Gearing ● Can Be Stalled Without Overheating ● No Lubrication Required

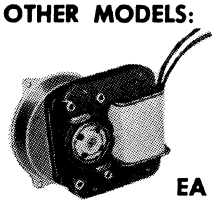


RATED 600 INCH-OUNCE AT 1 RPM (GA Series) Dimensions: 2 3/16" diam, x 3".

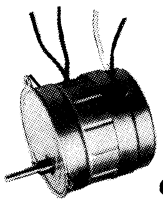
OUTPUT SPEEDS: 1, 2, 3,-4, 5, 6, 10, 18, 30, 60, 100, 120, 150, 180, 225, 300 and 3600 RPM (3600 direct drive, no gear train, 1/8" shaft).

QUANTITY	1 RPM THRU 10 RPM	18 RPM THRU 59 RPM	60 RPM THRU 300 RPM	3600 RPM
1- 9	$30.50	$28.65	$26.45	$20.40
10- 24	28.98	27.22	25.13	19.38
25- 49	27.46	25.79	23.81	18.36
50- 74	25.94	24.36	22.49	17.34
75- 99	24.42	22.93	21.17	16.32
100-249	21.37	20.07	18.52	14.28

OTHER MODELS:



EA



CA

DA SM

PC-DA PC-SM AR-DA AR-SM

150 INCH-OUNCE (EA Series — open frame) shaded pole. Completely accurate clockwise rotation. An extremely cool running timing motor with same gear units specified above. Torque, 150 inch-ounce at 1 RPM. Dimensions, 3 1/4" long x 2 5/8" wide x 1 5/8" high. Output shaft 3/16" dia. x 1" long flattened. (Exception: 3600 RPM speed has 3/32" output shaft x 1" long flattened. Shipping Wt. 1 lb. 3 oz.

OUTPUT SPEEDS: 1, 2, 4, 6, 8, 10, 12, 20, 30, 60 and 120 RPM. 3600 RPM.

EA	Net Each, Lots of				
	1-9	10-24	25-49	50-99	100-249
PRICE	$ 9.35	8.41	7.99	7.59	7.21
3600 RPM Only	$ 6.93	6.24	5.93	5.63	5.35

120 INCH-OUNCE REVERSIBLE. (DA Series) Instantly reversible (with SPDT switching). Completely accurate both clockwise and counter-clockwise. 100g shock resistance. Vibration resistant, accurate synchronization of 10-55 cps at .065" excursion. Good magnetic shielding. Torque, 120 inch-ounce at 1 rpm. Case dimensions, 2 1/2" dia. x 1 3/4". Output shaft 3/16" dia. x 1" long flattened. Shipping Wt., 1 lb. 1 oz.

OUTPUT SPEEDS: 1, 2, 4, 6, 8, 10, 12, 20, 30, 60 and 120 RPM.

DA	Net Each, Lots of				
	1-9	10-24	25-49	50-99	100-249
PRICE	$14.60	13.14	12.48	11.86	11.27

(Price includes capacitor)

POSITIVE CLUTCH DA SERIES. Basic DA motor with Positive Clutch and instantaneous Brake. Starts in 20 milliseconds — stops 60 rpm shaft in 12°; 1 rpm, 1/5°. Shipping Wt. 1 lb. 5 oz.

OUTPUT SPEEDS: 1, 2, 4, 6, 8, 10, 12, 20, 30, 60 and 120 RPM.

PC-DA	Net Each, Lots of				
	1-9	10-24	25-49	50-99	100-249
PRICE	$20.18	18.16	17.25	16.39	15.57

(Price includes capacitor)

POSITIVE CLUTCH SM SERIES. Basic SM motor with Positive Clutch and Instantaneous Brake. Starts in 20 milliseconds — stops 60 rpm shaft in 12°, 1 rpm 1/5°.

OUTPUT SPEEDS: 1/2, 1, 2, 3, 4, 5, 6, 10, 15, 30 and 60 RPM.

PC-SM	Net Each, Lots of				
	1-9	10-24	25-49	50-99	100-249
PRICE	$17.86	16.07	15.27	14.50	13.78

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

100 INCH-OUNCE REVERSIBLE. (CA Series) Instantly reversible (with SPDT switching). Completely accurate both clockwise and counter-clockwise. 1200 rpm rotor speed for quiet performance. Torque, 100 inch-ounce at 1 rpm. Case dimensions, 2 1/2" dia. x 2 1/8". Output shaft 3/16" dia. x 1" long flattened. Shipping Wt., 1 lb. 2 oz. Most versatile and economical motor in its field!

OUTPUT SPEEDS: 1/3, 1/2, 1, 1 1/2, 2, 2 1/2, 3, 4, 5, 6, 8, 10, 12, 15, 16, 20, 24, 25, 30, 32, 33 1/3, 40, 48, 50, 60, 64, 80, 100, 120, 150, 160, 200, 240, 400, 600, 800 and 1000 RPM.

CA	Net Each, Lots of				
	1-9	10-24	25-49	50-99	100-249
PRICE	$12.51	11.26	10.70	10.17	9.67

(Price includes capacitor)

40 INCH-OUNCE UNIDIRECTIONAL. (SM Series) Shaded pole. Clockwise rotation. Instant start at full torque at 40 inch-ounce at 1 rpm. 100g shock resistance. Vibration resistant, accurate synchronization at 10-55 cps at .065" excursion. Case dimensions, 2 1/2" dia. x 1 3/4". Output shaft 3/16" dia. x 1" long flattened. Shipping Wt., 1 lb.

OUTPUT SPEEDS: 1/2, 1, 2, 3, 4, 5, 6, 10, 15, 30 and 60 RPM.

SM	Net Each, Lots of				
	1-9	10-24	25-49	50-99	100-249
PRICE	$12.28	11.05	10.50	9.98	9.48

100 INCH-OUNCE REVERSIBLE (AR-DA Series) or 40 INCH-OUNCE UNIDIRECTIONAL (AR-SM Series) Each is an Automatic Reset motor when a return spring is attached to the output shaft. When clutch is de-energized the shaft is free for manual or automatic reset. Note: The clutch mechanism is lubricated and completely enclosed. AR Series is designed for heavy applications and will easily handle full torque on model SM or DA (either directional rotation). Physical size and appearance same as PC Series. Accurate within 1/5 second at 1 RPM and more accurate at higher speeds. Max. error in seconds $\frac{.5625}{\text{RPM}}$. Case dimensions, 2 1/2" dia. x 2 1/16". Clutch actuator 7/8" height x 1 3/16" width. Output shaft 3/16" dia. x 1" long flattened. Mounting same as standard motor shown in sketch. Shipping Wt., 1 lb. 6 oz.

OUTPUT SPEEDS: 1, 4, 6, 10, 30 and 60 RPM.

AR-DA	Net Each, Lots of				
	1-9	10-24	25-49	50-99	100-249
PRICE	$23.80	21.42	20.35	19.33	18.36

AR-SM	Net Each, Lots of				
	1-9	10-24	25-49	50-99	100-249
PRICE	$21.50	19.35	18.38	17.46	16.59

SUPERSEDES PREVIOUS LISTING

hurst MANUFACTURING CORP.

AUTOTRON

Transistorized A725 ON/OFF Control A750 and A750DA Timing Controls

AUTOTRON, INC.

Features of A725, A750 and A750DA

One connection changes from LIGHT- to DARK-energized operation (or vice versa).

5.8, 4.7, 3.3, 2.5, 2.2 and 1.1 Light Source Voltages makes available minimum suitable voltage for maximum lamp life and maximum speed of sensing cell response.

Rugged, 5-amp DPDT Plug-in Relay.

a. **Plug-in mounting** permits replacement in seconds without special skill or tools

b. **Transparent enclosure** protects against dust, physical injury and tampering.

Rectified output current for positive and QUIET operation of control relay.

Transistors protected from transient voltages.

Cad Cells are exceptionally well shielded from extraneous light.

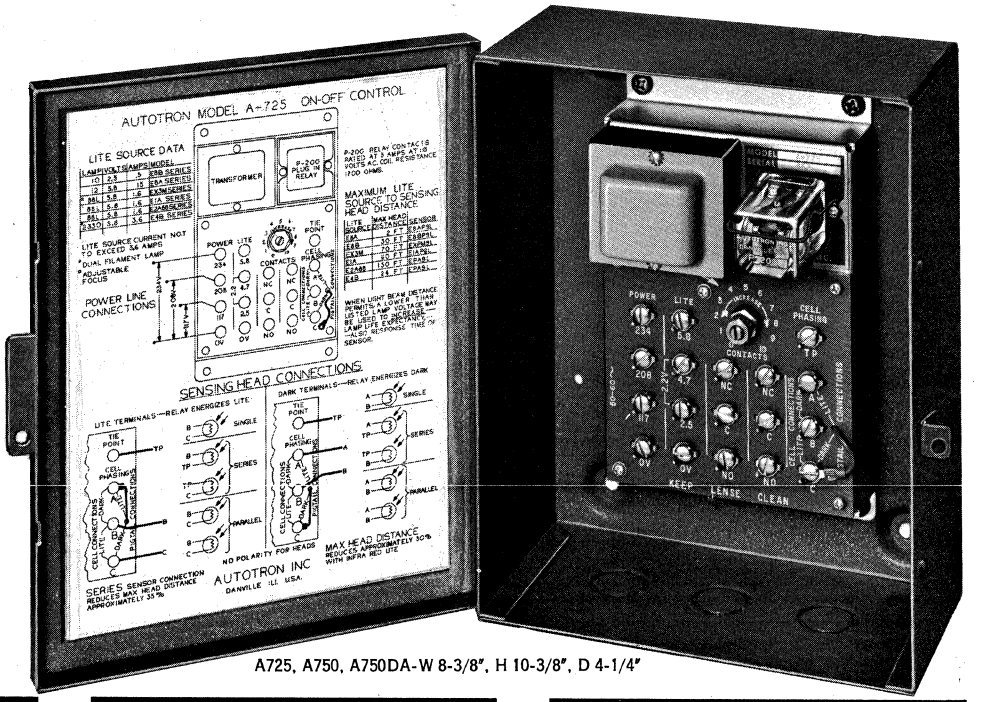
All circuit components are securely mounted on a modern circuit board.

All contacts of the DPDT Relay wired to large, screw type terminals.

Operate at ambient temperatures to 115°F.

In JIC enclosures at $12.50 extra.

Operate from 234, 208 and 117 V, 50-60 c.



A725, A750, A750DA-W 8-3/8", H 10-3/8", D 4-1/4"

A725 ON/OFF Control

FAST ACTING – .025 sec. light time and .025 sec. dark time minimum.

SENSITIVE – Adjustment has shaft lock.

Power Consumption, 15 watts.

Energizes LIGHT connected to LIGHT terminals.

Energized DARK connected to DARK terminal.

A725 ON/OFF Control less heads.....$69.50

Control-Pak Numbers Control-Sensor-Light Source	Max. Feet betw. heads	Control-Pak Net Price
A725-E8AAP10LC-E8AC	2	$102.50#
A725-E8AP9LC-E8AC	2	102.50#
A725-E8BAP9LC-E8BAC	15	102.50#
A725-E8BP9LC-E8BC	30	102.50#
A725-EXPM9LC-EX3ME	70	109.50
A725-E1AP6LC-E1AE	60	104.50
A725-EPA9LC-E2A88E	150	109.50
A725-EPA9LC-E4BE	24	127.50
A725-EL10LH	‡†12	▲98.25

†Distance between Scanner Lens and Reflector
‡When used with No. P380 Retro-Reflector
▲No. P380 Retro-Reflector, 3" diameter, $1.50 additional.
□A750P has sensitivity adjustment with shaft lock.

#Mounting bracket and cord grip are standard. Furnished with cord assembly potted inside housing, without mounting bracket at no extra charge when specified.

Use of infrared filters reduces maximum distance between heads approximately 50%

A750 Timing Control

Timing Ranges (specify)

Range No. .7 adjustable 1 to 8 seconds, approx.
Range No. 1.0–2 to 16 seconds, approx.
(other ranges available–tell us what you need)
Timing adjustment has shaft lock.

Energizes LIGHT and times out DARK connected to LIGHT terminal. Recycle time is almost instant (.015 sec. max.) and is independent of light level on the sensing cell. Timing control is voltage regulated and variation in timing between 100 and 130 volts is negligible.

Energizes DARK and times out LIGHT connected to DARK terminal. Recycle time is 50 milliseconds min. depending on light intensity on the sensing cell. For minimum recycle time reduce light intensity to minimum operating value.

Power consumption 15 watts

A750 Timing Control less heads.....Net $88.00

Control-Pak Numbers Control-Sensor-Light Source	Max. Feet betw. heads	Control-Pak Net Price
A750-E8AAP10LC-E8AC	1	$121.00#
A750-E8AP9LC-E8AC	1	121.00#
A750-E8BAP9LC-E8BAC	7.5	121.00#
A750-E8BP9LC-E8BC	15	121.00#
A750-EXPM9LC-EX3ME	35	128.00
A750-E1AP6LC-E1AE	30	123.00
A750-EPA9LC-E2A88E	75	128.00
A750-EPA9LC-E4BE	12	146.00
□A750P-EL10LH	‡† 8	▲126.75

A750DA Impulse Timing Control

Timing Ranges (specify)

Range No. .7 adjustable 1 to 8 seconds, approx.
Range No. 1.0–2 to 16 seconds, approx.
(other ranges available–tell us what you need)
Timing adjustment has shaft lock.

A750DA is an **impulse actuated** Photoelectric Timing Control. Connected to LIGHT terminal the control relay energizes instantaneously when LIGHT strikes the cell and remains energized through the pre-set timing period even though the cell goes DARK. When LIGHT comes on again before timing period expires the relay remains energized through another complete timing period. When connected to the DARK terminal operation is the same except LIGHT and DARK are reversed.

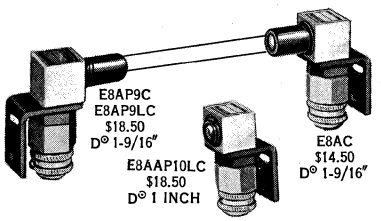
Power consumption 20 watts.

A750DA Timing Control less heads.....$124.00

Control-Pak Numbers Control-Sensor-Light Source	Max. Feet betw. heads	Control-Pak Net Price
A750DA-E8AAP10LC-E8AC	2	$157.00#
A750DA-E8AP9LC-E8AC	2	157.00#
A750DA-E8BAP9LC-E8BAC	15	157.00#
A750DA-E8BP9LC-E8BC	30	157.00#
A750DA-EXPM9LC-EX3ME	70	164.00
A750DA-E1AP6LC-E1AE	60	159.00
A750DA-EPA9LC-E2A88E	150	164.00
A750DA-EPA9LC-E4BE	24	182.00
A750DA-EL10LH	‡†12	▲152.75

D⊙ Dimension in direction of Light Beam

E8AP/E8A Remote Heads

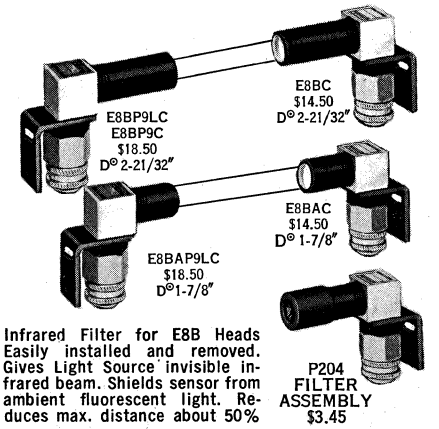


Series E8A and E8B Construction

Housings are machined from aluminum. Lenses are ground and polished. Lens assemblies are easily removed without dismounting to provide accessibility for inspection or replacement of cell or lamp.

Heads can be turned to any position in the mounting brackets. Overall height, including bracket, 2¼"; including cord grip, approx. 2½"; overall width, including bracket, 15/16". Dimensional diagrams on request.

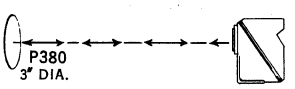
E8BP/E8B Remote Heads



Infrared Filter for E8B Heads Easily installed and removed. Gives Light Source invisible infrared beam. Shields sensor from ambient fluorescent light. Reduces max. distance about 50%

EL10H Retro-Reflective Sensing Head

Lamp and sensing cell are in the same housing. Light projected through the lens strikes a retro-reflective surface, and returns through the same lens to the sensing cell. The retro-reflective surface may be tilted up to 15° from perpendicular to the light path.



Distances on the charts are based on use of the No. P380 3" diameter Retro-Reflector. Retro-reflective tape, paint, etc. may be used–the retro-reflective quality of the target affects the operating distance.

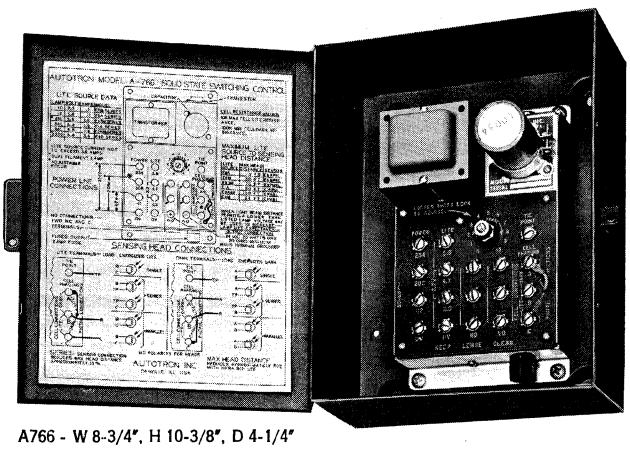
Gasket-sealed, cast-aluminum case, with 6-foot multi-conductor factory-connected cable. Flanges at front and bottom have four .201" mounting holes on .62 x 2.87 centers. Width, including flanges, 3.43"; height, 3.59".

Net

© U.C.P., Inc.

A766 Photo-Control with Solid State Switching
A741B High-Speed Counting Eye

AUTOTRON



A766 - W 8-3/4", H 10-3/8", D 4-1/4"

A766 Transistorized Photo Control with Solid State Switching

A766 Photoelectric Control uses Solid State Switching instead of conventional relays, thereby avoiding weaknesses inherent with mechanical contactors.

Features

24 VDC Fused Output, 30 watt max.—20-ohm load min.

LIGHT- or DARK-actuated—a single connection adjusts phasing.

FAST ACTING—.04 second DARK time; .02 second LIGHT time.

Sensitivity Adjustment with shaft lock.

Transistors are protected from transient voltage.

Choice of 5.8, 4.7, 3.3, 2.5, 2.2 and 1.1 Light Source Voltage provides optimum operating voltage for prolonged lamp life and increased speed of sensing cell response.

All circuit components are securely mounted on printed circuit board.

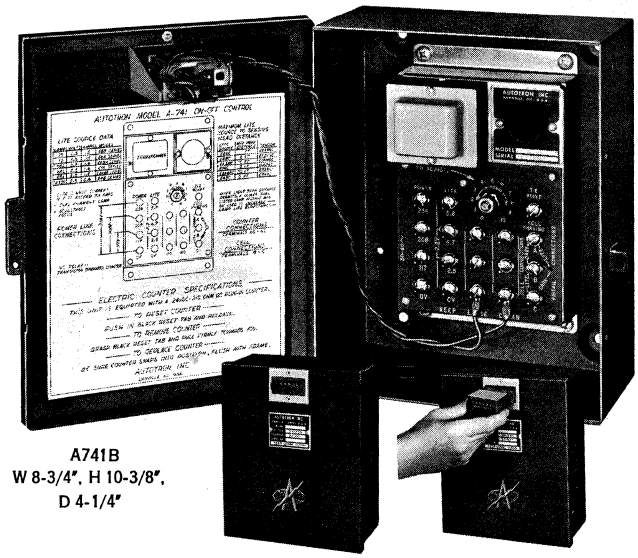
*Operates at ambient temperatures up to 115°F.

Furnished in JIC enclosures at $12.50 extra.

Power consumption, 45 watts, maximum.

Operates from 234, 208, and 117 V, 50-60 C.

A766 Control without pick-up.....$88.50



A741B
W 8-3/4", H 10-3/8",
D 4-1/4"

A741B Hi-Speed Transistorized Counting Eye

Rectified output current for positive DC actuation of F043 Counter—no relay contacts to maintain.

25 counts per sec. (.015 sec. min. Light, .025 sec. min. Dark).

Instant Reset 6-digit Plug-in Counter—counts up to 40 million counts without missing a count. Life expectancy 150 million counts. Easily removed for inspection or replacement.

Provides 5.8, 4.7, 3.3, 2.5, 2.2, and 1.1 Light Source Voltages.

Transistors are protected from transient voltages.

All circuit components are securely mounted on printed circuit board.

Operate at ambient temperatures up to 115°F.

Operate from 234, 208 and117 v, 50-60 c.

Power Consumption 20 watts.

A741B—Includes A741 Control with F043C Counter, Socket and Frame assembly mounted in Control Door Panel and wired as illustrated..$111.75

Control-Pak Numbers Control-Sensor-Light Source	Max. Feet betw. heads	Control-Pak Net Price
A766-E8AP9C-E8AC	1 ft.	$121.50#
A766-E8BP9C-E8BC	8 ft.	121.50#
A766-EXPM9C-EX3ME	15 ft.	128.50
A766-E1AP6C-E1AE	10 ft.	123.50
A766-EPA9C-E2A88E	30 ft.	128.50
A766-EPA9C-E4BE	12 ft.	146.50
Reflective Sensors		
A766-L..10LH	‡†15 ft.	▲117.25
A766-E8LP11G*	†3 in.	117.25
A766-E8S11G*	†3 in.	117.25
A766-E8S11G-6A*	†3¼ in.	120.75
A766-E8S11G-4A*	†⅞ in.	120.75

*Described on page 3
†Distance between Scanner Lens and Reflector
‡When used with No. P380 Retro-Reflector
▲No. P380 Retro-Reflector, 3" diameter, $1.50 additional.

#Mounting bracket and cord grip are standard. Furnished with cord assembly potted inside housing, without mounting bracket at no extra charge when specified.

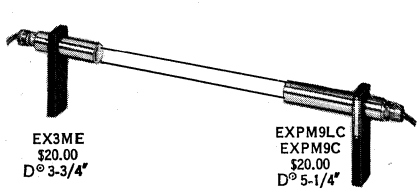
Use of infrared filters reduces maximum distance between heads approximately 50%

All sensing, light source and reflector type heads are equipped with factory installed 6-foot cables for connecting to controls.

D⊙ Dimension in direction of Light Beam

Control-Pak Numbers Control-Sensor-Light Source	Max. Feet betw. heads	Control-Pak Net Price
A741B-E8AP9C-E8AC	1 ft.	$144.75#
A741B-E8BP9C-E8BC	8 ft.	144.75#
A741B-EXPM9C-EX3ME	15 ft.	151.75
A741B-E1AP6C-E1AE	10 ft.	146.75
A741B-EPA9C-E2A88E	30 ft.	151.75
A741B-EPA9C-E4BE	12 ft.	169.75
Reflective Sensors		
A741B-E8LP11G*	†3 in.	140.50
A741B-E8S11G*	†3 in.	140.50
A741B-E8S11G-6A*	†3¼ in.	144.00
A741B-E8S11G-4A*	†⅞ in.	144.00

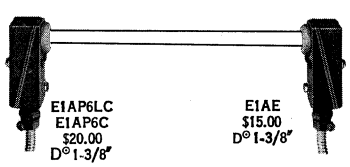
EXPM/EX3M Remote Heads



EX3ME Adjustable Focus Light Source has light beam **adjustable from focal size of** ⅛" x ¼" at 2" focal length to 7/16" x 1" focal size at 6" focal length. Also adjustable to straight light beam. No. 88, 1.6 ampere lamp is housed with ¾" diameter lens in brass tube mounted in aluminum bracket. Height 4¾"; width 1½".

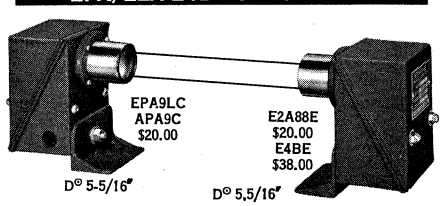
EXPM9C Sensing Head has cad cell housed with ¾" diameter lens in brass tube mounted in aluminum bracket. Height, 4¾"; width, 1½".

E1AP/E1A Remote Heads



Series E1A heads have ¾" diameter lenses mounted in flexible silicon rubber. Gasket sealed aluminum cases are tapped for ½" conduit. May be adjusted with rigidly positioned on ½" pipe or conduit with lock nut. Case easily opened for inspection of lamp or cell with mounting undisturbed. Depth of case in direction of light beam, 1⅜"; width, 1-7/16"; height 3⅝".

EPA/E2A-E4B Remote Heads



EPA9C, E2A88E, and E4BE each has 1½" diameter lens mounted in a gasket-sealed cast aluminum case with adjustable mounting bracket tapped for ½" conduit. Width 4"; height 5¼".

E2A88E Light Source has 88L lamp.

E4BE has No. 2330B **pre-focused two-filament** lamp and **extra** low voltage connection. The pre-focused lamp permits replacement with minimum change in light beam. The dual filaments provide protection against shutdowns—when one filament fails, the other lights up instantly, and a signal light in the housing comes on.

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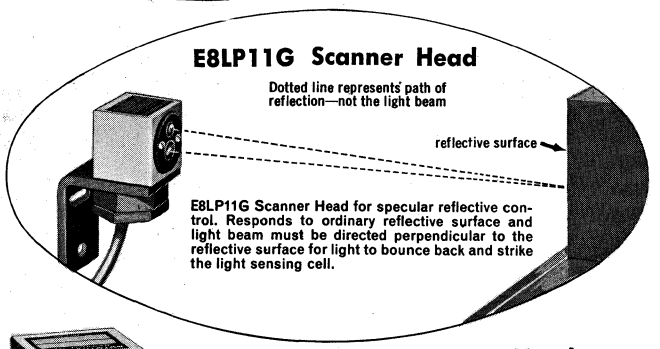
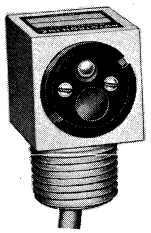
AUTOTRON

Miniature Photo Reflective Heads and 800B Transistorized Control

E8LP11G Scanner Head

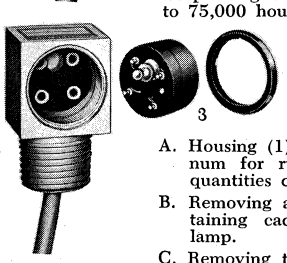




E8LP11G Miniature Scanner Head

For high speed scanning service in minimum space. E8LP11G Scanner Head combines the fast acting cadmium selenide cell and the light source lamp in a single miniature housing (approximately ⅞ inch in all three dimensions plus ⅜" male pipe thread connection. See dimensional diagram below.)

The light sensing element is a fast response, cadmium selenide cell. The lamp has a built-in lens. An infrared filter helps protect against ambient light. The lamp rating is 2.5 volts at .5 amperes-life expectancy up to 75,000 hours depending on operating voltage.

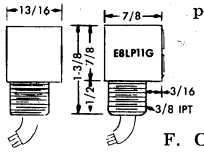


Unique Design—Rugged Construction

A. Housing (1) is precision machined from bar aluminum for ruggedness and stability. In production quantities can be furnished in specified colors.

B. Removing a ring nut (2) releases capsule (3) containing cadmium selenide cell and light source lamp.

C. Removing two screws from capsule (not visible in photo) permits replacement of cell and lamp.



D. Polarized design assures correct position on four spring loaded contacts (4) when capsule is inserted in the head.

E. 6-foot cable is factory-connected to terminals in housing.

F. Cable, terminal connections and contact base are encapsulated in the housing with epoxy resin.

E8LP11G Scanner Head including mounting bracket, also 6-foot factory-connected cable with cable grip and seal for connecting to 800 control. **$28.75**

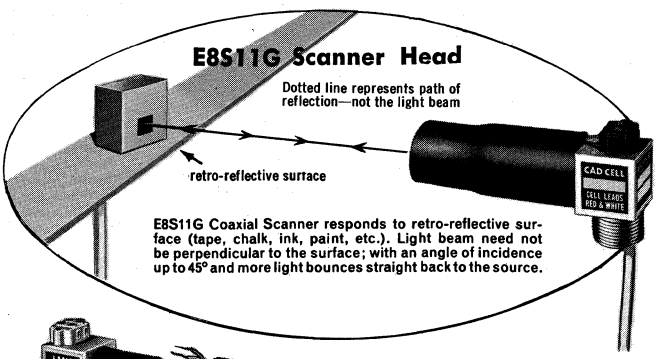
800B Transistorized Control-Paks

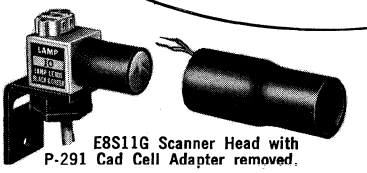
Control	Scanner	Distance	Price
800B	E8LP11G	17 in.	96.25
800B	E8S11G	60 in.	96.25
800B	E8S11G-6A	*3¼ in.	99.75
800B	E8S11G-4A	*⅞ in.	99.75

For 115/230 volts, 50-60 Cycles. *focal length

Other controls used with E8LP11G and E8S11G shown on page 2.

E8S11G Scanner Head





E8S11G Scanner Head with P-291 Cad Cell Adapter removed.

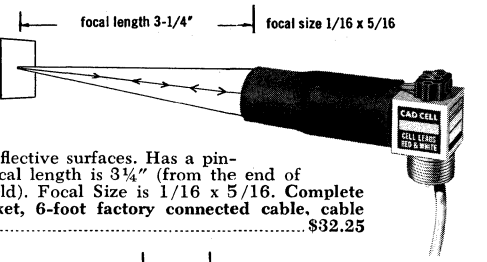
E8S11G Coaxial Scanner Head

Dimensions, Diagram 181

For use with retro-reflective tape or other retro-reflective material. May be used with a retro-reflective mirror when it acts as a sort of limit switch or for detecting or identifying objects with retro-reflective markings, code marks, labels, etc.

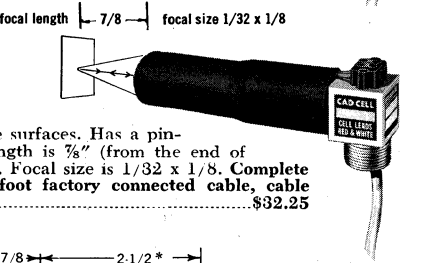
The light beam does not need to be perpendicular to the retro-reflective surface; beams at angles up to 15° and more (depending on conditions) bounce straight back to the cell.

E8S11G Scanner Head† with mounting bracket, 6-foot factory connected cable, cable grip and seal for connection to the control.....**$28.75**



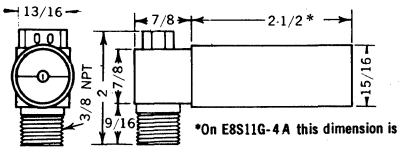
E8S11G-6A Coaxial Scanner Head†

For use with retro-reflective surfaces. Has a pin-point type beam. Focal length is 3¼" (from the end of Neoprene Light Shield). Focal Size is 1/16 x 5/16. **Complete with mounting bracket, 6-foot factory connected cable, cable grip and seal.** **$32.25**



E8S11G-4A Coaxial Scanner Head†

For use with retro-reflective surfaces. Has a pin-point light beam. Focal length is ⅞" (from the end of the Neoprene Light Shield). Focal size is 1/32 x 1/8. **Complete with mounting bracket, 6-foot factory connected cable, cable seal and grip.** **$32.25**



800B Sensitive Transistor Photo Control

for use with E8LP11G and E8S11G Scanner Heads and other remote cad cell heads where extra sensitivity is needed.

FEATURES

Chatter free relay operation—due to square wave signal sent to relay coil.

The latest silicon transistors assure extreme temperature stability not obtainable with ordinary transistors.

FAST ACTING—.025 second light time; .025 second dark time, minimum.

EXTREMELY SENSITIVE—Sensitivity adjustment has shaft lock.

Rugged 5-ampere DPDT Relay, plug-in mounted with "see thru" plastic cover.

A. Cover protects against foreign matter, physical injury and tampering.

B. Plug-in mounting permits replacement in seconds without tools or special skill.

Transistors are protected from transient voltage.

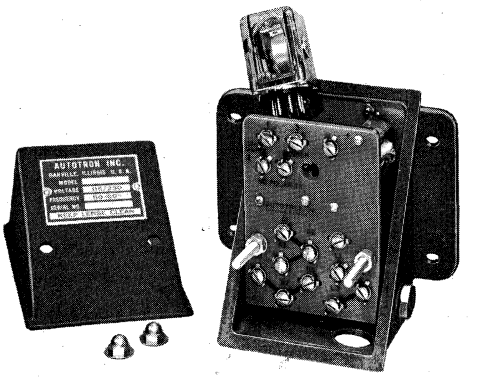
All Circuit components are securely mounted on a modern circuit board.

All contacts of the DPDT relay wired to large, easily accessible, screw type terminals.

Splashproof cast aluminum case tapped for ¾" conduit.

Power consumption, 5 watts. Shipping weight 2½ pounds.

800B ON/OFF Control.....**$67.50**



800B Transistor Photo Control

Net

© U.C.P., Inc.

High Sensitivity, Transistorized, Compact Photoelectric Controls

AUTOTRON

A579B, A579BA ON/OFF and A579BP Timing Controls

Features of above controls

Transistorized.

Powerful Cad Cell is shock-protective mounted in fixed alignment.

Cad Cell is exceptionally well shielded from extraneous light.

Fast Acting – .02 second light; .03 second dark time, minimum.

Sensitive—5 fc minimum light.

Rugged, 5-ampere DPDT plug-in relay, in plastic enclosure.

Rectified output for **positive** and **QUIET** DC control relay operation.

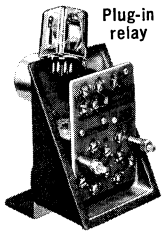
Transistors are protected from transient voltage.

All circuit components are securely mounted on printed circuit board.

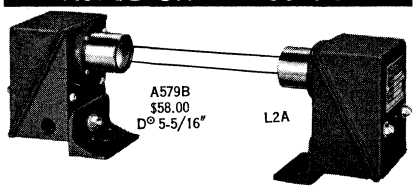
All relay contacts are wired to large, screw type terminals.

Cast aluminum case is gasket-sealed.

Maximum ambient temperature is 115°F.



A579B ON/OFF Control



Control relay energizes when light is on the cell; de-energizes when light beam is interrupted.

1½″ diameter lens mounted in brass lens tube.

Has terminals for 2.5 V Light Source.

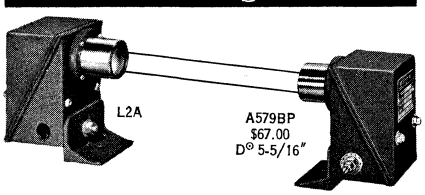
Time Delay is easily added by connecting capacitor to marked terminals. The delay times out DARK (delays de-energizing of control relay when light beam is interrupted). Instructions included with each control.

Power consumption, 5 watts.

Gasket-sealed cast aluminum case, tapped for ¾″ conduit, has adjustable mounting bracket. D⊙ 5-5/16″, W 4″ H (less bracket) 5¼″. Weight 3 lbs. For 115/230v, 50-60c.

Control-Pak Numbers	max. ft. between lenses	Control-Pak NET	With Y Feature Control-Pak Number	With Y Feature Control-Pak NET
A579B-L1A	15	$ 76.50	A579B-L1AY	$81.50
A579B-L2A	30	79.80	A579B-L2AY	84.80
A579B-L4	{N — L 6}	107.50	.....	
A579B-L3A	adj.F.	87.30	A579B-L3AY	92.30

A579BP Timing Control



Relay energizes LIGHT: times out DARK (when light beam is interrupted timing elapses before relay de-energizes) Time Delay adjustment from outside case; equipped with shaft lock.

Repeat accuracy 4%.

Timing Ranges {**Adjustable**} No. 0.4: 0.1 to 5 sec. {No. 2.0: 1.0 to 20 sec.}

1½″ diameter lens housed in brass lens tube.

Power consumption, 5 watts.

Gasket-sealed cast aluminum case, tapped for ½″ conduit, has adjustable mounting bracket. D⊙ 5-5/16″, W 3-15/16″, H 5¼″, weight 3 lbs. For 115/230v, 50-60c.

Control-Pak Numbers	max. ft. between lenses	Control-Pak NET	With Y Feature Control-Pak Number	With Y Feature Control-Pak NET
A579BP-L1A	15	$ 85.50	A579BP-L1AY	$90.50
A579BP-L2A	30	88.80	A579BP-L2AY	93.80
A579BP-L4	{N — L 6}	116.50	.....	
A579BP-L3A	adj.F.	96.30	A579BP-L3AY	101.30

Light Sources are described on page 5.

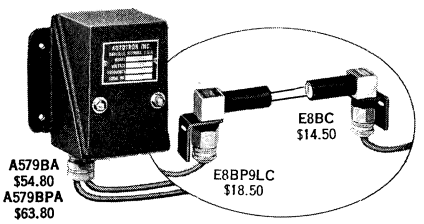
A579B-and A579BP-E8BC C-Paks

Each Control-Pak includes A579B or A579BP Control and E8BC Light Source Head described on page 1. E8BC connects to the control for installation with one power connection. Power consumption, 5 watts. For 115/230v, 50-60c.

A579B-E8BC ON/OFF Control-Pak..Net $72.50
maximum distance between lenses, 6 feet

A579BP-E8BC Timing Control-Pak..Net $81.50
maximum distance between lenses, 3 feet

A650 and A650A Control-Paks



A579BA and A579BPA Controls have same features as A579B and A579BP except sensing element is omitted; and they have terminals for connecting E8BP9LC and E8BC Heads described on page 1. 115/230v, 50-60c. Power Consumption 5 watts.

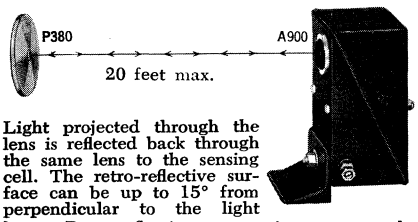
Gasket-sealed cast aluminum case, tapped for ¾″ conduit, has mounting flanges on both sides. D 3⅜″, W, including flanges, 6-3/16″. H 5⅜″. Four mounting holes for ¼″ bolts on 3 by 5⅛″ centers. Shipping weight 2½ lbs.

A650 ON/OFF Control-Pak—includes A579BA, E8BP9LC, and E8BC.....**Net $87.80**
max. distance between heads, 12 feet

A650A Timing Control-Pak—includes A579BPA, E8BP9LC and E8BC.....**Net $96.80**
max. distance between heads, 6 feet

A900 ON/OFF and A900P Timing Retro-reflective Photo Controls

A900 and **A900P** each is a Control-Pak in one case. Sensing cell, light source, amplifiers, sensitivity adjustment and control relay are all in the same housing. Only one connection to power is required. A retro-reflective surface completes the installation.



Light projected through the lens is reflected back through the same lens to the sensing cell. The retro-reflective surface can be up to 15° from perpendicular to the light beam. Retro-reflective tape, paint, etc. may be used. Retro-reflective quality of the target affects operating distance.

A900 and A900P Features

High Sensitivity with Sensitivity Adjustment from outside the case. Provides dependable operation when objects block the light beam; also with limited light change such as may be provided by retro-reflective tape on a moving carton.

Transistorized.

Rugged 5-amp DPDT plug-in relay, with dust cover.

Rectified output for DC operation of Relay.

Transistors protected from transient voltage.

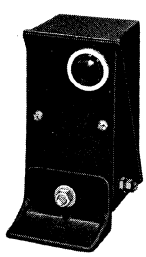
All circuit components securely mounted on modern printed circuit board.

All Relay Contacts wired to screw type terminals.

Maximum ambient operating temperature, 115°F.

Gasket-sealed cast aluminum case, tapped for ¾″ conduit, has adjustable mounting bracket; D (direction of light beam) 3⅜″, W 4″, H 6⅞″. Shipping weight, 3½ lbs.

A900 ON/OFF Control



Control relay energizes LIGHT, de-energizes DARK.

Fast Acting: .02 second light; .03 second dark, minimum.

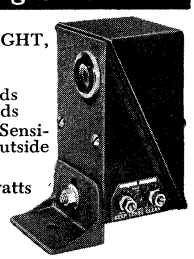
Power Consumption, 10 watts For 115/230v, 50-60c.

Maximum distance, lens to P380 Retro-reflector, 20 feet.

Sensitivity Adjustment from outside case

A900 Retro-Reflective ON/OFF Control $65.00*

A900P Timing Control



Control relay energizes LIGHT, Times out DARK.

Timing Ranges

No. 0.5 — 0.5 to 4.5 seconds
No. 0.7 — 1 to 8 seconds

Timing Adjustment and Sensitivity Adjustment from outside case.

Power Consumption, 10 watts

For 115/230v, 50-60c.

Maximum distance, lens to P380, 20 feet.

A900P Retro-Reflective Timing Control..$72.50*

***P380 Retro-reflector is $1.50 additional.**

A900A- and A900PA-EL10H C-Paks

A900A and A900PA have the same features, and the same cases as A900 and A900P respectively, except the sensing element is omitted and terminals are provided for connecting EL10H Retro-reflective Sensing Head. For 115/230v, 50-60c.

Power consumption, 10 watts.

Maximum distance, EL10H lens to P380, 20 feet.

A900A-EL10H ON/OFF Control-Pak

A900A has sensitivity adjustment with shaft lock.

Control Relay energizes LIGHT, de-energizes DARK.

.02 second light; .03 second dark, minimum.

A900A-EL10H ON/OFF Control-Pak....$83.75*

A900PA-EL10H Timing Control-Pak

A900PA has timing and sensitivity adjustments with shaft locks.

Control Relay energizes LIGHT, times out DARK.

Timing Range: No. 0.5 - 0.5 to 4.5 seconds.

A900PA-EL10H Timing Control-Pak....$91.25*

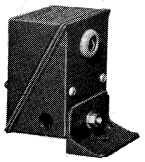
AUTOTRON

Light Sources for use with Photoelectric Controls
Compact Photoelectric Controls

Series L1 Light Sources

Series L1 Light Sources have ¾" lens mounted in flexible silicon rubber and housed in gasket-sealed cast aluminum cases. Covers of all cases are easily removed for access to lamps with mounting undisturbed.

L1A Light Source



D© 3-3/4", W 4", H 5-1/4"

Gasket-sealed cast aluminum case, tapped for ½" conduit, has adjustable mounting bracket. Weight 2½ lbs. For 115/230v, 50-60 c.

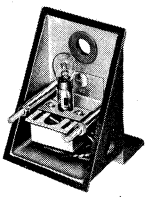
Model	L1A	L1AY	L1AR	L1ARY
Net each	$18.50	$23.50	$30.50	$35.50

L1B and L1C Light Sources

L1B AND L1C: D© 3-3/4", W 4", H 5-1/4"

L1B and L1C Light Sources have 3-way adjustment for aligning lamp with control without moving case. Mounting adjustment permits focusing lamp for straight beam or pin-point beam. Low voltage operation extends lamp life.

High voltage tap is provided for extremely dirty conditions. Gasket-sealed cast aluminum case is tapped for ½" conduit. Weight 2½ lbs.
For 115/230v, 50-60 c.



L1C with cover removed

L1B Light Source has mounting holes in the bottom of the case and has no mounting bracket.

L1B Light Source Net $18.50

L1C Light Source has adjustable Mounting Bracket.

L1C Light Source Net $19.75

L1D Light Source

L1D: D© 1.93", W 3.28", H 5.62"

Space-saving gasket-sealed cast aluminum case has mounting flanges front and bottom. Front flanges have four mounting slots; bottom flanges have four mounting holes for ¼" bolts on ⅞" x 2⅝" centers.

Lamp operates at low voltage for extended life. Case is tapped for ½" conduit. For 115/230V 50-60C. Weight 1¾ lbs.

L1D Light Source Net $18.50

L1DA Light Source

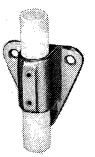
L1DA: D© 2.18", W 1.96", H 5.62"

Another space saver – Gasket-sealed cast aluminm case is tapped in center of bottom for ¾" pipe. Use of lock nut permits rigid positioning. Adjustable bracket described below. For 115/230V 50-60C. Weight 1¼ lbs.

Lamp operates at low voltage for extended life.

L1DA Light Source Net $18.50

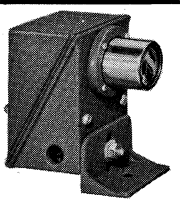
Adjustable Mounting Bracket



For L1DA Light Source and BC3A Control. Clamp fits ¾" pipe which screws into tapped opening in bottom of above housings. Pipe may be raised, lowered and rotated. Two socket-head set screws lock pipe in desired position.

P381 Adjustable Mounting Clamp .....Net $2.95

L2A Light Source



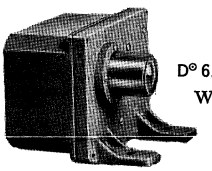
L2A: D© 5-5/16", W 4", H 5-1/4"

L2A Light Source has 1½" lens mounted in brass lens tube.

Gasket-sealed cast aluminum case, tapped for ½" conduit, has adjustable mounting bracket. Operates from 115/230 V, 50-60 cycles. Weight 2½ lbs.

Model No.	L2A	L2AY	L2AR	L2ARY
Net each	$21.80	$26.80	$33.80	$38.80

L4 Dual Filament Light Source



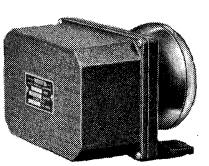
L4
D© 6, W 7-1/4, H 5-1/4
Weight, 7 lbs.

L4 Light Source has 1½" lens mounted in brass lens tube.

Has prefocused, two-filament lamp, extra low voltage connection and 1½" OD straight fixed beam. The prefocused lamps permit replacement with minimum change in the light beam. The dual filaments provide protection against shutdowns—when one filament fails the other lights up and a signal light in the housing comes on indicating that the lamp should be replaced as soon as convenient. Splashproof cast aluminum case with rigid mounting feet, tapped for ½" conduit. Operates from 115/230 V, 50-60 C.

L4 Light Source.....Net $49.50

L6 Hi Intensity Light Source

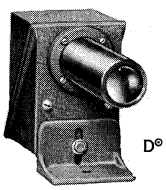


L6
D© 6,
W 7-1/4
H 5-1/4

Has high intensity spot beam for extremely adverse conditions such as steam, vapor, fog, heavy rainfall, etc. The #4515 sealed-beam spot lamp is swivel-mounted for directional adjustment of the beam. Lamp life expectancy; 3000 hours at normal voltage, 10000 hours at low voltage. See footcandle rating in table below. Gasket sealed cast aluminum case tapped for ½" conduit. 115/230 V, 50-60 C. Weight 7 lbs.

L6 Light Source.....Net $36.00

L3A Adjustable Focus Light Source



L3A
D© 8, W 4, H 5-1/4

Has 1½" lens with light beam adjustment from a minimum focal length of 4¾" and corresponding focal size of 5/16 x ¼" to a straight light beam of 1½" O.D. Light output at twice the focal distance exceeds 30 foot-candles.

Increasing the focal length increases the focal size. For example at 6" focal length the focal size is ½ x ⅜" and at 12" focal length the focal size is 1½" (straight light beam).

Splashproof cast aluminum case with adjustable bracket; tapped for ½" conduit.

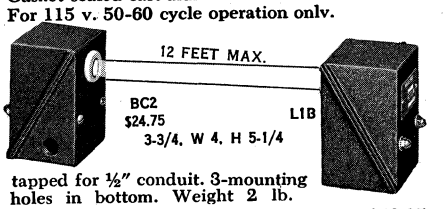
115/230v. 50-60 cycles. Weight 3 lbs.

Model No.	L3A	L3AY	L3AR	L3ARY
Net each	$29.30	$34.30	$41.30	$46.30

D© Dimension in direction of Light Beam

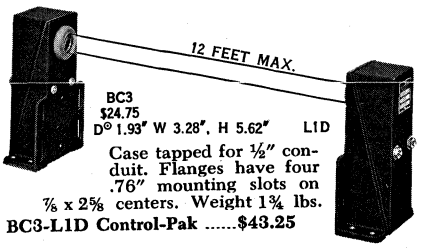
BC2, BC3 and BC3A Controls

Light-Energized. Cad Cell sensing element.
¾" lens mounted in flexible silicone rubber
Min. dark time .06 sec.; min. light time .06 sec.
Contacts SPDT, 3-amps at 115 VAC resistive.
Relay plastic enclosed. Power Consumption 0.5 w.
Gasket-sealed cast aluminum cases.
For 115 v. 50-60 cycle operation onlv.



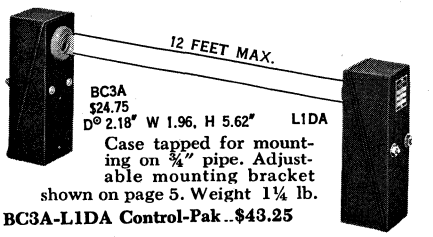
tapped for ½" conduit. 3-mounting holes in bottom. Weight 2 lb.

BC2-L1B Control-Pak $43.25



Case tapped for ½" conduit. Flanges have four .76" mounting slots on ⅞ x 2⅝ centers. Weight 1¾ lbs.

BC3-L1D Control-Pak $43.25



Case tapped for mounting on ¾" pipe. Adjustable mounting bracket shown on page 5. Weight 1¼ lb.

BC3A-L1DA Control-Pak..$43.25

Lamp Life Chart

Lamp No.	Light Source	Life Expectancy in Hours 6 V.	5 V.	3.8 V.	2.5 V.	2.2 V.
88L	L1A, L2A, L3A, E1A, E2A88, EX3M	2500	8000	15000	....	.....
12	E8A	5000	15000	indefinite	....	.....
10	E8B	....	.....	.....	5000	10000
2330	L4, E4A	500	4000	8000	....	.....

Light Source Features

Y Feature – Beam intensity adjustment. Light Source has a sliding resistance inside case for adjusting intensity of light source lamp. Operating with reduced light intensity prolongs lamp life.

R Feature – SAFETY RELAY built into the Light Source energizes when the light comes on; de-energizes when the lamp or power fails. Relay Contacts are SPDT, rated 5 amps at 115 VAC, non-inductive. The relay may be used to operate a machine, close a valve, operate a signal, etc.

Control Features

R Feature – SAFETY RELAY built into the control energizes when power comes on; de-energizes if a tube filament burns out or power goes off. Relay contacts, SPDT, rated 5 amp. at 115 VAC, non-inductive.

Net

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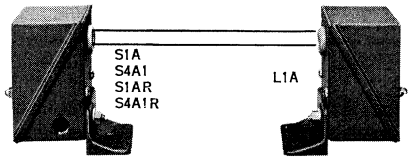
Photoelectric ON/OFF Controls and Timing Controls

AUTOTRON

S Series ON/OFF Photoelectric Controls

Rugged, industrial Photoelectric Controls, moderately sensitive, factory adjusted for use where object interrupts light beam 100%. Minimum dark time, .06 second; minimum light time, .06 seconds.

S1A and S4A1 ON/OFF Controls



All above controls have ¾" lens mounted in flexible silicon rubber —require 20 foot-candles minimum light.

Depth (direction of light beam) 3¼"; width, 4"; height, 5¼"; weight, 2 lbs.

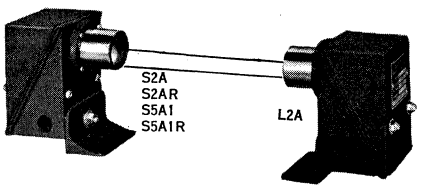
DARK† energized	LIGHT† energized	50-60 cycles VOLTS	NET each
S1A	S4A1	115/220	$43.75
S1AR*	S4A1R*	115 or 220 (specify)	55.75

Plate Relay Contacts, SPDT, rated 8 amperes at 115 VAC non-inductive load.

Splashproof cast aluminum case with adjustable bracket; tapped for ½" conduit.

Power consumption 10 watts.

S2A and S5A1 ON/OFF Controls



All above controls have 1½" lens mounted in brass lens tube — require 10 foot-candle minimum light.

Depth (direction of light beam) 5-5/16"; width, 4"; height, 5¼". Weight 3 lbs.

DARK† energized	LIGHT† energized	50-60 cycles VOLTS	NET each
S2A	S5A1	115/230	$49.75
S2AR*	S5A1R*	115 or 230 (specify)	61.75

S Series Control-Paks

Control-Paks energized DARK	Control-Paks energized LIGHT	max. ft. between lenses	Min. Dark Time	Min. Light Time	Net per Set
S1A-L1A	S4A1-L1A	8	.06	.06	$62.25
S2A-L1A	S5A1-L1A	12	.06	.06	68.25
S2A-L2A	S5A1-L2A	20	.06	.06	71.55
S2A-L4	S5A1-L4	{ N 12 } { L 4 }	.06	.06	99.25

Light Sources are described on page 5.

Notes

Also see page 5

***R suffix** designates built-in SAFETY Relay that energizes when power comes on; de-energizes if power fails or tube filament burns out. (See page 5).

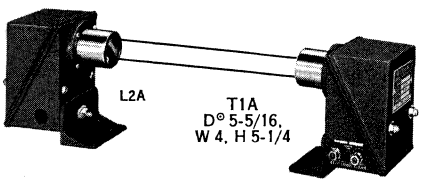
†**DARK energized** controls energize when the tube is dark. (See page 5).

†**LIGHT energized** controls energize when light is on the tube. (See page 5).

H Feature—built-in heating element to prevent condensation inside the housing where subjected to humidity and abrupt temperature changes.

T Series Photoelectric Timing Controls

T1A Timing Control



Relay energizes DARK—unit times out DARK. Time delay with shaft lock adjustment from 1 to 10 seconds. Repeat accuracy 4%. Minimum light, 40 foot-candles. Plate relay: Contacts SPDT, rated 8 amps at 115 v. AC, non-inductive load. Splashproof aluminum case, tapped for ½" conduit. Adjustable mounting bracket. Lens dia. 1½". Power consumption, 10 watts. 115/230 v. 50-60 cycles. Weight 3 lbs.

T1A Timing Control.....NET $57.50

T3A and T5A Timing Controls

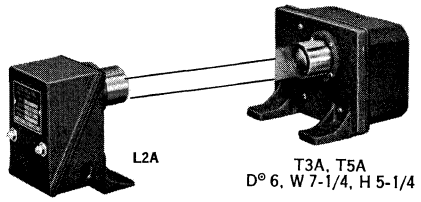


Plate Relay: Contacts DPDT, rated 8 amps at 115 v. AC, non-inductive load. Time delay adjustment has shaft lock. Splashproof cast aluminum case tapped for ½" conduit. Lens diameter 1½". 115/230 v., 50-60 cycles. Power consumption 20 watts. Weight 8 lbs.

T3A and T5A Timing Ranges (specify)

No. 0.1	.03 to .3 sec.	No. 1.	.6 to 15 sec.
No. 0.2	.06 to 3. sec.	No. 2.	1. to 25 sec.
No. 0.5	.1 to 6. sec.	No. 2.5	1.5 to 50
		No. 3.	30. to 300.

T3A Timing Control

Relay energizes LIGHT—unit times out with LIGHT. Timing accuracy, 2%. Minimum light 10 foot candles.

T3A Timing Control.....Net $72.50

T3AR—Above with Safety Relay.....Net $84.50

T5A Timing Control

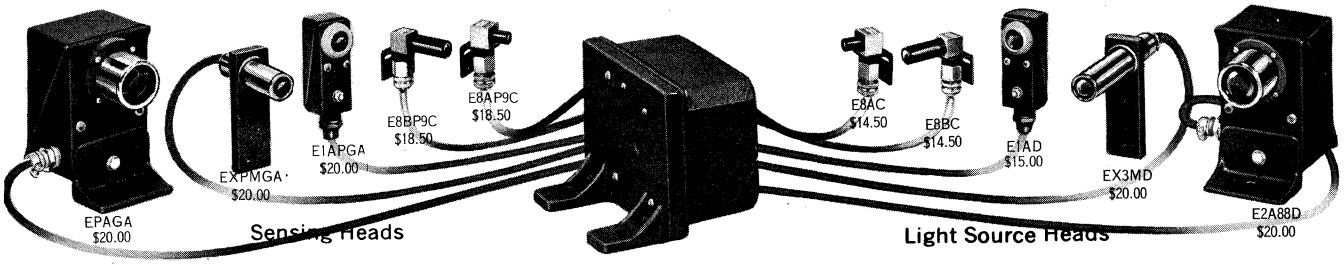
Relay energizes DARK—unit times out with DARK. Timing accuracy 2%. Minimum light, 10 foot candles.

T5A Timing Control.....Net $82.50

T5AR—Above with Safety Relay.....Net $94.50

Control-Paks	max. ft. between lenses	Min. dark time	Min. light time	Price per set
T1A-L1A	5 ft.	——	.5	$76.00
T1A-L2A	10 ft.	——	.5	79.30
T3A-L1A	12 ft.	.005	——	91.00
T3A-L2A	20 ft.	.005	——	94.30
T5A-L1A	12 ft.	——	.005	101.00
T5A-L2A	20 ft.	——	.005	104.30

T Series Photoelectric Timing Controls with Remote Sensing and Light Source Heads



T5A1EVA T3A1EVA
D 6, W 7-1/4, H 5-1/4

T5A1EVA and **T3A1EVA** have the same specifications as T5A and T3A (above), but instead of built-in sensing elements they have connections for remote Sensing and Light Source Heads. H Feature available with all models — to order add Suffix "H" to Model Number and $7.50 to price.

The Sensing and Light Source Heads are listed in matched pairs for convenience. Other combinations are practical when required.

For Remote Head general descriptions and dimensions, see pages 1 and 2

All sensing and light source heads are equipped with factory installed 6-foot cables for connecting to controls.

Model Number Control	Sensing Head	Light Source	Max. Ft. Between Heads	Min. Dark Time	Min. Light Time	Price	With R Feature Control	Sensing Head	Light Source	Price	Ship. Wt. Lbs.
DARK-ENERGIZED—ENERGIZE DELAY (115/230 V, 50-60 C)											
T5A1EVA	EPAGA	E2A88D	23	delay	.005	$132.50	T5A1ERVA	EPAGA	E2A88D	$144.50	11
T5A1EVA	E1APGA	E1AD	5	delay	.005	127.50	T5A1ERVA	E1APGA	E1AD	139.50	9
T5A1EVA	EXPMGA	EX3MD	5	delay	.005	132.50	T5A1ERVA	EXPMGA	EX3MD	144.50	9
T5A4EVE	E8AP9C	E8AC	1.2	delay	.01	125.50	T5A4ERVA	E8AP9C	E8AC	137.50	9
T5A4EVF	E8BP9C	E8BC	5	delay	.005	125.50	T5A4ERVF	E8BP9C	E8BC	137.50	9
LIGHT-ENERGIZED—ENERGIZE DELAY (115/230 V, 50-60 C)											
T3A1EVA	EPAGA	E2A88D	23	.005	delay	$132.50	T3A1ERVA	EPAGA	E2A88D	$144.50	11
T3A1EVA	E1APGA	E1AD	5	.005	delay	127.50	T3A1ERVA	E1APGA	E1AD	139.50	9
T3A1EVA	EXPMGA	EX3MD	5	.005	delay	132.50	T3A1ERVA	EXPMGA	EX3MD	144.50	9
T3A4EVE	E8AP9C	E8AC	1.2	.05	delay	125.50	T3A4ERVA	E8AP9C	E8AC	137.50	9
T3A4EVF	E8BP9C	E8BC	5	.025	delay	125.50	T3A4ERVF	E8BP9C	E8BC	137.50	9

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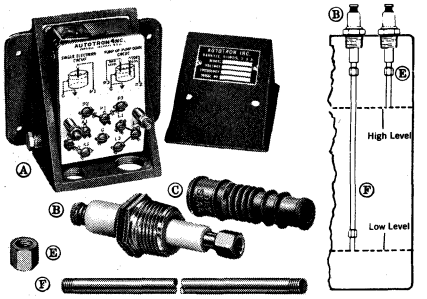
AUTOTRON

Page 7

Specialized Electronic Controls

Electronic Liquid Level Control



For use with liquids up to 750,000 ohms resistance such as acids, bases, salts, milk, beer, water, alcohols, ammonia, distilled water, anti-biotics.

Ⓐ **A744 Control** supplies 20VDC (safe for personnel) maximum probe voltage. Stepless sensitivity adjustment with shaft lock. Plug-in 5 amp. SPDT relay, plastic enclosed. Gasket-sealed cast aluminum case 6-3/16″ wide, 5⅜″ high, 3⅜″ deep. 4 mounting holes for ¼″ bolts on 5⅛″ x 3″ centers. Power Consumption, 5 W. For 115 or 230v (specify) 50-60c.....**Each $74.50**

Ⓑ **P-304 Electrode** has ½″ pipe threads—may be installed in top or side of tank....**Each $10.60**

Ⓒ **P-305 Elastic Seal** for electrode wiring connection ..... **Each $1.00**

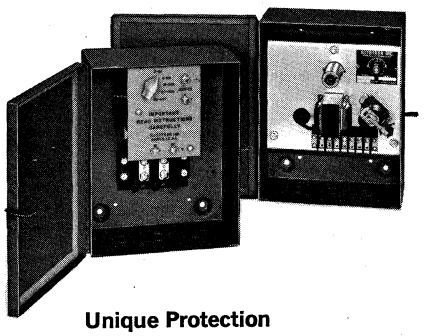
Ⓔ **P-310 hex nut,** stainless steel, ⅝″ long—¼-20 thread.....**Each $1.00**

Ⓕ **P-309 18-8 stainless steel rod** ¼″ x 12″—¼-20 thread both ends.....**Each $1.50**

Type of System Components	One Electrode Quan.	Price	Two Electrode Quan.	Price
Ⓐ A744 Control	1	$74.50	1	$ 74.50
Ⓑ P-304 Electrode	1	10.60	2	21.20
Ⓒ P-305 Dri-Seal	1	1.00	2	2.00
Connecting Cable	10 ft.	3.00	20 ft.	6.00
Price Totals		$89.10*		$103.70*

*P-309 Rod and P-310 Nuts not included

Current Surge Overload Protection



Unique Protection for tools, equipment, personnel

The Surj-Switch uses electronic amplification for instant reaction to variations from normal load current. Easily adjusted on the job to operate at the desired value.

The 10-amp, SPDT Control Relay may operate a warning signal, a lubricating circuit, feeding rate control, etc. without interrupting operation or may be used to stop operation.

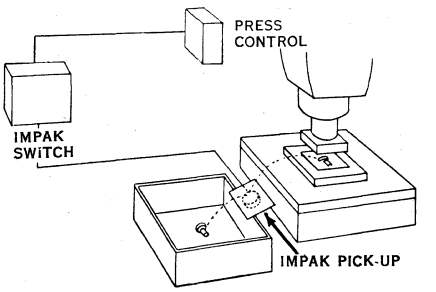
Used on surface grinders to warn when excessive pressures are applied; on machine tools to warn when tools become dull; on automated installations; **whenever load change indicates trouble.**

Model K1 Surj-Pick-up. Required for operation of Surj-Switch Controls—for 50-60 cycle, 0 to 80 amperes, one or 3-phase, any voltage..**$35.00**

Model J Surj-Switch. For overloads,.....**$55.00**

Model JA Surj-Switch. For under loads....**$65.00**

Impak-Switch Die Protection



In the above diagram each piece properly ejected from the die strikes the impact sensing plate which actuates the Impak Control and the Control re-cycles the press control for another stroke.

The impact of falling parts against the sensing plate of the Impak-Pick-up activates the Impak-Switch. Objects may be of practically any reasonably uniform size, ranging from ball bearings to heavy stampings, etc.

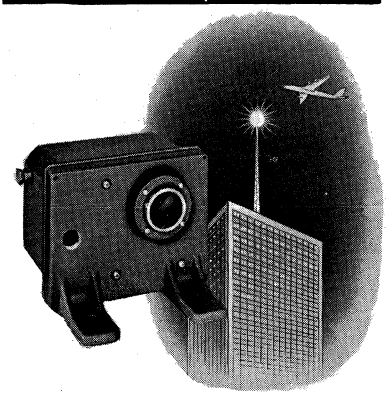
In other die protection applications the Impak Control has time delay set to barely exceed the complete stroke cycle of the press. Each properly ejected piece re-cycles the Impak Control before the timing period expires.

Model V Impak-Pick-up—with 6-ft. shielded plastic-covered cable.....**Net $30.00**

Model Z Impak-Switch—for use where impact is not less than one ounce falling 2 inches and each object strikes only once.....**Net $60.00**

Model C3 Impak-Switch—for use where impact force is limited, where high speed is required or where objects may strike more than once. **Net $145.00**

A2BX Solar ON/OFF Control



Automatically turns lights "ON" at preset light value—and turns lights "OFF" when light exceeds preset value.

DPDT Control Relay energizes when light exceeds intensity for which control is set; de-energizes when light falls below the preset level.

In case of tube failure the relay de-energizes; providing same control action as when light falls below preset level.

Dual Time Delays prevent operation by either momentary light flashes or shadows. Modern, simple circuitry uses one rugged, premium type power tube. Light intensity adjustment from outside of housing. Gasket-sealed cast aluminum housing, tapped for ½″ conduit. For 115/230 v, 50-60 c. Power consumption, 20 watts

Available with three adjustment ranges:

No. A2BX-.2; 1 to 5 fc for street lighting, parking lots
No. A2BX-.5; 15 to 50 fc for signs, parking lots
No. A2BX-1; 20 to 150 fc for obstruction or tower lights

A2BX Solar Control (all models) Net $76.95

Tubeless Bin Level Control

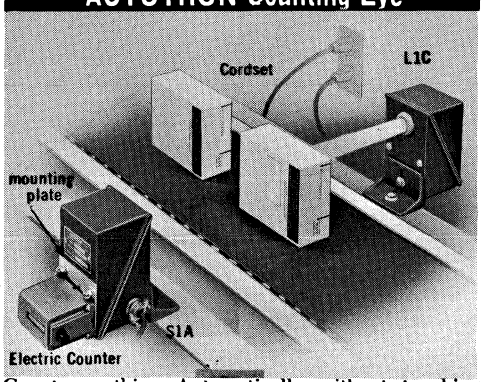
Tubeless Photoelectric actuation—**unaffected** by pressure of material in the bin. Only rigid, non-moving Lucite probes project into the bin. Cast aluminum, gasket-sealed housing mounts to bin wall as shown. Removal of cover makes all parts accessible. Dust-covered plug-in DPDT 8-ampere relay provides ON/OFF control for either high or low bin level. All wiring connections brought out of case in 3-foot oil-proof cable. For 115/230V, 50-60 C.

A700—Relay operates from cad cell output, light-energized. Power Consumption, 10 watts. .....**Net $68.00**

A700S—has transistor circuit and sensitivity adjustment—dark-energized. Power Consumption, 5 watts.....**Net $98.75**

Includes 3-ft cable, face gasket and template.

AUTOTRON Counting Eye



Counts anything—Automatically—without touching the object. Each object must interrupt the light beam .06 second or more. Space between objects must permit restoration of the light beam .06 second or more. Max. distance between lenses, 8 feet.

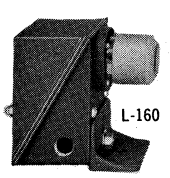
Counting Eye Components

S1A Photoelectric Control (see page 1)	$43.75
L1A Light Source (see page 1)	19.75
Cordset: two 6-foot rubber covered cords with plugs and attachment clamps	3.00
Plate and hardware for mounting counter (4 mounting holes on 3-15/16 x 1-23/64″ centers)	1.50
CE-600AS602 Electric Counter (6-digit, knob reset)	22.40

A-138A Counting Eye, 115v, 50-60c. **Net $96.30**

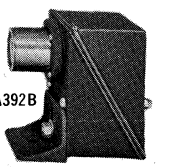
Includes above items wired ready to plug in.

Photoelectric Controls with Infrared Light Beams



For burglar alarms, safety applications, etc. Controls and Light Sources are designed for use in pairs as listed.

CONTROL No.	Net Each	LIGHT SOURCE No.	Net Each	Max. ft. between lenses	CONTACTS combination	Rating amps.	Ship. wt. lbs.
A392B	$52.50	L-160	$30.65	15	SPDT	8	5½
A435	83.50	L-148	46.50	50	DPDT	10	14



Net

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CLAIREX®

LARGEST MANUFACTURER OF CdS and CdSe PHOTOCONDUCTIVE CELLS

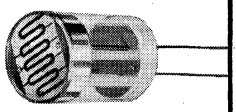
25 CdSe and 32 CdS Selected Photoconductive Cells

Photocell ordering abbreviation	SPECIAL DESCRIPTION	Diam. X Length (inches)	Resistance @ 2 fc ± 33⅓%	Minimum resistance ratio from 2 ftc to Dark within 5 sec.	Maximum voltage	Power[4] Dissipation @ 25°C (mw)
CL5M2	Type 2 CdS (photosensitive material designated by last number in ordering abbreviation, i.e. CL5M2). Peak spectral response 5150 angstroms, bluest response photosensitive material, high stability, lowest temperature error. Can be used in applications requiring sharp differentiation in the blue green spectrum. For use with either fluorescent or incandescent lamps.	.55 X .18	55K	1:100	300	2000-500[1]
CL602		.25 X .5	1 meg.		300	75
CL702		.36 X .18	1 meg.		300	125
CL902		.21 X .15	1 meg.		250	50
CL503	Type 3 CdSe, peak spectral response 7350 angstroms, fast response, and very high light-to-dark resistance ratio. Can be used for high speed switching or counting. Sensitive to near infra red. For use with incandescent or neon lamps.	.5 X .5	7.2K	1:10,000	250	500-250[1]
CL5M3		.55 X .18	7.2K		300	2000-500[1]
CL603		.25 X .5	133K		300	75
CL603A		.25 X .5	75K		300	75
CL603AL		.25 X .5	3.5K		170	75
CL703		.36 X .18	133K		300	125
CL703A		.36 X .18	67K		300	125
CL703L		.36 X .18	2.7K		170	125
CL903		.21 X .15	133K		250	50
CL903A		.21 X .15	67K		250	50
CL903L		.21 X .15	5.9K		170	50
CL504	Type 4 CdSe, peak spectral response 6900 angstroms, lowest resistance photocells available. Can be used for "on-off" applications when low resistance is desired. For use with incandescent or neon lamps.	.5 X .5	1.5K	1:1000	250	500-250[1]
CL5M4		.55 X .18	1.5K		300	2000-500[1]
CL504L		.5 X .5	0.25K		170	500-250[1]
CL5M4L		.55 X .18	0.25K		170	2000-500[1]
CL604		.25 X .5	30K		300	75
CL604L		.25 X .5	1.5K		170	75
CL704		.36 X .18	30K		300	125
CL704L		.36 X .18	0.6K		170	125
CL904		.21 X .15	30K		250	50
CL904L		.21 X .15	2K		100	50
CL505	Type 5 CdS, peak spectral response 5500 angstroms (closely matches the human eye), most stable, lowest memory photocell available. Can be used in light measuring applications and precision low speed switching. For use with incandescent, fluorescent or neon lamps.	.5 X .5	9K	1:100	250	500-250[1]
CL5M5		.55 X .18	9K		300	2000-500[1]
CL505L		.5 X .5	1.5K		170	500-250[1]
CL5M5L		.55 X .18	1.5K		170	2000-500[1]
CL605		.25 X .5	166K		300	75
CL605L		.25 X .5	7.5K		170	75
CL705		.36 X .18	166K		300	125
CL705L		.36 X .18	3.3K		170	125
CL905		.21 X .15	166K		250	50
CL905L		.21 X .15	10K		100	50
CL705HL	Type 5H CdS, peak spectral response 5500 angstroms (closely matches the human eye). Combines high speed, stability, linearity, and uniform color temperature response. Can be used for high speed switching or high stability measuring applications. For use with incandescent, fluorescent or neon lamps.	.36 X .18	28K	1:1000	170	125
CL905HL		.21 X .15	100K		100	50
CL905HN		.21 X .15	700K		100	50
CL507	Type 7 CdS, peak spectral response 6150 angstroms, moderate speed and ratio. Can be used in general beam breaking applications. For use with incandescent, neon or fluorescent lamps.	.5 X .5	7.2K	1:1000	250	500-250[1]
CL5M7		.55 X .18	7.2K		300	2000-500[1]
CL607		.25 X .5	133K		300	75
CL707		.36 X .18	133K		300	125
CL707L		.36 X .18	2.7K		170	125
CL907		.21 X .15	133K		250	50
CL907N		.21 X .15	66K		100	50
	DUAL ELEMENT[2]					
CL703/2	Type 3 CdSe	.36 X .18	50K	1:10,000	300	125
CL703L/2	Type 3 CdSe	.36 X .18	6.5K	1:10,000	170	125
CL704/2	Type 4 CdSe	.36 X .18	17K	1:1000	300	125
CL704L/2	Type 4 CdSe	.36 X .18	1.5K	1:1000	170	125
CL705/2	Type 5 CdSe	.36 X .18	166K	1:100	300	125
CL705L/2	Type 5 CdS	.36 X .18	7.5K	1:100	170	125
	Photocells contain two separate elements with two separate leads and one common lead.					
CL707H	Type 7H CdS Peak Spectral response 6150 Angstroms. Very fast decay time coupled with low resistance and high linearity. Ideal for beam breaking applications.	.36 X .18	500K	1:1000	300	125
CL707HM		.36 X .18	100K		250	125
CL707HL		.36 X .18	10K		170	125
CL907H		.21 X .15	600K		250	50
CL907HN		.21 X .15	300K		100	50
CL907HL		.21 X .15	24K		100	50

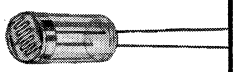
This listing represents less than half of the Clairex standard and special photocells available. A 16-page design manual is available on request.

BOTH METAL AND GLASS PACKAGES

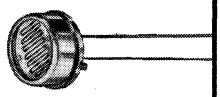
ALL PHOTOS ACTUAL SIZE



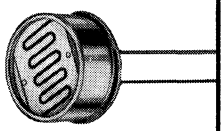
CL500



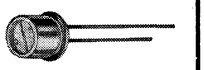
CL600



CL700



CL5M



CL900

FOOTNOTES

[1] with and without heat sink

[2] Additional data on request.

© PHOTOCONDUCTIVE CELLS...

Write for name of your nearest Clairex representative or distributor.

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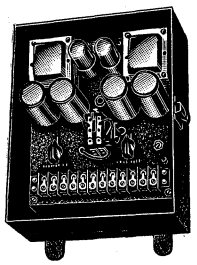
INDUSTRIAL APPLICATIONS

EASY-TO-FOLLOW INSTALLATION INSTRUCTIONS • REQUEST ENGINEERING BULLETINS

THREE-UNIT CONTROLS

For All General Applications



Model 63 Amplifier Door removed to show components.

Model 63 Series represents a line of four high speed, precision Amplifiers; each engineered for a highly specialized use. Selection enables the user to get the amplification his application requires. Each amplifier is designed for amplification of energy developed by one set of Series 33/23 Fotolectric Heads listed below. Each Amplifier will also respond to light radiance (other than light projected from a Light Source unit) when reflected to the Photocell. Model 63 Series Amplifiers are heavy duty construction throughout, size 9¼" x 11½" x 5". Engineered for 110/120v. 50/60 cy. a.c.

Model 63, the Worner Master Unit, serves most industrial uses. It is generally recommended for supervising fast moving objects and will operate normally up to 750 times a minute.....Each **$137.19**

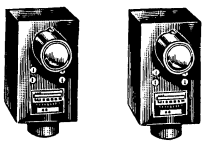
Model 63-A, equipped with Time Delay Circuit giving delay from 0 to 45 seconds .....Each **$153.12**

Model 63-B, has added amplification to operate on less active change of light .....Each **$163.68**

Model 63-C, same as Model 63 but is "dark-energized", and operates when the photocell is dark.....Each **$139.76**

Model 4. Economy Unit. Operates up to 450 times a minute....Each **$79.98**

WIDE RANGE OF FOTOLECTRIC HEADS



Series 33 Light Sources
Series 23 Photocells

Sharp Detection

Selection of any of the following seven combinations, with current flow amplified by a choice of any of the above Amplifiers, provides unbeatable control supervision. Both units are alike externally. Mounting brackets supplied.

Model 33 Series Light Sources and Model 23 Series Photocells are heavy duty units. Components are housed in solid metal castings equipped with conduit fitting. Size of case 3" x 3" x 4½".

CROSS-OVER BEAM supervises small objects under 2" square at high speed. Distances listed are from lens to (cross-over) point of supervision. Moisture-proof units.

DISTANCE	LIGHT SOURCE	EACH	PHOTOCELL	EACH
Up to 3"	**Model 33-3**	**$28.95**	use with **Model 23-3**	**$36.00**
3" to 6"	**Model 33-6**	**28.95**	use with **Model 23**	**28.80**
6" to 9"	**Model 33-9**	**28.95**	use with **Model 23**	**28.80**
9" to 12"	**Model 33-12**	**28.95**	use with **Model 23**	**28.8**

DIRECTIONAL BEAM for objects over 2" square. Distances listed cover area of supervision (between units).

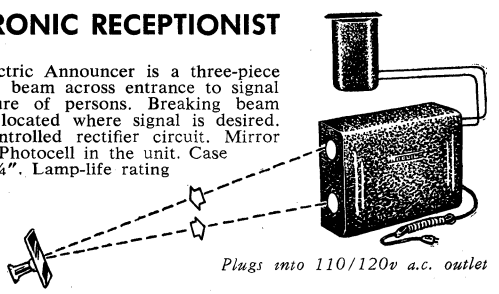
DISTANCE	LIGHT SOURCE	EACH	PHOTOCELL	EACH
1 to 10 ft	**Model 33-10**	**$23.40**	use with **Model 23-10**	**$28.80**
Made moisture-proof upon order at $7.50 per unit.				
10 to 25 ft	**Model 33-25w**	**$39.79**	use with **Model 23-25w**	**$40.32**
These units are moisture-proof.				

FOR SUPERVISING LARGE OBJECTS UP TO 100 FT.

Model 33-C Light Source and Model 23-C Photocell supervise over an indoor distance over 25 ft. up to 100 ft. from unit to unit. Size: 6¼" x 7" x 4½". Use with any of the above Amplifiers.

Model 33-C.....**each $23.88**.....use with **Model 23-C**.....**each $32.76**

THE ELECTRONIC RECEPTIONIST



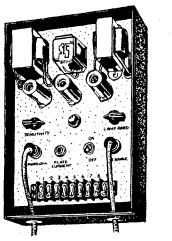
Plugs into 110/120v a.c. outlet

Model 61 Fotolectric Announcer is a three-piece set. Projects light beam across entrance to signal entry or departure of persons. Breaking beam activates Chime, located where signal is desired. Efficient grid controlled rectifier circuit. Mirror reflects beam to Photocell in the unit. Case 8¼" x 6½" x 3¾". Lamp-life rating 1000 hours.

Model 61 Fotolectric Announcer.....**Per Set $46.88**

Model 61-T. Fully transistortized. Size 7¾" x 5¾" x 3⅛"....**Per Set $54.00**

AMPLIFIERS FOR MINIATURE HEADS



Model 66 Amplifier Door removed to show components.

Model 66/67 Series Amplifiers are available in a choice of four units. For positive and accurate performance, the maximum speed rating of each unit can be regulated provided light projected to the Photocell will have an "on-period" equal to the "off-period" with wiring to Photocell having zero (0) capacity. 110/120v. 50/60 cy. a.c.

Model 67 Amplifier for general applications where fine detection at high speeds is not a factor or Relay is not required to operate in excess of 450 times per minute .....**Each $88.89**

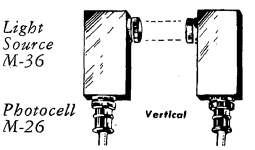
Model 66 Amplifier, operates up to 900 counts a minute. Double-pole, double-throw relay with contact rating 110v. 60 cy. a.c., 10 amp.-non-inductive and 5 amp. inductive. Has light beam intensity control .....**Each $147.84**

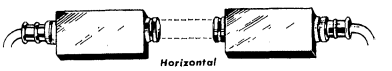
Model 66-A Amplifier, designed for use with ultra high speed electronic decade counters. Accurate counts of light beam interruption or variation of intensity up to 10,000 counts per minute. Output pulses up to 50 volts d.c. regulated by the sensitivity control.....**Each $152.46**

Model 66-T Amplifier, same operating features as Model 66 with added Time Delay circuit to give regulated time delay from 0 to 45 seconds. Efficient for synchronizing operations .....**Each $170.85**

"MINIATURE" FOTOLECTRIC HEADS

Designed for use with Models 66/67 Amplifiers





Light Source M-37
Photocell M-27

Machined out of solid aluminum blocks. Light weight, unbreakable, one-piece, dependable. Only 1¼" x 2½" x ¾". Unsurpassed for pin-point detection. Distance to cross-over point 3" to 12". Distance of directional beam up to 8 feet. For desired speed, select Amplifier accordingly. Six-foot cable equipped both ends with prong-type connectors having screw-band tighteners. For 110/120v. 50/60 cy. a.c.

Model M-36 Vertical Light Source.....**$33.84**

Model M-26 Vertical Photocell Receiver.....**38.88**

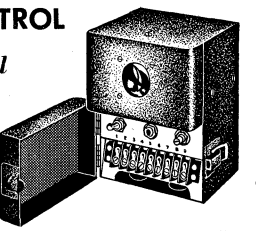
Model M-37 Horizontal Light Source.....**33.84**

Model M-27 Horizontal Photocell Receiver.....**38.88**

TWO-UNIT CONTROL

For Industrial Applications (Indoors)

Light Source

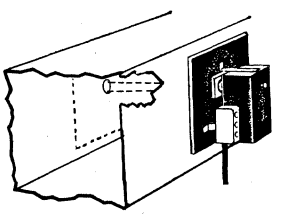


Amplifier

Amplifier includes photocell, Relay and components. Efficient for distances from a few inches to 75 ft. For use where Relay is not required to operate over 400 times a minute, such as; counting, sorting large objects; limit switches; start, stop operations; opening doors, etc.

Model 62 R & L "Two-Unit Set".....**Per Set $105.00**

STOP FIRE BEFORE IT SPREADS



Automatic Control when light beam projected across duct, detects smoke.

Most catastrophic fires are due to sparks drawn into or originating in air-conditioning ducts, resulting in flames fan-driven throughout a building. The Worner Fan Motor Stop minimizes this hazard by early detection, stopping of fans and sounding alarm. Consists of Light Source, Photocell Receiver and Control Cabinet. Meets requirements of National Board of Fire Underwriters, Factory Insurance Ass'n. Listed by U.L. Send for Bulletin 650.

Prices Are Slightly Higher West of Rockies

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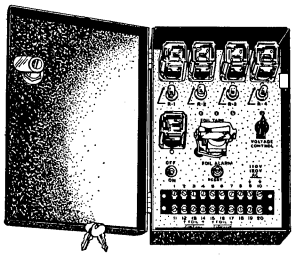
BURGLAR ALARM SYSTEMS

EASY-TO-FOLLOW INSTALLATION INSTRUCTIONS • REQUEST ENGINEERING BULLETINS

THE WORNER MASTER CONTROL SYSTEM

MODEL 9000 SERIES



Consists of Model 9000-S Master Control Panel. Can supervise ONE to FOUR Light Source and Photocell detection sets, hereafter referred to as "Fotoelectric Sets".

On separate circuit, the Master Control Panel will also supervise foil tape, door traps and window switch systems. Both circuits operate independently and simultaneously. Sounds continuous alarm (until reset) when either of these detection circuits is opened or wiring of Fotolectric system is tampered with.

This control panel prevents false alarms should power fail or drop momentarily and resets automatically when power is restored. Also operates with any type electrical devices employed by professional burglar alarm companies.

The unit contains Relays which energize alarm circuits. The cabinet size is 7" x 10¼" x 4⅜" and its operation is safeguarded by a pick-proof lock. The unit is installed remotely. Designed for 110/120v. 50/60 cy. a.c.

Illustration shows FOUR Relay plug-in location for 1, 2, 3 and 4 Relays as needed; one Relay for each Fotolectric (detection) Set used. Model 9000-S Master Control Panel is list priced "less Relays," as only ONE Relay is automatically supplied with each Model No. 9000 series Fotolectric Set ordered.

Model 9000-S Master Control Panel.....**Each $82.50**

Model	Range	Fotolectric Set	Per Set
9100	100 ft.	Light Source & Photocell	**$122.43**
9150	150 ft.	Light Source & Photocell	**138.57**
9075	75 ft.	Light Source & Photocell	**142.56**
9250	250 ft.	Light Source & Photocell	**152.79**
9500	500 ft.	Light Source & Photocell	**164.01**

MODEL 7000 SERIES

Comprises (light Source and Photocell) Fotolectric Sets that operate in conjunction with burglar alarm companies' central control equipment. The Fotolectric Sets do not interfere with operation of Central Alarm Companies', foil tapes or window traps. For 110/120v. 50/60 cy. a.c. For 24v. 60 cy. use Worner Step-Down Transformer.

Model	Range	Fotolectric Set	Per Set
7100	100 ft.	Light Source & Photocell	**$122.43**
7150	150 ft.	Light Source & Photocell	**138.57**
7075	75 ft.	Light Source & Photocell	**142.56**
7250	250 ft.	Light Source & Photocell	**152.79**
7500	500 ft.	Light Source & Photocell	**164.01**

MODEL 5000 SERIES

There are 2 Models. Each model has Light Source and Photocell units. The Photocell unit of each Model contains all amplifier components. Thus each Model is a Two-Unit alarm set. Each is designed for indoor use and not intended for use with foil systems, etc.

Has on-off switch, phone jack to test plate current, sensitivity control. Lock. Alarm can be turned off or trespass trap reset only by the possessor of the key. For 110/120v. 50/60 cy. a.c.

Model	Range	Fotolectric Set	Per Set
5100	100 ft.	Two-Unit System	**$122.43**
5150	150 ft.	Two-Unit System	**138.57**

LIGHT SOURCE & PHOTOCELL SETS

All light beams are infra-red (invisible) light.

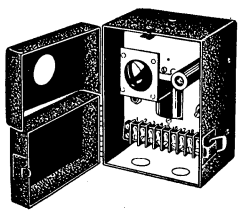
Sets for 100 and 150 ft. ranges are for indoor use. Sets for 75, 250, and 500 ft. ranges are for both indoor and outdoor use.

Sets for 75, 150, 250 and 500 ft. ranges have unwanted light rejector for maximum daytime operating efficiency.

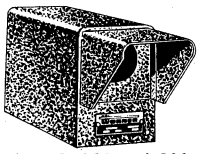
Some cases are similar, but circuits vary greatly.

Light Sources and Photocell Units for 100 ft. Ranges. Models: 9100, 7100, 5100.

Light Sources for 150 ft. Range. Models: 9150, 7150, 5150.

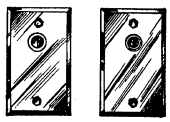


Photocells for 150 ft. Range. Models: 9150, 7150, 5150.



Sets for 75, 250 and 500 foot ranges have hooded weatherproof cases. Photocell cases have locks.

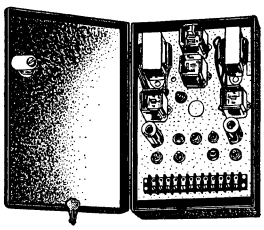
BURGLAR DETECTION UNITS CONCEALED IN THE WALL



Light Source and Photocell Receiver units concealed behind light-switch-type face plates. Projects invisible light beam ranging up to 30 feet (indoors). Standard size wall plates concealing Fotolectric detection units are high finish stainless steel. Light bulb rated 2000 hours. For guaranteed efficiency Model 81/82 Fotolectric sets must be used only with specially engineered Amplifiers listed below. Complete installation instructions enable any electrician to install.

Model 81 "In-Wall" Light Source.....**each $29.70**
Model 82 "In-Wall" Photocell Receiver.....**each 34.71**

AMPLIFIERS FOR ABOVE FOTOLECTRIC SET

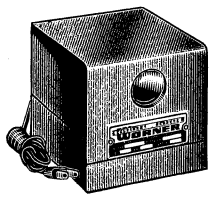


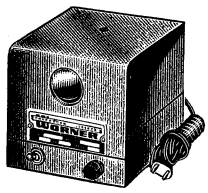
Two specially engineered units for amplifying the energy of the above concealed units.

Circuits with no-voltage control relay prevent false alarms due to line voltage irregularities and will sound alarm if tampered with. Standard alarm continuous, Regulated warning signal "special" upon order. For 110/120v. 60 cy. a.c.

Model 86-1 is a single channel Amplifier Panel that will amplify current flow of one Fotolectric Set.....**each $134.07**

Model 86-2 is a dual channel Amplifier Panel that will amplify current flow of two Fotolectric Sets, guarding separate areas. Will also supervise one Fotolectric Set, providing for future addition of a second Fotolectric Set **each $204.60**





TWO-UNIT WORNER WATCHMAN

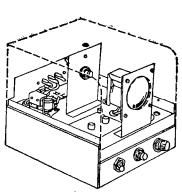
This Two-Unit Set consists of a Light Source and a Photocell unit that supplies 6-volt energy for activating the alarm circuit.

The Light Source is equipped with removable infrared filter providing visible light beam ranging up to 50 feet. The Photocell unit is equipped with toggle switch for either continuous alarm or to sound only while light beam is broken. Extraneous light rejector maintains daylight range. Two-piece case construction enables removal of cover without mounting. Identical cases 5" x 5" x 5½" welded steel, mahogany hammerloid finish. For indoor use; 110/120v. 60 cycle a.c.

Model 4000 Two-Unit Watchman (Indoors).....**Per Set $ 77.28**
Model 4100 Two-Unit Alarm (Weatherproof)..**Per Set 142.56**

TRANSISTORIZED BURGLAR ALARM

Two-Unit Combination. Indoor Use.



Photocell - Amplifier has 2-piece case for convenient installation and servicing.

The Photocell unit supplies 6-volt a.c. energy to activate a 6-volt a.c. alarm, thus providing a Two-Unit alarm set.

Alarm may be sounded at one or more remote locations. Knob control for continuous, limited or reset alarm. Built-in device minimizes unwanted light. Infrared filter provides invisible light beam ranging up to 50 feet. Both units are externally alike, 5" x 5" x 5½". Two-piece hammerloid cases simplify installation and servicing.

Model 8002 R & L, Transistorized Burglar Alarm Set.....**$99.00**

Prices Are Slightly Higher West of Rockies

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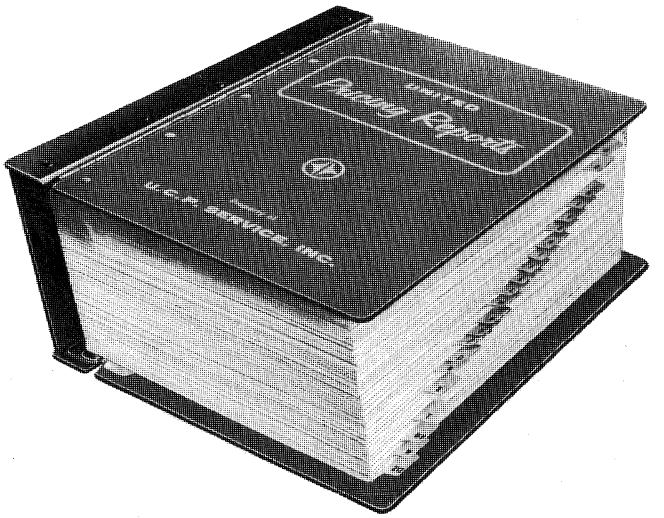

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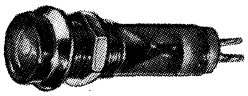
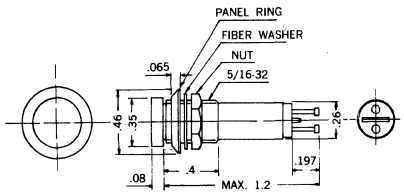
BNE SERIES

NEON PILOTS





Featuring a one-piece body construction, this miniature neon pilot is ideally suited to indicate toggle switch positions, or for other display configurations with space limitations. A particular characteristic of this model is the compact lens system protruding slightly above the panel. Available less series resistor only. This model is provided with a high intensity neon for maximum light output.

SPECIFICATIONS

Operating Voltage:
75 VAC maximum or 115 VAC with a 33K external resistor (not supplied).
Operating Current:
1.5 milliampere
Temperature Range:
−10°C to +70°C
Mounting Requirement:
Single 3/16" hole (3/16-32 thread).
Shock Test:
Will withstand a drop of 3½ feet.
Vibration:
Harmonic Frequency 25 ±2 cps.
Amplitude ±0.04
Time 2 minutes
Tolerance:
±0.010"

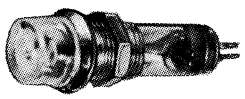
INDUSTRIAL NET PRICE SCHEDULE

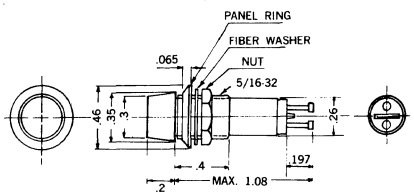
MODEL	COLOR*	ONE-24	25-99	100-499	500-999
BNE-2	Red	.49	.33	.29	.24
BNE-2	Amber	.49	.33	.29	.24
BNE-2	Clear	.49	.33	.29	.24
BNE-2	White	.49	.33	.29	.24

*Note: Indicate color; This model available less series resistor only.

BNF SERIES

NEON PILOTS





Similar to the BNE Series except that the lens system extends a greater distance beyond the panel for relatively greater illumination. As in the BNE Series this model has a permanent built-in neon, but no series resistor is supplied for 115 volt operation. Turret type lugs are used for simplified hookup.

SPECIFICATIONS

Operating Voltage:
75 VAC maximum or 115 VAC with a 33K external resistor (not supplied).
Operating Current:
1.5 Milliampere
Temperature Range:
−10°C to +70°C
Mounting Requirement:
Single 3/16" hole (3/16-32 thread).
Shock Test:
Will withstand a drop of 3½ feet.
Vibration:
Harmonic Frequency 25 ±2 cps.
Amplitude ±0.04
Time 2 minutes
Tolerance:
±0.010"

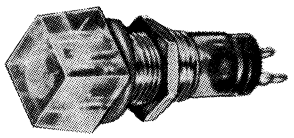
INDUSTRIAL NET PRICE SCHEDULE

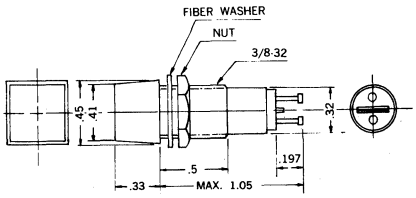
MODEL	COLOR*	ONE-24	25-99	100-499	500-999
BNF-2	Red	.49	.33	.29	.24
BNF-2	Amber	.49	.33	.29	.24
BNF-2	Clear	.49	.33	.29	.24
BNF-2	White	.49	.33	.29	.24

*Note: Indicate color; This model available less series resistor only.

BND SERIES

NEON PILOTS





Combines an entirely new look in a space-saving pilot assembly. The neon protrudes beyond the panel to provide maximum light intensity. This model is available with and without built-in series resistor for 115 volt operation, and also available as standard or high intensity models as listed below.

SPECIFICATIONS

Operating Voltage:
75 VAC maximum (115 VAC operations with series resistors indicated below).
Operating Current:
(Low Intensity) 0.3 ma.
(High Intensity) 1.5 ma.
Built-in Resistors (for 115 VAC operation):
(Low Intensity) 150K
(High Intensity) 33K
Temperature Range:
−10°C to +70°C
Mounting Requirement:
⅜" hole (⅜-32 thread)
Vibration:
Same as other models
Tolerance:
0.010"

INDUSTRIAL NET PRICE SCHEDULE

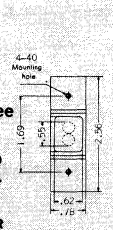
MODEL	DESCRIPTION	ONE-24	25-99	100-499	500-999
BND-2	Std. Less Res.	.49	.33	.29	.24
BND-2	Std. With Res.	.59	.39	.35	.29
BND-3	Hi-Int Less Res.	.59	.39	.35	.29
BND-3	Hi-Int With Res.	.69	.46	.41	.35

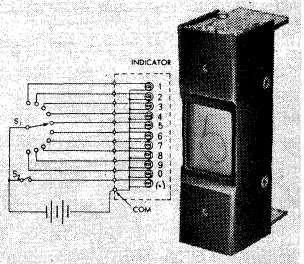
Note: Indicate color: Red, Amber, Clear or White

MINIATURE NUMERIC READOUT INDICATORS

NEW low-priced miniature numeric readout indicators feature compact size, large digital displays. Principle of operation relies on an engraved lucite plate which is edge lighted by an incandescent lamp. Figures are marked as a series of white dots and are clearly displayed. 6 or 14 volt models.

- Type 2181 or 2182 lamps are securely soldered in place to eliminate improper contact problems.
- Extremely long life lamps used for virtually trouble free operation. 30,000 to 50,000 hours life.
- Lamps physically mounted in odd and even sectors to simplify design & wiring of decimal or binary systems.





INDUSTRIAL NET PRICE SCHEDULE	MODEL	LAMP NO.	VOLTS	MA.	HR. LIFE	ONE-9	10-24	25-49	50-OVER
	RK-6	2181	6.3	200	30-50,000	9.95	7.45	6.95	6.25
	RK-14	2182	14.	80	30-50,000	9.95	7.45	6.95	6.25

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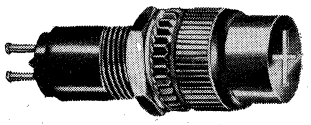
DIALCO® INDICATOR LIGHTS

Foremost Manufacturer of Indicator Lights
DIALIGHT CORPORATION

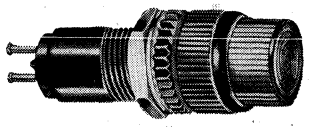
(Illustrations are approx. actual size)

DATALITES® – Ultra-Miniature Indicator Lights

INCANDESCENT DATALITES WITH DATACAPS



250-8738-1471-504



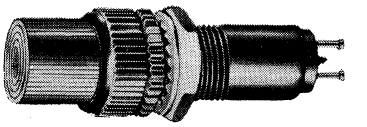
250-8738-3331-504

NEON DATALITES WITH DATACAPS

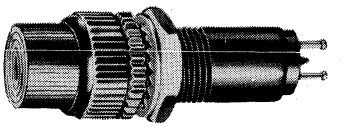
Mount in 3/8" Clearance Hole

Features:

A screw-on, rotatable, cylindrical outer-cap with or without **hot-stamped legend.** The Datalamp Holder accommodates a clear, colorless Datalamp Cartridge and Data Cap. These assemblies reduce down time since no hot-stamped legends are required on replacement cartridges. Reduces costs too!



250-8745-1631-504



250-8745-3331-504

INCANDESCENT ■ COMPLETE ASSEMBLIES WITH TURRET TERMINALS		
▲ DATA CAP LENS COLOR	SHORT CYLINDRICAL FOR USE WITH HOT-STAMPED LEGENDS (TRANSLUCENT)	SHORT CYLINDRICAL WITH DIFFUSING RINGS (TRANSPARENT)
Red	250–8738–1471–504	250–8738–3331–504

■ To obtain solder cup terminals change **"87"** in catalog number to **"75"**. For amp **"53"** taper pin receptacles, change to **"90"**.

Example: 250–**90**38–1471–504.

▲ Lens Color: To obtain Data Cap with color other than red, change digit before last dash in catalog number (–1471–) to: Green–2; Amber–3; White Translucent–5; Clear Colorless–7.

Example: 250–8738–147**3**–504 (Amber).

NEON ■ COMPLETE ASSEMBLIES WITH TURRET TERMINALS			
DATA CAP LENS SHAPE	▲ LENS COLOR	ACCOMMODATES CARTRIDGES WITH BUILT-IN RESISTOR	ACCOMMODATES CARTRIDGES WITH NO RESISTOR
Long Cylindrical	Red	250–8745–1631–504	250–8738–1631–504
Short Cylindrical	Red	250–8745–3331–504	250–8738–3331–504

■ To obtain solder cup terminals change **"87"** in catalog number to **"75"**. For amp **"53"** taper pin receptacles, change to **"90"**. Example: 250–**90**38–3331–504.

▲ Lens Color: To obtain Data Cap with color other than red, change digit before last dash in catalog number (–1631– or –3331–) to: Amber–3; White Translucent–5; Clear Colorless–7.

Example: 250–8745–333**3**–504 (Amber).

INCANDESCENT DATALAMP CARTRIDGES FOR USE IN DATA CAP ASSEMBLIES					
NEW CATALOG NOS. SHORT CYLINDRICAL LENS SHAPE TRANSPARENT–COLORLESS	OLD CATALOG NOS. SHORT CYLINDRICAL LENS SHAPE TRANSPARENT–COLORLESS	VOLTS	MA.	C.P.*	LIFE HOURS
LONG LIFE—HIGH RELIABILITY					
507–3907–1437–600	39L–6.304–1437	6.3	40	.03	50,000
507–3909–1437–600	39L–6.3–1437	6.3	200	.40	50,000
507–3914–1437–600	39L–14–1437	14.0	80	.30	50,000
507–3918–1437–600	39L–28–1437	28.0	40	.30	25,000
LOW POWER RATINGS					
507–3901–1437–600	39–1.35–1437	1.35	60	.006	500
507–3903–1437–600	39–2.7–1437	2.7	60	.04	500
507–3904–1437–600	39–3015–1437	3.0	15	.005	10,000
507–3910–1437–600	39–10–1437	10.0	14	.004	100,000
507–3911–1437–600	39–1004–1437	10.0	40	.08	5,000
507–3912–1437–600	———	14.0	17	.03	50,000
507–3915–1437–600	———	18.0	20	.08	20,000
STANDARD RATINGS					
507–3902–1437–600	39–2.52–1437	2.5	200	.20	500
507–3906–1437–600	39–6–1437	6.0	200	.60	1,000
507–3908–1437–600	39–6.3075–1437	6.3	75	.23	500
507–3913–1437–600	39–14–1437	14.0	80	.50	750
507–3916–1437–600	39–18–1437	18.0	40	.15	1,000
507–3917–1437–600	39–28–1437	28.0	40	.34	1,000

*C.P. is the mean spherical candle power of the lamp used. Values are useful for relative effectiveness.

NEON DATALAMP CARTRIDGES		
LAMP BRIGHTNESS	*CARTRIDGES WITH BUILT-IN RESISTOR	*CARTRIDGES WITH NO RESISTOR
HIGH	507–4538–0937–610	507–3836–0937–600
STANDARD	507–4537–0937–610	507–3835–0937–600

*To obtain cartridge with short cylindrical lens shape, change **–09** in catalog number to **–14**. Example: 507–3836–**14**37–600.

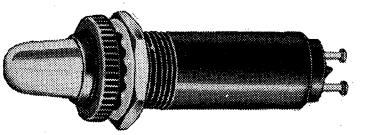
HOT-STAMPED OR ENGRAVED LEGENDS

Short and Long Cylindrical Datacaps can be hot-stamped with one to three digits of standard size, as follows:

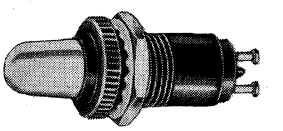
1 DIGIT, 13⁄64" high (18 pt. type)
2 DIGITS, 11⁄64" high (14 pt. type)
3 DIGITS, 9⁄64" high (12 pt. type)

These standard sizes of Legends will be provided in a uniform manner per order — i.e., the size of type will be determined by the longest legend in each individual order. Standard — BLACK. White, red, green or blue hot-stamping can be supplied to order. Also available — colored legends on black or grey lenses.

DATALITES with PERMANENT LAMPS



249-7841-0931-554
(with built-in resistor)



249-7840-0931-504
(without built-in resistor)

Built-in (not replaceable): Neon Lamps NE-2E or NE-2H (high brightness) **and** required current-limiting **resistor.** Units mount in 3⁄8" clearance hole from back of panel; two terminals; fully insulated; 5 lens colors; conform to applicable MIL. Specs. Shown: No. 249-7841-0931-554 with built-in resistor. Available — shorter unit, without resistor. No. 249-7840-0931-504. For assemblies with high brightness lamp — **without resistor** — change -7840- to **-7865-; with resistor** — change -7841- to **-7866-**.

Examples: 249-78**65**-0931-504; 249-78**66**-0931-514.

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THE COMPLETE LINE OF

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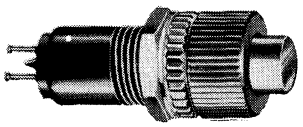
Foremost Manufacturer of Indicator Lights
DIALIGHT CORPORATION

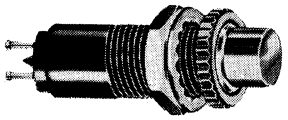
(Illustrations are approx. actual size)

DATALITES® – Ultra-Miniature Indicator Lights

Incandescent Datalites—For use on 1.35V-60V Circuits**



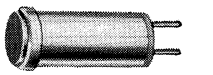
508-8738-504
w/507-3909-1471-600



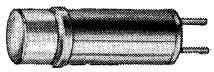
250-8738-14-504
w/507-3909-1471-600

TERMINAL TYPE*	DATALAMP HOLDER WITH COLLAR	DATALAMP HOLDER WITHOUT COLLAR
Turret	508-8738-504	250-8738-14-504

*To obtain Datalmp Holder with other than turret terminals change **"87"** in catalog No. to **"75"** (solder cup terminals). For amp **"53"** taper pin receptacles, change to **"90"**.
Example: 508-**90**38-504.



507-3909-0371-600



507-3909-1471-600

Mount in 3/8" Clearance Hole

Incandescent Datalite Indicator Lights consist of: (1) **Datalamp Cartridges** — a plug-in, replaceable light source, with either short cylindrical or flat lens shape (see chart at right); accommodated by (2) **Datalamp Holders** — with or without collar (see chart above).

Standard Finish: Aluminum, black anodize finish. To obtain optional clear anodize finish, change the first digit in the catalog number suffix from **-5** to **-6**. Example: 508-8738-**6**04.

**Datalamp Cartridges are also available with T-2 type lamps in a range of voltages from 6-60V. For more information, request *Catalog L-160.*

LENS COLOR: The digit **before** the last dash in the catalog number indicates that the color of the Datalamp Cartridge is RED. When color other than red is desired, change this digit to a figure from the listing below. Red — 1; Green — 2; Yellow (Amber) — 3; Blue — 4; White Translucent—5; Yellow—6; Clear (Colorless)—7.
Example: 507-3901-147**3**-600 (yellow amber).

DATALAMP CARTRIDGES		DATALAMP CARTRIDGES				
NEW CATALOG NOS. SHORT CYLINDRICAL LENS SHAPE *(TRANSLUCENT)	OLD CAT. NOS. SHORT CYL. LENS SHAPE (TRANSLUCENT)	NEW CATALOG NOS. ▲FLAT LENS SHAPE *(TRANSLUCENT)	OLD CAT. NOS. FLAT LENS SHAPE (TRANSLUCENT)	VOLTS	MA.	C.P.**	LIFE HOURS
LONG LIFE—HIGH RELIABILITY							
507-3909-1471-600	39L-6.3-1471	507-3909-0371-600	39L-6.3-371	6.3	200	.40	50,000
507-3914-1471-600	39L-14-1471	507-3914-0371-600	39L-14-371	14.0	80	.30	50,000
507-3918-1471-600	39L-28-1471	507-3918-0371-600	39L-28-371	28.0	40	.30	25,000
STANDARD RATINGS							
507-3902-1471-600	39-2.52-1471	507-3902-0371-600	39-2.52-371	2.5	200	.20	500
507-3906-1471-600	39-6-1471	507-3906-0371-600	39-6-371	6.0	200	.60	1,000
507-3908-1471-600	39-6.3075-1471	507-3908-0371-600	39-6.3075-371	6.3	75	.23	500
507-3913-1471-600	39-14-1471	507-3913-0371-600	39-14-371	14.0	80	.50	750
507-3916-1471-600	39-18-1471	507-3916-0371-600	39-18-371	18.0	40	.15	1,000
507-3917-1471-600	39-28-1471	507-3917-0371-600	39-28-371	28.0	40	.34	1,000
LOW POWER RATINGS (TRANSPARENT ONLY)							
507-3901-1431-600	39-1.35-1431	507-3901-0331-600	39-1.35-331	1.35	60	.006	500
507-3903-1431-600	39-2.7-1431	507-3903-0331-600	39-2.7-331	2.7	60	.04	500
507-3904-1431-600	39-3015-1431	507-3904-0331-600	39-3015-331	3.0	15	.005	20,000
507-3910-1431-600	39-10-1431	507-3910-0331-600	39-10-331	10.0	14	.004	100,000
507-3911-1431-600	39-1004-1431	507-3911-0331-600	39-1004-331	10.0	40	.08	10,000
507-3912-1431-600	———	507-3912-0331-600	———	14.0	17	.03	50,000
507-3915-1431-600	———	507-3915-0331-600	———	18.0	20	.08	20,000

*If transparent lens is desired, change "7" in the catalog number to "3". Examples: 507-3909-1431-600; 507-3909-0331-600.
▲ Not for use with Datalamp Holders or Data Twin Assembly. Use only with separate 515-0050 or 515-0012 Cartridge Connector and 515-0051 Speed Clip.
**C.P. is the mean spherical candle power of the lamp used. Values are useful for relative effectiveness.

NEON DATALITES

For use on
105-125V AC-DC or
110-125V AC CIRCUITS

Mount in 3/8" Clearance Hole

Neon Datalite Indicator Lights consist of: (1) **Datalamp Cartridges** — a plug-in, replaceable light source, with either stovepipe or long cylindrical lens shape — **with or without** built-in current limiting resistor (see recommended resistance values and appropriate code nos. below). (2) accommodated by **Datalamp Holders** of shorter length when cartridge **without** built-in resistor is used; by Datalamp Holders of longer length when cartridges **with** built-in resistor are used. See charts at right for available selections.

Standard Finish: Black anodize. To obtain optional clear anodize finish, change the first digit in the catalog number suffix from **-5** to **-6**.
Example: 508-8745-**6**04.

LENS COLOR: The digit **before** the last dash in the catalog number indicates that the color of the Datalamp Cartridge is RED. When color other than red is desired, change this digit to a figure from the listing below.

Note: Blue or green lens colors are not available for use with Neon light sources.

Red — 1; Yellow (Amber) — 3; White Translucent — 5; Clear (Colorless) — 7.
Example: 507-4538-153**3**-610
(yellow amber)

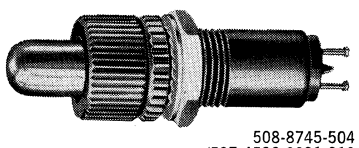
NEON DATALAMP CARTRIDGES		
LENS SHAPE	BUILT-IN RESISTOR HIGH BRIGHTNESS	BUILT-IN RESISTOR STANDARD BRIGHTNESS
Stovepipe	507-4538-0931-610	507-4537-0931-640
Long Cylindrical	507-4538-1531-610	507-4537-1531-640

TERMINAL TYPE*	DATALAMP HOLDER WITH COLLAR	DATALAMP HOLDER WITHOUT COLLAR
Turret	508-8745-504	250-8745-15-504

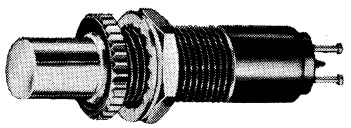
*To obtain Datalamp Holder with other than turret terminals change **"87"** in catalog No. to **"75"** (solder cup terminals). For amp **"53"** taper pin receptacles, change to **"90"**.
Example: 250-**90**45-15-504.

▲ NEON DATALAMP CARTRIDGES		
	WITHOUT BUILT-IN RESISTOR	
LENS SHAPE	HIGH BRIGHTNESS	STANDARD BRIGHTNESS
Stovepipe	507-3836-0931-600	507-3835-0931-600
Long Cylindrical	507-3836-1531-600	507-3835-1531-600

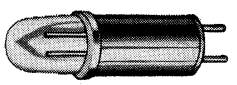
▲ These Datalamp Cartridges are accommodated by Datalamp Holders listed in table for Incandescent Datalites.



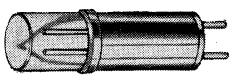
508-8745-504
w/507-4538-0931-610



250-8745-15-504
w/507-4538-0931-610



507-3836-0931-600
(without built-in resistor)



507-4538-1531-610
(with built-in resistor)

NEON LAMPS and RESISTOR VALUES					
		Bright Light		Long Life	
Neon Lamp	Volts Applied to Terminals	Resistor and Approx. Life		Resistor and Approx. Life	
NE-2E Stand. Bright.	105-125 AC or DC	56K	3000 hrs.	100K	10000 hrs.
NE-2H High Bright.	110-125 AC only	22K	5000 hrs.	33K	20000 hrs.

Change 2nd digit in code no. suffix as follows: (56K) — 640; (22K) — 610; (100K) — 670; (33K) — 630; Example: 507-4538-0931-**6**30.

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Foremost Manufacturer of Indicator Lights

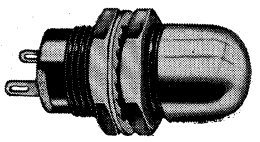
DIALIGHT CORPORATION

(Illustrations are approx. actual size)

Sub-Miniature Indicator Lights for T-1¾ Bulbs

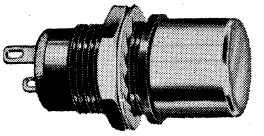
LENS COLORS: For detailed description, see note at the bottom of the right hand column of the facing page.

MOUNT IN 15/32" CLEARANCE HOLE FRONT OR BACK OF PANEL INSERTION WITH MOVABLE FLANGE



101-3830-0931-201

MOUNT IN 15/32" CLEARANCE HOLE FRONT OF PANEL INSERTION WITH FIXED FLANGE

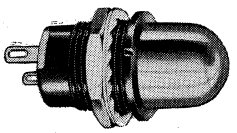


140-8430-1471-201

TYPE MOUNTING	LENS SURFACE	CATALOG NUMBER STOVEPIPE LENS SHAPE	CATALOG NUMBER CYLINDRICAL LENS SHAPE
Front or Back Mtg. in 15/32" Clearance Hole	Transparent	101-3830-0931-201	140-3830-1431-201
	Translucent	101-3830-0971-201	140-3830-1471-201
Front Mtg. in 17/32" Clearance Hole	Transparent	101-5030-0931-201	140-5030-1431-201
	Translucent	101-5030-0971-201	140-5030-1471-201
Front Mtg. in 15/32" Clearance Hole	Transparent	101-8430-0931-201	140-8430-1431-201
	Translucent	101-8430-0971-201	140-8430-1471-201

MOUNT IN 15/32" CLEARANCE HOLE FRONT OF PANEL INSERTION WITH FIXED FLANGE

MS25256 2-12



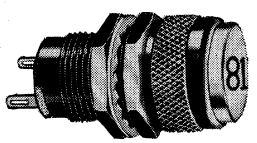
162-8430-0931-502

Note: The inclusion of lamp MS25237-327 in MS25256, formerly designated by the use of odd numbered suffixes, -1 through -11 inclusive, is now superseded by suffix -327 (28 volts .04 amp) or -328 (6 volts .20 amp) after the even numbered dash number. Examples: MS25256-2-327; MS25256-10-328.

CATALOG NUMBER	MS. NO. WITHOUT LAMP*	LENS CAP COLOR**
162-8430-0933-502	MS25256-2	Aviation Yellow
162-8430-0932-502	MS25256-4	Aviation Green
162-8430-0931-502	MS25256-6	Identification Red
162-8430-0937-502	MS25256-8	Aviation White
162-8430-0975-502	MS25256-10	Translucent White
162-8430-0934-502	MS25256-12	Aviation Blue

To specify translucent stovepipe or cylindrical; or transparent cylindrical lens cap **(not covered by MS designations)** write for Cat. L-178.

*Marking: Part number marked on the assembly is the part number for the complete assembly **less lamp.** — **All lens cap colors are transparent with the exception of white.



134-3830-0351-201

ROTATABLE LENS

Specially designed spring mounting facilitates rotation of lens and alignment of legend — **after** installation of the Indicator Light.

LENS SHAPE	LENS FINISH	CATALOG NO. (FRONT OR BACK MTG. 15/32" CLEARANCE HOLE)	CATALOG NO. (FRONT MTG. 17/32" CLEARANCE HOLE)	CATALOG NO. (FRONT MTG. 15/32" CLEARANCE HOLE)
FLAT	Transparent	134-3830-0331-201	134-5030-0331-201	134-8430-0331-201
	Translucent	■134-3830-0351-201	■134-5030-0351-201	■134-8430-0351-201
CONVEX	Unfrosted	134-3830-0131-201	134-5030-0131-201	134-8430-0131-201
	Back Frosted	134-3830-0111-201	134-5030-0111-201	134-8430-0111-201
FACETED	Unfrosted	134-3830-0431-201	134-5030-0431-201	134-8430-0431-201

■ Specify translucent colors as follows: Red — 0351 . . . Green — 0352 . . . Yellow (Amber) — 0373 . . . Blue — 0374 . . . White — 0375 . . . Light Yellow — 0376.

Two Terminals — Fully Insulated

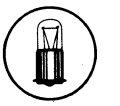
Meet or exceed environmental and operational requirements of MIL-L-6723 and MIL-L-3661.

RUGGED CONSTRUCTION

Lamp, socket, and all connections are completely insulated from the bushing and panel to which it is attached. The use of phenolic material for military specification grade assures permanent isolation from ground. These assemblies are solidly made to withstand usual vibration and corrosion resistance tests.

Order Complete with Lamp. Specify Lamp Number.

MIDGET FLANGED BASE INCANDESCENT



MANUFACTURER'S RATINGS (Values given are approx.)

LAMP NO.	VOLTS	AMPERES	HOURS
331	1.35	.06	500
338	2.7	.06	500
375	3.0	.015	20,000
*328	6.0	.20	1,000
345	6.0	.04	1,000
349	6.3	.20	3,000
380	6.3	.04	50,000
381	6.3	.20	50,000
344	10.0	.014	50,000
367	10.0	.04	20,000
330	14.0	.08	750
382	14.0	.08	50,000
370	18.0	.04	1,000
*327	28.0	.04	1,000
**387	28.0	.04	25,000

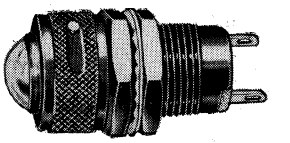
*Conforms to MS25237.
**MS18209 (BuShips)

DIMMERS — MECHANICAL or POLAROID

Choice of mechanical or polaroid dimming device. Polaroid produces some reduced intensity at all settings, but gives full diameter opening.

Mechanical varies opening size to complete blackout or has permanent small opening as in "semi-blackout" type.

MOUNT IN 15/32" CLEARANCE HOLE FRONT OR BACK OF PANEL INSERTION WITH MOVABLE FLANGE



108-3830-0111-201

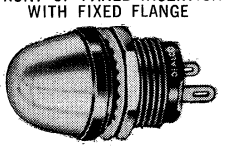
DIMMER TYPE	GLASS LENS TYPE	LENS SURFACE	CATALOG NO. (FRONT OR BACK MTG. 15/32" CLEARANCE HOLE)	CATALOG NO. (FRONT MTG. 17/32" CLEARANCE HOLE)	CATALOG NO. (FRONT MTG. 15/32" CLEARANCE HOLE)
Complete Blackout	Convex	Unfrosted	108-3830-0131-201	108-5030-0131-201	108-8430-0131-201
		Back Frosted	108-3830-0111-201	108-5030-0111-201	108-8430-0111-201
Semi-Blackout	Convex	Unfrosted	109-3830-0131-201	109-5030-0131-201	109-8430-0131-201
		Back Frosted	109-3830-0111-201	109-5030-0111-201	109-8430-0111-201
Polaroid	Convex	Unfrosted	112-3830-0131-201	112-5030-0131-201	112-8430-0131-201
		Back Frosted	112-3830-0111-201	112-5030-0111-201	112-8430-0111-201

NON-DIMMING TYPE	GLASS LENS TYPE	LENS SURFACE	COMPLETE ASSEMBLIES
Front or Back Mtg. in 15/32" Clearance Hole	Convex	Unfrosted	111-3830-0131-201
		Back Frosted	111-3830-0111-201
Front Mtg. in 17/32" Clearance Hole	Convex	Unfrosted	111-5030-0131-201
		Back Frosted	111-5030-0111-201
Front Mtg. In 15/32" Clearance Hole	Convex	Unfrosted	111-8430-0131-201
		Back Frosted	111-8430-0111-201

WATER-TIGHT ASSEMBLIES

Water-tight construction: These Sub-Miniature Lights are completely water-tight on the face of the panel. Water-tightness is achieved by means of **retained O-ring seals.** One **O-ring** is retained within the back of the lens cap, the other behind the flange on the mounting bushing.

MOUNT IN 15/32" CLEARANCE HOLE. FRONT OF PANEL INSERTION WITH FIXED FLANGE

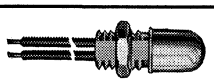


177-8430-0931-503

WATER-TIGHT DIMMERS

On the Dimmer type assembly, a third **O-ring** is mounted within the dimmer cap — so positioned as to assure absolutely no leakage through the dimmer slot. For data, request Catalog L-178.

LENS COLOR	COMPLETE ASSEMBLIES	
	TRANSPARENT COLORS	TRANSLUCENT COLORS
Red	177-8430-0931-503	177-8430-0971-503
Green	177-8430-0932-503	177-8430-0972-503
Yellow (Amber)	177-8430-0933-503	177-8430-0973-503
Blue	177-8430-0934-503	177-8430-0974-503
White (Translucent)	177-8430-0935-503	177-8430-0975-503
Light Yellow	177-8430-0936-503	177-8430-0976-503
Clear (Colorless)	177-8430-0937-503	———



Sub-Sub-Miniatures

New . . . Series 252-9951-0971

Conforms to Drawing MS25446 2-7 . . . Requires only .193" Panel Mounting Clearance Hole . . . For complete data, refer to Catalog L-168.

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(Illustrations are approx. actual size)

When Connecting a Neon Light to a Circuit Having One Side Grounded, Always Connect the Hot Side of the Circuit to the Terminal Marked + (Center Contact).

Sub-Miniature Indicator Lights for NEON Lamps

NE-2D *(regular)*
NE-2J *(high brightness)*

TWO TERMINALS — FULLY INSULATED . . . Meet or exceed environmental and operational requirements of MIL-L-6723 and MIL-L-3661.

FEATURES: Omnidirectional Stovepipe Lens: Molded of high heat plastic, gives 180° light spread. Heavy wall of lens is reinforced by a threaded brass insert. This fitting receives the lamp and screws into the internal thread of the bushing. The bulb enters well into the plastic lens for best effectiveness. The shank of the lens holder is crimped in 3 evenly spaced places to secure the lamp.

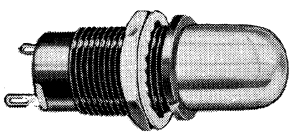
The LIGHT SOURCE: Tiny Neon Glow Lamps NE-2D or NE-2J

Recommended resistor values:

FOR NE-2D AT 105–125 VOLTS AC OR DC	
Bright Light	Long Life
■62,000 ohms	100,000 ohms
FOR NE-2J (HIGH BRIGHTNESS) AT 110–125 VOLTS AC ONLY	
Bright Light	Long Life
■22,000 ohms	33,000 ohms

■ Standard values of patented built-in resistors; other values optional.

MOUNT IN 15/32" CLEARANCE HOLE FRONT OF PANEL INSERTION WITH FIXED FLANGE



137-8836-0931-552

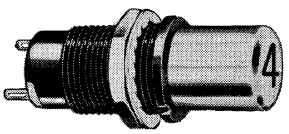
With Built-in Resistor

(A patented DIALCO feature— U.S. Pat No. 2,421,321)

Conform to MS25257

Accommodates a T-2 Neon Glow Lamp: NE-2D (MS25252) for 105-125 Volts A.C. or D.C.; **for Catalog Numbers see below . . . NE-2J** (High Brightness) for 110-125 Volts — A.C. only.

CATALOG NO. WITHOUT LAMP	MS NO. WITHOUT LAMP	MS NO. WITH LAMP MS25252—NE-2D	LENS COLOR
137-8836-0933-552	MS25257-2	MS25257-1	Aviation Yellow
137-8836-0931-552	MS25257-4	MS25257-3	Identification Red
137-8836-0937-552	MS25257-6	MS25257-5	Clear (Colorless)

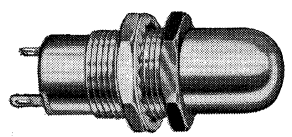


137-8836-1531-552

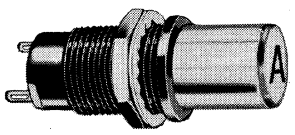
These assemblies are similar in every respect to the MS assemblies (137-8836-0931-552 Series) above, except that they offer **optional** features not covered by MS. Finishes: Standard — black anodize; **optional**—clear anodize. **Lamps**—NE-2D (standard brightness) for 105-125 volts AC or DC; NE-2J (high brightness) for 110-125 Volts — A.C. only.

LENS COLOR	COMPLETE ASSEMBLIES			
	ACCOMMODATE NE-2D LAMP		ACCOMMODATE NE-2J LAMP	
	STOVEPIPE	CYLINDRICAL	STOVEPIPE	CYLINDRICAL
Identification Red	137-8836-0931-552	137-8836-1531-552	137-8864-0931-512	137-8864-1531-512
Aviation Yellow	137-8836-0933-552	137-8836-1533-552	137-8864-0933-512	137-8864-1533-512
White	137-8836-0935-552	137-8836-1535-552	137-8864-0935-512	137-8864-1535-512
Light Yellow	137-8836-0936-552	137-8836-1536-552	137-8864-0936-512	137-8864-1536-512
Clear (Colorless)	137-8836-0937-552	137-8836-1537-552	137-8864-0937-512	137-8864-1537-512

WITHOUT BUILT-IN RESISTOR



137-7236-0931-201



137-8536-1531-201

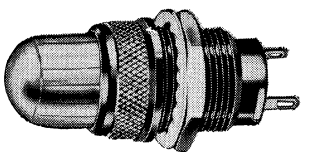
ASSEMBLY TYPE	LENS FINISH	CATALOG NUMBER	
		LENS SHAPE STOVEPIPE	LENS SHAPE CYLINDRICAL
Front or **Back Mtg.** in 15/32" Clearance Hole	Transparent	137-7236-0931-201	137-7236-1531-201
Front Mtg. in 17/32" Clearance Hole	Transparent	137-7336-0931-201	137-7336-1531-201
Front Mtg. in 15/32" Clearance Hole	Transparent	137-8536-0931-201	137-8536-1531-201

STOVEPIPE or ROTATABLE CYLINDRICAL LENS

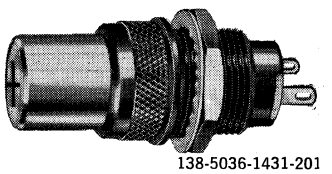
This omnidirectional stovepipe lens is molded of high heat plastic to a special design. About two-thirds of the lens is "fluted," and the remaining portion is smooth. This produces clear light framed by a sparkling "halo" when viewed from the front. Softer light is afforded along the "fluted" sides The NE-2D or NE-2J Neon Lamp enters high into the lens for best effectiveness.

Whether used on the front insertion or the back insertion assembly, the stovepipe or cylindrical lens cap is readily removable from the front of the panel, thus making the lamp accessible for easy replacement.

MOUNT IN 17/32" CLEARANCE HOLE FRONT OF PANEL INSERTION WITH FIXED FLANGE



145-5036-0991-201



138-5036-1431-201

LENS COLOR	CATALOG NUMBER FRONT OR BACK MTG. SERIES		CATALOG NUMBER FRONT MTG. SERIES	
	STOVEPIPE LENS	CYLINDRICAL LENS	STOVEPIPE LENS	CYLINDRICAL LENS
Red	145-3836-0991-201	138-3836-1431-201	145-5036-0991-201	138-5036-1431-201
Yellow (Amber)	145-3836-0993-201	138-3836-1433-201	145-5036-0993-201	138-5036-1433-201
White	145-3836-0995-201	138-3836-1435-201	145-5036-0995-201	138-5036-1435-201
Light Yellow	145-3836-0996-201	138-3836-1436-201	145-5036-0996-201	138-5036-1436-201
Clear (Colorless)	145-3836-0997-201	138-3836-1437-201	145-5036-0997-201	138-5036-1437-201

WATER-TIGHT NEON INDICATOR LIGHTS with RETAINED O-RING SEALS

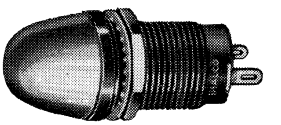
WATER-TIGHT, OIL-TIGHT, DUST TIGHT ON THE FACE OF THE PANEL

Two Terminals — Fully Insulated

MATERIALS AND FINISHES

- **Mounting Bushing:** Aluminum, black anodize finish. Optional — clear anodize finish.
- **Internal-tooth Lockwasher and Mounting Nut:** Steel, cadmium plated with yellow iridescent chromate finish.
- **Terminals:** Brass, hot tinned elongated slot.

MOUNT IN 15/32" CLEARANCE HOLE FRONT OF PANEL INSERTION WITH FIXED FLANGE With Built-in Resistor



181-8836-0931-553

LENS COLOR	COMPLETE ASSEMBLIES		
	WITH BUILT-IN RESISTOR		WITHOUT BUILT-IN RESISTOR
	ACCOMMODATE NE-2D LAMP	ACCOMMODATE NE-2J LAMP	
Red	181-8836-0931-553	181-8864-0931-513	181-8536-0931-503
Yellow (Amber)	181-8836-0933-553	181-8864-0933-513	181-8536-0933-503
White (Translucent)	181-8836-0935-553	181-8864-0935-513	181-8536-0935-503
Light Yellow	181-8836-0936-553	181-8864-0936-513	181-8536-0936-503
Clear (Colorless)	181-8836-0937-553	181-8864-0937-513	181-8536-0937-503

LENS COLOR: The **final figure before the last dash** in the Catalog Number indicates that the lens has RED color. When color other than red is desired, change this digit to a figure from the listing below. Note that white lenses are translucent and are always furnished unfrosted. (For example 137-8536-1535-201).

Red — 1 . . . Yellow (Amber) — 3 . . . White Translucent — 5 . . . Light Yellow — 6 . . . Clear (Colorless) — 7.

Example: 138-5036-1433-201 (Yellow Amber)

Green and Blue are not recommended for use with Neon lamps.

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Foremost Manufacturer of Indicator Lights

DIALIGHT CORPORATION

(Illustrations are approx. actual size)

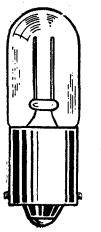
When Connecting a Neon Light to a Circuit Having One Side Grounded, Always Connect the Hot Side of the Circuit to the Terminal Marked + (Center Contact).

ASSEMBLIES with BUILT-IN RESISTORS (U. S. Patent No. 2,421,321)

"Recognized under the component program of Underwriters' Labs Inc." 75W., 125V — 75W., 250V

For the T-3¼ NEON GLOW LAMP FOR VOLTAGES UP TO 250

For operation on 105-125V. or 210-250V. . . . The required resistor is an integral part of the unit — BUILT IN. Assemblies conform to MIL-L-3661.



NE-51 or NE-51H

PROPER CHOICE OF LAMP AND BUILT-IN RESISTOR VALUES: The NE-51 glow lamp types are shown with resistor table. Lamps are the **standard brightness** NE-51 and the **high brightness** NE-51H. The latter may be operated at about three times the level of current that may be applied to the standard lamp and it will produce more than **8 times** as much

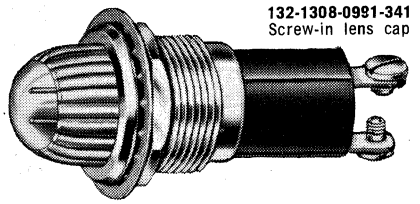
BUILT-IN RESISTOR VALUES (in ohms) for the NE-51 TYPE GLOW LAMPS

NE-51H (High Brightness)		NE-51 (Standard Brightness)	
Circuit volts applied to terminals 110–125 AC	210–250 AC-DC	Circuit volts applied to terminals 105–125 AC-DC	
BRIGHT LIGHT = 22,000	68,000	BRIGHT LIGHT = 56,000	
LONG LAMP LIFE 33,000	100,000	LONG LAMP LIFE 100,000	

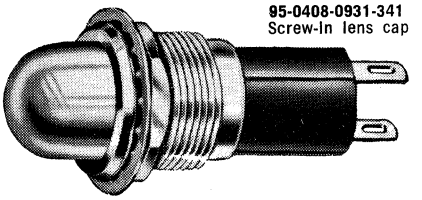
External resistors will be furnished which will permit use of these pilot lights on voltages higher than 250 volts.

■ **Standard values of patented built-in resistors.**

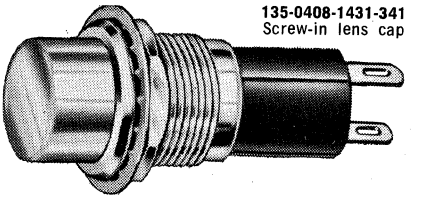
132-1308-0981-341
Screw-in lens cap



95-0408-0931-341
Screw-in lens cap

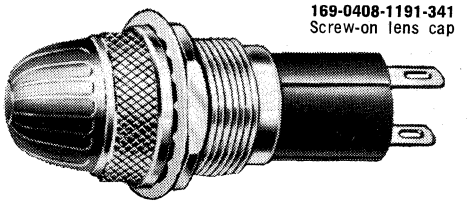


135-0408-1431-341
Screw-in lens cap

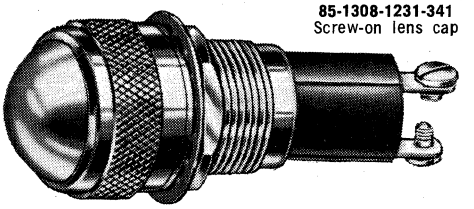


LENS HOLDER AND PLASTIC LENS STYLE	LENS FINISH	FOR NE-51H—110-125V. AC		FOR NE-51—105-125V. AC-DC	
		CATALOG NO. WITH SCREW TERMINALS	CATALOG NO. WITH SOLDER TERMINALS	CATALOG NO. WITH SCREW TERMINALS	CATALOG NO. WITH SOLDER TERMINALS
STOVEPIPE (Screw-in)	Internal Fluting	52–1363–0991–311	52–0463–0991–311	52–1308–0991–341	52–0408–0991–341
STOVEPIPE (Screw-in)	Special Internal Fluting	132–1363–0991–311	132–0463–0991–311	132–1308–0991–341	132–0408–0991–341
CYLINDRICAL (Screw-in)	Transparent	135–1363–1431–311	135–0463–1431–311	135–1308–1431–341	135–0408–1431–341
FLAT (Screw-in)	Transparent	81–1363–0331–311	81–0463–0331–311	81–1308–0331–341	81–0408–0331–341
STOVEPIPE (Screw-in)	Transparent	95–1363–0931–311	95–0463–0931–311	95–1308–0931–341	95–0408–0931–341
DOME (Screw-on)	Transparent	85–1363–1231–311	85–0463–1231–311	85–1308–1231–341	85–0408–1231–341
	Matted Back	85–1363–1241–311	85–0463–1241–311	85–1308–1241–341	85–0408–1241–341
STOVEPIPE (Screw-on)	Internal Fluting	169–1363–1191–311	169–0463–1191–311	169–1308–1191–341	169–0408–1191–341
	Transparent	169–1363–1131–311	169–0463–1131–311	169–1308–1131–341	169–0408–1131–341

169-0408-1191-341
Screw-on lens cap



85-1308-1231-341
Screw-on lens cap



WATER-TIGHT CONSTRUCTION: The assemblies on this page may be made **water-tight** on the face of the panel. To specify, change the last digit in the catalog. number suffix to **3**. Example: 95-1308-0931-**343**.

HOW TO DESIGNATE THE THREE DIGIT CATALOG NUMBER SUFFIX (-XXX)

FINISH	RESISTOR	HARDWARE
-1 white nickel	1 - 22K	1 - brass
-2 black nickel	3 - 33K	3 - water-tight on the face of the panel.
-3 polished chrome	4 - 56K	
-4 satin chrome	6 - 68K	
	7 - 100K	

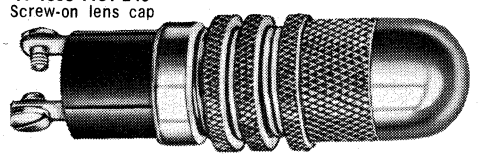
NOTE: The part numbers given in this catalog indicate **standard** indicator lights. The table at left provides the standard and optional designations for **Finish, Resistor** and **Hardware** where appropriate. Example: 85-1308-1231-**273** (black nickel finish, 100K resistor, water-tight construction).

LENS COLOR—The last digit before the 3 digit catalog number suffix indicates that the lens is RED. When color other than red is desired, change this digit to a figure from the listing below.

Red — 1; Yellow (Amber) — 3; White Translucent — 5; Light Yellow — 6; Clear (Colorless) — 7.

9/16" Assemblies mount from BACK of panel only

17-1308-1131-245
Screw-on lens cap



Optional Finishes: The catalog number suffix designates an assembly with **standard black nickel** finish. To specify optional finish, change the first digit of the catalog number suffix to **-3** (polished chrome finish), or **-4** (satin chrome finish).

Example: 17-1308-1131-**345**.

SAMPLES ON REQUEST AT ONCE — NO CHARGE

WITH SCREW-ON LENS CAP

LENS STYLE	LENS FINISH	FOR NE-51H—110-125V. AC		FOR NE-51—105-125V. AC-DC	
		CATALOG NO. WITH SCREW TERMINALS	CATALOG NO. WITH SOLDER TERMINALS	CATALOG NO. WITH SCREW TERMINALS	CATALOG NO. WITH SOLDER TERMINALS
STOVEPIPE	Transparent	17–1363–0931–215	17–0463–0931–215	17–1308–0931–245	17–0408–0931–245
	Internal Fluting	17–1363–0991–215	17–0463–0991–215	17–1308–0991–245	17–0408–0991–245
STOVEPIPE	Transparent	70–1363–1131–215	70–0463–1131–215	70–1308–1131–245	70–0408–1131–245
	Internal Fluting	70–1363–1191–215	70–0463–1191–215	70–1308–1191–245	70–0408–1191–245
FLAT	Transparent	37–1363–0331–215	37–0463–0331–215	37–1308–0331–245	37–0408–0331–245

Standard Hardware: 3 knurled rings.

Optional Hardware: 1 ring, 1 lockwasher, 1 mounting nut. To designate an assembly with "optional hardware", change the last digit in the catalog number suffix to **6**.

Example: 37-0408-0331-**246**.

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THE COMPLETE LINE OF

INDICATOR LIGHTS

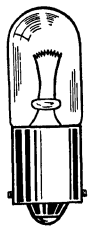
DIALCO®

Foremost Manufacturer of Indicator Lights

DIALIGHT CORPORATION

For details, refer to Catalog L-161.

(Illustrations are approx. actual size)



ASSEMBLIES for T-3¼ BULB with MINIATURE BAYONET BASE

INCANDESCENT — 2 to 55 Volts

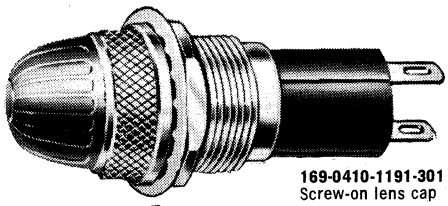
Mount in 11/16" Clearance Hole *For Front of Panel Insertion*

"Recognized under the component program of Underwriters' Labs Inc."

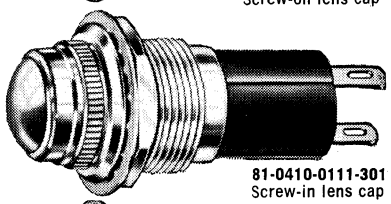
75W., 125V.

▲ LEGENDS: Hot-stamped or engraved letters, number or symbols can be supplied **only** on these lenses.

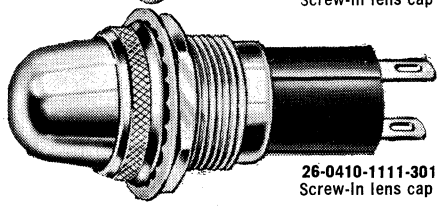
LENS STYLE	LENS FINISH	CATALOG NO. WITH SCREW TERMINALS	CATALOG NO. WITH SOLDER TERMINALS	CATALOG NO. WITH QUICK CONNECT TERMINALS
STOVEPIPE	Transparent	95-1310-0931-301	95-0410-0931-301	95-5710-0931-301
	Translucent	95-1310-0971-301	95-0410-0971-301	95-5710-0971-301
STOVEPIPE	Internal Fluting	52-1310-0991-301	52-0410-0991-301	52-5710-0991-301
STOVEPIPE	Special Internal Fluting	132-1310-0991-301	132-0410-0991-301	132-5710-0991-301
CYLINDRICAL▲	Transparent	135-1310-1431-301	135-0410-1431-301	135-5710-1431-301
CONVEX *	Unfrosted	81-1310-0131-301	81-0410-0131-301	81-5710-0131-301
	Back Frosted	81-1310-0111-301	81-0410-0111-301	81-5710-0111-301
FLAT *	Back Frosted	81-1310-0211-301	81-0410-0211-301	81-5710-0211-301
	Unfrosted	81-1310-0231-301	81-0410-0231-301	81-5710-0231-301
FLAT▲	Translucent	■81-1310-0351-301	■81-0410-0351-301	■81-5710-0351-301
	Transparent	81-1310-0331-301	81-0410-0331-301	81-5710-0331-301
STOVEPIPE *	Unfrosted	26-1310-1131-301	26-0410-1131-301	26-5710-1131-301
	Back Frosted	26-1310-1111-301	26-0410-1111-301	26-5710-1111-301
	Internal Fluting	26-1310-1191-301	26-0410-1191-301	26-5710-1191-301
STOVEPIPE *	Transparent	169-1310-1131-301	169-0410-1131-301	169-5710-1131-301
	Internal Fluting	169-1310-1191-301	169-0410-1191-301	169-5710-1191-301
DOME	Transparent	85-1310-1231-301	85-0410-1231-301	85-5710-1231-301
	Matted Back	85-1310-1241-301	85-0410-1241-301	85-5710-1241-301



169-0410-1191-301
Screw-on lens cap



81-0410-0111-301
Screw-in lens cap



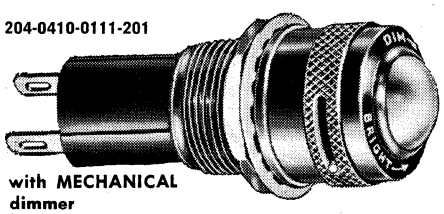
26-0410-1111-301
Screw-in lens cap

* These assemblies should be specified when lamps **rated over 2 watts** are used.

■ Specify **translucent** colors as follows: Red — 0351; Green — 0352; Yellow (Amber) — 0373; Blue — 0374; Light Yellow — 0376. Example: 81-1310-**0374**-301.

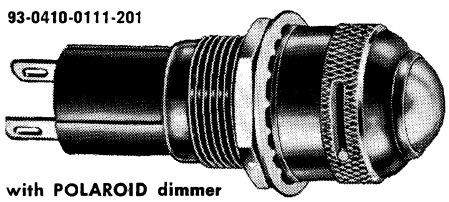
LENS COLOR: The **final figure before the last dash** in the above numbers indicates that the lens has RED color. When color other than red is desired, change this digit to a figure from the listing below. Note that white lenses are translucent and are always furnished unfrosted. Red — 1; Green — 2; Yellow (Amber) — 3; Blue — 4; White Translucent — 5; Light Yellow — 6; Clear (Colorless) — 7.

204-0410-0111-201



with MECHANICAL dimmer

93-0410-0111-201



with POLAROID dimmer

Mechanical and Polaroid Dimmers

LENS STYLE AND FINISH	MECHANICAL DIMMER TYPE	WITH ROUND FLANGE		WITH OCTAGON FLANGE	
		CATALOG NO. WITH SCREW TERMINALS	CATALOG NO. WITH SOLDER TERMINALS	CATALOG NO. WITH SCREW TERMINALS	CATALOG NO. WITH SOLDER TERMINALS
		WITH SCREW-IN LENS CAP			
CONVEX Unfrosted	Semi-Blackout Water-Tight	*204-1310-0131-203	*204-0410-0131-203	*204-5910-0131-203	*204-2210-0131-203
	Semi-Blackout Not Water-Tight	*204-1310-0131-201	*204-0410-0131-201	*204-5910-0131-201	*204-2210-0131-201
	Complete Blackout Water-Tight	*203-1310-0131-203	*203-0410-0131-203	*203-5910-0131-203	*203-2210-0131-203
	Complete Blackout Not Water-Tight	*203-1310-0131-201	*203-0410-0131-201	*203-5910-0131-201	*203-2210-0131-201
CONVEX Back Frosted	Semi-Blackout Water-Tight	*204-1310-0111-203	*204-0410-0111-203	*204-5910-0111-203	*204-2210-0111-203
	Semi-Blackout Not Water-Tight	*204-1310-0111-201	*204-0410-0111-201	*204-5910-0111-201	*204-2210-0111-201
	Complete Blackout Water-Tight	*203-1310-0111-203	*203-0410-0111-203	*203-5910-0111-203	*203-2210-0111-203
	Complete Blackout Not Water-Tight	*203-1310-0111-201	*203-0410-0111-201	*203-5910-0111-201	*203-2210-0111-201

To obtain assemblies with **screw-on** lens cap, change 204- to 208-; 203- to 207-. Note: Assemblies with screw-on lens caps are **not** available with watertight construction.

LENS COLOR: See Description above.

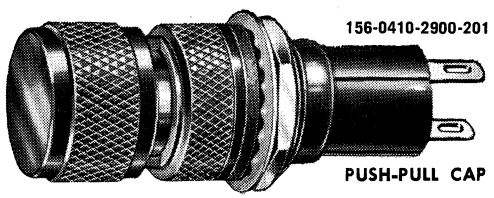
Assemblies with Light Shield Caps

TYPE OF LIGHT SHIELD CAP	SIZE OF OPENING IN CAP	CATALOG NO. WITH SCREW TERMINALS	CATALOG NO. WITH SOLDER TERMINALS
PUSH-IN CAP WITH SNAP LOCK (1 Opening)	3/16" x 9/16"	89-1310-2900-301	89-0410-2900-301
	3/32" x 1/2"	22-1310-2900-301	22-0410-2900-301
	3/16" x 1/2"	90-1310-2900-301	90-0410-2900-301
	1/2" x 1/2"	21-1310-2900-301	21-0410-2900-301
PUSH-PULL ACTION (Variable Opening)	From 0" to 1/4" x 3/8"	156-1310-2900-201	156-0410-2900-201

Finishes: **Push-In Cap** — Standard Finish is polished chrome. To obtain optional finish, change the first digit in the catalog number suffix to **2-** black nickel or **4-** satin chrome. **Push-Pull Cap** — Standard finish **2-** black nickel. Optional — **3-** polished chrome.

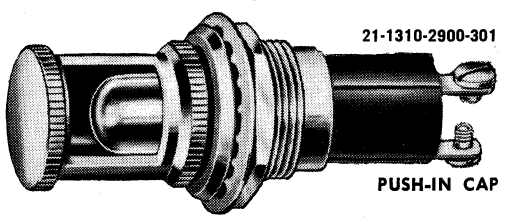
Examples: 89-1310-2900-**2**01; 156-0410-2900-**3**01.

156-0410-2900-201



PUSH-PULL CAP

21-1310-2900-301



PUSH-IN CAP

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THE COMPLETE LINE OF

DIALCO® INDICATOR LIGHTS

Foremost Manufacturer of Indicator Lights

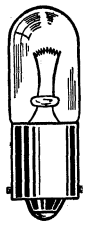
DIALIGHT CORPORATION

(Illustrations are approx. actual size)

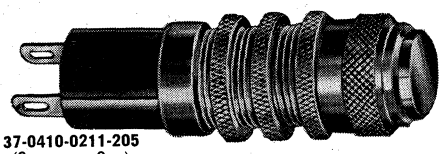
For details, refer to Catalog L-161.

ASSEMBLIES for T-3¼ BULB with MINIATURE BAYONET BASE

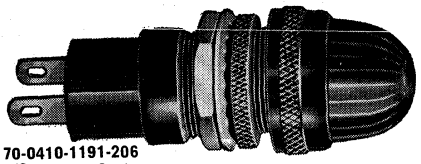
INCANDESCENT — 2 to 55 Volts



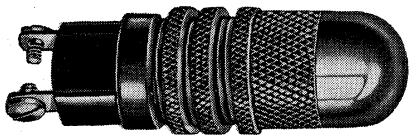
Mount from Rear in 9/16" Clearance Hole



37-0410-0211-205
(Screw-on Cap)



70-0410-1191-206
(Screw-on Cap)



17-1310-0931-205
(Screw-on Cap)

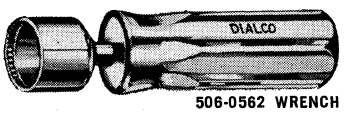
LENS STYLE	LENS FINISH	CATALOG NO. WITH SCREW TERMINALS	CATALOG NO. WITH SOLDER TERMINALS
STOVEPIPE	Transparent	17-1310-0931-205	17-0410-0931-205
	Internal Fluting	17-1310-0991-205	17-0410-0991-205
FLAT	Back Frosted	37-1310-0211-205	37-0410-0211-205
STOVEPIPE	Transparent	70-1310-1131-205	70-0410-1131-205
	Internal Fluting	70-1310-1191-205	70-0410-1191-205
	Back Frosted	70-1310-1111-205	70-0410-1111-205

"Recognized under the component program of Underwriters' Labs Inc."

75W., 125V.

The catalog numbers given indicate complete assemblies with **standard hardware. Standard Hardware** — 3 knurled rings. **Optional Hardware:** 1 ring, 1 lockwasher, 1 mounting nut. To specify optional hardware, change the last digit in the catalog number to **6.** Example: 70-0410-1191-206.

For your convenience, DIALCO'S 506-0562 Wrench can be furnished to permit secure fastening of these indicator lights on mounting panels.

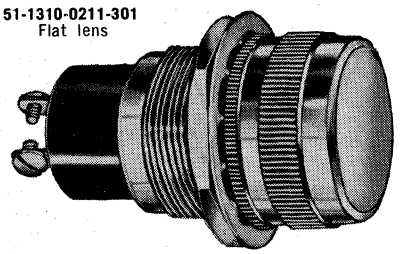


506-0562 WRENCH

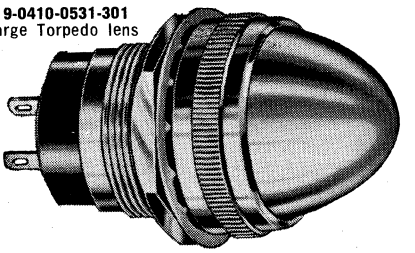
Mount in 1" Clearance Hole

(Illustrations approx. 95% actual size)

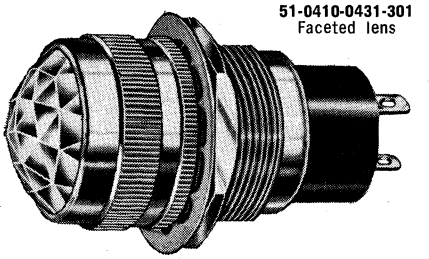
51-1310-0211-301
Flat lens



19-0410-0531-301
Large Torpedo lens



51-0410-0431-301
Faceted lens

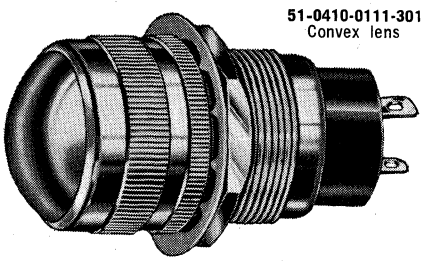


LENS STYLE	LENS FINISH	CATALOG NO. WITH SCREW TERMINALS	CATALOG NO. WITH SOLDER TERMINALS
FLAT	Unfrosted	51-1310-0231-301	51-0410-0231-301
	Back Frosted	51-1310-0211-301	51-0410-0211-301
TORPEDO	Unfrosted	80-1310-0531-301	80-0410-0531-301
	Back Frosted	80-1310-0511-301	80-0410-0511-301
LARGE CONVEX	Unfrosted	61-1310-0231-301	61-0410-0231-301
	Back Frosted	61-1310-0211-301	61-0410-0211-301
DOME	Unfrosted	80-1310-1231-301	80-0410-1231-301
	Back Frosted	80-1310-1211-301	80-0410-1211-301
CONVEX	Unfrosted	51-1310-0131-301	51-0410-0131-301
	Back Frosted	51-1310-0111-301	51-0410-0111-301
FACETED	Transparent	51-1310-0431-301	51-0410-0431-301
TORPEDO FACETED	Unfrosted	80-1310-1331-301	80-0410-1331-301
LARGE TORPEDO	Unfrosted	19-1310-0531-301	19-0410-0521-301

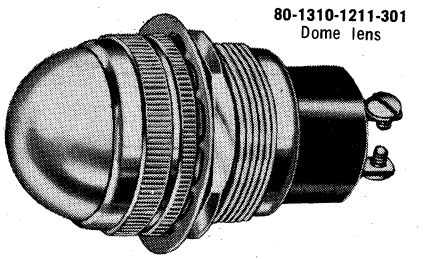
LENS COLOR: The last digit **before** the 3 digit catalog number suffix indicates that the lens is RED. When color other than red is desired, change this digit to a figure from the listing below. Note that white lenses are translucent and are always furnished unfrosted.

RED — 1; Green — 2; Yellow (Amber) — 3; Blue — 4; White Translucent — 5; Light Yellow — 6; Clear (Colorless) — 7.

51-0410-0111-301
Convex lens



80-1310-1211-301
Dome lens



The catalog numbers listed indicate complete assemblies with screw-on lens cap. These assemblies may also be obtained with **water-tight construction.** To specify, change the **last digit** in the catalog number to **3.** Example: 80-1310-1331-303. These assemblies are also available with **friction-fit** or **bayonet lock** lens caps . . . but can not be furnished with water-tight construction.

The catalog numbers given indicate Standard finish. To obtain optional finishes, see description on facing page.

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THE COMPLETE LINE OF

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(Illustrations are approx. actual size)

"Recognized under the component program of Underwriters' Labs Inc."

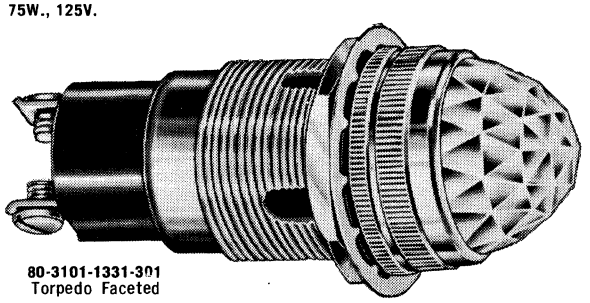
ASSEMBLIES for INCANDESCENT LAMPS

(with double contact bayonet base or candelabra screw base)

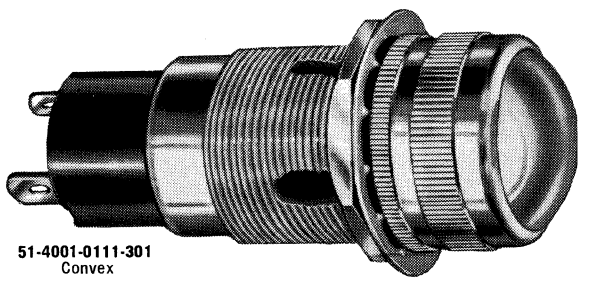
Mount in 1" Clearance Hole • Range of Voltage 6 to 145V • Refer to Cat. L-161

75W., 125V.

G-6 with Double Contact Bayonet Base — 6 to 32 volts max. **S-6** (at 6 watts) with Double Contact Bayonet Base or Candelabra Screw Base — 6, 12, 24, 32, 48, 70-80, 125, 130, 135 and 145 volts.



80-3101-1331-301
Torpedo Faceted



51-4001-0111-301
Convex

Accommodate S-6 Bulb with Candelabra Screw Base

LENS STYLE	LENS FINISH	CATALOG NO. WITH SCREW TERMINALS (SIDE POSITION)	CATALOG NO. WITH SCREW TERMINALS (PROTRUDING)	CATALOG NO. WITH SOLDER TERMINALS	CATALOG NO. WITH QUICK CONNECT TERMINALS
CONVEX	Unfrosted	51-0901-0131-301	51-3101-0131-301	51-4001-0131-301	51-6701-0131-301
	Back Frosted	51-0901-0111-301	51-3101-0111-301	51-4001-0111-301	51-6701-0111-301
FLAT	Unfrosted	51-0901-0231-301	51-3101-0231-301	51-4001-0231-301	51-6701-0231-301
	Back Frosted	51-0901-0211-301	51-3101-0211-301	51-4001-0211-301	51-6701-0211-301
LARGE CONVEX	Unfrosted	61-0901-0231-301	61-3101-0231-301	61-4001-0231-301	61-6701-0231-301
	Back Frosted	61-0901-0211-301	61-3101-0211-301	61-4001-0211-301	61-6701-0211-301
TORPEDO	Unfrosted	80-0901-0531-301	80-3101-0531-301	80-4001-0531-301	80-6701-0531-301
	Back Frosted	80-0901-0511-301	80-3101-0511-301	80-4001-0511-301	80-6701-0511-301
DOME	Unfrosted	80-0901-1231-301	80-3101-1231-301	80-4001-1231-301	80-6701-1231-301
	Back Frosted	80-0901-1211-301	80-3101-1211-301	80-4001-1211-301	80-6701-1211-301
TORPEDO FACETED	Unfrosted	80-0901-1331-301	80-3101-1331-301	80-4001-1331-301	80-6701-1311-301
LARGE TORPEDO	Unfrosted	19-0901-0531-301	19-3101-0531-301	19-4001-0531-301	19-6701-0531-301
FACETED	Unfrosted	51-0901-0431-301	51-3101-0431-301	51-4001-0431-301	51-6701-0431-301

Standard Finish — Polished Chrome. To specify optional finish, change the **first digit** of the catalog number suffix to **-2** (black nickel finish) or **-4** (satin chrome finish). Example: 51-0901-0231-**201**.

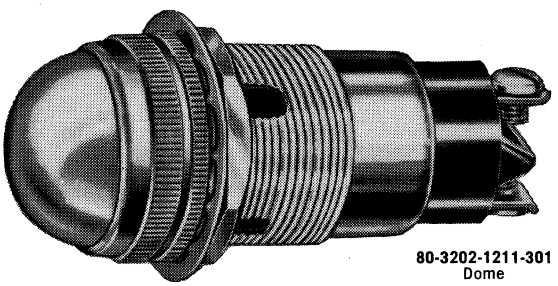
LENS COLOR: The last digit **before** the catalog number suffix indicates that the lens is RED. When color other than red is desired, change this digit to a figure from this listing. Red — 1; Green — 2; Yellow (Amber) — 3; Blue — **4**; White Translucent — 5; Light Yellow — 6; Clear (Colorless) — 7.
Example 19-6701-0533-301 (Yellow Amber)

LENS STYLE	LENS FINISH	CATALOG NO. WITH FIXED SCREW TERMINALS	CATALOG NO. WITH FIXED SOLDER TERMINALS	CATALOG NO. WITH QUICK CONNECT TERMINALS
FLAT	Back Frosted	51-3202-0211-301	51-3402-0211-301	51-6602-0211-301
CONVEX	Unfrosted	51-3202-0131-301	51-3402-0131-301	51-6602-0131-301
	Back Frosted	51-3202-0111-301	51-3402-0111-301	51-6602-0111-301
LARGE CONVEX	Unfrosted	61-3202-0231-301	61-3402-0231-301	61-6602-0231-301
	Back Frosted	61-3202-0211-301	61-3402-0211-301	61-6602-0211-301
LARGE TORPEDO	Unfrosted	19-3202-0531-301	19-3402-0531-301	19-6602-0531-301
DOME	Unfrosted	80-3202-1231-301	80-3402-1231-301	80-6602-1231-301
	Back Frosted	80-3202-1211-301	80-3402-1211-301	80-6602-1211-301
TORPEDO FACETED	Unfrosted	80-3202-1331-301	80-3402-1331-301	80-6602-1331-301

Accommodate S-6 Bulb with Double Contact Bayonet Base

To obtain assemblies with **watertight construction,** change the **last digit** in Cat. No. to **3.**

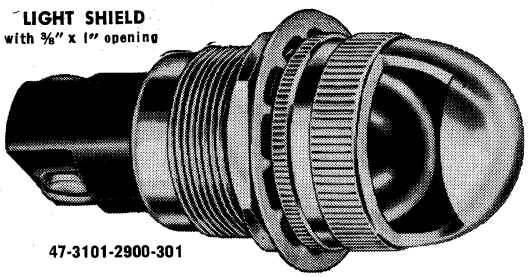
Example:
61-3202-0211-303



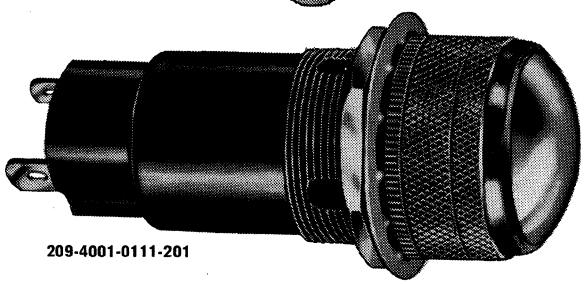
80-3202-1211-301
Dome

DIMMERS and LIGHT SHIELDS

LIGHT SHIELD
with ⅜" x 1" opening



47-3101-2900-301



209-4001-0111-201

Accommodate S-6 Bulb with Candelabra Screw Base

TYPE OF LIGHT SHIELD CAP	SIZE OF OPENING IN CAP	CATALOG NO. WITH SCREW TERMINALS (PROTRUDING)	CATALOG NO. WITH SOLDERING TERMINALS	CATALOG NO. WITH QUICK CONNECT TERMINALS
DOME (With 1 Opening)	1/8" x 1"	50-3101-2900-301	50-4001-2900-301	50-6701-2900-301
	1/4" x 1"	49-3101-2900-301	49-4001-2900-301	49-6701-2900-301
	3/8" x 1"	47-3101-2900-301	47-4001-2900-301	47-6701-2900-301
	9/16" x 1"	151-3101-2900-301	151-4001-2900-301	151-6701-2900-301

The catalog numbers given indicate standard finish. To obtain optional finishes, change the **first digit** in the catalog number suffix to: **1** — white nickel; **2** — black nickel; **3** — polished chrome; **4** — satin chrome. Examples: 47-3101-2900-**401**; 209-4001-0111-301.

LENS STYLE AND FINISH	MECHANICAL DIMMER TYPE	CATALOG NO. WITH SCREW TERMINALS	CATALOG NO. WITH SOLDER TERMINALS	CATALOG NO. WITH SCREW TERMINALS (SIDE POSITION)
CONVEX Back Frosted	Semi-Blackout Water-Tight	*210-3101-0111-203	*210-4001-0111-203	*210-0901-0111-203
	Semi-Blackout Not Water-Tight	*210-3101-0111-201	*210-4001-0111-201	*210-0901-0111-201
	Complete Blackout Water-Tight	*209-3101-0111-203	*209-4001-0111-203	*209-0901-0111-203
	Complete Blackout Not Water-Tight	*209-3101-0111-201	*209-4001-0111-201	*209-0901-0111-201
CONVEX Unfrosted Back Frosted	Polaroid	78-3101-0131-201	78-4001-0131-201	78-0901-0131-201
	Polaroid	78-3101-0111-201	78-4001-0111-201	78-0901-0111-201

* New Cat. Nos.; see P. 11 of Cat. L-161.

ORDER COMPLETE WITH LAMP so that you will be assured of receiving the indicator light and correct lamp at one time for immediate use.

SAMPLES ON REQUEST — AT ONCE — NO CHARGE

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"Recognized under the component program of Underwriters' Labs Inc."

75W., 125V.

OIL-TIGHT INDICATOR LIGHTS

OIL-TIGHT • WATER-TIGHT • DUST-TIGHT

With Retained "O" Ring Seal Construction • Mount in 1" Clearance Hole

Rugged, designed for severe vibration conditions. 3 types of Incandescent Lamps may be used: S-6 with Candelabra Screw Base or with Double Contact Bayonet Base; or 10C7/1DC with Double Contact Bayonet Base. The latter is designed to **withstand severe vibration and shock.**

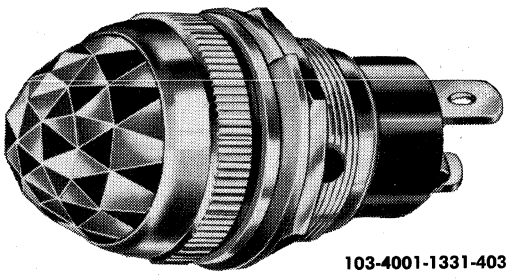
Assemblies feature: 3 retained oil-proof elastometer seals (1 gasket and 2 "O" rings); high impact phenolic insulation; use of legend discs inserted behind a flat lens shape to display letters, numbers or symbols.

Assemblies for Incandescent Lamps (**S6 Bulb** with **Candelabra Screw Base**)

LENS TYPE	LENS SURFACE	CATALOG NO. with SCREW terminals in protruding position	CATALOG NO. with SCREW terminals in side position	CATALOG NO. with SOLDERING terminals
FLAT	unfrosted back (with disc)	215-3101-0231-403	215-901-0231-403	215-4001-0231-403
	back frosted	104-3101-0211-403	104-901-0211-403	104-4001-0211-403
TORPEDO	unfrosted	103-3101-0531-403	103-901-0531-403	103-4001-0531-403
	back frosted	103-3101-0511-403	103-901-0511-403	103-4001-0511-403
TORPEDO FACETED	unfrosted	103-3101-1331-403	103-901-1331-403	103-4001-1331-403
DOME	unfrosted	103-3101-1231-403	103-901-1231-403	103-4001-1231-403
	back frosted	103-3101-1211-403	103-901-1211-403	103-4001-1211-403

Assemblies for Incandescent Lamps (**S6 Bulb** with **Double Contact Bayonet Base**)

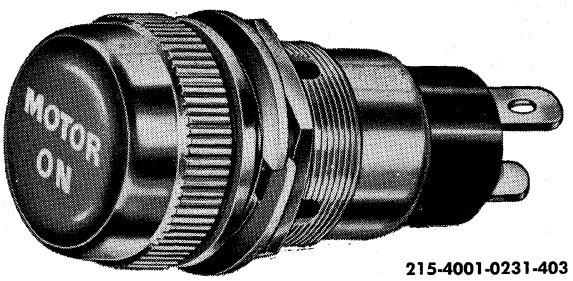
LENS TYPE	LENS SURFACE	CATALOG NO. with MOVABLE SCREW terminals	CATALOG NO. with FIXED SCREW terminals	CATALOG NO. with MOVABLE SOLDER. terminals	CATALOG NO. with FIXED SOLDER. terminals
FLAT	unfrosted back (with disc)	215-3502-0231-403	215-3202-0231-403	215-3602-0231-403	215-3402-0231-403
	back frosted	104-3502-0211-403	104-3202-0211-403	104-3602-0211-403	104-3402-0211-403
TORPEDO	unfrosted	103-3502-0531-403	103-3202-0531-403	103-3602-0531-403	103-3402-0531-403
	back frosted	103-3502-0511-403	103-3202-0511-403	103-3602-0511-403	103-3402-0511-403
TORPEDO FACETED	unfrosted	103-3502-1331-403	103-3202-1331-403	103-3602-1331-403	103-3402-1331-403
DOME	unfrosted	103-3502-1231-403	103-3202-1231-403	103-3602-1231-403	103-3402-1231-403
	back frosted	103-3502-1211-403	103-3202-1211-403	103-3602-1211-403	103-3402-1211-403



103-4001-1331-403

Assemblies for Incandescent Lamps (**C7 Bulb** with **Double Contact Bayonet Base**)

LENS TYPE	LENS SURFACE	CATALOG NO. with MOVABLE SCREW terminals	CATALOG NO. with FIXED SCREW terminals	CATALOG NO. with MOVABLE SOLDER. terminals	CATALOG NO. with FIXED SOLDER. terminals
FLAT	unfrosted back (with disc)	215-3527-0231-403	215-3227-0231-403	215-3627-0231-403	215-3427-0231-403
	back frosted	104-3527-0211-403	104-3227-0211-403	104-3627-0211-403	104-3427-0211-403
TORPEDO	unfrosted	103-3527-0531-403	103-3227-0531-403	103-3627-0531-403	103-3427-0531-403
	back frosted	103-3527-0511-403	103-3227-0511-403	103-3627-0511-403	103-3427-0511-403
TORPEDO FACETED	unfrosted	103-3527-1331-403	103-3227-1331-403	103-3627-1331-403	103-3427-1331-403
DOME	unfrosted	103-3527-1231-403	103-3227-1231-403	103-3627-1231-403	103-3427-1231-403
	back frosted	103-3527-1211-403	103-3227-1211-403	103-3627-1211-403	103-3427-1211-403

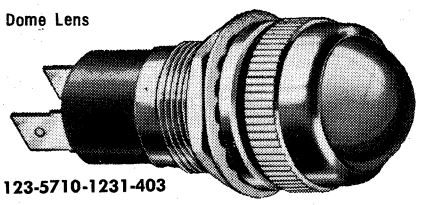


215-4001-0231-403

ASSEMBLIES for T-3¼ BULB with MIN. BAYONET BASE INCANDESCENT or NEON

For Mounting in 11/16" Clearance Hole

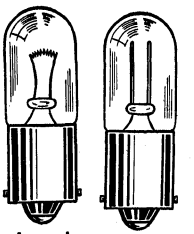
Dome Lens



123-5710-1231-403

In these Oil-Tight Indicator Lights, a high degree of resistance to shock and vibration is achieved by the use of the rugged *Neon* lamps on 120 and 240 V; and by choosing low voltage *Incandescent* lamps with short filaments, such as No. 44 or No. 1866 for circuits powered by transformers stepping down to 6.3 V.

Exclusive Features: Assemblies for use with NE-51 Neon Glow Lamps have *"built-in"* resistors—an exclusive *Dialco* feature (U.S. Pat. No. 2,421,321). *Options include:* binding screw, soldering or quick connect terminals. 7 lens colors are available; see bottom of page 965 for method of specifying color.



Incand. Neon NE-51 NE-51H (High Bright.)

When Connecting a Neon Light to a Circuit Having One Side Grounded, Always Connect the Hot Side of the Circuit to the Terminal Marked + (Center Contact).

Assemblies for the **T-3¼ BULB with Miniature Bayonet Base—INCANDESCENT**

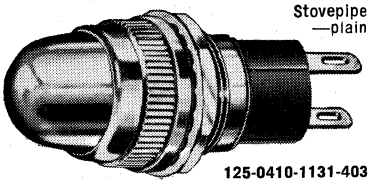
LENS TYPE	LENS SURFACE	CATALOG NO. with SCREW terminals	CATALOG NO. with SOLDER terminals	CATALOG NO. with QUICK CONNECT terminals
DOME	unfrosted	123-1310-1231-403	123-0410-1231-403	123-5710-1231-403
	back frosted	123-1310-1211-403	123-0410-1211-403	123-5710-1211-403
STOVEPIPE	unfrosted	125-1310-1131-403	125-0410-1131-403	125-5710-1131-403
	back frosted	125-1310-1111-403	125-0410-1111-403	125-5710-1111-403
	inside fluted	125-1310-1191-403	125-0410-1191-403	125-5710-1191-403

		ASSEMBLIES FOR USE WITH NE-51H NEON GLOW LAMP		
LENS TYPE	LENS SURFACE	CATALOG NO. with SCREW terminals (210-250V. AC-DC)	CATALOG NO. with SOLDER terminals (210-250V. AC-DC)	CATALOG NO. with QUICK CONNECT terminals (210-250V. AC-DC)
DOME	unfrosted	123-9363-1231-463	123-9463-1231-463	123-5863-1231-463
STOVEPIPE	unfrosted	125-9363-1131-463	125-9463-1131-463	125-5863-1131-463
	inside fluted	125-9363-1191-463	125-9463-1191-463	125-5863-1191-463

OPTIONAL FINISHES (All assemblies on this page)

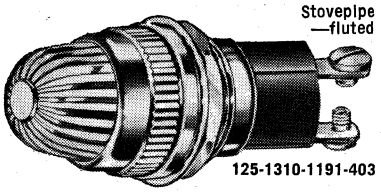
The part numbers given indicate **standard** satin chrome finish. To specify optional finish, change the first digit in the catalog number suffix to **-2** black nickel finish; or **-3** polished chrome finish. Examples: 103-3502-1231-**203**; 125-9363-1191-**363**.

Stovepipe —plain



125-0410-1131-403

Stovepipe —fluted



125-1310-1191-403

		ASSEMBLIES FOR USE WITH NE-51H NEON GLOW LAMP			ASSEMBLIES FOR USE WITH NE-51 NEON GLOW LAMP		
LENS TYPE	LENS SURFACE	CATALOG NO. with SCREW terminals (110-125V. AC)	CATALOG NO. with SOLDER terminals (110-125V. AC)	CATALOG NO. with QUICK CONNECT terminals (110-125V. AC)	CATALOG NO. with SCREW terminals (105-125V. AC-DC)	CATALOG NO. with SOLDER terminals (105-125V. AC-DC)	CATALOG NO. with QUICK CONNECT terminals (105-125V. AC-DC)
DOME	unfrosted	123-1363-1231-413	123-0463-1231-413	123-5763-1231-413	123-1308-1231-443	123-0408-1231-443	123-5708-1231-443
STOVEPIPE	unfrosted	125-1363-1131-413	125-0463-1131-413	125-5763-1131-413	125-1308-1131-443	125-0408-1131-443	125-5708-1131-443
	inside fluted	125-1363-1191-413	125-0463-1191-413	125-5763-1191-413	125-1308-1191-443	125-0408-1191-443	125-5708-1191-443

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THE COMPLETE LINE OF

INDICATOR LIGHTS

DIALCO®

Foremost Manufacturer of Indicator Lights
DIALIGHT CORPORATION

(Illustrations are approx. 4/5 actual size)

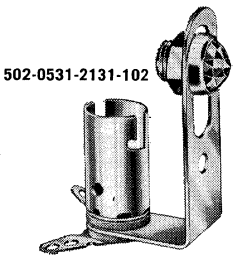
OPEN TYPE INDICATOR LIGHTS

ACCOMMODATE T-3¼ BULB with MINIATURE BAYONET BASE

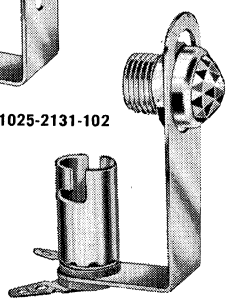
•

INCANDESCENT — 2 TO 55V

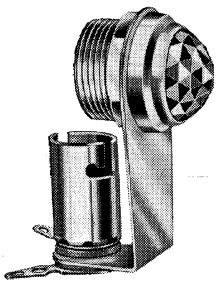
The assemblies in this grouping can be furnished with one terminal, ground to shell.



502-0531-2131-102

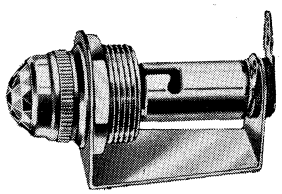


502-1025-2131-102

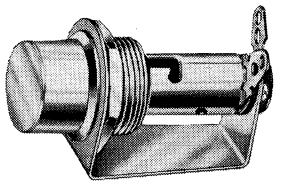


502-2526-0431-302

LENS STYLE	LENS DIAM.	LENS FINISH	CAT. NO. WITH SOLDER TERMINALS	FOR MTG. CLEAR HOLE	LENS HOLDER FINISH
FLAT	1/2"	Transparent	502-1025-0331-102	7/16"	White Nickel
	1/2"	Translucent	502-1025-0371-102	7/16"	
CONVEX	1/2"	Unfrosted	502-1025-0631-102	7/16"	"
FACETED	1/2"	Unfrosted	502-1025-2131-102	7/16"	"
FLAT	3/8"	Transparent	502-0531-0331-102	9/32"	"
	3/8"	Translucent	502-0531-0371-102	9/32"	"
CONVEX	3/8"	Unfrosted	502-0531-0631-102	9/32"	"
FACETED	3/8"	Unfrosted	502-0531-2131-102	9/32"	"
FLAT	5/8"	Transparent	502-2526-0331-302	11/16"	Polished Chrome
	5/8"	Translucent	502-2526-0371-302	11/16"	
CONVEX	5/8"	Unfrosted	502-2526-0631-302	11/16"	"
FACETED	5/8"	Frosted	502-2526-0431-302	11/16"	"
FLAT	1"	Back Frosted	502-3241-0211-302	1"	"
CONVEX	1"	Back Frosted	502-3241-0111-302	1"	"
FACETED	1"	Unfrosted	502-3241-0431-302	1"	"
CONVEX	1/2"	Back Frosted	502-8136-0111-102	11/16"	White Nickel
	1/2"	Unfrosted	502-8136-0131-102	11/16"	
FACETED	1/2"	Unfrosted	502-8136-2131-102	11/16"	"
STOVEPIPE	5/8"	Inside Fluted	502-5236-0991-102	11/16"	"
STOVEPIPE	5/8"	Transparent	502-9536-0931-102	11/16"	"
CYLINDRICAL	5/8"	Translucent	502-2436-1471-102	11/16"	"



502-8136-2131-102



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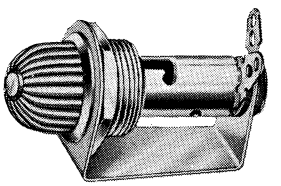

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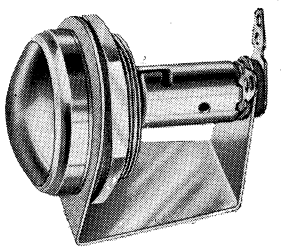

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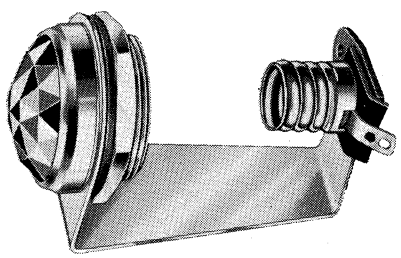


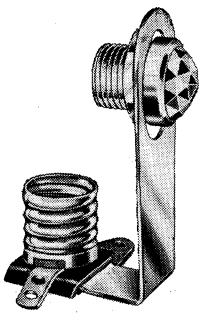
502-3214-0431-302

ACCOMMODATE S-6 BULB with CANDELABRA SCREW BASE

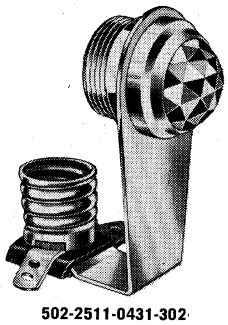
INCANDESCENT — 6 TO 145V

"Recognized under the component program of Underwriters' Labs Inc."

75W., 125V.



502-1010-2131-102



502-2511-0431-302

TAMPER PROOF

LENS TYPE	LENS DIAM.	LENS FINISH	CAT. NO. WITH SOLDER TERMINALS	FOR MTG. CLEAR. HOLE
FLAT	1/2"	Unfrosted	502-1010-0231-102	7/16"
		Back Frosted	502-1010-0211-102	7/16"
CONVEX	1/2"	Unfrosted	502-1010-0131-102	7/16"
		Back Frosted	502-1010-0111-102	7/16"
FACETED	1/2"	Unfrosted	502-1010-2131-102	7/16"

Lens Holder Finish: White Nickel

TAMPER PROOF

LENS TYPE	LENS DIAM.	LENS FINISH	CAT. NO. WITH SOLDER TERMINALS	FOR MTG. CLEAR. HOLE
CONVEX	5/8"	Unfrosted	502-2511-0131-302	11/16"
		Back Frosted	502-2511-0111-302	11/16"
FACETED	5/8"	Unfrosted	502-2511-0431-302	11/16"

Lens Holder Finish: Polished Chrome

LENS TYPE	LENS DIAM.	LENS FINISH	CAT. NO. WITH SOLDER TERMINALS	FOR MTG. CLEAR. HOLE
FACETED	1"	Unfrosted	502-3214-0431-302	1"
CONVEX	1"	Back Frosted	502-3214-0111-302	1"
FLAT	1"	Back Frosted	502-3214-0211-302	1"

Lens Holder Finish: Polished Chrome

ORDER COMPLETE WITH LAMP so that you will be assured of receiving the indicator light and correct lamp at one time for immediate use.

LENS COLOR: The last digit **before** the 3 digit catalog number suffix indicates that the lens is RED. When color other than red is desired, change this digit to a figure from the listing below. Note that white lenses are translucent and are always furnished unfrosted.

Red — 1; Green — 2; Yellow (Amber) — 3; Blue 4; White Translucent — 5; Light Yellow — 6; Clear (Colorless) — 7.

SAMPLES ON REQUEST AT ONCE — NO CHARGE

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THE COMPLETE LINE OF

DIALCO® INDICATOR LIGHTS

Foremost Manufacturer of Indicator Lights
DIALIGHT CORPORATION

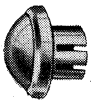
(Illustrations are approx. 4/5 actual size)

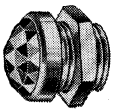
Lens Cap Assemblies for Panel Mounting

514-0408-0331-100

514-0608-2131-100

514-0512-2131-102


514-3806-0631-100


514-1012-2131-102

LENS DIAM.	CATALOG NUMBER WITH FLAT LENS	CONVEX LENS	FACETED LENS	SHANK O.D. ▲	SHANK LENGTH
11/32"	514-0408-0331-100	514-0408-0631-100	514-0408-2131-100	.276	1/4"
11/32"	514-0508-0331-102	514-0508-0631-102	514-0508-2131-102	9/32"-32 Thd.	1/4"
11/32"	514-0512-0331-102	514-0512-0631-102	514-0512-2131-102	9/32"-32 Thd.	3/8"
11/32"	514-0608-0331-100	514-0608-0631-100	514-0608-2131-100	.285	1/4"
11/32"	514-0710-0331-102	514-0710-0631-102	514-0710-2131-102	3/8"-24 Thd.	5/16"
1/2"	514-3806-0331-100	514-3806-0631-100	514-3806-2131-100	.373	3/16"
1/2"	514-1008-0331-102	514-1008-0631-102	514-1008-2131-102	7/16"-27 Thd.	1/4"
1/2"	514-1012-0331-102	514-1012-0631-102	514-1012-2131-102	7/16"-27 Thd.	3/8"

▲Decimals ± .005

OPTIONAL FINISHES

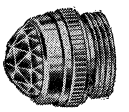
The first digit in the catalog number suffix designates **standard** finish (exception 95-; 132- and 135-series). The standard and three optional finishes are available for each series and can be specified by changing this digit to **-1** (white nickel); **-2** (black nickel); **-3** (polished chrome) or **-4** (satin chrome). Examples: 514-2512-0111-**2**02; 514-0608-2131-**1**00.

LENS DIAM.	LENS SHAPE	CATALOG NUMBER	SHANK O.D.	SHANK LENGTH
1/2"	FLAT	81-0331-300	9/16"-27 Thd.	3/16"
1/2"	CONVEX	81-0631-300	9/16"-27 Thd.	3/16"
1/2"	FACETED	81-2131-300	9/16"-27 Thd.	3/16"
5/8"	CONVEX	514-2512-0111-302	11/16"-27 Thd.	3/8"
5/8"	FACETED	514-2512-2131-302	11/16"-27 Thd.	3/8"
5/8"	STOVEPIPE	■ 132-0991*	9/16"-27 Thd.	3/16"
5/8"	STOVEPIPE	■ 95-0931*●	9/16"-27 Thd.	3/16"
5/8"	CYLINDRICAL	■ 135-1431*●	9/16"-27 Thd.	3/16"

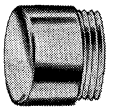
■Specify 505-8112-102 Bushing Assembly for use with these lens cap assemblies (see illus.).
● To obtain **translucent** lens, change "3" in the catalog number suffix to "**7**". Example: 95-0972 (green).

***LENS COLOR:** (132-, 95- and 135- series lens caps only) — The last digit in the catalog number designates the lens color. Change this digit for desired color as follows: Red — 1; Green — 2; Yellow (Amber) — 3; Blue — 4; White Translucent — 5; Light Yellow — 6; Clear (Colorless — 7.

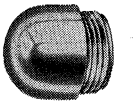
81-2131-300

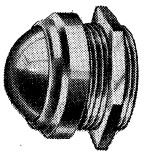


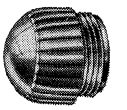
135-1431

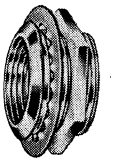


95-0931

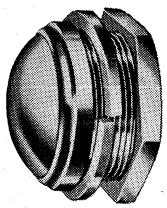


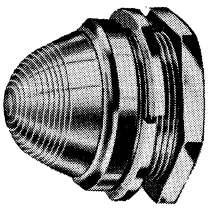

514-2512-0111-302


132-0991


505-8112-102

BUSHING ASSEMBLY:
Mounts in 1 1/16" clearance hole.
Shank length 3/8".
Furnished with nut and lockwasher.


514-7612-0111-302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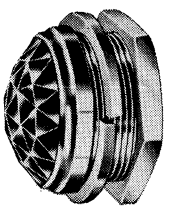
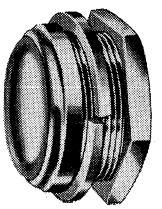

514-7612-0431-302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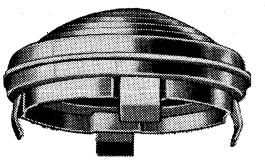
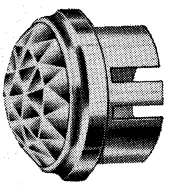
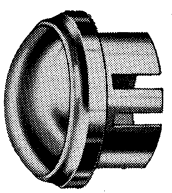
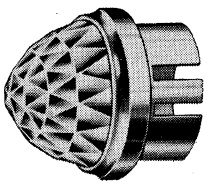
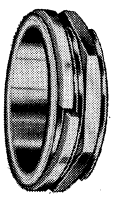

34-0831-300

LENS DIAM.	LENS SHAPE	CATALOG NUMBER	MTG. CLEAR HOLE
1-1/2"	FACETED	34-0431-300	1-3/8"
1-1/2"	DOME	34-0831-300	1-3/8"


31-0431-300


31-0111-300


31-1331-300


503-3112-102 (Bushing Assembly)

BUSHING ASSEMBLY:
Mounts in 1" clearance hole.
Shank length 3/8".
Furnished with nut and lockwasher.

LENS DIAM.	LENS SHAPE	CATALOG NUMBER	SHANK O.D. ▲	SHANK LENGTH
1"	FLAT	514-7612-0211-302	1"-27 Thd.	3/8"
1"	CONVEX	514-7612-0111-302	1"-27 Thd.	3/8"
1"	FACETED	514-7612-0431-302	1"-27 Thd.	3/8"
1"	TORPEDO	514-7612-0511-302	1"-27 Thd.	3/8"
1"	FLAT	**31-0211-300	.885	5/16"
1"	CONVEX	**31-0111-300	.885	5/16"
1"	FACETED	**31-0431-300	.885	5/16"
1"	DOME	**31-1211-300	.885	5/16"
1"	TORPEDO FACETED	**31-1331-300	.885	5/16"

**Specify 505-3112-102 Bushing Assembly for use with this series lens cap assembly (see illus.).
▲Decimals ± .005

LENS COLOR: The last digit **before** the 3 digit catalog number suffix indicates that the lens is RED. When color other than red is desired, change this digit to a figure from the listing below. Note that white lenses are translucent and are always furnished unfrosted.

Red — 1; Green — 2; Yellow (Amber) — 3; Blue — 4; White Translucent — 5; Light Yellow — 6; Clear (Colorless — 7.

ORDER COMPLETE WITH LAMP so that you will be assured of receiving the indicator light and correct lamp at one time for immediate use.

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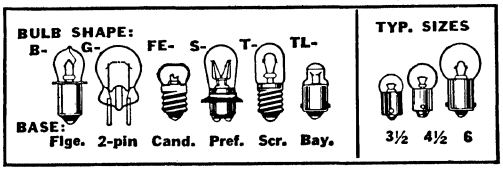
MINIATURE LAMPS

PANEL, PILOT, AND FLASHLIGHT LAMPS



Lamp No.	Bulb	Base§	Design Volts	Design Amps.	Net Price Each	Net Price Box 10
PR2•	B-3½	S.C. Min. flanged	2.38	0.50	$0.19	$1.16
PR3•	B-3½	S.C. Min. flanged	3.57	.50	.19	1.16
PR4•	B-3½	S.C. Min. flanged	2.33	.27	.19	1.16
PR6•	B-3½	S.C. Min. flanged	2.47	.30	.19	1.16
PR7	B-3½	S.C. Min. flanged	3.7	.30	.24	1.44
PR12•	B-3½	S.C. Min. flanged	5.95	.50	.19	1.16
PR13	B-3½	S.C. Min. flanged	4.75	.50	.19	1.16
6	S-8	D.C. bayonet	6.4	3.00	.34	1.99
8	S-8	D.C. bayonet	8.0	2.20	.34	1.99
10	G-3½	Min. two-pin	2.5	.50	.25	1.51
13	G-3½	Min. screw	3.7	.30	.16	.99
14•	G-3½	Min. screw	2.47	.30	.16	.99
27	G-4½	Min. screw	4.9	.30	.19	1.16
31	G-4½	Min. screw	6.15	.30	.21	1.26
39	T-3¼	Min. bayonet	6.3	.36	.34	1.89
40•	T-3¼	Min. screw	6.3	.15	.14	.81
41	T-3¼	Min. screw	2.5	.20	.21	1.27
43	T-3¼	Min. bayonet	2.5	.50	.21	1.27
44•	T-3¼	Min. bayonet	6.3	.25	.14	.81
45•	T-3¼	Min. bayonet	3.2	.35	.17	1.06
46•	T-3¼	Min. screw	6.3	.25	.14	.81
47•	T-3¼	Min. bayonet	6.3	.15	.14	.81
48	T-3¼	Min. screw	2.0	.06	.21	1.27
49•	T-3¼	Min. bayonet	2.0	.06	.17	1.06
50	G-3½	Min. screw	7.5	.22	.15	.87
51•	G-3½	Min. bayonet	7.5	.22	.13	.79
53•	G-3½	Min. bayonet	14.4	.12	.13	.79
55•	G-4½	Min. bayonet	7.0	.41	.13	.79
57•	G-4½	Min. bayonet	14.0	.24	.13	.79
57X•	G-4½	Min. bayonet	14	.24	.17	1.01
67•	G-6	S.C. bayonet	13.5	.59	.17	1.01
67K	G-6	Candelabra screw	13.5	.41	.43	2.51
71K	G-6	Candelabra screw	22	.18	.34	1.89
112	TL-3	Min. screw	1.2	.22	.16	.99
123	G-3½	Min. screw	1.25	.30	.16	.99
131	G-3½	Min. screw	1.3	.10	.17	1.06
136	G-4½	Min. screw	1.25	.60	.19	1.16
159	T-3¼	Wedge	6.3	.15	.21	1.26
222•	TL-3	Min. screw	2.25	.25	.16	.99
223•	FE-3¾	Min. screw	2.25	.25	.19	1.16
224	TL-2¾	Special 1½-turn thd.	2.15	.22	.19	1.16
233	G-3½	Min. screw	2.33	.27	.19	1.16
243	TL-3	Min. screw	2.33	.27	.19	1.16
259	T-3¼	Wedge	6.3	.25	.19	1.16
313•	T-3¼	Min. bayonet	28	.17	.30	1.78
327•	T-1¾	S.C. midget flanged	28	.04	.70	4.15
328•	T-1¾	S.C. midget flanged	6	.20	.54	3.25
331	T-1¾	S.C. midget flanged	1.35	.06	.84	5.01
338	T-1¾	S.C. midget flanged	2.7	.06	.84	5.01
345	T-1¾	S.C. midget flanged	6	.04	1.45	8.76
363	G-4½	Min. bayonet	14	.20	.21	1.26
401	G-4½	Min. screw, flasher	1.25	.22	.35	1.99
405	G-4½	Min. screw, flasher	6.5	.50	.27	1.67
406	G-4½	Min. screw, flasher	2.6	.30	.22	1.33
407	G-4½	Min. screw, flasher	4.9	.30	.20	1.22
425	G-4½	Min. screw	5	.50	.19	1.16
428	G-4½	Min. screw	12.5	.25	.16	.99
431R†	G-4½	Min. bayonet	14	.25	.26	1.58
432	G-4½	Min. screw	18	.25	.21	1.26
432G‡	G-4½	Min. screw	18	.25	.34	1.89
432R†	G-4½	Min. screw	18	.25	.26	1.58
433	G-4½	Min. bayonet	18	.25	.26	1.58
502	G-4½	Min. screw	5.1	.15	.16	.99
509K	G-6	Candelabra screw	24	.18	.26	1.58
605	G-4½	Min. screw	6.15	.50	.19	1.16
965	T-4½	Min. screw	9.84	.50	.24	1.45
1000	RP-11	D.C. bayonet	6.2	3.87	1.11	6.65
1034•	S-8	D.C. indexing (2-pos. taillight)	12.8 14	1.80 .51	.34	2.01
1154•	S-8	D.C. indexing (2-pos. taillight)	6.4 7.0	2.63 .75	.38	2.26
1224K	G-6	Candelabra screw	32	.16	.52	3.13
1240	G-16½	D.C. prefocus	32	3.5	1.84	10.99
1404	G-6	S.C. bayonet	10	.09	.47	2.82
1408	T-3¼	Min. bayonet	10	.13	.26	1.58
1446	G-3½	Min. screw	12	.20	.24	1.45
1447	G-3½	Min. screw	8	.15	.19	1.16
1449	G-3½	Min. screw	14	.20	.15	.94
1458	G-5	Min. bayonet	20	.25	.26	1.58
1474	T-3	Min. screw	14	.17	.34	2.03
1476	T-3	Min. screw	18	.17	.43	2.51
1477	T-3	Min. screw	24	.17	.52	3.13
1487	T-3¼	Min. screw	14	.20	.24	1.45
1488	T-3¼	Min. bayonet	14	.15	.26	1.58
1490	T-3¼	Min. bayonet	3.2	.16	.17	1.06
1491	G-8	D.C. bayonet	2.4	.80	.47	2.82
1493	S-8	D.C. bayonet	6.5	2.75	1.02	6.08
1630	S-8	D.C. prefocus	6.5	2.75	1.36	8.10
1651	S-8	S.C. bayonet	5	.60	.63	3.77
1724	S-11	D.C. bayonet	6.2	4.50	.84	5.01
1763	S-11	S.C. prefocus	6.1	4.10	1.20	7.60
1768	T-1¾	Midget screw	6	.20	.87	5.21
1769	T-1¾	Midget screw	2.5	.20	.84	5.01
1775	T-1¾	Midget screw	6.3	.075	.84	5.01
1809	T-3¼	Min. bayonet	2	.06	.52	3.13
1813	T-3¼	Min. bayonet	14.4	.10	.24	1.45
1815•	T-3¼	Min. bayonet	14	.20	.19	1.16
1819•	T-3¼	Min. bayonet	28	.04	$0.35	$2.07
1822	T-3¼	Min. bayonet	36	.10	.58	3.48
1828	T-3¼	Min. bayonet	37.5	.05	.63	3.77
1829•	T-3¼	Min. bayonet	28	.07	.34	2.03
1835	T-3¼	Min. bayonee	55	.05	.63	3.77
1847•	T-3¼	Min. bayonet	6.3	.15	.17	1.06
1850	T-3¼	Min. bayonet	5	.09	.24	1.45
1855	T-4½	Min. bayonet	6.3	.80	.34	1.89
1866	T-3¾	Min. bayonet	6.3	.25	.21	1.26
1881	T-3¼	Min. bayonet	15.5	.24	.18	1.07
1891•	T-3¼	Min. bayonet	14	.24	.16	.96
1892	T-3¼	Min. bayonet	14.4	.12	.24	1.46
1898	T-3¼	Min. bayonet	14	.33	.34	2.05

†Outside coated red. ‡Outside coated green. §S.C. indicates single contact; D.C., double contact; Min., miniature. •**Popular Types.**

NEON INDICATING GLOW LAMPS

Gaseous-discharge type for use as indicators. Average useful life, 25,000 hours AC; Types NE-17, 45, 48, 57, 58, 7,500 hours; Types NE-30, 34, 56, 79, 10,000 hours; Type NE-51, 15,000 hours. DC is approximately 60% of AC values. **Ambient Temperature:** Not to exceed 300°F.

Lamp No.	Nom. Watts	Volts (Circ.)	Bulb (Clear)	Base	Res.¶ Ohms	Net Each
A1B	1/25	110-125	T-2	Wire term.	200K	$0.13
A1Cπ	1/10	110-125	T-2	Wire term.	68K	.13
NE-2 (A1A)	1/17	110-125	T-2	Wire term.	150K	.10
NE-2A (A2A)	1/25	110-125	T-2	Wire term.	200K	.10
NE-2D (C7A)	1/15	110-125	T-2ϕ	SC Mid.Fig.	110K	.78
NE-2E (A9A)	1/15	110-125	T-2ϕ	Wire term.	100K	.10
NE-2H (C2A)π	¼	110-125	T-2ϕ	Wire term.	30K	.11
NE-2J (C9A)π	¼	110-125	T-2ϕ	SC Mid.Fig.	30K	.78
NE-2M (K2A)	1/17	110-125	T-2θ	Wire term.	150K	.32
NE-2P (K3A)π	¼	110-125	T-2θ	Wire term.	33K	.32
NE-2V (A2B)	1/15	110-125	T-2	Wire term.	100K	.13
NE-17 (B5A)	¼	110-125	T-4½	DC Bay.	30K	.86
NE-30 (J5A)	1	110-125	S-11	Med. Scr.#	None	1.14
NE-32 (L5A)	1	110-125	G-10	DC Bay.	7.5K	1.14
NE-34 (R2A)	2	110-125	S-14	Med. Scr.	None	1.76
NE-40 (R6A)	3	110-125	S-14	Med. Scr.	None	2.56
NE-45 (B7A)	¼	110-125	T-4½	Cand. Scr.	None	.81
NE-48 (B9A)	¼	110-125	T-4½	DC Bay.	30K	.67
NE-51 (B1A)	1/25	110-125	T-3¼	Min. Bay.	200K	.20
NE-51H (B2A)π	1/7	110-125	T-3¼	Min. Bay.	47K	.22
NE-56 (J9A)	1	220-250	S-11	Med. Scr.#	None	1.19
NE-57 (F3A)	¼	110-125	T-4½	Cand. Scr.#	None	.94
NE-58 (F4A)	½	220-250	T-4½	Cand. Scr.	None	.90
NE-79 (R1A)	1	110-125	S-7	DC Bay.	7.5K	1.28
NE-84 (K1A)π	¼	110-125	T-2ϕ	Tel. slide	30K	.61
AC-DC ARGON INDICATOR LAMPS						
AR-1 (W1A)	2	110-125	S-14	Med. Scr.	None	$1.90
AR-3 (J2A)π	¼	110-125	T-4½	Cand. Scr.	None	.85
AR-4 (J3A)π	¼	110-125	T-4½	DC Bay.	15K	.75
AR-9 (K4A)	1/25	110-125	T-2	Wire term.	200K	.20

¶Lamps with screw base have proper ballast built-in. Those with bayonet base or wire terminals do not have them, but are to be supplied and attached by user. Resistance shown for normal operation at indicated circuit volts. ϕFormed tip bulb. τUse 135 v. minimum for satisfactory DC operation. θRound end bulb. #Center electrode connected to base shell.

CIRCUIT COMPONENT NEON LAMPS

For use as voltage indicators, regulators, switching, etc. All ratings below are DC; all bulb types are T-2 except: NE-51S, NE-67 (T-4½). All have parallel-post electrodes (W-11), except NE-16, fireman's hat electrodes (P-3). **Ambient Temperature:** —00° F +165° F, limit.

Lamp No.	Starting Volts DC	Operating Volts DC	DC Ma	Base	Net Each
NE-2ASΔ (4AA)	60-90	55°	.03	Wire term.	$0.20
NE-23 (5AB)	60-90	59τ	0.3	Wire term.	.16
NE-68Δ (5AC)	60-90	52-65	0.3	Wire term.	.40
NE-68AΔ (5AD)	60-90	52-65	.1-.3	Wire term.	.38
NE-75 (3AC)	60-90	55τ°	0.4	Wire term.	.50
NE-76Δ (5AG-A)	68-76	50-60	0.4	Wire term.	.50
NE-77ω (5BA)	Triode	Avg. 85	0.5	Wire term.	.55
NE-80Δ (5AF)	60-80	50-58	0.1	Wire term.	.63
NE-81Δ (5AG)	64-80	50-60	0.3	Wire term.	.40
NE-83Δ (5AH)	60-100	65τ	10.0	Wire term.	.20
NE-86Δ (5AJ)	55-90	55τ	1.5	Wire term.	.16
NE-96 (4AB)	120-150	60-80	0.5	Wire term.	.20
NE-97 (4AC)	110-140	60-80	0.5	Wire term.	.20
NE-3 (8AA)	55-90	55$\tau\Delta$	0.3	Tel. Slide	.63
NE-4 (8AB)	60-90	59τ	0.3	Tel. Slide	.40
NE-5 (8AC)	120-150	60-80	0.5	Tel. Slide	.43
NE-51S (6AB)	55-90	55τ°	0.2	Min. Bay.	.30
NE-67 (6AC)	55-90	56τ	0.2	Min. Bay.	.20
NE-16 (7AA)	67-87	53-65	1.5	DC Bay.	.63

τAverage, after 100 hours burning at rated current. individual lots may vary from average. ΔLeads are tinned. °Average greater than indicated value. ωWith 140-180 v. DC on outer electrode, lamp trigger with 140 v. DC trigger to cathode.

GENERAL ELECTRIC

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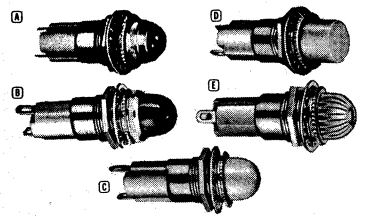
DRAKE

INDICATOR LIGHTS



"DELUXE MOLDED" Series
MINIATURE BAYONET BASE INDICATOR LIGHTS

Polished chrome finish (MIL units are black nickel plated), molded Glaskyd housing give fine appearance, assure dependability. All "DELUXE MOLDED" units have Drake's E-Z-Tite flange for quick assembly with Drake No. 32 wrench. Install lamps and mount units from front of panel up to 13/32" thick, in 11/16" dia. mounting hole on 21/32" centers. Units with built-in ¼ watt series resistors take neon lamps.

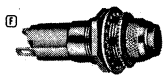
(ALL ILLUSTRATIONS APPROX. 3/8 ACTUAL SIZE)

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length In Front of Panel	Length Behind Panel Face	Lugs	Built-in Resistor (Ohms)	Net Each Lots Of 1-9	10-24	25-99
A	5200-222-101		½"	17/32"	1 5/32"	Solder		$ .97	$ .88	$ .81
B	5200-222-301		9/32"	17/32"	1 5/32"	Solder		1.23	1.11	1.03
C	5200-222-304		9/32"	1/2"	1 5/32"	Solder		.81	.73	.68
D	5200-222-404		9/32"	1/2"	1 5/32"	Solder		.81	.73	.68
	5200-228-101	LH75-LC14	½"	17/32"	1 5/32"	Solder		1.34	1.21	1.12
B*	5200-228-301	LH75-LC13	9/32"	17/32"	1 5/32"	Solder		1.60	1.44	1.33
	5200-229-101	LH62-BR2	½"	17/32"	1 5/32"	Solder		1.28	1.16	1.07
C*	5200-229-303	LH62-PR2	9/32"	1/2"	1 5/32"	Solder		1.04	.94	.87
	5200-232-103		½"	17/32"	1 5/32"	Solder	22K	1.06	.96	.89
E	5200-232-323		9/32"	1/2"	1 5/32"	Solder	22K	.97	.88	.81
	5200-232-423		9/32"	7/16"	1 5/32"	Solder	22K	.97	.88	.81
	5200-242-103		½"	17/32"	1 5/32"	Solder	100K	1.06	.96	.89
E	5200-242-323		9/32"	1/2"	1 5/32"	Solder	100K	.97	.88	.81
	5200-242-423		9/32"	7/16"	1 5/32"	Solder	100K	.97	.88	.81
	5200-248-100	LH76-LC14	½"	17/32"	1 5/32"	Solder	100K	1.39	1.25	1.16
C*	5200-249-303	LH64-PR2	9/32"	1/2"	1 5/32"	Solder	100K	1.39	1.25	1.16
	5200-249-303	LH64-PR5	9/32"	1/2"	1 5/32"	Solder	100K	1.24	1.12	1.03

T-3¼ BULB 6.3 to 28V

LAMP NO. NE51H — 125V and 250V

LEN DESCRIPTION CODE (last three Drake Number digits): See explanation—"DRAKE LENS CODE NUMBER DATA"
*Black Finish.



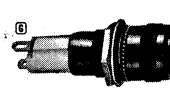
"DELUXE MOLDED" MINIATURE BAYONET BASE INDICATOR LIGHTS

with Friction Fit Lens Shank, for Easy Legend Alignment
Other features are same as those of units listed above.

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length In Front of Panel	Length Behind Panel Face	Lugs	Built-in Resistor (Ohms)	Net Each Lots Of 1-9	10-24	25-99
F	5203-222-550		½"	11/32"	1 5/32"	Solder		$1.13	$1.02	$ .93
F	5203-232-544		½"	11/32"	1 5/32"	Solder	22K	1.23	1.11	1.03

LAMPS SAME AS ABOVE

LENS DESCRIPTION CODE (last three Drake Number digits): See explanation—"DRAKE LENS CODE NUMBER DATA"



"DELUXE MOLDED" MINIATURE BAYONET BASE INDICATOR LIGHTS

with Mechanical Dimmer Lens Assembly: Type 5207 for Complete Blackout, Type 5208 for Partial Blackout
Other features are same as those of units listed above.

LAMPS SAME AS ABOVE

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length In Front of Panel	Length Behind Panel Face	Lugs	Built-in Resistor (Ohms)	Net Each Lots Of 1-9	10-24	25-99
G	5207-228-101	LH75-LC17	½"	17/32"	1 5/32"	Solder		$2.32	$2.08	$1.93
G	5207-248-100	LH76-LC17	½"	17/32"	1 5/32"	Solder	100K	2.51	2.26	2.09
G	5208-228-101	LH75-LC18	½"	17/32"	1 5/32"	Solder		2.32	2.08	1.93
G	5208-248-100	LH76-LC18	½"	17/32"	1 5/32"	Solder	100K	2.51	2.26	2.09

LENS DESCRIPTION CODE (last three Drake Number digits): See explanation—"DRAKE LENS CODE NUMBER DATA"

OEM PRICES ON REQUEST ★ UNITS CAN BE ORDERED WITH LAMP INSTALLED ★ SPECIFY LENS COLOR

INDICATOR LIGHTS

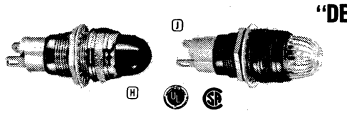
DRAKE

DRAKE LENS CODE NUMBER DATA

On all units illustrated and described, the last three digits of the DRAKE NUMBER identify the lens shape and other variants. These types are described below.

100 : Convex glass clear
101 : Convex glass diffusing
103 : Convex plastic clear
110 : Convex glass faceted
113 : Convex plastic faceted
203 : Dome plastic clear
204 : Dome plastic translucent
301 : Macrodome glass diffusing
303 : Macrodome plastic clear
304 : Macrodome plastic translucent
305 : Macrodome Lexan diffusing
320 : Macrodome glass fluted
323 : Macrodome plastic fluted
410 : Beehive glass faceted
430 : Beehive glass signal lined
431 : Beehive glass diffusing
500 : Flush glass clear
503 : Flush plastic clear
504 : Flush plastic translucent
523 : Flush plastic fluted
544 : Flush plastic translucent, imprinted
550 : Flush glass clear, printed disc
603 : Cylindrical plastic clear
604 : Cylindrical plastic translucent
623 : Cylindrical plastic fluted transparent
624 : Cylindrical plastic fluted semi-transparent
644 : Cylindrical plastic imprinted
703 : Long Macrodome plastic clear

LENS COLORS: incandescent and neon—Red, Yellow (amber), White or Colorless;—incandescent only—Green or Blue



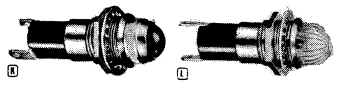
"DELUXE MOLDED" Series INDICATOR LIGHTS
MINIATURE BAYONET BASE with 5/8" GLASS MACRODOME LENS (JEWEL)

Lens holder with female thread permits neon lamp to project all the way up into macrodome lens for maximum visibility. Other "DELUXE MOLDED" features as previous.

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length In Front of Panel	Length Behind Panel Face	Lugs	Built-in Resistor (Ohms)	Net Each Lots Of 1-9	10-24	25-99
H	5204-222-301		9/32"	17/32"	1 5/32"	Solder		$1.31	$1.18	$1.09
J*	5204-232-320		9/32"	17/32"	1 5/32"	Solder	22K	1.47	1.32	1.23
J	5204-238-320	LH78-LC20	9/32"	17/32"	1 5/32"	Solder	27K	1.90	1.71	1.59
J*	5204-242-320		9/32"	17/32"	1 5/32"	Solder	100K	1.47	1.32	1.23
J	5204-248-320	LH77-LC20	9/32"	17/32"	1 5/32"	Solder	100K	1.90	1.71	1.59

LAMPS SAME AS FOR OTHER "DELUXE MOLDED" TYPES

LENS DESCRIPTION CODE (last three Drake Number digits): See explanation—"DRAKE LENS CODE NUMBER DATA"
*Polished Chrome Finish.



"STANDARD" INDICATOR LIGHTS
MINIATURE BAYONET BASE

Serviceable series, with nickel plated lens holder and flange. Lamp installed and units mounted from front of panels up to 13/32" thick, in 11/16" dia. mounting hole on 21/32" centers. Built-in ½ watt series resistors for neon lamps.

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length In Front of Panel	Length Behind Panel Face	Lugs	Built-in Resistor (Ohms)	Net Each Lots Of 1-9	10-24	25-99
K	5100-182-101		½"	17/32"	1 21/32"	Solder		$ .71	$ .64	$ .60
	5100-182-304		9/32"	1/2"	1 21/32"	Solder		.59	.53	.49
K	5100-192-103		½"	17/32"	1 21/32"	Solder	25K	.76	.68	.63
L	5100-192-323		9/32"	1/2"	1 21/32"	Solder	25K	.70	.63	.59
K	5100-202-103		½"	17/32"	1 21/32"	Solder	100K	.76	.68	.63
L	5100-202-323		9/32"	1/2"	1 21/32"	Solder	100K	.70	.63	.59

LENS DESCRIPTION CODE (last three Drake Number digits): See explanation—"DRAKE LENS CODE NUMBER DATA"

LAMP NOS. NE51—115V NE51H—125 and 250V

MINIATURE BAYONET BASE INSTRUMENT LIGHT

Uses T-3¼ bulbs, inserted from front of panel up to 13/32" thick, in 11/16" dia. hole on 21/32" centers.

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length In Front of Panel	Length Behind Panel Face	Lugs	Built-in Resistor (Ohms)	Net Each Lots Of 1-9	10-24	25-99
M	168E			11/64"	1 3/8"	Solder		$1.55	$1.40	$1.30

T-3¼ BULB 6.3 to 28V

(ALL ILLUSTRATIONS APPROX. 3/8 ACTUAL SIZE)

OEM PRICES ON REQUEST ★ UNITS CAN BE ORDERED WITH LAMP INSTALLED ★ SPECIFY LENS COLOR

"TINYLITE" MIDGET SCREW BASE INDICATOR LIGHTS
SMALLEST INDICATOR LIGHTS WITH REPLACEABLE LAMP

Fully enclosed. Supplied with midget lamp installed. Lamps replaced and units mounted from front of panels up to ½" thick, in 7/16" dia. mounting hole on 15/32" centers. Friction device prevents lamps from loosening in use.

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length In Front of Panel	Length Behind Panel Face	Lamp Voltage	Replacement Lamp No.	Net Each Lots Of 1-9	10-24	25-99
A	121- 7-204		7/16"		13/64"	7	765	$ .79	$ .71	$ .66
B*	121- 7-604		9/32"		13/64"	7	765	.79	.71	.66
B	121- 7-644		9/32"		13/64"	7	765	.87	.78	.73
	121-14-204		7/16"	21/64"	13/64"	14	1465	.87	.72	.67
B*	121-14-604		9/32"	on	13/64"	14	1465	.80	.72	.67
B	121-14-644		9/32"	all	13/64"	14	1465	.88	.79	.74
	121-28-204		7/16"	numbers	21/64"	28	335	1.34	1.20	1.12
B*	121-28-604		9/32"		21/64"	28	335	1.34	1.20	1.12
B	121-28-644		9/32"		21/64"	28	335	1.42	1.27	1.18

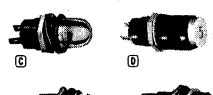
LAMP NO. 765 7V- NO. 1465 14V

LENS DESCRIPTION CODE (last three Drake Number digits): See explanation—"DRAKE LENS CODE NUMBER DATA"
*Unprinted

REPLACEMENT LAMPS
NO. 335 (28V) · NO. 765 (7V). NO. 1465 (14V)

LAMP NO. 335 28V

(ALL ILLUSTRATIONS APPROX. 3/8 ACTUAL SIZE)



"MF" INDICATOR LIGHTS
FOR USE WITH MIDGET FLANGE BASE LAMPS IN MIL STANDARD OR COMMERCIAL APPLICATIONS

Small but sturdy—only 5/8" max. dia. MIL units, black anodized finish; other units, clear finish. Lamps replaced and units mounted from front of panel, in 13/32" dia. mounting hole on ¾" centers. Built-in series resistor takes NE2D neon lamp; other units take T-1¾ bulb.

Fig. No.	Drake Number	MIL Style Number	MS Number	Lens Dia.	Length In Front of Panel	Length Behind Panel Face	Built-in Resistor (Ohms)	Max. Panel Thickness	Net Each Lots Of 1-9	10-24	25-99
C	5131-038-303	LH73-LC12	MS25256	7/16"	25/64"	45/64"		1/32"	$1.09	$ .98	$ .91
C	5131-038-304	LH73-LC12		7/16"	25/64"	45/64"		3/32"	1.09	.98	.91
D	5131-038-544	LH73-LC11		15/32"	25/64"	45/64"		3/32"	1.49	1.34	1.24
E	5133-048-703	LH74-LC13	MS25257	7/16"	25/64"	1 1/64"	62K	1/32"	1.89	1.71	1.58
E	5133-032-101			9/16"	17/32"	1 1/64"		1/32"	1.15	1.03	.96
G	5133-032-504			7/16"	3/16"	1 1/64"		1/32"	.95	.86	.80

LAMP NO. NE2D 115V

LENS DESCRIPTION CODE (last three Drake Number digits): See explanation—"DRAKE LENS CODE NUMBER DATA"

"TELESLIDE" INDICATOR LIGHTS
FOR USE WITH TELEPHONE SLIDE BASE LAMPS

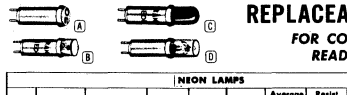
Recommended for voltages from 24 to 55. Lamps replaced from front of panel. Mount in 13/32" dia. hole on 23/32" centers. No. 135 replaces more expensive lampjack assembly.

Fig. No.	Drake Number	Lens Dia.	Length In Front of Panel	Length Behind Panel Face	Max. Panel Thickness	Mounting	Lens Fitting	Finish	Net Each Lots Of 1-9	10-24	25-99
H	135-101	7/16"	1/4"	2 7/32"	17/32"	Front	Friction	Plain Brass	$1.25	$1.12	$1.04
J	136-624	9/32"	13/64"	1 55/64"	7/32"	Front or Rear	Threaded	Nickel Plate	.98	.88	.82
K	137-101	1/2"	17/32"	1 21/32"	5/16"	Front or Rear	Threaded	Nickel Plate	1.22	1.10	1.02

LENS DESCRIPTION CODE (last three Drake Number digits): See explanation—"DRAKE LENS CODE NUMBER DATA"

OEM PRICES ON REQUEST ★ UNITS CAN BE ORDERED WITH LAMP INSTALLED ★ SPECIFY LENS COLOR

BI-PIN CARTRIDGE LAMPS



REPLACEABLE BI-PIN CARTRIDGE LAMPS
FOR COMPUTER AND READOUT USES

Save space on crowded panels. Wide choice of filter shapes and colors (Red, Yellow, Green, Blue, White, Colorless). Neon types with or without built-in resistors. Incandescent types available in wide range of low voltages. Selected units have low power drain, can be driven with transistors.

Lamps fit DRAKE or any other cartridge base lampholders. Easily replaced from front of panel. Lamps sealed into clear anodized aluminum casings. Two stainless steel terminals; Nylon insulation. Low cost printing of 1, 2 or 3 digits, letters or symbols on flat face filters, up to 12 pt. type. Legends are pin-indexed for fast installation and replacement, with automatic line-up. These and other Bi-Pin Cartridge Lamps available in single units or multiple-unit blocks. Built to withstand environmental requirements of MIL-STD-202B per MIL-L-3661A.

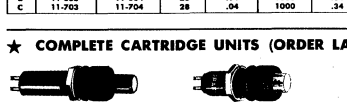
NEON LAMPS

Fig. No.	Drake Number	Starting Volts AC	Starting Volts DC	Design Cur. (MA.)	Watts	C.P. at Design Current	Average Life at Des. Cur. (Hrs.)	Resist. Req. for Des. Cur. at Nom. Circ. V.	Built-in Resistor	Net Each Lots Of 1-9	10-24	25-99
A	1-503	65	90	0.3	1/25	.003	25M	220K		$ .96	$ .86	$ .80
B	1-603	"	"	0.3	1/25	.003	25M	220K		.96	.86	.80
C	1-703	"	"	0.6	1/15	.006	25M	100K		.77	.70	.65
D	1-803	"	"	0.6	1/15	.006	25M	100K		.77	.70	.65
C	2-703	65	90	1.1	1/8	.010	10M	56K	x	1.10	.99	.92
D	2-803	"	"	1.1	1/8	.010	5M	56K	x	1.10	.99	.92
A	4-503	95	135	0.8	1/10	.012	25M	68K		.96	.86	.80
B	4-603	"	"	0.8	1/10	.012	25M	68K		.96	.86	.80
C	5-703	"	"	2.6	1/3	.034	10M	22K	x	1.10	.99	.92
D	5-803	"	"	2.6	1/3	.034	10M	22K	x	1.10	.99	.92

INCANDESCENT LAMPS

Fig. No.	DRAKE NUMBER Transparent Filter	DRAKE NUMBER Translucent Filter	Design Volts	Design Current (Amps.)	Average Life (Hrs.)	Candle Power (C.P.)	Net Each Lots Of 1-9	10-24	25-99
B	6-603	6-604	6	.20	500	.63	$ .95	$ .86	$ .80
C	6-703	6-704	6	.20	500	.63	.95	.86	.80
B	11-603	11-604	28	.04	1000	.34	1.00	.90	.84
C	11-703	11-704	28	.04	1000	.34	1.00	.90	.84

★ COMPLETE CARTRIDGE UNITS (ORDER LAMPS AND LAMPHOLDERS SEPARATELY) ★



CARTRIDGE LAMPHOLDERS

Exclusive advanced design for "D" hole mounting cuts costs, saves assembly time, provides standardized legend alignment. Extra savings by using DRAKE Lampholder *without collars.*

Small size—mount in ¾" dia. hole on 21/32" centers. Sturdy black anodized aluminum body, collar and facing nut—cadmium and Cronak plated steel lockwasher and hex nut—molded phenolic insulation—silver plated-gold flashed spring brass terminals, identified with letters A and B for DC operation with seasoned lamps. Exclusive DRAKE *E-Z-Tite* knurled facing nut (#20 wrench) for fast, secure panel installation. Both contacts insulated from mounting. Max. Amps.: 1—Max. Watts: 75—Test Voltage: 1,000 AC @ 60 cps. Available with or without built-in 1/10 watt current limiting resistor for use with neon cartridges.

DRAKE Cartridge Lampholders accept all Bi-Pin Cartridge Lamps now on the market.

Filter Shapes: (#1) Flush (#2) Short Cylindrical (#3) Long Cylindrical (#4) Long Macrodome

Fig. No.	Without Collar	DRAKE NUMBER Net Each Lots Of 1-9	10-24	25-99	Fig. No.	With Collar	Net Each Lots Of 1-9	10-24	25-99	Built-in Resistor (Ohms) ±10%	Max. Current (MA.)
E	4428-000	$ .78	$ .70	$ .65	G	4428-001	$ .82	$ .83	$ .77		1.8
F	4438-000	Discontinued			H	4438-001	Discontinued			22K	2.04
	4438-002					4438-003				47K	1.40
	4438-004					4438-005				56K	1.27
	4438-008					4438-007				100K	.85

PROJECTIONS FROM PANEL FACE-LAMP INSTALLED				
Filter Shape	Without Collar Front	Without Collar Rear	With Collar Front	With Collar Rear
(#1)	3/32"	13/64"	3/64"	7/64"
(#2)	3/64"	19/64"	13/64"	17/64"
(#3)	13/64"	19/64"	3/64"	17/64"
(#4)	25/64"	19/64"	41/64"	17/64"

OEM PRICES ON REQUEST ★ UNITS CAN BE ORDERED WITH LAMP INSTALLED ★ SPECIFY LENS COLOR

Miniature Lighting Specialists

Net

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DRAKE

INDICATOR LIGHTS

"ECONOGLO" NEON GLOW INDICATOR LIGHTS

Excellent for LOW COST 115V applications or as D.C. circuit components. Available with or without series resistors. Mount from front of panel. Equipped with 2' wire leads. Plain macrodome also available; substitute lens code 303 for 323 when ordering.

Fig. No.	Drake Number	Lens Dia.	Length In Front of Panel	Length Behind Panel Face	Built-in Resistor (Ohms)	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	Net Each Lots Of 1-9	10-24	25-99
A*	116-323 or 303		3/8"	13/32"		9/32"	1/8"	17/32"	$ .22	$ .20	$ .18
	116-603		3/8"	15/32"		9/32"	7/32"	17/32"	.22	.20	.18
A	R116-323 or 303	11/32" on all numbers	3/8"	15/32"	100K	9/32"	1/8"	17/32"	.28	.25	.23
	R116-603		3/8"	15/32"	100K	9/32"	7/32"	17/32"	.28	.25	.23
	117-323 or 303		7/16"	19/32"		1/4"	1/8"	11/16"	.29	.26	.24
B	117-603		1/2"	5/8"		1/4"	7/32"	11/16"	.29	.26	.24
	R117-323 or 303		7/16"	19/32"	100K	1/4"	1/8"	11/16"	.34	.31	.28
B**	R117-603		1/2"	5/8"	100K	1/4"	7/32"	11/16"	.34	.31	.28

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation—"DRAKE LENS CODE NUMBER DATA"
For HI-BRIGHTNESS Lamps, prefix Drake Number with letter "H". * No Resistor ** With Resistor

"MINEON" NEON GLOW INDICATOR LIGHTS

Similar to "ECONOGLO" types, except mounted in black anodized aluminum body with solder lugs or turret terminals. Drake E-Z-Tite facing nut, and No. 20 wrench, make assembly fast.

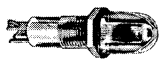
Fig. No.	DRAKE NUMBER Pin Plugs	Net Each Lots Of 1-9	10-24	25-99	Turret Lugs	Net Each Lots Of 1-9	10-24	25-99	Lens Dia.	Panel Projection Front	Rear	Built-in Resistor (Ohms)	Mtg. Hole Dia.	Max. Panel Thickness	Mtg. Centers
C	118-323	$ .72	$ .65	$ .60	118T-323	$ .89	$ .80	$ .74	11/32"	15/32"	13/64"		9/64"	9/64"	9/64"
D	118-604	.72	.65	.60	118T-604	.89	.80	.74	11/32"	5/32"	13/64"		9/64"	9/64"	9/64"
C	R118-323	.92	.83	.77	R118T-323	1.09	.98	.91	11/32"	15/32"	13/64"	100K	9/64"	9/64"	9/64"
D	R118-604	.92	.83	.77	R118T-604	1.09	.98	.91	11/32"	5/32"	13/64"	100K	9/64"	9/64"	9/64"

DRAKE TURRET LUGS

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation—"DRAKE LENS CODE NUMBER DATA"
For HI-BRIGHTNESS Lamps, prefix Drake Number with letter "H".

DRAKE STOCKING DISTRIBUTORS
INSURE BETTER SERVICE
You can purchase most items for immediate delivery and for the same price you would pay the factory.

"POSTLITE" INDICATOR LIGHTS



Unique all polystyrene neon indicator light with built-in series resistor. Extremely decorative.

Fig. No.	Drake Number	Lens Dia.	Length In Front of Panel	Length Behind Panel Face	Built-in Resistor (Ohms)	Lamp	Max. Panel Thickness	Mounting Centers	Net Each Lots Of 1-9	10-24	25-99
F	105	1/2" (Sq.)	3/4"	1 5/16"	100K	Std. Hi-Brite	5/16"	7/8"	$ .68	$ .61	$ .56
F	105-025 (Hi-Brite)	1/2" (Sq.)	3/4"	1 5/16"	25K	Std. Hi-Brite	5/16"	7/8"	.68	.61	.56

"FLUSHLITE" INDICATOR LIGHTS

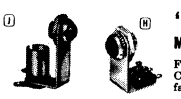
"One-of-a-kind" neon unit—all nylon with built-in series resistor. Exceptional appearance.

Fig. No.	Drake Number	Lens Size	Length In Front of Panel	Length Behind Panel Face	Built-in Resistor (Ohms)	Lamp	Max. Panel Thickness	Mounting Centers	Net Each Lots Of 1-9	10-24	25-99
G	110	15/32" x 1 1/4"	11/32" or 5/16"	17/32" or 3/4"	100K	NE2E	1/16" (Rear Mtd.)	5/16" or 1 5/8"	$ .50	$ .45	$ .41
G	110-025 (Hi-Brite)	15/32" x 1 1/4"	11/32" or 5/16"	17/32" or 3/4"	22K	NE3H	1/16" (Rear Mtd.)	5/16" or 1 5/8"	.50	.45	.41

OEM PRICES ON REQUEST ★ *UNITS CAN BE ORDERED WITH LAMP INSTALLED* ★ SPECIFY LENS COLOR

INDICATOR LIGHTS

DRAKE



"MINISPACE" 5/16" Lens MONEY SAVER INDICATOR LIGHTS

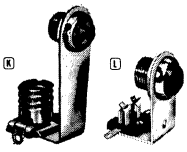
For practical economy. Lamp replacement from behind panel. Cadmium plated lens holder has Drake E-Z-Tite knurl, for fast assembly with Drake No. 14 wrench.

MIN. SCREW BULB NO. 6-3½ 1.3 to 6.3V

MIN. BAY. BULB NO. 6-3½ 63 to 28V

Fig. No.	Drake Number	Lens Dia.	Base	Length In Front of Panel	Length Behind Panel Back	Built-in Resistor (Ohms)	Bulb Size	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	Net Each Lots Of 1-9	10-24	25-99
J	5-113	5/16"	Min. Screw	7/32"	29/64"		6-3½	1/4"	1/8"	5/8"	$ .19	$ .17	$ .16
	SB-103	5/16"	Min. Bay.	7/32"	29/64"		6-3½	1/4"	1/8"	5/8"	.20	.18	.17
H	2005-IL-113	5/16"	Min. 2-Pin	7/32"	15/64"		6-3½	5/16"	1/8"	5/8"	.22	.19	.18

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation—"DRAKE LENS CODE NUMBER DATA"



MONEY SAVER INDICATOR LIGHTS—1/2" Lens

Popular low cost units. Lamps replaced from behind panel. Nickel plated lens holder.

LAMP NO. 656 120V

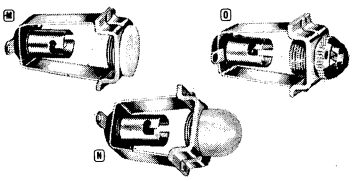
WEDGE BASE BULB NO. T-3¼ 6.3 to 14V

Fig. No.	Drake Number	Lens Dia.	Base	Length In Front of Panel	Length Behind Panel Back	Built-in Resistor (Ohms)	Bulb Size	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	Net Each Lots Of 1-9	10-24	25-99
K	10-113	1/2"	Min. Screw	9/32"	31/64"		T-3¼	7/16"	1/8"	23/32"	$ .24	$ .22	$ .20
	10C-113	1/2"	Cond. Screw	9/32"	1"		56	7/16"	1/8"	23/32"	.29	.26	.25
	100-113	1/2"	Min. Bay.	9/32"	17/32"		6-3½	7/16"	1/8"	23/32"	.25	.23	.21
	10T-113	1/2"	Min. Bay.	9/32"	17/32"		T-3¼	7/16"	1/4"	23/32"	.25	.23	.21

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation—"DRAKE LENS CODE NUMBER DATA"
Drake No. 10C-113 is UL and CSA Listed.

MIN. BAY. BULB NO. T-3¼ 6.3 to 28V

(ALL ILLUSTRATIONS APPROX. 3/8 ACTUAL SIZE)



MONEY SAVER *MINIATURE BAYONET BASE* INDICATOR LIGHTS *with Snap-in Brackets*

Available with attached ½ watt series resistor for NE51H Hi-Brightness neon lamp. Specify 100 K resistor for NE51 lamp. Lamps replaced from behind panel. No. 54 has nickel plated lens holder with Drake E-Z-Tite knurl for Drake No. 24 wrench.

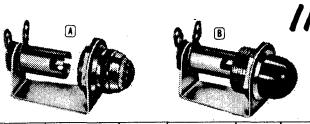
Fig. No.	Drake Number	Lens Dia.	Length In Front of Panel	Length Behind Panel Back	Built-in Resistor (Ohms)	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	Net Each Lots Of 1-9	10-24	25-99
M	53-304	11/64"	1/16"	1 1/32"		9/64"	7/32"	23/32"	$ .21	$ .19	$ .18
	N252-IL-503	11/64"	1/16"	1 1/32"	22K	9/64"	7/32"	23/32"	.45	.41	.38
N	53-304	9/64"	1/16"	1 7/32"		9/64"	7/32"	23/32"	.21	.19	.18
	N253-IL-323	9/64"	1/16"	1 7/32"	22K	9/64"	7/32"	23/32"	.45	.41	.38
O	54-113	1/2"	11/64"	1 13/32"		1/4"	1/8"	23/32"	.33	.30	.28
	N254-IL-103	1/2"	11/64"	1 13/32"	22K	1/4"	1/8"	23/32"	.59	.53	.50

LAMP NO. NE51H 125 V

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation—"DRAKE LENS CODE NUMBER DATA"
N252, N253, N254 are UL and CSA Listed.

OEM PRICES ON REQUEST ★ *UNITS CAN BE ORDERED WITH LAMP INSTALLED* ★ SPECIFY LENS COLOR

INDICATOR LIGHTS



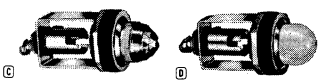
MONEY SAVER INDICATOR LIGHTS *HORIZONTAL MOUNTING*

Plastic lens. Lamps replaced from front of panel. Nickel plated lens holder. Rated at 2 watts.

MIN. BAY. BULB NO. T-3¼ 6.3-28V

Fig. No.	Drake Number	Lens Dia.	Base	Length In Front of Panel	Length Behind Panel Back	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	Net Each Lots Of 1-9	10-24	25-99
A	20-113	1/2"	Min. Bay.	17/32"	1 11/32"	11/64"	3/64"	1"	$ .35	$ .31	$ .29
	20S-113	1/2"	Min. Screw	17/32"	1 11/32"	11/64"	1/64"	1"	.35	.31	.29
B	21C-304	5/8"	Min. Bay.	17/32"	1 11/32"	11/64"	1/64"	1"	.28	.25	.23

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation—"DRAKE LENS CODE NUMBER DATA"



MONEY SAVER INDICATOR LIGHTS *FOR EASY PANEL THICKNESS ADJUSTMENT*

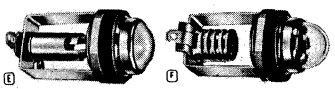
Supplied with three fiber spacing washers. Sturdily built. Plastic lens. Nickel plated lens holder. Lamps replaced from front of panel. Rated at 2 watts.

MIN. SCREW BULB NO. T-3¼ 2.5-6.3V

MIN. BAY. AS ABOVE

Fig. No.	Drake Number	Lens Dia.	Base	Length In Front of Panel	Length Behind Panel Face	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	Net Each Lots Of 1-9	10-24	25-99
C	50-113	1/2"	Min. Bay.	17/32"	1 1/32"	11/64"	1/4"	1"	$ .46	$ .42	$ .39
D	51-304	5/8"	Min. Bay.	1/2"	1 1/32"	11/64"	1/4"	1"	.39	.35	.33

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation—"DRAKE LENS CODE NUMBER DATA"



"STANDARD" INDICATOR LIGHTS *FRONT LAMP REPLACEMENT*

Smallest diameter units with front lamp replacement for 120 V incandescent lamps. Polished chrome friction lamp holder.

LAMP NO. NE45 125V

Fig. No.	Drake Number	Lens Dia.	Base	Length In Front of Panel	Length Behind Panel Face	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	Net Each Lots Of 1-9	10-24	25-99
E	60-101	3/8"	Min. Bay.	3/8"	1 1/32"	13/64"	1/4"	1 1/8"	$ .92	$ .83	$ .77
	A460N-IL-100	3/4"	Cond. Screw	3/8"	1 13/64"	13/64"	1/8"	1 1/4"	.93	.84	.78
F	A461N-IL-203	3/4"	Cond. Screw	11/32"	1 1/4"	13/64"	1/4"	1 1/4"	.87	.79	.73

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation—"DRAKE LENS CODE NUMBER DATA"
N460N-IL-100 and A461N-IL-203 are UL and CSA Listed.

MONEY SAVER INDICATOR LIGHT *SLIP-FIT BEZEL FOR EASY INSTALLATION*

Lamps may be replaced from front or rear of panel. Polished chrome friction lens holder.

LAMP NO. 61 120V

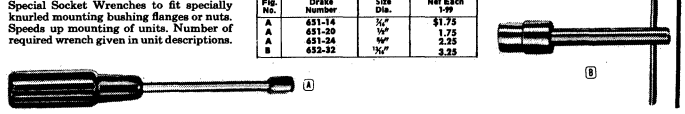
Fig. No.	Drake Number	Lens Dia.	Base	Length In Front of Panel	Length Behind Panel Face	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	Net Each Lots Of 1-9	10-24	25-99
G	75-110	1"	Cond. Screw	7/16"	2 1/4"	1"	1/2"	1 1/2"	$1.03	$ .92	$ .86

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation—"DRAKE LENS CODE NUMBER DATA"

DRAKE *E-Z-TITE* WRENCHES

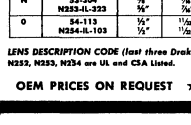
Special Socket Wrenches to fit specially knurled mounting bushing flanges or nuts. Speeds up mounting of units. Number of required wrench given in unit descriptions.

Fig. No.	Drake Number	Size Dia.	Net Each 1-99
A	651-14	1/4"	$1.75
A	651-20	1/2"	1.75
A	651-24	9/16"	2.25
B	652-32	13/16"	3.25



INDICATOR LIGHTS

DRAKE



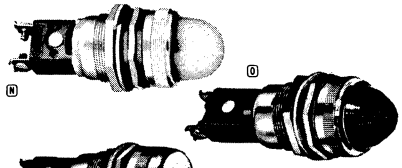
"STANDARD" INDICATOR LIGHTS

Practical, good-looking—polished chrome plated lens holder. Special feature: easy front replacement of pop-forward lamps. Snap-in lens assembly. Mount from front of panels up to ½" thick, in 1" dia. hole on 1½" centers.

LAMP NO. 656 120V

Fig. No.	Drake Number	Mil. Style Number	Lens Dia.	Base	Length In Front of Panel	Length Behind Panel Face	Lamps	Net Each Lots Of 1-9	10-24	25-99
L	B1474L-ISE-110		1"	Cond. Screw	7/16"	25/64"	656 or 10C7	$1.22	$1.10	$1.02
M	B1474L-ISE-410		1"	Cond. Screw	3/4"	25/64"	656 or 10C7	1.24	1.11	1.03

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation—"DRAKE LENS CODE NUMBER DATA"



"TITELITE" *OIL-WATER-DUST PROOF* INDICATOR LIGHTS

Neoprene gaskets seal out oil, water, dust, dirt. Ruggedly made for severe duty. Polished chrome plated screw-on lens holder (MIL types, black nickel plated); octagon nut for easier mounting. Pop-forward lamp on screw base units, easily replaced from front of panel. Mount from front or rear of panels up to 1/4" thick, in 1" dia. hole on 1 5/8" centers. No. 5205-233 has built-in ¼ watt series resistor for NE51H lamp. Mounts from front or rear of panels up to 3/8" thick, in 1 1/16" dia. hole on 2 1/32" centers.

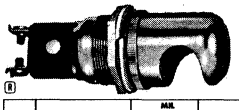
LAMP NO. 6540C 120V

LAMP NO. NE45 120V

LAMP NO. T-3¼ 6.3 to 28V

Fig. No.	Drake Number	Mil. Style Number	Lens Dia.	Base	Length In Front of Panel	Length Behind Panel Face	Built-in Resistor (Ohms)	Net Each Lots Of 1-9	10-24	25-99
N	B979S-ISE-305		1"	D.C. Cond. Bay.	1 7/16"	1 15/16"		$1.98	$1.78	$1.65
	B979S-ISE-410		1"	D.C. Cond. Bay.	1 7/16"	2 1/16"		1.98	1.78	1.65
O	B979S-ISE-430		1"	D.C. Cond. Bay.	1 7/16"	2 1/16"		1.98	1.78	1.65
P	B979S-ISE-550		1"	D.C. Cond. Bay.	1 7/16"	2 1/16"		2.19	1.97	1.83
	B1479S-ISE-305		1"	Cond. Screw	1 7/16"	1 15/16"		1.09	.98	.91
	B1479L-ISE-410		1"	Cond. Screw	1 7/16"	1 31/32"		1.80	1.62	1.50
	B1479L-ISE-430		1"	Cond. Screw	1 7/16"	1 31/32"		1.80	1.62	1.50
	B1479L-ISE-550		1"	Cond. Screw	1 7/16"	2 1/32"		1.96	1.77	1.64
Q	5205-233-301		5/8"	Min. Bayonet	7/16"	1 7/16"	25K	1.54	1.39	1.29
	5205-233-320		5/8"	Min. Bayonet	7/16"	1 7/16"	25K	1.70	1.53	1.42

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation—"DRAKE LENS CODE NUMBER DATA"



CANDELABRA SCREW BASE INSTRUMENT LIGHT

For 120V, 6S6 lamp. Nickel plated friction hood. Mounts from front or rear of panels up to 1/8" thick, in 1" dia. hole on 1 5/8" centers.

LAMP NO. NE51H 125 to 250V

LAMP SAME AS 656 ABOVE

Fig. No.	Drake Number	Mil. Style Number	Lens Dia.	Base	Length In Front of Panel	Length Behind Panel Face	Lamps	Net Each Lots Of 1-9	10-24	25-99
R	900-006			Cond. Screw	1 7/16"	1 29/64"	656	$1.48	$1.33	$1.23

(ALL ILLUSTRATIONS APPROX. 3/8 ACTUAL SIZE)

OEM PRICES ON REQUEST ★ *UNITS CAN BE ORDERED WITH LAMP INSTALLED* ★ SPECIFY LENS COLOR

Miniature Lighting Specialists

DRAKE

MINIATURE LIGHTING SPECIALISTS

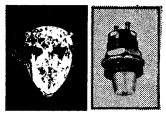
"NEW MLITE"

SUB-MIDGET INDICATOR LIGHT

HERE'S MAXIMUM EFFICIENCY IN MINIMUM SIZE— WITH THE ADVANTAGES OF NEW LONG-LIFE INCANDESCENT LAMPS!

"GEMLITES" combine practicality, convenience, economy for all kinds of instruments, control panels and other applications. Specially DRAKE-designed to fill growing needs for soundly constructed extra-small units, for low voltage operation and convenient lamp replacement. For rapid installation in round holes, they have E-Z Tite flanges—use No. 12 wrench.

SPECIFICATIONS . . . Mounts in 5/16" diameter "D" hole from front of panel . . . Maximum panel thickness: 7/32" . . . Minimum center-to-center spacing: 15/32" . . . Secured with hexagon nut . . . Nickel plated brass hardware, black body . . . Lens: translucent Butyrate . . . COLORS: AMBER, BLUE, COLORLESS, GREEN, RED and YELLOW . . . Phenolic insulation . . . Turret type solder lugs . . . Torque: 20 lb. inch . . . BUILT TO PERFORM *AS PRESCRIBED IN MIL-L-3661A.*

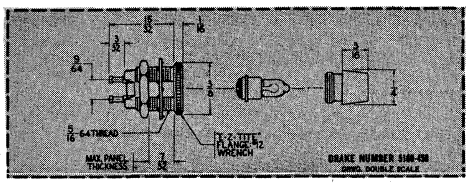


"GEMLITE" 5160-458
9.7 carat Diamond Ring
Courtesy of C. D. Peacock Jewelers
Est. 1837—Chicago

PHOTOS ACTUAL SIZE

Drake Number	Net Each Lots Of 1-9	10-24	25-99
5160-458-604	$1.75	$1.58	$1.46
*5160-458-644	1.84	1.66	1.54

*Imprinted Lenses see photo.



SUB-MIDGET
T-1
INCANDESCENT
LAMP

FEATURES . . .

- Houses new 60,000 hour, 5 V., 300 milliwatt lamp.
- Only ¾" long—⅜" maximum diameter (0.09 cubic inches).
- Flat on thread means easy economical mounting in 5/16" diameter "D" hole.
- 180° Visibility.
- Replaceable lamp from front of panel.
- Flat face lens for READOUT applications.

LAMP DATA				
Lamp No.	Design Voltage	Design Current amp.	Average Life hr.	Candle Power c.p.
682	5.0	.06	60M	.029
*685	5.0	.06	60M	.048
714	5.0	.075	16M	.080
719	5.0	.115	16M	.132
*1099	12.0	.06	16M	.13
*856	28.0	.024	16M	.13

OEM PRICES ON REQUEST ★ *UNITS CAN BE ORDERED WITH LAMP INSTALLED* ★ SPECIFY LENS COLOR

DRAKE

MINIATURE LIGHTING SPECIALISTS

"ANEW ROLITE"

MILITARY INDICATOR LIGHT

ANOTHER SUB-MIDGET INDICATOR LIGHT— THIS ONE BUILT TO MILITARY DRAWING MS25446

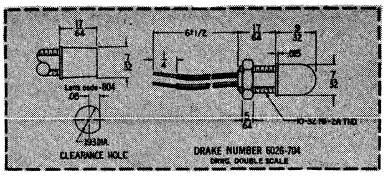
DRAKE'S *"ASTROLITE"* was aptly named because its primary use is in missile work, but has other instrumentation applications as well. The built-in 60,000 hour incandescent lamp affords maximum life in an Indicator Light built to meet *Military Standard MIL-L-6723*—particularly useful where space is at a premium.

"ASTROLITES"
6026-704
6026-804

PHOTOS ACTUAL SIZE

FEATURES . . .

- Per Military Standard Drawing MS25446.
- Micro-miniature unit (0.028 Cubic Inches).
- Built-in long life T-1 incandescent lamp—60,000 hours life.
- Built-in Teflon insulated lead wires.
- 180° Visibility.
- Flat on thread for "D" hole easy economical mounting.
- Optional flat face lens for READOUT applications.



SPECIFICATIONS . . .

Mounts in 0.191" diameter "D" hole.
Maximum panel thickness: 3/16".
Minimum center-to-center spacing: 1 1/32".
Secured with hexagon nut.
Nut: chromated zinc over brass.
Body: Stainless Steel.
Lens: Translucent Butyrate.
COLORS: AMBER, BLUE, COLORLESS, GREEN, RED, YELLOW and WHITE.
Termination: Two 26 ga. stranded Teflon insulated 6" Lead Wires.
Lamp potted in with epoxy resin.
Net weight per thousand: 5 lbs.
Test Voltage: 500AC to ground.
Maximum operating voltage: 6 V.
Design current: 0.06 amps. at 5 volts.

MILITARY TABLE					
DRAKE NUMBER *With Macrodome Lens	†COLOR Diffusing Lens	MILITARY STYLE NUMBER	Net Each Lots Of 1-9	10-24	25-99
6026-704	Blue	MS 25446-2	$2.17	$1.96	$1.81
6026-704	Green	MS 25446-3	2.17	1.96	1.81
6026-704	Red	MS 25446-4	2.17	1.96	1.81
6026-704	White	MS 25446-5	2.17	1.96	1.81
6026-704	Yellow	MS 25446-6	2.17	1.96	1.81
	Non-Diffusing Lens				
6026-703	Colorless	MS 25446-6	$2.17	$1.96	$1.81

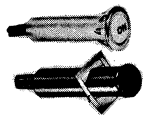
*For READOUT application, order cylindrical lens: Lens code—804.
†Always specify color with Drake Number

OEM PRICES ON REQUEST ★ *UNITS CAN BE ORDERED WITH LAMP INSTALLED* ★ SPECIFY LENS COLOR

NEON "GLO-LITES"

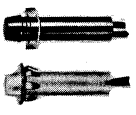
DRAKE

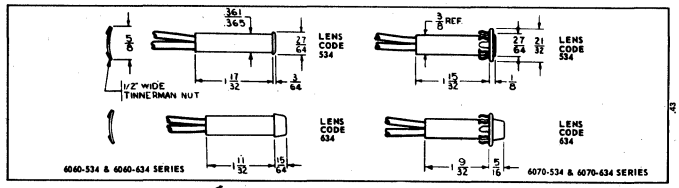
THE NEW LOOK IN NEON INDICATOR LIGHTS



SAVE MONEY WITH ONE-PIECE NYLON BODY and LENS

"Glo-Lites" are best suited for use in appliances . . . instruments . . . specialties . . . and other products where line voltage is available. Positive quality factors are many.





TINNERMAN NUT					PLUG IN					CIRCUIT VOLTAGE	BUILT-IN RESISTANCE (ohms)
FLUSH	CYLINDRICAL (Tapered)	NET EA. LOTS OF 1-9	10-24	25-99	FLUSH	CYLINDRICAL (Tapered)	NET EA. LOTS OF 1-9	10-24	25-99	(AC)†	
6063-534	6063-634	.48	.42	.39	6073-534	6073-634	.50	.45	.42	125	25K
6065-534	6065-634	.50	.45	.42	6075-534	6075-634	.54	.49	.45	250	100K

*External series resistance required which will limit current to 0.6ma.
†Starting Voltages: NE2E lamp: AC 65V. DC 90 V. NE2H lamp (with bullets preceding part No.) AC 95V. DC 135V.

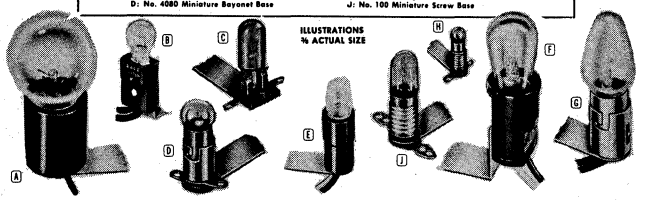
Choose between red, white or amber colors and between flush or tapered cylindrical lens styles — both are translucent and signal lined on the inside.

HI-BRIGHTNESS UNITS ARE RECOMMENDED FOR GREATER ILLUMINATION. (See chart above where bullet • precedes part number.)

A FEW DRAKE LAMPHOLDERS

Ask for additional information about these and other styles

A: No. A1700 Intermediate Screw Base with Phenolic Housing
B: No. 1900 Miniature 2-Pin Base with Phenolic Housing
C: No. 4272 "WEDGE-GRIP" Miniature Wedge Base
D: No. 4080 Miniature Bayonet Base
E: No. N500 Miniature Bayonet Base with Nylon Housing
F: No. B1400 Candelabra Screw Base with Phenolic Housing
G: No. A1100 Double Contact Bayonet Base
H: No. 2100 Midget Screw Base
J: No. 100 Miniature Screw Base



OEM PRICES ON REQUEST ★ *UNITS CAN BE ORDERED WITH LAMP INSTALLED* ★ SPECIFY LENS COLOR

DRAKE

LENSES & LENS SHAPES

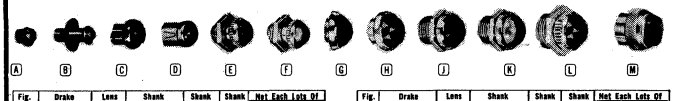


Fig. No.	Drake Number	Lens Diam.	Shank O.D.	Shank I.D.	Shank Length	Net Each Lots Of 1-9	10-24	25-99
A	6155-113	5/16"	.218	Solid	1/8"	$.07	$.06	$.06
B	6155/1-113	5/16"	.218	Solid	1/8"	.08	.08	.07
C	24-113	5/16"	.278/.282	1/16"	1/16"	.07	.08	.06
D	38-101	5/16"	.324/.338	1/16"	5/16"	.32	.29	.27
E	14L-15-113	5/16"	5/16"—32 Thd.	1/16"	3/16"	.13	.12	.11
F	14L-15-103	5/16"	5/16"—32 Thd.	1/16"	3/8"	.13	.12	.11

Fig. No.	Drake Number	Lens Diam.	Shank O.D.	Shank I.D.	Shank Length	Net Each Lots Of 1-9	10-24	25-99
G	31-113	1/8"	.373/.377	1/16"	3/16"	$.13	$.12	$.11
H	25-113	1/8"	.373/.377	1/16"	1/4"	.12	.11	.10
J	16-17-113	1/8"	5/16"—27 Thd.	1/16"	5/16"	.16	.14	.13
K	16-17-103	1/8"	5/16"—27 Thd.	1/16"	3/8"	.16	.14	.13
L	38-32B-110	1/8"	5/16"—27 Thd.	1/16"	5/16"	.31	.28	.26
M	103A-500	1/8"	.483/.485	1/16"	3/16"	.31	.28	.26

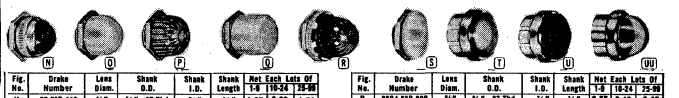


Fig. No.	Drake Number	Lens Diam.	Shank O.D.	Shank I.D.	Shank Length	Net Each Lots Of 1-9	10-24	25-99
N	25-52B-110	1/8"	5/16"—27 Thd.	7/32"	5/16"	$.25	$.23	$.21
O	25P-52B-304	5/16"	5/16"—27 Thd.	7/32"	5/16"	.12	.11	.10
P	25P-52B-323	5/16"	5/16"—27 Thd.	7/32"	5/16"	.12	.11	.10
Q	25P-52B-604	5/16"	5/16"—27 Thd.	7/32"	7/16"	.12	.11	.10

Fig. No.	Drake Number	Lens Diam.	Shank O.D.	Shank I.D.	Shank Length	Net Each Lots Of 1-9	10-24	25-99
R	25G4-52B-329	5/16"	5/16"—27 Thd.	7/32"	5/16"	$.25	$.23	$.21
S	52A-B-304	5/16"	5/16"—27 Thd.	7/32"	5/16"	.12	.11	.10
T	60A-101	3/8"	.685/.687	9/16"	1/8"	.45	.41	.38
U	60A-110	3/8"	.685/.687	9/16"	1/4"	.45	.41	.38
UU	60A-203	3/8"	.685/.687	9/16"	1/4"	.43	.39	.36

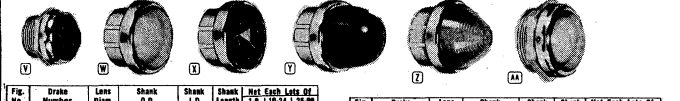
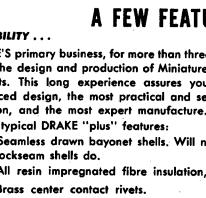


Fig. No.	Drake Number	Lens Diam.	Shank O.D.	Shank I.D.	Shank Length	Net Each Lots Of 1-9	10-24	25-99
V	60A3-27-110	3/8"	11/16"—27 Thd.	25/64"	3/8"	$.51	$.55	$.51
W	75A-101	1"	.887/.889	25/64"	3/8"	.48	.44	.41

Fig. No.	Drake Number	Lens Diam.	Shank O.D.	Shank I.D.	Shank Length	Net Each Lots Of 1-9	10-24	25-99
X	75A-110	1"	.887/.889	25/64"	5/16"	$.48	$.44	$.41
Y	75A-305	1"	.887/.889	25/64"	5/16"	.51	.46	.43
Z	75A-431	1"	.887/.889	25/64"	5/16"	.51	.46	.43
AA	75A3-C-101	1"	1"—27 Thd.	25/64"	3/8"	.70	.63	.59
BB	75A3-C-110	1"	1"—27 Thd.	25/64"	3/8"	.70	.63	.59
CC	75A3-C-500	1"	1"—27 Thd.	25/64"	3/8"	.70	.63	.59



(ALL ILLUSTRATIONS APPROX. 3/8 ACTUAL SIZE)

A FEW FEATURES ABOUT DRAKE PRODUCTS

RELIABILITY . . .

DRAKE'S primary business, for more than three decades, has been the design and production of Miniature Lighting components. This long experience assures you of the most advanced design, the most practical and serviceable construction, and the most expert manufacture. Here are just a few typical DRAKE "plus" features:

1. Seamless drawn bayonet shells. Will not open up as lockseam shells do.
2. All resin impregnated fibre insulation, "Vulcoid".
3. Brass center contact rivets.
4. Molded phenolic or nylon shell housings.
5. Coil springs for center contact support that do not take a set.
6. Guaranteed to meet specifications as listed.
7. All steel parts protected with a suitable noncorrosive finish, such as cadmium.
8. 100% test of all units rated at 115 volts breakdown. This outstanding quality has been a major factor in satisfying the thousands of customers, including the "giants" as well as smaller manufacturers, whom we have supplied for many years. And you'll find DRAKE's traditional *"Personalized Service"* an added asset of inestimable value.

OEM PRICES ON REQUEST ★ *UNITS CAN BE ORDERED WITH LAMP INSTALLED* ★ SPECIFY LENS COLOR

Miniature Lighting Specialists

Net

© U.C.P., Inc.

DRAKE EXCLUSIVE DRAKE "MF" PRESS-TO-TEST

The exclusive construction of DRAKE'S 5131, 5138, 5141 and 5148 Series "MF" "Press-to-Test" Indicator Lights provides an instantaneous and highly reliable check of indicator lamp condition—the most common cause of indication failure.

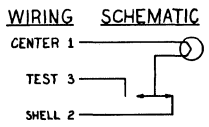
A slight pressure on the lens cap of the indicator light "breaks" the normal signal circuit to the lamp, and connects the lamp to a test circuit (see wiring schematic at right). This simple procedure immediately informs the operator that:

1. If indicator lamp lights, the lamp is OK.
2. If indicator lamp fails to light, it is burned out and should be replaced.
3. If indicator lamp lights in test circuit, but failed to light in the signal circuit when it should have, the signal activating switching should be checked.

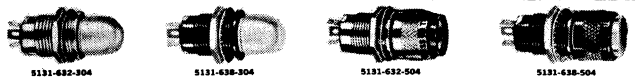
General features of "MF" indicator lights will be found at the top of Pages 2 and 3 in Folder 6304. Data at the top of Page 4 does not apply.

Lamps that may be used and their characteristics will be found in the table "Lamp Data—Incandescent Lamps" at the top of Page 5 in Folder 6304.

WIRING SCHEMATIC



LENS COLORS: For Incandescent Lamps: amber, blue, clear, green, red, white and yellow.



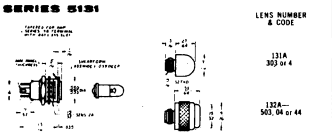
5131-632-304 5131-638-304 5131-632-504 5131-638-504

SERIES 5131 For a secure fit, the lens shanks are threaded. Lamps are replaceable from front. Units mount from front of panels up to 3/16" thick in 13/32" hole on 3/4" minimum centers. Commercial units are clear finish; MIL units are black anodized. On Special Order, this series is available with a 1/2"-32 thread for mounting in a 1/2" diameter hole to replace similar units now in use. Weight per unit approximately 0.0165 lb.

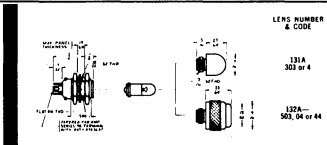
DRAKE NUMBER		LENS DESCRIPTION	LENS DIA.	PROJECTION From face of panel		NET EACH LOTS OF		
COMMERCIAL Natural Finish	MILITARY Black Finish			FRONT	REAR	1-9	10-24	25-99
5131-632-303	5131-638-303	Macrodome, Transparent	7/16"	31/64"		2.10	1.89	1.75
5131-632-304	**5131-638-304**	Macrodome, Translucent	7/16"	31/64"		2.10	1.89	1.75
5131-632-504	**5131-638-504**	Flush, Translucent	13/32"	37/64"	13/16"	2.47	2.23	2.06
*5131-632-544	5131-638-544	Flush, "Read-out"	13/32"	37/64"		2.56	2.31	2.14

*Lens can be rotated within the holder for legend alignment.

SERIES 5131



SERIES 5141



5141-638-503 5141-632-503 5141-638-304 5141-632-304

SERIES 5141 Same as Series 5131 except mount from front or rear of panel. No option for mounting in 1/2" diameter hole. Weight per unit approximately 0.0175 lb.

DRAKE NUMBER		MILITARY STANDARD NUMBER*	LENS DESCRIPTION	LENS DIA.	PROJECTION From face of panel		NET EACH LOTS OF		
COMMERCIAL Natural Finish	MILITARY Black Finish				FRONT	REAR	1-9	10-24	25-99
5141-632-303	5141-638-303		Macrodome, Transparent	7/16"	31/64"		1.74	1.57	1.45
5141-632-304	**5141-638-304**	MS25041-5	Macrodome, Translucent	7/16"	31/64"		1.74	1.57	1.45
5141-632-503	**5141-638-503**	thru 11	Flush, Transparent	13/32"	41/64"	3/4"	1.82	1.64	1.52
**5141-632-544	5141-638-544		Flush, "Read-Out"	13/32"	41/64"		1.91	1.72	1.59

*The dash numbers call out colors. DRAKE numbers don't include color. Specify with order.
**Lens can be rotated within holder for legend alignment.

DRAKE NUMBERS IN BOLD DESIGNATE UNITS PICTURED

★ ABOVE UNITS MAY BE ORDERED WITH LAMP INSTALLED ★ ALWAYS SPECIFY LENS COLOR ★

DATA FOR PRESS-TO-TEST "MF" LIGHTS

DRAKE

- Compact for minimum space requirements. Mount in 13/32" diameter hole, with minimum 3/4" center-to-center spacing. 5141 and 5148 Series mount from either front or rear of panel; 5131 and 5138 Series mount from front only.
- "Glaskyd" and grade XXX phenolic insulation. All electrical connections insulated from ground.
- Electro-tinned solder lugs (tapered to accept AMP Series 98 female solderless connectors) mechanically locked in position to prevent rotation (see Figure 2 at top of Page 3 in Folder 6304).
- Hardware is steel protected with 0.0002" cadmium plate plus dichromate dip; body is anodized aluminum.
- Items listed in "Military Standard Number" column are built to meet the requirements of MIL-L-7961B.

ELECTRICAL SPECIFICATIONS:

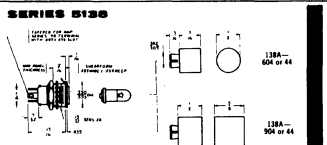
Rated Voltage: 28 v. Test Voltage: 500 v. rms at 60 c.p.s. Maximum Current: 0.3 amp

5138-732-604 5138-738-604 5138-738-904

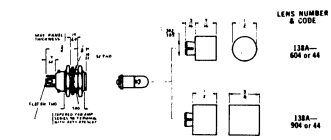
SERIES 5138 Similar to Series 5131 but have friction fit lens shanks for easy "Read-Out" legend alignment. Lamps are replaceable from front. Units mount from front of panels up to 5/16" thick in 13/32" hole on 3/4" centers. Commercial units are clear finish; MIL units are black anodized. Weight per unit approximately 0.0155 lb.

DRAKE NUMBER		LENS DESCRIPTION	LENS SIZE	PROJECTION From face of panel		NET EACH LOTS OF		
COMMERCIAL Natural Finish	MILITARY Black Finish			FRONT	REAR	1-9	10-24	25-99
5138-732-604	**5138-738-604**	Cylindrical, Translucent	1/2" D	1/2"		2.33	2.10	1.95
5138-732-644	5138-738-644	Cylindrical, "Read-Out"	1/2" D	1/2"		2.41	2.18	2.02
5138-732-904	**5138-738-904**	Square, Translucent	3/8" Sq.	9/16"	13/16"	2.37	2.13	1.98
5138-732-944	5138-738-944	Square, "Read-out"	3/8" Sq.	9/16"		2.45	2.21	2.05

SERIES 5138



SERIES 5148



5148-738-604 5148-732-604 5148-738-904

SERIES 5148 Same as Series 5138 except mount from front or rear of panel. Weight per unit approximately 0.0155 lb.

DRAKE NUMBER		LENS DESCRIPTION	LENS SIZE	PROJECTION From face of panel		NET EACH LOTS OF		
COMMERCIAL Natural Finish	MILITARY Black Finish			FRONT	REAR	1-9	10-24	25-99
5148-732-604	**5148-738-604**	Cylindrical, Translucent	1/2" D	9/16"		2.38	2.14	1.99
5148-732-644	5148-738-644	Cylindrical, "Read-out"	1/2" D	9/16"		2.47	2.22	2.06
5148-732-904	**5148-738-904**	Square, Translucent	3/8" Sq.	5/8"	3/4"	2.42	2.18	2.02
5148-732-944	5148-738-944	Square, "Read-out"	3/8" Sq.	5/8"		2.50	2.25	2.09

DRAKE NUMBERS IN BOLD DESIGNATE UNITS PICTURED

★ ABOVE UNITS MAY BE ORDERED WITH LAMP INSTALLED ★ ALWAYS SPECIFY LENS COLOR ★

A COMPLETE SELECTION OF DRAKE'S NEW 120 VOLT INCANDESCENT, MIDGET AND MINIATURE INDICATOR LIGHTS

new Now available indicator lights to use the new 120 Volt incandescent lamps — Bi-Pin Cartridge base and Miniature Bayonet base — long lasting, brighter and without need of transformers or resistors. These lamps are being used in more and more installations each day.

To keep pace with the popularity of these 120 Volt incandescent lights, Drake has adapted its popular Bi-Pin Cartridge and Deluxe Molded indicator lights to permit a wider application of these new lights in the computer and controls field. *new*

BI-PIN CARTRIDGE 120 VOLT INCANDESCENT INDICATOR LIGHTS

FEATURES: For Bi-Pin Cartridge Indicator Lights

Operation on standard 110-125 volt series.
Houses a 3 watt incandescent lamp with 3000 hour rating.
Light rating of 1500 "end foot candles."
Minute in size.
Easy, from front of panel lamp replacement.
Flat on thread for easy mounting in a "D" shaped hole.

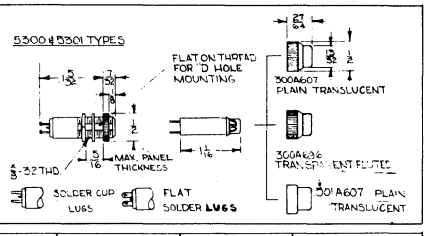
SPECIFICATIONS: Bi-Pin Cartridge Indicator Lights

Mounts in 3/8" diameter (round "D" hole) from rear of panel... Maximum panel thickness 3/16" ... Minimum center to center spacing—21/32"... secured with a hexagon nut... black anodized aluminum hardware and body... with or without plastic lenses... COLORS: BLUE, COLORLESS, GREEN, RED AND YELLOW... Phenolic Insulation... 3 choices of lugs.

ELECTRICAL: Test Voltage is 1000 AC to ground, 0.5 amps with 3 watts.

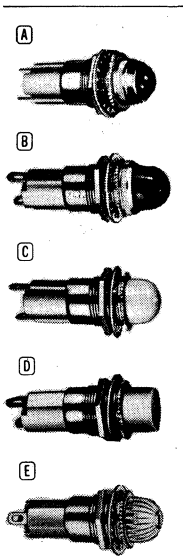
BI-PIN CARTRIDGE 120 VOLT INCANDESCENT INDICATOR LIGHT

Note:
1. Exposed panel hardware is black, other color anodizing to order.
2. #300A lens assembly has metal bezel. #301A is one piece, plastic cap.



DRAKE NUMBER	NET EACH LOTS OF			LAMPHOLDER NUMBER	LUGS	LENS NUMBER
	1-9	10-24	25-99			
5300-422-607	.85	.76	.71	4422-006	Flat	300A607
5300-422-696	.85	.76	.71	4422-006	Flat	300A696
5300-428-607	1.07	.96	.89	4428-006	Turret	300A607
5300-428-696	1.07	.96	.89	4428-006	Turret	300A696
5300-429-607	1.15	1.04	.96	4429-006	Solder Cup	300A607
5300-429-696	1.15	1.04	.96	4429-006	Solder Cup	300A696
5301-422-607	Priced to Order			4422-006	Flat	301A607
5301-428-607	Priced to Order			4428-006	Turret	301A607
5301-429-607	Priced to Order			4429-006	Solder Cup	301A607

DELUXE MOLDED MINIATURE BAYONET BASE INDICATOR LIGHTS



AVAILABLE IN COLORS, BLUE, COLORLESS, RED, GREEN, AND YELLOW. PLEASE ALWAYS SPECIFY LENS COLORS.

Polished chrome finish (MIL units are black nickel plated), molded Plastic housing give fine appearance, assure dependability. All "DE-LUXE MOLDED" units have Drake's E-Z Tite flange for quick assembly with Drake No. 32 wrench. Install lamps and mount units from front of panel up to 13/32" thick, in 11/16" dia. mounting hole on 31/32" centers. Units with built-in 1/4 watt series resistors take neon lamps.

INCANDESCENT 120 VOLT LAMP
Long life — 3000 hrs. Light rating—1500. End foot candles.

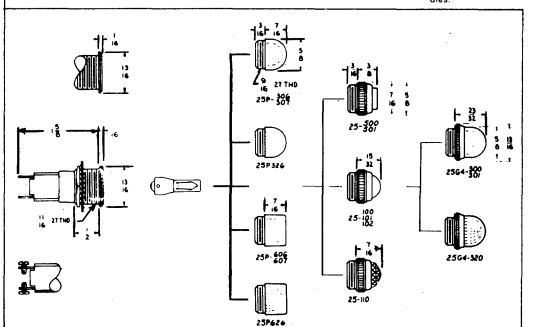


FIG. NO.	DRAKE NUMBER	MIL. STYLE NUMBER	LENS. DIA.	PROJECTION FRONT	PROJECTION REAR	LUGS	NET EACH LOTS OF 1-9	10-24	25-99
A	5200-222-101		1/2"	17/32"	1 5/8"	Solder	.97	.88	.81
B	5200-222-301		5/8"	11/16"	1 5/8"	Solder	1.23	1.11	1.03
C	5200-222-307		5/8"	1/2"	1 5/8"	Solder	.89	.81	.75
E	5200-222-326		5/8"	1/2"	1 5/8"	Solder	.89	.81	.75
D	5200-222-607		5/8"	3/16"	1 5/8"	Solder	.89	.81	.75
A	5200-228-101	LH75-LC14	1/2"	17/32"	1 5/8"	Solder	1.34	1.21	1.12
B	5200-228-301	LH75-LC15	5/8"	11/16"	1 5/8"	Solder	1.60	1.44	1.33
A	5200-229-101	LH62-BR2	1/2"	17/32"	1 5/8"	Solder	1.28	1.16	1.07

FOR QUALITY INDICATOR LIGHTS... CONTACT YOUR DRAKE DISTRIBUTOR

Eldema CORPORATION INDICATORS FOR INDUSTRY

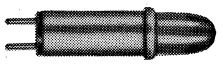
REPRESENTATIVES IN ALL PRINCIPAL CITIES

(Illustrations are approx. actual size)

C-LITES MINIATURE NEON AND INCANDESCENT LAMP CARTRIDGES

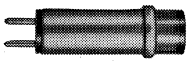
ELDEMA MINIATURE C-LITE CARTRIDGES EASILY INSERTED FROM FRONT OF THE PANEL. NEON TYPES AVAILABLE WITH BUILT-IN RESISTOR. TWO TERMINAL — COMPLETE INSULATION FROM THE PANEL. HIGH IMPACT PLASTIC LENS, CLEAR ANODIZED ALUMINUM CASE, HIGH DIELECTRIC INSULATOR, STAINLESS STEEL TERMINALS. MEETS MIL-L-3661.

INCANDESCENT C-LITES– TYPE CF



CF01 STOVEPIPE

CF02 FLUSH



CF03 SHORT FLAT

LENS COLORS

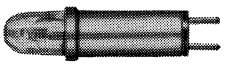
ACS – Amber Clear
ATS – Amber Transluscent
BCS – Blue Clear
BTS – Blue Transluscent
CCS – Cloudy Clear
GCS – Green Clear
GTS – Green Transluscent
RCS – Red Clear
RTS – Red Transluscent
WCS – Water Clear
WTS – White Transluscent
YTS – Yellow Transluscent

LAMP TYPES

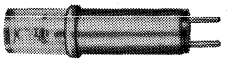
LAMP NO.	VOLTS	AMPS (MA)	LIFE HOURS
680	5	60	50,000
1730	6	40	1,000
2114	6	60	3,000
1784	6	200	1,000
2180	6.3	40	50,000
2181	6.3	200	50,000
1869	10	14	20,000
2107	10	40	5,000
1705	14	80	750
2182	14	80	50,000
2102	18	40	1,000
1762	28	40	1,000

TO ORDER — SPECIFY STYLE, COLOR, AND LAMP TYPE. FOR EXAMPLE: CF03-RTS-1762

NEON C-LITES — TYPE CG



CG01 **CG01R** STOVEPIPE



CG04 **CG04R** LONG FLAT

LENS COLORS

ACS – Amber Clear
CCS – Cloudy Clear
RCS – Red Clear
WCS – Water Clear
YCS – Yellow Clear

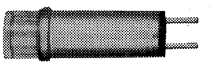
LAMP TYPES

CG01 and CG04 – No Resistor
NE2H – High Brightness
NE2E – Standard Brightness

CG01R and CG04R – Built-in Resistor
A1C-47K, High Brightness, 110 VAC
A1B-150K, Std. Brightness, 90 VDC

TO ORDER — SPECIFY STYLE, COLOR, AND LAMP TYPE. FOR EXAMPLE: CG01-ACS-NE2E CG04R-RCS-A1B-150K

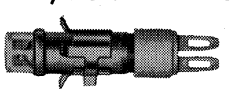
NEW SHORT CARTRIDGE



CG03 SHORT FLAT

Uses Short Neon Lamps – A1C High Brightness, A1B Std. Brightness
Specify As Above – CG03 - ACS - A1B

CLIP/SOCKET MOUNT

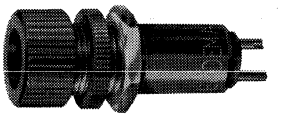


#10905 Spring Steel Clip and 2K Socket for C-Lite Mounting in 19/64" Hole.

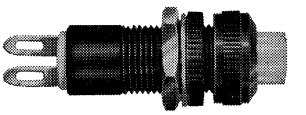
D-HOLDERS

RUGGED BLACK ANODIZED ALUMINUM HOLDER, STEEL HEX NUT AND LOCK WASHER — CADMIUM PLATED AND IRRIDITED, HIGH DI-ELECTRIC INSULATOR. GOLD PLATED SOLDER CUP OR TIN PLATED SOLDER LUG TERMINALS. MEETS MIL-L-3661 SPECIFICATIONS.

SINGLE LAMPHOLDER
Style DH — Mounts in 3/8" Hole

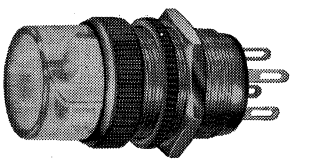


DHAB-14B, LAMPHOLDER



DHKB-15B LAMPHOLDER
with CF03 C-Lite Installed

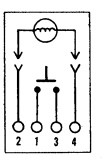
DUAL LAMPHOLDER
Style DF — Mounts in 3/4" Hole



DFKB-17WCB, CLEAR LENS,
with Clear Anodized Aluminum Light Barrier Between Lamps

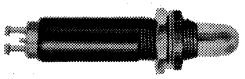
MOMENTARY SWITCH-LITE
Style DS — Mounts in 3/8" Hole

DSA1B SWITCH-LITE, GOLD PLATED TURRET PINS AND CONTACTS. CF03 C-LITE INSTALLED.



The DSA1B is momentary, normally open switch-lite with separate light circuit. Rated at ½ amp load.

E-LITES PERMANENT NEON LAMP INDICATORS MILITARY TYPE — 25,000 HOUR LIFE — 3/8" MOUNTING



EG01

EG03

BLACK ANODIZED ALUMINUM BODY, TIN PLATED TERMINALS
HIGH IMPACT PLASTIC LENS
MEETS MIL-L-3661
OPTIONAL BUILT-IN RESISTOR

STYLE	COLOR	LAMP/RESISTOR
EG01 (Dome)	ACB (Amber)	NE2E
EG03 (Flat)	CCB (Cloudy)	NE2E-100K
	RCB (Red)	NE2H
	WCB (Clear)	NE2H-33K

SPECIFY STYLE - COLOR - LAMP/RESISTOR
EXAMPLE — EG03-ACB-NE2E-100K

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PILOT LITES FOR ALL APPLICATIONS

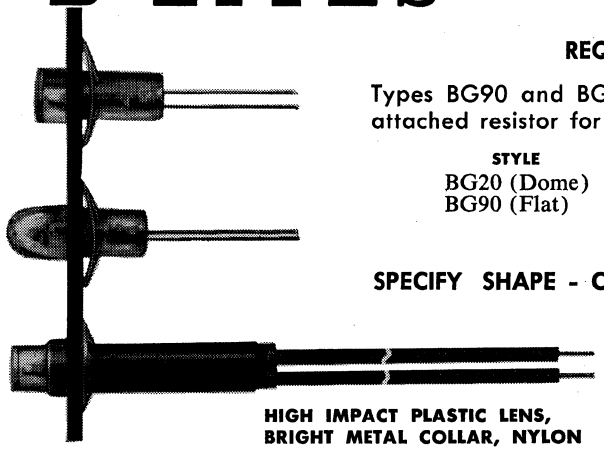
Eldema CORPORATION
SUBSIDIARY OF GENISCO TECHNOLOGY CORPORATION

B-LITES

COMMERCIAL NEON INDICATORS

PERMANENT CLIP MOUNTING

REQUIRES ONLY 5/16-INCH PANEL HOLE



TYPE BG90

TYPE BG20

TYPE BG03

Types BG90 and BG20 moulded of high impact plastic. Available with attached resistor for 110 volt operation.

STYLE	COLOR	LAMP
BG20 (Dome)	AC – Amber	NE2E – Standard Brightness
BG90 (Flat)	CC – Cloudy	NE2H – High Brightness
	RC – Red	NE2H-33K – For 110 volt
	WC – Clear	

SPECIFY SHAPE - COLOR - LAMP — EXAMPLE: BG90-RC-NE2H

SERIES BG03 — INSULATED LEADS
BUILT-IN RESISTOR FOR 110 VOLTS

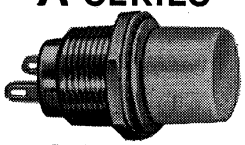
HIGH IMPACT PLASTIC LENS, BRIGHT METAL COLLAR, NYLON BODY, 6-INCH LEADS.

PART NUMBER	LENS COLOR
BG03-ACS-NE2H-33K	Amber
BG03-CCS-NE2H-33K	Cloudy
BG03-RCS-NE2H-33K	Red
BG03-WCS-NE2H-33K	Clear

LAMPHOLDERS FOR REPLACEABLE T-1¾ INCANDESCENT LAMPS

A-SERIES

FRONT MOUNT IN 17/32" HOLE OR REAR MOUNT IN 15/32" HOLE — NICKEL PLATED BRASS BODY AND HARDWARE — PHENOLIC INSULATION — TINNED TERMINALS — PLASTIC LENS



AB112-A22AT

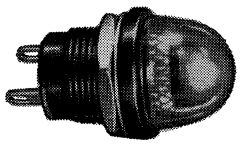
AC111-A21RC

COMPLETELY INSULATED TWO TERMINAL UNITS. LENS AND LAMP EASILY REPLACED FROM FRONT OF THE PANEL.

HOLDER PART NUMBERS	DOME LENS	COLOR	FLAT LENS
AB111 Front Mount, Black	A21AC	Amber Clear	A22AC
AB112 Front Mount, Bright	A21AT	Amber Translucent	A22AT
AC111 Rear Mount, Black	A21BT	Blue Translucent	A22BT
AC112 Rear Mount, Bright	A21CC	Cloudy Clear	A22CC
	A21GC	Green Clear	A22GC
	A21GT	Green Translucent	A22GT
	A21RC	Red Clear	A22RC
	A21RT	Red Transluscent	A22RT
	A21WC	Water Clear	A22WC
	A21WT	White Translucent	A22WT
	A21YT	Yellow Translucent	A22YT

M-SERIES

FRONT MOUNT IN 15/32" HOLE — BLACK ANODIZED ALUMINUM BODY — STEEL MOUNTING HARDWARE — PHENOLIC INSULATION — TINNED TERMINALS — HIGH IMPACT PLASTIC LENS



MA111-M12RC
Sub-Miniature Holder and Lens

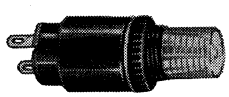
MA311 - M13RC
Watertight Unit with Two 1/16" O Rings to Seal to Panel Face

STANDARD ASSEMBLY	COLOR	WATERTIGHT ASSEMBLY
MA111 - M12AC	Amber Clear	MA311 - M13AC
MA111 - M12BC	Blue Clear	MA311 - M13BC
MA111 - M12GC	Green Clear	MA311 - M13GC
MA111 - M12RC	Red Clear	MA311 - M13RC
MA111 - M12WC	Water Clear	MA311 - M13WC
MA111 - M12WT	White Transluscent	MA311 - M13WT
MA111 - M12YT	Yellow Transluscent	MA311 - M13YT

M SERIES UNITS MEET MIL-L-3661 AND MS25256 SPECIFICATIONS AND PART NUMBERS

R-SERIES

REAR MOUNTS IN 3/8" DIAMETER HOLE — 1/8" PANEL — ALUMINUM HOUSING AND MOUNTING NUT — PHENOLIC INSULATION — TINNED TERMINALS — HIGH IMPACT PLASTIC LENS



RLD6B-L09WC

HOLDER NUMBER	FRESNEL RING LENS		SMOOTH FACE LENS	
RLD6B (Black)	L09AC	Amber	L10AT	Amber
RLD6S (Silver)	L09CC	Cloudy	L10BT	Blue
	L09GC	Green	L10GT	Green
	L09RC	Red	L10RT	Red
	L09WC	Clear	L10WT	White
			L10YT	Yellow

NEW SUB-MINIATURE LAMP ASSEMBLY
.193 PANEL HOLE MOUNT — MEETS MS25446

J-SERIES

5 volt — 60 ma — 100,000 hour lamp
Stainless steel body and nut
High strength plastic lens
Insulated leads

ASSEMBLY	COLOR
JK511 - J21AT	Amber (Yellow)
JK511 - J21BT	Blue
JK511 - J21GT	Green
JK511 - J21RT	Red
JK511 - J21WC	Clear
JK511 - J21WT	White
JK511 - J21YT	Light Yellow

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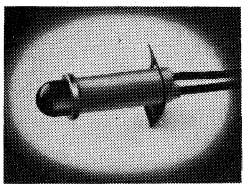
INDUSTRIAL DEVICES, Inc.

OMNI-GLOW PILOT LIGHT



For use on instrument panels, appliances, switchboards, all electrical and electronic apparatus. OMNI-GLOW will last in excess of 10,000 to 25,000 hours of operating life.

With built- in glow lamp and current limiting resistor, all mechanical spring contacts are eliminated, providing a cost-saving, rugged unit relatively free from failure due to vibration or shock.

Easy mounting — only a ½" hole required for any panel thickness. Instant fastening — speed nut assures permanent shock and vibration-proof attachment.

Drawing less than 1/10 watt at 115 volts, long life, high reliability operation is provided over the 75-150 volt range; can also be used at higher voltage with decreased life.

Nylon body and acrylic lens assembly is 1 15/16" long overall. Lens extends 1/32" in front of panel. Black plastic (105°C) leads are 4½" long, stripped and tinned ½".

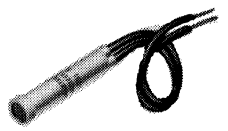
Four standard models have red (Model #1010A1), clear (Model #1010A2), amber (Model #1010A3), or white translucent (Model #1010A4) lenses.

Furnished complete with lamp and speed nut. OMNI-GLOW is UL approved—CSA Approval No. 13346.

Catalog Number	Description	Net
1010A*	OMNI-GLOW Pilot Light	$ .54

* Note (1) red, (2) clear, (3) amber, (4) white.

GLO-DOT PILOT LIGHT

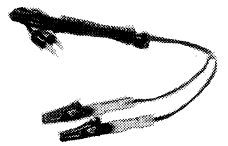


Small and attractive pilot light mounts in 3/16" hole with speed nut (provided). Built-in resistor assures long life while strain-relief provides added protection. Entire series UL & CSA approved. 4½" leads, 22 AWG stranded 105°C insulation supplied stripped ½". Top ring is .340 dia. by .140" high while length of body under shoulder is 1 31/64" overall.

Catalog Number	Description	Net
2110A-*	GLO-DOT w/(see note) lens	$ .51

*Note: (1) red, (2) clear, (3) amber, (4) white

SAFE-T-KORD Model 1480

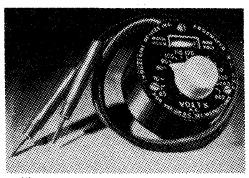


- A safe convenient way to apply line voltage to assemblies and components for test and experimentation.
- Eliminates accidental shocks and shorts to avoid blowing the main fuses.
- Consists of two nylon-insulated Safe-T-Klips, each with type AGX-5 ampere fuse and six foot line cord.
- Fast fuse check possible with see-thru Lexan fuse housing.

Catalog Number	Description	Net
1480	SAFE-T-KORD	$1.65

MINI-VOLT VOLTMETER

(U.S. Pat. 2,644,134)



MINI-VOLT is an "abuse-proof" voltmeter; sufficiently accurate to indicate a 2 or 3 volt drop on 110 volt line. Virtually burn-out proof, this rugged unit is used by electricians, radio and TV repairmen, refrigerator and air-conditioning servicemen, experimentors, lab technicians, handymen.

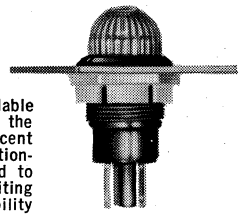
MINI-VOLT has wide application for all equipment whose proper operation requires correct voltage.

In addition to measuring the exact voltage over the range from 65 to 660 volts, Model #400B is used to identify AC or DC lines, check rectifiers, filter capacitors, chokes; test for blown fuses, grounded components, DC polarity, measure voltage drops with load, and 1001 other uses.

Catalog Number	Description	Net
400B	Range 65 to 660 volts	$2.25

MINI-SLIDE

Series 2800 Pilot Lights



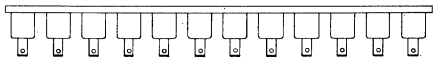
Series 2800 Mini-slide Pilot Lights are available with brilliant, multi-colored lenses and feature the ease and convenience of slide-base incandescent lamps. Lenses screw into the socket for vibration-proof installation. The socket itself is secured to the panel by a unique self-locking torque-limiting nut (Pat. Pending) which eliminates the possibility of stripping either the nut or the socket.

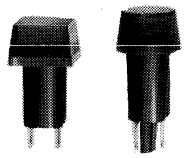
- Lamps available from 6v to 120v
- Solder or quick-connect receptacles
- Easy relamping from front of panel—no tools required.

Catalog Number	Description	Net
2800*	Series 2800 Pilot Light	$ .63

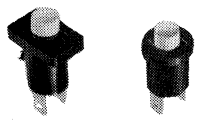
*Specify color — red, clear, amber, white, green, blue, or yellow. Prices shown are less lamp.

Pilot Lights — Individual Sockets
Multi-Socket Strips





"Pilot"



"Indicator"

Brilliant, multi-color panel lighting slide base lamps. Attractive, yet economical to buy and install, MINI-SLIDE design permits you to use these rugged long-lived lamps in Pilot Lights, Individual Sockets, and Multi-Socket Strips.

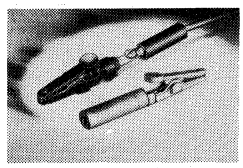
- Lenses in a full range of colors.
- Easy relamping from front of panel. No special tools needed.
- Lenses can be imprinted.
- U.L. approved (3060 & 3060A)

Catalog Number	Description	Net
3001A	Individual socket or "Indicator" lamp (round)	$ .24
3002A	Individual socket or "Indicator" lamp (rectangular)	.24
3060A	Individual socket for "Pilot" lamp	.30
3003	12 socket strip, ¾" centers, common ground contact	3.75
3004	12 socket strip, ¾" centers, individual ground contacts	3.99
3005	12 socket strip, ½" centers, common ground contact	3.75
3006	12 socket strip, ½" centers, individual ground contacts	3.99
3060/*	Complete pilot light assembly - uses "Pilot" lamps	.42
3040/*	Complete pilot light assembly - uses "Indicator" lamps	.39

*Specify lens shape and color. Prices shown are less lamp.

SAFE-T-KLIP

(U.S. Patent 2,754,490)



New convenience and safety are realized through the use of 100% insulation on these test clips. Tough nylon insulation covers the entire clip, including the nose, without the bulkiness of rubber boots or insulating tape. Danger of short circuit due to clips touching each other or other components is eliminated, and test leads may be changed from one connection to another without cutting the power in the equipment.

Available in pairs (one red, one black) SAFE-T-KLIP incorporates a cadmium plated steel alligator clip and provides shock-proof, short-circuit proof operation in excess of 600 volts. Width of the clips is 3/8"; maximum height is 5/8".

Six models are available.

Catalog Number	Description	Net
1410A	SAFE-T-KLIP for use with lead wire provides screw terminal or solder	$1.08 pr.
1410B	SAFE-T-KLIP for use with standard .080" test prod	.90 pr.
1410C	SAFE-T-KLIP for use with banana plug	.72 pr.
1410D	SAFE-T-KLIP for Signal Corps use	.84 pr.
1410F	SAFE-T-KLIP with type AGX 5 amp fuse	1.38 pr
1410M	SAFE-T-KLIP Miniature for lead wire	.72 pr.

Note: Safe-T-Klips are also available individually. Use suffix 1 for black, 2 for red. Price for each is one half pair price.

Net

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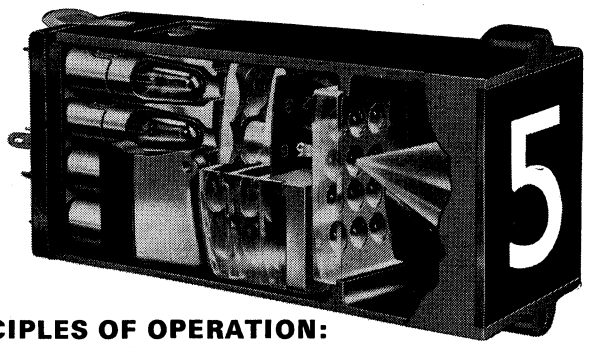
IEE INDUSTRIAL ELECTRONIC ENGINEERS, INC. IEE

REAR-PROJECTION, SINGLE-PLANE, 12-POSITION READOUTS

FEATURES:

- Single-plane presentation for crispness, not visual hash.
- Bold, bright indications for high readability at wide angles, long distances, in brightest light.
- 12 message positions per readout. Colors, polarity, decimal points available.
- No moving parts for unlimited unit life; lamps easily replaceable.
- Low voltage operation.
- No filters, screens, or shades required.



PRINCIPLES OF OPERATION:

Cut-away of IEE Series 10 readout shows basic principles of IEE's patented rear-projection, single-plane operation. Photographic film containing up to 12 individual messages is mounted in front of 12-lamp assembly. As one or more of these lamps is lighted, the corresponding message is projected on the front viewing screen by a set of lenses. Because the presentation is entirely single-plane, only the message being displayed is visible; the other messages are totally invisible.

AVAILABLE FROM YOUR DISTRIBUTOR WITH THREE STANDARD MESSAGE DISPLAYS

Model Number												
100000	1	2	3	4	5	6	7	8	9	0	.	.
100011	1	2	3	4	5	6	7	8	9	0	+	−
100052	1	2	3	4	5	6	7	8	9	0	(RED CIRCLE)	(GREEN CIRCLE)
Terminal Number	1	2	3	4	5	6	7	8	9	10	11	12

RECOMMENDED LAMPS

(Available Separately at Your Distributor's)

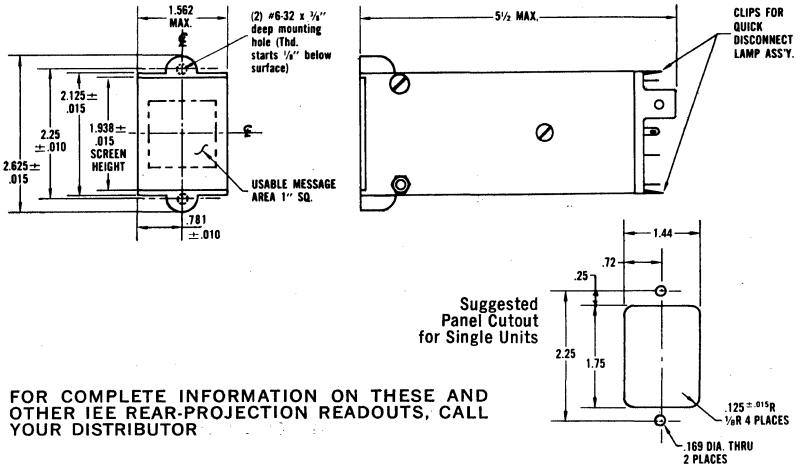
Lamp Number	Voltage	Current (ma)	Wattage/ Lamp	Life At Rated Voltage (hours)	Average Character Brightness*
44	6.3	250	1.6	3000	75
47	6.3	150	.9	3000	42
1815	14	200	2.8	3000	60
1820	28	100	2.8	1000	32

*Values in foot lamberts as measured with spot-light meter

SPECIFICATIONS:

SIGNAL INPUT:	Straight decimal (one lamp per message position).
VIEWING DISTANCE:	to 50 feet.
VIEWING ANGLE:	160° included angle, both vertical and horizontal.
POWER REQUIREMENT:	.9 to 2.8 watts 40 ma. to 250 ma. 6.3 to 28 V AC or DC
SIZE:	2⅝" H x 1⅞" W x 5½" D (terminals included).
WEIGHT:	12 ounces
CHARACTER HEIGHT:	1" maximum
MAXIMUM OPERATING SPEED:	20 characters per second.
SPECIAL FEATURE:	Quick Disconnect Lamp Assembly for instant lamp replacement is standard feature with all units.
PRICE:	1 to 9 units (less lamps), $19.50 Decreasing scale for quantity.

MOUNTING DIMENSIONS:



FOR COMPLETE INFORMATION ON THESE AND OTHER IEE REAR-PROJECTION READOUTS, CALL YOUR DISTRIBUTOR

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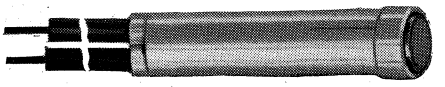
IEE INDUSTRIAL ELECTRONIC ENGINEERS, INC. IEE

INDICATOR LIGHTS
NEON PILOT LIGHTS and SPECIAL ASSEMBLIES

SNAPLITE® LEECRAFT

TINEON INDICATOR LIGHTS

• Long life High Brightness Neon Lamps • Press fit into 5/16" hole • Rated 110-250V • Nylon housing in colors (white standard) • Speed nut furnished • Plastic lens in colors • Legends • Built-in Resistor • Insulated Leads.



No. 36N2311

3600 SERIES (with built-in resistor)

STANDARD 3600 SERIES — 110-125 VOLTS*

Nylon Housing Color	Lens Color Red	Amber	White	Clear
Black	36N1311	36N1313	36N1315	36N1317
White	36N2311	36N2313	36N2315	36N2317
Red	36N3311	36N3313	36N3315	36N3317
Yellow	36N6311	36N6313	36N6315	36N6317
Gray	36N7311	36N7313	36N7315	36N7317

* If 210-250 V. is required, add **H** after second digit in catalog number, Example: 36**H**N3311

No. 41N1315

4100 SERIES (less resistor)

STANDARD 4100 SERIES

Nylon Housing Color	Lens Color Red	Amber	White	Clear
Black	41N1311	41N1313	41N1315	41N1317
White	41N2311	41N2313	41N2315	41N2317
Red	41N3311	41N3313	41N3315	41N3317
Yellow	41N6311	41N6313	41N6315	41N6317
Gray	41N7311	41N7313	41N7315	41N7317

with ALUMINUM BEZEL

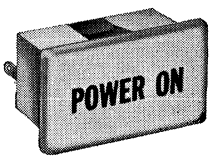
All Tineons may be furnished with aluminum bezel. Please specify when ordering.

No. 36EN2111 (Hi-Hat red lens) With aluminum bezel

RECTANGULAR INDICATOR LIGHTS

• Long Life High Brightness Neon Lamps • Snap into panel securely without additional hardware • Choice of lens colors • Series 3100 has chrome bezel and plastic lens • Series 47 has one-piece plastic lens and body • Complete range of voltages • UL and CSA listed.

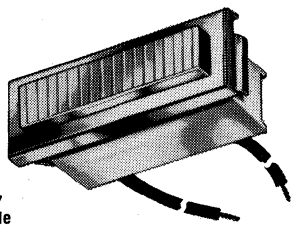
No. 47-3P
For 1 3/16" x 5/8" hole



Cat. Nos. for Series 47 have solder terminals. Other terminals available. Ask for *Catalog 47A*.

VOLTAGE	RED	AMBER (Orange)	WHITE	CLEAR (Colorless)
110-125	47-3	47-6	47-2	47-8
210-250	47H-3	47H-6	47H-2	47H-8
250 MAX. (Less Resistor)	47X-3	47X-6	47X-2	47X-8

No. 31-2115TL



For 1 3/32" x 13/32" hole

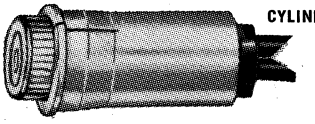
No. 31-2111

Lens Color	3100 Series 110 V Wire Leads	3100H Series 250 V Wire Leads	3100T Series 110 V 1/4" Tabs	3100HT Series 250 V 1/4" Tabs
Red	31-2111	31H2111	31-2111T	31H2111T
Amber	31-2113	31H2113	31-2113T	31H2113T
Clear	31-2117	31H2117	31-2117T	31H2117T
White (Translucent)	31-2115	31H2115	31-2115T	31H2115T

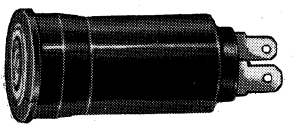
Write for catalog. Prototype samples available on request.

SNAPLITE INDICATOR LIGHTS

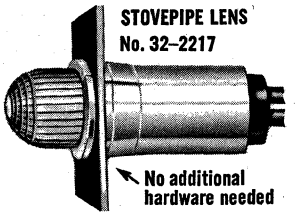
SNAPLITES contain long life neon lamps of the high brightness types. Within the housing are resistors chosen to suit the applied circuit voltage and to provide the required lamp life so that replacement of the lamp will be unnecessary during the life of the equipment.



CYLINDRICAL LENS — No. 32-2111



FLUSH LENS — No. 32-1315T



STOVEPIPE LENS No. 32-2217

↖ **No additional hardware needed**

FEATURES: Snaps into place in 1/2" hole with no additional hardware ... Wide variety of Lens and Housing colors ... Incandescent-like brightness ... Tab or Solder Terminals; or Wire Leads.

HOUSING COLORS: When color other than white is desired, please specify.

CHROME RINGS

These units are also available with chrome rings for those applications where a decorative ring, or bezel, is desired instead of a specific housing color.

HOW TO ORDER SNAPLITES WITH RINGS:

For Hole Size .500 to .513: Add letter **"R"** after Series Number in place of the dash (—) ... Example: 32-2111 with Ring becomes 32**R**2111.
For Hole Size .514 to .519: Add letters **"CR"** after Series Number in place of the dash (—) ... Example: 35-2131T with Ring becomes 35**CR**2131T.

HOW TO ORDER LEECRAFT INDICATORS WITH INCANDESCENT LAMPS

Incandescent lamps to meet low voltage characteristics may be supplied in place of neon lamps with all indicators illustrated on this page. To specify incandescent in place of neon lamps insert lamp code after series number.

CURRENT (Milliamperes)	VOLTAGE (Volts)	CODE LAMP
200	6	G1
40	6	G2
14	10	G6
80	14	G3
40	28	G5

EXAMPLE: 41N2313 with 14 Volt 80 Mil. LAMP becomes 41N-G3-2313.

32-2111 with 6 volt 200 Mil. LAMP becomes 32-G1-2111.

Leecraft Series	Volts	Terminations
3200	110-125	insulated wire leads
3500	210-250	insulated wire leads
3200T	110-125	.187 tab terminals
3500T	210-250	.187 tab terminals

UL CSA
1/3W, 125V
1/3W, 250V

CATALOG NUMBERS with CYLINDRICAL LENS

Lens Color	3200 Series Wire Leads	3500 Series Wire Leads	3200T Series .187 Tabs	3500T Series .187 Tabs
Red	32-2111	35-2111	32-2111T	35-2111T
Amber	32-2113	35-2113	32-2113T	35-2113T
Clear	32-2117	35-2117	32-2117T	35-2117T
White (Translucent)	32-2115	35-2115	32-2115T	35-2115T

CATALOG NUMBERS with FLUSH LENS

Lens Color	3200 Series Wire Leads	3500 Series Wire Leads	3200T Series .187 Tabs	3500T Series .187 Tabs
Red	32-2311	35-2311	32-2311T	35-2311T
Amber	32-2313	35-2313	32-2313T	35-2313T
Clear	32-2317	35-2317	32-2317T	35-2317T
White (Translucent)	32-2315	35-2315	32-2315T	35-2315T

CATALOG NUMBERS with STOVEPIPE LENS

Lens Color	3200 Series Wire Leads	3500 Series Wire Leads	3200T Series .187 Tabs	3500T Series .187 Tabs
Red	32-2211	35-2211	32-2211T	35-2211T
Amber	32-2213	35-2213	32-2213T	35-2213T
Clear	32-2217	35-2217	32-2217T	35-2217T
White (Translucent)	32-2215	35-2215	32-2215T	35-2215T

LEECRAFT® **Leecraft MANUFACTURING CO., INC.**

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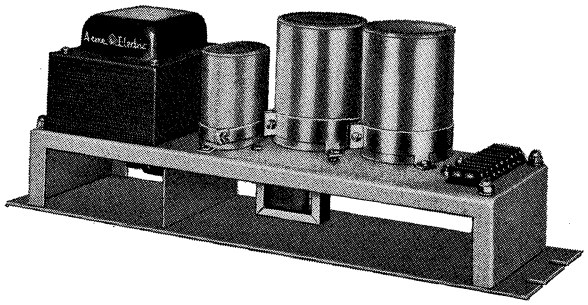
DC REGULATED POWER SUPPLIES
CONSTANT VOLTAGE STABILIZERS
MAGNETIC AMPLIFIERS
VOLTAGE ADJUSTORS

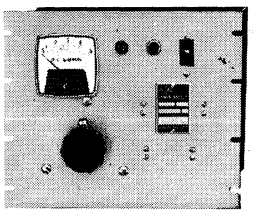
DC REGULATED POWER SUPPLIES

Continuous duty magnetic power supplies. No tubes. Output voltage adequately maintained. Rapid recovery from input line variations and/or sudden load changes. Current limited. Units feature constant voltage transformer, resonant capacitor, electrolytic filter, silicon rectifiers, adequate bleeder. Bulletin 174.

100-130 volts, 60 cycles, input
Output ripple voltage less than 1% RMS



Catalog Number	Volts	DC Output Amps	Watts
PS-47509	10	4	40
PS-47508	15	2	30
PS-41422	24	2	48
PS-41423	24	6	144
PS-47173	24	25	600
PS-1-47127	24	50	1200
PS-1-47461	24	75	1800
PS-1-47200	24	100	2400
PS-47638	28	8	224
PS-47712	28	25	700
PS-41424	48	4	192
PS-47519	48	10	480
PS-47718	100	4	400
PS-47457	125	6	750
PS-41427	200	1	200
PS-41428	250	1	250



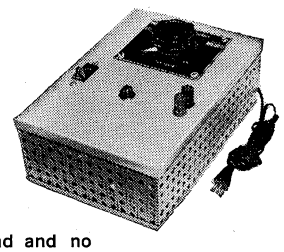
UNFILTERED, NON REGULATED POWER SUPPLIES

Sturdily built, economically priced, manual regulation, silicon rectifiers provide full-wave d-c output. Bulletin 174.

Input 100-120 volts, 60 cycles.

Catalog No.	Watts	D.C. Volts	Amps
PS-39887	300	0-100	3
PS-39888	500	0-100	5
PS-39889	1000	0-100	10
PS-39890	2000	0-100	20

ADJUSTABLE DC POWER SUPPLIES
Portable or Rack Models

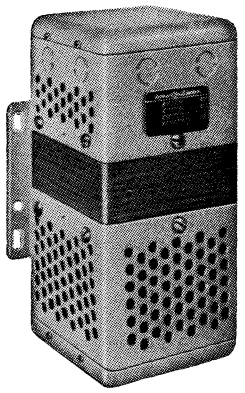


95-130 volts, 60 cycle. Direct current output stabilized and adjustable from 0-45 volts, current outputs 0.2.5 amp. and 0-5 amps. Voltage regulation approximately 5% between full load and no load.

Available in portable, plug-in model or standard rack type. Bulletin 174.

CONSTANT VOLTAGE STABILIZERS

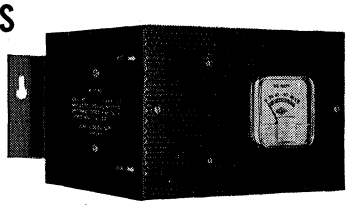
Catalog Number	VA Output Capacity	Input Voltage Range	Output Voltage ±1%
T-31936	15	95-130	120*
T-31937	30	95-130	120*
T-31938	60	95-130	120*
T-31939	120	95-130	120*
T-31940	250	95-130	120*
T-31941	350	95-130	120*
T-31942	500	95-130	120*
T-31943	500	175-235x 190-260x 380-520	120x 240
T-31944	750	95-130	120*
T-31945	750	175-235x 190-260x 380-520	120x 240
T-31946	1000	95-130	120*
T-31947	1000	175-235x 190-260x 380-520	120x 240
T-31948	2000	95-130x 175-235x 190-260	120x 240
T-31949	3000	95-130x 190-260	120*
T-31950	3000	95-130x 190-260	240*
T-31951	3000	175-235x 190-260x 380-520	240*
T-31952	3000	190-260x 380-520	480*
T-31953	5000	95-130x 190-260	120*
T-31954	5000	95-130x 190-260	240*
T-31955	5000	175-235x 190-260x 380-520	240*
T-31956	5000	190-260x 380-520	480*



* Indicates that stabilizer has special output tap for rectifier connection. All standard units listed have a voltage correction response time of less than 2 cycles, stabilizing output voltage ±1% under ±15% variation of input voltage. Bulletin 09.

MAGNETIC AMPLIFIERS

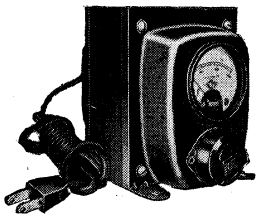
Combine solid state electronic components with magnetic reactors and advanced circuitry. Bias control winding is converted from input line to provide self saturation of core. Independent gain control operates from 0-5 ma signal. Independent potentiometers permit individual adjustment of bias or gain control. Bulletin 24.



Catalog No.	Watts	Dc Output Volts	Amps	AC Input
MA-42900	5	24	0.21	120
MA-42901	40	80	0.5	120
MA-42902	80	80	1.0	120
MA-42903	125	80	1.6	120
MA-42904	250	80	3.2	120
MA-42905	500	80	6.4	120
MA-42906	500	160	3.2	240
MA-42907	1000	80	12.8	120
MA-42908	1000	160	6.4	240

MANUAL VOLTAGE ADJUSTORS

An inexpensive voltage adjustor that increases a low voltage or reduces a high voltage condition to 115 volts. Seven steps of adjustment from 95 to 125 volts input to approximately 115 volts output. Units supplied with integrally mounted tap-switch, cord and plug and plug-in receptacle for outlet connection. Write for Bulletin 091.



ACME ELECTRIC CORPORATION

SAA 3887-3177

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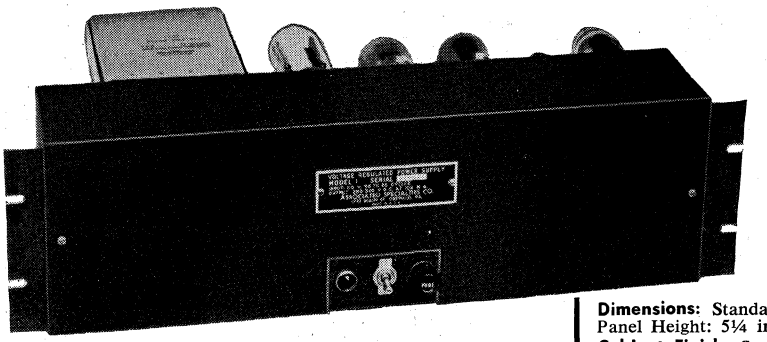
Associated Specialties Co.

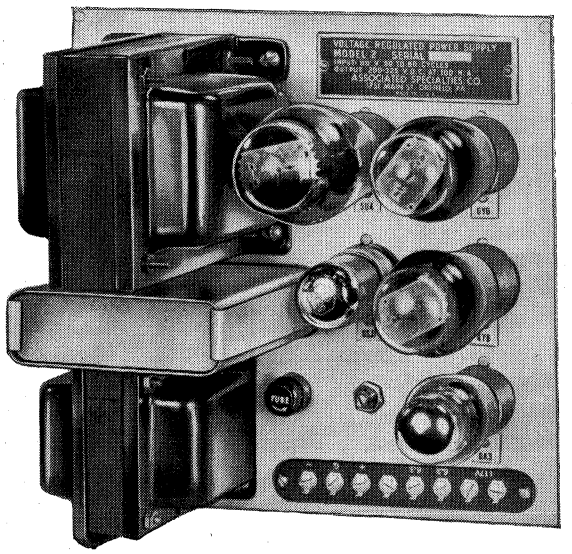


ELECTRONICALLY REGULATED D.C. CONSTANT VOLTAGE POWER SUPPLIES

RELAY RACK MOUNTING TYPES
—BK (BLACK RIPPLE FRONT PANEL)
—GR (GRAY RIPPLE FRONT PANEL)

Input: 105-125 volts AC. 50-60 cycles.
Regulation of DC Voltage: Better than 1% for loads of 0 to 100 ma. and line voltage variations from 105 to 125 volts.
Isolated Output: Both positive and negative sides of the output are isolated from ground. Either side may be grounded or the output may be left floating.
AC Output for Filaments: An isolated AC voltage of 6.3 volts AC at 3 amperes is available at the output terminal connections.
Overload Protection: A fuse mounted on the front panel protects supply against external overloads or internal failure.
Input and Output Connections: All input and output connections are made to a single terminal strip conveniently located on the rear of the chassis.
Dimensions: Standard 19" relay rack mounting. Panel width: 19 inches; Panel Height: 5¼ inches; Depth Behind Panel: 7¼ inches.
Cabinet Finish: Standard Black ripple enamel.
Controls: Rear Chassis—DC output voltage control. Front Panel—Pilot light, input power switch, and fuse.
High Quality Components: Only components of the highest quality are used in this equipment insuring you years of trouble-free dependable operation.
Accessibility: By removing two small screws, the front panel may be removed while the supply stays mounted on a relay track or cabinet. This allows quick and easy inspection.

MODEL	OUTPUT VOLTAGE	RIPPLE
1	200-325 V.D.C.	10 M.V. MAX.
11	75-200 V.D.C.	5 M.V. MAX.



SUB-CHASSIS MOUNTING

Sub-chassis mounting type regulated power supplies are designed to save space and money. They can be mounted on a chassis along with other components and thereby save space which would be used by a relay rack mounting supply. Savings are made in the size and cost of the cabinet required for a job along with the lower cost of the sub-chassis mounting supplies.

SAME AS MODEL 1 AND 11 EXCEPT

Dimensions: 9" wide, 8¾" long, 4¾" high above chassis, 1¾" clearance required below chassis. Size of cut-out required, 8¼" wide x 8" high. Location of four mounting holes: 8⅝" wide x $8\frac{11}{32}$" high.
Chassis Finish: Aluminum.
Controls: DC output voltage control adjustable from the top side of the chassis.

MODEL	OUTPUT VOLTAGE	RIPPLE
2	200-325 V.D.C.	10 M.V. MAX.
12	75-200 V.D.C.	5 M.V. MAX.

CABINET MOUNTING

An ideal unit for bench work or assembly into equipment.

SAME AS MODEL 1 AND 11 EXCEPT

Input Connections: A line cord at rear of cabinet.
Output Connections: 5 way binding posts.
Dimensions: 5" wide, 7" high, 16" deep.
Panel Finish: Aluminum.
Cabinet Finish: Gray enamel.
Controls: D.C. output voltage on front panel.
Meters: Output voltage.

MODEL	OUTPUT VOLTAGE	RIPPLE
3	200-325 V.D.C.	10 M.V. MAX.
13	75-200 V.D.C.	5 M.V. MAX.

MODEL P2 PANEL $9.00

Mounts two Model 2 or 12 power supplies side by side in a 19 inch relay rack space 8¾" high.

OUTPUT	MOUNTING	SIZE	WEIGHT	COLOR	MODEL	PRICE
200-325 V.D.C., 0-100 M.A.	RACK MOUNTED	SEE ABOVE	20 POUNDS	GRAY COVER	1-GR	$69.50
REGULATION	RACK MOUNTED	SEE ABOVE	20 POUNDS	BLACK COVER	1-BK	$69.50
LINE BETTER THAN 1%	SUB-CHASSIS MOUNTING	SEE ABOVE	15 POUNDS	ALUMINUM CHASSIS	2	$64.50
LOAD BETTER THAN 1%	CABINET	SEE ABOVE	20 POUNDS	GRAY	3	$79.50
RIPPLE 10 MV R.M.S. MAX.						
75-200 V.D.C., 0-100 M.A.	RACK MOUNTED	SAME AS 1-GR	20 POUNDS	GRAY COVER	11-GR	$79.50
REGULATION	RACK MOUNTED	SAME AS 1-BK	20 POUNDS	BLACK COVER	11-BK	$79.50
LINE BETTER THAN 1%	SUB-CHASSIS MOUNTING	SAME AS 2	15 POUNDS	ALUMINUM CHASSIS	12	$74.50
LOAD BETTER THAN 1%	CABINET	SAME AS 3	20 POUNDS	GRAY	13	$89.50
RIPPLE 5 MV R.M.S. MAX.						

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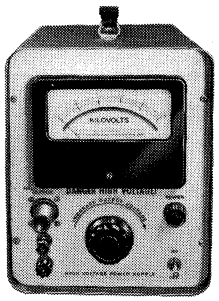
Beckman®

HIGH VOLTAGE POWER SUPPLIES

PORTABLE HIGH VOLTAGE DC POWER SUPPLIES



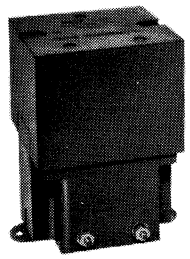
One of the most popular power supplies on the market. Completely redesigned for greater ruggedness and convenience of operation. Widely used for powering electronic equipment and for routine breakdown and insulation testing. Output voltage is well filtered D.C. which is adjustable with convenient front panel control. Input is 115 Volt, 60 cycle A.C. Larger 6" precision 1% mirror scale movement available on order. Regulated models offer closely stabilized output voltage regardless of line or load changes.

NOTE: Regulated power supplies are of the radio frequency type (RF) and adjust from approximately 20% to full rated voltage. Regulation is in the order of ±1% over most of the range. These supplies are rated at 100 microamps. Transformer operated unregulated supplies are available in 5 milliampere types and have a range of zero to full voltage output. These are recommended for industrial service applications. When ordering add the proper prefix to the basic model number, for example, RF, or 5 MA, depending on your requirements.

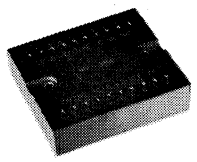
Model	Max. Voltage	RF	5 MA
6000-1	1 KV	—	$200.00
6000	2.5 KV	$175.00	225.00
6005	5 KV	185.00	250.00
6010	10 KV	200.00	275.00
6015	15 KV	225.00	300.00
6025	25 KV	275.00	350.00

OPTIONS: Mirror Scale Higher Accuracy Meter. Recommended for more exact calibration or test purposes. (Illustrated) $50.00. **Additional Built-In Current Meter** (both meters are 3 inch size), including automatic meter protector circuit $50.00.

PACKAGED POWER SUPPLIES AND ZENER REGULATIONS



PACKAGED POWER SUPPLY



ZENER REGULATOR

These new low-cost units make D.C. voltage problems easy. Just wire input and output connections, and the unit is ready to operate. Building block construction provides a basic transformer, a rectifier unit, and where necessary a regulating device. These three elements bolt together quickly and maintenance is simplified should any of the components fail. Each of the three basic building blocks are mechanically constructed in a molded Diallyl Phthalate shell and encapsulated with epoxy resin.

The output is completely isolated and either post may be grounded or the unit operated as a floating supply. The D.C. voltage is filtered and provides 5% or less ripple. Output may be varied from full rating down to zero by simply inserting a small adjustable transformer in the input. Most units are rated for 5 MA current. Power supplies 7.5 KV and higher have modified mechanical construction from that described above. Input 115 V, 60 cycle.

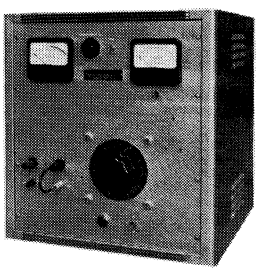
Use with High Voltage Zener Regulators to obtain 1% line and load regulation.

* If necessary, insert a series resistor to limit zener current to under 5 MA.

Simply connect in parallel* with any high voltage power supply and automatically obtain line and load voltage regulation as well as ripple reduction. Nominal current rating is 0.5 to 1 MA for better than 1% stabilization. Regulation over range of 0 to 5 MA is 3%. Can be wired in series for high voltage service (five 4,000 volt types to regulate a 20,000 volt power supply). Twenty built-in taps included, each provides a regulated voltage to an accuracy of 20%. Ideal for photomultiplier tubes. Use as a high voltage reference in conjunction with regulator amplifier circuitry.

Model	Output Voltage	Price
15-0-15-500 MA	15-0-15 volts	$45.00
30-0-30-100 MA	30-0-30 volts	45.00
05-KV-5 MA	500 volts DC	45.00
1-KV-5 MA	1-KV-DC	50.00
2-KV-5 MA	2-KV-DC	55.00
3-KV-5 MA	3-KV-DC	60.00
5-KV-5 MA	5-KV-DC	65.00
7.5-KV-5 MA	7.5-KV-DC	90.00
10-KV-5 MA	10-KV-DC	95.00
15-KV 5 MA	15-KV-DC	105.00
20-KV-5 MA	20-KV-DC	150.00
30-KV-5 MA	30-KV-DC	190.00

Model	Total Voltage	Volts at Each Tap	Price
ZA-1K	1,000 volts	50 volts	$50.00
ZA-2K	2,000 volts	100 volts	60.00
ZA-3K	3,000 volts	100 & 200	70.00
ZA-4K	4,000 volts	200 volts	85.00
ZA-5K	5,000 volts	200 volts	100.00



HEAVY DUTY DC POWER SUPPLIES

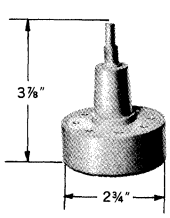
These industrial type power supplies are built for service and efficiency. All are of the transformer type and employ husky components that have been selected for their power handling capacity. Controls are arranged so that operation is simple and the units contain a number of safety features for protection of personnel and equipment. Output is continuously variable from zero to full rated values. These supplies are unregulated and standard ripple is 5% or less. Ripple of from 0.01% to 1%, and regulated supplies are available on special order. All power supplies have automatic overload cutout control circuits.

Model	Voltage	Current	Price
F-100V	0-100	10 Amp.	$ 650.00
F-500V	0-500	3 Amp.	800.00
F-6001	0-1000	2 Amp.	900.00
F-6002	0-2000	1 Amp	985.00
F-6003-A1	0-3000	100 MA.	500.00
F-6003-AV	0-3000	500 MA.	600.00
F-6003-AK	0-3000	1 Amp.	1100.00
F-6005-A1-H	0-5000	100 MA.	550.00
F-6005-AV	0-5000	500 MA.	800.00
F-6005-A1K	0-5000	1 Amp.	1200.00
F-6010-A1	0-10,000	100 MA.	800.00
F-6010-AV	0-10,000	500 MA.	2000.00
F-6020-A05	0-20,000	50 MA.	975.00
F-6030-A3	0-30,000	300 MA.	3500.00
F-6050-T	0-50,000	½ MA.	600.00
F-6100-T	0-100,000	.1 MA.	1300.00

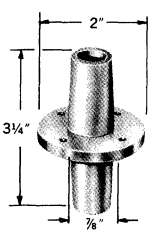
HIGH VOLTAGE SWITCHES

For high voltage, low current circuits requiring complete isolation; nominal rating 5,000 volts (D.C. or A.C.). Model A or D may be used in lower duty circuits to 10,000 volts D.C. Steady state current rating 500 milliamperes—5 Ma when switching. solated for 15,000 volts D.C. test to ground . . . made of modified Diallyl Phthalate.

Model	TYPE	Price
A	2 Pole reversible (for polarity reversing of power supplies)	$20.00
B	D.P.D.T	22.00
C	3 P.D.T.	25.00
D	4 Position (1 Gang)	20.00
E	6 Position (1 Gang)	22.00
F	8 Position (1 Gang)	24.00
G	10 Position (1 Gang)	26.00

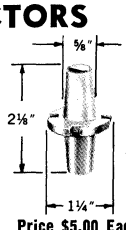


HIGH VOLTAGE CONNECTORS



Price $10.00 Each
Sample Kit of 10
(1 of each color)
$60.00

Modified Diallyl Phthalate construction for superior arc resistance and low power factor; convenient miniature size with extra long air paths; sealed center conductor handles up to 20 amperes; neoprene gasket for mounting on oil filled tanks. For quick disconnect (easily mated with standard banana jack) or for permanent service with 10/32" machine bolt; neat styling — available in 10 colors — ideal for mounting on front panels.
Model C-1 rated for 25,000 volts D.C. max.
Model C-0 rated for 5,000 volts D.C.



Price $5.00 Each
Sample Kit of 10
(1 of Each Color)
$30.00

Beckman® INSTRUMENTS, INC.
CEDAR GROVE OPERATIONS

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Net

BURGESS BATTERIES

P6

2U6

Hg-9

2

Y15

4FH

BURGESS Number	NEDA Number	Other	Volts	Terminal Type	Overall Dimensions L	W	H	Unit Package Quantities	Weight of Unit Package in Pounds	Sugg. Dealer Each	List Price Each
BURGESS ACTIVATORS FOR TRANSISTOR CIRCUITS											
130	14	1035	1½	Flashlight	63/64 (diam.)		1 15/16	12	1⅜	$.19	$.30
1306	1306	333	4½	Flat Contacts	43/64 (diam.)		1 31/32	1	1 oz.	.62	.89
2MN6	1604D	222	9	Snap Type	1	39/64	1⅞	12	1	.65	.98
2N6	1602	246	9	Snap Type	1⅜	1⅜	2¾	1	3/10	1.30	1.85
2U6	1604	216	9	Snap Type	1	39/64	1⅞	12	1	.48	.69
2Z3	1610	243	4½	Snap Type	1⅜	1⅜	2¾	1	3/10	1.36	1.95
230	13	1050	1½	Flashlight	1 21/64 (diam.)		2 25/64	24	5¼	.19	.30
930	15	1015	1½	Flashlight	35/64 (diam.)		1 31/32	12	½	.155	.25
A4	.....	.....	6	Flat Contacts	1 9/32	1 9/32	2 11/32	1	¼	.78	1.15
C6X	1612	2356	9	Snap Type	2 5/16	1 1/32	6 1/16	1	⅝	1.64	2.35
D5	26	707	7½	Snap Type	2 9/16	2	2 23/32	1	⅞	1.15	1.65
D6	1603	276	9	Snap Type	2 9/16	2	3 5/32	1	1	1.36	1.95
D6PI	1601	2506	3, 6, 9	Socket	2 19/32	1 7/16	7 27/32	1	1⅜	1.92	2.75
D6S	1608	2761	9	Socket	2¼	1¼	7 29/32	1	1⅛	2.45	3.50
L6	1611	206	9	Flat Contacts	47/64 (diam.)		1 31/32	6	½	.62	.89
M6	1605	266	9	Snap Type	1 13/16	1 13/16	2 7/16	1	⅖	1.36	1.95
NE	910	E340	1½	Flashlight	7/16 (diam.)		1 11/64	6	⅛	.08	.125
P6	1600	226	9	Snap Type	1 (diam.)		1 15/16	6	⅜	.62	.89
PM6	1600D	.....	9	Snap Type	1 (diam.)		1 15/16	6	⅝	.80	1.19
PM8	1810	228	12	Snap Type	1 (diam.)		2 7/16	1	⅛	1.05	1.50
XX9	1900	239	9, 13½	Socket	1 9/32	29/32	2 17/32	1	⅛	1.77	2.55
Y6 (YL6)	1606	.....	9	Snap Type	⅗	⅗	1 9/10	12	½	.83	1.20
BURGESS MERCURY ACTIVATORS Information on additional Mercury Batteries not listed below is available.											
Hg-1	1100	E1	1.4	Flat	5/8 (diam.)		21/32	4	.13	.52	.75
Hg-1R	.....	E1N	1.35	Flat	5/8 (diam.)		21/32	4	.13	.64	.95
Hg-3R	.....	E3	1.35	Flat	1 (diam.)		21/32	4	.30	1.05	1.50
Hg-4R	.....	E4	1.35	Flat	1 13/64 (diam.)		21/32	4	.45	1.31	1.95
Hg-9	15M	E9	1.4	Flat	17/32 (diam.)		1 31/32	12	.90	.64	.95
Hg-12	1101	E12	1.4	Flat	5/8 (diam.)		2	2	.25	.87	1.25
Hg-12R	.....	E12N	1.35	Flat	5/8 (diam.)		2	2	.25	1.05	1.50
Hg-42R	.....	E42N	1.35	Flat	1 13/64 (diam.)		2⅜	1	.50	3.15	4.50
H113R	.....	E113	4.05	Flat	43/64 (diam.)		21/32	2	.15	1.72	2.50
H114R	.....	E114	5.4	Flat	43/64 (diam.)		1 3/32	2	.15	1.85	2.65
H115R	.....	E115N	6.75	Flat	43/64 (diam.)		1 21/64	2	.15	2.06	2.75
H126	1611M	E126	8.4	Flat	41/64 (diam.)		1 63/64	12	1.00	1.31	1.95
H132R	.....	E132N	2.7	Flat	43/64 (diam.)		1 5/16	2	.15	1.17	1.65
H133	1306M	E133	4.2	Flat	21/32 (diam.)		2	12	1.20	1.17	1.75
H133R	.....	E133N	4.05	Flat	21/32 (diam.)		2	2	.20	1.35	1.95
H134R	.....	E134N	5.4	Flat	43/64 (diam.)		2 5/8	2	.25	1.72	2.50
H135R	.....	E135N	6.75	Flat	43/64 (diam.)		3 9/32	2	.30	2.00	2.95
H136R	.....	E136N	8.1	Flat	43/64 (diam.)		3 15/16	2	.35	2.40	3.50
H137R	.....	E137N	9.45	Flat	43/64 (diam.)		4 19/32	1	.20	2.76	3.95
H145	.....	E145	7.0	Flat	21/32 (diam.)		1 13/64	2	.15	1.72	2.50
H146X	1604M	E146X	8.4	Snap	1 1/32	21/32	1¾	6	.75	1.31	1.95
H152R	.....	E152N	2.7	Flat	31/32 (diam.)		1 9/64	2	.075	1.05	1.50
H153R	.....	E153N	4.05	Flat	31/32 (diam.)		1 45/64	2	.075	1.35	1.95
H162R	.....	E162	2.7	Flat	43/64 (diam.)		57/64	2	.15	1.05	1.50
H163	1305	E163	4.2	Flat	21/32 (diam.)		1 5/16	2	.15	1.17	1.65
H163R	.....	E163N	4.05	Flat	21/32 (diam.)		1 5/16	2	.15	1.29	1.89
H164	1404	E164	5.6	Flat	21/32 (diam.)		1¾	12	.80	1.31	1.95
H164R	.....	E164N	5.4	Flat	21/32 (diam.)		1¾	2	.20	1.57	2.25
H165	1500	E165	7.0	Flat	21/32 (diam.)		2 13/64	2	.20	1.70	2.50
H165R	.....	E165N	6.75	Flat	21/32 (diam.)		2 13/64	2	.20	1.90	2.75
H177	1606M	.....	9.8	Snap	35/64 (diam.)		1 29/32	12	.30	1.31	1.95
H233	1300	E233	4.2	Flat	1 1/64 (diam.)		1 31/32	1	.20	2.27	3.25
Hg-312	.....	E312	1.4	Flat	5/16 (diam.)		9/64	6	.024	.24	.35
Hg-400	1106	E400	1.4	Flat	29/64 (diam.)		9/64	6	.024	.24	.35
Hg-400R	.....	E400N	1.35	Flat	29/64 (diam.)		9/64	6	.024	.35	.50
Hg-401	910M	E401	1.4	Flat	29/64 (diam.)		1⅛	3	.09	.51	.75
Hg-401R	.....	E401N	1.35	Flat	29/64 (diam.)		1⅛	2	.05	.60	.85
Hg-450R	.....	E450	1.35	Flat	29/64 (diam.)		9/16	4	.01	.53	.75
Hg-502R	.....	E502	1.35	Flat	17/32 (diam.)		1 31/32	2	.16	.87	1.25
Hg-520	.....	E520	1.40	Flat	½ (diam.)		9/32	6	.024	.17	.25
Hg-575	.....	.....	1.4	Flat	29/64 (diam.)		1/8	6	.05	.24	.34
Hg-601R	.....	E601	1.35	Flat	5/8 (diam.)		1 9/64	2	.16	.83	1.30
Hg-625	.....	E625	1.4	Flat	5/8 (diam.)		1/4	4	.05	.42	.60
Hg-625R	.....	E625N	1.35	Flat	5/8 (diam.)		1/4	4	.05	.53	.75
Hg-630	1104	E630	1.4	Flat	5/8 (diam.)		1/4	4	.05	.42	.60
Hg-630R	.....	E630N	1.35	Flat	5/8 (diam.)		1/4	4	.05	.53	.75
Hg-640	1105	E640	1.4	Flat	5/8 (diam.)		7/16	4	.15	.42	.60
Hg-640R	.....	E640N	1.35	Flat	5/8 (diam.)		7/16	4	.15	.53	.75
Hg-675	.....	E675	1.4	Flat	29/64 (diam.)		13/64	6	.022	.32	.45
302157	.....	.....	1.35	Socket	2 7/16	1 5/16	4 3/16	1	.844	12.50	17.75

Trade Discount Applies To List Prices Only
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BURGESS BATTERIES

BURGESS SEALED RECHARGEABLE NICKEL CADMIUM CELLS AND BATTERIES

Information on additional Nickel Cadmium Batteries not listed below is available.

BURGESS Number	NEDA Number	Other	Volts	Terminal Type	Overall Dimensions L	W	H	Unit Pkg. Quant.	Wgt. Unit Pkg. in Lbs.	Sugg. Dealer Each	List Price Each
CD1			1.25		.460 (diam.)		.225	1		$ 1.05	$ 1.50
CD2			1.25		.610 (diam.)		.236	1		.74	1.06
CD8			1.25		.984 (diam.)		.232	1		.85	1.21
*CD8L	*(L indicates types		1.25		.984 (diam.)		.257	1		.95	1.36
CD3			1.25		.984 (diam.)		.275	1		.87	1.24
*CD3L	with solder lugs		1.25		.984 (diam.)		.300	1		.97	1.39
CD4			1.25		.984 (diam.)		.350	1		.88	1.26
*CD4L	on terminals).		1.25		.984 (diam.)		.375	1		1.03	1.47
CD5			1.25		1.700 (diam.)		.300	1		1.47	2.10
*CD5L			1.25		1.700 (diam.)		.325	1		1.60	2.29
CD6(AA)			1.25		.560 (diam.)		1.950	1		1.82	2.60
*CD6L(AA)			1.25		.560 (diam.)		2.275	1		1.92	2.74
CD9			1.25		.550 (diam.)		3.680	1		3.01	4.30
CD7(D)			1.25		1.310 (diam.)		2.425	1		4.03	5.76
*CD7L(D)			1.25		1.310 (diam.)		2.775	1		4.09	5.84
CD10(D)			1.25		1.300 (diam.)		2.425	1		5.71	8.16
*CD10L(D)			1.25		1.300 (diam.)		2.775	1		5.84	8.34
CD11(D)			1.25		1.300 (diam.)		2.425	1		4.53	6.50
CD12 (short C)			1.25		.876 (diam.)		1.672	1		2.51	3.59
CD12L(short C)			1.25		.876 (dia.)		1.672+L	1		2.57	3.67
CD13 (half D)			1.25		1.273 (diam.)		1.440	1		4.03	5.76
CD13L(half D)			1.25		1.273 (dia.)		1.440+L	1		4.16	5.94
CD14 (C)			1.25		1.01 (diam.)		1.945	1		3.40	4.85
CD21			6		1.065 (diam.)		1.525	1		5.32	7.60
CD22			6		1.065 (diam.)		2.650	1		5.32	7.60
CD23			6		1.800 (diam.)		1.725	1		9.48	13.54
CD24			9.6		1.065 (diam.)		3.200	1		9.22	13.17
CD25			9.6		1.065 (diam.)		1.975	1		9.16	13.09
*CD25L			9.6		1.065 (diam.)		3.200	1		9.09	12.99
CD26			9.6		1.800 (diam.)		2.575	1		15.52	22.17
CD27			12		1.065 (diam.)		2.925	1		11.04	15.77
CD28			12		1.065 (diam.)		3.600	1		11.82	16.89
CD29			12		1.800 (diam.)		3.100	1		17.86	25.51
CD30			6		1½	1½	3 13/16	1		19.96	28.51
CD31			6		3 13/16	1 17/32	3⅝	1		25.65	36.64
CD100			1.25		1.36	.75	3.36	1		6.43	9.19
CD101			1.25		1.36	1.36	2.40	1		6.05	8.64
CD102			1.25		1.36	1.36	3.36	1		7.12	10.17
CD104			1.25		1.93	1.67	3.13	1		9.35	13.36
CD105			1.25		1.93	1.67	3.65	1		10.19	14.56
CD106S			1.25		1.57	1.48	4.01	1		13.43	19.19
CD107			1.25		1.93	1.67	4.25	1		11.17	15.96
CD108			1.25		3.56	1.05	4.90	1		13.83	19.76
CD109			1.25		3.56	1.34	4.90	1		16.56	23.66
CD110			1.25		3.56	1.66	4.90	1		19.87	28.39
CD111			1.25		3.56	1.97	4.90	1		22.92	32.74

BURGESS INDUSTRIAL - ELECTRONIC - TRANSISTOR - RADIO "A" BATTERIES

2BBP	...	...	1½	Binding Post	1 19/32	27/32	2 11/16	1	¼	$1.16	$1.65
2D	18	720	1½	Socket	2 1/16	1 3/32	2 31/32	1	⅖	1.15	1.65
2F	11	W353	1½	Socket	2 19/32	1⅜	4¼	1	¾	1.22	1.75
2F2BP	...	...	3	Binding Post	5 3/16	1 5/16	4 5/32	1	1⅘	5.35	7.65
2F2H	703	W356	3	Binding Post	2⅝	2⅝	4 1/16	5	7	1.75	2.50
2FH (2FBP)	700	711	1½	Binding Post	2⅝	1 11/32	4⅛	5	3⅗	.79	1.15
2F4	1	718	6	Socket	4	2 13/16	5 7/16	1	2½	2.87	4.10
2R	813	950	1½	Flashlight	1 21/64	(diam.)	2 25/64	48	11	.13	.20
2Z	...	1016E	1½	Flashlight	1⅛	19/32	1 63/64	1	1 oz.	.65	.95
20F	719	740	1½	Socket	7⅝	2 7/16	6 15/16	1	6⅘	7.65	10.95
21R	20	964	1½	Flashlight	1 21/64	(diam.)	4⅛	1	⅖	.42	.60
37	...	...	1½	Flashlight	1 5/16	(diam.)	6⅛	1	9/16	.97	1.40
4D	...	...	1½	Socket	2⅝	2⅝	2 13/16	1	⅞	1.35	1.93
4D4	1400	274	6	Snap	2 17/32	2	7 5/16	1	2½	4.02	5.75
4F	4	742	1½	Socket	2⅝	2⅝	4 3/32	1	1⅖	1.15	1.65
422	704	750	3	Brass Straps	1 11/32	23/32	2 5/16	1	2 ozs.	.79	1.15
432	705	751	4½	Brass Straps	1 31/32	21/32	2¼	1	3 ozs.	.87	1.25
5R	...	...	1½	Flashlight	49/64	(diam.)	2 15/64		¾	.48	.69
532	706	703	4½	Brass Straps	2 15/32	13/16	2 23/32	1	3/10	1.36	1.95
6F	5	743	1½	Socket	4 3/32	2¾	4 1/16	1	2⅛	2.69	3.85
8F	17	741	1½	Socket	3 29/32	2 23/32	5½	1	3	2.76	3.95
8R	23	960P	1½	Socket	1 3/32	(diam.)	3 15/16	1	¼	.87	1.25
B2BP	...	...	3	Binding Post	1 5/8	13/16	2 11/16	1	¼	2.42	3.45
B5	8	713	7½	Socket	3 29/32	⅞	2 27/32	1	½	2.27	3.25
C5	9	717	7½	Socket	2 7/32	1 15/16	3 1/32	6	4¾	1.23	1.75
D3	19	726	4½	Socket	3⅞	1 3/16	2 15/16	1	¾	1.23	1.75
F2BP	701	W352	3	Binding Post	2 21/32	1⅜	4 1/32	5	4	1.33	1.90
F3	3	736	4½	Socket	4	1 7/16	4⅛	1	1	1.23	1.75
F4BP	915	510S	6	Binding Post	2⅝	2⅝	4	1	1⅖	.92	1.39
F4PI	6	744	6	Socket	2 21/32	2 21/32	4⅛	1	1½	1.15	1.65
G3	7	746	4½	Socket	4 1/16	1⅞	4 11/16	1	1⅕	1.57	2.25
Z4	2	724	6	Flat Contacts	1 3/16	1 3/16	2 7/32	1	⅕	.87	1.25

CD3

CD7

CD25

2R

C5

XX45

P45

(Continued on next page)

BURGESS BATTERIES

6A60

F2BP

XX30PI

5308

5540

5360

BURGESS Number	NEDA Number	Other	Volts	Terminal Type	Overall Dimensions L	W	H	Unit Pkg. Quant.	Wgt. Unit Pkg. in Lbs.	Sugg. Dealer Each	List Price Each
BURGESS INDUSTRIAL - ELECTRONIC - TRANSISTOR - RADIO "B" BATTERIES											
10308SC	716	W363F	45	Spring Clip	8 1/32	4 1/32	7 3/16	1	12	$7.30	$10.40
10308PI	726	W363P	45	Socket	8 1/32	4 1/32	7 3/16	1	11 1/2	7.66	10.95
21308SC	715	W364F	45	Spring Clip	8 1/8	4 15/32	7 9/32	1	12-4/5	7.50	10.70
21308PI	727	W364P	45	Socket	8 1/8	4 15/32	7 9/32	1	12-4/5	7.66	10.95
2308SC	723	W365F	45	Spring Clip	8 3/32	2 21/32	7 1/4	1	7 1/2	7.10	10.15
2308PI	717	W365P	45	Socket	8 3/32	2 21/32	7 1/4	1	7-4/5	7.40	10.60
4156	710	763	22 1/2	Binding Post	3 17/32	2 1/8	2 29/32	1	1	1.61	2.35
5156SC	721	768	22 1/2	Socket	4 7/64	2 3/8	2 55/64	1	1 3/5	4.16	5.95
5156PI	708	778	22 1/2	Spring Clip	4 1/8	2 1/2	2 3/4	5	8	4.16	5.95
5308	709	762S	45	Binding Post	4 1/16	2 1/16	5 1/8	1	2 1/2	3.05	4.35
A30	206	W359	45	Socket	3 9/16	2 1/4	4 5/16	2	3 1/2	2.92	4.19
A60	...	...	90	Socket	4 1/16	3 3/8	4 1/2	1	3 1/3	14.50	20.75
B30	207	484	45	Socket	4 1/16	2 17/32	5 5/16	2	4 1/2	3.47	4.95
D30	...	487	45	Socket	5 1/16	2 1/32	7 5/16	1	4 1/2	4.20	6.00
K10	224	417	15	Flat Contact	1 1/4	7/8	1 17/32	1	2 ozs.	1.28	1.75
K15	225	420	22 1/2	Flat Contact	1 1/4	7/8	2 9/32	1	2 ozs.	1.44	1.95
K20	226	430	30	Flat Contact	1 1/4	15/16	2 23/32	1	3 ozs.	1.72	2.35
K45	203	457	67 1/2	Snap Type	2 11/16	1 5/16	2 1/4	1	1/2	2.70	4.25
M30	202	482	45	Socket	3 9/16	1 3/4	5 1/2	1	2	2.97	4.25
N60X	216	495	90	Snap Type	1 7/8	1 11/32	7 1/8	1	1	3.47	4.95
P45	211	477	67 1/2	Snap Type	1 29/32	1	5 9/32	6	3 3/4	2.70	3.85
P60	214	479	90	Snap Type	1 25/32	1	7 13/32	1	4/5	2.97	4.25
U10	208	411	15	Flat Contact	1	39/64	1 7/16	1	1 oz.	.81	1.15
U15	215	412	22 1/2	Flat Contact	1	39/64	1 31/32	1	1 oz.	1.05	1.50
U20	210	413	30	Flat Contact	1	39/64	2 17/32	1	2 ozs.	1.23	1.75
U200	722	493	300	Pin Jacks	2 3/4	2 9/32	3 7/8	1	1	8.37	11.95
U30	213	415	45	Snap Type	1 3/32	19/32	3 17/32	1	1/8	1.75	2.50
UX45	217	416	67 1/2	Snap Type	1 7/32	31/32	3 31/32	1	1/4	2.07	2.95
V45	200C	468	67 1/2	Snap Type	2 3/4	1 11/32	3 43/64	6	4 1/2	2.77	3.95
V60	204	490	90	Snap Type	3 23/32	1 9/32	3 1/16	1	1-3/10	3.15	4.50
W20PI	...	...	30	Socket	1 5/16	1 13/16	3 7/32	1	1/2	5.15	7.35
W30	...	...	45	Binding Post	3	1 1/4	3 25/32	1	3/5	2.62	3.75
W30BPX	...	W358	45	Binding Post	3	1 1/4	3 25/32	1	3/5	6.05	8.65
XX15	...	425P	22 1/2	Socket	1 11/32	15/16	3 7/8	1	1/4	1.56	2.25
XX22	...	433P	33	Socket	2 17/32	31/32	3 1/8	1	1/3	2.27	3.25
XX30	201	455	45	Snap Type	2 17/32	31/32	3 21/32	1	1/2	2.27	3.25
XX30PI	...	455P	45	Socket	2 17/32	31/32	4 1/32	1	1/2	2.27	3.25
XX45	200	467	67 1/2	Snap Type	2 3/4	1 11/32	3 43/64	1	3/4	2.70	3.85
XX50	212	437	75	Snap Type	1 27/32	1 5/16	6 5/16	1	9/10	3.15	4.50
XX69	227	W361	103 1/2	Flashlight	1 11/32	1 11/32	11 23/32	1	1	4.86	6.95
Y10	220	504	15	Flat Contact	19/32	19/32	1 23/64	1	1 oz.	.81	1.15
Y15	221	505	22 1/2	Flat Contact	19/32	19/32	1 31/32	1	1 oz.	1.05	1.50
Y20	223	506	30	Flat Contact	1 3/16	19/32	1 13/32	1	1 oz.	1.30	1.85
Y20S	222	507	30	Flat Contact	19/32	19/32	2 9/16	1	1 oz.	1.30	1.85
Z30	205	738	45	Socket	3	2 5/16	4 1/16	1	1 1/4	2.76	3.95
Z30NX	711	W350	45	Binding Post	3 1/32	1 7/8	4 19/32	5	7 3/5	2.69	3.85
Z30T	...	...	45	Socket	3	2 5/16	4 1/8	1	1 3/10	2.62	3.75
BURGESS INDUSTRIAL AND ELECTRONIC "C" BATTERIES											
2156	702	766T	22 1/2	Spring Clips	6 21/32	4 1/16	2 31/32	1	3	9.20	13.25
2370	712	761T	4 1/2	Binding Post	3 15/16	1 3/8	2 7/8	5	3 7/10	2.10	3.00
2370PI	718	771	4 1/2	Socket	4 1/64	1 27/64	2 63/64	1	3/4	2.14	3.05
5360	714	781	4 1/2	Binding Post	2 13/32	27/32	2 21/32	1	1/4	1.23	1.75
5540	713	773	7 1/2	Bndg Post Neg	4	7/8	2 3/4	5	1 9/10	1.80	2.50
A3BPX	-----	-----	4 1/2	Binding Post	1 31/32	23/32	2 1/4	1	1/4	4.60	6.60
A8BP	-----	-----	12	Binding Post	2 25/32	1 25/64	2 15/32	1	1/2	10.20	14.60
W5BP	-----	W362	7 1/2	Binding Post	2 31/32	23/32	1 3/4	6	4/5	2.05	2.95
BURGESS "A & B" PACKS FOR RADIO AND OTHER ELECTRONIC APPLICATIONS											
4TZ60	425	729	1 1/2A, 90B	Socket	7 5/8	2 1/8	3 3/4	1	3 4/5	5.33	7.65
6TA60	410	W369	1 1/2A, 90B	Socket	9 31/32	2 1/4	4 7/16	1	4 4/5	6.96	9.95
G6B60	400	752	9A, 90B	Recessed Plug	13 29/32	2 13/16	4 21/32	1	6 3/10	6.35	9.25
BURGESS POCKET TAPE RECORDER BATTERIES											
2VT8(3XX7)	1700	.....	12	Flat Contact	1 5/16	1 5/16	3 19/32	1	3/8	2.00	3.00
2X62X	.....	.....	1 1/2, 9	Snap Type	2 1/2	1 25/32	2 11/32	1	1/2	3.20	4.60
2X7	.....	.....	10 1/2	Snap Type	2 1/2	1 25/32	2 11/32	1	1/2	1.82	2.60
BURGESS ALKALINE BATTERIES											
AL-1	14A	E93	1 1/2	Flat Contact	6 3/64 (diam.)		1 15/16	6	1	.50	.75
AL-133	1306A	523	4 1/2	Flat Contact	21/32 (diam.)		2	12	1	.84	1.25
AL-2	13A	E95	1 1/2	Flat Contact	1 21/64 (diam.)		2 13/32	24	8	.65	.95
AL-7	24A	E92	1 1/2	Flat Contact	13/32 (diam.)		1 3/4	12	1/4	.33	.50
AL-9	15A	E91	1 1/2	Flat Contact	17/32 (diam.)		1 31/32	12	1	.33	.50
AL-N	910A	E90	1 1/2	Flat Contact	29/64 (diam.)		1 1/8	3	1 oz.	.27	.40
APX-19	1307	531	4 1/2	Snap Type	21/32 (diam.)		2 13/32	2	3/8	.84	1.25
APX-21	.....	523	4 1/2	Flat Contact	21/32 (diam.)		2 1/32	2	3/8	.84	1.25
APX-24	.....	532	3	Flat Contact	21/32 (diam.)		2	2	3/8	.67	1.00
APX-825	.....	.....	1 1/2	Flat Contact	29/32 (diam.)		15/64	2	1 oz.	.33	.50

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BURGESS BATTERIES

BURGESS FLASHLIGHT AND LANTERN BATTERIES

BURGESS Number	NEDA Number	Other	Volts	Terminal Type	Overall Dimensions L	W	H	Unit Pkg. Quant.	Wgt. Unit Pkg. in Lbs.	Sugg. Dealer Each	List Price Each
2 (24V)	13F	950	1½	Flashlight	1 21/64 (diam.)		2⅜	48	10½	$ .13	$ .20
2 (50 Bulk)	13F	950	1½	Flashlight	1 21/64 (diam.)		2⅜	50	10½	.13	.20
210 (24V)	13C	1050	1½	Flashlight	1 21/64 (diam.)		2⅜	48	11	.155	.25
210 (50 Bulk)	13C	1050	1½	Flashlight	1 21/64 (diam.)		2⅜	50	10¾	.155	.25
2MB(6 Pack)	.....	.....	1½	Flashlight	1 21/64 (diam.)		2⅜	144	31	.13	.20
1	14F	935	1½	Flashlight	63/64 (diam.)		1 15/16	24	2⅝	.13	.20
Z	15E	515	1½	Flashlight	35/64 (diam.)		1 31/32	12	½	.095	.15
910 (AA)	15E	515	1½	Flashlight	35/64 (diam.)		1 31/32	24	1	.13	.20
7	24F	912	1½	Flashlight	13/32 (diam.)		1¾	12	¼	.095	.15
N (Bare)	910F	904	1½	Flashlight	7/16 (diam.)		1 11/64	12	⅕	.08	.125
F4M (Metal)	908	509	6	Spring	2⅝	2⅝	4⅜	12	19	.92	1.39
F4BP	915	510S	6	Binding Post	2⅝	2⅝	4	1	1 2/5	.92	1.39
F4SC	917	510F	6	Spring Clip	2⅝	2⅝	4½	1	1¼	.92	1.39
TW1	918	731	6	Binding Post	5⅜	2⅞	4 15/16	1	3⅕	1.96	2.95
TW1-X	.....	.....	6	Binding Post	5⅜	2⅞	4 15/16	1	3⅕	2.40	3.75
TW2	926	732	12	Binding Post	5⅜	2⅞	4 15/16	1	3⅕	1.96	2.95
Z46	.....	.....	2	Flat Contract	2½	2 1/16	8 1/32	2	6¼	2.93	4.40

BURGESS IGNITION - TELEPHONE AND PROTECTIVE SYSTEM BATTERIES

* Battery also available with spring clip terminals ** Battery also available with screw terminals

2F8H	.....	.....	12	Binding Post	8 5/16	2 13/16	5 13/16	1	6¼	4.25	6.35
2G8H	922	1463	12	Binding Post	10½	2¾	7 13/32	1	7½	4.01	5.98
4FH	900E	.....	1½	Screw Terminal	2⅝	2⅝	4	12	16	.84	1.25
4F2H	901	W357	3	Spring Clip	3 29/32	2 11/16	5 13/32	1	2⅗	1.92	2.75
4F4H	902	706	6	Binding Post	8 5/16	2 13/16	5 13/16	1	6⅕	3.70	5.50
4F5H	903	715	7½	Binding Post	7 3/16	3 31/32	5 13/16	1	7⅖	4.86	7.25
4F6H	904	716	9	Binding Post	8½	3 31/32	5 13/16	1	9	5.53	8.25
*6 Ign.	905	6 Ign. S	1½	Screw Terminal	2½ (diam.)		6⅝	12	21 3/10	.91	1.35
**6 Tel.	906	6 GL	1½	Spring Clip	2½ (diam.)		6⅝	12	24⅗	.91	1.35
6 Ind.	911	6 R.R.	1½	Screw Terminal	2½ (diam.)		6⅝	12	25	.90	1.35
S461	907	1461	6	Binding Post	10½	2¾	7 13/32	4	37½	3.70	5.50

BURGESS PHOTO-FLASH BATTERIES

120	14P	835	1½	Flashlight	1 (diam.)		1 15/16	24	2¼	.19	.30
220	13P	850	1½	Flashlight	1 1/32 (diam.)		2 25/64	12	2½	.19	.30
720	24P	812	1½	Flashlight	13/32 (diam.)		1¾	24	2⅘	.13	.20
920	15P	815	1½	Flashlight	35/64 (diam.)		1 31/32	24	1	.13	.20
U15	215	412	22½	Flat Contact	31/32	9/16	1 31/32	1	1 oz.	1.05	1.50
Y10	220	504	15	Flat Contact	19/32	19/32	1 23/64	1	1 oz.	.81	1.15
Y15	221	505	22½	Flat Contact	19/32	19/32	1 31/32	1	1 oz.	1.05	1.50
U10	208	411	15	Flat Contact	1	39/64	1 7/16	1	1 oz.	.81	1.15
U20	210	413	30	Flat Contact	1	39/64	2 17/32	1	2 ozs.	1.23	1.75
XX150	.....	489	225	Pin Jacks	4¼	2⅝	4¼	1	2½	7.20	10.25
U160	.....	491	240	Flat Contact	2 9/16	1 5/16	4 13/32	1	⅘	7.20	10.25
N150	.....	492	225	Pin Jacks	3 9/16	2¾	4¾	1	2½	7.65	10.95
U320	.....	497	510	Flat Contact	2 15/16	1 17/32	5 7/16	1	1½	13.00	18.50
K30P-K	.....		45	Battery & Bulb				1	⅖	1.67	2.50

BURGESS RADAR LIGHTS NOTICE: All Radar Lights are packed in individual cartons complete with battery.

BURGESS Number	Description	Unit Pkg. Quan.	Wt. of Un. Pkg. in Lbs.	Sugg. Dealer Ea. Complete	LIST PRICE EACH Head Only	Battery	Complete
TW3	Radar-Lite Spot-Flasher (Lamp 4546, 407)	1	5 1/10	$8.96	$11.00	$2.95	$13.95
TW4	Radar-Lite Spot-Without Flasher (Lamp 4546)	1	4¾	7.06	8.55	2.95	11.50
TW7	Radar-Lamp Chrome-Finish (Lamp 1651), TW8 Copper-Finish	1	4⅕	6.36	7.00	2.95	9.95
TW9	Radar Bearcat Focusing Lantern (Lamp 425 or 502)	1	4⅛	4.67	4.50	2.95	7.45
TW11	Radar-Lite (Bulb Reflector Model) (Lamp 425)	1	4¾	5.68	6.20	2.95	9.15
TW12	12 Volt Radar-Lite (Uses TW2 Battery) (Lamp 965)	1	5	6.88	8.20	2.95	11.15
TW6E	Power Failure Operated Lantern (Flood Beam) (Lamp 4512)	1	6	13.61	17.50	2.95	20.45
TW34	Radar-Flash (Lamp 407)	1	4	4.49	3.95	2.95	6.90

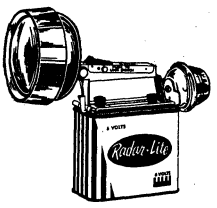
BURGESS SAFARI LITE, DOLPHIN, RADAR-MATE AND FLASHLIGHTS (less batteries)

BURGESS Number	Description (Batteries not included)	Unit Pkg. Quan.	Wt. of Un. Pkg. in Lbs.	Sugg. Dealer Each	List Price Each
165	Safari-Lite Fluorescent Light. Uses 2 No. Z46 batteries listed under Lantern Batteries (Lamp No. F8T5-CW)	1	4¼	$12.45	$20.75
164	Dolphin Lantern. Uses 1 No. F4M battery (Lamp PR13)	1	½	1.97	2.95
JR1	4½ Volt Radar-Mate Lantern. Uses 3 No. 2 (Size D) batteries (Lamp PR3)	6	7½	3.32	4.98
161	Magnet Flashlight—2 Cell Prefocused (Lamp PR2 or PR4)	6	3	1.33	1.99
163	Tuffy-Plastic Flashlight—2 Cell Prefocused (Lamp PR2 or PR4)	6	1⅝	.69	.99
257	Satellite Torch—2 Cell Junior Prefocused (Lamp PR2 or PR4)	3	1	1.30	1.95
357	Satellite Torch—2 Cell Prefocused (Lamp PR2 or PR4)	6	2¾	1.30	1.95
263	2 Cell Magnet-Tough Plastic Industrial Flashlight (Lamp PR2)	6	2½	1.33	1.99
453	2 Cell Industrial—Safety Light (Lamp PR2)	1	½	3.33	5.00
563	Penlight (AAA size) (Lamp 224)	12	1½	.82	1.25
663	Penlight (Heavy Duty AA size) (Lamp 222)	12	1½	.82	1.25
763	Snap-Lite Pocket Light (AAA size) (Lamp 224)	12	1½	.82	1.25

TW1

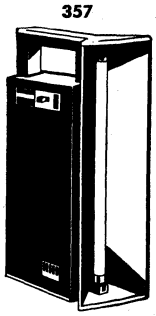
No. 6 Ignition

220



TW3

357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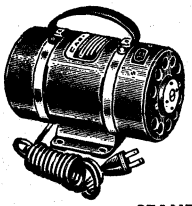
DC-AC CONVERTERS FREQUENCY CHANGERS — Carter Motor — FHP MOTORS TACH-GENERATORS



"MARK II" SUPER CONVERTERS

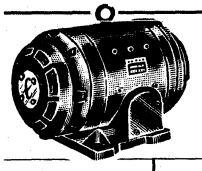
Designed for high PF non-inductive AC loads such as amplifiers, lab and medical equipment, standby emergency lighting, telephone and marine communications. Not damaged by intermittent transients or sudden overloads. 70% PF models available. Will not operate refrigerators, large AC motors, or low PF transformers. For manual frequency control and meter, add $72.00 to list. For 230 v. AC or 50 cy. output add $6.00 to list. For built in capacitor filter add $8.80 to list. Ball bearing, con. duty. Size 8¼" x 4½" x 5" high. Weight 13 lbs.

STANDARD 100% PF CONVERTERS

Carter Number	DC Input Volts	DC Input Amps	Watts, AC at 60 cps, 115 v.	List Price
D1040CB	115	.7	40	$134.00
D1010CB	115	1.7	100	138.00
D1015CB	115	2.0	150	140.00
B1040CB	12	8	40	123.00
B1010CB	12	15	100	126.00
B1015CB	12	23	150	128.00

Mark II Heavy Duty Super Converter. Continuous duty, less filter, 10¼" long, 4½" wide, 5" high. Weight, 19 lbs.

D1020CB	115	2.6	200	$152.00
D1025CB	115	3.2	250	154.00
B1020CB	12	30	200	144.00
B1025CB	12	34	250	146.00

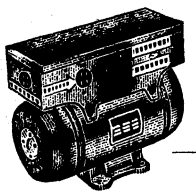


"MONARCH" CONVERTERS

1000 - 1500 and 2000 watt output, 24 to 230 volt input models. The Monarch series is ideal for heavy-duty industrial service, marine, mine, crane and railroad communications. Slow speed (1800 rpm.), long life, 4-pole design; ball bearing equipped. **No filter is necessary for most application.** Size: 19" x 11" x 12" high. Three-phase output available, add $60 to list. 24 and 28 v. Input available at 1500 w. rating.

Carter Number	DC Input Volts	DC Input Amps	Watts, AC at 60 cps, 115 v.	List Price
J10150M	28	80	1500	$725.00
C10150M	32	69	1500	725.00
W10200M†	48	60	2000	775.00
H10200M†	64	45	2000	775.00
D10200M‡	115	25	2000	775.00
K10200M‡	230	12.5	2000	775.00

†Reduced voltage starters necessary, add $159.50 to list price.
‡Reduced voltage starters necessary, add $103.40 to list price.

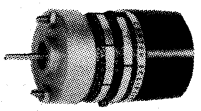


REFRIGERATOR-APPLIANCE MARINE CONVERTERS

Operates standard refrigerators, compressors (up to 1/6 hp only), vacuum cleaners and other appliances from DC; for use aboard commercial and pleasure boats. Converter operates only when power is called for. Has handy AC outlet to run most appliances from DC. Input, from 24 to 230 v. DC. Size: 14" x 6¾" x 11" high. Net Weight. 65 lbs. 750 w. con. duty rating.

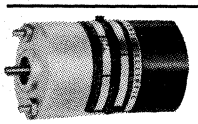
Number	Input	List	Number	Input	List
RF24	24 v.	$495.00	RF48	48 v.	$495.00
RF28	28 v.	495.00	RF115	115 v.	495.00
RF34	34 v.	495.00	RF230	230 v.	495.00

"ECLIPTIC" TACHOMETER GENERATORS



Converts rotation rate into reference voltage for speed indication. Ideal for motor controllers and various industrial applications such as variable speed drives, textile machines, machine tools etc. Couples direct to drive motor, requires no belts or gears. 2 lead, reversible. Linearity below 1%. May be connected to a DC meter calibrated for RPM, FPM, GPH or other measurements. Size 1⅝" x 2¼" plus shaft .118 dia. 19/32" long.

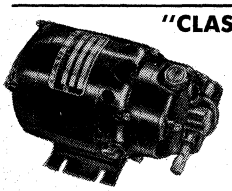
M 176T1	2.5 v. per 1000 RPM	$51.00
M 176T2	5 v. per 1000 RPM	53.00
M 176T3	12 v. per 1000 RPM	56.00
M 176T4	20 v. per 1000 RPM	70.00
M 176T5	1.25v. per 1000 RPM	51.00



"ECLIPTIC" MOTOR-TACHOMETERS

Combines both PM DC motor and a tach generator in a compact unit. Ideal for limited space where both a small PM DC motor plus a tach reference voltage are required. 4 lead reversible. 2 motor leads. 2 generator leads. Motor rated 1/150 HP max. tach output 2.5 v. per 1000 RPM. Shaft .118 dia. 19/32" long.

MT 114J1	28 v. DC input	$90.00
MT 114C1	32 v. DC input	90.00
MT 114W1	48 v. DC input	90.00



"CLASSIC" MOTORS & GEARMOTORS

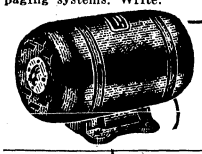
Available up to 1/7 hp. Gearmotors from 1 to 750 RPM, up to 8 in. lbs. torque, continuous duty. Universal and DC shunt models, induction and variable speed types, base or flange mounted. Ball bearing, high quality, die cast construction. Ideal for SCR motor controllers, pumps, lab stirrers, dental drills. 3-5/16" dia., 6-1/16" long. Ask for Classic catalog.

"CUSTOM" CONVERTERS

Dependable rotary power for operating office business machines, professional tape recorders, railroad, mobile and marine radio and radar equipment. Finest construction. Sealed ball bearings require no lubrication. Long life, continuous duty, high efficiency on all models. Only popular models listed here. For 50-cycle output, add $6.00 to list prices. All models 100% power factor. Size: 200 watts, 12⅝" w. x 6¾" d. x 7¼" h.; 210 and 300 watts, 11⅝" w; 500 watts, 12⅝" w.; 750 watts, 13⅞" w.

Carter Number	DC Input Volts	DC Input Amps	List Price	Carter Number	DC Input Volts	DC Input Amps	List Price
KSX1020C5P	230†	1.3†	$270.00	D1030CP	115§	4.6§	$220.00
DSX1020C5P	115†	2.6†	263.00	E1050CP	24¶	33¶	254.00
HSX1020C5P	64†	5†	263.00	C1050CP	32¶	25¶	254.00
CSX1020C5P	32†	9†	263.00	W1050CP	48¶	16¶	254.00
BR1021CP*	12‡	29‡	306.00	D1050CP	115¶	7¶	254.00
B1030CP	12§	45§	220.00	C1075CP	32•	32•	286.00
E1030CP	24§	22§	220.00	D1075CP	115•	8.8•	286.00
C1030CP	32§	19§	220.00	K1075CP	230•	4.4•	296.00

Watts At 115 v. AC. 60 cps: †200 §300 ¶500 •750.
*Equipped with manual frequency control. On all other models, add $90.00 to list prices. Filter available; add 50.00 to list prices Add $8.80 for built in capacitor filter. Automatic starting circuit available if AC power fails. Ideal for school and hospital paging systems. Write.



"CUSTOM" DYNAMOTORS

For railroad and marine radio-telephone, industrial communications systems, locomotives, telephone emergency standby power, etc. Heavy duty construction. Low rpm speed, small temperature rise assure extra long life. Filter not normally required. Size: 12⅝" x 6-11/16 x 7¼". Weight, 47 lbs.

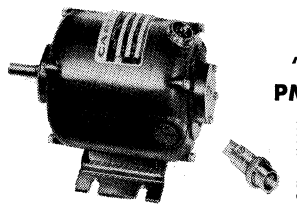
Carter Number	Input Range	Output Volts	Output Recv.	Amps Trans.	List Price
KS1220P	236-264	12.8	5	18	$275.00
DS1220P	118-132	12.8	5	18	263.00
HS1220P	67-74	12.8	5	18	263.00
CS1220P	33-37	12.8	5	18	263.00
WS1220P	45-50	12.8	5	18	263.00
DS640P	118-132	6.3	15	40	263.00
HS640P	67-74	6.3	15	40	263.00
CS640P	33-37	6.3	15	40	263.00
B2820P	14	28	—	20	263.00

AC TO AC FREQUENCY CHANGERS

Produces 115 v., 50 or 60 cycle AC output from 25 to 400 cycle input. For operating standard equipment on non-standard frequencies. Standard units are for single phase input and output. Three-phase output available on order. 70% PF models to run tape recorders, optional at no extra cost. For frequency control (meter), add $50.00 to list price. Non regulated.

Carter Number	Output Watts*	List Price	Carter Number	Output Watts*	List Price
FC1020L	20	$340.00	FC1025CP	250	$650.00
FC1040L	40	350.00	FC1050CP	500	685.00
FC1060L	60	365.00	FC1075CP	750	715.00
FC1080C	80	490.00	FC10100M	1000	1310.00
FC1010C	100	500.00	FC10150M	1500	1375.00
FC1015C	150	510.00	FC10200M	2000	1450.00
FC1020C	200	520.00			

*60 cy. output. 50 cy. available.

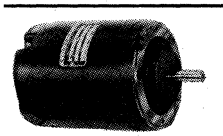


"CLASSIC" PM DC TACH-GENERATORS

A high output DC Tachometer-Generator for slow speed industrial and commercial purposes. Barium ferrite magnet. Couples to motor shaft and to meter for direct readings without belts or gears to step up speed. Requires no batteries, transistors or other external excitation. 2 lead, reversible.

Code No.	DC output Volts per/1000	Mounting	Max. Speed RPM	List Price
CTA60AA	60	base	5000	$78.00
CTA60BA	60	face	5000	78.00
CTA60CA	60	flange	5000	84.00
CTA50AA	50	base	6000	76.00
CTA50BA	50	face	6000	76.00
CTA50CA	50	flange	6000	82.00
CTA25AA	25	base	10000	74.00
CTA25BA	25	face	10000	74.00
CTA25CA	25	flange	10000	80.00

Models rated less than 4000 RPM maximum speed supplied with built-in capacitor filter to assure ripple of less than 3%. Unfiltered models will average 5% or less AC ripple.



"REGENT" FHP MOTORS

Universal motor ¼ to ⅝ hp. 5000-10000 RPM. Models for 12 v. to 230 v. input. DC shunt models from 12 v. to 115 v. DC, 1800 to 5000 RPM. 1/15 to 1/6 hp. Face, base or resilient mount. Ideal for machine tool drives, grinders, SCR motor controllers. 3⅞" dia., 6-5/32" long. Ask for Regent bulletin.

Trade Discount Applies To List Prices Only

© U.C.P., Inc.

HIGH VOLTAGE POWER SUPPLIES

COMPACT PSL SERIES

THE PSL SERIES of compact power packs are designed to operate from the most commonly used line frequencies of 50 CPS to 500 CPS. Input voltages are 118V, 220V, 230V, and 240V*.

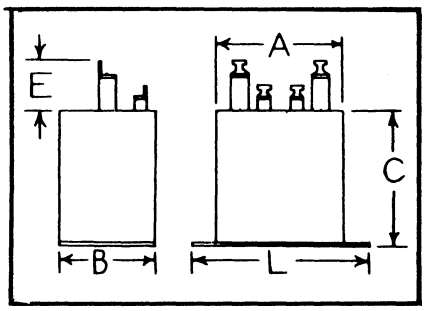
THE PSL SERIES Power Supplies have these important features:

1. Input Voltage 0 to rated input voltage* at 50 to 500 CPS.
2. Output Ratings 0 to 10 milliamperes in accordance with the rating of the power pack.
3. Ripple 1% RMS or 2.75% peak to peak at rated voltage.
4. Output Voltage can be varied from 0 to rated voltage and load by means of a variable auto transformer.
5. Two Output Terminals are isolated from the container, permitting either terminal or both to be operated away from ground.
6. Ambient Temperature Range is minus 55°C to plus 85°C (with limited ratings).
7. Mounting Position: Any.
8. Altitude up to 10,000 feet operating 50,000 feet non-operating.
9. Design Life 40,000 hours at 35°C and 25,000 hours at 65°C at rated output. Life is 5000 hours at 85°C if the output current is no more than 80% of the rated current. Useful life is generally double the figure given above if an approximately 3% drop in voltage is tolerable.

CONDENSER PRODUCTS has designed and built high voltage D. C. power supplies for:

- Electrostatic Equipment
- Airborne Equipment
- Shipboard Installations
- 380 to 1.000 CPS Applications
- High voltage output from 1 to 250 KV with current ratings up to 50 ma.
- and many other varied applications

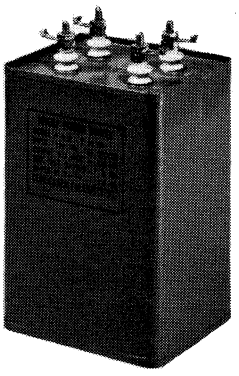
Let CONDENSER PRODUCTS engineers solve your high voltage power supply problems.



PART NUMBER	KV RANGE	MAX. MA.	DIMENSIONS A	B	C	E	MOUNTING AREA W	L	WEIGHT LBS.
PSL2-1.5M	0-2	1.5	3¾	1¾	3¾	⅜	1¾	5¼	2
PSL5-1.5M	0-5	1.5	3¾	2¼	3⅜	⅝	2¼	5¼	2
PSL10-1.5M	0-10	1.5	3¾	3⅜	4½	1⅛	3⅜	5¼	4
PSL15-1.5M	0-15	1.5	3¾	3⅜	5½	1⅛	3⅜	5¼	5
PSL20-1.5M	0-20	1.5	3¾	4⅜	5⅞	2⅛	4⅜	5¼	9
PSL30-1.5M	0-30	1.5	3¾	4⅜	7½	3¼	4⅜	5¼	11
PSL50-1.5M	0-50	1.5	4 1/16	6	8½	4⅝	6	6¼	18
PSL75-1.5M	0-75	1.5	5⅝	7⅝	12 3/16	7½	7⅜	7¼	26
PSL2-5M	0-2	5	3¾	2¼	3⅜	⅜	2¼	5¼	2
PSL5-5M	0-5	5	3¾	2¼	3¾	⅝	2¼	5¼	3
PSL10-5M	0-10	5	3¾	4 3/16	5⅞	1⅛	4⅜	5¼	8
PSL15-5M	0-15	5	3¾	4⅜	6⅛	1 1/16	4⅜	5¼	9
PSL20-5M	0-20	5	3¾	4⅜	8	2⅛	4⅜	5¼	12
PSL30-5M	0-30	5	4 1/16	6	8½	3¼	6	6¼	18
PSL50-5M	0-50	5	5⅝	7⅜	12 3/16	4⅝	7⅜	7¼	26
PSL75-5M	0-75	5	11⅛	14 3/16	16¼	7½	14 1/16	11⅛	124
PSL1-10M	0-1	10	3¾	2¼	3⅜	⅜	2¼	5¼	2
PSL2.5-10M	0-2.5	10	3¾	2¼	3¾	⅝	2¼	5¼	3
PSL5-10M	0-5	10	3¾	4⅜	5⅞	⅝	4⅜	5¼	8
PSL10-10M	0-10	10	3¾	4 3/16	8	1⅛	4⅜	5¼	12
PSL15-10M	0-15	10	4 1/16	6	8½	1 1/16	6	6¼	18
PSL25-10M	0-25	10	5⅝	7⅜	12 3/16	3¼	7⅜	7¼	26

10. Vibration 10 to 55 CPS with a total of 0.06 inches for 2 hours in each plane for all power packs which have a base dimension (the A and B dimensions of 3¾" x 7/16" or less. Larger units are designed for bench handling, general laboratory use, and equipment not subject to excessive shock and handling.
11. Salt Spray per MIL-Q-151 for 50 hours.
12. Rectifiers are long life selenium type, properly selected and used under de-rated conditions to assure long life.
13. Filter Capacitors are special film types and designed in particular for long life.
14. Hermetically Sealed Container Sealing is accomplished with seamed and soldered CP70 type container, and solder seal bushings.
15. Oil Filled Container prevents corona. The oil is inhibited, degassed and filtered.
16. Container Finish Zinc chromate primer and light blue-gray lacquer per MIL-L-7178.
17. Terminals are steatite, solder seal type with solder lug terminals.

POWER SUPPLIES TYPE PST



INQUIRE ABOUT SUB-MINIATURE SILICON HIGH VOLTAGE POWER SUPPLIES EXTREME SIZE AND WEIGHT REDUCTIONS!

These Self-Contained, Sub-Miniature Solid-State Power Supplies are Specifically Designed for High Voltage, Low Current DC Applications.

Miniaturization of high voltage, low current solid state power supplies are an accomplished fact with Condenser Products Co. Reductions up to 60% in volume have been achieved!

Advantages of the PST Series:

- Smallest size, longest lasting possible
- Highest operating ambient temperature to 105°C without de-rating
- Lightest weight possible for voltage output with greatest possible power factor

Catalog No.	Output Voltage KVDC	Rated Output Current Ma.	Max. Output Current Ma.	% Ripple At Rated Current	Circuit	Case Dimensions	Approx. Weight Pounds
PST2-M60	0-2.	2.	3.00	0.5	Half Wave	3¾x2¼x3½" Hi	2.5
PST5-2M60	0-5.	2.	3.00	0.5	Full Wave Doubler	3¾x2¼x3½" Hi	2.5
PST10-1M60	0-10.	1.	1.75	1.0	Full Wave Doubler	3¾x3¾x4" Hi	4.5
PST15-1M60	0-15.	1.	1.75	1.0	Full Wave Doubler	4⅜x3¾x5½" Hi	8.5
PST20-1M60	0-20.	1.	1.75	1.0	Full Wave Doubler	4⅜x3¾x5½" Hi	8.5

OTHER SOLID-STATE SUB-MINIATURE SUPPLIES CAN BE DESIGNED FOR A SPECIFIC APPLICATION

CONDENSER PRODUCTS COMPANY

THIS IS ONLY A SMALL LISTING OF SIZES, VOLTAGE AND AVAILABLE TYPES . . . FOR COMPLETE INFORMATION . . . SEND FOR BULLETIN No. 6 . . .

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Vibrators

CDE CORNELL-DUBILIER

AUTO RADIO & SPECIAL PURPOSE VIBRATORS

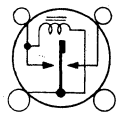
CDE Type	Voltage	Freq. (cps)	Max. Load Amps	Plug Base	Circuit Diagram	Size (Inches—DxL)
INTERRUPTER TYPES						
5301	6	115	5	4	A-1	1½ x 2⅞
5371	6	115	5	4	A-1	1½ x 2⅝
5372	6	115	5	4	D-2	1½ x 2⅝
5560H■	6	60	6	4	A-2	1½ x 3⅛
5562H■	6	59	6	4	A-2	1½ x 3⅛
6301	12	115	3.5	4	A-1	1½ x 2⅞
6330	12	115	3.5	3 Spcl.	DA	1½ x 2⅞
6371	12	115	3.5	4	A-1	1½ x 2⅝
6372	12	115	3.5	4	D-2	1½ x 2⅝
6514	12	180	3.5	4	A-4	1½ x 2⅞
6560H■	12	60	4	4	A-2	1½ x 2⅞
6562H■	12	59	4	4	A-2	1½ x 2⅞
UNIVERSAL REPLACEMENT TYPES						
V64	6	115	6	4	A-1	1½ x 2⅞
V123	12	115	4	3 Spcl.	DA	1½ x 2⅞
V124	12	115	4	4	A-1	1½ x 2⅞

VIBRATORS FOR FOREIGN CAR RADIOS

CDE Type	Voltage	Blaupunkt Part No.	Plug Base
5730	6	SM0702-01Z	5 Special (DB)
6730	12	SM0702-02Z	5 Special (DB)

■ Close frequency adjusted ±1 CPS.

CIRCUIT DIAGRAMS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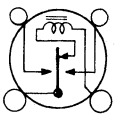
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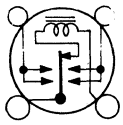
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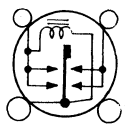
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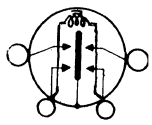
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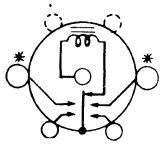
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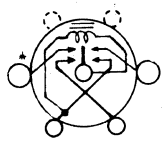
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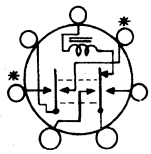
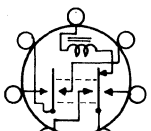

AE-2

COMMUNICATIONS VIBRATORS

CDE Type	Voltage	Freq. (cps)	Max. Load Amps	Plug Base	Circuit Diagram	Size D x L
INTERRUPTER TYPES						
5715A	6	115	12	4	A-3	1½ x 2⅞
5718A	6	115	12	6	Y-2	1½ x 2⅞
5722/6722	6/12	100	12/7	7	AF-2	1½ x 3
5725A	6	115	12	5 Rev.	HZ-1	1½ x 2⅞
6715A	12	115	7	4	A-4	1½ x 2⅞
6715AS	12	115	7	4	A-3	1½ x 2⅞
6718A	12	115	7	6	Y-1	1½ x 2⅞
6718AS	12	115	7	6	Y-1	1½ x 2⅞
SYNCHRONOUS TYPES						
5805	6	115	6	5 Rev.	AD-1	1½ x 2⅞
5820	6	115	6	5 Rev.	AB-3	1½ x 2⅞
5822A	6	100	9	7	AE-2	1½ x 3
6805	12	115	5	5 Rev.	AD-1	1½ x 2⅞
6820	12	115	5	4 Spcl.	AB-1	1½ x 2⅞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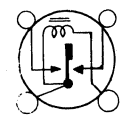
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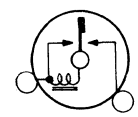
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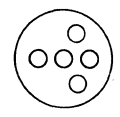
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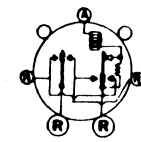
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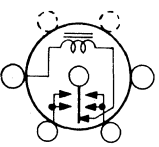
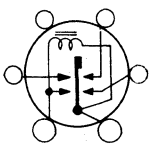

HZ-1

SMALL POWER SUPPLY VIBRATORS

Type	Voltage	Frequency Cps.	Max. Amps.	Base	Construction	Size (Inches) WxLxH or DxL
2532	12	60±3	5	A1	Vert. ARV	1½ x 2⅞
2563	6/12	60±3	15/7	HZ-1	Vert. ARV	1½ x 2⅞
6565	12	60±3	8	A-3	Vert. ARV	1½ x 2⅞
6567	12	60±3	8	None	Wire-leads	1½ x 2⅞

* Current ratings are maximum based on reasonable vibrator life in CDE approved circuits.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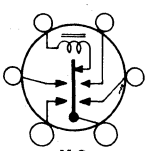
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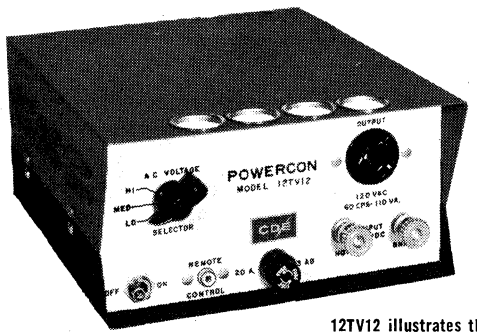
CDE CORNELL-DUBILIER

Power Supplies

POWERCON® | **Class 251 • 00**

POWERCON® INVERTERS



12TV12 illustrates the modern styling of the POWERCON® inverter line.

POWERCON® inverters feature all new designs and attractive styling to provide the ultimate in inverter power supplies for providing AC power in autos, trucks, aircraft and boats. Units are ideal for operating a wide variety of electronic entertainment devices as well as small appliances and lighting equipment.

The 12TV12 illustrated, has met with enthusiastic acceptance. This model is intended for operation of portable TV sets as well as other household appliances within the rating. Other models in the POWERCON® line feature the same attractive styling as the 12TV12. The combination of attractive design and superior power supply design features makes the POWERCON® Line the outstanding buy in mobile, aircraft and marine power supplies.

Models are available with either square wave or sine wave outputs. Square wave models have stable 110v AC under various loads due to built in capacity and conservative ratings. Intermittent loads will not damage the unit. Intermittent ratings listed are for loads with 70-100% power factor. Square wave units feature superior filtering and solid mechanical and electrical design to give hash-free output for interference free TV, FM and shortwave reception.

The sine-wave units have added reactors and capacitors to provide true sine-wave power — indistinguishable from commercial power. These units are recommended for electronic equipment where optimum performance is required. The sine-wave units control output voltage between 110 and 120v AC with up to 15% input variation. Units feature automatic load regulation for heavy or light loads. Sine-Wave units will operate inductive loads as low as 25% power factor without power factor correction as long as the wattage rating is not exceeded and the inrush VA does not exceed the intermittent ratings.

CDE Type	Typical Applications	Replacement Vibrators	Input VDC	Watts		Overall Dimension Deep x W x High	Shipping Weight Approx. lbs.	Net Price
				Continuous	Intermittent			
12SP2A	Electric Shavers. NOTE: Intermittent duty only.	None	12	None	20	3⅞ x 2⅞ x 2¾	2	**$ 8.79**
12A4	Test gear, small dictating machines, shavers, phonographs.	6567	12	40	50	6¼ x 4⅛ x 3⅜	6	**18.84**
12B8	Smallest portable TV, small tape recorders, stereo amplifiers.	6565	12	80	100	8¾ x 7⅝ x 3⅞	12	**33.56**
12B10	Office machines, calculators, typewriters, adders.	12VB6H	12	100	125	8¾ x 7⅝ x 3⅞	14	**42.79**
12DSW10	SINE-WAVE, any PF load.	12VB6H	12	100	125	10⅜ x 9⅞ x 5½	22	**73.99**
12TV12	TV, special for portable TV, also for radios, phonographs.	12VB6H	12	120	140	8¾ x 7⅝ x 3⅞	16	**34.57**
12D15	Small induction soldering guns, all office machines.	12VD6H	12	150	175	10⅜ x 9⅞ x 5½	26	**64.70**
12D22	Multi-use, ideal for camp trailer, small tools, CB, TV.	12VD6H	12	220	250	10⅜ x 9⅞ x 5½	31	**80.99**
12ESW25	SINE-WAVE, SSB, large PA systems, 100 watt amplifiers.	12VD6H	12	250	300	12¼ x 9⅞ x 5½	31	**103.13**
28D15	Aircraft, marine, trucks, other systems using 24 VDC.	28VB6H	28	150	175	10⅜ x 9⅞ x 5½	26	**78.99**
110B15	110V DC input units used for emergency power, for AC applications where commercial DC available; apartments, larger boats, and merchant vessels. The 110F40 is the largest unit and is dual RFI filtered.	110VB6H	110	100	150	8¾ x 7⅝ x 3⅞	11	—
		110VB6H	110	150	200	8¾ x 7⅝ x 3⅞	13	**51.07**
110D25		110VB6H	110	250	325	10⅜ x 9⅞ x 5½	26	**61.21**
		110VC6H	110	400	600	14⅛ x 11¼ x 6¼	49	—

ACCESSORY KITS FOR POWERCON® INVERTERS

These accessory kits are designed for use with the model POWERCON® inverter power supplies. They provide maximum flexibility in mounting and control of the units. The following types of accessory kits are available:

REMOTE CONTROL UNITS Consist of under dash or post mounting control head with switch, pilot light and AC outlet. Uses 4 wire cable from control socket.

FUSE KITS Provides maximum protection to power supply. Hot cable fuse block for 2" cartridge fuse should be used with short heavy cable for remote installations. Last two digits of type number indicate ampere rating of fuse.

MOUNTING KITS Heavy flanged plate for bulkhead or floor mounting. Supplied with hardware and instructions.

LEAD KITS Two cables with heavy lugs to fit under the battery clamp screw or starter solenoid.

For Powercon® Model	Mounting Kits		Lead Kits		Remote Control Kits		Fuse Kits	
	Type	Net Price	Type	Net Price	Type	Net Price	Type	Net Price
12A4	None	—	LK-1016	**$3.93**	RK-112	**$7.07**	FK-220	**$2.29**
12B8	MK-3544-4	**3.57**	LK-1016	**3.93**	RK-112	**7.07**	FK-220	**2.29**
12B10	MK-3544-4	**3.57**	LK-816	**5.00**	RK-112	**7.07**	FK-220	**2.29**
12D15	MK-3544-5	**3.86**	LK-816	**5.00**	RK-112	**7.07**	FK-240	**2.86**
12D22	MK-3544-5	**3.86**	LK-616	**7.86**	RK-112	**7.07**	FK-240	**2.86**
28D15	MK-3544-5	**3.86**	LK-1016	—	RK-112	—	FK-220	—
12TV12	MK-3544-5	**3.57**	LK-1016	**5.00**	RK-112	**7.07**	FK-220	**3.27**
12DSW10	MK-3544-5	**3.86**	LK-816	**5.00**	RK-112	**7.07**	FK-220	**2.29**
12ESW25	MK-3544-5	**3.86**	LK-616	**7.86**	RK-112	**7.07**	FK-250	**2.86**

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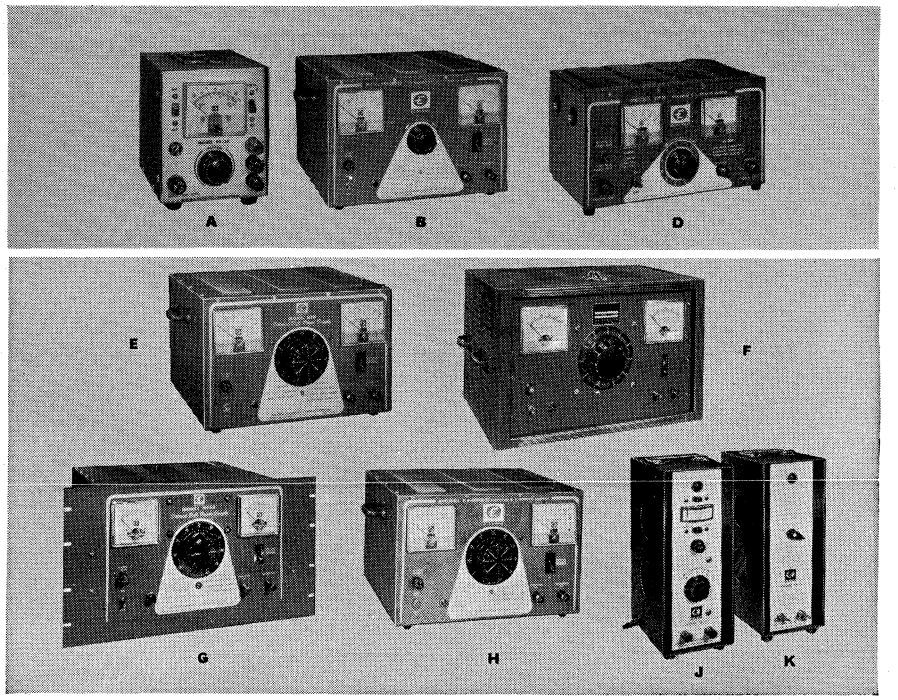
Net

ELECTRO POWER SUPPLIES



PRECISION BUILT

Electro offers a large selection of well-constructed DC power supplies used in design and development testing and servicing (auto, aircraft, marinecraft radio and electronic equipment)...production line applications, industrial and educational laboratory work and many other applications.

The line offers a wide range of DC outputs up to 125 volts with adequate filtering for requirements ranging from critical transistor circuitry to applications permitting up to 5% ripple.

Every model is engineered to give unusual performance life per dollar. Each has an adjustable output voltage range. Meters indicating voltage and current are large, easy to read. Controls clearly marked. Output terminals are isolated from the cabinet ...several are rack mounted. A one-year warranty on every Electro power supply.

For full details on models listed below, see Selection Guide on facing page.

REGULATED

Model PS-3A (Fig. A) regulated power supply for transistor circuit development and experimental use. Output continuously variable. Regulation ±0.02% line or load. Maximum ripple: 0.002%. Front panel controls.

Model PSR-500 Series (Fig. B) delivers 500 watts of DC power, with output voltage regulated to less than 1% for both line and load changes. Maximum ripple less than 1%. All solid-state circuitry. Uses silicon rectifiers and SCR regulation. Fused input, circuit-breaker output protection. Three models with output voltage ranges: 2-32v, 2-55v, and 2-125v.

INDUSTRIAL

Model EF (Fig. D) provides variable voltage 0-28v or 0-14v at 5 amps continuous, 10 amps intermittent load. Ripple less than 1%. Uses selenium rectifiers.

Models EFB and EFBR (Figs. D, G) designed for very low ripple requirements of transistor work. Continuously variable voltage control. Selenium rectifiers. Employs chokes and capacitors in ripple filter. Model EFB Federal stock number 6130-957-1450. Model EFBR (Fig. G) same except with standard EIA rack panel.

Models NFB and NFBR (Figs. E, G) for continuous heavy-duty. Continuously variable output, 0-32v for loads to 15 amps. Ripple: less than 0.75% at 15 amps. Ripple filter circuit uses chokes and capacitors. Variable autoformer for smooth control. Bridge type silicon rectifiers. Model NFBR same except with standard EIA rack panel. Model NFBR Federal stock number 6130-853-3127.

Models GFL, GFLR and GL (Figs. E, G) low cost, semi-regulated, low ripple, higher voltage. Ideal for designing and testing DC appliances, telephone circuits, relays and solenoids; laboratory work. Continuously variable output 0-125v DC at 5 amps. Ripple: 0.5%. Silicon rectifiers. Overload protection. **Model GFLR** same except with standard EIA rack panel. **Model GL** same as GFL unit above, but with less filtering. Ripple: 5% at 5 amps.

Models PS-5 and PS-5R (Figs. E, G) specially designed for 48-volt applications. Delivers 550 watts well-filtered DC output continuously variable 0-55v DC. Ripple: 0.5% rms at 10 amps. Silicon rectifiers. **Model PS-5R** same except with standard EIA rack panel.

Models PS-1000-32 and PS-1000-55 (Fig. H) similar to Models NFB and PS-5 above, except twice the output power.

Model PS-1000-32 delivers 0-32v DC at 30 amps.

Model PS-1000-55 delivers 0-55v DC at 20 amps. See table for other specifications.

GENERAL PURPOSE

Model D-612T and Model H (Fig. D) low ripple; for servicing transistor auto and portable radios. Max. output power in this price range. Ideal for citizens' band transceivers, battery charging, solenoids, etc., requiring up to 16v DC. **Model H** heavy duty; dual range. Ideal as storage battery replacement in school laboratories, thermoelectric power source, and other high-current, low-voltage applications. Similar to Model D-612T in appearance.

Model EC-1 (Fig. K) reliable, low cost. 12v DC with 5 amp. output for school labs and industrial research, production testing, etc. Low-cost source for FM and AM auto radio demonstrations. Max. ripple 0.5%. EPL patented rectifier conduction cooling. Used vertically or horizontally.

Model EC-2 (Fig. J) low priced unit for auto radio and transistor portable servicing. Ideal for wide applications in research and development. Continuously variable voltage adjustment provides versatility. Max. ripple 0.5% at 5 amperes. Patented conduction cooling. Used vertically or horizontally.

Models PS-30 and PS-50 (Fig. E) heavy duty adjustable 12-volt unit for servicing auto, truck, aircraft and marine communications equipment. Very useful in industrial and educational labs, thermoelectric cooling power source, etc. Max. ripple at maximum current 1%. 8-position tap switch output voltage adjust. Heavy overload capacity. **Model PS-50** delivers 50 amperes continuously and **Model PS-30** delivers 30 amperes continuously.

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REGULATED · INDUSTRIAL · GENERAL PURPOSE

ELECTRO

Selection Guide — Power Supplies for every need

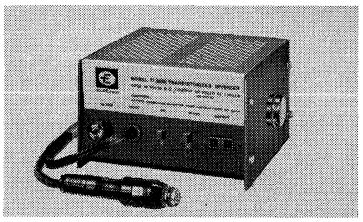
Model	Figure	Voltage Output	Amps. Output	Load Regulation* (V/A) †	Max. Ripple%	Meters‡‡	DC Impedance (ohms)*	Size (HxWxD) inches	Weight lbs. (net)	Price (net)
REGULATED										
PS-3A	A	0-25	0-200MA	.02%	0.002	0-25V/200MA	.05	6-1/4 x 5 x 6	3-1/2	$105.00
PSR-500-32	B	2-32	0-15	Less than 1%	Less than 1	0-50V, 0-25A	.02	9-3/4 x 14-1/4 x 14-1/4	76	375.00
PSR-500-55	B	2-55	0-10	Less than 1%	Less than 1	0-75V, 0-10A	.06	9-3/4 x 14-1/4 x 14-1/4	65	375.00
PSR-500-125	B	2-125	0-5	Less than 1%	Less than 1	0-150V, 0-5A	.25	9-3/4 x 14-1/4 x 14-1/4	80	395.00
INDUSTRIAL										
EF	D	0-28 0-14	0-5 0-5	0.9 (1-5A) 0.6 (1-5A)	1 1	0-50V, 0-6A	0.9 (1-5A) 0.6 (1-5A)	7 x 12 x 8-1/2	21	115.00
EFB	D	0-32 0-16	0-4 0-8	1.25 1.0	0.1 0.1	0-40/20V, 0-10A	1.25 1.0	7 x 12 x 8-1/2	31	160.00
EFBR	G	0-32 0-16	0-4 0-8	1.25 1.0	0.1 0.1	0-40/20V, 0-10A	1.25 1.0	8-3/4 x 19 x 8-1/2	34	180.00
GFA	F	0-125	0-10	1.6	1.0	0-150V, 0-10A	1.6	14-1/4 x 22 x 15-3/4	150	575.00
GFL	E	0-125	0-5	1.5	0.5	0-150V, 0-5A	1.5	9-3/4 x 14-1/4 x 14-1/4	75	290.00
GFLR	G	0-125	0-5	1.5	0.5	0-150V, 0-5A	1.5	10-1/2 x 19 x 14-1/4	79	315.00
GL	E	0-125	0-5	1.5	5.0	0-150V, 0-5A	1.5	9-3/4 x 14-1/4 x 14-1/4	65	270.00
NFB	E	0-32	0-15	0.3	0.75	0.50V, 0-25A	0.3	9-3/4 x 14-1/4 x 14-1/4	71	275.00
NFBR	G	0-32	0-15	0.3	0.75	0.50V, 0-25A	0.3	10-1/2 x 19 x 14-1/4	82	295.00
PS-5	E	0-55	0-10	0.8	0.5	0-75V, 0-10A	0.8	9-3/4 x 14-1/4 x 14-1/4	60	275.00
PS-5R	G	0-55	0-10	0.8	0.5	0-75V, 0-10A	0.8	10-1/2 x 19 x 14-1/4	71	295.00
PS-1000-32	H	0-32	0-30	0.2	0.75	0-50V, 0-50A	0.2	9-3/4 x 14-1/4 x 14-1/4	85	398.00
PS-1000-55	H	0-55	0-20	0.5	0.5	0-75V, 0-25A	0.5	9-3/4 x 14-1/4 x 14-1/4	85	398.00
GENERAL PURPOSE										
D-612T	D	0-16 0-8	0-10 0-10	0.44 (3-10A) 0.3 (3-10A)	{ 0.5@5A { 2@10A	0-20V, 0-10A	0.44 (3-10A) 0.3 (3-10A)	7 x 12 x 8-1/2	20	72.50
H	D	12 (adj.) 6 (adj.)	0-10 0-20	0.23 (3-10A) 0.15 (3-20A)	5 5	0-20V, 0-30A	0.23 (3-10A) 0.15 (3-20A)	7 x 12 x 8-1/2	29	99.50
EC-1	K	12 (adj.)	0-5	1.4	0.5	None	1.4	10-3/4 x 4-3/8 x 6-1/2	10	37.50
EC-2	J	0-16	0-5	1.8	0.5	0-20V/10A	1.8	10-3/4 x 4-3/8 x 6-1/2	9	49.95
PS-30	E	12 (adj.)	0-30	0.12 (6-30A)	1	0-20V, 0-50A	0.27	9-3/4 x 14-1/4 x 14-1/4	56	198.00
PS-50	E	12 (adj.)	0-50	0.17	1	0-20V, 0-50A	0.17	9-3/4 x 14-1/4 x 14-1/4	75	298.00

Voltage output continuously variable except where shown.
†Output voltage change for each ampere of output current change, except on regulated units % applies for either line or load.
*No-load to full-load unless otherwise specified.
††All 2% accuracy except 5% for general purpose units.
Rectifiers: Selenium and Silicon ("avalanche" characteristics on Industrial units).

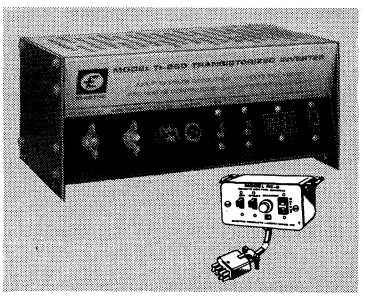
ELECTRO

ELECTRO DC TO AC TRANSISTORIZED INVERTERS

Convert 12v DC to 117v AC from car, boat or plane battery. Ample power for TV sets, lights, recorders, PA systems, etc.



Model TI-100A



Model TI-250. Inset shows remote control console available.

Model TI-100A. Compact, low cost—converts 12v DC to 117v AC, 125 watts 60 cy. Plug for use with vehicle cigarette lighter.

Model TI-100TR. Same except with (1) compensating switch to assure proper frequency for tape-recorders and other low power factor loads, (2) battery charge indicator light.

Model TI-250 has 250/300 watt output for a wider range of applications. Features (1) electronic overload protection, (2) start switch, (3) battery indicator light, (4) includes cables for connection to battery or DC source, (5) remote control console available.

Electro Inverters have several outstanding features: (1) heavy components for higher overload capacity, (2) charge indicator light in some models shows condition of battery by giving low-charge warning, shows that unit is delivering power and is not overloaded, (3) first line Jetec transistors, (4) unique power transformer construction for safe, trouble-free performance, (5) automatic electronic overload protection turns off unit with no damage to inverter or equipment being operated, (6) mount in any position, (7) "start" switch in some models facilitates starting hard-to-start loads such as incandescent lights, some motors, etc., (8) considerably smaller than vibrator types, (9) eliminate vibrator maintenance.

INVERTERS

Model	Conversion	Output	Volt Reg.	Freq. Reg.	Size (in.)	Ship. Wt. (lbs.)	Price
TI-100A	12v DC to 117v AC 60 cy.	125w. cont.	20v NL-FL	5 cy/sec. NL to FL	3½x6¼x6¼	7	$37.20
TI-100TR						7	43.75
TI-250		250w. cont. 300w. inter.	11% NL	4 cy/sec. NL to FL	4½x10x7½	11	69.95

ACCESSORIES

Model	Description	Size (in.)	Ship. Wt. (lbs.)	Price
RC-2	Remote Control Console for Model TI-250 (with 7-ft. cord for operation from remote location)	5¼x2⅜x2½	5	$12.50
BCA-1	Battery Clip Adaptor for Models TI-100A & TI-100TR (clip directly to battery terminals)	4 ft. cable	1	2.10
BCA-2	Battery Clip Adaptor for Model TI-250	4 ft. cable	1	4.40

6141

Stocked at your electronic distributor. Write for full-line catalog. Prices and models subject to change without notice.

ELECTRO PRODUCTS LABORATORIES, INC. **Since 1936—Pioneers in Low Voltage Power Supplies**

EVEREADY®

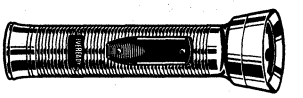
FLASHLIGHTS, LANTERNS and BATTERIES

the world's most trusted brand for over 50 years!

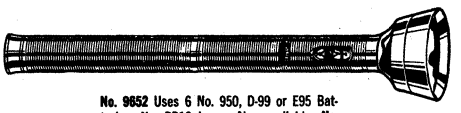
ALL PRICES WITHOUT BATTERIES.

"CAPTAIN" FLASHLIGHTS... Classic Design

- Heavy-Duty Copper/Nickel/Chrome/Plated Steel
- Exclusive 3-Way Lock Switch and Flasher
- End-Loading... Ring Hanger

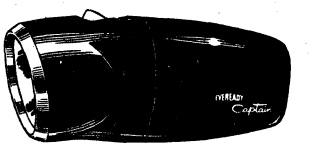


No. 9951 Magnet Lite. Uses 2 No. 950, D-99 or E95 Batteries, No. PR2 Lamp.



No. 9652 Uses 6 No. 950, D-99 or E95 Batteries, No. PR18 Lamp. Also available: **No. 9352**—Uses 3 No. 950, D-99 or E95 Batteries, No. PR3 Lamp.

No. 9251 Uses 2 No. 950, D-99 or E95 Batteries, No. PR2 Lamp. Also available: **No. 9351**—Uses 3 No. 950, D-99 or E-95 Batteries, No. PR3 Lamp and **No. 9231**—Uses 2 No. 935 or E93 Batteries, No. PR4 Lamp.



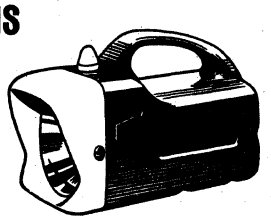
No. 3300 Rechargeable Flashlight—Twice the Light of standard 2-Cell Flashlights... never needs batteries! Uses rechargeable battery, No. PR3 Lamp.

	No. 3300	No. 9231	No. 9251	No. 9351	No. 9352	No. 9652	No. 9951
List Each	$14.95	$2.29	$2.29	$2.95	$3.95	$5.95	$2.95
Sugg. Dealer	9.96	1.53	1.53	1.97	2.64	3.81	1.97

WEATHERPROOF LANTERNS

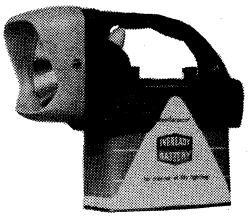
No. 100 "Big Jim" Lantern w/flasher. Uses 1 No. 731 Battery, No. 4546 Lamp, No. 407 Signal Lamp.

No. 101 Same without flasher.



No. 108 All American Lantern. "Cordahide" polyethylene construction. Uses 1 No. 509 Battery, No. PR13 Lamp.

No. 68 Display—Contains 3 No. 108 All American Lanterns in Colors (white, red, black).



No. 109WB Heavy-Duty All American Lantern **complete** with 1 No. 731 Battery. "Cordahide" polyethylene construction. Uses No. PR13 Lamp.

No. 150 "Captain" Stainless Steel Lantern. Uses 1 No. 520 Alkaline Battery and No. 4618 1-ampere Lamp for Double Brilliance, Longer Service, No. 407 Signal Lamp.

No. 151 Same without flasher.

	No. 68	No. 100	No. 101	No. 108	No. 109WB	No. 150	No. 151
List Each	$11.37	$10.75	$8.00	$3.79	$7.89	$14.00	$12.00
Sugg. Dealer	7.59	6.45	4.80	2.53	5.24	8.39	7.19

"CORDAHIDE" polyethylene FLASHLIGHTS—

Insulated, Withstand Abuse, Resists Oils, Greases, Most Chemicals.

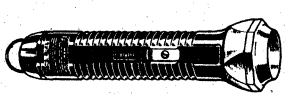
No. 330 Utility Lite. Uses 2 No. 950, D-99 or E95 Batteries, No. PR2 Lamp. Available individually boxed (**No. 330**) or in display of 6 (**No. 67**).

No. 349 Handy Lite. Uses 2 No. 935 or E-93 Batteries, No. PR4 Lamp. Available in assortment of 6 (**No. 49**) in colors.

No. 337 Magnet Utility Lite. Uses 2 No. 950, D-99 or E95 Batteries, No. PR2 Lamp. Available individually boxed (**No. 337**) or in display of 12 (**No. 51**) in Colors.

	No. 49	No. 51	No. 67	No. 330	No. 337
List Each	$5.94	$16.68	$5.94	$0.99	$1.39
Sugg. Dealer	4.14	11.16	4.14	0.70	0.94

INDUSTRIAL and SPECIAL PURPOSE LITES

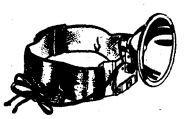


Industrial Flashlights

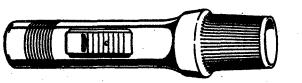
No. 1251—2 Cell, No. PR6 Lamp. **No. 1351**—3 Cell, No. PR7 Lamp. Uses Nos. 950, 1050, D99 or E95 Batteries. Will not shatter crack or dent.

Safety Flashlights

No. 1259—2 Cell, No. PR6 Lamp. **No. 1359**—3 Cell, No. PR7 Lamp. Uses Nos. 950, 1050, D99 or E95 Batteries. Approved by U.S. Bureau of Mines, Listed by Underwriters' Laboratories, Inc.



No. 3452 Head-Lite. Uses 1 No. 510S Battery and No. PR13 Lamp. Rainproof pouch also available (No. 1348).



Torch Lite

No. 2T3—3" wand. **No. 2T5**—5" wand. Uses 2 No. 950, D99 or E95 Batteries and No. PR2 Lamp.

	No. 2T3	No. 2T5	No. 1251	No. 1259	No. 1348	No. 1351	No. 1359	No. 3452
List Each	$1.49	$1.59	$2.89	$4.15	$0.69	$3.29	$4.35	$3.29
Sugg. Dealer	.99	1.05	1.93	2.74	0.46	2.19	2.89	2.14

Trade Discount Applies To List Prices Only

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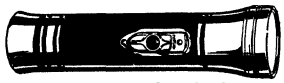
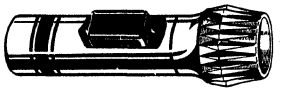
HEAVY-GUAGE, CHROME-PLATED METAL FLASHLIGHTS



America's Standard

No. 2251 All-Purpose Flashlight—2 Cell, No. PR2 Lamp. **No. 2351**—3 Cell, No. PR3 Lamp. Use Nos. 950, D-99 or E95 Batteries. Available individually boxed.



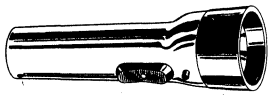
Magnet Lites

No. 5MF Magnet Lite—2 Cell, No. PR2 Lamp. No. 7MF—3 Cell, No. PR3 Lamp. Use Nos. 950, D-99 or E95 Batteries. Available individually boxed. **No. 5MF** available in display of 6 with Selling Tags **(No. 6-5MF)** or display of 6 with Counter Card **(No. 14).**

Leader Lites

No. 326 Leader Lite—Uses 2 No. 950, D-99 or E95 Batteries, No. PR2 Lamp. Available in Displayer **No. 16** (containing 12 No. 326 Lites)

No. 350 "Highlander II" Lite—Uses 2 No. 950, D-99 or E95 Batteries, No. PR2 Lamp. Available in **No. 27-A** Display—containing 7 No. 350 Lites.



All American

No. 3251 All American Lites-Uses 2 No. 950, D-99 or E95 Batteries, No. PR2 Lamp. Available in Counter Display of 12 Lites **(No. 1311).**
Also available **No. 339**—Uses 2 No. 935 or E93 Batteries, No. PR4 Lamp; Display **No. 39C** contains 6 No. 339 Lites with Selling Tags.

	No. 5MF	No. 6-5MF	No. 7MF	No. 14	No. 16	No. 39C	No. 131	No. 2251	No. 2351
List Each	$1.99	$11.94	$2.49	$11.94	$11.88	$7.14	$14.28	$1.95	$2.35
Sugg. Dealer	1.33	7.98	1.66	7.98	7.56	4.68	$9.48	1.30	1.57

MINIATURE FLASHLIGHTS

No. 115 "Little Jim" Pocket Lite—Uses 1 No. 915 or E91 Battery, No. 112 Lamp. Available in Counter Display of 12 **(No. 15).**

No. 315 Heavy-Duty Penlite. Uses 2 No. 915 or E91 Batteries and No. 222 Lamp. Available individually boxed or in Counter Display of 12 **(No. 22).**

No. 312 Slim Penlite. Uses 2 No. 912 or E92 Batteries and No. 224 Lamp. Available individually boxed or in Counter Display of 12 **(No. 12).**

No. 170 Display-combination miniature lite assortment contains: 6 each of Slim and Heavy Duty Penlites and 6 "Little Jim" Pocket Lites.

	No. 12	No. 15	No. 22	No. 170	No. 312	No. 315
List Each	$15.48	$9.48	$15.48	$20.22	$1.29	$1.29
Sugg. Dealer	10.20	6.30	10.20	13.35	.85	0.85

EVEREADY® BATTERIES with *POWER TO SPARE*

(See complete line listing for prices)

POPULAR FLASHLIGHT BATTERIES

No. 915 Size AA

No. 935 Size C

No. 950 Size D

No. D99 Heavy-Duty Size D

ENERGIZERS FOR TRANSISTOR RADIOS

and other electronic applications

No. 206 9 Volts

No. 216 9 Volts

No. 226 9 Volts

No. 333 4½ Volts

No. 1035 Size C 1½ Volts

No. 1015 Size AA 1½ Volts

SUPER POWER ALKALINE BATTERIES

for radios, cameras, toys, flashlights, and high drain applications, rechargeable TV

No. E90 Size N 1½ Volts

No. E91 Size AA 1½ Volts

No. 563 4½ Volts

No. E93 Size C 1½ Volts

No. E95 Size D 1½ Volts

No. E92 Size AAA 1½ Volts

No. 523 4½ Volts

No. 561 15 Volts

EVEREADY COMPLETE LINE SPECIFICATIONS EVEREADY

MERCURY BATTERIES

No. E9
1.4 Volts

No. E146X
8.4 Volts

No. E133
4.2 Volts

SEALED NICKEL CADMIUM RECHARGEABLE BATTERIES

B50
1.25 Volts

C450
1.25 Volts

CH4
1.25 Volts

R2
1.25 Volts

LANTERN BATTERIES

No. 509 — Spring
No. 510S — Screws
No. 510F — Fahnestock
6 Volts

No. 731
6 Volts

No. 520
6 Volts
Alkaline

OTHER BATTERIES

No. 6 "Ignitor"
1½ Volts

"HOT SHOT"
No. 1461 6 Volts
No. 1462 6 Volts
No. 1463 12 Volts
No. 1562 7½ Volts
No. 1662 9 Volts

EMERGENCY LIGHTING
No. 715 7½ Volts
No. 706 6 Volts
No. 716 9 Volts

"Eveready" Battery Number	NEDA Number	Chemical System	Overall Dimensions in Inches L	W	H	Terminals & Voltages	Battery Weight lbs.	Battery Weight ozs.	Unit Pkg. Quan.	Sugg. Dealer Each	List Each	Major Use
B1	—	Nickel Cad.	1.980 Diam. x 0.394			Flat Contacts—, +1.25	—	2.0	1	2.66	3.80	Instr., Hobby, Trans. Appl., Misc.
•B1T	—	Nickel Cad.	1.980 Diam. x 0.406			Solder Tabs—, +1.25	—	2.0	1	2.79	4.00	
BH1	—	Nickel Cad.	1.980 Diam. x 0.394			Flat Contacts—, +1.25	—	2.0	1	2.79	4.00	
•BH1T	—	Nickel Cad.	1.980 Diam. x 0.406			Solder Tabs—, +1.25	—	2.0	1	2.92	4.20	
E1	1100	Mercury	0.625 Diam. x 0.650			Flat Contacts—, +1.35	—	0.43	4	0.52	0.75	Meters, Instr., Misc.
E1N	—	Mercury	0.625 Diam. x 0.650			Flat Contacts—, +1.35	—	0.43	4	0.64	0.95	
EPX-1	—	Mercury	0.625 Diam. x 0.650			Flat Contacts—, +1.35	—	0.43	4	0.66	0.95	
CH1.2	—	Nickel Cad.	0.900 Diam. x 1.684			Flat Contact—, Solder Tab +1.25	—	1.7	1			Camera Light Meter
•CH1.2T	—	Nickel Cad.	0.900 Diam. x 1.689			Solder Tabs—, +1.25	—	1.7	1			
CH1.5	—	Nickel Cad.	1.031 Diam. x 1.969			Flat Contact—, Solder Tab +1.25	—	2.3	1	4.06	5.80	
•CH1.5T	—	Nickel Cad.	1.031 Diam. x 1.974			Solder Tabs—, +1.25	—	2.3	1	4.19	6.00	
RH1.6	—	Nickel Cad.	1⅝ x 4¾₆₄ x 2¹⁷⁄₃₂			Nut & Stud—, +1.25	—	4.1	1	3.53	5.00	Instr., Hobby, Trans. Appl., Misc.
B2	—	Nickel Cad.	1.984 Diam. x 0.689			Flat Contact—, +1.25	—	3.3	1	4.69	6.70	
•B2T	—	Nickel Cad.	1.984 Diam. x 0.701			Solder Tabs—, +1.25	—	3.3	1	4.82	6.90	
C2	—	Nickel Cad.	1.344 Diam. x 2.406			Flat Contact—, Solder Tab +1.25	—	5.0	1	4.06	5.80	
•C2T	—	Nickel Cad.	1.344 Diam. x 2.416			Solder Tabs—, +1.25	—	5.0	1	4.19	6.00	
R2	—	Nickel Cad.	1²³⁄₆₄ x 1²³⁄₆₄ x 2¹⁵⁄₃₂			Nut, Stud & Tab—, +1.25	—	6.0	1	5.97	8.50	
RH2.6	—	Nickel Cad.	1⅝ x 4¾₆₄ x 4¼₆₄			Nut & Stud—, +1.25	—	6.8	1	5.51	7.95	
B3	—	Nickel Cad.	1.984 Diam. x 0.984			Flat Contacts—, +1.25	—	5.0	1	5.70	8.15	
•B3T	—	Nickel Cad.	1.984 Diam. x 0.996			Solder Tabs—, +1.25	—	5.0	1	5.83	8.35	
E3	—	Mercury	0.985 Diam. x 0.660			Flat Contacts—, +1.35	—	0.93	4	1.05	1.50	Meters, Instr., Misc.
R3.5	—	Nickel Cad.	1²³⁄₆₄ x 1²³⁄₆₄ x 3⁷⁄₁₆			Nut, Stud & Tab—, +1.25	—	9.2	1	7.12	10.15	Instr., Hobby, Trans. Appl., Misc.
CH4	—	Nickel Cad.	1.344 Diam. x 2.406			Flat Contact—, Solder Tab +1.25	—	5.4	1	5.69	8.15	
•CH4T	—	Nickel Cad.	1.344 Diam. x 2.416			Solder Tabs—, +1.25	—	5.4	1	5.82	8.35	
E4	—	Mercury	1.165 Diam. x 0.660			Flat Contacts—, +1.25	—	1.6	4	1.31	1.95	Meters, Instr., Misc.
EPX-4	—	Mercury	0.662 Diam. x 1.965			Flat Contacts—, +5.4	—	1.16	1	1.57	2.25	Camera
RH4	—	Nickel Cad.	1⅝ x 6¼₆₄ x 4¼₆₄			Nut & Stud—, +1.25	—	9.5	1	8.40	12.00	Instr., Trans. Appl., Misc.
R4.5	—	Nickel Cad.	1³¹⁄₃₂ x 1⁴³⁄₆₄ x 3³⁵⁄₃₂			Nut & Stud—, +1.25	—	13.4	1	9.35	13.35	
No. 6 "Ignitor" Gen. Purpose	905 914	Carb. Zinc	2⅝ Diam. x 6²¹⁄₃₂			**Knurled Nut & Screw—, +1.5	2	2.0	1	0.91	1.35	Ign. Lighting
No. 6 "Gray Label" Telephone	906	Carb. Zinc	2⅝ Diam. x 6²¹⁄₃₂			***Fahnestock—, +1.5	2	2.0	1	0.91	1.35	Tele.
No. 6 Railroad & Industrial	911	Carb. Zinc	2⅝ Diam. x 6²¹⁄₃₂			**Knurled Nut & Screw—, +1.5	2	2.0	1	0.94	1.40	Ign., Tele.
EPX-6	—	Mercury	0.662 Diam. x 4.415			Flat Contacts—, +4.05, +8.1	—	1.6	1	2.75	3.95	Camera
R6	—	Nickel Cad.	2³¹⁄₃₂ x 1⁴³⁄₆₄ x 3⁴⁵⁄₆₄			Nut & Stud—, +1.25	—	15.7	1	10.21	14.60	Instr., Trans. Appl., Misc.
RH7	—	Nickel Cad.	1⅝ x 1³³⁄₆₄ x 4¼₆₄			Nut & Stud—, +1.25	—	14.7	1	11.96	17.10	
R7.5	—	Nickel Cad.	2³¹⁄₃₂ x 1⁴³⁄₆₄ x 4¼			Nut & Stud—, +1.25	1	2.0	1	11.17	15.95	
E9	15M	Mercury	0.550 Diam. x 1.968			Flat Contacts—, +1.4	—	1.05	4	0.64	0.95	Trans. Radio

*NEDA number same as an "Eveready" battery number on a different battery. Omitted to prevent errors in shipping.
**Equipped with screw terminals unless Fahnestock spring terminals are specified.
***Equipped with Fahnestock spring terminals unless screw terminals are specified.

•Items differ from corresponding sizes in that they have tabs enabling the user to solder leads to battery without damage.
□Flashlight types.

Trade Discount Applies To List Prices Only
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EVEREADY COMPLETE LINE SPECIFICATIONS EVEREADY

"Eveready" Battery Number	NEDA Number	Chemical System	Overall Dimensions in Inches L W H	Terminals & Voltages	Battery Weight lbs.	Battery Weight ozs.	Unit Pkg. Quan.	Sugg. Dealer Each	List Each	Major Use
R11	—	Nickel Cad.	3 19/32 x 1 1/16 x 4 5/64	Nut & Stud—, +1.25	1	12.0	1	13.79	19.70	Instr., Trans. Appl., Misc.
E12	1101	Mercury	0.640 Diam. x 1.968	Flat Contacts—, +1.4	—	1.6	2	0.87	1.25	Trans. Radio
E12N	—	Mercury	0.640 Diam. x 1.968	Flat Contacts—, +1.35	—	1.6	2	1.05	1.50	Instr., Misc.
EPX-13	—	Mercury	0.615 Diam. x 0.238	Flat Contacts—, +1.35	—	0.14	4	0.50	0.75	Camera Light Meter
EPX-14	—	Mercury	0.655 Diam. x 0.607	Flat Contacts—, +2.7	—	0.27	1	1.05	1.50	
R15	—	Nickel Cad.	3 19/32 x 1 25/64 x 4 5/64	Nut & Stud—, +1.25	2	3.0	1	16.78	23.95	
RH15	—	Nickel Cad.	3 19/32 x 1 13/16 x 4 31/32	Nut & Stud—, +1.25	1	11.0	1	21.57	30.75	Instr., Trans. Appl., Misc.
R19	—	Nickel Cad.	3 19/32 x 1 49/64 x 4 5/64	Nut & Stud—, +1.25	2	10.0	1	19.90	28.45	
B20	—	Nickel Cad.	0.457 Diam. x 0.213	Flat Contacts—, +1.25	—	0.4	1	1.05	1.50	
•B20T	—	Nickel Cad.	0.457 Diam. x 0.223	Solder Tabs—, +1.25	—	0.4	1	1.18	1.70	
EPX-23	—	Mercury	0.590 Diam. x 0.767	Flat Contacts—, +5.6	—	0.12	4	0.60	0.85	Photoflash
R23	—	Nickel Cad.	3 19/32 x 2 1/64 x 4 5/64	Nut & Stud—, +1.25	3	2.0	1	22.94	32.75	Instr. Misc.
T35	—	Carb. Zinc	1 1/32 Diam. x 1 15/16	Flat Contacts—, +1.5	—	1.4	6	0.39	0.60	Elec. Clock
S41	—	Silver	0.455 Diam. x 0.165	Flat Contacts—, +1.5	—	0.06	6	0.27	0.40	Novelties
E42	13M	Mercury	1 13/32 Diam. x 2.390	Flat Contacts—, +1.4	—	5.85	1	2.44	3.50	Instr., Trans. Appl., Misc.
E42N	—	Mercury	1 13/32 Diam. x 2.390	Flat Contacts—, +1.35	—	5.85	1	2.76	3.95	
B50	—	Nickel Cad.	0.610 Diam. x 0.235	Flat Contacts—, +1.25	—	0.12	1	0.70	1.00	
•B50T	—	Nickel Cad.	0.610 Diam. x 0.245	Solder Tabs—, +1.25	—	0.12	1	0.83	1.20	
T50	—	Carb. Zinc	1 1/32 Diam. x 2 13/32	Flat Contacts—, +1.5	—	3.3	6	0.48	0.75	
N63	—	Nickel Cad.	2.81 x 2.81 x 1.32	Spade Terminals—, +14.4	—	12.5	1	26.60	38.00	Elec. Clock
N65	—	Nickel Cad.	7.32 x 3.1 x 1.46	Socket—, +13.75	1	11.0	1	101.28	145.00	Instr., Trans. Appl., Misc.
N67	—	Nickel Cad.	1 31/64 x 1 39/64 x 4 1/64	Wire Leads—, +6.25	—	8.3	1	18.38	26.50	
N70	—	Nickel Cad.	3/8 x 1 5/16 x 4 1/32	Wire Leads—, +6.25	1	12.0	1	29.62	42.50	
S76	—	Silver	0.455 Diam. x 0.200	Flat Contacts—, +1.5	—	0.08	6	0.30	0.45	Novelties
E90	910A	Alkaline	0.470 Diam. x 1.130	Flat Contacts—, +1.5	—	0.35	3	0.27	0.40	Radio, Electr. Dev.
E91	15A	Alkaline	9/16 Diam. x 1 31/32	Flat Contacts—, +1.5	—	0.75	12	0.325	0.50	
E92	24A	Alkaline	0.410 Diam. x 1.745	Flat Contacts—, +1.5	—	0.4	12	0.325	0.50	Electr. Photoflash
E93	14A	Alkaline	1 1/32 Diam. x 1 15/16	Flat Contacts—, +1.5	—	2.2	12	0.39	0.60	Radio, Electr. Dev.
E94	927	Alkaline	1 1/32 Diam. x 1 13/64	Flat Contacts—, +1.5	—	1.8	12	0.325	0.50	Spec. Lighting Appl.
E95	13A	Alkaline	1 1/32 Diam. x 2 13/32	Flat Contacts—, +1.5	—	4.5	12	0.49	0.75	Electr. Photoflash, Comm. Equip.
□D99	13D	Carb. Zinc	1 1/32 Diam. x 2 13/32	Flat Contacts—, +1.5	—	3.3	48	0.19	0.30	Flashlight, Toys
B100	—	Nickel Cad.	0.992 Diam. x 0.252	Flat Contacts—, +1.25	—	0.32	1	0.77	1.10	Instr.
•B100T	—	Nickel Cad.	0.992 Diam. x 0.264	Solder Tabs—, +1.25	—	0.32	1	0.90	1.30	
E113	—	Mercury	0.660 Diam. x 0.845	Flat Contacts—, +4.05	—	0.45	1	1.72	2.50	
E114	—	Mercury	0.660 Diam. x 1.08	Flat Contacts—, +5.40	—	0.59	1	1.85	2.65	
E115	—	Mercury	0.660 Diam. x 1.4	Flat Contacts—, +7	—	0.73	1	2.06	2.95	
E115N	—	Mercury	0.660 Diam. x 1.4	Flat Contacts—, +6.75	—	0.73	1	2.06	2.75	
E126	1611M	Mercury	0.724 Diam. x 2	Flat Contacts—, +8.4	—	1.65	1	1.31	1.95	Trans. Radio
E132	1200	Mercury	0.662 Diam. x 1.315	Flat Contacts—, +2.8	—	0.9	2	1.05	1.50	
E132N	—	Mercury	0.662 Diam. x 1.315	Flat Contacts—, +2.7	—	0.9	2	1.17	1.65	
E133	1306M	Mercury	0.662 Diam. x 1.965	Flat Contacts—, +4.2	—	1.4	12	1.17	1.65	
E133N	—	Mercury	0.662 Diam. x 1.965	Flat Contacts—, +4.05	—	1.4	2	1.35	1.95	
E134	—	Mercury	0.662 Diam. x 2.620	Flat Contacts—, +5.6	—	1.9	2	1.57	2.25	
E134N	—	Mercury	0.662 Diam. x 2.620	Flat Contacts—, +5.4	—	1.9	2	1.72	2.50	
E135	—	Mercury	0.662 Diam. x 3.275	Flat Contacts—, +7	—	2.4	1	2.06	2.75	Instr., Trans. Appl.
E135N	—	Mercury	0.662 Diam. x 3.275	Flat Contacts—, +6.75	—	2.4	1	2.06	2.95	
E136	—	Mercury	0.662 Diam. x 3.930	Flat Contacts—, +8.4	—	2.9	1	2.27	3.25	
E136N	—	Mercury	0.662 Diam. x 3.930	Flat Contacts—, +8.1	—	2.9	1	2.40	3.50	
E137	—	Mercury	0.662 Diam. x 4.585	Flat Contacts—, +9.8	—	3.3	1	2.62	3.75	
E137N	—	Mercury	0.662 Diam. x 4.585	Flat Contacts—, +9.45	—	3.3	1	2.80	4.00	
E145	—	Mercury	21/32 Diam. x 1 3/16	Flat Contacts—, +7	—	0.7	1	1.72	2.50	
E146X	1604M	Mercury	1 1/32 x 5/8 x 2	Min. Snap—, +8.4	—	1.6	6	1.31	1.95	Trans. Radio
B150	—	Nickel Cad.	0.992 Diam. x 0.272	Flat Contacts—, +1.25	—	0.4	1	0.80	1.15	Instr., Trans. Appl., Misc.
•B150T	—	Nickel Cad.	0.992 Diam. x 0.284	Solder Tabs—, +1.25	—	0.4	1	0.93	1.35	
E152	—	Mercury	0.485 Diam. x 1.140	Flat Contacts—, +2.8	—	0.42	1	0.87	1.25	
E152N	—	Mercury	0.485 Diam. x 1.140	Flat Contacts—, +2.7	—	0.42	1	1.05	1.50	
E153	—	Mercury	0.485 Diam. x 1.708	Flat Contacts—, +4.2	—	0.6	1	1.17	1.65	Instr.
E153N	—	Mercury	0.485 Diam. x 1.708	Flat Contacts—, +4.5	—	0.6	1	1.39	2.00	
W-156	—	Carb. Zinc	2 1/8 x 1 3/8 x 4 15/32	Snap Type—, +180	—	12.0	1	5.65	8.10	Rad. Dect. Equip.
E162	—	Mercury	0.662 Diam. x 0.887	Flat Contacts—, +2.7	—	0.58	1	1.05	1.50	Instr., Trans. Appl.
E163	1305	Mercury	0.662 Diam. x 1.327	Flat Contacts—, +4.2	—	0.87	2	1.17	1.65	
E163N	—	Mercury	0.662 Diam. x 1.327	Flat Contacts—, +4.05	—	0.87	2	1.31	1.95	
E164	1404	Mercury	0.662 Diam. x 1.767	Flat Contacts—, +5.6	—	1.16	12	1.31	1.95	
E164N	—	Mercury	0.662 Diam. x 1.767	Flat Contacts—, +5.4	—	1.16	2	1.57	2.25	
E165	1500	Mercury	0.662 Diam. x 2 7/32	Flat Contacts—, +7	—	1.45	2	1.70	2.30	
E165N	—	Mercury	0.662 Diam. x 2 7/32	Flat Contacts—, +6.75	—	1.45	2	1.90	2.75	
E169	1901	Mercury	0.622 Diam. x 3 63/64	Flat Contacts—, +12.6	—	4.2	1	3.50	4.95	
E175	1501	Mercury	1/2 Diam. x 1 3/32	Flat Contacts—, +7	—	1.0	10	1.05	1.50	
E177	1606A	Alkaline	35/64 Diam. x 1 29/32	Min. Snap—, +9	—	0.67	1	1.29	1.98	
206	1611	Carb. Zinc	3/4 Diam. x 2	Flat Contact, Neg. Recess.—, +9	—	1.2	6	0.62	0.89	Trans. Radio
216	1604	Carb. Zinc	1 1/32 x 2 1/32 x 1 29/32	Min. Snap—, +9	—	1.3	12	0.48	0.69	
222	1604D	Carb. Zinc	1 1/32 x 2 1/32 x 1 29/32	Min. Snap—, +9	—	1.3	12	0.64	0.98	
B225	—	Nickel Cad.	0.992 Diam. x 0.35	Flat Contacts—, +1.25	—	0.45	1	0.83	1.20	Instr., Hobby Trans. Appl., Misc.
•B225T	—	Nickel Cad.	0.992 Diam. x 0.363	Solder Tabs—, +1.25	—	0.45	1	0.97	1.40	
BH225	—	Nickel Cad.	0.992 Diam. x 0.358	Flat Contacts—, +1.25	—	0.46	1	0.97	1.40	
•BH225T	—	Nickel Cad.	0.992 Diam. x 0.370	Solder Tabs—, +1.25	—	0.46	1	1.10	1.60	
226	1600	Carb. Zinc	1 Diam. x 1 15/16	Snap Type—, +9	—	2.0	6	0.62	0.89	Trans. Radio
228	1810	Carb. Zinc	1 Diam. x 2 7/16	Snap Type—, +12	—	2.3	1	1.05	1.50	Instr.
F233	1300	Mercury	1 1/4 Diam. x 1 31/32	Flat Contacts—, +4.2	—	3.0	1	2.27	3.25	
E233N	—	Mercury	1 1/64 Diam. x 1 31/32	Flat Contacts—, +4.05	—	3.0	1	2.62	3.75	
E234	—	Mercury	1 1/64 Diam. x 2 5/8	Flat Contacts—, +5.6	—	3.88	1	2.76	3.95	
E234N	—	Mercury	1 1/64 Diam. x 2 5/8	Flat Contacts—, +5.4	—	3.88	1	3.15	4.50	
E235N	—	Mercury	1.015 Diam. x 3 5/16	Flat Contacts—, +6.75	—	5.0	1	3.64	5.50	
E236N	—	Mercury	1.015 Diam. x 3 29/32	Flat Contacts—, +8.1	—	5.6	1	4.12	5.95	
239	1900	Carb. Zinc	1 21/64 x 1 1/32 x 2 11/16	Socket—, +9, +13.5	—	3.0	1	1.30	1.85	
243	1610	Carb. Zinc	1 13/32 x 1 1/32 x 2 3/4	Min. Snap—, +4.5	—	4.5	1	1.30	1.85	
246	1602	Carb. Zinc	1 13/16 x 1 13/16 x 2 3/4	Min. Snap—, +9	—	4.5	1	1.30	1.85	
266	1605	Carb. Zinc	1 13/16 x 1 13/16 x 2 7/16	Snap Type—, +9	—	7.0	1	1.36	1.95	
274	1400	Carb. Zinc	2 5/16 x 2 1/32 x 7 29/32	Snap Type—, +6	2	7.0	1	4.02	5.75	
276	—	Carb. Zinc	2 5/16 x 2 1/32 x 3 5/32	Snap Type—, +9	—	15.0	1	1.36	1.95	Trans. Radio Instr.
E286	—	Mercury	1 Diam. x 1 15/16	Flat Contacts—, +8.4	—	1.6	6	1.35	1.95	
E289	1810M	Mercury	1 Diam. x 2 13/32	Snap Type—, +12.6	—	3.6	6	2.27	3.25	
E312	—	Mercury	0.312 Diam. x 0.140	Flat Contacts—, +1.4	—	0.02	6	0.24	0.35	
333	1306	Carb. Zinc	0.662 Diam. x 1.965	Flat Contacts—, +4.5	—	0.9	6	0.62	0.89	
W-350	*	Carb. Zinc	3 1/16 x 1 7/8 x 4 3/32	Knurled Nut & Screw—, +22.5+45	—	14.5	1	2.69	3.85	
W-352	701	Carb. Zinc	2 5/8 x 1 5/16 x 4 1/32	Knurled Nut & Screw—, +22.5+45	—	12.0	1	1.33	1.90	Electr. Dev. Instr.
W-353	11	Carb. Zinc	2 1/32 x 1 3/8 x 4 3/32	Socket—, +1.5	—	12.5	1	1.22	1.75	Port. Radio
W-356	*	Carb. Zinc	2 5/8 x 2 5/8 x 4 9/16	Knurled Nut & Screw—, +3	1	6.0	1	1.75	2.50	Radio & Electr. Dev.
W-357	901	Carb. Zinc	3 25/32 x 2 11/16 x 5 13/16	Fahnestock—, +3	2	12.0	1	1.92	2.75	Model Ign., Tele.
W-358	—	Carb. Zinc	2 15/16 x 1 3/16 x 4 1/8	Knurled Nut & Screw—, +45	—	8.75	1	3.46	4.95	Industrial
W-359	*	Carb. Zinc	3 1/4 x 2 1/4 x 4 1/2	Socket—, +45	1	11.8	1	3.15	4.50	Port. "B"
W-361	227	Carb. Zinc	1 3/8 x 1 3/8 x 11 23/32	Flat Contacts—, +103.5	1	4.0	1	4.86	6.95	

*NEDA number same as an "Eveready" battery number on a different battery. Omitted to prevent errors in shipping.

□Flashlight types.

•Items differ from corresponding sizes in that they have tabs enabling the user to solder leads to battery without damage.

◆Furnished with Fahnestock spring terminals. If socket terminals required specify W-363P, W-364P, W-365P.

EVEREADY COMPLETE LINE SPECIFICATIONS EVEREADY

"Eveready" Battery Number	NEDA Number	Chemical System	Overall Dimensions in Inches L	W	H	Terminals & Voltages	Battery Weight lbs.	Battery Weight ozs.	Unit Pkg. Quan.	Sugg. Dealer Each	List Each	Major Use
W-362	—	Carb. Zinc	$2\frac{27}{32}$	$1\frac{9}{32}$	$1\frac{29}{32}$	Knurled Nut & Screw+, —4.5, —7.5	—	1.5	1	2.05	2.95	Radio "C"
◆W-363F	*	Carb. Zinc	$8\frac{1}{32}$	$4\frac{1}{16}$	$7\frac{5}{8}$	Fahnestock—, +22.5, +45	10	5.0	1	7.66	10.95	Heavy Duty Radio "B"
◆W-364F	*	Carb. Zinc	$8\frac{1}{8}$	$4\frac{1}{16}$	$7\frac{1}{16}$	Fahnestock—, +22.5, +45	11	14.0	1	7.66	10.95	
◆W-365F	723	Carb. Zinc	$8\frac{1}{16}$	$2\frac{1}{4}$	$4\frac{23}{32}$	Fahnestock—, +22.5, +45	7	7.5	1	7.66	10.95	Ind. "B"
W-369	410	Carb. Zinc	$9\frac{15}{16}$	$2\frac{1}{4}$	$4\frac{23}{32}$	Socket—"A", +1.5 "A", —"B", +90 "B"	4	5.0	1	6.96	9.95	Instr.
W-371	—	Carb. Zinc	$1\frac{5}{32}$	$1\frac{5}{32}$	$2\frac{5}{16}$	Socket (including plug)—, +3	—	2.2	1	1.05	1.50	Model Ign.
E400	1106	Mercury	0.455 Diam.		x 0.135	Flat Contacts—, +1.4	—	0.04	6	0.24	0.35	
E400N	—	Mercury	0.455 Diam.		x 0.135	Flat Contacts—, +1.35	—	0.04	6	0.35	0.50	Trans. Appl.
E401	910M	Mercury	0.470 Diam.		x 0.130	Flat Contacts—, +1.4	—	0.4	3	0.44	0.65	
E401N	—	Mercury	0.470 Diam.		x 0.130	Flat Contacts—, +1.35	—	0.4	1	0.60	0.85	
409	908C	Carb. Zinc	$2\frac{5}{8}$	$2\frac{5}{8}$	$4\frac{13}{32}$	Coil Springs—, +6	1	6.5	1	—	—	Lanterns
411	208	Carb. Zinc	$1\frac{1}{32}$	$\frac{5}{8}$	$1\frac{29}{64}$	Flat Contacts—, +15	—	0.95	1	0.81	1.15	
412	215	Carb. Zinc	$1\frac{1}{32}$	$\frac{5}{8}$	2	Flat Contacts—, +22.5	—	1.3	1	1.05	1.50	
413	210	Carb. Zinc	$1\frac{1}{32}$	$\frac{5}{8}$	$2\frac{9}{16}$	Flat Contacts—, +30	—	1.6	1	1.23	1.75	
415	213	Carb. Zinc	$1\frac{3}{64}$	$\frac{5}{8}$	$3\frac{11}{16}$	Min. Snap—, +45	—	2.5	1	1.75	2.50	Port. Radio "B" Instr.
416	217	Carb. Zinc	$1\frac{31}{64}$	$\frac{63}{64}$	$3\frac{1}{2}$	Min. Snap—, +67.5	—	4.0	1	2.07	2.95	
417	224	Carb. Zinc	$1\frac{31}{64}$	$\frac{63}{64}$	$3\frac{1}{2}$	Flat Contacts—, +15	—	1.8	1	1.23	1.75	
420	225	Carb. Zinc	$1\frac{5}{16}$	$\frac{31}{32}$	$1\frac{1}{16}$	Flat Contacts—, +22.5	—	2.5	1	1.37	1.95	
425P	—	Carb. Zinc	$1\frac{23}{64}$	$1\frac{1}{32}$	$3\frac{15}{16}$	Socket—, +22.5	—	4.1	1	1.37	1.95	Instr.
430	*	Carb. Zinc	$1\frac{5}{16}$	x 1 x	$2\frac{13}{16}$	Flat Contacts—, +30	—	3.2	1	1.65	2.35	Port. Radio "B"
430P	—	Carb. Zinc	$1\frac{23}{64}$	$1\frac{1}{32}$	$3\frac{11}{32}$	Socket—, +30	—	3.2	1	1.65	2.35	Instr.
433P	—	Carb. Zinc	$2\frac{21}{32}$	$1\frac{1}{64}$	$3\frac{1}{16}$	Socket—, +33	—	6.0	1	2.27	3.25	
437	212	Carb. Zinc	$1\frac{15}{16}$	$1\frac{1}{32}$	$6\frac{13}{32}$	Snap Type—, +75	—	14.8	1	3.15	4.50	Port. Radio "B"
B450	—	Nickel Cad.	1.697 Diam.		x 0.315	Flat Contacts—, +1.25	—	1.17	1	1.47	2.10	
•B450T	—	Nickel Cad.	1.697 Diam.		x 0.327	Solder Tabs—, +1.25	—	1.17	1	1.60	2.30	Instr., Hobby, Trans. Appl., Misc.
C450	—	Nickel Cad.	0.563 Diam.		x 1.969	Flat Contacts—, +1.25	—	0.8	1	1.93	2.75	
•C450T	—	Nickel Cad.	0.563 Diam.		x 1.969	Solder Tabs—, +1.25	—	0.8	1	2.10	3.00	
E450	—	Mercury	0.455 Diam.		x 0.570	Flat Contacts—, +1.35	—	0.18	4	0.53	0.75	Instr.
455	*	Carb. Zinc	$2\frac{31}{32}$	x 1 x	$3\frac{11}{16}$	Snap Type—, +45	—	7.8	1	2.27	3.25	Port. Radio "B"
455P	—	Carb. Zinc	$2\frac{21}{32}$	x $1\frac{1}{64}$ x	$3\frac{29}{32}$	Sockets—, +45	—	8.6	1	2.27	3.25	Instr.
457	203	Carb. Zinc	$2\frac{13}{16}$	x $1\frac{3}{8}$ x	$2\frac{1}{2}$	Suap Type—, +67.5	—	7.4	1	2.70	3.85	Port. Radio "B"
†460	—	Carb. Zinc	$1\frac{29}{64}$	x $1\frac{3}{8}$ x	$2\frac{3}{8}$	Flat Contacts—, +45	—	5.3	6	1.67	2.50	Photoflash
467	200	Carb. Zinc	$2\frac{13}{16}$	x $1\frac{3}{8}$ x	$3\frac{45}{64}$	Snap Type—, +67.5	—	12.0	1	2.70	3.85	Port. Radio "B"
468	200C	Carb. Zinc	$2\frac{13}{16}$	x $1\frac{3}{8}$ x	$3\frac{45}{64}$	Snap Type—, +67.5	—	12.0	1	2.77	3.95	Radio, Electr. Dev.
477	211	Carb. Zinc	$1\frac{29}{32}$	x $\frac{63}{64}$ x	$5\frac{7}{16}$	Snap Type—, +67.5	—	8.6	1	2.70	3.85	
479	214	Carb. Zinc	$1\frac{31}{32}$	x $1\frac{1}{32}$ x	$7\frac{13}{32}$	Snap Type—, +90	—	12.0	1	2.97	4.25	Port. Radio "B"
482	202	Carb. Zinc	$3\frac{1}{32}$	x $1\frac{27}{32}$ x	$5\frac{1}{2}$	Socket—, +45	1	15.0	1	2.97	4.25	
484	207	Carb. Zinc	$3\frac{31}{32}$	x $2\frac{17}{32}$ x	$5\frac{53}{32}$	Socket—, +45	3	2.0	1	3.47	4.95	Fluor. Lantern
487	—	Carb. Zinc	$5\frac{1}{8}$	x $2\frac{1}{16}$ x	$7\frac{1}{4}$	Socket—, +22.5, +45	4	2.0	1	3.84	5.50	Farm Radio "B"
489	—	Carb. Zinc	$4\frac{11}{32}$	x $2\frac{11}{16}$ x	$4\frac{3}{16}$	Socket—, +225	2	12.0	1	6.96	9.95	Electr. Flash
490	204	Carb. Zinc	$3\frac{23}{32}$	x $1\frac{3}{8}$ x	$3\frac{45}{64}$	Snap Type—, +90	—	15.0	1	3.15	4.50	Port. Radio "B"
491	—	Carb. Zinc	$2\frac{13}{32}$	x $1\frac{5}{16}$ x	$4\frac{1}{2}$	Flat Recessed & Socket—, +240	—	13.0	1	5.56	7.95	Electr. Flash
492	—	Carb. Zinc	$3\frac{9}{16}$	x $2\frac{29}{32}$ x	$4\frac{29}{32}$	Socket—, +180, +225	2	8.0	1	7.65	10.95	
493	722	Carb. Zinc	$2\frac{11}{16}$	x $2\frac{7}{32}$ x	$3\frac{29}{32}$	Pinjacks—, +300	—	14.5	1	8.37	11.95	Geiger Counter
495	*	Carb. Zinc	$1\frac{15}{16}$	x $1\frac{15}{32}$ x	$7\frac{1}{8}$	Snap Type—, +90	1	—	1	3.47	4.95	Port. Radio "B"
497	—	Carb. Zinc	3 x	$1\frac{19}{32}$ x	$5\frac{5}{8}$	Flat Recessed—, +180, +510	1	10.0	1	11.16	15.95	Electr. Flash
BH500	—	Nickel Cad.	1.360 Diam.		x 0.394	Flat Contacts—, +1.25	—	1.0	1	1.75	2.50	Instr., Hobby, Trans. Appl., Misc.
•BH500T	—	Nickel Cad.	1.360 Diam.		x 0.416	Solder Tabs—, +1.25	—	1.0	1	1.88	2.70	
E502	—	Mercury	0.550 Diam.		x 1.968	Flat Contacts—, +1.35	—	1.05	1	0.87	1.25	Trans. Appl.
504	220	Carb. Zinc	$\frac{5}{8}$	x $\frac{19}{32}$ x	$1\frac{3}{8}$	Flat Contacts—, +15	—	0.6	1	0.81	1.15	
505	221	Carb. Zinc	$\frac{5}{8}$	x $\frac{19}{32}$ x	$1\frac{63}{64}$	Flat Recessed—, +22.5	—	0.8	1	1.05	1.50	Instr.
506	223	Carb. Zinc	$1\frac{3}{64}$	x $\frac{5}{8}$ x	$1\frac{37}{64}$	Flat Contacts—, +30	—	0.9	1	1.30	1.85	
507	*	Carb. Zinc	$\frac{5}{8}$	x $\frac{19}{32}$ x	2.605	Flat Contacts—, +30	—	0.9	1	1.30	1.85	
509	908	Carb. Zinc	$2\frac{5}{8}$	x $2\frac{5}{8}$ x	$4\frac{13}{32}$	Coil Springs—, +6	1	5.5	1	0.92	1.39	Lantern
510F	917	Carb. Zinc	$2\frac{5}{8}$	x $2\frac{5}{8}$ x	$4\frac{15}{16}$	Fahnestock—, +6	1	4.0	1	0.92	1.39	Misc.
510S	*	Carb. Zinc	$2\frac{5}{8}$	x $2\frac{5}{8}$ x	$4\frac{5}{16}$	Knurled Nut & Screw—, +6	1	7.0	1	0.92	1.39	
□515	15E	Carb. Zinc	$\frac{35}{64}$	Diam. x	$1\frac{31}{32}$	Flat Contacts—, +1.5	—	0.5	24	0.095	0.15	Flashlight, Toys
520	930	Alkaline	$5\frac{17}{32}$	x $4\frac{21}{32}$ x	$2\frac{21}{32}$	Ins. Screw—, +6	2	8.0	1	3.31	4.95	Lanterns
E520	—	Mercury	0.495 Diam.		x 0.286	Flat Contacts—, +1.4	—	0.07	6	0.17	0.25	Trans. Appl.
523	1306A	Alkaline	0.662 Diam.		x 1.965	Flat Contacts—, +4.5	—	1.17	1	0.82	1.25	Photoflash, Trans. Radio
531	1307	Alkaline	0.664 Diam.		x 2.290	Min. Snap—, +4.5	—	1.25	1	0.82	1.25	Automatic Camera
532	1308	Alkaline	0.664 Diam.		x 1.670	Snap Type—, +3	—	0.8	1	0.10	1.00	
560	—	Alk. Sec.	$2\frac{21}{32}$	x $1\frac{17}{32}$ x	$7\frac{5}{32}$	Socket—, +7.5	1	9.0	1	4.33	6.50	Electr. Dev.
561	—	Alk. Sec.	$8\frac{5}{16}$	x $2\frac{13}{16}$ x	$5\frac{7}{8}$	Socket—, +15	6	—	1	10.62	15.95	
563	—	Alk. Sec.	$1\frac{23}{64}$	Diam. x	$7\frac{5}{32}$	Flat Contacts—, +4.5	—	15.0	3	2.76	4.15	Micro Television
564	—	Alk. Sec.	$8\frac{5}{16}$	x $2\frac{13}{16}$ x	$5\frac{7}{8}$	Socket—, +13.5	5	8.0	1	9.94	14.95	
596	—	Alk. Sec.	1.375 Diam.		x 3713	Flat Contacts—, +1.5	—	7.5	10	1.20	1.75	
E601	—	Mercury	0.627 Diam.		x 1.140	Flat Contacts—, +1.35	—	1.22	1	0.83	1.30	Instr.
621	—	Carb. Zinc	$2\frac{9}{16}$	Diam. x	13	Knurled Nut & Screw—, +3	4	10.0	1	3.18	4.75	Fishing Buoy
E625	—	Mercury	0.615 Diam.		x 0.238	Flat Contacts—, +1.4	—	0.15	4	0.42	0.60	Trans. Appl.
E625N	—	Mercury	0.615 Diam.		x 0.238	Flat Contacts—, +1.35	—	0.15	4	0.53	0.75	
EPX-625	—	Mercury	0.615 Diam.		x 0.238	Flat Contacts—, +1.4	—	0.15	4	0.51	0.75	Camera Light Meter
E630	1104	Mercury	0.615 Diam.		x 0.238	Flat Contacts—, +1.4	—	0.17	4	0.42	0.60	Trans. Radio
E630N	—	Mercury	0.615 Diam.		x 0.238	Flat Contacts—, +1.35	—	0.17	4	0.53	0.75	Instr.
E640	1105	Mercury	0.625 Diam.		x 0.440	Flat Contacts—, +1.4	—	0.38	4	0.42	0.60	Trans. Radio
E640N	—	Mercury	0.625 Diam.		x 0.440	Flat Contacts—, +1.35	—	0.38	4	0.53	0.75	
E675	—	Mercury	0.455 Diam.		x 0.210	Flat Contacts—, +1.4	—	0.07	6	0.32	0.45	Instr.
702	—	Carb. Zinc	$2\frac{17}{32}$	x $\frac{7}{8}$ x	$3\frac{1}{8}$	Socket—, +4.5	—	5.0	1	2.42	3.45	Shot Firing
703	*	Carb. Zinc	$2\frac{1}{16}$	x $2\frac{21}{32}$ x	$3\frac{1}{16}$	Spring—, +4.5	—	5.0	1	1.36	1.95	Instr.
706	902	Carb. Zinc	$8\frac{5}{16}$	x $2\frac{13}{16}$ x	$6\frac{7}{16}$	Ins. Screw—, +6	5	14.0	1	4.01	5.98	Ign., Emerg. Lighting
707	26	Carb. Zinc	$2\frac{9}{16}$	x $2\frac{1}{32}$ x	$2\frac{13}{16}$	Snap Type—, +7.5	—	12.0	1	1.15	1.65	Port. Radio "A"
711	700	Carb. Zinc	$2\frac{5}{8}$	x $1\frac{5}{16}$ x	$4\frac{1}{32}$	Knurled Nut & Screw—, +1.5	—	12.0	1	0.79	1.15	Model Ign. "Glo-Plug"
713	8	Carb. Zinc	$3\frac{29}{32}$	x $\frac{53}{64}$ x	$2\frac{27}{32}$	Socket—, +7.5	—	6.3	1	2.27	3.25	Port. Radio "A"
714	—	Carb. Zinc	$3\frac{31}{32}$	x $1\frac{1}{32}$ x	$3\frac{1}{2}$	Knurled Nut & Screw—, +4.5	—	14.5	1	1.57	2.25	Tele. Test Sets
715	903	Carb. Zinc	$7\frac{1}{4}$	x $4\frac{1}{16}$ x	$6\frac{7}{16}$	Ins. Screw—, +7.5	7	10.0	1	4.86	7.25	Ign., Emerg. Lighting
716	*	Carb. Zinc	$8\frac{37}{64}$	x $4\frac{1}{16}$ x	$6\frac{7}{16}$	Ins. Screw—, +9	8	8.0	1	5.53	8.25	
717	9	Carb. Zinc	$2\frac{5}{32}$	x $1\frac{15}{16}$ x	$3\frac{1}{32}$	Socket—, +7.5	—	8.0	6	1.23	1.75	
718	1	Carb. Zinc	$3\frac{19}{32}$	x $2\frac{1}{4}$ x	$5\frac{7}{16}$	Socket—, +6	2	4.0	1	2.87	4.10	
720	18	Carb. Zinc	$2\frac{25}{32}$	x $1\frac{13}{32}$ x	$3\frac{1}{32}$	Socket—, +1.5	—	6.5	1	1.15	1.65	Port. Radio "A"
724	2	Carb. Zinc	$1\frac{7}{32}$	x $1\frac{1}{32}$ x	$2\frac{11}{32}$	Flat Contacts—, +6	—	2.5	1	0.87	1.25	
726	19	Carb. Zinc	$4\frac{1}{32}$	x $1\frac{7}{16}$ x	$2\frac{15}{16}$	Socket—, +4.5	—	10.5	1	1.23	1.75	
727	428	Carb. Zinc	$8\frac{7}{8}$	x $2\frac{1}{8}$ x	$3\frac{25}{32}$	Recessed Plug—"A", +9"A", —"B", +90"B"	2	14.0	1	5.22	7.45	Port. Radio "A-B"
729	425	Carb. Zinc	$3\frac{27}{32}$	x $2\frac{7}{32}$ x	$7\frac{13}{16}$	Socket—"A", +1.5 "A", —"B", +90 "B"	2	7.0	1	4.38	6.25	Port. Radio "A-B"
731	918	Carb. Zinc	$5\frac{11}{32}$	x $2\frac{27}{32}$ x	$4\frac{15}{16}$	Ins. Screw—, +6	3	4.0	1	1.96	2.95	Lantern
732	926	Carb. Zinc	$5\frac{11}{32}$	x $2\frac{27}{32}$ x	$4\frac{15}{16}$	Ins. Screw—, +12	3	4.0	1	1.96	2.95	Lantern
735	900	Carb. Zinc	$2\frac{5}{8}$	x $2\frac{5}{8}$ x	$4\frac{3}{8}$	Knurled Nut & Screw—, +1.5	1	7.0	1	0.84	1.25	Model Ign. "Glo-Plug"
736	3	Carb. Zinc	$3\frac{15}{16}$	x $1\frac{5}{16}$ x	4	Socket—, +4.5	1	—	1	1.23	1.75	Port. Radio "A"
738	205	Carb. Zinc	3 x	$2\frac{5}{16}$ x	$4\frac{1}{8}$	Socket—, +22.5, +45	1	3.0	1	2.76	3.95	Port. Radio "B"
740	719	Carb. Zinc	$4\frac{19}{32}$	x $3\frac{7}{8}$ x	$7\frac{3}{4}$	Socket—, +1.5	6	—	1	7.65	10.95	Farm Radio "A"

*NEDA number same as an "Eveready" battery number on a different battery. Omitted to prevent errors in shipping.

**Equipped with screw terminals unless Fahnestock spring terminals are specified.

***Equipped with Fahnestock spring terminals unless screw terminals are specified.

•Items differ from corresponding sizes in that they have tabs enabling the user to solder leads to battery without damage.

□Flashlight types.

◆Furnished with Fahnestock spring terminals. If socket terminals required specify W-363P, W-364P, W-365P.

†Contains 1 "Eveready" No. 460 battery, and 1 No. 428 lamp.

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741	17	Carb. Zinc	3 25/32 x 2 11/16 x 5 3/8	Socket—, +1.5	2	10.0	1	2.76	3.95	
742	4	Carb. Zinc	2 5/8 x 2 5/8 x 3 27/32	Socket—, +1.5	1	6.0	1	1.15	1.65	
743	5	Carb. Zinc	3 13/16 x 2 5/8 x 4 1/32	Socket—, +1.5	1	15.0	1	2.69	3.85	Port. Radio "A"
744	*	Carb. Zinc	2 5/8 x 2 5/8 x 3 27/32	Socket—, +6	1	6.0	1	1.15	1.65	
746	7	Carb. Zinc	3 15/16 x 1 15/16 x 4 31/32	Socket—, +4.5	1	3.0	1	1.57	2.25	
750	*	Carb. Zinc	1 11/32 x 1 1/16 x 2 21/32	Spring—, +3	1	2.0	1	0.79	1.15	Instr.
CH750	—	Nickel Cad.	0.900 Diam. x 1.684	Flat Contacts—, +1.25	1	1.7	1	2.58	3.60	Instr., Trans. Appl., Misc.
•CH750T	—	Nickel Cad.	0.900 Diam. x 1.689	Solder Tabs—, +1.25	1	1.7	1	2.71	3.80	
751	705	Carb. Zinc	2 x 1 1/16 x 2 21/32	Spring—, +4.5	—	3.0	1	0.87	1.25	Instr.
752	400	Carb. Zinc	14 1/16 x 2 1/16 x 4 1/16	Recessed Plug— "A", +9 "A", — "B", +90 "B"	6	2.0	1	5.78	8.25	
753	401	Carb. Zinc	9 7/32 x 2 23/32 x 4 5/16	Socket— "A", +7.5 "A", +9 "A", — "B", +90 "B"	4	12.0	1	5.43	7.75	
754	402	Carb. Zinc	10 15/32 x 3 1/4 x 4	Socket— "A", +7.5 "A", +9 "A", — "B", +90 "B"	6	1.0	1	6.97	9.95	Port. Radio "A-B"
755	403	Carb. Zinc	8 5/16 x 3 3/4 x 2 1/16	Socket— "A", +6 "A", +7.5 "A", — "B", +75 "B"	3	9.0	1	5.08	7.25	
756	405	Carb. Zinc	8 1/8 x 2 1/8 x 3 25/32	Socket— "A", +7.5 "A" +9 "A", — "B" +90 "B"	2	14.0	1	4.87	6.95	
757	406	Carb. Zinc	9 7/32 x 2 23/32 x 4 7/32	Recessed Plug— "A", +9 "A", — "B", +90 "B"	4	12.0	1	5.57	7.95	
759	*	Carb. Zinc	15 11/16 x 4 1/32 x 6 15/16	Socket— "A", +1.5 "A", — "B", +90 "B"	16	4.0	1	7.95	10.65	Farm Radio "A-B"
761T	712	Carb. Zinc	4 1/16 x 1 15/32 x 3 1/2	Knurled Nut & Screw—, +1.5, +3, +4.5	—	14.0	1	1.76	2.50	Tele. Test Sets
762S	709	Carb. Zinc	4 3/32 x 2 9/16 x 5 1/16	Knurled Nut & Screw—, +22.5, +45	2	12.0	1	3.05	4.35	Instr.
763	710	Carb. Zinc	3 1/2 x 2 3/32 x 2 15/16	Knurled Nut & Screw—, +22.5	—	14.0	1	1.61	2.35	
766T	*	Carb. Zinc	6 3/4 x 4 1/8 x 3 1/16	Fahnestock—, +16.5, +18, +19.5, +21, +22.5	4	10.0	1	5.56	7.95	Switchbd. Testing
771	*	Carb. Zinc	3 29/32 x 1 3/8 x 3 1/16	Socket+, —3, —4.5	—	13.0	1	2.07	2.95	
773	*	Carb. Zinc	3 29/32 x 7/8 x 3 1/8	5 Knurled Nut & Screws, 1 wire+, —1.5, —3, —4.5, —6, —7.5	—	9.0	1	1.75	2.50	Radio "C"
776	*	Carb. Zinc	7 27/32 x 4 1/8 x 9 7/8	Socket Recessed Plug—"A", +7.5 "A", +9 "A", — "B", +90 "B"	14	12.0	1	11.16	15.95	Home Rec. "A-B"
778	*	Carb. Zinc	4 1/8 x 2 17/32 x 3 7/16	Fahnestock+, —3, —4.5, —6, —9, —10.5, —16.5, —22.5	1	8.0	1	4.16	5.95	Instr.
781	*	Carb. Zinc	2 15/32 x 5/64 x 3	Knurled Nut & Screw—, +4.5	—	5.0	1	1.23	1.75	
785	431	Carb. Zinc	8 3/8 x 3 5/8 x 2 1/4	Socket—"A", +7.5 "A", — "B", +75 "B"	2	12.0	1	6.12	8.75	Port. Radio "A-B"
789	—	Carb. Zinc	5 9/32 x 1 7/16 x 3 1/4	Flat Contacts—, +3	1	1.5	1	2.97	4.25	Fingerprint Camera
799	—	Carb. Zinc	8 5/32 x 4 1/4 x 8 13/32	Fahnestock—, +22.5, +45, +49.5	13	5.0	1	10.47	14.95	Camera Cranking
812	24P	Carb. Zinc	13/32 Diam. x 1 3/4	Flat Contacts—, +1.5	—	0.3	12	0.13	0.20	
815	15P	Carb. Zinc	5/16 Diam. x 1 31/32	Flat Contacts—, +1.5	—	0.6	24	0.16	0.25	
EPX-825	—	Alkaline	0.905 Diam. x 0.228	Flat Contacts—, +1.5	—	0.03	2	0.33	0.50	Photoflash
835	14P	Carb. Zinc	1 1/32 Diam. x 1 15/16	Flat Contacts—, +1.5	—	1.4	24	0.19	0.30	
850	13P	Carb. Zinc	1 11/32 Diam. x 2 13/32	Flat Contacts—, +1.5	—	3.3	12	0.19	0.30	
C900	—	Nickel Cad.	5/16 Diam. x 3 35/64	Solder Tabs—, +1.25	—	1.4	1	3.17	4.55	Trans. Appl.
□904	910F	Carb. Zinc	0.455 Diam. x 1.180	Flat Contacts—, +1.5	—	0.22	6	0.08	0.125	Novelties
□912	24F	Carb. Zinc	13/32 Diam. x 1 3/4	Flat Contacts—, +1.5	—	0.3	12	0.095	0.15	
□915	15 F	Carb. Zinc	5/16 Diam. x 1 31/32	Flat Contacts—, +1.5	—	0.6	24	0.13	0.20	
□935	14F	Carb. Zinc	1 1/32 Diam. x 1 15/16	Flat Contacts—, +1.5	—	1.4	24	0.13	0.20	Flashlight, Toys
□950	13F	Carb. Zinc	1 11/32 Diam. x 2 13/32	Flat Contacts—, +1.5	—	3.0	48	0.13	0.20	
960P	23	Carb. Zinc	1 11/32 Diam. x 4 1/16	Socket—, +1.5	—	5.0	1	0.87	1.25	
964	20	Carb. Zinc	1 11/32 Diam. x 4	Flat Contacts—, +1.5	—	5.9	1	0.42	0.60	Port. Radio "A"
1007	—	Nickel Cad.	6 13/32 x 3 3/32 x 3 1/8	Socket—, +10	3	13.0	1	42.00	50.00	Port. Tools
1010	—	Nickel Cad.	2 9/16 x 1 1/16 x 3 15/16	Ins. Screw—, +1.25	—	4.0	1	5.30	7.95	Model Ign. "Glo-Plug"
1015	15	Carb. Zinc	5/16 Diam. x 1 31/32	Flat Contacts—, +1.5	—	0.6	24	0.155	0.25	
1035	14	Carb. Zinc	1 1/32 Diam. x 1 15/16	Flat Contacts—, +1.5	—	1.4	12	0.19	0.30	Trans. Radio
1050	13	Carb. Zinc	1 11/32 Diam. x 2 13/32	Flat Contacts—, +1.5	—	3.3	48	0.19	0.30	
□1150	13C	Carb. Zinc	1 11/32 Diam. x 2 13/32	Flat Contacts—, +1.5	—	3.3	48	—	—	Ind. Flashlights
1461	907	Carb. Zinc	10 7/16 x 2 23/32 x 7 7/32	Knurled Nut & Screw—, +6	9	4.0	1	3.70	5.50	Ign., Fence Cont.
1462	—	Carb. Zinc	5 1/4 x 5 1/4 x 7 1/4	Knurled Nut & Screw—, +6	9	7.0	1	4.01	5.98	
1463	922	Carb. Zinc	10 7/16 x 2 23/32 x 7 7/32	Knurled Nut & Screw—, +12	7	8.0	1	4.01	5.98	Toy Cars
1562	*	Carb. Zinc	7 27/32 x 4 31/32 x 7 7/32	Knurled Nut & Screw—, +7½	11	4.0	1	4.86	7.25	Ign., Lights
1662	913	Carb. Zinc	7 13/16 x 5 9/32 x 7 1/4	Knurled Nut & Screw—, +9	13	8.0	1	5.53	8.25	
2356N	1612	Carb. Zinc	2 3/16 x 1 5/32 x 6 1/4	Snap Type—, +9	—	11.0	1	1.64	2.35	
2506	1601	Carb. Zinc	8 x 2 13/16 x 1 9/16	Socket—, +3, +6, +9	1	8.0	1	1.92	2.75	
2709N	1613	Carb. Zinc	1 13/32 x 47/64 x 4 11/16	Snap Type—, +9	—	2.5	1	1.05	1.50	Trans. Radio
2713N	1403	Carb. Zinc	1 13/32 x 47/64 x 4 11/16	Min. Snap—, +6	—	3.5	1	1.05	1.50	
2731N	1303	Carb. Zinc	2 13/16 x 1 3/4 x 8 11/32	Socket—, +4.5	1	9.0	1	2.76	3.95	
2744N	920	Carb. Zinc	2 5/8 x 2 5/8 x 3 27/32	Socket—, +6	1	7.0	1	0.85	1.29	
2745N	924	Carb. Zinc	2 5/8 x 2 5/8 x 4 13/32	Coil Spring—, +6	1	7.0	1	0.85	1.29	Flasher, Misc.
2746N	925	Carb. Zinc	2 5/8 x 2 5/8 x 4 5/16	Knurled Nut & Screw—, +6	1	7.0	1	0.85	1.29	Lighting, Misc.
2761N	1608	Carb. Zinc	2 3/32 x 1 1/4 x 7 31/32	Socket—, +9	1	3.0	1	2.45	3.50	
2762N	1609	Carb. Zinc	2 13/16 x 1 3/4 x 8 11/32	Socket—, +9	1	9.0	1	2.76	3.95	Trans. Radio
2780N	923	Carb. Zinc	5 11/32 x 2 27/32 x 4 5/32	Socket—, +12	3	—	1	2.37	3.40	Flasher, Misc.
E302157	—	Mercury	2 1/2 x 1 3/8 x 4 1/4	Socket—, +1.35	—	13.5	1	12.50	17.75	Rad. Det. Equip.
E302250	—	Mercury	1 1/16 Diam. x 1 29/32	Tabs—, +9.45	—	1.0	1	3.15	4.50	
E302351	—	Mercury	1 1/16 Diam. x 2 5/8	Flat Contacts—, +5.4	—	4.5	1	6.30	9.00	Fire Alarm
E302358	—	Mercury	3/4 Diam. x 2 5/32	Wire Leads—, +10.8	—	0.87	1	4.10	5.95	
E302362	—	Mercury	23/32 Diam. x 3 5/32	Wire Leads—, +16.2	—	1.13	1	5.60	8.00	Rad. Det. Equip.
E302435	—	Mercury	1 1/16 Diam. x 1 1/2	Flat Contacts—, +6.75	—	0.75	1	3.46	4.95	
E302462	—	Mercury	2 13/16 x 1 17/32 x 6 3/8	Wire Leads—, +97.2	2	—	1	40.00	56.00	Transmt. "B"
E302465	—	Mercury	2 3/4 Diam. x 3 3/4	Wire Leads—, +47.25	1	1.0	1	22.50	32.00	Geophys.
E302478	—	Mercury	1 5/32 Diam. x 3 5/8	Flat Contacts—, +9.8	—	9.0	1	6.90	9.80	Wire Recorder
E302497	—	Mercury	1 1/4 Diam. x 4 1/8	Screw—, +6.75	—	6.0	1	8.75	12.50	Test Equip.
E302579	—	Mercury	1 13/32 x 3/4 x 3 3/16	Wire Leads—, +29.7	—	5.0	1	12.50	18.00	
E302580	—	Mercury	2 23/32 x 2 23/32 x 3 29/32	Sockets—, +27.0	2	1.6	1	33.60	48.00	
E302642	—	Mercury	1 5/32 Diam. x 2 5/8	Flat Contacts—, +7	—	5.0	1	5.20	7.40	Instr.
E302651	—	Mercury	1 5/64 Diam. x 2 1/16	Special Leads—, +1.35	—	6.14	1	4.80	6.90	
E302702	—	Mercury	1 1/8 Diam. x 1 5/8	Wire Leads—, +2.7	—	2.0	1	3.80	5.40	Geophys.
E302904	—	Mercury	1 11/32 Diam. x 2 13/32	Wire Leads—, +5.4	—	6.0	1	6.75	9.95	Meter
E302905	—	Mercury	1 11/32 Diam. x 3 13/32	Wire Leads—, +6.75	—	9.0	1	8.05	11.50	Test Equip.
E302907	—	Mercury	1 5/16 Diam. x 4 7/8	Wire Leads—, +9.45	—	11.6	1	10.50	15.00	Instr.
E302908	—	Mercury	1 11/32 Diam. x 5 5/16	Wire Leads—, +10.8	—	12.0	1	11.50	16.50	Rad. Det. Equip.
E303145	1614	Mercury	2 3/4 x 7/8 x 4 7/16	Snap Type—, +8.4	—	8.82	1	6.75	9.95	Depth Finder
E303219	—	Mercury	.515 Diam. x 1 5/8	Flat Contacts—, +9.8	—	1.0	1	2.06	2.95	Radio Conv. (FM)
E303236	—	Mercury	23/32 x 23/32 x 1 23/32	Flat Contacts—, +4.2	—	1.28	1	1.26	1.80	Paging Sys.
E303314	—	Mercury	2.81 x 2.85 x 1.320	Recessed Flat Contacts—, +16.8	—	13.0	1	10.80	15.40	Comm. Equip.
E303394	—	Mercury	2 1/2 x 1 3/4 x 2 1/4	Snap Type—, +11.2	—	14.0	1	10.15	14.50	Tape Recorder

*NEDA number same as an "Eveready" battery number on a different battery. Omitted to prevent errors in shipping.
□Flashlight types.

These complete line specifications contain the basic data on all "Eveready" batteries in production at the time of preparation. Since the characteristics of individual batteries are sometimes modified, manufacturers who are designing their product to use a particular battery should contact the nearest Union Carbide Consumer Products Division Sales Office for verification of specifications.

PRICES

Prices in this MASTER should not be considered as final. INQUIRE ABOUT LATEST PRICES AND DELIVERY.

DISCOUNTS

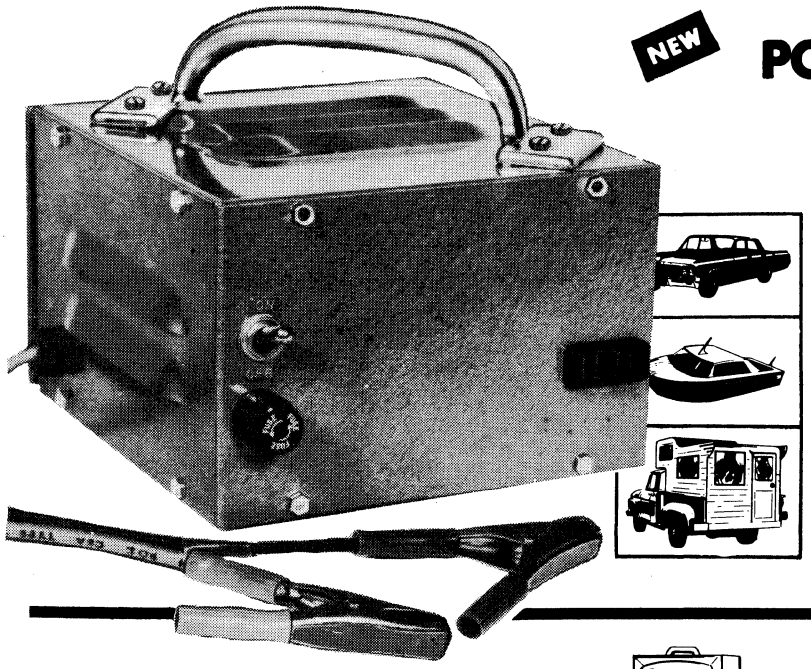
Trade discounts apply in most cases where LIST PRICES are shown.

ORDERING

Since previous editions of the MASTER are frequently referred to, it is important, when ordering, to mention specifically the edition and page number, also the catalog number of each item. This will avoid possible confusion and delay.

INVENTORY

While most distributors maintain a large and varied stock, they do not represent that they stock all manufacturers' products shown in this MASTER catalog.



NEW

TRANSISTORIZED
PORTABLE TV INVERTER
OPERATES TV SETS · RECORDERS CB UNITS · SMALL APPLIANCES HAM UNITS · RADIOS

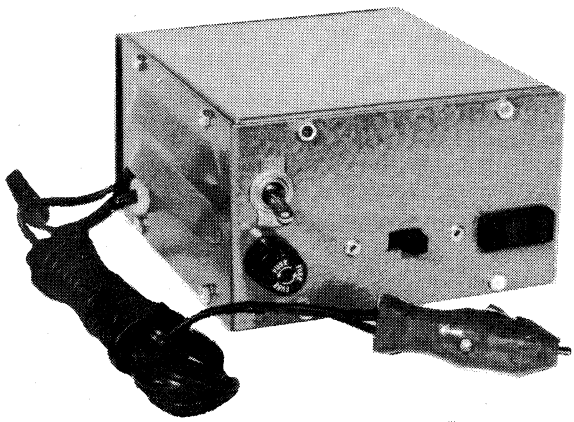
Converts 12 Volts DC from any car or boat battery to 110 Volts AC at Full 185 Watts Continuous Power

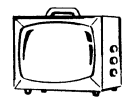
INVERTER LEADS EASILY CLIP TO BATTERY TERMINALS

Heavy Duty 185 Watts Continuous Power

Operate TV sets, recorders, CB units, Ham gear, small appliances, radios—hundreds of items. Perfect for home or on the go! This new inverter is ruggedly constructed, compact, complete with carrying handle—the most versatile inverter on the market. Makes it possible to view TV in boat, auto or trailer.

No. **26-910 Portable TV Inverter ..... NET 39.95**





NEW

TRANSISTORIZED COMBINATION
BATTERY CHARGER & INVERTER

125 Watt Intermittent & 100 Watt Continuous Power Inverter

CHARGES AUTO OR BOAT BATTERY
BATTERY CHARGER

Complete with AC and Auto Lighter Plugs

Double duty unit: Plug into standard AC outlet, flip a switch on inverter, and it becomes a battery charger that will overnight charge up to 5 amps. For the boat and auto owner, the inverter plugs into cigarette lighter and converts 12 volts DC to 110 volts AC which will operate small appliances.

No. **26-902 Battery Charger/Inverter ..... NET 32.95**

NEW

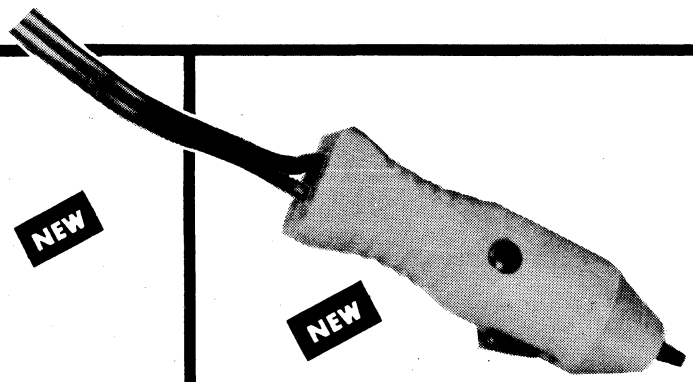
TRANSISTORIZED INVERTER
OPERATES ALL SMALL APPLIANCES

Converts 12 Volts AC to 110 Volts AC Automatically!

100 Watts Continuous Duty • 125 Watts Intermittent

Plugs into cigarette lighter of any 12 volt vehicle, converts 12 volts DC to 110 Volts AC. Unit features excellent frequency stability . . . is highly efficient. Hundreds of small appliances may be operated from this inverter. No knob to twist . . . no adjustment to set.

No. **26-900 Inverter ..... NET 29.95**



NEW

AUTO LIGHTER ADAPTER PLUG

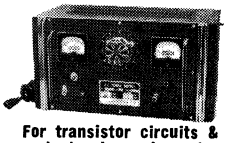
For Replacing Broken Plugs or Creating Electrical Plug-in Auto Accessories With Solderless (Crimp-Type) Terminals

Supplied fully assembled; made of hi-heat methylstyrene red plastic. Especially made for trouble lights, transistorized inverters, portable spot lights, etc. The GC auto lighter adaptor plug is made to S.A.E. specifications and fits all makes of Cosco, Cumo, Rochester, Sinko, Santay lighter receptacles, including Rochester "Kool-Kup" model.

No. **1790 Auto Lighter Adapter Plug ..... NET .57**

GATES POWER SUPPLIES

SILICON POWER RECTIFIER



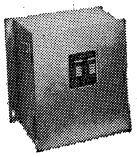
For transistor circuits & electronic equipment
MODEL G92F

INPUT: 115 volts AC 60 cycles, 1 phase
OUTPUT: 32 Volts DC, 0-10 Amperes D.C. continuous duty
REGULATION: No load to full load 15%
RIPPLE: Less than 0.5% RMS
METERS: 2% Accuracy

PRICE: $169.50 NET

*Also available in 5 Amperes
PRICE: $114.50 NET

INDUSTRIAL POWER UNITS

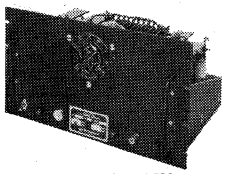


MODEL A10

INPUT 115 or 230 AC Volts, 60 cycles—Single Phase.
DC OUTPUT 115 Volts DC 125 Watts
APPLICATION: Power sources for operating DC Motors, Relays, Solenoids, Magnetic Chucks.
DIMENSIONS: 11" H x 9" W x 6½" D

PRICE $63.00 NET
Higher Wattage Available

SELENIUM POWER SUPPLY

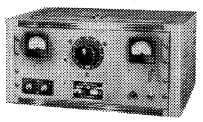


MODEL G48-6FM

INPUT: 115 Volts AC 60 Cycles—Single Phase
OUTPUT: 0-48 Volts DC, 0-6 Amperes
CONTROL: Continuously variable over entire range
RIPPLE: 1% RMS
DIMENSIONS: 19" W x 13" D x 10½" H, Fits RETMA, Western Electric racks

PRICE: $190.00 NET

SILICON POWER SUPPLY

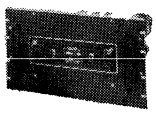


MODEL #GS 14-15F

INPUT: 115 Volts AC, 1 Phase, 60 cycles
OUTPUT: 0-14 Volts DC, 0-15 Amperes, continuous duty
RIPPLE: Less than 1% RMS
METER ACCURACY: 2%
DIMENSIONS: 9" H x 17½" W x 9" D

PRICE: $159.50 NET

SILICON RACK MOUNT SUPPLY

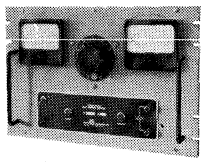


MODEL #GX30-10

INPUT: 115 Volts AC 60 Cycles, Single Phase
OUTPUT: 26, 28, 30 Volts DC 0-10 Amperes Continuous Duty
REGULATION: 10% No Load to Full Load
RIPPLE: Below 0.5% RMS
DIMENSIONS: 8¾" H x 19" W x 10" D

PRICE: $137.50 NET

AIRCRAFT BATTERY ELIMINATOR



MODEL #G101F

INPUT: 115 Volts AC 60 cycles, single phase
OUTPUT: 0-30 Volts DC, 0-20 Amperes, continuous duty
RIPPLE: 0.5% RMS
Unique overload device prevents needle slam and shows overload condition
REGULATION: D.C.V. at full load: 30
D.C.V. at 1/10 load: 35
METERS: 2% Accuracy

PRICE: $275.00 NET
May be used for Rack or Bench

ECONOMY RANGE DC POWER SUPPLIES

1% Ripple - Good Regulation - Cabinets - Meters - Heavy Duty Construction - Powerstat - Fused 1% Meters - 115 Vac Input

MODEL GT 12-5:	Output 0.12V,	5A	$ 120.
MODEL GT 12-10:	Output 0-12V,	10A	$ 130.
MODEL GT 12-15:	Output 0-12V,	15A	$ 145.
MODEL GT 12-25:	Output 0-12V,	25A	$ 154.
MODEL GT 12-100:	Output 0-12V,	100A	$ 250.
MODEL GT 14-5:	Output 0-14V,	5A	$ 120.
MODEL GT 14-15:	Output 0-14V,	15A	$ 135.
MODEL GT 14-20:	Output 0-14V,	20A	$ 135.
MODEL GT 14-30:	Output 0-14V,	30A	$ 276.
MODEL GT 14-40:	Output 0-14V,	40A	$ 231.
MODEL GT 14-50:	Output 0-14V,	50A	$ 350.
MODEL GT 14-75:	Output 0-14V,	75A	$ 375.
MODEL GT 14-100:	Output 0-14V,	100A	$ 425.
MODEL GT 16-5:	Output 0-16V,	5A	$ 85.
MODEL GT 16-10:	Output 0-16V,	10A	$ 90.
MODEL GT 16-25:	Output 0-16V,	25A	$ 155.
MODEL GT 16-30:	Output 0-16V,	30A	$ 195.
MODEL GT 16-40:	Output 0-16V,	40A	$ 260.
MODEL GT 16-50:	Output 0-16V,	50A	$ 370.
MODEL GT 16-70:	Output 0-16V,	70A	$ 390.
MODEL GT 16-80:	Output 0-16V,	80A	$ 405.
MODEL GT 28-5:	Output 0-28V,	5A	$ 90.
MODEL GT 28-12:	Output 0-28V,	12A	$ 135.
MODEL GT 28-24:	Output 0-28V,	24A	$ 255.
MODEL GT 32-5:	Output 0-32V,	5A	$ 105.
MODEL GT 32-8:	Output 0-32V,	8A	$ 149.
MODEL GT 32-12:	Output 0-32V,	12A	$ 185.
MODEL GT 32-15:	Output 0-32V,	15A	$ 194.
MODEL GT 32-24:	Output 0-32V,	24A	$ 225.
MODEL GT 32-30:	Output 0-32V,	30A	$ 325.
MODEL GT 32-50:	Output 0-32V,	50A	$ 400.
MODEL GT 32-60:	Output 0-32V,	60A	$ 561.
MODEL GT 48-5:	Output 0-48V,	5A	$ 138.
MODEL GT 48-10:	Output 0-48V,	10A	$ 164.
MODEL GT 48-15:	Output 0-48V,	15A	$ 170.
MODEL GT 48-25:	Output 0-48V,	25A	$ 250.
MODEL GT 48-35:	Output 0-48V,	35A	$ 300.
MODEL GT 48-50:	Output 0-48V,	50A	$ 350.
MODEL GT 48-60:	Output 0-48V,	60A	$ 425.
MODEL GT 48-80:	Output 0-48V,	80A	$ 500.
MODEL GT 48-100:	Output 0-48V,	100A	$ 550.
MODEL GT 80-5:	Output 0-80V,	5A	$ 220.
MODEL GT 80-10:	Output 0-80V,	10A	$ 275.
MODEL GT 80-20:	Output 0-80V,	20A	$ 450.
MODEL GT 115-5:	Output 0-115V,	5A	$ 240.
MODEL GT 115-10:	Output 0-115V,	10A	$ 260.
MODEL GT 115-15:	Output 0-115V,	15A	$ 280.
MODEL GT 115-20:	Output 0-115V,	20A	$ 310.
MODEL GT 115-25:	Output 0-115V,	25A	$ 350.
MODEL GT 115-30:	Output 0-115V,	30A	$ 390.
MODEL GT 115-40:	Output 0-115V,	40A	$ 490.
MODEL GT 115-50:	Output 0-115V,	50A	$ 560.
MODEL GT 115-60:	Output 0-115V,	60A	$ 660.
MODEL GT 115-70:	Output 0-115V,	70A	$ 700.
MODEL GT 130-2:	Output 0-130V,	2A	$ 124.
MODEL GT 120-5:	Output 0-120V,	5A	$ 277.
MODEL GT 130-5:	Output 0-130V,	5A	$ 223.
MODEL GT 130-10:	Output 0-130V,	10A	$ 286.
MODEL GT 200-10:	Output 0-220V,	10A	$ 382.
MODEL GT 80:50:	Output 0-80V,	50A	$1550.
MODEL GT 80-100:	Output 0-80V,	100A	$1950.

PRICES SUBJECT TO CHANGE

3 PHASE MODEL POWERSTAT METERS

MODEL GP 125-40:	Output	40A, 0-125V	$ Inquire
MODEL GP 125-80:	Output	80A, 0-125V	$ Inquire
MODEL GP 125-125:	Output	125A, 0-125V	$ Inquire
MODEL GP 250-15:	Output	15A, 0-250V	$ Inquire
MODEL GP 250-25:	Output	25A, 0-250V	$ Inquire
MODEL GP 250-40:	Output	40A, 0-250V	$ Inquire
MODEL GP 250-75:	Output	75A, 0-250V	$ Inquire
MODEL GP 500-5:	Output	5A, 0-500V	$ Inquire
MODEL GP 500-10:	Output	10A, 0-500V	$ Inquire
MODEL GP 500-25:	Output	25A, 0-500V	$ Inquire
MODEL GP 500-35:	Output	35A, 0-500V	$ Inquire

LOW-COST BASIC / OEM SUPPLIES

MODEL L6.3-30	6.3VDC @ 30A/1%	$ 100.
MODEL L12-12	12VDC @ 12A/Rip. 1Mv/.01%	$ 180.
MODEL L12-15	12VDC @ 15A/1%	$ 170.
MODEL L12-24	12VDC @ 24Amp.	$ 100.
MODEL L12-24	12VDC @ 24A/1%	$ 144.
MODEL L12-50	12VDC @ 50Amp.	$ 133.
MODEL L12-50	12VDC @ 50A/Rip. 1%	$ 223.
MODEL L24-30	24VDC @ 30A/Rip. 1%	$ 313.
MODEL L28-1	28VDC @ 1A/0.5%	$ 40.
MODEL L28-2	28VDC @ 1A/Rip. 10Mv/.05%	$ 65.
MODEL L28-5	28VDC @ 5Amp.	$ 85.
MODEL L28-8	28VDC @ 8Amp. (N.F.)	$ 110.
MODEL L28-12	28VDC @ 12Amp.	$ 120.
MODEL L28-24	28VDC @ 24Amp. (N.F.)	$ 115.
MODEL L28-24	28VDC @ 24Amp.	$ 180.
MODEL L28-30	28VDC @ 30Amp.	$ 313.
MODEL L28-50	28VDC @ 50Amp. (N.F.)	$ 205.
MODEL L28-50	28VDC @ 50Amp.	$ 285.
MODEL L28-50	28VDC @ 50Amp. −1% R.	$ 403.
MODEL L28-100	28VDC @ 100Amp.	$ 418.
MODEL L115-2.5	115VDC @ 2.5A	$ 85.
MODEL L115-5	115VDC @ 5A	$ 124.
MODEL L115-10	115VDC @ 10A (N.F.)	$ 188.
MODEL L115-10	115VDC @ 10A	$ 340.
MODEL L220-5	220VDC @ 5A	$ 223.
MODEL L220-10	220VDC @ 10A	$ 340.
MODEL L440-5	440VDC @ 5A	$ 349.

(N.F.) means not filtered

12 VOLT POWER SUPPLIES

MODEL GS 12-1,	Output 1A, 12V	$ 25.00
MODEL GS 12-3,	Output 3A, 12V	$ 40.00
MODEL GS 12-5,	Output 5A, 12V	$ 65.00
MODEL GS 12-10,	Output 10A, 12V	$ 85.00
MODEL GS 12-15,	Output 15A, 12V	$130.00
MODEL GS 12-20,	Output 20A, 12V	$150.00
MODEL GS 12-25,	Output 25A, 12V	$170.00
MODEL GS 12-30,	Output 30A, 12V	$190.00

GATES ELECTRONIC COMPANY, INC.

Net

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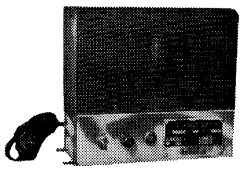
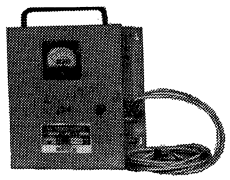
HIGHEST QUALITY-LOWEST PRICE



SILICON POWER SUPPLY
Model GX24-1

INPUT: 115 Volts AC, 60 cycles, 1 phase
OUTPUT: 24 Volts DC, 0-1 ampere DC, continuous duty
RIPPLE: 0.4% RMS
REGULATION: 10% no load to full load
PRICE: $50.00
0-2 Amps **PRICE: $55.00**

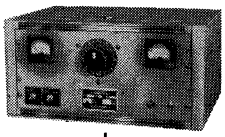


PORTABLE SILICON BATTERY CHARGER
Model G612-20

INPUT: 115 volts AC, 60 cycles, 1 phase
OUTPUT: 6/12 Volts DC, 20 amperes continuous duty
METER: Amp. meter 2% Accuracy
DIMENSIONS: 11"H x 9"W x 6½"D
PRICE: $57.50

BENCH PLATING RECTIFIER
Model G10-8

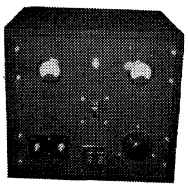
INPUT: 115 Volts, 50-60 cycles, 1 phase
OUTPUT: 10 amperes, 0-8 Volts DC
RECTIFIER: Full wave selenium rectifier
VOLTAGE CONTROL: Powerstat
METERS: 2% Accuracy volt meter, amp. meter
PRICE: $85.00



BENCH PLATING RECTIFIER
Model G30-8

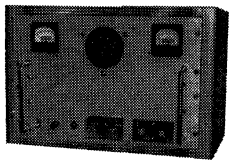
INPUT: 115 Volts, 50-60 cycles, 1 phase
OUTPUT: 30 amperes, 0-8 Volts DC
RECTIFIER: Full wave selenium rectifier
VOLTAGE CONTROL: Powerstat
METERS: 2% Accuracy, volt meter, amp. meter
PRICE: $115.00

BENCH PLATING RECTIFIER
Model G50-8



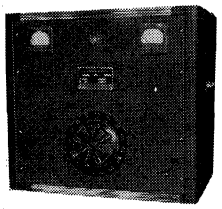
INPUT: 115 volts, 50-60 cycles, 1 phase
OUTPUT: 50 amperes, 0-8 Volts DC
RECTIFIER: Full wave selenium rectifier
VOLTAGE CONTROL: Powerstat
METER: 2% Accuracy, volt meter, amp. meter
PRICE: $175.00

BENCH PLATING RECTIFIER
Model G100-8



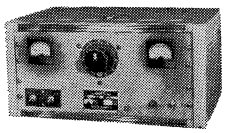
INPUT: 115 Volts, 50-60 cycles, 1 phase
OUTPUT: 100 amperes, 0-8 Volts DC
RECTIFIER: Full wave selenium rectifier
VOLTAGE CONTROL: Powerstat
METERS: 2% Accuracy, volt meter, amp. meter
PRICE: $275.00

BENCH PLATING RECTIFIER
Model G200-6



INPUT: 115 Volts, 50-60 cycles, 1 phase
OUTPUT: 200 amperes, 0-6 Volts DC
RECTIFIER: Full wave selenium rectifiier
COOLING: Fan
VOLTAGE CONTROL: Powerstat
METERS: 2% Accuracy, volt meter, amp. meter
PRICE: $395.00

BENCH PLATING RECTIFIER
Model G50-15



INPUT: 115 Volts, 50-60 cycles, 1 phase
OUTPUT: 50 amperes, 0-15 Volts DC
RECTIFIER: Full wave selenium rectifier
VOLTAGE CONTROL: Powerstat
METERS: 2% Accuracy, volt meter, amp. meter
PRICE: $210.00

SILICON RECTIFIERS FOR EXITATION OF SYNCHRONOUS MOTORS. HEAVY DUTY, INDUSTRIAL CONSTRUCTION. PROVEN IN USE.

3.5 KW	125 DCV	28 DCA	$ Inquire
5 KW	125 DCV	40 DCA	$ Inquire
7 KW	125 DCV	56 DCA	$ Inquire
10 KW	125 DCV	80 DCA	$ Inquire
14 KW	125 DCV	56 DCA	$ Inquire
22 KW	125 DCV	168 DCA	$ Inquire
55 KW	125 DCV	440 DCA	$ Inquire

HIGH CURRENT POWER SUPPLIES†

MODEL G 300 Output 300A, 24-30V	$ Inquire
MODEL G 500 Output 500A, 24-30V	$ Inquire
MODEL G 1000 Output 1000A, 24-30V	$ Inquire

† Saturable Reactor.

MAGNETIC AMP. REG. UNITS CONTROL
Max. reg. 1%

5-30 VDC 40A 115 VAC In.	$ Inquire
5-30 VDC 50A 220 VAC In. 1ϕ	$ Inquire
5-30 VDC 75A 208 VAC In. 3ϕ	$ Inquire

BENCH MODEL PLATING SUPPLIES

MODEL GI 10-6	6V	10A	$ 62.00
MODEL GI 10-6F*	6V	10A	$ 96.00
MODEL GI 10-9	9V	10A	$ 76.00
MODEL GI 10-9F	9V	10A	$100.00
MODEL GI 10-12	12V	10A	$ 88.00
MODEL GI 10-12F	12V	10A	$112.00
MODEL GI 25-6	6V	25A	$ 96.00
MODEL GI 25-6F	6V	25A	$120.00
MODEL GI 25-9	9V	25A	$104.00
MODEL GI 25-9F	9V	25A	$128.00
MODEL GI 25-12	12V	25A	$124.00
MODEL GI 25-12F	12V	25A	$152.00
MODEL GI 25-18	18V	25A	$156.00
MODEL GI 25-18F	18V	25A	$184.00
MODEL GI 25-24	24V	25A	$172.00
MODEL GI 25-24F	24V	25A	$196.00
MODEL GI 35-6	6V	35A	$108.00
MODEL GI 35-6F	6V	35A	$140.00
MODEL GI 35-9	9V	35A	$120.00
MODEL GI 35-9F	9V	35A	$148.00
MODEL GI 35-12	12V	35A	$132.00
MODEL GI 35-12F	12V	35A	$160.00
MODEL GI 35-18	18V	35A	$164.00
MODEL GI 35-18F	18V	35A	$192.00
MODEL GI 35-24	24V	35A	$184.00
MODEL GI 35-24F	24V	35A	$208.00
MODEL GI 50-6	6V	50A	$128.00
MODEL GI 50-6F	6V	50A	$168.00
MODEL GI 50-9	9V	50A	$132.00
MODEL GI 50-9F	9V	50A	$176.00
MODEL GI 50-12	12V	50A	$144.00
MODEL GI 50-12F	12V	50A	$188.00
MODEL GI 50-18	18V	50A	$176.00
MODEL GI 50-18F	18V	50A	$220.00
MODEL GI 75-6	6V	75A	$156.00
MODEL GI 75-6F	6V	75A	$204.00
MODEL GI 75-9	9V	75A	$172.00
MODEL GI 75-9F	9V	75A	$220.00
MODEL GI 75-12	12V	75A	$176.00
MODEL GI 75-12F	12V	75A	$234.00
MODEL GI 75-18	18V	75A	$236.00
MODEL GI 75-18F	18V	75A	$284.00
MODEL GI 100-6	6V	100A	$180.00
MODEL GI 100-6F	6V	100A	$238.00
MODEL GI 100-9	9V	100A	$188.00
MODEL GI 100-9F	9V	100A	$244.00
MODEL GI 100-12	12V	100A	$240.00
MODEL GI 100-12F	12V	100A	$302.00
MODEL GI 100-18	18V	100A	$288.00
MODEL GI 100-18F	18F	100A	$348.00
MODEL GI 150-6	6V	150A	$248.00
MODEL GI 150-6F	6V	150A	$308.00
MODEL GI 150-9	9V	150A	$280.00
MODEL GI 150-9F	9V	150A	$340.00
MODEL GI 150-12	12V	150A	$296.00
MODEL GI 150-12F	12V	150A	$356.00
MODEL GI 200-9	9V	200A	$292.00
MODEL GI 200-9F	9V	200A	$352.00
MODEL GI 200-12	12V	200A	$316.00
MODEL GI 200-12F	12V	200A	$372.00

* FILTERED (F)

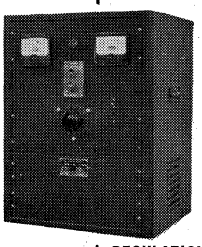
PRICES SUBJECT TO CHANGE

TECHNICIAN SPECIALS

MODEL G28-2	28V	2A	1% R	$37.50
MODEL G48-3	48V	3A	1% R	$39.50
MODEL G115-1	115V	1A	1% R	$49.50

ALL TYPES OF POWER SUPPLIES

SILICON POWER RECTIFIER
Model G50-50R



INPUT: 220 Volts AC, 60 cycles, 3 phase

OUTPUT: 0-50 volts DC, 0-50 amperes continuous duty

RIPPLE: 0.5% RMS

REGULATION: No Load to Full Load 8%

METERS: 2% Accuracy

SILICON INDUSTRIAL POWER UNIT
Model G30-100

INPUT: 220 Volts AC, 60 cycles, 3 phase

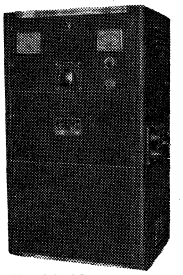
OUTPUT: 0-30 Volts DC, 0-100 amperes continuous duty

RIPPLE. .5% RMS

REGULATION: 5-8% 1/10th load to full load with constant input and at maximum output voltage setting

METERS: 2% Accuracy

SILICON AIRCRAFT BATTERY ELIMINATOR
Model G30-200



INPUT: 220 Volts AC, 60 cycles, 3 phase

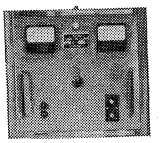
OUTPUT: 0-30 Volts DC, 0-200 amperes continuous duty also avail. 300A

RIPPLE: 1% RMS

REGULATION: 5-8% 1/10th load to full load with constant input and maximum output voltage setting

METERS: 2% Accuracy

SILICON REGULATED POWER SUPPLY
Model G530-40M



INPUT: 115 Volts AC, 60 cycles, 1 phase

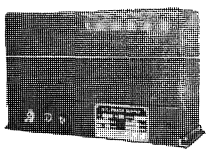
OUTPUT: 5-30 Volts DC, 0-40 amperes

RIPPLE: 1% RMS

REGULATION: ±1% from no load to full load

METERS: 2% Accuracy

SELENIUM POWER SUPPLY

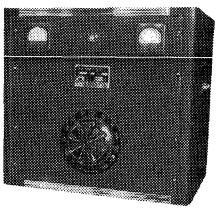


MODEL GX 30-5

INPUT: 115 Volts AC 60 cycles, single phase
OUTPUT: 30 Volts DC, 0-5 Amperes, DC Continuous Duty
REGULATION: 12% No Load to Full Load
RIPPLE: Below 1% RMS
DIMENSIONS: 5" W x 13½" L x Overall Height 10"

PRICE: $85.00 NET

SILICON GENERAL PURPOSE RECTIFIER

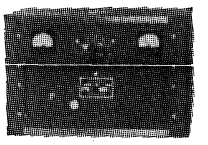


MODEL G-115

INPUT: 115 Volts AC 60 cycles, 1 Phase
OUTPUT: 0-32 Volts DC, 0-50 Amperes DC, Continuous duty variable over entire range
RIPPLE: 1% RMS
DIMENSIONS: 22"H x 19"W x 15"D

PRICE: $522.00 NET

DC POWER SUPPLY



MODEL G94F

INPUT: 115 Volts AC 60 cycles, 1 Phase DC
OUTPUT: 0-300 Volts DC Continuous Variable 0-1 Amperes.
RIPPLE: 3 MV RMS
DIMENSIONS: Rack 8¾" H x 19" L x 9½" D
CABINET: 10½"Hx22"Lx12"D

PRICE: $275.00
Also 0-2 Amp. **PRICE: $340.00**

SILICON POWER SUPPLY

MODEL GX30-20

INPUT: 115 Volts, 1 Phase, 60 cycles
OUTPUT: 0-34, Volts, DC 0-20 Amperes, continuous duty
REGULATION: No load to full load: 18%
RIPPLE: Below 1% Silicon Rectifiers, High Efficiency
DIMENSIONS: 10" x 17" x 3"

PRICE: $185.00 NET

3 PHASE — BENCH MODEL PLATING SUPPLIES

MODEL GL 6-50	6V	50A	$204.00
MODEL GL 9-50	9V	50A	$212.00
MODEL GL 12-50	12V	50A	$220.00
MODEL GL 18-50	18V	50A	$236.00
MODEL GL 6-75	6V	75A	$256.00
MODEL GL 9-75	9V	75A	$264.00
MODEL GL 12-75	12V	75A	$276.00
MODEL GL 18-75	18V	75A	$292.00
MODEL GL 6-100	6V	100A	$268.00
MODEL GL 9-100	9V	100A	$284.00
MODEL GL 12-100	12V	100A	$300.00
MODEL GL 18-100	18V	100A	$316.00
MODEL GL 6-150	6V	150A	$300.00
MODEL GL 9-150	9V	150A	$328.00
MODEL GL 12-150	12V	150A	$352.00
MODEL GL 18-150	18V	150A	$372.00
MODEL GL 6-200	6V	200A	$330.00
MODEL GL 9-200	9V	200A	$352.00
MODEL GL 12-200	12V	200A	$372.00
MODEL GL 6-250	6V	250A	$372.00
MODEL GL 9-250	9V	250A	$396.00
MODEL GL 12-250	12V	250A	$460.00

24 VOLT POWER SUPPLIES

MODEL G 24-6R	24VDC	6A	$ 95.00
MODEL G 24-15R	24VDC	15A	$105.00
MODEL G 24-25R	24VDC	25A	$125.00
MODEL G 24-50R	24VDC	50A	$210.00

GR LINE REGULATED POWER SUPPLIES
Meters & Regulation 1% Ripples Less Than 1%

MODEL GR 12-5	0-12V	5A	Inquire
MODEL GR 12-10	0-12V	10A	Inquire
MODEL GR 12-20	0-12V	20A	Inquire
MODEL GR 12-30	0-12V	30A	$160.00
MODEL GR 16-5	0-16V	5A	$ 39.95
MODEL GR 16-10	0-16V	10A	$ 56.95
MODEL GR 8-10	0-8V	10A	$
MODEL GR 24-100	0-24V	100MA	$ 22.50
MODEL GR 25-200	0-25V	200MA	$ 79.50
MODEL GR 28-5	0-28V	5A	$ 80.00
MODEL GR 14-5	0-14V	5A	$
MODEL GR 32-4	0-32V	4A	$130.00
MODEL GR 16-8	0-16V	8A	$
MODEL GR 32-15	0-32V	15A	$225.00
MODEL GR 55-10	0-55V	10A	$210.00
MODEL GR 125-5	0-125V	5A	$215.00
MODEL GR 125-10	0-125V	10A	$475.00

INDUSTRIAL POWER UNITS — SINGLE PHASE

MODEL GK 115-125A	Output 115V	125W	Input 115V	$ 63.00
MODEL GK 115-125B	Output 115V	125W	Input 230V	$ 63.00
MODEL GK 115-125C	Output 115V	125W	Input 440V	$ 63.00
MODEL GK 115-250A	Output 115V	250W	Input 115V	$ 72.50
MODEL GK 115-250B	Output 115V	250W	Input 230V	$ 72.50
MODEL GK 115-250C	Output 115V	250W	Input 440V	$ 72.50
MODEL GK 115-375A	Output 115V	375W	Input 115V	$ 89.00
MODEL GK 115-375B	Output 115V	375W	Input 230V	$ 89.00
MODEL GK 115-375C	Output 115V	375W	Input 440V	$ 89.00
MODEL GK 115-500A	Output 115V	500W	Input 115V	$105.00
MODEL GK 115-500B	Output 115V	500W	Input 230V	$105.00
MODEL GK 115-500C	Output 115V	500W	Input 440V	$105.00
MODEL GK 115-750A	Output 115V	750W	Input 115V	$130.00
MODEL GK 115-750B	Output 115V	750W	Input 230V	$130.00
MODEL GK 115-750C	Output 115V	750W	Input 440V	$130.00
MODEL GK 115-1000A	Output 115V	1000W	Input 115V	$150.00
MODEL GK 115-1000B	Output 115V	1000W	Input 230V	$150.00
MODEL GK 115-1000C	Output 115V	1000W	Input 440V	$150.00
MODEL GK 230-125A	Output 230V	125W	Input 115V	$ 67.00
MODEL GK 230-125A	Output 230V	125W	Input 230V	$ 67.00
MODEL GK 230-125C	Output 230V	125W	Input 440V	$ 67.00
MODEL GK 230-250A	Output 230V	250W	Input 115V	$ 75.00
MODEL GK 230-250B	Output 230V	250W	Input 230V	$ 75.00
MODEL GK 230-250C	Output 230V	250W	Input 440V	$ 75.00
MODEL GK 230-375A	Output 230V	375W	Input 115V	$110.00
MODEL GK 230-375B	Output 230V	375W	Input 230V	$110.00
MODEL GK 230-375C	Output 230V	375W	Input 440V	$110.00
MODEL GK 230-500A	Output 230V	500W	Input 115V	$115.00
MODEL GK 230-500B	Output 230V	500W	Input 230V	$115.00
MODEL GK 230-500C	Output 230V	500W	Input 440V	$115.00
MODEL GK 230-750A	Output 230V	750W	Input 115V	$172.00
MODEL GK 230-750B	Output 230V	750W	Input 230V	$172.00
MODEL GK 230-750C	Output 230V	750W	Input 440V	$172.00
MODEL GK 230-1000A	Output 230V	1000W	Input 115V	$180.00
MODEL GK 230-1000B	Output 230V	1000W	Input 230V	$180.00
MODEL GK 230-1000C	Output 230V	1000W	Input 440V	$180.00

PRICES SUBJECT TO CHANGE

GATES
ELECTRONIC COMPANY, INC.

Net

© U.C.P., Inc.

HIGH VOLTAGE DC POWER SUPPLIES

1% Ripple. Good Regulation - Cabinets - Meters Heavy Duty Cnstruction - Powerstat - Fused 1% Meters - 115 Vac Input - Heavy Duty Line Cord.

MODEL GP 32-5	Input 115V, 60c, 1ph. Output 0-32V @ 5A	$ Inquire
MODEL GP 32-10	Input 115V, 60c, 1ph. Output 0-32V @ 10A	$ Inquire
MODEL GP 32-20	Input 115V, 60c, 1ph. Output 0-32V @ 20A	$ Inquire
MODEL GP 32-40	Input 115V, 60c, 1ph. Output 0-32V @ 40A	$ Inquire
MODEL GP 32-100	Input 220V, 60c, 3ph. Output 0-32V @ 100A	$ Inquire
MODEL GP 32-150	Input 220V, 60c, 3ph. Output 0-32V @ 150A	$ Inquire
MODEL GP 60-6	Input 115V, 60c, 1ph. Output 0-60V @ 6A	$ Inquire
MODEL GP 60-10	Input 115V, 60c, 1ph. Output 0-60V @ 10A	$ Inquire
MODEL GP 60-12	Input 115V, 60c, 1ph. Output 0-60V @ 12V	$ Inquire
MODEL GP 60-20	Input 115V, 60c, 1ph. Output 0-60V @ 20A	$ Inquire
MODEL GP 60-50	Input 220V, 60c, 3ph. Output 0-60V @ 50A	$ Inquire
MODEL GP 60-80	Input 220V, 60c, 3ph. Output 0-60V @ 80A	$ Inquire
MODEL GP 60-250	Input 220V, 60c, 3ph. Output 0-60V @ 250A	$ Inquire
MODEL GP 125-2.5	Input 117V, 60c, 1ph. Output 0-125V @ 2.5A	$ Inquire
MODEL GP 125-3	Input 117V, 60c, 1ph. Output 0-125V @ 3A	$ Inquire
MODEL GP 125-5	Input 117V, 60c, 1ph. Output 0-125V @ 5A	$ Inquire
MODEL GP 125-10	Input 117V, 60c, 1ph. Output 0-125V @ 10A	$ Inquire
MODEL GP 125-20	Input 117V, 60c, 1ph. Output 0-125V @ 20A	$ Inquire
MODEL GP 125-24	Input 220V, 60c, 3ph. Output 0-125V @ 24A	$ Inquire
MODEL GP 125-40	Input 220V, 60c, 3ph. Output 0-125V @ 40A	$ Inquire
MODEL GP 125-80	Input 220V, 60c, 3ph. Output 0-125V @ 80A	$ Inquire
MODEL GP 125-120	Input 220V, 60c, 3ph. Output 0-125V @ 120A	$ Inquire
MODEL GP 250-5	Input 117V, 60c, 1ph. Output 0-250V @ 5A	$ Inquire
MODEL GP 250-10	Input 117V, 60c, 1ph. Output 0-250V @ 10A	$ Inquire
MODEL GP 250-12	Input 220V, 60c, 3ph. Output 0-250V @ 12A	$ Inquire
MODEL GP 250-20	Input 220V, 60c, 3ph. Output 0-250V @ 20A	$ Inquire
MODEL GP 250-40	Input 220V, 60c, 3ph. Output 0-250V @ 40A	$ Inquire
MODEL GP 250-60	Input 220V, 60c, 3ph. Output 0-250V @ 60A	$ Inquire
MODEL GP 300-1	Input 220V, 60c, 3ph. Output 0-250V @ 1A	$ 275.
MODEL GP 300-1.5	Input 220V, 60c, 3ph. Output 0-250V @ 1.5A	$ 310.
MODEL GP 300-2	Input 220V, 60c, 3ph. Output 0-250V @ 2A	$ 350.
MODEL GP 300-3	Input 220V, 60c, 3ph. Output 0-250V @ 3A	$ 450.
MODEL GP 300-5	Input 220V, 60c, 3ph. Output 0-250V @ 5A	$ 645.
MODEL GP 500-1	Input 220V, 60c, 3ph. Output 0-500V @ 1A	$ 305.
MODEL GP 500-1.5	Input 220V, 60c, 3ph. Output 0-500V @ 1.5A	$ 360.
MODEL GP 500-2	Input 220V, 60c, 3ph. Output 0-500V @ 2A	$ 425.
MODEL GP 500-3	Input 220V, 60c, 3ph. Output 0-500V @ 3A	$ 525.
MODEL GP 500-5	Input 220V, 60c, 3ph. Output 0-500V @ 5A	$ 725.
MODEL GP 500-5	Input 220V, 60c, 3ph. Output 0-500V @ 5A	$ Inquire
MODEL GP 500-10	Input 220V, 60c, 3ph. Output 0-500V @ 10A	$ Inquire
MODEL GP 500-20	Input 220V, 60c, 3ph. Output 0-500V @ 20A	$ Inquire
MODEL GP 500-30	Input 220V, 60c, 3ph. Output 0-500V @ 30A	$ Inquire

GATES ELECTRONIC CO., INC.

SILICON RECTIFIERS — FULL WAVE BRIDGE

Type	AC Input Volts up to	Volts up to DC Output	Max. Amps Self Cooled	Max. Amps fan Cooled	User Net Price
1ϕ Bridge	140	125	1	—	$ 5.50
1ϕ Bridge	280	250	1	—	$ 5.75
1ϕ Bridge	140	125	2	—	$ 8.50
1ϕ Bridge	280	250	2	—	$ 10.50
1ϕ Bridge	36	32	6	12	$ 15.50
1ϕ Bridge	140	125	6	12	$ 27.50
1ϕ Bridge	280	250	6	12	$ 36.50
1ϕ Bridge	36	32	10	20	$ 20.50
1ϕ Bridge	140	125	10	20	$ 35.50
1ϕ Bridge	280	250	10	20	$ 43.50
1ϕ Bridge	36	32	20	40	$ 23.50
1ϕ Bridge	140	125	20	40	$ 39.50
1ϕ Bridge	280	250	20	40	$ 47.50
1ϕ Bridge	36	32	50	100	$ 30.00
1ϕ Bridge	72	64	50	100	$ 34.00
1ϕ Bridge	140	125	50	100	$ 64.00
1ϕ Bridge	280	250	50	100	$ 95.00
1ϕ Bridge	36	32	70	140	$ 35.00
1ϕ Bridge	72	64	70	140	$ 45.00
1ϕ Bridge	140	125	70	140	$ 70.00
1ϕ Bridge	280	250	70	140	$110.00
1ϕ Bridge	36	32	40	80	$ 28.00
1ϕ Bridge	72	64	40	80	$ 33.00
1ϕ Bridge	140	125	40	80	$ 58.00
1ϕ Bridge	280	250	40	80	$ 85.00
1ϕ Bridge	36	32	100	200	$ 55.00
1ϕ Bridge	72	64	100	200	$ 61.00
1ϕ Bridge	140	125	100	200	$ 80.00
1ϕ Bridge	280	250	100	200	$135.00
1ϕ Bridge	36	32	200	400	$ 95.00
1ϕ Bridge	72	64	200	400	$105.00
1ϕ Bridge	140	125	200	400	$160.00
1ϕ Bridge	280	250	200	400	$240.00
1ϕ Bridge	72	64	400	800	$250.00
1ϕ Bridge	28	250	400	800	$545.00
1ϕ Bridge	36	48	75	150	$ 55.00
1ϕ Bridge	72	96	95	150	$ 80.00
1ϕ Bridge	105	144	75	150	$110.00
1ϕ Bridge	140	188	75	150	$165.00
1ϕ Bridge	220	220	75	150	$205.00
1ϕ Bridge	220	220	100	200	$225.00
1ϕ Bridge	220	220	200	400	$270.00
1ϕ Bridge	220	220	400	800	$340.00

SELENIUM RECTIFIERS — FULL WAVE, HIGH DENSITY, SMALL SIZE

Max. Amps.	18v In 14v Out	36v In 28v Out	54v In 42v Out	130v In 100v Out
½	$ .75	$ 1.15	$ 2.05	$ 3.45
1	.85	1.75	2.75	7.25
2	1.75	2.35	3.75	8.75
3	2.25	3.45	5.25	12.75
4	3.15	5.75	8.25	21.75
6	3.65	7.30	9.75	29.00
10	5.85	11.45	14.75	36.00
12	$ 7.75	$14.00	$19.00	$40.00
15	8.00	17.00	23.00	51.00
20	11.00	20.00	33.00	66.00
24	14.00	28.00	39.00	73.00
30	18.00	35.00	50.00	—
36	19.00	43.00	—	—

DURALYTIC CAPACITORS

MFD.	WVDC	PRICE
2,000	40	$ 3.75
4,000	40	4.68
12,000	50	10.44
1,000	75	$ 9.80
2,000	75	10.50
7,000	75	16.25
2,000	100	$12.90
4,000	100	15.50
1,000	200	14.25
2,000	200	$18.75
250	300	12.25
500	300	14.75
750	300	$16.75
1,000	300	17.75
250	350	13.25
500	350	$14.75
1,000	350	19.00

TRANSFORMERS

* Primary 115 vac 60C, tapped to deliver 36, 38 and 40 vac. ** Provide two 18V secondary windings. (taps 9, 18, 27, 36 V.) Primary tapped for 100, 105, 110, and 115 V on 12, 24, 30, and 50 amp models. *** Center tapped secondary.

36, 38 and 40 VOLTS*		
Model No.	Amps	Price
GT 36-2	2	6.00
GT 36-5	5	7.60
GT 36-8	8	13.00
GT 36-10	10	14.75
GT 36-12	12	15.00
GT 36-15	15	21.50
GT 36-20	20	28.50
GT 36-30	30	41.00
GT 36-50	50	55.00

36V. CENTER TAPPED**		
Model No.	Amps	Price
XF 36-1	1	4.75
XF 36-2	2	6.45
XF 36-4	4	7.75
XF 36-8	8	14.10
XF 36-12	12	15.50
XF 36-24	24	34.05
XF 36-30	30	42.50
XF 36-50	50	56.75

56V. CENTER TAPPED***		
Model No.	Amps	Price
AM 56-2	2	7.50
AH 56-4	4	11.50
AH 56-6	6	21.50
AH 56-12	12	29.00
SEC 165, 160, 150, 125V @	5A	$ 50.
SEC 165, 160, 150, 125V @	10A	$ 80.
SEC 330, 320, 300, 250V @	5A	$ 70.
SEC 330, 320, 300, 250C @	10A	$115.

CHOKES

Model No.	Amps	Hy	Ohms	Price
GH-1	1	.1	1.5	4.75
GH-2	2	.04	.9	5.50
GH-4	4	.07	.6	6.45
GH-5	5	.03	.02	6.60
GH-8	8	.03	.3	11.00
GH-10	10	.015	.05	12.50
GH-12	12	.01	.1	14.20
GH-15	15	.006	.01	14.75
GH-20	20	.004	.05	15.00
GH-24	24	.004	.025	25.00
GH-30	30	.003	.01	35.00
GH-50	50	.001	.001	43.00
GH-100	100	.0005	.005	53.00

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Net

AC VOLTAGE STABILIZERS

For Electronic and Electric Equipment

ELECTRONIC INNOVATIONS IN ACTION

General Electric a-c voltage stabilizers are static-magnetic transformer-type products which provide voltage maintained within ±1% variation while input line voltage fluctuates ±15%. They are offered in the following variations:

Unfiltered output: output voltage waveform is relatively flat-topped, with harmonic content from 15 to 20%.

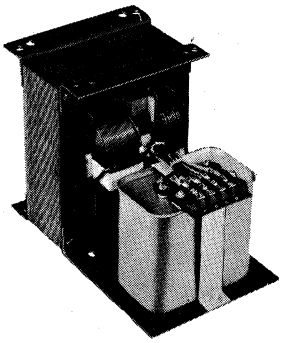
Harmonic filtered output: output voltage is filtered to near sinusoidal waveshape, with a maximum of 3% harmonic content.

Enclosed construction: completely metal enclosed for safe external mounting.

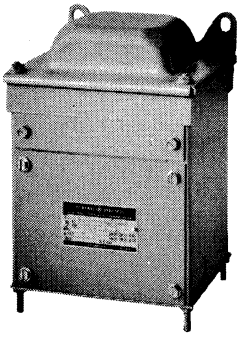
Open construction: for installation within electronic or electric equipment.

SINGLE PHASE—Magnetic-capacitor circuitry is frequency sensitive. Stabilizers designed for one frequency are not suitable for use on another.

THREE PHASE—Standard single-phase a-c voltage stabilizers can be connected for 3-phase, 4-wire loads with input connected delta. However, single-phase models cannot be connected for 3-phase, 3-wire loads: select from 3-phase dela-delta models.



Open — small ratings



Enclosed — small ratings

Single Phase

Volt-amp Output Capacity	Input Voltage Range	Stabilized Output Voltage	Unfiltered Output		Harmonic Filtered Output	
			Model Number	List Price	Model Number	List Price
ENCLOSED — FOR 60 CYCLES						
15	95-130	118	9T91Y4070	$14.70	.....	.....
30	95-130	118	9T91Y4090	16.80	.....	.....
60	95-130	118	9T91Y4110	22.10	.....	.....
120	95-130	118	9T91Y4130	30.50	.....	.....
250	95-130	118	9T91Y4140‡	50.90	9T91Y7140‡	$52.50
250	190-260	118	9T91Y4142‡	50.90	.....	.....
250	190-260X380-520	118/236	9T91Y4144‡	56.50	.....	.....
250	380-520	118	9T91Y4145‡	50.90	.....	.....
500	95-130	118	9T91Y4150‡	79.80	9T91Y7150‡	82.40
500	190-260	118	9T91Y4152‡	79.80	.....	.....
500	380-520	118	9T91Y4155‡	79.80	.....	.....
1000	95-130	118	9T91Y4170	122.00	9T91Y7170	126.00
1000	95-130X175-235X190-260	118/236	.....	.....	9T91Y7173	126.00
1000	190-260	118	9T91Y4172	122.00	9T91Y7172	142.00
1000	190-260X380-520	118/236	.....	.....	9T91Y7174	140.00
1000	380-520	118	9T91Y4175	122.00	.....	.....
2000	95-130X175-235X190-260	118/236	9T91Y4183	246.00	9T91Y7183	257.00
2000	190-260X380-520	118/236	9T91Y4184	242.00	9T91Y7184	253.00
2000	380-520	236/472	9T91Y4186	235.00	.....	.....
3000	95-130X175-235X190-260	118/236	9T91Y4193	330.00	9T91Y7193	347.00
3000	190-260X380-520	118/236	9T91Y4194	323.00	.....	.....
3000	380-520	236/472	9T91Y4196	315.00	.....	.....
5000	190-260X380-520	118/236	9T91Y4204	498.00	9T91Y7204	536.00
5000	95-130X175-235X190-260	118/236	9T91Y4203	506.00	9T91Y7203	525.00
5000	380-520	236-472	9T91Y4206	483.00	.....	.....
7500	95-130X175-235X190-260	118/236	9T91Y4213	754.00	.....	.....
7500	190-260X380-520	118/236	9T91Y4214	740.00	9T91Y7214	816.00
10000	95-130X175-235X190-260	118/236	.....	.....	9T91Y7223	1082.00
10000	190-260X380-520	118/236	9T91Y4224	966.00	9T91Y7224	1061.00
15000	190-260X380-520	118/236	9T91Y4244	1418.00	9T91Y7244	1565.00
OPEN — FOR 60 CYCLES						
15	95-130	118	9T91Y5070	$13.90	.....	.....
30	95-130	118	9T91Y5090	15.80	.....	.....
60	95-130	118	9T91Y5110	20.70	.....	.....
120	95-130	118	9T91Y5130	28.60	.....	.....
250	95-130	118	9T91Y5140	47.90	9T91Y8140	$49.40
250	190-260	118	9T91Y5142	47.90	.....	.....
500	95-130	118	9T91Y5150	75.10	9T91Y8150	77.50
500	190-260	118	9T91Y5152	75.10	.....	.....
750	95-130	118	9T91Y5160	94.80	9T91Y8160	97.70
1000	95-130	118	9T91Y5170	115.00	9T91Y8170	118.00
1000	190-260	118	9T91Y5172	115.00	9T91Y8172	118.00
1500	95-130	118	9T91Y5010	159.00	9T91Y8010	167.00
2000	95-130X175-235X190-260	118/236	9T91Y5183	230.00	9T91Y8183	242.00
ENCLOSED — FOR 50 CYCLES						
250	95-130	118	9T91Y4147‡	$58.60	9T91Y7147‡	$60.40
250	95-130X175-235X190-260	118/236	9T91Y4148‡	66.30	9T91Y7148‡	68.30
500	95-130X175-235X190-260	118/236	9T91Y4158	104.00	9T91Y7158	107.00
500	190-260X380-520	118/236	9T91Y4159	102.00	9T91Y7159	105.00
1000	95-130X175-235X190-260	118/236	9T91Y4178	159.00	9T91Y7178	164.00
2000	95-130X175-235X190-260	118/236	9T91Y4188	283.00	9T91Y7188	296.00
3000	95-130X175-235X190-260	118/236	9T91Y4198	380.00	9T91Y7198	398.00
5000	95-130X175-235X190-260	118/236	9T91Y4208	583.00	9T91Y7208	612.00
7500	95-130X175-235X190-260	118/236	9T91Y4218	866.00	9T91Y7218	952.00
7500	190-260X380-520	118/236	9T91Y4219	851.00	9T91Y7219	937.00

‡ Can be used with adapter kit for quick conversion to a cord and receptacle unit.

3 Phase Delta Delta

Freq.	VA	Input Voltage Range	Stabilized Output Voltage*	Model Number	List Price
ENCLOSED					
60	6000†	190 to 260/380 to 520 delta	230/236 delta	9T91Y3506	$1066
60	10000†	190 to 260 delta	236 delta	9T91Y3501G2	1537
50	10000†	190 to 260 delta	236 delta	9T91Y3510	1680

* Maximum harmonic content — 5%.
† Minimum recommended load — 20% of rated.

Cord/Receptacle Units

Integral single-phase units with a 2-prong cord set and female receptacle in the case.

Volt-amp Output Capacity	Input Voltage Range	Stabilized Output Voltage	Model Number	List Price
ENCLOSED — UNFILTERED OUTPUT — FOR 60 CYCLES				
15	95-130	118	9T91Y4070G19	$16.80
30	95-130	118	9T91Y4090G19	18.90
60	95-130	118	9T91Y4110G19	24.20
120	95-130	118	9T91Y4130G19	32.60

Adapter kits are available for use with 250 and 500 volt-amp stabilizers to provide quick conversion to a cord and receptacle unit.

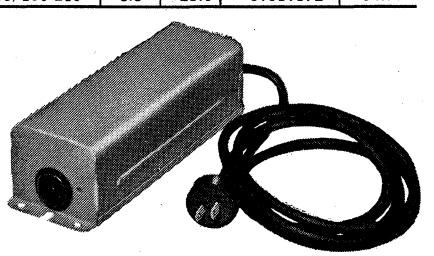
For Use With Stabilizer Model Number	Order Adapter Kit Model Number		List Price
	2-prong	3-prong	
9T91Y4140	9T91Y4140G55	9T91Y4140G75	2-prong Kits $2.10
9T91Y4142	9T91Y4140G55	9T91Y4140G75	
9T91Y4144	9T91Y4140G55	9T91Y4140G75	
9T91Y4145	9T91Y4140G55	9T91Y4140G75	
9T91Y4147	9T91Y4140G55	9T91Y4140G75	
9T91Y4148	9T91Y4140G55	9T91Y4140G75	
9T91Y4150	9T91Y4140G55	9T91Y4140G75	
9T91Y4152	9T91Y4140G55	9T91Y4140G75	
9T91Y4155	9T91Y4140G55	9T91Y4140G75	
9T91Y7140	9T91Y7140G55	9T91Y7140G75	3-prong Kits $2.60
9T91Y7150	9T91Y7150G55	9T91Y7150G75	
9T91Y7147	9T91Y7147G55	9T91Y7147G75	
9T91Y7148	9T91Y7147G55	9T91Y7147G75	

Filament Ratings—Single Phase—60 Cycles

For stabilized power for 6-volt nominal filaments, these stabilizers are suitable for operation with other 6-volt loads of rated or lower output current requirements. Current-limiting characteristic protects cold filaments from high current surges.

Volt-amp Output Capacity	Input Voltage Range	Output		Model Number	List Price
		Volts	Amps		
ENCLOSED					
15	95-130	6	2.5	9T91Y366	$14.70
15	95-130	6.3	2.4	9T91Y368	14.70
OPEN					
15	95-130	6	2.5	9T91Y365	13.90
15	95-130	6.3	2.4	9T91Y367	13.90
31.5	95-130/190-260	6.3	5.0	9T91Y369	15.80
63	95-130/190-260	6.3	10.0	9T91Y370	20.70
94.5	95-130/190-260	6.3	15.0	9T91Y371	23.70
157.5	95-130/190-260	6.3	25.0	9T91Y372	34.70

Typical cord/receptacle unit



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Trade Discount Applies To List Prices Only

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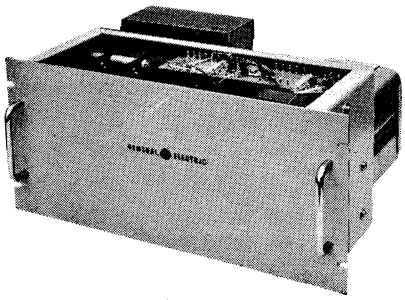
STABILTRON* AC VOLTAGE STABILIZERS

ELECTRONIC INNOVATIONS IN ACTION

For Electronic and Electric Equipment Requiring PRECISE Voltage Control

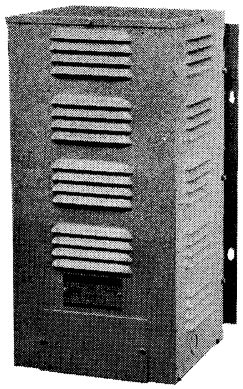


PANEL CONSTRUCTION is suitable for standard 19-inch rack mounting.

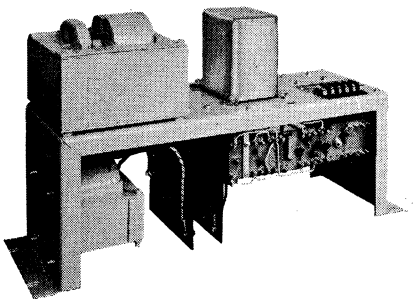
General Electric Stabiltron a-c voltage stabilizers can be used in a wide variety of electronic equipment applications where precise control of voltage is required. The Stabiltron consists entirely of static components — there are no tubes to burn out or moving parts to replace or maintain.

The Stabiltron senses deviations from a predetermined output voltage level by an error detector. The error signal, through the silicon-controlled rectifier circuit, augments the voltage stabilizer action and provides almost instantaneous correction of output voltage.

Typical applications include computers, radar and communications equipment, industrial process control, and X-ray equipment.



ENCLOSED CONSTRUCTION - 2-kva units are suitable for either wall or floor mounting, 5- and 10-kva units for floor mounting only.



OPEN CONSTRUCTION is suitable for horizontal or vertical mounting surfaces in equipment enclosures.

Input Voltage — The most common power source voltages can be handled by the standard models listed. Stabiltron units can be provided for special voltage levels on request.

Output Voltage — Stabiltron voltage stabilizers maintain extremely precise voltage output in spite of wide fluctuations of line voltage, frequency, load, load power factor, and ambient temperatures.

The table below illustrates the effect on the output of the maximum steady state excursions, within rated limits of some of these variables.

TABLE 1 — TYPICAL OUTPUT VOLTAGE CHARACTERISTICS

Variable	Excursion	Output Voltage Bandwidth¶
Line voltage†	95 to 130	0.02 to 0.2%
Frequency	57 to 63 cycles	0.15 to 0.4%
Load	0 to 100% rated load	0.02 to 0.1%
Load power factor	0.4 lagging to unity	0.01 to 0.1%
Ambient temperature	−25C to 40C	0.01%/degree C

¶ A range is indicated because exact amounts are dependent on the static level of other variables.

† When the Stabiltron unit is operated at less than rated load, the line voltage can be reduced considerably below 95 volts without serious deterioration of the output voltage.

Response — Under transient line or load conditions, elapsed time for correction of output voltage and transient excursion from the normal bandwidth are key considerations to equipment operation.

* Trade-name of General Electric Co.

57-63CPS; 3% HARMONIC: 0.4 LAG TO UNITY LOAD PF

Kva	Model Number	List Price	Input Voltage Range	Output Voltage (Adjustable ±4%)	Approx. Net Weight (Pounds)	Construction Type	Approx. Dim. (In.) H	W	D
0.5	9T91Y3021	$410	95-130/190-260	118	70	Panel	7	19	14¾
0.5	9T91Y3021G2	402	95-130/190-260	118	70	Open	7	19	13¼
1.0	9T91Y3022	483	95-130/190-260	118	125	Panel	8¾	19	15½
1.0	9T91Y3022G2	476	95-130/190-260	118	125	Open	8¾	19	14
2.0	9T91Y3023	646	95-130/190-260	118/236	185	Enclosed	25	14½	11¼
2.0	9T91Y3023G2	635	95-130/190-260	118/236	180	Open	23½	14½	10¼
5.0	9T91Y3027	1386	95-130/175-235/190-260	118/236	570	Enclosed	26½	28	14
10.0	9T91Y3030	2142	190-260/380-520	118/236	975	Enclosed	28	39	17

The Stabiltron provides fast response and small transient excursion through its unique combination of solid state and magnetic circuitry.

TABLE 2 — TYPICAL TRANSIENT RESPONSE CHARACTERISTICS

Transient Change	Percent Peak Output Voltage Excursion	Response‡ Time	Total Recovery§ Time
0 to 115V input	14%	4 cycles	13 cycles
95 to 130V input	14%	3 cycles	8 cycles
130 to 95V input	9%	5 cycles	9 cycles
0 to 100% rated load	24%	1 cycle	2 cycles
20% to 100% rated load	21%	1 cycle	2 cycles
100% to 20% rated load	34%	1 cycle	10 cycles

‡ The time required for the output to recover 63.3% from its maximum excursion.

§ The time required for the output to recover to normal bandwidth limits.

Harmonic Content — Under all rated ranges of line variation and most load conditions, the total harmonic content of the output wave form will not exceed three percent for a sine wave power source. Even under adverse conditions, when the power source is not a sine wave, the Stabiltron voltage stabilizer will correct the wave form to the load to approximately three percent harmonic content.

Rectifier-filter Loading — Since the output wave form is low in harmonic content, the Stabiltron voltage stabilizer can be connected successfully to a rectifier (capacitor input) filter load to the input of a d-c power supply having capacitor input filters.

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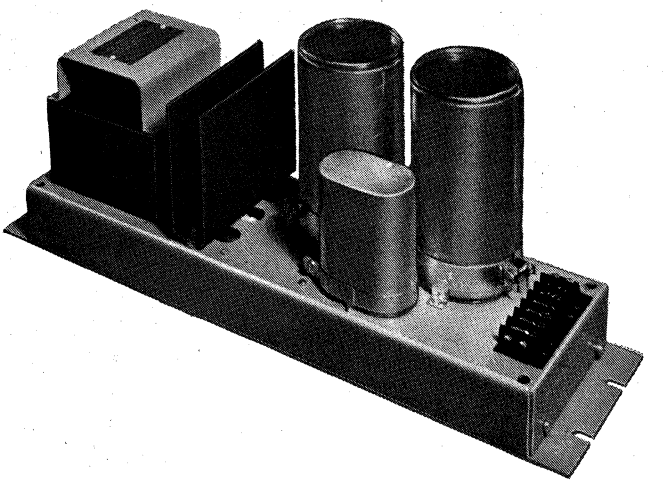
REGULATED DC POWER SUPPLIES

ELECTRONIC INNOVATIONS IN ACTION

Improve Performance of Computers and Other Electronic Equipment



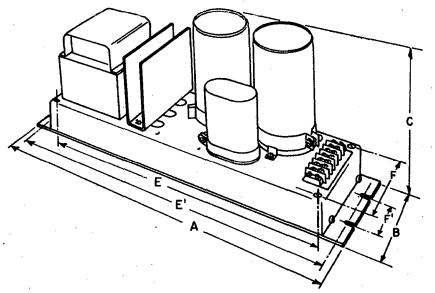
These component power supplies can be used in a wide variety of applications where relatively constant d-c voltage is required despite fluctuating line voltages. Computers, process control equipment, and electronic measuring devices are typical applications where demands for accuracy require constant regulation of voltage.

Performance-proved G-E d-c power supplies can be designed to suit your needs for either 50- or 60-cycle power sources.

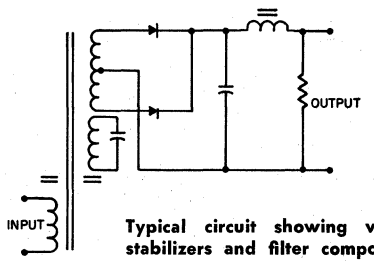
60-CYCLE, 97- TO 130-VOLT INPUT RANGE, 40C AMBIENT

DC OUTPUT†				LOAD REGULATION‡		Dimensions (See sketch below)							
						OVER-ALL			MOUNTING				
									Chassis		Rack		
Volts	Amps	MODEL NO.	LIST PRICE (Lots 1-4)	100% to 50% load	100% to 20% load	A	B	C	F	E	F′	E′	NET WGT. LBS.
12	5.0	9T66Y51	**$135.00**	5%	6%	19	3½	7⅝	2¾	16¼	3	18⅜	16
12	15.0	9T66Y53	**162.00**	5%	7%	19	5¼	8	4½	16¼	2¼	18⅜	25
18	5.0	9T66Y61	**124.00**	4%	5%	19	3½	7⅝	2¾	16¼	3	18⅜	19
24	2.5	9T66Y987	**117.50**	4%	6%	19	3½	6⅛	2¾	16¼	3	18⅜	16
24	6.0	9T66Y988	**138.50**	3%	5%	19	5¼	6½	4½	16¼	2¼	18⅜	25
24	10.0	9T66Y989	**161.00**	3%	5%	19	5¼	8	4½	16¼	2¼	18⅜	28
24	20.0	9T66Y990	**210.00**	3%	5%	19	7	9⅜	6¼	16¼	4	18⅜	45
24	50.0	9T66Y991	**360.00**	3%	5%	19	10½	11⅜	9¾	16¼	§	18⅜	105
28	8.0	9T66Y83	**153.00**	3%	5%	19	5¼	8	4½	16¼	2¼	18⅜	25
48	4.0	9T66Y93	**122.00**	3%	5%	19	5¼	8	4½	16¼	2¼	18⅜	25
48	10.0	9T66Y94	**180.00**	2%	4%	19	5¼	8	4½	16¼	2¼	18⅜	35
125	2.0	9T66Y980	**134.00**	2%	3%	19	5¼	6½	4½	16¼	2¼	18⅜	26
150	2.0	9T66Y981	**144.00**	2%	3%	19	5¼	6½	4½	16¼	2¼	18⅜	28
200	1.0	9T66Y982	**124.00**	2%	3%	19	5¼	6½	4½	16¼	2¼	18⅜	24

† Ripple 1% RMS. All standard units come equipped with a plate for 19-inch rack mounting.
‡ Indicates approximate percent increase in output voltage due to increase of load current from full load.
§ Rack mounting plate has four mounting slots on each end. Distance between centers of two outer slots is 7½ in., between two inner slots 3 In.



Mounting holes suitable for ¼-20 screws. Length of screw may vary with chassis height.



Typical circuit showing voltage stabilizers and filter components.

EFFECT OF INPUT VOLTAGE VARIATION

D-c power supplies can be designed for various input voltages and ranges. With all other variables constant, the output voltage will not vary more than ±1 percent for a change in input voltage over the rated range of 97 to 130 volts input.

EFFECT OF TEMPERATURE CHANGE

For every 40C change in the ambient temperature, the output voltage level will change approximately one percent.

EFFECT OF FREQUENCY

A change of one percent in frequency will change output voltage level approximately one and one-half percent.

ISOLATION

All d-c power supplies provide electrical isolation between the a-c power source and the d-c load.

POLARITY

G-E d-c power supplies can be designed with the polarity you require. All standard units listed can be installed with either plus or minus grounded.

RIPPLE

Ripple levels of one percent RMS meet most requirements. However, other levels of ripple content can be designed into G-E power supplies.

EFFICIENCY

Efficiency ranges from 70 to 85 percent for normal output voltage levels. For unusually low output voltages or low power ratings, some decrease in efficiency may occur.

REGULATION

Load regulation characteristics depend on the rated output voltage and rated power level of the power supply.

Prices subject to change without notice.

GENERAL ELECTRIC

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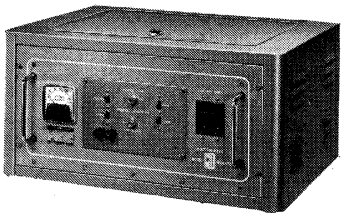
volt-pac® VOLTAGE REGULATORS

ELECTRONIC INNOVATIONS IN ACTION

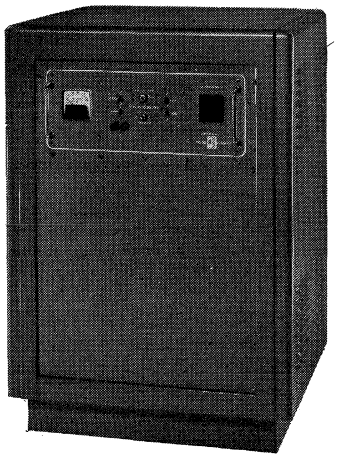
- **New solid-state control**
- **Precise output voltage control**
- **Fast voltage-correction rate**
- **Cabinet or rack-mounted models**
- **Magnetic circuit-breaker protection**

General Electric's new automatic voltage regulator line provides closely regulated output voltages from varying input voltages. They normally include a motor-operated Volt-Pac variable transformer, associated buck-boost transformers which handle a wide range of input-voltage variation, and a new solid-state SCR control.

These automatic regulators maintain a preselected output voltage level within 1 percent bandwidth, and are temperature compensated from −20 to +40C. They can be bench or floor mounted, or in smaller sizes, mounted in standard relay racks.



Single-Phase



Three-Phase

Input Voltage Range Min.	Input Voltage Range Max.	Nom. Output Voltage	Adjustable Output Voltage† Min.	Adjustable Output Voltage† Max.	Correction Rate Volts/ Sec.	Load Max. Amps	Load KVA ‡	Rack-mounted Model No.	Rack-mounted List Price	Rack-mounted Approx. Dimensions (In.) Width	Height	Depth	Net Wt.	Cabinet-mounted Model No.	Cabinet-mounted List Price	Cabinet-mounted Approx. Dimensions (In.) Width	Height	Depth	Net Wt.
115 VOLTS — SINGLE-PHASE																			
95	135	115	110	120	10.4	10	1.15	9T92Y100G25	$430	19	6¾	12¼	50	9T92Y100G24	$460	22½	9⅛	17	70
95	135	115	110	120	10.4	25	2.9	9T92Y101G25	460	19	8¾	15¼	70	9T92Y101G24	490	22½	10⅞	17	95
95	135	115	110	120	10.4	50	5.75	9T92Y102G25	515	19	8¾	15¼	100	9292Y102G24	545	22½	10⅞	17	125
95	135	115	110	120	10.4	100	11.5	9T92Y103G25	625	19	12¼	19⅛	120	9T92Y103G24	655	22½	14	19 9/16	150
95	135	115	110	120	10.4	150	17.2	.....	.....	....	.....	.....	.....	9T92Y104G24	700	21½	20	18¼	170
230 VOLTS — SINGLE-PHASE																			
200	260	230*	220	240	17.2	13	3.0	9T92Y105G25	$515	19	8¾	15¼	70	9T92Y105G24	$545	22½	10⅞	17	95
200	260	230*	220	240	17.2	32.5	7.5	9T92Y106G25	570	19	8¾	15¼	100	9T92Y106G24	600	22½	10⅞	17	125
200	260	230*	220	240	17.2	52	12.0	9T92Y107G25	660	19	12¼	19⅛	120	9T92Y107G24	690	22½	14	19 9/16	150
200	260	230*	220	240	17.2	130	30.0	.....	.....	....	.....	.....	.....	9T92Y108G24	800	22½	20	18¼	170
460 VOLTS — SINGLE-PHASE																			
400	520	460	440	480	34.4	13	6.0	9T92Y109G25	$675	19	8¾	18 9/16	85	9T92Y109G24	$705	22½	10½	19¾	110
400	520	460	440	480	34.4	32.5	15.0	9T92Y110G25	745	19	8¾	18 9/16	115	9T92Y110G24	775	22½	10½	19¾	140
400	520	460	440	480	34.4	52	24.0	.....	.....	....	.....	.....	.....	9T92Y111G24	890	21¾	20	18¼	220
400	520	460	440	480	34.4	130	60.0	.....	.....	....	.....	.....	.....	9T92Y112G24	1110	25¾	30 5/16	18½	350
230 VOLTS — THREE-PHASE																			
200	260	230*	220	240	17.2	12.5	5.0	9T92Y113G25	$995	19	8¾	18 9/16	75	9T92Y113G24	$985	22½	10½	19¾	100
200	260	230*	220	240	17.2	34	13.5	.....	.....	....	.....	.....	.....	9T92Y114G24	1095	25¾	13⅝	17¼	140
200	260	230*	220	240	17.2	68	27.0	.....	.....	....	.....	.....	.....	9T92Y115G24	1325	25¾	13⅝	17¼	200
200	260	230*	220	240	17.2	136	54.0	.....	.....	....	.....	.....	.....	9T92Y116G24	1755	20¾	30⅜	18½	300
200	260	230*	220	240	7.5	170	67.5	.....	.....	....	.....	.....	.....	9T92$117G34	1950	25¾	30 5/16	18½	500
460 VOLTS — THREE-PHASE																			
400	520	460	440	480	34.4	13	10.4	.....	.....	....	.....	.....	.....	9T92Y118G24	$1115	25¾	13⅝	17¼	140
400	520	460	440	480	34.4	32.5	26.0	.....	.....	....	.....	.....	.....	9T92Y119G24	1245	25¾	13⅝	17¼	200
400	520	460	440	480	34.4	52	41.5	.....	.....	....	.....	.....	.....	9T92Y120G24	1600	20¾	30⅜	18½	300
400	520	460	440	480	34.4	100	80.0	.....	.....	....	.....	.....	.....	9T92Y121G34	1900	25¾	30 5/16	18½	500
400	520	460	440	480	15.0	130	104.0	.....	.....	....	.....	.....	.....	9T92Y122G34	2000	28⅜	30⅜	18½	600

* 208-volt nominal output voltage operation requires no change in power connection, but does require selecting correct control transformer ratio. When operated at a nominal 208 volts output, the regulator will correct for an input range of 181 to 236 volts, with the output voltage adjustable from 199 to 217 volts.

† The specified input voltage range is applicable for nominal output voltage. When operating at any other output voltage within specified range, the input voltage range will change proportionately with the change in output voltage level selected.

‡ Load kva based on nominal output voltage.

No Waveform Distortion

No harmonic waveform distortion is introduced at any load or with any input voltage. The output voltage waveform is a precise reproduction of applied input waveform.

Adjustable Output Voltage

Output voltage for units nominally rated 115 volts is adjustable from 110 to 120 volts. Output voltage also is adjustable from 220 to 240 volts for units rated 230 volts; from 440 to 480 volts for nominally ratetd units of 460 volts. Please note that the specified input-voltage range is applicable for nominal output voltage. When operating at any other output voltage within specified range, the input voltage range shifts in proportion with the selected output voltage.

Accurate Static-sensing Control

Solid-state control combined with the new Sylvan-Kettler static-sensing device achieve the optimum in automatic accuracy. The voltage regulator is governed automatically by a dead-band-type voltage-sensitive control utilizing either lamp or zener bridges. The circuit includes magnetic input circuit breakers and an output voltmeter.

TYPICAL SPECIFICATIONS

Regulation Accuracy	±1.0%
Speed of correction	10.4 volt/sec
Output voltage	Adjustable from 110-120 volts
Input voltage	95 to 135, single-phase
Frequency	60-cycle
Load Range	Zero to full load
Efficiency	Up to 99%
Power Factor Range	0 to 100%
Wave Form Distortion	None
Output Meter	0-150 Volts AC
Ambient Temperature Operating Range	−20C to +40C
Protection	Magnetic Circuit Breaker in Power Input Line—Control Circuitry Fused

Prices subject to change without notice.

Complete information is available from your nearest G-E Electronic Components Sales Office, or by writing to Section 998-52, General Electric Company, Schenectady, N. Y.

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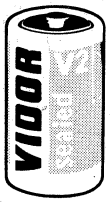
VIDOR BATTERIES

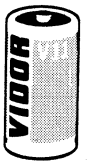
IRC, Inc.

These fine British quality batteries meet or exceed any American manufactured equivalent. Crafted by Britain's finest technicians you're assured of a high standard of quality and performance.

VIDOR GENERAL PURPOSE BATTERIES



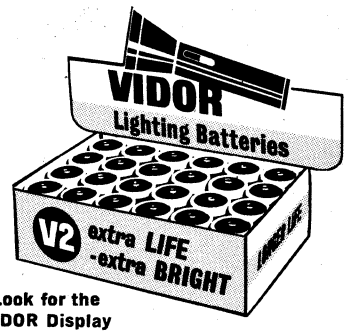
V2
(D)
EV 950
RCA VSO36
BUR 2
NEDA 13F



V11
(C)
EV 935
RCA VSO35
BUR 1
NEDA 14F

V12
(AA)
EV 915
RCA VSO34
BUR Z
NEDA 15F

For Flashlights, Toys and General Purpose use. Carbon Zinc construction. Your best buy for everyday use.



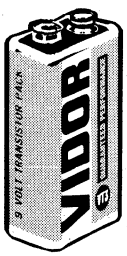
Look for the VIDOR Display

CAT. NO.	CHEMICAL SYSTEM	VOLTS	STD. DISPLAY BOX		STD. MASTER CTN.		COMPARABLE PRICES*	
			QUANTITY	WEIGHT	QUANTITY	WEIGHT	DEALER	RETAIL
V2	Carbon Zinc	1.5	24	4 lbs. 6 oz.	288	53 lbs. 2 oz.	$.13 ea.	$.20 ea.
V11	Carbon Zinc	1.5	24	2 lbs. 1 oz.	288	25 lbs. 12 oz.	.13 ea.	.20 ea.
V12	Carbon Zinc	1.5	24	14 oz.	288	10 lbs. 8 oz.	.13 ea.	.20 ea.

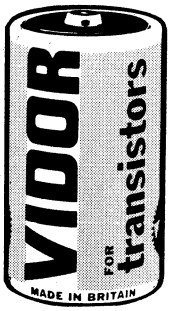
*Based on published prices of leading U.S. battery manufacturers.

An IRC quality product from Great Britain

VIDOR TRANSISTOR BATTERIES

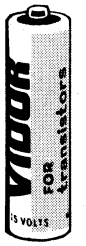


VT3
(9 Volt)
EV 216
RCA VS323
BUR 2U6
NEDA 1604



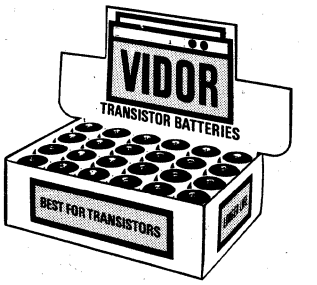
VT12
(D)
EV 1050
RCA VS336
BUR 230
NEDA 13

VT13
(C)
EV 1035
RCA VS335
BUR 130
NEDA 14



VT14
(AA)
EV 1015
RCA VS334
BUR 930
NEDA 15

Especially designed for radios and transistorized Electronic devices. Also for photoflash. Electrolytic Manganese construction — Longer Lasting — More Energy — Sustains High Current Drains.



Look for the VIDOR Display

CAT. NO.	CHEMICAL SYSTEM	VOLTS	STD. DISPLAY BOX		STD. MASTER CTN.		COMPARABLE PRICES*	
			QUANTITY	WEIGHT	QUANTITY	WEIGHT	DEALER	RETAIL
VT3	Electrolytic Manganese	9	12	1 lb.	288	23 lbs. 9 oz.	$.32 ea.	$.69 ea.
VT12	Electrolytic Manganese	1.5	24	5 lbs.	288	62 lbs.	.19 ea.	.30 ea.
VT13	Electrolytic Manganese	1.5	12	1 lb. 4 oz.	288	34 lbs. 7 oz.	.19 ea.	.30 ea.
VT14	Electrolytic Manganese	1.5	24	14 oz.	288	10 lbs. 8 oz.	.15½ ea.	.25 ea.

*Based on published prices of leading U.S. battery manufacturers.

An IRC quality product from Great Britain

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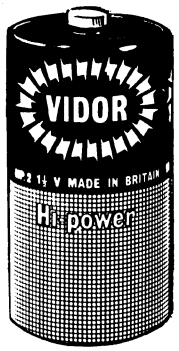
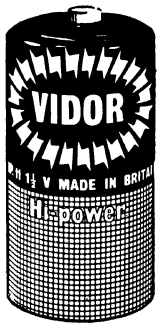
VIDOR BATTERIES

IRC, Inc.

VIDOR HI-POWER BATTERIES



HP2
(D)

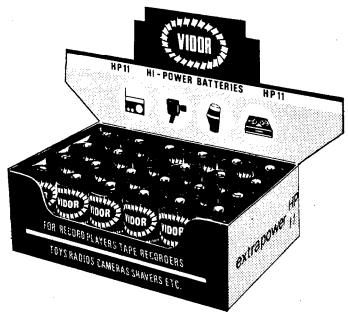


HP11
(C)

HP14
(AA)

HP16
(AAA)

Exclusive in the U.S. from IRC. A rugged *super-battery* that gives you outstanding life for high-drain applications such as photoflash and motor driven recorders and toys. Specially engineered for stability, stamina, and longevity. Electrolytic Manganese construction.



Look for the VIDOR Display

CAT. NO.	CHEMICAL SYSTEM	VOLTS	STD. DISPLAY BOX		STD. MASTER CTN.		SUGGESTED PRICES DEALER	RETAIL
			QUANTITY	WEIGHT	QUANTITY	WEIGHT		
HP2	Electrolytic Manganese	1.5	24	5 lbs.	288	62 lbs.	$.37 ea.	$.55 ea.
HP11	Electrolytic Manganese	1.5	24	2 lbs. 14 oz.	288	34 lbs. 8 oz.	.37 ea.	.55 ea.
HP14	Electrolytic Manganese	1.5	24	12 oz.	288	10 lbs. 3 oz.	.33 ea.	.50 ea.
HP16	Electrolytic Manganese	1.5	24	9 oz.	288	7 lbs. 8 oz.	.27 ea.	.40 ea.

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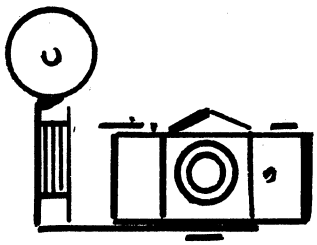

VIDOR PHOTOFLASH BATTERIES

For direct photoflash equivalent of U.S. manufacturers, use VIDOR Transistor batteries — For superior performance to U.S. photoflash batteries, use VIDOR Hi-Power batteries— up to 3 times the life.

Look for the VIDOR Display

CAT. NO.	CHEMICAL SYSTEM	VOLTS	REPLACEMENT INFORMATION	SUGGESTED PRICES DEALER	RETAIL
VT12	Electrolytic Manganese	1.5	Replaces EV850, BU220, RCA VS736 (D Cell)	$.19 ea.	$.30 ea.
VT13	Electrolytic Manganese	1.5	Replaces EV835, BU120, RCA VS735 (C Cell)	.19 ea.	.30 ea.
VT14	Electrolytic Manganese	1.5	Replaces EV815, BU920, RCA VS734 (AA Cell)	.15½ ea.	.25 ea.
HP2	Electrolytic Manganese	1.5	Replaces EV850, BU220, RCA VS736 (D Cell)	.37 ea.	.55 ea.
HP11	Electrolytic Manganese	1.5	Replaces EV835, BU120, RCA VS735 (C Cell)	.37 ea.	.55 ea.
HP14	Electrolytic Manganese	1.5	Replaces EV815, BU920, RCA VS734 (AA Cell)	.33 ea.	.50 ea.
HP16	Electrolytic Manganese	1.5	Replaces EV812, (AAA Cell)	.27 ea.	.40 ea.

An IRC quality product from Great Britain

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MALLORY Batteries

MERCURY POWER-PAK BATTERIES

Mall. No.	Volts	Cap.*	Use	Terminals	Net
302157	1.35	28,000	Radiation eqpt.	Socket	$12.50
302250	9.45	250	Radiation eqpt.	Tabs	2.90
302351	5.4	2,200	Fire alarm	Flat	5.40
302358	10.8	250	Radiation eqpt.	Leads	4.10
302362	16.2	250	Radiation eqpt.	Leads	5.60
302435	6.75	250	Radiation eqpt.	Flat	3.46
302462	97.2	1,000	Transmitter "B"	Leads	40.00
302465	47.25	1,000	Geophysical	Leads	22.50
302478	9.8	2,400	Recorder	Flat	6.90
302497	6.75	2,200	Test equipment	Posts	7.85
302579	29.7	250	Test equipment	Leads	12.50
302580	27	3,400	Electronic	Socket	33.60
302642	7.0	2,400	Fire alarm	Flat	5.20
302651	1.35	14,000	Electronic	Leads	4.80
302702	2.7	2,200	Geophysical	Leads	3.80
302904	5.4	3,400	Meter	Leads	6.75
302905	6.75	3,400	Test equipment	Leads	8.05
302907	9.45	3,400	Electronic	Leads	10.50
302908	10.8	3,400	Radiation eqpt.	Leads	11.50
303145	8.4	3,600	Depth finder	Snap	6.75
303219	9.8	175	Electronic	Flat	2.06
303236	4.2	1,000	Electronic	Flat	1.26
303314	16.8	2,400	Transceiver	Flat	10.80
303394	11.2	3,600	Electronic	Snap	10.15
303431	11.2	1,000	Dictation	Snap	3.50

ALKALINE DURACELL★ BATTERIES

Mallory No.	Volts	Use	Wt., Oz.	Net Each
MN1300#	1.5	All Purpose "D"	5¼	65c
MN1306#	4.5	Transistor radio	1⅛	84c
MN1400#	1.5	All Purpose "C"	2½	50c
MN1500#	1.5	All Purpose "AA"	.82	33c
MN1604#	9.0	Transistor radio	1⅛	84c
MN2400#	1.5	All Purpose "AAA"	.4	33c
MN9100#	1.5	All Purpose "N"	.34	24c

SILVER OXIDE BATTERIES

Mallory Number	Volts	Size, In.	Net Each
MS13	1.5	.21 x .31	27c
MS41	1.5	.16 x .46	27c
MS76	1.5	.21 x .46	30c

PHOTO BATTERIES

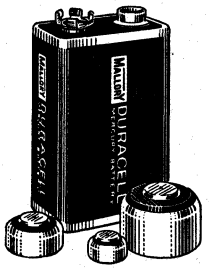
For flashguns, electronic flash, photocells, meters, Wink-lites®, etc. Mercury type with flat terminals except as otherwise noted.

Mallory Number	Volts	Wt., Oz.	Net Each	Mallory Number	Volts	Wt., Oz.	Net Each
PX1	1.35	0.6	$0.66	PX24*	3.0	1.0	$ 0.75
PX4	5.6	3.2	1.57	PX450	1.35	0.3	.51
PX6	8.1	4.0	2.75	PF489†	225	12	6.96
PX13B	1.35	0.14	.50	PF491†	240	13	5.56
PX14	2.7	0.3	1.05	PF492†	225	40	7.65
PX18	45	5.3	4.05	PF497†	510	26	11.16
PX19*	4.5	1.2	.84	PX625	1.35	0.15	.51
PX21*‡	4.5	1.2	.84	PX640	1.35	0.38	.51
PX23	5.6	2.0	.60	PX675B	1.35	0.07	.42

ZINC-CARBON BATTERIES

Mallory No.	Nom. Volts	Use	T*	Size, Inches L. x W. x H.	Wt., Oz.	Net Each
M4	1.5	Radio "A"	a	2 5/8 x 2 5/8 x 3 15/16	24	$1.15
M9	7.5	Radio "A"	a	2 1/16 x 1 15/16 x 3 1/2	8	1.23
M13F§	1.5	Flashlight "D"	b	1 11/32 dia. x 2 13/32	3.3	.13
M13P	1.5	Photo "D"	b	1 11/32 dia. x 2 13/32	3.3	.19
M13R	1.5	Radio "D"	b	1 11/32 dia. x 2 13/32	3.3	.19
M13X	1.5	Industrial "D"	b	1 11/32 dia. x 2 13/32	3.3	.19
M14F§	1.5	Flashlight "C"	b	1 1/32 dia. x 1 15/16	1.5	.13
M14P	1.5	Photo "C"	b	1 1/32 dia. x 1 15/16	1.5	.19
M14R#	1.5	Radio "C"	b	1 1/32 dia. x 1 15/16	1.5	.19
M15F	1.5	"AA" penlight	b	9/16 dia. x 1 31/32	0.5	.13
M15P#	1.5	Photo "AA"	b	9/16 dia. x 1 31/32	0.5	.16
M15R#	1.5	Radio penlight	b	9/16 dia. x 1 31/32	0.5	.155
M20	1.5	Radio "A"	b	1 5/16 dia. x 4 9/64	6	.42
M24F	1.5	"AAA" penlite	b	13/32 dia. x 1 3/4	0.4	.095
M200	67.5	Radio "B"	c	2 13/16 x 1 3/8 x 3 45/64	12	2.70
M208	15	Electronic "B"	b	1 1/32 x 5/8 x 1 39/64	1.0	.81
M210	30	Electronic "B"	b	1 1/32 x 5/8 x 2 9/16	1.8	1.23
M211P	67.5	Radio "B"	c	1 19/32 x 63/64 x 5 1/16	9	2.70
M215	22.5	Radio "B"	b	1 1/32 x 5/8 x 2	1.4	1.05
M504	15	Electronic "B"	b	5/8 x 19/32 x 1 3/8	0.6	.81
M505	22.5	Electronic "B"	b	5/8 x 19/32 x 1 63/64	0.8	1.05
M506	30	Electronic "B"	b	1 13/64 x 5/8 x 1 31/64	0.9	1.30
M507	30	Electronic "B"	b	5/8 x 19/32 x 2 39/64	0.9	1.30
M900	1.5	Ignition	e	2 5/8 x 2 5/8 x 4 1/2	24	.84
M903	7.5	Lighting	e	7 1/4 x 4 1/16 x 6 1/16	122	4.86
M904	9	Lighting	e	8 1/4 x 4 1/16 x 6 1/16	152	5.53
M905F	1.5	Ignition	f	2 5/8 dia. x 6 5/8	29	.84
M905S	1.5	Ignition	e	2 5/8 dia. x 6 5/8	29	.84
M906F	1.5	Telephone	f	2 5/8 dia. x 6 5/8	29	.84
M906S	1.5	Telephone	e	2 5/8 dia. x 6 5/8	29	.84
M907	6	Industrial	e	10 13/16 x 2 25/64 x 7 9/16	153	3.34
M908	6	Metal lantern	d	2 11/16 x 2 11/16 x 4 7/16	21	.83
M910F	1.5	Flashlight "N"	b	39/64 dia. x 1 1/16	0.22	.08
M911F	1.5	R.R., Indust.	f	2 5/8 dia. x 6 5/8	34	.90
M911S	1.5	R.R., Indust.	e	2 5/8 dia. x 6 5/8	34	.90
M915	6	Lighting	e	2 11/16 x 2 11/16 x 4 5/32	21	.83
M918	6	Lighting	e	5 11/16 x 2 27/32 x 4 15/16	52	1.96
M1600#	9	Radio	c	1 dia. x 1 15/16	1.8	.62
M1602	9	Radio	c	1 13/16 x 1 11/16 x 2 3/4	4.5	1.30
M1603	9	Radio	c	2 1/32 x 2 1/32 x 3 1/16	15	1.36
M1604#	9	Radio	c	1 1/32 x 1 1/16 x 1 59/64	1.3	.48
M1605	9	Radio	c	1 13/16 x 1 13/16 x 2 7/16	7	1.36
M1611#	9	Radio	b	3/4 dia. x 2	1.2	.62

*Alkaline. †Zinc-carbon. ‡Snap term. Available in: #Blister pack; §2/hang pack. *mAH. *Terminals: a, socket; b, flat; c, snap; d, coil spring; e, screw; f, Fahnestock clip. ®Polaroid Corp. TM.



MERCURY DURACELL★ BATTERIES

Mercury batteries offer more power per unit of volume than any other type. They are available in a very wide range of sizes, voltages and shapes. Voltage stability is excellent throughout operating life. "R" types rated 1.35 volts per cell, "non-R" at 1.4 V. Mercury batteries cost less per listening hour than ordinary zinc-carbon types. Alkaline batteries are "Best Buy" for lighting and photoflash. Zinc-carbon types are used where low price is more important than long-life economy. Mercury batteries listed below have flat terminals unless otherwise noted. Types with T suffix have solder tabs.

Mallory Number	Volts	Cap., mAH	Use	Size, Inches L. x W. x H.	Wt., Oz.	Net Each
RM1	1.4	1000	Phys. hndcp.	5/8 dia. x 21/32	0.43	$0.52
RM1R	1.35	1000	Electronic	5/8 dia. x 21/32	0.43	.64
RM1RT†	1.35	1000	Electronic	5/8 dia. x 21/32	0.43	.69
RM1RT2‡	1.35	1000	Electronic	5/8 dia. x 21/32	0.43	.74
RM3R	1.35	2200	Electronic	1 dia. x 21/32	0.93	1.05
RM4R	1.35	3400	Electronic	1.2 dia. x 21/32	1.6	1.31
RM4RT†	1.35	3400	Electronic	1.2 dia. x 21/32	1.6	1.36
RM4Z	1.4	2400	Electronic	1.2 dia. x 1/2	1.2	1.00
RM12	1.4	3600	Tape rerdr.	5/8 dia. x 1 61/64	2.0	.87
RM12R	1.35	3600	Tachometer	5/8 dia. x 1 61/64	2.0	1.05
RM12RT†	1.35	3600	Electronic	5/8 dia. x 1 61/64	2.0	1.10
RM12RT2‡	1.35	3600	Electronic	5/8 dia. x 1 61/64	2.0	1.15
RM24	1.4	1000	Radio AAA	0.4 dia. x 1 3/4	0.5	.53
RM42	1.4	14000	Elec. "D"	1.2 dia. x 2 3/8	5.9	2.68
RM42R	1.35	14000	Elec. "D"	1.2 dia. x 2 3/8	5.9	2.76
RM42RT†	1.35	14000	Elec. "D"	1.2 dia. x 2 3/8	5.9	2.81
RM42RT2‡	1.35	14000	Elec. "D"	1.2 dia. x 2 3/8	5.9	2.86
RM312	1.4	36	Phys. hndcp.	5/16 dia. x 9/64	0.02	.24
RM400	1.4	80	Phys. hndcp.	39/64 dia. x 9/64	0.04	.24
RM400R	1.35	80	Electronic	39/64 dia. x 9/64	0.04	.35
RM400RT2‡	1.35	80	Electronic	39/64 dia. x 9/64	0.04	.45
RM401#	1.4	800	Radio "N"	39/64 dia. x 1 1/8	0.4	.51
RM401R	1.35	800	Electronic	39/64 dia. x 1 1/8	0.4	.60
RM411	14	160	Electronic	1 x 19/32 x 1 37/64	1.08	2.00
RM412	22.4	160	Electronic	1 x 19/32 x 1 31/32	1.65	2.76
RM413	28	160	Electronic	1 x 19/32 x 2 1/2	2.04	3.46
RM415*	42	160	Electronic	1 x 19/32 x 3 1/2	3.03	5.10
RM450R	1.35	350	Electronic	39/64 dia. x 9/16	0.18	.53
RM502R	1.35	2400	Electronic	1/2 dia. x 1 31/32	1.05	.77
RM520	1.4	130	Phys. hndcp.	1/2 dia. x 9/64	0.07	.17
RM575	1.4	100	Phys. hndcp.	.455 dia. x .129	0.05	.24
RM601R	1.35	1800	Electronic	5/8 dia. x 1 1/2	1.2	.83
RM625	1.4	350	Phys. hndcp.	5/8 dia. x 1/4	0.15	.42
RM625R	1.35	250	Electronic	5/8 dia. x 1/4	0.15	.53
RM625RT†	1.35	250	Electronic	5/8 dia. x 1/4	0.15	.58
RM625RT2‡	1.35	250	Electronic	5/8 dia. x 1/4	0.15	.63
RM630	1.4	350	Phys. hndcp.	5/8 dia. x 1/4	0.17	.42
RM630R	1.35	250	Electronic	5/8 dia. x 1/4	0.17	.53
RM640	1.4	500	Radio	5/8 dia. x 7/16	0.26	.42
RM640R	1.35	500	Electronic	5/8 dia. x 7/16	0.26	.53
RM640RT2‡	1.35	500	Electronic	5/8 dia. x 7/16	0.26	.63
RM675	1.4	160	Phys. hndcp.	39/64 dia. x 13/64	0.07	.32
TR113R	4.05	250	Electronic	21/32 dia. x 53/64	0.45	1.72
TR114R	5.4	250	Electronic	21/32 dia. x 1 1/16	0.59	1.85
TR114RT2‡	5.4	250	Electronic	21/32 dia. x 1 1/16	0.59	1.95
TR115	7.0	350	Dictating	21/32 dia. x 1 5/16	0.73	2.06
TR115R	6.75	250	Electronic	21/32 dia. x 1 5/16	0.73	2.06
TR126#	8.4	600	Radio	3/4 dia. x 2	1.6	1.31
TR132	2.8	1000	Paging	21/32 dia. x 1 5/16	1	1.05
TR132R	2.7	1000	Electronic	21/32 dia. x 1 5/16	1	1.17
TR133#	4.2	1000	Radio, Pag.	21/32 dia. x 2	1.4	1.17
TR133R	4.05	1000	Radio, Pag.	21/32 dia. x 2	1.4	1.35
TR134	5.6	1000	Gar. door	21/32 dia. x 2 39/64	1.9	1.57
TR134T2‡	5.6	1000	Electronic	21/32 dia. x 2 9/64	1.9	1.67
TR134R	5.4	1000	Electronic	21/32 dia. x 2 9/64	1.9	1.72
TR135	7.0	1000	Gar. door	21/32 dia. x 3 1/4	2.4	2.06
TR135R	6.75	1000	Electronic	21/32 dia. x 3 1/4	2.4	2.00
TR136	8.4	1000	Gar. door	21/32 dia. x 3 29/32	2.9	2.27
TR136R	8.1	1000	Electronic	21/32 dia. x 3 29/32	2.9	2.40
TR137	9.8	1000	Electronic	21/32 dia. x 4 9/16	3.4	2.62
TR137R	9.45	1000	Electronic	21/32 dia. x 4 9/16	3.4	2.76
TR145	7	250	Electronic	21/32 dia. x 1 5/16	0.58	1.72
TR146X*#	8.4	575	Radio	1 x 21/32 x 1 33/32	2.0	1.31
TR152	2.8	350	Electronic	15/32 dia. x 1 1/8	0.42	.87
TR152R	2.7	350	Electronic	15/32 dia. x 1 1/8	0.42	1.05
TR153	4.2	350	Electronic	15/32 dia. x 1 11/16	0.6	1.17
TR153R	4.05	350	Electronic	15/32 dia. x 1 11/16	0.6	1.35
TR162R	2.7	500	Electronic	21/32 dia. x 7/8	0.58	1.05
TR163	4.2	500	TV tuner	21/32 dia. x 1 5/16	0.87	1.17
TR163R	4.05	500	Electronic	21/32 dia. x 1 5/16	0.87	1.29
TR164#	5.6	500	Radio	21/32 dia. x 1 3/4	1.16	1.31
TR164R	5.40	500	Electronic	21/32 dia. x 1 3/4	1.16	1.57
TR165	7	500	TV tuner	21/32 dia. x 2 5/16	1.45	1.70
TR165R	6.75	500	Electronic	21/32 dia. x 2 5/16	1.45	1.90
TR169	12.6	500	Electronic	21/32 dia. x 3 7/8	2.88	3.50
TR175	7	350	Radio	21/32 dia. x 1 1/16	0.4	1.05
TR177*#	9.8	160	Radio	25/64 dia. x 1 39/64	0.67	1.31
TR233	4.2	2200	Radio	1 1/64 dia. x 1 31/32	3	2.27
TR233R	4.05	2200	Electronic	1 1/64 dia. x 1 31/32	3	2.62
TR234	5.6	2200	Electronic	1 1/64 dia. x 2 19/32	3.88	2.76
TR234R	5.6	2200	Electronic	1 1/64 dia. x 2 19/32	3.88	3.15
TR235R	6.75	2200	Electronic	1 1/64 dia. x 3 1/4	4.63	3.67
TR236R	8.10	2200	Electronic	1 1/64 dia. x 3 1/2	4.76	4.15
TR286*	8.4	750	Radio	1 dia. x 1 15/16	1.6	1.35
TR289*	12.6	750	CB radio	1 dia. x 2 25/64	3.6	2.27
TR431*	11.2	1000	Dictation	1 1/16 dia. x 3 15/16	5	3.95
ZM9#	1.4	2400	Radio "AA"	1/2 dia. x 1 31/32	1	.64
ZM12	1.4	3600	Clock	3/8 dia. x 2	2.0	.92

*Snap terminals. †1 tab, 1 flat terminal. ‡2 tab terminals. #Available in blister pack. *Mallory trademark.

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HIGH VOLTAGE POWER PACKS

COMPACT "M" SERIES 2 TO 75 KVDC

The "M" series Power Packs are a completely new design. Long life and a small package directed the use of the latest techniques and advanced materials. Many features have been incorporated with the highest quality materials, at the same time maintaining economy of cost.

Standard input voltage is 118 at frequencies from 50 to 500 cycles per second inclusive. Available also are input voltages of 220, 230 and 240 volts from 50 to 500 cycles per second inclusive. For 220 volts suffix the desired part number with "X", 230 volts "Y" and 240 Volts "Z". All units may be modified for other input voltages.

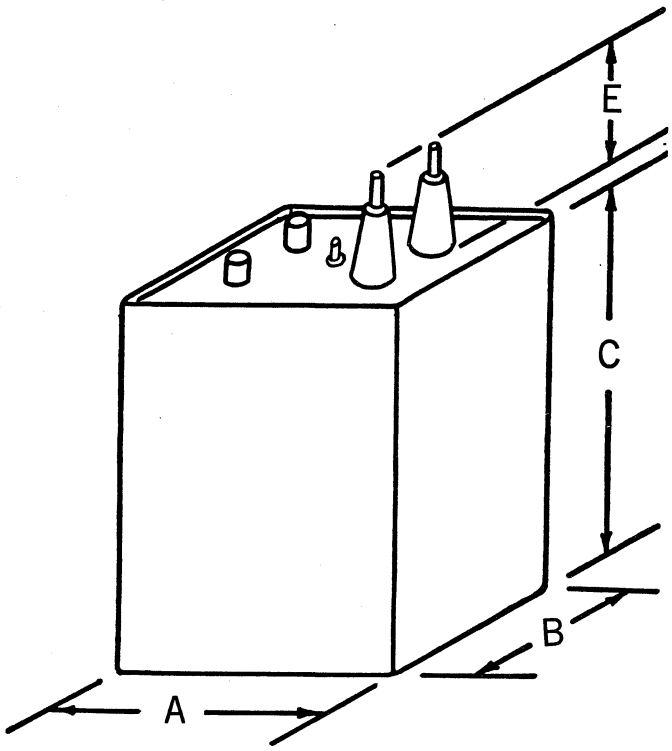
The output is filtered DC and standard potentials and current ratings are listed below. All units can be modified for any required potential and current below the values specified in the listing. The output potential can be varied from zero to the rated voltage and load by means of a variable auto transformer at the primary.

Ripple is 1% RMS or 2.75% peak to peak at rated current and voltage.

Design life is 40,000 hours at 35°C and 5,000 hours at 85°C.

Case finish is light blue gray lacquer per MIL-L-7178.

All units except the 75 KV, have two output terminals isolated from the container, permitting either terminal to be operated at ground or an intermediate point between them can be tied to ground. The 75 KV unit has a single high voltage terminal for the output. The Power Pack is normally furnished to deliver a positive output potential relative to ground. If a negative output is desired it can be shipped as such from the factory upon request. The polarity can be easily reversed as required by opening the top access port and reversing the selenium rectifier board. The remaining output terminal at low potential is left ungrounded so that the lead current be monitored if required.



PART NUMBER	KV RANGE	MAX. MA.	DIMENSIONS				MOUNTING AREA		WEIGHT LBS.
			A	B	C	E	L	W	
HV20-152M	0-2	1.5	3¾	1¾	3⅜	⅜	1¾	5¼	2 LBS.
HV50-152M	0-5	1.5	3¾	2¼	3⅜	⅝	2¼	5¼	2 LBS.
HV100-152M	0-10	1.5	3¾	3 3/16	4½	1 1/16	3 3/16	5¼	4 LBS.
HV150-152M	0-15	1.5	3¾	3 3/16	5½	1 1/16	3 3/16	5¼	5 LBS.
HV200-152M	0-20	1.5	3¾	4 9/16	5⅞	2⅛	4 9/16	5¼	9 LBS.
HV300-152M	0-30	1.5	3¾	4 9/16	7½	3¼	4 9/16	5¼	11 LBS.
HV500-152M	0-50	1.5	4 11/16	6	8½	4 5/16	6	6¼	18 LBS.
HV750-152M	0-75	1.5	5⅝	7⅝	12 3/16	7½	7⅜	7¼	45 LBS.
HV20-502M	0-2	5	3¾	2¼	3⅜	⅜	2¼	5¼	2 LBS.
HV50-502M	0-5	5	3¾	2¼	3¾	⅝	2¼	5¼	3 LBS.
HV100-502M	0-10	5	3¾	4 9/16	5⅞	1 11/16	4 9/16	5¼	8 LBS.
HV150-502M	0-15	5	3¾	4 9/16	6⅛	1 11/16	4 9/16	5¼	10 LBS.
HV200-502M	0-20	5	3¾	4 9/16	8	2⅛	4 9/16	5¼	14 LBS.
HV300-502M	0-30	5	4 11/16	6	8½	3¼	6	6¼	22 LBS.
HV500-502M	0-50	5	5⅝	7⅜	12 3/16	4 5/16	7⅜	7¼	45 LBS.
HV750-502M	0-75	5	11⅛	14 1/16	16¼	7 1/2	14 1/16	11⅛	124 LBS.
HV10-103M	0-1	10	3¾	2¼	3⅜	⅜	2¼	5¼	2 LBS.
HV25-103M	0-2.5	10	3¾	2¼	3¾	⅝	2¼	5¼	3 LBS.
HV50-103M	0-5	10	3¾	4 9/16	5⅞	⅝	4 9/16	5¼	10 LBS.
HV100-103M	0-10	10	3¾	4 9/16	8	1 1/16	4 9/16	5¼	14 LBS.
HV150-103M	0-15	10	4 11/16	6	8½	1 11/16	6	6¼	22 LBS.
HV250-103M	0-25	10	5⅝	7⅝	12 3/16	3¼	7⅝	7¼	45 LBS.
HV375-103M	0-37.5	10	11⅛	14 1/16	16¼	4 5/16	14 1/16	11⅛	124 LBS.

SURFACE AREA REQUIRED FOR MOUNTING INCLUDING AREA REQUIRED FOR FOOTED BRACKETS

SEE SECTION 1500, PAGES 385-387

HIGH & LOW VOLTAGE CAPACITORS

Plastic Capacitors, Inc.

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RCA BATTERIES

RADIO • FLASHLIGHT
FARM • TRANSISTOR
INDUSTRIAL • PHOTO FLASH

JULY 1, 1965

PORTABLE "A" TYPES

Type	Distr. Resale Price Ea.*	List Price Ea.*	Volts	Suggested Current Range Ma.	Max. Dimensions Inches L.	W. or Dia.	Overall Ht.	Standard Package Units	Lbs. (Appr.)	NEDA● Type No.	Replaces Eveready	Burgess	Mallory
VS004	1.15	1.65	1½	0-1000	2 5/16	2 5/8	3 27/32	12	17	4	742	4F	M4
VS034A♦	.13	.20	1½	0-25	—	5/16	1 31/32	144	5.3	815	915	Z	M15F
VS035A♦	.13	.20	1½	0-80	—	1 1/32	1 15/16	240	24	814	935	1	M14F
VS036♦	.13	.20	1½	0-150	—	1 11/32	2 13/32	192	39	813	950	2 or 2R	M13F
VS065	1.23	1.75	7½	0-70	2 5/32	1 5/16	3 1/32	12	7.3	9	717	C5	M9
VS067	1.23	1.75	4½	0-250	3 13/16	1 5/16	4 3/32	6	6	3	736	F3	M3
VS068♦	.87	1.25	6	0-25	1 7/32	1 7/32	2 11/32	6	1	2	724	Z4	M2
VS069	1.15	1.65	1½	0-300	2 25/32	1 13/32	3 1/32	6	3	18	720	2D	M18
VS070	.87	1.25	1½	0-250	—	1 11/32	4 1/16	6	4.5	23	960P	8R	M23
VS072	1.23	1.75	4½	0-150	4 3/32	1 7/16	2 15/16	3	2.2	19	726	D3	M19
VS129	2.27	3.25	7½	0-50	3 29/32	2 3/32	2 27/32	6	2.5	9	713	B5	M8
VS141	1.22	1.75	1½	0-500	2 13/32	1 3/8	4 1/4	6	4.5	11	W353	2F	M11
VS236♦	.42	.60	1½	0-300	—	1 11/32	4 3/16	12	4.5	20	964	21R	M20
VS315▲	1.15	1.65	7½	0-80	2 5/16	2 1/32	2 13/16	6	4.7	26	707	D5	M26
VS343	.19	.30	1½	0-150	—	1 11/32	2 13/32	192	40	13D	D99	—	—
VS345	1.16	1.65	6	0-250	2 5/8	2 5/8	3 27/32	12	17	6	744	F4P1	M6
VS734♦	.16	.25	1.5	0-25	—	5/16	1 31/32	144	5.4	—	815	920	M15F
VS735♦	.19	.30	1.5	0-80	—	1 1/32	1 15/16	72	7	—	835	120	—
VS736♦	.16	.25	1.5	0-150	—	1 11/32	2 13/32	72	13	—	850	220	—

● National Electronic Distributors Association. ♦ Flashlight-type terminals.
▲ 2 snap-fasteners. * Optional.

PORTABLE "B" TYPES

Type	Distr. Resale Price Ea.*	List Price Ea.*	Volts	Suggested Current Range Ma.	Max. Dimensions Inches L.	W. or Dia.	Overall Ht.	Standard Package Units	Lbs. (Appr.)	NEDA● Type No.	Replaces Eveready	Burgess	Mallory
VS013	2.97	4.25	45	0-40	3 13/32	1 27/32	5½	6	13.8	202	482	M30	M202
VS014	3.46	4.95	45	0-40	3 9/16	2 1/4	4½	5	9.5	206	W359	A30	M206
VS015	2.76	3.95	22½,45	0-25	3	2 5/16	4 1/8	5	6.5	205	738	Z30	M205
VS016▲	2.70	3.85	67½	0-10	2 13/16	1 3/8	3 23/32	12	10.5	200	467	XX45	M200
VS055▲	2.27	3.25	45	0-10	2 21/32	1	3 1/16	12	6.7	201	455	XX30	M201
VS082▲	2.70	3.85	67½	0-6	2 13/16	1 3/8	2½	12	6.3	203	457	K45	M203
VS084♦	1.05	1.50	22½	0-2.5	1 1/32	5/8	2	12	1	215	412	U15	M215 or RM412
VS086▲	1.75	2.50	45	0-4	1 1/16	5/8	3 1/16	12	2	213	415	U30	M213 or RM415
VS090▲	3.15	4.50	90	0-10	3 23/32	1 3/8	3 23/32	6	6.5	204	490	N60	M204
VS125▲	2.77	3.95	67½	0-10	2 13/16	1 3/8	3 23/32	12	10.0	200	468	V45	M-200
VS217▲	3.15	4.50	75	0-10	1 15/16	1 15/32	6 15/32	12	12.6	212	437	XX50	M212
VS218▲	2.70	3.85	67½	0-8	1 29/32	1	5 7/16	12	6.4	211	477	P45	M211P
VS219▲	2.97	4.25	90	0-8	1 31/32	1 1/32	7 13/32	12	9.1	214	479	P60	M214
VS316▲	3.47	4.95	90	0-10	1 15/16	1 15/32	7 1/8	6	6.5	216	495	N60X	M216
VS318▲	2.07	2.95	67½	0-3	1 11/32	1	3 1/2	6	1.5	217	416	UX45	M217
VS344	3.47	4.95	45	0-70	3 31/32	2 17/32	5 5/16	6	19.3	207	484	B30	M207

● National Electronic Distributors Association. ▲ 2 snap-fasteners. ♦ Flashlight-type terminals.
* Optional.

PORTABLE "A-B" TYPES

Type	Distr. Resale Price Ea.*	List Price Ea.*	Volts A	Volts B	Suggested Current Range Ma. A	Suggested Current Range Ma. B	Max. Dimensions Inches L.	W. or Dia.	Overall Ht.	Standard Package Units	Lbs. (Appr.)	NEDA● Type No.	Replaces Eveready	Burgess	Mallory
VS019	5.43	7.75	7½,9	90	0-50	0-15	9 32	2 23/32	4 5/16	1	5.3	401	753	F6A60	M401
VS047	5.78	8.25	9	90	0-50	0-15	14 1/16	2 11/16	4 1/16	1	6.5	400	752	G6B60	M400
VS050	5.08	7.25	6,7½	75	0-50	0-12	8 5/16	2 7/16	3 3/4	1	2.4	403	755	T5Z50	M403
VS057W	4.87	6.95	7½,9	90	0-50	0-12	8 7/8	2 1/8	3 25/32	1	2.9	405	756	T6Z60	M405
VS058	5.57	7.95	9	90	0-50	0-11	9 32	2 25/32	4 7/32	1	5.5	406	757	F6A60P	M406
VS059	5.22	7.45	9	90	0-50	0-11	8 7/8	2 1/8	3 25/32	1	2.8	428	727	T6Z60P	M428
VS060	6.12	8.75	7½	75	0-50	0-12	8 3/8	2 1/4	3 5/8	1	2.8	431	785	T5Z50P	M431
VS064	4.38	6.25	1½	90	0-300	0-14	3 27/32	2 7/32	3 27/32	1	2.3	425	729	4TZ60	M425

TYPES FOR TRANSISTOR APPLICATIONS

Type	Distr. Resale Price Ea.*	List Price Ea.*	Volts	Suggested Current Range Ma.	Max. Dimensions Inches L.	W. or Dia.	Overall Ht.	Standard Package Units	Lbs. (Appr.)	NEDA● Type No.	Replaces Eveready	Burgess	Mallory
VS1	.52	.75	1.4	0-75	—	0.627	0.650	20	2	1100	E1	Hg1	RM1
VS9	.64	.95	1.4	0-200	—	0.555	1.968	24	1¾	15M	E9	930	ZM9
VS12	.87	1.25	1.4	0-250	—	0.640	1.968	10	1¼	1101	E12	Hg12	RM12
VS126	1.31	1.95	8.4	0-50	—	0.730	2.000	24	2	1611M	E126	H126	TR126
VS132	1.05	1.50	2.8	0-75	—	0.662	1.315	10	¾	1200	E132	H132	TR132
VS133	1.17	1.75	4.2	0-75	—	0.662	1.965	24	2.3	1306M	E133	H133	TR133
VS146X	1.31	1.95	8.4	0-30	1.031	0.660	1.641	24	1¼	1604M	E146X	H146X	TR146X
VS163	1.17	1.65	4.2	0-50	—	0.662	1.327	10	¾	1305	E163	H163	TR163
VS164	1.35	1.95	5.6	0-50	—	0.662	1.767	24	2¼	1404	E164	H164	TR164
VS165	1.70	2.50	7	0-50	—	0.662	2.217	10	1	1500	E165	H165	TR165
VS177	1.31	1.95	9.8	0-10	—	0.547	1.906	24	1	1606M	E177	H177	TR177
VS233	2.27	3.25	4.2	0-60	—	1.016	1.969	10	2.5	1300	E233	H233	TR233
VS300A	.62	.89	9	0-9	—	1	1 15/16	36	4	1600	226	P6	M1600
VS301	1.92	2.75	3, 6, 9	0-150	8	1 9/16	2 13/16	6	8	1601	2506	D6P1	M1601
VS304	1.30	1.85	9, 13, 5	0-10	1 11/32	1 1/32	2 11/16	12	2.3	1900	239	XX9	M1900
VS305	1.30	1.85	9	0-15	1 3/32	1 1/32	2¾	12	3.8	1602	246	2N6	M1602
VS306	1.36	1.95	9	0-30	2 5/16	2 1/32	3 5/32	6	5.6	1603	276	D6	M1603
VS322	1.36	1.95	9	0-20	1 13/16	1 13/16	2 7/16	12	5.3	1605	266	M6	M1605
VS323	.48	.69	9	0-8	1 1/32	21/32	1 29/32	72	6	1604	216	2U6	M1604
VS324	1.30	1.85	4.5	0-40	1 7/32	1 1/32	2¾	6	1.5	1610	243	223	M1610
VS327	.62	.89	9	0-7	—	¾	2	12	1	1611	206	L6	M1611
VS329	1.05	1.50	12	0-9	—	1	2 7/16	12	1.8	1810	228	PM8	TR829
VS330	1.64	2.35	9	0-80	2 3/16	1 5/32	6¼	6	6.5	1612	2356N	C6X	—
VS331	2.45	3.50	9	0-30	2 5/32	1¼	7 31/32	6	8¼	1608	2761N	D6S	—
VS332	.62	.89	4.5	0-12	—	0.662	1.965	12	0.9	1306	333	AL133	MN1306
VS334	.155	.25	1.5	0-25	—	5/16	1 31/32	144	5.5	15	1015	930	M15R
VS335	.19	.30	1.5	0-80	—	1 1/32	1 15/16	72	7	14	1035	130	M14R
VS336	.19	.30	1.5	0-150	—	1 11/32	2 13/32	192	40	13	A100	230	M13R
VS337	2.76	3.95	4.5	0-200	2 13/16	1¾	8 1/32	6	15.5	1303	2731N	—	—
VS338	1.05	1.50	6	0-25	1 13/32	47/64	4 11/16	6	1.4	1403	2713N	—	—
VS339	1.05	1.50	9	0-20	1 13/32	47/64	4 11/16	6	1.5	1613	2709N	—	—
VS400	.24	.35	1.4	0-7	—	0.455	0.135	60	½	1106	E400	Hg400	RM400
VS401	.50	.75	1.4	0-50	—	0.470	1.130	24	1	910M	E401	Hg401	RM401
VS630	.42	.60	1.4	0-20	—	0.615	0.238	40	½	1104	E630	Hg630	RM630
VS640	.42	.60	1.4	0-50	—	0.625	0.440	20	¾	1105	E640	Hg640	RM640
VS675	.32	.45	1.4	0-10	—	0.210	0.455	60	0.5	——	E675	Hg675	RM675

● National Electronic Distributors Association. ♦ Flashlight Type Terminals. ▲ Mercury Types.
* Optional.

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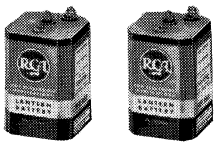
RCA BATTERIES

RADIO • FLASHLIGHT
FARM • TRANSISTOR
INDUSTRIAL • PHOTO FLASH

LANTERN TYPES



Type	Distr. Resale Price Ea.*	List Price Ea.*	Volts	Suggested Current Range Ma.	Max. Dimensions Inches L.	W. or Dia.	Overall Ht.	Standard Package Units	Lbs. (Appr.)	NEDA• Type No.	Replaces Eveready	Burgess	Mallory
VS034A♦	.13	.20	1½	0-25	—	9/16	1 31/32	144	5.3	815	915	Z	M15F
VS035A♦	.13	.20	1½	0-80	—	1 1/32	1 15/16	240	24	814	935	I	M14F
VS036♦	.13	.20	1½	0-150	—	1 11/32	2 13/32	192	37.5	813	950	2R	M13F
VS040C	.92	1.39	6	0-250	2 5/8	2 5/8	4 13/32	12	17	908	509	F4H	M908
VS040S	.92	1.39	6	0-250	2 5/8	2 5/8	4 3/8	12	18	915	510S	F4BP	M915
VS073	.08	.125	1½	0-20	—	0.445	1.180	96	1½	910	904	N	M910F
VS074	.095	.15	1½	0-20	—	13/32	1 3/4	120	2.5	24	912	7	M24F
VS103	4.01	5.98	6	0-1000	8 5/16	2 13/16	6 7/16	4	26	902	706	4F4H	M902
VS134	.79	1.15	3	0-25	1 7/32	5/8	2 21/32	10	1	704	750	422	—
VS138	1.92	2.75	3	0-1000	3 7/8	2 1/16	5 13/16	5	13.5	901	W357	4F2H	M901
VS139	4.86	7.25	7½	0-1000	7 1/4	4 1/16	6 7/16	4	30	903	715	4F5H	M903
VS140	5.53	8.25	9	0-1000	8 19/32	4 1/16	6 7/16	4	37	904	716	4F6H	M904
VS142	.87	1.25	4½	0-25	1 25/32	5/8	2 21/32	10	1.5	705	751	432	—
VS317	1.96	2.95	6	0-500	5 11/32	2 27/32	4 15/16	6	20	918	731	TW1	M918
VS342	1.96	2.95	12	0-250	5 11/32	2 27/32	4 15/16	6	20	926	732	TW2	—
VS343	.19	.30	1½	0-150	—	1 11/32	2 13/32	192	40	14D	D99	—	—

FARM TYPES

Type	Distr. Resale Price Ea.*	List Price Ea.*	Volts A	Volts B	Suggested Current Range Ma. A	Suggested Current Range Ma. B	Max. Dimensions Inches L.	W. or Dia.	Overall Ht.	Standard Package Units	Lbs. (Appr.)	NEDA• Type No.	Replaces Eveready	Burgess	Mallory
VS022	7.95	10.65	1½	90	0-300	0-12	15 11/16	4½	6 15/16	1	16.5	413	759	17GD60	M413
VS119	11.16	15.95	7½,9	90	0-50	0-12	7 27/32	4 1/8	9 7/8	3	45.6	415	776	S6D60	M415

INDUSTRIAL and SPECIAL-PURPOSE TYPES

Type	Distr. Resale Price Ea.*	List Price Ea.*	Volts	Suggested Current Range Ma.	Max. Dimensions Inches L.	W. or Dia.	Overall Ht.	Standard Package Units	Lbs. (Appr.)	NEDA• Type No.	Replaces Eveready	Burgess	Mallory
VS1	.52	.75	1.4	0-75	—	0.627	0.650	40	2	1100	E1	Hg1	RM1
VS12	.87	1.25	1.4	0-250	—	0.640	1.968	10	1¼	1101	E12	Hg12	RM12
VS006C	.91	1.35	1.5	0-1500	—	2 5/8	6 21/32	12	26	906	6GL	6TEL	M906
VS006S	.91	1.35	1.5	0-1500	—	2 5/8	6 21/32	12	25	905	6IGN	6IGN	M905
VS028	1.23	1.75	4.5	0-50	2 1/16	27/32	3	5	1½	714	781	5360	M714
VS029	1.75	2.50	1.5, 3, 4.5, 6, 7.5	0-50	3 29/32	27/32	3	5	2½	713	773	5540	M713
VS039	3.34	4.98	6	0-1500	10 7/16	2 23/32	7 7/32	4	37.5	907	1461	5461	M907
VS040C	.92	1.39	6	0-250	2 5/8	2 5/8	4 13/32	12	17	908	509	F4H	M908
VS040S	.92	1.39	6	0-250	2 5/8	2 5/8	4 5/16	12	18	915	510S	F4BP	M915
VS070	.87	1.25	1.5	0-250	—	1 11/32	4 1/16	6	4.5	23	960P	8R	M23
VS083	.81	1.15	15	0-2.5	1 1/32	5/8	1 29/64	6	0.4	208	411	U10	M208
VS084	1.05	1.50	22.5	0-2.5	1 1/32	5/8	2	12	1	215	412	U15	M215
VS085	1.23	1.75	30	0-2.5	1 1/32	5/8	2 9/16	12	1.3	210	413	U20	M210
VS093	8.37	11.95	300	0-2.5	2 11/16	2 7/32	3 29/32	4	3.7	722	493	U200	—
VS100	1.33	1.90	3	0-250	2 21/32	1 11/32	4 9/16	5	3.5	701	W352	F2BP	M701
VS101	.79	1.15	1.5	0-500	2 5/8	1 3/16	4 1/32	5	4	700	711	2FBP	M700
VS102	1.61	2.35	22.5	0-40	3 1/2	2 3/32	3 1/16	5	4.7	710	763	4156	M710
VS103	4.01	5.98	6	0-1000	8 5/16	2 13/16	6 7/16	4	26	902	706	4F4H	M902
VS106	.84	1.25	1.5	0-1000	2 5/8	2 5/8	4 13/32	12	18	900	735	4FH	M900
VS112	3.05	4.35	22.5, 45	0-50	4 3/32	2 9/16	5 7/16	5	16.9	709	762S	5308	M709
VS114	2.69	3.85	22.5, 45	0-20	3 1/16	1 7/8	4 31/32	5	5	711	W350	Z30NX	M711
VS127W	7.66	10.95	22.5, 45	0-250	8 1/2	4 1/16	7 5/8	4	44	724	W363F	10308SC	M716
VS130	1.76	2.50	1.5, 3, 4.5	0-150	4 1/16	1 13/32	3 1/32	5	4.5	712	761T	2370ST	M712
VS131	4.16	5.95	3, 4.5, 6, 9, 10.5, 16.5, 22.5	0-50	4	2 7/16	3 1/8	4	6.5	708	778	5156SC	M708
VS132	1.05	1.50	2.8	0-75	—	0.662	1.315	10	3/4	1200	E132	H132	TR132
VS133	1.17	1.75	4.2	0-75	—	0.662	1.965	24	2.3	1306M	E133	H133	TR133
VS134	.79	1.15	3	0-25	1 7/32	5/8	2 21/32	10	1	704	750	422	M704
VS136	1.75	2.50	3	0-500	2 5/8	2 5/8	4 5/16	5	7.5	103	W356	2F2H	—
VS138	1.92	2.75	3	0-1000	3 25/32	2 1/16	5 13/16	5	13.5	901	W357	4F2H	M901
VS139	4.86	7.25	7.5	0-1000	7 1/4	4 1/16	6 7/16	4	30	903	715	4F5H	M903
VS140	5.53	8.25	9	0-1000	8 37/64	4 1/16	6 7/16	4	37	904	716	4F6H	M904
VS142	.87	1.25	4.5	0-25	1 25/32	5/8	2 21/32	10	1.5	705	751	432	M705
VS157W	7.66	10.95	22.5, 45	0-300	8 1/8	4 7/16	7 11/16	4	51	715	W364F	21308SC	—
VS163	1.17	1.65	4.2	0-50	—	0.662	1.327	10	3/4	1305	E163	H163	TR163
VS164	1.35	1.95	5.6	0-50	—	0.662	1.767	24	2¼	1404	E164	H164	TR164
VS317	1.96	2.95	6	0-500	5 11/32	2 27/32	4 15/16	6	20	918	731	TW1	M918
VS340	4.01	5.98	12	0-600	10 7/16	2 23/32	7 7/32	4	32	922	1463	2GH8	—
VS342	1.96	2.95	12	0-250	5 11/32	2 27/32	4 15/16	6	20	926	732	TW2	—
VS346	1.36	1.95	4.5	0-50	2 7/16	27/32	3 1/16	10	3	706	703	532	M706
VS400	.24	.35	1.4	0-7	—	0.455	0.135	60	½	1106	E400	Hg400	RM400
VS630	.42	.60	1.4	0-20	—	0.615	0.238	40	½	1104	E630	Hg630	RM630
VS640	.42	.60	1.4	0-50	—	0.625	0.440	20	3/4	1105	E640	Hg640	RM640

PHOTO FLASH

Type	Distr. Resale Price Ea.*	List Price Ea.*	Volts	Suggested Current Range Ma.	Max. Dimensions Inches L.	W. or Dia.	Overall Ht.	Standard Package Units	Lbs. (Appr.)	NEDA• Type No.	Replaces Eveready	Burgess	Mallory
VS704	.81	1.15	15	0-1.5	5/8	1 9/32	1 3/8	12	0.4	220	504	Y10	M504
VS705	1.05	1.50	22½	0-1.5	5/8	1 9/32	2	12	0.5	221	505	Y15	M505
VS734♦	.16	.25	1½	0-25	—	9/16	1 31/32	144	5.4	—	815	920	M15P
VS735♦	.19	.30	1½	0-80	—	1 1/32	1 15/16	72	7	—	835	120	M14P
VS736♦	.16	.25	1½	0-150	—	1 11/32	2 13/32	72	13	—	850	220	M13P

♦ Flashlight-type terminals. • National Electronic Distributors Association. * Optional.

ALKALINE TYPES

Type	Distr. Resale Price Ea.*	List Price Ea.*	Volts	Suggested Current Range Ma.	Max. Dimensions Inches L.	W. or Dia.	Overall Ht.	Standard Package Units	Lbs. (Appr.)	NEDA• Type No.	Replaces Eveready	Burgess	Mallory
VS1073	.27	.40	1½	0-150	—	0.470	1.130	24	2	910	E90	AL-N	Mn9100
VE1074	.33	.50	1½	0-25	—	0.410	1.735	48	1¼	824	E92	AL-7	Mn2400
VS1149♦	.84	1.25	4½	0-100	—	0.662	1.965	24	2.75	815	523	AL-133	Mn1306
VS1334	.33	.50	1½	0-300	—	0.550	1.960	24	2	1306	E91	AL-9	Mn1500
VS1335	.50	.75	1½	0-500	—	1 1/32	1 15/16	48	4	814	E93	AL-1	Mn1400
VS1336	.65	.95	1½	0-1000	—	1 5/16	2 3/8	48	25	813	E95	AL-2	Mn1300

♦ Alkaline types specially designed for transistor radios. * Optional.

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* Optional

Ray-O-Vac Division

The Electric Storage Battery Company

FLASHLIGHTS & LANTERNS

RAY-O-VAC NUMBER	DESCRIPTION	BATT. USED	BULB USED	DLR. UNIT	RETAIL EACH	DEALER EACH	DIST. EACH
SPORTSMAN® FLASHLIGHTS... PREMIUM GRADE LIGHTING INSTRUMENTS							
S21F	2 Cell Chrome Knurled Compact, with Ring Hanger, Ind. Box	2-1C	PR-4	1	2.29	1.53	1.18
S22F	2 Cell Chrome Knurled, with Ring Hanger, Ind. Box	2-2D,5D	PR-2	1	2.29	1.53	1.18
SPORTSMAN SEARCHLIGHT... PREMIUM GRADE LIGHTING INSTRUMENTS							
S33F	3 Cell Chrome Knurled Searchlight with Ring Hanger, Ind. Box	3-2D,5D	PR-3	1	3.95	2.64	2.05
NITE HAWK® FLASHLIGHTS							
C2	2 Cell Chromed Steel Flashlight, Ind. Box	2-2D,5D	PR-2	1	.99	.65	.48
C3	Chromed Steel Magnet Light, Ind. Box	2-2D,5D	PR-2	1	1.39	.92	.69
PENLIGHTS							
P20	2 Cell Pen Size, Ind. Box	2-#400	224	1	.98	.67	.53
Z21P	2 Cell Size "AA", Ind. Box	2-7AA, 7R	222	1	.98	.67	.53
ALL PURPOSE FLASHLIGHTS							
Z22R	2 Cell Flashlight, Ind. Box	2-2D,5D	PR-2	1	1.85	1.23	.95
ML22	2 Cell Regular Magnet Light, Ind. Box	2-2D,5D	PR-2	1	1.99	1.33	1.03
HEAVY DUTY INDUSTRIAL FLASHLIGHTS							
BR22	2 Cell with three-position switch, Ind. Box	2-3D, 2D or 5D	PR-2	1	1.98	1.34	1.04
G22	2 Cell with Replaceable Switch, Ind. Box	2-3D, 2D or 5D	PR-6	1	3.15	2.10	1.63
N22	2 Cell, Replaceable Lock Switch, Ind. Box	2-3D, 2D or 5D	PR-6	1	3.25	2.17	1.68
N22T	N22 with continuity tester in removable end cap. Ind. Box	2-3D, 2D or 5D	PR-6	1	6.75	4.54	3.50
WF22	2 Cell, Replaceable Slide Switch, Switch Protector, Ind. Box	2-3D, 2D or 5D	PR-6	1	2.15	1.44	1.10
SPORTSMAN LANTERNS... PREMIUM GRADE LIGHTING INSTRUMENTS							
301	Sealed Beam. Includes Battery. Ind. Box	1-918	4546, 4506	1	10.95	6.95	5.25
303	Sealed Beam, Red Signal Flasher, Includes Battery. Ind. Box	1-918	4546, and 407	1	12.95	8.28	6.25
304	Prefocused. Swivel head. Includes Battery. Ind. Box	1-918	PR-12, PR-13	1	9.95	6.37	4.81
305	Prefocused, Swivel Head, Red Flasher, Includes Battery. Ind. Box	1-918	PR-12, PR-13 and 407	1	11.95	7.35	5.55
306	Heavy Duty, Sealed Beam. Water and Corrosion-Proof. Includes No. 918S Battery. Ind. Box	1-918S	4546, 4506	1	19.95	13.00	9.75
AUTOMATIC EMERGENCY LANTERN... COMES ON WHEN LIGHTS GO OUT							
AL1	Sealed Beam. Battery Extra. Ind. Box	1-918	4546, 4506	1	15.95	10.63	7.97
BR1	Wall Hanging Bracket for AL1.	–	–	1	1.50	1.00	.75
NITE HAWK LANTERNS & HEADLIGHTS							
L295	Floating Unbreakable Lantern. Weatherproof Switch. Ind. Box	1-941	PR-12, PR-13	1	2.95	1.97	1.36
L400	Floating Lantern with Weatherproof Switch and Red Signal Flasher. Ind. Box	1-941	PR-12, PR-13 and 407	1	3.95	2.64	1.86
L298	Headlight, 3" Reflector. Battery Pouch Separate. Ind. Box	1-942	PR-12, PR-13	1	3.29	2.14	1.63
L19	Battery Pouch for L298. Ind. Box			1	1.00	.67	.50

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BATTERIES

RAY-O-VAC NUMBER	NEDA NUMBER	DESCRIPTION	MAXIMUM DIMENSIONS (INCHES)				BATT. WT.		TERMINALS	DLR. UNIT	RETAIL EACH	DEALER EACH	DIST. EACH
			Diameter	Length	Width	Overall Height	Lbs.	Ozs.					
FLASHLIGHT BATTERIES													
1C	14F	Display, Size "C", FACTORY-SEAL, Prepriced	1- 1/32	- - - - -	- - - -	1-31/32	0	1.6	Flat Contacts	24	.20	.13	.095
2D	13F	Display, Size "D", Prepriced, FACTORY-SEAL	1-11/32	- - - - -	- - - -	2-13/32	0	3.4	Flat Contacts	48	.20	.13	.095
3D	13C	Plain, Size "D", INDUSTRIAL, FACTORY-SEAL	1-11/32	- - - - -	- - - -	2-13/32	0	3.5	Flat Contacts	48	.25	.155	.115
5D	13D	SPORTSMAN® Size "D", FACTORY-SEAL, Prepriced	1-11/32	- - - - -	- - - -	2-13/32	0	3.5	Flat Contacts	48	.30	.19	.14
PENLIGHT BATTERIES													
7AA	15F	Standard Penlight, Size "AA", Prepriced, Sealed-In-Steel	9/16	- - - - -	- - - -	1-31/32	0	0.6	Flat Contacts	24	.20	.13	.095
7R	15E	Standard Penlight, Size "AA", Prepriced	9/16	- - - - -	- - - -	1-31/32	0	1	Flat Contacts	24	.15	.095	.0725
400	24F	Pen-Size Penlight, Size "AAA", Prepriced	13/32	- - - - -	- - - -	1- 3/4	0	0.3	Flat Contacts	12	.15	.095	.0725
716	910F	Novelty Battery, Size "N"	29/64	- - - - -	- - - -	1- 3/16	0	0.2	Flat Contacts	6	.125	.08	.06125
LANTERN BATTERIES													
941	908	Spring Terminals, 6-volt	- - - -	2-11/16	2-11/16	4- 3/8	1	10	Coil Springs	1	1.39	.92	.69
942	915	Screw Terminals, 6-volt	- - - -	2-11/16	2-11/16	4- 1/4	1	10	Screw	1	1.39	.92	.69
943	917	Clip Terminals, 6-volt	- - - -	2-11/16	2-11/16	4- 3/8	1	10	Clip	1	1.39	.92	.69
918	918	SPORTSMAN, 2 Post, 6-volt	- - - -	5- 3/8	2-13/16	4- 7/8	3	0	Screw	1	2.95	1.96	1.51
918S	--	SPORTSMAN, 2 Post, 6-volt Pressurized	- - - -	5- 3/8	2-13/16	4- 7/8	3	8	Screw	1	3.05	2.05	1.58
926	926	SPORTSMAN, 2 Post, 12-volt	- - - -	5- 3/8	2-13/16	4- 7/8	3	0	Screw	1	2.95	1.96	1.51
IGNITION & MULTIPLE BATTERIES													
900	900	1½-volt Glow Plug	- - - -	2-11/16	2-11/16	3- 7/8	1	8	Screw	1	1.25	.84	.65
901	901	3-volt Spring Clip Terminals	- - - -	3-13/16	2-11/16	5-15/16	2	8	Clip	1	2.75	1.92	1.44
902	902	6-volt Screw Terminals	- - - -	8- 9/32	2-25/32	6- 3/16	6	0	Screw	1	5.98	4.01	3.09
903	903	7½-volt Emergency Lighting	- - - -	7- 5/16	4	6- 5/16	7	8	Screw	1	7.25	4.86	3.74
904	904	9-volt Emergency Lighting	- - - -	8- 9/16	4	6-17/32	9	5	Screw	1	8.25	5.53	4.26
920	920	6-volt Barricade Lighting	- - - -	2-11/16	2-11/16	3- 7/8	1	8	Socket	1	1.29	.85	.64
921	921	6-volt Barricade Lighting	- - - -	3- 7/8	2- 3/4	5- 1/2	2	12	Socket	1	2.66	1.83	1.41
922	922	12-volt	- - - -	10- 3/8	2-13/16	7- 3/8	6	11	Screw	1	5.98	4.01	3.09
6 Ign. Screw	905	1½-volt Dry Cell	2- 5/8	- - - - -	- - - -	6- 3/4	2	0	Screw	1	1.35	.91	.70
6 Ign. Clip	914	1½-volt Dry Cell	2- 5/8	- - - - -	- - - -	6- 3/4	2	0	Clip	1	1.35	.91	.70
6RR	911	1½-volt Heavy Duty	2- 5/8	- - - - -	- - - -	6- 3/4	2	0	Screw (clip available)	1	1.40	.94	.73
6 Tel. Clip	906	1½-volt (screw terminals available)	2- 5/8	- - - - -	- - - -	6- 3/4	2	0	Clip (screw available)	1	1.35	.91	.70
641	907	4 cell, 6-volt Multiple Ignition (electric fence battery)	- - - -	10- 1/2	2-13/16	7-13/32	11	0	Screw	1	5.50	3.70	2.77

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BATTERIES

RAY-O-VAC NUMBER	NEDA NUMBER	SIZE – VOLTAGE	MAXIMUM DIMENSIONS (INCHES)				BATTERY WEIGHT		TERMINALS	DEALER UNIT	RETAIL EACH	DEALER EACH	DIST. EACH
			Diameter	Length	Width	Overall Height	Lbs.	Ozs.					
TRANSISTOR BATTERIES													
13	13	D– 1½	1-11/32	- - - - -	- - - -	2-13/32	0	3.4	Flat Contacts	12	.30	.19	.14
14	14	C– 1½	1- 1/32	- - - - -	- - - -	1-31/32	0	1.6	Flat Contacts	12	.30	.19	.14
15	15	AA– 1½	9/16	- - - - -	- - - -	1-31/32	0	0.6	Flat Contacts	24	.25	.16	.115
1600	1600	9	31/32	- - - - -	- - - -	1-31/32	0	4	Snap Type	6	.89	.62	.49
1601	1601	9	- - - -	8	1- 9/16	2- 3/4	1	8	Socket	1	2.75	1.92	1.42
1602	1602	9	- - - -	1- 3/8	1- 3/8	2- 3/4	0	5	Snap Type	1	1.85	1.30	1.02
1603	1603	9	- - - -	2- 9/16	2- 1/32	3- 3/32	0	15	Snap Type	1	1.95	1.36	1.05
1604	1604	9	- - - -	1- 1/64	41/64	1-29/32	0	1.5	Snap Type	12	.69	.48	.37
1605	1605	9	- - - -	1-13/16	1-13/16	2- 7/16	0	7.5	Snap Type	1	1.95	1.36	1.05
1606	1606	9	35/64	- - - - -	- - - -	1-57/64	0	0.72	Snap Type	12	1.98	1.29	.99
1608	1608	9	- - - -	2- 9/32	1- 1/4	7-31/32	1	6	Socket	1	2.75	1.93	1.51
1900	1900	9-13½	- - - -	1- 1/4	7/8	2- 9/16	0	2.5	Socket	1	1.85	1.30	1.02
TRANSISTOR BATTERIES — MERCURY													
15M	15M	AA– 1½	0.532	- - - - -	- - - -	1.960	0	1	Flat Contacts	4	.95	.64	.48
1600M	1600M	9	0.968	- - - - -	- - - -	1.960	0	2	Snap Type	1	1.75	1.23	.90
1604M	1604M	9	- - - -	1.010	.605	1.906	0	1.3	Snap Type	1	1.95	1.31	.98
1611M	1611M	9	0.695	- - - - -	- - - -	1.973	0	1.25	Flat Contacts	6	.98	.68	.52
1810M	1810M	12	0.968	- - - - -	- - - -	2.395	0	3	Snap Type	1	2.70	1.78	1.35
T132M	1200	2.8	0.662	- - - - -	- - - -	1.315	0	0.94	Flat Contacts	2	1.50	1.05	.79
T133M	1306M	4.2	0.662	- - - - -	- - - -	1.965	0	1.42	Flat Contacts	2	2.20	1.53	1.15
T134M	—	5.6	0.662	- - - - -	- - - -	2.590	0	1.90	Flat Contacts	2	2.75	1.92	1.50
T401M	910M	1.4	0.470	- - - - -	- - - -	1.125	0	0.5	Flat Contacts	3	.75	.50	.38
T625M	—	1.4	0.609	- - - - -	- - - -	0.238	0	0.16	Flat Contacts	4	.60	.42	.32
T640M	1105	1.4	0.625	- - - - -	- - - -	0.440	0	0.26	Flat Contacts	4	.60	.42	.32
T675M	—	1.4	0.456	- - - - -	- - - -	0.210	0	0.07	Flat Contacts	6	.45	.32	.23
TRANSISTOR BATTERIES — MANGANESE ALKALINE													
815	15A	AA– 1½	9/16	- - - - -	- - - -	1-31/32	0	0.75	Flat Contacts	12	.50	.325	.25
RADIO "A" BATTERIES													
A4	4	1½	- - - -	2-11/16	2-11/16	3- 7/8	1	4	Socket	1	1.65	1.15	.85
A6	6	6	- - - -	2-11/16	2-11/16	3- 7/8	1	4	Socket	1	1.65	1.15	.85
9	9	7½	- - - -	2- 3/16	1-15/16	3	0	12	Socket	1	1.75	1.23	.90
20	20	1½	1- 3/8	- - - - -	- - - -	4- 9/64	0	6	Flat Contacts	6	.60	.42	.31
RADIO "B" BATTERIES													
200	200	67½	- - - -	2-11/16	1- 3/8	3-11/16	0	14	Snap Type	1	3.85	2.70	1.98
201	201	45	- - - -	2-21/32	1	3-11/16	0	7	Snap Type	1	3.25	2.27	1.67
202	202	45	- - - -	3- 9/16	1-13/16	5- 1/2	2	0	Socket	1	4.25	2.97	2.16
A210	210	30	- - - -	1- 1/64	39/64	2-17/32	0	2	Flat Contacts	1	1.75	1.23	.90
215	215	22½	- - - -	1- 1/64	39/64	1-63/64	0	1.5	Socket	1	1.50	1.05	.77
RADIO "AB" BATTERIES													
413	413	1½-90	- - - -	15- 3/4	4- 1/4	6-13/16	15	8	Socket	1	10.65	7.95	6.35
PHOTOFLASH BATTERIES													
210	13P	D– 1½	1-11/32	- - - - -	- - - -	2-13/32	0	3.4	Flat Contacts	12	.30	.19	.14
110	14P	C– 1½	1- 1/32	- - - - -	- - - -	1-31/32	0	1.6	Flat Contacts	24	.30	.19	.14
710	15P	AA– 1½	9/16	- - - - -	- - - -	1-31/32	0	0.6	Flat Contacts	24	.25	.16	.12
410	24P	AAA– 1½	13/32	- - - - -	- - - -	1- 3/4	0	0.3	Flat Contacts	12	.20	.13	.095
215	215	22½	- - - -	1- 1/64	39/64	1-63/64	0	1.5	Socket	1	1.50	1.05	.77
220	220	15	- - - -	5/8	19/32	1- 3/8	0	0.4	Flat Contacts	1	1.15	.81	.63
221	221	22½	- - - -	5/8	19/32	1-63/64	0	0.5	Flat Contacts	1	1.50	1.05	.82
722	722	300	- - - -	2- 5/8	2- 5/32	3-13/16	1	6	Pin Jacks	1	11.95	8.37	6.54
N150	—	225	- - - -	4- 7/16	2- 3/4	4- 1/8	3	0	Pin Jacks	2	9.95	6.96	5.43
1010	—	240	- - - -	2-19/32	1- 5/16	4- 1/2	0	14	Flat Recessed & Socket	1	7.95	5.56	4.35
1011	—	225	- - - -	3- 9/16	2-29/32	4-29/32	3	12	Pin Jacks	1	10.95	7.65	5.96
1012	—	510	- - - -	3	1-19/32	5- 5/8	1	11	Flat Recessed	1	15.95	11.16	8.70

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BATTERIES

RAY-O-VAC NUMBER	NEDA NUMBER	VOLTAGE	MAXIMUM DIMENSIONS (INCHES)				BATTERY WEIGHT		TERMINALS	RETAIL EACH	DEALER EACH	DIST. EACH
			Diameter	Length	Width	Overall Height	Lbs.	Ozs.				
1301	—	4	35/64	- - - - -	- - - -	1- 1/32	0	.34	Snap	1.30	.87	.65
A1	1	6	- - - -	3- 7/8	2- 3/4	5- 1/2	2	12	E1A104	4.10	2.87	2.24
A2	2	6	- - - -	1- 5/32	1- 5/32	2-11/32	0	4	Flat	1.25	.87	.63
A3	3	4½	- - - -	4	1- 3/8	4- 1/8	1	0	E1A103	1.75	1.23	.90
A5	5	1½	- - - -	3-15/16	2-11/16	3- 7/8	1	12	E1A101			
A7	7	4½	- - - -	4	1- 3/8	4-11/16	1	2	E1A103			
A10	10	7½	- - - -	2- 9/16	2- 9/16	4- 1/16	1	0	E1A105			
8	8	7½	- - - -	3- 7/8	13/16	2-27/32	0	7	E1A105	3.25	2.27	1.68
11	11	1½	- - - -	2- 9/16	1- 5/16	4- 1/4	0	11	E1A101	1.75	1.22	.91
12	12	1½	- - - -	3- 3/4	1- 3/8	5-11/16	1	4	E1A101			
16	16	6	- - - -	3- 7/8	1- 7/16	10- 3/4	2	11	E1A104			
17	17	1½	- - - -	3- 7/8	2- 3/4	5- 7/16	2	9	E1A101	3.95	2.76	2.07
18	18	1½	- - - -	2- 9/16	1- 5/16	2-13/16	0	6	E1A101			
19	19	4½	- - - -	3- 7/8	1- 3/8	3	0	12	E1A103			
22	—	7½	- - - -	4-11/16	2-13/16	4- 5/8	1	13	E1A105	2.62	1.83	1.30
23	23	1½	1- 5/16	- - - - -	- - - -	4- 1/16	0	6	E1A101	1.25	.87	.65
26	26	7½	- - - -	2- 9/16	2- 1/32	2-13/16	0	13	Snap	1.65	1.15	.85
27	27	6	- - - -	3- 7/8	2- 3/4	5- 1/2	2	12	E1A105	3.19	2.14	1.66
203	203	67½	- - - -	2- 3/4	1- 3/8	2- 1/2	0	11	Snap	3.85	2.70	1.98
204	204	90	- - - -	3-11/16	1- 3/8	3- 3/4	1	0	Snap	4.50	3.15	2.31
205	205	22½, 45	- - - -	2-15/16	2- 1/4	4- 1/16	1	13	E1A111	3.95	2.76	2.16
206	206	45	- - - -	3- 7/16	2- 1/4	4- 9/16	1	10	E1A111	4.50	3.15	2.36
207	207	45	- - - -	4- 1/8	2- 5/8	5- 5/16	2	11	E1A110	4.95	3.47	2.71
208	208	15	- - - -	1- 1/64	39/64	1- 7/16	0	1	Flat	1.15	.81	.59
211P	211	67½	- - - -	1- 7/8	1	5-15/32	0	9	Snap	3.85	2.70	1.98
212	212	75	- - - -	1-13/16	1- 3/8	6- 1/4	0	13½	Snap	4.50	3.15	2.31
213	213	45	- - - -	1- 3/64	35/64	3- 9/16	0	3	Snap	2.50	1.75	1.29
214	214	90	- - - -	1- 7/8	1	7-15/32	0	9	Snap	4.25	2.97	2.16
217	217	67½	- - - -	1-21/64	63/64	3- 1/2	0	4	Snap	2.95	2.07	1.52
A400	400	90, 9	- - - -	13- 5/8	2- 3/4	4- 5/8	7	8	Plug Fits E1A115	8.25	5.78	4.51
401	401	90, 9, 7½	- - - -	9- 3/16	2-23/32	4- 3/8	5	2	E1A116			
405	405	90, 9, 7½	- - - -	8-11/16	2- 3/16	3- 3/4	3	8	E1A116			
406	406	90, 9	- - - -	9- 1/2	2-23/32	4- 3/8	5	2	Plug Fits E1A115			
407	407	63, 1½	- - - -	9- 1/8	2	4- 3/4	3	8	E1A122			
A410	410	90, 1½	- - - -	10	2- 5/16	4-13/16	4	8	E1A115			
415	415	90, 9, 7½	- - - -	8- 1/4	4- 1/2	13- 7/8	20	0	Socket & Plug E1A116	14.95	10.47	8.17
417	—	90, 1½	- - - -	11- 7/8	6- 7/16	1- 1/2	4	13	E1A122			
419	—	67½, 7½, 1½	- - - -	4- 5/16	3- 3/4	6- 3/8	4	0	E1A116			
425	425	90, 1½	- - - -	3-11/16	2- 1/4	7- 3/4	3	5	E1A115			
719	719	1½	- - - -	7-11/16	2-13/16	7	7	0	E1A101			
225830C	—	22½, 21, 19½, 9, 4½	- - - -	8- 1/4	4- 9/16	7-15/16	11	0	Clip	7.99	5.59	4.44
423SX	—	4½	- - - -	4	1- 7/16	3- 1/2	0	12	Screw	1.90	1.32	1.04
2215CX	—	22½,21,19½,18,16½	- - - -	6- 3/4	4- 1/8	3-15/16	4	0	Clip	3.62	2.52	2.01
2416C	—	24	- - - -	3- 1/2	2- 3/32	3- 1/16	1	0	Clip	2.82	1.98	1.58
2515CX	—	22½,21,19½,9,4½	- - - -	4- 3/16	2- 5/8	3- 1/2	1	11	Clip			
5830CX	—	45,43½,42,40½,22½,18,12,6	- - - -	8- 1/4	4- 9/16	7-15/16	11	8	Clip	7.97	5.58	4.44
A710	710	22½	- - - -	3- 3/8	2- 1/8	2- 3/4	1	4	Screw	2.35	1.61	1.21
A716	716	45, 22½	- - - -	8	4	7- 3/8	10	8	Clip	9.95	6.96	5.22
7N5S	—	7½, 4½	- - - -	2- 3/4	5/8	1- 3/4	0	2½	Screw	2.95	2.05	1.60
69N	227	103½	- - - -	1- 3/8	1- 3/8	11-23/32	1	2	Flat			
191	—	1½	1- 9/32	- - - - -	- - - -	3- 1/2	0	5	Flat	.52	.35	.27
352S	—	3	- - - -	1-19/32	29/32	3	0	3	Screw			
386C	—	3	- - - -	3- 7/8	2- 5/8	5- 1/4	2	10	Clip	1.95	1.30	1.01
394SL	—	3	- - - -	5- 1/8	1- 5/16	4- 3/16	1	4	Screw			
443S	—	4½, 3	- - - -	2- 1/16	3/4	2-19/32	0	5	Screw	2.50	1.76	1.32
533	—	4½	- - - -	2- 3/8	13/16	3- 7/16	0	5	Recessed Contacts	3.45	2.42	1.89
621B	—	3	2- 5/8	- - - - -	- - - -	12- 5/8	4	8	Screw	4.06	2.86	2.23
661BP	—	9	- - - -	7- 7/8	5- 1/4	7- 1/8	14	0	Screw	10.10	7.55	6.30
700	700	1½	- - - -	2- 5/8	1- 3/8	4- 9/16	0	11	Screw	1.15	.79	.59
701	701	3	- - - -	2- 5/8	1- 3/8	4- 9/16	0	11	Screw	1.90	1.33	1.00
703	703	3	- - - -	2-11/16	2-11/16	4- 3/8	1	4	Screw	2.35	1.64	1.23
704	704	3	- - - -	1- 3/8	3/4	2- 9/16	0	1.5	Flat Springs	1.15	.79	.59
705	705	4½	- - - -	2	3/4	2- 5/8	0	5	Flat Springs			
706	706	4½	- - - -	2-15/32	13/16	3- 1/16	0	6	Flat Springs	1.95	1.36	1.02
708	708	22½,16½,10½,9,6,4½,3	- - - -	4- 1/8	2- 1/2	3- 5/16	1	12	Clip	5.95	4.16	3.12
709	709	45, 22½	- - - -	4- 1/8	2- 5/8	5- 7/16	2	7	Screw	4.35	3.05	2.38
711	711	45, 22½	- - - -	2-31/32	1-27/32	4-15/16	1	10	Screw	3.85	2.69	2.02
712	712	4½, 3, 1½	- - - -	3-15/16	1- 3/8	3	1	0	Screw	2.50	1.76	1.37
713	713	7½, 6, 4½, 3, 1½	- - - -	3-15/16	7/8	3	0	8	5 Screws, 1 Wire	2.50	1.75	1.31
714	714	4½	- - - -	2-15/32	13/16	2- 7/8	0	6	Screw	1.75	1.23	.91
715	715	45, 22½	- - - -	8- 1/8	4- 5/8	7-11/16	13	0	Clip	9.95	6.96	5.22
717	717	45, 22½	- - - -	8- 1/16	3- 3/16	7- 3/16	6	8	E1A107	9.95	6.96	5.22
721	721	22½,16½,4½,3	- - - -	4	2- 1/2	3	1	3	E1A113			
722	722	300	- - - -	2- 5/8	2- 5/32	3-13/16	1	6	Tip Jack	11.95	8.37	6.54
723	723	45, 22½	- - - -	8- 1/8	3- 1/4	7- 9/16	8	8	Clip			
725	725	6	- - - -	5- 1/8	1- 5/16	4- 3/16	1	4	Screw	3.79	2.65	1.98
726	726	45, 22½	- - - -	8- 1/16	4- 5/16	7- 3/16	11	0	E1A107			
727	727	45, 22½	- - - -	8- 1/16	4- 1/2	7- 7/16	13	0	E1A107	9.95	6.96	5.22
728	—	1½	- - - -	2- 5/8	2- 5/8	2-13/16	0	13	E1A101	1.93	1.35	1.04
909	909	9	- - - -	4- 1/16	2-13/16	3	1	6	Screw	3.10	2.16	1.62

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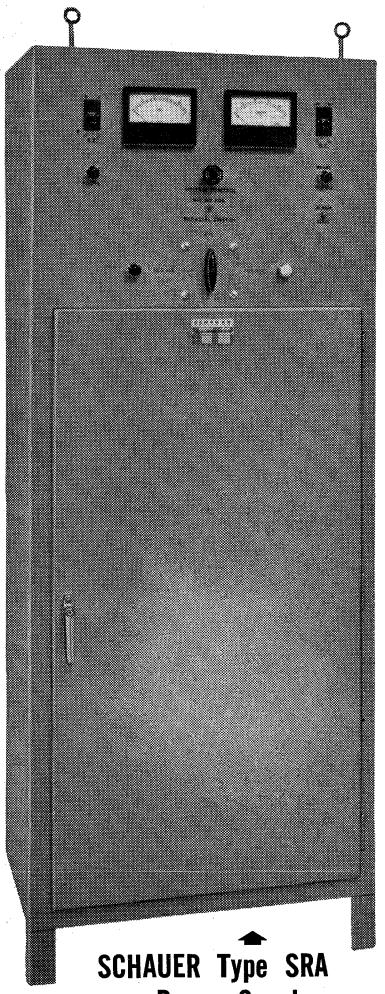
SCHAUER POWER SUPPLIES

New in design and applied engineering technology are Schauer standard and custom-engineered power supplies for communication, industrial and laboratory use. Among a wide range of types are fully transistorized series regulated and magnetic amplifier regulated, output regulated and non-regulated units. Illustrated here are but a few of the types and designs that are available.

Special features that can be incorporated include alarm circuits, current limiting circuit, bus switching, etc. All units are built of quality components, conservatively rated and completely wired for maximum reliability under continuous duty conditions.

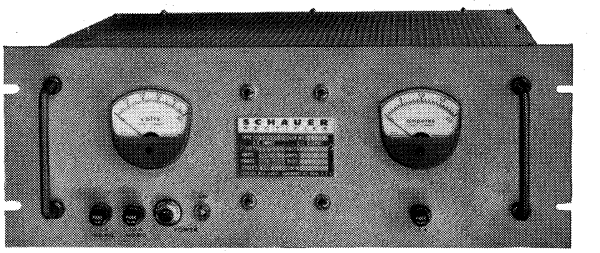
Your power supply problems can be readily solved by consulting with Schauer — manufacturers of quality products since 1907. Ask your distributor for Schauer Catalog No. 640.



SCHAUER Type SRA Power Supply

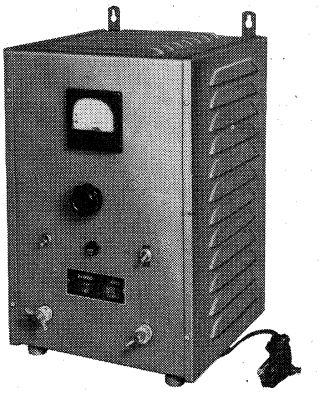
Magnetic amplifier regulated input and output with alarm circuit and provisions for switching to either positive or negative bus of a 3-wire D.C. system. Regulation is maintained within 1% total band for load variations from no load to 125% of full load and for input voltage variations of ± 10%. Available in capacities from 10 through 250 amperes in 48, 60 and 125 volt models for 3 phase, 60 cycle input lines at standard commercial voltages.

SCHAUER Type TRPS Power Supply



Transistorized regulated power supply for relay rack mounting, providing exceptionally close output regulation. Can be supplied in capacities up to 25 amperes maximum at voltage ratings up to 125 volts D.C. and in a variety of packaging and mounting arrangements.

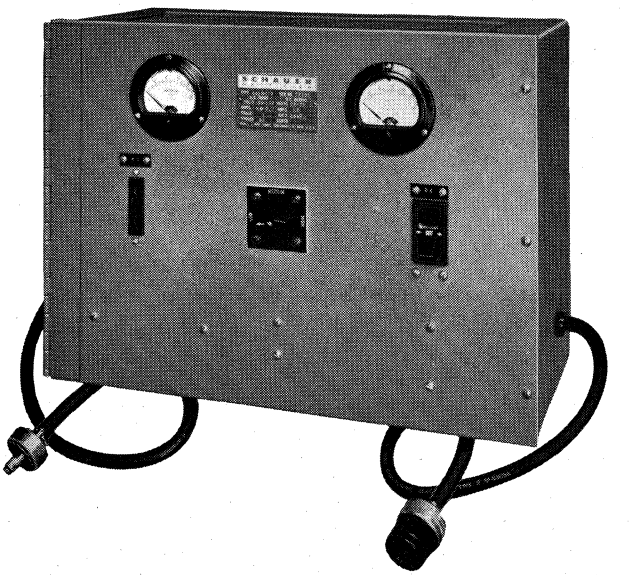
SCHAUER Type SA48006 Power Supply



For operating and testing AM and FM 2-way and marine radios. Provides maximum 48 amperes at 6 volts D.C. or 24 amperes at 12 volts D.C. by switching. Output adjustable by multiple tap switch. The ventilated steel case for bench or wall mounting is 10″ wide x 9½″ deep x 15″ high.

SCHAUER Type SK Power Supply

General purpose power supplies for applications where close output regulation and a highly filtered D.C. supply are not required. Bench, wall and floor mountings and many variations in output and characteristics are possible.



Rectifier Division

SCHAUER MANUFACTURING CORP.

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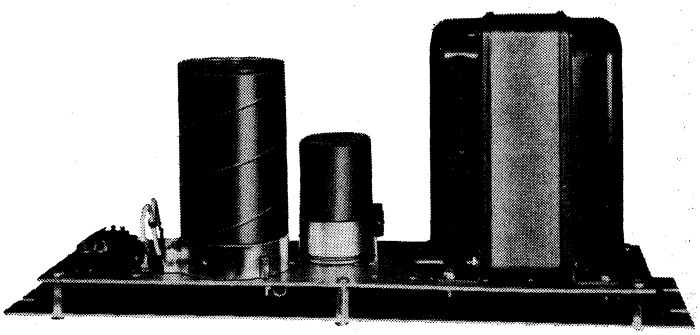
SOLA ELECTRIC

DIVISION OF SOLA BASIC INDUSTRIES

Sola CVDC Power Supplies

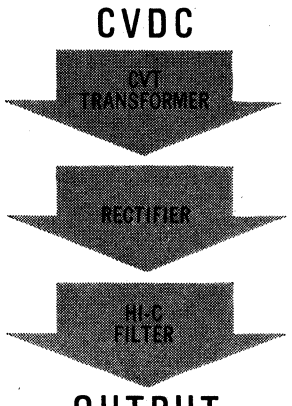
FAST, RELIABLE VOLTAGE REGULATION FROM A LOW-COST SOURCE

CVDC circuitry is so trim and simple that it can offer the utmost in performance and reliability. The constant-voltage transformer (originated by Sola) offers inherent current-limiting action that allows utilization of efficient, economical semiconductor rectifiers with low forward voltage drop. CVDC has these specific advantages:



Constant-voltage Sola transformer provides ±1% regulation for line-voltage variations as great as ±15%, serves as the heart of CVDC power supplies for voltage-sensitive equipment.

1. Fast, dependable line-voltage regulation: within ± 1% for fluctuations of ± 15%; voltage will return to regulation envelope in approximately 50 milliseconds.
2. Load regulation: from ½% to 8%, one half to full load.
3. Automatic current limiting: short circuit protection; withstands load faults; high overloads cannot damage power supply or equipment components.
4. High efficiency: upwards of 75%; low input-power requirements.
5. Simplified operation: no adjustments or maintenance; continuous duty.
6. Convection cooling.
7. Ripple: 1% rms maximum.
8. Ambient operating temperature: 40° C maximum.



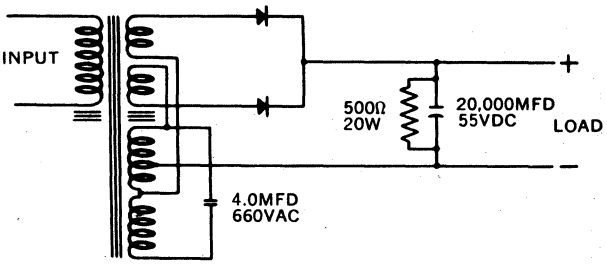
Fixed output for fixed, intermittent, variable, or pulse loads.
All inputs 100-130 volts, 60 cps.

STANDARD CODE LISTING

Catalog No.	Volts	Amps.	VA	Load Regulation F.L.	F.L.	Ht.	Shipping Wt.	Price 1-4
281513-1	6	10	60	9	7	3½	27	$150.00
282123	6	15	90	9	7	5¼	*38	175.00
281514-1	12	5	60	7	5	3½	18	115.00
282124	12	10	120	7	5	5¼	*31	150.00
281845	12	15	180	7	5	5¼	50	195.00
281515-1	18	5	90	5	4	3½	20	120.00
282125	18	10	180	7	5	5¼	*45	175.00
281024-1	24	6	144	5	4	5¼	30	145.00
282126	24	10	240	6	4	5¼	*48	180.00
281203	24	15	360	5	4	8¾	64	250.00
282127	24	25	600	6	4	7**	*72	335.00
28626	28	8	224	6	4	5¼	42	180.00
282128	28	15	420	7	5	7	*55	250.00
281048	48	4	192	3.5	2.5	5¼	32	135.00
281561	48	10	480	4	2	5¼	48	185.00
282129	48	20	960	3	2	8¾	*95	275.00
281125	125	2	250	2.5	1.5	5¼	44	145.00
281150	150	2	300	2	1.5	5¼	48	145.00
281200	200	1	200	3	2	5¼	39	140.00
281250	250	1	250	3	2	5¼	45	150.00

* Weights ±3 lbs.
** Could change to 8¾.

*All supplies furnished with panel for 19" rack mounting.



Typical schematic diagram for Sola CVDC power supply.

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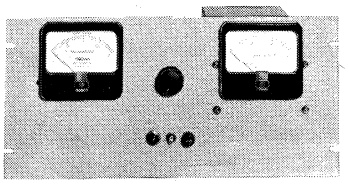
Net

SPELLMAN HIGH VOLTAGE RF TYPE DC POWER SUPPLIES

UNREGULATED 0-60 KV SOLID STATE

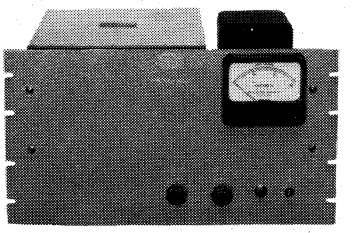


MODEL ST-60

CONTINUOUSLY VARIABLE 0-60 KV DC POWER SUPPLY

Continuously variable from 0-60 KV; 250 microamps; 1 ma. @ 20 KV. Input: 117 V 60 cycles. 19″W x 8¾″H x 12″D. Complete with HV and current meters. **$350 net**

20-40 KV DC REGULATED

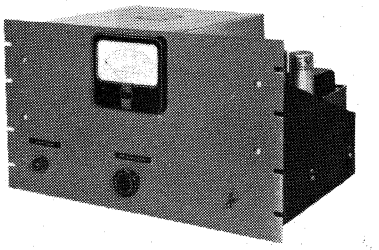


MODEL RG-40

CONTINUOUSLY VARIABLE 20-40 KV REGULATED DC POWER SUPPLY WITH FOCUS VOLTAGE TAP 4-9 KV

Continuous duty supply with highly filtered outputs and regulations better than 0.5% at 1 ma. for line and load. Ripple .05%. Input: 117 V 60 cycles. Designed for flying spot and projection use. 19″W x 10½″H x 13″D.
With HV meter ..... **$385 net**

12-40 KV DC UNREGULATED

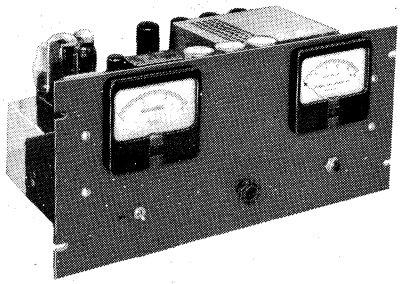


MODEL 2040

12-40 KV DC POWER SUPPLY

A highly filtered, rugged supply ideal for precipitators, spot knocking, electrostatic flocking and spraying and insulation breakdown testing. Voltage range variable 12 to above 40 KV. Current output 1 ma. at 30 KV. Input: 117 V-60 cycles. 19″W x 12¼″H x 13″D.
With HV meter ..... **$235 net**

REGULATED DC

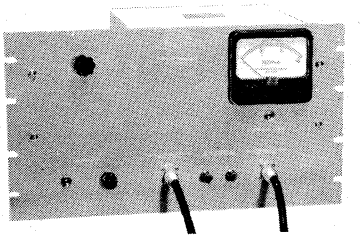


CONTINUOUSLY VARIABLE

Output current 2 ma. Input: 117 V 60 cycles. Regulated against line and load better than 0.5%. Complete with current and volt meters. Dimensions: Panel height 8¾″, width 19″, depth 13″.

VOLTAGE RANGE	MODEL	PRICES
2-6 KV	RG-5	$260 net
5-12 KV	RG-10	270 net
10-18 KV	RG-15	285 net

0-30 KV DC UNREGULATED

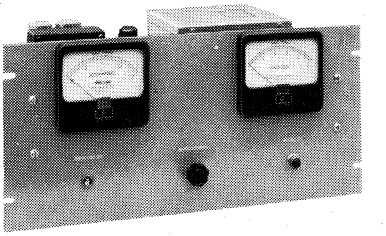


MODEL PN-30

REVERSIBLE POLARITY
0-30 KV DC POWER SUPPLY

Continuously variable—reversible 0-30 KV unregulated. Current output approx. 2 ma. at 20 KV. 1 ma. at 30 KV. Ripple 0.1%. Input: 117 V 60 cycles. 19″W x 10½″H x 13″D.
With HV meter ..... **$275 net**

1-15 KV DC REGULATED



MODEL LAB-10 PN

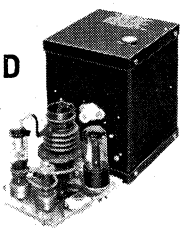
CONTINUOUSLY VARIABLE

REVERSIBLE POLARITY 1-15 KV REGULATED DC SUPPLY

Output current 2 ma. Regulations line and load better than 0.5%. Input: 117 V 60 cycles. Complete with HV and current meters.
19″W x 8¾″H x 13″D ..... **$385 net**

MODEL LAB-10 – Same specifications as above except not reversible **$285 net**

5 KV UNREGULATED



MODEL 4575

5 KV — 1 ma. DC POWER SUPPLY
For an output voltage of 5 KV DC at 1 milliampere, the low voltage input requirement is 250 V at 50 milliamperes. By varying the DC input the output voltage can be varied from approx. 1 KV to 7½ KV. Dimensions: 5⅝″ high x 5″ deep x 4¼″ wide. In completely enclosed metal housing

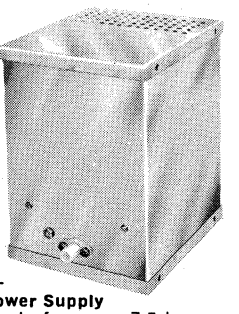
MODEL 4575 ..... **$32.50 net**

MODEL 4575-2 — same as above with 2 ma. output at 5 KV ... **$42.50 net**

MODEL 4575PN — Reversible polarity. High voltage secondary floating or can be grounded. 1 ma. at 5 KV **$42.50 net**

MODEL 4575-2PN—Reversible polarity. 2 ma. at 5 KV ..... **$52.50 net**

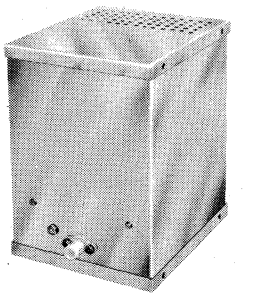
7½-12 KV UNREGULATED



MODEL 7512

7½-12KV — 1 ma. DC Power Supply
Voltage output of approx. 7.5 to 12 KV. 1 ma. of current may be drawn throughout the voltage range. To obtain an output voltage of 7.5 KV at 1 ma., low voltage input requirement is 300 V DC at 50 ma. By varying the DC input, the output voltage can be increased. Maximum input voltage of 425 V at 100 ma. will give an output of 12 KV at 1 ma. 5¾″ W., 8¼″ H., 6¾″ D.
$42.50 net

10-20 KV UNREGULATED



MODEL 7516

10-20 KV — .5 ma. DC POWER SUPPLY

Voltage output of approx. 10 to 20 KV. To obtain output voltage of 10 KV at 1 ma., low voltage input requirement is 300 V DC at 50 ma. Maximum input voltage of 425 V at 100 ma. will give an output of 20 KV at .5 ma.
5¾″W x 8¼″H x 6¾″D **$48.50 net**

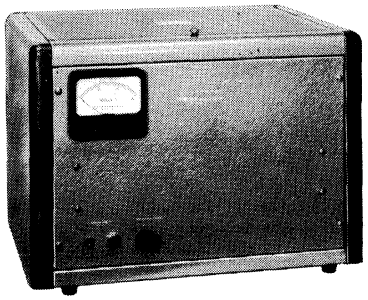
SPELLMAN HIGH VOLTAGE CO., INC.

Net

© U.C.P., Inc.

SPELLMAN

HIGH VOLTAGE RF TYPE - DC POWER SUPPLIES



MODEL LAB-30PN

DC POWER SUPPLY REVERSIBLE POLARITY CONTINUOUSLY VARIABLE 1 TO 30 KV

Regulated DC Power Supply with regulations of 0.5% at 2 milliamperes. Polarity reversible from front panel. Input: 117 V 60 cycles.

Standard Rack Model — 19″ wide x 12″ high x 13″ deep.
Standard Bench Model — 21″ wide x 14″ high x 15″ deep.

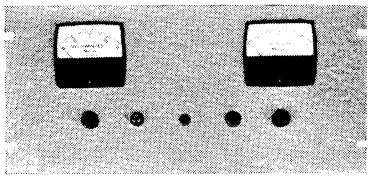
With HV meter $645. Net

MODEL LAB-30 is a positive polarity output regulated High Voltage DC Power Supply with same electrical characteristics and dimensions as the LAB-30PN. Available in either positive or negative polarity.

With meter $545. Net

SPECIAL MODELS up to 5 ma. output AVAILABLE

5-35 KV TRANSISTORIZED COMPLETELY SOLID STATE DC POWER SUPPLY

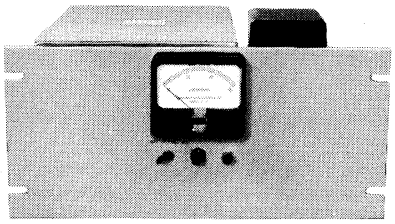


Continuously variable 5-35 KV regulated power supply with regulated focus voltage tap 4-9 KV.

A continuous duty DC supply with highly filtered outputs and regulated against line and load better than 0.05% at 1 ma. Ripple less than 0.05%. Input: 117V 60 cycles.

Dimensions: 19″ W x 8¾″ H x 15″ D.

MODEL TR-135 Complete with HV and Current Meters **$575 Net**



MODEL RG-30

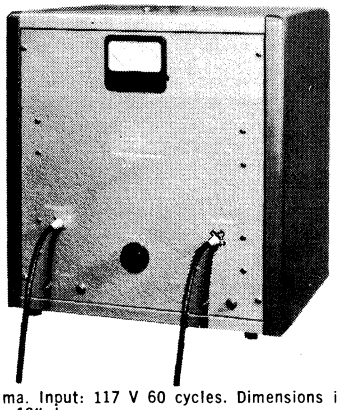
CONTINUOUSLY VARIABLE 15-30 KV REGULATED DC POWER SUPPLY WITH REGULATED FOCUS VOLTAGE TAP

A continuous duty DC supply with highly filtered outputs and regulations against line and load and drift better than 0.25% at 1 ma. Ripple less than .05%. A variable focus tap 4-6 KV for use with flying spot tubes. 19″ wide x 8¾″ high x 13″ deep.117 V 60 cycles.

With HV meter $375. Net

MODEL LAB-60PN

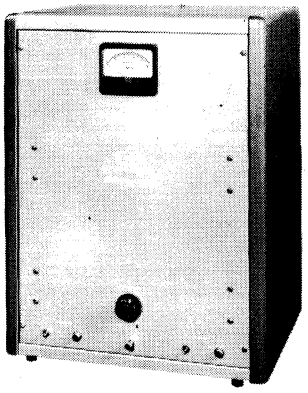
REVERSIBLE POLARITY CONTINUOUSLY VARIABLE 0-60 KV DC REGULATED POWER SUPPLY



Current output 1 ma. at 60 KV 2 ma. may be drawn from 50 KV down. Regulations — no load to full load 0.5% at 1 ma. Input: 117 V 60 cycles. Dimensions in cabinet: 23⅜″ high x 21″ wide x 18″ deep.

LAB-60PN — Reversible polarity — either positive or negative output controlled through switch on front panel. ..... **$820 Net**

LAB-60 — Same as above not reversible. Specify polarity when ordering. ..... **$765 Net**



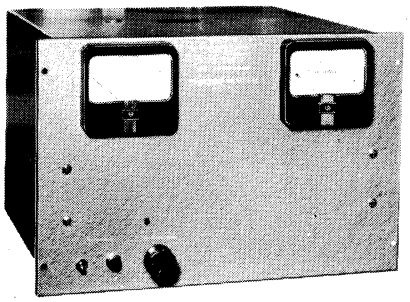
MODEL LAB-90

1-90 KV REGULATED DC POWER SUPPLY

Continuously variable 1 to 90 KV DC Power Supply. Output current 1 ma. at 90 KV. 2 ma. from 40 KV down. Voltage regulations better than 0.5% throughout entire range. Dimensions in cabinet: 28″ high x 21¾″ wide x 18″ deep. 117 V 60 cycles.

LAB-90 — Complete with HV meter ..... **$945 Net**
Specify polarity output — positive or negative.

MODEL LAB-90C — Same as above except automatic overload cut-out and reset button provided. Adjustable sensitivity. .5 ma. to 2.5 ma. ..... **$995 Net**



MODEL LAB-20

CONTINUOUSLY VARIABLE 0-20 KV REGULATED RF TYPE DC POWER SUPPLY

Current output: 4 ma. @ 20 KV; 10 ma. from 10 KV down. Regulations against line, load and drift, better than 0.5% at 4 ma. Ripple .05%. 19″ W x 12¼″ H x 15″ D. 117 V 60 cycles.

Complete with HV and current meters..... **$545 Net**

SPELLMAN **HIGH VOLTAGE CO., INC.**

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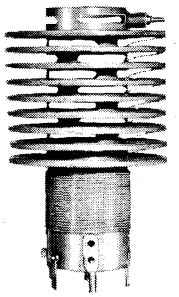
SPELLMAN HIGH VOLTAGE COILS and POWER SUPPLIES

RF TYPE - DC

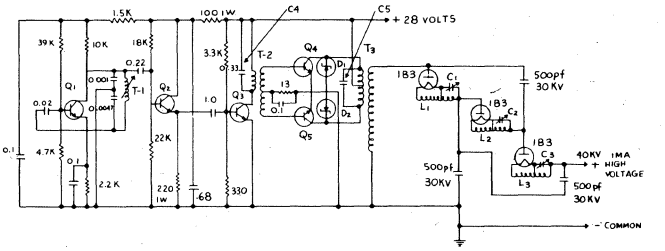
TRANSISTORIZED HIGH VOLTAGE STEP-UP COIL

OUTPUT 15KV @ 2 ma.

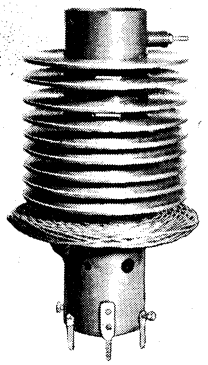
MODEL TRF-15
Complete with operational circuit diagram and data
$15.00 net



- Coil driven by pair of transistors in push-pull.
- Coil Height – 4¼"
- Diameter – 2⅝"
- Secondary Output Voltage – 15 KV
- Secondary Current – 5 Milliamperes
- Approx. Frequency
  With Single Rectifier – 120 KC
  In tripler circuit – 78 KC



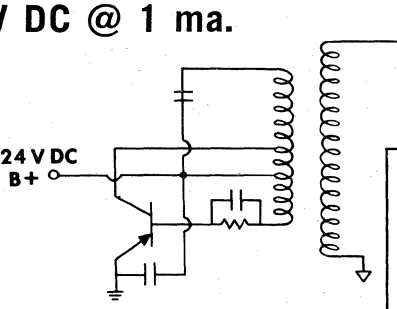
TRANSISTORIZED HIGH VOLTAGE STEP-UP COIL

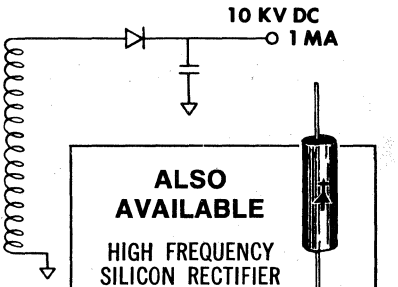


MODEL TRF-10
Complete with operational circuit diagram and data
$15.00 net

OUTPUT 10 KV DC @ 1 ma.

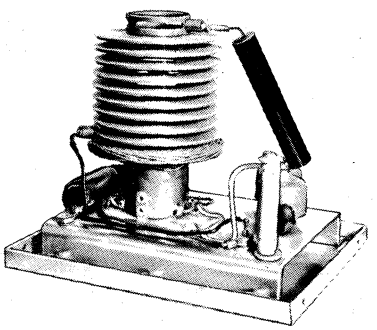
- Coil driven by single self-oscillating transistor
- Input voltage 24 V DC approx. 1 amp.
- Coil height – 4¼"
- Diameter – 3"
- Approx. operating frequency – 120 KC





ALSO AVAILABLE
HIGH FREQUENCY SILICON RECTIFIER
30 KV PIV
Dimensions: 3" long x ½" dia.
MODEL PIV-30 $20.00 net

DC to DC COMPLETELY SOLID STATE 10 KV HIGH VOLTAGE POWER SUPPLY

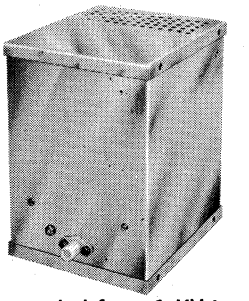


- Input – 24 V DC approx. 1 amp
- Output – 10 KV DC @ 1 ma.
- Ripple less than 0.05%
- HV output may be varied from 1 KV to 10 KV by controlling the DC input voltage. For example: for a 5 KV output @ 1 ma., an input voltage of 14V is required.
- High frequency unit–frequency approx. 120 KC
- Completely shielded in an enclosed housing
- Dimensions–6" W x 6" H x 5" D

SHOWN LESS HOUSING

MODEL TR-110
$65.00 net

DC to DC SOLID STATE 20 KV POWER SUPPLY



- Input — 24 V DC approx. 1.8 amps.
- Output — 20 KV @ 0.5 ma.
- Ripple less than .01%
- HV output may be varied from 1 KV to 20 KV by controlling the DC input voltage. For example: for a 10 KV output @ 1 ma. an input voltage of 15 volts @ 1.6 amps is required. For a 5 KV output @ 1 ma. an input voltage of 9 volts @ 1.7 amps is required.
- High frequency unit — frequency approx. 120 KC
- Completely shielded in enclosed housing
- Dimensions — 5¾" W x 8¼" H x 6¾" D

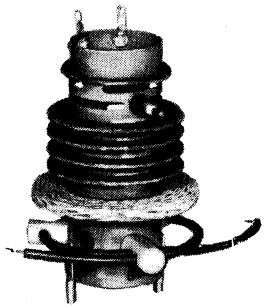
MODEL TR-120 . . . . . $75.00 net

SPELLMAN HIGH VOLTAGE CO., INC.

Net
© U.C.P., Inc.

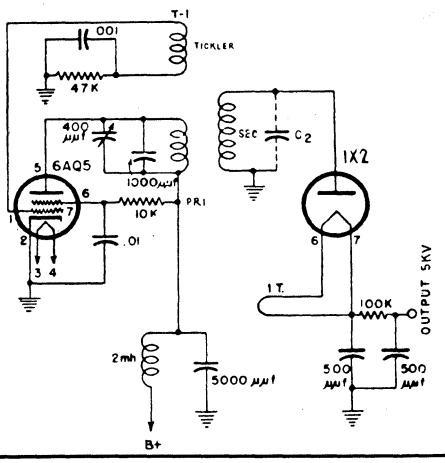
SPELLMAN HIGH VOLTAGE STEP-UP COILS

FOR RF POWER SUPPLIES

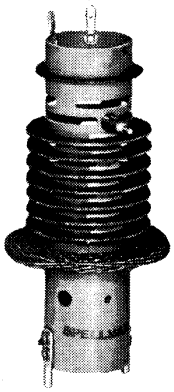


COIL MODEL 5 KV

Secondary Height	3½"
Secondary Windings	1¾"
Consisting of 4 Pie Windings	
Primary Diameter	2¼"
Secondary Voltage Output	5 KV
Secondary Current	2 Milliamperes
Approx. Frequency	300 KC
5KV Coil	$8.50 **Net**

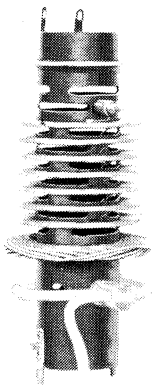


COIL MODEL 10-15 KV

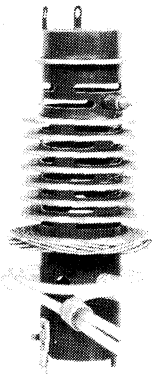


10-15 KV
$15.00 **Net**

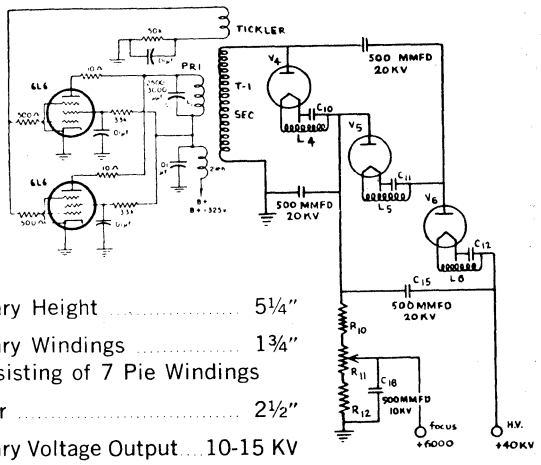
COIL MODEL 10-15 KV-1



COIL MODEL 10-15 KV-2

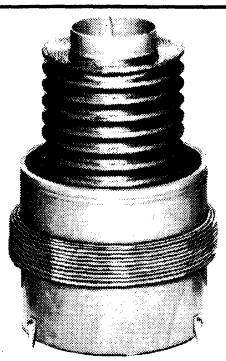


10-15 KV-1 with filament winding for single 1B3 rectifier ..... $15.25 **Net**
10-15 KV-2 with 2 filament windings for two 1B3 rectifiers ..... $15.50 **Net**



Secondary Height	5¼"
Secondary Windings	1¾"
Consisting of 7 Pie Windings	
Diameter	2½"
Secondary Voltage Output	10-15 KV
Secondary Current	2 Milliamperes
Approx. Frequency	175 KC

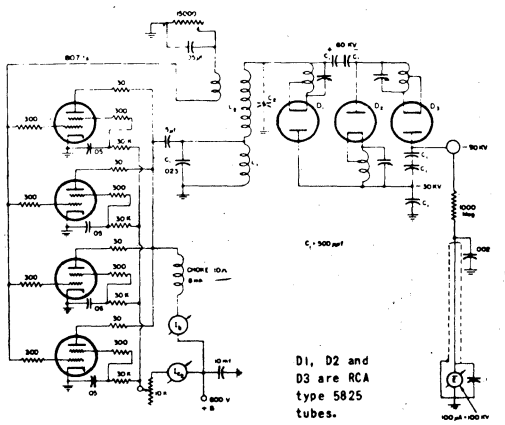
L4, L5, L6 are Spellman RF Filament Transformers



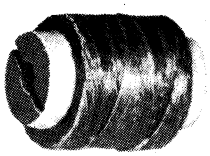
TECHNICAL INFORMATION AND CIRCUIT DIAGRAMS FURNISHED WITH EACH COIL

COIL MODEL 35 KV

Secondary Height	7"
Secondary Windings	3" dia.
Consisting of 10 Pie Windings	
Primary (separate from secondary)	
Height	4"
Diameter	4¼"
Secondary Voltage Output	35 KV
Secondary Current	5 Milliamperes
Approx. Frequency	70 KC
35KV Coil	**$46.20 Net**
25KV—Same as 35 KV except	
Secondary Height	6"
25KV Coil	**$39.60 Net**
70KV—Same as 35KV except Sec. height 10", 12 pie windings 4" dia., Primary height 4", Diameter 5", Approx. Frequency 70 KC.	
70KV Coil	**$82.50 Net**



L4, L5, L6 are Spellman RF Filament Transformers



RF FILAMENT TRANSFORMERS

A self-resonant auto transformer for use with type 1B3 Rectifier tube. Complete with instructions.

Will operate with Spellman HV coils..... $1.75 **Net**

Tuning Padder for Filament Transformer.. .70 **Net**

SPELLMAN HIGH VOLTAGE CO., INC.

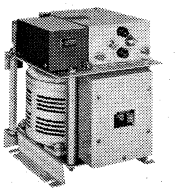
© U.C.P., Inc.

Net

STABILINE® automatic VOLTAGE REGULATORS

- **THE MOST EXTENSIVE LINE OF AUTOMATIC VOLTAGE REGULATORS**
- **RATED OUTPUTS FROM 0.25 TO 275 KVA**

Deliver a constant output voltage regardless of variations in input voltage or changes in load current. Conservatively rated, ruggedly built, precision products. Submit specifications for ratings desired but not given in the charts. Input voltage ranges shown are at nominal output voltage; input voltage range shifts with output voltage setting. All are cabinet types; those with other construction also are indicated.



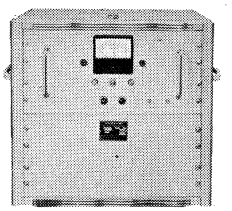
TYPE EMT4104BUT

Types EMT4104B, (U), (UT)

Have two primary windings for parallel or series (120 or 240 volt) duty. Type EMT4104B is cabinet enclosed; EMT4104BU is of open construction; EMT4104BUT has components screened or enclosed.

EMT series

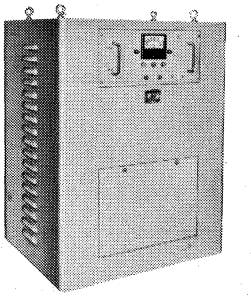
Electro Mechanical Transistorized types in ratings from 2.3 to 118 kva. Control circuit is completely transistorized. POWERKOTE Coils in power section permit higher output ratings. Rated accuracy ±0.75% for all variations of line voltage or load current within stated range of unit.



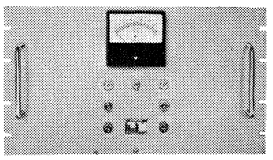
TYPE EMT4115B

EMS series

Electro Mechanical Transistorized types for single or three phase duty with ratings from 25 to 275 kva. Several types available with individual line control for greater application flexibility. Plug-in transistorized control circuit permits quick replacement in event of malfunction.



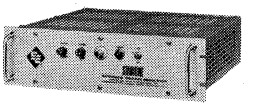
TYPE EMS42100



TYPE EMK4105R

EMK series

Electro Mechanical high speed, high accuracy assemblies in ratings of 2.5/5.0 KVA. Accuracy ±1.0% of nominal output voltage.



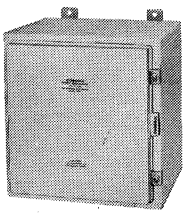
TYPE IES9101

IES series

Solid-state types with accuracy within 100 millivolts bandwidth, efficiency up to 95%, fast response, low distortion and wide operating frequency range. No vacuum tubes, motors, blowers or relays are used. All units have provision for remote sensing and have removable plug-in solid-state circuit boards.

All-boost Marine

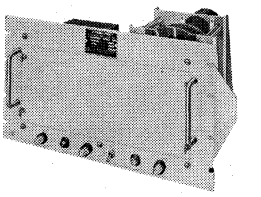
Electro Mechanical Transistorized type EMT10228 is fully enclosed in a weatherproof cabinet. Well suited for marine or industrial applications where equipment must withstand effects of dust and moisture. Has 6 KVA rated output.



TYPE EMT10228

Militarized

Standard Electro Mechanical and Electro Mechanical Transistorized types that meet the requirements of applicable military specifications. Type EMTH41007MH is 3½ x 6 x 4½"; type EM4108MCR fits standard 19" relay rack. Accuracy ±1.0%.



TYPE EM4108MCR

THE SUPERIOR ELECTRIC COMPANY

SEE OTHER SUPERIOR ELECTRIC PRODUCT PAGES

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EMT SERIES

NOMINAL OUTPUT VOLTAGE	OUTPUT VOLTAGE (ADJUSTABLE)	INPUT VOLTAGE RANGE‡‡	MAXIMUM OUTPUT AMPERES	RATED OUTPUT KVA	CORRECTION RATE AT 60 CYCLES (SECONDS/VOLT)	TYPE
50/60 CYCLE, SINGLE PHASE OPERATION						
115	110-120	95-135	20	2.3	0.075	EMT4102B†
			57	6.6	0.075	EMT4106C§
		90-115	52	6.0	0.12	EMT10228
		105-125	114	13.0	0.15	EMT4112B§*
		95-135	144	16.6	0.125	EMT4115B
120¶	110-120	108-137	35	4.2	0.10	EMT4104B††
230‡	220-240	195-255	36	8.3	0.083	EMT4207B
			93	21.4	0.083	EMT4220
		205-250	130	29.9	0.111	EMT4228C
240‡¶	220-240	228-256	35	8.4	0.10	EMT4104B††
460	440-480	400-520	20	9.2	0.041	EMT4407B
			45	20.7	0.041	EMT4418B
50/60 CYCLE, THREE PHASE OPERATION						
230‡	220-240	195-255	33	13.1	0.083	EMT6210YB
			48	19.1	0.083	EMT6215YB
			63	25.1	0.083	EMT6220YB
			145	57.8	0.25	EMT6245YB
			188	74.9	0.25	EMT6270DB
460	440-480	400-520	18	14.3	0.041	EMT6412YB
			24	19.1	0.041	EMT6417YB
			35	27.9	0.041	EMT6425YB
			75	59.8	0.125	EMT6450YB
			100	75.0	0.125	EMT6475YB
		420-500	148	118	0.188	EMT64100YB

EMS SERIES

60 CYCLE, SINGLE PHASE, 2-WIRE						
115	110-120	103.5-126.5	833	100	0.65	EMS41100
230‡	220-240	218.5-241.5	435	100	0.22	EMS42100‡
50/60 CYCLE, SINGLE PHASE, 3-WIRE, INDIVIDUAL LINE CONTROL						
240/120	230-250/115-125	204-276/102-138	104	25.0	.03/.06	EMSI4225
			250	60.0	.03/.06	EMSI4260
	220-240/110-120	228-252/114-126	417	100	.10/.21	EMSI42100††
50/60 CYCLE, THREE PHASE, SINGLE CONTROL						
230‡	220-240	203-257	339	135	0.28	EMS62135Y‡
460	440-480	445-495	230	180	0.30	EMS64180Y
			347	275	0.30	EMS64275Y
50/60 CYCLE, THREE PHASE, INDIVIDUAL LINE CONTROL						
208/120	191-217/115-125	177-239/102-138	250	90.0	.08/.14	EMSI6290Y
		165-233/95-135	525	190	.37/.22	EMSI62190Y††

EMK SERIES

50/60 CYCLE, SINGLE PHASE						
115	110-120	95-135	23	2.6	0.02	EMK4105†
		105-125	46	5.3	0.04	

IES SERIES

50 OR 60 CYCLE ±10%, SINGLE PHASE						
115	110-120	95-135**	4.4	0.5	—	IES91005
			8.7	1.0	—	IES9101
			26.1	3.0	—	IES9103
			52.2	6.0	—	IES9106
			130	15.0	—	IES9115
230	220-240	195-255**	13	3.0	—	IES9203
			26.1	6.0	—	IES9206
			65	15.0	—	IES9215

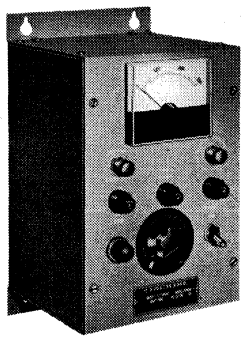
MILITARIZED TYPES

45-66 CYCLE, SINGLE PHASE						
120	115-125	105-135	66.6	8.0	0.10	EM4108MCR
380-420 CYCLE, SINGLE PHASE						
115	115	103.5-126.5	6	0.69	0.13▲	EMTH41007MH

▲At 400 cycles.
†Also available as rack model (suffix R when ordering).
¶For 60 cycle operation only.
*Can also be operated on an input range of 95 to 135 volts with a rating of 57 amperes, 6.6 kva and a correction rate of 0.075 seconds per volt.
§Also available as rack (suffix R when ordering) or wall mounted (suffix W when ordering) models.
‡Unit can be converted for 208 volt operation by simple tap changes. Input and output voltage ranges change proportionally.
**At nominal output. Shifts with output voltage setting but not proportionally.
††Also available in open construction (suffix U) and with screened and enclosed (suffix UT) construction.
‡‡At nominal output. Shifts proportionally with output voltage setting.

IN SECTIONS 2100, 3500 AND 5600

STABILINE®
FULL RANGE REGULATOR CONTROLLERS



TYPE FR500MP

For use with any motor-driven POWERSTAT® Variable Transformer to provide full range:

1
REGULATED AC VOLTAGE

—Regulates output voltage from any motor-driven 120 or 240 volt 50/60 cycle, single phase POWERSTAT Variable Transformer. For three phase, the unit monitors one line-to-neutral or one line-to-line voltage. Can be used for 480 volt duty by using step-down transformer. Output voltage remains within a 2-volt band on 120 volts and within 4-volt band on 240 volts.

2
REGULATED AC CURRENT

—Combined with POWERSTAT Variable Transformer, current/voltage transformer and current transformer, the unit will maintain constant output current accurate within ±1% of the maximum current setting.

3
REGULATED DC VOLTAGE—

Combined with a POWERSTAT Variable Transformer and a user-supplied d-c power supply, the unit provides regulated d-c voltage. Can be supplied for d-c use or can be modified by user.

© U.C.P., Inc.

Terado DC-AC Inverters, Chargers, Relays, Voltage Adjusters

60 CYCLE INVERTERS

Change battery current to 110 volt, 60 cycle AC. Frequency stable within ½ cycle, with change in load and input voltage.

TRANSITORIZED
Frequency Stabilized

DUAL CONTINENTAL
(Transistorized, 600 watts)

Converts 12 v. D.C. to 110 v., 60 cycle 550 to 600 watts. Complete with battery cables and remote control with variable A.C. output. Filtered for tape recorders. Frequency stable within ½ cycle with changing input voltage and load. **Size** 10¾" w. x 13" d. x 6" h. Shpg. Wt., 60 lbs.
Terado No. 50202—Net Each $307.77

CONTINENTAL (Transistorized, 300 watts)
Same features as DUAL above, but has capacity of 275 to 300 watts. **Size** 10¾" x 6" x 6". Shpg. Wt., 30 lbs.
Terado No. 50191—Net Each $153.13

ATLAS (Transistorized, 200 watts)
Same features as CONTINENTAL above, but has capacity of 175 to 200 watts. **Size** 10¾" x 6" x 6". Shpg. Wt., 21 lbs.
Terado No. 50200—Net Each $114.53

TITAN (Transistorized, 175 watts)
Same features as ATLAS above less remote control, but with on-off switch and A.C. receptacle in case. Capacity 150 to 175 watts. **Size** 10¾" x 6" x 6". Shpg. Wt., 20 lbs.
Terado No. 50201—Net Each $100.51

TRANSITORIZED
Frequency Not Stabilized

GEMINI
(Transistorized, 450 to 500 watts)

Transistorized 12 V. D.C. to 110 V. A.C. Designed to operate equipment not sensitive to frequency change. Size 12½" x 6" x 6". Shpg. Wt. 20 lbs.
Terado No. 50-128—Net Each $97.17
Remote control No. 50-130—Net Each $11.50

FALCON
(Transistorized, 275 to 300 watts)

Transistorized 12 V. D.C. to 110 V. A.C. Designed to operate equipment not sensitive to frequency change. Size 12½" x 6" x 6". Shpg. Wt. 20 lbs.
Terado No. 50-129—Net Each $74.25
Remote control No. 50-130—Net Each $11.50

GALAXY (Transistorized, 175 watts)
Converts 12 v. DC to 110 v. AC, 140-175 watts filtered. Adjustable voltage and frequency. Ideal where frequency is not critical. Size: 10¾" w. x 6" d. x 6" h. Shpg. Wt. 9½ lbs.
Terado No. 50205—Net Each $36.76

TEMPEST
Transistorized 12 v. DC to 110 v. AC, 125-150 watts. Ideal where frequency is not important. Size: 10¾" w. x 6" d. x 6" h. Shipping Weight, 9½ lbs.
Terado No. 50-170—Net Each $32.96

60 CY. VIBRATOR TYPES
Frequency Stabilized

SUPREME
Converts 12 v. DC to AC; power output, 175-200 watts, filtered. Remote control has variable AC output switch and signal light indicating proper AC output voltage. Steel case. **Size:** 10¾" w. x 6" d. x 6" h. Shpg. Wt., 25 lbs.
Terado No. 50153—Net Each $84.07

RECORDER
150-175 watt version of SUPREME, less remote control. Plugs into cigarette lighter. Hi-low voltage selector switch to maintain proper ouput voltage. Filtered. **Size:** 10¾" w. x 6" d. x 6" h. Shpg. Wt., 21 lbs.
Terado No. 50175—Net Each $76.67

CHIEF
Ventilated steel case. Size: 3½" w. x 6½" d. x 4" h. Shipping Weight 8 lbs.
Terado No. 50137 — Voltage input, 6 v. AC Power Output, 75-100 watts. Net $53.90
Terado No. 50138 — Voltage input, 12 v. AC Power Output, 100-125 watts. Net $53.90

AUTOMATIC
Operates automatically from 6 or 12 v. DC without vibrator change or switching (6 v., 55-75 watts; 12 v., 85-110 watts). Easy installation into cigarette lighter. Steel case. Seal brown baked enamel. Size: 3½" w. x 6½" d. x 4" h. Shipping Weight 8 lbs.
Terado No. 50134—Net Each $44.52

SUPER
Single input version of AUTOMATIC. **Size:** 3½" w. x 6½" d. x 4" h. Shpg. Wt., 8 lbs.
Terado No. 50126—Voltage input, 6 v. AC Power Output, 60-75 watts. Net $38.47
Terado No. 50127—Voltage input, 12 v. AC Power Output, 75-100 watts. Net $38.47

MASTER
Easy to install into cigarette lighter. Steel case. Seal brown baked enamel. Size: 3½" w. x 6½" d. x 4" h. Shipping Weight, 6 lbs.
Terado No. 50122 — Voltage input, 12 v. AC Power Output, 60-75 watts. Net $31.96

ELECTRAL
Glove compartment size inverter, available in 6 v. or 12 v. input. Easy installation into cigarette lighter. Vinyl coated steel case with leatherette appearance. **Size:** 3" w. x 2¼" d. x 5½" h. Shpg. Wt., 3 lbs.
Terado No. 50167—Voltage input, 12 v. AC Power Output, 42-52 watts. Net $20.77

SENIOR
Operates radios, lights, phonographs and small tape recorders. Available in 6 v. or 12 v. input. Simple to install into cigarette lighter. Aluminum case. Seal brown baked enamel. **Size:** 2½" w. x 4½" d. x 2¼" h. Shipping Weight, 3 lbs.
Terado No. 50115—Voltage input, 6 v. AC Power Output, 35-40 watts. Net $18.47
Terado No. 50116—Voltage input, 12 v. AC Power Output, 40-50 watts. Net $18.47

DYNAMO
Permits operating AC radios on 12 v. DC battery source, such as cars or boats. Can also operate electric shavers. Plugs into cigar lighter. Includes generator condenser and ignition suppressor. Power output, 25-30 watts. **Size:** 2" x 2" x 3¾" Shpg. Wt., 2 lbs.
Terado No. 50196—For 12 v. batteries only. Net Each $9.95

AUTO SHAVER
Operate all electric shavers. Available in 6 v. or 12 v. input. Plugs into cigarette lighter. Polyethylene non-breakable case. **Size:** 3⅝" w. x 2¼" d. x 4½" h. Shpg. Wt., 2 lbs.
Terado No. 50103—Input, 12 v. AC Power Output, 15-20 watts. Net Each $9.31

PORTABLE POWER SUPPLY

TRAV-ELECTRIC
Operates anything using 117 v. AC, 60 cps from 25 amps rechargeable wet storage battery enclosed. Capacity, 175 watts; 125 watts continuous. Frequency stable within ½ cps with load change. Plugs into AC outlet or car cigarette lighter to recharge battery. Charger has automatic overcharge protection. Meter shows charge rate and hours of anticipated output. Size: 12" x 5½" x 8". Wt: Net, 30 lbs. including battery: shpg., 36 lbs.
Terado No. 50-160—Net Each $60.63

BATTERY CHARGERS

Electronically engineered full wave silicon rectifier chargers. Miniaturization with full power charge rate.

DYN-A-MITE
Baked seal brown paint over aluminum case. Charge rate 1 amp, both 6 and 12 volts. **Size:** 1¾" x 1¾" x 3¼". Wt., 1 lb.
Terado No. 50186—Net Each $5.90

TINY GIANT
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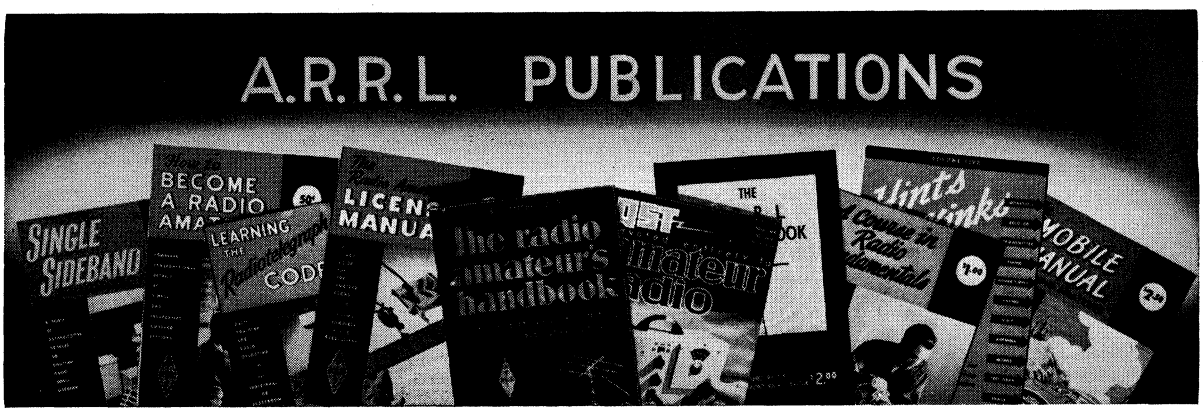

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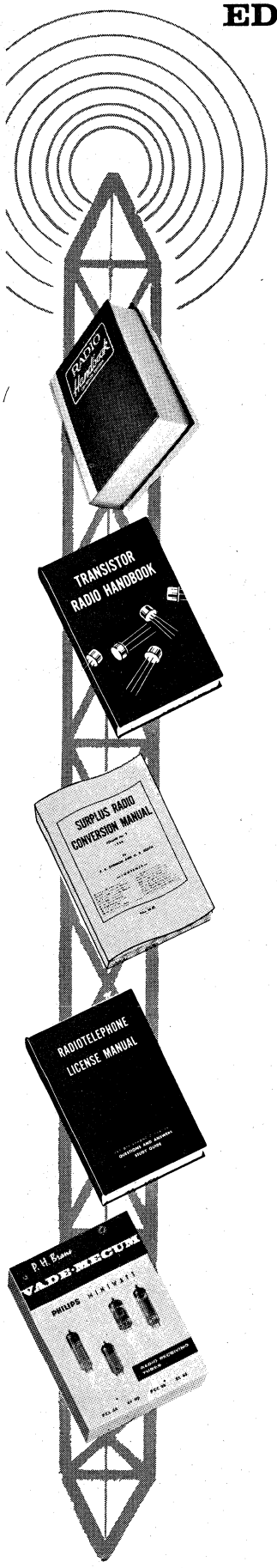

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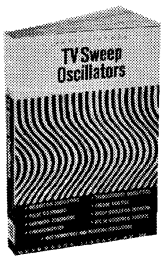

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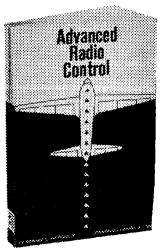

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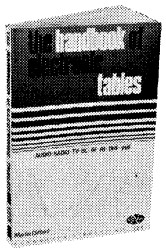

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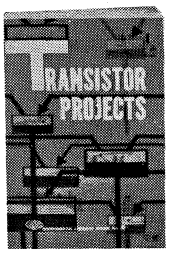

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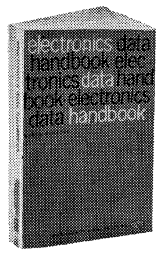

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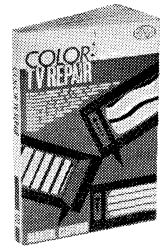

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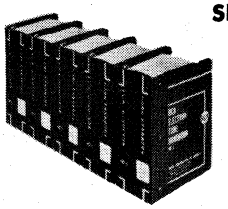

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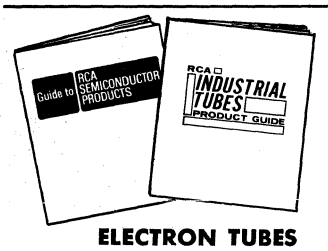

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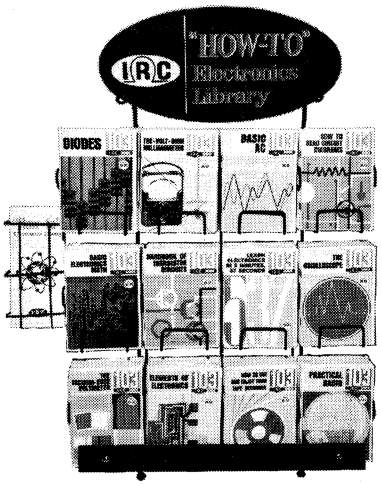

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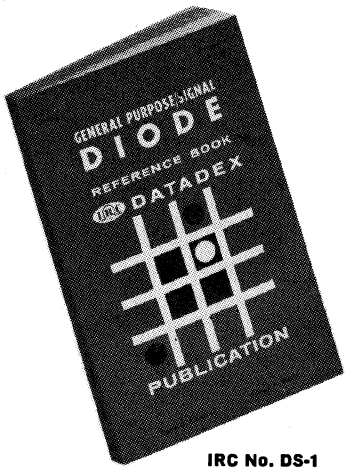

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EXAMPLE: Datadex number 1D32E4

1	D	32	E	4
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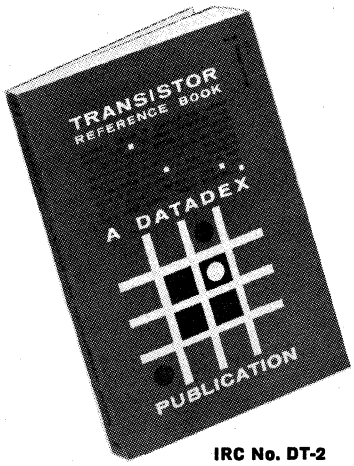

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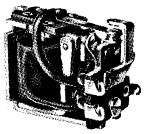

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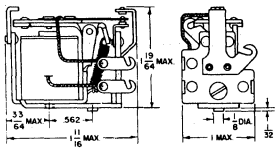


DESCRIPTION

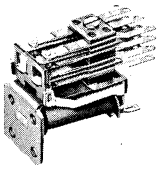
Compact design, single hole mounting, terminal board on the front and contacts on top for easy inspection.

Terminals: .078 x .107 hook

Weight: 2.0 ounces max.

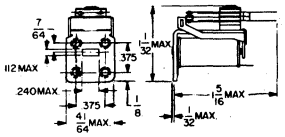
Mounting: (1) 6-32 NC-2B tapped hole 7-32 deep

TAT



RELAY TYPE[1]	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS[2]	COIL POWER AT 25°C	COIL RESIST. OHMS[3]	NET PRICE
TAT-2C	6v d-c	DPDT	2	700 mw	52	3.08
TAT-2C	12v d-c	DPDT	2	700 mw	185	3.08
TAT-2C	24v d-c	DPDT	2	700 mw	700	3.08
TAT-2C	48v d-c	DPDT	2	700 mw	2500	3.08
TAT-2C	115v d-c	DPDT	2	700 mw	15000	4.55

OUTLINE DRAWING



DESCRIPTION

Subminiature with the performance of a miniature plus extra long life

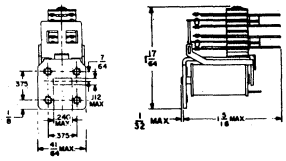
Terminals: Elongated holes .080 x .040

Weight: 0.70 ounces max.

Mounting: (4) 4-48 NF-2B tapped holes

RELAY TYPE[1]	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS[2]	COIL POWER AT 25°C	COIL RESIST. OHMS[3]	NET PRICE
TAT-4C	6v d-c	4PDT	2	700 mw	52	$3.48
TAT-4C	12v d-c	4PDT	2	700 mw	185	3.48
TAT-4C	24v d-c	4PDT	2	700 mw	700	3.48
TAT-4C	48v d-c	4PDT	2	700 mw	2500	3.48
TAT-4C	115v d-c	4PDT	2	700 mw	15000	4.95

OUTLINE DRAWING



DESCRIPTION

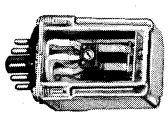
Subminiature with the performance of a miniature plus extra long life

Terminals: Elongated holes .080 x .040

Weight: 0.75 ounces max.

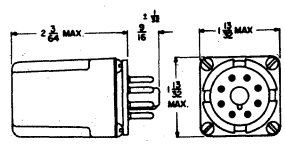
Mounting: (4) 4-48 NF-2B tapped holes

TFMDO
TEFDO



RELAY TYPE[1]	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS[2]	COIL POWER AT 25°C	COIL RESIST. OHMS[3]	NET PRICE
TFMDO-2C	6v d-c	DPDT	5	700 mw	52	$6.02
TFMDO-2C	12v d-c	DPDT	5	700 mw	185	6.02
TFMDO-2C	24v d-c	DPDT	5	700 mw	700	6.02
TFMDO-2C	115v d-c	DPDT	5	700 mw	15000	7.49
TEFDO-2C	6v a-c	DPDT	5	1.2 va	6.4	$4.92
TEFDO-2C	12v a-c	DPDT	5	1.2 va	31.8	4.92
TEFDO-2C	24v a-c	DPDT	5	1.2 va	112.5	4.92
TEFDO-2C	115v a-c	DPDT	5	1.2 va	2580.0	4.92
TEFDO-2C	220v a-c	DPDT	5	2.4 va	6000.0	5.42

OUTLINE DRAWING



DESCRIPTION

Enclosed in a transparent polycarbonate cover and rigidly secured to base.

Enclosure: Dust cover

Weight: 2.5 ounces

Socket: Any std. RETMA or EIA octal

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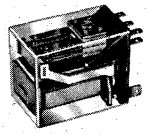
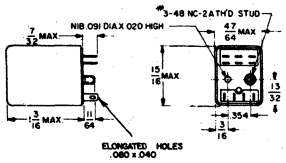
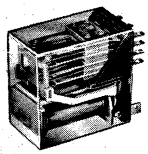
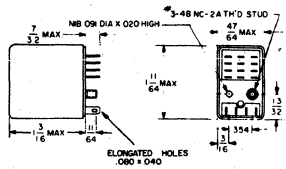
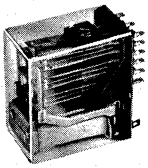
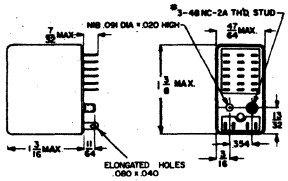
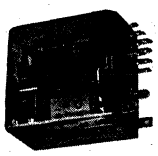
GENERAL PURPOSE RELAYS

RELAY TYPE[1]	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS[2]	COIL POWER AT 25°C	COIL RESIST. OHMS[3]	NET PRICE	OUTLINE DRAWING	DESCRIPTION
TF154-2C								
								Features no internal wiring, contact arms extended to form combination solder and plug-in terminals **Terminals:** Elongated holes .080 x .040 **Enclosure:** Dust cover **Weight:** 0.80 ounces max. **Socket:** Allied type 30055-1
TF154-2C	6v d-c	DPDT	5	700 mw	52	$3.52		
TF154-2C	12v d-c	DPDT	5	700 mw	185	3.52		
TF154-2C	24v d-c	DPDT	5	700 mw	700	3.52		
TF154-2C	48v d-c	DPDT	5	700 mw	2500	3.52		
TF154-2C	115v d-c	DPDT	5	700 mw	15000	4.99		
TF154-4C								
								Features no internal wiring, contact arms extended to form combination solder and plug-in terminals **Terminals:** Elongated holes .080 x .040 **Enclosure:** Dust cover **Weight:** 0.95 ounces max. **Socket:** Allied type 30055-2
TF154-4C	6v d-c	4PDT	5	700 mw	52	$4.02		
TF154-4C	12v d-c	4PDT	5	700 mw	185	4.02		
TF154-4C	24v d-c	4PDT	5	700 mw	700	4.02		
TF154-4C	48v d-c	4PDT	5	700 mw	2500	4.02		
TF154-4C	115v d-c	4PDT	5	700 mw	15000	5.49		
TF154-6C								
								Features no internal wiring, contact arms extended to form combination solder and plug-in terminals **Terminals:** Elongated holes .080 x .040 **Enclosure:** Dust cover **Weight:** 1.0 ounces max. **Socket:** Allied type 30055-20
TF154-6C	6v d-c	6PDT	5	1.5 w	25	$5.25		
TF154-6C	12v d-c	6PDT	5	1.5 w	90	5.25		
TF154-6C	24v d-c	6PDT	5	1.5 w	430	5.25		
TF154-6C	48v d-c	6PDT	5	1.5 w	1550	5.25		
TF154-6C	115v d-c	6PDT	5	1.5 w	9000	6.15		

CRADLE MAGNETIC LATCHING

T351—SINGLE COIL



T351-2C	6v d-c	DPDT	1	900 mw	40	$6.10
T351-2C	12v d-c	DPDT	1	900 mw	166	6.10
T351-2C	24v d-c	DPDT	1	900 mw	630	6.10
T351-2C	48v d-c	DPDT	1	900 mw	2640	6.30
T351-2C	110v d-c	DPDT	1	900 mw	13800	7.00
TF351-2C	6v d-c	DPDT	5	900 mw	40	6.50
TF351-2C	12v d-c	DPDT	5	900 mw	166	6.50
TF351-2C	24v d-c	DPDT	5	900 mw	630	6.50
TF351-2C	48v d-c	DPDT	5	900 mw	2640	6.70
TF351-2C	110v d-c	DPDT	5	900 mw	13800	7.40
T351-4C	6v d-c	4PDT	1	900 mw	40	6.50
T351-4C	12v d-c	4PDT	1	900 mw	166	6.50
T351-4C	24v d-c	4PDT	1	900 mw	630	6.50
T351-4C	48v d-c	4PDT	1	900 mw	2640	6.70
T351-4C	110v d-c	4PDT	1	900 mw	13800	7.40

Designed for pulse operation. In the single coil version a pulse of 10 milliseconds minimal duration is required to activate the armature.

Weight: 2C-2 oz.
4C-4 oz.

Socket: 2C-30055-1
4C-30055-2

T351—DUAL COIL

T351-2C	2/6v d-c	DPDT	1	1.2 w	31.5	$7.10
T351-2C	2/12v d-c	DPDT	1	1.2 w	134	7.10
T351-2C	2/24v d-c	DPDT	1	1.2 w	485	7.10
T351-2C	2/48v d-c	DPDT	1	1.2 w	1760	7.30
T351-2C	2/110v d-c	DPDT	1	1.2 w	9600	9.05
T351-4C	2/6v d-c	4PDT	1	1.2 w	31.5	7.50
T351-4C	2/12v d-c	4PDT	1	1.2 w	134	7.50
T351-4C	2/24v d-c	4PDT	1	1.2 w	485	7.50
T351-4C	2/48v d-c	4PDT	1	1.2 w	1760	7.70
T351-4C	2/110v d-c	4PDT	1	1.2 w	9600	9.40
TF351-2C	2/6v d-c	DPDT	5	1.2 w	31.5	7.50
TF351-2C	2/12v d-c	DPDT	5	1.2 w	134	7.50
TF351-2C	2/24v d-c	DPDT	5	1.2 w	485	7.50
TF351-2C	2/48v d-c	DPDT	5	1.2 w	1760	7.70
TF351-2C	2/110v d-c	DPDT	5	1.2 w	9600	9.45

The dual coil functions similarly to the single wound version except that while the armature is actuated by a pulse applied to one winding it is reset by pulsing the second winding.

Weight: 2C-2 oz.
4C-4 oz.

Socket: 2C-30055-1
4C-30055-2

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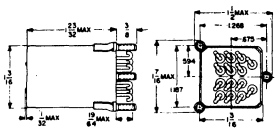
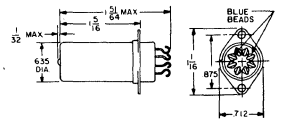
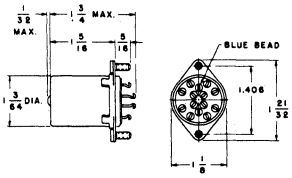
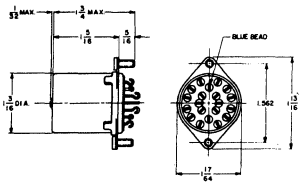
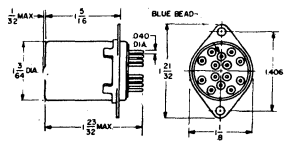
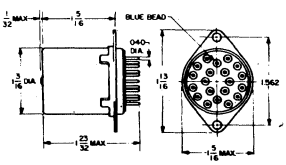
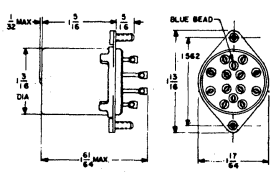
MINIATURE TYPE RELAYS

RELAY TYPE[1]	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS[2]	COIL POWER AT 25°C	COIL RESIST. OHMS[3]	NET PRICE	OUTLINE DRAWING	DESCRIPTION
CH								**Vibration:** 20g to 2000 cps **Shock:** 50g operational **Operate:** 15 milliseconds **Release:** 10 milliseconds **Temp:** —65°C to +125°C **Weight:** 5.0 ounces max. **Mounting:** (3) 6-32 NC-2A thd. studs
CH-12D	26.5v d-c	4PDT	10	4.0 w	180	$30.00		
MH-6								**Vibration:** 15g to 1000 cps **Shock:** 50g operational **Operate:** 8 milliseconds **Release:** 5 milliseconds **Temp. MH:** —55°C to +85°C **MHB:** —65°C to +125°C **Weight:** 2.0 ounces max. **Mounting:** (2) 0.125 dia. holes
MH-6D	26.5v d-c	DPDT	5	1.75 w	400	$14.25		
MHB-6D	26.5v d-c	DPDT	5	1.25 w	325	14.25		
MH-12*								**Vibration** 15g to 1000 cps **Shock:** 50g operational **Operate:** 10 milliseconds **Release:** 5 milliseconds **Temp. MH:** —55°C to +85°C **MHB:** —65°C to +125°C **Weight:** 3.0 ounces max. **Mounting:** (3) 6-32 NC-2A thd. studs
MH-12D	26.5v d-c	4PDT	5	2.5 w	300	$20.90		
MHB-12D	26.5v d-c	4PDT	5	3.0 w	250	20.90		
MH-18*								**Vibration** 15g to 1000 cps **Shock:** 50g operational **Operate:** 10 milliseconds **Release:** 5 milliseconds **Temp. MH:** —55°C to +85°C **MHB:** —65°C to +125°C **Weight:** 4.2 ounces max. **Mounting:** (3) 6-32 NC-2A thd. studs
MH-18D	26.5v d-c	6PDT	5	3.0 w	240	$23.75		
MHB-18D	26.5v d-c	6PDT	5	3.5 w	200	23.75		
MHUO-12								**Vibration:** 15g to 1000 cps **Shock:** 50g operational **Operate:** 10 milliseconds **Release:** 5 milliseconds **Temp:** —55°C to +85°C **Weight:** 3.0 ounces max. **Mounting:** (2) .144 dia. holes **Socket:** Allied type 16188-1 above chassis mtg.
MHUO-12D	26.5v d-c	4PDT	5	2.5 w	300	$20.90		
MHUO-18								**Vibration:** 15g to 1000 cps **Shock:** 50g operational **Operate:** 10 milliseconds **Release:** 5 milliseconds **Temp:** —55°C to +85°C **Weight:** 4.2 ounces max. **Mounting:** (2) .144 dia. holes **Socket:** Allied type 16189-1 above chassis mtg.
MHUO-18D	26.5v d-c	6PDT	5	3.0 w	240	$23.75		
MHY								**Vibration:** 20g to 500 cps **Shock:** 50g operational **Operate:** 10 milliseconds **Release:** 5 milliseconds **Temp:** —65°C to +125°C **Weight:** 4.2 ounces max. **Mounting:** (2) #6-32 NC-2A thd. studs
MHY-12D	26.5v d-c	4PDT	10	3.5 w	200	$25.41		

*Also available as MHJ-12D & MHJ-18D for 20G up to 2000 CPS vibration.

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SENSITIVE and PLATE CIRCUIT RELAYS

RELAY TYPE[1]	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS[2]	COIL POWER AT 25°C	COIL RESIST. OHMS[3]		OUTLINE DRAWING	DESCRIPTION
WJS								**Vibration:** 15g to 2000 cps **Shock:** 50g operational **Operate:** 15 milliseconds **Release:** 10 milliseconds **Temp:** −65°C to +125°C **Weight:** 1.0 ounces max. **Welded Construction**
WJS-3D	3.2 ma d-c	SPDT	3	25 mw	2500	$11.57		
WJS-3D	2.2 ma d-c	SPDT	3	25 mw	5000	11.57		
WJS-3D	1.6 ma d-c	SPDT	3	25 mw	10000	13.50		
WJS-6D	4.0 ma d-c	DPDT	3	40 mw	2500	11.83		
WJS-6D	2.8 ma d-c	DPDT	3	40 mw	5000	11.83		
WJS-6D	2.0 ma d-c	DPDT	3	40 mw	10000	13.83		
WJSO								**Vibration:** 15g to 2000 cps **Shock:** 50g operational **Operate:** 15 milliseconds **Release:** 10 milliseconds **Temp:** −65°C to +125°C **Weight:** 1.0 ounces max. **Socket:** Armel type HRC-1 or equiv. **Welded Construction**
WJSO-6D	2.8 ma d-c	DPDT	3	40 mw	5000	11.83		
WJSO-6D	2.0 ma d-c	DPDT	3	40 mw	10000	13.83		
TFMDO								Inclosed in a transparent polycarbonate cover and rigidly secured to base. **Enclosure:** Dust cover **Weight:** 2.5 ounces max. **Socket:** Any std. RETMA or EIA octal
TFMDO-2C	9.5 ma d-c	DPDT	5	220 mw	2500	6.33		
TFMDO-2C	7.0 ma d-c	DPDT	5	250 mw	5000	6.83		
TFMDO-2C	5.5 ma d-c	DPDT	5	300 mw	10000	7.23		
TFT								Subminiature with small size moving parts resulting in quick release and exceptional contact rating. **Terminals:** Elongated holes .080 x .040 **Weight:** 0.70 ounces max. **Mounting:** (4) 4-48NF 2B tapped holes
TFT-2C	9.5 ma d-c	DPDT	5	220 mw	2500	3.49		
TFT-2C	7.0 ma d-c	DPDT	5	250 mw	5000	3.99		
TFT-2C	5.5 ma d-c	DPDT	5	300 mw	10000	4.39		
TS154-2C								Features no internal wiring. Contact arms extend to form combination solder and plug in terminals. **Terminals:** Printed circuit available as type TSP-154 **Enclosure:** Dust cover **Weight:** 0.80 ounces max. **Socket:** Allied type 30055-1
TS154-2C	5.8 ma d-c	DPDT	1	85 mw	2500	3.73		
TS154-2C	4.1 ma d-c	DPDT	1	85 mw	5000	4.23		
TS154-2C	3.1 ma d-c	DPDT	1	85 mw	10000	4.63		
TS154-4C								Features no internal wiring. Contact arms extend to form combination solder and plug in terminals. **Terminals:** Printed circuit available as type TSP-154 **Enclosure:** Dust cover **Weight:** 0.95 ounces max. **Socket:** Allied type 30055-2
TS154-4C	8.4 ma d-c	4PDT	1	175 mw	2500	4.17		
TS154-4C	6.2 ma d-c	4PDT	1	175 mw	5000	4.67		
TS154-4C	4.5 ma d-c	4PDT	1	175 mw	10000	5.07		

SUBMINIATURE TYPE RELAYS

WKJ								**Vibration:** 20g to 2000 cps **Shock:** 100g operational **Operate:** 5 milliseconds **Release:** 3 milliseconds **Temp:** 65°C to +125°C **Weight:** 0.5 ounces max. **Plug-in:** Type WKJO (not shown) **Socket:** Armel type HRC-1 or equivalent
WKJ-6D	6v d-c	DPDT	3	1.5 w	40	$10.08		
WKJ-6D	12v d-c	DPDT	3	1.5 w	150	10.08		
WKJ-6D	26.5v d-c	DPDT	3	1.5 w	600	10.08		
WKJ-6D	48v d-c	DPDT	3	1.5 w	2320	10.58		
WKJ-6D	115v d-c	DPDT	3	1.5 w	10000	11.80		
WKJO-6D	26.5v d-c	DPDT	3	1.5 w	600	10.08		

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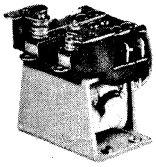
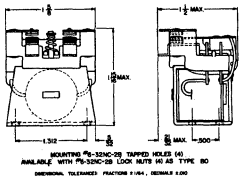
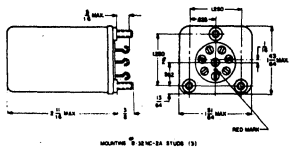
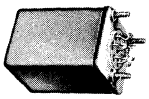
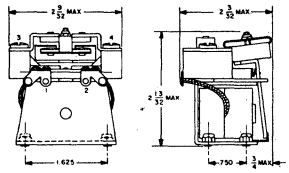
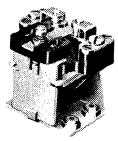
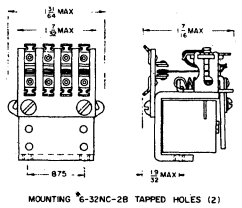
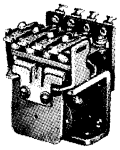
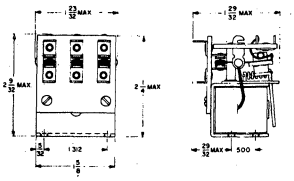
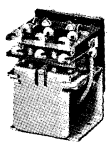
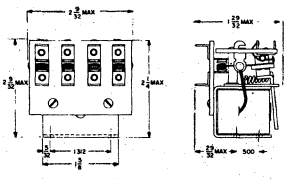
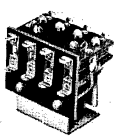
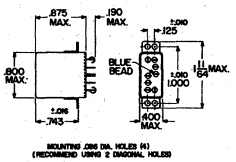
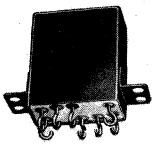
POWER RELAYS

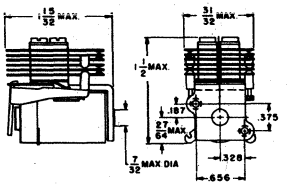
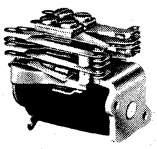
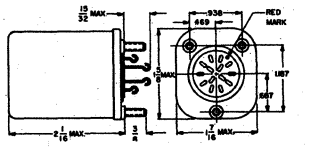
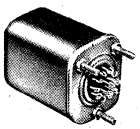
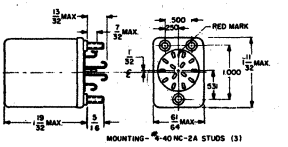
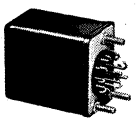
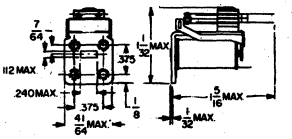
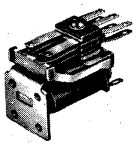
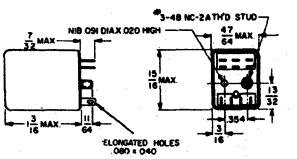
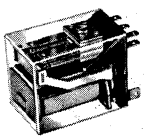
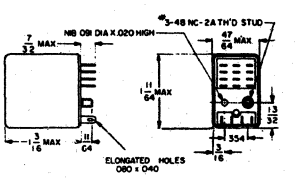
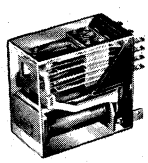
	RELAY TYPE[1]	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS[2]	COIL POWER AT 25°C	COIL RESIST. OHMS[3]	NET PRICE	OUTLINE DRAWING	DESCRIPTION
BOT (BO not shown)	BO-6A	6v a-c	DPDT	15	5.0 va	1.07	$ 5.50		Compact, rugged design for industrial control applications.
	BO-6A	24v a-c	DPDT	15	5.0 va	17	5.50		**Terminals:** .096 diameter holes, tin dipped
	BO-6A	115v a-c	DPDT	15	5.0 va	445	5.50		**Weight:** 5.5 ounces max.
	BO-6A	220v a-c	DPDT	15	5.0 va	1700	5.62		**Mounting:** (4) 6-32 elastic stop nuts
	BO-6D	6.3v d-c	DPDT	15	2.5 w	14.2	5.05		
	BO-6D	13.2v d-c	DPDT	15	2.5 w	70	5.05		
	BO-6D	26.5v d-c	DPDT	15	2.5 w	230	5.05		
	BO-6D	115v d-c	DPDT	15	2.5 w	5000	5.60		
	BOT-6A	6v a-c	DPDT	15	5.0 va	1.07	$5.24		Compact, rugged design for industrial control applications.
	BOT-6A	24v a-c	DPDT	15	5.0 va	17	5.24		**Terminals:** .096 diameter holes, tin dipped
	BOT-6A	115v a-c	DPDT	15	5.0 va	445	5.24		**Weight:** 5.0 ounces max.
	BOT-6A	220v a-c	DPDT	15	5.0 va	1700	5.36		**Mounting:** #6-32NC-2B tapped holes (4)
	BOT-6D	6v d-c	DPDT	15	2.5 w	14.2	4.79		
	BOT-6D	12v d-c	DPDT	15	2.5 w	70	4.79		
	BOT-6D	26.5v d-c	DPDT	15	2.5 w	230	4.79		
	BOT-6D	110v d-c	DPDT	15	2.5 w	5000	5.34		
BOHR	BOHR-6A	115v a-c	DPDT	10	5.0 va	445	11.33		**Vibration:** 10-55 cps at .062" double amplitude
	BOHR-6D	26.5v d-c	DPDT	10	2.5 w	230	10.88		**Shock:** 30g operational
	BOHRO-6A	115v a-c	DPDT	15	5.0 va	445	11.33		**Temp:** −55°C to +71.5°C
	BOHRO-6D	26.5v d-c	DPDT	15	2.5 w	230	10.88		**Weight:** 9.5 ounces max.
									Plug-in: Type BOHRO (not show
									Socket: Any std. RETMA or EIA octal
CNA	CNA-13A	115v a-c	SPST NO DB	25	10.5 va	145	8.00		Heavy duty, compact relay with double break contact construction eliminating pigtails.
	CNAS-13A	115v a-c	SPST NO DB	50	10.5 va	145	10.00		**Terminals:** Coil (1 & 2) 3-32 dia. holes
									Contacts (3 & 4) 10-32 screw type
									Weight: 9.5 ounces max.
									Mounting: (4) 6-32 elastic stop nuts
PB	PB-9A	115v a-c	3PDT	10	6.0 va	380	7.90		Small design with semi-balanced armature construction
	PB-12A	115v a-c	4PDT	10	6.0 va	380	8.80		**Operate:** 25 milliseconds
									Release: 4 milliseconds
									Temp: —55°C to +71.5°C
									Weight: 4.0 ounces max.
PO-9	PO-9A	24v a-c	3PDT	15	10.5 va	8.0	6.40		Low cost, compact, multi pole
	PO-9A	115v a-c	3PDT	15	10.5 va	145.0	6.40		**Terminals:** .079 x .164 hook, tin dipped
	PO-9D	13.2v d-c	3PDT	15	2.5 w	70	6.00		**Weight:** 7.5 ounces max.
	PO-9D	24 v d-c	3PDT	15	2.5 w	230	6.00		**Mounting[5]:** (4) 6-32 tapped holes (as shown) Type PON-(4) 6-32 elastic stop nuts
	PO-9D	115 v d-c	3PDT	15	2.5 w	5000	6.42		
PO-12	PO-12A	115v a-c	4PDT	15	10.5 va	145	7.16		Low cost, compact, multi pole
	PO-12D	13.2v d-c	4PDT	15	2.5 w	70	6.60		**Terminals:** .079 x .164 hook, tin dipped
	PO-12D	24v d-c	4PDT	15	2.5 w	230	6.60		**Weight:** 8.0 ounces max.
									Mounting[5]: (4) 6-32 tapped holes (as shown) Type PON-(4) 6-32 elastic stop nuts

ALLIED CONTROL ALLIED CONTROL COMPANY INC.

WELDED SUBMINIATURE TYPE RELAYS

	RELAY TYPE[1]	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS[2]	COIL POWER AT 25°C	COIL RESIST. OHMS[3]	NET PRICE	OUTLINE DRAWING	DESCRIPTION
WKY	WKY-60	6v d-c	DPDT	3	1.5 w	40	$10.08		**Vibration:** 20g to 2000 cps **Shock:** 50g operational **Operate:** 5 milliseconds **Release:** 3 milliseconds **Temp:** −65°C to +125°C **Weight:** 0.5 ounces max. **Plug-in:** Type WKYO (not shown) **Socket:** Armel type HRK-1 or equivalent
	WKY-60	12v d-c	DPDT	3	1.5 w	150	10.08		
	WKY-60	26.5v d-c	DPDT	3	1.5 w	600	10.08		
	WKY-60	48v d-c	DPDT	3	1.5 w	2320	10.58		
	WKY-60	115v d-c	DPDT	3	1.5 w	10000	11.80		
	WKYO-6D	26.5v d-c	DPDT	3	1.5 w	600	10.08		
	NOTE: Conforms to MIL-R-5757-10.								

TELEPHONE TYPE RELAYS

SK	SK-4C	24v d-c	4PDT	2	1.5 w	425	$ 4.60		Miniature size for front of panel wiring with an efficient metal to metal hinge. **Terminals:** elongated holes .062 x .125 **Weight:** 2.5 ounces max. **Mounting:** (2) 4-40 NC-2B tapped holes
									
SKH	SKH-4C	24v d-c	4PDT	2	1.5 w	425	9.70		SK type hermetically sealed. **Temp:** −55°C to +85°C **Weight:** 5.0 ounces max. **Mounting:** (3) 6-32 NC-2A studs
									
TA H	TAH-2C	24v d-c	DPDT	2	700 mw	700	7.41		Compact, rugged design with extremely long life **Operate:** 15 milliseconds **Release:** 8 milliseconds **Temp:** −55°C to +71°C **Weight:** 2.5 ounces max.
	TAH-4C	24v d-c	4PDT	2	700 mw	700	8.90		
TAT-2C	TAT-2C	6v d-c	DPDT	2	700 mw	52	3.08		Subminiature with the performance of a miniature plus extra long life **Terminals:** Elongated holes .080 x .040 **Weight:** 0.70 ounces max. **Mounting:** (4) 4-48 NF-2B tapped holes
	TAT-2C	12v d-c	DPDT	2	700 mw	185	3.08		
	TAT-2C	24v d-c	DPDT	2	700 mw	700	3.08		
	TAT-2C	48v d-c	DPDT	2	700 mw	2500	3.08		
	TAT-2C	115v d-c	DPDT	2	700 mw	15000	4.55		
***T154-2C**	T154-2C	6v d-c	DPDT	2	700 mw	52	3.42		Features no internal wiring, contact arms extended to form combination solder and plug-in terminals **Terminals:** Printed circuit available as type TP-154 **Enclosure:** Dust cover **Weight:** 0.80 ounces max. **Socket:** Allied type 30055-1
	T154-2C	12v d-c	DPDT	2	700 mw	185	3.42		
	T154-2C	24v d-c	DPDT	2	700 mw	700	3.42		
	T154-2C	48v d-c	DPDT	2	700 mw	2500	3.42		
	T154-2C	115v d-c	DPDT	2	700 mw	15000	4.89		
***T154-4C**	T154-4C	6v d-c	4PDT	2	700 mw	52	3.82		Features no internal wiring, contact arms extended to form combination solder and plug-in terminals **Terminals:** Printed circuit available as type TP-154 **Enclosure:** Dust cover **Weight:** 0.95 ounces max. **Socket:** Allied type 30055-2
	T154-4C	12v d-c	4PDT	2	700 mw	185	3.82		
	T154-4C	24v d-c	4PDT	2	700 mw	700	3.82		
	T154-4C	48v d-c	4PDT	2	700 mw	2500	3.82		
	T154-4C	115v d-c	4PDT	2	700 mw	15000	5.29		

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ALLIED CONTROL

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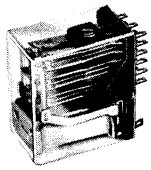
TELEPHONE TYPE RELAYS

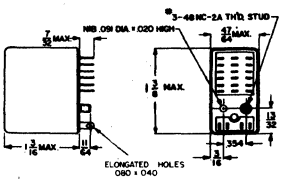
*T154-6C



RELAY TYPE[1]	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS[2]	COIL POWER AT 25°C	COIL RESIST. OHMS[3]	NET PRICE
T154-6C	6v d-c	6PDT	2	1.5 w	25	4.95
T154-6C	12v d-c	6PDT	2	1.5 w	90	4.95
T154-6C	24v d-c	6PDT	2	1.5 w	430	4.95
T154-6C	48v d-c	6PDT	2	1.5 w	1550	4.95
T154-6C	115v d-c	6PDT	2	1.5 w	9000	5.85

*Available with bifurcated contacts type T163

OUTLINE DRAWING



DESCRIPTION

Features no internal wiring, contact arms extended to form combination solder and plug-in terminals

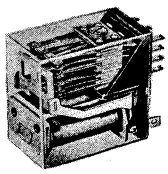
Terminals: Printed circuit available as type TP-154

Enclosure: Dust cover

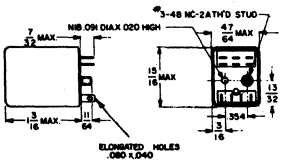
Weight: 1.0 ounces max.

Socket: Allied type 30055-20

T-163

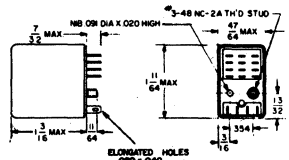


T-163-2C	6v d-c	DPDT	2	700 mw	52	$3.80
T-163-2C	12v d-c	DPDT	2	700 mw	185	3.80
T-163-2C	24v d-c	DPDT	2	700 mw	700	3.80
T-163-2C	48v d-c	DPDT	2	700 mw	2500	3.80
T-163-2C	115v d-c	DPDT	2	700 mw	15000	5.27



Same as T-154-2C except for bifurcated contacts.

T-163-4C	6v d-c	4PDT	2	700 mw	52	4.33
T-163-4C	12v d-c	4PDT	2	700 mw	185	4.33
T-163-4C	24v d-c	4PDT	2	700 mw	700	4.33
T-163-4C	48v d-c	4PDT	2	700 mw	2500	4.33
T-163-4C	115v d-c	4PDT	2	700 mw	15000	5.80

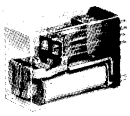


Same as T-154-4C except for bifurcated contacts.

ALSO AVAILABLE WITH 6PDT CONTACTS AS TYPE T-163-6C WITH LOWER RESISTANCE VALUES

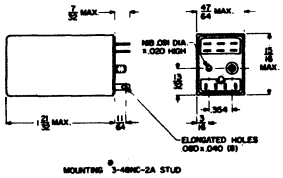
A. C. CRADLE SERIES

TF255



RELAY TYPE[1]	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS[2]	NOMINAL COIL POWER MAX.	COIL RESISTANCE OHMS[3]	NET PRICE
T255-2C	6v a-c	DPDT	2	1.2 va	6.4	$ 4.75
T255-2C	12v a-c	DPDT	2	1.2 va	31.8	4.75
T255-2C	24v a-c	DPDT	2	1.2 va	112.5	4.75
T255-2C	48v a-c	DPDT	2	1.2 va	460.0	4.75
T255-2C	115v a-c	DPDT	2	1.2 va	2580.0	4.75
TF255-2C	6v a-c	DPDT	5	1.2 va	6.4	4.85
TF255-2C	12v a-c	DPDT	5	1.2 va	31.8	4.85
TF255-2C	24v a-c	DPDT	5	1.2 va	112.5	4.85
TF255-2C	115v a-c	DPDT	5	1.2 va	2580.0	4.85
TF255-2C	220v a-c	DPDT	5	2.4 va	6000.0	5.35

OUTLINE DRAWING



DESCRIPTION

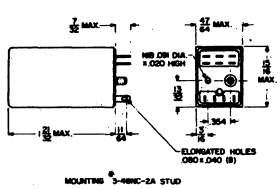
New design for quiet hum-free operation, long life, low cost versatile cradle series relay.

Enclosure: Dust cover

Weight: 1.3 ounces max.

Socket: 30054-1

T255-4C	6v a-c	4PDT	2	1.2 va	6.4	5.42
T255-4C	12v a-c	4PDT	2	1.2 va	31.8	5.42
T255-4C	24v a-c	4PDT	2	1.2 va	112.5	5.42
T255-4C	48v a-c	4PDT	2	1.2 va	460.0	5.42
T255-4C	115v a-c	4PDT	2	1.2 va	2580.0	5.42
TF255-4C	6v a-c	4PDT	5	2.4 va	4.45	5.62
TF255-4C	12v a-c	4PDT	5	2.4 va	20.0	5.62
TF255-4C	24v a-c	4PDT	5	2.4 va	65.0	5.62
TF255-4C	115v a-c	4PDT	5	2.4 va	1575.0	5.62
TF255-4C	220v a-c	4PDT	5	2.4 va	6000.0	6.12



New design for quiet hum-free operation, long life, low cost versatile cradle series relay.

Enclosure: Dust cover

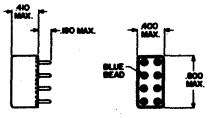
Weight: 1.3 ounces max.

Socket: 30054-2

NOTE: Available without dust cover type TE and TEF. with bifurcated contacts type TEB (open) and T266 (dust cover) Retainer springs for above type 30040-4 T255-2C 30040-5 T255-4C

S

S6A1	26.5v d-c	DPDT	2	1w	700	$12.00
S6H3	26.5v d-c	DPDT	2	1w	700	12.00
SL6A1	26.5v d-c	DPDT	2	1w	700	12.00
SL6H3	26.5v d-c	DPDT	2	1w	700	12.00



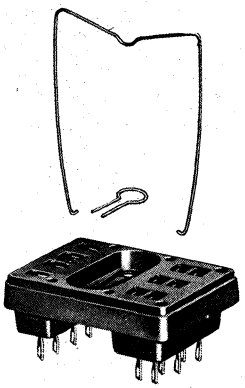
Half crystal can relay in all welded construction with solder hook or plug in terminals.

Weight: 0.3 ounces

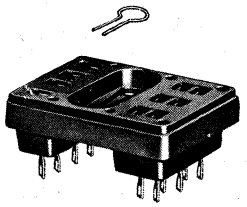
NOTE: relay conforms to MIL-R-5757/9

ALLIED CONTROL ALLIED CONTROL COMPANY INC.

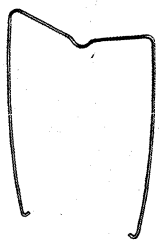
SOCKETS – RETAINERS



SOCKET NUMBER	RELAY TYPE		
30055-1	T154-2C	30055-1	$.55
30055-1	T163-2C	30055-2	.60
30055-1	T351-2C	30055-3	.72
30055-2	T154-4C	30055-4	.88
30055-2	T163-4C	30055-5	.55
30055-2	T351-4C	30055-6	.70
30055-20	T154-6C	30055-8	.70
30055-20	T163-6C	30055-20	.95
		30055-24	.95



SOCKET NUMBER	RELAY TYPE		
30054-1	T154-2C	30054-1	.50
30054-1	T163-2C	30054-2	.55
30054-1	T255-2C	30054-20	.90
30054-2	T154-4C	30040-1	.05
30054-2	T163-4C	30040-2	.05
30054-2	T255-4C	30040-3	.05
30054-20	T154-6C	30040-4	.05
30054-20	T163-6C	30040-5	.05



SOCKET NUMBER	RELAY TYPE		
30040-1	T154-2C	16479-1	1.25
30040-1	T163-2C	16185-1	1.42
30040-2	T154-4C	16188-1	1.42
30040-2	T163-4C	16187-1	1.64
30040-3	T154-6C	16189-1	1.64
30040-3	T163-6C		
30040-4	T255-2C		
30040-5	T255-4C		

NOTE: STANDARD PACKAGE FOR SOCKETS—20
STANDARD PACKAGE FOR RETAINERS—100

DESCRIPTION

Hardware: Ground wire
Hardware Material: Stainless steel 18-8, Type 302
Contacts: Beryllium copper, gold plated
Insulator: Black phenolic per Mil-P-14D CFG
Chassis Thickness: .062 recommended

SOCKET NUMBER	RELAY TYPE	PANEL LAYOUT
16479-1	MHO-6D (Above chassis mtg.)	.136 DIA. HOLE 2 FOR MOUNTING; $\frac{21}{32}$ DIA. HOLE; .437; .875
16185-1	MHLO-12D (Below chassis mtg.)	.219 DIA. HOLE 2 FOR MOUNTING; $1\frac{3}{32}$ DIA. HOLE; .765; 1.531
16188-1	MHUO-12 (Above chassis mtg.)	.166 DIA. HOLE 2 FOR MOUNTING; $1\frac{1}{32}$ DIA. HOLE; .703; 1.406
16187-1	MHLO-18D (Below chassis mtg.)	.219 DIA. HOLE 2 FOR MOUNTING; $1\frac{7}{32}$ DIA. HOLE; .843; 1.687
16189-1	MHUO-18 (Above chassis mtg.)	.166 DIA. HOLE 2 FOR MOUNTING; 1.140 DIA. HOLE; .781; 1.562

DESCRIPTION

Hardware: Saddle, spacers, screws and washers
Hardware Finish: Cadmium plated
Contacts: Beryllium copper, silver plated, tin dipped
Insulator: Mica-filled phenolic
Chassis Thickness: .062 recommended

GENERAL INFORMATION

1—Relay type—the letter H designates a hermetically sealed unit.
2—Contact ratings are for a resistive load at 29 volts d-c. Low level contacts are available except on Power Relays and Types AS, BJ, CH, MHY and MHYO.
3—Ohms—d-c resistance, standard tolerance ±10%
4—Contact ratings are for a resistive load at 29 volts d-c or 115 volts a-c.
5—Other mounting variations are available.

How to order: Specify Allied relay type and coil voltage or current Example: MHYO-12D 26.5v d-c TS154-4C 8.4 ma d-c

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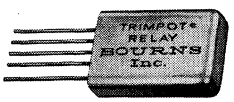
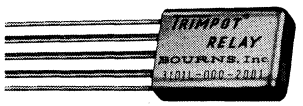
BOURNS TRIMPOT® SUB-MINIATURE RELAYS AND MINIATURE, ADJUSTABLE TIME-DELAYS

SUB-MINIATURE RELAYS

TRIMPOT® relays feature single-coil design, rotary balanced armature, self-cleaning contacts and hermetically sealed case. Every unit goes through a 5000-operation run-in and 100% final inspection, including mass-spectrometer leak testing, for all important characteristics.



Model 3100



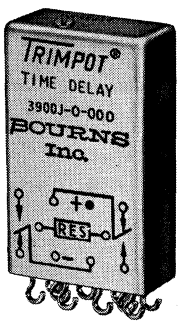
Model 3101

Model 3105 (with integral diode bridge for direct use in AC circuits)

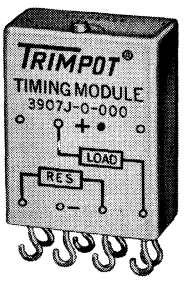
	Model 3100	Model 3101	Model 3105
Size	0.2″ x 0.4″ x 0.6″	0.2″ x 0.4″ x 0.6″	0.2″ x 0.4″ x 0.6″
Contacts	SPDT	DPDT	DPDT
Contact rating	1.0 amp resistive at 26.5 VDC	1.0 amp resistive at 26.5 VDC	1.0 amp, 28 VDC or 0.75 amp, 115 VAC
Pick-up sensitivity	100 mw	160 mw	180 mva
Coil resistance	50 to 2000Ω	65 to 2000Ω	
Nominal voltage	4.2 to 26.5 VDC	6.0 to 33.4 VDC	28 VAC, 400/800 cps
Environmental specification	MIL-R-5757D	MIL-R-5757D	MIL-R-5757D
Terminal styles	Plug-in pins, solder hooks, 1½″ straight leads	Plug-in pins, solder hooks, 1½″ straight leads	Plug-in pins, solder hooks, 1½″ straight leads
Ambient temperature range	−65 to +125°C	−65 to +125°C	−65 to +85°C

MINIATURE TIME-DELAY RELAYS adjustable up to 200 seconds

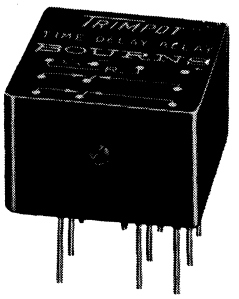
Bourns TRIMPOT® time-delay relays have integral adjustment from 0.1 to 1.5 seconds. Addition of an external resistor or resistor-capacitor combination can increase adjustability to 200 seconds. Units are protected against accidental polarity reversal and against transients up to 200% of line voltage. All models have welded circuitry and are vacuum-potted. MIL-Spec models have repeatable accuracy of ±5% max.



Model 3900



Model 3907



Model 3908

	Model 3900	Model 3907	Model 3908
Size	0.4″ x 0.8″ x 1.31″	0.4″ x 0.8″ x 1.0″	1.0″ x 1.0″ x 0.7″
Output	DPDT relay	SPST NO—solid state	DPDT relay
Contact rating	1.0A resistive at 26.5 VDC	0.05A resistive at 26.5 VDC	1.0A resistive at 26.5 VDC
Time delay range	0.1 to 200 sec.	0.1 to 200 sec.	0.1 to 200 sec.
Nominal voltage	20 to 30 VDC	20 to 30 VDC	20 to 30 VDC
Repeatability	±5% max.	±5% max.	±10% max.
Environmental specification	MIL-R-5757D	MIL-R-5757D	Industrial
Terminal styles	Plug-in pins, solder hooks, 1½″ straight leads	Plug-in pins, solder hooks, 1½″ straight leads	Plug-in pins
Ambient temp. range	−55 to +120°C	−55 to +120°C	−40 to +85°C

ALL BOURNS RELAYS AND TIME-DELAYS ARE AVAILABLE OFF THE SHELF.

FOR BOURNS TRIMPOT® ADJUSTMENT POTENTIOMETERS, SEE PAGES 1176, 1177.
FOR BOURNS® PRECISION POTENTIOMETERS, SEE PAGES 1174, 1175.

BOURNS INC.

BOURNS, INC., TRIMPOT DIVISION

TRIMPOT® AND PRECISION POTENTIOMETERS — RELAYS — MICROCOMPONENTS: TRANSFORMERS, INDUCTORS, RESISTORS AND CAPACITORS

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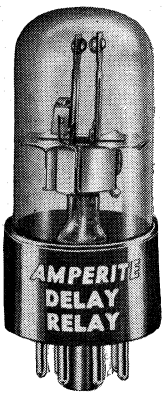
THERMOSTATIC **AMPERITE** DELAY RELAYS

GLASS ENCLOSED • HERMETICALLY SEALED • A.C., D.C., OR PULSATING CURRENT



STANDARD

AMPERITE THERMOSTATIC DELAY RELAYS

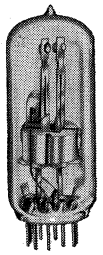
Amperite Thermostatic Delay Relays are manufactured on automatic high production equipment — resulting in a low price — and top quality. Quality is not sacrificed at any point. For example, although contacts are rated at 3 amps, 10 amp contacts are actually used. Similarly with all other parts—only the best available are used.

Amperite Thermostatic Delay Relays are actuated by a heater . . . and therefore can be used on A.C., D.C., or pulsating current. Being hermetically sealed, Amperite Relays are not affected by altitude, moisture, or other atmospheric conditions. REPLACED AS EASILY AS A RADIO TUBE.

CIRCUITS SPST: Available only — normally open or normally closed.

HEATER VOLTAGES AVAILABLE: 2.5, 5.0, 6.3, 12.6, 26, 50, 115V.
For 220V use a 6500 ohm-5 watt resistor in series, with 115V heater.

HEATER WATTAGE: Standard and Miniature Relays—all voltages—2w prox. All heaters may be operated continuously. Heaters will not be damaged by a 50% voltage overload for duration of 1 hour or less.



MINIATURE

VARIATION OF DELAY WITH HEATER VOLTAGE

FIG. 1—Effect of change in heater voltage on delay in seconds. Only low voltage heaters (2.5 to 26 V.) incorporate heater voltage regulations as shown in diagram.

For 22 to 30 V. supply: We recommend Amperite Delay Relays with 26 V. heaters for airplanes and similar power supplies. These heaters are regulated for battery variation of 22 to 30 V. as shown in this diagram.

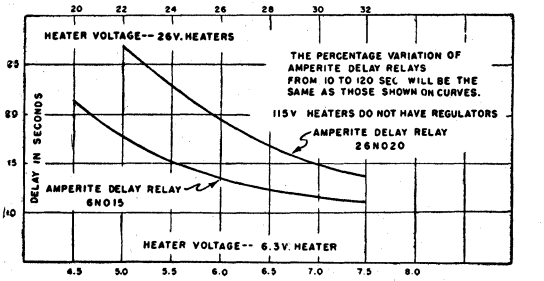


Figure 1

CONTACT RATING

	Delay	Contact Rating Non-Inductive	DC Voltage Breakdown Contact-to-Contact	Heater-to-Contact
STANDARD	2 to 10 Sec.	115V - 3a AC	250V	500V
RELAYS	15 to 180 Sec.	115V - 3a AC	800V	800V
		220V - 1a AC	800V	800V
MINIATURE	2 to 10 Sec.	115V - 2a AC	250V	500V
RELAYS	15 to 180 Sec.	115V - 2a AC	800V	800V
		220V - 1a AC	800V	800V
FLASHERS		- ½a AC		

AMBIENT TEMPERATURES: Relays are compensated for temperatures of −55° to +80°C. (Relays can be operated from −80°C to +125°C without damage). Ambient temperature tolerances depend on type. Low voltage heaters 26V or less have better ambient compensation than relays with 115V heaters. If the relays are actually to be used over ambients of −55°C to +80°C it is advisable to have each relay tested at the factory over the ambient. A nominal charge is made for this service.

CONTACT DROP: — 0.1V — Prox. at 1A.

DELAYS AVAILABLE:—From 2 to 180 seconds. Relays can be used in series to obtain longer delays. The delay of any individual relay up to 120 seconds can be increased up to 25% by using a resistor in series with the heater. Delays above 120 seconds cannot be increased. Relays with short delays such as 2 to 5 seconds can be increased 50%.

LIFE of any individual relay will depend on the service the contacts are subjected to. With a 115V — 2A A.C. non inductive load the contacts will withstand at least 250,000 operations. SHELF LIFE of Amperite Delay Relays is over 10 years.

INDUCTIVE A.C. LOADS: When breaking an inductive A.C. load, use a condenser of .01 to .1 mfd across contacts. In some cases, putting a 20,000 ohm, 5w. resistor across the contacts reduces the arcing considerably.

Relay Contacts should not be used on voltages above 220V.

FOR INSTANTANEOUS RECYCLE AND ELIMINATION OF CHATTER

For instantaneous recycle and elimination of chatter. Cannot be used with Sensitive Relays.

Magnetic Relay requires extra N.O. contact as shown at "E".

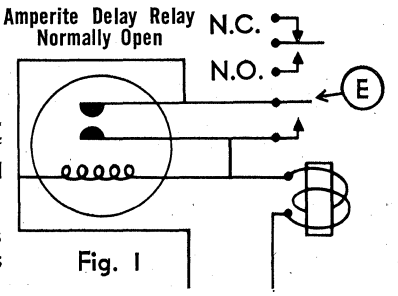


Fig. 1

For instantaneous recycle and elimination of chatter when Sensitive Relay is used.

Magnetic Relay requires an extra SPDT contact as shown at "F".

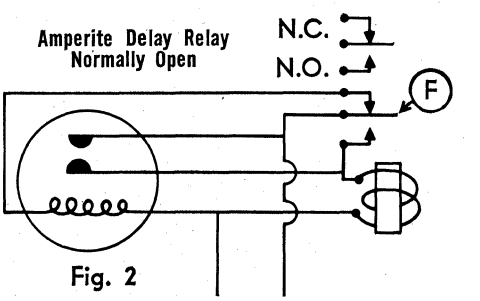


Fig. 2

INSTANTANEOUS RECYCLE: This can be obtained by using a normally open Amperite Delay Relay in conjunction with a Magnetic Relay as shown above. If normally closed is required — use a **normally open** Amperite Delay Relay — and use the NC contacts on the magnetic relay. Choose the Amperite Delay Relay for the voltage required and the delay required (e.g. — 115N030 — would be used on 115 volt supply — for a 30 second delay).

LONG CYCLE RELAYS: are also available. For example, Amperite Delay Relay 115N07T has a delay in closing of 3 to 7 seconds. After heater is disconnected, contacts will remain closed for 30 seconds minimum. Write us about your requirements.

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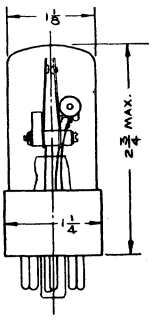
THERMOSTATIC AMPERITE DELAY RELAYS

GLASS ENCLOSED • HERMETICALLY SEALED • A.C., D.C., OR PULSATING CURRENT

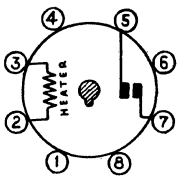
BREAKING D.C. CURRENT: When Relay contacts open D.C. Current above 50 volts, a condenser with a resistor in series with the condenser must be connected across the conatcts. The following condenser values are approximate.

	50 V. D.C.	115 V. D.C.	230 V. D.C.
0 to .5 Amp.	None	.1 MF	.25 MF
.5 to 1.5 Amps.	"	.25 "	.25 "
1.5 to 3 Amps.	.25 MF	1 "	.5 "



Standard Octal Base

STANDARD



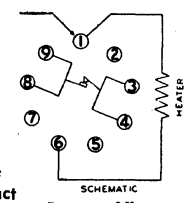
Bottom View
Schematic Diagram

SPECIFICATIONS:

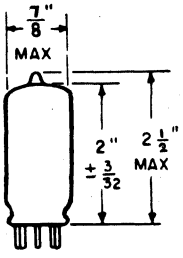
Base Wiring:
Standard Radio Octal:
Prongs 2-3-heater;
Prongs 5-7-contacts.

Base Wiring:
9-Pin Miniature:
Prongs 1-6 heater;
Prongs 3-4, 1 contact;
Prongs 8-9, 2nd contact

MINIATURE



Bottom View
Schematic Diagram

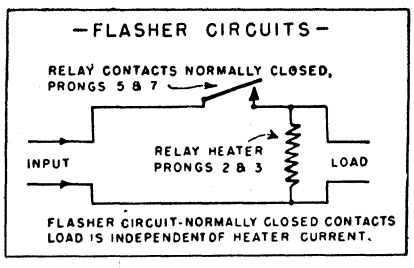


9-Pin Miniature Base

STANDARD AND MINIATURE TYPES OF AMPERITE DELAY RELAYS AND FLASHERS... Net $2.40 each
STANDARD RELAYS: Available in 2 to 180 Seconds Delay. MINIATURE RELAYS: Available in 2 to 120 Seconds Delay.
Types shown in Bold type in the chart below are more popular relays and are more readily available.

MINIATURE TYPES: Designated by letter T (e.g. 6N05T)

Delay-Seconds	Tolerance Seconds at 20°C	NORMALLY OPEN CONTACTS — HEATER VOLTAGES							NORMALLY CLOSED CONTACTS — HEATER VOLTAGES						
		2.5 V.	5.0 V.	6.3 V.	12.6 V.	26 V. (22-30)	50 V.	115 V.	2.5 V.	5.0 V.	6.3 V.	12.6 V.	26 V. (22-30)	50 V.	115 V.
2	± 1½	2N02	5N02	6N02	12N02	26N02	50N02	115N02	2C2	5C2	6C2	12C2	26C2	50C2	115C2
3	± 1½	2N03	5N03	**6N03**	12N03	**26N03**	50N03	**115N03**	2C3	5C3	**6C3**	12C3	**26C3**	50C3	**115C3**
5	± 2½	2N05	5N05	**6N05**	12N05	**26N05**	50N05	**115N05**	2C5	5C5	**6C5**	12C5	**26C5**	50C5	**115C5**
8	± 3	2N08	5N08	**6N08**	12N08	**26N08**	50N08	**115N08**	2C8	5C8	**6C8**	12C8	**26C8**	50C8	**115C8**
10	± 4	2N010	5N010	**6N010**	12N010	**26N010**	50N010	**115N010**	2C10	5C10	**6C10**	12C10	**26C10**	50C10	**115C10**
15	± 4	2N015	5N015	**6N015**	12N015	**26N015**	50N015	**115N015**	2C15	5C15	**6C15**	12C15	**26C15**	50C15	**115C15**
20	± 5	2N020	5N020	**6N020**	12N020	**26N020**	50N020	**115N020**	2C20	5C20	**6C20**	12C20	**26C20**	50C20	**115C20**
30	±10	**2N030**	**5N030**	**6N030**	**12N030**	**26N030**	50N030	**115N030**	2C30	5C30	**6C30**	12C30	**26C30**	50C30	**115C30**
45	±10	2N045	5N045	**6N045**	12N045	**26N045**	50N045	**115N045**	2C45	5C45	**6C45**	12C45	**26C45**	50C45	**115C45**
60	±15	**2N060**	5N060	**6N060**	12N060	**26N060**	50N060	**115N060**	2C60	5C60	**6C60**	12C60	**26C60**	50C60	**115C60**
75	±15	2N075	5N075	**6N075**	12N075	**26N075**	50N075	**115N075**	2C75	5C75	**6C75**	12C75	**26C75**	50C75	**115C75**
90	±20	2N090	5N090	**6N090**	12N090	**26N090**	50N090	**115N090**	2C90	5C90	**6C90**	12C90	**26C90**	50C90	**115C90**
120	±35	2N0120	5N0120	**6N0120**	12N0120	**26N0120**	50N0120	**115N0120**	2C120	5C120	**6C120**	12C120	**26C120**	50C120	**115C120**
150	±35	2N0150	5N0150	**6N0150**	12N0150	**26N0150**	50N0150	**115N0150**	2C150	5C150	**6C150**	12C150	**26C150**	50C150	**115C150**
180	±45	2N0180	5N0180	**6N0180**	12N0180	**26N0180**	50N0180	**115N0180**	2C180	5C180	**6C180**	12C180	**26C180**	50C180	**115C180**



Flashers operate approximately ⅓ on, ⅔ off. The percentage time on can be increased by reducing voltage of heater.

Flashers available only in quantities of 12 or less. Cannot be supplied in production quantities.

Normally closed flashers are standard, and are indicated by the letter "F." The number following letter "F" denotes flashes per minute. *For example a 6F30 flasher,* has 6.3V heater, normally closed 30 FPM with a ± 15 flashes per minute tolerance. A 6F30T, would be the same type but in 9-pin miniature. Flashers are available from *30 to 90 Flashes per minute* with tolerances as shown in the chart below:

FLASHERS have contact rating of ½a 115V AC, non-inductive.

Tol. FPM — 20°C	Standard Flashers Available		
30 ± 15	6F30	26F30	115F30
45 ± 15	6F45	26F45	115F45
60 ± 20	6F60	26F60	115F60
75 ± 20	6F75	26F75	
90 ± 25	6F90	26F90	

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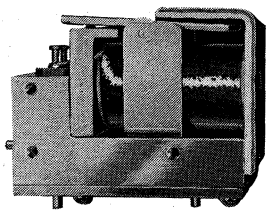
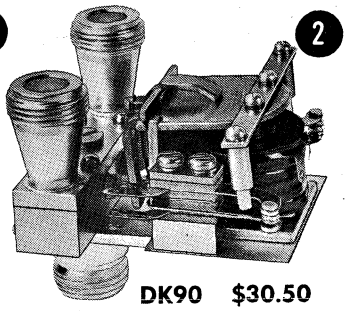
COAXIAL

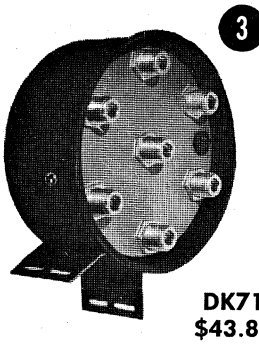
DOW-KEY COMPANY . . . NO. 1 SOURCE



1 DK61 $33.00

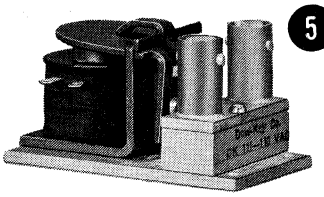


2 DK90 $30.50

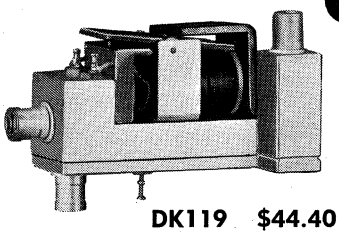


3 DK71 $43.85

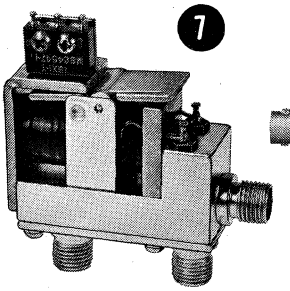
4 DK72 $20.25



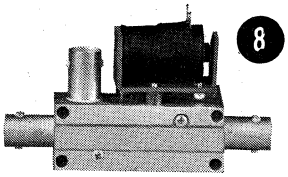
5 DK111 $16.75



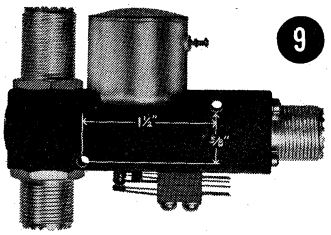
6 DK119 $44.40



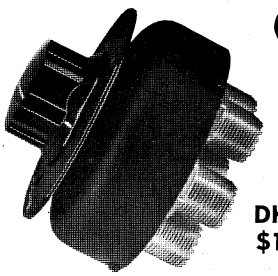
7 DK61-1C-MS $36.10



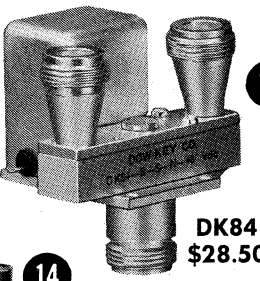
8 DK89 $24.50



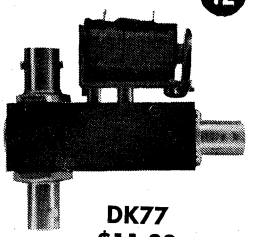
9 DK2-60-2C $20.80



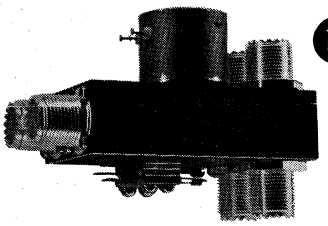
10 DK78-6 $12.80



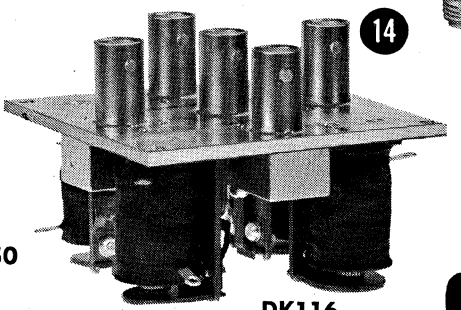
11 DK84 $28.50



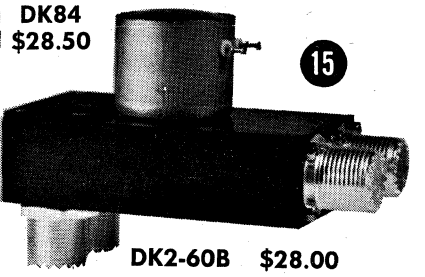
12 DK77 $11.00



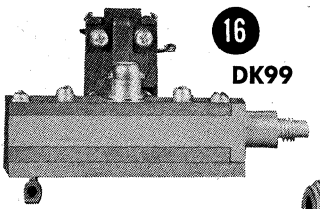
13 DK60-G2C $31.00



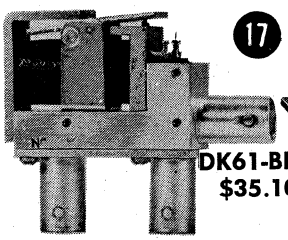
14 DK116 $40.60



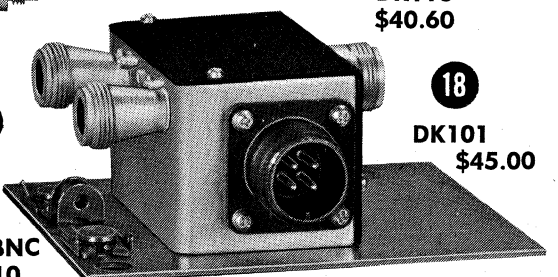
15 DK2-60B $28.00



16 DK99 $24.50



17 DK61-BNC $35.10



18 DK101 $45.00

Send Us Your Requirements For Special Coaxial Switches . . . We Design and Manufacture.

Designed, Engineered, Manufactured by

DOW-KEY COMPANY

ALL PRICES NET FOR MODELS SHOWN. SEE YOUR DISTRIBUTOR FOR COMPLETE INFORMATION ON ALL DOW-KEY PRODUCTS.

Net

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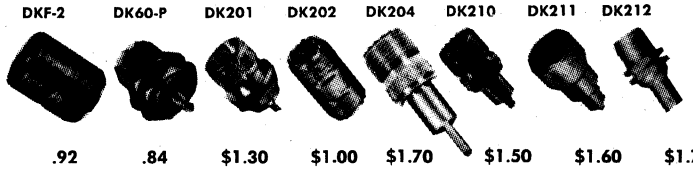
RELAYS

DOW-KEY 15 YEARS COAXIAL RELAYS

STANDARD AND SPECIAL APPLICATIONS!

BELOW ARE DOW-KEY SPECIFICATIONS FOR PICTURED UNITS. SPECIAL UNITS AVAILABLE!

NO.	Part No.	Connectors Available	Coil Voltages Available	Type	rf Power (W)	Coil Power	Freq. (mc)	Wt. Oz.	Termination Available
1.	**DK61**	Solder Type With Hood	6, 12, 28, 48, or 110 VDC	SPDT	100	2.8 W	1000	4	Open
2.	**DK90**	N	6, 12, 28, 48, or 110 VDC	SPDT-rf DPDT-Aux	100	2.5 W	4000	6	Open or Shorting
3.	**DK71**	UHF, N, BNC, TNC, C, or F	All Std. AC or DC Voltages	SP6T	1000	2 W 6 VA	500	48	Shorting
4.	**DK72**	UHF, N, BNC, TNC, C, or F	All Std. AC or DC Voltages	SP3T	1000	2 W 6 VA	500	24	Shorting
5.	**DK111**	BNC or TNC	All Std. AC or DC Voltages	SPDT	100	2.5 W 6 VA	2500	5	Open, Shorting or Resistor
6.	**DK119**	Mate with Selectro 51-005	6, 12, 28, 48, or 110 VDC	SPDT	100	3 W	1000	4	Open
7.	**DK61-1C-MS**	BNC, TNC, or TM	6, 12, 28, 48, or 110 VDC	SPDT-rf SPDT-Aux	100	3 W	1000	4	Open
8.	**DK89**	BNC or TNC	6, 12, 28, 48, or 110 VDC	SPDT	200	2.5 W	1000	6	Open
9.	**DK60-G2C**	UHF, N, BNC, TNC, C, or F	All Std. AC or DC Voltages	SPDT-rf DPDT-Aux	20 N.C. 1000 N.O.	2 W 6 VA	500	9	Open
10.	**DK78-6**	UHF, N, BNC, TNC, C, or F	Manual	SP6T	100	— —	500	12	Open
11.	**DK84**	N	6, 12, 28, 48, or 110 VDC	SPDT	100	2.5 W	4000	6	Open or Shorting
12.	**DK77**	BNC, TNC, or Phono	6, 12, 28, 48, or 110 VDC	SPDT	250	2.5 W	1000	3.5	Open
13.	**DK2-60-2C**	UHF, N, BNC, TNC, C, or F	All Std. AC or DC Voltages	DPDT-rf DPDT-Aux	1000	2 W 6 VA	500	12	Open
14.	**DK116**	BNC or TNC	6, 12, 28, 48, or 110 VDC	SP4T	100	2.5 W	3000	13	Open or Shorting
15.	**DK2-60B**	UHF, N, BNC, TNC, C, or F	All Std. AC or DC Voltages	BYPASS	1000	2 W 6 VA	500	12	Open
16.	**DK99**	As Shown	28 VDC	SPDT	100	2.8 W	400	5	Shorting
17.	**DK61-BNC**	BNC, TNC, MD, S, or TM	6, 12, 28, 48, or 110 VDC	SPDT	100	2.8 W	1000	4	Open
18.	**DK101**	N	28 VDC	SPDT	100	5 W	1000	14	Shorting



DKF-2	DK60-P	DK201	DK202	DK204	DK210	DK211	DK212
.92	.84	$1.30	$1.00	$1.70	$1.50	$1.60	$1.70

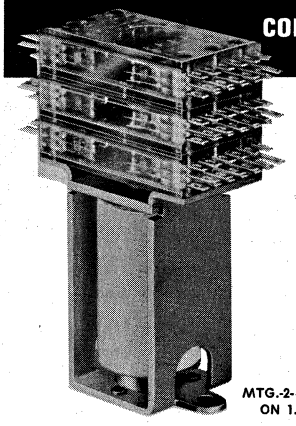
UHF CONNECTORS — ADAPTERS

Left: UHF Double Male; UHF Panel Mount Female; UHF Panel Mount Male; UHF Double Female; Motorola to UHF Female; UHF Female to Male Phono; UHF Male to Male Phono; UHF Female to BNC Female.

DOW-KEY COMPANY

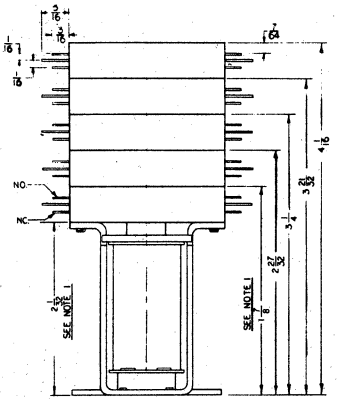
electronic controls, inc.

T-BAR® Switch/Relays



T-BARS are for switching more circuits in less space ...up to 60 circuits simultaneously!

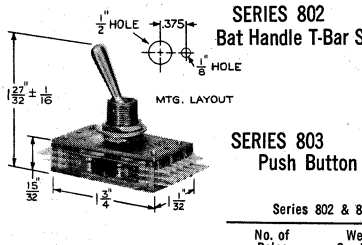
MTG.-2-#6-32 NF HOLES ON 1.375 CENTERS



SERIES 801 T-BAR RELAY COIL CHARACTERISTICS*

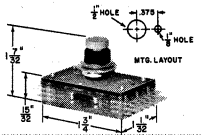
	12 POLES 1 WAFER RELAY Wt: 4.5 oz.			24 POLES 2 WAFER RELAYS Wt: 6.75 oz.			36 POLES 3 WAFER RELAYS Wt: 7.25 oz.			48 POLES*** 4 WAFER RELAYS Wt: 8.5 oz.			60 POLES 5 WAFER RELAYS Wt: 9 oz.		
Voltage	Resistance Ohms	Current Amps	Power Watts	Resistance Ohms	Current Amps	Power Watts	Resistance Ohms	Current Amps	Power Watts	Resistance Ohms	Current Amps	Power Watts	Resistance Ohms	Current Amps	Power Watts
6 VDC	11.9	0.504	3.01	11.09	0.541	3.24	7	0.857	5.06	5.5	1.09	6.54	5.5	1.09	6.54
12 VDC	48.1	0.244	2.96	45	0.267	3.19	28	0.429	5.16	22	.545	6.54	22	.545	6.54
24 VDC	193	0.124	2.98	174	0.138	3.32	111	0.216	5.15	94	.255	6.12	94	.255	6.12
28 VDC	258	0.109	3.03	227	0.123	3.44	150	0.187	5.23	120	.233	6.52	120	.233	6.52
48 VDC	778	0.062	2.98	674	0.071	3.41	438	0.110	5.26	350	.137	6.58	350	.137	6.58
110 VDC	3963	0.028	3.05	3450	0.032	3.54	2355	0.047	5.18	1930	.057	6.27	1930	.057	6.27
115 VAC**	3963	0.024	2.80	3450	0.027	3.10	2355	0.041	4.72	1930	.049	5.62	1930	.049	6.62

*All characteristics are nominal and subject to normal manufacturing tolerances, other voltages available on special order.
**115 VAC units are made with a full wave bridge rectifier and use the same coils as listed under 110 VDC units.
***Four-wafer relays with all "A" form contacts use three-wafer relay coils.
NOTE 1: ONE WAFER RELAYS USE A SHORTER ACTUATOR ASS'Y. — INSTEAD OF 2-1/32 AS SHOWN. THE ACTUATOR IS 1-15/32 HIGH.



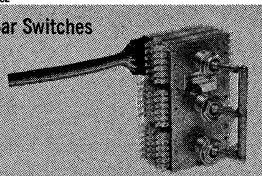
SERIES 802 Bat Handle T-Bar Switches

SERIES 803 Push Button Switch



Series 802 & 803	
No. of Poles	Weights Oz. Approx.
12	2.0
24	2.5
36	3.0

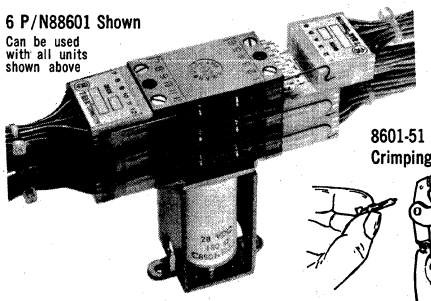
Ganged T-Bar Switches



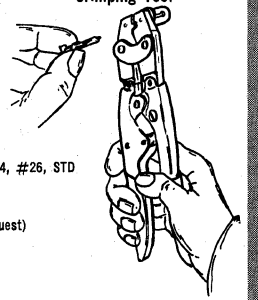
Toggles may be ganged for controlling additional circuits . . . 48, 72, 108, etc. Shown here, 108 poles.

T-BAR Connectors save time and reduce installation costs using individual snap-in crimp terminals crimped to pre-stripped wire and then snapped into a contact block, which forms the connector. The connector is pushed onto the wafer terminals, eliminating soldering. Because we offer a connector, rather than a receptacle, harness work can be completed outside the chassis and therefore no fancy chassis work is required to accept a receptacle. It not only makes the metal work simpler, but it also saves layout engineering and drafting time. Since T-Bar Switch/Relays are so easily mounted, they are often found on the back of meter panels or on their own brackets.

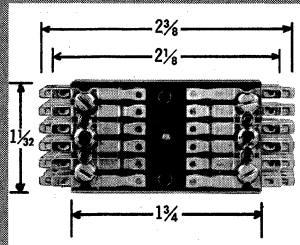
6 P/N88601 Shown
Can be used with all units shown above



8601-51 Crimping Tool



PHYSICAL PROPERTIES:
Wire Accommodated: (1) #18, #20, #22, #24, #26, STD (2) #22, #24, #26 STR
Connector Material: Nylon Zytel or Lexan®
Snap-in Contact Material: Phosphor Bronze
Snap-in Contact Finish: Tin Plated (other on request)
Retaining Clip Material: Stainless Steel
Connector Weight: Approximately 0.3 oz.



GENERAL FEATURES:

The series 801 T-Bar Relays are solenoid actuated multi-pole relays with a unique design permitting stack-up of enclosed contact "wafers." Each wafer has a maximum of 12 pole double throw contacts thereby allowing ECI to supply the 801 relay with any combination from 4 to 60 poles.

CONTACT RATING:
3 amp, resistive load 150 watt maximum make or break;
5 amp, 500 watt maximum carry.

CONTACT MATERIAL:
Gold bonded, fine silver, standard. Others available on special order.

CONTACT FORMS:
"A" single throw N.O.
"B" single throw N.C.
"C" double throw, break before make
"D" double throw, make before break

NUMBER OF POLES (RELAYS):
One Wafer — 12 poles
Two Wafers — 24 poles
Three Wafers — 36 poles
Four Wafers — 48 poles
Five Wafers — 60 poles ("A" form only)

OPERATE VOLTAGE:
Min. voltage: 80% of nominal at 25°C

RELEASE VOLTAGE:
Max. voltage: 20% of nominal at 25°C

OPERATE TIME:
One Wafer Relay — 15 ms. max.
Two Wafer Relay — 25 ms. max.
Three Wafer Relay — 30 ms. max.
Four Wafer Relay — 35 ms. max.
Five Wafer Relay — 40 ms. max.

RELEASE TIME:
5 ms. max. (36 pole) — 10 ms. max. (12 pole)

TERMINALS:
Solder tab that also mates with T-Bar connector P/N 88601 (two required per wafer)

ENCLOSURE:
Contacts enclosed in dust tight plastic enclosure that is separated from the actuator assembly. Withstands Mil. Std. — 202 method 106B moisture resistance test.

LIFE:
Mechanical — 20,000,000 operations minimum for relay
Electrical — 20,000,000 operations minimum at 100 milliamps to 100,000 minimum at 3 amps, 150 watts resistive load.

DIELECTRIC:
1000 vrms terminals to case at sea level and 25°C
1000 vrms terminal to terminal at sea level and 25°C
1000 vrms coil to case at sea level and 25°C

TEMPERATURE RANGE:
—55°C to +85°C

INSULATION RESISTANCE:
5,000 megohms @ 25°C minimum

ORDERING INFORMATION:
Specify Series No. — number of poles plus contact form letter-coil voltage. For example a 36 pole double throw relay with a 24 VDC coil is: 801-36C-24

MANUFACTURED BY:
electronic controls, inc.
T-Bar Switch/Relay Div. •

Manufactured under 1 or more of the following patents: 3,206,990, 3,226,508

® "T-Bar" — Reg. T.M.

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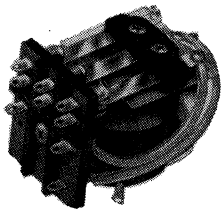
GLOBE RELAYS

MIDGET SERIES

TYPE "W" MIDGET GENERAL PURPOSE



This relay offers high reliability at a minimum cost. The silver cadmium-oxide contacts are mounted on beryllium copper blades.** There is good contact wiping action. This unit operates well in ambient temperatures up to 125° C.

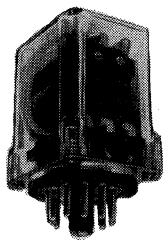
** Fine silver contacts for 5 amp applications.

CONTACTS: 5 amps @ 24 VDC or 115 VAC, 10 amps @ 24 VDC or 115 VAC. Arrangement 1, 2 or 3 PDT.

COIL: D-C applications up thru 120 VDC, A-C applications up thru 230 VAC.

MOUNTING: One 6-32 screw and keying boss to prevent turning.

TYPE "WC" MIDGET GENERAL PURPOSE WITH DUSTITE ENCLOSURE



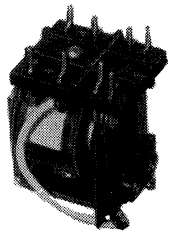
Relay is identical to type "W." However, the unit provides a clear dust-proof polystyrine case on Octal type plug-in base. Operating temperatures up to 85° C ambient. Variation of base or a hermetically sealed can, can be provided on request. This unit comes in standard Globe wiring. For special wiring to meet existing installations specify "WZ" wiring.

CONTACTS: 5 amps @ 24 VDC or 115 VAC, 10 amps @ 24 VDC or 115 VAC. Arrangement 1, 2 or 3 PDT.

COIL: D-C applications up thru 120 VDC, A-C applications up thru 230 VAC.

MOUNTING: Octal plug-in.

TYPE "WP" MIDGET PRINTED CIRCUIT



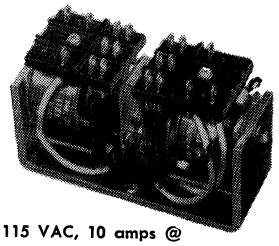
Relay is identical to the "W" type using the same integrally moulded parts. The terminals are designed for direct mounting into printed circuit boards. They will fit into .050 inch diameter holes and project 1/32 inch beyond an 1/8 inch thick circuit board. Base plate area on the board is only 1.070 x .890 inches. Dimensional artwork for hole configuration is available.

CONTACTS: 5 amps @ 24 VDC or 115 VAC, 10 amps @ 24 VDC or 115 VAC. Arrangement 1, 2 or 3 PDT.

COIL: D-C applications up thru 120 VDC, A-C applications up thru 120 VAC.

MOUNTING: Soldered into printed circuit boards.

TYPE "WL" MIDGET LATCHING



This latching relay may be had with either coil to operate at any specified voltage. It is designed that either coil may be used to operate the contacts into a latched position. The other coil will latch or unlatch the contacts into the opposite position.

CONTACTS: 5 amps @ 24 VDC or 115 VAC, 10 amps @ 24 VDC or 115 VAC.

COIL: D-C applications up thru 120 VDC, A-C applications up thru 230 VAC on either coil.

MOUNTING: 2 holes for #6 screws in center of frame.

PRICES (SUBJECT TO CHANGE)

Coil			5 Ampere Contacts				10 Ampere Contacts			
		D-C	"W," "WP" Open		"WC" Dustite		"W," "WP" Open		"WC" Dustite	
Voltage	Current	Resistance	Part No.	Price (Net)	Part No.	Price (Net)	Part No.	Price (Net)	Part No.	Price (Net)
PLATE	9 to 30MA	2,500 Ω	1W1	$3.50	1WC1	$5.50	1W20	$3.75	1WC20	$5.80
			2W1	4.20	2WC1	6.60	2W20	4.45	2WC20	6.75
			3W1	4.90	3WC1	8.10	3W20	5.95	3WC20	8.55
PLATE	7 to 20MA	5,000 Ω	1W2	3.95	1WC2	5.95	1W21	4.20	1WC21	6.25
			2W2	4.60	2WC2	7.00	2W21	4.85	2WC21	7.15
			3W2	5.45	3WC2	8.45	3W21	5.70	3WC21	8.90
PLATE	4 to 14MA	10,000 Ω	1W3	4.35	1WC3	6.35	1W22	4.60	1WC22	6.65
			2W3	5.00	2WC3	7.40	2W22	5.25	2WC22	7.55
			3W3	5.85	3WC3	8.85	3W22	6.10	3WC22	9.30
6V. D-C	200MA	30 Ω	1W4	3.05	1WC4	5.10	1W23	3.50	1WC23	5.55
			2W4	3.35	2WC4	5.65	2W23	3.80	2WC23	6.10
			3W4	3.75	3WC4	6.95	3W23	4.40	3WC23	7.60
12V. D-C	120MA	100 Ω	1W5	3.05	1WC5	5.10	1W24	3.50	1WC24	5.55
			2W5	3.35	2WC5	5.65	2W24	3.80	2WC24	6.10
			3W5	3.75	3WC5	6.95	3W24	4.40	3WC24	7.60
24V. D-C	53MA	450 Ω	1W6	3.05	1WC6	5.10	1W25	3.50	1WC25	5.55
			2W6	3.35	2WC6	5.65	2W25	3.80	2WC25	6.10
			3W6	3.75	3WC6	6.95	3W25	4.40	3WC25	7.60
115V. D-C	15MA	8,000 Ω	1W7	3.55	1WC7	5.65	1W26	4.00	1WC26	6.05
			2W7	3.85	2WC7	6.15	2W26	4.30	2WC26	6.60
			3W7	4.55	3WC7	7.45	3W26	5.20	3WC26	8.40
6V. A-C	400MA	5 Ω	1W8	3.05	1WC8	5.15	1W27	3.50	1WC27	5.60
			2W8	3.55	2WC8	5.75	2W27	4.00	2WC27	6.40
			3W8	4.05	3WC8	7.05	3W27	4.70	3WC27	7.70
12V. A-C	150MA	20 Ω	1W9	3.05	1WC9	5.15	1W28	3.50	1WC28	5.60
			2W9	3.55	2WC9	5.75	2W28	4.00	2WC28	6.40
			3W9	4.05	3WC9	7.05	3W28	4.70	3WC28	7.70
24V. A-C	120MA	70 Ω	1W10	3.05	1WC10	5.15	1W29	3.50	1WC29	5.60
			2W10	3.55	2WC10	5.75	2W29	4.00	2WC29	6.40
			3W10	4.05	3WC10	7.05	3W29	4.70	3WC29	7.70
115V. A-C	25MA	1,500 Ω	1W11	3.05	1WC11	5.15	1W30	3.50	1WC30	5.60
			2W11	3.55	2WC11	5.75	2W30	4.00	2WC30	6.40
			3W11	4.05	3WC11	7.05	3W30	4.70	3WC30	7.70
230V. A-C	8MA	8,000 Ω	1W12	3.55	1WC12	5.75	1W31	4.00	1WC31	6.10
			2W12	4.05	2WC12	6.25	2W31	4.50	2WC31	6.90
			3W12	4.25	3WC12	7.55	3W31	5.20	3WC31	8.20

globe electrical mfg. co.

Write for technical information and complete catalog of Globe Relays.

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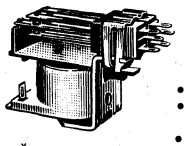
Net

GUARDIAN® ELECTRIC



SERIES 900 & 910 10 AMP RELAY

- Underwriters' Laboratories Listed
- Designed with reduced number of parts for long, trouble-free service
- Has keyed and locked lifters

Series 910 is exactly the same as the 900 relay, both electrically and mechanically, but with 3/16 quick disconnects instead of soldered termination.

Dependable, low cost, DPDT relay featuring new, trouble-free design that incorporates a minimum of parts. Contacts all rated 10 amps, 115V., AC resistive load. Has molded switches, one-piece mounting clip and return spring; molded bobbin and coil cover. Average shpg. wt., 6 oz.

SIZE: 2 1/16" x 1 1/16" x 1 25/32"

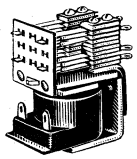
Guardian No.	Coil Voltage	QUANTITIES Net Each, Lots of 1-9	10-24	25-49
900-2C-24A	24 AC	$1.75	$1.66	$1.49
900-2C-115A	115 AC	1.75	1.66	1.49
900-2C-230A	230 AC	1.75	1.66	1.49
905-2C-6D	6 DC	1.75	1.66	1.49
905-2C-12D	12 DC	1.75	1.66	1.49
905-2C-24D	24 DC	1.75	1.66	1.49

*U/L Recognition File #E-23524B

Guardian No.	Coil Voltage	QUANTITIES Net Each, Lots of 1-9	10-24	25-49
910-2C-24A	24 AC	$1.75	$1.66	$1.49
910-2C-115A	115 AC	1.75	1.66	1.49
910-2C-230A	230 AC	1.75	1.66	1.49
915-2C-6D	6 DC	1.75	1.66	1.49
915-2C-12D	12 DC	1.75	1.66	1.49
915-2C-24D	24 DC	1.75	1.66	1.49

*U/L Recognition File #E-23524B

Further savings are available when Series 900 relays are purchased in bulk packs of 50 units. Relays are supplied nested in new, convenient "form fitted" assembly line trays. . . one package of 50—$70.00; 2 and up—$61.50 ea.



ALL PURPOSE ECONOMY RELAY

IR-640U AC—IR-645U DC—10 AMPERE

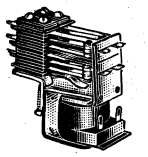
A compact, lightweight relay capable of unusually heavy power control for its size. Long life, high quality relay available in a variety of AC and DC voltages with a selection of contact combinations. All contact ratings are 10 amps. Contact ratings at 60 cycles, 115V. non-inductive load. 8-32 single screw, center pole mounting. Shpg. wt., 3.5 oz.

*U/L Recognition File #E-17260

SIZE: 1 1/16" x 1 1/2" x 1"

Guardian No.	Coil Res.	Coil Voltage	Cont. Comb.	QUANTITIES Net Each, Lots of 1-24	25-49	50-99	100-249	250-up
IR-640U-A-6A	1.7	6AC	SPST*	$2.90	$2.61	$2.47	$2.32	$2.03
IR-640U-C-6A	1.7	6AC	SPDT	3.15	2.84	2.68	2.52	2.21
IR-640U-2C-6A	1.7	6AC	DPDT	3.40	3.06	2.89	2.72	2.38
IR-640U-4C-6A	1.7	6AC	4PDT	5.00	4.50	4.25	4.00	3.50
IR-640U-A-24A	24	24AC	SPST*	2.90	2.61	2.47	2.32	2.03
IR-640U-C-24A	24	24AC	SPDT	3.15	2.84	2.68	2.52	2.21
IR-640U-2C-24A	24	24AC	DPDT	3.40	3.06	2.89	2.72	2.38
IR-640U-4C-24A	24	24AC	4PDT	5.00	4.50	4.25	4.00	3.50
IR-640U-A-115A	550	115AC	SPST*	2.90	2.61	2.47	2.32	2.03
IR-640U-C-115A	550	115AC	SPDT	3.15	2.84	2.68	2.52	2.77
IR-640U-2C-115A	550	115AC	DPDT	3.40	3.06	2.89	2.72	2.38
IR-640U-4C-115A	550	115AC	4PDT	5.00	4.50	4.25	4.00	3.50
IR-640U-2C-230A	2,950	230AC	DPDT	4.20	3.78	3.57	3.36	2.94
IR-645U-A-6D	12	6DC	SPST*	2.90	2.61	2.47	2.32	2.03
IR-645U-C-6D	12	6DC	SPDT	3.15	2.84	2.68	2.52	2.21
IR-645U-2C-6D	12	6DC	DPDT	3.40	3.06	2.89	2.72	2.38
IR-645U-4C-6D	12	6DC	4PDT	5.00	4.50	4.25	4.00	3.50
IR-645U-A-12D	50	12DC	SPST*	2.90	2.61	2.47	2.32	2.03
IR-645U-C-12D	50	12DC	SPDT	3.15	2.84	2.68	2.52	2.21
IR-645U-2C-12D	50	12DC	DPDT	3.40	3.06	2.89	2.72	2.38
IR-645U-4C-12D	50	12DC	4PDT	5.00	4.50	4.25	4.00	3.50
IR-645U-A-24D	200	24DC	SPST*	2.90	2.61	2.47	2.32	2.03
IR-645U-C-24D	200	24DC	SPDT	3.15	2.84	2.68	2.52	2.21
IR-645U-2C-24D	200	24DC	DPDT	3.40	3.06	2.89	2.72	2.38
IR-645U-4C-24D	200	24DC	4PDT	5.00	4.50	4.25	4.00	3.50
IR-645U-A-110D	4,000	110DC	SPST*	3.40	3.06	2.89	2.72	2.38
IR-645U-C-110D	4,000	110DC	SPDT	3.70	3.33	3.15	2.96	2.59
IR-645U-2C-110D	4,000	110DC	DPDT	3.95	3.56	3.36	3.16	2.77
IR-645U-4C-110D	4,000	110DC	4PDT	5.25	4.73	4.46	4.20	3.68

*Normally Open.



SERIES 240U AC—245U DC

Designed for contact ratings up to 15 amps, Guardian series 240 AC and 245 DC relays are compact, reliable, inexpensive. Factory pretested and adjusted to be ready for assembly into your product. Contact rating is 15 amp, 115V., 60 cycles non-inductive load. Easy assembly with 8-32 single-screw, center-hole mounting. Shpg. wt., 4.5 oz.

*U/L Recognition File #E-23524A

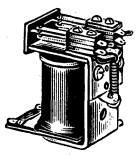
SIZE: (4PDT) 2 23/32" x 1 3/32" x 2 1/16"

Guardian No.	Coil Res.	Coil Voltage	Cont. Comb.	QUANTITIES Net Each, Lots of 1-24	25-49	50-99	100-249	250-up
240U-A-6A	3	6AC	SPST*	$3.15	$2.84	$2.68	$2.52	$2.21
240U-2C-6A	3	6AC	DPDT	3.95	3.56	3.36	3.16	2.77
240U-4C-6A	1.7	6AC	4PDT	5.80	5.22	4.93	4.64	4.06
240U-A-24A	48	24AC	SPST*	3.15	2.84	2.68	2.52	2.21
240U-2C-24A	48	24AC	DPDT	3.95	3.56	3.36	3.16	2.77
240U-4C-24A	24	24AC	4PDT	5.80	5.22	4.93	4.64	4.06
240U-A-115A	1,400	115AC	SPST*	3.15	2.84	2.68	2.52	2.21
240U-2C-115A	1,400	115AC	DPDT	3.95	3.56	3.36	3.16	2.77
240U-4C-115A	550	115AC	4PDT	5.80	5.22	4.93	4.64	4.06
245U-A-60	25	6DC	SPST*	3.15	2.84	2.68	2.52	2.21
245U-2C-6D	25	6DC	DPDT	3.95	3.56	3.36	3.16	2.77
245U-4C-6D	12	6DC	4PDT	5.80	5.22	4.93	4.64	4.06
245U-A-12D	100	12DC	SPST*	3.15	2.84	2.68	2.52	2.21
245U-2C-12D	100	12DC	DPDT	3.95	3.56	3.36	3.16	2.77
245U-4C-12D	50	12DC	4PDT	5.80	5.22	4.93	4.64	4.06
245U-A-24D	400	24DC	SPST*	3.15	2.84	2.68	2.52	2.21
245U-2C-24D	400	24DC	DPDT	3.95	3.56	3.36	3.16	2.77
245U-4C-24D	200	24DC	4PDT	5.80	5.22	4.93	4.64	4.06

*Normally Open.

PLATE CIRCUIT DC RELAY

IR-625—10 AMPERE



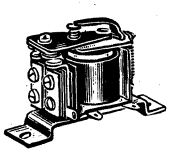
Has extra long coil for greater sensitivity. Adaptable to voltage operation as well as sensitive plate circuit control installations. Coil impregnated for reliability and longer life. Average power requirement, 0.2 watt. Contacts, fine silver. Contact ratings, 10 amps. Mounting: One 8-32 (NC-2) center hole. Shpg. wt., 5.5 oz.

SIZE: 2 1/8" x 2" x 1 1/2"

Guardian No.	Oper. Mils.	Coil Res.	Cont. Comb.	QUANTITIES Net Each, Lots of 1-24	25-49	50-99	100-249	250-up
IR-625-2.5	9 M.A.	2,500	DPDT	$4.45	$4.01	$3.78	$3.56	$3.12
IR-625-5	6.3 M.A.	5,000	DPDT	4.75	4.28	4.04	3.80	3.33
IR-625-10	4.5 M.A.	10,000	DPDT	5.80	5.22	4.93	4.64	4.06

HEAVY DUTY INDUSTRIAL AC RELAY

IR-220—20 AMPERE



This rugged unit makes and breaks up to 20 amps, at 230 volts. Armature is equipped with phenolic contact mounting block carrying 5/16" dual contacts. Phenolic is tested at 1500 volts breakdown to ground. Contacts are silver alloy. Relay is available in dual SPST, normally open contact combination only. Contact rating 20 amps at 60 cycles, 230V., AC, non-inductive load. Mounting: Mounting holes—clearnace for 8-32 with 2 13/32" centers. Shpg. wt., 5.5 oz.

SIZE: 3" x 1 7/8" x 1 3/4"

Guardian No.	Coil Voltage	Coil Res.	Cont. Comb.	QUANTITIES Net Each, Lots of 1-24	25-49	50-99	100-249	250-up
IR-220-A-24A	24AC	25	SPST*	$4.50	$4.05	$3.83	$3.60	$3.15
IR-220-A-115A	115AC	600	SPST*	5.05	4.55	4.29	4.04	3.54
IR-220-A-230A	230AC	2,500	SPST*	5.55	5.00	4.72	4.44	3.89

*Normally Open.

Net

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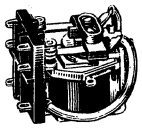
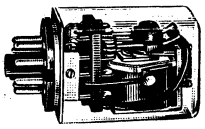


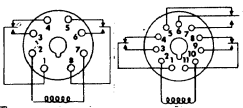
SMALL SIZE—EFFICIENT MEDIUM POWER AC-DC RELAY—1200 AC—1205 DC—10 AMPERE

Small-sized, highly efficient relay applicable to automation, communications, remote control, switching devices and experimental uses. Heavy solder lug type terminals molded in phenolic block, with barriers for over-surface insulation. Contacts rated 10 amps at 60 cycles, 115V., AC, non-inductive load. Mounting: Single mounting hole, 6-32 TAP. Shpg. wt., 2.5 oz.

U/L Recognition File #E-17260A (AC only)

SIZE: 1⅝" x 1" x 1¼"				QUANTITIES				
Guardian No.	Coil Res.	Coil Voltage	Cont. Comb.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-up
1200-2C-6A	2	6AC	DPDT	$3.75	$3.38	$3.19	$3.00	$2.63
1200-3C-6A	2	6AC	3PDT	4.25	3.83	3.61	3.40	2.98
1200-2C-24A	33	24AC	DPDT	3.75	3.38	3.19	3.00	2.63
1200-3C-24A	33	24AC	3PDT	4.25	3.83	3.61	3.40	2.98
1200-C-115A	1000	115AC	SPDT	3.50	3.15	2.98	2.80	2.45
1200-2C-115A	1000	115AC	DPDT	3.75	3.38	3.19	3.00	2.63
1200-3C-115A	1000	115AC	3PDT	4.25	3.83	3.61	3.40	2.98
1200-2C-230A	3500	230AC	DPDT	4.00	3.60	3.40	3.20	2.80
1200-3C-230A	3500	230AC	3PDT	4.50	4.05	3.83	3.60	3.15
1205-2C-6D	12	6DC	DPDT	3.40	3.06	2.89	2.72	2.38
1205-3C-6D	12	6DC	3PDT	3.85	3.47	3.27	3.08	2.70
1205-2C-12D	48	12DC	DPDT	3.40	3.06	2.89	2.72	2.38
1205-3C-12D	48	12DC	3PDT	3.85	3.47	3.27	3.08	2.70
1205-C-24D	192	24DC	SPDT	3.20	2.88	2.72	2.56	2.24
1205-2C-24D	192	24DC	DPDT	3.40	3.06	2.89	2.72	2.38
1205-3C-24D	192	24DC	3PDT	3.85	3.47	3.27	3.08	2.70
1205-2C-110D	4075	110DC	DPDT	3.75	3.38	3.19	3.00	2.63
1205-3C-110D	4075	110DC	3PDT	4.25	3.83	3.61	3.40	2.98





ENCLOSED PLUG-IN RELAY 1210 AC—1215 DC—10 AMPERE

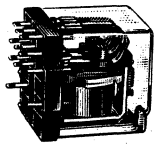
A powerful and economical relay enclosed in a transparent, lightweight Lexan case which has high impact strength, unaffected by weather, and is resistant to temperatures of 200°F. Relay available with 8 pin octal plug for DPDT and 11 pin for 3PDT. Contacts rated for 10 amps at 60 cycles, 115V., AC, non-inductive load. 8 pin for DPDT 11 pin for 3PDT Shpg. wt., 3.5 oz.

U/L Recognition File #E-17260A (AC only)

SIZE: 2²³⁄₃₂" x 1⅜" x 1⅜"				QUANTITIES				
Guardian No.	Coil Voltage	Coil Res.	Cont. Comb.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-up
1210-2C-6A	6AC	2	DPDT	$6.00	$5.40	$5.10	$4.80	$4.20
1210-3C-6A	6AC	2	3PDT	7.50	6.75	6.38	6.00	5.25
1210-2C-24A	24AC	33	DPDT	6.00	5.40	5.10	4.80	4.20
1210-3C-24A	24AC	33	3PDT	7.50	6.75	6.38	6.00	5.25
1210-2C-115A	115AC	1,000	DPDT	6.00	5.40	5.10	4.80	4.20
1210-3C-115A	115AC	1,000	3PDT	7.50	6.75	6.38	6.00	5.25
1210-2C-230A	230AC	5,230	DPDT	6.25	5.63	5.31	5.00	4.38
1210-3C-230A	230AC	5,230	3PDT	7.75	6.98	6.59	6.20	5.43
1215-2C-6D	6DC	12	DPDT	6.00	5.40	5.10	4.80	4.20
1215-3C-6D	6DC	12	3PDT	7.50	6.75	6.38	6.00	5.25
1215-2C-12D	12DC	75	DPDT	6.00	5.40	5.10	4.80	4.20
1215-3C-12D	12DC	75	3PDT	7.50	6.75	6.38	6.00	5.25
1215-2C-24D	24DC	300	DPDT	6.00	5.40	5.10	4.80	4.20
1215-3C-24D	24DC	300	3PDT	7.50	6.75	6.38	6.00	5.25
1215-2C-110D	110DC	6,500	DPDT	6.50	5.85	5.53	5.20	4.55
1215-3C-110D	110DC	6,500	3PDT	8.00	7.20	6.80	6.40	5.60

ENCLOSED PLATE CIRCUIT PLUG-IN RELAY

SIZE: 2²³⁄₃₂" x 1⅜" x 1⅜"				QUANTITIES				
Guardian No.	Oper. Mills	Coil Res.	Cont. Comb.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-up
1215-2C-2.5	10 MA	2,500	DPDT	$6.20	$5.58	$5.27	$4.96	$4.34
1215-3C-2.5	12 MA	2,500	3PDT	7.25	6.53	6.16	5.80	5.08
1215-2C-5	7.2 MA	5,000	DPDT	6.30	5.67	5.36	5.04	4.41
1215-3C-5	8.5 MA	5,000	3PDT	7.50	6.75	6.38	6.00	5.25
1215-2C-10	5 MA	10,000	DPDT	6.50	5.85	5.53	5.20	4.55
1215-3C-10	6 MA	10,000	3PDT	7.75	6.98	6.59	6.20	5.43



VERSATILE ENCLOSED RELAY • PLUG-IN • SOLDER TO • OR QUICK CONNECT TERMINALS 1220 AC—1225 DC—10 AMPERE

Newly designed relay is reduced in height and cost by the elimination of the radio-type plug, extra wiring and sub-assembly between relay and plug. Features "UNI-GUARD," continuous loop moving blades; snap lock cover; and terminals that can be used as solder lug, AMP Faston 110 Series quick connect or socket plug-in. The 1220 Relay comes complete wtih mounting bracket.

*U/L Recognition File #E-23524

SIZE: 1³²⁄₃₂" x 1¹¹⁄₁₆" x 1¹⁵⁄₁₆"				QUANTITIES				
Guardian No.	Coil Voltage	Coil Res.	Cont. Comb.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-up
IR-1220-2C-6A	6AC	2.4	DPDT	$4.00	$3.60	$3.40	$3.20	$2.80
IR-1220-2C-24A	24AC	48	DPDT	4.00	3.60	3.40	3.20	2.80
IR-1220-2C-115A	115AC	1,000	DPDT	4.00	3.60	3.40	3.20	2.80
IR-1220-2C-230A	230AC	4,030	DPDT	4.25	3.83	3.61	3.40	2.98
IR-1220-3C-6A	6AC	2.4	3PDT	4.50	4.05	3.83	3.60	3.15
IR-1220-3C-24A	24AC	48	3PDT	4.50	4.05	3.83	3.60	3.15
IR-1220-3C-115A	115AC	1,000	3PDT	4.50	4.05	3.83	3.60	3.15
IR-1220-3C-230A	230AC	4,030	3PDT	4.75	4.28	4.04	3.80	3.33
IR-1225-2C-6D	6DC	18	DPDT	4.00	3.60	3.40	3.20	2.80
IR-1225-2C-12D	12DC	75	DPDT	4.00	3.60	3.40	3.20	2.80
IR-1225-2C-24D	24DC	300	DPDT	4.00	3.60	3.40	3.20	2.80
IR-1225-2C-110D	110DC	6,500	DPDT	4.25	3.83	3.61	3.40	2.98
IR-1225-3C-6D	6DC	18	3PDT	4.50	4.05	3.83	3.60	3.15
IR-1225-3C-12D	12DC	75	3PDT	4.50	4.05	3.83	3.60	3.15
IR-1225-3C-24D	24DC	300	3PDT	4.50	4.05	3.83	3.60	3.15
IR-1225-3C-110D	110DC	6,500	DPDT	4.75	4.28	4.04	3.80	3.33

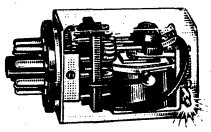
1R-1220—SOCKET

Net 1-9....60c each Net 10-up....55c each

The 1220 snap-in socket has U/L component recognition. Socket terminal lugs can be soldered to or will accept AMP Series 110 quick connects.

ENCLOSED PLUG-IN AC RELAY—1210-N

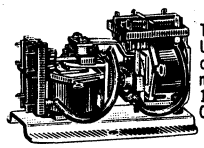
With Built-In Neon Lamp to Indicate Circuit Faults—10 AMPERE



This plug-in relay utilizes a miniature neon lamp connected across coil terminals. The lamp lights each time the coil is energized, or indicates a circuit fault when lamp is "dark." Ideal for detecting circuit faults in relay banks, mass relay arrangements, or where relays are visibly located at intermediate switching points of the circuitry. Precludes the use of circuit testers. Available with 8 pin octal plug for DPDT and 11 pin for 3PDT. Contacts rated 10 amps at 115V., AC, 60 cycles, non-inductive load. Shpg. wt., 3.5 oz.

SIZE: 2²³⁄₃₂" x 1⅜" x 1⅜"				QUANTITIES				
Guardian No.	Coil Voltage	Coil Res.	Cont. Comb.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-up
1210N-2C-115A	115AC	1,000	DPDT	$6.75	$6.08	$5.74	$5.40	$4.73
1210N-3C-115A	115AC	1,000	3PDT	8.00	7.20	6.80	6.40	5.60

INTERLOCKING RELAY—AC IR-1200/1200—10 AMPERE

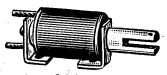


Two interlocking AC relays in sturdy metal frame bracket. Used to maintain circuits continuously without coil power consumption. Unit is electrically pulse operated with mechanical hold and electrical release. Contacts rated for 10 amps, at 60 cycles, 115V., AC, non-inductive load. Coil resistance is 800 ohms. Shpg. wt., 5.5 oz.

SIZE: 1¹³⁄₁₆" x 1⅜" x 3³⁄₁₆"			QUANTITIES				
Guardian No.	Cont. Comb.	Coil Voltage	Net Each, Lots of: 1-24	25-49	50-99	100-249	250-up
IR-1200/1200-4C-115A	4PDT	115AC	$10.40	$9.36	$8.84	$8.32	$7.28

GUARDIAN® ELECTRIC

GUARDIAN SOLENOIDS AC - DC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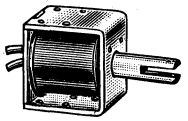
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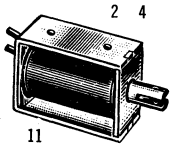
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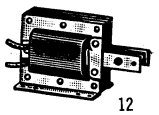
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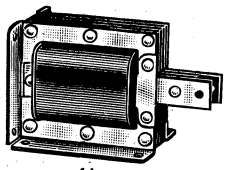
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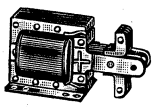
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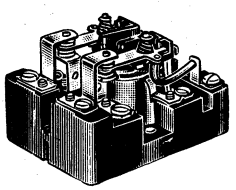
MFG. NO.	VOLTS AC	DUTY	OHMS	MINIMUM—MAXIMUM STROKES and LIFT	SIZE, INCHES L. X W. X H.	SHPG. WT. OZS.	NET EACH, LOTS OF 1-24	25-49	50-99	100-249	250 Up
1A1	115A	Inter.	300	8 oz. at 1/8" 2 oz. at 1/2"	1 3/4 x 1 5/16 x 1 1/16	4.5	$3.15	$2.84	$2.68	$2.52	$2.21
1A1	115A	Cont.	675	3 oz. at 1/8" .5 oz. at 3/8"	1 3/4 x 1 1/16 x 1 1/16	4.5	3.15	2.84	2.68	2.52	2.21
2	115A	Inter.	60	33 oz. at 1/8" 4.5 oz. at 7/8"	1 9/16 x 1 7/16 x 1 5/8	10	3.68	3.31	3.13	2.94	2.58
2	115A	Cont.	166	10.5 oz. at 1/8" 3 oz. at 7/8"	1 9/16 x 1 7/16 x 1 5/8	10	3.68	3.31	3.13	2.94	2.58
2HD	115A	Inter.	39	38 oz. at 1/8" 16 oz. at 3/4"	1 5/32 x 1 7/16 x 1 5/8	13	8.66	7.79	7.36	6.93	6.06
2HD	115A	Cont.	113	17 oz. at 1/8" 4 oz. at 3/4"	1 5/32 x 1 7/16 x 1 5/8	13	8.66	7.79	7.36	6.93	6.06
4	115A	Inter.	37	24 oz. at 1/8" 22 oz. at 1"	2 x 1 7/16 x 1 5/8	14.5	4.20	3.78	3.57	3.36	2.94
4	115A	Cont.	133	8 oz. at 1/8" 6 oz. at 1"	2 x 1 7/16 x 1 5/8	14.5	4.20	3.78	3.57	3.36	2.94
11	24A	Inter.	5.1	26 oz. at 1/8" 3 oz. at 1"	1 5/16 x 1 27/32 x 1 3/16	7.5	3.15	2.84	2.68	2.52	2.21
11	24A	Cont.	12	10 oz. at 1/8" 3 oz. at 1"	1 5/16 x 1 27/32 x 1 3/16	7.5	3.15	2.84	2.68	2.52	2.21
11	115A	Inter.	125	26 oz. at 1/8" 3 oz. at 1"	1 5/16 x 1 27/32 x 1 3/16	7.5	3.15	2.84	2.68	2.52	2.21
11	115A	Cont.	300	10 oz. at 1/8" 3 oz. at 1"	1 5/16 x 1 27/32 x 1 3/16	7.5	3.15	2.84	2.68	2.52	2.21
12	115A	Inter.	100	32 oz. at 1/8" 4 oz. at 1"	1 5/8 x 1 13/16 x 1 7/16	6	4.46	4.01	3.79	3.57	3.12
12	115A	Cont.	150	22 oz. at 1/8" 3 oz. at 7/8"	1 5/8 x 1 13/16 x 1 7/16	6	4.46	4.01	3.79	3.57	3.12
14	115A	Inter.	11	110 oz. at 1/8" 52 oz. at 1 1/2"	2 7/16 x 1 7/16 x 2 1/16	19	6.04	5.44	5.13	4.83	4.23
14	115A	Cont.	18	65 oz. at 1/8" 37 oz. at 1 1/2"	2 7/16 x 1 7/16 x 2 1/16	19	6.04	5.44	5.13	4.83	4.23
16	115A	Inter.	41	96 oz. at 1/8" 35 oz. at 3/4"	1 5/8 x 1 1/8 x 1 7/16	7.5	3.68	3.31	3.13	2.94	2.58
16	115A	Cont.	85	50 oz. at 1/8" 10 oz. at 3/4"	1 5/8 x 1 1/8 x 1 7/16	7.5	3.68	3.31	3.13	2.94	2.58
16	230A	Inter.	200	96 oz. at 1/8" 35 oz. at 3/4"	1 5/8 x 1 1/8 x 1 7/16	7.5	3.94	3.55	3.35	3.15	2.76
16	230A	Cont.	350	50 oz. at 1/8" 10 oz. at 3/4"	1 5/8 x 1 1/8 x 1 7/16	7.5	3.94	3.55	3.35	3.15	2.76
18	115A	Inter.	8.8	280 oz. at 1/8" 80 oz. at 1"	2 1/2 x 1 13/16 x 2 1/16	16.5	4.99	4.49	4.24	3.99	3.49
18	115A	Cont.	19.7	145 oz. at 1/8" 40 oz. at 1"	2 1/2 x 1 13/16 x 2 1/16	16.5	4.99	4.49	4.24	3.99	3.49
18	230A	Inter.	45	280 oz. at 1/8" 80 oz. at 1"	2 1/2 x 1 13/16 x 2 1/16	16.5	5.25	4.73	4.46	4.20	3.68
18	230A	Cont.	78	145 oz. at 1/8" 40 oz. at 1"	2 1/2 x 1 13/16 x 2 1/16	16.5	5.25	4.73	4.46	4.20	3.68
24	115A	Inter.	310	16 oz. at 1/16" 3 oz. at 5/8"	1 1/4 x 27/32 x 59/64	3	3.41	3.07	2.90	2.73	2.39
24	115A	Cont.	500	10.5 oz. at 1/16" 2 oz. at 5/8"	1 1/4 x 27/32 x 59/64	3	3.41	3.07	2.90	2.73	2.39
28	24A	Inter.	7.5	35 oz. at 1/16" 5 oz. at 1/2"	1 1/8 x 1 5/16 x 1 3/16	3.5	3.15	2.84	2.68	2.52	2.21
28	24A	Cont.	17.4	20 oz. at 1/16" 2.5 oz. at 1/2"	1 1/8 x 1 5/16 x 1 3/16	3.5	3.15	2.84	2.68	2.52	2.21
28	115A	Inter.	220	35 oz. at 1/16" 5 oz. at 1/2"	1 1/8 x 1 5/16 x 1 3/16	3.5	3.41	3.07	2.90	2.73	2.39
28	115A	Cont.	400	20 oz. at 1/16" 2.5 oz. at 1/2"	1 1/8 x 1 5/16 x 1 3/16	3.5	3.41	3.07	2.90	2.73	2.39
34	115A	Inter.	400	15 oz. at 1/16" 1 oz. at 1/2"	1 1/8 x 3/4 x 1 7/64	2.5	2.31	2.08	1.96	1.85	1.62
34	115A	Cont.	865	7 oz. at 1/16" .5 oz. at 1/2"	1 1/8 x 3/4 x 1 7/64	2.5	2.31	2.08	1.96	1.85	1.62

GUARDIAN POWER RELAYS



2200U DPDT

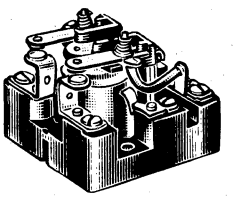
Contacts: double pole, double throw. Size: 3 3/8" L. x 2 1/2" W. x 2 3/16" H. Shipping Weight: 11 ounces.

25 Amperes

U/L Recognition File #E23524

Series 2200 and 2210 power relays are rated at 25 amperes, continuous duty at 230 Volts AC, with 75% power factor. Operating power requirement for AC is 9.5 volt amperes, 60 cycles. Coil drain approximately .080 amperes at 115 volts, 60 cycles. Approximate weight of replacement coil assemblies is 6 ounces.

MOUNTING: 2 holes .196" dia. on 1 7/8" centers.



2210U DPSTNO

Contacts: double pole, single throw, normally open. Size: 2 11/16" L. x 2 1/2" W. x 2 3/16" H. Shipping Weight: 10 ounces.

25 Amperes

U/L Recognition File #E23524

2200 AND 2210 POWER RELAYS

Guardian No.	Volts	QUANTITIES 1-24	25-49	50-99	100-249	250-UP
2200U-DPDT-6	6AC	$6.75	$6.08	$5.74	$5.40	$4.73
2200U-DPDT-24	24AC	6.75	6.08	5.74	5.40	4.73
2200U-DPDT-115	115AC	6.75	6.08	5.74	5.40	4.73
2200U-DPDT-230	230AC	7.25	6.53	6.16	5.80	5.08

2200 AND 2210 POWER RELAYS

Guardian No.	Volts	QUANTITIES 1-24	25-49	50-99	100-249	250-UP
2210U-DPST-N.O.-6	6AC	$5.75	$5.18	$4.89	$4.60	$4.03
2210U-DPST-N.O.-24	24AC	5.75	5.18	4.89	4.60	4.03
2210U-DPST-N.O.-115	115AC	5.75	5.18	4.89	4.60	4.03
2210U-DPST-N.O.-230	230AC	6.10	5.49	5.19	4.88	4.27

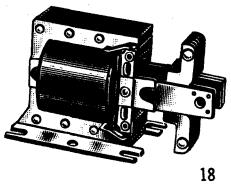
Net

© U.C.P., Inc.

Solenoids available in both intermittent and continuous duty types. Intermittent types should not be energized for more than 5 consecutive minutes, or be permitted to rise more than 85° C. above 24° C. ambient, without giving sufficient time to cool between operation cycles. Continuous duty types are designed so they will not rise more than 85° C. above the 24° C. ambient temperature when operated at rated load. Plunger has slotted end with ⅛" diameter hole for coupling.

When Ordering give the following information: (1) Solenoid Number; (2) Operating voltages and AC or DC current; (3) Continuous or intermittent duty (if intermittent, give the cycle of operation, length of time current will be passed through the coil, and any other pertinent information); (4) Maximum stroke and maximum pull required.

Pull Data listed in this bulletin obtained during "cold" operation.



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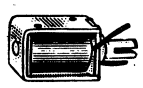
MFG. NO.	VOLTS DC	DUTY	OHMS	MINIMUM—MAXIMUM STROKES and LIFT	SIZE, INCHES L. X W. X H.	SHPG. WT. OZS.	NET EACH, LOTS OF 1-24	25-49	50-99	100-249	250 Up
1A1	24D	Inter.	42.6	5 oz. at ⅛" 1 oz. at ⅜"	1¾ x 1⁵⁄₁₆ x 1¹⁄₁₆	4.5	$2.89	$2.60	$2.46	$2.31	$2.02
1A1	24D	Cont.	74.4	2 oz. at ⅛" .5 oz. at ¼"	1¾ x 1⁵⁄₁₆ x 1¹⁄₁₆	4.5	2.89	2.60	2.46	2.31	2.02
1A1	115D	Inter.	803	5 oz. at ⅛" 1 oz. at ⅜"	1¾ x 1⁵⁄₁₆ x 1¹⁄₁₆	4.5	3.41	3.07	2.90	2.73	2.39
1A1	115D	Cont.	2070	2 oz. at ⅛" .5 oz. at ¼"	1¾ x 1⁵⁄₁₆ x 1¹⁄₁₆	4.5	3.41	3.07	2.90	2.73	2.39
2HD	24D	Inter.	1.2	120 oz. at ⅛" 5 oz. at ¾"	1²³⁄₃₂ x 1⁷⁄₁₆ x 1¹¹⁄₁₆	13	8.93	8.04	7.59	7.14	6.25
2HD	24D	Cont.	.4	60 oz. at ⅛" 1 oz. at ⅝"	1²³⁄₃₂ x 1⁷⁄₁₆ x 1¹¹⁄₁₆	13	8.93	8.04	7.59	7.14	6.25
4	24D	Inter.	15	90 oz. at ⅛" 4 oz. at 1"	2¹⁄₆₄ x 1⁷⁄₁₆ x 1⅝	14.5	4.20	3.78	3.57	3.36	2.94
4	24D	Cont.	50	55 oz. at ⅛" 2.5 oz. at ⅞"	2¹⁄₆₄ x 1⁷⁄₁₆ x 1⅝	14.5	4.20	3.78	3.57	3.36	2.94
4	115D	Inter.	346	90 oz. at ⅛" 4 oz. at ⅝"	2¹⁄₆₄ x 1⁷⁄₁₆ x 1⅝	14.5	4.46	4.01	3.79	3.57	3.12
4	115D	Cont.	1210	55 oz. at ⅛" 2.5 oz. at ¼"	2¹⁄₆₄ x 1⁷⁄₁₆ x 1⅝	14.5	4.46	4.01	3.79	3.57	3.12
4HD	24D	Inter.	15	156 oz. at ⅛" 21 oz. at ¾"	2¹⁄₆₄ x 1⁷⁄₁₆ x 1⅝	15	6.41	5.77	5.45	5.13	4.49
4HD	24D	Cont.	50	86 oz. at ⅛" 1 oz. at ¾"	2¹⁄₆₄ x 1⁷⁄₁₆ x 1⅝	15	6.41	5.77	5.45	5.13	4.49
4HD	110D	Inter.	330	156 oz. at ⅛" 21 oz. at ¾"	2¹⁄₆₄ x 1⁷⁄₁₆ x 1⅝	15	6.41	5.77	5.45	5.13	4.49
4HD	110D	Cont.	1200	86 oz. at ⅛" 1 oz. at ¾"	2¹⁄₆₄ x 1⁷⁄₁₆ x 1⅝	15	6.41	5.77	5.45	5.13	4.49
11	6D	Inter.	2	34 oz. at ⅛" 2 oz. at ⅞"	1⁵⁄₁₆ x 1²⁷⁄₃₂ x 1³⁄₁₆	7.5	3.15	2.84	2.68	2.52	2.21
11	6D	Cont.	5	25 oz. at ⅛" 1 oz. at ⅝"	1⁵⁄₁₆ x 1²⁷⁄₃₂ x 1³⁄₁₆	7.5	3.15	2.84	2.68	2.52	2.21
11	24D	Inter.	32	34 oz. at ⅛" 2 oz. at ¾"	1⁵⁄₁₆ x 1²⁷⁄₃₂ x 1³⁄₁₆	7.5	3.15	2.84	2.68	2.52	2.21
11	24D	Cont.	72	25 oz. at ⅛" 1 oz. at ¾"	1⁵⁄₁₆ x 1²⁷⁄₃₂ x 1³⁄₁₆	7.5	3.15	2.84	2.68	2.52	2.21
22	6D	Inter.	4.7	24 oz. at 1⁄16" 1 oz. at ⅜"	1⅛ x ¾ x ¾	2.5	2.94	2.65	2.50	2.35	2.06
22	6D	Cont.	9	13 oz. at 1⁄16" .5 oz. at ¼"	1⅛ x ¾ x ¾	2.5	2.94	2.65	2.50	2.35	2.06
22	24D	Inter.	60	24 oz. at 1⁄16" 1 oz. at 7⁄16"	1⅛ x ¾ x ¾	2.5	2.94	2.65	2.50	2.35	2.06
22	24D	Cont.	144	13 oz. at 1⁄16" .5 oz. at ⅜"	1⅛ x ¾ x ¾	2.5	2.94	2.65	2.50	2.35	2.06
28	6D	Inter.	3.3	41 oz. at 1⁄16" 2 oz. at ½"	1⅛ x 1⁵⁄₁₆ x 1³⁄₁₆	3.5	2.94	2.65	2.50	2.35	2.06
28	6D	Cont.	7.7	24 oz. at 1⁄16" 1 oz. at ⅜"	1⅛ x 1⁵⁄₁₆ x 1³⁄₁₆	3.5	2.94	2.65	2.50	2.35	2.06
28	12D	Inter.	13	41 oz. at 1⁄16" 2 oz. at ½"	1⅛ x 1⁵⁄₁₆ x 1³⁄₁₆	3.5	2.94	2.65	2.50	2.35	2.06
28	12D	Cont.	27	24 oz. at 1⁄16" 1 oz. at ⅜"	1⅛ x 1⁵⁄₁₆ x 1³⁄₁₆	3.5	2.94	2.65	2.50	2.35	2.06
28	24D	Inter.	50	41 oz. at ⅛" 2 oz. at ½"	1⅛ x 1⁵⁄₁₆ x 1³⁄₁₆	3.5	2.94	2.65	2.50	2.35	2.06
28	24D	Cont.	104	24 oz. at 1⁄16" 1 oz. at ⅜"	1⅛ x 1⁵⁄₁₆ x 1³⁄₁₆	3.5	2.94	2.65	2.50	2.35	2.06
34	6D	Inter.	4.3	17 oz. at 1⁄16" 1 oz. at 7⁄16"	1⅛ x ¾ x 1⁷⁄₆₄	2.5	2.31	2.08	1.96	1.85	1.62
34	6D	Cont.	9.1	8.5 oz. at 1⁄16" .5 oz. at ¼"	1⅛ x ¾ x 1⁷⁄₆₄	2.5	2.31	2.08	1.96	1.85	1.62
34	24D	Inter.	66	17 oz. at 1⁄16" 1 oz. at 7⁄16"	1⅛ x ¾ x 1⁷⁄₆₄	2.5	2.31	2.08	1.96	1.85	1.62
34	24D	Cont.	145	8.6 oz. at 1⁄16" .5 oz. at ¼"	1⅛ x ¾ x 1⁷⁄₆₄	2.5	2.31	2.08	1.96	1.85	1.62



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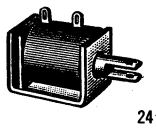

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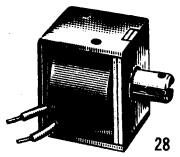

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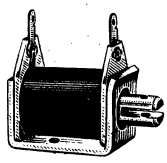

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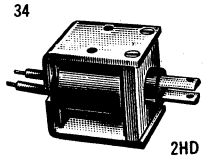

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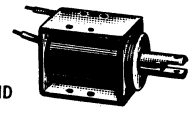

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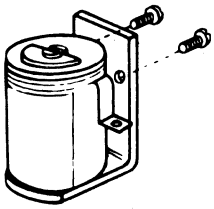


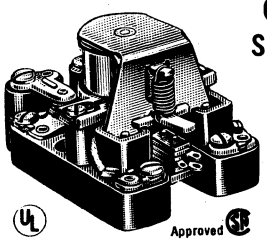
Interchangeable Coil Assemblies (No Solder Connections) . . . By removing two easily accessible screws, coil assembly can be replaced by coil of another value. Complete instructions for this operation are included with each unit. Solder connections are not required when changing coils.

REPLACEMENT COILS FOR EITHER RELAY

Guardian No.	Volts	QUANTITIES 1-24	25-49	50-99	100-249	250-UP
2200-6A	6AC	$2.35	$2.12	$2.00	$1.88	$1.65
2200-24A	24AC	2.35	2.12	2.00	1.88	1.65
2200-115A	115AC	2.35	2.12	2.00	1.88	1.65
2200-230A	230AC	2.65	2.39	2.25	2.12	1.86

Power Relay Replacement Contact Switch Parts—Available for Series 2200, only —Replacement Contact Switch Parts for easy right or left SPDT assembly. No solder needed. Package contains one normally open and one normally closed contact bracket, complete moving blade and terminal. Left or Right Switch Assemblies determined by viewing relay from armature hinge end with contacts up.

Guardian No.	QUANTITIES 1-24	25-49	50-99	100-240	250-UP
CS-2200—LEFT	$1.95	$1.76	$1.66	$1.56	$1.37
CS-2200—RIGHT	1.95	1.76	1.66	1.56	1.37



GUARDIAN SERIES 2400U AC SERIES 2405 DC POWER RELAY

15 Amperes

Size: 3⁵⁄₁₆" x 2½" x 2¹⁄₁₆". Shipping Weight: 8 ounces. Mounting: Two .196" Diam. holes on 1⅞" centers.

In power applications that require up to 15 ampere contacts the Guardian Series 2400 AC, or Series 2405 DC Power Relays are specified. Both have standard DPDT contacts rated for 15 amperes non-inductive, or 1 HP at 115/230 volts, 60 cycles. Series 2400 standard coil voltages are 6, 12, 24 and 115 VAC. Series 2405 standard coil voltages are 6, 12, 24 and 110 VDC. Inverted coil construction protects armature and contacts. Armature extension permits manual circuit testing. Screw type terminals easily accessible for top or bottom connections. Easy to mount recessed auxiliary switch, up to SPDT for 10 ampere operation, available for both AC and DC versions.

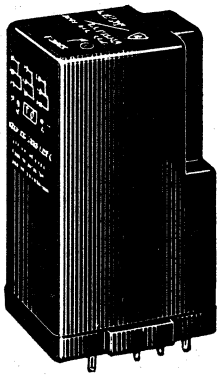
*U/L Recognition File #E-23524

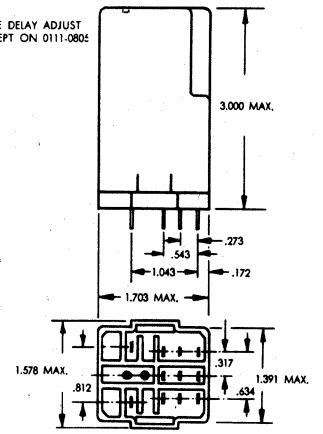
Guardian No.	Volts	Rating Amps.	QUANTITIES 1-24	25-49	50-99	100-249	250-UP
2400U-DPDT-6	6AC	15	$6.25	$5.63	$5.31	$5.00	$4.38
2400U-DPDT-24	24AC	15	6.25	5.63	5.31	5.00	4.38
2400U-DPDT-115	115AC	15	6.25	5.63	5.31	5.00	4.38
2400U-DPDT-230	230AC	15	6.50	5.85	5.53	5.20	4.55
2405-DPDT-6	6DC	15	6.25	5.63	5.31	5.00	4.38
2405-DPDT-12	12DC	15	6.25	5.63	5.31	5.00	4.38
2405-DPDT-24	24DC	15	6.25	5.63	5.31	5.00	4.38
2405-DPDT-110	110DC	15	6.75	6.08	5.74	5.40	4.73
2400-SPDT-AUX-Auxiliary Switch		10	1.35	1.22	1.15	1.08	.95

GUARDIAN® ELECTRIC

TIME DELAY RELAYS

SERIES TD

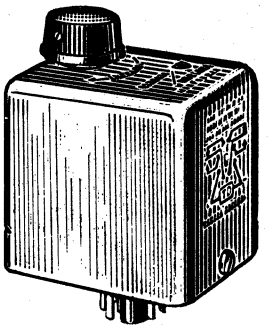


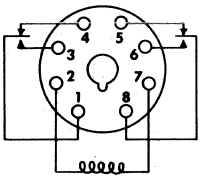


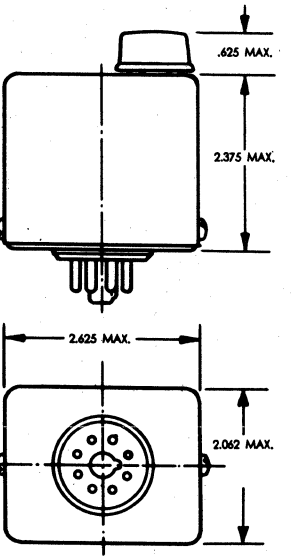
This is the most accurate and compact solid-state time-delay available commercially from stock. 3PDT contacts handle up to 10 amp resistive load. Six standard model relays for 24V., DC and 115V., AC 50/60 cycles provide delays from 1 to 180 seconds. All units utilize silicon semi-conductors and precision tantalum capacitors for reliability. 15-turn screw-type potentiometer furnishes high resolution and accuracy. Accurate to 5% of a nominal setting over its complete temperature and voltage range. Repeatability is 2% after a line interruption of 50 milliseconds. Termination can be quick disconnects, socket or solder connections. Size: 3"x1⅝"x1¹⁵⁄₁₆". Shpg. wt., 5 oz.

Guardian No.	Coil Voltage	Adjustment Range	Net Each, Lots of 1-49	50-99	100-up
TD33C15-24D	24VDC ±10%	1 to 15 sec.	$24.20	$21.88	$19.69
TD33C60-24D	24VDC ±10%	10 to 60 sec.	25.19	22.67	20.40
TD33C180-24D	24VDC ±10%	50 to 180 sec.	32.09	29.88	26.90
TD63C15-115A	115VAC ±10%	1 to 15 sec.	29.70	26.73	24.06
TD63C60-115A	115VAC ±10%	10 to 60 sec.	30.06	27.54	24.79
TD63C180-115A	115VAC ±10%	50 to 180 sec.	36.85	33.16	29.84

SERIES TDO



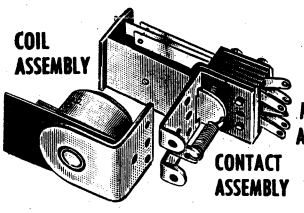


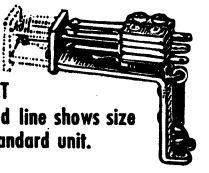


Incorporates many features of more expensive units, but is the most economical 5 amp DPDT 115V., AC solid-state adjustable time-delay relay ever offered. Delay is adjustable from 0.5 to 30 seconds on attract and is controlled by a 10-turn potentiometer for high resolution, easy reset and accuracy. Unit terminates in octal plug. Accurate within 10% of a nominal setting over its entire temperature and voltage range. Repeatability is within 2% after a line interruption of 100 milliseconds. Size: 3"x2⅝"x2¹⁵⁄₁₆". Shpg. wt., 8 oz.

Guardian No.	Coil Voltage	Adjustment Range	Net Each, Lots of 1-49	50-99	100- up
TDO-62C30-115A	115V ±10%	50/60 cycle 0.5 to 30 sec.	$16.32	$15.69	$14.12

SERIES 200 RELAY
WITH COMPLETELY INTERCHANGEABLE COIL AND CONTACT ASSEMBLIES





MIDGET CONTACT ASSEMBLY. Dotted line shows size of standard unit.

The coil assembly consists of the coil and field piece; the contact assembly consists of switch blades, armature, return spring and mounting bracket. The Guardian Midget Contact Assembly is **interchangeable** with the standard Series 200 coil assembly. Available with SPDT, DPDT or 4PDT contact switch assemblies, each **interchangeable** with all AC or DC coils.

SERIES 200 RELAY

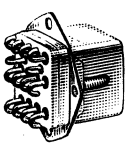
Guardian No.	Volts	Coil	Net Each, Lots of 1-24	25-49	50-99	100-249	250-up
200-6A	6	AC	$1.85	$1.67	$1.57	$1.48	$1.30
200-12A	12	AC	1.85	1.67	1.57	1.48	1.30
200-24A	24	AC	1.85	1.67	1.57	1.48	1.30
200-115A	115	AC	2.15	1.94	1.83	1.72	1.51
200-230A	230	AC	2.85	2.57	2.42	2.28	2.00
200-6D	6	DC	2.00	1.80	1.70	1.60	1.40
200-12D	12	DC	2.00	1.80	1.70	1.60	1.40
200-24D	24	DC	2.00	1.80	1.70	1.60	1.40
200-32D	32	DC	2.00	1.80	1.70	1.60	1.40
200-110D	110	DC	2.65	2.39	2.25	2.12	1.86
200-5,000D	†	DC	2.30	2.07	1.96	1.84	1.61
200-10,000D	†	DC	2.65	2.39	2.25	2.12	1.86

†Plate.

CONTACT SWITCH ASSEMBLIES

Guardian No.	Type	Cont. Amps	Cont. Comb.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-up
200-1	Standard	8	SPDT	$1.60	$1.44	$1.36	$1.28	$1.12
200-2	Standard	8	DPDT	2.10	1.89	1.79	1.68	1.47
200-3	Standard	8	DPDT	1.60	1.44	1.36	1.28	1.12
200-4	Standard	12.5	DPDT	2.35	2.12	2.00	1.88	1.65
200-5	Standard	8	4PDT	3.70	3.33	3.15	2.96	2.59
200-M1	Midget	10	SPDT	1.50	1.35	1.28	1.20	1.05
200-M2	Midget	10	DPDT	1.85	1.67	1.57	1.48	1.30
200-M3	Midget	10	DPDT	1.60	1.44	1.36	1.28	1.12
200-M5	Midget	8	4PDT	3.00	2.70	2.55	2.40	2.10

AEROSPACE AND MILITARY RELAYS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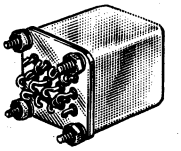
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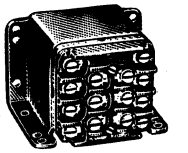
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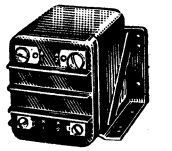
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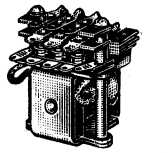
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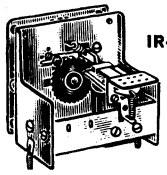
Hermetically Sealed Relays complying with specifications for guided missiles, aircraft and similar application

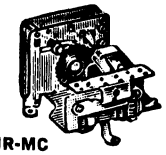
GUARDIAN SERIES	NO.	GOVERNMENT DESIGNATION	CONTACTS COMB.	AMPS.	TYPE	OPERATION CYCLES	PRICE
4005	A410-161059-00	MS27255-2	4PDT	10 AMP	HOOK	20g to 2000 CPS	$25.65
3315	A410-160378-00	MS24149-D1	2PDT	10 AMP	SCREW	10g to 1500 CPS	19.65
3005	A410-159243-00	MS24568-D1	4PDT	10 AMP	SCREW	10g to 2000 CPS	28.15
455	A410-154555-00	MS25035-1	SPST N.O.	25 AMP	SCREW	10g to 55 CPS	25.80
335	A410-157763-00	MS25024-2	4PDT	10 AMP	SCREW	10g to 55 CPS	18.36

Net

© U.C.P., Inc.

STEPPING CONTROLS—For accurate sequence selecting, pulse multiplying, pulse dividing, circuit selecting, automatic homing, remote homing, counting and latching. Guardian steppers are specified for automatic control of electrically operated business machines, accumulators (coin and other), animated displays, electrical scoreboards, automatic overhead garage doors, assembly line controls, automatic packaging (loading) controls, sump pump controls, commercial slide projectors, among others. All Guardian steppers are **intermittent duty** direct-drive units with switching operations completed upon energization.

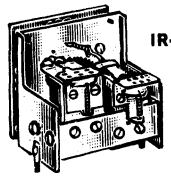




CONTINUOUS ROTATION

The circuit selection wiper on Continuous Rotation Steppers moves in one direction only, upon energization of the step coil. This type of stepper is available in standard 24 point (MC) or 40 point (PC). The Guardian MC Midget Continuous Rotation Stepper is particularly adaptable to repetitive sequence functions. The 24 bridging contact deck is evenly divisible by eight possible sequences. The PC stepper features self-stepping speeds up to 30 steps per second and mechanical life expectancy of over 4,000,000 steps.

All stepper contact points are rated 1½ amps resistive, at 115 V., 60 cps. Coil* Voltages are 115V., AC, 24 DC 60 cps.

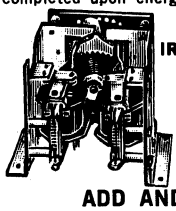


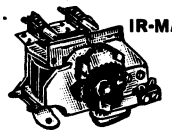
ELECTRICAL RESET

The circuit selecting wiper on Electrical Reset Steppers can be reset to zero or home from any desired position, by energization of the reset magnet. They are frequently employed to record counts by various numerical groups, then resetting automatically.

Type M.E.R. A direct drive (steps on energization) with positive mechanical reset interlock actuated by the reset magnet and unlocked on the first energization of the step magnet. Assures positive reset on as short a pulse as one-hundreth of a second. By interconnecting two or more Steppers, count can be increased to any desired total counting by tens, or any convenient multiple. Will control a sequence of operation and then automatically reset to starting position.

Type P.E.R. Operation same as M.E.R. but with up to 36 active contacts.





ADD AND SUBTRACT

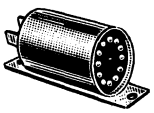
Add and subtract steppers are basically continuous rotation types with the added feature of being able to reserve the movement of the selecting wiper when required.

Type IR-MAS A midget add and subtract stepper incorporating a cam actuated switch which operates at zero position. Used primarily to indicate a zero balance between pulses supplied to the "add" coil as compared to pulses received by the "subtract" coil.

Type IR-RAS These are bi-directional steppers whereby the selector wiper moves in either direction depending on which of the coils are energized. The RAS is frequently used as a drive control for potentiometers or variable transformers.

Guardian No.	Watts	Volt Amperes	No. of Points	No. of Active Contacts***	Max. Steps Per Second	Shipping Weight Ounces	SIZE Length	Width	Height	QUANTITIES Net Each, Lots of 1-24	25-49	50-99	100-249	250-up
IR-PC-115AC	30	40	40	40	20	17	3⅜	3⅜	3 1/32	$19.95	$17.96	$16.96	$15.96	$13.97
IR-MC-115AC	17	30	24	24	20	9½	3¼	3	2 3/16	14.75	13.28	12.54	11.80	10.32
IR-PER-115AC	35-7**	50-10**	40	36	20	22	3	3⅜	3 3/16	26.25	23.63	22.31	21.00	18.37
MER-115AC	20-8**	35-9**	24	22	20	11½	2 3/16	3 3/16	2 3/16	15.75	14.18	13.39	12.60	11.03
MER-24DC	20-8**	35-9**	24	22	20	11½	2 3/16	3 3/16	2 3/16	15.75	14.18	13.39	12.60	11.03
IR-RAS-115AC	45	100	40	38	10	29½	3 5/8	4⅛	3	26.25	23.63	22.31	21.00	18.38
IR-MAS-115AC	9	12	30	****	10	11	3¼	3⅛	1 15/16	17.35	15.62	14.75	13.88	12.15

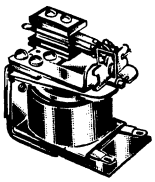
NOTE— *Steppers will operate satisfactorily at 15% below or 10% above rated voltage. **Listings are for stepping coil and reset coil, respectively. ***Includes Zero (0) position. ****Zero (0) position switch only.



ROTOMITE STEPPER—DC IR-705-12P

An entirely new concept in stepper design, the Guardian "Rotomite" is first with maxmium stepper control in minimum space. Offering high contact rating of 3 amps resistive, 1 amp inductive (50% PF). Featuring **continuous duty operation** with life well in excess of one million steps, the completely enclosed Rotomite is geared for continuous rotation of 12 positions. A few Rotomite applications presently include computers, business machines, lighting and vending controls, counting and sorting devices, and model trains. Shpg. wt., 5 oz.

SIZE: 2" Long x 1 1/16" Dia.			QUANTITIES Net Each, Lots of				
Guardian No.	No. Points	Coil Voltage	1-24	25-49	50-99	100-249	250-up
IR-705-12P-6D	12	6DC	$6.60	$5.94	$5.61	$5.28	$4.62
IR-705-12P-12D	12	12DC	6.60	5.94	5.61	5.28	4.62
IR-705-12P-24D	12	24DC	6.60	5.94	5.61	5.28	4.62



LATCHING ON/OFF RELAY—AC IR-610L—5 AMPERE

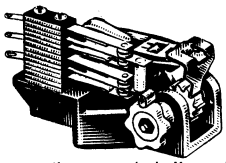
Midget Latching Relay with single coil and 5 amp contact rating for SPST, or SPDT, contact combinations. Recommended for positive ON/OFF control of positioning devices, remote controls, lighting circuits and many additional applications. Impulse as short as 20 M.S. energizes coil to reverse position of snap-action switches. Holds last position of switch with coil de-energized. Contacts rated for 5 amps, at 60 cycles, 115 V., AC, non-inductive load. Shpg. wt., 4 oz.

SIZE: 2 1/16" x 1 1/16" x 1 5/16"			QUANTITIES Net Each, Lots of				
Guardian No.	Cont. Comb.	Coil Voltage	1-24	25-49	50-99	100-249	250-up
IR-610L-A-115A	SPST	115AC	$4.45	$4.01	$3.78	$3.56	$3.12
IR-610L-C-115A	SPDT	115AC	4.75	4.28	4.04	3.80	3.33

ENGINEER'S SWITCH KIT

Indispensable to those who design, build or test electrical controls. Contains large assortment of switch blades, contacts, separators, adapters, fish paper, bushings, etc.

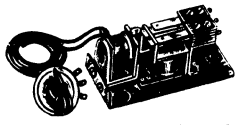
Engineer's Switch Kit—Net Ea. **$11.50**



NEW SERIES 660 AC— 665 DC SEQUENCE RELAY

Intended to perform switching operations in a desired, repetitive sequence. Each electrical impulse moves the relay contacts to the next position in the sequence. Applications include lights, signs, motors, appliances and similar units. Contacts rated up to 12½ amps, 115V., 60 cycles, non-inductive load. Shpg. wt., 8 oz. Mounting: 4 holes 8-32 (NC-2B).

SIZE: (DPDT) 3" x 1¾" x 2 1/16"			QUANTITIES Net Each, Lots of				
Guardian No.	Coil Voltage	Cont. Comb.	1-24	25-49	50-99	100-249	250-up
660-C-24A	24AC	SPDT	$6.85	$6.17	$5.82	$5.48	$4.80
660-2C-24A	24AC	DPDT	7.40	6.66	6.29	5.92	5.18
660-4C-24A	24AC	4PDT	10.75	9.68	9.14	8.60	7.53
660-C-115A	115VAC	SPDT	6.85	6.17	5.82	5.48	4.80
660-2C-115A	115VAC	DPDT	7.40	6.66	6.29	5.92	5.18
660-4C-115A	115VAC	4PDT	10.75	9.68	9.14	8.60	7.53
665-C-24D	24DC	SPDT	6.85	6.17	5.82	5.48	4.80
665-2C-24D	24DC	DPDT	7.40	6.66	6.29	5.92	5.18
665-4C-24D	24DC	4PDT	10.75	9.68	9.14	8.60	7.53



ELECTRICAL RESET OVERLOAD RELAY—X-300-ER

Applicable for use in industrial panel installation, provides precise protection from current surges and continuous overloads. Remote panel installation of control potentiometer simplifies adjustment of relay to operate on any current value from 250 to 750 milliamperes, DC. Auxiliary for pilot light indication of "overload" or "clear" position. Reset relay can be operated from any point convenient to operator. Insulation between coil and ground rated at 3,000 volts. Shpg. wt., 13 oz.

SIZE: 4¾" x 2" x 1 15/16"		QUANTITIES Net Each, Lots of				
Guardian No.	Reset Coil	1-24	25-49	50-99	100-249	250-up
X-300-ER	6VAC	$10.00	$8.55	$8.50	$8.00	$7.00

32 POLE GROUP SELECTOR DC RELAY—IR-805-S

Group selector relay can simultaneously make common up to 32 circuits. All circuits insulated from ground. Contact blades molded in thermosetting phenolic. All contacting members completely enclosed. Shipping weight 6 oz.

SIZE: 2 7/32" x 1 17/32" x 2⅛"			QUANTITIES Net Each, Lots of				
Guardian No.	Coil Voltage	Coil Res.	1-24	25-49	50-99	100-249	250-up
IR-805-S	24VDC	72	$5.00	$4.50	$4.25	$4.00	$3.50

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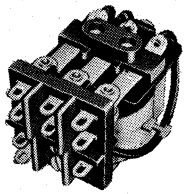
GENERAL PURPOSE RELAYS



MINIATURE OPEN TYPE (SERIES MK)

Open type relay in standard contact arrangements up to 3PDT. 5 or 10 amp contact rating. Voltages up to 230 volts, A.C. or D.C. Factory adjusted to pull in at 75% max. of nominal voltage D.C. and 80% max. of nominal voltage A.C. Designed to pass 1,000 volt A.C. Hipot test between all elements. UL File #36213

PLATE CIRCUIT RELAYS 5 amp. open type

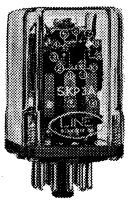
	2500Ω	5000Ω	10,000Ω	20,000Ω
MKC-1 SPDT	$3.15	$3.25	$3.80	$4.05
MKC-2 DPDT	3.65	3.80	4.30	4.55
MKC-3 3PDT	4.10	4.20	4.75	5.00

10 amp models ask for series MKCO

	5 amp contact rating	6, 12, 24, 115V	220V
AC	MK1A SPDT	$3.10	$3.55
	MK2A DPDT	3.75	4.15
	MK3A 3PDT	4.15	4.55

	5 amp contact rating	6, 12, 24V	110V
DC	MK1D SPDT	$3.05	$3.45
	MK2D DPDT	3.40	3.85
	MK3D 3PDT	3.85	4.25

All models available in 10 amps. DIMENSIONS: 1-11/16 × 1-3/16 × 29/32
All models available in 10 amps. Ask for series MKO.



MINIATURE PLUG-IN (SERIES MKP)

Plug-in type relay, same factory tested, quality features as above. Will operate continuously in ambient temperature ranges of 45° to 75°C. for D.C. coils and −45° to 55°C. for A.C. coils. Metal or clear C-11 Styrene dust cover.
UL File #36213

PLATE CIRCUIT RELAYS 5 amp. enclosed type

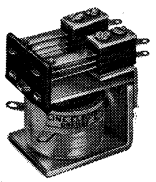
	2500Ω	5000Ω	10,000Ω	20,000Ω
MKF-1 SPDT	$5.90	$6.00	$6.40	$6.65
MKF-2 DPDT	6.30	6.40	6.80	7.10
MKF-3 3PDT	7.75	7.90	8.40	8.65

10 amp models ask for series MKFO

	5 amp contact rating	6, 12, 24, 115V	220V
AC	MKP1A SPDT	$5.45	$5.90
	MKP2A DPDT	6.05	6.45
	MKP3A 3PDT	7.50	7.95

	5 amp contact rating	6, 12, 24V	110V
DC	MKP1D SPDT	$5.40	$5.85
	MKP2D DPDT	6.00	6.40
	MKP3D 3PDT	7.45	7.90

All models available in 10 amps. Ask for series MKH. DIMENSIONS: 2-1/4 × 1-5/8 × 1-3/8



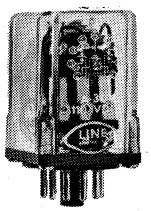
MINIATURE MULTIPLE LEAF (SERIES MW)

A small, versatile relay available in a variety of contact configurations consisting of forms A, B, C or D (make before break), up to a maximum of 12 springs. Coils can be supplied for operation on D.C. or A.C. 60 cps. Operation on 400 cps. source is available with self-contained rectifiers on relays with covers.

	10 amp contact rating	6, 12, 24, 115V	220V
AC	MW1A SPDT	$2.70	$3.10
	MW2A DPDT	3.30	3.75
	MW3A 3PDT	3.80	4.20
	MW14A 4PDT	6.35	6.75

		6, 12, 24V	110V
DC	MW1D SPDT	$2.60	$3.10
	MW2D DPDT	3.25	3.65
	MW3D 3PDT	3.75	4.15
	MW14D 4PDT	6.35	6.80

DIMENSIONS: 1-17/32 × 1-21/32 × 1-0



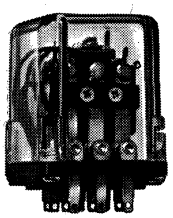
SPOTLIGHT RELAYS (SERIES A)

High quality, general purpose plug-in relay with built-in circuit indicator lamp. Available in C-11 Styrene colored cases for circuit identification or in metal can. Saves panel space, reduces costly labor. UL File #36213.

	5 amp contact rating	6, 12, 24, 115V	220V
AC	A-1A SPDT	$6.40	$6.85
	A-2A DPDT	7.00	7.40
	A-3A 3PDT	8.45	8.85

		6, 12, 24V	110V
DC	A-1D SPDT	$6.35	$6.75
	A-2D DPDT	6.95	7.35
	A-3D 3PDT	8.40	8.80

All models available in 10 amps. AH series.
DIMENSIONS: 2-1/4 × 1-3/8 × 1-3/8



SPOTLIGHT RELAYS. LOW COST. (SERIES ATR)

A plug-in relay which is identical in construction to our miniaturized low profile SERIES MKTR (see page 3) but with built-in circuit indicator lamp. It can be used in conjunction with our 92-67 or 92-82 sockets and 91-49 spring clip. UL File #36213.

	5 amp contact rating	6, 12, 24, 115V	220V
AC	ATR1A SPDT	$5.25	$5.60
	ATR2A DPDT	5.90	6.30
	ATR3A 3PDT	6.35	6.80

	5 amp contact rating	6, 12, 24V	110V
DC	ATR1D SPDT	$5.15	$5.55
	ATR2D DPDT	5.55	6.00
	ATR3D 3PDT	6.05	6.45

All models available in 10 amps AHTR Series.
DIMENSIONS: 1-3/16 × 1-3/8 × 1-3/8

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8 PAGE LISTING (2)

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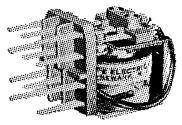
GENERAL PURPOSE RELAYS

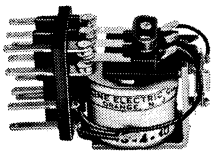


PRINTED CIRCUIT or TAPER TAB (SERIES MKT)

Printed circuit type relay incorporating coil, frame and load contacts of standard Series MK. Connector lugs fit standard amp terminal #41355. Series MKTE is the MKT with plastic dust cover. Available with studs for chassis mount or taper tab connectors. Price same as MKTR . UL File #36213

	5 amp contact rating	6, 12, 24, 115V	220V
AC	MKT1A SPDT	$3.25	$3.65
	MKT2A DPDT	3.95	4.35
	MKT3A 3PDT	4.40	4.85
		6, 12, 24V	110V
DC	MKT1D SPDT	3.20	$3.60
	MKT2D DPDT	3.60	4.05
	MKT3D 3PDT	4.10	4.50

All models available in 10 amps. Series MKTO
DIMENSIONS: 2-1/32 × 1-7/32 × 29/32
Also available as a Plate Circuit Relay



QUICK CONNECT TERMINAL RELAYS (SERIES MKA)

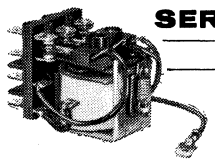
Quick connect terminal type miniature relay incorporating coil, frame and load contacts of the standard Series MK. The connector lugs fit standard .110" quick connect terminals. UL File #36213

(SERIES MKD

The MKD has the same quality features as our SERIES MK (see page 1) but the panel is wider and .187 quick connect lugs are used throughout the series. This is also an open type relay. UL File #36213

	5 amp contact rating	6, 12, 24, 115V	220V
AC	MKA1A SPDT	$3.25	$3.65
	MKA2A DPDT	3.95	4.35
	MKA3A 3PDT	4.40	4.85
DC	MKA1D SPDT	$3.20	$3.60
	MKA2D DPDT	3.60	4.05
	MKA3D 3PDT	4.10	4.50

All models available in 10 amps. DIMENSIONS: 29/32 × 1-7/32 × 1-11/16
Also available as a Plate Circuit Relay



SERIES MKD. OPEN TYPE WITH .187 QUICK CONNECT LUGS

	5 amp contact rating	6, 12, 24, 115V	220V
AC	MKD-1A SPDT	$3.25	$3.65
	MKD-2A DPST	3.95	4.35
	MKD-3A 3PDT	4.40	4.80
	MKD-4A SPST-NO	3.20	3.60
	MKD-5A DPST-NO	3.85	4.25
	MKD-6A 3PST-NO	4.25	4.65
	MKD-7A SPST-NC	3.20	3.60
	MKD-8A DPST-NC	3.85	4.25
	MKD-9A 3PST-NC	4.25	4.65

	5 amp contact rating	6, 12, 24V	110V
DC	MKD-1D SPDT	$3.20	$3.60
	MKD-2D DPDT	3.60	4.05
	MKD-3D 3PDT	4.10	4.50
	MKD-4D SPST-NO	3.15	3.55
	MKD-5D DPST-NO	3.50	3.95
	MKD-6D 3PST-NO	3.95	4.35
	MKD-7D SPST-NC	3.15	3.55
	MKD-8D DPST-NC	3.50	3.95
	MKD-9D 3PST-NC	3.95	4.35

SERIES MKDO. OPEN TYPE WITH .187 QUICK CONNECT LUGS

	10 amp contact rating	6, 12, 24, 115V	220V
AC	MKDO-1A SPDT	$3.30	$3.75
	MKDO-2A DPDT	4.05	4.45
	MKDO-3A 3PDT	4.55	5.00
	MKDO-4A SPST-NO	3.25	3.70
	MKDO-5A DPST-NO	3.95	4.35
	MKDO-6A 3PST-NO	4.40	4.85
	MKDO-7A SPST-NC	3.25	3.70
	MKDO-8A DPST-NC	3.95	4.35
	MKDO-9A 3PST-NC	4.40	4.85

	10 amp contact rating	6, 12, 24V	110V
DC	MKDO-1D SPDT	$3.25	$3.65
	MKDO-2D DPDT	3.75	4.15
	MKDO-3D 3PDT	4.25	4.65
	MKDO-4D SPST-NO	3.20	3.60
	MKDO-5D DPST-NO	3.65	4.05
	MKDO-6D 3PST-NO	4.10	4.50
	MKDO-7D SPST-NC	3.20	3.60
	MKDO-8D DPST-NC	3.65	4.05
	MKDO-9D 3PST-NC	4.10	4.50

SERIES MKDC. PLATE CIRCUIT RELAYS WITH .187 QUICK CONNECT LUGS

5 amp open type	2500Ω	5000Ω	10,000Ω	20,000Ω
MKDC-1 SPDT	$3.30	$3.45	$4.05	$4.30
MKDC-2 DPDT	3.85	4.00	4.55	4.85
MKDC-3 3PDT	4.25	4.60	5.00	5.25
MKDC-4 SPST-NO	3.25	3.40	4.00	4.25
MKDC-5 DPST-NO	3.75	3.90	4.45	4.75
MKDC-6 3PST-NO	4.10	4.45	4.85	5.10
MKDC-7 SPST-NC	3.25	3.40	4.00	4.25
MKDC-8 DPST-NC	3.75	3.90	4.45	4.75
MKDC-9 3PST-NC	4.10	4.45	4.85	5.10

10 amp open type	2500Ω	5000Ω	10,000Ω	20,000Ω
MKDCO-1 SPDT	$3.35	$3.50	$4.10	$4.35
MKDCO-2 DPDT	3.95	4.10	4.65	4.95
MKDCO-3 3PDT	4.40	4.75	5.15	5.40
MKDCO-4 SPST-NO	3.30	3.45	4.05	4.30
MKDCO-5 DPST-NO	3.85	4.00	4.55	4.85
MKDCO-6 3PST-NO	4.25	4.60	5.00	5.25
MKDCO-7 SPST-NC	3.30	3.45	4.05	4.30
MKDCO-8 DPST-NC	3.85	4.00	4.55	4.85
MKDCO-9 3PST-NC	4.25	4.60	5.00	5.25

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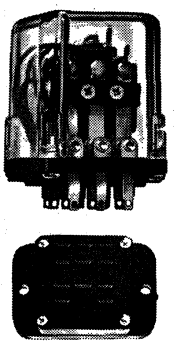
Net

8 PAGE LISTING (3)

LINE ELECTRIC COMPANY

RELAYS • BUZZERS • FOOT SWITCHES

GENERAL PURPOSE RELAYS



MINIATURE PLUG-IN *LOW PROFILE LOW COST*

(SERIES MKTR)

Despite its compact size this new totally enclosed, low cost, low profile miniature relay has not compromised the high quality of its progenitor the Series MK open relay. The low mounting profile (dust cover included) has been made possible by incorporating the frame of the relay with the connector-header. Thus a certain basic hardware has been eliminated resulting in important size reduction. Versatility is also assured since the standard terminals can be used with Amp snap-on connectors, printed circuits, or plug-in receptacles. Also available with studs for chassis mounting. Termination can be used for soldered connections. The plug-in-receptacle is true 10 ampere construction. Lugs can be used for either solder or snap-on connections.

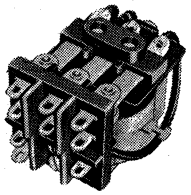
UL File #36213 10 Amps series MKTRO

	5 amp contact rating	6, 12, 24, 115V	220V
AC	MKTR1A SPDT	$4.25	$4.65
	MKTR2A DPDT	4.95	5.35
	MKTR3A 3PDT	5.40	5.85
		6, 12, 24V	**110V**
DC	MKTR1D SPDT	$4.20	$4.60
	MKTR2D DPDT	4.60	5.05
	MKTR3D 3PDT	5.10	5.50

AVAILABLE 3 WAYS: Plate circuit relay. Spotlight relay (with or without colored dust cover). Hermetic seal or any combination.
DIMENSIONS: 1-27/32 × 1-3/8 × 1-3/8

92-67 RECEPTACLE .30 net.
92-82 Clip-on Receptacle .50
91-49 Hold down Spring .12

NEW MINIATURE SENSITIVE RELAYS (SERIES SK) 60 MILLIWATTS PER POLE



Type SK
Type SKA
Type SKD
Type SKT

This entire series of SK type relays is identical in construction to our MK series miniature relays, with one essential difference —the special alloy used in pole and frame increases the magnetic flux many times thus making the relays very sensitive to very low power levels—only 60 milliwatts per pole.

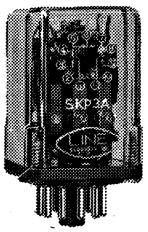
UL File #39077

SERIES SK OPEN TYPE 5 AMPS

	up to 2500Ω	5000Ω	10,000Ω	15,000Ω	20,000Ω
SK-1 SPDT	$4.15	$4.25	$4.80	$4.80	$5.05
SK-2 DPDT	4.65	4.80	5.30	5.30	5.55
SK-3 3PDT	5.10	5.20	5.75	5.75	6.00
SK-4 SPST-NO	4.10	4.20	4.75	4.75	5.00
SK-5 DPST-NO	4.55	4.70	5.20	5.20	5.45
SK-6 3PST-NO	4.95	5.05	5.60	5.60	5.85
SK-7 SPST-NC	4.10	4.20	4.75	4.75	5.00
SK-8 DPST-NC	4.55	4.70	5.20	5.20	5.45
SK-9 3PST-NC	4.95	5.05	5.60	5.60	5.85

SERIES SKT PRINTED CIRCUIT TYPE 5 AMPS

	up to 2500Ω	5000Ω	10,000Ω	15,000Ω	20,000Ω
SKT-1 SPDT	$4.30	$4.45	$5.10	$5.10	$5.30
SKT-2 DPDT	4.85	5.00	5.55	5.55	5.85
SKT-3 3PDT	5.25	5.40	6.00	6.00	6.25
SKT-4 SPST-NO	4.25	4.40	5.05	5.05	5.25
SKT-5 DPST-NO	4.75	4.90	5.45	5.45	5.75
SKT-6 3PST-NO	5.10	5.25	5.85	5.85	6.10
SKT-7 SPST-NC	4.25	4.40	5.05	5.05	5.25
SKT-8 DPST-NC	4.75	4.90	5.45	5.45	5.75
SKT-9 3PST-NC	5.10	5.25	5.85	5.85	6.10



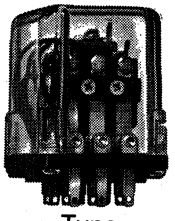
Type SKP

SERIES SKA OPEN TYPE 5 AMPS .110 QUICK CONNECT LUGS

	up to 2500Ω	5000Ω	10,000Ω	15,000Ω	20,000Ω
SKA-1 SPDT	$4.30	$4.45	$5.05	$5.05	$5.30
SKA-2 DPDT	4.85	5.00	5.55	5.55	5.85
SKA-3 3PDT	5.25	5.60	6.00	6.00	6.25
SKA-4 SPST-NO	4.25	4.40	5.00	5.00	5.25
SKA-5 DPST-NO	4.75	4.90	5.45	5.45	5.75
SKA-6 3PST-NO	5.10	5.45	5.85	5.85	6.10
SKA-7 SPST-NC	4.25	4.40	5.05	5.05	5.25
SKA-8 DPST-NC	4.75	4.90	5.45	5.45	5.75
SKA-9 3PST-NC	5.10	5.45	5.85	5.85	6.10

SERIES SKD OPEN TYPE 5 AMPS .187 QUICK CONNECT LUGS

	up to 2500Ω	5000Ω	10,000Ω	15,000Ω	20,000Ω
SKD-1 SPDT	$4.30	$4.45	$5.05	$5.05	$5.30
SKD-2 DPDT	4.85	5.00	5.55	5.55	5.85
SKD-3 3PDT	5.25	5.60	6.00	6.00	6.25
SKD-4 SPST-NO	4.25	4.40	5.00	5.00	5.25
SKD-5 DPST-NO	4.75	4.90	5.45	5.45	5.75
SKD-6 3PST-NO	5.10	5.45	5.85	5.85	6.10
SKD-7 SPST-NC	4.25	4.40	5.00	5.00	5.25
SKD-8 DPST-NC	4.75	4.90	5.45	5.45	5.75
SKD-9 3PST-NC	5.10	5.45	5.85	5.85	6.10



Type SKTR

SERIES SKP PLUG-IN PLASTIC HOUSING 5 AMPS

	up to 2500Ω	5000Ω	10,000Ω	15,000Ω	20,000Ω
SKP-1 SPDT	$6.90	$7.00	$7.40	$7.40	$7.65
SKP-2 DPDT	7.30	7.40	7.80	7.80	8.10
SKP-3 3PDT	8.75	8.90	9.40	9.40	9.65
SKP-4 SPST-NO	6.85	6.95	7.35	7.35	7.60
SKP-5 DPST-NO	7.20	7.30	7.70	7.70	8.00
SKP-6 3PST-NO	8.60	8.75	9.25	9.25	9.50
SKP-7 SPDT-NC	6.85	6.95	7.35	7.35	7.60
SKP-8 DPST-NC	7.20	7.30	7.70	7.70	8.00
SKP-9 3PST-NC	8.60	8.75	9.25	9.25	9.50

SERIES SKTR LOW COST PLATE CIRCUIT RELAYS

PLUG-IN TYPE

5 AMP. DC	Up to 2500Ω	5000Ω	10,000Ω	20,000Ω
SKTR1 SPDT	$5.30	$5.45	$6.05	$6.30
SKTR2 DPDT	5.85	6.00	6.55	6.85
SKTR3 3PDT	6.25	6.60	7.00	7.25

PRINTED CIRCUIT TYPE ENCLOSED

SKTE1 SPDT	$5.30	$5.45	$6.05	$6.30
SKTE2 DPDT	5.85	6.00	6.55	6.85
SKTE3 3PDT	6.25	6.60	7.00	7.25

Net

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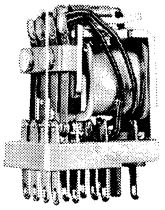
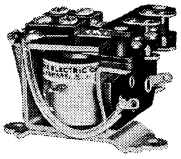
GENERAL PURPOSE RELAYS



MINIATURE 4-POLE RELAY (SERIES JA)

The series JA is a high quality, miniature 4PDT relay for AC or DC operation. The JA relay features nylon dust cover, gold flashed fine silver contacts rated at 3 amps. This imported relay features exceptional quality and rugged design to meet the most exacting requirements. It is excellent for computers, logic systems and data processing. Standard configuration features solder terminals and 3-48, 23/64" mounting stud. Can be used with our 92-79 solder lug socket or 92-80 P.C. socket (50c each)

	Voltage	Resistance	Nominal Power	Price
DC	6 VDC	40 OHMS	800 MW	$4.10
	12 VDC	160 OHMS	800 MW	4.10
	24 VDC	650 OHMS	800 MW	4.10
	48 VDC	2500 OHMS	800 MW	4.20
	90 VDC	10000 OHMS	800 MW	4.90
	110 VDC	10000 OHMS	800 MW	4.90
AC	6 VAC	10.5 OHMS	1.1 VA	$4.40
	12 VAC	43 OHMS	1.1 VA	4.40
	24 VAC	160 OHMS	1.1 VA	4.40
	115 VAC	3900 OHMS	1.1 VA	4.90



MEDIUM POWER RELAY OPEN TYPE (SERIES LR)

Open type, heavy-duty type relay designed for many applications. Standard fine silver contacts rated at 10 amperes, optional Silver Cadmium load contacts rated at 15 amps. Ambient temperature operating range, continuous duty: A.C., —45° to 55°C.; D.C., —45° to 75°C.

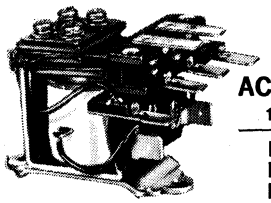
AC

10 amp contact rating		6, 12, 24, 115V	220V
LR1A	SPDT	$4.00	$4.20
LR2A	DPDT	4.85	5.05
LR12A	SPDT-DB(15A)	5.05	5.25

DC

10 amp contact rating		6, 12, 24V	110V
LR1D	SPDT	$3.80	$4.00
LR2D	DPDT	4.65	4.85
LR12D	SPDT-DB(15A)	5.85	5.05

DIMENSIONS: 2-3/8 × 1-1/2 × 1-21/32



NEW

MEDIUM POWER RELAY OPEN TYPE (SERIES LRT)

Same quality features of the LR series (above) but in a special configuration utilizing .250 quick connect terminals.

AC

10 amp contact rating		6, 12, 24, 115V	220V
LRT-1A	SPDT	$4.50	$4.70
LRT-2A	DPDT	5.35	5.55
LRT-12A	SPDT-DB	5.55	5.75

DC

10 amp contact rating		6, 12, 24V	110V
LRT-1D	SPDT	$4.30	$4.50
LRT-2D	DPDT	5.15	5.35
LRT-12D	SPDT-DB	5.35	5.55

MEDIUM POWER RELAY PLUG-IN TYPE (SERIES LRP)

This relay is available in either metal or plastic enclosures, equipped with a standard octal plug in header for single and double pole types. Eleven pin headers are also available. The standard LRP plastic enclosure is a clear C-11 Styrene, colors are available at no extra charge. Female sockets for 8 and 11 pin headers are also available.

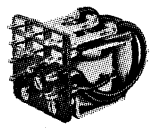
AC

10 amp contact rating		6, 12, 24, 115V	220V
LRP1A	SPDT	$7.00	$7.10
LRP2A	DPDT	8.20	8.50
LRP12A	SPDT-DB(15A)	8.80	9.00

DC

10 amp contact rating		6, 12, 24V	110V
LRP1D	SPDT	$6.80	$7.00
LRP2D	DPDT	8.00	8.40
LRP12D	SPDT-DB(15A)	8.70	8.80

DIMENSIONS: 3-1/4 × 1-15/16 × 1-15/16



HEAVY DUTY RELAY OPEN TYPE (SERIES LG)

Open type relay, specifically designed for extremely heavy-duty applications. Standard Fine Silver load contacts are rated at 15 amps. with optional Silver Cadmium Oxide contacts where larger inrush loads are encountered. Loads are rated at 115/60 non-inductive. All load contacts are factory gold-flashed to prevent contact oxidation prior to use.

AC

15 amp contact rating		6, 12, 24, 115V	220V
LG1A	SPDT	$4.30	$4.50
LG2A	DPDT	4.85	5.05
LG3A	3PDT	5.40	5.60

DC

15 amp contact rating		6, 12, 24V	110V
LG1D	SPDT	$4.20	$4.40
LG2D	DPDT	4.75	4.95
LG3D	3PDT	5.30	5.60

DIMENSIONS: 1-1/2 × 2-3/8 × 1-13/16

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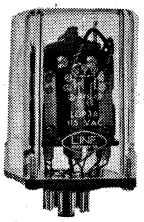
GENERAL PURPOSE RELAYS



HEAVY DUTY RELAY PLUG-IN TYPE (SERIES LGP)

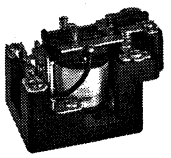
Plug-in type relay, with same quality features as above. Also available in either metal or clear bLC-11 Styrene enclosure. Ambient temperature operating range, continuous duty; A.C., —45° to 55°C.; D.C.,—45° to 75°C.

AC

10 amp contact rating	6, 12, 24, 115V	220V
LGP1A SPDT	$7.30	$7.50
LGP2A DPDT	7.85	8.05
LGP3A 3PDT	8.40	8.60

DC

10 amp contact rating	6, 12, 24V	110V
LGP1D SPDT	$7.20	$7.40
LGP2D DPDT	7.75	8.05
LGP3D 3PDT	8.40	8.60



HEAVY DUTY POWER RELAYS* (SERIES STA)

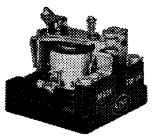
A 25 amp. power relay ideally suited for starting motors up to 1 hp, elevator controls, and many other applications which require high current or high voltage switching with maximum dependability. One piece molded base, sturdy two-hole mounting. Top removable coil.

Available with one or two auxiliary 5 ampere contacts.

*See new miniature power relay (series PF) on Pg. 7 of this listing.

	25 amp contact rating	6, 12, 24, 115V	220V
AC	STA2A DPDT	$6.55	$6.85
	STA3A (1. aux. con.)	8.55	8.85
	STA14A (2. aux. con.)	10.05	10.35
		6, 12, 24VDC	110VDC
DC	STA2D DPDT	$6.55	$6.85
	STA3D (1. aux. con.)	8.55	8.85
	STA14D (2. aux. con.)	10.05	10.35

DIMENSIONS: 2-1/2 × 2-15/16 × 3-3/8



HEAVY DUTY POWER RELAYS (SERIES STM)

Same quality features as Series ST, but assembled on a compact base. Available with one or two auxilliary 5 amp contacts.

AC

25 amp contact rating	6, 12, 24, 115V	220V
STM1A SPDT	$4.25	$4.75
STM4A SPST NO	3.90	4.40
STM5A DPST NO	4.65	5.15
STM7A SPST NC	3.90	4.40
STM10A SPST NO DB	4.15	4.65

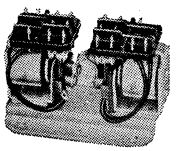
STMC AVAILABLE WITH 1 AUX. CON.
STMCC AVAILABLE WITH 2 AUX. CON.

DC

25 amp contact rating	6, 12, 24V	110V
STM1D SPDT	$4.25	$4.95
STM4D SPST NO	3.90	4.50
STM5D DPST NO	4.65	5.50
STM7D SPST NC	3.90	4.50
STM10D SPST NO DB	4.15	4.75

DIMENSIONS: 2-1/8 × 2-1/2 × 2-5/16

MECHANICAL LATCH RELAYS



OPEN TYPE (SERIES RL)

Open type for use where a sustained relay closure is required, and current drain of a relay coil is to be eliminated. Incorporates two coils, one to close load contacts, the other to reset them. Requires only momentary electrical contact to operate or release. Provides positive mechanical latch, eliminating chatter during sustained relay closure.

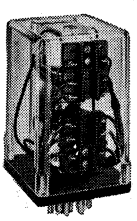
AC

5 amp contact rating	6, 12, 24, 115V	220V
RL1A SPDT	$7.15	$8.00
RL2A DPDT	8.25	9.00
RL3A 3PDT	9.15	9.95
RL14A 4PDT	10.45	11.30
RL15A 5PDT	11.45	12.30
RL16A 6PDT	12.55	13.35

DC

5 amp contact rating	6, 12, 24V	110V
RL1D SPDT	$6.50	$7.75
RL2D DPDT	7.50	8.75
RL3D 3PDT	8.50	9.75
RL14D 4PDT	9.50	10.75
RL15D 5PDT	10.50	11.75
RL16D 6PDT	11.50	12.75

Available in 10 amp contact rating. ASK FOR SERIES RLO DIMENSIONS: 2-11/16 × 1-3/4 × 1-3/4



PLUG-IN TYPE (SERIES RLP)

Plug-in type, same factory-tested quality features as above. Available in clear C-11 Styrene enclosure up to 5PDT.

AC

5 amp contact rating	6, 12, 24, 115V	220V
RLP1A SPDT	$9.40	$10.25
RLP2A DPDT	10.50	11.30
RLP3A 3PDT	14.75	15.60
RLP14A 4PDT	16.15	17.00
RLP15A 5PDT	17.25	18.00

DC

5 amp contact rating	6, 12, 24V	110V
RLP1D SPDT	$8.75	$10.05
RLP2D DPDT	9.85	11.15
RLP3D 3PDT	14.10	15.40
RLP14D 4PDT	15.55	16.80
RLP15D 5PDT	16.65	17.90

All models available 3PDT, 4PDT, 5PDT, and in 10 amp contact rating. ASK FOR SERIES RLH

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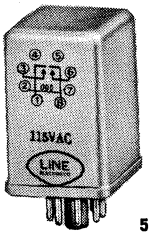
HERMETICALLY SEALED RELAYS



PLUG-IN TYPE (SERIES HKP)

The Series HKP relay incorporates the basic MK frame into hermetically sealed plug-in configuration. All units are thoroughly vacuum baked and out-gassed and back filled with nitrogen before sealing. The HK series will fit any standard octal based receptacle and is in the classification of a general purpose relay.

PLATE CIRCUIT RELAYS 5 Amp

	2500Ω	5000Ω	10,000Ω	20,000Ω
HKF1 SPDT	$8.90	$9.00	$9.40	$9.65
HKF2 DPDT	9.30	9.40	9.80	10.10
HKF3 3PDT	10.75	10.90	11.40	11.65

	5 amp contact rating	6, 12, 24, 115V	220V
AC	HKP1A SPDT	$8.45	$8.90
	HKP2A DPDT	9.05	9.45
	HKP3A 3PDT	10.50	10.95
		6, 12, 24V	110V
DC	HKP1D SPDT	$8.40	$8.85
	HKP2D DPDT	9.00	9.40
	HKP3D 3PDT	10.45	10.90

	10 amp contact rating	6, 12, 24,115V	220V
AC	HKH1A SPDT	$8.50	$8.95
	HKH2A DPDT	9.15	9.55
	HKH3A 3PDT	10.60	11.10
		6, 12, 24V	110V
DC	HKH1D SPDT	$8.45	$8.90
	HKH2D DPDT	9.10	9.50
	HKH3D 3PDT	10.60	10.95

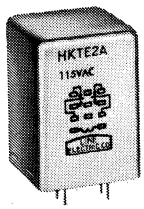
DIMENSIONS: 2-1/16 x 1-21/32 x 1-7/16

PLUG-IN TYPE. LOW COST

(Series HKTR. 5 AMP) (Series HKTRO. 10 AMP)

These relays are hermetically sealed counterparts of our MKTR relays (see page 3) but they are especially designed for use with our 92-67 socket. Low profile general purpose applications.

	5 amp contact rating	6, 12, 24, 115V	220V
AC	HKTR-1A SPDT	$ 8.45	$ 8.90
	HKTR-2A DPDT	9.05	9.45
	HKTR-3A 3PDT	10.50	10.95
	HKTR-4A SPST-NO	8.40	8.85
	HKTR-5A DPST-NO	8.95	9.35
	HKTR-6A 3PST-NO	8.10	10.80
	HKTR-7A SPST-NC	8.40	8.85
	HKTR-8A DPST-NC	8.95	9.35
	HKTR-9A 3PST-NC	8.10	10.80
	5 amp contact rating	6, 12, 24V	110V
DC	HKTR-1D SPDT	$ 8.40	$ 8.85
	HKTR-2D DPDT	9.00	9.40
	HKTR-3D 3PDT	10.45	10.90
	HKTR-4D SPST-NO	8.35	8.80
	HKTR-5D DPST-NO	8.90	9.30
	HKTR-6D 3PST-NO	10.30	10.75
	HKTR-7D SPST-NC	8.35	8.80
	HKTR-8D DPST-NC	8.90	9.30
	HKTR-9D 3PST-NC	10.45	10.75



	10 amp contact rating	6, 12, 24, 115V	220V
AC	HKTRO-1A SPDT	$ 8.50	$ 8.95
	HKTRO-2A DPDT	9.15	9.55
	HKTRO-3A 3PDT	10.60	11.10
	HKTRO-4A SPST-NO	8.45	8.90
	HKTRO-5A DPST-NO	9.05	9.45
	HKTRO-6A 3PST-NO	10.45	10.95
	HKTRO-7A SPST-NC	8.45	8.90
	HKTRO-8A DPST-NC	9.05	9.45
	HKTRO-9A 3PST-NC	10.45	10.95
	10 amp contact rating	6, 12, 24V	110V
DC	HKTRO-1D SPDT	$ 8.45	$ 8.90
	HKTRO-2D DPDT	9.10	9.50
	HKTRO-3D 3PDT	10.60	10.95
	HKTRO-4D SPST-NO	8.40	8.85
	HKTRO-5D DPST-NO	9.00	9.40
	HKTRO-6D 3PST-NO	10.45	10.80
	HKTRO-7D SPST-NC	8.40	8.85
	HKTRO-8D DPST-NC	9.00	9.40
	HKTRO-9D 3PST-NC	10.45	10.80

PRINTED CIRCUIT TYPE. LOW COST

(Series HKT. 5 AMP) (Series HKTO. 10 AMP)

The same construction as HKTR and HKTRO (on left) but especially designed for use on printed circuit boards, mounting by means of .030 diameter pins.

	5 amp contact rating	6, 12, 24, 115V	220V
AC	HKT-1A SPDT	$ 8.25	$ 8.65
	HKT-2A DPDT	9.95	9.35
	HKT-3A 3PDT	10.40	10.85
	HKT-4A SPST-NO	8.20	8.60
	HKT-5A DPST-NO	9.85	9.25
	HKT-6A 3PST-NO	10.25	10.70
	HKT-7A SPST-NC	8.20	8.60
	HKT-8A DPST-NC	9.85	9.25
	HKT-9A 3PST-NC	10.25	10.70
	5 amp contact rating	6, 12, 24V	110V
DC	HKT-1D SPDT	$ 8.20	$ 8.60
	HKT-2D DPDT	9.60	10.00
	HKT-3D 3PDT	10.10	10.50
	HKT-4D SPST-NO	8.15	8.55
	HKT-5D DPST-NO	9.50	9.90
	HKT-6D 3PST-NO	9.95	10.35
	HKT-7D SPST-NC	8.15	8.55
	HKT-8D DPST-NC	9.50	9.90
	HKT-9D 3PST-NC	9.95	10.35

	10 amp contact rating	6, 12, 24, 115V	220V
AC	HKTO-1A SPDT	$ 8.25	$ 8.65
	HKTO-2A DPDT	9.70	10.10
	HKTO-3A 3PDT	10.25	10.65
	HKTO-4A SPST-NO	8.20	8.60
	HKTO-5A DPST-NO	9.65	10.00
	HKTO-6A 3PST-NO	10.10	10.50
	HKTO-7A SPST-NC	8.20	8.60
	HKTO-8A DPST-NC	9.65	10.00
	HKTO-9A 3PST-NC	10.10	10.50
	10 amp contact rating	6, 12, 24V	110V
DC	HKTO-1D SPDT	$ 8.20	$ 8.60
	HKTO-2D DPDT	9.50	9.90
	HKTO-3D 3PDT	10.10	10.50
	HKTO-4D SPST-NO	8.15	8.55
	HKTO-5D DPST-NO	9.40	9.80
	HKTO-6D 3PST-NO	9.95	10.35
	HKTO-7D SPST-NC	8.15	8.55
	HKTO-8D DPST-NC	9.40	9.80
	HKTO-9D 3PST-NC	9.95	10.35

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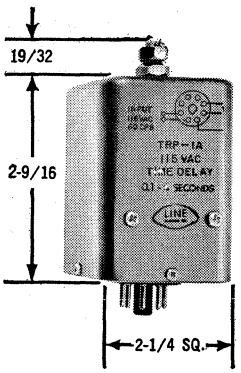
Net

LINE ELECTRIC COMPANY

RELAYS • BUZZERS • FOOT SWITCHES

TIME DELAY RELAYS



PLUG-IN TYPE (SERIES TRP)

The series TRP Time Delay Relay provides a pre-set delay between the closing of one set of contacts and the subsequent operation of a set of SPDT load contacts.

The series TRP initiates from a sustained switch closure to L1 and L2. The unit resets instantaneously when this circuit is opened; ready for another timing operation.

The series TRP is available in two operational options:

Type "A"—If sustained closure is interrupted during time cycle, unit will not reset. When closure is again made, timing will continue to give originally selected time delay.

Type "B"—If sustained closure is interrupted during time cycle, unit will instantaneously reset.

Information Required When Ordering
Time Cycle selected from chart.

$18.50 List

SPECIFICATIONS

Plug in only using standard 8 pin octal receptacle.

TIME CYCLES

Model	Minimum Setting	Maximum Setting
TRP-5	0.1 sec.	5 seconds
TRP-10	0.1 sec.	10 seconds
TRP-15	0.1 sec.	15 seconds
TRP-30	0.1 sec.	30 seconds
TRP-60	0.1 sec.	60 seconds

Note: Time Cycles exceeding 60 seconds available, contact factory for details.

Voltages 115/60 only.

Load Contacts SPDT rated at 5 amps., non-inductive — Note: 10 amps available, contact factory.

REED RELAYS — 3 STANDARD TYPES

In computer, data processing and guidance system development, design engineers are enthusiastically applying dry reed relays in place of switching diodes. The reasons: miniature profile—life expectancy exceeding 100,000,000 operations—less heat generated compared with switching diodes—3 millisecond operating time and very high resistance in the open contact stage.

To efficiently serve the growing demand for dry reed relays in these and other applications, Line Electric now stocks these 3 standard types for immediate delivery in prototype quantities.

Open Coil Type—Series FR

6 VDC & 12 VDC & 24 VDC. 6 Contact Arrangements

FR1-SPDT, $ 5.50 ea. FR4-SPST NO, $3.30 ea.
FR2-2PDT, $ 9.00 ea. FR5-2PST NO, $4.50 ea.
FR3-3PDT, $12.75 ea. FR6-3PST NO, $5.50 ea.

Plug-In Type—Series FRP

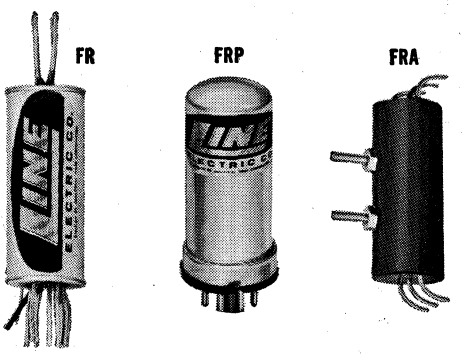
6 VDC & 12 VDC & 24 VDC. 6 Contact Arrangements

FRP1-SPDT, $ 8.50 ea. FRP4-SPST NO, $6.00 ea.
FRP2-2PDT, $12.00 ea. FRP5-2PST NO, $7.50 ea.
FRP3-3PDT, $16.00 ea. FRP6-3PST NO, $8.50 ea.

Lug Mount Type—Series FRA

6 VDC & 12 VDC & 24 VDC. 2 Contact Arrangements

FRA1-SPDT, $7.50 ea. FRA4-SPST NO, $4.50 ea.



SPECIFICATIONS

CONTACT RATING
10 volt-amperes resistive
3 watts D.C. resistive

MAXIMUM CURRENT
0.5 amperes

DIELECTRIC STRENGTH
250 volts
60 cps R.M.S.

MAXIMUM VOLTAGE
110 volts

LIFE EXPECTANCY
Rated load - - -
1 x 10^6 operations
Dry circuit - - -
100 x 10^6 operations

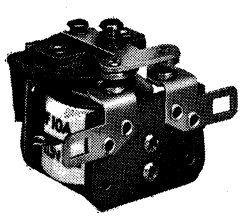
OPERATE TIME
3 milliseconds maximum, including bounce

CONTACT RESISTANCE
50 millohms

INSULATION RESISTANCE
1000 megohms minimum

RELEASE TIME
5 milliseconds maximum, including bounce

NEW MINIATURE POWER RELAY (SERIES PF)



The PF Series Relays are especially designed for applications where limited space is a factor. This relay, although small in size, is ideally suited for heavy duty industrial control applications where long life and fast action are a requirement. The PF Relay is supplied with ¼" quick connect terminals on the contacts for ease of installation. Other type terminals are available upon request. Consult factory for details.

CONTACTS

Material ¼" dia. silver cadmium oxide gold flashed.
Contact Terminals ¼" quick connect. Pierced for soldering.

COILS

Dielectric Strength 750 V.R.M.S.
Nominal Power D.C. relays - 1.1 watts avg.
A.C. relays - 2.5 volt amps avg.
Over-Voltage D.C. - 140% of nominal. A.C. - 125% of nominal.
Operate Time 15 milliseconds or less.
Weight 3 ounces
Temperature Range —40° C. to +50° C.
Coil Terminals Solder type.

25 amp. contact rating	6-12-24-115V	220V
AC PF10A SPST-NO-DB	$3.90	$4.30
DC PF10D SPST-NO-DB	3.70	4.30

Trade Discount Applies To List Prices Only
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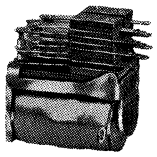
8 PAGE LISTING (8)

LINE ELECTRIC COMPANY

RELAYS • BUZZERS • FOOT SWITCHES

MINIATURE TELEPHONE RELAYS



(SERIES GT)

Fast acting miniature telephone type relay. Highly versatile, supplied in contact arrangements up to 6PDT, and in a variety of styles including open, dust cover, and hermetically sealed. Factory will supply enclosure details.

AC

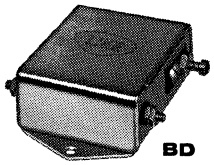
	6, 12, 24V	115V
GT1A SPDT	$5.55	$5.95
GT2A DPDT	6.50	6.75
GT3A 3PDT	7.00	7.45
GT14A 4PDT	7.40	7.85
GT15A 5PDT	8.10	8.50
GT16A 6PDT	8.80	9.30

DC

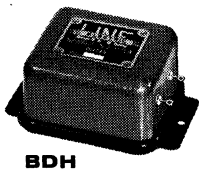
	6, 12, 24V	110V
GT1D SPDT	$3.55	$4.00
GT2D DPDT	4.50	4.75
GT3D 3PDT	5.00	5.45
GT14D 4PDT	5.40	5.85
GT15D 5PDT	6.10	6.50
GT16D 6PDT	6.80	7.30

DIMENSIONS: Max. 1-9/16 × 17/32 × 3/4

BUZZERS D.C. - A.C.



BD



BDH

VARIABLE SOUND AND PITCH D.C. - A.C.

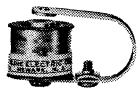
The series BD buzzers are designed for use in offices, plants, etc., where quality, good appearance and dependable operation is demanded. Three sizes of buzzers are available, each size varying in tone and volume of sound. However, the volume of sound and pitch of each size buzzer can be varied by means of double, locking adjustments. The three sizes of buzzers are equipped with phosphor bronze springs and pure hard-drawn silver contacts. They are bug and dust-proof with tight-fitting polished chrome covers.

Model No.	6-8VDC	12VDC	24VDC	48VDC
BD-0	$3.25	$3.50	$3.75	$5.25
BD-1	3.15	3.25	3.40	4.80
BD-2	3.25	3.50	3.75	5.20

(BD-0 Low tone, BD-1 Medium tone, BD-2 Loud tone)

Hermetic Seal				
BDH	8.50	9.00	9.50	10.00

DIMENSIONS: BD0—1-5/8 × 1-1/8 ×1-1/2
BD1—2-1/8 × 2 × 11/16
BD2—2-7/8 × 2-1/2 × 1
BDH—1-9/16 × 3-13/16 × 2-13/16



MD

MB

AC BUZZERS

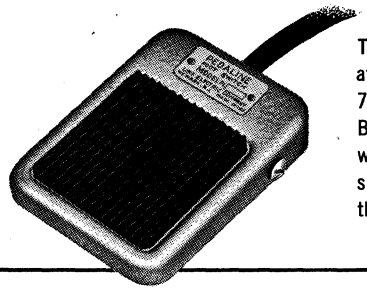
Available for 6, 12, 24, 115, 220, and 440 volts A.C. 60 cps operation, these buzzers are ideally suited for paging, warning, starting and dismissal signals. These buzzers are a non-contact type therefore suitable for continuous duty, providing a clear, penetrating signal.

MC

MA

	6, 12, 24, 115 VAC/60 cy	220VAC/60 cy
MA	$2.25	$2.80
MB	2.50	3.05
MC	3.15	3.70
MD	1.60	2.40
MCH Hermetic Seal	10.00	11.00

PEDALINE FOOT SWITCH



The Pedaline is a compact light weight foot operated switch. The single switch type weighs only 7 ounces; the double switch type 7½ ounces. Baked on light gray hammertone enamel finish with black foot pad. Available with a single pole snap action switch or two single pole double throw switches which operate in sequence.

#PL1 single switch only	$3.15
#PL-1C single switch w/line cord	$4.45
#PL5 double switch	$4.80
#PL-5C double switch w/line cord	$5.65

DIMENSIONS: 3-1/2 × 2-5/8 × 1

LINE ELECTRIC CO.

Division of Industrial Timer Corporation

IN CANADA: Sperry Gyroscope Ottawa Ltd.

© U.C.P., Inc.

MAGNECRAFT RELAYS

The *relays* you can *rely* on

400 different Relay Models

Immediate Delivery from STOCKING DISTRIBUTORS

Catalog 267, Page 1

MAGNECRAFT ELECTRIC CO.

All prices and specifications effective August 1, 1966 and subject to change without notice.

All prices are NET for 1 to 9 Relays except Mercury-Wetted Contact and Dry Reed Relay prices are NET for 1 to 24.

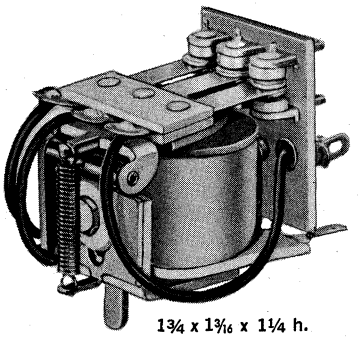
All contact ratings based on 115 VAC or 32 VDC, non-inductive load.

Voltage operated relays pull in at 85% of nominal voltage.

ORDER BY CATALOG NUMBER. Labels on MAGNECRAFT STOCK RELAY CARTONS carry Catalog Number, contact combination and rating; coil voltage or current.

All enclosed relays are identified by catolag number and wiring diagram.

NOTE. Order MAGNECRAFT STOCK RELAYS from STOCKING DISTRIBUTORS. Their stocks are supplemented by complete stocks maintained at the MAGNECRAFT plant in Chicago.



1¾ x 1⁹⁄₁₆ x 1¼ h.

Class 88

AC and DC Small, 10-amp. General Purpose Relay

Open Type Relay. Has 10 ampere silver alloy contacts. Tinned solder terminals, spaced for easy wiring. One #6-32 tapped mounting hole with locating boss. Weight 2 ounces.

The General Purpose Relay with Telephone Type Reliability

The MAGNECRAFT 88 Relay is an abrupt departure in clapper type relay design. Dimensionally interchangeable with relays made by others the 88 has been developed to **provide Telephone Type Relay reliability at general purpose relay prices.**

Unique in relays of this type MAGNECRAFT 88 Relays have **rugged, precision-built hinge-pin armature bearings** with oversize bearing surfaces—the same construction used in the finest telephone type relays for **lowest friction** and **maximum contact effectiveness** with **stabilized adjustment over long life.**

Glass insulation provides **great di-electric strength unaffected by humidity and temperature changes.**

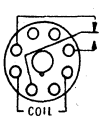
Molded Nylon bobbins with ruggedized coil terminal inserts **eliminate possibility of shorts.**

Built-in contact wipe with riveted contacts further **advance reliability through long life.**

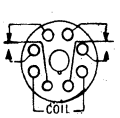
The many refinements, plus MAGNECRAFT Quality Control and Inspection Standards, **give you hidden values beyond price**—unseen values that keep making friends through years of dependable service.

When you inspect and compare you will soon see that many MAGNECRAFT 88 **extra values are not hidden.**

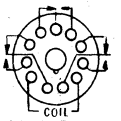
Wiring diagrams for Class 88 Plug-in Mounted Relay



WD-1 SPDT 8-pin

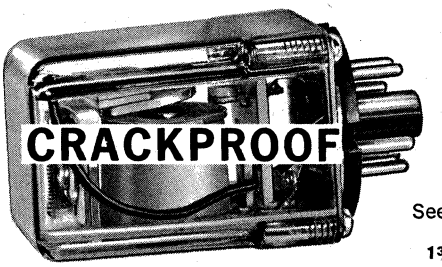


WD-2 DPDT, 8-pin



WD-3 3PDT, 11-pin

h* is overall dimension above socket **WD is abbreviation for Wiring Diagram**
†Voltage operated relays pull in at 85% of nominal voltage.



Class 88CP

AC and DC Small. Plug-in in Crackproof plastic cover

See wiring diagrams at lower left

1⅜ x 1⅛ x 2⅛ h*

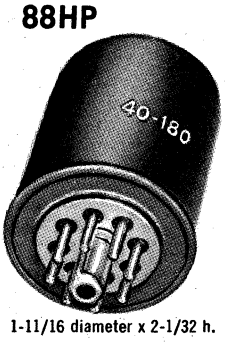
Enc. **40-279 CRACKPROOF,** clear as glass, tough as steel dust cover of polycarbonate resin housing **Class 88** relay with 8- or 11-pin standard octal plug. Silver alloy contacts, 10 amp. rating. Weight, 3 ounces.

contact arrangement	COIL †volt. or current	COIL res. ohms	COIL nominal power	10 ampere silver alloy contacts OPEN RELAY Stock Part No.	OPEN RELAY Price 1 to 9	with Enclosure 40-279 Stock Part No.	with Enclosure 40-279 Plug	with Enclosure 40-279 Price 1 to 9
alternating current voltage actuated								
SPDT WD-1	6VAC			W88AX1	3.45	W88ACPX1		5.56
	12VAC			W88AX2	3.45	W88ACPX2		5.56
	24VAC		3 VA	W88AX3	3.50	W88ACPX3	8-pin	5.61
	115VAC			W88AX4	3.66	W88ACPX4		5.79
	230VAC			W88AX34	4.12	W88ACPX76		6.31
DPDT WD-2	6VAC			W88AX5	4.07	W88ACPX5		6.24
	12VAC			W88AX6	4.07	W88ACPX6		6.24
	24VAC		3 VA	W88AX7	4.12	W88ACPX7	8-pin	6.29
	115VAC			W88AX8	4.27	W88ACPX8		6.44
	230VAC			W88AX32	4.74	W88ACPX32		6.99
3PDT WD-3	6VAC			W88AX9	4.56	W88ACPX9		7.66
	12VAC			W88AX10	4.56	W88ACPX10		7.66
	24VAC		3 VA	W88AX11	4.62	W88ACPX11	11-pin	7.81
	115VAC			W88AX12	4.77	W88ACPX12		7.97
	230VAC			W88AX36	5.26	W88ACPX39		8.51
direct current voltage actuated								
SPDT WD-1	6VDC	25		W88X2	3.20	W88CPX1		5.35
	12VDC	100		W88X3	3.20	W88CPX2		5.35
	24VDC	400	1.5W	W88X4	3.28	W88CPX3	8-pin	5.40
	110VDC	8000		W88X5	3.85	W88CPX4		5.95
DPDT WD-2	6VDC	25		W88X6	3.73	W88CPX5		5.85
	12VDC	100		W88X7	3.73	W88CPX6		5.85
	24VDC	400	1.5W	W88X8	3.79	W88CPX7	8-pin	5.95
	110VDC	8000		W88X9	4.36	W88CPX8		6.51
3PDT WD-3	6VDC	25		W88X10	4.17	W88CPX9		7.23
	12VDC	100		W88X11	4.17	W88CPX10		7.28
	24VDC	400	1.5W	W88X12	4.21	W88CPX11	11-pin	7.38
	110VDC	8000		W88X13	4.77	W88CPX12		7.95
DC current actuated for plate circuit operation								
SPDT WD-1	7.2 MA	2500		W88X14	3.75	W88CPX13		5.90
	5.0 MA	5000	125MW	W88X15	3.85	W88CPX14	8-pin	6.00
	3.6 MA	10000		W88X16	4.25	W88CPX15		6.40
DPDT WD-2	10 MA	2500		W88X17	4.01	W88CPX16		6.30
	7.2 MA	5000	250MW	W88X18	4.11	W88CPX17	8-pin	6.40
	5 MA	10000		W88X19	4.51	W88CPX18		6.80
3PDT WD-3	12.3 MA	2500		W88X20	4.44	W88CPX19		7.70
	8.7 MA	5000	375MW	W88X21	4.54	W88CPX20	11-pin	7.80
	6.1 MA	10000		W88X22	4.94	W88CPX21		8.20

Class 88HP—Hermetically Sealed Enclosure Plug-in Mounted—10 amps.—AC and DC

40-180 enclosure, hermetically sealed, housing Class **88** high reliability relay (see above) with standard 8-pin octal plug. Silver alloy contacts, 10-ampere rating. Weight 5 ounces.

88HP



1-11/16 diameter x 2-1/32 h.

Stock Part No.	contactcs 10 amps.	COIL †Volts	COIL Ohms	nom. power	Price 1 to 9
W88AHPX-21	DPDT	6VAC	—		8.59
W88AHPX-22	WD-2	12VAC	—	3VA	8.59
W88AHPX-23		24VAC	—		8.64
W88AHPX-24		115VAC	—		8.79
W88HPX-32		6VDC	25		8.19
W88HPX-33	DPDT	12VDC	100	1.5W	8.19
W88HPX-34	WD-2	24VDC	400		8.24
W88HPX-35		110VDC	8000		9.29
W88AHPX-36	3PDT	115VAC	—	3VA	10.60
W88HPX-51	WD-3	24VDC	400	1.5W	10.03

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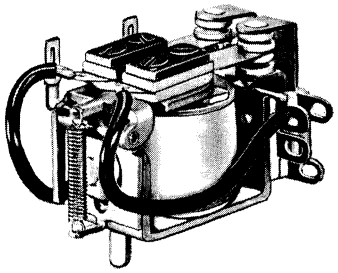
MAGNECRAFT RELAYS

Power, Latching and Coaxial

Small—Power—AC and DC—15 amps.

88R



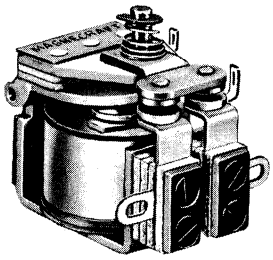
1⅞ x 1-15/32 x 1-5/32 high

Class **88R** extra quality, high reliability clapper type relay with 15 ampere heavy duty silver alloy contacts for industrial control applications. Has the exclusive quality features of Class 88 relays described on page one. Tinned solder terminals. One #6-32 tapped mounting hole and locating boss. Weight 3 ounces.

Stock Part No.	contacts 15 amps.	COIL †volts	COIL ohms	nominal power	Price 1 to 9
W88ARX1		6VAC	—		5.97
W88ARX2	DPDT	12VAC	—	3VA	5.97
W88ARX3		24VAC	—		6.02
W88ARX4		115VAC	—		6.17
W88RX1		6VDC	25		5.90
W88RX2	DPDT	12VDC	100	1.5W	5.90
W88RX3		24VDC	400		5.95
W88RX4		110VDC	8000		6.40

Power—AC and DC—50 amps.

88D



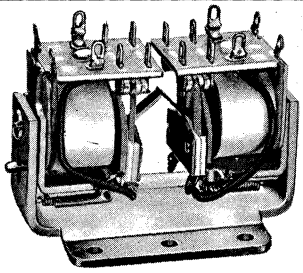
1-13/16 x 1¼ (less soldering tabs) x 1-7/16 high

The popular high reliability Class 88 Relay (see page 1) specially designed with 50-ampere SPST, Double Break, Normally Open contacts. Developed especially for switching heavy current in minimum space reliably and economically. Unique contact structure provides positive wiping action. One 6-32 tapped mounting hole and locating boss. Weight, 3 ounces.

Stock Part No.	contacts 50 amps.	COIL †volts	COIL ohms	nominal power	Price 1 to 9
W88ADX-1	50	24VAC	—		5.15
W88ADX-2	amperes	115VAC	—	3VA	5.25
W88ADX-3	SPST	230VAC	—		5.70
W88DX-1	double	6VDC	25		4.65
W88DX-2	break	12VDC	100	1.5W	4.65
W88DX-3	Normally	24VDC	400		4.70
W88DX-4	Open	110VDC	8000		5.94

Latch-in—AC and DC—Small

88L



2-11/16 max. x 1¾ x 1-15/16 high max.

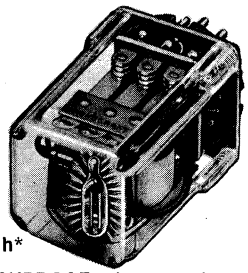
Two class 88 relays (see page 1) with interlocking latch-in levers mounted on a common base. Each armature latches when pulled in. Energizing one armature releases (rests) the other. Each relay is complete with independent operating coil. Contacts are silver alloy, 10 ampere rating. Relay coils are designed for continuous duty operation. Weight 6½ ounces.

Stock Part No.	contacts 10 amps.	COIL †volts	COIL ohms	nominal power	Price 1 to 9
W88ALX-2		6VAC	—		10.60
W88ALX-3	4PDT	24VAC	—	6VA	10.60
W88ALX-4		115VAC	—	prox.	10.60
W88ALX-5		6VAC	—		12.80
W88ALX-6	6PDT	24VAC	—	6VA	12.80
W88ALX-7		115VAC	—	prox.	12.80
W88LX-1		6VDC	12		9.65
W88LX-2	4PDT	12VDC	50		9.65
W88LX-3		24VDC	200	3W	9.65
W88LX-4		110VDC	4000		10.85
W88LX-5		6VDC	12		11.75
W88LX-6	6PDT	12VDC	50		11.75
W88LX-7		24VDC	200	3W	11.75
W88LX-8		110VDC	4000		12.95

Small—AC—10-amp.—plug-in relay with neon "ON" light

88ANCP

CRACKPROOF clear as glass tough as steel!



1⅜ x 1⅜ x 2⅛ h*

Enc. 40-279 CRACKPROOF, clear as glass, tough as steel dust cover of polycarbonate resin with 8- or 11-pin standard octal plug housing Class 88 high reliability relay (see page 1) with built-in neon circuit indicator light. Indicator light comes on when coil is energized.

- Eliminates need for expensive pilot lamp assemblies
- Circuit condition can be seen at a glance
- Saves panel space

Silver alloy contacts, 10 ampere rating. Weight, 3 ounces.

Stock Part No.	contacts 10 amps.	wiring diagrams	†volt. AC	nominal power	Price 1 to 9
W88ANCPX-1	SPDT	WD-1*	115		6.64
W88ANCPX-2	DPDT	WD-2*	115	3VA	7.29
W88ANCPX-3	3PDT	WD-3*	115		8.81

*See page 1.

†Voltage operated relays pull in at 85% of nominal voltage at 25°C.

Class 128 Coaxial Relays for RF Switching

Small compact relay combining a heavy duty coaxial cavity and the MAGNECRAFT 88 Relay structure described on page one.

The precision-built, hinge-pin type armature bearings of the Class 88 assure consistent pull-in power with maximum reliability over long life.

The coaxial contact structure is enclosed in a heavy duty precision machined brass cavity with removable plug for convenient inspection of contacts.

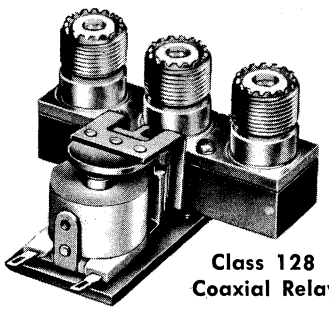
SPDT RF switching contacts are silver cadmium oxide, gold flashed, conservatively rated 100 watts of RF power; impedance matched to 50 ohm cable using standard type UHF connectors. VSWR 1.25: 1 maximum from 0 to 500 megacycles.

Operate time, 25 ms maximum

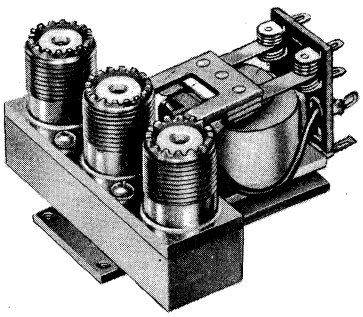
Release time, 25 ms maximum

Overall dimensions. 2⅝ x 2⅞ x 1 7/16

Stock Part No.	Coaxial Contacts	COIL †Volts	COIL Ohms	Price 1 to 9
	Class 128 Relay			
W128AX-7	SPDT	115 VAC		18.47
W128X-9	SPDT	12 VDC	100	18.13
W128X-10	SPDT	24 VDC	400	18.20
	Class 128 Relay with DPDT Auxiliary Contacts			
W128AX-11	SPDT	115 VAC		20.85
W128X-14	SPDT	12 VDC	100	20.02
W128X-15	SPDT	24 VDC	400	20.08



Class 128 Coaxial Relay



Class 128 Coaxial Relay with DPDT Auxiliary Contacts.

For Low Capacitance RF Switching Relay see Class 33F, page 4.

Send for complete 50-page Engineering Catalog

MAGNECRAFT ELECTRIC CO.

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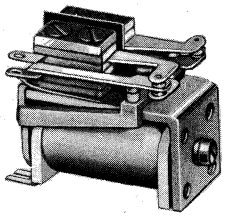
Telephone Type

MAGNECRAFT RELAYS

Catalog 267, Page 3

Sub-miniature—DC—3 amps.

33



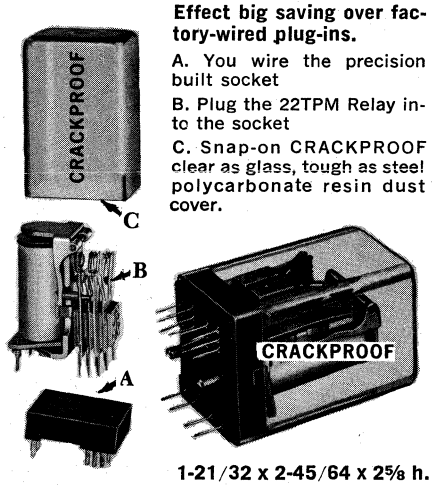
1-11/32 x 11/16 x 1¾ h. max.

Class **33** midget sub-miniature; the smallest telephone type MAGNECRAFT Relay and one of the smallest telephone type relays on the market. Class 33 is also the fastest operating and inherently more shock resistant and vibration resistant. Long life, reliability and accuracy fit Class 33 relays for a wide range of small space requirements. They are extensively used for aircraft, computer and mobile applications where small size, light weight and resistance to shock and vibration are essential.

Palladium contacts; 3 ampere rating. Four 4-40 tapped mounting holes on ⅜ x ⅜ centers. Weight 1 ounce.

Stock Part No.	contacts 3 amps.	COIL—DC †Volts	ohms	nominal power	Price 1 to 9
W33X237	**DPDT**	6VDC	17	2.0W	4.87
W33X238		12VDC	75		4.87
W33X239		24VDC	280		4.92
W33X240		110VDC	6500		5.50
W33X241	**4DPT**	6VDC	17	2.0W	6.58
W33X242		12VDC	75		6.58
W33X243		24VDC	280		6.63
W33X244		110VDC	6500		7.23

22TPM Direct Plug-in Assemblies with Twin Contacts Snap-on Cover



Effect big saving over factory-wired plug-ins.

A. You wire the precision built socket

B. Plug the 22TPM Relay into the socket

C. Snap-on CRACKPROOF clear as glass, tough as steel polycarbonate resin dust cover.

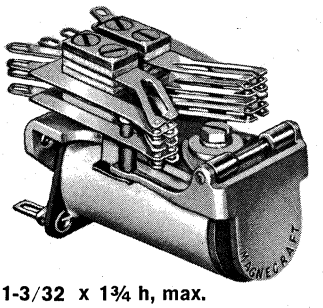
1-21/32 x 2-45/64 x 2⅝ h.

Class **22TPM** direct plug-in assemblies give you all the plug-in advantages with savings, compactness and convenience not obtainable with factory-wired plug-ins. These stock assemblies have twin palladium contacts rated 4 amps at 115 VAC or 32 VDC non-inductive load. Part Numbers and prices include complete assembly—socket with screws, 22TPM Relay and snap-on dust cover.

Stock Part No.	contacts 4 amps.	COIL †Volts	ohms	nominal power	Price 1 to 9
W22ATPMX-1	**DPDT**	115VAC	—	5VA	8.35
W22ATPMX-2	**4DPT**	115VAC	—		11.52
W22TPMX-1	**DPDT**	24VDC	500	1.5W	8.10
W22TPMX-2	**4PDT**	24VDC	500		10.87

Small—AC and DC—Twin Contacts

22T



2-1/16 x 1-3/32 x 1¾ h, max.

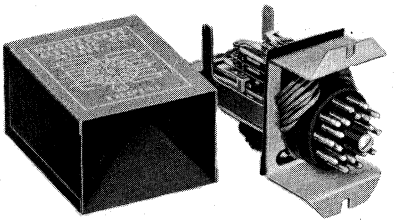
Class **22T**—miniature long form relay with accuracy reliability and long life equal and sometimes superior to larger relays. A unique, pin type armature hinge of heavy duty design and precision construction assures stabilized adjustment through millions of operations. Twin Palladium contacts with long, flexible bifurcated contact springs assure the ultimate in switching reliability.

Twin Palladium contacts, 4 ampere rating. All mounting and wiring at heel end. Tinned solder terminals with easy-to-wire spacing. Two #6-32 tapped mounting holes on ¾ centers. Weight, 5 ounces.

Stock Part No.	contacts 4 amps.	COIL V or C	ohms	nominal power	Price 1 to 9
alternating current voltage actuated					
W22ATX12	**DPDT**	115VAC		5VA	5.94
direct current voltage actuated					
W22TX267	**4PDT**	6VDC	20	2.0W	8.44
W22TX268		12VDC	80	2.0W	8.44
W22TX269		24VDC	375	1.5W	8.49
W22TX270		110VDC	8000	1.5W	9.97
W22TX271	**6PDT**	6VDC	12	3.0W	11.87
W22TX272		12VDC	50		11.87
W22TX273		24VDC	250		11.92
W22TX274		110VDC	5000		12.91
DC current actuated for plate circuit operation					
W22TX276	**SPDT**	4.5 MA	5000	100MW	5.91
W22TX277		6.0 MA	2700		5.24
W22TX278		3.2 MA	10000		6.18
W22TX275	**DPDT**	4.5 MA	10000	200MW	6.93

Small—DC—Plug-in with removable dust cover

22CP



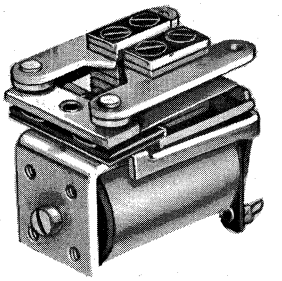
1-9/16 x 2-11/16 x 3-13/32 h*

45-176 removable dust cover with Class 22 relay and 20-pin octal plug. Hold-down bracket permits mounting in any position. Internal bracket supports cover. One screw holds cover. Rubber gasket seals out dust. Silver alloy contacts, 5 ampere rating. Hold down bracket has two mounting holes for 6-32 screws on 2²¹⁄₃₂ centers. Weight, 8 ounces.

Stock Part No.	contacts 5 amps.	COIL †volts	ohms	nominal power	Price 1 to 9
W22CPX61	**6PDT** WD-7	6VDC	12	3.0W	16.72
W22CPX62		12VDC	50		16.72
W22CPX63		24VDC	225		16.77
W22CPX64		110VDC	5000		17.35

Miniature Power—DC 50 amps.—SPST-NO-DB

11D



1⅝ x 15/16 x 1-7/16 h.

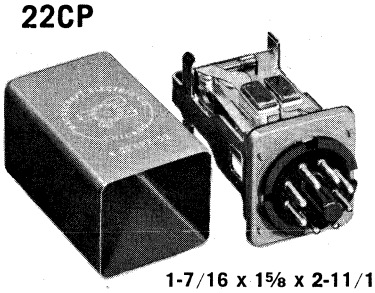
Class **11D** miniature telephone type relay with heavy brass contact arms and large 50-ampere silver alloy, single pole, single throw, normally open, double break contacts. The Class 11 is a small size relay with big relay reliability accuracy and long life.

Solder terminals, spaced for easy wiring. Four 4-40 tapped mounting holes on ⅜ x 7/16 centers. Weight, 3 ounces.

Stock Part No.	contacts 50 amps.	COIL †Volts	ohms	nominal power	Price 1 to 9
W11DX38	**SPST-NO** double break	6VDC	25	1.5W	5.39
W11DX39		12VDC	100		5.45
W11DX40		24VDC	400		5.45
W11DX41		110VDC	9000		6.08

Small—AC and DC—Plug-in with removable dust cover

22CP



1-7/16 x 1⅝ x 2-11/16 h*

40-284 enclosure with removable dust cover housing Class 22 relay with 8- or 11-pin standard octal plug. Internal bracket supports cover and protects relay. One screw holds cover in place. Silver alloy contacts, 5 ampere rating. Weight, 6 ounces.

Stock Part No.	contacts 5 amps.	COIL †volts	ohms	nominal power	Price 1 to 9
alternating current voltage actuated					
W22CPX60	**DPDT** WD-5	115VAC		5VA	10.23
direct current voltage actuated					
W22CPX44	**SPDT** WD-4	6VDC	20	2.0W	8.73
W22CPX45		12VDC	80	2.0W	8.73
W22CPX46		24VDC	375	1.5W	8.78
W22CPX47		110VDC	8000	1.5W	10.02
W22CPX48	**DPDT** WD-5	6VDC	20	2.0W	9.85
W22CPX49		12VDC	80	2.0W	9.85
W22CPX50		24VDC	375	1.5W	9.90
W22CPX51		110VDC	8000	1.5W	11.14
W22CPX52	**3DPT** WD-6	6VDC	20	2.0W	11.87
W22CPX53		12VDC	80	2.0W	11.87
W22CPX54		24VDC	375	1.5W	11.92
W22CPX55		110VDC	8000	1.5W	13.16
W22CPX57	**SPDT** WD-4	4.5 MA	5000	100MW	9.36
W22CPX58		4.5 MA	2700		9.02
W22CPX59		3.2 MA	10000		10.02
W22CPX56	**DPDT** WD-5	4.5 MA	10000	200MW	11.14

h* is overall dimension above socket

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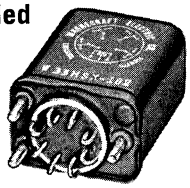
MAGNECRAFT RELAYS

Hermetically Sealed

Hermetically Sealed Sub-miniature DC—5 amps.



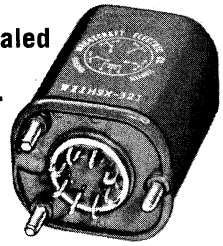
33HS

31/32 x 1-11/32 x 1-41/64 h*

40-157 enclosure, hermetically sealed, housing Class 33 miniature relay with 8- or 14-pin high compression, glass insulated, solder terminal header. Silver alloy contacts, 5-ampere rating. Three 4-40 tapped mounting holes on ½ x1 centers. Weight, 3 ounces.

Stock Part No.	contacts 5 amps.	COIL—DC †Volts	ohms	nominal power	Price 1 to 9
W33HSX177		6VDC	17		13.21
W33HSX178	DPDT	12VDC	280	2.0W	13.21
W33HSX179	WD-8	24VDC	280		13.26
W33HSX180		110VDC	6500		13.87
W33HSX181		6VDC	17		16.65
W33HSX182	4PDT	12VDC	75	2.0W	16.65
W33HSX183	WD-9	24VDC	280		17.70
W33HSX184		110VDC	6500		17.36

Hermetically Sealed Miniature DC—5 amps.



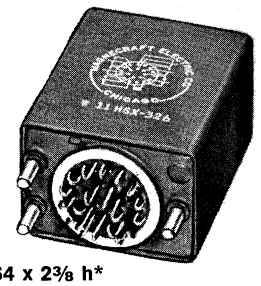
11HS

1⅝ x 1¾ x 2-1/16 h*

40-102 enclosure, hermetically sealed, housing Class 11 miniature relay with 14-pin high compression, glass insulated solder terminal header. Silver alloy contacts, 5 ampere rating. Three #6-32 NC-2 threaded mounting studs on 1⅜ x 1⅜ centers. Weight, 6 ounces.

Stock Part No.	contacts 5 amps.	COIL—DC †V or C.	ohms	nominal power	Price 1 to 9
W11HSX321		6VDC	25		15.92
W11HSX322	4PDT	12VDC	100	1.5W	15.97
W11HSX323	WD-9	24VDC	400		15.97
W11HSX324		110VDC	9000		17.06
DC current actuated for plate circuit operation					
W11HSX325	DPDT WD-8	5 MA	10000	250MW	13.70

Hermetically Sealed Miniature DC 5 amps.

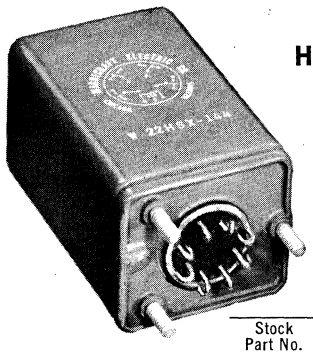


11HS

1-15/64 x 1-47/64 x 2⅜ h*

40-188 enclosure, hermetically sealed, housing. Class 11 miniature relay with 20-pin high compression glass insulated solder terminal header. Silver alloy contacts, 5 ampere rating. Three #6-32 NC-2 threaded mounting studs on ½ x 1 13/32 centers. Weight, 6 ounces.

Stock Part No.	contacts 5 amps.	COIL—DC †volts	ohms	nominal power	Price 1 to 9
W11HSX326		6VDC	13		19.91
W11HSX327	6PDT	12VDC	56	2.5W	19.91
W11HSX328	WD-10	24VDC	280		19.96
W11HSX329		110VDC	5000		20.18



Hermetically Sealed—small—AC and DC—5 amps.

22HS

1-7/16 x 1⅝ x 2-11/16 h*

40-158 enclosure, hermetically sealed, housing Class 22 relay with 14-pin glass insulated solder terminal header. Silver alloy contacts, 5 ampere rating. Three #6-32 threaded mounting studs on 1⅜ x 1⅜ centers. Weight, 7 ounces.

Stock Part No.	contacts 5 amps.	COIL †volts	ohms	nominal power	Price 1 to 9
alternating current voltage actuated					
W22AHSX32	4PDT WD-9	115VAC	500	5VA	17.30
direct current voltage actuated					
W22HSX144		6VDC	20	2.0W	17.00
W22HSX145	4PDT	12VDC	80	2.0W	17.00
W22HSX146	WD-9	24VDC	375	1.5W	17.05
W22HSX147		110VDC	8000	1.5W	18.03

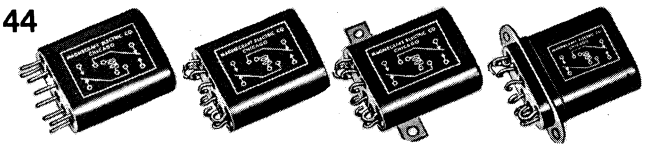
Micro-Miniature Rotary Relays

MAGNECRAFT Class 44 Rotary Relays have been developed to provide increased reliability in the crystal can size. Here are a few of many areas in which improvement has been made:

1. Frame and header assembly of rugged bridge-type construction—assures greatly increased resistance to distortion from shock, vibration and temperature—to military specifications.
2. Balanced armature—minimizes the effect of gravity, shock and vibration on operating reliability.
3. Hinge design—oversize, instrument type bearings at BOTH ends.
   a. Minimizes friction for increased sensitivity and greater contact pressure.
   b. Increases operating reliability and life.
4. The finest development in high temperature insulation.
5. Hermetically sealed in inert gas for maximum protection against severe ambient conditions.

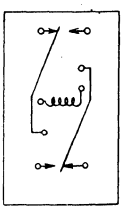
Contact combination: Double Pole, Double Throw
Contact rating: 2 amperes at 28 VDC or 115 VAC, non-inductive.
Operate Time: 5 milliseconds maximum with nominal voltage.
Release Time: 5 milliseconds maximum.

44



Enc. 40-227 plug-in header no bracket | Enc. 40-222 solder terminals no bracket | Enc. 40-224 soder terminals side bracket | Enc. 40-234 solder terminals flange bracket

Case Dimensions .875 x .797 x .359



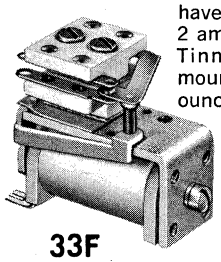
Standard Contact Arrangement

COIL—DC volts	ohms	nomi. power	Stock Part No.	Price 1 to 9	Stock Part No.	Price 1 to 9
			Enc. 40-227		Enc. 40-222	
6.5	34		W44HPX-34	17.60	W44HSX-103	17.60
11	92		W44HPX-35	17.60	W44HSX-104	17.60
26.5	552	1.2W	W44HPX-36	17.60	W44HSX-105	17.60
38.5	1278		W44HPX-37	18.00	W44HSX-106	18.00
76	5000		W44HPX-38	19.90	W44HSX-107	19.90
			Enc. 40-224		Enc. 40-234	
6.5	34		W44HSX-108	17.95	W44HSX-113	17.95
11	92		W44HSX-109	17.95	W44HSX-114	17.95
26.5	552	1.2W	W44HSX-110	17.95	W44HSX-115	17.95
38.5	1278		W44HSX-111	18.35	W44HSX-116	18.35
76	5000		W44HSX-112	20.25	W44HSX-117	20.25

Class 33F, RF Switching, Subminiature

Class **33** telephone type relay designed especially for lowest capacitance between springs and minimum losses at high frequencies. Suitable for antenna change-over switching. Contact springs have ceramic insulation. Contacts are Palladium, 2 ampere rating.

Tinned solder terminals. Four #4-40 tapped mounting holes on ⅜ x ⅜ centers. Weight, 1 ounce. 1 11/32 l, 11/16 w, 1¼ h.

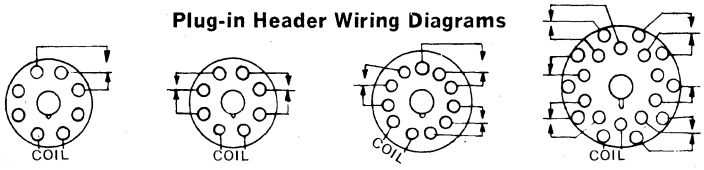


33F

Stock Part No.	contacts 2 amps.	COIL—DC †volts	ohms	nominal power	Price 1 to 9
W33FX20		6VDC	28		4.06
W33FX21	SPDT	12VDC	100	1.5W	4.11
W33FX22		24VDC	500		4.16
W33FX23		110VDC	6500		4.69

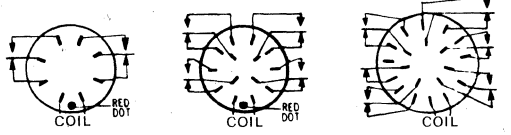
h* is dimension above mounting base. WD is abbreviation for Wiring Diagram
†Voltage operated relays pull in at 85% of nominal voltage.

Plug-in Header Wiring Diagrams



WD-4, SPDT, 8-pin | WD-5 DPDT, 8-pin | WD-6 3PDT, 11-pin | WD-7 6PDT, 20-pin

Solder Terminal Header Wiring Diagrams



WD-8 DPDT, 8-hook | WD-9 4PDT, 14-hook | WD-10 6PDT, 20-hook

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Series 101, Form A Miniature Reed — MAGNECRAFT RELAYS

Catalog 267, Page 5

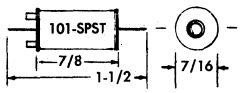
101 SPST-NO, Miniature

Open type miniature dry reed relay with solder terminals.

Nom. Power, 600MW
weight, 1 oz.

Operate, 1 ms. aver. Release, ½ ms. aver.
Contact Bounce, less than ½ ms. aver.
Contact Load Rating, 12VA at .25 amp. max. or 100VAC max., non-inductive.
Contact Resistance, 150 milliohms aver.
Life Expectancy, 5 million cycles at full load; 20 million at ½ load.
Capacitance across contacts, 0.3 pf. aver.
Operates in any position.

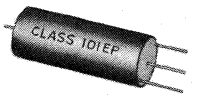
Stock Part No.	Contacts	COIL—DC MA	†Volts	Ohms	Price 1 to 24
W101X-1	SPST-NO	—	6V	100	3.29
W101X-2		—	12V	250	3.29
W101X-3		—	24V	500	3.85
W101X-4		9MA	—	2500	4.25



101EP SPST-NO, Miniature

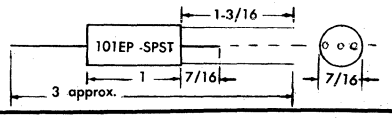
Encapsulated dry reed relay with axial leads.

Nominal Power, 600MW
Weight, 1 oz.



Operate, 1 ms. aver. Release, ½ ms. aver.
Contact Bounce, less than ½ ms. aver.
Contact Load Rating, 12VA at .25 amp. max. or 100VAC max., non-inductive.
Contact Resistance, 150 milliohms aver.
Life Expectancy, 5 million cycles at full load; 20 million at ½ load.
Capacitance across contacts, 0.5 pf. aver.
Operates in any position.

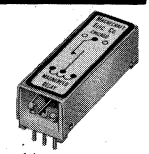
Stock Part No.	Contacts	COIL—DC MA	†Volts	Ohms	Price 1 to 24
W101EPX-5	SPST-NO	—	6V	65	3.62
W101EPX-6		—	12V	225	3.62
W101EPX-7		—	24V	1000	4.24
W101EPX-8		8MA	—	5000	4.68



101MPC SPST-NO, Miniature

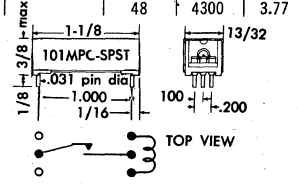
MPC high reliability Printed Circuit Construction described on page 6

Nom. Power, 500MW
Weight, 1 oz.

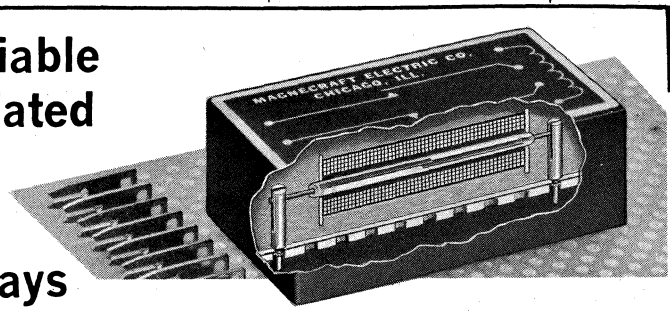


Operate, 1 ms. aver. Release, ½ ms. aver.
Contact Bounce, less than ½ ms. aver.
Contact Load Rating, 12VA at .25 amp. max. or 100VAC max., non-inductive.
Contact Resistance, 150 milliohms aver.
Life Expectancy, 5 million cycles at full load; 20 million at ½ load.
Capacitance across contacts, 0.8 pf. aver.
Operates in any position.

Stock Part No.	Contacts	COIL—DC †Volts	Ohms	Price 1 to 24
W101MPCX-1	SPST-NO	6	70	3.60
W101MPCX-2		12	300	3.60
W101MPCX-3		24	1100	3.63
W101MPCX-4		48	4300	3.77



Ultra-Reliable Encapsulated Printed Circuit Reed Relays



1. Reed contact leads are soldered stress-free to rugged terminal posts.
2. Terminal posts extend through the terminal board as printed circuit pins.
3. The complete assembly is encapsulated, which provides:

a. Mechanical protection for the glass capsule, contact leads and coil.
b. Full protection against tampering and contaminating atmosphere.
c. Rigid positioning of terminal supports and printed circuit pins; stresses on circuit pins cannot transmit to the reed contact leads and affect relay adjustment.

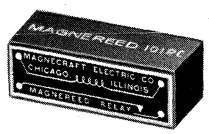
The package illustrated is a Class 102PC, DPST-NO Standard Size Relay (page 7) cut away to show typical assembly of one reed.

Construction of miniature encapsulated printed circuit reed relays (pages 5 and 6) is similar to the standard size.

101PC SPST-NO, Miniature

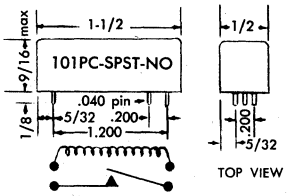
Ultra-reliable encapsulated printed circuit construction described above.

Nom. Power 600MW
Weight, 1 oz.



Operate, 1 ms. aver. Release, ½ ms. aver.
Contact Bounce, less than ½ ms. aver.
Contact Load Rating, 12VA at .25 amp. max. or 100VAC max., non-inductive.
Contact Resistance, 150 milliohms aver.
Life Expectancy, 5 million cycles at full load; 20 million at ½ load.
Capacitance across contacts, 0.8 pf. aver.
Operates in any position.

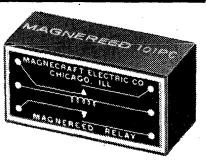
Stock Part No.	Contacts	COIL—DC MA	†Volts	Ohms	Price 1 to 24
W101PCX-5	SPST-NO	—	6V	65	5.11
W101PCX-6		—	12V	250	5.16
W101PCX-7		—	24V	1000	5.26
W101PCX-8		8MA	—	5000	5.68



101PC DPST-NO, Miniature

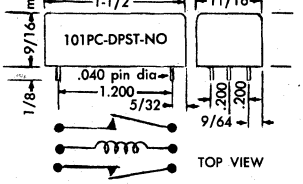
Ultra-reliable encapsulated printed circuit construction described above.

Nom. Power, 900MW
Weight, 2 oz.



Operate, 1 ms. aver. Release, ½ ms. aver.
Contact Bounce, less than ½ ms. aver.
Contact Load Rating, 12VA at .25 amp. max. or 100VAC max., non-inductive.
Contact Resistance, 150 milllohms aver.
Life Expectancy, 5 million cycles at full load; 20 million at ½ load.
Capacitance across contacts, 1.0 pf aver.
Operates in any position.

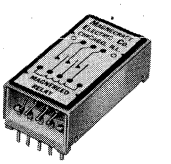
Stock Part No.	Contacts	COIL—DC MA	†Volts	Ohms	Price 1 to 24
W101PCX-9	DPST-NO	—	6V	40	7.15
W101PCX-10		—	12V	150	7.18
W101PCX-11		—	24V	650	7.24
W101PCX-12		8MA	—	5000	7.69



101MPC 3PST-NO, Miniature

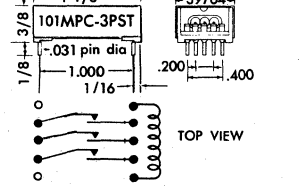
MPC high reliability Printed Circuit Construction described on page 6

Nom. Power, 700MW
Weight, 1 oz.



Operate, 1 ms. aver. Release, ½ ms. aver.
Contact Bounce, less than ½ ms. aver.
Contact Load Rating, 12VA at .25 amp. max. or 100VAC max., non-inductive.
Contact Resistance, 150 milliohms aver.
Life Expectancy, 5 million cycles at full load; 20 million at ½ load.
Capacitance across contacts, 1.0 pf. aver.
Operates in any position.

Stock Part No.	Contacts	COIL—DC †Volts	Ohms	Price 1 to 24
W101MPCX-5	3PST-NO	6	50	6.75
W101MPCX-6		12	220	6.75
W101MPCX-7		24	850	6.77
W101MPCX-8		48	3300	6.85



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MAGNECRAFT RELAYS

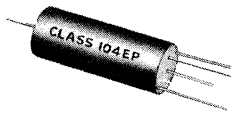
Series 104, Form C Miniature Reed

Catalog 267, Page 6

104EP SPDT, Miniature—Encapsulated with Axial Leads

Encapsulated dry reed relay with axial leads.

Nominal Power, 600MW
Weight, 1 oz.



SPDT, true form C, no biasing magnet.

Operate, 1 ms. aver. Release, 1 ms. aver.

Contact Bounce, less than ½ ms. aver. N.O. contacts; less than 2 ms. aver. N.C. contacts.

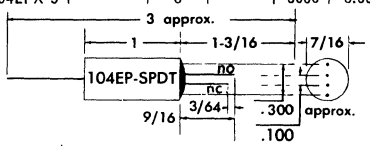
Contact Load Rating, 3VA max. at .25 amp. max. or 28 V max., non-inductive.

Contact Resistance, 150 milliohms, aver.

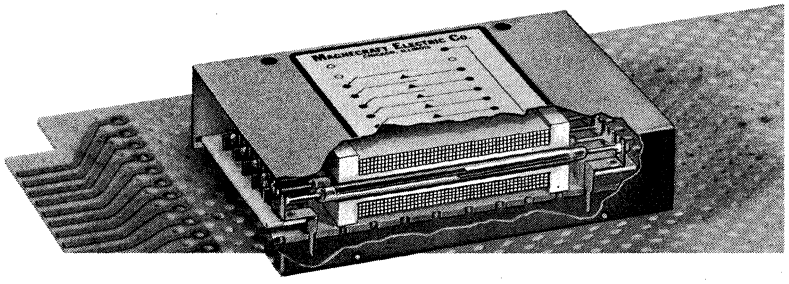
Capacitance across contacts, 1.5 pf. aver.

Life Expectancy, 10 million cycles at full load. Operating position, any.

Stock Part No.	Contacts	COIL—DC MA	†Volts	Ohms	Price 1 to 24
W104EPX-2	SPDT	—	6	65	7.37
W104EPX-3		—	12	225	7.37
W104EPX-4		—	24	1000	8.05
W104EPX-5		8	—	5000	8.55



MPC—The Low Profile Printed Circuit Reed Relay Package that combines High Reliability and Low Cost



1. Reed Relay contacts are hermetically sealed with inert gas in glass capsule; completely protected from contamination and tampering.

2. Contact leads are soldered (or welded) stress-free to rigidly positioned terminal supports.

3. The combination circuit board pins and terminal supports are securely fastened to terminal board; stresses on circuit board pins cannot transmit to contact leads and affect relay adjustment.

4. Integrally molded Nylon bobbin and mounting base combine electrical insulation and mechanical protection for the glass capsule.

5. Snap-on steel cover adds mechanical protection and magnetic shielding.

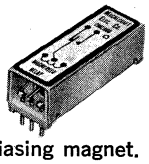
The package illustrated is a Class 102MPC 6PST-NO Standard Size Relay (page 7) cut away to show typical assembly of one reed.

Construction of miniature MPC packages (pages 5 and 6) and sub-miniature MPC packages (page 9) is similar in principle to the standard size MPC package illustrated.

104MPC SPDT, Miniature

MPC high reliability Printed Circuit Construction described at left.

Nom. Power, 500MW
Weight, 1 oz.



SPDT, true form C, no biasing magnet.

Operate, 1 ms. aver. Release, 1 ms. aver.

Contact Bounce, less than ½ ms. aver. N.O. contacts; less than 2 ms. aver. N.C. contacts.

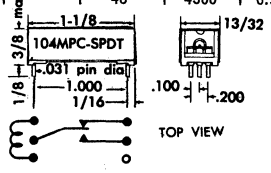
Contact Load Rating, 3 VA max. at .25 amp. max. or 28V max., non-inductive.

Contact Resistance, 150 milliohms, aver.

Capacitance across contacts, 1.5 pf. aver.

Life Expectancy, 10 million cycles at full load. Operating position, any.

Stock Part No.	Contacts	COIL—DC †Volts	Ohms	Price 1 to 24
W104MPCX-1	SPDT	6	70	6.82
W104MPCX-2		12	300	6.83
W104MPCX-3		24	1100	6.85
W104MPCX-4		48	4300	6.98



104PC SPDT, Miniature

Ultra-Reliable encapsulated printed circuit construction described on page 5.

Nom. Power 600MW
Weight, 1 oz.

SPDT, true form C, no biasing magnet.

Operate, 1 ms. aver. Release, 1 ms. aver.

Contact Bounce, less than ½ ms. aver. N.O. contacts; less than 2 ms. aver. N.C. contacts.

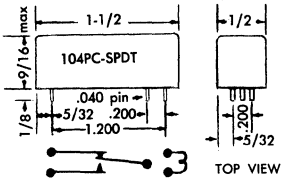
Contact Load Rating, 3VA max. at .25 amp. max. or 28V max., non-inductive.

Contact Resistance, 150 milliohms, aver.

Capacitance across contacts, 1.5 pf. aver.

Life Expectancy, 10 million cycles at full load. Operating position, any.

Stock Part No.	Contacts	COIL—DC MA	†Volts	Ohms	Price 1 to 24
W104PCX-7	SPDT	—	6V	65	10.07
W104PCX-8		—	12V	225	10.12
W104PCX-9		—	24V	1000	10.22
W104PCX-10		8	—	5000	10.64

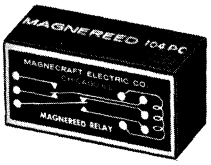


† Voltage operated relays pull in at 85% of nominal voltage at 25°C.

104PC DPDT, Miniature

Ultra-Reliable encapsulated printed circuit construction described on page 5.

Nom. Power, 900MW
Weight, 3 oz.



DPDT, true 2 Form C, no biasing magnet.

Operate, 1 ms. aver. Release, 1 ms. aver.

Contact Bounce, less than ½ ms. aver. N.O. contacts; less than 2 ms. aver. N.C. contacts.

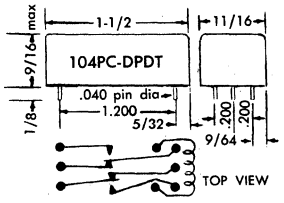
Contact Load Rating, 3VA max. at .25 amp. max. or 28V max., non-inductive.

Contact Resistance, 150 milliohms, aver.

Capacitance across contacts, 2.0 pf. aver.

Life Expectancy, 10 million cycles at full load. Operating position, any.

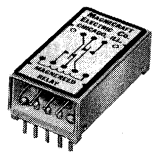
Stock Part No.	Contacts	COIL—DC MA	†Volts	Ohms	Price 1 to 24
W104PCX-3	DPDT	—	6V	40	14.59
W104PCX-4		—	12V	150	14.62
W104PCX-5		—	24V	650	14.68
W104PCX-6		8	—	5000	15.13



104MPC DPDT, Miniature

MPC high reliability Printed Circuit Construction described at left.

Nom. Power, 700MW
Weight, 2 oz.



DPDT, true 2 Form C, no biasing magnet.

Operate, 1 ms. aver. Release, 1 ms. aver.

Contact Bounce, less than ½ ms. aver. N.O. contacts; less than 2 ms. aver. N.C. contacts.

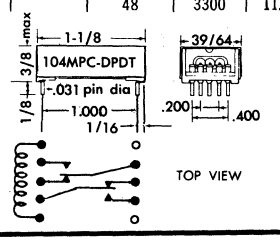
Contact Load Rating, 3 VA max. at .25 amp. max. or 28V max., non-inductive.

Contact Resistance, 150 milliohms, aver.

Capacitance across contacts, 2.0 pf. aver.

Life Expectancy, 10 million cycles at full load. Operating position, any.

Stock Part No.	Contacts	COIL—DC †Volts	Ohms	Price 1 to 24
104MPCX-5	DPDT	6	50	11.62
104MPCX-6		12	220	11.63
104MPCX-7		24	850	11.65
104MPCX-8		48	3300	11.73



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Series 102, Form A Standard Size Reed — MAGNECRAFT RELAYS

Catalog 267, Page 7

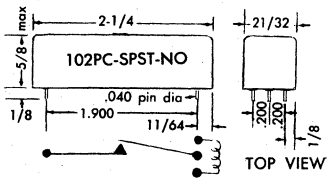
102PC SPST-NO, Standard Size

Ultra-Reliable encapsulated printed circuit construction described on page 5.

Nom. Power, 400MW Weight, 1 oz.

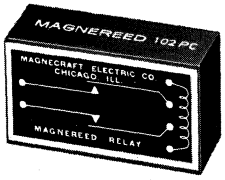
Operate, 3 ms. aver. Release, ½ ms. aver.
Contact Bounce, less than 1 ms. aver.
Contact Load Rating, 15VA at 1 amp. max. or 250VAC max., non-inductive.
Contact Resistance, 100 milliohms, aver.
Life Expectancy, 20 million cycles at full load; 100 million at ½ load.
Capacitance across contacts, 1.0 pf. aver.
Operating position, any.

Stock Part No.	Contacts	COIL—DC MA	†Volts	Ohms	Price 1 to 24
W102PCX-1	SPST-NO	—	6V	100	4.77
W102PCX-2		—	12V	400	4.83
W102PCX-3		—	24V	1500	4.87
W102PCX-4		6.5MA	—	5000	5.32



102PC DPST-NO, Standard Size

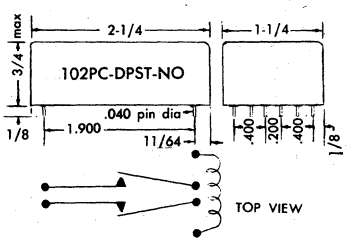
Ultra-Reliable encapsulated printed circuit construction described on page 5.



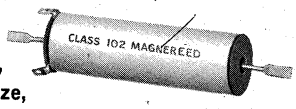
Nom. Power, 700MW Weight, 2 oz.

Operate, 3 ms. aver. Release, ½ ms. aver.
Contact Bounce, less than 1 ms. aver.
Contact Load Rating, 15VA at 1 amp. max. or 250VAC max., non-inductive.
Contact Resistance, 100 milliohms, aver.
Life Expectancy, 20 million cycles at full load; 100 million at ½ load.
Capacitance across contacts, 1.2 pf. aver.
Operating position, any.

Stock Part No.	Contacts	COIL—DC MA	†Volts	Ohms	Price 1 to 24
W102PCX-5	DPST-NO	—	6V	50	6.22
W102PCX-6		—	12V	200	6.28
W102PCX-7		—	24V	800	6.33
W102PCX-8		9MA	—	5000	6.78



102 SPST-NO, Standard Size

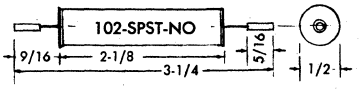


Open type, standard size, dry reed relay with solder terminals.

Nom. Power, 300MW Weight, 1 oz.

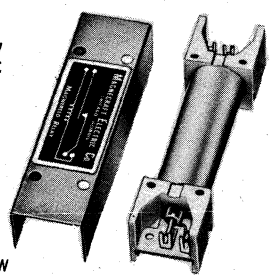
Operate, 3 ms. aver. Release, ½ ms. aver.
Contact Bounce, less than 1 ms. aver.
Contact Load Rating, 15VA at 1 amp. max. or 250VAC max., non-inductive.
Contact Resistance, 100 milliohms, aver.
Life Expectancy, 20 million cycles at full load; 100 million at ½ load.
Capacitance across contacts, 0.9 pf. aver.
Operating position, any.

Stock Part No.	Contacts	COIL—DC MA	†Volts	Ohms	Price 1 to 24
W102X-1	SPST-NO	32MA		100	2.57
W102X-2		23MA	6V	200	2.57
W102X-3		14.5MA	12V	500	2.57
W102X-4		7.5MA	24V	2000	2.70
W102X-5		4.6MA		5000	3.25



102MPC SPST-NO, Standard Size

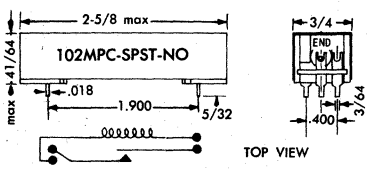
MPC, high reliability printed circuit construction described on page 6.



Nom. Power, 500MW Weight, 1 oz.

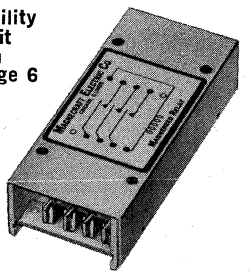
Operate, 3 ms. aver. Release, ½ ms. aver.
Contact Bounce, less than 1 ms. aver.
Contact Load Rating, 15VA at 1 amp. max. or 250VAC max., non-inductive.
Contact Resistance, 100 milliohms, aver.
Life Expectancy, 20 million cycles at full load; 100 million at ½ load.
Capacitance across contacts, 1.0 pf. aver.
Operating position, any.

Stock Part No.	Contacts	COIL—DC MA	†Volts	Ohms	Price 1 to 24
W102MPCX-5	SPST-NO	140	—	30	
W102MPCX-6		85	6VDC	70	
W102MPCX-7		48	12VDC	250	3.29
W102MPCX-8		24	24VDC	1000	
W102MPCX-9		12	48VDC	4000	3.46
W102MPCX-10		9	—	7000	4.14



102MPC 3PST-NO, Standard Size

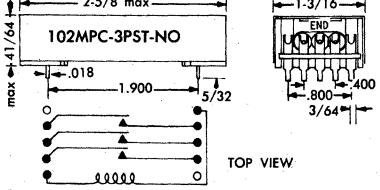
MPC high reliability printed circuit construction described on page 6



Nom. Power, 750MW Weight, 2 oz.

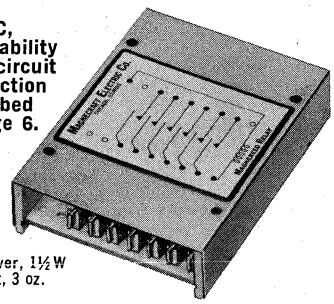
Operate, 3 ms. aver. Release, ½ ms. aver.
Contact Bounce, less than 1 ms. aver.
Contact Load Rating, 15VA at 1 amp. max. or 250VAC max., non-inductive.
Contact Resistance, 100 milliohms, aver.
Life Expectancy, 20 million cycles at full load; 100 million at ½ load.
Capacitance across contacts, 1.2 pf. aver.
Operating position, any.

Stock Part No.	Contacts	COIL—DC MA	†Volts	Ohms	Price 1 to 24
W102MPCX-48	3PST-NO	—	6	50	5.62
W102MPCX-49		—	12	175	5.63
W102MPCX-50		—	24	750	5.77
W102MPCX-51		—	48	3000	5.97



102MPC 6PST-NO, Standard Size

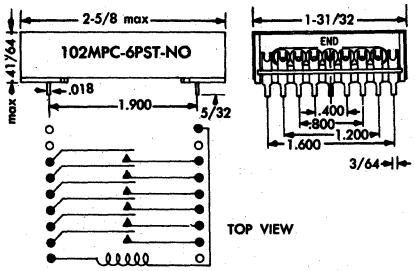
MPC, high reliability printed circuit construction described on page 6.



Nom. Power, 1½W Weight, 3 oz.

Operate, 3 ms. aver. Release, ½ ms. aver.
Contact Bounce, less than 1 ms. aver.
Contact Load Rating, 15VA at 1 amp. max. or 250VAC max., non-inductive.
Contact Resistance, 100 milliohms, aver.
Life Expectancy, 20 million cycles at full load; 100 million at ½ load.
Capacitance across contacts, 1.2 pf. aver.
Operating position, any.

Stock Part No.	Contacts	COIL—DC MA	†Volts	Ohms	Price 1 to 24
W102MPC-52	6PST-NO	—	6	25	9.18
W102MPC-53		—	12	100	9.30
W102MPC-54		—	24	375	9.35
W102MPC-55		—	48	1500	9.43



Net

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MAGNECRAFT RELAYS

Series 103, Form C Standard Size Reed

Catalog 267, Page 8

103PC SPDT, Standard Size

Ultra-Reliable encapsulated printed circuit construction described on page 5.

Nom. Power, 400MW Weight, 1 oz.

SPDT, true Form C, no biasing magnet.

Operate, 2 ms. aver. Release, ½ ms. aver.

Contact Bounce, 4 ms. average on release, normally closed contacts.

Contact Load Rating, 10VA at ½ amp. max. or 250VAC max., non-inductive.

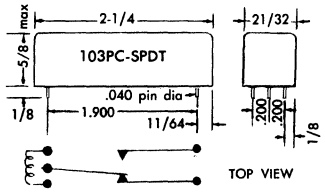
Contact Resistance, 100 Milliohms, aver.

Life Expectancy, 25 million cycles at full load; 50 million at ½ load.

Capacitance across contacts, 2.0 pf. aver.

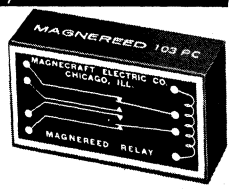
Operating Position, any.

Stock Part No.	Contacts	COIL—DC MA	†Volts	Ohms	Price 1 to 24
W103PCX-1	SPDT	—	6V	100	7.22
W103PCX-2		—	12V	400	7.27
W103PCX-3		—	24V	1500	7.32
W103PCX-4		6.5MA	—	5000	7.76



103PC DPDT, Standard Size

Ultra-Reliable encapsulated printed circuit construction described on page 5.



Nom. Power, 700MW Weight, 2 oz.

DPDT, true 2 Form C, no biasing magnet.

Operate, 2 ms. aver. Release, ½ ms. aver.

Contact Bounce, 4 ms. average on release, normally closed contacts.

Contact Load Rating, 10VA at ½ amp. max. or 250VAC max., non-inductive.

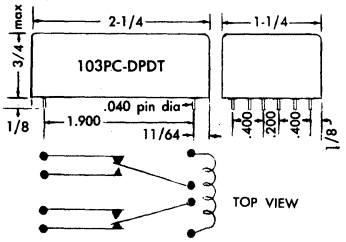
Contact Resistance, 100 Milliohms, aver.

Life Expectancy, 25 million cycles at full load; 50 million at ½ load.

Capacitance across contacts, 3.0 pf. aver.

Operating Position, any.

Stock Part No.	Contacts	COIL—DC MA	†Volts	Ohms	Price 1 to 24
W103PCX-5	DPDT	—	6V	50	10.77
W103PCX-6		—	12V	200	10.79
W103PCX-7		—	24V	800	10.84
W103PCX-8		9MA	—	5000	11.31



103 SPDT, Standard Size

Open type, standard size, dry reed relay with solder terminals.

Nom. Power, 300MW Weight, 1 oz.

SPDT, true Form C, no biasing magnet.

Operate, 2 ms. aver. Release, ½ ms. aver.

Contact Bounce, 4 ms. average on release, normally closed contacts.

Contact Load Rating, 10VA at ½ amp. max. or 250VAC max., non-inductive.

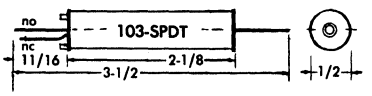
Contact Resistance, 100 Milliohms, aver.

Life Expectancy, 25 million cycles at full load; 50 million at ½ load.

Capacitance across contacts, 1.5 pf. aver.

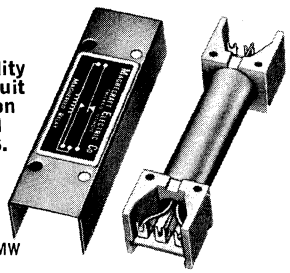
Operating Position, any.

Stock Part No.	Contacts	COIL—DC MA	†Volts	Ohms	Price 1 to 24
W103X-8	SPDT	32MA	—	100	4.54
W103X-9		23MA	6V	200	4.75
W103X-10		14.5MA	12V	500	5.22
W103X-11		7.5MA	24V	2000	5.66
W103X-12		4.6MA	—	5000	5.79



103MPC SPDT, Standard Size

MPC, high reliability printed circuit construction described on page 6.



Nom. Power, 500MW Weight, 1 oz.

SPDT, true Form C, no biasing magnet.

Operate, 2 ms. aver. Release, ½ ms. aver.

Contact Bounce, 4 ms. average on release, normally closed contacts.

Contact Load Rating, 10VA at ½ amp. max. or 250VAC max., non-inductive.

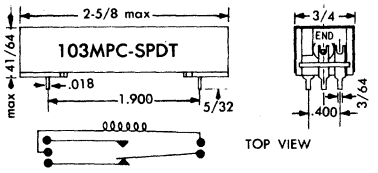
Contact Resistance, 100 Milliohms, aver.

Life Expectancy, 25 million cycles at full load; 50 million at ½ load.

Capacitance across contacts, 2.0 pf. aver.

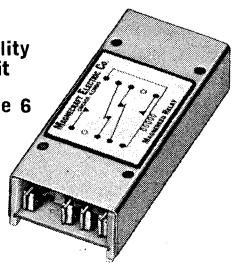
Operating Position, any.

Stock Part No.	Contacts	COIL—DC MA	†Volts	Ohms	Price 1 to 24
W103MPCX-1	SPDT	140	—	30	5.83
W103MPCX-2		85	6	70	5.83
W103MPCX-3		48	12	250	5.83
W103MPCX-4		24	24	1000	5.83
W103MPCX-5		12	48	4000	6.00
W103MPCX-6		9	—	7000	6.68



103MPC DPDT, Standard Size

MPC high reliability printed circuit construction described on page 6



Nom. Power, 750MW Weight, 1 oz.

DPDT, true 2 Form C, no biasing magnets.

Operate, 2 ms. aver. Release, ½ ms. aver.

Contact Bounce, 4 ms. average on release, normally closed contacts.

Contact Load Rating, 10VA at ½ amp. max. or 250VAC max., non-inductive.

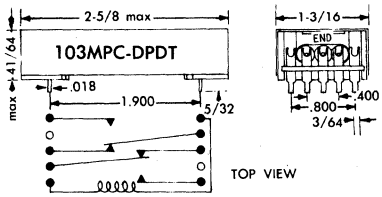
Contact Resistance, 100 Milliohms, aver.

Life Expectancy, 25 million cycles at full load; 50 million at ½ load.

Capacitance across contacts, 3.0 pf. aver.

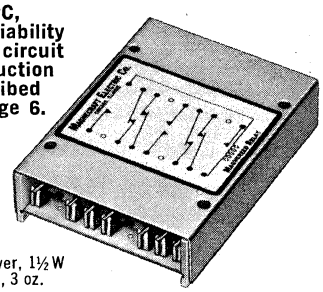
Operating Position, any.

Stock Part No.	Contacts	COIL—DC MA	†Volts	Ohms	Price 1 to 24
W103MPCX-30	DPDT	—	6	50	8.33
W103MPCX-31		—	12	175	8.33
W103MPCX-32		—	24	750	8.47
W103MPCX-33		—	48	3000	8.67



103MPC 4PDT, Standard Size

MPC, high reliability printed circuit construction described on page 6.



Nom. Power, 1½W Weight, 3 oz.

4PDT, 4 true Form C, no biasing magnets.

Operate, 2 ms. aver. Release, ½ ms. aver.

Contact Bounce, 4 ms. average on release, normally closed contacts.

Contact Load Rating, 10VA at ½ amp. max. or 250VAC max., non-inductive.

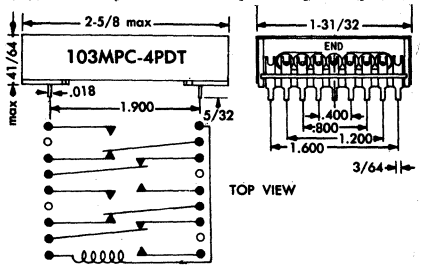
Contact Resistance, 100 Milliohms, aver.

Life Expectancy, 25 million cycles at full load; 50 million at ½ load.

Capacitance across contacts, 3.0 pf. aver.

Operating Position, any.

Stock Part No.	Contacts	COIL—DC MA	†Volts	Ohms	Price 1 to 24
W103MPCX-34	4PDT	—	6	25	14.60
W103MPCX-35		—	12	100	14.70
W103MPCX-36		—	24	375	14.77
W103MPCX-37		—	48	1500	14.88



†Voltage operated relays pull in at 85% of nominal voltage at 25°C.

Mercury-Wetted and Dry Reed

MAGNECRAFT RELAYS

Mercury Wetted Reed Relays for Printed Circuit Applications

131PC SPST-NO Miniature

Nom. Power 600MW
weight 1 oz.

131PC DPST-NO Miniature

Nom. Power 900MW
weight 2 oz.

Mercury-Wetted Reed Relay performance in ultra-reliable encapsulated printed circuit assembly described on page 5.

Operate, 1 ms. aver. Release, 1 ms. aver.

Contact Bounce, none

Contact Load Rating, 28VA, 1 amp. max. or 100V max., non-inductive.

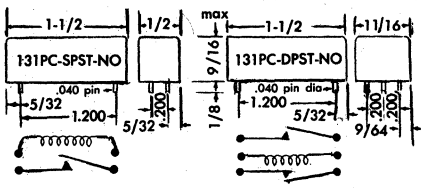
Contact Resistance, 50 milliohms aver.

Capacitance across contacts, 1.0 pf. aver.

Life Expectancy, 100 million cycles at rated load.

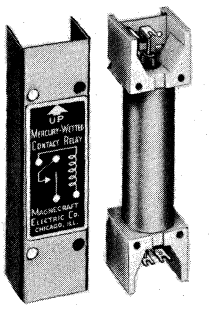
Operating Position, Upright, not more than 30° from vertical.

Stock Part No.	Contacts	COIL—DC MA	†Volts	Ohms	Price 1 to 24
W131PCX-8		—	6	65	8.38
W131PCX-9		—	12	250	8.44
W131PCX-10	SPST-NO	—	24	1000	8.55
W131PCX-11		8	—	5000	9.01
W131PCX-12		—	6	40	10.62
W131PCX-13	DPST-NO	—	12	150	10.66
W131PCX-14		—	24	650	10.71
W131PCX-15		8	—	5000	11.21



132MPC SPST-NO Standard Size

MPC high reliability Printed Circuit Construction described on page 6



Nom. Power 500MW
weight 2 oz.

Operate, 2 ms. aver. Release, 2 ms. aver.

Contact bounce, none.

Contact Load Rating, 50VA at 3.0 amps., max. or 400V max., non-inductive.

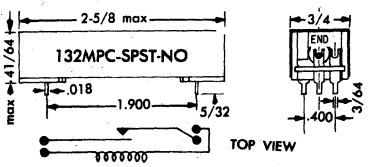
Contact Resistance, 50 milliohms average.

Capacitance across contacts, 1.0 pf. aver.

Life Expectancy, 25 million cycles at full load; 1 billion at low load.

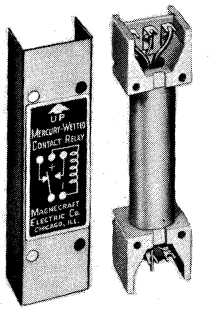
Operating Position, Upright, not more than 30° from vertical.

Stock Part No.	Contacts	COIL—DC MA	†Volts	Ohms	Price 1 to 24
W132MPCX-1		140	—	30	
W132MPCX-2		85	6VDC	70	
W132MPCX-3	SPST-NO	48	12VDC	250	5.83
W123MPCX-4		24	24VDC	1000	
W132MPCX-5		12	48VDC	4000	6.00
W132MPCX-6		9	—	7000	6.68



133MPC SPDT Standard Size

MPC high reliability Printed Circuit Construction described on page 6



Nom. Power 500MW
weight 2 oz.

Operate, 2 ms. aver. Release, 2 ms. aver.

Contact bounce, none.

Contact Load Rating, 50VA at 2.0 amps. max. or 400V max., non-inductive.

Contact Resistance, 50 milliohms average.

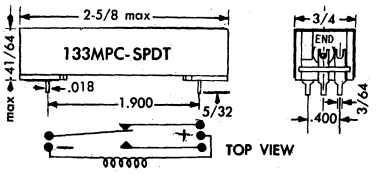
Capacitance across contacts, 3.0 pf. aver.

Life Expectancy, 25 million cycles at full load; 1 billion at low load.

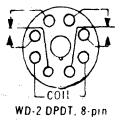
Operating Position, Upright, not more than 30° from vertical.

Magnetically biased, observe coil polarity.

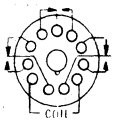
Stock Part No.	Contacts	COIL—DC MA	†Volts	Ohms	Price 1 to 24
W133MPCX-1		140	—	30	
W133MPCX-2		85	6VDC	70	
W133MPCX-3	SPDT	48	12VDC	250	8.42
W133MPCX-4		24	24VDC	1000	
W133MPCX-5		12	48VDC	4000	8.60
W133MPCX-6		9	—	7000	9.35



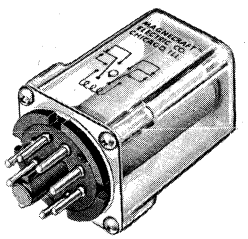
103CP Dry Reed Relay Plug-in Assemblies



WD-2 DPDT, 8-pin



WD-3 3PDT, 11-pin



Dimensions: 1⅜ x 1⅜ x 2⅛ h. Weight 5 oz.

Each plug-in assembly includes two or three standard size, Form C, break before make switching capsules with operating coil in plastic dust cover.

Operate, 2 ms, aver.—Release, ½ ms, aver.

Contact Bounce, 4 ms, average on release (normally closed contact).

Contact Load Rating, 10VA at ½ amp. max., or 250VAC max., non-inductive.

Contact Resistance, 100 milliohms aver.

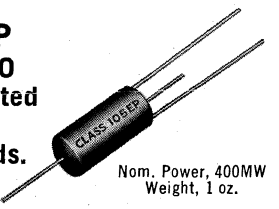
Capacitance across contacts, 4.0 pf. aver.

Life Expectancy, 25 million cycles at rated load; 100 million cycles at low load level.

Stock Part No.	contacts	COIL—DC MA	†volts	ohms	Price 1 to 24
W103CPX-7		—	6V	75	12.92
W103CPX-8	DPDT	—	12V	300	12.95
W103CPX-9	WD-2	—	24V	1000	13.01
W103CPX-10		8MA	—	5000	13.57
W103CPX-11		—	6V	40	16.77
W103CPX-12	3PDT	—	12V	150	16.83
W103CPX-13	WD-3	—	24V	650	16.95
W103CPX-14		10MA	—	5000	17.50

Micro-Miniature, Form A, Dry Reed Relays

105EP SPST-NO Encapsulated with axial leads.



Nom. Power, 400MW
Weight, 1 oz.

Micro-Miniature Reed Switch Capsule and Operating Coil are completely encapsulated in epoxy resin. Highly resistant to mechanical shock. Thoroughly protected from humidity and corrosive atmosphere.

Operate, ¼ ms. aver.—Release, ½ ms. aver.

Contact Bounce, ½ ms. average.

Contact Load Rating, 0.1 VA max. at 10 MA max. or 12V max., non-inductive.

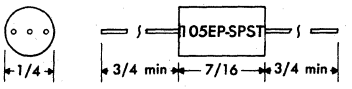
Contact Resistance, 200 milliohms, aver.

Capacitance across contacts, 0.5 pf. aver.

Life Expectancy, 10 million cycles at rated load.

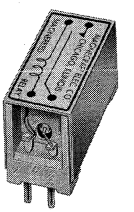
Operating Position, any.

Stock Part No.	Contacts	COIL—DC †Volts	Ohms	Price 1 to 24
W105EPX-1		6VDC	90	6.18
W105EPX-2	SPST-NO	12VDC	350	6.18
W105EPX-3		24VDC	1300	6.30



105MPC SPST-NO

MPC high reliability Printed Circuit Construction described on page 6



Nom. Power, 300MW
Weight, 1 oz.

Operate, ¼ ms. aver.—Release, ½ ms. aver.

Contact Bounce, ½ ms. average.

Contact Load Rating, 0.1 VA max. at 10 MA max. or 12V max., non-inductive.

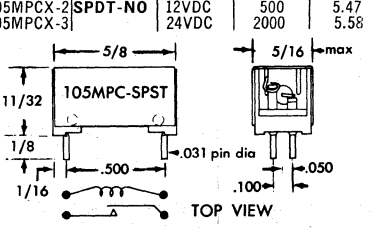
Contact Resistance, 200 milliohms, aver.

Capacitance across contacts, 0.5 pf. aver.

Life Expectancy, 10 million cycles at rated load.

Operating Position, any.

Stock Part No.	Contacts	COIL—DC †Volts	Ohms	Price 1 to 24
W105MPCX-1		6VDC	120	5.45
W105MPCX-2	SPDT-NO	12VDC	500	5.47
W105MPCX-3		24VDC	2000	5.58



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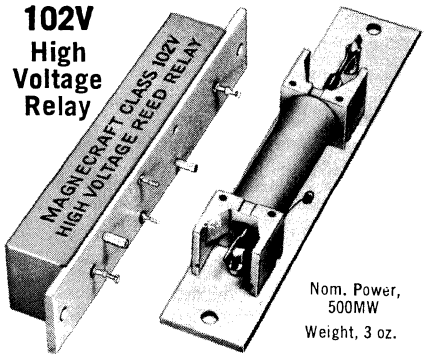
MAGNECRAFT RELAYS

Dry Reed and Time Delay

Catalog 267, Page 10

Special Purpose Dry Reed Relays with High Reliability MPC Packaging

102V High Voltage Relay



Nom. Power, 500MW
Weight, 3 oz.

SPST-NO Contacts of special material switch up to 5000VDC with reed relay reliability. Capsule and coil assembly is similar to MPC construction, page 6. Contact leads are soldered to rigid terminal posts on an epoxy resin terminal board. Internally insulated metal cover provides magnetic shielding.

Operate, 3 ms. aver. Release, 0.5 ms. aver.

Contact Load Rating, 50VA at 5000VDC max or 3 amps. max., resistive.

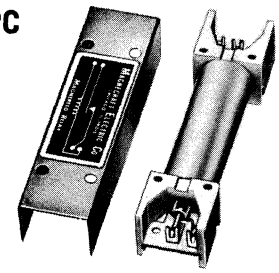
Life Expectancy, 20 million cycles at rated load. Operates in any position.

Nominal Power Required, 500, MW.

Overall, approx. 4½ x 1⅜ x ⅞. Weight 3 oz.

Stock Part No.	Contacts	COIL—DC MA	†Volts	Ohms	Price 1 to 24
W102VX-9		140	—	30	13.69
W102VX-10		—	6	70	13.69
W102VX-11	SPST-NO	—	12	250	13.73
W102VX-12		—	24	1000	13.78
W102VX-13		—	48	4000	14.15
W102VX-14		9	—	7000	14.58

102RMPC 3-amp. Power Relay



Nom. Power 500MW
Weight, 1 oz.

Developed especially to switch higher currents with reed relay reliability and the **MPC** low circuit board profile.

SPST-NO Contacts of special material. MPC construction with printed circuit terminals described on page 6. Dimensions and Wiring same as 102MPC SPST-NO described on page 7.

Operate, 1 ms. aver. Release, 1 ms. aver.

Contact Bounce, 0.5 ms. average.

Contact Resistance, 150 milliohms, aver.

Contact Load Rating, 100VA, 3 amperes max., or 250 volts, max.

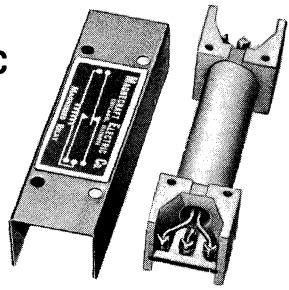
Operating Position, any.

Dimensions same as 102MPC, Page 7.

†Voltage operated relays pull in at 85% of nominal voltage at 25°C.

Stock Part No.	Contacts	COIL—DC †Volts	Ohms	Price 1 to 24
W102RMPCX-1		6VDC	70	7.87
W102RMPCX-2	SPST-NO	12VDC	250	7.88
W102RMPCX-3		24VDC	1000	7.93
W102RMPCX-4		48VDC	4000	8.18

103LMPC Magnetic Latching Relay



Nom. Power 150MW
Weight, 1 oz.

Ideal for memory applications. Bi-stable SPDT Contacts—biased permanent magnet holds either contact position **without coil power until coil polarity is reversed.**

MPC Construction with printed circuit terminals described on page 6. Dimensions and wiring same as 103MPC, page 8.

Operate, 2 ms. aver. Bounce, 3 ms. max.

Contact Resistance, 150 milliohms aver.

Contact Load Rating, 10VA, 0.2 amp. max. or 200V max., non-inductive.

Life Expectancy, 25 million cycles at rated load. Operating Position, any.

Stock Part No.	contacts	COIL—DC MA	†Volts	Ohms	Price 1 to 24
Single Wound Coils					
W103LMPCX-3		40	—	70	7.07
W103LMPCX-4		—	6	250	7.07
W103LMPCX-5	SPDT	—	12	1000	7.07
W103LMPCX-6		—	24	4000	7.26
W103LMPCX-7		4	—	7000	8.01
Double Wound Coils					
W103LMPCX-8		80	—	30/30	8.22
W103LMPCX-9		—	6	120/120	8.33
W103LMPCX-10	SPDT	—	12	460/460	8.33
W103LMPCX-11		—	24	1800/1800	9.00
W103LMPCX-12		8	—	3000/3000	10.04

Class 110 Air Dashpot Time Delay—Operate Delay adjustable 0.2 to 45 sec.

High Reliability and long life assured by—

- Proven relay contacts and construction.
- Air Dashpot Timer precision built of non-aging, low friction material.
- Solenoid Assembly completes magnetic circuit instantaneously for positive switching that protects contacts from chattering and fritting.

Operate Delay—adjustable 0.2 to 45 seconds.

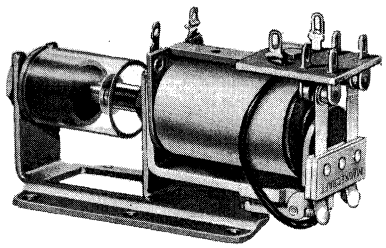
Instant Release: Air dashpot reaches "START" position within 0.2 second.

Operates in any position. (Timing should be set in installed position.)

Timing Repeat Accuracy, ±10%.

Power Consumption, DC, 4W; AC, 7VA.

Open Type with Solder Terminals



Six mounting holes: two holes with 6-32 thread spaced 1⅜ x 2⅛ diagonally; two holes .156 dia. spaced 1⅜ x 2⅛ diagonally; two holes .156 dia. spaced 1⅜.

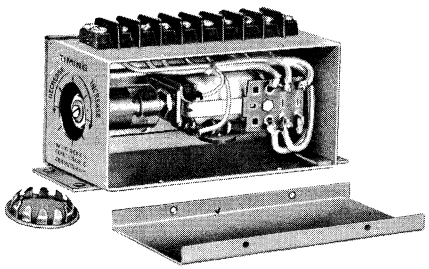
Dimensions: 3 13/16 long, 1 15/16 high, 1 7/16 wide. Weight, 6 oz.

Stock Part No.	Contacts 10-amp.	COIL †Volts	Ohms	Price 1 to 9
W110X-9		24VDC	100	17.75
W110X-10	DPDT	110VDC	2500	18.34
W110AX-9		115VAC*	—	20.91

Operate Time Delay-adjustable 0.2 to 45 Seconds

*Rectified

Screw Terminals—40-348 Cover

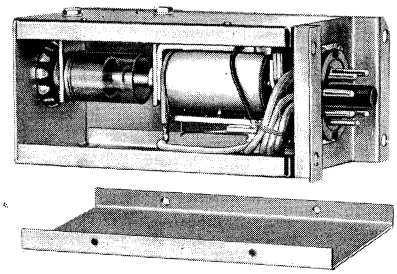


Heavy metal enclosure with snap-on cover. Snap-on cap access to timing adjustment. Screw terminals with phenolic barriers. Wiring diagram, contact specifications, coil voltage and part number on cover. Four mounting holes, .177 dia. on 4⅝ x 1⅛ centers. Dim: 5 x 2⅜ x 2 17/32. Weight, 15 oz.

Stock Part No.	Contacts 10-amp.	COIL †Volts	Ohms	Price 1 to 9
W110CSX-1		24VDC	100	28.56
W110CSX-2	DPDT	110VDC	2500	29.22
W110ACSX-1		115VAC*	—	30.07

Operate Time Delay-adjustable 0.2 to 45 Seconds

Plug-in with 40-347 Dust Cover



Phenolic octal plug with hold down bracket. Heavy metal enclosure with snap-on cover. Snap-on cap access to timing adjustment. Wiring diagram, contact specifications, coil voltage and part number on cover. Bracket has four holes, .177 dia. on 1½ x 2⅝ centers. Dimensions: 3½ x 2 9/32 x 4⅝. Weight 15 oz.

Stock Part No.	Contacts 10-amp.	COIL †Volts	Ohms	Price 1 to 9
W110CPX-10		24VDC	100	26.78
W110CPX-11	DPDT	110VDC	2500	27.44
W110ACPX-9	WD-2	115VAC*	—	29.79

Operate Time Delay-adjustable 0.2 to 45 Seconds

†Voltage operated relays pull in at 85% of nominal voltage at 25°C.

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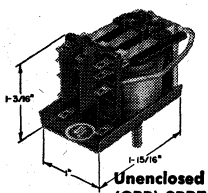
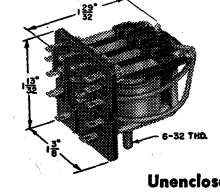
OHMITE
resistors • rheostats • tap switches • relays
variable transformers • tantalum capacitors
semiconductor devices • r.f. chokes

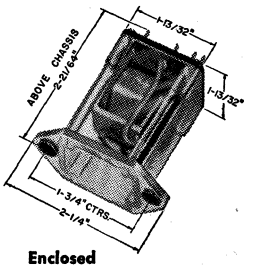
MODEL GPR GENERAL PURPOSE RELAYS



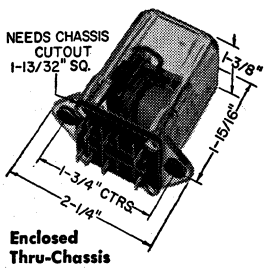
Unenclosed (GPR) 3PDT



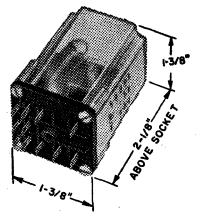
Unenclosed (GPR) 4PDT



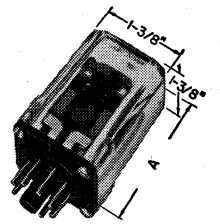
Enclosed Above-Chassis (GPRTA)



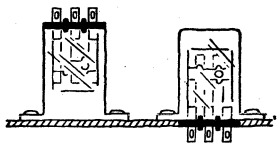
Enclosed Thru-Chassis (GPRTT)



Enclosed for socket mtg. (GPRTS)



Enclosed Plug-Base (GPRTP)
1 & 2 pole A = 27/64, Octal Plug
3 pole A = 25/32, 11-Pin Plug



GPRTA GPRTT

Includes Indicator, Plate, Thyratron and Latching Versions in Unenclosed and Enclosed Types

Simple, rugged, low cost relays handling substantial power for small size. Uncomplicated design provides unusual flexibility for making and changing connections and mounting. Stock includes relays in versatile enclosures, some with indicator light, also plate, thyratron and latching versions. Wide commercial and industrial use where economy and versatility are important.

Basic (Unenclosed) Relay: All connections terminate on barrier-type terminal panel on combination solder—quick-connect (push-on) lugs which accept AMP 110 female connectors. The terminal panel is conveniently incorporated into printed circuit boards. Fixed contacts are integral inlay on terminal itself. Normally furnished with a 6-32 x ½" mounting stud and non-turn boss (or lug for 4-pole relays). A 6-32 threaded hole is optional. Unenclosed relays can also be mounted by plugging their panels into Ohmite SOGPR sockets. See "Socket" following.

Contact Ratings: Two ratings—fine silver contacts, 5 amps at 115 VAC or 32 VDC; silver-cadmium contacts, 10 amps.

Insulation: Tested at 1500 VAC.

Coil Wattage: 1.4 watts DC operation; 160 watts (2.0 volt-amps) AC except 2.4 watts (3.70 volt-amps) for 4-pole AC and AC latching relays.

ENCLOSED RELAYS (GPRTA-, GPRTT-, GPRTS-, GPRTP-). Four types of clear plastic enclosures as follows:

Chassis Mounting Types: "GPRTA"—("Terminals-Above-Chassis" type) has terminal panel opposite to mounting flange; "GPRTT"—("Terminals-Through-Chassis" type) has terminal panel on same end as mounting flange, requires chassis cutout; "GPRTS" type (Terminals for Socket Use) is similar to GPRTT but has no mounting flanges. It is intended strictly for plug-in mounting in Ohmite socket "SOGPR" (see "Socket" below).

Plug Base Type: "GPRTP"—employs octal plug for 1 and 2 pole relays; 11-pin plug for 3-pole. The octal plug base is integral with relay for rigidity—is designed with recessed pins which meet UL spacing requirements (150V).

(Continued on next page)

STOCK GPR RELAYS*

Contacts	Coil Data Volts	Amps.	Ohms	5 AMP CONTACTS: Unenclosed GPR	Net $ 1-24	Enclosed Above Chassis GPRTA†	Net $ 1-24	Enclosed Thru-Chassis GPRTT†	Net $ 1-24	Enclosure for SOGPR Socket GPRTS ‡	Net $ 1-24	Enclosed Plug Base GPRTP	Net $ 1-24	10 AMP CONTACTS: Unenclosed GPR	Net $ 1-24	Enclosure for SOGPR Socket GPRTS ‡	Net $ 1-24	Enclosed Plug Base GPRTP	Net $ 1-24	Indicator Plug Base GPRTP	Net $ 1-24
SPDT	6VAC	.334	4.2	-3T	3.19	-3T	5.19	-3T	5.19			-3T	5.43	-203T	3.23			-203T	5.52		
DPDT	6VAC	.334	4.2	-6T	3.84	-6T	5.84	-6T	5.84	-6T	5.75	-6T	6.03	-206T	3.93	-206T	5.94	-206T	6.22	-291T	7.11
3PDT	6VAC	.334	4.2	-9T	4.24	-9T	6.74	-9T	6.74	-9T	6.85	-9T	7.48	-209T	4.38	-209T	6.94	-209T	7.77		
4PDT	6VAC	.650	2.5	-403T	4.99					-403T	7.90			-433T	5.13	-433T	8.19				
SPDT	12VAC	.167	17	-12T	3.19	-12T	5.19	-12T	5.19			-12T	5.43	-212T	3.23			-212T	5.52		
DPDT	12VAC	.167	17	-15T	3.84	-15T	5.84	-15T	5.84	-15T	5.75	-15T	6.03	-215T	3.93	-215T	5.94	-215T	6.22	-292T	7.11
3PDT	12VAC	.167	17	-18T	4.24	-18T	6.74	-18T	6.74	-18T	6.85	-18T	7.48	-218T	4.38	-218T	6.94	-218T	7.77		
4PDT	12VAC	.309	10	-406T	4.99					-406T	7.90			-436T	5.13	-436T	8.19				
SPDT	24VAC	.084	65	-21T	3.19	-21T	5.19	-21T	5.19			-21T	5.43	-221T	3.23			-221T	5.52		
DPDT	24VAC	.084	65	-24T	3.84	-24T	5.84	-24T	5.84	-24T	5.75	-24T	6.03	-224T	3.93	-224T	5.94	-224T	6.22	-293T	7.11
3PDT	24VAC	.084	65	-27T	4.24	-27T	6.74	-27T	6.74	-27T	6.85	-27T	7.48	-227T	4.38	-227T	6.94	-227T	7.77		
4PDT	24VAC	.155	40	-409T	4.99					-409T	7.90			-439T	5.13	-439T	8.19				
SPDT	115VAC	.0174	1600	-30T	3.19	-30T	5.19	-30T	5.19			-30T	5.43	-230T	3.23			-230T	5.52		
DPDT	115VAC	.0174	1600	-33T	3.84	-33T	5.84	-33T	5.84	-33T	5.75	-33T	6.03	-233T	3.93	-233T	5.94	-233T	6.22	-294T	7.11
3PDT	115VAC	.0174	1600	-36T	4.24	-36T	6.74	-36T	6.74	-36T	6.85	-36T	7.48	-236T	4.38	-236T	6.94	-236T	7.77		
4PDT	115VAC	.0325	1000	-412T	4.99					-412T	7.90			-442T	5.13	-442T	8.19				
SPDT	230VAC	.0087	7000	-39T	3.58	-39T	5.58	-39T	5.58			-39T	5.82	-239T	3.62			-239T	5.91		
DPDT	230VAC	.0087	7000	-42T	4.23	-42T	6.23	-42T	6.23	-42T	6.14	-42T	6.42	-242T	4.32	-242T	6.33	-242T	6.61	-295T	7.50
3PDT	230VAC	.0087	7000	-45T	4.63	-45T	7.13	-45T	7.13	-45T	7.04	-45T	7.87	-245T	4.77	-245T	7.33	-245T	8.16		
4PDT	230VAC	.0147	4000	-415T	5.38					-415T	8.29			-445T	5.52	-445T	8.58				
SPDT	6VDC	.23	26	-48T	3.04	-48T	5.04	-48T	5.04			-48T	5.38	-248T	3.08			-248T	5.47		
DPDT	6VDC	.23	26	-51T	3.38	-51T	5.39	-51T	5.39	-51T	5.30	-51T	5.98	-251T	3.48	-251T	5.49	-251T	6.17	-296T	7.06
3PDT	6VDC	.23	26	-54T	3.84	-54T	6.34	-54T	6.34	-54T	6.25	-54T	7.43	-254T	3.98	-254T	6.54	-254T	7.72		
4PDT	6VDC	.23	26	-418T	4.70					-418T	7.61			-448T	4.84	-448T	7.90				
SPDT	12VDC	.114	105	-57T	3.04	-57T	5.04	-57T	5.04			-57T	5.38	-257T	3.08			-257T	5.47		
DPDT	12VDC	.114	105	-60T	3.38	-60T	5.39	-60T	5.39	-60T	5.30	-60T	5.98	-260T	3.48	-260T	5.49	-260T	6.17	-297T	7.06
3PDT	12VDC	.114	105	-63T	3.84	-63T	6.34	-63T	6.34	-63T	6.25	-63T	7.43	-263T	3.98	-263T	6.54	-263T	7.72		
4PDT	12VDC	.114	105	-421T	4.70					-421T	7.61			-451T	4.84	-451T	7.90				
SPDT	24VDC	.060	400	-66T	3.04	-66T	5.04	-66T	5.04			-66T	5.38	-266T	3.08			-266T	5.47		
DPDT	24VDC	.060	400	-69T	3.38	-69T	5.39	-69T	5.39	-69T	5.30	-69T	5.98	-269T	3.48	-269T	5.49	-269T	6.17	-298T	7.06
3PDT	24VDC	.060	400	-72T	3.84	-72T	6.34	-72T	6.34	-72T	6.25	-72T	7.43	-272T	3.98	-272T	6.54	-272T	7.72		
4PDT	24VDC	.060	400	-424T	4.70					-424T	7.61			-454T	4.84	-454T	7.90				
SPDT	110VDC	.0110	10,000	-75T	3.63	-75T	5.63	-75T	5.63			-75T	5.97	-275T	3.67			-275T	6.06		
DPDT	110VDC	.0110	10,000	-78T	3.98	-78T	5.98	-78T	5.98	-78T	5.89	-78T	6.57	-278T	4.07	-278T	6.08	-278T	6.76	-299T	7.85
3PDT	110VDC	.0110	10,000	-81T	4.43	-81T	6.93	-81T	6.93	-81T	6.84	-81T	8.02	-281T	4.57	-281T	7.13	-281T	8.31		
4PDT	110VDC	.0110	10,000	-427T	5.28					-427T	8.20			-457T	5.43	-457T	8.49				
	Approx. weight			2.5 oz.		3.0 oz.		3.0 oz.		3.0 oz.		3.5 oz.		2.5 oz.		3.5 oz.		3.5 oz.		3.5 oz.	

*Column heads carry symbols to indicate UL or CSA (Canadian Standards Assn.) approval. The grey tint indicates that relay is recognized under UL "components program" (File No. E33069, Guide No. 380W1.14C, Assignment No. 62C3559A). CSA File No. is 21309. See explanation in "UL and CSA Approval."

‡4-Pole GPRTS relays are not covered by CSA.

†GPRTA and GPRTT types as listed by UL, differ slightly from the stock versions above and consequently, are made to order. These UL versions have a "U" added to the catalog number, such as in "GPRTAU." They also have CSA approval.

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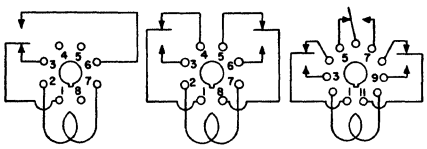
MODEL GPR GENERAL PURPOSE RELAYS

Socket (SOGPR): Unique socket fits the terminal panels of all GPR relays and provides over-the-surface spacing to meet UL requirements for 150 volts. Requires chassis cut-out to mount. Hold down springs (see illustration) for unenclosed and enclosed relays, are provided with each socket but are not required except under conditions of vibration or shock. Socket solder terminals will also accept AMP 110 quick-connectors. See socket listings.

Indicator Relay: Incorporates light bulb to indicate energized condition of coil. Stocked only in GPRTP enclosures described in preceding. Neon bulb furnished with coil ratings 70 volts and above; incandescent bulbs for coil ratings below 70 volts.

Plate Relays: Feature same physical construction as standard general purpose relays but are adjusted for greater sensitivity and can be used as electronic circuit controls, i.e., in the plate circuits of standard vacuum tubes.

Thyratron Plate Relay: Designed specifically for plate circuit of thyratron tubes 2050 and 2D21 with 115 VAC supply (see diagram). Also suitable for operation in series with silicon controlled rectifiers from a 115 VAC supply. Ready to work, no capacitors or adjustments required, no chatter. Available unenclosed and in most GPR enclosures.



Plug wiring schemes for plug base (GPRTP) relays

Latching Relay: Consists of two GPR relays with armatures linked so that the n.o. contacts of one are mechanically latched in closed position when, and after, this relay is energized. When 2nd relay is energized, first relay restores and latches 2nd. Permits switching of twice the number of circuits and holding without coil current. Unenclosed type "GPRLE". Enclosed type "GPRLETP" in clear plastic case with Jones plug P-324-SB fitting S-324-AB socket.

UL & CSA Approval: Column heads in the stock tables carry the UL (Underwriters' Laboratories) or CSA symbol (Canadian Standards Association) where applicable. The grey tint in the column indicates the relays are recognized under the "UL components program". The acceptability of such relays by UL depends upon their combination with other equipment such as sockets etc.

SOCKETS for GPR, GPRTS RELAYS

For up to 3PDT: 1¾" square, requires 1¼" x 1½" cutout.* 2 holes (for No. 6 screws) on 1⅜" centers.
Stock No. SOGPR-9 .....Net 1-24 $1.03

For 4-pole models, 1¾" x 2", requires 1½" x 1½" cutout.* 2 holes (for No. 6 screws) on 1⅜" centers.
Stock No. SOGPR-12 .....Net 1-24 $1.18

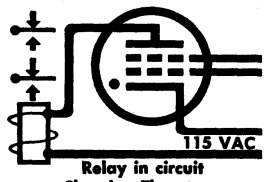
*Std. punches & dies from Ward Machinery Co., Chicago. No. 28, Style 22N, 1¼x1½, for SOGPR-9; No. 28, Style 14R, 1½x1½, for SOGPR-12.

STOCK "GPR" PLATE CIRCUIT RELAYS — 5 AMP CONTACTS

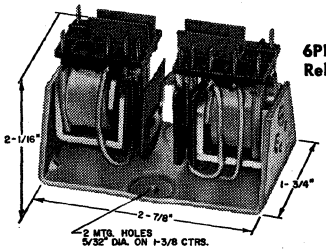
Contacts	COIL DATA Ohms	Pull-in max. ma.	Unenclosed GPR (UL)	Net $ 1-24	Enclosed Above-Chassis GPRTA	Net $ 1-24	Enclosed Thru-Chassis GPRTT	Net $ 1-24	Enclosed for SOGPR Socket GPRTS	Net $ 1-24	Enclosed Plug-Base GPRTP (UL)	Net $ 1-24
SPDT	2500	7.2	GPRX -82T	3.62	GPRTAX -82T	5.52	GPRTTX -82T	5.52			GPRTPX -82T	5.86
DPDT	2500	10	-83T	4.15	-83T	5.67	-83T	5.67			-83T	6.26
3PDT	2500	12.3	-84T	4.75	-84T	6.62	-84T	6.62			-84T	7.71
4PDT	2500	15.0	-463T	5.61					GPRTSX -463T	8.52		
SPDT	5000	5	-85T	3.72	-85T	5.62	-85T	5.62			-85T	5.96
DPDT	5000	7.2	-86T	4.25	-86T	5.77	-86T	5.77			-86T	6.36
3PDT	5000	8.7	-87T	4.85	-87T	6.72	-87T	6.72			-87T	7.81
4PDT	5000	11	-466T	5.72					-466T	8.63		
SPDT	10,000	3.6	-88T	4.12	-88T	6.02	-88T	6.02			-88T	6.36
DPDT	10,000	5	-89T	4.65	-89T	6.17	-89T	6.17			-89T	6.76
3PDT	10,000	6.1	-90T	5.25	-90T	7.12	-90T	7.12			-90T	8.21
4PDT	10,000	7.5	-469T	6.11					-469T	9.02		
Approx. weight			2.5 oz.		3.0 oz.		3.0 oz.		3.0 oz.		3.5 oz.	

STOCK GPR THYRATRON RELAYS

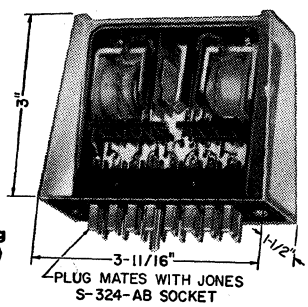
Contacts	5 AMP CONTACTS Unenclosed GPR (UL)	Net $ 1-24	Enclosed Above-Chassis GPRTA	Net $ 1-24	Enclosed Thru-Chassis GPRTT	Net $ 1-24	Enclosed for SOGPR Socket GPRTS	Net $ 1-24	Enclosed Plug-Base GPRTP (UL)	Net $ 1-24	10 AMP CONTACTS Unenclosed GPR (UL)	Net $ 1-24	Enclosed for SOGPR Socket GPRTS	Net $ 1-24	Enclosed Plug-Base GPRTP (UL)	Net $ 1-24
SPDT	GPRX -191T	3.35	GPRTAX -191T	5.35	GPRTTX -191T	5.35	GPRTSX		GPRTPX -191T	5.59	GPRX .391T	3.39			GPRTPX .391T	5.68
DPDT	-192T	4.00	192T	6.00	-192T	6.00			-192T	6.19	-392T	4.09			-392T	6.38
3PDT	-193T	4.40	.193T	6.90	-193T	6.90			-193T	7.64	-393T	4.54			-393T	7.93
4PDT	-473T	5.15					-473T	8.06			-483T	5.29	-483T	8.35		



Relay in circuit Showing Thyratron



6PDT Latching Relay (GPRLE)



Enclosed Latching Relay (GPRLETP)

STOCK "GPR" LATCHING RELAYS — 5 AMP CONTACTS

Total Contacts	COIL DATA—(Each Coil) Volts	Amps.	Ohms	Unenclosed (UL) GPRLE†	Net $ 1-24	Enclosed Plug-Base (UL) GPRLETP†	Net $ 1-24
4PDT	6VAC	.650	2.5	GPRLEX-1T	10.47	GPRLETPX-1T	16.47
6PDT	6VAC	.650	2.5	GPRLEX-2T	12.57	GPRLETPX-2T	19.57
4PDT	12VAC	.309	10.0	GPRLEX-3T	10.47	GPRLETPX-3T	16.47
6PDT	12VAC	.309	10.0	GPRLEX-4T	12.57	GPRLETPX-4T	19.57
4PDT	24VAC	.155	40.0	GPRLEX-5T	10.47	GPRLETPX-5T	16.47
6PDT	24VAC	.155	40.0	GPRLEX-6T	12.57	GPRLETPX-6T	19.57
4PDT	115VAC	.0325	1000	GPRLEX-7T	10.47	GPRLETPX-7T	16.47
6PDT	115VAC	.0325	1000	GPRLEX-8T	12.57	GPRLETPX-8T	19.57
4PDT	230VAC	.0147	4000	GPRLEX-9T	11.25	GPRLETPX-9T	17.25
6PDT	230VAC	.0147	4000	GPRLEX-10T	13.35	GPRLETPX-10T	20.35
4PDT	6VDC	.23	26	GPRLEX-11T	9.42	GPRLETPX-11T	15.42
6PDT	6VDC	.23	26	GPRLEX-12T	11.42	GPRLETPX-12T	18.42
4PDT	12VDC	.114	105	GPRLEX-13T	9.42	GPRLETPX-13T	15.42
6PDT	12VDC	.114	105	GPRLEX-14T	11.42	GPRLETPX-14T	18.42
4PDT	24VDC	.060	400	GPRLEX-15T	9.42	GPRLETPX-15T	15.42
6PDT	24VDC	.060	400	GPRLEX-16T	11.42	GPRLETPX-16T	18.42
4PDT	110VDC	.0110	10,000	GPRLEX-17T	10.80	GPRLETPX-17T	16.80
6PDT	110VDC	.0110	10,000	GPRLEX-18T	12.80	GPRLETPX-18T	19.80
Approx. weight →				7.0 oz.		11.3 oz.	

†See paragraph, "UL & CSA Approval."

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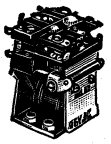
ALL-PURPOSE RELAYS (Also see Model GPR Relays)



MODEL DO RELAY

AC or DC OPERATION

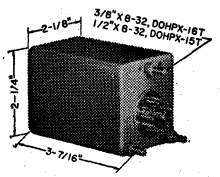
Ideal for mobile equipment applications where severe shock and vibration are encountered. Coil drain: 3-watts DC, 6 watts 60 cycle AC. Contact ratings: 10 amps. at 115 v. AC; 32 volt DC resistive load. Insulation tested at 1500 v. AC. Size, (4 pole) 2¼ x 2¹⁄₁₆ x 1¹³⁄₁₆"; (3 pole) 2¼ x 1⅝ x 1¹³⁄₁₆".

Stock No.	Type	Coil Data †V.A.C.	Amps.	Net 1-24
DOX-50T	3PDT	6	2.33	8.65
DOX-183T	4PDT	6	2.33	9.85
DOX-49T	3PDT	12	1.28	8.65
DOX-184T	4PDT	12	1.28	9.85
DOX-181T	3PDT	24	.57	8.65
DOX-185T	4PDT	24	.57	9.85
DOX-226T	‡DPST*	115	.110	8.60
DOUX-34‡	‡DPST*	115	.110	9.78
DOX-227T	‡3PST	115	.110	7.84
DOUX-28‡	‡3PST	115	.110	9.02
DOX-46T	3PDT	115	.110	8.65
DOUX-30‡	3PDT	115	.110	9.83
DOX-228T	‡4PST	115	.110	8.80
DOUX-31‡	‡4PST	115	.110	9.98
DOX-53T	4PDT	115	.110	9.85
DOUX-33‡	4PDT	115	.110	11.03
DOX-61T	3PDT	230	.070	9.05
DOX-130T	4PDT	230	.070	10.25

Stock No.	Type	Coil Data V.D.C.	Amps.	Net 1-24
DOX-145T	3PDT	6	.487	7.47
DOX-186T	4PDT	6	.487	8.65
DOX-51T	3PDT	12	.231	7.47
DOX-102T	4PDT	12	.231	8.65
DOX-141T	3PDT	24	.105	7.47
DOX-137T	4PDT	24	.105	8.65
DOX-93T	3PDT	110	.022	8.07
DOX-187T	4PDT	110	.022	9.25
DOX-182T	3PDT	220	.014	8.75
DOX-188T	4PDT	220	.014	9.93

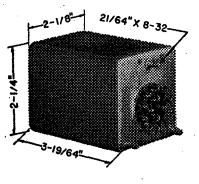
‡ Normally open
† AC Voltage is 60 cycle
* Double Break Contacts — 20 Amp.
‡ Listed by UL.

DO RELAYS IN HERMETIC ENCLOSURES



DOHPX-16T, 3PDT, 11 Prongs
DOHPX-15T, 4PDT, 20 Prongs

Stock DO relays with 115 volt coil in hermetically sealed metal enclosures, filled with dry nitrogen. Both 3 and 4-pole DO relays are supplied in these enclosures with plug (DOHPX-) or solder terminal (DOHX-) connectors as illustrated. **Weights:** 3-pole hermetic relay approx. 14 oz.; 4-pole approx. 15 oz.

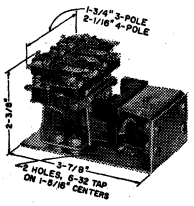


DOHX-22T, 3PDT, 14 Terminals
DOHX-23T, 4PDT, 14 Terminals

10 AMP. CONTACTS

Stock No.	Type	Coil Data Volts	Amps.	Net 1-24
DOHPX-16T	3PDT	115VAC	.110	21.95
DOHPX-15T	4PDT	115VAC	.110	27.95
DOHX-22T	3PDT	115VAC	.110	21.31
DOHX-23T	4PDT	115VAC	.110	22.90

MODEL DO LATCHING RELAY (DOLEX-)



Consists of Model DO relay and a "reset magnet" with both armatures mechanically latched so that the normally open contacts of the relay remain closed when the relay energizing voltage is removed. The relay releases to normal position when the reset coil is pulsed. Permits "holding" of circuits without continuous coil current. Coils of stock units (both relays and reset coils) are 115VAC. Available with 3 or 4-pole relays. **Weights:** 3-pole—16.5 oz.; 4-pole —17 oz.

DOLEX-3T, 3PDT
DOLEX-5T, 4PDT

10 AMP. CONTACTS

Stock No.	Type	Coil Data† Volts	Amps.	Net 1-24
DOLEX-3T	3PDT	115VAC	.110	15.17
DOLEX-5T	4PDT	115VAC	.110	16.37

† Coil data applies to relay part of latching assembly. Reset magnet operates on 115VAC, 60 cycle also.

MODEL DOSY RELAY

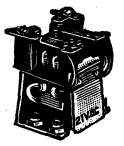
FOR PLATE CIRCUIT OPERATION

The high operating sensitivity makes the DOSY relay adaptable to a wide range of electronic control circuits, such as plate circuit controls, etc.

The insulation is of high grade, molded phenolic material. At 115 v. AC or 32 v. DC, resistive load, Model DOSY relay has a contact rating of 15 amperes.

There are two DPDT types, one having 10,000 ohms coil resistance (maximum pull-in current of 8 ma. DC); the other having 5,000 ohms coil resistance. Dimensions are same as for Model DOS next column.

Stock No.	Type	Coil Data D.C. Ohms	Max. Pull-in Current	Net Each 1-24
DOSYX-67T	DPDT	10,000	8 MA	6.09
DOSYX-68T	DPDT	5,000	11 MA	6.09
DOSYX-69T	SPDT	10,000	5 MA	5.62
DOSYX-70T	SPDT	5,000	7 MA	5.62



MODEL DOS RELAY

AC or DC OPERATION

Quality, general-purpose relays originally designed to meet rigorous aircraft specs. Extremely compact yet rugged. Coil drain: 2.5 watts DC, 3 watts at 60 cycles AC. Contact ratings: DP, 15 amps. at 115 v. AC or 32 v. DC resistive load; SP, 25 amps. Molded phenolic insulation; tested at 1500 v. AC. 1⅞ x 1⅝ x 1¹³⁄₃₂".

Stock No.	Type	Coil Data †V.A.C.	Amps.	Net 1-24
DOSX-229T	‡SPST*	6	.890	4.84
DOSX-230T	‡DPST	6	.890	4.94
DOSX-30T	DPDT	6	.890	5.46
DOSX-16T	DPDT	12	.460	5.46
DOSX-231T	‡SPST*	24	.269	4.84
DOSX-232T	‡DPST	24	.269	4.94
DOSX-162T	DPDT	24	.269	5.46
DOSX-233T	‡SPST*	115	.043	4.84
DOSUX-34‡	‡SPST*	115	.043	6.02
DOSX-234T	‡DPST	115	.043	4.94
DOSUX-31‡	‡DPST*	115	.043	6.13
DOSX-7T	DPDT	115	.043	5.46
DOSUX-33‡	†DPDT*	115	.043	6.64
DOSX-235T	‡SPST*	230	.030	5.24
DOSX-236T	‡DPST	230	.030	5.34
DOSX-12T	DPDT	230	.030	5.86

Stock No.	Type	Coil Data V.D.C.	Amps.	Net 1-24
DOSX-158T	DPDT	6	.550	4.96
DOSX-66T	DPDT	12	.210	4.96
DOSX-9T	DPDT	24	.105	4.96
DOSX-237T	‡SPST*	110	.022	4.99
DOSX-238T	‡DPST	110	.022	5.09
DOSX-59T	DPDT	110	.022	5.56
DOSX-177T	DPDT	220	.013	6.14

‡ Normally open
† AC Voltage is 60 cycle
* Double Break Contacts — 25 Amp.
‡ Listed by UL.

MODEL DOS PLUG-IN & ENCL. TYPES

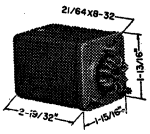
DOSPX-1T

DOSEPX-5T

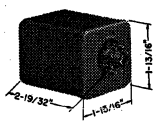
Model DOS, DPDT relay with standard octal plug base, unenclosed or enclosed types. Enclosed dust-proof type has drawn aluminum cover. Overall dimensions, exclusive of plug: DOSPX-1T—1⅝ x 2 x 1¹³⁄₁₆"; DOSEPX-5T—2⅛ x 2½ x 2⅛". Contacts—15 amps. Similar to DOSX-7T shown under "DOS Relays" above.

Stock No.	Type	Coil V.A.C.	Amps.	Net 1-24
DOSPX-1T Unenclosed	DPDT	115	.043	7.26
DOSEPX-5T Enclosed	DPDT	115	.043	8.30

DOS RELAYS IN HERMETIC ENCLOSURES



Hermetic Enclosures with 8 Terminals
DOSHX-39T, 115VDC
DOSHX-40T, 115VAC



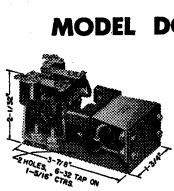
Hermetic Enclosures with Octal Plugs
DOSHPX-46T, 115VDC
DOSHPX-47T, 115VAC

Hermetically Sealed non-removable enclosures, filled with dry nitrogen, are also available to provide protection under adverse ambient conditions. DOS relays with 115 volt AC or DC coils are provided in these enclosures with either octal plug (DOSHPX-) or solder-terminal (DOSHX-) connectors as illustrated. **Weights:** 8 oz. each approx.

15 AMP. CONTACTS

Stock No.	Type	Coil Data Volts	Amps.	Net 1-24
DOSHX-40T	DPDT	115VAC	.043	13.58
DOSHPX-47T	DPDT	115VAC	.043	13.66
DOSHX-39T	DPDT	110VDC	.022	13.68
DOSHPX-46T	DPDT	110VDC	.022	13.76

MODEL DOS LATCHING RELAY (DOSLEX-)



DOSLEX-1T

Consists of Model DOS relay and a "reset magnet" with both armatures mechanically latched so that the normally open contacts of the relay remain closed when the relay energizing voltage is removed. The relay releases to normal position when the reset coil is pulsed. Permits "holding" of circuits without continuous coil current. Coils of stock units (both relay and reset magnet) are 115VAC. **Weight:** 14.2 oz.

15 AMP. CONTACTS

Stock No.	Type	Coil Data † Volts	Amps.	Net 1-24
DOSLEX-1T	DPDT	115VAC	.043	11.98

† Coil data applies to relay part of latching assembly. Reset magnet operates on 115VAC, 60 cycle also.

Net

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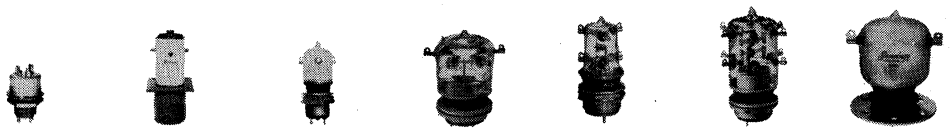
ITT Jennings VACUUM TRANSFER AND COAXIAL RELAYS

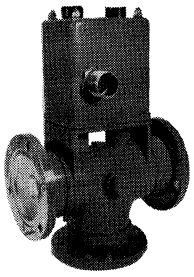


Vacuum Transfer Relays

Jennings Type	RJ1A	RF10A	RB1	RB2A	RB3	RB4	RE6B
Contact arrangement	SPDT	SPDT	SPDT	2PDT	2PDT	4PDT	SPDT
Rated operating voltage— dc or 60 cycle		15 kv pk	12 kv pk	20 kv pk	12 kv pk	15 kv pk	25 kv pk
16 mc	2.0 kv pk	10 kv pk	8 kv pk	10 kv pk	8 kv pk	10 kv pk	12 kv pk
Test voltage—60 cycle peak	5 kv pk	20 kv pk	18 kv pk	25 kv pk	15 kv pk	17 kv pk	30 kv pk
Continuous current—rms—amps— 60 cycle		75 amps	15 amps	20 amps	30 amps	20 amps	25 amps
2.5 mc	14 amps	50 amps	10 amps	12 amps	10 amps	10 amps	13 amps
16 mc	7 amps	30 amps	6 amps	6 amps	6 amps	6 amps	8 amps
Contact resistance	.010 ohms max.	.012 ohms max.	.012 ohms max.	.01 ohms max.	.01 ohms max.	.01 ohms max.	.012 ohms max.
Contact capacitance	2 pf nom.	.5 pf nom.	0.5 mmfd nom.	1 mmfd nom.	1 mmfd nom.	1 mmfd nom.	1.0 mmfd nom.
Capacitance to ground	2.5 pf nom.	1.5 pf nom.	1.0 mmfd nom.	2.5 mmfd nom.	2.5 mmfd nom.	2.5 mmfd nom.	2.0 mmfd nom.
Operate times	8 msec max.	22 msec max.	18 ms max.	20 ms max.	20 ms max.	45 ms max.	25 ms max.
Release times	8 msec max.	10 msec max.	8ms max.	10 ms max.	8 ms max.	10 ms max.	10 ms max.
DC actuating coil—resistance +10%	335 ohms	65 ohms	265 ohms	225 ohms	120 ohms	131 ohms	120 ohms
voltage	26.5 vdc	26.5 vdc	26.5 vdc	26.5 vdc	26.5 vdc	26.5 vdc	26.5 vdc
Shock	50G-11 ms	30G-11 ms	50G-11 ms	30G-11 ms	30G-11 ms	30G-11 ms	30G-11 ms
Vibration	10G to 2000 cps	5G 55-2000 cps	5G to 2000 cps	5G to 2000 cps	5G to 2000 cps	5G to 2000 cps	10G to 400cps

Vacuum Coaxial Relays

FOR 50 OHM 3⅛ LINES

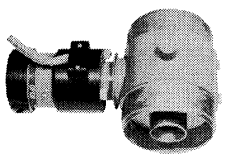


RC21

TYPE RC21 SPDT LATCHING VACUUM RELAY

Line Size: 3⅛ inch
Fittings: "EIA," Flange type
Inner **Connector:** Anchor type. "EIA" Bullet to Jennings spring type.
Configuration "T". May be installed in place of "EIA" 50 ohm standard elbow without modification of existing coaxial line.
Actuation: Permanent magnet latching, electrical or manual.
Indicator: DPDT auxiliary contacts and visual indicator.
Transfer time: Less than 40 millisec.
Weight: 14 lbs. (approx.)

Impedance: 50 ohms
Frequency: 0-500 mc
Power Rating: 20 kw cw at 500 mc. 3 megawatt pk. (special order)
Insertion Loss: 0.01 db max.
Crosstalk: Greater than 35 db. isolation at 500 mc.
VSWR: 1.1:1 max 0 to 500 mc.



RC10

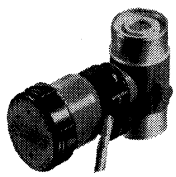
TYPE RC10 SPST LATCHING VACUUM RELAY

Line Size: 3⅛ inch

A SPST latching relay for use at frequencies up to 100 mc. Simple fittings are available that permit assembling multiple units in crossbar networks in a minimum of space. As an example a 4 x 5 (4 inputs, 5 outputs) network can be assembled occupying less than 9 cu. ft. of space.

Characteristic Impedance: 50 ohms
Power rating: 90 kw cw to 30 mc
Frequency Range: 0 to 100 mc
VSWR: 1.02 max. at 30 mc; 1.05 max. at 60 mc
Crosstalk: Greater than 65 db isolation at 30 mc
Actuating Voltage: 26.5 V DC
Actuator: Latching type
Position Indicators: DPDT Auxiliary Contacts

FOR 50 OHM 1⅝ LINES



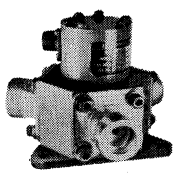
RC5

TYPE RC5 SPST LATCHING VACUUM RELAY

Line Size: 1⅝ inch

A SPST latching relay for use at frequencies up to 100 mc. The RC 5 relay has been designed to provide an extremely flexible means of remotely switching coaxial lines. Simple fittings are available for assembly of multiple units in crossbar networks in a minimum of space.

Characteristic Impedance: 50 ohms
Power Rating: 25 kw cw at 30 mc
Frequency Range: 0 to 100 mc
VSWR: 1.02 max. at 30 mc; 1.05 max. at 60 mc
Crosstalk: Greater than 70 db isolation at 30 mc
Actuation: Permanent magnet latching electrical/manual
Actuating Voltage: 26.5 V DC
Position Indicators: DPDT Auxiliary Contacts



RC43

RC40 SERIES VACUUM COAXIAL RELAYS

These are SPDT relays for use at frequencies up to 600 mc. The RC40 series utilizes type RB1 transfer relays in specially designed and compensated housings. Three different sizes are available to accommodate a variety of standard coaxial connectors. Housings are available with the following connectors: BNC, TNC, N, UHF, HN, C, SC, and LC.

MODEL RC43
Characteristic Impedance: 50 ohms
Power Rating: 15 kw peak, 1 kw cw at 600 mc, 5 kw cw at 30 mc
Frequency Range: 0 to 600 mc
VSWR: 1.1:1 max.
Crosstalk: Greater than 30 db isolation at 300 mc
Insertion Loss: 0.1 db max.
Actuating Voltage: 26.5 or 115 V DC
Height: 3⅞ inches

JENNINGS RADIO MANUFACTURING CORPORATION

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DIVISION OF ESSEX WIRE CORPORATION

STANDARD CONTROLS CATALOG 1967

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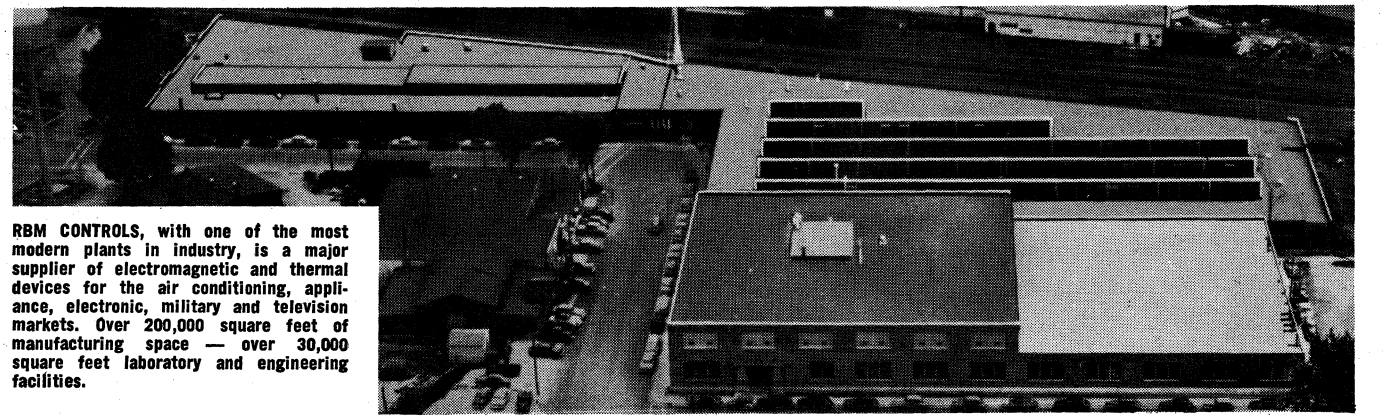

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ELECTRONIC MARKETING DIVISION
ESSEX WIRE CORPORATION

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RBM CONTROLS — PART NUMBER INDEX AND PRICES

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59-901	11	3.42	3.08	2.74	2.40
59-902		4.12	3.71	3.30	2.89
59-903		4.12	3.71	3.30	2.89
59-904		3.42	3.08	2.74	2.40
59-905		4.12	3.71	3.30	2.89
59-906		4.12	3.71	3.30	2.89
60-901	12	2.70	2.43	2.16	1.89
60-902		2.70	2.43	2.16	1.89
60-903		2.70	2.43	2.16	1.89
60-904		2.70	2.43	2.16	1.89
70-901	12	3.74	3.37	3.00	2.62
70-902		3.74	3.37	3.00	2.62
70-903		3.74	3.37	3.00	2.62
70-904		3.74	3.37	3.00	2.62
70-905		5.97	5.37	4.77	4.18
70-906		5.97	5.37	4.77	4.18
70-907		5.97	5.37	4.77	4.18
70-908		5.97	5.37	4.77	4.18
70-909		9.54	8.59	7.64	6.68
70-910		9.54	8.59	7.64	6.68
70-911		9.54	8.59	7.64	6.68
70-912		9.54	8.59	7.64	6.68
75-901	8	4.59	4.13	3.67	3.21
75-902		4.59	4.13	3.67	3.21
75-903		4.59	4.13	3.67	3.21
75-904		4.59	4.13	3.36	3.21
75-905		4.59	4.13	3.36	3.21
75-906		4.59	4.13	3.36	3.21
80-901	8	7.27	6.54	5.82	5.09
80-902		7.27	6.54	5.82	5.09
80-903		7.27	6.54	5.82	5.09
80-904		7.27	6.54	5.82	5.09
81-901	13	8.42	7.58	6.74	5.90
81-902		8.42	7.58	6.74	5.90
81-903		8.42	7.58	6.74	5.90
84-901	5	2.85	2.57	2.28	2.00
84-902		2.90	2.61	2.32	2.03
84-903		3.05	2.75	2.44	2.14
84-904		3.35	3.02	2.68	2.35
84-905		3.00	2.70	2.40	2.10
84-906		3.20	2.88	2.56	2.24
84-907		3.35	3.02	2.68	2.35
84-908		3.59	3.24	2.87	2.52
84-912		2.90	2.61	2.32	2.03
84-913		3.05	2.75	2.44	2.14
84-914		3.35	3.02	2.68	2.35
84-916		3.20	2.88	2.56	2.24
84-917		3.35	3.02	2.68	2.35
84-918		3.59	3.24	2.87	2.52
84-922		2.90	2.61	2.32	2.03
84-923		3.05	2.75	2.44	2.14
84-924		3.35	3.02	2.68	2.35
84-926		3.20	2.88	2.56	2.24
84-927		3.35	3.02	2.68	2.35
84-928		3.59	3.24	2.87	2.52

PART NUMBER	PG.	SUGGESTED PRICE 1-24	25-49	50-99	100-249
84D-901	11	3.05	2.75	2.44	2.14
84D-902		3.05	2.75	2.44	2.14
84D-903		3.05	2.75	2.44	2.14
84TD-901	11	7.57	6.82	6.06	5.30
84TD-902		7.57	6.82	6.06	5.30
84TD-903		7.57	6.82	6.06	5.30
84TE-901	11	7.57	6.82	6.06	5.30
84TE-902		7.57	6.82	6.06	5.30
84TE-903		7.57	6.82	6.06	5.30
85-901	8	10.80	9.72	8.64	7.56
85-902		10.80	9.72	8.64	7.56
85-903		10.80	9.72	8.64	7.56
91-180-1	5	.60	.54	.48	.42
91-901		5.14	4.63	4.11	3.60
91-902		5.37	4.84	4.30	3.76
91-903		5.57	5.02	4.46	3.90
91-904		4.94	4.45	3.96	3.46
91-905		5.17	4.66	4.14	3.67
91-906		5.37	4.84	4.30	3.76
91-907		4.84	4.36	3.87	3.39
91-908		5.07	4.57	4.06	3.55
91-909		5.27	4.75	4.22	3.69
91D-901	12	4.84	4.36	3.87	3.39
91D-902		4.84	4.36	3.87	3.39
91D-903		4.84	4.36	3.87	3.39
91D-911		4.96	4.47	3.97	3.48
91D-912		4.96	4.47	3.97	3.48
91D-913		4.96	4.47	3.97	3.48
92-901	5	5.87	5.29	4.70	4.11
92-902		6.07	5.47	4.86	4.25
92-903		6.24	5.62	5.00	4.37
92-904		5.79	5.21	4.63	4.05
92-905		5.99	5.39	4.79	4.19
92-906		6.14	5.53	4.92	4.30
92-907		5.70	5.13	4.56	3.99
92-908		5.90	5.31	4.72	4.13
92-909		6.05	5.45	4.84	4.24
92-910		5.64	5.08	4.51	3.95
92-911		5.84	5.26	4.67	4.09
92-912		5.99	5.39	4.80	4.20
92D-901	12	5.84	5.26	4.67	4.09
92D-902		5.84	5.26	4.67	4.09
92D-903		5.84	5.26	4.67	4.09
92D-911		6.04	5.44	4.84	4.23
92D-912		6.04	5.44	4.84	4.23
92D-913		6.04	5.44	4.84	4.23
93-153-1	6	.60	.54	.48	.42
93-901		3.25	2.93	2.60	2.28
93-902		3.95	3.56	3.16	2.74
93-903		4.40	3.96	3.52	3.08
93-904		3.25	2.93	2.60	2.28
93-905		3.95	3.56	3.16	2.74
93-906		4.40	3.96	3.52	3.08
93-907		3.25	2.93	2.60	2.28
93-908		3.95	3.56	3.16	2.74
93-909		4.40	3.96	3.52	3.08

PART NUMBER	PG.	SUGGESTED PRICE 1-24	25-49	50-99	100-249
93-910	6	3.65	3.29	2.92	2.56
93-911		4.35	3.92	3.48	3.05
93-912		4.80	4.32	3.84	3.36
93-913		3.10	2.79	2.48	2.17
93-914		3.50	3.15	2.80	2.45
93-915		4.00	3.60	3.20	2.80
93-916		3.10	2.79	2.48	2.17
93-917		3.50	3.15	2.80	2.45
93-918		4.00	3.60	3.20	2.80
93-919		3.10	2.79	2.48	2.17
93-920		3.50	3.15	2.80	2.45
93-921		4.00	3.60	3.20	2.80
93-922		3.70	3.33	2.96	2.59
93-923		4.10	3.69	3.28	2.87
93-924		4.60	4.14	3.68	3.22
93-931	6	3.20	2.88	2.56	2.24
93-932		3.85	3.47	3.08	2.70
93-933		4.25	3.83	3.40	2.98
93-934		3.20	2.88	2.56	2.24
93-935		3.85	3.47	3.08	2.70
93-936		4.25	3.83	3.40	2.98
93-937		3.20	2.88	2.56	2.24
93-938		3.85	3.47	3.08	2.70
93-939		4.25	3.83	3.40	2.98
93-940		3.60	3.24	2.88	2.52
93-941		4.25	3.83	3.40	2.98
93-942		4.65	4.19	3.72	3.26
93-943		3.05	2.75	2.44	2.14
93-944		3.40	3.06	2.72	2.38
93-945		3.85	3.47	3.08	2.70
93-946		3.05	2.75	2.44	2.14
93-947		3.40	3.06	2.72	2.38
93-948		3.85	3.47	3.08	2.70
93-949		3.05	2.75	2.44	2.14
93-950		3.40	3.06	2.72	2.38
93-951		3.85	3.47	3.08	2.70
93-952		3.65	3.29	2.92	2.56
93-953		4.00	3.60	3.20	2.80
93-954		4.45	4.01	3.56	3.12
93-964	6	3.20	2.88	2.56	2.24
93-965		3.85	3.47	3.08	2.70
93-966		4.25	3.83	3.40	2.98
93-967		3.20	2.88	2.58	2.24
93-968		3.85	3.47	3.08	2.70
93-969		4.25	3.83	3.40	2.98
93-976		3.05	2.75	2.44	2.14
93-977		3.40	3.06	2.72	2.38
93-978		3.85	3.47	3.08	2.70
93-979		3.05	2.75	2.44	2.14
93-980		3.40	3.06	2.72	2.38
93-981		3.85	3.47	3.08	2.70
93P-901	6	5.50	4.95	4.40	3.85
93P-902		6.15	5.54	4.92	4.31
93P-903		7.65	6.89	6.12	5.36
93P-904		5.50	4.95	4.40	3.85
93P-905		6.15	5.54	4.92	4.31

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PART NUMBER INDEX AND PRICES

PART NUMBER	PG.	SUGGESTED PRICE 1-24	25-49	50-99	100-249
93P-908		7.65	6.89	6.12	5.36
93P-907		5.50	4.95	4.40	3.85
93P-908		6.15	5.54	4.92	4.31
93P-909		7.65	6.89	6.12	5.36
93P-910		5.90	5.31	4.72	4.13
93P-911		6.55	5.90	5.24	4.59
93P-912		8.05	7.25	6.44	5.64
93P-913		5.45	4.91	4.36	3.82
93P-914		6.10	5.49	4.88	4.27
93P-915	6	7.60	6.84	6.08	5.32
93P-916		5.45	4.91	4.36	3.82
93P-917		6.10	5.49	4.88	4.27
93P-918		7.60	6.84	6.08	5.32
93P-919		5.45	4.91	4.36	3.82
93P-920		6.10	5.49	4.88	4.27
93P-921		7.60	6.84	6.08	5.32
93P-922		6.05	5.45	4.84	4.24
93P-923		6.70	6.03	5.36	4.69
93P-924		8.20	7.38	6.56	5.74
93P-931		5.45	4.91	4.36	3.82
93P-932		6.05	5.45	4.84	4.24
93P-933		7.50	6.75	6.00	5.25
93P-934		5.45	4.91	4.36	3.82
93P-935		6.05	5.45	4.84	4.24
93P-936		7.50	6.75	6.00	5.25
93P-937		5.45	4.91	4.36	3.82
93P-938		6.05	5.45	4.84	4.24
93P-939		7.50	6.75	6.00	5.25
93P-940		5.85	5.27	4.68	4.10
93P-941		6.45	5.81	5.16	4.52
93P-942	6	7.90	7.11	6.32	5.53
93P-943		5.40	4.86	4.32	3.78
93P-944		6.00	5.40	4.80	4.20
93P-945		7.45	6.71	5.96	5.22
93P-946		5.40	4.86	4.32	3.78
93P-947		6.00	5.40	4.80	4.20
93P-948		7.45	6.71	5.96	5.22
93P-949		5.40	4.86	4.32	3.78
93P-950		6.00	5.40	4.80	4.20
93P-951		7.45	6.71	5.96	5.22
93P-952		6.00	5.40	4.80	4.20
93P-953		6.60	5.94	5.28	4.62
93P-954		8.05	7.25	6.44	5.64
93Q-901		3.75	3.38	3.00	2.63
93Q-902		4.50	4.05	3.60	3.15
93Q-903		5.00	4.50	4.00	3.50
93Q-904		3.75	3.38	3.00	2.63
93Q-905		4.50	4.05	3.60	3.15
93Q-906		5.00	4.50	4.00	3.50
93Q-907		3.75	3.38	3.00	2.63
93Q-908		4.50	4.05	3.60	3.15
93Q-909		5.00	4.50	4.00	3.50
93Q-910		4.15	3.74	3.32	2.91
93Q-911		4.90	4.41	3.92	3.43
93Q-912		5.40	4.86	4.32	3.78
93Q-913	6	3.60	3.24	2.88	2.52
93Q-914		4.05	3.65	3.24	2.84
93Q-915		4.60	4.14	3.68	3.22
93Q-916		3.60	3.24	2.88	2.52
93Q-917		4.05	3.65	3.24	2.84
93Q-918		4.60	4.14	3.68	3.22
93Q-919		3.60	3.24	2.88	2.52
93Q-920		4.05	3.65	3.24	2.84
93Q-921		4.60	4.14	3.68	3.22
93Q-922		4.20	3.78	3.36	2.94
93Q-923		4.65	4.19	3.72	3.26
93Q-924		5.20	4.68	4.16	3.64
93Q-931		3.70	3.33	2.96	2.59
93Q-932		4.40	3.96	3.52	3.08
93Q-933		4.85	4.37	3.88	3.40
93Q-934		3.70	3.33	2.96	2.59
93Q-935		4.40	3.96	3.52	3.08
93Q-936		4.85	4.37	3.88	3.40
93Q-937		3.70	3.33	2.96	2.59
93Q-938		4.40	3.96	3.52	3.08
93Q-939		4.85	4.37	3.88	3.40
93Q-940		4.10	3.69	3.28	2.87
93Q-941	6	4.80	4.32	3.84	3.36
93Q-942		5.25	4.73	4.20	3.68
93Q-943		3.55	3.20	2.84	2.49
93Q-944		3.95	3.56	3.16	2.74
93Q-945		4.45	4.01	3.56	3.12
93Q-946		3.55	3.20	2.84	2.49
93Q-947		3.95	3.56	3.16	2.74
93Q-948		4.45	4.01	3.56	3.12
93Q-949		3.55	3.20	2.84	2.49
93Q-950		3.95	3.56	3.16	2.74
93Q-951		4.45	4.01	3.56	3.12
93Q-952		4.15	3.74	3.32	2.81
93Q-953		4.55	4.10	3.64	3.19
93Q-954		5.05	4.55	4.04	3.54
129-901		3.89	3.50	3.11	2.72
129-902		3.94	3.55	3.16	2.76
129-903		4.05	3.65	3.24	2.84
129-904	5	4.14	3.73	3.31	2.90
129-905		4.32	3.89	3.46	3.03
129-906		4.37	3.94	3.50	3.06
129-907		4.50	4.05	3.60	3.15
129-908		4.59	4.14	3.68	3.22
129AR-901		6.64	5.98	5.31	4.65
129AR-902		6.94	6.25	5.55	4.86
129AR-903	5	7.25	6.53	5.80	5.08
129AR-904		7.24	6.52	5.80	5.07
129AR-905		7.54	6.79	6.04	5.28
129AR-906		7.85	7.07	6.28	5.50
129TD-901	11	8.57	7.72	6.86	6.00
129TD-902		8.57	7.72	6.86	6.00
142TE-901		18.00	16.20	14.40	12.60
142TE-902		18.00	16.20	14.40	12.60
142TE-903		18.00	16.20	14.40	12.60
142TE-911		18.00	16.20	14.40	12.60
142TE-912	11	18.00	16.20	14.40	12.60
142TE-913		18.00	16.20	14.40	12.60
142TE-921		18.00	16.20	14.40	12.60
142TE-922		18.00	16.20	14.40	12.60
142TE-923		18.00	16.20	14.40	12.60
143-901		4.78	4.30	3.83	3.35
143-902		4.78	4.30	3.83	3.35
143-903		4.78	4.30	3.83	3.35
143-911		4.78	4.30	3.83	3.35
143-912		4.78	4.30	3.83	3.35
143-913		4.78	4.30	3.83	3.35
987-901		3.90	3.51	3.12	2.73
987-902		4.10	3.69	3.28	2.87
987-903		4.20	3.78	3.36	2.94
987-904		4.44	4.00	3.55	3.11
987-905		4.02	3.62	3.22	2.82
987-906		4.22	3.80	3.38	2.96
987-907		4.35	3.92	3.48	3.05
987-908		4.55	4.10	3.64	3.19
987-909	7	4.47	4.02	3.58	3.13
987-910		4.66	4.20	3.73	3.26
987-911		4.79	4.32	3.83	3.36
987-912		4.99	4.50	4.00	3.50
987-913		5.02	4.52	4.02	3.52
987-914		5.22	4.70	4.18	3.66
987-915		5.35	4.82	4.28	3.75
987-916		5.55	5.00	4.44	3.89
BRM-901	15	1.25	1.13	1.00	.88
BRM-902		1.35	1.22	1.08	.95
BRMR1-901		5.11	4.60	4.09	3.58
BRMR1-902	16	5.16	4.64	4.13	3.61
BRMR1-903		5.26	4.73	4.21	3.68
BRMR2-901		7.15	6.43	5.72	5.00
BRMR2-902	16	7.18	6.46	5.74	5.03
BRMR2-903		7.24	6.52	5.79	5.07
BRMR4-901		11.22	10.10	8.98	7.86
BRMR4-902	16	11.25	10.13	9.00	7.88
BRMR4-903		11.31	10.18	9.05	7.92
BRS-901	15	1.25	1.13	1.00	.88
BRSR1-901		4.77	4.30	3.82	3.34
BRSR1-902	16	4.83	4.35	3.87	3.39
BRSR1-903		4.87	4.39	3.90	3.41
BRSR2-901		6.22	5.60	4.98	4.36
BRSR2-902	16	6.28	5.66	5.03	4.40
BRSR2-903		6.33	5.70	5.07	4.44
BRSR4-901		9.12	8.21	7.30	6.39
BRSR4-902	16	9.18	8.27	7.35	6.43
BRSR4-903		9.23	8.31	7.39	6.47
BRSR6-901		12.02	10.82	9.62	8.42
BRSR6-902	16	12.08	10.88	9.67	8.46
BRSR6-903		12.13	10.92	9.71	8.50
CA-901		5.76	4.33	4.33	4.33
CA-902	10	7.80	5.85	5.85	5.85
CA-903		10.40	7.80	7.80	7.80
CA-904		9.66	7.25	7.25	7.25
C15-901		19.80	17.82	15.84	13.86
C15-902	9	19.80	17.82	15.84	13.86
C15-903		19.80	17.82	15.84	13.86
C15-904		19.80	17.82	15.84	13.86
CR15-901		43.20	38.88	34.56	30.24
CR15-902	9	43.20	38.88	34.56	30.24
CR15-903		43.20	38.88	34.56	30.24
C30-901		24.30	21.87	19.44	17.01
C30-902	9	24.30	21.87	19.44	17.01
C30-903		24.30	21.87	19.44	17.01
C30-904		24.30	21.87	19.44	17.01
CR30-901		52.10	46.89	41.68	36.47
CR30-902	9	52.10	46.89	41.68	36.47
CR30-903		52.10	46.89	41.68	36.47
C50R-901		26.00	23.40	20.80	18.20
C50R-902	9	26.00	23.40	20.80	18.20
C50R-903		26.00	23.40	20.80	18.20
C50R-904		26.00	23.40	20.80	18.20
MC-901		4.68	3.51	3.51	3.51
MC-902		4.68	3.51	3.51	3.51
MC-903		4.68	3.51	3.51	3.51
MC-904		4.68	3.51	3.51	3.51
MC-905	10	4.68	3.51	3.51	3.51
MC-911		4.82	3.62	3.62	3.62
MC-912		4.82	3.62	3.62	3.62
MC-913		4.82	3.62	3.62	3.62
MC-914		4.82	3.62	3.62	3.62
MC-915		4.82	3.62	3.62	3.62
MS25-901		3.25	2.93	2.60	2.28
MS25-902		3.38	3.05	2.71	2.36
MS25-903	13	3.84	3.46	3.07	2.69
MS25-904		3.56	3.21	2.85	2.49
MS25-905		4.10	3.69	3.28	2.87
MS25-906		5.05	4.55	4.04	3.54
MS25P-901		5.76	5.19	4.61	4.04
MS25P-902		5.90	5.31	4.72	4.13
MS25P-903	13	6.37	5.74	5.10	4.46
MS25P-904		6.00	5.40	4.80	4.20
MS25P-905		6.40	5.76	5.12	4.48
MS25P-906		7.35	6.62	5.88	5.15
MS50-901		4.10	3.69	3.28	2.87
MS50-902		4.15	3.74	3.32	2.91
MS50-903		4.20	3.78	3.36	2.94
MS50-904		4.38	3.94	3.51	3.07
MS50-905		4.92	4.43	3.94	3.44
MS50-906	14	5.87	5.28	4.70	4.11
MS50-921		5.00	4.50	4.00	3.50
MS50-922		5.03	4.53	4.03	3.52
MS50-923		5.08	4.57	4.06	3.55
MS50-924		5.29	4.76	4.23	3.70
MS50-925		5.82	5.24	4.66	4.07
MS50-926		6.77	6.09	5.42	4.74
MS50P-901		6.14	5.53	4.92	4.30
MS50P-902		6.19	5.58	4.96	4.34
MS50P-903		6.30	5.67	5.04	4.41
MS50P-904		6.40	5.76	5.12	4.48
MS50P-905		6.80	6.12	5.44	4.76
MS50P-906	14	8.25	7.43	6.60	5.78
MS50P-921		7.35	6.61	5.88	5.15
MS50P-922		7.38	6.64	5.90	5.17
MS50P-923		7.43	6.68	5.94	5.20
MS50P-924		7.85	7.07	6.28	5.50
MS50P-925		8.25	7.43	6.60	5.78
MS50P-926		9.15	8.23	7.33	6.40
MS64-901		2.37	2.13	1.90	1.66
MS64-902		2.44	2.20	1.96	1.71
MS64-903		2.82	2.54	2.27	1.97
MS64-904	14	2.96	2.66	2.37	2.07
MS64-911		2.43	2.19	1.95	1.70
MS64-912		2.51	2.26	2.02	1.76
MS64-913		2.89	2.60	2.32	2.02
MS64-914		3.00	2.71	2.42	2.12
RP-901		4.28	3.22	3.22	3.22
RP-902	10	6.92	5.19	5.19	5.19
RP-903		7.82	5.87	5.87	5.87
S30-901		11.55	10.40	9.24	8.09
S30-902	8	11.55	10.40	9.24	8.09
S30-903		11.55	10.40	9.24	8.09
S40-901		13.10	11.79	10.48	9.17
S40-902	8	13.10	11.79	10.48	9.17
S40-903		13.10	11.79	10.48	9.17
TRM-901	15	6.50	5.85	5.20	4.55
TRMR1-901		10.07	9.06	8.06	7.05
TRMR1-902	16	10.12	9.11	8.10	7.08
TRMR1-903		10.22	9.20	8.18	7.15
TRMR2-901		14.59	13.13	11.67	10.21
TRMR2-902	16	14.62	13.16	11.70	10.23
TRMR2-903		14.68	13.21	11.74	10.28
UE-901	10	6.00	5.40	4.80	4.20

CONSULT YOUR RBM CONTROLS AUTHORIZED STOCKING DISTRIBUTOR FOR FACTORY PRICES IN LARGER QUANTITIES

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ALTERNATING CURRENT CONTROLS

GENERAL PURPOSE RELAYS—GENERAL REPLACEMENT RELAYS—TIME DELAY RELAYS—POWER & INDUSTRIAL CONTACTORS

MAXIMUM CONTINUOUS LOAD IN AMPERES (INDUCTIVE)	NUMBER OF POLES											
	SINGLE POLE			TWO POLE			THREE POLE			FOUR POLE		
	CLASSIFICATION	TYPE	PAGE	CLASSIFICATION	TYPE	PAGE	CLASSIFICATION	TYPE	PAGE	CLASSIFICATION	TYPE	PAGE
LOW LEVEL Thermo-couple, pilot lights, etc.	Time Delays	*84T	11	General Purpose	*91	5	General Purpose	92 93	5 6	General Replacement	*987	7
3	Time Delays	*84T 59	11	General Purpose General Replacement	*91 *987	5 7	General Purpose	*92	5	General Replacement	*987	7
5	General Purpose	*93	6	General Purpose	*93	6	General Purpose	*93	6			
8	General Purpose	84	5									
10	General Purpose	93	6	General Purpose Time Delays	93 142T	6 11	General Purpose	*93	6			
12				General Purpose	91	5						
15	General Replacement	987	7	General Replacement	987	7				Industrial Contactors	C15 CR15	9
18	General Purpose Time Delays	129 129T	5 11	Power Contactors	143 75	7 8	General Purpose	92	5			
25				Power Contactors 25 amp. Type 143 Resistive Only	80 143	8 7	Power Contactors	85	8			
30							Power Contactors Industrial Contactors	S30 C30 CR30	8 9			
40							Power Contactors	S40	8			
50 (Resistive Only)										Industrial Contactors	C50R	9

UNIVERSAL ENCLOSURE, REPLACEMENT CONTACTS, CONTACT BLOCK AND CARRIER, MAGNET COILS, MAGNET AND ARMATURE ASSEMBLIES FOR TYPE C CONTACTORS—PAGE 10

*Indicates relays have special alloy contacts—designed expressly for low level current.

DIRECT CURRENT CONTROLS

REED SWITCHES—REED RELAYS—CURRENT SENSITIVE RELAYS—COMPUTER RELAYS—GENERAL PURPOSE RELAYS

MAXIMUM CONTINUOUS LOAD IN AMPERES (INDUCTIVE)	NUMBER OF POLES											
	SINGLE POLE			TWO POLE			THREE POLE			FOUR POLE		
	CLASSIFICATION	TYPE	PAGE	CLASSIFICATION	TYPE	PAGE	CLASSIFICATION	TYPE	PAGE	CLASSIFICATION	TYPE	PAGE
DRY CIRCUIT TO 0.125	Reed Switches	*BRM *BRS *TRM	15	Reed Relays	*BRMR2 *BRSR2 *TRMR2	16	Current Sensitive	*MS50 *MS50P	14	Reed Relays	*BRMR4 *BRSR4	16
	Reed Relays	*BRMR1 *BRSR1 *TRMR1	16									
	Current Sensitive	*MS25 *MS25P *MS64	13	Current Sensitive	*MS50 *MS50P	14				Computer	*81	13
0.250	Reed Switches	*BRS *TRM	15	Reed Relays	*BRSR2 *TRMR2	16	Current Sensitive	*MS50 *MS50P	14	Reed Relays	*BRSR4	16
	Reed Relays	*BRSR1 *TRMR1	16									
	Current Sensitive	*MS25 *MS25P *MS64	13	Current Sensitive	*MS50 *MS50P	14				Computer	*81	13
1.0	Reed Switches	*BRS	15	Reed Relays	*BRSR2	16	Current Sensitive	*MS50 *MS50P	14	Reed Relays	*BRSR4	16
	Reed Relays	*BRSR1	16									
	Current Sensitive	*MS25 *MS25P *MS64	13	Current Sensitive	*MS50 *MS50P	14				Computer	*81	13
2.0	Current Sensitive	*MS25 *MS25P *MS64	13	Current Sensitive	*MS50 *MS50P	14	Current Sensitive	*MS50 *MS50P	14	Computer	*81	13
3.0	General Purpose	84D	11	General Purpose	*91D	12	General Purpose	*92D	12			
5.0 (Resistive Only)				Time Delays	142T	11						
10 (Resistive Only)				General Purpose	91D	12	General Purpose	92D	12			

SINGLE POLE POWER CONTACTORS (7½ TO 80 AMPERES).....PAGE 1

*Indicates relays have special alloy contacts—designed expressly for low level current.

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5 RBM CONTROLS — A.C. GENERAL PURPOSE RELAYS

TYPE 84

FIGURE 1

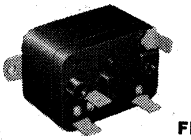


FIGURE 2

APPROX. OVERALL DIMENSIONS
2⅜" x 1⅝" x 1½"

Totally Enclosed

Screw or Quick Connect Terminals

Operates any Position

SINGLE POLE NORMALLY OPEN and SINGLE POLE DOUBLE THROW

COIL VOLTAGE (50/60 cy)	PART NUMBER FIGURE 1		*CONTACT RATING 125/250 V. A.C.	
	1PNO	1PDT	INDUCTIVE	RESISTIVE
6	84-901	84-905	N.O. 8 AMPS. CONTINUOUS 25 AMP. INRUSH	N.O. 16 AMPS. CONTINUOUS
24	84-902	84-906		
115/120	84-903	84-907		
230/240	84-904	84-908		
COIL VOLTAGE (50/60 cy)	PART NUMBER FIGURE 2		D.T. 8 AMPS. CONTINUOUS 18 AMPS. INRUSH	D.T. 8 AMPS. CONTINUOUS
	1PNO	1PDT		
24	84-912	84-916		
115/120	84-913	84-917		
230/240	84-914	84-918		
24	84-922	84-926	3 AMPS. @ 125 V. A.C. OR 1.5 AMPS. @ 250 V. A.C. PILOT DUTY	
115/120	84-923	84-927		
230/240	84-924	84-928		

*See Type 84D for D.C. Contact Ratings. Quick Connect Wiring Terminals Included.

TYPE 129

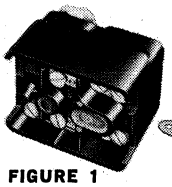


FIGURE 1

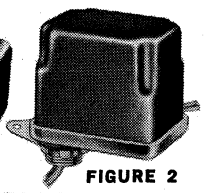


FIGURE 2

APPROX. OVERALL DIMENSIONS
FIG. 1. 2⅜" x 1⅞" x 1⅞"
FIG. 2. 2¾" x 2¼" x 3⅛"

Totally Enclosed

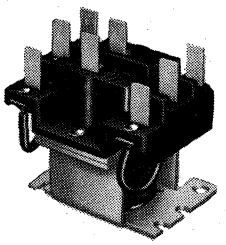
Operates any Position

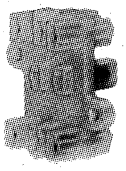
SINGLE POLE NORMALLY OPEN and SINGLE POLE DOUBLE THROW

COIL VOLTAGE (50/60 cy)	PART NUMBER				CONTACT RATING 250 V. A.C. MAX.	
	FIGURE 1		*FIGURE 2		INDUCTIVE	RESISTIVE
	1PNO	†1PDT	1PNO	†1PDT		
6	129-901	129-905	—	—	18 AMP. CONTINUOUS 1 H.P.-125V. 1½ H.P.	18 AMP. CONTINUOUS
24	129-902	129-906	129AR-901	129AR-904		
115/120	129-903	129-907	129AR-902	129AR-905		
208/230	129-904	129-908	129AR-903	129AR-906		

FIG. 2 FITS ANY ½" KNOCK-OUT. MEETS STANDARD CODE REQUIREMENTS.
*Underwriters Lab. white card listed. File E12139D 184N13.13 7/17/63.
Aluminum die-cast base and bushing. High impact phenolic enclosure.
Locknuts and position locking washer included. Color coded 8" lead wires.
†All contact terminals must be wired same polarity.

TYPE 91





TYPE 91-180-1 SOCKET

APPROX. OVERALL DIMENSIONS
2⅛" x 1⅞" x 2⅜"

Quick-Connect Terminals

Enclosed Contacts

Operates Any Position

Solenoid Action

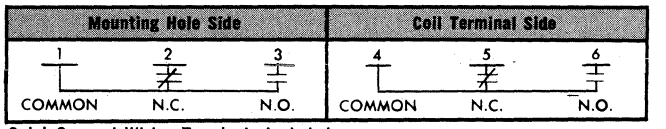
Plug-in Quick-Connect Socket Available

Prevents Improper Assembly

TWO POLE DOUBLE THROW

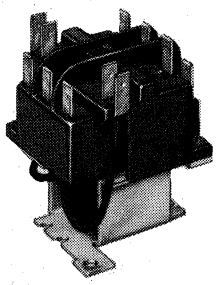
COIL VOLTAGE (60 cy)	PART NUMBER	CIRCUIT RATING TERMINALS		POWER RATING (A)	
		1-2-3	4-5-6	INDUCTIVE	RESISTIVE
24	91-901	(A)	(A)	12 AMP. CONT. 60 AMP. INRUSH 125 V. A.C. — 6 AMP. CONT. 35 AMP. INRUSH 250 V. A.C.	15 AMP. 277 V. A.C. MAX.
115/120	91-902				
208/230/240	91-903				
24	91-904	(A)	(B)		
115/120	91-905				
208/230/240	91-906				
24	91-907	(B)	(B)	*PILOT RATING (B)	
115/120	91-908			INDUCTIVE	RESISTIVE
208/230/240	91-909			125 V.A. 1/10 H.P. 125/250 V. A.C.	3 AMP. 277 V. A.C. MAX.

CONTACT TERMINAL ARRANGEMENT



Quick-Connect Wiring Terminals Included.
*See Type 91D—For D.C. Contact Rating.

TYPE 92



APPROX. OVERALL DIMENSIONS
2⅜" x 2⅜" x 2¾"

Quick-Connect Terminals

Enclosed Contacts

Operates Any Position

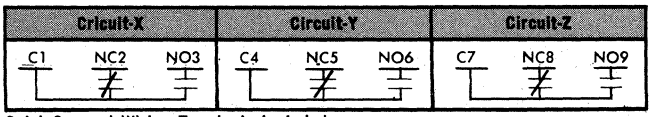
Solenoid Action

Manual Operating Button

THREE POLE DOUBLE THROW

COIL VOLTAGE (60 cy)	PART NUMBER	CIRCUIT RATING			POWER RATING (A)	
		X	Y	Z	INDUCTIVE	RESISTIVE
24	92-901	(A)	(A)	(A)	12 AMP. CONT. 90 AMP. INRUSH 125 V. A.C. — 6 AMP. CONT. 35 AMP. INRUSH 250 V. A.C.	15 AMP. 277 V. A.C. MAX.
115/120	92-902					
208/230/240	92-903					
24	92-904	(A)	(B)	(A)		
115/120	92-905					
208/230/240	92-906					
24	92-907	(B)	(A)	(B)	*PILOT RATING (B)	
115/120	92-908				INDUCTIVE	RESISTIVE
208/230/240	92-909				125 V.A. 1/10 H.P. 125/250 V. A.C.	3 AMP. 277 V. A.C. MAX.
24	92-910	(B)	(B)	(B)		
115/120	92-911					
208/230/240	92-912					

CONTACT TERMINAL ARRANGEMENT



Quick-Connect Wiring Terminals Included.
*See Type 92D—For D.C. Contact Rating.

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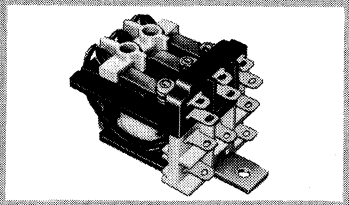
TYPE 93

NEW



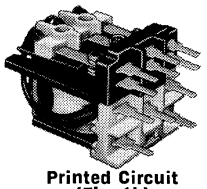
Solder Terminals (Fig. 1a)

(1) OPEN TYPE

Solder Terminal Relay designed for front mounting. Relay suitable also for single hole screw or stud rear mounting.

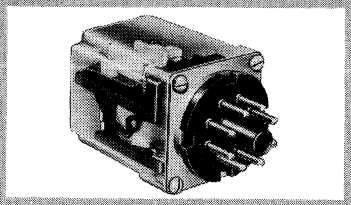
APPROXIMATE OVERALL DIMENSIONS

Fig. 1a. $1\frac{13}{16}$" x $1\frac{5}{16}$" x $1\frac{5}{16}$"
Fig. 1b. $1\frac{13}{16}$" x $1\frac{5}{16}$" x $1\frac{5}{16}$"



Printed Circuit (Fig. 1b)

NEW



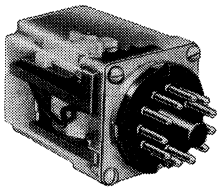
8 Pin Plug In (Fig. 2)

PLUG-IN

8 pin octal base for single & two pole—11 pin base for three pole.

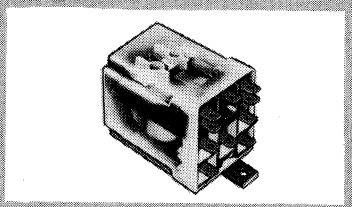
APPROXIMATE OVERALL DIMENSIONS

$2\frac{1}{8}$" x $1\frac{7}{16}$" x $1\frac{9}{16}$"



11 Pin Plug-In (Fig. 2)

NEW



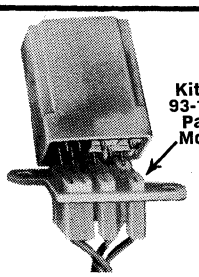
Quick-Connect (Fig. 3)

(2) QUICK CONNECT

Enclosed relay designed for front mounting. Panel board polarized sockets are available.

APPROXIMATE OVERALL DIMENSIONS

$2\frac{1}{8}$" x $1\frac{7}{16}$" x $1\frac{9}{16}$"



(3) Relay Receptacles (Fig. 4)

A.C. VOLTAGE	CONTACT RATING: FINE SILVER BUTTON		GOLD ALLOY CROSS-BAR	
	INDUCTIVE	RESISTIVE	INDUCTIVE	RESISTIVE
120	1/6 H.P.	10 AMP.	1/10 H.P.	5 AMP
240	1/3 H.P.	5 AMP	1/6 H.P.	3 AMP.

COIL VOLTAGE	D.C. RESISTANCE IN OHMS @ 25°C	CONTACT FORM	OPEN TYPE: SOLDER TERMINALS (FIG. 1a.)		OPEN TYPE: PRINTED CIRCUIT (FIG. 1b)	ENCLOSED TYPE: PLUG-IN (FIG. 2.)		ENCLOSED TYPE: QUICK CONNECT TERMINALS (FIG. 3)	
			10 AMP. BUTTON CONTACTS	5 AMP. CROSS-BAR CONTACTS	5 AMP. CROSS-BAR CONTACTS	10 AMP. BUTTON CONTACTS	5 AMP. CROSS-BAR CONTACTS	10 AMP. BUTTON CONTACTS	5 AMP. CROSS-BAR CONTACTS
			PART NUMBER	PART NUMBER	PART NUMBER	PART NUMBER	PART NUMBER	PART NUMBER	PART NUMBER
6 (50/60 CY.)	4.0	1PDT	93-901	93-931	—	93P-901	93P-931	93Q-901	93Q-931
		2PDT	93-902	93-932	—	93P-902	93P-932	93Q-902	93Q-932
		3PDT	93-903	93-933	—	93P-903	93P-933	93Q-903	93Q-933
24 (50/60 CY.)	60	1PDT	93-904	93-934	*93-964	93P-904	93P-934	93Q-904	93Q-934
		2PDT	93-905	93-935	*93-965	93P-905	93P-935	93Q-905	93Q-935
		3PDT	93-906	93-936	*93-966	93P-906	93P-936	93Q-906	93Q-936
120 (50/60 CY.)	1600	1PDT	93-907	93-937	*93-967	93P-907	93P-937	93Q-907	93Q-937
		2PDT	93-908	93-938	*93-968	93P-908	93P-938	93Q-908	93Q-938
		3PDT	93-909	93-939	*93-969	93P-909	93P-939	93Q-909	93Q-939
208/240 (50/60 CY.)	5570	1PDT	93-910	93-940	—	93P-910	93P-940	93Q-910	93Q-940
		2PDT	93-911	93-941	—	93P-911	93P-941	93Q-911	93Q-941
		3PDT	93-912	93-942	—	93P-912	93P-942	93Q-912	93Q-942
6 D.C.	24	1PDT	93-913	93-943	—	93P-913	93P-943	93Q-913	93Q-943
		2PDT	93-914	93-944	—	93P-914	93P-944	93Q-914	93Q-944
		3PDT	93-915	93-945	—	93P-915	93P-945	93Q-915	93Q-945
12 D.C.	96	1PDT	93-916	93-946	*93-976	93P-916	93P-946	93Q-916	93Q-946
		2PDT	93-917	93-947	*93-977	93P-917	93P-947	93Q-917	93Q-947
		3PDT	93-918	93-948	*93-978	93P-918	93P-948	93Q-918	93Q-948
24 D.C.	384	1PDT	93-919	93-949	*93-979	93P-919	93P-949	93Q-919	93Q-949
		2PDT	93-920	93-950	*93-980	93P-920	93P-950	93Q-920	93Q-950
		3PDT	93-921	93-951	*93-981	93P-921	93P-951	93Q-921	93Q-951
110 D.C.	8000	1PDT	93-922	93-952	—	93P-922	93P-952	93Q-922	93Q-952
		2PDT	93-923	93-953	—	93P-923	93P-953	93Q-923	93Q-953
		3PDT	93-924	93-954	—	93P-924	93P-954	93Q-924	93Q-954

(1) Relay has threaded core. Screw machine stud included. May be front mounted.
(2) Quick connect wiring terminals included.
(3) Socket kits include wiring terminals. Polarized to prevent improper assembly.
*May be controlled by SCR providing firing angle no more than 10 degrees.

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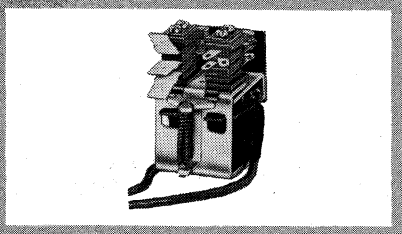
7 RBM CONTROLS — A. C. GENERAL REPLACEMENT RELAYS

TYPE 987

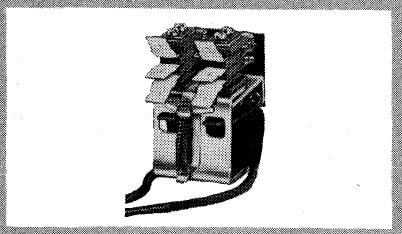


APPROX. OVERALL DIMENSIONS 2⅛" x 1" x 2"

TWO POLE DOUBLE THROW

COIL VOLTAGE (60 CY.)	PART NUMBER	CONTACT RATING (NON-INDUCTIVE) 125/250 V. A.C.	
		LEFT HAND STACK	RIGHT HAND STACK
6	987-901	15 AMP. 1PDT	3 AMP. 1PDT
24	987-902		
115/120	987-903		
230/240	987-904		

TYPE 987

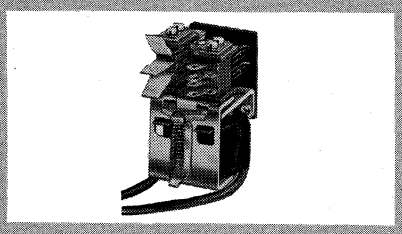


APPROX. OVERALL DIMENSIONS 2⅛" x 1" x 2"

TWO POLE DOUBLE THROW

VOLTAGE (60 CY.) COIL	PART NUMBER	CONTACT RATING (NON-INDUCTIVE) 125/250 V. A.C.	
		LEFT HAND STACK	RIGHT HAND STACK
6	987-905	15 AMP. 1PDT	15 AMP. 1PDT
24	987-906		
115/120	987-907		
230/240	987-908		

TYPE 987

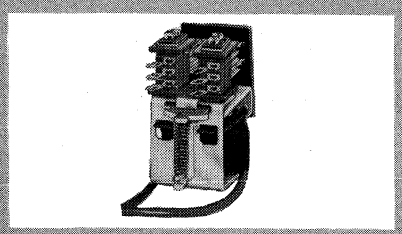


APPROX. OVERALL DIMENSIONS 2⅛" x 1" x 2"

THREE POLE DOUBLE THROW

VOLTAGE (60 CY.) COIL	PART NUMBER	CONTACT RATING (NON-INDUCTIVE) 125/250 V. A.C.	
		LEFT HAND STACK	RIGHT HAND STACK
6	987-909	15 AMP. 1PDT	3 AMP. 2PDT
24	987-910		
115/120	987-911		
230/240	987-912		

TYPE 987



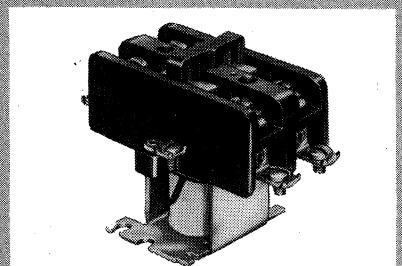
APPROX. OVERALL DIMENSIONS 2⅛" x 1" x 2"

FOUR POLE DOUBLE THROW

VOLTAGE (60 CY.) COIL	PART NUMBER	CONTACT RATING (NON-INDUCTIVE) 125/250 V. A.C.	
		LEFT HAND STACK	RIGHT HAND STACK
6	987-913	3 AMP. 2PDT	3 AMP. 2PDT
24	987-914		
115/120	987-915		
230/240	987-916		

RBM CONTROLS — A.C. POWER CONTACTORS

NEW! TYPE 143



APPROX. OVERALL DIMENSIONS 3¼" x 2⅜" x 2½"

TWO POLE NORMALLY OPEN — 18 AMP. 250 V.

AUXILIARY QUICK CONNECT TERMINALS — STRAIGHT-THROUGH WIRING (50/60 CY. CLASS B COIL)			
COIL VOLTAGE	PART NUMBER	CONTACT RATING	
		INDUCTIVE	RESISTIVE
24	143-901	18 AMP. FL. 90 AMP. L.R. @ 250 V. A.C. INDUCTIVE ONLY	
120	143-902		
208/240	143-903		
24	143-911		25 AMP. @ 277 V. A.C. RESISTIVE ONLY
120	143-912		
208/240	143-913		

ALL RELAYS HAVE 9" COIL LEAD WIRES • FEMALE QUICK-CONNECT WIRING TERMINALS INCLUDED • MOUNTING BRACKET INCLUDED TO PERMIT FRONT OR REAR MOUNTING

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TYPE 75

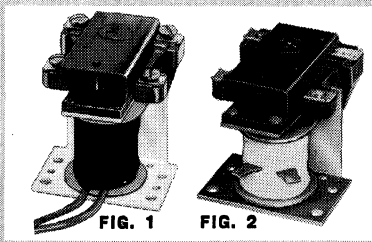


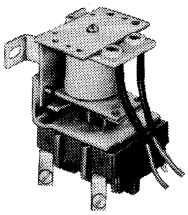
FIG. 1 FIG. 2

APPROX. OVERALL DIMENSIONS
2½" x 2⅛" x 2¼"

TWO POLE NORMALLY OPEN

SCREW POWER TERMINALS—NO. 8 SOLID WIRE MAX. COIL LEAD WIRE OR QUICK CONNECT TERMINALS				
COIL VOLTAGE (60 CY.)	PART NUMBER FIG. 1	PART NUMBER FIG. 2	CONTACT RATING (A.C.) INDUCTIVE	CONTACT RATING (A.C.) RESISTIVE
24	75-901	75-904	1 H.P. Per Pole 115/230 V. 2 Pole Rating 2 H.P.—230 V. or 15 amp. Cont. 75 amp. Inrush	20 AMP. 240 V. Per Pole
115/120	75-902	75-905		
230/240	75-903	75-906		

TYPE 80



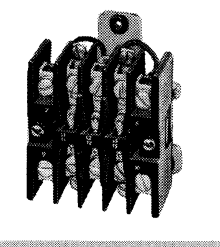
APPROX. OVERALL DIMENSIONS
3⅛" x 2⅝" x 2⅞"

TWO POLE NORMALLY OPEN

SCREW POWER TERMINALS—NO. 8 SOLID WIRE MAX. • COIL LEAD WIRE TERMINATION • DOUBLE BREAK "NO-KISS" CONTACT ACTION • HI-DIELECTRIC ARC RESISTANT MOLDED CONTACT BLOCK AND CARRIER

COIL VOLTAGE (60 CY.)	PART NUMBER	CONTACT RATING (A.C.) INDUCTIVE
24	80-901	25 AMP. CONTINUOUS 150 AMP. INRUSH 250 V. MAX.
120	80-902	
208	80-903	
240	80-904	

TYPE 85



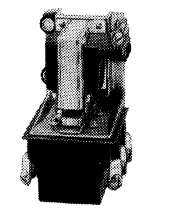
APPROX. OVERALL DIMENSIONS
3½" x 2⅞" x 2⅝"

THREE POLE NORMALLY OPEN

SCREW TERMINALS—NO. 6 SOLID WIRE MAX. • DOUBLE BREAK "NO-KISS" CONTACT ACTION • AUXILIARY WIRING TERMINALS • STRAIGHT-THRU WIRING • HI-DIELECTRIC ARC RESISTANT MOLDED CONTACT BLOCK & CARRIER • RESILIENT MOUNTING

COIL VOLTAGE (50/60 CY.)	PART NUMBER	CONTACT RATING (A.C.) INDUCTIVE	
		250 V.	600 V
24	85-901	25 AMP. CONT. 150 AMP. INRUSH	12.5 AMP. CONT. 75 AMP. INRUSH
120	85-902		
208/230	85-903		

TYPE S30



APPROX. OVERALL DIMENSIONS
3⅞" x 2⅜" x 2½"

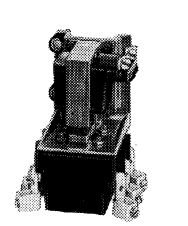
THREE POLE NORMALLY OPEN

SOLENOID ACTUATED • ENCLOSED CONTACTS • DOUBLE BREAK "NO-KISS CONTACTS • CAST ALUMINUM BASE • RESILIENT MOUNTING • LAMINATED "C" MAGNET & SELF ALIGNING "T" ARMATURE • HIGH DI-ELECTRIC ARC RESISTANCE MOLDED CONTACT BLOCK & CARRIER • EPOXY-CLAD MAGNET COIL.

COIL VOLTAGE (50/60 CY.)	PART NUMBER	CONTACT RATING (A.C.) INDUCTIVE		
		VOLTAGE	CONTINUOUS	INRUSH
24	S30-901	250	30 AMP.	180 AMP.
115	S30-902			
230	S30-903	600	15 AMP.	90 AMP.

Screw Power Terminals. No. 8 Solid Wire Max.

TYPE S40



APPROX. OVERALL DIMENSIONS
3⅞" x 2¾" x 2½"

THREE POLE NORMALLY OPEN

SOLENOID ACTUATED • ENCLOSED CONTACTS • DOUBLE BREAK "NO-KISS CONTACTS • CAST ALUMINUM BASE • RESILIENT MOUNTING • LAMINATED "C" MAGNET & SELF ALIGNING "T" ARMATURE • HIGH DI-ELECTRIC ARC RESISTANCE MOLDED CONTACT BLOCK & CARRIER • EPOXY-CLAD MAGNET COIL.

COIL VOLTAGE (50/60 CY.)	PART NUMBER	CONTACT RATING (A.C.) INDUCTIVE
24	S40-901	40 AMP. CONTINUOUS 200 AMP. INRUSH 250 V. MAX.
115	S40-902	
230	S40-903	

Pressure Connector Power Terminals. No. 6 Solid Wire Max.

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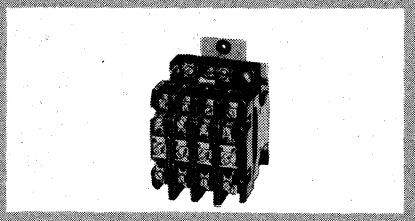
9 RBM CONTROLS — A.C. INDUSTRIAL CONTACTORS

UNIQUE DESIGN PERMITS COMMON BASE, COIL & MAGNET FOR CONTACTOR RATINGS FROM 15 TO 50 AMPERES • DOUBLE BREAK "NO-KISS" CONTACT ACTION • REPLACEABLE CONTACTS & COIL • EPOXY SEALED MOLDED MAGNET COIL HOUSING • LAMINATED CORROSION RESISTANT E-TYPE MAGNET & SELF-ALIGNING ARMATURE • HI-DIELECTRIC ARC RESISTANT MOLDED CONTACT BLOCK & CARRIER • 50/60 CYCLE MAGNET COIL • RESILIENT MOUNTING.

TYPE C15



APPROX. OVERALL DIMENSIONS
3⅝" x 2¾" x 3⅜"

15 AMP.
600 V.

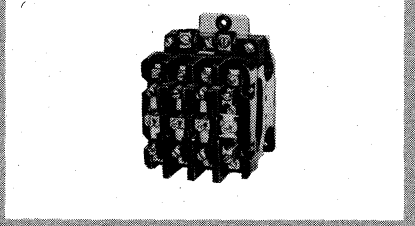
Pressure Connector Power Terminals. No. 10 Solid Wire Max.

FOUR POLE NORMALLY OPEN

COIL VOLTAGE (50/60 CY.)	NUMBER PART	CONTACT RATING (A.C.) HORSEPOWER		
		VOLTAGE	SINGLE PHASE	THREE PHASE
24	C15-901	110	1	1½
110	C15-902	220	1½	2
220	C15-903	600	1½	2
440	C15-904	RESISTIVE		
		15 AMP. 600 V. MAX. (Per Pole)		

All contacts can be converted to normally closed with screw driver. No special parts required. See page 10.

TYPE C30



APPROX. OVERALL DIMENSIONS
3⅝" x 2¾" x 3⅜"

30 AMP.
600 V.

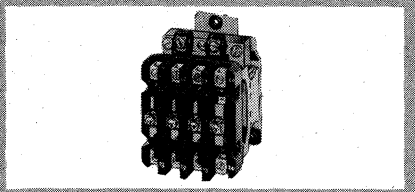
Pressure Connector Power Terminals. No. 6 Solid Wire Max.

THREE POLE NORMALLY OPEN
WITH 15 AMP. AUXILIARY NORMALLY OPEN* CONTACT

COIL VOLTAGE (50/60 CY.)	PART NUMBER	CONTACT RATING (A.C.) HORSEPOWER		
		VOLTAGE	SINGLE PHASE	THREE PHASE
24	C30-901	110	2	3
110	C30-902	220	3	7½
220	C30-903	600	5	10
440	C30-904	RESISTIVE		
		30 AMP.—600 V. (Per Pole)		

*Auxiliary pole can be converted to normally closed with screw driver. No special parts required. See page 10.

TYPE C50R



APPROX. OVERALL DIMENSIONS
3⅝" x 2¾" x 3⅜"

50 AMP.
480 V.
RESISTIVE ONLY

Pressure Connector Power Terminals. No. 6 Stranded Wire Max.

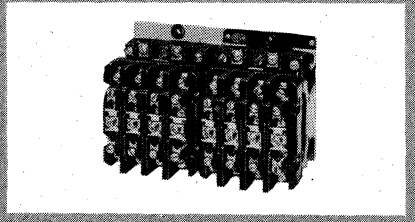
FOUR POLE NORMALLY OPEN

COIL VOLTAGE (50/60 CY.)	PART NUMBER	CONTACT RATING (A.C.)
24	C50R-901	RESISTIVE ONLY FOR ELECTRIC HEATING 50 AMP. 480 VOLT MAX.
110	C50R-902	
220	C50R-903	
440	C50R-904	

RBM CONTROLS — A.C. REVERSING INDUSTRIAL CONTACTORS

TWO TYPE C CONTACTORS MOUNTED SIDE BY SIDE ON COMMON STEEL BASE • RESILIENT MOUNTING • HARDENED STEEL MECHANICAL INTERLOCK PREVENTS SIMULTANEOUS CLOSING OF BOTH CONTACTORS • NO CROSS-PHASE WIRING • SUITABLE FOR MOTOR REVERSING & TRANSFORMER TAP CHANGING APPLICATION.

TYPE CR15



APPROX. OVERALL DIMENSIONS
3⅝" x 5¹⁄₁₆" x 3⅜"

15 AMP.
600 V.

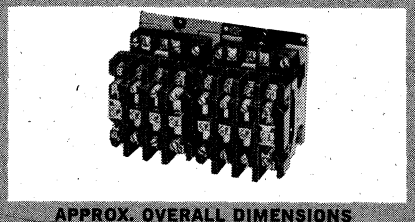
Pressure Connector Power Terminals. No. 10 Solid Wire Max.

FOUR POLE NORMALLY OPEN REVERSING

COIL VOLTAGE (50/60 CY.)	PART NUMBER	CONTACT RATING (A.C.) HORSEPOWER		
		VOLTAGE	SINGLE PHASE	THREE PHASE
110	CR15-901	110	1	1½
220	CR15-902	220	1½	2
440	CR15-903	600	1½	2

All contacts can be converted to normally closed with screw driver. No extra parts required. See page 10.

TYPE CR30



APPROX. OVERALL DIMENSIONS
3⅝" x 5¹⁄₁₆" x 3⅜"

30 AMP.
600 V.

Pressure Connector Power Terminals. No. 6 Stranded Wire Max.

THREE POLE NORMALLY OPEN REVERSING
(Each Contactor Has 15 AMP. Auxiliary Normally Open* Contact)

COIL VOLTAGE (50/60 CY.)	PART NUMBER	CONTACT RATING (A.C.) HORSEPOWER		
		VOLTAGE	SINGLE PHASE	THREE PHASE
110	CR30-901	110	2	3
220	CR30-902	220	3	7½
440	CR30-903	600	5	10

*Auxiliary contact can be converted to normally closed with screwdriver. No special parts required. See page 10.

CONSULT FACTORY FOR U/L AND CSA LISTINGS • SEE PAGE 19 FOR ADDITIONAL DESIGN AND APPLICATION DATA • FOR PRICES SEE PAGES 2 & 3

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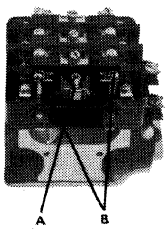
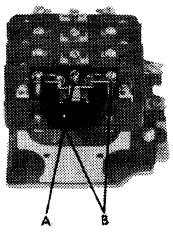
RBM CONTROLS — 15 AMPERE CONTACT CONVERSION NORMALLY OPEN TO NORMALLY CLOSED — 10



Normally Open
Fig. 1

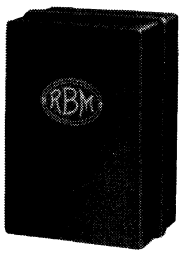


Normally Closed
Fig. 2

All 15 ampere contact assemblies on RBM standard type C contactors are normally open. To convert to normally closed—

1. Remove movable contact assembly and lock washer by backing off terminal nut "A".
2. Loosen screws "B" and remove stationary contact assemblies.
3. Invert movable contact assembly, and replace on contactor with flat "I" spring resting on contact block. Contacts facing out.
4. Remove screws "B" from, and reinsert into opposite end of, stationary contact assembly. Re-install stationary contact assemblies; holding contacts in alignment with movable contacts while tightening screws.

RBM CONTROLS — UNIVERSAL ENCLOSURE AND TYPE C REPLACEMENT PARTS



APPROX. OVERALL DIMENSIONS
8⅝" x 5¾" x 4⅜"

PART NUMBER UE-901

This heavy gauge enclosure has tapped holes (with identification template) to permit mounting of all power relays and contactors listed below. Other features include:

Baked enamel finish.
Removable hinge-in cover.
Self-locking quarter-turn cover screw.
Cover padlock hasp.
Knock-outs—top, bottom and sides.
Meets standard code requirements.
Mounting bosses to clear contactor mounting screws.
Contactor mounting screws included.

ENCLOSURE WILL ACCOMMODATE FOLLOWING TYPES—
129, 75, 80, 85, 143, S30, S40, C15, C30 & C50R.

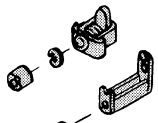


Figure 1

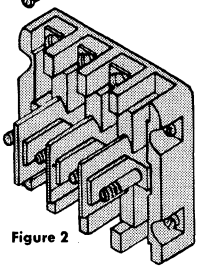


Figure 2

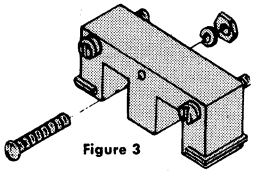


Figure 3

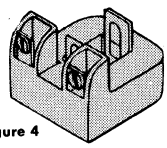


Figure 4

MAGNET COILS
Figure 4

VOLTAGE (50/60 CY.)	*STANDARD		*SPECIAL	
	PART NUMBER	REPLACES	PART NUMBER	REPLACES
24	**MC-901**	45225-5	**MC-911**	45225-35
110	**MC-902**	45225-1	**MC-912**	45225-31
220	**MC-903**	45225-2	**MC-913**	45225-32
440	**MC-904**	45225-3	**MC-914**	45225-33
550	**MC-905**	45225-4	**MC-915**	45225-34

*Do not substitute standard for special coils or vice versa.

CONTACT ASSEMBLIES
Figure 1

FOR CONTACTOR TYPE	USE CONTACT ASSEMBLY	
	PART NUMBER	REPLACES
C15, CR15*	**CA-901**	45997-3 45997-4
C30, CR30*	**CA-902**	45997-5
C50R	**CA-903**	45997-22
†109153 †109453	**CA-904**	45997-16 45997-20

*Reversing type—2 sets required. †Not standard catalog items.

ARMATURE & MAGNET
Figure 3

PART NUMBER
RP-901

CONTACT BLOCK & CARRIER
Figure 2

4 POLE	5 POLE
PART NUMBER	PART NUMBER
RP-902	**RP-903**

FOR PRICES SEE PAGES 2 & 3

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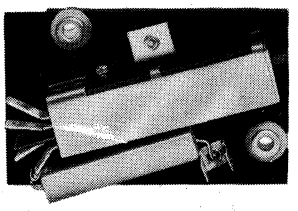
11 RBM CONTROLS — A.C. TIME DELAY RELAYS

TYPE 59



APPROX. OVERALL DIMENSIONS
3⅜" x 2⅛" x ⅞"

THERMAL

Ambient Compensated.
Quick-Connect Terminals.
Resilient Mounting.

AFTER ENERGIZATION • AFTER DE-ENERGIZATION
THERMAL & RECTIFIER/CAPACITOR TYPES
FIXED TIMING CYCLE • NOT INSTANTANEOUS RESET
PILOT DUTY AND HORSEPOWER RATINGS • OPERATES ANY POSITION

SINGLE POLE NORMALLY OPEN

TIME DELAY TO CLOSE—AFTER ENERGIZATION—15 TO 45 SECS.

OPERATING VOLTAGE (50/60 CY.)	OPERATING WATTS	PART NUMBER	CONTACT RATING
24	3.0	59-901	3 AMP. 125/250 V. A.C. PILOT DUTY
115/120	7.0	59-902	
230/240	10.0	59-903	

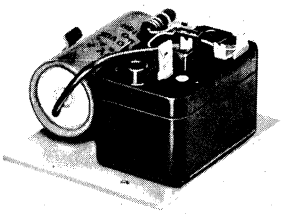
SINGLE POLE NORMALLY CLOSED

TIME DELAY TO OPEN—AFTER ENERGIZATION—APPROX. 30 SECS.

24	3.0	59-904	3 AMP. 125/250 V. A.C. PILOT DUTY
115/120	7.0	59-905	
230/240	10.0	59-906	

Quick-Connect Wiring Terminals Included.
Reset Time Approximately 60 seconds.

TYPE 84T



APPROX. OVERALL DIMENSIONS
2⅝" x 2¼" x 1½"

RECTIFIER/ CAPACITOR

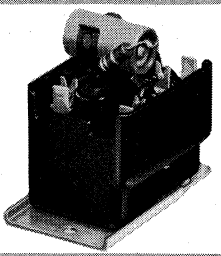
Totally Enclosed Relay.
Quick-Connect Terminals.

SINGLE POLE DOUBLE THROW

COIL VOLTAGE (50/60 CY.)	CONTACT ACTION †DELAY AFTER COIL ENERGIZED	CONTACT ACTION DELAY AFTER COIL DE-ENERGIZED	PART NUMBER	TIME DELAY IN SECONDS ±25%	CONTACT RATING (A.C.) INDUCTIVE
24	X	—	84TE-901	1	3 AMP. 125 V. 1.5 AMP. 250 V. CONTINUOUS
115/120	X	—	84TE-902	2	
230/240	X	—	84TE-903	2	
24	—	X	84TD-901	1	
115/120	—	X	84TD-902	2	
230/240	—	X	84TD-903	2	

Quick-Connect Wiring Terminals Included.
†Reset Time Approximately 4 Seconds. (For Capacitor Discharge).

TYPE 129T



APPROX. OVERALL DIMENSIONS
3⅛" x 2" x 3"

RECTIFIER/ CAPACITOR

Totally Enclosed Relay.
Quick-Connect Terminals.
Non-Positional Mounting.

SINGLE POLE NORMALLY OPEN

TIME DELAY TO OPEN—AFTER DE-ENERGIZATION—2 SECONDS ±25%

COIL VOLTAGE (50/60 CY.)	PART NUMBER	CONTACT RATING 250 V. A.C. MAX. INDUCTIVE	CONTACT RATING 250 V. A.C. MAX. RESISTIVE
115/120	129TD-901	18 AMP. CONTINUOUS 1 H.P.—125 V. 2 H.P.—250 V.	18 AMP. CONTINUOUS
230/240	129TD-902		

Quick-Connect Wiring Terminals Included.

TYPE 142TE

APPROX. OVERALL DIMENSIONS
1¹⁵⁄₁₆" x 1¹⁵⁄₁₆" x 3³⁄₃₂" (3³⁵⁄₆₄" over Knob)

SOLID STATE

Adjustable.
Relay built-in.
Reset time—
100 ms. max.

TWO POLE DOUBLE THROW

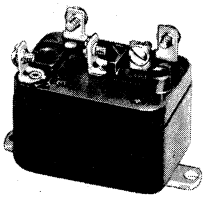
CONTACT RATING — 5 AMP.—115/230 V. A.C. (RESISTIVE) OR 28 V. D.C.

COIL VOLTAGE	CONTACT ACTION TIME DELAY AFTER COIL ENERGIZED 0.1-1.0 SECONDS PART NUMBER	1.1-10.0 SECONDS PART NUMBER	10.1-300.0 SECONDS PART NUMBER
24 (50/60 CY.)	142TE-901	142TE-911	142TE-921
120 (50/60 CY.)	142TE-902	142TE-912	142TE-922
24 D.C. 384 ohms	142TE-903	142TE-913	142TE-923

Repeat Accuracy 2% at nom. voltage—25°C. 10% over voltage & temperature range.

RBM CONTROLS — D.C. GENERAL PURPOSE RELAYS

TYPE 84D



APPROX. OVERALL DIMENSIONS
2⅜" x 1⅝" x 1½"

Totally Enclosed.
Screw Terminals.
Operates Any Position.

SINGLE POLE DOUBLE THROW

COIL VOLTAGE (D.C.)	RESISTANCE IN OHMS @ 25°C	PART NUMBER	CONTACT RATING (D.C.) INDUCTIVE VOLTAGE	CONTACT RATING (D.C.) INDUCTIVE CURRENT
6	17.5	84D-901	6	3 AMP.
12	90	84D-902	12	3 AMP.
24	280	84D-903	24	1.5 AMP.

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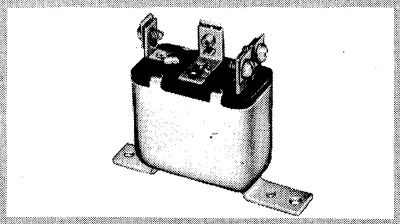
RBM CONTROLS — D.C. GENERAL PURPOSE RELAYS — 12

TYPE 60



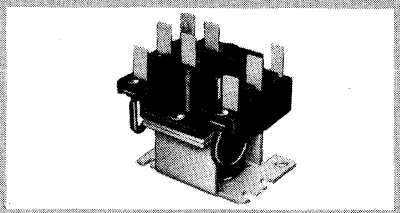
APPROX. OVERALL DIMENSIONS
2⅞" x 1⅛" x 2⅝"

Metal Enclosure. Screw Terminals.

SINGLE POLE NORMALLY OPEN

COIL VOLTAGE (D.C.)	RESISTANCE IN OHMS @ 25°C	PART NUMBER	CONTACT RATING D.C. INDUCTIVE VOLTAGE	CONTACT RATING D.C. INDUCTIVE CURRENT
6	11	**60-901**	6	15 AMP.
12	35	**60-902**	12	15 AMP.
24	160	**60-903**	24	7.5 AMP.
32	300	**60-904**	32	7.5 AMP.

TYPE 91D



APPROX. OVERALL DIMENSIONS
2⅛" x 1⅞" x 2⅜"

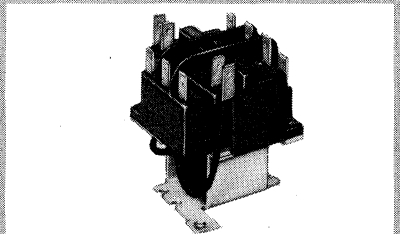
Quick-Connect Terminals. Enclosed Contacts Operates Any Position. Solenoid Action.

TWO POLE DOUBLE THROW

COIL VOLTAGE (D.C.)	RESISTANCE IN OHMS @ 25°C	CROSS-BAR CONTACTS PART NUMBER	CROSS-BAR CONTACTS D.C. CONTACT RATING (INDUCTIVE)	BUTTON CONTACTS PART NUMBER	BUTTON CONTACTS D.C. CONTACT RATING (RESISTIVE)
6	665	**91D-901**	3 AMP. 6 AND 12 V. 1.5 AMP. 24 V.	**91D-911**	10 AMP. 32 V. MAX.
12	1300	**91D-902**		**91D-912**	
24	2500	**91D-903**		**91D-913**	

Quick-connect wiring terminals included. See Page 5 for quick connect socket.

TYPE 92D



APPROX. OVERALL DIMENSIONS
2⅜" x 2⅜" x 2¾"

Quick-Connect Terminals. Enclosed Contacts. Operates Any Position. Solenoid Action. Manual "Test" Button.

THREE POLE DOUBLE THROW

COIL VOLTAGE (D.C.)	RESISTANCE IN OHMS @ 25°C	CROSS-BAR CONTACTS PART NUMBER	CROSS-BAR CONTACTS D.C. CONTACT RATING (INDUCTIVE)	BUTTON CONTACTS PART NUMBER	BUTTON CONTACTS D.C. CONTACT RATING (RESISTIVE)
6	600	**92D-901**	3 AMP. 6 AND 12 V. 1.5 AMP. 24 V.	**92D-911**	10 AMP. 32 V. MAX.
12	1200	**92D-902**		**92D-912**	
24	2400	**92D-903**		**92D-913**	

Quick-connect wiring terminals included.

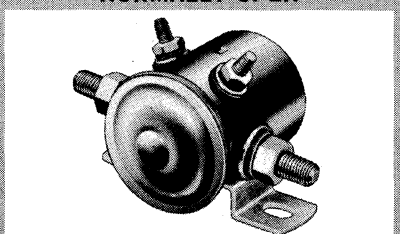
RBM CONTROLS — TYPE 70 DC POWER CONTACTORS

DRAWN STEEL DUST PROOF ENCLOSURE • COPPER STUD POWER & COIL TERMINALS • DOUBLE BREAK ROTATING DISC MOVABLE CONTACT • ISOLATED COIL TERMINALS • SOLENOID ACTUATED • SUGGESTED MOUNTING—CAP DOWN

CONTACT RATING
D.C. INDUCTIVE LOAD

VOLTAGE (D.C.)	NORMALLY OPEN CONTINUOUS	NORMALLY OPEN INRUSH	NORMALLY CLOSED CONTINUOUS	NORMALLY CLOSED INRUSH
6	80 AMP.	300 AMP.	60 AMP.	100 AMP.
12	80 AMP.	150 AMP.	60 AMP.	60 AMP.
24	50 AMP.	50 AMP.	30 AMP.	30 AMP.
32	50 AMP.	50 AMP.	30 AMP.	30 AMP.

NORMALLY OPEN



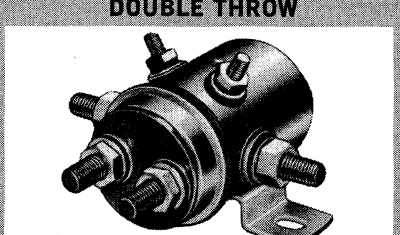
APPROX. OVERALL DIMENSIONS
2½" x 3½" x 2½"

SINGLE POLE NORMALLY OPEN

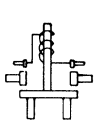
COIL VOLTAGE (D.C.)	RESISTANCE IN OHMS @ 25°C	PART NUMBER	CONTACT MATERIAL
6	4	**70-901**	COPPER
12	19	**70-902**	
24	60	**70-903**	
36	114	**70-904**	
6	4	**70-905**	SILVER
12	19	**70-906**	
24	60	**70-907**	
36	114	**70-908**	

Terminal nuts and lock washers included.

DOUBLE THROW



APPROX. OVERALL DIMENSIONS
3⅜" x 3¾" x 2½"



SINGLE POLE DOUBLE THROW

COIL VOLTAGE (D.C.)	RESISTANCE IN OHMS @ 25°C	PART NUMBER	CONTACT MATERIAL
6	4	**70-909**	SILVER
12	19	**70-910**	
24	60	**70-911**	
36	114	**70-912**	

Terminal nuts and lock washers included.
Coil and contacts isolated.

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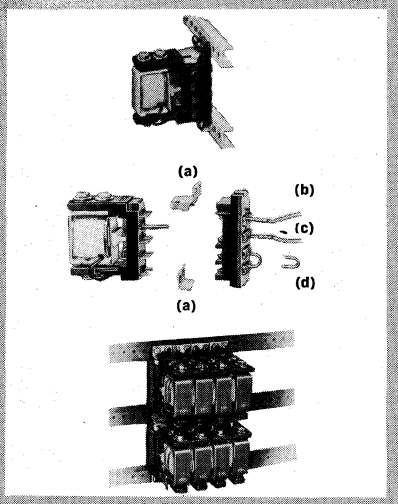
13 RBM CONTROLS — COMPUTER RELAYS

TYPE 81



APPROX. OVERALL DIMENSIONS
2" x 5/8" x 2 1/8"

COMPUTERS • BUSINESS MACHINES • OFFICE EQUIPMENT
DURABLE—200,000,000 OPERATIONS
FAST—6 MILLISECONDS OPERATE TIME

CONTACT PERFORMANCE GUIDE* RESISTIVE LOAD—NO ARC SUPPRESSION—48 V. D.C.					
	ELECTRICAL LIFE				
CONTACT LOAD (AMPERES)	0.025	0.100	0.500	1.0	3.0
Number of Operations (Million)	200	100	20	5	Carry Only. No Make or Break.

*Based on tests with relay operating rate 30 per second. Consult factory for life expectancy for inductive loads—with or without arc suppression, giving contact loads, frequency of operation and "on time" ratio.

FOUR POLE DOUBLE THROW

D.C. OPERATING VOLTAGE @ 25°C			†PART NUMBER
NOMINAL	RESISTANCE IN OHMS	PICK-UP	
24	260	18	**81-901**
48	1040	36	**81-902**
115	4600	87	**81-903**

†Includes mounting straps (a), terminal block (b), wiring terminals (c) and jumpers (d).

RBM CONTROLS — MINIATURE DIRECT CURRENT SENSITIVE RELAYS

1PDT-40MW AND 50MW; 2PDT-125MW; 3PDT-200MW:
COIL RESISTANCE—1500 OHMS MAX.
ISOLATED CONTACTS—PROTECTIVE COVERS,
PRINTED CIRCUIT, OPEN AND PLUG-IN TYPES
MOLDED COMBINATION COIL BOBBIN & TERMINAL BLOCK
(HI-DIELECTRIC WITH MINIMUM MOISTURE ABSORPTION)
MINUS 55 TO PLUS 85° OPERATING AMBIENT

SINGLE POLE DOUBLE THROW—TWO POLE DOUBLE THROW THREE POLE DOUBLE THROW

ELECTRICAL LIFE				MECHANICAL LIFE	OPERATE TIME (Incl. Bounce)	VIBRATION	SHOCK
NON-INDUCTIVE LOAD	0.5 Amp.	1.0 Amp.	2.0 Amp.	100,000,000 At 180 Operations Per Minute (No Load)	20 Milli-Seconds	2G 10-55 Cycles	2G Operate 10G Non-Operate
NUMBER OPERATIONS	1,000,000	300,000	100,000				

TYPE MS64

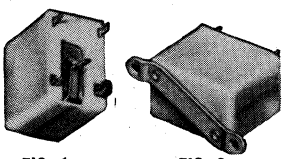


FIG. 1 FIG. 2

APPROX. OVERALL DIMENSIONS
1 3/4" x 3/4" x 1 1/8"

Printed Circuit Terminals Or Bracket Mounting

Snap-on Cover

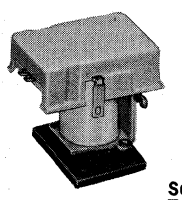
SINGLE POLE DOUBLE THROW — ENCLOSED TYPE

CONTACT RATING	COIL POWER	
2 Amp. Non-Inductive	Minimum Required	0.050 Watts
28 V. D.C.—115 V. A.C.	Maximum Capacity	1.5 Watts

D.C. MAGNET AT 25°C			PART NUMBER FIG. 1	PART NUMBER FIG. 2
NOMINAL VOLTAGE OR CURRENT	*MAX. PICK-UP VOLTAGE OR CURRENT	†RESISTANCE IN OHMS		
6 V.	4.5 V.	400	**MS64-901**	**MS64-911**
12 V.	9.0 V.	1600	**MS64-902**	**MS64-912**
24 V.	18.0 V.	6500	**MS64-903**	**MS64-913**
3. MA.	2.3 MA.	10000	**MS64-904**	**MS64-914**

*Nominal Drop-out Approximately 35% of Pick-up. †Nominal ±10%.

TYPE MS25



Solder Terminals

APPROX. OVERALL DIMENSIONS
1 5/16" x 1 1/2" x 1 7/16"

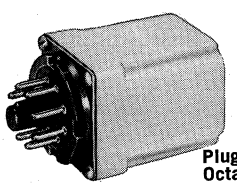
SINGLE POLE DOUBLE THROW—OPEN TYPE

CONTACT RATING	COIL POWER	
2 Amp. Non-Inductive	Minimum Required	0.040 Watts
28 V. D.C.—115 V A.C.	Maximum Capacity	1.5 Watts

D.C. MAGNET AT 25°C			PART NUMBER
NOMINAL VOLTAGE OR CURRENT	*MAX. PICK-UP VOLTAGE OR CURRENT	†RESISTANCE IN OHMS	
6 V.	4.5 V.	510	**MS25-901**
12 V.	9.0 V.	2025	**MS25-902**
24 V.	18.0 V.	8100	**MS25-903**
3.7 MA.	2.8 MA.	5000	**MS25-904**
2.7 MA.	2.0 MA.	10000	**MS25-905**
2.1 MA.	1.6 MA.	15000	**MS25-906**

*Nominal Drop-out Approximately 35% of Pick-up. †Nominal ±10%.

TYPE MS25P



Plug-in Octal Base

APPROX. OVERALL DIMENSIONS
2" x 1 3/8" x 1 3/8"

SINGLE POLE DOUBLE THROW—PLUG IN

D.C. MAGNET COIL AT 25°C.			PART NUMBER
NOMINAL VOLTAGE OR CURRENT	*MAX. PICK-UP VOLTAGE OR CURRENT	†RESISTANCE IN OHMS	
6 V.	4.5 V.	510	**MS25P-901**
12 V.	9.0 V.	2025	**MS25P-902**
24 V.	18.0 V.	8100	**MS25P-903**
3.7 MA.	2.8 MA.	5000	**MS25P-904**
2.7 MA.	2.0 MA.	10000	**MS25P-905**
2.1 MA.	1.6 MA.	15000	**MS25P-906**

*Nominal Drop-out Approximately 35% of Pick-up. †Nominal ±10%.

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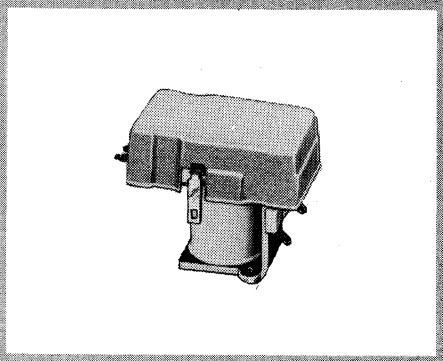
RBM CONTROLS — MINIATURE DIRECT CURRENT SENSITIVE RELAYS — 14

TYPE MS50



APPROX. OVERALL DIMENSIONS
1⅝" x 1⅛" x 1⅜"

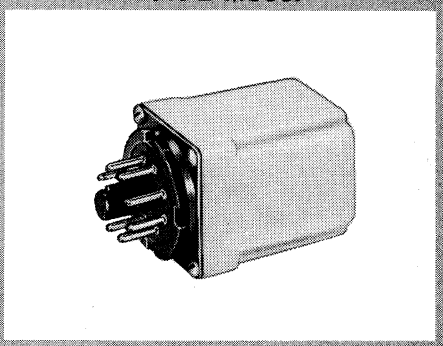
TWO POLE DOUBLE THROW—OPEN TYPE

CONTACT RATING	COIL POWER	
2 Amp. Non-Inductive 28 V. D.C.—115 V. A.C.	Minimum Required	0.125 Watts
	Maximum Capacity	1.5 Watts

D.C. MAGNET COIL AT 25°C			PART NUMBER
NOMINAL VOLTAGE OR CURRENT	*MAX. PICK-UP VOLTAGE OR CURRENT	†RESISTANCE IN OHMS	
6 V.	4.5 V.	160	MS50-901
12 V.	9.0 V.	650	MS50-902
24 V.	18.0 V.	2600	MS50-903
6.7 V.	5.0 MA.	5000	MS50-904
4.7 MA.	3.5 MA.	10000	MS50-905
3.9 MA.	2.9 MA.	15000	MS50-906

*Nominal Drop-out Approximately 35% of Pick-up. †Nominal ±10%.

TYPE MS50P



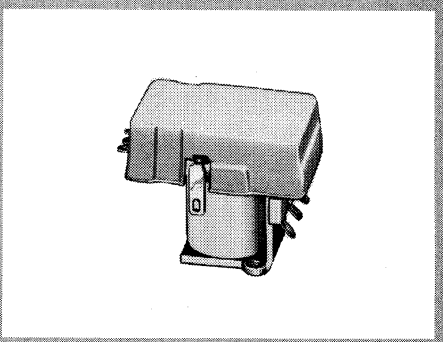
APPROX. OVERALL DIMENSIONS
2" x 1⅜" x 1⅜"

TWO POLE DOUBLE THROW—PLUG-IN

D.C. MAGNET COIL AT 25°C			PART NUMBER
NOMINAL VOLTAGE OR CURRENT	*MAX. PICK-UP VOLTAGE OR CURRENT	†RESISTANCE IN OHMS	
6 V	4.5 V.	160	MS50P-901
12 V.	9.0 V.	650	MS50P-902
24 V.	18.0 V.	2600	MS50P-903
6.7 MA.	5.0 MA.	5000	MS50P-904
4.7 MA.	3.5 MA.	10000	MS50P-905
3.9 MA.	2.9 MA.	15000	MS50P-906

*Nominal Drop-out Approximately 35% of Pick-up. †Nominal ±10%.

TYPE MS50



APPROX. OVERALL DIMENSIONS
1⅝" x 1⅛" x 1⅜"

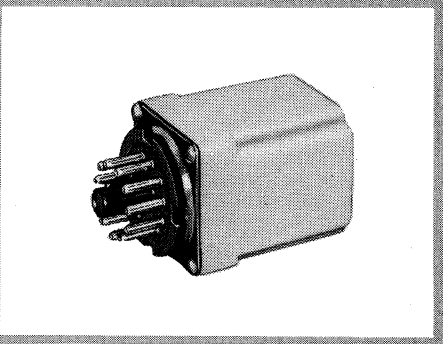
THREE POLE DOUBLE THROW—OPEN TYPE

CONTACT RATING	COIL POWER	
2 Amp. Non-Inductive 28 V. D.C.—115 V. A.C.	Minimum Required	0.200 Watts
	Maximum Capacity	1.5 Watts

D.C. MAGNET COIL AT 25°C			PART NUMBER
NOMINAL VOLTAGE OR CURRENT	*MAX. PICK-UP VOLTAGE OR CURRENT	†RESISTANCE IN OHMS	
6 V.	4.5 V.	100	MS50-921
12 V.	9.0 V.	400	MS50-922
24 V.	18.0 V.	1600	MS50-923
8.5 MA.	6.4 MA.	5000	MS50-924
6.0 MA.	4.5 MA.	10000	MS50-925
4.9 MA.	3.7 MA.	15000	MS50-926

*Nominal Drop-out Approximately 35% of Pick-up. †Nominal ±10%.

TYPE MS50P



APPROX. OVERALL DIMENSIONS
2" x 1⅜" x 1⅜"

THREE POLE DOUBLE THROW—PLUG-IN

D.C. MAGNET COIL AT 25°C			PART NUMBER
NOMINAL VOLTAGE OR CURRENT	*MAX. PICK-UP VOLTAGE OR CURRENT	†RESISTANCE IN OHMS	
6 V.	4.5 V.	100	MS50P-921
12 V.	9.0 V.	400	MS50P-922
24 V.	18.0 V.	1600	MS50P-923
8.5 MA.	6.4 MA.	5000	MS50P-924
6.0 MA.	4.5 MA.	10000	MS50P-925
4.9 MA.	3.7 MA.	15000	MS50P-926

*Nominal Drop-out Approximately 35% of Pick-up. †Nominal ±10%.

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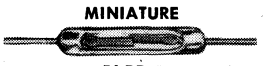
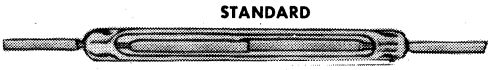
15 RBM CONTROLS — GLASS REED SWITCHES





CONTACT FORM		SINGLE POLE NORMALLY OPEN (BI-REED)						SINGLE POLE DOUBLE THROW (TRI-REED)		
		MINIATURE				STANDARD		MINIATURE		
PART NUMBER		BRM-901 (Special Alloy Contacts)		BRM-902 (Special Alloy Contacts)		BRS-901 (Special Alloy Contacts)		TRM-901 (Special Alloy Contacts)		
NON-INDUCTIVE CONTACT RATING	Make and Break	12 VA. A.C.—4 WATTS D.C. 1/8 AMP. MAXIMUM UP TO 250 VOLTS		15 VA. A.C.—5 WATTS D.C. 1/4 AMP. MAXIMUM UP TO 250 VOLTS		15 VA. A.C.–15 WATTS D.C. 1.0 AMP. MAXIMUM UP TO 250 VOLTS		15 VA. A.C.—5 WATTS D.C. 1/4 AMP. MAXIMUM UP TO 125 V. A.C. OR 32 V. D.C.		
	No Make or Break	1.0 AMP. 250 V.		1.0 AMP. 250 V.		5 AMP. 250 V.		1 AMP. 125 V. A.C. OR 32 V. D.C.		
CONTACT LIFE Based on 10 Ohm Miss Test	Resistive Load (D.C.)	10 MICRO-AMP @ 10 MILLI-VOLTS	1/8 AMP. @ 32 VOLTS	10 MICRO-AMP. @ 10 MILLI-VOLTS	1/8 AMP @ 32 VOLTS	10 MICRO-AMP. @ 10 MILLI-VOLTS	1/8 AMP. @ 32 VOLTS	10 MICRO-AMP. @ 10 MILLI-VOLTS	1/8 AMP @ 32 VOLTS	
	Number Operations	100,000,000	5,000,000	100,000,000	10,000,000	200,000,000	125,000,000	100,000,000	10,000,000	
APPROXIMATE OVERALL DIMENSIONS		Over Leads	Glass Length	Glass Diameter		Over Leads	Glass Length	Glass Diameter	Over Leads	Glass Length	Glass Diam.
		1.5″	0.75″	0.100″		3.35″	2.1″	0.200″	1.5″	0.60″	0.125″
Weight		0.315 GRAMS				2.5 Grams			0.295 Grams		
MINIMUM BREAKDOWN VOLTAGE (60 Cy. R.M.S.)		250 V.				500 V.			250 V.		
MINIMUM INSULATION RESISTANCE (Megohms)		500 K.				500 K.			100 K.		
INITIAL CONTACT RESISTANCE (Milliohms Max.)		150		150		50			150		
MAXIMUM OPERATE TIME (Milliseconds)		Pull-In Including Bounce)		Release		Pull-In (Incl. Bounce)		Release	Pull-In (Incl. Bounce)		Release
		1.0		0.5		2.0		0.5	1.0		0.5
*AMPERE-TURNS TO OPERATE		Pull-In		Drop Out		Pull-In		Drop Out	Pull-In		Drop Out
		Nominal	Minimum			Nominal	Minimum		Nominal	Minimum	
		50 ± 15	20	50% OF P.U.		100±20	60	30% OF P.U.	50±15	35	70% OF P.U.
NOMINAL COIL POWER		0.335 WATTS				0.360 WATTS			0.335 WATTS		
VIBRATION		15G—2000 C.P.S.				20G—750 C.P.S.			15G—2000 C.P.S.		
SHOCK (JAN S-44)		50G (MIN.)				40G (MIN.)			50G (MIN.)		
AMBIENT TEMPERATURE RANGE		—55° TO +85°C				—55° TO +85°C			—55° TO +85°C.		
STANDARD TEST COIL SPECIFICATIONS See Fig. 1	Wire Size	#44				#36			#44		
	Number Turns	10,000				10,000			10,000		
	Tube I.D.	0.150″				0.210″			0.150″		
	Tube O.D.	0.200″				0.375″			0.200″		
	Tube Length	0.75″				1.75″			0.75″		

*To correlate operate specifications—use standard test circuit. (Fig. 2)

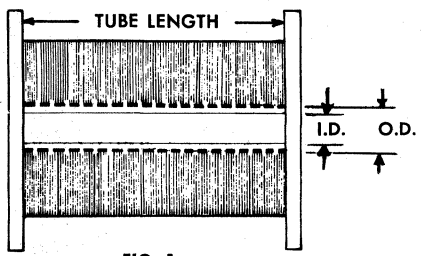


FIG. 1
STANDARD TEST COIL

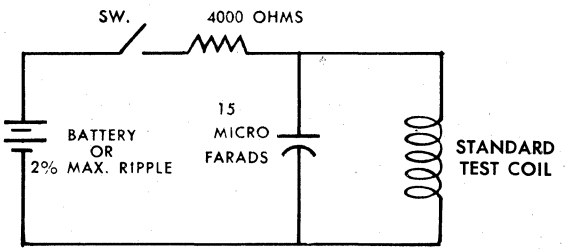


FIG. 2
STANDARD TEST CIRCUIT

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NORMALLY OPEN — STANDARD

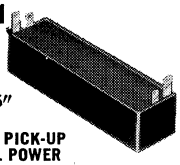
MAGNETICALLY SHIELDED

CONTACT RESISTANCE (Initial): 50 MILLIOHMS (Max.); **INSULATION RESISTANCE:** 10K MEGOHMS (Min.); **VIBRATION:** 20G—750 C.P.S. (Min.) COIL ENERGIZED OR DE-ENERGIZED; **SHOCK:** 40G (Min.) JAN S-44.

Contact Rating (Non-Inductive)		Contact Life (Based On 10 Ohm Miss Test)			Operate Sensitivity					Operate Time—Milliseconds				
Make and Break	15 VA. A.C.—15 Watts D.C. 1 Amp. Max. Up to 250 Volts	Resistive Load (D.C.)	10 Micro-Amp. @ 10 Milli-Volts	1/8 Amp. @ 32 Volts	Contact Form	1PNO	2PNO	4PNO	6PNO	Pull-In (Incl. Bounce)	1PNO	2PNO	4PNO	6PNO
											2	3	3.5	4
No Make or Break	5.0 Amp. 250 Volts	Number Operations	200,000,000	125,000,000	Milliwatts (Nominal)	125	250	400	680	Release	0.5 (Max.)			

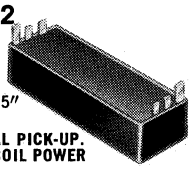
TYPE BRSR1

SPNO
APPROX. OVERALL DIMENSIONS
2.55″ x .675″ x .625″
(PLUS LEADS)
125MW.—NOMINAL PICK-UP
1.0 WATT MAX. COIL POWER



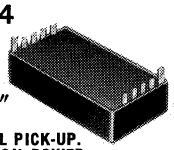
TYPE BRSR2

2PNO
APPROX. OVERALL DIMENSIONS
2.55″ x .925″ x .625″
(PLUS LEADS)
250 MW.—NOMINAL PICK-UP.
1.25 WATTS MAX. COIL POWER



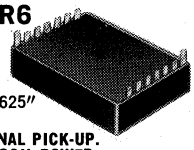
TYPE BRSR4

4PNO
APPROX. OVERALL DIMENSIONS
2.55″ x 1.4″ x .625″
(PLUS LEADS)
400 MW.—NOMINAL PICK-UP.
1.65 WATTS MAX. COIL POWER



TYPE BRSR6

6PNO
APPROX. OVERALL DIMENSIONS
2.55″ x 1.87″ x .625″
(PLUS LEADS)
680 MW.—NOMINAL PICK-UP.
2.0 WATTS MAX. COIL POWER



NORMALLY OPEN — MINIATURE

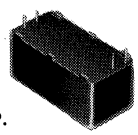
MAGNETICALLY SHIELDED

CONTACT RESISTANCE (Initial): 150 MILLIOHMS (Max.); **INSULATION RESISTANCE:** 10K MEGOHMS (Min.); **VIBRATION:** 15G-2000 C.P.S. (Min.) COIL ENERGIZED OR DE-ENERGIZED; **SHOCK:** 50G (Min.) JAN S-44.

Contact Rating (Non Inductive)		Contact Life (Based On 10 Ohm Miss Test)			Operate Sensitivity				Operate Time—Milliseconds			
Make and Break	12 VA. A.C.—4 WATTS D.C. 1/8 Amp. Max. Up to 250 Volt	Resistive Load (D.C.)	10 Micro Amp. @ 10 Milli-Volt	1/8 Amp. @ 32 Volt	Contact Form	1PNO	2PNO	4PNO	Pull-In (Incl. Bounce)	1PNO	2PNO	4PNO
										1	1	2
No Make Or Break	1.0 Amp. 250 Volt	Number Operations	100,000,000	5,000,000	Milliwatts (Nominal)	100	150	300	Release	0.5 (Max.)		

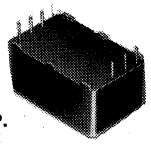
TYPE BRMR1

SPNO
APPROX. OVERALL DIMENSIONS
1.14″ x .56″ x .54″
(PLUS LEADS)
100 MW.—NOMINAL PICK-UP.
1.0 WATT MAX. COIL POWER



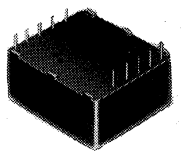
TYPE BRMR2

2PNO
APPROX. OVERALL DIMENSIONS
1.14″ x .73″ x .54″
(PLUS LEADS)
150 MW.—NOMINAL PICK-UP.
1.5 WATTS MAX. COIL POWER



TYPE BRMR4

4PNO
APPROX. OVERALL DIMENSIONS
1.14″ x 1.0″ x .54″
(PLUS LEADS)
300 MW.—NOMINAL PICK-UP.
3.0 WATTS MAX. COIL POWER



DOUBLE THROW — MINIATURE

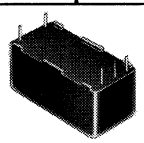
CONTACT RESISTANCE (Initial): 150 MILLIOHMS (Max.); **INSULATION RESISTANCE:** 10K MEGOHMS (Min.); **VIBRATION:** 15G-2000 C.P.S. (Min.) COIL ENERGIZED OR DE-ENERGIZED; **SHOCK:** 50G (Min.) JAN S-44.

MAGNETICALLY SHIELDED. NON-POLARIZED . . . FORM C CONTACT IN ONE CAPSULE . . . POSITIVE BREAK BEFORE MAKE

Contact Rating (Non-Inductive)		Contact Life (Based On 10 Ohm Miss Test)			Operate Sensitivity			Operate Time—Milliseconds		
Make and Break	15 VA. A.C.—5 Watts D.C. ¼ Amp. Max. Up To 125 V. A.C.—32 V. D.C.	Resistive Load (D.C.)	10 Micro-Amp. @ 10 Milli-Volts	1/4 Amp. @ 32 Volts	Contact Form	1PDT	2PDT	Pull-In (Incl. Bounce)	1PDT	2PDT
									1	1
No Make or Break	1.0 Amp. 125 V. A.C. or 32 V. D.C.	Number Operations	100,000,000	10,000,000	Milliwatts (Nominal)	150	250	Release	0.5 (Max.)	

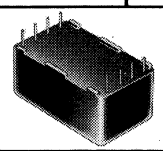
TYPE TRMR1

SPDT
APPROX. OVERALL DIMENSIONS
1.14″ x .56″ x .54″ (PLUS LEADS)
150 MW.—NOMINAL PICK-UP.
1.0 WATT MAX. COIL POWER



TYPE TRMR2

2PDT
APPROX. OVERALL DIMENSIONS
1.14″ x .73″ x .54″ (PLUS LEADS)
250 MW.—NOMINAL PICK-UP.
1.5 WATTS MAX. COIL POWER



D.C. COIL SPECIFICATIONS

STANDARD

Nominal Voltage	Max. Pick-up Voltage	Minimum Drop-out Voltage	Max. Pick-up Current	†Resistance in Ohms	Part Number
SINGLE POLE NORMALLY OPEN					
6 V.	4.5 V.	0.55 V.	43.0 MA.	115	BRSR1-901
12 V.	9.0 V.	1.10 V.	22.5 MA.	445	BRSR1-902
28 V.	18.0 V.	2.50 V.	7.8 MA.	2550	BRSR1-903
TWO POLE NORMALLY OPEN					
6 V.	4.5 V.	0.51 V.	86.5 MA.	58	BRSR2-901
12 V.	9.0 V.	1.00 V.	45.0 MA.	220	BRSR2-902
28 V.	18.0 V.	2.10 V.	13.3 MA.	1500	BRSR2-903
FOUR POLE NORMALLY OPEN					
6 V.	4.5 V.	0.50 V.	107.0 MA.	47	BRSR4-901
12 V.	9.0 V.	0.95 V.	58.0 MA.	172	BRSR4-902
28 V.	18.0 V.	2.00 V.	22.8 MA.	877	BRSR4-903
SIX POLE NORMALLY OPEN					
6 V.	4.5 V.	0.48 V.	204.0 MA.	24	BRSR6-901
12 V.	9.0 V.	0.95 V.	83.0 MA.	113	BRSR6-902
28 V.	18.0 V.	2.00 V.	34.2 MA.	580	BRSR6-903

† Nominal ±10%

ALL DATA AT 25°C

MINIATURE

Nominal Voltage	Max. Pick-up Voltage	Minimum Drop-out Voltage	Max. Pick-up Current	†Resistance in Ohms	Part Number
SINGLE POLE NORMALLY OPEN					
6 V.	3.25 V.	0.8 V.	27.0 MA.	105	BRMR1-901
12 V.	6.5 V.	1.0 V.	15.5 MA.	420	BRMR1-902
28 V.	15.2 V.	2.5 V.	6.5 MA.	2350	BRMR1-903
TWO POLE NORMALLY OPEN					
6 V.	3.25 V.	0.8 V.	46.5 MA.	70	BRMR2-901
12 V.	6.5 V.	1.0 V.	25.2 MA.	280	BRMR2-902
28 V.	15.2 V.	2.5 V.	9.8 MA.	1540	BRMR2-903
FOUR POLE NORMALLY OPEN					
6 V.	3.25 V.	0.8 V.	93.0 MA.	35	BRMR4-901
12 V.	6.5 V.	1.0 V.	46.5 MA.	140	BRMR4-902
28 V.	15.2 V.	2.5 V.	19.7 MA.	770	BRMR4-903
SINGLE POLE DOUBLE THROW					
6 V.	4 V.	1.5 V.	42 MA.	105	TRMR1-901
12 V.	8 V.	3 V.	21 MA.	420	TRMR1-902
28 V.	19 V.	6 V.	8 MA.	2350	TRMR1-903
TWO POLE DOUBLE THROW					
6 V.	4 V.	1.5 V.	64 MA.	70	TRMR2-901
12 V.	8 V.	3 V.	32 MA.	280	TRMR2-902
28 V.	19 V.	6 V.	12 MA.	1540	TRMR2-903

CONSULT FACTORY FOR U/L AND CSA LISTINGS • SEE PAGE 19 FOR ADDITIONAL DESIGN AND APPLICATION DATA • FOR PRICES SEE PAGES 2 & 3

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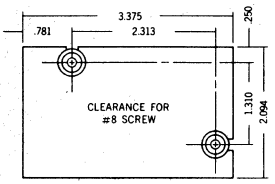
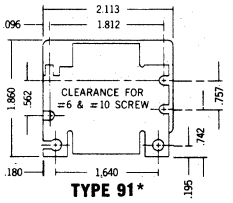
17 RBM CONTROLS — A.C. CONTROLS MOUNTING DIMENSIONS

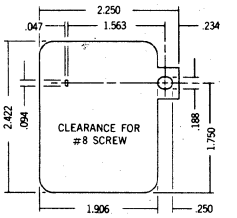
DIMENSIONS ARE APPROX. CONSULT FACTORY FOR EXACT DIMENSIONS. *ASTERISK DENOTES BOTTOM VIEW—ALL OTHERS TOP VIEW



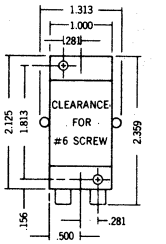
TYPE 59



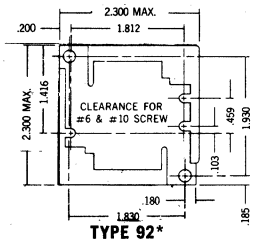
TYPE 91*



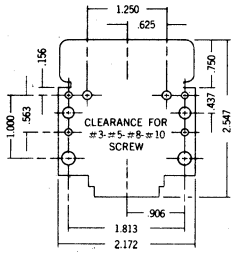
TYPE 129



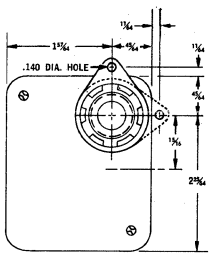
TYPE 987*
FRONT



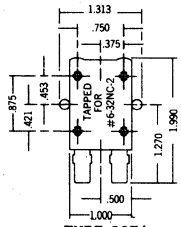
TYPE 92*



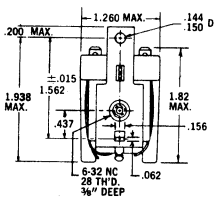
TYPE 75*



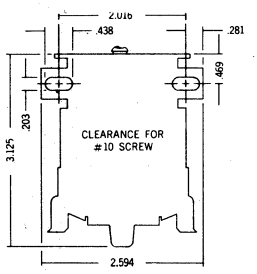
TYPE 129AR



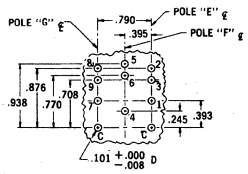
TYPE 987*
REAR



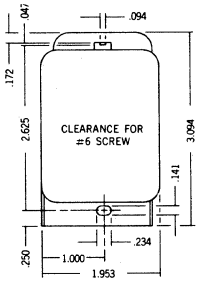
TYPE 93*
SOLDER TERMINAL



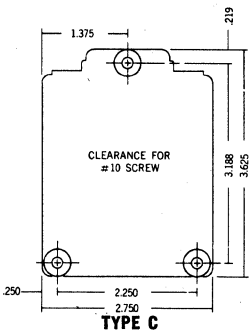
TYPE 80



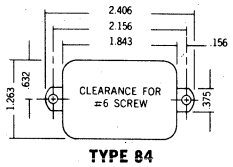
TYPE 93
PRINTED CIRCUIT
TEMPLATE



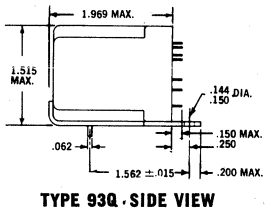
TYPE 129T



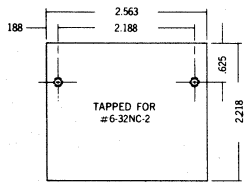
TYPE C



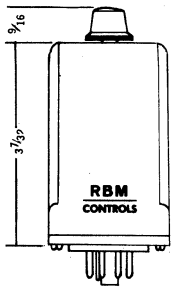
TYPE 84



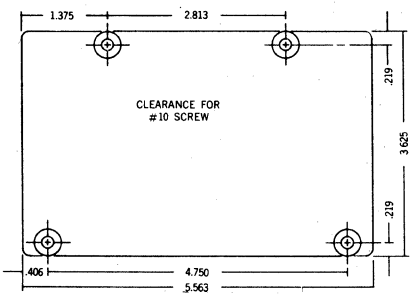
TYPE 93Q · SIDE VIEW



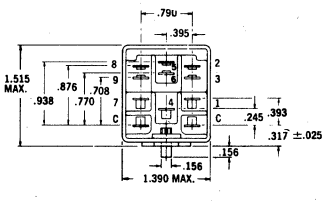
TYPE 84T



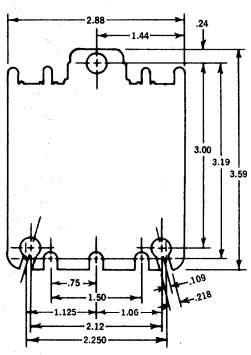
TYPE 142T
(SEE TYPE 93P
FOR BOTTOM VIEW)



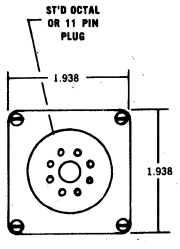
TYPE CR



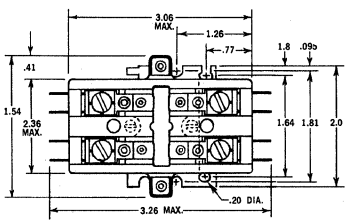
TYPE 93Q*



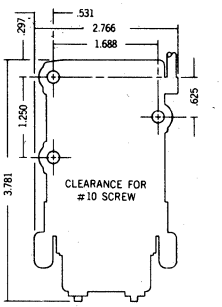
TYPE 85



TYPE 93P



TYPE 143



TYPE S

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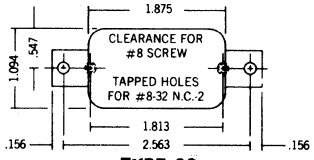
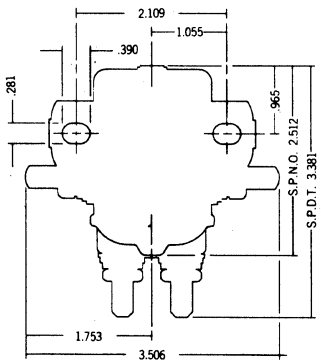
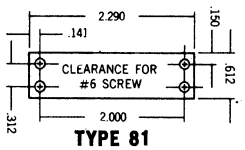
DIMENSIONS ARE APPROX. CONSULT FACTORY FOR EXACT DIMENSIONS. ***ASTERISK DENOTES BOTTOM VIEW—ALL OTHERS TOP VIEW**



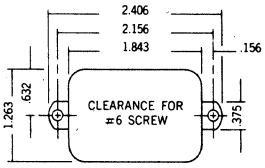
TYPE 60



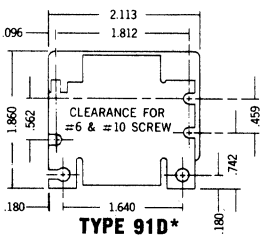
TYPE 70



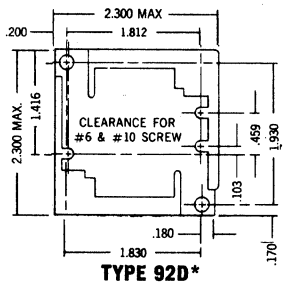
TYPE 81



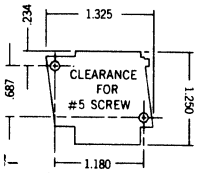
TYPE 84D



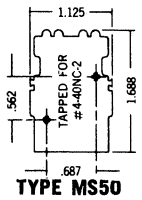
TYPE 91D*



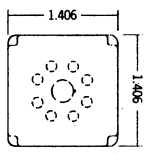
TYPE 92D*



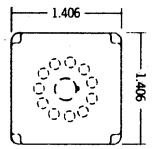
TYPE MS25



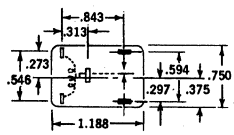
TYPE MS50



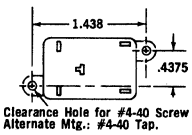
TYPE MS25P
TYPE MS50P (2 Pole)



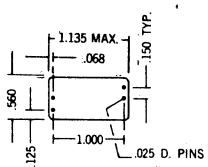
TYPE MS50 (3 Pole)



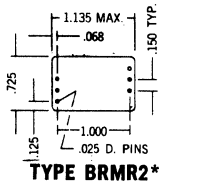
TYPE MS64
P.C. MTG.



TYPE MS64
BRACKET MTG.



TYPE BRMR1*



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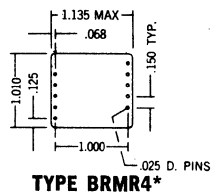
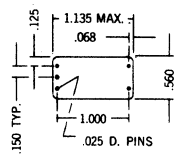
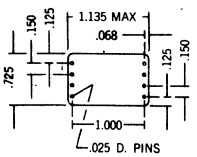


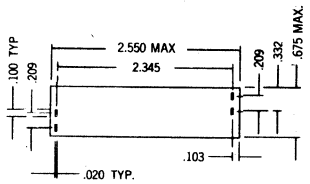
TYPE BRMR4*



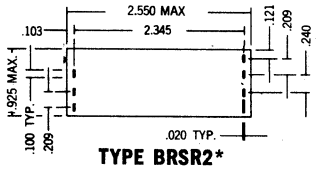
TYPE TRMR1*



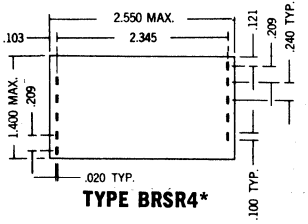
TYPE TRMR2*



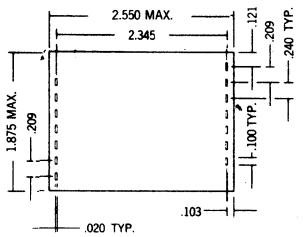
TYPE BRSR1*



TYPE BRSR2*

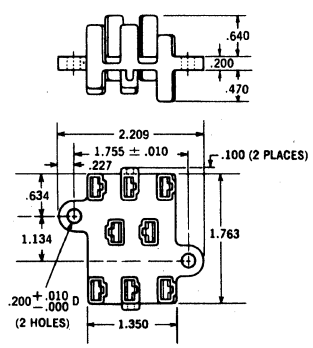


TYPE BRSR4*

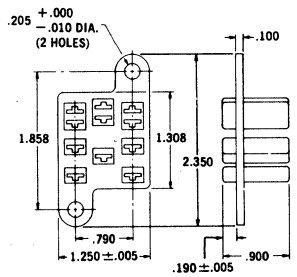


TYPE BRSR6*

SOCKETS FOR TYPES 91 AND 93



91-180-1



93-153-1

ALTERNATING CURRENT

TYPE	MAGNET COIL RATING (VOLT AMPERES)			OPERATION IN % OF NOM. COIL VOLTAGE		BREAKDOWN VOLTAGE ALL TERMINALS - 60 Cy. RMS			CONTACT MATERIAL		**ELECTRICAL LIFE		**MECHANICAL LIFE		Maximum Operating Ambient Degrees Fahrenheit
	Inrush	Sealed Nom.	Sealed Max.	Pick-up	*Max. Safe Operate	Opposite Polarity	Open Contacts Same Polarity	To Ground	Power Rating	Pilot Rating	Oper. At Rated Load	Oper. Per Min.	Oper. At No Load	Oper. Per Min.	
59	No Magnet Coil			85%	110%	1500	1000	1500	—	Fine Silver	100,000	1	1,000,000	1	140
75	16	10	12	85%	110%	1500	1000	1500	Silver Alloy	—	†100,000	6	1,000,000	60	140
80	27	15.6	17	85%	110%	1500	1500	1500	Silver Alloy	—	†100,000	3	500,000	10	105
84	4	2.8	3	85%	110%	1500	1000	1500	Silver Alloy	Fine Silver	100,000	6	1,000,000	60	140
84T	9	2.8	3	85%	110%	1500	1000	1500	—	•Gold Alloy	100,000	6	1,000,000	60	140
85	90	19	23	85%	110%	2200	2200	2200	Silver Alloy	—	†100,000	3	500,000	10	105
91	22	8	10	85%	110%	1500	1000	1500	Fine Silver	•Gold Alloy	†100,000	6	750,000	60	130
92	24	8.9	12	85%	110%	1500	1000	1500	Fine Silver	•Gold Alloy	†100,000	6	750,000	60	130
93	4.5	3.0	4	85%	110%	1500	1000	1500	Fine Silver	•Gold Alloy	100,000	6	10,000,000	60	160
129	10	4.5	5	85%	110%	1500	1000	1500	Silver Alloy	—	†100,000	3	500,000	10	105
129AR	10	4.5	5	85%	110%	1500	1000	1500	Silver Alloy	—	†100,000	3	500,000	10	105
129T	10	4.5	5	85%	110%	1500	1000	1500	Silver Alloy	—	†100,000	3	500,000	10	105
142TE	4.5	3.2	4	85%	110%	1500	1000	1500	Fine Silver	—	100,000	1	10,000,000	60	160
143	24	8.9	12	85%	110%	1500	1000	1500	Silver Alloy		†100,000	6	500,000	60	130
987	9	5.5	6.5	85%	110%	1500	1000	1500	Fine Silver	•Gold Alloy	100,000	6	1,000,000	60	140
C	90	18	21	85%	110%	2200	2200	2200	Silver Alloy	—	†100,000	3	1,000,000	10	105
CR	90	18	21	85%	110%	2200	2200	2200	Silver Alloy	—	†100,000	3	1,000,000	10	105
S	50	14.5	17	85%	110%	2200	2200	2200	Silver Alloy	—	†100,000	3	500,000	10	105

*Magnet coils designed for continuous duty. Do not operate at rate higher than indicated under Mechanical Life.

**Based on steady state test under laboratory environmental conditions. Consult factory if application involves unusual load, speed of operation, off-on ratio, environmental or operating conditions. Electric life substantially greater when operated below rated load.

†Load tests—making inrush ratings (0.4 to 0.5 P.F.)—breaking 125% continuous rating (0.65 to 0.8 P.F.).

•Cross-bar contacts.

DIRECT CURRENT

TYPE	MAGNET COIL RATING (WATTS)	OPERATION IN % OF NOM. COIL RATING		BREAKDOWN VOLTAGE ALL TERMINALS - 60 Cy. RMS			CONTACT MATERIAL		**ELECTRICAL LIFE		**MECHANICAL LIFE		Maximum Operating Ambient Degrees Fahrenheit
		Pick-up	*Max. Safe Operate	Opposite Polarity	Open Contacts Same Polarity	To Ground	Power Rating	Pilot Rating	Oper. At Rated Load	Oper. Per Min.	Oper. At No Load	Oper. Per Min.	
60	2	75%	110%	1000	1000	1000	Fine Silver	—	100,000	4	250,000	4	122
70	9	75%	110%	500	500	500	Copper or Silver	—	100,000	4	250,000	4	122
81	4	75%	110%	1250	750	1250	—	Eutectic Alloy (Silver Copper)	1,000,000	1800	200,000,000	1800	122
84D	3	75%	110%	1500	1000	1500	—	Silver Alloy	100,000	6	1,000,000	60	140
91D	6.5	75%	110%	1500	1000	1500	Fine Silver	•Gold Alloy	100,000	6	750,000	60	140
92D	7	75%	110%	1500	1000	1500	Fine Silver	•Gold Alloy	100,000	6	750,000	60	140
93	1.5	75%	110%	1500	1000	1500	Fine Silver	•Gold Alloy	100,000	6	10,000,000	60	160
142TE	1.5	85%	110%	1500	1000	1500	Fine Silver	—	100,000	1	10,000,000	60	160
BRM	Switch Only—No Magnet Coil			500	250	250	—	Special Alloy	5,000,000	60	2,000,000,000	7200	185
BRMR1	0.100	60%	110%	500	250	500	—	Special Alloy	2,000,000	60	2,000,000,000	7200	185
BRMR2	0.150	60%	110%	500	250	500	—	Special Alloy	2,000,000	60	2,000,000,000	7200	185
BRMR4	0.300	60%	110%	500	250	500	—	Special Alloy	2,000,000	60	2,000,000,000	7200	185
BRS	Switch Only—No Magnet Coil			500	500	500	—	Special Alloy	20,000,000	60	2,000,000,000	7200	185
BRSR1	0.125	75%	110%	500	500	500	—	Special Alloy	20,000,000	60	2,000,000,000	7200	185
BRSR2	0.250	75%	110%	500	500	500	—	Special Alloy	20,000,000	60	2,000,000,000	7200	185
BRSR4	0.400	75%	110%	500	500	500	—	Special Alloy	20,000,000	60	2,000,000,000	7200	185
BRSR6	0.680	75%	110%	500	500	500	—	Special Alloy	20,000,000	60	2,000,000,000	7200	185
MS25-MS25P	Current Sensitive			1000	1000	1000	—	•Gold Alloy	100,000	60	100,000,000	180	185
MS50-MS50P (2 Pole)	Current Sensitive			1000	1000	1000	—	•Gold Alloy	100,000	60	100,000,000	180	185
MS5?-MS50P (3 Pole)	Current Sensitive			1000	1000	1000	—	•Gold Alloy	100,000	60	100,000,000	180	185
MS64				1000	1000	1000	—	•Gold Alloy	100,000	60	100,000,000	180	185
TRM	Switch Only—No Magnet Coil			250	250	250	—	Special Alloy	2,000,000	60	2,000,000,000	7200	185
TRMR1	0.150	70%	110%	250	250	250	—	Special Alloy	2,000,000	60	2,000,000,000	7200	185
TRMR2	0.250	70%	110%	250	250	250	—	Special Alloy	2,000,000	60	2,000,000,000	7200	185

*Magnet coils designed for continuous duty. Do not operate at rate higher than indicated under Mechanical Life.

**Based on steady state test under laboratory environmental conditions. Consult factory if application involves unusual load, speed of operation, off-on ratio, environmental or operating conditions. Electrical life substantially greater when operated below rated load.

•Cross-bar contacts.

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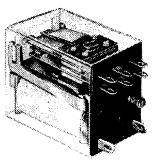
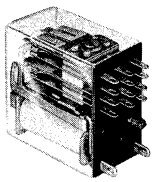
PHILLIPS-ADVANCE CONTROL CO.

MINIATURE INDUSTRIAL RELAYS

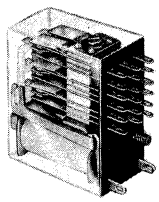
"VersaPac" 67 Designed for industrial applications requiring 1 to 8 form C where space, weight, and cost are important. Single and bifurcated contacts rated at 3 and 5 amps are available. The use of armco magnetic ingot iron and a one piece frame and core provide for unusually precise adjustments. Mechanical life expectancy is in excess of 100 million operations. A plastic cover protects the relay, and sockets are available.



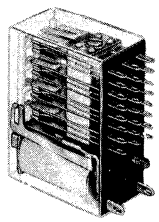
2 Form C
1 3/16 x 3/4 x 15/16



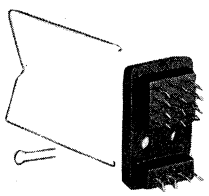
4 Form C
1 3/16 x 3/4 x 1 3/16



6 Form C
1 3/16 x 3/4 x 1 3/8



8 Form C
1 3/16 x 3/4 x 1 3/8



MOUNTING HARDWARE

POWER ADJUSTMENT

2 FORM C	Nominal Voltage (DC)	Coil Res. (Ohms)	Contact Rating (Amps)	Net
67DP-A-2C3	6	52	3	$3.40
67DP-D-2C3	12	185	3	3.40
67DP-G-2C3	24	700	3	3.40
67DP-K-2C3	48	2500	3	3.40
67DP-N-2C3	115	15,000	3	4.80
67DP-A-2C5	6	52	5	3.50
67DP-D-2C5	12	185	5	3.50
67DP-G-2C5	24	700	5	3.50
67DP-K-2C5	48	2500	5	3.50
67DP-N-2C5	115	15,000	5	4.90
67DP-A-2C3B	6	52	3*	3.80
67DP-D-2C3B	12	185	3*	3.80
67DP-G-2C3B	24	700	3*	3.80
67DP-K-2C3B	48	2500	3*	3.80
67DP-N-2C3B	115	15,000	3	5.20
67DP-A-2C5B	6	52	5*	3.90
67DP-D-2C5B	12	185	5*	3.90
67DP-G-2C5B	24	700	5*	3.90
67DP-K-2C5B	48	2500	5*	3.90
67DP-N-2C5B	115	15,000	5*	5.30

*Denotes Bifurcated Contacts.

4 FORM C	Nominal Voltage (DC)	Coil Res. (Ohms)	Comtact Rating (Amps)	Net
67DP-A-4C3	6	52	3	$3.80
67DP-D-4C3	12	185	3	3.80
67DP-G-4C3	24	700	3	3.80
67DP-K-4C3	48	2500	3	3.80
67DP-N-4C3	115	15,000	3	5.20
67DP-A-4C5	6	52	5	4.00
67DP-D-4C5	12	185	5	4.00
67DP-G-4C5	24	700	5	4.00
67DP-K-4C5	48	2500	5	4.00
67DP-N-4C5	115	15,000	5	5.40
67DP-A-4C3B	6	52	3*	4.30
67DP-D-4C3B	12	185	3*	4.30
67DP-G-4C3B	24	700	3*	4.30
67DP-K-4C3B	48	2500	3*	4.30
67DP-N-4C3B	115	15,000	3*	5.70
67DP-A-4C5B	6	52	5*	4.45
67DP-D-4C5B	12	185	5*	4.45
67DP-G-4C5B	24	700	5*	4.45
67DP-K-4C5B	48	2500	5*	4.45
67DP-N-4C5B	115	15,000	5*	5.85

*Denotes Bifurcated Contacts.

POWER ADJUSTMENT

6 FORM C	Nominal Voltage (DC)	Coil Res. (Ohms)	Contact Rating (Amps)	Net
67DP-B-6C3	6	25	3	$4.90
67DP-E-6C3	12	90	3	4.90
67DP-H-6C3	24	430	3	4.90
67DP-L-6C3	48	1550	3	4.90
67DP-P-6C3	115	9000	3	5.85
67DP-B-6C5	6	25	5	5.20
67DP-E-6C5	12	90	5	5.20
67DP-H-6C5	24	430	5	5.20
67DP-L-6C5	48	1550	5	5.20
67DP-P-6C5	115	9000	5	6.15
67DP-B-6C3B	6	25	3*	5.40
67DP-E-6C3B	12	90	3*	5.40
67DP-H-6C3B	24	430	3*	5.40
67DP-L-6C3B	48	1550	3*	5.40
67DP-P-6C3B	115	9000	3*	6.35
67DP-B-6C5B	6	25	5*	5.60
67DP-E-6C5B	12	90	5*	5.60
67DP-H-6C5B	24	430	5*	5.60
67DP-L-6C5B	48	1550	5*	5.60
67DP-P-6C5B	115	9000	5*	6.55

8 FORM C	Nominal Voltage (DC)	Coil Res. (Ohms)	Comtact Rating (Amps)	Net
67DP-C-8C3	6	20	3	$7.00
67DP-F-8C3	12	72	3	7.00
67DP-J-8C3	24	350	3	7.00
67DP-M-8C3	48	1250	3	7.00
67DP-R-8C3	115	8000	3	7.95
67DP-C-8C5	6	20	5	7.40
67DP-F-8C5	12	72	5	7.40
67DP-J-8C5	24	350	5	7.40
67DP-M-8C5	48	1250	5	7.40
67DP-R-8C5	115	8000	5	8.35
67DP-C-8C3B	6	20	3*	7.70
67DP-F-8C3B	12	72	3*	7.70
67DP-J-8C3B	24	350	3*	7.70
67DP-M-8C3B	48	1250	3*	7.70
67DP-R-8C3B	115	8000	3*	8.65
67DP-C-8C5B	6	20	5*	7.90
67DP-F-8C5B	12	72	5*	7.90
67DP-J-8C5B	24	350	5*	7.90
67DP-M-8C5B	48	1250	5*	7.90
67DP-R-8C5B	115	8000	5*	8.85

SENSITIVE ADJUSTMENT

	Operate Current (Amps)	Coil Res. (Ohms)	Contact Rating (Amps)	Net
67DS-S-2C3	.0085	1000	3	$3.70
67DS-K-2C3	.0058	2500	3	3.70
67DP-T-2C3	.0041	5000	3	4.20
67DP-V-2C3	.0031	10,000	3	4.60
67DP-N-2C3	.0026	15,000	3	4.60
67DS-S-4C3	.0130	1000	3	4.15
67DS-K-4C3	.0084	2500	3	4.15
67DS-T-4C3	.0062	5000	3	4.65
67DS-V-4C3	.0045	10,000	3	5.05
67DS-N-4C3	.0035	15,000	3	5.05

MOUNTING HARDWARE
(Includes Socket, Retaining Clip and Ground Clip)

Part No.	Description	Net
6-1313-9	2 Pole Solder Terminal	$ .55
6-1313-10	2 Pole Printed Circuit Terminal	.65
6-1313-11	4 Pole Solder Terminal	.60
6-1313-12	4 Pole Printed Circuit Terminal	.70
6-1313-13	6 Pole Solder Terminal	.95
6-1313-14	6 Pole Printed Circuit Terminal	1.05
6-1313-15	8 Pole Solder Terminal	1.30
6-1313-16	8 Pole Printed Circuit Terminal	1.40

ALL SOCKET TERMINALS ARE GOLD PLATED

IMMEDIATE IN STOCK DELIVERY THROUGH LEADING INDUSTRIAL ELECTRONIC DISTRIBUTORS

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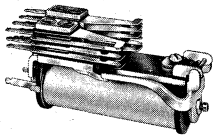
PHILLIPS-ADVANCE CONTROL CO.

TELEPHONE RELAYS



LONG FRAME

TYPE 2 Dependable and versatile, the Type 2 is the "workhorse" of relays. It operates millions of times with reliability and requires little attention during its long life. An unusually large number of variations in contact assemblies, contact materials, coils, adjustments, and mounting arrangements are available.

On special order:

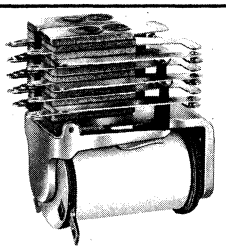
Operating Voltage: Up to 750 volts DC. Up to 440 volts AC, 60 cycles.

Resistance: Up to 50,000 ohms, single or double wound.

Standard Contacts: 18 ga. palladium, rated 3 amps, 150W. resistive. (Gold Flashed)

Type (DC)	Coil Voltage	Contact Arrange.	Coil Res. (Ohms)	Operate Curr. (Amps)	Operate Time (Sec.)	Net
2DC-6-2C	6	DPDT	50	.048	.030	7.20
2DC-6-6C	6	6PDT	50	.090	.065	11.20
2DC-24-2C	24	DPDT	600	.015	.025	7.50
2DC-24-6C	24	6PDT	600	.024	.050	11.50
2DC-48-4C	48	4PDT	2,000	.011	.040	7.70
2DC-48-6C	48	6PDT	2,000	.013	.050	11.70
2DC-115-1C	115	SPDT	3,600	.0045	.010	7.00
2DC-115-3C	115	3PDT	3,600	.008	.015	9.25
2DC-230-2C	230	DPDT	10,000	.004	.010	8.80
2DC-230-4C	230	4PDT	10,000	.006	.050	10.80

Type (AC)	Coil Voltage	Contact Arrange.	Coil Res. (Ohms —DC)	Curr. Drain (Amps—AC)	Pick-up Volt. 60 Cy.	Net
2AC-6-1C	6	SPDT	0.2	1	4.5	7.10
2AC-6-4C	6	4PDT	0.2	1	4.5	8.60
2AC-24-2C	24	DPDT	4	.24	21	7.55
2AC-24-4C	24	4PDT	4	.24	21	8.60
2AC-115-1C	115	SPDT	100	.08	100	7.50
2AC-115-3C	115	3PDT	100	.08	100	9.70



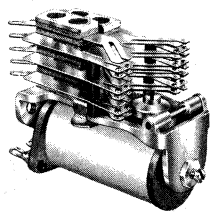
SHORT FRAME

TYPE 4C Relays constructed on the same general design of compact assembly and possess similar specifications. The heelpiece, armature and coil core are made of annealed magnetic iron, with the heelpiece acting as a return path for the magnetic circuit. The armature is pivoted on long-life bearings to insure constant pickup and drop-out adjustment. Standard relays are supplied with solder terminals for contact springs and coils.

Standard Contacts: 18 ga. palladium, rated 3 amps, 150W. resistive. (Gold Flashed)

TYPE (DC)	CONTACT ARRANGE.	COIL RES. OHMS	NET
4CDC-6-2C	DPDT	30	5.30
4CDC-12-2C	DPDT	75	5.30
4CDC-24-2C	DPDT	425	5.30
4CDC-115-2C	DPDT	6500	5.80
4CDC-6-4C	4PDT	30	7.05
4CDC-12-4C	4PDT	75	7.05

TYPE (DC)	CONTACT ARRANGE.	COIL RES. OHMS	NET
4CDC-24-4C	4PDT	425	7.05
4CDC-115-4C	4PDT	6500	7.65
4CDC-12-6C	6PDT	75	8.60
4CDC-24-6C	6PDT	425	8.65
4CDC-115-6C	6PDT	6500	9.20



MEDIUM FRAME

TYPE 8 Small versatile multi-contact telephone type relays. Available with many variations in coils, contact assemblies, contact ratings, adjustments, terminal arrangements and mountings for a variety of applications. Standard contact blades are made of spring temper nickel silver, designed to give true independent twin contact operation.

Coil Characteristics:

Operating Voltage: Up to 300 volts D. C., 115 volts A. C., 60 or 400 cycles.

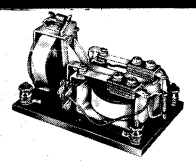
Resistance: Up to 21,000 ohms. Single or double wound.

Standard Contacts: Twin palladium, rated 4 amps, 175W. resistive. (Gold Flashed)

TYPE (DC)	COIL RES. (OHMS)	OPERATE CURR. (AMPS)	WATTS	OPERATE TIME (SEC.)	NET
8DC-12-4C	100	.072	.518	.022	8.25
8DC-12-6C	100	.100	1.0	.030	11.30
8DC-24-4C	300	.046	.635	.020	8.25
8DC-24-6C	300	.064	1.23	.025	11.30
8DC-115-4C	8000	.010	.80	.023	9.80
8DC-115-6C	8000	.012	1.15	.023	12.15

TYPE (AC)	COIL RES. (OHMS)	CURR. DRAIN (AMPS)	PICK-UP VOLT. 60 CY.	NET
8AC-115-2C	400	.075	95	6.30
8AC-115-4C	400	.075	95	8.90

POWER RELAYS



LATCHING

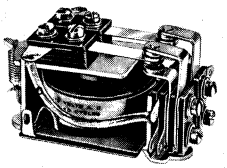
TYPE LE The LE Series relays are employed in industrial and power control applications where it is desirable to eliminate continuous use of current consumption by the duty coil.

The latching mechanism in these relays is positive, and assures consistent performance. The units are assembled on a heavy bakelite base.

Dimensions: H. 2⅜", W. 2½", L. 3⅝".

Mounting Data: 2 holes .152 dia.; clearance for 6-32 NC-2 screws; 2" centers.

Type	Coil Resistance	Contacts*	Net
LE/2C/115VA	160 ohms	DPDT 15 amps	12.00
LE/2C/24VD	100 ohms	DPDT 15 amps	11.65



TYPE PC Compact and positive-acting relays for either AC or DC. Used in air conditioning and lighting systems, small motor starting, transformers, garage door openers—wherever dependable circuit switching is necessary. Contacts rated at 15 Amps resistive, 5 Amps inductive at 115VAC or 26.5 VDC.

Dimensions: H. 1⅝", W. 1⅝", L. 2⅝"—1 & 2 pole.
H. 1⅝", W. 2¾", L. 3⅛"—3 & 4 pole.

Mounting Data: 2 tapped holes 6-32 NC-2; 2" centers.

Weight: 8 oz.

TYPE	COIL RESISTANCE (OHMS)	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
PC/1C/6VA	1.6	SPDT	15	3.95
PC/1C/12VA	4	SPDT	15	3.95
PC/1C/24VA	16	SPDT	15	3.95
PC/1C/115VA	450	SPDT	15	3.95
PC/1C/220VA	1600	SPDT	15	4.95
PC/1C/6VD	16	SPDT	15	3.95
PC/1C/12VD	63	SPDT	15	3.95
PC/1C/24VD	250	SPDT	15	3.95
PC/1C/110VD	4000	SPDT	15	4.45
PC/2C/6VA	1.6	DPDT	15	5.95
PC/2C/12VA	4	DPDT	15	5.95
PC/2C/24VA	16	DPDT	15	5.95

TYPE	COIL RESISTANCE (OHMS)	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
PC/2C/115VA	450	DPDT	15	5.95
PC/2C/220VA	1600	DPDT	15	6.95
PC/2C/6VD	16	DPDT	15	5.95
PC/2C/12VD	63	DPDT	15	5.95
PC/2C/24VD	250	DPDT	15	5.95
PC/2C/110VD	4000	DPDT	15	6.55
PC/3C/6VA	1.6	3PDT	15	8.45
PC/3C/24VA	16	3PDT	15	8.45
PC/3C/115VA	450	3PDT	15	8.45
PC/3C/220VA	1600	3PDT	15	9.65
PC/3C/6VD	16	3PDT	15	8.45
PC/3C/12VD	63	3PDT	15	8.45
PC/3C/24VD	250	3PDT	15	8.45
PC/3C/110VD	4000	3PDT	15	8.95
PC/4C/6VA	1.6	4PDT	15	10.95
PC/4C/24VA	16	4PDT	15	10.95
PC/4C/115VA	450	4PDT	15	10.95
PC/4C/220VA	1600	4PDT	15	12.45
PC/4C/6VD	16	4PDT	15	10.95
PC/4C/12VD	63	4PDT	15	10.95
PC/4C/24VD	250	4PDT	15	10.95
PC/4C/110VD	4000	4PDT	15	11.45

Note: PC/3C and PC/4C not available in 12 volts AC.

Net

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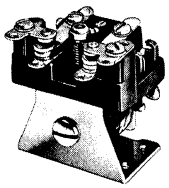


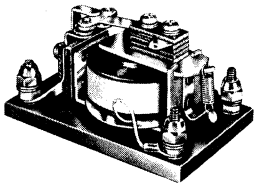
TYPE PG A continuous duty general purpose relay, available in AC or DC with DPDT (2C) and SPDT-DB (1Z) contact arrangements. Excellent for general industrial power control circuits and withstand vibration and shock because of special armature and frame design. 30 amp contact rating is achieved on the PG/1Z by including a jumper between blades, effecting a single pole design.

Dimensions: H. 1⅞", W. 1⅝", L. 1½".

Mounting Data: 4 tapped holes 6-32 NC-2; ½" x 1-5/16" centers.

Weight: 4.4 oz.

TYPE	COIL RESISTANCE (OHMS)	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
PG/2C/6VA	1.4	DPDT	15	7.50
PG/2C/24VA	25	DPDT	15	7.50
PG/2C/115VA	400	DPDT	15	7.50
PG/2C/220VA	1600	DPDT	15	7.95
PG/2C/6VD	16	DPDT	15	6.90
PG/2C/12VD	63	DPDT	15	6.90
PG/2C/24VD	250	DPDT	15	6.90
PG/1Z/6VD	16	SPDT	30	8.95
PG/1Z/115VA	400	SPDT	30	10.40



TYPE PV Very heavy-duty power-transfer relays—excellent for motor starting, lighting circuits and numerous applications where heavy double make contacts are needed. "T" blade is equipped with two ⅜" silver-cadmium oxide contacts, with ample contact gap. These contacts minimize pitting and burning under heavy non-inductive or inductive loads.

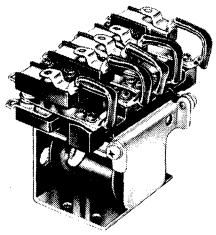
Dimensions: H. 1⅝"; W. 2¼", L. 3¼".

Mounting Data: 2 holes .169 dia. clearance for 8-32 NC-2 screws, 1⅞" centers.

Weight: 6.8 oz.

TYPE	COIL RESISTANCE (OHMS)	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
PV/1X/6VD	16	SPST-NO	30	7.35
PV/1X/115VA	450	SPST-NO	30	7.70
PV/1Z/6VD	16	SPDT	30	8.55
PV/1Z/115VA	450	SPDT	30	8.70

TYPE 33B Designed and constructed with a variety of features which contribute to the sensitivity and longevity of this relay. Contacts and terminals are mounted on molded phenolic blocks with integral barriers. Moveable contact blades are made of spring temper phosphor bronze for high conductivity and long life. Adjusting screws on each blade permit close adjustment in the factory for contact gap, over-travel, and pressure. Armature pivots on machined phosphor bronze bearing pins and pivot holes are precision reamed. Adjustment of the armature and yoke assembly allows proper alignment between the armature and pole face. Four 6-32 N. C. tapped mounting holes in the base allow easy mounting on chassis or bracket.



AVAILABLE THRU 5 FORM C (AC OR DC)

Dimensions: H. 2⅝", W. 2⅝" (5 Pole), L. 2".

Mounting Data: 4 Tapped Holes 6-32NC-2, ½" x 1⅛" centers.

Weight: 6 ounces max.

Contact Rating: Code 14—20 Amps Resistive at 115 VAC.

Stock Numbers are coded: 33BDC-24-5C-14.

A Type 33 relay for 24 volt DC operation with a 5C contact assembly using code number 14 contacts.

Type (DC)	Coil Res. (Ohms)	Operate Curr. (Amps)	Watts	Operate Time (Sec.)	Contact Arrange.	Net
33BDC-6-3C-14	18	.185	.62	.019	3PDT	6.60
33BDC-6-5C-14	18	.225	.91	.025	5PDT	8.10
33BDC-24-3C-14	250	.064	1.02	.025	3PDT	6.60
33BDC-24-5C-14	250	.070	1.22	.029	5PDT	8.10
33BDC-230-3C-14	10,000	.010	1.0	.014	3PDT	8.60
33BDC-230-5C-14	10,000	.011	1.21	.016	5PDT	10.10

Type (AC)	Coil Res. (Ohm —DC)	Curr. Drain (Amps)	Pick-up Volt. 60 Cy.	Contact Arrang.	Net
33BAC-6-3C-14	1	.720	4.5	3PDT	6.60
33BAC-6-5C-14	1	.720	4.5	5PDT	8.10
33BAC-24-3C-14	9	.390	21	3PDT	6.60
33BAC-24-5C-14	9	.390	21	5PDT	8.10
33BAC-115-3C-14	215	.070	100	3PDT	6.60
33BAC-115-5C-14	215	.070	100	5PDT	8.10

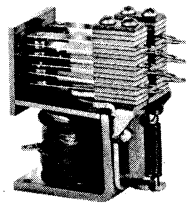
GENERAL PURPOSE RELAYS

TYPE 12 Low cost general purpose relay with multiple contacts. Used widely in commercial applications such as industrial controls, communications equipment, and automatic vending machines. On special order available in resistances up to 12,000 ohms. AC or DC, 230 volts, maximum. Coil dissipation, 3 watts maximum.

Dimensions: H. 2⅜"; L. 1²³⁄₃₂"; W. 1".

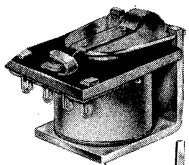
Mounting: 4 6-32 tapped holes on ¾" x ⅞" centers.

Standard Contacts: ⅜" silver. Rated 10 amperes resistive at 115 VAC.

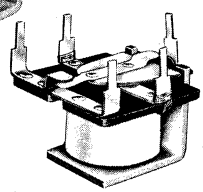


TYPE	COIL VOLTAGE (DC)	CONTACT ARRANGE.	RATING (AMPS)	NET
12DC-6-2C-10	6	DPDT	10	2.30
12DC-12-2C-10	12	DPDT	10	2.40
12DC-24-2C-10	24	DPDT	10	2.50
12DC-115-2C-10	115	DPDT	10	2.80
12DC-6-3C-10	6	3PDT	10	2.65
12DC-12-3C-10	12	3PDT	10	2.75
12DC-24-3C-10	24	3PDT	10	2.80
12DC-115-3C-10	115	3PDT	10	3.15
12DC-6-4C-10	6	4PDT	10	3.00
12DC-12-4C-10	12	4PDT	10	3.10
12DC-24-4C-10	24	4PDT	10	3.15
12DC-115-4C-10	115	4PDT	10	3.50
12DC-6-6C-10	6	6PDT	10	3.50
12DC-12-6C-10	12	6PDT	10	3.60
12DC-24-6C-10	24	6PDT	10	3.65
12DC-115-6C-10	115	6PDT	10	4.00

TYPE	COIL VOLTAGE (AC)	CONTACT ARRANGE.	RATING (AMPS)	NET
12AC-6-2C-10	6	DPDT	10	2.40
12AC-12-2C-10	12	DPDT	10	2.50
12AC-24-2C-10	24	DPDT	10	2.55
12AC-115-2C-10	115	DPDT	10	2.70
12AC-6-3C-10	6	3PDT	10	2.70
12AC-12-3C-10	12	3PDT	10	2.80
12AC-24-3C-10	24	3PDT	10	2.90
12AC-115-3C-10	115	3PDT	10	3.10
12AC-6-4C-10	6	4PDT	10	3.10
12AC-12-4C-10	12	4PDT	10	3.15
12AC-24-4C-10	24	4PDT	10	3.20
12AC-115-4C-10	115	4PDT	10	3.40
12AC-6-6C-10	6	6PDT	10	3.60
12AC-12-6C-10	12	6PDT	10	3.65
12AC-24-6C-10	24	6PDT	10	3.70
12AC-115-6C-10	115	6PDT	10	3.90



SOLDER TERMINAL



PRINTED CIRCUIT

TYPE 15 A small economical unit designed for printed circuit or screw mounting. 200 milliwatts nominal operating power. Available form 1C only.

Dimensions: H. 0.781"; L. 1⅛"; W. 1".

Mounting: Single ³²⁄₁₂" tapped hole.

SOLDER TERMINAL

TYPE	COIL VOLTAGE	COIL RES.	CONTACT RATING (AMPS)	NET
15-6-1CT	6	85	1	1.50
15-12-1CT	12	300	1	1.50
15-24-1CT	24	1100	1	1.50

PRINTED CIRCUIT

TYPE	COIL VOLTAGE	COIL RES.	CONTACT RATING (AMPS)	NET
15-6-1C	6	85	1	1.50
15-12-1C	12	300	1	1.50
15-24-1C	24	1100	1	1.50

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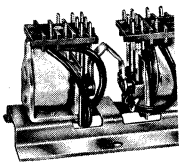
TYPES—GHA—GHP Low-cost continuous-duty general purpose relay. Contacts rated at 5 amps resistive load. Available as an open relay (GHA) or with a dustite plastic enclosure (GHP). Enclosed types with SPDT and DPDT contacts have 8 pin octal plug-in bases while the 3PDT types use 11 pin plug-in bases. Open relays supplied with axial type solder lugs. UL (Underwriters Laboratories) approval granted on types GHA1C and GHA2C.

Dimensions: Open Style—1 47/64" x 1 7/64" x 1 3/16"".
Enclosed Style—1 13/32" x 1 13/32" x 2 1/8".

TYPE	COIL RESISTANCE (OHMS)	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
GHA/1C/6VA	4	SPDT	5	3.05
GHA/1C/12VA	16	SPDT	5	3.05
GHA/1C/24VA	63	SPDT	5	3.05
GHA/1C/115VA	1600	SPDT	5	3.05
GHA/1C/220VA	5000	SPDT	5	3.55
GHA/1C/6VD	25	SPDT	5	3.05
GHA/1C/12VD	100	SPDT	5	3.05
GHA/1C/24VD	400	SPDT	5	3.05
GHA/1C/110VD	8000	SPDT	5	3.55
GHA/2C/6VA	4	DPDT	5	3.55
GHA/2C/12VA	16	DPDT	5	3.55
GHA/2C/24VA	63	DPDT	5	3.55
GHA/2C/115VA	1600	DPDT	5	3.55
GHA/2C/220VA	5000	DPDT	5	4.05
GHA/2C/6VD	25	DPDT	5	3.35
GHA/2C/12VD	100	DPDT	5	3.35
GHA/2C/24VD	400	DPDT	5	3.35
GHA/2C/110VD	8000	DPDT	5	3.85
GHA/3C/6VA	4	3PDT	5	4.05
GHA/3C/12VA	16	3PDT	5	4.05
GHA/3C/24VA	63	3PDT	5	4.05
GHA/3C/115VA	1600	3PDT	5	4.05

TYPE	COIL RESISTANCE (OHMS)	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
GHA/3C/220VA	5000	3PDT	5	4.55
GHA/3C/6VD	25	3PDT	5	3.75
GHA/3C/12VD	100	3PDT	5	3.75
GHA/3C/24VD	400	3PDT	5	3.75
GHA/3C/110VD	8000	3PDT	5	4.25
GHP/1C/6VA	4	SPDT	5	5.10
GHP/1C/12VA	16	SPDT	5	5.10
GHP/1C/24VA	63	SPDT	5	5.10
GHP/1C/115VA	1600	SPDT	5	5.10
GHP/1C/6VD	25	SPDT	5	5.15
GHP/1C/12VD	100	SPDT	5	5.15
GHP/1C/24VD	400	SPDT	5	5.15
GHP/1C/110VD	8000	SPDT	5	5.65
GHP/2C/6VA	4	DPDT	5	5.75
GHP/2C/12VA	16	DPDT	5	5.75
GHP/2C/24VA	63	DPDT	5	5.75
GHP/2C/115VA	1600	DPDT	5	5.75
GHP/2C/220VA	5000	DPDT	5	6.25
GHP/2C/6VD	25	DPDT	5	5.65
GHP/2C/12VD	100	DPDT	5	5.65
GHP/2C/24VD	400	DPDT	5	5.65
GHP/2C/110VD	8000	DPDT	5	6.15
GHP/3C/6VA	4	3DPT	5	7.05
GHP/3C/24VA	63	3PDT	5	7.05
GHP/3C/115VA	1600	3PDT	5	7.05
GHP/3C/220VA	5000	3PDT	5	7.55
GHP/3C/6VD	25	3PDT	5	6.95
GHP/3C/12VD	100	3PDT	5	6.95
GHP/3C/24VD	400	3PDT	5	6.95
GHP/3C/110VD	8000	3PDT	5	7.45

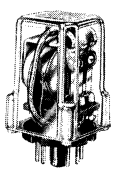


LATCHING

TYPE LGA Used in industrial and power control applications where it is desirable to eliminate continuous use of current consumption by the duty coil. Latching mechanism is positive and assures consistent performance. Both operate and reset coils are electrically operated.

Dimensions: 1 3/4" x 1 5/8" x 3 1/2".
Two 6-32 mounting holes on 1 3/8" centers.

TYPE	COIL RESISTANCE (BOTH COILS) (OHMS)	FORM	CONTACTS RATING (AMPS)	NET
LGA/4C/24VA	40	4PDT	5	10.45
LGA/4C/115VA	1000	4PDT	5	10.45
LGA/4C/6VD	16	4PDT	5	9.35
LGA/4C/12VD	63	4PDT	5	9.35
LGA/4C/24VD	250	4PDT	5	9.35
LGA/4C/110VD	5000	4PDT	5	10.55
LGA/6C/24VA	40	6PDT	5	12.50
LGA/6C/115VA	1000	6PDT	5	12.50
LGA/6C/6VD	16	6PDT	5	11.40
LGA/6C/12VD	63	6PDT	5	11.40
LGA/6C/24VD	250	6PDT	5	11.40
LGA/6C/110VD	5000	6PDT	5	12.60

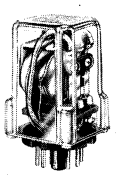


TYPES GHB—GHH Similar in size and mounting to the GHA and GHP types shown above with contacts rated at 10 amps resistive. GHB is open style with axial leads and GHH utilizes plastic enclosure and plug-in base. UL Listing granted on types GHB/1C and GHB/2C.

Dimensions: Open Style—1 47/64" x 1 7/64" x 1 3/16".
Enclosed Style—1 13/32" x 1 13/32" x 2 1/8".

TYPE	COIL RESISTANCE (OHMS)	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
GHB/1C/6VA	4	SPDT	10	3.50
GHB/1C/24VA	63	SPDT	10	3.50
GHB/1C/115VA	1600	SPDT	10	3.50
GHB/1C/6VD	25	SPDT	10	3.50
GHB/1C/12VD	100	SPDT	10	3.50
GHB/1C/24VD	400	SPDT	10	3.50
GHB/2C/6VA	4	DPDT	10	4.05
GHB/2C/24VA	63	DPDT	10	4.05
GHB/2C/115VA	1600	DPDT	10	4.05
GHB/2C/6VD	25	DPDT	10	3.80
GHB/2C/12VD	100	DPDT	10	3.80
GHB/2C/24VD	400	DPDT	10	3.80
GHB/3C/6VA	4	3PDT	10	4.60

TYPE	COIL RESISTANCE (OHMS)	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
GHB/3C/24VA	63	3PDT	10	4.60
GHB/3C/115VA	1600	3PDT	10	4.60
GHB/3C/6VD	25	3PDT	10	4.40
GHB/3C/12VD	100	3PDT	10	4.40
GHB/3C/24VD	400	3PDT	10	4.40
GHH/2C/6VA	4	DPDT	10	6.05
GHH/2C/24VA	63	DPDT	10	6.05
GHH/2C/115VA	1600	DPDT	10	6.05
GHH/2C/6VD	25	DPDT	10	5.75
GHH/2C/12VD	100	DPDT	10	5.75
GHH/2C/24VD	400	DPDT	10	5.75
GHH/3C/6VA	4	3PDT	10	7.25
GHH/3C/12VA	16	3PDT	10	7.25
GHH/3C/24VA	63	3PDT	10	7.25
GHH/3C/115VA	1600	3PDT	10	7.25
GHH/3C/6VD	25	3PDT	10	7.25
GHH/3C/12VD	100	3PDT	10	7.25
GHH/3C/24VD	400	3PDT	10	7.25



TYPE GHE A plate circuit current operated unit having extremely good sensitivity. Standard GHE enclosed in dustite plastic enclosure and mounts with either an 8 pin or 11 pin plug-in base. Nominal power of 130 milliwatts per 1C (single pole) is required.

Dimensions: 1 13/32" x 1 13/32" x 2 1/8".

TYPE	COIL RESISTANCE (OHMS)	COIL CURRENT	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
GHE/1C/2500D	2500	7.2 MA	SPDT	5	4.40
GHE/1C/5000D	5000	5.0 MA	SPDT	5	4.85
GHE/1C/10000D	10000	3.6 MA	SPDT	5	5.25
GHE/2C/2500D	2500	10.0 MA	DPDT	5	5.15
GHE/2C/5000D	5000	7.2 MA	DPDT	5	5.25
GHE/2C/10000D	10000	5.0 MA	DPDT	5	5.65
GHE/3C/2500D	2500	11.8 MA	3PDT	5	6.60
GHE/3C/5000D	5000	8.3 MA	3PDT	5	6.70
GHE/3C/10000D	10000	5.8 MA	3PDT	5	7.10

Net

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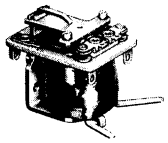

TYPE MK Ultra-small and feather-light, these direct current devices require less than ½ cubic inch mounting space. All switching is entirely above ground . . . insulated material is silicone glass. Beryllium copper armature hinges assure stable performance under vibration and shock.
Dimensions: H. 5/64", W. 4/64", L. 53/64".
Mounting Data: Relay supplied with single 2-56 NC-2 machine screw.
Weight: 11 grams.

TYPE	COIL RESISTANCE	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
MK/1C/6VD	50	SPDT	1	4.95
MK/1C/12VD	200	SPDT	1	4.95
MK/1C/24VD	800	SPDT	1	4.95
MK/2C/6VD	30	DPDT	1	5.95
MK/2C/12VD	120	DPDT	1	5.95
MK/2C/24VD	500	DPDT	1	5.95
MK/2C/5000D	5000	DPDT	1	6.95

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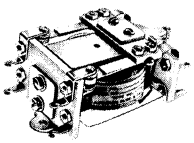
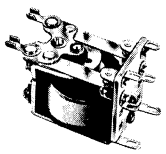


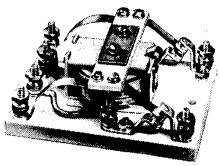
TYPE AH A changeover relay designed specifically for RF operation. The small size of this relay makes it ideal for use in compact sets where the load does not exceed ½ KW. Low-Loss handling of RF energy is assured by the Steatite insulation used throughout, and by adequate spacing between contacts. Units are fast and positive in action, and will operate in any position.
Dimensions: H. 1 7/16", W. 1⅝", L. 2¾".
Mounting Data: 2 tapped holes; 6-32 NC-2; 2" centers.

TYPE	COIL RES. (OHMS)	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
AH/2C/6VD	16	DPDT	10	11.75
AH/2C/12VD	63	DPDT	10	11.75
AH/2C/24VD	250	DPDT	10	11.75
AH/2C/115VA	450	DPDT	10	13.00
AH/2C1C/115VA	450	DPDT & SPDT (aux)	10	14.25



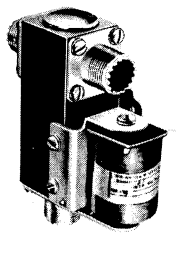
TYPE AM Space-saving "transmit-receive" antenna relays for many different low-power RF applications. They fill the need for 300-ohm circuit switching in mobile, marine, aircraft, television, communication and fixed-station service. Conically-shaped silver contacts assure low resistance paths for either "receive" or "transmit" positions.
Dimensions: H. 1-9/16", W. 15/16", L. 1-15/16".
Mounting Data: Relay supplied with single 6-32 NC-2 mounting stud with hex nut.
Weight: 2 oz.

TYPE	COIL RES. (OHMS)	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
AM/2C/6VA	4	DPDT	2	4.70
AM/2C/115VA	1600	DPDT	2	5.05
AM/2C/6VD	25	DPDT	2	4.20
AM/2C/12VD	100	DPDT	2	4.20
AM/2C/24VD	250	DPDT	2	4.20



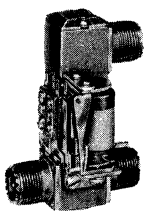
TYPE AT For heavy-duty RF transmitter antenna changeover applications. Primarily designed for fixed-station usage, with a conservative 1-kilowatt RF rating. Insulated with ceramic Steatite. Excellent wiping action of contacts assures flow of most minute currents for receiving positions. High efficiency. Available with auxiliary single-pole, normally open contacts.
Dimensions: H. 1-11/16", W. 2-13/16", L. 3-9/16".
Mounting Data: 4 holes .157 dia.; clearance for 6-32 screws.
Weight: 12.6 oz.

TYPE	COIL RES. (OHMS)	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
AT/2C/115VA	450	DPDT	10	13.20



TYPE CB Unsurpassed for meeting problems of coaxial cable switching. Designed for performance on 52-ohm coaxial lines. Low standing-wave ratios permit usage on frequencies up to 300 megacycles. Units operate equally well in any position. The CB/1000 is a kit for converting CB/1C to CB/1C2C contact arrangement. All types CB, with exception of CB/1C2C/115VA(N), supplied with SO-239 connectors. CB/1C2C/115VA(N) supplied with "N" connectors.
Dimensions: H. 1⅞", W. 3 1/16", L. 3⅞".
Mounting Data: 2 tapped holes 6-32 NC-2; 1 7/16" centers.
Weight: 11.1 oz. .

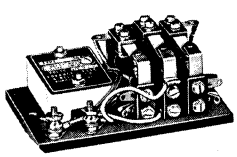
TYPE	COIL RESISTANCE (OHMS)	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
CB/1C/6VD	18	SPDT	5	20.00
CB/1C/12VD	70	SPDT	5	20.00
CB/1C/24VD	280	SPDT	5	20.00
CB/1C/115VA	280	SPDT	5	21.00
CB/1C2C/6VD	18	SPDT (int) DPDT (aux)	5	23.60
CB/1C2C/12VD	70	SPDT (int) DPDT (aux)	5	23.60
CB/1C2C/24VD	280	SPDT (int) DPDT (aux)	5	23.60
CB/1C2C/115VA	280	SPDT (int) DPDT (aux)	5	24.55
CB1000		DPDT	5	5.00
CB/1C2C/115VA (N)	280	SPDT (int) DPDT (aux)	5	24.55



TYPE CE Designed for coaxial line switching where space is a problem. The standing wave ratio is extremely low for efficient transfer of RF energy. These relays are ideally suited for use in mobile, aircraft, marine, experimental, and fixed-station communications equipment. The CE relay is designed for performance on 52 ohm coaxial lines but may also be used on lines of other impedances. This unit is rated for continuous duty operation in any position. The 3/16" dia. silver internal contacts are rated at 2 amps resistive and external contacts of 2 form C max. are available with 2 amp rating for auxiliary circuit switching.
Dimensions: H. 1 13/16", W. 2 1/16", L. 3" (Including connectors).
Mounting Data: 2 Tapped Holes 6-32NC-2, ¾" centers.
Weight: 4 ounces max.

	Coil Res. (Ohms)	Form	CONTACTS Rating (Amps)	Net
CE/1C/6VD	20	SPDT	2	$21.70
CE/1C/12VD	80	SPDT	2	21.70
CE/1C/24VD	300	SPDT	2	21.70
CE/1C/115VA	750	SPDT	2	24.55
CE/1C2C/6VD	20	SPDT (Int) DPDT (Aux)	2	23.10
CE/1C2C/12VD	80	SPDT (Int) DPDT (Aux)	2	23.10
CE/1C2C/24VD	300	SPDT (Int) DPDT (Aux)	2	23.10
CE/1C2C/115VA	750	SPDT (Int) DPDT (Aux)	2	24.30

TIME DELAY • SENSITIVE • HIGH VOLTAGE RELAYS



TYPES DB & DM With their adjustable time-delay range, these relays excellent for use in preheating tube-filaments; for specialized lighting circuits, photographic controls, protection applications, etc. DB provides time-delay before break. DM provides delay before make. Both series utilize bi-metal thermal units which can be adjusted for delays from 5 to 60 seconds. Cooling of the thermal units for proper re-cycling requires 8 to 10 times the delay period.
Dimensions: H. 1⅝", W. 2⅝", L. 3¾".
Mounting Data: 2 holes .152 dia.; 3 1/16" centers.
Weight: 7.8 oz.

TYPE	COIL RES. (OHMS)	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
DB/2C/115VA	450	DPDT	15	13.60
DM/2C/115VA	450	DPDT	15	14.35

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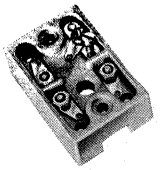
PHILLIPS-ADVANCE CONTROL CO.



TIME DELAY

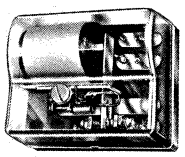
TYPE DT Efficient, low-cost units used in conjunction with various relays for delayed making or breaking of controlled circuits. Applicable wherever a time delay of 5 to 60 seconds is needed. Units are adjustable with a range of 8 to 20 cycles per minute. Operating on the bi-metal thermal principle, these types are housed in unglazed porcelain, and are obtainable with either normally-open or normally-closed contacts.

Dimensions: H. 13/16"; W. 1 17/64", L. 1 57/64".

Mounting Data: 2 holes .154 dia. for 6-32 NC-2 screws; 1 3/8" centers.

Weight: 1.4 oz.

TYPE	COIL VOLT	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
DT/1A/115VA	115VAC	SPST	2	2.75
DT/1B/115VA	115VAC	SPST-NC	2	2.75



SENSITIVE

TYPE SV For use in any DC circuit restricted to a few thousandths of a watt power consumption.

Transparent, molded plastic cover guards against dust or dirt reaching the contacts or other working parts.

Adjustments are quickly made with the vernier screws which vary relay sensitivity from the 5-milliwatt factory setting. Both the two stationary contacts and the spring tension can be accurately and permanently set—yet easily changed.

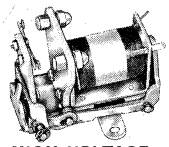
Dimensions: H. 1½", W. 2", L. 2 5/16".

Mounting Data: 2 holes .52 dia.

Weight: 6.5 oz.

Sensitivity: 5 Milliwatts.

TYPE	COIL RESISTANCE (OHMS)	COIL CURRENT (MA)	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
SV/1C/.005D	.005	1000	SPDT	1	7.95
SV/1C/1000D	1000	2.25	SPDT	1	8.25
SV/1C/1600D	1600	1.80	SPDT	1	8.25
SV/1C/2200D	2200	1.50	SPDT	1	8.25
SV/1C/3500D	3500	1.20	SPDT	1	8.40
SV/1C/5500D	5500	0.95	SPDT	1	8.75
SV/1C/8700D	8700	0.75	SPDT	1	9.40
SV/1C/10000D	10000	0.70	SPDT	1	9.40
SV/1C/14000D	14000	0.60	SPDT	1	10.10
SV/1C/20000D	20000	0.50	SPDT	1	11.10
SV/1C/30000D	30000	0.40	SPDT	1	11.85
SV/1C/40000D	40000	0.35	SPDT	1	13.30



HIGH VOLTAGE

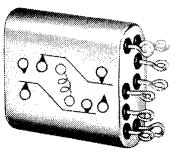
TYPE HV Applicable where "standard" design high voltage units occupy too much space. Contact assembly mounted on Steatite to insure high insulation and low energy loss. Will break up to 5000 volts RMS at 200 milliamperes current. Available in SPDT (double break-double make DM-DB) contact arrangement.

Dimensions: 1 29/32" x 2 7/32" x 3 1/16".

Mounting data: 2 holes 3/16" diameter on 1¾" centers.

TYPE	COIL RESISTANCE	CONTACTS	NET
HV/1Z/24VD	120 Ohms	SPDT DB-DM	17.65
HV/1Z/110VD	3000 Ohms	SPDT DB-DM	18.25

MICRO-MINIATURE RELAYS

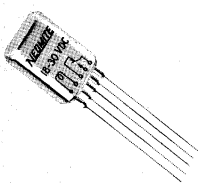


CRYSTAL CAN

TYPE MV Hermetically sealed rotary action DPDT (2 Form C) DC relay for severe military and industrial applications. All units are designed to meet requirements of MIL-R-5757 D. Occupies ¼ cubic inch. Contains new spring leaf contact blades which insure longer life with rapid heat dissipation. This Series, is available from stock with wide variety of terminal and mounting arrangements.

Type	Mounting	Coil Res. (Ohms)	Nominal Volts	Net
MV/2C/30D-13	Sol. Head. w/Side Brkt. (2 Hole)	30	6	$13.50
MV/2C/30D-15	Sol. Head. w/Side Brkt. (4 Hole)	30	6	13.50
MV/2C/30D-24	Plug In—Plain Can	30	6	13.50
MV/2C/30D-34	3" Leads—Plain Can	30	6	13.80
MV/2C/120D-11	Solder Header w/2 Side Studs	120	12	13.50
MV/2C/120D-12	Solder Header w/2 Top Studs	120	12	13.50
MV/2C/120D-13	Sol. Head. w/Side Brkt. (2 Hole)	120	12	13.50
MV/2C/120D-16	Solder Header w/2 Mtg. Brkts.	120	12	13.50
MV/2C/120D-24	Plug In—Plain Can	120	12	13.50
MV/2C/120D-26	Plug In w/2 Mtg. Brackets	120	12	13.50
MV/2C/120D-31	3" Leads w/2 Side Studs	120	12	13.80
MV/2C/120D-33	3" Leads w/Side Brkt (2 Hole)	120	12	13.80
MV/2C/120D-34	3" Leads—Plain Can	120	12	13.80
MV/2C/600D-11	Solder Header w/2 Side Studs	600	26	13.50
MV/2C/600D-12	Solder Header w/2 Top Studs	600	26	13.50
MV/2C/600D-13	Sol. Head. w/Side Brkt. (2 Hole)	600	26	13.50
MV/2C/600D-14	Solder Header—Plain Can	600	26	13.50
MV/2C/600D-15	Sol. Head. w/Side Brkt. (4 Hole)	600	26	13.50

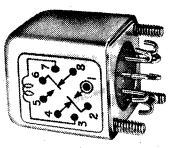
Type	Mounting	Coil Res. (Ohms)	Nominal Volts	Net
MV/2C/600D-16	Solder Header w/2 Mtg. Brkts.	600	26	13.50
MV/2C/600D-17	Solder Header w/Flange Bracket	600	26	13.50
MV/2C/600D-21	Plug In w/2 Side Studs	600	26	13.50
MV/2C/600D-22	Plug In w/2 Top Studs	600	26	13.50
MV/2C/600D-24	Plug In—Plain Can	600	26	13.50
MV/2C/600D-31	3" Leads w/2 Side Studs	600	26	13.80
MV/2C/600D-33	3" Leads w/Side Bracket (2 Hole)	600	26	13.80
MV/2C/600D-34	3" Leads—Plain Can	600	26	13.80
MV/2C/1000D-11	Solder Header w/2 Side Studs	1000	35	13.50
MV/2C/1000D-12	Solder Header w/2 Top Studs	1000	35	13.50
MV/2C/1000D-13	Solder Header w/Side Brkt. (2 Hole)	1000	35	13.50
MV/2C/1000D-15	Solder Header w/Side Brkt. (4 Hole)	1000	35	13.50
MV/2C/1000D-17	Solder Header w/Flange Bracket	1000	35	13.50
MV/2C/1000D-24	Plug In—Plain Can	1000	35	13.50
MV/2C/2500D-12	Solder Header w/2 Top Studs	2500	55	13.60
MV/2C/2500D-13	Solder Header w/Side Brkt. (2 Hole)	2500	55	13.60
MV/2C/2500D-24	Plug In—Plain Can	2500	55	13.60
MV/2C/5000D-16	Solder Header w/2 Mtg. Brkts.	5000	78	13.95
MV/2C/5000D-21	Plug In w/2 Side Studs	5000	78	13.95
MV/2C/5000D-24	Plug In—Plain Can	5000	78	13.95
MVT/2C/-10,000D-13	Solder Header w/Side Brkt. (2 Hole)	10,000	110	18.50
MV7033	Conforms to RY4NA3B3L02 of MIL-R-5757D	600	26.5	13.50



NEOMITE

TYPE NM Hermetically sealed SPDT (form C) DC relay for missiles, aircraft, control equipment and printed circuits. Occupying only 0.04 of a cubic inch, it is ideal where space is at a minimum and long life is important. Contact resistance is extraordinarily low, making it invaluable in dry circuit switching. Available from stock with a screw down mounting bracket or a bend-over-tab mounting bracket for printed circuit board use.

TYPE	RESISTANCE (OHMS)	PULL-IN CURRENT MAX. (MA)	COIL NOMINAL VOLTAGE (VDC)	NET
NM/1C/50	50	44	4	21.00
NM/1C/200	200	22	8	21.00
NM/1C/500	500	14	12	21.00
NM/1C/1K	1000	10	16	21.00
NM/1C/2K	2000	7	24	21.00
6B 346000 Two hole Bracket				.50
6B 347000 Tab Bracket				.50



TYPE VGS Miniature sealed rotary action DPDT (2 form C) relay for missile and aircraft use. A more sensitive version of its forerunner, the VG. VGS occupies less than a cubic inch of space and withstands 15 G's to 2000 cycles vibration, utilizing only 125 milliwatts of power at 25 degrees C. Contacts rated at 5 amps resistive at 115 VAC or 26.5 VDC. Contact material is silver magnesium nickel alloy, gold flashed.

TYPE	COIL RESISTANCE (OHMS)	NET
VGS/2C/2000D	2000	22.50

Net

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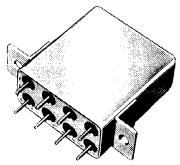
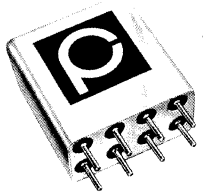


HIGH SHOCK AND VIBRATION CRYSTAL CAN

TYPE VR A 0.2 inch grid-spaced hermetically sealed relay, designed to meet the requirements of Military Specification MIL-R-5757D. Will withstand 35 G's vibration and 100 G's shock. The standard catalog item has a pull-in power of 250 milli-watts at 25 degrees C, and a nominal operating power of 1.25 watts. The double-pole double-throw contacts are of silver magnesium nickel, gold plated and have a rating of 3 amperes resistive at 28 volts DC or 115 volts AC.

Type	Mounting	Coil Res. (Ohms)	Nominal Volts	Net
VR/2C/35D-10	Solder Header w/2 Mtg. Brkts.	35	6.3	$13.00
VR/2C/35D-24	Plug In—Plain Can	35	6.3	13.00
VR/2C/125D-10	Solder Header w/2 Mtg. Brkts.	125	12.5	13.00
VR/2C/125D-12	Solder Header w/2 Top Studs	125	12.5	13.00
VR/2C/125D-13	Solder Header w/Side Bracket	125	12.5	13.00
VR/2C/125D-14	Solder Header—Plain Can	125	12.5	13.00
VR/2C/125D-24	Plug In—Plain Can	125	12.5	13.00
VR/2C/125D-31	3" Leads w/Side Studs	125	12.5	13.30
VR/2C/125D-34	3" Leads—Plain Can	125	12.5	13.30
VR/2C/675D-10	Solder Header w/2 Mtg. Brkts.	675	26.5	13.00
VR/2C/675D-11	Solder Header Side Studs	675	26.5	13.00
VR/2C/675D-12	Solder Header w/2 Top Studs	675	26.5	13.00
VR/2C/675D-13	Solder Header w/Side Bracket	675	26.5	13.00
VR/2C/675D-14	Solder Header—Plain Can	675	26.5	13.00
VR/2C/675D-20	Plug In w/2 Mtg. Brackets	675	26.5	13.00
VR/2C/675D-24	Plug In—Plain Can	675	26.5	13.00
VR/2C/675D-33	3" Leads w/Side Bracket	675	26.5	13.30
VR/2C/675D-34	3" Leads—Plain Can	675	26.5	13.30
VR/2C/1500D-24	Plug In—Plain Can	1500	48.0	13.00
VR/2C/2450D-14	Solder Header—Plain Can	2450	60.0	13.10
VR/2C/2450D-24	Plug In—Plain Can	2450	60.0	13.10
VR/2C/9100D-24	Plug In—Plain Can	9100	110.0	14.00
VR/2C/9100D-31	3" Leads w/Side Studs	9100	110.0	14.30

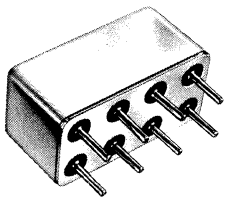


CRYSTAL CAN MEETS MIL-R-5757/10

TYPE 30 Phillips micro-miniature Type 30 provides rugged, dependable performance from a compact, hermetically sealed relay. It is ideal for applications involving computer systems, missile or aircraft control circuits, communications equipment and general electronic circuitry.

Quality controlled production and precision components assembled and tested under dust-free, super clean manufacturing conditions assures you that the Phillips micro-miniature Type 30 will uphold the high quality standards of your products. Conforms to MIL-5757 D. Meets the following low level requirements: 30 microvolts open circuit voltage; 10 microamperes contact current.

Type	Mounting	Coil Res. (Ohms)	Nominal Volts	Net
30-01D	Solder Header w/2 Mtg. Brkts.	200	12.6	$7.25
30-01G	Solder Header w/2 Mtg. Brkts.	700	26.5	7.25
30-01M	Solder Header w/2 Mtg. Brkts.	9100	110.0	8.25
30-02D	Solder Header w/Side Bracket	200	12.6	7.25
30-02G	Solder Header w/Side Bracket	700	26.5	7.25
30-02M	Solder Header w/Side Bracket	9100	110.0	8.25
30-04D	Solder Header w/2 Side Studs	200	12.6	7.25
30-04G	Solder Header w/2 Side Studs	700	26.5	7.25
30-04M	Solder Header w/2 Side Studs	9100	110.0	8.25
30-05D	Solder Header w/2 Top Studs	200	12.6	7.25
30-05G	Solder Header w/2 Top Studs	700	26.5	7.25
30-05M	Solder Header w/2 Top Studs	9100	110.0	8.25
30-07D	Plug In—Plain Can	200	12.6	7.25
30-07G	Plug In—Plain Can	700	26.5	7.25
30-07M	Plug In—Plain Can	9100	110.0	8.25

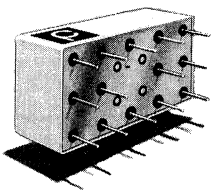


HALF SIZE MEETS MIL-R-5757/9

TYPE 62 A unique half-size microminiature relay having these eleven specific advantages: (1) diagonally mounted coil allows larger coil for greater sensitivity; (2) uniquely designed armature assures maximum sensitivity and magnetic uniformity; (3) massive pole pieces provide higher heat dissipation; (4) contacts of gold-flashed silver magnesium nickel for high temperature stability and low level performance; (5) single coil design provides greater reliability; (6) single stamping forms integral return spring and back stop. Fewer parts, greater dependability; (7) Welded, spade-type coil terminations; (8) greater rigidity thru unitized, welded construction; (9) designed for optimum magnetic characteristics; (10) balanced armature provides higher resistance to vibration and shock; (11) sensitivity level below 200 milliwatts.

Dimensions: H. 0.400"; L. 0.390"; W. 0.800".

Type	Mounting	Coil Res. (Ohms)	Nominal Volts	Net
62-01D	Solder Header w/Mtg. Brackets	145	12.0	$14.25
62-01G	Solder Header w/Mtg. Brackets	700	26.5	14.25
62-02D	Solder Header w/Mtg. Brackets	145	12.0	14.25
62-02G	Solder Header w/Mtg. Bracket	700	26.5	14.25
62-07D	Plug In—Plain Can	145	12.0	14.25
62-07G	Plug In—Plain Can	700	26.5	14.25



4 POLE—HALF SIZE MEETS MIL-R-5757/12

TYPE 64 The Type 64 embodies engineering advances truly unique among today's four-pole, double throw relays—twice the versatility of conventional 2PDT's, half the size of conventional 4PDT's, with no sacrifice in performance. Designed specifically to meet aero-space needs, the Type 64 features all-welded construction and "Thermo-Dri" nitrogen backfilling to assure contamination-free operation. Symmetrical circuitry simplifies wiring. Available in various coil resistances and all popular header styles. Meets MIL-R-5757/12A.

Type	Mounting	Coil Res. (Ohms)	Nominal Volts	Net
64-01E	Solder Header w/Mtg. Brackets	120	12.6	$24.50
64-01H	Solder Header w/Mtg. Brackets	500	26.5	24.50
64-01Q	Solder Header w/Mtg. Brackets	11300	110.0	24.50
64-07E	Plug In—Plain Can	120	12.6	24.50
64-07H	Plug In—Plain Can	500	26.5	24.50
64-07Q	Plug In—Plain Can	11300	110.0	24.50

SENSITIVE MEETS MIL-R-5757/13

TYPE 80 A 40 milliwatt micro-miniature relay using latest manufacturing techniques, including back-filling with "Thermo-Dry" nitrogen and precise adjustments to obtain an operate time of less than 10 milliseconds. This unit meets all requirements of military specifications, MIL-R-5757/13A. Vibration, 20 G's through 2000 CPS. Shock, 65 G's for 11 milliseconds. Operating temperature range, —65 C to +125 C.

Type	Mounting	Coil Res. (Ohms)	Operating Current (Amps)	Net
80-01A	Solder Header w/2 Mount. Brackets	20	.0450	$13.00
80-01M	Solder Header w/2 Mount. Brackets	1000	.0064	13.00
80-01P	Solder Header w/2 Mount. Brackets	2000	.0045	13.00
80-01Q	Solder Header w/2 Mount. Brackets	2500	.0040	13.00
80-01R	Solder Header w/2 Mount. Brackets	4000	.0035	13.00
80-01S	Solder Header w/2 Mount. Brackets	5000	.0030	13.00
80-01T	Solder Header w/2 Mount. Brackets	8000	.0025	13.00
80-01U	Solder Header w/2 Mount. Brackets	10,000	.0020	13.00
80-07A	Plug In—Plain Can	20	.0450	13.00
80-07M	Plug In—Plain Can	1000	.0064	13.00
80-07P	Plug In—Plain Can	2000	.0045	13.00
80-07Q	Plug In—Plain Can	2500	.0040	13.00
80-07R	Plug In—Plain Can	4000	.0035	13.00
80-07S	Plug In—Plain Can	5000	.0030	13.00
80-07T	Plug In—Plain Can	8000	.0025	13.00
80-07U	Plug In—Plain Can	10,000	.0020	13.00
80-09A	3" Leads—Side Strap	20	.0450	13.30
80-09M	3" Leads—Side Strap	1000	.0064	13.30
80-09P	3" Leads—Side Strap	2000	.0045	13.30
80-09Q	3" Leads—Side Strap	2500	.0040	13.30
80-09R	3" Leads—Side Strap	4000	.0035	13.30
80-09S	3" Leads—Side Strap	5000	.0030	13.30
80-09T	3" Leads—Side Strap	8000	.0025	13.30
80-09U	3" Leads—Side Strap	10,000	.0020	13.30

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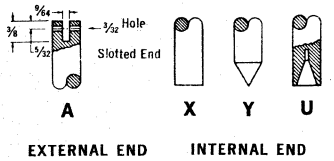
Net

PHILLIPS-ADVANCE CONTROL CO.

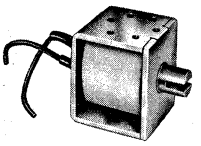
SOLENOIDS

STANDARD PLUNGER STYLES AVAILABLE



TYPES 38, 39, 40, 41, 42, 51 Solid frame solenoids using high-grade steel in all parts of the magnetic circuit. Carefully controlled annealing, after all machining operations are completed, assures maximum efficiency. The frame is dovetailed and staked to the end plate, adding mechanical strength and increasing the performance of the magnetic circuit. Plungers and plunger stops, which are made of annealed and specially processed steel, are available in three standard types for specific operating requirements. Type 51 is a laminated frame solenoid and has been designed and engineered to meet all of the requirements of the highest quality A. C. solenoid. Special production techniques and rigid quality control combine to provide a highly efficient unit. The frame is composed of silicon steel laminations securely riveted to a steel frame. Pole faces are precision ground and equipped with copper shading rings. Silicon steel laminations are also used for the plunger.

Type	41	42	38	39	40	51
size	1 x 1 7/32 x 1 1/4	1 x 1 7/32 x 2	1 9/16 x 1 27/32 1 5/8	1 9/16 x 1 27/32 x 2 1/8	1 9/16 x 1 27/32 x 2 5/8	2 1/16 x 1 15/16 x 3 1/2
weight (oz.)	6	8	12	16	20	16
coil watts max. at 25°C.	3	6	10	12	15	60 VA
std. plunger	AC DC AX AX	AC DC AX AU	AC DC AX AY	AC DC AX AY	AC DC AX AY	
max. stroke inches	3/8"	1/2"	1/2"	5/8"	7/8"	1"
plunger dia.	7/16"	7/16"	1/2"	1/2"	1/2"	



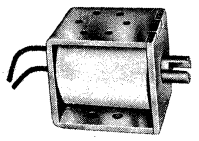
TYPE 38

DC SOLENOIDS

CONTINUOUS DUTY				25% INTERMITTENT DUTY *			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
38C06DC-AY	6	6	4.50	—	—	—	—
38C12DC-AY	12	21	4.50	382512DC-AY	12	6	4.50
38C24DC-AY	24	66	4.50	382524DC-AY	24	21	4.50
38C48DC-AY	48	300	4.50	382548DC-AY	48	66	4.50
38C115DC-AY	115	1500	4.50	3825115DC-AY	115	400	4.50

AC SOLENOIDS

CONTINUOUS DUTY				25% INTERMITTENT DUTY *			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
38C0660-AX	6	0.75	4.50	—	—	—	—
38C1260-AX	12	2.5	4.50	38251260-AX	12	0.75	4.50
38C2460-AX	24	10	4.50	38252460-AX	24	2.5	4.50
38C11560-AX	115	135	4.50	382511560-AX	115	50	4.50
38C23060-AX	230	470	4.50	382523060-AX	230	135	4.50



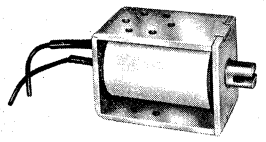
TYPE 39

DC SOLENOIDS

CONTINUOUS DUTY				25% INTERMITTENT DUTY *			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
39C06DC-AY	6	4	5.10	—	—	—	—
39C12DC-AY	12	10	5.10	392512DC-AY	12	4	5.10
39C24DC-AY	24	60	5.10	392524DC-AY	24	10	5.10
39C48DC-AY	48	250	5.10	392548DC-AY	48	60	5.10
39C115DC-AY	115	1600	5.10	3925115DC-AY	115	300	5.10

AC SOLENOIDS

CONTINUOUS DUTY				25% INTERMITTENT DUTY *			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
39C0660-AX	6	.4	5.10	—	—	—	—
39C1260-AX	12	1.5	5.10	39251260-AX	12	.4	5.10
39C2460-AX	24	7	5.10	39252460-AX	24	1.5	5.10
39C11560-AX	115	105	5.10	392511560-AX	115	30	5.10
39C23060-AX	230	400	5.10	392523060-AX	230	105	5.10



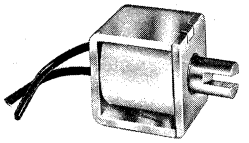
TYPE 40

DC SOLENOIDS

CONTINUOUS DUTY				25% INTERMITTENT DUTY *			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
40C06DC-AY	6	3.6	6.00	—	—	—	—
40C12DC-AY	12	12	6.00	402512DC-AY	12	3.6	6.00
40C24DC-AY	24	47.5	6.00	402524DC-AY	24	12	6.00
40C48DC-AY	48	225	6.00	402548DC-AY	48	47.5	6.00
40C115DC-AY	115	1570	6.00	4025115DC-AY	115	417	6.00

AC SOLENOIDS

CONTINUOUS DUTY				25% INTERMITTENT DUTY *			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
40C0660-AX	6	0.8	6.00	—	—	—	—
40C1260-AX	12	1.5	6.00	40251260-AX	12	0.8	6.00
40C2460-AX	24	8.8	6.00	40252460-AX	24	1.5	6.00
40C11560-AX	115	84	6.00	402511560-AX	115	25	6.00
40C23060-AX	230	417	6.00	402523060-AX	230	84	6.00



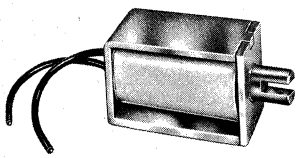
TYPE 41

DC SOLENOIDS

CONTINUOUS DUTY				25% INTERMITTENT DUTY *			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
41C06DC-AU	6	12	4.10	—	—	—	—
41C12DC-AU	12	60	4.10	412512DC-AU	12	12	4.10
41C24DC-AU	24	200	4.10	412524DC-AU	24	60	4.10
41C48DC-AU	48	830	4.10	412548DC-AU	48	200	4.10
41C115DC-AU	115	4500	4.10	4125115DC-AU	115	1400	4.10

AC SOLENOIDS

CONTINUOUS DUTY				25% INTERMITTENT DUTY *			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
41C0660-AX	6	1	4.10	—	—	—	—
41C1260-AX	12	10	4.10	41251260-AX	12	1	4.10
41C2460-AX	24	45	4.10	41252460-AX	24	10	4.10
41C11560-AX	115	740	4.10	412511560-AX	115	230	4.10
41C23060-AX	230	2700	4.10	412523060-AX	230	740	4.10



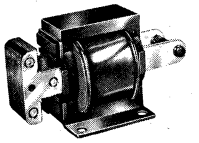
TYPE 42

DC SOLENOIDS

CONTINUOUS DUTY				25% INTERMITTENT DUTY *			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
42C06DC-AU	6	8	4.50	—	—	—	—
42C12DC-AU	12	30	4.50	422512DC-AU	12	8	4.50
42C24DC-AU	24	115	4.50	422524DC-AU	24	30	4.50
42C48DC-AU	48	420	4.50	422548DC-AU	48	115	4.50
42C115DC-AU	115	2300	4.50	4225115DC-AU	115	675	4.50

AC SOLENOIDS

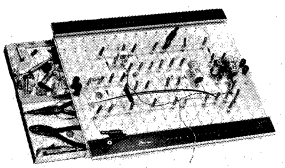
CONTINUOUS DUTY				25% INTERMITTENT DUTY *			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
42C0660-AX	6	1	4.50	—	—	—	—
42C1260-AX	12	3.5	4.50	42251260-AX	12	1	4.50
42C2460-AX	24	30	4.50	42252460-AX	24	3.5	4.50
42C11560-AX	115	370	4.50	422511560-AX	115	125	4.50
42C23060-AX	230	1100	4.50	422523060-AX	230	370	4.50



TYPE 51 AC SOLENOIDS

CONTINUOUS DUTY				25% INTERMITTENT DUTY *			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
51C11560	115	30	7.20	512511560	115	15	7.20
51C23060	230	150	7.20	512523060	230	65	7.20
51C46060	460	650	7.20	512546060	460	285	7.20

*DUTY BASED ON 4 MINUTE CYCLE



CIRCUIT DESIGNERS' BREADBOARD The latest advance in circuit breadboard design . . . the ideal electronic workbench for schools and industry. Circuit diagrams may be drawn on schematic transferral board and viewed from above thru transparent work surface. 14K gold plated spring connectors assure perfect electrical contacts, instantly and without solder. Features: sturdy aluminum frame on rubber cushions; binding posts, 100 spring connectors included; solid 1/4" Plexiglas circuit panel; built-in ground rail for alligator clips; partitioned drawer for tools and parts; slide-out schematic board doubles as cover; includes Ohms Law, color code, symbol charts. Size, 14" by 17". Weight, 4 3/4 pounds. Net, $34.95.

Net

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STOCK CATALOG 100

ISSUED AUGUST 1966

QUALITY RELAYS
BY POTTER & BRUMFIELD
FOR EVERY APPLICATION

ORDERING INSTRUCTIONS —— File-O-Matic Sec. 23

All relay contacts are rated at 120 volt-60 cycle, non inductive load.

When ordering specify relay type and coil voltage or resistance.

Example: PR5AY, 120 Volts AC, 60 cycles or LB5, 2500 ohms resistance.

To operate 110V DC relays on 220V DC use a 5 watt wire-wound resistor of a value approximately the relay coil resistance in series with the relay coil.

CONTACT LEGEND: S-Single; D-Double; P-Pole; T-Throw; N-Normally; O-Open; C-Closed; B-Break; M-Make.

Prices and Specifications subject to change without notice. For latest prices refer to United Pricing Service.

ALPHABETICAL INDEX

Relay	Page	Relay	Page	Relay	Page	Relay	Page	Relay	Page
AB	4	GP	6	KRP	7	MH	2	PW	3
ABC	4	GP Kit	6	KRP-N	7	ML	2	RS	3
AP	8	HC	5	KT	8	MR	4	SA	9
BS	1	JM	10	KUP	7	MS	9	SC, SCG	5
BS Cover	1	JR	9	LB	3	MS/MR		SL, SLG	5
BU	8	KA, KAP	6	LM	3	Cover	4, 11	SM	3
CD/CH	11	KB	8	LS, LSP	1	PC	9	SS	3
FC, FL	5	KCP	3	MB	2	PM	4	TL	5
GA	5	KHP, KHS	6	MC	2	PR	4	"P" Case	7
GB	2	KL	6	MDP	12	PM & PR		Hold Down	
GF	4	KM	8	MG	2	Cover	4	Spring	7
GM	8	KR3-H	7						

KEY TO SUFFIXES

SUFFIX		STANDS FOR	EXAMPLE
A	—	Alternating Current	BS17A
D	—	Direct Current	BS17D
DD	—	DC in a sealed "D" can	MH23DD
G	—	Silver Cad.-Oxide Contacts	KRP5AG
L	—	Plate Circuit	SM5L
M	—	Sealed in "M" can	MH17DM
N	—	Neon Light	KRP11AN
P	—	Enclosed in Plastic Dust Cover	MG11DP
R	—	With Built-in Rectifier	MH17AMR
S	—	Sealed in can	PW5DS, SM5DS
T	—	Sealed in "T" can	MG11DT
Y	—	U/L Listed	AB11AY

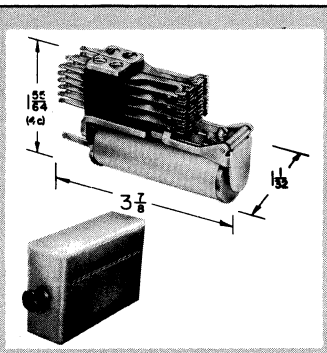
eem File System electronic engineers master Sec. 4500

IN STOCK AT LEADING ELECTRONIC PARTS DISTRIBUTORS

BS SERIES Long coil telephone type. Suited for computer and automatic test equipment applications requiring large numbers of poles. Tinned, pierced solder type terminals for rear panel wiring. Mounting: Two No. 8-32 NC 2B tapped holes on ¾" centers. Contacts arms: Bifurcated with 1/16" dia. twin palladium contacts. Weight: Approximately 9 ozs.

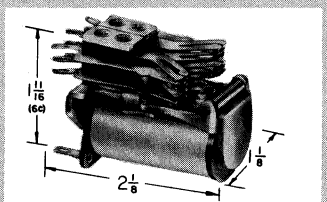
BS DUST COVER Two sizes of sheet metal enclosures. Small size for BS relays up to 6 Form C (6PDT, BS23), measures: H: 2 3/16", W: 1¼", L: 3 27/32" exclusive ⅝" knob; weight: 6.5 ozs. Medium size for up to 10 Form C, measures: H: 2⅝", other dimensions same as small size; weight: 7 ozs.

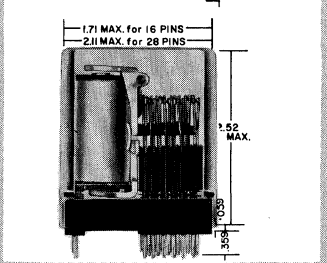
35D188, Small size NET $2.00
35D189, Medium size NET $2.00



LS SERIES Short springs and light weight armature provide fast action without sacrificing reliability and long life. Stainless steel hinge bearing designed to give 100 million operations. Tinned, pierced solder type terminals. Mounting: Two No. 6-32 tapped holes on ¾" centers. Bifurcated contact arms with 1/16" dia. twin palladium contacts. Weight: Approximately 4 ozs.

The LSP version has identical specifications as the LS, except that it is enclosed in a high impact, clear plastic cover and is provided with a rectangular socket with combination taper tab or solder terminations. Enables plug-in like any other plug-in component. Two sizes of sockets and covers are available: 16-pin for 4 Form C (4PDT) or 28-pin for 6 Form C (6PDT). Dimensions: LSP17D: 1.71" x 1.39" x 2.52" seated; weight: 4 ozs. LSP23D: 2.11" x 1.39" x 2.52" seated; weight: 4½ ozs.





TELEPHONE TYPE RELAYS

TYPE	COILS			CONTACTS		SUGG. RESALE PRICE
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
BS17A	**120V**	**71**	**17.9VA**	**4PDT**	**4**	$ 9.65
BS17D	24V	1,000	576MW	4PDT	4	7.90
BS17D	110V	6,500	1.8W	4PDT	4	8.55
BS17L	5.5MA	10,000	300MW	4PDT	4	8.55
BS23A	120V	71	17.9VA	6PDT	4	11.25
BS23D	24V	1,000	576MW	6PDT	4	9.60
BS23D	110V	6,500	1.8W	6PDT	4	10.15
BS23L	7.6MA	10,000	600MW	6PDT	4	10.15
LS17D	**24V**	**300**	**1.8W**	**4PDT**	**4**	5.95
LS17D	48V	1,300	1.8W	4PDT	4	6.10
LS17D	110V	8,000	1.8W	4PDT	4	6.35
LS23D	24V	300	1.8W	6PDT	4	7.20
LS23D	48V	1,300	1.8W	6PDT	4	7.35
LS23D	110V	8,000	1.8W	6PDT	4	7.65
LSP17D	**24V**	**300**	**1.8W**	**4PDT**	**4**	7.80
LSP17D	48V	1,300	1.8W	4PDT	4	7.90
LSP17D	110V	8,000	1.8W	4PDT	4	8.20
LSP23D	24V	200	2.9W	6PDT	4	9.65
LSP23D	48V	800	2.9W	6PDT	4	9.75
LSP23D	110V	4,200	2.9W	6PDT	4	10.05

SPECIFY COIL VOLTAGE OR RESISTANCE WHEN ORDERING

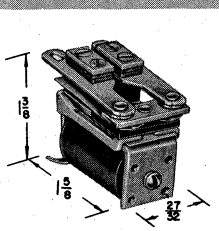
POTTER & BRUMFIELD

DIVISION OF AMERICAN MACHINE & FOUNDRY COMPANY

Potter & Brumfield Relays

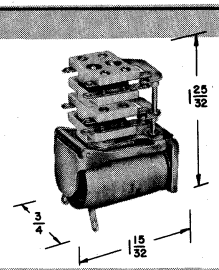
TELEPHONE TYPE RELAYS

MB SERIES Miniature DC contactor. Designed for very high current applications. Extra rugged construction insures long life. Handles 150 ampere surges for 0.3 sec. Contact arms: Stationary, heavy brass, ¼" dia. silver contacts pierced solder terminals. Movable, ¼" x 1 3/16" silver bar contact. Mounting: Four No. 3-48 tapped holes on ⅜" x ⅜" centers. Weight: 2 ozs.



TYPE	COILS: Voltage or Current	COILS: Resistance in Ohms	COILS: Nominal Power	CONTACTS: Arrangement	CONTACTS: Rate in Amps	SUGG. RESALE PRICE
MB3D	**6V**	**13.3**	**2.7W**	**SPST-NO-DB**	**60**	**$ 5.65**
MB3D	12V	62.3	2.7W	SPST-NO-DB	60	5.80
MB3D	24V	245	2.7W	SPST-NO-DB	60	5.80
MB3D	110V	5,000	2.7W	SPST-NO-DB	60	6.20

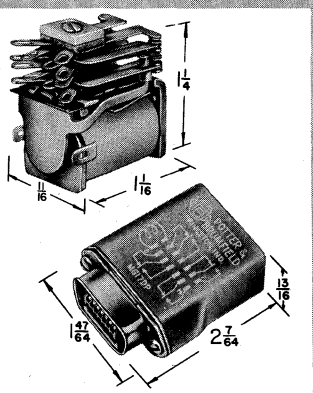
MC SERIES Built with ceramic contact spaces for RF switching to minimize losses at high frequencies. Intercontact capacitance 1.5 mmfd. max. Tinned, pierced solder type terminals. Mounting: Four No. 3-48 tapped holes on ⅜" x ⅜" centers. Contacts: 3/32" dia. palladium. Weight: 2 ozs.



MC5A	**6V**	**2.5**	**4.6VA**	**SPDT**	**1**	**5.50**
MC5A	120V	800	4.6VA	SPDT	1	5.50
MC5D	12V	96	1.6W	SPDT	1	4.85
MC5D	24V	365	1.6W	SPDT	1	4.85
MC11A	120V	6.80	4.6VA	DPDT	1	7.60
MC11D	12V	96	1.6W	DPDT	1	7.00
MC11D	24V	365	1.6W	DPDT	1	7.00
MC11D	110V	6,200	1.6W	DPDT	1	7.55

SPECIFY COIL VOLTAGE OR RESISTANCE WHEN ORDERING

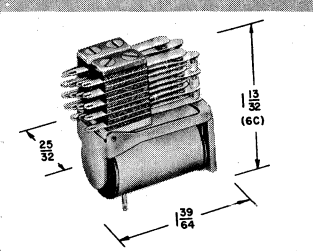
MG SERIES Sub-miniature telephone type relay for aircraft, computer and other applications requiring good shock and vibration characteristics. Furnished open, sealed or in nylon dust cover. Mounting: Open model has four No. 3-48 tapped holes on ⅜" x ⅜" centers. Sealed model has three No. 4-40 threaded studs on 1" x ½" centers. Dust cover model has plug-in header that fits Amphenol receptacle No. 57-20140 or similar. Contacts: 3/32" dia. silver. Weight: Open 1.2 ozs.; Dust cover 2.0 ozs.; Sealed 2.75 ozs.



MG11D	**6V**	**23**	**1.6W**	**DPDT**	**2**	**5.45**
MG11D	12V	90	1.6W	DPDT	2	5.45
MG11D	24V	365	1.6W	DPDT	2	5.45
MG11D	110V	7,560	1.6W	DPDT	2	5.95
MG11DT†	24V	365	1.6W	DPDT	2	11.05
MG17D	6V	23	1.6W	4PDT	2	7.30
MG17D	12V	90	1.6W	4PDT	2	7.30
MG17D	24V	365	1.6W	4PDT	2	7.30
MG17D	110V	7,560	1.6W	4PDT	2	7.65
MG17DP§	6V	23	1.6W	4PDT	2	12.15
MG17DP§	12V	90	1.6W	4PDT	2	12.15
MG17DP§	24V	365	1.6W	4PDT	2	12.15
MG17DP§	110V	7,560	1.6W	4PDT	2	12.75
MG17DT†	24V	365	1.6W	4PDT	2	13.25
MG17DT†	110V	7,560	1.6W	4PDT	2	13.85

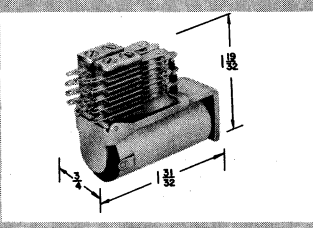
MH SERIES MINIATURE TYPE

Ideal for miniature program applications where space and weight are factors. Mounting: Open model, MH11L, one No. 6-32 threaded stud 11/32" long plus locating boss. All other open models have four No. 3-48 holes on ⅜" x ⅜" centers. Sealed models, M enclosures, three 6-32 NC 2 threaded studs on 1¼" x ½" centers. D enclosures, three 6-32 threaded studs on 1 3/16" x 1 5/16" centers. All sealed models have hook end solder terminals. All models have ⅛" dia. gold-flashed silver contacts. Weight: Open models 2½ oz. max. Sealed models 5 ozs. max.



MH11L	**4.5MA**	**10,000**	**200MW**	**DPDT**	**3**	**6.25**
MH11LM†	4.5MA	10,000	200MW	DPDT	3	10.60
MH17D	6V	23	1.6W	4PDT	5	6.25
MH17D	12V	96	1.6W	4PDT	5	6.25
MH17D	24V	365	1.6W	4PDT	5	6.25
MH17DM†	6V	23	1.6W	4PDT	5	12.65
MH17DM†	12V	96	1.6W	4PDT	5	12.65
MH17DM†	24V	365	1.6W	4PDT	5	12.65
MH17AMR†	120V	6,200	2VA	4PDT	5	20.65
MH23D	6V	13.3	2.5W	6PDT	5	7.90
MH23D	12V	62.3	2.5W	6PDT	5	7.90
MH23D	24V	245	2.5W	6PDT	5	7.90
MH23D	110V	5,000	2.5W	6PDT	5	8.40
MH23DD†	12V	62.3	2.5W	6PDT	5	16.80
MH23DD†	24V	245	2.5W	6PDT	5	16.80
MH23DD†	110V	5,000	2.5W	6PDT	5	17.40

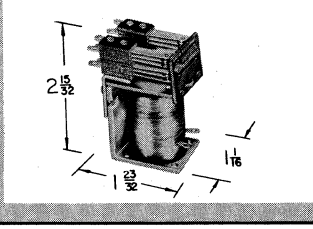
ML SERIES A small telephone type relay having excellent sensitivity with outstanding switching capabilities. Ideal for transistorized computor networks, telephone systems and battery powered communications equipment. Single contact arms have ⅛" dia. gold-flashed silver contacts rated at 3 amps for 100,000 operations. Pierced solder terminals. Mounting: Four 3-48 holes on ⅜" centers. Weight: 2.5 ozs.



ML11D	**4.0MA**	**2,500**	**40MW**	**DPDT**	**3**	**6.65**
ML11D	2.83MA	5,000	40MW	DPDT	3	6.80
ML11D	2.0MA	10,000	40MW	DPDT	3	7.15
ML17D	5.65MA	2,500	80MW	4PDT	3	7.90
ML17D	4.0MA	5,000	80MW	4PDT	3	8.10
ML17D	2.83MA	10,000	80MW	4PDT	3	8.40
ML23D	6.93MA	2,500	120MW	6PDT	3	8.95
ML23D	4.9MA	5,000	120MW	6PDT	3	9.15
ML23D	3.46MA	10,000	120MW	6PDT	3	9.45

PLATE CIRCUIT and SENSITIVE RELAYS

GB SERIES (See GA series for similar voltage actuated relays.) Sensitivity 115 milliwatts for single pole and 275 milliwatts for 4 pole. Medium cost, high quality relay. Pull-in is not adjustable. Mounting: No. 8-32 tapped core and locating boss. Contacts: 3/16" dia. silver. Weight: Approximately 5 ozs.



GB5D	**6.8MA**	**2,500**	**115MW**	**SPDT**	**5**	**3.60**
GB5D	4.8MA	5,000	115MW	SPDT	5	3.80
GB5D	3.4MA	10,000	115MW	SPDT	5	4.30
GB11D	7MA	2,500	125MW	DPDT	5	5.10
GB11D	5MA	5,000	125MW	DPDT	5	5.20
GB11D	3.53MA	10,000	125MW	DPDT	5	5.80
GB17D	10.5MA	2,500	275MW	4PDT	5	6.10
GB17D	7.4MA	5,000	275MW	4PDT	5	6.25
GB17D	5.25MA	10,000	275MW	4PDT	5	6.70

†Sealed Relay
§Enclosed Relay

See ordering information on page 1.

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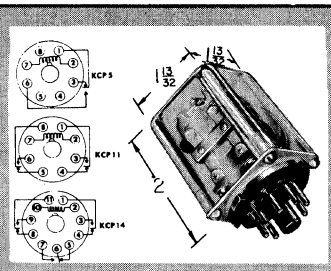
Potter & Brumfield Relays

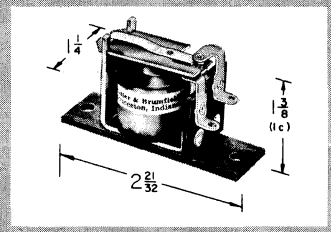
PLATE CIRCUIT and SENSITIVE RELAYS

KCP SERIES Low cost plate circuit relay enclosed in clear high impact plastic cover. Sensitivity 125 mw single pole; 250 mw double pole; 375 mw three pole. Mounting: Standard octal plug-in type. Eight pin for KCP5 and KCP11. Eleven pin for KCP14. Contacts: ⅛" dia. gold-flashed silver. Weight: Approximately 3 ozs. Use KCP-KRP hold down spring when vibration, inverted or horizontal mounting are factors (see page 7).



TYPE	COILS			CONTACTS		SUGG. RESALE PRICE
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
KCP5§	7.2MA	2,500	125MW	SPDT	2	$ 6.20
KCP5§	5MA	5,000	125MW	SPDT	2	6.30
KCP5§	3.6MA	10,000	125MW	SPDT	2	6.70
KCP11§	10MA	2,500	250MW	DPDT	2	6.60
KCP11§	7.2MA	5,000	250MW	DPDT	2	6.70
KCP11§	5MA	10,000	250MW	DPDT	2	7.15
KCP14§	12.3MA	2,500	375MW	3PDT	2	8.15
KCP14§	8.7MA	5,000	375MW	3PDT	2	8.25
KCP14§	6.1MA	10,000	375MW	3PDT	2	8.65

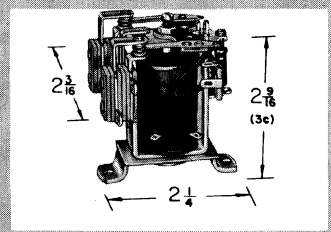
LB SERIES Designed for top performance, long life at an unusually low cost. Each coil is wound with a given coil resistance and factory adjusted to operate on minimum current requirements. Mounting: Two 3/16" dia. holes on 2 7/32" centers. Contacts: ⅛" dia. silver. Weight: Approximately 2 ozs.



LB5	9MA	2,500	200MW	SPDT	5	2.70
LB5	6.3MA	5,000	200MW	SPDT	5	2.90
LB5	4.5MA	10,000	200MW	SPDT	5	3.15

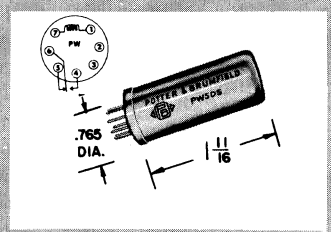
SPECIFY COIL VOLTAGE OR RESISTANCE WHEN ORDERING

LM SERIES (See KL for similar voltage actuated relays.) Sensitivity 100 milliwatts for single pole and 200 milliwatts for double pole. Medium cost, high quality relay with 7/32" dia. silver contacts. Pull-in adjustable by tail spring adjusting screw. Mounting: Two No. 6-32 tapped holes on 1 13/16" centers. Weight: Approximately 5 ozs. DC Coils only.



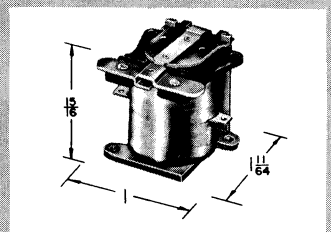
LM5	6.3MA	2,500	100MW	SPDT	5	4.15
LM5	4.5MA	5,000	100MW	SPDT	5	4.35
LM5	3.2MA	10,000	100MW	SPDT	5	4.65
LM11	9MA	2,500	200MW	DPDT	5	5.90
LM11	6.3MA	5,000	200MW	DPDT	5	6.10
LM11	4.5MA	10,000	200MW	DPDT	5	6.70

PW SERIES (In both voltage and current actuated models.) Sensitivity 40 mw for current actuated models. 180 mw for voltage actuated models. Precision, light weight, hermeticaly sealed relay for aircraft and missile applications. Will withstand 10g vibration to 500 Hz. Mounting: Standard 7-pin miniature tube base. Weight: Approx. 1 oz.



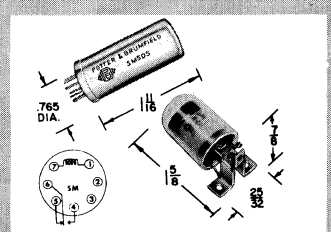
PW5DS‡	6V	202	180MW	SPDT	1	11.30
PW5DS‡	12V	810	180MW	SPDT	1	11.30
PW5DS‡	24V	3,240	180MW	SPDT	1	11.30
PW5LS‡	2.8MA	5,000	40MW	SPDT	1	11.65
PW5LS‡	2.0MA	10,000	40MW	SPDT	1	12.10

RS SERIES (In both voltage and current actuated models.) 60 mw. sensitivity. Low-cost, small, light weight, sensitive relay for radio-sonde, light dimmer and model applications. Mounting: Two No. 4-40 tapped holes on diagonal ¾" x ⅝" centers. Contacts: Bar palladium. Weight: 1½ ozs.



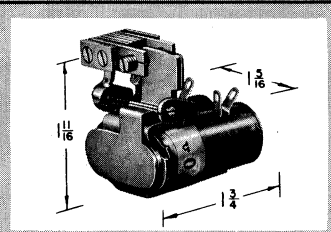
RS5D	6V	335	110MW	SPDT	2	2.75
RS5D	12V	1,350	110MW	SPDT	2	2.90
RS5D	5MA	2,500	60MW	SPDT	2	3.00
RS5D	3.5MA	5,000	60MW	SPDT	2	3.30
RS5D	2.5MA	10,000	60MW	SPDT	2	3.80

SM SERIES (In both voltage and current actuated models.) Sensitivity 75 mw for current actuated models. Medium cost, light weight, dust covered (right) or hermetically sealed (left) relay for light contact loads found in computers, model airplanes and similar applications. Extremely long mechanical life because of reed armature. Mounting: Sealed, standard 7-pin miniature tube socket; dust cover, two 3/32" dia. holes on 17/32" centers. Contacts: Stationary silver; movable rhodium. Weight: 1 oz. max.



SM5DS†	6V	80	500MW	SPDT	.25	6.90
SM5DS†	12V	360	500MW	SPDT	.25	6.90
SM5DS†	24V	900	500MW	SPDT	.25	6.90
SM5L§	2.7MA	10,000	75MW	SPDT	.25	6.55
SM5LS†	3.9MA	5,000	75MW	SPDT	.25	7.20
SM5LS‡	2.7MA	10,000	75MW	SPDT	.25	7.70

SS SERIES Ultra sensitive precision relay. 10 mw sensitivity. Dual series-connected coils with balanced armature on needle-point bearings for all low energy circuits such as instruments and bridge balancing. May also be used as a differential relay by connecting the two coils in separate circuits. Mounting: Two No. 6-32 tapped holes on 2 3/32" centers. Contacts: ⅛" dia. silver. Weight: Approx. 3½ ozs.



SS5D	1MA	10,000	10MW	SPDT	2	14.50

†Sealed Relay
§Enclosed Relay

See ordering information on page 1.

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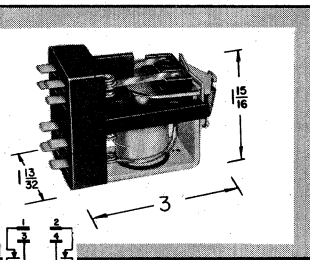
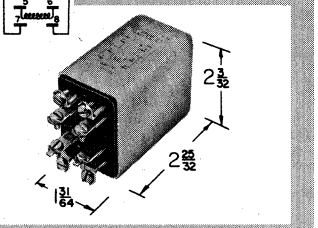
Potter & Brumfield Relays

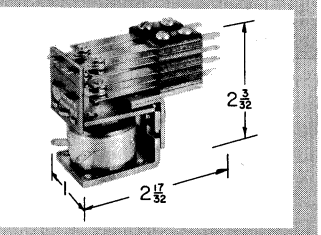
AB SERIES For appliance and general purpose applications where rugged construction, long life and quiet operation are required. All equipped with terminals to fit snap-on connectors and may also be applied to printed circuits using dip soldering. Snap-on screw adaptors packed with each relay. All AC models carry U/L component recognition (File No. E29244) and CSA* listing. Mounting: Two No. 8-32 tapped holes, on 1¼" centers. Weight: Approx. 5 ozs. Silver contacts.



ABC SERIES Medium duty power relay with dust cover. For small motors, industrial control and similar applications. All equipped with terminals to fit snap-on connectors and may also be applied to printed circuits using dip soldering. Snap-on screw adaptors packed with each relay. All AC models carry U/L component recognition (File No. E29244) and CSA* listing. Mounting: One No. 8-32 threaded stud ⅜" long and locating tab on 9/16" centers. Contacts: ¼" dia. silver. Weight: Approx. 7 ozs.

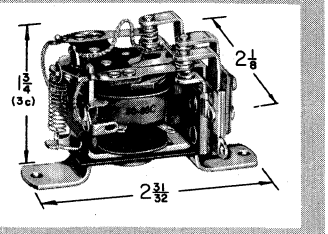


GF SERIES Medium duty power relay for industrial control applications. Long contact arms have ¼" dia. silver contacts rated at 10 amps at 120V AC or 28V DC resistive. Contacts have excellent wipe or self-cleaning action. Tinned, pierced solder terminals. Mounting: 8-32 tapped core with locating boss. Weight: 4.75 ozs. (See GA series for similar voltage actuated relays.)

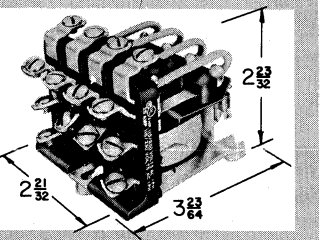


MR SERIES A medium duty power relay that can handle small motors, transmitters, and general purpose applications. Mounting: Two 5/32" dia. holes on 2¼" centers for MR3 and 11, 2⅝" centers for MR2, 5 and 14. Contacts: 7/32" dia. silver. Weight: 4 ozs.

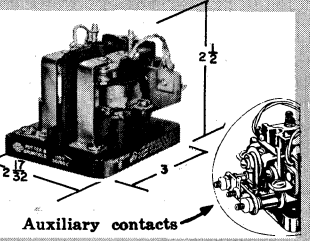
MS/MR Metal dust cover similar to PM/PR shown below. 3⅝" x 2⅜" x 2 19/32". Weight: 7.5 ozs.
35D130 fits MS/MR NET $2.10



PM SERIES A compact heavy duty 4PDT power relay for polyphase and heavy duty switching applications. Screw terminals. Has ¼" silver-cadium-oxide contacts rated at 25 amps at 120 V., 25 amps at 240 V. 50/60 Hz resistive AC, 1 HP per movable arm at 120V. or 240V. AC single phase, U/L (File No. E22575) and CSA* listed, except 480V. Mounts by one front key-hole and two rear channel slots for 8-32 screws on 2" x 2½" triangular centers. Weight: 14 ozs.
9PM1 Adapter plates for mounting PM on PR mounting holes. Box of 10 Net $1.65
For metal enclosure see below.

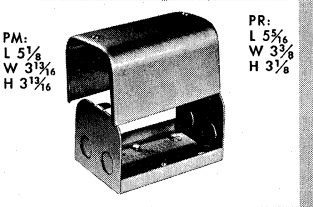


PR SERIES Heavy duty relay for industrial control applications requiring long life and fast action. Heavy duty screw type terminals. All AC and DC models except PR11AL5 carry U/L (File No. E22575) and CSA* listing. Mounting: Two 3/16" dia. holes on 1⅞" centers. Weight: 11 ozs. max. Contacts: 5/16" dia. silver. Enclosure: See "PR" cover. The PR11AL5 relay is equipped with 3/16" dia. silver SPDT auxiliary contacts rated at 5 amps.



PM and PR DUST COVERS These dust covers have a sheet metal base with knockouts for ½" dia. conduit and an aluminum cover fitted with two screws. Finished in gray hammertone. Mounting: Three No. 10 holes on 1⅞" x 4⅛" centers. Approx. weight: 1 lb.

35D227 Metal cover for PM only NET $3.30
35D013 Metal cover for PR only NET $3.30



POWER TYPE RELAYS

TYPE	COILS Voltage or Current	COILS Resistance in Ohms	COILS Nominal Power	CONTACTS Arrangement	CONTACTS Rate in Amps	SUGG. RESALE PRICE
AB11AY	**6V**	**1.3**	**6.4VA**	**DPDT**	**10**	**$ 5.55**
AB11AY	24V	23	6.4VA	DPDT	10	5.55
AB11AY	120V	510	6.4VA	DPDT	10	5.55
AB11AY	240V	2,050	6.4VA	DPDT	10	6.00
AB11D	12V	72	2.0W	DPDT	10	5.45
AB11D	24V	288	2.0W	DPDT	10	5.45
AB11D	110V	6,050	2.0W	DPDT	10	6.00
ABC11AY§	**6V**	**1.3**	**6.4VA**	**DPDT**	**10**	**6.70**
ABC11AY§	24V	23	6.4VA	DPDT	10	6.70
ABC11AY§	120V	510	6.4VA	DPDT	10	6.70
ABC11AY§	240V	2,050	6.4VA	DPDT	10	7.15
ABC11D§	6V	18	2.0W	DPDT	10	6.60
ABC11D§	12V	72	2.0W	DPDT	10	6.60
ABC11D§	24V	288	2.0W	DPDT	10	6.60
ABC11D§	110V	6,050	2.0W	DPDT	10	7.15
GF17A	6V	1.7	6VA	4PDT	10	7.00
GF17A	12V	6.8	6VA	4PDT	10	7.00
GF17A	24V	24	6VA	4PDT	10	7.00
GF17A	120V	690	6VA	4PDT	10	7.00
GF17A	240V	2,950	6VA	4PDT	10	7.40
GF17D	6V	18	2.0W	4PDT	10	7.00
GF17D	12V	72	2.0W	4PDT	10	7.00
GF17D	24V	288	2.0W	4PDT	10	7.00
GF17D	110V	6,050	2.0W	4PDT	10	7.45
MR3A	**6V**	**2.75**	**3.25VA**	**SPST-NO-DB**	**10**	**4.10**
MR3A	24V	50	3.25VA	SPST-NO-DB	10	4.10
MR3A	120V	1,250	3.25VA	SPST-NO-DB	10	4.10
MR3D	6V	24	1.6W	SPST-NO-DB	10	3.70
MR3D	12V	96	1.6W	SPST-NO-DB	10	3.70
MR3D	24V	360	1.6W	SPST-NO-DB	10	3.70
MR5A	6V	2.75	3.25VA	SPDT	8	3.65
MR5A	12V	13.25	3.25VA	SPDT	8	3.65
MR5A	24V	50	3.25VA	SPDT	8	3.65
MR5A	120V	1,250	3.25VA	SPDT	8	3.65
MR5A	240V	4,600	3.25VA	SPDT	8	4.10
MR5D	6V	24	1.6W	SPDT	8	3.40
MR5D	12V	96	1.6W	SPDT	8	3.40
MR5D	24V	360	1.6W	SPDT	8	3.40
MR5D	110V	8,000	1.6W	SPDT	8	3.90
MR11A	6V	2.75	3.25VA	DPDT	8	5.15
MR11A	12V	13.25	3.25VA	DPDT	8	5.15
MR11A	24V	50	3.25VA	DPDT	8	5.15
MR11A	120V	1,250	3.25VA	DPDT	8	5.15
MR11A	240V	4,600	3.25VA	DPDT	8	5.55
MR11D	6V	24	1.6W	DPDT	8	4.90
MR11D	12V	96	1.6W	DPDT	8	4.90
MR11D	24V	360	1.6W	DPDT	8	4.90
MR11D	110V	8,000	1.6W	DPDT	8	5.40
MR14A	6V	2.75	3.25VA	3PDT	8	6.15
MR14A	12V	13.25	3.25VA	3PDT	8	6.15
MR14A	24V	50	3.25VA	3PDT	8	6.15
MR14A	120V	1,250	3.25VA	3PDT	8	6.15
MR14A	240V	4,600	3.25VA	3PDT	8	6.55
MR14D	6V	24	1.6W	3PDT	8	5.80
MR14D	12V	96	1.6W	3PDT	8	5.80
MR14D	24V	360	1.6W	3PDT	8	5.80
MR14D	110V	8,000	1.6W	3PDT	8	6.30
PM17AY	**6V**	**.37**	**14VA**	**4PDT**	**25**	**12.95**
PM17AY	12V	1.4	14VA	4PDT	25	12.95
PM17AY	24V	5.0	14VA	4PDT	25	12.95
PM17AY	120V	120	14VA	4PDT	25	12.95
PM17AY	240V	587	14VA	4PDT	25	13.40
PM17A	480V	1,790	14VA	4PDT	25	14.30
PM17DY	**6V**	**8.2**	**4.4W**	**4PDT**	**25**	**12.40**
PM17DY	**12V**	**33**	**4.4W**	**4PDT**	**25**	**12.40**
PM17DY	**24V**	**132**	**4.4W**	**4PDT**	**25**	**12.40**
PM17DY	**110V**	**2,760**	**4.4W**	**4PDT**	**25**	**13.00**
PR1AY	**24V**	**12**	**9.8VA**	**SPST-NO**	**25**	**4.25**
PR3AY	6V	0.86	9.8VA	SPST-NO-DB	25	4.35
PR3AY	12V	3.2	9.8VA	SPST-NO-DB	25	4.35
PR3AY	24V	12	9.8VA	SPST-NO-DB	25	4.35
PR3AY	120V	290	9.8VA	SPST-NO-DB	25	4.35
PR3AY	240V	1,200	9.8VA	SPST-NO-DB	25	4.75
PR3DY	6V	18	2.0W	SPST-NO-DB	25	4.35
PR3DY	12V	71	2.0W	SPST-NO-DB	25	4.35
PR3DY	24V	288	2.0W	SPST-NO-DB	25	4.35
PR3DY	110V	6,050	2.0W	SPST-NO-DB	25	5.00
PR5AY	6V	0.86	9.8VA	SPDT	25	4.55
PR5AY	12V	3.2	9.8VA	SPDT	25	4.55
PR5AY	24V	12	9.8VA	SPDT	25	4.55
PR5AY	120V	290	9.8VA	SPDT	25	4.55
PR5AY	240V	1,200	9.8VA	SPDT	25	5.00
PR5DY	6V	18	2.0W	SPDT	25	4.55
PR5DY	12V	71	2.0W	SPDT	25	4.55
PR5DY	24V	288	2.0W	SPDT	25	4.55
PR5DY	110V	6,050	2.0W	SPDT	25	5.20
PR7AY	6V	0.86	9.8VA	DPST	25	5.15
PR7AY	12V	3.2	9.8VA	DPST	25	5.15
PR7AY	24V	12	9.8VA	DPST	25	5.15
PR7AY	120V	290	9.8VA	DPST	25	5.15
PR7AY	240V	1,200	9.8VA	DPST	25	5.60
PR7DY	6V	18	2.0W	DPST	25	5.15
PR7DY	12V	71	2.0W	DPST	25	5.15
PR7DY	24V	288	2.0W	DPST	25	5.15
PR7DY	110V	6,050	2.0W	DPST	25	5.80
PR11AY	6V	0.86	9.8VA	DPDT	25	6.75
PR11AY	12V	3.2	9.8VA	DPDT	25	6.75
PR11AY	24V	12	9.8VA	DPDT	25	6.75
PR11AY	120V	290	9.8VA	DPDT	25	6.75
PR11AY	240V	1,200	9.8VA	DPDT	25	7.30
PR11AY	480V	4,500	9.8VA	DPDT	25	8.20
PR11AL5	6V	0.86	9.8VA	DPDT	20	8.55
PR11AL5	12V	3.2	9.8VA	DPDT	20	8.55
PR11AL5	24V	12	9.8VA	DPDT	20	8.55
PR11AL5	120V	290	9.8VA	DPDT	20	8.55
PR11AL5	240V	1,200	9.8VA	DPDT	20	9.00
PR11DY	6V	18	2.0W	DPDT	25	6.75
PR11DY	12V	71	2.0W	DPDT	25	6.75
PR11DY	24V	288	2.0W	DPDT	25	6.75
PR11DY	110V	6,050	2.0W	DPDT	25	7.40

*Canadian Standards Association File No. LR-15734

§Enclosed Relay

See ordering information on page 1.

Net

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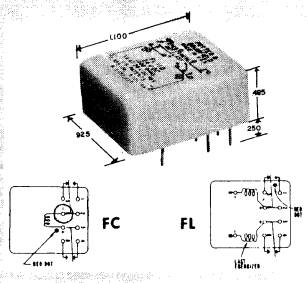
Potter & Brumfield High Performance Relays

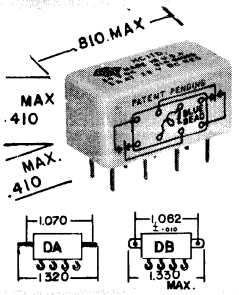
FC SERIES Conventional micro-miniature relay lies flat on printed circuit board. Withstands 150g shock, 400g linear acceleration, 30g vibration to 2000 Hz. Ambient temperature range: −65° to +125°C. Hermetically welded. Bifurcated contacts. Plugs in on .2" grid. Meets applicable sections of MIL-R-5757D, and MSFC-SPEC-339. Weight: .75 ozs.

FL SERIES Dual-coil latching relay has same specs as above, except operates by pulsing each coil alternately (observing coil polarity); or connecting the coils in series from a reversing (polarized) source. Remains latched without coil power.



TYPE Hermetically Sealed	COILS Voltage or Current	Resistance in Ohms	Nominal Power	CONTACTS Arrangement	Rate * in Amps	SUGG. RESALE PRICE
FC11D	**6V**	**60**	**.65W**	**DPDT**	**3**	**$17.90**
FC11D	12V	210	.65W	DPDT	3	17.90
FC11D	24V	900	.65W	DPDT	3	17.90
FC4037	**26.5V**	**MIL-R-5757D or RY4YY4B3P**				17.90
FL11D	**6V**	**67.5**	**.65W**	**DPDT**	**3**	20.15
FL11D	12V	230	.65W	DPDT	3	20.15
FL11D	24V	1,000	.65W	DPDT	3	20.15
FL4027	**26.5V**	**MIL-R-5757D or RY4YY4B3P**				20.15

HC SERIES A micro-miniature, non-polarized, non-latching half-size crystal case relay for high reliability performance. Its high-torque motor structure and bifurcated, gold-plated silver DPDT contacts, rated dry circuit to 2 amps @ 28V DC resistive, provide positive performance in low level applications. Temperature range: −65°C to +125°C. Hermetically welded. HC11D has plug-in, plain case; HC11DA has hook-end solder terminals and shoulder brackets; HC11DB has hook-end solder terminals and flat mounting plate with 2 holes. The HC series meets or exceeds all applicable sections of MIL-R-5757D/9, and complies with MSFC-SPEC-339. Size: Plain case .8" x .4" x .4" (seated). Weight: ¼ oz.

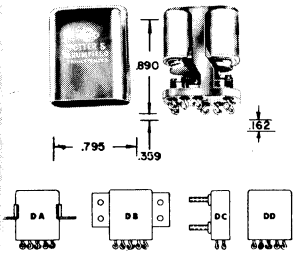


HC11D	**24V**	**814**	**.72W**	**DPDT**	**2**	**$17.50**
HC11DA	**24V**	**814**	**.72W**	**DPDT**	**2**	**17.50**
HC11DB	**24V**	**814**	**.72W**	**DPDT**	**2**	**17.50**

SPECIFY COIL VOLTAGE OR RESISTANCE WHEN ORDERING

SC SERIES Micro-miniature permanent magnet relay for low power, high shock/vibration applications. 200g shock, 30g vibration to 2000 Hz with no contact openings. Ambient temperature range: −65°C to +125°C. Features single coil action and conforms to standard micro-miniature coil operation except polarized connections because of magnetic circuit. Positive terminal marked with red dot. Mounting: SC11D°°, −DA, −DB, DC and DD correspond to similarly designed SL mountings. SCG11D has rectangular header with terminals on .2" grid. Weight: ¾ oz.

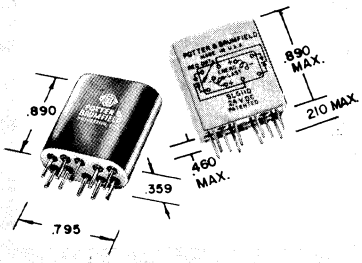
°°Cinch No. 54A20730 and Armel No. HRK-1, 8-pin receptacles available from distributors for plug-in applications.



SC11D	**6V**	**35**	**1W**	**DPDT**	**3**	**18.10**
SC11D	12V	135	1W	DPDT	3	18.10
SC11D	24V	550	1W	DPDT	3	18.10
SC11DA	6V	35	1W	DPDT	3	18.10
SC11DA	12V	135	1W	DPDT	3	18.10
SC11DA	24V	550	1W	DPDT	3	18.10
SC11DB	6V	35	1W	DPDT	3	18.10
SC11DB	12V	135	1W	DPDT	3	18.10
SC11DB	24V	550	1W	DPDT	3	18.10
SC11DC	24V	550	1W	DPDT	3	18.10
SC11DD	24V	550	1W	DPDT	3	18.10
SCG11D	**24V**	**550**	**1W**	**DPDT**	**3**	18.10
SC7141	**26.5V**	**MIL-R-5757/10A or RY4NA3B3L01**				18.25

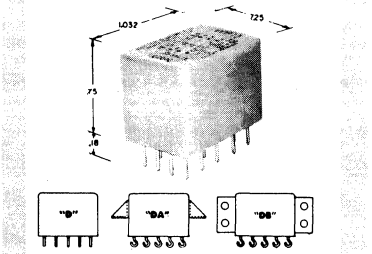
SL SERIES Dual coil micro-miniature magnetic latching relay with same shock/vibration, resistance and ambient temperature range as SC. Coils may be connected in series for polar operation. Mounting: SL11D° for plug-in applications: −DA has shoulder flanges with two .104" x .136" holes on a 1.062" center; −DB has a welded bracket with four .125" dia. holes on 1.062" x .281" centers; −DC has two No. 4-40 NC 2A threaded studs on .488" x .220" diagonal centers; −DD has plain case with hook end solder terminals. SLG11D has plug-in terminals on .2" grid.

°Viking No. P/N VB10/3DV 1 10-pin receptacles available from distributors for plug-in applications.



SL11D	**6V**	**40**	**1W**	**DPDT**	**3**	**19.85**
SL11D	12V	160	1W	DPDT	3	19.85
SL11D	24V	630	1W	DPDT	3	19.85
SL11DA	6V	40	1W	DPDT	3	19.85
SL11DA	12V	160	1W	DPDT	3	19.85
SL11DA	24V	630	1W	DPDT	3	19.85
SL11DB	6V	40	1W	DPDT	3	19.85
SL11DB	12V	160	1W	DPDT	3	19.85
SL11DB	24V	630	1W	DPDT	3	19.85
SL11DC	24V	630	1W	DPDT	3	19.85
SL11DD	24V	630	1W	DPDT	3	19.85
SLG11D	**24V**	**630**	**1W**	**DPDT**	**3**	19.85

TL SERIES High performance 4PDT micro-miniature magnetic latching relay for severe environments. Hermetically welded relay case. Strong permanent magnetic forces keep the contacts locked in desired position when relay is de-energized. Approx. 0.5ms transfer time. Temperature range: −65°C to +125°C. Meets or exceeds applicable sections MIL-R-5757D and MSFC-SPEC-339. Weight: Approx. 1¼ ozs. Mountings: D=plain case, plug-in header. DA=shoulder bracket .300" from base, hook-end solder. DB=flat plate, .593" wide x 1.60" long, 4−.125" dia. holes on .281" x 1.30" centers, hook-end solder.

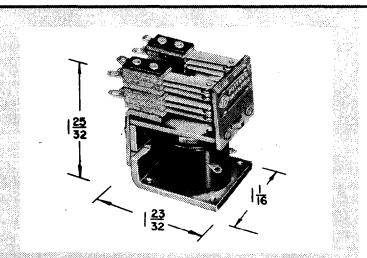


TL17D	**24V**	**600**	**1W**	**4PDT**	**3**	**28.75**
TL17DA	24V	600	1W	4PDT	3	28.75
TL17DB	24V	600	1W	4PDT	3	28.75

GENERAL PURPOSE RELAYS

GA SERIES Low cost, all purpose, multiple contact, voltage switching relay. Used for many industrial control applications. Tinned, pierced solder type terminals. Contacts: 3/16" dia. silver, designed for maximum self-cleaning action. Mounting: No. 8-32 tapped core with locating boss. Weight: 3½ ozs.

See GF series for similar relays having 10 amp ratings.



GA11A	**6V**	**1.7**	**6VA**	**DPDT**	**5**	**3.50**
GA11A	12V	6.8	6VA	DPDT	5	3.50
GA11A	24V	24	6VA	DPDT	5	3.50
GA11A	120V	690	6VA	DPDT	5	3.50
GA11D	6V	18	2.0W	DPDT	5	3.50
GA11D	12V	72	2.0W	DPDT	5	3.50
GA11D	24V	288	2.0W	DPDT	5	3.50
GA11D	110V	6,050	2.0W	DPDT	5	4.00
GA14A	24V	24	6VA	3PDT	5	4.25
GA14A	120V	690	6VA	3PDT	5	4.25
GA14D	24V	288	2.0W	3PDT	5	4.25
GA17A	6V	1.7	6VA	4PDT	5	5.10
GA17A	12V	6.8	6VA	4PDT	5	5.10
GA17A	24V	24	6VA	4PDT	5	5.10
GA17A	120V	690	6VA	4PDT	5	5.10
GA17A	240V	2,950	6VA	4PDT	5	5.50
GA17D	6V	18	2.0W	4PDT	5	5.10
GA17D	12V	72	2.0W	4PDT	5	5.10
GA17D	24V	288	2.0W	4PDT	5	5.10
GA17D	110V	6,050	2.0W	4PDT	5	5.60

See ordering information on page 1.

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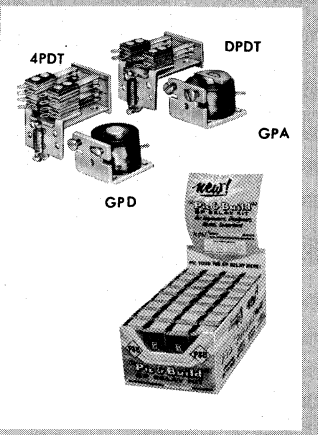
GENERAL PURPOSE RELAYS Potter & Brumfield Relays

GP SERIES Separate AC and DC coils to match with 2PDT or 4PDT switches. AC coils (GPA) available in 6, 12, 24, 120 and 240 volts. DC coils (GPD) available in 6, 12, 24 and 110 volts; current coils: 2,500 5,000 and 10,000 ohms. Contacts: 3/16" dia. silver.

GP11	Switch Assembly	DPDT	5 amps	$1.80
GP17	Switch Assembly	4PDT	5 amps	3.10

GP-100 A complete kit of GP Series coils and switches consisting of the following: AC coils: Two 6 V., two 12 V., four 24 V., six 120 V.. two 240 V. DC coils: Two 6 V., two 12 V., two 24 V., four 110 V. Also two 2,500 and four 10,000 ohm coils; eighteen DPDT switch assemblies. Fourteen 4PDT switch assemblies. The complete kit is ideal for experimenters, school and industrial laboratories.

NET $140.35

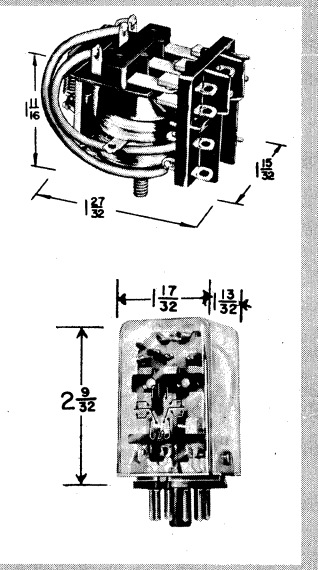


KA AND KAP SERIES Small, low cost, highly efficient general purpose relays for handling light power loads such as small motors, solenoids and other relays, and general automation work. All KA and KAP relays with "Y" suffix bear CSA* listing and carry U/L component recognition (File No. E22575). Mechanical life expectancy: 10 million operations. Duty: Continuous. Contacts: Movable, 1/8" dia. gold-flashed silver; stationary, 5/32" dia. wide silver overlay.

The KA is the open version of this series. Mounting: One No. 6-32 threaded stud and locating tab on 7/16" centers. Weight: 2 ozs. The KAP is the enclosed model and is protected by a clear, high impact plastic dust cover. Terminals: 8 or 11-pin plug. Weight: 3 ozs.

"G" suffix indicates silver-cadmium-oxide contacts on movables rated 10 amps.

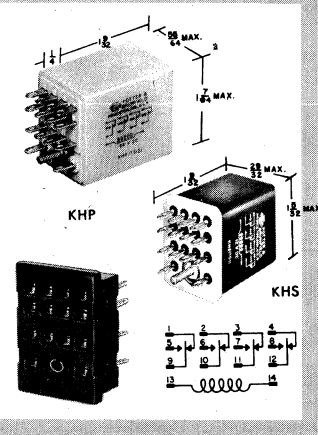
KAP hold down spring (similar to KCP-KRP, page 7)
9KA1 50 per box, weight 3 ozs. Net $5.50



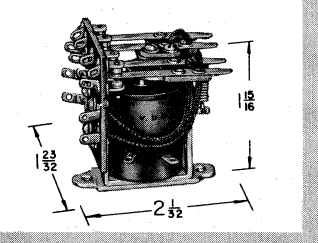
KHP and KHS SERIES Small, rugged, 4PDT, available for AC or DC operation. KHP has Nylon dust cover; KHS is hermetically sealed in metal enclosure. These relays are designed to meet the exacting requirements of data processing, computer and process control applications. Contacts are 3/32" gold-flashed silver and are rated 3 amps @ 30V DC or 120V AC resistive for 100,000 operations. "12" suffix indicates silver-cadmium-oxide contacts. Mounting: Solder terminals with a 3–48 stud 5/16" long. Adaptable to sockets (below) with printed circuit or solder lug terminals. Weights without sockets: KHP 1 1/8 ozs; KHS 1 5/8 ozs.

KHP hold down spring (similar to KCP-KRP, page 7)
9KH3 50 per box, weight 3 ozs. Net $5.50

9KH1 Solder terminal sockets and retainers. Box of 10 Net $6.60
9KH2 Printed circuit terminal sockets, Box of 10 Net $6.60
Weight per box: 4 ozs.



KL SERIES Multiple contact relay. Varied contact combinations and high dielectric phenolic insulation affords extreme versatility and utility. Widely used in such applications as industrial controls, elevator controls, communications equipment and electronic measuring devices. Mounting: All models–Two No. 6-32 tapped holes on 1 7/16" centers. Contacts: 1/8" dia. gold-flashed silver. Weight: 5 ozs.



TYPE	COILS Voltage or Current	Resistance in Ohms	Nominal Power	CONTACTS Arrangement	Rate in Amps	SUGG. RESALE PRICE
GPA	**6V**	**1.7**	**6VA**	**None**	**-**	**$1.75**
GPA	12V	6.8	6VA	None	-	1.75
GPA	24V	24	6VA	None	-	1.75
GPA	120V	690	6VA	None	-	1.75
GPA	240V	2,950	6VA	None	-	2.20
GPD	**—**	**2,500**	**—**	**None**	**-**	**1.60**
GPD	—	5,000	—	None	-	1.85
GPD	—	10,000	—	None	-	2.20
GPD	6V	18	2.0W	None	-	2.20
GPD	12V	72	2.0W	None	-	2.20
GPD	24V	288	2.0W	None	-	2.20
GPD	110V	6,050	2.0W	None	-	3.30
KA5AY	**6V**	**6**	**2VA**	**SPDT**	**5**	**3.35**
KA5AY	12V	21	2VA	SPDT	5	3.35
KA5AY	24V	75	2VA	SPDT	5	3.35
KA5AY	120V	2,250	2VA	SPDT	5	3.35
KA5AY	240V	9,110	2VA	SPDT	5	3.80
KA5AG	6V	6	2VA	SPDT	10	3.40
KA5AG	12V	21	2VA	SPDT	10	3.40
KA5AG	24V	75	2VA	SPDT	10	3.40
KA5AG	120V	2,250	2VA	SPDT	10	3.40
KA5AG	240V	9,110	2VA	SPDT	10	3.85
KA5DY	6V	32.1	1.2W	SPDT	5	3.20
KA5DY	12V	120	1.2W	SPDT	5	3.20
KA5DY	24V	472	1.2W	SPDT	5	3.20
KA5DY	110V	10,000	1.2W	SPDT	5	3.85
KA5DG	6V	32.1	1.2W	SPDT	10	3.25
KA5DG	12V	120	1.2W	SPDT	10	3.25
KA5DG	24V	472	1.2W	SPDT	10	3.25
KA5DG	110V	10,000	1.2W	SPDT	10	3.90
KA11AY	6V	6	2VA	DPDT	5	4.05
KA11AY	12V	21	2VA	DPDT	5	4.05
KA11AY	24V	75	2VA	DPDT	5	4.05
KA11AY	120V	2,250	2VA	DPDT	5	4.05
KA11AY	240V	9,110	2VA	DPDT	5	4.45
KA11AG	6V	6	2VA	DPDT	10	4.15
KA11AG	12V	21	2VA	DPDT	10	4.15
KA11AG	24V	75	2VA	DPDT	10	4.15
KA11AG	120V	2,250	2VA	DPDT	10	4.15
KA11AG	240V	9,110	2VA	DPDT	10	4.55
KA11DY	6V	32.1	1.2W	DPDT	5	3.55
KA11DY	12V	120	1.2W	DPDT	5	3.55
KA11DY	24V	472	1.2W	DPDT	5	3.55
KA11DY	110V	10,000	1.2W	DPDT	5	4.20
KA11DG	6V	32.1	1.2W	DPDT	10	3.70
KA11DG	12V	120	1.2W	DPDT	10	3.70
KA11DG	24V	472	1.2W	DPDT	10	3.70
KA11DG	110V	10,000	1.2W	DPDT	10	4.30
KA14AY	6V	6	2VA	3PDT	5	4.45
KA14AY	12V	21	2VA	3PDT	5	4.45
KA14AY	24V	75	2VA	3PDT	5	4.45
KA14AY	120V	2,250	2VA	3PDT	5	4.45
KA14AY	240V	9,110	2VA	3PDT	5	4.90
KA14AG	6V	6	2VA	3PDT	10	4.60
KA14AG	12V	21	2VA	3PDT	10	4.60
KA14AG	24V	75	2VA	3PDT	10	4.60
KA14AG	120V	2,250	2VA	3PDT	10	4.60
KA14AG	240V	9,110	2VA	3PDT	10	5.05
KA14DY	6V	32.1	1.2W	3PDT	5	4.05
KA14DY	12V	120	1.2W	3PDT	5	4.05
KA14DY	24V	472	1.2W	3PDT	5	4.05
KA14DY	110V	10,000	1.2W	3PDT	5	4.65
KA14DG	6V	32.1	1.2W	3PDT	10	4.20
KA14DG	12V	120	1.2W	3PDT	10	4.20
KA14DG	24V	472	1.2W	3PDT	10	4.20
KA14DG	110V	10,000	1.2W	3PDT	10	4.85
KAP5AG§	**24V**	**75**	**2VA**	**SPDT**	**10**	**5.80**
KAP5AG§	120V	2,250	2VA	SPDT	10	5.80
KAP5DG§	24V	472	1.2W	SPDT	10	5.70
KAP5DG§	110V	10,000	1.2W	SPDT	10	6.35
KAP11AY§	24V	75	2VA	DPDT	5	6.35
KAP11AY§	120V	2,250	2VA	DPDT	5	6.35
KAP11AY§	240V	9,110	2VA	DPDT	5	6.75
KAP11AG§	6V	6	2VA	DPDT	10	6.45
KAP11AG§	24V	75	2VA	DPDT	10	6.45
KAP11AG§	120V	2,250	2VA	DPDT	10	6.45
KAP11DG§	24V	472	1.2W	DPDT	10	6.40
KAP11DG§	110V	10,000	1.2W	DPDT	10	7.05
KAP11DY§	12V	120	1.2W	DPDT	5	6.30
KAP11DY§	24V	472	1.2W	DPDT	5	6.30
KAP11DY§	110V	10,000	1.2W	DPDT	5	6.95
KAP14AY§	24V	75	2VA	3PDT	5	7.90
KAP14AY§	120V	2,250	2VA	3PDT	5	7.90
KAP14AY§	240V	9,110	2VA	3PDT	5	8.30
KAP14AG§	24V	75	2VA	3PDT	10	8.05
KAP14AG§	120VS	2,250	2VA	3PDT	10	8.05
KAP14DG§	24V	472	1.2W	3PDT	10	8.00
KAP14DG§	110V	10,000	1.2W	3PDT	10	8.60
KAP14DY§	12V	120	1.2W	3PDT	5	7.80
KAP14DY§	24V	472	1.2W	3PDT	5	7.80
KAP14DY§	110V	10.000	1.2W	3PDT	5	8.45
KHP17A11‡	**6V**	**10.5**	**1.2VA**	**4PDT**	**3**	**5.55**
KHP17A11§	12V	43	1.2VA	4PDT	3	5.55
KHP17A11§	24V	160	1.2VA	4PDT	3	5.55
KHP17A11§	120V	3,900	1.2VA	4PDT	3	6.05
KHP17D11§	6V	40	900MW	4PDT	3	5.05
KHP17D11§	12V	160	900MW	4PDT	3	5.05
KHP17D11§	24V	650	900MW	4PDT	3	5.05
KHP17D12§	24V	650	900MW	4PDT	3	5.20
KHP17D11§	48V	2,600	900MW	4PDT	3	5.25
KHP17D11§	90V	9,000	900MW	4PDT	3	5.90
KHP17D11§	110V	11,000	900MW	4PDT	3	5.90
KHP17D12§	110V	11,000	900MW	4PDT	3	6.05
KHS17A11†	**6V**	**10.5**	**1.2VA**	**4PDT**	**3**	**9.55**
KHS17A11†	12V	43	1.2VA	4PDT	3	9.55
KHS17A11†	24V	160	1.2VA	4PDT	3	9.55
KHS17A11†	120V	3,900	1.2VA	4PDT	3	9.90
KHS17D11†	6V	40	900MW	4PDT	3	8.55
KHS17D11†	12V	160	900MW	4PDT	3	8.55
KHS17D11†	24V	650	900MW	4PDT	3	8.55
KHS17D11†	110V	11,000	900MW	4PDT	3	9.40
KL5A	**120V**	**760**	**2.9VA**	**SPDT**	**5**	**4.05**
KL5D	12V	140	1.1W	SPDT	5	3.80
KL5D	24V	600	1.1W	SPDT	5	3.80
KL11A	12V	7.8	2.9VA	DPDT	5	5.05
KL11A	24V	33	2.9VA	DPDT	5	5.05
KL11A	20V	760	2.9VA	DPDT	5	5.05
KL14A	24V	33	2.9VA	3PDT	5	5.60
KL14A	20V	760	2.9VA	3PDT	5	5.60
KL14D	24V	600	1.1W	3PDT	5	5.40
KL14D	10V	10,000	1.1W	3PDT	5	6.05
KL17A	6V	2.25	2.9VA	4PDT	5	6.60
KL17A	24V	33	2.9VA	4PDT	5	6.60
KL17A	20V	760	2.9VA	4PDT	5	6.60
KL17D	12V	140	1.1W	4PDT	5	6.30
KL17D	24V	600	1.1W	4PDT	5	6.30
KL17D	10V	10,000	1.1W	4PDT	5	6.95

*Canadian Standards Association File No. LR-15734

†Sealed Relay
§Enclosed Relay

See ordering information on page 1.

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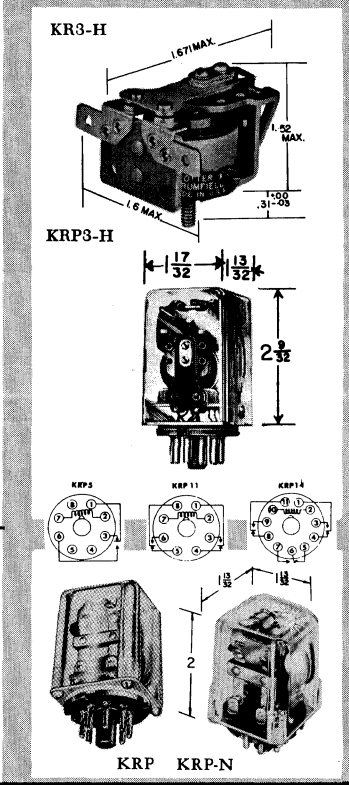
Potter & Brumfield Relays

KR3-H SERIES Ruggedly constructed but of small size, the KR3-H is a heavy duty relay especially designed for applications where limited space is a factor. Its heavy duty copper alloy movable contact carrier has twin ¼" dia. silver-cadmium-oxide contacts rated 20 amps @ 120V AC 60 Hz resistive, or 28V DC; 1 HP 120/240V 60 Hz. Contact arrangement is 1 Form X (SPST-NO-DB) only. Terminals: suitable for ¼" quick connect, also solder, for contacts; solder only for coil. Size: 1.6" x 1.671" x 1.52". Seated height: 1.21". Mounting: One 6-32 stud on .437" center. Weight: 2 ozs.

KRP3-H SERIES All electrical specifications listed above for the KR3-H series relays apply to the KRP3-H. However, the KRP3-H is enclosed in a clear, high impact plastic dust cover and features an octal plug-in base. Weight: Approximately 3 ozs.

KRP SERIES Versatile, multi-contact arrangement. Enclosed in a clear high impact plastic dust cover. Standard 8-pin octal-type plug for KRP5 and KRP11, 11-pin for KRP14. Weight: Approx. 3 ozs. Contacts: 5 amp, 3/16" dia. gold-flashed silver. 10 amp 3/16" dia. silver cadmium-oxide. See KCP-KRP hold down spring for special mounting applications. See KRP-N indicator lamp relay for current monitoring applications.

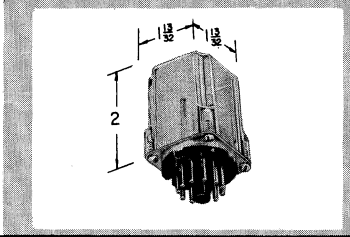


KRP-N INDICATOR LAMP RELAY

A general purpose relay incorporating a lamp to indicate current or voltage availability in power circuit. Contacts: 3/16" dia. silver cadmium-oxide. Enclosure: Clear, high impact plastic dust cover. Mounting: Standard octal plug. Weight: Approx. 3 ozs. See KCP-KRP Hold Down Spring for special mountings.

"P"— CASE A clear high impact plastic case for mounting rectifiers, capacitors, resistors or a combination of these. Available with octal-type plug with 8 or 11-pins. Comes complete with four screws. Weight: .5 ozs. each. See KCP-KRP Hold Down Spring for special mounting applications.

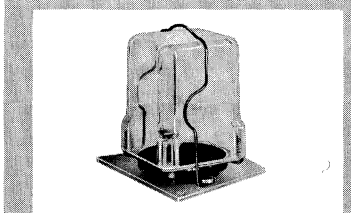
35DO70 Case (8-pin plug) NET $ .60
35DO72 Case (11-pin plug) NET $ .75



KCP-KRP HOLD DOWN SPRING

Designed to insure secure mounting of relay in any position. Fits all KCP or KRP plug-in relays. Durable stainless steel spring can be moved aside for relay removal or installation. Mounting: Two 5/32" dia. holes on 1 5/16" centers; will accommodate machine screws or rivets. Available in quantities of 50 per box. Weight: 3 ozs. per box.

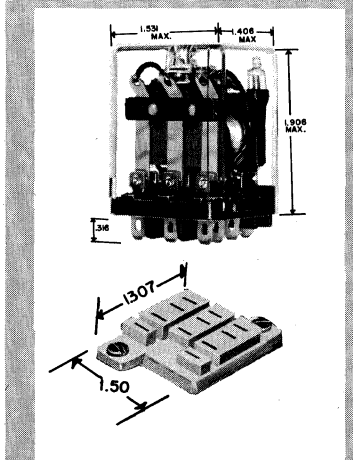
9-KR-15 NET $5.50



KUP SERIES This reliable 10-ampere relay for industrial control is available with a socket that is also rated 10 amperes. The .187" terminals of the relay are of the quick-connect/solder type. Sockets are priced separately and their terminals are of the pierced solder type. The KUP is enclosed in a clear, high impact plastic dust cover. Silver-cadmium-oxide contacts assure long contact life. Operation: Continuous. Weight: 3 ozs.

9KU1 sockets for KUP relays. Rated 10 amperes, molded nylon, pierced solder terminals.

Box of 5, NET $3.75



GENERAL PURPOSE RELAYS

TYPE	COILS Voltage or Current	Resistance in Ohms	Nominal Power	CONTACTS Arrangement	Rate in Amps	SUGG. RESALE PRICE
KR3AH	**6V**	**6**	**2VA**	**SPST-NO-DB**	**20**	**4.10**
KR3AH	12V	21	2VA	SPST-NO-DB	20	4.10
KR3AH	24V	75	2VA	SPST-NO-DB	20	4.10
KR3AH	120V	2,250	2VA	SPST-NO-DB	20	4.10
KR3DH	6V	32	1.2W	SPST-NO-DB	20	3.90
KR3DH	12V	120	1.2W	SPST-NO-DB	20	3.90
KR3DH	24V	472	1.2W	SPST-NO-DB	20	3.90
KR3DH	110V	10,000	1.2W	SPST-NO-DB	20	4.50
KRP3AH	6V	6	2VA	SPST-NO-DB	20	6.65
KRP3AH	12V	21	2VA	SPST-NO-DB	20	6.65
KRP3AH	24V	75	2VA	SPST-NO-DB	20	6.65
KRP3AH	120V	2,250	2VA	SPST-NO-DB	20	6.65
KRP3DH	6V	32	1.2W	SPST-NO-DB	20	6.45
KRP3DH	12V	120	1.2W	SPST-NO-DB	20	6.45
KRP3DH	24V	472	1.2W	SPST-NO-DB	20	6.45
KRP3DH	110V	10,000	1.2W	SPST-NO-DB	20	7.10
KRP5A§	**6V**	**6**	**2VA**	**SPDT**	**5**	5.70
KRP5A§	24V	75	2VA	SPDT	5	5.70
KRP5A§	120V	2,250	2VA	SPDT	5	5.70
KRP5AG§	6V	6	2VA	SPDT	10	5.85
KRP5AG§	24V	75	2VA	SPDT	10	5.85
KRP5AG§	120V	2,250	2VA	SPDT	10	5.85
KRP5D§	6V	32.1	1.2W	SPDT	5	5.65
KRP5D§	12V	120	1.2W	SPDT	5	5.65
KRP5D§	24V	472	1.2W	SPDT	5	5.65
KRP5D§	110V	10,000	1.2W	SPDT	5	6.30
KRP5DG§	6V	32.1	1.2W	SPDT	10	5.80
KRP5DG§	12V	120	1.2W	SPDT	10	5.80
KRP5DG§	24V	472	1.2W	SPDT	10	5.80
KRP5DG§	110V	10,000	1.2W	SPDT	10	6.40
KRP11A§	6V	6	2VA	DPDT	5	6.35
KRP11A§	12V	21	2VA	DPDT	5	6.35
KRP11A§	24V	75	2VA	DPDT	5	6.35
KRP11A§	120V	2,250	2VA	DPDT	5	6.35
KRP11A§	240V	9,110	2VA	DPDT	5	6.75
KRP11AG§	6V	6	2VA	DPDT	10	6.55
KRP11AG§	12V	21	2VA	DPDT	10	6.55
KRP11AG§	24V	75	2VA	DPDT	10	6.55
KRP11AG§	120V	2,250	2VA	DPDT	10	6.55
KRP11AG§	240V	9,100	2VA	DPDT	10	7.00
KRP11D§	6V	32.1	1.2W	DPDT	5	6.30
KRP11D§	12V	120	1.2W	DPDT	5	6.30
KRP11D§	24V	472	1.2W	DPDT	5	6.30
KRP11D§	110V	10,000	1.2W	DPDT	5	6.95
KRP11DG§	6V	32.1	1.2W	DPDT	10	6.50
KRP11DG§	12V	120	1.2W	DPDT	10	6.50
KRP11DG§	24V	472	1.2W	DPDT	10	6.50
KRP11DG§	110V	10,000	1.2W	DPDT	10	7.15
KRP14A§	6V	6	2VA	3PDT	5	7.90
KRP14A§	12V	21	2VA	3PDT	5	7.90
KRP14A§	24V	75	2VA	3PDT	5	7.90
KRP14A§	120V	2,250	2VA	3PDT	5	7.90
KRP14A§	240V	9,110	2VA	3PDT	5	8.30
KRP14AG§	6V	6	2VA	3PDT	10	8.20
KRP14AG§	12V	21	2VA	3PDT	10	8.20
KRP14AG§	24V	75	2VA	3PDT	10	8.20
KRP14AG§	120V	2,250	2VA	3PDT	10	8.20
KRP14AG§	240V	9,100	2VA	3PDT	10	8.60
KRP14D§	6V	32.1	1.2W	3PDT	5	7.80
KRP14D§	12V	120	1.2W	3PDT	5	7.80
KRP14D§	24V	472	1.2W	3PDT	5	7.80
KRP14D§	110V	10,000	1.2W	3PDT	5	8.45
KRP14DG§	6V	32.1	1.2W	3PDT	10	8.15
KRP14DG§	12V	120	1.2W	3PDT	10	8.15
KRP14DG§	24V	472	1.2W	3PDT	10	8.15
KRP14DG§	110V	10,000	1.2W	3PDT	10	8.75
KRP11AN§	**6V**	**6**	**2VA**	**DPDT**	**10**	7.50
KRP11AN§	12V	21	2VA	DPDT	10	7.50
KRP11AN§	24V	75	2VA	DPDT	10	7.50
KRP11AN§	120V	2,250	2VA	DPDT	10	7.50
KRP11AN§	240V	9,110	2VA	DPDT	10	7.90
KRP11DN§	6V	32.1	1.2W	DPDT	10	7.45
KRP11DN§	12V	120	1.2W	DPDT	10	7.45
KRP11DN§	24V	420	1.2W	DPDT	10	7.45
KRP11DN§	110V	10,000	1.2W	DPDT	10	8.10
KRP14AN§	6V	6	2VA	3PDT	10	9.15
KRP14AN§	12V	21	2VA	3PDT	10	9.15
KRP14AN§	24V	75	2VA	3PDT	10	9.15
KRP14AN§	120V	2,250	2VA	3PDT	10	9.15
KRP14AN§	240V	9,110	2VA	3PDT	10	9.55
KUP5A15	6V	5.1	2VA	SPDT	10	$3.70
KUP5A15	12V	21	2VA	SPDT	10	3.70
KUP5A15	24V	75	2VA	SPDT	10	3.70
KUP5A15	120V	2,250	2VA	SPDT	10	3.70
KUP5A15	240V	9,110	2VA	SPDT	10	4.10
KUP5D15	6V	32.1	1.2W	SPDT	10	3.55
KUP5D15	12V	120	1.2W	SPDT	10	3.55
KUP5D15	24V	472	1.2W	SPDT	10	3.55
KUP5D15	110V	10,000	1.2W	SPDT	10	4.15
KUP11A15	6V	5.1	2VA	DPDT	10	4.50
KUP11A15	12V	21	2VA	DPDT	10	4.50
KUP11A15	24V	75	2VA	DPDT	10	4.50
KUP11A15	120V	2,250	2VA	DPDT	10	4.50
KUP11A15	240V	9,110	2VA	DPDT	10	4.90
KUP11D15	6V	32.1	1.2W	DPDT	10	4.05
KUP11D15	12V	120	1.2W	DPDT	10	4.05
KUP11D15	24V	472	1.2W	DPDT	10	4.05
KUP11D15	110V	10,000	1.2W	DPDT	10	4.65
KUP14A15	6V	4.2	2.75VA	3PDT	10	5.05
KUP14A15	12V	18	2.75VA	3PDT	10	5.05
KUP14A15	24V	72	2.75VA	3PDT	10	5.05
KUP14A15	120V	1,700	2.75VA	3PDT	10	5.05
KUP14A15	240V	7,200	2.75VA	3PDT	10	5.45
KUP14D15	6V	32.1	1.2W	3PDT	10	4.65
KUP14D15	12V	120	1.2W	3PDT	10	4.65
KUP14D15	24V	472	1.2W	3PDT	10	4.65
KUP14D15	110V	10,000	1.2W	3PDT	10	5.05

§Enclosed Relay **See ordering information on page 1.**

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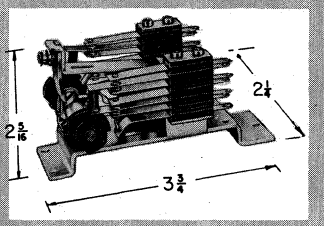
Potter & Brumfield Relays

SPECIAL PURPOSE RELAYS

AP SERIES RATCHET, IMPULSE

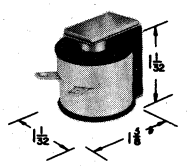
A reliable compact unit for applications requiring on-off or reversing action on alternate operations. Positive ratchet operation at all speeds on impulses as short as 60 ms. Intermittent operation only. Mounting: Three 5/32" dia. holes on 3 3/8" x 7/8" triangular centers. Contacts: 3/16" dia. silver. Weight: 7 ozs. Coils for intermittent duty only.



TYPE	COILS: Voltage or Current	COILS: Resistance in Ohms	COILS: Nominal Power	CONTACTS: Arrangement	CONTACTS: Rate in Amps	SUGG. RESALE PRICE
AP11A	**6V**	**0.6**	**18.5VA**	**DPDT**	**5**	**$ 9.20**
AP11A	12V	2.28	18.5VA	DPDT	5	9.20
AP11A	24V	8.8	18.5VA	DPDT	5	9.20
AP11A	120V	240	18.5VA	DPDT	5	9.20
AP11A	240V	900	18.5VA	DPDT	5	9.70
AP11D	6V	4.0	9.0W	DPDT	5	9.20
AP11D	24V	65	9.0W	DPDT	5	9.20
AP11D	110V	1,350	9.0W	DPDT	5	9.90
AP17A	24V	8.8	19.5VA	4PDT	5	11.15
AP17A	120V	240	18.5VA	4PDT	5	11.15
AP17D	12V	15.5	9.0W	4PDT	5	11.15
AP17D	24V	65	9.0W	4PDT	5	11.15
AP17D	110V	1,350	9.0W	4PDT	5	11.85

BU BUZZER

AC operated coil with a spring steel armature which buzzes when coil is energized. Used extensively in test equipment, laboratories and a host of other applications where a small light weight, dependable buzzer is required. Weight: 1⅛ ozs. Mounting: No. 6-32 tapped core.

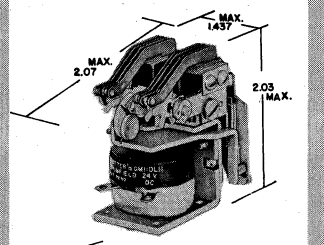


BU	**6V**	**2.75**	**4.6VA**	-	-	**1.85**
BU	12V	13.25	4.6VA	-	-	1.85
BU	24V	50	4.6VA	-	-	1.85
BU	115V	1,250	4.6VA	-	-	1.85

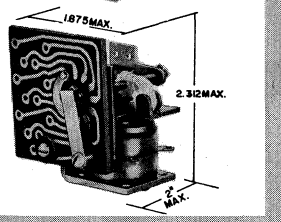
SPECIFY COIL VOLTAGE OR RESISTANCE WHEN ORDERING

GM SERIES

Unusually versatile switching makes this impulse/sequencing relay especially suitable for single coil latching. The 2 Form C contact arrangement is switched alternately by cam action during drop-out of the armature. It can also be furnished with additional 2 Form C auxiliary contacts (designated by "L"). AC version operates on a 50% coil duty cycle (5 Min. max.). Mounting: 8-32 tapped core with locating boss. Weights: With aux. contacts 4¾ ozs. Without aux. contacts 4 ozs.



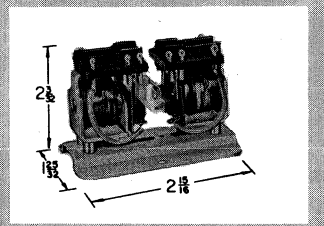
The GM1N10 and GM1N12 AC or DC use the basic GM structure with uni-directional printed circuit boards with 10 or 12-steps, respectively. The board is attached to an extension of the ratchet shaft. The movable contact arm advances one position each time the armature *drops out*. Contact rating: .25 amps. Contact arrangement: SP-10 pos. and SP-12 pos. Size: 2.312" x 1.875" x 2".



GM11A	**24V**	**16**	**9.4VA**	**DPDT**	**3**	**7.60**
GM11A	120V	420	9.4VA	DPDT	3	7.60
GM11AL11	24V	16	9.4VA	DPDT/DPDT	3	10.80
GM11AL11	120V	420	9.4VA	DPDT/DPDT	3	10.80
GM11D	24V	36	4W	DPDT	3	7.30
GM11D	110V	144	4W	DPDT	3	7.30
GM11D	12V	3025	4W	DPDT	3	7.80
GM11DL11	24V	36	4W	DPDT/DPDT	3	10.60
GM11DL11	110V	144	4W	DPDT/DPDT	3	10.60
GM11DL11		3030	4W	DPDT/DPDT	3	11.10
GM1N10A	**120V**	**510**	**9.4VA**	**SP-10 pos.**	**.25**	**9.40**
GM1N12A	**120V**	**510**	**9.4VA**	**SP-12 pos.**	**.25**	**9.50**
GM1N10D	**24V**	**144**	**4W**	**SP-10 pos.**	**.25**	**9.15**
GM1N12D	**24V**	**144**	**4W**	**SP-12 pos.**	**.25**	**9.30**

KB SERIES LATCHING RELAY

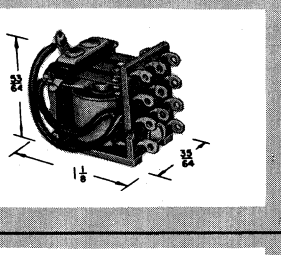
Both release and trip coils must be for the same voltage. One coil operates relay to set latch and other coil releases it. Ideal for memory work and overload applications. Operates on momentary impulse to either coil. Mounting: Two 5/32" dia. holes on 1⅜" centers. Weight: 6 ozs. Contacts: ⅛" dia. silver rated 5 amps; "G" suffix indicates silver cadmium-oxide contacts on movables rated 10 amps. AC relays with 5 amp. Contacts carry U/L component recognition (File No. 29244) and are CSA* listed. AC coil for intermittent duty only.



KB17AY	**6V**	**2.3**	**5VA**	**4PDT**	**5**	**11.05**
KB17AY	12V	10	5VA	4PDT	5	11.05
KB17AY	24V	42	5VA	4PDT	5	11.05
KB17AY	120V	1,030	5VA	4PDT	5	11.05
KB17AY	240V	4,100	5VA	4PDT	5	11.85
KB17AG	6V	2.3	5VA	4PDT	10	11.15
KB17AG	12V	10	5VA	4PDT	10	11.15
KB17AG	24V	42	5VA	4PDT	10	11.15
KB17AG	120V	1,030	5VA	4PDT	10	11.15
KB17AG	240V	4,100	5VA	4PDT	10	11.95
KB17D	6V	13.1	2.7W	4PDT	5	9.90
KB17D	12V	52.0	2.7W	4PDT	5	9.90
KB17D	24V	230	2.7W	4PDT	5	9.90
KB17D	110V	4,560	2.7W	4PDT	5	11.20
KB17DG	6V	13.1	2.7W	4PDT	10	10.15
KB17DG	12V	52.0	2.7W	4PDT	10	10.15
KB17DG	24V	230	2.7W	4PDT	10	10.15
KB17DG	110V	4,560	2.7W	4PDT	10	11.40
KB23AY	24V	27	7.8VA	6PDT	5	13.25
KB23AY	120V	700	7.8VA	6PDT	5	13.25
KB23AG	24V	27	7.8VA	6PDT	10	13.45
KB23AG	120V	700	7.8VA	6PDT	10	13.45
KB23D	24V	230	2.7W	6PDT	5	12.00
KB23DG	24V	230	2.7W	6PDT	10	12.35
KB23DG	110V	4,560	2.7W	6PDT	10	13.60

KM SERIES

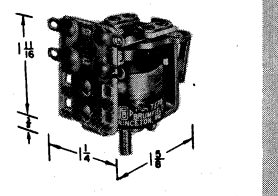
Subminiature relay for applications requiring unusually small relays with up to 3-poles. 3/32" dia. silver contacts. Withstands 30g mechanical shock and .06" excursion 10 to 55 Hz mechanical vibration. Used extensively in small business machines, alarm systems, automatic toys and communications systems. Mounting: One 2-56 tapped core and locating half-punch. Solder terminals. Weight: .58 ozs.



KM5D	**6V**	**36**	**1.1W**	**SPDT**	**2**	**3.60**
KM5D	12V	144	1.1W	SPDT	2	3.60
KM5D	24V	500	1.1W	SPDT	2	3.60
KM11D	6V	36	1.1W	DPDT	2	3.95
KM11D	12V	144	1.1W	DPDT	2	3.95
KM11D	24V	500	1.1W	DPDT	2	3.95
KM14D	6V	36	1.1W	3PDT	2	4.55
KM14D	12V	144	1.1W	3PDT	2	4.55
KM14D	24V	500	1.1W	3PDT	2	4.55

KT SERIES ANTENNA SWITCHING RELAY

Glass base insulation for minimum RF loss to switch 300 ohm line. Mounting: One No. 6-32 threaded stud. Contacts: ⅛" dia. gold-flashed silver. Weight: 1½" ozs.



KT11A	**6V**	**6**	**2VA**	**DPDT**	**5**	**3.90**
KT11A	120V	2,250	2VA	DPDT	5	3.90
KT11D	6V	32.1	1.2W	DPDT	5	3.90
KT11D	12V	120	1.2W	DPDT	5	3.90

*Canadian Standards Association File No. LR-15734

§Enclosed Relay

See ordering information on page 1.

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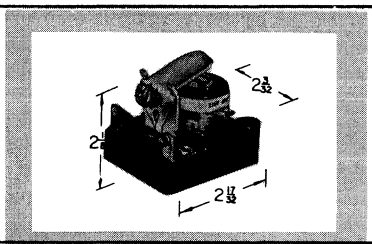
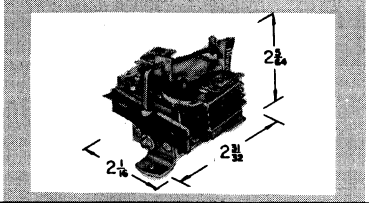
Potter & Brumfield Relays

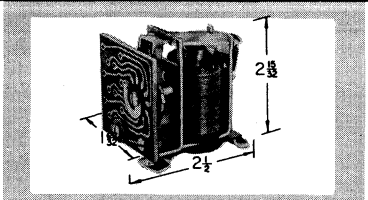
MS SERIES MOTOR STARTING RELAYS For starting capacitor start, induction-run motors. Operates on back EMF of start winding. Armature gap can be altered to change pull-in. Carries U/L component recognition (File No. 29245). Mounting: Two 5/32" dia. holes on 1 9/16" centers. Contacts: 3/4 HP, 7/32" dia. fine silver, 3 HP, 7/32" dia. silver cadmium. Weight: 5 oz. max. MS/MR Metal dust cover similar to PM/PR shown on page 4. 3 5/8" x 2 3/8" x 2 19/32". Weight: 7.5 ozs.
35D130 fits MS/MR Net $1.90



PC SERIES Single coil impulse latching relay for on-off and current reversal switching on alternate pulses. Operates on 30 millisecond pulses to the coil. Mounting: Two 5/32" dia. holes on 2 3/4" centers. Weight: 5 ozs. Contacts: 1/8" dia. gold-flashed silver cadmium -oxide. Coils for intermittent duty only.



SA SERIES STEPPING SWITCH A twelve position stepping relay with printed circuit strips to switch currents up to 250 milliamps. Armature-driven pawl operates a ratchet wheel to drive the movable contact in steps of 30 degrees over 12 positions. Used widely for audio-level switching in TV remote control units, scoreboards and process controls. Mounting: Two 6-32 holes on 1 13/16" centers. Weight: 4 ozs. AC coil for intermittent duty only.



SPECIAL PURPOSE RELAYS

TYPE	COILS			CONTACTS		SUGG. RESALE PRICE
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
MS2AY	**120V**	**530**	**5.9VA**	**SPST-NC**	**3/4HP**	**$ 3.80**
MS2AY	240V	2,100	5.9VA	SPST-NC	3/4HP	4.25
MS4AY	120V	530	5.9VA	SPST-NC-DB	3HP	4.45
MS4AY	240V	2,100	5.9VA	SPST-NC-DB	3HP	4.85
PC11A	**6V**	**0.6**	**18.5VA**	**DPDT**	**7.5**	**5.90**
PC11A	12V	2.28	18.5VA	DPDT	7.5	5.90
PC11A	24V	8.8	18.5VA	DPDT	7.5	5.90
PC11A	120V	240	18.5VA	DPDT	7.5	5.90
PC11D	6V	4.0	9.0W	DPDT	7.5	5.70
PC11D	12V	15.5	9.0W	DPDT	7.5	5.70
PC11D	24V	65.0	9.0W	DPDT	7.5	5.70
PC17A	24V	8.8	18.5VA	4PDT	7.5	8.15
PC17A	120V	240	18.5VA	4PDT	7.5	8.15
PC17D	24V	65	9.0W	4PDT	7.5	7.95
SA-1N-12A	**115V**	**140**	**20VA**	**12-steps**	**.25**	**7.00**

POTTER & BRUMFIELD
IS A MEMBER OF THE
NATIONAL ASSOCIATION OF RELAY MANUFACTURERS

JR Series Dry Reed Relays

Fast response, reliable performance, small size and long life, together with high sensitivity recommend Potter & Brumfield JR Series dry reed relays for data processing, computer equipment, logic circuitry and various other sophisticated control circuits.

TWO TYPES OF CAPSULES

Dry reed glass capsules with two types of contact arrangements, Form A (SPST-NO) or Form C (SPDT) are available. When biased with a permanent magnet Form A is

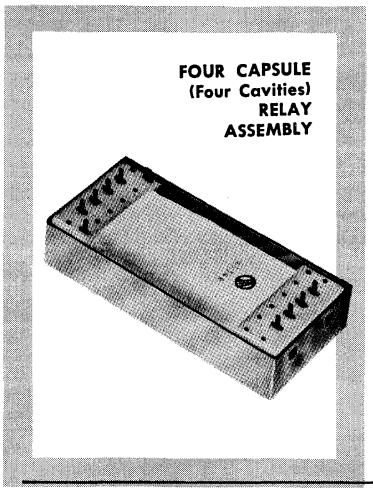
Form A

changed to a Form B (SPST-NC): This arrangement requires that coil polarity be observed; it uses a two-cavity bobbin. By combining one Form A with one Form B, a single Form C (SPDT) break before make arrangement can be furnished; it uses a three-cavity bobbin.

A true Form C (SPDT) uses a reed switch with two stationary and one movable contact.

Form C

The movable contact is normally closed until the coil is energized, causing a true Form C (SPDT) break before make; it uses a single-cavity bobbin.



TYPE	NUMBER OF CAVITIES	COILS		CONTACTS		SUGG. RESALE PRICE
		Sugg. Nominal Voltage	Resistance in Ohms	Arrangements	Reed Rating Watts	
JR1000	1	6	150	1A	15	$2.65
JR1001	2	6	100	2A	15	3.55
JR1003	4	6	37.5	4A	15	4.95
JR1084	3	6	50	1A & 1B	15	4.40
JR1040	1*	6	150	1C	10	6.65
JR1020	1	6	150	1A	50	3.75
JR1021	2	6	100	2A	50	5.75
JR1005	1	12	600	1A	15	2.65
JR1006	2	12	400	2A	15	3.55
JR1008	4	12	150	4A	15	4.95
JR1086	3	12	200	1A & 1B	15	4.40
JR1045	1*	12	600	1C	10	6.65
JR1025	1	12	600	1A	50	3.75
JR1026	2	12	400	2A	50	5.75
JR1010	1	24	2,400	1A	15	3.10
JR1011	2	24	1,600	2A	15	3.80
JR1013	4	24	600	4A	15	5.20
JR1088	3	24	800	1A & 1B	15	4.65
JR1050	1*	24	2,400	1C	10	6.95
JR1030	1	24	2,400	1A	50	4.00
JR1031	2	24	1,600	2A	50	6.00

*True Form C

SPECIFICATIONS

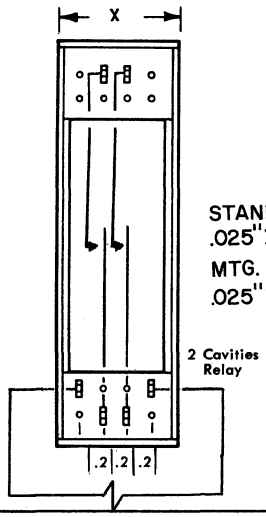
Insulating Materials: Glass Supported Nylon, acetate film and glass.

Breakdown Voltage @ Sea Level: 500 volts rms 60 Hz between all insulated points. 250 volts rms 60 Hz between open contacts.

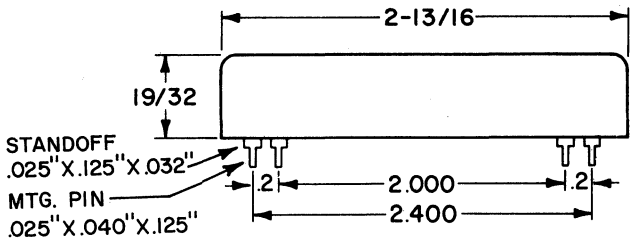
Operate Time: 3 ms (incl. bounce), @ nominal coil voltage @ 25°C.

Release Time: .5 ms @ 25°C.

Coil Power: Applies to all coil voltages and is based upon nominal coil voltage and resistance. For 1 capsule—240 mw; 2 capsules—360 mw; 3 capsules—720 mw; 4 capsules—960 mw; 5 capsules—1.5 watts.



OUTLINE DIMENSIONS (NOMINAL)



	Weight
X = 1 Cavity = .659"	1½ ozs.
X = 2 Cavities = .862"	2 ozs.
X = 3 Cavities = 1.065"	2½ ozs.
X = 4 Cavities = 1.268"	3 ozs.
X = 5 Cavities = 1.487"	3½ ozs.

See ordering information on page 1.

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MERCURY-WETTED CONTACT JM SERIES RELAYS

Rare long life, high speed, and unvarying dependability—all are the result of the basic component of these relays: a hermetically sealed glass capsule. It contains the contact arrangement and a small reservoir of mercury sealed in a high pressure hydrogen atmosphere. A film of mercury is renewed for every operation—that's why you can think in terms of billions of operations without contact bounce, pits or welds.

TWO TYPES OF CAPSULES

The capsule used in JMF modules and JML relays has a SPDT, break-before-make (Form C), non-bridging contact arrangement. Each capsule used in JMP, and JM1 to JM4 relays has a SPDT, make-before-break (Form D), bridging contact arrangement. JMF, JML and JMP series achieve a high rate of sensitivity by factory-adjusted magnet biasing.

CONTACT RATINGS

JMF and JML: 500V max., and 2 amps max., 100VA max.*
JMP and JM1 to JM4: 500V max., and 5 amps max., 250 VA max.*

*With contact protection unless in a low level circuit. Details of a simple protection circuit consisting of resistor and capacitor in series are packed with each relay.

TERMINATIONS

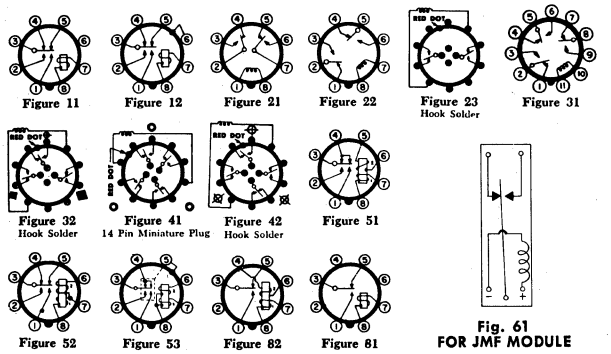
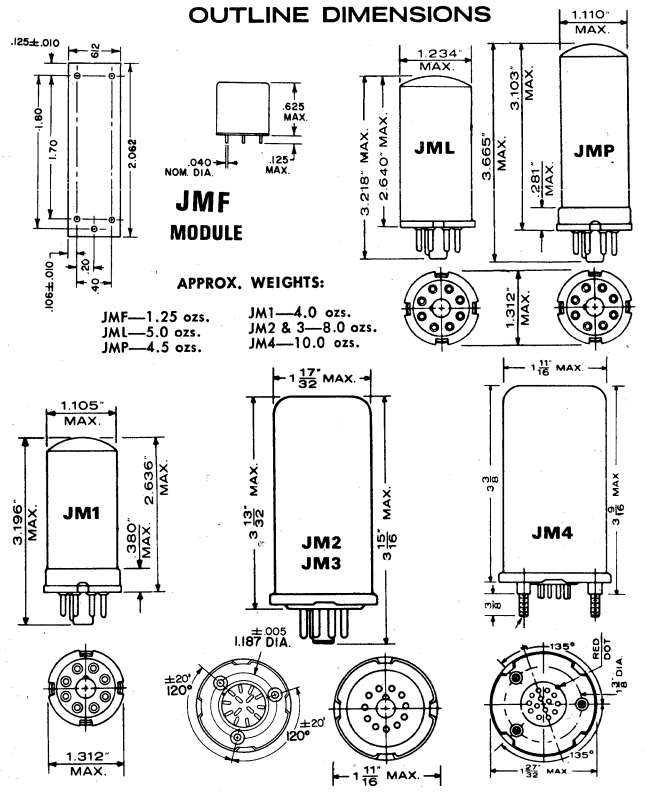


Fig. 61
FOR JMF MODULE

OUTLINE DIMENSIONS



APPROX. WEIGHTS:

JMF—1.25 ozs.
JML—5.0 ozs.
JMP—4.5 ozs.
JM1—4.0 ozs.
JM2 & 3—8.0 ozs.
JM4—10.0 ozs.

	SERIES			COIL CHARACTERISTICS				SUGG. RESALE PRICE
	Capsule	Coil	Terminal Figure No.	Resistance in Ohms ±10%	Soak* ma. DC	Must Operate ma. DC	Must Release ma. DC	
JMF PRINTED CIRCUIT MODULE. SENSITIVE FORM C NON-BRIDG.	**SINGLE-SIDE-STABLE**							
	JMF	1020	61	65	—	38.1	6.3	$9.40
	JMF	1070	61	450	—	12.9	2.1	9.40
	JMF	1080	61	675	—	11.6	1.9	9.40
	JMF	1120	61	1425	—	8.4	1.4	9.40
	JMF	1150	61	2400	—	7.8	1.3	9.40
	JMF	1160	61	4000	—	4.0	0.67	9.90
	BI-STABLE							
	JMF	5080	61	675	—	+5.4	−5.4	9.40
JML SENSITIVE FORM C NON-BRIDG.	**SINGLE-SIDE-STABLE**							
	JML	1061	81	40	36.0	9.75	1.68	12.20
	JML	1110	81	350	13.1	3.56	0.61	12.20
	JML	1160	81	1000	8.1	2.21	0.38	12.20
	JML	1190	81	2500	4.0	1.43	0.17	13.00
	JML	1200	81	4000	3.4	1.25	0.25	13.00
	JML	1240	81	11000	2.6	0.72	0.12	13.00
	JML	1260	81	25000	1.9	0.52	0.09	13.00
	JML	1440	82	(1) 4000 (2) 800	2.7	0.86 11.60	0.10	14.30
	BI-STABLE							
	JML	5160	81	1000		+1.24	−1.24	12.70
	JML	5200	81	4000		+0.53	−0.53	13.00
	JML	5430	82	(1) 1100 (2) 1100		+1.76	−1.76	14.30
	CHOPPER				Voltage RMS 60 Hz			
	JML	8130	81	600	6.3V			12.70
JMP POLARIZED FORM D BRIDGING	**SINGLE-SIDE-STABLE**							
	JMP	1081	11	90	46.25	16.0	1.3	15.95
	JMP	1160	11	1000	16.2	5.60	0.40	15.95
	JMP	1200	11	4000	8.55	2.96	0.24	17.10
	JMP	1260	11	25000	3.77	1.32	0.15	17.10
	JMP	1340	52	(1) 700 (2) 3300	33.80	14.20 5.70	2.80	18.10
	JMP	1470	53	(1) 1020 (2) 970	25.2	14.0 16.0	6.0	19.90
	BI-STABLE							
	JMP	5200	11	4000		+1.5	−1.5	17.10
	JMP	5340	52	(1) 700 (2) 3300		+6.0 +2.4	−6.0 −2.4	18.65
	CHOPPER				Voltage RMS 60 Hz			
	JMP	8120	12	500	6.3V			16.50
	JMP	8200	12	4000	18.5V			17.65
	JMP	8240	11	11000	117.0V with 1200 ohm (±5%) ½ watt resistor in series with coil			17.65

*Current to be applied to the coil winding for at least 2 seconds just prior to current flow tests.

	SERIES			COIL CHARACTERISTICS				SUGG. RESALE PRICE
	Capsule	Coil	Terminal Figure No.	Resistance in Ohms ±10%	MUST OPERATE Current ma DC	MUST OPERATE Voltage DC @ 25 C	MAX. VOLTAGE (at 35 C.)	
JM1 FORM D BRIDGING 1 CAPSULE SPDT	**SPDT Single Coil**							
	JM1	106	12	40	67.7	2.98	9.0	14.75
	JM1	109	12	130	38.8	5.55	16.1	14.75
	JM1	112	11	500	20.1	11.10	31.6	14.75
	JM1	114	11	700	20.0	15.40	37.4	14.75
	JM1	114	12	700	20.0	15.40	37.4	14.75
	JM1	118	11	2500	10.1	27.80	70.7	15.00
	JM1	119	11	4000	8.1	35.60	89.5	8.55
	JM1	119	12	4000	8.1	35.60	89.5	15.55
	JM1	120	11	7000	6.0	46.20	117.0	15.55
	JM1	121	11	11000	5.0	60.50	148.0	15.55
	JM1	123	11	25000	3.6	99.00	224.0	15.55
	SPDT Dual Coil							
	JM1	405	51	(1) 700 (2) 3300	(1) 32.0 (2) 12.3		(1) 37.4 (2) 81.0	17.00
JM2 FORM D BRIDGING 2 CAPSULES DPDT	**DPDT Single Coil**							
	JM2	104	22	50	110.0	6.04	12.25	23.95
	JM2	106	21	140	66.5	10.00	20.5	23.95
	JM2	109	22	315	44.0	15.30	30.7	23.95
	JM2	110	22	500	34.8	19.20	38.7	23.95
	JM2	111	22	700	30.5	23.50	45.8	23.95
	JM2	112	22	1250	22.1	30.40	61.2	23.95
	JM2	112	23	1250	22.1	30.40	61.2	23.95
	JM2	115	21	5000	11.3	62.10	122.0	23.95
	JM2	115	22	5000	11.3	62.10	122.0	23.95
	JM2	115	23	5000	11.3	62.10	122.0	23.95
JM3 FORM D BRIDGING 3 CAPSULES 3PDT	**3PDT Single Coil**							
	JM3	109	31	315	44.0	15.30	30.7	31.00
	JM3	110	31	500	34.8	19.20	38.7	31.00
	JM3	111	31	700	30.5	23.50	45.8	31.00
	JM3	112	31	1250	22.1	30.40	61.2	31.00
	JM3	115	31	5000	11.3	62.10	122.0	31.00
	JM3	115	32	5000	11.3	62.10	122.0	31.00
JM4 FORM D BRIDGING 4 CAPSULES 4PDT	**4PDT Single Coil**							
	JM4	106	41	65	100.0	7.15	15.1	39.90
	JM4	110	41	390	42.0	18.00	37.0	39.90
	JM4	110	42	390	42.0	18.00	37.0	39.90
	JM4	112	41	700	35.4	27.20	49.5	39.90
	JM4	114	41	1400	23.0	35.40	70.0	39.90
	JM4	114	42	1400	23.0	35.40	70.0	39.90
	JM4	117	41	4000	15.6	68.50	118.0	39.90
	JM4	117	42	4000	15.6	68.50	118.0	39.90
	JM4	118	41	6500	10.5	75.00	151.0	39.90
	JM4	118	42	6500	10.5	75.00	151.0	39.90
	JM4	119	41	10000	8.6	94.30	187.0	39.90
	JM4	119	42	10000	8.6	94.30	187.0	39.90

*Octal style plugs, except Fig. 23, 32, 42 (Hook Solder), Fig. 41 (14-Pin miniature plug).

See ordering information on page 1.

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SOLID STATE

TIME DELAY RELAYS

AS LOW AS $17.50

NEW

CH SERIES

CH series solid state time delay relays are engineered for a wide range of industrial applications where not-too-critical performance suffices and where economy is a factor. Enclosed in a molded white nylon dust cover, CH time delays are knob-adjustable and equipped with plug-in octal-type terminals. A quality P&B DPDT relay is mounted internally.

CD SERIES GENERAL PURPOSE

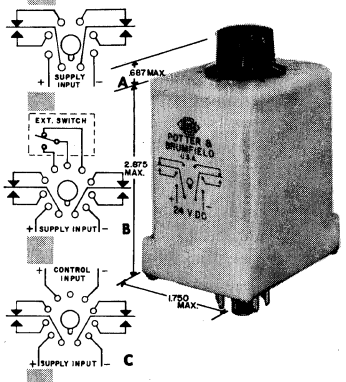
A wide selection of operational configurations, all with accurate time delay values, fast reset time and excellent repeatability, are available in the CD series solid state time delay relays. Three modes of timing are available: knob-adjustable, resistor-adjustable and fixed. CD types with delay "on operate" or delay "on release" are listed. Designed for the most sophisticated accuracy requirements.

DESCRIPTION

CH-38 and CD-38. Knob-adjustable delay "on operate" with internally mounted DPDT relay with contacts rated to 10 amps. Diagram A.

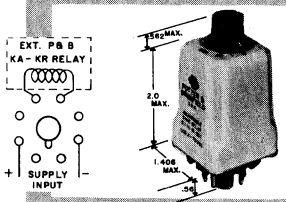
CHB-38-30001	**CDB-38-70003**
CHB-38-30003	**CDB-38-70004**
CHB-38-70001	**CDB-38-70005**
CHB-38-70003	**CDD-38-30003**
CHD-38-30001	**CDD-38-30004**
CHD-38-30003	**CDD-38-30005**

Delay "on release" CH requires auxiliary SPDT switch or relay contacts: CHB-38-70011, CHB-38-70013, CHD-38-30011, CHD-38-30013: Diagram B. CD "release" occurs when "Control" circuit is de-energized; supply circuit must be on continuously: CDB-38-70012, CDD-38-30012: Diagram C.



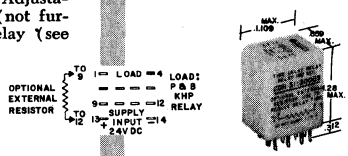
CD-21. Knob-adjustable. Use with P&B KRP relays (see page 7) as listed under Note 2.

CDB-21-70003
CDB-21-70001
CDD-21-30003
CDD-21-30001



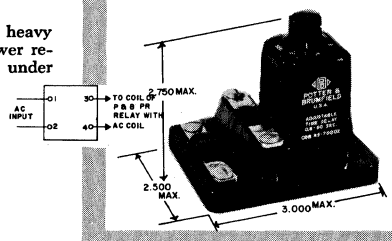
CD-31. Fixed time delay. Adjustable with external resistor (not furnished). Use with KHP relay (see page 6), Note 4.

CDH-31-30005



CD-45. Knob-adjustable. For heavy duty when used with PR power relay (see page 4) as listed under Note 6.

CDB-45-70002



SPECIFICATIONS

	CH SERIES	CD SERIES
Dial Setting	Reference scale	Time-calibrated ±5% of full scale
Temperature Range	−10°C to +55°C	−40°C to +55°C
Accuracy Over Temperature and Voltage Range	±10% of nominal	±5% of nominal
Transient Protection	Twice rated input voltage for 8 milliseconds	Tested to 1000V—½ cycle surges (on all 120V AC models)
Inherent False Operation	Contacts transfer momentarily if timing interval is interrupted	None
Reset Time	100 milliseconds	60 milliseconds
Repeatability	±2%	±1%
Polarity Reversal Protection on DC	Yes	Yes

APPROX. WEIGHTS: SERIES CD-31 2.00 ozs. SERIES CD-45 6.00 ozs. SERIES CD-21 4.25 ozs. SERIES CD-38 8.25 ozs. SERIES CH-38 4.00 ozs.

WIDE SELECTION OF TIME DELAY RANGES

TYPE	TIME DELAY IN SECONDS	INPUT VOLTAGE	NOTES	SUGG. RESALE PRICE
CHB38-30001	1.0—10	24V AC	1	$18.50
CHB38-30003	1.0—180	24V AC	1	18.50
CHB38-70001	1.0—10	120V AC	1	18.50
CHB38-70003	1.0—180	120V AC	1	18.50
CHD38-30001	1.0—10	24V DC	1	17.50
CHD38-30003	1.0—180	24V DC	1	17.50
CHB38-70011	1.0—10	120V AC	1 & 7	22.50
CHB38-70013	1.0—180	120V AC	1 & 7	22.50
CHD38-30011	1.0—10	24V DC	1 & 7	20.50
CHD38-30013	1.0—180	24V DC	1 & 7	20.50
CDB38-70003	0.1—10	120V AC	1	43.80
CDB38-70004	0.6—60	120V AC	1	43.80
CDB38-70005	1.8—180	120V AC	1	43.80
CDD38-30003	0.1—10	24V DC	1	41.55
CDD38-30004	0.6—60	24V DC	1	41.55
CDD38-30005	1.8—180	24V DC	1	41.55
CDB21-70003	0.1—10	120V AC	2	38.70
CDB21-70001	1.8—180	120V AC	2	38.70
CDD21-30003	0.1—10	24V DC	3	38.35
CDD21-30001	1.8—180	24V DC	3	38.35
CDH31-30005	180 Max.	24V DC	4 & 5	38.90
CDB45-70002	0.6—60	120V AC	6	37.05
CDB38-70012	0.6—60	120V AC	1 & 7	52.45
CDD38-30012	0.6—60	24V DC	1 & 7	49.50

NOTES

1. Has internal relay with DPDT contacts rated at 10 amperes, 120V AC. 2. Use with Potter & Brumfield relay KRP5AG- 120V AC, KRP11AG- 120V AC or KRP14AG- 120V AC. 3. Use with Potter & Brumfield KRP5DG -24V DC, KRP11DG-24 DC or KRP14DG-24V DC relay. 4. Use with Potter & Brumfield KHP17D11-24V DC relay. 5. Supplied with 180 seconds delay; adjustable to 1.8 seconds with external resistor. 6. Use with Potter & Brumfield PR11AY- 120V AC relay. 7. Provides delay on release; all others have delay on operate.

See ordering information on page 1.

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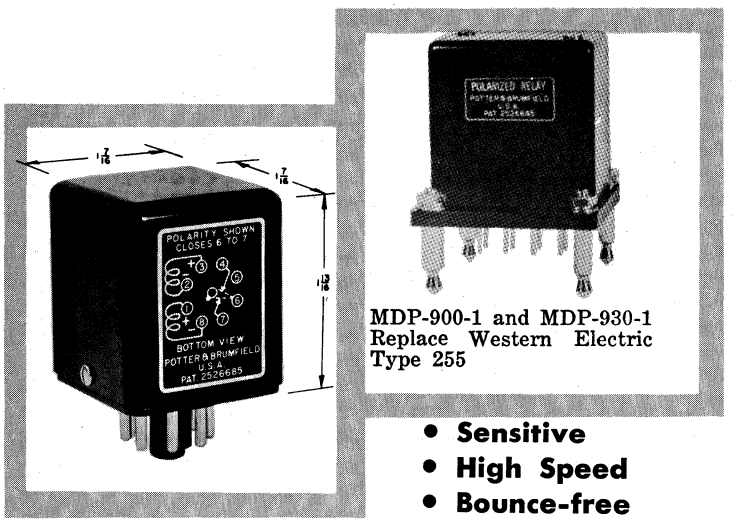
MDP SERIES SMALL POLARIZED RELAYS



MDP-900-1 and MDP-930-1 Replace Western Electric Type 255

- **Sensitive**
- **High Speed**
- **Bounce-free**

For Bi-Stable or Center-Stable Operation

Small size, ultra-sensitivity and high speed switching together with efficient, bounce-free contact action characterize P&B MDP polarized relays. Their operation depends on both the magnitude and direction of the coil current. Two types of contact arrangements provide the following action when the coils are de-energized: *Bi-stable* — armature remains in its last energized position; *Center-stable* — armature remains in center-off position with contacts open. Contact materials as listed. Temperatures: −60°C to +85°C. Measuring only 1 7/16" sq. by 1 13/16" high (seated), MDP relays are equipped with a plastic dust cover and 8 or 12-pin plugs. Weight: 4¼ ozs.

Types MDP-900-1 and MDP-930-1 (with extra long life contacts) will directly replace Western Electric Type 255 relays. 2-11/16" square x 3-3/4" overall height. Weight: 10 ozs.

9MDP51 Hold-down Bracket to adapt MDP relays to Barber-Colman socket. Box of 10 Net $2.75

TYPE	COILS			CONTACTS		SUGG. RESALE PRICE
	Pull-In Current In MA	Resistance In Ohms Each Coil*	Pull-In Power In Micro Watts	Arrangement	Rate In Amps Resistive	
Center-stable:						
MDP-306-5	1.5	250 (4)	562	1 Form K①	.005-.5A† 5-150V	33.40
Bi-stable:						
MDP-300-1	1.5	150 (2)	338	1 Form C②	.01-.1A† 25-150V	22.35
MDP-900-1	2.0	150 (2)	600	1 Form C②	.01-.1A† 25-150V	29.00
MDP-930-1	2.4	150 (2)	863	1 Form C③	.01-.5A† 25-150V	29.55
MDP-1300-1	1.4	150 (2)	294	1 Form C②	.01-.1A† 25-150V	22.35
MDP-1300-8	0.28	4000 (2)	314	1 Form C②	.01-.1A† 25-150V	22.35
Center-stable:						
MDP-1001	1.75	12 (1)	36.8	1 Form K①	3 @ 28 VDC	25.55
MDP-1004	0.49	130 (1)	31.2	1 Form K①	3 @ 28 VDC	25.55
MDP-1006	0.32	330 (1)	33.8	1 Form K①	3 @ 28 VDC	25.55
MDP-1007	0.27	480 (1)	35.0	1 Form K①	3 @ 28 VDC	25.55
MDP-1008	0.23	900 (1)	47.6	1 Form K①	3 @ 28 VDC	25.55
MDP-1009	0.18	1460 (1)	47.3	1 Form K①	3 @ 28 VDC	25.55
MDP-1011	0.10	3500 (1)	35.0	1 Form K①	3 @ 28 VDC	25.55
MDP-1013	0.067	7200 (1)	32.3	1 Form K①	3 @ 28 VDC	25.55
MDP-2001	3.50	6 (2)	73.5	1 Form K①	3 @ 28 VDC	25.55
MDP-2008	0.46	360 (2)	76.2	1 Form K①	3 @ 28 VDC	25.55
MDP-2009	0.32	1000 (2)	102.0	1 Form K①	3 @ 28 VDC	25.55
MDP-2011	0.17	2300 (2)	66.5	1 Form K①	3 @ 28 VDC	25.55
MDP-2101	5.30	6 (2)	169	1 Form K①	3 @ 28 VDC	25.55
MDP-2107	0.80	240 (2)	154	1 Form K①	3 @ 28 VDC	25.55
MDP-2112	0.22	3300 (2)	160	1 Form K①	3 @ 28 VDC	25.55

*Number of coils shown in ( ) parenthesis. †With suitable arc suppression

Contact materials shown in O circles:
① *Silver.*
② *Tungsten and Paliney.*
③ *Silver-tungsten-carbide.*

See ordering information on page 1.

Net

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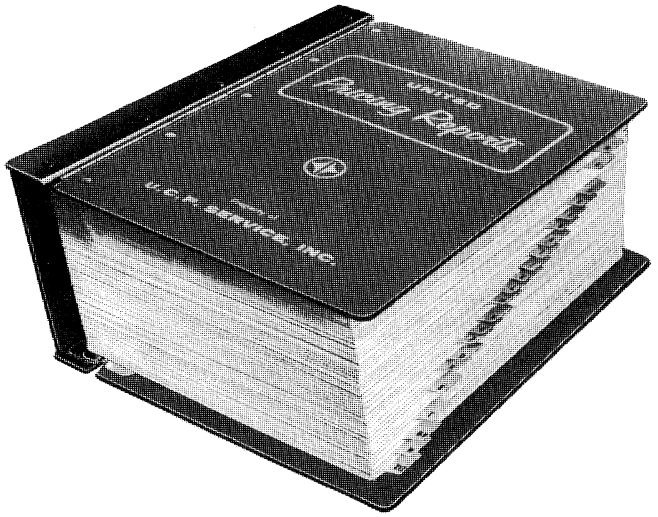

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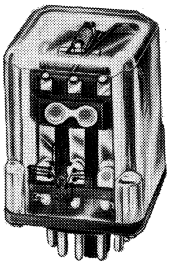
SCHRACK RELAYS

CAD SERIES

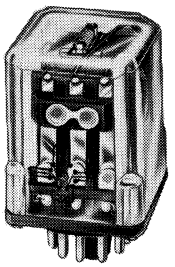


Contacts	10 Amp. Rating SPDT	DPDT	3PDT
Relay Type	CAD5A10	CAD11A10	CAD14A10
6 volts a.c. 12 volts a.c. 24 volts a.c. 115 volts a.c.	$4.95	$5.55	$6.75
230 volts a.c.	$5.50	$5.95	$7.15
Relay Type	CAD5D10	CAD11D10	CAD14D10
6 volts d.c. 12 volts d.c. 24 volts d.c.	$4.95	$5.55	$6.75
110 volts d.c.	$5.50	$5.95	$7.15

5 AMP ALSO AVAILABLE

Same basic design as CA series; however, with clear plastic dust cover and octal-type plug-in base. Case is secured firmly to base by 4 "upset" plastic studs. Contact carrier plate is self-centering. Contact carrier is made of "KERIPOLE," a polyester material with glass fibre filling.

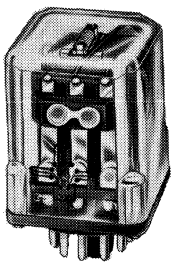
CSD SERIES



A plate circuit relay, similar to the CAD Type; however with increased sensitivity (125 MW per movable arm).

Contacts	SPDT	2 Amp. Rating DPDT	3PDT
Relay Type	CSD5	CSD11	CSD14
2500 ohms	$5.20	$5.60	$6.80
5000 ohms	$5.30	$5.70	$6.90
10,000 ohms	$5.70	$6.10	$7.30

SENSITIVE RELAY — CMD SERIES



In this series there are eleven types in three classifications.

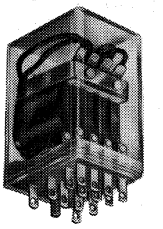
No.	Coil	List Price
CMD-5D	600Ω	$4.95
CMD-5D	2400Ω	4.95
CMD-5D	9600Ω	5.20
CMD-11D	450Ω	6.10
CMD-11D	1890Ω	6.10
CMD-11D	7300Ω	6.10
CMD-5A	540Ω	5.00
CMD-5A	234Ω	4.75
CMD-5A	1000Ω	4.75
CMD-5A	3850Ω	4.75
CMD-5A	6900Ω	5.30

1. D.C. Relays with one form C contact Type CMD 5D—Pull-in sensitivity 40 mw; Coil Windings — 600 ohm, 2400 ohm, 9600 ohm
2. D.C. Relays with two form C contacts Type CMD 11D — Pull-in sensitivity 60 mw; Coil Windings — 450 ohm, 1890 ohm, 7300 ohm
3. A.C. Relays with one form C contact Type CMD 5A — Pull-in sensitivity 80 MVA; Coil Windings — 540 ohm, 234 ohm, 1000 ohm, 3850 ohm, and 6900 ohm

Contact ratings are 2 amps at 115 VAC.
Contact points are gold-flashed silver.

NEW MINIATURE UNIVERSAL TYPE RA

A precision piece of equipment at a commercial price —



1.515″ high, 0.847″ wide with dust cover

designed for use in computers, data processing equipment, communications equipment, process control applications, and other equally important systems.

Type RA is a four pole universal type relay for 4 PDT or double-make, double-break (DPDT-DB) action. 3/32″ contacts rated at 3A — normally supplied in gold-flashed silver. Also available in silver cadmium oxide, gold nickel, silver palladium, etc.

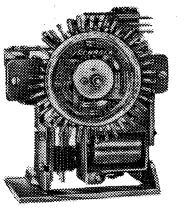
STANDARD COIL DATA

DC Voltage	Resistance in Ohms ±10% at 25°C	AC Voltage	Average AC current in MA (relay closed)
6	40	6	200
12	160	12	100
24	650	24	52
48	2.600	48	25
90	9.000	115	10.5
110	11.000		

Sockets Available

From this relay you can expect 100,000,000 OPERATIONS

ROTARY STEPPING SWITCH TYPE RT



The SCHRACK Rotary Stepping Switch is a combination of three reliable components:

1. Standard Relay with 1 Form C heavy-duty contact.
2. Ratchet driven Rotary Switch consisting of four banks of twelve or ten points each with sliding bifurcated wipers.
3. Ratchet driven Stepping Relay with two cams which actuate one Form C contact each.

Schrack Rotary Stepping Switches have a highly efficient magnetic circuit and a driving mechanism designed for maximum operating safety. All components are mounted on a rigid die-cast light metal frame and contacts are permanently molded in a sturdy melamine plastic.

ROTARY SWITCH terminals are arranged in a circular pattern with four groups of twelve points each. A conversion can make it operate with 3 groups of 16 each. An alternate version with 4 x 10 points is available for applications requiring decimal counting. Each group occupies a quadrant of the circle and contains a common bus which is connected to the twelve or ten insulated points in sequence by means of a sliding wiper as the switch is operated.

The sliding contacts are bifurcated spring phosphor bronze wipers. The wiper contact assemblies are insulated electrically from each other and the wipers are of the non-bridging type.

The contacts of the rotary switch bank are capable of carrying .5 amps on a steady state basis and of interrupting .1 amps at 110 volts DC with a resistive load or .2 amps at 115 volts AC. Coil Voltages 12, 24, 48 or 110 DC.

TYPE RT 304 — 4 x 12 Contact Points $19.00 ea.
TYPE RT 404 — 4 x 10 Contact Points $19.00 ea.

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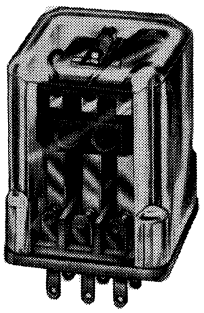
SCHRACK RELAYS



Sockets Available

SINGLE COIL-TYPE CRD MAGNETIC LATCHING RELAY —

This is a bi-stable power relay held in operated position by a strong residual magnetism of the coil core after the coil is de-energized. The coil core is of a special alloy having sufficient remnant magnetic force to hold the armature locked-in for an indefinite period of time after being energized momentarily.

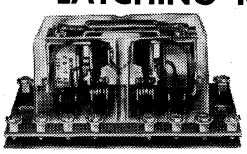
This Schrack relay has only **one** coil winding. In operation this coil is energized by half-wave rectified AC obtained by means of a diode such as Type IN3255 connected in series with the relay coil and mounted in the circuit outside the relay case. For de-magnetizing, to return the armature to its normal position, the same relay coil is energized by full-wave A.C., however, with reduced amplitude obtained by a series-connected resistor. The effect is to destroy the remnant magnetism in the coil core and ready the relay for another pull-in operation.

Although AC operation is recommended, it is possible to operate the Schrack Magnetic Latching Relay with a D.C. pulse using reduced levels and by reversing polarity as shown in technical data sheets.

In design, this magnetic latching relay is identical with the Schrack Type CAD plug-in relay. Contacts are rated at 5 or 10 amps depending on materials used. DPDT (2 form C) or 3 DPDT (3 form C) versions are available.

As can be readily seen, this relay has distinct advantages over the mechanical type since there are no parts subject to wear and friction. Long, trouble-free service and freedom from maintenance may be expected. Since Type CRD is plug-in, chassis may be pre-wired, and its compact design requires less than half the space of the conventional mechanical design. An indefinite "memory" storage and safe programming of complex circuits open up a wide range of potential uses for this most advanced relay design which is being offered at an unusually low commercial price.

LATCHING RELAY — TYPE CBT



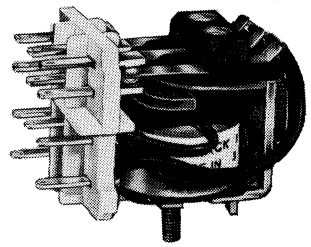
A dual coil mechanical latching relay. Each relay operates on a momentary impulse on either coil and is held in the set position until released by an impulse on the other coil. Both coils must be for the same voltage and are continuously rated.

Contact rating: 10 amps. (Based on 600 operations per hour at 115 volts AC 60 cy. resistive load).

May be operated continuously at 1000 cycles per hour.

The CBT relays have a transparent dust cover and a sturdy base plate of insulating material. Screw-type terminals are provided for all contact and coil connections. Available in voltages from 6-230 AC and 6-110 DC.

OPEN RELAY TYPE CA

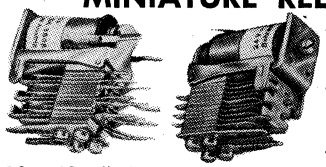


Recognized under the components program of Underwriters Laboratories, Inc.

5 AMP RATING				10 AMP RATING			
	CA5A5	CA11A5	CA14A5		CA5A10	CA11A10	CA14A10
6 volts a.c. 12 volts a.c. 24 volts a.c. 115 volts a.c. 230 volts a.c.	$2.60 2.95	$3.00 3.40	$3.85 4.20	6 volts a.c. 12 volts a.c. 24 volts a.c. 115 volts a.c. 230 volts a.c.	$2.65 3.00	$3.05 3.45	$3.90 4.30
	CA5D5	CA11D5	CA14D5		CA5D10	CA11D10	CA14D10
6 volts d.c. 12 volts d.c. 24 volts d.c. 60 volts d.c. 110 volts d.c.	$2.60 2.95	$3.00 3.40	$3.80 4.15	6 volts d.c. 12 volts d.c. 24 volts d.c. 60 volts d.c. 110 volts d.c.	$2.65 3.00	$3.05 3.45	$3.85 4.25

A robust and dependable open-type relay, equipped with lugs suitable for soldering and for mounting of AMP-FASTON Connectors, Series 110. Contact rating: 5 amps or 10 amps; according to contact material. Standard coils available: 6, 12, 24, 115, 230 volts a.c.; 6, 12, 24, 110 volts d.c. **Standard versions include 1, 2, or 3 Form C contacts. Optional: solder lugs for printed circuit boards.**

MINIATURE RELAY TYPE RK

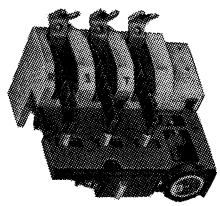


A small comb-actuated relay (laminated phenolic blade lifter plate) with remarkably high performance figures in spite of its small dimensions. A well-designed magnetic circuit and ample winding space result in high contact pressure up to 18 grams using low operating power.
The RK Type Relay is available with DC or AC coils (50 to 60 c.p.s.). The standard contact material is fine silver (gold-flashed), with a rating of 3 amps. Special contact materials on request. Coils are vacuum impregnated with high quality electrical varnish.
The SCHRACK Miniature Relay, Type RK, is also available with a clear transparent plastic dust cover, protecting the contact pile-up against contamination and mechanical damage.
Pierced solder lug terminals are standard. Special lugs for printed circuits are available on special order. Maximum contact pile-up 6 C's.

DATA FOR SOME TYPICAL RELAYS • RK TYPE

	Contact Pile-Up	Voltage Range	Coil Resistance	List Price
RK 5 22007	2 Form C	4.2-12.5 V.D.C.	80-Ω	3.35
RK 5 22008	2 Form C	5.5-17 V.D.C.	142-Ω	3.35
RK 5 22009	2 Form C	7.5-23 V.D.C.	265-Ω	3.45
RK 5 22010	2 Form C	10.5-32 V.D.C.	500-Ω	3.45
RK 5 24010	4 Form C	14-32 V.D.C.	500-Ω	4.20
RK 5 24011	4 Form C	17-38 V.D.C.	750-Ω	4.20
RK 5 24012	4 Form C	22-49 V.D.C.	1200-Ω	4.35
RK 5 26010	6 Form C	19-32 V.D.C.	500-Ω	4.95
RK 5 26011	6 Form C	23-38 V.D.C.	750-Ω	4.95

LOW COST PROTECTION AGAINST SINGLE PHASING IN A THREE WAY SYSTEM



Operates by the use of bi-metallic strips and dissimilar coefficients of expansion under temperature changes.
When temperature increases due to overload, a microswitch is activated in any leg of a three phase circuit.
Microswitch is normally placed in series with the solenoid of any switching device in the 3 phase line. Reset button may be manually or automatically operated.

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SCHRACK ELECTRICAL SALES CORPORATION

AEROVOX

RESISTORS

±1% PRECISION ®CARBOFILM AND ®AEROMET RESISTORS

CARBOFILM PRECISION RESISTORS

Precision deposited carbon resistors designed for circuits calling for the accuracy and stability of wire-wound resistors with the marked economy of carbon resistors. The exclusive Aeroglaze conformal coating offers mechanical protection superior to any other coating eliminating the need for special tubes, sleeves and jackets. Aeroglaze coating will meet all moisture requirements of MIL-R-10509B. Carbofilm resistors offer outstanding stability, low voltage coefficient, low capacitance and inductance in high frequency applications.

CARBOFILM CHARACTERISTICS

TESTING: All Tests conducted in accordance with MIL-R-10509B requirements.

TEMPERATURE COEFFICIENT: Approximately 200 ppm per degree C in the lower resistance ranges and not exceeding 500 ppm per degree C in the highest values specified by MIL-R-10509B.

MOISTURE RESISTANCE: Will meet or surpass the requirements of MIL-R-10509B.

LOAD LIFE: When tested for more than 1,000 hours at full load operation in 40°C ambient temperature, maximum changes are less than 1% with an average change of less than 0.5%.

TEMPERATURE CYCLING: After 5 complete temperature cycles there is an average change of 0.21% with a maximum change of less than 0.5%.

SHORT TIME OVERLOAD: When subjected to 2.5 times the rated working voltage, but not exceeding 2 times the maximum rated voltage for 5 seconds, changes are less than 0.25% with an average change of 0.13%.

LOW TEMPERATURE OPERATION: Maximum changes are less than 1%.

ACCURACY: Guaranteed tolerance of plus/minus 1% at 25°C. (77°F.)

AGING: Due to manufacturing process and control, changes attributed to aging are negligible. The average change in resistance for self-aging is approximately 0.2% per year.

VOLTAGE COEFFICIENT: Does not exceed .002% per volt.

METAL FILM RESISTORS

A superior epoxy coated metal film resistor manufactured under the most exacting quality control standards and specifications assuring excellent performance under the most adverse operating conditions. Units are conformally coated with 100% solid epoxy for added stability under most adverse conditions. Rated for full load operation at 125°C and linearly derated to zero load at 175°C these units meet or exceed all requirements of MIL-R-10509F.

AEROMET CHARACTERISTICS

TESTING: All tests conducted in accordance with MIL-R-10509F requirements.

TEMPERATURE COEFFICIENT: Unites marked characteristic C are +–50PPM, those marked E are +–25PPM.

MOISTURE RESISTANCE: Average change of +–.05% far exceeds +–.5% allowed in MIL-R-10509F.

LOAD LIFE: When tested for more than 1000 hours at full load operation in 125°C ambient temperature, maximum changes are less than +–.5% with average change of less than +–2%.

TEMPERATURE CYCLING: After 5 complete temperature cycles (–65°C to +150°C) there is an average change > .01% with a maximum change of +–.25%.

SHORT TIME OVERLOAD: A D.C. test voltage 2½ times rated continuous voltage but not exceeding 2 times maximum voltage is applied for 5 seconds, changes are less than +–.25% with an average change of less than .02%.

LOW TEMPERATURE OPERATION: Maximum changes less than +–.25% with average change less than .01%.

ACCURACY: Guaranteed within tolerance marked on unit at 25°C.

AGING: Average change in resistance for self-aging, approximately .1% per year.

VOLTAGE COEFFICIENT: Does not exceed .002% per volt.

For full technical information request Bulletin NPJ-115-16 Rev. 2

CARBOFILM

TYPE	SIZES	STD. MIN. OHMS	STD. MAX. MEGOHMS	Availability: Comm. Value	Availability: MIL-BELL Value	MIL-R-10509B Max DC Voltage	Equiv. to MIL-R-10509B: Type	Equiv. to MIL-R-10509B: Char.	Equiv. to MIL-R-10509B: Tol.	MARKING
CPSX½	.203 x 1⅜₂	10	2.2	✓	✓	350	RN20	X	1%	RN20 Number
CPX½	.260 x 2⅜₂	2,210,000	5.0	✓		350	----	--	---	Type, Value, Tolerance
CPLX½	.260 x 1	5,100,000	7.5	✓		500	----	--	---	Type, Value, Tolerance
*CPX 1	.328 x 1⅜₆	10	15	✓	✓	500	RN25	X	1%	Type, Value, Tolerance and RN25 Number
**CPX 2	.328 x 2⅛₆	50	100†	✓		750	RN30	X	1%	Type, Value, Tolerance and RN30 Number

† Only stock value above 50 megohms is 100 megohms furnished in ±2% tolerance.
* Values from 10.1 meg to 15 meg will be furnished at ±2% only.
** Values from 30.1 meg to 100 meg will be furnished at ±2% only.

AEROMET

Aeromet Stocked In MIL BELL Values Only

TYPE	SIZE: DIA. (MAX)	SIZE: BODY LENGTH	STD. MIN. OHMS	STD. MAX. OHMS	MIL-R-10509F MAX. D.C. VOLTS	EQUIV. TO MIL-R-10509F: TYPE	EQUIV. TO MIL-R-10509F: CHAR.	EQUIV. TO MIL-R-10509F: TOL.	MARKING
CPFX1/10	.100	.281	49.9	100,000	250	RN55	C,E	F	RN55 No.
CPFX1/8	.115	.320	49.9	499,000	250	RN60	C,E	F	RN60 No.
CPFX¼	.203	.620	49.9	1,000,000	300	RN65	C,E	F	RN65 No.
CPFX½	.260	.750	24.9	1,000,000	350	RN70	C,E	F	RN70 No.

Net

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AEROVOX

RESISTORS

±1% PRECISION ®CARBOFILM AND ®AEROMET RESISTORS

COMMERCIAL STOCK VALUES ±1% TOLERANCE

OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	MEG-OHMS	MEG-OHMS	MEG-OHMS
10.0	36	82	300	820	2950	7000	20,000	62,000	220,000	650,000	2.0	6.2	27.0
11.0	39	85	330	850	3000	7450	22,000	65,000	225,000	680,000	2.2	6.5	30.0
12.0	40	89.5	350	900	3300	7500	22,500	68,000	240,000	700,000	2.225	6.8	33.0
12.5	43	90	360	910	3500	8000	24,000	70,000	250,000	750,000	2.4	7.0	36.0
13.0	44.5	91	390	1000	3600	8200	25,000	75,000	270,000	800,000	2.5	7.5	39.0
14.5	45	99.5	400	1100	3900	8500	27,000	80,000	300,000	820,000	2.7	8.0	43.0
15.0	47	100	430	1200	4000	8950	30,000	82,000	330,000	850,000	3.0	8.2	47.0
16.0	50	110	450	1250	4300	9000	33,000	85,000	350,000	900,000	3.3	8.5	50.0
17.5	51	120	470	1300	4450	9100	35,000	90,000	360,000	910,000	3.5	9.0	100.0†
18.0	55	130	500	1450	4500	9950	36,000	91,000	390,000		3.6	9.1	
20.0	56	150	510	1500	4700	10,000	39,000	100,000	400,000	MEGOHMS	3.9	10.0	
22.0	59.5	160	550	1600	5000	11,000	40,000	110,000	430,000		4.0	12.0	
22.5	60	175	560	1750	5100	12,000	43,000	120,000	450,000	1.0	4.3	12.5	
24.0	62	180	600	1800	5500	12,500	45,000	125,000	470,000	1.1	4.5	13.0	
25.0	65	200	620	2000	5600	13,000	47,000	130,000	500,000	1.2	4.7	15.0	
27.0	68	220	650	2200	5950	13,500	50,000	150,000	510,000	1.25	5.0	16.0	
29.5	70	225	680	2250	6000	15,000	51,000	160,000	550,000	1.3	5.1	18.0	
30.0	74.5	240	700	2400	6200	16,000	55,000	175,000	560,000	1.5	5.5	20.0	
33.0	75	250	750	2500	6500	17,500	56,000	180,000	600,000	1.6	5.6	22.0	
35	80	270	800	2700	6800	18,000	60,000	200,000	620,000	1.8	6.0	25.0	

†Only stock value above 50 megohms is 100 megohms furnished in ±2% tolerance.

††Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-249, 250-499, 500-999

AEROGLAZE® CARBOFILM ± 1% RESISTORS MIL-BELL VALUES**

	Net Price††
CPSX½ (RN20X)	
10 ohms to 49.9 ohms	.64
50 ohms to 2.2 meg	.54
CPX½	
2.21 meg to 5.0 meg	.83
CPLX½	
5.1 meg to 7.5 meg	.90
CPX-1 (RN25X)	
10 ohms to 99.9 ohms	.94
100 ohms to 5.0 meg	.81
5.01 meg to 10.0 meg	.89
10.1 meg to 15.0 meg*	1.03
CPX-2 (RN30X)	
50 ohms to 199 ohms	1.20
200 ohms to 10.0 meg	.97
10.1 meg to 30.0 meg	1.13
30.1 meg to 50.0 meg*	1.25
100 meg*	1.62

*All new production will be furnished at ± 2% only for values in these ranges.

**Prices listed are for MIL-BELL values only. For commercial standard values listed in catalog IDC 565 add 10% to the above prices in the appropriate columns. For prices on any values other than MIL-BELL or catalog commercial standard values contact your authorized Aerovox Industrial Distributor.

MIL-BELL STOCK VALUES ±1% TOLERANCE

OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	MEG-OHMS	MEG-OHMS	MEG-OHMS
10.0	23.2	53.6	124	287	665	1540	3570	8250	19100	44200	102000	237000	549000	1.13	2.61	6.04
10.2	23.7	54.9	127	294	681	1580	3650	8450	19600	45300	105000	243000	562000	1.15	2.67	6.19
10.5	24.3	56.2	130	301	698	1620	3740	8660	20000	46400	107000	249000	576000	1.18	2.74	6.34
10.7	24.9	57.6	133	309	715	1650	3830	8870	20500	47500	110000	255000	590000	1.21	2.80	6.49
11.0	25.5	59.0	137	316	732	1690	3920	9090	21000	48700	113000	261000	604000	1.24	2.87	6.65
11.3	26.1	60.4	140	324	750	1740	4020	9310	21500	49900	115000	267000	619000	1.27	2.94	6.81
11.5	26.7	61.9	143	332	768	1780	4120	9530	22100	51100	118000	274000	634000	1.30	3.01	6.98
11.8	27.4	63.4	147	340	787	1820	4220	9760	22600	52300	121000	280000	649000	1.33	3.09	7.15
12.1	28.0	64.9	150	348	806	1870	4320	10000	23200	53600	124000	287000	665000	1.37	3.16	7.32
12.4	28.7	66.5	154	357	825	1910	4420	10200	23700	54900	127000	294000	681000	1.40	3.24	7.50
12.7	29.4	68.1	158	365	845	1960	4530	10500	24300	56200	130000	301000	698000	1.43	3.32	7.68
13.0	30.1	69.8	162	374	866	2000	4640	10700	24900	57600	133000	309000	715000	1.47	3.40	7.87
13.3	30.9	71.5	165	383	887	2050	4750	11000	25500	59000	137000	316000	732000	1.50	3.48	8.06
13.7	31.6	73.2	169	392	909	2100	4870	11300	26100	60400	140000	324000	750000	1.54	3.57	8.25
14.0	32.4	75.0	174	402	931	2150	4990	11500	26700	61900	143000	332000	768000	1.58	3.65	8.45
14.3	33.2	76.8	178	412	953	2210	5110	11800	27400	63400	147000	340000	787000	1.62	3.74	8.66
14.7	34.0	78.7	182	422	976	2260	5230	12100	28000	64900	150000	348000	806000	1.65	3.83	8.87
15.0	34.8	80.6	187	432	1000	2320	5360	12400	28700	66500	154000	357000	825000	1.69	3.92	9.09
15.4	35.7	82.5	191	442	1020	2370	5490	12700	29400	68100	158000	365000	845000	1.74	4.02	9.31
15.8	36.5	84.5	196	453	1050	2430	5620	13000	30100	69800	162000	374000	866000	1.78	4.12	9.53
16.2	37.4	86.6	200	464	1070	2490	5760	13300	30900	71500	165000	383000	887000	1.82	4.22	9.76
16.5	38.3	88.7	205	475	1100	2550	5900	13700	31600	73200	169000	392000	909000	1.87	4.32	10.0
16.9	39.2	90.9	210	487	1130	2610	6040	14000	32400	75000	174000	402000	931000	1.91	4.42	
17.4	40.2	93.1	215	499	1150	2670	6190	14300	33200	76800	178000	412000	953000	1.96	4.53	
17.8	41.2	95.3	221	511	1180	2740	6340	14700	34000	78700	182000	422000	976000	2.00	4.64	
18.2	42.2	97.6	226	523	1210	2800	6490	15000	34800	80600	187000	432000		2.05	4.75	
18.7	43.2	100	232	536	1240	2870	6650	15400	35700	82500	191000	442000		2.10	4.87	
19.1	44.2	102	237	549	1270	2940	6810	15800	36500	84500	196000	453000	MEGOHMS	2.15	4.99	
19.6	45.3	105	243	562	1300	3010	6980	16200	37400	86600	200000	464000		2.21	5.11	
20.0	46.4	107	249	576	1330	3090	7150	16500	38300	88700	205000	475000		2.26	5.23	
20.5	47.5	110	255	590	1370	3160	7320	16900	39200	90900	210000	487000	1.00	2.32	5.36	
21.0	48.7	113	261	604	1400	3240	7500	17400	40200	93100	215000	499000	1.02	2.37	5.49	
21.5	49.9	115	267	619	1430	3320	7680	17800	41200	95300	221000	511000	1.05	2.43	5.62	
22.1	51.1	118	274	634	1470	3400	7870	18200	42200	97600	226000	523000	1.07	2.49	5.76	
22.6	52.3	121	280	649	1500	3480	8060	18700	43200	100000	232000	536000	1.10	2.55	5.90	

AEROMET ±1% RESISTORS MIL-BELL VALUES ONLY

	Net Price*
CPFX 1/10 (RN55C)	
49.9 ohms to 100,000 ohms	1.30
CPFX 1/10 (RN55E)	
49.9 ohms to 100,000 ohms	2.60
CPFX 1/8 (RN60C)	
49.9 ohms to 499,000 ohms	1.00
CPFX 1/8 (RN60E)	
49.9 ohms to 499,000 ohms	2.00
CPFX 1/4 (RN65C)	
49.9 ohms to 1 Meg.	1.00
CPFX 1/4 (RN65E)	
49.9 ohms to 1 Meg.	2.00
CPFX 1/2 (RN70C)	
24.9 ohms to 1 Meg.	1.00
CPFX 1/2 (RN70E)	
24.9 ohms to 1 Meg.	2.00

*Request OEM Price in quantities of 25-49, 50-99, 100-249, 250-499, 500-999 and 1,000-4,999.

PRODUCTS OF
THE HOUSE OF RESISTORS®

CLAROSTAT®

RESISTORS • CONTROLS
RESISTANCE DEVICES

"GREENOHM V"™ VITREOUS-ENAMEL RESISTORS

Based on years of research and engineering development, these vitreous-enamel wire-wound power resistors offer superlative performance and life as proved by countless tests. "Greenohm V" resistors provide all the outstanding quality which made Clarostat "Greenohm" cement-coated units famous, *plus* a glass-smooth vitreous-enamel coating in a handsome bluish-green for maximum eye appeal. Made to MIL-R-26C specifications.

- Fixed and adjustable
- 5-watt to 200 watt sizes
- ± 5% tolerance, 1 ohm and over. ± 10% tolerance, 0.9 ohms and under. ± 10% for adjustable.

"GREENOHM V"™ FIXED RESISTORS (VITREOUS ENAMEL)

5-WATT SERIES VPR-5-F

Core: 1" x 5/16"
Terminals, wire lead and lug

Resistance Ohms

1	30	350	1250	7000
1.5	35	400	1500	7500
2	40	450	1750	8000
3	50	500	2000	9000
4	75	600	2250	10K
5	100	700	2500	12.5K
7.5	125	750	3000	15K
10	150	800	3500	17.5K
12	200	900	4000	20K
15	225	1000	4500	22.5K
20	250	1100	5000	25K
25	300	1200	6000	

NET PRICES:

1 to 1K	$0.51
1100 to 5K	.54
6K to 10K	.57
12.5K to 15K	.60
17.5K to 20K	.63
22.5K to 25K	.66

10-WATT SERIES VPR-10-F

Core: 1¾" x 5/16"
Terminals, wire lead and lug

Resistance Ohms

0.4	30	500	3000	13.5K
1	35	600	3500	14.3K
1.2	40	700	4000	15K
1.3	50	750	4500	16K
1.5	75	800	5000	17.5K
2	100	900	6000	18K
3	125	1000	7000	20K
4	150	1100	7500	22.5K
5	200	1200	8000	25K
7.5	225	1250	8500	30K
10	250	1500	9000	35K
12	300	1750	10K	40K
15	350	2000	11K	45K
20	400	2250	12K	50K
25	450	2500	12.5K	

NET PRICES:

0.4 to 1K	$0.57
1100 to 5K	.60
6K to 10K	.69
11K to 20K	.78
22.5K to 25K	.81
30K to 50K	.90

100-WATT SERIES VK-100-N

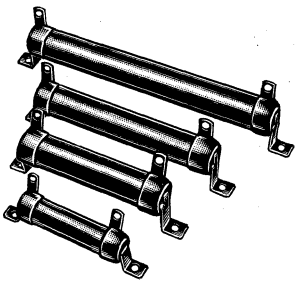
Core: 6½" x ¾"
Lug terminals — Mtg. bracket furnished

Resistance Ohms

1	50	750	7500	50K
2	75	1000	10K	60K
3	100	1500	15K	75K
4	125	2000	20K	100K
5	150	2500	25K	
10	250	3000	30K	
25	500	5000	40K	

NET PRICES:

1 to 3	$2.22
4 to 1K	1.59
1500 to 5K	1.68
7500 to 10K	1.80
15K to 20K	1.98
25K to 40K	2.13
50K to 60K	2.22
75K	2.43
100K	2.73



20-WATT SERIES VPR-20-H

Core: 2" x 7/16"
Terminals, wire lead and lug

Resistance Ohms

0.4	350	1850	7500	55K
0.6	400	2000	8000	60K
0.8	500	2250	9000	65K
5	650	2400	10K	70K
10	700	2500	12.5K	75K
25	750	2750	15K	80K
50	800	3000	20K	85K
75	850	3500	25K	90K
100	1000	4000	30K	95K
150	1200	4500	35K	100K
200	1250	5000	40K	
250	1500	6000	45K	
300	1750	7000	50K	

NET PRICES:

0.4 to 1K	$0.66
1200 to 5K	.69
6K to 10K	.81
12.5K to 20K	.84
25K to 40K	.99
45K to 60K	1.14
65K to 80K	1.35
85K to 100K	1.56

160-WATT SERIES VK-160-W

Core: 8½" x 1⅛"
Lug terminals — Mtg. bracket furnished

Resistance Ohms

1	50	750	7500	50K
2	75	1000	10K	60K
3	100	1500	15K	75K
4	125	2000	20K	100K
5	150	2500	25K	
10	250	3000	30K	
25	500	5000	40K	

NET PRICES:

1 to 5	$3.18
10 to 1K	2.28
1500 to 5K	2.31
7500 to 10K	2.52
15K to 20K	2.70
25K to 40K	2.79
50K to 60K	2.88
75K	3.06
100K	3.24

25-WATT SERIES VP-25-K

Core: 2" x 9/16"
Lug terminals — Mtg. bracket furnished

Resistance Ohms

1	50	800	5000	30K
2	75	1000	6000	35K
3	100	1500	7500	40K
4	150	2000	10K	50K
5	200	2500	12K	60K
10	250	3000	15K	70K
15	500	3500	20K	80K
25	750	4000	25K	100K

NET PRICES:

1 to 1K	$0.72
1500 to 10K	.75
6K to 10K	.84
12K to 20K	.90
25K to 40K	1.02
50K to 60K	1.20
70K to 80K	1.41
100K	1.62

50-WATT SERIES VP-50-K

Core: 4" x 9/16"
Lug terminals — Mtg. bracket furnished

Resistance Ohms

1	75	1000	8000	75K
2	100	1500	10K	100K
3	150	2000	12K	125K
4	200	2500	15K	150K
5	250	3000	20K	175K
10	500	4000	25K	200K
25	750	5000	35K	225K
50	800	7500	50K	250K

NET PRICES:

1	$1.53
2 to 1K	1.11
1500 to 5K	1.14
7500 to 10K	1.26
12K to 20K	1.38
25K to 35K	1.53
50K	1.71
75K	1.95
100K	2.13
125K	2.55
150K	2.70
175K	2.79
200K	2.88
225K	3.24
250K	3.24

200-WATT SERIES VK-200-W

Core: 10½" x 1⅛"
Lug terminals — Mtg. bracket furnished

Resistance Ohms

1	50	1000	10K	60K
2	75	1500	15K	75K
3	100	2000	20K	100K
4	150	2500	25K	
5	250	3000	30K	
10	500	5000	40K	
25	750	7500	50K	

NET PRICES:

1 to 5	$3.42
10 to 1K	2.46
1500 to 5K	2.52
7500 to 10K	2.70
15K to 20K	2.88
25K to 40K	2.97
50K to 60K	3.06
75K	3.24
100K	3.45

Net

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PRODUCTS OF THE HOUSE OF RESISTORS®

CLAROSTAT®

RESISTORS • CONTROLS RESISTANCE DEVICES

"GREENOHM V"™ ADJUSTABLE RESISTORS (VITREOUS ENAMEL)

10-WATT SERIES VP-10-FA

Core: 1¾" x 5/16"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	25	350	1500	5000
2	50	400	2000	6000
3	75	500	2250	7000
5	100	600	2500	7500
7.5	150	750	3000	8000
10	200	800	3500	8500
15	250	1000	4000	9000
20	300	1250	4500	10K

NET PRICES:

1 to 1K	$1.14
1250 to 5K	1.17
6000 to 10K	1.26

25-WATT SERIES VP-25-KA

Core: 2" x 9/16"

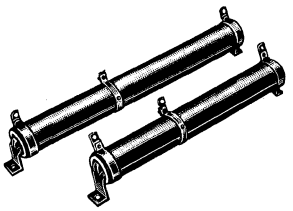
Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	50	750	3500	9000
2	75	800	4000	10K
3	100	1000	4500	12K
5	150	1250	5000	15K
7.5	200	1500	6000	20K
10	250	2000	7000	25K
15	300	2250	7200	
20	400	2500	7500	
25	500	3000	8000	

NET PRICES:

1 to 1K	$1.29
1250 to 5K	1.32
6K to 10K	1.41
12K to 20K	1.47
25K	1.59



50-WATT SERIES VP-50-KA

Core: 4" x 9/16"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	150	1500	7000	30K
2	200	2000	7200	40K
3	250	2250	7500	50K
4	300	2500	8000	60K
5	400	3000	9000	80K
10	500	3500	10K	100K
25	750	4000	12K	
50	800	4500	15K	
75	1000	5000	20K	
100	1250	6000	25K	

NET PRICES:

1 ohm	$2.10
2 to 1K	1.68
1250 to 5K	1.71
6K to 10K	1.80
12K to 20K	1.92
25K to 40K	2.10
50K to 60K	2.28
80K	2.52
100K	2.70

75-WATT SERIES VP-75-KA

Core: 6" x 9/16"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	200	2000	7200	35K
2	250	2250	7500	40K
3	300	2500	8000	45K
4	400	3000	9000	50K
5	500	3500	10K	60K
10	750	4000	12K	80K
15	800	4500	15K	100K
25	1000	5000	20K	
50	1250	6000	25K	
100	1500	7000	30K	

NET PRICES

1 to 2	$2.37
3 to 1K	1.86
1250 to 5K	1.92
6000 to 10K	2.01
12K to 20K	2.13
25K to 40K	2.31
45K to 60K	2.52
80K	2.76
100K	2.91

100-WATT SERIES VK-100-NA

Core: 6½" x ¾"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	10	500	10K	40K
2	25	1000	15K	50K
3	50	1500	20K	75K
4	100	2500	25K	100K
5	250	5000	30K	

NET PRICES:

1 to 3	$3.00
4 to 1K	2.37
1500 to 5K	2.43
10K	2.55
15K to 20K	2.70
25K to 40K	2.88
50K	3.00
75K	3.12
100K	3.27

160-WATT SERIES VK-160-WA

Core: 8½" x 1⅛"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	10	500	10K	40K
2	25	1000	15K	50K
3	50	1500	20K	75K
4	100	2500	25K	100K
5	250	5000	30K	

NET PRICES:

1 to 5	$4.05
10 to 1K	3.15
1500 to 5K	3.18
10K	3.39
15K to 20K	3.57
25K to 40K	3.66
60K	3.75
75K	3.93
100K	4.14

200-WATT SERIES VK-200-WA

Core: 10½" x 1⅛"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	10	500	10K	40K
2	25	1000	15K	50K
3	50	1500	20K	75K
4	100	2500	25K	100K
5	250	5000	30K	

NET PRICES:

1 to 5	$4.32
10 to 1K	3.33
1500 to 5K	3.42
10K	3.57
15K to 20K	3.75
25K to 40K	3.84
50K	3.96
75K	4.14
100K	4.32

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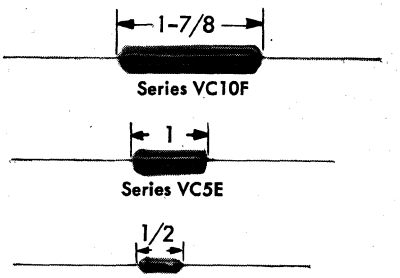
PRODUCTS OF THE HOUSE OF RESISTORS®

CLAROSTAT®

RESISTORS • CONTROLS
RESISTANCE DEVICES

AXIAL LEAD VITREOUS RESISTORS

Available in three sizes 3, 5 and 10 watts, Series VC3D, VC5E and VC10F. Axial lead resistors are particularly adapted to printed circuit, terminal board, and point-to-point wiring applications. These resistors save considerable space because of the elimination of mounting brackets and terminal lugs. Standard resistance tolerance is ± 5% for 1 ohm and higher and tolerance below 1 ohm is ± 10%. Attractively packaged in a newly designed carton particularly adapted to this new axial lead resistor, beautifully finished with Clarostat's new vitreous shade of teal green.



Lead Length: 1½" Lead Diameter: .032

SERIES VC3D
STOCK VALUES

1	20	68	250	600	1.75K	4.5K
1.5	22	75	270	680	1.8K	4.7K
2	25	82	300	700	2K	5K
3	27	100	330	750	2.2K	5.6K
4	30	120	350	800	2.25K	6K
5	33	125	390	820	2.5K	6.8K
7.5	35	150	400	900	2.7K	7K
10	39	180	450	1K	3K	7.5K
12	40	200	470	1.1K	3.3K	8K
15	47	220	500	1.2K	3.5K	8.2K
18	50	225	560	1.25K	3.9K	9K
	56			1.5K	4K	10K

Net Prices

1	to 1K	$ .51
1.1K	to 5K	.54
6K	to 10K	.57

SERIES VC5E
STOCK VALUES

1	22	82	330	820	2.7K	7.5K
1.5	25	100	350	900	3K	8K
2	27	120	390	1K	3.3K	8.2K
3	30	125	400	1.1K	3.5K	9K
4	33	150	450	1.2K	3.9K	10K
5	35	180	470	1.25K	4K	12.5K
7.5	39	200	500	1.5K	4.5K	15K
10	40	220	560	1.75K	4.7K	17.5K
12	47	225	600	1.8K	5K	18K
15	50	250	680	2K	5.6K	20K
18	56	270	700	2.2K	6K	22K
20	68	300	750	2.25K	6.8K	22.5K
	75		800	2.5K	7K	25K

Net Prices

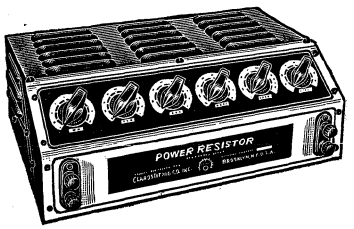
1	to 1K	$ .54
1.1K	to 5K	.57
6K	to 10K	.60
12.5K	to 20K	.72
22.5K	to 25K	.75

SERIES VC10F
STOCK VALUES

1	25	120	400	1.2K	3.5K	8.5K	22.5K
1.5	27	125	450	1.25K	3.9K	9K	25K
2	30	150	470	1.3K	4K	10K	27K
3	33	180	500	1.5K	4.5K	11K	30K
4	35	200	560	1.75K	4.7K	12K	33K
5	39	220	600	1.8K	5K	12.5K	35K
7.5	40	225	680	2K	5.6K	13.5K	39K
10	47	250	700	2.2K	6K	15K	40K
12	50	270	750	2.25K	6.8K	16K	45K
15	56	300	800	2.5K	7K	17.5K	47K
18	68	330	820	2.7K	7.5K	18K	50K
20	75	350	900	3K	8K	20K	
22	82	390	1K	3.3K	8.2K	22K	
	100		1.1K				

Net Prices

1	to 1K	$ .60
1.1K	to 5K	.63
6K	to 10K	.72
11K	to 20K	.81
22.5K	to 40K	.84
45K	to 50K	.96



POWER RESISTOR DECADE BOX

The Resistance Decade Box, Model 240-C for bench use — Model 250 for rack mounting, provides any resistance from 1 to 999,999 ohms for working circuits at the flip of a switch. Six front-panel dials enable selection in 1 ohm increments, the total value being read directly from the dial. Each decade has a power rating of 225 watts maximum, 1,000 VDC or 660 VAC maximum.

Resistance changing switches are of the type that prevent a resistance breakdown between steps, thus protecting delicate meters and measuring instruments in the circuit. Knobs indicate the resistance value being used at a glance.

Clarostat GREENOHM Power Resistors are used throughout. These components are wire-wound power resistors on ceramic tubes and coated with an exclusive Clarostat inorganic cold-setting cement, providing the most rugged, long-lasting, trouble-free power resistor available. The resistors are mounted in rigid metal supports.

Overall length: 240C: 13" long x 8½" deep x 5¾" high, weight 11½ lbs. 250: 19" long x 13¾" deep x 7" high (fits in standard 19" relay rack), weight 18½ lbs.

SUGGESTED USES: Resistance determination, Load Resistance, Meter Multiplier, Calibrating Meters, Providing any desired ohmage as a universal power resistor.

Decade No.	1	2	3	4	5	6
Max. Current Rating (amps)	5	1.5	.5	.15	0.5	.005
Resistance Tolerance	5%	2%	2%	2%	2%	2%

NET PRICE: Model 240C $110.00, Model 250 $150.00

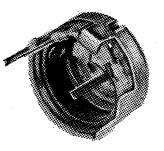
SERIES U39

UNIVERSAL "HUMDINGER" CONTROL
2W. WIRE WOUND

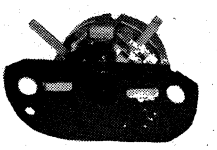
Series U39 is a shaftless potentiometer with the contact arm grounded to the housing. The design of terminals and mounting tabs, meets the following requirements: Above chassis mounting, as a potentiometer or rheostat; printed circuit mounting, as a potentiometer or rheostat. The terminal layout meets the popular industry standards. A fiber adapter plate is furnished with each control. Series U39 is ideally suited for radio and television requirements, as well as many industrial applications. Resistance tolerance ±20%. Linear only.

Cat. No.	Total Res. Ohms	Min. Res. Ohms	Cat. No.	Total Res. Ohms	Min. Res. Ohms
U39-1.5	1.5	—	U39-700	700	—
U39-5	5	—	U39-700-200	700	200
U39-8	8	—	U39-800	800	—
U39-15	15	—	U39-800-50	800	50
U39-50	50	—	U39-1000	1000	—
U39-75	75	—	U39-1000-100	1000	100
U39-100	100	—	U39-1500	1500	—
U39-125	125	—	U39-2000	2000	—
U39-150	150	—	U39-2000-100	2000	100
U39-175	175	—	U39-3000	3000	—
U39-200	200	—	U39-3000-700	3000	700
U39-300	300	—	U39-4000	4000	—
U39-500	500	—	U39-4000-350	4000	350
U39-500-100	500	100	U39-4000-1000	4000	1000
U39-600	600	—	U39-5000	5000	—
U39-650	650	—			

NET PRICE $.36



SERIES U39



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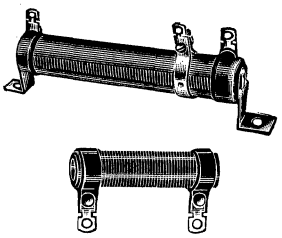
PRODUCTS OF
THE HOUSE OF RESISTORS®

CLAROSTAT®

RESISTORS · CONTROLS
RESISTANCE DEVICES

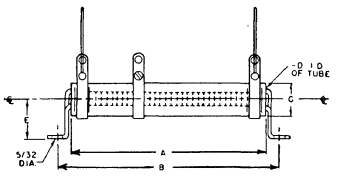
"GREENOHM"* WIRE-WOUND RESISTORS



FIXED TYPES Wire-wound resistors for most rugged applications. Will withstand tremendous overloads and temperature changes without alterating resistance values or appearance. Wire windings on high grade ceramic tubing and coated with special inorganic cement. In accordance with EIA standards, overall tolerances are ± 5% for resistors of 50 ohms and higher. For resistors of 49.9 ohms and lower, overall tolerances are ± 10%.

ADJUSTABLE TYPES Same electrically and mechanically as Fixed types, but incorporating sliding band or bands for tapping any desired resistance values. Slider band tightened by means of screw. In accordance with EIA standards, overall tolerances are ± 10%.

DIMENSIONS BY TYPES



SERIES	WATTS	A	B	C	D	E
PR-5-F	5	1	1 1/16	5/16	3/16	7/16
PR-10-F	10	1 3/4	2 3/16	5/16	3/16	7/16
PR-10-FA	10	1 3/4	2 3/16	5/16	3/16	7/16
PR-20-K	20	2	2 1/2	9/16	3/8	9/16
P-25-K	25	2 1/2	3	9/16	3/8	9/16
P-25-KA	25	2 1/2	3	9/16	3/8	9/16

FIXED RESISTORS

5-WATT SERIES PR-5-F

These resistors conform to E1A specification for type RRW-125 and 128.

Ohms	Ohms	Ohms	Ohms
1	75	800	5,000
2	100	900	6,000
3	125	1,000	7,000
4	150	1,100	7,500
5	200	1,200	8,000
7.5	225	1,250	8,500
10	250	1,500	9,000
12	300	1,750	10K
15	350	2,000	
20	400	2,250	
25	450	2,500	
30	500	3,000	
35	600	3,500	
40	700	4,000	
50	750	4,500	

NET PRICE $0.33

Mounting brackets supplied at extra cost.

25-WATT SERIES P-25-K

Ohms	Ohms	Ohms	Ohms
1	750	10K	
2	800	12K	
3	1,000	15K	
5	1,250	20K	
7.5	1,500	25K	
10	2,000	30K	
15	2,250	35K	
20	2,500	40K	
25	3,000	45K	
50	3,500	50K	
75	4,000	60K	
100	4,500	70K	
150	5,000	75K	
200	6,000	80K	
250	7,000	85K	
300	7,500	90K	
400	8,000	100K	
500	9,000		

NET PRICES:

1 ohm to 5,000	$0.51
6,000 to 15K ohms	.57
20K to 50K ohms	.66
60K ohms	.75
70K ohms	.84
75K ohms	.87
80K ohms	.90
85K ohms	.99
90K ohms	1.05
100K ohms	1.17

Mounting brackets at no extra cost.

10-WATT SERIES PR-10-F

These resistors conform to military specifications for type RW29, and E1A type RRW-126 and 129.

Ohms	Ohms	Ohms	Ohms
1	200	2,000	14.5K
2	225	2,250	15K
3	250	2,500	16K
4	300	3,000	17.5K
5	350	3,500	18K
7.5	400	4,000	20K
10	450	4,500	22.5K
12	500	5,000	25K
15	600	6,000	30K
20	700	7,000	35K
25	750	7,500	40K
30	800	8,000	50K
35	900	8,500	
40	1,000	9,000	
50	1,100	10K	
75	1,200	11K	
100	1,250	12K	
125	1,500	12.5K	
150	1,750	13.5K	

NET PRICE $0.36

Mounting brackets supplied at extra cost.

20-WATT SERIES PR-20-K

These resistors conform to E1A specifications for type RRW-127.

Ohms	Ohms	Ohms	Ohms
5	850	7,000	70K
10	1,000	7,500	75K
25	1,200	8,000	80K
50	1,250	9,000	85K
75	1,500	10K	90K
100	1,750	12.5K	95K
150	1,850	15K	100K
200	2,000	20K	
250	2,250	25K	
300	2,500	30K	
350	2,750	35K	
400	3,000	40K	
500	3,500	45K	
650	4,000	50K	
700	4,500	55K	
750	5,000	60K	
800	6,000	65K	

NET PRICES:

5 ohms to 15K ohms	$0.42
20K to 50K ohms	.57
55K to 100K ohms	.72

Mounting brackets supplied at extra cost.

ADJUSTABLE RESISTORS

These resistors conform to military specification for type RW-29 and E1A specification for type RRW-226.

10-WATT SERIES PR-10-FA

Res.	Res.	Res.	Res.
1	75	750	4,000
2	100	800	4,500
3	150	1,000	5,000
5	200	1,250	6,000
7.5	250	1,500	7,000
10	300	2,000	7,500
15	350	2,250	8,000
20	400	2,500	8,500
25	500	3,000	9,000
50	600	3,500	10K

NET PRICE $0.57

25-WATT SERIES P-25-KA

Res.	Res.	Res.	Res.
1	75	1,000	5,000
2	100	1,250	6,000
3	150	1,500	7,000
5	200	2,000	7,500
7.5	250	2,250	8,000
10	300	2,500	9,000
15	400	3,000	10K
20	500	3,500	12K
25	750	4,000	15K
50	800	4,500	20K
			25K
			50K

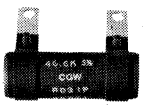
NET PRICES:

1 ohm to 5,000 ohms	$0.63
6,000 to 15K ohms	.72
20K to 25K ohms	.84
50K ohms	.99

Above adjustable resistors supplied with mounting brackets at no extra cost. Extra slider bands — 30¢ each.

CORNING® GLASS TIN OXIDE FILM RESISTORS

New glass tin oxide film resistors—with tighter, ½ to 5% purchase and load-life tolerances, precision temperature coefficients—make CORNING resistors more than ever your best buy for stability and reliability. Add these new and improved characteristics to the established physical and electrical integrity of glass tin oxide film resistors and you will see how CORNING precision, general-purpose, and power resistors can add real value to your equipment.

	TYPE AND MIL SPEC	MODEL/MIL MODEL	RESISTANCE (ohms)	WATTAGE	TOLERANCE
NEW NC	New low ±50 ppm TC with ½ and 1% tolerances for predictable performance. Meets MIL-R-10509E, Char. C.	NC4/RN55C NC5/RN60C NC6/RN65C	49.9 to 150K 49.9 to 499K 49.9 to 1 meg.	125°C 1/10 1/8 1/4	1/2, 1% 1/2, 1% 1/2, 1%
IMPROVED NA	Stable ½% and 1% performance at 70°C and 125°C ratings. Meets MIL-R-10509E, Char. D.	NA55/RN55D NA60/RN60D NA65/RN65D NA70/RN70D	51.1 to 150K 51.1 to 499K 10 to 499K 51.1 to 499K 10 to 1 meg. 51.1 to 1 meg.	70°C 125°C 1/8 1/10 1/4 1/8 1/2 1/4 3/4 —	1/2, 1% 1/2 1% 1/2 1% 1/2, 1%
NEW C	Precision stability in a unique multi-use part for both MIL-R-22684B and MIL-R-10509E, Char. D. 100 ppm TC.	C4/RL07S C5/RL20S	51 to 150K 10 to 499K	70°C 70°C 125°C 1/4 1/8 1/10 1/2 1/4 1/8	1, 2, 5% 1, 2, 5%
C	General-purpose, low-cost film type. Film resistor performance characteristics at prices comparable to carbon composition types. MIL-R-22684B.	C32/RL32S C42S/RL42S	10 to 1 meg. 10 to 1.5 meg.	1 @ 70°C 2 @ 70°C	2%, 5% 2%, 5%
LPI	Low-power resistors with exceptional frequency characteristics and glass stability. New LPI-10 in a substantially smaller package. Construction assures desired performance for rugged environmental duty.	LPI-2 LPI-3 LPI-4 LPI-5 LPI-7 LPI-10	9 to 1.5 meg. 9 to 40K 16 to 90K 19 to 110K 24 to 110K 24 to 110K	40°C 70°C 3 2 4 3 5 4 7 5 — 7 10 —	5%, 10% 10% 10% 10% 10% 10%
S	Fixed-film type for high-temperature operation. Silicone baked lacquer. MIL-R-11804D. Char. P.	S20/RD60P S25/RD65P S30/RD70P	10 to 500K 10 to 1.54 meg. 30.1 to 4.22 meg.	130°C 25°C ½ 1 1 2 2 4	1, 2, 5, 10% 1, 2, 5, 10% 1, 2, 5, 10%
R	Power type, essentially non-inductive in high-frequency operations. MIL-R-11804D. 	R31/RD31P R33/RD33P R35/RD35P R37/RD37P R39/RD39P	10 to 70K 19.6 to 150K 19.6 to 301K 19.6 to 500K 30.1 to 1 meg.	7 @ 25°C 13 @ 25°C 25 @ 25°C 55 @ 25°C 115 @ 25°C	2, 5, 10% 2, 5, 10% 2, 5, 10% 2, 5, 10% 2, 5, 10%

STANDARD VALUES*

NA, N, S, R RESISTORS 1, 2, and 5% Tolerances

1%	2%	5%	1%	2%	5%	1%	2%	5%	1%	2%	5%
1.00	1.00	1.00	1.78	1.78	1.78	3.16	3.16	3.16	5.62	5.62	5.62
1.02			1.82			3.24			5.76		
1.05	1.05		1.87	1.87		3.32	3.32		5.90	5.90	
1.07			1.91			3.40			6.04		
1.10	1.10	1.10	1.96	1.96	1.96	3.48	3.48	3.48	6.19	6.19	6.19
1.13			2.00			3.57			6.34		
1.15	1.15		2.05	2.05		3.65	3.65		6.49	6.49	
1.18			2.10			3.74			6.65		
1.21	1.21	1.21	2.15	2.15	2.15	3.83	3.83	3.83	6.81	6.81	6.81
1.24			2.21			3.92			6.98		
1.27	1.27		2.26	2.26		4.02	4.02		7.15	7.15	
1.30			2.32			4.12			7.32		
1.33	1.33	1.33	2.37	2.37	2.37	4.22	4.22	4.22	7.50	7.50	7.50
1.37			2.43			4.32			7.68		
1.40	1.40		2.49	2.49		4.42	4.42		7.87	7.87	
1.43			2.55			4.53			8.06		
1.47	1.47	1.47	2.61	2.61	2.61	4.64	4.64	4.64	8.25	8.25	8.25
1.50			2.67			4.75			8.45		
1.54	1.54		2.74	2.74		4.87	4.87		8.66	8.66	
1.58			2.80			4.99			8.87		
1.62	1.62	1.62	2.87	2.87	2.87	5.11	5.11	5.11	9.09	9.09	9.09
1.65			2.94			5.23			9.31		
1.69	1.69		3.01	3.01		5.36	5.36		9.53	9.53	
1.74			3.09			5.49			9.76		

C RESISTORS

±2% & ±5%	±10%†
10	10
11	—
12	12
13	—
15	15
16	—
18	18
20	—
22	22
24	—
27	27
30	—
33	33
36	—
39	39
43	—
47	47
51	—
56	56
62	—
68	68
75	—
82	82
91	—

*Standard resistance values are obtained from the decade table by multiplying by multiples of 10. As an example, 1.33 can represent 13.3 ohms, 133 ohms, 1.33k, 13.3k, 133k, 1.33 megohm.
*Values not listed are considered non-standard. †C42 only.

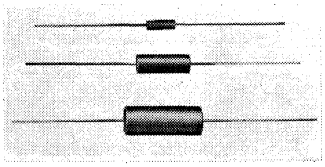
CORNING ELECTRONICS

© U.C.P., Inc.

• Precision Film Resistors • Wire-Wound Controls • Slide Switches • Composition Resistors • Spark Suppressors

CONTINENTAL WIRT

MOLDED TYPES



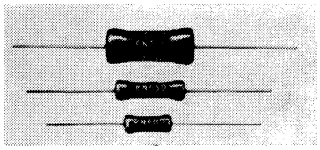
All designed to exceed MIL-R-10509 at modest price levels.

EVAPORATED METAL FILM PRECISION RESISTORS, Type VFM, resistance ranges from 24.9 ohms through 10 megohms; power ratings from 1/8 watt through 1 watt. **Request Bulletin No. 2064.**

DEPOSITED CARBON FILM PRECISION RESISTORS, Type CFM, resistance range from 10 ohms through 5.1 megohms; power ratings from 1/8 watt through 1 watt. **Request Bulletin No. 2065.**

CONFORMAL COATED TYPES

featuring the new
VACUMETTE TYPE X SERIES
for high precision and stability, yet at low prices!

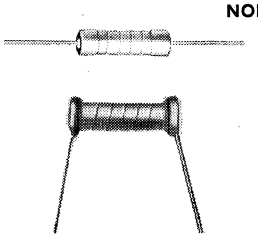


Designed to exceed MIL-R-10509. Temp. coefficient 0° ±100 ppm/°C (EIA Code T-1). Multi-coated for maximum environmental protection. Resistance ranges from 10 ohms through 2.49 megohms. power ratings from 1/8 through 3/4 ohm. **Request Bulletin No. 2073.**

OTHER EVAPORATED METAL FILM RESISTORS, Type VF, resistance ranges from 24.9 ohms through 1 megohm; power ratings from 1/8 through 1 watt. **Request Bulletin No. 2064.**

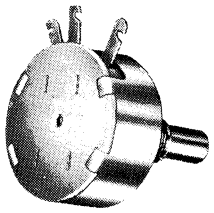
DEPOSITED CARBON FILM RESISTORS, Type CF, resistance ranges from 10 ohms through 10 megohms; power ratings from 1/8 through 2 watts. **Request Bulletin No. 2065.**

ENAMEL COATED METAL TYPES



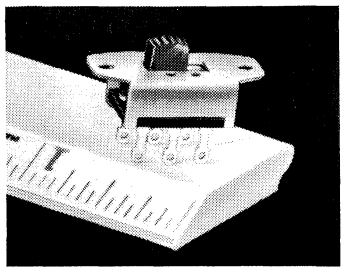
NOBLETTE TYPE NA and NOBLELOY TYPE NR PRECISION FILM RESISTORS with rugged vitreous enamel coating. Resistance ranges from 0.5 ohm through 20 megohms; power ratings from 1/2 watt through 5 watts. **Request Bulletin No. 302-63.**

WIRE-WOUND CONTROLS



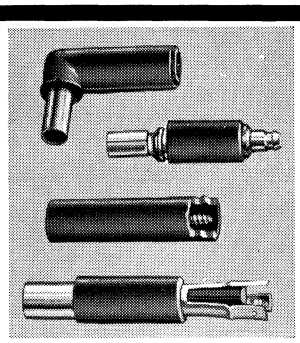
Available from 3/4" o.d., 2 watt trimmer control through 5 watt potentiometer or "L" pad. Shafts, bushings, mounting hardware, and other features are available to meet specific requirements. **Request Bulletin Nos. 2060, 2061, 2062, and 2075-66.**

SLIDE-SWITCHES



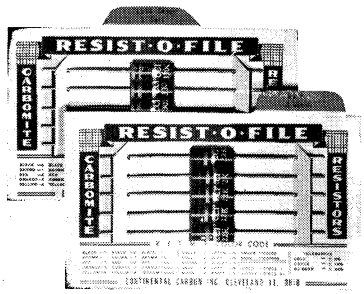
Fourteen basic types available in current ratings to 11.0 amps at 125 volts AC-UL listed. One through four poles; 2, 3, and 4 positions; detent or spring-return action. Also midget "Swidget" (illus.) and "Sydewynder" actuated from switch side instead of switch top. **Request Bulletin Nos. 2072-66, 2054, and 2066.**

AUTOMOTIVE AND OIL BURNER SPARK SUPPRESSORS



For suppression of radio and television noise interference due to ignition spark discharge at plugs and high tension distributor; and due to ignition discharge action of oil burner igniting coil. Complete line of resistive-type suppressors. **Request Bulletin No. 125.**

CARBOMITE RESISTORS



Insulated, fixed composition resistors for replacement and service applications. 1/10 watt through 2 watts. Available as type "M" packaged in bulk. Also as type "MR" consisting of five type "M" resistors of one resistance value and tolerance mounted on one 3 x 5 card, ten cards per package. File drawers and storage cabinets for type "MR" resistors available. **Request Bulletin No. 2047.**

There's long life and superior performance behind every C-W component — meeting highest quality and reliability standards at a moderate cost.

Your C-W distributor can supply prices, and bulletins mentioned above — also details on the convenient RESIST-O-FILE stocking plan for composition resistors.

CONTINENTAL WIRT

CONTINENTAL-WIRT ELECTRONICS CORP.

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¼, ½, 1 & 2 watt resistors (10% Tol.) in *MOISTURE-PROOF* packages EIA approved MIL-R-IIE

RESISTORS

BULK RESISTOR PRICES

WATTAGE	EA. 1-9	10-49	50-99	100-UP
¼ WATT	.13	.09	.06	$4.32/C
½ WATT	.12	.085	.05	$4.15/C
1 WATT	.17	.10	.07	$6.47/C
2 WATT	.22	.19	.14	$12.28/C

OHM VALUE	¼ WATT MOISTURE-PROOF PACK OF 10 BULK PART NO.	¼ WATT BULK IBM CODE NO.	½ WATT MOISTURE-PROOF PACK OF 10 BULK PART NO.	½ WATT BULK IBM CODE NO.	1 WATT MOISTURE-PROOF PACK OF 10 BULK PART NO.	1 WATT BULK IBM CODE NO.	2 WATT MOISTURE-PROOF PACK OF 10 BULK PART NO.	2 WATT BULK IBM CODE NO.
2.7			BS2.7	26-160BU				
3.3			BS3.3	26-162BU				
3.9			BS3.9	26-164BU				
4.7			BS4.7	26-166BU				
5.6			BS5.6	26-168BU				
6.8			BS6.8	26-170BU				
8.2			BS8.2	26-172BU				
10	GG10	26-600-BU	BS10	26-600BU	BA10	26-200BU	BB10	26-400BU
12			BS12	26-602BU	BA12	26-202BU	BB12	26-402BU
15	GG15	26-604-BU	BS15	26-604BU	BA15	26-204BU	BB15	26-404BU
18			BS18	26-606BU	BA18	26-206BU	BB18	26-406BU
22	GG27	26-610-BU	BS22	26-608BU	BA22	26-208BU	BB25	26-408BU
27			BS27	26-610BU	BA27	26-210BU	BB27	26-410BU
33			BS33	26-612BU	BA33	26-212BU	BB33	26-412BU
39			BS39	26-614BU	BA39	26-214BU	BB39	26-414BU
47	GG47	26-616-BU	BS47	26-616BU	BA47	26-216BU	BB47	26-416BU
56			BS56	26-618BU	BA56	26-218BU	BB56	26-418BU
68			BS68	26-620BU	BA68	26-220BU	BB68	26-420BU
82			BS82	26-622BU	BA82	26-222BU	BB82	26-422BU
100	GG100	26-624-BU	BS100	26-624BU	BA100	26-224BU	BB100	26-424BU
120			BS120	26-626BU	BA120	26-226BU	BB120	26-426BU
150	GG150	26-628-BU	BS150	26-628BU	BA150	26-228BU	BB150	26-428BU
180			BS180	26-630BU	BA180	26-230BU	BB180	26-430BU
220	GG220	26-632-BU	BS220	26-632BU	BA220	26-232BU	BB220	26-432BU
270	GG270	26-634-BU	BS270	26-634BU	BA270	26-234BU	BB270	26-434BU
330	GG330	26-636-BU	BS330	26-636BU	BA330	26-236BU	BB330	26-436BU
390			BS390	26-638BU	BA390	26-238BU	BB390	26-438BU
470	GG470	26-640-BU	BS470	26-640BU	BA470	26-240BU	BB470	26-440BU
560			BS560	26-642BU	BA560	26-242BU	BB560	26-442BU
680	GG680	26-644-BU	BS680	26-644BU	BA680	26-244BU	BB680	26-444BU
820			BS820	26-646BU	BA820	26-246BU	BB820	26-446BU
1000	GG1000	26-648-BU	BS1000	26-648BU	BA1000	26-248BU	BB1000	26-448BU
1200			BS1200	26-650BU	BA1200	26-250BU	BB1200	26-450BU
1500	GG1500	26-652-BU	BS1500	26-652BU	BA1500	26-252BU	BB1500	26-452BU
1800			BS1800	26-654BU	BA1800	26-254BU	BB1800	26-454BU
2200	GG2200	26-656-BU	BS2200	26-656BU	BA2200	26-256BU	BB2200	26-456BU
2700	GG2700	26-658-BU	BS2700	26-658BU	BA2700	26-258BU	BB2700	26-458BU
3300	GG3300	26-660-BU	BS3300	26-660BU	BA3300	26-260BU	BB3300	26-460BU
3900	GG3900	26-662-BU	BS3900	26-662BU	BA3900	26-262BU	BB3900	26-462BU
4700	GG4700	26-664-BU	BS4700	26-664BU	BA4700	26-264BU	BB4700	26-464BU
5600			BS5600	26-666BU	BA5600	26-266BU	BB5600	26-466BU
6800	GG6800	26-668-BU	BS6800	26-668BU	BA6800	26-268BU	BB6800	26-468BU
8200			BS8200	26-670BU	BA8200	26-270BU	BB8200	26-470BU

OHM VALUE	¼ WATT MOISTURE-PROOF PACK OF 10 BULK PART NO.	¼ WATT BULK IBM CODE NO.	½ WATT MOISTURE-PROOF PACK OF 10 BULK PART NO.	½ WATT BULK IBM CODE NO.	1 WATT MOISTURE-PROOF PACK OF 10 BULK PART NO.	1 WATT BULK IBM CODE NO.	2 WATT MOISTURE-PROOF PACK OF 10 BULK PART NO.	2 WATT BULK IBM CODE NO.
10000	GG10000	26-672-BU	BS10000	26-672BU	BA10000	26-272BU	BB10000	26-472BU
12000			BS12000	26-674BU	BA12000	26-274BU	BB12000	26-474BU
15000	GG15000	26-676-BU	BS15000	26-676BU	BA15000	26-276BU	BB15000	26-476BU
18000			BS18000	26-678BU	BA18000	26-278BU	BB18000	26-478BU
22000	GG22000	26-680-BU	BS22000	26-680BU	BA22000	26-280BU	BB22000	26-480BU
27000	GG27000	26-682-BU	BS27000	26-682BU	BA27000	26-282BU	BB27000	26-482BU
33000	GG33000	26-684-BU	BS33000	26-684BU	BA33000	26-284BU	BB33000	26-484BU
39000	GG39000	26-686-BU	BS39000	26-686BU	BA39000	26-286BU	BB39000	26-486BU
47000	GG47000	26-688-BU	BS47000	26-688BU	BA47000	26-288BU	BB47000	26-488BU
56000	GG56000	26-690-BU	BS56000	26-690BU	BA56000	26-290BU	BB56000	26-490BU
68000	GG68000	26-692-BU	BS68000	26-692BU	BA68000	26-292BU	BB68000	26-492BU
82000	GG82000	26-694-BU	BS82000	26-694BU	BA82000	26-294BU	BB82000	26-494BU
100000	GG100000	26-696-BU	BS100000	26-696BU	BA100000	26-296BU	BB100000	26-496BU
120000			BS120000	26-698BU	BA120000	26-298BU	BB120000	26-498BU
150000	GG150000	26-700-BU	BS150000	26-700BU	BA150000	26-300BU	BB150000	26-500BU
180000			BS180000	26-702BU	BA180000	26-302BU	BB180000	26-502BU
220000	GG220000	26-704-BU	BS220000	26-704BU	BA220000	26-304BU	BB220000	26-504BU
270000	GG270000	26-706-BU	BS270000	26-706BU	BA270000	26-306BU	BB270000	26-506BU
330000	GG330000	26-708-BU	BS330000	26-708BU	BA330000	26-308BU	BB330000	26-508BU
390000			BS390000	26-710BU	BA390000	26-310BU	BB390000	26-510BU
470000	GG470000	26-712-BU	BS470000	26-712BU	BA470000	26-312BU	BB470000	26-512BU
560000			BS560000	26-714BU	BA560000	26-314BU	BB560000	26-514BU
680000	GG680000	26-716-BU	BS680000	26-716BU	BA680000	26-316BU	BB680000	26-516BU
820000			BS820000	26-718BU	BA820000	26-318BU	BB820000	26-518BU
1.0 Meg.	GG 1.0 Meg.	26-720-BU	BS 1.0 Meg.	26-720BU	BA 1.0 Meg.	26-320BU	BB 1.0 Meg.	26-520BU
1.2 Meg.			BS 1.2 Meg.	26-722BU	BA 1.2 Meg.	26-322BU	BB 1.2 Meg.	26-522BU
1.5 Meg.			BS 1.5 Meg.	26-724BU	BA 1.5 Meg.	26-324BU	BB 1.5 Meg.	26-524BU
1.8 Meg.			BS 1.8 Meg.	26-726BU	BA 1.8 Meg.	26-326BU	BB 1.8 Meg.	26-526BU
2.2 Meg.			BS 2.2 Meg.	26-728BU	BA 2.2 Meg.	26-328BU	BB 2.2 Meg.	26-528BU
2.7 Meg.			BS 2.7 Meg.	26-730BU	BA 2.7 Meg.	26-330BU	BB 2.7 Meg.	26-530BU
3.3 Meg.			BS 3.3 Meg.	26-732BU	BA 3.3 Meg.	26-332BU	BB 3.3 Meg.	26-532BU
3.9 Meg.			BS 3.9 Meg.	26-734BU	BA 3.9 Meg.	26-334BU	BB 3.9 Meg.	26-534BU
4.7 Meg.			BS 4.7 Meg.	26-736BU	BA 4.7 Meg.	26-336BU	BB 4.7 Meg.	26-536BU
5.6 Meg.			BS 5.6 Meg.	26-738BU	BA 5.6 Meg.	26-338BU	BB 5.6 Meg.	26-538BU
6.8 Meg.			BS 6.8 Meg.	26-740BU	BA 6.8 Meg.	26-340BU	BB 6.8 Meg.	26-540BU
8.2 Meg.			BS 8.2 Meg.	26-742BU	BA 8.2 Meg.	26-342BU	BB 8.2 Meg.	26-542BU
10.0 Meg.			BS 10.0 Meg.	26-744BU	BA 10.0 Meg.	26-344BU	BB 10.0 Meg.	26-544BU
12.0 Meg.			BS 12.0 Meg.	26-746BU	BA 12.0 Meg.	26-346BU	BB 12.0 Meg.	26-546BU
15.0 Meg.			BS 15.0 Meg.	26-748BU	BA 15.0 Meg.	26-348BU	BB 15.0 Meg.	26-548BU
18.0 Meg.			BS 18.0 Meg.	26-750BU	BA 18.0 Meg.	26-350BU	BB 18.0 Meg.	26-550BU
22.0 Meg.			BS 22.0 Meg.	26-752BU	BA 22.0 Meg.	26-352BU	BB 22.0 Meg.	26-552BU

GC ELECTRONICS

GEE-LAR KURZ-KASCH INSTRUMENT & POINTER KNOBS

POINTER KNOB BRASS INSERT-
1-1 4" Length. 5 8" Height. MIL Spec. AN3219-1.
Cat. No. 25-088 ... Black Net **$ .32**

POINTER KNOB BRASS INSERT
1-1 2" Length. 7 8" Height.
Cat. No. 25-092 ... Black .... Net **$ .42**

BAR KNOB BRASS INSERT
1-1 4 Length. 21 32" Height.
Cat. No. 25-098 .... Black .... Net **$ .83**

BRASS INSERT NO ARROW
3 4" Diameter. 9 16" Height.
Cat. No. 25-102 .... Black .... Net **$ .45**

BRASS INSERT WITH ARROW
1-1 8" Diameter. 9 16" Height.
Cat. No. 25-104 ..... Net **$ .42**
1-1 2" Diameter. 3 4" Height.
Cat. No. 25-106 .... Black .... Net **$ .47**

POINTER KNOB BRASS INSERT
1-1 4" Length. 5 8" Height.
Cat. No. 25-108 .... Black .... Net **$ .43**

POINTER KNOB 1 8" BRASS INSERT
3 4" Diameter. 7 16" Height.
Cat. No. 25-116 .... Black .... Net **$ .50**

BAKELITE POINTER KNOB
11 16" Diameter, 13 32" Height. Fine serrations. Fits 1 4" shaft.
SET SCREW
Cat. No. 24-430 .... Walnut .... Net **$ .17**
24-432 .... Black .... Net **.17**
24-434 .... Red ..... **.18**
24-436 .... Ivory ..... **.18**

BAKELITE POINTER KNOB
11 16" Diameter, 13 32" Height. Fits 1 4" shaft.
No Insert–Set Screw
Cat. No. 24-440 .... Walnut .... Net **$ .15**
24-444 .... Red ..... **.15**
24-446 .... Ivory ..... **.15**
Brass Insert
Cat. No. 24-448 .... Walnut .... Net **$ .23**
24-452 .... Red ..... **.23**
24-454 .... Ivory ..... **.28**

POINTER BAR KNOB BRASS BUSHING
2-3 4" Length. Fits 1 4" shaft. Metal pointer can be removed.
Cat. No. 24-456 .... Black .... Net **$ .55**
24-458 .... Walnut .... **.58**

POINTER BAR KNOB BRASS BUSHING
1-5 8" Length. Fits 1 4" shaft. Metal pointer can be removed.
Set Screw
Cat. No. 24-460 .... Black .... Net **$ .55**

BAKELITE POINTER KNOB
1-3 4" Diameter. 7 8" Height. with 1-3 4" Diameter. 7 8" Height. with molded white arrow. brass bushing. Black only.
Cat. No. 25-000 ..... Net **$ .47**
Set Screw Type

BAKELITE SKIRT KNOBS
1-1 2" Skirt Diameter. 11 16" Height.
Cat. No. 25-004 ..... Net **$ .27**
Set Screw Type

POINTER KNOBS
1-3 8" Diameter. 11 16" Height. 1-1 16" Pointer.
Cat. No. 25-008 ..... Net **$ .65**

SKIRT KNOBS
1-1 8" Diameter. 13 16" Height. 1-1 2" Skirt.
Cat. No. 25-014 ..... Net **$ .78**
1-1 8" Diameter. 13 16" Height. 1-3 4" Skirt.
Cat. No. 25-016 ..... Net **$ .78**
1-3 8" Diameter. 7 8" Height. 1-1 2" Skirt.
Cat. No. 25-018 ..... Net **$ .80**
1-3 8" Diameter. 7 8" Height. 1-3 4" Skirt.
Cat. No. 25-020 ..... Net **$ .80**
1-5 8" Diameter. 29 32" Height. 2-1 16" Skirt.
Cat. No. 25-022 ..... Net **$ .95**

BAKELITE KNOB
1-1 8" Diameter. 5 8" Height.
Cat. No. 25-026 ..... Net **$ .40**
1-3 8" Diameter. 11 16" Height.
Cat. No. 25-028 ..... Net **$ .45**
2-3 8" Diameter. 7 8" Height.
Cat. No. 25-032 ..... Net **$ .72**

POINTER KNOBS–INDICATOR LINE
3 4" Diameter. 7 16" Height.
Cat. No. 25-034 ..... Net **$ .48**
1" Diameter. 19 32" Height.
Cat. No. 25-036 ..... Net **$ .55**
1-1 4" Diameter. 21 32" Height.
Cat. No. 25-038 ..... Net **$ .55**
1-1 2" Diameter. 3 4" Height.
Cat. No. 24-040 ..... Net **$ .55**
2" Diameter. 7 8" Height.
Cat. No. 25-042 ..... Net **$1.03**

No Indicator Line
1-1 2" Diameter. 3 4" Height.
Cat. No. 25-044 ..... Net **$ .52**

POINTER KNOBS
1" Diameter. 5 8" Height. 3 4" Pointer.
Cat No. 25-048 ..... Net **$ .70**
1-1 8" Diameter. 5 8" Height. 3 4" Pointer.
Cat. No. 25-050 ..... Net **$ .70**
1-3 8" Diameter. 11 16" Height. 1-1 16" Pointer.
Cat. No. 25-052 ..... Net **$ .95**
2-3 8" Diameter. 7 8" Height. 1-9 16" Pointer.
Cat. No. 25-056 ..... Net **$1.28**

NO POINTER
1-1 8" Diameter. 5 8" Height.
Cat. No. 25-060 ..... Net **$ .73**
1-3 8" Diameter. 11 16" Height.
Cat. No. 25-062 ..... Net **$ .97**
1-5 8" Diameter. 3 4" Height.
Cat. No. 25-064 ..... Net **$ .80**

SKIRT KNOBS
1-1-8" Diameter. 13 16" Height. 1-1 2" Skirt.
Cat. No. 25-068 ..... Net **$1.42**
1-3 8" Diameter. 27 32" Height. 1-3 4" Skirt.
Cat. No. 25-070 ..... Net **$1.37**
1-5 8" Diameter. 7 8" Height. 2-1 16" Skirt.
Cat. No. 25-072 ..... Net **$1.53**
2-3 8" Diameter. 15 16" Height. 3" Skirt
Cat. No. 25-074 ..... Net **$2.33**

POINTER KNOB BRASS INSERT
1-1 8" Diameter. 5 8" Height.
Cat. No 25-076 ..... Net **$ .63**

POINTER KNOB NO BRASS INSERT
1-1 8" Diameter. 11 16" Height. 1 Set Screw.
Cat. No. 25-078 ..... Net **$ .18**

BAR KNOB NO BRASS INSERT
1-1 2" Length. 5 8" Height. 1 Set Screw
Cat. No. 25-080 ..... Net **$ .33**

TENITE POINTER KNOB
1" Diameter. 1 2" Height. Fits 1 4" shafts.
Knurl
Cat. No. 24-464 .... Walnut .... Net **$ .12**
24-466 .... Ivory ..... **.12**
Set Screw
Cat. No. 24-468 .... Walnut .... Net **$ .20**
24-470 .... Ivory ..... **.20**

TENITE POINTER KNOB
23 32" Diameter. 3 8" Height. Fits 1 4" shafts.
Knurl
Cat. No. 24-472 .... Walnut .... Net **$ .08**
24-474 .... Ivory ..... **.08**
Set Screw
Cat. No. 24-476 .... Walnut .... Net **$ .17**
24-478 .... Ivory ..... **.17**

TENITE POINTER KNOB
15 16" Diameter. 7 16" Height. Fits 1 4" shafts.
Knurl
Cat. No. 24-482 .... Ivory ..... **.08**

BAKELITE POINTER KNOB
1" Diameter. 1 2" Height. Fits 1 4" shafts.
No Insert–Set Screw
Cat. No. 24-484 .... Walnut .... Net **$ .17**

BAKELITE POINTER KNOB
1-1 4" Diameter. 5 8" Height. Fits 1 4" shafts.
No Insert–Set Screw
Cat. No. 24-492 .... Walnut .... Net **$ .37**
24-494 .... Black .... **.37**
24-496 .... Ivory ..... **.37**
Brass Insert–Set Screw
Cat. No. 24-498 .... Walnut .... Net **$ .37**
24-502 .... Ivory ..... **.37**

BAKELITE POINTER KNOB
Line filled. 1-1 8" Diameter. 9 16" Height. Fits 1 4" shafts.
Set Screw
Cat. No. 24-504 .... Walnut .... Net **$ .25**
24-506 .... Black .... **.25**
24-508 .... Red ..... **.25**
24-510 .... Ivory ..... **.25**

Net

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Charles T. Gamble Industries

PRECISION WIRE WOUND RESISTORS & NETWORKS

Charles T. Gamble Industries has engineered and designed non-inductive precision wire wound resistors to meet the requirements of Mil-R-93D. These resistors are completely sealed against the effects of high humidity and salt water immersion cycling. The material used in the manufacture of our resistors has a very high dielectric strength. The bobbin material used in winding the resistors is one and the same as the encapsulating material. Matched thermal coefficients of expansion therefore will eliminate the possibility of shorted turns and distorted windings when resistors are being used in their application.

NETWORKS: RC NETWORKS, LADDER NETWORKS, VOLTAGE DIVIDERS, BINARY NETWORKS

Sub-miniature Axial lead Precision resistors have been designed for applications where space is a prime factor. All resistors are hermetically sealed with epoxy resin to protect the windings against the effects of high humidity, and salt water immersion cycling. Resistors can either be inductive or non-inductive wound.

Standard temperature coefficient ±10 PPM/°C. Lower temperature coefficients can be supplied on request.

Standard tolerance 1%, 0.5%, 0.1%, .05%, .025%, .02%, .01%.

Encapsulated printed circuit resistors are designed for printed circuit board application, where space is a factor.

Printed circuit resistors are wound with resistance wire having a very low thermal E.M.F. to copper.

Printed circuit resistors can be purchased in standard tolerances of 1%, 0.5%, 0.1%, .05%, .025%, .02%, .01%.

All resistors with tolerances of 0.1% and below are stabilized by artificial aging and temperature cycling before shipment.

Radial lug type resistors have been designed to meet the requirements of Mil-R-93D.

These resistors are completely sealed against the effects of high humidity, and salt water immersion cycling.

The materials used in the construction of radial lug type resistors are identical to those used in the construction of axial lead types.

These resistors are supplied with a thru hole for mounting to the chassis by means of a #6 thru bolt.

Our standard resistors are supplied with temperature coefficients of ±10 PPM/°C.

Lower temperature coefficients can be obtained upon request.

Standard tolerance 1%, 0.5%, 0.1%, .05%, .025%, .02%, .01%.

STANDARD AXIAL LEAD PRECISION RESISTORS

Type	Military Specs. New	Military Specs. Old	Commercial Wattage Rating	Max. Resist. Based on .0007 E Alloy	Military Wattage Rating	Max. Volts	Size Length	Size Dia.
0808AL			.125W	300K		200V	¼″	¼″
1108AL	RB56		.125W	350K	.125W	250V	11/32″	¼″
1608AL	RB55	AFRT 10	.250W	400K	.15 W	184V	½″	¼″
1208AL			.200W	350K	.250W	225V	⅜″	¼″
2408AL	RB54	AFRT 11	.333W	1 meg.	.250W	300V	¾″	¼″
2412AL	RB53	AFRT 12	.500W	1.2 meg.	.333W	300V	¾″	⅜″
3212AL	RB52	AFRT 13	1.000W	2 meg.	.400W	600V	1″	⅜″
1616AL			.500W	1.3 meg.		300V	½″	½″
3216AL	RF57	AFRT 14	1.000W	3 meg.	.750W	600W	1″	½″
4816AL	RB58	AFRT 15	2.000W	6 meg.	1.000W	900V	1½″	½″
6416AL	RB59	AFRT 16	2.500W	10 meg.	1.250W	1200V	2″	½″
2008AL			.500W	.425 meg.		300V	⅝″	¼″
1612AL			.400W	.500 meg.		300V	½″	⅜″
2012AL			.750W	.600 meg.		600V	⅝″	⅜″
3208AL			.500W	1.1 meg.		300V	1″	¼″
2016AL			.750W	2 meg.		600V	⅝″	½″
1212AL			.250W	1 meg.		225V	⅜″	⅜″

SUB-MINIATURE AXIAL LEAD PRECISION RESISTORS

Type	Commercial Wattage Rating	Maximum Resistance based on .0007 E Alloy	Maximum Voltage	Size Length	Size Dia.
500156AL	.1W	70K	85 Volts	½″	5/32″
625156AL	.15W	100K	125 Volts	⅝″	5/32″
375125AL	.125	50K	72 Volts	⅜″	⅛″
109250AL	.120	25K	50 Volts	¼″	7/64″
375187AL	.1W	40K	65 Volts	⅜″	3/16″
375109AL	.120	30K	55 Volts	⅜″	7/64″
375093AL	.1	20K	55 Volts	⅜″	3/32″

ENCAPSULATED PRINTED CIRCUIT RESISTORS

Type	Military Specs.	Commercial Wattage	Military Wattage	Max. Volts	Max. Resist. Based on .0007	Length	Sizes Dia.	Lead Spacing	Lead Length
0808PC		.125W		90V	70K	¼″	¼″	.100	1″
1208PC		.200W		200V	200K	⅜″	¼″	.100	1″
1608PC		.250W		184V	400K	½″	¼″	.100	1″
2408PC		.333W		300V	1 meg.	¾″	¼″	.100	1″
3208PC		.500W		750V	1.1 meg.	1″	¼″	.100	1″
1008PC	RB71	.250W	.125W	240V	250K	5/16″	¼″	.200	1″
1612PC	RB70	.500W	.250W	150V	.301 meg.	½″	⅜″	.200	1″
3212PC		1.000W		1350V	1.75 meg.	1″	⅜″	.250	1″
3232PC		1.250W		1700V	2.50 meg.	1″	½″	.250	1″

STANDARD RADIAL LUG PRECISION RESISTORS

Type	Military Specs. New	Military Specs. Old	Commercial Wattage	Military Wattage Rating	Maximum Voltage	Max. Resist. Based on .0007	Size Length	Size Dia.
1616RLU	RB08	AFRT 17	.500	¼W	300V	885K	½″	½″
2020RLU	RB16	AFRT 18	.666	⅓W	300V	1 meg.	⅝″	⅝″
3220RLU	RB17	AFRT 19	1.000	½W	600V	2.5 meg.	1″	⅝″
4024RLU	RB18		1.500	¾W	600V	6.5 meg.	1¼″	¾″
6828RLU	RB19		2.000	1W	900V	12 meg.	2⅛″	⅞″

CHARLES T. GAMBLE INDUSTRIES
Precision Wire Wound Resistors

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CARBON COMPOSITION RESISTORS

IRC, Inc.

TYPE GBT CARBON COMPOSITION RESISTORS

PERFORMANCE CHARACTERISTICS

These are shown in relation to MIL-R-11 specification limits on the following two pages. A performance span or range is given for each important characteristic. You know in advance the typical limits within which IRC carbon composition resistors can be expected to perform.

The performance data are based on many thousands of individual tests made on random samples taken from production. The resistors are tested to MIL-R-11, and to other tests of greater severity.

APPEARANCE

IRC carbon composition resistors have a glossy brown, smooth body. The molded jacket has close dimensional tolerances for trouble-free use in high speed lead forming and inserting machines. There is no wax coating to clog equipment.

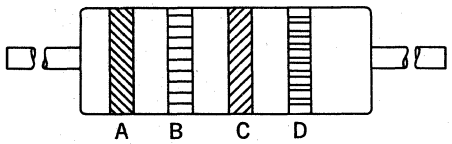
IDENTIFICATION

Resistance values are clearly indicated by standard EIA/MIL Color Code bands. Solvent-resistant paints are baked on to provide distinct, permanent color bands.

STANDARD RESISTANCE VALUES

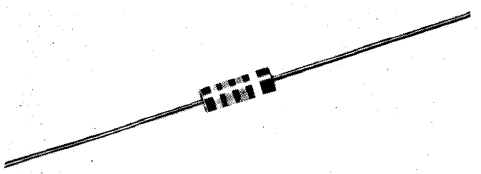
Type GBT resistors are supplied in all EIA/MIL standard values, subject to the minimum and maximum values for each type. (See table.) Other values are available on special order.

EIA/MIL COLOR CODE



Band A—1st significant figure
Band B—2nd significant figure
Band C—Number of zeros or decimal multiplier
Band D—Tolerance

Color	Significant Figure	Multiplying Value
Black	0	1
Brown	1	10
Red	2	100
Orange	3	1,000
Yellow	4	10,000
Green	5	100,000
Blue	6	1,000,000
Violet	7	10,000,000
Gray	8	100,000,000
White	9	1,000,000,000
Gold	±5% tolerance	0.1
Silver	±10% tolerance	0.01
No color	±20% tolerance	



FIXED COMPOSITION RESISTORS.

IRC's unique design of ¼-, ½- and 1-watt resistors means better performance and reliability. 50% more molding around the resistance element assures greater moisture protection. The working element is a layer of carbon thermally bonded to an inert glass filament for better resistance and temperature characteristics. Ribbed, shoulder leads are deeply imbedded in the molding to prevent twist or pull-out and act as heat sinks to conduct heat away for cooler operation and longer field life.

IRC TYPE	GBT¼	GBT½	GBT 1	SR 2
MIL Style	RC07	RC20	RC32	RC42
MIL Characteristic	GF	GF	GF	GF
Rating	¼w @ 70° amb.	½w @ 70° amb.	1w @ 70° amb.	2w @ 70° amb.
Minimum Resistance	10 ohms	2.7 ohms	2.7 ohms	10 ohms
Maximum Resistance	1 meg	22 meg	22 meg	22 meg
Rated Voltage	250V	350V	500V	500V
Dimensions—Body size	.250" x .090" dia.	.390" x .140" dia.	.562" x .225" dia.	11/16" x .312" dia.
Lead size	1½" x .025" dia.	1½" x .031" dia.	1½" x .040" dia.	1½" x .045" dia.

STANDARD STOCK VALUES

10% and 5% tolerance. 10% in bold type. All values available in 5%. Values are indicated on each resistor by EIA color code.

2.7	**10**	**39**	**150**	**560**	**2,200**	**8,200**	**33K**	**120K**	**470K**	**1.8 meg.**	**6.8 meg.**
3.0	11	43	160	620	2,400	9,100	36K	130K	510K	2.0 meg.	7.5 meg.
3.3	**12**	**47**	**180**	**680**	**2,700**	**10K**	**39K**	**150K**	**560K**	**2.2 meg.**	**8.2 meg.**
3.6	13	51	200	750	3,000	11K	43K	160K	620K	2.4 meg.	9.1 meg.
3.9	**15**	**56**	**220**	**820**	**3,300**	**12K**	**47K**	**180K**	**680K**	**2.7 meg.**	**10.0 meg.**
4.3	16	62	240	910	3,600	13K	51K	200K	750K	3.0 meg.	11.0 meg.
4.7	**18**	**68**	**270**	**1,000**	**3,900**	**15K**	**56K**	**220K**	**820K**	**3.3 meg.**	**12.0 meg.**
5.1	20	75	300	1,100	4,300	16K	62K	240K	910K	3.6 meg.	13.0 meg.
5.6	**22**	**82**	**330**	**1,200**	**4,700**	**18K**	**68K**	**270K**	**1.0 meg.**	**3.9 meg.**	**15.0 meg.**
6.2	24	91	360	1,300	5,100	20K	75K	300K	1.1 meg.	4.3 meg.	16.0 meg.
6.8	**27**	**100**	**390**	**1,500**	**5,600**	**22K**	**82K**	**330K**	**1.2 meg.**	**4.7 meg.**	**18.0 meg.**
7.5	30	110	430	1,600	6,200	24K	91K	360K	1.3 meg.	5.1 meg.	20.0 meg.
8.2	**33**	**120**	**470**	**1,800**	**6,800**	**27K**	**100K**	**390K**	**1.5 meg.**	**5.6 meg.**	**22.0 meg.**
9.1	36	130	510	2,000	7,500	30K	110K	430K	1.6 meg.	6.2 meg.	

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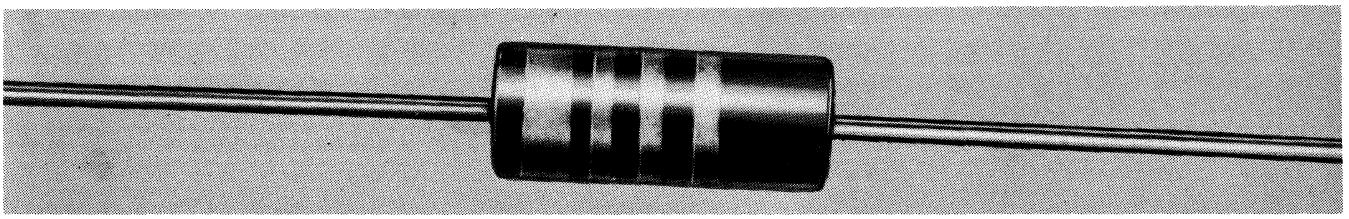
MOLDED WIREWOUND RESISTORS

IRC, Inc.



OUTPERFORMS FIXED COMPOSITION RESISTORS

IRC's new BWH molded wire wound resistor can be used in most applications normally filled by the lower values of composition resistors. The BWH exhibits the inherent stability, reliability, and long-term life characteristics of a wire wound unit. It also provides low resistances unattainable in composition resistors.

Exceptionally stable, small and completely insulated the BWH meets or exceeds all MIL-R-11 performance requirements. Because it is the RC-32 size it will fit any 1 watt composition resistor processing equipment.

BWH resistors are packaged on the exclusive IRC GRIP STRIP, and are available in multiples of 10 and 50.

The rating of this resistor is:

½ watt at 137°C. ambient
1 watt at 115°C. ambient
2 watts at 70°C. ambient.

TOLERANCES & RESISTANCE VALUES. Available in ± 5% and ± 10% tolerances in accordance with standard EIA resistance values. Minimum standard resistance: 0.24 ohm. Maximum standard resistance: 1800 ohms.

COLOR CODING. Resistance values are indicated by standard EIA Color Code bands, and are distinguished from composition resistors by a wide band for the first significant figure.

INSULATION. A plastic housing molded with IRC manufactured thermosetting materials at high pressure and temperature results in a high insulation resistance. This protects the element from effects of extreme climatic conditions. Type BWH resistors are brown in color.

NOISE. Negligible.

SHELF DRIFT. Negligible.

PERFORMANCE SPECIFICATIONS

Temperature Coefficient. (— 55°C to 150°C)

± 0.065%/°C	± 0.030%/°C
0.24 ohm to 1.0 ohm	1.1 ohms to 1800 ohms

In order to cover a wide range of resistance values, it is necessary to use different wire alloys, which have different temperature coefficients of resistance. The above table gives the maximum temperature coefficient within a particular resistance group.

Inductance. From 0.04μh (0.24 ohm resistor) to 5.0μh (1000 ohm resistor).

Dielectric Withstanding Voltage. 1000 volts rms minimum at atmospheric pressure. 625 volts rms minimum at barometric pressure of 3.4 inches of mercury.

STANDARD STOCK VALUES (±5% and ±10% tolerance)
(±10% tolerance in bold type. All values available in ±5%)

OHMS	OHMS	OHMS	OHMS	OHMS
—	**1.0**	**10**	**100**	**1,000**
—	1.1	11	110	1,100
—	**1.2**	**12**	**120**	**1,200**
—	1.3	13	130	1,300
—	**1.5**	**15**	**150**	**1,500**
—	1.6	16	160	1,600
—	**1.8**	**18**	**180**	**1,800**
—	2.0	20	200	—
—	**2.2**	**22**	**220**	—
0.24	2.4	24	240	—
0.27	**2.7**	**27**	**270**	—
0.30	3.0	30	300	—
0.33	**3.3**	**33**	**330**	—
0.36	3.6	36	360	—
0.39	**3.9**	**39**	**390**	—
0.43	4.3	43	430	—
0.47	**4.7**	**47**	**470**	—
0.51	5.1	51	510	—
0.56	**5.6**	**56**	**560**	—
0.62	6.2	62	620	—
0.68	**6.8**	**68**	**680**	—
0.75	7.5	75	750	—
0.82	**8.2**	**82**	**820**	—
0.91	9.1	91	910	—

Low Temperature Operation. ± 3% maximum.

Temperature Cycling. ± 3% maximum.

Moisture Resistance. ± 6.5% maximum (load or no load).

Short Time Overload. (8 watts for 5 seconds) ± 3.0% maximum.

Load Life. (After 1000 hrs. at temperature and loading shown on derating curve.) ± 5% maximum group average. ± 10% maximum individual.

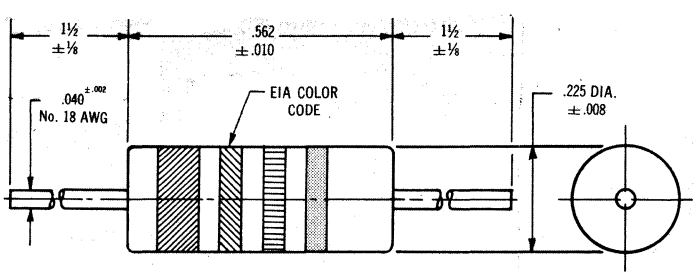
Terminal Strength. ± 1% maximum.

Solder. ± 3% maximum.

Acceleration, Shock, High Frequency Vibration. ± 2% maximum.

All tests performed as required in MIL-R-11 specification unless noted otherwise.

NOTE: Because of test inaccuracies common in measuring low resistance values, an allowance of 0.01 ohm should be added to the resistance change limits listed above.



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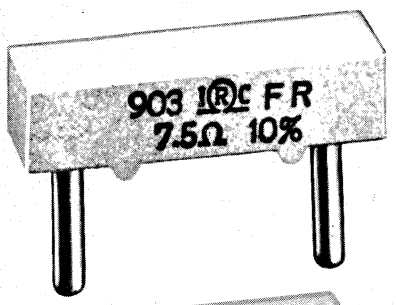
POWER & FUSE RESISTORS

IRC, Inc.

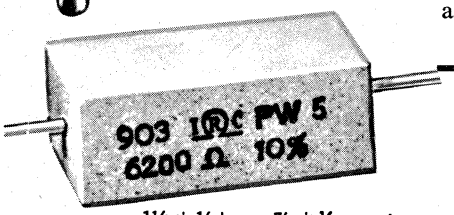


FUSE RESISTORS

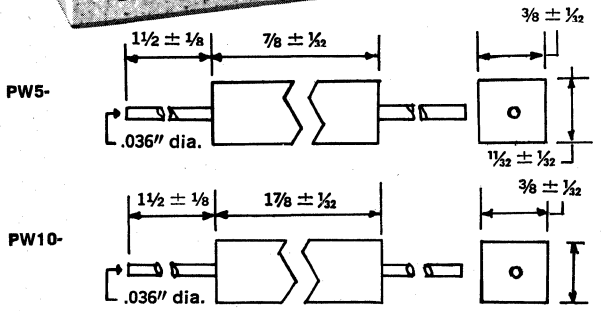
This special resistor functions as a resistor under normal conditions, and as a fuse under overload conditions. It is used extensively as a surge-limiting resistor in voltage doubler circuits of TV receivers. Installation of an IRC Type FR fuse resistor in a TV set will prevent overloading of more valuable components and possible fire due to a short circuit. The compact, modern design of IRC fuse resistor measures only 1 25/64" x 11/32" x 3/8". This unit is completely insulated in a rectangular ceramic case, and equipped with plug-in terminals.

FR5.0*—5 ohms
FR5.6—5.6 ohms
FR7.5—7.5 ohms

*suitable for 4.7Ω fuse for resistor applications



AXIAL LEAD POWER WIRE WOUND RESISTORS TYPES PW5 PW10



STANDARD STOCK VALUES

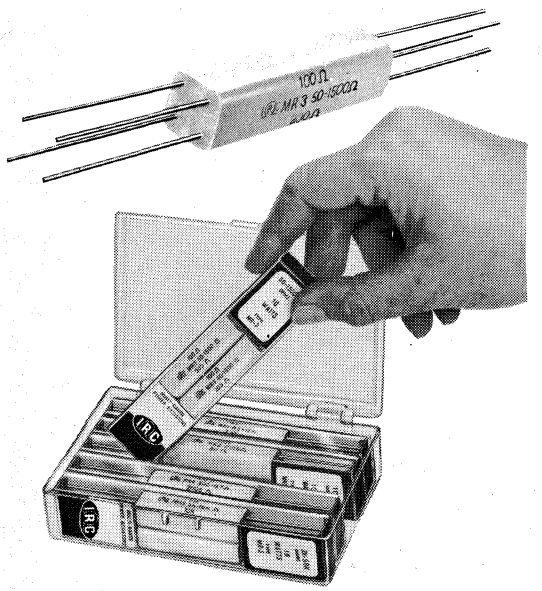
PW5 Ohms:				PW10 Ohms:			
.15	7.5	300	2000	1	120	1000	6000
.22	10	350	2250	2	125	1200	7000
.27	15	400	2500	3	150	1250	7500
.33	20	500	3000	4	200	1500	8000
.47	25	600	3300	5	250	1750	8200
.51	30	700	3500	7.5	300	2000	8500
.56	40	750	3900	10	350	2250	9000
.68	50	800	4000	15	400	2500	10,000
.82	75	820	4500	20	500	3000	12,000
1	100	900	5000	25	600	3300	12,500
2	120	1000	6000	30	700	3500	15,000
3	125	1200		40	750	3900	20,000
4	150	1250		50	800	4000	25,000
5	200	1500		75	820	4500	
5.6	250	1750		100	900	5000	

These popular axial lead power resistors are the industry favorites for 5 and 10 watt applications. The compact shape fits among other components more easily. The axial lead design speeds installation. And, the superior solderability of the terminals assures sound connections every time.

A precisely wound element is sealed in a ceramic case—fully protected and insulated. Conservative rating permits continuous operation at full power. Resistance, wattage and tolerance are permanently marked on resistor body. Standard tolerance is 10%.

A Popular Assortment of PW10 resistors is available for handy bench stocks. Values are selected on the basis of usage. Resistors are mounted on plastic covered cards with hole for hanging.

Assortment 20A — 20 best selling PW10 resistors



MULTI-RANGE POWER RESISTORS

Up to 47 values from a single resistor. 5 multi-range resistors give complete 10 watt coverage . . . 200 values from ½ to 50,000 ohms. No delays for a particular value, and you don't tie up inventory with odd values. Ideal for in-home servicing and weekend shop work.

Four-wire wound elements are sealed in a steatite housing. It's simple to solder a basic interconnection for the required value, and cut off unused terminals. Connection diagrams included.

5 TYPES COVER 200 VALUES

TYPE MR1. 0.5 through 15 ohms. 1, 2, 4, 8 ohm elements. 10 watts. 47 values.

TYPE MR2. 5 through 150 ohms. 10, 20, 40, 80 ohm elements. 10 watts. 47 values.

TYPE MR3. 50 through 1,500 ohms. 100, 200, 400, 800 ohm elements. 10 watts. 47 values.

TYPE MR4. 500 through 15K ohms. 1K, 2K, 4K, 8K ohm elements. 10 watts. 47 values.

TYPE MR5. 3K through 50K ohms. 10K, 10K, 15K, 15K ohm elements. 10 watts. 12 values.

MULTI-RANGE KIT #55

Complete 10 watt power resistor coverage that fits in the palm of your hand. Rigid clear plastic case holds 5 Handy-Paks, 2 of each type MR resistor. With these 10 versatile resistors you have finger-tip coverage of 200 values from ½ to 50,000 ohms. Fits easily in tool case or tube caddy.

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TUBULAR POWER WIREWOUND RESISTORS

IRC, Inc.

RESISTEG COATED POWER RESISTORS need no derating. They operate at full rated power even at high resistance values. Other features include heat resistant terminals for easy soldering, ceramic cores that withstand shock and are impervious to moisture, heavy windings that handle overloads without burnout, and standard size spring loaded push-in brackets for easy mounting on sizes of 25 watts and over.

IRC Tubular Power Wirewound Resistors are standard tubular construction with lugs and/or leads for use in general applications. They are used in DC and low frequency AC circuits where appreciable power must be dissipated:

- **High voltage bleeder resistors in power supplies**
- **Voltage dropping resistors**
- **Voltage divider networks**
- **Bias supply resistor**
- **RC decoupling resistor**
- **Filament dropping resistor**
- **Load resistor**
- **Shunt resistor**

FIXED RESISTANCE TYPES

TYPE 1A—5-8 watts. Resisteg coating. Core Size: 1" long by 5/16" dia. Terminals: 13A. Tolerance: ±5%. No mounting hardware included. Standard package: 5.

Ohms					
1	20	200	750	2250	8000
1.5	25	225	800	2500	9000
2	30	250	900	3000	10K
3	35	300	1000	3500	12.5K
4	40	350	1100	4000	15K
5	50	400	1200	4500	17.5K*
7.5	75	450	1250	5000	20K*
10	100	500	1500	6000	22.5K*
12	125	600	1750	7000	25K*
15	150	700	2000	7500	

* No. 1 Terminal

TYPE 1¾A—10-12 watts. Resisteg coating. Core Size: 1¾" long x 5/16" dia. Terminals: 13A. Tolerance: ±5%. No mounting hardware included. Standard package: 5.

Ohms					
1	30	350	1250	7000	17.5K
1.5	35	400	1500	7500	18K
2	40	450	1750	8000	20K
3	50	500	2000	8500	22.5K
4	75	600	2250	9000	25K
5	100	700	2500	10K	30K
7.5	125	750	3000	11K	35K
10	150	800	3500	12K	40K
12	200	900	4000	12.5K	45K
15	225	1000	4500	13.5K	50K
20	250	1100	5000	15K	
25	300	1200	6000	16K	

TYPE 2C—20 watts. Resisteg coating. Core size: 2" long x 7/16" dia. Terminals: 13A. Tolerance: ±5%. No mounting hardware included. Standard package: 5.

Ohms					
1	150	800	2750	10K	55K
2	200	900	3000	12.5K	60K
3	250	1000	3500	15K	65K
4	300	1200	4000	20K	70K
5	350	1250	4500	25K	75K
10	400	1500	5000	30K	80K
25	500	1750	6000	35K	85K*
50	650	2000	7000	40K	90K*
75	700	2250	7500	45K	95K*
100	750	2500	8000	50K	100K*
			9000		

* No. 1 Terminal.

TYPE 2D—25 watts. Resisteg coating. Core size: 2" long x 7/16" dia. Terminals: 12A Tolerance: ±5%. Mounting hardware included: Z-1 brackets. Standard package 1.

Ohms					
1	25	500	3000	12K	50K
2	50	750	3500	15K	60K
3	75	800	4000	20K	70K
4	100	1000	5000	25K	80K
5	150	1500	6000	30K	100K
10	200	2000	7500	35K	
15	250	2500	10K	40K	

TYPE 4D—50 watts. Resisteg coating. Core size: 4" long x 7/16" dia. Terminals: 12A. Tolerance: ±5%. Mounting hardware included: Z-1 bracket. Standard package: 1.

Ohms					
1	50	750	4000	20K	150K
2	75	800	5000	25K	175K
3	100	1000	7500	35K	200K
4	150	1500	8000	50K	250K
5	200	2000	10K	75K	
10	250	2500	12K	100K	
25	500	3000	15K	125K	

TYPE 6½E—100 watts. Resisteg coating. Core size: 6½" long x ¾" dia. Terminals: 12A. Tolerance: ±5%. Mounting hardware included: Z-2 bracket. Standard package: 1.

Ohms					
1	25	250	2500	20K	75K
2	50	500	3000	25K	100K
3	75	750	5000	30K	
4	100	1000	7500	40K	
5	125	1500	10K	50K	
10	150	2000	15K	60K	

TYPE 8½H—160-175 watts. Resisteg coating. Core size: 8½" long x 1⅛" dia. Terminals: 4A. Tolerance: ±5%. Mounting hardware included: Z-3 brackets. Standard package: 1.

Ohms					
1	25	250	2500	20K	75K
2	50	500	3000	25K	100K
3	75	750	5000	30K	
4	100	1000	7500	40K	
5	125	1500	10K	50K	
10	150	2000	15K	60K	

TYPE 10½H—200-225 watts. Resisteg coating. Core size: 10½" long x 1⅛" dia. Terminals: 4A. Tolerance: ±5%. Mounting hardware included: Z-3 brackets. Standard package: 1.

Ohms					
1	25	250	2500	20K	75K
2	50	500	3000	25K	100K
3	75	750	5000	30K	
4	100	1000	7500	40K	
5	125	1500	10K	50K	
10	150	2000	15K	60K	

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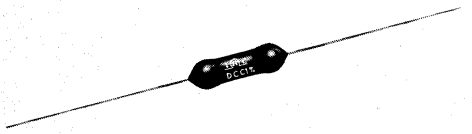
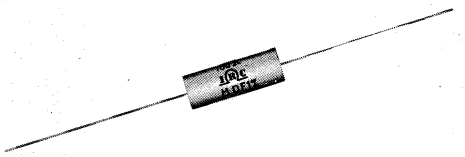
PRECISION DEPOSITED CARBON RESISTORS

IRC, Inc.



DEPOSITED CARBON PRECISIONS are available in ½, 1 and 2 watt sizes. The wide range of values, 1% tolerance, economy, low voltage coefficient, excellent frequency characteristics, predictable temperature, high voltage rating, low noise level, and small size make IRC deposited carbon resistors ideal for application in advanced electronic equipment and critical TV circuits.



MOLDED DEPOSITED CARBON RESISTORS are designed for high reliability, stable performance, low voltage coefficient, low capacitive and inductive impedance in high frequency applications. In miniature ⅛, ¼, and ½ watt sizes, plus 1 and 2 watt types.

Standard tolerance is 1%. (2% tolerance on high range units.) The housing gives complete protection, and offers better heat dissipating qualities. This results in improved load life and maximum moisture protection.

MIL VALUES—TYPES DCC, DCF, DCH and MDC

One decade of standard values is as follows:

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
10.0	12.1	14.7	17.8	21.5	26.1	31.6	38.3	46.4	56.2	68.1	82.5
10.2	12.4	15.0	18.2	22.1	26.7	32.4	39.2	47.5	57.6	69.8	84.5
10.5	12.7	15.4	18.7	22.6	27.4	33.2	40.2	48.7	59.0	71.5	86.6
10.7	13.0	15.8	19.1	23.2	28.0	34.0	41.2	49.9	60.4	73.2	88.7
11.0	13.3	16.2	19.6	23.7	28.7	34.8	42.2	51.1	61.9	75.0	90.9
11.3	13.7	16.5	20.0	24.3	29.4	35.7	43.2	52.3	63.4	76.8	93.1
11.5	14.0	16.9	20.5	24.9	30.1	36.5	44.2	53.6	64.9	78.7	95.3
11.8	14.3	17.4	21.0	25.5	30.9	37.4	45.3	54.9	66.5	80.6	97.6

Higher standard values may be determined by multiplying by 10, 100, 1000, etc., up to maximum stated for type.

SELECTION GUIDE

IRC Type	MIL Type	MIL Char.	Power Watts		Resistance Min. Ohms	Resistance Max. Ohms	Tolerance	Body Size	Temperature Coefficient PPM/°C	Lead Dia.
	MIL-R-10509		@ 70°C	@ 125°C						
DM	RN55	D	⅛		10	301K		—500	.250x.093	.025
MDA	RN60	B, D	⅛, ¼	⅛	10	5 meg.		—500	.406x.130	.025
MDB	RN65	B, D	¼, ½	¼	10	5 meg.	0.5%	—500	.594x.203	.025
MDC	RN70	B, D	½, 1	½	10	25 meg.	1.0%	—500	.719x.216	.032
MDF	RN70	B	1		10	50 meg.	2.0%	—500	1.105x.395	.032
MDH	RN80	B	2		15	100 meg.		—500	2.234x.395	.032
			@ 40°C	@ 70°C						
DCC	RN20	X		½	10	25 meg.		—500	.594x.156	.032
DCF	RN25	X	1		10	50 meg.		—500	.938x.297	.032
DCH	RN30	X	2		15	100 meg.		—500	2.062x.297	.032

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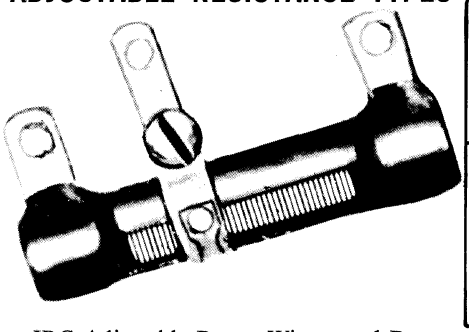
ADJUSTABLE & MILITARY POWER RESISTORS

IRC, Inc.

ADJUSTABLE RESISTANCE TYPES



IRC Adjustable Power Wirewound Resistors are standard resistors with a track of exposed wire to allow for the adjustable feature. The track or slot is made by masking a section of the winding before coating, and then removing the mask after the coating has cured. No wire brushing, which could damage the resistance wire, is used.

The IRC adjustable feature provides the ideal solution to odd resistance values and to handling a variety of line voltages. One or more adjustable lugs may be used for voltage divided applications.

TYPE 1¾AA—10-12 watts. Core size: 1¾" long x 5/16" dia. Terminals: 12A. One adjustable band: type A. Tolerance: ±10%. Standard package: 1. Mounting hardware included: Z-0 brackets.

Ohms					
1	20	250	800	3000	7500
2	25	300	1000	3500	8000
3	50	350	1250	4000	8500
5	75	400	1500	4500	9000
7.5	100	500	2000	5000	10K
10	150	600	2250	6000	
15	200	750	2500	7000	

TYPE 2DA—25 watts. Core size: 2" long x 5/16" dia. Terminals: 12A. One adjustable band: type X-2. Tolerance: ±10%. Mounting hardware included: Z-1 bracket. Standard package: 1.

Ohms					
1	20	250	1250	4000	9000
2	25	300	1500	4500	10K
3	50	400	2000	5000	12K
5	75	500	2250	6000	15K
7.5	100	750	2500	7000	20K
10	150	800	3000	7500	25K
15	200	1000	3500	8000	

TYPE 4DA—50 watts. Core size: 4" long x 5/16" dia. Terminals: 12A. One adjustable band. Tolerance: ±10%. Mounting hardware included: Z-2 brackets. Standard package: 1.

Ohms					
1	75	750	3000	7500	25K
2	100	800	3500	8000	30K
3	150	1000	4000	9000	40K
4	200	1250	4500	10K	50K
5	250	1500	5000	12K	60K
10	300	2000	6000	15K	80K
25	400	2250	7000	20K	100K
50	500	2500			

TYPE 5EA—75 watts. Core size: 5" long x ¾" dia. Terminals: 12A. One adjustable band. Tolerance: ±10%. Mounting hardware included: Z-2 brackets. Standard package: 1.

Ohms					
1	5	100	1500	15K	40K
2	10	250	2500	20K	50K
3	25	500	5000	25K	75K
4	50	1000	10K	30K	100K

TYPE 6½EA—100 watts. Core size 6½" long x ¾" dia. Terminals: 12A. One adjustable band. Tolerance: ±10%. Mounting hardware included: Z-2 brackets. Standard package: 1.

Ohms					
1	5	100	1500	15K	40K
2	10	250	2500	20K	50K
3	25	500	5000	25K	75K
4	50	1000	10K	30K	100K

TYPE 8½HA—160-175 watts. Core size: 8½" long x 1⅛" dia. Terminals: 4A. One adjustable band. Tolerance: ±10%. Mounting hardware included: Z-3 brackets. Standard package: 1.

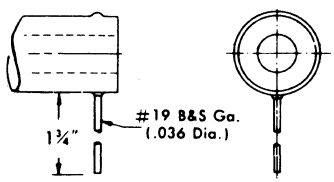
Ohms					
1	5	100	1500	15K	40K
2	10	250	2500	20K	50K
3	25	500	5000	25K	75K
4	50	1000	10K	30K	100K

TYPE 10½HA—200-225 watts. Core size: 10½" long x 1⅛" dia. Terminals: 4A. One adjustable band. Tolerance: ±10%. Mounting hardware included: Z-3 brackets. Standard package: 1.

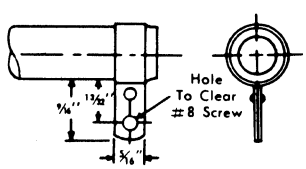
Ohms					
1	5	100	1500	15K	40K
2	10	250	2500	20K	50K
3	25	500	5000	25K	75K
4	50	1000	10K	30K	100K

TERMINAL AND BRACKET TYPES

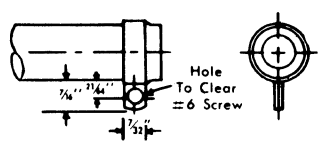
Type 1



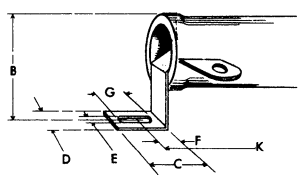
Type 4A



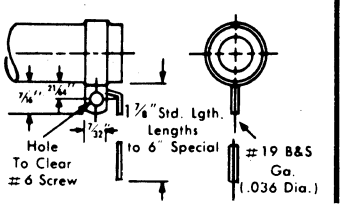
Type 12A



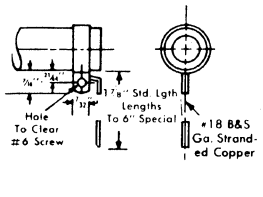
Z BRACKET STANDARD



Type 13A



Type 14A



Bracket Type	Use with Resistor O.D.	Use with Resistor Type	DIMENSIONS A	B	C	D	E	F	G	K
Z-0	5/16	A	—	19/32	1/2	5/16	.173	15/64	.266	Core Lgth. + 15/32
Z-1	9/16	D	—	1¼	9/16	5/16	.173	5/16	19/64	" " + 5/8
Z-2	¾	E	—	1 7/16	5/8	⅜	.173	11/32	23/64	" " + 11/16
Z-3	1⅛	H	—	2 1/16	11/16	½	3/16	13/32	¼	" " + 13/16
Z-4	7/16	C	—	5/8	29/64	7/32	9/64	¼	9/64	" " + ½

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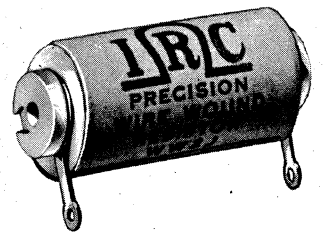
PRECISION WIREWOUND RESISTORS

IRC, Inc.



WIREWOUND PRECISION RESISTORS.

For accuracy in critical applications, IRC Precision Wire Wound resistors are produced to exacting standards of reliability. IRC's winding technique prevents shorted turns or strains in the winding, and special insulation gives excellent protection from humidity. Positive electrical connections and easy soldering.

RADIAL LUG TYPES

IRC TYPE NO	WW2J	WW3J	WW4J	WW5J	WW8J*	WW11J*
MIL-R-93A Style	RB19	RB16	RB17	RB18	RB15	RB16
Rating in Watts 65°C. Ambient	2	.50	1	1	.50	.50
Maximum Volts	2000	400	700	1000	250	500
No. of Sections	8	2	4	4	1	2
Maximum Resistance .0015 Diameter Wire	4.0 Meg.	0.3 Meg.	0.75 Meg.	1.7 Meg.	0.29 Meg.	0.4 Meg.
Maximum Reistance .0009 Diameter Wire	20.0 Meg.	1.6 Meg.	4.0 Meg.	7.5 Meg.	1.5 Meg.	2.0 Meg.
Minimum Resistance (ohms)						
±0.05% Tolerance	25	25	25	25	25	25
±0.1 % Tolerance	10	10	10	10	10	10
±0.25% Tolerance	5	5	5	5	5	5
±0.50% Tolerance	1	1	1	1	1	1
±1.0 % Tolerance	0.1	0.1	0.1	0.1	0.5	0.1

RADIAL LEAD TYPES

IRC TYPE NO.	WW3J*	WW4J*	WW8J*	WW10J	WW11J*	WW20J*	WW21J*	WW22J* (Center Tapped)	WW23J*	WW24J* (Center Tapped)
Rating in Watts 65°C. Ambient	.50	1	.50	.25	.50	.25	.25	.25†	.50	.50†
Maximum Volts	400	700	250	150	500	150	300	150†	300	400†
No. of Sections	2	4	1	1	2	1	2	2	2	4
Maximum Resistance .0015 Diameter Wire	0.3 Meg.	0.75 Meg.	0.29 Meg.	40K	0.4 Meg.	35K	70K	35K†	225K	350K†
Maximum Resistance .0009 Diameter Wire	1.6 Meg.	4.0 Meg.	1.5 Meg.	0.215 Meg.	2.0 Meg.	150K	500K	250K	1.5 Meg.	1,5 Meg.†
Minimum Resistance (ohms)										
±0.05% Tolerance	25	25	25	200	25	250	200	200†	25	25 †
±0.10% Tolerance	10	10	10	150	10	200	150	150†	10	10 †
±0.25% Tolerance	5	5	5	75	5	100	75	75†	5	5 †
±0.5 % Tolerance	1	1	1	50	1	75	50	50†	* 1	1 †
±1.0 % Tolerance	0.1	0.1	0.5	10	0.1	10	10	10†	0.5	0.1†

† signifies per tap section * Special manufacturing applies

STANDARD STOCK TYPES AND VALUES

TYPE WW2J with lugs—1% Tolerance

600K Ohms	1.0 Megohm
750K Ohms	1.5 Megohms
900K Ohms	2.0 Megohms
	2.5 Megohms

TYPE WW3J with lugs—1% Tolerance

0.1 Ohm	1,500 Ohms	30K Ohms
0.2 Ohm	2,000 Ohms	35K Ohms
0.5 Ohm	2,500 Ohms	40K Ohms
1.0 Ohm	3,000 Ohms	50K Ohms
5 Ohms	3,500 Ohms	60K Ohms
10 Ohms	4,000 Ohms	75K Ohms
25 Ohms	5,000 Ohms	100K Ohms
50 Ohms	7,500 Ohms	125K Ohms
100 Ohms	10K Ohms	150K Ohms
200 Ohms	12.5K Ohms	175K Ohms
250 Ohms	15K Ohms	200K Ohms
300 Ohms	20K Ohms	225K Ohms
500 Ohms	22.5K Ohms	
1,000 Ohms	25K Ohms	

TYPE WW4J with lugs—1% Tolerance

0.1 Ohm	2,000 Ohms	40K Ohms
0.2 Ohm	2,500 Ohms	50K Ohms
0.5 Ohm	3,000 Ohms	60K Ohms
1.0 Ohm	3,500 Ohms	75K Ohms
5 Ohms	4,000 Ohms	100K Ohms
10 Ohms	5,000 Ohms	125K Ohms
25 Ohms	7,500 Ohms	150K Ohms
50 Ohms	10K Ohms	175K Ohms
100 Ohms	12.5K Ohms	200K Ohms
200 Ohms	15K Ohms	225K Ohms
250 Ohms	20K Ohms	250K Ohms
300 Ohms	22.5K Ohms	300K Ohms
500 Ohms	25K Ohms	400K Ohms
1,000 Ohms	30K Ohms	500K Ohms
1,500 Ohms	35K Ohms	

TYPE WW5J with lugs—1% Tolerance

600K Ohms	900K Ohms
750K Ohms	1.0 Megohm

TYPE WW10J with leads—1% Tolerance

10 Ohms	2,000 Ohms	20K Ohms
25 Ohms	2,500 Ohms	25K Ohms
50 Ohms	3,000 Ohms	30K Ohms
100 Ohms	3,500 Ohms	40K Ohms
200 Ohms	4,000 Ohms	50K Ohms
250 Ohms	5,000 Ohms	60K Ohms
300 Ohms	7,500 Ohms	75K Ohms
500 Ohms	10K Ohms	100K Ohms
1,000 Ohms	12.5K Ohms	
1,500 Ohms	15K Ohms	

Special Resistance Tolerances

Standard tolerances ±1%. Other tolerances, subject to minimum values shown on specification charts, are available on special order for all WWJ types, as follows:

0.5% 0.25% 0.2% 0.1% 0.05%

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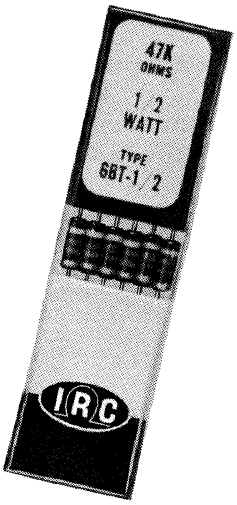
RESISTOR KITS & ASSORTMENTS

IRC, Inc.



HANDY-PAKS

The neatest, most compact resistor package available, and it's exclusive from IRC. Slimline plastic sleeve keeps leads straight and in place.

- Easier to identify—Type, resistance value and power rating on every Handy-Pak. Resistor color code is easily seen through the plastic.
- Handier to use—Opens at either end. Simply slide package out of plastic sleeve . . . withdraw the required number of resistors and slide the package into the sleeve.
- Quicker to find—Handy-Paks can be indexed by power rating and resistance. Resistors are always visible for inventory.

3 TYPES AVAILABLE—10% tolerance.

. . . ½ watt contains 6 GBT½ carbon composition resistors; 1 watt package contains 4 GBT1 resistors and the 2 watt Handy-Pak contains 3 SR2 resistors.

RESIST-O-CADDY

Ideal for in-home servicing. Plastic pouch folds to 6¾" x 3⅞" x 1½" . . . fits easily in tube caddy or tool chest. Individual pockets keep Handy-Paks secure and orderly.

Accurate inventory in always visible. Resist-O-Caddy FREE with either of these two popular assortments:

ASSORTMENT #41

120 GBT½ ½-watt resistors
(10% tolerance)
6 each of 20 values

ohms:	47	150	1,000	2,200	10K	27K	100K	270K	1.0 meg	4.7 meg
	100	470	1,500	4,700	22K	47K	220K	470K	2.2 meg	10 meg

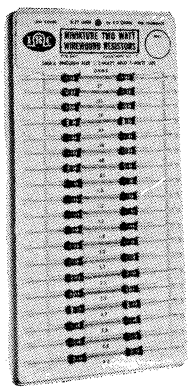
ASSORTMENT #45

80 GBT1 1-watt resistors
(10% tolerance)
4 each of 20 values

ASSORTMENT NO. 77

SERVICE CONVENIENCE FROM IRC

This new BWH resistor assortment is a real time and work saver. Resistors are neatly mounted in a sturdy 6" x 12" molded plastic dispenser. They are removed easily, but do not fall out.



- **Quick Identification—resistor value is printed on dispenser**
- **Instant Use—dispenser can be hung over workbench**
- **Fits easily in tube caddy or tool case**
- **Keeps leads straight for easier handling**

38 LOW RANGE RESISTORS

Balanced assortment of miniature wirewounds. Two each of the following values:

.27	.56	1.2	2.7	5.6
.33	.68	1.5	3.3	6.8
.39	.82	1.8	3.9	8.2
.47	1.0	2.2	4.7	

ONE RESISTOR FILLS THREE REQUIREMENTS

IRC's Type BWH is rated at 2 watts. Body size is the same as a standard 1 watt composition unit . . . small enough for ½ and 1 watt needs. This reduces resistor inventory and provides you with a four-time safety factor. Handles 2 watts at 70°C, 1 watt at 115°C and ½ watt at 137°C. These unique miniature resistors are direct replacements for composition units with the advantages of wirewound stability and low noise.

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RESISTOR KITS & ASSORTMENTS

IRC, Inc.

RESIST-O-CHEST. A convenient, sturdy file of Handy-Paks in 5 popular assortments. Metal separators keep Handy-Paks in order at your fingertips. Reference data on inside of lid. Supplied FREE with any of these 5 fast-moving assortments.

ASSORTMENT #42

204 GBT½ ½-watt resistors (10% tolerance)
6 each of 34 values

ohms:									
47	470	2,700	8,200	27K	56K	220K	1.0 meg	4.7 meg
100	1,000	3,300	10K	33K	68K	270K	1.5 meg	10 meg
150	1,500	4,700	15K	39K	100K	330K	2.2 meg	—
220	2,200	6,800	22K	47K	150K	470K	3.3 meg	—

ASSORTMENT #43

462 GBT½ ½-watt resistors (10% tolerance)
6 each of 77 values

ASSORTMENT #46

136 GBT1 1-watt resistors (10% tolerance)
4 each of 34 values

ASSORTMENT #47

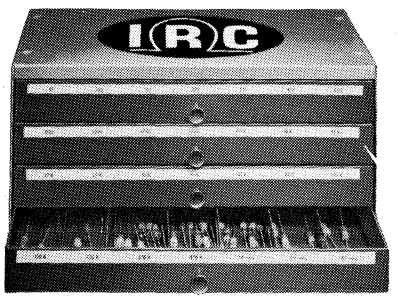
308 GBT1 1-watt resistors (10% tolerance)
4 each of 77 values

ASSORTMENT #49A

102 SR2 2-watt resistors (10% tolerance), 3 each of 34 values

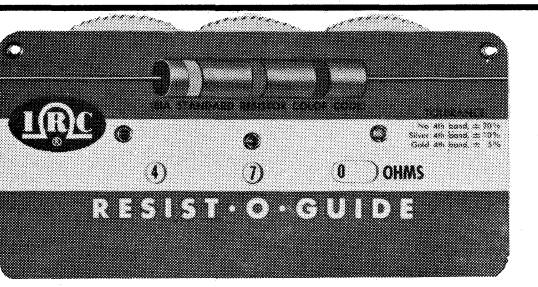
ohms:									
47	470	2,700	8,200	27K	56K	220K	1.0 meg	4.7 meg
100	1,000	3,300	10K	33K	68K	270K	1.5 meg	10 meg
150	1,500	4,700	15K	39K	100K	330K	2.2 meg	—
220	2,200	6,800	22K	47K	150K	470K	3.3 meg	—

RESIST-O-CABINET. A practical way to give any shop a professional appearance. Sturdy metal Resist-O-Cabinets are FREE with any of four balanced assortments. Designed for stacking, and for tidy stocks of many small parts. Resist-O-Cabinets have four non-spill drawers and 28 compartments. Overall size is 5⅜" x 5 15/16" x 10⅞". Blue and silver finish.



¼ WATT ASSORTMENT #7A 150 GBT¼ ¼-Watt Resistors		½ WATT ASSORTMENT #4A 150 GBT½ ½-Watt Resistors		1 WATT ASSORTMENT #5A 125 GBT1 1-Watt Resistors		2 WATT ASSORTMENT #3A 120 BWH and SR2 2-Watt Resistors		COMB. ASSORTMENT #6A 139 Insulated Resistors and Type DCF Precision Film Resistors				
Quantity	Range	Quantity	Range	Quantity	Range	Quantity	Range	Range	½ Watt	1 Watt	2 Watt	DCF
3	47 ohms	3	47 ohms	3	47 ohms	2	4.7 ohms	47 ohms	2	1	1	—
6	100 ohms	4	100 ohms	3	100 ohms	2	10 ohms	100 ohms	2	1	1	—
4	150 ohms	3	220 ohms	3	150 ohms	1	15 ohms	150 ohms	2	1	—	—
4	220 ohms	3	270 ohms	3	220 ohms	2	22 ohms	220 ohms	2	1	—	—
3	270 ohms	4	470 ohms	3	270 ohms	1	27 ohms	270 ohms	2	1	—	—
6	470 ohms	8	1,000 ohms	3	470 ohms	1	33 ohms	470 ohms	2	1	1	—
3	680 ohms	4	1,500 ohms	7	1,000 ohms	1	39 ohms	1,000 ohms	4	4	—	1
10	1,000 ohms	4	2,200 ohms	3	1,500 ohms	3	47 ohms	1,500 ohms	2	1	—	—
6	1,500 ohms	4	2,700 ohms	5	2,200 ohms	2	68 ohms	2,200 ohms	2	1	—	—
8	2,200 ohms	5	3,300 ohms	3	2,700 ohms	3	82 ohms	2,700 ohms	2	1	—	—
4	2,700 ohms	7	4,700 ohms	3	3,300 ohms	4	100 ohms	3,300 ohms	2	2	—	—
5	3,300 ohms	7	10K ohms	5	4,700 ohms	3	150 ohms	4,700 ohms	3	1	1	—
4	3,900 ohms	5	22K ohms	7	10K ohms	3	220 ohms	10K ohms	3	4	1	1
10	4,700 ohms	5	27K ohms	3	15K ohms	3	270 ohms	15K ohms	2	2	—	—
6	6,800 ohms	5	33K ohms	5	22K ohms	4	330 ohms	22K ohms	2	2	1	—
10	10K ohms	8	47K ohms	7	27K ohms	4	470 ohms	27K ohms	2	4	—	—
6	15K ohms	4	56 K ohms	4	33K ohms	5	1,000 ohms	33K ohms	2	1	—	—
4	18K ohms	4	68K ohms	4	39K ohms	4	1,500 ohms	39K ohms	2	1	—	—
8	22K ohms	8	100K ohms	7	47K ohms	4	2,200 ohms	47K ohms	4	3	1	—
3	27K ohms	7	220K ohms	4	68K ohms	4	3,300 ohms	68K ohms	2	2	—	—
6	33K ohms	8	270K ohms	7	100K ohms	3	3,900 ohms	100K ohms	4	4	—	1
3	39K ohms	5	330K ohms	3	150K ohms	4	4,700 ohms	150K ohms	2	2	—	—
6	47K ohms	8	470K ohms	3	220K ohms	5	6,800 ohms	220K ohms	3	1	—	—
3	68K ohms	8	1.0 meg.	7	270K ohms	7	8,200 ohms	270K ohms	4	2	—	—
8	100K ohms	7	2.2 meg.	7	470K ohms	7	10K ohms	470K ohms	4	3	—	—
3	220K ohms	4	3.3 meg.	7	1.0 meg.	5	15K ohms	1.0 meg.	4	4	—	1
3	470K ohms	5	4.7 meg.	3	2.2 meg.	7	22K ohms	2.2 meg.	3	3	—	—
5	1.0 meg.	3	10.0 meg.	3	4.7 meg.	4	27K ohms	4.7 meg.	2	1	—	—
						7	47K ohms	5.0 meg.	—	—	—	1
						5	100K ohms					
						3	220K ohms					
						3	470K ohms					
						4	1.0 meg.					

RESIST-O-GUIDES S-008B Resistor Color Code Chart. New color, serrated edge wheels, up-dated information on IRC types, MIL styles and minimum and maximum values.



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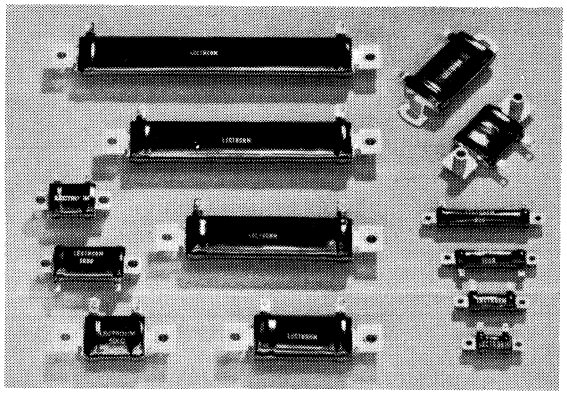
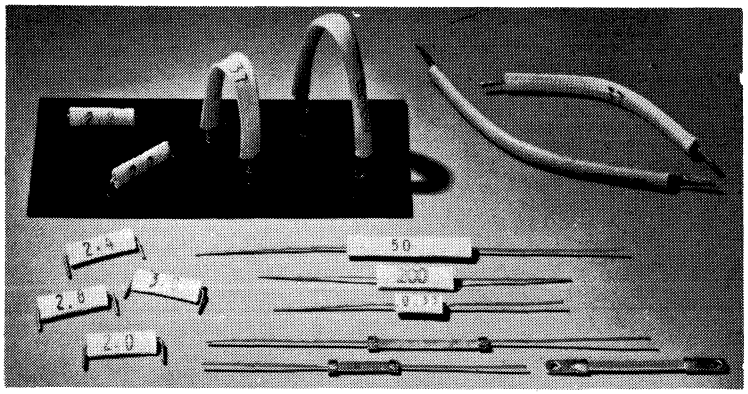
LECTROHM

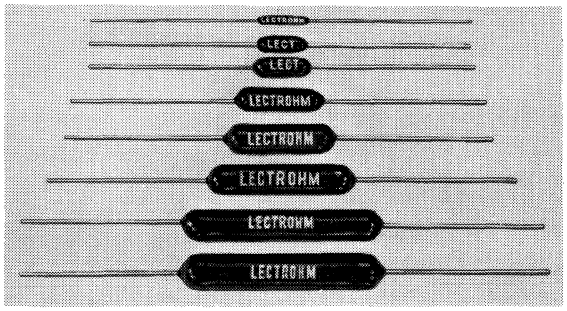
INCORPORATED



OVALS

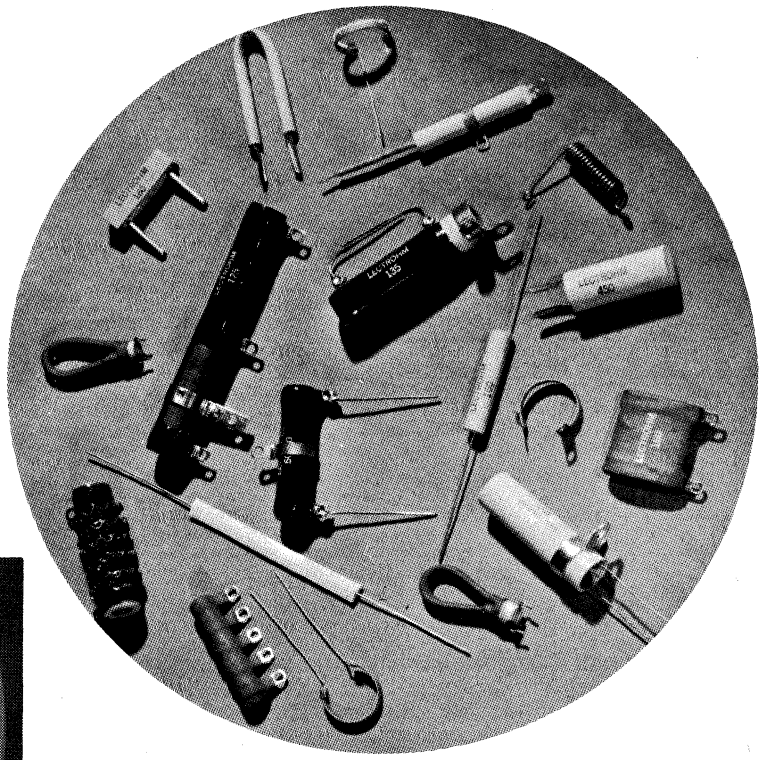


FLEXIBLES

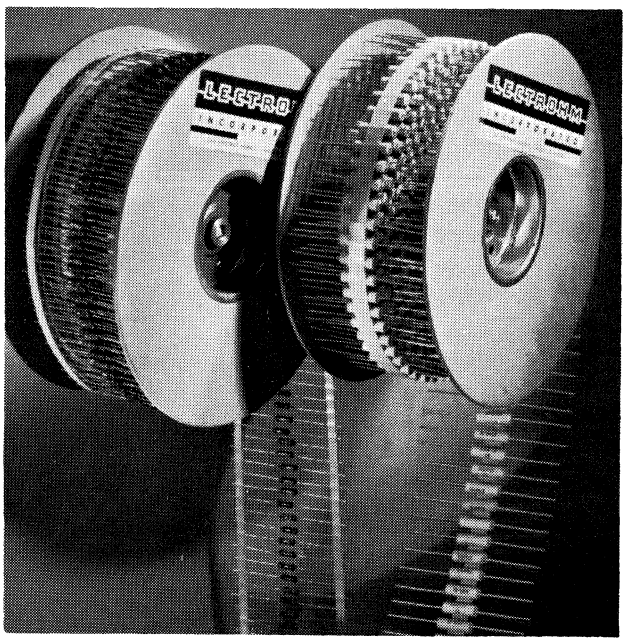


AXIALS

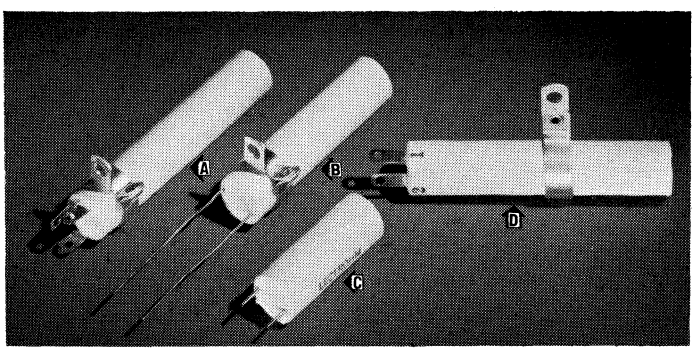
LECTROHM, while manufacturing the standard vitreous line, is also producing whole new groups of types, each designed to solve a special problem. Miniaturization and printed circuit restrictions in space and ventilation no longer are complicated by conventional power resistor size standards. New coating materials and winding methods developed by LECTROHM permit an infinite variety of configurations yet retain operating and life characteristics expected of the finest grade vitreous enameled types. LECTROHM engineers will fit the resistor size and shape to your design.



In addition to the many "Special" resistors illustrated above, LECTROHM manufactures the complete line of standard vitreous fixed and adjustable wire-wound resistors from 5 to 200 watts.



TAPED RESISTORS FOR AUTOMATION



UPRIGHTS **A** SOLDER LUG TYPE. **B** PIGTAIL TYPE. **C** PRINTED CIRCUIT. **D** HORIZONTAL MOUNTING BRACKET.

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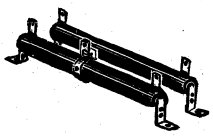
MALLORY Vitreous Enamel Resistors

TYPE HJ (FIXED) AND AV (ADJUSTABLE)

Vitreous enamel-coated, wire-wound resistors. Furnished with complete hardware except HHJ, 1HJ and 2HJ which have wire leads.

To Order: Use type number followed by resistance value (e.g., HHJ4000).

Tolerance: ±5% except (*), ±10%.



FIXED VITREOUS TYPES

5-WATT TYPE HHJ

Ohms	Net Each	Ohms	Net Each	Ohms	Net Each	Ohms	Net Each
1*	$0.46	50	$0.46	750	$0.50	4500	$0.50
1.5*	.46	75	.46	800	.50	5000	.50
2*	.46	100	.46	900	.50	6000	.53
3*	.46	125	.46	1000	.50	7000	.53
4*	.46	150	.46	1100	.50	7500	.53
5*	.46	200	.46	1200	.50	8000	.53
7.5*	.46	225	.46	1250	.50	9000	.53
10*	.46	250	.46	1500	.50	10,000	.53
12	.46	300	.46	1750	.50	12,500	.57
15	.46	350	.50	2000	.50	15,000	.57
20	.46	400	.50	2250	.50	20,000	.61
25	.46	450	.50	2500	.50	25,000	.63
30	.46	500	.50	3000	.50		
35	.46	600	.50	3500	.50		
40	.46	700	.50	4000	.50		

10-WATT TYPE 1HJ

1*	$0.51	150	$0.51	1500	$0.53	11,000	$0.71
2*	.51	200	.51	1750	.53	12,000	.71
3*	.51	225	.51	2000	.53	12,500	.71
4*	.51	250	.51	2250	.53	13,500	.71
5*	.51	300	.51	2500	.53	14,300	.71
7.5*	.51	350	.51	3000	.53	15,000	.71
10*	.51	400	.51	3500	.53	16,000	.71
12	.51	450	.51	4000	.53	17,500	.71
15	.51	500	.51	4500	.53	18,000	.71
20	.51	600	.51	5000	.53	20,000	.71
25	.51	700	.51	6000	.63	22,500	.75
30	.51	750	.51	7000	.63	25,000	.75
35	.51	800	.51	7500	.63	30,000	.75
40	.51	900	.51	8000	.63	35,000	.75
50	.51	1000	.51	8200	.63	40,000	.75
75	.51	1100	.53	8500	.63	45,000	.83
100	.51	1200	.53	9000	.63	50,000	.83
125	.51	1250	.53	10,000	.63		

20-WATT TYPE 2HJ

5	$0.61	300	$0.61	2500	$0.63	12,500	$0.77
10	.61	400	.61	2750	.75	15,000	.77
15	.61	500	.61	3000	.75	20,000	.77
25	.61	750	.61	3500	.75	25,000	.77
50	.61	1000	.61	4000	.75	30,000	.77
75	.61	1250	.61	4500	.75	35,000	.90
100	.61	1500	.61	5000	.75	40,000	.90
150	.61	1750	.63	6000	.75	50,000	.90
200	.61	2000	.63	7500	.75	75,000	1.31
250	.61	2250	.63	10,000	.75	100,000	1.34

25-WATT TYPE 2.5HJ

1	$0.65	75	$0.65	2000	$0.68	12,500	$0.81
2	.65	100	.65	2500	.68	15,000	.81
3	.65	150	.65	3000	.78	20,000	.81
5	.65	200	.65	3500	.78	25,000	.81
7.5	.65	250	.65	4000	.78	30,000	.94
10	.65	500	.65	5000	.78	40,000	.94
15	.65	750	.65	6000	.78	50,000	1.09
25	.65	1000	.65	7500	.78	75,000	1.28
50	.65	1500	.65	10,000	.78	100,000	1.47

50-WATT TYPE 5HJ

10	$0.99	750	$0.99	7500	$1.11	30,000	$1.39
25	.99	1000	.99	10,000	1.11	40,000	1.39
50	.99	1500	1.02	12,500	1.21	50,000	1.55
100	.99	2000	1.02	15,000	1.21	75,000	1.77
250	.99	2500	1.02	20,000	1.21	100,000	1.92
500	.99	5000	1.02	25,000	1.39		

75-WATT TYPE 7.5HJ

10	$1.17	750	$1.17	7500	$1.30	30,000	$1.57
25	1.17	1000	1.17	10,000	1.30	40,000	1.57
50	1.17	1500	1.22	12,500	1.40	50,000	1.75
100	1.17	2000	1.22	15,000	1.40	75,000	1.99
250	1.17	2500	1.22	20,000	1.40	100,000	2.12
500	1.17	5000	1.22	25,000	1.57		

100-WATT TYPE 10HJ

25	$1.38	750	$1.38	7500	$1.56	40,000	$1.92
50	1.38	1000	1.38	10,000	1.56	50,000	1.99
100	1.38	1500	1.44	15,000	1.69	75,000	2.20
150	1.38	2000	1.44	20,000	1.69	100,000	2.46
250	1.38	2500	1.44	25,000	1.92		
500	1.38	5000	1.44	30,000	1.92		

160-WATT TYPE 16HJ

25	$2.05	750	$2.05	7500	$2.28	40,000	$2.52
50	2.05	1000	2.05	10,000	2.28	50,000	2.60
100	2.05	1500	2.09	15,000	2.44	75,000	2.77
150	2.05	2000	2.09	20,000	2.44	100,000	2.93
250	2.05	2500	2.09	25,000	2.52		
500	2.05	5000	2.09	30,000	2.52		

*Tolerance ±10%; all others ±5%.

200-WATT TYPE 20HJ (FIXED)

Ohms	Net Each	Ohms	Net Each	Ohms	Net Each	Ohms	Net Each
25	$2.21	750	$2.21	5000	$2.28	50,000	$2.77
50	2.21	1000	2.21	7500	2.44	75,000	2.93
75	2.21	1500	2.28	10,000	2.44	100,000	3.11
100	2.21	2000	2.28	20,000	2.60		
250	2.21	2500	2.28	30,000	2.68		
500	2.21	3000	2.28	40,000	2.68		

ADJUSTABLE VITREOUS TYPES

10-WATT TYPE 1AV

1	$1.00	75	$1.00	750	$1.00	4000	$1.06
2	1.00	100	1.00	800	1.00	4500	1.06
3	1.00	150	1.00	1000	1.00	5000	1.06
5	1.00	200	1.00	1250	1.06	6000	1.14
7.5	1.00	250	1.00	1500	1.06	7000	1.14
10	1.00	300	1.00	2000	1.06	7500	1.14
15	1.00	350	1.00	2250	1.06	8000	1.14
20	1.00	400	1.00	2500	1.06	8500	1.14
25	1.00	500	1.00	3000	1.06	9000	1.14
50	1.00	600	1.00	3500	1.06	10,000	1.14

25-WATT TYPE 2AV

1	$1.57	100	$1.16	1000	$1.16	5000	$1.19
3	1.57	150	1.16	1250	1.19	6000	1.28
5	1.16	200	1.16	1500	1.19	7500	1.28
10	1.16	250	1.16	2000	1.19	10,000	1.28
15	1.16	300	1.16	2500	1.19	12,000	1.32
25	1.16	400	1.16	3000	1.19	15,000	1.32
50	1.16	500	1.16	3500	1.19	20,000	1.32
75	1.16	750	1.16	4000	1.19	25,000	1.45

50-WATT TYPE 5AV

1	$1.51	150	$1.51	2000	$1.54	20,000	$1.72
2	1.51	200	1.51	2500	1.54	25,000	1.90
5	1.51	250	1.51	3000	1.54	30,000	1.90
10	1.51	400	1.51	4000	1.54	40,000	1.90
25	1.51	500	1.51	5000	1.54	50,000	1.99
50	1.51	750	1.51	7500	1.62		
75	1.51	1000	1.51	10,000	1.62		
100	1.51	1500	1.54	15,000	1.72		

75-WATT TYPE 7.5AV

5	$1.69	200	$1.69	2000	$1.74	15,000	$1.92
10	1.69	250	1.69	2500	1.74	20,000	1.92
25	1.69	400	1.69	3000	1.74	25,000	2.09
50	1.69	500	1.69	4000	1.74	30,000	2.09
75	1.69	750	1.69	5000	1.74	40,000	2.09
100	1.69	1000	1.69	7500	1.81	50,000	2.27
150	1.69	1500	1.74	10,000	1.81		

100-WATT TYPE 10AV

1	$1.95	200	$1.95	2000	$2.01	20,000	$2.26
2	1.95	250	1.95	2500	2.01	25,000	2.49
5	1.95	300	1.95	3000	2.01	30,000	2.49
10	1.95	400	1.95	4000	2.01	35,000	2.49
25	1.95	500	1.95	5000	2.01	40,000	2.49
50	1.95	750	1.95	7500	2.13	50,000	2.57
100	1.95	1000	1.95	10,000	2.13	75,000	2.81
150	1.95	1500	2.01	15,000	2.26	100,000	3.01

160-WATT TYPE 16AV

1	$2.85	200	$2.85	2500	$2.88	25,000	$3.31
2	2.85	250	2.85	3000	2.88	30,000	3.31
5	2.85	300	2.85	4000	2.88	35,000	3.31
10	2.85	400	2.85	5000	2.88	40,000	3.31
25	2.85	500	2.85	7500	3.07	50,000	3.40
50	2.85	750	2.85	10,000	3.07	75,000	3.56
100	2.85	1000	2.85	15,000	3.24	100,000	3.72
150	2.85	2000	2.88	20,000	3.24		

200-WATT TYPE 20AV

1	$3.19	100	$3.19	750	$3.19	20,000	$3.62
2	3.19	150	3.19	1000	3.19	25,000	3.81
5	3.19	200	3.19	1500	3.26	30,000	3.81
10	3.19	250	3.19	2000	3.26	50,000	3.91
25	3.19	300	3.19	2500	3.26	75,000	4.09
50	3.19	400	3.19	5000	3.26	100,000	4.29
75	3.19	500	3.19	10,000	3.44		

RESISTOR TUBE SIZES

Type	Dia. x L.	Type	Dia. x L.
HHJ	5/16" x 1"	20HJ	1 1/8" x 10 1/2"
1HJ	5/16" x 1 3/4"	1AV	5/16" x 1 3/4"
2HJ	7/16" x 2"	2AV	9/16" x 2"
2.5HJ	7/16" x 2"	5AV	9/16" x 4"
5HJ	9/16" x 4"	7.5AV	9/16" x 6"
7.5HJ	9/16" x 6"	10AV	3/4" x 6 1/2"
10HJ	3/4" x 6 1/2"	16AV	1 1/8" x 8 1/2"
16HJ	1 1/8" x 8 1/2"	20AV	1 1/8" x 10 1/2"

MOUNTING FEET

No.	Fits Type	Net
30V	5-watt, 10-watt	3c
31V	20, 25, 50 and 75-watt	6c
32V	100-watt	10c
33V	200-watt	18c
35V	160-watt	15c

ADJUSTABLE CLIPS

No.	Fits Types	Net
1V	1AV	5c
3V	2AV, 5AV, 7.5AV	18c
4V	10AV	18c
6V	16AV, 20AV	21c

Net

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MALLORY Resistors

TYPE AE WIRE-WOUND RESISTORS
AXIAL LEAD VITREOUS ENAMEL COATED

Mallory type AE wire-wound resistors have axial leads and a tough green vitreous enamel coating. Available in three power ratings: 3, 5 and 10 watts. The equivalent MIL-R-26 styles are: RW59 (3AE), RW57 (5AE) and RW58 (10AE).
To order: Use type number followed by resistance value (e.g., 3AE4000). **Tolerance:** ±5% except (*), ±10%.

3-WATT TYPE 3AE

Ohms	Net Each	Ohms	Net Each	Ohms	Net Each	Ohms	Net Each
1*	$0.45	35	$0.45	500	$0.49	2500	$0.49
1.5*	.45	40	.45	600	.49	3000	.49
2*	.45	50	.45	700	.49	3500	.49
3*	.45	75	.45	750	.49	4000	.49
4*	.45	100	.45	800	.49	4500	.49
5*	.45	125	.45	900	.49	5000	.49
6*	.45	150	.45	1000	.49	6000	.52
7.5*	.45	200	.45	1100	.49	7000	.52
10*	.45	225	.45	1200	.49	7500	.52
12	.45	250	.45	1250	.49	8000	.52
15	.45	300	.45	1500	.49	9000	.52
20	.45	350	.49	1750	.49	10,000	.52
25	.45	400	.49	2000	.49		
30	.45	450	.49	2250	.49		

5-WATT TYPE 5AE

1*	$0.46	50	$0.46	750	$0.50	4500	$0.50
1.5*	.46	75	.46	800	.50	5000	.50
2*	.46	100	.46	900	.50	6000	.53
3*	.46	125	.46	1000	.50	7000	.53
4*	.46	150	.46	1100	.50	7500	.53
5*	.46	200	.46	1200	.50	8000	.53
7.5*	.46	225	.46	1250	.50	9000	.53
10*	.46	250	.46	1500	.50	10,000	.53
12	.46	300	.46	1750	.50	12,500	.57
15	.46	350	.50	2000	.50	15,000	.57
20	.46	400	.50	2250	.50	17,500	.61
25	.46	450	.50	2500	.50	18,000	.61
30	.46	500	.50	3000	.50	20,000	.61
35	.46	600	.50	3500	.50	22,500	.63
40	.46	700	.50	4000	.50	25,000	.63

10-WATT TYPE 10AE

1*	$0.51	125	$0.51	1250	$0.53	11,000	$0.71
1.5*	.51	150	.51	1500	.53	12,000	.71
2*	.51	200	.51	1750	.53	12,500	.71
3*	.51	225	.51	2000	.53	13,500	.71
4*	.51	250	.51	2250	.53	15,000	.71
5*	.51	300	.51	2500	.53	16,000	.71
7.5*	.51	350	.51	3000	.53	17,500	.71
10*	.51	400	.51	3500	.53	18,000	.71
12	.51	450	.51	4000	.53	20,000	.71
15	.51	500	.51	4500	.53	22,500	.75
20	.51	600	.51	5000	.53	25,000	.75
25	.51	700	.51	6000	.63	30,000	.75
30	.51	750	.51	7000	.63	35,000	.75
35	.51	800	.51	7500	.63	40,000	.75
40	.51	900	.51	8000	.63	45,000	.83
50	.51	1000	.51	8500	.63	50,000	.83
75	.51	1100	.53	9000	.63		
100	.51	1200	.53	10,000	.63		

*Tolerance, ±10%; all others, ±5%.

TYPE AE RESISTOR SIZES

Type	Diameter	Length
3AE	¼"	9/16"
5AE	11/32"	1"
10AE	13/32"	1¾"

TYPE MOL METAL OXIDE FILM RESISTORS

Mallory MOL resistors have a thin layer of metal oxide evaporated onto a high quality ceramic rod. A precision ground spiral provides exactly the correct resistance. The MOL is essentially non-inductive with superb stability characteristics. May be used in place of either composition carbon, deposited carbon or wire-wound types. Full wattage at 70° C ambient.
To order: Use type number followed by resistance value (e.g., 2MOL1000). **Tolerance:** ±10%.

2-WATT TYPE 2MOL

Ohms	Net Each	Ohms	Net Each	Ohms	Net Each	Ohms	Net Each
33	$0.20	220	$0.20	1500	$0.20	10,000	$0.20
39	.20	270	.20	1800	.20	12,000	.20
47	.20	330	.20	2200	.20	15,000	.20
56	.20	390	.20	2700	.20	18,000	.20
68	.20	470	.20	3300	.20	22,000	.20
82	.20	560	.20	3900	.20	27,000	.20
100	.20	680	.20	4700	.20	33,000	.20
120	.20	820	.20	5600	.20	39,000	.20
150	.20	1000	.20	6800	.20	47,000	.20
180	.20	1200	.20	8200	.20	56,000	.20

3-WATT TYPE 3MOL

39	$0.20	270	$0.20	1800	$0.20	12,000	$0.25
47	.20	330	.20	2200	.20	15,000	.25
56	.20	390	.20	2700	.20	18,000	.25
68	.20	470	.20	3300	.20	22,000	.25
82	.20	560	.20	3900	.20	27,000	.28
100	.20	680	.20	4700	.22	33,000	.28
120	.20	820	.20	5600	.22	39,000	.28
150	.20	1000	.20	6800	.22	47,000	.28
180	.20	1200	.20	8200	.24	56,000	.28
220	.20	1500	.20	10,000	.24		

4-WATT TYPE 4MOL

82	$0.20	560	$0.20	3900	$0.21	27,000	$0.32
100	.20	680	.20	4700	.22	33,000	.32
120	.20	820	.20	5600	.22	39,000	.32
150	.20	1000	.20	6800	.22	47,000	.32
180	.20	1200	.20	8200	.25	56,000	.32
220	.20	1500	.20	10,000	.25	68,000	.32
270	.20	1800	.20	12,000	.29	82,000	.32
330	.20	2200	.21	15,000	.29	100,000	.32
390	.20	2700	.21	18,000	.29	120,000	.32
470	.20	3300	.21	22,000	.29		

5-WATT TYPE 5MOL

100	$0.20	680	$0.20	4700	$0.23	33,000	$0.32
120	.20	820	.20	5600	.23	39,000	.32
150	.20	1000	.20	6800	.23	47,000	.32
180	.20	1200	.20	8200	.26	56,000	.32
220	.20	1500	.20	10,000	.26	68,000	.32
270	.20	1800	.20	12,000	.30	82,000	.32
330	.20	2200	.22	15,000	.30	100,000	.32
390	.20	2700	.22	18,000	.30	120,000	.32
470	.20	3300	.22	22,000	.30		
560	.20	3900	.22	27,000	.32		

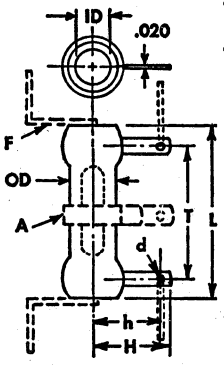
7-WATT TYPE 7MOL

120	$0.22	820	$0.22	5600	$0.26	39,000	$0.36
150	.22	1000	.22	6800	.26	47,000	.36
180	.22	1200	.22	8200	.30	56,000	.36
220	.22	1500	.22	10,000	.30	68,000	.36
270	.22	1800	.22	12,000	.33	82,000	.36
330	.22	2200	.22	15,000	.33	100,000	.36
390	.22	2700	.22	18,000	.33	120,000	.36
470	.22	3300	.22	22,000	.33		
560	.22	3900	.22	27,000	.36		
680	.22	4700	.26	33,000	.36		

TYPE MOL RESISTOR SIZES

Type	Diam.	Lgth.	Lead
2MOL	5/16"	11/16"	#17
3MOL	5/16"	15/16"	#20
4MOL	5/16"	1 5/16"	#20
5MOL	5/16"	1¾"	#20
7MOL	5/16"	2 1/16"	#20

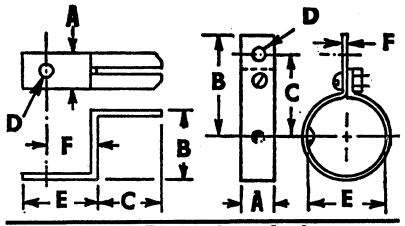
HJ AND AV RESISTOR DIMENSIONS



Mallory Type	Watts	Dimensions, Inches O.D.	I.D.	L	T	H	h	d	Hardware F	A
HHJ	5	5/16	13/64	1	25/32	1/2	7/16	†	30V‡	....
1HJ	10	5/16	13/64	1¾	1½	1/2	7/16	†	30V‡	....
1AV*	10	5/16	13/64	1¾	1½	1/2	7/16	.144	30V	1V
2HJ	20	7/16	5/16	2	1⅝	5/8	17/32	†	31V‡	....
2AV*	20	7/16	5/16	2	1⅝	5/8	17/32	.144	31V	3V
2.5HJ	25	9/16	5/16	2	1½	27/32	23/32	.144	31V	....
5HJ	50	9/16	5/16	4	3½	27/32	23/32	.144	31V	....
5AV*	50	9/16	5/16	4	3½	27/32	23/32	.144	31V	3V
7.5HJ	75	9/16	5/16	6	5½	27/32	23/32	.144	31V	....
7.5AV*	75	9/16	5/16	6	5½	27/32	23/32	.144	31V	3V
10HJ	100	¾	1/2	6½	6	15/16	13/16	.144	33V	....
10AV*	100	¾	1/2	6½	6	15/16	13/16	.144	33V	4V
16HJ	160	1⅛	47/64	8½	8	1⅛	1	.144	35V	....
16AV*	160	1⅛	47/64	8½	8	1⅛	1	.144	35V	6V
20HJ	200	1⅛	⅞	10½	10	1⅛	1	.144	32V	....
20AV*	200	1⅛	⅞	10½	10	1⅛	1	.144	32V	6V

*Adjustable types; all others fixed. †Has wire leads 2¼" long x .040" dia. ‡Mounting feet not furnished.

HARDWARE DIMENSIONS



Mall. No.	Dimensions, Inches A	B	C	D	E	F
1V	5/16	9/16	7/16	.096	5/16	.020
3V	¼	⅞	¾	.166	9/16	.032
4V	¼	1 1/16	27/32	.166	¾	.032
6V	⅜	1¼	1 3/32	.173	1⅛	.032
30V	5/16	5/8	9/32	.142	7/16	9/32
31V	21/64	¾	11/16	.203	½	¼
32V	⅞	1¼	1½	.265	11/16	5/16
33V	½	¾	15/16	.203	½	¼
35V	¾	1¼	1½	.265	11/16	5/16

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VITREOUS ENAMELED FIXED RESISTORS

5 WATT

Type FR-5
Terminal-#10
Type FRL-5
Terminal-#107

Core Size: 5/16"x3/16"x1" Weight: .012 lbs.

Ohms	Milli-Amps	Volts	Ohms	Milli-Amps	Volts
1	2,230	2.2	750	81	61
1.5	1,820	2.7	800	79	63
2	1,580	3.2	900	74	67
3	1,290	3.9	1,000	71	71
4	1,120	4.5	1,100	67	74
5	1,000	5.0	1,100	64	77
7.5	816	6.1	1,250	63	79
10	707	7.1	1,500	58	87
12	646	7.8	1,750	53	93
15	576	8.6	2,000	50	100
20	500	10	2,250	47	106
25	447	11	2,500	45	112
30	409	12	3,000	41	123
35	378	13	3,500	38	133
40	353	14	4,000	35	140
50	316	16	4,500	33	149
75	258	19	5,000	32	160
100	223	22	6,000	29	174
125	200	25	7,000	27	189
150	182	27	7,500	26	195
200	158	32	8,000	25	200
225	149	33	9,000	23	207
250	141	35	10,000	22	220
300	129	39	12,500	20	250
350	119	42	15,000	18	275
400	112	45	17,500	17	295
450	105	47	20,000	16	320
500	100	50	22,500	14	360
600	91	55	25,000	13	390
700	84	59			

10 WATT

Type FR-10
Terminal-#10
Type FRL-10
Terminal-#107

Core Size: 5/16"x3/16"x1-3/4"
Mounting Centers: 2-5/32" Weight: .019 lbs.
With Brackets: #P-4989

Ohms	Milli-Amps	Volts	Ohms	Milli-Amps	Volts
1	3,160	3.1	1,200	91	109
1.5	2,580	3.8	1,250	89	111
2	2,230	4.4	1,500	82	123
3	1,820	5.4	1,750	76	133
4	1,580	6.3	2,000	71	142
5	1,410	7.0	2,250	67	151
7.5	1,150	8.6	2,500	63	158
10	1,000	10	3,000	57	171
12	914	11	3,500	53	185
15	816	12	4,000	50	200
20	707	14	4,500	47	212
25	631	16	5,000	45	225
30	577	17	6,000	41	246
35	535	19	7,000	38	266
40	500	20	7,500	36	270
50	447	22	8,000	35	280
75	365	27	8,500	34	289
100	316	31	9,000	33	297
125	283	35	10,000	32	316
150	254	38	11,000	30	332
200	223	44	12,000	29	346
225	211	47	12,500	28	353
250	200	50	13,500	27	365
300	182	54	15,000	26	385
350	169	59	16,000	25	400
400	158	63	17,500	24	417
450	149	67	18,000	23	434
500	141	70	20,000	22	454
600	129	77	22,500	21	472
700	120	84	25,000	20	500
750	115	86	30,000	18	540
800	112	89	35,000	17	595
900	105	94	40,000	16	638
1,000	100	100	45,000	15	668
1,100	95	104	50,000	14	707

20 WATT

Type FR-20
Terminal-#10
Type FRL-20
Terminal-#107

Core Size: 7/16"x1/4"x2"
Mounting Centers: 2-17/32" Weight: .033 lbs.
With Brackets: #P-3749

Ohms	Milli-Amps	Volts	Ohms	Milli-Amps	Volts
1	4,480	4.4	2,400	91	218
3	2,580	7.7	2,500	89	222
5	2,000	10	2,750	85	234
10	1,410	14	3,000	81	243
15	1,150	17	3,500	75	262
25	895	22	4,000	70	280
50	633	31	4,500	67	301
75	516	39	5,000	63	315
100	447	44	6,000	57	342
150	365	54	7,000	53	371
175	338	59	7,500	51	382
200	316	63	8,000	50	400
250	283	71	10,000	44	440
300	258	77	12,500	36	450
350	239	84	15,000	31	465
400	223	89	20,000	27	520
500	200	100	25,000	24	600
650	175	114	30,000	22	660
700	169	118	35,000	21	735
750	164	123	40,000	19	760
800	158	126	45,000	18	810
850	154	131	50,000	17	850
1,000	141	141	55,000	16	880
1,200	129	155	60,000	15	900
1,250	126	157	65,000	15	970
1,500	115	172	70,000	14	980
1,750	107	187	75,000	13	990
1,850	104	192	80,000	12	990
2,000	100	200	85,000	11	990
2,250	94	211	90,000	10.5	990
			95,000	10	990
			100,000	10	990

25 WATT

Type FR-25
Terminal-#12

Core Size: 9/16"x5/16"x2"
Mounting Centers: 2-3/4" Weight: .051 lbs.
With Brackets: #P-3747

Ohms	Milli-Amps	Volts	Ohms	Milli-Amps	Volts
1	5,000	5.0	1,500	129	193
2	3,535	7.0	2,000	111	222
3	2,885	8.6	2,500	100	250
4	2,500	10	3,000	91	273
5	2,236	11	3,500	84	294
10	1,580	15	4,000	79	316
15	1,291	19	5,000	70	350
25	1,000	25	6,000	64	384
50	707	35	7,500	57	427
75	577	43	10,000	50	500
100	500	50	12,000	42	505
150	408	61	15,000	36	540
200	353	70	20,000	31	620
250	316	79	25,000	28	700
300	289	86	30,000	26	780
400	250	100	35,000	24	840
500	223	111	40,000	22	880
750	182	136	50,000	20	950
800	177	141	60,000	16	960
850	171	145	70,000	15	960
1,000	158	158	80,000	12	990
1,250	141	176	100,000	10	990

75 WATT

Type FR-75
Terminal-#12

Core Size: 9/16"x5/16"x6"
Mounting Centers: 6-3/4" Weight: .140 lbs.
With Brackets: #P-3747

Ohms	Milli-Amps	Volts	Ohms	Milli-Amps	Volts
1	8,660	8	2,500	173	432
2	6,120	12	3,000	158	474
3	5,000	15	4,000	137	548
4	4,330	17	5,000	122	610
5	3,875	19	6,000	111	666
10	2,740	27	7,500	100	750
25	1,732	43	8,000	96	769
50	1,225	61	10,000	86	860
100	866	86	12,000	79	948
150	707	106	12,500	77	962
200	612	122	15,000	70	1,050
250	548	137	20,000	61	1,220
300	500	150	25,000	49	1,225
400	433	173	30,000	42	1,260
500	387	193	35,000	36	1,270
750	316	237	40,000	32	1,280
800	306	242	45,000	29	1,310
1,000	274	274	50,000	26	1,320
1,500	223	234	75,000	18	1,340
2,000	193	386	100,000	13	1,360

Values of resistance listed are in stock for immediate delivery. Special resistance values or terminal dimensions are given prompt attention and Tru-Ohm's famous delivery is assured.

Fixed wire wound, vitreous enameled resistors. Stock resistance values range from 1Ω thru 250,000Ω Standard tolerance of ±5%. Closer resistance tolerances available on order.

The sturdy terminals are hot-tinned for soldering ease, and the holes in the terminal are of suitable size to accommodate screws.

50 WATT

Type FR-50
Terminal-#12

Core Size: 9/16"x5/16"x4"
Mounting Centers: 4-3/4" Weight: .082 lbs.
With Brackets: #P-3747

Ohms	Milli-Amps	Volts	Ohms	Milli-Amps	Volts
1	7,070	7	4,000	111	444
2	5,000	10	5,000	100	500
3	4,070	12	6,000	91	545
4	3,535	14	7,500	81	608
5	3,160	15	8,000	79	632
10	2,236	22	10,000	70	700
25	1,414	35	12,000	64	768
50	1,000	50	12,500	63	787
75	816	61	15,000	57	855
100	707	70	20,000	50	1,000
150	577	86	25,000	44	1,090
200	500	100	30,000	37	1,100
250	447	111	35,000	32	1,120
300	408	122	40,000	29	1,140
400	353	141	50,000	26	1,300
500	316	158	75,000	21	1,575
750	258	193	100,000	18	1,800
800	250	200	125,000	16	1,950
1,000	223	223	150,000	13	1,950
1,500	182	273	175,000	11	1,950
2,000	158	316	200,000	10	1,950
2,500	141	350	225,000	9	1,950
3,000	129	384	250,000	8	1,950

100 WATT

Type FR-100
Terminal-#12

Core Size: 3/4"x1/2"x6-1/2"
Mounting Centers: 7-3/8" Weight: .200 lbs.
With Brackets: #P-3689

Ohms	Milli-Amps	Volts	Ohms	Milli-Amps	Volts
1	10,000	10	3,000	181	543
2	7,070	14	3,500	170	595
3	5,770	17	4,000	160	640
4	5,000	20	4,500	150	675
5	4,470	22	5,000	141	705
10	3,160	31	7,500	115	864
25	2,000	50	10,000	100	1,000
50	1,414	70	15,000	81	1,215
75	1,150	86	20,000	70	1,400
100	1,000	100	25,000	60	1,500
125	895	112	30,000	57	1,720
150	816	122	40,000	50	2,000
250	630	157	50,000	45	2,250
500	447	223	60,000	40	2,400
750	365	274	70,000	38	2,400
1,000	316	316	75,000	32	2,400
1,250	285	356	100,000	28	2,400
1,500	259	388			
2,000	224	448			
2,500	200	500			

Wattage rating in free air – thru 60,000 ohms

160 WATT

Type FR-160
Terminal-#14

Core Size: 1-1/8"x3/4"x8-1/2"
Mounting Centers: 9-3/8" Weight: .445 lbs.
With Brackets: #P-4898

Ohms	Milli-Amps	Volts	Ohms	Milli-Amps	Volts
1	12,650	12	3,000	231	693
2	8,940	18	3,500	215	753
3	7,300	21	4,000	200	800
4	6,320	25	4,500	185	832
5	5,650	28	5,000	179	895
10	4,000	40	7,500	15	1,070
15	3,265	49	10,000	13	1,230
25	2,525	63	15,000	10	1,570
50	1,786	89	20,000	089	1,780
75	1,460	109	25,000	08	2,000
100	1,265	126	30,000	73	2,090
150	1,033	155	35,000	67	2,370
200	894	178	40,000	63	2,540
250	800	200	50,000	57	2,800
500	565	282	60,000	52	3,080
750	461	346	75,000	46	3,470
1,000	400	400	100,000	40	4,000
1,500	326	489			
2,000	282	564			
2,500	252	630			

Wattage rating in free air – All values listed

200 WATT

Type FR-200
Terminal-#14

Core Size: 1-1/8"x3/4"x10-1/2"
Mounting Centers: 11-3/8" Weight: .740 lbs.
With Brackets: #P-4898

Ohms	Milli-Amps	Volts	Ohms	Milli-Amps	Volts
1	14,140	14	4,000	225	900
2	10,000	20	4,500	210	945
3	8,162	24	5,000	200	1,000
4	7,070	28	7,500	163	1,222
5	6,325	31	10,000	14	1,410
10	4,470	44	15,000	12	1,725
25	2,828	70	20,000	10	2,000
50	2,000	100	25,000	089	2,225
75	1,635	122	30,000	082	2,460
100	1,414	141	35,000	075	2,640
150	1,152	173	40,000	070	2,830
250	895	224	50,000	063	3,150
500	632	316	60,000	058	3,480
750	516	387	75,000	052	3,900
1,000	447	447	100,000	045	4,490
1,500	365	547			
2,000	316	632			
2,500	283	707			
3,000	259	776			
3,500	240	840			

Wattage rating in free air – All values listed

MEMCOR INC COMPONENTS DIVISION
Manufacturers of
TRU-OHM AND HARDWICK, HINDLE PRODUCTS
MEMCOR INC

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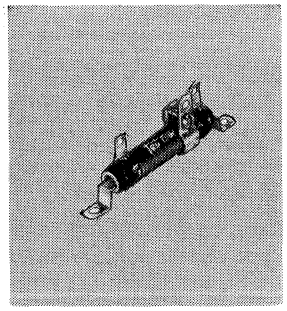
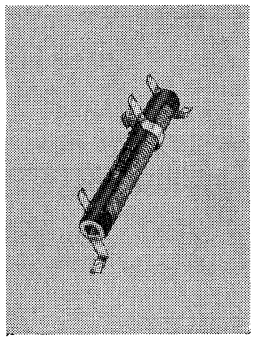
VITREOUS ENAMELED ADJUSTABLE RESISTORS



These resistors are used in applications where it is necessary to make adjustment in resistance periodically; where intermediate values of resistance are required; or when provided with more than one adjustable lug as multiple tap resistors.

The wattage rating between the adjustable band and either end terminal is proportional to the distance between the terminal and the band and should be considered when figuring any maximum section wattage dissipation.



Type AR-10

10 WATT

Core Size: 5/16" x 3/16" x 1-3/4"
Mounting Centers – 2-3/16"
With Brackets #P-4989
Standard Lug #10
Weight: .019 lbs.

Catalog No.	Ohms	Milliamps	Catalog No.	Ohms	Milliamps
AR-10	1	3,160	AR-10	750	115
AR-10	2	2,230	AR-10	800	112
AR-10	3	1,820	AR-10	1,000	100
AR-10	5	1,410	AR-10	1,250	89
AR-10	7.5	1,150	AR-10	1,500	82
AR-10	10	1,000	AR-10	2,000	71
AR-10	15	816	AR-10	2,250	67
AR-10	20	707	AR-10	2,500	63
AR-10	25	631	AR-10	3,000	57
AR-10	50	447	AR-10	3,500	53
AR-10	75	365	AR-10	4,000	50
AR-10	100	316	AR-10	4,500	47
AR-10	150	254	AR-10	5,000	45
AR-10	200	223	AR-10	6,000	41
AR-10	250	200	AR-10	7,000	38
AR-10	300	182	AR-10	7,500	36
AR-10	350	169	AR-10	8,000	35
AR-10	400	158	AR-10	8,500	34
AR-10	500	141	AR-10	9,000	33
AR-10	600	129	AR-10	10,000	32

Type AR-25

25 WATT

Core Size: 9/16" x 5/16" x 2"
Mounting Centers – 2-3/4"
With Brackets #P-3747
Standard Lug #12
Weight: .057 lbs.

Catalog No.	Ohms	Milli-Amps	Catalog No.	Ohms	Milli-Amps
AR-25	1	5,000	AR-25	4,500	74
AR-25	2	3,535	AR-25	5,000	70
AR-25	3	2,885	AR-25	6,000	64
AR-25	5	2,236	AR-25	7,000	60
AR-25	7.5	1,825	AR-25	7,200	59
AR-25	10	1,580	AR-25	7,500	57
AR-25	15	1,291	AR-25	8,000	55
AR-25	20	1,117	AR-25	9,000	52
AR-25	25	1,000	AR-25	10,000	50
AR-25	50	707	AR-25	12,000	42
AR-25	75	577	AR-25	15,000	36
AR-25	100	500	AR-25	20,000	31
AR-25	150	408	AR-25	25,000	28
AR-25	200	353			
AR-25	250	316			
AR-25	300	289			
AR-25	400	250			
AR-25	500	223			
AR-25	750	182			
AR-25	800	177			
AR-25	850	171			
AR-25	1,000	158			
AR-25	1,250	141			
AR-25	1,500	129			
AR-25	2,000	120			
AR-25	2,250	105			
AR-25	2,500	100			
AR-25	3,000	91			
AR-25	3,500	84			
AR-25	4,000	79			

Type AR-50

50 WATT

Core Size: 9/16" x 5/16" x 4"
Mounting Centers – 4-3/4"
With Brackets #P-3747
Standard Lug #12
Weight: .096 lbs.

Catalog No.	Ohms	Milli-Amps	Catalog No.	Ohms	Milli-Amps
AR-50	1	7,070	AR-50	7,000	84
AR-50	2	5,000	AR-50	7,200	83
AR-50	3	4,070	AR-50	7,500	81
AR-50	4	3,535	AR-50	8,000	79
AR-50	5	3,160	AR-50	9,000	74
AR-50	10	2,236	AR-50	10,000	70
AR-50	25	1,414	AR-50	12,000	64
AR-50	50	1,000	AR-50	15,000	57
AR-50	75	816	AR-50	20,000	50
AR-50	100	707	AR-50	25,000	45
AR-50	150	577	AR-50	30,000	36
AR-50	200	500	AR-50	40,000	29
AR-50	250	447	AR-50	50,000	26
AR-50	300	408	AR-50	60,000	24
AR-50	400	353	AR-50	75,000	22
AR-50	500	316	AR-50	80,000	21
AR-50	750	258	AR-50	100,000	18
AR-50	800	250			
AR-50	1,000	223			
AR-50	1,250	200			
AR-50	1,500	182			
AR-50	2,000	158			
AR-50	2,250	149			
AR-50	2,500	141			
AR-50	3,000	129			
AR-50	3,500	119			
AR-50	4,000	111			
AR-50	4,500	105			
AR-50	5,000	100			
AR-50	6,000	91			

Type AR-75

75 WATT

Core Size: 9/16" x 5/16" x 6"
Mounting Centers – 6-3/4"
With Brackets #P-3747
Standard Lug #12
Weight: .150 lbs.

Catalog No.	Ohms	Milli-Amps	Catalog No.	Ohms	Milli-Amps
AR-75	1	8,660	AR-75	7,000	103
AR-75	2	6,120	AR-75	7,200	102
AR-75	3	5,000	AR-75	7,500	100
AR-75	4	4,330	AR-75	8,000	96
AR-75	5	3,875	AR-75	9,000	91
AR-75	10	2,740	AR-75	10,000	86
AR-75	15	2,236	AR-75	12,000	79
AR-75	25	1,732	AR-75	15,000	70
AR-75	50	1,225	AR-75	20,000	61
AR-75	75	1,000	AR-75	25,000	54
AR-75	100	866	AR-75	30,000	50
AR-75	200	612	AR-75	35,000	46
AR-75	250	548	AR-75	40,000	42
AR-75	300	500	AR-75	45,000	35
AR-75	400	433	AR-75	50,000	33
AR-75	500	387	AR-75	60,000	29
AR-75	750	316	AR-75	70,000	27
AR-75	800	306	AR-75	80,000	25
AR-75	1,000	274	AR-75	100,000	22
AR-75	1,250	244			
AR-75	1,500	223			
AR-75	2,000	193			
AR-75	2,250	182			
AR-75	2,500	173			
AR-75	3,000	158			
AR-75	3,500	146			
AR-75	4,000	137			
AR-75	4,500	129			
AR-75	5,000	122			
AR-75	6,000	111			

Type AR-100

100 WATT

Core Size: 3/4" x 1/2" x 6-1/2"
Mounting Centers – 7-3/8"
With Brackets #P-3689
Standard Lug #12
Weight: .200 lbs.

Catalog No.	Ohms	Milli-Amps	Catalog No.	Ohms	Milli-Amps
AR-100	1	10,000	AR-100	5,000	141
AR-100	2	7,070	AR-100	6,000	129
AR-100	3	5,770	AR-100	7,500	115
AR-100	4	5,000	AR-100	10,000	100
AR-100	5	4,470	AR-100	15,000	81
AR-100	10	3,160	AR-100	20,000	70
AR-100	25	2,000	AR-100	25,000	62
AR-100	50	1,414	AR-100	30,000	57
AR-100	100	1,000	AR-100	40,000	49
AR-100	200	707	AR-100	50,000	44
AR-100	250	630	AR-100	60,000	24
AR-100	400	500	AR-100	75,000	30
AR-100	500	447	AR-100	100,000	28
AR-100	750	365			
AR-100	1,000	316			
AR-100	1,500	259			
AR-100	2,000	224			
AR-100	2,500	200			
AR-100	3,000	181			
AR-100	4,000	160			

MEMCOR INC COMPONENTS DIVISION
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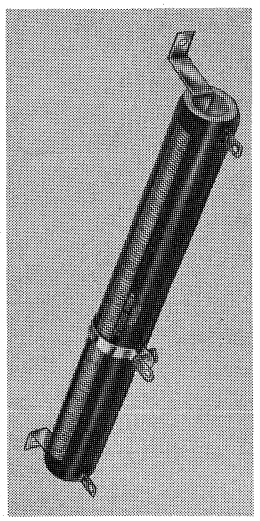
VITREOUS ENAMELED ADJUSTABLE RESISTORS



Type AR-160

160 WATT

Core Size: 1-1/8" x 3/4" x 8-1/2"
Mounting Centers – 9-3/8"
With Brackets #P-4898 Weight:
Standard Lug #14 .460 lbs.

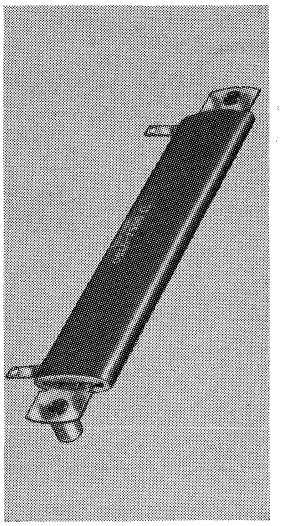
Catalog No.	Ohms	Milli-Amps	Catalog No.	Ohms	Milli-Amps
AR-160	1	12,650	AR-160	4,500	185
AR-160	2	8,940	AR-160	5,000	179
AR-160	3	7,300	AR-160	7,500	146
AR-160	4	6,320	AR-160	10,000	126
AR-160	5	5,650	AR-160	15,000	104
AR-160	10	4,000	AR-160	20,000	89
AR-160	15	3,265	AR-160	25,000	80
AR-160	25	2,525	AR-160	30,000	72
AR-160	50	1,786	AR-160	40,000	62
AR-160	100	1,265	AR-160	50,000	56
AR-160	200	894	AR-160	60,000	52
AR-160	250	800	AR-160	75,000	46
AR-160	500	565	AR-160	80,000	44
AR-160	1,000	400	AR-160	100,000	40
AR-160	1,500	326			
AR-160	2,000	282			
AR-160	2,500	252			
AR-160	3,000	231			
AR-160	3,500	215			
AR-160	4,000	200			

Type AR-200

200 WATT

Core Size: 1-1/8" x 3/4" x 10-1/2"
Mounting Centers – 11-3/8"
With Brackets #P-4898 Weight:
Standard Lug #14 .670 lbs.

Catalog No.	Ohms	Milli-Amps	Catalog No.	Ohms	Milli-Amps
AR-200	1	14,140	AR-200	7,500	163
AR-200	2	10,000	AR-200	10,000	141
AR-200	3	8,162	AR-200	15,000	115
AR-200	4	7,070	AR-200	20,000	100
AR-200	5	6,325	AR-200	25,000	89
AR-200	10	4,470	AR-200	30,000	82
AR-200	25	2,828	AR-200	40,000	71
AR-200	50	2,000	AR-200	50,000	62
AR-200	100	1,414	AR-200	60,000	57
AR-200	250	895	AR-200	75,000	52
AR-200	500	632	AR-200	100,000	45
AR-200	1,000	447			
AR-200	1,500	365			
AR-200	2,000	316			
AR-200	2,500	283			
AR-200	3,000	259			
AR-200	3,500	240			
AR-200	4,000	225			
AR-200	4,500	210			
AR-200	5,000	200			



VITREOUS ENAMELED FIXED RESISTORS

Midget Oval Type MOR-Series

These units are very desirable for applications where the size of components must be kept to a minimum. Integral mounting brackets are supplied as standard and are designed for stack mounting of the resistors. Three standard sizes are available. Ratings are based on metal panel mounting, on plate 10" x .040".

Type MOR-10

10 WATT

Core: 3/8" x 3/4"

Ohms	Max. Amps	Ohms	Max. Amps
1	3.16	600	0.13
2	2.24	750	0.12
5	1.41	1,000	0.10
7.5	1.15	1,250	0.089
10	1.00	1,500	0.081
15	0.82	1,750	0.075
20	0.70	2,000	0.071
25	0.63	2,500	0.063
30	0.57	3,000	0.057
40	0.50	4,000	0.050
50	0.46	5,000	0.045
75	0.36	6,000	0.041
100	0.32	7,000	0.038
125	0.28	7,500	0.036
150	0.26	10,000	0.032
200	0.22	12,500	0.028
250	0.20	15,000	0.026
300	0.18		
400	0.16		
500	0.14		

Type MOR-15

15 WATT

Core: 3/8" x 1"

Ohms	Max. Amps	Ohms	Max. Amps
1	3.81	2,000	0.087
2	2.73	2,500	0.077
5	1.73	3,000	0.072
10	1.23	3,500	0.065
15	1.00	4,000	0.059
25	0.77	5,000	0.054
40	0.61	6,000	0.050
50	0.54	7,500	0.044
75	0.44	10,000	0.038
100	0.38	12,500	0.034
150	0.31	15,000	0.032
200	0.27	20,000	0.028
250	0.24	25,000	0.024
300	0.22		
400	0.18		
500	0.17		
750	0.14		
1,000	0.12		
1,250	0.11		
1,500	0.10		

Type MOR-20

20 WATT

Core: 3/8" x 2"

Ohms	Max. Amps	Ohms	Max. Amps
1	4.47	2,000	0.10
2	3.16	2,500	0.09
5	2.00	3,000	0.081
10	1.41	3,500	0.075
15	1.16	4,000	0.070
25	0.89	5,000	0.063
40	0.71	6,000	0.058
50	0.63	7,500	0.052
75	0.52	10,000	0.044
100	0.45	12,500	0.040
150	0.36	15,000	0.036
200	0.32	20,000	0.032
250	0.26	25,000	0.028
300	0.26	30,000	0.026
400	0.22	35,000	0.024
500	0.20	40,000	0.022
800	0.16	50,000	0.020
1,000	0.14		
1,250	0.12		
1,500	0.11		

MEMCOR INC COMPONENTS DIVISION
Manufacturers of
TRU-OHM AND HARDWICK, HINDLE PRODUCTS
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VITREOUS ENAMELED FIXED RESISTORS

Oval Type OR-Series

Type OR-30

30 WATT

Core: 5/16" x 1" x 1-1/4"
Weight: .0555 lbs.

Ohms	Max. Volts	Max. Amps.
1	5.4	5.480
3	9.4	3.160
5	12	2.455
10	17	1.732
15	21	1.414
25	27	1.097
50	38	.775
100	54	.548
150	67	.447
200	77	.387
250	86	.346
400	109	.274
500	122	.245
750	150	.200
1,000	173	.173
1,250	193	.155
1,500	211	.141
2,000	244	.122
2,500	272	.109
3,000	300	.100
3,500	322	.092
4,000	344	.086
5,000	385	.077
7,500	526	.057
10,000	610	.049

Type OR-40

40 WATT

Core: 5/16" x 1" x 2"
Weight: .075 lbs.

Ohms	Max. Volts	Max. Amps.
1	6.3	6.330
3	10	3.645
5	14	2.830
10	20	2.000
15	24	1.637
25	31	1.265
50	44	.895
100	63	.633
150	77	.516
200	89	.447
250	100	.400
400	126	.316
500	141	.282
750	173	.231
1,000	200	.200
1,250	223	.179
1,500	244	.163
2,000	282	.141
2,500	315	.126
3,000	345	.115
3,500	374	.107
4,000	400	.100
5,000	445	.089
7,500	547	.073
10,000	630	.063
15,000	765	.051
20,000	1,000	.039
25,000	1,140	.035

Type OR-55

55 WATT

Core: 5/16" x 1" x 3-1/2"
Weight: .130 lbs.

Ohms	Max. Volts	Max. Amps.
1	7.4	7.410
3	12	4.280
5	16	3.318
10	23	2.345
15	28	1.917
25	37	1.482
50	52	1.050
100	74	.741
150	90	.605
200	104	.524
250	117	.469
400	148	.370
500	165	.331
750	203	.271
1,000	234	.234
1,250	259	.207
1,500	286	.191
2,000	332	.166
2,500	370	.148
3,000	405	.135
3,500	437	.125
4,000	469	.117
5,000	525	.105
7,500	638	.085
10,000	740	.074
15,000	900	.060
20,000	1,040	.052
25,000	1,150	.046
30,000	1,260	.042

Type OR-65

65 WATT

Core: 5/16" x 1" x 4-3/4"
Weight: .160 lbs.

Ohms	Max. Volts	Max. Amps.
1	8	8.060
3	14	4.655
5	18	3.605
10	25	2.550
15	31	2.080
25	40	1.612
50	57	1.140
100	80	.805
150	98	.658
200	114	.570
250	127	.510
400	161	.403
500	181	.360
750	220	.294
1,000	255	.255
1,250	285	.228
1,500	312	.208
2,000	360	.180
2,500	402	.161
3,000	444	.147
3,500	475	.136
4,000	508	.127
5,000	570	.114
7,500	698	.093
10,000	800	.080
15,000	975	.065
20,000	1,140	.057
25,000	1,275	.051
30,000	1,380	.046
35,000	1,505	.043
40,000	1,600	.040
50,000	1,800	.036

Type OR-75

75 WATT

Core: 5/16" x 1" x 6"
Weight: .195 lbs.

Ohms	Max. Volts	Max. Amps.
1	8.6	8.660
3	15	5.000
5	19	3.875
10	27	2.740
15	33	2.236
25	43	1.732
50	61	1.225
100	86	.866
150	106	.707
200	118	.591
250	137	.548
400	173	.432
500	193	.387
750	237	.316
1,000	274	.274
1,250	306	.245
1,500	334	.223
2,000	386	.193
2,500	432	.173
3,000	474	.158
3,500	510	.146
4,000	548	.137
5,000	611	.122
7,500	750	.100
10,000	860	.086
15,000	1,050	.070
20,000	1,220	.061
25,000	1,350	.054
30,000	1,500	.050
35,000	1,610	.046
40,000	1,720	.043
50,000	1,900	.038

VITREOUS ENAMELED RESISTORS

Axial Lead Val-Type

The cores are of a high grade ceramic material to which are affixed lead and cup assemblies of low expansion alloys. After winding, the units are coated with high temperature vitreous enamel which makes them resistant to humidity. This type unit is capable of continuous operation at 340° C.

This type resistor lends itself to applications where size is a factor in the design and miniaturization of equipment. They are capable of dissipating power equal to their larger counterpart tab type terminal resistors, but because of the axial lead construction they require less space for mounting.

VAL-3

3 WATT

Core: 1/4" x 9/16" Weight: .002 lbs.

Ohms	Amps	Volts	Ohms	Amps	Volts
1	1.73	1.73	750	.063	47.4
1.5	1.41	2.12	800	.061	49.0
2	1.22	2.45	900	.058	52.0
3	1.00	3.00	1,000	.055	54.8
4	.87	3.46	1,100	.052	57.4
5	.77	3.87	1,200	.050	60.0
7.5	.63	4.74	1,250	.049	61.1
10	.55	5.48	1,500	.045	67.0
12	.50	6.00	1,750	.041	72.3
15	.45	6.70	2,000	.039	77.4
20	.39	7.74	2,250	.037	82.3
25	.35	8.66	2,500	.035	86.3
30	.32	9.50	3,000	.032	95.0
35	.29	10.2	3,500	.029	103
40	.27	11.0	4,000	.027	110
50	.25	12.2	4,500	.026	116
75	.20	15.0	5,000	.025	122
100	.17	17.3	6,000	.022	134
125	.16	19.4	7,000	.020	145
150	.14	21.2	7,500	.020	150
200	.13	24.5	8,000	.019	155
225	.12	26.0	9,000	.018	163
250	.11	27.4	10,000	.017	172
300	.10	30.0			
350	.093	32.4			
400	.087	34.6			
450	.082	36.7			
500	.077	38.7			
600	.071	42.4			
700	.065	45.8			

VAL-5

5 WATT

Core: 11/32" x 1-1/16" Weight: .006 lbs.

Ohms	Amps	Volts	Ohms	Amps	Volts
1	2.23	2.23	750	.082	61.5
1.5	1.82	2.74	800	.078	63.0
2	1.58	3.16	900	.074	67.0
3	1.29	3.87	1,000	.070	70.0
4	1.12	4.47	1,100	.067	74.0
5	1.00	5.00	1,200	.064	77.0
7.5	.81	6.12	1,250	.063	79.0
10	.71	7.07	1,590	.057	86.0
12	.64	7.74	1,750	.053	93.0
15	.58	8.66	2,000	.050	100
20	.50	10.0	2,250	.047	106
25	.45	11.2	2,500	.045	112
30	.41	12.3	3,000	.041	123
35	.38	13.3	3,500	.037	132
40	.35	14.0	4,000	.035	141
50	.32	16.0	4,500	.033	149
75	.25	19.5	5,000	.032	156
100	.22	22.0	6,000	.029	172
125	.20	25.0	7,000	.027	189
150	.18	27.0	7,500	.026	195
200	.16	32.0	8,000	.025	200
225	.15	33.8	9,000	.024	212
250	.14	35.0	10,000	.022	220
300	.13	39.0	12,500	.020	250
350	.12	42.0	15,000	.018	270
400	.11	44.0	17,500	.017	295
450	.10	45.0	18,000	.017	302
500	.10	50.0	20,000	.016	320
600	.09	54.0	22,500	.015	335
700	.085	60.0	25,000	.014	350

VAL-10

10 WATT

Core: 3/8" x 1-27/32" Weight: .014 lbs.

Ohms	Amps	Volts	Ohms	Amps	Volts
1.0	3.16	3.16	2,250	.066	149
1.5	2.57	3.86	2,500	.063	158
2.0	2.24	4.47	3,000	.057	173
3.0	1.83	5.47	3,500	.053	187
4.0	1.58	6.33	4,000	.050	200
5.0	1.41	7.07	4,500	.047	212
7.5	1.16	8.65	5,000	.045	223
10	1.00	10.0	6,000	.041	245
12	.91	10.9	7,000	.038	265
15	.82	12.2	7,500	.036	274
20	.71	14.1	8,000	.035	283
25	.63	15.8	8,500	.034	291
30	.58	17.3	9,000	.033	300
35	.53	18.7	10,000	.032	316
40	.50	20.0	11,000	.030	332
50	.45	22.4	12,000	.029	346
75	.37	27.4	12,500	.028	353
100	.32	31.6	13,500	.027	367
125	.28	35.4	15,000	.026	387
150	.26	38.7	16,000	.025	400
200	.22	44.7	17,500	.024	418
225	.21	47.4	18,000	.023	424
250	.20	50.0	20,000	.022	447
300	.18	54.7	22,500	.021	474
350	.17	59.1	25,000	.020	500
400	.16	63.2	30,000	.018	548
450	.15	66.8	35,000	.017	591
500	.14	70.7	40,000	.016	632
600	.13	77.4	45,000	.015	670
700	.12	83.6	50,000	.014	707
750	.11	86.6			
800	.11	89.4			
900	.11	94.8			
1,000	.10	100			
1,100	.095	104			
1,200	.091	109			
1,250	.090	113			
1,500	.081	122			
1,750	.075	132			
2,000	.071	142			

WATTS	DIAMETER "D"	LENGTH "L"	LENGTH "A" ± 1/16"	LEAD SIZE A.W.G.**	MIN. RES.	RES. MAX.
3	1/4	9/16	1-1/2	#20	0.1 Ω	10,000 Ω
5	11/32	1-1/16	1-1/2	#19	0.4 Ω	25,000 Ω
10	3/8	1-27/32	1-1/2	#19	0.75 Ω	50,000 Ω

*Lengths shown are standard and can be supplied up to 2-1/2 inches long.
**Sizes shown are standard and can be supplied with #18, #19, or #20 A.W.G.

MEMCOR INC COMPONENTS DIVISION
Manufacturers of TRU-OHM AND HARDWICK, HINDLE PRODUCTS
MEMCOR INC

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variable transformers • tantalum capacitors
semiconductor devices • r.f. chokes

OHMITE VITREOUS ENAMELED FIXED AND DIVIDOHM® RESISTORS

12 WATT SIZE RESISTOR

Core: 1¾" x 5/16" — Mounting Centers 2 3/16"

Res. Ohms	Max. Amps.	Fixed Resist. Stock No.	Fixed Resist. Net 1-9	Adj. Resist. Stock No.	Adj. Resist. Net 1-9
.51	4.86	3723	$ .57		
1.0	3.46	3730	.57	1001	$1.14
1.5	2.83	3734	.57		
2.0	2.45			1002	1.14
2.2	2.34	3738	.57		
3.0	2.00			1003	1.14
3.3	1.91	3742	.57		
4.7	1.60	3746	.57		
5.0	1.54			1004	1.14
6.8	1.33	3750	.57		
7.5	1.26			1005	1.14
10	1.10	3754	.57	1006	1.14
12	1.00	3756	.57		
15	.89	3758	.57	1007	1.14
18	.82	3760	.57		
20	.77			1008	1.14
22	.74	3762	.57		
25	.69			1009	1.14
27	.67	3764	.57		
33	.60	3766	.57		
39	.55	3768	.57		
47	.53	3770	.57		
50	.49			1010	1.14
56	.46	3772	.57		
68	.42	3774	.57		
75	.40			1011	1.14
82	.38	3776	.57		
100	.35	3778	.57	1012	1.14
120	.32	3780	.57		
150	.28	3782	.57	1013	1.14
180	.26	3784	.57		
200	.24			1014	1.14
220	.23	3786	.57		
250	.22			1015	1.14
270	.21	3788	.57		
300	.20			1016	1.14
330	.19	3790	.57		
350	.18			1017	1.14
390	.18	3792	.57		
400	.17			1018	1.14
470	.16	3794	.57		
500	.15			1019	1.14
560	.15	3796	.57		
600	.14			1020	1.14
680	.13	3798	.57		
750	.13			1021	1.14
800	.12			1022	1.14
820	.12	3800	.57		
1,000	.11	3802	.57	1023	1.14
1,200	.10	3804	.61		
1,250	.098			1024	1.18
1,500	.089	3806	.61	1025	1.18
1,800	.082	3808	.61		
2,000	.077			1026	1.18
2,200	.074	3810	.61		
2,250	.073			1027	1.18
2,500	.069			1028	1.18
2,700	.067	3812	.61		
3,000	.063			1029	1.18
3,300	.060	3814	.61		
3,500	.058			1030	1.18
3,900	.055	3816	.61		
4,000	.055			1031	1.18
4,500	.052			1032	1.18
4,700	.051	3818	.61		
5,000	.049			1033	1.18
5,600	.046	3820	.70		
6,000	.045			1034	1.27
6,800	.042	3822	.70		
7,000	.042			1035	1.27
7,500	.040			1036	1.27
8,000	.039			1037	1.27
8,200	.038	3824	.70		
8,500	.037			1038	1.27
9,000	.036			1039	1.27
10,000	.035	3826	.70	1040	1.27
12,000	.032	3828	.79		
15,000	.028	3830	.79		
18,000	.026	3832	.79		
22,000	.023	3834	.83		
27,000	.021	3836	.83		
33,000	.019	3838	.83		
39,000	.018	3840	.83		
47,000	.016	3842	.93		
51,000	.015	3843	.93		

ADJUSTABLE LUGS

Bakelite Knob Res. Dia.	Stock No.	Net 1-9	Screw Driver Type Res. Dia.	Stock No.	Net 1-9
9/16"	0359	$0.31	5/16"	1058	$0.14
3/4"	1959	.31	9/16"	0358	.14
1 1/8"	2159	.40	3/4"	1958	.14
			1 1/8"	2158	.23

25 WATT SIZE RESISTOR

Core: 2" x 5/16" — Mounting Centers 2¾"

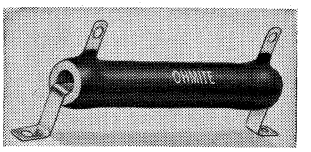
Res. Ohms	Max. Amps.	Fixed Resist. Stock No.	Fixed Resist. Net 1-9	Adj. Resist. Stock No.	Adj. Resist. Net 1-9
1	5.00	0200J	$0.72	0360	$1.29
2	3.54	0200K	.72	0360B	1.29
3	2.88	0200L	.72	0361	1.29
5	2.24	0200A	.72	0362	1.29
7.5	1.82			0362B	1.29
10	1.58	0200B	.72	0363	1.29
15	1.29	0200R	.72	0364	1.29
20	1.12			0364B	1.29
25	1.00	0200C	.72	0365	1.29
50	.71	0200D	.72	0366	1.29
75	.58	0200E	.72	0367	1.29
100	.50	0200F	.72	0368	1.29
150	.41	0200G	.72	0369	1.29
200	.35	0200H	.72	0370	1.29
250	.32	0201	.72	0371	1.29
300	.29			0371B	1.29
400	.25			0371C	1.29
500	.22	0202	.72	0372	1.29
750	.18	0203	.72	0373	1.29
800	.17	0204	.72	0374	1.29
1,000	.16	0205	.72	0375	1.29
1,250	.14			0375B	1.32
1,500	.13	0206	.75	0376	1.32
2,000	.12	0207	.75	0377	1.32
2,250	.11			0377B	1.32
2,500	.10	0208	.75	0378	1.32
3,000	.091	0209	.75	0379	1.32
3,500	.084	0210	.75	0380	1.32
4,000	.079	0211	.75	0381	1.32
4,500	.074			0381B	1.32
5,000	.070	0212	.75	0382	1.32
6,000	.064	0213	.85	0383	1 42
7,000	.060			0383B	1.42
7,500	.057	0214	.85	0384	1.42
8,000	.055			0384B	1.42
9,000	.052			0384C	1.42
10,000	.050	0215	.85	0385	1.42
12,000	.042	0216	.90	0386	1.47
15,000	.036	0217	.90	0387	1.47
20,000	.031	0218	.90	0388	1.47
25,000	.028	0219	1.04	0389	1.61
40,000	.022	0222	1.04		
50,000	.020	0224	1.21		
100,000	.010	0229	1.64		

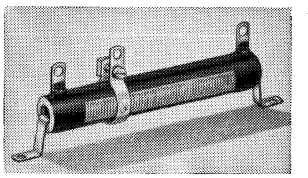
50 WATT SIZE RESISTOR

Core: 4" x 5/16" — Mounting Centers 4¾"

Res. Ohms	Max. Amps.	Fixed Resist. Stock No.	Fixed Resist. Net 1-9	Adj. Resist. Stock No.	Adj. Resist. Net 1-9
5	3.16	0400A	$1.11	0560	$1.68
10	2.23	0400B	1.11	0561	1.68
25	1.41	0400C	1.11	0562	1.68
50	1.00	0400D	1.11	0563	1.68
75	.82	0400E	1.11	0564	1.68
100	.71	0400F	1.11	0565	1.68
150	.58	0400G	1.11	0566	1.68
200	.50	0400H	1.11	0567	1.68
250	.45	0401	1.11	0568	1.68
300	.41			0568B	1.68
400	.35			0568C	1.68
500	.32	0402	1.11	0569	1.68
750	.26	0403	1.11	0570	1.68
1,000	.22	0405	1.11	0572	1.68
1,250	.20			0572B	1.71
1,500	.18	0406	1.14	0573	1.71
2,000	.16	0407	1.14	0574	1.71
2,500	.14	0408	1.14	0575	1.71
3,000	.13	0409	1.14	0576	1.71
3,500	.12			0576B	1.71
4,000	.11	0410	1.14	0577	1.71
4,500	.10			0577B	1.71
5,000	.10	0411	1.14	0578	1.71
6,000	.091			0578B	1.80
7,000	.084			0578C	1.80
7,500	.081	0412	1.23	0579	1.80
8,000	.079	0413	1.23	0580	1.80
9,000	.074			0580B	1.80
10,000	.071	0414	1.23	0581	1.80
12,000	.064	0415	1.35	0582	1.92
15,000	.057	0416	1.35	0583	1.92
20,000	.050	0417	1.35	0584	1.92
25,000	.045	0418	1.54	0585	2.11
30,000	.036			0586	2.11
35,000	.032	0419	1.54		
40,000	.029			0587	2.11
50,000	.026	0420	1.72	0588	2.29
60,000	.024			0589	2.29
75,000	.021	0421	1.97		
80,000	.021			0590	2.54
100,000	.018	0422	2.13	0591	2.70

These all-welded construction resistors have welded high-strength alloy terminals. For perfect electrical connection, the resistance wire is welded to the terminal. Units are wire-wound on ceramic cores and protected by Ohmite Vitreous Enamel. Furnished with mounting brackets and on DIVIDOHM with one adjustable lug.





75 WATT SIZE — Dividohm

Core: 6" x 5/16" — Mounting Centers 6¾"

Adjustable Res. Res. Ohms	Max. Amps.	Stock No.	Adjustable Res. Res. Ohms	Max. Amps.	Stock No.
5	3.87	0769	5,000	.12	0783
10	2.74	0770	6,000	.11	0783B
15	2.24	0771	7,000	.10	0783C
25	1.73	0772	7,500	.10	0784
50	1.22	0773	8,000	.096	0784B
100	.86	0774	9,000	.091	0784C
200	.61	0774B	10,000	.086	0785
250	.55	0775	12,000	.079	0785B
300	.50	0775B	15,000	.070	0786
400	.43	0775C	20,000	.061	0787
500	.39	0776	25,000	.054	0788
750	.32	0777	30,000	.050	0789
1,000	.27	0778	35,000	.046	0790
1,250	.24	0778B	40,000	.043	0791
1,500	.22	0779	45,000	.035	0792
2,000	.19	0780	50,000	.033	0793
2,500	.17	0781	60,000	.030	0794
3,000	.16	0781B	80,000	.026	0795
3,500	.15	0782	100,000	.023	0796
4,000	.14	0782B			

Net (1-9), 5 thru 1,000 ohms..... $1.87
Net (1-9), 1,250 thru 5,000 ohms..... 1.92
Net (1-9), 6,000 thru 10,000 ohms..... 2.01
Net (1-9), 12,000 thru 20,000 ohms..... 2.13
Net (1-9), 25,000 thru 40,000 ohms..... 2.32
Net (1-9), 45,000 thru 60,000 ohms..... 2.52
Net (1-9), 80,000 ohms..... 2.78
Net (1-9), 100,000 ohms..... 2.93

100 WATT SIZE RESISTOR

Core: 6½" x ¾" — Mounting Centers 7⅜"

Res. Ohms	Max. Amps.	Fixed Resist. Stock No.	Fixed Resist. Net 1-9	Adj. Resist. Stock No.	Adj. Resist. Net 1-9
5	4.47	0600A	$1.54	0956	$2.11
10	3.16	0600B	1.54	0957	2.11
25	2.00	0601	1.54	0958	2.11
50	1.41	0602	1.54	0959	2.11
75	1.15	0603	1.54		
100	1.00	0604	1.54	0960	2.11
150	.816	0605	1.54		
250	.63	0606	1.54	0960B	2.11
500	.45	0607	1.54	0961	2.11
750	.365	0608	1.54		
1,000	.32	0609	1.54	0962	2.11
1,500	.26	0610	1.60	0962B	2.17
2,000	.223	0611	1.60		
2,500	.20	0612	1.60	0963	2.17
3,000	.18	0613	1.60		
5,000	.14	0614	1.60	0964	2.17
7,500	.115	0615	1.73		
10,000	.10	0616	1.73	0965	2.30
15,000	.081	0617	1.87	0966	2.44
20,000	.071	0618	1.87	0967	2.44
25,000	.063	0619	2.13	0968	2.70
30,000	.058	0620	2.13	0969	2.70
40,000	.050	0621	2.13	0970	2.70
50,000	.045	0622	2.21	0971	2.78
60,000	.041	0623	2.21		
75,000	.032	0624	2.45	0972	3.02
100,000	.028	0625	2.75	0973	3.32

Net

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variable transformers • tantalum capacitors
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FIXED AND DIVIDOHM® RESISTORS (CONT.)

175 WATT SIZE RESISTOR

Core: 8½" x 1⅛" — Mounting Centers 9⅜"

Res. Ohms	Max. Amps.	Fixed Resist. Stock No.	Fixed Resist. Net 1-9	Adj. Resist. Stock No.	Adj. Resist. Net 1-9
5	5.92	0700A	$3.19	1156	$4.07
10	4.18	0700B	2.28	1157	3.16
25	2.64	0701	2.28	1158	3.16
50	1.87	0702	2.28	1159	3.16
75	1.52	0703	2.28		
100	1.32	0704	2.28	1160	3.16
150	1.08	0705	2.28		
250	.84	0706	2.28	1160B	3.16
500	.59	0707	2.28	1161	3.16
750	.48	0708	2.28		
1,000	.42	0709	2.28	1162	3.16
1,500	.34	0710	2.32	1162B	3.20
2,000	.30	0711	2.32		
2,500	.26	0712	2.32	1163	3.20
3,000	.24	0713	2.32		
5,000	.19	0714	2.32	1164	3.20
7,500	.15	0715	2.53		
10,000	.13	0716	2.53	1165	3.41
15,000	.11	0717	2.71	1166	3.59
20,000	.094	0718	2.71	1167	3.59
25,000	.083	0719	2.80	1168	3.68
30,000	.076	0720	2.80	1169	3.68
40,000	.066	0721	2.80	1170	3.68
50,000	.059	0722	2.89	1171	3.77
60,000	.054	0723	2.89		
75,000	.048	0724	3.08	1172	3.96
100,000	.042	0725	3.26	1173	4.14

225 WATT SIZE RESISTOR

Core: 10½" x 1⅛"—Mounting Centers 11⅜"

Res. Ohms	Max. Amps.	Fixed Resist. Stock No.	Fixed Resist. Net 1-9	Adj. Resist. Stock No.	Adj. Resist. Net 1-9
5	6.72	0900A	$3.44	1356	$4.32
10	4.74	0900B	2.46	1357	3.34
25	3.00	0901	2.46	1358	3.34
50	2.12	0902	2.46	1359	3.34
75	1.73	0903	2.46		
100	1.50	0904	2.46	1360	3.34
150	1.25	0905	2.46		
250	.95	0906	2.46	1360B	3.34
500	.67	0907	2.46	1361	3.34
750	.55	0908	2.46		
1,000	.47	0909	2.46	1362	3.34
1,500	.39	0910	2.53	1362B	3.41
2,000	.34	0911	2.53		
2,500	.30	0912	2.53	1363	3.41
3,000	.27	0913	2.53		
5,000	.21	0914	2.53	1364	3.41
7,500	.17	0915	2.71		
10,000	.15	0916	2.71	1365	3.59
15,000	.13	0917	2.89	1366	3.77
20,000	.11	0918	2.89	1367	3.77
25,000	.095	0919	2.98	1368	3.86
30,000	.087	0920	2.98	1369	3.86
40,000	.075	0921	2.98	1370	3.86
50,000	.067	0922	3.08	1371	3.96
60,000	.061	0923	3.08		
75,000	.055	0924	3.26	1372	4.14
100,000	.047	0925	3.46	1373	4.34

8 Watt—1" x 5/16" Core Size

Ohms	Amps	Ohms	Amps	Ohms	Amps
1	2.83	200	.20	2,250	.059
1.5	2.30	225	.18	2,500	.056
2	2.00	250	.17	3,000	.051
3	1.63	300	.16	3,500	.047
4	1.41	350	.15	4,000	.044
5	1.26	400	.14	4,500	.042
7.5	1.00	450	.13	5,000	.040
10	.89	500	.12	6,000	.036
12	.81	600	.11	7,000	.033
15	.73	700	.11	7,500	.032
20	.63	750	.10	8,000	.031
25	.56	800	.10	9,000	.029
30	.51	900	.094	10,000	.028
35	.47	1,000	.089	12,500	.025
40	.44	1,100	.085	15,000	.023
50	.40	1,200	.081	17,500	.021
75	.32	1,250	.080	20,000	.020
100	.28	1,500	.073	22,500	.018
125	.25	1,750	.067	25,000	.017
150	.23	2,000	.063		

Net (1-9), 1 thru 1,000 ohms.....**$0.52**
Net (1-9), 1,100 thru 5,000 ohms..... **.55**
Net (1-9), 6,000 thru 10,000 ohms..... **.58**
Net (1-9), 12,500 thru 20,000 ohms..... **.65**
Net (1-9), 22,500 and 25,000 ohms..... **.68**

Popular OHMITE "BROWN DEVIL"® RESISTORS

High quality, small size, wire-wound resistors ideal for voltage dropping, bias units. bleeders, etc. They're extra-sturdy, all-ceramic, vitreous enameled. These all-welded construction units have welded high-strength alloy terminals. For perfect electrical connection, the resistance wire is welded to the terminal. They give time-proved protection against shock, vibration, heat and humidity. Their long record of continuous trouble-free service—their wide use in all climates of the world—prove their complete reliability and economy. All units can be conveniently mounted by means of their 1½" tinned wire leads. Standard resistance tolerance is ±5%.

3 Watt—7/16" x .20" Core Size

Ohms	Amps	Ohms	Amps	Ohms	Amps
1.0	1.73	24	.35	510	.077
1.1	1.65	27	.33	560	.073
1.2	1.58	30	.32	620	.070
1.3	1.52	33	.30	680	.067
1.5	1.41	36	.29	750	.063
1.6	1.37	39	.28	820	.060
1.8	1.29	43	.26	910	.057
2.0	1.22	47	.25	1,000	.055
2.2	1.17	51	.24	1,100	.052
2.4	1.12	56	.23	1,200	.050
2.7	1.05	62	.22	1,300	.048
3.0	1.00	68	.21	1,500	.045
3.3	.95	75	.20	1,600	.043
3.6	.91	82	.19	1,800	.042
3.9	.88	91	.18	2,000	.039
4.3	.83	100	.17	2,200	.037
4.7	.80	110	.16	2,400	.035
5.1	.77	120	.16	2,700	.033
5.6	.73	130	.15	3,000	.032
6.2	.69	150	.14	3,300	.030
6.8	.66	160	.14	3,600	.029
7.5	.63	180	.13	3,900	.028
8.2	.60	200	.12	4,300	.026
9.1	.57	220	.12	4,700	.025
10	.55	240	.11	5,100	.024
11	.52	270	.11	5,600	.023
12	.50	300	.10	6,200	.022
13	.48	330	.095	6,800	.021
15	.45	360	.091	7,500	.020
16	.43	390	.088	8,200	.019
18	.42	430	.083	9,100	.018
20	.39	470	.080	10,000	.017
22	.37				

Net (1-9), 1 thru 1,000 ohms.....**$0.49**
Net (1-9), 1,100 thru 4,700 ohms.....**.52**
Net (1-9), 5,100 thru 10,000 ohms..... **.55**

5¼ Watt—⅝" x ¼" Core Size

Ohms	Amps	Ohms	Amps	Ohms	Amps
1.0	2.29	30	.42	820	.080
1.1	2.19	33	.40	910	.076
1.2	2.09	36	.38	1,000	.072
1.3	2.01	39	.37	1,100	.069
1.5	1.87	43	.35	1,200	.066
1.6	1.81	47	.33	1,300	.064
1.8	1.71	51	.32	1,500	.059
2.0	1.62	56	.31	1,600	.057
2.2	1.54	62	.29	1,800	.054
2.4	1.48	68	.28	2,000	.051
2.7	1.39	75	.27	2,200	.049
3.0	1.32	82	.25	2,400	.047
3.3	1.24	91	.24	2,700	.044
3.6	1.21	100	.23	3,000	.042
3.9	1.16	110	.22	3,300	.040
4.3	1.10	120	.21	3,600	.038
4.7	1.06	130	.20	3,900	.037
5.1	1.01	150	.19	4,300	.035
5.6	.97	160	.18	4,700	.033
6.2	.92	180	.17	5,100	.032
6.8	.88	200	.16	5,600	.031
7.5	.84	220	.16	6,200	.029
8.2	.80	240	.15	6,800	.028
9.1	.76	270	.14	7,500	.027
10	.72	300	.13	8,200	.025
11	.69	330	.12	9,100	.024
12	.66	360	.12	10,000	.023
13	.64	390	.12	11,000	.022
15	.59	430	.11	12,000	.021
16	.57	470	.11	13,000	.020
18	.54	510	.10	15,000	.019
20	.51	560	.097	16,000	.018
22	.49	620	.092	18,000	.017
24	.47	680	.088	20,000	.016
27	.44	750	.084		

Net (1-9), 1 thru 1,000 ohms.....**$0.52**
Net (1-9), 1,100 thru 4,700 ohms..... **.55**
Net (1-9), 5,100 thru 10,000 ohms..... **.58**
Net (1-9), 11,000 thru 20,000 ohms..... **.65**

12 Watt—1¾" x 5/16" Core Size

Ohms	Amps	Ohms	Amps	Ohms	Amps
0.5	4.90	300	.20	6,000	.044
1	3.46	350	.18	7,000	.041
1.5	2.82	400	.17	7,500	.040
2	2.45	450	.16	8,000	.038
3	2.00	500	.15	8,500	.037
4	1.73	600	.14	9,000	.036
5	1.54	700	.13	10,000	.035
7.5	1.26	750	.12	11,000	.033
10	1.09	800	.12	12,000	.031
12	1.00	900	.11	12,500	.031
15	.89	1,000	.11	13,500	.029
20	.77	1,100	.10	15,000	.028
25	.69	1,200	.10	16,000	.027
30	.63	1,250	.097	17,500	.026
35	.58	1,500	.089	18,000	.025
40	.54	1,750	.082	20,000	.024
50	.49	2,000	.077	22,500	.023
75	.40	2,250	.073	25,000	.022
100	.34	2,500	.069	30,000	.020
125	.31	3,000	.063	35,000	.018
150	.28	3,500	.058	40,000	.017
200	.24	4,000	.054	45,000	.016
225	.23	4,500	.051	50,000	.015
250	.22	5,000	.049		

Net (1-9), 0.5 thru 1,000 ohms.....**$0.57**
Net (1-9), 1,100 thru 5,000 ohms..... **.61**
Net (1-9), 6,000 thru 10,000 ohms..... **.70**
Net (1-9), 11,000 thru 20,000 ohms..... **.79**
Net (1-9), 22,500 thru 40,000 ohms..... **.83**
Net (1-9), 45,000 and 50,000 ohms..... **.93**

20 Watt—2" x 7/16" Core Size

Ohms	Amps	Ohms	Amps	Ohms	Amps
0.5	6.32	800	.15	10,000	.043
1.0	4.47	850	.15	12,500	.035
2.0	3.16	1,000	.14	15,000	.032
3.0	2.58	1,200	.13	20,000	.027
4.0	2.24	1,250	.12	25,000	.024
5	2.00	1,500	.12	30,000	.022
10	1.41	1,750	.11	35,000	.021
25	.89	2,000	.10	40,000	.019
50	.63	2,250	.094	45,000	.018
75	.52	2,500	.089	50,000	.017
100	.45	2,750	.085	55,000	.016
150	.36	3,000	.081	60,000	.016
200	.32	3,500	.075	65,000	.015
250	.28	4,000	.070	70,000	.014
300	.26	4,500	.066	75,000	.013
350	.24	5,000	.063	80,000	.012
400	.22	6,000	.057	85,000	.012
500	.20	7,000	.053	90,000	.011
650	.18	7,500	.051	95,000	.010
700	.17	8,000	.050	100,000	.010
750	.16	9,000	.047		

Net (1-9), 0.5 ohms.....**$0.95**
Net (1-9), 1.0 thru 1,000 ohms..... **.68**
Net (1-9), 1,200 thru 5,000 ohms..... **.70**
Net (1-9), 6,000 thru 10,000 ohms..... **.83**
Net (1-9), 12,500 thru 20,000 ohms..... **.85**
Net (1-9), 25,000 thru 40,000 ohms..... **.99**
Net (1-9), 45,000 thru 60,000 ohms..... **1.15**
Net (1-9), 65,000 thru 80,000 ohms..... **1.37**
Net (1-9), 85,000 thru 100,000 ohms..... **1.57**

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OHMITE Series 99 Resistors

SERIES 99 MOLDED VITREOUS AXIAL LEAD RESISTORS

All welded resistors with 1000 v. AC insulation. They meet general requirements of specification MIL-R-26C for RW57, RW58, RW59, RW67, RW68 and RW69. Chip and break resistant, uniformly molded white vitreous enamel protects against moisture, salt spray and immersion. Vitrified markings resist high temperatures, solvents and abrasion. Can be mounted on component clips. **Tolerance:** ±5%, standard. **Size:** 1.5-watt, 0.422″ lg. x 0.125″ dia.; 2¼-watt, 0.375″ lg. x 0.188″ dia.; 3¼-watt, 0.547″ lg. x 0.203″ dia.; 5-watt, 0.938″ lg. x 0.203″ dia.; 11-watt, 1.781″ lg. x 0.312″ dia. Tinned leads 1½″ lg., #20 AWG except 1-watt, #24 AWG.

STYLE 995-1A 1.5-WATT AND STYLE 995-2A 2¼-WATT

Ohms	Stock Number 1.5-Watt	2¼-Watt	Ohms	Stock Number 1.5-Watt	2¼-Watt
1.0	4030	3860	75	4087	3918
1.1	4031	3861	82	4089	3920
1.2	4032	3862	91	4091	3922
1.3	4033	3863	100	4092	3923
1.5	4034	3864	110	4093	3924
1.6	4035	3865	120	4094	3925
1.8	4036	3866	130	4095	3926
2.0	4037	3867	150	4096	3927
2.2	4038	3868	160	4097	3928
2.4	4039	3869	180	4098	3929
2.7	4041	3871	200	4099	3930
3.0	4042	3872	220	4100	3931
3.3	4043	3873	240	4101	3932
3.6	4044	3874	250	4102	3933
3.9	4045	3875	270	4103	3934
4.0	4046	3876	300	4104	3935
4.3	4047	3877	330	4105	3936
4.7	4048	3878	350	4105A	3937
5.0	4049	3879	360	4106	3938
5.1	4050	3880	390	4107	3939
5.6	4051	3881	400	4108	3940
6.2	4053	3883	430	4109	3941
6.8	4054	3884	450	4109A	3942
7.5	4056	3886	470	4110	3943
8.2	4058	3888	500	4111	3944
9.1	4060	3890	510	4112	3945
10	4061	3891	560	4113	3946
11	4062	3892	600	4114	3947
12	4063	3893	620	4115	3948
13	4064	3894	680	4116	3949
15	4065	3895	700	4117	3950
16	4066	3896	750	4118	3951
18	4067	3897	800	4119	3952
20	4068	3898	820	4120	3953
22	4069	3899	900	4121	3954
24	4070	3900	910	4122	3955
25	4071	3901	1000	4123	3956
27	4072	3902	1100	4124	3957
30	4073	3903	1200	4125	3958
33	4074	3904	1300	4126	3959
35	4074A	3905	1400	4126A	3960
36	4075	3906	1500	4127	3961
39	4076	3907	1600	4128	3962
40	4077	3908	1800	4129	3963
43	4078	3909	2000	4130	3964
47	4079	3910	2200	4131	3965
50	4080	3911	2400	4132	3966
51	4081	3912	2500	4133	3967
56	4082	3913	2700	4134	3968
62	4084	3915	3000	4135	3969
68	4085	3916			

Values Ohms*	Style 995-1A 1.5-Watt Net Each, Lots of 1-9	10-24	25-99	100-249	Style 995-2A 2¼-Watt Net Each, Lots of 1-9	10-24	25-99	100-249
1–1000	62c	53c	43c	37c	60c	51c	42c	36c
1100–3000	66c	56c	46c	40c	64c	54c	45c	38c

STYLE 995-10A 11-WATT

Ohms	Stock No.	Ohms	Stock No.	Ohms	Stock No.	Ohms	Stock No.
1.0	4730	10	4761	82	4789	600	4814
1.1	4731	11	4762	91	4791	620	4815
1.2	4732	12	4763	100	4792	680	4816
1.3	4733	13	4764	110	4793	700	4817
1.5	4734	15	4765	120	4794	750	4818
1.6	4735	16	4766	130	4795	800	4819
1.8	4736	18	4767	150	4796	820	4820
2.0	4737	20	4768	160	4797	900	4821
2.2	4738	22	4769	180	4798	910	4822
2.4	4739	24	4770	200	4799	1000	4823
2.7	4741	25	4771	220	4800	1100	4824
3.0	4742	27	4772	240	4801	1200	4825
3.3	4743	30	4773	250	4802	1300	4826
3.6	4744	33	4774	270	4803	1400	4826A
3.9	4745	35	4774A	300	4804	1500	4827
4.0	4746	36	4775	330	4805	1600	4828
4.3	4747	39	4776	350	4805A	1800	4829
4.7	4748	40	4777	360	4806	2000	4830
5.0	4749	43	4778	390	4807	2200	4831
5.1	4750	47	4779	400	4808	2400	4832
5.6	4751	50	4780	430	4809	2500	4833
6.2	4753	51	4781	450	4809A	2700	4834
6.8	4754	56	4782	470	4810	3000	4835
7.5	4756	62	4784	500	4811	3300	4836
8.2	4758	68	4785	510	4812	3500	4836A
9.1	4760	75	4787	560	4813	3600	4837

*Restricted to those values shown in the table of stock numbers.

STYLE 995-3A 3¼-WATT AND STYLE 995-5B 5-WATT

Ohms	Stock Number 3¼-Watt	5-Watt	Ohms	Stock Number 3¼-Watt	5-Watt
1.0	4330	4530	330	4405	4605
1.1	4331	4531	350	4405A	4605A
1.2	4332	4532	360	4406	4606
1.3	4333	4533	390	4407	4607
1.5	4334	4534	400	4408	4608
1.6	4335	4535	430	4409	4609
1.8	4336	4536	450	4409A	4609A
2.0	4337	4537	470	4410	4610
2.2	4338	4538	500	4411	4611
2.4	4339	4539	510	4412	4612
2.7	4341	4541	560	4413	4613
3.0	4342	4542	600	4414	4614
3.3	4343	4543	620	4415	4615
3.6	4344	4544	680	4416	4616
3.9	4345	4545	700	4417	4617
4.0	4346	4546	750	4418	4618
4.3	4347	4547	800	4419	4619
4.7	4348	4548	820	4420	4620
5.0	4349	4549	900	4421	4621
5.1	4350	4550	910	4422	4622
5.6	4351	4551	1000	4423	4623
6.2	4353	4553	1100	4424	4624
6.8	4354	4554	1200	4425	4625
7.5	4356	4556	1300	4426	4626
8.2	4358	4558	1400	4426A	4626A
9.1	4360	4560	1500	4427	4627
10	4361	4561	1600	4428	4628
11	4362	4562	1800	4429	4629
12	4363	4563	2000	4430	4630
13	4364	4564	2200	4431	4631
15	4365	4565	2400	4432	4632
16	4366	4566	2500	4433	4633
18	4367	4567	2700	4434	4634
20	4368	4568	3000	4435	4635
22	4369	4569	3300	4436	4636
24	4370	4570	3500	4436A	4636A
25	4371	4571	3600	4437	4637
27	4372	4572	3900	4438	4638
30	4373	4573	4000	4439	4639
33	4374	4574	4300	4440	4640
35	4374A	4574A	4500	4440A	4640A
36	4375	4575	4700	4441	4641
39	4376	4576	5000	4442	4642
40	4377	4577	5100	4443	4643
43	4378	4578	5600	4444	4644
47	4379	4579	6000	4445	4645
50	4380	4580	6200	4446	4646
51	4381	4581	6800	4447	4647
56	4382	4582	7000	4448	4648
62	4384	4584	7500	4449	4649
68	4385	4585	8000	4450	4650
75	4387	4587	8200	4451	4651
82	4389	4589	9000	4452	4652
91	4391	4591	9100	4453	4653
100	4392	4592	10,000	4454	4654
110	4393	4593	11,000	.....	4655
120	4394	4594	12,000	.....	4656
130	4395	4595	13,000	.....	4657
150	4396	4596	14,000	.....	4657A
160	4397	4597	15,000	.....	4658
180	4398	4598	16,000	.....	4659
200	4399	4599	17,000	.....	4659B
220	4400	4600	18,000	.....	4660
240	4401	4601	20,000	.....	4661
250	4402	4602	22,000	.....	4662
270	4403	4603	24,000	.....	4663
300	4404	4604	25,000	.....	4664

Values Ohms*	Style 995-3A 3¼-Watt Net Each, Lots of 1-9	10-24	25-99	100-249	Style 995-5B 5-Watt Net Each, Lots of 1-9	10-24	25-99	100-249
1–1000	59c	50c	41c	35c	62c	53c	43c	37c
1100–5000	62c	53c	43c	37c	66c	56c	46c	40c
5100–10,000	66c	56c	46c	40c	70c	60c	49c	42c
11,000–20,000	.....	.....	.....	.....	78c	66c	55c	47c
22,000–25,000	.....	.....	.....	.....	82c	70c	57c	49c

STYLE 995-10A 11-WATT (CONTINUED)

Ohms	Stock No.	Ohms	Stock No.	Ohms	Stock No.	Ohms	Stock No.
3900	4838	7000	4848	15,000	4858	35,000	4867A
4000	4839	7500	4849	16,000	4859A	36,000	4868
4300	4840	8000	4850	17,000	4859C	39,000	4869
4500	4840A	8200	4851	18,000	4860	40,000	4870
4700	4841	9000	4852	20,000	4861	43,000	4871
5000	4842	9100	4853	22,000	4862	45,000	4871A
5100	4843	10,000	4854	24,000	4863	47,000	4872
5600	4844	11,000	4855A	25,000	4864	50,000	4873
6000	4845	12,000	4856	27,000	4865	51,000	4874
6200	4846	13,000	4857	30,000	4866		
6800	4847	14,000	4857B	33,000	4867		

Values Ohms*	Net Each, Lots of 1-9	10-24	25-99	100-249
1–1000	$0.68	$0.58	$0.48	$0.41
1100–5000	.73	.62	.51	.44
5100–10,000	.84	.71	.59	.50
11,000–20,000	.95	.81	.67	.57
22,000–40,000	1.00	.85	.70	.60
43,000–51,000	1.12	.95	.78	.67

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Net

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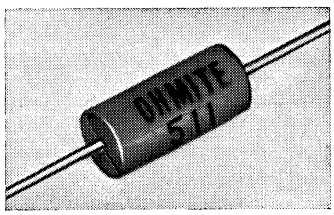
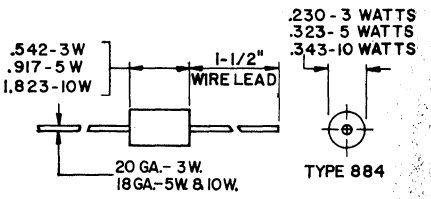
TYPE 884 MOLDED WIREWOUND RESISTORS ± 1% TOLERANCE



These precision power resistors are furnished from stock in power ratings of 3, 5 and 10 watts depending upon resistance. Single layer wound on ceramic core, Type 884 units feature a pressure-molded jacket of tough, resilient, silicone-ceramic material. Negligible inductance at audio frequencies. Temperature coefficient of resistance is 0±20ppm/°C. Values shown are selected from MIL Standard MS90169, MIL-R-10509 and Bell Tel. Labs.



Ohms	Max. Volts	Ohms	Max. Volts	Ohms	Max. Volts	Ohms	Max. Volts	Ohms	Max. Volts	Ohms	Max. Volts	Ohms	Max. Volts	Ohms	Max. Volts
3 WATT		3 WATT (Cont.)		3 WATT (Cont.)		3 WATT (Cont.)		3 WATT (Cont.)		3 WATT (Cont.)		3 WATT (Cont.)		5 WATT (Cont.)	
.100	.547	3.40	3.19	16.9	7.12	84.5	15.9	422	35.6	2100	79.4	10,500	178	49,900*	460
.121	.602	3.48	3.23	17.4	7.22	86.6	16.1	432	36.1	2150	80.3	10,700	179	51,100*	460
.150	.670	3.57	3.27	17.8	7.30	88.7	16.3	442	36.4	2210	81.4	11,000	182	52,300*	460
.182	.739	3.65	3.31	18.2	7.39	90.9	16.5	453	36.9	2260	82.3	11,300	184	53,600*	460
.200	.774	3.74	3.35	18.7	7.49	93.1	16.7	464	37.3	2320	83.4	11,500	186	54,900*	460
.221	.814	3.83	3.39	19.1	7.57	95.3	16.9	475	37.7	2370	84.3	11,800	188	56,200*	460
.249	.864	3.92	3.43	19.6	7.66	97.6	17.1	487	38.2	2430	85.4	12,100	190	57,600*	460
.274	.906	4.02	3.47	20.0	7.74	100	17.3	499	38.7	2490	86.4	12,400	193	59,000*	460
.332	.998	4.12	3.51	20.5	7.84	102	17.5	511	39.1	2550	87.4	12,700	195	60,400*	460
.392	1.08	4.22	3.56	21.0	7.94	105	17.7	523	39.6	2610	88.4	13,000	197	61,900*	460
.475	1.19	4.32	3.60	21.5	8.03	107	17.9	536	40.1	2670	89.5	13,300	200	63,400*	460
.499	1.22	4.42	3.64	22.1	8.14	110	18.2	549	40.6	2740	90.6	13,700*	200	64,900*	460
.562	1.30	4.53	3.69	22.6	8.23	113	18.4	562	41.0	2800	91.6	14,000*	200	66,500*	460
.681	1.43	4.64	3.73	23.2	8.34	115	18.6	576	41.6	2870	92.8	14,300*	200	68,100*	460
.750	1.50	4.75	3.77	23.7	8.43	118	18.8	590	42.0	2940	93.9	14,700*	200	69,800*	460
.825	1.57	4.87	3.82	24.3	8.54	121	19.1	604	42.5	3010	95.0	15,000*	200	71,500*	460
1.00	1.73	4.99	3.87	24.9	8.64	124	19.3	619	43.1	3090	96.2	15,400*	200	73,200*	460
1.02	1.75	5.11	3.91	25.5	8.74	127	19.5	634	43.6	3160	97.4	15,800*	200	75,000*	460
1.05	1.77	5.23	3.96	26.1	8.84	130	19.7	649	44.1	3240	98.6	16,200*	200	76,800*	460
1.07	1.79	5.36	4.01	26.7	8.95	133	20.0	665	44.6	3320	99.8	16,500*	200	78,700*	460
1.10	1.82	5.49	4.06	27.4	9.06	137	20.3	681	45.2	3400	101	16,900*	200	80,600*	460
1.13	1.84	5.62	4.10	28.0	9.16	140	20.5	698	45.7	3480	102	17,400*	200	10 WATT	
1.15	1.86	5.76	4.16	28.7	9.28	143	20.7	715	46.3	3570	103	17,800*	200		
1.18	1.88	5.90	4.20	29.4	9.39	147	21.0	732	46.8	3650	105	18,200*	200	82,500	908
1.21	1.91	6.04	4.25	30.1	9.50	150	21.2	750	47.4	3740	106	18,700*	200	84,500	919
1.24	1.93	6.19	4.31	30.9	9.62	154	21.5	768	48.0	3830	107	19,100*	200	86,600	930
1.27	1.95	6.34	4.36	31.6	9.74	158	21.8	787	48.6	3920	108	19,600*	200	88,700	942
1.30	1.97	6.49	4.41	32.4	9.86	162	22.0	806	49.2	4020	110	20,000*	200	90,900	952
1.33	2.00	6.65	4.46	33.2	9.98	165	22.2	825	49.7	4120	111	20,500*	200	93,100	965
1.37	2.03	6.81	4.52	34.0	10.1	169	22.5	845	50.4	4220	112	21,000*	200	95,300	976
1.40	2.05	6.98	4.57	34.8	10.2	174	22.8	866	51.0	4320	114	21,500*	200	97,600	988
1.43	2.07	7.15	4.63	35.7	10.3	178	23.1	887	51.6	4420	115	22,100*	200	100,000	1000
1.47	2.10	7.32	4.68	36.5	10.5	182	23.4	909	52.2	4530	117	5 WATT		102,000	1010
1.50	2.12	7.50	4.74	37.4	10.6	187	23.7	931	52.8	4640	118			105,000	1020
1.54	2.15	7.68	4.80	38.3	10.7	191	23.9	953	53.4	4750	119	22,600	337	107,000	1030
1.58	2.18	7.87	4.86	39.2	10.8	196	24.2	976	54.1	4870	121	23,200	341	110,000	1050
1.62	2.20	8.06	4.92	40.2	11.0	200	24.5	1000	54.7	4990	122	23,700	344	113,000	1060
1.65	2.22	8.25	4.97	41.2	11.1	205	24.8	1020	55.3	5110	124	24,300	347	115,000	1070
1.69	2.25	8.45	5.04	42.2	11.2	210	25.1	1050	56.1	5230	125	24,900	353	118,000	1090
1.74	2.28	8.66	5.10	43.2	11.4	215	25.4	1070	56.6	5360	127	25,500	357	121,000	1100
1.78	2.31	8.87	5.16	44.2	11.5	221	25.7	1100	57.4	5490	128	26,100	361	124,000*	1100
1.82	2.34	9.09	5.22	45.3	11.7	226	26.0	1130	58.2	5620	130	26,700	365	127,000*	1100
1.87	2.37	9.31	5.28	46.4	11.8	232	26.4	1150	58.7	5760	131	27,400	370	130,000*	1100
1.91	2.39	9.53	5.34	47.5	11.9	237	26.7	1180	59.5	5900	133	28,000	374	133,000*	1100
1.96	2.42	9.76	5.41	48.7	12.1	243	27.0	1210	60.2	6040	134	28,700	379	137,000*	1100
2.00	2.45	10.0	5.47	49.9	12.2	249	27.3	1240	61.0	6190	136	29,400	383	140,000*	1100
2.05	2.48	10.2	5.53	51.1	12.4	255	27.7	1270	61.7	6340	138	30,100	388	143,000*	1100
2.10	2.51	10.5	5.61	52.3	12.5	261	28.0	1300	62.4	6490	140	30,900	393	147,000*	1100
2.15	2.54	10.7	5.66	53.6	12.7	267	28.3	1330	63.2	6650	141	31,600	397	150,000*	1100
2.21	2.57	11.0	5.74	54.9	12.8	274	28.7	1370	64.1	6810	143	32,400	402	154,000*	1100
2.26	2.60	11.3	5.82	56.2	13.0	280	29.0	1400	64.8	6980	145	33,200	407	158,000*	1100
2.32	2.64	11.5	5.87	57.6	13.1	287	29.3	1430	65.5	7,150	146	34,000	412	162,000*	1100
2.37	2.67	11.8	5.95	59.0	13.3	294	29.7	1470	66.4	7,320	148	34,800	417	165,000*	1100
2.43	2.70	12.1	6.02	60.4	13.4	301	30.0	1500	67.0	7,500	150	35,700	422	169,000*	1100
2.49	2.73	12.4	6.10	61.9	13.6	309	30.4	1540	68.0	7,680	152	36,500	427	174,000*	1100
2.55	2.77	12.7	6.17	63.4	13.8	316	30.8	1580	68.8	7,870	154	37,400	432	178,000*	1100
2.61	2.80	13.0	6.24	64.9	13.9	324	31.2	1620	69.7	8,060	155	38,300	437	182,000*	1100
2.67	2.83	13.3	6.32	66.5	14.1	332	31.6	1650	70.3	8,250	157	39,200	442	187,000*	1100
2.74	2.87	13.7	6.41	68.1	14.3	340	31.9	1690	71.2	8,450	159	40,200	448	191,000*	1100
2.80	2.90	14.0	6.48	69.8	14.5	348	32.3	1740	72.2	8,660	161	41,200	454	196,000*	1100
2.87	2.93	14.3	6.55	71.5	14.6	357	32.7	1780	73.0	8,870	163	42,200	460	200,000*	1100
2.94	2.97	14.7	6.64	73.2	14.8	365	33.1	1820	73.9	9,090	165	43,200*	460		
3.01	3.00	15.0	6.70	75.0	15.0	374	33.5	1870	74.9	9,310	167	44,200*	460		
3.09	3.04	15.4	6.80	76.8	15.2	383	33.9	1910	75.7	9,530	169	45,300*	460		
3.16	3.08	15.8	6.88	78.7	15.4	392	34.3	1960	76.6	9,760	171	46,400*	460		
3.24	3.12	16.2	6.97	80.6	15.5	402	34.7	2000	77.4	10,000	173	47,500*	460		
3.32	3.16	16.5	7.03	82.5	15.7	412	35.1	2050	78.4	10,200	175	48,700*	460		

TYPE 884 NET PRICES

.10 thru .99 ohms	Net 1-24	$1.98	15,001 thru 20K ohms	Net 1-24	.88	100,001 thru 125K ohms	Net 1-24	1.33
1.0 thru 1K ohms	Net 1-24	.71	20,001 thru 40K ohms	Net 1-24	.93	125,001 thru 150K ohms	Net 1-24	1.45
1,001 thru 5K ohms	Net 1-24	.78	40,001 thru 55K ohms	Net 1-24	1.00	150,001 thru 175K ohms	Net 1-24	1.59
5,001 thru 10K ohms	Net 1-24	.82	55,001 thru 75K ohms	Net 1-24	1.10	175,001 thru 200K ohms	Net 1-24	1.73
10,001 thru 15K ohms	Net-1-24	.84	75,001 thru 100K ohms	Net 1-24	1.21			

Resistance values marked * are derated in wattage because of maximum voltage gradient considerations. Even with these voltage limitations, however, the wattage ratings are still adequate for most precision applications. However, where wattage requirements dictate, the same value shown In a derated area for either the 3 or 5 watt sizes can be supplied in the next higher wattage as the case may be.

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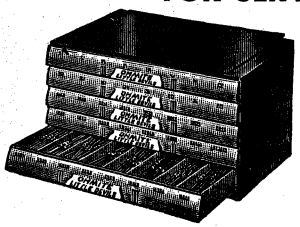
OHMITE

resistors • rheostats • tap switches • relays
variable transformers • tantalum capacitors
semiconductor devices • r.f. chokes

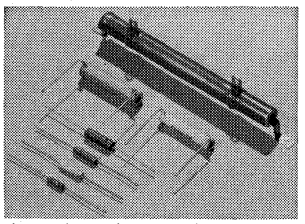
LITTLE DEVIL® RESISTOR ASSORTMENTS FOR SERVICE USE



Serviceman's assortments of 150 Ohmite "Little Devil," ¼-watt or ½-watt, or 125, 1-watt or 2-watt insulated composition resistors, in the 40 values (10 ohms to 10 megohms) most frequently used by servicemen. CAB-4 has 37 resistance values. The assortment is offered at the price of the resistors alone—the cabinet is furnished without extra cost! Cabinet is only 9" long, 4¾" high, and 5¼" deep.

Assortment	Stock No.	Quantity of Resistors	Wattages	Net Price
SERVICE	CAB-4	150	¼ watt	$19.50
±10% tolerance	CAB-½10	150	½ watt	18.00
(40 resistance values)	CAB-½2	125	1 watt	22.50
	CAB-3	125	2 watt	30.00

OHMITE R.F. PLATE CHOKES



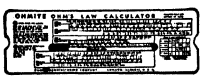
This series of seven Ohmite single layer wound solenoid radio frequency plate chokes covers the entire frequency range of 3 to 520 megacycles. The four highest frequency chokes are wound on low power factor plastic cores while the other three units are wound on steatite tubes. The single layer winding is designed to avoid adverse harmonic effects within the recommended operating range and also prevents breakdown from high r.f. potentials.

Stock Number	Operating Range Megacycles	Micro-henries	Core Dimensions	Net Each 1-9
Z-7	3 to 20 Mc.	84.0	6" x 9/16"	$1.37
Z-14	7 to 35 Mc.	44.0	2" x 7/16"	.68
Z-28	20 to 60 Mc.	21.0	1¾" x 5/16"	.57
Z-50	35 to 110 Mc.	7.0	⅞" x 9/32"	.46
Z-144	80 to 200 Mc.	1.8	¾" x 3/16"	.43
Z-235	160 to 350 Mc.	0.84	¾" x 3/16"	.43
Z-460	320 to 520 Mc.	0.20	½" x 5/32"	.43

Non-magnetic Brackets Furnished with Z-7. The Z-14 and Z-28 are rated at 600 ma. All others 1000 ma.

NEW OHM'S LAW CALCULATOR

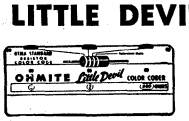
Redesigned! This new, improved version of the famous Ohmite Ohm's Law Calculator — popular the world over with servicemen, engineers and students — now has scales for solving parallel resistance problems, AND a standard slide rule. More useful than ever! With one setting of the scale the calculator gives the answer to any Ohm's Law problem—reading directly in ohms, volts, amperes, and watts. Three of the new scales on the back provide a quick, one-setting means of solving parallel resistance problems. The slide rule scales will multiply, divide, find squares, and square roots.



Ohm's Law Calculator (Cardboard) ..... **Net Price $0.25**

Ohm's Law Calculator (Plastic) ..... **Net Price 1.50**

LITTLE DEVIL COLOR CODER

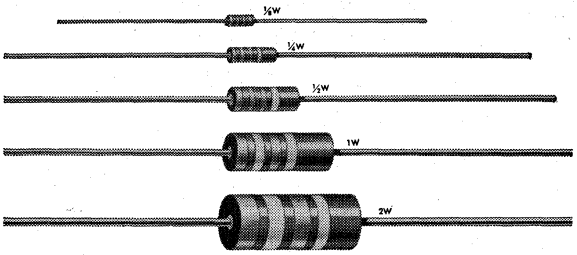


Here is a handy little device that makes it easy to determine the resistance and tolerance values of EIA color coded composition resistors. Just turn the color wheels until the color corresponds to the color band on the resistor and read the resistance value directly in ohms in the windows.

Little Devil Color Coder.... Net Price $ .10

OHMITE LITTLE DEVIL RESISTORS

MOLDED COMPOSITION TYPE



on Tally Tape

EXCEPT ⅛W SIZE

Ohmite's famous molded composition resistors, in the ⅛, ¼, ½, 1 and 2-watt sizes, conform respectively to Styles RC05, RC07, RC20, RC32 and RC42 of MIL-R-11E and meet all the requirements of this military specification.

Little Devils have molded insulation and feature great stability, low noise level, low voltage coefficient, high insulation breakdown voltage and rapid heat dissipation. They may be used at full rated wattage at 70°C (158°F) ambient temperature.

Available from stock in the standard EIA resistance values in the tolerances and resistance ranges shown in the price table below. Ratings for maximum continuous RMS voltage drop are high: 150 volts for ⅛ watt units, 250 volts for ¼ watt, 350 volts for ½ watt, 500 volts for 1 watt and 750 volts for 2 watt units.

STANDARD EIA VALUES

Figures in large, bold type are ±10% EIA values. *All* values listed are ±5% values. Price table lists the various "Little Devil" sizes and indicates the tolerances and resistance ranges in which they are supplied.

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Megs.	Megs.
1.0	9.1	**82**	**680**	**5600**	**47000**	0.36	3.0
1.1	**10**	91	750	6200	51000	**0.39**	**3.3**
1.2	11	**100**	**820**	**6800**	**56000**	0.43	3.6
1.3	**12**	110	910	7500	62000	**0.47**	**3.9**
1.5	13	**120**	**1000**	**8200**	**68000**	0.51	4.3
1.6	**15**	130	1100	9100	75000	**0.56**	**4.7**
1.8	16	**150**	**1200**	**10000**	**82000**	0.62	5.1
2.0	**18**	160	1300	11000	91000	**0.68**	**5.6**
2.2	20	**180**	**1500**	**12000**		0.75	6.2
2.4	**22**	200	1600	13000	Megs.	**0.82**	**6 8**
2.7	24	**220**	**1800**	**15000**	**0.1**	0.91	7.5
3.0	**27**	240	2000	16000	0.11	**1.0**	**8.2**
3.3	30	**270**	**2200**	**18000**	**0.12**	1.1	9.1
3.6	**33**	300	2400	20000	0.13	**1.2**	**10.0**
3.9	36	**330**	**2700**	**22000**	**0.15**	1.3	11.0
4.3	**39**	360	3000	24000	0.16	**1.5**	**12.0**
4.7	43	**390**	**3300**	**27000**	**0.18**	1.6	13.0
5.1	**47**	430	3600	30000	0.20	**1.8**	**15.0**
5.6	51	**470**	**3900**	**33000**	**0.22**	2.0	16.0
6.2	**56**	510	4300	36000	0.24	**2.2**	**18.0**
6.8	62	**560**	**4700**	**39000**	**0.27**	2.4	20.0
7.5	**68**	620	5100	43000	0.30	**2.7**	**22.0**
8.2	75				**0.33**		

PRICES, RESISTANCE RANGES, DIMENSIONS

Size Watts	Size Lgth.	Size Dia.	Resistance Range From	Resistance Range Thru	MIL Type	±5% Net 1-4	±5% Net 5-49	±10% Net 1-4	±10% Net 5-49
1/8	.145"	.062"	2.7 ohms	9.1 ohms	RC 05†	37c LIDNU	31c LIDNU	27c LIDVS	22c LIDVS
			10 ohms	22 megs		34c LIDNU	28c LIDNU	24c LIDVS	20c LIDVS
1/4	¼"	.090"	2.7 ohms	9.1 ohms	RC 07	29c LIDED	24c LIDED	14c LIDSM	12c LIDSM
			10 ohms	22 megs		26c LIDED	22c LIDED	13c LIDSM	11c LIDSM
1/2	⅜"	9/64"	1 ohm	2.4 ohms	RC 20*	26c LIDFA	22c LIDFA	13c LIDLO	11c LIDLO
			2.7 ohms	22 megs		24c LIDFA	20c LIDFA	12c LIDLO	10c LIDLO
1	9/16"	7/32"	2.7 ohms	22 megs	RC 32	36c LIDBU	30c LIDBU	18c LIDME	15c LIDME
2	11/16"	5/16"	10 ohms	22 megs	RC 42	48c LIDOC	40c LIDOC	24c LIDHI	20c LIDHI

*Min. res. under MIL-R-11E is 2.7 ohms. †Min. res. under MIL-R-11E is 10 ohms. Leads 1½" long.

Net

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SECTION 4700

SPEER FIXED COMPOSITION RESISTORS

Speer resistors are made on modern high speed equipment which molds component material into one integral, dense unit. Heavy pure tin-coated copper lead wires, thermosetting bonding resins, finely divided inorganic fillers, and specially produced and treated high conductivity materials such as carbon blacks are the materials used.

During the molding process, preformed insulating shells of bonded inorganic fillers are filled with carefully adjusted conducting compounds. The binders and fillers of both shell and core are completely compatible and, under high pressure, allow the formation of an inseparable bond between core and shell. The thermal transfer characteristics of shell and core are essentially equal.

After high pressure molding, the "green" resistors are cured in precisely adjusted, indirectly heated continuous tube furnaces. The resin cure is complete and the final resistance of the unit is thereby fixed. A vacuum and pressure of special high temperature material develops maximum protection against moisture penetration.

The special impregnant used is completely stable under all operating conditions. This material seals and produces an effective barrier to moisture penetration.

Speer resistors are color coded with special paints developed to provide a high degree of solvent resistance.

All Speer resistors have lead wires of high conductivity copper with a solderable coating of heavy pure tin. The wires are completely precoated before assembly, so that the solderable surface is unbroken over the entire area. The tin coat is controlled to a thickness of .0003"-.0008", several times as heavy as that on ordinary tinned wire. The use of pure tin affords superior storage life and offers the ultimate in low temperature solderability.

The impregnated resistors are measured on high speed automatic resistance sorters and classified into appropriate resistance nominals and tolerances. The color bands and protective outer film are applied after sorting.

SPECIFICATIONS

Speer Type	Mil Type	Rating In Watts	Resistance Range Ohms	Diameter D	Length L	Wire Size A.W.G.	Nom. Dia. LD	Length LL
SR ¼	RC 07	¼	10 Ohm to 1.0 Meg.	.090 ± .008	.250 ± .031	No. 22	.025	1½ ± ⅛
SR ½	RC 20	½	2.7 Ohm to 22 Meg.	.138 ± .007	.390 ± .025	No. 20	.032	1½ ± ⅛
SR 1	RC 32	1	2.7 Ohm to 22 Meg.	.225 ± .010	.562 ± .030	No. 18	.040	1½ ± ⅛
SR 2	RC 42	2	10 Ohm to 22 Meg.	.312 ± .010	.688 ± .030	No. 17	.045	1½ ± ⅛

STANDARD RESISTANCE VALUES AND TOLERANCES

As shown in the table below, Speer resistors are available in all standard values specified by MIL-R-11 and RS 172.

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Meg.	Meg.
2.7	**11**	47	200	820	3600	15K	**62K**	270K	**1.1**	4.7
3.0	12	**51**	220	**910**	3900	**16K**	68K	**300K**	1.2	**5.1**
3.3	**13**	56	**240**	1000	**4300**	18K	**75K**	330K	**1.3**	6.8
3.6	15	**62**	270	**1100**	4700	**20K**	82K	**360K**	1.5	**7.5**
3.9	**16**	68	**300**	1200	**5100**	22K	**91K**	390K	**1.6**	8.2
4.3	18	**75**	330	**1300**	5600	**24K**	100K	**430K**	1.8	**9.1**
4.7	**20**	82	**360**	1500	**6200**	27K	**110K**	470K	**2.0**	10.0
5.1	22	**91**	390	**1600**	6800	**30K**	120K	**510K**	2.2	**11.0**
5.6	**24**	100	**430**	1800	**7500**	33K	**130K**	560K	**2.4**	12.0
6.2	27	**110**	470	**2000**	8200	**36K**	150K	**620K**	2.7	**13.0**
6.8	30	120	**510**	2200	**9100**	39K	**160K**	680K	**3.0**	15.0
7.5	33	**130**	560	**2400**	10K	**43K**	180K	**750K**	3.3	**16.0**
8.2	**36**	150	**620**	2700	**11K**	47K	**200K**	820K	**3.6**	18.0
9.1	39	**160**	680	**3000**	12K	**51K**	220K	**910K**	3.9	**20.0**
10	**43**	180	**750**	3300	**13K**	56K	**240K**	1.0M	**4.3**	22.0

Items in bold face type available in 5% tolerance only.

SPEER CARBON COMPANY, SPEER RESISTOR DIVISION
Speer Carbon Company is a Division of Air Reduction Company, Inc.

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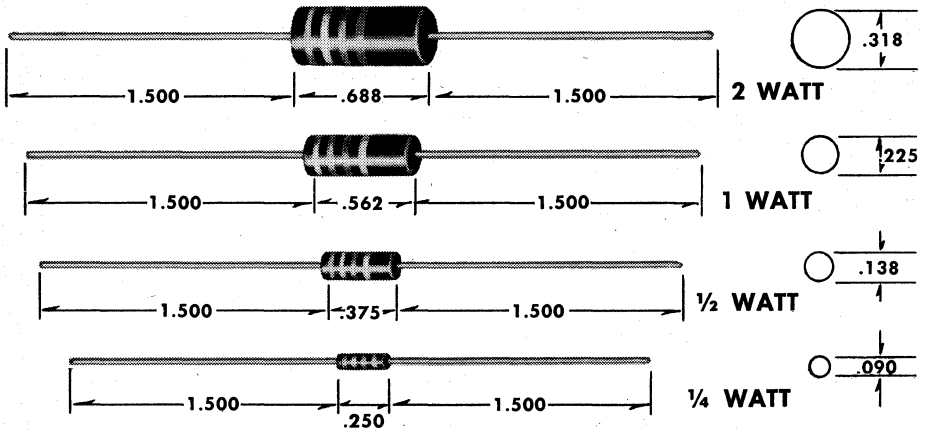
STACKPOLE

FIXED COMPOSITION RESISTORS



Stackpole Resistors offer superior performance in terms of load life, moisture resistance, shelf life, and other important characteristics. Available in ¼, ½, 1, and 2 watt insulated types in resistance values with 5%, 10% and 20% tolerances as shown below.

EASIEST SOLDERING

is asured thanks to an exclusive extra solder coating applied after the usual tin dipping. Leads of Stackpole Resistors solder readily by any method—dip or iron—stay tarnish free even after months in storage. And, their baked-on color codes resist solvent scrubbing operations . . . maintain uniform, attractive appearance.

269 STANDARD VALUES FOR MODERN CIRCUITRY

±20%	±10%	±5%	±20%	±10%	±5%	±20%	±10%	±5%	±20%	±10%	±5%
10	10	10		390	390	15000	15000	15000		560000	560000
		11			430			16000			620000
	12	12	470	470	470		18000	18000	680000	680000	680000
		13			510			20000			750000
15	15	15		560	560	22000	22000	22000		820000	820000
		16			620			24000			910000
	18	18	680	680	680		27000	27000	1.0 Meg	1.0 Meg	1.0 Meg
		20			750			30000			1.1 Meg
22	22	22		820	820	33000	33000	33000		1.2 Meg	1.2 Meg
		24			910			36000			1.3 Meg
	27	27	1000	1000	1000		39000	39000	1.5 Meg	1.5 Meg	1.5 Meg
		30			1100			43000			1.6 Meg
33	33	33		1200	1200	47000	47000	47000		1.8 Meg	1.8 Meg
		36			1300			51000			2.0 Meg
	39	39	1500	1500	1500		56000	56000	2.2 Meg	2.2 Meg	2.2 Meg
		43			1600			62000			2.4 Meg
47	47	47		1800	1800	68000	68000	68000		2.7 Meg	2.7 Meg
		51			2000			75000			3.0 Meg
	56	56	2200	2200	2200		82000	82000	3.3 Meg	3.3 Meg	3.3 Meg
		62			2400			91000			3.6 Meg
68	68	68		2700	2700	100000	100000	100000		3.9 Meg	3.9 Meg
		75			3000			110000			4.3 Meg
	82	82	3300	3300	3300		120000	120000	4.7 Meg	4.7 Meg	4.7 Meg
		91			3600			130000			5.1 Meg
100	100	100		3900	3900	150000	150000	150000		5.6 Meg	5.6 Meg
	110				4300			160000			6.2 Meg
	120	120	4700	4700	4700		180000	180000	6.8 Meg	6.8 Meg	6.8 Meg
		130			5100			200000			7.5 Meg
150	150	150		5600	5600	220000	220000	220000		8.2 Meg	8.2 Meg
		160			6200			240000			9.1 Meg
	180	180	6800	6800	6800		270000	270000	10.0 Meg	10.0 Meg	10.0 Meg
		200			7500			300000			11.0 Meg
220	220	220		8200	8200	330000	330000	330000		12.0 Meg	12.0 Meg
		240			9100			360000			13.0 Meg
	270	270	10000	10000	10000		390000	390000	15.0 Meg	15.0 Meg	15.0 Meg
		300			11000			430000			16.0 Meg
330	330	330		12000	12000	470000	470000	470000		18.0 Meg	18.0 Meg
		360			13000			510000			20.0 Meg
									22.0 Meg	22.0 Meg	22.0 Meg

AVAILABLE THROUGH LEADING INDUSTRIAL ELECTRONIC PARTS DISTRIBUTORS

Electronic Components Div., STACKPOLE CARBON COMPANY

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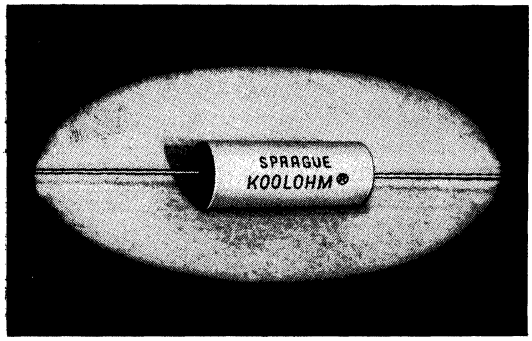
SPRAGUE RESISTORS

KOOLOHM® AXIAL-LEAD WIREWOUND RESISTORS
FOR INDUSTRIAL APPLICATIONS



- Types 450E, 452E, 454E, 456E and 458E are Standard Resistors. Types 451E, 453E, 455E, 457E and 459E are Non-Inductive Resistors

- Insulated-Shell Design for Easy Mounting
- Feature Improved Internal Construction in Which Windings and Leads are Welded to End-Cap for Superior Mechanical Strength
- Ceramic-Insulated Wire is Space Wound and Cemented, to Prevent Turn-to-Turn Shorting. Permits Higher Resistance Values in a Given Size Than in Conventional Resistors
- Non-Porous Tubular Ceramic Shells Sealed With High Temperature Silicone Cement
- Unexcelled Insulation and Mechanical Protection. Can be Mounted in Direct Contact With Chassis
- Call Your Sprague Industrial Distributor for Quantity Prices.
- For Complete Technical Details, Refer to Latest Issue of Sprague Engineering Bulletin 7300

	Type 450E 3 WATTS 1/4" x 9/16"		Type 452E 5 WATTS 1/4" x 1"		Type 454E 7 WATTS 15/32" x 1 5/16"		Type 456E 10 WATTS 15/32" x 1 29/32"		Type 458E 14 WATTS 15/32" x 1 29/32"	
Ohms	Cat. No.		Cat. No.		Cat. No.		Cat. No.		Cat. No.	
1	450E1R05	Call Your Sprague Industrial Distributor for Current Quantity Prices	452E1R05	Call Your Sprague Industrial Distributor for Current Quantity Prices	454E1R05	Call Your Sprague Industrial Distributor for Current Quantity Prices	456E1R05	Call Your Sprague Industrial Distributor for Current Quantity Prices	458E1R05	Call Your Sprague Industrial Distributor for Current Quantity Prices
1.5	450E1R55		452E1R55		454E1R55		456E1R55		458E1R55	
2	450E2R05		452E2R05		454E2R05		456E2R05		458E2R05	
3	450E3R05		452E3R05		454E3R05		456E3R05		458E3R05	
4	450E4R05		452E4R05		454E4R05		456E4R05		458E4R05	
5	450E5R05		452E5R05		454E5R05		456E5R05		458E5R05	
7.5	450E7R55		452E7R55		454E7R55		456E7R55		458E7R55	
10	450E1005		452E1005		454E1005		456E1005		458E1005	
12	450E1205		452E1205		454E1205		456E1205		458E1205	
15	450E1505		452E1505		454E1505		456E1505		458E1505	
18	450E1805		———		———		———		———	
20	450E2005		452E2005		454E2005		456E2005		458E2005	
22	450E2205		———		———		———		———	
25	450E2505		452E2505		454E2505		456E2505		458E2505	
27	450E2705		———		———		———		———	
30	450E3005		452E3005		454E3005		456E3005		458E3005	
33	450E3305		———		———		———		———	
35	———		452E3505		454E3505		456E3505		458E3505	
39	450E3905		———		———		———		———	
40	450E4005		452E4005		454E4005		456E4005		458E4005	
47	450E4705		———		———		———		———	
50	450E5005		452E5005		454E5005		456E5005		458E5005	
56	450E5605		———		———		———		———	
68	450E6805		———		———		———		———	
75	450E7505		452E7505		454E7505		456E7505		458E7505	
82	450E8205		———		———		———		———	
100	450E1015		452E1015		454E1015		456E1015		458E1015	
120	450E1215		452E1215		454E1215		456E1215		458E1215	
150	450E1515		452E1515		454E1515		456E1515		458E1515	
180	450E1815		———		———		———		———	

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SPRAGUE RESISTORS

KOOLOHM AXIAL-LEAD WIREWOUND RESISTORS, continued

Ohms	Type 450E 3 WATTS ¼" x 9/16" Cat. No.	Type 452E 5 WATTS ¼" x 1" Cat. No.	Type 454E 7 WATTS 15/32" x 15/16" Cat. No.	Type 456E 10 WATTS 15/32" x 1 29/32" Cat. No.	Type 458E 14 WATTS 15/32" x 1 29/32" Cat. No.
200	450E2015	452E2015	454E2015	456E2015	458E2015
220	450E2215	452E2215	454E2215	456E2215	458E2215
250	450E2515	452E2515	454E2515	456E2515	458E2515
270	450E2715	———	———	———	———
300	450E3015	452E3015	454E3015	456E3015	458E3015
330	450E3315	———	———	———	———
350	———	452E3515	454E3515	456E3515	458E3515
390	450E3915	———	———	———	———
400	450E4015	452E4015	454E4015	456E4015	458E4015
450	———	452E4515	———	———	———
470	450E4715	———	———	———	———
500	450E5015	452E5015	454E5015	456E5015	458E5015
560	450E5615	———	———	———	———
600	450E6015	452E6015	454E6015	456E6015	458E6015
680	450E6815	———	———	———	———
700	450E7015	452E7015	454E7015	456E7515	458E7015
750	———	452E7515	454E7515	———	458E7515
800	450E8015	452E8015	454E8015	456E8015	458E8015
820	450E8215	———	———	———	———
900	450E9015	452E9015	454E9015	456E9015	458E9015
1000	450E1025	452E1025	454E1025	456E1025	458E1025
1100	———	452E1125	454E1125	456E1125	458E1125
1200	450E1225	452E1225	454E1225	456E1225	458E1225
1400	450E1425	452E1425	454E1425	456E1425	458E1425
1500	450E1525	452E1525	454E1525	456E1525	458E1525
1800	450E1825	452E1825	454E1825	456E1825	458E1825
2000	450E2025	452E2025	454E2025	456E2025	458E2025
2200	450E2225	452E2225	454E2225	465E2225	458E2225
2500	450E2525	452E2525	454E2525	456E2525	458E2525
2700	450E2725	———	———	———	———
3000	450E3025	452E3025	454E3025	456E3025	458E3025
3300	450E3325	———	454E3325	456E3325	458E3325
3500	———	452E3525	454E3525	456E3525	458E3525
3900	450E3925	———	454E3925	456E3925	458E3925
4000	450E4025	452E4025	454E4025	456E4025	458E4025
4500	———	452E4525	454E4525	456E4525	458E4525
4700	450E4725	———	———	———	———
5000	450E5025	452E5025	454E5025	456E5025	458E5025
5600	450E5625	———	———	———	———
6000	450E6025	452E6025	454E6025	456E6025	458E6025
6800	450E6825	———	———	———	———
7000	———	452E7025	454E7025	456E7025	458E7025
7500	450E7525	452E7525	454E7525	456E7525	458E7525
8000	450E8025	452E8025	454E8025	456E8025	458E8025
8200	450E8225	———	———	———	———
9000	450E9025	452E9025	454E9025	456E9025	458E9025
10000	450E1035	452E1035	454E1025	456E1035	458E1035
11000	———	———	454E1135	456E1135	458E1135
12000	———	452E1235	454E1235	456E1235	458E1125
14000	———	452E1435	454E1435	456E1435	458E1435
15000	———	452E1535	454E1535	456E1535	458E1535
16000	———	———	454E1635	456E1635	458E1635
18000	———	452E1835	454E1835	456E1835	458E1835
20000	———	452E2035	454E2035	456E2035	458E2035
22000	———	———	454E2235	456E2235	———
25000	———	———	454E2535	456E2535	———
30000	———	———	454E3035	456E3035	———
35000	———	———	454E3535	456E3535	———
40000	———	———	454E4035	456E4035	———
45000	———	———	———	456E4535	———
50000	———	———	———	456E5035	———
60000	———	———	———	456E6035	———
70000	———	———	———	456E7035	———

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SPRAGUE RESISTORS

NON-INDUCTIVE KOOLOHM AXIAL-LEAD WIREWOUND RESISTORS

Ohms	Type 451E 3 WATTS 1/4" x 9/16" Cat. No.	Type 453E 5 WATTS 1/4" x 1" Cat. No.	Type 455E 7 WATTS 15/32" x 15/16" Cat. No.	Type 457E 10 WATTS 15/32" x 1 29/32" Cat. No.	Type 459E 14 WATTS 15/32" x 1 29/32" Cat. No.
1	451E1R05	453E1R05	455E1R05	457E1R05	459E1R05
1.5	451E1R55	453E1R55	455E1R55	457E1R55	459E1R55
2	451E2R05	453E2R05	455E2R05	457E2R05	459E2R05
3	451E3R05	453E3R05	455E3R05	457E3R05	459E3R05
4	451E4R05	453E4R05	455E4R05	457E4R05	459E4R05
5	451E5R05	453E5R05	455E5R05	457E5R05	459E5R05
7.5	451E7R55	453E7R55	455E7R55	457E7R55	459E7R55
10	451E1005	453E1005	455E1005	457E1005	459E1005
12	451E1205	453E1205	455E1205	457E1205	459E1205
15	451E1505	453E1505	455E1505	457E1505	459E1505
18	451E1805	———	———	———	———
20	451E2005	453E2005	455E2005	457E2005	459E2005
22	451E2205	———	———	———	———
25	451E2505	453E2505	455E2505	457E2505	459E2505
27	451E2705	———	———	———	———
30	451E3005	453E3005	455E3005	457E3005	459E3005
33	451E3305	———	———	———	———
35	451E3505	453E3505	455E3505	457E3505	459E3505
39	451E3905	———	———	———	———
40	451E4005	453E4005	455E4005	457E4005	459E4005
47	451E4705	———	———	———	———
50	451E5005	453E5005	455E5005	457E5005	459E5005
56	451E5605	———	———	———	———
68	451E6805	———	———	———	———
75	451E7505	453E7505	455E7505	457E7505	459E7505
82	451E8205	———	———	———	———
100	451E1015	453E1015	455E1015	457E1015	459E1015
120	451E1215	453E1215	455E1215	457E1215	459E1215
150	451E1515	453E1515	455E1515	457E1515	459E1515
180	451E1815	———	———	———	———
200	451E2015	453E2015	455E2015	457E2015	459E2015
220	451E2215	453E2215	455E2215	457E2215	459E2215
250	451E2515	453E2515	455E2515	457E2515	459E2515
270	451E2715	———	———	———	———
300	451E3015	453E3015	455E3015	457E3015	459E3015
330	451E3315	———	———	———	———
350	451E3515	453E3515	455E3515	457E3515	459E3515
390	451E3915	———	———	———	———
400	451E4015	453E4015	455E4015	457E4015	459E4015
450	451E4515	453E4515	———	———	———
470	451E4715	———	———	———	———
500	451E5015	453E5015	455E5015	457E5015	459E5015
560	451E5615	———	———	———	———
600	451E6015	453E6015	455E6015	457E6015	459E6015
680	451E6815	———	———	———	———
700	451E7015	453E7015	455E7015	457E7015	459E7015
750	451E7515	453E7515	455E7515	457E7515	459E7515
800	451E8015	453E8015	455E8015	457E8015	459E8015
820	451E8215	———	———	———	———
900	451E9015	453E9015	455E9015	457E9015	459E9015
1000	451E1025	453E1025	455E1025	457E1025	459E1025
1100	———	453E1125	455E1125	457E1125	459E1125
1200	451E1225	453E1225	455E1225	457E1225	459E1225
1400	451E1425	453E1425	455E1425	457E1425	459E1425
1500	451E1525	453E1525	455E1525	457E1525	459E1525
1800	451E1825	453E1825	455E1825	457E1825	459E1825
2000	451E2025	453E2025	455E2025	457E2025	459E2025
2200	———	453E2225	455E2225	457E2225	459E2225
2500	———	453E2525	455E2525	457E2525	459E2525
3000	———	453E3025	455E3025	457E3025	459E3025
3300	———	———	455E3325	457E3325	459E3325
3500	———	453E3525	455E3525	457E3525	459E3525
3900	———	———	455E3925	457E3925	459E3925
4000	———	453E4025	455E4025	457E4025	459E4025
4500	———	———	455E4525	457E4525	459E4525
5000	———	———	455E5025	457E5025	459E5025
6000	———	———	———	457E6025	459E6025
7000	———	———	———	457E7025	459E7025
7500	———	———	———	457E7525	459E7525
8000	———	———	———	457E8025	459E8025
9000	———	———	———	457E9025	459E9025
10000	———	———	———	457E1035	459E1035

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SPRAGUE RESISTORS

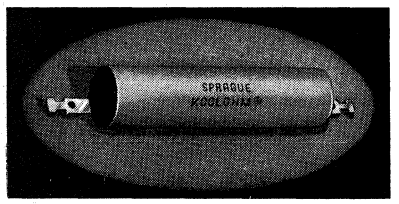
TYPE RW55, RW56 KOOLOHM® RESISTORS

- Axial-Lead Koolohm Resistors to Military Specification MIL-R-26C, Characteristics V and G
- See Your Sprague Industrial Distributor for Current Quantity Prices

Ohms	Type RW55 7 WATTS 15/32" x 1 7/8" Cat. No.	Type RW56 14 WATTS 15/32" x 2" Cat. No.
1.0	RW55V1R0	RW56V1R0
1.1	RW55V1R1	RW56V1R1
1.3	RW55V1R3	RW56V1R3
1.5	RW55V1R5	RW56V1R5
1.6	RW55V1R6	RW56V1R6
1.8	RW55V1R8	RW56V1R8
2.0	RW55V2R0	RW56V2R0
2.2	RW55V2R2	RW56V2R2
2.4	RW55V2R4	RW56V2R4
2.7	RW55V2R7	RW56V2R7
3.0	RW55V3R0	RW56V3R0
3.3	RW55V3R3	RW56V3R3
3.6	RW55V3R6	RW56V3R6
3.9	RW55V3R9	RW56V3R9
4.3	RW55V4R3	RW56V4R3
4.7	RW55V4R7	RW56V4R7
5.1	RW55V5R1	RW56V5R1
5.6	RW55V5R6	RW56V5R6
6.2	RW55V6R2	RW56V6R2
6.8	RW55V6R8	RW56V6R8
7.5	RW55V7R5	RW56V7R5
8.2	RW55V8R2	RW56V8R2
9.1	RW55V9R1	RW56V9R1
10	RW55V100	RW56V100
11	RW55V110	RW56V110
12	RW55V120	RW56V120
13	RW55V130	RW56V130
15	RW55V150	RW56V150
16	RW55V160	RW56V160
18	RW55V180	RW56V180
20	RW55V200	RW56V200
22	RW55V220	RW56V220
24	RW55V240	RW56V240
27	RW55V270	RW56V270
30	RW55V300	RW56V300
33	RW55V330	RW56V330
36	RW55V360	RW56V360
39	RW55V390	RW56V390
43	RW55V430	RW56V430
47	RW55V470	RW56V470
51	RW55V510	RW56V510
56	RW55V560	RW56V560
62	RW55V620	RW56V620
68	RW55V680	RW56V680
75	RW55V750	RW56V750
82	RW55V820	RW56V820
91	RW55V910	RW56V910
100	RW55V101	RW56V101
110	RW55V111	RW56V111
120	RW55V121	RW56V121
130	RW55V131	RW56V131
150	RW55V151	RW56V151
160	RW55V161	RW56V161
180	RW55V181	RW56V181
200	RW55V201	RW56V201
220	RW55V221	RW56V221
240	RW55V241	RW56V241
270	RW55V271	RW56V271
300	RW55V301	RW56V301
330	RW55V331	RW56V331
360	RW55V361	RW56V361
390	RW55V391	RW56V391
430	RW55V431	RW56V431
470	RW55V471	RW56V471
510	RW55V511	RW56V511
560	RW55V561	RW56V561
620	RW55V621	RW56V621
680	RW55V681	RW56V681
750	RW55V751	RW56V751
820	RW55V821	RW56V821
910	RW55V911	RW56V911
1000	RW55V102	RW56V102
1100	RW55V112	RW56V112
1200	RW55V122	RW56V122
1300	RW55V132	RW56V132
1500	RW55V152	RW56V152
1600	RW55V162	RW56V162
1800	RW55V182	RW56V182
2000	RW55V202	RW56V202
2200	RW55V222	RW56V222
2400	RW55V242	RW56V242
2700	RW55V272	RW56V272
3000	RW55V302	RW56V302
3300	RW55V332	RW56V332
3600	RW55V362	RW56V362
3900	RW55V392	RW56V392
4300	RW55V432	RW56V432
4700	RW55V472	RW56V472
5100	RW55V512	RW56V512
5600	RW55V562	RW56V562
6200	RW55V622	RW56V622
6800	RW55V682	RW56V682
7500	RW55V752	RW56V752
8200	RW55V822	RW56V822
9100	RW55V912	RW56V912
10000	———	RW56V103
11000	———	RW56V113
12000	———	RW56V123
13000	———	RW56V133
15000	———	RW56V153
16000	———	RW56V163

Call Your Sprague Industrial Distributor for Quantity Prices

Commercial Tab-Terminal KOOLOHM® Wirewound Resistors



- These Resistors Are Also Available in 5 and 10 Watt Ratings, Axial-Lead Style. See Latest Issue of Sprague Catalog C-617

Ohms	Type 25KT 25 Watts Cat. No.	Type 50KT 50 Watts Cat. No.	Type 120KT 120 Watts Cat. No.
TYPE KT STANDARD RESISTORS			
5	25KT5R05	50KT5R05	120KT5R05
10	25KT1005	50KT1005	120KT1005
25	25KT2505	50KT2505	120KT2505
50	25KT5005	50KT5005	120KT5005
75	25KT7505	50KT7505	120KT7505
100	25KT1015	50KT1015	120KT1015
150	25KT1515	50KT1515	120KT1515
200	25KT2015	50KT2015	120KT2015
250	25KT2515	50KT2515	120KT2515
390	———	———	120KT3915
500	25KT5015	50KT5015	120KT5015
600	25KT6015	50KT6015	120KT6015
750	25KT7515	50KT7515	120KT7515
1000	25KT1025	50KT1025	120KT1025
1500	25KT1525	50KT1525	120KT1525
2000	25KT2025	50KT2025	120KT2025
2500	25KT2525	50KT2525	120KT2525
3000	25KT3025	50KT3025	120KT3025
4000	25KT4025	50KT4025	———
5000	25KT5025	50KT5025	120KT5025
7500	25KT7525	50KT7525	120KT7525
10000	25KT1035	50KT1035	120KT1035
12000	25KT1235	50KT1235	120KT1235
15000	25KT1535	50KT1535	120KT1535
20000	25KT2035	50KT2035	120KT2035

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Ohms	Type 25NIT 25NIT Watts Cat. No.	Type 50NIT 50NIT Watts Cat. No.	Type 120NIT 120NIT Watts Cat. No.
TYPE KT STANDARD RESISTORS, continued			
25000	25KT2535	50KT2535	120KT2535
40000	25KT4035	———	———
50000	25KT5035	50KT5035	120KT5035
75000	25KT7535	50KT7535	120KT7535
100000	25KT1045	50KT1045	120KT1045
TYPE NIT NON-INDUCTIVE RESISTORS			
5	25NIT5R05	50NIT5R05	120NIT5R05
10	25NIT1005	50NIT1005	120NIT1005
25	25NIT2505	50NIT2505	120NIT2505
50	25NIT5005	50NIT5005	120NIT5005
75	25NIT7505	50NIT7505	120NIT7505
100	25NIT1015	50NIT1015	120NIT1015
150	25NIT1515	50NIT1515	120NIT1515
200	25NIT2015	50NIT2015	120NIT2015
250	25NIT2515	50NIT2515	120NIT2515
390	———	———	120NIT3915
500	25NIT5015	50NIT5015	120NIT5015
600	25NIT6015	50NIT6015	120NIT6015
750	25NIT7515	50NIT7515	120NIT7515
1000	25NIT1025	50NIT1025	120NIT1025
1500	25NIT1525	50NIT1525	120NIT1525
2000	25NIT2025	50NIT2025	120NIT2025
2500	25NIT2525	50NIT2525	120NIT2525
3000	25NIT3025	50NIT3025	120NIT3025
4000	25NIT4025	50NIT4025	———
5000	25NIT5025	50NIT5025	120NIT5025
7500	25NIT7525	50NIT7525	120NIT7525
10000	25NIT1035	50NIT1035	120NIT1035
12000	25NIT1235	50NIT1235	———
15000	25NIT1535	50NIT1535	120NIT1535
20000	25NIT2035	50NIT2035	120NIT2035
25000	25NIT2535	50NIT2535	120NIT2535
50000	———	50NIT5035	120NIT5035

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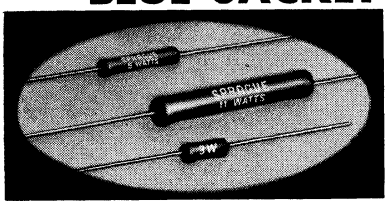
SPRAGUE RESISTORS

BLUE JACKET® INDUSTRIAL WIREWOUND RESISTORS



- Improved Minified Resistors Designed for Thorough Reliability and Stability Under Extreme Operating Conditions
- Matched Coefficient of Expansion Allows Uniform Expansion of Vitreous Enamel Coating, Ceramic Base, and End Caps, Eliminating Crazing, Cracks, and Protects From Fumes and Humidity
- Windings and Leads Welded to End-Caps for Superior Mechanical Strength
- For 2BJ, 3BJ, 5BJ and 10BJ Commercial or Service Equivalents to These Resistors, Refer to the Latest issue of Sprague Catalog C-617
- See Your Sprague Industrial Distributor for Quantity Prices

Ohms	Type 239E, 1 WATT 1/8" x 3/8" Cat. No.	Type 240E, 2 WATTS 3/16" x 3/8" Cat No	Type 242E, 3 WATTS 13/64" x 17/32" Cat. No.	Type 243E, 5 WATTS 13/64" x 15/16" Cat. No.	Type 244E, 7 WATTS 5/16" x 1" Cat. No.	Type 247E, 10 WATTS 5/16" x 1 3/4" Cat. No.
1	239E1R05	240E1R05	242E1R05	243E1R05	244E1R05	247E1R05
1.2	239E1R25					
1.5	239E1R55	240E1R55	242E1R55	243E1R55	244E1R55	247E1R55
1.8	239E1R85					
2	239E2R05	240E2R05	242E2R05	243E2R05	244E2R05	247E2R05
2.2	239E2R25					
2.7	239E2R27					
3	239E3R05	240E3R05	242E3R05	243E3R05	244E3R05	247E3R05
3.3	239E3R35					
3.9	239E3R95					
4	239E4R05	240E4R05	242E4R05	243E4R05	244E4R05	247E4R05
4.7	239E4R75					
5	239E5R05	240E5R05	242E5R05	243E5R05	244E5R05	247E5R05
5.6	239E5R65					
6.8	239E6R85					
7.5	239E7R55	240E7R55	242E7R55	243E7R55	244E7R55	247E7R55
8.2	239E8R25					
10	239E1005	240E1005	242E1005	243E1005	244E1005	247E1005
12	239E1205	240E1205	242E1205	243E1205	244E1205	247E1205
15	239E1505	240E1505	242E1505	243E1505	244E1505	247E1505
18	239E1805	240E1805	242E1805			
20	239E2005	240E2005	242E2005	243E2005	244E2005	247E2005
22	239E2205	240E2205	242E2205			
25	239E2505	240E2505	242E2505	243E2505	244E2505	247E2505
27	239E2705	240E2705	242E2705			
30	239E3005	240E3005	242E3005	243E3005	244E3005	247E3005
33	239E3305	240E3305	242E3305			
35				243E3505	244E3505	247E3505
39	239E3905	240E3905	242E3905			
40	239E4005	240E4005	242E4005	243E4005	244E4005	247E4005
47	239E4705	240E4705	242E4705			
50	239E5005	240E5005	242E5005	243E5005	244E5005	247E5005
56	239E5605	240E5605	242E5605			
68	239E6805	240E6805	242E6805			
75	239E7505	240E7505	242E7505	243E7505	244E7505	247E7505
82	239E8205	240E8205	242E8205			
100	239E1015	240E1015	242E1015	243E1015	244E1015	247E1015
120	239E1215	240E1215	242E1215	243E1215	244E1215	247E1215
150	239E1515	240E1515	242E1515	243E1515	244E1515	247E1515
180	239E1815	240E1815	242E1815			
200	239E2015	240E2015	242E2015	243E2015	244E2015	247E2015
220	239E2215	240E2215	242E2215	243E2215	244E2215	247E2215
250	239E2515	240E2515	242E2515	243E2515	244E2515	247E2515
270	239E2715	240E2715	242E2715			
300	239E3015	240E3015	242E3015	243E3015	244E3015	247E3015
330	239E3315	240E3315	242E3315			
350				243E3515	244E3515	247E3515
390	239E3915	240E3915	242E3915			
400	239E4015	240E4015	242E4015	243E4015	244E4015	247E4015
450				243E4515		
470	239E4715	240E4715	242E4715			
500	239E5015	240E5015	242E5015	243E5015	244E5015	247E5015
560	239E5615	240E5615	242E5615			
600	239E6015	240E6015	242E6015	243E6015	244E6015	247E6015
680	239E6815	240E6815	242E6815			
700	239E7015	240E7015	242E7015	243E7015	244E7015	247E7015
750				243E7515	244E7515	247E7515
800	239E8015	240E8015	242E8015	243E8015	244E8015	247E8015
820	239E8215	240E8215	242E8215			
900	239E9015	240E9015	242E9015	243E9015	244E9015	247E9015
1000	239E1025	240E1025	242E1025	243E1025	244E1025	247E1025
1100				243E1125	244E1125	247E1125
1200	239E1225	240E1225	242E1225	243E1225	244E1225	247E1225
1400	239E1425	240E1425	242E1425	243E1425	244E1425	247E1425
1500	239E1525	240E1525	242E1525	243E1525	244E1525	247E1525
1800	239E1825	240E1825	242E1825	243E1825	244E1825	247E1825
2000	239E2025	240E2025	242E2025	243E2025	244E2025	247E2025
2200	239E2225	240E2225	242E2225	243E2225	244E2225	247E2225
2500	239E2525	240E2525	242E2525	243E2525	244E2525	247E2525
2700		240E2725	242E2725			
3000		240E3025	242E3025	243E3025	244E3025	247E3025
3300		240E3325	242E3325		244E3325	247E3325
3500		240E3525		243E3525	244E3525	247E3525
3900			242E3925		244E3925	247E3925
4000			242E4025	243E4025	244E4025	247E4025
4500				243E4525	244E4525	247E4525
4700			242E4725			
5000			242E5025	243E5025	244E5025	247E5025
5600			242E5625			
6000			242E6025	243E6025	244E6025	247E6025
6800			242E6825			
7000				243E7025	244E7025	247E7025
7500			242E7525	243E7525	244E7525	247E7525
8000			242E8025	243E8025	244E8025	247E8025
8200			242E8225			

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

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SPRAGUE RESISTORS

BLUE JACKET INDUSTRIAL WIREWOUND RESISTORS, continued

Ohms	Type 239E, 1 WATT 1/8" x 3/8" Cat. No.	Type 240E, 2 WATTS 3/16" x 3/8" Cat. No.	Type 242E, 3 WATTS 13/64" x 17/32" Cat. No.	Type 243E, 5 WATTS 13/64" x 15/16" Cat. No.	Type 244E, 7 WATTS 5/16" x 1" Cat. No.	Type 247E, 10 WATTS 5/16" x 1 3/4" Cat. No.
9000	—	—	242E9025	243E9025	244E9025	247E9025
10000	—	—	242E1035	243E1035	244E1035	247E1035
11000	—	—	—	—	244E1135	247E1135
12000	—	—	243E1235	243E1235	244E1235	247E1235
14000	—	—	243E1435	243E1435	244E1435	247E1435
15000	—	—	—	243E1535	244E1535	247E1535
16000	—	—	—	—	244E1635	247E1635
17000	—	—	—	—	244E1735	—
18000	—	—	243E1835	243E1835	244E1835	247E1835
20000	—	—	243E2035	243E2035	244E2035	247E2035
22000	—	—	—	243E2235	244E2235	247E2235
25000	—	—	—	243E2535	244E2535	247E2535
30000	—	—	—	243E3035	244E3035	247E3035
35000	—	—	—	—	—	247E3535
40000	—	—	—	—	—	247E4035
45000	—	—	—	—	—	247E4535
50000	—	—	—	—	—	247E5035

Call Your Sprague Industrial Distributor for Quantity Prices

TYPE RW57, RW58, RW59 BLUE JACKET® WIREWOUND RESISTORS

- This Series of Blue Jacket Wirewound Resistors Meet All Performance Characeristics of Military Specification MIL R-26C, Characteristics V and G
- Contact Your Sprague Industrial Distributor for Quantity Prices

Ohms	Type RW59 3 WATTS 3/16" x 1/2" Cat. No.	Type RW57 6.5 WATTS 5/16" x 1" Cat. No.	Type RW58 11 WATTS 11/32" x 17/8" Cat. No.
1.0	RW59V1R0	RW57V1R0	RW58V1R0
1.1	RW59V1R1	RW57V1R1	RW58V1R1
1.2	RW59V1R3	RW57V1R2	RW58V1R2
1.3	RW59V1R2	RW57V1R3	RW58V1R3
1.5	RW59V1R5	RW57V1R5	RW58V1R5
1.6	RW59V1R6	RW57V1R6	RW58V1R6
1.8	RW59V1R8	RW57V1R8	RW58V1R8
2.0	RW59V2R0	RW57V2R0	RW58V2R0
2.2	RW59V2R2	RW57V2R2	RW58V2R2
2.4	RW59V2R4	RW57V2R4	RW58V2R4
2.7	RW59V2R7	RW57V2R7	RW58V2R7
3.0	RW59V3R0	RW59V3R0	RW58V3R0
3.3	RW59V3R3	RW57V3R3	RW58V3R3
3.6	RW59V3R6	RW57V3R6	RW58V3R6
3.9	RW59V3R9	RW57V3R9	RW58V3R9
4.3	RW59V4R3	RW57V4R3	RW58V4R3
4.7	RW59V4R7	RW57V4R7	RW58V4R7
5.1	RW59V5R1	RW57V5R1	RW58V5R1
5.6	RW59V5R6	RW57V5R6	RW58V5R6
6.2	RW59V6R2	RW57V6R2	RW58V6R2
6.8	RW59V6R8	RW57V6R8	RW58V6R8
7.5	RW59V7R5	RW57V7R5	RW58V7R5
8.2	RW59V8R2	RW57V8R2	RW58V8R2
9.1	RW59V9R1	RW57V9R1	RW58V9R1
10	RW59V100	RW57V100	RW58V100
11	RW59V110	RW57V110	RW58V110
12	RW59V120	RW57V120	RW58V120
13	RW59V130	RW57V130	RW58V130
15	RW59V150	RW57V150	RW58V150
16	RW59V160	RW57V160	RW58V160
18	RW59V180	RW57V180	RW58V180
20	RW59V200	RW57V200	RW58V200
22	RW59V220	RW57V220	RW58V220
24	RW59V240	RW57V240	RW58V240
27	RW59V270	RW57V270	RW58V270
30	RW59V300	RW57V300	RW58V300
33	RW59V330	RW57V330	RW58V330
36	RW59V360	RW57V360	RW58V360
39	RW59V390	RW57V390	RW58V390
43	RW59V430	RW57V430	RW58V430
47	RW59V470	RW57V470	RW58V470
51	RW59V510	RW57V510	RW58V510
56	RW59V560	RW57V560	RW58V560
62	RW59V620	RW57V620	RW58V620
68	RW59V680	RW57V680	RW58V680
75	RW59V750	RW57V750	RW58V750
82	RW59V820	RW57V820	RW58V820
91	RW59V910	RW57V910	RW58V910
100	RW59V101	RW57V101	RW58V101
110	RW59V111	RW57V111	RW58V111
120	RW59V121	RW57V121	RW58V121
130	RW59V131	RW57V131	RW58V131
150	RW59V151	RW57V151	RW58V151
160	RW59V161	RW57V161	RW58V161
180	RW59V181	RW57V181	RW58V181
200	RW59V201	RW57V201	RW58V201
220	RW59V221	RW57V221	RW58V221
240	RW59V241	RW57V241	RW58V241
270	RW59V271	RW57V271	RW58V271
300	RW59V301	RW57V301	RW58V301
330	RW59V331	RW57V331	RW58V331
360	RW59V361	RW57V361	RW58V361
390	RW59V391	RW57V391	RW58V391
430	RW59V431	RW57V431	RW58V431
470	RW59V471	RW57V471	RW58V471
510	RW59V511	RW57V511	RW58V511
560	RW59V561	RW57V561	RW58V561
620	RW59V621	RW57V621	RW58V621
680	RW59V681	RW57V681	RW58V681
750	RW59V751	RW57V751	RW58V751
820	RW59V821	RW57V821	RW58V821
910	RW59V911	RW57V911	RW58V911
1000	RW59V102	RW57V102	RW58V102
1100	RW59V112	RW57V112	RW58V112
1200	RW59V122	RW57V122	RW58V122
1300	RW59V132	RW57V132	RW58V132
1500	RW59V152	RW57V152	RW58V152
1600	RW59V162	RW57V162	RW58V162
1800	RW59V182	RW57V182	RW58V182
2000	RW59V202	RW57V202	RW58V202
2200	—	RW57V222	RW58V222
2400	—	RW57V242	RW58V242
2700	—	RW57V272	RW58V272
3000	—	RW57V302	RW58V302
3300	—	RW57V332	RW58V332
3600	—	RW57V362	RW58V362
3900	—	RW57V392	RW58V392
4300	—	RW57V432	RW58V432
4700	—	RW57V472	RW58V472
5100	—	RW57V512	RW58V512
5600	—	RW57V562	RW58V562
6200	—	RW57V622	RW58V622
6800	—	RW57V682	RW58V682
7500	—	RW57V752	RW58V752
8200	—	RW57V822	RW58V822
9100	—	—	RW58V912
10,000	—	—	RW58V103
11,000	—	—	RW58V113
12,000	—	—	RW58V123
13,000	—	—	RW58V133
15,000	—	—	RW58V153
16,000	—	—	RW58V163
18,000	—	—	RW58V183
20,000	—	—	RW58V203

Call Your Sprague Industrial Distributor For Current Quantity Prices

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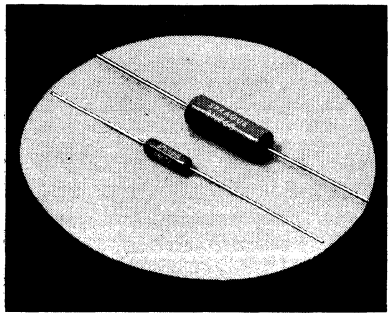
SPRAGUE RESISTORS

FILMISTOR® METAL-FILM RESISTORS



- Filmistor® C Series Resistors are Ideal for Circuits Requiring High Accuracy, Reliability, and Stability with Low Temperature Coefficients.
- Physical Size of Types RN55 and RN60 is Compatible With Those of Other Resistors, Capacitors, and Diodes for "Cordwood" Packaging.
- Designed to Meet the Stringent Performance Requirements of Spec. MIL-R-10509D.
- Low Self-inductance, Low Distributed Capacitance. Equal or Surpass the Characteristics of Precision Wirewound Resistors, Yet Are Smaller in Size.
- Metallic Resistive Film is Firmly Bonded to Special Ceramic Core, Automatically Spiralled to Desired Resistance Value.
- Tough Molded Shell Provides Protection Against Mechanical Damage as Well as Catastrophic Failures From Electrolysis Caused by Moisture Penetration.
- Standard Resistance Tolerance, ±1%
- For Complete Technical Data, Refer to Latest Issue of Engineering Bulletin 7025
- **Call Your Sprague Industrial Distributor For Quantity Prices.**

STANDARD RESISTANCE VALUES (Ohms)

20.0	57.6	165	475	1.37 K	3.92 K	11.3 K	32.4 K	93.1 K	267 K	750 K
20.5	59.0	169	487	1.40 K	4.02 K	11.5 K	33.2 K	95.3 K	274 K	768 K
21.0	60.4	174	499	1.43 K	4.12 K	11.8 K	34.0 K	97.6 K	280 K	787 K
21.5	61.9	178	511	1.47 K	4.22 K	12.1 K	34.8 K	100 K	287 K	806 K
22.1	63.4	182	523	1.50 K	4.32 K	12.4 K	35.7 K	102 K	294 K	825 K
22.6	64.9	187	536	1.54 K	4.42 K	12.7 K	36.5 K	105 K	301 K	845 K
23.2	66.5	191	549	1.58 K	4.53 K	13.0 K	37.4 K	107 K	309 K	866 K
23.7	68.1	196	562	1.62 K	4.64 K	13.3 K	38.3 K	110 K	316 K	887 K
24.3	69.8	200	576	1.65 K	4.75 K	13.7 K	39.2 K	113 K	324 K	909 K
24.9	71.5	205	590	1.69 K	4.87 K	14.0 K	40.2 K	115 K	332 K	931 K
25.5	73.2	210	604	1.74 K	4.99 K	14.3 K	41.2 K	118 K	340 K	953 K
26.1	75.0	215	619	1.78 K	5.11 K	14.7 K	42.2 K	121 K	348 K	976 K
26.7	76.8	221	634	1.82 K	5.23 K	15.0 K	43.2 K	124 K	357 K	1.00 meg.
27.4	78.7	226	649	1.87 K	5.36 K	15.4 K	44.2 K	127 K	365 K	1.02 meg.
28.0	80.6	232	665	1.91 K	5.49 K	15.8 K	45.3 K	130 K	374 K	1.05 meg.
28.7	82.5	237	681	1.96 K	5.62 K	16.2 K	46.4 K	133 K	383 K	1.07 meg.
29.4	84.5	243	698	2.00 K	5.76 K	16.5 K	47.5 K	137 K	392 K	1.10 meg.
30.1	86.6	249	715	2.05 K	5.90 K	16.9 K	48.7 K	140 K	402 K	1.13 meg.
30.9	88.7	255	732	2.10 K	6.04 K	17.4 K	49.9 K	143 K	412 K	1.15 meg.
31.6	90.9	261	750	2.15 K	6.19 K	17.8 K	51.1 K	147 K	422 K	1.18 meg.
32.4	93.1	267	768	2.21 K	6.34 K	18.2 K	52.3 K	150 K	432 K	1.21 meg.
33.2	95.3	274	787	2.26 K	6.49 K	18.7 K	53.6 K	154 K	442 K	1.24 meg.
34.0	97.6	280	806	2.32 K	6.65 K	19.1 K	54.9 K	158 K	453 K	1.27 meg.
34.8	100	287	825	2.37 K	6.81 K	19.6 K	56.2 K	162 K	464 K	1.30 meg.
35.7	102	294	845	2.43 K	6.98 K	20.0 K	57.6 K	165 K	475 K	1.33 meg.
36.5	105	301	866	2.49 K	7.15 K	20.5 K	59.0 K	169 K	487 K	1.37 meg.
37.4	107	309	887	2.55 K	7.32 K	21.0 K	60.4 K	174 K	499 K	1.40 meg.
38.3	110	316	909	2.61 K	7.50 K	21.5 K	61.9 K	178 K	511 K	1.43 meg.
39.2	113	324	931	2.67 K	7.68 K	22.1 K	63.4 K	182 K	523 K	1.47 meg.
40.2	115	332	953	2.74 K	7.87 K	22.6 K	64.9 K	187 K	536 K	1.50 meg.
41.2	118	340	976	2.80 K	8.06 K	23.2 K	66.5 K	191 K	549 K	1.54 meg.
42.2	121	348	1.0 K	2.87 K	8.25 K	23.7 K	68.1 K	196 K	562 K	1.58 meg.
43.2	124	357	1.02 K	2.94 K	8.45 K	24.3 K	69.8 K	200 K	576 K	1.62 meg.
44.2	127	365	1.05 K	3.01 K	8.66 K	24.9 K	71.5 K	205 K	590 K	1.65 meg.
45.3	130	374	1.07 K	3.09 K	8.87 K	25.5 K	73.2 K	210 K	604 K	1.69 meg.
46.4	133	383	1.10 K	3.16 K	9.09 K	26.1 K	75.0 K	215 K	619 K	1.74 meg.
47.5	137	392	1.13 K	3.24 K	9.31 K	26.7 K	76.8 K	221 K	634 K	1.78 meg.
48.7	140	402	1.15 K	3.32 K	9.53 K	27.4 K	78.7 K	226 K	649 K	1.82 meg.
49.9	143	412	1.18 K	3.40 K	9.76 K	28.0 K	80.6 K	232 K	665 K	1.87 meg.
51.1	147	422	1.21 K	3.48 K	10.0 K	28.7 K	82.5 K	237 K	681 K	1.91 meg.
52.3	150	432	1.24 K	3.57 K	10.2 K	29.4 K	84.5 K	243 K	698 K	1.96 meg.
53.6	154	442	1.27 K	3.65 K	10.5 K	30.1 K	86.6 K	249 K	715 K	2.00 meg.
54.9	158	453	1.30 K	3.74 K	10.7 K	30.9 K	88.7 K	255 K	732 K	
56.2	162	464	1.33 K	3.83 K	11.0 K	31.6 K	90.9 K	261 K		

1/20 WATT METAL FILM
TYPE 415E/RN50C
.065" Dia. x .140" Long
20 ohms thru 100K

1/10 WATT METAL FILM
TYPE 416E/RN55C
.095" Dia. x .250" Long
49.9 ohms thru 100K

1/8 WATT METAL FILM
TYPE 418E/RN60C
.135" Dia. x .400" Long
49.9 ohms thru 499 K

1/4 WATT METAL FILM
TYPE 419E/RN65C
.200" Dia. x .600" Long
49.9 ohms thru 1 meg.

1/2 WATT METAL FILM
TYPE 420E/RN70C
.250" x Dia. .750" Long
49.9 ohms thru 1 meg.

1 WATT METAL FILM
TYPE 421E/RN75C
.375" Dia. x 1.062" Long
49.9 ohms thru 2 meg.

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VECO® VICTORY ENGINEERING CORPORATION

THERMISTORS • VARISTORS

VECO THERMISTOR AND VARISTOR KITS
For Experimentors and Circuit Designers

Each kit contains an assortment of Thermistors or Varistors for experimentation and development of prototype circuitry. Schematics and complete technical data are included.

KD25	12 Thermistor Disks	$10.50
KP50	6 Thermistor Probes	14.50
KR75	8 Thermistor Rods	8.75
KTB1	8 Thermistor Beads	19.50
KW125	12 Thermistor Washers (6 types) & Mtg. Kit	13.50
KV1001	9 Silicon Carbide Varistor Disks	7.50
KV1002	4 Silicon Carbide Varistors	1.50
M168	7 Thermistors and Varistors	5.00
M168A	10 Thermistors and Varistors	10.00

VECO sets the pace for PRODUCT RELIABILITY

New! VECO "THINISTOR"* KITS
(Thin Film Thermistors)

VECO's new revolutionary, ultra-thin, ultra-fast Thinistor Thermistors (See Figs. 12 and 13) now available in kit form for evaluation and for prototype circuitry development.

KFN101	4 Free-standing (no substrate) Thinistors)	$ 50.00
KFN201	6 Substrate-backed Thinistors	100.00
KFN301	2 Free-standing and 2 Substrate Thinistors	60.00
KFN401	2 Matched Pairs of Thinistors (Within 1%) (For Infra-red Detection)	189.50

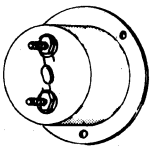
*Trade mark and pat. applied for.

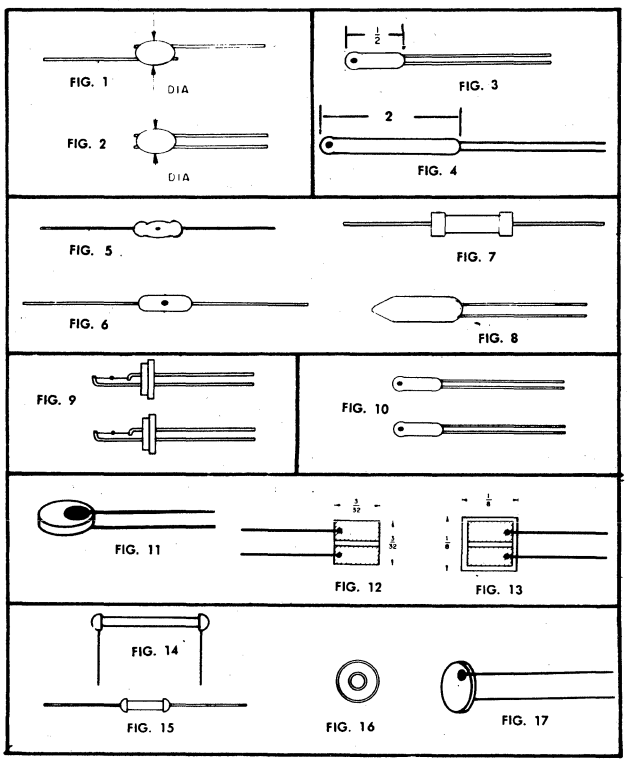
VECO Number	Resistance @ 25°C (Ohms)	Net Price	Fig.
BEAD THERMISTORS .043" Dia. 5/16" Min. Leads			
21A2	100 ± 20%	$ 3.00	2
25A5	500 ± 20%	2.40	2
32A12	2,000 ± 20%	1.95	2
51A2	100,000 ± 15%	1.95	2
65A5	5 MEG ± 20%	3.30	2
.013" Dia. 5/16" Min. Leads			
32A5	2,000 ± 25%	3.00	1
32A48	2,000 ± 25%	2.60	1
34A2	3,500 ± 15%	4.20	1
51A30	100,000 ± 25%	3.20	1
61A9	1 MEG ± 25%	3.90	1
.010" Dia. 1/4" Min. Leads			
31A7	1,000 ± 25%	5.70	1
32A50	2,000 ± 25%	5.70	1
41A5	10,0000 ± 25%	5.40	1
51A22	100,000 ± 25%	5.50	1
61A5	1 MEG ± 25%	6.40	1
.005" Dia. 1/4" Min. Leads			
31A401C	1,000 ± 25%	20.00	1
32A401C	2,000 ± 25%	20.00	1
51A401C	100,000 ± 25%	20.00	1
GLASS PROBE THERMISTORS			
13A13	30 ± 20%	4.00	4
22A31	200 ± 20%	3.00	4
32A11	2,000 ± 20%	1.95	3
45A11	50,000 ± 20%	2.25	3
72A10	15 MEG ± 20%	3.80	4
GLASS ROD & BULB THERMISTORS			
32A3	2,000 ± 25%	4.60	5
37A1	7,000 ± 20%	3.60	6
44A1	35,000 ± 25%	1.90	7
45B2	50,000 ± 40%	2.60	7
46A2	60,500 ± 29%	2.60	7
MATCHED THERMISTORS			
A33	2,000 ± 25%	15.00	9
A59	100,000 ± 15%	7.00	10
A60	2,000 ± 20%	7.00	10
ROD THERMISTORS .05" Dia.			
41S2	10,000 ± 10%	1.35	14
51R2	100,000 ± 10%	1.35	14
ROD THERMISTORS .110" Dia.			
33S1	3,150 ± 10%	1.10	15
36S1	6,300 ± 10%	1.10	15
41R1	10,000 ± 10%	1.10	15
45R1	50,000 ± 10%	1.10	15
51R1	100,000 ± 10%	1.10	15
ROD THERMISTORS .172" Dia.			
32S2	2,000 ± 10%	1.20	15
35S3	5,000 ± 10%	1.20	15
42R5	20,000 ± 10%	1.20	15
43R6	30,000 ± 10%	1.20	15
45R9	50,000 ± 10%	1.20	15

New! "VECO-VAMP"
(VAristor Meter Protector)

Non-polarized, current-sensitive "VECO-VAMP" placed across the terminals of a sensitive meter, will shunt overload current in excess of normal range automatically! Save coil burnouts, damaged pointers!

Price $1.50





VECO Number	Resistance @ 25°C (Ohms)	Net Price	Fig.
DISK THERMISTORS .1" Dia.			
25E2	500 ± 10%	.80	11
31E2	1,000 ± 10%	.80	11
33D7	3,000 ± 10%	.80	11
35D2	5,000 ± 10%	.80	11
41D2	10,000 ± 10%	.80	11
DISK THERMISTORS .2" Dia.			
21E23	100 ± 10%	.80	11
23E16	300 ± 10%	.80	11
31D10	1,000 ± 10%	.80	11
33D16	3,000 ± 10%	.80	11
35D6	5,000 ± 10%	.80	11
DISK THERMISTORS .3" Dia.			
15E4	50 ± 10%	.80	11
21E21	100 ± 10%	.85	11
25D5	500 ± 10%	.85	11
31D32	1,000 ± 10%	.80	11
33D10	3,000 ± 10%	.80	11
DISK THERMISTORS .4" Dia.			
13E3	25 ± 10%	.85	11
21E2	100 ± 10%	.85	11
23D18	300 ± 10%	.85	11
31D3	1,000 ± 10%	.85	11
32D12	2,000 ± 10%	.85	11
DISK THERMISTORS .5" Dia.			
12E2	20 ± 10%	.85	11
15E3	50 ± 10%	.85	11
21E22	100 ± 10%	.85	11
25D4	500 ± 10%	.85	11
31D33	1,000 ± 10%	.85	11
DISK THERMISTORS .77" Dia.			
11E2	10 ± 10%	.85	11
13E19	30 ± 10%	.85	11
18D2	75 ± 10%	.85	11
21D2	100 ± 10%	.85	11
23D34	300 ± 10%	.85	11
DISK THERMISTORS 1.0" Dia.			
05E1	5 ± 10%	1.20	11
11E1	10 ± 10%	1.20	11
15D1	50 ± 10%	1.20	11
21D5	100 ± 10%	1.20	11
22D10	200 ± 10%	1.20	11
WASHER THERMISTORS .2" Dia.			
22X1	150 ± 10%	.95	16
31W1	1,100 ± 10%	.95	16
WASHER THERMISTORS .77" Dia.			
11X1	10 ± 10%	1.05	16
12X10	15 ± 10%	1.05	16
21W1	100 ± 10%	1.05	16
22W6	200 ± 10%	1.05	16
32Y3	1,800 ± 10%	1.05	16
MOUNTING ACCESSORIES			
A816	Washer Mtg. Kit	1.25	
A819	Probe Packing Gland	4.00	
A828	Washer Mtg. Kit w/Bracket	1.75	

VECO VARISTORS – FIG. 17

VECO Number	Exponent n	V ± 30% @ 5 ma, D.C.	Net Price
023L9	3	6V	1.00
063L9	3	10V	1.00
114L2	4	15V	1.00
124L1	4	25V	1.00
124L2	4	35V	1.00
134L1	4	50V	1.00
155L3	5	75V	1.00
175L1	5	100V	1.00
195L1	5	120V	1.00

VECO TECHNICAL LITERATURE

V42	VECO Thermistor-Varistor Data Book	$1.00
V1133	VECO Hand/Book of Thermistor Applications	2.00
V1166	Theory of VECO Thermistor Hypsometers	1.00

For descriptive list of free VECO technical literature ask you jobber for VECO Literature Catalog SB53-1.

IMPORTANT — PLEASE NOTE

The listing on this page represents only a small part of the wide variety of VECO thermistors and varistors available, both as discrete components and in ready-to-mount sensor assemblies and in specialized instrumentation. See your jobber for complete information.

Prices subject to change without notice.

THERMISTORS

THERMAL CONDUCTIVITY CELLS • COMBUSTION ANALYZERS • MATCHED THERMISTORS • THERMISTOR HYPODERMIC NEEDLES

ELECTRONIC CONTROLS • HYPSOMETERS

VARISTORS

CHOPPERETTES • TEMPERATURE SENSING DEVICES

Net

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WORKMAN Electronic PRODUCTS, INC.

REPLACEMENT COMPONENTS

GLOBAR RESISTORS

MODEL	DESCRIPTION	LIST	DLR.
FR.49	.49 at 3 amps.	1.60	.96
FR1.3	1.3Ω cold	1.00	.60
FR1M	600KΩ hot 1 MegΩ cold	1.75	1.05
FR2	Replaces filament res'trs	3.00	1.80
FR3.5	3.5Ω cold	1.00	.60
FR3.8	3.8Ω cold	1.00	.60
FR4.5	4.5Ω cold	1.00	.60
FR5-8	5-8Ω at 450ma	1.65	.99
FR6	6Ω Hot-600ma	1.65	.99
FR9	9Ω Hot-600ma	1.65	.99
FR10	10Ω cold	1.00	.60
FR11	11Ω Hot-600ma	2.50	1.50
FR11P	11Ω-450ma 9.2Ω-600ma	1.65	.99
FR12.9	12.9Ω cold	1.00	.60
FR13	13Ω cold	1.00	.60
FR19	19Ω Hot - 600ma	1.50	.90
FR31	31Ω Hot - 300ma	1.90	1.14
FR35	35Ω Hot - 600ma	1.90	1.14
FR43	43Ω Hot - 600ma	2.50	1.50
FR50	50Ω Hot - 150ma	1.60	.96
FR041	75Ω Hot - 300ma	2.20	1.32
FR051	20Ω Hot - 600ma	1.50	.90
FR051-2	As above - 2 in pack	2.50	1.50
FR052	10.5Ω at 125 volts	3.20	1.92
FR054	35Ω Hot -600ma	3.20	1.92
FR066	For Color TV DeGauss	1.40	.84
FR088	14KΩ at 140 volts	3.20	1.92
FR100	50Ω Hot-150ma	1.60	.96
FR191	120Ω cold	1.60	.96
FR291	79Ω cold -.47Ω hot	1.20	.72
FR922	For color TV DeGauss	1.20	.72
FR5K	500KΩ at 25° C	1.50	.90
FRT1	100Ω hot to 20Ω hot	1.85	1.11
FRT2	Heavy duty universal	2.00	1.20
FRTV	For Color TV kit of 2	3.00	1.80

FUSED RESISTORS

F4.7	4.7Ω - 5 Watts	.55	.33
F5	5Ω - 5 Watts	.55	.33
F5.6	5.6Ω - 5 Watts	.55	.33
F6	6Ω - 5 Watts	.55	.33
F7	7.5Ω - 3 amperes	.72	.43
F7-3.6	3.5Ω-7W, G.E.#14X183	.55	.33
F80	7.5Ω - 3 amperes	.55	.33
F9	9Ω - 5 Watts	.55	.33
F10	10Ω - 5 Watts	.55	.33
F10-45	4.5Ω - 10 Watts	.75	.45
F18	18Ω - 5 Watts	.55	.33
F22	22Ω - 5 Watts	.55	.33
F47	47Ω - 5 Watts	.55	.33
F100	100Ω - 5 Watts	.55	.33
F145.	1.45Ω-5W heavyduty, Philco	.72	.43
F150	150Ω - 5 Watts	.55	.33
F12A	150Ω - 0.12 amperes	.55	.33
FJ4.7	H'vy duty 4.7Ω 3.5 amp.	.75	.45
FJ5.6	H'vy duty 5.6Ω 3.5 amp.	.75	.45
FJ7.5	H'vy duty 7.5Ω 3.5 amp.	.75	.45
FJR4.7	H'vy duty 4.7Ω 3.5 amp. 5W	.75	.45
FJR5.6	H'vy duty 5.6Ω 3.5 amp. 5W	.75	.45
FJR7.5	H'vy duty 7.5Ω 3.5 amp. 5W	.75	.45
FZ4.7	4.7Ω - 3 amperes	.36	.22
FZ5.6	5.6Ω - 3 amperes	.36	.22
FZ7.5	7.5Ω - 3 amperes	.36	.22
FZ9	9Ω - 3 amperes	.36	.22
FZ4.7-5	Pk. of 5, 4.7Ω-3 amps	1.60	.99
FZ5.6-5	Pk. of 5, 5.6Ω-3 amps	1.60	.99
FZ7.5-5	Pk. of 5, 7.5Ω-3 amps	1.60	.99
FZ9-5	Pk. of 5, 9Ω-3 amps	1.60	.99
FZ4.7R	15 pk.4.7Ω-3 amp.	—	2.59
FZ5.6R	15 pk.5.6Ω-3 amp.	—	2.59
FZ7.5R	15 pk.7.5Ω-3 amp.	—	2.59
FZ9R	15 pk. 9.Ω-3 amp.	—	2.59
FB1	Universal replacement	2.00	1.20
F26	No. AWG 26 Wire, 5 pcs.	.25	.15
F28	No. AWG 28 Wire, 5 pcs.	.25	.15
F15-7.5	7.5Ω - 15 Watts	.96	.58
F7-5	5Ω - 7 Watts	.72	.43

AUTO RADIO RESISTORS

WT10	.10Ω - 5 Watt	.48	.29
WT22	0.22Ω - 5 Watt	.48	.29
WT27	0.27Ω - 5 Watt	.48	.29
WT33	0.33Ω - 5 Watt	.48	.29
WT47	0.47Ω - 5 Watt	.48	.29
WT51	0.51Ω - 5 watt	.48	.29
WT56	5.6Ω - 5 Watt	.48	.29
WT68	0.68Ω - 5 Watt	.48	.29
WT82	0.82Ω - 5 Watt	.48	.29
7W	1800Ω - 7 Watt	.38	.23
FT2.8	2.8Ω cold	.65	.39
FT3.3	3.3Ω cold	.65	.39
FT4.5	4.5Ω cold	.65	.39
FT7.5	7.5Ω cold	.65	.39
FT10	10Ω cold	.65	.39
FT28	28Ω cold	.65	.39
FT35	35Ω cold	.65	.39
FT150	150Ω cold	1.30	.78

GD1	For 6V. in 12V. systems	5.50	3.30
GD2	2, 4, or 6 amp loads	3.30	1.98
GD3	5 to 6 amp loads	1.25	.75
GD4	7 to 8 amp loads	1.25	.75

WIREWOUND RESISTORS

6W-B	6W Bendohms, 34 values	.49	.30
6WB-34	6W Bend. 34 vals. on card	16.60	9.95
25W	25W, 42 values 3.4Ω to 1KΩ	.75	.44
30W	30W, 18 values 19Ω to 196Ω	1.60	.96
50W-5	5Ω - 5 watt for color	2.00	1.20
50WJ-5	5Ω - 5 watt heavy duty	2.85	1.71
148	41Ω - 25 watt	.85	.51
151	51Ω - 30 watt	.95	.57
MO1	59Ω - 25 watt	.85	.51
WR	5-15W 50 values each univ.	.55	.33
WR50A	Card of 50 values	-	13.50
WR50C	Card of 50 values for HI-Fi	-	13.50
WS	2W 21 values .22 to 10.Ω	.36	.22

SQUARE OHMS

5W-SQ	5W 81 Values 1-10KΩ	.36	.22
10W-SQ	10W 87 Values 1-25KΩ	.40	.24
20W-SQ	20W 87 Values 1-35KΩ	.65	.39
25W-SQ	25W 121 Values 1-50KΩ	.75	.45

CHEMICAL FUSES

3-1	RCA #945392-3	.63	.38
200-10	RCA #945309-1	.85	.51
400-1	RCA #945392-2	.80	.48
450-1	RCA #945392-4	.75	.45
500-1	RCA, Emerson, Olympic	.75	.45
1200-1	Emerson #808236	.75	.45
1400-1	Emerson, Zenith	.75	.45
1700-1	Emerson, Zenith	.75	.45
2000-1	Zenith #136-66	.75	.45
BL5	Pk. of 5 chemical fuses	3.70	2.20
KF-200	RCA #105041	1.00	.60
LC-200	For "C" type (limited cur'nt)	1.00	.60

COLOR RESISTORS

3 Watt	All values	.75	.45
4 Watt	All values	.80	.48
5 Watt	All values	.85	.51
7 Watt	All values	.90	.54
10 Watt	All values	1.10	.66

CIRCUIT BREAKERS

53 DIFFERENT MODELS
F SERIES NUMBERS

For Exact Replacement	1.15	.69

SERVICE AIDS

BC2	Battery Charger, 6 amps.	34.66	20.79
BC4	U.L.ap.12v. battery charger	9.88	5.93
BC6	Battery Charger, 6 volt	3.98	2.80
BC12	Battery Charger, 12 volt	3.98	2.80
BX125	Transverter, 125 watt	—	29.95
BZ1	Buzit	14.50	8.70
BZ5	Chek-It Circuit Tester	2.49	1.49
BZ8	Transistor Diode Checker	—	19.50
C200	Line matching transformer	2.65	1.59
D1	Convt. Std. to Button	2.63	1.58
D2	Convt. Standard to Shell	2.63	1.58
D3	Convt. Shell to Button	2.63	1.58
D4	Convt. Button to Shell	2.63	1.58
D5	Convt. 23EP4 to Syl. 8YP4	2.63	1.58
D6	Convt. 23EP4 to standard	2.63	1.58
D7	Convt. 90° to 70° Color	5.50	3.30
D8	Convt. 70° to 90° color butt.	5.50	3.30
D18	Auto lighter adapter plug	.95	.57
D19	H. D. Auto l'tr. adapter plug	1.60	.96
PO1	Precision Oiler	1.10	.66
PO2	Precision Graphite	1.10	.66
PO3	Precision Grease	1.10	.66
RS1	110° Button Socket	1.00	.60
RS2	110° Shell Socket	1.00	.60
RS3	Standard Socket	1.00	.60
RS4	For 70° Color CRT	2.15	1.29
RS5	For 23EP4 CRT	1.00	.60
RS6	For 90° color, 36 in. leads	2.65	1.59
TG1	Tube Guard	2.00	1.20
TM3	TO36 mica insulators	.65	.39
TM5	TO3 mica insulators	.65	.39
TMA	TO3 anodized alum. ins'l't'rs	1.10	.66
TMK	Power Transist. mtg. kit	.95	.57
TMM	Mica Collector Insulators	.65	.39
TMN	TO3 nylon screw insulators	.65	.39
TMS	Diam. base transist. socket	.55	.33
VB4	Transistorized vibrator	10.98	6.54
VB5	Transistorized vibrator	10.98	6.54
X1	Extends button base	2.25	1.35
X2	Extends shell base	2.25	1.35
X3	Extends Std. Duo-Decal	2.25	1.35
X4	24 in. for 70° color tubes	3.40	2.04
X5	24 in. for 23EP4	2.25	1.35
X6	36 inch for 70° Color	3.80	2.28
X7	36 inch for 90° Color	3.80	2.28
X9	Xtend-Shaft	.30	.18

TRANSISTORS

AA1	PNP osc.mix, conv. I.F. audio	1.50	.90
AA2	NPN osc.mix, conv. I.F. audio	1.65	.99
AA3	PNP hi freq. osc., mix, conv.	2.60	1.56
AA4	PNP TO3 diamond base	2.13	1.28
AA5	PNP TO36 stud base	4.25	2.55
AT6	PNP audio driver	2.50	1.50
AT6-M	PNP mini. audio driver	1.65	.99
B5	PNP audio output	2.50	1.50
B5-M	PNP mini. audio output	1.65	.99
BA6	PNP I.F. amplifier	2.50	1.50
BA6-M	PNP mini. I.F. amplifier	1.65	.99
BE6	PNP converter oscillator	2.70	1.62
BE6-M	PNP mini. conv. oscillator	1.65	.99
CB6	PNP VHF amplifier, hi freq.	3.00	1.80
GLD	Universal power, gold plate	2.50	1.49
J6	PNP conv., osc., mix, hi freq.	3.00	1.80
L6	NPN audio output	3.35	2.01
Power 5	NPN 5 watt power	2.00	1.20
Power 25	PNP output for over 50 V.	4.20	2.52
Power 40	PNP output for over 50 V.	4.75	2.85
Power 60	PNP output very hi wattage	6.00	3.60
Power 80	PNP output stud TO36 base	7.25	4.35
SA7	NPN conv., osc., mix	3.70	2.22
SK7	NPN I.F. amplifier	3.35	2.01
SQ7	NPN gen. purpose audio freq.	3.35	2.01
TBX9	Replacem't for inverters	3.60	2.16
TBX10	High Freq. for inverters	4.20	2.52
TBX11	For CB vibrators	5.00	3.00
TBX12	For CB vibrators	4.20	2.52
TBX18	High power switching	4.75	2.85
TBX20	High power switching	4.85	2.95
TBX45	PNP for ignition systems	14.00	8.10
99AT6	PNP audio driver	1.65	.99
99B5	PNP audio output	1.65	.99
99BA6	PNP I.F. amplifier	1.65	.99
99BE6	PNP converter oscillator	1.65	.99
99L6	NPN audio output	1.65	.99
99 Power	PNP audio output	1.65	.99
199 Power	PNP audio output	3.32	1.99
299 Power	PNP output stud mount	4.70	2.82
99SA7	NPN conv., osc., mixer	1.65	.99
99SK7	NPN I.F. amplifier	1.65	.99
99SQ7	NPN audio frequency	1.65	.99

SUPER BRIGHTENERS

W2	9V, parallel, standard base	2.65	1.59
W3	9V, series, standard base	2.90	1.74
W4	8.5V, isolation, st'd. base	3.70	2.22
W5	9V, parallel, RCA base	3.90	2.34
W6	9V, series, RCA base	3.90	2.34
W7	9V, parallel, Sylvania base	3.90	2.34
W8	9V, series, Sylvania base	3.90	2.34
W9	9V, series-parallel, st'd.	4.15	2.49
W10	3.5V, series, RCA base	3.50	2.10
W11	3.5V, series, Sylvania base	3.50	2.10
W12	9V, series-parallel, RCA	4.50	2.70
W14	9V, series-parallel, Sylvan.	4.50	2.70
W15	9V, parallel, 23EP4 base	3.90	2.34
W16	8.5V, isolation, RCA base	3.90	2.34
W17	8.5V, isolation, Sylvania	3.90	2.34
W20	8.5V, 70° color base, parallel	9.75	5.85

CHEMICALS

ET1	Scru-Loos rust solvent	1.65	.99
H6	"Wissh" cleaner 6 oz.	1.65	.99
H6A	"Wissh" 6 oz. with needle	2.05	1.23
H14	"Wissh" cleaner 16 oz.	3.25	1.95
H32	"Wissh" quart size kit	5.42	3.25
HF6	"Freez-It" cooler 6 oz.	1.65	.99
HF16	"Freez-It" cooler 16 oz.	3.25	1.95
S3	Super "Wissh" pocket size	1.30	.78
S6	Super "Wissh" 6 oz.	2.00	1.20
S16	Super "Wissh" 16 oz.	4.00	2.40
S24	Super "Wissh" 24 oz. tank	5.00	2.98
SC3	Color Tuner Toner, 3 oz.	1.75	1.05
SC8	Color Tuner Toner, 8 oz.	3.25	1.95
SG6	Silicone-Lube	1.25	.75

COILS

Over 5000 Numbers
IN STOCK
Exact Replacements
FOR OVER 200 MANUFACTURERS

SPECIALIZING IN SHORT RUNS

Prices subject to change without notice. For a complete listing of exact replacement coils ask your jobber for our Coil Cross Reference. Workman part numbers for coils, fusing devices, wirewound and special purpose resistors are listed in Howard Sams' Photofacts and Counter Facts.

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Trade Discount Applies To List Prices Only

WARD LEONARD

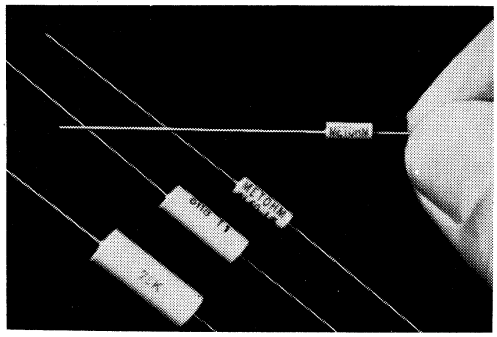
Metohm® RESISTORS
Metal Film Precision Type

THE STANDARD OF QUALITY FOR MILITARY AND INDUSTRIAL PURPOSES

FEATURES

- **High stability and reliability**
- **Designed to exceed MIL-R-10509F**
- **Close resistance tolerance**
- **Wide range of resistance values**
- **Stock or made-to-order types**
- **1/10, 1/8, 1/4 and 1/2 watt sizes**

Exceeds MIL-R-10509F



In critical space-age electronic circuitry, METOHM metal film precision resistors guarantee high reliability, high stability, close accuracy, low TC and miniature size. Metohms are precision made under "white-room" conditions in the industry's most modern plant.

MIL SPECS. — All Metohm precision resistors are designed to exceed MIL-R-10509F char. C, D and E.

POWER RATING — is based on full rated load in an ambient of 125°C.

WELDABLE LEADS—gold plated Dumet leads and nickel "270" leads are available for weldable applications.

STOCK METOHMS — RN55, 60, 65 and 70 Metohm resistors, char .C, TC Code T2 (±50PPM) are stocked in MIL standard values listed below. Standard tolerance is ±1%.

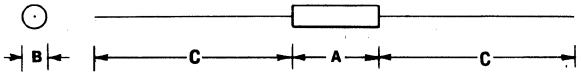
MADE-TO-ORDER TYPES — see data in accompanying tables for non-stock resistors available in production order quantities.

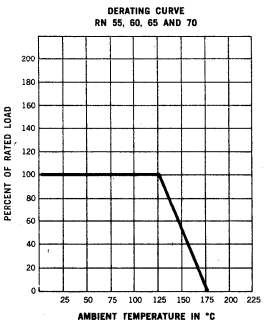
CONFORMAL COATED TYPES—also available in 1/20, 1/10, 1/8, 1/4 and 1/2 w. sizes. Durable solvent resistant coating allows smaller size. Ideal for micro module circuitry where space is at a premium.

RATINGS AND SIZES — METOHM Metal Film Precision Resistors

Designations		Watt Rating		Resistance Range Ohms		Max. Voltage Rating (Continuous)	Standard Resistance Tolerance	Temperature Coefficient	A Length	B Diameter	C Axial Lead	
MIL	Industrial	@ 125°C	@ 70°C	Min.	Max.						Length	Diameter
RN 55	.....	1/10	1/5	49.9	100K	200v	1%*	**	.260±.010	.120 +.005 −.015	1½±⅛	.025±.002 (#22 AWG)
.....	WL 55	1/10	1/5	10	301K							
RN 60	.....	1/8	1/4	49.9	499K	250v	1%*	**	.406±.015	.130±.015	1½±⅛	.025±.002 (#22 AWG)
.....	WL 60	1/8	1/4	10	500K							
RN 65	.....	1/4	1/2	49.9	1 meg.	300v	1%*	**	.594±.015	.203±.015	1½±⅛	.025±.002 (#22 AWG)
.....	WL 65	1/4	1/2	10	1 meg.							
RN 70	.....	1/2	1	49.9	1.5 meg.	350v	1%*	**	.719±.020	.261±.020	1½±⅛	.032±.002 (#20 AWG)
.....	WL 70	1/2	1	10	1.5 meg.							

* Closer tolerances to order. See MIL Resistance Tolerance table below.
** See Temperature Coefficient Code Table below.





RESISTANCE TOLERANCE

MIL Designation	Tolerance
F	± 1%
D	± 0.5%
C	± 0.25%
B	± 0.1%
—	± 0.05%

TEMPERATURE COEFFICIENT CODE

T.C. Code**	MIL Char.	Temperature Coefficient Range***	Temperature Range
T-0	D	±100 PPM/°C	−55°C to +175°C
T-2	C	± 50 PPM/°C	−55°C to +175°C
T-3	—	0 to + 100 PPM/°C	−55°C to +175°C
T-4	—	0 to − 100 PPM/°C	−55°C to +175°C
T-5	—	± 25 PPM /°C	+25°C to +145°C
T-6	—	0 to + 50 PPM/°C	−55°C to +175°C
T-7	—	0 to − 50 PPM/°C	−55°C to +175°C
T-8	—	± 35 PPM/°C ± 25 PPM/°C	−55°C to + 25°C +25°C to +175°C
T-9	E	± 25 PPM/°C	−55°C to +175°C

** For other temperature coefficients consult Home Office for price.
*** Parts per Million Per Degree Centigrade (100 PPM equals 0.01%)

MIL STANDARD RESISTANCE VALUES FOR STOCK METOHM RESISTORS

30.1	43.2	61.9	88.7	127	182	261	374	536	768	1100	1580	2260	3240	4640	6810	9760	14.0K	20.0K	28.7K	41.2K	59.0K	84.5K	121K	174K	249K	357K	511K	732K
30.9	44.2	63.4	90.9	130	187	267	383	549	787	1130	1620	2320	3320	4750	6980	10.0K	14.3K	20.5K	29.4K	42.2K	60.4K	86.6K	124K	178K	255K	365K	523K	750K
31.6	45.3	64.9	93.1	133	191	274	392	562	806	1150	1650	2370	3400	4870	7150	10.2K	14.7K	21.0K	30.1K	43.2K	61.9K	88.7K	127K	182K	261K	374K	536K	768K
32.4	46.4	66.5	95.3	137	196	280	402	576	825	1180	1690	2430	3480	4990	7320	10.5K	15.0K	21.5K	30.9K	44.2K	63.4K	90.9K	130K	187K	267K	383K	549K	787K
33.2	47.5	68.1	97.6	140	200	287	412	590	845	1210	1740	2490	3570	5110	7500	10.7K	15.4K	22.1K	31.6K	45.3K	64.9K	93.1K	133K	191K	274K	392K	562K	806K
34.0	48.7	69.8	100	143	205	294	422	604	866	1240	1780	2550	3650	5230	7680	11.0K	15.8K	22.6K	32.4K	46.4K	66.5K	95.3K	137K	196K	280K	402K	576K	825K
34.8	49.9	71.5	102	147	210	301	432	619	887	1270	1820	2610	3740	5360	7870	11.3K	16.2K	23.2K	33.2K	47.5K	68.1K	97.6K	140K	200K	287K	412K	590K	845K
35.7	51.1	73.2	105	150	215	309	442	634	909	1300	1870	2670	3830	5490	8060	11.5K	16.5K	23.7K	34.0K	48.7K	69.8K	100K	143K	205K	294K	422K	604K	866K
36.5	52.3	75.0	107	154	221	316	453	649	931	1330	1910	2740	3920	5620	8250	11.8K	16.9K	24.3K	34.8K	49.9K	71.5K	102K	147K	210K	301K	432K	619K	887K
37.4	53.6	76.8	110	158	226	324	464	665	953	1370	1960	2800	4020	5760	8450	12.1K	17.4K	24.9K	35.7K	51.1K	73.2K	105K	150K	215K	309K	442K	634K	909K
38.3	54.9	78.7	113	162	232	332	475	681	976	1400	2000	2870	4120	5900	8660	12.4K	17.8K	25.5K	36.5K	52.3K	75.0K	107K	154K	221K	316K	453K	649K	931K
39.2	56.2	80.6	115	165	237	340	487	698	1000	1430	2050	2940	4220	6040	8870	12.7K	18.2K	26.1K	37.4K	53.6K	76.8K	110K	158K	226K	324K	464K	665K	953K
40.2	57.6	82.5	118	169	243	348	499	715	1020	1470	2100	3010	4320	6190	9090	13.0K	18.7K	26.7K	38.3K	54.9K	78.7K	113K	162K	232K	332K	475K	681K	976K
41.2	59.0	84.5	121	174	249	357	511	732	1050	1500	2150	3090	4420	6340	9310	13.3K	19.1K	27.4K	39.2K	56.2K	80.6K	115K	165K	237K	340K	487K	698K	1 Meg.
42.2	60.4	86.6	124	178	255	365	523	750	1070	1540	2210	3160	4530	6490	9530	13.7K	19.6K	28.0K	40.2K	57.6K	82.5K	118K	169K	243K	348K	499K	715K	1.5 Meg.

6650

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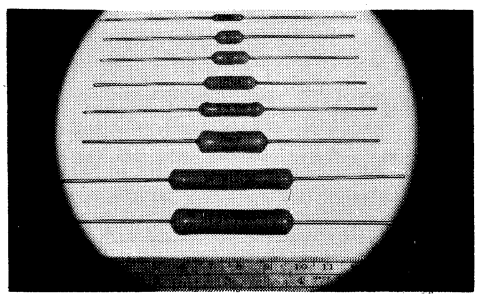
WARD LEONARD

Axiohm® RESISTORS
Vitreous Enamel Wire-Wound Power Type

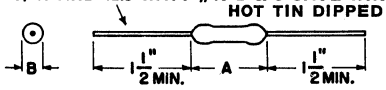


Axiohm, the miniaturized, space-saving power resistor line is designed for automation, printed circuits and advanced miniaturization use. Recommended for electronic and industrial use where high O.L. capacity and high stability are a "must". Four stock sizes and seven made-to-order sizes. Order by Stock Type and Ohms.

AXIOHM FEATURES

- **Vitrohm enamel construction**
- **Space saving design**
- **5 stock sizes; 8 made-to-order sizes**
- **Wide range of resistance values**
- **Standard tolerance ±5%**

1 WATT #24 B & S GAGE WIRE
2, 3, 4 AND 5 WATT #20 B & S GAGE WIRE
7, 10 AND 12.5 WATT #18 B & S GAGE WIRE
HOT TIN DIPPED



1 WATT **TYPE 1X**
Dims. A = 13/32; B = 3/32

Ohms	m.a.	Ohms	m.a.
1	1000	220	68
1.5	817	240	64
2	707	250	63
3	577	270	61
4	500	300	57
5	447	330	55
7.5	361	360	53
10	316	390	51
11	302	430	48
12	289	470	46
13	277	510	45
15	258	560	42
16	250	620	40
18	236	680	37
20	224	750	36
22	213	820	35
24	204	910	33
27	192	1000	32
30	182	1100	30
33	174	1200	28
36	167	1300	27
39	160	1500	26
43	153	1600	25
47	146	1800	24
51	140	2000	22
56	134	2200	21
62	127	2400	20
68	121	2500	20
75	115	2700	19
82	110	3000	18
91	105	3300	17
100	100	3900	16
110	95	4300	15
120	91	4700	15
130	87	5100	14
150	82	5600	13
160	79	6200	13
180	75	6800	12
200	71	7500	12

2 WATTS **TYPE 2X**
Dims. A = 3/8; B = 3/16

Ohms	m.a.	Ohms	m.a.
1	1414	180	105
1.5	1155	200	100
2	1000	220	95
3	816	240	91
4	707	250	89
5	632	270	86
7.5	517	300	82
10	447	330	78
11	426	360	75
12	408	390	72
13	392	430	68
15	365	470	65
16	354	510	63
18	333	560	60
20	316	620	57
22	302	680	54
24	289	750	52
27	272	820	49
30	258	910	47
33	246	1000	45
36	235	1100	43
39	228	1200	41
43	216	1300	39
47	206	1500	37
51	198	1600	35
56	189	1800	33
62	179	2000	32
68	172	2200	30
75	163	2400	29
82	156	2500	28
91	148	2700	27
100	141	3000	26
110	135	3300	25
120	129	3900	23
130	124	4300	22
150	116	4700	21
160	112	5100	20

3 WATTS **TYPE 3X**
Dims. A = 1/2; B = 3/16

Ohms	m.a.	Ohms	m.a.
1	1732	470	80
1.5	1414	500	77
2	1225	560	73
3	1000	600	71
4	866	680	66
5	775	700	66
7.5	632	750	63
10	548	800	61
12	500	820	60
15	447	900	58
18	408	1000	55
20	387	1100	52
22	369	1200	50
25	346	1250	49
27	333	1500	45
30	316	1750	41
33	301	1800	40
35	293	2000	39
40	274	2200	37
47	252	2250	37
50	245	2500	35
56	231	2700	33
68	210	3000	32
75	200	3300	30
82	191	3500	29
100	173	3900	28
120	158	4000	27
125	155	4500	26
150	141	4700	25
180	129	5000	25
200	122	5600	23
220	117	6000	22
225	115	6500	21
250	110	6800	21
270	105	7000	21
300	100	7500	20
330	95	8000	20
350	93	8200	19
390	88	9000	18
400	87	10000	17
450	82		

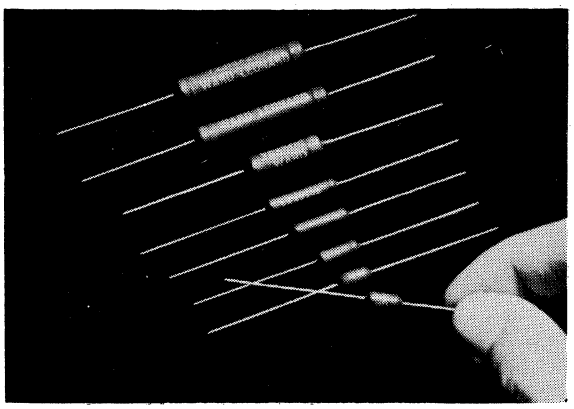
5 WATTS **TYPE 5XM**
Dims. A = 15/16; B = 3/16

Ohms	m.a.	Ohms	m.a.	Ohms	m.a.
1	2230	200	158	2500	45
1.5	1820	220	151	2700	43
2	1580	225	148	3000	40
3	1290	250	141	3300	39
4	1117	270	136	3500	37
5	1000	300	129	3900	36
7.5	811	330	123	4000	35
10	707	350	119	4500	33
12	644	390	113	4700	32
15	577	400	112	5000	31
18	527	450	105	5600	30
20	500	470	103	6000	28
22	477	500	100	6800	27
25	450	560	94	7000	26
27	430	600	91	7500	25
30	408	680	86	8000	25
33	389	700	84	8200	24
35	378	750	81	9000	23
39	358	800	79	10000	22
40	353	820	78	11000	21
47	326	900	74	12000	20
50	316	1000	70	12500	20
56	299	1100	67	13500	19
68	271	1200	64	15000	18
75	257	1250	63	16000	18
82	247	1500	57	17500	17
100	223	1750	53	18000	17
120	204	1800	52	20000	16
125	200	2000	50	22000	15
150	182	2200	48	25000	14
180	167	2250	47	27000	13

Order by Type Number and Resistance Value.

10 WATTS **TYPE 10XM**
Dims. A = 1¾; B = 5/16

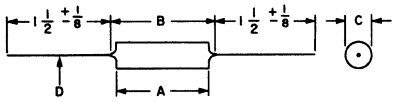
Ohms	m.a.	Ohms	m.a.
1	3160	1200	91
1.5	2580	1250	89
2	2235	1500	81
3	1825	1750	75
4	1580	2000	70
5	1415	2250	66
7.5	1155	2500	63
10	1000	3000	58
12	913	3500	53
15	815	4000	50
20	707	4500	47
25	630	5000	45
30	577	6000	41
35	534	7000	38
40	500	7500	36
50	450	8000	35
75	365	8500	34
100	316	9000	33
125	283	10000	32
150	258	11000	30
200	224	12000	29
225	211	12500	28
250	200	13500	27
300	182	15000	25.5
350	169	16000	25
400	158	17500	24
450	149	18000	23
500	142	20000	22
600	129	22500	21
700	120	25000	20
750	115	30000	18
800	112	35000	17
900	105	40000	16
1000	100	45000	15
1100	95	50000	14



S-COAT RESISTORS
Silicone Precision Power Type

S-Coat resistor line represents the latest advance in silicone coated wire-wound power resistor design. S-Coat resistors are precision-made for precision applications requiring characteristics such as low TC, close tolerance, no noise, low drift, high O.L. capacity, vibration resistant and zero voltage coefficient. Order by Type Designation, Ohms and Accuracy if other than ±1%.

S-COAT FEATURES



- **Low TC: ± 20PPM**
- **Close accuracy: ±1% standard, to ±0.5% special**
- **1000 volt dielectric — "V" block test • Wide resistance ranges • 16 space-saving sizes**

ratings and sizes **standard tolerance ± 1%**

Rating in Watts 275°C*	Rating in Watts 350°C*	W. L. Type	Max. Body Dimensions (in Inches) A	B	C	D	Resistance Values and Tolerances Minimum Ohms ±5%	±3%	±2%	±1%	±0.5%	Max. Ohms ±0.5% to ±5%
.8**	1**	1SX	3/8	7/16	7/32	#20	.25	.7	1.7	16	140	10K
1	1.25	1.25S	7/16	1/2	1/8	#24	.25	.3	.48	5.8	36	7.5K
1.2	1.5	1.5S	9/16	5/8	1/8	#24	.26	.31	.44	1.36	20	11K
1.5	2	2SX	3/8	7/16	7/32	#20	.25	.7	1.7	16	140	10K
2.25	3	3SX	1/2	9/16	7/32	#20	.25	.36	.8	7.2	56	20K
2.5	3.3	3.3S	9/16	5/8	1/4	#20	.29	.52	1.7	16.6	102	25K
3	3.75	3.75S	5/8	11/16	7/32	#20	.25	.39	.53	3.2	36	25K
3	4	4S	7/8	15/16	7/32	#20	.37	.40	.57	2.3	19.6	50K
3.1	4	4SX	11/16	3/4	7/32	#20	.29	.37	.52	2.7	34	31K
3.5	4.5	4.5S	11/16	3/4	9/32	#20	.37	.58	1.	5.2	57	40K
4	5	5SX	7/8	1	7/32	#20	.41	.41	.56	1.4	15	44K
5	7	7SX	61/64	1-1/16	11/32	#18	.65	.71	.95	2.3	27	80K
7	9	9S	1-1/4	1-5/16	11/32	#18	.79	.79	.94	1.8	11	100K
8	10	10SX	1-11/16	1-3/4	11/32	#18	1.2	1.2	1.2	1.8	5.8	135K
9.75	12.5	12.5SX	1-11/16	1-3/4	13/32	#18	1.6	1.6	1.6	2.3	7.4	200K
10	13	13S	1-53/64	1-57/64	13/32	#18	1.7	1.7	1.7	2.4	7.5	225K

*Hot spot temperature. **125°C Ambient.

Temperature Coefficients: Below 5 ohms ±100 PPM,
5 to 20 ohms ±50 PPM,
above 20 ohms ±20 PPM.

Standard Leads: Types 1.25S and 1.5S tinned Dumet; all others copper hot tin dipped

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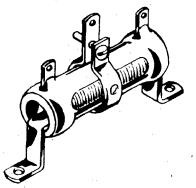
WARD LEONARD

Vitrohm® RESISTORS

Vitreous Enamel Wire-Wound Power Type

Types 5F, 10F, and 20F. Furnished with wire terminal leads. Brackets supplied on request.



Types 10A, 25A, 50A, 80A, 100A, 160A, 200A. Furnished with mounting brackets and one adjustable band.

Vitrohm fixed and adjustable power type resistors from 5 to 200 watts are designed and produced for high reliability. All cores, terminals and vitreous enamels are manufactured by W/L to guarantee top quality.

5 WATT • TYPE 5F

Size—1" x 5/16"

Ohms	m.a.	Ohms	m.a.	Ohms	m.a.
1	2230	100	223	1200	64
1.5	1820	125	200	1250	63
2	1580	150	182	1500	57
3	1290	200	158	1750	53
4	1117	225	148	2000	50
5	1000	250	141	2250	47
7.5	811	300	129	2500	45
10	707	350	119	3000	40
12	644	400	112	3500	37
15	577	450	105	4000	35
20	500	500	100	4500	33
25	450	600	91	5000	31
30	408	700	84	6000	28
35	378	750	81	7000	26
40	353	800	79	7500	25
50	316	900	74	8000	25
75	257	1000	70	9000	23
		1100	67	10000	22

10 WATT

Type 10F—Fixed Type 10A—Adj.

Size—1¾" x 5/16" Mtg. Centers—2⅛"

Fixed Ohms	Adj. Ohms	m.a.	Fixed Ohms	Adj. Ohms	m.a.
1	1	3160	1200		91
1.5		2580	1250	1250	89
2	2	2235	1500	1500	81
3	3	1825	1750		75
4		1580	2000	2000	70
5	5	1415	2250		66
7.5	7.5	1155	2500	2500	63
10	10	1000	3000	3000	58
12		913	3500	3500	53
15	15	815	4000	4000	50
20	20	707	4500	4500	47
25	25	630	5000	5000	45
30		577	6000	6000	41
35		534	7000	7000	38
40		500	7500	7500	36
50	50	450	8000	8000	35
75	75	365	8500	8500	34
100	100	316	9000	9000	33
125		283	10000	10000	32
150	150	258	11000		30
200	200	224	12000		29
225		211	12500		28
250	250	200	13500		27
300	300	182	15000		25.5
350	350	169	16000		25
400	400	158	17500		24
450		149	18000		23
500	500	142	20000		22
600	600	129	22500		21
700		120	25000		20
750	750	115	30000		18
800	800	112	35000		17
900		105	40000		16
1000	1000	100	45000		15
1100		95	50000		14

20 WATT • TYPE 20F

Size—2" x 5/16" Mtg. Centers—2⅝"

Ohms	m.a.	Ohms	m.a.	Ohms	m.a.
1	4480	850	153	10000	45
3	2580	1000	141	12500	40
5	2000	1200	130	15000	36
10	1410	1250	125	20000	32
15	1150	1500	115	25000	28
25	900	1750	107	30000	26
50	630	1850	104	35000	24
75	517	2000	100	40000	22
100	450	2250	94	45000	21
150	365	2400	91	50000	20
175	340	2500	90	55000	18
200	320	2750	85	60000	16
250	285	3000	81	65000	15
300	258	3500	76	70000	14
350	240	4000	70	75000	13
400	224	4500	67	80000	12
500	200	5000	63	85000	11.5
650	175	6000	57	90000	11
700	169	7000	53	95000	10.5
750	163	7500	51	100000	10
800	155	8000	50		

25 WATT

Type 25F—Fixed Type 25A—Adj.

Size—2" x 5/8" Mtg. Centers—2⅝"

Fixed Ohms	Adj. Ohms	m.a.	Fixed Ohms	Adj. Ohms	m.a.
1	1	5000	2500	2500	100
2	2	3535	3000	3000	90
3	3	2890	3500	3500	85
4		2500	4000	4000	80
5	5	2230		4500	74
	7.5	1825	5000	5000	70
10	10	1580	6000	6000	65
15	15	1290		7000	60
	20	1115	7500	7500	58
25	25	1000		8000	56
50	50	710	8500	8500	54
75	75	580		9000	52
100	100	500	10000	10000	50
150	150	410	12000	12000	46
200	200	354	15000	15000	41
250	250	315	20000	20000	34
300	300	289	25000	25000	32
400	400	250	30000		29
500	500	224	35000		27
750	750	182	40000		25
800	800	177	50000		20
850	850	170	60000		17
1000	1000	158	70000		14
1250	1250	140	75000		13
1500	1500	129	80000		12
2000	2000	112	100000		10
	2250	105			

50 WATT

Type 50F—Fixed Type 50A—Adj.

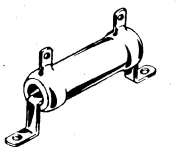
Size—4½" x ¾" Mtg. Centers—5¼"

Fixed Ohms	Adj. Ohms	m.a.	Fixed Ohms	Adj. Ohms	m.a.
1	1	7070	5000	5000	100
2	2	5000	6000	6000	91
3	3	4080		7000	85
4	4	3535	7500	7500	82
5	5	3160	8000	8000	79
10	10	2235	9000	9000	75
25	25	1415	10000	10000	71
50	50	1000	12000	12000	65
75	75	815	12500		63
100	100	707	15000	15000	58
150	150	575	20000	20000	50
200	200	500	25000	25000	45
250	250	445	30000	30000	41
300	300	408	35000		38
400	400	353	40000	40000	35
500	500	316	45000		33
750	750	258	50000	50000	32
800	800	250		60000	29
1000	1000	224	75000	75000	23
	1250	200		80000	21
1500	1500	180	100000	100000	17
2000	2000	160	125000		14
	2250	150	150000		12
2500	2500	141	175000		10
3000	3000	130	200000		9
	3500	120	225000		8
4000	4000	110	250000		7
	4500	105			

80 WATTS • TYPE 80A

Size—6½" x ¾" Mtg. Centers—7¼"

Ohms	m.a.	Ohms	m.a.	Ohms	m.a.
1	8940	750	325	7500	103
2	6320	800	316	8000	100
3	5160	1000	282	9000	94
4	4470	1250	253	10000	89
5	4000	1500	231	15000	73
10	2830	2000	200	20000	63
15	2310	2250	188	25000	57
25	1790	2500	178	30000	51
50	1260	3000	161	35000	48
75	1030	3500	151	40000	45
100	894	4000	141	45000	41
200	632	4500	133	50000	40
250	565	5000	126	60000	36
300	515	6000	115	70000	33
400	447	7000	107	80000	31
500	400			100000	28



HEAVY DUTY RESISTORS

Types 25F, 50F, 100F, 160F, 200F Furnished with lug terminals and mounting brackets.

100 WATT

Type 100F—Fixed Type 100A—Adj.

Size—6½" x 1⅛" Mtg. Centers—7¼"

Fixed Ohms	Adj. Ohms	m.a.	Fixed Ohms	Adj. Ohms	m.a.
1	1	10000	2000	2000	225
2	2	7070	2500	2500	200
3	3	5770	3000	3000	180
4	4	5000	3500		170
5	5	4470	4000	4000	158
10	10	3160	4500	4500	150
25	25	2000	5000	5000	141
50	50	1410		6000	130
75		1150	7500	7500	115
100	100	1000	10000	10000	100
125		895	15000	15000	80
150		815	20000	20000	70
	200	707	25000	25000	63
250	250	630	30000	30000	58
	400	500	35000		54
500	500	447	40000	40000	50
750	750	365	50000	50000	45
1000	1000	316	60000	60000	41
1250		285	70000		38
1500	1500	260	75000	75000	36
			100000	100000	32

160 WATT

Type 160F—Fixed Type 160A—Adj.

Size—8½" x 1⅛" Mtg. Centers—9¼"

Fixed Ohms	Adj. Ohms	m.a.	Fixed Ohms	Adj. Ohms	m.a.
1	1	12650	2500	2500	252
2	2	8940	3000	3000	230
3	3	7300	3500	3500	215
4	4	6320	4000	4000	200
5	5	5650	4500	4500	185
10	10	4000	5000	5000	178
15	15	3265	7500	7500	146
25	25	2525	10000	10000	126
50	50	1785	15000	15000	105
75		1460	20000	20000	90
100	100	1265	25000	25000	80
150		1035	30000	30000	73
200	200	894	35000		68
250	250	800	40000	40000	64
500	500	565	50000	50000	57
750		460	60000	60000	52
1000	1000	400	75000	75000	46
1500	1500	326	80000	80000	45
2000	2000	280	100000	100000	40

200 WATT

Type 200F—Fixed Type 200A—Adj.

Size—10½" x 1⅛" Mtg. Centers—11¼"

Fixed Ohms	Adj. Ohms	m.a.	Fixed Ohms	Adj. Ohms	m.a.
1	1	14140	3500	3500	240
2	2	10000	4000	4000	225
3	3	8162	4500	4500	210
4	4	7070	5000	5000	200
5	5	6320	7500	7500	163
10	10	4470	10000	10000	141
25	25	2825	15000	15000	115
50	50	2000	20000	20000	100
75		1630	25000	25000	90
100	100	1414	30000	30000	82
150		1150	35000		76
250	250	900	40000	40000	71
500	500	632	50000	50000	63
750		515	60000	60000	58
1000	1000	447	75000	75000	52
1500	1500	365	100000	100000	45
2000	2000	315		125000	40
2500	2500	282		150000	35
3000	3000	260			

ADJUSTABLE BANDS

Screw Driver Type

Size of Resistor	Cat. No.
10 Watts	609Z
25 Watts	612A
50 Watts	612B
80 Watts	612B
100 Watts	615D
160 Watts	615D
200 Watts	615D

Bakelite Knob Type

25 Watts	610A
50 Watts	610B
80 Watts	610B
100 Watts	619D
160 Watts	619D
200 Watts	619D

ORDER BY TYPE NUMBER AND RESISTANCE VALUE.

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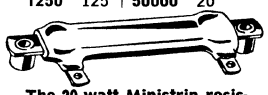
WARD LEONARD

Vitrohm RESISTORS
Vitreous Enamel Wire-Wound Power Type

20 WATTS • TYPE 20S

2" Long—Mtg. Centers 2 5/16"
Width 7/16"

Ohms	m.a.	Ohms	m.a.
1	4480	1500	115
3	2580	2000	100
5	2000	2500	90
10	1410	3000	81
15	1150	3500	76
25	900	4000	70
50	630	5000	63
100	450	7500	51
150	365	10000	45
200	320	15000	36
250	285	20000	32
400	224	25000	28
500	200	30000	26
750	163	35000	24
1000	141	40000	22
1250	125	50000	20

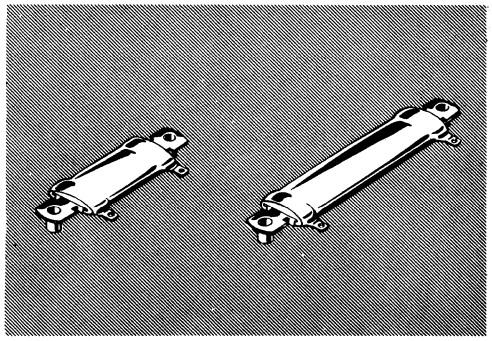


The 20 watt Ministrip resistor is smaller in size than the standard Strip-ohms. They may be stacked by using 1/32" washers.

STRIPOHMS
Order by Type Number and Resistance Value

features
- 6 space-saving sizes
- low mounting brackets
- strong flatted cores
- suitable for multiple stacking
- Vitrohm construction

Vitreous enameled wire-wound resistors built on a strong refractory core, and provided with low mounting brackets. Particularly suited for applications where space is limited. Specially adapted to stacking for networks.



30 WATTS • TYPE 30S

1 1/4" Long—Mtg. Centers 2"

Ohms	m.a.	Ohms	m.a.
1	5480	500	244
3	3160	750	200
5	2450	1000	173
10	1730	1250	154
15	1420	1500	142
25	1095	2000	122
50	774	2500	109
100	547	3000	100
150	447	3500	92
200	387	4000	86
250	346	5000	77
400	273		

40 WATTS • TYPE 40S

2" Long—Mtg. Centers 2 3/4"

Ohms	m.a.	Ohms	m.a.
1	6320	750	230
3	3650	1000	200
5	2830	1250	180
10	2000	1500	163
15	1630	2000	141
25	1270	2500	126
50	894	3000	114
100	632	3500	106
150	510	4000	100
200	447	5000	88
250	400	7500	73
400	315	10000	63
500	283	15000	51

55 WATTS • TYPE 55S

3 1/2" Long—Mtg. Centers 4 1/4"

Ohms	m.a.	Ohms	m.a.
1	7420	1250	209
3	4280	1500	191
5	3320	2000	165
10	2350	2500	148
15	1910	3000	135
25	1480	3500	129
50	1050	4000	117
100	741	5000	104
150	604	7500	84
200	522	10000	74
250	469	15000	60
400	370	20000	52
500	331	25000	47
750	270	30000	42
1000	234		

65 WATTS • TYPE 65S

4 3/4" Long—Mtg. Centers 5 1/2"

Ohms	m.a.	Ohms	m.a.
1	8060	1500	208
3	4650	2000	180
5	3610	2500	161
10	2550	3000	146
15	2080	3500	136
25	1610	4000	127
50	1140	5000	114
100	806	7500	92
150	658	10000	80
200	570	15000	65
250	509	20000	57
400	403	25000	51
500	360	30000	46
750	294	35000	43
1000	254	40000	40
1250	228	50000	36

75 WATTS TYPE 75S

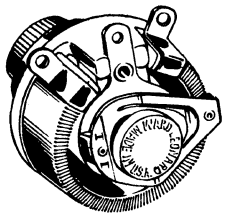
6" Long—Mtg. Centers 6 3/4"

Ohms	m.a.	Ohms	m.a.
1	8660	2500	173
3	5000	3000	158
5	3870	3500	146
10	2740	4000	137
15	2235	5000	122
25	1730	7500	100
50	1220	10000	87
100	866	15000	71
150	707	20000	61
200	612	25000	55
250	550	30000	50
400	433	35000	46
500	387	40000	43
750	315	50000	37
1000	274	60000	35
1250	245	65000	33
1500	224		
2000	193		

Vitrohm® RING RHEOSTATS

TYPE 25R

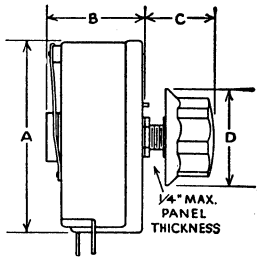
TYPE 50R



Ward Leonard Ring Rheostats are especially suited for use in electronic and electrical circuits where gradual and positive resistance change is essential. Balanced contact arms, self-lubricating metal graphite contact shoes, and no backlash in the drive shaft combine to assure uniform contact pressure and smooth operation.

Standard shaft length for back-of-board mounting on 1/4" panel.

Standard Resistance Tolerance ±10%.



Ohms	25 WATTS Dimensions: A-1 1/16" B-1 1/8" C-1" D-1 1/2" Current M.A.	Approx. No. of Steps	50 WATTS Dimensions: A-2 5/16" B-1 1/8" C-1" D-1 1/2" Current M.A.	Approx. No. of Steps
1	5000	32	7070	45
2	3540	32	5000	56
3	2880	51	*	*
4	*	*	3540	56
6	2040	85	2880	94
8	1770	95	2500	94
10	1580	95	2230	94
15	1280	102	1810	113
25	1000	102	1415	144
35	840	102	1190	144
50	707	97	1000	180
75	574	129	812	144
100	500	162	707	216
150	407	190	574	252
250	316	200	447	245
350	267	220	374	288
500	223	245	316	324
750	181	292	256	373
1000	158	315	223	390
1500	128	369	181	396
2500	100	388	141	547
3500	84	388	119	547
5000	70	595	100	786
7500	*	*	81	905
10000	*	*	70	947
	TYPE 25R		TYPE 50R	

Ohms	100 WATTS Dimensions: A-3 5/32" B-1 1/2" C-1" D-1 1/2" Current M.A.	Approx No. of Steps	150 WATTS Dimensions: A-4" B-1 3/4" C-1" D-1 1/2" Current M.A.	Approx. No. of Steps
1	10000	30	12240	39
2	7070	56	8660	39
3	5740	66	7070	70
5	4470	56	5470	73
7.5	3640	66	4470	70
10	3160	104	3870	70
15	2560	113	3160	120
25	2000	144	2440	152
50	1415	180	1730	190
75	1150	180	1415	228
100	1000	216	1224	228
200	707	252	866	265
300	574	252	707	303
400	500	252	612	342
500	447	324	547	342
750	364	396	447	418
1000	316	410	387	432
2000	223	410	273	575
2500	200	410	244	456
5000	141	685	173	865
7500	115	820	141	1000
10000	100	820	122	1000
	TYPE 100R		TYPE 150R	

Ohms	300 WATTS Dimensions A-6" B-2 3/16" Shaft 3/8" x 2" Current m.a.	Approx. No. of Steps
1	17.320	40
1.5	14.142	58
2	12.247	78
2.5	10.954	78
3	10.000	73
4	8.660	78
5	7.745	78
7.5	6.324	148
10	5.477	154
15	4.472	147
25	3.464	155
35	2.927	231
50	2.449	267
75	2.000	308
100	1.732	326
150	1.414	270
200	1.224	308
300	1.000	340
500	.774	455
750	.632	514
1000	.547	578
1500	.447	675
2500	.346	720
	TYPE 300R	

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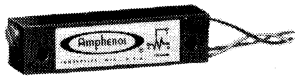
AMPHENOL TRIMMERS, POTENTIOMETERS, DIALS & MOTORS

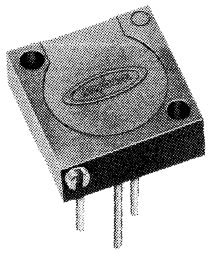
AMPHENOL DISTRIBUTOR DIVISION

For Immediate Service Contact Your Local Amphenol Sales Office



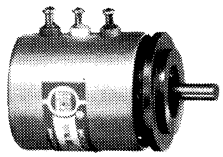
MICROPOT® TRIMMING POTENTIOMETERS

Amphenol produces 10 complete series of Micropot trimmers — from subminiature square trimmers to standard sizes. Amphenol trimmers are offered in general purpose, humidity-proof, high temperature, or humidity-and-high-temperature models, in a wide choice of resistance ranges and end terminals. Amphenol trimmers have an adjustment screw for an extremely fine degree of selectivity. Wire-wound resistance elements are up to 50% longer than competitive types.



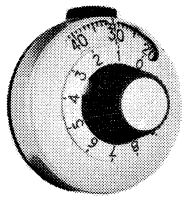
MICROPOT® METAL FILM TRIMMERS

Amphenol's Micropot metal film trimmers provide infinite resolution with a wide range of resistance value from 50 to 10,000 ohms.



MICROPOT® PRECISION POTENTIOMETERS

Amphenol offers a complete line of Micropot potentiometers for precision application—military and commercial — ranging from ½-inch to 3-inches. They are available in single-turn or multi-turn models with high resolution and a wide range of resistance values.

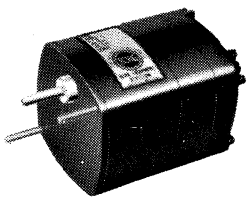


MICRODIAL® CONCENTRIC DIALS

Engineers consider the Amphenol Microdial line the most comprehensive in the industry. Concentric scale Microdials are available in three basic series. Each features epi-cyclical gearing to eliminate ambiguity, and large numerals for high readability. Each dial is available with or without brake. Most Microdial models are offered in a choice of color combinations for coding.

MICRODIAL® DIGITAL DIALS

Amphenol's digital Microdial line includes three, four, or five digit models. The 1300 Series has optional 10, 100, or 1000 turns. The 10-turn 1330 Microdial has internal illumination, convex lens, and is available with or without brake. Amphenol dials offer 1000:1 indexing accuracy, and are virtually free from accidental setting changes.



SUB-FRACTIONAL MOTORS

Amphenol's line of sub-fractional h.p motors includes synchronous, induction, hysterisis synchronous, or low inertia types, in two, four, six or higher pole models. Amphenol motors speed/torque ratios meet the most exacting requirements of instruments, controls, and related products.

FOR COMPLETE TECHNICAL INFORMATION . . . CONSULT AMPHENOL'S 20 PAGES OF PRODUCT AND ORDERING SPECIFICATIONS APPEARING IN THE ELECTRONIC ENGINEERS MASTER (eem).

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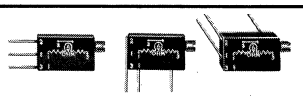
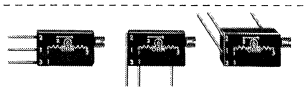
Atohm Trimming Potentiometers

DESCRIPTION	Distance between mounting holes		Series or Model Number	Resistance* (Ohms)	Lead Configuration (See next pg.)**	End Resistance	Total Resistance	Power Rating (Watts)	Operating Temperature Range °C	Turns Nominal	Moisture Resistant	Physical Dimensions (Inches) H	W	L	Standard Resistance Range, Ohms	Price 1-9	10-24	25-49
MIL-STYLE, WIREWOUND	3/4"		*** ART10	10-100K	L, P, S, W, E	1% or 1 Ohm	±5%	1 @ 85°C	—65°C to 200°C	18	Yes	.312	.18	1.00	10Ω-10K 20K-30K 50K 100K	8.62 10.26 11.88 13.23	7.98 9.50 11.00 12.25	7.18 8.55 9.90 11.03
MIL-STYLE, WIREWOUND	1"		*** ART11	10-150K	L, P, S, H	1% or 1 Ohm	±5%	1 @ 85°C	—65°C to 200°C	25	Yes	.312	.28	1.25	10Ω-10K 20K-25K 50K 100K 150K	7.00 8.62 9.15 11.34 12.69	6.48 7.98 8.47 10.50 11.75	5.83 7.18 7.62 9.45 10.58
MIL-STYLE, WIREWOUND	1"		*** ART12	10-150K	L, P, S, W	1% or 1 Ohm	±5%	1 @ 85°C	—65°C to 200°C	25	Yes	.312	.19	1.25	10Ω-10K 20K & 25K 50K 100K 150K	7.00 8.62 9.15 11.34 12.69	6.48 7.98 8.47 10.50 11.75	5.83 7.18 7.62 9.45 10.58
MIL-STYLE, GENERAL PURPOSE, WIREWOUND	1"		170	10-150K	L, P, S, W	1% or 1 Ohm	±10%	1 @ 70°C	—65°C to 175°C	25	Yes	.312	.19	1.25	10Ω-10K 20K & 25K 50K 100K 150K	6.32 7.88 8.42 10.31 11.61	5.85 7.30 7.80 9.55 10.75	5.27 6.57 7.02 8.60 9.68
MIL-STYLE, GENERAL PURPOSE, WIREWOUND	1"		190	10-150K	L, P, S, H	1% or 1 Ohm	±10%	1 @ 70°C	—65°C to 175°C	25	Yes	.312	.28	1.25	10Ω-10K 20K & 25K 50K 100K 150K	6.32 7.88 8.42 10.31 11.61	5.85 7.30 7.80 9.55 10.75	5.27 6.57 7.02 8.60 9.68
MIL-STYLE, GENERAL PURPOSE, WIREWOUND	3/4"		270	10-100K	L, P, S, W, E	1% or 1 Ohm	±10%	1 @ 70°C	—65°C to 175°C	18	Yes	.312	.18	1.00	10Ω-10K 20K & 30K 50K 100K	7.83 8.83 10.77 12.23	7.25 8.18 9.97 11.33	6.53 7.36 8.98 10.19
MIL-QUALITY, WIREWOUND	1"		121 122 123 124 125	10-150K	S L W P—staggered P—in line	.1% or .5 Ohms	±5%	2 @ 70°C	—65°C to 200°C	25	Yes	.312	.19	1.19	10Ω-10K 20K & 25K 50K 100K 150K	6.89 8.42 9.02 11.07 12.42	6.38 7.80 8.35 10.25 11.50	5.74 7.02 7.52 9.23 10.35
MINIATURE, MIL-QUALITY, WIREWOUND	323 325 326			10-50K		1% or 1 Ohm 1% or 1 Ohm 1% or 1 Ohm	±5% ±5% ±5%	1 @ 70°C 1 @ 70°C 1 @ 70°C	—65°C to 200°C —65°C to 200°C —65°C to 200°C	8 8 8	Yes Yes Yes	.25 .25 .25	.15 .15 .15	.435 .435 .435	10Ω-2.5K 5K & 10K 20K 25K-50K	8.64 9.99 11.61 12.96	8.00 9.25 10.75 12.00	7.20 8.33 9.68 10.80
MINIATURE, GENERAL PURPOSE, WIREWOUND	313 315 316			10-50K		2% or 2 Ohms 2% or 2 Ohms 2% or 2 Ohms	±10% ±10% ±10%	1/2 @ 70°C 1/2 @ 70°C 1/2 @ 70°C	—55°C to 175°C —55°C to 175°C —55°C to 175°C	8 8 8	No No No	.25 .25 .25	.15 .15 .15	.435 .435 .435	10Ω-2.5K 5K & 10K 20K 25K-50K	7.78 9.00 10.45 11.66	7.20 8.33 9.68 10.80	6.48 7.50 8.71 9.72
GENERAL PURPOSE, WIREWOUND	3/4"		T10	10-100K	L, P, S, W, E	2% or 2 Ohms	±10%	1 @ 70°C	—55°C to 175°C	18	No	.312	.18	1.00	10Ω-10K 20K & 30K 50K 100K	7.34 7.88 9.99 11.61	6.80 7.30 9.25 10.75	6.12 6.57 8.33 9.68
GENERAL PURPOSE, WIREWOUND	1"		T11	10-150K	L, P, S, H	2% or 2 Ohms	±10%	1 @ 70°C	—55°C to 175°C	25	No	.312	.28	1.25	10Ω-10K 20K & 25K 50K 100K 150K	5.72 7.34 7.88 9.55 10.91	5.30 6.80 7.30 8.85 10.10	4.77 6.12 6.57 7.97 9.09
GENERAL PURPOSE, WIREWOUND	1"		T12	10-150K	L, P, S, W	2% or 2 Ohms	±10%	1 @ 70°C	—55°C to 175°C	25	No	.312	.19	1.25	10Ω-10K 20K & 25K 50K 100K 150K	5.72 7.34 7.88 9.55 10.91	5.30 6.80 7.30 8.85 10.10	4.77 6.12 6.57 7.97 9.09
GENERAL PURPOSE, WIREWOUND	1"		111 112 113 114 115	10-150K	S L W P—staggered P—in line	.5% or 1 Ohm	±10%	2 @ 70°C	—55°C to 175°C	25	No	.312	.19	1.19	10Ω-10K 20K & 25K 50K 100K 150K	5.72 7.34 7.88 9.55 10.91	5.30 6.80 7.30 8.85 10.10	4.77 6.12 6.57 7.97 9.09

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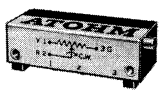
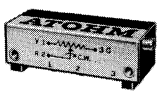
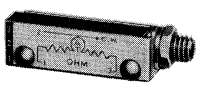
Military and Commercial

DESCRIPTION	Distance between mounting holes		Series or Model Number	Resistance* (Ohms)	Lead Configuration (See below)**	End Resistance	Total Resistance	Power Rating (Watts)	Operating Temperature Range °C	Turns Nominal	Moisture Resistant	Physical Dimensions (Inches) H	W	L	Standard Resistance Range, Ohms	Price 1-9	10-24	25-49
LOW COST, COMMERCIAL, WIREWOUND	1"		871 873 875	10-100K	L S P	2%	±10%	.5 @ 40°C	−55°C to 115°C	25	No	5/16	1/4	1-1/4	10Ω-10K 20K & 25K 50K 100K	3.11 4.19 4.72 6.59	2.88 3.88 4.37 6.10	2.59 3.49 3.93 5.49
LOW COST, COMMERCIAL, WIREWOUND	.830"		5067	10-50K	P, H	2%	±10%	.5 @ 40°C	−55°C to 115°C	18	No	.36	.28	1.00	10Ω-20K 25K 50K	1.73 2.70 4.19	1.60 2.50 3.88	1.44 2.25 3.49
LOW COST, COMMERCIAL, CARBON	1"		872 874 876	20K-1 Meg	L S P	7.5%	±20%	.2 @ 25°C	−55°C to +85°C	25	No	5/16	1/4	1-1/4	20K-1 Meg	3.65	3.38	3.04
LOW COST, COMMERCIAL, CARBON	.830"		5068	20K-1 Meg	P, H	5%	±20%	.2 @ 25°C	−55°C to +85°C	18	No	.36	.28	1.00	20K-1 Meg	1.73	1.60	1.44

PANEL MOUNTS



Model M

Model M

Model M

Model M

Model M

TO ORDER ATOHM POTENTIOMETERS:

Indicate series, lead configuration, resistance value and accessory, if any.

For example:

ART 12 — P — 503 M

- ART 12 — Series
- P — Lead Configuration (This letter not required when ordering 110, 120, 300 and 870 Series units because model numbers indicate lead configurations.)
- 503 — Resistance Value (First two digits are significant, the third digit indicates number of zeros to be added. For example, 503 represents 50,000 ohms.)
- M — Panel Mount

*Special resistances available on order.

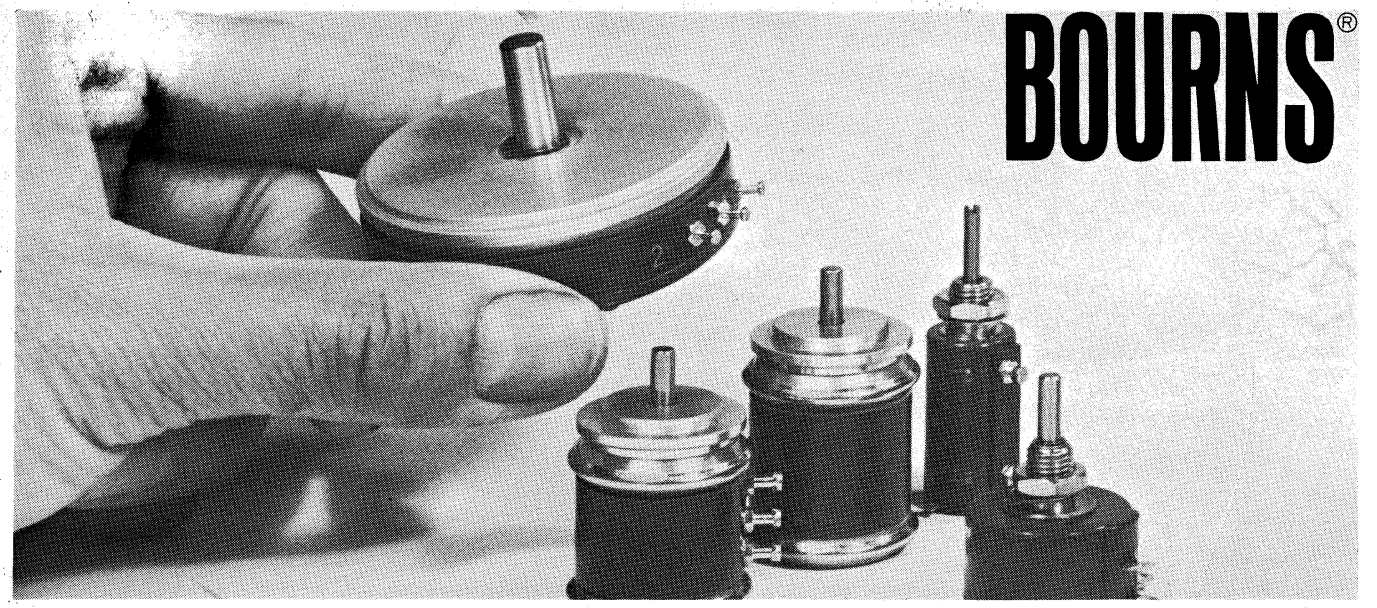
**Lead Configurations: L=Flexible Leads; P=Printed Circuit Pins (on ART10P model pins are located on side); S=Solder Lugs; W=Solid Wire Leads; E=Edge Mounted Printed Circuit Terminals (on ART10E model pins are located on edge); H=Solder Hooks.

***When ordering to MIL-R-27208 use the mil-spec part numbers.

Atohm Style ART10 L complies with MIL-R-27208 Style RT 10C2L XXX.
Atohm Style ART10 P complies with MIL-R-27208 Style RT 10C2P XXX.
Atohm Style ART11 L complies with MIL-R-27208 Style RT 11C2L XXX.
Atohm Style ART11 P complies with MIL-R-27208 Style RT 11C2P XXX.
Atohm Style ART12 L complies with MIL-R-27208 Style RT 12C2L XXX.
Atohm Style ART12 P complies with MIL-R-27208 Style RT 12C2P XXX.

ATOHM ELECTRONICS

tii



BOURNS® BUSHING-MOUNT POTENTIOMETERS

MODEL	DESCRIPTION	RESISTANCE① (OHMS)	TOLERANCE (%)	LINEARITY (%)	ELECTRICAL AND MECHANICAL ROTATION	MECHANICAL LIFE (CYCLES)	POWER (WATTS)	MAXIMUM OPERATING TEMP. RANGE (°C)	HUMIDITY (MIL-R-12934C)	SHOCK	VIBRATION	SIZE (INCHES) DIA.- CASE LENGTH	PRICES 1-9	10-24	25-49	50-99	100-249
3400	1 3/16" dia., 10 turns	100-250K 500K 1 meg	±3	±0.15	3600° (+4°/—0°)	100,000	5.0 at 40°C	—65 to +105	Yes	50G	10G	1 3/16 x 1 3/4	10.00 19.00 28.00	9.50 18.05 26.60	9.00 17.10 25.20	8.50 16.15 23.80	8.00 15.20 22.40
3410	2" dia., Single turn	50-100K	±3	±0.3	350° (±2°)③	500,000	4.0 at 70°C	—65 to +125	Yes	50G	15G	2 x 5/8	19.00	18.05	17.10	16.15	15.20
3430	1 1/16" dia., Single turn	50-10K 20K-50K 100K	±3	±0.5	350° (±2°)③	500,000	1.5 at 70°C	—65 to +125	Yes	50G	15G	1 1/16 x 5/8	24.00 33.00 42.00	22.80 31.35 39.90	21.60 29.70 37.80	20.40 28.05 35.70	19.20 26.40 33.60
3440	3" dia., Single turn	100-100K 200K 500K	±3	±0.25	350° (±2°)③	500,000	6.0 at 70°C	—65 to +125	Yes	50G	15G	3 x 5/8	22.00 31.00 40.00	20.90 29.45 38.00	19.80 27.90 36.00	18.70 26.35 34.00	17.60 24.80 32.00
3500	7/8" dia., 10 turns	50-125K 150K, 250K 500K	±3	±0.2	3600° (+10°/—0°)	100,000	2.0 at 70°C	—65 to +125	Yes ④	100G	20G	7/8 x 1	10.00 19.00 28.00	9.50 18.05 26.60	9.00 17.10 25.20	8.50 16.15 23.80	8.00 15.20 22.40
3501	7/8" dia., 10 turns INFINITRON® Element	1K-500K	±5	±0.5	3600° (+10°/—0°)	500,000	2.0 at 70°C	—65 to +125	Yes ④	100G	20G	7/8 x 1	13.75	13.06	12.38	11.69	11.00
3510	7/8" dia., 3 turns	25-50K 100K	±3	±0.30	1080° (+10°/—0°)	100,000	1.0 at 70°C	—65 to +125	Yes ④	100G	20G	7/8 x 5/16	15.00 33.00	14.25 31.35	13.50 29.70	13.50 29.70	12.75 28.05
3520	7/8" dia., 5 turns	25-75K 100K 250K	±3	±0.30	1800° (+10°/—0°)	100,000	1.5 at 70°C	—65 to +125	Yes ④	100G	20G	7/8 x 1 1/16	13.50 22.50 31.50	12.83 21.38 29.93	12.15 20.25 28.35	11.48 19.13 26.78	10.80 18.00 25.20
3530	7/8" dia., Single turn	25-20K 50K	±3	±0.50	350° (±2°)③	500,000	1.0 at 70°C	—65 to +125	Yes	50G	15G	7/8 x 1/2	9.00 27.00	8.55 25.65	8.10 24.30	7.65 22.95	7.20 21.60
3507	7/8" dia., 10 turns	100 to 100K 250K	±5	±0.50	3600° (+10°/—2°)④	10,000	2.0 at 25°C	—55 to +105	No	50G	10G	7/8 x 1 1/8	7.50 16.50	6.50 14.52	6.25 13.74	5.95 13.08	5.50* 12.09*
3700	1/2" dia., 10 turns	50-100K 250K	±5	±0.25	3600° (+10°/—0°)	50,000	1.0 at 70°C	—65 to +125	Yes	100G	20G	1/2 x 1	24.50 32.00	23.28 30.40	22.05 28.80	20.83 27.20	19.60 25.60
3707	1/2" dia., 10 turns	100-100K	±5	±1.0	3600° (+10°/—5°)	10,000	1.0 at 40°C	—55 to +105	No	50G	10G	1/2 x 1	12.50	11.88	11.25	10.63	10.00

* 100-499

ACCESSORIES

FOR KNOBPOT® POTENTIOMETERS

Part No.	Description	1-24	25-99	100-500	501-999
H-93 (3600) H-99 (3640)	Snap-on Color Rings* *Per FED. STD. 595	.35	.30	.25	.20
H-95 (3600) H-98 (3640)	Stainless Steel Skirt	1.50	1.25	1.00	.75
H-97 (3640) H-103 (3600)	Plastic Slip-over friction brake	1.25	1.07	.97	.90
H-100	MIL-SPEC 1-inch diameter slip-over Knob (Model 3600 only)	1.25	1.07	.97	.90
H-101 (3600) H-102 (3640)	Stainless Steel Recessed Mounting Bracket	1.25	1.07	.97	.90

1-INCH TURNS COUNTING DIALS

Part No. Black	Part No. Clear	Shaft Dia.	Brake	1-9	10-24	25-99	100-249
H-411	H-461	1/4"	No	7.75	7.36	6.98	6.59
H-412	H-462	1/4"	Yes	8.95	8.50	8.06	7.61
H-421	H-471	1/8"	No	7.75	7.36	6.98	6.59
H-422	H-472	1/8"	Yes	8.95	8.50	8.06	7.61
H-431	H-481	3/32"	No	8.10	7.70	7.29	6.89
H-432	H-482	3/32"	Yes	9.30	8.84	8.37	7.91

1/2"-DIAMETER TURNS COUNTING DIALS

Part No.	Description	1-9	10-24	25-99	100-249
H-351	10-Turn, clock-dial readout. Accepts 1/8" or 3/32" Dia. shafts.	8.00	7.60	7.20	6.40
H-353	Adapter for shaft extensions	.50	.48	.45	.40
H-354	Turns Counting Dial with brake	8.50	8.08	7.65	6.80
H-355	Snap-on Color rings*	.35	.35	.30	.25

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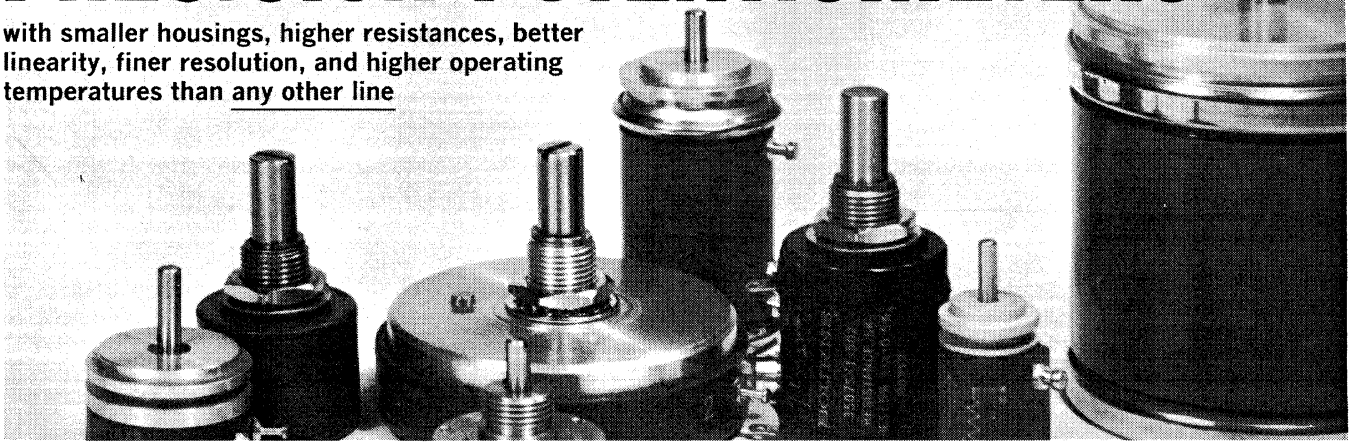
PRECISION POTENTIOMETERS

with smaller housings, higher resistances, better linearity, finer resolution, and higher operating temperatures than any other line



BOURNS® SERVO-MOUNT POTENTIOMETERS

MODEL	DESCRIPTION	RESISTANCE (OHMS)	TOLERANCE (%)	LINEARITY (%)	ELECTRICAL AND MECHANICAL ROTATION	MAXIMUM GANGING (CUPS)	MECHANICAL LIFE (CYCLES)	POWER (WATTS)	MAXIMUM OPERATING TEMP. RANGE (°C)	HUMIDITY (MIL-R-12934C)	SHOCK	VIBRATION	SIZE (INCHES) DIA.- CASE LENGTH	PRICES 1-9	10-24	25-49	50-99	100-249
3450	2" dia., 10 turns	100-500K 1 Meg	±3	±0.15	3600° (+3°/—0°)	5	100,000	5.0 at 70°C	—65 to +125	Yes	50G	10G	2 x 2¼	20.00 29.00	19.00 27.55	18.00 26.10	17.00 24.65	16.00 23.20
3460	2" dia., Single turn	50-100K	±3	±0.3	350° (±2°)③	19	500,000	4.0 at 70°C	—65 to +125	Yes	50G	15G	2 x ⅝	21.00	19.95	18.90	17.85	16.80
3480	1⅛" dia., Single turn	50-10K 20K-50K 100K	±3	±0.5	350° (±2°)③	19	500,000	1.5 at 70°C	—65 to +125	Yes	50G	15G	1⅛ x 5/16	29.00 38.00 47.00	27.55 36.10 44.65	26.10 34.20 42.30	24.65 32.30 39.95	23.20 30.40 37.60
3490	3" dia., Single turn	100-100K 200K 500K	±3	±0.25	350° (±2°)③	8	500,000	6.0 at 70°C	—65 to +125	Yes	50G	15G	3 x ⅝	24.00 33.00 42.00	22.80 31.35 39.90	21.60 29.70 37.80	20.40 28.05 35.70	19.20 26.40 33.60
3550	⅞" dia., 10 turns	50-100K 150K, 200K 250K, 500K	±3	±0.20	3600°(+10°/—0°)	5	100,000	2.5 at 70°C	—65 to +125	Yes	100G	20G	⅞ x 1 5/16	20.00 29.00 38.00	19.00 27.55 36.10	18.00 26.10 34.20	17.00 24.65 32.30	16.00 23.20 30.40
3551	⅞" dia., 10 turns INFINITRON® Element	1K-500K	±5	±0.5	3600°(+10°/—0°)	5	500,000	2.0 at 70°C	—65 to +125	Yes	100G	20G	⅞ x 1 5/16	31.00	29.45	27.90	26.35	24.80
3560	⅞" dia., 3 turns	25-50K 100K	±3	±0.25	1080°(+10°/—0°)	8	100,000	1.5 at 70°C	—65 to +125	Yes	100G	20G	⅞ x 1 3/64	20.00 38.00	19.00 36.10	18.00 34.20	18.00 34.20	17.00 32.30
3570	⅞" dia., 5 turns	25-75K 100K 250K	±3	±0.25	1800°(+10°/--0°)	6	100,000	2.0 at 70°C	—65 to +125	Yes	100G	20G	⅞ x 1 3/16	18.50 27.50 36.50	17.58 26.13 34.68	16.65 24.75 32.85	16.65 24.75 32.85	15.73 23.38 31.03
3580	⅞" dia., Single turn	25-20K 50K	±3	±0.5	350° (±2°)③	24	1,000,000	1.0 at 70°C	—65 to +125	Yes	50G	15G	⅞ x ⅝	25.00 43.00	23.75 40.85	22.50 38.70	21.25 36.55	20.00 34.40
3750	½" dia., 10 turns	50-100K 250K	±5	±0.25	3600° (+10°/—0°)	0	50,000	1.0 at 70°C	—65 to +125	Yes	100G	20G	½ x 1 3/16	34.00 41.50	32.30 39.43	30.60 37.35	28.90 35.28	27.20 33.20

BOURNS KNOBPOT® (CLOCK FACE) POTENTIOMETERS

MODEL	DESCRIPTION	RESISTANCE (OHMS)	TOLERANCE (%)	DIAL ACC. (%)	DIAL REPEATABILITY (% V/R)	ELECTRICAL AND MECHANICAL ROTATION	MECHANICAL LIFE (CYCLES)	POWER (WATTS)	MAXIMUM OPERATING TEMP. RANGE (°C)	HUMIDITY (MIL-R-12934C)	SHOCK	VIBRATION	SIZE (INCHES) DIA.- CASE LENGTH	PRICES 1-9	10-24	25-49	50-99	100-249
3600	¾" dia., 10 turns	100-100K 150K, 200K 250K	±5	±0.5	0.1	3600° (+10°/—0°)	10,000	1.5 at 25°C	—65 to +85	Yes	50G	10G	¾ x 1	20.52 30.24	19.00 28.00	17.10 25.20	16.23 23.91	15.20 22.40
3640	1¼" dia., 10 turns	100-250K 500K	±3	±0.1	0.05	3600° (+10°/—0°)	10,000	2.5 at 25°C	—65 to +85	Yes	50G	10G	1¼ x 1½	20.52 30.24	19.00 28.00	17.10 25.20	16.23 23.91	15.20 22.40

LABPOT™ POTENTIOMETER

MODEL 3660 LABPOT PRECISION POTENTIOMETER

A compact, dial-readout precision potentiometer designed as a convenient tool for a variety of laboratory applications. Incorporates Bourns' exclusive KNOBPOT® potentiometer for high readability through its unique "clock-dial" face. Portable, lightweight, yet remains firmly in place when in use. Large five-way binding posts permit easy hookup of any kind of leads. Fused for protection against burnout. An extra fuse is provided inside for added convenience.

SPECIFICATIONS:

Std. Resistances.....100Ω 1K, 10K, 100K (others available on request)
Resistance Tolerance.....±1%
Dial Accuracy.....20% 100Ω .15% 1K .10% 10K and 100K
Repeatability.....±.05% voltage ratio
Operating Temp. Range....—65 to +125°C
Power Rating.....2.5W at room temp.
Mechanical Life.....200,000 dial rev.
Weight.....14 ounces
Prices..... 1-9 10-24 25-49 50-99
42.20 40.00 36.00 34.16

① Special resistances are available above and below the standard range shown. Consult factory for price and technical information. ② Std. Models exceed steady state requirements of MIL-STD-203, METHOD 103. Optional models are available meeting humidity cycling requirements of MIL-STD-202, METHOD 106. ③ Mechanical rotation continuous. ④ Electrical rotation only.

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FOR BOURNS TRIMPOT® ADJUSTMENT POTENTIOMETERS, SEE PAGES 1176, 1177.

FOR BOURNS TRIMPOT® RELAYS, SEE PAGES 1047.

BOURNS INC.

BOURNS, INC., TRIMPOT DIVISION

BOURNS TRIMPOT®

Industry's largest selection –

HUMIDITY-PROOF

Description	Name	Model	Resistance (Ohms) ②	Terminals ①	Abs. Min. Res. (%)	Tolerance (%) ③	Power Rating (Watt)	Max. Operating Temp. (°C)	Adj. Turns	Humidity Proof ⑮ (Mil Spec)	Size (Inches) H	W	L	Standard Resistances (Ohms)	Price 1 - 9	10-24	25-49
GENERAL PURPOSE RESISTOR® CARBON ELEMENT	TRIMPOT®	235	5K to 5 Meg	L*,S*,P	0-1.0	±20	0.25	125	22	Yes	23/64	19/64	1-11/32	5K-5 Meg	7.02	6.50	5.85
GENERAL PURPOSE WIREWOUND	TRIMPOT	236	10 to 1K 2K to 50K 100K	L*,S*,P L*	0-0.2③ 0-0.1 0-5.0	±10	0.80	135	25	Yes	23/64	19/64	1-11/32	10 -10K 20K-25K 50K 100K	7.02 8.64 9.18 11.34	6.50 8.00 8.50 10.50	5.85 7.20 7.65 9.45
MICRO-MINIATURE HIGH TEMPERATURE WIREWOUND	TRIMPOT	3000	50 to 20K	P	0-0.1④	±10	0.50	175	15	Yes	5/16	5/32	3/4	50 -10K 20K	9.72 10.80	9.00 10.00	8.10 9.00
HIGH TEMPERATURE RESISTON CARBON ELEMENT	TRIMPOT	3001	20K to 1 Meg	P	0-1.0	±20	0.20⑩	150	15	Yes	5/16	5/32	3/4	20K-1 Meg	9.18	8.50	7.65
SUB-MINIATURE HIGH TEMPERATURE WIREWOUND	TRIMPOT	220	10 to 30K	L*, W*	0-0.1④	±10	1.00	175	15	Yes	5/16	3/16	1	10 -10K 20K-30K	8.64 10.26	8.00 9.50	7.20 8.55
HIGH TEMPERATURE WIREWOUND	TRIMPOT	224	10 to 1K 2K to 50K 100K	L*,S*,P	0-0.2 0-0.1 0-5.0	±5	1.00	175	22	Yes	5/16	3/16	1-1/4	10 -10K 20K-25K 50K 100K	7.02 8.64 9.18 11.34	6.50 8.00 8.50 10.50	5.85 7.20 7.65 9.45
ULTRA-RELIABLE HIGH TEMPERATURE WIREWOUND	TRIMPOT	224-500	100 to 1K 2K to 20K	L, P	0-0.2③ 0-0.1	±5	0.50	150	22	Yes	5/16	3/16	1-1/4	100-10K 20K	14.58 16.20	13.50 15.00	12.15 13.50
HIGH TEMPERATURE RESISTON CARBON ELEMENT	TRIMPOT	3051	5K to 5 Meg	L*,S*,P	0-1.0	±20	0.25⑩	150	22	Yes	5/16	3/16	1-1/4	5K-5 Meg	7.02	6.50	5.85
HIGH TEMPERATURE PALIRIUM® ELEMENT	TRIMPOT	3052	500 to 1 Meg	L*, P	0-0.1	±10	1.00⑪	175	25	Yes	5/16	3/16	1-1/4	500-1 Meg	5.94	5.50	4.95
HIGH TEMPERATURE PALIRIUM ELEMENT	TRIMPOT	3053	20 - 200 2 - 200	L P, S	1-15⑨	±15 (2Ω) ±10 (5-200Ω)	0.50	175	25	Yes	5/16	3/16	1-1/4	(L) 20-200 (P) (S) 2-5 10-200	5.94 9.18 5.94	5.50 8.50 5.50	4.95 7.65 4.95
HIGH TEMPERATURE WIREWOUND	TRIMPOT	3010	10 to 1K 2K to 50K 100K	L*, P	0-0.2③ 0-0.1 0-5.0	± 5	1.00	175	25	Yes	5/16	9/32	1-1/4	10 -10K 20K-25K 50K 100K	7.02 8.64 9.18 11.34	6.50 8.00 8.50 10.50	5.85 7.20 7.65 9.45
HIGH TEMPERATURE RESISTON CARBON ELEMENT	TRIMPOT	3011	5K to 5 Meg	L*, P	0-1.0	±20	0.25⑩	150	22	Yes	5/16	9/32	1-1/4	5K-5 Meg	7.02	6.50	5.85
HIGH TEMPERATURE PALIRIUM ELEMENT	TRIMPOT	3012	500 to 1 Meg	L*, P	0-0.1	±10	1.00	175	25	Yes	5/16	9/32	1-1/4	500-1 Meg	5.94	5.50	4.95
MICRO-MINIATURE WIREWOUND	BOURNS	3280	10 to 50K	L, P, W	0-0.1④	±5	1.00	175	25	Yes	13/64	3/8	3/8	10 -10K 20K-25K 50K	7.56 9.18 9.72	7.00 8.50 9.00	6.30 7.65 8.10
MICRO-MINIATURE RESISTON CARBON ELEMENT	BOURNS	3281	20K to 1 Meg	L, P, W	0-1.0	±20	0.50⑩	150	25	Yes	13/64	3/8	3/8	20K-1 Meg	7.56	7.00	6.30
SUB-MINIATURE HIGH TEMPERATURE WIREWOUND	TRIMPOT	3250	10 to 50K	L P, W	0-0.1④	±5	1.00	175	25	Yes	3/16 7/32	1/2 1/2	1/2 1/2	10 -10K 20K-25K 50K 10 -10K 20K-25K 50K	6.71 7.56 10.01 7.23 7.97 10.53	6.22 7.00 9.27 6.69 7.38 9.75	5.59 6.30 8.34 6.02 6.64 8.78
SQUARE HIGH TEMPERATURE RESISTON CARBON ELEMENT	TRIMPOT	3251	20K to 1 Meg	L P,W	1.0	±20	0.50⑩	150	25	Yes	3/16 7/32	1/2 1/2	1/2 1/2	20K-1 Meg	7.83	7.25	6.53
MICRO-MINIATURE ¼" SQUARE WIREWOUND	TRIMPOT	3260	10 to 1K 2K to 5K 10K to 20K	P	0-0.1④	±5	0.20	175	11	Yes	1/4	1/4	.17	10 - 1K 2K- 5K 10K-20K	7.50 8.25 10.50	6.95 7.64 9.72	6.25 6.88 8.75
HIGH-RESOLUTION WIREWOUND	TRIMPOT	3070	100 to 50K	P S Panel L Mount	0-0.1④	±5	1.50	175	10	Yes	5/16 3/8 5/16 7/16	5/16 5/16 5/16 5/16	1-1/16 1-1/16 1-1/16 1-1/16	100-25K 50K 100-25K 50K	9.00 11.00 9.80 11.80	8.34 10.19 9.08 10.93	7.50 9.17 8.17 9.83

FOR BOURNS® PRECISION POTENTIOMETERS, SEE PAGES 1174, 1175. FOR BOURNS TRIMPOT® RELAYS, SEE PAGE 1047.

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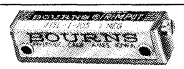
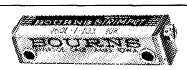
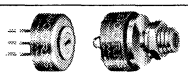
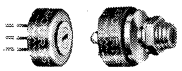
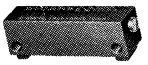
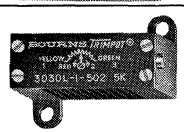
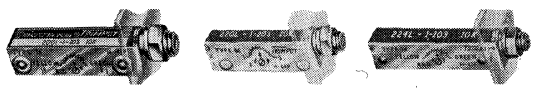
adjustment potentiometers

Military, Industrial, Commercial, Wirewound, RESISTON® Carbon

Description		Name	Model	Resistance (Ohms)②	Terminals ①	Abs. Min. Res. (%)	Tolerance (%)⑤	Power Rating (Watt)	Max. Operating Temp. (°C)	Adj. Turns	Humidity Proof⑪ (Mil Spec)	Size (Inches) H	W	L	Standard Resistances (Ohms)	Price 1 - 9	10-24	25-49
UNSEALED																		
GENERAL PURPOSE WIREWOUND		TRIMPOT®	200	10 to 50K 100K	L*,S*,P L*	0-0.7③ 0-5.0	±10	0.50	125	25	Steady State Only	5/16	1/4	1-1/4	10 -10K 20K-25K 50K 100K	4.86 6.48 7.56 9.18	4.50 6.00 7.00 8.50	4.05 5.40 6.30 7.65
GENERAL PURPOSE RESISTON® CARBON ELEMENT		TRIMPOT	215	5K to 5 Meg	L*,S*,P	0-1.0	±20	0.25⑩	125	22	Steady State Only	5/16	1/4	1-1/4	5K-5 Meg	4.86	4.50	4.05
HIGH TEMPERATURE WIREWOUND		TRIMPOT	260	10 to 1K 2K to 50K 100K	L*,S*,P L*	0-0.2③ 0-0.1 0-5.0	±10	1.00	175	25	Steady State Only	5/16	1/4	1-1/4	10 -10K 20K-25K 50K 100K	5.94 7.56 8.10 9.72	5.50 7.00 7.50 9.00	4.95 6.30 6.75 8.10
SINGLE-TURN																		
MICRO-MINIATURE HIGH TEMPERATURE HUMIDITY-PROOF WIREWOUND		BOURNS®	3300	10 to 20K	W P S	0-1.0①	±5	0.50	175	280°	Yes	3/8 5/16 dia. x 3/16 5/16 dia. x 15/32	1/4	5/16	10 -10K 20K 10 -10K 20K	5.94 7.56 8.91 10.53	5.50 7.00 8.25 9.75	4.95 6.30 7.43 8.78
MICRO-MINIATURE HIGH TEMPERATURE HUMIDITY-PROOF RESISTON CARBON ELEMENT		BOURNS	3301	10K to 1 Meg	W P S	0-1.0	±20	0.25⑩	150	260°	Yes	3/8 5/16 dia. x 3/16 5/16 dia. x 15/32	1/4	5/16	10K-1 Meg 10K-1 Meg	5.94 8.91	5.50 8.25	4.95 7.43
SUB-MINIATURE SINGLE-TURN WIREWOUND		BOURNS	3367	10 to 20K	P S	0-1.0	±5	0.50	105	285°	Steady State Only	1/2 dia. x 15/64 1/2 dia. x 35/64			10 -20K 10 -20K	4.86 5.67	4.50 5.25	4.05 4.73
SUB-MINIATURE SINGLE-TURN RESISTON CARBON ELEMENT		BOURNS	3368	20K to 1 Meg	P S	0-1.0	±20	0.25⑩	105	285°	Steady State Only	1/2 dia. x 15/64 1/2 dia. x 35/64			20K-1 Meg 20K-1 Meg	5.94 6.75	5.50 6.25	4.95 5.63
COMMERCIAL																		
COMMERCIAL WIREWOUND		TRIMIT®	271 273 275	50 to 20K	L* S* P	0-2.0	±10	0.50	105	25	No	5/16	1/4	1-1/4	50-10K 20K	3.19 4.32	2.95 4.00	2.66 3.60
COMMERCIAL RESISTALOY® CARBON ELEMENT		TRIMIT	272 274 276	5K to 5 Meg	L* S* P	0-5.0	±20	0.20	105	25	No	5/16	1/4	1-1/4	5K-5 Meg	3.78	3.50	3.15
COMMERCIAL WIREWOUND		E-Z-TRIM®	3067	50 to 20K	S, P	0-2.0	±10	0.50	85	15	No	23/64	9/32	1	50-20K	1.85	1.71	1.54
COMMERCIAL CARBON ELEMENT		E-Z-TRIM	3068	20K to 1 Meg	S, P	0-5.0	±20	0.20	85	15	No	23/64	9/32	1	20K-1 Meg	1.85	1.71	1.54
SPECIAL-PURPOSE																		
HIGH-POWER (2-WATT) HIGH TEMPERATURE WIREWOUND		TRIMPOT	207	100 to 100K	L*	0-0.2④	±10	2.00	175	25	No⑦	13/16	9/32	1-1/4	100-50K 100K	10.26 11.88	9.50 11.00	8.55 9.90
HIGH-POWER (3.75 WATT) HUMIDITY-PROOF		TRIMPOT	3020	100 to 50K	L*	0-0.1④	±5	3.75	200	25	Yes	21/64	1/4	1-1/4	100-10K 20K-25K 50K	14.04 15.66 16.20	13.00 14.50 15.00	11.70 13.05 13.50
DUAL-ELEMENT WIREWOUND		TWINPOT®	209	10 to 1K 2K to 50K	L*	0-0.2③ 0-0.1	±10	0.50 (each element)	135	25	No⑦	5/16	1/2	1-1/4	10 -10K 20K-25K 50K	12.96 14.58 16.20	12.00 13.50 15.00	10.80 12.15 13.50
HIGH-POWER (15-WATT) HIGH TEMPERATURE WIREWOUND		TRIMPOT	3030	10 to 10K	L	0-5.0	±10	15	265	25	No	1-1/16	33/64	1-17/64	10 -10K	14.58	13.50	12.15
RADIATION PROOF WIREWOUND		TRIMPOT	3040	500 to 20K	W	0-1.0	±10	5.00	350	17	No	3/8	19/64	1-1/4	500-20K	27.00	25.00	22.50

PANEL MOUNTING



	add to price of basic unit		
209	2.16	2.00	1.80
All Others	.81	.75	.68

*Models so designated are available with the added convenience of panel mounting. Unique design permits quick factory conversion of "off-the-shelf" units. Clip brackets, mounting brackets and mounting screws are available for other mounting requirements.

① Key to terminal types. L=Insulated stranded leads; S=Solder lugs (includes panel mounting bushing on Models 3367S, 3368S, 3300S, & 3010S only); P=Printed circuit pins; W=Uninsulated wires (edge mounting 3250, 3251, 3280, 3281). ② The following resistances are standard if they fall within the limits listed: Wirewound—10, 20, 50, 100, 200, 500, 1K, 2K, 5K, 10K, 20K, 25K, 50K, 100K; RESISTON, RESISTALOY—5K, 10K, 20K, 50K, 100K, 200K, 500K, 750K, 1, 2, 5 Meg.; PALIRIUM—2, 5, 10, 20, 50, 100, 100K, 200K, 500K, 750K, 1 Meg. Other resistances available on special order. ③ Or 0 to 0.5 ohms, whichever is greater. ④ Or 0 to 1.0 ohms, whichever is greater. ⑤ Closer tolerances available on request, except commercial models. ⑥ All models are sealed against sand and dust. ⑦ Humidity-proof version available on special order. Contact factory for part number, price and delivery. ⑧ BOURNS, TRIMPOT, TWINPOT, TRIMIT, E-Z-TRIM, RESISTALOY, RESISTON, PALIRIUM, SILVERWELD, KNOBPOT and QUADRATRON are registered trademarks of Bourns, Inc. Other products made by Bourns, Inc., are identified by trademarks which include: TRIMISTOR, TRIMM, MIL-E-TRIM, CARBOLON, PANLTRIM, MILISEAL, CLOCKPOT, TRIMR, MICROTRIM, RESISTRIM, TRIMPOT JR., B, LABPOT, INFINITRON, DIALPOT, and TRIMPONENT. Bourns, Inc. is the owner of rights under the following listed United States Letters Patents relating to certain of its adjustment potentiometers: 2,706,230 / 2,777,926 / 2,805,307 / 2,831,949 / 2,873,337 / 2,882,375 / 2,922,976 / 2,935,716 / 2,945,198 / 2,946,975 / 3,010,092 / 3,018,459 / 2,898,569 / 3,089,110 / RE 25,412 / RE 25,725 / 3,107,336 / RE 25,510 / 3,124,779 / 3,124,955 / 3,139,601. Other patents pending. Certain Bourns products are under issued and pending foreign patents. ⑨ End setting varies from 1 to 15% to account for lead resistance. ⑩ Or 300 volts maximum. ⑪ Or 500 volts maximum.

IMMEDIATE DELIVERY, TECHNICAL SERVICE—TENS OF THOUSANDS OF UNITS STOCKED IN FACTORY WAREHOUSES

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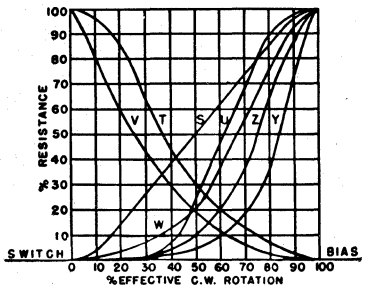
BOURNS, INC., TRIMPOT DIVISION

PRODUCTS OF
THE HOUSE OF RESISTORS®

CLAROSTAT®

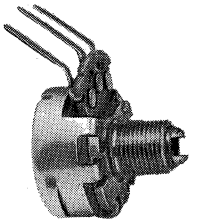
RESISTORS • CONTROLS
RESISTANCE DEVICES

COMPOSITION-ELEMENT CONTROLS



Graph Explanation:
Taper S—Straight or uniform resistance change with rotation.
Taper T — Right-hand 30% resistance at 50% of C.C.W. rotation.
Taper U — Left-hand 1% resistance at 33⅓% of C.W. rotation.
Taper V — Right-hand 20% resistance at 50% of C.C.W. rotation.
Taper W—Left-hand 20% resistance at 50% of C.W. rotation.
Taper Z—Left-hand (Log. audio) 10% resistance at 50% of C.W. rotation.
Taper Y — Left-hand 5% resistance at 50% of C.W. rotation.

SERIES "A47" ½-WATT CONTROLS



Composition-element controls in the popular 15/16" dia. size. Series "A47" controls are field-assembled with the selected "Pick-A-Shaft"* and "Ad-A-Switch"*. These controls are also available with factory-assembled shafts at no extra charge, by omitting prefix "A" from catalog number and designating the type shaft desired when ordering. Example: 47-100K-S with FKS-¼ shaft.

CAT No.	OHMS	TAPER	CAT No.	OHMS	TAPER
A47-500-S	500	S	A47-75K-V	75K	V
A47-750-S	750	S	A47-100K-S	100K	S
A47-1000-S	1000	S	A47-100K-Z	100K	Z
A47-1500-S	1500	S	A47-150K-S	150K	S
A47-2000-S	2000	S	A47-200K-S	200K	S
A47-2500-S	2500	S	A47-250K-S	250K	S
A47-3000-S	3000	S	A47-250K-Z	250K	Z
A47-4000-S	4000	S	A47-300K-S	300K	S
A47-5000-S	5000	S	A47-500K-S	500K	S
A47-7500-S	7500	S	A47-500K-Z	500K	Z
A47-10K-S	10K	S	A47-750K-S	750K	S
A47-10K-V	10K	V	A47-750K-Z	750K	Z
A47-10K-W	10K	W	A47-1 Meg-S	1 Meg.	S
A47-10K-Z	10K	Z	A47-1 Meg-Z	1 Meg.	Z
A47-15K-S	15K	S	A47-1.5 Meg-S	1.5 Meg.	S
A47-15K-V	15K	V	A47-2 Meg-Z	2 Meg.	Z
A47-15K-W	15K	W	A47-2 Meg-S	2 Meg.	S
A47-20K-S	20K	S	A47-2.5 Meg-S	2.5 Meg.	S
A47-25K-S	25K	S	A47-3 Meg-S	3 Meg.	S
A47-25K-W	25K	W	A47-3-Meg.-Z	3 Meg.	Z
A47-25K-V	25K	V	A47-4 Meg-S	4 Meg.	S
A47-30K-S	30K	S	A47-4 Meg-Z	4 Meg.	Z
A47-40K-S	40K	S	A47-5 Meg-Z	5 Meg.	Z
A47-50K-S	50K	S	A47-5 Meg-S	5 Meg.	S
A47-50K-W	50K	W	A47-7.5 Meg-S	7.5 Meg.	S
A47-50K-Z	50K	Z	A47-10 Meg-S	10 Meg.	S
A47-75K-S	75K	S			

NET PRICE $.93

SERIES "AD47" ½-WATT DUAL CONTROLS

These are the same as "A47" except that they are dual controls.

Cat. No.	Panel	Taper	Rear	Taper
AD47-50-S	50K	S	50K	S
AD47-100K-S	100K	S	100K	S
AD47-250K-S	250K	S	250K	S
AD47-250K-Z	250K	Z	250K	Z
AD47-500K-Z	500K	Z	500K	Z
AD47-1 Meg.-S	1 Meg.	S	1 Meg.	S
AD47-1 Meg.-Z	1 Meg.	Z	1 Meg.	Z
AD47-2 Meg.-S	2 Meg.	S	2 Meg.	S
AD47-2 Meg.-V	2 Meg.	V	2 Meg.	V
AD47-5 Meg.-S	5 Meg.	S	5 Meg.	S

NET PRICE $2.25

SERIES "C47S" ½-WATT CONTROLS WITH PUSH-PULL SWITCH

Cat. No.	Cat. No.
C47S-1000-V	C47S-750K-Z
C47S-2500-V	C47S-1MEG-S
C47S-250K-S	C47S-1MEG-Z
C47S-250K-Z	C47S-2MEG-S
C47S-500K-S	C47S-2MEG-Z
C47S-500K-Z	C47S-3MEG-Z
C47S-750K-S	

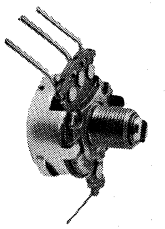
Net Price $1.53

SERIES "C47SF" (TAPPED)

Cat. No.	
C47SF-500K	Tap 250K
C47SF1-500K	Tap 150K
C47SF-1MEG	Tap 500K
C47SF1-1MEG	Tap 250K
C47SF-2MEG	Tap 1MEG
C47SF-3MEG	Tap 1.5MEG

Net Price $1.95

SERIES "A47F"

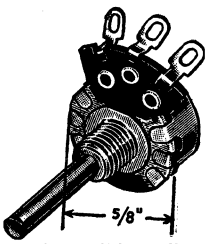


Series "A47F" controls are field-assembled with the selected "Pick-A-Shaft"* and "Ad-A-Switch"*. "A47F" controls have taps 1, 2, 3 located at 40%, 50% and 60% of rotation, double taps at 35 and 65% of electrical position. These controls are also available with factory-assembled shafts at no extra charge, by omitting prefix "A" from catalog number and designating the type of shaft desired when ordering. Example: 47F-200K with FS-3 shaft.

Cat. No.	Res. Ohms.	Tap No. 1 30%	Tap No. 2 50%	Tap No. 3 70%
A47F-15K	15K	5K		10K
A47F-50K	50K		25K	
A47F-200K	200K			100K
A47F-250K	250K			50K
A47F1-250K	250K		125K	
A47F2-250K	250K	60K		125K
A47F-350K	350K	75K		
A47F1-350K	350K		75K	
A47F-500K	500K			100K
A47F1-500K	500K	25K		
A47F2-500K	500K			200K
A47F3-500K	500K		100K	
A47F4-500K	500K		50K	
A47F5-500K	500K		250K	
A47F6-500K	500K	100K		300K
A47F-1 Meg.	1 Meg.	250K		
A47F1-1 Meg.	1 Meg.			200K
A47F2-1 Meg.	1 Meg.		50K	
A47F3-1 Meg.	1 Meg.		100K	
A47F4-1 Meg.	1 Meg.		225K	
A47F5-1 Meg.	1 Meg.		500K	
A47F-1.5 Meg.	1.5 Meg.	250K		500K
A47F-2 Meg.	2 Meg.	20K		
A47F1-2 Meg.	2 Meg.	5000		
A47F2-2 Meg.	2 Meg.	15K		
A47F3-2 Meg.	2 Meg.		1 Meg.	
A47F4-2 Meg.	2 Meg.		200K	
A47F5-2 Meg.	2 Meg.		400K	
A47F6-2 Meg.	2 Meg.		500K	
A47F7-2 Meg.	2 Meg.	250K		1 Meg.
A47F-2.5 Meg.	2.5 Meg.	250K		500K
A47F-3 Meg.	3 Meg.		250K	

NET PRICE $1.35. *Reg. U.S. Pat. Off.

SERIES 44 — 0.02 WATT CONTROLS



Composition Element Controls rated at 0.2 watt, designed specifically for miniaturized applications such as transistorized circuits, pocket radios, hearing aids, etc. Stocked controls have Clarostat "W" taper (20% log audio). Other tapers available on special order. Series 44 is without switch, while Series 44S has factory-attached 0.5 am. 25 v.d.c. DPST switch. Other ohmages available on special order. 200 ohms to 5 meg. linear; 1500 to 2.5 meg. tapered. Also available on special order, controls with 0.5 a. 25 v.d.c. SPST switch. Items not listed are special. Prices and information on request.

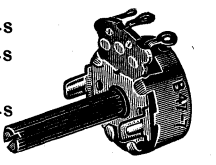
Without Switch Cat. No.		With SPST Switch Cat. No.	
44-500-W	44-50K-W	44S-500-W	44S-50K-W
44-1K-W	44-100K-W	44S-1K-W	44S-100K-W
44-5K-W	44-250K-W	44S-5K-W	44S-250K-W
44-10K-W	44-500K-W	44S-10K-W	44S-500K-W
44-15K-W	44-1 Meg-W	44S-15K-W	44S-1 Meg-W
44-25K-W		44S-25K-W	

LIST PRICE $1.55 **LIST PRICE $2.55**

SERIES B47 ½-WATT TAB-MOUNT

Composition element controls designed for radio and TV applications, where bushingless controls are required. Phenolic shaft insures insulation if control is used on a "hot" chassis. Items not listed are special, for which information and prices will be supplied on request.

Cat. No.	Cat. No.	Cat. No.	Cat. No.
B47-500-S	B47-10K-S	B47-250K-S	B47-1.5 Meg-S
B47-750-S	B47-25K-S	B47-330K-Z	B47-2 Meg-S
B47-1500-S	B47-50K-S	B47-500K-S	B47-2.5 Meg-S
B47-2500-S	B47-100K-S	B47-500K-Z	B47-3 Meg-S
B47-3000-S	B47-150K-S	B47-1 Meg-S	B47-5 Meg-S
B47-5000-S	B47-200K-S	B47-1 Meg-Z	B47-5 Meg-Z
			B47-7.5 Meg-S



NET PRICE $.60

SERIES B47S ½-WATT TAB MOUNT WITH SWITCH

Cat. No.	Cat. No.
B47S-250K-Z	B47S-1 Meg-S
B47S-250K-S	B47S-1 Meg-Z
B47S-250K-Z	B47S-2 Meg-S
B47S-500K-S	B47S-2 Meg-Z
B47S-500K-Z	

Net Price $1.20

Net

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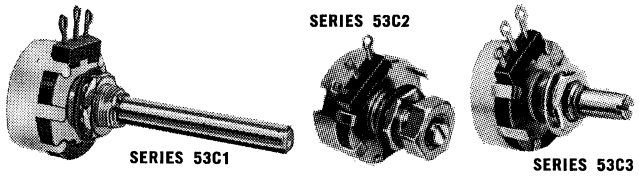
SERIES 53—2 WATT

MOLDED COMPOSITION ELEMENT POTENTIOMETERS



A 2-watt molded composition element potentiometer totally enclosed and sealed against moisture and other environmentals. Meets the need for a high quality resistance device incorporating high-stability under extreme climatic and operational conditions. For use in critical applications, such as, test equipment, military requirements, computers, servo systems and industrial metering devices.

1 1/16" diameter and 9/16" deep, wiper assembly of one piece construction; carbon to carbon contact insures exceptionally low noise level; brass nickel plated, gold plated terminals. Electrical tolerances are plus/minus 10% for all values up to 1 meg. 1 meg. and above plus/minus 20%.

Fabricated in accordance with MIL-R-94 Style RV4.

Items not listed are special, prices and information supplied upon request.

The C1 designation indicates a 1 5/8" round shaft beyond bushing; 3/8" long bushing with 3/8-32-NEF-2 thread. The C2 designation is a 1/8" screwdriver slotted shaft with a 1/2" split locking bushing. The C3 designation is a 7/8" round shaft FMS, 3/8" long bushing with 3/8-32-NEF-2 thread.

Cat. No.	Cat. No.	Cat. No.	Res. Ohms	Taper
53C1-50-S	53C2-50-S	53C3-50-S	50	S
53C1-100-S	53C2-100-S	53C3-100-S	100	S
53C1-150-S	53C2-150-S	53C3-150-S	150	S
53C1-250-S	53C2-250-S	53C3-250-S	250	S
53C1-350-S	53C2-350-S	53C3-350-S	350	S
53C1-500-S	53C2-500-S	53C3-500-S	500	S
53C1-750-S	53C2-750-S	53C3-750-S	750	S
53C1-1000-S	53C2-1000-S	53C3-1000-S	1000	S
53C1-1500-S	53C2-1500-S	53C3-1500-S	1500	S
53C1-2000-S	53C2-2000-S	53C3-2000-S	2000	S
53C1-2500-S	53C2-2500-S	53C3-2500-S	2500	S
53C1-3500-S	53C2-3500-S	53C3-3500-S	3500	S
53C1-5000-S	53C2-5000-S	53C3-5000-S	5000	S
53C1-7500-S	53C2-7500-S	53C3-7500-S	7500	S
53C1-10K-S	53C2-10K-S	53C3-10K-S	10K	S
53C1-15K-S	53C2-15K-S	53C3-15K-S	15K	S
53C1-20K-S	53C2-20K-S	53C3-20K-S	20K	S
53C1-25K-S	52C2-25K-S	53C3-25K-S	25K	S
53C1-35K-S	53C2-35K-S	53C3-35K-S	35K	S
53C1-50K-S	53C2-50K-S	53C3-50K-S	50K	S
53C1-7SK-S	53C2-75K-S	53C3-75K-S	75K	S
53C1-100K-S	53C2-100K-S	53C3-100K-S	100K	S
53C1-150K-S	53C2-150K-S	53C3-150K-S	150K	S
53C1-200K-S	53C2-200K-S	53C3-200K-S	200K	S
53C1-250K-S	53C2-250K-S	53C3-250K-S	250K	S
53C1-350K-S	53C2-350K-S	53C3-350K-S	350K	S
53C1-500K-S	53C2-500K-S	53C3-500K-S	500K	S
53C1-750K-S	53C2-750K-S	53C3-750K-S	750K	S
53C1-1 Meg-S	53C2-1 Meg-S	53C3-1 Meg-S	1 Meg	S
53C1-1.5 Meg-S	53C2-1.5 Meg-S	53C3-1.5 Meg-S	1.5 Meg	S
53C1-2 Meg-S	53C2-2 Meg-S	53C3-2 Meg-S	2 Meg	S
53C1-2.5 Meg-S	53C2-2.5 Meg-S	53C3-2.5 Meg-S	2.5 Meg	S
53C1-3 Meg-S	53C2-3 Meg-S	53C3-3 Meg-S	3 Meg	S
53C1-3.5 Meg-S	53C2-3.5 Meg-S	53C3-3.5 Meg-S	3.5 Meg	S
53C1-4 Meg-S	53C2-4 Meg-S	53C3-4 Meg-S	4 Meg	S
53C1-5 Meg-S	53C2-5 Meg-S	53C3-5 Meg-S	5 Meg	S
53C1-7.5 Meg-S	53C2-7.5 Meg-S	53C3-7.5 Meg-S	7.5 Meg	S
53C1-10 Meg-S	53C2-10 Meg-S	53C3-10 Meg-S	10 Meg	S

TAPERED POTENTIOMETERS		DUAL POTENTIOMETERS	
"Z" TAPER	REVERSED "Z" TAPER	Cat. No.	Cat. No.
53C1-100K-Z	53C1-10K-RZ	D53C1-10K-S	D53C1-100K-S
53C1-250K-Z	53C1-25K-RZ	D53C1-25K-S	D53C1-250K-S
53C1-500K-Z	53C1-50K-RZ	D53C1-50K-S	D53C1-500K-S
53C1-1 Meg-Z			D53C1-1 Meg-S
53C1-2.5 Meg-Z			

Field-attached switches are available for the Series 53. The switch is easily and quickly installed on the control, taking less than a minute to install.

Cat. No.	Description
53-12	SPST — 5A-125V. A.C.
53-20	DPST — 3A-125V. A.C.
53-21	(Mod.) DPST — 3A-125V. A.C./D.C.

SERIES "43C1" and "43C2" 2-WATT CONTROLS

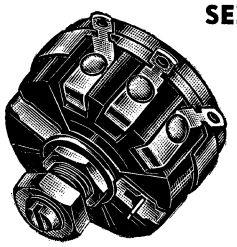
Electrical tolerance is plus/minus 5% for all ohmages. Independent linearity is to plus/minus 2%. All controls rated 2 watts.

43C1 Cat. No.	43C2 Cat. No.	Res. Ohms	43C1 Cat. No.	43C2 Cat. No.	Res. Ohms	43C1 Cat. No.	43C2 Cat. No.	Res. Ohms			
43C1-5	43C2-5	5	43C1-100	43C2-100	100	43C1-1500	43C2-1500	1500	43C1-15K	43C2-15K	15K
43C1-10	43C2-10	10	43C1-150	43C2-150	150	43C1-2000	43C2-2000	2000	43C1-20K	43C2-20K	20K
43C1-20	43C2-20	20	43C1-200	43C2-200	200	43C1-2500	43C2-2500	2500	43C1-25K	43C2-25K	25K
43C1-25	43C2-25	25	43C1-300	43C2-300	300	43C1-3000	43C2-3000	3000	43C1-30K	43C2-30K	30K
43C1-30	43C2-30	30	43C1-400	43C2-400	400	43C1-4000	43C2-4000	4000	43C1-40K	43C2-40K	40K
43C1-40	43C2-40	40	43C1-500	43C2-500	500	43C1-5000	43C2-5000	5000	43C1-50K	43C2-50K	50K
43C1-50	43C2-50	50	43C1-750	43C2-750	750	43C1-7500	43C2-7500	7500			
43C1-75	43C2-75	75	43C1-1000	43C2-1000	1000	43C1-10K	43C2-10K	10K			

NET PRICES

43C1-5 to 43C1-10K $1.85	43C1-30K to 43C1-50K $2.01	43C2-15K to 43C2-25K $2.55
43C1-15K to 43C1-25K 1.80	43C2-5 to 43C2-10K 2.25	43C2-30K to 43C2-50K 3.00

SERIES 58C1 AND 58C2 3-WATT CONTROLS



Electrical tolerance is plus/minus 5% for all ohmages. Independent linearity is to plus/minus 1% All controls rated 3 watts.

58C1 Cat. No.	58C2 Cat. No.	Res. Ohms	58C1 Cat. No.	58C2 Cat. No.	Res. Ohms
58C1-1	58C2-1	1	58C1-500	58C2-500	500
58C1-2	58C2-2	2	58C1-750	58C2-750	750
58C1-4	58C2-4	4	58C1-1000	58C2-1000	1000
58C1-6	58C2-6	6	58C1-1500	58C2-1500	1500
58C1-10	58C2-10	10	58C1-2000	58C2-2000	2000
58C1-15	58C2-15	15	58C1-2500	58C2-2500	2500
58C1-20	58C2-20	20	58C1-3000	58C2-3000	3000
58C1-25	58C2-25	25	58C1-5000	58C2-5000	5000
58C1-30	58C2-30	30	58C1-7500	58C2-7500	7500
58C1-40	58C2-40	40	58C1-10K	58C2-10K	10K
58C1-50	58C2-50	50	58C1-15K	58C2-15K	15K
58C1-60	58C2-60	60	58C1-20K	58C2-20K	20K
58C1-75	58C2-75	75	58C1-25K	58C2-25K	25K
58C1-100	58C2-100	100	58C1-30K	58C2-30K	30K
58C1-200	58C2-200	200	58C1-40K	58C2-40K	40K
58C1-300	58C2-300	300	58C1-50K	58C2-50K	50K
58C1-400	58C2-400	400			

NET PRICES

58C1-1 to 58C1-10K $1.35	58C2-1 to 58C2-10K $2.25
58C1-15K to 58C1-25K 1.80	58C2-15K to 58C2-25K 2.55
58C1-30K to 58C1-50K 2.01	58C2-30K to 58C2-50K 3.00

SERIES "10C1" and "10C2" 4-WATT CONTROLS

Electrical tolerance is plus/minus 5% for all ohmages. All controls rated 4 watts.

1 to 50K ohms available on special order. Prices and information on request.

10C1 Cat. No.	10C2 Cat. No.	Res. Ohms
10C1-75K	10C2-75K	75K
10C1-100K	10C2-100K	100K

Net Prices

10C1 ..... 2.75 10C2 ..... 3.60

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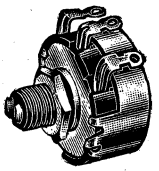
RESISTANCE DEVICES

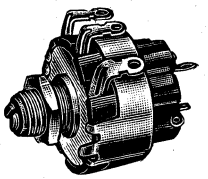
WIRE-WOUND CONTROLS

These are "Pick-A-Shaft"* controls which take any one of 12 shafts listed on page R-24 including High Voltage Coupler and insulated shaft. Your choice of any one of the 12 shafts listed (this does not include insulated shaft) with each control. Tolerances of these controls are in accordance with EIA standards. Overall resistance tolerance of plus/minus 10% for all values. All controls are linear. Available with factory-assembled shafts at no extra charge, by omitting the prefix "A" from the catalog number and designating the type of shaft desired when ordering. Example: 43-500 with FKS-¼ shaft, or 43S-10K with FS-3 shaft and SPST switch.

SERIES "A43" and "A43S" 2-WATT CONTROLS



SERIES A43
(INDUSTRIAL)
SERIES 43



SERIES A43S
(INDUSTRIAL)
SERIES 43S

"A43" is without switch, while "A43S" has factory-attached SPST switch. When ordering "A43S" controls, specify type of switch. Controls with other than SPST switch are special. Prices and information on request.

Without Switch Cat. No.	With SPST Switch Cat. No.	Res. Ohms
A43-5	A43S-5	5
A43-10	A43S-10	10
A43-20	A43S-20	20
A43-25	A43S-25	25
A43-30	A43S-30	30
A43-40	A43S-40	40
A43-50	A43S-50	50
A43-75	A43S-75	75
A43-100	A43S-100	100
A43-150	A43S-150	150
A43-200	A43S-200	200
A43-300	A43S-300	300
A43-400	A43S-400	400
A43-500	A43S-500	500
A43-750	A43S-750	750

Without Switch Cat. No	With SPST Switch Cat. No.	Res. Ohms
A43-1,000	A43S-1,000	1,000
A43-1,500	A43S-1,500	1,500
A43-2,000	A43S-2,000	2,000
A43-2,500	A43S-2,500	2,500
A43-3,000	A43S-3,000	3,000
A43-4,000	A43S-4,000	4,000
A43-5,000	A43S-5,000	5,000
A43-7,500	A43S-7,500	7,500
A43-10K	A43S-10K	10K
A43-15K		
A43-20K		
A43-25K		
A43-30K		
A43-40K		
A43-50K		

NET PRICES: (Without Switch)
5 to 10KΩ ..... **$ .93**
15K to 25KΩ **1.20**
30K to 50KΩ **1.62**
(With Switch)
5 to 10KΩ **$1.47**

SERIES "A58" and "A58S" 3- WATT CONTROLS

"A58" is without switch, while "A58S" has factory-attached SPST switch. Available with factory-assembled shafts, at no extra charge, by omitting prefix "A" from catalog number, and designating type of shaft desired when ordering. Example: 58-50K with KSS-3 shaft, or 58S-25K with RS-3 shaft and SPST switch. Controls with other than SPST switch are special. Prices and information on request.

Without Switch Cat. No.	Res. Ohms
A58-1	1
A58-2	2
A58-4	4
A58-6	6
A58-10	10
A58-15	15
A58-20	20
A58-25	25
A58-30	30
A58-40	40
A58-50	50
A58-60	60
A58-75	75
A58-100	100
A58-200	200
A58-250	250
A58-300	300
A58-400	400
A58-500	500
A58-750	750
A58-1,000	1,000
A58-1,500	1,500
A58-2,000	2,000
A58-2,500	2,500
A58-3,000	3,000
A58-4000	4,000

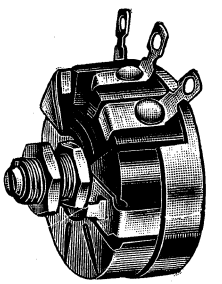
Without Switch Cat. No.	Res. Ohms
A58-5,000	5,000
A58-7,500	7,500
A58-10K	10K
A58-15K	15K
A58-20K	20K
A58-25K	25K
A58-30K	30K
A58-40K	40K
A58-50K	50K

NET PRICES:
1 to 10KΩ ..... **$ .93**
15K to 25KΩ **1.20**
30K to 50KΩ **1.62**

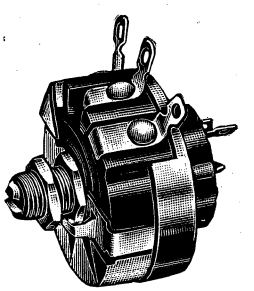
With SPST Switch Cat. No.	Res. Ohms
A58S-1	1
A58S-2	2
A58S-4	4
A58S-6	6
A58S-10	10
A58S-15	15
A58S-20	20
A58S-25	25
A58S-30	30
A58S-40	40

SERIES A10 — 4 WATTS

Cat. No.	Ohms	Net
A10—75K	75K	$2.46
A10—100K	100K	2.97



SERIES A58
(INDUSTRIAL)
SERIES 58



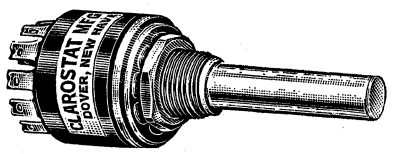
SERIES A58S
(INDUSTRIAL)
SERIES 58S

With SPST Switch Cat. No.	Res. Ohms
A58S-50	50
A58S-60	60
A58S-75	75
A58S-100	100
A58S-200	200
A58S-300	300
A58S-400	400
A58S-500	500
A58S-750	750
A58S-1,000	1,000
A58S-1,500	1,500
A58S-30K	30K
A58S-40K	40K
A58S-50K	50K

A58S-2,000	2,000
A58S-2,500	2,500
A58S-3,000	3,000
A58S-4,000	4,000
A58S-5,000	5,000
A58S-7,500	7,500
A58S-10K	10K
A58S-15K	15K
A58S-20K	20K
A58S-25K	25K

NET PRICES:
1 to 10KΩ **$1.47**
15K to 25KΩ **1.71**
30K to 50KΩ **2.16**

SERIES BHM ROTARY SWITCHES



Series BHM switches are rated at 50 ma. at 300 V. a.c. or d.c., and 500 ma. at 30 V. a.c. or d.c. All moving parts and contact mechanism are totally enclosed, and the switch assembly is sealed for protection from dust and atmospheric conditions. They are particularly adapted to portable radios, receivers and transmitters, X-ray and medical instruments, calculating machines and computers.

Current: 50 Milliamps. at 300 volts a.c. or d.c.
Rating: 500 Milliamps. at 30 volts a.c. or d.c.
Protection: All moving parts and contact mechanisms are totally enclosed and switch is sealed, which protects it from dust and atmospheric conditions.
Shaft: ¼" diameter round 1" beyond bushing.
Finish: Nickel Plating.
Bushing: ⅜" x 32 NEF-2 Thread. ⅜" Long.
Torque: 30 to 50 oz. in.

BHM-SP12P-S	Single Pole 12 Positions — Shorting
BHM-SP12P-NS	Single Pole 12 Positions — Non Shorting
BHM-2P6P-S	2 Pole 6 Positions — Shorting
BHM-2P6P-NS	2 Pole 6 Positions — Non-Shorting
BHM-3P4P-S	3 Pole 4 Positions — Shorting
BHM-3P4P-NS	3 Pole 4 Positions — Non-Shorting
BHM-4P3P-S	4 Pole 3 Positions — Shorting
BHM-4P3P-NS	4 Pole 3 Positions — Non-Shorting

Meets or exceeds test paragraph 4.5.3 thru 4.5.13 of MIL-S-3786.

Net

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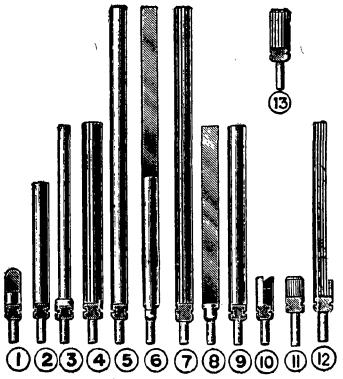
PRODUCTS OF
THE HOUSE OF RESISTORS®

CLAROSTAT®

RESISTORS • CONTROLS
RESISTANCE DEVICES

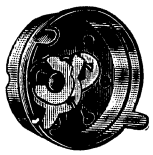
SHAFTS FOR "PICK-A-SHAFT" CONTROLS

For use with all Clarostat "Pick-A-Shaft"* controls, either carbon or wire-wound. Your choice of shaft furnish with each control.



Net Price, Each Shaft $0.33

(1) SS-⅜" length—(Male) to take female fitting.
(2) RS-2 — Round shaft, 2" long.
(3) RS-3/16—Round slotted shaft 3/16" dia., 3" long.
(4) KSS-3—Knurled, split shaft, 3" long.
(5) RS-5—Round shaft, 5" long.
(6) FS-5—Flatted, 5" long.
(7) KSS-5—Knurled, split shaft, 5" long.
(8) FS-3 — Flatted shaft, 3" long.
(9) RS-3 — Round shaft, 3" long.
(10) DFS-½—Double flatted Philco Type, ½" long.
(11) FKS-¼—Fine knurled slotted shaft, ¼" long.
(12) KFS-3—Knurled flatted shaft, 3" long.
(13) FKS-½—Fine knurled slotted shaft, ½" long.



U.S. PAT. 2,642,506

SERIES "SWE" SWITCHES FOR "AD-A-SWITCH" CONTROLS

For use with "A47" and "A47F" controls. Underwriters' Laboratories Inc. approved.

Cat. No.	Wiring	Net Price
SWE-12	S.P.S.T. — Single Pole Single Throw, 5A.-125V. A.C.	$0.45
SWE-13	S.P.S.T. — Single Pole Single Throw, 15A.-10V. D.C.	.66
SWE-20	D.P.S.T. — Double Pole Single Throw, 3A.-125V. A.C.	.51
SWE-21	Mod. D.P.S.T. one pole on, one off or with Jumper S.P.D.T., 3A.-125V. A.C.-D.C.	.51
SWE-23	D.P.S.T., 15A.-10V. D.C.	.66

(Mod. DPST has one pole "on", one pole "off" or with Jumper it is SPDT.)

SERIES "AE" SWITCH

Cat. No.	Wiring
AE-30	SPDT Single Pole Double Throw, 1-A250V., 3A-125V. (AC or DC)

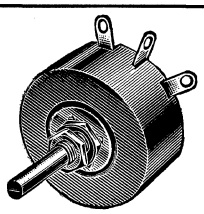
Other "AE" Switches available on request. **Net Price $0.45**

SERIES "BE" ROTARY SWITCH

Underwriters' Laboratories Inc. approved.

Cat. No.	Wiring	Net
BE-12	SPST Single Pole Single Throw, 5A-125V, A.C.	$0.75
BE-20	DPST Double Pole Single Throw, 3A-125V. A.C.	.81
BE-21 (Mod.)	DPST 3A-125V. A.C./D.C.	.81

(Mod. DPST has one pole "on", one pole "off" or with jumper it is SPDT.)



POWER RHEOSTATS

Clarostat Power Rheostats maintain their full power rating at settings as low as one-third rotation without excessive temperature rise. Standard overall resistance tolerance plus/minus 10%. Closer tolerances are available upon special order.

AN Types (aircraft type) are basically the same units mechanically and electrically except that they are encased in a metal housing (versus ceramic). Terminals are screw type lugs to prevent corrosion. Approved under MIL-R-6749.

Units mount through a single hole, a locking pin is provided for rear panel mounting.

SERIES 25 — 25-WATT

Cat. No.	Total Res. Ohms	Net Price
25-1	1	$3.87
25-2	2	3.42
25-3	3	3.42
25-6	6	3.42
25-8	8	3.42
25-10	10	3.42
25-15	15	3.42
25-25	25	3.42
25-35	35	3.42
25-50	50	3.42
25-75	75	3.42
25-100	100	3.42
25-125	125	3.42
25-175	175	3.42
25-250	250	3.42
25-350	350	3.42
25-500	500	3.42
25-750	750	3.42
25-1,000	1,000	3.87
25-1,500	1,500	3.87
25-2,500	2,500	3.87
25-3,500	3,500	4.08
25-5,000	5,000	4.29

SERIES 50 — 50-WATT

Cat. No.	Total Res. Ohms	Net Price
50-0.5	0.5	$4.25
50-1	1	4.25
50-2	2	4.25
50-4	4	3.87
50-6	6	3.87
50-8	8	3.87
50-12	12	3.87
50-16	16	3.87
50-22	22	3.87
50-35	35	3.87
50-50	50	3.87
50-80	80	3.87
50-125	125	3.87
50-150	150	3.87
50-225	225	3.87
50-300	300	3.87
50-500	500	3.87
50-800	800	4.08
50-1,000	1,000	4.08
50-1,600	1,600	4.08
50-2,500	2,500	4.08
50-3,500	3,500	4.29
50-5,000	5,000	4.29
50-8,000	8,000	5.16
50-10K	10K	5.16

AN-3155-25** — 25 WATTS

Cat. No.	Total Res. Ohms	Net Price
AN-3155-25-10	10	$4.80
AN-3155-25-11	11	4.80
AN-3155-25-15	15	4.80
AN-3155-25-25	25	4.80
AN-3155-25-50	50	4.80
AN-3155-25-75	75	4.80
AN-3155-25-100	100	4.80
AN-3155-25-200	200	5.61

AN-3155-50** — 50 WATTS

AN-3155-50-5	5	5.61
AN-3155-50-8	8	5.61
AN-3155-50-10	10	5.61
AN-3155-50-25	25	5.46
AN-3155-50-30	30	5.46
AN-3155-50-50	50	5.46
AN-3155-50-75	75	5.46
AN-3155-50-100	100	5.46
AN-3155-50-150	150	6.12
AN-3155-50-200	200	6.12

Prices include AN-3220 — 2 knob

**25 and 50 watt Power Rheostats when encased in metal housing are derated 50%.

PRODUCTS OF THE HOUSE OF RESISTORS®

CLAROSTAT®

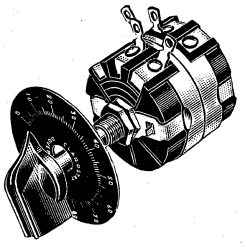
RESISTORS · CONTROLS
RESISTANCE DEVICES

®

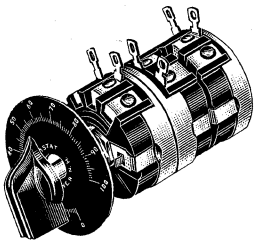
SOUND-SYSTEM CONTROLS

For proper control of volume and tone alike, Clarostat offers a choice of several controls, such as L- and T-pads, output attenuators, and individual-speaker volume controls as used for drive-in theatre installations. These are not ordinary radio controls but rather sound-system controls designed and built for critical requirements.

CONSTANT-IMPEDANCE CONTROLS



Self-compensating volume controls known as L-pads and T-pads for use in sound systems. Rated at 2½ watts DC, but will handle up to 10 watts audio. Continuous range from 0.5 to 30 decibels attenuation in 90% rotation. Last 10% affords infinite attenuation. With Clarostat constant-impedance L-pads and T-pads the input and output impedances of associated circuits can be kept within the limits of a constant required value. Knob and dial plate furnished with each control.



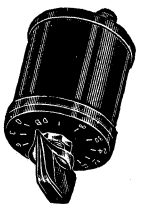
U. S. Pat. 2,434,248

CIT Cat. No.	CIL Cat. No.	Res. Ohms
CIT-4	CIL-4	4
CIT-6	CIL-6	6
CIT-8	CIL-8	8
CIT-15	CIL-15	15
CIT-50	CIL-50	50
CIT-100	CIL-100	100
CIT-200	CIL-200	200
CIT-250	CIL-250	250
CIT-500	CIL-500	500
CIT-600	CIL-600	600
CIT-1,000	CIL-1,000	1,000
CIT-2,000	CIL-2,000	2,000
CIT-3,000	CIL-3,000	3,000
	CIL-4,000	4,000
	CIL-5,000	5,000

CIT—NET PRICE $3.13

CIL—NET PRICE $2.79

CONSTANT IMPEDANCE OUTPUT ATTENUATORS



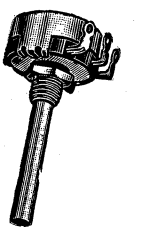
Series "CIB" rated at 10 watts, but will handle up to 30 watts in audio circuit. Linear attenuation provided in 3 decibel steps up to 24db, then 30db followed by infinity. Equipped with dial plate and bar knob. One-hole mounting, ⅜" bushing diameter. 1" shaft. This control has been developed to meet the need for a constant-impedance attenuator capable of handling considerable power without measurable insertion loss. Recommended as an output level control for power amplifiers, or as an input attenuator for individual or for a group of speakers in a public address system.

Cat. No.	Res. Ohms	Cat. No.	Res. Ohms
CIB-6	6	CIB-200	200
CIB-8	8	CIB-250	250
CIB-15	15	CIB-500	500
CIB-50	50	CIB-600	600

NET PRICE $7.70

SPECIAL DRIVE-IN THEATRE L-PAD

To meet the needs of theater sound systems, more especially those of drive-in theaters, a special 8 ohm L-Pad is now available, containing two separate windings of 5 ohms and 40 ohms. Also 50 ohm linear rheostat and 35 ohm tapered rheostat, as listed. Units have ¾-32 bushing ¾" long, and 1½" round shaft. (Knob furnished with each control).

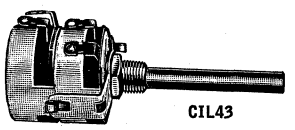


Cat. No. CM8727-1 8 ohm L-Pad
Net Price $1.80

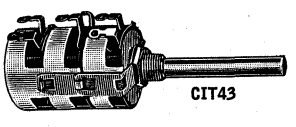
SPACE-SAVER CONSTANT-IMPEDANCE ATTENUATORS

Characterized by reduced depth and diameter, these attenuators are ideal for use in remote control of speakers since they are small enough to be installed in standard electrical boxes in the home, office, stockroom, etc.

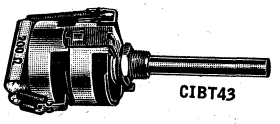
These controls are rated 2 watts D.C., but will handle up to 4 watts of audio, depending upon the type signal being handled. (As the frequency becomes constant, wattage reduces to 2 watts or the same as the D.C. rating).



CIL43



CIT43



CIBT43

Cat. No. CIL43 (L-Pad)	Cat. No. CIT43 (T-Pad)	Cat. No. CIBT43 (Bridged T-Pad)	Impedance
CIL43-4	CIT43-4	CIBT43-4	4 ohms
CIL43-6	CIT43-6	CIBT43-6	6 ohms
CIL43-8	CIT43-8	CIBT43-8	8 ohms
CIL43-15	CIT43-15	CIBT43-15	15 ohms
CIL43-50	CIT43-50	CIBT43-50	50 ohms
CIL43-100	CIT43-100	CIBT43-100	100 ohms
CIL43-200	CIT43-200	CIBT43-200	200 ohms
CIL43-250	CIT43-250	CIBT43-250	250 ohms
CIL43-500	CIT43-500	CIBT43-500	500 ohms
		CIBT43-600	600 ohms

NET PRICE CIL43 $2.79 **NET PRICE CIT43 $3.13**

NET PRICE CIBT43 $3.63

- Attenuation range of 0 to 30 db over 90% of rotation, 60 db in remaining 10% of rotation. Attenuation will increase approximately linearly to 30 db with counter-clockwise rotation.
- Insertion loss less than 0.5 db.
- Input impedance within plus/ minus 20%.
- The CIT43 and CIBT43 (Bridged T Pad) have constant input and output impedances, while the CIL43 has constant impedance in the input only.
- Shafts and bushings are insulated from the circuit elements.
- Pads have ⅜-32 x ⅜" long bushing.
- ¼" dia. round shafts 1½" long beyond bushing.
- All pads supplied with bar knob and dial plates, as shown above.
- Dia. 1⅛". Depth of body from mounting surface: CIL43 — 1⅝"; CIT43 — 1¾"; CIBT43 — 1½".

Net

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PRODUCTS OF
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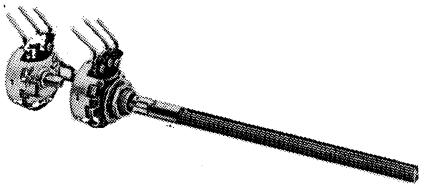
CLAROSTAT®

RESISTORS • CONTROLS
RESISTANCE DEVICES

uni-tite FIELD ASSEMBLED CONTROLS



Your Distributor's Uni-Tite Replacement Center will answer more than 95% of your replacement control requirements including 15/16" diameter wirewound controls, push/pull singles, dual controls, dual controls with rotary switches, and single controls with rotary switches. These field-assembled, snap together controls provide you with the exact combination required for radio and TV replacements. In addition, a complete line of Uni-Tite field-assembled, dual controls, operating on a single shaft are available to meet all your audio, hi-fi and sound system requirements.

PANEL CONTROLS — PLAIN

Cat. No.	Ohms	Taper	Cat. No.	Ohms	Taper
NP-200-S	200	S	NP-75K-Z	75K	Z
NP-250-S	250	S	NP-100K-S	100K	S
NP-350-S	350	S	NP-150K-S	150K	S
NP-500-S	500	S	NP-200K-S	200K	S
NP-500V	500	V	NP-200K-V	200K	V
NP-750-S	750	S	NP-250K-S	250K	S
NP-750-V	750	V	NP-250K-Z	250K	Z
NP-1000-S	1000	S	NP-300K-S	300K	S
NP-1000-V	1000	V	NP-350K-S	350K	S
NP-1200-V	1200	V	NP-350K-Z	350K	Z
NP-1500-S	1500	S	NP-500K-S	500K	S
NP-1500-V	1500	V	NP-500K-Z	500K	Z
NP-2000-S	2000	S	NP-500K-V	500K	V
NP-2500-S	2500	S	NP-750K-S	750K	S
NP-3000-S	3000	S	NP-750K-Z	750K	Z
NP-3000-V	3000	V	NP-1 Meg-S	1 Meg	S
NP-4000-S	4000	S	NP-1 Meg-Z	1 Meg	Z
NP-5000-S	5000	S	NP-1 Meg-V	1 Meg	V
NP-5000-V	5000	V	NP-1.5 Meg-S	1.5 Meg	S
NP-7000-S	7000	S	NP-1.5 Meg-V	1.5 Meg	V
NP-7500-S	7500	S	NP-2-Meg-S	2 Meg	S
NP-10K-S	10K	S	NP-2 Meg-Z	2 Meg	Z
NP-10K-Z	10K	Z	NP-2 Meg-V	2 Meg	V
NP-10K-V	10K	V	NP-2.5 Meg-S	2.5 Meg	S
NP-11.5K-V	11.5K	V	NP-2.5 Meg-V	2.5 Meg	V
NP-15K-S	15K	S	NP-3 Meg-S	3 Meg	S
NP-15K-V	15K	V	NP-3 Meg-Z	3 Meg	Z
NP-20K-S	20K	S	NP-3 Meg-V	3 Meg	V
NP-25K-S	25K	S	NP-4 Meg-S	4 Meg	S
NP-25K-Z	25K	Z	NP-4 Meg-Z	4 Meg	Z
NP-30K-S	30K	S	NP-5 Meg-S	5 Meg	S
NP-40K-S	40K	S	NP-5 Meg-Z	5 Meg	Z
NP-50K-S	50K	S	NP-5 Meg-V	5 Meg	V
NP-50K-Z	50K	Z	NP-7.5 Meg-S	7.5 Meg	S
NP-75K-S	75K	S	NP-10 Meg-S	10 Meg	S

Net price .....$.66

REAR CONTROLS — PLAIN

NR-200-S	200	S	NR-300K-S	300K	S
NR-1000-S	1000	S	NR-350K-Z	350K	Z
NR-1000-V	1000	V	NR-500K-S	500K	S
NR-1500-S	1500	S	NR-500K-Z	500K	Z
NR-2000-S	2000	S	NR-750K-S	750K	S
NR-2000-V	2000	V	NR-1 Meg-S	1 Meg	S
NR-3000-S	3000	S	NR-1 Meg-Z	1 Meg	Z
NR-3000-V	3000	V	NR-1 Meg-V	1 Meg	V
NR-5000-S	5000	S	NR-1.5 Meg-S	1.5 Meg	S
NR-7500-S	7500	S	NR-2 Meg-S	2 Meg	S
NR-7500-Z	7500	Z	NR-2 Meg-Z	2 Meg	Z
NR-10K-S	10K	S	NR-2 Meg-V	2 Meg	V
NR-10K-V	10K	V	NR-2.5 Meg-S	2.5 Meg	S
NR-25K-S	25K	S	NR-2.5 Meg-Z	2.5 Meg	Z
NR-25K-V	25K	V	NR-3 Meg-S	3 Meg	S
NR-50K-S	50K	S	NR-3 Meg-Z	3 Meg	Z
NR-75K-S	75K	S	NR-3-Meg-V	3 Meg	V
NR-100K-S	100K	S	NR-3.5 Meg-S	3.5 Meg	S
NR-125K-V	125K	V	NR-5 Meg-S	5 Meg	S
NR-150K-S	150K	S	NR-5 Meg-Z	5 Meg	Z
NR-200K-S	200K	S	NR-5 Meg-V	5 Meg	V
NR-250K-S	250K	S	NR-7.5 Meg-Z	7.5 Meg	Z
NR-250K-Z	250K	Z	NR-10 Meg-S	10 Meg	S

Net price .....$.66

TAPER EXPLANATION:

TAPER S Straight or uniform resistance change with rotation.

TAPER V Right-hand 20% resistance at 50% of C.C.W. rotation.

TAPER Z Left-hand (Log. audio) 10% reseistance at 50% C.W. rotation.

PANEL CONTROLS — TAPPED

Cat. No.	Ohms	Tap No. 1	Tap No. 2	Tap No. 3
NPF-750	750		500	
NPF1-750	750		250	
NPF-1000	1000		850	
NPF-2500	2500		500	
NPF-3000	3000			2500
NPF-15K	15K	3000		
NPF1-15K	15K			10K
NPF-250K	250K		75K	
NPF-500K	500K		100K	
NPF-1 Meg	1 Meg		500K	
NPF1-1 Meg	1 Meg		150K	
NPF-2 Meg	2 Meg		500K	
NPF1-2 Meg	2 Meg		1 Meg	
NPF-3 Meg	3 Meg		1 Meg	

Net price: $1.08

REAR CONTROLS — TAPPED

NRF-750	750		250	
NRF-2500	2500		500	
NRF-15K	15K			10K
NRF-30K	30K			25K
NRF-250K	250K		125K	
NRF1-250K	250K		75K	
NRF-330K	330K		66K	
NRF-500K	500K		100K	
NRF1-500K	500K		250K	
NRF2-500K	500K		50K	
NRF3-500K	500K	200K		350K
NRF-1 Meg	1 Meg		75K	
NRF1-1 Meg	1 Meg		250K	
NRF2-1 Meg	1 Meg		500K	
NRF3-1 Meg	1 Meg	150K		
NRF4-1 Meg	1 Meg	50K		500K
NRF-1.5 Meg	1.5 Meg		300K	
NRF-2 Meg	2 Meg		500K	
NRF1-2 Meg	2 Meg		1 Meg	
NRF2-2 Meg	2 Meg	200K		
NRF3-2 Meg	2 Meg	650K		
NRF3 Meg	3 Meg		1 Meg	
NRF1-3 Meg	3 Meg	500K		

Net price $1.08

WIRE-WOUND PANELS

(Linear Taper Only)

Cat. No.	Ohms
NPW-5	5
NPW-10	10
NPW-20	20
NPW-25	25
NPW-30	30
NPW-40	40
NPW-50	50
NPW-75	75
NPW-100	100
NPW-150	150
NPW-200	200
NPW-250	250
NPW-300	300
NPW-400	400
NPW-500	500
NPW-750	750
NPW-1000	1000
NPW-1500	1500
NPW-2000	2000
NPW-2500	2500
NPW-3000	3000
NPW-4000	4000
NPW-5000	5000
NPW-7500	7500
NPW-10K	10K

Net price: .....$.66

WIRE-WOUND REARS

(Linear Taper Only)

Cat. No.	Ohms
NRW-5	5
NRW-10	10
NRW-20	20
NRW-25	25
NRW-30	30
NRW-40	40
NRW-50	50
NRW-75	75
NRW-100	100
NRW-150	150
NRW-200	200
NRW-250	250
NRW-300	300
NRW-400	400
NRW-500	500
NRW-750	750
NRW-1000	1000
NRW-1500	1500
NRW-2000	2000
NRW-2500	2500
NRW-3000	3000
NRW-4000	4000
NRW-5000	5000
NRW-7500	7500
NRW-10K	10K

Net price: .....$.66

SWITCHES (Rotary)

Cat. No.	Description	Net
NWE-12	SPST (5A-125V. A.C.)	$.45
NWE-13	SPST (15A-10V. D.C.)	.66
NWE-20	DPST (3A-125V. A.C.)	.51
NWE-21	Mod. DPST (3A-125V. A.C./D.C.)	.51
NWE-23	DPST (15A-10V. D.C.)	.66

PUSH-PULL

NWG-18	SPST (3A-125V. A.C.)	.60

SOLID SHAFTS (single controls)

Cat. No.	Description	Shaft Length Dia.	Shaft Length FMS
UP-A-400	Round	1/4"	4"
UP-B-400	1/8" Double Slot & Flatted	1/4"	4"
UP-C-400	1/16" Double Slot & Knurled	1/4"	4"
SE-F-400	Slotted & Flatted	3/16"	4"

Net price: .....$.27

PUSH-PULL SHAFTS (single controls)

Cat. No.	Description	Shaft Length Dia.	Shaft Length FMS
UPP-A-400	Round	1/4"	4"
UPP-B-400	1/8" Double Slot & Flatted	1/4"	4"
UPP-C-400	1/16" Double Slot & Knurled	1/4"	4"

Net price: .....$.27

ADAPTER SHAFT

Push-Pull Single Control Cat. No. PPAP **Net price: $.25**

RETAINING RING

For Push-Pull Shafts Cat. No. R-2

COUPLER SHAFT

Dual Controls Cat. No. DC-2 **Net price $.08**

ADAPTER SHAFT

Push-Pull Conc. Dual, Cat. No. PPAR **Net price: $.25**

UNI-TITE DIS-ASSEMBLY TOOL

Cat. No. SR-2 **Net Price $.40**

MOUNTING ADAPTERS

Twist Tab Mounting — Cat. No. TT-2 **Net Price: $.08**
Mounting Adapter — Cat. No. DH-2 **Net Price: $.25**

PANEL SHAFTS

1/16 Double Slot & Knurled

Cat. No.	Shaft Length FMS
UPC-C-012	3/4"
UPC-C-013	13/16"
UPC-C-014	7/8"
UPC-C-015	15/16"
UPC-C-101	1 1/16"
UPC-C-102	1 1/8"
UPC-C-104	1 1/4"
UPC-C-105	1 5/16"
UPC-C-107	1 7/16"
UPC-C-108	1 1/2"
UPC-C-111	1 11/16"
UPC-C-112	1 3/4"
UPC-C-113	1 13/16"
UPC-C-114	1 7/8"
UPC-C-200	2"
UPC-C-204	2 1/4"
UPC-C-212	2 3/4"
UPC-C-214	2 7/8"
UPC-C-308	3 1/2"

Net price: .....$.27

PANEL SHAFTS

(Round)

UPC-A-101	1 1/16"
UPC-A-105	1 5/16"
UPC-A-209	2 9/16"

Net price .....$.27

PANEL SHAFTS

1/8" Double Slot & Flatted

UPC-B-013	13/16"
UPC-B-014	7/8"
UPC-B-015	15/16"
UPC-B-101	1 1/16"
UPC-B-102	1 1/8"
UPC-B-104	1 1/4"
UPC-B-105	1 5/16"
UPC-B-106	1 3/8"
UPC-B-107	1 7/16"
UPC-B-108	1 1/2"
UPC-B-109	1 9/16"
UPC-B-110	1 5/8"
UPC-B-111	1 11/16"
UPC-B-112	1 3/4"
UPC-B-113	1 13/16"
UPC-B-114	1 7/8"
UPC-B-115	1 15/16"
UPC-B-200	2"
UPC-B-201	2 1/16"
UPC-B-202	2 1/8"
UPC-B-203	2 3/16"
UPC-B-204	2 1/4"
UPC-B-205	2 5/16"
UPC-B-206	2 3/8"
UPC-B-207	2 7/16"
UPC-B-208	2 1/2"
UPC-B-209	2 9/16"
UPC-B-210	2 5/8"
UPC-B-212	2 3/4"
UPC-B-213	2 13/16"
UPC-B-300	3"
UPC-B-304	3 1/4"
UPC-B-305	3 5/16"
UPC-B-306	3 3/8"
UPC-B-309	3 9/16"
UPC-B-400	4"
UPC-B-401	4 1/16"

Net price: .....$.27

.187 DIA. REAR SHAFTS

(Push-Pull Controls) Combination Slot & Flat

Cat. No.	Shaft Length FMS
URP-G-108	1 1/2"
URP-G-110	1 5/8"
URP-G-111	1 11/16"
URP-G-113	1 13/16"
URP-G-114	1 7/8"
URP-G-115	1 15/16"
URP-G-200	2"
URP-G-202	2 1/8"
URP-G-204	2 1/4"
URP-G-205	2 5/16"
URP-G-213	2 13/16"

Net price .....$.27

REAR SHAFTS

Flatted-Slotted

UR-D-006	3/8"
UR-D-012	3/4"
UR-D-014	7/8"
UR-D-015	15/16"
UR-D-100	1"
UR-D-102	1 1/8"
UR-D-104	1 1/4"
UR-D-105	1 5/16"
UR-D-106	1 3/8"
UR-D-107	1 7/16"
UR-D-108	1 1/2"
UR-D-109	1 9/16"
UR-D-110	1 5/8"
UR-D-112	1 3/4"
UR-D-114	1 7/8"
UR-D-115	1 15/16"
UR-D-200	2"
UR-D-201	2 1/16"
UR-D-202	2 1/8"
UR-D-203	2 3/16"
UR-D-204	2 1/4"
UR-D-205	2 5/16"
UR-D-206	2 3/8"
UR-D-207	2 7/16"
UR-D-208	2 1/2"
UR-D-209	2 9/16"
UR-D-210	2 5/8"
UR-D-211	2 11/16"
UR-D-212	2 3/4"
UR-D-213	2 13/16"
UR-D-214	2 7/8"
UR-D-215	2 15/16"
UR-D-300	3"
UR-D-301	3 1/16"
UR-D-302	3 1/8"
UR-D-304	3 1/4"
UR-D-307	3 7/16"
UR-D-308	3 1/2"
UR-D-309	3 9/16"
UR-D-312	3 3/4"
UR-D-313	3 13/16"
UR-D-400	4"
UR-D-404	4 1/4"
UR-D-407	4 7/16"
UR-D-409	4 9/16"

Net price: .....$.27

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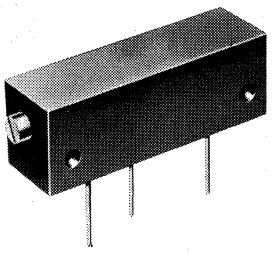
PRODUCTS OF
THE HOUSE OF RESISTORS®

CLAROSTAT®

RESISTORS · CONTROLS
RESISTANCE DEVICES

SERIES 76JA

Multi-turn Trimming Potentiometer

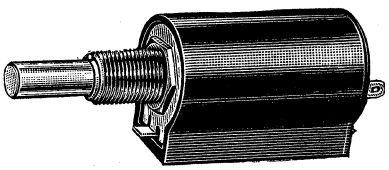


A miniature, 10-turn trimming potentiometer that offers up to 15 times the winding length available in comparable units. This feature results in setability and resolution exceeding that of trimming potentiometers several times the size. Brief specifications include a power rating of ¾ watt at 85°C derated to zero power at 150°C, resistances from 100 ohms to 20K ohms standard with other values offered on special order, standard resistance tolerance of ±5%, printed circuit or solder lug mounting, overall dimensions of only 1.250″ x 0.437″ x 0.328″.

Stock Values	Resolution %
100	0.1
200	0.09
500	0.08
1,000	0.075
2,000	0.06
5,000	0.05
10,000	0.04
20,000	0.036

SERIES 62JA

Commercial Multi-turn Potentiometer

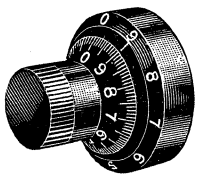


A 10-turn potentiometer offering electrical operating characteristics comparable to units costing far more. Designed specifically for the industrial instrumentation market, the Series 62JA has the inherent advantages of far greater resolution in trimming, better instrument control and settings for all types of electronic equipment. Brief specifications include: ⅞″ diameter, 1 5/16″ deep behind panel, bushing and shaft or split-locking bushing with screwdriver slot, 2 watts @ 25°C, derated to zero @ 85°C, 1000 to 100K ohms standard — others available, absolute linearity of ±0.25% standard, closer on order.

Stock Values	Resolution %	Stock Values	Resolution %
100,000	.012	10,000	.024
50,000	.013	5,000	.026
30,000	.016	2,000	.029
20,000	.019	1,000	.030

CLARODIALS

Ten-Turn Concentric Scale Dials

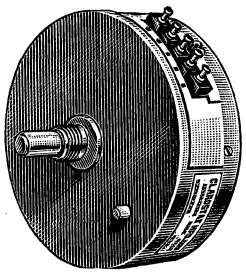


Calibrated dials designed for multi-turn potentiometers up to 10 turns or other rotary devices. CLARODIALS require only one inch of panel space. The knob attaches directly to the shaft, and the body of the dial is mounted rigidly to the panel. As a result, accurate readings with a ratio 1000:1 for ten turns are provided with zero backlash and no reading error. CLARODIALS are made of anodized aluminum for years of attractive use. Mounting requirements are ¼″ shaft and ⅜″-32 NEF-2A bushing. Adapters for ⅛″ dia. shafts are available.

Cat. No.	Description
411	Commercial 10 turn, black anodize ¼″ shaft, no lock
412	Commercial 10 turn, black anodize ¼″ shaft, with lock
461	Commercial 10 turn, clear anodize ¼″ shaft, no lock
462	Commercial 10 turn, clear anodize ¼″ shaft, with lock

SERIES 54-48JA

3″ Dia. Vari/Phase Single Turn Potentiometer

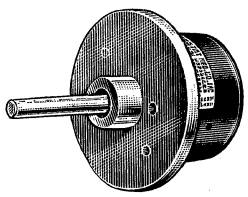


Permits external phasing of electrical rotation to mechanical rotation. Ultra precise unit for professional use. Exclusive Clarostat design eliminates bulky, hard-to-adjust clamping rings. Anodized aluminum housings for minimum weight. Widely used in aircraft instrumentation.

Stock Values	Resolution 100/Total Turns
250,000	.023%
100,000	.031%
50,000	.040%
10,000	.061%
1,000	.083%

SERIES SC42-970 SINE-COSINE

Single-Turn Potentiometer



Used in radar, computer and servomechanisms, or any application requiring two output voltages accurately proportioned to the sine and cosine rotation angle. Due to functional use, units are designed and built for exceptionally long rotational life.

SPECIFICATIONS

FUNCTION: Sine-Cosine.

TOTAL RESISTANCE: 16,000 Ω ± 10%.

POWER RATING: 2.46 watts @ 40°C. (198 volts R.M.S.)

ROTATION: (Eff., Elec., Mech) 360° (Cont.)

MAXIMUM SPEED

RECOMMENDED: 30 RPM (20 gm. contact pressure)

EXPECTED LIFE: 500,000 Cycles.

RESOLUTION: 0.14% maximum of peak to peak voltage.

CONFORMITY: Standard, ±1% peak to peak voltage (Available, ±½% peak to peak voltage. Not stocked — must be ordered special price and information on request.)

SHAFT TORQUE: 1 oz. in.

WEIGHT: 6 oz.

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PRODUCTS OF
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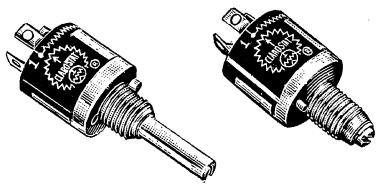
CLAROSTAT®

RESISTORS • CONTROLS
RESISTANCE DEVICES

SERIES 57M & 57EJ

½" Single Turn Potentiometers

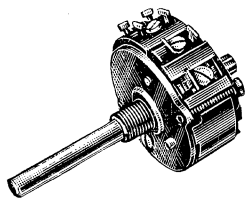


High performance potentiometer packaged in a ½" diameter housing. Quality construction throughout. Available in two models; Series 57M rated at 1.5 watts at 40°C and Series 57EJ rated at 2 watts at 70°C. The high-temperature Series 57EJ features glass-sealed terminals. Both units are corrosion resistant.

SERIES 57M & 57M9 Stock Values	SERIES 57EJA & 57EJB Stock Values	Resistance Ohms	Resolution 100/Total Turns
50 Ω	50 Ω	50,000	0.16%
100 Ω	100 Ω	20,000	0.19%
200 Ω	200 Ω	10,000	0.26%
500 Ω	500 Ω	5,000	0.30%
1000 Ω	1000 Ω	1,000	0.35%
5000 Ω	5000 Ω	500	0.45%
10,000 Ω	10,000 Ω	200	0.58%
20,000 Ω	20,000 Ω	100	0.70%
50,000 Ω	50,000 Ω	50	0.91%

SERIES 42-900

High Versatility Single-Turn Potentiometer



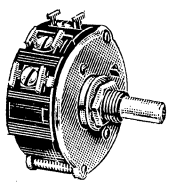
Used and approved by the millions in all types of applications ranging from ultra-critical military systems to ultra-dependable hard-working industrial equipment. Extra tap affords greater electrical versatility. Shaft extension through rear of unit permits addition of switching or other functions actuated by single shaft.

Stock Values	***Terminal Linearity	Resolution 100/Total Turns	Temp. Coefficient of Wire
100,000	±0.25%	.053%	±.00002 Ω/Ω/°C
50,000	±0.25%	.056%	±.00002 Ω/Ω/°C
20,000	±0.25%	.105%	±.00002 Ω/Ω/°C
10,000	±0.25%	.125%	±.00002 Ω/Ω/°C
5,000	±0.25%	.167%	±.00002 Ω/Ω/°C
2,500	±0.25%	.148%	±.00002 Ω/Ω/°C
1,000	±0.25%	.191%	±.00002 Ω/Ω/°C
500	±0.50%	.174%	.00017 Ω/Ω/°C
100	±0.50%	.351%	.00017 Ω/Ω/°C
50	±0.50%	.435%	.00017 Ω/Ω/°C

***Terminal Linearity: The maximum deviation of the actual output characteristic from a straight reference line extending between zero and the total applied voltage over the actual effective rotation.

SERIES 42JA

Single Turn Potentiometer



All the same fine qualities and performance tolerances of the Series 42-900, with the exception of the additional tap, and shaft extension. The ideal unit for extra-dependable potentiometer requirements.

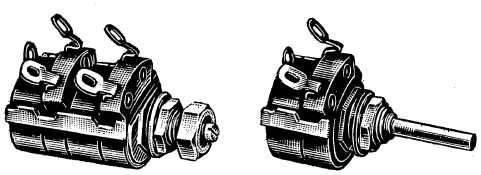
Stock Values	***Absolute Linearity	Resolution 100/Total Turns	Temp. Coefficient of Wire
100,000	±0.5%	.051%	±.00002 Ω/Ω/°C
50,000	±0.5%	.074%	±.00002 Ω/Ω/°C
20,000	±0.5%	.10%	±.00002 Ω/Ω/°C
10,000	±0.5%	.12%	±.00002 Ω/Ω/°C
5,000	±0.5%	.17%	±.00002 Ω/Ω/°C
2,500	±0.5%	.14%	±.00002 Ω/Ω/°C
1,000	±0.5%	.19%	±.00002 Ω/Ω/°C
500	±0.5%	.18%	.00017 Ω/Ω/°C
100	±1.0%	.28%	.00017 Ω/Ω/°C
50	±1.0%	.35%	.00017 Ω/Ω/°C

***Absolute Linearity: The maximum deviation of the actual output characteristic from a straight reference line extending between zero and the total applied voltage over the theoretical effective rotation.

MINIATURIZED POTENTIOMETERS

Consistent with miniaturization in Military and Commercial equipment, such as; Guided Missiles, Aircraft Electronics, Mobile Radio and Radar, Computers, Range Finders, Pocket Radios and Hearing Aids; Clarostat offers miniaturized composition element Series 48M and wire-wound Series 49M Potentiometers, and a Rotary Selector Switch designated as Series BHM to meet the switching requirements of the above mentioned and other applications.

SERIES 48M — 0.2 WATT COMPOSITION ELEMENT



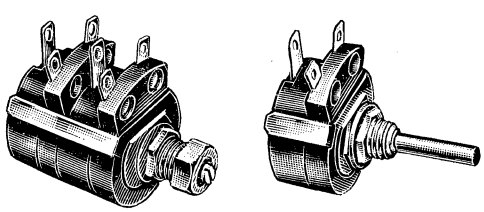
Available in single or dual, standard or shaft locking bushing. Standard bushing potentiometers have ¼" x 32 NEF-2A x ¼" long bushing and ⅛" dia. x ½" long shaft beyond bushing.

Shaft locking bushing potentiometers have ¼" x 32 NEF-2A x ⅜" long bushing and ⅛" dia. x 1/16" long screwdriver slotted shaft.

All potentiometers furnished with mounting nut 1/16" thick x 5/16" across flats, and one internal tooth lockwasher. Potentiometers with split locking bushings furnished with jam nut also.

Insulation:	Breakdown test between terminals and ground for 1 minute 1000v.a.c.; 350v.a.c. @ 3.4" Hg.
Resistance Range (Ohms):	Linear 200 to 5 Meg. Tapered 1500 to 2.5 Meg.
Resistance Tolerance:	Linear ±10% Above 100,000 ohms ±20%. Tapered ±20% all values.
Tapers:	Linear Left hand — 10% resistance at 50% rotation. "Z"
Mechanical and Electrical Rotation:	300° ±3°
Effective Rotation:	300° ±3°
Torque (oz.-in.):	0.5 to 6
Dual Construction:	Available

SERIES 49M — 1.5 WATT WIRE-WOUND



Available in single or dual, standard or shaft locking bushing. Standard bushing potentiometers have ¼" x 32 NEF-2A x ¼" long bushing and ⅛" dia. x ½" long shaft beyond bushing.

Shaft locking bushing potentiometers have ¼" x 32 NEF-2A x ⅜" long bushing and ⅛" dia. x 1/16" long screwdriver slotted shaft. All potentiometers furnished with mounting nut 1/16" thick x 5/16" across flats, and one internal tooth lock-washer. Potentiometers with shaft locking bushings furnished with jam nut also.

Fabricated in accordance with MIL-R-19

Insulation:	Breakdown test between terminals and ground for 1 minute. 1000v.a.c.; 500v.a.c. @ 3.4" Hg.
Resistance Range (Ohms):	Linear 1 to 20,000
Resistance Tolerance:	Linear ±5% Tapered Linear only
Mechanical and Electrical Rotation:	300° ±3°
Effective Rotation:	300° ±3°
Torque (oz.-in.):	0.3 to 6
Dual Construction:	Available

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MILITARY POTENTIOMETERS

ITEMS IN STOCK FOR IMMEDIATE DELIVERY

RA10 per MIL-R-19 1 WATT WIRE-WOUND POTENTIOMETERS — Commercial Equivalent — Series 49M

RA10NASD150A
RA10NASD250A
RA10NASD500A
RA10NASD750A
RA10NASD101A
RA10NASD151A
RA10NASD201A
RA10NASD251A
RA10NASD351A
RA10NASD501A
RA10NASD751A
RA10NASD102A

RA10NASD152A
RA10NASD202A
RA10NASD252A
RA10NASL150A
RA10NASL250A
RA10NASL500A
RA10NASL750A
RA10NASL101A
RA10NASL151A
RA10NASL201A
RA10NASL251A
RA10NASL351A

RA10NASL501A
RA10NASL751A
RA10NASL102A
RA10NASL152A
RA10NASL202A
RA10NASL252A
RA10LASD150A
RA10LASD250A
RA10LASD500A
RA10LASD750A
RA10LASD101A
RA10LASD151A

RA10LASD201A
RA10LASD251A
RA10LASD351A
RA10LASD501A
RA10LASD751A
RA10LASD102A
RA10LASD152A
RA10LASD202A
RA10LASD252A
RA10LASM150A
RA10LASM250A
RA10LASM500A

RA10LASM750A
RA10LASM101A
RA10LASM151A
RA10LASM201A
RA10LASM251A
RA10LASM351A
RA10LASM501A
RA10LASM751A
RA10LASM102A
RA10LASM152A
RA10LASM202A
RA10LASM252A

RA20 per MIL-R-19 2 WATT WIRE-WOUND POTENTIOMETERS — Commercial Equivalent — Series 43M

RA20NASA3R0A
RA20NASA6R0A
RA20NASA8R0A
RA20NASA100A
RA20NASA150A
RA20NASA200A
RA20NASA250A
RA20NASA350A
RA20NASA500A
RA20NASA750A
RA20NASA101A
RA20NASA151A
RA20NASA201A
RA20NASA251A
RA20NASA351A
RA20NASA501A
RA20NASA751A
RA20NASA102A
RA20NASA152A
RA20NASA202A
RA20NASA252A

RA20NASA352A
RA20NASA502A
RA20NASA752A
RA20NASA103A
RA20NASA153A
RA20NASD3R0A
RA20NASD6R0A
RA20NASD8R0A
RA20NASD100A
RA20NASD150A
RA20NASD200A
RA20NASD250A
RA20NASD350A
RA20NASD500A
RA20NASD750A
RA20NASD101A
RA20NASD151A
RA20NASD201A
RA20NASD251A
RA20NASD351A
RA20NASD501A

RA20NASD751A
RA20NASD102A
RA20NASD152A
RA20NASD202A
RA20NASD252A
RA20NASD352A
RA20NASD502A
RA20NASD752A
RA20NASD103A
RA20NASD153A
RA20LASB3R0A
RA20LASB6R0A
RA20LASB8R0A
RA20LASB100A
RA20LASB150A
RA20LASB200A
RA20LASB250A
RA20LASB350A
RA20LASB500A
RA20LASB750A
RA20LASB101A

RA20LASB151A
RA20LASB201A
RA20LASB251A
RA20LASB351A
RA20LASB501A
RA20LASB751A
RA20LASB102A
RA20LASB152A
RA20LASB202A
RA20LASB252A
RA20LASB352A
RA20LASB502A
RA20LASB752A
RA20LASB103A
RA20LASB153A
RA20LASD3R0A
RA20LASD6R0A
RA20LASD8R0A
RA20LASD100A
RA20LASD200A

RA20LASD250A
RA20LASD350A
RA20LASD500A
RA20LASD750A
RA20LASD101A
RA20LASD151A
RA20LASD201A
RA20LASD251A
RA20LASD351A
RA20LASD501A
RA20LASD751A
RA20LASD102A
RA20LASD152A
RA20LASD202A
RA20LASD352A
RA20LASD502A
RA20LASD752A
RA20LASD103A
RA20LASD153A

RA30 per MIL-R-19 4 WATT WIRE-WOUND POTENTIOMETERS — Commercial Equivalent — Series 58M

RA30NASA3R0A
RA30NASA6R0A
RA30NASA8R0A
RA30NASA100A
RA30NASA150A
RA30NASA200A
RA30NASA250A
RA30NASA350A
RA30NASA500A
RA30NASA750A
RA30NASA101A
RA30NASA151A
RA30NASA201A
RA30NASA251A
RA30NASA351A
RA30NASA501A
RA30NASA751A

RA30NASA102A
RA30NASA152A
RA30NASA202A
RA30NASA252A
RA30NASA352A
RA30NASA502A
RA30NASA752A
RA30NASA103A
RA30NASA153A
RA30NASA203A
RA30NASA253A
RA30NASD3R0A
RA30NASD6R0A
RA30NASD8R0A
RA30NASD100A
RA30NASD150A
RA30NASD200A

RA30NASD250A
RA30NASD350A
RA30NASD500A
RA30NASD750A
RA30NASD101A
RA30NASD151A
RA30NASD201A
RA30NASD251A
RA30NASD351A
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RA30NASD751A
RA30NASD102A
RA30NASD152A
RA30NASD202A
RA30NASD252A
RA30NASD352A
RA30NASD502A

RA30NASD752A
RA30NASD103A
RA30NASD153A
RA30NASD203A
RA30NASD253A
RA30LASB3R0A
RA30LASB6R0A
RA30LASB8R0A
RA30LASB100A
RA30LASB150A
RA30LASB200A
RA30LASB250A
RA30LASB350A
RA30LASB500A
RA30LASB750A
RA30LASB101A
RA30LASB151A

RA30LASB201A
RA30LASB251A
RA30LASB351A
RA30LASB501A
RA30LASB751A
RA30LASB102A
RA30LASB152A
RA30LASB202A
RA30LASB252A
RA30LASB352A
RA30LASB502A
RA30LASB752A
RA30LASB103A
RA30LASB153A
RA30LASB203A
RA30LASB253A

RV4 per MIL-R-94 2 WATT CARBON POTENTIOMETERS — Commercial Equivalent — Series 53M — Series 53C

RV4NAYSB101A
RV4NAYSB251A
RV4NAYSB501A
RV4NAYSB102A
RV4NAYSB252A
RV4NAYSB502A
RV4NAYSB103A
RV4NAYSB253A
RV4NAYSB503A
RV4NAYSB104A
RV4NAYSB254A
RV4NAYSB504A
RV4NAYSB105A
RV4NAYSB255B
RV4NAYSB505B
RV4NAYSD500A
RV4NAYSD101A
RVNAYSD151A
RV4NAYSD251A
RV4NAYSD351A
RV4NAYSD501A
RV4NAYSD751A

RV4NAYSD102A
RV4NAYSD152A
RV4NAYSD252A
RV4NAYSD352A
RV4NAYSD502A
RV4NAYSD752A
RV4NAYSD103A
RV4NAYSD153A
RV4NAYSD253A
RV4NAYSD353A
RV4NAYSD503A
RV4NAYSD753A
RV4NAYSD104A
RV4NAYSD154A
RV4NAYSD254A
RV4NAYSD354A
RV4NAYSD504A
RV4NAYSD754A
RV4NAYSD105A
RV4NAYSD155B
RV4NAYSD205B
RV4NAYSD255B

RV4NAYSD355B
RV4NAYSD505B
RV4NAYSK101A
RV4NAYSK251A
RV4NAYSK501A
RV4NAYSK102A
RV4NAYSK252A
RV4NAYSK502A
RV4NAYSK103A
RV4NAYSK253A
RV4NAYSK503A
RV4NAYSK104A
RV4NAYSK254A
RV4NAYSK504A
RV4NAYSK105A
RV4NAYSK255B
RV4NAYSK505B
RV4LAYSA500A
RV4LAYSA101A
RV4LAYSA151A
RV4LAYSA104A
RV4LAYSA351A

RV4LAYSA501A
RV4LAYSA751A
RV4LAYSA102A
RV4LAYSA152A
RV4LAYSA252A
RV4LAYSA352A
RV4LAYSA502A
RV4LAYSA752A
RV4LAYSA103A
RV4LAYSA153A
RV4LAYSA253A
RV4LAYSA353A
RV4LAYSA503A
RV4LAYSA753A
RV4LAYSA104A
RV4LAYSA154A
RV4LAYSA254A
RV4LAYSA354A
RV4LAYSA504A
RV4LAYSA754A
RV4LAYSA105A
RV4LAYSA155B

RV4LAYSA205B
RV4LAYSA255B
RV4LAYSA355B
RV4LAYSA505B
RV4LAYSD101A
RV4LAYSD501A
RV4LAYSD251A
RV4LAYSD102A
RV4LAYSD252A
RV4LAYSD502A
RV4LAYSD103A
RV4LAYSD253A
RV4LAYSD503A
RV4LAYSD104A
RV4LAYSD254A
RV4LAYSR504A
RV4LAYSD105A
RV4LAYSD255B
RV4LAYSD505B

RV6 per MIL-R-94 0.5 WATT CARBON POTENTIOMETERS — Commercial Equivalent — Series 63C

RV6NAYSD101A
RV6NAYSD251A
RV6NAYSD501A
RV6NAYSD102A
RV6NAYSD252A
RV6NAYSD502A
RV6NAYSD103A
RV6NAYSD153A
RV6NAYSD253A
RV6NAYSD503A
RV6NAYSD104A
RV6NAYSD154A

RV6NAYSD254A
RV6NAYSD504A
RV6NAYSD105A
RV6NAYSL101A
RV6NAYSL251A
RV6NAYSL501A
RV6NAYSL102A
RV6NAYSL252A
RV6NAYSL502A
RV6NAYSL103A
RV6NAYSL153A
RV6NAYSL253A

RV6NAYSL503A
RV6NAYSL104A
RV6NAYSL154A
RV6NAYSL254A
RV6NAYSL504A
RV6NAYSL105A
RV6LAYSA101A
RV6LAYSA251A
RV6LAYSA501A
RV6LAYSA102A
RV6LAYSA252A
RV6LAYSA502A

RV6LAYSA103A
RV6LAYSA153A
RV6LAYSA253A
RV6LAYSA503A
RV6LAYSA104A
RV6LAYSA154A
RV6LAYSA254A
RV6LAYSA504A
RV6LAYSA105A
RV6LAYSD101A
RV6LAYSD251A
RV6LAYSD501A

RV6LAYSD102A
RV6LAYSD252A
RV6LAYSD502A
RV6LAYSD103A
RV6LAYSD153A
RV6LAYSD253A
RV6LAYSD503A
RV6LAYSD104A
RV6LAYSD154A
RV6LAYSD254A
RV6LAYSD504A
RV6LAYSD105A

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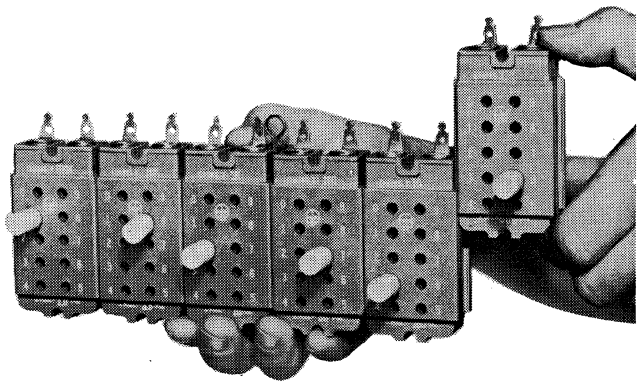
PRODUCTS OF
THE HOUSE OF RESISTORS®

CLAROSTAT®

RESISTORS • CONTROLS
RESISTANCE DEVICES

CLARO-DEC PRECISION RESISTANCE DECADE BOX

The most flexible innovation yet in precision resistance decade boxes, the Claro-Dec serves many applications with all the versatility needed for the job. Claro-Decs (within established parameters of current) are used whenever accurate steps of resistance values between .1 ohms and 900K ohms, ±1%* are required. Selection of desired steps of resistance is accomplished by insertion of a banana plug into the proper, marked front panel hole on the unit. Individual or multiple Claro-Dec units are flush panel or breadboard mounted with equal ease. Units may be physically ganged by sliding the molded-in tongue-and-groove together and electrically series connected with a supplied wire jumper or accessory banana plug.



Net Each: $3.95

MODEL	TOTAL RES. OF DECADE	RESISTANCE PER STEP	ACCURACY (+C)*	MAXIMUM CURRENT
260-1	0.9Ω	0.1Ω	±5%	1 Amp.
260-2	9Ω	1.0Ω	±1%	350 Ma
260-3	90Ω	10Ω	±1%	100 Ma
260-4	900Ω	100Ω	±1%	35 Ma
260-5	9KΩ	1KΩ	±1%	10 Ma
260-6	90KΩ	10KΩ	±1%	3.5 Ma
260-7	900KΩ	100KΩ	±1%	1.0 Ma

* C — Contact Resistance, .005 - .03 ohms, typical, .01 ohms.

CONSTRUCTION

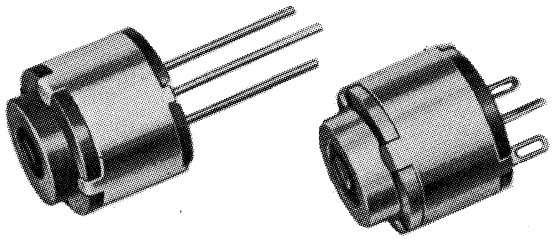
Housing — Two piece molded housing, color — grey.
Marking — Permanently marked with resistance multiplier, current rating, schematic and model number.
Resistors — Plastic coated wirewound for Models 260-1 and 260-2. Plastic coated metal film for all other models. Temperature coefficient less than 100 ppm.
Temperature — 40°C. max. at rated current, de-rated to zero at 85°C.
Weight — 2 oz. (approximate) per individual unit.

SERIES 63M TRIMMING POTENTIOMETERS

Designed specifically for application on printed circuit boards, this new configuration permits extremely close board-to-board spacing. Both metal and plastic shafts and faceplates with wire or solder terminal leads provide mounting facilities to meet virtually every application.

SPECIFICATIONS

Power Rating — .25 watt @ 70°C. Rerated to zero power @ 120°C.
Working Voltage — 350 V.D.C. across end terminals, but power not to exceed rating.



Resistance Range — 100Ω to 1 megohm, linear.
Resistance Tolerance — ±20%
Mechanical & Electrical Rotation — 295°, ±3°
Voltage Breakdcwn — 750 V.A.C. between terminals and ground for 1 minute.
Torque — 0.5 to 3 oz. in.

STYLE	DESCRIPTION	TERMINALS
63M1	Plastic Shaft & Faceplate	Solder Lug
63M2	Metal Shaft & Faceplate	Solder Lug
63M4	Plastic Shaft & Faceplate	Wire Leads
63M5	Metal Shaft & Faceplate	Wire Leads

STOCK VALUES

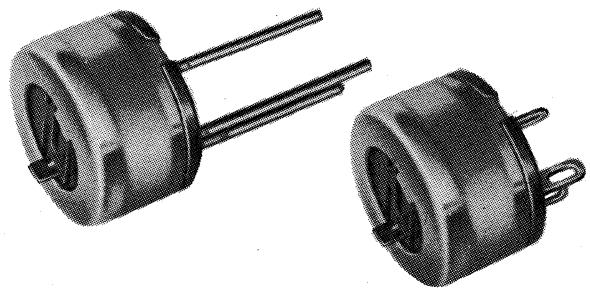
100	2.5K	25K	200K
250	5K	50K	250K
500	10K	100K	500K
1K	15K	150K	1 Meg.

SERIES 371 HOT MOLDED, LOW COST, TRIMMING POTENTIOMETERS

Construction consists of a hot molded carbon element, carbon contact brush, pressure spring and cover. Series 371-5 have standoffs to insulate metal cover from printed circuit board and a screwdriver adjustment slot.

SPECIFICATIONS

Power Rating — ⅜ watt @ 70°C derated linearly to zero watts @ 120°C.
Working Voltage — 350 V.A.C.



Resistance Range — 100 Ω to 1 megohm.
Resistance Tolerance — ± 20%
Tapers — Linear and audio.
Mecahnical & Electrical Rotation — 290° ±5°.
Dielectric Strength — Variable arm hot to case. Case to mounting plane — 750 volts R.M.S. @ atmospheric pressure.
Torque — Operating: 6.0 oz. In. max. Stop: 1 lb. In.

Style	Terminals
371-2	Solder Lugs
371-5	Wire Leads

STOCK VALUE

100	2.5K	25K	200K
250	5K	50K	250K
500	10K	100K	500K
1K	15K	150K	1 Meg.

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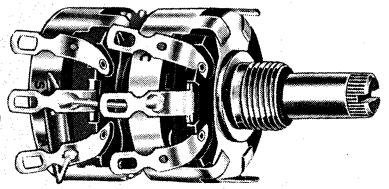
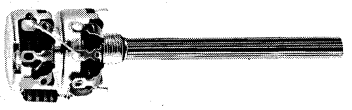
IRC-CTS SPECIAL PURPOSE CONTROLS

IRC, Inc.



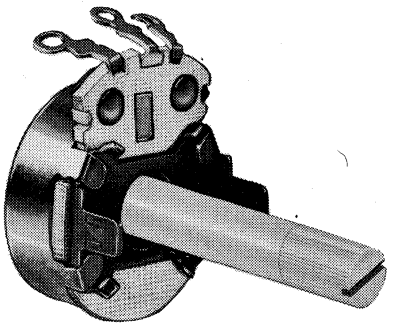
TV ATTENUATORS for on-the-spot adjustment of signal input to TV set. In most cases it corrects or reduces adjacent channel interference, background picture on weaker stations, poor definition, picture and sound breakover. Type QJ-3 is widely used in service work to duplicate fringe area signals when near strong local station.



LOUDNESS CONTROLS that are continuously compensated to boost lows and highs as volume is decreased. Maintains depth and brilliance even at whisper level. The LC-2 can easily be wired into most audio circuits. Typical installation instructions included. Uses types 76-1, 76-2 or 76-4 switches.

TV HEIGHT CONTROLS

AVOID CALL-BACK INCONVENIENCES



USES

This control is supplied for reliable replacement of TV Height Controls and other controls in B+CIRCUITS — such as AGC,

NOISE GATE,

FOCUS,

FRINGE LOCK and

SYNC controls — which have become unsatisfactory because of element etching due to voltages present in the particular circuitry.

FEATURES

- Premium quality control (originally designed for rugged service in military gear)
- 1 watt rating, 750 V. max. between outer terminals
- Small size — 15/16″ diameter — same as most original controls
- Nylon shaft — slotted and knurled — easily shortened where required
- Tab mounting
- Rear adjustment

TYPE HLC TV HEIGHT CONTROLS	
IRC Stock No.	**Resistance Value**
HLC-1	2.0 Meg. ± 30%
HLC-2	2.5 Meg. ± 30%
HLC-3	3.0 Meg. ± 30%
HLC-4	4.0 Meg. ± 30%
HLC-5	5.0 Meg. ± 30%
HLC-6	7.5 Meg. ± 30%

© U.C.P., Inc.

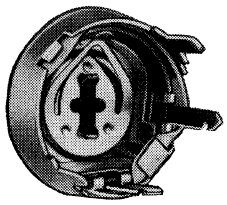
IRC-CTS SPECIAL PURPOSE CONTROLS

IRC, Inc.

2 WATT, ¾" DIAMETER WIREWOUND CONTROLS

IRC-CTS buzz-bias controls are 2 watt preset type wirewound resistors. They are designed for hum-balancing, sensitivity, bias-adjust. AGC, holding, locking, and other radio and TV applications. All units are ±20% tolerance, linear taper, and have contact arm grounded to housing.

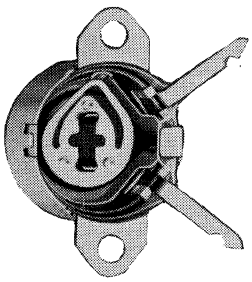
TYPE 110—TAB-MOUNT UNIT



TYPES 110 & 110D

IRC STOCK NO.	RESISTANCE
110-1.5	1.5 Ω
110-5	5 Ω
110-15	15 Ω
110-60	60 Ω
110-100	100 Ω
110-300	300 Ω
110-600	600 Ω
110-1000	1000 Ω
110-3000	3000 Ω
110-3000-350	3000 Stops at 350 Ω

TYPE 112—FLANGE MOUNT UNITS



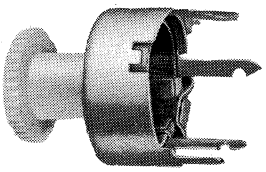
TYPE 112

IRC STOCK NO.	RESISTANCE
112-50	50Ω
112-100	100Ω
112-150	150Ω
112-200	200Ω
112-300	300Ω
112-500	500Ω
112-500-100	500Ω Stops at 100Ω
112-600	600Ω
112-650	650Ω
112-800	800Ω
112-800-50	850Ω Stops at 50Ω
112-1000	1000Ω
112-1000-100	1000Ω Stops at 100Ω
112-1500	1500Ω
112-2000	2000Ω
112-2000-100	2000Ω Stops at 100Ω
112-2500-700	2500Ω Stops at 700Ω
112-3000	3000Ω
112-4000	4000Ω
112-4000-350	4000Ω Stops at 350Ω
112-4000-1000	4000Ω Stops at 1000Ω
112-5000	5000Ω
112-10K	10KΩ

TYPE 110D—TAB-MOUNT SPECIAL TEMPERATURE COMPENSATED UNITS

IRC STOCK NO.	RESISTANCE
110D175-60	175 Ω Stops at 60 Ω Replaces Delco #7275554
110D260-90	260 Ω Stops at 90 Ω Replaces Delco #7275474

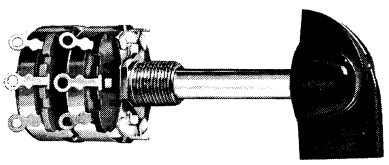
TYPE 110C—TAB-MOUNT TV COLOR CONVERGENCE CONTROLS WITH INTEGRAL NYLON KNOBS



TYPE 110C

IRC STOCK NO.	RESISTANCE
110C-10	10 Ω
110C-30	30 Ω
110C-60	60 Ω
110C-120	120 Ω
110C-150	150 Ω

L & T ATTENUATOR PADS



IRC-CTS L and T pads provide constant impedance for use in sound systems and for speaker controls. Both types handle up to 15 watts audio power (5 watts DC). L pads provide a constant input impedance and T pads provide constant input and output impedances.

ELECTRICAL SPECIFICATIONS:

Continuous D.C. Rating:		5 watts
Peak Audio Rating	:	15 watts
Dielectric Strength	:	1000 V.A.C. RMS to Ground
Attenuation Range	:	4, 8 and 16Ω IMPEDANCES: 0 to 30 db
	:	500Ω IMPEDANCE: 0 to 40 db
Insertion Loss	:	Negligible (less than .5 db)
Input Impedance	:	Constant within +30% —20%

MECHANICAL SPECIFICATIONS:

Size	:	15/16" diameter
Shaft Dimensions Diameter	:	.250"
Length	:	2" from mounting surface
Bushing	:	3/8"-32 x 3/8" long bushing
Angle of Rotation	:	300° ± 5°

IRC Stock No.	IMPEDANCE
L PADS	
LP4A	4Ω
LP8A	8Ω
LP15A	15Ω
LP500A	500Ω
T PADS	
TP4A	4Ω
TP8A	8Ω
TP15A	15Ω
TP500A	500Ω

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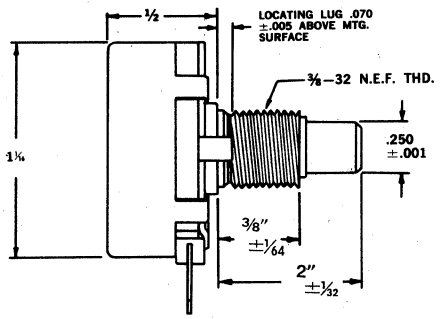
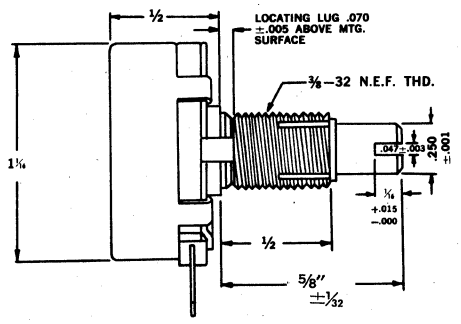
IRC-CTS INDUSTRIAL VARIABLE RESISTORS

IRC, Inc.

IRC-CTS TYPE 321 THREE-WATT INDUSTRIAL CONTROL (MILITARY GRADE)



SIDE VIEW OF TYPE 321S CONTROL



SIDE VIEW OF TYPE 321LT CONTROL WITH LOCKING BUSHING

FEATURES

- COMPLETELY ENCLOSED CONSTRUCTION
- CARBON-CERAMIC ELEMENT
- EXCELLENT HEAT SINK QUALITIES
- MEETS MIL-R-94B, STYLE RV4
- HIGH INSULATION RESISTANCE OF CERAMIC
- LONG LIFE, LOW NOISE
- LARGE SAFETY FACTOR

ELECTRICAL AND MECHANICAL SPECIFICATIONS

- **RESISTANCE RANGE**
  250 ohms through 2.5 megohms (linear taper).
- **TOLERANCE**
  ± 10% standard, ± 20% standard for values 1 megohm and above.
- **TAPERS** . . . Linear.
- **WATTAGE AND TEMPERATURE RATING**
  3 watts at 70°C or 2 watts at 95°C derated to no load at 150°C. 500 volts DC maximum safe operating voltage across resistance element.
- **MOUNTING BUSHING DIMENSIONS**
  Diameter: ⅜" — 32 N.E.F. thread
  Length: Non-Lock — ⅜" standard
  Locking — ½" standard
- **ANGLE OF ROTATION** . . . 315° ± 5°
- **SHAFT DIAMETER** . . . .250" ± .001"
- **SHAFT LENGTH**
  As shown under Ordering Information below.
- **SHAFT TRIM**
  Screwdriver slot (Type LT) standard.
- **LOCATING LUGS**
  Standard position is left side (terminals down) as illustrated.
- **TAPS** . . . None.

RANGES

TYPE 321S 2" plain shaft ⅜" long bushing	TOTAL RESISTANCE	TYPE 321LT LAYSA ⅝" slotted shaft ½" long locking bushing
PART NUMBER	(Ohms ±10%)	PART NUMBER
321S251A NAY251A	250	321LT251A LAYSA251A
321S501A NAY501A	500	321LT501A LAYSA501A
321S102A NAY102A	1,000	321LT102A LAYSA102A
321S252A NAY252A	2,500	321LT252A LAYSA252A
321S502A NAY502A	5,000	321LT502A LAYSA502A
321S103A NAY103A	10,000	321LT103A LAYSA103A
321S253A NAY253A	25,000	321LT253A LAYSA253A
321S503A NAY503A	50,000	321LT503A LAYSA503A
321S104A NAY104A	100,000	321LT104A LAYSA104A
321S254A NAY254A	250,000	321LT254A LAYSA254A
321S504A NAY504A	500,000	321LT504A LAYSA504A
	(Ohms ±20%)	
321S105B NAY105B	1 Megohm	321LT105B LAYSA105B
321S255B NAY255B	2.5 Megohms	321LT255B LAYSA255B

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IRC-CTS MILITARY CONTROLS

IRC, Inc.

IRC-CTS MILITARY VARIABLE RESISTORS TO MIL-R-19A AND MIL-R-94B

Fast, local delivery from Distributors' stock is now available for IRC-CTS military controls. A total of 255 variable resistors is included in this new, local service. The 6 styles illustrated cover the latest MIL-R-94B composition and MIL-R-19A wire wound specifications.

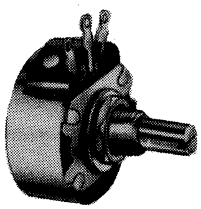
GENERAL SPECIFICATIONS

	MIL-R-19A			MIL-R-94B			
	RA20	RA30	Char.	RV2	RV4	RV5	RV6
Resistance Range (ohms)	3-15K	10-25K	X & Y	100-2.5 megs	100-5 megs	250-2.5 megs	1000-1.0 megs
Rotational Life	5% max, 25,000 cycles		X Y	10% max, 15,000 cycles 10% max, 25,000 cycles			
Load Life	3% max, 1,000 hours, rated load, 40°C		X Y	12% max, 1,000 hours, rated load, 70°C 10% max, 1,000 hours, rated load, 70°C			
Moisture Resistance	10% max, Method 106, MIL-STD-202, 3.5 megs min insulation resistance		X Y	10% average, 14% max, Method 106, MIL-STD-202, 50 megs min insulation resistance 6% average, 10% max, Method 106, MIL-STD-202, 100 megs min insulation resistance			
Low Temp. Storage	4% max		X Y	4% max 2% max			
Low Temp. Operation	4% max		X Y	4% max 3% max			
Thermal Cycling	4% max		X Y	10% max 6% max			
Acceleration	3% max		X & Y	3% max			
Shock	2% max		X & Y	2% max			
High Freq. Vibration	2% max		X & Y	2% max			
Temp. Range	—63°C to +105°C		X & Y	—63°C to 150°C			

IRC-CTS WIRE WOUND VARIABLE RESISTORS TO MIL-R-19A

STYLE RA20 2 WATT WIRE WOUND

Type 252, style RA20, $1\frac{17}{64}$" diameter wirewound variable resistor.



STYLE RA20

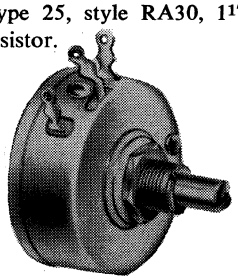
- 2 watt rating
- Compact size
- Meets MIL-R-19
- 15 resistance values
- Insulated housing
- Built-in high torque

Choice of 2 shaft styles, plain or locking bushings.

Resistance	IRC-CTS TYPE 252 ⅞" Slotted Shaft ⅜" Long Bushing Linear Resistance Taper	CTS TYPE 252LT ⅝" Slotted Shaft ½" Long Locking Bushing Linear Resistance Taper	 ⅞" Slotted Shaft ½" Long Locking Bushing Linear Resistance Taper
3 ± 10%	RA20NASD3R0A	RA20LASB3R0A	RA20LASD3R0A
10 ± 10%	RA20NASD100A	RA20LASB100A	—
25 ± 10%	RA20NASD250A	RA20LASB250A	RA20LASD250A
50 ± 10%	RA20NASD500A	RA20LASB500A	RA20LASD500A
75 ± 10%	RA20NASD750A	RA20LASB750A	—
100 ± 10%	RA20NASD101A	RA20LASB101A	RA20LASD101A
200 ± 10%	RA20NASD201A	RA20LASB201A	—
250 ± 10%	RA20NASD251A	RA20LASB251A	RA20LASD251A
500 ± 10%	RA20NASD501A	RA20LASB501A	RA20LASD501A
1,000 ± 10%	RA20NASD102A	RA20LASB102A	RA20LASD102A
2,500 ± 10%	RA20NASD252A	RA20LASB252A	RA20LASD252A
5,000 ± 10%	RA20NASD502A	RA20LASB502A	RA20LASD502A
7,500 ± 10%	RA20NASD752A	RA20LASB752A	RA20LASD752A
10,000 ± 10%	RA20NASD103A	RA20LASB103A	RA20LASD103A
15,000 ± 10%	RA20NASD153A	RA20LASB153A	RA20LASD153A

STYLE RA30 4 WATT WIRE WOUND

Type 25, style RA30, $1\frac{17}{32}$" diameter wirewound variable resistor.



STYLE RA30

- 4 watt rating
- Reliable CTS wirewound element
- Meets all MIL-R-19 requirements
- 15 resistance values
- Built-in high torque

Choice of 2 shaft styles, plain or locking bushings.

Resistance	IRC-CTS TYPE 25 ⅞" Slotted Shaft ⅜" Long Bushing Linear Resistance Taper	CTS TYPE 25LT ⅝" Slotted Shaft ½" Long Locking Bushing Linear Resistance Taper
10 ± 10%	RA30NASD100A	RA30LASB100A
25 ± 10%	RA30NASD250A	RA30LASB250A
50 ± 10%	RA30NASD500A	RA30LASB500A
100 ± 10%	RA30NASD101A	RA30LASB101A
200 ± 10%	RA30NASD201A	RA30LASB201A
250 ± 10%	RA30NASD251A	RA30LASB251A
500 ± 10%	RA30NASD501A	RA30LASB501A
750 ± 10%	RA30NASD751A	RA30LASB751A
1,000 ± 10%	RA30NASD102A	RA30LASB102A
2,500 ± 10%	RA30NASD252A	RA30LASB252A
5,000 ± 10%	RA30NASD502A	RA30LASB502A
7,500 ± 10%	RA30NASD752A	RA30LASB752A
10,000 ± 10%	RA30NASD103A	RA30LASB103A
15,000 ± 10%	RA30NASD153A	RA30LASB153A
25,000 ± 10%	RA30NASD253A	RA30LASB253A

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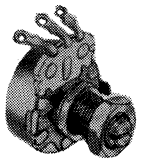
IRC-CTS MILITARY CONTROLS

IRC, Inc.

IRC-CTS COMPOSITION VARIABLE RESISTORS TO MIL-R-94B

STYLE RV2 1 WATT COMPOSITION

Type 90, style RV2, $1\frac{5}{16}$" diameter composition variable resistor.



STYLE RV2

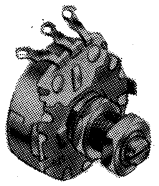
- 1 watt rating
- Operational up to 150°C
- 14 resistance values
- Meets characteristics X and Y
- Designed for high temperature and humidity military applications

Choice of 2 shaft styles, plain or locking bushings.

Resistance	IRC-CTS TYPE 90 ⅞" Slotted Shaft ⅜" Long Bushing Linear Resistance Taper		CTS TYPE 90LT ⅝" Slotted Shaft ½" Long Locking Bushing Linear Resistance Taper	
100 ± 10%	RV2NAXSD101A	RV2NAYSD101A	RV2LAXSA101A	RV2LAYSA101A
250 ± 10%	RV2NAXSD251A	RV2NAYSD251A	RV2LAXSA251A	RV2LAYSA251A
500 ± 10%	RV2NAXSD501A	RV2NAYSD501A	RV2LAXSA501A	RV2LAYSA501A
1,000 ± 10%	RV2NAXSD102A	RV2NAYSD102A	RV2LAXSA102A	RV2LAYSA102A
2,500 ± 10%	RV2NAXSD252A	RV2NAYSD252A	RV2LAXSA252A	RV2LAYSA252A
5,000 ± 10%	RV2NAXSD502A	RV2NAYSD502A	RV2LAXSA502A	RV2LAYSA502A
10,000 ± 10%	RV2NAXSD103A	RV2NAYSD103A	RV2LAXSA103A	RV2LAYSA103A
25,000 ± 10%	RV2NAXSD253A	RV2NAYSD253A	RV2LAXSA253A	RV2LAYSA253A
50,000 ± 10%	RV2NAXSD503A	RV2NAYSD503A	RV2LAXSA503A	RV2LAYSA503A
100,000 ± 10%	RV2NAXSD104A	RV2NAYSD104A	RV2LAXSA104A	RV2LAYSA104A
250,000 ± 10%	RV2NAXSD254A	RV2NAYSD254A	RV2LAXSA254A	RV2LAYSA254A
500,000 ± 10%	RV2NAXSD504A	RV2NAYSD504A	RV2LAXSA504A	RV2LAYSA504A
1.0 Meg. ± 20%	RV2NAXSD105B	RV2NAYSD105B	RV2LAXSA105B	RV2LAYSA105B
2.5 Meg. ± 20%	RV2NAXSD255B	RV2NAYSD255B	RV2LAXSA255B	RV2LAYSA255B

STYLE RV4 3 WATT COMPOSITION

Type 96/320/321, style RV4, $1\frac{1}{16}$" diameter composition variable resistor.



STYLE RV4

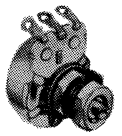
- 3 watt rating
- Completely enclosed construction
- Excellent heat sink qualities
- 15 resistance values
- Long life, no noise
- Reliable carbon-ceramic element

Choice of 2 shaft styles, plain or locking bushings.

Resistance	IRC-CTS TYPE 96/320/321 ⅞" Slotted Shaft ⅜" Long Bushing Linear Resistance Taper	CTS TYPE 96LT/320LT/321LT ⅝" Slotted Shaft ½" Long Locking Bushing Linear Resistance Taper	⅞" Slotted Shaft ½" Long Locking Bushing Linear Resistance Taper
100 ± 10%	RV4NAYSD101A	RV4LAYSA101A	RV4LAYSD101A
250 ± 10%	RV4NAYSD251A	RV4LAYSA251A	RV4LAYSD251A
500 ± 10%	RV4NAYSD501A	RV4LAYSA501A	RV4LAYSD501A
1,000 ± 10%	RV4NAYSD102A	RV4LAYSA102A	RV4LAYSD102A
2,500 ± 10%	RV4NAYSD252A	RV4LAYSA252A	RV4LAYSD252A
5,000 ± 10%	RV4NAYSD502A	RV4LAYSA502A	RV4LAYSD502A
10,000 ± 10%	RV4NAYSD103A	RV4LAYSA103A	RV4LAYSD103A
25,000 ± 10%	RV4NAYSD253A	RV4LAYSA253A	RV4LAYSD253A
50,000 ± 10%	RV4NAYSD503A	RV4LAYSA503A	RV4LAYSD503A
100,000 ± 10%	RV4NAYSD104A	RV4LAYSA104A	RV4LAYSD104A
250,000 ± 10%	RV4NAYSD254A	RV4LAYSA254A	RV4LAYSD254A
500,000 ± 10%	RV4NAYSD504A	RV4LAYSA504A	RV4LAYSD504A
1.0 Meg. ± 10%	RV4NAYSD105A	RV4LAYSA105A	RV4LAYSD105A
1.0 Meg. ± 20%	RV4NAYSD105B	RV4LAYSA105B	—
2.5 Meg. ± 20%	RV4NAYSD255B	RV4LAYSA255B	—
5.0 Meg. ± 20%	RV4NAYSD505B	RV4LAYSA505B	—

STYLE RV5 ½ WATT MINIATURE COMPOSITION

Type 65, style RV5, ¾" diameter composition register.



STYLE RV5

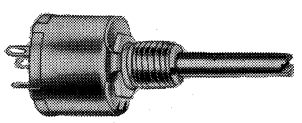
- ½ watt rating
- Small size
- 13 resistance values
- Operational up to 150°C
- Designed for high temperature and humidity applications

Choice of 2 shaft styles, plain or locking bushings.

Resistance	IRC-CTS TYPE 65 ⅞" Slotted Shaft ¼" Long Bushing Linear Resistance Taper		CTS TYPE 65LT ½" Slotted Shaft ⅜" Long Locking Bushing Linear Resistance Taper	
250 ± 10%	RV5NAXSD251A	RV5NAYSD251A	RV5LAXSB251A	RV5LAYSB251A
500 ± 10%	RV5NAXSD501A	RV5NAYSD501A	RV5LAXSB501A	RV5LAYSB501A
1,000 ± 10%	RV5NAXSD102A	RV5NAYSD102A	RV5LAXSB102A	RV5LAYSB102A
2,500 ± 10%	RV5NAXSD252A	RV5NAYSD252A	RV5LAXSB252A	RV5LAYSB252A
5,000 ± 10%	RV5NAXSD502A	RV5NAYSD502A	RV5LAXSB502A	RV5LAYSB502A
10,000 ± 10%	RV5NAXSD103A	RV5NAYSD103A	RV5LAXSB103A	RV5LAYSB103A
25,000 ± 10%	RV5NAXSD253A	RV5NAYSD253A	RV5LAXSB253A	RV5LAYSB253A
50,000 ± 10%	RV5NAXSD503A	RV5NAYSD503A	RV5LAXSB503A	RV5LAYSB503A
100,000 ± 10%	RV5NAXSD104A	RV5NAYSD104A	RV5LAXSB104A	RV5LAYSB104A
250,000 ± 10%	RV5NAXSD254A	RV5NAYSD254A	RV5LAXSB254A	RV5LAYSB254A
500,000 ± 10%	RV5NAXSD504A	RV5NAYSD504A	RV5LAXSB504A	RV5LAYSB504A
1.0 Meg. ± 20%	RV5NAXSD105B	RV5NAYSD105B	RV5LAXSB105B	RV5LAYSB105B
2.5 Meg. ± 20%	RV5NAXSD255B	RV5NAYSD255B	RV5LAXSB255B	RV5LAYSB255B

STYLE RV6 ½ WATT MINIATURE COMPOSITION

Type 300, style RV6, ½" diameter composition resistor.



STYLE RV6

- ¾ watt rating
- Miniature size
- Excellent stability
- 14 resistance values
- Reliable carbon-ceramic element
- High resolution

Choice of 2 shaft styles, plain or locking bushings.

Resistance	IRC-CTS TYPE 300 ⅞" Slotted Shaft ¼" Long Bushing Linear Resistance Taper	CTS TYPE 300LT ⅝" Slotted Shaft ½" Long Locking Bushing Linear Resistance Taper
100 ± 10%	RV6NAYSD101A	RV6LAYSA101A
250 ± 10%	RV6NAYSD251A	RV6LAYSA251A
500 ± 10%	RV6NAYSD501A	RV6LAYSA501A
1,000 ± 10%	RV6NAYSD102A	RV6LAYSA102A
2,500 ± 10%	RV6NAYSD252A	RV6LAYSA252A
5,000 ± 10%	RV6NAYSD502A	RV6LAYSA502A
10,000 ± 10%	RV6NAYSD103A	RV6LAYSA103A
25,000 ± 10%	RV6NAYSD253A	RV6LAYSA253A
50,000 ± 10%	RV6NAYSD503A	RV6LAYSA503A
100,000 ± 10%	RV6NAYSD104A	RV6LAYSA104A
250,000 ± 10%	RV6NAYSD254A	RV6LAYSA254A
500,000 ± 10%	RV6NAYSD504A	RV6LAYSA504A
1.0 Meg. ± 20%	RV6NAYSD105B	RV6LAYSA105B
2.0 Meg. ± 20%	RV6NAYSD205B	RV6LAYSA205B
2.5 Meg. ± 20%	RV6NAYSD255B	RV6LAYSA255B

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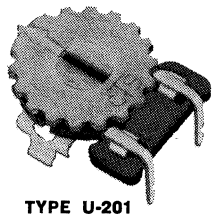
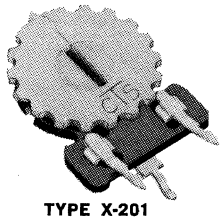
IRC-CTS CARBON & WIREWOUND TRIMMERS

IRC, Inc.



TYPE U-201



TYPE X-201

U-201 AND X-201 CARBON TRIMMERS

- Miniature Size — Knob 19/32" Diameter
- Arrow Indicator Knob
- Knob Slotted for Front or Rear Screwdriver Adjustment
- Snap-in Self-supporting Bracket Mounted
- Low Cost

Electrical Specifications

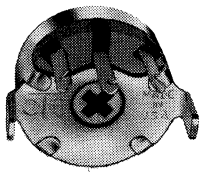
Tolerance: ±20%
Power Rating: ¼ Watt
Taper: Linear Only
Voltage Rating: 500 VDC Operating Maximum
Switches: Not Available
Taps: Not Available

Mechanical Specifications

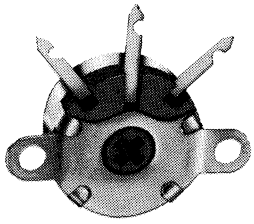
Mounting: U-201 Mounts with Knob Parallel to Printed Circuit Board
X-201 Mounts with Knob Perpendicular to Printed Circuit Board
Angle of Rotation: 260° ±5°
Terminals: Printed Circuit Type
Adjustment: Blue Nylon Knob 19/32" Diameter, Knurled with Arrow Indicator. Slotted for Front and Rear Adjustment.

STANDARD RESISTANCE RANGES

STOCK NO. TYPE U-201	STOCK NO. TYPE X-201	RESISTANCE VALUE
U201R101B	X201R101B	100Ω
U201R251B	X201R251B	250Ω
U201R501B	X201R501B	500Ω
U201R102B	X201R102B	1000Ω
U201R252B	X201R252B	2500Ω
U202R502B	X201R502B	5000Ω
U201R103B	X201R103B	10KΩ
U201R250B	X201R253B	25KΩ
U201R503B	X201R503B	50KΩ
U201R104B	X201R104B	100KΩ
U201R254B	X201R254B	250KΩ
U201R504B	X201R504B	500KΩ
U201R105B	X201R105B	1.0MΩ



TYPE P-115



TYPE 117

TYPE P115 AND 117 WIREWOUND TRIMMERS

- Fully Enclosed Construction
- Long Rotational Life
- Insulated Rotor
- Wide Resistance Range

Electrical Specifications

Tolerance: ±10%
Power Rating: 2 Watts
Taper: Linear Only
Voltage Rating: 500 VDC Operating Maximum
Shafts: 1 9/16" Delrin Plastic Shaft available, Stock #P115-117-1
Switches: Not Available
Taps: Not Available

Mechanical Specifications

Mounting: P-115 Twist Tab Mounted
117 Rivet Ear Mounted
Angle of Rotation: 270° ±5°
Terminals: Printed Circuit Type
Adjustment: Cross Slot in Nylon Rotor

STANDARD RESISTANCE RANGES

STOCK NO.		RESISTANCE
P115R5R0A	117R5R0A	5Ω
P115R100A	117R100A	10Ω
P115R250A	117R250A	25Ω
P115R500A	117R500A	50Ω
P115R101A	117R101A	100Ω
P115R251A	117R251A	250Ω
P115R501A	117R501A	500Ω
P115R102A	117R102A	1000Ω
P115R252A	117R252A	2500Ω
P115R502A	117R502A	5000Ω
P115R103A	117R103A	10KΩ

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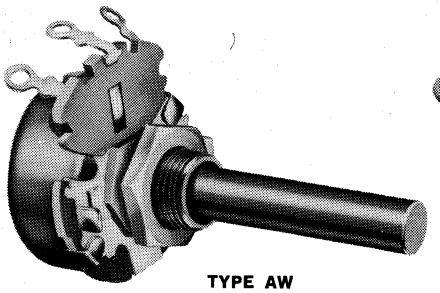
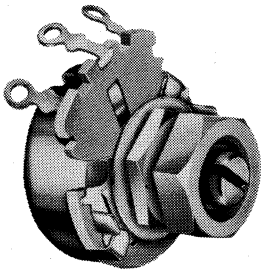
IRC-CTS CARBON & WIREWOUND CONTROLS

IRC, Inc.



TYPE AW



TYPE AWRL

- Compact Size — 15/16" Diameter
- Full 5 Watt Rating
- Economical
- Fully Enclosed Construction

Electrical Specifications

Tolerance: ±10%

Power Rating: 5 Watts

Taper: Linear Only

Voltage Rating: 500 VDC Operating Maximum

Switches: Not Available

Taps: Not Available

AW SERIES INDUSTRIAL WIREWOUND CONTROLS

Mechanical Specifications

Mounting Bushing Dimensions
Diameter: ⅜" — 32 NEF Thread
Length: AW—Non-Lock — ⅜" long
AWRL—Locking — ⅜" long

Angle of Rotation: 300° ±5°

Shaft Diameter: .250"

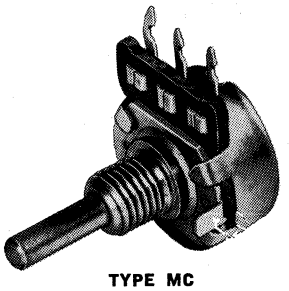
Shaft Length: Type AW — 3" F.M.S.
Type AWRL — ½" F.M.S.

Shaft Trim: Type AW — Full Round
Type AWRL — Screwdriver Slot

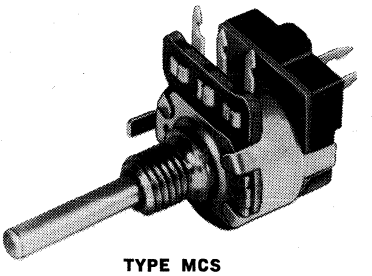
Locating Lugs: Both Sides

STANDARD RESISTANCE RANGES

AW STOCK NO.	AWRL STOCK NO.	RESISTANCE
AW10	AWRL10	10Ω
AW15	AWRL15	15Ω
AW20	AWRL20	20Ω
AW25	AWRL25	25Ω
AW50	AWRL50	50Ω
AW100	AWRL100	100Ω
AW200	AWRL200	200Ω
AW250	AWRL250	250Ω
AW500	AWRL500	500Ω
AW1000	AWRL1000	1000Ω
AW2000	AWRL2000	2000Ω
AW2500	AWRL2500	2500Ω
AW3000	AWRL3000	3000Ω
AW5000	AWRL5000	5000Ω
AW10000	AWRL10000	10KΩ



TYPE MC



TYPE MCS

- Miniature Size — ⅝" Diameter
- Wide Resistance Range
- Selection of Tapers
- Suitable for Commercial and Replacement Applications

Electrical Specifications

Tolerance: ±20%

Power Rating: ¼ Watt

Taper: Linear and Audio

Voltage Rating: 500 VDC Operating Maximum

Switches: SPST Switches Available on Certain Ranges

Taps: Not Available

SERIES 200 MINIATURE CARBON CONTROLS

Mechanical Specifications

Mounting Bushing Dimensions
Diameter: ¼" — 32 NEF-2A
Length: ¼"

Angle of Rotation
Without Switch — 300° ±5°
With Switch — 315° ±5°

Shaft Diameter: .125"

Shaft Length: 1" F.M.S.

Shaft Trim: Screwdriver Slotted

Terminals: Printed Circuit Type

STANDARD RESISTANCE RANGES

TYPE MC—WITHOUT SWITCH			TYPE MCS—WITH SWITCH		
STOCK NO.	OHMS	TAPER	STOCK NO.	OHMS	TAPER
MC102D	1000Ω	Linear	MC252AS	2500Ω	Audio
MC252A	2500Ω	Audio	MC502AS	5000Ω	Audio
MC502A	5000Ω	Audio	MC502DS	5000Ω	Linear
MC502D	5000Ω	Linear	MC103AS	10KΩ	Audio
MC103D	10KΩ	Linear	MC504AS	500KΩ	Audio
MC253D	25KΩ	Linear	MC105AS	1.0MΩ	Audio
MC503D	50KΩ	Linear			
MC104D	100KΩ	Linear			
MC254D	250KΩ	Linear			
MC504A	500KΩ	Audio			
MC504D	500KΩ	Linear			
MC105A	1.0MΩ	Audio			
MC105D	1.0MΩ	Linear			

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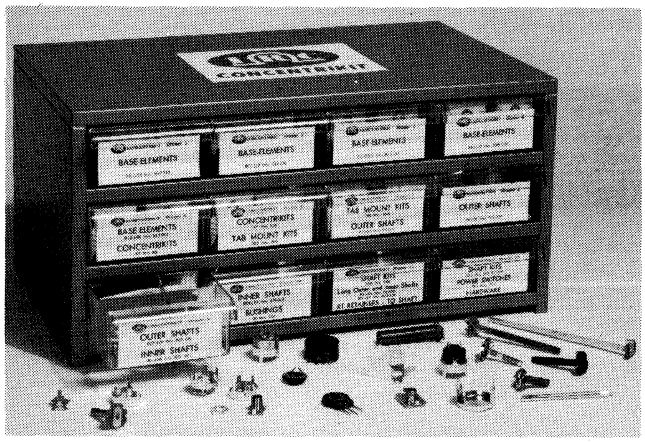
IRC-CTS CONCENTRIKIT® DEALER STOCKS

IRC, Inc.



HANDSOME STOCK CABINET

The same spacious stock cabinet is provided with either the No. 90 or No. 92 stocks. Permits ready conversion of Basic Stock to Expanded Stock. Sturdy two-shelf metal cabinet measures 17⅞″ wide, 11¹⁄₁₆″ deep and 9″ high. Provides twelve large "see-thru" drawers with new locking divider feature. Drawers measure 11″ deep, 4″ wide and 2″ high—956 cubic inches of stock space! All needed dividers are included. Both drawer front and bottom labels provide full location and identification data.

EXTENSIVE VARIATION OF CONTROL TYPES

CONCENTRIKIT Dealer Control Stocks provide an extensive variation of single and concentric dual control types. Included are a wide selection of control mountings, shafts, and power switches with both carbon (½ watt) and wire-wound (4 watts) front and rear sections. Control mountings include ⅜″, ⁷⁄₁₆″ and ½″ diameter bushings, tab mounting plates and printed circuit brackets. Shaft styles include ¼″ and ³⁄₁₆″ diameter universal shafts, screw-driver slotted and insulated shafts, rear adjustment feature and a large selection of exact duplicate shafts which require no cutting or modification.

Rotary and pull-push power switches attach to either single or concentric dual styles. Concentric dual controls include carbon front and rear sections, wirewound front and rear sections and wirewound front sections with carbon rear sections. Carbon units are equipped with printed circuit terminals for universal use. Broad selection of resistance values and tapers. Replacement data, pricing information and full instructions included.

CONCENTRIKIT DEALER CONTROL STOCKS

Most widely used control replacement system, the new CONCENTRIKIT stocks employ the unique adaptability of this true control parts system to provide top coverage of needed replacement controls. Parts included have been carefully selected for broadest combinations for TV, radio, auto sets and high-fidelity equipment. The exclusive features of CONCENTRIKIT afford a nearly endless variety of single and concentric dual controls.

Two specially planned dealer stocks are available. No. 90 is a Basic Stock of Concentrikit parts. No. 92 is an Expanded Stock providing over three times the replacement coverage. Both stocks are housed in the same large metal cabinet with twelve "see-thru" drawers. Special labelling supplies quick location and identification of parts. No. 91 Conversion Stock changes the Basic Stock into the Expanded Stock.

CONTENTS OF NEW DEALER CONCENTRIKIT STOCKS

DESCRIPTION	BASIC STOCK No. 90	CONVERSION STOCK No. 91	EXPANDED STOCK No. 92
Carbon Base-Elements	25	22	47
Wirewound Base-Elements	—	6	6
Exact Duplicate Concentric Shafts	86	29	115
CONCENTRIKITS	9	5	14
Single Control Shaft Kits	14	8	22
Separate Insulated Shafts	—	2	2
Printed Circuit Bracket	1	—	1
Special Bushings	—	3	3
Power Switches (Rotary and Pull-Push)	8	8	16
Hardware Items	4	—	4
Replacement Manual	1	—	1
Instruction Package	1	—	1

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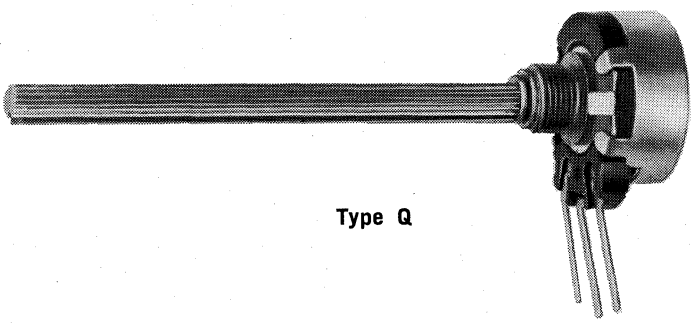
IRC-CTS CONCENTRIKIT® TYPE Q

IRC, Inc.

IRC-CTS TYPE Q CONTROLS AND BASE ELEMENTS

Type Q Replacement Controls and the versatile Type Q Base-Element provide the broadest selection of resistance values and tapers. Type Q is equipped with 3″ long Knobmaster Shaft—flatted, grooved and knurled for universal knob fit. Bushing ⅜—32 by ¼″ long FMS. Stock numbers in parentheses ( ) may be assembled with Base-Element indicated and SK1 Kit. PPQ items may be assembled with Base-Element listed and either SK7 or SK8 as required.



Type Q

LISTING BY RESISTANCE VALUE

OHMS	TAP	TAPER*	Q CONTROL STOCK NO.**	Q BASE-ELEMENT STOCK NO.
100	—	1 (A)	(Q11-084)	B11-084
250	—	2 (A)	Q11-201	B11-201
300	—	1 (A)	(Q11-102)	B11-102
500	—	1 (A)	Q11-103	B11-103
500	—	5 (P)	(Q17-103)	B17-103
500	60	14 (S)	(Q17-103X)	B17-103X
750	—	1 (A)	Q11-105	B11-105
750	—	5 (P)	Q17-105	B17-105
750	250	8 (S)	Q17-105X	B17-105X
1000	—	2 (A)	Q11-108	B11-108
1000	—	5 (P)	Q17-108	B17-108
1000	150	20 (S)	(Q17-108X)	B17-108X
1200	—	4 (Q)	(Q17-208)	B17-208
1500	—	2 (A)	Q11-109	B11-109
1500	—	4 (Q)	Q17-109	B17-109
1500	180	27 (S)	(Q15-109X)	B15-109X
1500	185 & 375	34 (S)	(Q17-109XX)	B17-109XX
2000	—	2 (A)	Q11-110	B11-110
2000	—	4 (Q)	Q17-110	B17-110
2000	550	38 (S)	(Q17-110X)	B17-110X
2000	250 & 500	34 (S)	Q17-110XX	B17-110XX
2500	—	2 (A)	(Q11-111)	B11-111
2500	—	3 (C)	Q13-111	B13-111
2500	—	4 (Q)	Q17-111	B17-111
2500	250	13 (S)	(Q15-111X)	B15-111X
2500	500	21 (S)	(Q17-111X)	B17-111X
2500	625	28 (S)	(Q27-111X)	B27-111X
3000	—	2 (A)	Q11-112	B11-112
3000	—	4 (Q)	Q17-112	B17-112
3000	150	9 (S)	(Q17-112X)	B17-112X
5000	—	2 (A)	Q11-114	B11-114
5000	—	3 (C)	Q13-114	B13-114
5000	—	4 (Q)	Q17-114	B17-114
5000	500	13 (S)	(Q15-114X)	B15-114X
5000	1000	21 (S)	(Q17-114X)	B17-114X
7500	—	2 (A)	Q11-115	B11-115
7500	3750	12	(Q21-115X)	B21-115X
10 K	—	2 (A)	Q11-116***	B11-116
10 K	—	3 (C)	Q13-116	B13-116
10 K	—	23 (D)	Q14-116***	B14-116
10 K	—	4 (Q)	Q17-116	B17-116
10 K	300	22 (S)	(Q15-116X)	B15-116X
10 K	5000	12	(Q19-116X)	B19-116X

LISTING BY RESISTANCE VALUE

OHMS	TAP	TAPER*	Q CONTROL STOCK NO.**	Q BASE-ELEMENT STOCK NO.
11.5 K	—	5 (Q)	(Q17-117)	B17-117
15 K	—	2 (A)	(Q11-118)	B11-118
15 K	5000	29 (S)	Q17-118X	B17-118X
15 K	10 K	8 (S)	Q13-118X	B13-118X
15 K	5000 & 10 K	33 (S)	Q13-118XX	B13-118XX
15 K	5000 & 10 K	48 (S)	Q17-118XX	B17-118XX
20 K	—	2 (A)	Q11-119	B11-119
20 K	—	4 (Q)	(Q17-119)	B17-119
20 K	—	45 (S)	Q16-119***	B16-119
20 K	6000	11	(Q19-119X)	B19-119X
25 K	—	2 (A)	Q11-120	B11-120
25 K	—	3 (C)	Q13-120	B13-120
25 K	—	23 (D)	Q14-120	B14-120
25 K	—	4 (Q)	(Q17-120)	B17-120
30 K	—	2 (A)	Q11-121	B11-121
30 K	10 K	8 (S)	(Q20-121X)	B20-121X
35 K	—	2 (A)	Q11-122	B11-122
50 K	—	2 (A)	Q11-123	B11-123
50 K	—	3 (C)	Q13-123	B13-123
50 K	—	23 (D)	Q14-123***	B14-123
50 K	—	4 (Q)	(Q17-123)	B17-123
75 K	—	2 (A)	Q11-125	B11-125
100 K	—	2 (A)	Q11-128	B11-128
100 K	—	3 (C)	Q13-128	B13-128
100 K	—	4 (Q)	(Q17-128)	B17-128
125 K	—	2 (A)	Q11-228	B11-228
150 K	—	2 (A)	Q11-328	B11-328
150 K	—	3 (C)	Q13-328	B13-328
150 K	19 K & 38 K	34 (S)	Q17-328XX	B17-328XX
200 K	—	2 (A)	Q11-129	B11-129
200 K	—	4 (Q)	(Q17-129)	B17-129
250 K	—	2 (A)	Q11-130	B11-130
250 K	—	3 (C)	Q13-130	B13-130
250 K	60 K	44 (H)	Q18-130X	B18-130X
250 K	125 K	12 (S)	Q13-130X	B13-130X
250 K	60 K & 120 K	46 (S)	Q18-130XX	B18-130XX
300 K	—	2 (A)	Q11-131	B11-131
350 K	—	2 (A)	Q11-132	B11-132
350 K	—	3 (C)	Q13-132	B13-132
350 K	35 K	13 (S)	Q17-132X	B17-132X
350 K	75 K	30 (H)	Q18-132X	B18-132X
400 K	—	2 (A)	(Q11-232)	B11-232

* Taper listing shows both new (numerical) Taper and old (alphabetical) Taper. See Taper explanation chart, page 28.

** Stock numbers listed in parentheses ( ) are not available as factory-assembled controls. Use Q Base-Element shown with SK1 Kit for field assembly of such items.

*** Supplied with 270Ω bias resistor.

LISTING CONTINUED ON NEXT PAGE

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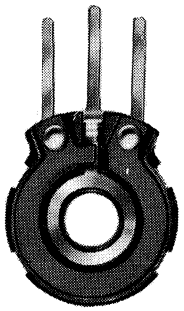
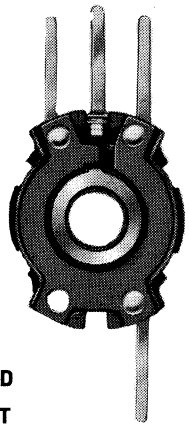
IRC-CTS CONCENTRIKIT® TYPE Q

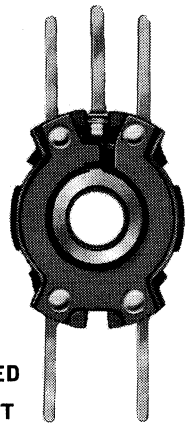
IRC, Inc.



PLAIN BASE ELEMENT



SINGLE TAPPED BASE ELEMENT



DOUBLE TAPPED BASE ELEMENT

LISTING BY RESISTANCE VALUE

OHMS	TAP	TAPER*	Q CONTROL STOCK NO.**	Q BASE-ELEMENT STOCK NO.
500 K	—	2 (A)	Q11-133	B11-133
500 K	—	3 (C)	Q13-133	B13-133
500 K	—	23 (D)	Q14-133	B14-133
500 K	—	4 (Q)	Q17-133	B17-133
500 K	25 K	40 (S)	Q17-133X	B17-133X
500 K	50 K	13 (S)	Q18-133X	B18-133X
500 K	75 K	24 (S)	(Q15-133X)	B15-133X
500 K	125 K	44 (H)	Q13-133X	B13-133X
500 K	180 K	31 (S)	(Q20-133X)	B20-133X
500 K	250 K	12 (S)	Q19-133X	B19-133X
500 K	100 K & 200 K	35 (S)	Q18-133XX	B18-133XX
500 K	167 K & 330 K	17 (S)	(Q20-133XX)	B20-133XX
600 K	—	2 (A)	Q11-134	B11-134
750 K	—	2 (A)	Q11-136	B11-136
1.0 M	—	2 (A)	Q11-137	B11-137
1.0 M	—	3 (C)	Q13-137	B13-137
1.0 M	—	23 (D)	Q14-137	B14-137
1.0 M	—	4 (Q)	Q17-137	B17-137
1.0 M	35 K	22 (S)	Q17-137X	B17-137X
1.0 M	100 K	13 (S)	Q18-137X	B18-137X
1.0 M	250 K	44 (H)	Q13-137X	B13-137X
1.0 M	500 K	12 (S)	Q19-137X	B19-137X
1.0 M	500 K	32 (S)	QVC-539X	BVC-539X
1.0 M	50 K & 100 K	36 (S)	Q17-137XX	B17-137XX
1.0 M	250 K & 500 K	18 (S)	Q18-137XX	B18-137XX
1.25 M	—	4 (Q)	(Q17-237)	B17-237
1.25 M	750 K	10 (S)	(Q18-237X)	B18-237X
1.5 M	—	2 (A)	Q11-138	B11-138
1.5 M	—	3 (C)	(Q13-138)	B13-138
1.5 M	—	4 (Q)	(Q17-138)	B17-138
1.5 M	250 K	26 (S)	Q13-138X	B13-138X
2.0 M	—	2 (A)	Q11-139	B11-139
2.0 M	—	3 (C)	Q13-139	B13-139
2.0 M	—	4 (Q)	Q17-139	B17-139
2.0 M	50 K	22 (S)	Q19-139X	B19-139X
2.0 M	150 K	37 (S)	Q17-139X	B17-139X
2.0 M	500 K	44 (H)	Q13-139X	B13-139X
2.0 M	1.0 M	12 (S)	Q18-139X	B18-139X
2.0 M	250 K & 500 K	43 (S)	Q18-139XX	B18-139XX
2.0 M	500 K & 1.0 M	18 (S)	Q13-139XX	B13-139XX
2.5 M	—	2 (A)	Q11-239	B11-239
2.5 M	—	4 (Q)	(Q17-239)	B17-239
3.0 M	—	2 (A)	Q11-140	B11-140

LISTING BY RESISTANCE VALUE

OHMS	TAP	TAPER*	Q CONTROL STOCK NO.**	Q BASE-ELEMENT STOCK NO.
3.0 M	—	3 (C)	Q13-140	B13-140
3.0 M	—	4 (Q)	Q17-140	B17-140
3.0 M	900 K	47 (S)	Q13-140X	B13-140X
3.0 M	1.5 M	12 (S)	Q18-140X	B18-140X
4.0 M	—	2 (A)	(Q11-240)	B11-240
4.0 M	open at 25 K	39 (S)	(Q-12-240)	B12-240
5.0 M	—	2 (A)	Q11-141	B11-141
5.0 M	—	6 (S)	Q12-141	B12-141
5.0 M	—	3 (C)	Q13-141	B13-141
5.0 M	—	4 (Q)	Q17-141	B17-141
5.0 M	—	7 (S)	(Q12-241)	B12-241
5.0 M	open at 500 K	41 (S)	(Q12-341)	B12-341
5.0 M	1.0 M	30 (S)	(Q13-141X)	B13-141X
5.0 M	2.5 M	12 (S)	(Q18-141X)	B18-141X
7.5 M	—	2 (A)	Q11-142	B11-142
10.0 M	—	2 (A)	Q11-143	B11-143

FACTORY-ASSEMBLED TYPE Q CONTROL WITH PULL-PUSH SWITCH

OHMS	TAP	TAPER*	Q CONTROL STOCK NO.	Q BASE-ELEMENT STOCK NO.
500	—	2 (A)	PPQ11-103-SK7	B11-103
200 K	—	2 (A)	PPQ11-129-SK7	B11-129
250 K	—	3 (C)	PPQ13-130-SK7	B13-130
500 K	—	3 (C)	PPQ13-133-SK7	B13-133
500 K	125 K	44 (H)	PPQ13-133X-SK8	B13-133X
1.0 M	—	2 (A)	PPQ11-137-SK7	B11-137
1.0 M	—	2 (A)	PPQ11-137-SK8	B11-137
1.0 M	—	3 (C)	PPQ13-137-SK7	B13-137
1.0 M	—	3 (C)	PPQ13-137-SK8	B13-137
1.0 M	100 K	13 (S)	PPQ18-137X-SK8	B18-137X
1.0 M	250 K	44 (H)	PPQ13-137X-SK7	B13-137X
1.0 M	250 K	44 (H)	PPQ13-137X-SK8	B13-137X
1.0 M	500 K	12 (S)	PPQ19-137X-SK8	B19-137X
2.0 M	—	3 (C)	PPQ13-139-SK8	B13-139
2.0 M	1.0 M	12 (S)	PPQ18-139X-SK7	B18-139X
2.0 M	1.0 M	12 (S)	PPQ18-139X-SK8	B18-139X
3.0 M	1.5 M	12 (S)	PPQ18-140X-SK8	B18-140X

* Taper listing shows both new (numerical) Taper and old (alphabetical) Taper. See Taper explanation chart, page 28.
** Stock numbers listed in parentheses ( ) are not available as factory-assembled controls. Use Q Base-Element shown with SK1 Kit for field assembly of such items.

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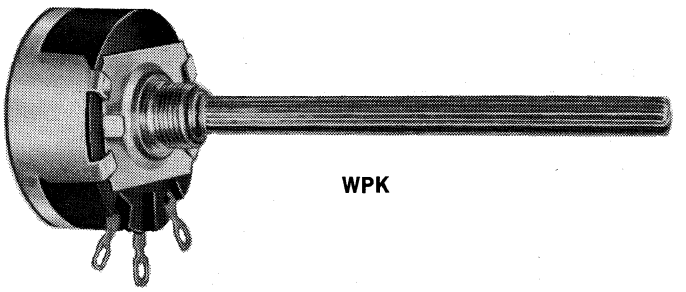
IRC-CTS TYPE 4W CONTROLS AND BASE ELEMENTS

IRC, Inc.

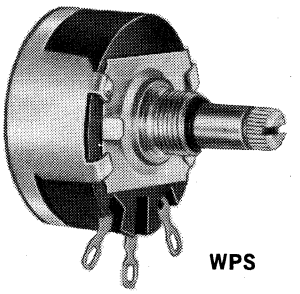
Types WPK and WPS are compact, 1¼" diameter wire wound controls available for replacement use in two popular shaft styles and an extensive variety of resistance values and tapers. Many stock numbers can be supplied as factory-assembled units. All stock numbers may be assembled in field using Base-Element with SK4 or SK5 Kit as desired.

Resistance elements are uniformly wound with highest grade alloy resistance wire on special form that withstands high temperature without shrinking. Pressure molded plastic housing is designed for maximum heat dissipation and accurate location of terminals. Contactor and collector are of long-wearing alloy that makes direct contact.

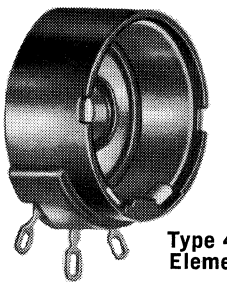
Resistance tolerance is ± 10%.



WPK



WPS



Type 4W Element

LISTING BY RESISTANCE VALUE

OHMS	TAP	TAPER	TYPE WPK STOCK NO.*	TYPE WPS STOCK NO.*	4W BASE-ELEMENT STOCK NO.
10	—	U	WPK10	(WPS10)	W11-010
10	5	U	(WPK10X5)	WPS10X5	W11-010X
15	7.5	U	(WPK15X7.5)	WPS15X7.5	W11-015X
20	—	U	WPK20	(WPS20)	W11-020
20	10	U	(WPK20X10)	WPS20X10	W11-020X
25	—	U	(WPK25)	WPS25	W11-025
25	12.5	U	(WPK25X12.5)	WPS25X12.5	W11-025X
30	—	U	WPK30	(WPS30)	W11-030
30	15	U	(WPK30X15)	WPS30X15	W11-030X
40	—	U	(WPK40)	WPS40	W11-040
40	20	U	(WPK40X20)	WPS40X20	W11-040X
50	—	U	WPK50	(WPS50)	W11-050
50	25	U	(WPK50X25)	WPS50X25	W11-050X
60	—	U	(WPK60)	WPS60	W11-060
80	40	U	(WPK80X40)	WPS80X40	W11-080X
100	—	U	WPK100	(WPS100)	W11-084
100	50	U	(WPK100X50)	WPS100X50	W11-084X
140	70	U	(WPK140X70)	WPS140X70	W11-092X
150	75	U	(WPK150X75)	WPS150X75	W11-094X
200	—	U	WPK200	(WPS200)	W11-100
200	100	U	(WPK200X100)	WPS200X100	W11-100X
250	—	U	WPK250	WPS250	W11-201
300	—	U	WPK300	(WPS300)	W11-102
400	—	U	WPK400	(WPS400)	W11-202
500	—	U	WPK500	WPS500	W11-103
500	—	L	(WPK500L)	WPS500L	W13-103
600	—	U	WPK600	(WPS600)	W11-104
650	—	U	WPK650	(WPS650)	W11-204
750	—	U	WPK750	(WPS750)	W11-105
750	—	L	WPK750L	(WPS750L)	W13-105
750	—	R	WPK750R	(WPS750R)	W17-105
750	250	S	(WPK750X250)	(WPS750X250)	W17-105X

LISTING BY RESISTANCE VALUE

OHMS	TAP	TAPER	TYPE WPK STOCK NO.*	TYPE WPS STOCK NO.	4W BASE-ELEMENT STOCK NO.
1000	—	U	WPK1000	WPS1000	W11-108
1350	—	U	WPK1350	(WPS1350)	W11-308
1350	—	R	WPK1350R	(WPS1350R)	W17-308
1500	—	U	WPK1500	WPS1500	W11-109
1500	—	L	WPK1500L	(WPS1500L)	W13-109
1500	500	S	(WPK1500X500)	(WPS1500X500)	W17-109X
2000	—	U	WPK2000	WPS2000	W11-110
2000	—	L	WPK2000L	(WPS2000L)	W13-110
2250	—	U	(WPK2250)	WPS2250	W11-210
2250	—	L	WPK2250L	WPS2250L	W13-210
2500	—	U	WPK2500	WPS2500	W11-111
2500	—	R	WPK2500R	(WPS2500R)	W17-111
3000	—	U	WPK3000	WPS3000	W11-112
3000	—	R	(WPK3000R)	(WPS3000R)	W17-112
3300	—	L	(WPK3300L)	(WPS3300L)	W13-212
4000	—	U	(WPK4000)	WPS4000	W11-113
4000	—	L	WPK4000L	WPS4000L	W13-113
5000	—	U	WPK5000	WPS5000	W11-114
5000	—	L	WPK5000L	(WPS5000L)	W13-114
5000	—	R	(WPK5000R)	(WPS5000R)	W17-114
6000	—	U	WPK6000	(WPS6000)	W11-214
6000	—	L	WPK6000L	(WPS6000L)	W13-214
7500	—	U	WPK7500	(WPS7500)	W11-115
7500	—	L	WPK7500L	(WPS7500L)	W13-115
10 K	—	U	WPK10000	WPS10000	W11-116
12.5 K	—	U	WPK12500	(WPS12500)	W11-217
15 K	—	U	WPK15000	(WPS15000)	W11-118
20 K	—	U	WPK20000	(WPS20000)	W11-119
25 K	—	U	WPK25000	(WPS25000)	W11-120
30 K	—	U	WPK30000	(WPS30000)	W11-121
40 K	—	U	WPK40000	(WPS40000)	W11-222
50 K	—	U	WPK50000	(WPS50000)	W11-123

* Stock numbers listed in parentheses ( ) are not available as factory-assembled controls. Use 4W Base-Element shown with SK4 Kit (for WPK) or SK5 Kit (for WPS). See Taper explanation chart, page 28.

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IRC-CTS CONCENTRIKIT® TYPE Q & 4W PARTS

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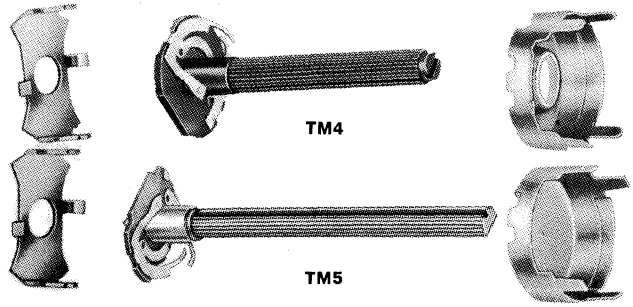
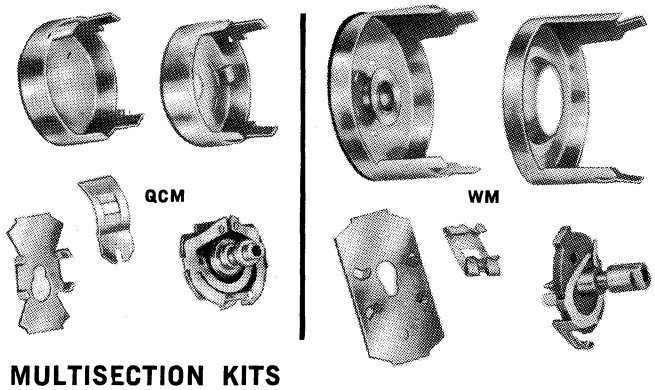


SHAFT KITS FOR TAB-MOUNTED CONTROLS

Similar to SK Kits, the TM series provide tab-mounting plate instead of bushing. Metal-cased 76-1, 76-2 and 76-4 may be used with this series. Kits include shaft, tab-mount plate and cover.

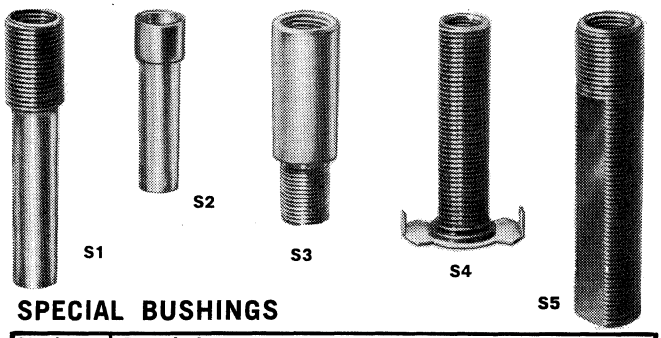
Stock No.	Description
TM1	1/4" diameter shaft, 1/4" long FMS. Screwdriver slot and short knurl.
TM2	1/4" diameter shaft, 5/8" long FMS. Screwdriver slot and short knurl.
TM3	1/4" diameter shaft, 1" long FMS. Screwdriver slot and short knurl.
TM4	1/4" diameter insulated shaft, 1 1/2" long FMS. Slotted and knurled full length. Not used with switches.
TM5	Knobmaster shaft, 2" long FMS. Knurled, grooved and flatted.
TM6	Special rounded and slotted shaft for G.E. 25/32" long FMS.
TM7	Special rounded and slotted shaft for G.E. 19/32" long FMS.
TM8	3/16" diameter shaft 2" long FMS. Flatted and grooved.
TM9	Reverse tab mount kit nylon shaft, 1 1/2" FMS. 1/4" dia., slotted and knurled.
TM10	Tab mount kit nylon shaft, 1 3/16" FMS. 3/16" dia., flatted full length.



MULTISECTION KITS

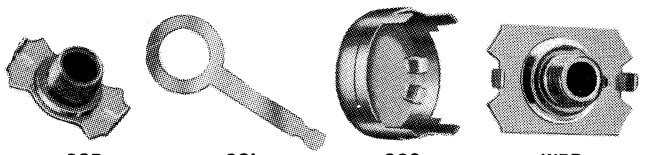
These kits provide parts needed to assemble desired Base-Element into a Multisection or rear control section. Permits assembly of dual, triple or quadruple section controls. Each kit contains internal shaft contactor assembly, front and rear covers, coupling plate and section coupler. Close-coupled construction provides minimum depth behind panel.

Stock No.	Description
QCM	Multisection Kit for Type Q. Specially designed for critical requirements of stereo controls. Will operate rotary power switches.
WM	Multisection Kit for Type 4W. Will not operate power switches.



SPECIAL BUSHINGS

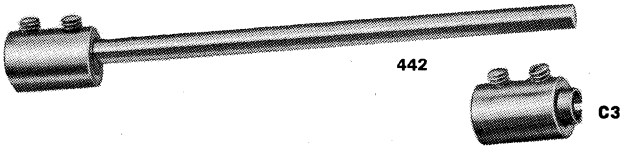
Stock No.	Description
S1	Sleeve Bushing—attaches to 3/8—32 Bushing.
S2	Bearing Bushing—attaches to 3/8—32 Bushing.
S3	Spacer Bushing—attaches to 3/8—32 Bushing. Sets control 1" behind panel.
S4	Universal 7/16" diameter Bushing—Type Q only. 1 1/2" FMS.
S5	Universal 1/2" diameter Bushing—attaches to 3/8—32 Bushing. 2 1/4" FMS.



Q/4W CONTROL PARTS

These parts facilitate assembly of many varied controls using desired shafts and base elements.

Stock No.	Description
QCB	Type Q Bushing. 3/8"—32 thread. 1/4" long FMS. For single controls.
QCB-1	Type Q Bushing. 3/8"—32 thread. 3/8" long FMS. For single controls.
QCB-2	Type Q Bushing. 3/8"—32 thread. 7/16" long FMS. For single controls.
QCB-3	Type Q Locking Bushing. 3/8"—32 thread. 3/8" FMS.
QCB-4	Type Q Bushing. 3/8"—32 thread. 1 3/16" FMS. For single controls.
QCB-5A	Type Q Bushing. 3/8"—32 thread. 2" FMS. For concentric dual controls.
QCB-6	Universal 7/16" Diameter Bushing. 1" FMS, attaches to 3/8" —32 Bushings. Can be used as L and T Pad Bushing extender.
QCC	Type Q Cover. For plain or tapped controls.
QCL	Grounding Lug for 3/8"—32 Bushing. Lug length 1 3/16" from hole center.
QCN	Mounting Nut for 3/8"—32 thread.
QCP	Printed circuit bracket w/nut.
WPB	Type 4W Bushing. 3/8"—32 thread. 1/4" long FMS.
WPC	Type 4W Cover.



EXTENSION SHAFTS & COUPLERS

Stock No.	Description
441	Extension Shaft—4" x 1/4" with 1/32" flat.
442	Extension Shaft—4" x 1/4" with 3/32" flat.
443	Extension Shaft—4" x 3/16" with 1/64" flat.
444	Extension Shaft—8"x1/4" with 3/32" flat for 4".
C3	Shaft Coupler—couples 1/4" shafts; insert allows coupling of 1/4" shaft to 3/16" shaft.

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IRC-CTS CONCENTRIKIT® TYPE Q & 4W PARTS

IRC, Inc.

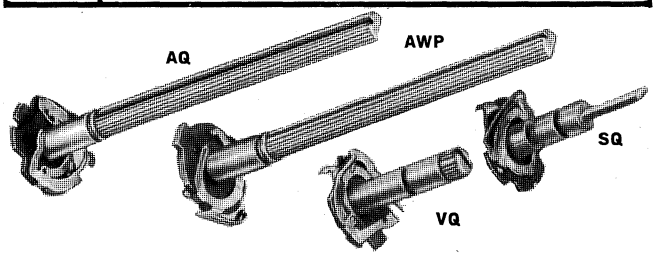
R7

N

KA1

HARDWARE FOR CONCENTRIKIT®

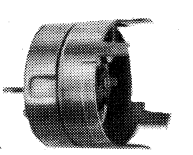
Stock No.	Description
KA1	Knob Adapter. Fits rear section shaft to knob requirements of over-size shaft. Converts .187" diameter shaft to .202" diameter.
N1	Mounting Nut for 7/16" Bushings (5/8" across flats).
N2	Mounting Nut for 1/2" Bushnigs (5/8" across flats).
N3	Mounting Nut for 1/2" Bushings (5/8" across flats).
N4	Mounting Nut for 7/16" Bushings (1/2" across flats).
R2	Concentrikit.
R3	Q Concentric Duals.
R4	WP Concentric Duals.
R5	Ground Plate Tab Concentric Dual.
R6	Retainers as supplied in K16, K17 and K18 Kits.
R7	Shaft retainer for 1/4" diameter shafts. Replaces R1.

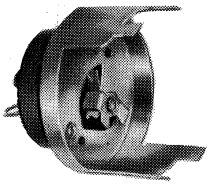


SINGLE CONTROL SHAFTS

Using control parts listed on the previous page, these shafts will assemble many variations of Types Q and 4W controls. Individually boxed with R7 retainer (except TQ).

Stock No.	Description
AQ	Knobmaster shaft, 1/4" diameter, 3" long FMS. Flatted, grooved and knurled full length. Fits knobs requiring flatted or knurled shaft. Uses QCB Bushing. For Type Q.
AQ-5	Same as AQ but 5" long FMS. For Type Q. (Bushing included.)
AWP	Same as AQ but for Type WPK control.
AWP-5	Same as AWP but 5" long FMS.
JQ	1/8" diameter shaft, 4 1/8" long FMS. Flatted .105" full length. Uses QCB Bushing. For Type Q.
NQ	3/16" diameter shaft, 4" long FMS. Flatted and grooved full length. Uses QCB Bushing. For Type Q.
PQ	1/4" diameter shaft, 3" long FMS. Full round. May be used with 1/4" or 3/8" long bushings. (3/8" long bushing included.) For Type Q.
PWP	Same as PQ but for Type WP control.
RQ	1/4" diameter shaft, 1/2" long FMS. Screwdriver slotted. Used with 3/8" long bushing only (included). For Type RQ.
SQ	1/4" diameter shaft, 3/4" long FMS. Screwdriver slotted with short knurl. Uses QCB Bushing. For Type Q.
SWP	Same as SQ but for Type WPS. Uses WPB Bushing.
TQ	1/4" diameter shaft, 3" long FMS. Insulated, full round. Cannot be used with switch. Uses QCB, QCB-1, QCB-2. For Type Q.
VQ	1/4" diameter shaft, 1 5/16" long FMS. Tongued end 3/16" wide by 7/16" long by .050" thick. Uses QCB Bushing. For Type Q.
WQ	1/4" diameter shaft, 1" long FMS. Tongued end 1/4" wide by 1/2" long by .062" thick. Uses QCB Bushing. For Type Q.

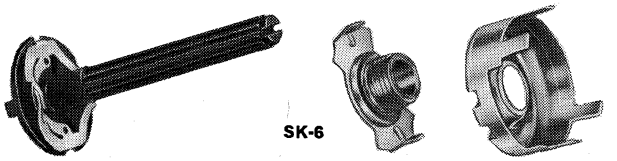

76-1

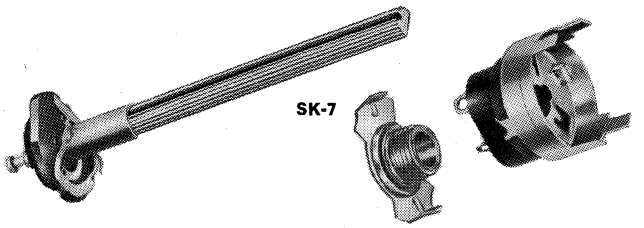

76-11

POWER SWITCHES

Easily attached to Type Q or Type 4W controls. Stock No. 76-5 supplied for replacement only. For attachment of this pull-push switch to controls, use SK7 or SK8 Kit below with desired Base-Element.

Stock No.	Description
76-1	S.P.S.T.—Rotary type for Type Q.
76-2	D.P.S.T.—Rotary type for Type Q
76-4	S.P.D.T.—Rotary type for Type Q. Used also as "make-one, break-one" for spot-killer switch in TV.
76-5	S.P.S.T.—Pull-push type for Type Q.
76-11	S.P.S.T.—Rotary type for Types WP, WPK, WPRL, WPS.
76-12	D.P.S.T.—Rotary type for Types WP, WPK, WPRL, WPS.





SHAFT KITS FOR BUSHING MOUNTED CONTROLS

Package of parts for assembly of specific standard or special control type. Includes shaft, bushing and cover. Add desired Base-Element.

Stock No.	Description
SK1	Assembles Q Control with Knobmaster Shaft.
SK2	Assembles Q Control with RQ Shaft.
SK3	Assembles Q Control with SQ Shaft.
SK4	Assembles WPK Control.
SK5	Assembles WPS Control.
SK6	Assembles Q Control with Insulated Shaft.
SK7	Assembles Q Control with Knobmaster Shaft and 76-5 Pull-push Switch (Switch included). Shaft is 3" FMS.
SK8	Assembles Q Control with 3/16" diameter universal shaft and 76-5 Pull-push Switch (Switch included). Shaft is 3 1/2" FMS.
SK9	Assembles Q Control with 3/16" diameter universal shaft. 3 1/2" FMS.

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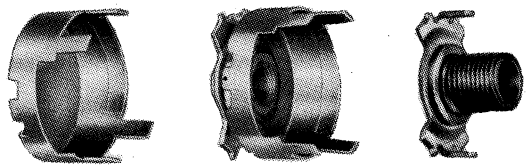
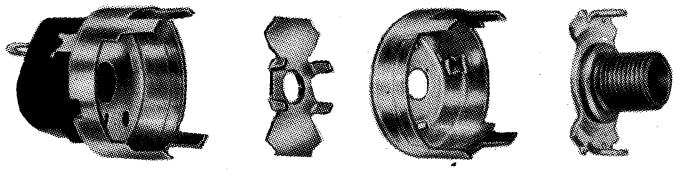
IRC-CTS CONCENTRIKIT® FOR CONCENTRIC DUALS

IRC, Inc.



K-2



K-16

CONCENTRIKITS® FOR CONCENTRIC DUALS

Broadest replacement coverage of concentric dual controls for TV, radio and auto sets is provided by CONCENTRIKIT® — the unique control parts system. Wide selection of exact duplicate shafts and bushings eliminates cutting, filing and slotting. The CONCENTRIKITS® are packaged groups of parts common to specific control types. Base-Elements are listed on pages 1196, 1197 and 1198. Specifications for nearly 2000 Exact Duplicate Controls included in Howard W. Sams "REPLACEMENT GUIDE FOR TV AND AUTO RADIO CONTROLS."

TONE SWITCHES

Special tone switch Base-Elements for use in panel section of auto radio controls. Packed with detent-type panel cover.

Stock No.	Description
BS1	4 Position Tone Switch for Ford.
BS2	4 Position Tone Switch for Delco.
BS3	3 Position Tone Switch for Philco.
BS4	4 Position Tone Switch for Delco.
BS5	4 Position Tone Switch for Lincoln and Mercury.

CONCENTRIKITS®

Common parts for various types of concentric dual controls. Used with specific exact duplicate shafts and Base-Elements as specified in Howard W. Sams Replacement Control Guide, RGC.

Concentrikit	Panel Section	Rear Section	Bushing Size
K2*	C	C	3/8" x 3/8"
K3	W	C	3/8" x 3/8"
K4*	C	C	3/8" x 3/4"
K5*	C	C	3/8" x 1/4"
K6	C	C	3/8" x 3/8"
K7	C	C	3/8" x 3/4"
K8	C	C	None
K9	TS	C	None
K10	W	W	3/8" x 3/8"
K11	W	C	3/8" x 1/4"
K12	C	W	3/8" x 3/8"
K13	W	W	3/8" x 1/4"
K14	W	W	3/8" x 3/4"
K15	C	C	3/8" x 1/4"
K16**	C	C	3/8" x 3/8"
K17**	C	C	3/8" x 3/4"
K18**	C	C	3/8" x 1/4"

* Spaced construction. All others close-coupled.
** 76-5 Pull-push Switch included.
C—Carbon. W—Wire. TS—Tone Switch.

EXACT DUPLICATE SHAFTS

OUTER SHAFT SPECIFICATIONS

Shaft Type	Slot Width-Depth	Flat Length	Base-Element
P1**	1/8" x 3/8"	17/32"	Q
P2**	1/16" x 1/2"	17/32"	Q
P3	1/8" x 3/8"	17/32"	W
P4	1/8" x 3/8"	3/4"	W
P5	1/16" x 3/8"	17/32"	W
P6**	1/8" x 3/8"	11/16"	Q
P7**	.120" x "3/8	17/32"	Q
P8	*	*	W
P9**	*	*	Q
P10**	1/8" x 7/16"	17/32"	Q
P11**	3/64" x 1/16"	—	Q
P12**	1/8" x 3/16"	—	Q
P13	1/8" x 1/4"	—	Q
P14	1/8" x 3/16"	—	Q
P15	1/8" x 1/4"	—	TS
P16	.132" x 3/16"	—	Q
P17	1/8" x 3/8"	5/8"	Q
P18	3/64" x 1/16"	—	W
P19	3/64" x 1/16"	—	Q
P20	*	*	Q
P21	1/8" x 7/16"	5/8"	Q
P22	1/8" x 1/2"	7/8"	Q
P23	1/8" x 19/32"	—	Q
P24***	—	17/32"	Q
P25***	—	17/32"	Q

* Knurled Band 1/8" wide.
** Spaced construction. All others close-coupled.
*** .250" diameter.

INNER SHAFT SPECIFICATIONS

Shaft Type	Dia.	Slot Width-Depth	Flat Length	Base-Element
R1	.187"	1/16" x 1/2"	1/2"	Q
R2	.202"	1/16" x 1/2"	1/2"	Q
R3	.190"	Split Knurl	—	Q
R4	.180"	Round and Slotted	—	Q
R5	.187"	Rear Extension	—	Q
R6	.202"	Rear Extension	—	Q
R7	.189"	Split Knurl	—	Q
R8	.187"	1/16" x 1/2"	1/2"	W
R9	.187"	1/16" x 1/2"	5/8"	Q
R10	.187"	1/8" Wide Knurl	—	W
R11	.187"	1/8" Wide Knurl	—	Q
R12	.202"	7/32" Wide Knurl	—	Q
R13	.180"	5/8" Deep Slot	—	Q
R14	.202"	1/16" x 1/2"	5/8"	Q
R15	.202"	3/64" x 1/16"	—	Q
R16	.187"	1/16" x 1/2"	25/32"	Q
R17	.202"	1/16" x 1/2"	11/16"	Q
R18	.202"	1/16" x 1/2"	1/2"	W
R19	.202"	3/64" x 1/16"	—	W
R20	.187"	3/64" x 1/16"	—	Q
R21	.180"	1/16" x 5/8"	—	Q
R22	.202"	Rear Extension	—	W
R23*	.187"	—	17/32"	Q
R24*	.187"	1/16" x 1/2"	—	Q
R25*	.187"	—	1/2"	Q
R26	.187"	1/16" x 5/8"	25/32"	Q

* Used with Pull-push Switch.

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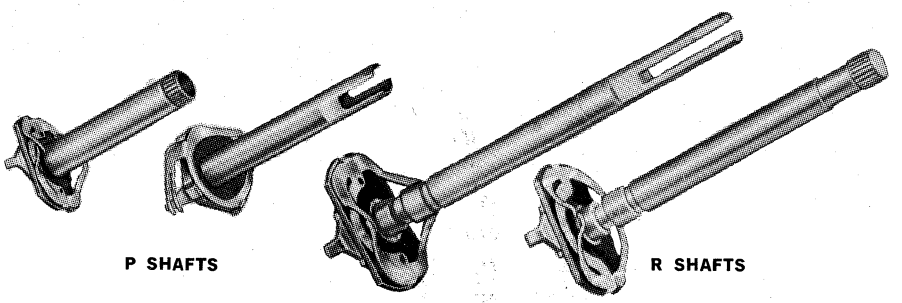
IRC-CTS CONCENTRIKIT® EXACT DUPLICATE SHAFT SPECIFICATIONS

IRC, Inc.

EXACT DUPLICATE SHAFTS

Stock numbers and corresponding lengths are listed on these pages. In general, the last three numbers of the stock number indicates shaft length from control mounting face (not end of bushing) to end of shaft. Of the last three numbers, the first indicates number of inches and the second and third number indicates the number of 32nds. For Stock No. P1-210, length is 2 10/32" or 2 5/16". For inner shafts employed with K3 CONCENTRI-KIT, subtract 3/32" from dimension indicated by stock number.

There is an IRC-CTS Exact Duplicate Shaft available for nearly every concentric dual control. These Outer and Inner Shafts require no modification. Shaft lengths are held within close limits to original shaft lengths. Careful attention is given to end trims for fit to original knobs. The specifications on this page provide dimensions and use.



P SHAFTS R SHAFTS

OUTER SHAFTS

Stock No.	Shft. Lgth.	Stock No.	Shft. Lgth.	Stock No.	Shft. Lgth.	Stock No.	Shft. Lgth.	Stock No.	Shft. Lgth.	Stock No.	Shft. Lgth.	Stock Stock	Shft. Shft.
P1-017	1/32"	P1-306	3 3/16"	P3-129	1 29/32"	P7-222	2 11/16"	P13-122	1 11/16"	P15-114	1 7/16"	P18-015	1 5/32"
P1-020	5/8"	P1-308	3 1/4"	P3-131	1 31/32"	P8-016	1/2"	P13-128	1 7/8"	P15-120	1 5/8"	P18-018	9/16"
P1-024	3/4"	P1-310	3 5/16"	P3-203	2 3/32"	P8-020	5/8"	P13-200	2"	P15-122	1 11/16"	P19-012	3/8"
P1-028	7/8"	P1-314	3 7/16"	P3-208	2 1/4"	P8-100	1"	P13-210	2 5/16"	P15-130	1 15/16"	P19-016	1/2"
P1-030	15/16"	P1-317	3 17/32"	P3-210	2 5/16"	P8-106	1 3/16"	P13-214	2 7/16"	P15-200	2"	P20-101	1 1/32"
P1-102	1 1/16"	P1-320	3 5/8"	P3-212	2 3/8"	P8-424	4 3/4"	P13-217	2 17/32"	P15-204	2 1/8"	P20-104	1 1/8"
P1-106	1 3/16"	P1-325	3 25/32"	P3-214	2 7/16"	P9-018	9/16"	P14-014	7/16"	P15-206	2 3/16"	P20-212	2 3/8"
P1-109	1 9/32"	P1-400	4"	P3-217	2 17/32"	P9-021	21/32"	P14-016	1/2"	P15-218	2 9/16"	P21-029	29/32"
P1-112	3/8"	P1-405	4 5/32"	P3-223	2 23/32"	P9-101	1 1/32"	P14-019	19/32"	P16-023	23/32"	P22-015	15/32"
P1-114	1 7/16"	P2-031	31/32"	P3-226	2 13/16"	P9-104	1 1/8"	P14-024	3/4"	P16-027	27/32"	P22-021	21/32"
P1-116	1 1/2"	P2-116	1 1/2"	P3-400	4"	P9-112	1 3/8"	P14-026	13/16"	P17-024	3/4"	P22-027	27/32"
P1-118	1 5/8"	P2-118	1 5/8"	P3-405	4 5/32"	P9-116	1 1/2"	P14-029	29/32"	P17-028	7/8"	P22-100	1"
P1-121	1 21/32"	P2-128	1 7/8"	P4-115	1 15/32"	P9-124	1 3/4"	P14-102	1 1/16"	P17-031	31/32"	P22-103	1 3/32"
P1-123	1 23/32"	P2-200	2"	P4-121	1 21/32"	P9-128	1 7/8"	P14-112	1 3/8"	P17-102	1 1/16"	P22-109	1 9/32"
P1-126	1 13/16"	P2-209	2 9/32"	P4-124	1 3/4"	P9-209	2 9/32"	P14-118	1 5/8"	P17-105	1 5/32"	P22-115	1 15/32"
P1-128	1 7/8"	P2-214	2 7/16"	P5-206	2 3/16"	P9-212	2 3/8"	P14-121	1 21/32"	P17-108	1 1/4"	P22-121	1 21/32"
P1-200	2"	P2-218	2 9/16"	P6-028	7/8"	P10-110	1 5/16"	P14-125	1 25/32"	P17-112	1 3/8"	P22-203	2 3/32"
P1-204	2 1/8"	P2-222	2 11/16"	P6-102	1 1/16"	P10-225	2 25/32"	P14-130	1 15/16"	P17-115	1 15/32"	P22-312	3 3/8"
P1-206	2 3/16"	P2-226	2 13/16"	P6-112	1 3/8"	P10-227	2 27/32"	P14-202	2 1/16"	P17-118	1 9/16"	P22-315	3 15/32"
P1-210	2 5/16"	P3-028	7/8"	P6-122	1 11/16"	P10-308	3 1/4"	P14-204	2 1/8"	P17-120	1 5/8"	P23-100	1"
P1-212	2 3/8"	P3-100	1"	P6-125	1 25/32"	P11-018	9/16"	P14-206	2 3/16"	P17-123	1 23/32"	P23-103	1 3/32"
P1-216	2 1/2"	P3-104	1 1/8"	P6-130	1 15/16"	P11-024	3/4"	P14-208	2 1/4"	P17-126	1 13/16"	P23-112	1 3/8"
P1-220	2 5/8"	P3-106	1 3/16"	P6-200	2"	P11-102	1 1/16"	P14-211	2 11/32"	P17-129	1 29/32"	P23-130	1 15/16"
P1-222	2 11/16"	P3-111	1 11/32"	P6-202	2 1/16"	P12-122	1 1/16"	P14-214	2 7/16"	P17-204	2 1/8"	P24-030	15/16"
P1-224	2 3/4"	P3-114	1 7/16"	P6-211	2 11/32"	P12-204	2 1/8"	P14-303	3 3/32"	P17-208	2 1/4"	P24-103	1 3/32"
P1-226	2 13/16"	P3-116	1 1/2"	P6-218	2 9/16"	P13-022	1 1/16"	P15-019	1 9/32"	P17-214	2 7/16"	P25-121	1 21/32"
P1-229	2 29/32"	P3-118	1 5/8"	P6-224	2 3/4"	P13-104	1 1/8"	P15-026	1 3/16"	P17-224	2 3/4"		
P1-300	3"	P3-121	1 21/32"	P6-302	3 1/16"	P13-113	1 13/32"	P15-102	1 1/16"	P17-300	3"		
P1-302	3 1/16"	P3-123	1 23/32"	P7-109	1 9/32"	P13-116	1 1/2"	P15-106	1 3/16"	P17-310	3 5/16"		
P1-304	3 1/8"	P3-127	1 27/32"	P7-206	2 5/16"	P13-118	1 5/16"	P15-112	1 3/8"	P17-316	3 1/2"		

INNER SHAFTS

Stock No.	Shft. Lgth.	Stock No.	Shft. Lgth.	Stock No.	Shft. Lgth.	Stock No.	Shft. Lgth.	Stock No.	Shft. Lgth.	Stock No.	Shft. Lgth.	No. No.	Lgth. Lgth.
R1-024	3/4"	R1-304	3 1/8"	R2-230	2 15/16"	R7-212	2 3/8"	R12-119	1 19/32"	R16-313	3 13/32"	R23-312	3 3/8"
R1-028	7/8"	R1-308	3 1/4"	R2-300	3"	R7-229	2 29/32"	R12-122	1 11/16"	R17-203	2 3/32"	R24-109	1 9/32"
R1-100	1"	R1-312	3 3/8"	R2-306	3 3/16"	R8-213	2 13/32"	R12-129	1 29/32"	R17-206	2 3/16"	R24-115	1 15/32"
R1-103	1 3/32"	R1-316	3 1/2"	R2-308	3 1/4"	R9-110	1 5/16"	R12-131	1 31/32"	R17-216	2 1/2"	R24-124	1 3/4"
R1-105	1 5/32"	R1-323	3 23/32"	R2-310	3 5/16"	R9-112	1 3/8"	R12-206	2 3/16"	R18-200	2"	R24-127	1 27/32"
R1-108	1 1/4"	R1-326	3 13/16"	R2-312	3 3/8"	R9-115	1 15/32"	R13-316	3 1/2"	R19-011	1 1/32"	R24-204	2 1/8"
R1-111	1 11/32"	R1-417	4 17/32"	R2-314	3 7/16"	R9-202	2 1/16"	R13-331	3 31/32"	R19-014	7/16"	R24-208	2 1/4"
R1-113	1 13/32"	R1-420	4 5/8"	R2-318	3 9/16"	R9-205	2 5/32"	R14-116	1 1/2"	R20-208	2 1/4"	R24-216	2 1/2"
R1-115	1 15/32"	R2-028	7/8"	R2-322	3 11/16"	R9-208	2 1/4"	R14-128	1 7/8"	R20-213	2 13/32"	R24-224	2 3/4"
R1-118	1 9/16"	R2-103	1 3/32"	R2-329	3 29/32"	R9-211	2 11/32"	R14-204	2 1/8"	R21-201	2 1/32"	R24-306	3 1/4"
R1-122	1 11/16"	R2-105	1 5/32"	R2-401	4 1/32"	R9-214	2 7/16"	R14-211	2 11/32"	R21-220	2 5/8"	R24-328	3 7/8"
R1-126	1 13/16"	R2-110	1 5/16"	R2-420	4 5/8"	R9-222	2 11/16"	R14-214	2 7/16"	R22-200	2"	R25-118	1 9/16"
R1-130	1 15/16"	R2-115	1 15/32"	R2-426	4 13/16"	R9-314	3 1/16"	R14-229	2 29/32"	R23-107	1 7/32"	R25-200	2"
R1-200	2"	R2-117	1 17/32"	R2-429	4 29/32"	R9-324	3 3/4"	R14-302	3 1/16"	R23-114	1 7/16"	R26-112	1 3/8"
R1-202	2 1/16"	R2-119	1 19/32"	R3-204	2 1/8"	R10-028	7/8"	R14-308	3 1/4"	R23-119	1 19/32"	R26-121	1 21/32"
R1-205	2 5/32"	R2-124	1 3/4"	R3-223	2 23/32"	R10-431	4 31/32"	R14-409	4 9/32"	R23-122	1 11/16"	R26-124	1 3/4"
R1-207	2 7/32"	R2-127	1 27/32"	R3-331	3 31/32"	R11-028	7/8"	R14-414	4 7/16"	R23-125	1 25/32"	R26-206	2 3/16"
R1-209	2 9/32"	R2-131	1 31/32"	R4-106	1 3/16"	R11-031	31/32"	R14-426	4 13/16"	R23-128	1 7/8"	R26-215	2 15/32"
R1-210	2 5/16"	R2-200	2"	R4-210	2 5/16"	R11-108	1 1/4"	R15-005	5/32"	R23-200	2"	R26-230	2 15/16"
R1-212	2 3/8"	R2-204	2 1/8"	R4-212	2 3/8"	R11-112	1 3/8"	R15-009	9/32"	R23-202	2 1/16"	R26-303	3 3/32"
R1-214	2 7/16"	R2-206	2 3/16"	R4-221	2 21/32"	R11-118	1 5/16"	R15-014	7/16"	R23-205	2 5/32"	R26-309	3 9/32"
R1-216	2 1/2"	R2-209	2 9/32"	R4-226	2 13/16"	R11-124	1 3/4"	R15-017	17/32"	R23-208	2 1/4"	R26-312	3 3/8"
R1-218	2 9/16"	R2-212	2 3/8"	R4-228	2 7/8"	R11-200	2"	R15-028	7/8"	R23-211	2 11/32"	R26-315	3 15/32"
R1-220	2 5/8"	R2-216	2 1/2"	R4-306	3 3/16"	R11-216	2 1/2"	R16-106	1 3/16"	R23-216	2 1/2"		
R1-223	2 23/32"	R2-218	2 9/16"	R4-322	3 11/16"	R11-219	2 19/32"	R16-112	1 3/8"	R23-218	2 9/16"		
R1-226	2 13/16"	R2-220	2 5/8"	R5-215	2 15/32"	R12-026	13/16"	R16-118	1 5/8"	R23-223	2 23/32"		
R1-228	2 7/8"	R2-222	2 11/16"	R6-208	2 1/4"	R12-029	29/32"	R16-127	1 27/32"	R23-226	2 13/16"		
R1-300	3"	R2-226	2 13/16"	R7-208	2 1/4"	R12-108	1 1/4"	R16-205	2 5/32"	R23-229	2 29/32"		

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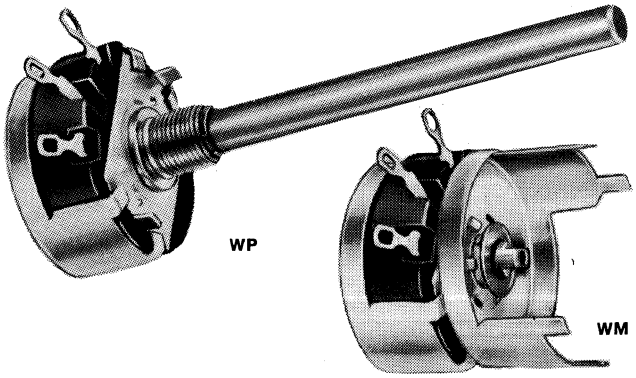
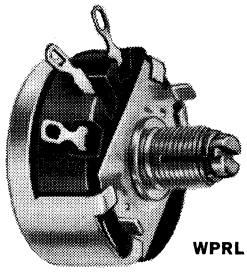
IRC-CTS INDUSTRIAL 4W CONTROLS

IRC, Inc.

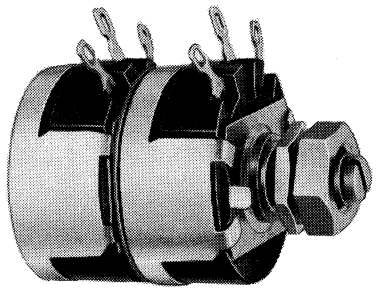


WP

WM MULTISECTION



WPRL



WPRL with Multisection

TYPE 4/W INDUSTRIAL CONTROLS

IRC-CTS Type 4W Controls for industry provide 4 watt (linear) rating in conventional 2 watt size. Available in wide assortment of resistance values. Types WP and WPRL may be combined with Type WM Multisections to provide broad selection of tandem dual controls.

Special platings of metal parts provide outstanding appearance. Resistance tolerance of all units is ± 10%.

TYPE WP

A wirewound industrial control with ⅜-32 x ⅜" bushing and a full round shaft of ¼" diameter, approximately 3" long from mounting face. For 2, 3 and 4 watt requirements — 10% tolerance; linear taper; in 36 stock values as listed on the opposite page.

TYPE WM MULTISECTIONS

These 4 watt Multisections are rear control sections which add to Types WP and WPRL to supply a wide selection of tandem dual controls. Available in 13 factory-assembled stock numbers. WM Multisections do not operate power switches.

TYPE WPRL

A wirewound industrial control with a short, screwdriver slot shaft of ¼" diameter and approximately ½" long from mounting face, with ⅜" locking type bushing, and locking nut. For 2, 3 and 4 watt requirements — 10% tolerance; linear taper; 36 stock values.

IRC-CTS TYPE 4/W INDUSTRIAL CONTROLS STOCK LIST

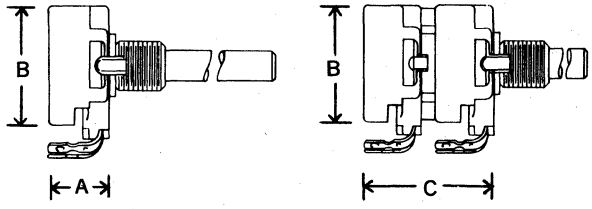
STOCK VALUES OF TYPE WP AND WPRL CONTROLS AND MULTISECTIONS 10% TOLERANCE

Ohms	Taper*	Type WP	Type WPRL	Multisections
2	U (Lin.)	WP2	WPRL2	—
3	U	WP3	WPRL3	—
5	U	WP5	WPRL5	—
6	U	WP6	WPRL6	—
8	U	WP8	WPRL8	—
10	U	WP10	WPRL10	—
15	U	WP15	WPRL15	—
20	U	WP20	WPRL20	—
25	U	WP25	WPRL25	—
30	U	WP30	WPRL30	—
40	U	WP40	WPRL40	—
50	U	WP50	WPRL50	WM50
60	U	WP60	WPRL60	—
75	U	WP75	WPRL75	—
100	U	WP100	WPRL100	WM100
200	U	WP200	WPRL200	WM200
250	U	WP250	WPRL250	WM250
300	U	WP300	WPRL300	—
400	U	WP400	WPRL400	—
500	U	WP500	WPRL500	WM500
750	U	WP750	WPRL750	—
1,000	U	WP1000	WPRL1000	WM1000
1,500	U	WP1500	WPRL1500	WM1500
2,000	U	WP2000	WPRL2000	WM2000
2,500	U	WP2500	WPRL2500	WM2500
3,000	U	WP3000	WPRL3000	WM3000
4,000	U	WP4000	WPRL4000	—
5,000	U	WP5000	WPRL5000	WM5000
7,500	U	WP7500	WPRL7500	—
7,500	L (L.H. Log.)	—	—	WM7500L
10,000	U	WP10000	WPRL10000	WM10000
15,000	U	WP15000	WPRL15000	—
20,000	U	WP20000	WPRL20000	—
25,000	U	WP25000	WPRL25000	—
30,000	U	WP30000	WPRL30000	—
40,000	U	WP40000	WPRL40000	—
50,000	U	WP50000	WPRL50000	—

*See Taper Explanation Chart.

DIMENSIONS OF TYPE 4/W INDUSTRIAL CONTROLS

Dimension	WP	WPRL
A	23/32	23/32
B	1¼	1¼
C	1 9/32	1 9/32



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IRC-CTS INDUSTRIAL Q CONTROLS

IRC, Inc.

IRC ½ watt controls for industrial and commercial applications provide a wide selection of resistance values, tapers and shaft styles. Types PQ, RQ and RQL may be combined with Type M Multisections to provide broad variety of multiple-section controls.

TYPE PQ

Control has full round ¼″ shaft, extending approximately 3″ from mounting face, and with ⅜″ long bushing. ½ watt power rating, 500 volts maximum. It is available in 33 stock values.

TYPE RQ

Control has a very short screwdriver slot shaft of ¼″ diameter and approximately ½″ long from mounting face, with ⅜″ long bushing. ½ watt power rating. Supplied in 33 stock values.

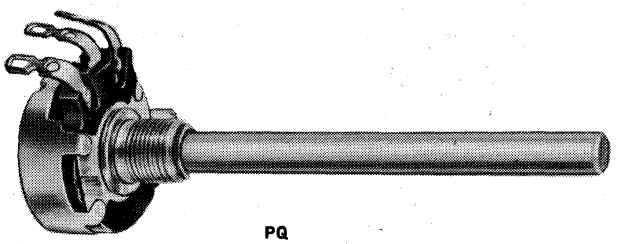
Electrical rotation of these controls is the same with or without power switches (See Type Q Accessories, pages 6 and 7). Special platings of metal parts provide excellent appearance. Resistance tolerance of all units is ± 10%.

TYPE RQL

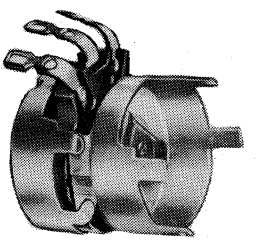
A 10% tolerance control with locking type bushing. Screwdriver slot shaft is ¼″ diameter and approximately ½″ long from mounting face, with a ⅜″ split type bushing, and locking nut. Supplied in 26 stock values. ½ watt power rating.

TYPE M MULTISECTIONS

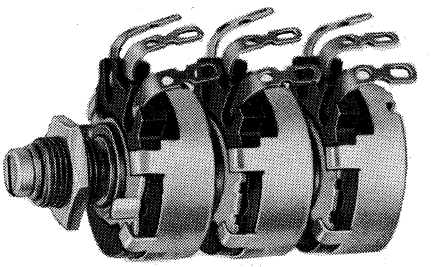
IRC Type M Multisections are rear control sections which add to Types PQ, RQ, RQL or any Type Q control to provide multiple-section tandem controls. Supplied in 25 stock numbers as listed on opposite page. Resistance tolerance is ± 10%. See pages and for power switches and other accessories.



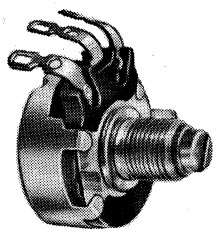
PQ



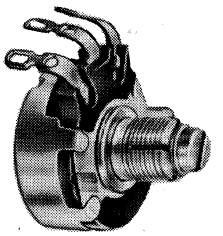
M



RQ with Multisections



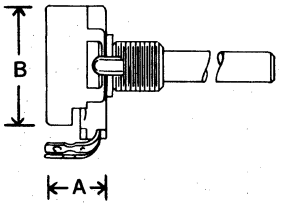
RQ

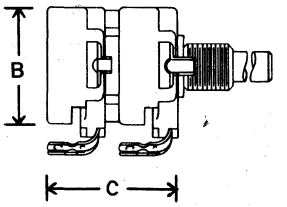


RQL

DIMENSIONS OF TYPE Q INDUSTRIAL CONTROLS

Dimension	PQ	RQ	RQL
A	33/64	33/64	33/64
B	15/16	15/16	15/16
C	1 1/64	1 1/64	1 1/64





IRC-CTS STOCK VALUES OF TYPES PQ, RQ, RQL CONTROLS AND MULTISECTIONS 10% TOLERANCE

Ohms	Taper*	Type PQ	Type RQ	Type RQL	Multisections
500	1(A)	PQ11-103	RQ11-103	RQL11-103	M11-103
1,000	2(A)	PQ11-108	RQ11-108	RQL11-108	M11-108
2,000	2(A)	PQ11-110	RQ11-110	RQL11-110	M11-110
3,000	2(A)	PQ11-112	RQ11-112	RQL11-112	M11-112
5,000	2(A)	PQ11-114	RQ11-114	RQL11-114	M11-114
7,500	2(A)	PQ11-115	RQ11-115	—	—
10K	2(A)	PQ11-116	RQ11-116	RQL11-116	M11-116
10K	3(C)	PQ13-116	RQ13-116	—	—
10K	23(D)	PQ14-116	RQ14-116	—	—
10K	4(Q)	—	—	—	M17-116
20K	2(A)	PQ11-119	RQ11-119	RQL11-119	—
25K	2(A)	PQ11-120	RQ11-120	RQL11-120	M11-120
25K	23(D)	PQ14-120	RQ14-120	—	—
30K	2(A)	PQ11-121	RQ11-121	RQL11-121	M11-121
50K	2(A)	PQ11-123	RQ11-123	RQL11-123	M11-123
50K	3(C)	PQ13-123	RQ13-123	RQL13-123	—
50K	23(D)	PQ14-123	RQ14-123	—	—
100K	2(A)	PQ11-128	RQ11-128	RQL11-128	M11-128
100K	3(C)	PQ13-128	RQ13-128	—	M13-128
200K	2(A)	PQ11-129	RQ11-129	RQL11-129	—
250K	2(A)	PQ11-130	RQ11-130	RQL11-130	M11-130
250K	3(C)	PQ13-130	RQ13-130	RQL13-130	M13-130
500K	2(A)	PQ11-133	RQ11-133	RQL11-133	M11-133
500K	3(C)	PQ13-133	RQ13-133	RQL13-133	M13-133
1.0 Meg.	2(A)	PQ11-137	RQ11-137	RQL11-137	M11-137
1.0 Meg.	3(C)	PQ13-137	RQ13-137	RQL13-137	M13-137
1.5 Meg.	2(A)	PQ11-138	RQ11-138	RQL11-138	—
1.5 Meg.	3(C)	—	—	—	M13-138
2.0 Meg.	2(A)	PQ11-139	RQ11-139	RQL11-139	M11-139
2.0 Meg.	3(C)	PQ13-139	RQ13-139	RQL13-139	M13-139
2.5 Meg.	2(A)	PQ11-239	RQ11-239	RQL11-239	—
3.0 Meg.	2(A)	PQ11-140	RQ11-140	RQL11-140	—
3.0 Meg.	3(C)	PQ13-140	RQ13-140	—	M13-140
3.0 Meg.	4(Q)	—	—	—	M17-140
5.0 Meg.	2(A)	PQ11-141	RQ11-141	RQL11-141	M11-141
10.0 Meg.	2(A)	PQ11-143	RQ11-143	RQL11-143	M11-143

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AUTO RADIO BUSHINGS & TAPER CHART

IRC, Inc.

EXACT DUPLICATE BUSHINGS FOR AUTO RADIOS

Stock No.	Dimensions	Type
S6	7/16"x15/16"	Double-flat
S7	7/16"x1 1/32"	Double-flat
S8	7/16"x1 5/8"	Double-flat
S9	7/16"x1 7/8"	Double-flat
S10	1/2"x0.2"	Single-flat
S11	1/2"x9/16"	Single-flat
S12	1/2"x15/16"	Single-flat
S13	1/2"x1"	Single-flat
S14	1/2"x1 1/4"	Single-flat
S15	1/2"x1 1/2"	Single-flat
S16	1/2"x1 5/8"	Single-flat
S17	1/2"x1 7/8"	Single-flat
S18	1/2"x2"	Single-flat
S19	1/2"x2 1/8"	Single-flat
S20	1/2"x2 1/4"	Single-flat
S21	1/2"x1 1/8"	Notched
S22	1/2"x1 3/16"	Notched
S23	1/2"x1 9/32"	Notched
S24	1/2"x1 3/8"	Notched
S25	1/2"x1 7/16"	Notched
S26	1/2"x1 17/32"	Notched
S27	1/2"x1 21/32"	Notched
S28	1/2"x1 3/4"	Notched
S29	1/2"x1 13/16"	Notched
S30	1/2"x1 7/8"	Notched
S31	1/2"x2"	Notched
S32	1/2"x2 1/8"	Notched
S33	3/8"x1/4"	—
S34	3/8"x3/8"	—
S35	1/2"x13/32"	Single-flat
S36	1/2"x5/8"	Single-flat
S37	1/2"x1/2"	Single-flat
S38	1/2"x27/32"	Single-flat
S39	1/2"x3/4"	Single-flat
S40	1/2"x11/16"	Single-flat
S41	1/2"x13/16"	Notched
S42	1/2"x1 9/16"	Single-flat
S43	1/2"x1 1/8"	Single-flat
S44	3/8"x.590"	—
S45	3/8"x13/16"	—
S46	7/16"x5/8"	Double-flat
S47	7/16"x13/32"	Double-flat
S48	1/2"x5/16"	Single-flat
S49	1/2"x1"	Notched
S50	1/2"x1 11/16"	Single-flat
S51	7/16"x1 1/4"	Double-flat
S52	3/8"x7/8"	—

TAPERS

New numerical taper system assigns specific identification for each Control. Listing below shows new taper number and old taper designation.

NEW TAPER DESIGNATION	OLD TAPER DESIGNATION	USE
1, 2	A	For potentiometer or rheostat where uniform resistance change is required.
3	C	Left-hand logarithmic taper for audio circuit control.
4, 5, 23, 45	D, Q, P	Right-hand semi-logarithmic taper for use in contrast and picture control circuits in television. Taper 4 is also used for stereo tone and balance control.
6	S	Bass and treble tone control for Philco.
7, 39, 41	S	Bass and treble tone control for Philco—open-circuited at mid-point.
8, 9, 20, 27, 38	S	Tapped right-hand taper for contrast and picture control circuits in television.
10	S	Tapped left-hand taper for contrast and picture control circuits in television. Also used for audio compensation.
11, 22, 24, 26, 30, 31, 37, 40, 44, 47	H, S	Tapped left-hand logarithmic taper for audio level control for automatic bass compensation.
12	S	Left-hand taper tapped at 50% of total resistance for audio compensation.
13	S	Left-hand taper tapped at 10% of total resistance for audio compensation, for transistor circuits.
14, 21, 28, 29	S	Right-hand logarithmic taper tapped for contrast and picture control circuits in television.
15, 16, 17, 18, 19, 35, 36, 43, 46, 49, 50	S	Left-hand logarithmic taper with double taps for tone and loudness compensation.
32	S	Fader control.
33	S	Left-hand taper with two taps for contrast and picture control circuits in television.
34, 38, 48	S	Right-hand taper with two taps for contrast and picture control circuits in television.
—	L	Left-hand taper for use in focus circuits in television.
—	R	Right-hand logarithmic taper for use in contrast and picture control circuits in television.
—	S	Tapped right-hand taper for contrast and picture control circuits in television.
—	U	For potentiometer or rheostat where uniform resistance change is required.

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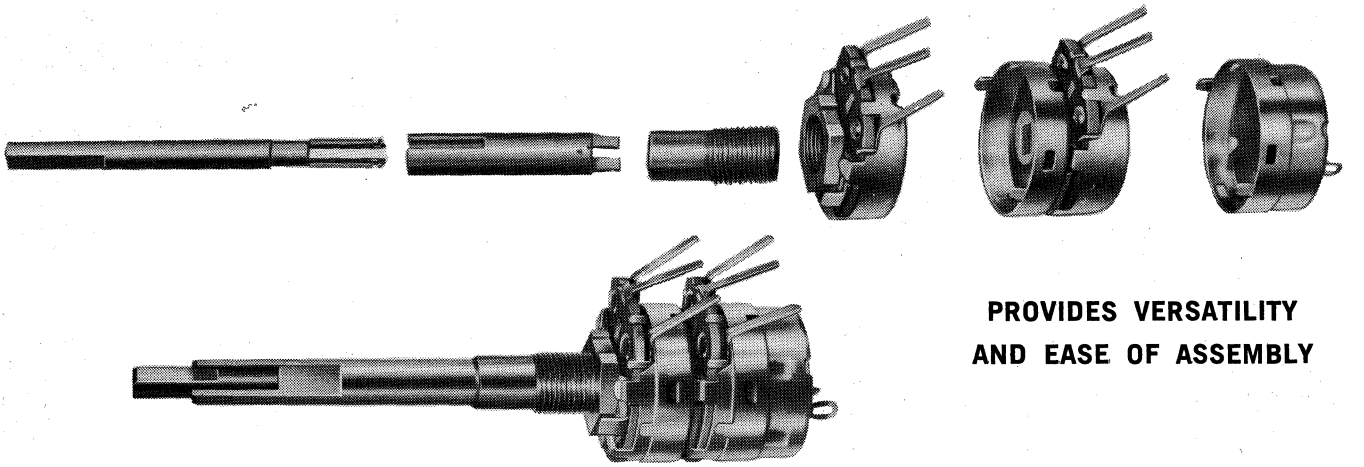
IRC-CTS SNAPTROL

IRC, Inc.



PROVIDES VERSATILITY AND EASE OF ASSEMBLY

SNAPTROL. Newest of three IRC replacement systems designed to provide servicing technicians with satisfactory replacements for comprehensive coverage of single controls, tandem dual controls, matched stereo controls and concentric dual controls for television, radio, auto sets and high fidelity equipment.

SNAPTROL provides a broad variety of basic, factory assembled control sections, shafts and switches which snap together to provide a wide selection of replacement controls. Literally, it is a "snap" to assemble nearly any standard or special control.

SERIES 45 INDUSTRIAL CONTROLS. With a variety of five basic control components, the Series 45 line permits quick assembly of 12,631,500 different control specifications. These include single, double, triple and quadruple section controls, with or without power switches, in all popular styles and ranges needed for industrial electronic equipment.

Series 45 components are completely compatible and interchangeable with SNAPTROL. Together, these two snap-together systems provide an almost unlimited means to furnish unusual and special controls for industrial applications.

EASY TO USE. Parts assemble into exact duplicate control in 15 to 30 seconds. Sections completely factory assembled. No shaft cutting or modification needed.

GREATER VERSATILITY. SNAPTROL provides new and unique designs which provide for better utility and adaptability of component parts:

1—Interchangeable Control Mountings. ⅜", 7/16" and ½" diameter bushings of varying lengths and bores, quickly thread into front control sections. Accommodates thick panel requirements *without* extra bushing or adjuster. Specially designed tab mounting plates or printed circuit brackets easily attached in place of bushings. This exclusive new design feature reduces the number of front sections needed and extends their use in a greater variety of replacement needs.

2—Printed Circuit Terminals. All carbon control sections are equipped with terminals that will handle both conventional and printed circuit wiring. This original IRC-CTS terminal design doubles the adaptability of control sections.

3—Rotary or Pull-Push Power Switches. Either type of power switch snaps onto either carbon Front or Rear Sections. Another exclusive IRC-CTS design feature which very considerably increases the utility of control components.

4—Uniform Diameter Rear Section Shafts. New design of rear section (inner) shafts provide uniform diameter — permits use of heavy-walled front section (outer) shaft contributing better concentric shaft operation and superior knob retention. Simple compression type adapter fits rear section shaft to knobs normally requiring larger diameter. No drilling or modification of knobs needed. Shafts are flatted or slotted as required — no shaft insert or tine needed! This new design reduces the number of exact length shafts required for broad replacement coverage.

5—Front Sections Serve for Single Controls. Without modification or adapters, all SNAPTROL front sections may be used for single control replacements. Provides practical use of single front section for special bushings, tab mountings, printed circuits, special shaft needs and a variety of power switches. No other section-type control system provides such broad versatility.

FEWER COMPONENT PARTS. Because of the realistic design features provided, SNAPTROL requires far fewer items of components than any other section-type exact duplicate control system which offers so broad a replacement coverage. (Over 1700 exact duplicate concentric dual controls and many thousands of single controls.)

BEST SELLING CONTROLS. SNAPTROL is a special replacement design of the world's most frequently specified and most widely sold CTS Series 45 control. Over 300,000,000 in current use — a strong testimony to the quality and performance of these outstanding controls.

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IRC-CTS SNAPTROL

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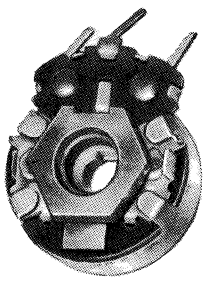
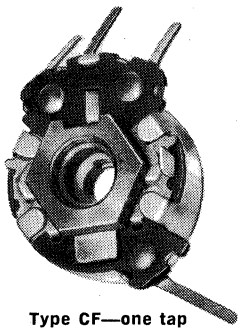
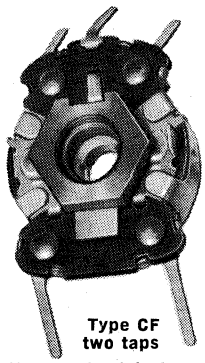
SNAPTROL CARBON AND WIREWOUND FRONT SECTIONS



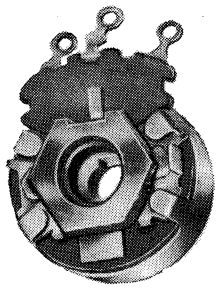
Type CF—no tap



Type CF—one tap



Type CF two taps



Type WF

Type CF Carbon Front Sections and Type WF Wirebound Front Sections are factory-assembled controls supplied without control mounting, shaft or dust cover. Bushing, tab mounting plate or printed circuit bracket thread into front section as required. Carbon or wirewound rear sections snap onto either style front section for concentric or tandem dual controls. A variety of single or concentric outer shafts snap into front sections. Either rotary or pull-push switches will snap onto CF Front Sections. WF Front Sections will not operate switches. Printed Circuit Terminals are employed on CF sections while standard hole-type terminals are supplied on WF sections. Diameter of either front section is $1\frac{5}{16}$". Wattage rating: CF Sections — ½ watt, WF Sections — 5 watts *(linear tapered sections)*.

LISTING BY STOCK NUMBER

Stock No.	Ohms	Taps	Taper*
CF1	100	—	1
CF2	250	—	1
CF3	300	—	1
CF4	500	—	1
CF5	750	—	1
CF6	1000	—	1
CF7	1500	—	2
CF8	5000	—	2
CF9	10 K	—	2
CF10	15 K	—	2
CF11	25 K	—	2
CF12	50 K	—	2
CF13	100 K	—	2
CF14	200 K	—	2
CF15	250 K	—	2
CF16	500 K	—	2
CF17	1.0 Meg	—	2
CF18	1.5 Meg	—	2
CF19	2.0 Meg	—	2
CF20	2.5 Meg	—	2
CF21	3.0 Meg	—	2
CF22	5.0 Meg	—	2
CF23	250 K	—	3
CF24	350 K	—	3
CF25	500 K	—	3
CF26	1.0 Meg	—	3
CF27	2.0 Meg	—	3
CF28	3.0 Meg	—	3
CF29	5.0 Meg	—	3
CF30	1500	—	4
CF31	2000	—	4
CF32	2500	—	4
CF33	3000	—	4
CF34	5000	—	4
CF35	10 K	—	4
CF36	750	—	5
CF37	1000	—	5
CF38	5.0 Meg	—	6
CF39	5.0 Meg**	—	7
CF40T	750	250	8
CF41T	3000	150	9
CF42T	15 K	10 K	10
CF43T	500 K	125 K	11
CF44T	1.0 Meg	250 K	11
CF45T	2.0 Meg	500 K	11
CF46T	500 K	250 K	12
CF47T	1.0 Meg	500 K	12
CF48T	500	60	14
CF49T	30 K	10 K	8
CF50	500	—	5
CF51	200 K	—	4
CF52	100 K	—	3
CF53	1200	—	4
CF55	75 K	—	2
CF56	2.0 Meg	—	4
CF54	5.0 Meg	—	4
CF57T	2.0 Meg	1.0 Meg	12
CF58T	3.0 Meg	1.5 Meg	12
CF59	3000	—	2
CF60	5000	—	3
CF61	10 K	—	3
CF62	20 K	—	2
CF63	50 K	—	3
CF64	750 K	—	2
CF65	1.0 Meg	—	4
CF66	1.5 Meg	—	3
CF67TT	2.0 Meg	500 K & 1.0 M	49
CF68TT	2.0 Meg	300 K & 600 K	50
CF69	7.5 Meg	—	2
CF70	10 Meg	—	2
CF71T	1.0 Meg	100K	3
CF72	150 K	—	1
CF73TT	3.0 Meg	1.0 & 2.0 Meg	1
WF1	200	—	U
WF2	750	—	U
WF3	1000	—	U
WF4	1500	—	U
WF5	2000	—	U
WF6	2500	—	U
WF7	3000	—	U
WF8	5000	—	U
WF9	10 K	—	U
WF10	15 K	—	U
WF11	750	—	R
WF12	2500	—	R
WF13	3000	—	R
WF14	5000	—	R
WF15T	750	250	S
WF16	10	—	U
WF17	20	—	U
WF18	50	—	U
WF19	100	—	U
WF20	500	—	U

LISTING BY RESISTANCE VALUE

Ohms	Taps	Taper	Stock No.
100	—	1	CF1
250	—	1	CF2
300	—	1	CF3
500	—	1	CF4
500	—	5	CF50
500	60	14	CF48T
750	—	1	CF5
750	—	5	CF36
750	250	8	CF40T
1000	—	1	CF6
1000	—	5	CF37
1200	—	4	CF53
1500	—	2	CF7
1500	—	4	CF30
2000	—	4	CF31
2500	—	4	CF32
3000	—	2	CF59
3000	—	4	CF33
3000	150	9	CF41T
5000	—	2	CF8
5000	—	3	CF60
5000	—	4	CF34
10 K	—	2	CF9
10 K	—	3	CF61
10 K	—	4	CF35
15 K	—	2	CF10
15 K	10 K	10	CF42T
20 K	—	2	CF62
25 K	—	2	CF11
30 K	10 K	8	CF49T
50 K	—	2	CF12
50 K	—	3	CF63
75 K	—	2	CF54
100 K	—	2	CF13
100 K	—	3	CF52
150 K	—	1	CF72
200 K	—	4	CF51
200 K	—	2	CF14
250 K	—	2	CF15
250 K	—	3	CF23
350 K	—	3	CF24
500 K	—	2	CF16
500 K	—	3	CF25
500 K	125 K	11	CF43T
500 K	250 K	12	CF46T
750 K	—	2	CF64
1.0 Meg	—	2	CF17
1.0 Meg	—	3	CF26
1.0 Meg	—	4	CF65
1.0 Meg	250 K	11	CF44T
1.0 Meg	500 K	12	CF47T
1.0 Meg	100 K	1	CF71T
1.5 Meg	—	2	CF18
1.5 Meg	—	3	CF66
2.0 Meg	—	2	CF19
2.0 Meg	—	3	CF27
2.0 Meg	—	4	CF55
2.0 Meg	500 K	11	CF45T
2.0 Meg	1.0 Meg	12	CF57T
2.0 Meg	500 K & 1.0 M	49	CF67TT
2.0 Meg	300 K & 600 K	50	CF68TT
2.5 Meg	—	2	CF20
3.0 Meg	—	2	CF21
3.0 Meg	—	3	CF28
3.0 Meg	1.5 Meg	12	CF58T
3.0 Meg	1.0 & 2.0 Meg	1	CF73TT
5.0 Meg	—	2	CF22
5.0 Meg	—	3	CF29
5.0 Meg	—	4	CF56
5.0 Meg	—	6	CF38
5.0 Meg**	—	7	CF39
7.5 Meg	—	2	CF69
10 Meg	—	2	CF70
10	—	U	WF16
20	—	U	WF17
50	—	U	WF18
100	—	U	WF19
200	—	U	WF1
500	—	U	WF20
750	—	R	WF11
750	250	S	WF15T
750	—	U	WF2
1000	—	U	WF3
1500	—	U	WF4
2000	—	U	WF5
2500	—	R	WF12
2500	—	U	WF6
3000	—	R	WF13
3000	—	U	WF7
5000	—	R	WF14
5000	—	U	WF8
10 K	—	U	WF9
15 K	—	U	WF10

* See Taper explanation chart ** Element open at center

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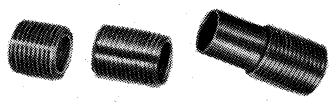
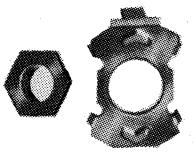
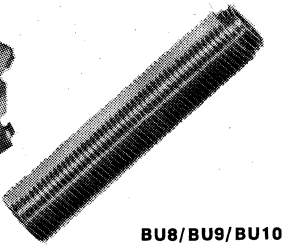


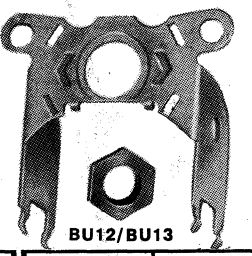
BU1/BU4 BU2/BU5 BU3/BU6



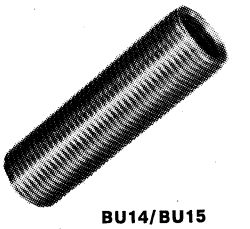
BU11/BU7



BU8/BU9/BU10



BU12/BU13



BU14/BU15

CONTROL MOUNTINGS FOR FRONT SECTIONS

A variety of control mountings permit the use of SNAPTROL Front Sections for many different replacement controls. Bushings of varying diameters and inside bores thread into front sections. Tab mounting plates and printed circuit brackets attach to front section with special male nut supplied with each.

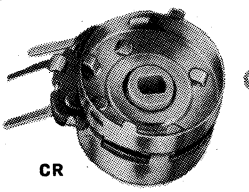
This exclusive design feature of selectable control mountings actually reduces inventory investment for distributors and servicing technicians. For a specific resistance value and taper, only one SNAPTROL Front Section is needed—in contrast to other systems where an additional front section is needed for *each* different control mounting.

Stock No.	Description
BU1	Bushing 3/8"—32 x 1/4" FMS—for single controls
BU2	Bushing 3/8"—32 x 3/8" FMS—for single controls
BU3	Bushing 3/8"—32 x 5/16" FMS—for single controls
BU4	Bushing 3/8"—32 x 1/4" FMS—for concentric controls
BU5	Bushing 3/8"—32 x 3/8" FMS—for concentric controls
BU6	Bushing 3/8"—32 x 3/4" FMS—for concentric controls
BU7	Tab mounting with nut—for concentric controls
BU8	Bushing 7/16"—28 x 1 7/8" FMS—for concentric controls

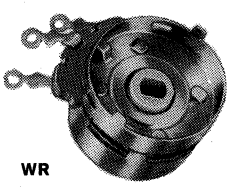
Stock No.	Description
BU9	Bushing 7/16"—28 x 2 1/4" FMS—for concentric controls. Double flat.
BU10	Bushing 1/2"—28 x 2 1/4" FMS—for concentric controls. Single flat.
BU11	Tab mounting with nut—for single controls
BU12	Printed circuit bracket with nut—for single controls
BU13	Printed circuit bracket with nut—for concentric controls
BU14	Bushing 3/8"—32 x 1 3/16" FMS—for single controls
BU15	Bushing 3/8"—32 x 2" FMS—for concentric dual controls.

CARBON & WIREWOUND REAR SECTIONS

Type CR Carbon Rear Sections and Type WR Wirewound Rear Sections snap onto SNAPTROL Front Sections for use as either concentric dual or tandem dual controls. Rotary or pull-push power switches snap onto CR sections. WR sections do not accept switches. Rear or inner concentric shafts snap into either type of rear sections for concentric dual operation. SS7A Intersection Insert provides tandem dual operation. Additional tandem sections may be snapped on by use of SS13 Multisection Couplers.



CR



WR

LISTING BY STOCK NUMBER

Stock No.	Ohms	Taps	Taper*
CR1	100	—	1
CR2	1000	—	1
CR3	2000	—	2
CR4	5000	—	2
CR5	10 K	—	2
CR6	25 K	—	2
CR7	50 K	—	2
CR8	100 K	—	2
CR9	200 K	—	2
CR10	250 K	—	2
CR11	500 K	—	2
CR12	1.0 Meg	—	2
CR13	1.5 Meg	—	2
CR14	2.0 Meg	—	2
CR15	2.5 Meg	—	2
CR16	3.0 Meg	—	2
CR17	5.0 Meg	—	2
CR18	250 K	—	3
CR19	350 K	—	3
CR20	500 K	—	3
CR21	1.0 Meg	—	3
CR22	2.0 Meg	—	3
CR23	3.0 Meg	—	3
CR24	5.0 Meg	—	3
CR25	2000	—	4
CR26	10 K	—	4
CR27	750	—	5
CR28	1000	—	5
CR29T	250 K	60 K	11
CR30T	350 K	75 K	11
CR31T	500 K	125 K	11
CR32T	1.0 Meg	250 K	11
CR33T	2.0 Meg	500 K	11
CR34T	250 K	125 K	12
CR35T	500 K	250 K	12
CR36T	1.0 Meg	500 K	12
CR37T	2.0 Meg	1.0 Meg	12
CR38T	3.0 Meg	1.5 Meg	12
CR39T	500 K	50 K	13
CR40T	1.0 Meg	100 K	13
CR41	500	—	1
CR42	125 K	—	2
CR43	500 K	—	4
CR44	1.0 Meg	—	4
CR45	2.0 Meg	—	4
CR46	3.0 Meg	—	4
CR47	5.0 Meg	—	4
CR48T	7.5 K	3750	12
CR49T	10 K	5000	12
CR50T	20 K	6000	11
CR51	5000	—	3
CR52	10 K	—	3
CR53	100 K	—	R
CR54TT	3.0 Meg	1.0 & 2.0 Meg	1
WR1	10 K	—	U
WR2	15 K	—	U

* See Taper explanation chart

LISTING BY RESISTANCE VALUE

Ohms	Taps	Taper *	Stock No.
100	—	1	CR1
500	—	1	CR41
750	—	5	CR27
1000	—	1	CR2
1000	—	5	CR28
2000	—	2	CR3
2000	—	4	CR25
5000	—	2	CR4
5000	—	3	CR51
7500	3750	12	CR48T
10 K	—	2	CR5
10 K	—	4	CR26
10 K	5000	12	CR49T
10 K	—	3	CR52
20 K	6000	11	CR50T
25 K	—	2	CR6
50 K	—	2	CR7
100 K	—	2	CR8
100 K	—	R	CR53
125 K	—	2	CR42
200 K	—	2	CR9
250 K	—	2	CR10
250 K	—	3	CR18
250 K	60 K	11	CR29T
250 K	125 K	12	CR34T
350 K	—	3	CR19
350 K	75 K	11	CR30T
500 K	—	2	CR11
500 K	—	3	CR20
500 K	—	4	CR43
500 K	125 K	11	CR31T
500 K	250 K	12	CR35T
500 K	50 K	13	CR39T
1.0 Meg	—	2	CR12
1.0 Meg	—	3	CR21
1.0 Meg	—	4	CR44
1.0 Meg	250 K	11	CR32T
1.0 Meg	500 K	12	CR36T
1.0 Meg	100 K	13	CR40T
1.5 Meg	—	2	CR13
2.0 Meg	—	2	CR14
2.0 Meg	—	3	CR22
2.0 Meg	—	4	CR45
2.0 Meg	500 K	11	CR33T
2.0 Meg	1.0 Meg	12	CR37T
2.5 Meg	—	2	CR15
3.0 Meg	—	2	CR16
3.0 Meg	—	3	CR23
3.0 Meg	—	4	CR46
3.0 Meg	1.5 Meg	12	CR38T
3.0 Meg	1.0 & 2.0 Meg	1	CR54TT
5.0 Meg	—	2	CR17
5.0 Meg	—	3	CR24
5.0 Meg	—	4	CR47
10 K	—	U	WR1
15 K	—	U	WR2

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IRC-CTS SNAPTROL

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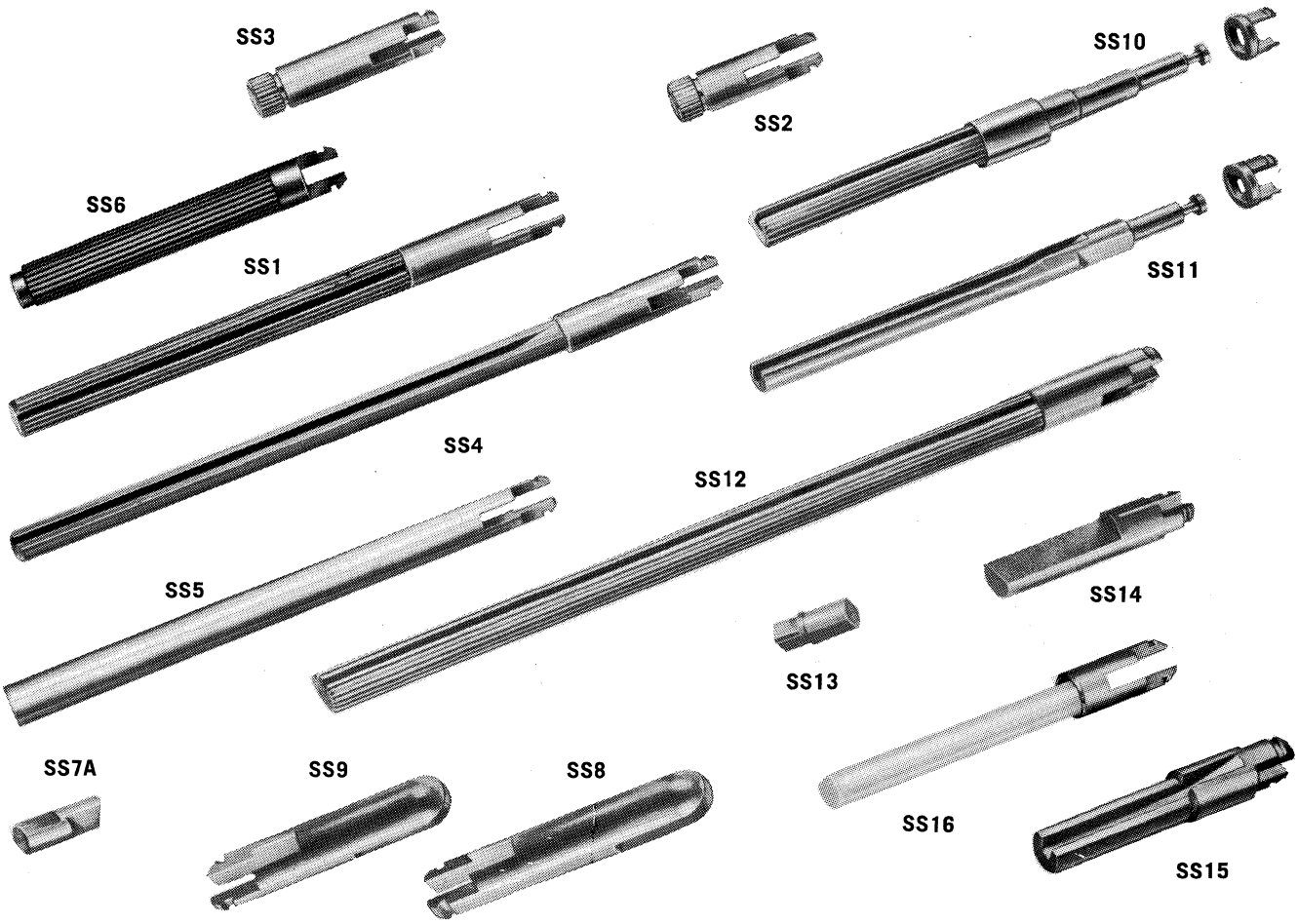

SINGLE CONTROL SHAFTS

Universal single control shafts for SNAPTROL permit front sections to be used as universal single control replacements.

STOCK NO.	DESCRIPTION
SS1	KNOBMASTER Shaft. Knurled, grooved and slotted for universal use. 3" long F.M.S.
SS2	Short, screw-driver slotted shaft. ½" long, F.M.S.
SS3	Short knurled and screw-driver slotted shaft. ¾" long, F.M.S.
SS4	3/16" diameter shaft. Flatted and grooved. 4" long F.M.S.
SS5	Full round ¼" diameter shaft. 3" long F.M.S.
SS6	Insulated Shaft. ¼" diameter x 1½" long. Screw-driver slot and knurled full length.
SS7A	Intersection insert. Converts concentric rear section to tandem rear section with single shaft.
SS8	Special rounded end and slotted shaft for G.E. controls—.79" long F.M.S.
SS9	Special rounded end and slotted shaft for G.E. controls—.60" long F.M.S.

STOCK NO.	DESCRIPTION
SS10	For K switch (push-pull) operation with single Front Section. 3" Knobmaster Shaft (same as SS1) with insert.
SS11	For K switch (pull-push) operation with single Front Section. 2" long flatted and grooved 3/16" diameter shaft (similar to SS4) with insert.
SS12	Long Knobmaster Shaft. Same as SS1 but 5" long.
SS13	Multisection Insert. For use between second and third or successive tandem sections. (Note SS7A used between first and second sections).
SS14	Short flatted shaft. ¼" diameter by ¾" long F.M.S., flatted full length. Provided for short, flatted tab mounted controls.
SS15	3/16" diameter shaft, flatted and grooved full length. ¾" long F.M.S.
SS16	Insulated shaft, 3/16" diameter flatted full length. 1½" long F.M.S.
SS17	KNOBMASTER Shaft. Knurled, grooved and slotted for universal use. 3" long F.M.S. with insert converting concentric rear section to tandem rear section with single shaft. For K switch (push-pull) operation.

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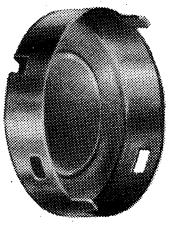
POWER SWITCHES

SNAPTROL rotary and pull-push power switches snap on to carbon front or rear sections.

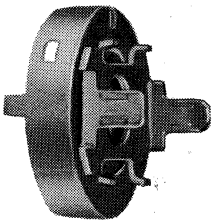
Stock No.	Description
GC	Rotary Power Switch, S.P.S.T.
K	Pull-push Power Switch, S.P.S.T.
VF	Rotary Power Switch, S.P.D.T.
WF	Rotary Power Switch, D.P.S.T.

DUST COVER

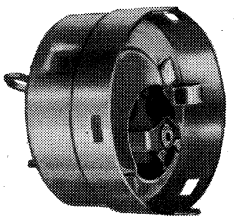
Stock No.	Description
DC1	Dust Cover. For use on either front or rear section when switch is not used.
DC2	Reverse Tab mount dust cover.



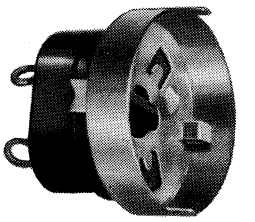
Type DC1



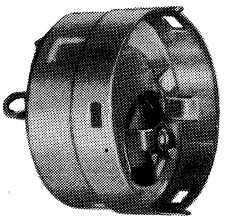
Type DC2



Type GC



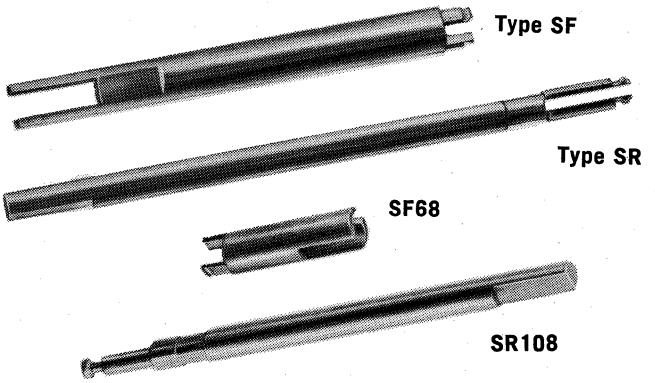
Type K



Types VF/WF

EXACT DUPLICATE SHAFTS

SNAPTROL Exact Duplicate Shafts are supplied to close tolerances against original control specifications. Easily snap into molded nylon rotors of front or rear sections. Uniform diameter of rear section (inner) shafts permit use of heavier wall on front section (outer) shafts providing better concentric rotation and superior knob fit. Knob Adapter (Stock No. KA1) fits rear (inner) shaft to knobs normally requiring larger diameter shafts. No drilling or modification of knobs is required. No cutting of shafts is needed with SNAPTROL Exact Duplicate Shafts! Easy to install!



Type SF

Type SR

SF68

SR108

Knob Adapter. Fits rear section shaft to knob requirements of over-size shaft. Converts .187″ diameter shaft to .202″ diameter shaft.

Type KA1

FRONT SECTION (OUTER) SHAFTS

STOCK NO.	SHAFT LENGTH FMS*	SHAFT END*	STOCK NO.	SHAFT LENGTH FMS*	SHAFT END*
SF1	9/16″	S	SF35	3 21/32″	FS
SF2	21/32″	S	SF36	3 27/32″	FS
SF3	3/4″	FS	SF37	4″	FS
SF4	27/32″	FS	SF38	4 3/32″	FS
SF5	15/16″	FS	SF39	4 5/16″	FS
SF6	1″	FS	SF40	15/16″	S
SF7	1 3/32″	FS	SF41	1″	S
SF8	1 1/16″	FS	SF42	1 15/32″	S
SF9	1 5/32″	FS	SF43	1 1/16″	S
SF10	1 3/8″	FS	SF44	1 27/32″	S
SF11	1 13/32″	FS	SF45	2″	S
SF12	1 1/16″	FS	SF46	2 3/32″	S
SF13	1 21/32″	FS	SF47	2 15/32″	S
SF14	1 3/4″	FS	SF48	2 1/16″	S
SF15	1 27/32″	FS	SF49	2 21/32″	S
SF16	1 15/16″	FS	SF50	2 27/32″	S
SF17	2″	FS	SF51	15/32″	K
SF18	2 3/32″	FS	SF52	21/32″	K
SF19	2 1/16″	FS	SF53	1″	K
SF20	2 5/32″	FS	SF54	1 3/32″	K
SF21	2 3/8″	FS	SF55	1 1/16″	K
SF22	2 15/32″	FS	SF56	3/32″	SD
SF23	2 1/16″	FS	SF57	15/32″	SD
SF24	2 21/32″	FS	SF58	9/16″	SD
SF25	2 3/4″	FS	SF59	3/4″	SD
SF26	2 27/32″	FS	SF60	1″	S
SF27	2 15/16″	FS	SF61	1 15/16″	S
SF28	3″	FS	SF62	15/16″	SP
SF29	3 3/32″	FS	SF63	1 21/32″	SP
SF30	3 1/16″	FS	SF64	1 3/8″	S
SF31	3 5/32″	FS	SF65	1 3/32″	S
SF32	3 3/8″	FS	SF66	1 3/32″	SP
SF33	3 15/32″	FS	SF67	15/32″	FS
SF34	3 9/16″	FS	SF68	21/32″	FS

REAR SECTION (INNER) SHAFTS

STOCK NO.	SHAFT LENGTH FMS*	SHAFT END*	STOCK NO.	SHAFT LENGTH FMS*	SHAFT END*	STOCK NO.	SHAFT LENGTH FMS*	SHAFT END*
SR1	15/16″	F	SR38	4 27/32″	F	SR75	27/32″	SD
SR2	1 3/32″	F	SR39	1 3/16″	S	SR76	2 3/8″	SD
SR3	1 3/16″	F	SR40	1 3/8″	S	SR77	2″	SP
SR4	1 9/32″	F	SR41	1 15/32″	S	SR78	3 3/16″	SP
SR5	1 3/8″	F	SR42	1 9/16″	S	SR79	3 1/2″	SP
SR6	1 15/32″	F	SR43	1 21/32″	S	SR80	4″	SP
SR7	1 9/16″	F	SR44	1 3/4″	S	SR81**	1 15/32″	F
SR8	1 21/32″	F	SR45	1 27/32″	S	SR82**	1 9/16″	F
SR9	1 3/4″	F	SR46	1 15/16″	S	SR83**	1 21/32″	F
SR10	1 27/32″	F	SR47	2″	S	SR84**	1 3/4″	F
SR11	1 15/16″	F	SR48	2 3/32″	S	SR85**	1 27/32″	F
SR12	2″	F	SR49	2 1/16″	S	SR86**	1 15/16″	F
SR13	2 3/32″	F	SR50	2 5/32″	S	SR87**	2″	F
SR14	2 1/16″	F	SR51	2 3/8″	S	SR88**	2 3/32″	F
SR15	2 5/32″	F	SR52	2 15/32″	S	SR89**	2 1/16″	F
SR16	2 3/8″	F	SR53	2 9/16″	S	SR90**	2 3/8″	F
SR17	2 15/32″	F	SR54	2 21/32″	S	SR91**	2 9/16″	F
SR18	2 9/16″	F	SR55	2 3/4″	S	SR92**	2 3/4″	F
SR19	2 21/32″	F	SR56	2 27/32″	S	SR93**	2 27/32″	F
SR20	2 3/4″	F	SR57	2 15/16″	S	SR94**	2 15/16″	F
SR21	2 27/32″	F	SR58	3″	S	SR95	1 15/32″	S
SR22	2 15/16″	F	SR59	3 3/32″	S	SR96	1 3/4″	S
SR23	3″	F	SR60	3 9/16″	S	SR97	1 27/32″	S
SR24	3 3/32″	F	SR61	3 21/32″	S	SR98	3 3/16″	S
SR25	3 1/4″	F	SR62	3 15/32″	S	SR99	1 9/16″	F
SR26	3 5/32″	F	SR63	3 9/16″	S	SR100	3/32″	SD
SR27	3 3/8″	F	SR64	3/4″	K	SR101	1 9/32″	S
SR28	3 15/32″	F	SR65	15/16″	K	SR102**	2 9/32″	F
SR29	3 9/16″	F	SR66	1″	K	SR103**	2 9/32″	S
SR30	3 21/32″	F	SR67	1 9/32″	K	SR104**	2 9/16″	S
SR31	3 3/4″	F	SR68	1 3/8″	K	SR105**	2 3/4″	S
SR32	3 27/32″	F	SR69	1 15/32″	K	SR106**	3 27/32″	S
SR33	3 15/16″	F	SR70	1 15/16″	K	SR107	1 3/32″	S
SR34	4 3/32″	F	SR71	3/8″	SD	SR108**	2″	F
SR35	4 9/32″	F	SR72	15/32″	SD	SR109	27/32″	F
SR36	4 15/32″	F	SR73	21/32″	SD	SR110**	3 3/8″	F
SR37	4 9/16″	F	SR74	3/4″	SD			

* FMS—Measured from mounting surface. F—Flat. FS—Flat & Slot. K—Knurled. S—Slot. SD—Screw-driver Slot. SP—Special.

** Used with pull-push switch only.

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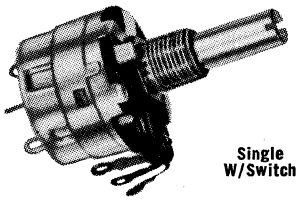
IRC-CTS SNAPTROL/SERIES 45 INDUSTRIAL CONTROLS

IRC, Inc.



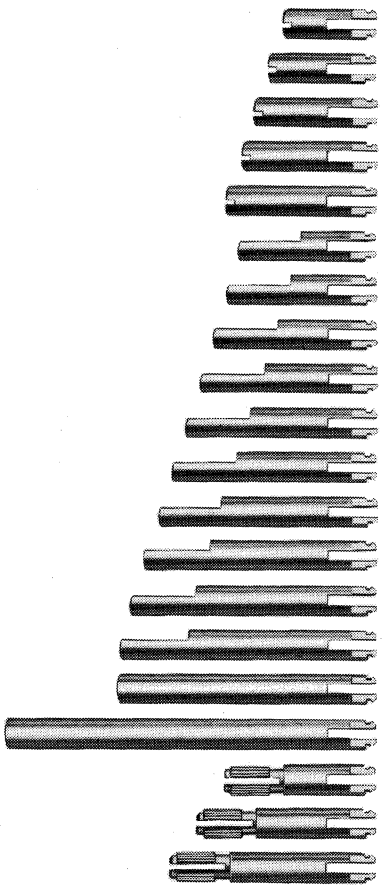
Single W/Switch

IRC-CTS SERIES 45 CONTROLS

Designed to provide a wide variety of ½ watt controls for industrial applications, the Series 45 is a snap-together system in which selected values and sizes of five basic components will quickly assemble any of 12,631,500 specifications. Included are 25 values and tapers of single control or panel sections, 20 popular values of multi-sections or rear control sections, 20 most used shafts in length increments of ⅛″ from ½″ to 2″ plus a 3″ length, 2 rotary power switches and a control dust cover. Completely compatible and interchangeable with SNAPTROL, the Series 45 affords an extremely broad selection of mechanical and electrical specifications for industrial applications.

SERIES 45 SNAP-IN SHAFTS

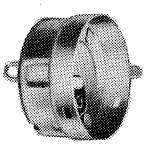
20 most often needed shafts for industrial applications. Provide screwdriver slot, flat, knurl or full round types in ⅛″ increments from ½″ to 2″ in length. 3″ length included. Broad shaft selection generally eliminates need for cutting or modification. All shafts ¼″ diameter.



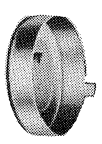
STOCK NO.	LENGTH FMS	KNOB TRIM
01	½″	Screwdriver Slot
02	⅝″	Screwdriver Slot
03	¾″	Screwdriver Slot
04	⅞″	Screwdriver Slot
05	1″	Screwdriver Slot
06	⅞″	.156 x 7/16″ Flat
07	1″	.156 x 9/16″ Flat
08	1⅛″	.156 x ⅝″ Flat
09	1¼″	.156 x ⅝″ Flat
10	1⅜″	.156 x ⅝″ Flat
11	1½″	.156 x ⅝″ Flat
12	1⅝″	.156 x ⅝″ Flat
13	1¾″	.156 x ⅝″ Flat
14	1⅞″	.156 x ⅝″ Flat
15	2″	.156 x ⅝″ Flat
16	2″	Full Round
17	3″	Full Round
18	1″	Split Knurl
19	1¼″	Split Knurl
20	1½″	Split Knurl

POWER SWITCHES AND DUST COVER

Snap on to either panel or rear sections. Dust cover used where switch is not required.



Type D/S



Type 45C

STOCK NO.	DESCRIPTION
D	DPST Power Switch (Snaptrol WF)
S	SPST Power Switch (Snaptrol GC)
45C	Dust Cover (Snaptrol DC1)

SINGLE CONTROL OR FRONT SECTIONS. 25 most used resistance values in two resistance tapers: 45A logarithmic taper and 45D linear taper. Rated at ½ watt (linear taper). Equipped with ⅜—32x⅜″ long bushing for ¼″ diameter shafts. Mounting nut included. Resistance tolerance +20%.

LISTING BY STOCK NUMBER

Stock No.	Ohms	CTS Taper	Similar To Snaptrol No.
45A103	10 K	A	CF61
45A104	100 K	A	CF52
45A105	1.0 Meg	A	CF26
45A205	2.0 Meg	A	CF27
45A254	250 K	A	CF23
45A305	3.0 Meg	A	CF28
45A503	50 K	A	CF63
45A504	500 K	A	CF25
45D102	1000	D	CF6
45D103	10 K	D	CF9
45D104	100 K	D	CF13
45D105	1.0 Meg	D	CF17
45D106	10.0 Meg	D	CF70
45D202	2000	D	—
45D203	20 K	D	CF62
45D204	200 K	D	CF14
45D205	2.0 Meg	D	CF19
45D253	25 K	D	CF11
45D254	250 K	D	CF15
45D302	3000	D	CF59
45D501	500	D	CF4
45D502	5000	D	CF8
45D503	50 K	D	CF12
45D504	500 K	D	CF16
45D505	5.0 Meg	D	CF22

LISTING BY RESISTANCE VALUE

Stock No.	Ohms	CTS Taper	Similar To Snaptrol No.
45D501	500	D	CF4
45D102	1000	D	CF6
45D202	2000	D	—
45D302	3000	D	CF59
45D502	5000	D	CF8
45A103	10 K	A	CF61
45D103	10 K	D	CF9
45D203	20 K	D	CF62
45D253	25 K	D	CF11
45A503	50 K	A	CF63
45D503	50 K	D	CF12
45A104	100 K	A	CF52
45D104	100 K	D	CF13
45D204	200 K	D	CF14
45A254	250 K	A	CF23
45D254	250 K	D	CF15
45A504	500 K	A	CF25
45D504	500 K	D	CF16
45A105	1.0 Meg	A	CF26
45D105	1.0 Meg	D	CF17
45A205	2.0 Meg	A	CF27
45D205	2.0 Meg	D	CF19
45A305	3.0 Meg	A	CF28
45D505	5.0 Meg	D	CF22
45D106	10.0 Meg	D	CF70

* See Taper chart, page 1205

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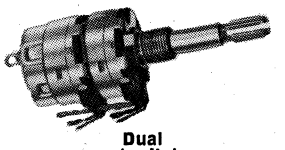
IRC-CTS SNAPTROL/SERIES 45 INDUSTRIAL CONTROLS

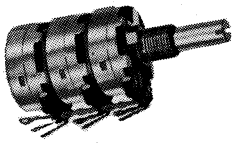
IRC, Inc.

IRC-CTS SERIES 45 MULTISECTIONS

20 rear sections snap on to panel section or to successive rear sections. Provide dual, triple or quadruple section controls. May be used with or without switch. M45A is logarithmic taper; M45D is linear taper. Resistance tolerance ± 20%. Power rating ½ watt (linear taper).



Dual w/switch



Triple

LISTING BY STOCK NUMBER

STOCK NO.	OHMS	CTS TAPER*	SIMILAR TO SNAPTROL NO. PLUS SS7A
M45A104	100 K	A	—
M45A105	1.0 Meg	A	CR21
M45A205	2.0 Meg	A	CR22
M45A254	250 K	A	CR18
M45A504	500 K	A	CR20
M45D102	1000	D	CR2
M45D103	10 K	D	CR5
M45D104	100 K	D	CR8
M45D105	1.0 Meg	D	CR12
M45D106	10.0 Meg	D	—
M45D202	2000	D	CR3
M45D205	2.0 Meg	D	CR14
M45D253	25 K	D	CR6
M45D254	250 K	D	CR10
M45D302	3000	D	—
M45D501	500	D	CR41
M45D502	5000	D	CR4
M45D503	50 K	D	CR7
M45D504	500 K	D	CR11
M45D505	5.0 Meg	D	CR17

LISTING BY RESISTANCE VALUE

OHMS	CTS TAPER*	STOCK NO.	SIMILAR TO SNAPTROL NO. PLUS SS7A
500	D	M45D501	CR41
1000	D	M45D102	CR2
2000	D	M45D202	CR3
3000	D	M45D302	—
5000	D	M45D502	CR4
10 K	D	M45D103	CR5
25 K	D	M45D253	CR6
50 K	D	M45D503	CR7
100 K	A	M45A104	—
100 K	D	M45D104	CR8
250 K	A	M45A254	CR18
250 K	D	M45D254	CR10
500 K	A	M45A504	CR20
500 K	D	M45D504	CR11
1.0 Meg	A	M45A105	CR21
1.0 Meg	D	M45D105	CR12
2.0 Meg	A	M45A205	CR22
2.0 Meg	D	M45D205	CR14
5.0 Meg	D	M45D505	CR17
10.0 Meg	D	M45D106	—

* See Taper chart

IDENTIFY ANY OF 12,631,500 SERIES 45 CONTROLS WITH THIS SPECIFICATION NUMBER SELECTION CHART

Suppose triple controls are wanted with these specifications: 500K log taper panel section, 10-meg linear taper second section, 10K ohms linear taper third section, plus SPST switch and a 1½" split-knurled shaft. The specification number would be 45A504D106D103S20, derived from this chart as follows: 45 for Series 45, A504 for the panel section, D106 for the second and D103 for the third sections, S for SPST switch (symbol omitted if no switch wanted) and 20 for the desired shaft. Omit codes of unwanted features. Ex: 45D50116 for single control. This is a linear taper 500 ohm control with #16 shaft (2" full round), no switch.

Ohms	Type	Single Control or Panel Section		Second Section		Third Section		Fourth Section		Switch	Shaft	Shaft Detail	
		Log. Taper	Linear Taper	Log. Taper	Linear Taper	Log. Taper	Linear Taper	Log. Taper	Linear Taper			Length FMS	End Trim
500		—	D501	—	D501	—	D501	—	D501		01	½"	SD SLOT
1000		—	D102	—	D102	—	D102	—	D102		02	⅝"	SD SLOT
2000		—	D202	—	D202	—	D202	—	D202		03	¾"	SD SLOT
3000		—	D302	—	D302	—	D302	—	D302		04	⅞"	SD SLOT
5000		—	D502	—	D502	—	D502	—	D502	D	05	1"	SD SLOT
10 K		A103	D103	—	D103	—	D103	—	D103	(DPST)	06	⅞"	FLAT
20 K		—	D203	—	—	—	—	—	—	—	07	1"	FLAT
25 K		—	D253	—	D253	—	D253	—	D253	S	08	1⅛"	FLAT
50 K		A503	D503	—	D503	—	D503	—	D503	(SPST)	09	1¼"	FLAT
100 K	45	A104	D104	A104	D104	A104	D104	A104	D104	—	10	1⅜"	FLAT
200 K		—	D204	—	—	—	—	—	—	OMIT	11	1½"	FLAT
250 K		A254	D254	A254	D254	A254	D254	A254	D254	FOR	12	1⅝"	FLAT
500 K		A504	D504	A504	D504	A504	D504	A504	D504	NO	13	1¾"	FLAT
1 MEG		A105	D105	A105	D105	A105	D105	A105	D105	SWITCH	14	1⅞"	FLAT
2 MEG		A205	D205	A205	D205	A205	D205	A205	D205		15	2"	FLAT
3 MEG		A305	—	—	—	—	—	—	—		16	2"	ROUND
5 MEG		—	D505	—	D505	—	D505	—	D505		17	3"	ROUND
10 MEG		—	D106	—	D106	—	D106	—	D106		18	1"	KNURL
											19	1¼"	KNURL
											20	1½"	KNURL

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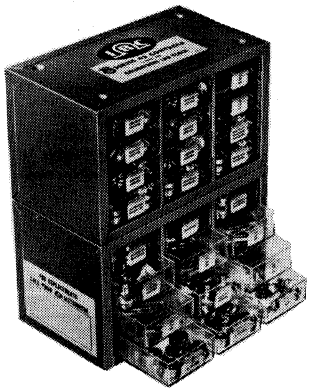
IRC-CTS SNAPTROL/SERIES 45 INDUSTRIAL CONTROL STOCKS

IRC, Inc.



ENGINEERING LAB STOCKS. Series 45, ½ watt controls to meet more than 12 million requirements. Two IRC engineering lab stocks include snap-together sections, control shafts, switches and dust covers. Ideal for building breadboards and prototypes. Grey metal cabinets stack or hang. Clear plastic drawers are labeled and separated for easy inventory and stock control.

ENGINEERING LAB STOCK ELS #1

42 IRC-CTS single controls, 41 shafts, 12 switches, 42 dust covers, 1 cabinet

CONTROL SECTIONS

Quantity	Item	Ohms	Type Taper	Description
2	45A103	10K	Log Taper	Front Section
2	45A104	100K	Log Taper	Front Section
2	45A105	1 Meg	Log Taper	Front Section
2	45A254	250K	Log Taper	Front Section
2	45A503	50K	Log Taper	Front Section
2	45A504	500K	Log Taper	Front Section
3	45D102	1000	Linear Taper	Front Section
3	45D103	10K	Linear Taper	Front Section
3	45D104	100K	Linear Taper	Front Section
3	45D105	1 Meg	Linear Taper	Front Section
3	45D253	25K	Linear Taper	Front Section
3	45D254	250K	Linear Taper	Front Section
3	45D503	50K	Linear Taper	Front Section
3	45D504	500K	Linear Taper	Front Section
3	45D505	5 Meg	Linear Taper	Front Section

SWITCHES AND COVERS

Quantity	Item	Description
3	DPST	Rotary type, 3 amps at 125 volts, 1 amp at 250 volts, 5 amps at 20 volts, AC. UL approved.
9	SPST	Rotary type, 3 amps at 125 volts, 1 amp at 250 volts, AC. UL approved.
42	45C	Snap-on Cover.

SHAFTS

Quantity	Item	Length	End Trim
2	01	½"	SD Slot
2	02	⅝"	SD Slot
3	03	¾"	SD Slot
2	04	⅞"	SD Slot
3	05	1"	SD Slot
2	06	⅞"	Flat
2	07	1"	Flat
2	08	1⅛"	Flat
3	09	1¼"	Flat
2	10	1⅜"	Flat
2	11	1½"	Flat
2	12	1⅝"	Flat
2	13	1¾"	Flat
2	14	1⅞"	Flat
2	15	2"	Flat
2	16	2"	Round
3	17	3"	Round
2	18	1"	Knurl
2	19	1¼"	Knurl

ENGINEERING LAB STOCK ELS #2

102 CTS-IRC single and multiple section controls, 64 shafts, 20 switches, 44 dust covers, 2 metal cabinets.

CONTROL SECTIONS

Quantity	Item	Ohms	Type Taper	Description
4	45A103	10K	Log Taper	Front Section
4	45A104	100K	Log Taper	Front Section
4	45A105	1 Meg	Log Taper	Front Section
4	45A254	250K	Log Taper	Front Section
4	45A503	50K	Log Taper	Front Section
4	45A504	500K	Log Taper	Front Section
4	45D102	1000	Linear Taper	Front Section
4	45D103	10K	Linear Taper	Front Section
4	45D104	100K	Linear Taper	Front Section
4	45D105	1 Meg	Linear Taper	Front Section
4	45D253	25K	Linear Taper	Front Section
4	45D254	250K	Linear Taper	Front Section
4	45D502	5000	Linear Taper	Front Section
4	45D503	50K	Linear Taper	Front Section
4	45D504	500K	Linear Taper	Front Section
4	45D505	5 Meg	Linear Taper	Front Section
2	M45A104	100K	Log Taper	Rear Section
2	M45A105	1 Meg	Log Taper	Rear Section
2	M45A254	250K	Log Taper	Rear Section
2	M45A504	500K	Log Taper	Rear Section
2	M45D102	1000	Linear Taper	Rear Section
4	M45D103	10K	Linear Taper	Rear Section
4	M45D104	100K	Linear Taper	Rear Section
4	M45D105	1 Meg	Linear Taper	Rear Section
2	M45D253	25K	Linear Taper	Rear Section
2	M45D254	250K	Linear Taper	Rear Section
2	M45D502	5000	Linear Taper	Rear Section
4	M45D503	50K	Linear Taper	Rear Section
4	M45D504	500K	Linear Taper	Rear Section
2	M45D505	5 Meg	Linear Taper	Rear Section

SWITCHES AND COVERS

Quantity	Item	Description
5	DPST	Rotary type, 3 amps at 125 volts, 1 amp at 250 volts, 5 amps at 20 volts, AC. UL approved.
15	SPST	Rotary type, 3 amps at 125 volts, 1 amp at 250 volts, AC. UL approved.
44	45C	Snap-on cover.

SHAFTS

Quantity	Item	Length	End Trim
5	01	½"	SD Slot
2	02	⅝"	SD Slot
5	03	¾"	SD Slot
5	04	⅞"	SD Slot
5	05	1"	SD Slot
5	06	⅞"	Flat
2	07	1"	Flat
2	08	1⅛"	Flat
5	09	1¼"	Flat
2	10	1⅜"	Flat
2	11	1½"	Flat
2	12	1⅝"	Flat
2	13	1¾"	Flat
2	14	1⅞"	Flat
2	15	2"	Flat
5	16	2"	Round
5	17	3"	Round
2	18	1"	Knurl
2	19	1¼"	Knurl
2	20	1½"	Knurl

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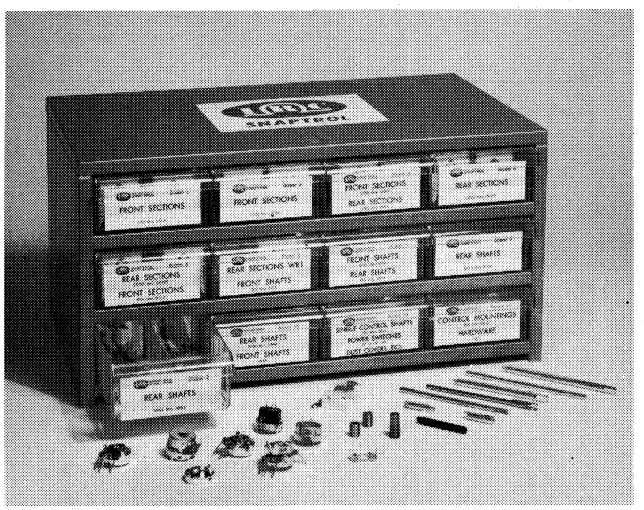
IRC-CTS SNAPTROL DEALER STOCKS

IRC, Inc.

WIDE COVERAGE OF CONTROL TYPES — SNAPTROL Dealer Control Stocks provide unusually wide variety of single, tandem and concentric dual control types. Included are nearly endless combinations of control mountings, shafts and power switches with both carbon (½ watt) and wirewound (5 watts) front and rear sections. Control mountings include ⅜", 7/16" and ½" diameter bushings, tab mountings and printed circuit brackets. Shaft styles encompass ¼" and 3/16" universal types, screw-driver slotted and insulated styles, rear adjustment feature, and a broad selection of exact duplicate shafts which require no cutting or modification.

Rotary and pull-push power switches attach to either single or concentric control styles. Concentric dual controls include carbon front end and rear sections, wirewound front and rear sections and wirewound front sections with carbon rear sections. Carbon units are equipped with printed circuit terminals for universal use. Broad selection of resistance values and tapers. Replacement data, pricing information and full instructions included.



No. 89 STOCK

SPACIOUS STOCK CABINET

The same handsome stock cabinet is provided with either No. 87 or No. 89 stocks. Permits ready conversion of Basic Stock to Expanded Stock. Sturdy two-shelf metal cabinet measures 17⅞" wide, 11 1/16" deep and 9" high. Provides twelve large "see-thru" plastic drawers with new locking divider feature. Drawers measure 11" deep, 4" wide and 2" high — 956 cubic inches of stock space! All needed dividers are included. Both drawer front and bottom labels provide full location and identification data.

SNAPTROL DEALER CONTROL STOCKS

Geared to the real replacement control needs of servicing technicians, these SNAPTROL stocks combine fast, snap-together assembly with unique, inventory-saving versatility. Carefully studied selections of SNAPTROL components assure broadest needed replacement coverage per dollar invested. Special attention has been given to actual component combinations needed for exact duplicate TV and Auto Set concentric dual controls.

CONTENTS OF SNAPTROL DEALER STOCKS

Description	Basic Stock No. 87	Conversion Stock No. 88	Expanded Stock No. 89
Carbon Front Sections	16	16	32
Wire Front Sections	—	7	7
Carbon Rear Sections	11	10	21
Wire Rear Section	—	1	1
Control Mountings	30	19	49
Single Control Shafts	13	23	36
Exact Duplicate Shafts	101	14	115
Power Switches (Rotary and Pull-Push)	18	—	18
Hardware Items	17	—	17
Replacement Manual	1	—	1
Instruction Package	1	—	1

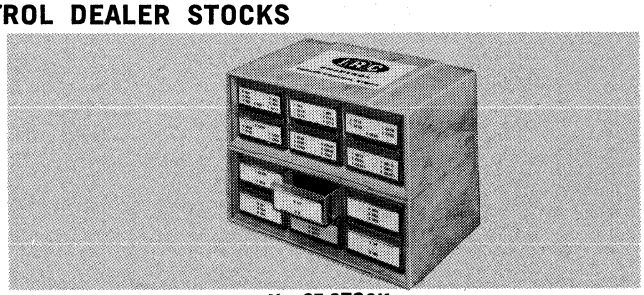
NEW! LOW-PRICED SNAPTROL DEALER STOCKS

The same careful planning and features as the larger stocks to provide the broadest coverage per dollar invested. Universal front and rear shafts in the expanded stock offer unlimited shaft matching.

Two carefully planned stocks are available. No. 95 is a basic, single control stock. No. 97 is an expanded stock with the additional coverage of concentric dual controls. Both stocks are housed in sturdy, convenient stock cabinets, with easy-to-read drawer-front labels. The basic stock may be changed to the expanded stock with conversion stock No. 96.

CONTENTS OF NEW SNAPTROL DEALER STOCKS

Description	Basic Stock No. 95	Conversion Stock No. 96	Expanded Stock No. 97
Carbon Front Sections	15	9	24
Carbon Rear Sections	—	7	7
Control Mountings	16	12	28
Single Control Shafts	24	—	24
Front Universal Shafts	—	5	5
Rear Universal Shafts	—	7	7
Power Switches (Rotary and Pull-Push)	13	—	13
Hardware Items	3	—	3
Replacement Manual	1	—	1
Instruction Package	1	1	1



No. 97 STOCK

These new Snaptrol Dealer Stocks provide an unusually wide variety of control types. Included are countless combinations of control mountings, shafts and power switches with ½ Watt carbon sections. Control mountings include a variety of bushings, tab mountings, and printed circuit brackets. Shafts include a variety of universal types. Rotary and push-pull power switches attach to either single or concentric control styles. All elements are equipped with printed circuit terminals for universal use. Broad selection of resistance values and tapers. Replacement data, pricing information and full instructions are included.

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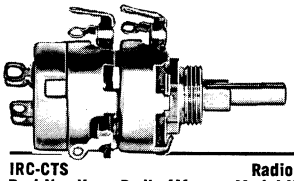
IRC-CTS AUTO RADIO CONTROLS

IRC, Inc.



EXACT DUPLICATE CONTROLS For 298 different makes and models. IRC-CTS's line of exact duplicate controls includes 137 individual types. Faster servicing results from these top-quality controls because of IRC-CTS's strict adherence to manufacturer's specifications.

IRC-CTS Part No.	Year	Radio Mfr.	Radio Model No.	Original Part No.
AMERICAN MOTORS				
5563	1959	Motorola	94MA	18B561728
BUICK				
5346	1946-53	Motorola	BK2A, BK3A6	18B512084
5350	1954-56	Motorola		18K533457
5359	1957	Motorola		18B540768
5411	1950-53	Delco	980868, 980899, 980979, 980980, 981111, 981320, 981321, 981322, 981323	7263119
5412	1954	Delco	981550, 981551	7264309
5413	1955	Delco	981651, 981652	7265742
5414	1956	Delco	981707, 981708	7266996
5415	1957	Delco	981813, 981814	7268944
5553	1958	Delco	981902	7271329
5558	1959	Delco	988822	7271446
6001	1960	Delco		7276365
6104	1961	Delco	980134/5	7277155
CADILLAC				
5423	1950-52	Delco	7258865, 7260405, 7259825, 7260905, 7260705	7259240
5424	1953	Delco	7262645, 7262695, 7263525, 7263545, 7263835	7263321
5425	1954-55	Delco	7264165, 7264185, 7264195, 7265825, 7265845, 7265855	7264638
5426	1956	Delco	7266505, 7266535, 7266565	7266982
5427	1957	Delco	7268005, 7268035, 7268065	7269443
CHEVROLET				
5342	1949-50	Delco	986240, 986388	7258084
5343	1950	Delco	986389	1218641
5344	1951-52	Delco	986516	1219708
5345	1951-52	Delco	986515	7261385
5346	1951-52	Motorola	CT2A, CT2M	18B512084
5347	1953-54	Delco	986669	7262941
5348	1953-54	Delco	986771	7264211
5349	1953-54	Delco	986668	7264210
5350	1953-56	Motorola		18K533457
5351	1955	Delco	987087	7265265
5352	1955-56	Delco	987088, 987366	7265220
5353	1955-57	Delco	987086, 987364, 3725156	7265302
5354	1955-58	Delco	987187	7266193
5355	1956	Delco	987368	7266842
5356	1957	Delco	987577	7269211
5357	1957	Delco	987575, 987693	7269199
5358	1957	Delco	987573	7269186
5359	1957	Motorola		18B540768
5360	1957	Motorola	CTA7X, CTM7X	18K541128
5362	1957	Delco		7270202
5550	1958	Delco	987724	7270450
5551	1958	Delco	987727	7270479
5555	1959	Delco	987888	7273302
5556	1959	Delco	987891	7273367
6002	1960	Delco	988276	7275710
6101	1961	Delco	985036	7278528
6105	1961	Delco	988414	7276939
6201	1962	Delco	985264	7279855
6301	1963	Delco	985432	7282598
6302	1963	Delco	985431	7282088
6401	1964	Delco	985877	7287414
6402	1964	Delco	985875	7287355
CHEVROLET TRUCKS				
5346	1948-53	Motolola	GMT2A, GMT2M	18B512084
5361	1950-52	Delco	986067, 986443	7256188
CHRYSLER				
5378	1955	Philco	C-5509, Mopar 835 C-5609	33-5557-15
5435	1953	Philco	C-5109, Mopar 812 C-5209, Mopar 817 C-5110, Mopar 813 C-5211 C-5111, Mopar 815 C-5212	33-5557-10
CHRYSLER (Cont.)				
5436	1953-54	Philco	C-5112, Mopar 816 C-5409, Mopar 824 C-5410, Mopar 830 C-5411	33-5557-13
5437	1955	Philco	C-5595, Mopar 902 C-5596, Mopar 903	33-5557-16
5437	1956	Philco	C-5696, Mopar 912	33-5557-16
5438	1957	Philco	C-5705, Mopar 847	33-5580-16
5439	1957	Philco	C-5707	33-5580-13
5559	1959	Motorola	Mopar 861	18B561364
CONTINENTAL				
5398	1956	Bendix	6BC	L219660-2
CORVAIR				
6004	1960	Delco	988062	7274920
6102	1961	Delco	988460	7278058
DESOTO				
5449	1954	Motorola	Mopar 829	18A530623
5450	1955-56	Motorola	Mopar 911	18B532633
5451	1957	Motorola	Mopar 846 919, 919HR	18B539819
5451	1958	Motorola	Mopar 923	18B539819
DODGE				
5459	1953	Motorola	Mopar 609	18B521099
5460	1954-55	Motorola	Mopar 833	18K533013
5461	1955	Motorola	Mopar 614, 621	18B532519
5462	1955-56	Motorola	Mopar 900, 901, 910	18K532955
5463	1957	Motorola	Mopar 845, 918	18K539820
5464	1958	Motorola	Mopar 502	18B561317
5564	1959	Motorola	Mopar 856	18B561732
6007	1960	Motorola		18B563115
EDSEL				
5562	1959	Bendix	94BE	2090035-3
FORD				
5308	1948-50	Bendix	M1, M1A, M1A1	L222808
5309	1950	Motorola	OMF	18B591266
5310	1951	Bendix	M2	L219586-2
5311	1951	Motorola	1MF	18B501153
5312	1952-53	Bendix	M4,M4A	L219586-3
5313	1952-53	Motorola	2MF, 3MF	18K511635
5314	1954	Bendix	M4B, M4BA, M4BP	L219586-7
5315	1954	Motorola	4MF	18B530018
5316	1955	Bendix	5BF, R5BF	L219656-1
5317	1955	Motorola	5MF, 5MF8	18B531299
5318	1956	Bendix	R6BF	L219681-1
5319	1956	Motorola	66MF, 66MFP, 69MF	18B534483
5320	1957	Bendix	R75BF	2090035-1
5321	1957	Motorola	75MF	18K539059
5322	1957	Motorola	78MF	18B539379
5323	1957-58	Bendix	R74BF, R84BF	2090035-2
5324	1957-58	Motorola	74MF, 84MF	18B541819
5325	1957-58	Motorola	76MF(SR), 86MF	18B542373
5560	1959	Motorola	94MF, 94MFM	
5561	1959	Motorola	95MF	18B561599
5562	1959	Bendix	94BF	
6005	1960	Bendix	04BF	2090405-1
6008	1960	Motorola	14MD, 14MF, 14MFM	18C562768
6106	1961	Bendix	14BF	2090405-8
6202	1962	Motorola	2TMF	18C41341A01
6303	1963-64	Motorola	3TMF, 4TMF	18C41449A03
6304	1963-64	Bendix	3TBO	2092097-4
6305	1963	Bendix	3TBD	2091619-3
6403	1964	Bendix	4TBD	2092097-6
GMC TRUCKS				
5346	1948-53	Motorola	GMT2A, GMT2M	18B512084
5348	1954-58	Delco	2233396, 2233398	7264211
5354	1955-56	Delco	2233478, 2233480	7266193
5361	1947-52	Delco	2233029, 2233297	7256188
KAISER				
5346	1951-53	Motorola	KR2A, KR2M	18B512084
LINCOLN				
5398	1955-56	Bendix		L219660-2
MERCURY				
5398	1955-56	Bendix	R6BM	L219660-2
5399	1957	Philco	M-5841, M-5741	33-5570-2
5400	1958	Bendix	R84BM, R85BM-5	N219689-4
6106	1961	Bendix	14BF	2090405-8
OLDSMOBILE				
5346	1951-52	Motorola	OE2A, OE2M	18B512084
5350	1954-56	Motorola		18K533457
5473	1949	Delco	982420	1219582
5474	1951	Delco	982700	7260294
5475	1953	Delco	983004	7263540
5476	1954-55	Delco	983090, 983204	7264242
5477	1954-56	Delco	983091, 983205, 983336	7264128
5478	1956	Delco	98334	7266887
5479	1957	Delco	989002	7268847
5480	1957	Delco	989001	7269055
5552	1958	Delco	989127, 989129	7270679
PACKARD				
5346	1951-53	Motorola	PD2A, PD2M	18B512084
5494	1956	Delco	480487, 6480487	7267632
PLYMOUTH				
5373	1952	Motorola	Mopar 606	18A501616
5374	1953	Motorola	Mopar 608 P-5206,	18B521635 33-5557-11
5375	1953	Philco	Mopar 819	
5376	1954-55	Motorola	Mopar 836	18A533014
5377	1955	Motorola	Mopar 613	18K532909
5378	1955	Philco	P-5506, Mopar 832	33-5557-15
5379	1956	Motorola	Mopar 841	18K536152
5380	1956	Motorola	Mopar 916	18B536704
5381	1956	Philco	P-5606, Mopar 840	33-5580-4
5382	1957	Motorola	Mopar 849	18B540376
5383	1957	Philco	P-5701, Mopar 848 P-5702, Mopar 848	33-5580-12
5384	1958	Motorola	Mopar 854	18B560415
5385	1958	Philco	P-5801	33-5580-21
5386	1955	Philco		33-5557-14
5559	1959	Motorola	Mopar 860	
6006	1960	Motorola	101, 104, 110	18B563140
PONTIAC				
5350	1955-56	Motorola		18K533457
5359	1957	Motorola		18B540768
5501	1949-50	Delco	984296, 984570	7257708
5502	1951-52	Delco	984592, 984688	7260043
5503	1953-54	Delco	984817	7262482
5504	1955-56	Delco	984961, 988568	7265495
5505	1956	Delco	988623	7268308
5506	1957	Delco	988672	7269149
5507	1957	Delco		7269638
6003	1960	Delco	989614/615	7275708
6103	1961	Delco	989692	7277542
STUDEBAKER				
5350	1953-56	Motorola	6M, 6M-12	18K533457
5359	1957	Motorola	7MX	18B540768
5517	1953	Philco	S-5327, AC-2300 S-5523 S-5323, AC-2301 S-5527 S-5524 S-5528 S-5529	33-5570
UNIVERSAL				
5350	1954-56	Motorola	5M, 5M-12	18K533457
5522	1954	Motorola	397, 404	18B531560
5522	1955	Motorola	395, 395-12	18B531560
5522	1956	Motorola	396, 396-12	18B531560
VOLKSWAGEN				
5350	1953-56	Motorola		18K533457
WILLYS				
5348	1956	Delco	694866	7264211

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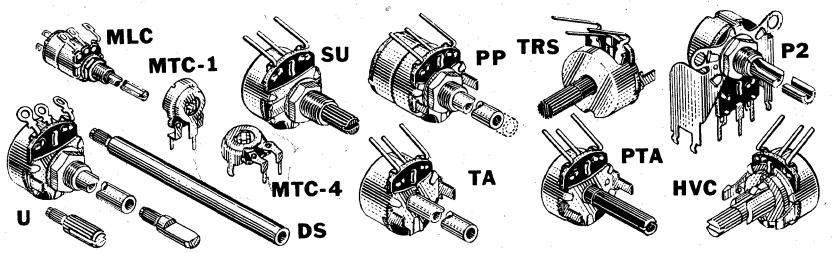
MALLORY Carbon Controls



MIDGETROLS®

Mallory Midgetrols are used in both replacement and industrial applications. Rated 1 watt linear, ½ watt audio taper. 15/16" dia. **Tapers:** 1, left hand audio; 2, reverse audio; 4, linear.

BUSHING MOUNT—METAL SHAFT

⅜"-32 x ⅜" bushing; shaft ¼" dia. x 2⅜" FMS (Front Mounting Surface). Furnished with two knob adapters and hex nut.

Mallory U Midgetrols—Without taps. Net Each..... **$1.02**

Mallory U Midgetrols—Single or double taps. Net Each..... **$1.26**

WITHOUT TAPS

Mall. No.	Resis., Ohms	Taper	Mall. No.	Resis., Ohms	Taper
U1	100	4	U35	50K	4
U2	500	4	U36	75K	1
U52R	500	2	U39	100K	1
U751R	750	2	U40	100K	2
U3	1K	2	U41	100K	4
U4	1K	4	U415	125K	4
U5	1500	2	U42	150K	1
U5L	1500	4	U43	200K	4
U6	2K	4	U44	250K	1
U7	2500	2	U45	250K	2
U8	3K	4	U46	250K	4
U9	3K	2	U48	500K	1
U12	5K	1	U50	500K	4
U14	5K	4	U51	750K	1
U18	10K	1	U52	1 meg	2
U19	10K	2	U53	1 meg	1
U20	10K	4	U54	1 meg	4
U21	15K	1	U155	1.5 megs	4
U22	15K	2	U55	2 megs	1
U24	20K	1	U56	2 megs	4
U26	20K	4	U255	2.5 megs	4
U28	25K	2	U57	3 megs	1
U28A	25K	1	U59	3 megs	4
U29	25K	4	U63	5 megs	2
U30	30K	4	U65	5 megs	1
U33	50K	1	U67	5 megs	4
U34	50K	2	U82	10 megs	4

SINGLE TAPPED

Mall. No.	Resis., Ohms	Tap At	Mall. No.	Resis., Megs	Tap At
UT153	15K	10K	UT440	1	200K
UT415	30K	25K	UT443	1	450K
UT420	250K	50K	UT450	2	125K
UT421	250K	150K	UT448	2	250K
UT425	350K	70K	UT449	2	600K
UT427	500K	100K	UT454	2	400K
UT429	500K	50K	UT451	2	900K
UT430	500K	150K	UT457	3	900K
UT431	500K	225K	UT461	3¼	300K
UT438	1 meg	300K			

DOUBLE TAPPED

Mallory No.	Resistance, Ohms	Taps at Tap 1	Taps at Tap 2
UDT283	500K	100K	200K
UDT289	1 meg	250K	500K
UDT291	1.5 megs	225K	500K
UDT295	2.25 megs	250K	500K
UDT296	2.25 megs	500K	1 meg
UDT303	3.3 megs	300K	1.5megs

BUSHING MOUNT—NYLON SHAFT

Same bushing as U type. Shaft ¼" dia. x ¾" FMS nylon.

Mallory SU Midgetrols—Net Each.. **93c**

Mallory No.	Resis., Ohms	Taper	Mallory No.	Resis., Ohms	Taper
SU6	1500	4	SU50	500K	4
SU8	3K	4	SU54	1 meg	4
SU14	5K	4	SU56	2 megs	4
SU20	10K	4	SU565	2.5 megs	4
SU29	25K	4	SU59	3 megs	4
SU35	50K	4	SU67	5 megs	4
SU41	100K	4	SU69	7.5 megs	4
SU46	250K	4			

TAB MOUNT—METAL SHAFT

Mounts on two twist-tab lugs. Shaft ¼" dia. x 2⅜" FMS. Furnished with two knob adapters.

Mallory TA Midgetrols—Net Ea.... **75c**

Mallory No.	Resis. Ohms	Taper	Mallory No.	Resis. Ohms	Taper
TA52L	500	4	TA334A	330K	1
TA751L	750	4	TA55R	500K	2
TA13L	1000	4	TA55A	500K	1
TA152L	1500	4	TA55L	500K	4
TA352L	3500	4	TA16A	1 meg	1
TA53L	5000	4	TA16L	1 meg	4
TA14L	10K	4	TA155L	1.5 megs	4
TA153L	15K	4	TA26A	2 megs	1
TA253L	25K	4	TA26L	2 megs	4
TA54A	50K	1	TA26T16	2 megs*	4
TA54L	50K	4	TA255L	2.5 megs	4
TA15L	100K	4	TA36L	3 megs	4
TA184L	180K	4	TA56R	5 megs	2
TA254L	250K	4	TA56L	5 megs	4

*Tap at 1 meg.—Net Each..... **99c**

TAB MOUNT—NYLON SHAFT

Same as TA except has ¼" dia. x 1" FMS nylon shaft. Furn. with 2" shaft extender.

Mallory PTA Midgetrols—Net Ea... **60c**

Mall. No.	Ohms	†	Mall. No.	Megs.	†
PTA52L	500	4	PTA754L	750K*	4
PTA751L	750	4	PTA16L	1	4
PTA152L	1500	4	PTA1254L	1.25	4
PTA252L	2500	4	PTA26L	2	4
PTA352L	3500	4	PTA355L	3.5	4
PTA53L	5000	4	PTA46A	4	1
PTA54L	50K	4	PTA56R	5	2
PTA15L	100K	4	PTA56L	5	4
PTA35L	300K	4	PTA755L	7.5	4
PTA55R	500K	2	PTA855L	8.5	4
PTA55L	500K	4			

*Ohms. †Taper.

SWITCHES, SHAFT EXTENDERS

Switches for U, UT, UDT or TA controls.

Mall. No.	Description	Net
US26	SPST, 6 amps at 125 VAC	42c
US26T	SPST, w/dummy terminal	51c
US27	DPST, 6 amps at 125 VAC	51c
US28	SPDT, 3 amps at 125 VAC	51c
DS36	¼" dia. x 2 13/16"	33c
DS37	5/16" dia. x 2¼"	33c

BUSHING MOUNT WITH P-P SWITCH

Standard U control with SPST 6 amps at 125 VAC push-pull switch, U/L Approved. Shaft ¼" dia. x 2" FMS. Furnished with knob adapters and hex nut.

Mallory Number	Resis., Ohms	Tap, Ohms	Taper	Net Each
PP13R	1K	.....	2	$1.35
PP252R	2.5K	.....	2	1.35
PP253R	25K	.....	2	1.35
PP15A	100K	.....	1	1.35
PP25L	200K	.....	4	1.35
PP254A	250K	.....	1	1.35
PP254DT154	250K	100K–150K	4	1.59
PP55A	500K	.....	1	1.35
PP55L	500K	.....	4	1.35
PP55DT1683	500K	78K–168K	4	1.59
PP55T25	500K	200K	4	1.59
PP55T254	500K	250K	1	1.59
PP16A	1 meg	.....	1	1.35
PP16L	1 meg	.....	4	1.35
PP16T15	1 meg	100K	1	1.59
PP16T25	1 meg	200K	1	1.59
PP16DT55	1 meg	250K–500K	4	1.59
PP16T55	1 meg	500K	2	1.59
PP155L	1.5megs	.....	4	1.35
PP26A	2 megs	.....	1	1.35
PP26DT16	2 megs	500K–1meg	1	1.59
PP26T16	2 megs	1 meg	4	1.59
PP36DT26	3 megs	1 & 2 megs	4	1.59
PP36L	3 megs	.....	4	1.35
PP46T26	4 megs	2 megs	4	1.59
PP56L	5 megs	.....	4	1.35

PRINTED CIRCUIT MOUNTING

Universal printed circuit control with "doghouse" and ⅜"-32 x ⅜" bushing and ¼" dia. x 3" FMS universal shaft. Switches rated 6 amps at 125 VAC. U/L Approved.

Mallory P2 Midgetrols—Without taps. Net Each..... **$1.11**

Mallory P2 Midgetrols—Single or double tapped. Net Each..... **$1.35**

Mallory P2—SPST switch. Net.. **1.53**

Mallory P2—DPST switch. Net.. **1.62**

Mallory No.	Resis., Ohms	Tap #1	Tap #2	Taper	Switch
P2-252AS	2.5K	.....	.....	1	SPST
P2-53LS	5K	.....	.....	4	SPST
P2-14AD	10K	.....	.....	1	DPST
P2-153AD	15K	.....	.....	1	DPST
P2-55A	500K	.....	.....	1	.....
P2-55AS	500K	.....	.....	1	SPST
P2-55T254	500K	250K	.....	1	.....
P2-55LS	500K	.....	.....	4	SPST
P2-16A	1 meg	.....	.....	1	.....
P2-16AS	1 meg	.....	.....	1	SPST
P2-16AD	1 meg	.....	.....	1	DPST
P2-16T35	1 meg	300K	.....	1	.....
P2-16LD	1 meg	.....	.....	4	DPST
P2-26A	2 megs	.....	.....	1	.....
P2-26AS	2 megs	.....	.....	1	SPST
P2-26DT65	2 megs	300K	600K	1	.....
P2-36L	3 megs	.....	.....	4	.....

TAB MOUNT—REVERSE NYLON SHAFT

Same as PTA except ¼" dia. nylon shaft projects ¾" out REAR of control. Screwdriver slot in mounting end of shaft.

Mallory TRS Midgetrols—Net Ea.. **54c**

Mall. No.	Ohms	T'p'r	Mall. No.	Ohms	T'p'r
TRS12L	100	4	TRS15L	100K	4
TRS351L	350	4	TRS25L	200K	4
TRS751L	750	4	TRS254L	250K	4
TRS53L	5K	4	TRS55L	500K	4
TRS153L	15K	4	TRS754L	750K	4
TRS153			TRS16L	1 meg	4
DT14	15K*	4	TRS26A	2megs	1
TRS253L	25K	4	TRS26L	2megs	4
TRS44L	40K	4	TRS36L	3megs	4
TRS74L	70K	4	TRS46A	4megs	1
TRS15A	100K	1	TRS56L	5megs	4

*Taps at 5K and 10K ohms.

HIGH VOLTAGE MIDGETROL®

To isolate control mounting from up to 4000 volts rms. Snap mount of nylon and ¼" dia. x ¾" FMS nylon shaft.

Mallory HVC Midgetrols—Net Ea. **$1.02**

Mallory No.	Resistance	Taper
HVC63L	6000 ohms	4
HVC155L	1.5 megs	4
HVC355L	3.5 megs	4

SUBMINIATURE MINITROLS®

Only ½" dia. Rated ¼ watt linear, ⅛ watt audio. ¼"-32 x ¼" bushing with nut. Shaft: ¼" dia. x 1" FMS, MLC (steel); MLCN (nylon). SPST switch rated 2 amps at 125 VAC, U/L Approved. MTC has open screwdriver slot. **Type MLC Bush. Mt.**

Mallory No.	Ohms	Taper	Switch	Net
MLC13L	1000	4	.....	$1.14
MLC222LS	2200	4	SPST	1.86
MLC252A	2500	1	.....	1.14
MLC252AS	2500	1	SPST	1.86
MLC53A	5000	1	.....	1.14
MLC53AS	5000	1	SPST	1.86
MLC53L	5000	4	.....	1.14
MLC53LS	5000	4	SPST	1.86
MLC14AS	10K	1	SPST	1.86
MLC14L	10K	4	.....	1.14
MLC54L	50K	4	.....	1.14
MLC15A	100K	1	.....	1.14
MLC15L	100K	4	.....	1.14
MLC25L	200K	4	.....	1.14
MLC254L	250K	4	.....	1.14
MLC55A	500K	1	.....	1.14
MLC55AS	500K	1	SPST	1.86
MLC55LS	500K	4	SPST	1.86
MLCN55L	500K	4	.....	1.14
MLC16AS	1 meg	1	SPST	1.86
MLC16LS	1 meg	4	SPST	1.86
MLCN16A	1 meg	1	.....	1.14
MLCN16L	1 meg	4	.....	1.14

Type MTC PC Mt. Linear taper. Net. **39c**

Mallory Number Vert. Mtg.	Mallory Number Horiz. Mtg.	Resis., Ohms
MTC12L1	MTC12L4	100
MTC22L1	MTC22L4	200
MTC251L1	MTC251L4	250
MTC32L1	MTC32L4	300
MTC52L1	MTC52L4	500
MTC751L1	MTC751L4	750
MTC13L1	MTC13L4	1000
MTC152L1	MTC152L4	1500
MTC23L1	MTC23L4	2000
MTC33L1	MTC33L4	3000
MTC53L1	MTC53L4	5000
MTC63L1	MTC63L4	6000
MTC682L1	MTC682L4	6800
MTC14L1	MTC14L4	10K
MTC153L1	MTC153L4	15K
MTC24L1	MTC24L4	20K
MTC253L1	MTC253L4	25K
MTC54L1	MTC54L4	50K
MTC15L1	MTC15L4	100K
MTC124L1	MTC124L4	120K
MTC184L1	MTC184L4	180K
MTC254L1	MTC254L4	250K
MTC3253L1	MTC3253L4	325K
MTC454L1	MTC454L4	450K
MTC55L1	MTC55L4	500K
MTC16L1	MTC16L4	1 meg
MTC26L1	MTC26L4	2 megs
MTC355L1	MTC355L4	3.5 megs

Net

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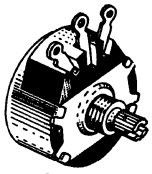
MALLORY Wire-Wound Controls

C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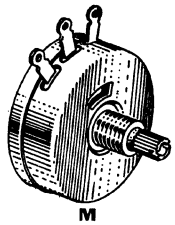
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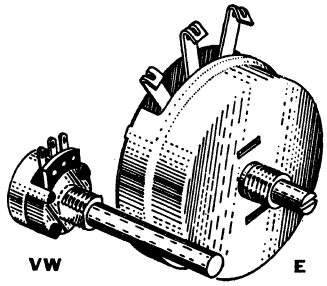
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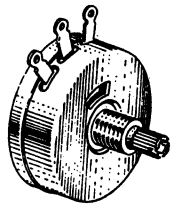
MG

2 WATT TYPE C

Rated 2 watts at 40° C. 1¾" diameter. **Mech. Rotation:** 280°. **Elec. Rotation:** 255°. **Resis. Tolerance:** ±10%. Contact arm grounded. **Bushing:** ⅜"-32 x ⅜". **Shaft:** ¼" dia. x ¾" FMS with screwdriver slot. Furn. with nut.

POTENTIOMETERS

Mallory No.	Ohms Resis.	Carrying Capacity in Amps	Net Each
C6P	6	.58	$1.08
C10P	10	.45	1.08
C15P	15	.37	1.08
C20P	20	.32	1.08
C30P	30	.26	1.08
C40P	40	.22	1.08
C50P	50	.2	1.08
C100P	100	.14	1.08
C200P	200	.1	1.08
C400P	400	.07	1.08
C1MP	1K	.045	1.20
C3MP	3K	.025	1.20
C5MP	5K	.02	1.47
C6MP	6K	.018	1.47
C10MP	10K	.014	1.47
C15MP	15K	.011	1.47

RHEOSTATS*

Mallory No.	Ohms Resis.	Carrying Capacity in Amps	Net Each
C6R	6	.58	93c
C10R	10	.45	93c
C15R	15	.37	93c
C20R	20	.32	93c
C30R	30	.26	93c
C40R	40	.22	93c
C50R	50	.2	93c
C100R	100	.14	93c

*"Open" or "off" position counter-clockwise.

3 WATT TYPE R

Standard TV wire-wound control rated 3 watts at 40° C. 1⅞" diameter. **Mech. Rotation:** 297°. **Elec. Rotation:** 290°. **Voltage Breakdown:** 900 VAC rms. **Bushing:** ⅜"-32 x ¼". **Shaft:** ¼" dia. x 19/32" FMS, knurled with screwdriver slot. Furn. with nut. See listing below for switches for R controls.

Mallory No.	Ohms Resis.	Net Each	Mallory No.	Ohms Resis.	Net Each
R2L	2	$0.93	R50CT†	50	$1.32
R3L	3	.93	R100L	100	.93
R5L	5	.93	R250L	250	.93
R6L	6	.93	R500L	500	.93
R8L	8	.93	R750L	750	.93
R10L	10	.93	R1000L	1000	.93
R10CT†	10	1.32	R1500L	1500	.93
R15L	15	.93	R2500L	2500	.93
R20L	20	.93	R3000L	3000	.93
R20CT†	20	1.32	R5000L	5000	.93
R25L	25	.93	R7500L	7500	1.08
R30L	30	.93	R10ML	10000	1.08
R30CT†	30	1.32	R15ML	15000	1.08
R50L	50	.93	R20ML	20000	1.08

†Center-tapped Controls.

SWITCHES FOR TYPE R POTS

Mall. No.	Description	Net
US30	Single Pole, Single Throw	42c
US32	Double Pole, Single Throw	54c

4 WATT TYPE M

Rated 4 watts at 40° C. 1⅝" diameter. **Mech. Rotation:** 294°. **Elec. Rotation:** 275°. **Resis. Tolerance:** ±10%. **Voltage Breakdown:** 900 VAC rms. **Bushing:** ⅜"-32 x ⅜" FMS. **Shaft:** ¼" dia. x ¾" FMS, knurled with screwdriver slot. Furn. with nut.

POTENTIOMETERS

Mallory Number	Ohms Resis.	Capacity in Amps	Net Each
M1PK	1	2.00	$1.35
M3PK	3	1.15	1.35
M6PK	6	82	1.35
M10PK	10	.63	1.35
M15PK	15	.52	1.35
M20PK	20	.45	1.35
M25PK	25	.40	1.35
M30PK	30	.37	1.35
M40PK	40	.32	1.35
M50PK	50	.28	1.35
M60PK	60	.26	1.35
M75PK	75	.23	1.35
M100PK	100	.20	1.35
M200PK	200	.14	1.35
M300PK	300	.116	1.35
M400PK	400	10	1.35
M500PK	500	.09	1.35
M600PK	600	.082	1.35
M1MPK	1K	.063	1.35
M1.5MPK	1.5K	.052	1.35
M2MPK	2K	.045	1.35
M2.5MPK	2.5K	.04	1.35
M3MPK	3K	.037	1.35
M4MPK	4K	.032	1.35
M5MPK	5K	.028	1.35
M10MPK	10K	.02	1.35
M15MPK	15K	.016	1.47
M20MPK	20K	.014	1.47
M25MPK	25K	.013	1.47
M50MPK	50K	.009	1.74
M70MPK	70K	.0075	1.74
M75MPK	75K	.0073	2.46
M100MPK	100K	.0063	2.46

CENTER-TAPPED POTENTIOMETERS

Mallory Number	Ohms Resis.	Capacity in Amps	Net Each
MT10PK	10	.63	$1.32
MT20PK	20	.45	1.32
MT30PK	30	.37	1.32

RHEOSTATS*

Mallory Number	Ohms Resis.	Capacity in Amps	Net Each
M05RK	0.5	2.80	93c
M1RK	1	2.00	93c
M2RK	2	1.40	93c
M3RK	3	1.15	93c
M4RK	4	1.00	93c
M6RK	6	.82	93c
M10RK	10	.63	93c
M15RK	15	.52	93c
M20RK	20	.45	93c
M25RK	25	.40	93c
M30RK	30	.37	93c
M40RK	40	.32	93c
M50RK	50	.28	93c
M60RK	60	.26	93c
M75RK	75	.23	93c
M100RK	100	.20	93c

*"Open" or "Off" position counter-clockwise.

5 WATT TYPE VW SUBMINIATURE

Rated 5 watts at 35° C. ¾" diameter. **Mech. Rotation:** 305°. **Elec. Rotation:** 275°. **Resis. Tolerance:** ±10%. **Voltage Breakdown:** 900 VAC rms. **Bushing:** ⅜"-32 x ⅜". **Shaft:** ¼" dia. x 2" FMS. Furn. with nut and lug.

Mallory No.	Ohms Resis.	Net Each	Mallory No.	Ohms Resis.	Net Each
VW1	1	$1.38	VW300	300	$1.38
VW2	2	1.38	VW400	400	1.38
VW3	3	1.38	VW500	500	1.38
VW5	5	1.38	VW600	600	1.38
VW6	6	1.38	VW750	750	1.38
VW8	8	1.38	VW1K	1000	1.38
VW10	10	1.38	VW1P5K	1500	1.44
VW15	15	1.38	VW2K	2000	1.44
VW20	20	1.38	VW2P5K	2500	1.44
VW25	25	1.38	VW3K	3000	1.44
VW30	30	1.38	VW4K	4000	1.44
VW40	40	1.38	VW5K	5000	1.44
VW50	50	1.38	VW7P5K	7500	1.50
VW60	60	1.38	VW10K	10000	1.50
VW75	75	1.38	VW15K	15000	1.56
VW100	100	1.38	VW20K	20000	1.56
VW200	200	1.38	VW25K	25000	1.65
VW250	250	1.38			

7 WATT TYPE E

Rated 7 watts at 40° C. 2 5/16" diameter. **Mech. Rotation:** 307°. **Elec. Rotation:** 295°. **Resis. Tolerance:** ±10%. Contact arm grounded. **Bushing:** ⅜"-32 x ⅜". **Shaft:** ¼" dia. x ¾" FMS with screwdriver slot. Furnished with nut.

Mallory Number	Ohms Resis.	Capacity in Amps	Net Each
E5MP	5K	.042	$2.76
E10MP	10K	.03	2.94
E20MP	20K	.021	3.00
E25MP	25K	.019	3.09
E50MP	50K	.0135	3.15
E75MP	75K	.011	3.24
E100MP	100K	.0095	3.30
E125MP	125K	.0085	3.30
E150MP	150K	.0078	3.36

12½ WATT TYPE MG

Rated 12½ watts at 35° C. 1⅝" diameter. **Mech. Rotation:** 294°. **Elec. Rotation:** 275°. **Resis. Tolerance:** ±10%. **Voltage Breakdown:** 900 VAC rms. **Bushing:** ⅜"-32 x ⅜" FMS. **Shaft:** ¼" dia. x ¾" FMS, knurled with screwdriver slot. Furn. with nut.

Mallory No.	Ohms Resis.	Net Each	Mallory No.	Ohms Resis.	Net Each
MG1	1	$2.18	MG600	600	$2.18
MG3	3	2.18	MG1000	1000	2.22
MG6	6	2.18	MG1500	1500	2.22
MG10	10	2.18	MG2000	2000	2.22
MG15	15	2.18	MG2500	2500	2.22
MG20	20	2.18	MG3000	3000	2.22
MG25	25	2.18	MG4000	4000	2.22
MG30	30	2.18	MG5000	5000	2.22
MG50	50	2.18	MG10K	10K	2.32
MG100	100	2.18	MG15K	15K	2.32
MG200	200	2.18	MG20K	20K	2.32
MG300	300	2.18	MG25K	25K	2.32
MG400	400	2.18	MG50K	50K	2.50
MG500	500	2.18	MG100K	100K	2.72

STANDARD TAPER FOR MALLORY WIRE-WOUND CONTROLS IS NORMAL LINEAR TAPER.

OTHER TAPERS MAY BE SPECIFIED ON SPECIAL ORDER.

AUDIO ATTENUATORS AND SENSITIVITY CONTROLS ARE LISTED ON ANOTHER PAGE.

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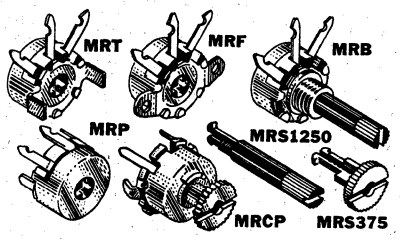
MALLORY Wire-Wound Controls

3-WATT TYPE MR WIRE-WOUND CONTROLS



Only ¾" diameter, MR controls are used for applications in AGC, convergence, hum-balance, etc. Case is fully enclosed: MR, all metal; MRC, metal mounting plate with molded nylon body and knob. Types MR and MRC directly replace older FL and PFL types as shown in cross-reference. Five mounting configurations available. Conversion from cross-slot adjustment to shaft may be made using plug-in shafts listed. **Wattage Rating at 40° C:** MR, 3 watts; MRC, 1½ watts. **Rotation:** 250° mechanical; 248° electrical. **Resistance Tolerance:** MR, ±20%; MRC, ±10%. **Voltage Breakdown:** MR, 900 VAC rms; MRC has grounded contact arm.

MR-B 3-WATT BUSHING MOUNT

Bushing ⅜"-32 x ¼". Shaft ¼" dia. x 1¼" lg., FMS knurled and slotted nylon. With nut.

Mallory No.	Res. Ω	Net Each	Mallory No.	Res. Ω	Net Each
MR10B	10	$0.93	MR1000B	1000	$0.93
MR50B	50	.93	MR2500B	2500	.93
MR100B	100	.93	MR5000B	5000	.93
MR250B	250	.93	MR10KB	10K	1.08
MR500B	500	.93	MR15KB	15K	1.08

MR-T 3-WATT TAB MOUNT

Furnished with twist-tabs for mounting on PC board or chassis. Cross-slot adjustment.

MR10T	10	$0.66	MR2500T	2500	$0.70
MR50T	50	.66	MR3000T	3000	.70
MR100T	100	.66	MR4000T	4000	.70
MR250T	250	.66	MR5000T	5000	.76
MR500T	500	.66	MR8000T	8000	.76
MR850T	850	.66	MR10KT	10K	.83
MR1000T	1000	.66	MR15KT	15K	.93

MR-F 3-WATT FLANGE MOUNT

Mounting ears with .130" dia. holes on 1" center. Cross-slot adjustment, front and rear.

MR6F	6	$0.66	MR600F	600	$0.66
MR15F	15	.66	MR750F	750	.66
MR40F	40	.66	MR1000F	1000	.66
MR75F	75	.66	MR1500F	1500	.66
MR100F	100	.66	MR2000F	2000	.66
MR150F	150	.66	MR2500F	2500	.66
MR200F	200	.66	MR3000F	3000	.66
MR250F	250	.66	MR4000F	4000	.66
MR500F	500	.66	MR5000F	5000	.66

MR-P 3-WATT PC MOUNT

Printed circuit board mounting with cross-slot adjustment, front and rear.

MR1.5P	1.5	$0.66	MR1000P	1000	$0.66
MR15P	15	.66	MR1500P	1500	.66
MR100P	100	.66	MR3000P	3000	.66
MR175SP	175*	.66	MR4000P	4000	.66
MR260SP	260†	.66	MR5000P	5000	.66
MR600P	600	.66			

*Stop at 60 ohms. †Stop at 100 ohms.

MRC-P 1½-WATT PC MOUNT

Convergence controls with printed circuit board mounting and permanent knob.

MRC10P	10	$0.66	MRC100P	100	$0.66
MRC30P	30	.66	MRC120P	120	.66
MRC60P	60	.66	MRC150P	150	.66

SHAFTS FOR MR CONTROLS

Mallory No. MRS1250—¼" dia. x 1¼" FMS knurled and slotted nylon. Plugs into either end of MR control. Net Ea... **12c**

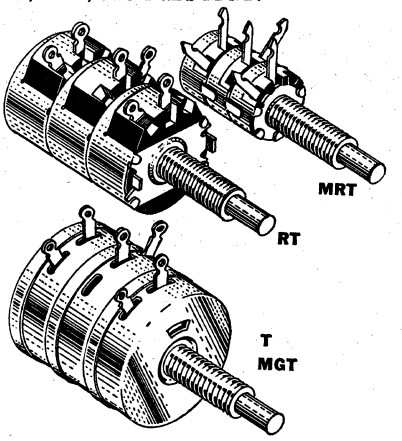
Mallory No. MRS375—17/64" dia. knurled nylon knob/shaft with slot. Projects ⅜" FMS. For MR-F, P or T controls. Net Each..... **12c**

TANDEM COUPLER FOR MR CONTROLS

Mallory No. MRS100—Couples MRP type to MRB, MRT, MRF or MRP to make tandem control. Net Each..... **3c**

AUDIO ATTENUATORS

Mallory audio attenuators are available in three wattage ratings: 10 watts, MR, R and RR; 15 watts, T, L, LL and BAL; and 50 watts, MGL and MGT. All are made to critical audio standards; come complete with mounting hardware. Three case diameters: ¾", MR; 1 7/64", R; and 1 5/8" for T, L, LL, BAL, MGL and MGT.



T PAD ATTENUATORS

Present constant impedance to both source (amplifier) and output (speaker).

T PAD STOCK VALUES

Imped., Ohms	Mallory No. for Audio Rating of 10 W	10 W	15 W	50 W
2	.....	.....	T2	.....
4	MRT4	RT4	T4	MGT4
6	.....	.....	T6	.....
8	MRT8	RT8	T8	MGT8
15–16	MRT16	RT16	T15	MGT16
50	MRT50	RT50	T50	MGT50
100	.....	.....	T100	.....
200	.....	.....	T200	.....
250	.....	RT250	T250	.....
500	.....	RT500	T500	.....
600	.....	.....	T600	.....
1000	.....	.....	T1000	.....
2000	.....	.....	T2000	.....
3000	.....	.....	T3000	.....

T PAD NET PRICES

With nuts, washers, knob and dial.

Type	Bushing	Shaft (FMS)	Net Each
MRT	⅜"-32 x 1"	¼" x 1½"	$3.33
RT	⅜"-32 x 1"	¼" x 1½"	3.33
T	⅜"-32 x ⅜"	¼" x 2"	3.54
MGT	⅜"-32 x 1"	¼" x 1½"	6.48

STEREO LEVEL CONTROL

Level control for low-priced 4- and 8-ohm stereo speakers. Rated 10 watts, audio. Supplied with nuts, washers, dial and knob. Bushing ⅜"-32 x 1". Shaft ¼" dia. x 1½" lg.

Mallory No. RR50—Net Each.... **$2.10**

L PAD ATTENUATORS

Present constant impedance to source (amplifier), used in audio circuits where output (speaker) impedance is not critical.

L PAD STOCK VALUES

Imped., Ohms	Mallory No. for Audio Rating of 10 W	10 W	15 W	50 W
2	.....	.....	L2	.....
4	MRL4	RL4	L4	MGL4
6	.....	.....	L6	.....
8	.....	.....	L8	.....
8	MRL8	RL8	L8A	MGL8
15	.....	.....	L15	.....
16	MRL16	RL16	L16A	MGL16
50	MRL50	RL50	L50	MGL50
100	.....	.....	L100	.....
200	.....	.....	L200	.....
250	.....	RL250	L250	.....
500	.....	RL500	L500	.....
600	.....	.....	L600	.....
1000	.....	.....	L1000	.....
2000	.....	.....	L2000	.....
3000	.....	.....	L3000	.....
4000	.....	.....	L4000	.....

L PAD NET PRICES

With nut, washer, knob and dial.

Type	Bushing	Shaft (FMS)	Net Each
MRL	⅜"-32 x 1"	¼" x 1½"	$2.52
RL	⅜"-32 x 1"	¼" x 1½"	2.52
L	⅜"-32 x ⅜"	¼" x 2"	2.73
L-A	⅜"-32 x 1"	¼" x 1½"	2.85
MGL	⅜"-32 x 1"	¼" x 1½"	4.26

LL PAD ATTENUATORS

Two L pads in tandem for stereo level control. Bushing ⅜"-32 x 1". Shaft ¼" dia. x 1½" lg. With nuts, washers and deluxe "Level" dial supplied.

Mallory No.	Imped., Ohms	Audio Watts	Net Each
MRLL4	4	10	$5.40
MRLL8	8	10	5.40
MRLL16	16	10	5.40
MRLL50	50	10	5.40
LL8	8	15	5.70
LL16	16	15	5.70
LL50	50	15	5.70

STEREO BALANCE ATTENUATOR

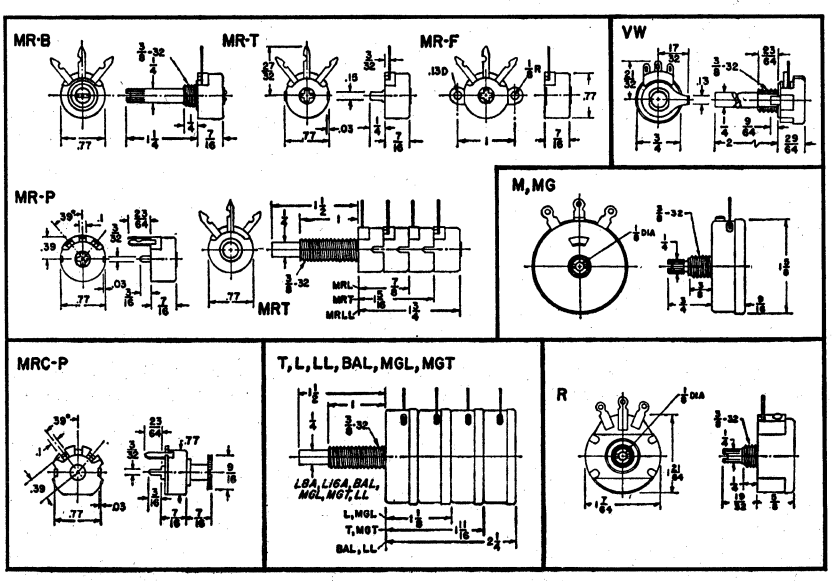
Back-to-back tandem L pads for true stereo balancing. Rated 15 watts, audio. Comes with nuts, washers, knob and "Balance" dial. Bushing ⅜"-32 x 1". Shaft ¼" dia. x 1½" lg.

Mallory No. BAL8 (8 ohms) or **BAL16** (16 ohms)—Net Each..... **$5.70**

THEATRE SPEAKER CONTROLS

Engineered for outdoor movie speakers. Rated 8 watts, audio. Bushing ⅜"-32 x ⅜". Shaft ¼" dia. x ¾" lg. With nut.

Mallory No.	Description	Net Each
TSA6	6-ohm pot	$1.14
TSA10	4-ohm L pad	1.35
TSA35	35-ohm pot	1.35



Net

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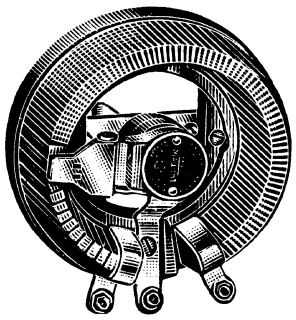
MALLORY Power Rheostats



Mallory power rheostats (Type K) utilize vitreous enamel construction for maximum environmental protection. All current-carrying parts are electrically insulated by dimensionally stable ceramic. Type K rheostats have been tested to 5,000 volts, without breakdown between electrical and mechanical components. U/L voltage ratings are as follows: 25K, 50K, 75K, 100K and 150K—300 volts; 225K, 300K and 500K—600 volts.

The contact mechanism features the patented spring-hinge arm. This spring loaded assembly ensures constant and correct pressure on the rheostat windings. An added advantage is that the high-purity graphite block may be removed easily for cleaning, or, if necessary, for replacement.

Type K rheostats are furnished in a standard linear taper and with all mounting hardware, dial plate and knob. Special two- and three-section tapers are available on special order. All values shown are for continuous operation in free air.

TYPE 25K 25 WATTS

1 9/16" O.D. 295° angle of rotation.

Mallory No.	Ohms	Max. Amps	Steps	Net Each
25K1P	1	5.000	28	$4.40
25K2P	2	3.540	28	3.90
25K3P	3	2.880	53	3.90
25K6P	6	2.040	51	3.90
25K8P	8	1.770	56	3.90
25K10P	10	1.580	54	3.90
25K15P	15	1.290	88	3.90
25K25P	25	1.000	117	3.90
25K35P	35	.845	129	3.90
25K50P	50	.707	149	3.90
25K75P	75	.575	174	3.90
25K100P	100	.500	184	3.90
25K125P	125	.447	187	3.90
25K175P	175	.378	178	3.90
25K250P	250	.316	200	3.90
25K350P	350	.267	227	3.90
25K500P	500	.222	256	3.90
25K750P	750	.182	303	3.90
25K1000P	1000	.155	318	4.40
25K1500P	1500	.129	310	4.40
25K2500P	2500	.100	405	4.40
25K3500P	3500	.084	432	4.66
25K5000P	5000	.070	471	4.66

TYPE 50K 50 WATTS

2 13/32" O.D. 300° angle of rotation.

Mallory No.	Ohms	Max. Amps	Steps	Net Each
50K.5P	.5	10.00	25	$4.89
50K1P	1	7.07	37	4.89
50K2P	2	5.00	42	4.89
50K4P	4	3.54	66	4.40
50K6P	6	2.89	79	4.40
50K8P	8	2.50	84	4.40
50K12P	12	2.04	100	4.40
50K16P	16	1.76	106	4.49
50K22P	22	1.50	145	4.40
50K35P	35	1.19	145	4.40
50K50P	50	1.00	163	4.40
50K80P	80	.79	210	4.40
50K125P	125	.63	204	4.40
50K150P	150	.58	244	4.40
50K225P	225	.47	298	4.40
50K300P	300	.41	268	4.40
50K500P	500	.32	205	4.40
50K800P	800	.25	363	4.66
50K1000P	1000	.22	354	4.66
50K1600P	1600	.176	449	4.66
50K2500P	2500	.14	455	4.66
50K3500P	3500	.12	500	4.89
50K5000P	5000	.10	550	4.89
50K8000P	8000	.08	690	4.89
50K10000P	10000	.07	870	4.89

TYPE 75K 75 WATTS

2 25/32" O.D. 300° angle of rotation.

Mallory No.	Ohms	Max. Amps	Steps	Net Each
75K.5P	.5	12.20	26	$6.61
75K1P	1	8.66	35	6.61
75K2P	2	6.12	42	6.61
75K4P	4	4.34	64	6.61
75K6P	6	3.54	77	6.09
75K8P	8	3.06	81	6.09
75K12P	12	2.50	97	6.09
75K25P	25	1.73	126	6.09
75K50P	50	1.22	159	6.09
75K75P	75	1.00	188	6.09
75K100P	100	.87	200	6.09
75K200P	200	.61	249	6.09
75K250P	250	.55	252	6.09
75K350P	350	.46	277	6.09
75K500P	500	.39	312	6.09
75K750P	750	.32	330	6.61
75K1MP	1000	.27	365	6.61
75K1500P	1500	.22	407	6.61
75K2500P	2500	.17	428	6.61
75K5MP	5000	.12	550	7.08
75K8MP	8000	.10	670	7.60
75K10MP	10000	.09	660	7.60

TYPE 100K 100 WATTS

3 1/8" O.D. 300° angle of rotation.

Mallory No.	Ohms	Max. Amps	Steps	Net Each
100K.5P	.5	14.20	30	$7.32
100K1P	1	10.00	40	7.32
100K2P	2	7.07	42	7.32
100K3P	3	5.77	56	7.32
100K5P	5	4.47	59	7.32
100K7.5P	7.5	3.65	96	6.86
100K10P	10	3.16	101	6.86
100K16P	16	2.50	128	6.86
100K25P	25	2.00	160	6.86
100K50P	50	1.41	200	6.86
100K75P	75	1.15	240	6.86
100K100P	100	1.00	250	6.86
100K200P	200	.71	315	6.86
100K300P	300	.58	302	6.86
100K400P	400	.50	316	6.86
100K500P	500	.45	342	6.86
100K750P	750	.37	406	6.86
100K1000P	1000	.32	435	7.32
100K1500P	1500	.26	520	7.32
100K2000P	2000	.22	544	7.32
100K2500P	2500	.20	535	7.32
100K5000P	5000	.14	692	7.82
100K7500P	7500	.12	820	8.30
100K10000P	10000	.10	840	8.80

TYPE 150K 150 WATTS

4 1/32" O.D. 305° angle of rotation.

Mallory No.	Ohms	Max. Amps	Steps	Net Each
150K.5P	.5	17.30	31	$9.28
150K1P	1	12.30	38	9.28
150K2P	2	8.66	51	9.28
150K3P	3	7.07	73	9.28
150K5P	5	5.48	77	9.28
150K7.5P	7.5	4.47	70	9.28
150K10P	10	3.87	145	8.80
150K15P	15	3.16	138	8.80
150K25P	25	2.45	142	8.80
150K35P	35	2.07	198	8.80
150K50P	50	1.73	182	8.80
150K75P	75	1.41	218	8.80
150K100P	100	1.22	229	8.80
150K150P	150	1.00	276	8.80
150K200P	200	.87	289	8.80
150K250P	250	.77	360	8.80
150K350P	350	.66	350	8.80
150K500P	500	.55	400	8.80
150K750P	750	.45	460	9.28
150K1250P	1250	.35	490	9.28
150K1800P	1800	.290	555	9.80
150K2250P	2250	.26	547	9.80
150K3000P	3000	.22	729	9.80
150K4500P	4500	.18	689	10.27
150K7500P	7500	.14	930	10.76
150K10000P	10000	.12	980	11.73

TYPE 225K 225 WATTS

5" O.D. 310° angle of rotation.

Mallory No.	Ohms	Max. Amps	Steps	Net Each
225K1P	1	15.00	52	$13.40
225K2P	2	10.60	69	13.40
225K3P	3	8.66	73	13.40
225K4P	4	7.50	91	13.40
225K5P	5	6.71	91	13.40
225K7.5P	7.5	5.48	96	13.40
225K10P	10	4.74	101	13.40
225K15P	15	3.87	147	13.40
225K25P	25	3.00	192	13.40
225K50P	50	2.12	242	13.40
225K75P	75	1.73	290	13.40
225K100P	100	1.50	304	13.40
225K150P	150	1.22	364	13.40
225K200P	200	1.06	382	13.40
225K350P	350	.80	421	13.40
225K500P	500	.67	475	13.40
225K750P	750	.55	577	13.40
225K1MP	1000	.47	605	13.40
225K1500P	1500	.39	715	13.40
225K2500P	2500	.30	660	13.40

TYPE 300K 300 WATTS

6 1/16" O.D. 315° angle of rotation.

Mallory No.	Ohms	Max. Amps	Steps	Net Each
300K1P	1	17.30	48	$14.53
300K2P	2	12.25	60	14.53
300K3P	3	10.00	64	14.53
300K4P	4	8.66	80	14.53
300K5P	5	7.75	80	14.53
300K7.5P	7.5	6.32	100	14.53
300K10P	10	5.48	139	14.53
300K15P	15	4.47	128	14.53
300K25P	25	3.46	182	14.53
300K50P	50	2.45	228	14.53
300K75P	75	2.00	271	14.53
300K100P	100	1.73	287	14.53
300K150P	150	1.41	338	14.53
300K200P	200	1.22	361	14.53
300K300P	300	1.00	427	14.53
300K400P	400	.87	460	14.53
300K700P	700	.66	555	14.53
300K900P	900	.58	564	14.53
300K1200P	1200	.50	605	14.53
300K1500P	1500	.45	755	14.53
300K1750P	1750	.41	691	14.53
300K2500P	2500	.35	785	14.53

TYPE 500K 500 WATTS

8" O.D. 325° angle of rotation.

Mallory No.	Ohms	Max. Amps	Steps	Net Each
500K1P	1	22.40	73	$20.99
500K2P	2	15.80	68	20.99
500K3P	3	12.90	91	20.99
500K4P	4	11.20	96	20.99
500K5P	5	10.00	127	20.99
500K7.5P	7.5	8.16	134	20.99
500K10P	10	7.07	169	20.99
500K15P	15	5.79	180	20.99
500K25P	25	4.47	230	20.99
500K50P	50	3.16	285	20.99
500K75P	75	2.58	342	20.99
500K100P	100	2.24	362	20.99
500K150P	150	1.82	430	20.99
500K200P	200	1.58	452	20.99
500K250P	250	1.41	563	20.99
500K350P	350	1.20	630	20.99
500K500P	500	1.00	708	20.99
500K750P	750	.82	670	20.99
500K1MP	1000	.71	705	20.99
500K1500P	1500	.58	862	20.99
500K2500P	2500	.45	975	20.99

TYPE "K" RHEOSTAT ACCESSORIES

(Not Illustrated)

Mallory No.	Description	Dia.	Net Each
365-1	Bar knob	2 1/4"	$0.21
366-1	Bar knob	1 1/4"	.15
367-1	Knurled rd. knob	1 1/2"	.21
368-1	Knurled rd. knob	1 1/2"	.20
364	368 w/pointer	11/16"	.09
363†	Handwheel*	3 1/4"	2.49
363-1†	Handwheel**	3 1/4"	2.03
362	Handwheel*	3 1/4"	2.49
362-1	Handwheel**	3 1/4"	2.03
361	Finger grip*	1 3/4"	.70
361-1	Finger grip**	1 3/8"	.55
360	Finger grip*	1 5/8"	.99
360-1	Finger grip**	1 5/8"	.89
359†	Finger grip*	2 3/8"	.64
359-1†	Finger grip**	2 3/8"	.50
369	Dial plate, 0–100	.....	.21
370	Dial plate, 0–100	.....	.85
391	Dial plate, vol.	.....	.21

*With pointer. **Without pointer. †3/8" hole dia., others, 1/4".

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Net

OHMITE

resistors • rheostats • tap switches • relays
variable transformers • tantalum capacitors
semiconductor devices • r.f. chokes

VITREOUS ENAMELED RHEOSTATS

Twelve sizes in wirewound, vitreous enameled rheostats are stocked by Ohmite distributors all over the country and at the Ohmite factory. This selection, the most extensive available to industry, covers ratings that meet the major portion of design, production and emergency needs. Ratings of 7½, 12½, 25, 50, 75, 100, 150, 225, 300, 500, 750 and 1000 watts are standard.

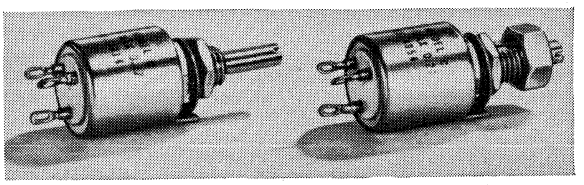
FEATURES OF CONSTRUCTION: Ohmite rheostats are designed to produce permanently smooth, close control. The construction is all ceramic and metal; there is nothing to smoke, char, shrink, or shift. All models have insulated shafts with provision to keep the rheostat from turning on the panel. The resistance wire is wound over a solid ceramic core. Each turn is a separate resistance step and is locked against shifting by vitreous enamel. The core and base are also bonded by vitreous enamel. The pivoted universal-action-mounted contact brush is of copper-graphite or silver-graphite on the heavier current rheostats. It rides upon a large flat surface and assures perfect contact without wear on the wire. Pressure at the contact and at the center lead are independent. Ohmite Rheostat Models H, J, G, K, L, P, and N, all marked Series A, are listed under the Underwriters' Laboratories Reexamination Service.

RATING: The current carrying capacities shown in the tables are for use in *free air;* when units are enclosed, these currents should be reduced possibly as much as 30% to 50%, depending upon the degree of ventilation. The rated current will cause the rheostat to dissipate its rated wattage when the full resistance is in the circuit.

MODEL "C" — MINIATURE RHEOSTAT

In this era of miniaturization and transistorization, the Model C enlarges the horizons of designers by providing greater design flexibility. In addition to its small size, its versatile solder terminals will also plug into common transistor sockets or circuit boards. It is stocked with both standard and locking type bushings.

Actual Size



MODEL "C" — 7½ WATT*

Standard & Locking Bushings

Diameter .515" max. — Depth behind panel ⅞" — Shaft ⅛" diameter, slotted for both types; Std. shaft accommodates knob — Rotation 300° — Mounting for panels up to ⅛" by means of ¼"-32 bushing and hex nut — Non-turn lug requires ⅛" hole ¼" below center of shaft — No. 5151 knob recommended — Solder terminals will fit EIA type TS-E3R100 transistor socket — Wt. 0.27 oz.

Ohms	Amps.	Standard Shaft Stock No.	Standard Shaft Net 1-4	Locking Shaft Stock No.	Locking Shaft Net 1-4
10	.86	4908	$ 8.59	4948	$10.48
15	.71	4909	8.59	4949	10.48
25	.55	4910	8.59	4950	10.48
35	.46	4911	8.59	4951	10.48
50	.39	4912	8.59	4952	10.48
75	.32	4913	8.59	4953	10.48
100	.27	4914	8.59	4954	10.48
150	.22	4915	8.59	4955	10.48
200	.19	4916	8.59	4956	10.48
250	.17	4917	8.59	4957	10.48
350	.15	4918	8.59	4958	10.48
500	.12	4919	8.59	4959	10.48
750	.10	4920	8.59	4960	10.48
1000	.086	4921	9.72	4961	11.61
1500	.071	4922	9.72	4962	11.61
2500	.055	4923	9.72	4963	11.61
3500	.046	4924	10.15	4964	12.04
5000	.039	4925	10.15	4965	12.04

*Rating on metal panel.
3-Pin Socket for Model C Rheostat: Stock No. 6595, Net 1-4, $.42

MODEL "E" — 12.5 WATT*

Unenclosed and Enclosed

Diameter ⅞"—Depth behind panel $1\frac{1}{16}$"—Shaft ⅛" Diameter. Rotation 300°—Mounting for panels up to ⅛" by means of ¼"-32 Bushing and Hex. Nut—Non-turn lug requires ⅛" hole ¼" below center of shaft—Stock No. 5151 Knob Recommended.
Enclosure including terminals $1\frac{3}{32}$" long by $1\frac{3}{64}$" diameter.

Total Ohms	Max. Amps.	Unenclosed Stock No.	Unenclosed Net 1-4	Enclosed Stock No.	Enclosed Net 1-4
1	3.53	0101	$4.63	W0101	$6.31
2	2.50	0102	4.63	W0102	6.31
2.5	2.24	0102A	4.63	W0102A	6.31
3	2.04	0103	4.63	W0103	6.31
5	1.58	0103A	4.63	W0103A	6.31
6	1.44	0104	4.63	W0104	6.31
8	1.25	0105	4.63	W0105	6.31
10	1.12	0106	4.63	W0106	6.31
15	.91	0107	4.11	W0107	5.79
25	.71	0108	4.11	W0108	5.79
35	.60	0109	4.11	W0109	5.79
50	.50	0110	4.11	W0110	5.79
75	.41	0111	4.11	W0111	5.79
100	.35	0112	4.11	W0112	5.79
125	.32	0113	4.11	W0113	5.79
150	.29	0113A	4.11	W0113A	5.79
175	.27	0114	4.11	W0114	5.79
200	.25	0114A	4.11	W0114A	5.79
250	.22	0115	4.11	W0115	5.79
350	.19	0116	4.11	W0116	5.79
500	.16	0117	4.11	W0117	5.79
750	.13	0118	4.11	W0118	5.79
1,000	.11	0119	4.63	W0119	6.31
1,500	.091	0120	4.63	W0120	6.31
2,500	.071	0121	4.63	W0121	6.31
3,500	.060	0122	4.90	W0122	6.58
5,000	.050	0123	4.90	W0123	6.58
7,500	.041	4190†	5.06	W4190†	6.74
10,000	.035	4191†	5.06	W4191†	6.74
12,500	.031	4192†	5.50	W4192†	7.18
15,000	.029	4193†	5.50	W4193†	7.18

†Silicone-ceramic coating, 350 V. max. *Rating on metal panel.

MODEL "H", Series A — 25 WATT

Diameter $1\frac{5}{16}$"—Depth behind panel 1⅜"—Shaft ¼" diameter. Rotation 300°—Mounting for panels up to ¼" by means of ⅜"-32 Bushing and Hex. Nut—Non-turn lug requires $\frac{5}{16}$" hole ½" below center of shaft—Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps.	Net 1-4	Stock No.	Total Ohms	Max. Amps.	Net 1-4
0140	1	5.000	$4.63	0154	250	.316	$4.11
0141	2	3.540	4.63	0155	350	.267	4.11
0142	3	2.880	4.63	0156	500	.222	4.11
0143	6	2.040	4.63	0157	750	.182	4.11
0144	8	1.770	4.63	0158	1,000	.155	4.63
0145	10	1.580	4.63	0159	1,500	.129	4.63
0146	15	1.290	4.11	0160	2,500	.100	4.63
0147	25	1.000	4.11	0161	3,500	.084	4.90
0148	35	.845	4.11	0162	5,000	.070	4.90
0149	50	.707	4.11	4200†	7,500	.058	5.06
0150	75	.575	4.11	4201†	10,000	.050	5.06
0151	100	.500	4.11	4202†	15,000	.040	5.50
0152	125	.445	4.11	4203†	20,000	.035	6.16
0153	175	.375	4.11	4204†	25,000	.032	6.82

†Silicone-ceramic coating, 500 V. max. Not listed UL Ser. A.

MODEL "J", Series A — 50 WATT

Diameter $2\frac{5}{16}$"—Depth behind panel 1⅜"—Shaft ¼" Diameter. Rotation 300°—Mounting for panels up to ¼" by means of ⅜"-32 Bushing and Hex Nut—Non-turn lug requires $\frac{5}{16}$" hole ½" below center of shaft—Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps.	Net 1-4	Stock No.	Total Ohms	Max. Amps.	Net 1-4
0308	0.5	10.000	$5.15	0324	500	.316	$4.63
0309	1	7.070	5.15	0325	800	.250	4.90
0310	2	5.000	5.15	0326	1,000	.224	4.90
0311	4	3.530	5.15	0327	1,600	.176	4.90
0312	6	2.880	5.15	0328	2,500	.141	4.90
0313	8	2.500	4.63	0329	3,500	.119	5.15
0314	12	2.040	4.63	0330	5,000	.100	5.15
0315	16	1.760	4.63	0331	8,000	.079	5.15
0316	22	1.500	4.63	0332	10,000	.070	5.15
0317	35	1.190	4.63	4210†	15,000	.058	5.83
0318	50	1.000	4.63	4211†	20,000	.050	6.60
0319	80	.790	4.63	4212†	25,000	.045	7.26
0320	125	.630	4.63	4213†	30,000	.041	8.03
0321	150	.575	4.63	4214†	40,000	.035	9.35
0322	225	.470	4.63	4215†	50,000	.032	10.23
0323	300	.408	4.63				

†Silicone-ceramic coating, 750 V. max. Not listed UL Ser. A.

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MODEL "G" — 75 WATT

Diameter 2¾"—Depth behind panel 1¾"—Shaft ¼" Diameter. Rotation 300°—Mounting for panels up to ¼" by means of ⅜"-32 Bushing and Hex. Nut—Non-turn lug requires $\frac{3}{16}$" hole ½" below center of shaft—Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps.	Net 1-4	Stock No.	Total Ohms	Max. Amps.	Net 1-4
1100	0.5	12.300	$6.97	1112	200	.612	$6.41
1101	1	8.660	6.97	1113	300	.500	6.41
1102	2	6.120	6.97	1114	400	.433	6.41
1103	3	5.000	6.97	1115	500	.388	6.41
1104	5	3.880	6.97	1116	750	.316	6.97
1105	7.5	3.160	6.97	1117	1,000	.274	6.97
1106	10	2.740	6.97	1118	1,500	.224	6.97
1107	16	2.170	6.41	1119	2,000	.194	6.97
1108	25	1.730	6.41	1120	2,500	.173	6.97
1109	50	1.230	6.41	1121	5,000	.123	7.45
1110	75	1.000	6.41	1122	7,500	.100	8.00
1111	100	.866	6.41	1123	10,000	.087	8.00

MODEL "K", Series A — 100 WATT

Diameter 3⅛"—Depth behind panel 1¾"—Shaft ¼" Diameter. Rotation 300°—Mounting for panels up to ¼" by means of ⅜"-32 Bushing and Hex. Nut—Non-turn lug requires $\frac{3}{16}$" hole ½" below center of shaft—Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps.	Net 1-4	Stock No.	Total Ohms	Max. Amps.	Net 1-4
0440	0.5	14.100	$7.72	0452	200	.707	$7.21
0441	1	10.000	7.72	0453	300	.575	7.21
0442	2	7.070	7.72	0454	400	.500	7.21
0443	3	5.750	7.72	0455	500	.447	7.21
0444	5	4.470	7.72	0456	750	.365	7.21
0445	7.5	3.650	7.72	0457	1,000	.316	7.72
0446	10	3.160	7.72	0458	1,500	.258	7.72
0447	16	2.500	7.21	0459	2,000	.224	7.72
0448	25	2.000	7.21	0460	2,500	.200	7.72
0449	50	1.410	7.21	0461	5,000	.141	8.24
0450	75	1.150	7.21	0462	7,500	.115	8.76
0451	100	1.000	7.21	0463	10,000	.100	9.26

MODEL "L", Series A — 150 WATT

Diameter 4"—Depth behind panel 2"—Shaft ¼" Diameter. Rotation 300°—Mounting for panels up to ¼", ⅜"-32 Bushing and Hex. Nut or two 10-32 x ¾" flat head screws, mounting centers ⅞" each side of center of shaft on line perpendicular to center terminal.—Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps.	Net 1-4	Stock No.	Total Ohms	Max. Amps.	Net 1-4
0524	0.5	17.300	$9.78	0537	150	1.000	$ 9.26
0525	1	12.300	9.78	0538	200	.865	9.26
0526	2	8.650	9.78	0539	250	.775	9.26
0527	3	7.070	9.78	0540	350	.655	9.26
0528	5	5.480	9.78	0541	500	.548	9.26
0529	7.5	4.470	9.78	0542	750	.447	9.78
0530	10	3.880	9.78	0543	1,250	.346	9.78
0531	15	3.613	9.78	0544	1,800	.288	10.30
0532	25	2.450	9.26	0545	2,250	.259	10.30
0533	35	2.070	9.26	0546	3,000	.224	10.30
0534	50	1.735	9.26	0547	4,500	.182	10.81
0535	75	1.415	9.26	0548	7,500	.141	11.33
0536	100	1.225	9.26	0549	10,000	.122	12.35

MODEL "P" — 225 WATT

Diameter 5"—Depth behind panel 2⅛"—Shaft ⅜" Diameter. Rotation 310°—Mounting for panels up to 1¼", two ¼"-20 x 1½" flat head screws, mounting centers ⅞" each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recom'd. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No	Total Ohms	Max. Amps.	Net 1-2	Stock No.	Total Ohms	Max. Amps.	Net 1-2
1250	1	15.000	$14.11	1261	100	1.500	$14.11
1251	2	10.600	14.11	1262	150	1.220	14.11
1252	3	8.660	14.11	1263	200	1.060	14.11
1253	4	7.500	14.11	1264	300	.866	14.11
1254	5	6.710	14.11	1265	400	.750	14.11
1255	7.5	5.490	14.11	1266	700	.567	14.11
1256	10	4.740	14.11	1267	900	.500	14.11
1257	15	3.870	14.11	1268	1,200	.433	14.11
1258	25	3.000	14.11	1269	1,500	.387	14.11
1259	50	2.120	14.11	1270	1,750	.358	14.11
1260	75	1.730	14.11	1270A	2,000	.336	14.11
				1271	2,500	.300	14.11

MODEL "N", Series A — 300 WATT

Diameter 6"—Depth behind panel 2⅜"—Shaft ⅜" Diameter. Rotation 320°—Mounting for panels up to 1¼", two ¼"-20 x 1½" flat head screws, mounting centers $1\frac{3}{16}$" each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recom'd. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No.	Total Ohms	Max. Amps.	Net 1-2	Stock No.	Total Ohms	Max. Amps.	Net 1-2
0650	1	17.320	$15.29	0661	100	1.730	$15.29
0651	2	12.240	15.29	0662	150	1.410	15.29
0652	3	10.000	15.29	0663	200	1.220	15.29
0653	4	8.660	15.29	0664	300	1.000	15.29
0654	5	7.750	15.29	0665	400	.866	15.29
0655	7.5	6.320	15.29	0666	700	.655	15.29
0656	10	5.480	15.29	0667	900	.578	15.29
0657	15	4.470	15.29	0668	1,200	.500	15.29
0658	25	3.460	15.29	0669	1,500	.447	15.29
0659	50	2.450	15.29	0670	1,750	.414	15.29
0660	75	2.000	15.29	0670A	2,000	.387	15.29
				0671	2,500	.346	15.29

MODEL "R" — 500 WATT

Diameter 8"—Depth behind panel 2⅛"—Shaft ⅜" Diameter. Rotation 325°—Mounting for panels up to 1¼", two ¼"-20 x 1½" flat head screws, mounting centers 1½" each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recom'd. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No.	Total Ohms	Max. Amps.	Net 1-2	Stock No.	Total Ohms	Max. Amps.	Net 1-2
0849	1.0	22.300	$22.09	0872	50	3.160	$22.09
0850	1.5	18.200	22.09	0861	80	2.520	22.09
0851	2	15.800	22.09	0862	125	2.000	22.09
0852	2.5	14.100	22.09	0863	175	1.690	22.09
0853	3	12.900	22.09	0864	250	1.410	22.09
0854	4	11.200	22.09	0865	325	1.240	22.09
0855	5	10.000	22.09	0866	500	1.000	22.09
0856	8	7.900	22.09	0867	750	.817	22.09
0857	12.5	6.300	22.09	0868	1,000	.707	22.09
0858	16	5.600	22.09	0869	1,500	.577	22.09
0859	25	4.470	22.09	0870	2,000	.500	22.09
0860	40	3.540	22.09	0871	2,500	.447	22.09

MODEL "T" — 750 WATT

Diameter 10"—Depth behind panel 3"—Shaft ⅜" Diameter. Rotation 330°—Mounting for panels up to 1¼", two ¼"-20 x 1½" flat head screws, mounting centers 1⅞" each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recom'd. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No.	Total Ohms	Max. Amps.	Net 1-2	Stock No.	Total Ohms	Max. Amps.	Net 1-2
1300	1	27.400	$31.20	1312	50	3.870	$31.20
1301	1.5	22.300	31.20	1313	80	3.060	31.20
1302	2	19.400	31.20	1314	100	2.740	31.20
1303	2.5	17.300	31.20	1315	160	2.170	31.20
1304	3	15.800	31.20	1316	200	1.940	31.20
1305	4	13.600	31.20	1317	300	1.580	31.20
1306	5	12.200	31.20	1318	400	1.370	31.20
1307	8	9.650	31.20	1319	600	1.117	31.20
1308	10	8.650	31.20	1320	750	1.000	31.20
1309	12.5	7.750	31.20	1321	1,200	.791	31.20
1310	16	6.820	31.20	1322	1,800	.646	31.20
1311	25	5.470	31.20	1322A	2,000	.610	31.20
				1323	2,500	.547	31.20

MODEL "U" — 1000 WATT

Diameter 12" — Depth behind panel 3" — Shaft ⅜" Diameter. Rotation 335°—Mounting for panels up to 1¼", two ¼"-20 x 1½" flat head screws, mounting centers 3" each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recom'd. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No.	Total Ohms	Max. Amps.	Net 1-2	Stock No.	Total Ohms	Max. Amps.	Net 1-2
1450	1	31.600	$36.45	1462	50	4.470	$36.45
1451	1.5	25.800	36.45	1463	75	3.650	36.45
1452	2	22.400	36.45	1464	100	3.160	36.45
1453	2.5	20.000	36.45	1465	175	2.390	36.45
1454	3	18.300	36.45	1466	225	2.110	36.45
1455	4	15.800	36.45	1467	300	1.830	36.45
1456	5	14.100	36.45	1468	400	1.580	36.45
1457	8	11.200	36.45	1469	500	1.410	36.45
1458	10	10.000	36.45	1470	750	1.150	36.45
1459	12.5	8.950	36.45	1471	1,000	1.000	36.45
1460	16	7.900	36.45	1472	1,500	.816	36.45
1461	25	6.330	36.45	1473	2,500	.633	36.45

CATALOG 50 LISTS ALL RHEOSTATS TO MEET MILITARY SPECIFICATION MIL-R-22B

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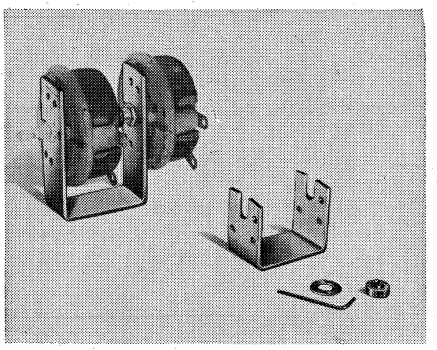
RHEOSTAT TANDEM COUPLING KITS



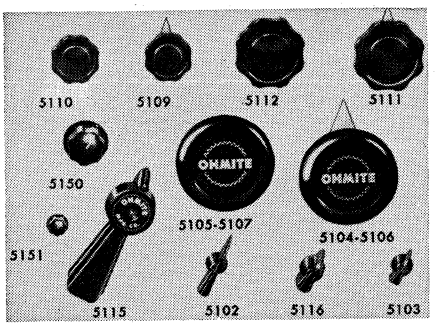
Inexpensive kits assemble standard Ohmite Model G, H, J, K, L or E (miniature) rheostats. Each kit consists of a steel "U" frame, a coupling with set screw, mica washer, Allen wrench and assembly instructions. Rheostat shafts are joined by the coupling which is fastened to the shaft of the rear unit. Projections on the coupling fit a recess in the rear hub of the front unit. Stock No. 6533 kit, mounts Model G, K or L units but accommodates Models H or J in the rear position. Stock No. 6532 unit mounts Models H or J but accommodates Models G, K or L in the rear position. Stock No. 6591 kit assembles only Model E (miniature) rheostats.

Stock No. 6532 — Max Panel 1/8".....**Net Each (1-4) $2.01**
Stock No. 6533 — Max Panel 5/32".....**Net Each (1-4) 2.51**
Stock No. 6591 — Max Panel 1/16".....**Net Each (1-4) 2.01**

BLACK BAKELITE KNOBS

Stock No.	Description	Knob Dia.	Hole Dia.	Net Ea. 1-2
5102	Bar Knob, 2¼" long		¼"	$ .50
5103	Bar Knob, 1¼" long		¼"	.21
5104	Handwheel with Pointer	3¼"	⅜"	1.38
5105	Handwheel without Pointer	3¼"	⅜"	1.16
5106	Handwheel with Pointer	3¼"	¼"	1.38
5107	Handwheel without Pointer	3¼"	¼"	1.16
5109	Finger-Grip with Pointer	1⅝"	¼"	.89
5110	Finger-Grip without Pointer	1⅝"	¼"	.82
5111	Finger-Grip with Pointer	2⅜"	¼"	1.32
5112	Finger-Grip without Pointer	2⅜"	¼"	1.21
*5115	Bar Knob, 4¾" long		⅜"	3.00
5116	Bar Knob, 1½" long		¼"	.50
5150	Skirted Finger-Grip	1½"	¼"	.29
5151	Finger-Grip	¾"	⅛"	.29
5152A	Like 5104 but shorter pointer	3¼"	¼"	1.60

*Requires pin and tapped hole in shaft.



MOLDED COMPOSITION POTENTIOMETERS, ½ and 2 WATTS

Used in commercial and military electronic applications where high quality and dependable performance are important. Type AB, 1$^{5}/_{32}$" dia., is rated 2 watts at 70°C ambient and is available with ⅞" slotted shaft (CMU), 2" unslotted shaft (CU, CA, CB, CCU dual unit) and locking type slotted shaft (CLU). Type AS, a miniature unit ½" dia. rated ½ watt, is available with locking type shaft (Style AS) or ⅞" slotted shaft for knob control (Style ASM).

Because of their molded composition elements, these units outlast and outperform film type units. Noise level is exceedingly low. Single control Type AB units extend ⅝" behind panel; dual control 1$^{17}/_{64}$". Type AS miniature unit extends 1$^{1}/_{16}$" behind panel. An SPST switch for single Type AB units is available. Units are dust and splash proof, fungus and corrosion resistant and meet the latest requirements of MIL-R-94. Styles CMU, CLU, Styles AS and ASM conform respectively to MIL-R-94 Styles RV4N, RV4L, RV6L, and RV6N.

STOCK "POTS" — MIL Units are Stamped with MIL and Commercial Designations

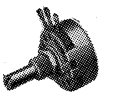
Resistance Ohms Except As Noted Tol. ±10% except *±20%	TYPE AB (1$^{5}/_{32}$" Dia.) Single Unit ⅞" Shaft		Single Unit 2" Shaft			Locking		Dual	TYPE AS (½" Dia.) Miniature Locking		Miniature ⅞" Shaft	
	Style CMU Linear	MIL Designation	Style CU Linear	Style CA CW log	Style CB CCW log	Style CLU Linear	MIL Designation	Style CCU Linear	Style AS Linear	MIL Designation	Style ASM Linear	MIL Designation
50	CMU5001	500A	CU5001			CLU5001	500A					
100	CMU1011	101A	CU1011			CLU1011	101A		AS3601	101A	ASM6661	101A
150	CMU1511	151A	CU1511			CLU1511	151A					
250	CMU2511	251A	CU2511			CLU2511	251A		AS3602	251A	ASM6662	251A
350	CMU3511	351A	CU3511			CLU3511	351A					
500	CMU5011	501A	CU5011			CLU5011	501A		AS3603	501A	ASM6663	501A
750	CMU7511	751A	CU7511			CLU7511	751A					
1,000	CMU1021	102A	CU1021			CLU1021	102A		AS3604	102A	ASM6664	102A
1,500	CMU1521	152A	CU1521			CLU1521	152A					
2,500	CMU2521	252A	CU2521			CLU2521	252A		AS3605	252A	ASM6665	252A
3,500	CMU3521	352A	CU3521			CLU3521	352A	Resistance Shown is for Each Unit				
5,000	CMU5021	502A	CU5021			CLU5021	502A		AS3606	502A	ASM6666	502A
7,500	CMU7521	752A	CU7521			CLU7521	752A					
10,000	CMU1031	103A	CU1031		CB1031	CLU1031	103A	CCU1031	AS3607	103A	ASM6667	103A
15,000	CMU1531	153A	CU1531			CLU1531	153A					
25,000	CMU2531	253A	CU2531		CB2531	CLU2531	253A	CCU2531	AS3608	253A	ASM6668	253A
35,000	CMU3531	353A	CU3531			CLU3531	353A					
50,000	CMU5031	503A	CU5031		CB5031	CLU5031	503A	CCU5031	AS3609	503A	ASM6669	503A
75,000	CMU7531	753A	CU7531			CLU7531	753A					
.1 meg.	CMU1041	104A	CU1041	CA1041		CLU1041	104A	CCU1041	AS3610	104A	ASM6670	104A
.15 meg.	CMU1541	154A	CU1541			CLU1541	154A					
.25 meg.	CMU2541	254A	CU2541	CA2541		CLU2541	254A	CCU2541	AS3611	254A	ASM6671	254A
.35 meg.	CMU3541	354A	CU3541			CLU3541	354A					
.5 meg.	CMU5041	504A	CU5041	CA5041		CLU5041	504A	CCU5041	AS3612	504A	ASM6672	504A
.75 meg.*	CMU7542	754B	CU7542			CLU7542	754B					
1.0 meg.*	CMU1052	105B	CU1052	CA1052		CLU1052	105B	CCU1052	AS3613	105B	ASM6673	105B
1.5 meg.*	CMU1552	155B	CU1552			CLU1552	155B					
2.0 meg.*	CMU2052	205B	CU2052			CLU2052	205B		AS3684	205B	ASM6674	205B
2.5 meg.*	CMU2552	255B	CU2552	CA2552		CLU2552	255B		AS3614	255B	ASM6675	255B
3.5 meg.*	CMU3552	355B	CU3552			CLU3552	355B					
5.0 meg.*	CMU5052	505B	CU5052			CLU5052	505B		AS3615	505B	ASM6676	505B
Weight	.064 lb.		.084 lb.			.070 lb.		.123 lb.	.017 lb.		.017 lb.	
Net Price 1-9	$1.95		$1.95	$2.25	$2.25	$2.55		$5.85	$5.10		$5.10	

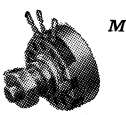
RV4NAYSD | RV4LAYSA | RV6LAYSA | RV6NAYSD

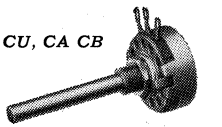
Switch CS-1 (Unmounted) for CMU, CU, CA, CB, CLU.....Net $.66

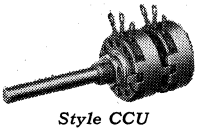
Style AS
MIL Style RV6L

Style ASM
MIL Style RV6N

Style CMU
MIL Style RV4N



Style CLU
MIL Style RV4L

Styles CU, CA CB



Style CCU

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VITREOUS ENAMELED POWER RHEOSTATS

All Values Listed are in Stock for Immediate Shipment

Type R-12½-12½ Watts

CAT. NO.	TOTAL OHMS	MAX. AMPS	APPROX. STEPS	CAT. NO.	TOTAL OHMS	MAX. AMPS	APPROX. STEPS
600	1	2.53	27	611	100	.35	102
601	2	2.50	38	612	125	.32	102
602	3	2.04	36	613	175	.27	112
603	6	1.44	45	614	250	.22	124
604	8	1.25	49	615	350	.19	150
605	10	1.12	42	616	500	.16	164
606	15	.91	49	617	750	.13	188
607	25	.71	65	618	1000	.11	198
608	35	.60	72	619	1500	.091	235
609	50	.50	81	620	2500	.071	260
610	75	.41	98	621	3500	.060	285
				622	5000	.050	315

Type R-25-25 Watts

CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS	CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS
100	1	5.000	26	112	125	.445	145
101	2	3.540	28	113	175	.375	153
102	3	2.880	44	114	250	.316	170
103	6	2.040	50	115	350	.267	180
104	8	1.770	54	116	500	.222	215
105	10	1.580	60	117	750	.182	230
106	15	1.290	78	118	1000	.155	270
107	25	1.000	80	119	1500	.129	325
108	35	.845	100	120	2500	.100	410
109	50	.707	105	121	3500	.084	440
110	75	.575	120	122	5000	.070	480
111	100	.500	140				

Type R-50-50 Watts

CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS	CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS
200	0.5	10.000	22	213	150	.574	175
201	1	7.070	36	214	225	.470	215
202	2	5.000	38	215	300	.408	225
203	4	3.540	38	216	500	.316	295
204	6	2.880	75	217	800	.250	360
205	8	2.500	78	218	1000	.223	375
206	12	2.040	80	219	1600	.176	465
207	16	1.760	90	220	2500	.141	560
208	22	1.600	95	221	3500	.119	585
209	35	1.190	120	222	5000	.100	600
210	50	1.000	120	223	8000	.079	710
211	80	.790	135	224	10,000	.070	720
212	125	.630	185				

Type R-75-75 Watts

CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS	CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS
300	0.5	12.300	27	312	200	.612	180
301	1	8.660	18	313	300	.500	227
302	2	6.120	30	314	400	.433	232
303	3	5.000	30	315	500	.388	250
304	5	3.880	45	316	750	.316	260
305	7.5	3.160	47	317	1,000	.274	290
306	10	2.740	50	318	1,500	.224	350
307	16	2.170	87	319	2,000	.194	380
308	25	1.730	92	320	2,500	.173	425
309	50	1.230	118	321	5,000	.123	630
310	75	1.000	135	322	7,500	.100	715
311	100	.866		323	10,000	.087	820

Type R-100-100 Watts

CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS	CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS
400	0.5	14.100	30	412	200	.707	190
401	1	10.000	20	413	300	.575	260
402	2	7.070	32	414	400	.500	262
403	3	5.750	32	415	500	.447	270
404	5	4.470	50	416	750	.365	280
405	7.5	3.650	52	417	1,000	.316	316
406	10	3.160	58	418	1,500	.258	370
407	16	2.500	97	419	2,000	.224	420
408	25	2.000	105	420	2,500	.200	460
409	50	1.410	140	421	5,000	.141	650
410	75	1.150	155	422	7,500	.115	740
411	100	1.000	168	423	10,000	.100	850

Type R-150-150 Watts

CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS	CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS
500	0.5	17.300	28	513	150	1.000	230
501	1	12.300	37	514	200	.865	242
502	2	8.650	38	515	250	.775	250
503	3	7.070	67	516	350	.655	280
504	5	5.480	68	517	500	.548	330
505	7.5	4.470	71	518	750	.447	370
506	10	3.880	70	519	1,250	.346	460
507	15	3.163	138	520	1,800	.288	550
508	25	2.450	140	521	2,250	.259	570
509	35	2.070	133	522	3,000	.224	600
510	50	1.735	160	523	4,500	.182	680
511	75	1.415	185	524	7,500	.141	980
512	100	1.225	190	525	10,000	.122	990

Type R-300-300 Watts

CAT. NO.	TOTAL OHMS	MAX. AMPS	APPROX. STEPS	CAT. NO.	TOTAL OHMS	MAX. AMPS	APPROX. STEPS	CAT. NO.	TOTAL OHMS	MAX. AMPS	APPROX. STEPS	CAT. NO.	TOTAL OHMS	MAX. AMPS	APPROX. STEPS
700	1	17.32	50	706	10	5.48	76	712	150	1.41	272	718	1,200	.50	446
701	2	12.24	50	707	15	4.47	130	713	200	1.22	251	719	1,500	.45	460
702	3	10.00	71	708	25	3.47	88	714	300	1.00	300	720	1,750	.41	500
703	4	8.66	65	709	50	2.45	225	715	400	.87	290	721	2,500	.35	508
704	5	7.75	61	710	75	2.00	315	716	700	.66	450				
705	7.5	6.32	88	711	100	1.73	258	717	900	.58	470				

Type R-225-225 Watts

STOCK CAT. NO.	OHMS	MAX. AMPS*	APPROX. NO. OF STEPS
4001	1	15.00	55
4002	1.5	12.30	55
4003	2	10.60	55
4004	2.5	9.50	55
4005	3	8.66	55
4006	4	7.50	55
4007	5	6.71	55
4008	7.5	5.49	115
4009	10	4.74	115
4010	15	3.87	115
4011	25	3.00	115
4012	50	2.12	256
4013	75	1.73	306
4014	100	1.50	315
4015	150	1.22	385
4016	200	1.06	357
4017	250	.950	350
4018	300	.866	335
4019	400	.750	344
4020	500	.671	450
4021	700	.567	495
4022	750	.549	533
4023	750	.500	500
4024	1000	.474	555
4025	1200	.433	526
4026	1500	.387	630
4027	1750	.358	620
4028	2500	.300	670

*Through all or any part of winding

Type R-500-500 Watts

STOCK CAT. NO.	OHMS	MAX. AMPS*	APPROX. NO. OF STEPS
4101	1	22.3	70
4102	1.5	18.2	64
4103	2	15.8	68
4104	2.5	14.1	67
4105	3	12.9	65
4106	4	11.2	96
4107	5	10.0	96
4108	7.5	8.17	98
4109	8	7.90	97
4110	10	7.07	105
4111	12.5	6.30	103
4112	15	5.77	202
4113	16	5.60	192
4114	25	4.47	195
4115	40	3.54	205
4116	50	3.16	200
4117	75	2.58	395
4118	80	2.52	425
4119	100	2.24	450
4120	125	2.00	505
4121	150	1.82	544
4122	175	1.69	500
4123	250	1.41	570
4124	325	1.24	515
4125	500	1.00	620
4126	750	.817	740
4127	1000	.707	780
4128	.500	.577	940
4129	2000	.500	986
4130	2500	.447	940

Type R-750-750 Watts

STOCK CAT. NO.	OHMS	MAX. AMPS*	APPROX. NO. OF STEPS
4201	1	27.4	85
4202	1.5	22.3	85
4203	2	19.4	81
4204	2.5	17.3	87
4205	3	15.8	83
4206	4	13.6	87
4207	5	12.2	122
4208	7.5	10.0	129
4209	8	9.65	122
4210	10	8.65	121
4211	12.5	7.75	120
4212	15	7.07	127
4213	16	6.82	120
4214	25	5.47	210
4215	50	3.87	238
4216	75	3.19	250
4217	80	3.06	266
4218	100	2.74	265
4219	150	2.23	500
4220	160	2.17	485
4221	200	1.94	472
4222	250	1.73	470
4223	300	1.58	500
4224	400	1.37	472
4225	500	1.22	565
4226	600	1.12	677
4227	750	1.00	670
4228	1000	.865	715
4229	1200	.791	860
4230	1500	.707	840
4231	1800	.646	1020
4232	2500	.547	1085

Type R-1000-1000 Watts

STOCK CAT. NO.	OHMS	MAX. AMPS*	APPROX. NO. OF STEPS
4301	1	31.60	81
4302	1.5	25.80	84
4303	2	22.40	109
4304	2.5	20.00	105
4305	3	18.30	113
4306	4	15.80	106
4307	5	14.10	155
4308	7.5	11.50	105
4309	8	11.20	105
4310	10	10.00	105
4311	12.5	8.95	165
4312	15	8.16	156
4313	16	7.90	166
4314	25	6.33	160
4315	50	4.47	331
4316	75	3.65	303
4317	100	3.16	320
4318	150	2.58	306
4319	175	2.39	550
4320	225	2.11	585
4321	250	2.00	640
4322	300	1.83	605
4323	400	1.58	640
4324	500	1.41	635
4325	750	1.15	820
4326	1000	1.00	862
4327	1500	.816	1030
4328	2500	.633	1300

MEMCOR INC COMPONENTS DIVISION
Manufacturers of TRU-OHM AND HARDWICK, HINDLE PRODUCTS
MEMCOR INC

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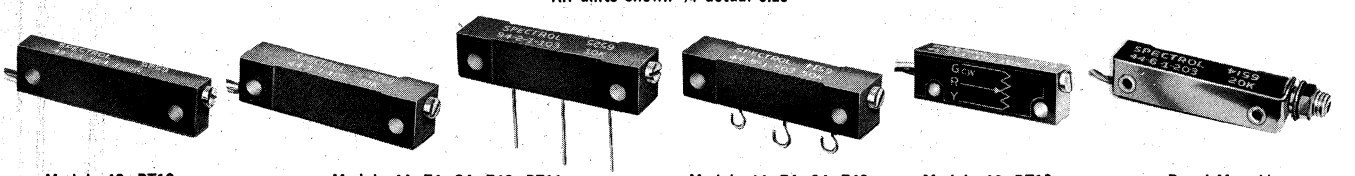
spectrol TRIMMING POTENTIOMETERS

If your electronic equipment design calls for precise trimming with high reliability at realistic cost per unit, you should know —(1) Spectrol designs virtually eliminate noise, hot spots, burnouts, and wiper shifting; (2) Spectrol's selection of terminal configurations is the broadest in the industry; (3) Spectrol trimmers are available in all major configurations, sizes and performance types including ultraminiatures and models that meet severest environmental MIL-SPECS; (4) All lines are subjected to an overnight temperature stabilization process; (5) All models are 100% electrically inspected; and (6) Prices on these military-quality industrial trimmers (many less than $2. each in quantity) are keyed to a competitive market.

All units shown ¾ actual size



Models 42, RT12 | Models 44, 74, 94, 749, RT11 | Models 44, 74, 94, 749 | Models 46, RT10 | Panel Mount*

	DESCRIPTION[2]	MODEL NO.*	ADJUSTMENT RATIO	TEMPERATURE COEFFICIENT OF RESISTIVITY (PPM/°C)	RESISTANCE TOLERANCE	MAXIMUM POWER RATING (WATTS)	SIZE (INCHES)[1]	STANDARD RESISTANCE RANGE (OHMS)	PRICE 1-9
RECTANGULAR HUMIDITY-PROOF	WIREWOUND L, PC	42†	25 to 1	50	±5%	1 @ 70°C	H .315 W .190 L 1.250	10 to 10K 20K 50K 100K	6.46 7.75 8.70 11.01
	WIREWOUND L, PC, SH	44†	25 to 1	50	±5%	1 @ 70°C	H .315 W .280 L 1.250	10 to 10K 20K 50K 100K	6.46 7.75 8.70 11.01
	WIREWOUND L, PC	46†	15 to 1	50	±5%	1 @ 70°C	H .315 W .180 L 1.000	10 to 10K 20K 50K	7.45 8.94 10.50
	NON-WIREWOUND L, PC, SH	749	25 to 1	±400	±20%	1 @ 70°C	H .315 W .280 L 1.250	10 to 1 Meg	5.95
RECTANGULAR MILITARY TYPE MEETS MIL-R-27208	WIREWOUND L, PC	RT10C2P and L†	15 to 1	50	±5%	1 @ 70°C	H .315 W .180 L 1.000	10 to 10K 20K	7.62 9.11
	WIREWOUND L, PC	RT11C2P and L†	25 to 1	50	±5%	1 @ 70°C	H .315 W .280 L 1.250	10 to 10K 20K	6.63 7.95
	WIREWOUND L, PC	RT12C2P and L†	25 to 1	50	±5%	1 @ 70°C	H .315 W .190 L 1.250	10 to 10K 20K	6.63 7.95
RECTANGULAR INDUSTRIAL TYPE	WIREWOUND L, PC, SH	74†	25 to 1	100	±10%	½@70°C	H .315 W .280 L 1.250	10 to 10K 20K 50K 100K	4.79 5.75 6.46 8.16
	WIREWOUND L, PC, SH	94†	25 to 1	100	±10%	½ @ 70°C	H .313 W .281 L 1.250	50 to 10K 20K	3.23 3.88

[1] DIMENSIONS FOR SQUARE TYPES ARE GIVEN FOR BASIC LEAD WIRE VERSIONS ONLY.
[2] TERMINATIONS: L—COLOR CODED LEAD WIRES, SH—SOLDER HOOKS, PC—PRINTED CIRCUIT PINS, W—UNINSULATED LEADS.
* PANEL MOUNT ADAPTER KITS AVAILABLE FOR $.80 IN 1-9 PIECES QUANTITY.
† DISTRIBUTOR ITEMS.

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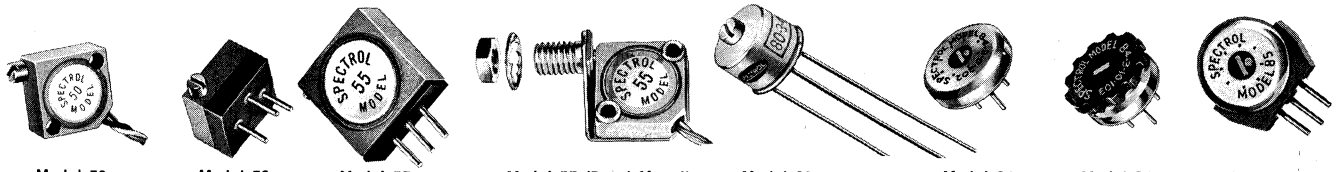
TRIMMING POTENTIOMETERS

Rectangulars — Large diameter mandrels dissipate heat efficiently to eliminate burnouts and open circuit failures. Dual wipers maintain positive contact under shock. Military and industrial models. **Squares and Rounds** — Mandrel and case configurations contribute to high power dissipation. All models meet or exceed applicable environmental military specifications, and are humidity-proof at no extra cost. **Ultraminiature Transistor-Size Models**—Volume of only 0.02 cubic inches allows mounting in one-fourth the usual space. Ideally suited to high-component-density, solid-state, printed circuit applications.

All units shown actual size



Model 50 | Model 50 | Model 55 | Model 55 (Panel Mount) | Model 80 | Model 84 | Model 84 | Model 85

	DESCRIPTION[2]	MODEL NO.	ADJUSTMENT RATIO	TEMPERATURE COEFFICIENT OF RESISTIVITY (PPM/°C)	RESISTANCE TOLERANCE	MAXIMUM POWER RATING (WATTS)	SIZE (INCHES)[1]	STANDARD RESISTANCE RANGE (OHMS)	PRICE 1-9
SQUARE HUMIDITY-PROOF	WIREWOUND L, PC	50†*	25 to 1 Continuous or Stops and Clutch	50	±5%	1 @ 50°C	H .375 W .190 L .375	10 to 10K 20K 50K	7.14 8.57 9.66
	WIREWOUND L, PC	55†*	25 to 1 or 42 to 1	50	±5%	1.5 @ 70°C	H .500 W .190 L .500	10 to 10K 20K 50K	6.04 7.24 8.16
	WIREWOUND W	80†	1 to 1	50	±5%	1 @ 50°C	H .241 Dia. .345	10 to 10K 20K 50K	5.51 6.62 7.45
ROUND HUMIDITY-PROOF	SCREWDRIVER ADJUST WIREWOUND PC	84-3-8†	1 to 1	50	±4%	1.5 @ 70°C	H .170 Dia. .500	10 to 10K 20K 50K	3.40 4.08 4.59
	KNOB ADJUST WIREWOUND PC	84-3-10†	1 to 1	50	±4%	1.5 @ 70°C	H .270 Dia. .550	10 to 10K 20K 50K	4.08 4.76 5.27
	BUSHING PANEL MOUNT WIREWOUND SH	84-5-6†	1 to 1	50	±4%	1.5 @ 70°C	H .460 Dia. .500	10 to 10K 20K 50K	5.27 5.95 6.46
	SIDE ADJUST WIREWOUND PC	85†	1 to 1	50	±4%	1.5 @ 70°C	H .535 W .546 Depth .255	10 to 10K 20K 50K	4.42 5.10 5.61

spectrol SPECTROL ELECTRONICS CORPORATION

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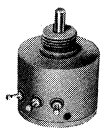
spectrol PRECISION POTENTIOMETERS

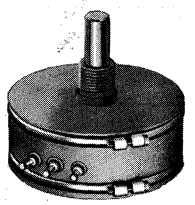
For most applications, choose from the complete Spectrol series of single-turn, three-turn, five-turn, ten-turn, precision wirewound potentiometers listed on these two pages. Many models can be ganged and easily phased in the field.

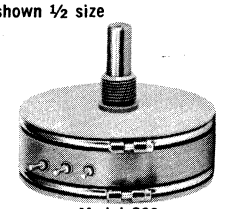
Close linearities are assured by winding equipment designed and built in-house by Spectrol. Other quality features include: fine resolution from extra-long resistance elements; high reliability through a unique "whisker" slip ring brush that assures positive contact under severe shock and vibration, yet exhibits low torque and long rotational life; and mounting flexibility with optional servo and bush mountings. All models meet or exceed applicable military and commercial specifications for rotational load life, temperature range, shock, vibration, humidity and salt spray.

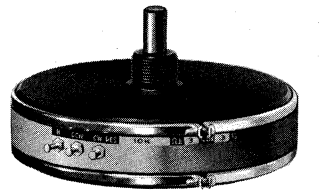
All units shown ½ size

Model 140


Model 700


Model 200


Model 300


Model 410

	MODEL NO.	RESISTANCE RANGE (OHMS)	RESISTANCE TOLERANCE	LINEARITY TOLERANCE STANDARD	LINEARITY TOLERANCE BEST PRACTICAL[1]	MAXIMUM POWER RATING (WATTS)	OPERATING TEMPERATURE RANGE	SIZE (INCHES)[2]	MOUNTING AVAILABLE	PRICE 1-9[3]
SINGLE-TURN WIREWOUND MILITARY	*100	5 to 39K	±3% (±5% below 50Ω)	50Ω to 39K ±0.5% 5Ω to 50Ω ±1.0%	±.15%	2.75 @ 40°C	—55°C to +105°C	Dia. 1.312 Length .705 Shaft Dia. .250	Bushing Servo	12.00 17.00
	*110	5 to 30K	±3% (±5% below 20Ω)	300Ω to 30K ±0.5% 5Ω to 300Ω ±1.0%	±.20%	2 @ 40°C	—55°C to +105°C	Dia. 1.125 Length .470 Shaft. Dia. .125	Bushing Servo	18.00 23.00
	*120	5 to 142K	±3% (±5% below 20Ω)	200Ω to 142K ±0.5% 5Ω to 200Ω ±1.0%	±.20%	2 @ 40°C	—55°C to +105°C	Dia. 1.062 Length .687 Shaft Dia. .125	Bushing Servo	23.00 28.00
	142	50 to 70K	±5%	±1.0%	±.50%	2 @ 40°C	—55°C to +125°C	Dia. .500 Length .625 Shaft Dia. .125	Servo	17.50
	*170	5 to 49K	±3% (±5% below 50Ω)	100Ω to 49K ±.50% 5Ω to 100Ω ±.75%	±.15%	2.75 @ 40°C	—55°C to +105°C	Dia. 1.438 Length .705 Shaft Dia. .250	Bushing Servo	18.00 23.00
	*190	5 to 65K	±3% (±5% below 50Ω)	500Ω to 65K ±.30% 50Ω to 500Ω ±.50% 5Ω to 50Ω ±.75%	±.15%	3.5 @ 40°C	—55°C to +105°C	Dia. 1.625 Length .800 Shaft Dia. .250	Bushing Servo Screw	18.00 23.00 23.00
	*200	5 to 65K	±3% (±5% below 50Ω)	500Ω to 65K ±.30% 50Ω to 500Ω ±.50% 5Ω to 50Ω ±.75%	±.15%	4.5 @ 40°C	—55°C to +105°C	Dia. 1.750 Length .705 Shaft Dia. .250	Bushing Servo Screw	18.00 20.00 21.00
	*210	5 to 65K	±3% (±5% below 50Ω)	500Ω to 65K ±.30% 50Ω to 500Ω ±.50% 5Ω to 50Ω ±.75%	±.15%	3 @ 40°C	—55°C to +105°C	Dia. 1.750 Length .705 Shaft Dia. .250	Bushing Servo Screw	15.00 18.00 19.00
	*300	5 to 85K	±3% (±5% below 50Ω)	200Ω to 85K ±.30% 50Ω to 200Ω ±.50% 5Ω to 50Ω ±.75%	±.10%	5 @ 40°C	—55°C to +105°C	Dia. 2.000 Length .705 Shaft Dia. .250	Bushing Servo Screw	19.00 21.00 21.00
	*310	5 to 85K	±3% (±5% below 50Ω)	200Ω to 85K ±.30% 50Ω to 200Ω ±.50% 5Ω to 50Ω ±.75%	±.10%	3.5 @ 40°C	—55°C to +105°C	Dia. 2.000 Length .705 Shaft Dia. .250	Bushing Servo Screw	17.00 20.00 21.00
	*400	10 to 158K	±3% (±5% below 100Ω)	10Ω to 158K ±.30%	±.075%	7 @ 40°C	—55°C to +105°C	Dia. 3.000 Length .705 Shaft Dia. .250	Bushing Servo Screw	21.00 23.00 23.00
	*410	10 to 158K	±3% (±5% below 100Ω)	10Ω to 158K ±.30%	±.075%	5 @ 40°C	—55°C to +105°C	Dia. 3.000 Length .705 Shaft Dia. .250	Bushing Servo Screw	18.00 21.00 22.00
	*700	5 to 109K	±3% (±5% below 20Ω)	500Ω to 109K ±0.5% 5Ω to 500Ω ±1.0%	±.25%	1.75 @ 40°C	—55°C to +105°C	Dia. .875 Length .687 Shaft Dia. .125	Bushing Servo	20.00 25.00
SINGLE-TURN WIREWOUND INDUSTRIAL	130†	5 to 39K	±3%	200Ω to 39K ±0.5% 5Ω to 200Ω ±1.0%	±.20%	2.75 @ 40°C	—55°C to +105°C	Dia. 1.312 Length .625 Shaft Dia. .250	Bushing	9.00
	140†	50 to 70K	±5%	±1.0%	±.50%	2 @ 40°C	—55°C to +125°C	Dia. .500 Length .305 Shaft Dia. .125	Bushing	8.65

[1] BEST PRACTICAL LINEARITY FIGURES SHOWN FOR THE VARIOUS MODELS APPLY TO HIGHER RESISTANCE UNITS. CONSULT MANUFACTURER WITH SPECIFIC REQUIREMENTS.

[2] DIMENSIONS LISTED ARE FOR THE BUSHING MOUNT VERSIONS.

[3] THE PRICES SHOWN ARE FOR STANDARD LINEARITY.

[4] 163 HAS .250 INCH SHAFT DIA.

* UNITS ARE GANGABLE.

† DISTRIBUTOR ITEMS.

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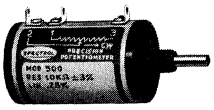
spectrol PRECISION POTENTIOMETERS

For special applications, remember Spectrol's well-earned reputation for unusual service in providing special precision potentiometers to help equipment designers solve unique problems.

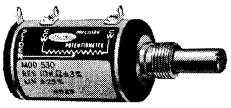
In addition to offering a full line of off-the-shelf models, Spectrol is a custom house whose success is founded on exceptional responsiveness to its customers' needs and requirements. You can confidently turn to Spectrol for highly competent support in your most challenging design assignments for which no standard potentiometer is available.

All units shown ½ size

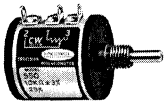
Model 162



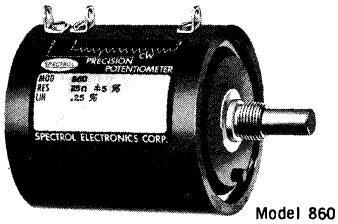
Model 500



Model 530



Model 550



Model 860

	MODEL NO.	RESISTANCE RANGE (OHMS)	RESISTANCE TOLERANCE	LINEARITY TOLERANCE STANDARD	LINEARITY TOLERANCE BEST PRACTICAL[1]	MAXIMUM POWER RATING (WATTS)	OPERATING TEMPERATURE RANGE	SIZE (INCHES)[2]	MOUNTING AVAILABLE	PRICE 1-9[3]
THREE-TURN WIREWOUND MILITARY	*550	5 to 45K	±3% (±5% below 50Ω)	±.25%	±.125%	1.5 @ 40°C	—55°C to +125°C	Dia. .875 Length .948 Shaft Dia. .125	Bushing Servo	15.00 20.00
	*820	15 to 119K	±3% (±5% below 50Ω)	±.25%	±.075%	3.75 @ 40°C	—55°C to +105°C	Dia. 1.438 Length 1.240 Shaft Dia. .250	Bushing Servo	25.00 30.00
	*850	15 to 155K	±3% (±5% below 100Ω)	±.25%	±.05%	4.75 @ 40°C	—55°C to +125°C	Dia. 1.812 Length 1.220 Shaft Dia. .250	Bushing Servo Screw	14.00 20.00 20.00
THREE-TURN WIRE-WOUND INDUS-TRIAL	830†	15 to 155K	±3% (±5% below 100Ω)	±.25%	±.05%	3 @ 40°C	—55°C to +105°C	Dia. 1.812 Length 1.220 Shaft Dia. .250	Bushing	10.00
FIVE-TURN WIRE-WOUND INDUS-TRIAL	520	10 to 76K	±3% (±5% below 50Ω)	±.25%	±.15%	2 @ 40°C	—55°C to +105°C	Dia. .875 Length 1.094 Shaft Dia. .250	Bushing	12.00
TEN-TURN WIREWOUND MILITARY	160	15 to 115K	±5%	±.50%	±.10%	2.5 @ 40°C	—55°C to +125°C	Dia. .531 Length 1.110 Shaft Dia. .094	Bushing Servo	32.00 40.00
	*500†	15 to 152K	±3% (±5% below 100Ω)	±.25%	±.05%	3 @ 40°C	—55°C to +125°C	Dia. .875 Length 1.448 Shaft Dia. .125	Bushing Servo	15.00 20.00
	*570	20 to 185K	±3% (±5% below 150Ω)	±.25%	±.05%	3 @ 40°C	—55°C to +105°C	Dia. 1.000 Length 1.448 Shaft Dia. .250	Bushing Servo Screw	15.00 20.00 20.00
	*800	20 to 519K	±3% (±5% below 200Ω)	±.25%	±.025%	8 @ 40°C	—55°C to +125°C	Dia. 1.812 Length 2.000 Shaft Dia. .250	Bushing Servo Screw	15.00 20.00 20.00
	*870	40 to 398K	±3% (±5% below 150Ω)	±.25%	±.03%	6.5 @ 40°C	—55°C to +105°C	Dia. 1.438 Length 2.015 Shaft Dia. .250	Bushing Servo	25.00 30.00
TEN-TURN WIREWOUND INDUSTRIAL	162† 163 164	100 to 100K	±5%	±.30%	±.15%	2 @ 40°C	—55°C to +125°C	Dia. .500 Length 1.000 Shaft Dia. .094[4]	162 (Bush) 163 (Bush) 164 (Servo)	10.00 11.50 18.50
	510†	15 to 152K	±3% (±5% below 100Ω)	±.25%	±.10%	3 @ 40°C	—55°C to +105°C	Dia. .875 Length 1.448 Shaft Dia. .250	Bushing	10.00
	530†	100 to 150K	±5%	±.25%	±.10%	3 @ 40°C	—55°C to +105°C	Dia. .875 Length 1.400 Shaft Dia. .250	Bushing	7.00
	810†	20 to 519K	±3% (±5% below 200Ω)	±.25%	±.025%	8 @ 40°C	—55°C to +105°C	Dia. 1.812 Length 2.000 Shaft Dia. .250	Bushing	12.00
	860†	20 to 519K	±3% (±5% below 200Ω)	±.25%	±.10%	8 @ 40°C	—55°C to +105°C	Dia. 1.812 Length 2.000 Shaft Dia. .250	Bushing	10.00

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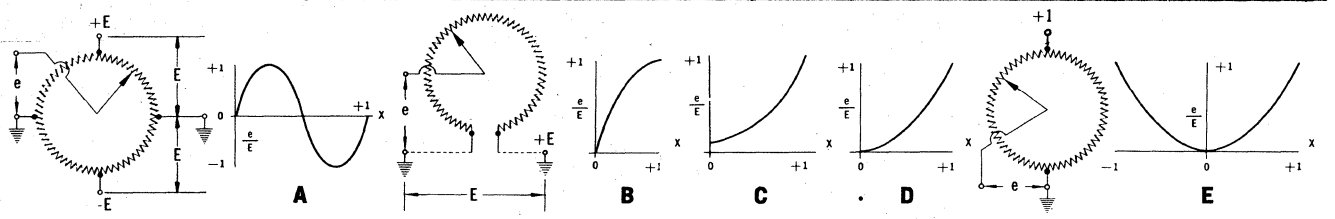
spectrol NON-LINEAR POTENTIOMETERS

On the tables below, high and low values of resistance, with corresponding "best practical" peak-to-peak conformity obtainable, are given for the functions in each model size under the conditions of full electrical rotation and unloaded slider. For function angles less than full rotation, resistance and conformity values can be calculated based on resistance being directly proportional to the function angle, and conformity being inversely proportional to the function angle.

Empirical (Data Points)

Resistance and conformity is given in the table below in terms of S (maximum $\frac{\Delta\left(\frac{e}{E}\right)}{\Delta X}$), provided the following conditions are met. $0 \leq \frac{e}{E} \leq 1, 0 \leq X \leq 1$ and $\frac{\Delta\left(\frac{e}{E}\right)}{\Delta X}$ does not change sign (i.e., no slope reversal).



	MODEL NO.	DIA. (INCHES)	360° SIN	A	90° SIN	B	SINGLE SIDED SQUARE	D	DOUBLE SIDED SQUARE	E	SINGLE CYCLE EXP.	C	TWO CYCLE EXP.	C	EMPIRICAL	
SINGLE-TURN	700	7/8	3.5K	.9%	13K	.5	10K	.6	2.8K	1.2	10K	.7	5K	1.4	27K / S	S(0.32)
			250Ω	1.1	1K	.6	1K	.7	250Ω	1.4	1K	.8	500Ω	1.6	1K / S	S(0.41)
	100	1 5/16	6K	.6%	22K	.35	18K	.4	5K	.8	17K	.45	8.5K	.9	53K / S	S(0.22)
			500Ω	.8	1K	.5	1K	.55	250Ω	1.1	1K	.6	500Ω	1.2	1K / S	S(0.33)
	110	1 1/8	5K	.85%	18K	.45	14K	.55	4K	1.1	14K	.60	7K	1.2	35K / S	S(0.29)
			250Ω	1.1	1K	.55	1K	.70	250Ω	1.3	1K	.80	500Ω	1.6	1K / S	S(0.41)
	120	1 1/16	5K	.75%	18K	.4	14K	.5	4K	1.0	14K	.55	7K	1.1	39K / S	S(0.26)
			250Ω	1.0	1K	.5	1K	.65	250Ω	1.2	1K	.7	500Ω	1.4	1K / S	S(0.37)
	170	1 7/16	7.5K	.55%	28K	.3	22K	.35	6K	.7	20K	.4	10K	.8	59K / S	S(0.19)
			500Ω	.7	1K	.4	1K	.5	500Ω	.9	1K	.55	1K	1.0	2K / S	S(0.26)
	190	1 5/8	10K	.5%	35K	.25	30K	.3	8K	.6	28K	.35	14K	.7	77K / S	S(0.16)
			1K	.6	2K	.35	1K	.45	500Ω	.8	1K	.5	1K	.9	2K / S	S(0.24)
	200	1 3/4	12K	.45%	45K	.25	35K	.3	10K	.55	34K	.35	17K	.65	77K / S	S(0.15)
			1K	.55	2K	.35	1K	.45	1K	.7	1K	.45	1K	.85	2K / S	S(0.22)
	300	2	15K	.4%	60K	.2	45K	.25	13K	.45	45K	.3	22K	.55	103K / S	S(0.13)
			1K	.5	2K	.3	2K	.35	1K	.55	2K	.4	1K	.75	2K / S	S(0.19)
	400	3	25K	.25%	95K	.15	75K	.15	20K	.3	70K	.2	35K	.35	213K / S	S(0.08)
			1K	.35	2K	.2	2K	.25	1K	.4	2K	.25	1K	.5	4K / S	S(0.12)
THREE-TURN	550	7/8	7K	.5%	25K	.3	20K	.35	5K	.65	20K	.4	10K	.75	61K / S	S(0.18)
			500Ω	.6	1K	.35	1K	.40	250Ω	.75	1K	.45	1K	.85	1K / S	S(0.22)
	820	1 7/16	20K	.3%	75K	.15	60K	.2	15K	.4	55K	.25	28K	.45	175K / S	S(0.10)
			1K	.35	2K	.2	1K	.3	1K	.45	1K	.3	1K	.55	2K / S	S(0.13)
	850	1 13/16	25K	.25%	95K	.15	75K	.15	20K	.3	75K	.2	35K	.35	228K / S	S(0.08)
			1K	.3	2K	.2	2K	.2	1K	.35	1K	.25	1K	.45	2K / S	S(0.11)
TEN-TURN	500	7/8	24K	.2%	85K	.1	70K	.15	19K	.25	65K	.15	33K	.3	205K / S	S(0.065)
			1K	.25	2K	.15	1K	.2	1K	.3	1K	.2	1K	.35	2K / S	S(0.085)
	570	1	30K	.15%	100K	.1	80K	.1	23K	.2	80K	.15	40K	.25	249K / S	S(0.055)
			1K	.2	2K	.15	1K	.15	1K	.25	1K	.2	1K	.3	2K / S	S(0.075)
	870	1 7/16	70K	.15%	250K	.075	200K	.075	50K	.15	190K	.1	85K	.2	582K / S	S(0.04)
			1K	.2	4K	.1	4K	.1	1K	.2	2K	.15	1K	.25	4K / S	S(0.055)
	800	1 13/16	90K	.1%	320K	.05	250K	.075	70K	.15	250K	.075	125K	.15	760K / S	S(0.03)
			1K	.15	4K	.075	2K	.1	1K	.2	2K	.1	1K	.2	5K / S	S(0.04)

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spectrol SWITCHES AND MULTIDIALS®

Spectrol Model 88 Rotary Selector Switches introduce a new dimension of flexibility to discrete component circuitry. Now, for the first time, miniature switches are available in volume quantities at production-line prices for mounting directly on printed circuit boards, or for panel mounting. Designed with only two moving parts, these unique ½-inch switches have application wherever printed circuit boards are used . . . can be used to make other components do multiple duty. Spectrol offers the new switches in both ten-position center-pin and nine-position center-pin configurations for wide use on either double-sided or single-sided boards.

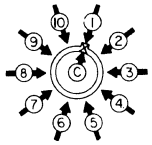
Multidials: Spectrol also offers a complete line of precision turns-counting dials for use on multi-turn potentiometers and other rotating devices.

All units shown ½ size

Model 88

Model 88

Model 88

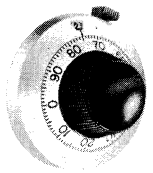


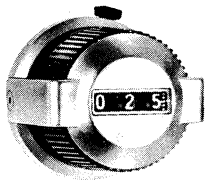
Switch Circuit Diagram (10-Position Shown)

Model 10

Model 11

Model 14


Model 30


Model 25

ROTARY SELECTOR SWITCHES

DESCRIPTION	MODEL NO.*	SWITCH ACTION	CONTACT CURRENT RATING	LIFE AT RATED CURRENT	CONTACT RESISTANCE	OPERATING TEMPERATURE RANGE	SIZE (INCHES)	PRICE 1-9
SCREWDRIVER ADJUST	88-3-8[1]†	POSITIVE DETENT, 36° INDEXING, CONTINUOUS ROTATION	250MA @ 28VDC	20,000 SWITCHING OPERATIONS, OR 2,000 REVOLUTIONS	INITIAL: .05Ω MAX. AFTER LIFE: CONTACT RESISTANCE CHANGE ±.05Ω	—65° to +150°C	H .180 Dia. .500	3.40
KNOB ADJUST	88-3-10[1]†	POSITIVE DETENT, 36° INDEXING, CONTINUOUS ROTATION	250MA @ 28VDC	20,000 SWITCHING OPERATIONS, OR 2,000 REVOLUTIONS	INITIAL: .05Ω MAX. AFTER LIFE: CONTACT RESISTANCE CHANGE ±.05Ω	—65° to +150°C	H .270 Dia. .550	4.08
BUSHING PANEL MOUNTING	88-5-6[1]†	POSITIVE DETENT, 36° INDEXING, CONTINUOUS ROTATION	250MA @ 28VDC	20,000 SWITCHING OPERATIONS, OR 2,000 REVOLUTIONS	INITIAL: .05Ω MAX. AFTER LIFE: CONTACT RESISTANCE CHANGE ±.05Ω	—65° to +150°C	H .465 Dia. .500	5.27
SCREWDRIVER ADJUST	88-3-18[2]	POSITIVE DETENT, 36° INDEXING, CONTINUOUS ROTATION	250MA @ 28VDC	20,000 SWITCHING OPERATIONS, OR 2,000 REVOLUTIONS	INITIAL: .05Ω MAX. AFTER LIFE: CONTACT RESISTANCE CHANGE ±.05Ω	—65° to +150°C	H .180 Dia. .500	3.40
KNOB ADJUST	88-3-20[2]	POSITIVE DETENT, 36° INDEXING, CONTINUOUS ROTATION	250MA @ 28VDC	20,000 SWITCHING OPERATIONS, OR 2,000 REVOLUTIONS	INITIAL: .05Ω MAX. AFTER LIFE: CONTACT RESISTANCE CHANGE ±.05Ω	—65° to +150°C	H .270 Dia. .550	4.08

MULTI-TURN TURNS COUNTING DIALS

MODEL NO.	NUMBER OF TURNS	MINOR SCALE DIVISION	SHAFT BORE (INCHES)	FINISH	SIZE (INCHES)	PRICE 1-9
10-1-11†	10	1/100 TURN	.250[3]	BLACK ANODIZED	Dia. 1.000 Depth 1.000	8.75
11-1-11†	11	1/50 TURN	.250[3]	SATIN CHROME	Dia. 1.000 Depth .812	7.75
12-1-11†	10	1/50 TURN	.250[3]	BLACK ANODIZED	Dia. 1.000 Depth 1.000	8.75
14-1-11†	10	1/50 TURN	.250[3]	BLACK ANODIZED	.812W .906H Depth 1.000	9.75
20-1-11†	10	1/100 TURN	.250[3]	BLACK ANODIZED	Dia. 1.812 Depth 1.000	7.50
25-1-13†	11	1/500 TURN	.250	SATIN CHROME	Dia. 1.812 Depth 1.625	14.25
25-4-13†	100	1/500 TURN	.250	SATIN CHROME	Dia. 1.812 Depth 1.625	19.75
30-1-11†	10	1/100 TURN	.250[3]	SATIN CHROME	Dia. 1.812 Depth .875	5.75

[1] SINGLE POLE, 10 POSITION, NON-SHORTING.

[2] SINGLE POLE, 10 POSITION (ONE OFF), NON-SHORTING.

[3] ALSO AVAILABLE FOR .125" AND .094" SHAFT DIAMETERS.

* INSULATION RESISTANCE AND DIELECTRIC WITHSTANDING VOLTAGE: NOT LESS THAN 1,000 MEGOHMS AND 1,000 VOLTS AC AT SEA LEVEL, RESPECTIVELY. SHOCK: 50 G'S FOR 11 MILLISECONDS. (METHOD 205B OF MIL-STD-202B).

VIBRATION: 20 G'S AT 20-2,000 CPS. (METHOD 204, TEST CONDITION D OF MIL-STD-202B).

† DISTRIBUTOR ITEMS.

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Amperex Semiconductors

TYPE NO.	(See Notes Below) (1)	(2)	(3)
A130	P	Si	T
A306	P	Si	T
A307	P	Si	T
A310	P	Si	T
A311	P	Si	T
A321	P	Si	T
A322	P	Si	T
A323	P	Si	T
A324	P	Si	T
A344	P	Si	T
A345	P	Si	T
A345	P	Si	T
A346	P	Si	T
A415	PE	Si	T
A569	PE	Si	T
A570	PE	Si	T
A600	P	Si	T
A601	P	Si	T
A602	P	Si	T
A603	P	Si	T
A604	P	Si	T
A605	P	Si	T
A606	P	Si	T
A1381	P	Si	T
A1383	A	Ge	T
A1480	PE	Si	T
A1518	P	Si	T
A1519	P	Si	T
A1520	P	Si	T
A1521	P	Si	T
AA119	A	Ge	D
AA119MP	A	Ge	D
AC107	A	Ge	T
AC107M	A	Ge	T
AC172	UL	Ge	T
AMC101	P	Si	IC
ASY26	A	Ge	T
ASY27	A	Ge	T
ASY29	A	Ge	T
BA114	A	Si	D
BCY10	A	Si	T
BCY11	A	Si	T
BCY12	A	Si	T
BCY30	A	Si	T
BCY31	A	Si	T
BCY32	A	Si	T
BCY33	A	Si	T
BCY34	A	Si	T
BCZ10	A	Si	T
BCZ11	A	Si	T
BCZ12	A	Si	T
BY100	DJ	Si	R
BY100S	DJ	Si	R
BZY56	AJ	Si	Z
BZY57	AJ	Si	Z
BZY58	AJ	Si	Z
BZY59	AJ	Si	Z
BZY60	AJ	Si	Z
BZY61	AJ	Si	Z
BZY62	AJ	Si	Z
BZY63	AJ	Si	Z
BZY64	AJ	Si	Z
BZY65	AJ	Si	Z
BZY66	AJ	Si	Z
BZY67	AJ	Si	Z
BZY68	AJ	Si	Z
BZY69	AJ	Si	Z
BZZ10	AJ	Si	Z
BZZ11	AJ	Si	Z

TYPE NO.	(See Notes Below) (1)	(2)	(3)
BZZ12	AJ	Si	Z
BZZ13	AJ	Si	Z
BZZ14	AJ	Si	Z
BZZ15	AJ	Si	Z
BZZ16	AJ	Si	Z
BZZ17	AJ	Si	Z
BZZ18	AJ	Si	Z
BZZ19	AJ	Si	Z
H4A/1N4885	—	Si	V
ME209	PE	Si	T
ME213	P	Si	T
ME213A	PE	Si	T
ME214	PE	Si	T
ME216	P	Si	T
ME217	P	Si	T
ME900	P	Si	T
ME901	P	Si	T
OA5	GB	Ge	D
OA7	GB	Ge	D
OA9	GB	Ge	D
OA31	J	Si	R
OA200	A	Si	D
OA202	A	Si	D
OAP12	A	Ge	P
OAZ200	AJ	Si	Z
OAZ201	AJ	Si	Z
OAZ202	AJ	Si	Z
OAZ203	AJ	Si	Z
OAZ204	AJ	Si	Z
OAZ205	AJ	Si	Z
OAZ206	AJ	Si	Z
OAZ207	AJ	Si	Z
OAZ208	AJ	Si	Z
OAZ209	AJ	Si	Z
OAZ210	AJ	Si	Z
OAZ211	AJ	Si	Z
OAZ212	AJ	Si	Z
OAZ213	AJ	Si	Z
OC22	A	Ge	T
OC23	A	Ge	T
OC24	A	Ge	T
OC26	A	Ge	T
OC30	A	Ge	T
OC44	A	Ge	T
OC45	A	Ge	T
OC58	A	Ge	T
OC59	A	Ge	T
OC60	A	Ge	T
OC71N	A	Ge	T
OC74	A	Ge	T
OC75N	A	Ge	T
OC79	A	Ge	T
OC80	A	Ge	T
OCP70	A	Ge	P
OCP71	A	Ge	P
OM200	P	Si	IC
PADT50	AD	Ge	T
PADT51	—	Ge	T
RPY13	—	CS	P
S100	A	Si	R
S262	PC	Ge	D
1N34	PC	Ge	
1N34A	PC	Ge	D
1N38	PC	Ge	D
1N38A	PC	Ge	D
1N54	PC	Ge	D
1N54A	PC	Ge	D
1N58A	PC	Ge	D

TYPE NO.	(See Notes Below) (1)	(2)	(3)
1N60	PC	Ge	D
1N63	PC	Ge	D
1N67A	PC	Ge	D
1N68A	PC	Ge	D
1N87	PC	Ge	D
1N87A	PC	Ge	D
1N88	PC	Ge	D
1N89	PC	G3	D
1N90	PC	Ge	D
1N95	PC	Ge	D
1N126	PC	Ge	D
1N126A	PC	Ge	D
1N191	PC	Ge	D
1N192	PC	Ge	D
1N198	PC	Ge	D
1N270	GB	Ge	D
1N277	GB	Ge	D
1N295	PC	Ge	D
1N456	A	Si	D
1N457	A	Si	D
1N458	A	Si	D
1N459	A	Si	D
1N461	A	Si	D
1N462	A	Si	D
1N463	A	Si	D
1N464	A	Si	D
1N476	PC	Ge	D
1N477	PC	Ge	D
1N478	PC	Ge	D
1N479	PC	Ge	D
1N541	PC	Ge	D
1N542	PC	Ge	D
1N616	PC	Ge	D
1N617	PC	Ge	D
1N618	PC	Ge	D
1N698	GB	Ge	D
1N3121	GB	Ge	D
1N3122	GB	Ge	D
1N3182	A	Si	D
1N3483	GB	Ge	D
1N3484	GB	Ge	D
1N3944	GB	Ge	D
1N4095	A	Si	Z
1N4885/H4A	A	Si	D
1N4886	A	Si	D
2N279	A	Ge	T
2N280	A	Ge	T
2N284	A	Ge	T
2N284A	A	Ge	T
2N404	A	Ge	T
2N404A	A	Ge	T
2N696	P	Si	T
2N696 (JAN)	P	Si	T
2N697	P	Si	T
2N697 (JAN)	P	Si	T
2N706	PE	Si	T
2N706 (JAN)	PE	Si	T
2N708	PE	Si	T
2N743	—	Si	T
2N744	—	Si	T
2N753	P	Si	T
2N783	P	Si	T
2N834	P	Si	T
2N835	P	Si	T
2N914	—	Si	T
2N929	P	Si	T
2N930	P	Si	T
2N987	PA	Ge	T
USA 2N987	PA	Ge	T

TYPE NO.	(See Notes Below) (1)	(2)	(3)
2N990	PA	Ge	T
2N993	PA	Ge	T
2N1066	PA	Ge	T
2N1224	PA	Ge	T
USA2N1224	PA	Ge	T
2N1225	PA	Ge	T
USA2N 1225	PA	Ge	T
2N1226	PA	Ge	—
2N1302	A	Ge	T
2N1303	A	Ge	T
2N1304	A	Ge	T
2N1305	A	Ge	T
2N1306	A	Ge	T
2N1307	A	Ge	T
2N1308	A	Ge	T
2N1309	A	Ge	T
2N1314	A	Ge	T
2N1395	PA	Ge	T
2N1396	PA	Ge	T
2N1397	PA	Ge	T
2N1420	P	Si	T
2N1515	PA	Ge	T
2N1516	PA	Ge	T
2N1517	PA	Ge	T
2N1613	P	Si	T
2N1613 (JAN)	P	Si	T
2N1666/OC28	A	Ge	T
2N1667/OC29	A	Ge	T
2N1668/OC35	A	Ge	T
2N1669/OC36	A	Ge	T
2N1711	P	Si	T
2N1990	P	Si	T
2N2084	PA	Ge	T
USN2N2084	PA	Ge	T
2N2089	PA	Ge	T
2N2902	PA	Ge	T
2N2207	PA	Ge	T
2N2428	UL	Ge	T
2N2429	UL	Ge	T
2N2430	UL	Ge	T
2N2431	UL	Ge	T
2N2431 MP	UL	Ge	T
2N2483	P	Si	T
2N2484	P	Si	T
2N2494	PA	Ge	T
2N2495	PA	Ge	T
2N2496	PA	Ge	T
2N2512	PA	Ge	T
2N2569	PE	Si	T
2N2570	PE	Si	T
2N2586	P	Si	T
2N2617	A	Si	T
2N2654	PA	Ge	T
2N2671	PA	Ge	T
2N2672	PA	Ge	T
2N2706	UL	Ge	T
2N2706 MP	UL	Ge	T
2N2707	UL	Ge	T
2N2786	PA	Ge	T
2N2786A	PA	Ge	T
2N2835	A	Ge	T
2N2836	A	Ge	T
2N3074	PA	Ge	T
2N3075	PA	Ge	T
2N3077	P	Si	T
2N3078	P	Si	T
2N3399	M	Ge	T
2N3588	P	Ge	T
40809	UL	Ge	T

Note (1): A—alloy
AD—alloy diffused
P—planar
E—epitaxial
DJ—diffused junction
GB—gold bonded
J—junction
PA—PADT
UL—ULT
M—Mesa
PC—point contact
DD—double diffused

Note (2): Si—Silicon
Ge—Germanium
CS—Cadmium sulfide

Note (3): T—Transistor
D—diode
Z—zener diode
P—photosensitive device
R—rectifier
V—varactor diode
IC—integrated circuit

The following is a brief cross-index list of Amperex and other type numbers.

TYPE NO.			(See Notes Above) (1)	(2)	(3)
A1590	superseded by	A415	PE	Si	T
AC125	see	2N2428	UL	Ge	T
AC126	see	2N2429	UL	Ge	T
AC127	see	2N2430	UL	Ge	T
AC127/132	see	2N2707	UL	Ge	T
AC128	see	2N2431	UL	Ge	T
AC132	see	2N2706	UL	Ge	T
AF102	see	2N2494	PA	Ge	T
AF114	see	2N2089	PA	Ge	T
AF115	see	2N2089	PA	Ge	T
AF116	see	2N2092	PA	Ge	T
AF117	see	2N2092	PA	Ge	T
AUY10	see	PADT50	AD	Ge	T
BCZ11	see	2N2617	A	Si	T
H4A	see	1N4885	—	Si	V

TYPE NO.			(See Notes Above) (1)	(2)	(3)
OC26	see	2N1314	A	Ge	T
OC28	see	2N1666	A	Ge	T
OC29	see	2N1667	A	Ge	T
OC35	see	2N1668	A	Ge	T
OC36	see	2N1669	A	Ge	T
OC70	see	2N279	A	Ge	T
OC71	see	2N280	A	Ge	T
2-OC72	see	2N282	A	Ge	T
OC76	see	2N284	A	Ge	T
OC77	see	2N284A	A	Ge	T
OC169	see	2N1515	PA	Ge	T
OC170	see	2N1516	PA	Ge	T
OC171	see	2N1517	PA	Ge	T
OC201	see	2N2617	A	Si	T

AMPEREX ELECTRONIC CORPORATION / **Amperex®**

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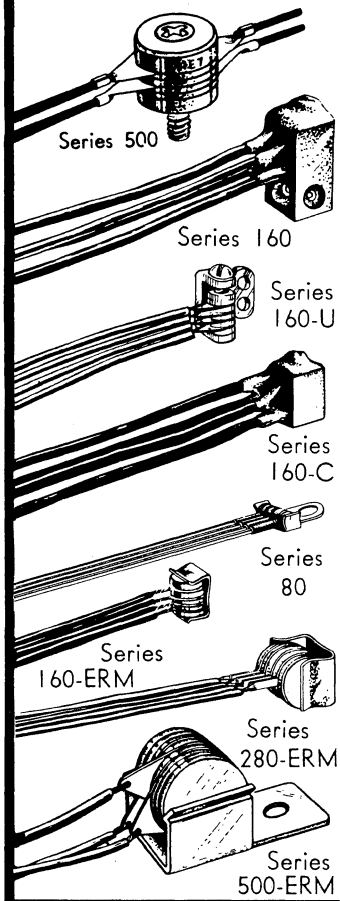
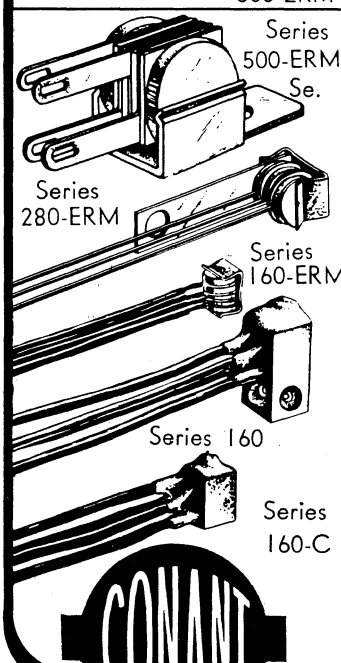
CONANT Miniature Metallic Rectifiers

STANDARD SINCE 1933

Illustrations approx. actual size





CONANT MINIATURE METALLIC RECTIFIERS

All Conant rectifiers are manufactured to the highest quality standards from individually tested and graded cells. Copper oxide cells are produced by the exclusive Conant Process and have 24K gold contacts applied in high vacuum.

The Conant Complete Color Code permits identification of rectifier type by color and physical form.

Only basic standard rectifier types are listed below. Many other standard catalog items are available and we are prepared to produce special items to meet customers' special requirements.

COPPER OXIDE TYPES WITH INSULATED LEAD WIRES

TYPE	CIRCUIT	CELL SIZE	ACTIVE AREA	INPUT	OUTPUT	MOUNTING	FINISH	PRICE
M	1	.500"	.125 sq. in.	5V	100 ma.	6-32 stud	Lacquer	$2.10
TH	Series 2	"	" "	"	75 ma.	" "	"	1.86
HS	500 3	"	" "	"	50 ma.	" "	"	1.53
T	4	"	" "	"	100 ma.	" "	"	1.53
H	5	"	" "	"	50 ma.	" "	"	1.20
B	1	.166"	.012 sq. in.	"	10 ma.	#2 screw	Solid fill	2.10
BTH	Series 2	"	" "	"	7 ma.	" "	"	1.86
BHS	160 3	"	" "	"	5 ma.	" "	"	1.53
BT	4	"	" "	"	10 ma.	" "	"	1.53
BH	5	"	" "	"	5 ma.	" "	"	1.20
B-U	1	"	" "	"	10 ma.	#2 screw	"	1.98
BTH-U	2	"	" "	"	7 "	" "	"	1.74
BHS-U	Series 3	"	" "	"	5 "	" "	"	1.41
BT-U	160-U 4	"	" "	"	10 "	" "	"	1.41
BH-U	5	"	" "	"	5 "	" "	"	1.08
B-C	1	"	" "	"	10 ma.	Fuse clip	"	2.10
BTH-C	Series 2	"	" "	"	7 ma.	" "	"	1.86
BHS-C	160-C 3	"	" "	"	5 ma.	" "	"	1.53
BT-C	4	"	" "	"	10 ma.	" "	"	1.53
BH-C	5	"	" "	"	5 ma.	" "	"	1.20
A	1	.080"	.0012 sq. in.	5V	1 ma.	#2 screw	Bonded vinyl	2.10
ATH	Series 2	.080"	.0012 sq. in.	"	1 ma.	#2 screw	Bonded vinyl	1.86
AHS	80 3	.080"	.0012 sq. in.	"	500 ua.	#2 screw	Bonded vinyl	1.53
AT	4	.080"	.0012 sq. in.	"	500 ua.	#2 screw	Bonded vinyl	1.53
AH	5	.080"	.0012 sq. in.	"	500 ua.	#2 screw	Bonded vinyl	1.20
B-ERM*	1	"	" "	"	10 ma.	Leads	Lacquer	1.59
BTH-ERM*	Series 2	"	" "	"	7 ma.	" "	"	1.35
BHS-ERM*	160- 3	"	" "	"	5 ma.	" "	"	1.05
BT-ERM*	ERM 4	"	" "	"	10 ma.	" "	"	1.05
BH-ERM*	5	"	" "	"	5 ma.	" "	"	.75
I-ERM*	1	.280"	.035 sq. in.	"	30 ma.	" "	"	1.59
ITH-ERM*	Series 2	"	" "	"	20 ma.	" "	"	1.35
IHS-ERM*	280 3	"	" "	"	15 ma.	" "	"	1.05
IT-ERM*	ERM 4	"	" "	"	30 ma.	" "	"	1.05
IH-ERM*	5	"	" "	"	15 ma.	" "	"	.75
M-ERM*	1	.500"	.123 sq. in.	"	100 ma.	#6 screw	"	1.59
TH-ERM*	Series 2	"	" "	"	75 ma.	" "	"	1.35
HS-ERM*	500 3	"	" "	"	50 ma.	" "	"	1.05
T-ERM*	ERM 4	"	" "	"	100 ma.	" "	"	1.05
H-ERM*	5	"	" "	"	50 ma.	" "	"	.75

SELENIUM TYPES, wire leads or lugs as shown

TYPE	CIRCUIT	CELL SIZE	ACTIVE AREA	INPUT	OUTPUT	MOUNTING	FINISH	PRICE
SeM-ERM*	Series 1	.500"	.15 sq. in.	25V	60 ma.	#6 screw	Lacquer	$11.11
SeTH-ERM*	500 2	"	" "	"	40 ma.	" "	"	.99
SeHS-ERM*	ERM 3	"	" "	"	30 ma.	" "	"	.81
SeT-ERM*	Se. 4	"	" "	"	60 ma.	" "	"	.81
SeH-ERM*	5	"	" "	"	30 ma.	" "	"	.63
SeI*	1	.280"	.06 sq. in.	"	20 ma.	Bracketerminal	"	.66
SeITH*	Series 2	"	" "	"	15 ma.	" "	"	.60
SeIHS*	280 3	"	" "	"	10 ma.	" "	"	.51
SeIT*	ERM 4	"	" "	"	20 ma.	" "	"	.51
SeIH*	5	"	" "	"	10 ma.	" "	"	.42
SeB-ERM*	1	.166"	.02 sq. in.	"	10 ma.	Leads	"	.87
SeBTH-ERM*	Series 2	"	" "	"	7 ma.	" "	"	.81
SeBHS-ERM*	160 3	"	" "	"	5 ma.	" "	"	.69
SeBT-ERM*	ERM 4	"	" "	"	10 ma.	" "	"	.69
SeBH-ERM*	5	"	" "	"	5 ma.	" "	"	.57
SeB	1	"	" "	"	10 ma.	#2 screw	Solid fill	1.38
SeBTH	Series 2	"	" "	"	7 ma.	" "	"	1.32
SeBHS	160 3	"	" "	"	5 ma.	" "	"	1.17
SeBT	4	"	" "	"	10 ma.	" "	"	1.17
SeBH	5	"	" "	"	5 ma.	" "	"	1.02
SeB-C	1	"	" "	"	10 ma.	Fuse clip	"	1.38
SeBTH-C	Series 2	"	" "	"	7 ma.	" "	"	1.32
Se-BHS-C	160-C 3	"	" "	"	5 ma.	" "	"	1.17
SeBT-C	4	"	" "	"	10 ma.	" "	"	1.17
SeBH-C	5	"	" "	"	5 ma.	" "	"	1.02

*Resilient structure (U. S. Pat No. 2,656,493) maintains optimum stack pressure independent of temperature changes, as well as providing the lowest price and smallest size.

CONANT LABORATORIES

SERVICE-DESIGNED ENTERTAINMENT SEMICONDUCTORS

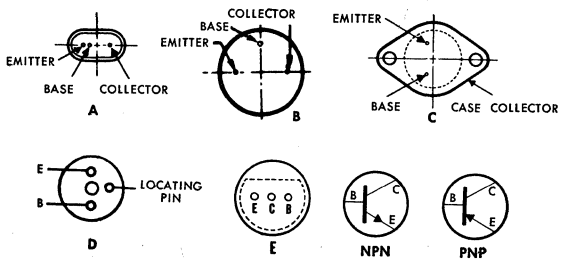
ELECTRONIC INNOVATIONS IN ACTION

UNIVERSAL REPLACEMENT TRANSISTORS

Highly dependable low-cost transistors especially designed as general replacements for most types of transistors used in Radio and TV Sets and other home entertainment devices.

Catalog No.	Outline Drawing	Use	Application	List Price
GE-1	B	PNP	Mixer/Oscillator Converter • RF and IF Amplifier	$2.00
GE-2	B	PNP	AF Amplifier	1.70
GE-3	C	PNP	AF Power Amplifier	3.90
GE-4	D	PNP	AF High Power Amplifier	7.40
GE-5	B	NPN	Mixer/Oscillator Converter • RF and AF Amplifier	2.80
GE-6	A	NPN	Mixer/Oscillator Converter • RF Amplifier	3.05
GE-7	A	NPN	IF Amplifier	2.95
GE-8	B	NPN	AF Amplifier	2.15
GE-9	*B	PNP	Mixer/Oscillator Converter • RF and IF Amplifier	2.10
GE-10	E	NPN	AF Amplifier-Driver-Output	2.00
GE-11E	E	NPN	FM and RF Amplifier, FM Converter, UHF Oscillator	2.55

* GE-9 Smaller size than GE-1 (GE-9 .209 diameter — GE-1 .335 diameter)



REGISTERED JEDEC TRANSISTORS

These supplement the Universal Line above. Characteristics conform to JEDEC specifications.

Type or JEDEC No.	Type	Use	List Price
2N107	PNP	AF	$1.25
2N170	NPN	IF	1.70
2N188A	PNP	AF OUT	3.05
2N190	PNP	AF	1.40
2N324	PNP	AF	1.20
2N404	PNP	SW	.90
2N508	PNP	AF OUT	1.30
2N1415	PNP	AF SW	1.70
2N2160	SILICON UNIJUNCTION	OSC	2.75
2N2868	NPN	SW	3.15

NEW G.E. GE-504A UNIVERSAL RECTIFIER

A silicon rectifier with a 60-amp surge rating. Recommended as a replacement for all seleninum, germanium and silicon rectifiers used in TV receivers. The 60-amp surge rating eliminates the need for the urge limiting resistors normally required when silicon rectifiers are used.

PIV is 600 volts; max. I_{DC}, 1 amp. Shipping weight: 2 oz. List Price $1.10.

G.E. SILICON AND GERMANIUM RECTIFIERS

These top hat, hermetically sealed rectifiers are designed for general-purpose applications requiring maximum economy.

Type	PIV	Max IDC	List Price	Type	PIV	Max IDC	List Price
1N91	100	150	$1.55	1N1695	400	600	$1.25
1N1692	100	600	.85	1N1696	500	600	1.35
1N1693	200	600	.90	1N1697	600	600	1.75
1N1694	300	600	.95				

G.E. VAC-U-SEL® DOUBLE DIODES

Miniature double diodes for TV horizontal phase detector, replacement and other applications. 7/16 x 9/16 x 3/16". Shipping weight: 2 oz.

Type No.	Ifwd	Imr	Description	Max. Case Temp.	List Price
6GC1	1.1 @ 2.5V	4 @ 20V	Common cathode	85°C	$0.99
6GD1	1.1 @ 2.5V	4 @ 20V	Series connected	85°C	.99
6GX1	1.1 @ 2.5V	4 @ 20V	Common anode	85°C	.99

G.E. CRYSTAL DIODES

Type	Description	Average Forward Current (ma)	Peak Reverse Voltage (volts)	List Price
1N34AS	General Purpose	50	75	$0.55
1N60	Video Detector	50	30	.55
1N82A	Silicon UHF Mixer	—	5	1.45
1N295	50 MC Detector	30	50	.55

NEW FOR COLOR TV

G.E. Selenium Rectifiers

Cat. No.	Type	List Price
GECR-1	Focus Rect.	$6.20
GECR-2	Boosted Boost	2.45
GECR-3	Convergence	1.70

G.E. Quartz Crystals‡

Cat. No.	Type	List Price
GE-41	Color burst filter	$5.15
GE-42	Color subcarrier oscillators	3.80

‡Resonant frequency 3579.545 kc.

G.E. EXPERIMETER/HOBBYIST COMPONENTS

Each electronic component in this series is blister packaged with circuit diagrams showing how educational, practical, and interesting electronic devices can be built. They can also be used in many other applications mentioned in hobby magazines and articles such as are found in the General Electric Components Hobby Manual.

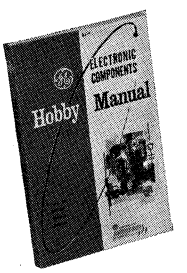
Component	Application	Sugg. User Price
SILICON CONTROLLED RECTIFIER GE-X1	For Plug-in speed control for general-purpose applications	$5.00
LIGHT-ACTIVATED SILICON CONTROLLED RECTIFIER GE-X2A	For "Slave" photoflash for flashbulbs	2.80
GE-X3	For 12-volt regulated battery charger	4.80
SILICON CONTROLLED RECTIFIER SILICON RECTIFIER GE-X4	For HIGH-LOW-OFF control for heater, lamp, motor, etc.	1.60
SILICON CONTROLLED RECTIFIER GE-X5	For enlarger phototimer	3.55
PHOTOCELL GE-X6	For light flasher, night control	1.40
REED SWITCH GE-X7	For light flasher, burglar alarm	.80
TRANSISTOR GE-X8	For light flasher, light target, triggered light source	.70
TRANSISTOR GE-X9	For light flasher, light target, triggered light source	.70
UNIJUNCTION TRANSISTOR GE-X10	For high-precision tachometer for automotive-type ignition systems with 12-volt negative ground	3.95
ZENER DIODE GE-X11	For high-precision tachometer for automotive-type ignition systems with 12-volt negative ground	1.80
TRIAC GE-X12	For remote control for lamp in appliance	5.30
DIAC GE-X13	For combination full-wave lamp dimmer, lamp sentinel, and a-c motor control	1.60
THYRECTOR GE-X14	For dual-voltage power supply	1.15
THERMISTOR GE-X15	For adjustable temperature alarm	3.45
SILICON CONTROLLED RECTIFIER GE-X16	For battery-operated fluorescent light	3.45
TRANSISTOR GE-M100	For citizens band receiver and control unit (27MC)	1.20
TRANSISTOR 2N107	For audio amplifier, radio receiver, code oscillator, loud-speaker amplifier, 2- or 3-transistor receiver	1.25△
TRANSISTOR 2N170	For 3-transistor radio, direct-coupled amplifier, pre-amplifier	1.70△
UNIJUNCTION TRANSISTOR 2N2160	For transistor metronome, code practice oscillator	2.75△

△ List price.

ELECTRONIC EXPERIMENTER

Hobbyist Manual, ETR-3960

Every engineer, experimenter, hobbyist, student, and technician can learn new applications for electronic components with the simple but interesting and useful circuits in this manual. Price $1.50.



GENERAL ELECTRIC

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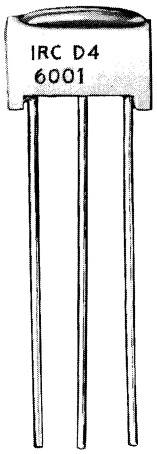
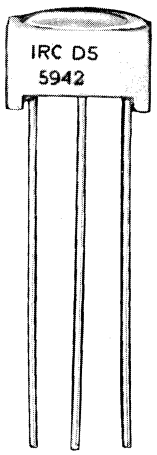
DUAL DIODES

IRC, Inc.





DIODES. Universal selenium dual diodes for horizontal phase detectors and remote control in TV receivers. Also used in radio control devices for model planes, and other circuits. Available in four basic types.

The small size, economy, ease of installation and reliable construcion of the IRC dual selenium diodes make them ideal for many low-voltage, low-frequency applications. To suit them to various circuits, these dual diodes have either common-anode, common-cathode, or series form of internal connection. The cells in each unit are matched to assure electrical balance.

Alloy-plated leads facilitate soldering. No clamp or other mounting device is needed, since the three leads readily support this flyweight unit.

Designed for Long Life

Construction features include an integral heatsink and a "floating" spring that gives proper pre-load over the full operating temperature range. No paper, laminates or other material that might absorb moisture are used. Moisture-excluding materials cushion the active elements and isolate them from encapsulant.

Electrically Balanced and Noise Free

IRC processes each selenium cell to give it a smooth, uncontaminated surface and periphery with no fractures. This technique insures uniform current density over the entire cell area and prevents noisy, unreliable operation.

To indicate polarity, one corner of the case has a diagonal cutoff. This assures correct orientation of units in automated assembly, and allows use of both sight and touch to get proper polarity at manual assembly and inspection.

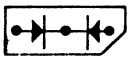
TV DUAL DIODES

REPLACEMENT INFORMATION

TYPE D4 COMMON CATHODE

Manufacturer	Part No.	Manufacturer	Part No.
Admiral	93B-6, 9	Muntz	SR004
	93C26-7, 9	Olympic	RF5465-1
Airline	66X21		RF5794-1
	296V004H01	Packard Bell	72053
Coronado	66X21, 25	Philco	34-8034
Curtis Mathes	9LR2-S		34-8037-1, 2, 3
	21A2	RCA	109328, 109474
Dominion	702-810		1107832-7,
Electrohome	14-501-01		9, 10, 11
Emerson	817062	Setchell-Carlson	9LR2
	817074	Silvertone	86-9-1
	817126		86-18-1
Federal I.T.T.	K1615		624-0007
	P15		D51
GE	6GC1		109328
	ET16X10	Sylvania	624-0006
	K115J510-1, 2		624-0007
	K117J460-1, 2		13-85943-1, 2, 3
	WT16X7	Tel-Rad	TRC-P4
Hallicrafters	27C226	Travler	SR6
	027-300-226		SR13
Hoffman	10031		SR20
	744002	Truetone	66X21, 25
	744006	Wells-Gardner	66X21, 25
International Rectifier	DD04	Westinghouse	296V004H01
Magnavox	530093-1	Workman	SD4
Motorola	48C751656	Zenith	103-20
	48K741255		103-32

Connections

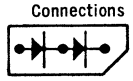


Leads Up

TYPE D5 SERIES CONNECTED

Manufacturer	Part No.	Manufacturer	Part No.
Admiral	93A5-2	Olympic	RF5794
	93B5-3, 4, 5, 6	Packard Bell	72030
Airline	SR15	Silvertone	B-45-110
Citizenship	34-8037		B-48-110
Radio			386-4-1A
Coronado	SR15		D76
Dominion	14-503-01		86-3-1
Electrohome			SR15
Emerson	817062	Sonora	13-93889
	817962	Sylvania	TRC-55
Federal I.T.T.	K1616	Tel-Rad	SR10
	P16	Travler	SR15
GE	6GD1	Truetone	SR10
	K118J966-1		SR15
	WT16X9	Webcor	65P113
International Rectifier	DD05		G9P17741
			65P124-1
Magnavox	5330045-1, 2, 3	Workman	SD5
Motorola	48B742698	Zenith	633977
	48K741752		
	48K742698		
	48K754153		
	65K744238		

Connections

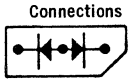


Leads Up

TYPE D6 COMMON ANODE

Manufacturer	Part No.
Federal I.T.T.	K1617
	P17
GE	6GX1
	118J966-2
	WT16X8
International Rectifier	DD06
Motorola	48K751724
Packard Bell	72036
RCA	107268
Workman	SD6

Connections



Leads Up

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Semiconductor Heat Dissipators

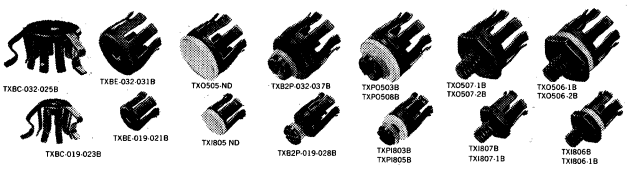
THERMA-LINK RETAINERS—FOR T0-5, T0-18 TYPE TRANSISTORS

These devices are designed as efficient retainers and heat sinks when mounted to P-C boards due to their excellent conductivity and extra mass. They also provide an efficient thermal link between transistor and chassis or heat sink. Beryllium copper spring fingers firmly retain transistors, yet fit wide case diameter variations and make transistor insertion easy. Available with Beryllium Oxide when a reduction in capacity between transistor and ground is needed in high frequency applications. Bulletins 141, 144; test report 206.

IERC PART NO.†† THERMA-LINK W/BeO	TRANSISTOR CASE SIZE	MOUNTING METHOD	QUANTITY PRICES 1-9	10-24	25-49	50-99	100-249	250-499
TXP1803B*	ALL TO-18	2-56 SCREW†	$2.05	$1.75	$1.64	$1.54	$1.34	$1.23
TXP1808B**	ALL TO-18	2-56 SCREW†	2.95	2.51	2.36	2.22	1.92	1.77
TXP0503B*	ALL TO-5	4-40 SCREW†	2.15	1.83	1.72	1.62	1.40	1.29
TXP0508B**	ALL TO-5	4-40 SCREW†	3.15	2.68	2.52	2.36	2.05	1.89
TX1805 ND**	ALL TO-18	SOLDER	2.75	2.34	2.20	2.07	1.79	1.65
TX0505 ND**	ALL TO-5	SOLDER	2.95	2.51	2.36	2.22	1.92	1.77
TX1806 B***	ALL TO-18	4-40 STUD	3.10	2.64	2.48	2.33	2.02	1.86
TX1806-1B***	ALL TO-18	6-32 STUD	3.10	2.64	2.48	2.33	2.02	1.86
TX0506-1B***	ALL TO-5	6-32 STUD	3.30	2.81	2.64	2.48	2.15	1.98
TX0506-2B***	ALL TO-5	10-32 STUD	3.30	2.81	2.64	2.48	2.15	1.98

For dimensions of Therma-Link retainers with BeO, add .060" to dimensions of standard Therma-Link retainers.

IERC PART NO.†† STANDARD THERMA-LINK	DIMENSIONS DIA.	HEIGHT	TRANSISTOR CASE SIZE	MOUNTING METHOD	QUANTITY PRICES 1-24	25-49	50-99	100-249	250-499
TXBC-019-023B	7/16"	.23"	ALL TO-18	SPRING CLIP	$.30	$.26	$.24	$.23	$.21
TXBC-032-025B	9/16"	.25"	ALL TO-5	SPRING CLIP	.30	.26	.24	.23	.21
TXBE-019-021B	.22"	.21"	ALL TO-18	RIVET OR SOLDER	.25	.22	.20	.19	.18
TXBE-032-031B	3/8"	5/16"	ALL TO-5	RIVET OR SOLDER	.25	.22	.20	.19	.18
TXB2P-019-028B	.22"	.28"	ALL TO-18	2-56 SCREW†	.55	.47	.44	.42	.39
TXB2P-032-037B	3/8"	.37"	ALL TO-5	4-40 SCREW†	.55	.47	.44	.42	.39
TX1807B	1/4"	1/2"	ALL TO-18	4-40 STUD	.75	.64	.60	.57	.53
TX1807-1B	1/4"	1/2"	ALL TO-18	6-32 STUD	.75	.64	.60	.57	.53
TX0507-1B	3/8"	19/32"	ALL TO-5	6-32 STUD	.85	.73	.68	.64	.60
TX0507-2B	3/8"	19/32"	ALL TO-5	10-32 STUD	.85	.73	.68	.64	.60
TXBP-050-037B	.545"	.37"	ALL TO-8	4-40 SCREW†	1.60	1.36	1.28	1.20	1.12

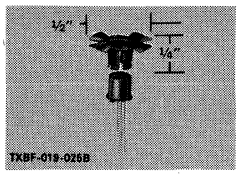


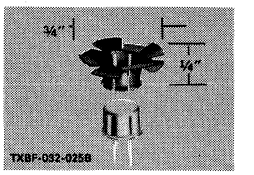
*Separate BeO washer. **BeO washer brazed to dissipator. ***BeO washer brazed between stud and dissipator. † Screw and shouldered nylon washer included. Letter "B" at end of part number denotes black cadmium finish; delete letter "B" for Insulube 448 finish; for gold finish, substitute letter "G"; for dull nickel, substitute letters "ND". Contact your IERC representative or the factory regarding other transistor case sizes or finishes.

"FAN TOP" SERIES—FOR T0-5, T0-18 TYPE TRANSISTORS

The exclusive "Fan Top" design gives unbelievable case temperature reduction in natural or forced convection. It allows location of other components close to transistors, yet adds virtually nothing to board height. Beryllium copper spring fingers firmly retain transistors, yet fit wider range of case diameters than any other configuration. Low-cost "Fan Tops" are designed for fast, economical press-fit installation without tools. Bulletin 131.

IERC PART NO.	TRANSISTOR CASE SIZE	QUANTITY PRICES 1-24	25-49	50-99	100-249	250-499
TXBF-032-025B	All .305" to .335" cases (TO-5, TO-9, etc.)	$.20	$.17	$.13	$.12	$.115
TXBF-019-025B	All .178" to .196" cases (TO-18, etc.)	.20	.17	.13	.12	.115



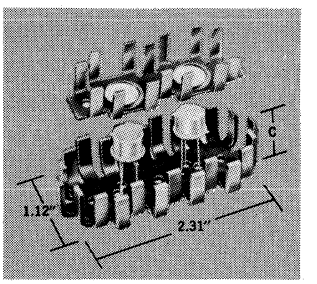


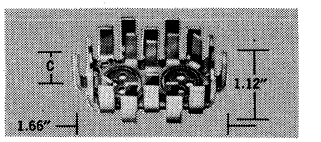
LP SERIES—FOR T0-5, T0-18 TYPE TRANSISTORS

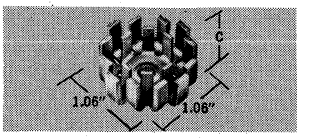
Versatile transistor cooling devices provide excellent heat dissipation in applications of low to high power transistors of T0-5 and T0-18 configuration. Employing the efficient staggered-finger configuration—IERC's exclusive design to optimize convection currents and radiating surface area—they are available for single and multiple transistor mounting. Bulletin 135; test report 182.

IERC PART NO.	DIMENSION "C"	NUMBER OF TRANSISTORS	JEDEC OUTLINE NO.	PRICES 1-24	25-49	50-99	100-249	250-499
LP 5A 1B	1/2"	1	TO-5, TO-9	$.80	$.68	$.64	$.60	$.56
LP 5A 2B	5/16"	1	TO-5, TO-9	.80	.68	.64	.60	.56
LP 18A 1B	1/2"	1	TO-18	.80	.68	.64	.60	.56
LP 18A 2B	5/16"	1	TO-18	.80	.68	.64	.60	.56
LP 18A 3B	1/2"	2	TO-18	.80	.68	.64	.60	.56
LP 18A 4B	5/16"	2	TO-18	.80	.68	.64	.60	.56
LP 5B 1B	1/2"	1	TO-5, TO-9	.90	.77	.72	.68	.63
LP 5B 2B	5/16"	1	TO-5, TO-9	.90	.77	.72	.68	.63
LP 5B 3B	1/2"	2	TO-5, TO-9	.90	.77	.72	.68	.63
LP 5B 4B	5/16"	2	TO-5, TO-9	.90	.77	.72	.68	.63
LP 5C 1B	1/2"	1	TO-5, TO-9	1.00	.85	.80	.75	.70
LP 5C 2B	5/16"	1	TO-5, TO-9	1.00	.85	.80	.75	.70
LP 5C 3B	1/2"	2	TO-5, TO-9	1.00	.85	.80	.75	.70
LP 5C 4B	5/16"	2	TO-5, TO-9	1.00	.85	.80	.75	.70

Note: Clamp sections may be used separately as retaining devices; change first two letters of the part number to "LC". Base section LB5A1B or LB5A2B may be used separately for T0-37 transistors such as 2N1172 and 2N1609. Delete letter "B" from part number for Insulube 448 finish. Consult your IERC representative or factory for special orders.







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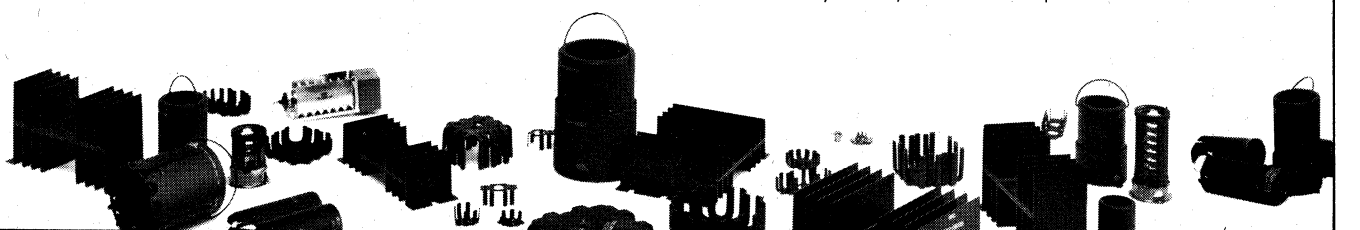

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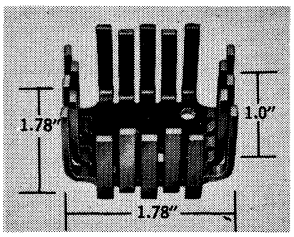
Semiconductor Heat Dissipators

UP SERIES—FOR POWER TYPE TRANSISTORS AND DIODES

UP Series design gives maximum dissipation in medium power applications at lower cost than comparable finned extrusions. Staggered-finger configuration—a design exclusive with IERC—allows maximum efficiency in both natural convection and forced air at less weight and volume. Increased dissipation can be achieved by mounting dissipators back-to-back on a bracket. Standard finish is black anodize. Bulletin 134; test report 172A.

IERC PART NO.	JEDEC OUTLINE NO.	QUANTITY PRICES				
		1-24	25-49	50-99	100-249	250-499
UP-TO3B	TO-3	$.66	$.56	$.53	$.50	$.47
UP-TO6B	TO-6 or TO-36	.66	.56	.53	.50	.47
UP-TO66B	TO-66	.66	.56	.53	.50	.47
UP-TO15B	TO-15 or TO-13 (¼" stud)	.66	.56	.53	.50	.47
UP-TOV-7B	Universal*	.66	.56	.53	.50	.47
UP-TE2B	Like 2N1015	.66	.56	.53	.50	.47

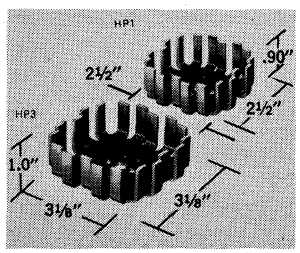


Delete letter "B" from part number for Insulube 448 finish. Above parts are 1" high; for ¾", add numeral "2" after first two letters of part number; for ½", add numeral "1" after first two letters; example: UP2-T03B describes a dissipator ¾" high, with TO-3 hole pattern and black anodize finish. For other hole patterns, see your IERC representative or consult the factory.

HP SERIES—FOR POWER TYPE TRANSISTORS AND DIODES

Due to the staggered-finger design, heat dissipation performance is comparable to conventional extrusions up to 3 times as heavy and 30% larger. The two sizes may be used separately or with the smaller unit nested in the larger unit. Standard finish is black anodize. Bulletin 139; test report 198.

IERC PART NO.	JEDEC OUTLINE NO.	QUANTITY PRICES				
		1-24	25-49	50-99	100-249	250-499
HP1-TO3B	TO-3	$1.30	$1.11	$1.04	$ .98	$.91
HP1-TO6B	TO-6	1.30	1.11	1.04	.98	.91
HP1-TO15B	TO-15, 1/4" STUD	1.30	1.11	1.04	.98	.91
HP1-TOV-2B	UNIVERSAL*	1.30	1.11	1.04	.98	.91
HP1-TE6B	TO-10, TO-31 8-32 or 10-32 STUD	1.30	1.11	1.04	.98	.91
HP3-TO3B	TO-3	1.40	1.19	1.12	1.05	.98
HP3-TO6B	TO-6	1.40	1.19	1.12	1.05	.98
HP3-TO15B	TO-15, 1/4" STUD	1.40	1.19	1.12	1.05	.98
HP3-TOV-2B	UNIVERSAL*	1.40	1.19	1.12	1.05	.98



Note: Delete letter "B" from part number for Insulube 448 finish. For other hole patterns, insert JEDEC Outline Number after the "dash" in the part number; or, contact your IERC representative or the factory for assistance with special orders.

*Combination hole pattern for TO-3, TO-6, TO-36 or studs up to ¼" dia.

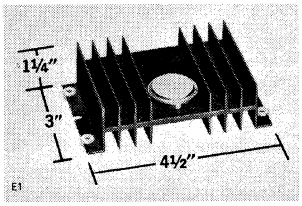
EXTRUSIONS—E1 AND E2 SERIES

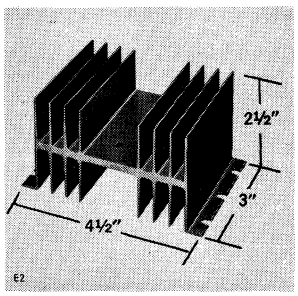
These units provide an optimized fin design giving the most power dissipation for volume and weight. Standard finish is black anodize. Standard units supplied with mounting notches and choice of six popular semiconductor mounting hole patterns. Bulletin 142.

THERMAL RESISTANCE, MOUNTING SURFACE TO AIR
E1 (3"L): 2.05°C/W natural convection
0.80°C/W in 1000 fpm air flow
E2 (3"L): 1.89°C/W natural convection
0.43°C/W in 1000 fpm air flow

EXTRUSION TYPE	IERC PART NO.	TRANSISTOR MOUNTING HOLE PATTERN	QUANTITY PRICES				
			1-24	25-49	50-99	100-249	250-499
E1	E1000-0600B	BLANK	$1.38	$1.18	$1.11	$ .95	$ .82
	E1003-0600B	TO-3	1.62	1.38	1.30	1.12	.97
	E1006-0600B	TO-6	1.62	1.38	1.30	1.12	.97
	E1015-0600B	TO-15	1.62	1.38	1.30	1.12	.97
	E10E2-0600B	LIKE 2N1015	1.62	1.38	1.30	1.12	.97
	E100V-0600B	UNIVERSAL*	1.62	1.38	1.30	1.12	.97
	E1066-0600B	TO-66	1.62	1.38	1.30	1.12	.97
E2	E2000-0600B	BLANK	2.04	1.74	1.67	1.40	1.20
	E2003-0600B	TO-3	2.28	1.94	1.86	1.57	1.35
	E2006-0600B	TO-6	2.28	1.94	1.86	1.57	1.35
	E2015-0600B	TO-15	2.28	1.94	1.86	1.57	1.35
	E20E2-0600B	LIKE 2N1015	2.28	1.94	1.86	1.57	1.35
	E200V-0600B	UNIVERSAL*	2.28	1.94	1.86	1.57	1.35
	E2066-0600B	TO-66	2.28	1.94	1.86	1.57	1.35

Note: Other lengths, in ½" increments are available. Specify non-standard hole patterns by JEDEC Outline Number, or by transistor type. For unplated, or Insulube 448 finishes, consult your nearest IERC representative or the factory.





INSULUBE 448 FINISH FOR HEAT DISSIPATORS

The Insulube 448 finish is the only proven finish for positive electrical insulation in electronic equipment that meets the most stringent environmental requirements. □ Non-hygroscopic □ High emissivity surface □ Salt spray resistant □ Low thermal resistance □ Unaffected by elevated temperature □ High dielectric strength □ Low insulation resistance.

Insulube 448 is available on all IERC heat dissipators by deleting the suffix letter "B" from the standard part number. For application to complete chassis, thermal packages, enclosures and various other structures, consult your IERC representative or the factory.

ierc
International Electronic Research Corporation
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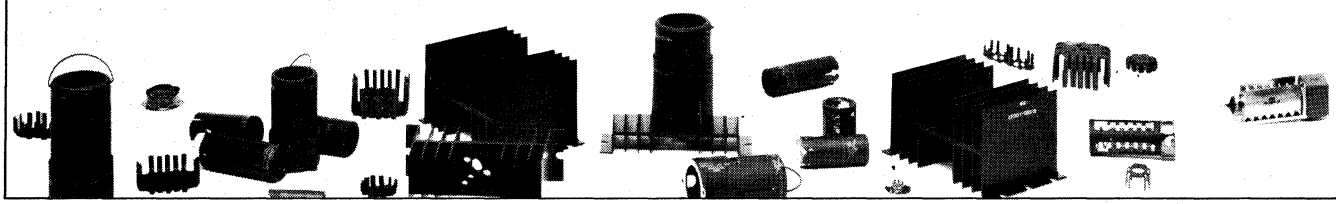

LANSDALE EXPANDS

Expanded consumer transistor capabilities now bring you Lansdale custom selection and guaranteed delivery on the following consumer-entertainment types:

2N109	2N301A	2N647	2N1179	2N1639	2N2083	2N2869	2N3731
2N217	2N406	2N1177	2N1180	2N1905	2N2147	2N2870	2N3732
2N301	2N408	2N1178	2N1638	2N1906	2N2148	2N3730	TA2063

To a constantly increasing number of Design and Product Engineers, Lansdale is already the rapid-delivery source for 2N Epitaxial Mesas and Planars, and Philco-type Germaniums, Silicon Alloys, S.A.D.T.s, and Silicon Epitaxials. Check Lansdale now for guaranteed delivery in any quantity required on the following types:

2N207	2N499A	2N671	2N777	2N1126	2N1429	2N2219A	2N2537
2N207A	2N501	2N672	2N846	2N1127	2N1478	2N2220	2N2538
2N207B	2N501A	2N673	2N846A	2N1128	2N1494	2N2221	2N2539
2N223	2N502	2N706	2N960	2N1129	2N1494A	2N2221A	2N2540
2N226	2N502A	2N708	2N961	2N1130	2N1500	2N2222	2N2651
2N240	2N502B	2N709	2N962	2N1131	2N1663	2N2222A	2N2904
2N317A	2N504	2N721	2N963	2N1132	2N1676	2N2368	2N2904A
2N345	2N534	2N722	2N964	2N1158	2N1727	2N2369	2N2905
2N346	2N535	2N768	2N965	2N1158A	2N1747	2N2369A	2N2905A
2N353	2N535A	2N769	2N966	2N1204	2N1753	2N2374	2N2906
2N386	2N535B	2N770	2N967	2N1267	2N1866	2N2375	2N2906A
2N387	2N597	2N771	2N1118	2N1268	2N2086	2N2376	2N2907
2N393	2N598	2N772	2N1118A	2N1269	2N2087	2N2380	2N2907A
2N395	2N599	2N773	2N1119	2N1270	2N2217	2N2380A	2N2967
2N404	2N600	2N774	2N1123	2N1271	2N2218	2N2410	2N3011
2N428	2N601	2N775	2N1124	2N1272	2N2218A	2N2478	2N3015
2N499	2N670	2N776	2N1125	2N1411	2N2219	2N2479	

CUSTOM SPECIFICATIONS ARE OUR SPECIALTY

LANSDALE

TRANSISTOR & ELECTRONICS INC.

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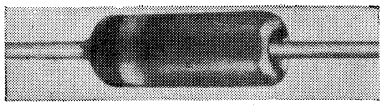
OHMITE

resistors • rheostats • tap switches • relays
variable transformers • tantalum capacitors
semiconductor devices • r.f. chokes

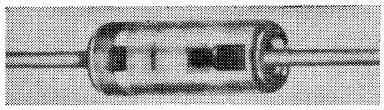
STOCK DIODES

Germanium and Silicon

Also "Meter Saver" Meter Protector



SILICON DIODE



GERMANIUM DIODE

A wide choice of popular characteristics in low power germanium and silicon diodes is available immediately from Ohmite stock. Both the germanium and silicon types are supplied in the subminiature, hermetically sealed glass envelope (see diagram). The silicon envelope is light-shielded.

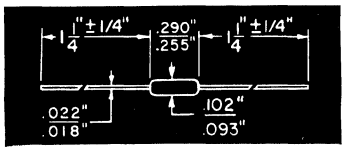
High stability is achieved through temperature cycling and aging. All units must meet severe environmental, electrical and mechanical requirements with a liberal safety factor.

GERMANIUM DIODES — Ohmite supplies the gold-bonded variety. Power rating is 80 mw at 25°C except where otherwise indicated. Operating temperature range is −65°C to +90°C.

SILICON DIODES — Employ either the alloy or diffusion method of junction formation. Power rating is 400 milliwatts at 25°C except where otherwise indicated. Operating temperature range is −65°C to +150°C.

STOCK GERMANIUM DIODES

Stock No.	PIV	Max. Rev. μa at 25°C	Min. Fwd. ma at 1V	Net 1/99
1N34	100	800@ 50V	8.5	**$ .22**
1N34A	75	500@ 50V	5	**.24**
1N38A	120	500@100V	4	**.50**
1N48	85	833@ 50V	4	**.28**
1N51	50	1677@ 50V	4	**.30**
1N54A	75	100@ 50V	5	**.42**
1N56	40	300@ 30V	15	**.38**
1N56A	50	300@ 30V	15	**.38**
1N58A	120	600@100V	4	**.55**
1N60	30	67@ 10V	—	**.29**
1N63	125	50@ 50V	4	**.52**
1N64	20	100@ 10V	—	**.27**
1N66	60	800@ 50V	5	**.36**
1N67	100	50@ 50V	4	**.49**
1N67A	100	50@ 50V	4	**.28**
1N68A	130	625@100V	3	**.63**
1N69	75	850@ 50V	5	**.34**
1N69A	75	500@ 50V	5	**.62**
1N87	23	30@ 1.5V	.1⑥	**.39**
1N90	75	800@ 50V	5	**.32**
1N95	75	800@ 50V	10	**.40**
1N96	75	800@ 50V	20	**.53**
1N98	100	100@ 50V	20	**.31**
1N99	100	50@ 50V	10	**.45**
1N99A	100	50@ 50V	20	**.45**
1N100	100	50@ 50V	20	**.31**
1N191①	90	25@ 10V⑤	5	**.34**
1N198	100	250@ 50V③	4	**.34**
1N270	100	100@ 50V	200④	**.31**
1N273	40	200@ 20V	100	**.46**
1N276	100	100@ 50V	40	**.31**
1N277	120	250@ 50V③	100	**.34**
1N279	40	200@ 20V	100	**.29**
1N281	75	500@ 50V	100	**.31**
1N294	70	10@ 10V	5	**.34**
1N295	50	200@ 10V	—	**.32**
1N295A	40	200@ 10V	—	**.32**
1N497	30	20@ 20V	100	**.38**
1N695②	20	20@ 10V③	100	**.29**



STOCK SILICON DIODES

Stock No.	PIV	Max. Rev. μa at 25°C	Min. Fwd. ma at 1V	Net 1/99
1N456	25	.025@ 25V	40	**$ .35**
1N456A	25	.025@ 25V	100	**.35**
1N457	60	.025@ 60V	20	**.35**
1N457A	60	.025@ 60V	100	**.35**
1N458	125	.025@125V	7	**.45**
1N458A	125	.025@125V	100	**.45**
1N459	175	.025@175V	3	**.50**
1N459A	175	.5 @175V	100	**.50**
1N461	25	.5 @ 25V	15	**.35**
1N462A	60	.5 @ 60V	100	**.35**
1N463	175	.5 @175V	1	**.45**
1N645	225	.2 @225V	400	**1.30**

FOOTNOTES FOR ALL DIODE TABLES

①0.5 μsec.
②0.3 μsec.
③75°C.
④Duty cycle must be adjusted in testing at these high forward currents so that average power dissipated does not exceed 80 mw.
⑤55°C.
⑥At 0.25 volts.

DIODE METERSAVER PROTECTS METERS

Designed to protect sensitive (high internal resistance) meters against burnout due to overload even where potential is reversed. Introduces negligible error. Consists of 2 silicon diodes in compact case with leads and lugs. Connects across meter terminals without regard for polarity. Shunts excess current around meters—for example, can convert 200 times overload to 3 times overload. Allows use of less expensive meter fuses. Can be used with meters of low internal resistance but use of series resistor is then recommended.

Stock No. OMC7111....Net (1-99) $1.98

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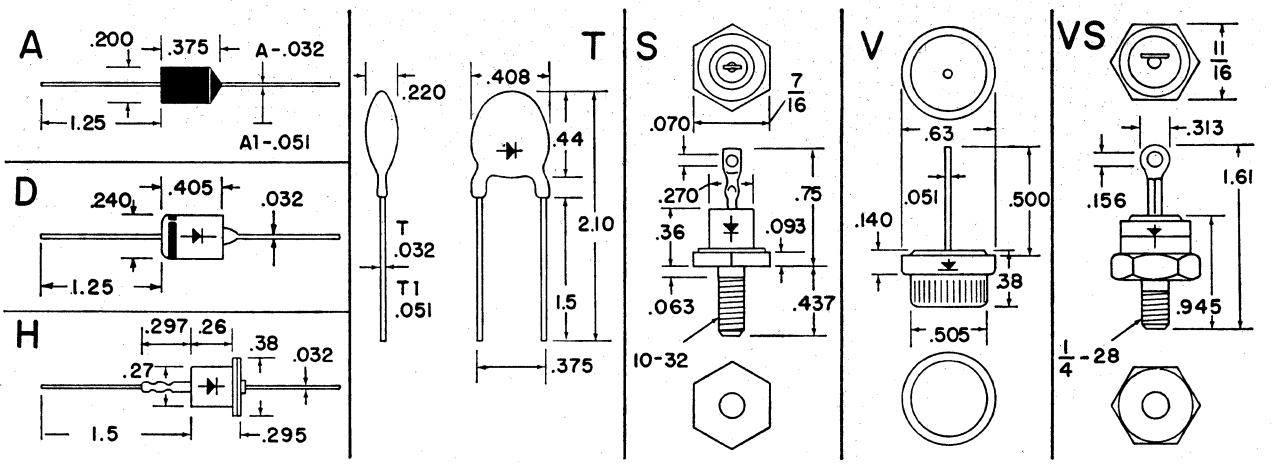
MALLORY Silicon Rectifiers



Mallory silicon rectifiers are produced by the diffused junction process. This process provides superior operating characteristics when compared to alloy junction types. An exceptionally broad range of case styles is available to suit most installation requirements. Styles A and T have "cold" cases which offer outstanding humidity resistance and have withstood the rigorous "Joy Bomb" test. All types exceed rated JEDEC standards.

¾ AMP AT 50° C

Peak one-cycle surge, 15 amps.

Mallory No.	Style	PIV Volts	Max.* Temp., °C	Net Each
A50	A	50	100	$0.40
A100	A	100	100	.45
1N2069	A	200	100	.50
A300	A	300	100	.60
1N2070	A	400	100	.67
A500	A	500	100	.72
1N2071	A	600	100	.77
A800	A	800	100	1.20
A1000	A	1000	100	2.00
1N2090	T	50	100	.46
1N2091	T	100	100	.48
1N2092	T	200	100	.52
1N2093	T	300	100	.56
1N2094	T	400	100	.58
1N2095	T	500	100	.63
1N2096	T	600	100	.66
T800	T	800	100	1.50
T1000	T	1000	100	2.18
1N536	H	50	150	.67
1N537	H	100	150	.74
1N538	H	200	150	.78
1N539	H	300	150	.84
1N540	H	400	150	.88
1N1095	H	500	150	.95
1N547	H	600	150	1.10
1N1096	H	600	150	1.10

¾ AMP AT 75° C

Peak one-cycle surge, 35 amps.

D50	D	50	100	$0.63
D100	D	100	100	.65
1N3193	D	200	100	.69
D300	D	300	100	.76
1N3194	D	400	100	.80
D500	D	500	100	.85
1N3195	D	600	100	.93

1 AMP AT 25° C

Peak one-cycle surge, 15 amps.

A50	A	50	100	$0.40
A100	A	100	100	.45
1N2069	A	200	100	.50
A300	A	300	100	.60
1N2070	A	400	100	.67
A500	A	500	100	.72
1N2071	A	600	100	.77
A800	A	800	100	1.20
A1000	A	1000	100	2.00
1N2090	T	50	100	.46
1N2091	T	100	100	.48
1N2092	T	200	100	.52
1N2093	T	300	100	.56
1N2094	T	400	100	.58
1N2095	T	500	100	.63
1N2096	T	600	100	.66
T800X	T	800	100	1.50
T1000X	T	1000	100	2.18

1 AMP AT 50° C

Peak one-cycle surge, 15 amps.

Mallory No.	Style	PIV Volts	Max.* Temp., °C	Net Each
AA50	A	50	100	$0.47
AA100	A	100	100	.54
AA200	A	200	100	.60
AA300	A	300	100	.68
AA400	A	400	100	.78
AA500	A	500	100	.87
AA600	A	600	100	.92
AA800	A	800	100	1.26
AA1000	A	1000	100	2.18
TA50	T	50	100	.78
TA100	T	100	100	.84
TA200	T	200	100	.87
TA300	T	300	100	.92
TA400	T	400	100	1.05
TA500	T	500	100	1.25
TA600	T	600	100	1.65
TA800	T	800	100	1.90
TA1000	T	1000	100	2.80

2 AMPS AT 50° C

Peak one-cycle surge, 15 amps.

AB50	A1	50	100	$0.78
AB100	A1	100	100	.88
AB200	A1	200	100	1.05
AB300	A1	300	100	1.15
AB400	A1	400	100	1.25
AB500	A1	500	100	1.57
AB600	A1	600	100	1.70
AB800	A1	800	100	1.82
AB1000	A1	1000	100	2.75
TB50	T1	50	100	1.15
TB100	T1	100	100	1.20
TB200	T1	200	100	1.25
TB300	T1	300	100	1.53
TB400	T1	400	100	1.57
TB500	T1	500	100	1.80
TB600	T1	600	100	2.24
TB800	T1	800	100	3.60
TB1000	T1	1000	100	5.70

3 AMPS AT 25° C

Peak one-cycle surge, 15 amps.

AC50	A1	50	100	$0.88
AC100	A1	100	100	.95
AC200	A1	200	100	1.10
AC300	A1	300	100	1.45
AC400	A1	400	100	1.55
AC500	A1	500	100	1.60
AC600	A1	600	100	1.80
AC800	A1	800	100	2.40
AC1000	A1	1000	100	2.85
TC50	T1	50	100	1.45
TC100	T1	100	100	1.57
TC200	T1	200	100	1.70
TC300	T1	300	100	1.75
TC400	T1	400	100	1.80
TC500	T1	500	100	2.24
TC600	T1	600	100	2.42
TC800	T1	800	100	4.40
TC1000	T1	1000	100	6.00
S50	S†‡	50	150	1.60
S100	S†‡	100	150	1.67
1N1124A	S†‡	200	150	1.82
1N1125	S†‡	300	150	2.66
1N1126A	S†‡	400	150	3.15
1N1127	S†‡	500	150	3.88
1N1128A	S†‡	600	150	4.45

15 AMPS AT 150° C†‡

Peak one-cycle surge, 250 amps.

Mallory No.	Style	PIV Volts	Max.* Temp., °C	Net Each
1N3208	VS	50	175	$1.15
1N3209	VS	100	175	1.30
1N3210	VS	200	175	1.70
1N3211	VS	300	175	2.00
1N3212	VS	400	175	2.48
1N3213	VS	500	175	2.86
1N3214	VS	600	175	3.56

18 AMPS AT 150° C†

Peak one-cycle surge, 300 amps.

1N3491	V	50	175	$0.63
1N3492	V	100	175	.68
1N3493	V	200	175	1.03
1N3494	V	300	175	1.31
1N3495	V	400	175	1.65
V500	V	500	175	1.88
V600	V	600	175	1.98

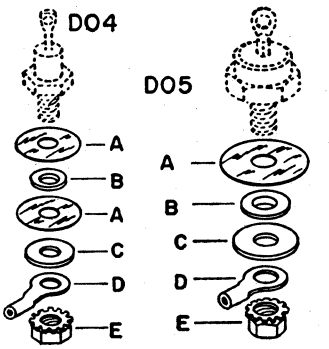
25 AMPS AT 150° C†

Peak one-cycle surge, 400 amps.

1N3659	V	50	175	$1.26
1N3660	V	100	175	1.36
1N3661	V	200	175	2.06
1N3662	V	300	175	2.62
1N3663	V	400	175	3.30
1N3664	V	500	175	3.76
1N3665	V	600	175	3.96

*Case temperature. †Standard polarity is cathode to stud. For anode to stud, add suffix **R.** ‡Mounting hardware furnished.

RECTIFIER HARDWARE



Mallory No.	Description	Net Each
HDO4	Complete DO4 kit	$0.08
HDO4A	Mica washer (2 reqd.)	.007
HDO4B	Brass washer	.01
HDO4C	Teflon® washer	.01
HDO4D	Solder lug	.012
HDO4E	#10-32 locknut	.015
HDO5	Complete DO5 kit	.14
HDO5A	Mica washer	.012
HDO5B	Brass washer	.012
HDO5C	Teflon washer	.05
HDO5D	Solder lug	.04
HDO5E	¼"-20 locknut	.018

®Registered Du Pont trademark.

Net

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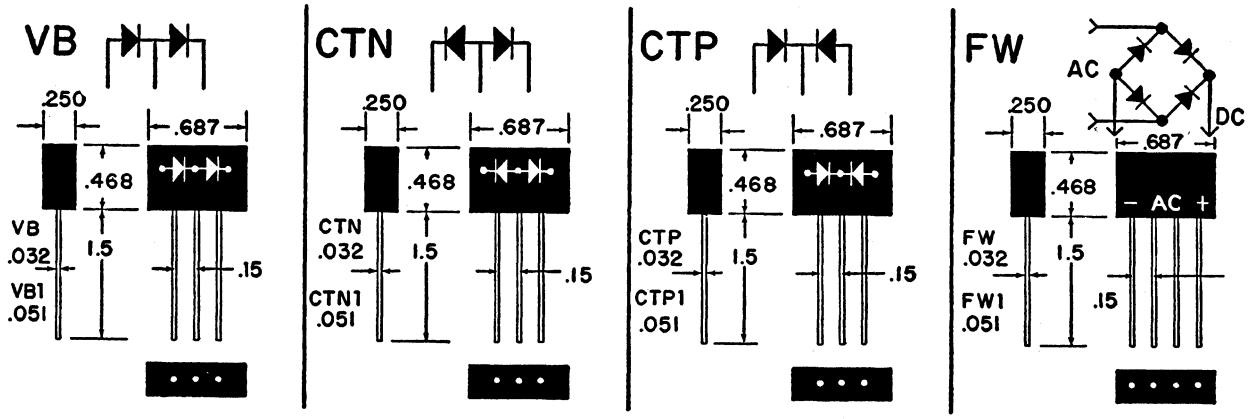
MALLORY Packaged Rectifier Circuits



Mallory pre-packaged rectifier circuits offer outstanding advantages to both the circuit designer and the service technician. The circuits are composed of carefully selected and matched diffused-junction silicon rectifiers. This ensures a balanced operation difficult to attain with individual rectifiers. In addition, size is smaller than the equivalent number of individual rectifiers. In all cases, there are fewer solder joints to make. Quality is guaranteed by Mallory, the pioneer in pre-packaged rectifier circuits.

There are four basic circuits available: Voltage doublers, full-wave circuits in both center-tap negative as well as positive, and full-wave bridge. A full range of inverse voltages and output currents are listed.

Cases for all types have the same external dimensions and are made of specially formulated pre-formed plastic. High density end fill ensures maximum humidity protection. The cold case design avoids stray shorts to other nearby components. The dense packaging material provides excellent heat dissipation.

VOLTAGE DOUBLERS

Current output refers to total circuit and is rated at 50° C. Maximum case temperature is 100° C. Max. one-cycle surge, 15 amps.

Mallory No.	Case	PIV Volts	Output, Amps	Net Each
VB50	VB	50	.75	**$0.78**
VB100	VB	100	.75	**.86**
VB200	VB	200	.75	**.96**
VB300	VB	300	.75	**1.00**
VB400	VB	400	.75	**1.06**
VB500	VB	500	.75	**1.20**
VB600	VB	600	.75	**1.34**
VBA50	VB	50	1	**.85**
VBA100	VB	100	1	**.96**
VBA200	VB	200	1	**1.06**
VBA300	VB	300	1	**1.10**
VBA400	VB	400	1	**1.14**
VBA500	VB	500	1	**1.31**
VBA600	VB	600	1	**1.49**
VBB50	VB1	50	2	**1.38**
VBB100	VB1	100	2	**1.55**
VBB200	VB1	200	2	**1.72**
VBB300	VB1	300	2	**1.82**
VBB400	VB1	400	2	**1.90**
VBB500	VB1	500	2	**2.15**
VBB600	VB1	600	2	**2.40**
VBC50	VB1	50	3	**1.56**
VBC100	VB1	100	3	**1.72**
VBC200	VB1	200	3	**1.92**
VBC300	VB1	300	3	**2.00**
VBC400	VB1	400	3	**2.12**
VBC500	VB1	500	3	**2.40**
VBC600	VB1	600	3	**2.68**

FULL-WAVE RECTIFIER CIRCUITS CENTER TAP NEGATIVE

Current output refers to total circuit and is rated at 50° C. Maximum case temperature is 100° C. Max. one-cycle surge, 15 amps.

Mallory No.	Case	PIV Volts	Output, Amps	Net Each
CTN50	CTN	50	1.5	**$0.78**
CTN100	CTN	100	1.5	**.86**
CTN200	CTN	200	1.5	**.96**
CTN300	CTN	300	1.5	**1.00**
CTN400	CTN	400	1.5	**1.06**
CTN500	CTN	500	1.5	**1.20**
CTN600	CTN	600	1.5	**1.34**
CTN800	CTN	800	1.5	**1.81**
CTN1000	CTN	1000	1.5	**2.30**

FULL-WAVE RECTIFIER CIRCUITS CENTER TAP NEGATIVE (CONT'D.)

Mallory No.	Case	PIV Volts	Output, Amps	Net Each
CTNA50	CTN	50	2	**$0.85**
CTNA100	CTN	100	2	**.96**
CTNA200	CTN	200	2	**1.06**
CTNA300	CTN	300	2	**1.10**
CTNA400	CTN	400	2	**1.14**
CTNA500	CTN	500	2	**1.31**
CTNA600	CTN	600	2	**1.49**
CTNA800	CTN	800	2	**2.00**
CTNA1000	CTN	1000	2	**2.54**
CTNB50	CTN1	50	3	**1.38**
CTNB100	CTN1	100	3	**1.55**
CTNB200	CTN1	200	3	**1.72**
CTNB300	CTN1	300	3	**1.82**
CTNB400	CTN1	400	3	**1.90**
CTNB500	CTN1	500	3	**2.15**
CTNB600	CTN1	600	3	**2.40**
CTNB800	CTN1	800	3	**3.30**
CTNB1000	CTN1	1000	3	**4.10**
CTNC50	CTN1	50	4	**1.56**
CTNC100	CTN1	100	4	**1.72**
CTNC200	CTN1	200	4	**1.92**
CTNC300	CTN1	300	4	**2.00**
CTNC400	CTN1	400	4	**2.12**
CTNC500	CTN1	500	4	**2.40**
CTNC600	CTN1	600	4	**2.68**
CTNC800	CTN1	800	4	**3.62**
CTNC1000	CTN1	1000	4	**4.60**

FULL-WAVE RECTIFIER CIRCUITS CENTER TAP POSITIVE

Current output refers to total circuit and is rated at 50° C. Maximum case temperature is 100° C. Max. one-cycle surge, 15 amps.

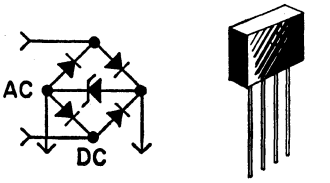
Mallory No.	Case	PIV Volts	Output, Amps	Net Each
CTP50	CTP	50	1.5	**$0.78**
CTP100	CTP	100	1.5	**.86**
CTP200	CTP	200	1.5	**.96**
CTP300	CTP	300	1.5	**1.00**
CTP400	CTP	400	1.5	**1.06**
CTP500	CTP	500	1.5	**1.20**
CTP600	CTP	600	1.5	**1.34**
CTP800	CTP	800	1.5	**1.81**
CTP1000	CTP	1000	1.5	**2.30**
CTPA50	CTP	50	2	**.85**
CTPA100	CTP	100	2	**.96**
CTPA200	CTP	200	2	**1.06**
CTPA300	CTP	300	2	**1.10**
CTPA400	CTP	400	2	**1.14**
CTPA500	CTP	500	2	**1.31**
CTPA600	CTP	600	2	**1.49**
CTPA800	CTP	800	2	**2.00**
CTPA1000	CTP	1000	2	**2.54**
CTPB50	CTP1	50	3	**1.38**
CTPB100	CTP1	100	3	**1.55**
CTPB200	CTP1	200	3	**1.72**
CTPB300	CTP1	300	3	**1.82**
CTPB400	CTP1	400	3	**1.90**
CTPB500	CTP1	500	3	**2.15**
CTPB600	CTP1	600	3	**2.40**
CTPB800	CTP1	800	3	**3.30**
CTPB1000	CTP1	1000	3	**4.10**
CTPC50	CTP1	50	4	**1.56**
CTPC100	CTP1	100	4	**1.72**
CTPC200	CTP1	200	4	**1.92**
CTPC300	CTP1	300	4	**2.00**
CTPC400	CTP1	400	4	**2.12**
CTPC500	CTP1	500	4	**2.40**
CTPC600	CTP1	600	4	**2.68**
CTPC800	CTP1	800	4	**3.62**
CTPC1000	CTP1	1000	4	**4.60**

FULL-WAVE BRIDGE RECTIFIER CIRCUITS

AC input on center legs, full-wave DC output on outer legs. Current output refers to total circuit and is rated at 50° C. Maximum case temperature is 100° C. Max. one-cycle surge, 15 amps.

Mallory No.	Case	PIV Volts	Output, Amps	Net Each
FW50	FW	50	1.5	**$1.53**
FW100	FW	100	1.5	**1.63**
FW200	FW	200	1.5	**1.70**
FW300	FW	300	1.5	**1.92**
FW400	FW	400	1.5	**1.95**
FW500	FW	500	1.5	**2.03**
FW600	FW	600	1.5	**2.22**
FW800	FW	800	1.5	**3.50**
FW1000	FW	1000	1.5	**3.93**
FWA50	FW	50	2	**1.63**
FWA100	FW	100	2	**1.79**
FWA200	FW	200	2	**1.86**
FWA300	FW	300	2	**2.10**
FWA400	FW	400	2	**2.15**
FWA500	FW	500	2	**2.35**
FWA600	FW	600	2	**2.44**
FWA800	FW	800	2	**3.82**
FWA1000	FW	1000	2	**4.36**
FWB50	FW1	50	3	**2.78**
FWB100	FW1	100	3	**2.91**
FWB200	FW1	200	3	**3.06**
FWB300	FW1	300	3	**3.45**
FWB400	FW1	400	3	**3.55**
FWB500	FW1	500	3	**3.85**
FWB600	FW1	600	3	**4.00**
FWB800	FW1	800	3	**6.30**
FWB1000	FW1	1000	3	**7.10**
FWC50	FW1	50	4	**3.06**
FWC100	FW1	100	4	**3.26**
FWC200	FW1	200	4	**3.30**
FWC300	FW1	300	4	**3.80**
FWC400	FW1	400	4	**3.90**
FWC500	FW1	500	4	**4.00**
FWC600	FW1	600	4	**4.45**
FWC800	FW1	800	4	**7.00**
FWC1000	FW1	1000	4	**7.90**

CUSTOM SEMICONDUCTOR PRE-PACKAGED CIRCUITS



In addition to the standard pre-packaged circuits shown above, Mallory can supply a wide variety of custom circuits. For example, a zener diode can be added to the FW circuit in order to provide a positive control on the DC output. In order to specify such a device, select the output voltage desired from 6.8 to 200. Then, select the current output of 1.5, 2 or 3 amperes. A typical rating is FWZ10 having an output of 10 volts and 1.5 amps. For further data, contact Mallory. Any combination of up to five semiconductors can be enclosed in a single package.

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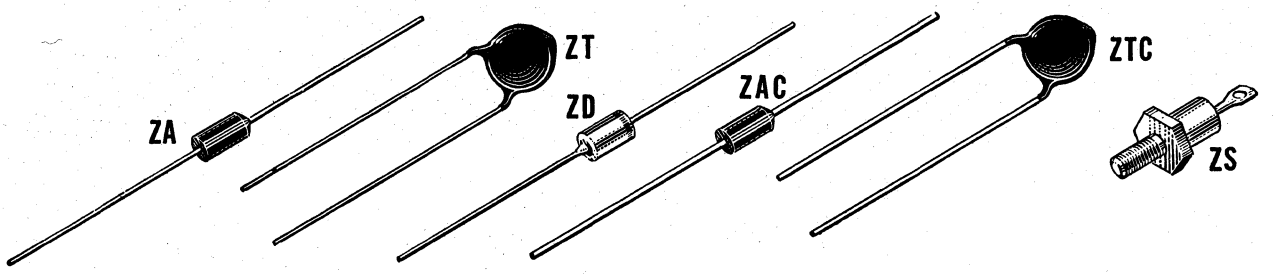
MALLORY Silicon Zener Diodes



SILICON ZENER DIODES

Mallory zener diodes are produced by the diffused junction process which offers superior operating characteristics compared to the alloy junction type. Three power ratings are supplied: 1, 3, and 10 watts. Four basic case styles are available. The "cold" case styles (ZA, ZAC, ZT, and ZTC) offer outstanding performance at relatively low cost. All types offer low thermal resistance and excellent forward characteristics. Rugged cell construction allows high surge capabilities. All types exceed MIL requirements. Select style and wattage required, then specify tolerance by suffix letter. Values shown are ±20% (no suffix), specify A for ±10%, B for ±5%, or C for ±1%. Also available in matched pairs on special order.

TYPE ZA

One-watt, cold case type designed for high density packaging in commercial and military applications. Cold case eliminates need for insulating sleeve and provides excellent heat dissipation and humidity protection. **Case Size:** .200″ dia. x .375″. **Leads:** .032″ dia. x 1.25″ (min.).

TYPE ZT

One-watt, cold case design with radial leads for printed circuit board applications. Dipped in high density encapsulating material for maximum humidity protection and heat dissipation. Cold case provides excellent insulation for high density packaging. **Case Size:** .437″ h. (max.) x .408″ w. (max.) x .185″-.250″ th. **Leads:** .032″ dia. x 1.5″ lg. (min.) x .375″ spacing.

TYPE ZD

One-watt flangeless, hermetically-sealed metal case (EIA DO-13). Designed to surpass most critical MIL standards. **Operating and Storage Temperatures:** −65° to +175°C. **Case Size:** .240″ dia. x .405″. **Leads:** .032″ x 1.25″ (min.).

TYPE ZAC

Three-watt, cold case design; same case size as ZA type, except leads are .051″ dia.

TYPE ZTC

Three-watt, cold case design similar to ZT type. Case size is the same, except that leads are .051″ dia. specially annealed.

TYPE ZS

Ten-watt, hermetically-sealed stud type zener diode in standard EIA DO4 package. All-welded construction provides very low thermal resistance for maximum heat dissipation. Meets or exceeds all applicable MIL standards. **Operating and Storage Temperature:** −65° to +175°C. **Case Size:** 7/16″ hex base with solder stud 3/4″ above base, #10-32 stud x 7/16″ lg. Supplied with HD04 mounting hardware kit. **Standard Polarity:** Anode to stud; for cathode to stud, add suffix **R** (e.g., 1N2970**R**, 1N2970**RA**, etc.), same price.

One Watt						Three Watts					Ten Watts			
Nom. Zener Volts*	IZT Test mA	ZZT at IZT Ohms	Mallory Number* ZA	ZT	ZD	Nom. Zener Volts*	IZT Test mA	ZZT at IZT Ohms	Mallory Number* ZAC	ZTC	Nom. Zener Volts*	IZT Test mA	ZZT at IZT Ohms	Mallory Number* ZS
6.8	37	3.5	ZA6.8	ZT6.8	1N3016	6.8	37	3.5	ZAC6.8	ZTC6.8	6.8	370	1.2	1N2970
7.5	34	4.0	ZA7.5	ZT7.5	1N3017	7.5	34	4.0	ZAC7.5	ZTC7.5	7.5	340	1.3	1N2971
8.2	31	4.5	ZA8.2	ZT8.2	1N3018	8.2	31	4.5	ZAC8.2	ZTC8.2	8.2	310	1.5	1N2972
9.1	28	5.0	ZA9.1	ZT9.1	1N3019	9.1	28	5.0	ZAC9.1	ZTC9.1	9.1	280	2	1N2973
10	25	7	ZA10	ZT10	1N3020	10	25	7	ZAC10	ZTC10	10	250	3	1N2974
11	23	8	ZA11	ZT11	1N3021	11	23	8	ZAC11	ZTC11	11	230	3	1N2975
12	21	9	ZA12	ZT12	1N3022	12	21	9	ZAC12	ZTC12	12	210	3	1N2976
13	19	10	ZA13	ZT13	1N3023	13	19	10	ZAC13	ZTC13	13	190	3	1N2977
15	17	14	ZA15	ZT15	1N3024	15	17	14	ZAC15	ZTC15	15	170	3	1N2979
16	15.5	16	ZA16	ZT16	1N3025	16	15.5	16	ZAC16	ZTC16	16	155	4	1N2980
18	14	20	ZA18	ZT18	1N3026	18	14	20	ZAC18	ZTC18	18	140	4	1N2982
20	12.5	22	ZA20	ZT20	1N3027	20	12.5	22	ZAC20	ZTC20	20	125	4	1N2984
22	11.5	23	ZA22	ZT22	1N3028	22	11.5	23	ZAC22	ZTC22	22	115	5	1N2985
24	10.5	25	ZA24	ZT24	1N3029	24	10.5	25	ZAC24	ZTC24	24	105	5	1N2986
27	9.5	35	ZA27	ZT27	1N3030	27	9.5	35	ZAC27	ZTC27	27	95	7	1N2988
30	8.5	40	ZA30	ZT30	1N3031	30	8.5	40	ZAC30	ZTC30	30	85	8	1N2989
33	7.5	45	ZA33	ZT33	1N3032	33	7.5	45	ZAC33	ZTC33	33	75	9	1N2990
36	7.0	50	ZA36	ZT36	1N3033	36	7.0	50	ZAC36	ZTC36	36	70	10	1N2991
39	6.5	60	ZA39	ZT39	1N3034	39	6.5	60	ZAC39	ZTC39	39	65	11	1N2992
43	6.0	70	ZA43	ZT43	1N3035	43	6.0	70	ZAC43	ZTC43	43	60	12	1N2993
47	5.5	80	ZA47	ZT47	1N3036	47	5.5	80	ZAC47	ZTC47	47	55	14	1N2995
51	5.0	95	ZA51	ZT51	1N3037	51	5.0	95	ZAC51	ZTC51	51	50	15	1N2997
56	4.5	110	ZA56	ZT56	1N3038	56	4.5	110	ZAC56	ZTC56	56	45	16	1N2999
62	4.0	125	ZA62	ZT62	1N3039	62	4.0	125	ZAC62	ZTC62	62	40	17	1N3000
68	3.7	150	ZA68	ZT68	1N3040	68	3.7	150	ZAC68	ZTC68	68	37	18	1N3001
75	3.3	175	ZA75	ZT75	1N3041	75	3.3	175	ZAC75	ZTC75	75	33	22	1N3002
82	3.1	200	ZA82	ZT82	1N3042	82	3.1	200	ZAC82	ZTC82	82	31	25	1N3003
91	2.8	250	ZA91	ZT91	1N3043	91	2.8	250	ZAC91	ZTC91	91	28	35	1N3004
100	2.5	350	ZA100	ZT100	1N3044	100	2.5	350	ZAC100	ZTC100	100	25	40	1N3005
110	2.3	450	ZA110	ZT110	1N3045	110	2.3	450	ZAC110	ZTC110	110	23	55	1N3007
120	2.0	550	ZA120	ZT120	1N3046	120	2.0	550	ZAC120	ZTC120	120	20	75	1N3008
130	1.9	700	ZA130	ZT130	1N3047	130	1.9	700	ZAC130	ZTC130	130	19	100	1N3009
150	1.7	1000	ZA150	ZT150	1N3048	150	1.7	1000	ZAC150	ZTC150	150	17	175	1N3011
160	1.6	1100	ZA160	ZT160	1N3049	160	1.6	1100	ZAC160	ZTC160	160	16	200	1N3012
180	1.4	1200	ZA180	ZT180	1N3050	180	1.4	1200	ZAC180	ZTC180	180	14	260	1N3014
200	1.2	1500	ZA200	ZT200	1N3051	200	1.2	1500	ZAC200	ZTC200	200	12	300	1N3015

*Types shown are ±20% tolerance. Specify: A for ±10%, B for ±5%, or C for ±1%.

ZENER DIODE NET PRICES

Mallory zener diodes are supplied in four standard tolerance grades: ±20%, ±10%, ±5%, and ±1%. Net prices for each grade are shown below. The prices shown are for quantities from 1-99. Prices for larger quantities available upon request. Zener diodes are also available in specially selected matched pairs at economical prices.

Nom. Zener Volts	Tol. (Suffix)	Mallory Type, Net Each ZA	ZT	ZD	ZAC	ZTC	ZS
6.8 to 100	±20%	$0.85	$1.00	$1.27	$1.07	$1.17	$2.42
	±10% (A)	1.00	1.07	1.70	1.26	1.29	2.50
	±5% (B)	1.40	1.50	2.49	1.50	1.70	3.23
	±1% (C)	1.52	1.73	2.70	1.71	1.92	3.36
110 to 200	±20%	.95	1.11	1.42	1.19	1.19	2.68
	±10% (A)	1.11	1.19	1.89	1.40	1.30	2.78
	±5% (B)	1.55	1.67	2.76	1.66	1.89	3.59
	±1% (C)	1.69	1.73	3.00	1.90	2.13	3.73

ZENER DIODE HARDWARE

Mallory No.	Description	Net Each
HDO4	Complete DO4 kit	$0.08
HDO4A	Mica washer (2 required)	.007
HDO4B	Brass washer	.01
HDO4C	Teflon® washer	.01
HDO4D	Solder lug	.012
HDO4E	#10-32 locknut	.015

®Registered Du Pont trademark.

Net

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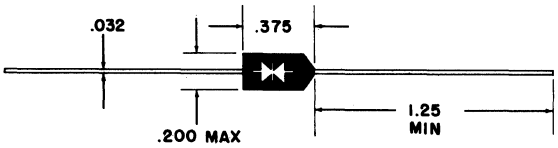
MALLORY

Dual Trigger Diodes



Mallory Dual Trigger Diodes are symetrical three-layer avalanche devices used to control silicon controlled rectifiers and "Bi-switches." The device exhibits a unique characteristic in having a symetrical switching mode which "fires" in both directions. This symetrical action takes place whenever the breakover voltage is exceeded on either side of a cycle. Thus, it is able to trigger two SCR's or a bi-switch (which is essentially two SCR's in a single package). The average power dissipation at 50°C is 1 watt with a peak current capability of 1 amp for 20 microseconds.

The dual trigger offers a particular advantage to the design engineer: It reduces the number of components required in a triggering circuit and thus improves the reliability of that circuit. In addition, the dual trigger reduces the overall cost of the triggering circuit.

Breakover voltage is quite symetrical being within 5% of the nominal rating in either direction. Furthermore, the dual trigger is relatively unaffected by deviations in either ambient or operational temperatures. This is because the temperature coefficient is only 0.02%/°C.

The Mallory dual trigger is especially applicable to dense packaging because it utilizes a "cold case" design. This is a precision molded insulated case which exhibits very high humidity resistant qualities. Thus, the device may be applied to both commercial and industrial applications.

RATINGS AND SPECIFICATIONS

Ratings @ 50°C.

Average power dissipation.....1 watt
Power derating above 50°C.....10mw/°C.
Pulse current, 20 microseconds, 0.5% duty cycle.....1 amp

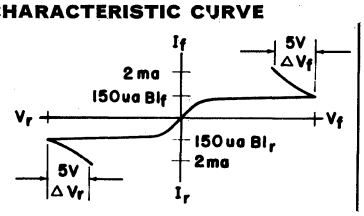
Specification @ 25°C.

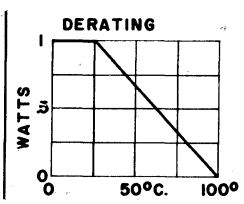
Breakover voltage.....24v to 120v, +10%
Breakover current (max).....150ua
Breakback voltage, 2ma.....5 v. (min)
Breakover voltage symetry.....within 5%
Breakover voltage T.C.....0.02% typical

Mallory No.	Breakover Voltage	Mallory No.	Breakover Voltage
STD24A	24	**STD56A**	56
STD27A	27	**STD62A**	62
STD30A	30	**STD68A**	68
STD32A	32	**STD75A**	75
STD36A	36	**STD82A**	82
STD39A	39	**STD91A**	91
STD43A	43	**STD100A**	100
STD47A	47	**STD110A**	110
STD51A	51	**STD120A**	120

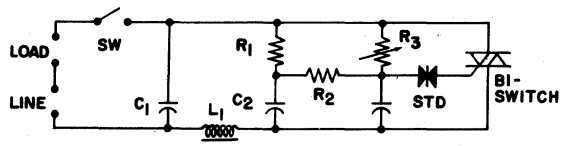
Mallory STD, Net Each.....**$1.07**

CHARACTERISTIC CURVE

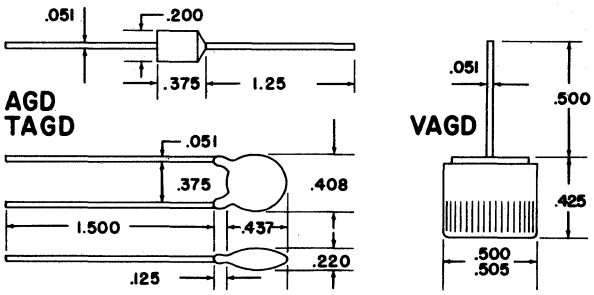




TYPICAL LIGHT DIMMER



Amp-Gate* Diodes



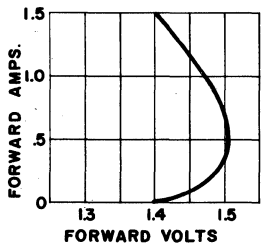
The Mallory AMP-GATE* DIODE is actually a very low voltage regulator. The semiconductor junctions are a combination of forward biased p-n types in series. When the voltage across the diode is raised from zero, only a slight amount of current is drawn in the forward direction until the critical voltage is reached. At this point, the device goes into a high-conduction state. The nominal critical voltage at room temperature is 1.55 volts. However, as the temperature of the device increases, the critical voltage decreases 2Mv/°C. Thus, the device exhibits a negative temperature coefficient. The operating temperature range is −35° to +100°C. and over this range the AMP-GATE DIODE operates as a highly efficient shunt.

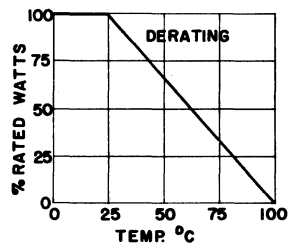
These operating characteristics lend themselves ideally to fast-charging circuits for nickel-cadmium batteries. One of the disadvantages of nickel-cadmium batteries is that they can be permanently damaged if fast charging cycles are used. Until the development of the AMP-GATE diode there was no simple or economical means to start the charge rate at a high level and taper off the level as a full charge was reached. Now it is possible to construct a system where charging times can safely be reduced from 17 hours to as little as *one hour!*

A fast charging circuit utilizing the AMP-GATE diode requires a constant current power supply. In addition, each battery under charge must have the proper AMP-GATE diode connected in parallel with it. Since the AGD is sensitive to temperature, it is vital that the proper heat sink be used with the device. In order to determine the precise heat sink to be used, you must establish which battery is to be charged, the ambient temperature, end of charge voltage and current, and temperature rise in the AMP-GATE diode. This is a simple calculation, however it is necessary to have the proper nomographs. These are available without charge from Mallory Distributor Products Company, Box 1558, Indianapolis, Indiana 46206.

Characteristic curves and a typical circuit are shown in the illustrations below. Other applications are feasible. For further technical details, contact Mallory.

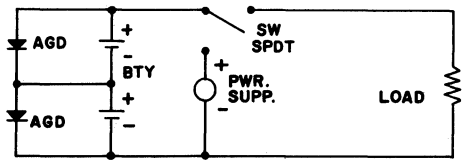
Mallory No.	Max. Current (Amps)	Vf (Volts)	Power Dissipation (Watts) @ 25°C.	Net Each
AGD	1.25	1.55	2.5	**$1.34**
TAGD	1.25	1.55	2.5	**1.43**
VAGD5	5	1.55	10	**2.62**
VAGD25	26	1.55	50	**8.40**





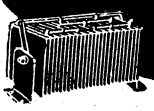
CHARGING CIRCUIT

P. R. MALLORY & CO. INC. / CIRCUIT PATENT 3,148,322



*Trademark P. R. Mallory & Co. Inc.

DIRECTRON



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Max. Amps.	18v. in— 14v. out No.	Price	36v: in— 28v. out No.	Price	54v. in— 42v. out No.	Price	130v. in— 100v. out No.	Price
½	A 18	$ 1.05	A 36	$ 1.50	A 54	$ 2.50	A 130	$ 5.00
1	B 18	1.20	B 36	2.20	B 54	3.20	B 130	8.00
2	C 18	2.10	C 36	3.00	C 54	4.50	C 130	10.00
3	D 18	2.70	D 36	4.00	D 54	6.00	D 130	14.00
4	E 18	3.60	E 36	7.50	E 54	10.00	E 130	24.00
6	F 18	4.50	F 36	9.00	F 54	12.00	F 130	32.00
10	G 18	6.60	G 36	12.00	G 54	18.00	G 130	39.00
12	H 18	8.20	H 36	16.00	H 54	22.00	H 130	44.00
15	J 18	10.50	J 36	20.00	J 54	27.00	J 130	54.00
20	K 18	12.50	K 36	25.00	K 54	36.00	K 130	77.00
24	L 18	15.00	L 36	30.00	L 54	42.00	L 130	82.00
30	M 18	19.10	M 36	37.00	M 54	55.00		
36	P 18	24.00	P 36	48.00				
50	R 18	30.00	R 36	60.00				

C36

220 v. Single Phase available . . . up to 1000 amps.

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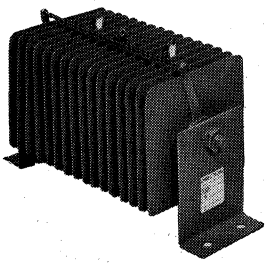

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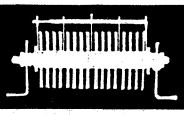
on Custom Built Stacks

SEE OUR AD UNDER "TRANSFORMERS" IN SECTION 5600 FOR RECTIFIER TRANSFORMERS AND HIGH CURRENT CHOKES



Mfd. by SANFORD MILLER CORP.

Net

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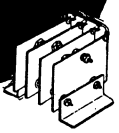
DIRECTRON

SILICON POWER RECTIFIERS

HY-A-SIL
High - Ampere - Silicon



FEATURES

- High operating temperature, 190°C (Up to 120°C ambient)
- High operating voltage (Up to 600 p.i.v.)
- High efficiency (99% compared to about 75% for selenium)
- Excellent regulation (4% compared to about 15% for selenium)

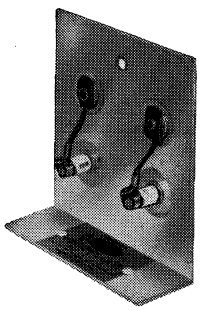
Stock No.	Type	AC Input Volts up to	DC Output Volts up to	Max. Amps Self Cooled	Max. Amps Fan Cooled	Size And Weight	User Net Price
SI-CT-A	Center-Tap	18-0-18	16	40	80	B	$ 15.00
SI-CT-B	Center-Tap	36-0-36	32	40	80	B	20.00
SL-CT-A	Center-Tap	18-0-18	16	50	100	B	17.50
SL-CT-B	Center-Tap	36-0-36	32	50	100	B	22.50
SL-CT-D	Center-Tap	72-0-72	64	50	100	B	36.00
SL-CT-F	Center-Tap	140-0-140	125	50	100	B	44.00
SK-CT-A	Center-Tap	18-0-18	16	100	200	C	30.00
SK-CT-B	Center-Tap	36-0-36	32	100	200	C	34.00
SK-CT-D	Center-Tap	72-0-72	64	100	200	C	37.00
SK-CT-F	Center-Tap	140-0-140	125	100	200	C	48.00
SM-CT-A	Center-Tap	18-0-18	16	200	400	D	45.00
SM-CT-B	Center-Tap	36-0-36	32	200	400	D	60.00
SM-CT-D	Center-Tap	72-0-72	64	200	400	D	62.00
SM-CT-F	Center-Tap	140-0-140	125	200	400	D	76.00
SO-CT-B	Center-Tap	36-0-36	32	400	800	E	100.00
SA-BR-D	1φ Bridge	140	125	1	*	—	9.00
SA-BR-F	1φ Bridge	280	250	1	*	—	10.50
SC-BR-D	1φ Bridge	140	125	2	*	—	10.50
SC-BR-F	1φ Bridge	280	250	2	*	—	12.00
SD-BR-A	1φ Bridge	36	32	6	12	F	18.00
SD-BR-D	1φ Bridge	140	125	6	12	F	30.00
SD-BR-F	1φ Bridge	280	250	6	12	F	39.00
SE-BR-A	1φ Bridge	36	32	10	20	G	21.00
SE-BR-D	1φ Bridge	140	125	10	20	G	36.00
SE-BR-F	1φ Bridge	280	250	10	20	G	44.00
SF-BR-A	1φ Bridge	36	32	20	40	H	24.00
SF-BR-D	1φ Bridge	140	125	20	40	H	40.00
SF-BR-F	1φ Bridge	280	250	20	40	H	48.00
SI-BR-A	1φ Bridge	36	32	40	80	J	30.00
SI-BR-B	1φ Bridge	72	64	40	80	J	36.00
SI-BR-D	1φ Bridge	140	125	40	80	J	63.00
SI-BR-F	1φ Bridge	280	250	40	80	J	95.00
SL-BR-A	1φ Bridge	36	32	50	100	J	33.00
SL-BR-B	1φ Bridge	72	64	50	100	J	39.00
SL-BR-D	1φ Bridge	140	125	50	100	J	70.00
SL-BR-F	1φ Bridge	280	250	50	100	J	110.00
SG-BR-A	1φ Bridge	36	32	70	140	J	40.00
SG-BR-B	1φ Bridge	72	64	70	140	J	50.00
SG-BR-D	1φ Bridge	140	125	70	140	J	80.00
SG-BR-F	1φ Bridge	280	250	70	140	J	130.00
SK-BR-A	1φ Bridge	36	32	100	200	K	60.00
SK-BR-B	1φ Bridge	72	64	100	200	K	68.00
SK-BR-D	1φ Bridge	140	125	100	200	K	90.00
SK-BR-F	1φ Bridge	280	250	100	200	K	150.00
SM-BR-A	1φ Bridge	36	32	200	400	L	100.00
SM-BR-B	1φ Bridge	72	64	200	400	L	120.00
SM-BR-D	1φ Bridge	140	125	200	400	L	180.00
SM-BR-F	1φ Bridge	280	250	200	400	L	260.00
SO-BR-B	1φ Bridge	72	64	400	800	M	270.00
SO-BR-F	1φ Bridge	280	250	400	800	M	480.00
SL-PH-A	3φ Bridge	36	48	75	150	N	60.00
SL-PH-B	3φ Bridge	72	96	75	150	N	85.00
SL-PH-C	3φ Bridge	105	144	75	150	N	120.00
SL-PH-D	3φ Bridge	140	188	75	150	N	180.00
SL-PH-E	3φ Bridge	220	290	75	150	M	220.00
SK-PH-E	3φ Bridge	220	290	100	200	M	240.00
SM-PH-E	3φ Bridge	220	290	200	400	M	300.00
SO-PH-E	3φ Bridge	220	290	400	800	M	375.00

All above ratings based on 30°C ambient. Fan-cooled ratings based on air velocity of 1000 linear ft/minute. For resistive or inductive loads, as rated. For capacitive or battery loads, derate amperage 20%. Doublers, triplers, 3 phase half wave and 3 phase center-tap also available. Custom-built stacks, 24 hour service.

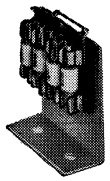
DIMENSIONS WITH BRACKETS

Size	Length	Height	Width	Weight
B	3″	6″	5″	12 oz.
C	3″	6″	6″	1 lb.
D	4″	8″	7″	2 lbs.
E	4″	9″	8″	6 lbs.
F	6″	5″	5″	1¼ lbs.
G	6″	6″	5″	1½ lbs.
H	6″	6″	6″	2 lbs.
J	6″	6″	5″	1½ lbs.
K	7″	8″	7″	4 lbs.
L	8″	9″	8″	6 lbs.
M	8″	11″	10″	6 lbs.
N	8″	6″	5″	4 lbs.

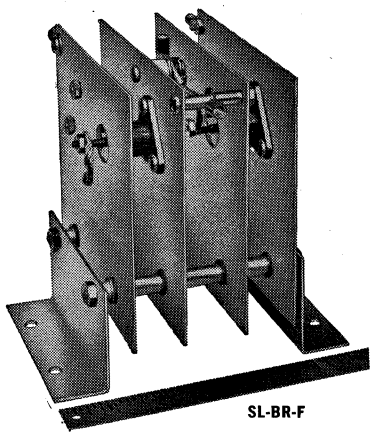
*Not suitable for fan-cooling



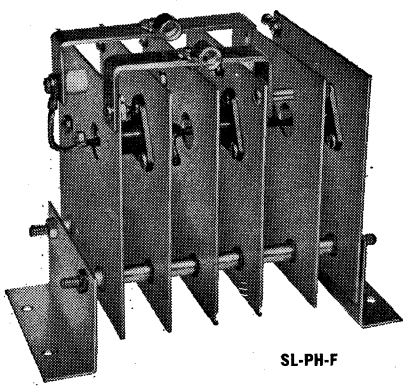
SC-BR-F



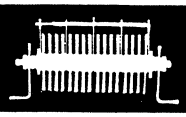
SA-BR-D



SL-BR-F



SL-PH-F



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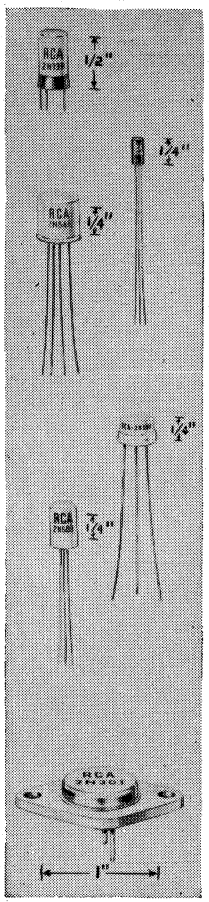
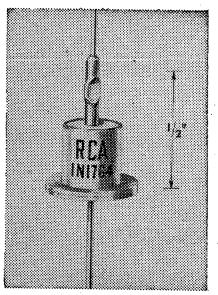
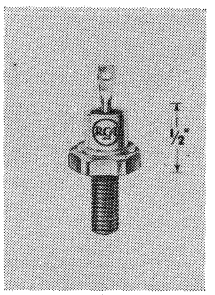
SEMICONDUCTOR PRODUCTS

APRIL, 1966







TRANSISTORS, THYRISTORS, GERMANIUM DIODES & TUNNEL DIODES

Type	RCA Equipment Manufacturers Price 1-99	100-999
1N2326	$ .50	$ .35
1N2858A	.37	.25
1N2859A	.38	.27
1N2860A	.40	.28
1N2861A	.43	.30
1N2862A	.61	.43
1N2863A	.66	.46
1N2864A	.83	.57
1N3128	6.35	4.39
1N3129	7.59	5.24
1N3130	8.17	5.64
1N3193	.35	.24
1N3194	.38	.27
1N3195	.66	.46
1N3196	.91	.63
1N3253	.40	.28
1N3254	.45	.31
1N3255	.70	.48
1N3256	.94	.65
1N3563	1.65	1.14
1N3754	.32	.22
1N3755	.32	.22
1N3756	.35	.24
1N3847	4.95	3.42
1N3848	4.95	3.42
1N3849	4.95	3.42
1N3850	4.95	3.42
1N3851	4.95	3.42
1N3852	6.35	4.39
1N3853	5.94	4.10
1N3854	7.59	5.24
1N3855	8.17	5.64
1N3856	8.17	5.64
1N3857	8.58	5.95
1N3858	6.52	4.50
1N3859	8.17	5.64
1N3860	10.73	7.40
1N3861	6.19	4.28
1N3862	7.67	5.30
1N3863	9.41	6.50
1N4785	1.08	.75
2N104	1.65	1.14
2N109	.60	.41
2N139	1.16	.80
2N140	1.24	.86
2N173	3.75	2.59
2N174	4.01	2.77
JAN2N174	4.77	3.29
2N175	1.64	1.13
2N176	1.31	.90
2N215	1.73	1.20
2N217	.52	.36
2N218	1.16	.80
2N219	1.24	.86
2N220	1.52	1.05
JAN2N220	2.06	1.43
2N270	.70	.48
2N274	1.24	.86
JAN2N274	2.48	1.71
2N277	2.72	1.88
2N278	3.10	2.14
2N307	1.49	1.03
2N351	1.73	1.20
2N370	.81	.56
2N371	.80	.55
2N372	.80	.55
2N376	1.88	1.30
2N384	1.65	1.14
JAN2N384	3.30	2.28
2N388	.50	.35
JAN2N388	.52	.36
2N388A	1.04	.72
2N395	.50	.33
2N396	.61	.41
2N396A	.61	.41
2N397	1.11	.74
2N398	.99	.69
JAN2N398	.108	.75
2N398A	$ .108	$ .75
2N398B	.124	.86
2N404	.42	.28
JAN2N404	.43	.30
2N404A	.58	.39
JAN2N404A	.78	.54
3907/2N404	1.08	.75
2N405	.37	.25
2N406	.33	.23
2N407	.42	.29
2N408	.38	.27
2N409	.43	.30
2N410	.40	.28
2N411	.47	.32
2N412	.43	.30
2N414	.42	.28
2N441	2.23	1.54
2N442	2.31	1.60
2N443	2.39	1.65
2N581	.50	.35
2N582	.91	.63
2N585	.99	.69
2N586	1.73	1.20
2N591	.48	.34
2N646	1.82	1.25
2N647	1.08	.75
2N649	.86	.60
2N697	.81	.54
2N699	1.57	1.05
2N706	.99	.66
2N706A	1.19	.80
2N708	1.32	.88
2N709	1.65	1.14
2N718A	1.08	.72
2N720A	1.32	.88
2N834	3.05	2.04
2N914	1.57	1.05
2N917	2.48	1.65
2N918	3.30	2.20
2N1010	2.89	2.00
2N1023	2.72	1.88
2N1066	1.98	1.37
2N1090	1.11	.77
2N1091	1.41	.97
2N1099	4.31	2.98
2N1100	5.02	3.47
2N1177	.83	.57
2N1178	.81	.56
2N1179	.81	.56
2N1180	.68	.47
2N1183	1.82	1.25
JAN2N1183	2.64	1.82
2N1183A	2.31	1.60
JAN2N1183A	3.30	2.28
2N1183B	2.89	2.00
JAN2N1183B	3.88	2.68
2N1184	2.48	1.71
JAN2N1184	3.71	2.57
2N1184A	2.81	1.94
JAN2N1184A	4.04	2.79
2N1184B	4.13	2.85
JAN2N1184B	5.36	3.71
2N1224	1.24	.86
JAN2N1224	1.41	.97
2N1225	1.41	.97
JAN2N1225	1.57	1.09
2N1226	1.49	1.03
2N1285	1.72	1.19
2N1300	.91	.63
2N1301	1.04	.72
2N1302	.45	.31
JAN2N1302	.47	.32
2N1303	.45	.30
JAN2N1303	.47	.31
2N1304	.53	.37
JAN2N1304	.57	.39
2N1305	.53	.36
JAN2N1305	.57	.38
2N1306	.75	.52
JAN2N1306	.81	.56
2N1307	$ .75	$ .50
JJAN2N1307	.81	.54
2N1308	1.08	.75
JAN2N1308	1.16	.80
2N1309	1.08	.75
JAN2N1309	1.16	.80
2N1358	4.59	3.17
2N1384	2.06	1.43
2N1395	1.49	1.03
2N1396	1.65	1.14
2N1397	2.15	1.48
2N1412	5.76	3.98
JAN2N1412	6.52	4.50
2N1479	2.15	1.48
JAN2N1479	2.56	1.77
2N1480	2.31	1.60
JAN2N1480	2.72	1.88
2N1481	2.48	1.71
JAN2N1481	2.89	2.00
2N1482	3.30	2.28
JAN2N1482	3.71	2.57
2N1483	2.89	2.00
JAN2N1483	3.71	2.57
2N1484	3.63	2.51
JJAN2N1484	4.46	3.08
2N1485	4.46	3.08
JJAN2N1485	5.28	3.65
2N1486	6.77	4.67
JAN2N1486	7.59	5.24
2N1487	4.54	3.14
JAN2N1487	5.36	3.71
2N1488	4.95	3.42
JAN2N1488	5.78	3.99
2N1489	7.43	5.13
JAN2N1489	8.25	5.70
2N1490	8.25	5.70
JAN2N1490	9.08	6.25
2N1491	1.82	1.25
2N1492	4.29	2.96
2N1493	7.01	4.85
JAN2N1493	7.43	5.13
2N1524	.40	.28
2N1525	.43	.30
2N1526	.41	.28
2N1527	.47	.32
2N1605	.99	.69
2N1605A	1.26	.87
2N1613	1.08	.72
2N1631	.53	.37
2N1632	.49	.34
2N1637	.52	.36
2N1638	.45	.31
2N1639	.48	.34
2N1683	1.65	1.14
2N1700	1.90	1.31
2N1701	2.31	1.60
2N1702	4.54	3.14
2N1708	3.30	2.28
2N1711	1.16	.77
2N1768	8.25	5.70
2N1769	10.73	7.40
2N1853	1.32	.92
JAN2N1853	1.32	.92
2N1854	1.65	1.14
JAN2N1854	1.65	1.14
2N1893	1.32	.88
2N1905	4.13	2.85
2N1906	6.60	4.56
2N2015	9.08	6.25
JAN2N2015	9.90	6.85
2N2016	9.90	6.85
JAN2N2016	10.73	7.40
2N2102	1.41	.97
S2N2102	18.94	13.10
2N2147	1.57	1.09
2N2148	1.16	.80
2N2205	1.24	.83
2N2206		
2N2208	1.54	1.06
2N2210	10.13	7.00
2N2270	1.16	.80
2N2304	4.29	2.96

Prices shown do not include any state or local taxes. All prices are subject to change or withdrawal without notice.

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SEMICONDUCTOR PRODUCTS

Type	RCA Equipment Manufacturers Price 1-99	100-999
2N2305	$6.44	$4.45
2N2338	6.60	4.56
2N2339	4.95	3.42
2N2369A	2.89	2.00
2N2405	2.06	1.43
2N2475	2.56	1.71
2N2476	2.89	2.00
2N2477	3.30	2.28
2N2594	1.62	1.12
2N2613	.55	.38
2N2614	.50	.35
2N2631	4.79	3.31
2N2708	3.71	2.57
JAN2N2708	4.95	3.42
2N2857	6.60	4.56
2N2869/2N301	1.52	1.05
2N2870/2N301A	3.15	2.18
2N2876	14.50	10.05
2N2895	1.41	.97
2N2896	2.06	1.43
2N2897	1.16	.80
2N2898	2.48	1.71
2N2899	3.30	2.28
2N2900	1.90	1.31
2N2938	2.15	1.48
2N2953	.50	.35
2N3011	2.06	1.43
2N3053/4005	.99	.69
2N3054	2.06	1.43
2N3055	2.89	2.00
2N3118	4.95	3.42
2N3119	5.36	3.71
2N3229	46.20	31.90
2N3230	66.00	45.60
2N3231	99.00	68.40
2N3241	.73	.51
2N3242	.83	.57
2N3261	3.30	2.28
2N3262	9.90	6.85
2N3263	99.00	68.40
2N3264	66.00	45.60
2N3265	99.00	68.40
2N3266	66.00	45.60
2N3375	23.10	15.95
2N3435	7.43	5.13
2N3439	4.13	2.85
2N3440	2.06	1.43
2N3441	2.89	2.00
2N3442	4.95	3.42
2N3478	1.90	1.31
2N3512	3.71	2.57
2N3525	2.31	1.60
2N3528	1.63	1.12
2N3529	2.31	1.60
2N3553	4.95	3.42
2N3583	3.30	2.28
2N3584	6.60	4.56
2N3585	13.20	9.10
2N3600	4.13	2.85
2N3632	33.00	22.80
2N3668	2.89	2.00
2N3669	3.27	2.26
2N3670	4.92	3.40
2N3730	1.24	.86
2N3731	1.62	1.12
2N3732	1.08	.75
2N3733	49.50	34.20
2N3771	5.78	3.99
2N3772	5.78	3.99
2N3773	7.84	5.42
2N3866	4.95	3.42
2N3870	4.70	3.25
2N3871	5.12	3.53
2N3872	7.18	4.96
2N3873	10.50	7.25
2N3878	4.54	3.14
2N3879	5.36	3.71
2N3896	4.95	3.42
2N3897	5.36	3.71
2N3898	7.43	5.13
2N3899	10.75	7.40
2N3932	2.06	1.43
2N3933	2.31	1.60
2N4012	49.50	34.20

Type	RCA Equipment Manufacturers Price 1-99	100-999
2N4036	$1.62	$1.12
2N4037	1.31	.91
2N4063	4.21	2.91
2N4064	2.15	1.48
2N4068	1.57	1.09
2N4069	1.64	1.13
2N4074	.73	.51
2N4101	3.05	2.11
2N4102	3.05	2.11
2N4103	9.90	6.85
2N4240	2.89	2.00
2N4259	2.64	1.82
2N4296	2.48	1.71
2N4297	2.89	2.00
2N4298	3.71	2.57
2N4299	4.13	2.85
3N98	27.00	18.65
3N99	27.00	18.65
40004	1.65	1.14
40005	1.82	1.25
40006	3.30	2.28
40022	.83	.57
40050	.99	.69
40051	1.21	.84
40054	14.00	9.70
40055	16.00	11.05
40056	18.00	12.45
40057	20.00	13.70
40058	9.90	6.85
40059	8.66	6.00
40060	9.90	6.85
40061	8.66	6.00
40062	9.90	6.85
40063	8.66	6.00
40064	9.90	6.85
40065	8.66	6.00
40080	1.08	.75
40081	1.65	1.14
40082	5.69	3.93
40084	.99	.69

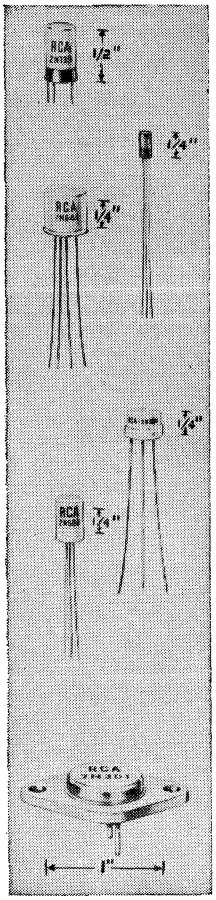
MEMORY PLANES

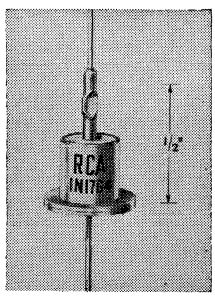
N7997-1	160.00
N7165-1	65.00
N7166-1	75.00
N7190-1	175.00
N7412-1	225.00

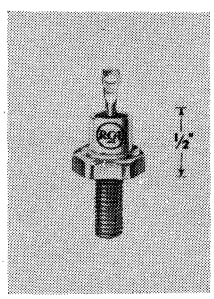
SILICON RECTIFIERS

Type	RCA Equipment Manufacturers Price 1-99	100-999
1N248C; RC	1.65	1.10
JAN1N249B	2.89	2.00
1N249C; RC	2.06	1.38
JAN1N250B	3.55	2.45
1N250C; RC	2.72	1.82
1N440B	.66	.44
1N441B	.70	.47
1N442B	.80	.53
1N443B	.98	.65
1N444B	1.06	.71
1N445B	1.42	.95
1N536	.45	.30
1N537	.50	.33
1N538	.53	.36
1N539	.60	.40
1N540	.68	.46
1N547	.96	.64
1N1095	.88	.59
1N1183A; RA	2.15	1.43
JAN1N1184	3.75	2.50
1N1184A; RA	2.48	1.65
JAN1N1186	5.20	3.47
1N1186A; RA	3.55	2.37
1N1187A; RA	4.95	3.30
JAN1N1188	7.84	5.23
1N1188A; RA	6.19	4.13
1N1189A; RA	7.43	4.95
JAN1N1190	11.55	8.00
1N1190A; RA	8.65	5.80
1N1195A; RA	3.88	2.59
1N1196A; RA	4.95	3.30
1N1197A; RA	5.94	3.96
1N1198A; RA	7.01	4.68
JAN1N1198A	7.84	5.42
1N1199A; RA	1.24	.83

Type	RCA Equipment Manufacturers Price 1-99	100-999
1N1200A; RA	$1.41	$ .94
1N1202A; RA	2.48	1.65
1N1203A; RA	3.47	2.31
1N1204A; RA	4.46	2.97
JAN1N1204	5.28	3.52
1N1205A; RA	5.36	3.58
1N1206A; RA	6.19	4.13
1N1341B; RB	1.16	.77
1N1342B; RB	1.32	.88
1N1344B; RB	2.15	1.43
1N1345B; RB	3.05	2.04
1N1346B; RB	3.96	2.64
1N1347B; RB	4.79	3.19
1N1348B; RB	5.78	3.85
1N1612; R	1.07	.72
1N1613; R	1.24	.83
1N1614; R	1.90	1.27
1N1615; R	3.71	2.48
1N1616; R	5.36	3.58
1N1763A	.42	.29
1N1764A	.58	.40
JAN1N2135A	6.11	4.22
40108; R	.99	.69
40109; R	1.16	.80
40110; R	1.57	1.09
40111; R	2.15	1.48
40112; R	2.48	1.71
40113; R	3.14	2.17
40114; R	3.71	2.57
40115; R	6.60	4.56
40116; R	9.50	6.55
40208	.99	.69
40208; R	1.19	.83
40209; R	1.32	.92
40210; R	1.78	1.23
40211; R	2.39	1.65
40212; R	2.89	2.00
40213; R	3.63	2.51
40214; R	4.21	2.91
40217	.99	.69
40218	1.19	.82
40219	1.32	.92
40220	3.05	2.11
40221	1.57	1.09
40222	1.24	.86
40231	.47	.32
40232	.53	.37
40233	.60	.42
40234	.42	.29
40235	.98	.68
40236	.90	.62
40237	.83	.57
40238	.83	.57
40239	.81	.56
40240	.80	.55
40242	.93	.64
40243	.86	.60
40244	.83	.57
40245	.81	.56
40246	.80	.55
40250	1.57	1.09
40250V1	1.65	1.14
40251	2.89	2.00
40253	.53	.37
40254	.78	.54
40255	4.21	2.91
40256	2.15	1.48
40258	.78	.54
40259	14.10	9.75
40261	.43	.30
40262	.40	.28
40263	.42	.29
40264	1.21	.84
40265	.35	.24
40266	.29	.20
40267	.33	.23
40269	.52	.36
40273	.50	.35
40278	181.50	125.40
40279	125.00	Use 1-99
40280	4.62	3.19
40281	23.10	15.95
40282	33.00	22.80
40283	3.71	2.57







SEMICONDUCTOR PRODUCTS

Type	RCA Equipment Manufacturers Price 1-99	100-999
40285	$42.90	$29.65
40287	24.75	17.10
40290	4.79	3.31
40291	14.85	10.25
40292	33.00	22.80
40294	33.40	23.10
40295	14.85	10.25
40296	48.70	33.65
40305	24.75	17.10
40306	66.00	45.60
40307	99.00	68.40
40309	.70	.48
40309V1; V2	.78	.54
40310	1.21	.84
40311	.73	.51
40311V1; V2	.81	.56
40312	1.26	.87
40313	2.23	1.54
40314	.78	.54
40314V1; V2	.86	.60
40315	.75	.52
40315V1; V2	.83	.57
40316	1.21	.84
40317	.78	.54
40317V1; V2	.86	.60
40318	2.10	1.45
40319	1.33	.92
40319V1; V2	1.41	.97
40320	.78	.54
40320V1; V2	.86	.60
40321	1.24	.86
40321V1; V2	1.32	.92
40322	2.15	1.48
40323	.70	.48
40323V1; V2	.78	.54
40324	1.21	.84
40325	2.48	1.71
40326	.78	.54
40326V1; V2	.86	.60
40327	1.24	.86
40327V1; V2	1.32	.92
40328	2.19	1.52
40329	.38	.27
40340	33.00	22.80
40341	33.00	22.80
40344	.48	.34
40345	.52	.36
40346	1.14	.79
40346V1	1.23	.85
40346V2	1.23	.85
40347	.80	.55
40347V1	.88	.61
40347V2	.88	.61
40348	1.06	.73
40348V1	1.14	.79
40348V2	1.14	.79
40349	1.56	1.08
40349V1	1.64	1.13
40349V2	1.64	1.13
40350	.98	.68
40351	.83	.57
40352	.81	.56
40354	1.18	.81
40355	1.24	.86
40359	.32	.22
40360	1.03	.71
40360V1; V2	1.11	.77
40361	1.04	.72
40361V1; V2	1.13	.78
40362	1.46	1.01
40362V1; V2	1.54	1.07
4063	2.48	1.71
40364	4.46	3.08
40365	2.31	1.60
40366	8.25	5.70
40366V1; V2	8.35	5.75
40367	8.25	5.70
40367V1; V2	8.35	5.75
40368	14.85	10.25
40369	18.15	12.55
40370	.53	.37
40372	2.15	1.48
40373	2.97	2.05
40374	3.38	2.34

Type	RCA Equipment Manufacturers Price 1-99	100-999
40375	$ 4.62	$ 3.19
40377	.43	.30
40378	1.62	1.12
40379	2.31	1.60
40380	1.49	1.03
40381	1.21	.84
40385	10.30	7.15
40385V1; V2	10.40	7.20
40389	1.08	.75
40390	2.15	1.48
40391	1.39	.96
40392	1.08	.75
40393	2.15	1.48
40394	1.39	.96
40395	.38	.27
40396	.83	.57
40397	.66	.46
40398	.60	.42
40399	.55	.38
40400	.50	.35
40403	.62	.43
40404	1.65	1.14
40405	2.06	1.43
40406	1.36	.94
40407	.81	.56
40408	1.08	.75
40409	1.14	.79
40410	1.64	1.13
40411	5.61	3.88
40412	1.06	.79
40412V1; V2	1.14	.79
40413	3.88	2.68
40414	6.77	4.67
40417	1.01	.70
40418	.86	.60
40419	.85	.59
40420	74.25	51.30
40421	1.28	.88
40422	1.03	.71
40423	1.11	.77
40424	.98	.68
40425	1.06	.73
40426	.93	.64
40427	1.01	.70
40428	.29	.20
40433	2.97	2.05
40437	1.19	.83
40438	1.19	.83
40445	63.00	Use 1-99

NOTE WELL: THE FOLLOWING GROUP 1 PRODUCTS CAN ONLY BE SHIPPED DIRECT TO THE END USER DUE TO TECHNICAL SPECIFICATIONS OF THE UNIT.

40279	125.00	Use 1-99
40305	33.00	17.10
40306	66.00	31.90
40307	99.00	68.40

SILICON RECTIFIER ASSEMBLIES

Type	RCA Equipment Manufacturers Price 1-29	30 & Up
CR101	5.75	5.47
CR102	7.20	6.85
CR103	8.15	7.75
CR105	9.60	9.10
CR105	10.55	10.05
CR106	12.00	11.40
CR107	12.95	12.30
CR108	13.90	13.20
CR109	15.35	14.60
CR110	16.30	15.50
CR201	3.10	2.96
CR203	4.80	4.56
CR204	5.75	5.47
CR206	6.95	6.60
CR208	8.40	8.00
CR210	10.10	9.60
CR212	12.00	11.40
CR301	28.00	26.55
CR302	40.00	37.95
CR303	51.00	48.45

Type	RCA Equipment Manufacturers Price 1-29	30 & Up
CR304	$62.00	$58.90
CR305	73.00	69.35
CR306	83.00	78.85
CR307	93.00	88.35
CR311	30.00	28.50
CR312	42.00	39.90
CR313	53.00	50.35
CR314	64.00	60.75
CR315	75.00	71.25
CR316	85.00	80.75
CR317	95.00	90.25
CR321	35.00	33.25
CR322	49.00	46.55
CR323	62.00	58.90
CR324	76.00	72.20
CR325	90.00	85.50
CR331	37.00	35.15
CR332	52.00	49.40
CR333	65.00	61.75
CR334	79.00	75.05
CR335	93.00	88.35
CR341	44.00	41.80
CR342	61.00	57.95
CR343	78.00	74.10
CR344	94.00	89.30
CR351	46.00	43.70
CR352	64.00	60.80
CR353	82.00	72.90
CR354	98.00	93.10
CR401	28.00	26.60
CR402	32.00	30.40
CR403	44.00	41.80
CR404	30.00	28.50
CR405	36.00	34.20
CR406	54.00	51.30
CR407	40.00	38.00
CR408	48.00	45.60
CR409	64.00	60.80
CR501	40.00	38.00
CR502	48.00	45.60
CR503	50.00	47.50
CR504	62.00	58.90
CR505	64.00	60.80
CR506	84.00	79.80

SILICON CONTROLLED RECTIFIERS

Type	RCA Equipment Manufacturers Price 1-99	100-999
2N681	3.30	2.20
2N682	4.13	2.75
2N683	6.19	4.13
2N684	6.35	4.24
2N685	6.60	4.40
2N686	7.01	4.68
2N687	7.43	4.95
2N688	8.65	5.80
2N689	10.30	6.90
2N690	11.95	8.00
2N1770	5.36	3.58
2N1771	5.78	3.85
2N1772	7.43	4.95
2N1773	9.49	6.35
2N1774	11.96	8.00
2N1775	14.03	9.35
2N1776	16.09	10.75
2N1777	20.65	13.75
2N1778	24.75	16.50
2N1842A	2.89	1.93
2N1843A	3.71	2.48
2N1844A	5.78	3.85
2N1845A	5.94	3.96
2N1846A	6.19	4.13
2N1847A	6.60	4.40
2N1848A	7.01	4.68
2N1849A	8.25	5.50
2N1850A	9.90	6.60
2N3228	1.62	1.12
40216	48.00	33.15

Net

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SCHAUER SEMICONDUCTORS

HEAVY DUTY 1 WATT ZENER DIODES

A 10 watt Silicon Junction in a 1 watt package for maximum surge capacity and stability. 25 watt-ms surge from 1.0 to 10ms.

Cool operation for maximum reliability and freedom from temperature drift and thermal fatigue. (Rated for a 100°C. junction temperature at maximum current.)

Mass-produced on automatic equipment for lowest cost and maximum similarity.

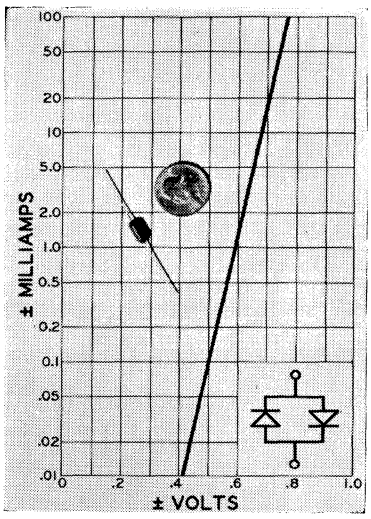
ELECTRICAL CHARACTERISTICS

Schauer Type No. 10% Tolerance (Note 1)	Nominal Zener Voltage V_Z @ I_{ZT} = 20 ma T_A = 25°C.	Dynamic Impedence Z_D @ I_{ZT} = 20 ma		Maximum Recommended Zener Current I_{ZM}	Typical Temperature Coefficient of Voltage %/°C.
		Max.	Typical		
SZ 2.4	2.4 Volts	40 Ohms	14 Ohms	210 ma	−.054
SZ 2.7	2.7	40	16	185	−.055
SZ 3.0	3.0	40	17	170	−.055
SZ 3.3	3.3	40	17	150	−.054
SZ 3.6	3.6	40	18	140	−.050
SZ 3.9	3.9	40	17	130	−.045
SZ 4.3	4.3	30	17	120	−.037
SZ 4.7	4.7	30	12	110	−.029
SZ 5.1	5.1	20	10	100	−.019
SZ 5.6	5.6	20	6	90	−.009
SZ 6.2	6.2	10	2	80	+.018
SZ 6.8	6.8	10	1.5	75	+.035
SZ 7.5	7.5	10	1.5	70	+.044
SZ 8.2	8.2	10	2	60	+.049
SZ 9.1	9.1	10	4	55	+.053
SZ 10.00	10.00	10	6	50	+.055

NOTE 1. Add suffix "A" for 5% tolerance (i.e., SZ4.7A) for 4.7 ±5% volts.

NOTE 2. Series strings to close voltage tolerances available at low prices.

NOTE 3. Temperature compensated high voltage assemblies available.



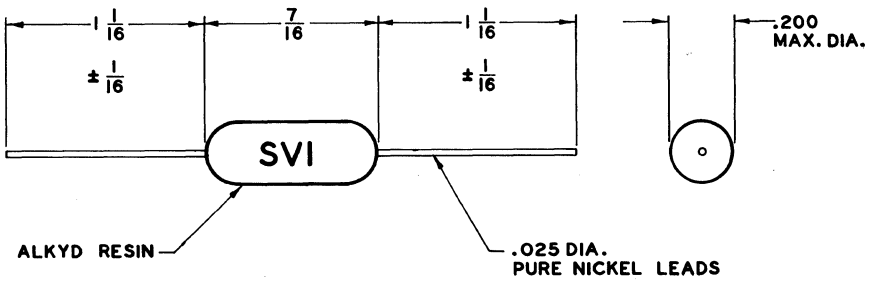
SV1 Silicon Varistor as compared in size to 25¢ piece. Chart shows its I vs E characteristics over four decades.

SCHAUER SV1 SILICON VARISTOR

SV1 Varistor consists of matched silicon junctions connected in parallel and oppositely poled. This voltage variable resistance goes through four decades of current for a half volt change in signal and makes possible its use as a single component to convert linear AC or DC information into logarithmic information following the curve $I_{ma} = e^{26(E-.59)}$ between the range I = .02 ma to 200 ma.

ELECTRICAL CHARACTERISTICS — Test limits: 50 microamperes max. at .2V D.C., 225 milliamperes min. at 1.0V D.C. Dissipation: ¾ watt at 25°C, ¼ watt at 100°C. Maximum ½ cycle surge current, 25 amps. peak.

SV1 is encapsulated with an alkyd molding compound. An inner epoxy seal, long leakage paths, and high pressure molding assure reliable performance in all environments.



Dimensions of SV1 Varistor. Also applies to Schauer 1 watt Zener Diodes. Zener cathode terminal is marked by red dot.

Semiconductor Division

SCHAUER MANUFACTURING CORP.

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SARKES TARZIAN JEDEC Silicon Avalanche Rectifiers

All of the silicon rectifiers listed below are supplied with avalanche characteristics as standard. They are direct replacements, electrically and physically, for ordinary silicon rectifiers, yet they provide important benefits to you and your products, **at no** extra cost.

Overvoltage protection is built into the rectifier. Transient voltage induced failures are virtually eliminated because these units avalanche at voltages well below the destruction point. The overvoltage spike is dissipated through the junction at a point below the critical voltage stress across the edge of the junction.

Lower circuit costs are readily achieved. When avalanche rectifiers are used suppressor and balancing devices, such as resistors, capacitors, R-C networks, etc., are no longer needed. In addition, their elimination improves circuit reliability, due to a reduction in number of components and interconnections.

Dependable performance is assured. Over 10,000,000 of these devices already have been delivered and are in actual use in the field. They are now routinely available from high volume production lines.

All Tarzian Silicon Rectifiers are supplied with avalanche protection at no extra cost. For additional types, not necessarily covered by JEDEC numbers, see the following pages.

Jedec No.	Net Each, Lots of 1-24	25-99	100 up
1N248	2.20	1.90	1.73
1N248A	2.60	2.22	2.06
1N248B	2.60	2.22	2.06
1N248C	2.60	2.22	2.06
1N249	2.20	1.90	1.73
1N249A	2.60	2.22	2.06
1N249B	2.60	2.22	2.06
1N249C	3.10	2.66	2.48
1N250	2.48	2.10	1.96
1N250A	3.10	2.66	2.48
1N250B	3.10	2.66	2.48
1N250C	3.10	2.66	2.48
1N253	1.20	1.03	.96
1N254	1.25	1.07	1.00
1N255	1.95	1.67	1.56
1N256	2.70	2.32	2.16
1N332	1.95	1.67	1.56
1N333	1.95	1.67	1.56
1N334	1.55	1.33	1.24
1N335	1.55	1.33	1.24
1N336	1.25	1.07	1.00
1N337	1.25	1.07	1.00
1N338	1.20	1.03	.96
1N339	1.20	1.03	.96
1N340	1.20	1.03	.96
1N341	1.95	1.67	1.56
1N342	1.95	1.67	1.56
1N343	1.55	1.33	1.24
1N344	1.55	1.33	1.24
1N345	1.25	1.07	1.00
1N346	1.25	1.07	1.00
1N347	1.20	1.03	.96
1N348	1.20	1.03	.96
1N349	1.20	1.03	.96
1N532	.42	.36	.33
1N533	.43	.37	.35
1N534	.45	.39	.36
1N535	.47	.40	.37
1N536	.35	.30	.28
1N537	.35	.30	.28
1N538	.37	.32	.29
1N539	.42	.36	.33
1N540	.43	.37	.35
1N547	.47	.40	.37
1N550	1.20	1.03	.96
1N551	1.25	1.07	1.00
1N552	1.55	1.33	1.24
1N553	1.95	1.67	1.56
1N554	2.35	2.10	1.88
1N555	2.70	2.32	2.16
1N560	.62	.55	.49
1N561	.95	.82	.76
1N562	3.20	2.76	2.58
1N599	.35	.30	.28
1N599A	.35	.30	.28
1N600	.35	.30	.28
1N600A	.35	.30	.28
1N601	.37	.32	.29
1N601A	.37	.32	.29
1N602	.37	.32	.29
1N602A	.37	.32	.29
1N603	.42	.36	.33
1N603A	.42	.36	.33
1N604	.43	.37	.35
1N604A	.43	.37	.35
1N605	.45	.39	.36
1N605A	.45	.39	.36
1N606	.47	.40	.37
1N606A	.47	.40	.37
1N607	1.20	1.03	.96
1N607A	1.20	1.03	.96
1N608	1.20	1.03	.96
1N608A	1.20	1.03	.96
1N609	1.25	1.07	1.00
1N609A	1.25	1.07	1.00
1N610	1.25	1.07	1.00
1N601A	1.25	1.07	1.00
1N611	1.55	1.33	1.24
1N611A	1.55	1.33	1.24
1N612	1.95	1.67	1.56
1N612A	1.95	1.67	1.56
1N613	2.35	2.10	1.88
1N613A	2.35	2.10	1.88
1N614	2.70	2.32	2.16
1N614A	2.70	2.32	2.16
1N1081	.60	.55	.51
1N1082	.65	.57	.53
1N1083	.70	.61	.57
1N1084	.75	.63	.59
1N1085A	3.34	2.86	2.66
1N1086A	4.00	3.43	3.20
1N1087A	4.67	4.00	3.75
1N1088A	5.35	4.67	4.27
1N1095	.45	.39	.36
1N1096	.47	.40	.37
1N1100	.35	.30	.28
1N1101	.37	.32	.29
1N1102	.42	.36	.33
1N1103	.43	.37	.35
1N1104	.45	.39	.36
1N1105	.47	.40	.37
1N1108	3.15	2.71	2.54
1N1109	4.00	3.43	3.20
1N1110	4.75	4.15	3.86
1N1111	5.65	4.86	4.53
1N1112	6.50	5.57	5.20
1N1113	7.35	6.30	5.87
1N1115	1.20	1.03	.96
1N1116	1.25	1.07	1.00
1N1117	1.55	1.33	1.24
1N1118	1.95	1.67	1.56
1N1119	2.35	2.10	1.88
1N1120	2.70	2.32	2.16
1N1124	1.25	1.07	1.00
1N1124A	1.25	1.07	1.00
1N1125	1.55	1.33	1.24
1N1125A	1.55	1.33	1.24
1N1126	1.95	1.67	1.56
1N1126A	1.95	1.67	1.56
1N1127	2.35	2.10	1.88
1N1127A	2.35	2.10	1.88
1N1128	2.70	2.32	2.16
1N1128A	2.70	2.32	2.16
1N1133	3.35	2.86	2.67
1N1134	3.35	2.86	2.67
1N1135	3.75	3.22	3.00
1N1136	3.75	3.22	3.00
1N1137	4.15	3.58	3.34
1N1138	4.15	3.58	3.34
1N1139	5.40	4.64	4.33
1N1140	5.40	4.64	4.33
1N1141	7.50	6.43	6.00
1N1142	7.50	6.43	6.00
1N1143	8.75	7.50	7.00
1N1143A	8.75	7.50	7.00
1N1144	10.00	8.58	8.00
1N1145	10.00	8.58	8.00
1N1146	10.85	9.30	8.66
1N1147	15.00	12.89	12.00
1N1148	17.10	14.65	13.65
1N1149	19.10	16.45	15.31
1N1150A	12.00	10.30	9.60
1N1169	.43	.37	.35
1N1169A	.43	.37	.35
1N1183	2.60	2.22	2.06
1N1184	2.60	2.22	2.06
1N1185	3.10	2.66	2.48
1N1186	3.10	2.66	2.48
1N1187	3.55	3.04	2.84
1N1188	4.45	3.82	3.56
1N1188	5.35	4.59	4.27
1N1189	6.40	5.50	5.14
1N1191	2.60	2.22	2.06
1N1191A	2.60	2.22	2.06
1N1192	2.60	2.22	2.06
1N1192A	2.60	2.22	2.06
1N1193	3.10	2.66	2.48
1N1193A	3.10	2.66	2.48
1N1194	3.10	2.66	2.48
1N1194A	3.10	2.66	2.48
1N1195	3.55	3.04	2.84
1N1195A	3.55	3.04	2.84
1N1196	4.45	3.82	3.56
1N1196A	4.45	3.82	3.56
1N1197	5.35	4.59	4.27
1N1197A	5.35	4.59	4.27
1N1198	6.40	5.50	5.14
1N1198A	6.40	5.50	5.14
1N1199	1.19	1.02	.94
1N1199A	1.19	1.02	.94
1N1200	1.19	1.02	.94
1N1200A	1.19	1.02	.94
1N1201	1.25	1.07	1.00
1N1201A	1.25	1.07	1.00
1N1202	1.25	1.07	1.00
1N1202A	1.25	1.07	1.00
1N1203	1.34	1.14	1.06
1N1203A	1.34	1.14	1.06
1N1204	1.67	1.43	1.33
1N1204A	1.67	1.43	1.33
1N1205	1.87	1.60	1.49
1N1205A	1.87	1.60	1.49
1N1206	2.34	2.00	1.86
1N1206A	2.34	2.00	1.86
1N1237	12.00	10.30	9.60
1N1238	12.00	10.30	9.60
1N1239	18.10	15.50	14.45
1N1262	18.10	15.50	14.45
1N1341	1.20	1.03	.96
1N1341A	1.20	1.03	.96
1N1342	1.20	1.03	.96
1N1342A	1.20	1.03	.96
1N1343	1.25	1.07	1.00
1N1343A	1.25	1.07	1.00
1N1344	1.25	1.07	1.00
1N1344A	1.25	1.07	1.00
1N1345	1.55	1.33	1.24
1N1345A	1.55	1.33	1.24
1N1346	1.95	1.67	1.56
1N1346A	1.95	1.67	1.56
1N1347	2.35	2.10	1.88
1N1347A	2.35	2.10	1.88
1N1348	2.70	2.32	2.16
1N1348A	2.70	2.32	2.16
1N1487	.35	.30	.28
1N1488	.37	.32	.29
1N1489	.42	.36	.33
1N1490	.43	.37	.35
1N1491	.45	.39	.36
1N1492	.47	.40	.37
1N1537	1.20	1.03	.96
1N1538	1.20	1.03	.96
1N1539	1.25	1.07	1.00
1N1540	1.25	1.07	1.00
1N1541	1.55	1.33	1.24
1N1542	1.95	1.67	1.56
1N1543	2.35	2.10	1.88
1N1544	2.70	2.32	2.16
1N1581	1.19	1.02	.94
1N1582	1.19	1.02	.94
1N1583	1.25	1.07	1.00
1N1584	1.34	1.14	1.06
1N1585	1.67	1.43	1.33
1N1586	1.87	1.60	1.49
1N1587	2.34	2.00	1.86
1N1612	1.20	1.03	.96
1N1612A	1.20	1.03	.96
1N1613	1.20	1.03	.96
1N1613A	1.20	1.03	.96
1N1614	1.25	1.07	1.00
1N1614A	1.25	1.07	1.00
1N1615	1.95	1.67	1.56
1N1615A	1.95	1.67	1.56
1N1616	2.70	2.32	2.16
1N1616A	2.70	2.32	2.16
1N1692	.35	.30	.28
1N1693	.37	.32	.29
1N1694	.42	.36	.33
1N1695	.43	.37	.35
1N1696	.45	.39	.36
1N1697	.47	.40	.37
1N1701	.35	.30	.28
1N1702	.35	.30	.28
1N1703	.37	.32	.29
1N1704	.37	.32	.29
1N1705	.43	.37	.35
1N1706	.45	.39	.36
1N1707	.35	.30	.28
1N1708	.35	.30	.28
1N1709	.37	.32	.29
1N1710	.42	.36	.33
1N1711	.43	.37	.35
1N1712	.45	.39	.36
1N1730	2.10	1.79	1.67
1N1731	2.10	1.79	1.67
1N1732	2.90	2.50	2.33
1N1733	4.15	3.57	3.34
1N1734	5.00	4.29	4.00
1N1763	.43	.37	.35
1N1764	.45	.39	.36
1N2054	14.20	12.19	11.36
1N2055	14.20	12.19	11.36
1N2056	15.80	13.50	12.60
1N2057	15.80	13.50	12.60
1N2058	15.80	13.50	12.60
1N2059	17.10	15.00	14.00
1N2060	24.40	20.95	19.52
1N2061	24.40	20.95	19.52
1N2062	32.60	27.95	26.10
1N2063	42.40	36.20	33.80
1N2069	.33	.29	.27
1N2070	.35	.30	.28
1N2071	.37	.32	.29
1N2103	.35	.30	.28
1N2104	.35	.30	.28
1N2105	.37	.32	.29
1N2106	.42	.36	.33
1N2107	.43	.37	.35
1N2108	.45	.39	.36
1N2154	2.60	2.22	2.06
1N2155	2.60	2.22	2.06
1N2156	3.10	2.66	2.48
1N2157	3.55	3.04	2.84
1N2158	4.45	3.82	3.56
1N2159	5.35	4.59	4.27
1N2160	6.40	5.50	5.14
1N2373	1.25	1.07	1.00
1N2374	2.10	1.79	1.67
1N2375	2.10	1.79	1.67
1N2376	2.90	2.50	2.33
1N2377	3.35	2.86	2.66
1N2378	4.20	3.58	3.34
1N2379	5.00	4.30	4.00
1N2380	7.10	6.08	5.66
1N2381	11.40	9.65	9.00
1N2382	5.00	4.29	4.00
1N2383	7.10	6.08	5.66
1N2384	7.50	6.43	6.00
1N2385	9.15	7.86	6.00
1N2389	6.10	5.23	4.87
1N2482	.33	.29	.27
1N2483	.35	.30	.28
1N2484	.37	.32	.29
1N2485	.37	.32	.29
1N2486	.42	.36	.33
1N2487	.43	.37	.35
1N2488	.45	.39	.36
1N2489	.47	.40	.37
1N2490	12.00	10.30	9.60
1N2609	.35	.30	.28
1N2610	.35	.30	.28
1N2611	.37	.32	.29
1N2612	.42	.36	.33
1N2613	.43	.37	.35
1N2614	.45	.39	.36
1N2615	.47	.40	.37
1N2616	.62	.53	.49
1N2617	.95	.82	.76
1N2630	12.00	10.30	9.60
1N2631	6.10	5.23	4.87
1N2632	18.10	15.50	14.45
1N2633	12.00	10.30	9.60
1N2634	12.00	10.30	9.60
1N2635	12.00	10.30	9.60
1N2637	22.50	19.30	18.00
1N2838	.35	.30	.28
1N2859	.35	.30	.28
1N2860	.37	.32	.29
1N2861	.42	.36	.33
1N2862	.43	.37	.35
1N2863	.45	.39	.36
1N2864	.47	.40	.37
1N3161	14.20	12.19	11.36
1N3162	14.20	12.19	11.36
1N3163	15.80	13.50	12.60
1N3164	15.80	13.50	12.60
1N3165	17.10	15.00	14.00
1N3166	17.10	15.00	14.00
1N3167	24.40	20.95	19.52
1N3168	24.40	20.95	19.52
1N3169	32.60	27.95	26.10
1N3170	42.40	36.20	33.80
1N3189	.37	.32	.29
1N3190	.43	.37	.35
1N3191	.47	.40	.37
1N3208	1.19	1.02	.94
1N3209	1.19	1.02	.94
1N3210	1.25	1.07	1.00
1N3211	1.34	1.14	1.06
1N3212	1.67	1.43	1.33
1N3213	1.87	1.60	1.49
1N3214	2.34	2.00	1.86
1N3233	.33	.29	.27
1N3260	12.90	11.09	10.32
1N3261	12.90	11.09	10.32
1N3262	14.50	12.40	11.58
1N3263	14.50	12.40	11.58
1N3264	15.80	13.50	12.60
1N3265	15.80	13.50	12.60
1N3266	20.80	17.80	16.60
1N3267	20.80	17.80	16.60
1N3268	28.45	24.38	22.75
1N3269	34.60	29.60	27.65
1N3289	12.20	10.45	9.79
1N3290	13.40	11.76	10.95
1N3291	18.80	16.07	15.00
1N3292	24.25	20.78	19.40
1N3293	28.50	24.40	22.80
1N3569	1.20	1.03	.96
1N3570	1.25	1.07	1.00
1N3571	1.55	1.33	1.24
1N3572	1.95	1.67	1.56
1N3573	2.35	2.10	1.88
1N3574	2.70	2.32	2.16
1N3615	1.19	1.02	.94
1N3616	1.19	1.02	.94
1N3617	1.25	1.07	1.00
1N3618	1.25	1.07	1.00
1N3619	1.34	1.14	1.06
1N3620	1.67	1.43	1.33
1N3621	1.87	1.60	1.49
1N3622	2.34	2.00	1.86
1N3639	.37	.32	.29
1N3640	.43	.37	.35
1N3641	.47	.40	.37
1N3642	.62	.53	.49
1N3735	14.20	12.19	11.36
1N3736	15.80	13.50	12.60
1N3737	17.10	15.00	14.00
1N3738	24.40	20.95	19.52
1N3739	32.60	27.95	26.10
1N3740	42.40	36.20	33.80
1N4044	14.20	12.19	11.36
1N4045	14.20	12.19	11.36
1N4046	15.80	13.50	12.60
1N4047	15.80	13.50	12.60
1N4048	17.10	15.00	14.00
1N4049	17.10	15.00	14.00
1N4050	24.40	20.95	19.52
1N4051	32.60	27.95	26.10
1N4052	42.40	36.20	33.80

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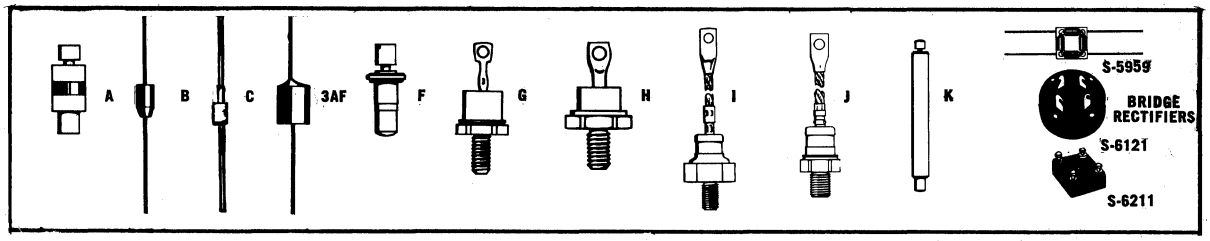
SARKES TARZIAN Silicon Avalanche Rectifiers



Tarzian Silicon Rectifiers with avalanche characteristics are available from 0.5 to 350 amps.
For information on the benefits and advantages of avalanche characteristics, see the previous page. A brochure describing these in detail is available directly from Sarkes-Tarzian, Inc., Semiconductor Division, Bloomington, Indiana.

LOW CURRENT AVALANCHE RECTIFIERS

M SERIES 1.0 AMP (FIG. A)

S-T No.	JEDEC No.	Max. PIV	Max. RMS Volts	Max. Cur., Amps at 100° C* DC Load	Max. Cur., Amps at 100° C* 4MS Surge	Net Each, Lots of 1-24	25-99	100 Up
10M	1N1081	100	70	1.0	60 Amps	$0.60	$0.55	$0.51
20M	1N1082	200	140	1.0	60 Amps	.65	.57	.53
30M	1N1083	300	210	1.0	60 Amps	.70	.61	.57
40M	1N1084	400	280	1.0	60 Amps	.75	.63	.59
M-500	1N1084	400	280	1.0	60 Amps	.75	.63	.59
50M	.....	500	350	1.0	60 Amps	.80	.69	.64
60M	.....	600	420	1.0	60 Amps	.85	.70	.66

F SERIES 1.0 AMP (FIG. B)

F2	1N2482	200	140	1.0	60	$0.33	$0.29	$0.27
	1N2069	200	140	1.0	60	.33	.29	.27
F4	1N2483	400	280	1.0	60	.35	.30	.28
	1N2070	400	280	1.0	60	.35	.30	.28
F6	1N2484	600	420	1.0	60	.37	.32	.29
	1N2071	600	420	1.0	60	.37	.32	.29
F8	.....	800	560	1.0	60	.52	.44	.41
F10	.....	1000	700	1.0	60	.79	.67	.63

C SERIES 1.0 AMP (FIG. D)

10C	1N2610	100	70	1.0	60	$0.35	$0.30	$0.28
20C	1N2611	200	140	1.0	60	.37	.32	.29
30C	1N2612	300	210	1.0	60	.42	.36	.33
40C	1N2613	400	280	1.0	60	.43	.37	.35
50C	1N2614	500	350	1.0	60	.45	.39	.36
60C	1N2615	600	420	1.0	60	.47	.40	.37
80C	1N2616	800	560	1.0	60	.62	.53	.49
100C	1N2617	100	700	1.0	60	.95	.82	.76

MEDIUM CURRENT AVALANCHE RECTIFIERS

LA SERIES 2 AMPS (FIG. F)

S-T No.	JEDEC No.	Max. PIV	Max. RMS Volts	DC Load, Amps	4MS Surge	Net Each, Lots of 1-24	25-99	100 Up
10LA	1N1085A	100	70	2.0	100	$3.34	$2.86	$2.66
20LA	1N1086A	200	140	2.0	100	4.00	3.43	3.20
30LA	1N1087A	300	210	2.0	100	4.67	4.00	3.73
40LA	1N1088A	400	280	2.0	100	5.35	4.67	4.27
50LA	.....	500	350	2.0	100	5.87	5.03	4.70
60LA	.....	600	420	2.0	100	6.45	5.52	5.15

3AF SERIES 3 AMPS

3AF2	.....	200	140	3.0	150	$0.65	$0.57	$0.53
3AF4	.....	400	280	3.0	150	.85	.72	.67
3AF6	.....	600	420	3.0	150	1.25	1.07	1.00
3AF8	.....	800	560	3.0	150	1.60	1.36	1.27

H3 SERIES 6 AMPS (FIG. G)

Add suffix **N** for negative or **P** for positive base. Add **R** to JEDEC type for negative base.

10H3	1N1342	100	70	6	150	$1.20	$1.03	$0.96
20H3	1N1344	200	140	6	150	1.25	1.07	1.00
30H3	1N1345	300	210	6	150	1.55	1.33	1.24
40H3	1N1346	400	280	6	150	1.95	1.67	1.56
50H3	1N1347	500	350	6	150	2.35	2.10	1.88
60H3	1N1348	600	420	6	150	2.70	2.32	2.16
80H3	.....	800	560	6	150	3.20	2.76	2.58

ST2 SERIES 12 AMP (FIG. G)

Add suffix **N** for negative base or **P** for positive base.

ST210	1N1200	100	70	12	260	$1.19	$1.02	$0.94
ST220	1N1202	200	140	12	260	1.25	1.07	1.00
ST230	1N1203	300	210	12	260	1.34	1.14	1.06
ST240	1N1204	400	280	12	260	1.67	1.43	1.33
ST250	1N1205	500	350	12	260	1.87	1.60	1.49
ST260	1N1206	600	420	12	260	2.34	2.09	1.86
ST280	.....	800	560	12	260	2.82	2.42	2.25

HIGH VOLTAGE SM SERIES (FIG. K)

S-T No.	JEDEC No.	Max. PIV	Max. RMS Volts	DC Load Amps	Recur. Peak, Amps	Net Each, Lots of 1-24	25-99	100 Up
80SM	1N1108	800	560	.45	4.5	$3.15	$2.71	$2.54
120SM	1N1109	1200	840	.425	4.25	4.00	3.43	3.20
160SM	1N1110	1600	1120	.4	4.0	4.75	4.15	3.86
200SM	1N1111	2000	1400	.375	3.75	5.65	4.86	4.53
240SM	1N1112	2400	1680	.35	3.5	6.50	5.57	5.20
280SM	1N1113	2800	1960	.325	3.25	7.35	6.30	5.87

HIGH CURRENT, HERMETICALLY SEALED AVALANCHE RECTIFIERS

Stud base, hermetically sealed rectifiers. Add suffix **N** for negative base (anode) or suffix **P** for positive base (cathode).

ST3A SERIES 25 AMP (FIG. H)

S-T No.	JEDEC No.	Max. PIV	Max. RMS Volts	DC Amps	4MS Surge	Net Each, Lots of 1-24	25-99	100 Up
ST3A10	.....	100	70	25	400	$2.20	$1.90	$1.73
ST3A20	.....	200	140	25	400	2.45	2.10	1.96
ST3A30	.....	300	210	25	400	2.85	2.44	2.28
ST3A40	.....	400	280	25	400	3.15	2.70	2.52
ST3A50	.....	500	350	25	400	3.50	2.98	2.78
ST3A60	.....	600	420	25	400	3.80	3.28	3.06

ST4 SERIES 35 AMP (FIG. H)

ST410	1N1184	100	70	35	500	$2.60	$2.22	$2.06
ST420	1N1186	200	140	35	500	3.10	2.66	2.48
ST430	1N1187	300	210	35	500	3.55	3.04	2.84
ST440	1N1188	400	280	35	500	4.45	3.82	3.56
ST450	1N1189	500	350	35	500	5.35	4.59	4.27
ST460	1N1190	600	420	35	500	6.40	5.50	5.14

ST5A SERIES 50 AMP (FIG. H)

ST5A10	.....	100	70	50	1000	$ 3.25	$ 2.78	$ 2.60
ST5A20	.....	200	140	50	1000	3.78	3.23	3.00
ST5A30	.....	300	210	50	1000	4.53	3.88	3.60
ST5A40	.....	400	280	50	1000	5.28	4.52	4.20
ST5A50	.....	500	350	50	1000	6.27	5.38	5.00
ST5A60	.....	600	420	50	1000	7.80	6.68	6.20

ST6 SERIES 100 AMP (FIG. I)

ST610	.....	100	70	100	1600	$11.20	$ 9.60	$ 8.96
ST620	.....	200	140	100	1600	12.20	10.45	9.79
ST630	.....	300	210	100	1600	13.40	11.76	10.95
ST640	.....	400	280	100	1600	18.80	16.07	15.00
ST650	.....	500	350	100	1600	24.25	20.78	19.40
ST660	.....	600	420	100	1600	28.50	24.40	22.80

ST7 SERIES 160 AMP (FIG. J)

ST710	1N3261	100	70	160	3000	$12.90	$11.09	$10.32
ST720	1N3263	200	140	160	3000	14.50	12.40	11.58
ST730	1N3265	300	210	160	3000	15.80	13.50	12.60
ST740	1N3267	400	280	160	3000	20.20	17.80	16.60
ST750	1N3268	500	350	160	3000	28.45	24.38	22.75
ST760	1N3269	600	420	160	3000	34.60	29.60	27.65

ST9 SERIES 250 AMP (FIG. J)

ST910	1N3162	100	70	250	5000	$14.20	$12.19	$11.36
ST920	1N3164	200	140	250	5000	15.80	13.50	12.60
ST930	1N3166	300	210	250	5000	17.10	15.00	14.00
ST940	1N3168	400	280	250	5000	24.40	20.95	19.52
ST950	1N3169	500	350	250	5000	32.60	27.95	26.10
ST960	1N3170	600	420	250	5000	42.40	36.20	33.80

ST20 SERIES 350 AMP (FIG. J)

ST2010	.....	100	70	350	7000	$33.40	$28.60	$26.65
ST2020	.....	200	140	350	7000	47.35	40.50	37.80
ST2030	.....	300	210	350	7000	56.70	48.60	45.40
ST2040	.....	400	280	350	7000	68.20	58.50	54.50
ST2050	.....	500	350	350	7000	81.50	69.90	65.20
ST2060	.....	600	420	350	7000	98.00	84.00	78.40

LOW CURRENT SILICON AVALANCHE BRIDGE RECTIFIERS

Compact single phase bridge rectifiers. Easy to mount. Available for 2.0 Amps to 6.0 Amps., 200 to 1000 PIV ratings. Single phase units rated up to 400 Amps. and 3-phase units rated up to 500 Amps. available upon request.

S-6211 SERIES 2 AMPS

S-T No.	Max. PIV	Max. RMS Volts	Approx. D.C. Output Volts	Net Each, Lots of 1-24	25-99	100 Up
S-6211	200	140	120	$2.35	$2.02	$1.88
S-6211-1	400	280	240	2.49	2.13	1.98
S-6211-2	600	420	360	2.64	2.26	2.10
S-6211-3	800	560	480	3.11	2.75	2.55
S-6211-4	1000	700	600	4.89	4.18	3.89

S-5959 2.5 AMPS

S-5959	200	140	120	1.45	1.24	1.16
S-5959-1	400	280	240	1.67	1.43	1.33
S-5959-2	600	420	360	1.84	1.57	1.46
S-5959-3	800	560	480	2.34	2.00	1.86
S-5959-4	1000	700	600	3.52	3.02	2.81

S-6121 6.0 AMPS

S-6121	100	70	60	3.05	2.62	2.45
S-6121-1	200	140	120	3.35	2.84	2.65
S-6121-2	300	210	180	4.20	3.60	3.35
S-6121-3	400	280	240	4.65	3.89	3.70
S-6121-4	500	350	300	5.65	4.83	4.50
S-6121-5	600	420	360	6.65	5.67	5.30

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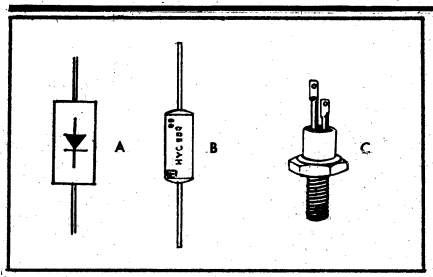
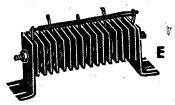
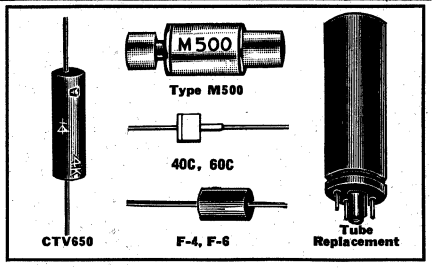
Net

SARKES TARZIAN Silicon & Selenium Rectifiers







HIGH VOLTAGE, AXIAL LEAD SILICON CARTRIDGE RECTIFIERS (FIG. A)

JEDEC No.	S-T No.	PIV	Max. RMS Volts*	Max. Avg. Rect. Current, Ma at 25°C	Max. Avg. Rect. Current, Ma at 100°C	Size, In. Lgth. x Dia.	Lead Lgth., In.	Net Each, Lots of 1-24	Net Each, Lots of 25-99	Net Each, Lots of 100 Up
1N1730	S-5518	1000	700	200	100	.5 x .375	2½	$2.10	$1.79	$1.67
1N1731	S-5519	1500	1050	200	100	.5 x .375	2½	2.10	1.79	1.67
1N1732	S-5520	2000	1400	200	100	1 x .375	2½	2.90	2.50	2.33
1N1733	S-5521	3000	2100	150	75	1 x .375	2½	4.15	3.57	3.34
1N1734	S-5522	5000	3500	100	50	1 x .375	2½	5.00	4.29	4.00
1N2373	S-5523	600	420	250	100	.5 x .375	2½	1.25	1.07	1.00
1N2374	S-5524	1000	700	250	100	.5 x .375	2½	2.10	1.79	1.67
1N2375	S-5525	1500	1050	200	100	.5 x .375	2½	2.10	1.79	1.67
1N2376	S-5526	2000	1400	200	100	.9 x .375	2½	2.90	2.50	2.33
1N2377	S-5527	2400	1680	150	75	.9 x .375	2½	3.35	2.86	2.66
1N2378	S-5528	3000	2100	150	75	1 x .375	2½	4.20	3.58	3.34
1N2379	S-5529	4000	2800	100	50	1.25 x .375	2½	5.00	4.30	4.00
1N2380	S-5530	6000	4200	100	50	2.5 x .375	2½	7.10	6.08	5.66
1N2381	S-5531†	10000	7000	75	25	2.5 x .375	2½	11.40	9.65	9.00
1N2382	S-5532	4000	2800	150	75	1 x .375	2½	5.00	4.29	4.00
1N2383	S-5533†	6000	4200	100	50	1.5 x .375	2½	7.10	6.08	5.66
1N2384	S-5534†	8000	5600	70	35	1.5 x .375	2½	7.50	6.43	6.00
1N2385	S-5535†	10000	7000	70	35	2 x .375	2½	9.15	7.86	6.00

*Derate 50% for capacitive load in half-wave circuits. †Ferrule mounting.

HVC SERIES HIGH VOLTAGE, AXIAL LEAD SILICON CARTRIDGE RECTIFIERS (FIG. B)

Epoxy-sealed phenolic tube construction with 2" lg. (min.) axial leads.

S-T No.	Max. PIV	Max. Avg. Rect. Cur. (55°C), mA	Max. Fwd. V Drop at Rtd. Cur.	Body Size, In. Dia. x Lgth.	Net Each, Lots of 1-24	Net Each, Lots of 25-99	Net Each, Lots of 100 Up
HVC180	1800	250	4 VDC	.375 x 5/16	$ 3.35	$ 2.86	$ 2.66
HVC240	2400	250	5 VDC	.375 x 11/16	3.60	3.08	2.87
HVC300	3000	200	6 VDC	.375 x ¾	3.85	3.28	3.07
HVC400	4000	200	8 VDC	.375 x 7/8	4.00	3.44	3.20
HVC500	5000	200	10 VDC	.375 x 1	4.15	3.67	3.34
HVC600	6000	150	12 VDC	.375 x 1 1/16	4.55	3.92	3.66
HVC650	6500	150	13 VDC	.375 x 1 3/16	5.00	4.29	4.00
HVC750	7500	150	15 VDC	.375 x 1 5/16	5.40	4.64	4.34
HVC840	8400	100	16 VDC	.375 x 1 7/8	5.85	5.00	4.66
HVC960	9600	100	18 VDC	.375 x 1 1/2	6.65	5.72	5.34
HVC1000	10000	100	20 VDC	.375 x 1 3/4	7.10	6.07	5.66
HVC1200	12000	75	22 VDC	.375 x 1 15/16	8.35	7.15	6.66
HVC1500	15000	75	25 VDC	.375 x 2 5/16	10.40	8.94	8.34
HVC1800	18000	75	30 VDC	.375 x 2 5/8	12.50	10.70	10.00
HVC2100	21000	50	35 VDC	.375 x 3	14.60	12.50	11.67
HVC2500	25000	50	40 VDC	.375 x 3 1/2	17.50	15.00	14.00
HVC3000	30000	50	50 VDC	.375 x 4 1/16	20.80	17.90	16.70

SILICON CONTROLLED RECTIFIERS (FIG. C)

Four-layer, three-junction devices for switching and power control. Size, 1¼" overall l. Series 3TCR, 3 amps DC; Series 5TCR, 5 amps DC.

S-T No.	Max. PIV	Net Each, Lots of 1-24	Net Each, Lots of 25-99	Net Each, Lots of 100 Up	S-T No.	Max. PIV	Net Each, Lots of 1-24	Net Each, Lots of 25-99	Net Each, Lots of 100 Up
3TCRA	25	$2.80	$2.39	$2.22	5TCRA	25	$4.00	$3.43	$3.20
3TCRB	50	2.90	2.46	2.30	5TCRB	50	4.70	4.05	3.77
3TCRC	100	3.00	2.55	2.39	5TCRC	100	4.85	4.15	3.86
3TCRD	150	3.05	2.62	2.44	5TCRD	150	4.95	4.23	3.94
3TCRE	200	3.25	2.80	2.60	5TCRE	200	5.10	4.38	4.08
3TCRF	250	4.05	3.50	3.25	5TCRF	250	5.95	5.10	4.24
3TCRG	300	4.20	3.58	3.33	5TCRG	300	6.05	5.16	4.81
3TCRH	400	4.65	3.98	3.70	5TCRH	400	6.50	5.57	5.18
3TCRI	500	6.95	5.97	5.55	5TCRI	500	8.80	7.55	7.03

GATE TURNOFF TYPE

Class X and Y prices available on request.

3GCRGZ	100	$ 7.35	$ 6.27	$ 5.86	3GCRFZ	250	$17.90	$15.36	$14.35
3GCRDZ	150	10.10	8.63	8.07	3GCRGZ	300	24.60	21.10	19.69
3GCREZ	200	13.75	11.79	11.00	3GCRHZ	400	31.50	27.00	25.20

REPLACEMENT KITS

See Standard Replacement Types, below, for full specifications.

Sarkes Tarzian Type M500 Kit—Two Type M rectifiers in voltage doubler circuit, dual mounting clip, base and hardware. Net Each..... $2.12

Sarkes Tarzian Type F-4 Kit—Two F-4 rectifiers in voltage doubler circuit kit. Net Each ..... .93

Sarkes Tarzian Model F-6 Kit—Two F-6 rectifiers in voltage doubler circuit kit. Net Each ..... .93

Sarkes Tarzian Model 40C Kit—Two 40C rectifiers in voltage doubler circuit kit. Net Each $1.11

Sarkes Tarzian Model 60C Kit—Two 60C rectifiers in voltage doubler circuit kit. Net Each $1.20

SPECIAL SILICON COLOR TV FOCUS RECTIFIER

Permanent "cure" for loss of control in color TV sets due to aging of original selenium rectifier. Delivers full performance for the life of the set. **Replaces:** RCA 1440977-1; Magnavox B530096-1; Philco 34-8053-2; Emerson 817123; Packard Bell 72110; Sylvania 16106-1; Zenith 212-48; Airline 66X0035-001; DuMont 1440977-1; Olympic 1440977-1; Silvertone 86-44-3. **Max. Voltage:** 6500 PIV; 4550 V rms. **Current:** 60 mADC max. **Size:** Phenolic tube, 1¼" l. x ⅜" O.D.; axial leads, 2" lg. min.
Sarkes Tarzian Type CTV650—Net Each..... $5.00

VACUUM TUBE REPLACEMENT SERIES

These silicon rectifier tube replacements are the preferred way to reduce tube replacement costs. Although more expensive than rectifier tubes, they will outlast many times their cost in rectifier tubes.

S-T No.	JEDEC No.	Max. PIV	Max. VRms	Replaces Tube Type	Net Each
S-5011A	1N1150A	1600	1100	80, 82, 83, 83V, 5Z3	$12.00
S-5017	1N1237	1600	1100	0Z4, 5X4, 5Y4, 6AX5, 6X5	12.00
S-5018	1N1238	1600	1100	5AU4, 5AW4, 5AZ4, 5T4, 5U4, 5Y3	12.00
S-5019†	1N1239	2800	1950	5R4	18.10
S-5033‡	1N1262	4500	3200§	6AU4, 6AX4, 6BL4, 6W4, 12AX4, 25W4	18.10
S-5130‡	.....	10400	7400§	866, 866A, 3B28	22.50
S-5162	.....	2800	1950	5R4	16.10
S-5207†	1N2490	1600	1100	6X4	12.00
S-5251	1N2389	1600	1100	5AU4, 5AW4, 5AZ4, 5T4, 5U4, 5Y3	6.10
S-5343‡	.....	7000	5000§	816, 836, 3B28*	18.10
S-5344	.....	10000	7000§	872A	31.70
S-5347†	.....	1600	1100	12BW4, 6BW4	8.65
S-5367	.....	19000	13300§	8020	31.70
S-5373	.....	10000	7000§	8008	42.00
S-5449	.....	15000	10500§	575A	58.30
S-5451	.....	7200	5040§	872A*	31.70
S-5991	.....	1600	1100	5AU4, 5AW4, 5AZ4, 5T4, 5U4, 5Y3	3.50

*At reduced voltage. †Hermetically sealed. ‡Half-wave circuit; all others full wave. §Derate input voltage 50% for capacitive load.

STANDARD SILICON REPLACEMENT TYPES

Approximate voltage drop for all types listed below is 2 volts. Minimum series resistance required is 5 ohms for F-4, F-6, 40H and 60H; 10 ohms for M150 and 7.5 ohms for M500.

S-T Number	JEDEC Number	PIV	Max.‡ Rmc Volts	Max. Current, Amps DC at 100°C	Max. Current, Amps Recur. Peak	Max. Current, Amps 4MS Surge	Size, Inches Lgth. x Dia.	Min. Lead Lgth., In.	Net Each†
F-4	1N2483	400	280	1.0 Amp.	7.5	75	.250 x .200	1¼	$0.51
F-6	1N2484	600	420	1.0 Amp.	7.5	75	.250 x .200	1¼	.51
40C*	1N2487	400	280	1.0 Amp.	7.5	75	.687 x .375	1	.60
60C*	1N2489	600	420	1.0 Amp.	7.5	75	.687 x .375	1	.63
M500	1N1084	400	280	1.0 Amp.	5	30	1 x 13/32	¼ O.D.	.96

*Hermetically sealed. †Available bulk packed or in handy 10-pak, same price. ‡Derate 50% for ½-wave cap. load #At85°C.

SELENIUM RECTIFIERS

"CONDENSED-STACK" SELENIUM RECTIFIERS (FIG. D)

Approximate rectifier drop, 5 V. Max. plate temperature, 85°C operating. Resistance, shown, 16 series.

Sarkes Model	Max. Volts Input Rms	Max. Volts PIV	Max. Current Peak mA	Max. Current Rms mA	Max. Current mA DC	Min. Series Resist.*	Plate Size, Inches W. x H. x D.	Max. Hole Ctr.	Net Each
50-75	130	380	750	187	75	22	1 1/16 sq. x 25/64	.149" dia.	$0.48
100-150	130	380	1500	375	150	22	1 sq. x 13/16	#8	.72
200-250	130	380	2500	625	250	15	1½ sq. x 1¼	#8	1.08
300-500	130	380	5000	1250	500	5	1.6 sq. x 1 5/16	#2	1.32

*Ohms

SELENIUM *"CENTER COOLED"* RECTIFIERS

These standard power type rectifier stacks are used in a broad range of power supply applications, such as DC filament supplies, electro-plating equipment, etc.

Sarkes Tarzian "Centre-Seal" rectifiers have high thermal stability. They will operate efficiently at temperatures from −55°C to +100°C.

Sarkes Tarzian No.	DC Output‡ Volts	DC Output‡ Max. Amps	Max. AC Input Volts	Dimensions Plate Height	Dimensions Stack Length	Dimensions Plate Width	Net Each
D-10*	6-10	2	13	3"	2 1/2"	3"	$ 4.31
D-11*	6-10	4	13	4"	2 1/2"	4"	5.21
D-12*	6-10	6	13	4"	2 7/8"	4"	5.21
D-13*	6-10	8	13	5"	2 1/2"	6"	6.38
D-14*	6-10	12	13	5"	2 7/8"	6"	6.38
D-15*	6-10	15	13	4 1/4"	2 1/2"	12"	11.00
D-16*	6-10	22.5	13	4 1/4"	2 7/8"	12"	11.00
D-52†	6-20	1.5	26	2"	1 13/16"	2"	4.46
D-17†	6-20	2	26	3"	3 5/16"	3"	5.94
D-18†	6-20	4	26	4"	3 5/16"	4"	7.36
D-19†	6-20	6	26	4"	4"	4"	7.36
D-20†	6-20	8	26	5"	3 5/16"	6"	9.25

Sarkes Tarzian No.	DC Output‡ Volts	DC Output‡ Max. Amps	Max. AC Input Volts	Dimensions Plate Height	Dimensions Stack Length	Dimensions Plate Width	Net Each
D-21†	6-20	12	26	5"	4"	6"	$ 9.25
D-22†	6-20	15	26	4 1/4"	3 5/16"	12"	16.75
D-23†	6-20	22.5	26	4 1/4"	4"	12"	16.75
D-24†	20-40	2	52	3"	4 5/16"	3"	9.19
D-25†	20-40	4	52	4"	4 5/16"	4"	11.66
D-26†	20-40	6	52	4"	6 5/16"	4"	11.66
D-27†	20-40	8	52	5"	4 5/16"	6"	15.00
D-28†	20-40	12	52	5"	6 5/16"	6"	15.00
D-29†	20-40	15	52	4 1/4"	4 5/16"	12"	28.25
D-30†	20-40	22.5	52	4 1/4"	6 5/16"	12"	28.25
D-31†	40-60	2	78	3"	6"	3"	12.44
D-32†	40-60	4	78	4"	6"	4"	15.96
D-33†	40-60	6	78	4"	8 5/16"	4"	15.96
D-34†	40-60	8	78	5"	5 13/16"	6"	20.75
D-35†	40-60	12	78	5"	8 5/16"	6"	20.75
D-36†	40-60	15	78	4 1/4"	6"	12"	39.75
D-37†	40-60	22.5	78	4 1/4"	8 5/16"	12"	39.75
D-38†	60-100	.5	130	1.6"	5 1/8"	1.6"	9.50
D-39†	60-100	1	130	2"	5 1/8"	2"	13.06
D-40†	60-100	2	130	3"	8 3/4"	3"	18.94
D-41†	60-100	4	130	4"	8 3/4"	4"	24.56
D-42†	60-100	6	130	4"	13 3/16"	4"	24.56
D-43†	60-100	8	130	5"	8 3/4"	6"	32.25
D-44†	60-100	12	130	5"	13 3/16"	6"	32.25
D-45†	100-120	.5	156	1.6"	5 13/16"	1.6"	10.95
D-46†	100-120	1	156	2"	5 13/16"	2"	15.21
D-47†	100-120	2	156	3"	10 3/16"	3"	22.19
D-48†	100-120	4	156	4"	10 3/16"	4"	28.86
D-49†	100-120	6	156	4"	15 1/2"	4"	28.86
D-50†	100-120	8	156	5"	10 3/16"	6"	38.00
D-51†	100-120	12	156	5"	15 1/2"	6"	38.00

*Center-tap circuit. †Bridge circuit. ‡At 35°C ambient.

Net

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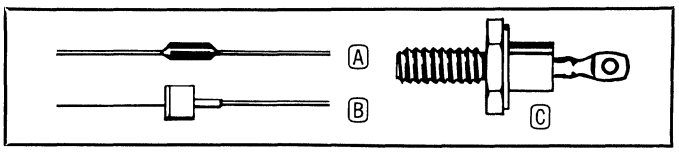
SARKES TARZIAN

Silicon Regulators, Suppressors

SILICON ZENER VOLTAGE REGULATORS



One series covers many JEDEC types. Meet or exceed all JEDEC requirements. Tolerance ±5%; available in ±10% and ±20%. To order, add voltage and tolerance letter to S-T No. (i.e.: .25T5.6A).

S-T Series	Fig.	Tol. ±5%	Watts	Net Each, Lots of 1-24	25-99	100 Up
.25T	A	A	.25	$2.25	$1.93	$1.80
.4T	A	A, B	.4	2.50	2.15	2.00
1TA	B	A, B	1	1.67	1.43	1.33
10T	C	A, B	10	3.76	3.22	2.99

JEDEC NUMBERS AND VOLTAGES AVAILABLE

.25T (250 Mw)		.4T (400 Mw)		1TA Series (1 Watt)				10T Series (10 Watt)					
JEDEC No.	Zener Volts	JEDEC No.	Zener Volts	JEDEC No.	Zener Volts	JEDEC No.	Zener Volts	JEDEC No.	Zener Volts	JEDEC No.	Zener Volts	JEDEC No.	Zener Volts
1N708A	5.6	1N769A	23.5	1N3016B	6.8	1N1774A	13	1N1351A	10	1N1823A	27	1N2993B	43
1N709A	6.2	1N752A	5.6	1N3017B	7.5	1N1775A	15	1N1352A	11	1N1824A	30	1N2994B	45
1N710A	6.8	1N753A	6.2	1N3018B	8.2	1N1776A	16	1N1353A	12	1N1825A	33	1N2995B	47
1N711A	7.5	1N754A	6.8	1N3019B	9.1	1N1778A	20	1N1354A	13	1N1826A	36	1N2996B	50
1N712A	8.2	1N755A	7.5	1N3020B	10	1N1779A	22	1N1355A	15	1N1827A	39	1N2997B	51
1N713A	9.1	1N756A	8.2	1N3021B	11	1N1780A	24	1N1356A	16	1N1828A	43	1N2998B	52
1N714A	10	1N757A	9.1	1N3022B	12	1N1781A	27	1N1357A	18	1N1829A	47	1N2999B	56
1N715A	11	1N758A	10	1N3023B	13	1N1782A	30	1N1358A	20	1N1830A	51	1N3000B	62
1N716A	12	1N759A	12	1N3024B	15	1N1783A	33	1N1359A	22	1N1831A	56	1N3001B	68
1N717A	13	1N957B	6.8	1N3025B	16	1N1784A	36	1N1360A	24	1N1832A	62	1N3002B	75
1N718A	15	1N958B	7.5	1N3026B	18	1N1785A	39	1N1361A	27	1N1833A	68	1N3003B	82
1N719A	16	1N959B	8.2	1N3027B	20	1N1786A	43	1N1362A	30	1N1834A	75	1N3004B	91
1N720A	18	1N960B	9.1	1N3028B	22	1N1787A	47	1N1363A	33	1N1835A	82	1N3005B	100
1N721A	20	1N961B	10	1N3029B	24	1N1788A	51	1N1364A	36	1N1836A	91	1N3006B	105
1N722A	22	1N962B	11	1N3030B	27	1N1789A	56	1N1365A	39	1N2008A	100	1N3007B	110
1N723A	24	1N963B	12	1N3031B	30	1N1790A	62	1N1366A	43	1N2009A	110	1N3008B	120
1N724A	27	1N964B	13	1N3032B	33	1N1791A	68	1N1367A	47	1N2010A	120	1N3009B	130
1N725A	30	1N965B	15	1N3033B	36	1N1792A	75	1N1368A	51	1N2011A	130	1N3010B	140
1N726A	33	1N966B	16	1N3034B	39	1N1793A	82	1N1369A	56	1N2012A	150	1N3011B	150
1N727A	36	1N967B	18	1N3035B	43	1N1794A	91	1N1370A	62	1N2498A	10	1N3012B	160
1N728A	39	1N968B	20	1N3036B	47	1N1795A	100	1N1371A	68	1N2499A	11	1N3013B	175
1N729A	43	1N969B	22	1N3037B	51	1N1796A	110	1N1372A	75	1N2500A	12	1N3014B	180
1N730A	47	1N970B	24	1N3038B	56	1N1797A	120	1N1373A	82	1N2970B	6.8	1N3015B	200
1N731A	51	1N971B	27	1N3039B	62	1N1798A	130	1N1374A	91	1N2971B	7.5		
1N732A	56	1N972B	30	1N3040B	68	1N1799A	150	1N1375A	91	1N2972B	8.2		
1N733A	62	1N973B	33	1N3041B	75	1N1800A	160	1N1803A	5.6	1N2973B	9.1		
1N734A	68	1N974B	36	1N3042B	82	1N1801A	180	1N1804A	6.2	1N2974B	10		
1N735A	75	1N975B	39	1N3043B	91	1N1802A	200	1N1805A	6.8	1N2975B	11		
1N736A	82	1N976B	43	1N3044B	100			1N1806A	7.5	1N2976B	12		
1N737A	91	1N977B	47	1N3045B	110			1N1807A	8.2	1N2977B	13		
1N738A	100	1N978B	51	1N3046B	120			1N1808A	9.1	1N2978B	14		
1N739A	110	1N979B	56	1N3047B	130			1N1809A	110	1N2979B	15		
1N740A	120	1N980B	62	1N3048B	150			1N1810A	120	1N2980B	16		
1N741A	130	1N981B	68	1N3049B	160			1N1811A	130	1N2981B	17		
1N742A	150	1N982B	75	1N3050B	180			1N1812A	150	1N2982B	18		
1N743A	160	1N983B	82	1N3051B	200			1N1813A	160	1N2983B	19		
1N744A	180	1N984B	91	1N1765A	5.6			1N1814A	180	1N2984B	20		
1N745A	200	1N985B	100	1N1766A	6.2			1N1815A	200	1N2985B	22		
1N762A	5.8	1N986B	110	1N1767A	6.8			1N1816A	13	1N2986B	24		
1N763A	7.1	1N987B	120	1N1768A	7.5			1N1817A	15	1N2987B	25		
1N764A	8.8	1N988B	130	1N1769A	8.2			1N1818A	16	1N2988B	27		
1N765A	10.5	1N989B	150	1N1770A	9.1			1N1819A	18	1N2989B	30		
1N766A	12.8	1N990B	160	1N1771A	10			1N1820A	20	1N2990B	33		
1N767A	15.8	1N991B	180	1N1772A	11			1N1821A	22	1N2991B	36		
1N768A	19	1N992B	200	1N1773A	12			1N1822A	24	1N2992B	39		

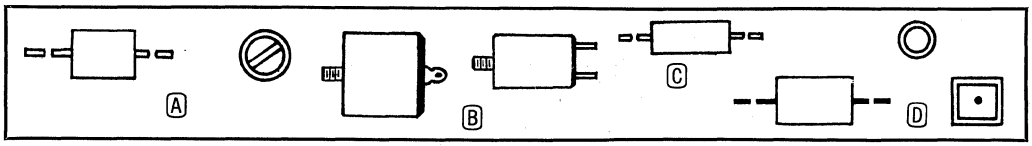
VR SERIES ECONOMY ZENER REGULATORS

One watt zener regulators in rugged plastic case, recommended for use in all ¼, 0.4, ½ and 1 watt applications. Add suffix **A** for ±5% tolerance, **B** for ±20% (±10% standard).

S-T No.	Zener Volts*	S-T No.	Zener Volts*	S-T No.	Zener Volts*	S-T No.	Zener Volts*	S-T No.	Zener Volts*
VR6	6	VR14	14	VR33	33	VR80	80	VR130	130
VR7	7	VR18	18	VR39	39	VR90	90	VR150	150
VR8.5	8.5	VR20	20	VR47	47	VR105	105	VR160	160
VR10	10	VR24	24	VR56	56	VR110	110	VR180	180
VR12	12	VR28	28	VR67	67	VR120	120	VR200	200

*Avalanche volts.

Pre-Fix	Tol.	Net Each, Lots of 1-24	25-99	100 Up
VR	±5	$.67	$.57	$.53
6-100 Volts	±10	.62	.53	.49
	±20	.58	.50	.47
101-200 Volts	±5	.87	.73	.69
	±10	.82	.70	.65
	±20	.78	.67	.62



KLIPVOLT TRANSIENT VOLTAGE SUPPRESSORS

Can handle transient peak voltages at least double steady state rating. Non-polarized, AC or DC; polarized, DC only. Higher voltage and 3-ph. models available. Figs. C and D are sealed types.

POLARIZED TYPE

A—Max. DC Blocking Volts, B—Max. Discharge Current (Amps), C—Min. DC Volts, D—Figure.

A	B	C	S-T No.	D	Net Each, Lots of 1-9	10-99	100 Up	S-T No.	D	Net Each, Lots of 1-9	10-99	100 Up
22	.250	15	S-235	A	$0.36	$0.33	$0.29	S-235C	C	$0.81	$0.73	$0.65
22	.850	15	S-236	B	.55	.50	.44	S-236C	D	1.60	1.44	1.28
44	.250	23	S-237	A	.36	.33	.29	S-237C	C	.81	.73	.65
44	.850	23	S-238	B	.55	.50	.44	S-238C	D	1.60	1.44	1.28
66	.250	45	S-239	A	.39	.35	.31	S-239C	C	.84	.76	.67
66	.850	45	S-240	B	.50	.45	.40	S-240C	D	1.55	1.40	1.24
88	.250	67	S-241	A	.42	.38	.34	S-241C	C	.87	.78	.70
88	.850	67	S-242	B	.55	.50	.44	S-242C	D	1.60	1.44	1.28
110	.250	89	S-243	A	.45	.41	.36	S-243C	C	.90	.81	.72
110	.850	89	S-244	B	.60	.55	.48	S-244C	D	1.65	1.49	1.32
132	.250	111	S-245	A	.48	.43	.38	S-245C	C	.93	.84	.74
132	.850	111	S-246	B	.65	.59	.52	S-246C	D	1.70	1.53	1.36
154	.250	133	S-247	A	.51	.46	.41	S-247C	C	.96	.86	.77
154	.850	133	S-248	B	.70	.63	.56	S-248C	D	1.75	1.58	1.40

NON-POLARIZED TYPE

A—Max. rms Volts, B—Max. Discharge Current (Amps), C—Min. rms Volts, D—Figure.

S-T No.	A	B	C	D	Net Each, Lots of 1-9	10-99	100 Up
S-249	52	.200	27	A	$0.42	$0.38	$0.34
S-249C	52	.200	27	C	.87	.78	.70
S-250	52	.700	27	B	.55	.50	.44
S-250C	52	.700	27	D	1.60	1.44	1.28
S-251	78	.200	53	A	.48	.43	.38
S-251C	78	.200	53	C	.93	.84	.74
S-252	78	.700	53	B	.65	.59	.53
S-252C	78	.700	53	D	1.70	1.53	1.36
S-253	104	.200	79	A	.54	.49	.43
S-253C	104	.200	79	C	.99	.89	.79

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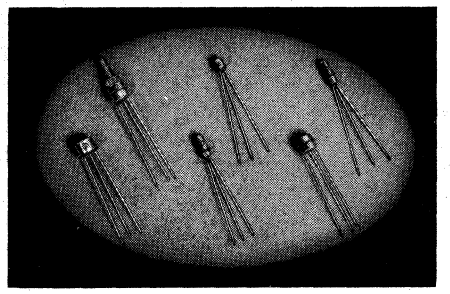
Net

SPRAGUE SEMICONDUCTORS



GERMANIUM AND SILICON TRANSISTORS

- Sprague Transistors are Produced by Advanced Equipment and the Latest Manufacturing Techniques.
- Excellent Design Flexibility and Electrical Properties Meet the Most Rigid Performance and Reliability Standards.
- Highest Quality and Outstanding Economy.
- For Complete Technical Data, Refer to Latest Issue of the Applicable Engineering Bulletin.
- Call your Sprague Industrial Distributor for current quantity prices.

Type Number	Case Code	Description
2N128	TO-24	Ge Switch SBT
JAN-2N128	TO-24	Ge Switch SBT
2N231	TO-24	Ge Switch SBT
2N240	TO-24	Ge Switch SBT
JAN-2N240	TO-24	Ge Switch SBT
2N327A	TO-5	PNP Planar Alloy Replacement
2N327B	TO-5	PNP Planar Alloy Replacement
2N328A	TO-5	PNP Planar Alloy Replacement
JAN-2N328A	TO-5	PNP Planar Alloy Replacement
2N328B	TO-5	PNP Planar Alloy Replacement
2N329A	TO-5	PNP Planar Alloy Replacement
JAN-2N329A	TO-5	PNP Planar Alloy Replacement
2N329B	TO-5	PNP Planar Alloy Replacement
2N330A	TO-5	PNP Planar Alloy Replacement
2N344	TO-24	Ge Ampl. SBT
2N345	TO-24	Ge Ampl. SBT
2N346	TO-24	Ge Ampl. SBT
2N393	TO-24	Ge Switch MAT*
JAN-2N393	TO-24	MIL-S-19500/77A
JAN-2N393	TO-24	MIL-S-19500/77B
2N495	TO-1	Si Switch SPAT*
2N496	TO-1	Si ~~Switch SPAT~~
2N499	TO-1	Ge Amplifier MADT*
JAN-2N499	TO-1	Ge Amplifier MADT
2N499A	TO-1	Ge Amplifier MADT
JAN-2N499A	TO-1	Ge Amplifier MADT
2N501	TO-1	Ge Switch MADT
2N501A	TO-1	Ge Switch MADT
JAN-2N501A	TO-1	MIL-S-19500/62
JAN-2N501A	TO-1	MIL-S-19500/62A
2N502	TO-9	Ge Ampl. MADT
2N502A	TO-9	Ge Ampl. MADT
JAN-2N502A	TO-9	Ge Ampl. MADT
2N502B	TO-9	Ge Ampl. MADT
JAN-2N502B	TO-9	Ge Ampl. MADT
2N503	TO-9	Ge Ampl. MADT
2N504	TO-1	Ge Ampl. MADT
2N588	TO-1	Ge Ampl. MADT
2N706	TO-18	NPN Si Switch SEPT®
2N768	TO-18	Ge Switch MADT
2N769	TO-18	Ge Switch MADT
2N779A	TO-18	Ge Switch MADT
2N794	TO-18	Ge Switch ECDC®
2N795	TO-18	Ge Switch ECDC
2N796	TO-18	Ge Switch ECDC
2N834	TO-18	NPN Si Switch SEPT
2N835	TO-18	NPN Si Switch SEPT

Type Number	Case Code	Description
2N846A	TO-18	Ge Switch ECDC
2N858	TO-18	Si Switch SPAT
2N859	TO-18	Si Switch SPAT
2N860	TO-18	Si Switch SPAT
2N861	TO-18	Si Switch SPAT
2N862	TO-18	Si Switch SPAT
2N863	TO-18	Si Switch SPAT
2N864	TO-18	Si Switch SPAT
2N865	TO-18	Si Switch SPAT
2N914	TO-18	NPN Si Switch SEPT
2N923	TO-18	PNP Planar Alloy Replacement
2N924	TO-18	PNP Planar Alloy Replacement
2N925	TO-18	PNP Planar Alloy Replacement
2N926	TO-18	PNP Planar Alloy Replacement
2N927	TO-18	PNP Planar Alloy Replacement
2N928	TO-18	PNP Planar Alloy Replacement
2N929	TO-18	NPN Si Low Noise Ampl. SEPT
2N930	TO-18	NPN Si Low Noise Ampl. SEPT
2N935	TO-18	PNP Planar Alloy Replacement
2N936	TO-18	PNP Planar Alloy Replacement
2N937	TO-18	PNP Planar Alloy Replacement
2N938	TO-18	PNP Planar Alloy Replacement
2N939	TO-18	PNP Planar Alloy Replacement
2N940	TO-18	PNP Planar Alloy Replacement
2N941	TO-18	PNP Planar Alloy Replacement
2N942	TO-18	PNP Planar Alloy Replacement
2N943	TO-18	PNP Planar Alloy Replacement
2N944	TO-18	PNP Planar Alloy Replacement
2N945	TO-18	PNP Planar Alloy Replacement
2N946	TO-18	PNP Planar Alloy Replacement
2N976	TO-18	Ge Switch MADT
2N979	TO-18	Ge Switch MADT
2N980	TO-18	Ge Switch MADT
2N982	TO-18	Ge Switch MADT
2N983	TO-18	Ge Switch MADT
2N984	TO-18	Ge Switch MADT
2N997	TO-18	NPN Si Darlington Amp.
2N1024	TO-5	PNP Planar Alloy Replacement
2N1025	TO-5	PNP Planar Alloy Replacement
JAN-2N1025**	TO-5	PNP Planar Alloy Replacement
2N1026	TO-5	PNP Planar Alloy Replacement
JAN-2N1026**	TO-5	PNP Planar Alloy Replacement
2N1027	TO-5	PNP Planar Alloy Replacement
2N1028	TO-5	PNP Planar Alloy Replacement
2N1034	TO-5	PNP Planar Alloy Replacement
2N1035	TO-5	PNP Planar Alloy Replacement
2N1036	TO-5	PNP Planar Alloy Replacement
2N1037	TO-5	PNP Planar Alloy Replacement
2N1118	TO-5	Si Ampl. SPAT
JAN-2N1118	TO-5	MIL-S-19500/138A

Type Number	Case Code	Description
JAN-2N1118	TO-5	MIL-S-19500/138B
2N1118A	TO-5	Si Ampl. SPAT
2N1119	TO-5	Si Switch SPAT
JAN-2N1119	TO-5	MIL-S-19500/139A
JAN-2N1119	TO-5	MIL-S-19500/139B
2N1122	TO-24	Ge Switch MAT
2N1122A	TO-24	Ge Switch MAT
2N1219	TO-5	PNP Planar Alloy Replacement
2N1220	TO-5	PNP Planar Alloy Replacement
2N1221	TO-5	PNP Planar Alloy Replacement
2N1222	TO-5	PNP Planar Alloy Replacement
2N1223	TO-5	PNP Planar Alloy Replacement
2N1275	TO-5	PNP Planar Alloy Replacement
2N1300	TO-5	Ge Switch ECDC
2N1301	TO-5	Ge Switch ECDC
2N1411	TO-24	Ge Switch MAT
JAN-2N1411	TO-24	Ge Switch MAT
2N1427	TO-24	Ge Switch MAT
2N1429	TO-5	Si Switch SPAT
2N1469	TO-5	PNP Planar Alloy Replacement
JAN-2N1469**	TO-5	PNP Planar Alloy Replacement
2N1474	TO-5	PNP Planar Alloy Replacement
2N1474A	TO-5	PNP Planar Alloy Replacement
2N1475	TO-5	PNP Planar Alloy Replacement
2N1476	TO-5	PNP Planar Alloy Replacement
2N1477	TO-5	PNP Planar Alloy Replacement
2N1499A	TO-9	Ge Switch ECDC
JAN-2N1499A	TO-9	Ge Switch ECDC
2N1499B	TO-9	Ge Switch ECDC
2N1500	TO-9	Ge Switch MADT
JAN-2N1500	TO-9	Ge Switch MADT
2N1623	TO-5	PNP Planar Alloy Replacement
2N1643	TO-5	PNP Planar Alloy Replacement
2N1654	TO-5	PNP Planar Alloy Replacement
2N1655	TO-5	PNP Planar Alloy Replacement
2N1656	TO-5	PNP Planar Alloy Replacement
2N1676	TO-5	Si Chopper SPAT
2N1677	TO-5	Si Chopper SPAT
2N1683	TO-5	ECDC Switch
2N1726	TO-9	MADT Communication
2N1727	TO-9	MADT Communication
2N1728	TO-9	MADT Communication
2N1742	TO-9	MADT Communication
2N1743	TO-9	MADT Communication
2N1744	TO-9	MADT Communication
2N1745	TO-9	MADT Amplifier
2N1746	TO-9	MADT Amplifier
2N1747	TO-9	MADT Amplifier

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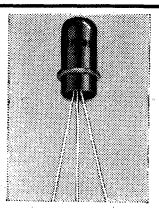
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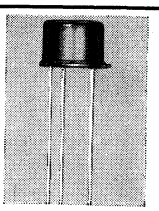
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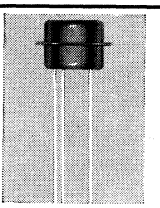
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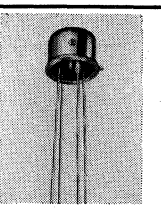
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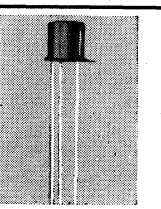
TO-18

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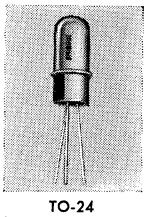
SPRAGUE SEMICONDUCTORS

SEMICONDUCTORS, continued

Type Number	Case Code	Description
2N1748	TO-9	MADT Amplifier
2N1748A	TO-9	MADT Amplifier
2N1749	TO-9	MADT Amplifier
2N1752	TO-9	MADT Amplifier
2N1754	TO-9	ECDC Switch
2N1785	TO-9	MADT Ampifier
2N1786	TO-9	MADT Ampifier
2N1787	TO-9	MADT Ampifier
2N1788	TO-9	MADT Ampifier
2N1789	TO-9	MADT Communication
2N1790	TO-9	MADT Communication
2N1864	TO-9	MADT Communication
2N1865	TO-9	MADT Communication
2N1866	TO-9	MADT Communication
2N1867	TO-9	MADT Communication
2N1868	TO-9	MADT Communication
2N1917	TO-5	PNP Planar Alloy Replacement
2N1918	TO-5	PNP Planar Alloy Replacement
2N1919	TO-5	PNP Planar Alloy Replacement
2N1920	TO-5	PNP Planar Alloy Replacement
2N1921	TO-5	PNP Planar Alloy Replacement
2N1922	TO-5	PNP Planar Alloy Replacement
2N2002	TO-5	PNP Planar Alloy Replacement
2N2003	TO-5	PNP Planar Alloy Replacement
2N2004	TO-5	PNP Planar Alloy Replacement
2N2005	TO-5	PNP Planar Alloy Replacement
2N2006	TO-5	PNP Planar Alloy Replacement
2N2007	TO-5	PNP Planar Alloy Replacement
2N2048	TO-9	ECDC Switch
2N2048A	TO-9	ECDC Switch
2N2095	TO-31	Ge Amplifier ECDC
2N2098	TO-9	Ge Amplifier ECDC
2N2162	TO-5	Si Chopper SPAT
2N2163	TO-5	Si Chopper SPAT
2N2164	TO-5	Si Chopper SPAT
2N2165	TO-5	Si Chopper SPAT
2N2166	TO-5	Si Chopper SPAT
2N2167	TO-5	Si Chopper SPAT
2N2168	TO-9	Ge Switch MADT
2N2169	TO-9	Ge Switch MADT
2N2170	TO-9	Ge Switch MADT
2N2175	TO-5	PNP Planar Alloy Replacement
2N2176	TO-18	PNP Planar Alloy Replacement
2N2177	TO-5	PNP Planar Alloy Replacement
2N2178	TO-18	PNP Planar Alloy Replacement
2N2185	TO-18	Si Chopper SPAT
2N2186	TO-18	Si Matched Pair SPAT
2N2187	TO-18	Si Matched Pair SPAT
2N2217	TO-5	NPN Si Switch SEPT
2N2218	TO-5	NPN Si Switch SEPT
JAN-2N2218	TO-5	MIL-S-19500/251D
2N2218A	TO-5	NPN Si Switch SEPT
JAN-2N2218A	TO-5	MIL-S-19500/251D
2N2219	TO-5	NPN Si Switch SEPT
JAN-2N2219	TO-5	MIL-S-19500/251D
2N2219A	TO-5	NPN Si Switch SEPT
JAN-2N2219A	TO-5	MIL-S-19500/251D
2N2220	TO-18	NPN Si Switch SEPT
2N2221	TO-18	NPN Si Switch SEPT
JAN-2N2221	TO-18	MIL-S-19500/225D
2N2221A	TO-18	NPN Si Switch SEPT
JAN-2N2221A	TO-18	MIL-S-19500/255D
2N2222	TO-18	NPN Si Switch SEPT
JAN-2N2222	TO-18	MIL-S-19500/225D
2N2222A	TO-18	NPN Si Switch SEPT
JAN-2N2222A	TO-18	MIL-S-19500/255D
2N2274	TO-18	Si Chopper SPAT
2N2275	TO-18	Si Matched Pair SPAT
2N2276	TO-18	Si Chopper SPAT
2N2277	TO-18	Si Matched Pair SPAT
2N2278	TO-18	Si Chopper SPAT
2N2279	TO-18	Si Matched Pair SPAT
2N2280	TO-18	Si Chopper SPAT
2N2281	TO-18	Si Matched Pair SPAT
2N2330	TO-5	NPN Si Chopper SEPT
2N2331	TO-18	NPN Si Chopper SEPT
2N2332	TO-18	PNP Planar Alloy Replacement
2N2333	TO-18	PNP Planar Alloy Replacement
2N2334	TO-18	PNP Planar Alloy Replacement
2N2335	TO-18	PNP Planar Alloy Replacement
2N2336	TO-18	PNP Planar Alloy Replacement
2N2337	TO-18	PNP Planar Alloy Replacement
2N2360	TO-12	Ge Amplifier MADT
2N2361	TO-12	Ge Amplifier MADT
2N2362	TO-12	Ge Amplifier MADT
2N2368	TO-18	NPN Si Switch SEPT
2N2369	TO-18	NPN Si Switch SEPT
2N2369A	TO-18	NPN Si Switch SEPT
2N2370	TO-5	PNP Planar Alloy Replacement
2N2371	TO-5	PNP Planar Alloy Replacement
2N2372	TO-18	PNP Planar Alloy Replacement
2N2373	TO-18	PNP Planar Alloy Replacement
2N2377	TO-18	Si Amplifier SPAT
JAN-2N2377	TO-18	Si Amplifier SPAT
2N2378	TO-18	Si Switch SPAT
JAN-2N2378	TO-18	Si Switch SPAT
2N2398	TO-12	Ge Amplifier MADT
2N2399	TO-12	Ge Amplifier MADT
2N2400	TO-18	Ge Switch ECDC
2N2401	TO-18	Ge Switch ECDC
2N2402	TO-18	Ge Switch ECDC
2N2451	TO-24	Ge Switch MAT
2N2453	TO-5	NPN Si Diff. Amp.
2N2476	TO-5	NPN Si Switch SEPT
2N2477	TO-18	NPN Si Switch SEPT
2N2480	TO-5	NPN Si Diff. Amp.
2N2487	TO-18	Ge Switch MADT
2N2488	TO-18	Ge Switch MADT
2N2489	TO-18	Ge Switch MADT
2N2537	TO-5	NPN Si Switch SEPT
2N2538	TO-5	NPN Si Switch SEPT
2N2539	TO-18	NPN Si Switch SEPT
2N2540	TO-18	NPN Si Switch SEPT
2N2639	TO-5	NPN Si Diff. Amp.
2N2640	TO-5	NPN Si Diff. Amp.
2N2641	TO-5	NPN Si Diff. Amp.
2N2642	TO-5	NPN Si Diff. Amp.
2N2643	TO-5	NPN Si Diff. Amp.
2N2644	TO-5	NPN Si Diff. Amp.
2N2720	TO-5	NPN Si Diff. Amp.
2N2721	TO-5	NPN Si Diff. Amp.
2N2722	TO-5	NPN Si Diff. Amp.
2N2723	TO-72	NPN Si Darlington Amp.
2N2724	TO-72	NPN Si Darlington Amp.
2N2725	TO-72	NPN Si Darlington Amp.
2N2785	TO-72	NPN Si Darlington Amp.
2N2795	TO-18	Ge Switch ECDC
2N2796	TO-18	Ge Switch ECDC
2N2797	TO-9	Ge Switch ECDC
2N2798	TO-9	Ge Switch ECDC
2N2799	TO-9	Ge Switch ECDC
2N2802	TO-5	PNP Si Diff. Amp.
2N2803	TO-5	PNP Si Diff. Amp.
2N2804	TO-5	PNP Si Diff. Amp.
2N2805	TO-5	PNP Si Diff. Amp.
2N2806	TO-5	PNP Si Diff. Amp.
2N2807	TO-5	PNP Si Diff. Amp.
2N2845	TO-5	NPN Si Switch SEPT
2N2846	TO-18	NPN Si Switch SEPT
2N2847	TO-5	NPN Si Switch SEPT
2N2848	TO-18	NPN Si Switch SEPT
2N2903	TO-5	NPN Si Diff. Amp.
2N2903A	TO-5	NPN Si Diff. Amp.
2N2904	TO-5	PNP Si Switch SEPT
2N2904A	TO-5	PNP Si Switch SEPT
2N2905	TO-5	PNP Si Switch SEPT
2N2905A	TO-5	PNP Si Switch SEPT
2N2906	TO-18	PNP Si Switch SEPT
2N2906A	TO-18	PNP Si Switch SEPT
2N2907	TO-18	PNP Si Switch SEPT
2N2907A	TO-18	PNP Si Switch SEPT
2N2910	TO-5	NPN Si Diff. Amp.
2N2913	TO-5	NPN Si Diff. Amp.
2N2914	TO-5	NPN Si Diff. Amp.
2N2915	TO-5	NPN Si Diff. Amp.
2N2916	TO-5	NPN Si Diff. Amp.
2N2917	TO-5	NPN Si Diff. Amp.
2N2918	TO-5	NPN Si Diff. Amp.
2N2919	TO-5	NPN Si Diff. Amp.
2N2920	TO-5	NPN Si Diff. Amp.
2N2936	TO-5	NPN Si Diff. Amp.
2N2937	TO-5	NPN Si Diff. Amp.
2N2942	TO-9	Ge Switch ECDC
2N2943	TO-9	Ge Switch ECDC
2N2944	TO-46	PNP SEPT Switch, Amp., Chopper
2N2945	TO-46	PNP SEPT Switch, Amp., Chopper
2N2946	TO-46	PNP SEPT Switch, Amp., Chopper
2N2951	TO-5	NPN Si Amplifier SEPT
2N2952	TO-18	NPN Si Amplifier SEPT
2N2958	TO-5	NPN Si Switch SEPT
2N2959	TO-5	NPN Si Switch SEPT
2N2962	S-31	ECDC VHF Pwr. Ampl.
2N2963	S-31	ECDC, VHF Amplifier
2N2964	S-31	ECDC VHF Pwr. Ampl.
2N2965	S-31	ECDC VHF Pwr. Ampl.
2N2968	TO-5	Si Symmetrical SPAT
2N2969	TO-18	Si Symmetrical SPAT
2N2970	TO-5	Si Symmetrical SPAT
2N2971	TO-18	Si Symmetrical SPAT
2N2972	TO-18	NPN Si Diff. Amp.
2N2973	TO-18	NPN Si Diff. Amp.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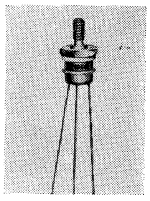
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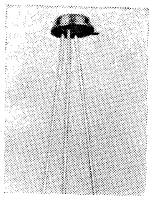
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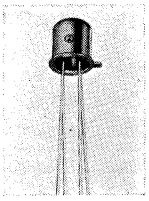
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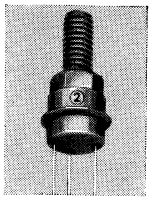
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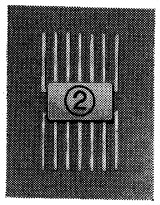
SPRAGUE SEMICONDUCTORS

SEMICONDUCTORS, continued

Type Number	Case Code	Description
2N2974	TO-18	NPN Si Diff. Amp.
2N2975	TO-18	NPN Si Diff. Amp.
2N2976	TO-18	NPN Si Diff. Amp.
2N2977	TO-18	NPN Si Diff. Amp.
2N2978	TO-18	NPN Si Diff. Amp.
2N2979	TO-18	NPN Si Diff. Amp.
2N3011	TO-18	NPN High-Speed SEPT
2N3015	TO-5	NPN High-Speed SEPT
2N3043	TO-89	NPN Si Diff. Amp.
2N3044	TO-89	NPN Si Diff. Amp.
2N3045	TO-89	NPN Si Diff. Amp.
2N3046	TO-89	NPN Si Diff. Amp.
2N3047	TO-89	NPN Si Diff. Amp.
2N3048	TO-89	NPN Si Diff. Amp.
2N3049	TO-89	PNP Si Diff. Amp.
2N3050	TO-89	PNP Si Diff. Amp.
2N3051	TO-89	PNP Si Diff. Amp.
2N3052	TO-89	NPN Si Diff. Amp.
2N3058	TO-46	PNP Si Amplifier SEPT
2N3059	TO-46	PNP Si Amplifier SEPT
2N3060	TO-46	PNP Si Amplifier SEPT
2N3061	TO-46	PNP Si Amplifier SEPT
2N3062	TO-46	PNP Si Amplifier SEPT
2N3063	TO-46	PNP Si Amplifier SEPT
2N3064	TO-46	PNP Si Amplifier SEPT
2N3065	TO-46	PNP Si Amplifier SEPT
2N3115	TO-18	NPN Si Switch SEPT
2N3116	TO-18	NPN Si Switch SEPT
2N3133	TO-5	PNP Si Switch SEPT
2N3134	TO-5	PNP Si Switch SEPT
2N3135	TO-18	PNP Si Switch SEPT
2N3136	TO-18	PNP Si Switch SEPT
2N3217	TO-46	PNP Si Switch, Amplifier, Chopper SEPT
2N3218	TO-46	PNP Si Switch, Amplifier, Chopper SEPT
2N3219	TO-46	PNP Si Switch, Amplifier, Chopper SEPT
2N3317	TO-18	Si Chopper SPAT
2N3318	TO-18	Si Chopper SPAT
2N3319	TO-18	Si Chopper SPAT
2N3320	TO-18	Ge Switch MADT
2N3321	TO-18	Ge Switch MADT
2N3322	TO-18	Ge Switch MADT
2N3342	TO-5	PNP Planar Alloy Replacement
2N3343	TO-5	PNP Planar Alloy Replacement
2N3344	TO-5	PNP Planar Alloy Replacement
2N3345	TO-5	PNP Planar Alloy Replacement
2N3346	TO-5	PNP Planar Alloy Replacement
2N3347	TO-5	PNP Si Diff. Amp.
2N3348	TO-5	PNP Si Diff. Amp.
2N3349	TO-5	PNP Si Diff. Amp.
2N3350	TO-5	PNP Si Diff. Amp.
2N3351	TO-5	PNP Si Diff. Amp.
2N3352	TO-5	PNP Si Diff. Amp.
2N3409	TO-5	NPN Si Diff. Amp.
2N3410	TO-5	NPN Si Diff. Amp.
2N3411	TO-5	NPN Si Diff. Amp.
2N3520	TO-89	NPN Si Diff. Amp.
2N3521	TO-5	NPN Si Diff. Amp.
2N3522	TO-18	NPN Si Diff. Amp.
2N3587	TO-5	NPN Si Diff. Amp.
2N3838	TO-89	NPN/PNP Complementary Pair
2N3840	TO-46	PNP Si Switch, Amp., Chopper
2N3841	TO-18	PNP Si Switch, Amp., Chopper
2N3842	TO-18	PNP Si Switch, Amp., Chopper
2N3977	TO-46	PNP Si Switch, Amp., Chopper
2N3978	TO-46	PNP Si Switch, Amp., Chopper
2N3979	TO-46	PNP Si Switch, Amp., Chopper
3N90	TO-18	PNP Si Dual Emitter Chopper DUET
3N91	TO-18	PNP Si Dual Emitter Chopper DUET
3N92	TO-18	PNP Si Dual Emitter Chopper DUET
3N93	TO-18	PNP Si Dual Emitter Chopper DUET
3N94	TO-18	PNP Si Dual Emitter Chopper DUET
3N95	TO-18	PNP Si Dual Emitter Chopper DUET
3N100	TO-72	PNP Si Dual Emitter Chopper DUET
3N101	TO-72	PNP Si Dual Emitter Chopper DUET
3N102	TO-72	PNP Si Dual Emitter Chopper DUET
3N103	TO-72	PNP Si Dual Emitter Chopper DUET
3N104	TO-72	PNP Si Dual Emitter Chopper DUET
3N105	TO-72	PNP Si Dual Emitter Chopper DUET
3N106	TO-72	PNP Si Dual Emitter Chopper DUET
3N107	TO-72	PNP Si Dual Emitter Chopper DUET
3N108	TO-72	PNP Si Dual Emitter Chopper DUET
3N109	TO-72	PNP Si Dual Emitter Chopper DUET
3N110	TO-72	PNP Si Dual Emitter Chopper DUET
3N111	TO-72	PNP Si Dual Emitter Chopper DUET
3N112	TO-90	NPN Si Dual Emitter Chopper Twin DUET
3N113	TO-90	NPN Si Dual Emitter Chopper Twin DUET
3N114	TO-72	PNP Si Dual Emitter Chopper DUET
3N115	TO-72	PNP Si Dual Emitter Chopper DUET
3N116	TO-72	PNP Si Dual Emitter Chopper DUET
3N117	TO-72	PNP Si Dual Emitter Chopper DUET
3N118	TO-72	PNP Si Dual Emitter Chopper DUET
3N119	TO-72	PNP Si Dual Emitter Chopper DUET
3N123	TO-72	PNP Si Duel Emitter Chopper, DUET
ED-322	TO-18	Ge Switch ECDC
MA-95	TO-24	Ge Switch MAT
MA-96	TO-24	Ge Switch MAT
MA-97	TO-24	Ge Switch MAT
SA-310	TO-5	Si Symmetrical SPAT
SA-311	TO-5	Si Symmetrical SPAT
SA-312	TO-5	Si Symmetrical SPAT
SA-313	TO-5	Si Symmetrical SPAT
SA-314	TO-5	Si Symmetrical SPAT
SA-315	TO-5	Si Symmetrical SPAT
SA-316	TO-5	Si Symmetrical SPAT
SA-410	TO-18	Si Symmetrical SPAT
SA-411	TO-18	Si Symmetrical SPAT
SA-412	TO-18	Si Symmetrical SPAT
SA-413	TO-18	Si Symmetrical SPAT
SA-414	TO-18	Si Symmetrical SPAT
SA-415	TO-18	Si Symmetrical SPAT
SA-416	TO-18	Si Symmetrical SPAT
TN53	TO-5	NPN Si Switch, Amp. SEPT
TN54	TO-18	NPN Si Switch, Amp. SEPT
TN55	TO-5	NPN Si Switch, Amp. SEPT
TN56	TO-18	NPN Si Switch, Amp. SEPT
TN57	TO-5	NPN Si SEPT Low-Level Switch
TN58	TO-18	NPN Si SEPT Low-Level Switch
TN59	TO-5	NPN Si Switch, Amp. SEPT
TN60	TO-18	NPN Si Switch, Amp. SEPT
TN61	TO-5	NPN Si Switch, Amp. SEPT
TN62	TO-18	NPN Si Switch, Amp. SEPT
TN63	TO-5	NPN Si Switch, Amp. SEPT
TN64	TO-18	NPN Si Switch, Amp. SEPT
TN79	TO-5	NPN Si SEPT Chopper
TN80	TO-18	NPN Si SEPT Chopper
TN81	TO-5	NPN Si SEPT Switch
TN237	TO-5	NPN Si SEPT Core Driver
TN238	TO-18	NPN Si SEPT Core Driver
TQ55	TO-5	PNP Si Switch, Amp. SEPT
TQ56	TO-18	PNP Si Switch, Amp. SEPT
TQ59	TO-5	PNP Si Switch, Amp. SEPT
TQ60	TO-18	PNP Si Switch, Amp. SEPT
TQ61	TO-5	PNP Si Switch, Amp. SEPT
TQ62	TO-18	PNP Si Switch, Amp. SEPT
TQ63	TO-5	PNP Si Switch, Amp. SEPT
TQ64	TO-18	PNP Si Switch, Amp. SEPT
TW135	TO-18	NPN Si SEPT Switch
UD-1000	TO-90	PNP Si Dual Emitter Chopper Twin DUET
UD-1001	TO-90	PNP Si Dual Emitter Chopper Twin DUET
UD-2000	TO-90	PNP Si Diff. Amp.
UD3005	TO-85	NPN QUAD
UD3006	TO-85	PNP QUAD
UD3007	TO-85	NPN/PNP Complementary Pair
UD4001	TO-91	NPN/PNP Ladder Switch
UD4024	TO-87	Nichrome Buffer Amplifier
UT1000	TO-90	Tantalum Resistor Ladder Network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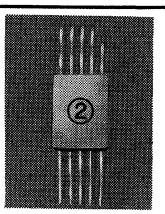
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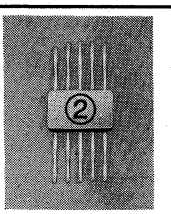
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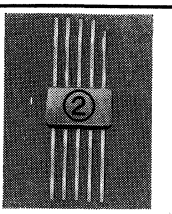
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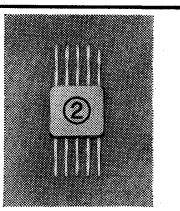
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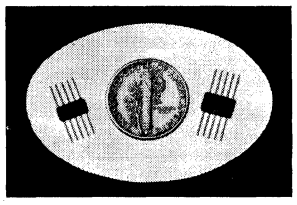
SPRAGUE SEMICONDUCTORS

UNICIRCUIT® MONOLITHIC NETWORKS



- Semiconductor Integrated Networks Fabricated Within Monolithic Substrate Using Planar or Planar/Epitaxial Techniques
- Networks Available Include DTL Logic, Milliwatt RTL Logic, RCTL Logic, Compatible Modified DTL Low-power Elements, Utilogic Elements and Linear Circuits
- Unicircuits With Temperature Range of −55 C to +125 C Meet or Exceed Requirements of MIL-S-19500D
- For Complete Technical Data Refer to Applicable Sprague Engineering Bulletins
- Call Your Sprague Industrial Distributor for Current Prices

Type Number	Case	Description
MILLIWATT RTL LOGIC (−55C to +125C)		
US-0908D	TO-78	Adder
US-0909D	TO-78	Buffer
US-0910D	TO-78	Dual Gate
US-0911D	TO-78	4-Input Gate
US-0912D	TO-78	Half Adder
US-0913D	TO-78	Register
US-0921D	TO-78	Gate Expander
RCTL LOGIC (−55C to +125C)		
US-0100B	TO-90	R-S Flip-Flop
US-0101B	TO-90	R-S Flip-Flop W/E.F.
US-0102B	TO-90	6-Input "NOR-NAND" Gate
US-0103B	TO-90	6-Input "NOR-NAND" Gate W/E.F.
US-0104B	TO-90	Dual 3-Input "NOR-NAND" Gate
US-0105B	TO-90	Exclusive "OR" Network
US-0106B	TO-90	Triple Gate
US-0107B	TO-90	Clock Driver
US-0108B	TO-90	One Shot
US-0109B	TO-90	"Pulse Exclusive-OR"
US-0110C	TO-85	R-S Flip-Flop with Dual Presets
US-0111C	TO-85	R-S Flip-Flop with Dual Presets W/E.F.
US-0112C	TO-85	Triple 2 Input "NOR-NAND" Gate
US-0113C	TO-85	Triple 2 Input "NOR-NAND" Gate W/E.F.
US-0114B	TO-90	4x1x1 Input "NOR-NAND" Gate
US-0115B	TO-90	4x1x1 Input "NOR-NAND" Gate W/E.F.
US-0012B	TO-90	R-S Ripple Counter Flip-Flop
★DTL LOGIC (−55C to +125C)		
SE106J	TO-88	Dual 5-Input Gate Expander
SE111J	TO-88	Dual 4-Input High Fan-Out NAND/NOR Gate
SE112J	TO-88	Dual 3-Input High Fan-Out NAND/NOR Gate†
SE116J	TO-88	Dual 4-Input NAND/NOR Gate†
SE124J	TO-88	RST Binary Element
SE125J	TO-88	J-K Binary Element
SE155J	TO-88	Dual 4-Input CLOCK/CAPACITIVE Line Driver
SE156J	TO-88	Dual 4-Input CLOCK/CAPACITIVE Line Driver†
SE161J	TO-88	Monostable Multivibrator
SE170J	TO-88	Triple 3-Input NAND/NOR Gate
SE180J	TO-88	Quadruple 2-Input NAND/NOR Gate
US720J	TO-88	Quadruple 2-Input NAND/NOR Gate
US721J	TO-88	Triple 2-Input NAND/NOR Gate
US727J	TO-88	Triple 3-Input NAND/NOR Gate†
US729J	TO-88	RST Binary Element
US730J	TO-88	Dual 5-Input NAND/NOR Gate
US731J	TO-88	Quadruple 2-Input Gate Expander
US732J	TO-88	12-Input Gate Expander
★DTL LOGIC (0C to +70C)		
NE106J	TO-88	Dual 5-Input Gate Expander
NE112J	TO-88	Dual 3-Input High Fan-Out NAND/NOR Gate†
NE116J	TO-88	Dual 4-Input NAND/NOR Gate†
NE124J	TO-88	RST Binary Element
NE125J	TO-88	J-K Binary Element
NE156J	TO-88	Dual 4-Input CLOCK/CAPACITIVE Line Driver†
NE161J	TO-88	Monostable Multivibrator
NE170J	TO-88	Triple 3-Input NAND/NOR Gate
NE180J	TO-88	Quadruple 2-Input NAND/NOR Gate
★UTILOGIC ELEMENTS (−20C to +85C)		
SU300K	K Package*	Dual 3-Input Gate Expander
SU305K	K Package*	6-Input AND Gate
SU306K	K Package*	Dual 3-Input AND Gate
SU314K	K Package*	7-Input NOR Gate
SU315K	K Package*	Dual 3-Input NOR Gate
SU316K	K Package*	Dual 2-Input NOR Gate†
SU320K	K Package*	J-K Binary Element
SU331K	K Package*	Dual 2-Input OR Gate†
SU332K	K Package*	Dual 3-Input OR Gate
★UTILOGIC ELEMENTS (+10C to +55C)		
LU300K	K Package*	Dual 3-Input Gate Expander
LU305K	K Package*	6-Input AND Gate
LU306K	K Package*	Dual 3-Input AND Gate
LU314K	K Package*	7-Input NOR Gate
LU315K	K Package*	Dual 3-Input NOR Gate
LU316K	K Package*	Dual 2-Input NOR Gate†
LU320K	K Package*	J-K Binary Element
LU331K	K Package*	Dual 2-Input OR Gate†
LU332K	K Package*	Dual 3-Input OR Gate
★COMPATIBLE LOW-POWER ELEMENTS (−55C to +125C)		
SE416J	TO-88	Dual 4-Input NAND/NOR Gate†
SE424J	TO-88	Dual A-C Binary Element
SE455J	TO-88	Dual 4-Input BUFFER/DRIVER
SE480J	TO-88	Quadruple 2-Input NAND†NOR Gate
★COMPATIBLE LOW-POWER ELEMENTS (0C to +70C)		
NE416J	TO-88	Dual 4-Input NAND/NOR Gate†
NE424J	TO-88	Dual A-C Binary Element
NE455J	TO-88	Dual 4-Input BUFFER/DRIVER
NE480J	TO-88	Quadruple 2-Input NAND/NOR Gate
★LINEAR CIRCUITS (−55C to +125C)		
SE501G	TO-91	Video Amplifier
SE505G	TO-91	General Purpose Differential Amplifier
SE501K	K Package*	Video Amp.
SE505K	K Package*	General Purpose Differential Amplifier
SE506K	K Package*	Differential Operational Amplifier
SE518K	K Package*	Analog Comparator
★LINEAR CIRCUITS (0C to +70C)		
NE506K	K Package*	Differential Operational Amplifier
NE518K	K Package*	Analog Comparator
★COMPATIBLE TTL ELEMENTS (—55C to +125C)		
SE806J	TO-88	Dual 4-Input Gate Expander
SE808J	TO-88	Single 8-Input NAND Gate
SE816J	TO-88	Dual 4-Input NAND Gate
SE825J	TO-88	J-K Binary Element
SE826J	TO-88	Dual AC Binary Element
SE840J	TO-88	Dual Exclusive OR Gate†
SE855J	TO-88	Dual 4-Input Power Gate
SE870J	TO-88	Triple 3-Input NAND Gate
SE880J	TO-88	Quadruple 2-Input NAND Gate
★COMPATIBLE TTL ELEMENTS (0C to +70C)		
NE806J	TO-88	Dual 4-Input Gate Expander
NE808J	TO-88	Single 8-Input NAND Gate
NE816J	TO-88	Dual 4-Input NAND Gate
NE825J	TO-88	J-K Binary Element
NE826J	TO-88	Dual AC Binary Element
NE840J	TO-88	Dual Exclusive OR Gate†
NE855J	TO-88	Dual 4-Input Power Gate
NE870J	TO-88	Triple 3-Input NAND Gate
NE880J	TO-88	Quadruple 2-Input NAND Gate

All listings with a ★ on this page are interchangeable with Signetics Corporation parts having the same number except that Sprague Series US700 microcircuits are interchangeable with Signetics parts having the same number but using a CS prefix. All circuits with a star are manufactured under technology interchange with Signetics Corporation.

*Modified 10-Lead TO-5 †Element incorporates fan-in expansion provision

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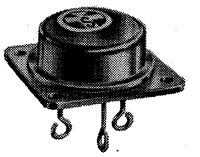
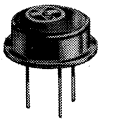
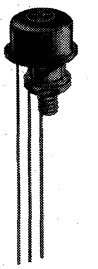
SILICON TRANSISTOR CORPORATION

SILICON NPN AND PNP POWER TRANSISTORS

Silicon Transistor Corp. makes more different silicon power transistors than any other manufacturer.

NPN Types

Type	Case Type	Pd Watts 100°C Case	BVCEO Volts	hFE Min.	@ Ic Amps.	VCE(sat.) Volts Max.	@ Ic Amps.
2N1016B	150W	71	100	10	5	2.5	5
2N1016C	150W	71	150	10	5	2.5	5
2N1016D	150W	71	200	10	5	2.5	5
2N1483	TO-8	14.1	40	20	0.75	2.0	0.75
2N1484	TO-8	14.1	55	20	0.75	2.0	0.75
2N1485	TO-8	14.1	40	35	0.75	0.75	0.75
2N1486	TO-8	14.1	55	35	0.75	0.75	0.75
2N1487	TO-3	43	40	15	1.5	3.0	1.5
2N1488	TO-3	43	55	15	1.5	3.0	1.5
2N1489	TO-3	43	40	25	1.5	1.0	1.5
2N1490	TO-3	43	55	25	1.5	1.0	1.5
2N1618	TO-61	45	80	15	2.0	2.0	2.0
2N1722	TO-53	50	80	20	2.0	1.0	2.0
2N1724	TO-61	50	80	20	2.0	1.0	2.0
2N1768	TO-75	22.8	40	35	0.75	0.75	0.75
2N1769	TO-75	22.8	55	35	0.75	0.75	0.75
2N2033	TO-5	5.0	60	20	0.5	0.8	0.5
2N2034	TO-5	5.0	60	20	1.0	0.3	1.0
2N2035	TO-8	14.1	60	20	1.5	0.45	1.5
2N2036	TO-37	10	60	20	2.0	1.0	2.0
2N2823	TO-63	100	80	10	20	1.1	20
2N2824	TO-63	100	100	10	20	1.1	20
2N2825	TO-63	100	150	10	20	1.1	20
2N2828	TO-59	22.8	60	20	0.5	0.4	0.5
2N2829	TO-59	22.8	60	20	1.0	0.3	1.0
2N2858	TO-5	5.0	80	20	1.0	0.3	1.0
2N2859	TO-5	5.0	100	20	1.0	0.3	1.0
2N2911	TO-5	5.0	125	20	1.0	0.3	1.0
2N3149	1⅛" stud	200	80	10	50	1.5	50
2N3150	1⅛" stud	200	100	10	50	1.5	50
2N3151	1⅛" stud	200	150	10	50	1.5	50
STC2500	1¼" stud	300	100	10	100	1.5	100
STC2501	1¼" stud	300	150	10	100	1.5	100

NPN Types

Type	Case Type	Pd Watts 100°C Case	BVCEO Volts	hFE Min.	@ Ic Amps.	VCE(sat.) Volts Max.	@ Ic Amps.
2N3237	IND. TO-3	100	75	12	10	2.0	10
2N3238	IND. TO-3	85	80	8.5	10	3.0	10
2N3239	IND. TO-3	85	80	8.5	10	1.0	10
2N3240	IND. TO-3	85	160	8.5	10	1.0	10

PNP Types

Type	Case Type	Pd Watts 100°C Case	BVCEO Volts	hFE Min.	@ Ic Amps.	VCE(sat.) Volts Max.	@ Ic Amps.
2N2881	TO-5	5.0	60	20	0.5	0.4	0.5
2N2882	TO-5	5.0	100	20	0.5	0.4	0.5
2N3163	TO-61	45	40	12	1.0	0.75	1.0
2N3164	TO-61	45	60	12	1.0	0.75	1.0
2N3165	TO-61	45	80	12	1.0	0.75	1.0
2N3166	TO-61	45	100	12	1.0	0.75	1.0
2N3175	TO-61	45	40	10	2.0	1.0	2.0
2N3176	TO-61	45	60	10	2.0	1.0	2.0
2N3177	TO-61	45	80	10	2.0	1.0	2.0
2N3178	TO-61	45	100	10	2.0	1.0	2.0
2N3202	TO-5	5	40	20	1.0	0.3	1.0
2N3203	TO-5	5	60	20	1.0	0.3	1.0
2N3204	TO-5	5	80	20	1.0	0.3	1.0
2N3205	TO-59	22.8	40	20	0.5	0.4	0.5
2N3206	TO-59	22.8	60	20	0.5	0.4	0.5
2N3207	TO-59	22.8	100	20	0.5	0.4	0.5
2N3208	TO-5	5.0	40	20	0.5	0.4	0.5

Write today for new, complete catalog.

SILICON TRANSISTOR CORPORATION

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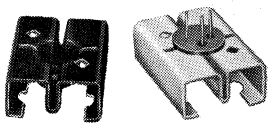
WAKEFIELD ENGINEERING, INC.

Semiconductor Coolers

CIRCUIT BOARD SNAP-ON HEAT SINKS

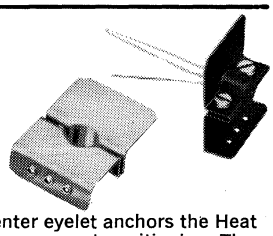


Types 140, 141 and 142 fit popular press fit diodes and SCRs as well as the JEDEC TO-8 case style. The cross slot design permits semiconductor cavity to expand cylindrically thus hugging the case diameter closely, ranging from .480 to .505.

Series 140 Heat Sinks provide thermal resistance as low as 10°C/w. A spring retention clip may be used in applications where cooling is critical and the very best thermal contact between case and sink is needed. MATERIAL is the highest thermally conductive commercially pure aluminum, 1100 alloy. FINISH: black anodize is standard but no finish parts are available from factory stock.

Cat. No.	1-499	500-999	1,000-2,499	2,500-4,999
ALUMINUM — NO FINISH				
140	110.00/M	90.00/M	75.00/M	65.00/M
141	115.00/M	95.00/M	80.00/M	70.00/M
142	125.00/M	115.00/M	105.00/M	98.00/M
ANODIZED				
140	140.00/M	120.00/M	105.00/M	95.00/M
141	155.00/M	135.00/M	120.00/M	110.00/M
142	185.00/M	175.00/M	165.00/M	159.00/M
STAINLESS STEEL RETENTION CLIP — NO FINISH				
140C	65.00/M	62.50/M	60.50/M	59.00/M

CIRCUIT BOARD COOLERS FOR TO-5 TRANSISTORS



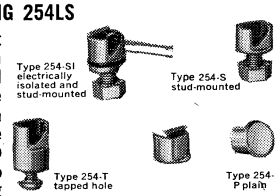
Where space on the circuit board is at a premium, the new Type 150 Heat Sink requires only 0.375 in.^{2} area. In applications permitting 1⅜" height above the circuit board, this lightweight, economical Cooler has good performance characteristics with TO-5 cases; case rise 40°C @ 1 w with bright aluminum natural finish or 34°C @ 1 w with black anodize finish. Two #4 x ¼" long sheet metal screws are used to solidly clamp the TO-5 case in the Type 150 Heat Sink. Three eyelets extruded from the mounting base provide keying to the circuit board. A sheet metal screw in the center eyelet anchors the Heat Sink to the board and the two outer eyelets are then set for permanent positioning. These coolers are provided without screws.

Cat. No.	1-499	500-999	1,000-2,499	2,500-4,999
ALUMINUM — NO FINISH				
150	61.00/M	51.00/M	41.00/M	36.00/M
ANODIZED				
150	102.00/M	92.00/M	82.00/M	77.00/M

MATERIAL: 1100 aluminum alloy

FINISH: Black anodize or no finish

THERMAL RETAINERS FOR TO-5 CASES—WITH LOCKING SPRING 254LS



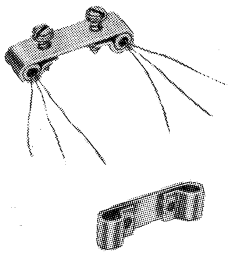
The TO-5 case style, including the Kovar header type, is best heat sinked at the bottom face of the flange since the silicon die is attached to the header. Series TR-254 Heat Sinks all provide this preferred contacting method. All five types are intended as thermal links from the transistor case to a cooler or to a chassis member acting as the heat sink. Type 254-SI has built-in electrical isolation with WAKEFIELD Delta Bond 152 Thermally Conductive Adhesive used to bond the Type 254-R to a stud. Type 254-LS Locking Spring is inserted behind the transistor. Type 120 Joint Compound should be applied to transistor header before insertion. MATERIAL: Zimac 3. Type 254-LS Locking Spring material: stainless steel. Stud material in Type 254-S1: 6061-T6 aluminum with gold irridite finish. FINISH: Nickel plate. Mounting hardware is not furnished.

Cat. No.	1-99	100-499	500-999	1,000-2,499	2,500-4,999
FINISH — CHROMATE CONVERSION					
254-S	175.00/M	150.00/M	135.00/M	120.00/M	110.00/M
254-T	200.00/M	170.00/M	150.00/M	135.00/M	125.00/M
254-S1	250.00/M	210.00/M	190.00/M	170.00/M	155.00/M
254-P	125.00/M	115.00/M	105.00/M	95.00/M	85.00/M
254-D	210.00/M	180.00/M	160.00/M	145.00/M	135.00/M

THERMAL RESISTANCE: TO-5 case to chassis on which unit is mounted. (Type 120 Thermal Joint Compound is used.)

Type 254	P	D	S	SI	T
Ø case to chassis °C/w	4	4.2	4.1	6.0	5.3

THERMAL CLAMP FOR TO-1 CASES



For push/pull driver or low power output applications using TO-1 case style transistors, this versatile thermal clamp provides solid, economical retention of the cases to a chassis or heat sink. Two cases can be mounted in the Type 255 Thermal Clamp. 3°C/w per TO-1 transistor is obtained or 1½°C/w for both. Mounting centers are kept broad to better distribute the power from the two transistors across the chassis or heat sink. This also permits sufficient circuit board space for mounting components common to the transistors. #6 sheet metal or self-tapping screws can be used from the chassis thru the Type 255 Clamp. Or, #4 machine screws with nuts can be used from either direction. (Screws are not furnished.) MATERIAL: 1100 aluminum alloy. FINISH: none.

Cat. No.	1-499	500-999	1000-2,499	2,500-4,999
ALUMINUM — NO FINISH				
255	63.00/M	53.00/M	43.00/M	38.00/M

DELTA BOND 152 THERMALLY CONDUCTIVE ADHESIVE

An adhesive with high conductivity to be used: As a general adhesive — For bonding semiconductors to chassis heat sinks — Fabricating heat sinks or thermal links — For permanent bonding of all materials with highly thermal conductive interface. Delta Bond fills the need of a general purpose adhesive. It produces a rigid high strength bond to most materials when cured. Being 100% solid adhesive, it is effective on porous and non-porous surfaces such as metals, glass, ceramics and most plastics. The main features are high thermal conductivity, excellent di-electric strength and a coefficient of thermal expansion similar to that of aluminum and copper.

Kit Size	1-9	10-24	25-49	50-99
7.5 oz.	$5.00 ea.	$4.75 ea.	$4.50 ea.	$4.25 ea.
1 oz.	2.25	2.00	1.85	1.75
Sample	1.40	1.25	1.15	1.10

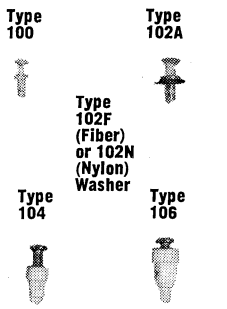
WAKEFIELD THERMAL JOINT COMPOUND

Improved thermal conductance from semiconductor to cooler may be obtained by applying a light coating of WAKEFIELD Thermal Joint Compound on the mounting surface. This Compound has a thermal conductivity approximately four times that of silicone grease.

TYPE	QUANTITY	PRICE
120	2 oz.	1.95
128	8 oz.	5.10
1280	5 lbs.	30.00

SERIES 100-BLIND NYLON INSULATING FASTENERS

Cat. No.	1-499	500-999	1000-2499	2500-4999
100	32.00/M	28.00/M	24.00/M	20.00/M
102F	48.00/M	42.00/M	36.00/M	30.00/M
102N	66.00/M	57.75/M	49.50/M	41.25/M
104	46.00/M	40.25/M	34.50/M	28.75/M
106	66.40/M	58.10/M	49.80/M	41.50/M

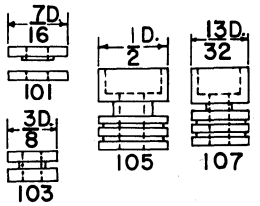


Panel hole dia.	.125±.005	.187±.005		
Panel thickness	.093 max.	.125 max. .063 max. with 102F or 102N		
Accepts screw (not furnished)			#8 sheet metal or machine	#8 sheet metal or machine
Screw length			Panel + 5/8"	Panel + 3/4"
Shoulder dia.	¼	⅜	⅜	½
Hypot volts		1.5kw with washer	3kv	3kv

*Washer O.D. = 7/16", I.D. = 13/64"±.005 and thickness = 1/16"±.006

SERIES 100-TEFLON MOUNTING INSULATORS

Mfr's Type	For Heatsink No.	No. Req'd	BKDN Kv	Each Net
101	501 502, 503, 504, 505	3 Sets 4 pr	1	7¢
103	401 403, 413, 421, 423 621, 623, 641	3 4 4	1.5	5¢
105 107	441, WN Same as for 103	4	5 3.5	20¢ 20¢



WAKEFIELD ENGINEERING, INC.

Semiconductor Coolers

SERIES 200 FEATHERWEIGHT COOLERS

TYPE	RISE (°C) FOR 1 WATT NAT. CONV.	250 FT./MIN.	FITS JEDEC CASE STYLES
201 203 222	66 56 56	27 19 19	TO 18, 24, 28, (222 accepts 2 cases)
204 205 207 209 224	70 61 49 34 49	28 24 17 10 17	TO 5, 9, 11, 12, 16 29, 33, 39, 42, 43 (224 accepts 2 (cases)
211 213 215	56 44 31	20 13 8	TO 8

1

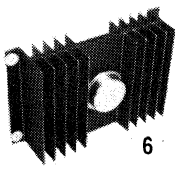
2

3

4

STOCK NO.	MFR'S TYPE	FIG.	DIA.	LGTH.	FITS CASE DIA.	EACH 1-49	50-499	500-999	1,000-4,999
	NF201	1	.64	.19	.161/.195	.27	.21	.16	.11
	NF203	2	.64	.38	.161/.195	.29	.22	.17	.12
	NF204	1	.55	.20	.275/.335	.25	.20	.15	.10
	NF205	1	.72	.19	.275/.335	.27	.21	.16	.11
	NF207	2	.72	.38	.275/.335	.29	.22	.17	.12
	NF209	3	1.26	.44	.275/.335	.34	.29	.23	.18
	NF211	1	.82	.19	.444/.524	.27	.21	.16	.11
	NF213	2	.82	.38	.444/.524	.29	.22	.17	.12
	NF215	3	1.38	.44	.444/.524	.34	.29	.23	.18
	NF222	4	.64	.38	.161/.195	.38	.30	.24	.19
	NF224	4	.72	.44	.275/.335	.38	.30	.24	.19
	160 Installation tool for Models 201, 3, 5, 7, 9								1.00
	161 Installation tool for Models 211, 213, 215								1.00

SERIES 400 NATURAL CONVECTION COOLERS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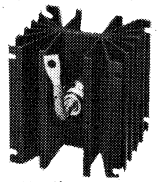
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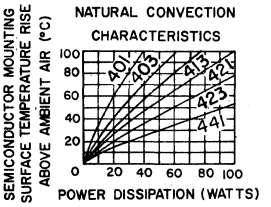


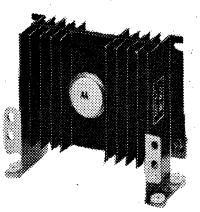
Semiconductor mtg. area for 401 thru 423 is 1.31 wide and for 441 is 1.5 wide.

STOCK NO.	MFR'S. TYPE	FIG.	INCHES H	W	D	EACH 1-49	50-99	100-249	250-499
	NC401A					1.55	1.27	1.07	.92
	NC401B					1.55	1.27	1.07	.92
	NC401E	6	1.50	4.81	1.25	1.78	1.45	1.22	1.06
	NC401K					1.29	1.06	.88	.76
	NC403A					1.78	1.45	1.23	1.07
	NC403B					1.78	1.45	1.23	1.07
	NC403C	6	3.00	4.81	1.25	1.78	1.45	1.23	1.07
	NC403K					1.52	1.24	1.05	.90
	NC413A					2.41	1.96	1.65	1.43
	NC413B	6	3.00	4.81	1.87	2.41	1.96	1.65	1.43
	NC413K					2.15	1.75	1.46	1.27
	NC421A					2.51	2.05	1.73	1.49
	NC421B	6	3.00	4.81	2.63	2.51	2.05	1.73	1.49
	NC421C					2.51	2.05	1.73	1.49
	NC421K					2.24	1.84	1.54	1.32
	NC423A					3.66	2.98	2.52	2.17
	NC423B	6	5.50	4.81	2.63	3.66	2.98	2.52	2.17
	NC423K					3.40	2.77	2.33	2.00
	NC441J					6.41	5.24	4.37	3.77
	NC441W	7	5.50	4.75	4.50	6.41	5.24	4.37	3.77
	NC441K					5.92	4.84	4.03	3.48

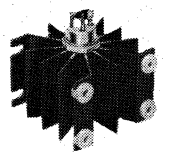
VERTICAL MTG. BRACKETS

Meet vibration of Mil 202B. For NC401 and 403 use #111, for NC421 and 423 use #113. Two bkts. required per sink. To insulate use Teflon insulator #103. Shpg. wt., 10 oz.

STOCK NO.	TYPE	1-99	100-499
	111	.15	.12
	113	.18	.15



SERIES 300 RECTIFIER COOLERS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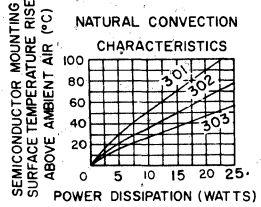
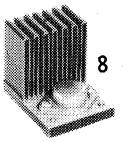


STOCK NO.	MFR'S. TYPE	FIG.	INCHES H	W	D	EACH 1-49	50-99	100-249	250-499
	NC301L					1.55	1.30	1.05	.90
	NC301M					1.55	1.30	1.05	.90
	NC301N	5	.75	2.00	2.00	1.55	1.30	1.05	.90
	NC301R					1.55	1.30	1.05	.90
	NC301RR					1.85	1.55	1.25	1.10
	NC301K					1.25	1.05	.85	.70
	NC302M					1.65	1.40	1.15	1.00
	NC302N					1.65	1.40	1.15	1.00
	NC302R	5	1.50	2.00	2.00	1.65	1.40	1.15	1.00
	NC302K					1.35	1.15	.95	.80
	NC302NN					1.95	1.65	1.35	1.20
	NC302RR					1.95	1.65	1.35	1.20
	NC303N					1.90	1.60	1.30	1.15
	NC303R					1.90	1.60	1.30	1.15
	NC303K	5	3.00	2.00	2.00	1.60	1.35	1.10	.95
	NC303NN					2.20	1.85	1.50	1.35
	NC303RR					2.20	1.85	1.50	1.35

SERIES 500 FORCED CONVECTION COOLERS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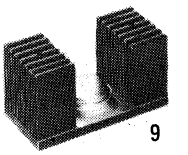
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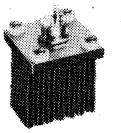
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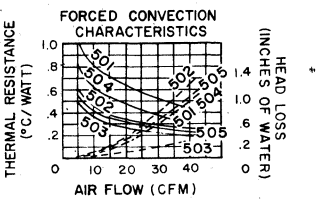
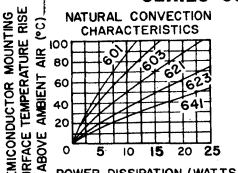


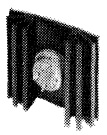
Semiconductor mounting areas

501	502	503	504	505
1.25x1.75	1.50x1.75	1.5x3.0	1.75x1.75	2.0x1.75

STOCK NO.	MFR'S. TYPE	FIG.	INCHES H	W	D	EACH 1-49	50-99	100-249
	FC501A					5.61	5.01	4.68
	FC501B	8	1.75	1.75	2.25	5.45	4.84	4.51
	FC501K					5.06	4.51	4.24
	FC502A					8.03	7.21	6.77
	FC502B	9	1.75	3.50	1.75	7.87	7.04	6.60
	FC502K					7.48	6.71	6.33
	FC503A					13.42	12.05	11.28
	FC503B	9	1.75	3.50	3.50	13.26	11.88	11.11
	FC503K					12.87	11.55	10.84
	FC504K	10	1.75	1.75	1.75	4.62	4.18	3.85
	FC505K		1.75	1.75	2.00	6.71	5.89	5.50

SERIES 600 CIRCUIT BOARD COOLERS

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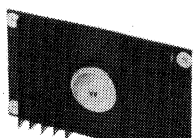
12

Semiconductor mtg. area for 601 and 603 is .81 wide and for 621 thru 641 is 1.31 wide.

STOCK NO.	MFR'S. TYPE	FIG.	INCHES H	W	D	EACH 1-49	50-99	100-249	250-499
	NC601K		1.25	2.02	.56	1.10	.90	.70	.55
	NC603T	11	2.00	2.02	.56	1.50	1.20	.95	.80
	NC603K		2.00	2.02	.56	1.20	.95	.75	.60
	NC621A		1.50	4.81	.46	1.65	1.35	1.10	.95
	NC621B	12	1.50	4.81	.46	1.65	1.35	1.10	.95
	NC621K		1.50	4.81	.46	1.35	1.10	.90	.75
	NC623A		3.00	4.81	.46	1.80	1.50	1.20	1.05
	NC623B	12	3.00	4.81	.46	1.80	1.50	1.20	1.05
	NC623K		3.00	4.81	.46	1.50	1.25	1.00	.85
	NC641A		3.00	4.12	1.00	1.95	1.60	1.30	1.10
	NC641B	11	3.00	4.12	1.00	1.95	1.60	1.30	1.10
	NC641K		3.00	4.12	1.00	1.65	1.35	1.10	.90

Net

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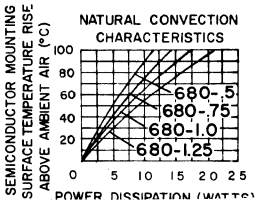
WAKEFIELD ENGINEERING, INC.

Semiconductor Coolers

SERIES 680 CIRCUIT BOARD COOLERS

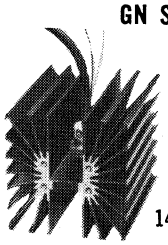
Model 680 Coolers will accommodate TO-3, TO-36, 2N1016 or other smaller case sizes.

13



STOCK NO.	MFR'S. TYPE	FIG.	INCHES H	W	D	EACH 1-24	25-49	50-99	100-499
	NC680-.5A NC680-.5B NC680-.5K	13	.50	1.81	1.81	.91	.85	.80	.75
	NC680-.75A NC680-.75B NC680-.75K	13	.75	1.81	1.81	.91	.85	.80	.75
	NC680-1.0A NC680-1.0B NC680-1.0K	13	1.00	1.81	1.81	.91	.85	.80	.75
	NC680-1.25A NC680-1.25B NC680-1.25K		1.25	1.81	1.81	.91	.85	.80	.75

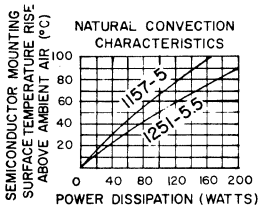
GN SERIES FOR 70/200 AMP RECTIFIERS



Width of Semiconductor Mounting area.

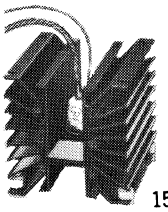
GN1157—1.07 min.
GN1251—1.31 min.

14



STOCK NO.	MFR'S. TYPE	FIG.	INCHES H	W	D	EACH 1-24	25-49	50-99	100-199
	GN1157-5H					5.55	4.75	4.20	3.75
	GN1157-5J	14	4.12	4.12	5.00	5.55	4.75	4.20	3.75
	GN1157-5K					5.20	4.45	3.95	3.55
	GN1251-5.5W		5.00	5.00	5.50	7.00	6.00	5.30	4.75
	GN1251-5.5K					6.65	5.70	5.00	4.55

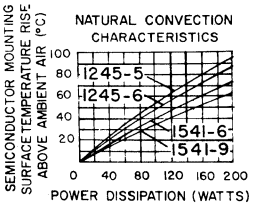
WN SERIES FOR 70/350 AMP RECTIFIERS



Width of Semiconductor mounting area.

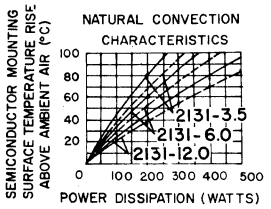
WN1244—1.10 min.
WN1245—1.28 min.
WN1541—1.76 min.

15



STOCK NO.	MFR'S. TYPE	FIG.	INCHES H	W	D	EACH 1-24	25-49	50-99	100-199
	WN1244-5H					4.85	4.15	3.70	3.30
	WN1244-5J	15	4.00	4.00	5.00	4.85	4.15	3.70	3.30
	WN1244-5K					4.50	3.85	3.40	3.10
	WN1245-6W	15	5.00	5.00	6.00	6.15	5.25	4.65	4.15
	WN1245-6K					5.80	4.95	4.40	3.95
	WN1541-6Z					9.55	8.20	7.25	6.50
	WN1541-6Y					9.55	8.20	7.25	6.50
	WN1541-6K	15	6.25	6.25	9.00	9.00	7.75	6.85	6.15
	WN1541-9Z					13.40	11.50	10.20	9.20
	WN1541-9Y					13.40	11.50	10.20	9.20
	WN1541-9K					13.10	11.25	9.90	8.90

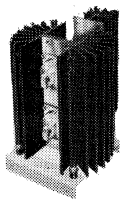
MN SERIES FOR 240/650 AMP RECTIFIERS



DOTTED LINES INDICATE MODELS WITH INSERT 2159

Width of semiconductor mtg. area of MN2131 is 3.45 min.

17



16

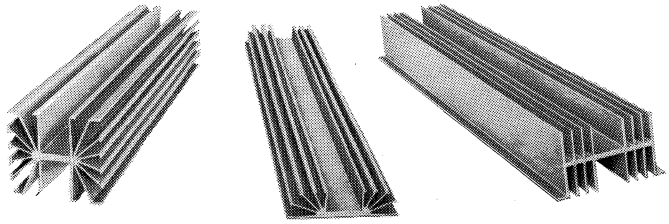
18

MN2159 inserts give added dissipation for surface mounting rectifiers as shown.

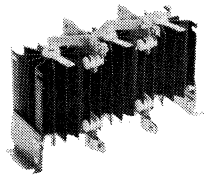
STOCK NO.	MFR'S. TYPE	FIG.	INCHES H	W	D	EACH 1-9	10-24	25-49	50-99
	MN2131-3.5K		3.5			7.70	6.60	5.85	5.25
	MN2131-6K	16	6.0	9.25	6.75	11.95	10.30	9.10	8.20
	MN2131-12K		12.0			21.80	18.70	16.50	14.85
	MN2159-3.5K		3.5			1.95	1.70	1.50	1.35
	MN2159-6K	17	6.0	3.37	3.43	3.15	2.70	2.40	2.15
	MN2159-12K		12.0			5.50	4.75	4.20	3.75
	109	18	1.5	7.5	1.5	Plastic Angle Bkt.			.95 ea.

EXTRUSION IN 3 FT. LENGTHS

STOCK NO.	MFR'S. TYPE	FOR COOLER TYPE	INCHES H	W	NET EACH PER 3 FT.LGTH. 1-4	5-9	10-24
	300	NC301, 302,303	2.00	2.00	6.00	5.00	4.50
	400	NC401, 403	1.25	4.81	7.75	6.50	5.75
	410	NC413	1.87	4.81	10.50	9.25	8.00
	420	NC421, 423	2.63	4.81	12.75	11.00	9.50
	440	NC441	4.50	4.75	20.50	17.50	15.50
	600	NC601, 603	.56	2.24	3.25	2.75	2.50
	620	NC621, 623	.46	4.81	5.75	5.00	4.25
	640	NC641	1.00	4.12	7.50	6.50	5.75
	1157	GN1157	4.12	4.12	25.50	22.00	19.25
	1251	GN1251	5.00	5.00	32.25	27.75	24.50
	1244	WN1244	4.00	4.00	25.50	22.00	19.25
	1245	WN1245	5.00	5.00	32.50	28.00	24.50
	1541	WN1541	6.25	6.25	51.00	43.75	38.75
	2131	MN2131	6.75	9.25	63.00	54.00	47.50
	2159	MN2159 Insert	3.44	3.38	12.75	11.00	9.50



SERIES 300 RECTIFIER STACK HARDWARE KIT

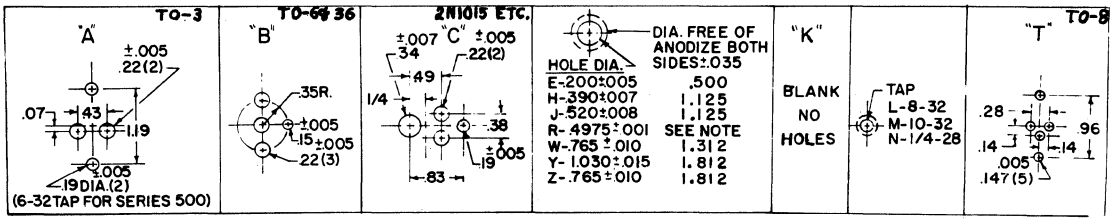


This kit of hardware makes it possible to quickly assemble rugged rectifier stack assemblies from press fit rectifiers and NC301, 302 and 303 R and RR Rectifier Sinks. Contains a total of 94 pcs. made up of 9 different items, including bus bars, rectifier lugs, 4 types insulating supports, 2 types mounting feet and a pair of rectifier driving blocks. All hardware items available in bulk and may be ordered from parts list included in kit.

Stock No. Net Each **$19.95**

STANDARD SEMICONDUCTOR MOUNTING ACCOMMODATIONS

MANUFACTURERS TYPE SUFFIX (A, B, C, ETC.) DENOTES MOUNTING. DOUBLE SUFFIX DENOTES 2 MOUNTINGS.



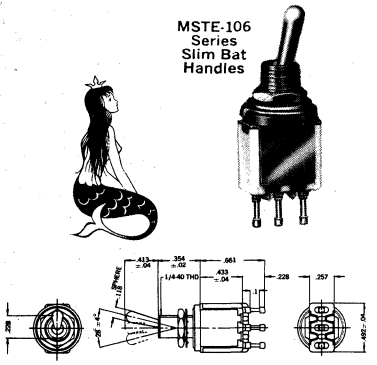
NOTE: I.D. OF R (.4975 DIA.) HOLE FREE OF ANODIZE

ALCOSWITCH

MANUFACTURED TO MEET MINIATURIZATION REQUIREMENTS

SPDT

MSTE-106 Series Slim Bat Handles



A waterproof series with a conservative 6 Amps rating. This thin profile switch features new turret lugs to simplify wiring. The highest standard has been attained in the miniature switch field.

"E" SERIES FEATURES FOR SPDT, DPDT, 3PDT AND 4PDT MODELS

Another "first" — the new "E" Series with the features most wanted in miniature switches. Repeatedly, ALCOSWITCH seeks out the new, the different and the dramatic engineering departures that build better switch products — in fact, our "firsts" have made the ALCOSWITCH the best engineered and most used in the industry. By every comparison ALCOSWITCH stands alone as Number One, and with the introduction of the "E" Series it unquestionably has no equal for precision-made switches in production quantities.

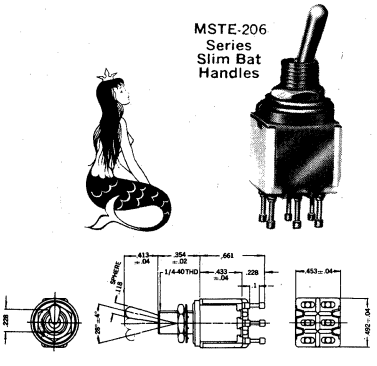
INDUSTRIAL NET PRICE SCHEDULE

MODEL	DESCRIPTION	One-24	25-99	100-499	500-999
MSTE-106D	On-None-On	1.95	1.33	1.17	.975
MSTE-106E	On-Off-On	2.55	1.72	1.53	1.28

ALCOSWITCH

DPDT

MSTE-206 Series Slim Bat Handles



Compact, ½" square, low loss case with solid silver contacts makes this switch ideal for critical applications. It's the "perfect switch" with new features in the same price field that has made ALCOSWITCH the leader.

"E" Series Features Continued

WATERPROOF — Neoprene "O" rings located inside the toggle and on the shoulder. Terminals permanently sealed.
NO TEAR-OFFS — A mechanical shoulder on the bottom of the bushing prevents "tear-offs" where one-nut mounting is employed.
VOLTAGE BARRIERS — A new case design features high voltage barriers between terminals inside as well as outside.
HIGH IMPACT CASE — New plastic material capable of withstanding a higher impact; guards against accidental damage.
LOW LOSS CASE — Features extremely high resistance between terminals and case ground.
HIGH TEMPERATURE CASE — Ideally suited for printed circuit applications — prolongs soldering time.

INDUSTRIAL NET PRICE SCHEDULE

MODEL	DESCRIPTION	One-24	25-99	100-499	500-999
MSTE-206N	On-None-On	2.55	1.72	1.53	1.28
MSTE-206P	On-Off-On	3.15	2.14	1.89	1.58
MSTE-206PA*	On-On-On	3.45	2.35	2.07	1.73

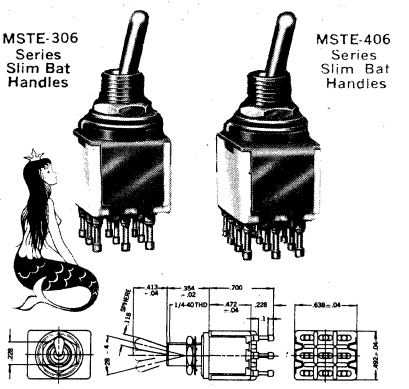
*DP3T

For operational details see inside center spread

3PDT AND 4PDT

MSTE-306 Series Slim Bat Handles

MSTE-406 Series Slim Bat Handles



Exclusive one-piece unitized case style, handles multiple circuits and is easily mounted in compact areas. No other 3 and 4 pole miniature switch can claim these most wanted features.

"E" Series Features Continued

TURRET TYPE TERMINALS — New shape is employed for simplified wiring or for printed circuit use.
SOLID SILVER CONTACTS — Solid silver wide surface contacts bonded (not riveted) on copper-silverplated terminals.
6-AMP RATING — Conservative 6 Amps @ 125 VAC. Exceptionally high current capacity in a compact case.
LONG-LIFE CYCLE — Over 100,000 on-off operations at rated operating conditions (SPDT).
COLOR-IDENT CAPS — Model C-10 caps optionally available to simplify color identification.
STAINLESS OR GOLD — Available on special orders, ALCOSWITCHES can be made with stainless steel construction or with goldplated contacts and terminals, or both. Quotation on request.

INDUSTRIAL NET PRICE SCHEDULE

MODEL	DESCRIPTION	One-24	25-99	100-499	500-999
MSTE-306D†	On-None-On	4.25	2.89	2.55	2.13
MSTE-306E†	On-Off-On	4.75	3.23	2.85	2.38
MSTE-406N°	On-None-On	5.35	3.64	3.21	2.68
MSTE-406P°	On-Off-On	5.95	4.05	3.57	2.98

†3PDT °4PDT

"E" SERIES ENGINEERED FOR EXCELLENCE TO MAKE THEM THE "PERFECT SWITCH"

Current Rating:
6 amperes @ 125 VAC (Resistance load)
4 amperes @ 30 VDC (Resistance load)
2 amperes @ 125 VAC (Inductive load)
2 amperes @ 30 VDC (Inductive load)
Initial Contact Resistance:
Below 10 milliohms at 2 - 4 VDC, 1 amp
Insulating Resistance:
Over 10^{12} ohms between terminals and case ground
Voltage Breakdown:
1000 VAC between terminals and case ground for a duration of one minute.
Operating Force:
0.2 to 1.5 Kg

Life Cycle:
100,000 cycles (SPDT), 80,000 (DPDT), 20,000 (3PDT, 4PDT) of operation at a rate of 25 to 30 cycles per minute at the rated current. Temperature rise: below 56°C after rated switching operations under environmental temperature of below 40°C.
Waterproof:
3.3 foot head of water for 30 minutes. Waterseal: "O" ring waterseal between handle and bushing, and between bushing flange and mounting panel.
Temperature:
−50°C to 150°C for one hour (non-operating).

Vibration:
10 cps to 55 cps. Shock: 50G's
Humidity:
Over 10 megohms after 96 hours at a relative humidity of 90 to 95% and temperature of 40°C.
Corrosion:
96 hour salt spray (density: 4%, temperature: 35°C ±1°C)
Anti-Rotation Mount:
Keyway on bushing prevents rotation of toggle with panel. Mounts in ¼" dia. hole.

ALCOSWITCH

Net

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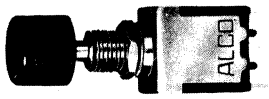
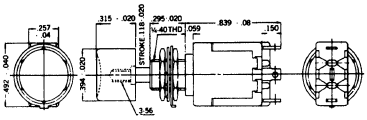
ALCOSWITCH

MANUFACTURED TO MEET HIGH STANDARDS OF QUALITY

PUSH BUTTON

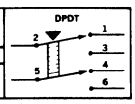
MOMENTARY





High current capacity in this new compact momentary push button switch designed for reliable control in aviation, military and industrial "miniature" requirements. Contact pressure is greatest at point of make and break. An audible click is produced by the snap-action mechanism. Available SPDT and DPDT, usable as either a Normally Open or Normally Closed switch.

NORMAL CONTACT	PUSH FOR MOMENTARY CONTACT	DPDT
ON	ON	
(1) — (2)	(2) — (3)	
(4) — (5)	(5) — (6)	



SPECIFICATIONS

Current Rating:
5 amperes, 115 volts

Initial Contact Resistance:
Below 10 milliohms at 2-4 VDC 1 amp

Insulating Resistance:
Over 100 megohms between terminals and case ground (when measured with a megger of 500VDC.)

Voltage Breakdown:
1000VAC between terminals and case ground for a duration of one minute.

Force Required to Activate:
Below 1.5 kilogram.

Life Cycle:
Well over 20,000 on-off switching actions at rated current.

Contacts and Terminals:
Solid Silver

Case Material:
Black phenolic resin

Bushing Size:
¼"-40

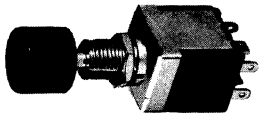
INDUSTRIAL NET PRICE SCHEDULE

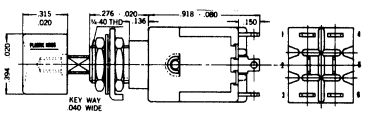
MODEL DESCRIPTION	ONE- 24	25- 99	100- 499	500- 999
MSP-105F SPDT	1.95	1.33	1.17	.975
MSP-205R DPDT	2.85	1.90	1.71	1.42
C-12 PLASTIC BUTTON*	.05	.036	.032	.03
C-14 CHROME BUTTON*	.06	.04	.036	.033

*One red or black button supplied — state color. Chrome buttons available optionally.

PUSH BUTTON

PUSH TO MAKE, PUSH TO BREAK

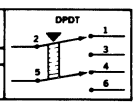




PUSH BUTTON SWITCH FOR REVERSING APPLICATIONS

World's first miniature push button switch controls 2 circuits — PUSH to make contacts and PUSH again to reverse action. Fast make and break snap-action to handle a high current of 5 amps @ 115 VAC. Solid silver contacts and terminals. Compact ½" size.

PUSH FOR CONTACT	PUSH FOR CONTACT	DPDT
ON	ON	
(1) — (2)	(2) — (3)	
(4) — (5)	(5) — (6)	



SPECIFICATIONS

Current Rating:
5 amperes, 115 volts

Initial Contact Resistance:
Below 10 milliohms at 2-4 VDC 1 amp

Insulating Resistance:
Over 100 megohms between terminals and case ground (when measured with a megger of 500VDC.)

Voltage Breakdown:
1000VAC between terminals and case ground for a duration of one minute.

Force Required to Activate:
Below 1.5 kilogram.

Life Cycle:
Well over 20,000 on-off switching actions at rated current.

Contacts and Terminals:
Solid Silver

Case Material:
Black phenolic resin

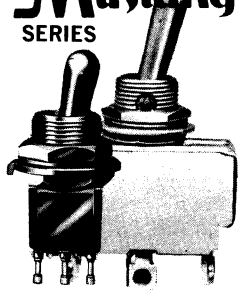
Bushing Size:
¼"-40

INDUSTRIAL NET PRICE SCHEDULE

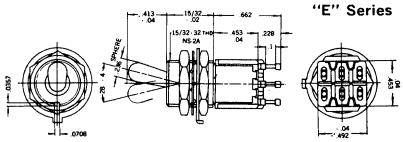
MODEL DESCRIPTION	ONE- 24	25- 99	100- 499	500- 999
MSP-105D SPDT	1.95	1.33	1.17	.975
MSP-205N DPDT	2.85	1.90	1.71	1.42
C-12 PLASTIC BUTTON*	.05	.036	.032	.03
C-14 CHROME BUTTON*	.06	.04	.036	.033

*One red or black button supplied — state color. Chrome buttons available optionally.

Mustang SERIES



3 & 4 Pole case sizes same as "E" Series



The **MUSTANG** series is for designers who prefer the feel of a standard toggle switch but have space limitations behind the panel. The Mustang case size is the same as the ultra-miniature MSTE Series, however the mounting requirements are the same as the standard switches with 15/32" bushings. This new Alcoswitch concept is popular in the 3 Pole and 4 Pole series where other non-miniature switches tend to be bulky in size. (See size comparison in photo)

SPECIFICATIONS

Current Rating:
6 amperes @ 125 VAC (Resistance load)
4 amperes @ 30 VDC (Resistance load)
2 amperes @ 125 VAC (Inductive load)
2 amperes @ 30 VDC (Inductive load)

Initial Contact Resistance:
Below 10 milliohms at 2 - 4 VDC, 1 amp

Insulating Resistance:
Over 10^{16} ohms between terminals and case ground

Voltage Breakdown:
1000 VAC between terminals and case ground for a duration of one minute.

Operating Force:
0.2 to 1.5 Kg

Life Cycle:
100,000 cycles (SPDT), 80,000 (DPDT), 20,000 (3PDT, 4PDT) of operating at a rate of 25 to 30 cycles per minute at the rated current. Temperature rise: below 56°C after rated switching operations under environmental temperature of below 40°C.

Anti-Rotation Mount:
Keyway on bushing prevents rotation of toggle with panel. Mounts in 15/32" dia. hole.

INDUSTRIAL NET PRICE SCHEDULE

MODEL DESCRIPTION		One- 24	25- 99	100- 499	500- 999
MSTG-206N	On-None-On	2.75	1.87	1.65	1.38
MSTG-206P	On-Off-On	3.35	2.28	2.01	1.68
MSTG-206PA*	On-On-On	3.65	2.48	2.19	1.83
MSTG-306D†	On-None-On	4.45	3.03	2.67	2.23
MSTG-306E†	On-Off-On	4.95	3.37	2.97	2.48
MSTG-406N°	On-None-On	5.55	3.77	3.33	2.78
MSTG-406P°	On-Off-On	6.15	4.18	3.69	3.08

*DP3T †3PDT °4PDT

AUXILIARY PUSH BUTTONS

The MSP-205 series push button ALCOSWITCHES are normally supplied with black buttons and are also available in red or chrome when requested. Additional push buttons can also be obtained. When ordering state choice of color, special markings, i.e. letters, numerals, symbols which are available for quantity users above 5000 pieces.

ALCOSWITCH IS FIRST WITH A FULL LINE OF MINIATURE ELECTRONIC SWITCHES

FIRST in ultra-miniature switches is the position of innovation and creative achievement which ALCOSWITCH has attained during the past ten years. Our broad experience and leadership is based upon the millions of ALCOSWITCHES being used today. Here, on these pages is ample evidence that ALCOSWITCH has specialized in miniature switches and originated many ingenious ideas to make engineering life more creative for the modern electronic industry.

Alcoswitch thinks MINIATURE . . . Alcoswitch thinks FIRST . . . CREATIVELY!

ALCOSWITCH

ALCOSWITCH

MANUFACTURED TO MEET MINIATURIZATION REQUIREMENTS

ALCOSWITCH

With the coming of the space age, weight, size, precision, stability, and difficult operating conditions place a mighty "squeeze" on electronic design. Along with miniature circuit components, engineers have to fit switches into exceedingly small areas. Today, new materials, new manufacturing techniques, new components and new switches enter into the final engineering product requiring miniaturization.

As a result, modern **ALCOSWITCHES** have been created to reduce size and weight to a minimum and bear little physical resemblance to the older switches designed during the 1930's and 1940's. These **ALCOSWITCHES** are the new shape of miniature switching devices, not of the future, but what is currently available in quantity for laboratory testing and production use.

SPDT AND DPDT SERIES

A new **ALCOSWITCH SERIES** of high quality ultra-miniature toggle switches is ideally suited for limited space requirements. Conservatively rated at 5 amperes @ 115 VAC.

3PDT AND 4PDT SERIES

The feature of the one-piece body construction is to ultra-miniaturize the case size and still be consistent with good engineering specifications. In the switch mechanism, the toggle is linked directly to the movable contact member, providing positive make and break. The switch is designed to obtain positive detent action for improved "operator feel". Solid silver contacts and terminals are well-spaced for clearance, easy wiring, and good soldering ability.

ON-ON-ON

This unique switching arrangement is completely enclosed in a compact black phenolic housing, and in certain applications takes the place of a 3-position rotary switch. Features a slim miniature bat handle, solid silver contacts and terminals.

ENGINEERS: If dimensions or specifications are critical, obtain drawings from ALCOSWITCH, Lawrence, Mass.

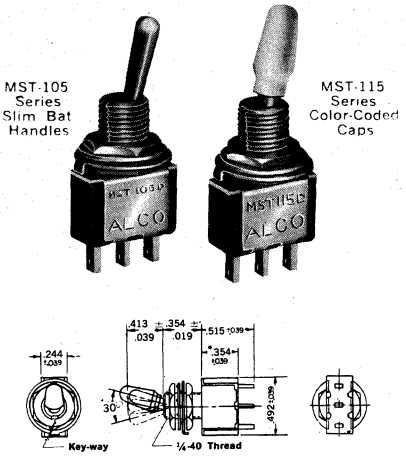
DECORATIVE MOUNTING NUTS

STANDARD double chamfered knurled nuts.
"PERFECT FIT" round bevel top with lip for automatic stop.

MODEL	DESCRIPTION	25- 99	100- 499	500- 999
N-1	¼ Standard Knurl	.028	.025	.022
N-1A	¼" "Perfect-Fit" Knurl	.04	.036	.033
N-1B	15/32" "Perfect-Fit" Knurl	.056	.05	.044

Packaged in multiples of 25

SPDT



Ultra-miniaturized **ALCOSWITCH** has an exceptionally high current capacity in a tiny case. The ¼" thin toggle switch can be mounted in extremely close areas for aircraft and electrical equipment. Over 80,000 on-off operations. Solid silver contacts and terminals. Simple one-hole mounting.

SPECIFICATIONS

Insulating Resistance:
Over 1000 megohms @ 500 VDC.
Voltage Breakdown:
Over 1000 volts @ 60 cycles.
Life Cycle:
Well over 80,000 on-off actions.
Moisture Resistance:
Over 8 megohms after 48 hours at 40°C, and humidity of 95%.
Heat Resistance:
One Hour @ 140°C.
Case Material:
Black phenolic resin.
Contacts and Terminals:
*Solid silver.
Bushing Size:
Standard ¼-40, usable up to ¼" panel thickness.

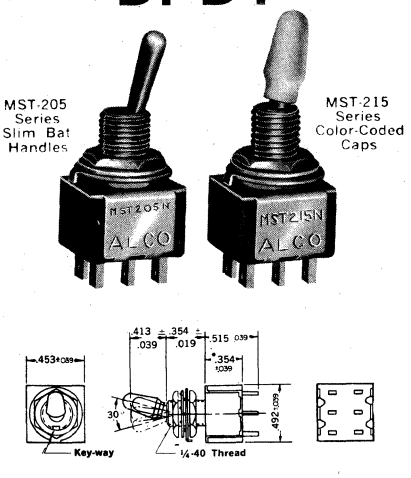
*Center terminal brass with silver plate.

INDUSTRIAL NET PRICE SCHEDULE

MODEL	DESCRIPTION	One- 24	25- 99	100- 499	500- 999
MST-115D	On-None-On	1.65	1.12	.99	.83
MST-105D	On-None-On	1.65	1.12	.99	.83
MST-105E	On-Off-On	1.95	1.33	1.17	.975
MST-105F	On-None-(On)	1.95	1.33	1.17	.975
MST-105G	(On)-Off-(On)	1.95	1.33	1.17	.975
MST-105H	On-Off-(On)	1.95	1.33	1.17	.975

(On) (Off) Indicates Momentary Positions

DPDT



Combines high capacity, ultra-miniature size and long life with **ALCOSWITCH** precision. Rated at 5 amperes @ 115 VAC. Contacts and terminals are of solid silver. ½" sq. case size makes it ideal for miniature equipment with critical applications and rear panel space limitations.

SPECIFICATIONS

Insulating Resistance:
Over 1000 megohms @ 500 VDC.
Voltage Breakdown:
Over 1000 volts @ 60 cycles.
Life Cycle:
Well over 80,000 on-off actions.
Moisture Resistance:
Over 8 megohms after 48 hours at 40°C, and humidity of 95%.
Heat Resistance:
One Hour @ 140°C.
Case Material:
Black phenolic resin.
Contacts and Terminals:
*Solid silver.
Bushing Size:
Standard ¼-40, usable up to ¼" panel thickness.

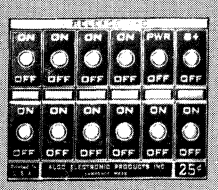
*Center terminal brass with silver plate.

INDUSTRIAL NET PRICE SCHEDULE

MODEL	DESCRIPTION	One- 24	25- 99	100- 499	500- 999
MST-215N	On-None-On	2.15	1.43	1.29	1.08
MST-205N	On-None-On	2.15	1.43	1.29	1.08
MST-205P	On-Off-On	2.55	1.72	1.53	1.28
MST-205R	On-None-(On)	2.55	1.72	1.53	1.28
MST-205S	(On)-Off-(On)	2.55	1.72	1.53	1.28
MST-205T	On-Off-(On)	2.55	1.72	1.53	1.28

(On) (Off) Indicates Momentary Positions

ALUMINUM FOIL SWITCH PLATES



Pressure sensitive "on-off" plates for **ALCOSWITCHES** and other miniature switches having ¼" bushing; and for standard switches requiring 15/32" hole.

(Prices Per Card of 12 Plates) MODEL	DESCRIPTION	One- 49	50- 99	100 Over
SP-1	Miniature type	25c	20c	18c
SP-2	Standard type	25c	20c	18c

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COLOR-CODED CAPS

The revolutionary feature of color-coded plastic caps for toggle switches has already proved to be an invaluable aid in aircraft installations and hazardous applications. The MST-115D, 215N, 315D, 415N switches are normally stocked ONLY WITH WHITE CAPS. Black, Blue, Red, Gray, White caps may be purchased separately for use on all our slim bat handle switches for color identification. When ordering — specify color.

Quotation on custom colors upon request

Packaged in 25 multiples

MODEL	DESCRIPTION	One- 24	25- 99	100- 499	500- 999
C-10	For ALL Series	.04	.028	.025	.022

ALCOSWITCH

Net

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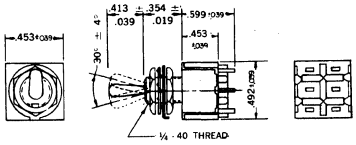
ALCOSWITCH

MANUFACTURED TO MEET HIGH STANDARDS OF QUALITY

ON-ON-ON

MST-205PA Series Slim Bat Handles



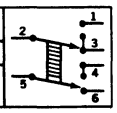
DP3T ON-ON-ON

New ON-ON-ON toggle switch made for applications where the Center-ON position is desired. The DPDT circuit is designed to have "ON" positions at opposite sides of the lever throw with the Center-ON operational when either circuit is used. 3 amperes @ 115 VAC. Ultra-miniature size is only ½".

SPECIFICATIONS

Initial Contact Resistance:
Below 20 milliohms at 2-4 VDC, 1 amp.
Insulating Resistance:
Over 1000 megohms between terminals and case ground @ 500 VDC.
Voltage Breakdown:
1000 VAC between terminals and case ground for a duration of one minute.
Life Cycle:
Well over 15,000 on-off switching actions at rated current.

WITH HANDLE TO THE KEY WAY	CENTER	WITH HANDLE OPPOSITE SIDE OF KEY WAY	
ON	ON	ON	
1-2 4-5	2-3 4-5	2-3 5-6	



INDUSTRIAL NET PRICE SCHEDULE

MODEL	DESCRIPTION	One-24	25-99	100-499	500-999
MST205-PA	On-On-On	2.85	1.90	1.71	1.42
MST205-TA	On-On-(On)	3.15	2.14	1.89	1.58

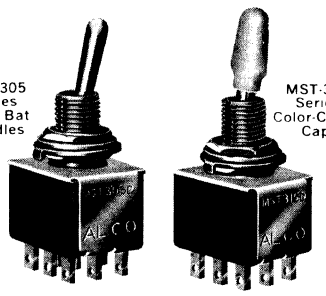
(On) Indicates Momentary Positions

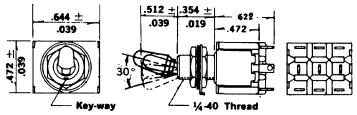
ALCOSWITCH

3PDT

MST-305 Series Slim Bat Handles

MST-315 Series Color-Coded Caps





Features one-piece body construction for ultra-miniature space requirements. Has unusually high current rating, and is capable of handling multiple circuits simultaneously. Has high voltage barriers between terminals and contacts firmly anchored to base. Rated 3 amperes @ 115 VAC

SPECIFICATIONS

Initial Contact Resistance:
Below 20 milliohms at 2-4 VDC, 1 amp.
Insulating Resistance:
Over 1000 megohms between terminals and case ground @ 500 VDC.
Voltage Breakdown:
1000 VAC between terminals and case ground for a duration of one minute.
Life Cycle:
Well over 25,000 on-off switching actions at rated current.
Contacts and Terminals:
*Solid silver.
Case Material:
Black phenolic resin.
Bushing Size:
Standard ¼-40 • Nut, 5/16 across flats

*Center terminal brass with silver plate.

INDUSTRIAL NET PRICE SCHEDULE

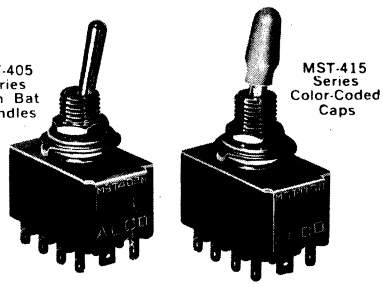
MODEL	DESCRIPTION	One-24	25-99	100-499	500-999
MST-315D	On-None-On	3.85	2.57	2.31	1.925
MST-305D	On-None-On	3.85	2.57	2.31	1.925
MST-305E	On-Off-On	4.15	2.82	2.49	2.075
MST-305H	On-Off-(On)	4.15	2.82	2.49	2.075

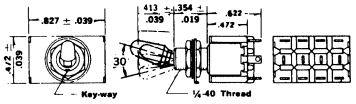
(On) Indicates Momentary Positions

4PDT

MST-405 Series Slim Bat Handles

MST-415 Series Color-Coded Caps





The world's first 4-Pole toggle switch with a one-piece miniaturized body construction. Includes high voltage barriers, solid silver terminals and contacts. Can be easily mounted in compact aircraft and electronic equipment. Current rating: 3 amperes @ 115 VAC.

SPECIFICATIONS

Initial Contact Resistance:
Below 20 milliohms at 2-4 VDC, 1 amp.
Insulating Resistance:
Over 1000 megohms between terminals and case ground @ 500 VDC.
Voltage Breakdown:
1000 VAC between terminals and case ground for a duration of one minute.
Life Cycle:
Well over 25,000 on-off switching actions at rated current.
Contacts and Terminals:
*Solid silver.
Case Material:
Black phenolic resin.
Bushing Size:
Standard ¼-40 • Nut, 5/16 across flats

*Center terminal brass with silver plate.

INDUSTRIAL NET PRICE SCHEDULE

MODEL	DESCRIPTION	One-24	25-99	100-499	500-999
MST 415N	On-None-On	4.85	3.29	2.91	2.43
MST 405N	On-None-On	4.85	3.29	2.91	2.43
MST-405P	On-Off-On	5.35	3.64	3.21	3.14

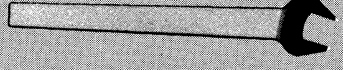
ALCOSWITCH

WATER-PROOF BOOTS FOR MINIATURE ALCOSWITCHES

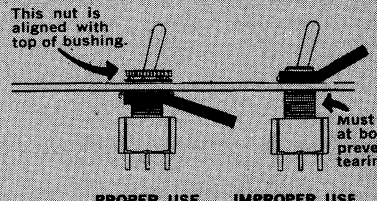
One-piece construction serves as a seal and locknut for miniature bat-handle. Black neoprene covers handle completely. Available only for ¼-40 bushings.

MODEL	One-24	25-99	100-499	500-999
B-1440	.60	.40	.36	.30

INSTALLATION WRENCH



A spanner wrench designed expressly to expedite the proper installation of **ALCOSWITCHes.** A long tapered arm extends at a slight angle allowing the user to tighten the lower mounting nut. MODEL NO. W-1.....Net 25¢ ea.



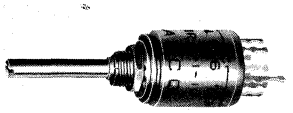
ALCOSWITCH

ALCOSWITCH

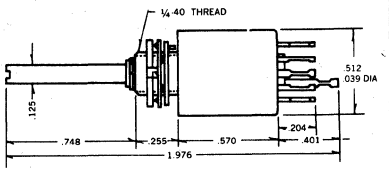
MANUFACTURED TO MEET MINIATURIZATION REQUIREMENTS

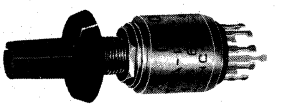
ADJUSTABLE-STOP ROTARY

SEE OUR SPECIFICATIONS IN VSMF MICROFILM CATALOG FILE

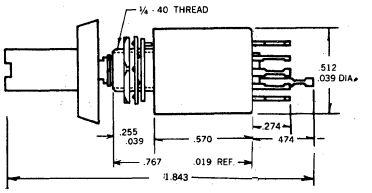


MRA-1-10S, LESS KNOB, 1/8" DIA. SHAFT





MRA-1-10, WITH KNOB, 9/32" DIA. SHAFT



First, new ultra-miniature rotary switches with the invaluable feature of an adjustable-stop. Ideal for installations where size and space limitations are a factor including applications in aircraft, computers, and all types of electronic equipment. The only one of its kind, the adjustable-stop miniature rotary switch has these additional features • non-shorting • 36° spacing • up to 4 poles on single deck.

SPECIFICATIONS

Current Rating:
500 ma @ 125 VAC.

Initial Contact Resistance:
Below 20 milliohm at 2-4 VDC and at rated current.

Insulating Resistance:
Over 100 megohms between terminals and case ground (when measured with a megger of 500 VDC at room temp.)

Voltage Breakdown:
1000 VAC between terminals and case ground for a duration of one minute.

Life Cycle:
Over 10,000 switching operations at the rate of 15 to 20 full rotations per minute at the rated current.

Contacts and Terminals:
Solid silver.

Bushing Size:
¼ - 40.

Shaft:
See Below

Humidity: Models MRA-S Only (1/8" shaft)
Tested at a temperature of 40°C and relative humidity of 90-95% for 10 hours. Resistance between terminals and case ground will be more than 10 megohms.

Stop Guide Strain: Models MRA-S Only
The stop guide which limits rotation shall not be subjected to a force of not more than 2 Kg-cm.

INDUSTRIAL NET PRICE SCHEDULES

LESS KNOB — 1/8" DIA. SHAFT

MODEL	USABLE	One-24	25-99	100-499	500-999
MRA-1-10S	2-10 pos.	3.85	2.57	2.31	1.925
MRA-2-5S	2- 5 pos.	3.85	2.57	2.31	1.925
MRA-3-3S	2- 3 pos.	3.85	2.57	2.31	1.925
*MSRA-4-2S	2 pos.	3.85	2.57	2.31	1.925

*Fixed

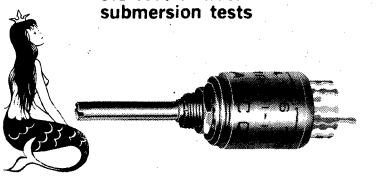
WITH KNOB — 9/32" DIA. SHAFT

MODEL	USABLE	One-24	25-99	100-499	500-999
MRA-1-10	2-10 pos.	3.85	2.57	2.31	1.925
MRA-2-5	2- 5 pos.	3.85	2.57	2.31	1.925
MRA-3-3	2- 3 pos.	3.85	2.57	2.31	1.925
*MSRA-4-2	2 pos.	3.85	2.57	2.31	1.925

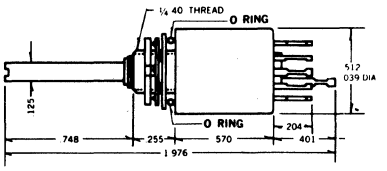
*Fixed

WATERPROOF

Withstands 9.8 feet of water submersion tests



MSRE-1-10, LESS KNOB, 1/8" DIA. SHAFT



NON-ADJUSTABLE

Sealed with special silicon rubber 'O' Ring between shaft and bushing. Terminal portion is also sealed with a superior adhesive bonding cement before crimping. Fully withstands water submersion test of 9.8 feet.

Current Rating:
500 ma @ 125 VAC.

Initial Contact Resistance:
Below 20 milliohm at 2-4 VDC and at rated current.

Insulating Resistance:
Over 100 megohms between terminals and case ground

Voltage Breakdown:
1000 VAC between terminals and case ground for a duration of one minute.

Life Cycle:
Over 10,000 switching operations at the rate of 15 to 20 full rotations per minute at the rated current.

Waterproof:
3.3 foot head of water for 30 minutes. Waterseal: "O" ring waterseal between handle and bushing, and between bushing flange and mounting panel.

Contacts and Terminals: Solid silver.

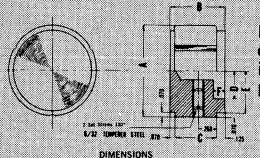
Bushing Size:
Fits ¼" dia. hole.

INDUSTRIAL NET PRICE SCHEDULE

MODEL	Pole	pos.	One-24	25-99	100-499	500-999
*MSRE-1-10	1	10	4.85	3.29	2.96	2.55
*MSRE-2-5	2	5	4.85	3.29	2.96	2.55
*MSRE-3-3	3	3	4.85	3.29	2.96	2.55
*MSRE-4-2	4	2	4.85	3.29	2.96	2.55

*Fixed

ANODIZED ALUMINUM KNOBS FOR 1/8" DIA. SHAFTS



DIMENSIONS

MODEL	A	B	C	D	E	F
K-500-⅛	500	625	495	358	433	354

Machined aluminum knobs with anodized finish, modern styling and hairline indicator. Useable with switches and potentiometers having a 1/8" dia. shaft.

INDUSTRIAL NET PRICE SCHEDULE

MODEL	DESCRIPTION	One-99	100-249	250-499	500-999
K-500A-⅛	Natural Aluminum	.45	.39	.37	.35
K-500B-⅛	Black Anodized	.45	.39	.37	.35
K-500G-⅛	Gold Anodized	.45	.39	.37	.35

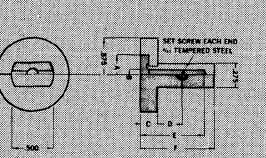
K-500A

KC-500-10

A new series of skirted knobs designed for MRA series Alcoswitches. Machined aluminum anodized with hairline indicator and 2 set screws. 1/8" shafts only.

INDUSTRIAL NET PRICE SCHEDULE

MODEL	DESCRIPTION	One-99	100-249	250-499	500-999
KC-500A	Natural Aluminum	.55	.49	.47	.45
KC-500B	Black Anodized	.55	.49	.47	.45
KC-500-10	Black Anodized (0-to-9)	.65	.59	.56	.53



DIMENSIONS

MODEL	A	B	C	D	E	F
KC 500	.473	.125	.195	.295	.748	.867

THE ABOVE KNOBS ARE PART OF A COMPLETE LINE OF DECORATOR-STYLED ALUMINIZED ALCOKNOBS — WRITE FOR CATALOG

ALCOSWITCH

© U.C.P., Inc.

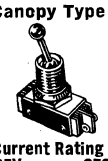
ARROW H & H SWITCHES

Toggle • Push Button • Rotary • Knife • Power • Slide

BALL HANDLE TOGGLE SWITCHES POSITIVE ACTION

UL approved. Ball lever switches nickel plated; laminated type; ring and mounting nuts.

Canopy Type

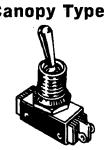


Cat. No.	Descrip.	Shank Length	Current Rating 125V.	250V.
6200	SPST	15/32"		3 amps
6201	SPST	3/4"		3 amps
6202	SPDT	15/32"	3 amps	1 amp
6202A	2 Circ	15/32"	3 amps	1 amp
6203	SPDT	3/4"	3 amps	1 amp
6204	DPST	15/32"	3 amps	1 amp
6205	DPST	3/4"	3 amps	1 amp
6206	DPDT	15/32"	3 amps	1 amp
6207	DPDT	3/4"	3 amps	1 amp

BAT HANDLE TOGGLE SWITCHES POSITIVE ACTION

UL approved. Laminated type. Nickel plated finish; supplied with ring and mounting nuts. 15/32" shank.

Canopy Type

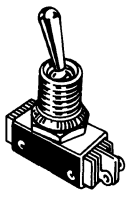


Cat. No.	Descrip.	Current Rating 125V.	250V.
6220	SPST		3 amps
6221	SPDT	3 amps	1 amp
6221A	2 Circ.	3 amps	1 amp
6222	DPST	3 amps	1 amp
6223	DPDT	3 amps	1 amp

BAT HANDLE MOMENTARY ACTION

UL approved. Laminated type. Nickel plated finish; supplied with ring and mounting nuts; 15/32" shank; solder terminals; SPST rated at 3 amps 250V AC-DC, others rated at 1 amp 250V, 3 amps 125V AC-DC.

Canopy Type

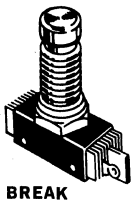


Cat. No.	Descrip.	Type
6190	SPST	Normally Closed (On)
6191	SPST	Normally Open (Off)
6192	SPDT	Normally Closed (On)
6193	DPST	Normally Closed (On)
6194	DPST	Normally Open (Off)
6195	DPDT	Normally Closed (On)

MOMENTARY CONTACT PUSH BUTTON

Solder lugs; laminated type. Has 7/16" slotted sleeve, 15/32-32 TPI. Complete with hex and knurled nut; nickel plated; all except snap on button. Supplied less insulating button.

Canopy Type



QUICK MAKE AND BREAK

Cat. No.	Descrip.	Type	Current Rating 250V.
6184	SPST	Normally Closed (On)	3 amps
6184A	SPST	Normally Open (Off)	3 amps
6185A	SPDT	Normally Closed (On)	1 amp
6185	SPDT	Normally Open (Off)	1 amp
6186	2 Circ.	Normally Closed (On)	1 amp
6231A	DPST	Normally Closed (On)	1 amp
6231	DPST	Normally Open (Off)	1 amp
6231B	DPDT	Normally Closed (On)	1 amp
6232	Button only, red or black		

SLOW MAKE AND BREAK

6180	SPST	Normally Closed (On)	1 amp
6230	SPST	Normally Open (Off)	1 amp
6224	2 Circ.	Normally Closed (On)	1 amp

THREE POSITION — CENTER OFF

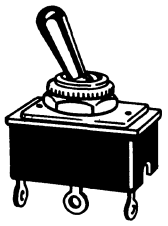
Rated 3 amps-250V, 6 amps-125V AC-DC.

Intermediate Size

Cat. No.	Description
6261	SPDT
6262	2 CIRC
6263	DPDT

INTERMEDIATE SIZE TOGGLE-BAT

Molded phenolic base; back connected silver plated solder lug contacts; supplied with hex nut and knurled nut. SPDT rated at 1 amp-250V, 6 amps-125V AC-DC; others rated at 3 amps-250V, 6 amps-125V AC-DC.



Cat. No.	Description	Type Action
6280	SPST	Positive
6280A	SPST	Mom.—Norm. Off
6281	SPDT	Positive
6281A	SPDT	Momentary
6284	2 Circ.	Positive
6282	DPST	Positive
6282A	DPST	Mom.—Norm. Off
6283	DPDT	Positive
6283A	DPDT	Momentary

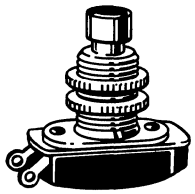
BAKELITE MOLDED MOMENTARY CONTACT SWITCHES

Same as above except momentary. SPST Normally Off. 3 A., 250V. UL approved. Rated 6 A., 125V.

Cat. No.	Description	Shank Length
6241	SPST	15/32"
6240	SPDT	15/32"
6242	DPDT	15/32"

MOMENTARY PUSH BUTTON

Molded momentary, solder lugs. Rated 1 A., 125V, With 7/16" shank, normally OFF — push to make. Nickel plated. UL approved.



Cat. No.	Description
6233	SPST
6234	SPDT
6235	DPST
6236	DPDT

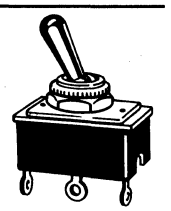
MIDGET SIZE TOGGLE POSITIVE ACTION

SPST Rated 3 Amps — 250V, 6 amps — 125V. Others Rated 1 Amp — 250V, 6 amps — 125V. Molded Phenolic base. 15/32-32 x 15/32" long slotted sleeve, Nickel finish; solder lugs.

Cat. No.	Description	Type
6244	SPST	Ball Handle
6244A	SPST	Bat Handle
6244B	SPDT	Ball Handle
6244C	SPDT	Bat Handle
6244D	2 Circ.	Ball Handle
6244E	2 Circ.	Bat Handle

ST TYPE PER SPEC. JAN-S-23

Bat handle, back connected silver plated solder lug contacts; slotted sleeve. Supplied with two hex nuts. Molded phenolic base; 15/32-32 x 15/32" long, nickel finish. They meet, where applicable. All Jan-S-23. T-MIL-S-3950



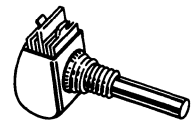
Cat. No.	Jan. No.	MIL.	Descrip.
6250	ST-12A	MS25098-22	SPST
6251	ST-12D	MS25098-23	SPDT
6251C	ST-12C	MS25098-30	SPST
6251V	ST-12V		2 Circ.
6252	ST-22K	MS25100-22	DPST
6252M	ST-22M	MS25100-30	DPST
6253	ST-22N	MS25100-23	DPDT

Cur. rate 125V. 6A, 250V. 3A.

Cat. No.	Jan. No.	Descrip.
6270*	ST-42A	SPST
6271*	ST-42D	SPDT
6249*	ST-42E	SPDT
6272**	ST-52K	DPST
6273**	ST-52N	DPDT
6274**	ST-52P	DPDT

*Cur. rate 125V. 15A, 250V. 6A.
**Cur. rate 125V. 25A, 250V. 9A.

ROTARY SWITCHES CANOPY TYPE — ROTO LOCK



Laminated phenolic sections — solder lugs; sleeve 1/32" diam. 32 threads per inch; nickel finish; Rotary switches supplied with two hex nuts; roto lock key types have 15/32" diam. 32 threads per inch; key removable in off position only on SPST and DPST — key removable in both positions on all others.

SPST rated at 3 amps-250V AC-DC, others rated at 1 amp-250V, 3 amps-125V AC-DC.

Roto Lock (Key Type)

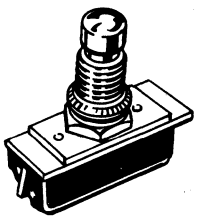
Cat. No.	Description
6110	SPST
6111	SPDT
6112	DPST
6113	DPDT
6114	Key—Rem. Off Pos.
6115	Key—Rem. Both Pos.

Canopy Type Rotary

6210	SPST	3/8"	1 1/2"
6211	SPST	1"	2 1/2"
6212	SPDT	3/8"	1 1/2"
6213	SPDT	1"	2 1/2"
6214	DPST	3/8"	1 1/2"
6215	DPST	1"	2 1/2"
6216	DPDT	3/8"	1 1/2"
6217	DPDT	1"	2 1/2"

STANDARD DUTY MOM. PUSH BUTTON

Molded phenolic base; 15/32-32x7/16" long slotted sleeve; nickel finish; screw terminals; complete with two hex nuts. All accept snap on button; supplied less insulating button. Cur. rate 125V 12A, 250V 6A.

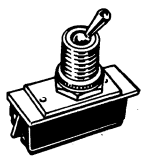


Cat. No.	Descrip.	Type
6238	SPST	Normally Closed
6238B	SPDT	Normally Closed (On)
6238C	2 Circ.**	Normally Closed (On)
6226	DPST*	Normally Open (Off)
6238D	DPST*	Normally Closed (On)

*1 H.P. 250V. AC-DC **Cur. rating 1/2.

STANDARD DUTY TOGGLE SWITCHES

Molded phenolic base; 15/32-32 x 7/16" long slotted sleeve; nickel finish; screw terminals; complete with one hex nut, one knurled nut.



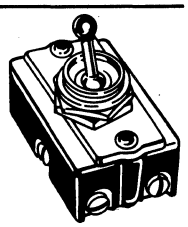
QUICK MAKE AND BREAK BAT

Cat. No.	Descrip.	Current Rating AC-DC 125V.	250V.
6225A	SPST	12 amps	6 amps
6225B	SPDT	12 amps	6 amps
6225C	2 Circ.	6 amps	3 amps
6225	DPST*	12 amps	6 amps

*1 H.P. 250V.

EXTRA HEAVY DUTY POWER SWITCHES 3 POSITION — POSITIVE CENTER OFF

Molded phenolic base; screw terminals; slotted sleeve 1/4-32; nickel finish; with two hex nuts. Rated at 5 amps—250V, 10 amps—125V.



Cat. No.	Descrip.	Circuit
6227	DPDT	1/2 H.P. 115/230V. AC 3 phase
6228	3PDT	3/4 H.P. 250V.AC-DC
6229	4PDT	1/2 H.P. 115/230V. AC 2 phase

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH RADIO COMPANY INC.

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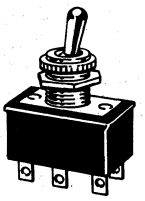
CUTLER — HAMMER SWITCHES

LIGHT DUTY TOGGLE SWITCHES

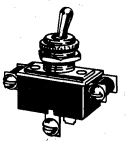
BACK CONNECTED LUG TERMINALS

Quick make-break; bakelite; small, compact size AC-DC UL approved.



Cat. No.	C-H No.	Descrip.	Shank	Current Rating 125V	Current Rating 250V
5300	8280K16	SPST	15/32"		3 amps
5301	8381K8	SPST	15/32"	6 amps	3 amps
5302	8282K14	SPDT	15/32"	3 amps	1 amp
5303	8284K14	2 Circ.	15/32"	3 amps	1 amp
5304	8360K7	DPST	15/32"		3 amps
5305	8370K7	DPST	15/32"	6 amps	3 amps
5306	8363K7	DPDT	15/32"		3 amps
5307	8373K7	DPDT	15/32"	6 amps	3 amps

SIDE CONNECTED SCREW TERMINALS



Cat. No.	C-H No.	Descrip.	Shank	Current Rating 125V	Current Rating 250V
5308	8295K8	SPST	15/32"		3 amps
5309	8396K8	SPST	15/32"	6 amps	3 amps
5310	8297K8	SPDT	15/32"	3 amps	1 amp
5311	8372K7	DPST	15/32"	6 amps	3 amps
5312	8365K7	DPDT	15/32"		3 amps
5313	8375K7	DPDT	15/32"	6 amps	3 amps

SIX INCH LONG WIRE LEADS

Cat. No.	C-H No.	Descrip.	Shank	Current Rating 125V	Current Rating 250V
5335	8290K16	SPST	15/32"		3 amps
5336	8391K8	SPST	15/32"	6 amps	3 amps

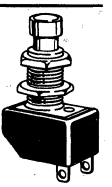
PUSH BUTTON MOMENTARY SWITCHES

Door operated switches, used wherever it is desired to control current by opening or closing of refrigerated doors, telephone booths, closets, vaults, etc. AC-DC. UL approved; 15/32" shank; rated at .75 AMP., 125 volts —.75 AMPS, 250 volts.

Cat. No.	C-H No.	Description	Terminals
5337	8411K11	SP norm. open	lug
5338	8411K12	SP norm. open	screw
5339	8411K8	SP norm. closed	lug
5340	8411K7	SP norm. closed	screw

PUSH BUTTON SWITCHES
PUSH TO MAKE — PUSH TO BREAK

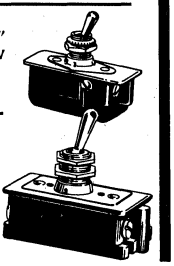
Push-push switches; AC-DC. UL approved, bakelite case; rated 6 amps. 125V—3 amps. 250V. Pushing the button once closes the contacts; pushing it again opens the contacts. 1 1/16" shank.



Cat. No.	C-H No.	Description	Terminals
5326	7206K4	SPST	lug
5327	7208K4	SPST	screw
5328	7207K4	SPST	wire

HEAVY DUTY TOGGLE SWITCHES

Quick make—quick break; 15/32" shank (No. 8680 11/32" shank); AC-DC, UL approved; bakelite case; screw terminals.



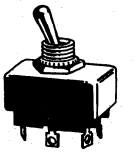
Cat. No.	C-H No.	Description	Current Rating 125V	Current Rating 250V
5341	@7321K3	SPST	12 amps	6 amps
5342	@7320K3	DPST	12 amps	6 amps
5343	*7361K5	SPST	15 amps	10 amps
5344	*7360K8	DPST	15 amps	10 amps
5345	**7402K4	DPST		20 amps
5346	8680K1	DPDT	10 amps	5 amps
5347	8690K2	DPDT	15 amps	10 amps

@ 1 HP—125/250V * 1½ HP—125/250V
**1½ HP—125V, 2 HP—250V

STANDARD DUTY TOGGLE SWITCHES

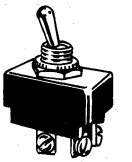
BACK CONNECTED LUG TERMINALS

Slow make and break; bakelite; AC rated for longer life, greater capacity. 15 amps. 125V—10 amps. 250V.



Cat. No.	C-H No.	Description	Shank
5314	7501K13	SPST	15/32"
5315	7505K4	SPDT	15/32"
5316	7561K4	DPST	15/32"
5317	7565K5	DPDT	15/32"
5318	7611K2	3PST	15/32"
5319	7615K2	3PDT	15/32"

BACK CONNECTED SCREW TERMINALS



Cat. No.	C-H No.	Description	Shank
5320	7500K14	SPST	15/32"
5321	7504K4	SPDT	15/32"
5322	7560K5	DPST	15/32"
5323	7564K6	DPDT	15/32"
5324	7610K2	3PST	15/32"
5325	7614K2	3PDT	15/32"

CENTER OFF STANDARD DUTY TOGGLE SWITCHES

BACK CONNECTED LUG TERMINALS

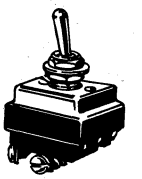
Cat. No.	C-H No.	Description	Shank
5329	7503K13	SPDT	15/32"
5330	7563K4	DPDT	15/32"
5331	7613K2	3PDT	15/32"

BACK CONNECTED SCREW TERMINALS

Cat. No.	C-H No.	Description	Shank
5332	7502K13	SPDT	15/32"
5333	7562K4	DPDT	15/32"
5334	7612K2	3PDT	15/32"

FOUR POLE SWITCHES

AC-DC GOVERNMENT APPROVED PER MIL-S-6745. 15/32" shank. Rated 10 amps. 115 volts AC—20 amps. 28 volts DC (Nominal rating per pole) SEALED LEVER.



Cat. No.	C-H No.	Type	Terminals
5420	7660K8	4 PST	Screw
5421	7661K6	4 PST	Lug
5422	7662K5	4 PDT	Screw
5423	7663K5	4 PDT	Lug
5424	7664K3	4 PDT	Screw
5425	7665K4	4 PDT	Lug
5426	7666K6	4 PST	Screw
5427	7667K6	4 PST	Lug
5428	7668K4	4 PST	Screw
5429	7669K4	4 PST	Lug
5430	7670K4	4 PDT	Screw
5431	7671K4	4 PDT	Lug
5432	7672K4	4 PDT	Screw
5433	7673K4	4 PDT	Lug
5434	7674K4	4 PDT	Screw
5435	7675K4	4 PDT	Lug

CENTER OFF

5352	7663K5	4 PDT	Solder Lugs
5353	7662K5	4 PDT	Screw Term.

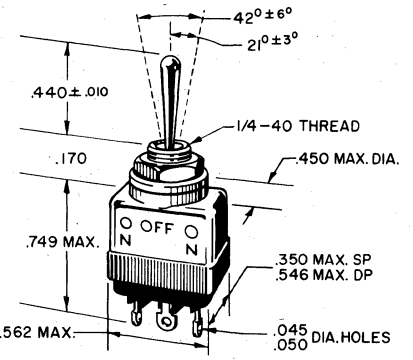
POSITIVE ACTION MINIATURE MILITARY SWITCHES

"Small As A Dime"

Especially designed for aircraft, missile and electronic applications.

EXTREMELY COMPACT — Highly reliable power or dry circuit switch, usable as a pre-set switch in aircraft recognition systems, for walkie-talkies, electronic instruments and communication systems.
NEW DESIGN — Toggle is linked directly with movable contact member, insuring positive make and break.
NEW TOGGLE LEVER SEAL — Protects switch enclosure under adverse environmental conditions; includes panel bushing seal.
NEW GOLD PLATED CONTACTS — Open and close with wiping action, for good contact even on low energy circuits. Contact bounce is extremely low.
NEW SUPERIOR MATERIAL — In molded parts, provides higher arc-tracking resistance and excellent recovery voltage.
NEW POSITIVE DETENT ACTION — For improved operator "feel."

Cat. No.	C-H No.	Type	BUILT TO MIL-S-8834 SPECS CIRCUIT Up Position	Center Position	Down Position
5480K1	8866K1	SPDT	On	Off	On
5480K2	8866K2	SPDT	Mom.-On	Off	Mom.-On
5480K3	8866K3	SPDT	On	Off	Mom.-On
5480K4	8866K4	SPDT	On	None	On
5480K5	8866K5	SPST	On	Off	None
5480K6	8866K6	SPST	None	Off	Mom.-On
5480K7	8866K7	SPST	On	None	Off
5480K8	8866K8	SPDT	None	On	Mom.-On
5481K1	8867K1	DPDT	On	Off	On
5481K2	8867K2	DPDT	Mom.-On	Off	Mom.-On
5481K3	8867K3	DPDT	On	Off	Mom.-On
5481K4	8867K4	DPDT	On	None	On
5481K5	8867K5	DPST	On	Off	None
5481K6	8867K6	DPST	None	Off	Mom.-On
5481K7	8867K7	DPST	On	None	Off
5481K8	8867K8	DPDT	None	On	Mom.-On



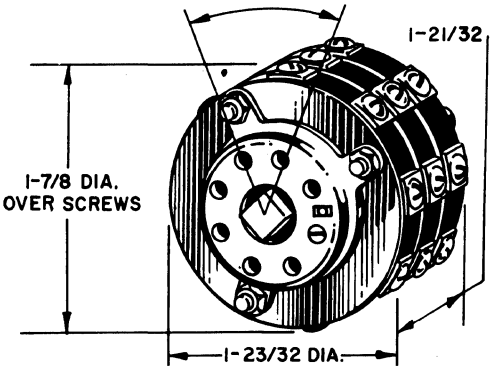
Ratings: 2 Amps., 28V. DC; 1 Amp., 50V. DC; 2 Amps., 115V. AC.

Complete line of Cutler-Hammer quality switches and equipment available from our warehouse stocks; Applications include commercial, industrial, aircraft and to Gov't spec.

BIRNBACH RADIO COMPANY INC.

© U.C.P., Inc.

CUTLER—HAMMER SWITCHES—MISCELLANEOUS SWITCHES
SLIDE LEVER SWITCHES

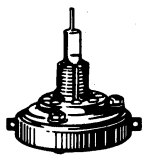


ROTARY SWITCHES PER MIL-S-6807 SPEC

Nominal Ratings:
5 Amps 115 V. AC
2.5 Amps. 28 V. DC

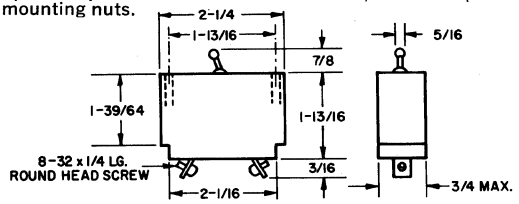
Single or multi wafer switches designed for applications where a large number of centralizer circuits must be controlled in consecutive steps. All terminals marked with two-digit number. The first digit denotes the wafer position, moving from front to rear of switch. The second digit indicates radial position of the terminals moving in a clockwise direction from the keyway. Terminals numbered 11, 21, 31, etc. are the common or line terminals on most switches and are also marked "off." On MS25002 type switches, the adjustable indexing mechanism provides a flexible arrangement of different circuits. By positioning two screws in the indexing plate on the base, stop positions can be provided to fit specific applications. Completely universal, can stop at any position. Additional variations of listed switches obtainable upon request. Can be furnished with 1 up to a maximum of 6 wafers each with 8 positions, 7 "on" and 1 "off." 42 circuits can be controlled by one 6 wafer 8 position switch. 15/32" bushing.

Birnbach No.	C-H	"MS" No.	Type
5406-1	7261K13	MS25002-1	S.P. 8 Pos. w/off, adj. stop, 1 waf.
5406-2	7262K12	MS25002-2	D.P. 8 Pos. w/off, adj. stop, 2 waf.
5406-3	7263K11	MS25002-3	3 P. 8 Pos. w/off, adj. stop, 3 waf.
5406-4	7264K9	MS25002-4	4 P. 8 Pos. w/off, adj. stop, 4 waf.
5406-5	7265K9	MS25002-5	5 P. 8 Pos. w/off, adj. stop, 5 waf.
5406-6	7266K5	MS25002-6	6 P. 8 Pos. w/off, adj. stop, 6 waf.



MANUAL TYPE CIRCUIT BREAKERS

Both types combine, in one unit, a standard aircraft type SPST switch and a positive protection device. Molded case, metal strap with locking type mounting nuts.



NON-TRIP FREE

Cat. No.	C-H No.	Spec.	Type	Rating 24 Volts
5460	8750K11	AN3160-5	SPST	5 amps
5461	8751K8	AN3160-10	SPST	10 amps
5462	8752K8	AN3160-15	SPST	15 amps
5463	8753K8	AN3160-20	SPST	20 amps
5464	8754K8	AN3160-25	SPST	25 amps
5465	8755K8	AN3160-35	SPST	35 amps
5466	8756K8	AN3160-50	SPST	50 amps
		TRIP FREE		
5470	8730K3	E1441-5	SPST	5 amps
5471	8731K3	E1441-10	SPST	10 amps
5472	8732K3	E1441-15	SPST	15 amps
5473	8733K3	E1441-20	SPST	20 amps
5474	8734K1	E1441-25	SPST	25 amps
5475	8735K3	E1441-35	SPST	35 amps
5476	8736K1	E1441-50	SPST	50 amps

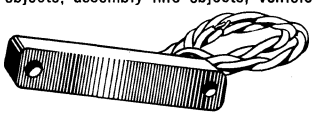
MAGNETIC PROXIMITY SWITCHES

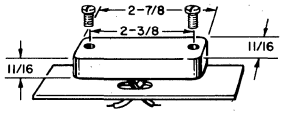
Precision, fast-acting devices, adaptable to sequential control functions on machine tools, packaging, material handling and equipment or for similar industrial devices. Rugged construction, encapsulated to assure freedom from contamination by cutting oils, dust, powder, metal chips, etc., this series will operate up to hundreds of millions of cycles at temperature ranges from —30°C to +105°C. Switches will actuate when brought into proximity with ferrous metals or other magnetic materials. Operating sensitivity in nom. 1/8" make, 1/2" break. No mechanical linkage is required for operation. Typical actuators include rotating cams, wheels and indexing tables, reciprocating arms, push rods, die sets, jaws and assembly line objects such as food and beverage cans, stampings and components. Speed (max.): 200 cycles/sec., repeatability within .005". Switch elements are hermetically sealed in glass, then unit is potted in epoxy resin. Case is special rubber and plastic compounding which is impervious to oil, water, gas and all common solvents.

COUNTING — POSITION LIMITING — SEQUENCE CONTROL HERMETICALLY SEALED — MOUNTS IN ANY POSITION — NO MECHANICAL LINKAGE NECESSARY.

MAGNETIC PROXIMITY SWITCHES

Typical actuators include rotating objects, swinging objects, reciprocating objects, assembly line objects, vehicles.



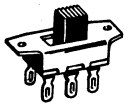


ELECTRICAL (Max. Contact Ratings)	RESISTIVE LOAD No. 5499 -128, 138	RESISTIVE LOAD No. 5499 -139	INDUCTIVE LOAD No. 5499 -128, -138	INDUCTIVE LOAD No. 5499 -139
Amps	.5	2	.1	1
Volts AC or DC	125	125	125	125
Watts	15	50	5	15

Birnbach No.	MS No.	Type
5499-128	PD-128	SPST Norm. open
5499-138	PD-138	SPDT
5499-139	PD-139	SPST, Norm. open (high load)

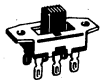
SLIDE LEVER SWITCHES

UL APPROVED Ideal for phonographs, test instruments, electrical equipment, appliances, etc.



Slide Switches with Standard Detent UL Approved

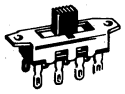
Birnbach No.	Type	Rating at 125 V. Circuit DC Amps	AC Amps
6245	SPST	.75	.75
6246	SPDT	.75	.75
6247	DPST	.5	.5
6248	DPDT	.5	.5
6290	SPST	6.0	1.0
6291	SPDT	6.0	1.0
6292	DPST	6.0	1.0
6293	DPDT	6.0	1.0



Slide Switches with Detent — Center Off

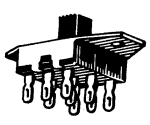
*6296	SPDT	.5	.5
*6297	DPDT	.5	.5

* Not UL Appr.



Three & Four Position Slide Switches with Detent

6294	SP3 Pos.	.5	.5
6295	DP3 Pos.	.5	.5
6295A	DP3 Pos.	6.0	1.0
*6295F	DP4 Pos.	.5	.5

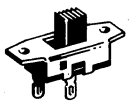


Three and Four Pole Slide Switches with Detent

Easy wiring, compact, all poles in the same plane

6298	3PDT	.5	.5
6299	4PDT	.5	.5

* 6299 width of switch 1.005", short terminals — distance.
‡ 6295F from mounting surface to terminal tip .595".



Spring Return Slide Switches

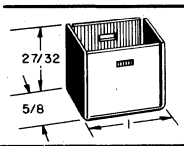
Birnbach No.	Type	Rating at 125 V. Circuit DC Amps	AC Amps
*6245S	SPST	.5	.5
6246S	SPDT	.5	.5

UL APPROVED

NEW "SWIDGET"—occupies 1/3 the cubic volume of a conventional slide switch with the same circuitry. Overall mounting areas is 1/2 of standard DPDT slide switch. Quality switch, ideal for compact applications.

6248M DPDT .5 amp.

For use in wide varieties of applications and electronic fields.



6239 Slide Switch Shield

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH RADIO COMPANY INC.

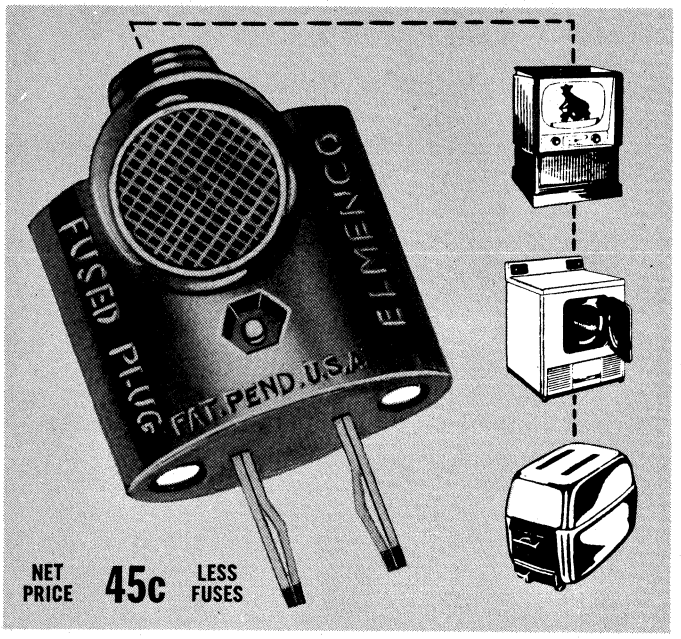
© U.C.P., Inc.

ELMENCO CAPACITORS — FUSED PLUG

PROTECTS ALL ELECTRICAL APPLIANCES

Offers complete protection against current surges & short circuits

REDUCES FIRE HAZARDS



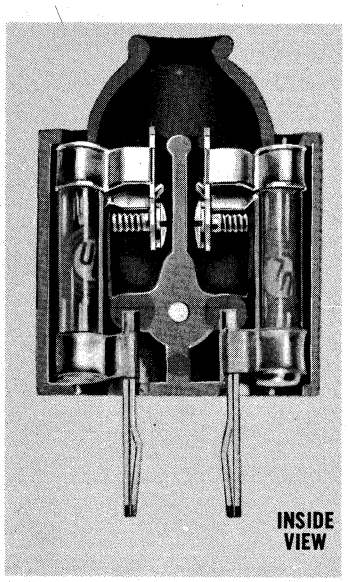
The Elmenco Fused Plug is like any standard plug, is light in weight, but easier to handle because of finger grips. However, it employs 2 small fuses which provide complete protection against damage to the appliance and to the main line. The blown fuse is easy to remove and simple to replace. Fits any standard wall outlet.

NEW MARKETS! GREATER VALUE!

Approved by Underwriters Laboratories and used by many of the largest manufacturers of radio and electronic equipment, battery chargers, washing machines, curling irons, lighting equipment, automatic relay equipment, motors of every description, and practically every other type of product that consumes electricity. Every wired home, office and store is a prospect.

IMPACT RESISTANT COVER
plus SPRING ACTION for positive contact

New spring action design of the male blades assures 100% positive contact regardless of worn condition of wall outlet.



Fuses are replaced instantly without need of opening plug. Can be used with standard 3AG and 3AB glass tubular fuses up to 20 amps.

REPLACE FUSE INSTANTLY!

RECOMMENDED BY THE BOARD OF FIRE UNDERWRITERS

Conveniently packed 10 to a Box in colorful self-merchandising displays. Easy to handle for resale.

USED BY LEADING MANUFACTURERS

- Auto-Lite
- Bell Telephone Labs.
- Buick Motors
- Cambridge Instrument
- Canaday Cooler
- Dictaphone
- Dila-Therm
- Eagle Electric
- Eastman Kodak
- Electro-Physical Labs.
- General Electric
- Gerlat Lighting
- I. B. M.
- Philco
- R. C. A.
- Sylvania
- Thomas Edison
- Webster-Chicago
- Western Electric
- Westinghouse

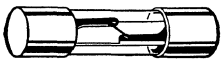
Net
© U.C.P., Inc.

BUSS Fuses

FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

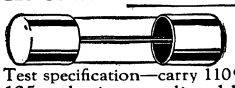
for Protection of TV, Radios, Instruments and Electronic Equipment

FAST ACTING FUSES for PROTECTION OF INSTRUMENTS, Etc.



Formerly called 8AG.
Dimension ¼ x 1 inch, Glass tube.
Provide high speed action necessary to protect sensitive instruments.
Listed by Underwriters' Laboratories Inc.
Test specification—carry 100%, open at 200% in 5 seconds.

Voltage	Symbol	Amperes	List Price
250 or less	AGX	1/500	$1.72
"	AGX	1/200	.72
"	AGX	1/100	.64
"	AGX	1/32	.56
250 or less	AGX	1/16	.35
"	AGX	1/10, 1/8, 3/16, 2/10	.25
"	AGX	1/4, 3/8, 4/10, 1/2 or 3/4	.17
"	AGX	1	.10
"	MKB	1/16 or 1/8	.56
125 or less	AGX	1½ or 2	.10

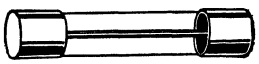


Formerly called 8AG
Dimension ¼ x 1 inch, Glass tube.
Test specification—carry 110%, open at 135% within 1 hour.
125 volt sizes are listed by Underwriters' Laboratories Inc.

Voltage	Symbol	Amperes	List Price
125 or less	AGX	3, or 4	$0.10
"	AGX	5	.066
32 or less	AGX	8, 10, 15 or 20	.066
"	AGX	25 or 30	.075

MJB & MJW FUSES NOW CALLED AGX

BUSS GLASS TUBE FUSES, ¼ x 1¼ inch

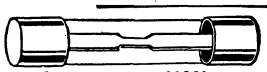


Formerly called 3AG

Test specification—carry 110%, open at 135% within 1 hour.
Listed by Underwriters' Laboratories Inc. for 250 volts or less.

Symbol	Amperes	List Price	Net Price
AGC	1/500	$1.72	$1.03
AGC	1/200	.72	.43
AGC	1/100	.64	.38
AGC	1/32	.56	.34
AGC	1/16	.25	.15
AGC	1/8	.25	.15
AGC	15/100	.25	.15

Symbol	Amperes	List Price
AGC	175/1000	$0.25
AGC	3/16, 2/10	.25
AGC	1/4, 3/10, 3/8	.17
AGC	45/100, 1/2, 3/4	.17
AGC	1, 1¼, 1½, 2	.10
MGB	1/16 or 1/8	.56
AGC	3	.094
MTH	4, 5 or 6	.13



Formerly called 3AG

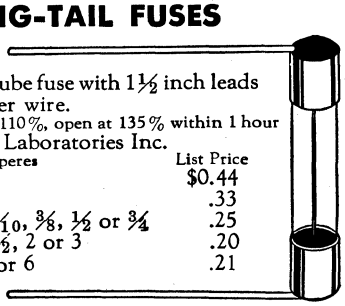
Test specification—carry 110%, open at 135% within 1 hour.

Voltage	Symbol	Amperes	List Price
125 or less	GLH	8 or 10	$0.20
32 or less	AGC	4	.094
"	AGC	5, 6, 7½, 8, 10 or 15	.066
"	AGC	20	.059
"	AGC	25 or 30	.075

20 ampere size is an SFE 20 fuse.
Sizes larger than 30 ampere are not recommended as clips or fuse holders would not permit fuse to carry such high currents. If surges or starting currents make heavier fuse necessary, use MDL Fusetron dual-element fuses.

MBW & MBB FUSES NOW CALLED AGC

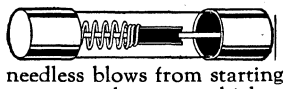
BUSS PIG-TAIL FUSES



¼ x 1¼ inch Glass tube fuse with 1½ inch leads of No. 20 tinned copper wire.
Test specifications—carry 110%, open at 135% within 1 hour
Listed by Underwriters' Laboratories Inc.

Voltage	Symbol	Amperes	List Price
250 or less	GJV	1/16	$0.44
"	GJV	1/8	.33
"	GJV	¼, 3/10, 3/8, ½ or ¾	.25
"	GJV	1, 1½, 2 or 3	.20
"	GJV	4, 5 or 6	.21

FUSETRON FUSES, ¼ x 1¼ inch



DUAL-ELEMENT SLOW BLOWING TYPE

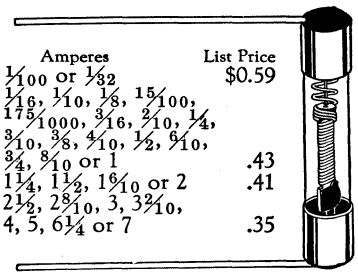
Stop needless blows from starting currents or surges. Fuse link operates only on very high overloads or short-circuits. Thermal cutout functions on low overloads — cannot operate quickly at any load, so long time-lag is obtained. Yet protection is afforded against short-circuits or continued overloads.
Test specification—carry 110%, open at 135% within 1 hour.
Approximate blowing time: at 200% load **MDL** 25 sec. **MDX** 12 sec.
at 300% " " 8 " " 3 "
at 500% " " 3 " " ½ "

125 and 250 volt sizes listed by Underwriters' Laboratories Inc.

Voltage	Symbol	Amperes	List Price
250 or less	MDL	1/100 or 1/32	$0.48
250 or less	MDL	1/16, 1/10, 1/8, 15/100, 175/1000, 3/16, 2/10, ¼, 3/10, 3/8, 4/10, ½, 6/10, 7/10, ¾, 8/10 or 1	.35
"	MDX	1¼, 1½, 1 6/10 or 2	.39
125 or less	MDL	1 2/10, 1¼, 1½, 1 6/10 or 2	.33
"	MDL	2½ or 2 8/10	.25
"	MDX	3, 3 2/10, 4 or 5	.25
"	MDX	6¼ or 7	.30
32 or less	MDL	3, 3 2/10, 4, 5, 6¼, 8, 10, 15, 20, 25 or 30	.25

FUSETRON PIG-TAIL FUSES

Leads are No. 20 tinned wire 1½ inch long. Listed by Underwriters' Laboratories Inc. Test specifications and performance, MDV 1/100 to 2 8/10 amps. same as MDL fuses. 3 to 7 amps. same as MDX fuses.



Voltage	Symbol	Amperes	List Price
250 or less	MDV	1/100 or 1/32	$0.59
"	MDV	1/16, 1/10, 1/8, 15/100, 175/1000, 3/16, 2/10, ¼, 3/10, 3/8, 4/10, ½, 6/10, ¾, 8/10 or 1	.43
125 or less	MDV	1¼, 1½, 1 6/10 or 2	.41
"	MDV	2½, 2 8/10, 3, 3 2/10, 4, 5, 6¼ or 7	.35

BUSS INDICATING FUSES, ¼ x 1¼ inch

Fibre Tube. Silverplated indicating pin extends from end of fuse when fuse is blown. This pin can also be used to actuate a signal by using fuses in BUSS HKA Fuseholders or BUSS Signal Fuse Blocks. GLD fuses in sizes larger than 5 amperes have dual tube construction. They can be used in BUSS Signal Fuse Blocks but not in HKA Fuseholders.
125 volt sizes listed by Underwriters' Laboratories Inc.
Test specifications—carry 110%, open at 135% in one hour or less.

Voltage	Symbol	Amperes	List Price
125 or less	GLD	¾	$0.72
"	GLD	1, 2, 3, or 5	.56
32 or less	GLD	8, 10, 12 or 15	.78

GBA FUSES

GBA fuses are the same as BUSS GLD fuses EXCEPT that the indicating pin is RED. This results in a more vivid indication of an open fuse when the fuses are used in BUSS HLD fuseholders.

GBA fuses have same electrical and physical characteristics as BUSS GLD fuses. They are made in the same ampere sizes up to 5 ampere, and are also priced the same.

To specify; give symbol **GBA** and amperes.

BUSSMANN MFG. DIVISION McGraw-Edison Co.

BUSS Fuses

FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

FUSETRON FIBRE TUBE FUSES

13/32 x 1½ inch

Dual-Element — Slow Blowing Type. Avoid needless blows from starting currents or surges. Have fuse link that operates only on very high overloads or short-circuits, and thermal cutout on low overloads. Thermal cutout cannot operate quickly at any load, hence long time-lag is obtained. Yet protection is provided against short-circuits or continued overloads.

Test specification—carry 110%, open at 135% within 1 hour.
Approximate blowing time: at 200% load 25 seconds.
at 300% load 8 seconds.
at 500% load 5 seconds.

125 and 250 volt sizes listed by Underwriters' Labs., Inc.

Voltage	Symbol	Amperes	List Price
250 or less	FNM	1/10, 15/100, 2/10, 3/10, 4/10, ½, 6/10, 8/10, 1, 1⅛, 1¼, 1 4/10, 1 6/10, 1 8/10, 2, 2¼, 2½, 2 8/10, 3 2/10, 3½, 4, 4½, 5, 5 6/10, 6¼, 7, 8, 9 or 10	$0.41
125 or less	FNM	12 or 15	.41
32 or less	FNM	20, 25 or 30	.41

SIGNAL OR VISUAL INDICATING TYPE

FNA are FNM Fusetron fuses with silverplated indicating pin that extends from fuse when fuse blows. Pin can also be used to actuate a signal by using fuse in BUSS Signal Fuse Block. Fuses in sizes larger than 10 ampere have a dual tube construction. They can be used in BUSS Signal fuse blocks but not in the HPC-C fuseholder.

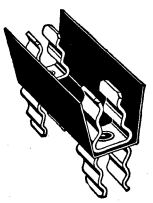
Voltage	Symbol	Amperes	List Price
250 or less	FNA	1/10, 15/100, 2/10, 3/10, 4/10, ½, 6/10, 8/10	$0.77
125 or less	FNA	1, 1⅛, 1¼, 1 4/10, 1 6/10, 1 8/10, 2, 2¼, 2½, 2 8/10, 3, 3 2/10, 3½, 4, 4½, 5, 5 6/10, 6, 6¼, 7, 8, 10	.77
"	FNA	12 or 15	.85
32 or less	FNA	20, 25 or 30	.85

BUSS FUSES 600 Volt. UL Listed. 13/32 x 1⅜ inch.

Fibre tube. For protection of control circuits or wherever a fuse with "quick-blowing" characteristics is desirable. Listed by Underwriters' Laboratories Inc.

Voltage	Symbol	Amperes	List Price
600 or less	BBS	4/10, ¾ or 8/10	$0.27
600 or less	BBS	1, 2, 3, 4 or 5	.25

Fuseholder for BBS fuses. Use HPC-L fuseholder or No. 3845 single pole, side barrier porcelain fuse block. Only BBS fuses (or others with exact same dimensions) will fit these holders. This assures replacement of proper size fuse.



BUSS Insulated TWIN-CLIPS

For ¼ inch FUSES.

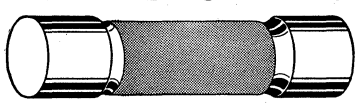
Make it easy to replace blown pigtail fuses without cutting or unsoldering pigtails. Just snap Twin-Clips on blown fuse and insert ordinary or Fusetron fuse of same amperage as blown fuse.

Strong spring clip pressure assures good contact.

		List Price
No. 3434 BUSS Insulated Twin Clips	One pair	$0.24

HIGH INTERRUPTING CAPACITY FUSES

13/32 x 1½ inch

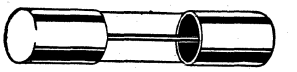


Glass fibre melamine tube with sand filler surrounding a silver fuse element. For use on circuits capable of delivering currents as high as 100,000 amperes at voltages of 600 or less. AC only.

Test specification—carry 110%, open at 135% in 1 hour or less.

Voltage	Symbol	Amperes	List Price
600 or less	KTK	1/10, ⅛, 2/10, ¼, 3/10, ½, ¾, 1, 1½, 2, 3, 4, 5, 6, 8, 10, 15, 20, 25, 30	$1.42

BUSS GLASS TUBE FUSES



9/32 x 1¼ inch

Formerly called 4 AG.

Test specifications — carry 110%, open at 135% within 1 hour except 35 and 40 ampere which open at 300% in 2 to 4 seconds when tested in a standard 30 ampere test circuit.

Voltage	Symbol	Amperes	List Price
250 or less	AGS	1/16	$0.54
	AGS	⅛	.38
	AGS	¼, or ½	.18
	AGS	1, 2, 2½ or 3	.17
32 or less	AGS	5, 10, 15, 20, 25, 30	.14
	AGS	35, 40 or 50	.17

BUSS HIGH VOLTAGE FUSES

HVA and HVB

HVJ and HVL

Designed for protection of circuits up to 20 KW on DC and 30 KVA on AC.

Test specification—carry 110%, open at 135% within 1 hour.

Voltage	Symbol	Amperes	Diameter of caps	Length inches	List Price
1000 or less	HVA	⅜, ½, ¾, 1, 1½, 2	13/32	3	$0.34
2500 or less	HVB	½, ¾, 1, 1½ or 2	13/32	4½	.45
5000 or less	HVJ	1/16, ⅛, ¼, ⅜, ½, ¾, 1, 1½ or 2	13/16	5	.83
10000 or less	HVL	1/16, ⅛, ¼, ⅜, ½, ¾, 1, 1½ or 2	13/16	10	1.66

13/32 x 1½ inch INDICATING FUSES

Has silver plated indicating pin that extends from fuse when open — gives visual indication or can actuate signal.

Voltage	Symbol	Amperes	List Price
250 or less	MIC	1, 2, 3, 5, 10 or 15	$0.69
32 or less	MIC	20, 25 or 30	.69

250 volt sizes listed by Underwriters' Laboratories Inc.

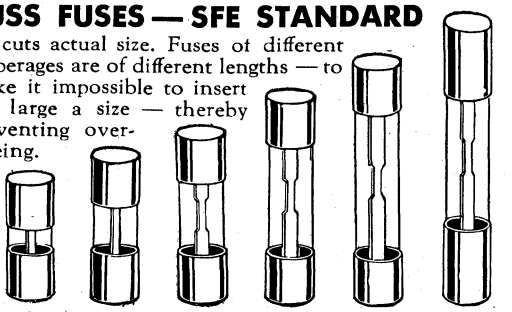
Fuses made in accordance with Military Specifications.

Red button on indicating pin extends from end of fuse when fuse opens.

Voltage	Symbol	Amperes	List Price
250 or less	MIN	1, 2, 3, 5, 10 or 15	$0.60
125 or less	MIN	20, 25 or 30	.60

BUSS FUSES — SFE STANDARD

All cuts actual size. Fuses of different amperages are of different lengths — to make it impossible to insert too large a size — thereby preventing over-fuseing.



SFE 4 SFE 6 SFE 7½ & SFE 9 SFE 14 SFE 20 SFE 30

Glass tube — diameter ¼ inch. Length as per table below.

Test specification—carry 110%, open at 135% within 1 hour.

Listed by Underwriters' Laboratories Inc.

Made according to specifications of Society of Automotive Engineers.

Voltage	Symbol & Amperes	Length Inches	Pounds per 100	List Price
32 or less	SFE 4	5/8	.73	$0.075
"	SFE 6	¾	.75	.075
"	SFE 7½	7/8	.80	.066
"	SFE 9	7/8	.80	.066
"	SFE 14	1 1/16	.82	.059
"	SFE 20	1¼	.87	.059
"	SFE 30	1 7/16	1.60	.075

BUSSMANN MFG. DIVISION McGraw-Edison Co.

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BUSS Fuses

FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

TRON PIGTAIL FUSES

Sub-miniature — hermetically sealed — visual indicating

Tron fuses can easily be incorporated into miniaturized devices or components without sacrifice of space. Designed for installation in high shock and vibration ambients.

They may be potted or encapsulated. Are self-protecting and operate without exterior flash or venting. Glass tube construction permits visual inspection of element.

Available in ratings from 1/100 to 15 amperes — for use on circuits of 125 volts or less where available fault current is not over 50 amperes. Color coded to indicate ampere rating.

Made with 1½ inch axial pigtails or with 1 inch right angle pigtails. Leads are of No. 24 tinned copper wire for ratings 1/100 thru 5 amp. — No. 18 tinned copper wire for ratings 7 thru 15 amp.

Test specifications —
Characteristic A — Carry 100% load, open within 10 seconds at 200% load.
Characteristic B — Carry 100% load, open within 10 seconds at 150% load.

GFA TRON Fuses Body size only .145 x .300 inches

Symbol & Amperes	Test Specification	Color Code One End	Color Code Other End	List Price
GFA 1/100	A	Red	Orange	$0-71
GFA 1/32	A	Red	Brown	.71
GFA 1/20	A	Yellow	Yellow	.71
GFA 1/16	A	Brown	Brown	.71
GFA 1/10	A	Red	Red	.71
GFA 1/8	A	Orange	Orange	.71
GFA 15/100	B	Red	Yellow	.71
GFA 2/10	B	Red	Blue	.71
GFA 1/4	B	Red	Purple	.71
GFA 3/10	A	Green	Green	.71
GFA 4/10	A	Blue	Blue	.71
GFA 1/2	B	Orange	Green	.71
GFA 6/10	B	Orange	Blue	.71
GFA 3/4	B	Orange	Purple	.62
GFA 1	B	Yellow	Green	.62
GFA 1½	B	Yellow	Purple	.62
GFA 2	B	Green	Blue	.62
GFA 3	B	Blue	Purple	.62
GFA 4	B	Purple	Brown	.62
GFA 5	B	Brown	Black	.62
GFA 7	A	Purple	Green	.62
GFA 8	A	Green	Black	.62
GFA 15	A	Black	Purple	.62

GLN and GLX TRON Fuses

Body size only .140 x .300 inches

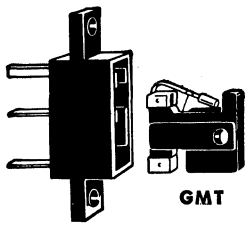
Symbol & Amperes	Test Specification	Color Code One End	Color Code Other End	List Price
GLN 1/100	A	Red	Orange	$1.97
GLN 1/32	A	Red	Brown	1.66
GLN 1/20	A	Yellow	Yellow	1.66
GLN 1/16	A	Brown	Brown	1.66
GLN 1/10	A	Red	Red	1.66
GLN 1/8	A	Orange	Orange	1.66
GLN 3/10	A	Green	Green	1.66
GLN 4/10	A	Blue	Blue	1.66
GLN 7	A	Purple	Green	1.66
GLN 8	A	Green	Black	1.66
GLN 15	A	Black	Purple	1.66
GLX 15/100	B	Red	Yellow	2.16
GLX 2/10	B	Red	Blue	2.16
GLX 1/4	B	Red	Purple	2.16
GLX 1/2	B	Orange	Green	2.16
GLX 6/10	B	Orange	Blue	2.16
GLX 3/4	B	Orange	Purple	2.16
GLX 1	B	Yellow	Green	2.16
GLX 1½	B	Yellow	Purple	2.16
GLX 2	B	Green	Blue	2.16
GLX 3	B	Blue	Purple	2.16
GLX 4	B	Purple	Brown	2.16
GLX 5	B	Brown	Black	2.16

Other ratings are available with a nominal test charge.
Approximate Unit weight 0.33 grams. Shipping weight 0.116 lbs. per 100.

BUSS GMT Fuses — HLT Fuseholders

Signal Indicating

Alarm Activating



For multiple circuit apparatus where space is at a premium

GMT fuses and HLT fuseholders permit multiple mounting of fuses in limited space, for protection of communication equipment, business machines, computers, control circuits or any equipment operating at 300 volts or less.

Holders take panel mounting space of only ¼ inch horizontal by 1 15/32 inches vertical.

Fuses give visual indication when blown by release of a spring indicator. The spring carries a colored plastic flag, in a different color for each fuse ampere rating.

The indicator spring when released makes contact with an alarm terminal in the fuseholder, which can be connected to activate a signal circuit.

Blown fuses are readily replaced without use of insulated tools. When mounted on minimum centers, removal of fuse is easy by use of a wire hook.

Buss GMT Fuses

Available Ratings and Color Code

300 volts or less

Test specification — carry 100% for 10 minutes; open at 150% within 5 minutes.

Symbol & Amperes	Color of Indicator	Symbol & Amperes	Color of Indicator
GMT 18/100	YELLOW	GMT 1⅛	WHITE
GMT ¼	VIOLET	GMT 2	ORANGE
GMT ½	RED	GMT 3	BLUE
GMT 65/100	BLACK	GMT 5	GREEN
GMT ¾	BROWN	GMT 7½	BLACK-WHITE
GMT 1	GRAY	GMT 10	RED-WHITE

Symbol
GMT (All Sizes) — List Price $0.66

Buss HLT Fuseholders

Buss HLT fuseholders take all sizes of GMT fuses.

HLT — List Price $0.69

GMW Fuse and HWA Fuseholder

Sub-miniature fuseholder combination

Body size only .270 x .250 inches

Offering a light weight, space-saving protective device for space-tight applications in multiple circuit apparatus. GMW fuse has transparent window for visual inspection of element. Fuse may be used alone for mounting into printed circuit boards.

HWA holder can be panel mounted easily — or soldered on printed circuit boards.

AF knob for holder makes holder water-proof from front of panel.

Test specifications — carry 100%, open at 200% within 10 seconds or less.
Interrupting rating — 300 ampere at 125 volts

Symbol	Ampere	List Price
GMW	1/200, 1/100, 1/64, 1/32 and 1/16	$1.12
GMW	1/10, 2/10, ¼, 3/10, 4/10, ½, 6/10, ¾, 1, 1½, 2, 3, 4, and 5	.86
HWA	fuseholder only, takes all sizes of GMW fuses	.94
AF	knob for HWA fuseholder	.13

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BUSS Fuses

FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

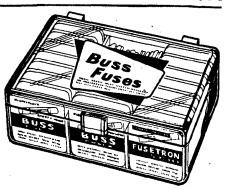
for Protection of TV, Radios, Instruments and Electronic Equipment

BUSS GRASSHOPPER FUSES

Give a visible signal or activate an alarm circuit when blown. Color coded to indicate type and amperage.

Symbol	Amps	Volts	Color Code	List Price
35A	1⅓	90 or less	White	$0.41
35B	1⅓	90 or less	White	.41
35B	2	90 or less	Orange	.41
35C	2	90 or less	Orange	.41
35D	1⅓	90 or less	White	.82
35E	3	90 or less	White	.44
35F	½	90 or less	Red	.41
35G	3	90 or less	Blue	.41
35H	5	90 or less	Green	.41
35R	18/100	90 or less	Yellow	.52
35T	65/100	90 or less	Tan	.60
35J	½	160 or less	Red	.60
35K	1⅓	160 or less	White	.82
35L	2	160 or less	Orange	.82
35M	3	160 or less	Blue	.73
35N	5	160 or less	Green	.73
35P	¾	160 or less	Tan	.52
35S	¼	160 or less	Pink	.60

BUSS FUSE TV Service Kit Assortment

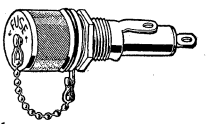


Contains 101 of the most popular fuses — 20 slide-cover boxes — and five pairs of BUSS No. 4121 Twin Clips for use in replacing blown pigtail fuses. All packed in a clear plastic box.

Symbol, **TV-STD** List Price $24.00

BUSS SHIELDED FUSEHOLDERS

Prevent Radio Frequency Interference



Installs quickly as an ordinary fuseholder. For use where fuse and fuseholder could pick up radio frequency radiation and interfere with circuit containing fuseholder — or other nearby circuits.

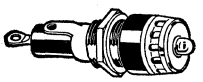
Fuseholder accomplishes both shielding and grounding. Eliminates need for placing grounded metal shield around fuseholder.

Fuseholder meets MIL-1-6181D for interference control and MIL-F-19207A covering such environments as salt spray, humidity, shock and vibration.

Current carrying capacity; 30 amperes at any voltage up to 250.

	List Price
HMR for ¼ x 1¼ inch fuses	$7.06
HMS for ¼ x 1 inch fuses	7.06

PANEL MOUNTED VISUAL INDICATING FUSEHOLDER for ¼ x 1¼ inch GBA Fuse (or GLD fuse)



Has transparent, bayonet type knob that permits indicating pin of open fuse to be readily seen.

Gives positive identification of open circuit even if power is off.

Vibration cannot cause failure because terminals are held mechanically and by solder.

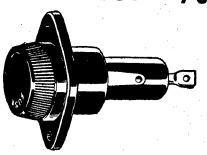
Neoprene washer and steel locking nut furnished with each holder.

Body is molded phenolic, can be used on panels up to 5/16 inch thick.

Normal current carrying capacity; 30 ampere.

	List Price
HLD takes any size GBA fuse (or GLD fuse)	$0.69
No. 5487 Knob Only — will fit HKP holder, makes it visual indicating when used with GBA fuse	.31

PANEL MOUNTED HOLDERS for 13/32 x 1½ inch Fuses



Screw type knob. Molded phenolic body. Holder attached to panel by screws or rivets. Strong coil spring provides contact pressure on ends of fuse. Normal current carrying capacity 30 amperes. Listed by Underwriters' Laboratories for 15 ampere rating for any voltage up to 250.

HPC (for FNM and KTK fuses) ..... List Price $0.94

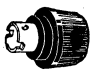
HPC-C (Same as above, but has transparent knob) ..... List Price $1.18

HPC-L Holder for 13/32 x 1⅜ inch Fuses.

Like **HPC** Holder. Has Underwriters' Laboratories approved listing for 5 ampere rating and any voltage up to 600.

HPC-L (for BBS fuses) ..... List Price $0.94

PANEL MOUNTED HOLDERS for ¼ inch Fuses



Can be used on panels up to 5/16 inch thick.

Bayonet type knob. No screw driver is needed.

Side terminal is held mechanically as well as by solder. Heat of soldering wire to it will not cause it to loosen.

Vibration will not cause failure of terminals as they are designed to stand severe service.

Neoprene washer and steel locking nut furnished with each holder.

Wire hole in terminals; .115 inch.

Normal current carrying capacity; 30 amperes.

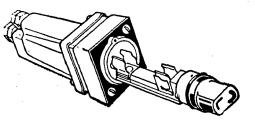
Listed by Underwriters' Laboratories Inc.

	List Price
HJM for ¼ x 1 inch fuses (AGX, SFE 14)	$0.62
HJM-CC (Same as HJM but projects shorter distance behind panel)	.62
HKP for ¼ x 1¼ inch fuses (ABC, AGC, SFE20, MDL, MDX, MTH)	.62
HKP-CC (Same as HKP but projects shorter distance behind panel)	.62

Above holders also available with quick-connect terminals

PANEL MOUNTED, LAMP INDICATING FUSEHOLDERS for ¼ x 1¼ and 13/32 x 1½ inch fuses

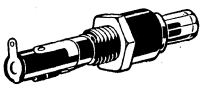
Made to Military Specifications.



Available as single or two pole units. Transparent knob permits neon indicating light to be readily seen. Body of molded alkyd.

Type	Pole	Fuse Size Inches	Circuit Voltage	Max. Amp. Rating	List Prices
HGB-C	Single	¼ x 1¼	90 to 250	30	Prices
HGA-C	Two	¼ x 1¼	90 to 250	30	on
HGC	Single	13/32 x 1½	90 to 500	30	Request

LAMP INDICATING FUSEHOLDERS



For panel mounting ¼ x 1 and ¼ x 1¼ inch fuses. Bayonet type knob. Molded phenolic body. Strong coil spring provides contact pressure at ends of fuse. Transparent knob permits indicating light to be readily seen.

Type	Fuse Size Inches	Circuit Voltage	Max. Amp. Rating	Type Lamp	List Price
HKL	¼ x 1¼	90 to 250	20	Neon	$2.54
HKL-X	¼ x 1¼	90 to 250	20	Neon	2.54
HKR	¼ x 1¼	22 to 33	20	Incand.	4.16
HKX	¼ x 1¼	22 to 33	20	Incand.	4.16
HKT	¼ x 1¼	13 to 22	20	Incand.	4.16
HKU	¼ x 1¼	4 to 6	20	Incand.	4.16
HJL	¼ x 1	90 to 250	20	Neon	2.53

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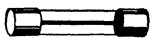
BUSS Fuses
FUSETRON DUAL-ELEMENT Fuses and Fuse Holders
for Protection of TV, Radios, Instruments and Electronic Equipment

BUSS MINIATURE GLASS TUBE FUSES

5 mm x 20 mm (.197 x .769 inches)



Designed for protection of miniaturized circuits or equipment. Commonly used in equipment of foreign make.

Test specifications — Carry 100% load indefinitely.
Open at 200% load within 10 seconds.

Voltage	Symbol	Amperes	List Price
125 volts or less if available fault current is not over 50 amps.	GMA	1/8	$0.53
	GMA	1/4, 1/2, or 7/10	.40
	GMA	1, 1 1/10, 1 1/2, or 2	.33
	GMA	3, 4, 5, 6, or 10	.33

GJU fuses now called GMA.

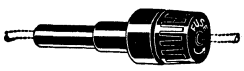
HKA SERIES

Lamp Indicating, Signal Activating holders for 1/4 x 1 1/4 inch BUSS type GLD fuses

Used on circuits of 125 volts or less. Flashes a light, rings a bell, trips a relay or gives other signals to tell you when and where a fuse blows.

Symbol		List Price
HKA	for 1/4 x 1 1/4 inch GLD fuses, 3/4 to 5 amps. GLD fuses listed under Indicating fuses.	$5.53

IN-THE-LINE HOLDERS for 1/4 inch fuses



For mounting fuse in wire. Holders consist of body and bayonet type knob — two contacts ready to be staked on ends of wire — and a contact pressure spring.

Holders can also be mounted in panel up to 5/16 inch thick by means of a No. 9969 Spring nut (Nut not furnished). Flat area on holder permits locking against rotation.

Normal current carrying capacity: 15 amperes. Maximum Voltage: 250.

Contacts designed to take different size wire. For 18 to 22 wire add "-A" to symbol. For 14 to 16 wire add "-B" to symbol. (Example HHJ-A).

Symbol	Fuse Size Inches	List Price
HHJ	1/4 x 1 1/4	$0.31
HHI	1/4 x 1 or 1 1/16	.31
HHH	1/4 x 7/8	.31
HIG	1/4 x 3/4	.31
HIF	1/4 x 5/8	.31

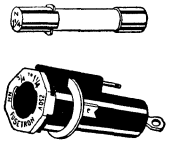
SERIES HD and HA

These holders are the same in all details and dimensions as the HH and HI series — EXCEPT that the holding ears in the bayonet knob are of molded phenolic instead of being of metal.

Symbol	Fuse Size Inches	List Price
HDJ	1/4 x 1 1/4	$0.23
HDI	1/4 x 1 or 1 1/16	.23
HDH	1/4 x 7/8	.23
HAG	1/4 x 3/4	.23
HAF	1/4 x 5/8	.23

No. 9969	Spring nut for panel mounting above holders	.044

FUSETRON and BUSS MATCHED FUSES and FUSEHOLDERS



Safeguard against use of wrong size and type of fuse. FUSETRON Type N are "slow-blowing" fuses for use where harmless surges or starting currents might cause ordinary fuses to open needlessly. Use in Type HN fuseholder.

BUSS Type C are "quick-blowing" fuses for fast interruption of fault current. Use in Type HC fuseholder.
Listed by Underwriters' Laboratories Inc.

FUSETRON FUSE			FUSEHOLDER	
Symbol & Amperes	List Price	Net Price	Symbol & Range	List Price
N 1/100	$0.51	$0.31		
N 1/32	.51	.31		
N 1/16	.37	.22		
N 1/10	.37	.22	HN	
N 15/100	.37	.22	0 to 3/10	$0.24
N 2/10	.37	.22		
N 1/4	.37	.22		
N 3/10	.37	.22		
N 4/10	.37	.22	HN	
N 1/2	.37	.22	3/10 to 1/2	.24
N 6/10	.37	.22		
N 7/10	.37	.22	HN	
N 3/4	.37	.22	1/2 to 3/4	.24
N 8/10	.37	.22		
N 1	.37	.22	HN	
N 1 1/4	.33	.20	3/4 to 1 1/4	.24
N 1 6/10	.33	.20	HN	
N 1 3/4	.33	.20	1 3/10 to 1 3/4	.24
N 2	.33	.20	HN	
N 2 1/2	.31	.19	1 3/4 to 2 1/2	.24
N 2 8/10	.31	.19		
N 3 2/10	.31	.19	HN	
N 3 1/2	.31	.19	2 1/2 to 3 1/2	.24
N 4	.31	.19	HN	
N 5	.31	.19	3 1/2 to 5	.24
N 6 1/4	.31	.19	HN	
N 7	.31	.19	5 to 7	.24

BUSS FUSE			FUSEHOLDER	
Symbol & Amperes	List Price	Net Price	Symbol & Range	List Price
C 1/32	$0.54	$0.32		
C 1/16	.35	.21		
C 1/8	.27	.16	HC	
C 3/16	.27	.16	0 to 3/10	$0.24
C 1/4	.21	.13		
C 3/10	.21	.13		
C 3/8	.21	.13	HC	
C 1/2	.21	.13	3/10 to 1/2	.24
C 3/4	.21	.13	HC 1/2 to 3/4	.24
C 1	.12	.072	HC	
C 1 1/4	.12	.072	3/4 to 1 1/4	.24
C 1 1/2	.12	.072	HC	
C 1 3/4	.12	.072	1 1/4 to 1 3/4	.24
C 2	.12	.072	HC	
C 2 1/2	.12	.072	1 3/4 to 2 1/2	.24
C 3	.12	.072	HC	
C 3 1/2	.15	.09	2 1/2 to 3 1/2	.24
C 4	.15	.09	HC	
C 5	.15	.09	3 6/10 to 5	.24
C 6	.15	.09	HC	
C 7	.15	.09	5 to 7	.24
C 8	.22	.13	HC	
C 10	.23	.14	7 to 10	.24

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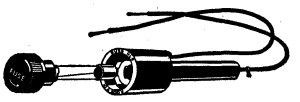
BUSS Fuses
FUSETRON DUAL-ELEMENT Fuses and Fuse Holders
for Protection of TV, Radios, Instruments and Electronic Equipment

BUSS In-the-Line or Panel Mounted FUSE and HOLDER COMBINATIONS

For voltages up to 300



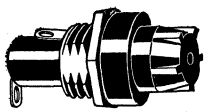
Safeguards against use of wrong type and size of fuse. Fuse and knob are in one piece — when fuse opens, entire fuse-knob assembly is replaced.

Fuseholder can be mounted in-the-line — or panel mounted for which a snap-in steel clip is available for mounting on any panel 1/32 to 1/16 inch thick.

Holders come with 6 inch leads of No. 18 solid copper insulated wire, unless specified otherwise.

		List Price
HLR	holder safeguards against use of wrong type of fuse — (takes all ampere sizes of GLR and GMF fuses)	$0.25
HLQ	holder is size limiting type and is made in 6 fuse ranges. Takes either GLQ or GMQ fuses up to the largest ampere size marked in holder	.28

SPACE SAVER Panel Mounted FUSEHOLDER For 1/4 x 1 1/4 inch fuses or 9/32 x 1 1/4 inch fuses



A compact, space saver fuseholder only 1 5/8 inches long — extends just 2 9/32 inches behind front of panel.

Takes 1/4 x 1 1/4 inch fuses and can easily be converted to take 9/32 x 1 1/4 inch fuses simply by changing the screw type knob.

Knob is designed for easy gripping even with gloves.

Fuseholder is of molded phenolic and will withstand sever vibration, shock and other environmental conditions.

Neoprene washer and zinc plated, chromate dipped steel fastening nut furnished with each holder.

Normal current carrying capacity; 15 amperes for any voltage up to 250. U/L listed.

Symbol		List Price
HLF	for 1/4 x 1 1/4 inch fuses	$0.62
HCL	for 9/32 x 1 1/4 inch fuses	.62

BUSS Add-On Fuse Blocks for 13/32 x 1 1/2 inch Fuses

Single-pole fuseblock and separate end barrier assemble into unit of one or more poles. Units lock together. New poles can be added to either end of existing block. Made of molded phenolic. Marking strips to identify each circuit available.

Type	Description	List Price
3742	End-Barrier Only	$0.18
3743	One-Pole Block Only	1.25
Marking Strip in 50 inch length		.61

When ordering, specify number of end barriers and one-pole blocks desired. Only one end barrier needed for each assembled fuse block of any number of poles.

BUSS STANDARD FUSE BLOCKS

Available from 1 to 12 poles. Have laminated black phenolic base. Clips of strong spring, Albaloy plated, highly resistant to corrosion with great gripping strength. Types 3823 and 3828 have solder terminals firmly seated in small base. Type 3833 has screw terminals on full base that provides ample insulation around terminals.

Cat. No.	Type	Base Dim.	No. Poles	List Each
		For 1/4 x 1 1/4" Fuses — Solder Terminals		
3823-1		1/2 x 1 5/8	1	$0.27
3823-2		1 1/8 x 1 5/8	2	.54
3823-3		1 3/4 x 1 5/8	3	.81
3823-4		2 3/8 x 1 5/8	4	1.08
3823-5		3 x 1 5/8	5	1.35
3823-6		3 5/8 x 1 5/8	6	1.62
3823-7		4 1/4 x 1 5/8	7	1.89
3823-8		4 7/8 x 1 5/8	8	2.16
3823-9		5 1/2 x 1 5/8	9	2.43
3823-10		6 1/8 x 1 5/8	10	2.70
3823-11		6 3/4 x 1 5/8	11	2.97
3823-12		7 3/8 x 1 5/8	12	3.24
		For 1/4 x 1" Fuses — Solder Terminals		
3828-1		1/2 x 1 3/8	1	$0.27
3828-2		1 1/8 x 1 3/8	2	.54
3828-3		1 3/4 x 1 3/8	3	.81
3828-4		2 3/8 x 1 3/8	4	1.08
3828-5		3 x 1 3/8	5	1.35
3828 6		3 5/8 x 1 3/8	6	1.62
3828-7		4 1/4 x 1 3/8	7	1.89
3828-8		4 7/8 x 1 3/8	8	2.16
3828-9		5 1/2 x 1 3/8	9	2.43
3828-10		6 1/8 x 1 3/8	10	2.70
3828-11		6 3/4 x 1 3/8	11	2.97
3828-12		7 3/8 x 1 3/8	12	3.24
		For 1/4 x 1 1/4" Fuses — Screw Terminals		
3833-1		2 5/32 x 2 3/8	1	$0.57
3833-2		1 11/16 x 2 3/8	2	1.14
3833-3		2 19/32 x 2 3/8	3	1.71
3833-4		3 1/3 x 2 3/8	4	2.28
3833-5		4 13/16 x 2 3/8	5	2.85
3833-6		5 11/16 x 2 3/8	6	3.42
3833-7		6 7/32 x 2 3/8	7	3.99
3833-8		7 1/8 x 2 3/8	8	4.56
3833-9		8 1/32 x 2 3/8	9	5.13
3833-10		8 15/16 x 2 3/8	10	5.70
3833-11		9 27/32 x 2 3/8	11	6.27
3833-12		10 3/4 x 2 3/8	12	6.84

Other standard and special fuses, fuse blocks, fuse clips and fuse holders

If the fuses, fuse blocks, fuse clips and holders shown do not fit your requirements ask for information on other types.

Fuses and fuse mountings to meet JAN and Military specifications also are available.

If you have a special problem in protection send description or sketch giving number of circuits, type of fuse, terminals, etc., desired. We welcome such inquiries.

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LIMITRON FUSES

For Protection of Semi-Conductor Rectifiers

Another Outstanding Development by the Makers of BUSS Fuses

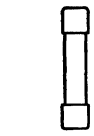
These Limitron fuses are especially designed for the protection of semi-conductor rectifiers. They provide extremely fast opening on overload and fault currents, with a high degree of restriction of the let-thru current.

If each diode is protected by a Limitron fuse, the fuse will open very quickly when the current drawn exceeds the rating of the diode.

Thus when a short-circuit occurs in a diode the fuse opens and takes that diode out of the circuit. This protects other good diodes in the rectifier which might otherwise be damaged.

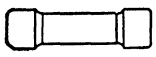
For time-current characteristic charts ask for BUSS bulletin HLS.

Test specification for all types of BUSS rectifier fuses — carry 100% of rating; open at 1000 seconds on overloads between 120% and 180% of rating; open within 1 second at 250% of rating.



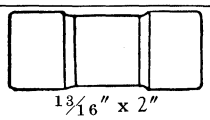
1/4" x 1 1/4"

Symbol & Ampere	Volts	Price Each	Symbol & Ampere	Volts	Price Each
GBB 1	130	$0.60	GBB 9	130	$0.60
GBB 1¼	"	.60	GBB 10	"	.60
GBB 2	"	.60	GBB 12	65	.60
GBB 3	"	.60	GBB 15	"	.60
GBB 5	"	.60	GBB 20	"	.60
GBB 6	"	.60	GBB 25	"	.60
GBB 7	"	.60	GBB 30	"	.60
GBB 8	"	.60			



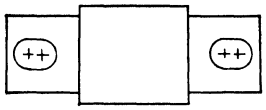
13/32" x 1½"

KAA 1	130	$0.80	KAA 9	130	.80
KAA 2	"	.80	KAA 10	"	.80
KAA 3	"	.80	KAA 12	"	.80
KAA 4	"	.80	KAA 15	"	.80
KAA 5	"	.80	KAA 20	"	.80
KAA 6	"	.80	KAA 25	"	.80
KAA 7	"	.80	KAA 30	"	.80
KAA 8	"	.80			



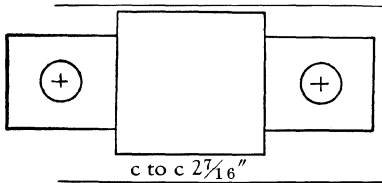
13/16" x 2"

KAH 35	130	$1.97
KAH 40	"	1.97
KAH 45	"	1.97
KAH 50	"	1.97
KAH 60	"	1.97



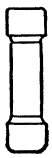
c to c 2 3/16" — 1 29/32"

KAA 70	130	$3.70
KAA 80	"	3.70
KAA 100	"	3.70
KAA 150	"	3.70
KAA 200	"	3.70
KAA 225	"	3.70
KAA 250	"	3.70
KAA 300	"	3.70
KAA 350	"	3.70
KAA 400	"	3.70



c to c 2 7/16"

KAA 450	130	$7.50
KAA 500	"	7.50
KAA 600	"	7.50
KAA 650	"	7.50
KAA 800	"	7.50
KAA 1000	"	7.50

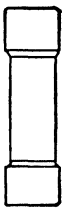


13/32" x 1½"

Symbol & Ampere	Volts	Price Each
KAW 1	130	$0.80
KAW 2	"	.80
KAW 4	"	.80
KAW 5	"	.80
KAW 7	"	.80
KAW 10	"	.80
KAW 15	"	.80
KAW 20	"	.80
KAW 30	"	.80

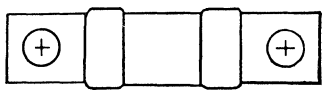
Symbo. & Ampere	Volts	Price Each	Symbol & Ampere	Volts	Price Each
KAC 1	600	$1.20	KAC 60	600	$ 3.45
KAC 2	"	1.20	KAC 70	"	4.25
KAC 3	"	1.20	KAC 80	"	4.25
KAC 4	"	1.20	KAC 90	"	4.25
KAC 5	"	1.20	KAC 100	"	4.25
KAC 6	"	1.20	KAC 110	"	6.45
KAC 7	"	1.20	KAC 125	"	6.45
KAC 8	"	1.20	KAC 150	"	6.45
KAC 9	"	1.20	KAC 175	"	6.45
KAC 10	"	1.20	KAC 200	"	6.45
KAC 12	"	1.20	KAC 225	"	9.20
KAC 15	"	1.20	KAC 250	"	9.20
KAC 17½	"	1.20	KAC 300	"	9.20
KAC 20	"	1.20	KAC 350	"	9.20
KAC 25	"	1.20	KAC 400	"	9.20
KAC 30	"	1.20	KAC 425	"	13.10
KAC 35	"	3.45	KAC 450	"	13.10
KAC 40	"	3.45	KAC 500	"	13.10
KAC 45	"	3.45	KAC 600	"	13.10
KAC 50	"	3.45	KAC 800	"	13.10

Symbol & Ampere	Volts	Price Each
KAB ½	250	$0.90
KAB 1	"	.90
KAB 2	"	.90
KAB 3	"	.90
KAB 4	"	.90
KAB 5	"	.90
KAB 6	"	.90
KAB 7	"	.90
KAB 8	"	.90
KAB 9	"	.90
KAB 10	"	.90
KAB 12	"	.90
KAB 15	"	.90
KAB 17½	"	.90
KAB 20	"	.90
KAB 25	"	.90
KAB 30	"	.90



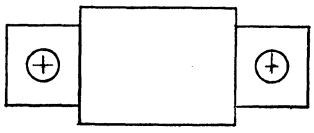
9/16" x 2"

KAB 35	250	$3.60
KAB 40	"	3.60
KAB 45	"	3.60
KAB 50	"	3.60
KAB 60	"	3.60



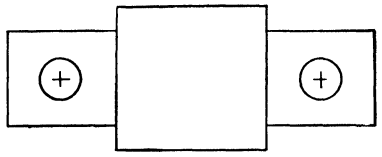
c to c 2 7/16"

KAB 70	250	$5.50
KAB 80	"	5.50
KAB 90	"	5.50
KAB 100	"	5.50
KAB 150	"	5.50
KAB 175	"	5.50
KAB 200	"	5.50



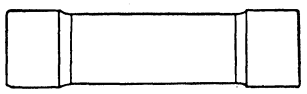
c to c 2 3/8"

KAB 225	250	$7.10
KAB 250	"	7.10
KAB 300	"	7.10
KAB 350	"	7.10
KAB 400	"	7.10
KAB 500	"	7.10
KAB 600	"	7.10
KAB 800	"	7.10

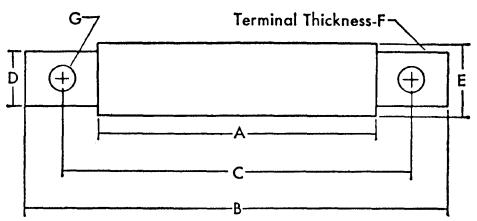


c to c 2 25/32"

KAJ 35	600	$2.20
KAJ 40	"	2.20
KAJ 45	"	2.20
KAJ 50	"	2.20
KAJ 60	"	2.20



5/8" x 3"



Ampere Rating	A	B	C	D	E	F	G
0-30	1 7/8	2 7/8	2 1/2	13/32	9/16	1/16	1/4
35-60	2 27/32	4 3/8	3 5/8	1/2	13/16	3/32	9/32
65-100	3	5	4	3/4	1	1/8	13/32
110-200	3	5 1/2	4 3/8	1 1/8	1 1/2	3/16	13/32
225-400	3	6 1/4	4 3/4	1 5/8	2	1/4	9/16
425-800	3 1/16	6 1/4	4 3/4	2	2 1/2	1/4	9/16

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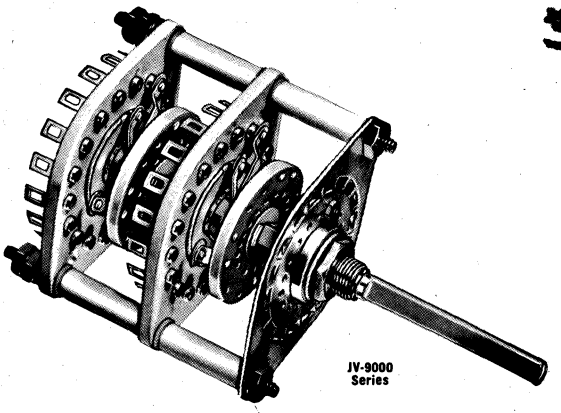
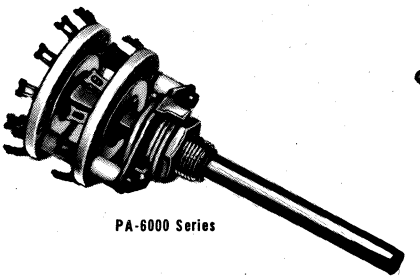
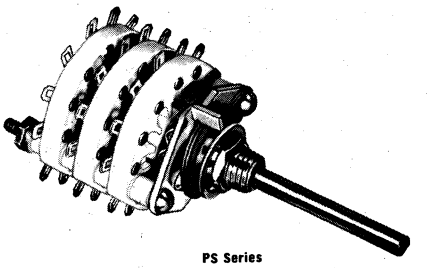
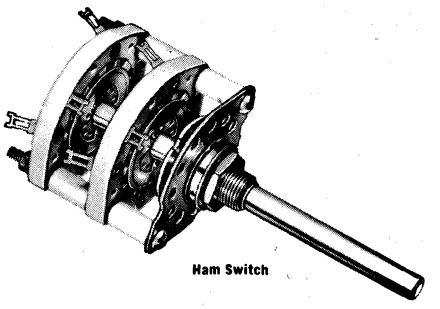
Switches, Hardware and Kits


JV-9000 Series


PA-6000 Series


PS Series


Ham Switch

SERIES JV-9000 HEAVY-DUTY POWER SWITCHES

Rotary power switch insulated with Centralab steatite grade L-422 or better per MIL-I-10A. Rated: 9 amps, 110 v. AC; 11 amps, 28 v. DC; 15 ma, 2500 v. AC. Breakdown, 3000 v. AC rms between critical parts. Coin silver contacts; 20° indexing adjustable stop. Mtg. bushing ⅜"-32 thread, ⅜" long. Sections 2 13/16" high, 2" wide, ⅛" thick. Shipping Wt., 6 oz. per section.

SERIES JV-9000 ROTARY SWITCHES

CRL Number		Poles to Section	No. Sections	No. Poles	No. Positions
Shorting	Non-Shorting				
JV-9000	JV-9001	1	1	1	2—17
JV-9002	JV-9003	3	1	3	2—5
JV-9004	JV-9005	1	2	2	2—17
JV-9006	JV-9007	3	2	6	2—5
JV-9008	JV-9009	1	3	3	2—17
JV-9010	JV-9011	3	3	9	2—5
JV-9012	JV-9013	1	4	4	2—17
JV-9014	JV-9015	3	4	12	2—5
JV-9016	JV-9017	1	5	5	2—17
JV-9018	JV-9019	3	5	15	2—5
JV-9020	JV-9021	1	6	6	2—17
JV-9032	JV-9033	2	1	2	2—8
JV-9034	JV-9035	2	2	4	2—8
JV-9036	JV-9037	2	3	6	2—8
JV-9038	JV-9039	2	4	8	2—8

SERIES JV-9000 SEPARATE SECTIONS

CRL Number		Number Poles	Number Positions
Shorting	Non-Shorting		
JV-8	JVN-8	1	2—17
JV-9	JVN-9	3	2—5
JV-10	JVN-10	2	2—8
JV-18*	JVN-18*	1	2—18

*Rotor has 17 fingers making contact with 17 contacts on stator, leaving one contact open. By cutting off unwanted fingers this section can be adapted to special circuits, e.g., one off, nine progressively shorting positions.

SERIES JV-9000 DIAL PLATES, INDEX ASSEMBLIES

CRL Nos. P-230, P-231 or P-232 — 2¾" Dia., etched aluminum on black background; 20°; marked 1-5 for P-230, 1-17 for P-231, and 1-8 for P-232. Packaged 5 of a number.

CRL No. JV-7 Index Assembly — Includes shaft, tie rods, spacers, nuts and lockwashers, adjustable stop pin, and 2" black bar knob.

INDUSTRIAL NET PRICES

CRL Number	Net Each, Lots of				
	1-4	5-9	10-24	25-49	50-99
JV-9000 thru JV-9003	$10.50	$ 8.75	$ 7.88	$ 7.49	$ 7.00
JV-9004 thru JV-9007	17.40	14.50	13.05	12.40	11.60
JV-9008 thru JV-9011	24.30	20.25	18.23	17.32	16.20
JV-9012 thru JV-9015	31.20	26.00	23.40	22.23	20.80
JV-9016 thru JV-9019	38.10	31.75	28.58	27.15	25.40
JV-9020 and JV-9021	45.30	37.75	33.98	32.28	30.20
JV-9032 and JV-9033	10.50	8.75	7.88	7.49	7.00
JV-9034 and JV-9035	17.40	14.50	13.05	12.40	11.60
JV-9036 and JV-9037	24.30	20.25	18.23	17.32	16.20
JV-9038 and JV-9039	31.20	26.00	23.40	22.23	20.80
JV-8 thru JV-10	6.90	5.75	5.18	4.92	4.60
JVN-8 thru JVN-10	6.90	5.75	5.18	4.92	4.60
JV-18 and JVN-18	7.50	6.25	5.63	5.35	5.00
JV-7 Index	4.50	3.75	3.38	3.21	3.00
P-230 thru P-232	.21	.18	.16	.15	.14

STEATITE HAM-TYPE SWITCHES

Heavy-duty Insulation (Centralab steatite grade L-422 or better per MIL-I-10A) for ham applications. Available in 60° and 90° index. All metal parts except clips and contacts are steel**; all units have phenolic shaft through switch sections. Positive index with adjustable stop; 60° units have 2—6 active positions; 90° units, 2—4. Single hole mounting: ⅜"-32 thread bushing ⅜" long. Shaft ¼" dia., 2¼" long, full round. Rated: 350 milliamps at 115 v. AC; 5 milliamps at 1500 v. AC; 2.25 amp. at 28 v. DC. Unit complete includes mounting nut, lockwasher, pointer knob, and dial plate. Shipping Weight, 4 oz. per section.

**Suitably plated to resist corrosion.

NON-SHORTING HAM SWITCHES

CRL Number		No. Poles*	Net Each, Lots of					
90°	60°		1-4	5-9	10-24	25-49	50-99	100-249
2542	2550	1	$2.37	$1.98	$1.78	$1.69	$1.58	$1.42
2543	2551	2	3.36	2.80	2.52	2.39	2.24	2.02
2544	2552	3	4.32	3.60	3.24	3.08	2.88	2.59
2545	2553	4	5.34	4.45	4.00	3.80	3.56	3.20
2546	2554	5	6.30	5.25	4.73	4.49	4.20	3.78
XXD†	ZZD†	1	1.20	1.00	.90	.86	.80	.72

*One pole per section. †Separate sections; use with "P" Series index assemblies.

SEPARATE INDEX ASSEMBLIES

Deluxe 90° and 60° Types: 2-piece shaft with phenolic rear, metal front; for high voltage operation; use XXD section for 90°; use ZZD section for 60°.

CRL No. 90°	CRL No. 60°	Rear Shaft	Suggested No. Sections
P-278	P-273	2"	1 to 2
P-279	P-274	4¼"	3 to 4
P-280	P-275	7"	5 to 8

CRL Number Index Assembly	Net Each, Lots of					
	1-4	5-9	10-24	25-49	50-99	100-249
P-273 and P-278	$1.38	$1.15	$1.04	$0.99	$0.92	$0.83
P-274 and P-279	1.74	1.45	1.31	1.25	1.16	1.04
P-275 and P-280	2.16	1.80	1.62	1.54	1.44	1.40

DUAL SPEAKER SWITCH KIT

(Not Illustrated). Primarily designed for rear seat auto radio speaker applications. It is adaptable, however, to many commercial applications. Contains: 1484 switch, P-216 bracket-dial plate, P-401 knob, two self-tapping metal screws and instruction sheet.

CRL No. PK-300—
Net Each **$1.05**

Net

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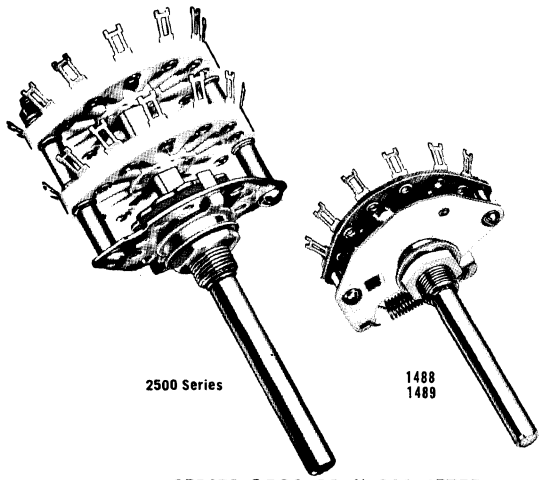
Rotary, Lever Switches



SERIES 2500 1⅞" DIAMETER ROTARY SWITCHES

Made of high quality (grade L-422 or better per MIL-I-10A) Steatite insulation. Meet critical requirements of RF circuit applications. Bushing ⅜"-32 thread ⅜" long. Shaft 1⅞" long, ¼" full round. Sections 1⅞" dia. Positive index 30° with adjustable stop. Index assemblies and hardware are identical and interchangeable with those of the 1400 Series. Switches include pointer knob, nut and lockwasher. Rated: 2.75 amps, 15 v. DC; 350 ma, 115 v. AC. Breakdown, 1500 v. AC between critical parts. Shipping Weight, 5 oz. per section.

SERIES 1400 1⅞" DIAMETER ROTARY SWITCHES

Extremely compact design. Mounting bushings ⅜"-32 thread, ⅜" long. Shafts 1⅞" from end of bushing; ¼" full round. Sections 1⅞" dia. Positive 30° index with adjustable stop. With mounting nut, lockwasher and pointer knob. Index assemblies and hardware are identical and interchangeable with those of 2500 series. Rated: 2.25 amp at 28 v. DC; 350 ma at 115 v. AC. Breakdown, 1000 v. AC rms. Shipping Weight, 4 oz. per section.

COMPLETE ROTARY SWITCHES

Ceramic Types CRL Number		No. Sections	No. Poles	No. Positions	Phenolic Types CRL Number	
Shorting	Non-Short.				Shorting	Non-Short.
2500	2501	1	1	2—6	1400	1401
2502	2503	1	1	2—11	1402	1403
2504	2505	1	2	2—5	1404	1405
2510	2511	2	2	2—6	1410	1411
2512	2513	2	2	2—11	1412	1413
2506	2507	1	3	2—3	1406	1407
2520	2521	3	3	2—6	1420	1421
2522	2523	3	3	2—11	1422	1423
		1	4	2	1408	1409
2514	2515	2	4	2—5	1414	1415
		4	4	2—6	1426	1427
		4	4	2—11	1428	1429
2516	2517	2	6	2—3	1416	1417
2524	2525	3	6	2—5	1424	1425
		2	8	2	1418	1419
		4	8	2—5	1430	1431

SEPARATE SECTIONS

Deluxe Types: .187" rotor slot, use P-270, P-271, P-272 indexes.

Ceramic Types CRL Number		No. Poles	No. Positions	Phenolic Types CRL Number	
Shorting	Non-Short.			Shorting	Non-Short.
TD	XD	1	2—6	AD	HD
UD	YD	1	2—11	BD	JD
RD	RRD	2	2—5	CD	KD
SD	SSD	3	2—3	DD	LD
VD	ZD	4	2	ED	MD
		4	2—3	EED	BBD
		1	2—5	FD**	AAD**
GGD*	FFD*	1	2—11	GD*	CCD*
PISD‡		1	2—10	PID‡	
NSD and PSD		Resistance Decade†		ND and PD	
QSD		Capacitance Decade		QD	

*All unused contacts connected and shorted out. ‡9 contacts, open in full CW, progressively picked up and shorted to common with CCW rotation. †Combine for resistance decade switch. **Unused contacts one side of common connected and shorted out.

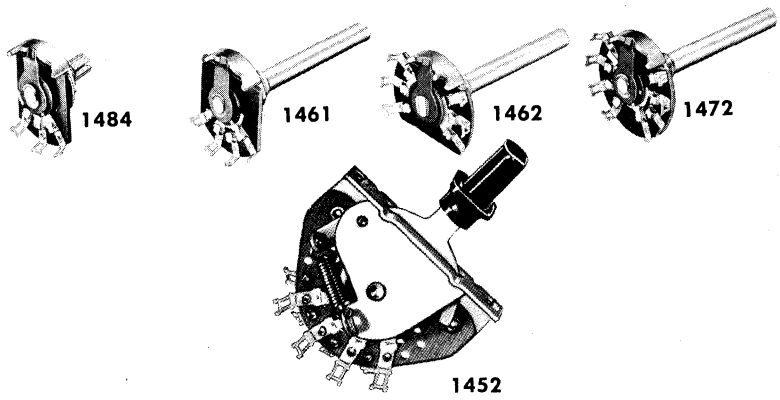
SEPARATE INDEX ASSEMBLIES

Deluxe Type: 1-piece shaft .187" thick flat; use deluxe 1400 or 2500 Series sections. Units include index, pointer knob and hardware for complete assembly.

CRL No. P-270—For 1—3 sections; 2" rear shaft.
CRL No. P-271—For 3—5 sections; 4" rear shaft.
CRL No. P-272—For 5—10 sections; 8" rear shaft.

INDUSTRIAL NET PRICES
CERAMIC SWITCHES, SECTIONS

CRL Model Number	Net Each, Lots of					
	1-4	5-9	10-24	25-49	50-99	100-249
2500 thru 2507	$2.82	$2.35	$2.12	$2.01	$1.88	$1.69
2510 thru 2517	4.02	3.35	3.02	2.87	2.68	2.41
2520 thru 2525	5.16	4.30	3.87	3.68	3.44	3.10
All Sections	1.35	1.13	1.02	.97	.90	.81
PHENOLIC SWITCHES, SECTIONS						
1400 thru 1409	$2.52	$2.10	$1.89	$1.80	$1.68	$1.51
1410 thru 1419	3.06	2.55	2.30	2.19	2.04	1.84
1420 thru 1425	3.90	3.25	2.93	2.78	2.60	2.34
1426 thru 1431	4.50	3.75	3.38	3.21	3.00	2.70
AD, BD, CD, DD, ED	1.05	.88	.79	.75	.70	.63
HD, JD, KD, LD, MD	1.05	.88	.79	.75	.70	.63
EED and BBD	1.35	1.13	1.02	.97	.90	.81
FD, GD, PID, ND, PD	1.05	.88	.79	.75	.70	.63
QD, AAD, CCD	1.05	.88	.79	.75	.70	.63
INDEX ASSEMBLIES						
P-270	$1.65	$1.38	$1.24	$1.18	$1.10	$0.99
P-271	2.10	1.75	1.58	1.50	1.40	1.26
P-272	2.85	2.38	2.14	2.03	1.90	1.71



ROTARY ACTION FLAT SWITCHES

Laminated phenolic insulation. Rated: 2.25 amps, 28 v. DC; Breakdown, 1000 v. AC rms. Bushing ⅜"-32 thread, ⅜" long. Shaft ¼" dia., 2¼" long. Shipping Weight, 3 oz.

CRL No.	No. Poles	No. Pos.	Net Each, Lots of					
			1-4	5-9	10-24	25-49	50-99	100-249
1450*†	4	2	$1.65	$1.38	$1.24	$1.18	$1.10	$ .99
1451†‡	4	2	2.40	2.00	1.80	1.72	1.60	1.44
1488‡	6	3	3.60	3.00	2.70	2.57	2.40	2.16
1489§	6	3	3.60	3.00	2.70	2.57	2.40	2.16

*Positive index. †Non-shorting. ‡Spring return. §Combination positive and spring return index.

GENERAL PURPOSE SWITCHES

Laminated phenolic insulation. Rated: 2.25 amps, 28 v. DC; 230 ma. 115 v. AC. Breakdown, 1000 v. AC rms. Bushing ⅜"-32 thread, ⅜" long except 1484, ¼". Positive index unless otherwise noted.

CRL No.	No. Poles	No. Pos.	Net Each, Lots of					
			1-4	5-9	10-24	25-49	50-99	100-249
1460	1	2	$1.08	$0.90	$0.81	$0.77	$0.72	$0.65
1461	1	3	1.08	.90	.81	.77	.72	.65
1462	2	2	1.08	.90	.81	.77	.72	.65
1463*†	1	2	1.08	.90	.81	.77	.72	.65
1464*†	2	2	1.08	.90	.81	.77	.72	.65
1465‡	1	4‡	1.80	1.50	1.35	1.28	1.20	1.08
1472*	2	3	1.08	.90	.81	.77	.72	.65
1473	2	3	1.08	.90	.81	.77	.72	.65
1483§	1	3	.75	.63	.57	.54	.50	.45
1484≠	1	3	.90	.75	.68	.65	.60	.54
1486•	2	3	1.08	.90	.81	.77	.72	.65

*Non-shorting; all others shorting. †Spring return indexing. ‡3 active with AC-DPST line switch. §Remote speaker switch. ≠Remote auto radio speaker switch. •Remote stereo speaker switch.

LEVER ACTION SWITCHES

REPLACES PA-7000 SERIES

New nylon rotor design results in low cost for use singly or in groups. Have positive and/or spring return index design with shorting or non-shorting contacts. High quality laminated phenolic insulation, clips and contacts silver plated brass. Two hole type mounting bracket supplied with 6—32 thd tapped holes. Dimensions of single switch 1⅛" high x 7/16" wide x 1¼" deep behind panel. Supplies with knob and mounting hardware. Rated 2.75 amps at 15 VDC, 230 MA at 115 VAC. Shipping Weight 4 oz.

CRL No.		No. Poles	No. Pos.	Index
Shorting	Non-Shorting			
1452	1454	2	3	Positive
1453	1455	2	3	Sp. Ret.
1466	1467	2	3	Pos. & Spr.
1456	1457	4	2	Sp. Ret.
1459	1458	4	2	Positive

INDUSTRIAL NET PRICES

CRL Number	Net Each, Lots of					
	1-4	5-9	10-24	25-49	50-99	100-249
1452/55	$1.47	$1.23	$1.10	$1.05	$ .98	$ .88
1456/59	1.62	1.35	1.22	1.15	1.08	.97
1466/67	1.47	1.23	1.10	1.05	.98	.88

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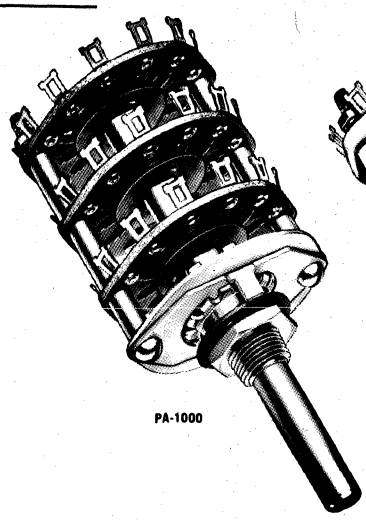
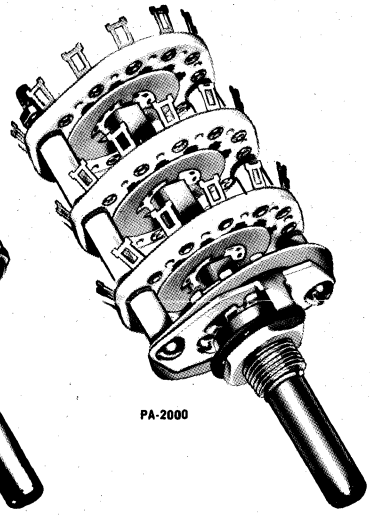
Miniature Switches, Parts


PA-1000


PA-2000

SERIES PA-2000 1½" DIAMETER CERAMIC SWITCHES

Insulated with steatite (grade L-422 or better per MIL-I-10A); only 1½" dia. (⅜" smaller than standard switches). Same ratings as larger switches. Features maximum voltage flashover; high Q, low loss steatite body; minimum intercuit capacity; insulated front-back clips. Metal parts**, except clips and contacts*. Rated: 2.75 amps, 15 v. DC; 230 ma, 115 v. AC, make-break resistive load. Breakdown, 1500 v. AC rms between critical parts. One-piece shaft for accurate indexing. Adjustable stop or continuous rotation mtg. using single hole with locating lug. Bushing ⅜"-32 thread, ⅜" long. Shaft, full round ¼" dia. x 2¼" long from mtg. surface. With mtg. nut, lockwasher and knob. Shpg. Wt., 3 oz. per section.

For switches to meet military specifications, write for prices and information.

**Suitably plated to resist corrosion.

SERIES PA-1000 1½" DIAMETER PHENOLIC SWITCHES

Insulated with type PBE laminated phenolic per MIL-3115-B. Same size as PA-2000 ceramic switches. Rated: 2.75 amps, 15 v. DC, 230 ma, 115 v. AC. Breakdown, 1000 v. AC. Positive, adjustable stop or continuous rotation; 30° or 60° detents available. With knob. Shpg. Wt., 3 oz. per section.

Military specifications available as above.

MINIATURE ROTARY SWITCHES

No. Sect.	Total No. Poles	PA-2000 Ceramic CRL No. PA- Shtg.	Non-Shtg.	Total Pos.	PA-1000 Phenolic CRL No. PA- Shtg.	Non-Shtg.	Total Pos.
1	1	2000	2001	2—12	1000	1001	2—11
1	2	2002	2003	2—6	1002	1003	2—5
2	2	2004	2005	2—12	1004	1005	2—11
1	3	2006	2007	2—5	1006	1007	2—3
3	3	2008	2009	2—12	1008	1009	2—11
1	4				1010	1011	2
2	4	2010	2011	2—6	1012	1013	2—5
4	4	2012	2013	2—12	1014	1015	2—11
1	5	2014	2015	2—3			
5	5	2016	2017	2—12	1016	1017	2—11
1	6	2018	2019	2			
2	6	2020	2021	2—5	1018	1019	2—3
3	6	2022	2023	2—6	1020	1021	2—5
6	6	2024	2025	2—12	1022	1023	2—11
2	8				1024	1025	2
4	8	2026	2027	2—6	1026	1027	2—5
3	9	2028	2029	2—5			
3	12				1028	1029	2
2	10	2030	2031	2—3			
5	10	2032	2033	2—6	1030	1031	2—5
2	12	2034	2035	2			
6	12	2036	2037	2—6	1032	1033	2—5
3	15	2038	2039	2—3			
3	18	2040	2041	2			

SPECIAL CIRCUIT AND 60° INDEXING SWITCHES

1	1	2052*		2—10	1034*		2—10
1	1	2042†		2—10	1040†		2—10
2	2	2048‡	2049‡	2—12			
2	2	2050§		4			
1	1		2043††	2—6		1035††	2—6
2	2		2045††	2—6		1037††	2—6

*All shorted to common in full CCW, progressively opened and dropped with CW rotation. †All open in full CCW, progressively picked up and shorted to common with CW rotation. ‡Silver clips and contacts. §For switching dual lines. ††60° Indexing; 1¼" spacing between sections.

SEPARATE SECTIONS

For use with 30° index assemblies No. PA-300, PA-301 and PA-302, except Nos. PA-17, PA-20 and PA-45, for use with 60° Index assemblies PA-304 and PA-305.

No. Poles	Indexing	PA-2000 Ceramic CRL No. PA- Shtg.	Non-Shtg.	Total Pos.	PA-1000 Phenolic CRL No. PA- Shtg.	Non-Shtg.	Total Pos.
1	30°	0	1	2—12	30	31	2—11
2	30°	2	3	2—6	32	33	2—5
3	30°	4	5	2—5	34	35	2—3
4	30°				36	37	2
5	30°	6	7	2—3			
6	30°	8	9	2			
1	30°	10*	19'	2—5	38*	39*	2—5
2	30°	11**	18**	2—11	40**	41**	2—11
1	30°	12††		2—10	43†		2—10
1	30°	13†		2—10	49††		2—10
1	60°	20	17	2—6		45	2—6

*Unused contacts one side of common connected and shorted out. **All unused contacts connected and shorted out. †Active contacts shorted to common in full CCW, progressively opened and dropped with CW rotation. ††All active contacts open in full CCW, progressively picked up and shorted to common with CW rotation.

SILVER CLIPS AND CONTACTS

CRL Number Shorting	Non-Shorting	Index	No. of Poles	No. of Positions
PA-16	PA-21	30°	1	2—12
PA-14	PA-23	30°	2	2—6
PA-15	PA-24	30°	4	2

INDUSTRIAL NET PRICES SERIES PA-2000 CERAMIC

CRL No. PA- Shtg.	Non-Shtg.	Unit Pkg., Net Each, Lots of 1-4	5-9	10-24	25-49	50-99	Bulk 100-249	100-300
2000	2001	$2.61	$2.18	$1.96	$1.86	$1.74	$1.57	$1.39
2002	2003	2.61	2.18	1.96	1.86	1.74	1.57	1.39
2004	2005	3.72	3.10	2.79	2.65	2.48	2.23	1.97
2006	2007	2.61	2.18	1.96	1.86	1.74	1.57	1.39
2008	2009	4.74	3.95	3.56	3.38	3.16	2.84	2.51
2010	2011	3.72	3.10	2.79	2.65	2.48	2.23	1.97
2012	2013	5.70	4.75	4.28	4.07	3.80	3.42	3.02
2014	2015	2.61	2.18	1.96	1.86	1.74	1.57	1.39
2016	2017	6.81	5.68	5.11	4.85	4.54	4.09	3.61
2018	2019	2.61	2.18	1.96	1.86	1.74	1.57	1.39
2020	2021	3.72	3.10	2.79	2.65	2.48	2.23	1.97
2022	2023	4.74	3.95	3.56	3.38	3.16	2.84	2.51
2024	2025	7.92	6.60	5.94	5.64	5.28	4.75	4.19
2026	2027	5.70	4.75	4.28	4.07	3.80	3.42	3.02
2028	2029	4.74	3.95	3.56	3.38	3.16	2.84	2.51
2030	2031	3.72	3.10	2.79	2.65	2.48	2.23	1.97
2032	2033	6.81	5.68	5.11	4.85	4.54	4.09	3.61
2034	2035	3.72	3.10	2.79	2.65	2.48	2.23	1.97
2036	2037	7.92	6.60	5.94	5.64	5.28	4.75	4.19
2038	2039	5.37	4.48	4.03	3.83	3.58	3.22	2.84
2040	2041	5.37	4.48	4.03	3.83	3.58	3.22	2.84
2042		2.37	1.98	1.78	1.69	1.58	1.42	1.25
2048	2049	5.37	4.48	4.03	3.83	3.58	3.22	2.84
2050		2.61	2.18	1.96	1.86	1.74	1.57	1.39
2052		2.37	1.98	1.78	1.69	1.58	1.42	1.25
	2043	2.37	1.98	1.78	1.69	1.58	1.42	1.25
	2045	3.30	2.75	2.48	2.35	2.20	1.98	1.75
0	1	1.32	1.10	.99	.94	.88	.79	
2	3	1.32	1.10	.99	.94	.88	.79	
4	5	1.32	1.10	.99	.94	.88	.79	
6	7	1.32	1.10	.99	.94	.88	.79	
8	9	1.32	1.10	.99	.94	.88	.79	
10	19	1.32	1.10	.99	.94	.88	.79	
11	18	1.32	1.10	.99	.94	.88	.79	
12		1.32	1.10	.99	.94	.88	.79	
13		1.32	1.10	.99	.94	.88	.79	
20	17	1.32	1.10	.99	.94	.88	.79	
14	23	2.16	1.80	1.62	1.54	1.44	1.30	
15	24	2.16	1.80	1.62	1.54	1.44	1.30	
16	21	2.16	1.80	1.62	1.54	1.44	1.30	

SERIES PA-1000 PHENOLIC

1000	1001	$1.98	$1.65	$1.49	$1.42	$1.32	$1.19	$1.05
1002	1003	1.98	1.65	1.49	1.42	1.32	1.19	1.05
1004	1005	2.82	2.35	2.12	2.01	1.88	1.69	1.49
1006	1007	1.98	1.65	1.49	1.42	1.32	1.19	1.05
1008	1009	3.57	2.98	2.68	2.55	2.38	2.14	1.89
1010	1011	1.98	1.65	1.49	1.42	1.32	1.19	1.05
1012	1013	2.82	2.35	2.12	2.01	1.88	1.69	1.49
1014	1015	4.17	3.48	3.13	2.97	2.78	2.50	2.21
1016	1017	4.92	4.10	3.69	3.51	3.28	2.95	2.60
1018	1019	2.82	2.35	2.12	2.01	1.88	1.69	1.49
1020	1021	3.57	2.98	2.68	2.55	2.38	2.14	1.89
1022	1023	5.55	4.63	4.17	3.96	3.70	3.33	2.94
1024	1025	2.82	2.35	2.12	2.01	1.88	1.69	1.49
1026	1027	4.17	3.48	3.13	2.97	2.78	2.50	2.21
1028	1029	3.57	2.98	2.68	2.55	2.38	2.14	1.89
1030	1031	4.92	4.10	3.69	3.51	3.28	2.95	2.60
1032	1033	5.55	4.63	4.17	3.96	3.70	3.33	2.94
1034		1.98	1.65	1.49	1.42	1.32	1.19	1.05
	1035	1.98	1.65	1.49	1.42	1.32	1.19	1.05
	1037	2.82	2.35	2.12	2.01	1.88	1.69	1.49
1040		1.98	1.65	1.49	1.42	1.32	1.19	1.05
30	31	.96	.80	.72	.68	.64	.58	
32	33	.96	.80	.72	.68	.64	.58	
34	35	.96	.80	.72	.68	.64	.58	
36	37	.96	.80	.72	.68	.64	.58	
38	39	.96	.80	.72	.68	.64	.58	
40	41	.96	.80	.72	.68	.64	.58	
43		.96	.80	.72	.68	.64	.58	
	45	.96	.80	.72	.68	.64	.58	
49		.96	.80	.72	.68	.64	.58	

SEPARATE INDEX ASSEMBLIES

Index assemblies for series PA-1000 and PA-2000 interchangeable.

CRL No. PA-300 Assembly—Contains PA-300 (30°) index, P-120 pointer knob, adjustable stop plate, two ⅛" spacers, two 3/16" spacers, four 3/16" spacers, 2½" tie bolts, nuts, lockwashers and fiber spacer washers. Rear shaft length 2". Use with 1 to 3 sections.

CRL No. PA-301 Assembly—Contains PA-301 index (30°), P-120 pointer knob, adjustable stop plate, two ⅛" spacers, two 5/32" spacers, ten 3/16" spacers, four 1¾" spacers, 5" tie bolts and hardware. Rear shaft length 4". Use with 4 to 6 sections.

CRL No. PA-302 Assembly—Contains PA-302 (30°) index, P-120 pointer knob, adjustable stop plate, four 3/16" spacers, two 5/32" spacers, sixteen 3/16" spacers, eight 1¾" spacers, 7" tie bolts, and hardware. Rear shaft length 6". Use with 7 to 9 sections.

CRL No. PA-304 Assembly—Contains PA-304 (60°) index and hardware same as PA-300. Rear shaft length 2". Use with 1 to 3.

CRL No. PA-305 Assembly—Contains PA-305 (60°) index and hardware same as PA-301. Rear shaft length 4". 4 to 6 sections.

CRL No.	Indexing	Net Each, Lots of 1-4	5-9	10-24	25-49	50-99	100-249
PA-300	30°	$1.50	$1.25	$1.13	$1.07	$1.00	$0.90
PA-301	30°	1.98	1.65	1.49	1.42	1.32	1.19
PA-302	30°	2.58	2.15	1.94	1.84	1.72	1.55
PA-304	60°	1.50	1.25	1.13	1.07	1.00	.90
PA-305	60°	2.10	1.75	1.58	1.50	1.40	1.26

Net
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MIL-S-3786 STYLE SRO3 MINIATURE CERAMIC SWITCHES

Designed to meet MIL-S-3786. Insulated with steatite (grade L-422 or better per MIL-I-10A). Dow Corning 200 silicone treated against surface moisture. Breakdown, 1000 v. AC rms between critical parts. Coin silver clips and contacts; treated for solderability. Adjustable stops or continuous rotation on 30° index. Ceramic sections 1 9/32" dia. x .125" th. Single hole mounting with locating lug at 17/32" radius. Bushing, 3/8"-32NEF-2A threaded, 3/8" lg. from mtg. surface. Shaft 1/4" dia. full round, 2 1/4" lg. from mtg. surface. With nut, lockwasher and P-120 pointer knob. Ratings: 450 ma at 115 v. AC; 8 amps, 6 v. DC; 5.5 amps, 12 v. DC (make-break resistive load).

SERIES PA-6000 SWITCHES

CRL Number		Poles to Section	No. Sections	No. Poles	No. Positions
Shorting	Non-Short.				
PA-6000	PA-6001	1	1	1	2-11
PA-6002	PA-6003	2	1	2	2-5
PA-6004	PA-6005	1	2	2	2-11
PA-6006	PA-6007	3	1	3	2-3
PA-6010*	PA-6011*	4	1	4	2
PA-6012	PA-6013	2	2	4	2-5
PA-6018	PA-6019	3	2	6	2-3
PA-6024*	PA-6025*	4	2	8	2

*Fixed, 2-position stop.

SEPARATE INDEX ASSEMBLY

CRL No. PA-600—Used with PA-60, PA-70 or PA-80 separate sections to assemble special units of 1 to 4 sections. 30° indexing. Rear shaft 2" long.

SEPARATE SECTIONS, 30° INDEXING

Used with PA-600 index assembly. Treminals treated for solderability. Coin silver clips and contacts. Sections 1 9/32" dia. Phenolic types rated 1000 v. AC rms breakdown between critical parts. Phenolic units .062" thick; others .125" thick.

Total Poles	No. Pos.	Phenolic Secs.		Mycalex Secs.		Ceramic Secs.	
		Shorting	Non-Short	Shorting	Non-Short	Shorting	Non-Short
1	2-11	PA-60	PA-61	PA-70	PA-71	PA-80	PA-81
2	2-5	PA-62	PA-63	PA-72	PA-73	PA-82	PA-83
3	2-3	PA-64	PA-65	PA-74	PA-75	PA-84	PA-85
4	2	PA-66	PA-67	PA-76	PA-77	PA-86	PA-87

INDUSTRIAL NET PRICES

CRL Number	Net Each, Lots of					
	1-4	5-9	10-24	25-49	50-99	100-249
PA-6000 thru PA-6003	$3.39	$2.83	$2.55	$2.42	$2.26	$2.03
PA-6004 and PA-6005	5.19	4.33	3.90	3.71	3.46	3.11
PA-6006 thru PA-6011	3.39	2.83	2.55	2.42	2.26	2.03
PA-6012 thru PA-6025	5.19	4.33	3.90	3.71	3.46	3.11
PA-600	1.50	1.25	1.13	1.07	1.00	.90
PA-60 thru PA-67	1.35	1.13	1.02	.97	.90	.81
PA-70 thru PA-77	1.98	1.65	1.49	1.42	1.32	1.19
PA-80 thru PA-87	1.98	1.65	1.49	1.42	1.32	1.19

NOTE: Items requiring certified test data and government source inspection are special. Prices and information supplied on request.

18 AND 24 POSITION SWITCHES

Laminated phenolic insulation, type PBE per MIL-P-3115B. Voltage breakdown between critical parts 1000 v. AC, rms. Bushing 3/8" thd., 3/8" lg. Shaft 1/4" dia., 2 1/4" lg. from mtg. surface. Rated 5.5 amps, 6 v. DC; 2.75 amps, 15 v. DC; 1.75 amps, 24 v. DC; 230 ma, 115 v. AC, rms. Shpg. Wt., 4 oz. per section. **PA-3000 Series**—18-position. Provides accurate crisp indexing in both single and multiple-section versions through the use of new hill-and-dale index. Sections 2 11/64" w. x 2 3/4" h. x 1/4" thick. Positive 20° indexing. Adjustable stops or continuous rotation. **PA-4000 Series**—24-position. Sections 1 3/4" w. x 2 5/16" h. x 1/4" thick.

CRL No. PA-		*	No. Pos.	Net Each, Lots of					
Short.	Non-Short.			1-4	5-9	10-24	25-49	50-99	100-249
3000	3001	1	2-17	$2.04	$1.70	$1.53	$1.45	$1.36	$1.22
3002	3003	2	2-17	2.94	2.45	2.21	2.09	1.96	1.76
3004	3005	3	2-17	3.84	3.20	2.88	2.74	2.56	2.30
3006	3007	4	2-17	4.68	3.90	3.51	3.33	3.12	2.81
4000	4001	1	2-23	2.16	1.80	1.62	1.54	1.44	1.30
4002	4003	2	2-23	3.18	2.65	2.39	2.27	2.12	1.91
4004	4005	3	2-23	4.17	3.48	3.13	2.97	2.78	2.50
4006	4007	4	2-23	4.98	4.15	3.74	3.55	3.32	2.99

*Number of poles and number of sections.

SERIES PS 15/16" SUBMINIATURE ROTARY SWITCHES

Deluxe, ceramic insulated rotary switches that are ultra-small. Weigh less than 1 oz. each, yet have the same electrical ratings as switches much heavier and larger. Ideally suited for band switching, transistor circuits, aircraft instruments, etc. Insulation is Dow-Corning 200 Silicone treated steatite (grade L-422 or better per MIL-I-10A); Size: Ceramic sections 1/8" thick spaced 1/8" apart with ceramic spacers; spacing between front plate and first section, 5/32". All hardware except clips, contacts, and index spring are steel*. Mounting: Single hole with optional locating lug on 3/8" radius. Bushing 1/4"-32 thread, 1/4" long. Shaft 1/8" dia. x 1 1/4" long. Rated: Make and break, resistance load .550 amp at 28 volts DC, 170 milliamps at 115 v. AC. Index: Positive 30°; fixed stop.

CRL Number		Total Poles	No. of Positions	Poles Per Sec.	No. of Sections
Shorting	Non-Shorting				
PS-100	PS-101	1	11	1	1
PS-102	PS-103	2	11	1	2
PS-104	PS-105	2	5	2	1
PS-106	PS-107	3	11	1	3
PS-108	PS-109	3	3	3	1
PS-110	PS-111	4	5	2	2
PS-112	PS-113	4	2	4	1
PS-114	PS-115	6	5	2	3
PS-116	PS-117	6	3	3	2
PS-118	PS-119	8	2	4	2
PS-120	PS-121	9	3	3	3
PS-122	PS-123	12	2	4	3

*Suitably plated to resist corrosion.

SERIES PS (CONTINUED) SEPARATE SECTIONS

Ceramic CRL No.		Phenolic CRL No.		Total Poles	No. Pos.	Fixed Stop Indexing
Short.	Non-Short.	Short.	Non-Short.			
PS-20	PS-21	PS-40	PS-41	1	11	Use P-501 thru P-511
PS-22	PS-23	PS-42	PS-43	2	5	
PS-24	PS-25	PS-44	PS-45	3	3	
PS-26	PS-27	PS-46	PS-47	4	2	

Breakdown Voltage: 750 VAC.

SEPARATE INDEX ASSEMBLIES

Designed for maximum of three sections. Includes: Index and shaft assembly: P-106 knob; six 3/32" spacers; two 1/16" spacers; two 1/8" spacers; two 3/16" spacers; two 1 1/8" tie bolts; nuts, lockwashers, washers; and 16 plastic spacer washers.

CRL Number	No. of Positions	CRL Number	No. of Positions
P-501	2	P-507	8
P-502	3	P-508	9
P-503	4	P-509	10
P-504	5	P-510	11
P-505	6	P-511	Continuous Rotation
P-506	7		

INDUSTRIAL NET PRICES

CRL Number		Net Each, Lots of					
Shorting	Non-Short.	1-4	5-9	10-24	25-49	50-99	100-249
PS-100	PS-101	$4.80	$4.00	$3.60	$3.42	$3.20	$2.88
PS-102	PS-103	6.00	5.00	4.50	4.28	4.00	3.60
PS-104	PS-105	4.80	4.00	3.60	3.42	3.20	2.88
PS-106	PS-107	7.20	6.00	5.40	5.13	4.80	4.32
PS-108	PS-109	4.80	4.00	3.60	3.42	3.20	2.88
PS-110	PS-111	6.00	5.00	4.50	4.28	4.00	3.60
PS-112	PS-113	4.80	4.00	3.60	3.42	3.20	2.88
PS-114	PS-115	7.20	6.00	5.40	5.13	4.80	4.32
PS-116	PS-117	6.00	5.00	4.50	4.28	4.00	3.60
PS-118	PS-119	7.20	6.00	5.40	5.13	4.80	4.32
PS-120	PS-121	6.00	5.00	4.50	4.28	4.00	3.60
PS-122	PS-123	7.20	6.00	5.40	5.13	4.80	4.32
PS-20 thru PS-27		2.10	1.75	1.58	1.50	1.40	1.26
PS-40 thru PS-47		1.68	1.40	1.26	1.20	1.12	1.01
P-501 thru P-511		1.95	1.63	1.47	1.40	1.30	1.17

PACKAGED SWITCH HARDWARE

FOR 1400 AND 2500 SERIES SWITCHES

CRL No.	Description	Pkg. 100	CRL No.	Description	Pkg. 100
P-124	1/4" metal spacer	$1.98	P-145	7" screw	$16.00
P-125	3/8" metal spacer		P-146	9" screw	16.00
P-126	1/2" metal spacer		P-147	Nut	1.80
P-127	3/4" metal spacer		P-148	Lockwasher	1.80
P-128	1" metal spacer		P-177	Phenol. spacer wshr.	1.80
P-136	1" screw		P-181	1/8" steatite spacer	4.80
P-137	1 1/4" screw		P-187	1/4" steatite spacer	4.80
P-138	2" screw	4.80	P-188	3/8" steatite spacer	4.80
P-139	2 1/2" screw	4.80	P-189	1/2" steatite spacer	4.80
P-149	4 1/2" screw	8.40	P-190	5/8" steatite spacer	4.80
P-143	5" screw	13.40	P-192	1" steatite spacer	8.40

FOR PA-6000 SERIES MILITARY SWITCHES

P-395	Min. MIL lockwasher	$8.40	P-397	Min. MIL lockwasher	$2.20
P-396	Min. MIL nut	2.20	P-398	MIL spacer washer	2.20

FOR PS-100 SERIES SUBMINIATURE SWITCHES

P-515	1 1/4" screw	$8.40	P-520	1/4" steatite spacer	$1.80
P-516	Nut	1.80	P-521	3/32" steatite spacer	1.80
P-517	Lockwasher	1.80	P-522	1/16" steatite spacer	1.80
P-518	Flat washer	1.80	P-523	3/16" steatite spacer	1.80
P-519	Spacer washer	1.80	P-524	5/32" steatite spacer	1.80

FOR PA-1000 & PA-2000 SERIES MINIATURE SWITCHES

CRL No.	Description	Pkg. 100	CRL No.	Description	Pkg. 100
P-319	Min. stop plate	$4.80	P-348	7/8" steatite spacer	$ 4.80
P-325	1/8" steatite spacer	4.80	P-350	15/16 steatite spacer	4.80
P-326	3/16" steatite spacer	4.80	P-352	1" steatite spacer	4.80
P-328	1/4" steatite spacer	4.80	P-362	1" screw	2.80
P-329	5/32" steatite spacer	4.80	P-370	2" screw	4.80
P-330	5/16" steatite spacer	4.80	P-374	2 1/2" screw	4.80
P-332	3/8" steatite spacer	4.80	P-382	4" screw	8.40
P-334	7/16" steatite spacer	4.80	P-384	5" screw	8.40
P-336	1/2" steatite spacer	4.80	P-388	7" screw	12.00
P-340	5/8" steatite spacer	4.80	P-390	Nut	1.80
P-342	11/16" steatite spacer	4.80	P-392	Lockwasher	1.80
P-344	3/4" steatite spacer	4.80	P-394	Phen. spacer washer	1.80

CENTRALAB SWITCH KITS

STANDARD KITS (FIG. A)

Convenient, ready source of stock sections, indexes and hardware. Packed in heavy gauge steel, 8-drawer Equipto cabinet, 23 1/4" w. x 9 1/2" h. x 12" d. with blue, baked enamel finish.

CRL No. SWK-810 Kit—PA-1000 series miniature phenolic parts: 106 pieces of 1 1/2" dia. phenolic sections, 32 index assemblies with spacers, nuts, washers, knobs and dial plates. Makes up to 32 regular or special switches. Net Each $177.00

CRL No. SWK-820 Kit—PA-2000 series miniature ceramic parts: 102 pieces of 1 1/2" dia. steatite sections, 32 index assemblies with spacers, washers, nuts, knobs and dial plates. Makes up to 32 regular or special switches. Net Each $210.00

JUNIOR SIZE SWITCH KITS (FIG. B)

Packed in attractive light blue and gray 4-drawer steel cabinets 10" x 11 1/2" x 10". With balanced stock of index assemblies and separate sections for every application.

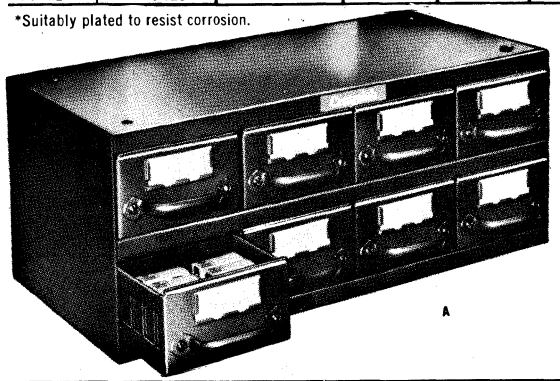
CRL No. SWK-410 Kit—PA-1000 series miniature phenolic parts: 48 phenolic 1 1/2" dia. sections, 13 index assemblies and hardware for making 13 phenolic regular or special switches. Net Each $73.00

CRL No. SWK-420 Kit—PA-2000 series miniature ceramic parts: 52 ceramic 1 1/2" dia. switch sections, 13 complete index assemblies and hardware for making 13 ceramic regular or special switches. Net Each $95.80

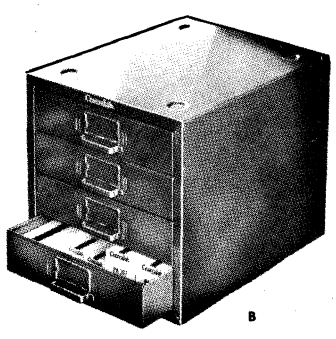
CUSTOM SWITCH KIT (FIG. C)

Contains parts and tools necessary for any prototype designer to construct the special switch he needs. Packed in metal cabinet, set up and ready to use. Makes 25 four-section miniature rotary phenolic or ceramic switches with factory precision. Contact nibbling tool can cut any contact arrangement you need.

CRL No. PK-20-S Kit—Complete. Net Each $200.00



A



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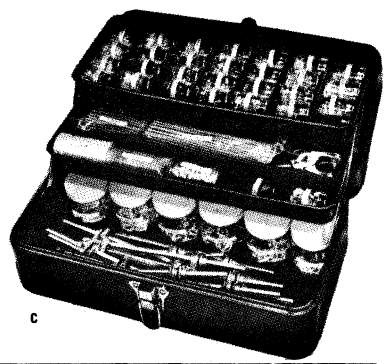


C

CUTLER-HAMMER SWITCHES

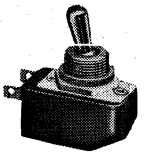
See your local C-H representative for prices and accessory information.

"Commercial Application"

ONE HOLE MOUNTING
QUICK MAKE, QUICK BREAK A-C, D-C SWITCHES
UTILITY TYPE

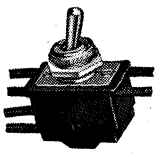
They have a quick make and quick break over center arrangement on the movable contact which permits exceptionally fast contact action minimizing pitting and erosion of the contact surfaces.

Available with screw terminals, solder lug terminals or with 6" lead wires stripped ¾". Bushing dia. 15/32", bushing length 15/32". Also available with bushing lengths of ¼", 11/32", ¾" and 1" — ¾" and 1" bushings furnished with ball type lever only.



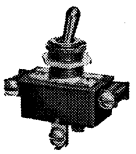
Cat. No. 8383

Cat. No. 8396



Cat. Nos. 8364, 8374

Cat. Nos. 8363, 8373 With Nylon Paddle Operator

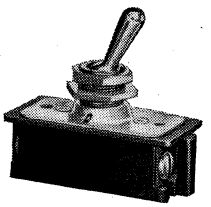


Cat. Nos. 8365, 8375

Nominal Ratings (Amps.)		Poles and Throws	Catalog No.—15/32" Bushing Length		
250 V. A-c, D-c	125 V. A-c, D-c		Screw Terminals	Solder Lug Terminals	Wire Lead Terminals
1	3	SPDT (3 Way)	8297K8	8282K14	8292K14
3	....	SPST	8295K8	8280K16	8290K16
3	....	DPST	8362K7	8360K7	8361K7
3	....	DPDT	8365K7	8363K7	8364K7
3	6	SPST	8396K8	8381K8	8391K8
3	6	DPST	8372K7	8370K7	8371K7
3	6	DPDT	8375K7	8373K7	8374K7

HEAVY DUTY TYPE

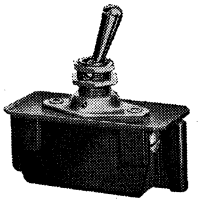
Screw terminals or plug-in terminals (connection made by plugging wire into switch body) are available. Plug-in type switches have 3/32" square hole to accept #14, 16 or 18 ga., stranded, tin dipped wire leads skinned 7/32".



Cat. Nos. 7320, 7321, 7322

Bushing dia. 15/32", bushing length 15/32". Also available with 11/32" bushing length.

Rear view of 7343 showing holes for plug-in wire leads.



Cat. No. 7402

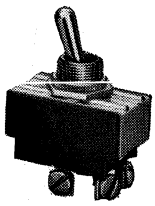
Nominal Ratings (Amperes)		Max Hp Ratings (250 V.)		Poles and Throws	Catalog Number 15/32" Bushing Length	
250 V. A-c, D-c	125 V. A-c, D-c	A-c	D-c		Screw Terminals	Plug-in Terminals
5	....	....	....	DPDT w/o Center Off	8680K2	.....
5	10	½	½	SPST	.....	7347K3
5	10	½	½	DPST	.....	7343K2
8	16	1	1	SPST	7321K3	.....
8	16	1	1	DPST	7320K3	7443K3
10	15	1	½	DPST	.....	7354K3
10	15	1	1½	SPST	7361K5	.....
10	15	1	1½	DPST	7360K8	.....
10	15	....	....	DPDT w/o Center Off	8690K2	.....
20	..	2	2	SPST	7403K2	.....
20	....	2	2	DPST	7402K4	.....

SLOW MAKE, SLOW BREAK A-C ONLY SWITCHES
3-6, 10-15 AMP. A-c LINE

Features include: heavy duty independent springs for positive contact pressure, solid silver to silver contacts and strong substantial terminal construction.

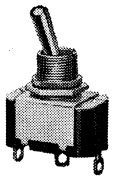
Bushing dia. 15/32", bushing length 15/32". Also available with 11/32" bushing length.

Screw terminals except 7516 and 7517 which have plug-in type terminals. All switches listed except 7516 and 7517 also available with solder lug or spade type terminals.

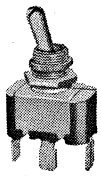


Cat. No. 7560

Cat. No. 7516, 7517 Plastic Superstructure



Cat. Nos. 7503, 7505



Cat. No. 7511

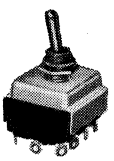
Circuit Arrangement (A, B, C — Keyway on "C" Side of Switch)			Throws	Catalog Number Screw Terminals△ and 15/32" Bushing Length	
				1 Pole	2 Pole
3 AMP.—250 V. A-C, 6 AMP.—125 V. A-C					
ON	OFF	ON	DT	7581K4	7591K4
ON	OFF	ON*	DT	7586K4	7596K4
ON*	OFF	ON*	DT	7587K4	7597K4
ON	NONE	ON	DT	7582K4	7592K4
ON	NONE	ON*	DT	7585K4	7595K4
ON	NONE	OFF	ST	7516K5△	.....
ON	NONE	OFF	ST	7580K4	7590K4
ON	NONE	OFF*	ST	7584K4	7594K4
OFF	NONE	ON*	ST	7583K4	7593K4
10 AMP.—250 V. A-C, ½ MAX. H.P.—250 V. A-C					
ON	OFF	ON*	DT	7508K6	7568K2
ON*	OFF	ON*	DT	7509K5	7569K2
ON	NONE	ON*	DT	7510K7	7570K5
ON	NONE	OFF	ST	7517K5△	....
ON	NONE	OFF*	ST	7507K4	7567K5
OFF	NONE	ON*	ST	7506K4	7566K5
10 AMP. — 250 V. A-C, 15 AMP. — 125 V. A-C, ¾ MAX. H.P. — 250 V. A-C					
ON	OFF	ON	DT	7502K13	7562K4
ON	NONE	ON	DT	7504K4	7564K6
ON	NONE	OFF	ST	7500K14	7560K5

*Momentary contact △7516 and 7517 supplied with plug-in terminals only.

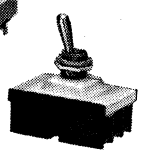
10-15 AMP, LINE — THREE OR FOUR POLE

Bushing dia. 15/32". Bushing length — 15/32" (7610 and 7615 also available with 11/32" bushing).

Ratings — Three pole switches — 10 amp. — 250 V. A-c, 15 Amp. — 125 V. A-c, 1 hp polyphase — 115-575 V. A-c. Four pole switches — 10 Amp. — 250 V. A-c, ½ hp — 230 V. A-c.



Cat. Nos. 7690, 7697



Cat. Nos. 7610, 7618

Circuit Arrangement (A, B, C — Keyway on "C" Side of Switch)			Throws	Catalog Number—15/32" Bushing Length			
				3 Pole		4 Pole	
				Screw Terminals	Solder Lug Terminals	Screw Terminals	Solder Lug Terminals
ON	OFF	ON	DT	7612K2	7613K2	7692K13	7693K2
ON*	OFF	ON	DT	7613K2	.....	.....	.....
ON	NONE	ON	DT	7614K2	7615K2	7694K4	7695K5
ON*	NONE	ON	DT	7618K2	.....	.....	.....
ON	NONE	OFF	ST	7610K2	7611K2	7690K8	7691K14
ON*	NONE	OFF	ST	7616K2	.....	.....	.....
ON*	NONE	OFF	ST	.....	.....	7696K6	7697K6

*Momentary contact.

CUTLER-HAMMER, Inc., Most C-H switches are available with optional features for special applications. See your local Sales Office or Distributor for complete switch listings, accessories and optional features.

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See your local C-H representative for prices and accessory information.

CUTLER-HAMMER SWITCHES

"Commercial Application"

SLIDE BUTTON SWITCHES

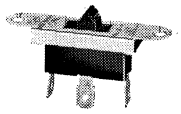
FLUSH MOUNTING

SPST and SPDT, flush mounting slide switches.

Mounting centers — 2 3/16"—8303, 1½"—8746 and 8477, 1⅞" on all others.

Operating buttons are red plastic on 8476-77, black phenolic on all others.

Cat. Nos. 8476 and 8477



Cat. No. 8631

Cat. No. 8303

Cat. No. 8486

Ampere Rating A-c 125 V.	Ampere Rating A-c 250 V.	Maximum Hp Ratings A-c Only 125 V.	Maximum Hp Ratings A-c Only 250 V.	Poles and Throw	Circuit Arrangement			Catalog Numbers Screw Term.	Catalog Numbers .250" Spade Term.	Catalog Numbers Solder Lug Term.	Catalog Numbers Plug-In Term.
					A	B	C				
6	3	...	...	SPST	On	None	Off	.....	.....	.....	8476K1
6*	3*	...	...	SPST	On	None	Off	8303K1	.....	.....	.....
7	3	...	¼	SPST	On	None	Off	.....	8486K1	8486K2	.....
7	3	...	¼	SPDT	On	Off	On	.....	8487K1	8487K2	.....
7	3	...	¼	SPDT	On	None	On	.....	8488K1	8488K2	.....
10	5	½	½	SPST	On	None	Off	.....	.....	.....	8477K1

*A-c and d-c rating.

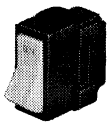
ROCKETTE SWITCHES — A-C ONLY

3-6, 10-15 AMP., A-C LINE

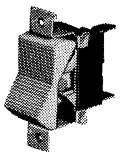
Rockers can be furnished on special order in any color to harmonize with the appliance color. Standard color of rocker is white.

Switches are flush mounting.

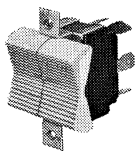
Spade terminals available in sizes .250", .205" and .187".



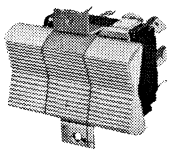
Cat. No's. 8134 & 8144



Cat. No's. 8326, 8329



Double actuator, double pole. Cat. No's. 8133 and 8143



Triple actuator, four pole. Cat. No's. 8131 and 8141

Circuit Arrangement A	Circuit Arrangement B	Circuit Arrangement C	Poles and Throws	Number of Rockers	Catalog Numbers 3 Amp. 250 V. A-c 6 Amp. 125 V. A-c	Catalog Numbers 10 Amp. 250 V. A-c 15 Amp. 125 V. A-c ¾ Hp. 250 V. A-c
ON	OFF	ON	SPDT	One	8134	8144
ON*	OFF	ON*	SPDT	One	8136	8146
ON	NONE	OFF	SPST	One	8134	8144
ON	NONE	OFF	SPST	One	8326	8329△
ON*	NONE	OFF	SPST	One	8135	8145
ON	OFF	ON	DPDT	One	8132	8142
ON	OFF	ON	DPDT	Two	8133	8143
ON*	OFF	ON*	DPDT	One	8138	8148
ON	NONE	OFF	DPST	One	8132	8132
ON	NONE	OFF	DPST	Two	8133	8133
ON*	NONE	OFF	DPST	One	8137	8147
ON	OFF	ON	4PDT	Two	8130	8140
ON	OFF	ON	4PDT	Three	8131	8141
ON	NONE	OFF	4PST	Two	8130	8140
ON	NONE	OFF	4PST	Three	8131	8141

*Momentary contact.
△Rated ½ hp — 250 V. A-c. Both 8326 and 8329 are nest mounted.
When ordering, specify (1) catalog number, (2) width of spade terminals and (3) poles and throws.

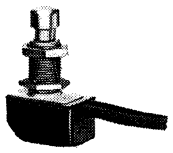
PUSHBUTTON SWITCHES

ONE HOLE MOUNTING—A-C, D-C AND A-C ONLY TYPES

Bushing dia. 15/32". Bushing length; 8411—¼", 7190 and 7196—½", all others 11/16".

All switches are momentary contact type except 7208 and 7206 which are push push type.

8442 and 8444 have standard 17/32" button. Also available with short ¼" button.



Cat. No. 7207

Ratings (Amperes) 125 V.	Ratings (Amperes) 250 V.	Poles and Throws	Contacts	Catalog Numbers Screw Term.	Catalog Numbers Solder Lug Term.	Catalog Numbers Spade Term.	Catalog Numbers Wire Leads
A-C, D-C SWITCHES							
.075	.025	SPST	N. O.	8411K12	.....	8411K11	....
.075	.025	SPST	N. C.	8411K7	8411K8	8411K10	....
6	3	SPST	N. O.	7196K1	7190K1	....	7193K1
6	3	SPST	N. O., N. C.	7208K4	7206K4	....	7207K4
A-C ONLY SWITCHES							
6	3	SPST	N. O.	8442K3	....	8442K2	....
15	10	SPST	N. O.	8444K3	....	8444K2	....
15†	10†	SPDT	N. O., N. C.	8446K2	....	....	....
15	10	DPST	N. O.	8448K2	....	8448K1	....

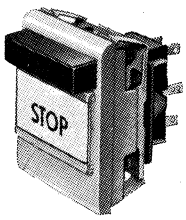
†Applies to N. O. circuit only. Rated 10 A. @ 125 V. and 5 A. @ 250 V. on N. C. circuit.

ILLUMINATED COMPUTER TYPE

Switches are of the snap in variety requiring a panel opening of 1⅝" high by 1 29/64" wide (add 1½" to width per switch for ganged installation).

Indicating lamp unit (8457K2) is a 10 V. bulb. Other voltage bulbs on special order.

Tab type (.110") terminals for solder or spade connection.



Cat. Nos. 8455 & 8456K2

Nominal Ratings (Amperes) 250 V. A-c, D-c	Nominal Ratings (Amperes) 125 V. A-c, D-c	Poles and Throws	Operation	Catalog Number Silver Contacts	Catalog Number Gold Plt'd. Silver Contacts
3	5	DPDT	Maintained Contact—N.O.	8455K2	8456K2*
3	5	DPDT	Momentary Contact—N.O.	8455K3	8456K3*
....	....	.....	Lamp unit only	8457K2	.....

*Switches having gold plated silver contacts are rated at 5 millivolts — 25 microamps on dry circuit applications.

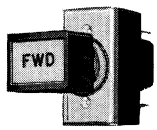
ILLUMINATED PUSHBUTTON TYPE

SPST momentary action.

Available with removable lamp or with an integral non-removable type lamp. Removable lamp types supplied with 14 V. bulbs. Integral lamp types furnished with 28 V. bulbs.

Tab type (.110") terminals for solder or spade connection.

One hole mounting — bushing dia. 15/32", bushing length ¼". Rated 3 Amp. — 250 V. A-c, 6 Amp. — 125 V. A-c.



Unit with Legend Plate and Cap Assembly.

Contacts	Removable Lamp Type	Integral Lamp Type	Terminals
N. O.	8452K6	8452K4	.110 tab or solder lug
N. C.	8453K6	8453K5	.110 tab or solder lug
Lamp Only	8454K7	8454K5	.110 tab or solder lug

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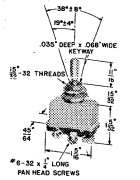
CUTLER-HAMMER SWITCHES

See your local C-H representative for prices and accessory information.

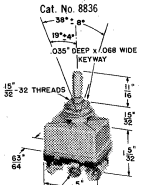
"Military Application"

MIL-S-8834B

Positive Action — Environment Sealed — ①Screw Terminals



Cat. No. 8836



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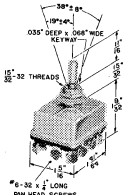
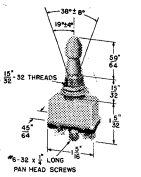
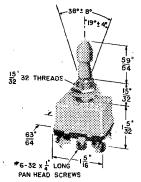


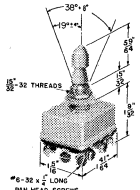
Cat. No. 8838



Cat. No. 8843



Cat. No. 8844



Cat. No. 8845

Standard Bat Lever

	Circuit with lever in . . . UP Position	CENTER Position	DOWN Position (Keyway)	C-H Part No.	①MS-Part No.
1 POLE	ON	OFF	ON	8836K1	MS25306-212
	ON	NONE	OFF	8836K9	MS25306-222
	ON	NONE	ON	8836K4	MS25306-232
	ON	OFF	NONE	8836K6	MS25306-242
	ON	NONE	ON *	8836K5	MS25306-262
	ON *	OFF	ON *	8836K2	MS25306-272
	NONE	OFF	ON *	8836K7	MS25306-282
	ON	NONE	OFF *	8836K10	MS25306-292
	OFF	NONE	ON *	8836K11	MS25306-302
	ON	OFF	ON *	8836K3	MS25306-312
2 POLE	ON	OFF	ON	8837K1	MS25307-212
	ON	NONE	OFF	8837K9	MS25307-222
	ON	NONE	ON	8837K4	MS25307-232
	ON	OFF	NONE	8837K6	MS25307-242
	ON	NONE	ON *	8837K5	MS25307-262
	ON *	OFF	ON *	8837K2	MS25307-272
	NONE	OFF	ON *	8837K7	MS25307-282
	ON	NONE	OFF *	8837K10	MS25307-292
	OFF	NONE	ON *	8837K11	MS25307-302
	ON	OFF	ON *	8837K3	MS25307-312
4 POLE	ON	OFF	ON	8838K1	MS25308-212
	ON	NONE	OFF	8838K9	MS25308-222
	ON	NONE	ON	8838K4	MS25308-232
	ON	OFF	NONE	8838K6	MS25308-242
	ON	NONE	ON *	8838K5	MS25308-262
	ON *	OFF	ON *	8838K2	MS25308-272
	NONE	OFF	ON *	8838K7	MS25308-282
	ON	NONE	OFF *	8838K10	MS25308-292
	OFF	NONE	ON *	8838K11	MS25308-302
	ON	OFF	ON *	8838K3	MS25308-312

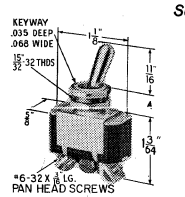
Lever Lock Type

	Circuit with lever in . . . UP Position	CENTER Position	DOWN Position (Keyway)	C-H Part No.	①MS-Part No.
1 POLE	ON→	←OFF→	←ON	8843K1	MS24612-A212
	ON	←OFF→	ON	8843K2	MS24612-B212
	ON	OFF	←ON	8843K3	MS24612-C212
	ON	←OFF	ON	8843K4	MS24612-D212
	ON→	OFF	←ON	8843K5	MS24612-E212
	ON	NONE	←OFF	8843K9	MS24612-C222
	ON→	NONE	←OFF	8843K10	MS24612-E222
	ON	NONE	←ON	8843K7	MS24612-C232
	ON→	NONE	←ON	8843K6	MS24612-E232
	ON	←OFF	NONE	8843K16	MS24612-B242
	ON→	←OFF	NONE	8843K11	MS24612-J242
	ON→	NONE	ON *	8843K20	MS24612-L262
	ON *	←OFF→	ON *	8843K12	MS24612-F272
	ON *	←OFF	ON *	8843K14	MS24612-H272
	NONE	OFF→	ON *	8843K15	MS24612-K282
	ON→	NONE	OFF *	8843K21	MS24612-L292
	OFF→	NONE	ON *	8843K19	MS24612-L302
	ON	OFF→	ON *	8843K13	MS24612-G312
	ON	←OFF→	ON *	8843K18	MS24612-K312
	ON	←OFF	ON *	8843K8	MS24612-M312
	ON→	←OFF	ON *	8843K17	MS24612-N312
2 POLE	ON→	←OFF→	←ON	8844K1	MS24613-A212
	ON	←OFF→	ON	8844K2	MS24613-B212
	ON	OFF	←ON	8844K3	MS24613-C212
	ON	←OFF	ON	8844K4	MS24613-D212
	ON→	OFF	←ON	8844K5	MS24613-E212
	ON	NONE	←OFF	8844K9	MS24613-C222
	ON→	NONE	←OFF	8844K10	MS24613-E222
	ON	NONE	←ON	8844K7	MS24613-C232
	ON→	NONE	←ON	8844K6	MS24613-E232
	ON	←OFF	NONE	8844K16	MS24613-B242
	ON→	←OFF	NONE	8844K11	MS24613-J242
	ON→	NONE	ON *	8844K20	MS24613-L262
	ON *	←OFF→	ON *	8844K12	MS24613-F272
	ON *	←OFF	ON *	8844K14	MS24613-H272
	NONE	OFF→	ON *	8844K15	MS24613-K282
	ON→	NONE	OFF *	8844K21	MS24613-L292
	OFF→	NONE	ON *	8844K19	MS24613-L302
	ON	OFF→	ON *	8844K13	MS24613-G312
	ON	←OFF→	ON *	8844K18	MS24613-K312
	ON	←OFF	ON *	8844K8	MS24613-M312
	ON→	←OFF	ON *	8844K17	MS24613-N312
4 POLE	ON→	←OFF→	←ON	8845K1	MS24614-A216
	ON	←OFF→	ON	8845K2	MS24614-B212
	ON	OFF	←ON	8845K3	MS24614-C212
	ON	←OFF	ON	8845K4	MS24614-D212
	ON→	OFF	←ON	8845K5	MS24614-E212
	ON	NONE	←OFF	8845K9	MS24614-C222
	ON→	NONE	←OFF	8845K10	MS24614-E222
	ON	NONE	←ON	8845K7	MS24614-C232
	ON→	NONE	←ON	8845K6	MS24614-E232
	ON	←OFF	NONE	8845K16	MS24614-B242
	ON→	←OFF	NONE	8845K11	MS24614-J242
	ON→	NONE	ON *	8845K20	MS24614-L262
	ON *	←OFF→	ON *	8845K12	MS24614-F272
	ON *	←OFF	ON *	8845K14	MS24614-H272
	NONE	OFF→	ON *	8845K15	MS24614-K282
	ON→	NONE	OFF *	8845K21	MS24614-L292
	OFF→	NONE	ON *	8845K19	MS24614-L302
	ON	OFF→	ON *	8845K13	MS24614-G312
	ON	←OFF→	ON *	8845K18	MS24614-K312
	ON	←OFF	ON *	8845K8	MS24614-M312
	ON→	←OFF	ON *	8845K17	MS24614-N312

Arrow → indicates direction of movement against which lever is locked.
*Momentary contact.
①Screw terminals are hot dipped. By removing the screws from the terminals, a switch with solder lugs is formed.

MIL - S - 3950B

Sealed Lever — ①Screw Terminals



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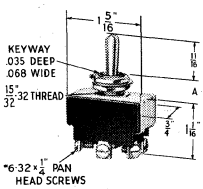

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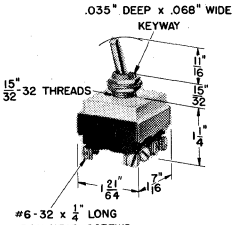

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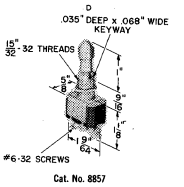

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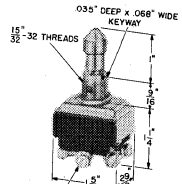

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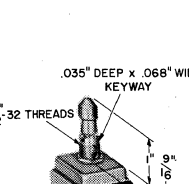

Cat. No. 8859

Standard Bat Lever

	Circuit with lever in . . . UP Position	CENTER Position	DOWN Position (Keyway)	C-H Part No.	①MS-Part No.
1 POLE	ON	OFF	ON	8800K16	MS35058-21
	ON	NONE	OFF	8801K22	MS35058-22
	ON	NONE	ON	8810K15	MS35058-23
	ON	OFF	NONE	8801K23	MS35058-24
	ON	*OFF	NONE	8813K18	MS35058-25
	ON	NONE	*ON	8804K13	MS35058-26
	*ON	OFF	*ON	8812K14	MS35058-27
	NONE	OFF	*ON	8811K18	MS35058-28
	ON	NONE	*OFF	8813K17	MS35058-29
	OFF	NONE	*ON	8811K17	MS35058-30
	ON	OFF	*ON	8809K16	MS35058-31
2 POLE	ON	OFF	ON	8820K16	MS35059-21
	ON	NONE	OFF	8822K20	MS35059-22
	ON	NONE	ON	8824K14	MS35059-23
	ON	OFF	NONE	8822K21	MS35059-24
	ON	*OFF	NONE	8828K12	MS35059-25
	ON	NONE	*ON	8830K13	MS35059-26
	*ON	OFF	*ON	8834K5	MS35059-27
	NONE	OFF	*ON	8826K14	MS35059-28
	ON	NONE	*OFF	8828K13	MS35059-29
	OFF	NONE	*ON	8826K15	MS35059-30
	ON	OFF	*ON	8832K6	MS35059-31
4 POLE	ON	OFF	ON	7662K7	MS25068-21
	ON	NONE	ON	7664K5	MS25068-23
	ON	OFF	NONE	7660K13	MS25068-24
	ON	*OFF	NONE	7668K7	MS25068-25
	ON	NONE	*ON	7674K5	MS25068-26
	*ON	OFF	*ON	7672K5	MS25068-27
	NONE	OFF	*ON	7666K9	MS25068-28
	ON	OFF	*ON	7670K6	MS25068-31

Lever Lock Type

	Circuit with lever in . . . UP Position	CENTER Position	DOWN Position (Keyway)	C-H Part No.	①MS-Part No.
1 POLE	ON→	←OFF→	←ON	8857K39	MS25125-A1
	ON	←OFF→	ON	8857K40	MS25125-B1
	ON	←OFF	NONE	8857K54	MS25125-B4
	ON	OFF	←ON	8857K41	MS25125-C1
	ON	NONE	←OFF	8857K47	MS25125-C2
	ON	NONE	←ON	8857K45	MS25125-C3
	ON	←OFF	ON	8857K42	MS25125-D1
	ON→	OFF	←ON	8857K43	MS25125-E1
	ON→	NONE	←OFF	8857K48	MS25125-E2
	ON→	NONE	←ON	8857K44	MS25125-E3
	ON *	←OFF→	ON *	8857K50	MS25125-F7
	ON	OFF→	ON *	8857K51	MS25125-G11
	ON *	←OFF	ON *	8857K52	MS25125-H7
	ON→	←OFF	NONE	8857K49	MS25125-J4
	NONE	OFF→	ON *	8857K53	MS25125-K8
	ON	←OFF→	ON *	8857K56	MS25125-K11
	ON→	OFF *	NONE	8857K78	MS25125-L5
	ON→	NONE	ON *	8857K79	MS25125-L6
	ON→	NONE	OFF *	8857K80	MS25125-L9
	OFF→	NONE	ON *	8857K81	MS25125-L10
	ON	←OFF	ON *	8857K46	MS25125-M11
	ON→	←OFF	ON *	8857K55	MS25125-N11
2 POLE	ON→	←OFF→	←ON	8858K39	MS25126-A1
	ON	←OFF→	ON	8858K40	MS25126-B1
	ON	←OFF	NONE	8858K54	MS25126-B4
	ON	OFF	←ON	8858K41	MS25126-C1
	ON	NONE	←OFF	8858K47	MS25126-C2
	ON	NONE	←ON	8858K45	MS25126-C3
	ON	←OFF	ON	8858K42	MS25126-D1
	ON→	OFF	←ON	8858K43	MS25126-E1
	ON→	NONE	←OFF	8858K48	MS25126-E2
	ON→	NONE	←ON	8858K44	MS25126-E3
	ON *	←OFF→	ON *	8858K50	MS25126-F7
	ON	OFF→	ON *	8858K51	MS25126-G11
	ON *	←OFF	ON *	8858K52	MS25126-H7
	ON→	←OFF	NONE	8858K49	MS25126-J4
	NONE	OFF→	ON *	8858K53	MS25126-K8
	ON	←OFF→	ON *	8858K56	MS25126-K11
	ON→	OFF *	NONE	8858K78	MS25126-L5
	ON→	NONE	ON *	8858K79	MS25126-L6
	ON→	NONE	OFF *	8858K80	MS25126-L9
	OFF→	NONE	ON *	8858K81	MS25126-L10
	ON	←OFF	ON *	8858K46	MS25126-M11
	ON→	←OFF	ON *	8858K55	MS25126-N11
4 POLE	ON→	←OFF→	←ON	8859K39	MS25127-A1
	ON	←OFF→	ON	8859K40	MS25127-B1
	ON	←OFF	NONE	8859K54	MS25127-B4
	ON	OFF	←ON	8859K41	MS25127-C1
	ON	NONE	←OFF	8859K47	MS25127-C2
	ON	NONE	←ON	8859K45	MS25127-C3
	ON	←OFF	ON	8859K42	MS25127-D1
	ON→	OFF	←ON	8859K43	MS25127-E1
	ON→	NONE	←OFF	8859K48	MS25127-E2
	ON→	NONE	←ON	8859K44	MS25127-E3
	ON *	←OFF→	ON *	8859K50	MS25127-F7
	ON	OFF→	ON *	8859K51	MS25127-G11
	ON *	←OFF	ON *	8859K52	MS25127-H7
	ON→	←OFF	NONE	8859K49	MS25127-J4
	NONE	OFF→	ON *	8859K53	MS25127-K8
	ON	←OFF→	ON *	8859K56	MS25127-K11
	ON→	OFF *	NONE	8859K78	MS25127-L5
	ON→	NONE	ON *	8859K79	MS25127-L6
	ON→	NONE	OFF *	8859K80	MS25127-L9
	OFF→	NONE	ON *	8859K81	MS25127-L10
	ON	←OFF	ON *	8859K46	MS25127-M11
	ON→	←OFF	ON *	8859K55	MS25127-N11

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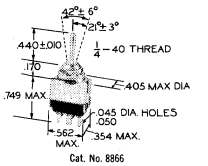
CUTLER-HAMMER SWITCHES

"Military Application"

Miniature — MIL-S-8834B

Positive Action — Solder Lug Terminals — Sealed Lever



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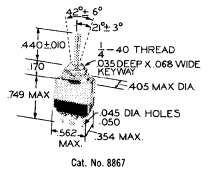

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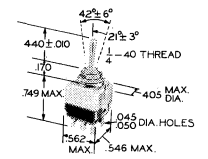

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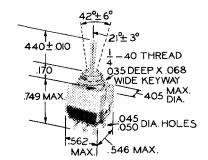

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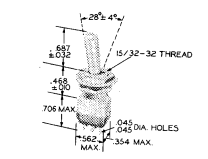

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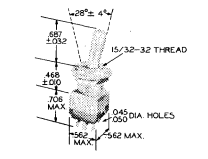

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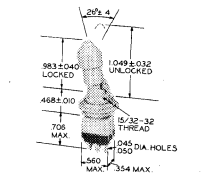

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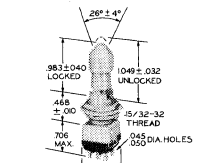


Cat. No. 8856

Small Lever

	Circuit with lever in . . . UP Position	CENTER Position	DOWN Position	C-H Part No.	MS-Part No.	Navy (See Notes ② & ⑧)
1 POLE	ON	OFF	ON	8866K1	MS24655-211	1402.15-1
	ON	NONE	OFF	8866K7	MS24655-221	1402.15-2
	ON	NONE	ON	8866K4	MS24655-231	1402.15-3
	ON	OFF	NONE	8866K5	MS24655-241	1402.15-4
	ON *	OFF	ON *	8866K2	MS24655-271	1405.15-5
	NONE	OFF	ON *	8866K6	MS24655-281	1402.15-6
	ON	OFF	ON *	8866K3	MS24655-311	1402.15-7
	NONE	ON	ON *	8866K8	None	None
2 POLE	ON	OFF	ON	8867K1	MS24656-211	1402.16-1
	ON	NONE	OFF	8867K7	MS24656-221	1402.16-2
	ON	NONE	ON	8867K4	MS24656-231	1402.16-3
	ON	OFF	NONE	8867K5	MS24656-241	1402.16-4
	ON *	OFF	ON *	8867K2	MS24656-271	1402.16-5
	NONE	OFF	ON *	8867K6	MS24656-281	1402.16-6
	ON	OFF	ON *	8867K3	MS24656-311	1402.16-7
	NONE	ON	ON *	8867K8	None	None

Small Lever With Keyway ⑤

	Circuit with lever in . . . UP Position	CENTER Position	DOWN Position (Keyway)	C-H Part No.	MS-Part No.
1 POLE	ON	OFF	ON	8876K11	None
	ON	NONE	OFF	8876K17	None
	ON	NONE	ON	8876K14	None
	ON	OFF	NONE	8876K15	None
	ON *	OFF	ON *	8876K12	None
	NONE	OFF	ON *	8876K16	None
	ON	OFF	ON *	8876K13	None
	NONE	ON	ON *	8876K18	None
2 POLE	ON	OFF	ON	8877K11	None
	ON	NONE	OFF	8877K17	None
	ON	NONE	ON	8877K14	None
	ON	OFF	NONE	8877K15	None
	ON *	OFF	ON *	8877K12	None
	NONE	OFF	ON *	8877K16	None
	ON	OFF	ON *	8877K13	None
	NONE	ON	ON *	8877K18	None

Large Bat Lever

	Circuit with lever in . . . UP Position	CENTER Position	DOWN Position (Keyway)	C-H Part No.	MS-① Part No.
1 POLE	ON	OFF	ON	8868K1	MS90310-211
	ON	NONE	OFF	8868K7	MS90310-221
	ON	NONE	ON	8868K4	MS90310-231
	ON	OFF	NONE	8868K5	MS90310-241
	ON *	OFF	ON *	8868K2	MS90310-271
	NONE	OFF	ON *	8868K6	MS90310-281
	ON	OFF	ON *	8868K3	MS90310-311
	NONE	ON	ON *	8868K8	MS90310-321
2 POLE	ON	OFF	ON	8869K1	MS90311-211
	ON	NONE	OFF	8869K7	MS90311-221
	ON	NONE	ON	8869K4	MS90311-231
	ON	OFF	NONE	8869K5	MS90311-241
	ON *	OFF	ON *	8869K2	MS90311-271
	NONE	OFF	ON *	8869K6	MS90311-281
	ON	OFF	ON *	8869K3	MS90311-311
	NONE	ON	ON *	8869K8	MS90311-321

Lever Lock Type

	Circuit with lever in . . . UP Position	CENTER Position	DOWN Position (Keyway)	C-H Part No.	MS-Part No.
1 POLE	ON	◂OFF	ON *	8855K12	------
	ON *	◂OFF▸	ON *	8855K15	------
	ON	OFF▸	ON *	8855K16	------
	ON *	◂OFF	ON *	8855K17	------
	NONE	OFF▸	ON *	8855K18	------
	ON ▸	◂OFF	ON *	8855K20	------
2 POLE	ON	◂OFF	ON *	8856K12	------
	ON *	◂OFF▸	ON *	8856K15	------
	ON	OFF▸	ON *	8856K16	------
	ON *	◂OFF	ON *	8856K17	------
	NONE	OFF▸	ON *	8856K18	------
	ON▸	◂OFF	ON *	8856K20	------

*Momentary Contact.
▸Indicates direction against which "lever lock" switch is locked. (Other locking combinations on request.)
②Part numbers listed in Navy MIL Std. 242E (Navy).
③These switches are listed in NAV. SHIPS HANDBOOK of miniature parts for Electronic Equipment — Nav. Ships 0967-031-1000.
④These switches are built to MIL-S-8834 requirements but are not approved to MIL-S-8834 and MS90310. Submitted for approval November, 1965. Check latest QPL-8834 or Cutler-Hammer for latest status.
⑤Small lever switch with keyway is built to MIL-S-8834 requirements, except "without lever seal".

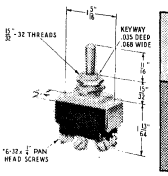
Special Service Devices

Special Circuit — MIL-S-3950B

2 Pole — Double Throw

Sealed Lever — ①Screw Terminals — With Keyway

Standard Bat Lever



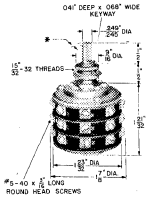
Cat. No. 8860

	Circuit, with lever in . . . UP Position	CENTER Position	DOWN Position Keyway	C-H Part No.	①MS-Part No.	Former MS Part No.
2 POLE	②ON	③ON	④ON	8860K4	MS25201-4	MS25201-1
	②ON	③ON	④ON *	8860K5	MS25201-5	MS25201-2
	②ON *	③ON	④ON *	8860K6	MS25201-6	MS25201-3
	②ON	④ON	④ON	8860K7	MS25201-7	None
	③ON	④ON	④ON *	8860K8	MS25201-8	None
	②ON *	④ON	④ON *	8860K9	MS25201-9	None

①Screw terminals are hot tin dipped. By removing the screws from the terminals, a switch with solder lugs is formed.
②Across terminals 2-3 & 5-6
③Across terminals 1-2 & 5-6
④Across terminals 2-3 & 4-5
⑤Across terminals 1-2 & 4-5

Rotary Switch — MIL-S-6807A

8 Positions (7 On-1 Off)



Cat. No. 7263

	NUMBER of Wafers	C-H⑥ Part No.	MS⑥ Part No.
1 POLE	1	7261K13	MS25002-1
	2	7262K12	MS25002-2
	3	7263K11	MS25002-3
	4	7264K9	MS25002-4
	5	7265K9	MS25002-5
	6	7266K5	MS25002-6

⑥Special terminals and rotor arrangements are available so that many types of circuits can be obtained.
⑦Adjustable stop plate on bottom of switch.

INDEX TO RATING TABLE

C-H Cat. No.	Rating Column
7261 to 7266	9
7660 to 7664	22
7666 to 7674	23
8800 to 8804	3
8809	4
8810	3
8811 to 8813	4
8820 to 8824	16
8826 to 8834	17
8836 to 8845	25
8855 -8856	24
8857	3
8857 *	4
8858	16
8858 *	17
8859	22
8859 *	23
8866 to 8877	24

Military Switch Rating Table

Column Number ▸		3	4	9	16	17	22	23	24	25
CURRENT CAPACITY◐		AMPERE VALUE								
Lamp Load Hot Filament Current	15 V. D-c	8	6	2	10	7.5	10	7.5	---	---
	30 V. D-c	6	4	2	7	5	7	5	---	7
	125 V. A-c	3	2	1	4	2	4	2	---	7
Resistance Load	15 V. D-c	45	30	5	30	30	30	30	---	---
	30 V. D-c	25	20	5	25	20	30	20	4	25
	50 V. D-c	---	---	---	---	---	---	---	1	---
	125 V. A-c	11	11	5	20	11	20	11	3	25▲
	200 V. A-c	6.9	6.9	2.5	12.5	6.9	12.5	6.9	---	---
	250 V. A-c	5.5	5.5	2.0	10	5.5	10	5.5	---	---
	440 V. A-c	3	3	---	5.5	3	5.5	3	---	---
Inductive Load	15 V. D-c	25	20	5	25	15	25	15	---	---
	30 V. D-c	15	10	2.5	20	10	20	10	1	15
	50 V. D-c	---	---	---	---	---	---	---	---	---
	125 V. A-c	11	7.5	3	15	8	15	8	1	15
	200 V. A-c	6.9	4.7	1.3	9.4	5.0	9.4	5.0	---	---
	250 V. A-c	5.5	3.5	1.0	7.5	4.0	7.5	4.0	---	---
	440 V. A-c	3	2	---	4	2.2	4	2.2	---	---
•Motor Load	15 V. D-c	36	24	4	30	28	25	20	---	---
	30 V. D-c	20	16	3	30	22	20	15	---	---
	125 V. A-c	8	7	3	20	12	10	8	---	---
	200 V. A-c	5	4.4	1.9	12.5	7.5	6	5	---	---
	250 V. A-c	4	3.5	1.5	10	6.0	5	4	---	---
	440 V. A-c	2.2	2	---	5.5	3.2	3	2	---	---
CURRENT CARRYING CAPACITY (Any Value) Continuous		50	50	25	30	30	30	30	---	---
15 Min. of Each Hour		55	55	26	30	30	30	30	---	---
5 Min. of Each ½ Hour		75	75	32	40	40	40	40	---	---
1 Min. of Each ¼ Hour		90	90	40	60	60	60	60	---	---
5 Sec. of Each ½ Hour		200	200	60	150	150	150	150	---	---
CURRENT-MAKING-CAPACITY Maximum Inrush on any type load	15 V. D-c	80	60	20	100	75	100	75	---	---
	30 V. D-c	60	40	20	70	50	70	50	---	---
	125 V. A-c	30	20	10	40	20	40	20	---	---
	200 V. A-c	18.5	9.4	6.2	25	9.4	25	9.4	---	---
	250 V. A-c	15	7.5	5	20	7.5	20	7.5	---	---
	440 V. A-c	8.5	5.5	---	11	5.5	11	5.5	---	---
EMERGENCY CURRENT BREAKING CAPACITY Opening CKT under emergency conditions for 50 operations only	15 V. D-c	175	150	50	100	50	100	50	---	---
	30 V. D-c	150	75	30	75	45	75	45	---	---
	125 V. A-c	40	40	25	40	26	40	26	---	---
	200 V. A-c	24	24	15	24	16	24	16	---	---
	250 V. A-c	18	18	12	18	12	18	12	---	---
	440 V. A-c	10	10	---	10	6	10	6	---	---

Note—The values shown for multi-pole switches are amperes per pole except for motor load. See ● below.
Note—Current ratings are established at 77° F.
Note—All current ratings good to 50,000 ft. altitude. For higher altitude check local C-H office.
Note—AC current values good for frequencies from 50 to 400 cycles (except "▲" in Col. 25 is 20 amp. at 50-60 cycles).
*Momentary contact.
◐These figures are maximum current ratings for 10,000 operations. Longer life (more operations) can be expected when operated at less than rating of switch.
●Motor load values for multi-pole switches are held on all poles of switches being connected in motor circuit and motor stalled current not exceeding 300% of normal running current.

Experience has shown that for voltages not in excess of 250, the current rating of aircraft switches is inversely proportional to the voltage. If the voltage is doubled, the rating is halved.
Therefore, if the 125 volt a-c rating of a switch is known, it follows that on 200 volt ac, the current rating is 125/200 of 62.5% of its 125 volt ac rating.
This rule also applies to two or four pole switches used on polyphase systems. Cutler-Hammer aircraft switches carry per pole ratings and if the current and voltage handled by each pole is known, different rating combinations can be worked out.
A double pole switch, has at least twice the rupturing capacity of one of its poles because there are twice the number of breaks in the circuit. Its life is only slightly more than that of one pole because breaks are not simultaneous. The first pole or break handles twice its normal rating resulting in rapid erosion of contact material.

The switches listed on these pages represent only a small fraction of the total number of small motor and appliance switches manufactured by C-H. Contact your local Sales Office or Distributor for more complete listings.

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DABURN

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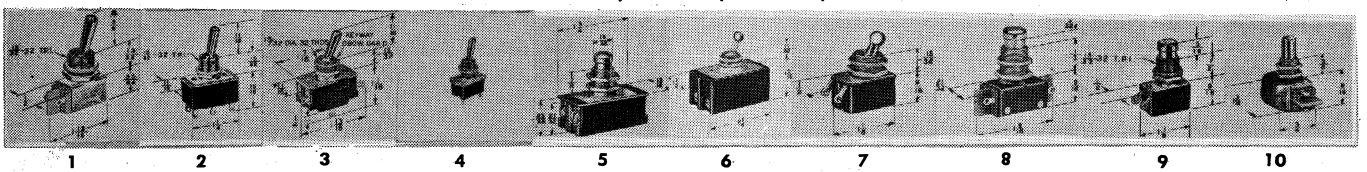
WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

ARROW H & H SWITCHES

PUSH-BUTTON, TOGGLE, ROTARY, POWER



1 2 3 4 5 6 7 8 9 10

BALL LEVER TOGGLE SWITCHES

1 POSITIVE ACTION — 3 AMP.

UL approved. Laminated bakelite base. Nickel plated. Ring and mounting nuts.

15/32" SLEEVE LENGTH

DABURN No.	Description	Current 125V	Rating 250V
5200	SPST		3 Amp.
5202	SPDT	3 Amp.	1 Amp.
5202A	2 circ	3 Amp.	1 Amp.
5204	DPST	3 Amp.	1 Amp.
5206	DPDT	3 Amp.	1 Amp.
3/4" SLEEVE LENGTH — 3 AMP.			
5201	SPST		3 Amp.
5203	SPDT	3 Amp.	1 Amp.
5205	DPST	3 Amp.	1 Amp.
5207	DPDT	3 Amp.	1 Amp.

Std. Pkg. 25

BAT LEVER TOGGLE SWITCHES

1 POSITIVE ACTION — 3 AMP.

UL approved. Laminated, nickel finish.

15/32" SLEEVE LENGTH

5220	SPST		3 Amp.
5221	SPDT	3 Amp.	1 Amp.
5221A	2 circ.	3 Amp.	1 Amp.
5222	DPST	3 Amp.	1 Amp.
5223	DPDT	3 Amp.	1 Amp.

Std. Pkg. 25

BAT LEVER TOGGLE SWITCHES

1 MOMENTARY ACTION — 3 AMP.

UL approved. Laminated type, nickel plated finish. Supplied with ring and mounting nut; solder term. SPST rated at 3 Amp.-250V, AC-DC. Others: 1 Amp.-250V, 3 Amp.-125V AC-DC.

15/32" SLEEVE LENGTH

5190	SPST	Normally closed (on)
5191	SPST	Normally open (off)
5192	SPDT	Normally closed (on)
5193	DPST	Normally closed (on)
5194	DPST	Normally open (off)
5195	DPDT	Normally closed (on)

Std. Pkg. 25

INTERMEDIATE SIZE TOGGLE SWITCHES

2 BAT HANDLE

UL approved. Molded phenolic base. Back connected solder lugs silver plated. SPST 1 Amp.-250V, 6 Amp.-125V AC-DC. Others: 3 Amp.-250V, 6 Amp.-125V AC-DC.

15/32" SLEEVE LENGTH — 6 AMP.

DABURN No.	Description	Type Action
5280	SPST	Positive
5280A	SPST	Mom.-Norm. Off
5281	SPDT	Positive
5281A	SPDT	Momentary
5284	2 circ.	Positive
5282	DPST	Positive
5282A	DPST	Mom.-Norm. Off
5283	DPDT	Positive
5283A	DPDT	Momentary

Std. Pkg. 25

3 THREE POSITION — CENTER OFF 3 Amp-250V; 6 Amp.-125V AC-DC

5261	SPDT	—
5262	2 circ.	—
5263	DPDT	—

Std. Pkg. 25

NEW COMPACT TOGGLE SWITCH

4 BAT LEVER

UL approved. 1 Amp.-250V, 3 Amp.-125V AC-DC. Molded bakelite case, nickel finish. Suitable for missile, aircraft, electronic application. Solder lugs.

15/32" SLEEVE LENGTH — 3 AMP.

DABURN No.	Description	BASE DIMENSIONS L	W	H
5130	SPST	1 1/64"	41/64"	13/16"
5131	SPDT	1 1/64"	41/64"	13/16"
5232	DPST	1 1/64"	41/64"	13/16"
5133	DPDT	1 1/64"	41/64"	13/16"

Std. Pkg. 25

3 MOMENTARY CONTACT SWITCHES

UL approved. SPST normally off. 3 Amp.-250V, 6 Amp.-125V.

BAT HANDLE 15/32" SLEEVE LENGTH

DABURN No.	Description	Std. Pkg.
5241	SPST	25
5240	SPDT	25
5242	DPDT	25

STANDARD DUTY TOGGLE SWITCHES

5 PUSH BUTTON

Quick Make and Break

Molded phenolic base 15/32 x 7/16" long slotted sleeve; Nickel finish; screw term. Complete with two hex nuts. Accept snap-on button; supplied less ins. button. 125V-12 Amp., 250V-6 Amp.

15/32" SLEEVE LENGTH — 12 AMP.

DABURN No.	Descr.	Type
5238	SPST	Norm. Closed (on)
5238B	SPDT	Norm. Closed (on)
5238C	2 circ.**	Norm. Closed (on)
5226	DPST*	Norm. Open (off)
5238D	DPST*	Norm. Closed (on)

**Current Rating ½ Std. Pkg. 10

*1 H.P. 250/V AC-DC

6 EXTRA HEAVY DUTY POWER SWITCHES

3 POSITION—POSITIVE—CENTER OFF

UL approved. Molded base, screw terminals, slotted sleeve 3/4-32, nickel finish. Supplied with two hex nuts.

DABURN No.	Descr.	Circuit
5227	DPDT	¾ H.P. 250V AC-DC
5228	3PDT	½ H.P. 115/230V AC 3 Phase
5229	4PDT	½ H.P. 115/230V AC 2 Phase

Std. Pkg. 10

7 MIDGET SIZE TOGGLE SWITCHES

POSITIVE ACTION

UL approved. SPST 3 Amp.-250V., 6 Amp.-125V. Others rated 1 Amp.-250V., 6 Amp.-125V. Molded phenolic base. Nickel finish; solder lugs.

DABURN No.	Description	Type
5244	SPST	Ball Handle
5244A	SPST	Bat Handle
5244B	SPDT	Ball Handle
5244C	SPDT	Bat Handle
5244D	2 circ.	Ball Handle
5244E	2 circ.	Bat Handle

Std. Pkg. 10

8 MOMENTARY PUSH BUTTON SWITCHES

UL approved, laminated type. 15/32 x 9/16" slotted sleeve, nickel finish. Complete with hex and knurled nut. Nickel plated. All accept snap-on button. Supplied less ins. button (order separately No. 5132). SPST 3 Amp.-250V AC-DC. Others: 1 Amp.-250V., 3 Amp.-125V AC-DC.

Quick Make and Break

DABURN No.	Descr.	Type
5184	SPST	Norm. Closed (on)
5184A	SPST	Norm. Open (off)
5185A	SPDT	Norm. Closed (on)
5185	SPDT	Norm. Open (off)
5186	2 circ.	Norm. Closed (on)
5231A	DPST	Norm. Closed (on)
5231	DPST	Norm Open (off)
5131B	DPDT	Norm. Closed (on)

Std. Pkg. 25

Slow Make and Break

5180	SPST	Norm. Closed (on)
5230	SPST	Norm. Open (off)
5224	2 circ.	Norm. Closed (on)

Std. Pkg. 25

9 MOMENTARY PUSH BUTTON SWITCHES

UL approved. Molded phenolic base, solder lugs, normally off — push to make. Nickel plated. Supplied with nuts. 1 Amp.-125V.

DABURN No.	Description	Std. Pkg.
5233	SPST	25
5234	SPDT	25
5235	DPST	25
5236	DPDT	25

10 ROTARY SWITCHES

CANOPY TYPE

UL approved. Laminated type, solder lugs, 11/32-32 x 15/32" sleeve, nickel plated. Supplied with hex and dress nut. Key type has key removable in off position only on SPST and DPST — Key removable in both positions on all others. SPST 3 Amp.-250V AC-DC. Others: 1 Amp.-250V, 3 Amp.-125V AC-DC.

ROTARY TYPE 1⅛" SHAFT

DABURN No.	Description ⅜" Shank 1⅛" Shaft
5210	SPST
5212	SPDT
5214	DPST
5216	DPDT
KEY TYPE	
5110	SPST
5111	SPDT
5112	DPST
5113	DPDT

Std. Pkg. 12

SWITCH ACCESSORIES

DABURN No.	Description	Std. Pkg.
5208	—Name Plate—On-Off— Fits 15/32" Sleeve	100
5208A	—Name Plate—On-Off— Fits 15/32" Sleeve	100
5132	—Snap Button (Red or Black)	100
5114	—Key—Rem. Off Position	100
5115	—Key—Rem. Both Positions	100

See Pages 1724 and 1725 for Complete Price List

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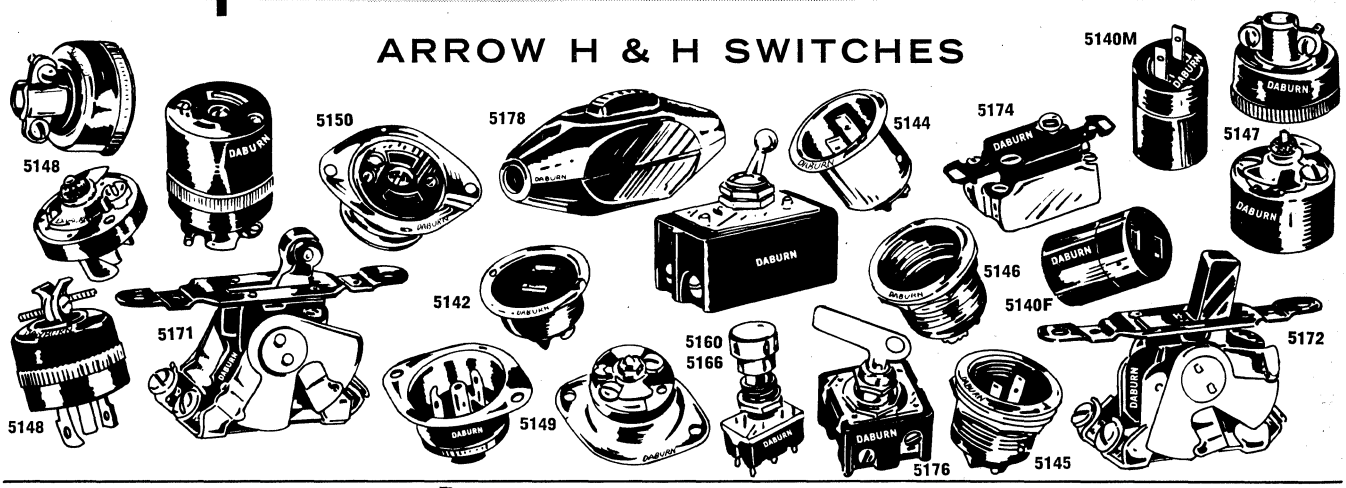
ARROW H & H SWITCHES



DOUBLE ACTION COMPACT PUSH-PUSH SHALLOW

QUICK MAKE AND BREAK

15/32" sleeve diameter, 3 amp., UL approved. Molded phenolic base. Complete with hex and knurled nut; nickel plated. All accept snap button; supplied less insulating button (#5132). (Order separately, red or black.) 1 amp., 250V 3 amp. 125V AC-DC. Solder lug terminals with double wiping blades.

Daburn No.	Descrip.	Sleeve	Width	Lgth.	Hgt.
5160	SPST	9/16"	41/64"	1-1/32"	13/16"
5161	SPDT	9/16"	41/64"	1-1/32"	13/16"
5162	DPST	9/16"	41/64"	1-1/32"	13/16"
5163	DPDT	9/16"	41/64"	1-1/32"	13/16"

Std. Pkg. 25

MOMENTARY ACTION COMPACT PUSH SWITCH

QUICK MAKE AND BREAK

15/32" Sleeve Diameter — 3 Amp.

UL approved. Molded base. Complete with hex and knurled nut; nickel plated. All accept snap button; supplied less insulating button (#5132). (Order separately, red or black.) Solder lug terminals with double wiping blades.

Daburn No.	Descrip.	Sleeve	Width	Lgth.	Hgt.
*5166	SPST	9/16"	41/64"	1-1/32"	13/16"
5167	SPDT	9/16"	41/64"	1-1/32"	13/16"
*5168	DPST	9/16"	41/64"	1-1/32"	13/16"
5169	DPDT	9/16"	41/64"	1-1/32"	13/16"

*SPST and DPST — normally off.
Std. Pkg. 25

HEAVY DUTY SWITCHES

TOGGLE TYPE 30 AMP

UL approved. 30 Amp, 250 Volts, AC-DC, 2HP, 115V-230V AC; 1 HP, 460V AC. Used on machine tools, pumps, food machines, sanders, grinders, etc.

DABURN No.	Description	Std. Pkg.
5171	DPST	5
5172	DPST	5

METAL PUSH BUTTON TYPE

NORMALLY OPEN — 20 AMP

UL approved. 20 Amp.-250V, 2 HP 230V AC, 2 HP 250V DC. Used on floor sander, foot switch etc.

DABURN No.	Description	Std. Pkg.
5174	DPST	5

ROTO-LOCK SWITCH

20 AMP.

UL approved. 20 Amp., 120V, 240V AC.
1½ HP — 120V AC
2 HP — 120V AC
Key removable in off position only.

DABURN No.	Description	Sleeve	Std. Pkg
5176	DPST	9/16"	5
5176K0	Key only for above		5

FEED-THRU CORD SWITCH

10 AMP.

UL approved, sliding lever, black case. 10 Amp.-125V, 5 Amp.-250V. Cord hole—5/16".

DABURN No.	Description	Std. Pkg.
5178	SP	6

FEED-THRU CORD SWITCH

15 AMP.

UL approved for appliance use only. 10 Amp-250V, 15 Amp.-125V.

DABURN No.	Description	Std. Pkg.
5179	DP (3rd Wire Gd.)	5

CORD CONNECTORS

10 AMP.

Complete brown bakelite cord connector. 10 Amp.-250 Volts, end opening for wire size up to 3/8" O.D.

DABURN No.	Description	Std. Pkg.
5140	Complete	10
5140F	Female Part Only	10
5140M	Male Part Only	10

DABURN H & H RECEPTACLES

10 AMP.

SHORT FEMALE FLUSH RECEPTACLE

UL approved. 10 Amp.-250 Volts AC.

DABURN No.	Description	Std. Pkg.
5143	Lock Nut Mounting	5
5142	2 Screw Mounting	5

RECESSED MALE RECEPTACLE

10 AMP.

DABURN No.	Description	Std. Pkg.
5144	2 Screw Mounting	5
5145	Lock Nut Mounting	5

RECESSED FEMALE RECEPTACLE

10 AMP.

DABURN No.	Description	Std. Pkg.
5146	Lock Nut Mounting	5

COMPACT RECEPTACLES — TURN TO LOCK

3 WIRE GROUNDING TYPE

FEMALE CONNECTOR — 15 AMP.-125 VOLT

Brass metal casings, corrosion resistant finish. Black bakelite.

DABURN No.	Description	Std. Pkg.
5147	Female Connector	5

MALE CONNECTOR

15 AMP.-125 VOLT

DABURN No.	Description	Std. Pkg.
5148	Male Connector	5

MALE RECEPTACLES

MALE RECEPTACLES
15 AMP.-125 VOLT

DABURN No.	Description	Std. Pkg.
5149	Male Receptacle	5

FEMALE RECEPTACLE

15 AMP.-125 VOLT

DABURN No.	Description	Std. Pkg.
5150	Female Receptacle	5

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See Pages 1724 and 1725 for Complete Price List

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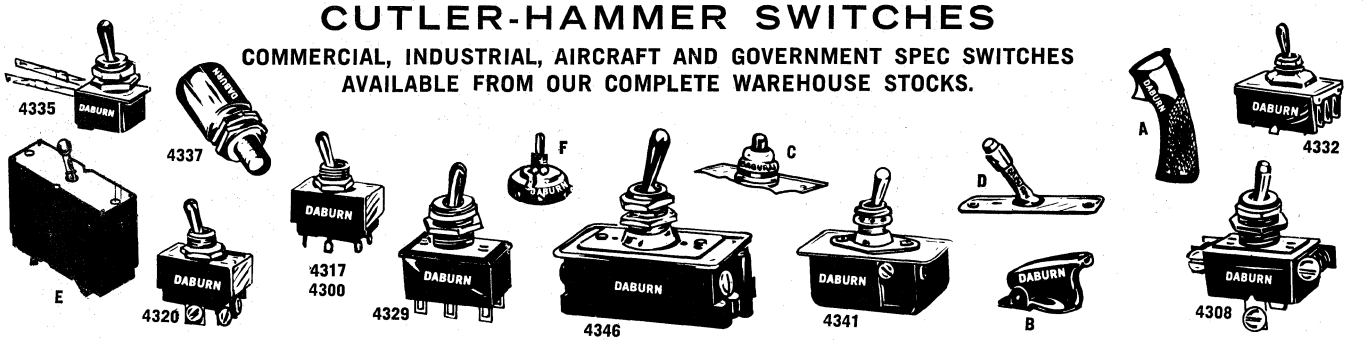
CUTLER-HAMMER SWITCHES

COMMERCIAL, INDUSTRIAL, AIRCRAFT AND GOVERNMENT SPEC SWITCHES AVAILABLE FROM OUR COMPLETE WAREHOUSE STOCKS.



STANDARD DUTY — TOGGLE SWITCHES

BACK CONNECTED LUG TERMINALS

UL approved. Slow make and break. AC rated for long life and greater capacity. 15/32 shank length. Bakelite case 15 Amp.-125 Volt, 10 Amp.-250 Volt.

DABURN No.	CH No.	Description
4314	7501K13	SPST
4315	7505K4	SPDT
4316	7561K4	DPST
4317	7565K5	DPDT
4318	7611K2	3PST
4319	7615K2	3PDT

Std. Pkg. 25

BACK CONNECTED SCREW TERMINALS

DABURN No.	CH No.	Description
4320	7500K14	SPST
4321	7504K4	SPDT
4322	7560K5	DPST
4323	7564K6	DPDT
4324	7610K2	3PST
4325	7614K2	3PDT

Std. Pkg. 25

CENTER OFF STANDARD DUTY SWITCHES

BACK CONNECTED LUG TERMINALS

DABURN No.	CH No.	Description
4329	7503K13	SPDT
4330	7563K4	DPDT
4331	7613K2	3PDT

Std. Pkg. 25

BACK CONNECTED SCREW TERMINALS

DABURN No.	CH No.	Description
4332	7502K13	SPDT
4333	7562K4	DPDT
4334	7612K2	3PDT

Std. Pkg. 25

LIGHT DUTY — TOGGLE SWITCHES

BACK CONNECTED LUG TERMINALS

UL approvd. Quick make-Quick break. Bakelite case. Small compact. 15/32" shank length.

DABURN No.	C-H No.	Descr.	Current Rating 125V	250V
4300	8280K16	SPST		3 amp
4301	8381K8	SPST	6 amp	3 amp
4302	8282K14	SPDT	3 amp	1 amp
4303	8284K14	2 circ.	3 amp	1 amp
4304	8360K7	DPST		3 amp
4305	8370K7	DPST	6 amp	3 amp
4306	8363K7	DPDT		3 amp
4307	8373K7	DPDT	6 amp	3 amp

Std. Pkg. 25

SIDE CONNECTED SCREW TERMINALS

DABURN No.	C-H No.	Descr.	Current Rating 125V	250V
4308	8295K8	SPST		3 amp
4309	8396K8	SPST	6 amp	3 amp
4310	8297K8	SPDT	3 amp	1 amp
4311	8372K7	DPST	6 amp	3 amp
4312	8365K7	DPDT		3 amp
4313	8375K7	DPDT	6 amp	3 amp

Std. Pkg. 25

WIRE LEADS — SIX INCH LONG

DABURN No.	C-H No.	Descr.	Current Rating 125V	250V
4335	8290K16	SPST		3 amp
4336	8391K8	SPST	6 amp	3 amp

PUSH BUTTON SWITCHES

PUSH TO MAKE — PUSH TO BREAK

UL approved AC-DC. Bakelite case. Pushing the button once closes the contacts; pushing it again opens the contacts. 11/16" shank.

DABURN No.	C-H No.	Descr.	Term.
4326	7206K4	SPST	Lug
4327	7208K4	SPST	Screw
4328	7207K4	SPST	Wire

Std. Pkg. 25

HEAVY DUTY — TOGGLE SWITCHES

UL approved. Quick make-quick break. Bakelite case, screw term. 15/32" shank (except #4346 11/32" shank).

Daburn No.	C-H No.	Descr.	Current Rating 125V	250V
4341	@7321K3	SPST	12 amp	6 amp
4342	@7320K3	DPST	12 amp	6 amp
4343	*7361K5	SPST	15 amp	10 amp
4344	*7360K8	DPST	15 amp	10 amp
4345	**7402K4	DPST		20 amp
4346	8680K1	DPDT	10 amp	5 amp
4347	8690K2	DPDT	15 amp	10 amp

@ 1 HP—125/250V. * 1½ HP—125/250V
** 1½ HP—125V, 2 HP—250V
Std. Pkg. 12

PUSH BUTTON MOMENTARY SWITCHES

UL approved. 15/32" shank AC-DC. Rated at 3/4 Amp.-125V, ¼ Amp.-250V. Door operated switches.

Daburn No.	C-H No.	Description	Term.
4337	8411K4	SP norm open	Lug
4338	8411K3	SP norm open	Screw
4339	8411K8	SP norm closed	Lug
4340	8411K7	SP norm closed	Screw

Std. Pkg. 25

Additional numbers in Cutler-Hammer Equip. Available.

(A) MISCELLANEOUS AIRCRAFT

Pistol grip trigger movement switches C-H numbers 8895, 8896, 8897.

(B) AIRCRAFT SWITCH GUARDS

Used to prevent inadvertent operation of the lever. Specify exact switch number required.

(C) BUSHING SEAL NO. 32-341

Boots for water and dust applications

(D) LEVER EXTENSIONS AND ATTACHABLE TIPS

Tips snap over standard levers and are held in place by a cup shaped spring member.

(E) MANUAL TYPE CIRCUIT BREAKERS

(F) ROTARY SWITCHES per MIL-S-6807 spec

See Pages 1724 and 1725 for Complete Price List

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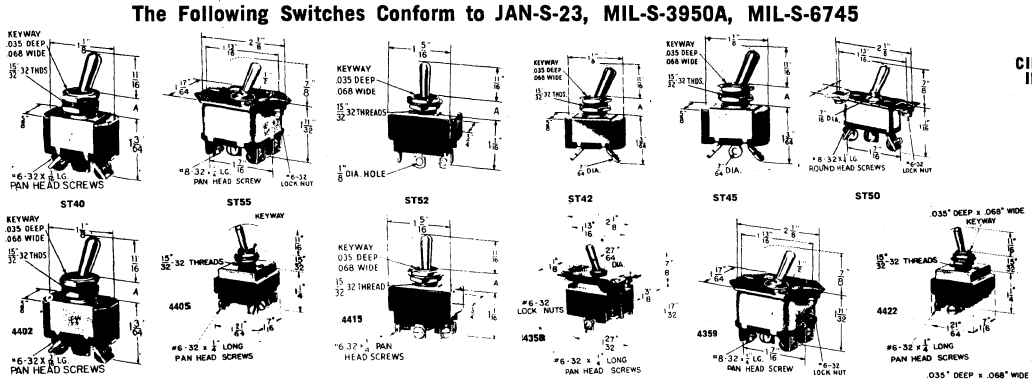
DABURN

DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

CUTLER HAMMER SWITCHES

The Following Switches Conform to JAN-S-23, MIL-S-3950A, MIL-S-6745



CIRCUIT IDENT. NO. — CIRCUIT

1 On-Off-On
2 On-None-Off
3 On-None-On
4 On-Off-None
5 On-On-None
6 On-None-Off (Mom.)
7 On-Off-On (Mom.)
8 Off-None-On (Mom.)
9 On (Mom.) Off-On (Mom.)
10 On-None-On (Mom.)
11 On-Off (Mom.)-None
12 On (Mom.)-On-None
13 None-Off-On (Mom.)

ST-40 SERIES
Single Pole with Screws

All **ST-40** Series equipped with sealed lever.

Nom. Rating Per Pole: 10 Amp.-115V AC, 20 Amp.-28V DC. Std. Pkg. 10

DABURN No.	CH	JAN-S-23 No.	MIL-S-6745 No.	Type	Circuit Code No.
4360	8801K13	ST40A	AN3021-2	SPST	2
4361	8813K12	ST40B	AN3021-9	SPST	6
4362	8811K12	ST40C	AN3021-8	SPST	10
4363	8810K12	ST40D	AN3021-3	SPDT	3
4364	8800K13	ST40E	AN3021-1	SPDT	1
4365	8804K12	ST40F	—	SPDT	10
4366	8812K13	ST40G	AN3021-7	SPDT	9
4367	8809K13	ST40H	AN3021-5	SPDT	7

ST-42 SERIES
Single Pole with Solder Lugs

Nom. Rating Per Pole: 10 Amp.-115V AC, 20 Amp.-28V DC. Std. Pkg. 10

4370	8803K6	ST42A	—	SPST	2
4371	8819K5	ST42B	—	SPST	6
4372	8817K5	ST42C	—	SPST	10
4373	8816K5	ST42D	—	SPDT	3
4374	8802K6	ST42E	—	SPDT	1
4375	8805K5	ST42F	—	SPDT	10
4376	8818K5	ST42G	—	SPDT	9
4377	8815K6	ST42H	—	SPDT	7

ST-45 SERIES
Per JAN-S-23 and MIL-S-6745
Single Pole

Nom. Rating Per Pole: 15 Amp.-115V AC, 20 Amp.-28V DC. Std. Pkg. 10

4440	8201K6	ST45A	AN3022-2	SPST	2
4441	8213K6	ST45B	AN3022-9	SPST	6
4442	8211K7	ST45C	AN3022-8	SPST	10
4443	8210K7	ST45D	AN3022-3	SPDT	3
4444	8200K7	ST45E	AN3022-1	SPDT	1
4445	8215K4	ST45F	AN3022-11	SPDT	10
4446	8212K6	ST45G	AN3022-7	SPDT	9
4447	8209K6	ST45H	AN3022-5	SPDT	7

ST-50 SERIES PER JAN-S-23
2 Pole with Screw Terminals

Nom. Rating Per Pole: 10 Amp.-115V AC, 20 Amp.-28V DC.

4380	8822K8	ST50K	AN3027-2	*DPST	2
4381	8828K5	ST50L	—	DPST	6
4382	8826K5	ST50M	—	DPST	10
4383	8824K8	ST50N	AN3027-3	*DPDT	3
4384	8820K10	ST50P	AN3027-1	*DPDT	1
4385	8830K5	ST50R	—	DPDT	10
4386	8834K4	ST50S	AN3027-7	*DPDT	9
4387	8832K4	ST50T	AN3027-8	*DPDT	7

*Equipped with sealed lever per MIL-S-6745. Std. Pkg. 10

ST-52 SERIES PER JAN-S-23
2 Pole with Solder Lugs

Nom. Rating Per Pole: 10 Amp., 115V AC, 20 Amp., 28V DC. Std. Pkg. 10

4390	8823K5	ST52K	—	DPST	2
4391	8829K5	ST52L	—	DPST	6
4391A	8827K5	ST52M	—	DPST	10
4392	8825K5	ST52N	—	DPDT	3
4393	8821K5	ST52P	—	DPDT	1
4394	8831K5	ST52R	—	DPDT	10
4395	8835K3	ST52S	—	DPDT	9
4396	8833K3	ST52T	—	DPDT	7

ONE HOLE MOUNTING TOGGLE SWITCHES
Approved Under MIL-S-3950A Spec

Nom. Rating Per Pole: 10 Amp.-115V AC, 20 Amp.-28V DC.

Temperature Range: −85°F to +250°F

ONE POLE
Per MS 35050 — Sealed Lever
(Screw Terminal)

DABURN No.	CH	MS No.	Type	Circuit Code No.
4358-21	8800K16	MS35058-21	SPDT	1
4358-22	8801K22	MS35058-22	SPST	2
4358-23	8810K15	MS35058-23	SPDT	3
4358-24	8801K23	MS35058-24	SPST	4
4358-25	8813K18	MS35058-25	SPST	11
4358-26	8804K13	MS35058-26	SPDT	10
4358-27	8812K14	MS35058-27	SPDT	9
4358-28	8811K18	MS35058-28	SPST	13
4358-29	8813K17	MS35058-29	SPST	6
4358-30	8811K17	MS35058-30	SPST	8
4358-31	8809K16	MS35058-31	SPDT	7

Std. Pkg. 10

2 POLE
Per MS 35059A Sealed Lever
(Screw Terminal)

Nom. Rating Per Pole: 10 Amp.-115V AC, 20 Amp.-28V DC.

DABURN No.	CH	MS No.	Type	Circuit Code No.
4359-21	8820K16	MS35029-21	DPDT	1
4359-22	8822K20	MS35029-22	DPST	2
4359-23	8824K14	MS35029-23	DPDT	3
4359-24	8822K21	MS35029-24	DPST	4
4359-25	8828K12	MS35029-25	DPDT	11
4359-26	8830K13	MS35029-26	DPDT	10
4359-27	8834K5	MS35029-27	DPDT	9
4359-28	8826K14	MS35029-28	DPST	13
4359-29	8828K13	MS35029-29	DPST	6
4359-30	8826K15	MS35029-30	DPST	8
4359-31	8832K6	MS35029-31	DPDT	7

Std. Pkg. 10

ST-55 SERIES
Per JAN-S-23 and MIL-S-6745
2 POLE

All **ST-55** Switches have sealed levers.

Nom. Rating Per Pole: 20 Amp., 115V AC, 25 Amp., 28V DC.

DABURN No.	CH	JAN-S-23 No.	MIL-S-6745 No.	Type	Circuit Code No.
4450	8701K14	ST55K	AN3023-2	DPST	2
4451	8713K14	ST55L	AN3023-9	DPST	6
4452	8711K14	ST55M	AN3023-8	DPST	10
4453	8710K14	ST55N	AN3023-3	DPDT	3
4454	8700K14	ST55P	AN3023-1	DPDT	1
4455	8715K14	ST55R	AN3023-10	DPDT	10
4456	8712K14	ST55S	AN3023-7	DPDT	9
4457	8709K14	ST55T	AN3023-5	DPDT	7
4458	8708K14	ST55U	AN3023-6	*DPDT	7

*Equipped with added jumper across terminals to control one circuit.

Std. Pkg. 10

4 POLE
Sealed Lever — Screw Terminal
Per MIL-S-3950A — Series MS 25068

Nom. Rating Per Pole: 10 Amp.-115V AC, 10 Amp.-28V DC.

DABURN No.	CH	MS No.	Type	Circuit Code No.
4422-1	7662K5	MS25068-1	4PDT	1
4424-3	7664K3	MS25068-3	4PDT	3
4430-5	7670K4	MS25068-5	4PDT	7
4432-7	7672K4	MS25068-7	4PDT	9
4440-10	7674K4	MS25068-10	4PDT	10
4420-11	7660K9	MS25068-11	4PST	4
4426-12	7666K7	MS25068-12	4PST	13
4428-13	7668K5	MS25068-13	4PST	11

HEAVY DUTY

4422-21	7662K7	MS25068-21	4PDT	1
4424-23	7664K5	MS25068-23	4PDT	3
4424-24	7660K13	MS25068-24	4PST	4
4424-25	7668K7	MS25068-25	4PST	11
4424-26	7674K5	MS25068-26	4PDT	10
4424-27	7672K5	MS25068-27	4PDT	9
4424-28	7666K9	MS25068-28	4PST	7
4424-31	7670K6	MS25968-31	4PDT	7

Std. Pkg. 10

2 POLE
Per MIL-S-3950 — Sealed Lever
Flush Mounted

Nom. Rating Per Pole: 15 Amp.-115V AC, 20 Amp.-28V DC.

4405-21	8700K15	MS25103-21	DPDT	1
4405-23	8710K15	MS25103-23	DPDT	3
4405-24	8716K7	MS25103-24	DPST	4
4405-25	8717K5	MS25103-25	DPST	11
4405-26	8715K15	MS25103-26	DPDT	10
4405-27	8712K15	MS25103-27	DPDT	9
4405-28	8718K5	MS25103-28	DPST	13
4405-31	8709K15	MS25103-31	DPDT	7

Std. Pkg. 10

3 POLE
Per MIL-S-3950A — Sealed Lever
Flush Mounted

Nom. Rating Per Pole: 15 Amp.-115V AC, 20 Amp.-28V DC.

4402	8742K10	MS25105-21	3PDT	1
4400	8740K12	MS25105-24	3PST	2
4401	8744K10	MS25105-23	3PDT	3

Std. Pkg. 10

4 POLE
Per MIL-S-6745 — Sealed Lever
Flush Mounted

Nom. Rating Per Pole: 10 Amp.-115V AC, 20 Amp.-28V DC.

4415	8880K5	AN3227-1	4PDT	1
4410	8882K5	AN3227-2	4PST	2
4413	8884K5	AN3227-3	4PDT	3
4418	8887K5	AN3227-5	4PDT	7
4417	8888K5	AN3227-7	4PDT	9
4412	8886K5	AN3227-8	4PST	8
4412A	8882K6	AN3227-9	4PST	4
4412B	8886K6	AN3227-10	4PST	13

Std. Pkg. 10

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See Pages 1724 and 1725 for Complete Price List

DABURN ELECTRONICS & CABLE CORP.

CUTLER-HAMMER•CONTINENTAL-WIRT MAGNETIC PROXIMITY SWITCHES

CUTLER HAMMER POSITIVE ACTION SWITCHES

1 POLE PER MIL-S-8834
ENVIRONMENT SEALED

DABURN No.	CH	MS No.	Type	Circuit Code No.	Net Ea.
4436-21	8836K1	MS25306-21	SPDT	1	$6.93
4436-22	8836K9	MS25306-22	SPST	2	6.42
4436-23	8836K4	MS25306-23	SPDT	3	6.93
[illegible]	8836K6	MS25306-24	SPST	4	6.42
[illegible]	8836K8	MS25306-25	SPST	11	6.93
[illegible]	8836K5	MS25306-26	SPDT	10	7.44
[illegible]	8836K2	MS25306-27	SPDT	9	7.44
[illegible]	8836K7	MS25306-28	SPST	13	6.93
[illegible]29	8836K10	MS25306-29	SPST	6	6.93
[illegible]30	8836K11	MS25306-30	SPST	8	6.93
[illegible]31	8836K3	MS25306-31	SPDT	7	7.44

Std. Pkg. 10

2 POLE PER MIL-S-8834
ENVIRONMENT SEALED

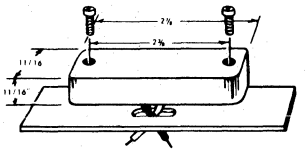
[illegible]7-21	8837K1	MS25307-21	DPDT	1	$11.94
[illegible]7-22	8837K9	MS25307-22	DPST	2	10.92
[illegible]7-23	8837K4	MS25307-23	DPDT	3	11.94
[illegible]7-24	8837K6	MS25307-24	DPST	4	10.92
[illegible]7-25	8837K8	MS25307-25	DPST	11	11.94
[illegible]7-26	8837K5	MS25307-26	DPDT	10	12.93
[illegible]7-27	8837K2	MS25307-27	DPDT	9	12.93
4437-28	8837K7	MS25307-28	DPST	13	11.94
4437-29	8837K10	MS25307-29	DPST	6	11.94
4437-30	8837K11	MS25307-30	DPST	8	11.94
4437-31	8837K3	MS25307-31	DPDT	7	12.93

Std. Pkg. 10

4 POLE PER MIL-S-8834
ENVIRONMENT SEALED

Std. Pkg. 10

4438-21	8838K1	MS25308-21	4PDT	1	$28.80
4438-22	8838K9	MS25308-22	4PST	2	28.80
4438-23	8838K4	MS25308-23	4PDT	3	28.80
4438-24	8838K6	MS25308-24	4PST	4	27.54
4438-25	8838K8	MS25308-25	4PST	11	28.80
4438-26	8838K5	MS25308-26	4PDT	10	31.02
4438-27	8838K2	MS25308-27	4PDT	9	31.02
4438-28	8838K7	MS25308-28	4PST	13	28.80
4438-29	8838K10	MS25308-29	4PST	6	28.80
4438-30	8838K11	MS25308-30	4PST	8	28.80
4438-31	8838K3	MS25308-31	4PDT	7	31.02



MAGNETIC PROXIMITY SWITCH

For Counting Position Limiting Sequence Control Mounts in Any Position

Precision, fast acting, suitable to sequential control functions on machine tools, packaging, material handling and similar industrial devices.

Strong, encapsulated, assures freedom from contamination by cutting oils, dust, powder, chips, etc. Operates up to hundreds of millions of cycles — temperature range −30°C to +105°C. Speed (Max) 200 cycles/sec repeatability within .005".

Switch actuates when brought into proximity with ferrous metals or other magnetic materials. No mechanical linkage necessary for operation. Operating sensitivity in nom. ⅛" make, ½" break. Switch elements sealed in glass, unit is potted in epoxy resin. Case is impervious to oil, water, gas, all common solvents.

Typical actuators include indexing tables, cams, wheels, push rods, die sets, line objects such as food and beverage cans, components, parts, vehicles, rotating and swinging objects, etc.

Std. Pkg. 10

11/16" H x 11/16" D x 2⅞" W

DABURN No.	Type
4499-128	SPST Norm. Open
4499-138	SPDT
4499-139	SPST Norm. Open (Hi-Load)

Electrical	Resistive Load		Inductive Load	
(Max. Contact Rating)	−128,−138	−139	−128,−138	−139
Amps	.5	.2	.1	1
Volt AC or DC	125	125	125	125
Watts	15	50	5	15

LEVER LOCK SWITCHES PER MIL-S-3950A

Nom. Rating Per Pole: 10 Amp., 115V AC, 20 Amp., 28V DC.

DABURN No.	C-H	"MS" No.	Type
4487-1	8857K39	MS25125-1	SPDT
4487-2	8857K40	MS25125-2	SPDT
4487-3	8857K41	MS25125-3	SPDT
4487-4	8857K45	MS25125-4	SPDT
4487-5	8857K42	MS25125-5	SPDT
4487-6	8857K46	MS25125-6	*SPDT
4487-7	8857K43	MS25125-7	SPDT
4487-8	8857K44	MS25125-8	SPDT
4487-9	8857K49	MS25125-9	SPST

* Momentary Contact — Std. Pkg. 10

2 POLE—LEVER LOCK PER MIL-S-3950A

DABURN No.	C-H	"MS" No.	Type
4488-1	8858K39	MS25126-1	DPDT
4488-2	8858K40	MS25126-2	DPDT
4488-3	8858K41	MS25126-3	DPDT
4488-4	8858K45	MS25126-4	DPDT
4488-5	8858K42	MS25126-5	DPDT
4488-6	8858K46	MS25126-6	*DPDT
4488-7	8858K43	MS25126-7	DPDT
4488-8	8858K44	MS25126-8	DPDT
4488-9	8858K49	MS25126-9	DPST

Std. Pkg. 10

4 POLE — LEVER LOCK PER MIL-S-3950A

4489-1	8859K39	MS25127-1	4PDT
4489-2	8859K40	MS25127-2	4PDT
4489-3	8859K41	MS25127-3	4PDT
4489-4	8859K45	MS25127-4	4PDT
4489-5	8859K42	MS25127-5	4PDT
4489-6	8859K46	MS25127-6	*4PDT
4489-7	8859K43	MS25127-7	4PDT
4489-8	8859K44	MS25127-8	4PDT
4489-9	8859K49	MS25127-9	4PST

* Momentary Contact. — Std. Pkg. 10

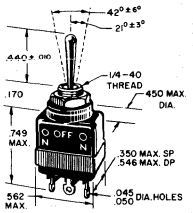
MINIATURE MILITARY SWITCHES

"As Small As A Dime" Built To MIL-S-8834 Specs

Designed for aircraft, missile, electronic application it is extremely compact, highly reliable, power or dry circuit switch, usable as a pre-set switch in aircraft recognition systems, walkie-talkies, instrument and communication systems. Toggle lever seal and panel bushing seal for adverse environmental conditions. Gold plated contacts.

RATINGS: 3 amps., 28V DC; 1 amp., 50V DC 2 amps., 115V AC

WEIGHT: Single pole 5.0 grams, Double pole 6.5 grams



SINGLE POLE

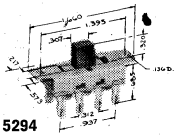
DABURN No.	C-H	Type	Circuit
4480K1	8866K1	SPDT	on-off-on
4480K2	8866K2	SPDT	Mom. on-off-Mom. on
4480K3	8866K3	SPDT	on-off-Mom. on
4480K4	8866K4	SPDT	on-none-on
4480K5	8866K5	SPST	on-off-none
4480K6	8866K6	SPST	None-off-Mom. on
4480K7	8866K7	SPST	on-none-off
4480K8	8866K8	SPDT	None-on-Mom. off

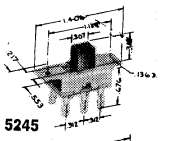
DOUBLE POLE

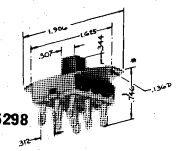
4481K1	8867K1	DPDT	on-off-on
4481K2	8867K2	DPDT	Mom. on-off-Mom. on
4481K3	8867K3	DPDT	on-off-Mom. on
4481K4	8867K4	DPDT	on-none-on
4481K5	8867K5	DPST	on-off-none
4481K6	8867K6	DPST	none-off-Mom. on
4481K7	8867K7	DPST	on-none-off
4481K8	8867K8	DPDT	none-on-Mom. on

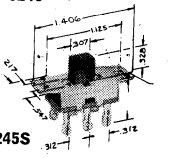
Std. Pkg. 10

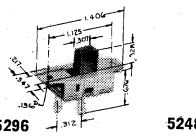
CONTINENTAL-WIRT SLIDE SWITCHES

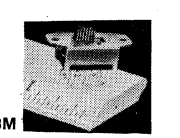












New "Swidget" Miniature Slide Switch

Mounting area is ½ of standard DPDT slide. Suitable for compact applications. UL approved.

DABURN No.	Type	Rating 125V AC-DC	Net Ea.	Std. Pkg.
5248M	DPDT	5 Amp.	$.36	25

UL APROVED SLIDE SWITCH
STANDARD DETENT

General purpose switch for hi-fi equipment, instruments, etc. Black phenolic buttons, steel cadmium plated housing.

DABURN No.	Type	Rating at 125V Circuit DC Amp.	AC Amp.
5245	SPST	.75	.75
5246	SPDT	.75	.75
5247	DPST	.5	.5
5248	DPDT	.5	.5
5290	SPST	6.0	1.0
5291	SPDT	6.0	1.0
5292	DPST	6.0	1.0
5293	DPDT	6.0	1.0

Std. Pkg. 25

SLIDE SWITCHES WITH DETENT
CENTER OFF

5296	SPDT	.5	.5
*5297	DPDT	.5	.5

Std. Pkg. 25

3 AND 4 POSITION SLIDE SWITCH
WITH DETENT

5294	SP 3 Pos.	.5	.5
5295	DP 3 Pos.	.5	.5
5295A	DP 3 Pos.	6.0	1.0
5295F	DP 4 Pos.	.5	.5

Std. Pkg. 25

3 AND 4 POLE SLIDE SWITCH
WITH DETENT
ALL POLES IN SAME PLANE

5298	3 PDT	.5	.5
5299*	4PDT	.5	.5

*5299 — width of switch 1.005", short terminals. Distance from mounting surface to terminal tip .595".

Std. Pkg. 25

SLIDE SWITCH — SPRING RETURN

5245S	SPST	.5	.5
5246S	SPDT	.5	.5

Std. Pkg. 25

SLIDE SWITCH SHIELD
Suitable for Electrastatic Shielding

Terminal protection. Shield is steel cadmium plated with fibre insulation.

5249	Std. Pkg. 25

* Not UL Approved.

Additional DABURN Products in Sections 2100, 2800, 3100, and 6000

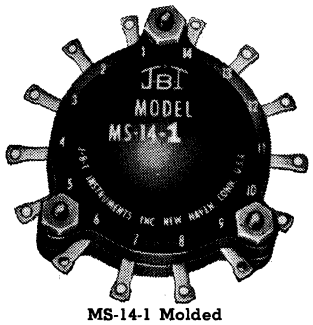
See Pages 1724 and 1725 for Complete Price List

© U.C.P., Inc.

ROTARY SWITCHES — LAMINATED AND MOLDED

J-B-T INSTRUMENTS, INC.

J-B-T® 28th Year

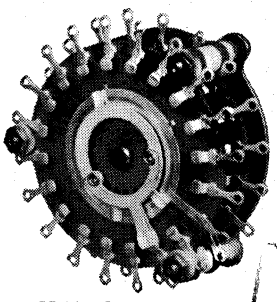


MS-14-1 Molded

- **INSTRUMENT AND TESTER TYPE**
- **14- AND 20-POSITION**
- **SINGLE AND MULTI-DECK**
- **MILITARY OR COMMERCIAL**

USES — J-B-T Rotary Selector Switches are extensively used in quality test equipment, portable instruments, inspection setups, and other military aerospace and commercial applications where trouble-free, dependable performance is of major importance.

FEATURES — **Extra Contacts** — 14- and 20-position designs provide extra switching capability. **Dependability** — Sturdy rotors and decks with rigid 3-post deck suspension; current-carrying parts heavily silverplated to meet 100 hour salt spray test; sharp detent mechanism to assure positive indexing; insulation resistance above 50,000 megohms. **Low Contact Loss** — Double-grip collector arms, and large area contacts, silver to silver; average contact resistance, .007 ohms or less. **Ample Dielectric** — Conservatively rated at 1 amp., 125 VAC, inductive load; maximum momentary capacity (not make-and-break), 5 amp. AC or DC; maximum voltage between contacts, 1500 VAC, R.M.S.; between decks and ground, 2000 VAC, R.M.S



SS-20-2 Laminated

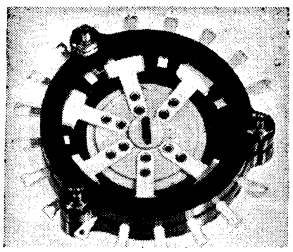
Enclosed — Molded models have all moving contacts enclosed to minimize dirt and corrosion.

Basic 14-Position: 13 circuits and "off" per deck in 2" circle (SS-14), or 2-3/32" circle (MS-14) with 25° 43' angular indexing. Supplied individually boxed with **1-1/4" Bar Knob, (KN-14),** not on bulk orders unless specified. For details, SS-14, 1 to 6 decks, see Print SK-42 Rev. B. MS-14, 1 to 6 decks, Print SK-111 Rev. D, 7 decks and over, Print SK-112 Rev. C.

Basic 20-Position: 19 circuits and "off" per deck in 2-23/32" circle (SS-20) or 2-5/8" circle (MS-20) with 18° angular indexing. Supplied individually boxed with 2" **Bar Knob (KN-16),** not on bulk orders unless specified. For details, SS-20, 1 to 6 decks, see Print SK-116 Rev. A. MS-20, 1 to 6 decks, Print SK-113 Rev. D, 7 decks and over, Print SK-114 Rev. C.

Military or Commercial Variations: Special switches too numerous to list now are being made. Typical are: laminated models with 14 or 20 live positions, no off, designated by suffix F as in SS-14-2F or SS-20-1F. Inquiries are invited.

***** BONDED RUGGEDIZED TYPES** As indicated in the table, all molded rotary switches may be ordered with bonded construction as MS-14B or MS-20B types using cured laminations for ruggedization, shockproofing and further enclosure. This additional dependability factor adds only approx. 1/64" and 35c catalog price per deck.



MS-20-1-6DT
Double-throw Switching of 6 circuits per deck

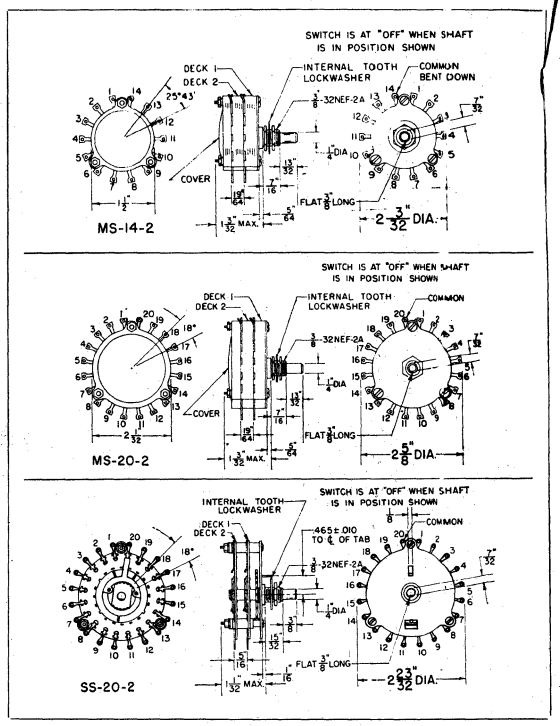
6-POLE DOUBLE-THROW PER DECK —

1 or 2 DECKS (DT Series). Widely used for simultaneous double-throw switching of 6 circuits per deck (18° throw). Fully enclosed — illustration shows protective cover cut-away. Circuit arrangement printed on switch front. If DTS Shorting Type, 1500 VAC R.M.S. between contacts and ground, 1000 VAC R.M.S. between contacts. See **MS-20-1-6DT, MS-20-1-6DTS,** and **MS-20-2-6DT** in table.

ETCHED DIAL PLATES

For switches below, also 20M Series on next page. Dull black finish, raised bright numerals, 2-3/4" dia.

EP-13 off thru 13	**$.23**
EP-14 1 thru 14	**.23**
EP-19 off thru 19	**.23**
EP-20 1 thru 20	**.23**



14-POSITION ROTARY SWITCHES — 25° 43' INDEXING SERIES SS-14, MS-14, MS-14B, MAS-14, and MAS-14B

Pos. Per Circ.	Cir. (Poles) Per Deck	Decks or Gangs	Short'g or Non-Sh.	LAMINATED (SS) Standard Model	Max(d) Depth Behind Panel	Boxed Inc. Knob	MOLDED (MS) Standard Model	Max. Depth Behind Panel	Boxed Inc. Knob	Bonded Model	Max. Depth Behind Panel	Boxed Inc. Knob	Adjustable Stop Model	Max. Depth Behind Panel	Boxed Inc. Knob	Bonded Adjustable Stop Model	Max. Depth Behind Panel	Boxed Inc. Knob
14	1	1	N-S	SS-14-1	27/32"	$2.30	MS-14-1	27/32"	$2.45	MS-14B-1	7/8"	$2.80	MAS-14-1	31/32"	$3.10	MAS-14B-1*	1"	$3.45
5(a)	2	1	N-S	SS-14-1A*	27/32"	2.45	—	—	—	—	—	—	—	—	—	—	—	—
14	1	1	S	SS-14-1S*	27/32"	2.35	MS-14-1S*	27/32"	2.50	MS-14B-1S*	7/8"	2.85	MAS-14-1S	31/32"	3.20	MAS-14B-1S*	1"	3.55
14	1	1	C-S(c)	SS-14-1CS*	27/32"	2.80	—	—	—	—	—	—	—	—	—	—	—	—
14	1	2	N-S	SS-14-2	1 5/32"	2.90	MS-14-2	1 3/32"	3.10	MS-14B-2	1 1/8"	3.80	MAS-14-2	1 7/32"	3.80	MAS-14B-2	1 1/4"	4.50
5(a)	2	2	N-S	SS-14-2A*	1 5/32"	3.20	—	—	—	—	—	—	—	—	—	—	—	—
14	1	2	S	SS-14-2S*	1 5/32"	3.00	MS-14-2S*	1 3/32"	3.20	MS-14B-2S*	1 1/8"	3.90	MAS-14-2S*	1 7/32"	3.95	MAS-14B-2S*	1 1/4"	4.65
14	1	3	N-S	SS-14-3	1 7/16"	3.50	MS-14-3	1 13/32"	3.75	MS-14B-3	1 15/32"	4.80	MAS-14-3	1 17/32"	4.60	MAS-14B-3*	1 19/32"	5.65
14	1	4	N-S	SS-14-4	1 23/32"	4.40	MS-14-4	1 23/32"	4.85	MS-14B-4	1 25/32"	6.25	MAS-14-4	1 27/32"	5.70	MAS-14B-4	1 15/16"	7.10
14	1	6	N-S	SS-14-6	2 13/32"	6.30	MS-14-6	2 13/32"	7.05	MS-14B-6	2 1/2"	9.15	MAS-14-6	2 17/32"	8.00	MAS-14B-6*	2 19/32"	10.10

20-POSITION ROTARY SWITCHES — 18° INDEXING SERIES SS-20, MS-20, and MS-20B

20	1	1	N-S	SS-20-1	23/32"	4.00	MS-20-1	27/32"	3.10	MS-20B-1	7/8"	3.45						
6(b)	2	1	N-S	SS-20-1A*	23/32"	4.15	—	—	—	—	—	—						
2	6	1	N-S	—	—	—	MS-20-1-6DT	27/32"	3.90	MS-20B-1-6DT*	7/8"	4.25						
2	6	1	S	—	—	—	MS-20-1-6DTS	27/32"	4.00	MS-20B-1-6DTS*	7/8"	4.35						
20	1	1	S	SS-20-1S*	23/32"	4.05	MS-20-1S	27/32"	3.15	MS-20B-1S*	7/8"	3.50						
20	1	2	N-S	SS-20-2	1 1/32"	4.75	MS-20-2	1 3/32"	3.90	MS-20B-2	1 1/8"	4.60						
2	6	2	N-S	—	—	—	MS-20-2-6DT	1 3/32"	5.50	MS-20B-2-6DT*	1 1/8"	6.20						
20	1	2	S	SS-20-2S*	1 1/32"	4.85	MS-20-2S	1 3/32"	4.00	MS-20B-2S*	1 1/8"	4.70						
20	1	3	N-S	SS-20-3	1 11/32"	5.85	MS-20-3	1 13/32"	5.00	MS-20B-3*	1 15/32"	6.05						
20	1	4	N-S	SS-20-4	1 23/32"	7.10	MS-20-4	1 23/32"	6.20	MS-20B-4	1 25/32"	7.60						
20	1	6	N-S	SS-20-6	2 11/32"	9.40	MS-20-6	2 13/32"	8.60	MS-20B-6	2 1/2"	10.70						

NOTES TO TABLES

* Standard Items, but not regularly stocked; check with your electronic parts distributor.

(a) 5 positions include 4 "live" and 1 "off."

(b) 6 positions include 5 "live" and 1 "off."

(c) Complete shorting—all contacts shorted except one in use.

(d) Dimensions given are for continuous rotation switches. On Standard SS-14 Models only, adjustable stops are also furnished, and when used, increase depth behind panel 3/32" and decrease effective bushing length 3/32".

Non-Shorting — Break before make **Shorting** — Make before break

Prices Net, F.O.B. Factory; Individually Boxed, Domestic Packed, Effective January 1, 1966

© U.C.P., Inc.

J-B-T

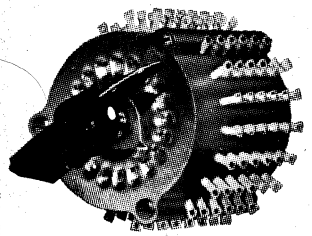
28th Year

MULTI-POLE AND LEVER TYPE SWITCHES

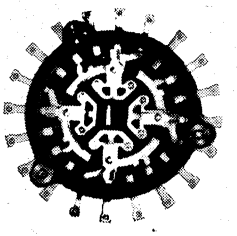
J-B-T INSTRUMENTS, INC.

NEW MULTI-POLE MOLDED ROTARY SWITCHES, SERIES 20M.

• Superior Molded Material • All Models Bonded & Ruggedized • Panel Seal Available



Front View Showing Panel Locator which is Normally at 3 o'clock Position.



Rear View with Back Cover Cut Away to Show 4-Pole Construction with 4 Live Switching Contacts.

Although the new 20M- Series is ¼" longer behind the panel than the 20-position molded switches described on the preceding page, the two styles are otherwise interchangeable in dimensions. Providing 19 live positions and off, the 20M- offers these additional features:

1. **Increased Versatility of Circuitry** — up to and including four poles per deck;
2. **Upgraded Insulation Resistance and Dielectric Qualities** — by use of melamine stators and rotors (or other MIL-M-14 molded materials when specially ordered);
3. **Built-in Panel Locator or Non-Turn Device;**
4. **Extended Switch Life** — new contact design with rotor brushes of phosphor bronze heavily silver-plated;
5. **Bonded and Ruggedized Construction;**
6. **Radial Alignment of Multi-Pole Contact Surfaces** — by means of newly-designed double-ball detent with diaphragm-type springs.

VARIATIONS OF 20M- Please request SK-142 for full dimensions and circuit diagrams. Besides the condensed listing in the accompanying table, various combinations of **shorting and non-shorting contacts for each deck** may be made. **Fixed stops** are built-in but may be provided for single-pole switches when specially ordered. **Over six decks** can be supplied for a reasonable number of poles; extra decks add 5/16" per deck and 5/16" per switch for rear support SU-3. **Ring-contact** (suffix R) may be specially ordered.

PANEL SEAL PS20M- SERIES Sealed shaft and bushing meet the requirements of MIL-S-3786A for sealing. For details ask for SK-143. The seal (prefix PS) adds $1.75 per switch to catalog price.

SPECIFICATIONS AND TEST DATA Available on request.

No. of Decks	Depth Behind Panel	Poles Per Deck	Model Number	Circuitry Per Pole	Rotation-Positions*	Boxed Incl. Knob
1	1-3/16	1	**20M-1201N**	19 live, 1 off	Continuous	**$3.75**
		1	**20M-1191N**	19 live, no off	1 thru 19	**3.75**
		2	**20M-2101N**	9 live, 1 off	20 thru 9	**4.15**
		3	**20M-3051N**	4 live, 1 off	20 thru 4	**4.50**
		4	**20M-4051N**	4 live, 1 off	20 thru 4	**4.85**
2	1½	1	**20M-1202N**	19 live, 1 off	Continuous	**5.00**
		2	**20M-2102N**	9 live, 1 off	20 thru 9	**5.80**
		3	**20M-3052N**	4 live, 1 off	20 thru 4	**6.50**
		4	**20M-4052N**	4 live, 1 off	20 thru 4	**7.20**
3	1-13/16	1	**20M-1203N**	19 live, 1 off	Continuous	**6.25**
		2	**20M-2103N**	9 live, 1 off	20 thru 9	**7.45**
		3	**20M-3053N**	4 live, 1 off	20 thru 4	**8.50**
		4	**20M-4053N**	4 live, 1 off	20 thru 4	**9.55**
4	2-3/16	1	**20M-1204N**	19 live, 1 off	Continuous	**7.70**
		2	**20M-2104N**	9 live, 1 off	20 thru 9	**9.30**
		3	**20M-3054N**	4 live, 1 off	20 thru 4	**10.70**
		4	**20M-4054N**	4 live, 1 off	20 thru 4	**12.10**
6	2-13/16	1	**20M-1206N**	19 live, 1 off	Continuous	**10.80**
		2	**20M-2106N**	9 live, 1 off	20 thru 9	**13.20**

* See MS-20 drawing on preceding page for location of positions.

Notes: (1) NON-shorting (N) type — (break-before-make) — is shown. For shorting type (S), add $.05 per pole per deck to catalog price. Example: 3 pole, 3 deck 20M-3053S is $8.95.

(2) Switch with all live positions per pole or less than maximum live positions can be provided by fixed stops.

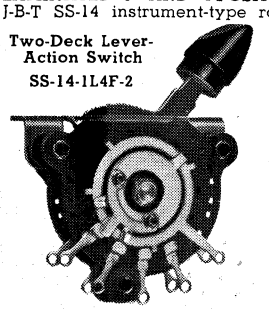
(3) Off position is in extreme ccw position from knob end.

(4) **Panel Seal** is available including shaft seal within bushing. Use suffix PS. Example: PS20M-1203N. See Print SK-143.

LEVER ACTION SWITCHES — 6, 5, 4, 3, and 2-Position — LAMINATED, MOLDED, & SUB-MINIATURE

LAMINATED 3- AND 4-POSITION, POSITIVE INDEXING. Derived from J-B-T SS-14 instrument-type rotaries, these switches are specified for inspection equipment, communications systems, control consoles, and similar uses. 4-position are interchangeable with 3-position except in length of throw — mounting holes for both, 1⅝" between centers. Individually-boxed switches come with KN-17 knob; bulk shipments, without knobs. **SINGLE DECK** — spacing between centers: recommended, ¾"; minimum, 9/16". **TWO DECK** — spacing: recommended, 15/16"; minimum, 13/16". ⅜" between decks matches TV twinlead wires. **SPRING RETURN TYPE** — single deck, 3-position only; lever returns to position 11, giving momentary action at positions 9 and 10. For dimensions, ask for drawing SK-138.

Two-Deck Lever-Action Switch SS-14-1L4F-2



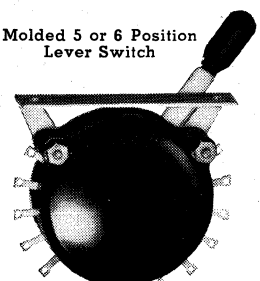
Positions Per Circuit	Circ. (Poles) Per Deck	Decks or Gangs	Short. Non-Short	Stand.* Contact Pos.	Model	Boxed Incl. Knob
3, no "off"	1	1	N-S	A	**SS-14-1L3**	**$1.00**
3, no "off"	2	1	N-S	B	**SS-14-1L3A**	**1.15**
3, no "off"	1	1	S	A	**SS-14-1L3S**	**1.05**
3, no "off"	1	1	N-S	A	**SS-14-1L3R†**	**1.15**
3, no "off"	1	1	S	A	**SS-14-1L3S-R†**	**1.20**
3, no "off"	1	2	N-S	A	**SS-14-1L3-2**	**1.70**
3, & "off"	1	1	N-S	C	**SS-14-1L4**	**1.10**
4, no "off"	1	1	N-S	D	**SS-14-1L4F**	**1.10**
4, no "off"	1	2	N-S	D	**SS-14-1L4F-2**	**1.90**

*A—common at 12, contacts at 9, 10, 11; B—common at 9, 10, contacts at 6, 7, 8, 12, 13 14; C—common and off at 12, contacts at 9, 10, 11; D—common at 12, contacts at 8, 9, 10, 11.
†—Spring Return.

LEVER KNOBS

KN-17, black pointed with metal insert **$0.19**
KN-18, walnut, same as KN-19 ..... **0.06**
KN-19, black, round, flat-type, push-on **0.06**
KN-20, black, threaded, for MS-20-IL..... **0.14**

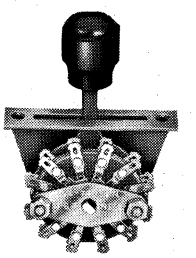
Molded 5 or 6 Position Lever Switch



MOLDED 5- and 6-POSITION, POSITIVE-INDEXING. 5 or 6 live positions, two circuits per deck, in enclosed lustrous black molded construction; adapted from the MS-20 series with electrical characteristics as shown on previous page. These models can simplify circuitry for sound systems, control, inspection, test, experimental, and hobby purposes. Individually-boxed switches come with KN-20 threaded black molded knob; bulk shipments, without knobs. For mounting data see SK-64, Rev. H on 5-position and SK-119, Rev. B on 6-position.

MS-20-1L5A-1, 5-position, 2-circuit (1 deck) **$3.25**

MS-20-1L6A-1, 6-position, 2-circuits (1 deck) **3.50**



Sub-Miniature 1 Dual Duty Deck

2 AND 3 POSITION, 1 TO 4 DECKS, 2 TO 8 POLES PER DECK.

SUB-MINIATURE LEVER SWITCHES — Derived from the high-performance sub-miniature switches described on the next page, the VL-7000 and the VL-5000 positive indexing series and the VSRL-7000 and VSRL-5000 spring return types provide excellence in lever switches. MIL materials throughout; crisp 30° indexing. Max. depth behind panel 1.250"; panel slot .962" x .062"; other details to SK-139, Rev. A and Catalog SM-32D. Typical switches are:

VL-71031N, single-pole, 3-position, one-deck, non-shorting **$4.80**

VSRL-71031N, same as above, with spring return to center position from either side **5.80**

VL-71032N, single-pole, 3-position, two-deck, non-shorting **7.05**

Prices Net, F.O.B. Factory; Individually Boxed, Domestic Packed, Effective January 1, 1966

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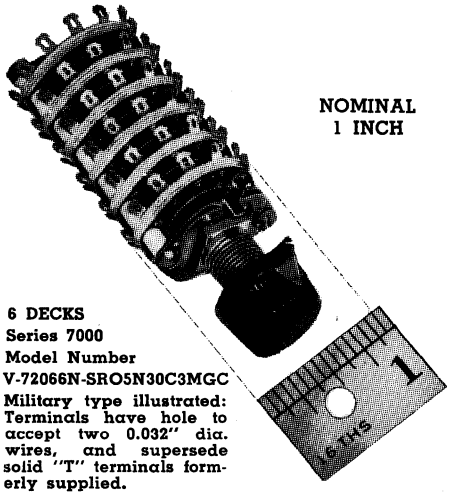
SUB-MINIATURE ROTARY AND LEVER SWITCHES

J-B-T INSTRUMENTS, INC.

J-B-T 28th Year

SUB-MINIATURE SWITCHES MADE TO MANY PERFORMANCE LEVELS OF MIL-S-3786B, TYPE SRO5; ALSO NON-MILITARY X AND V VERSIONS.

SERIES 7000, FULL 12 LIVE SWITCHING CONTACTS PER DECK; SERIES 5000, UP TO 8 POLES PER DUAL-DUTY DECK.



6 DECKS
Series 7000
Model Number
V-72066N-SRO5N30C3MGC
Military type illustrated: Terminals have hole to accept two 0.032" dia. wires, and supersede solid "T" terminals formerly supplied.

- **Precision built for Low-Current Usage where Size, Weight, Reliability are Important**
- **Unusual Versatility — More Contacts per Deck**
- **Accelerated Snap-Action Detent**
- **MIL Materials Throughout for Military & Non-Military Applications**

CAUTION— MIL-S-3786B, a sophisticated specification, spells out more than one performance level in each of several categories such as Temperature-Life, Vibration, Shock, and Altitude. Each level is designated by its own symbol. J-B-T SRO5 models meet an exceptional number of levels.

• USES — For test equipment, airborne and transistorized equipment, geophysical apparatus, and other miniaturized electrical and electronic devices.

TWO BASIC SERIES — Full 12 live switching contacts per deck are available in **Series 7000** using a patented wafer design feature where rotor contacts are on the front, and switching contacts are on the rear of the same deck. 1 to 4 poles per deck 1 to 6 decks, standard.

Up to 8 poles per dual-duty deck are available in **Series 5000** which has up to 12 contacts including common on the front, and up to 12 contacts including common on the rear of the same deck. 1 to 4 poles on each side of dual-duty decks; 1 to 4 decks, standard.

THREE ROTARY TYPES — Both Basic Series are made in 3 types: **MILITARY STYLE SR05,** numbered for specific performance levels of MIL-S-3786B; **V TYPE,** of similar construction to SR05, but not ordinarily subjected to full military test procedures; and X TYPE, using the same materials as V type switches, but intended as replacements for previous models or as original components for non-military devices where requirements are similarly exacting.

LEVER SERIES (L Types) — Made as VL-7000 or VL-5000 Series, 1 to 4 decks. Illustrated on preceding page.

KNOBS — Supplied with individually boxed switches on V and X types; not supplied on SR05 because separate military specification applies.

DIFFERENCES BETWEEN SRO5 MILITARY, V, and X — Switches other than X types use extra rugged index mechanisms and rotor construction.

ITEM	X-7000 X-5000	V-7000 V-5000	MIL-S-3786B V-7000 SRO5 V-5000 SRO5
Terminals	Hole-type not bent	Hole-type not bent	Hole-type; may be bent at 75° ±15°
Shaft Bushing	⅛" dia. ¼"-32NEF-2A, ¼" long	¼" dia. ⅜"-32NEF-2A, ⅜" long	¼" dia. only ⅜"-32NEF-2A, ⅜" long
Rear Bridge	Black Identification	Red Identification	Stainless steel, full number
Non-Turn Device	Normally supplied	Normally supplied	Supplied - Spec. requires

FOR ADDITIONAL MODELS AND FULL SPECIFICATIONS, ASK FOR BULLETINS SM-32D AND LAYOUT SHEETS WITH CONTACT ARRANGEMENTS.

MOST FREQUENTLY ORDERED MODELS

DECKS	Circ. (Poles) per Deck	Pos. per Pole	Shorting, Non-Shorting	SHAFT DIA.	V-TYPE OR X-TYPE Model	Price	SR05-TYPE Model	Price
ONE DECK	1	12	N-S	¼"	V-71121N	$4.90	V-71121N-SR05*	$5.25
	1	12	S	¼"	V-71121S	4.90	V-71121S-SR05*	5.25
	1	12	N-S	⅛"	X-71121N	4.70	—	—
	1	12	S	⅛"	X-71121S	4.70	—	—
	2	6	N-S	¼"	V-72061N	5.00	V-72061N-SR05*	5.35
	4	3	N-S	¼"	V-74031N	5.20	V-74031N-SR05*	5.50
ONE DUAL DUTY DECK	2	11	N-S	¼"	V-52111N	5.25	V-52111N-SR05*	5.60
	2	11	S	¼"	V-52111S	5.25	V-52111S-SR05*	5.60
	4	5	N-S	¼"	V-54051N	5.35	V-54051N-SR05*	5.70
	4	5	S	¼"	V-54051S	5.35	V-54051S-SR05*	5.70
	8	2	N-S	¼"	V-58021N	5.55	V-58021N-SR05*	5.90
TWO DECKS	1	12	N-S	¼"	V-71122N	6.75	V-71122N-SR05*	7.2
	1	12	S	¼"	V-71122S	6.75	V-71122S-SR05*	7.2
	1	12	N-S	⅛"	X-71122N	6.45	—	—
	2	6	N-S	¼"	V-72062N	6.95	V-72062N-SR05*	7.4
	4	3	N-S	¼"	V-74032N	7.40	V-74032N-SR05*	7.8
TWO DUAL DUTY DECKS	2	11	N-S	¼"	V-52112N	8.10	V-52112N-SR05*	8.6
	2	11	N-S	⅛"	X-52112N	7.75	—	—
	4	5	N-S	¼"	V-54052N	8.30	V-54052N-SR05*	8.8
THREE DECKS	1	12	N-S	¼"	V-71123N	8.85	V-71123N-SR05*	9.4
	2	6	N-S	¼"	V-72063N	9.15	V-72063N-SR05*	9.7
	4	3	N-S	¼"	V-74033N	9.85	V-74033N-SR05*	10.4
FOUR DECKS	1	12	N-S	¼"	V-71124N	11.95	V-71124N-SR05*	12.7
	1	12	N-S	⅛"	X-71124N	11.40	—	—
SIX DECKS	1	12	N-S	¼"	V-71126N	16.05	V-71126N-SR05*	17.1
ONE DECK	4	3	N-S	—	VL-74031N	$5.15	Levers not in Specs.	
DECK	2	3	N-S	—	VL-72031N	5.05	" " " "	
LEVER	8	2	N-S	—	VL-58021N	5.35	" " " "	

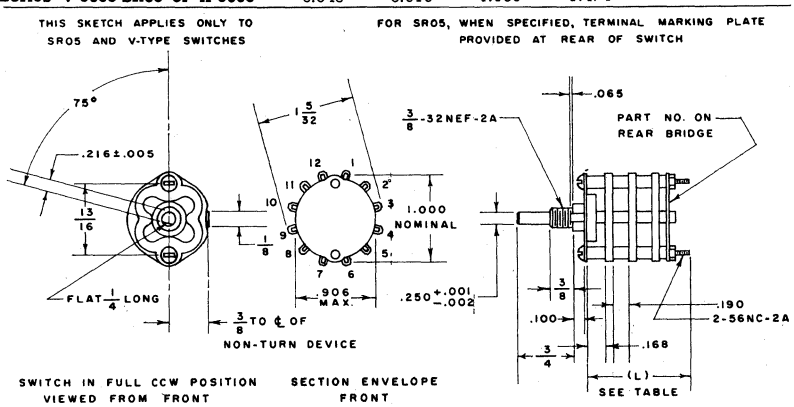
* Typical MIL-S-3786B complete number is V-71121N-SRO5N30C3MGC, unless specifically ordered otherwise. Temperature-Life Characteristic C also qualifies for Characteristics A and B; Vibration Grade Symbol 3 also qualifies for Symbols 1 and 2; Shock Type M, medium impact, normally supplied. Shock Type H available on some models when so ordered. Altitude C covers up to 70,000 ft., also meets Characteristic O (up to 10,000 ft.)

SPECIFICATIONS & TEST DATA ON SR05 MILITARY STYLE

NOTE: Most of the values shown here are given in the Specification and do not indicate the extent to which the test results of J-B-T switches were more favorable.
Current-carrying capacity: 5 amps at standard ambient conditions.
Current-breaking capacity: 750 MA at 30 VDC; 300 MA at 120 VDC; 1 AMP at 115 VAC Non-Inductive.
Initial Contact Resistance: .005 ohms max.
Contact Resistance: To MIL-STD-202C, Method 307, which requires Initial — 10 milliohms; After Moisture Resistance Test — 15 milliohms; After Life Test — 20 milliohms.
Materials: Terminals (double-wiping): gold-plated 90% silver alloy. **Rotor Contact:** J-B-T #1800 Silver Alloy. **Shaft & Frame:** Stainless steel, passivated.
Insulation: Wafer, glass epoxy laminate to MIL-P-18177C Type GEB, NEMA G-11; Rotor, ceramic to MIL-I-10A, Grade L-623.
Life Rotational; Temperature-Life Characteristic C, 25,000 rotational cycles at 10 cpm, Temperature —65°C to +125°C; 25,000 cycles at 70,000', room ambient temperature.
Vibration: Grade 3 of Table III MIL-S-3786B, 10 to 2000 cps. Tested in accordance with MIL-STD-202C, Method 204, Test Condition B.
SHOCK: Shock Type M, Medium Impact per Table IV, MIL-S-3786B. Tested in accordance with MIL-STD-202C, Method 205. Mating contacts did not open for more than 10 microseconds. Shock Type H, High Impact, Method 207, specifies not more than 5 milliseconds and does not automatically cover Type M Impact.

MAXIMUM DEPTH (L) BEHIND PANEL, INCHES

	1-Deck	2-Decks	3-Decks	4-Decks	5-Decks	6-Decks
Series V-7000-SR05 or X-7000	0.640	0.918	1.196	1.474	1.752	2.030
Series V-5000-SR05 or X-5000	0.640	0.918	1.196	1.474	—	—



STYLE SR05, V-7000 AND V-5000

Prices Net, F.O.B. Factory; Individually Boxed, Domestic Packed, Effective January 1, 1966

© U.C.P., Inc.

J-B-T
28th Year

TOGGLE SWITCHES — HEAVY DUTY

J-B-T INSTRUMENTS, INC.

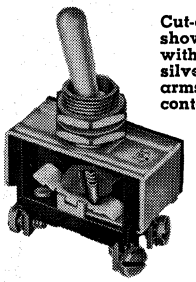
SINGLE-, DOUBLE-, AND 4-POLE — MIL, AN, AND JAN TYPES

Series MS25068, MS35058, and MS35059 to MIL-S-3950B Series ST40A-H, ST42A-H ST50K-T, ST52K-T to JAN-S-23, MIL-S-21195A (Ships), or DDAX Drawings

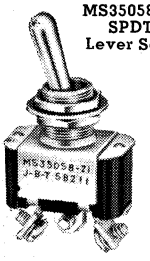
WHY IT PAYS TO SPECIFY J-B-T

J-B-T concentrates on trouble-free switches. Among its six families of toggle switches J-B-T produces more than 170 models made to Government Specifications. Market studies indicate that while these switches are a must in military applications, almost half are produced for non-military use where the principal requirement is dependability. J-B-T apparently is specified because:

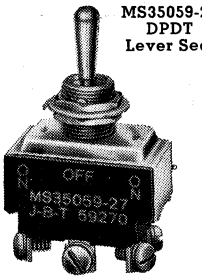
1. **Materials are good.** For instance, J-B-T is the only manufacturer of MIL and AN heavy-duty models regularly using solid **coin silver contacts** and rocker arms — to add overload protection and keep contact resistance under .005 ohms.
2. **The design is good.** All MS models have silicone rubber bushing seal for sand, dust and 15-foot head of water submersion tests. Medium-duty types MS25098 and MS25100 also feature case-to-terminal sealing and a new design which provides fast break and wider gap to surpass the 125 VDC endurance tests of MIL-S-3950B.
3. **The value is good.** The many features required to meet Government standards, and J-B-T's rigid in-plant testing pay off in long, useful life. Nevertheless, because J-B-T makes **only** quality switches, quantity production permits a surprisingly small price differential over run-of-the-mill types.
4. **Deliveries are relatively good.** See your distributor. Production is scheduled to back up his stocks with factory inventory of finished switches and work in process to meet predictable demand.



Cut-away view showing model with solid coin silver rocker arms and contacts



MS35058-21
SPDT
Lever Seal



MS35059-27
DPDT
Lever Seal

MIL-S-3950B SERIES — Single-pole MS35058 with suffix —21 and above, and double-pole MS35059 types with suffix —21 and above are recommended when maximum reliability is required. Temperature, endurance, and altitude requirements exceed earlier MS types (suffix —1 to —19), AN3021 and AN3027 switches to MIL-S-6745, and ST styles to JAN-S-23 and MIL-S-21195A(Ships). All MS switches contain a silicone rubber bushing seal to meet sand and dust and 15-foot head of water submersion tests.

NOMINAL RATINGS: 20 Amp. at 125 VAC, 10 Amp. at 250 VAC.

SIZE: Single-hole; bushing 15/32" 32NS-2A by 15/32" high; toggle lever, 11/16" long. Bodies including terminals: **SP:** 1-1/8" x 5/8" x 1-1/16" deep; **DP:** 1-21/64" x 3/4" x 1-1/32" or 1-13/64" deep.

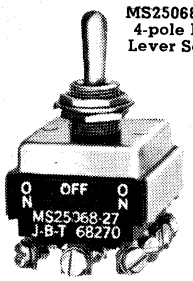
TERMINALS: MIL-S-3950B switches have solderable 6-32 screw terminals; ST40's and ST50's, screw terminals; ST42's and ST52's, solder lugs.

SINGLE AND DOUBLE POLE HEAVY DUTY WITH LEVER SEAL					
MIL-S-3950B	Model No.	2-9☆	10-29	30-99	100-249
SPST — 2 term.					
On-X-Off	MS35058-22	$1.76	$1.32	$1.08	$ .88
On-Off-X	MS35058-24	1.83	1.37	1.12	.92
On-Off*-X	MS35058-25	2.09	1.57	1.28	1.04
X-Off-On*	MS35058-28	2.10	1.57	1.28	1.05
On-X-Off*	MS35058-29	2.01	1.51	1.23	1.00
Off-X-On*	MS35058-30	2.01	1.51	1.23	1.00
SPDT — 3 term.					
On-Off-On	MS35058-21	2.09	1.57	1.28	1.04
On-X-On	MS35058-23	2.09	1.57	1.28	1.04
On-X-On*	MS35058-26	2.25	1.69	1.38	1.12
On*-Off-On*	MS35058-27	2.25	1.69	1.38	1.12
On-Off-On*	MS35058-31	2.30	1.72	1.41	1.15
DPST — 4 term.					
On-X-Off	MS35059-22	1.98	1.81	1.44	1.16
On-Off-X	MS35059-24	1.98	1.81	1.44	1.16
On-Off*-X	MS35059-25	2.62	2.39	1.90	1.53
X-Off-On*	MS35059-28	2.45	2.24	1.78	1.44
On-X-Off*	MS35059-29	2.45	2.24	1.78	1.44
Off-X-On*	MS35059-30	2.30	2.10	1.67	1.35
DPDT — 6 term.					
On-Off-On	MS35059-21	2.30	2.10	1.67	1.35
On-X-On	MS35059-23	2.30	2.10	1.67	1.35
On-X-On*	MS35059-26	2.62	2.39	1.90	1.53
On*-Off-On*	MS35059-27	2.62	2.39	1.90	1.53
On-Off-On*	MS35059-31	2.62	2.39	1.90	1.53

For Notes to Tables see next page.

SINGLE AND DOUBLE POLE HEAVY DUTY					
JAN-S-23	Model No.	2-9☆	10-29	30-99	100-249
SPST — 2 term.					
On-X-Off	ST40A	$1.44	$1.08	$ .93	$ .75
On-X-Off*	ST40B	1.61	1.21	1.04	.83
Off-X-On*	ST40C	1.61	1.21	1.04	.83
SPDT — 3 term.					
On-X-On	ST40D	1.73	1.30	1.11	.90
On-Off-On	ST40E	1.73	1.30	1.11	.90
On-X-On*	ST40F	1.90	1.43	1.23	.99
On*-Off-On*	ST40G	1.90	1.43	1.23	.99
On-Off-On*	ST40H	1.90	1.43	1.23	.99
SPST — 2 term.					
On-X-Off	ST42A	1.35	1.01	.81	.66
On-X-Off*	ST42B	1.50	1.13	.90	.73
Off-X-On*	ST42C	1.50	1.13	.90	.73
SPDT — 3 term.					
On-X-On	ST42D	1.60	1.20	.96	.78
On-Off-On	ST42E	1.60	1.20	.96	.78
On-X-On*	ST42F	1.79	1.34	1.08	.87
On*-Off-On*	ST42G	1.79	1.34	1.08	.87
On-Off-On*	ST42H	1.79	1.34	1.08	.87
DPST — 4 term.					
On-X-Off	ST50K	1.82	1.36	1.14	.91
On-X-Off*	ST50L	2.13	1.60	1.33	1.06
Off-X-On*	ST50M	2.13	1.60	1.33	1.06
DPDT — 6 term.					
On-X-On	ST50N	2.13	1.60	1.33	1.06
On-Off-On	ST50P	2.13	1.60	1.33	1.06
On-X-On*	ST50R	2.42	1.82	1.52	1.21
On*-Off-On*	ST50S	2.42	1.82	1.52	1.21
On-Off-On*	ST50T	2.42	1.82	1.52	1.21
DPST — 4 term.					
On-X-Off	ST52K	1.66	1.24	1.04	.83
On-X-Off*	ST52L	1.85	1.39	1.16	.92
Off-X-On*	ST52M	1.85	1.39	1.16	.92
DPDT — 6 term.					
On-X-On	ST52N	1.85	1.39	1.16	.92
On-Off-On	ST52P	1.85	1.39	1.16	.92
On-X-On*	ST52R	2.15	1.61	1.35	1.08
On*-Off-On*	ST52S	2.15	1.61	1.35	1.08
On-Off-On*	ST52T	2.15	1.61	1.35	1.08

OUTSTANDING 4-POLE SWITCHES TO MS25068 REQUIREMENTS



MS25068-27
4-pole DT
Lever Seal

●There is no mistaking the light brown color and silver printing of these distinctive J-B-T 4-pole heavy-duty switches. The superior molded body, chosen after extensive tests, features high arc resistance and low shrinkage. As a result the switches exceed the rigorous electrical endurance requirements of MS25068.

Equally important, the internal construction uses rocker arms and contacts made of solid coin silver (not clad or brazed). The 8 models listed here have silicone rubber bushing seals and solderable 6-32 screw terminals, the same as other heavy-duty J-B-T MS switches. Dimensions same as MS35059 above except bodies including terminals: 1-11/32" long, 1-9/16" wide, 1-9/32" deep.

4-POLE HEAVY DUTY WITH LEVER SEAL					
MIL-S-3950B	Model No.	2-9☆	10-29	30-99	100-249
4PST — 8 term.					
On-Off-X	MS25068-24	$4.50	$3.54	$2.98	$2.47
On-Off*-X	MS25068-25	5.30	4.18	3.51	2.92
X-Off-On*	MS25068-28	5.30	4.18	3.51	2.92
4PDT — 12 term.					
On-Off-On	MS25068-21	5.22	4.11	3.46	2.87
On-X-On	MS25068-23	5.30	4.18	3.51	2.92
On-X-On*	MS25068-26	5.63	4.44	3.73	3.10
On*-Off-On*	MS25068-27	5.63	4.44	3.73	3.10
On-Off-On*	MS25068-31	5.63	4.44	3.73	3.10

Other MS25068 Numbers: Models with suffix -1 through -13 as set forth in MIL-S-3950 are superseded by MIL-S-3950 Revision B Types. The latter are interchangeable electrically and mechanically but meet additional performance standards above the former types. Specifically, **MS25068-1** has become MS25068-21; **-3** now -23; **-5** now -31; **-7** now -27; **-10** now -26; **-11** now -24; **-12** now -28; **-13** now -25.

Prices shown are NET, F.O.B. Factory, domestic packing, Revised September 15, 1966, subject to change.

© U.C.P., Inc.

TOGGLE SWITCHES — MEDIUM DUTY & CROSS-REFERENCE

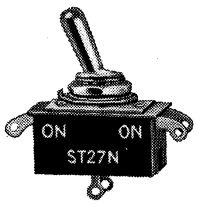
J-B-T INSTRUMENTS, INC.

28th Year

SINGLE & DOUBLE POLE — GOVERNMENT QUALITY

Series MS25098 and MS25100 to MIL-S-3950B; Series ST12-27 to JAN-S-23, MIL-S-21195A(Ships), or DDAX Drawings.

MS25100-23 DPDT Rear Connected Lever Seal



ST27N, DPDT Side and Rear Connected ¼" Bushing

● **MEDIUM DUTY** describes the current-carrying capacity—nominally 6 amp. at 125 VAC, 3 amp, at 250 VAC —rather than the life characteristics. Self-wiping heavily silver-plated double-grip contacts provide exceptional reliability. Typical uses: instruments, data processing, and communications circuits.

NEW DESIGN FOR MS25098 & MS25100—Significant internal changes now provide fast break, wide gap, and increased insulation values, to surpass the severe endurance tests of MIL-S-3950B. For example, after 20,000 cycles of operation at 65,000' altitude with resistive load of 5 amps. at 125 VDC, contact resistance was well within the permissible limits. This development is especially important for the double-throw models MS25098-23 and MS25100-23. All MS medium-duty models contain: (a) silicone rubber bushing seal for sand, dust, and 15-foot head of water submersion tests, and (b) case-to-terminal sealing.

SIZE AND TERMINALS — Whether MS series to latest MIL-S-3950B, or ST series to Specification JAN-S-23 and MIL-S-21195A(Ships), all have solder terminals. Medium-duty types use 11/16" long, toggle lever, bushing 15/32"-32NS-2A by 15/32" (or 1/4"). Bodies including terminals are: 1-1/4" long, 11/16" wide, 29/32" deep, except ST16, —17, —26, —27 are 1-3/4" long and 21/32" deep.

SINGLE AND DOUBLE POLE MEDIUM DUTY WITH LEVER SEAL

MIL-S-3950B	Model No.	2-9☆	10-29	30-99	100-249
SPST — 2 term.					
On-X-Off	MS25098-22	$1.48	$1.18	$1.11	$1.03
On-X-Off*	MS25098-29	1.90	1.52	1.43	1.33
Off-X-On*	MS25098-30	1.90	1.52	1.43	1.33
SPDT — 3 term.					
On-X-On	MS25098-23	1.69	1.35	1.27	1.18
DPST — 4 term.					
On-X-Off	MS25100-22	2.12	1.69	1.59	1.48
On-X-Off*	MS25100-29	2.47	1.97	1.85	1.73
Off-X-On*	MS25100-30	2.47	1.97	1.85	1.73
DPDT — 6 term.					
On-X-On	MS25100-23	2.30	1.84	1.72	1.61

SINGLE AND DOUBLE POLE MEDIUM DUTY

JAN-S-23	Model No.	2-9★	10-29	30-99	100-249
SPST — 2 term.					
On-X-Off	ST12A	$ .98	$ .78	$ .73	$ .68
On-X-Off*	ST12B	1.11	.89	.83	.78
Off-X-On*	ST12C	1.11	.89	.83	.78
On-X-Off	ST13A	.98	.78	.73	.68
On-X-Off	ST16A	.98	.78	.73	.68
On-X-Off*	ST16B	1.11	.89	.83	.78
Off-X-On*	ST16C	1.11	.89	.83	.78
On-X-Off	ST17A	.98	.78	.73	.68
SPDT — 3 term.					
On-X-On	ST12D	1.11	.89	.83	.78
On-X-On	ST13D	1.11	.89	.83	.78
On-X-On	ST16D	1.11	.89	.83	.78
On-X-On	ST17D	1.11	.89	.83	.78
DPST — 4 term.					
On-X-Off	ST22K	1.34	1.08	1.01	.95
On-X-Off*	ST22L	1.48	1.19	1.11	1.04
Off-X-On*	ST22M	1.48	1.19	1.11	1.04
On-X-Off	ST23K	1.34	1.08	1.01	.95
On-X-Off	ST26K	1.34	1.08	1.01	.95
On-X-Off*	ST26L	1.48	1.19	1.11	1.04
Off-X-On*	ST26M	1.48	1.19	1.11	1.04
On-X-Off	ST27K	1.34	1.08	1.01	95
DPDT — 6 term.					
On-X-On	ST22N	1.48	1.19	1.11	1.04
On-X-On	ST23N	1.48	1.19	1.11	1.04
On-X-On	ST26N	1.48	1.19	1.11	1.04
On-X-On	ST27N	1.48	1.19	1.11	1.04

NOTES TO TABLES: ★ On orders for single switches, add 50c, except single MS25068 switches add $1.00. X No position; * Momentary position; † Bushing ¼" high; ‡ Side connected terminals. Ask for Bulletin TS-6D concerning additional models and full technical data.

CROSS REFERENCE: AN, MS, AND ST MODEL NUMBERS WITH SIMILAR CIRCUITRY

SCREW TERMINAL				SOLDER LUG	
MIL-S-3950B See Notes A & B	JAN-S-23 & MIL-S-21195A	MIL-S-6745 See Note A	MIL-S-3950 See Notes A & B	JAN-S-23 & MIL-S-21195A (Ships)	MIL-S-3950 See Note A
SPST				**SPST**	
MS35058-22	ST40A	AN3021-2	#	ST42A	MS35058-9
MS35058-29	ST40B	AN3021-9	#	ST42B	MS35058-10
MS35058-30	ST40C	AN3021-8	#	ST42C	MS35058-11
MS35058-24	#	AN3021-10	MS35058-1	#	MS35058-12
MS35058-28	#	AN3021-11	MS35058-2	#	MS35058-13
MS35058-25	#	AN3021-12	MS35058-3	#	MS35058-14
SPDT				**SPDT**	
MS35058-23	ST40D	AN3021-3	MS35058-4	ST42D	MS35058-15
MS35058-21	ST40E	AN3021-1	MS35058-5	ST42E	MS35058-16
MS35058-26	ST40F	#	MS35058-6	ST42F	MS35058-17
MS35058-27	ST40G	AN3021-7	MS35058-7	ST42G	MS35058-18
MS35058-31	ST40H	AN3021-5	MS35058-8	ST42H	MS35058-19
#	#	AN3021-6†	#	#	#

SCREW TERMINAL				SOLDER LUG	
MIL-S-3950B See Notes A & B	JAN-S-23 & MIL-S-21195A	MIL-S-6745 See Note A	MIL-S-3950 See Notes A & B	JAN-S-23 & MIL-S-21195A (Ships)	MIL-S-3950 See Note A
DPST				**DPST**	
MS35059-22	ST50K	AN3027-2	#	ST52K	MS35059-9
MS35059-29§	ST50L	AN3027-4§	#	ST52L	MS35059-10§
MS35059-30§	ST50M	AN3027-5§	#	ST52M	MS35059-11§
MS35059-24	#	AN3027-9	MS35059-1	#	MS35059-12
MS35059-28	#	AN3027-11	MS35059-2	#	MS35059-13
MS35059-25§	#	AN3027-10§	MS35059-3§	#	MS35059-14§
DPDT				**DPDT**	
MS35059-23	ST50N	AN3027-3	MS35059-4	ST52N	MS35059-15
MS35059-21	ST50P	AN3027-1	MS35059-5	ST52P	MS35059-16
MS35059-26§	ST50R	AN3027-6§	MS35059-6§	ST52R	MS35059-17§
MS35059-27	ST50S§	AN3027-7§	MS35059-7§	ST52S§	MS35059-18§
MS35059-31§	ST50T§	AN3027-8§	MS35059-8§	ST52T§	MS35059-19§

 # Not included in this specification. † AN3021-6 same as AN3021-5 with jumper. § Same dimensions as MS35059-27.

NOTE A: MS and AN types use internal sand and dust toggle seal and other high performance features involving extra cost over ST types. MS types to MIL-S-3950B have internal toggle seal to meet 15 ft. water submersion test. MIL-S-3950 models are superseded by MIL-S-3950B models.
NOTE B: For heavy-duty switches in the MS25068, MS35058, and MS35059 Series, MIL-S-3950B calls for SCREW TERMINALS ONLY. These terminals have SOLDERABLE FINISH and may be soldered after removal of screw.

UL IDENTIFICATION AND RATINGS: HEAVY DUTY AND MEDIUM DUTY

Underwriters' Laboratories, Inc. lists under "Switches, Special Use" (File E26557) models marked with the J-B-T part number shown below. In some instances, there are minor construction differences from ST switches, but the ratings and external dimensions are the same. UL-marked types are not regularly stocked but only are manufactured in substantial production runs.

Heavy Duty—Single Pole JBT/UL Part No.**	ST Circuit Equivalent	Rating*	Heavy Duty—Double Pole JBT/UL Part No.**	ST Circuit Equivalent	Rating*	Medium Duty—Single Pole JBT/UL Part No.**	ST Circuit Equivalent	Rating*	Medium Duty—Double Pole JBT/UL Part No.**	ST Circuit Equivalent	Rating*
401	ST40A	A	501	ST50K	A	121	ST12A	B	221	ST22K	B
402	ST40B	A	502	ST50L	A	122	ST12B	B	222	ST22L	B
403	ST40C	A	503	ST50M	A	123	ST12C	B	223	ST22M	B
404	ST40D	A	504	ST50N	A	124	ST12D	C	224	ST22N	B
405	ST40E	A	505	ST50P	A	131	ST13A	B	231	ST23K	B
406	ST40F	A	506	ST50R	A	134	ST13D	C	234	ST23N	B
407	ST40G	A	507	ST50S	A	161	ST16A	B	261	ST26K	B
408	ST40H	A	508	ST50T	A	162	ST16B	B	262	ST26L	B
421	ST42A	A	521	ST52K	A	163	ST16C	B	263	ST26M	B
422	ST42B	A	522	ST52L	A	164	ST16D	C	264	ST26N	B
423	ST42C	A	523	ST52M	A	171	ST17A	B	271	ST27K	B
424	ST42D	A	524	ST52N	A	174	ST17D	C	274	ST27N	B
425	ST42E	A	525	ST52P	A						
426	ST42F	A	526	ST52R	A						
427	ST42G	A	527	ST52S	A						
428	ST42H	A	528	ST52T	A						

****NOTE:** Above model numbers are basic ones for any given type and circuit. Variations, such as length of lever, have a suffix letter "J" and added suffix numbers.

***Ratings**

Rating **A**

10 amps, 250 VAC
20 amps, 125 VAC
¾ H.P., 250 VAC
½ H.P., 125 VAC

Rating **B**

3 amps, 250 VAC-DC
6 amps, 125 VAC-DC

Rating **C**

1 amp, 250 VAC-DC
3 amps, 125 VAC-DC

Prices shown are NET, F.O.B. Factory, domestic packing, Revised September 15, 1966, subject to change.

© U.C.P., Inc.

J-B-T
28th Year

TOGGLE SWITCHES—MEDIUM DUTY AND MINIATURE

J-B-T INSTRUMENTS, INC.

New SINGLE & DOUBLE POLE — MINIATURE

MANUFACTURED IN CONNECTICUT by J-B-T, the miniature types illustrated make up the firm's 6th and newest family of toggle switches. Series JMT combines drastic reduction in size and weight with the trouble-free construction which characterizes standard size J-B-T switches. Primarily designed for manually controlled, low-current, solid-state devices and miniaturized circuitry for computers, instruments, space, geophysical, and test apparatus, these tiny switches also have application in aircraft, communications, and electronic equipment, and portable products.

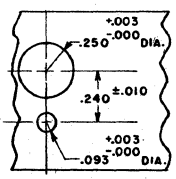
Made with a distinctive **green** body single-pole types are ¼" thin, double-pole types less than ½" square. Both use single-hole mounting with ¼" threaded ...ng which will not turn or work loose in the J-B-T surface plate. Stringent in- ... controls assure terminals that are firmly staked and will withstand repeated ...ring.

...CIFICATIONS

Nominal Rating	5 Amp. resistive load, 125 VAC and 24 VDC
Initial Contact Resistance	5 Milliohms max. 3 VDC, 100 Milliamps.
	10,000 Megohms, min.
Dielectric Strength	1,000 volts rms at sea level
Life Under Load	100,000 make-and-break cycles, min.
Weight, Including Hardware	SPDT, 0.19 oz.; DPDT, 0.23 oz.
Dimensional Details	Single pole per Print SK-157
	Double pole per Print SK-158

...ERIALS: Switching contacts and rockers are coin silver; center terminal silver-plated. ...andle is bright chrome-plated brass. Case and cradle are molded of colored phenolic. ...ng, locking ring, and hex nuts are brass nickel-plated. Clamp and lockwasher are ... of steel nickel-plated.

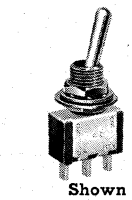
...WARE & MOUNTING
...ting hardware supplied consists of one locking ring W-RI-12, ...ex nuts, W-NU-11, one internal tooth lockwasher, W-WA-16.
...TION OF MOVEMENT — All JMT single pole and double pole make continuity to terminal **OPPOSITE** throw of lever.



MOUNTING INFORMATION — When mounting switch with locking ring, use drill procedure illustrated.

†COLOR CAPS — Switches are normally supplied with bat handles. For color coding, tight-grip insulator caps are available for easy attachment before or after switches are mounted. Specify color and part number:

White	**— W-CAP-10A**	**Black**	**— W-CAP-10D**	**Green**	**— W-CAP-10H**
Blue	**— W-CAP-10B**	**Brown**	**— W-CAP-10E**	**Violet**	**— W-CAP-10I**
Red	**— W-CAP-10C**	**Orange**	**— W-CAP-10F**	**Gray**	**— W-CAP-10J**
		Yellow	**— W-CAP-10G**		



MODEL JMT-123
Shown approximately three-quarter size.
with bat handle **with color cap†**

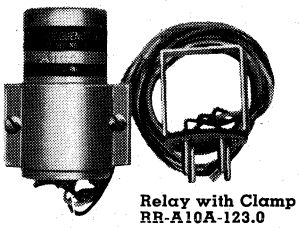
MODEL JMT-223
Shown approximately three-quarter size.
with bat handle **with color cap†**

SINGLE AND DOUBLE POLE MINIATURE

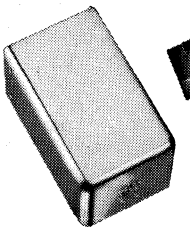
	Model No.	2-9§	10-29	30-99
SPDT — 3 term.				
On-Off-On	**JMT-121**	**$1.95**	**$1.43**	**$1.30**
On-None-On	**JMT-123**	**1.65**	**1.21**	**1.10**
On-None-On*	**JMT-126**	**1.95**	**1.43**	**1.30**
On*-Off-On*	**JMT-127**	**2.10**	**1.54**	**1.40**
On-Off-On*	**JMT-131**	**2.10**	**1.54**	**1.40**
DPDT — 6 term.				
On-Off-On	**JMT-221**	**$2.55**	**$1.87**	**$1.70**
On-None-On	**JMT-223**	**2.15**	**1.58**	**1.43**
On-None-On*	**JMT-226**	**2.55**	**1.87**	**1.70**
On*-Off-On*	**JMT-227**	**2.70**	**1.98**	**1.80**
On-Off-On*	**JMT-231**	**2.70**	**1.98**	**1.80**

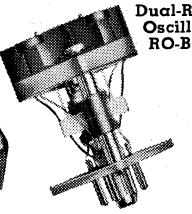
*Momentary position §On orders for single switches, add 50¢

RESONANT REED RELAYS AND OSCILLATOR CONTROLS

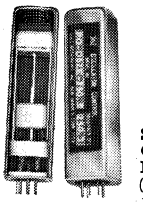


Relay with Clamp
RR-A10A-123.0

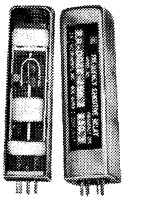




Dual-Reed Oscillator Control
RO-B10B-188.0



Relay
RR-DO2E-250.3
(Vibration-Isolated)
in All Planes)



Single-Reed Oscillator Control
RO-D62E-250.3
(Vibration-Isolated
in All Planes)

Applications: selective-calling mobile communication equipment, remote data transmission, and simultaneous or sequential coding and decoding.

For further data, ask for Bulletins 162-R and D664A. Inquiries also are invited on newly-developed miniature combination relay-oscillator type MRO-B12, 1.10" x .79" x .56" high.

J-B-T frequency-sensitive electro-mechanical relays (decoders) are highly stable control devices. They intermittently make and break contacts when a signal of the same frequency as the tuned reed is received. Although the reed has a high Q, the bandwidth at which the relay responds will be proportional to the input signal level.
RR-A11- and RR-A10 types are round, 4-pin plug-in relays, used primarily on existing mobile equipment.

RO-B Oscillator Controls (sometimes known as tone generators or encoders) are dual-reed units internally shock mounted and of sealed construction. These units control the frequency of oscillation in vacuum tube or transistor oscillator circuits. The RO-B type oscillator control is recommended where accurate and stable AC signals are required.

RR-D types are internally shock-mounted resonant reed relays, which are square, sealed units with 7-pin miniature plug. They now are the most widely used J-B-T relays.

RO-D types are single-reed, internally shock mounted oscillator controls for applications where space saving is of importance. Dimensionally they are identical to RR-D relays.

TYPICAL REED RELAY AND OSCILLATOR CONTROL SPECIFICATIONS

Model	Enclosure	Mounting & Connections	Frequency Range CPS	DC Coil Resistance (Standard)	Accuracy to	Change per °C —40° to + 100°C	Individually Boxed
RR-A-10A-Reed Relay	1" round x 2" long	Clamp & Harness* 4 Pin Fits Cinch Socket #9804	67 to 600	200 ohms	±0.3%	±0.005 %	**$15.00****
RR-A11A-Reed Relay	1" round x 2" long	Plug In 4 Pin Fits Cinch Socket # 9804	67 to 600	200 ohms	±0.3%	±0.005 %	**14.50****
RR-DO2E-Reed Relay	25/32" sq. x 3 1/32" lg sealed	7 Pin Miniature Plug In	67 to 1600	600 ohms	±0.1%	±0.0025%	**19.00****
RO-B10B-Oscillator Control†	1 33/64" sq x 2 1/16" long sealed	Octal Plug In	67 to 600	2200 ohms/coil	±0.1%	±0.003 %	**26.00****
RO-D62E-Oscillator Control	25/32" sq. x 3 1/32" lg sealed	7 Pin Miniature Plug In	67 to 1600	600 ohms	±0.1%	±0.0025%	**18.00****

*** Supplied with 2-piece clamp and 4-wire cable terminated in a 4-pin base.** **** Specify frequency with order.** **† Dual reed construction.**

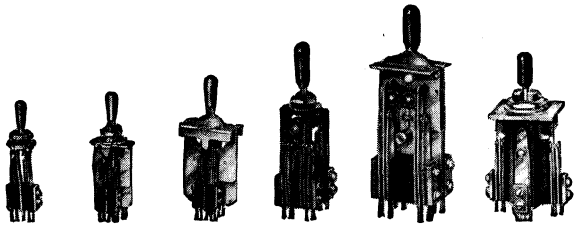
Prices Net, F.O.B. Factory; Individually Boxed, Domestic Packed, Effective January 1, 1966

J-B-T INSTRUMENTS, INC. Electrical Instruments, Testers, Switches and Other Components

For other J-B-T Products, see Sec. 2900

© U.C.P., Inc.

A complete line of LEVER SWITCHES by GENERAL CONTROL COMPANY



MCS MCT-1 MCT-4 MCM MCL MFM

RATINGS

Type	Amps.*	High	Wide	Long**
MCS	1 or 3	7/8"	7/8"	2-1/16"
MCT-1	1 or 3	1 1/4"	3/4"	2-5/16"
MCT-4	1 or 3	1 1/2"	3/4"	2-17/32"
MCM	5	1 1/4"	1 1/4"	2-25/32"
MCL	10	1 3/4"	1 3/8"	3-15/16"
MFM	5	1 3/4"	1 3/4"	3"

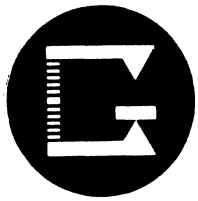
*125 volts, 60 cycles, non-inductive.
**From back panel to end of terminals.

Write for data Sheet CLRM

LEVER OPERATION

Symbol: Lock (Stays put)	Symbol: Non-lock Spring return	Three-Position			Two-Position	Half Throw	Two-Position	Full Throw
Designation	MCS	S1	*S2	S3	*S4	*S5		
	MCT1 MCS4	T1	*T2	T3	*T4	*T5		
	MCM	M1	*M2	M3	*M4	*M5	M6	*M7
	MCL	L1	*L2	L3	*L4	*L5		

*Lock and non-lock positions may be reversed. To reverse designate as RS2, RM4, RL5, etc.



SPECIAL MCM LEVER
(A) waterproof lever
$4.45 EACH, LIST

MFM

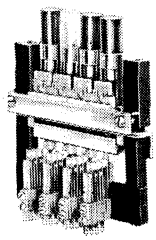
Description	Lock	Non-Lock		Four-Position
Symbol				
Operation				
Operation No.	M8	M9	M10	M11	M12

CONTACTS

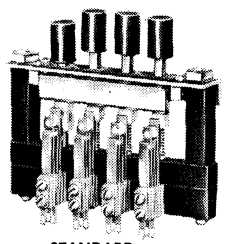
To obtain list price:— add contact prices to frame price.

Frame Types and Prices	Contact Forms / Circuit	A	B	C	D	E	F	G	H	O (No Contacts)
MS $ 1.80	MCS 1 amp.	0.55	0.55	0.65	*	—	0.65	—	0.65	—
	MCS 3 amp.	.65	.65	.80	*	—	.80	—	.80	—
MCT-4 $ 2.15	MCT-4 1 amp.	.55	.55	.65	.85	.95	.65	—	.65	—
	MCT-4 3 amp.	.65	.65	.80	1.00	1.12	.80	—	.80	—
MCT-1 $ 2.70	MCT-1 1 amp.	.55	.55	.65	.85	.95	.65	—	.65	—
	MCT-1 3 amp.	.65	.65	.80	1.00	1.12	.80	—	.80	—
MCM $ 4.00	MCM 5 amp.	.85	.85	1.00	1.25	1.60	1.00	1.00	1.00	—
MFM $18.50	MFM 5 amp.	.85	.85	1.00	1.25	1.60	1.00	1.00	1.00	—
MCL $ 5.40	MCL 10 amp.	1.25	1.25	1.45	1.75	2.70	1.45	1.45	1.45	—

PUSH-BUTTON SWITCHES by GENERAL CONTROL COMPANY



LIGHTED



STANDARD

SPS-LPS FRAME PRICES 5/8" or 3/4" Button Centers

BUTTONS		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
B12	SPS	$12.00	$14.15	$16.50	$19.40	$22.35	$25.25	$28.15	$31.10	$34.25	$37.45	$40.65	$43.85	$47.00	$ 50.20	$ 53.40
	LPS	21.30	26.50	31.80	38.00	44.20	50.45	56.65	62.85	70.45	77.20	85.55	90.75	97.50	104.30	111.05
B13	SPS	10.95	13.10	15.25	18.15	21.05	24.00	26.90	29.80	32.75	35.90	39.10	42.30	45.50	48.70	51.85
	LPS	20.25	25.45	30.50	36.75	42.95	49.15	55.40	61.60	69.20	75.95	84.25	89.50	96.25	103.00	109.80
B14	SPS	10.35	11.65	13.20	15.30	17.40	19.50	21.55	23.65	26.00	28.40	30.75	33.10	35.50	37.85	40.20
	LPS	19.65	24.05	28.50	33.90	39.25	44.65	50.05	55.45	62.50	68.40	74.35	80.30	86.25	92.20	98.10
B15	SPS	9.30	10.60	11.95	14.00	16.10	18.20	20.30	22.40	24.50	26.85	29.20	31.60	33.95	36.30	38.45
	LPS	18.60	23.00	27.25	32.60	38.00	43.40	48.80	54.20	60.95	66.90	72.80	78.75	84.70	90.65	96.60
B16	SPS	8.20	9.25	10.30	12.30	14.35	16.40	18.45	20.45	22.50	24.75	27.05	29.40	31.70	34.00	36.30
	LPS	17.50	21.60	25.60	30.90	36.25	41.60	46.90	52.25	58.95	64.80	70.70	76.55	82.45	88.35	94.20
B17	SPS	9.25	10.30	11.55	13.60	15.60	17.65	19.70	21.75	24.05	26.30	28.60	30.90	33.20	35.53	37.85
	LPS	18.55	22.65	26.85	32.20	37.50	42.85	48.20	53.50	60.50	66.35	72.20	78.10	84.00	89.90	95.75
B18	SPS	11.60	14.35	17.10	20.85	24.60	28.35	32.05	35.80	34.55	43.50	47.50	51.55	55.55	59.55	63.60
	LPS	20.90	26.75	32.40	39.45	46.50	53.50	60.55	67.60	76.00	83.55	91.15	98.75	106.30	113.90	121.50
B19	SPS	12.65	15.40	18.40	22.10	25.85	29.60	33.35	37.10	41.10	45.05	49.05	53.10	57.10	61.10	65.10
	LPS	21.95	27.80	33.65	40.70	47.75	54.80	61.80	68.85	77.55	85.10	92.70	100.25	107.85	115.45	123.00

Note: Additional frame operations available. Contact General Control.

OPERATIONS

B12 POSITIVE LOCK-IN LOCK-OUT
Only one button can be depressed at a time. The Momentary Release button must be actuated to release any previously depressed button before any other button can be actuated.

B13 ACCUMULATIVE LOCK
Buttons pushed in remain locked in position until released by pushing reset button.

B14 NO-TWO-INTERLOCK
Only one button can be pushed in at one time, and releases any other button.

B15 LOCK-RELEASE
Any button pushed in releases any previously pushed in button.

B16 NON-LOCK
Has no locking action; returns to normal position on release of finger pressure.

B17 NON-LOCK, NO-TWO-OPERATIVE
The same as B16 except that no two buttons can be operated simultaneously.

B18 PUSH-LOCK, PUSH-RELEASE
Any button depressed remains locked in until that button is depressed again.

B19 PUSH-LOCK, PUSH-RELEASE, (WITH LOCK-OUT)
This is the same as B18 except that only one button can be depressed at a time.

CONTACTS

CONTACT FORMS	A	B	C	D	H
1 amp silver	$0.55	$0.55	$0.65	$0.90	$0.65
3 amps paladium alloy	.65	.65	.80	1.05	.80
Direction of Throw				*	

Ratings at 125 volts A. C. n.i. * In place of a "D" contact we can offer a "C" contact adjusted to provide make before break operation.

WRITE FOR DATA SHEET SLRM

ORDERING INFORMATION

1. Frame Type	2. Operation	3. Contacts	4. Contact Location	5. Rating	6. Button Centers
SPS4	B14	A-C-2A-2C	TOP Mounted	3 amps.	5/8"
$13.20	—	.65+.80+1.30+1.60			= $17.55

"Footrol" FOOT SWITCHES

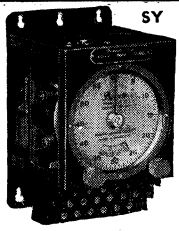
MA - $6.15

MI - $13.15

MC - $8.75

WRITE FOR BULLETIN FSRM

"Promatic" TIMERS

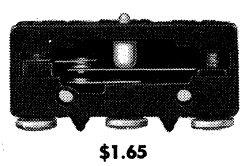


SY

WRITE FOR BULLETIN SRM

LIMIT SWITCHES

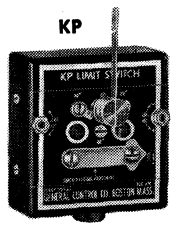
"Du.op" - DUS



$1.65

WRITE FOR BULLETIN KDRM

KP



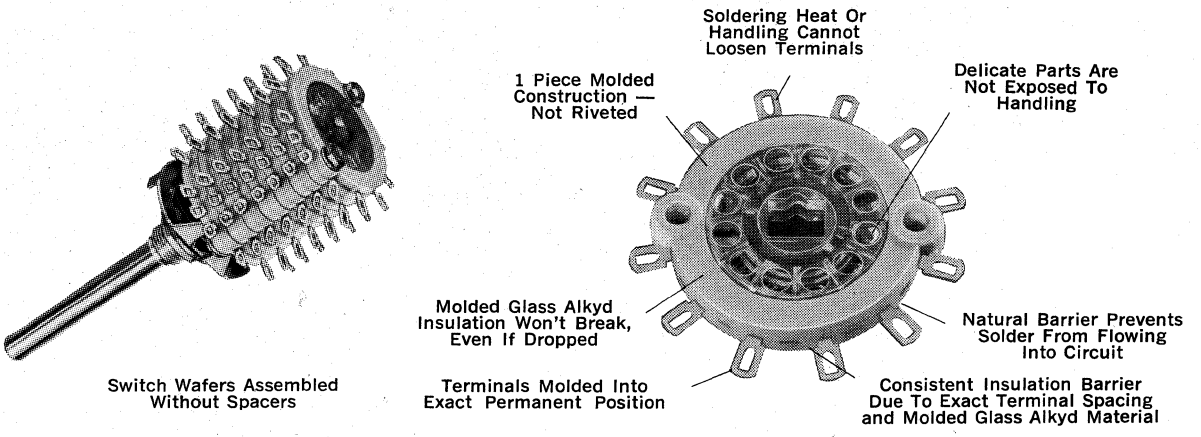
$14.00

GENERAL CONTROL COMPANY

*ALL PRICES SUBJECT TO 1962 DISCOUNT SCHEDULE

IRC-CTS ROTARY SELECTOR SWITCHES

IRC, Inc.



SELECTOR SWITCH UNIQUE 1-PIECE MOLDED WAFER PROVIDES HIGH RELIABILITY

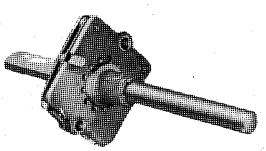
The new IRC-CTS design goes right to the heart of selector switch reliability . . . the wafer. Automated manufacture provides unprecedented uniformity. One-piece *molded* construction of the wafer virtually eliminates drift. In each production run, all switches are identical, terminal placement is exact and permanent. Machine exactness replaces human error and variation, eliminating wide tolerances and assuring high reliability.

- Compact 1 1/16" size design allows more circuitry per unit of depth behind panel.
- Rivet-free construction permits closer stacking.
- Superior insulation due to repetitive exactness in terminal spacing, and molded glass alkyd material.
- 1000% more silver than used by most commercial switches—evenly applied at point of contact.
- Rotor contacts are double-wiping and self-cleaning.
- Stator contacts are integral with terminals.
- Molded stator will not break or crush during ordinary handling, or if it is dropped.

GENERAL SPECIFICATIONS

	COMMERCIAL TYPE 212 SERIES	INDUSTRIAL-MILITARY TYPE M-212 SERIES
INSULATION:	Stator—Glass Alkyd Resin Rotor—Polycarbonate (Lexan)	Stator—Type MAI-30 per MIL-M-21699 Rotor—IL grade glass-filled nylon
STATOR CONTACTS AND TERMINAL LUG MATERIAL	Laminated silver movable contacts. Terminals and stator are brass, silver plated.	Military grade laminated silver. Silver plated movable contacts. Terminals and stator are brass, silver plated.
OPERATING TEMPERATURE:	85° C.	125° C.
DETENTS:	Index plate 30° between positions with one fixed and one adjustable stop.	Index plate 30° between positions with one fixed and one adjustable stop.
FINISH:	50-hour salt spray.	50-hour salt spray.
MOUNTING DETAILS:	Bushing—3/8"-32 thread, 3/8" long. Shaft—1/4" diameter round shaft, 1 7/8" beyond end of bushing. Hardware furnished.	Bushing—3/8"-32 thread, 3/8" long. Shaft—1/4" diameter round shaft, 1 7/8" beyond end of bushing. Hardware furnished.
MILITARY APPLICATIONS	Both types 212 and M-212 meet requirements of MIL-S-3786A, type SRO-3.	

EXCLUSIVE MILITARY GRADE CTS-IRC STARWHEEL SHAFT AND 30° DETENT ASSEMBLY



T-180 T-181 T-182

A balanced lever arm and star wheel detent assembly free from end and side thrust is available for precision military and instrumentation applications. Star wheel detent provides extremely long life and minimum turning torque variation. Double lever arm construction controls torque in both directions of rotation with practically no change in torque during 100,000 cycles of operation through 12 switch positions.

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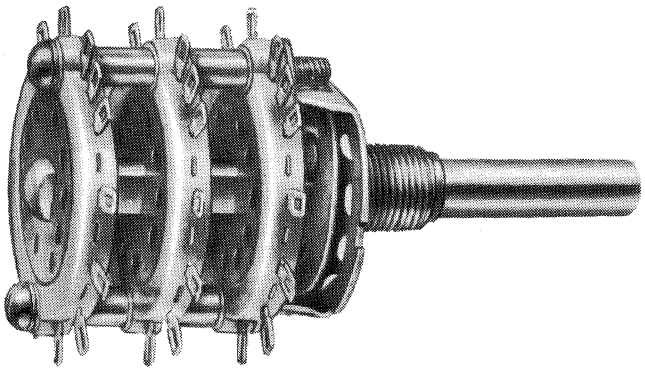
SECTION 5100

IRC-CTS ROTARY SELECTOR SWITCHES

IRC, Inc.



ELECTRICAL RATING

Voltage and Current Ratings:

1 amp at 28 volts DC
1½ amps at 115 volts AC

High Pot Test:

Between adjacent 30° terminals or terminals to ground: 1,750 volts AC RMS for one minute, Between adjacent 15° terminals: 750 volts AC RMS for one minute.

212 Wafer Assembly

The wafer assembly of the IRC-CTS selector switch can be separated into three basic elements, the rotor insulator, the rotor contacts and the stator. The stator consists of the stator insulator, terminal lugs, contacts, contact ring, which is made as a single unit.

Stator Insulator

The stator insulator is a circular molding which encloses the mid portion of each contact and serves as a container for the rotor. The stator insulator also serves as a natural solder and flux barrier, thus protecting the contact areas.

The Stator

The Stator is the heart of the IRC-CTS selector switch and determines the circuitry of the switch in conjunction with the location of the selected rotor contacts. The stator is actually a circuit pattern cut out of metal which forms the terminal lugs, center contact ring and the stator contact.

Rotor

The rotor of the IRC-CTS selector switch holds the rotor contacts in place and carries the contacts from one position to another, providing controlled float which prevents open circuiting during severe shock or vibration.

Contact Resistance

Circuit resistance ranges from .003 to .004 ohms on standard switches when measured from one terminal to an adjacent terminal. When measured terminals are not adjacent, up to 180° apart, the resistance will measure higher due to the extra metal in the stator circuits. It is to be noted that the circuit resistance check measures all the metal in the circuit. Thus actual resistance at the point of contact is considerably less than the measured resistance. In IRC-CTS assemblies, contact resistance is unusually stable throughout the switch life.

Contact Life:

Standard sterling silver laminated rotor contacts and brass silver plated stator provide reliable life for a minimum of 50,000 cycles through 12 positions and return without appreciable increase in contact resistance. (See detent life.)

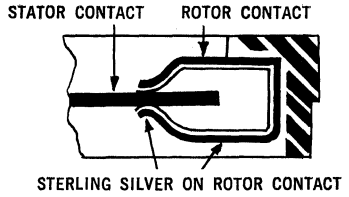
Detent Rotational Life:

The standard 212 detent assembly (T79, T80, T81 & T82) has a rated life of 25,000 cycles through 12 positions and return.

The star wheel detent mechanism (T180, T181, & T182) has a rated life of 100,000 cycles through 12 positions and return.

LONGER LIFE CONTACTS

• After 1,100,000 index operations, life tests reveal virtually no change in rotor contact resistance. • 1,000% **more** silver than used by most commercial switches has been **evenly** applied at actual point of contact by exclusive process. (See Sketch.) • Rotor contacts are double-wiping and self-cleaning. • Stator contacts are integral with terminals.



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IRC-CTS ROTARY SELECTOR SWITCHES

IRC, Inc.

IRC-CTS COMMERCIAL TYPE 212

Total Poles	Number of Positions		Poles per Section	Number of Sections	Stock Number	
	Shorting	Non-Shorting			Shorting	Non-Shorting
1	2-11	2-12	1	1	T201	T205
2	2-5	2-6	2	1	T202	T206
3	2-3	2-4	3	1	T203	T207
4	2	2-3	4	1	T204	T208
6		2	6	1		T209
2	2-11	2-12	1	2	T211	T215
4	2-5	2-6	2	2	T212	T216
6	2-3	2-4	3	2	T213	T217
8	2	2-3	4	2	T214	T218
12		2	6	2		T219
3	2-11	2-12	1	3	T221	T225
6	2-5	2-6	2	3	T222	T226
9	2-3	2-4	3	3	T223	T227
12	2	2-3	4	3	T224	T228
18		2	6	3		T229
4	2-11	2-12	1	4	T231	T235
8	2-5	2-6	2	4	T232	T236
12	2-3	2-4	3	4	T233	T237
16	2	2-3	4	4	T234	T238
24		2	6	4		T239

IRC-CTS INDUSTRIAL-MILITARY TYPE M-212

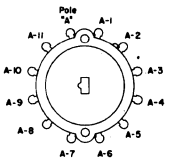
Total Poles	Number of Positions		Poles per Section	Number of Sections	Stock Number	
	Shorting	Non-Shorting			Shorting	Non-Shorting
1	2-11	2-12	1	1	T301	T305
2	2-5	2-6	2	1	T302	T306
3	2-3	2-4	3	1	T303	T307
4	2	2-3	4	1	T304	T308
6		2	6	1		T309
2	2-11	2-12	1	2	T311	T315
4	2-5	2-6	2	2	T312	T316
6	2-3	2-4	3	2	T313	T317
8	2	2-3	4	2	T314	T318
12		2	6	2		T319
3	2-11	2-12	1	3	T321	T325
6	2-5	2-6	2	3	T322	T326
9	2-3	2-4	3	3	T323	T327
12	2	2-3	4	3	T324	T328
18		2	6	3		T329
4	2-11	2-12	1	4	T331	T335
8	2-5	2-6	2	4	T332	T336
12	2-3	2-4	3	4	T333	T337
16	2	2-3	4	4	T334	T338
24		2	6	4		T339

WAFER SECTIONS	Total Poles	Number of Positions		Stock Number	
		Shorting	Non-Shorting	Shorting	Non-Shorting
COMMERCIAL WAFER SECTIONS	1	2-11	2-12	T1	T5
	2	2-5	2-6	T2	T6
	3	2-3	2-4	T3	T7
	4	2	2-3	T4	T8
	6		2		T9
INDUSTRIAL MILITARY WAFER SECTIONS DETENT ASSEMBLIES	1	2-11	2-12	T101	T105
	2	2-5	2-6	T102	T106
	3	2-3	2-4	T103	T107
	4	2	2-3	T104	T108
	6		2		T109

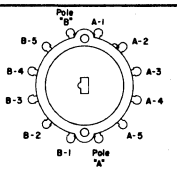
DETENT ASSEMBLIES	Total Positions	Rear Shaft Length	Suggested Number of Sections	Stock Number
STANDARD SHAFT & 30° DETENT ASSEMBLIES	2-12	7/32"	1	T79
	2-12	1- 9/32"	1-3	T80
	2-12	2-15/16"	4-6	T81
	2-12	5- 9/64"	7-10	T82
STARWHEEL SHAFT & 30° DETENT ASSEMBLIES	2-12	1- 9/32"	1-3	T180
	2-12	2-15/16"	4-6	T181
	2-12	5- 9/64"	7-10	T182

TERMINAL SPECIFICATIONS

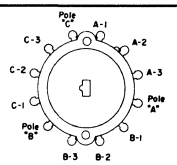
1 Pole
11 Position
Shorting Type
T1 and **T101**



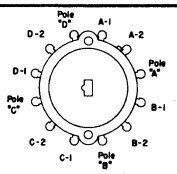
2 Pole
5 Position
Shorting Type
T2 and **T102**



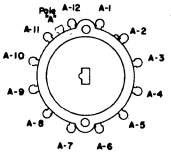
3 Pole
3 Position
Shorting Type
T3 and **T103**



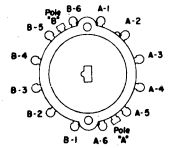
4 Pole
2 Position
Shorting Type
T4 and **T104**



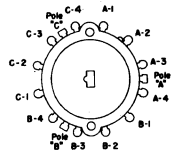
1 Pole
12 Position
Non-Shorting Type
T5 and **T105**



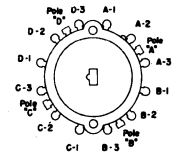
2 Pole
6 Position
Non-Shorting Type
T6 and **T106**



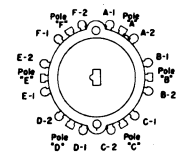
3 Pole
4 Position
Non-Shorting Type
T7 and **T107**



4 Pole
3 Position
Non-Shorting Type
T8 and **T108**



6 Pole
2 Position
Non-Shorting Type
T9 and **T109**



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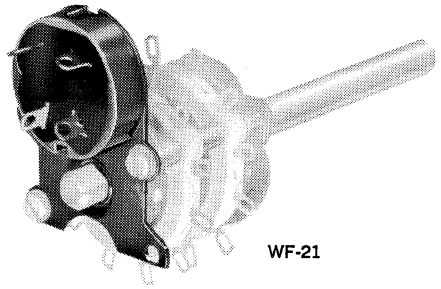
IRC-CTS ROTARY SELECTOR SWITCH ACCESSORIES

IRC, Inc.

IRC-CTS ATTACHABLE POWER SWITCHES

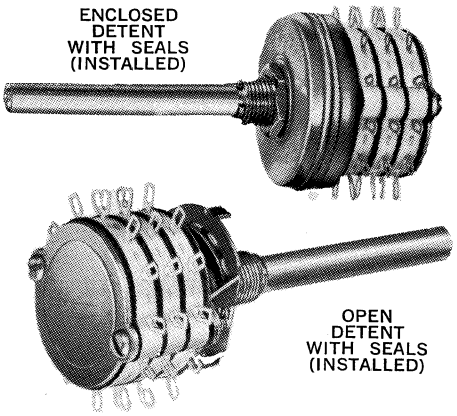


WF-21

A selection of reliable AC power switches is available for use with selector switches, giving an original source for both the selector switch and attached switches. These power switches can be mounted on the rear frame of the selector switch or between wafers by means of a specially designed bracket.

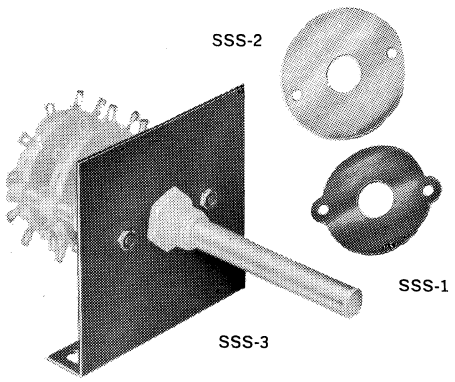
STOCK NO.	DESCRIPTION	VOLTAGE	CURRENT
GC-21	SPST	125	3 Amps
VF-21	SPDT	125	3 Amps
WF-21	DPST	125	3 Amps

SEALED SWITCH KITS



STOCK NO.	DESCRIPTION
SSK-1	Enclosed detent construction seals both the wafer sections and the detent mechanism of the switch against dust, dirt, and moisture.
DSWK-1	Open detent construction protects and seals the wafer sections of the selector switch against dust and dirt.

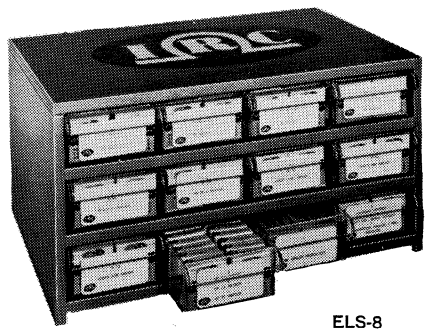
SHIELDS AND MOUNTING BRACKETS



Shielding of switch sections from each other may be accomplished with these Switch Shields.

STOCK NO.	DESCRIPTION
SSS-1	Standard Shields
SSS-2	Brass, Silver Plated Shields
SSS-3	Combination Shields and Mounting Brackets

IRC-CTS ROTARY SELECTOR SWITCH ENGINEERING LAB STOCK



ELS-8

The ELS-8 Rotary Selector Switch Lab Stock affords you the versatility of a combination for every application. The Lab Stock consists of:

75 Wafer Sections 30 Detent Assemblies

Three Power Switches

2 Switch Seal Kits

15 Shields

Includes Metal Cabinet and Labels

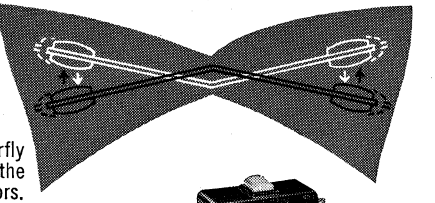
© U.C.P., Inc.

LICON®

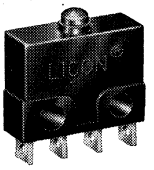
PROBLEM SOLVING PRECISION SWITCHES AND CONTROLS

BUTTERFLY® DOUBLE-BREAK SWITCHES

Contact blades flex like butterfly wings. Positive snap results in simultaneous opening and closing. Linear wipe action at contact points prevents contact welding.



TYPE 18



Big switch rating in the smallest double-break switch—.200″ x .500″ x .350″.

ELECTRICAL RATING

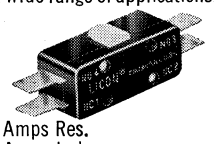
125/250 v AC: 10 Amps
28 v DC: Form X or Y—8 Amps Res.
Form X or Y—3 Amps Ind.

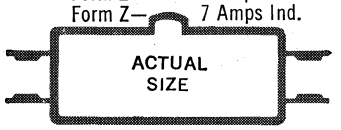
TYPE 11

High electrical rating and long mechanical life in one compact package. Ideal for a wide range of applications.

ELECTRICAL RATING

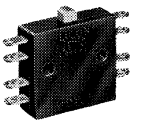
125/250 v AC: 10 Amps
125 v AC: ½ HP
125 v AC: ¾ HP
28 v DC: Form X or Y—15 Amps Res.
Form X or Y—10 Amps Ind.
Form Z— 10 Amps Res.
Form Z— 7 Amps Ind.

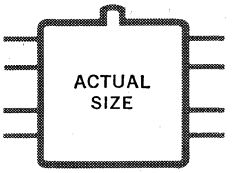




TYPE 26

Provides simultaneous operation of two Licon Butterfly double-break mechanisms in one case. Eliminates the need for dual components and complicated actuators.



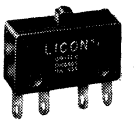


ELECTRICAL RATING

125/250 v AC: 10 Amps
28 v DC: Form XX or YY—10 Amps Res.
Form XX or YY—10 Amps Ind.
Form ZZ— 10 Amps Res.
Form ZZ— 3 Amps Ind.

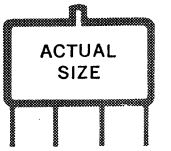
TYPE 16

Features two circuit control, direct cam operation with double bearing guided button plus high shock and vibration resistance.

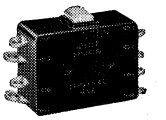


ELECTRICAL RATING

125/250 v AC: 10 Amps
28 v DC:
Form X or Y—10 Amps Res.
Form X or Y—10 Amps Ind.
Form Z— 10 Amps Res.
Form Z— 3 Amps Ind.



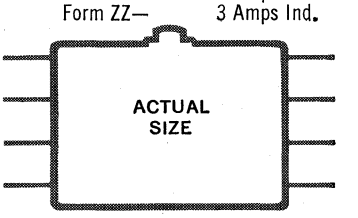
TYPE 22



Insures exacting double-break switch performance for 3-phase motors, permits simplified controls for multiple circuits.

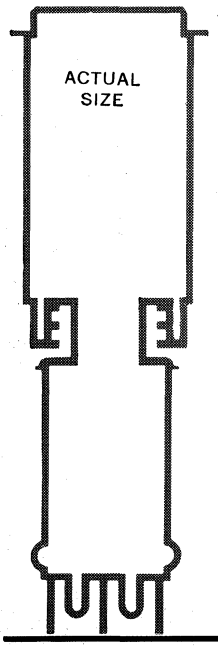
ELECTRICAL RATING

125/250 v AC: 10 Amps
125 v AC: ½ HP
250 v AC: ¾ HP
28 v DC: Form XX or YY—15 Amps Res.
Form XX or YY—10 Amps Ind.
Form ZZ— 10 Amps Res.
Form ZZ— 3 Amps Ind.

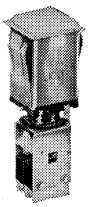


LICON LIGHTED SWITCHES

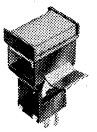
A lighted push button combined with the world's finest subminiature switch, the Type 16, for a high rating and long life. A wide choice of colors, sizes and shapes.

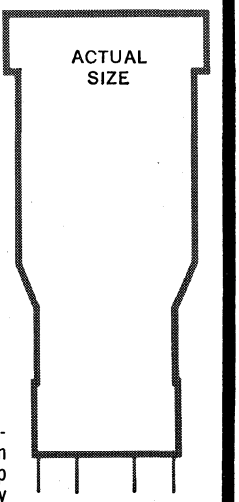


TYPE 04



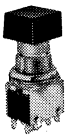
Dressy panel appearance with four bulb illumination. Available in no-hardware front-of-panel mountings. Easy lamp servicing.





TYPE 01-800

Has integral plastic housing that snaps in from front panel. Available in one and two pole, momentary and alternate action.



TYPE 01

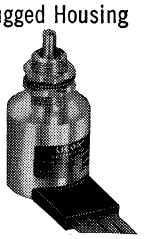
Front-of-panel lamp servicing without tools. Non-turn lens cap snaps on. Lamp socket remains stationary when push button is actuated.

LICON SEALED SWITCHES

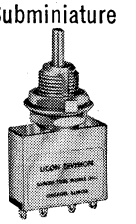
The most reliable (20 million mechanical cycles) environment-free and hermetically sealed switches you can use in a selection of seals, actuators, terminals, circuitries, ratings, materials and housings. Request sample or demonstration on your letterhead.

TYPE 62 HERMETICALLY SEALED
Rugged Housing

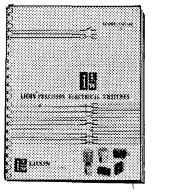
TYPE 63 ENVIRONMENT-FREE
Rugged Housing



TYPE 65 ENVIRONMENT-FREE
Subminiature



Licon Catalog Available on Request
For detailed information and specifications about the full line of Licon switches, send for the Licon catalog.



"Remember, you're never more than a few feet away from a product of ITW" T.M.

LICON
DIVISION ILLINOIS TOOL WORKS INC.

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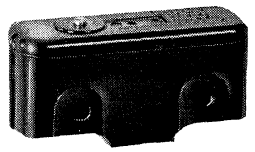
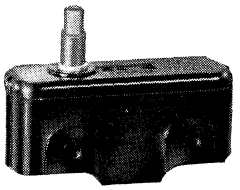
LICON®
SWITCHES not only meet standards . . . they set them!

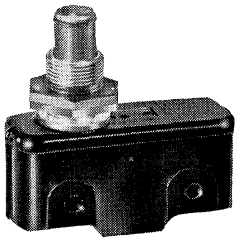
TYPE 10 BASIC SWITCHES



Type 10-122
Basic Switch

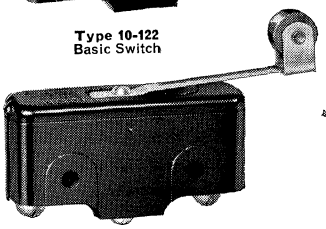


Type 10-222
Overtravel Plunger

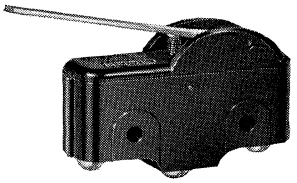


Type 10-322
Panel Mounting

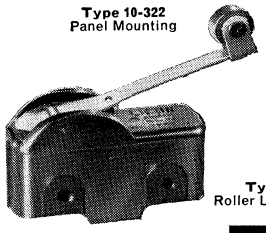
Type 10-422
Leaf Spring Actuator



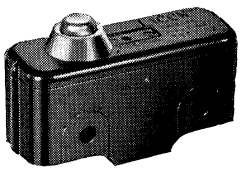
Type 10-522
Roller Leaf Actuator



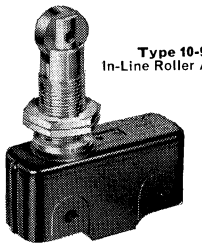
Type 10-622
Hinge-Type Lever



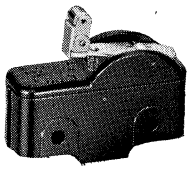
Type 10-722
Roller Lever Actuator



Type 10-822
Cam Actuation



Type 10-922
In-Line Roller Actuator

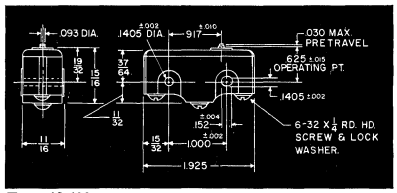


Type 10-72237
One Way Actuator

CHARACTERISTICS

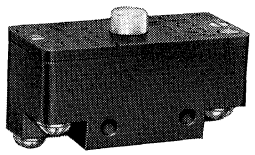
Electrical Rating 15A, 125/250 V a-c, 460 V a-c
15A Res 5A Ind. 5A motor, 30 V d-c
UL APPROVED CSA APPROVED

Splash-proof sealing against moisture, dirt, dust and other harmful elements can be provided for most models. Preloaded reverse action actuator available.

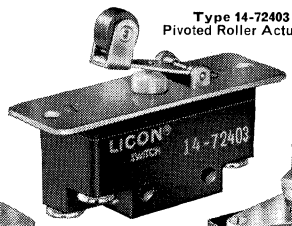


Type 10-122

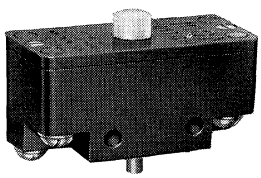
TYPE 14 HEAVY DUTY BASIC SWITCHES



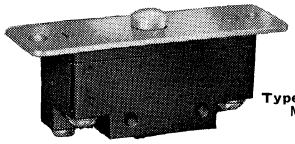
Type 14-124
Basic Switch



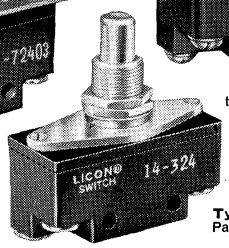
Type 14-72403
Pivoted Roller Actuator



Type 14-1241 Maintained Contact, Reset.



Type 14-12403 Auxiliary Mounting Plate



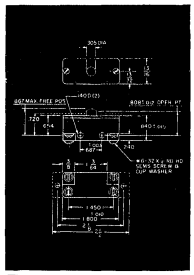
Type 14-324
Panel Mount

Movement differential available from .101" to over .040". 100 gram to 2 lb. operation force available. Terminals available with a No. 6 screw and cup washer, No. 6 screw and lockwasher or No. 8 screw with these same fastener choices. Custom terminal designs available. Auxiliary mounting plate available for panel mount.

ELECTRICAL RATING

Volts	A.C. Steady	A.C. In-Rush	D.C. D.T.	D.C. S.T.
30	20	80	10	25
110	20	80	.5	2.0
220	20	80	.2	.5
440	15	50		
600	5	10		

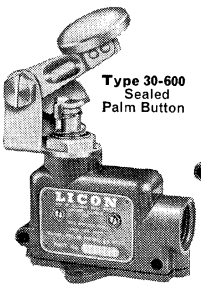
UL APPROVED



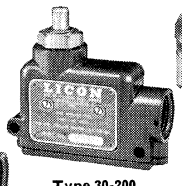
Type 14-124

TYPE 30 INDUSTRIAL ENCLOSED SWITCHES

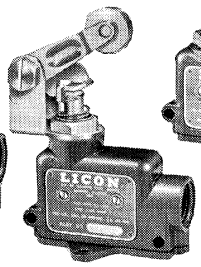
SEALED SWITCHES for environment applications



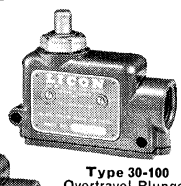
Type 30-600
Sealed Palm Button



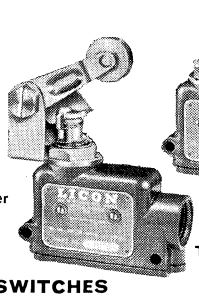
Type 30-200
Sealed Plunger



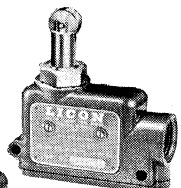
Type 30-400
Sealed Roller Arm



Type 30-100
Overtravel Plunger

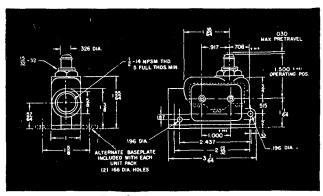


Type 30-300
Roller Arm



Type 30-500
Roller Plunger

UNSEALED SWITCHES
for general purpose applications



Type 30-200 Sealed

CHARACTERISTICS

ELECTRICAL RATING: 15 Amps. 125/250/460 V a-c; ½ Amp. 125 V d-c; ¼ Amp. 250 V d-c.
UL APPROVED CSA APPROVED

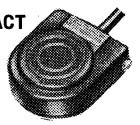
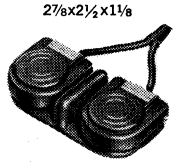
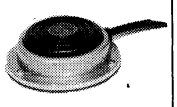
FOR FACTS AND FOLLOW-THROUGH... CALL YOUR LICON DISTRIBUTOR

"Remember, you're never more than a few feet away from a product of ITW" T.M.

© U.C.P., Inc.

LINEMASTER

America's Footswitch Leader

TREADLITE 3½x2⅝x1 	T-51-S	SINGLE STAGE MOMENTARY	SPDT	7 AMP 125-250 VAC 1/6 H.P. 125 VAC	Lowest Cost Foot Switch Formed Steel Housing. Wt.—7 ozs. *Similar to T-51-SC Except Grounded 3 Conductor Cord and 3 Prong Series Plug.
	T-51-D	SINGLE STAGE MAINTAINED	SPDT		
	T-52-S	TWO STAGE MOMENTARY	BOTH STAGES SPDT		
	T-51-SC *T-51-SC3	T-51-S COMPLETE WITH 6' CORD SET & SERIES PLUG			
	T-51-S TWIN	TWO MOMENTARY SWITCHES ON ONE BASE	BOTH SPDT		
COMPACT  2⅞x2½x1⅛ 	491-S	MOMENTARY	SPDT	10A 125 VAC	Completely Enclosed Interior Switch. Formed Steel Housing. Wt.—7 oz. *Similar to 491-SC Except Grounded 8 Ft. 3 Conductor Cord and 3 Prong Series Plug.
	492-S	MOMENTARY	SPDT	20A 125-250 VAC	
	494-S	MOMENTARY	DPDT	10A 125 VAC 5A 250 VAC	
	491-SC *491-SC3	491-S COMPLETE WITH 6' CORD SET & SERIES PLUG			
	491-S TWIN	TWO MOMENTARY SWITCHES ON ONE BASE	BOTH SPDT		
CLIPPER 4½x3½x1½ 	632-S	MOMENTARY	SPDT	20A 125-250 VAC	Cast Iron Housing. Also Availabie with Safety Guard or 7" Wide Treadle. Wt.—2¼ lbs. Twin Has Connecting Interwiring Tube So That Only One Cable Is Used.
	632-D	MAINTAINED	SPDT	20A 125-250 VAC	
	634-S	MOMENTARY	DPDT	10A 125 VAC 5A 250 VAC	
	634-D	MAINTAINED	DPDT	10A 125 VAC 5A 250 VAC	
	632-S TWIN	TWO MOMENTARY SWITCHES ON ONE BASE	BOTH SPDT	20A 125-250 VAC	
JUNIOR 5½x3¼x1¼	121-S	MOMENTARY	SPDT	15A 125-250 VAC	Cast Aluminum Housing. Low Tapered Treadle Permits Easy Operation. Wt.—1 lb.
	122-S	MOMENTARY	SPDT	20A 125-250 VAC	
CADET  3⅝x1⅛	HB-2	MOMENTARY	SPDT	7A 125 VAC 1/6 H.P. 125 VAC	Round Switch Operates From Any Position. Switch Comes Complete With Cord set. Wt.—11 ozs.

MANY OTHER STANDARD MODELS ARE AVAILABLE—WRITE FOR CATALOG

"When awkward jobs hold you up—a LINEMASTER FOOT SWITCH is your third hand!"

Write To Us For Complete Catalog.

LINEMASTER SWITCH CORPORATION

© U.C.P., Inc.

A Modern FOOTSWITCH for Every Use

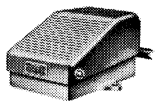
PRECISION-BUILT • DEPENDABLE • RUGGED • ECONOMICAL • OVER 1000 APPLICATIONS

NAUTILUS

8x4x2¼

WP-541-S	MOMENTARY	SPDT	20A 125-250 VAC	Completely Waterproof. Can Be submerged.
WP-541-D	MAINTAINED	SPDT	12A 125 VAC 6A 250 VAC	

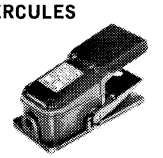
SENIOR



7x4x3¼

MOMENTARY	MAINTAINED			
4141-S	4141-D	DPST	20A 125-250 VAC&DC	Cast Iron Housing. Also Available With Complete Safety Guard. Wt.—5¼ lbs.
4142-S	4142-D	DPDT	10A 125 VAC&DC 5A 250 VAC&DC	
4143-S	4143-D	SPDT	15A 125 VAC&DC 10A 250 VAC&DC	
4151-S	4151-D	DPST	15A 125-250 VAC 5A 575 VAC	
4351-S	4351-D	TPST	15A 125-230 VAC 5A 575 VAC	

HERCULES



8⁷⁄₁₆x4⁵⁄₁₆x4½

531-SW	571-DW	SINGLE STAGE	SPDT	20 AMPS 125-480 VAC 1 H.P. 115-230 VAC	Cast Iron Housing. Wt.—7¼ lbs. Also Available With No Guard or Complete Hood. All Models Available in Explosion Proof Version.
532-SW	572-DW	SINGLE STAGE	DPDT		
533-SW	573-DW	SINGLE STAGE	TPDT		
534-SW	574-DW	TWO STAGE	SPDT		
535-SW	575-DW	THREE STAGE	SPDT		

POTENTIOMETER

8⁷⁄₁₆x4⁵⁄₁₆x4½

2 WATT	5 WATT	SPECIFY MAXIMUM RESISTANCE REQUIRED				
		2 WATT			5 WATT	
		Ohms		Megohms	Ohms	
500 thru 500-AH	505 thru 505-AH	50 thru 1500	2500 thru 75000	.1 thru 5.0	2 thru 40	50 thru 1000	1500 thru 25000

Standard Model
Wt. Approx. 7¼ lbs.

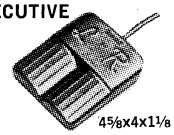
Details on request

LEKTRO-LOK

5x2½x1⅛

L-2-S	TWO MOMENTARY SWITCHES SIDE BY SIDE	BOTH SIDES SPDT	15A 125-250 VAC	Stamped Metal Housing. Wt.—10 oz.
L-4-S		BOTH SIDES DPDT	10A 125 VAC 5A 250 VAC	

EXECUTIVE



4⅝x4x1⅛

B-2-S	TWO MOMENTARY SWITCHES SIDE BY SIDE	BOTH SIDES SPDT	15A 125-250 VAC	Stamped Metal Housing. Wt.—14 oz.
B-4-S		BOTH SIDES DPDT	10A 125 VAC 5A 250 VAC	

DUPLEX

8½x3½x2

475-S	MOMENTARY HEAVY SPRING	BOTH SIDES SPDT	15A 125-250 VAC	Cast Aluminum Housing. Wt.—1¾ lbs.
476-S	MOMENTARY LIGHT SPRING			

Linemaster also manufactures many other types of foot controls with electronic impulse circuits, gear driven potentiometers, air valves, special cordsets, finishes, etc.

Write To Us For Complete Catalog.

LINEMASTER SWITCH CORPORATION

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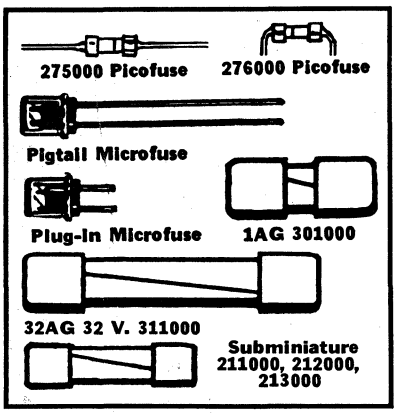
LITTELFUSE Quality Fuses



SUBMINIATURE FUSES

A must for servicing European electronic equipment. **Size:** 20 mm x 5 mm (.8″ x .2″).

FAST ACTING (250 V.) TYPE F

L.F. No.	Amp Rating	Net per 5	Net per 100	
			100	500
212.100	1/10	1.59	26.50	21.20
212.125	1/8	1.59	26.50	21.20
212.200	2/10	1.23	20.50	16.40
212.250	1/4	1.23	20.50	16.40
212.300	3/10	1.23	20.50	16.40
212.400	4/10	1.23	20.50	16.40
212.500	1/2	1.23	20.50	16.40
212.600	6/10	1.23	20.50	16.40
212.700	7/10	1.23	20.50	16.40
212.800	8/10	1.23	20.50	16.40
212001	1	.99	16.50	13.20
2121.25	1-1/4	.99	16.50	13.20
21201.6	1-6/10	.99	16.50	13.20
212002	2	.99	16.50	13.20
21202.5	2-1/2	.99	16.50	13.20
212003	3	.99	16.50	13.20
212004	4	.99	16.50	13.20
212005	5	.99	16.50	13.20
212006	6	.99	16.50	13.20

MEDIUM ACTING (250 V) TYPE M

Net per 5 . . . . . $ 1.23
Net per 100: 100 . . . $20.50; 500 . . . 16.40

L.F. No.	Amp Rtg.	L.F. No.	Amp Rtg.	L.F. No.	Amp Rtg.
211.100	1/10	211.500	1/2	211002	2
211.200	2/10	211.600	6/10	211003	3
211.250	1/4	211.800	8/10	211005	5
211.300	3/10	211001	1		
211.400	4/10	21101.6	1-6/10		

SLO BLO FUSES (250 V.) TYPE T

Net per 5 . . . . . $ 1.23
Net per 100: 100 . . . $20.50; 500 . . . 16.40

213.100	1/10	213.600	6/10	21302.5	2-1/2
213.125	1/8	213.700	7/10	213003	3
213.200	2/10	213.800	8/10	213004	4
213.250	1/4	213001	1	213005	5
213.300	3/10	2131.25	1-1/4	213006	6
213.400	4/10	21301.6	1-6/10		
213.500	1/2	213002	2		

SUBMINIATURE (125 V. MAX.)

L.F. No.	Amp Rating	Net per 5	Net per 100	
			100	500
271.500	1/2	$1.23	$20.50	$16.40
27101.5	1-1/2	.99	16.50	13.20

SUBMINIATURE PICOFUSES

For computer, micro-electronic and areospace circuits of 125 V or less where short-circuit currents as high as 300 amps occur. High accuracy in blowing time at 300% of rating and higher is ideal for sequential switching or in circuits requiring redundancy. Blow time 4 hours min. at 100% of rating; 5 secs. max. at 200%. Amperage printed on body; can be color-coded at additional cost. Ceramic body only 7/32″ lg. x 5/64″ dia.; tin-coated copper leads .025″ dia. Order **275** (prefix) for axial leads 1 9/16″ long for diode clip or in-circuit mounting; **276** for radial leads 1 3/8″ long for use in printed circuits or receptacles. *Avg., cold.

L.F. No.	Amp Rtg.	Res., Ohms*	Net per 5	Net per 100	
				100	500
275.125	1/8	2.0	$2.13	$35.50	$28.40
275.250	1/4	.71	2.13	35.50	28.40
275.375	3/8	.43	2.13	35.50	28.40
275.500	1/2	.26	2.13	35.50	28.40
275.750	3/4	.157	1.86	31.00	24.80
275001	1	.125	1.86	31.00	24.80
27501.5	1-1/2	.074	1.86	31.00	24.80
275002	2	.055	1.86	31.00	24.80
275003	3	.035	1.86	31.00	24.80
275004	4	.022	1.86	31.00	24.80
275005	5	.014	1.86	31.00	24.80

MICROFUSE SUBMINIATURE FUSES

For printed circuits and other minimum space uses. Ultra-fast blowing. Plug-in types use holder (listed on another page); pigtail types for soldering. Short circuit interrupting capacity 125 V, 10,000 amps DC. **Blow Specs:** 100%, 4-hour min.; 200%, 5-sec. max. **Size:** 1/4″ dia. x 11/32″ (fuse body). Plug-in, transparent cap type listed. Use prefix **272** for plug-in, metal cap; prefix **279** for pigtail, transparent cap; prefix **278** for pigtail, metal cap.

Plug-In L.F. No.	Amp Rating	Net per 5	Net per 100	
			100	500
273.002	1/500	$5.13	$85.50	$68.40
273.005	1/200	5.13	85.50	68.40
273.010	1/100	5.13	85.50	68.40
273.015	1/64	5.13	85.50	68.40
273.031	1/32	5.13	85.50	68.40
273.050	1/20	4.29	71.50	57.20
273.062	1/16	4.29	71.50	57.20
273.100	1/10	4.29	71.50	57.20
273.125	1/8	4.29	71.50	57.20
273.200	2/10	4.29	71.50	57.20
273.250	1/4	4.29	71.50	57.20
273.300	3/10	4.29	71.50	57.20
273.400	4/10	4.29	71.50	57.20
273.500	1/2	4.29	71.50	57.20
273.600	6/10	4.29	71.50	57.20
273.700	7/10	4.29	71.50	57.20
273.750	3/4	4.29	71.50	57.20
273.800	8/10	4.29	71.50	57.20
273001	1	4.29	71.50	57.20
27301.5	1-1/2	4.29	71.50	57.20
273002	2	4.29	71.50	57.20
273003	3	4.29	71.50	57.20
273004	4	4.29	71.50	57.20
273005	5	4.29	71.50	57.20

HIGH RELIABILITY MICROFUSES

For zero defect programs. Hermetically sealed; gold-plated terminals for soldered or plug-in connections. Fuse rating identified on each fuse. Test data and traceability records are supplied and maintained. Proven performance in the Gemini "critical parts" manned space program. Voltage rating 125 V, blow time same as 273 series; time/current characteristics certified to 1% AQL per MIL-Std-105, Inspection Level II. Short circuit interrupting capacity at 125 V, 10,000 amps DC. **Size:** Fuse cap and body, .290″ lg., leads for 262 "plug-in" series .170″. Pigtail on 268 series 1.0″. Use prefix **268** for pigtail type (e.g., **268.002**).

Plug-In L.F. No.	Amp Rating	Net per 5	Net per 100	
			100	500
262.002	1/500	$15.00	$250.00	$200.00
262.005	1/200	15.00	250.00	200.00
262.010	1/100	15.00	250.00	200.00
262.015	1/64	15.00	250.00	200.00
262.031	1/32	15.00	250.00	200.00
262.050	1/20	15.00	250.00	200.00
262.062	1/16	15.00	250.00	200.00
262.100	1/10	15.00	250.00	200.00
262.125	1/8	15.00	250.00	200.00
262.200	2/10	15.00	250.00	200.00
262.250	1/4	15.00	250.00	200.00
262.300	3/10	15.00	250.00	200.00

HIGH RELIABILITY PICOFUSES

For soldering into circuits or insertion into diode type clips and mtgs. Fuses rated at 125 V or less and will interrupt short circuit currents to 300 amps at 125 VDC. Non-hygroscopic ceramic bodies. Withstands 5-lb. axial pull test. Blow time 4 hours min., 100% rating; 5 secs. max., 200% rating. Insulation resistance is 1 meg min. measured with 100 V supply. **Size:** Body 7/32″ lg., .078″ dia. Leads are .025″ dia., 1 9/16″ lg., gold-plated copper.

Net per 5 . . . . . $15.00
Net per 100: 100 . . $250.00; 500 . . $200.00

L.F. No.	Amp Rtg.	L.F. No.	Amp Rtg.
265.125	1/8	26501.5	1 1/2
265.250	1/4	265002	2
265.375	3/8	265003	3
265.500	1/2	265004	4
265.750	3/4	265005	5
265001.	1		

7AG FUSES (32 V. OR LESS)

Blow Time: 110%, 4-hr. min.; 135%, 1 hr. max.; 200%, 20-sec. max. Lg. 7/8″, dia. 1/4″.

L.F. No.	Amp Rating	Net per 5	Net per 100	
			100	500
303001	1	$0.30	$5.00	$4.00
30302.5	2-1/2	.20	3.30	2.64
303004	4	.20	3.30	2.64
303006	6	.20	3.30	2.64
303015	15	.23	3.75	3.00
303020	20	.23	3.75	3.00
303030	30	.23	3.75	3.00

1AG FUSES (32 V. OR LESS)

Blow Time: 110%, 4-hr. min.; 135%, 1 hr. max.; 200%, 20-sec. max. Lg. 7/8″, dia. 1/4″.

L.F. No.	Amp Rating	Net per 5	Net per 100	
			100	500
301001	1	$0.30	$5.00	$4.00
301002	2	.30	5.00	4.00
30102.5	2-1/2	.30	5.00	4.00
301003	3	.28	4.70	3.76
301005	5	.23	3.75	3.00
301006	6	.23	3.75	3.00
30107.5	7-1/2	.23	3.75	3.00
301010	10	.23	3.75	3.00
301015	15	.23	3.75	3.00
301020	20	.23	3.75	3.00
301025	25	.23	3.75	3.00
301030	30	.23	3.75	3.00

3AG FUSES (32 V. OR LESS)

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 20-sec. max. Length 1 1/4″, dia. 1/4″.

311004	4	$0.28	$4.70	$3.76
311005	5	.20	3.30	2.64
311006	6	.20	3.30	2.64
31107.5	7-1/2	.20	3.30	2.64
311008	8	.20	3.30	2.64
311010	10	.20	3.30	2.64
311015	15	.20	3.30	2.64
311025	25	.23	3.75	3.00
311030	30	.23	3.75	3.00
311035	35	.28	4.70	3.76

3AG FUSES (250 V. OR LESS)

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 10-sec. max. Length 1 1/4″, dia. 1/4″. U/L Approved.

312.010	1/100	$1.92	$32.00	$25.60
312.031	1/32	1.68	28.00	22.40
312.062	1/16	.75	12.50	10.00
312.100	1/10	.75	12.50	10.00
312.125	1/8	.75	12.50	10.00
312.150	15/100	.75	12.50	10.00
312.175	.175	.75	12.50	10.00
312.187	3/16	.75	12.50	10.00
312.200	2/10	.75	12.50	10.00
312.250	1/4	.51	8.50	6.80
312.300	3/10	.51	8.50	6.80
312.375	3/8	.51	8.50	6.80
312.500	1/2	.51	8.50	6.80
312.600	6/10	.51	8.50	6.80
312.750	3/4	.51	8.50	6.80
312001	1	.30	5.00	4.00
3121.25	1-1/4	.30	5.00	4.00
31201.5	1-1/2	.30	5.00	4.00
31201.6	1-6/10	.30	5.00	4.00
312002	2	.30	5.00	4.00
31202.5	2-1/2	.28	4.70	3.76
312003	3	.28	4.70	3.76
312004	4	.39	6.50	5.20
312005	5	.39	6.50	5.20
312006	6	.39	6.50	5.20
312007	7	.39	6.50	5.20
312008	8	.60	10.00	8.00

3AG SLO BLO FUSES

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 5-sec. min. Length 1 1/4″, dia. 1/4″. U/L Approved thru 5 amps.

313.010	1/100	$1.44	$24.00	$19.20
313.031	1/32	1.44	24.00	19.20
313.062	1/16	1.05	17.50	14.00
313.100	1/10	1.05	17.50	14.00
313.125	1/8	1.05	17.50	14.00
313.150	15/100	1.05	17.50	14.00
313.175	.175	1.05	17.50	14.00
313.187	3/16	1.05	17.50	14.00
313.200	2/10	1.05	17.50	14.00
313.250	1/4	1.05	17.50	14.00
313.300	3/10	1.05	17.50	14.00
313.375	3/8	1.05	17.50	14.00
313.400	4/10	1.05	17.50	14.00
313.500	1/2	1.05	17.50	14.00
313.600	6/10	1.05	17.50	14.00
313.700	7/10	1.05	17.50	14.00
313.750	3/4	1.05	17.50	14.00
313.800	8/10	1.05	17.50	14.00
313001	1	1.05	17.50	14.00
31301.2	1-2/10	.99	16.50	13.20
31131.25	1-1/4	.99	16.50	13.20
31301.5	1-1/2	.99	16.50	13.20
31301.6	1-6/10	.99	16.50	13.20
313002	2	.99	16.50	13.20
31302.5	2-1/2	.75	12.50	10.00
31302.8	2-8/10	.75	12.50	10.00
313003	3	.75	12.50	10.00
31303.2	3-2/10	.75	12.50	10.00
313004	4	.75	12.50	10.00
313005	5	.75	12.50	10.00
3136.25	6-1/4	.75	12.50	10.00
313007	7	.75	12.50	10.00
313008	8	.75	12.50	10.00
313010	10	.75	12.50	10.00
313015	15	.75	12.50	10.00
313020	20	.75	12.50	10.00
313025	25	.75	12.50	10.00
313030	30	.75	12.50	10.00

Net
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LITTELFUSE Quality Fuses

9AG FUSES (32 V. OR LESS)

Blow Time: 100%, 4-hour min.; 125%, 0–1 hour; 200%, 0–25 seconds. Lg. 1 7/16", dia. ¼".

L.F. No.	Amp Rating	Net per 5	Net per 100	
			100	500
306050	50	$0.45	$7.50	$6.00

3AG SLO BLO PIGTAIL FUSES (125 V.)

Blow Time: 110%, 4-hr. min.; 135%, 1 hr. max.; 200%, 5-sec. min. Lg. 1¼", dia. ¼", 1½" pigtails. U/L App. thru 3.2 amps.

315.010	1/100	$1.77	$29.50	$23.60
315.031	1/32	1.77	29.50	23.60
315.062	1/16	1.29	21.50	17.20
315.100	1/10	1.29	21.50	17.20
315.125	1/8	1.29	21.50	17.20
315.150	.15	1.29	21.50	17.20
315.175	.175	1.29	21.50	17.20
315.187	3/16	1.29	21.50	17.20
315.200	2/10	1.29	21.50	17.20
315.250	1/4	1.29	21.50	17.20
315.300	3/10	1.29	21.50	17.20
315.375	3/8	1.29	21.50	17.20
315.400	4/10	1.29	21.50	17.20
315.500	1/2	1.29	21.50	17.20
315.600	6/10	1.29	21.50	17.20
315.700	7/10	1.29	21.50	17.20
315.750	3/4	1.29	21.50	17.20
315.800	8/10	1.29	21.50	17.20
315001	1	1.29	21.50	17.20
31501.2	1–2/10	1.23	20.50	16.40
3151.25	1–1/4	1.23	20.50	16.40
31501.5	1–1/2	1.23	20.50	16.40
31501.6	1–6/10	1.23	20.50	16.40
315002	2	1.23	20.50	16.40
31502.5	2–1/2	1.05	17.50	14.60
31502.8	2–8/10	1.05	17.50	14.60
315003	3	1.05	17.50	14.60
31503.2	3–2/10	1.05	17.50	14.60
315004	4	1.05	17.50	14.60
315005	5	1.05	17.50	14.60

3AG PIGTAIL FUSES (250 V.)

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 10-sec. max. Length 1¼", dia. ¼", 1½" pigtails.

318.010	1/100	$1.32	$22.00	$17.60
318.031	1/32	1.32	22.00	17.60
318.062	1/16	1.32	22.00	17.60
318.125	1/8	.99	16.50	13.20
318.150	15/100	.99	16.50	13.20
318.187	3/16	.99	16.50	13.20
318.200	2/10	.99	16.50	13.20
318.250	1/4	.75	12.50	10.00
318.375	3/8	.75	12.50	10.00
318.500	1/2	.75	12.50	10.00
318.750	3/4	.75	12.50	10.00
318001	1	.60	10.00	8.00
31801.5	1–1/2	.60	10.00	8.00
318002	2	.60	10.00	8.00
31802.5	2–1/2	.60	10.00	8.00
318003	3	.60	10.00	8.00
318004	4	.63	10.50	8.40
318005	5	.63	10.50	8.40
318006	6	.63	10.50	8.40
318007	7	.63	10.50	8.40
318008	8	.75	12.50	10.00

3AG INDICATING FUSES (125 V.)

Blow Time: 110%, 4-hour min.; 135%, 1 hour max. Length 1¼", dia. ¼".

334.750	3/4	$2.16	$36.00	$28.80
334001	1	1.68	28.00	22.40
33401.5	1–1/2	1.68	28.00	22.40
334002	2	1.68	28.00	22.40
334003	3	1.68	28.00	22.40
334004	4	1.68	28.00	22.40
334005	5	1.68	28.00	22.40
334006	6*	2.34	39.00	31.20
334008	8*	2.34	39.00	31.20
334010	10*	2.34	39.00	31.20
334012	12*	2.34	39.00	31.20
334015	15*	2.34	39.00	31.20
334020	20*	2.34	39.00	31.20

*32 volt.

3AB TINY MIGHTY (250 V. OR LESS)

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 30-sec. max. Length 1¼", dia. ¼". U/L Approved thru 15 amps.

314.125	1/8	$0.69	$11.50	$ 9.20
314.250	1/4	.69	11.50	9.20
314.375	3/8	.69	11.50	9.20
314.500	1/2	.69	11.50	9.20
314.750	3/4	.69	11.50	9.20
314001	1	.66	11.00	8.80
314002	2	.66	11.00	8.80
314003	3	.66	11.00	8.80
314005	5	.63	10.50	8.40
314006	6	.63	10.50	8.40
314007	7	.63	10.50	8.40
314008	8	.63	10.50	8.40
314010	10	.63	10.50	8.40
314012	12	.66	11.00	8.80
314015	15	.66	11.00	8.80
314020	20	.66	11.00	8.80
314025	25	.81	13.50	10.80
314030	30	.81	13.50	10.80

LIMITED CURRENT (250 V.) TYPE C

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 10-sec. max. Prices for applicable **fuse holders** available upon request.

L.F. No.	Amp Rating	Net per 5	Net per 100	
			100	500
332.031	1/32	$1.62	$27.00	$21.60
332.062	1/16	1.05	17.50	14.00
332.125	1/8	.81	13.50	10.80
332.187	3/16	.81	13.50	10.80
332.250	1/4	.63	10.50	8.40
332.300	3/10	.63	10.50	8.40
332.375	3/8	.63	10.50	8.40
332.400	4/10	.63	10.50	8.40
332.500	1/2	.63	10.50	8.40
332.700	7/10	.63	10.50	8.40
332.750	3/4	.63	10.50	8.40
332001	1	.36	6.00	4.80
3321.25	1–1/4	.36	6.00	4.80
33201.5	1–1/2	.36	6.00	4.80
3321.75	1–3/4	.36	6.00	4.80
332002	2	.36	6.00	4.80
33202.5	2–1/2	.36	6.00	4.80
332003	3	.36	6.00	4.80
33203.5	3–1/2	.45	7.50	6.00
332004	4	.45	7.50	6.00
332005	5	.45	7.50	6.00
332006	6	.45	7.50	6.00
332007	7*	.45	7.50	6.00
332008	8*	.66	11.00	8.80
332010	10*	.69	11.50	9.20

*125 volt.

LC SLO BLO (125 V.) TYPE N

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 5-sec. max. Prices for applicable **fuse holders** upon request.

333.010	1/100	$1.53	$25.50	$20.40
333.031	1/32	1.53	25.50	20.40
333.062	1/16	1.11	18.50	14.80
333.100	1/10	1.11	18.50	14.80
333.150	15/100	1.11	18.50	14.80
333.200	2/10	1.11	18.50	14.80
333.250	1/4	1.11	18.50	14.80
333.300	3/10	1.11	18.50	14.80
333.400	4/10	1.11	18.50	14.80
333.500	1/2	1.11	18.50	14.80
333.600	6/10	1.11	18.50	14.80
333.700	7/10	1.11	18.50	14.80
333.750	3/4	1.11	18.50	14.80
333.800	8/10	1.11	18.50	14.80
333001	1	1.11	18.50	14.80
3331.25	1–1/4	.99	16.50	13.20
33301.6	1-6/10	.99	16.50	13.20
3331.75	1-3/4	.99	16.50	13.20
333002	2	.99	16.50	13.20
33302.5	2–1/2	.93	15.50	12.40
33302.8	2-8/10	.93	15.50	12.40
333003	3	.93	15.50	12.40
33303.2	3-2/10	.93	15.50	12.40
33303.5	3–1/2	.93	15.50	12.40
333004	4	.93	15.50	12.40
333005	5	.93	15.50	12.40
3336.25	6–1/4*	.93	15.50	12.40
333007	7*	.93	15.50	12.40

*32 volt.

SFE AUTO FUSES (32 V. OR LESS)

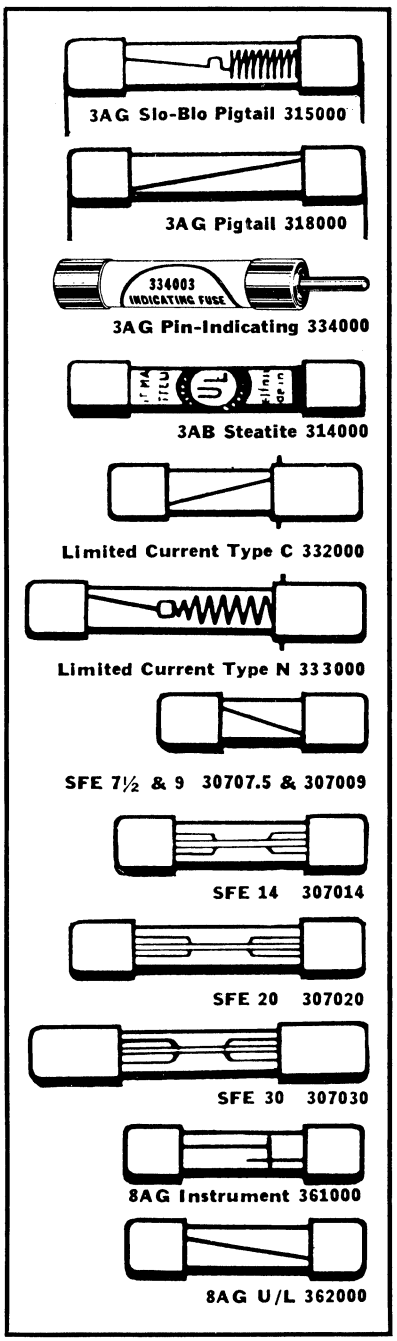
Blow Time: 110%, 4-hour min.; 135%, 0–1 hour; 150%, 20 amps or less 0–15 sec., 30 amps or less 0–30 sec. Dia. ¼".

L.F. No.	Amp Rating	Lgth. In.	Net per 5	Net per 100	
				100	500
307004	4	3/8	$0.23	$3.75	$3.00
307006	6	3/4	.23	3.75	3.00
30707.5	7–1/2	7/8	.20	3.30	2.64
307009	9	7/8	.20	3.30	2.64
307014	14	1 1/16	.18	2.95	2.36
307020	20	1 1/4	.18	2.95	2.36
307030	30	1 7/16	.23	3.75	3.00

8AG FUSES

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 10-sec. max. Length 1", dia. ¼". U/L Approved.

L.F. No.	Amp Rating	Net per 5	Net per 100	
			100	500
362.125	1/8	$0.75	$12.50	$10.00
362.250	1/4	.51	8.50	6.80
362.375	3/8	.51	8.50	6.80
362.500	1/2	.51	8.50	6.80
362.750	3/4	.51	8.50	6.80
362001	1	.30	5.00	4.00
36201.5	1–1/2	.30	5.00	4.00
362002	2	.30	5.00	4.00
362003	3	.30	5.00	4.00
362005	5	.20	3.30	2.64
362006	6	.20	3.30	2.64
362008	8	.20	3.30	2.64
362010	10	.20	3.30	2.64
362012	12	.20	3.30	2.64
362015	15	.20	3.30	2.64
362020	20	.20	3.30	2.64
362025	25	.23	3.75	3.00
362030	30	.23	3.75	3.00



8AG INSTRUMENT FUSES

Blow Time: 100%, 4-hour min.; 200%, 5-sec. max. Length 1", dia. ¼".

L.F. No.	Amp Rating	Net per 5	Net per 100	
			100	500
361.002	1/500	$5.16	$86.00	$68.80
361.005	1/200	2.16	36.00	28.80
361.010	1/100	1.92	32.00	25.60
361.031	1/32	1.68	28.00	22.40
361.062	1/16	1.05	17.50	14.00
361.100	1/10	.75	12.50	10.00
361.125	1/8	.75	12.50	10.00
361.187	3/16	.75	12.50	10.00
361.200	2/10	.75	12.50	10.00
361.250	1/4	.51	8.50	6.80
361.375	3/8	.51	8.50	6.80
361.400	4/10	.51	8.50	6.80
361.500	1/2	.51	8.50	6.80
361.750	3/4	.51	8.50	6.80
361001	1	.33	5.50	4.40
36101.5	1–1/2	.33	5.50	4.40
361002	2	.33	5.50	4.40
361003	3	.33	5.50	4.40
361004	4	.33	5.50	4.40
361005	5	.33	5.50	4.40

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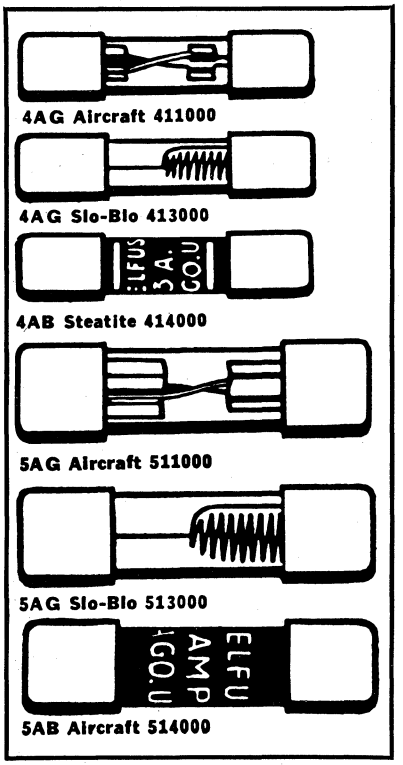
LITTELFUSE Fuses, Fuse Puller



4AG QUICK-ACTING FUSES (250 V. OR LESS)

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 10-sec. max. Length 1¼", dia. 9/32".

L.F. No.	Amp Rating	Net per 5	Net per 100 100	Net per 100 500
412.062	1/16	$1.62	$27.00	$21.60
412.125	1/8	1.14	19.00	15.20
412.150	15/100	1.14	19.00	15.20
412.250	1/4	.54	9.00	7.20
412.500	1/2	.54	9.00	7.20
412001	1	.51	8.50	6.80
41201.5	1-1/2	.51	8.50	6.80
412002	2	.51	8.50	6.80
41202.5	2-1/2	.51	8.50	6.80
412003	3	.51	8.50	6.80
412005	5	.42	7.00	5.60
412008	8*	.42	7.00	5.60

*125 volts.

4AG SLO BLO AIRCRAFT FUSES (250 V. OR LESS)

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 5-sec. min. Length 1¼", dia. 9/32".

L.F. No.	Amp Rating	Net per 5	Net per 100 100	Net per 100 500
413.062	1/16	$1.38	$23.00	$18.40
413.100	1/10	1.38	23.00	18.40
413.125	1/8	1.38	23.00	18.40
413.150	15/100	1.38	23.00	18.40
413.200	2/10	1.38	23.00	18.40
413.250	1/4	1.38	23.00	18.40
413.300	3/10	1.38	23.00	18.40
413.400	4/10	1.38	23.00	18.40
413.500	1/2	1.38	23.00	18.40
413.600	6/10	1.38	23.00	18.40
413.750	3/4	1.38	23.00	18.40
413.800	8/10	1.38	23.00	18.40
413001	1	1.38	23.00	18.40
4131.25	1-1/4	1.38	23.00	18.40
41301.5	1-1/2	1.38	23.00	18.40
41301.6	1-6/10	1.38	23.00	18.40
413002	2	1.38	23.00	18.40
41302.5	2-1/2	1.05	17.50	14.00
413003	3	1.05	17.50	14.00
41303.2	3-2/10	1.05	17.50	14.00
413004	4	1.05	17.50	14.00
413005	5	1.05	17.50	14.00
4136.25	6-1/4	1.05	17.50	14.00
413008	8	1.05	17.50	14.00
413010	10	1.05	17.50	14.00
413015	15	1.05	17.50	14.00
413020	20	1.05	17.50	14.00
413025	25	1.05	17.50	14.00
413030	30	1.05	17.50	14.00

4AG AIRCRAFT FUSES

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 10-sec. max. Length 1¼", dia. 9/32".

L.F. No.	Amp Rating	Net per 5	Net per 100 100	Net per 100 500
411010	10	$0.42	$7.00	$5.60
411015	15	.42	7.00	5.60
411020	20	.42	7.00	5.60
411025	25	.42	7.00	5.60
411030	30	.42	7.00	5.60
411035	35	.51	8.50	6.80
411040	40	.51	8.50	6.80

4AB FUSES (STEATITE)

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 30-sec. max. Length 1¼", dia. 9/32".

414001	1	$1.02	$17.00	$13.60
414002	2	1.02	17.00	13.60
414003	3	1.02	17.00	13.60
414005	5	.96	16.00	12.80
414006	6	.96	16.00	12.80
414008	8	.96	16.00	12.80
414010	10	.96	16.00	12.80
414015	15	.96	16.00	12.80
414020	20	.96	16.00	12.80
414025	25	.96	16.00	12.80
414030	30	.96	16.00	12.80
414035	35	1.02	17.00	13.60
414040	40	1.02	17.00	13.60

5AG AIRCRAFT FUSES

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 20-sec. max. Length 1½", dia. 13/32".

L.F. No.	Amp Rating	Net per 5	Net per 100 100	Net per 100 500
511010	10	$0.60	$10.00	$8.00
511015	15	.60	10.00	8.00
511020	20	.60	10.00	8.00
511025	25	.60	10.00	8.00
511030	30	.60	10.00	8.00
511035	35	.63	10.50	8.40
511040	40	.63	10.50	8.40
511050	50	.63	10.50	8.40
511060	60	.63	10.50	8.40

5AG QUICK-ACTING FUSES (250 V. OR LESS)

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 10-sec. max. Length 1½", dia. 13/32".

512001	1	$0.63	$10.50	$8.40
512002	2	.63	10.50	8.40
512003	3	.63	10.50	8.40
512004	4	.63	10.50	8.40
512005	5	.60	10.00	8.00
512008	8*	.60	10.00	8.00

*125 volts.

5AG SLO BLO FUSES (250 V. OR LESS)

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 5-sec. min. Length 1½", dia. 13/32".

513.500	1/2	$1.77	$29.50	$23.60
513001	1	1.77	29.50	23.60
513002	2	1.77	29.50	23.60
513003	3	1.38	23.00	18.40
513005	5	1.38	23.00	18.40
513010	10	1.38	23.00	18.40
513015	15	1.38	23.00	18.40
513020	20	1.38	23.00	18.40
513025	25	1.56	26.00	20.80
513030	30	1.56	26.00	20.80

5AB AIRCRAFT FUSES

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 30-sec. max. Length 1½", dia. 13/32".

514001	1	$1.17	$19.50	$15.60
514002	2	1.17	19.50	15.60
514003	3	1.17	19.50	15.60
51403.5	3-1/2	1.17	19.50	15.60
514005	5	1.11	18.50	14.80
514006	6	1.11	18.50	14.80
5146.25	6-1/4	1.11	18.50	14.80
514007	7	1.11	18.50	14.80
514008	8	1.11	18.50	14.80
514010	10	1.11	18.50	14.80
514015	15	1.11	18.50	14.80
514020	20	1.11	18.50	14.80
514025	25	1.11	18.50	14.80
514030	30	1.11	18.50	14.80
514035	35	1.17	19.50	15.60
514040	40	1.17	19.50	15.60

HIGH VOLTAGE FUSES

Designed for use in aircraft radio equipment, transmitting equipment, X-ray apparatus, high voltage rectifiers, etc., for circuits up to 20 KW DC or 30 KVA AC. Fuses are fiber enclosed with cadmium plated end caps. Two principles of arc suppression are employed: (1) Multi-break fuse wire which blows at each half inch of its length; (2) Ceramic baffles break the arc into several parts and quench it. **Blow Time:** 110%, 4-hour min.; 135%, 0-1 hour; 200% 0-2 minutes.

1000-VOLT (3" x 13/32")

L.F. No.	Amp Rating	Net Each	Net per 100 100	Net per 100 500
621.375	3/8	$0.31	$25.50	$20.40
621.500	1/2	.31	25.50	20.40
621.750	3/4	.31	25.50	20.40
621001	1	.31	25.50	20.40
62101.5	1-1/2	.31	25.50	20.40
621002	2	.31	25.50	20.40

2500-VOLT (4½" x 13/32")

L.F. No.	Amp Rating	Net Each	Net per 100 100	Net per 100 500
622.500	1/2	$0.40	$33.50	$26.80
622.750	3/4	.40	33.50	26.80
622001	1	.40	33.50	26.80
62201.5	1-1/2	.40	33.50	26.80
622002	2	.40	33.50	26.80

3000-VOLT (5½" x 13/32")

L.F. No.	Amp Rating	Net Each	Net per 100 100	Net per 100 500
623.500	1/2	$0.59	$49.50	$39.60
623.750	3/4	.59	49.50	39.60
623001	1	.59	49.50	39.60
62301.5	1-1/2	.59	49.50	39.60
623002	2	.59	49.50	39.60

1000-VOLT (3" x 13/16")

L.F. No.	Amp Rating	Net Each	Net per 100 100	Net per 100 500
701.062	1/16	$0.72	$60.00	$48.00
701.125	1/8	.72	60.00	48.00
701.250	1/4	.72	60.00	48.00
701.375	3/8	.72	60.00	48.00
701.500	1/2	.72	60.00	48.00
701.750	3/4	.72	60.00	48.00
701001	1	.72	60.00	48.00
70101.5	1-1/2	.72	60.00	48.00
701002	2	.72	60.00	48.00

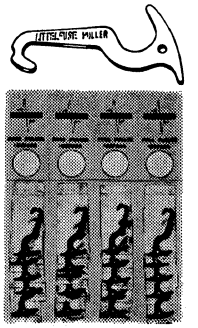
5000-VOLT (5" x 13/16")

L.F. No.	Amp Rating	Net Each	Net per 100 100	Net per 100 500
702.062	1/16	$0.75	$62.50	$50.00
702.125	1/8	.75	62.50	50.00
702.250	1/4	.75	62.50	50.00
702.375	3/8	.75	62.50	50.00
702.500	1/2	.75	62.50	50.00
702.750	3/4	.75	62.50	50.00
702001	1	.75	62.50	50.00
70201.5	1-1/2	.75	62.50	50.00
702002	2	.75	62.50	50.00
70202.5	2-1/2	.75	62.50	50.00
702003	3	.75	62.50	50.00

10,000-VOLT (10" x 13/16")

L.F. No.	Amp Rating	Net Each	Net per 100 100	Net per 100 500
703.062	1/16	$1.55	$129.50	$103.60
703.125	1/8	1.55	129.50	103.60
703.250	1/4	1.55	129.50	103.60
703.175	3/8	1.55	129.50	103.60
703.500	1/2	1.55	129.50	103.60
703.750	3/4	1.55	129.50	103.60
703001	1	1.55	129.50	103.60
70301.5	1-1/2	1.55	129.50	103.60
703002	2	1.55	129.50	103.60
703003	3	1.55	129.50	103.60

FUSE PULLER AND ASSORTMENT



Handy tool provides safe, easy method of extracting any blown fuse. Hooks around fuse permitting easy jerk-out. Available singly (097006) or in card-mounted assortment of 20 pullers, pressure sensitively attached on a card (094066).

L.F. No.	Net Ea., Lots 1-100	Net Ea., Lots 500Up
097006	$0.18	$0.12
094066	5.00	4.17

Net

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MOUNTINGS FOR SARKES TARZIAN AND INTERNATIONAL RECTIFIERS

L.F. No.	Description	Net Each, Lots of 5	Net per 100	
			100	500
099062	Single pole, 5/16" base	$0.16	$13.50	$10.80
099063	Double pole, 5/16" base	.32	27.00	21.60
099065	Double pole, 1/16" base	.21	17.50	14.00
099065-3	1/16" Bakelite insulator	.017	1.68	1.40
099067	Single pole 1/16" base	.09	7.50	6.00
099067-3	1/16" Bakelite insulator	.01	.85	.68

STANDARD FUSE CLIPS (PHOSPHOR BRONZE, NICKEL PLATED)

L.F. No.	Fuse Adaptation	Type	Net Each, Lots of 5	Net per 100	
				100	500
101001	SFE, 3AG, 8AG, 3AB	Ear	$0.0228	$ 1.90	$ 1.52
101002	SFE, 3AG, 8AG, 3AB	Earless	.0228	1.90	1.52
101003*	SFE, 3AG, 8AG, 3AB	Lug	.0318	2.65	2.12
103001	4AG, 4AB	Ear	.0396	3.30	2.64
104002	4AG, 4AB	Earless	.0396	3.30	2.64
105001	5AG	Ear	.0486	4.05	3.24
105002	5AG	Earless	.0486	4.05	3.24
107001	9/16" dia.	Ear	.078	6.50	5.20
107002	9/16" dia.	Earless	.078	6.50	5.20
109001	13/16" dia.	Ear	.204	17.00	13.60
109002	13/16" dia.	Earless	.204	17.00	13.60

*Unplated, bright dip.

STANDARD FUSE CLIPS (BERYLLIUM COPPER, SILVER PLATED)

121001	SFE, 3AG, 8AG, 3AB	Ear	$0.0486	$ 4.05	$ 3.24
121002	SFE, 3AG, 8AG, 3AB	Earless	.0486	4.05	3.24
121004	SFE, 3AG, 8AG, 3AB	Lug	.114	9.50	7.60
123001	4AG, 4AB	Ear	.078	6.50	5.20
123002	4AG, 4AB	Earless	.078	6.50	5.20
125001	5AG, hi-volt	Ear	.12	10.00	8.00
125002	5AG, hi-volt	Earless	.12	10.00	8.00
127001	9/16" dia.	Ear	.258	21.50	17.20
127002	9/16" dia.	Earless	.258	21.50	17.20
129001	13/16" dia.	Ear	.60	50.00	40.00
129002	13/16" dia.	Earless	.60	50.00	40.00

3AG MOUNTINGS

L.F. No.	Description	Net Each, Lots of 5	Net per 100	
			100	500
351009	Hinged can cover, 2 pole	$1.182	$98.50	$78.80
351010	Spare, 1 pole	.162	13.50	10.80
352001	Through panel, 1 pole	.27	22.50	18.00
353001	Panel, 1 pole	.48	40.00	32.00

3AG MOUNTINGS WITH SCREW TERMINALS—TYPE T

L.F. No.	Description	Net Ea. Lots of 5	Net per 100	
			100	500
356001	1 pole	$0.34	$ 28.50	$ 22.80
356002	2 pole	.66	55.00	44.00
356003	3 pole	1.00	83.00	66.40
356004	4 pole	1.70	142.00	113.60
356005	5 pole	2.12	176.50	141.20
356006	6 pole	2.50	208.00	166.40
356007	7 pole	2.94	245.00	196.00
356008	8 pole	3.35	279.00	223.20
356009	9 pole	3.75	312.50	250.00
356010	10 pole	4.13	344.00	275.20
356011	11 pole	4.52	377.00	301.60
356012	12 pole	4.85	404.00	323.20

3AG MOUNTINGS WITH SOLDER TERMINALS—TYPE S

357001	1 pole	$0.16	$ 13.50	$ 10.80
357002	2 pole	.32	27.00	21.60
357003	3 pole	.49	41.00	32.80
357004	4 pole	.62	51.50	41.20
357005	5 pole	.76	63.00	50.40
357006	6 pole	.89	74.00	59.20
357007	7 pole	1.01	84.00	67.20
357008	8 pole	1.15	96.00	76.80
357009	9 pole	1.30	108.00	86.40
357010	10 pole	1.44	120.00	96.00
357011	11 pole	1.58	132.00	105.60
357012	12 pole	1.73	144.00	115.20

8AG MOUNTINGS

383001	1 pole*	$0.48	$40.00	$32.00
383002	1 pole†	.32	27.00	21.60

*Thru-panel. †Meter back.

8AG MOUNTINGS WITH SOLDER TERMINALS—TYPE S

L.F. No.	Description	Net Ea. Lots of 5	Net per 100	
			100	500
387001	1 pole	$0.16	$ 13.50	$ 10.80
387002	2 pole	.32	27.00	21.60
387003	3 pole	.49	41.00	32.80
387004	4 pole	.62	51.50	41.20
387005	5 pole	.76	63.00	50.40
387006	6 pole	.89	74.00	59.20
387007	7 pole	1.01	84.00	67.20
387008	8 pole	1.15	96.00	76.80
387009	9 pole	1.30	108.00	86.40
387010	10 pole	1.44	120.00	96.00
387011	11 pole	1.58	132.00	105.60
387012	12 pole	1.73	144.00	115.20

4AG FUSE MOUNTINGS WITH SCREW TERMINALS—TYPE T

L.F. No.	Description	Net Ea. Lots of 5	Net per 100	
			100	500
456001	1 pole	$0.44	$ 36.50	$ 29.20
456002	2 pole	.85	70.50	56.40
456003	3 pole	1.25	104.50	83.60
456004	4 pole	2.26	188.50	150.80
456005	5 pole	2.84	236.50	189.20
456006	6 pole	3.35	279.50	223.60
456007	7 pole	3.95	329.00	263.20
456008	8 pole	4.49	374.50	299.60
456009	9 pole	5.04	420.00	336.00
456010	10 pole	5.59	466.00	372.80
456011	11 pole	6.14	511.50	409.20
456012	12 pole	6.60	550.00	440.00

5AG MOUNTINGS WITH SCREW TERMINALS—TYPE T

556001	1 pole	$0.50	$ 41.50	$ 33.20
556002	2 pole	.98	81.50	65.20
556003	3 pole	1.45	120.50	96.40
556004	4 pole	2.76	230.00	184.00
556005	5 pole	3.44	286.50	229.20
556006	6 pole	4.07	339.50	271.60
556007	7 pole	4.79	399.00	319.20
556008	8 pole	5.45	454.50	363.60
556009	9 pole	6.12	510.00	408.00
556010	10 pole	6.76	563.00	450.40
556011	11 pole	7.42	618.00	494.40
556012	12 pole	7.97	664.50	531.60

HIGH VOLTAGE FUSE HOLDERS

For 701000 Series Fuses.

L.F. No.	Size, In. L. x H.	Net Each	Net per 100	
			100	500
711001	2½ x 1⅜	$1.67	$139.00	$111.20

For 702000 Series Fuses.

711002	6½ x 1⅜	$1.88	$156.50	$125.20

For 703000 Series Fuses.

711003	12 x 3	$4.46	$371.50	$297.20

For 621000 Series Fuses.

631001	4 x 1 9/64	$0.94	$78.00	$62.40

For 622000 Series Fuses.

631002	5¼ x 1 9/64	$1.33	$111.00	$88.80

For 623000 Series Fuses.

631003	6¼ x 1 9/64	$1.44	$120.00	$96.00

TV SNAP-ON FUSE HOLDERS

094025	10 holders*	$1.90	.....	.....
350130	Holders†	.19	$15.00	$10.00

*In plastic box. †Bulk.

MANUAL RESET CIRCUIT BREAKERS

Exact replacement protector for TV circuits. Ideal for current overload protection for model railroads, toy transformers, hair dryers, small appliances, tools, wiring, etc. For 125 VAC operation. Size, 1¾" x 13/16" x ½".

L.F. No.*	Trip Rating Amps	Skin Pack Net Ea.*	Bulk Pkg. Box of 5
815.650	.650	$0.84	$3.90
815.800	.800	.84	3.90
815001	1	.84	3.90
8151.25	1.25	.84	3.90
81501.5	1.5	.84	3.90
8151.75	1.75	.84	3.90
815002	2	.84	3.90
8152.25	2.25	.84	3.90
81502.5	2.5	.84	3.90
8152.75	2.75	.84	3.90
815003	3	.84	3.90
8153.25	3.25	.84	3.90
815004	4	.84	3.90
81504.5	4.5	.84	3.90
815005	5	.84	3.90
815006	6	.84	3.90
815007	7	.84	3.90

*Add **C** when ordering (i.e., 815002**C**).

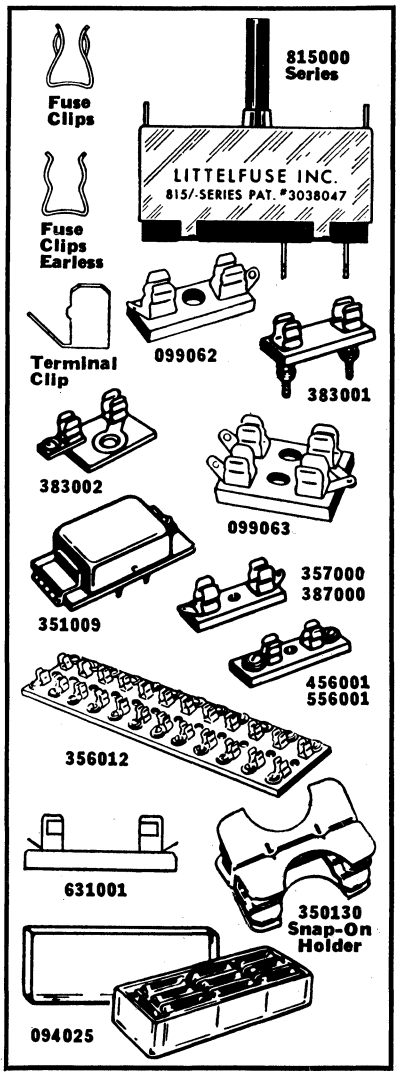
L.F. No. 094084 Bulk Assortment—One each of above circuit breakers plus one extra 2.75-amp rating. Net Ea.... **$7.80**

L.F. No. 094085 Card Assortment—Same, but card packaging. Net Each.... **$8.40**

L.F. No. 094073 Card Assortment for Color TV—One each 8151.75, 8152.25, 8152.75, 815003, 815007; two 81504.5, three 8153.25. Net Each..... **$8.40**

L.F. No. 094074 Bulk Assortment for Color TV—Same, but bulk packaging. Net Each..... **$7.80**

L.F. No. 815(000) PA-Circuit Breaker Adapter Plate—Net Each **$0.18**; 100 Net: **$15.00** ($100 lots); **$12.00** ($500 lots).



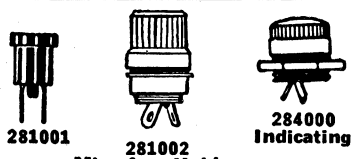
LITTELFUSE Fuses and Holders

FUSES AND ASSORTMENTS

ECON TIME-DELAY PLUG FUSES

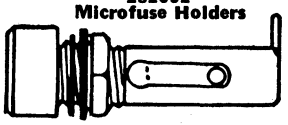
Dual-element plug type fuses provide additional protection against blowing during motor starting cycle. U/L Approved. For 125-volt operation.

L.F. No.	Amp Rating	Net per Box of 4	Net per 100
TE3/10	3/10	$0.70	$15.00
TE4/10	4/10	.70	15.00
TE8/10	8/10	.70	15.00
TE1	1	.70	15.00
TE1-1/8	1-1/8	.70	15.00
TE1-1/4	1-1/4	.70	15.00
TE1-4/10	1-4/10	.70	15.00
TE1-6/10	1-6/10	.70	15.00
TE1-8/10	1-8/10	.70	15.00
TE2	2	.70	15.00
TE2-1/4	2-1/4	.70	15.00
TE2-1/2	2-1/2	.70	15.00
TE3-2/10	3-2/10	.70	15.00
TE3-1/2	3-1/2	.70	15.00
TE4	4	.70	15.00
TE4-1/2	4-1/2	.70	15.00
TE5	5	.70	15.00
TE5-6/10	5-6/10	.70	15.00
TE6-1/4	6-1/4	.70	15.00
TE7	7	.70	15.00
TE8	8	.70	15.00
TE9	9	.70	15.00
TE10	10	.70	15.00
TE12	12	.70	15.00
TE14	14	.70	15.00
TE15	15	.38	8.10
TE20	20	.38	8.10
TE25	25	.38	8.10
TE30	30	.38	8.10

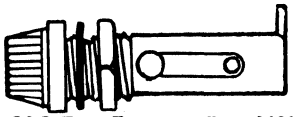


281001 — 281002 — 284000 Indicating

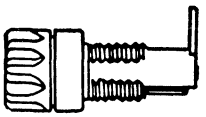
Microfuse Holders



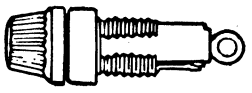
3AG Fuse Extractor Post 341001



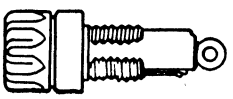
3AG Fuse Extractor Post 342001



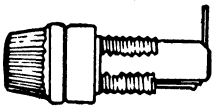
3AG Fuse Extractor Post 342004



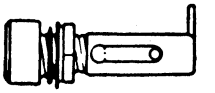
3AG Fuse Extractor Post 342012



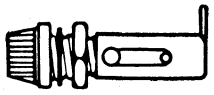
3AG Fuse Extractor Post 342014



3AG Fuse Extractor Post 342022



8AG Fuse Extractor Post 371001



8AG Fuse Extractor Post 372001

CLEARSITE ONE-TIME PLUG HOUSE FUSES

Full visibility design for positive, clear indication of fuse condition. For 125 v. AC or DC. U/L Approved. Use with standard Edison base fuse holders.

L.F. No.	Amp Rating	Net per Box of 5	Net per 100
CP10	10	$0.38	$6.80
CP15	15	.34	6.10
CP20	20	.34	6.10
CP25	25	.34	6.10
CP30	30	.34	6.10

UNIVERSAL AUTO FUSE ASSORTMENT

Emergency fuse kit with ten popular replacement fuses for any car.
Littelfuse No. 094080—Net Each....**71c**

FUSE CADDY

Standard fuse caddy for servicemen to carry in tube caddy. Fifteen compartments for 75 fuses; three spare compartments. See-thru plastic top for easy identification.
Littelfuse No. 094037—Net Each..**$8.28**

LIMITED-CURRENT FUSE CADDY

Handy, all-inclusive limited-current fuse caddy complete with 75 fuses of 15 different types. Three extra (spare) compartments.
Littelfuse No. 094041—Net Each.**$11.21**

FUSEMASTER DISPLAY

Fuse wall rack with 60 individual compartments for easy, instant self-service. Holds index card on back of rack. Ideal for servicemen, laboratories, etc.
Littelfuse No. 094047—Complete with 100 assorted fuses. Net Each.....**$13.67**
Littelfuse No. 094048—Empty rack. Net Each.....**85c**

FUSE HOLDERS, RETAINERS

MICROFUSE HOLDERS

For mounting of 273000 Series Microfuse. Type 281002 is front panel mounting; 281001 ideal for printed circuit board mtg.; 284000 Series front panel mtg. with indicator bulb.

L.F. No.	Voltage Range	Net Each	Net per 100	
			100	500
281001	.....	$0.26	$ 21.50	$ 17.20
281002	.....	.58	48.50	38.80
282001	.....	1.31	109.00	87.00
282002	.....	1.24	103.00	82.00
284004	2½-7	2.21	184.00	147.20
284005	7-16	2.21	184.00	147.20
284006	16-32	2.21	184.00	147.20
284003	100-125	1.55	129.00	103.20

3AG FUSE EXTRACTOR POSTS

L.F. No.	Type	Net Each	Net per 100	
			100	500
340255A	R/F shld'd (FHN26G)	$4.20	$350.00	$280.00
340256A	R/F shld'd (FHN20G)	4.20	350.00	280.00
341001	Screw	.50	42.00	33.60
342001	Finger	.50	42.00	33.60
342004	Miniature	.42	35.00	28.00
342005	Miniature*	.50	42.00	33.60
342006	Watertight	3.23	269.00	215.20
342007	Non-water	2.29	190.50	152.40
342012	Miniature	.37	31.00	24.80
342013	Miniature*	.44	36.50	29.20
342014	Miniature	.37	31.00	24.80
342015	Miniature*	.44	36.50	29.20
342020	Miniature	.77	64.00	51.20
342021	FHN 26W	4.10	342.00	273.60
342022	Miniature	.42	35.00	28.00
342023	Miniature*	.50	42.00	33.60
342024	FHN 26G	1.24	103.50	82.80
342025	FHN 20G	1.28	107.00	85.60

*Dust-proof.

8AG FUSE EXTRACTOR POSTS

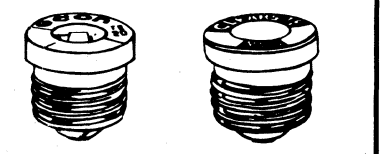
L.F. No.	Type	Net Each	Net per 100	
			100	500
371001	Screw	$0.50	$ 42.00	$ 33.60
372001	Finger	.50	42.00	33.60
372003	FHN31G	2.50	208.50	166.80

4AG FUSE EXTRACTOR POSTS

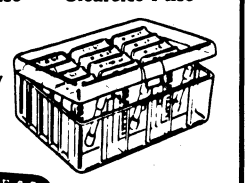
442001	Finger	$1.06	$ 88.00	$ 70.40
442006	Watertight	3.23	269.00	215.20
442007	Non-water.	2.29	190.50	152.40
442008	Watertight	4.10	342.00	273.60

5AG FUSE EXTRACTOR POSTS

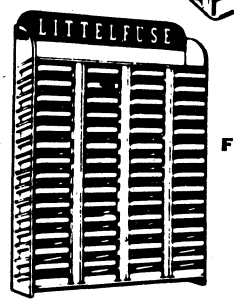
L.F. No.	Type	Net Each	Net per 100	
			100	500
570001	Non-watertight	$2.90	$241.50	$193.20
571004	Watertight	3.51	292.50	234.00



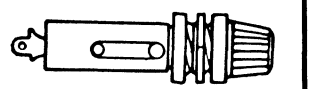
Econ Plug Fuse — Clearsite Fuse



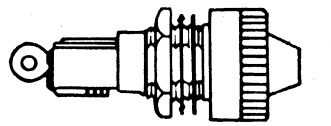
Fuse Caddy and L-C Fuse Caddy



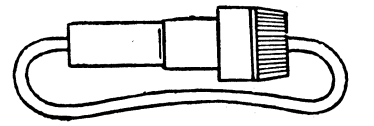
Fusemaster Display



4AG Fuse Extractor Post 442001



Indicating Fuse Post 344000



Bakelite In-Line Fuse Retainer Assembled with Lead

3AG INDICATING FUSE POSTS

L.F. No.	Voltage	Net Each	Net per 100	
			100	500
344006	2½-7 V	$2.50	$208.00	$166.40
344012	7-16 V	2.50	208.00	166.40
344024	16-32 V	2.50	208.00	166.40
344125	100-125 V	1.52	127.00	101.60
344250	200-250 V	1.52	127.00	101.60

SERIES 346000 LIMITED CURRENT FUSE HOLDERS

For use with regular and Slo-Blo Type C and N limited current fuses. Specify amperage when ordering. **$12.00**
Net per 100.....
Net per 500.....**$48.00**

UNIVERSAL FUSE RETAINER

Comes with three different length springs for fuse sizes 7½ SFE thru 3AG. **39c**
L.F. No. 150145—Net Each.....
Net 100..**$32.50.** Lots 500, Net 100..**$26.00**

BAKELITE® IN-LINE FUSE RETAINERS ASSEMBLED WITH 19" LEAD

L.F. No.	Use with Fuses	Net Ea., Lots of 5	Net per 100	
			100	500
155004A	SFE 4, 1AG	$0.37	$31.00	$24.80
155006A	SFE 6	.37	31.00	24.80
15507.5A	SFE 7½	.37	31.00	24.80
155009A	SFE 9, 7AG	.37	31.00	24.80
155014A	SFE 14	.37	31.00	24.80
155020A	SFE 20, 3AG	.37	31.00	24.80
150069-SA-2*		.25	20.50	16.40

®Bakelite Corp. *Knob sub-assembly.

Net

© U.C.P., Inc.

MILITARY FUSES and FUSEHOLDERS

Cross Reference of Littelfuse Part Number vs. Military Type Designation as per Specification MIL-F-15160D (Qualified Product Listing-Fuses) and MIL-F-19207A (Fuse Holders).

New Type Designation (MIL-F-15160D)	Series	Littelfuse Cat. No. Nickel Plated Caps	Silver Plated Caps	List Each	Price per M 1-99	100-499	500-999
FO1A250V 1/200A		364.005	366.005	$0.72	$432.00	$360.00	$288.00
FO1A250V 1/100A	361000 Series	364.010	366.010	.64	384.00	320.00	256.00
FO1A250V 1/32A		364.031	366.031	.56	336.00	280.00	224.00
FO1A250V 1/16A		364.062	366.062	.35	210.00	175.00	140.00
FO1A250V 1/8A		364.125	366.125	.25	150.00	125.00	100.00
FO1A250V 1/4A		364.250	366.250	.17	102.00	85.00	68.00
FO1A250V 3/8A		364.375	366.375	.17	102.00	85.00	68.00
FO1A250V 1/2A	362000 Series	364.500	366.500	.17	102.00	85.00	68.00
FO1A125V 3/4A		364.750	366.750	.17	102.00	85.00	68.00
FO1A125V 1A		364001	366001	.10	60.00	50.00	40.00
FO1A125V 1-1/2A		36401.5	36601.5	.10	60.00	50.00	40.00
FO1A125V 2A		364002	366002	.10	60.00	50.00	40.00
FO2A250V 1/100A		392.010	397.010	.64	384.00	320.00	256.00
FO2A250V 1/32A		392.031	397.031	.56	336.00	280.00	224.00
FO2A250V 1/16A		392.062	397.062	.25	150.00	125.00	100.00
FO2A250V 1/8A		392.125	397.125	.25	150.00	125.00	100.00
FO2A250V 1/4A		392.250	397.250	.17	102.00	85.00	68.00
FO2A250V 3/8A		392.375	397.375	.17	102.00	85.00	68.00
FO2A250V 1/2A	312000 Series	392.500	397.500	.17	102.00	85.00	68.00
FO2A250V 3/4A		392.750	397.750	.17	102.00	85.00	68.00
FO2A250V 1A		392001	397001	.10	60.00	50.00	40.00
FO2A250V 1-1/2A		39201.5	39701.5	.10	60.00	50.00	40.00
FO2A250V 2A		392002	397002	.10	60.00	50.00	40.00
FO2A250V 3A		392003	397003	.094	56.40	47.00	37.60
FO2A250V 4A		392004	397004	.13	78.00	65.00	52.00
FO2A250V 5A		392005	397005	.13	78.00	65.00	52.00
FO2A250V 6A		392006	397006	.13	78.00	65.00	52.00
FO2A32V 10A	(311000) 307000 for 20 ampere	392010	397010	.066	39.60	33.00	26.40
FO2A32V 15A		392015	397015	.066	39.60	33.00	26.40
FO2A32V 20A		392020	397020	.059	35.40	29.50	23.60
FO2B250V 1/100A		393.010	398.010	.48	288.00	240.00	192.00
FO2B250V 1/32A	313000 Series	393.031	398.031	.48	288.00	240.00	192.00
FO2B250V 1/16A		393.062	398.062	.35	210.00	175.00	140.00
FO2B250V 1/8A		393.125	398.125	$0.35	$210.00	$175.00	$140.00
FO2B250V 1/4A		393.250	398.250	.35	210.00	175.00	140.00
FO2B250V 3/8A	313000 Series (Cont'd)	393.375	398.375	.35	210.00	175.00	140.00
FO2B250V 1/2A		393.500	398.500	.35	210.00	175.00	140.00
FO2B250V 3/4A		393.750	398.750	.35	210.00	175.00	140.00
FO2B250V 1A		393001	398001	.35	210.00	175.00	140.00
FO3A250V 1A		394001	399001	.22	132.00	110.00	88.00
FO3A250V 3A		394003	399003	.22	132.00	110.00	88.00
FO3A250V 5A		394005	399005	.21	126.00	105.00	84.00
FO3A250V 8A		394008	399008	.21	126.00	105.00	84.00
FO3A250V 10A	314000 Series	394010	399010	.21	126.00	105.00	84.00
FO3A250V 12A		394012	399012	.22	132.00	110.00	88.00
FO3A250V 15A		394015	399015	.22	132.00	110.00	88.00
FO3A125V 20A		394020	399020	.22	132.00	110.00	88.00
FO3A125V 30A		394030	399030	.27	162.00	135.00	108.00
FO3B250V 1/16A		390.062	395.062	.54	324.00	270.00	216.00
FO3B250V 1/8A		390.125	395.125	.54	324.00	270.00	216.00
FO3B250V 15/100A		390.150	395.150	.54	324.00	270.00	216.00
FO3B250V 3/16A	324000 Slo-Blo Series	390.187	395.187	.54	324.00	270.00	216.00
FO3B250V 1/4A		390.250	395.250	.54	324.00	270.00	216.00
FO3B250V 3/8A		390.375	395.375	.54	324.00	270.00	216.00
FO3B250V 1/2A		390.500	395.500	.54	324.00	270.00	216.00
FO3B250V 3/4A		390.750	395.750	.54	324.00	270.00	216.00
FO3B250V 1A		390001	395001	.54	324.00	270.00	216.00
FO6A250V 1A		494001	499001	.34	204.00	170.00	136.00
FO6A250V 2A		494002	499002	.34	204.00	170.00	136.00
FO6A250V 3A	414000 Series	494003	499003	.34	204.00	170.00	136.00
FO6A250V 5A		494005	499005	.32	192.00	160.00	128.00
FO6A250V 10A		494010	499010	.32	192.00	160.00	128.00
FO6A250V 15A		494015	499015	.32	192.00	160.00	128.00
FO7A250V 1A		590001	595001	.21	126.00	105.00	84.00
FO7A250V 2A	512000 Series	590002	595002	.21	126.00	105.00	84.00
FO7A250V 3A		590003	595003	.21	126.00	105.00	84.00

NOTE: Add $9.00 Stamping Charge per item, per order, and $3.00 Silver Plating Charge per item, per order when required. The Suffix "S" to the type designation indicates that Silver Plated fuse caps are required, for example: FO2A250V 3/4A "S".

FUSEHOLDERS TO MILITARY SPECIFICATION MIL-F-19207A

Type Designation (MIL-F-19207A)	Description	Littelfuse Catalog No.	Commercial Equivalent	List Each	Price per M 1-99	100-499	500-999
FHL 17G	90-300V INDICATING	349250	.....	$3.31	$1,986.00	$1,655.00	$1,324.00
FHL 18G-1	12- 22V INDICATING	349012	.....	5.12	3,072.00	2,560.00	2,048.00
FHL 18G-2	23- 33V INDICATING	349023	.....	5.00	3,000.00	2,500.00	2,000.00
FHL 18G-3	34- 45V INDICATING	349034	.....	5.00	3,000.00	2,500.00	2,000.00
FHL 18G-4	46- 60V INDICATING	349046	.....	5.00	3,000.00	2,500.00	2,000.00
FHL 18G-5	61- 80V INDICATING	349061	.....	5.00	3,000.00	2,500.00	2,000.00
FHL 18G-6	81- 90V INDICATING	349081	.....	5.00	3,000.00	2,500.00	2,000.00
FHL 44G-1	Microfuse-Indicating	284007	.....	5.35	3,210.00	2,675.00	2,140.00
FHL 44G-2	Microfuse-Indicating	284008	.....	6.07	3,642.00	3,035.00	2,428.00
FHL 44G-3	Microfuse-Indicating	284009	.....	6.07	3,642.00	3,035.00	2,428.00
FHL 44G-4	Microfuse-Indicating	284010	.....	6.10	3,660.00	3,050.00	2,440.00
FHL 44G-5	Microfuse-Indicating	284011	.....	6.10	3,660.00	3,050.00	2,440.00
FHL 44G-6	Microfuse-Indicating	284012	.....	6.10	3,660.00	3,050.00	2,440.00
FHL 45G	Microfuse-Indicating	284013	.....	4.17	2,502.00	2,085.00	1,668.00
FHN 20G	3AG MINIATURE	342025	342004	2.14	1,284.00	1,070.00	856.00
FHN 26G	3AG MINIATURE	342024	342012	2.07	1,242.00	1,035.00	828.00
FHN 31G	8AG EXTRACTOR	372003	372001	4.17	2,502.00	2,085.00	1,668.00
FHN 19W	4AG WATERPROOF	442008	442006	6.84	4,104.00	3,420.00	2,736.00
FHN 26W	3AG WATERPROOF	342021	342006	6.84	4,104.00	3,420.00	2,736.00
FHN 26G	R/F SHIELDED	340255A	.....	7.00	4,200.00	3,500.00	2,800.00
FHN 20G	R/F SHIELDED	340256A	.....	7.00	4,200.00	3,500.00	2,800.00

NOTE: The Suffixes "W" and "G" to the Type Designation Denote Waterproof and Drip-proof, Respectively.

LITTELFUSE

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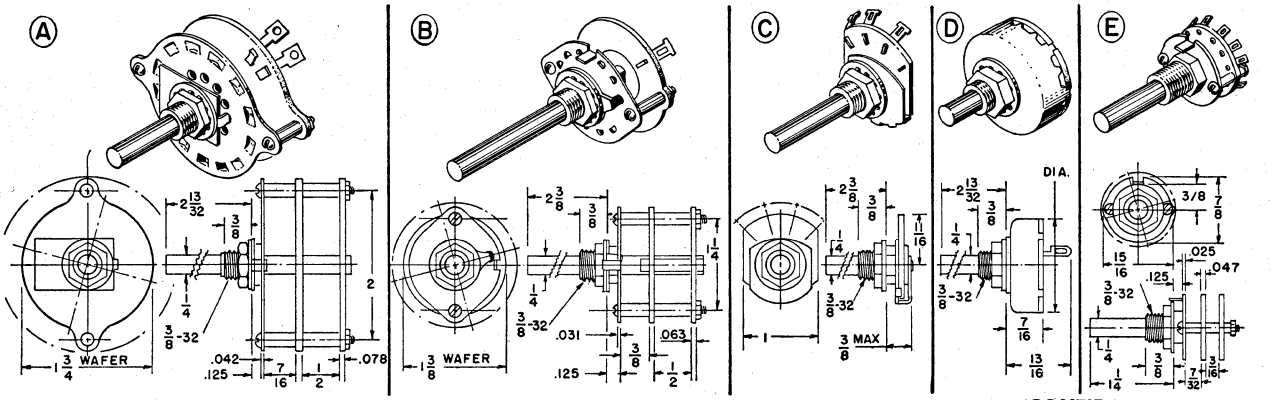
Net

MALLORY Switches



Mallory switches are available in three general styles: Rotary, lever-action and pushbutton. Most styles are supplied in both shorting and non-shorting contacts. Shorting switches have contacts with "make" before "breaking" and are widely used in audio circuits. Contacts in non-shorting switches "break" before "making". These switches may be chosen with phenolic, ceramic or glass-epoxy wafer materials. Ceramic is usually selected for high voltage circuits as in switching RF equipment. All switches are supplied with normal mounting hardware. Dial plates are not included (except for Type 13124L).

PHENOLIC WAFER ROTARY SWITCHES

Mallory phenolic wafer rotary switches come in several sizes and contact arrangements. Supplied with nut, washer and 366-1 black knob. Phenolic is MIL grade Richardson T725.

STANDARD 1¾" DIAMETER (FIG. A)

Rated 1 amp at 300 VDC; 4 amps, 50 VDC; 2 amps, 300 VAC rms; 12 amps, 6 VAC rms. Maximum non-breaking resistive load, 12 amps. Breakdown, 1000 VAC/DC. Contact resistance less than 0.01 ohm. Supplied with adjustment pin and stop plate.

Mallory Number						
Shorting	Non-Shorting	Index	Circuits per Section	No. of Sections	Max. Positions	Net Each
1211L	1311L	30°	1	1	11	$2.10
1215L	1315L	30°	2	1	5*	2.10
1213L	1313L	30°	3	1	3*	2.10
1212L	1312L	30°	4	1	2*	2.10
1221L	1321L	30°	1	2	11	2.58
1225L	1325L	30°	2	2	5*	2.58
1223L	1323L	30°	3	2	3*	2.58
1222L	1322L	30°	4	2	2*	2.58
1231L	1331L	30°	1	3	11	3.24
1235L	1335L	30°	2	3	5*	3.24
1233L	1333L	30°	3	3	3*	3.24
1232L	1332L	30°	4	3	2*	3.24
1241L	1341L	30°	1	4	11	3.81
1245L	1345L	30°	2	4	5*	3.81
1243L	1343L	30°	3	4	3*	3.81
1242L	1342L	30°	4	4	2*	3.81
1251L	1351L	30°	1	5	11	4.11
1255L	1355L	30°	2	5	5*	4.53
1261L	1361L	30°	1	6	11	4.83
1265L	1365L	30°	2	6	5*	5.52

*Plus "off" position.

24-POSITION TAP SWITCH (FIG. A)

Includes Mallory No. 394 dial.

.....	13124L	15°	1	1	24	$2.76

5-POSITION HAMSWITCH® (FIG. A)

For measuring up to 5 circuits with a single switch.

.....	151L	60°	1	1	5*	$2.70

*Plus "off" position.

CIRCUIT OPENING SWITCH (FIG. A)

For meter switching or inserting resistors, capacitors, etc. Adjustable stop.

1400L	.....	30°	1	1	11	$4.68

DECADE SWITCHES (FIG. A)

Use four resistors or capacitors for full decade. Type 153L for capacitors; 154L for resistors. Connect in series for multiple decades. Complete with instructions.

.....	153L	36°	Spec.	1	10	$2.70
.....	154L	36°	Spec.	1	10	2.94

MINIATURE 1⅜" DIAMETER (FIG. B)

Rated 350 mA at 500 VAC rms resistive. Breakdown 1700 VAC rms, 60 cps. Contact resistance 0.005 ohm. Supplied with adjustable stop, 366-1 knob and hex nut.

Mallory Number						
Shorting	Non-Shorting	Index	Circuits per Section	No. of Sections	Max. Positions	Net Each
4M11111	4M21111	30°	1	1	11	$1.80
4M1215	4M2215	30°	2	1	5	1.80
4M1313	4M2313	30°	3	1	3	1.80
4M1412	4M2412	30°	4	1	2	1.80
4M11211	4M21211	30°	1	2	11	2.58
4M1225	4M2225	30°	2	2	5	2.58
4M1323	4M2323	30°	3	2	3	2.58
4M1422	4M2422	30°	4	2	2	2.58
4M11311	4M21311	30°	1	3	11	3.24
4M1235	4M2235	30°	2	3	5	3.24
4M1333	4M2333	30°	3	3	3	3.24
4M1432	4M2432	30°	4	3	2	3.24

MINIATURE SWITCHES (CONT'D.)

Mallory Number						
Shorting	Non-Shorting	Index	Circuits per Section	No. of Sections	Max. Positions	Net Each
4M11411	4M21411	30°	1	4	11	$3.81
4M1245	4M2245	30°	2	4	5	3.81
4M1343	4M2343	30°	3	4	3	3.81
4M1442	4M2442	30°	4	4	2	3.81
4M11511	4M21511	30°	1	5	11	4.47
4M1255	4M2255	30°	2	5	5	4.47
4M1353	4M2353	30°	3	5	3	4.47
4M1452	4M2452	30°	4	5	2	4.47
4M11611	4M21611	30°	1	6	11	5.04
4M1265	4M2265	30°	2	6	5	5.04
4M1363	4M2363	30°	3	6	3	5.04
4M1462	4M2462	30°	4	6	2	5.04

MINIATURE SPECIAL PURPOSE (FIG. C)

For tone control, radio-phono use, etc. Suffix indicates: **D,** AC line switch; **S,** spring return; **K,** knurled shaft (no knob supplied).

5M1112	.....	30°	1	1	2	$1.08
5M1113	.....	30°	1	1	3	1.08
5M1113K	.....	30°	1	1	3	.75
5M1114D	.....	30°	1	1	4	1.80
.....	42L2212S	30°	2	1	2	1.08
5M1213	5M2213	30°	2	1	3	1.08
.....	4M2412S	30°	4	1	2	1.80

STEREO SPEAKER SWITCH (FIG. C)

For switching stereo speakers. Has "Main", "Both" and "Remote" positions. Phenolic wafer 1⅝" dia.; bushing ⅜"-32 x ⅜" lg.

RSA1213	.....	30°	2	1	3	$1.08

GENERAL PURPOSE ROTARY SWITCHES (FIG. D)

Single section with formed cup enclosing contacts. Rated 0.2 amp at 300VDC; 5 amps, 6 VDC; 0.25 amp, 300VAC; 6 amps, 6 VAC. Maximum non-breaking resistive load, 5 amps. Breakdown 500 VAC/DC. Contact resistance 0.01 ohm or less. Comes with 366-1 knob and nut.

Mallory Number						
Shorting	Non-Shorting	Index	Circuits	Max. Positions	Base Dia., In.	Net Each
3115J	3215J	30°	1	5	1¼	$1.02
31112J	32112J	30°	1	12	1¼	1.02
3122J	3222J	30°	2	2	1¼	1.02
3123J	3223J	30°	2	3	1¼	1.02
3126J	3226J	30°	2	6	1¼	1.02
3134J	3234J	30°	3	4	1¼	1.05
3142J	3242J	30°	4	2	1¼	1.05
3143J	3243J	30°	4	3	1¼	1.05
31117J	32117J	20°	1	17*	1 11/16	1.56
3129J	3229J	20°	2	9*	1 11/16	1.56
3136J	3236J	20°	3	6*	1 11/16	1.65
3163J	3263J	20°	6	3*	1 11/16	1.65

*Furnished with adjustable stop.

ANTENNA SWITCH

For selecting from two TV or FM antennas. Comes with all mounting hardware.

3122TV	.....	30°	2	2	1¼	$1.31

GLASS-EPOXY WAFER ROTARY SWITCHES (FIG. E)

Subminiature size employs wafers ⅞" dia. Glass-epoxy per MIL-P-18177. Rated 150 mA at 150 V rms. Max. voltage, 225 V rms. Max. current, 2.5 amps at 6 VAC rms. (All specifications at resistive load.) Supplied with nut, washer and 366-1 knob.

Mallory Number						
Shorting	Non-Shorting	Index	Circuits per Section	No. of Sections	Max. Positions	Net Each
12M11111G	12M21111G	30°	1	1	11	$4.52
12M1215G	12M2215G	30°	2	1	5	4.52
12M1313G	12M2313G	30°	3	1	3	4.52
12M1412G	12M2412G	30°	4	1	2	4.52
12M11211G	12M21211G	30°	1	2	11	5.58
12M1225G	12M2225G	30°	2	2	5	5.58
12M1323G	12M2323G	30°	3	2	3	5.58
12M1422G	12M2422G	30°	4	2	2	5.58
12M11311G	12M21311G	30°	1	3	11	6.64
12M1235G	12M2235G	30°	2	3	5	6.64
12M1333G	12M2333G	30°	3	3	3	6.64
12M1432G	12M2432G	30°	4	3	2	6.64

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MALLORY Switches

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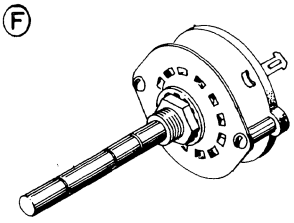

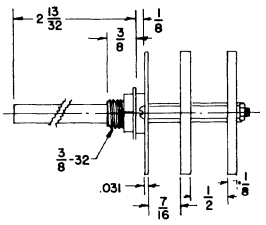

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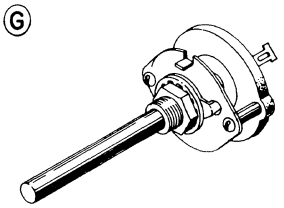

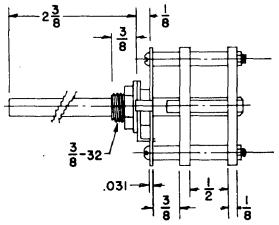

CERAMIC WAFER ROTARY SWITCHES

Mallory ceramic wafer switches are available in two wafer sizes and a variety of circuits. Generally used where high voltages are encountered or in RF circuitry. Ceramic is MIL grade Steatite with Dow-Corning 200 treatment. Switches supplied with 366-1 knob and hex nut.

STANDARD 1¾" DIAMETER (FIG. F)

Rated 0.75 amp at 300 VAC; 10 amps, 6 VAC/DC. Breakdown, 1000 VAC/DC rms. Max. non-breaking resistive load, 5 amps.

Mallory Number			Circuits per Section	No. of Sections	Max. Positions	Net Each
Shorting	Non-Shorting	Index				
.....	172C	30°	1	1	10	$2.37
.....	173C	30°	2	1	4*	2.37
.....	174C	30°	3	1	2*	2.37
.....	176C	30°	1	2	10	3.39
.....	177C	30°	2	2	4*	3.39
.....	178C	30°	3	2	2*	3.39
.....	180C	30°	1	3	10	4.32
.....	181C	30°	2	3	4*	4.32
.....	161C	90°	1	1	4	2.16
.....	162C	90°	1	2	4	3.06
.....	163C	90°	1	3	4	3.96
.....	164C	90°	1	4	4	4.86
.....	165C	90°	1	5	4	5.76

*Plus "off" position.

MINIATURE 1⅜" DIAMETER (FIG. G)

Rated 350 mA at 500 VAC rms resistive. Breakdown, 1700 VAC rms, 60 cps. Contact resistance, 0.005 ohm. Adjustable stop.

Mallory Number			Circuits per Section	No. of Sections	Max. Positions	Net Each
Shorting	Non-Shorting	Index				
4M11112C	4M21112C	30°	1	1	12	$2.37
4M1216C	4M2216C	30°	2	1	6	2.37
4M1315C	4M2315C	30°	3	1	5	2.37
4M1513C	4M2513C	30°	5	1	3	2.37
4M1612C	4M2612C	30°	6	1	2	2.37
4M11212C	4M21212C	30°	1	2	12	3.39
4M1226C	4M2226C	30°	2	2	6	3.39
4M1325C	4M2325C	30°	3	2	5	3.39
4M1523C	4M2523C	30°	5	2	3	3.39
4M1622C	4M2622C	30°	6	2	2	3.39
4M11312C	4M21312C	30°	1	3	12	4.32
4M1236C	4M2236C	30°	2	3	6	4.32
4M1335C	4M2335C	30°	3	3	5	4.32
4M1533C	4M2533C	30°	5	3	3	4.32
4M1632C	4M2632C	30°	6	3	2	4.32
4M11412C	4M21412C	30°	1	4	12	5.19
4M1246C	4M2246C	30°	2	4	6	5.19
4M1345C	4M2345C	30°	3	4	5	5.19
4M1543C	4M2543C	30°	5	4	3	5.19
4M1642C	4M2642C	30°	6	4	2	5.19
4M11512C	4M21512C	30°	1	5	12	6.18
4M1256C	4M2256C	30°	2	5	6	6.18
4M1355C	4M2355C	30°	3	5	5	6.18
4M1553C	4M2553C	30°	5	5	3	6.18
4M1652C	4M2652C	30°	6	5	2	6.18
4M11612C	4M21612C	30°	1	6	12	7.20
4M1266C	4M2266C	30°	2	6	6	7.20
4M1365C	4M2365C	30°	3	6	5	7.20
4M1563C	4M2563C	30°	5	6	3	7.20
4M1662C	4M2662C	30°	6	6	2	7.20
.....	4M2116H	60°	1	1	6	2.16
.....	4M2126H	60°	1	2	6	3.06
.....	4M2136H	60°	1	3	6	3.96
.....	4M2146H	60°	1	4	6	4.86
.....	4M2156H	60°	1	5	6	5.76
.....	4M2166H	60°	1	6	6	6.66
.....	4M2114N	90°	1	1	4	2.16
.....	4M2124N	90°	1	2	4	3.06
.....	4M2134N	90°	1	3	4	3.96
.....	4M2144N	90°	1	4	4	4.86
.....	4M2154N	90°	1	5	4	5.76
.....	4M2164N	90°	1	6	4	6.66

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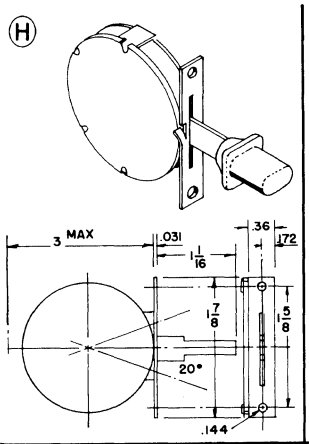

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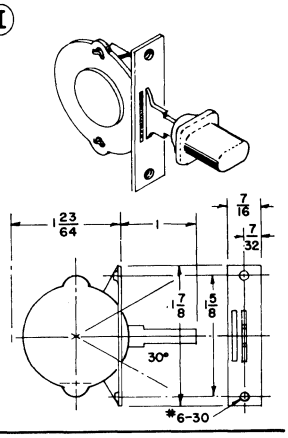

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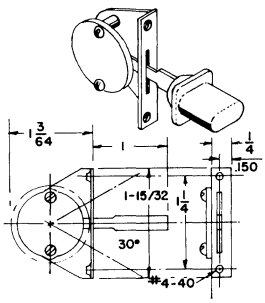

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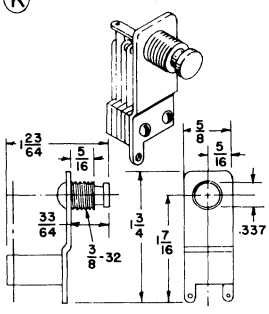


LEVER ACTION SWITCHES

Mallory lever action switches utilize MIL grade phenolic or glass-epoxy for wafer materials. Three wafer sizes available with a variety of circuits and actions. Supplied with mounting screws and knob.

STANDARD 1¾" DIA. PHENOLIC (FIG. H)

Rated 0.2 amp at 300 VDC; 5 amps, 6 VDC; 0.25 amp, 300 VAC; 6 amps, 6 VAC. Positive action. Breakdown, 500 VAC/DC rms. Max. non-breaking resistive load, 5 amps.

Mallory Number			Number of Circuits	Number of Positions	Net Each
Shorting	Non-Shorting	Index			
5124	5224	20°	2	4	$1.38
6142	6242	20°	4	2	1.20
6143	6243	20°	4	3	1.20

MINIATURE 1⅜" DIA. PHENOLIC (FIG. I)

Rated 350 mA at 500 VAC rms resistive. Breakdown, 1700 VAC rms, 60 cps. Suffix indicates action (e.g., 6M1213**S**): **S,** spring return to center; **U,** spring return to one side, positive opposite; no suffix, positive action.

6M1213	6M2213	30°	2	3	$1.20
6M1213S	6M2213S	30°	2	3	1.50
6M1213U	6M2213U	30°	2	3	1.50
.....	6M2412	30°	4	2	1.20
6M1412S	6M2412S	30°	4	2	1.50

SUBMINIATURE ⅞" DIA. GLASS-EPOXY (FIG. J)

Glass epoxy wafers per MIL-P-18177. Rated 150 mA at 150 VAC rms, resistive. Max. voltage, 225 V rms. Max. current, 2.5 amps at 6 VAC rms, resistive. Suffix indicates action (e.g., 12L1213**S**): **S,** spring return to center; **U,** spring return one side, positive opposite; no suffix, positive action.

12L1213	12L2213	30°	2	3	$3.12
12L1213S	12L2213S	30°	2	3	3.38
12L1213U	12L2213U	30°	2	3	3.38
12L1413	12L2413	30°	4	3	3.63
12L1612	12L2612	30°	6	2	4.24
12L1612S	12L2612S	30°	6	2	4.47

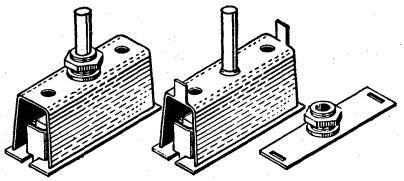
PUSHBUTTON SWITCHES (FIG. K)

Non-locking for test panels, etc. Silver contacts on alloy springs. Rated 0.4 amp at 300 VDC and 220 VAC; 4 amps, 6 VDC. Bushing ⅜"-32 x ⅜" lg. Integral phenolic knob. With nut and washer.

Mallory No.	Circuit Arrangement	Net Each
1011	SPST—Make	$0.69
1012	SPST—Break	.69
1013	SPDT	.78
1014	DPST—Make 2	.87
1015	DPST—Break 2	.87
1016	DPDT	1.05
1017	DP—Make 2, Break 1	1.05
1018	DPDT—Make before break	1.44

MALLORY Timers, Breakers, Switches

CIRCUIT BREAKERS



CBB Type CBT Type CBB Adapter

Exact replacement circuit breakers for television and industrial applications. These circuit breakers are manufactured by Mel-Rain Corp. for Mallory to the same specifications as original equipment. "Anti-cheat" reset action is non-cycling. Button must be pressed to reset. Tripping mechanism is temperature compensating for constant protection. Normal tripping time is ten seconds or less. All values above 3.1 amps have special heavy-duty contacts to withstand heavy surge currents. CBT types have twist tab mounting lugs. CBB bushing is supplied with CBB types to adapt to bushing mount.

Ask for free television circuit breaker cross-reference. Lists all popular TV sets.

Mallory Number		Break	Oper.	Surge
Tab Mtg.	Bushing Mtg.	Curr. Amps	Curr. Amps	Curr. Amps
CBT050	CBB050	0.5	0.325	2
CBT075	CBB075	0.75	0.49	3
CBT100	CBB100	1.0	0.65	5
CBT150	CBB150	1.5	0.975	12
CBT175	CBB175	1.75	1.14	12
CBT200	CBB200	2.0	1.3	12
CBT225	CBB225	2.25	1.46	12
CBT250	CBB250	2.5	1.63	12
CBT275	CBB275	2.75	1.79	12
CBT300	CBB300	3.0	1.95	12
CBT310	CBB310	3.1	2.1	25
CBT325	CBB325	3.25	2.11	25
CBT350	CBB350	3.5	2.2	25
CBT375	CBB375	3.75	2.44	25
CBT400	CBB400	4.0	2.6	25
CBT450	CBB450	4.5	2.92	25
CBT500	CBB500	5.0	3.25	25
CBT600	CBB600	6.0	3.9	25
CBT700	CBB700	7.0	4.14	25

NET PRICES, EACH

CBT050 to **CBT300**—Net Each... **$0.81**

CBT310 to **CBT700**—Net Each... **.88**

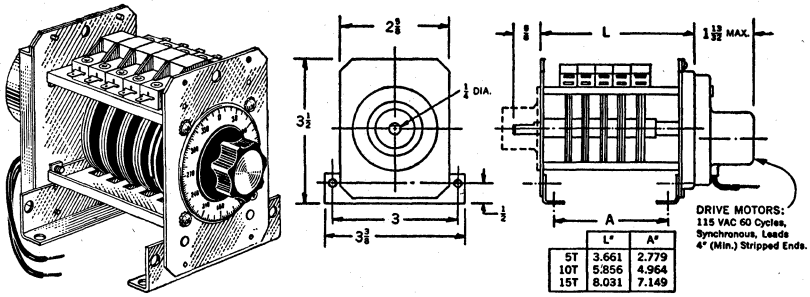
CBB050 to **CBB300**—Net Each... **.95**

CBB310 to **CBB700**—Net Each... **1.02**

Mallory No. CBB Adapter Bushing—Adapts CBT types to bushing mounting. Bushing: ⅜"-32 x ¼" with nut. Net.. **16c**

INDUSTRIAL SEQUENCE TIMERS

DIMENSIONS



	L*	A*
5T	3.661	2.779
10T	5.856	4.964
15T	8.031	7.149

Heavy-duty industrial sequence timers for industrial process control, laboratory testing, prototype timers, etc. Available in three basic frames with 5, 10, or 15 adjustable cams. Cams may be adjusted without tools to provide precise time sequence. SPDT switches are rated 15 amps at 125 VAC, equipped with quick-disconnect terminals, and snap into precision holes in basic frames. Easily replaced, but normally rated at one million cycles at rated load. Drive motors are 117 VAC synchronous and attach to frames with two screws. Interchangeable in seconds to provide time cycles from 1 minute to 24 hours. Assemblies ready to operate as received; with all instructions, timing knob and dial, terminals, timing chart and hardware.

COMPLETE ASSEMBLIES

Cycle Time hrs: min	Mallory No. 5 Circuit	Mallory No. 10 Circuit	Mallory No. 15 Circuit
:01	5TM1M	10TM1M	15TM1M
:02	5TM2M	10TM2M	15TM2M
:03	5TM3M	10TM3M	15TM3M
:04	5TM4M	10TM4M	15TM4M
:06	5TM6M	10TM6M	15TM6M
:12	5TM12M	10TM12M	15TM12M
:24	5TM24M	10TM14M	15TM24M
2:00	5TM120M	10TM120M	15TM120M
3:00	5TM180M	10TM180M	15TM180M
4:00	5TM240M	10TM240M	15TM240M
6:00	5TM360M	10TM360M	15TM360M
8:00	5TM480M	10TM480M	15TM480M
12:00	5TM720M	10TM720M	15TM720M
24:00	5TM1440M	10TM1440M	15TM1440M
Net Each	$41.80	$57.20	$73.20

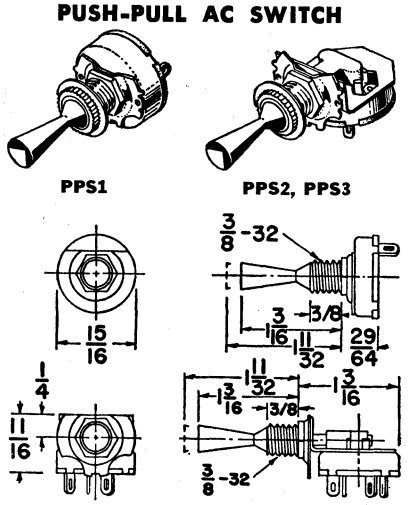
DRIVE MOTORS—1/box with timing chart and mounting screws. Net.. **$7.70**

Mallory No.	Time hrs: min	Mallory No.	Time hrs: min
M1M	:01	M120M	2:00
M2M	:02	M180M	3:00
M3M	:03	M240M	4:00
M4M	:04	M360M	6:00
M6M	:06	M480M	8:00
M12M	:12	M720M	12:00
M24M	:24	M1440M	24:00

BASIC FRAMES—1/box with MTS1 switches, SD1648 knob, dial, terminals, adjusting tool, and instructions.

Mallory No.	Description	Net Each
5T	5 Circuits (SPDT)	$33.10
10T	10 Circuits (SPDT)	49.00
15T	15 Circuits (SPDT)	65.00
ACCESSORIES		
MTS1	Snap Switch (SPDT)	.86
MTT1	Adjusting Tool	.25
T257	Brass Term. (15/bag)	.25

PUSH-PULL AC SWITCH



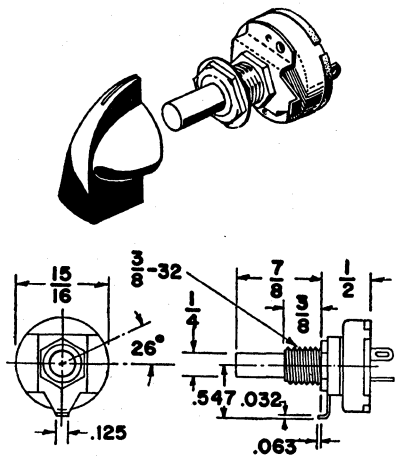
Attractive push-pull AC line switches are furnished with integral aluminum alloy handle to compliment the finest electronic equipment. Heavy duty, U.L. Approved. PPS1, PPS2 rated 6 amps at 125 VAC. PPS3 rated 3 amps 125 VAC. Furnished with a nickel-plated knurled ring nut.

Mallory No. PPS1 (SPST)—Net.. **$0.85**

Mallory No. PPS2 (DPST)—Net.. **1.00**

Mallory No. PPS3 (SPDT)—Net.. **1.00**

ROTARY AC SWITCH



Heavy-duty AC line switch with integral ⅜"-32 x ⅜" bushing and ¼" dia. shaft. For use in equipment carrying up to 6 amps (SPST) or 3 amps (SPDT and DPST). Switch action is 26°. U.L. Approved. Furnished with hex nuts, washer and 366-1 knob.

Mallory No. RAC10 (SPST)—Net **$0.85**

Mallory No. RAC12 (DPST)—Net **1.00**

Mallory No. RAC14 (SPDT)—Net **1.00**

Net

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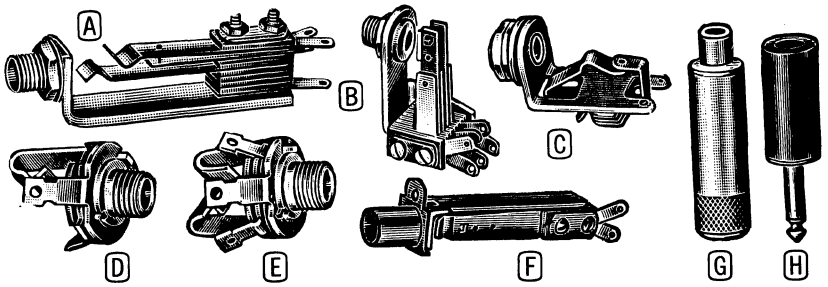
MALLORY Jacks, Plugs and Hardware

JACKS AND PLUGS



PHONE JACKS

Four configurations meet a wide range of applications. Circuit arrangements shown in chart. Supplied with nut and washer. Bushing ⅜"-32 x ⅜". Nickel-plated alloy springs, silver contacts, cadmium-plated frames.

Long Fr. (Fig. A)		Junior (Fig. B)		Infant and Midget (Fig. C)		
Mal. No.	Net Ea.	Mal. No.	Net Ea.	Mal. No.	Net Ea.	Schem.
1	45c	701	45c	A-1	33c	
2	57c	702	51c	A-2	48c	
2A	57c	702A	57c	A-2A	57c	
2B	57c	702B	57c			
3	60c	703	60c			
		703A	60c	A-3A	66c	
3B	60c	703B	60c			
		703C	60c			
		704	69c			
4A	75c	704A	69c			
4B	75c	704B	69c			
5	90c	705	75c			
6	1.05					

COMPACT JACKS (FIGS. D AND E)

JJ033 and JJ034 meet all requirements of JAN-J-641.

Mallory Number	No. Cond.	Circuit Type	Net Each
LA1	2	Open	36c
LA2	2	Closed	42c
LA2A	3	Closed	48c
SC1A	2	Open	36c
JJ034	2	Open	39c
SCA2B	3	Open	42c
JJ033	3	Open	48c

GROUNDING JACK

For aircraft grounds and similar applications.
Mallory No. GJ-1—Net Each..... **36c**

TELEPHONE JACKS (FIG. F)

For close strip mounting in switchboards; plain round bushing. Mounts by screw through mounting plate.

Mallory No. XP1—Open circuit type. Net Each..... **63c**

Mallory No. XP2B—Three circuit microphone type. Net Each..... **75c**

Mallory No. XP3B—Single circuit, make before break type. Net Each.. **90c**

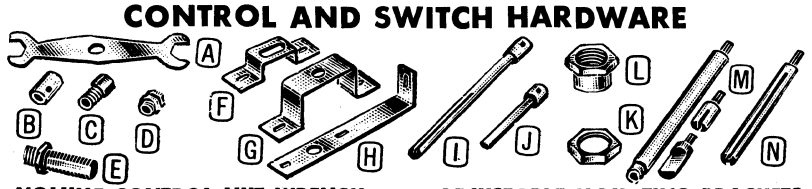
EXTENSION JACKS (FIG. G)

Mallory No.	Circuit	Shell	Net Each
100	2-way	Fiber	$1.08
100N	2-way	1-piece nickel	1.08
100A	2-way	2-piece nickel, built-in clamp	1.50

PHONE PLUGS (FIG. H)

Mal. No.	Circuit	Shell	Net Each
55	.....	Adapts mike con. to stand. jack	$0.30
75	2-way	Phenolic tie-cord anchor, shielded	.45
75A	2-way	Nickel, 2-piece tie-cord anchor, built-in cble. clp.	1.05
75N	2-way	Nickel, tie-cord anchor, shielded	.66
76	3-way	Phenolic	.90
76A	3-way	Nickel, 2-piece, built-in cble. clp.	1.17
85	2-way	Miniature phone plug, shielded	.36
H75-76	.....	Repl. handle for 75 and 76 plugs	.25

CONTROL AND SWITCH HARDWARE



VOLUME CONTROL NUT WRENCH

Mal. No.	Fig.	Description	Net Ea.
178	A	For ½" and 9/16" hex nuts	51c

COUPLERS, BUSHINGS

EC240	B	Univ. coupling and reducer	43c
EB247	C	Univ. extension bushing	13c
UB241	D	Univ. bushing and nut	12c
EB158	E	7/16" dble. flat. bushg.	32c
EB214	E	½" flatted bushing	75c

CONTROL AND SWITCH WASHERS

Mal. No.	Description	Pkg. 10
203	Extruded fiber; ¾" O.D., ⅜" I.D.	18c
212	Flat phenolic; ¾" O.D., ⅜" I.D.	10c
225	Nickel finish metal, ⅜" I.D.*	21c
226	Nickel finish metal, 7/16" I.D.*	21c
227	Cadmium plated lock washer‡	9c

*⅝" O.D. ‡11/16" O.D., 25/64" I.D.

ADJUSTABLE MOUNTING BRACKETS

Mal. No.	Fig.	Description	Net Ea.
RB248	F	1¾" mounting centers	5c
RB249	G	2½" mounting centers	5c
RB254	H	Universal	5c

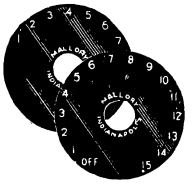
UNIVERSAL EXTENSION SHAFTS

Mal. No.	Fig.	Description	Net Ea.
RS242	I	4" long, ¼" dia., ½" flat	57c
RS243	I	4" long, ¼" dia., 3/32" flat	57c
RS244	I	4" long, 5/16" dia., 1/64" flat	57c
RS245	J	2" long, ¼" dia., 3/32" slot	81c

HEX NUTS

Mal. No.	Fig.	Description	Net
232	K	7/16" hex, ⅜"-32	1c
255	L	¼" panel shoulder	8c
A11260-12	L	½" panel shoulder	8c
A11260-2	L	¾" panel shoulder	8c

DIAL PLATES



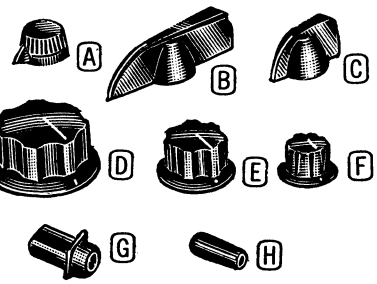
Aluminum dial plates with figures etched on solid black background. 1 13/16" dia., 7/16" hole, figures 1/64" high, .020" thick.

Mallory No. -20° Spacing	Mallory No. -30° Spacing	Marking	Net Each
.....	372	1 to 2	12c
453	373	1 to 3	12c
454	374	1 to 4	12c
455	375	1 to 5	12c
456	376	1 to 6	12c
457	377	1 to 7	12c
458	378	1 to 8	12c
459	379	1 to 9	12c
460	380	1 to 10	12c
461	381	1 to 11	12c
462	382	1 to 12	12c
463	.....	1 to 13	12c
464	.....	1 to 14	12c
465	.....	1 to 15	12c
466	.....	1 to 16	12c
467	.....	1 to 17	12c
468	.....	1 to 18	12c
472	.....	Off 1 to 2	12c
473	383	Off 1 to 3	12c
474	384	Off 1 to 4	12c
475	385	Off 1 to 5	12c
476	386	Off 1 to 6	12c
477	387	Off 1 to 7	12c
478	388	Off 1 to 8	12c
479	389	Off 1 to 9	12c
480	390	Off 1 to 10	12c
481	.....	Off 1 to 11	12c
482	.....	Off 1 to 12	12c
483	.....	Off 1 to 13	12c
484	.....	Off 1 to 14	12c
485	.....	Off 1 to 15	12c
486	.....	Off 1 to 16	12c

SPECIAL DIAL PLATES

Mall. No.	Description	Net Ea.
391	1½" dia., "Increase Volume"	12c
393	2¼" dia., 0–10 (265°)	12c
394	1 13/16" dia., 1 to 24, 15° spacing	12c
395	2¼" dia., 0–10 (275°)	12c
396	2¼" dia., 0–10 (250°) + SW (35°)	12c
397	2¼" dia., 0–10 (260°)	12c
398	2¼" dia., 0–10 (225°) + SW (40°)	12c
399	2¼" dia., 0–10 (305°)	12c
487	1 13/16" dia., 1 to 5, 60° spacing	12c
488	1 13/16" dia., 1 to 4, 90° spacing	12c

SWITCH AND CONTROL KNOBS



Mallory Number	Fig.	Description	Net Ea.
364	A	11/16" dia. black; pointer, ¼" shaft	9c
365-1	B	2¼" blk bar; ¼" shft	21c
366-1	C	1¼" blk bar; ¼" shft	15c
366-R-1	C	1¼" red bar; ¼" shft	15c
367-1	D	1½" black; ¼" shaft	21c
368-1	E	1" dia. blk; ¼" shaft	20c
1910K	F	¾" black; ⅛" shaft	20c
GS5149A	G	9/16" x 13/16" for lever switches; black	10c
LK171-1	H	5/16" dia. x ¾" thd. for lever switch; black	10c

SHAFT EXTENSIONS

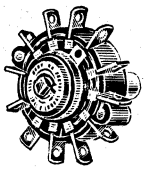
Mallory No. DS-36 (Fig. M)—¼" dia. x 2 13/16" round for U, UT, UDT and TA controls. With one knurled and slotted, and one flatted shaft end knob adapter. Net Each..... **33c**

Mallory No. DS-37 (Fig. N)—3/16" dia. x 2¼" round slotted for use with U, UT, UDT and TA controls. Net Each... **33c**

OHMITE

resistors • rheostats • tap switches • relays
variable transformers • tantalum capacitors
semiconductor devices • r.f. chokes

OHMITE Power Tap Switches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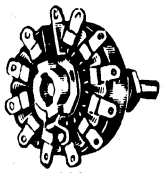
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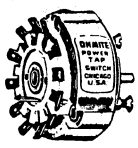
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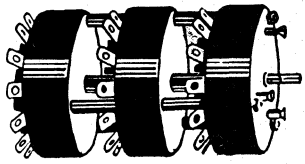
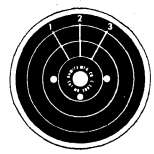

Tandem Assembly

T-10012


Dial

NEW MODEL 711 MINIATURE SWITCH

Single pole, non-shorting selector switch with stationary and movable solid silver alloy contacts. Slow-break, quick-make action achieved with cam and cam follower. Breaks 7 amps at 125 VAC (or 20 VDC); carries 15 amps at 125 VAC/DC. Molded melamine phenolic body 1¼" dia. x 13/16" depth behind panel; ¼" flatted shaft. Mounts by 3/8-32 bushing and hex nut. Model number suffix indicates taps (711-3, 3 taps).

Ohmite No.	Net Each 1-4	5-9	10-24	Ohmite No.	Net Each 1-4	5-9	10-24
711-3	$3.44	$2.92	$2.06	711-8	$3.98	$3.37	$2.38
711-4	3.55	3.02	2.12	711-9	4.08	3.46	2.44
711-5	3.65	3.10	2.19	711-10	4.19	3.55	2.50
711-6	3.76	3.19	2.25	711-11	4.30	3.64	2.56
711-7	3.87	3.28	2.31				

CERAMIC HIGH-CURRENT ROTARY SWITCHES

Non-shorting, single pole, rotary, multi-position unit with 2 or 3 in tandem available. **Bodies:** High grade, arc proof ceramic bodies. **Contacts:** Large, solid, silver alloy contacts. **Action:** Positive cam and roller mechanism provides slow-break quick make action. **Shaft:** Insulated by strong ceramic hubs. **Enclosed Mechanism:** Contacts and mechanism are entirely enclosed and protected except Model 111. **Applications:** Switchboards, arc welders, spot welders, battery chargers, motor controls, tapped transformers, X-ray equipment, diathermy equipment, radio transmitters, electrical machine tools, etc. **U/L Approved** except Model 608. Many variations from the basic switch design to meet your special switch requirements are available on request.

Model	AC Rating	Dia. In.	Shaft Dia.	Depth Behind Panel Single	Double	Triple	Single Unit Wt., Lbs.
111	15 A, 125 V	1¾"	¼"	1 1/16"	2¾"	.....	.16
212	20 A, 150 V	2¼"	¼"	1 3/16"	4 1/16"	6 3/16"	.4
312	30 A, 300 V*	3 5/16"	¼"	2¼"	4 5/8"	7"	.75
412	50 A, 300 V*	4 5/16"	¼"	2 7/16"	5 1/2"	7 5/8"	1.4
608	100 A, 300 V	6	3/8"	3 5/16"	6 15/16"	10 5/16"	5

*150 V between taps.

TOTAL ROTATION

No. of Taps	3	4	5	6	7	8	9	10	11	12
Total Rotation*	60°	90°	120°	150°	180°	210°	240°	270°	300°	330°

*For Model 608: 3 taps, 80°; 4 taps, 120°; 5 taps, 160°; 6 taps, 200°; 7 taps, 240°; 8 taps, 280°.

MODEL 111 TAP SWITCHES

No. of Taps	Total Rotation	Single Unit No.	Net Each 1-4	5-9	2 in Tandem No.	Net Each 1-2	3-4
3	60°	111-3	$3.82	$3.25	111-3-T2	$10.94	$ 9.47
4	90°	111-4	3.94	3.35	111-4-T2	11.18	9.67
5	120°	111-5	4.06	3.45	111-5-T2	11.42	9.87
6	150°	111-6	4.18	3.55	111-6-T2	11.66	10.07
7	180°	111-7	4.30	3.65	111-7-T2	11.90	10.27
8	210°	111-8	4.42	3.75	111-8-T2	12.14	10.47
9	240°	111-9	4.54	3.85	111-9-T2	12.38	10.67
10	270°	111-10	4.66	3.95	111-10-T2	12.62	10.87
11	300°	111-11	4.78	4.05	111-11-T2	12.86	11.07
Use knob		No. 5150 or 5116			No. 5109 or 5110		

MODEL 212 TAP SWITCHES

No. of Taps	Single Unit No. 212	Net Each 1-4	5-9	2 in Tandem No. 212	Net Each 1-2	3-4	3 in Tandem No. 212	Net Each 1	2-3
3	-3	$7.42	$6.30	-3-T2	$18.14	$15.57	-3-T3	$27.26	$23.90
4	-4	7.60	6.45	-4-T2	18.50	15.87	-4-T3	27.80	24.35
5	-5	7.78	6.60	-5-T2	18.86	16.17	-5-T3	28.34	24.80
6	-6	7.96	6.75	-6-T2	19.22	16.47	-6-T3	28.88	25.25
7	-7	8.14	6.90	-7-T2	19.58	16.77	-7-T3	29.42	25.70
8	-8	8.32	7.05	-8-T2	19.94	17.07	-8-T3	29.96	26.15
9	-9	8.50	7.20	-9-T2	20.30	17.37	-9-T3	30.50	26.60
10	-10	8.68	7.35	-10-T2	20.66	17.67	-10-T3	31.04	27.05
11	-11	8.86	7.50	-11-T2	21.02	17.97	-11-T3	31.58	27.50
12	-12	9.04	7.65	-12-T2	21.38	18.27	-12-T3	32.12	27.95
Knob	No. 5150 or 5116			No. 5111 or 5112			No. 5111 or 5112		

MODEL 608 TAP SWITCHES

No. of Taps	Single Unit No. 608	Net Each 1-4	5-9	2 in Tandem No. 608	Net Each 1-2	3-4	3 in Tandem No. 608	Net Each 1	2-3
3	-3	$23.84	$20.27	-3-T2	$54.28	$46.81	-3-T3	$80.32	$69.61
4	-4	24.18	20.56	-4-T2	54.96	47.39	-4-T3	81.34	70.48
5	-5	24.52	20.85	-5-T2	55.64	47.97	-5-T3	82.36	71.35
6	-6	24.86	21.14	-6-T2	56.32	48.55	-6-T3	83.38	72.22
7	-7	25.20	21.43	-7-T2	57.00	49.13	-7-T3	84.40	73.09
8	-8	25.54	21.72	-8-T2	57.68	49.71	-8-T3	85.42	73.96
Knob	No. 5104 or 5105			5104, 5105 or 5115			No. 5115		

MODEL 312 TAP SWITCHES

No. of Taps	Single Unit No. 312	Net Each 1-4	5-9	2 in Tandem No. 312	Net Each 1-2	3-4	3 in Tandem No. 312	Net Each 1	2-3
3	-3	$10.00	$8.50	-3-T2	$24.40	$20.96	-3-T3	$36.60	$32.10
4	-4	10.18	8.65	-4-T2	24.76	21.26	-4-T3	37.14	32.55
5	-5	10.36	8.80	-5-T2	25.12	21.56	-5-T3	37.68	33.00
6	-6	10.54	8.95	-6-T2	25.48	21.86	-6-T3	38.22	33.45
7	-7	10.72	9.10	-7-T2	25.84	22.16	-7-T3	38.76	33.90
8	-8	10.90	9.25	-8-T2	26.20	22.46	-8-T3	39.30	34.35
9	-9	11.08	9.40	-9-T2	26.56	22.76	-9-T3	39.84	34.80
10	-10	11.26	9.55	-10-T2	26.92	23.06	-10-T3	40.38	35.25
11	-11	11.44	9.70	-11-T2	27.28	23.36	-11-T3	40.92	35.70
12	-12	11.62	9.85	-12-T2	27.64	23.66	-12-T3	41.46	36.15
Knob	No. 5109 or 5110			No. 5111 or 5112			No. 5111 or 5112		

MODEL 412 TAP SWITCHES

No. of Taps	Single Unit No. 412	Net Each 1-4	5-9	2 in Tandem No. 412	Net Each 1-2	3-4	3 in Tandem No. 412	Net Each 1	2-3
3	-3	$13.12	$11.15	-3-T2	$30.64	$26.26	-3-T3	$45.96	$40.05
4	-4	13.38	11.37	-4-T2	31.16	26.70	-4-T3	46.74	40.71
5	-5	13.64	11.59	-5-T2	31.68	27.14	-5-T3	47.52	41.37
6	-6	13.90	11.81	-6-T2	32.20	27.58	-6-T3	48.30	42.03
7	-7	14.16	12.03	-7-T2	32.72	28.02	-7-T3	49.08	42.69
8	-8	14.42	12.25	-8-T2	33.24	28.46	-8-T3	49.86	43.35
9	-9	14.68	12.47	-9-T2	33.76	28.90	-9-T3	50.64	44.01
10	-10	14.94	12.69	-10-T2	34.28	29.34	-10-T3	51.42	44.67
11	-11	15.20	12.91	-11-T2	34.80	29.78	-11-T3	52.20	45.33
12	-12	15.46	13.13	-12-T2	35.32	30.22	-12-T3	52.98	45.99
Knob	No. 5111 or 5112			No. 5111 or 5112			No. 5111 or 5112		

ALL CERAMIC OPEN TYPE TAP SWITCHES

Rated 7 amps max., 3 amps interrupted, at 120 VAC. Less for all DC circuits above 20 V for inductive circuits and high voltages. Body 3¼" dia. (up to 8 taps, 9–12 taps are 4¼" dia.) including lugs. Shaft, ¼" dia. **Knob:** No. 5150 knob recommended. **Shorting Type:** Moving contact bridges closely spaced taps completing a new circuit before breaking the previous one. Switch arm is not indexed and can be left in any position. **Non-Shorting Type:** Positively indexed, moving contact completely disconnects from one tap before contacting succeeding tap.

No. of Contacts	Shorting Type No.	Net Each 1-4	5-9	10-24	Non-Shorting Type No.	Net Each 1-4	5-9	10-24
3	.....	.....	.....	.....	T-503	$4.21	$3.58	$2.82
4	T-504-S	$3.96	$3.37	$2.65	T-504	4.44	3.77	2.97
5	T-505-S	4.21	3.58	2.82	T-505	4.68	3.98	3.14
6	T-506-S	4.44	3.77	2.97	T-506	4.91	4.17	3.29
7	T-507-S	4.68	3.98	3.14	T-507	5.15	4.38	3.45
8	T-508-S	4.91	4.17	3.29	T-508	5.39	4.58	3.61
9	T-1009-S	7.04	5.98	4.72	T-1009	7.50	6.38	5.03
10	T-10010-S	7.27	6.18	4.87	T-10010	7.73	6.57	5.18
11	T-10011-S	7.50	6.38	5.03	T-10011	7.99	6.79	5.35
12	T-10012-S	7.73	6.57	5.18	T-10012	8.23	7.00	5.51

TAP SWITCH DIALS

Made of aluminum, etched and enameled black. Bright aluminum dial markings agree with actual number of positions on switch.

No.*	Dial Dia.	For Model	For Knob	Net Each 1-4	5-9
5002-*	2¾"	111	5109	44c	37c
		212 (Single)	5116		
		312 (Single)	5150		
5003-*	3¾"	212 (Tandem)	5111	66c	56c
		312 (Tandem)	5152A		
		412			
5004-*	5½"	608	5104	73c	62c
			5115		

*Specify number of positions as a suffix.

BLACK BAKELITE• KNOBS FOR TAP SWITCHES

No.	Description	Hole Dia.	Net Each 1-2	3-4	5-9	10-24	25-49
5104	Handwheel with Pointer	3/8"§	$1.38	$1.15	$1.15	$1.15	$1.15
5105	Handwheel without Pointer	3/8"§	1.16	.96	.96	.96	.96
5109	Finger-Grip with Pointer	¼"†	.89	.89	.76	.60	.49
5110	Finger-Grip without Pointer	¼"†	.82	.82	.70	.55	.45
5111	Finger-Grip with Pointer	¼"‡	1.32	1.32	1.12	.88	.73
5112	Finger-Grip without Pointer	¼"‡	1.21	1.21	1.03	.81	.67
5115	Bar Knob, 4¾" long	3/8"	3.00	2.49	2.49	2.49	2.49
5116	Bar Knob, 1½" long	¼"	.50	.50	.43	.34	.28
5150	Finger Grip	¼"*	.29	.29	.25	.19	.16
5152A	Handwheel, Short Pointer	¼"§	1.60	1.36	1.36	1.36	1.36

Knob Dia.: *1½", †1⅜", ‡2⅜", §3¼". •Reg. Bakelite Corp. TM.

351X-66A

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Net

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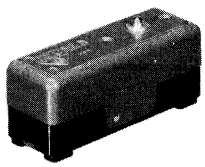
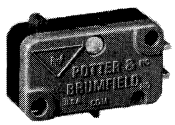
NEW! A FULL LINE OF PRECISION SWITCHES BY POTTER & BRUMFIELD

IN STOCK AT LEADING ELECTRICAL AND ELECTRONIC DISTRIBUTORS

P&B'S EXPERIENCE ASSURES RELIABILITY AND PRECISION

For more than a third of a century, we have been designing and manufacturing reliable relays. This engineering and production knowhow is now being devoted to our new line of precision snap switches. These are quality switches designed to meet or exceed industry standards for electrical ratings and life characteristics. Operating forces, actuating characteristics and mounting dimensions make these switches directly interchangeable with many competitive types. P&B precision snap action switches meet Underwriters' Laboratories and Canadian Standards Association requirements.



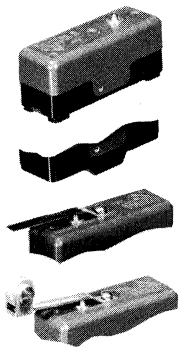


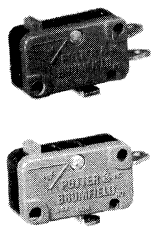
WIDE VARIETY OF STOCK SWITCHES FOR NEW APPLICATIONS AND DIRECT REPLACEMENTS

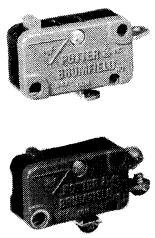
The snap switches in this catalog cover a variety of the most commonly used types and include three categories: Precision general purpose, precision miniature, and precision subminiature. All three basic types are available with various auxiliary actuators, terminals, and contact arrangements. They can be used for both AC and DC voltages.

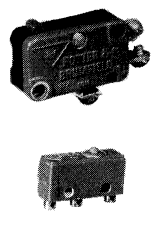
Mounting holes, terminals, operating and release forces, pretravel, overtravel, differential travel and pertinent dimensions meet established industry standards.

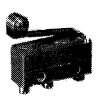
BASIC SNAP ACTION SWITCHES











PRECISION GENERAL PURPOSE

Compact, reliable, with precise mechanical and conservatively rated electrical characteristics, P&B general purpose snap action switches are for use in applications where loads may be heavy and space is not the primary consideration. They are available with a broad variety of actuators, such as pin plungers, overtravel plungers, rigid lever, roller lever, panel mount plunger, and others, as illustrated and listed on the following pages.

PRECISION MINIATURE

Sturdily constructed but light in weight and small in size, P&B precision miniature snap action switches are highly sensitive and especially suited for compact installations where precision is a primary factor. Their small size and high electrical capacity recommends them for applications of multiple installations in limited space. Basic types are available in various contact and terminal arrangements shown on the following pages.

PRECISION SUBMINIATURE

Designed for applications requiring exceptionally small size and low operating forces, P&B precision subminiature switches are especially suited for electronic equipment, business machines, military apparatus and other precision electrical equipment. They are used where space and weight are primary considerations. These types are available for either direct operation by pushers, cams, or lever actuators with or without rollers. Solder, turret and quick-connect terminals are available.

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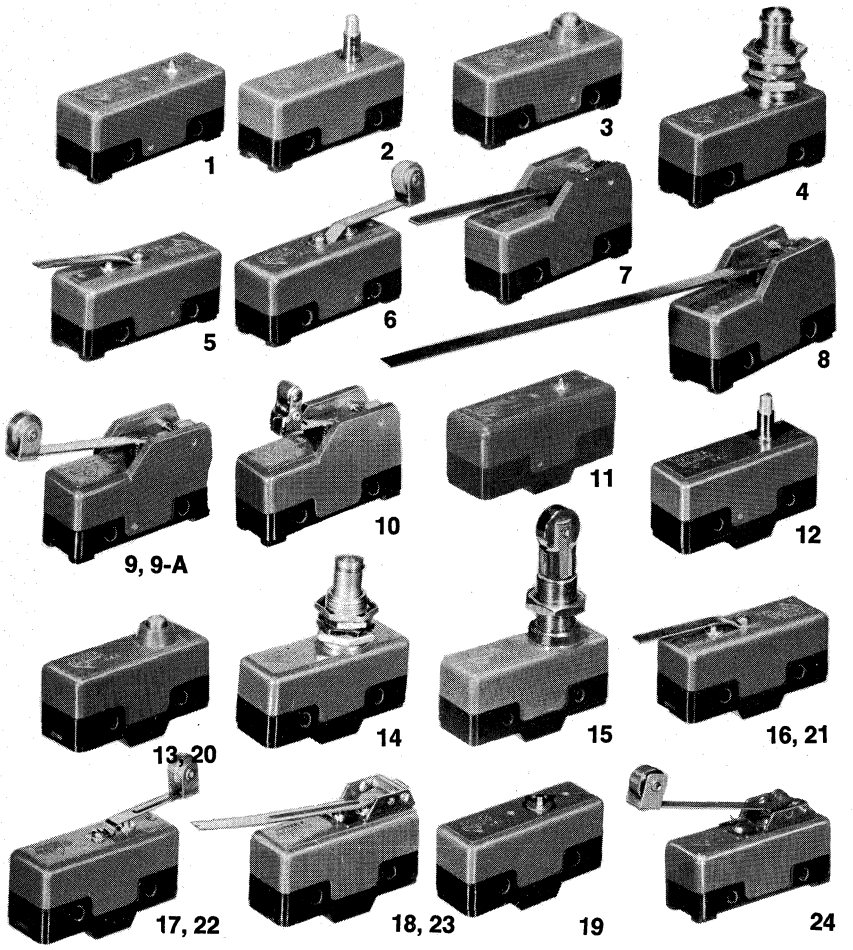
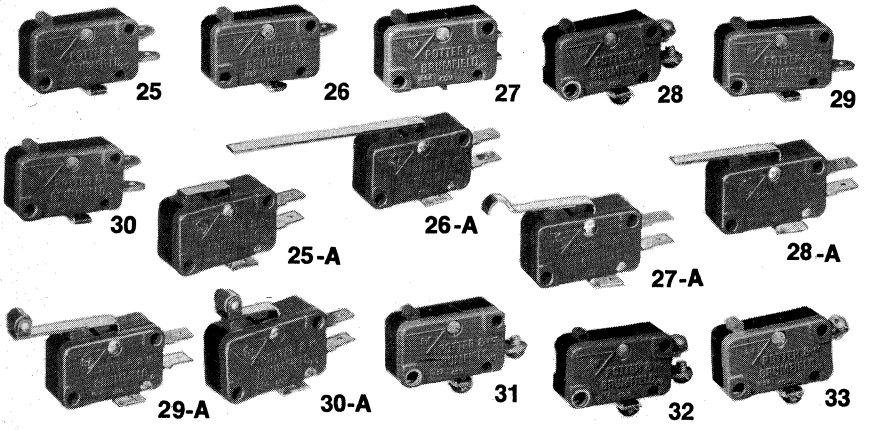
POTTER & BRUMFIELD PRECISION SWITCHES

PRECISION GENERAL PURPOSE SWITCHES—TYPES A1 G

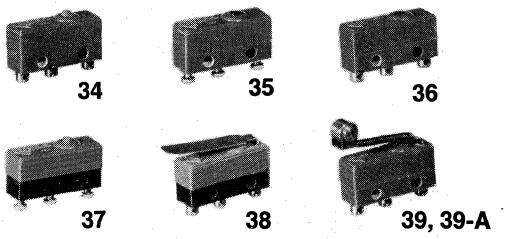
Illustration Fig. Nos.—See back page for Drawing Fig. Nos.



PRECISION MINIATURE SWITCHES—TYPES A1 M



PRECISION SUBMINIATURE SWITCHES—TYPES A1 S



SPECIFICATIONS

PRECISION GENERAL PURPOSE SWITCHES—TYPES A1 G

Meet Underwriters' Laboratories and Canadian Standards Association Requirements

For Types A1 G1—Contact arrangement: SPDT. Ratings: 15 amps, 125, 250, or 480 volts AC; ½ amp 125 volts DC; ¼ amp 250 volts DC; ⅛ HP 125 volts AC; ¼ HP 250 volts AC.

For Types A1 G2—Contact arrangement: SPDT. Ratings: 20 amps, 125, 250, or 480 volts AC; 1 HP 125 volts AC; 2 HP 250 volts AC; 10 amps 125 volts when controlling tungsten filament lamp loads on AC circuits.

PRECISION MINIATURE SWITCHES TYPES A1 M

For Types A1 M1—Contact arrangements: SPDT. Ratings: 30 volts DC; inductive: 10 amps at sea level, 6 amps at 50,000 feet; resistive: 10 amps; motor load: 6 amps.

Meet Underwriters' Laboratories requirements for 15 amps, 125, or 250 volts AC; ⅓ HP 125/250 volts AC; ½ amp 125 volts DC; ¼ amp 250 volts DC.

For Types A1 M2 (low operating force)—Contact arrangements: SPDT. Rating: 30 volts DC; inductive: 5 amps at sea level, 5 amps at 50,000 feet; resistive: 5 amps; motor load: 5 amps.

Meet Underwriters' Laboratories requirements for 10 amps, 125 or 250 volts AC; ½ amp 125 volts DC; ¼ amp 250 volts DC; ⅓ HP 125 volts AC.

For Type A1 M4 (low differential)—Contact arrangement: SPDT. Ratings: 30 volts DC; inductive: 1 amp at sea level, 1 amp at 50,000 feet; resistive: 2 amps; motor load: 1 amp.

Meet Underwriters' Laboratories requirements for 10 amps, 125 or 250 volts AC.

For Type A1 M5 (gold contacts)—Contact arrangement: SPDT. Rating: 28 volts DC; inductive: ½ amp; resistive: 1 amp; inrush: 2 amps.

PRECISION SUBMINIATURE SWITCHES TYPES A1 S

For Types A1 S1—Contact arrangement: SPDT. Rating:

Meet Underwriters' Laboratories requirements for 5 amps, 125 or 250 volts AC. The 30 volt DC rating is as follows: inductive: 3 amps at sea level and 2.5 amps at 50,000 feet; resistive: 5 amps at sea level and 50,000 feet; maximum inrush: 24 amps.

For Types A1 S5 (gold contacts)—Contact arrangement: SPDT. Rating: 28 volts DC; inductive: ½ amp; resistive: 1 amp; inrush: 2 amps.

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POTTER & BRUMFIELD PRECISION SWITCHES

PRECISION GENERAL PURPOSE SWITCHES—TYPES A1 G1

POTTER & BRUMFIELD TYPE	MICRO SWITCH EQUIVALENT	PRE-TRAVEL IN. MAX.	OVER-TRAVEL IN. MIN.	MOVEMENT DIFFERENTIAL INCHES	OPER. FORCE OZS.	RELEASE FORCE OZS. MIN.	Fig. No. Pages 2 & 4	SUGG. RESALE PRICE
A1 G1 111-1	BZ-2R	.016	.005	.0004-.002	9-13	4	1	$1.57
A1 G1 112-1	BZ-2RS	.016	.062	.0004-.002	9-13	4	2	1.95
A1 G1 113-1	BZ-2RD	.016	.062	.0004-.002	9-13	4	3	1.95
A1 G1 114-1	BZ-2RQ1	.015	.219	.0004-.002	9-13	4	4	3.55
A1 G1 115-1	BZ-2RL	.156	.062	.050	5 Max.	0.5	5	1.73
A1 G1 116-1	BZ-2RL2	.141	.062	.050	5 Max.	0.5	6	2.22
A1 G1 117-1	BZ-2RW80	.359	.219	.007 -.050	2 1/2 Max.	0.5	7	2.00
A1 G1 117-1-3	BZ-2RW863	.907	.578	.018 -.140	1 Max.	—	8	2.11
A1 G1 177-1	BZ-2RW84	.203	.219	.007 -.050	1 Max.	.125	7	2.00
A1 G1 119-1	BZ-2RW822	.109	.094	.003 -.020	6 Max.	1.5	9	2.54
A1 G1 117-1-2	BZ-2RW825	.141	.109	.015	8 Max.	1.5	10	3.03
A1 G1 118-1	BZ-2RW82	.249	.156	.004 -.040	3 1/2 Max.	.75	9-A	2.54
A1 G1 111-8	BZ-2R-A2	.016	.005	.0004-.002	9-13	4	11	1.71
A1 G1 112-8	BZ-2RS-A2	.016	.062	.0004-.002	9-13	4	12	2.03
A1 G1 113-8	BZ-2RD-A2	.016	.062	.0004-.002	9-13	4	13	2.03
A1 G1 114-8	BZ-2RQ1-A2	.015	.219	.0004-.002	9-13	4	14	3.64
A1 G1 114-8-1	BZ-2RQ18-A2	.015	.140	.0004-.002	9-13	4	15	6.34
A1 G1 115-8	BZ-2RL-A2	.156	.062	.050	5 Max.	0.5	16	1.87
A1 G1 116-8	BZ-2RL2-A2	.141	.062	.050	5 Max.	0.5	17	2.35
A1 G1 117-8	BZ-2RW80-A2	.359	.219	.007 -.050	2 1/2 Max.	0.5	18	2.09
A1 G1 119-8	BZ-2RW822-A2	.109	.094	.003 -.020	6 Max.	1.5	9	2.62

PRECISION GENERAL PURPOSE SWITCHES—TYPES A1 G2

A1 G2 111-8	BA-2R-A2	.050	.010	.002 -.0075	14-22	10	19	$1.71
A1 G2 113-8	BA-2RB-A2	.050	.093	.002 -.0075	14-22	10	20	2.03
A1 G2 114-1	BA-2RQ1	.050	.219	.002 -.0075	14-22	10	4	3.87
A1 G2 114-8	BA-2RQ1-A2	.050	.219	.002 -.0075	14-22	10	14	3.64
A1 G2 115-1	BA-2RL	.344	.062	.065	9 Max.	1	5	2.00
A1 G2 115-8	BA-2RL-A2	.344	.062	.065	9 Max.	1	21	1.87
A1 G2 116-8	BA-2RL2-A2	.344	.062	.065	9 Max.	1	22	2.35
A1 G2 117-8	BA-2RV-A2	.625	.078	.109	2 1/2 Max.	0.5	23	2.14
A1 G2 118-1	BA-2RV2	.469	.062	.085	2 1/2 Max.	0.5	24	2.86
A1 G2 118-8	BA-2RV2-A2	.469	.062	.085	2 1/2 Max.	0.5	24	2.68

PRECISION MINIATURE SWITCHES—TYPES A1 M

A1 M1 111-B	V3-1	.047	.031	.006 -.016	6-14	4	25	$1.10
A1 M1 111-1	V3-19	.047	.031	.006 -.016	6-14	4	25	1.04
A1 M1 211-1	V3-7	.047	.031	.006 -.016	6-14	4	26	.96
A1 M1 111-2	V3-15	.047	.031	.006 -.016	6-14	4	27	1.04
A1 M1 121-B	V3-29	.047	.031	.006 -.016	6-14	4	28	1.15
A1 M1 311-1	V3-32	.047	.031	.006 -.016	6-14	4	29	.96
A1 M1 181-1	V3-419	.047	.031	.006 -.016	6-14	4	30	2.04
A1 M1 117-6	V3L-1-D8	.060	.031	.016	14 Max.	3	25-A	1.05
A1 M1 117-6-1	V3L-2-D8	.125	.062	.050	8 Max.	1	26-A	1.05
A1 M1 117-6-2	V3L-5-D8	.125	.062	.050	8 Max.	1	27-A	1.05
A1 M1 117-6-3	V3L-6-D8	.260	.100	.090	4 Max.	0.5	28-A	1.05
A1 M1 118-6	V3L-4-D8	.125	.062	.050	8 Max.	1	29-A	1.25
A1 M1 119-6	V3L-3-D8	.060	.031	.016	14 Max.	3	30-A	1.25
A1 M1 311-B	V3-23	.047	.031	.006 -.016	6-14	4	31	1.00
A1 M4 191-B	V3-26	.047	.031	.002 -.006	7-12	5	28	1.65
A1 M1 131-B	V3-601	.047	.010-.024	.006 -.016	6-14	4	32	1.50
A1 M2 171-B	V3-101	.047	.031	.006 -.016	8 Max.	2	28	1.10
A1 M2 271-B	V3-121	.047	.031	.006 -.016	8 Max.	2	33	1.00
A1 M2 371-B	V3-123	.047	.031	.006 -.016	8 Max.	2	31	1.00
A1 M2 171-1	V3-119	.047	.031	.006 -.016	8 Max.	2	25	1.04
A1 M5 151-B	V3-75	.047	.031	.006 -.016	6-14	4	28	3.75

PRECISION SUBMINIATURE SWITCHES—TYPES A1 S

A1 S1 111-1	1SM1	.030	.005	.004	3-5	1	34	$1.20
A1 S1 111-3	1SM1-T	.030	.005	.004	3-5	1	35	1.20
A1 S1 131-1	11SM1	.020	.003	.004	3-5	1	36	1.25
A1 S5 151-1	1SM23	.030	.005	.004	3-5	1	34	2.25
A1 S5 161-1	11SM23	.020	.003	.004	3-5	1	36	2.30
A1 S1 131-3	11SM1-T	.020	.003	.004	3-5	1	37	1.25
A1 S1 115-1	111SM1	.219	.030	.030	7 Max.	2	38	1.65
A1 S1 116-1-1	111SM2	.219	.030	.025	7 Max.	2	39	2.00
A1 S1 116-3	111SM2-T	.219	.030	.025	7 Max.	2	39-A	2.00
A1 S1 121-1	1SM3	.030	.005	.004	3-5	1	34	1.20
A1 S1 141-1	11SM3	.020	.003	.004	3-5	1	36	1.25

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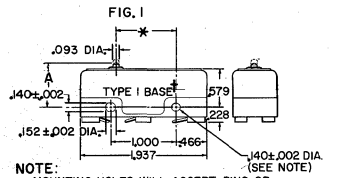
POTTER & BRUMFIELD PRECISION SWITCHES

OUTLINE DIMENSION DRAWINGS (Figure Nos. of Drawings correspond with Figure Nos. of Illustrations)

FIG. 1



NOTE:
MOUNTING HOLES WILL ACCEPT PINS OR SCREWS OF .139 DIA. MAX., ON 1.000" ±.002 CENTERS
* .925" (15 AMP)—; .750" (20 AMP-e.g., HIGH INRUSH CAPACITY)
† 15 AMP USE ONLY

TYPE 8 BASE – (15 & 20 AMP USE)

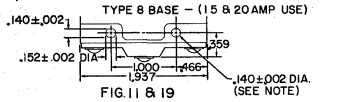


FIG. 11 & 19

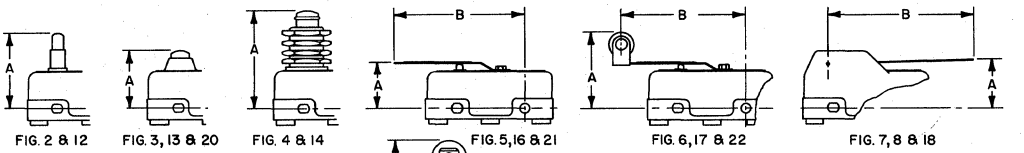


FIG. 2 & 12 | FIG. 3, 13 & 20 | FIG. 4 & 14 | FIG. 5, 16 & 21 | FIG. 6, 17 & 22 | FIG. 7, 8 & 18

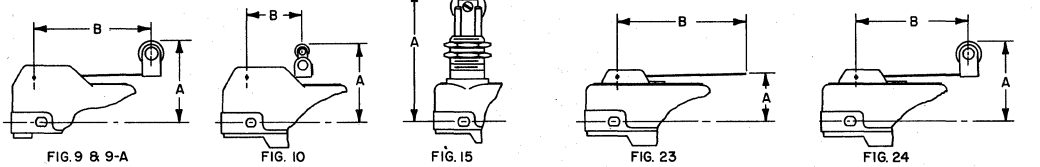
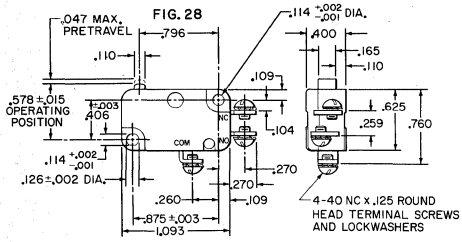


FIG. 9 & 9-A | FIG. 10 | FIG. 15 | FIG. 23 | FIG. 24

FIG. NO.	1	2	3	4	5	6	7	8	9	9-A	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
DIM. A	.625	1.110	.835	1.500	.687	1.125	.750	.750	1.188	1.188	1.140	.625	1.110	.835	1.500	1.942	.687	1.125	.750	.640	1.031	.687	1.125	.750	1.188
DIM. B					1.953	1.812	2.500	6.000	1.050	1.900	.868						1.953	1.812	2.500			1.781	1.640	2.500	1.900

FIG. 28



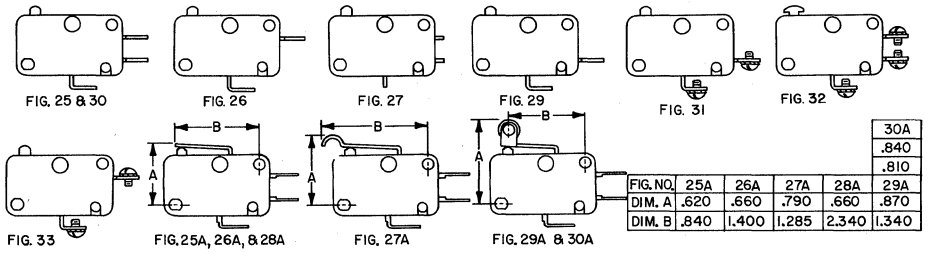
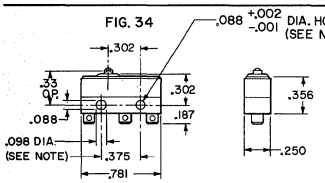


FIG. 25 & 30 | FIG. 26 | FIG. 27 | FIG. 29 | FIG. 31 | FIG. 32

FIG. 33 | FIG. 25A, 26A, & 28A | FIG. 27A | FIG. 29A & 30A

FIG. NO.	25A	26A	27A	28A	29A	30A
DIM. A	.620	.660	.790	.660	.870	.840
DIM. B	.840	1.400	1.285	2.340	1.340	.810

FIG. 34



NOTE:
MOUNTING HOLES WILL ACCEPT .087 MAX. DIA. PINS OR SCREWS ON .375±.002 CENTERS

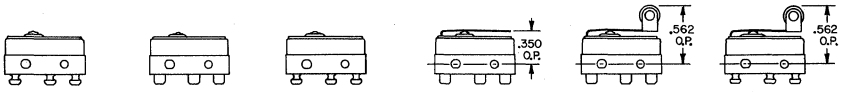


FIG. 35 | FIG. 36 | FIG. 37 | FIG. 38 | FIG. 39 | FIG. 39-A

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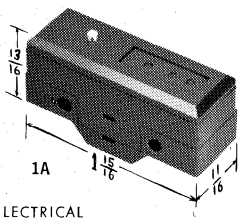
The
RADIO-ELECTRONIC
MASTER

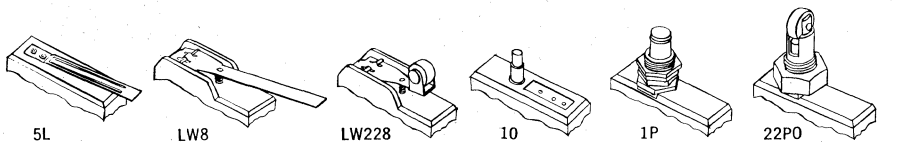
Robertshaw — PRECISION SNAP SWITCHES WITH PATENTED ROLLING SPRING

MODEL B — Long Life



ELECTRICAL
15 amps, 120-240-480 volts A.C.
½ amp, 120 VDC
¼ amp, 240 VDC
Listed by U.L. and C.S.A.

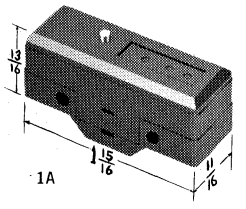
MECHANICAL LIFE
20 Million cycles.



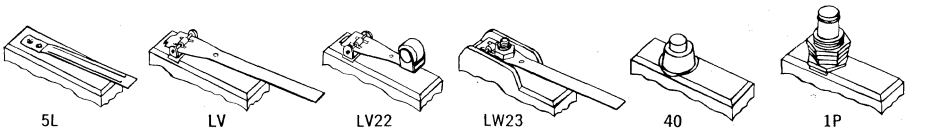
MODEL No.	OPERATING FORCE	RELEASE FORCE	PRETRAVEL	OVERTRAVEL	MOVEMENT DIFFERENTIAL	TERMINAL
BRD2-1A-1S	9-13 oz.	4 oz. Min.	.020 in. Max.	.005 in. Min.	.003 in. Max.	Screw
BRD2-5L-1S	5 oz. Max.	½ oz. Min.	.156 in. Max.	1/32 in. Min.	.050 in. Max.	Screw
BRD2-LW8-1S	2½ oz. Max.	½ oz. Min.	9/32-13/32 in.	.187 in. Min.	.016-.078 in.	Screw
BRD2-LW228-1S	6 oz. Max.	1½ oz. Min.	.045-.140 in.	.080 in. Min.	.006-.031 in.	Screw
BRD2-1O-1S	9-13 oz.	4 oz. Min.	.010-.025 in.	1/16 in. Min.	.003 in. Max.	Screw
BRD2-1P-1S	9-13 oz.	4 oz. Min.	.010-.025 in.	7/32 in. Min.	.003 in. Max.	Screw
BRD2-22PO-1S	9-13 oz.	4 oz. Min.	.010-.025 in.	.140 in. Min.	.003 in. Max.	Screw

TOTAL OF 18 ACTUATORS AVAILABLE.
To order solder terminal, drop "1S" from Model number.

MODEL F — Horsepower Rated



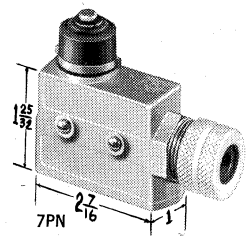
ELECTRICAL
21 amps, 120-240-480 VAC
1 Hp. 120 VAC
2 Hp. 240 VAC
Listed by U.L. and C.S.A.



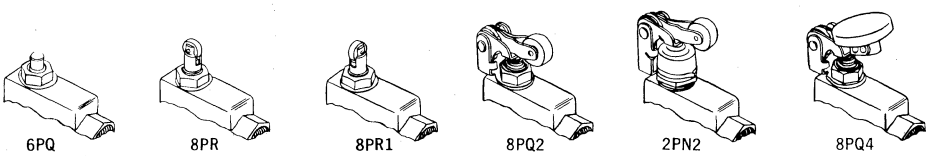
MODEL No.	OPERATING FORCE	RELEASE FORCE	PRETRAVEL	OVERTRAVEL	MOVEMENT DIFFERENTIAL	TERMINAL
FAD2-1A-1S	10-18 oz.	6 oz. Min.	.050 in. Max.	.005 in. Min.	.0075 in. Max.	Screw
FAD2-5L-1S	9 oz. Max.	1 oz. Min.	11/32 in. Max.	1/32 in. Min.	.065 in. Max.	Screw
FAD2-LV-1S	2½ oz. Max.	½ oz. Min.	5/8 in. Max.	.078 in. Min.	.109 in. Max.	Screw
FAD2-LV22-1S	6 oz. Max.	1 oz. Min.	¼ in. Max.	1/32 in. Min.	3/64 in. Max.	Screw
FAD2-LW23-1S	2½ oz. Max.	½ oz. Min.	.375 in. Max.	.093 in. Min.	.007-.050 in.	Screw
FAD2-40-1S	10-18 oz.	6 oz. Min.	.050 in. Max.	3/32 in. Min.	.0075 in. Max.	Screw
FAD2-1P-1S	10-18 oz.	6 oz. Min.	.050 in. Max.	.219 in. Min.	.0075 in. Max.	Screw

TOTAL OF 13 ACTUATORS AVAILABLE.
To order solder terminal, drop "1S" from Model number.

MODEL BH — Split Housing



ELECTRICAL
15 amps, 120-240-480 VAC
The combination of metal enclosure and switch is U.L. and C.S.A. listed.

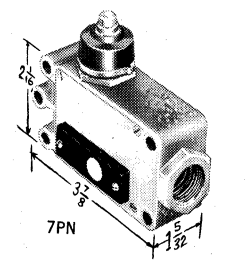


MODEL No.	OPERATING FORCE	RELEASE FORCE	PRETRAVEL	OVERTRAVEL	MOVEMENT DIFFERENTIAL
SBHT-7PN	9-24 ozs.	4 ozs. Min.	.078 in. Max.	.219 in. Min.	.003 in. Max.
SBH-6PQ	9-13 ozs.	4 ozs. Min.	.020 in. Max.	.219 in. Min.	.003 in. Max.
SBH-8PR	9-13 ozs.	4 ozs. Min.	.020 in. Max.	.140 in. Min.	.003 in. Max.
SBH-8PR1	9-13 ozs.	4 ozs. Min.	.020 in. Max.	.140 in. Min.	.003 in. Max.
SBH-8PQ2	10-18 ozs.	6 ozs. Min.	3/16 in. Max.	.219 in. Max.	.006 in. Max.
SBH-2PN2	10-20 ozs.	6 ozs. Min.	.188 in. Max.	.219 in. Min.	.006 in. Max.
SBH-8PQ4	10-18 ozs.	6 ozs. Min.	3/16 in. Max.	.219 in. Max.	.006 in. Max.

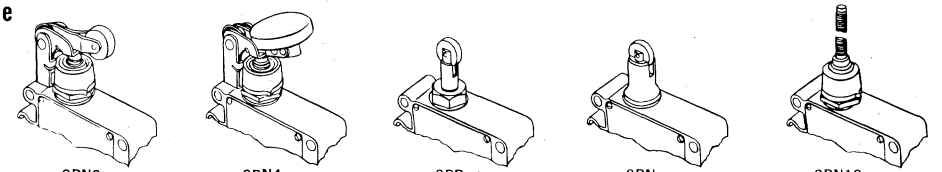
10 ACTUATORS AVAILABLE

"T" designates externally threaded housing. These are available with 7PN, 2PN2, 2PN28, and 2PN4 actuators. Split-housing is available with internally threaded housing. One-piece externally threaded housing models are available with same 10 actuators.

MODEL FH — Mounts Either Side



ELECTRICAL
21 amps at 120-240-480 VAC
1 Hp — 120 VAC
2 Hp — 240 VAC



MODEL No.	OPERATING FORCE	RELEASE FORCE	PRETRAVEL	OVERTRAVEL	MOVEMENT DIFFERENTIAL
• L-FHD2-7PN	2½ lbs. Max.	8 oz. Min.	.094 in. Max.	.219 in. Min.	.010 in. Max.
FHD2-2PN2	2 lbs. Max.	8 oz. Min.	.219 in. Max.	.218 in. Min.	.020 in. Max.
FHD2-2PN4	2 lbs. Max.	8 oz. Min.			
FHD2-8PR	2½ lbs. Max.	8 oz. Min.	.094 in. Max.	.156 in. Min.	.010 in. Max.
FHD2-8PN	8 lbs. Max.	2 lbs. Min.	.125 in. Max.	.175 in. Max.	.0075 in. Max.
# FHD2-2PN18	Above characteristics do not apply to this model switch.				

6 ACTUATORS AVAILABLE.

• Switch with one Acrolite. Silicone boot for 0°F to 200°F range is available.
#Switch operates by moving flexible actuator 15° or more in any direction, except a direct pull.

WRITE FOR CATALOG D — Robertshaw Controls Company, Acro Division

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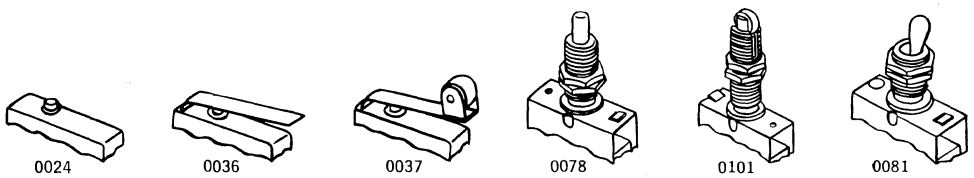
21 MODELS

- SUBMINIATURE
- MINIATURE
- GENERAL PURPOSE
- METAL CLAD

Robertshaw MR CONTROLS

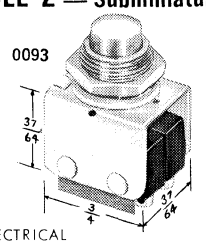
MODEL Z — Subminiature



MODEL No.	OPERATING FORCE	RELEASE FORCE	PRETRAVEL	OVERTRAVEL	MOVEMENT DIFFERENTIAL
ZD-0024	85-140 gms.	1 oz. Min.	.008 -.020 in.	.010 in. Min.	.001 -.004 in.
ZLD-0036	2 oz. Max.	½ oz. Min.	3/32 in. Max.	.045 in. Min.	.015 in. Max.
ZLD-0037	2 oz. Max.	½ oz. Min.	3/32 in. Max.	.045 in. Min.	.015 in. Max.
ZPD-0078	10 oz. Max.	2 oz. Min.	.050 in. Max.	.125 in. Min.	.030 in. Max.
ZPD-0101	10 oz. Max.	2 oz. Min.	.050 in. Max.	.125 in. Min.	.030 in. Max.
ZTD-0081	(Hand operated and these characteristics do not apply)				
ZPD-0093	20 oz. Max.	5 oz. Min.	.010 in. Max.	.010 in. Min.	.010 in. Max.

13 ACTUATORS AVAILABLE.

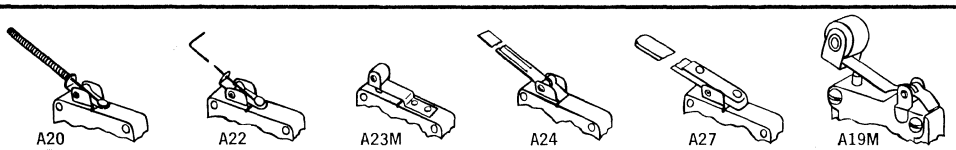
Available with these terminals: Turret, Double Turret, Post, Baton, and Tab.



ELECTRICAL
5 amp, 120-240 VAC
3 amp sea level and 2.5 amp 50,000 ft., 30 VDC inductive
4 amp sea level and 4 amp 50,000 ft., 30 VDC resistive
U.L. listing, 5 amp., 120-240 VAC

MECHANICAL LIFE
One million cycles with .010 gap and .005 overtravel

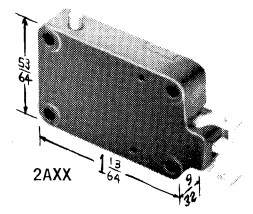
MODEL CM — Low Force



MODEL No.	OPERATING FORCE	RELEASE FORCE	PRETRAVEL	OVERTRAVEL	MOVEMENT DIFFERENTIAL
1CMD1-2AXX	20-27 gms.	12 gms. Min.	.040 in. Max.	.050 in. Max.	.030 in. Max.
1CMD1-18AXX-A20	8 gms. Max.		.400 in. Max.		
1CMD1-2AXX-A22	2.5 gms. Max.	Above characteristics are not applicable to this switch			.500 in. Max.
1CMD1-1AXX-A23M	5-8 oz.	2 oz. Min.	.040 in. Max.	.050 in. Max.	.030 in. Max.
1CMD1-2AXX-A24	2.5 gms. Max.	Above characteristics are not applicable to this switch			.500 in. Max.
*1CMD1-18AXX-A27	6 gms. Max.	Above characteristics are not applicable to this switch			.233 in. Max.
1CMD1-2AXX-A19M	20-27 gms.	12 gms. Min.	.040 in. Max.		.030 in. Max.

8 ACTUATORS AVAILABLE

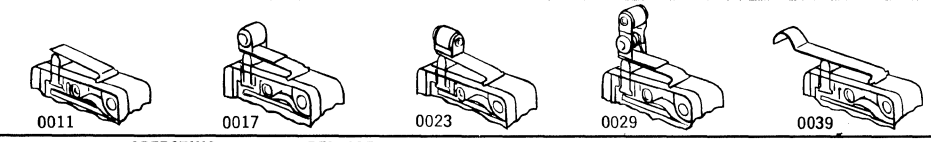
*Actuator bracket and switch are shipped separately.



ELECTRICAL
3 amp, 125-250 VAC
3 amp, 28 VDC
U.L. listing, 3 amp, 125-250 VAC

MECHANICAL LIFE
50 Million cycles.

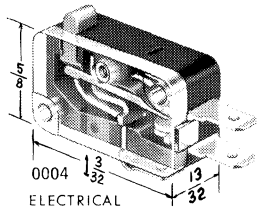
MODEL V — Economical



MODEL No.	OPERATING FORCE	RELEASE FORCE	PRETRAVEL	OVERTRAVEL	MOVEMENT DIFFERENTIAL
VD-0004	14 oz. Max.	4 oz. Min.	.047 in. Max.	.031 in. Min.	.014 in. Max.
VLD-0011	14 oz. Max.	2 oz. Min.	.062 in. Max.	.031 in. Min.	.016 in. Max.
VLD-0017	14 oz. Max.	2 oz. Min.	.062 in. Max.	.031 in. Min.	.016 in. Max.
VLD-0023	14 oz. Max.	2 oz. Min.	.062 in. Max.	.031 in. Min.	.016 in. Max.
VLD-0029	14 oz. Max.	2 oz. Min.	.062 in. Max.	.015 in. Min.	.016 in. Max.
VLD-0039	8 oz. Max.	1 oz. Min.	.125 in. Max.	.062 in. Min.	.050 in. Max.

10 ACTUATORS AVAILABLE.

Available with these terminals: Quick Connect, Solder and Screw.
Actuators are also available with 8 oz. operating force on pin plunger.



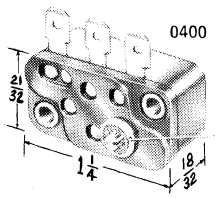
ELECTRICAL
15 amps, 125-250 volts A.C.
10 amps, 30 VDC
Listed by U.L. and C.S.A.

MECHANICAL LIFE
20 Million cycles.

MODEL H — Rotary

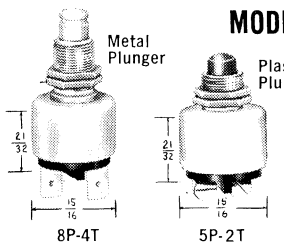
ELECTRICAL
5 amp. — 120-240 VAC
U.L. and C.S.A. listed.
Hi-pot tested 1250 VAC terminal to exposed rivet head.

MECHANICAL LIFE
Minimum operating life of one million cycles. Static load of 15 inch ounces will not change switch characteristics when applied at full travel or start positions and in a direction opposite to normal movement.
Axial movement of shaft will not exceed .010 inch.



MODEL No.	ROTATION	OPERATING FORCE	OPERATING LIMITS DOWN STROKE	AFTER TRAVEL	MOVEMENT DIFFERENTIAL	TERMINAL
HD-0200	CW	3 gms. in. Max.	15-21°	5° Min.	8° Min.	Solder
HD-0300	CW	3 gms. in. Max.	15-21°	5° Min.	8° Min.	Tab .187
HD-0400	CW	3 gms. in. Max.	15-21°	5° Min.	8° Min.	Tab .205
HD-0500	CCW	4 gms. in. Max.	15-21°	5° Min.	8° Min.	Solder
HD-0600	CCW	4 gms. in. Max.	15-21°	5° Min.	8° Min.	Tab .187
HD-0700	CCW	4 gms. in. Max.	15-21°	5° Min.	8° Min.	Tab .205

MODEL D — Panel Mounted



U.L. ELECTRICAL RATING
12 amps — 125 VAC
6 amps — 230 VAC

MECHANICAL LIFE
250,000 cycles

MODEL No.	CIRCUIT	PRETRAVEL	OPERATING FORCE
3DO5-5P	N.O.	.100 in. Max.	10-15 oz.
3DO5-5P-4T	N.O.	.100 in. Max.	10-15 oz.
3DC5-5P	N.C.	.070 in. Max.	10-15 oz.
3DC5-5P-4T	N.C.	.070 in. Max.	10-15 oz.
3DO5-8P	N.O.	.100 in. Max.	10-15 oz.
3DO5-8P-4T	N.O.	.100 in. Max.	10-15 oz.
3DC5-8P	N.C.	.070 in. Max.	10-15 oz.
3DC5-8P-4T	N.C.	.070 in. Max.	10-15 oz.

4T Tab.

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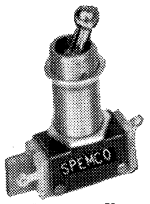
SPEMCO® H & H SWITCHES

BALL LEVER TOGGLE SWITCHES

3 Amp.

Underwriters' approved, 1 amp. 250 V 3 amp. 125 volts. AC/DC. Laminated bakelite base. Nickel plated finish, except 1120 and 1121.



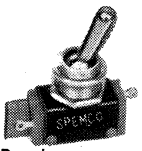
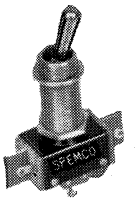
No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1120	SPST	15/32"	1 3/16"	1/2"	35/64"	.66 ea.
1122	SPDT	15/32"	1 9/16"	1/2"	35/64"	.84 ea.
1124	DPST	15/32"	1 9/16"	21/32"	35/64"	1.20 ea.
1126	DPDT	15/32"	1 9/16"	21/32"	29/32"	1.38 ea.
*1121	SPST	1"	1 3/16"	1/2"	35/64"	.90 ea.
1123	SPDT	1"	1 9/16"	1/2"	35/64"	1.05 ea.
1125	DPST	1"	1 9/16"	21/32"	35/64"	1.44 ea.
1127	DPDT	1"	1 9/16"	21/32"	29/32"	1.62 ea.

Sleeve Diameter—15/32"
*3 amp. 250 V AC/DC.

BAT LEVER TOGGLE SWITCHES

3 Amp.

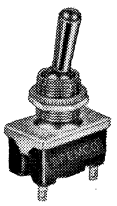
Underwriters' approved, 1 amp. 250 V 3 amp. 125 volts. AC/DC. Laminated bakelite base. Nickel plated finish, except 1135 and 1121B.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1135	SPST	15/32"	1 3/16"	1/2"	35/64"	.66 ea.
1136	SPDT	15/32"	1 9/16"	1/2"	35/64"	.84 ea.
1137	DPST	15/32"	1 9/16"	21/32"	35/64"	1.20 ea.
1138	DPDT	15/32"	1 9/16"	21/32"	29/32"	1.38 ea.
*1121-B	SPST	1"	1 3/16"	1/2"	35/64"	.90 ea.
1123-B	SPDT	1"	1 9/16"	1/2"	35/64"	1.05 ea.
1125-B	DPST	1"	1 9/16"	21/32"	35/64"	1.44 ea.
1127-B	DPDT	1"	1 9/16"	21/32"	29/32"	1.62 ea.

Sleeve Diameter—15/32"
*3 amp. 250 V AC/DC.

"COMPACT" SWITCH



3 Amp.

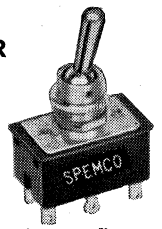
Ideal for aircraft, missile, and electronic applications. Underwriter's approved 1 amp. 250 v., 3 amp. 125 v., AC-DC. Bakelite base. Bright nickel finish.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1205	SPST	15/32"	1 1/64"	41/64"	13/16"	.90 ea.
1206	SPDT	15/32"	1 1/64"	41/64"	13/16"	1.05 ea.
1207	DPST	15/32"	1 1/64"	41/64"	13/16"	1.32 ea.
1208	DPDT	15/32"	1 1/64"	41/64"	13/16"	1.50 ea.

Sleeve Diameter—15/32"

MOLDED BAKELITE SWITCH, BAT LEVER

U.L. approved for 6 amp. 125 volts, 3 amp. 250 volts. *Except for 1143 which is rated at 1 amp. 250 volts, 6 amp. 125 volts. All back connected, slotted sleeve. Positive action.



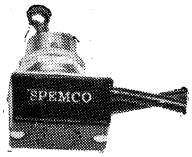
6 Amp.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1142	SPST	15/32"	1 1/4"	11/16"	15/16"	.90 ea.
*1143	SPDT	15/32"	1 1/4"	11/16"	15/16"	1.05 ea.
1144	DPST	15/32"	1 1/4"	11/16"	15/16"	1.32 ea.
1145	DPDT	15/32"	1 1/4"	11/16"	15/16"	1.50 ea.

Sleeve Diameter—15/32"
*1 amp. 250 volts, 6 amp. 125 volts

BALL or BAT* LEVER TOGGLE SWITCH

6 Amp.



Underwriters' approved 3A 250V, 6A 125V, molded bakelite base. Nickel plated finished. WITH 6" WIRE LEADS

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1154	SPST	3/8"	7/8"	1/2"	5/16"	.93 ea.
*1154B	SPST	3/8"	7/8"	1/2"	5/16"	.93 ea.

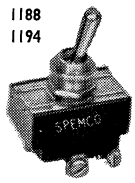
Sleeve Diameter—15/32"

UTILITY SWITCHES—Toggle Type For AC Uses

1185
1186

15 Amp.

1188
1194



Underwriters' approved, 10 amp. 250 volts AC, 15 amp. 125 volts AC, ¾ H.P. 115V-230V AC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1185	SPST	15/32"	1 1/8"	5/8"	15/16"	.75 ea.
1186	SPDT	15/32"	1 1/8"	5/8"	15/16"	.90 ea.
1188	DPST	15/32"	1 5/16"	3/4"	1 1/16"	1.20 ea.
1194	DPDT	15/32"	1 5/16"	3/4"	1 1/16"	1.47 ea.

Sleeve Diameter—15/32"

MOMENTARY BAT LEVER TOGGLE SWITCHES

3 Amp.

Underwriters' approved, 3 amp. 125 volts, laminated bakelite base. Nickel plated finished.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1166	SPST	15/32"	1 3/16"	1/2"	35/64"	1.11 ea.
1167	SPDT	15/32"	1 9/16"	1/2"	35/64"	1.23 ea.
*1155	DPST	15/32"	1 9/16"	21/32"	35/64"	1.56 ea.
1150	DPDT	15/32"	1 9/16"	21/32"	29/32"	1.77 ea.

Sleeve Diameter—15/32"
*1166 Normally Off *1155 Normally Off
*3 Amp 250V

15 Amp.

Underwriters' approved, 10 amp. 250 volts AC, 15 amp. 125 volts AC, ¾ H.P. 115V-230V AC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1196	SPST	15/32"	1 1/8"	5/8"	15/16"	1.02 ea.
*1197	DPST	15/32"	1 5/16"	3/4"	1 1/16"	1.62 ea.

*Normally Off Sleeve Diameter—15/32"

NEUTRAL CENTER MOMENTARY BOTH ENDS

15 Amp.

Underwriters' approved, 10 amp. 250 volts AC, 15 amp. 125 volts AC, ¾ H.P. 115V-230V AC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1193	DPDT	15/32"	1 5/16"	3/4"	1 1/16"	1.92 ea.
1195	SPDT	15/32"	1 1/8"	5/8"	15/16"	1.17 ea.

Sleeve Diameter—15/32"

NEUTRAL CENTER

15 Amp.

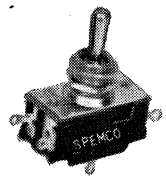
Underwriters' approved, 10 amp. 250 volts AC, 15 amp. 125 volts AC, ¾ H.P. 115V-230V AC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1187	SPDT	15/32"	1 1/8"	5/8"	15/16"	.90 ea.
1189	DPDT	15/32"	1 5/16"	3/4"	1 1/16"	1.47 ea.

Sleeve Diameter—15/32"

BAT LEVER TOGGLE SWITCH 6 Amp. Neutral Center

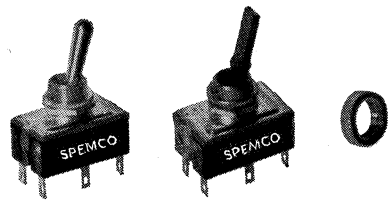
Underwriters' approved, 6 amp. 125 volts, either AC or DC. A 3 position switch, on-off-on. Black bakelite case.



No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1175	SPDT	15/32"	1 13/16"	11/16"	1 1/16"	1.64 ea.
1176	DPDT	15/32"	1 13/16"	11/16"	1 1/16"	1.95 ea.

Sleeve Diameter—15/32"

BAT AND PADDLE LEVER TOGGLE SWITCH 5 Amp.



1232 1232-P 1232-DF
1233 1233-P

This series is unique and used where other switches cannot be reliably used or have no counterpart. Smallest two and three position wiping blade toggle switches at their ratings on the market. Bat lever is nickel-plated brass; paddle lever is black Nylon standard.

Mechanical life expectancy, 100,000 cycles min. Electrical life expectancy, 50,000 cycles min. at full load. Terminals: combination solder lug and quick-connect push-on type terminals. Quick-connect accepts .110" AMP type connector or equal. When wires are soldered, up to two #18 wires or three #20 wires. Weight: double pole, 22.5 grams. Bat lever is ¾" long; paddle lever is 15/16" long, both with a 28 degree throw. 5 amp. 225 volts, 2 amp. 250 volts AC. 4 amps. 125 volts, 1 amp. 250 volts DC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price Each
1232	DPDT (on-off-on)	5/16"	1 13/64"	49/64"	1/2"	$2.55
1232-P	DPDT (on-off-on)	5/16"	1 13/64"	49/64"	1/2"	2.67
1233	SPDT (on-off-on)	5/16"	1 13/64"	49/64"	1/2"	2.04
1233-P	SPDT (on-off-on)	5/16"	1 13/64"	49/64"	1/2"	2.25
1232-DF	Dress face nut (optional) .178" thick					.15

Sleeve Diameter—15/32"

SPECIALTIES MANUFACTURING CO.

Net

© U.C.P., Inc.

SPEMCO® H & H SWITCHES

PUSH BUTTON DOUBLE ACTION 6 Amp. SWITCH

Underwriters' approved, 6 amp. 125 volts. Press lever to make contact, press lever to break contact. Nickel plated finish or snap-on plastic button, in red or black.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1156	Nickel Plated	9/16"	1 1/8"	1/2"	9/16"	.93 ea.
1156-A	Red	9/16"	1 1/8"	1/2"	9/16"	1.20 ea.
1156-B	Black	9/16"	1 1/8"	1/2"	9/16"	1.20 ea.

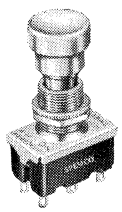
Sleeve Diameter—15/32"

"COMPACT" DOUBLE ACTION (PUSH-PUSH) SWITCH QUICK MAKE AND BREAK ACTION

3 Amp.

Rated at 1 Amp. 250 Volts and 3 Amps. 125 Volts, A.C. and D.C.

Solder lug terminals with double wiping blade mechanism.



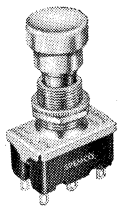
No.	Description	Sleeve	L.	W.	H.	Net Price Each
1215	SPST	9/16"	1 1/32"	41/64"	13/16"	1.17
1215-B	SPST	9/16"	1 1/32"	41/64"	13/16"	1.41
1215-R	SPST	9/16"	1 1/32"	41/64"	13/16"	1.41
1216	SPDT	9/16"	1 1/32"	41/64"	13/16"	1.35
1216-B	SPDT	9/16"	1 1/32"	41/64"	13/16"	1.62
1216-R	SPDT	9/16"	1 1/32"	41/64"	13/16"	1.62
1217	DPST	9/16"	1 1/32"	41/64"	13/16"	1.71
1217-B	DPST	9/16"	1 1/32"	41/64"	13/16"	1.89
1217-R	DPST	9/16"	1 1/32"	41/64"	13/16"	1.89
1218	DPDT	9/16"	1 1/32"	41/64"	13/16"	1.83
1218-B	DPDT	9/16"	1 1/32"	41/64"	13/16"	2.04
1218-R	DPDT	9/16"	1 1/32"	41/64"	13/16"	2.04

(B, means black button, R, means Red button and just the number, nickel.)

Sleeve Diameter — 15/32"

"COMPACT" MOMENTARY ACTION PUSH SWITCH QUICK MAKE AND BREAK ACTION

3 Amp.



Rated at 1 Amp. 250 Volts 3 Amps. 125 Volts A.C.-D.C.

Solder lug terminals with double wiping bade mechanism

No.	Description	Sleeve	L.	W.	H.	Net Price Each
*1219	SPST	9/16"	1 1/32"	41/64"	13/16"	1.44
*1219-B	SPST	9/16"	1 1/32"	41/64"	13/16"	1.65
*1219-R	SPST	9/16"	1 1/32"	41/64"	13/16"	1.65
1220	SPDT	9/16"	1 1/32"	41/64"	13/16"	1.71
1220-B	SPDT	9/16"	1 1/32"	41/64"	13/16"	1.95
1220-R	SPDT	9/16"	1 1/32"	41/64"	13/16"	1.95
*1221	DPST	9/16"	1 1/32"	41/64"	13/16"	1.98
*1221-B	DPST	9/16"	1 1/32"	41/64"	13/16"	2.19
*1221-R	DPST	9/16"	1 1/32"	41/64"	13/16"	2.19
1222	DPDT	9/16"	1 1/32"	41/64"	13/16"	2.13
1222-B	DPDT	9/16"	1 1/32"	41/64"	13/16"	2.31
1222-R	DPDT	9/16"	1 1/32"	41/64"	13/16"	2.31

Sleeve Diameter—15/32"

(B, means black button, R, means Red button and just the number, nickel.)

*SPST & DPST—Normally Off.

MIDGET MOMENTARY PUSH BUTTON SWITCHES

3 Amp.

Underwriters' approved, 3 amp. 120 volts, AC. Molded bakelite base, nickel plated finish.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1141	SP Norm. Closed	9/16"	1 1/32"	9/16"	29/64"	.57 ea.
1141-A	SP Norm. Open	9/16"	1 1/32"	9/16"	29/64"	.57 ea.

Sleeve Diameter—15/32"

3 Amp.

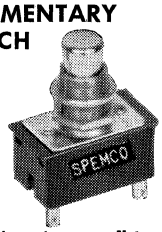
Underwriters' approved, 3 Amp. 120v, AC, Nickel plated finish, Molded bakelite base, Single Pole, slow make and slow break with bakelite snap-On button in red or black. Also white button on request.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1157-A	Open—Red	9/16"	1 1/32"	9/16"	29/64"	.96 ea.
1157-B	Open—Black	9/16"	1 1/32"	„9 1/6	29/64"	.96 ea.
1157-C	Closed—Red	9/16"	1 1/32"	9/16"	29/64"	.96 ea.
1157-D	Closed—Black	9/16"	1 1/32"	9/16"	29/64"	.96 ea.

Sleeve Diameter—15/32"

INTERMEDIATE MOMENTARY PUSH SWITCH

6 Amp.



U.L. approved for 6 amp. 125 volts, 3 amp. 250 volts. *Except for 1147 which is rated at 1 amp. 250 volts, 6 amp. 125 volts. All back connected, slotted sleeve.

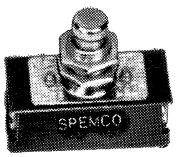
No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
**1146	SPST	1/2"	1 1/4"	11/16"	15/16"	1.50 ea.
*1147	SPDT	1/2"	1 1/4"	11/16"	15/16"	1.71 ea.
**1148	DPST	1/2"	1 1/4"	11/16"	15/16"	1.95 ea.
1149	DPDT	1/2"	1 1/4"	11/16"	15/16"	2.13 ea.

*1 amp. 250 volts, 6 amp 125 volts

**1146 & 1148 Normally off. Sleeve Diameter—15/32"

MOMENTARY PUSH BUTTON SWITCH

16 Amp.

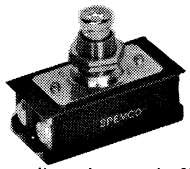


Underwriters' approved, 16 amp. 125 V., 8 amp. 250 V., 1 H.P. 125-250 V. AC-DC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1160	DPST Normally Off	15/32"	1 3/4"	13/16"	25/32"	1.95 ea.
1160-A	DPST Normally On	15/32"	1 3/4"	13/16"	25/32"	1.95 ea.

Sleeve Diameter—15/32"

20 Amp.

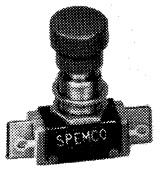


Underwriters Approved: 20 Amp. 125 V., 10 Amp. 250 V., AC-DC. 1½ H.P. 125-250 V., AC-DC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1230	DPST (Normally Open)	7/16"	1 15/16"	1"	7/8"	3.06 ea.
1231	DPST (Normally Closed)	7/16"	1 15/16"	1"	7/8"	3.06 ea.

Sleeve Diameter—15/32"

1 Amp.



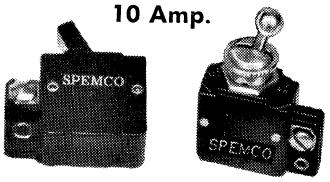
Two circuit, slow make and slow break, momentary switch. One circuit normally on, the other off, with snap-on plastic button, in red or black. (Pushing the button reverses the contact.) 1 Amp. 125 Volts AC. White button on request. Underwriters' Approved.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1158-A	Red	7/16"	1 19/32"	15/32"	17/32"	1.17 ea.
1158-B	Black	7/16"	1 19/32"	15/32"	17/32"	1.17 ea.

Sleeve Diameter—15/32"

POWER SWITCHES

10 Amp.

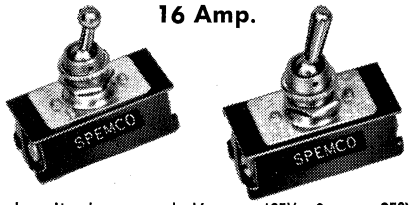


Underwriters' approved, 10 amp. 125 volts. 5 amp. 250 A.C., ¾ H.P. 250V. A.C. ½ H.P. 250V A.C.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1133	SPST	11/32"	15/16"	17/32"	15/16"	1.14 ea.
1133-B	Bakelite lever	15/16"	1 7/32"	15/16"		.75 ea.

*15/32" sleeve diameter

16 Amp.



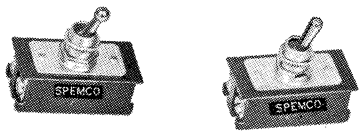
Underwriters' approved, 16 amp. 125V., 8 amp. 250V. A.C.-D.C.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1159	DPST	15/32"	1 3/4"	13/16"	25/32"	1.35 ea.
1159-B	DPST	15/32"	1 3/4"	13/16"	25/32"	1.35 ea.

1159—Ball Lever 1159-B—Bat Lever

Sleeve Diameter—15/32"

20 Amp.

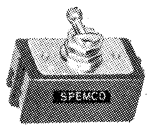


Underwriters' approved 20 amp, 125 V., 10 amp. 250 V. 1½ H.P. 125-250 V. AC-DC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1134	DPST	15/32"	2"	1"	7/8"	2.28 ea.
1134-B	DPST	15/32"	2"	1"	7/8"	2.28 ea.

1134—Ball Lever 1134-B Bat Lever

Sleeve Diameter—15/32"



20 Amp.

Fully enclosed tumbler switch, 20 amp. 250V., 1½ H.P. 125V., 2 H.P. 250V.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1170-S	DPST	1 1/32"	2 1/4"	1 1/8"	1 5/32"	3.15 ea.

Sleeve Diameter—1/2"

20 Amp.

Fully enclosed tumbler switch, 20 amp. 250V., 1½ H.P. 125V., 2 H.P. 250V.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1170	DPST	17/32"	2 1/4"	1 1/8"	1 5/32"	3.15 ea.

Sleeve Diameter—15/32"

SPECIALTIES MANUFACTURING CO.

© U.C.P., Inc.

SPEMCO® H & H SWITCHES

EXTRA HEAVY DUTY SWITCH NEUTRAL CENTER 10 Amp.

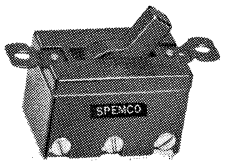
Used in heavy current circuits, such as transmitters, power amplifiers, motors, etc. Contacts have fast 'break' which reduces the tendency to arc. Rated at 10 amp. 125 volts, 5 amp, 250 volts, ¾" HP 250 volts.

Positive off in center.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1161-A	DPDT	11/32"	2"	15/16"	1"	4.95 ea.
1161	DPDT	11/32"	2"	15/16"	1"	4.95 ea.

Straight thru, no off-center* Sleeve Diameter—¾"

20 Amp. & 30 Amp.



3 3/32" mounting centers
1161-B & 1161-D
10 Amp. 250 Volts
20 Amp. 125 Volts
1161-C
20 Amp. 250 Volts
30 Amp. 125 Volts
Both AC-DC

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1161-B	DPDT		2½"	1 19/32"	1 21/32"	7.80 ea.
1161-C	DPDT		2 7/8"	1 13/16"	2"	10.65 ea.
*1161-D	DPDT		2½"	1 19/32"	1 21/32"	7.80 ea.

*20 Amp. Straight thru-no off center.

10 Amp.

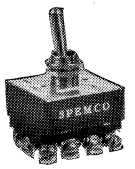
Rated 10 amp. 125 volts, ½ HP, 115-230 volts AC. 5 amp. 250 volts.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1177	3 PDT	13/32"	2 5/16"	2"	1⅛"	7.50 ea.
1178	4 PDT	13/32"	2 5/16"	2"	1⅛"	9.45 ea.

Sleeve Diameter—¾"

THREE & FOUR POLE AC UTILITY SWITCHES

15 Amp. AC



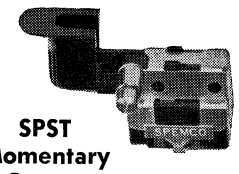
15 amp. 125V., 10 amp. 250V. AC., except Nos. 1200, 1201 and 1228 which are 10 amp. 250V. AC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1198	3PST On-None-Off	15/32"	1 7/16"	1 5/16"	1 1/16"	2.70 ea.
1199	3PDT On-Off-On	15/32"	1 7/16"	1 5/16"	1 1/16"	3.30 ea.
1227	3PDT On-None-On	15/32"	1 7/16"	1 5/16"	1 1/16"	3.30 ea.
*1200	4PST On-None-Off	15/32"	1 7/16"	1 5/16"	1 1/16"	3.75 ea.
*1201	4PDT On-Off-On	15/32"	1 7/16"	1 5/16"	1 1/16"	4.50 ea.
*1228	4PDT On-None-On	15/32"	1 7/16"	1 5/16"	1 1/16"	4.50 ea.

Sleeve Diameter—15/32"

*10 amp. 250 V. A.C. *½ H.P. 115-230 V. A.C.

TOOL HANDLE SWITCH 4 Amp.



Direct Pull Trigger with Latch.
Plug-in Terminal
2 amp.; 250 volts.
4 amp., 125 volts.

SPST Momentary Contact

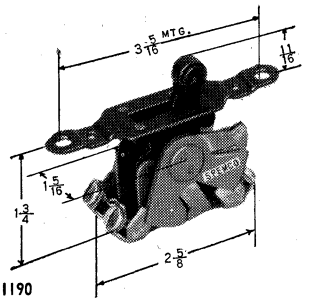
BASE DIMENSIONS

NO.	L.	W.	H.	Net Price
1169	1 5/64"	21/32"	1 5/64"	1.14 ea.

HEAVY DUTY SWITCHES Toggle Type

Underwriters' approved, 30 amp. 250 volts, AC DC. 2 H.P., 115V-230V AC; 1 H.P., 460V AC For use on Food Machines, Grinders, Sanders, Machine Tools, Gasoline Pumps, etc.

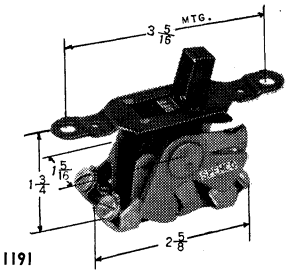
Roller Type Lever 30 Amp.



1190

No.	Description	Net Price
1190	DPST	2.85 ea.

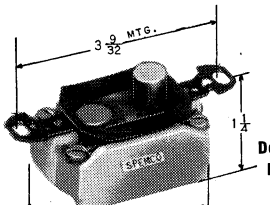
Square Bakelite Lever 30 Amp.



1191

No.	Description	Net Price
1191	DPST	2.85 ea.

METAL PUSH BUTTON TYPE NORMALLY OPEN 20 Amp.

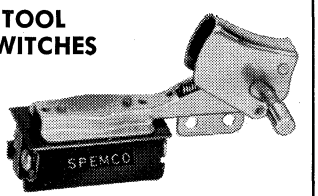


No. 1192

Description Net Price
DPST 3.10 ea.

Underwriters' approved, 20 amp. 250 volts, 2 H.P. 230V AC, 2 H.P. 250V DC. For use on Floor Sander, as a foot switch, etc.

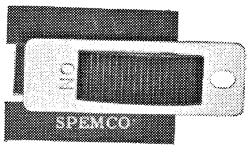
PORTABLE TOOL HANDLE SWITCHES 16 Amp.



Tool handle switch, fully enclosed, normally OFF with locking latches. Rated and approved by the Underwriters' for 8 amp. 250 volts, 16 amp. 125 volts, 1 H.P. 250 volts, 1¾" long, 1⅜" wide, ⅞" high.

No.	Description	Net Price
1168	DPST	2.10 ea.

INDICATING SLIDE LEVER SWITCH



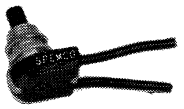
6 Amp.

Rated at
3 Amp.—250 volts
6 Amp.—125 volts

SINGLE POLE Screw Terminal

NO.	L.	W.	H.	Net Price
1174	7/8"	½"	17/32"	1.35 ea.

ROTARY CANOPY SWITCH With Fixed Plastic Handle

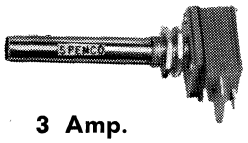


3 Amp.

Underwriters' approved, 3 amp. 125 volts. 1 amp. 250 volts.

No.	Stem	Wire Lead	Net Price
1179	7/16"	6"	.54 ea.

ROTARY SWITCHES



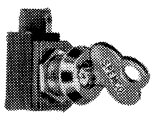
3 Amp.

Underwriters' approved, 1 amp. 250 V., 3 amp. 125 V. AC-DC (Except #1128). Nickel plated finish. Laminated bakelite base.

No.	Description	Shaft	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1128	SPST	1⅛"	3/8"	1 3/16"	¾"	9/16"	.87 ea.
1129	SPDT	1⅛"	3/8"	1 7/16"	¾"	9/16"	1.08 ea.
1130	DPST	1⅛"	3/8"	1½"	¾"	1 1/16"	1.41 ea.
1131	DPDT	1⅛"	3/8"	1½"	¾"	1⅛"	1.74 ea.

*1128 rated 3 amp. 250 V. AC-DC. 1/32"
Sleeve Diameter—11/32"

3 Amp. ROTO-LOCK SWITCH

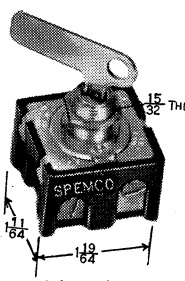


Underwriters' Approved, 3 amp. 250 volts. Except #1129-K & 1131-K

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1128-K	SPST (With Key) (above key removable in off position only)	15/32"	1 3/16"	¾"	9/16"	1.56 ea.
1128-KA	Key only for above					.228 ea.
1128-KE	SPST (With Key) (above key removable in either position)	15/32"	1 3/16"	¾"	9/16"	1.56 ea.
*1129-K	SPDT (With Key) (above key removable in either position)	15/32"	1 9/16"	½"	¾"	1.65 ea.
*1131-K	DPDT (With Key) (above key removable in either position)	15/32"	1 9/16"	¾"	¾"	2.19 ea.
1128-KEA	Key-fits 1128-KE, 1129-K, and 1131-K					228 ea.

*1129-K & 1131-K—U.L. approved, 1 amp. 250 V., 3 amp. 125V., AC-DC. Sleeve Diameter—15/32"

ROTO-LOCK SWITCH



20 Amp.

Underwriters' approved. 20 amp. 120 volts, 240 volts AC.

1½ H.P.—120 volts AC
2 H.P.—120 volts AC

(with key)
(above key removable in off position only)

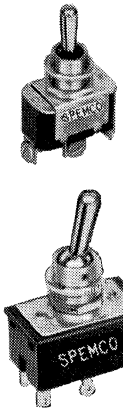
No.	Description	Sleeve	Net Price
1130-K	(With Key) DPST	9/16"	2.76 ea.
1130-KA	Key Only for above		.30 ea.

© U.C.P., Inc.

SPEMCO® H & H SWITCHES

MILITARY TYPE TOGGLE SWITCHES

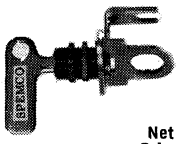
Manufactured of materials and in accordance with specification Mil-S-3950
MS-25098 and MS-35058—Single Pole MS-25100 and MS-35059—Double Pole



MS Part No.	Up Position	Center Position	Down Position Keyway Side	Net Price
MS-25098-22	On	None	Off	$234.00C
MS-25098-23	On	None	On	252.00C
MS-25100-22	On	None	Off	287.25C
MS-25100-23	On	None	On	306.00C
MS-35058-21	On	Off	On	211.50C
MS-35058-22	On	None	Off	175.50C
MS-35058-23	On	None	On	211.50C
MS-35058-24	On	Off	None	175.50C
MS-35058-25	On	Mom. Off	None	193.50C
MS-35058-26	On	None	Mom. On	229.50C
MS-35058-27	Mom. On	Off	Mom. On	229.50C
MS-35058-28	None	Off	Mom. On	193.50C
MS-35058-29	On	None	Mom. Off	193.50C
MS-35058-30	Off	None	Mom. On	193.50C
MS-35058-31	On	Off	Mom. On	229.50C
MS-35059-21	On	Off	On	282.75C
MS-35059-22	On	None	Off	234.75C
MS-35059-23	On	None	On	282.75C
MS-35059-24	On	Off	None	234.75C
MS-35059-25	On	Mom. Off	None	282.75C
MS-35059-26	On	None	Mom. On	306.00C
MS-35059-27	Mom. On	Off	Mom. On	306.00C
MS-35059-28	None	Off	Mom. On	282.75C
MS-35059-29	On	None	Mom. Off	282.75C
MS-35059-30	Off	None	Mom. On	282.75C
MS-35059-31	On	Off	Mom. On	306.00C

LOCKING BRACKET

For all bat handle toggle or momentary switches. Any Amp.



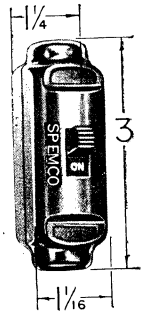
No.		Net Price
1226	Fits over 15/32" sleeve diameter.	1.83 ea.
1226-A	Key Only Sleeve diameter 15/32"	.30 ea.

FEED-THROUGH CORD SWITCH

Underwriters approved, black bakelite case, sliding lever, 10 Amp. 125 V., 5 Amp. 250 V.

No.	Description	Net Price
1163	SP	1.50 ea.

FEED THROUGH CORD SWITCH 15 Amp.



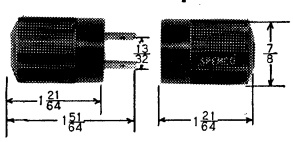
13/32 (.406) Inch Cord Hole

For Appliance Use Only:

Rated at 10 Amp.—250 volts
15 Amp.—125 volts

		Net Price
1164	DP (with 3rd wire ground)	4.95 ea.

CORD CONNECTORS 10 Amp.



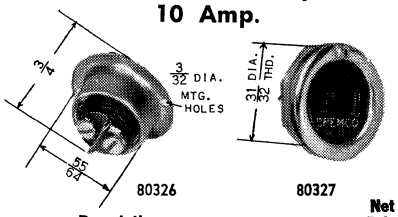
Brown Bakelite Cord Connector Complete, 7/8" O.D. x 2½" long. 10 amps. 250 volts. End opening for wire size up to 3/8" O.D.

No.	Description	Net Price
1162	Complete	1.89 ea.
1162-F	Female Part	1.02 ea.
1162-M	Male Part	1.02 ea.

RECEPTACLES

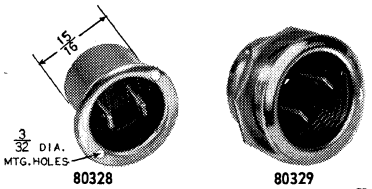
Underwriters' approved, 10 amp. 250 volts AC.

Short Female Flush Receptacle 10 Amp.



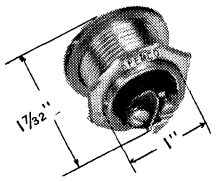
No.	Description	Net Price
80326	2 Screw Mounting	1.14 ea.
80327	Lock Nut Mounting	1.86 ea.

Recessed Male Receptacle 10 Amp.



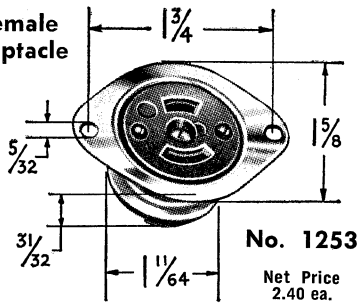
No.	Description	Net Price
80328	2 Screw Mounting	1.32 ea.
80329	Lock Nut Mounting	1.86 ea.

Recessed Female Receptacle 10 Amp.



No. 80331
Description Lock Nut Mounting
Net Price 1.86 ea.

Female Receptacle

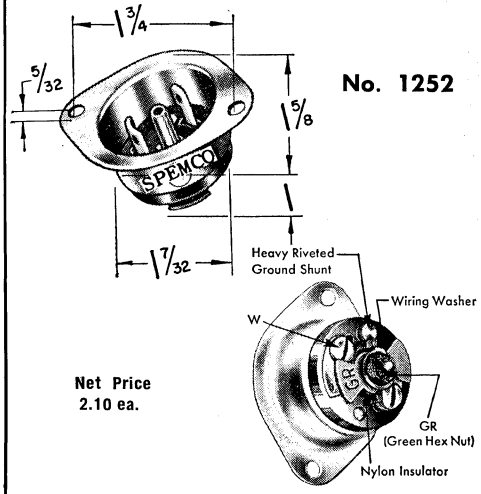


No. 1253

Net Price 2.40 ea.

Configuration

Male Receptacle

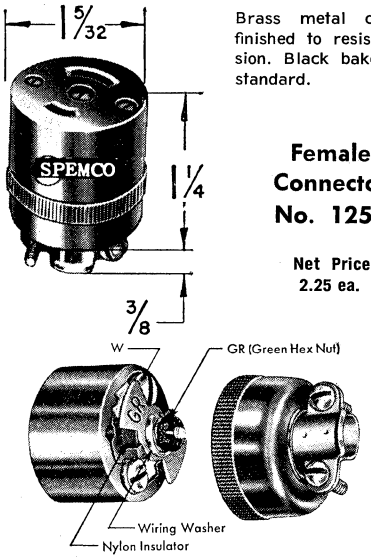


No. 1252

Net Price 2.10 ea.

TURN TO LOCK COMPACT RECEPTACLES 3-WIRE GROUNDING TYPE 15 Amp. 125 Volt

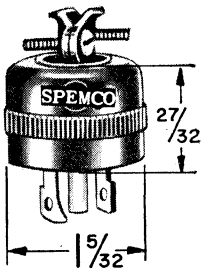
Brass metal casings, finished to resist corosion. Black bakelite is standard.



Female Connector No. 1250

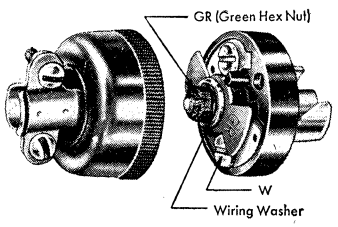
Net Price 2.25 ea.

Male Connector



No. 1251

Net Price 1.80 ea.



SPECIALTIES MANUFACTURING CO.

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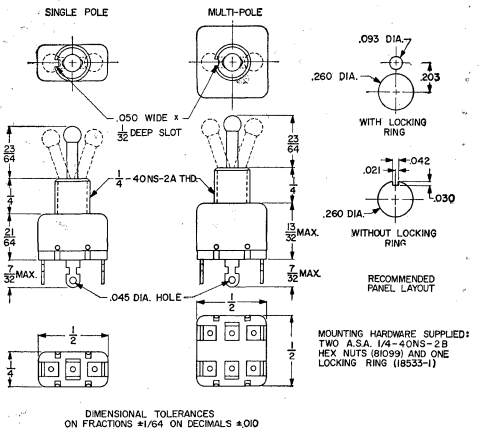
SPEMCO® H & H SUBMINIATURE SWITCHES

SUBMINIATURE TOGGLE SWITCHES

Spemco Subminiature Switches are 1/10 the volume of the standard switch.

Photos are actual size of switches.

Meeting requirements of MIL-S-3950 as applicable to SCL-6305



OPERATING CHARACTERISTICS

CONTACT RATINGS: Low level to 5 amp. resistive at 29 votls DC or 115 volts AC.
INITIAL CONTACT RESISTANCE: 0.01 ohms maximum.
DIELECTRIC STRENGTH: 1000 volts RMS at sea level.
VIBRATION: 5-28 CPS at 0.5 inches double amplitude, 28-2000 CPS at 20 G.
SHOCK: 50G for 11 milliseconds.
ELECTRICAL LIFE (minimum): 20,000 make-and-break cycles.
SEAL: Low temperature rubber boot for panel is available.
WEIGHT: From 3.0 to 5.0 grams maximum.
TERMINALS: Solder lugs.

SPEMCO®

Number	(MS Part No.)	Circuit	Action	Net Price Each
TC-3		SPDT	On-Off-On	**$3.00**
TC-3-M	(MS-75028-21)	SPDT	On-Off-On	**3.20**
TE-3		SPDT	On*-Off-On	**3.20**
TE-3-M	(MS-75028-31)	SPDT	On*-Off-On	**3.40**
TG-3		SPDT	On*-Off-On*	**3.20**
TG-3-M	(MS-75028-27)	SPDT	On*-Off-On*	**3.40**
TM-3		SPDT	On*-None-On	**3.20**
TM-3-M	(MS-75028-26	SPDT	On*-None-On	**3.40**
TS-1		SPST	Off-None-On	**2.80**
TS-1-M	(MS-75028-22)	SPST	Off-None-On	**3.00**
TS-2		DPST	Off-None-On	**3.40**
TS-2-M	(MS-75029-22)	DPST	Off-None-On	**3.60**
TS-3		SPDT	On-None-On	**3.00**
TS-3-M	(MS-75028-23)	SPDT	On-None-On	**3.20**
TC-6		DPDT	On-Off-On	**3.90**
TC-6-M	(MS-75029-21)	DPDT	On-Off-On	**4.10**
TE-6		DPDT	On*-Off-On	**5.00**
TE-6-M	(MS-75029-31)	DPDT	On*-Off-On	**5.20**
TG-6		DPDT	On*-Off-On*	**5.00**
TG-6-M	(MS-75029-27)	DPDT	On*-Off-On*	**5.20**
TM-6		DPDT	On*-Nonc-On	**5.00**
TM-6-M	(MS-75029-26)	DPDT	On*-None-On	**5.20**
TS-6		DPDT	On-None-On	**3.90**
TS-6-M	(MS-75029-23)	DPDT	On-None-On	**4.10**
11-B	Black Rubber Boot			**1.00**

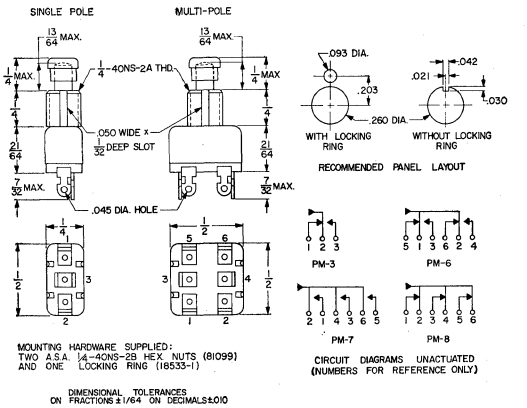
Basic catalog numbers supplied with ball lever.
Military type (suffix "M") supplied with bat lever — suffix "M" switches meet requirements of MIL-S-3950-B.
*Momentary action.

Spemco Subminiature Switches are 1/10 the volume of the standard switch.

Photo is actual size of switch.

SUBMINIATURE PUSH BUTTON SWITCHES, MOMENTARY

Featuring gold plated coin silver contacts and gold plated brass terminals. Ideal for aircraft, missile, electronic and other applications demanding small size and dependability.



OPERATING CHARACTERISTICS

CONTACT RATINGS: 2 amp 29 volt. DC resistive; 1 amp 115 volts AC. Minimum rating for dry circuit application 10 micro amps at 50 MV.
ELECTRICAL LIFE EXPECTANCY: At full load min. 20,000 make-and-break cycles pulsed at rate of 100 cycles per minute.
INITIAL CONTACT RESISTANCE: 0.05 ohms maximum.
VIBRATION: Tested per Mil-Std. −202, Method 204, Condition A.
DIELECTRIC STRENGTH: 1000 volts RMS at sea level for one minute.
TEMPERATURE RANGE: −87°F (−65°C to +200°F (+94°C).
PRETRAVEL: .015" maximum.
MOVEMENT DIFFERENTIAL: .002" maximum.
OVERTRAVEL: .010" maximum.
OPERATE FORCE: 6.6 oz. maximum.
When colored buttons are required, specify the color and add 10c each to the list price. Colors: Black, Red, Yellow, Green, Brown.

SPEMCO®

Number	Circuit	Action	Net Price Each
PM-3	SPDT	Leaf Contact — NO/NC	**$2.86**
PM-6	DPDT	Leaf Contact — NO/NC	**3.51**
PM-7	3PST	Leaf Contact — 3P/NO	**3.31**
PM-8	3PST	Leaf Contact — 3P/NC	**4.65**
10-B	Black Rubber Boot		**1.00**

Switches supplied with standard .215" white (natural) button.

SPECIALTIES MANUFACTURING CO.

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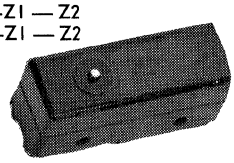
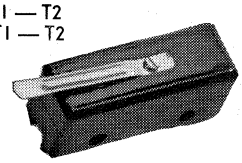
SPEMCO®

H & H PRECISION SWITCHES

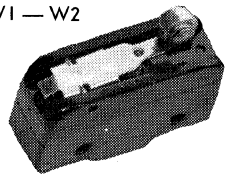
GP3-Z1 — Z2
HD3-Z1 — Z2



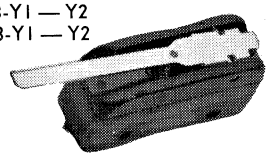
GP3-T1 — T2
HD3-T1 — T2



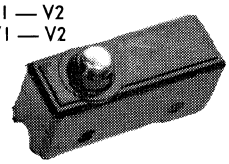
GP3-W1 — W2
HD3-W1 — W2



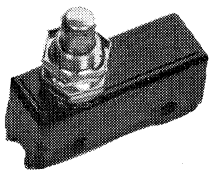
GP3-Y1 — Y2
HD3-Y1 — Y2



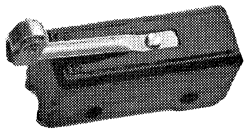
GP3-V1 — V2
HD3-V1 — V2



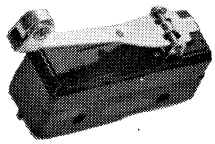
GP3-U1 — U2
HD3-U1 — U2



GP3-Q1 — Q2
HD3-Q1 — Q2



GP3-X1 — X2
HD3-X1 — X2



GENERAL PURPOSE PRECISION SWITCHES SPDT

H & H General Purpose Precision Switches feature high electrical rating combined with very low operating force and long life. SPDT units may be wired normally open or normally closed. UL and CSA approved: 15 amp. 480 V AC, 1/2 amp. 125 V DC, 1/4 amp. 250 V DC.

SPEMCO NUMBER Solder Lug	SPEMCO NUMBER Screw Term.	*1 ACTUATOR	OPERATING FORCE	PRETRAVEL	OVERTRAVEL	LIST PRICE Solder Lug	LIST PRICE Screw Term.
GP3-Z1	GP3-Z2	Pin Type	9 to 13 oz.	.015" max.	.005" min.	$155.00 C.	$165.00 C.
GP3-T1	GP3-T2	Flexible Leaf	5 oz. max.	5/32" max.	Not over 1/16"	170.00 C.	180.00 C.
GP3-Q1	GP3-Q2	Std. Roller Leaf	5 oz. max.	5/32" max.	Not over 1/16"	215.00 C.	220.00 C.
GP3-Y1	GP3-Y2	Rigid Hinge Lever	2 1/2 oz.	3/8" max.	.219" min.	200.00 C.	205.00 C.
GP3-X1	GP3-X2	Std. Roller Lever	3 1/2 oz. max.	9/32" max.	.156" min.	250.00 C.	260.00 C.
GP3-W1	GP3-W2	Short Roller Lever	6 oz. max.	9/64" max.	3/32" min.	250.00 C.	260.00 C.
GP3-V1	GP3-V2	Short Overtravel Button	9 to 13 oz.	1/64" max.	1/16" min.	190.00 C.	195.00 C.
GP3-U1	GP3-U2	Panel Mounted Plunger	9 to 13 oz.	1/64" max.	7/32" min.	345.00 C.	350.00 C.

*1 Switches are mounted by two .140 inch diameter holes on one inch centers. Discount: 1-9, none; 10-19, 10%; 20-49, 20%; 50 & over, 30%.

HEAVY DUTY PRECISION SWITCHES — SPDT

H & H Heavy Duty Precision Switches provide high inrush capacity and retain similar performance and actuating characteristics found in the General Purpose units. SPDT switches can be wired normally open or normally closed. UL and CSA approved: 20 amp. 480 V AC, 10 amp. 125 V AC "L" load, 1/2 amp. 125 V DC, 1/4 amp. 250 V DC, 1 H.P. 120 V. AC, 2 H.P. 240 V. AC.

SPEMCO NUMBER Solder Lug	SPEMCO NUMBER Screw Term.	*1 ACTUATOR	OPERATING FORCE	PRETRAVEL	OVERTRAVEL	LIST PRICE Solder Lug	LIST PRICE Screw Term.
HD3-Z1	HD3-Z2	Pin Type	14 to 22 oz.	.050" max.	.010" min.	$160.00 C.	$170.00 C.
HD3-T1	HD3-T2	Flexible Leaf	9 oz. max.	11/32" max.	Not over 1/16"	180.00 C.	185.00 C.
HD3-Q1	HD3-Q2	Std. Roller Leaf	9 oz. max.	11/32" max.	Not over 1/16"	225.00 C.	230.00 C.
HD3-Y1	HD3-Y2	Rigid Hinge Lever	2 1/2 oz. max.	5/8" max.	.078" min.	205.00 C.	210.00 C.
HD3-X1	HD3-X2	Std. Roller Lever	2 1/2 oz. max.	15/32" max.	1/16" min.	260.00 C.	265.00 C.
HD3-W1	HD3-W2	Short Roller Lever	6 oz. max.	1/4" max.	1/32" min.	260.00 C.	265.00 C.
HD3-V1	HD3-V2	Short Overtravel Button	14 to 22 oz.	.050" max.	.093" min.	195.00 C.	200.00 C.
HD3-U1	HD3-U2	Panel Mounted Plunger	14 to 22 oz.	.050" max.	.219" min.	355.00 C.	360.00 C.

*1 Switches are mounted by two .140 inch diameter holes on one inch centers. Discount: 1-9, none; 10-19, 10%; 20-49, 20%; 50 & over, 30%.

HARDWARE

for 15/32" diameter sleeve.

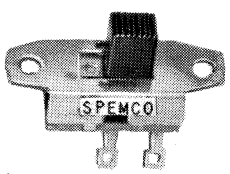
No.	Description	Price
1132-HL	Hi-Lo Plate	.042 ea.
1132	On and Off Plate	.042 ea.
1132-H	Hex Nut	.03 ea.
1132-K	Knurled Nut	.03 ea.
1210	Lockwasher	2.55C
1211	Locking Ring	4.20C

PHENOLIC SNAP-ON BUTTON

No.	Color	Net Price
1212-B	Black	.27 ea.
1212-R	Red	.27 ea.
1212-W	White	.27 ea.

All aforementioned switches, connectors and receptacles are manufactured by H&H for Specialties Manufacturing Company.

SLIDE SWITCHES



Housings are made of steel and are cadmium plated 1 13/32" long, 35/64" wide and 1 1/8" mounting centers.

No.	Description	Net Price
1180	SPST 3A-AC .5A-DC 125V	.156 ea.
1181	SPDT .75A AC-DC 125V	.168 ea.
1182	DPST .5A AC-DC 125V	.216 ea.
1183	DPDT 3A-AC .5A-DC 125V	.258 ea.

All aforementioned switches, connectors and receptacles are manufactured by H&H for Specialties Manufacturing Company.

SPECIALTIES MANUFACTURING CO.

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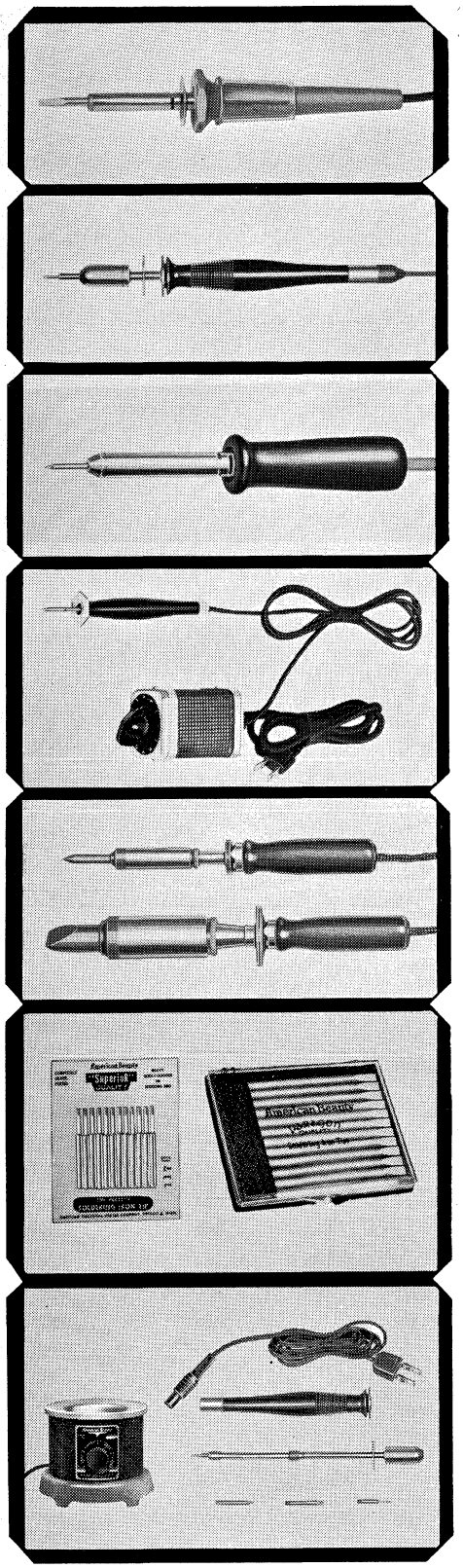
American Beauty

ELECTRIC SOLDERING IRONS



LITTLE DANDY

New kind of quality in economy iron. All parts replaceable in seconds, including element. Plug-type tip. Anti-roll, aerated handle. Heat-deflecting baffle. Super-flexible cord. Perfect balance.

CAT. NO.	TIP. DIA.	WATTS	NET WT.	NET
3108	1/8"	20	3 oz.	$ 4.20
3110	3/16"	25	3 oz.	4.20
3112	1/4"	40	4 1/4 oz.	5.60

Two-wire cord is standard. For 3-wire grounding cord and NEMA type plug, add "S3" to CAT. NO. and $1.00 to list price.

*Other options available (including higher wattages)

B-SERIES MINIATURES

Newest advance in truly miniature irons. Precise balance. Cool handle. Long-life, "floating," heating element. Anti-roll baffle. Simple three-piece assembly. Boxed with 6' detachable cord set, 3 assorted tips. Packed 6 to case.

CAT. NO.	TIP. DIA.	WATTS	NET WT.	NET
B-2000-L	1/8"	22 1/2	3 oz.	$ 8.75
B-2500-L	3/16"	30	3 oz.	8.75

Two-wire cord is standard. For 3-wire gounding cord and NEMA type plug, add "S3" to CAT. NO. and $1.00 to list price.

*Other options available

BANTAMS

Small American Beauty irons in wide range of watt-inputs and tip diameters to cover entire range of fine and medium-fine jobs on electronic and electrical production lines.

CAT. NO.	TIP. DIA.	WATTS	NET WT.	NET
3114	1/4"	60	8 oz.	$ 7.00
3118	1/8"	30	6 oz.	5.60
3120	3/16"	30	6 1/2 oz.	5.60
3118-X	1/8"	50	6 oz.	6.30

*Other models & options available

TRANSFORMER TYPES

Variable heat and non-variable heat models. T-6 model shown; precision 6-volt instrument with variety of heat levels, quick tip-heat changes. T-12 and T-30 models non-variable. All models for use where complete isolation from line voltage is desirable or necessary.

CAT. NO.	TIP. DIA.	WATTS	NET WT.	NET
T-6	Needle	Variable	19 1/2 oz.	$16.80
T-12	1/16"	17	1 lb. 3 oz.	14.00
T-30	1/16"	30	1 lb. 12 oz.	15.40

*Other options available

STANDARD SERIES

Hundreds of thousands of these models of American Beauty irons are on production lines all over the world. Stocked in tip sizes from 1/4" to 1 1/8", input wattages from 60 W to 550 W.

ANGLE-TYPE irons available. (Casings angled for hard-to-reach jobs.)

CAT. NO.	TIP. DIA.	WATTS	NET WT.	NET
3125	1/4"	60	7 1/2 oz.	$ 7.00
3138	3/8"	100	16 oz.	9.10
3158	5/8"	200	28 oz.	11.20
3178	7/8"	300	42 oz.	14.70
3198	1 1/8"	550	60 oz.	18.20

*Nine models available

SOLDERING TIPS

Made of commercially pure copper rod. Shapes and sizes for all AB irons and other makes as well. (1) Nickel-Plated. (2) "Paragon" Quality—best. tips made for high-spec. soldering; iron-clad; chrome-plated; pre-tinned; maintenance-free; for extra clean work.

Ask for FREE
American Beauty Tip Chart.

PARTS AND ACCESSORIES

You can always get original-equipment-quality parts for any American Beauty Soldering Iron—standardized for quick, easy repair. Also: AB cord sets; spooled and bulk heater cord in 250' lengths; branding irons; soldering iron temperature regulating stands; safety guards for same; general-purpose solder pots; melting cups or ladles.

*Request American Beauty Catalog for complete selection.

NEW CATALOG—
New American Beauty Catalog now available. FREE.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

AMERICAN ELECTRICAL HEATER CO.

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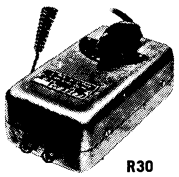
CAIG LABORATORIES INC.

ERSA® SOLDERING TOOLS

SOLDERING IRONS	TECHNICAL DESCRIPTION	ERSA IRON COMPLETE CAT. NO. (Add 'D' to No. for ERSA-CLAD)	WATTAGE	PRICE WITH COPPER Bit	PRICE WITH ERSA-CLAD Bit*	SOLDERING BIT CAT. NO. (Add 'D' to No. for ERSA-CLAD	BIT FORM	PRICE COPPER	PRICE ERSA-CLAD*	SPARE ELEMENT CAT. No.	SPARE ELEMENT PRICE
	ERSA-MICROTYPE 6 VOLT 8 WATTS — 15 WATTS Subminiature soldering iron for pinpoint soldering on miniaturized printed circuits and other micromodulation techniques. Provided with ERSA-CLAD long life bit. Good for 100,000 soldering operations. Built-in solid heater element. Weight under 3 ozs. Length of 8 watt unit 6.3″, length of 15 watt unit 9.8″. Temp. range 240°C to 380°C. For use with 6 volt transformer or battery, 5 foot cable & banana plugs. Temp. can be regulated with **Control Transformer ERSA R30.** For more details ask for Bulletin #E-502	20L/8W (Short Heating Unit)	8		$9.50		Sloping 1/16″ ϕ			22L/8W (Element & Bit)	$5.50
		20B/8W (Short Heating Unit)	8		$9.50		Pencil Form 1/16″ϕ			22B/8W (Element & Bit)	$5.50
		20K/15W (Extra Long Heat'g Unit)	15		$9.90		Chisel Form 3/32″ Wide			22K/15W (Element & Bit)	$5.90
		20L/15W (Extra Long Heat'g Unit)	15		$9.90		Sloping 1/8″ ϕ			22L/15W (Element & Bit)	$5.90
	ERSA-MINIATURE 6 VOLT 10 WATTS — 20 WATTS — 30 WATTS Miniature soldering iron for modern electronics — exchangeable heater elements — heating up time 40 sec. — weight under 3 ozs. Length 8″ — for use with 6 volt transformer or battery, 5 foot cable & banana plugs — push on copper bits, easily exchanged — soldering temperature can be regulated with the **Control Transformer ERSA R30.** Temp. range 300°C. to 480°C. For more details ask for Bulletin #E-501	10/10W	10	$5.00	$6.90	12/10	Sloping 1/16″ ϕ	$0.50	$2.40	11/10W	$3.60
		10/20W	20	5.00	6.90	12/20	Sloping 1/8″ ϕ	0.50	2.40	11/20W	3.60
		10/30W	30	5.00	6.90	12/30	Sloping 3/32″ ϕ	0.50	2.40	11/30W	3.60
	ERSA MODEL 30 20 WATTS — 30 WATTS — 40 WATTS For radio, television and electronics — heating up time 2 min. — elements and copper bits easily exchangeable. Tip shank dia. 13/64″ for all, 13/64″ x 9/32″ for S-bit. Bit temperatures 340°C — 360°C — 390°C. 5 foot cable & plug. 110 volts std. (220 volts special). Weight approx. 7¾ ozs. Length 7¾″. Equipped with hex. shield. For more details ask for Bulletin #E-200.	30K/20W	20	$5.75	$7.75	32K/20		$0.50	$2.50	31/20W	$3.75
		30K/30W	30	5.75	7.75	32K/30	32K	0.50	2.50	31/30W	3.75
		30J/30W	30	5.75	7.75	32J/30		0.50	2.50	31/40W	3.75
		30S/30W	30	5.75		32S/30	32S	0.50			
		30K/40W	40	5.75	7.75	32K/40		0.50	2.50		
		30J/40W	40	5.75	7.75	32J/40	32J	0.50	2.50		
		30S/40W	40	5.75		32S/40		0.50			


R30

ERSA CONTROL TRANSFORMER MODEL R30

The **R30,** transformer model has a primary voltage regulator for 110, 125, 150, 220 and 240 volts. The secondary voltage is also variable within the range of 5 to 6.5 volts, thus making it possible to select a temperature range between 240 to 480°C. When not in use, the ERSA iron rests on a special nozzle provided on the transformer. This protects against overheating. The **R30,** with a greater output, permits universal use of all the various ERSA irons with their different capacities.

MODEL R30, rated 30 VA, 5.1#. Price.....$25.00

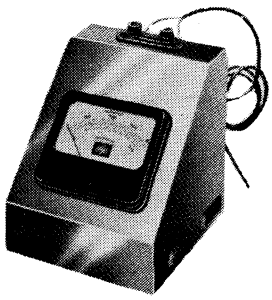
*** 'ERSA-CLAD' — DURABLE IRON-CLAD COPPER BITS**

Made of pure electrolytic copper with an iron coating. Soldering surface of bit pre-tinned ready for use. Shaft is chromium plated to prevent baking in. **ERSA-CLAD** bits in normal use last for more than 100,000 solderings.
Ask for Bulletin on **ERSA-CLAD.**

AFTER EQUAL SERVICE TIME

TREATED UNTREATED

A SPECIAL BIT
A New miniature **ERSA-CLAD** chisel tip bit, bent at right angle, 1/16″ chisel width. Cat. #32JD16.

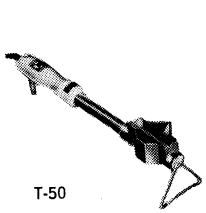


PYROMETERS — INDICATING

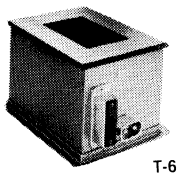
Model IPL-500, low temperature, indicating pyrometer, range 0° to +650°F, scale 3½″, graduations: 5°F, Dimensions 7″ H. x 6″ W. x 6″ L., 15 feet #20 ga. I/C thermocouple & lead wire. Weight 4 lb. Price.....**$36.00**
Extra thermocouple. Price.....**$13.50**

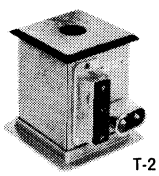
Model IPH-500, high temperature, indicating pyrometer, range 0° to +2000°F, scale 3½″, graduations: 20°F, Dimensions 7″ H. x 6″ W. x 6″ L., #14 ga. C/A thermocouple ¼″ dia. x 12″ long, protected ceramic beads, 3 feet lead wire. Weight 4 lb. Price.....**$38.50**
Extra thermocouple. Price.....**$13.50**

Model R-1800, infinite control, proportion input voltage of any resistive load up to 15 amps. Just plug in your load and set knob for any heat requirement. Red Light indicator. Size 4″ x 4″ x 4″. Weight. Price $27.50


T-50

R-4A


T-6


T-2

RECTANGULAR & ROUND SOLDER BATHS

CATALOG NO.	WATTS	VOLTS	TEMPERATURE APPROX. (°C)	TEMPERATURE APPROX. (°F)	INTERNAL DIMENSIONS APPROX. (INCHES) LENGTH	WIDTH	DEPTH	CONTENTS APPROX. (CC)	HEAT CONTROL	WEIGHT APPROX. (LBS.)	PRICE
T-50	65	110	300	572	1.10	0.78	0.55	7	Full Heat	1.00	$ 9.00
T-100	130	110	340	644	2.37	1.18	1.18	25	Full Heat	1.50	9.75
T-250A*	260	110	420	788	2.94	2.37	1.56	100	Full & Half	5.00	34.10
T-2*	240	110	600	1112	—	0.97 dia.	1.84	17	Full & Half	3.00	25.00
T-3*	350	110	430	806	3.94	1.18/0.59	2.14	120	Full & Half	5.50	29.00
T-4*	400	110	410	770	2.00	2.00	3.28	220	Full & Half	8.50	35.15
T-6*	1000	110	560	1040	4.69	3.13	2.39	570	Full & Half	11.25	55.15
T-9**	2800	220	650	1202	6.50	5.33	3.94	2080	3 Step Sw.	31.00	165.30
T-1212	2000	220	372	700	12.00	12.00	2.00	90 lbs.	Automatic	55.00	160.00
R-4A†	300	110	288	550	—	3.00 dia.	1.50	4 lbs.	Automatic	6.00	30.00
R-10A†	500	110	288	550	—	3.50 dia.	2.50	10 lbs.	Automatic	11.00	41.00
R-20A†	1100	110	372	700	—	5.00 dia.	4.00	20 lbs.	Automatic	33.00	85.00
R-4X	800	110	538	1000	—	3.00 dia.	1.50	4 lbs.	Full Heat	6.00	34.00
R-4AX†	900	110	538	1000	—	3.00 dia.	1.50	4 lbs.	Automatic	9.00	63.00

NOTES: (*) Can be Switched to Half Wattage Rating. (**) With 3-Step Switch. (†) Thermostat Bimetal Control.

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Net

MADE IN U.S.A.

BEAUCHAINE

BEAU TECH© TOOLS

SEE SECTION 2100 FOR BEAUPLUGS

THE FIRST CHOICE FOR SUPERIOR MAGNIFICATION

OptiVISOR Optical Glass Binocular Magnifier

PREFERRED BY PROFESSIONAL & SKILLED CRAFTSMEN EVERYWHERE

Today, more people in the professions and crafts, whose daily jobs require absolute accuracy regardless of miniaturization, depend on **OptiVISOR** for close precision work. **OptiVISOR,** a preferred instrument, is a highly versatile precision-made binocular magnifier that is worn on the head leaving both hands free, and can be instantly tilted downward when needed and upward when not in use. **OptiVISOR** can be worn over regular prescription or safety glasses.

You may order OptiVISOR in any of six magnifications (Magnifications and Prices)

OptiVISOR normal eye

PLATE NO. 2 Magnifies 1½ Times Focal Length 20 Inches

PLATE NO. 3 Magnifies 1¾ Times Focal Length 14 Inches

PLATE NO. 5 Magnifies 2½ Times Focal Length 8 Inches

PLATE NO. 7 Magnifies 2¾ Times Focal Length 6 Inches

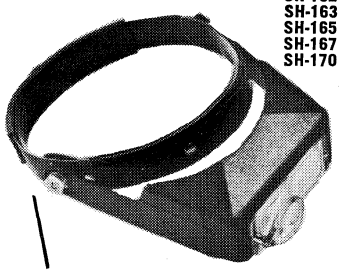
PLATE NO. 10 Magnifies 3½ Times Focal Length 4 Inches

ATTACHABLE AUXILIARY LENS fits either eye of any model for additional magnification. Illustration Above

Description	Plate No. 2	Plate No. 3	Plate No. 5	Plate No. 7	Plate No. 10	OptiLOUPE
Elastic Headband	SH-152 **$14.00**	SH-153 **$14.00**	SH-155 **$14.00**	SH-157 **$14.00**	SH-160 **$14.00**	SH-161 **$2.50**
Dial Headband	SH-162 **14.95**	SH-163 **14.95**	SH-165 **14.95**	SH-167 **14.95**	SH-170 **14.95**	SH-161 **2.50**

ONLY OptiVISOR OFFERS THESE EXCLUSIVE FEATURES

SH-162
SH-163
SH-165
SH-167
SH-170

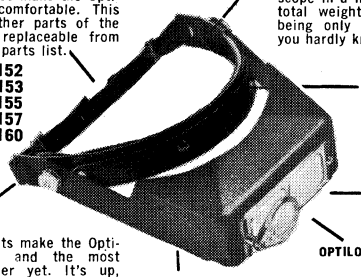


DIAL ADJUSTABLE CONTINUOUS HEAD BAND is formed to fit the head. A twist of the adjustment dial changes head size. Sealed in mechanism is self locking, trouble free. Gives the OptiVISOR better balance for the ultimate in comfort when worn over long periods of time. All other features same as Model E.

FULLY ADJUSTABLE ELASTIC BAND and Slides make the OptiVISOR more comfortable. This part, as all other parts of the OptiVISOR is replaceable from a replacement parts list.

SH-152
SH-153
SH-155
SH-157
SH-160

CONFORMING HEADBAND made of electrically non-conductive ABS material, the headband is designed to fit and locate the scope in a natural position. The total weight of the OptiVISOR being only about four ounces, you hardly know it's there.



GENUINE LEATHER COMFORT BAND padded with orthopedic felt makes the OptiVISOR more comfortable than any worn magnifier.

OPTICAL GLASS LENSES ground and polished to precision optical standards are bevel edged and mounted in an interchangeable plastic frame. Five scientifically computed prismatic powers are available for use with any OptiVISOR.

OPTILOUPE

IT TILTS—Pivots make the OptiVISOR unique and the most handy magnifier yet. It's up, out of the way of normal vision when not in use, and there at your fingertips when you need that magnified pinpoint clarity for inspection or close work.

ABS HIGH IMPACT VISOR—Chemical, grease and flame resistant; this tough, durable material is practically indestructible with an always new appearance. The grain finish enhances the attractive functional design.

FLEXIBLE ARM MAGNIFIERS

Beau-Tech versatile FLEXIBLE-ARM magnifiers have larger lens area, 18″ extra-stiff flexible arm, precision ground optical glass, choice of bases, lens adjustment to any position, positive lock on swivel adjustments, quality built throughout.

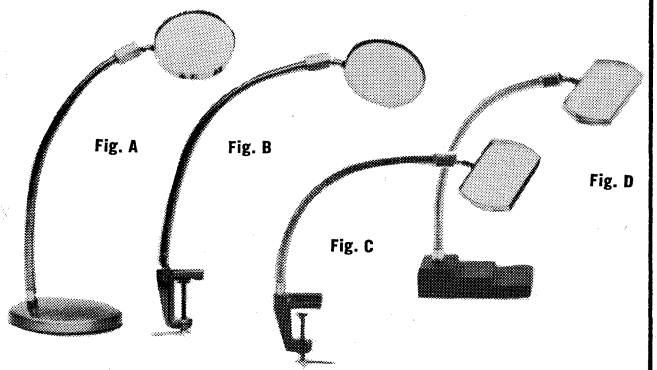
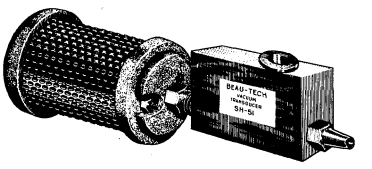


Fig. A, Beau-Tech SH-171 5″ Round Lens ..... **Net 13.95**
Fig. B, Beau-Tech SH-172 5″ Round Lens ..... **Net 13.95**
Fig. C, Beau-Tech SH-174 3″ x 5″ Rectangular Lens ..... **Net 13.95**
Fig. D, Beau-Tech SH-173 3″ x 5″ Rectangular Lens ..... **Net 13.95**

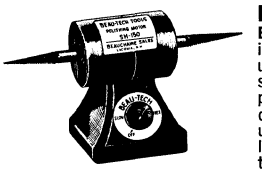
VACUUM TRANSDUCERS



Beau-Tech SH-51, converts shop air to vacuum energy in seconds. Handles up to 12 probes with Tip No. 22 and maintains 5.5″ Hg. Uses less than 1.5 cfm of compressed air at 50 psi to produce 10″ Hg. vacuum. (Material 1/16″ in size will pass thru vacuum transducer without disrupting vacuum flow)

Net 15.95 ea.

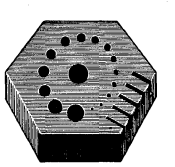
POLISHING MOTORS



Beau-Tech SH-150, double sealed ball bearings lubricated for life; will not burn out under repeated loading. Rugged, variable speed motor for buffing, polishing. 2 tapered spindles accept wide range of buff center holes. May be fastened to bench; or used portable. 1/8 HP @ 5,000 rpm under load. Dial power rheostat provides 2,000 thru 10,000 rpm under load. 110 VAC 60 cy. Shaft is 5/16″ polished drill rod.

Net 44.95 ea.

BENCH BLOCKS



Beau-Tech SH-151, hexagonal with 16 well-graduated holes. One face has five graduated milled slots, .020″, .028″, .031″, .035″ and .040″ for a variety of exacting jobs. Top, bottom and sides have been ground flat and smooth. Cyanide hardened for long wear. Distance across points is approximately 1 7/8″ and height is 3/4″.

Net 4.50, 10 & up 4.05 ea.

BEAUCHAINE

© U.C.P., Inc.

MADE IN U.S.A.

BEAUCHAINE

BEAU TECH© TOOLS

SEE SECTION 2100 FOR BEAUPLUGS

BEAU-TECH© TOOLS

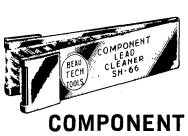
BRASS HAMMERS

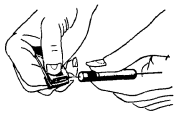
Beau-Tech SH-91, 2½ oz., developed originally for the watchmaking trade it is an ideal and inexpensive tool for technicians and hobbyists.
Net 1.75 ea., 10 or more 1.57 ea.

"THREE FACED" HAMMERS

Beau-Tech SH-92 is a unique, beautifully balanced hammer. Has a 2½-oz. head, New Hampshire hardwood varnished handle. Comes with 3 different faces: Brass, Nylon, Fibre, and a spanner wrench for changing faces.
Net 2.75 ea., 10 or more 2.47 ea.

Beau-Tech SH-93, 5-oz. hammer same as above.
Net 3.25 ea., 10 or more 2.92 ea.



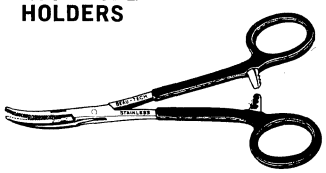


COMPONENT LEAD CLEANERS

Beau-Tech SH-66, NASA Quality Publication NPC-200-4 specifies component leads must have all oxides removed before being soldered in place. Beau-Tech SH-66 is a unique and inexpensive hand tool (Stainless Steel) and complies completely with these specs. .....**Net $1.50 ea., 10 or more 1.35 ea.**

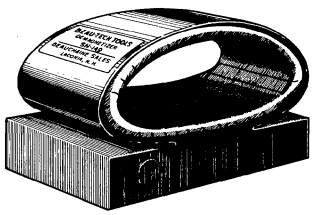
Beau-Tech SH-90-C and SH-90-S, manufactured to exacting medical standards. The Stainless Steel tools have two-position snap-locks which won't slip. Excellent clamp and heat sink for the soldering of diodes, transistors and other components where heat might be detrimental. Handy as a "third hand" in intricate operations, ideal for breadboarding as several may be used as temporary connectors to eliminate soldering and allow quick connecting and disconnecting of components. With TEC-COATED handles, and vinyl hang-up pouch. Length, approx. 5½".
SH-90-C (Curved Jaws)
Net 4.80 ea., 10 or more 4.32 ea.
SH-90-S (Straight Jaws)
Net 4.80 ea., 10 or more 4.32 ea.

LOCK-TYPE HOLDERS

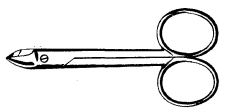


DEMAGNETIZERS

Beau-Tech SH-149, most useful for demagnetizing steel tools and other objects which have become magnetized during fabrication or rework. Base dimensions—3⅜" x 2¼". 110 VAC. .....**Net 6.95 ea.**

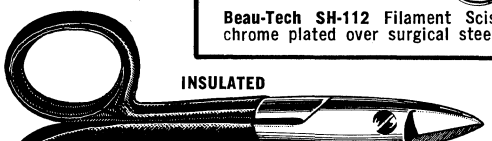


SCISSORS

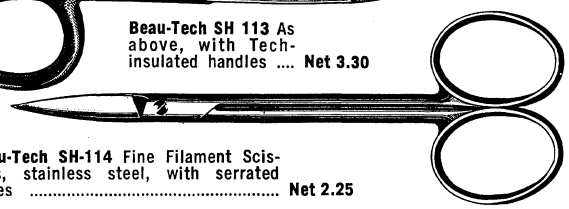


Beau-Tech SH-112 Filament Scissors, chrome plated over surgical steel ..... **Net 2.25**

INSULATED

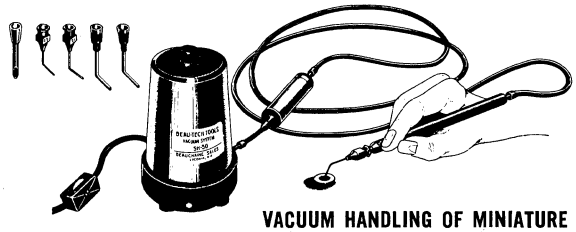


Beau-Tech SH 113 As above, with Tech-insulated handles .... **Net 3.30**



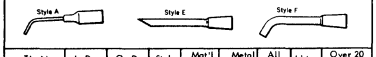
Beau-Tech SH-114 Fine Filament Scissors, stainless steel, with serrated edges ..... **Net 2.25**

BEAU-TECH© VACUUM SYSTEM



VACUUM HANDLING OF MINIATURE PARTS

System normally supplied with Tips No. 11, 12, 20, 22, and 24; however, you may specify the exact tips which you require.



Tip No.	I. D.	O. D.	Style	Mat'l of Hub	Metal needle	All Plastic	List	Over 20 Each No.
SH-50-11	.03	.10	E			X	.95	.85
SH-50-12	.06	.12	E			X	.95	.85
SH-50-13	.12	.19	E			X	.95	.85
SH-50-14	.03	.10	F			X	1.90	1.71
SH-50-15	.06	.12	F			X	1.90	1.71
SH-50-16	.12	.19	F			X	1.90	1.71
SH-50-17	.25	.31	F			X	1.90	1.71
SH-50-20	.007	.018	A	Metal	X		1.25	1.13
SH-50-21	.010	.020	A	Metal	X		1.25	1.13
SH-50-22	.013	.025	A	Metal	X		1.25	1.13
SH-50-23	.016	.028	A	Metal	X		1.25	1.13
SH-50-24	.020	.032	A	Metal	X		1.25	1.13
SH-50-25	.025	.036	A	Metal	X		1.25	1.13
SH-50-26	.033	.050	A	Metal	X		1.25	1.13
SH-50-27	.035	.057	A	Metal	X		1.60	1.44
SH-50-28	.045	.064	A	Metal	X		1.60	1.44
SH-50-29	.052	.071	A	Metal	X		1.60	1.44
SH-50-30	.070	.095	A	Metal	X		1.60	1.44

Beau-Tech SH-50, consists of a small electric vacuum generator producing up to 14" Hg vacuum, an inline filter which protects the generator from foreign matter, an SH-52 Cylindrical Probe and five Probe tips from the selection listed at left, and a 4" length of vacuum tubing. The operation of the SH-50 Vacuum System is simplicity itself—plug in the generator line cord, turn on the switch and you're in business. Objects are picked up by holding the index finger over the hole in the handpiece, raising the finger to release. .....**Net 36.95 ea., 10 or more 33.25 ea.**

SH-52 CYLINDRICAL PROBE (Handpiece) **Net 6.25**

SCREWDRIVERS

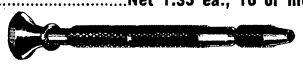
Beau-Tech SH-41, husky knurled body has green phenolic palm swivel for each of handling. There are four blades, which are reversible. Three are of heat-treated tool steel with black oxide finish (.067", .115" and Phillips #1), other is beryllium copper, having two .115" straight tips. Practically any blade size and shape can be specially ordered.
Net 3.25 ea., 10 or more 2.92 ea.

Beau-Tech SH-42, 6-piece instrument screw driver set, meets government spec. FSN-5120-288-8739. Chrome plated steel barrels, black oxide finish, heat-treated bits. Blade widths are .025", .040", .055", .070", .080" and .100". Packed in setup box with dividers. ....**Net 4.80 ea., 10 or more 4.32 ea.**

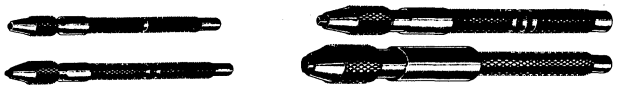
5" SCRIBERS

Beau-Tech SH-43, tool has knurled body for sure grip and hex head to prevent rolling off bench. Point is retractable, made of tool steel, heat treated in the Swedish manner. .....**Net 1.35 ea., 10 or more 1.21**

PAN VISES



Beau-Tech SH-147 and SH-148, finest material and workmanship. Built to last for many years, both models are chrome plated to resist rust.
Beau-Tech SH-147 for drills 0-.040" .....**Net 1.45 ea., 10 & up, 1.30 ea.**



Beau-Tech SH-148 for drills .025-.062".....**Net 1.55 ea., 10 & up 1.39 ea.**
Beau-Tech SH-142 pin vise, hand/lathe/drill press drill sizes 0-.040 .....**Net 1.35 ea., 10 & up 1.21 ea.**
Beau-Tech SH-143 pin vise, hand/lathe/drill press drill sizes .025-.062 .....**Net 1.45 ea., 10 & up 1.30 ea.**
Beau-Tech SH-144 pin vise, hand/lathe/drill press drill sizes .050-.125 .....**Net 1.60 ea., 10 & up 1.44 ea.**
Beau-Tech SH-145 pin vise, hand/lathe/drill press drill sizes .115-.188 .....**Net 1.75 ea., 10 & up 1.57 ea.**
(Note: SH-142 – 145 Pin Vises have a thru hole for long drills, permitting accurate length control at chuck. Bodies are plated and chuck parts are heat-treated for long life.)
Beau-Tech SH-146 Set of 4 pin vises (above) packed in transparent tube.
Net 5.75 set of 4, 10 & up 5.18 set

BEAUCHAINE

MADE IN U.S.A.

BEAUCHAINE

BEAU TECH© TOOLS

SEE SECTION 2100 FOR BEAUPLUGS

BEAU-TECH©

SOLDERING AIDS

The hallmark of quality shows in each detail. Examine the straight or angled tips for the hard-to-reach areas . . . you'll find they're twist-proof, hard-chrome plated to shed solder. More, both ends are insulated from one another. The practical fork-ends are a "must" for twisting or holding wires. And when you want to scrape joints, connections or ream out lug holes, just flip your **Beau-Tech** soldering aid to the spade end. Non-slipping, non-rolling "hex" handles. Available in standard, miniature and single ended models.

STANDARD

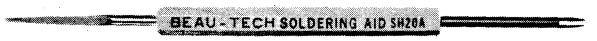


Fig. A, Beau-Tech SH-20A Straight Reamer & Forked Tips.
Federal stock no. cross reference: FSN-5120-629-2697,
FSN-3439-330-5075, USAF-3439-608-2392 ..... **Net 87¢**

Fig. B, Beau-Tech SH-20B Angled Reamer & Forked Tips.
FSN-3439-633-6232, USAF-3439-019-9882 ..... **Net 87¢**
Fig. , Beau-Tech SH-20-A-SE Straight Tip ..... **Net 87¢**
Fig. , Beau-Tech SH-20-B-SE Angled Tip ..... **Net 87¢**
Fig. , Beau-Tech SH-20-F-SE Forked Tip ..... **Net 87¢**

Fig. C, Beau-Tech SH-20K Brush & Scraper Tips.
FSN-5120-767-9126 ..... **Net 98¢**
Fig. , Beau-Tech SH-20KF Brush & Forked Tip ..... **Net 98¢**

PRINTED CIRCUIT

Fig. D

Fig. D, Beau-Tech SH-20C Printed Circuit Type.
Straight Reamer & Forked Tip USAF-3439-562-7066 ..... **Net 80¢**

Fig. E

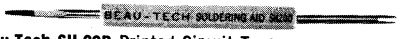


Fig. E, Beau-Tech SH-20D Printed Circuit Type.
Angled Reamer & Forked Tips USAF-3439-562-7067 ..... **Net 80¢**

Fig. F

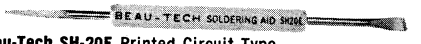


Fig. F, Beau-Tech SH-20E Printed Circuit Type.
Reamer & Scraper Tips USAF-3439-562-7068 ..... **Net 80¢**

Fig. G

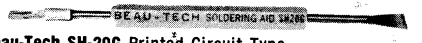


Fig. G, Beau-Tech SH-20G Printed Circuit Type.
Brush & Scraper Tip ..... **Net 92¢**
Fig. , Beau-Tech SH-20-GF Printed Circuit Type.
Brush & Forked Tip ..... **Net 92¢**

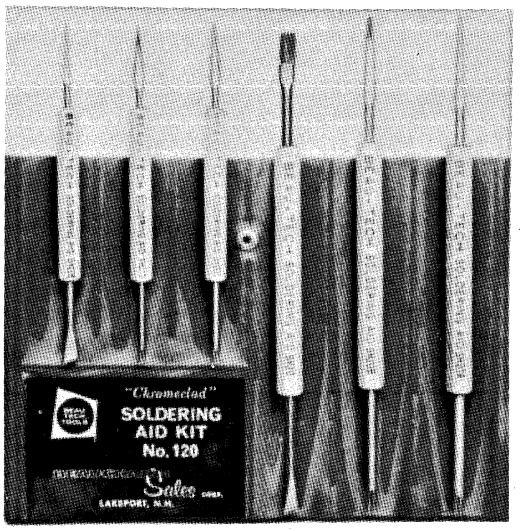
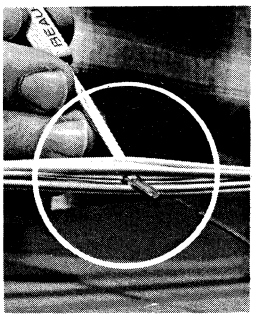


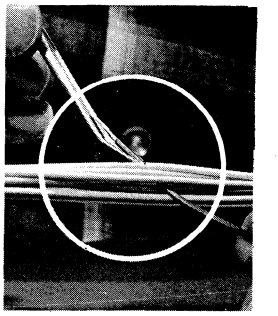
Fig. H

Fig. H, Beau-Tech SH-120 Soldering Aid Kit includes:
SH-20E, SH-20D, SH-20C, SH-20K, SH-20B, SH-20A ..... **Net 4.87**

BEAU-TECH©

WIRING AIDS





Work the SH-40B thru wiring harness, lacing, between components, etc., and insert wire in grove. Remove tool, push wire — That's all there is to it! May also be used in desoldering components.

Fig. I

Fig. I, Beau-Tech SH-40-B Wiring Aid & Forked Tip ..... **Net 1.19**

Fig. J

Fig. J, Beau-Tech SH-40-BSE Wiring Aid, Single End ..... **Net 98¢**

Fig. K

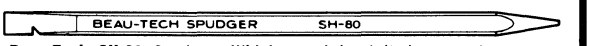
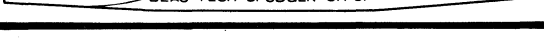


Fig. K, Beau-Tech SH-80 Spudger. Widely used by telephone and electronics technicians for checking circuitry, wiring, and as a soldering aid. WE 709, 733; KS-1102 ..... **Net 55¢**

Fig. L, Beau-Tech SH-81 Spudger. Same as SH-80, meets MIL-specs and Federal Stock Number requirements. Both are made of red vulcanized fibre. FSN-5120-408-1764, FSN-5120-293-3112, ORD Dwg. A-7578690 ..... **Net 55¢**

Fig. L



BEAU-TECH©

PROBERS

Fig. M

Fig. M, Beau-Tech SH-116 Prober #6, stainless steel, vinyl hang-up pouch ..... **Net 98¢**

Fig. N

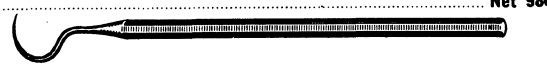


Fig. N, Beau-Tech SH-117 Prober #17, stainless steel, vinyl hang-up pouch ..... **Net 98¢**

Fig. O

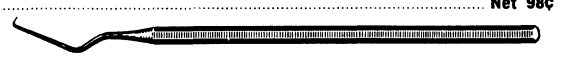


Fig. O, Beau-Tech SH-123 Prober #23, stainless steel, vinyl hang-up pouch ..... **Net 98¢**

Fig. P

Fig. P, Beau-Tech SH-141 Prober #1, stainless steel, vinyl hang-up pouch ..... **Net 98¢**

BEAU-TECH©

INSPECTION MIRRORS

INSULATING HARWOOD HANDLES

Fig. Q

Fig. Q, Beau-Tech SH-131 Inspection Mirror, ¾", 3x magnification .. **Net 85¢**
Fig. Q, Beau-Tech SH-132 Inspection Mirror, 1", 3x magnification .... **Net 85¢**
Fig. Q, Beau-Tech SH-133 Inspection Mirror, ¾" plain ..... **Net 85¢**
Fig. Q, Beau-Tech SH-134 Inspection Mirror, 1" plain ..... **Net 85¢**

BEAUCHAINE

© U.C.P., Inc.

SEE SECTION 2100 FOR BEAUPLUGS

BEAU TECH© TOOLS

BEAUCHAINE

MADE IN U.S.A.

BEAU-TECH© MICRO-MINIATURE TWEEZERS

These tools have been specifically designed and precision-shaped for ease of handling micro-miniature parts in electronic instrumentation and related fields — where extremely sharp, strong points and delicate tension are required.

Fig. A

Fig. A, Beau-Tech SH-380 General use, strong blades, fine points, stainless steel. non-magnetic, 4½" ..... **Net 3.50**

Fig. B

Fig. B, Beau-Tech SH-382 General use, tapered, fine points, stainless steel, non-magnetic, 4½" ..... **Net 3.85**

Fig. C

Fig. C, Beau-Tech SH-383 Assembly work, very fine points, stainless steel, non-magnetic, 4½" ..... **Net 3.75**

Fig. D

Fig. D, Beau-Tech SH-384 Extra-fine work, blades taper sharply from body, stainless steel, superfine points, non-magnetic, 4½" **Net 4.75**

Fig. E

Fig. E, Beau-Tech SH-385 Assembly work, superfine points, stainless steel, non-magnetic, 4½" ..... **Net 5.00**

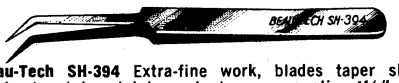
Fig. F 

Fig. F, Beau-Tech SH-394 Extra-fine work, blades taper sharply from body, bent points, stainless steel, non-magnetic, 4½" ..... **Net 5.00**

STANDARD TWEEZERS

Fig. G

Fig. G, Beau-Tech SH-24A 7" Probing Tweezer, Plastic ..... **Net 40¢**

Fig. I

Fig. I, Beau-Tech SH-100 Filament Holder, stainless steel. Includes vinyl hang-up pouch ..... **Net 2.00**

Fig. J

Fig. J, Beau-Tech SH-101 Angular Filament Holder, stainless steel. Includes vinyl hang-up pouch. Redstone Arsenal Stock No. 025-29075-5 ..... **Net 2.00**

Fig. K

Fig. K, Beau-Tech SH-102 Utility Tweezer No. 1, plated. Includes vinyl hang-up pouch ..... **Net 79¢**

Fig. M

Fig. M, Beau-Tech SH-104 Fine Filament Holder, stainless steel. Includes vinyl hang-up pouch. Redstone Arsenal Stock No. 025-29075-5 ..... **Net 2.00**

Fig. N

Fig. N, Beau-Tech SH-105 Lock-type Filament Holder, stainless steel ..... **Net 3.25**

Fig. O

Fig. O, Beau-Tech SH-106 Heavy Gripper, stainless steel. Includes vinyl hang-up pouch ..... **Net 2.25**

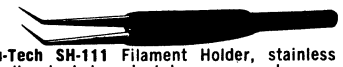
Fig. P 

Fig. P, Beau-Tech SH-111 Filament Holder, stainless steel, tec-insulated handle. Includes vinyl hang-up pouch ..... **Net 2.25**

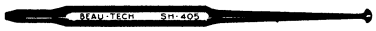
BEAU-TECH© MICRO-MINIATURE TOOLS

Fig. Q, Beau-Tech SH-400K Kit (tools and handles may be ordered separately). Medium diameter shanks (approx. .030"). Tips are swaged tool steel with compacted grain structure, heat-treated in Swedish manner; ground and plated with copper, nickel and 24-K gold.

USES: Instrument assembly, micro-production, white room operations, microscopy, lab, solid state electronic production, etc.

Fig. Q

Net 58.50 Kit



SH-405 HANDLE .....**Net 9.75**

NEEDLE POINT
SH-413 Med. dia., short lgth., ... **Net 4.00**
SH-414 Med. dia., med. lgth., ... **Net 4.00**
SH-415 Med. dia., long lgth., ... **Net 4.00**

SH-430 SHARP EDGED SPADE **Net 4.00**

SH-421 2.0 ROOT KNIFE **Net 4.00**

SH-436 SHARP EDGED CHISEL ..... **Net 4.00**

SH-424 3.0 ROOT KNIFE **Net 4.00**

SH-450 BIFURCATED MANIPULATOR **Net 4.00**

SH-427 GRAVER ..... **Net 4.00**

SH-457 180° HOOK ..... **Net 4.00**

SH-480 INDIA SHARPENING STONE ..... **Net 2.85**

BEAU-TECH© MICRO-MINIATURE TWEEZERS

"Made in Switzerland"

STAINLESS STEEL **"DUMONT STYLE"**

Fig. R

Fig. R, Beau-Tech SH-301 Tweezers #1 .....**Net 3.00**
10 & up 2.70

Fig. S

Fig. S, Beau-Tech SH-303C Tweezers #3C .....**Net 3.20**

Fig. T

Fig. T, Beau-Tech SH-305 Tweezers #5 .....**Net 4.00**

Fig. U

Fig. U, Beau-Tech SH-307 Tweezers #7, Fine Points .....**Net 4.30**

Coming Soon

ANTI-WICKING TWEEZERS

and

NEW WAFER TWEEZERS

Incorporating a revolutionary feature to prevent damage to delicate circuitry.

BEAUCHAINE

© U.C.P., Inc.

BOKER U.S.A. IN-DUS-TRONIC TOOLS QUALITY SINCE 1837 ®

DESIGN IN-DUS-TRONIC tools are more streamlined, with slender jaws and fine points, to reach into the tight spots and perform the specific work required of the electronics technician.

TEST AND INSPECTION Individually tested for hardness, each tool must maintain highest standards for handle strength and cutting ability. To assure perfect jaw alignment, pliers must cleanly cut single bond paper strips and snip cotton-covered lamp cord without fraying. Each tool is guaranteed against defects in workmanship and materials.

WORKMANSHIP IN-DUS-TRONIC tools are hot drop-forged from special analysis alloy steel, machined and finished with the same care and precision which have made world-famous BOKER TREE BRAND Fine Cutlery and surgical instruments for over a century. Individually fitted and adjusted, each is accurately heat-treated by HYDRIZING, which minimizes "carburization" and "decarb". Cutting blades are precision-hardened with electronic controls, and honed by hand for keen edges that retain their sharpness.

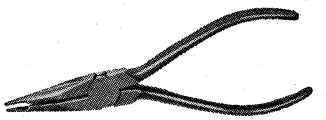
Individually Boxed — Six is minimum quantity.

BOKER MANUFACTURING COMPANY

SUBSIDIARY OF THE NEW BRITAIN MACHINE CO.

RADIO AND TV NOSE CUTTING PLIERS

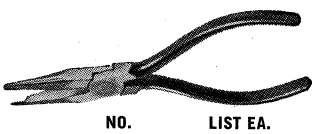
Reaches into tight spots to cut small wires, and to grip at the tips.



NO.	LIST EA.	NO.	LIST EA.
539-4½"	4.40	639-6"	5.20
539-6"	4.40	739-4½"	4.95
939-4½"	4.45	739-6"	4.95
939-6"	4.45		

SIDE TIP NOSE CUTTING PLIERS

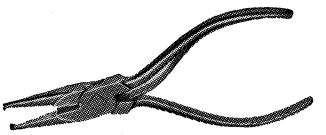
Cuts flush at left side of tips. Turn tool over to cut flush at right side.



NO.	LIST EA.	NO.	LIST EA.
S939-4½"	4.75	S739-4½"	5.25
S939-6"	4.75	S739-6"	5.25
S639-6"	5.50		

TRANSVERSE END CUTTING PLIERS

For clean, flush cutting of small wires where ordinary cutters are too bulky.



NO.	LIST EA.	NO.	LIST EA.
532-6"	4.50	632-6"	5.00
932-6"	4.50	732-6"	5.00

SHORT JAW, LONG HANDLE NOSE CUTTING PLIERS

Extra long, narrow handles provide maximum reach of the slender jaws to cut and grip.

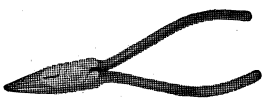
NO.	LIST EA.	NO.	LIST EA.
579-8"	4.95	779-8"	5.50
979-8"	5.00		

STOCK NUMBER CODE IDENTIFICATION ON PLIERS

First Digit in Pliers Stock No.	DESCRIPTION OF FINISH	
"5"	Polished Head, Standard Gunmetal Finish Handles — i.e.	51-6"
"9"	Polished Head, Factory molded Red Cushion Grip Plastisol Handles — i.e.	91-6"
"6"	Fully Nickel and Chrome Plated Head and Handles — i.e.	61-6"
"7"	Nickel and Chrome Plated Head, Factory molded Red Cushion Grip Plastisol Handles — i.e.	71-6"

SHORT CHAIN NEEDLE NOSE PLIERS

Sturdy, tapered jaws provide more positive grip. Checker-milled tips.



WITH SIDE CUTTERS

NO.	LIST EA.	NO.	LIST EA.
53-5"	3.45	63-5"	4.25
93-5"	3.65	73-5"	4.25

WITHOUT SIDE CUTTERS

NO.	LIST EA.	NO.	LIST EA.
530-5"	3.00	630-5"	3.60
930-5"	3.00	730-5"	3.60

LONG CHAIN NEEDLE NOSE PLIERS

Slender, checker-milled jaws taper to 1/32" at tips.

WITH SIDE CUTTERS

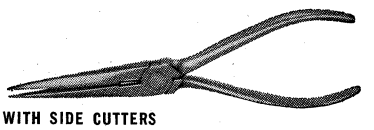
NO.	LIST EA.	NO.	LIST EA.
53-6"	3.75	63-6"	4.55
93-6"	3.95	73-6"	4.55

WITHOUT SIDE CUTTERS

NO.	LIST EA.	NO.	LIST EA.
530-6"	3.15	630-6"	3.75
930-6"	3.15	730-6"	3.70

EXTRA LONG CHAIN NOSE PLIERS

2¾" long jaws add extra reach to checker-milled tips.



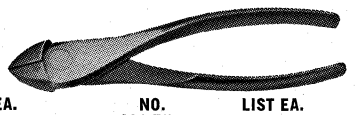
WITH SIDE CUTTERS

NO.	LIST EA.	NO.	LIST EA.
53-7"	4.50	63-7"	5.30
93-7"	4.90	73-7"	5.30

WITHOUT SIDE CUTTERS

NO.	LIST EA.	NO.	LIST EA.
530-7"	3.60	630-7"	4.10
930-7"	3.70	730-7"	4.10

HEAVY DUTY DIAGONAL CUTTING PLIERS



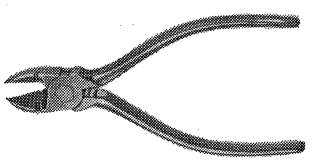
NO.	LIST EA.	NO.	LIST EA.
591-7"	3.65	691-7"	4.50
991-7"	4.00	791-7"	4.50

DIAGONAL CUTTING PLIERS

NO.	LIST EA.	NO.	LIST EA.
51-4½"	3.10	61-4½"	3.90
91-4½"	3.30	71-4½"	3.90
51-5"	3.25	61-5"	4.05
91-5"	3.45	71-5"	4.05
51-5½"	3.65	61-5½"	4.45
91-5½"	3.80	71-5½"	4.45
51-6"	3.70	61-6"	4.50
91-6"	3.90	71-6"	4.50
51-7½"	4.20	61-7½"	5.00
91-7½"	4.60	71-7½"	5.00

WIRE STRIPPING CUTTERS WITH INSULATION CRUSHER

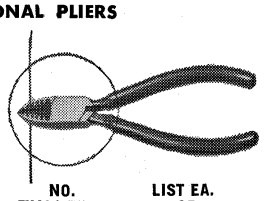
"W" notches slit acetate cellulose and other thin insulations. Notch in blades strips heavier insulation. Grooves in handles crush insulation.



NO.	LIST EA.
517-5½"	4.50
917-5½"	4.65
617-5½"	5.00
717-5½"	5.00

"THROAT-HOLD" DIAGONAL PLIERS

Plastisol inserts back of the blades tightly grip the cut-off end of wire after cut is made, preventing shorts, machine failures, and eye injuries.



NO.	LIST EA.	NO.	LIST EA.
TH51-4½"	4.70	TH91-5"	5.25
TH91-4½"	5.00	TH51-7½"	6.00
TH51-5"	5.05		

Trade Discount Applies To List Prices Only

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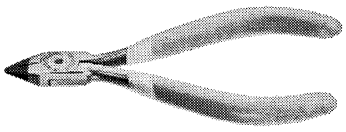


NO. XC1-4″ Cushion Grip Handles — LIST EA. $20.60

NEW! INLAID TIP CUTTING PLIERS

Special high-speed inserts provide diamond-honed cutting edges of extreme hardness, extending service life in continuous cutting of abrasive wires and ribbons of nickel, silver, gold and copper. Will cut and dress medium diameters of Nichrome, Kovar, Dumet, and fine diameters of full hard wires. Special joint assembly assures precise cutting of component leads and wires in confined areas.

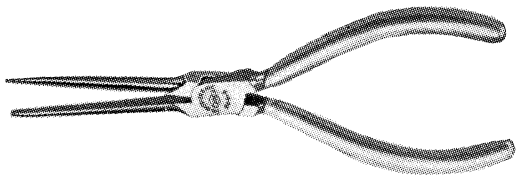
BOKER U.S.A. IN-DUS-TRONIC TOOLS QUALITY SINCE 1837 ®

BOKER MANUFACTURING COMPANY

SUBSIDIARY OF THE NEW BRITAIN MACHINE CO.

EXTRA FINE FLAT NOSE PLIERS

Flat, very thin, smooth jaws, spring tempered.



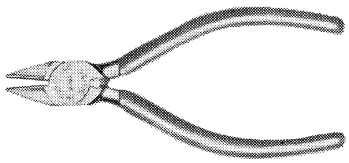
NO.	LIST EA.	NO.	LIST EA.
904-6″	3.80	704-6″	4.20
604-6″	4.20		

WITH STABILIZED TIPS

NO.	LIST EA.	NO.	LIST EA.
ST-904-6″	4.50	ST-704-6″	4.80
ST-604-6″	4.80		

NEEDLE POINT DIAGONAL CUTTING PLIERS

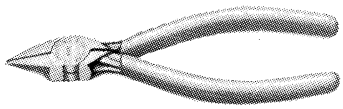
Narrow, pointed nose, semi-flush edges, for close cutting. Lightweight, easy-to-use, in electronics and light assembly. Coil spring keeps jaws open.



NO.	LIST EA.	NO.	LIST EA.
513-5½″	4.50	613-5½″	5.05
913-5½″	4.60	713-5½″	5.05

THIN, NARROW, POINTED DIAGONAL CUTTING PLIERS

Jaws relief-ground back of blades, to cut in confined areas. Also used for removal of I. F. Cans.

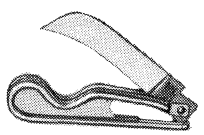


NO.	LIST EA.	NO.	LIST EA.
RA91-5½″	5.15	RA71-5½″	5.95

WIRE JACK POCKET KNIFE

Rugged construction, unbreakable spring. Chrome Vanadium steel blade.

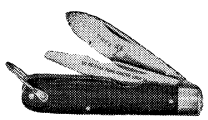
NO.	LIST EA.
75-3¾″	1.75



ELECTRICIANS' UTILITY KNIFE

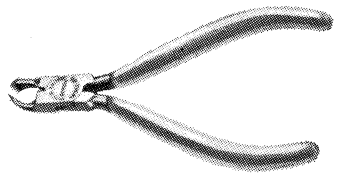
One blade and one self-locking Screwdriver and Insulation Scraper.

NO.	LIST EA.	
9229	3.35	3¾″ long



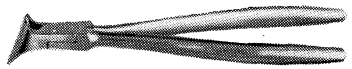
ELECTRONIC DIAGONAL END NIPPERS

Flush-cutting blades, with extremely fine points, set at 22.5° angle. For very fine subminiature work.



NO.	LIST EA.	NO.	LIST EA.
XA582-4½″	6.40	XA782-4½″	7.20
XA982-4½″	6.60		

ANGLE JAW DIAGONAL NIPPERS

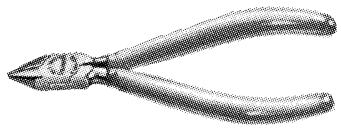


Flush cutting blades set at 22½° angle. Fine, pointed tips for precision work in confined areas.

NO.		LIST EA.
AJ-982-4½″	Polished Head. Cushion-grip Handles.	8.80
AJ-482-4½″	Full Polished Head and Handles.	8.95

THIN HEAD, FLUSH CUTTING MIDGET DIAGONALS

Head is ground thinner, narrower. Flush edges.



NO.	LIST EA.	
XA981-4½″	4.60	Pointed jaws
XC981-4½″	4.30	Standard shape jaws, slightly shortened

THIN, ALLOY STEEL ADJUSTABLE WRENCHES

Nickel and Chrome Plated		Polished Head, Gunmetal Handles	
NO.	LIST EA.	NO.	LIST EA.
6W-4″	2.88	5W-4″	2.26
6W-6″	2.94	5W-6″	2.30
6W-8″	3.32	5W-8″	2.78
6W-10″	4.20	5W-10″	3.40
6W-12″	6.16	5W-12″	5.15
6W-15″	9.36	5W-15″	8.20
6W-18″	15.00	5W-18″	12.00

Nickel, Chrome-Plated, Cushion-Grip Handles

NO.	LIST EA.	NO.	LIST EA.
P6W-4″	3.08	P6W-10″	4.70
P6W-6″	3.14	P6W-12″	6.70
P6W-8″	3.72	P6W-15″	10.56

LOCKING ADJUSTABLE WRENCHES

Nickel and Chrome Plated		Nickel Chrome Plated Cushion-Grip Handles	
NO.	LIST EA.	NO.	LIST EA.
L6W-6″	3.02	PL6W-6″	3.22
L6W-8″	3.40	PL6W-8″	3.80
L6W-10″	4.28	PL6W-10″	4.78
L6W-12″	6.26	PL6W-12″	6.76

BOKER MANUFACTURING COMPANY

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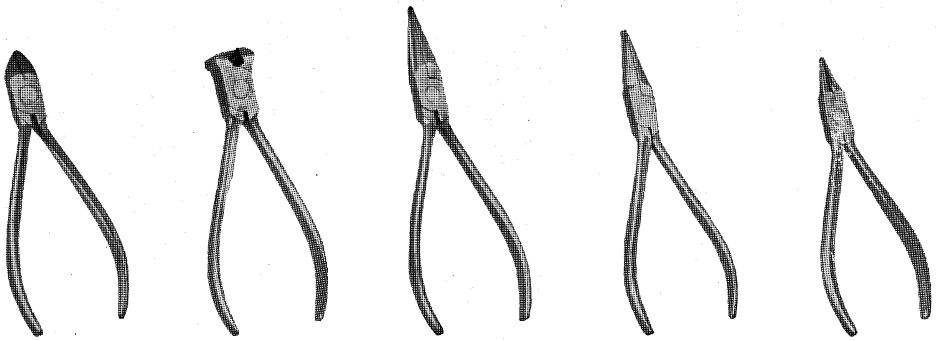
BOKER U.S.A. IN-DUS-TRONIC TOOLS QUALITY SINCE 1837 ®

JEWELERS' 4½" PRECISION PLIERS



JEWELERS' PLIERS SETS

Crystal Case, 5" x 7", lined to nest 4½" Pliers.

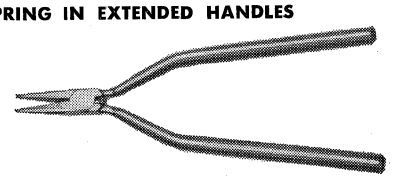
NO.	CONTENTS	LIST
C63	One ea. 681, 683, 684	11.75
C64	One ea. 681, 683, 684, 6517	14.25
C65	One ea. 681, 682, 683, 684, 865	19.50
C73	One ea. 781, 783, 784	11.85
C93	One ea. 981, 983, 984	10.95
C95	One ea. 981, 982, 983, 984, 985	18.00

	POLISHED HEAD, GUN METAL HANDLES		POLISHED HEAD, CUSHION-GRIP HANDLES		FULL NICKEL AND CHROME PLATED		NICKEL, CHROME-PLATED CUSHION-GRIP HANDLES	
	Tool No.	List Ea.	Tool No.	List Ea.	Tool No.	List Ea.	Tool No.	List Ea.
Diagonal Cutting Pliers	581	3.35	981	3.50	681	3.95	781	3.80
End Cutting Nippers	582	3.80	982	4.00	682	4.50	782	4.50
*Needle Nose Pliers	583	3 00	983	3.15	683	3.75	783	3.65
*Flat Nose Pliers	584	3.00	984	3.15	684	3.75	784	3.65
*Round Nose Pliers	585	3.10	985	3.40	685	3.80	785	3.80

*Note: Inside jaws are smooth. Supplied with milled jaws at no extra cost. Suffix with letter M I.E. 583-4½M.

PRECISION PLIERS WITH SPRING IN EXTENDED HANDLES

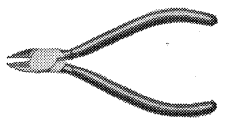
Midget jaws, extra long handles, to reach into deep areas normally inaccessible.



NO.	LIST EA.	DESCRIPTION
L903S-8"	6.75	Extra Fine Needle-Nose Pliers (as 903-4½")
L981S-8"	6.75	Diagonal Cutters
L983S-8"	6.50	Needle Nose Pliers
L984S-8"	6.50	Flat-Nose Pliers
L781S-8"	6.95	Diagonal Cutters
L783S-8"	6.95	Needle-Nose Pliers
L784S-8"	6.95	Flat-Nose Pliers
L703S-8"	6.95	Extra Fine Needle-Nose Pliers (as 703-4½")

TAPERED JAWS, FLUSH CUTTING DIAGONALS

Midget pliers with sharply tapered jaws and very fine flush cutting edges.



NO.	LIST EA.
A981-4½"	4.00

STANDARD SHAPE JAWS, FLUSH CUTTING DIAGONALS

NO.	LIST EA.
C981-4½"	3.80

SHORT NOSE, FLUSH CUTTING DIAGONALS

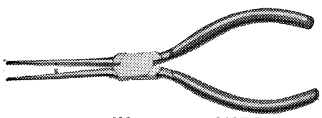
NO.	LIST EA.
E981-4½"	3.90

STOCK NUMBER CODE IDENTIFICATION ON PLIERS

First Digit in Pliers Stock No.	DESCRIPTION OF FINISH	
"5"	Polished Head, Standard Gunmetal Finish Handles — i.e.	51-6"
"9"	Polished Head, Factory molded Red Cushion Grip Plastisol Handles — i.e.	91-6"
"6"	Fully Nickel and Chrome Plated Head and Handles — i.e.	61-6"
"7"	Nickel and Chrome Plated Head, Factory molded Red Cushion Grip Plastisol Handles — i.e.	71-6"

EXTRA FINE NEEDLE NOSE PLIERS WITH STABILIZED TIPS

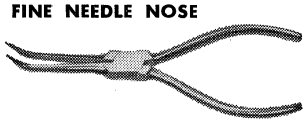
Dowel pin in jaw engages hole in other jaw when closed, stabilizing tips and maintaining perfect alignment.



NO.	LIST EA.	NO.	LIST EA.
ST903-6"	4.20	ST-703-6"	4.60

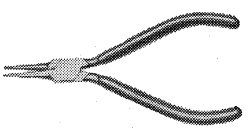
CURVED EXTRA FINE NEEDLE NOSE

NO.	LIST EA.
508-6"	4.20
908-6"	4.20
608-6"	4.80
708-6"	4.80



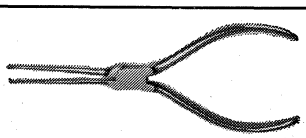
SHORT JAW, EXTRA FINE NEEDLE NOSE PLIERS

NO.	LIST EA.
503-4½"	3.60
903-4½"	3.90
603-4½"	4.25
703-4½"	4.25



EXTRA FINE NEEDLE NOSE PLIERS

Long, very slim, spring tempered jaws for assembling miniature parts.



NO.	LIST EA.	NO.	LIST EA.
503-6"	3.30	603-6"	3.95
903-6"	3.50	703-6"	3.95

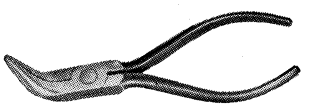
LONG NEEDLE NOSE PLIERS

Unusual gripping ability without distortion for such long, slender jaws. Checker-milled at tips.

NO.	LIST EA.	NO.	LIST EA.
533-6"	3.50	633-6"	4.00
933-6"	3.70	733-6"	4.00

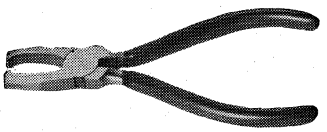
CURVED NEEDLE NOSE PLIERS

NO.	LIST EA.
538-6"	3.80
938-6"	4.00
638-6"	4.30
738-6"	4.30



END CUTTERS AND LEAD-IN STRIPPERS

Quickly strips TV transmission cable. Full throat for general purpose cutting.



NO.	LIST EA.	NO.	LIST EA.
902-6"	4.80	702-6"	5.25

Trade Discount Applies To List Prices Only

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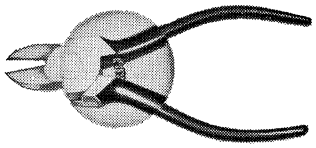
PLIERS WITH SPRING IN HANDLES

Bauer type coil spring keeps pliers in open position, ready-to-work.



Specify "S" as a Suffix to tool number (i.e., **91-5"S**)
Additional List Ea. .30

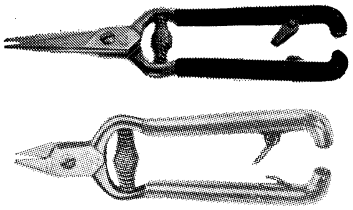
HOLDING FORCEPS

Slender, long-reaching, with ratchet type lock. Acts as third hand, and as heat sink. Box joint, polished stainless spring steel.

NO.	LIST EA.	
HF-5½"	4.95	Straight Pattern
HF-6¼"	5.25	Straight Pattern
HFC-6¼"	5.50	Curved Pattern

ELECTRONIC SNIPS

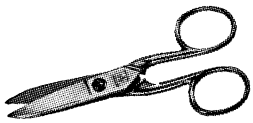
Pointed, serrated blades cut wire, filament, sheet metal, insulating materials, plastics, fabrics. spring keeps blades open, ready-to-work.



NO.	LIST EA.	
P4-7⅛"	3.95	Long Blades
P4E-6½"	4.70	Short Blades

ELECTRICIANS' SNIPS

Scraper, file on back of blade.



NO.	LIST EA.
709-5"	2.95

Nickel Plated

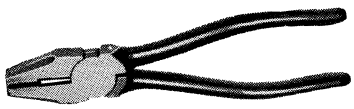
SHORT JAW, LONG HANDLE, NEEDLE NOSE PLIERS

NO.	LIST EA.	NO.	LIST EA.
573-8"	3.50	673-8"	4.00
973-8"	3.90	773-8"	4.00

SHORT JAW, LONG HANDLE DUCKBILL PLIERS

NO.	LIST EA.	NO.	LIST EA.
574-8"	3.40	974-8"	3.80

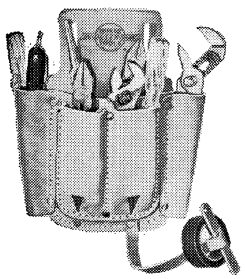
ELECTRICIANS' SIDE CUTTING PLIERS



NO.	LIST EA.	NO.	LIST EA.
92-6"	3.90	52-6"	3.60
92-7"	4.30	52-7"	3.90
92-8"	4.70	52-8"	4.30

LEATHER TOOL HOLSTER

Five pockets of pliable form-fitting Russet leather. Stitched with 7-cord linen hot waxed thread, locked to solid leather back with steel rivets. Handy tape holder is of leather, not chain, an extra safety insulation feature.



NO.	LIST EA.
99	5.95

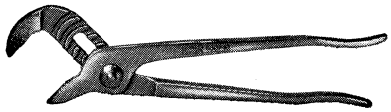
BOKER U.S.A. IN-DUS-TRONIC TOOLS QUALITY SINCE 1837 ®

MIDGET "GROOVE-GRIP" PLIERS

Slender and wiry, indispensable for gripping small nuts and other objects in tight spots.

NO.	LIST EA.	
6517-5"	2.65	Nickel, Chrome Plated
P6517-5"	2.75	Nickel, Chrome Plated, Cushion Grips

"GROOVE-GRIP" 5-ADJUSTMENT PLIERS



NO.	LIST EA.	
6507-6½"	3.00	Nickel and Chrome Plated
6507-8"	3.25	
6507-10"	3.75	
P5507-6½"	3.10	Polished Head Cushion-Grip Handles
P5507-8"	3.35	
P5507-10"	3.85	
P5507-14" 7 Adjustment	4.40	

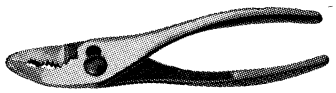
COMBINATION SLIP-JOINT PLIERS

NO.	LIST EA.	
6041-6½"	1.75	Nickel and Chrome Plated
6041-8"	2.25	
6041-10"	3.00	

THIN NOSE COMBINATION PLIERS

NO.	LIST EA.	
6042-6½"	1.95	Nickel, Chromed

BENT THIN NOSE COMBINATION PLIERS



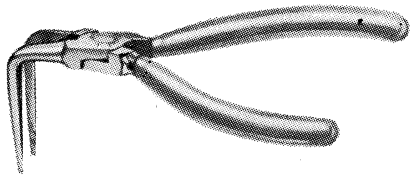
NO.	LIST EA.	
6043-6½"	2.40	Nickel, Chromed

PROFESSIONAL SLIP-JOINT SIDE CUTTERS

Flat, serrated nose for gripping. Curved inner section to grip round shapes. Keen-cutting knives.

NO.	LIST EA.	
6395-7½"	4.20	Nickel, Chromed

BENT EXTRA FINE NEEDLE NOSE PLIERS



NO.	LIST EA.	NO.	LIST EA.
B508-6"	4.25	B608-6"	4.80
B908-6"	4.20	B708-6"	4.80

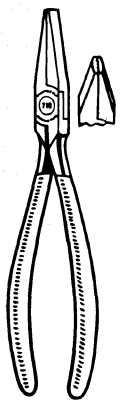
BOKER MANUFACTURING COMPANY

SUBSIDIARY OF THE NEW BRITAIN MACHINE CO.

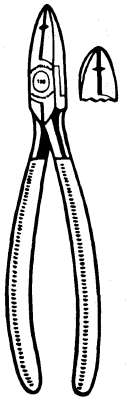
Pliers by CHANNEL LOCK®

Specially Designed ELECTRONICS PLIERS

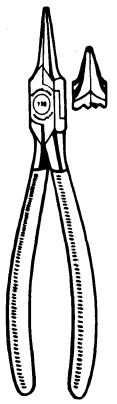
You'll do hundreds of jobs easier, faster with these Channellock Pliers because they are **specially designed** for all types of electronics work. You'll like the long reach . . . the precision-matched jaws . . . the hand-honed, specially hardened cutting edges . . . the easy-to-handle "feel" of the blue plastic grips. And you'll appreciate the top quality of Channellock Pliers . . . they're forged from high grade steel, properly heat treated. Best of all, because they are specially designed for fine electronics work, these four pliers will satisfy more than 90% of your Service and Repair needs. Ask your Electronics Equipment Supplier for Channellock Electronics Pliers . . . by name.



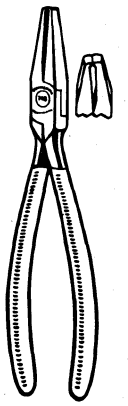
No. 718G FLAT-NOSE PLIER
Watchmaker's precision PLUS a bull-dog grip in hard-to-reach places.



No. 728G DIAGONAL CUTTER
A wire-stripping notch (Patent Pending) that **really works!**

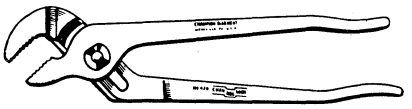


No. 738G ROUND-NOSE PLIER
You can **pick up a human hair** with these precision-machined points.



No. 748G END CUTTER
Fine enough to cut a human hair — sturdy enough to cut 12 gauge copper wire.

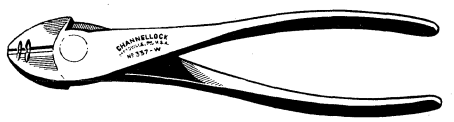
TONGUE AND GROOVE PLIERS



The **original** tongue and groove pliers. Patented, non-slip undercut channels. Patented reinforcing rib for extra strength Dipped plastic grips optional at slight extra cost.

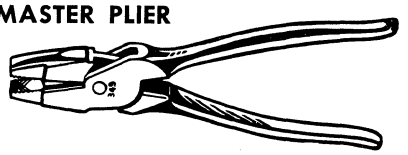
No.	Size	Capacity	No.	Size	Capacity
420	9½″	1½″	430	10″	2″
424	4½″	½″	440	12″	2¼″
426	6½″	⅞″			

ELECTRICIAN'S WIRING PLIER



Triple-use wiring plier: cuts, strips insulation, loops wire. Patented wire stripping notches strip insulation from 14 and 12 guage wire quickly, cleanly. Length 7″. No. 337-W. Dipped plastic grips optional at slight extra cost.

WIREMASTER PLIER

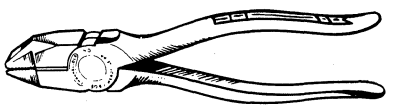


Finest wire-cutting plier ever made. Joint rivet closer to cutting edges, provides 40% more cutting power than standard design pliers. Special enclosed-joint construction holds cutter in perfect alignment for life of plier. Length 9″. No. 349. Dipped plastic grips optional at slight extra cost.

HEATSORB CLAMP

A specially designed "heat sink" that prevents heat damage to electronic components during soldering. Also a handy, self-gripping "third hand" that holds and retrieves small parts in close work. Length 5″. No. 46.

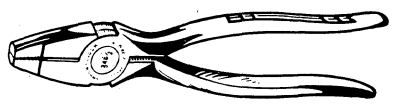
LINEMEN'S PLIER — Bevel Nose



Polished steel finish. Knurled grips. Side cutter. Dipped plastic grips optional at slight extra cost.

No.	Size	No.	Size
3046	6″	3048½	8½″
3047	7″		

LINEMEN'S PLIER — Rounded Nose



Polished steel finish. Knurled grips. Side cutter. Dipped plastic grips optional at slight extra cost.

No.	Size	No.	Size
346	6″	348½	8½″
347	7″		

CHANNELLOCK TOOLS Are Made Only By CHANNELLOCK, INC.

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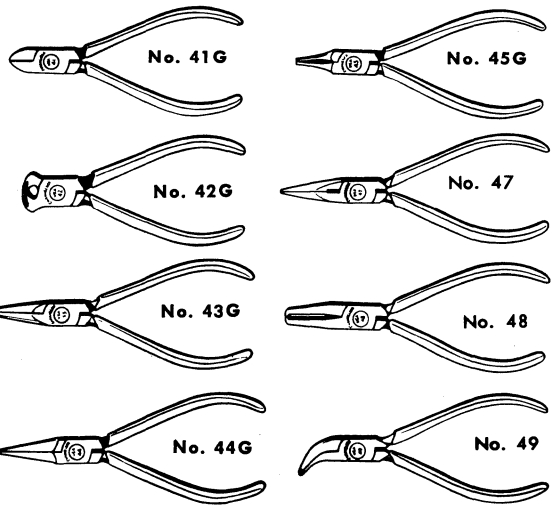
Pliers by CHANNELLOCK®

Little Champ PRECISION PLIERS

Finest quality, small pliers specially designed for delicate bench work. Widely used in electronics work, model making, jewelry and watch repair. Drop forged from high grade steel. Precision made and polished to a jeweler's finish. Dipped blue plastic cushion grip handles only. Packed six per carton.

No.	Style	Length
41G	Diagonal Cutter	4¼″
41GS	Diagonal Cutter, Coiled Spring	4¼″
42G	End Cutting Nipper	4″
43G	Needle Nose, No Side Cutter, Plain Nose	4¾″
43GS	Needle Nose, No Side Cutter, Plain Nose, Coiled Spring	4¾″
44G	Flat Nose	4¾″
45G	Round Nose	4½″
47G	Needle Nose, Side Cutter, Nose Serrations	4¾″
47GS	Needle Nose, Side Cutter, Nose Serrations, Coiled Spring	4¾″
48G	Transverse End Cutter	4¾″
49G	Curved Needle Nose	4½″

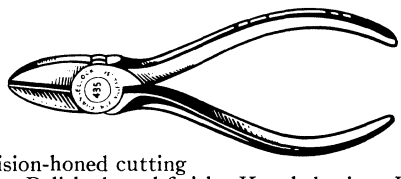


LONG NOSE PLIER

Point 3/32″ round. Polished steel finish. Knurled grips. Dipped plastic grips optional at slight extra cost.

No.	Size	Side-Cutter	No.	Size	Side-Cutter
317½	7½″	With	326	6″	With
3017½	7½″	Without	3026	6″	Without

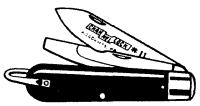
DIAGONAL CUTTING PLIER



Precision-honed cutting edges. Polished steel finish. Knurled grips. Dipped plastic grips optional at slight extra cost.

No.	Size	No.	Size
435	5″	437	7″
436	6″		

ELECTRICIAN'S KNIFE



2½″ precision-honed blade. 3″ self-locking screwdriver. Unbreakable phenolic handles. Closed length 3¾″ No. 11.

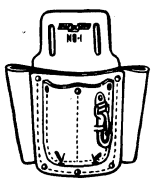
SKINNING KNIFE

3″ precision-honed blade. Self-locking. Unbreakable phenolic plastic handles. Closed length 4″ No. 10.

"SUPERIOR" PLASTIC GRIPS

For maximum hand comfort, durable plastic grips. Light blue color for good visibility, reduces plier loss. Easy to install. Order by desired grip size:

Plier Size	Grip Size	Plier Size	Grip Size
6″	Small	8″, 9½″, 10″	Large
7″	Medium		

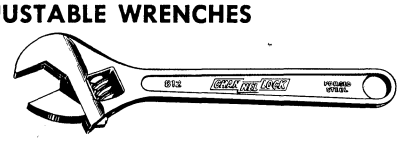


TOOL HOLSTERS

Highest quality top grain leather. Stress points reinforced with rivets. Convenient knife or wrench snap.

No.	Size	No. of Pockets
1	9¼″ x 8½″	5
2	9¼″ x 10½″	5

ADJUSTABLE WRENCHES



Drop forged of special analysis steel. Chrome plated. Dipped plastic grips optional at slight extra cost.

No.	Size	Capacity	No.	Size	Capacity
804	4″	½″	810	10″	1 1/8″
806	6″	¾″	812	12″	1 15/16″
808	8″	15/16″	815	15″	1 11/16″

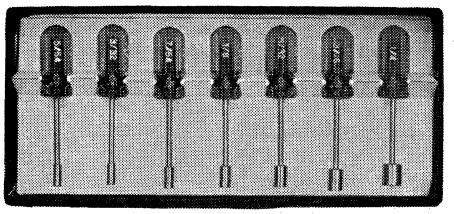
CHANNELLOCK TOOLS Are Made Only By CHANNELLOCK, INC.

© U.C.P., Inc.

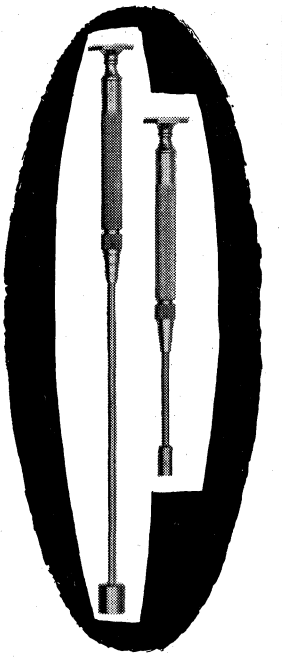
PROPERLY PROPORTIONED MINIATURE TOOLS

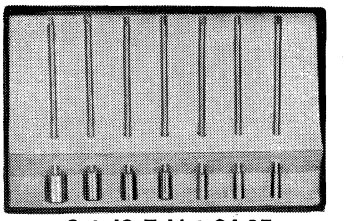
For precision instrument and model work use Desco "7" Miniature Nut Drivers. Available with Tenite handles, or for use with jewelers' screw driver handles. Also made with 5½" long shanks for those hard-to-get-to places.

DESCO "7" Sizes across flats
5/64 3/32 7/64 1/8 5/32 3/16 1/4

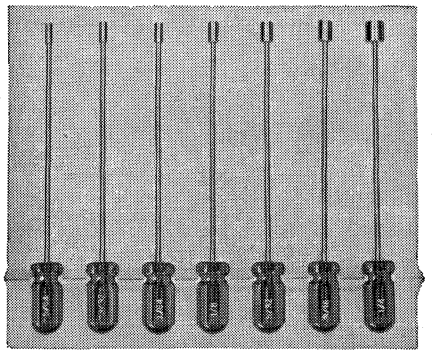


Set HS 7 List $5.95

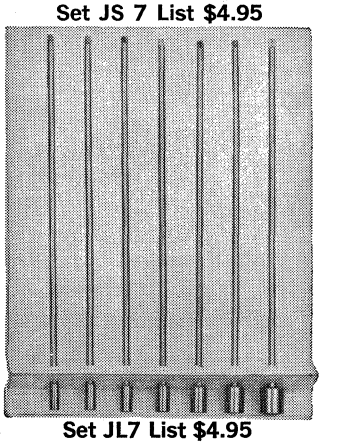




Set JS 7 List $4.95



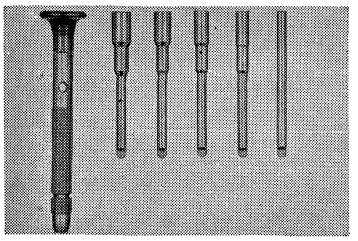
Set HL 7 List $5.95



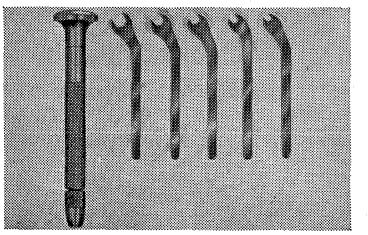
Set JL7 List $4.95

NON-MAGNETIC NUT DRIVERS available in HL7 and HS 7 series only. Specify "No-Mag" with the code number — same prices.

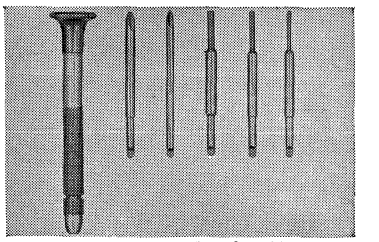
INTRODUCING THE DESCO "5" Series of Miniature Tools



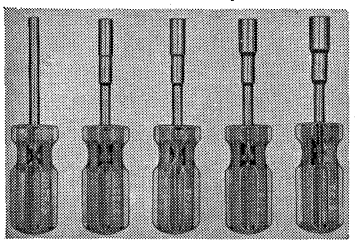
Set JD 5 List $3.50



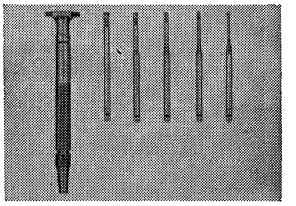
Set EW 5 Steel List $2.50
Set EWN 5 Non-Magnetic List $2.50
A practical miniature end wrench to fit the smallest nuts made 5/64 3/32 7/64 1/8 5/32.



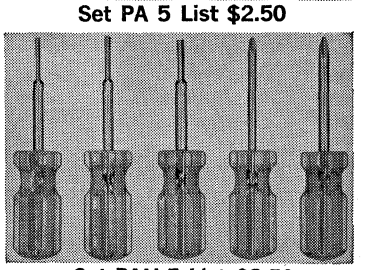
Set PA 5 List $2.50



Set HD 5 List $4.50
Deeper and more rugged than the "7" Series. Made only in 5/64, 3/32, 7/64, 1/8 and 5/32.



Set SS 5 List $1.98
Contains four screw driver blades and a fine scriber.



Set PAH 5 List $3.50
Includes the two smallest Phillips drivers and the three smallest Allen wrenches.

* T. M.

All of the DESCO "5" and "7" Series are complete as shown.

DESCO MFG. CO.,

© U.C.P., Inc.

ENTERPRISE DEVELOPMENT CORPORATION

THE ORIGINAL VACUUM DESOLDERING/RESOLDERING IRON
INDUSTRIAL PRICE SCHEDULE

DESOLDERING IRONS

MODEL 100-A

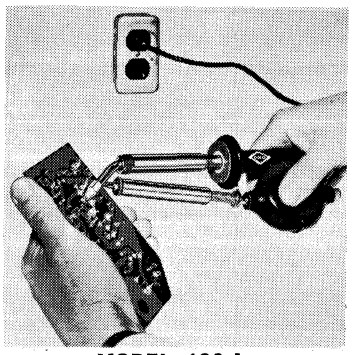
117 VAC 75 W

	List	1-24	30-96	108-up
Model 100-A (with 2-wire cord)	24.95	18.75	16.65	14.95
Model 100-A-3 (with 3-wire cord)	27.95	20.95	18.75	16.75
Model 100-A-3TL (with 3-wire twist lock cord)	29.50	22.15	19.75	17.70

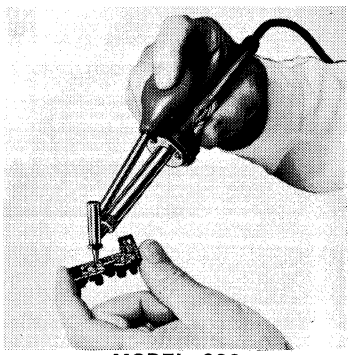
MODEL 300

117 VAC 40 W

	List	1-24	30-96	108-up
Model 300 (with 2-wire cord)	13.49	9.95	8.95	8.05
Model 300-3 (with 3-wire cord)	14.60	10.95	9.85	8.85

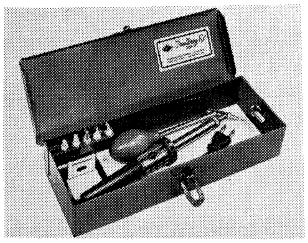


MODEL 100-A



MODEL 300

NEW 9-Piece Desoldering Kit



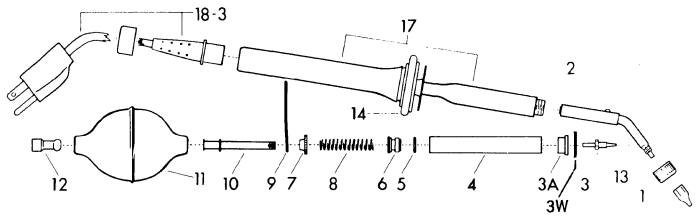
ONLY DESOLDERING IRON APPROVED FOR MILITARY USE

Here in one convenient lifetime package is all you need to handle almost any desoldering and resoldering job. For even though the Model 300 Endeco is only 8" long and weighs just 3½ ounces, it's a giant in performance. It removes miniature soldered components in seconds without damage . . . then resolders new connections even faster and better than regular soldering irons with its 360° "wrap-around" contact. One-hand operation . . . self-cleaning . . . 40 watts . . . 115 volts. Order from your distributor.

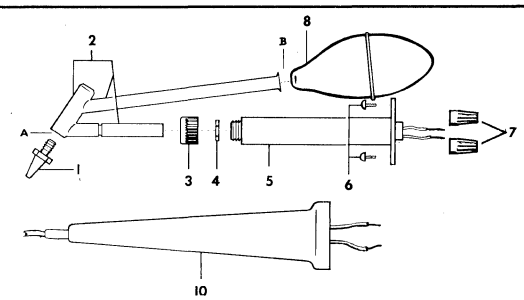
KIT PRICES

MODEL	LIST	1-11	12-49	50 Up
300K (w/2 wire cord)	$21.04	$15.75	$14.05	$12.65
300K-3 (3 wire cord)	23.03	17.25	15.35	13.80
300MDK (Military)	22.90	17.20	15.30	13.75

(FSN3439-907-5806)
(BOX, STAND AND CLEANING TOOL AVAILABLE SEPARATELY—WRITE FOR PRICES.)



MODEL 100-A



MODEL 300

PARTS SCHEDULE

PART NOS. FOR MODEL 100-A

Fig. No.	Part No.	Description	SUGGESTED PRICES List Price	Industrial Cost
1	1-A	Replaceable Desoldering Tip	2.70/3PK	1.95/3PK
1	1-B	Replaceable Desoldering Tip	2.70/3PK	1.95/3PK
1	1-C	Replaceable Desoldering Tip	3.00/3PK	2.25/3PK
1	1-D	Replaceable Desoldering Tip	3.00/3PK	2.25/3PK
2	2A	Tip Body	2.50	1.90
3	3S	Front Connecting Tube	.60	.45
3A	3-B	Front Air Seal	.60	.45
3W	3W	Heat Baffle	.15	.10
4	4-A	Solder Collection Tube	1.20	.90
5	5-A	"O" Ring	.20	.15
6	6-A	Rear Air Seal	.90	.65
7	7-A	Knurled Sleeve	.40	.30
8	8	Tension Spring	.30	.20
9	9-A	Supporting Bracket	.60	.45
10	10-A	Rear Connecting Tube	.90	.65
11	11	Vacuum Bulb	1.00	.75
12	12	Valve	.50	.35
13	13	Female Tip Fastening Nut	.90	.65
14	14	Rubber Shock Absorber Ring	.90	.65
17	17	Iron Body (No Cord)	8.95	6.70
	17-2	Iron Body with 2- Wire Cord	10.95	8.25
	17-3	Iron Body with 3-Wire Cord	11.95	8.95
	17-3TL	Iron Body with 3-Wire Twist Lock Cord	13.50	10.15
	18-2	2-Wire Cord Only	1.50	1.15
	18-3	3-Wire Cord Only	3.00	2.25
	18-3TL	3-Wire Cord Twist Lock Only	4.50	3.40

REPLACEABLE TIPS FOR ENDECO MODEL 100-A

Fig. No.	Part No.	Description	Tip I.D.	Tip O.D.
1	1A	Desoldering/Resoldering Tip	.080	.156*
1	1B	Desoldering/Resoldering Tip	.097	.187
1	1C	Desoldering/Resoldering Tip	.059	.125
1	1D	Desoldering/Resoldering Tip	.035	.078

Price Subject to Change Without Notice

* (Standard)

PART NOS. FOR MODEL 300

Fig. No.	Part No.	Description	SUGGESTED PRICES List Price	Industrial Cost
1	300-T.090	Replaceable Desoldering Tip	2.70/3PK	1.95/3PK
1	300-T.078	Replaceable Desoldering Tip	2.70/3PK	1.95/3PK
1	300-T.063	Replaceable Desoldering Tip (Standard)	2.70/3PK	1.95/3PK
	300CT.063	Replaceable Desoldering/Resoldering Tip-Heavy Duty—Industrial	3.30/3PK	2.50/3PK
1	300-T.059	Replaceable Desoldering Tip	2.70/3PK	1.95/3PK
1	300-T.046	Replaceable Desoldering Tip	2.70/3PK	1.95/3PK
1	300-T.038	Replaceable Desoldering Tip	2.70/3PK	1.95/3PK
2	300-BE	Sub-Assembly (Standard)	5.70	4.30
3	300-13	Sub-Assembly Fastening Nut	.35	.26
4	300-5	Sub-Assembly Retaining Ring	.10	.08
5	300-17E	Heating Element 40 Watts	3.90	2.93
6	300-17SC	Screws (3) Required	.30/3	.23/3
7	300-17TC	Terminal Connectors (2 Req'd)	.40/2	.30/2
8	300-11.75	Bulb ¾ Ounce	.75	.57
9	300-17HA-2	Handle, 2 wire cord Connector Screws & Terminal Nuts	3.20	2.40
10	300-17HA-3	Handle, 3 wire cord Connector Screws & Terminal Nuts	3.50	2.70
	300-17CO-2	Endeco Pencil Body (Complete w/cord & Heating Element)	7.50	5.60
	300-17CO-3	Endeco Pencil Body (Complete w/Cord & Heating Element)	7.80	5.85
	300-BECO	Sub-Assembly (Standard) Complete with tip, fastening nut and bulb	7.80	5.85

REPLACEABLE TIPS FOR ENDECO MODEL 300

Fig. No.	Part No.	Description	Tip I.D.	Tip O.D.
1	300T.090	Desoldering/Resoldering Tip	.090	.170
1	300T.078	Desoldering/Resoldering Tip	.078	.156
1	300T.063	Desoldering/Resoldering Tip	.063	.135*
1	300T.059	Desoldering/Resoldering Tip	.059	.125
1	300T.046	Desoldering/Resoldering Tip	.046	.095
1	300T.038	Desoldering/Resoldering Tip	.038	.078

* (Standard)

© U.C.P., Inc.

Net

Norseman ELECTRONIC TOOLS

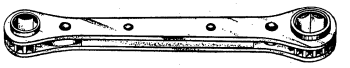
STICKLE-BACK DRILSAWS

TEC IMPORTS STICKLEBACK

Made in Germany, this tool will drill holes in wood, plaster board, etc. and saw in any direction.

#0—5 x 5/32" dia.	$ .98 net
#1—7 x 3/16" dia.	1.85 net
#2—10 x 1/4" dia.	2.45 net
#3—13 x 5/16" dia.	2.95 net
#4—15 x 3/8" dia.	3.25 net
#5—13 x 1/2" dia. (saw rasp)	2.25 net

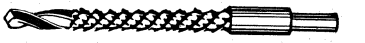
REVERSIBLE RATCHETS



A rugged ratcheting box wrench. No buttons, no levers — just turn it over to reverse the ratchet.

1/4" x 5/16"	$2.60 net	5/8" x 11/16"	$4.25 net
3/8" x 7/16"	2.90 net	5/8" x 3/4"	4.25 net
1/2" x 9/16"	3.90 net	3/4" x 7/8"	4.80 net

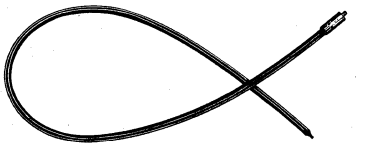
DRILL ROUTERS



Another "Stickle-back" tool, similar to the Drilsaw, but for use in electric drills.

#318-1 2 3/8" x 1/4" dia.	$1.40 net
#318-2 4 1/2" x 1/4" dia.	1.60 net

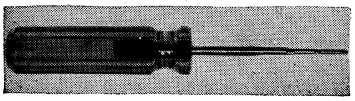
TIPPY STICKS



Flexible alignment tools of tenite II with a non-magnetic stainless steel tip. Permits snaking around obstructions and still turn screws and slugs.

ST-186	6" long	.40 net
ST-1810	10" long	.45 net
ST-1814	14" long	.50 net

TRI-TAPS

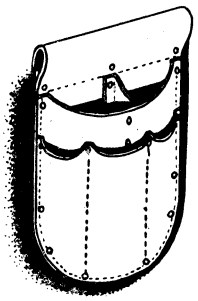


The original 3-in-1 tool with 6/32", 8/32" and 10/32" taps to clean or cut three of the most common threads used in electronic work.

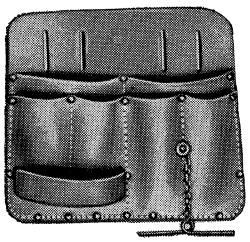
T-3 ..... $2.50 net T-4 tap only for HT-24 .... $1.65 net

HT-24 with replaceable tap ..... $3.00 net

TOOL POUCHES



#14 Telephone lineman's pouch of chrome-tanned cowhide. One large separated pocket with three smaller ones in front. Riveted and stitched with linen thread. 6" x 9 1/4" ..... $4.95 net



Electrician's Pouch. Bark-tanned top grain cowhide, riveted and stitched with linen thread. 7 pockets, loop for hammer, T-chain for roll of tape

#17 10" x 9" ..... $4.95 net

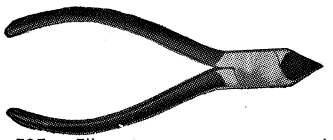
12 OTHER POUCHES AVAILABLE

Berg SWEDISH STEEL PLIERS

MADE IN ESKILSTUNA, SWEDEN, BY E. A. BERG MFG. CO. LTD. • EST. 1880

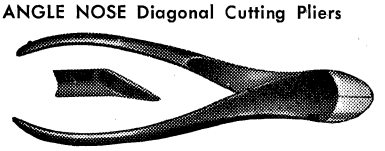
Only the best Swedish Charcoal Steel is used in the manufacture of Berg Pliers. Produced under exacting standards of control, they embody the most modern techniques of heat treatment and manufacture. Each plier is carefully engineered and designed to afford the greatest practical utility; lightness and ease of operation; and strength coupled with durability.

Special Electronic Diagonal Cutting Pliers with extra thin cutting edges, pointed nose and BOX JOINT



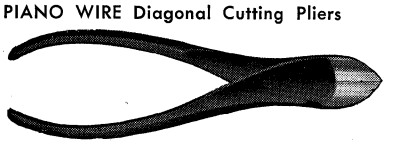
No. 525 - 5" 4.95

ANGLE NOSE Diagonal Cutting Pliers



No. 2528 .....6 1/2" 4.25 7 1/2" 4.95

PIANO WIRE Diagonal Cutting Pliers

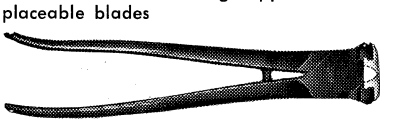


	4 1/2"	5 1/2"	6 1/2"	7 1/2"
No. 1528	2.95	3.65	4.15	4.65

PIANO WIRE Side Cutting Nippers with replaceable blades

No. 1518	9"	6.50	10"	7.50
Extra Blades	9"	2.30	10"	2.55

PIANO WIRE End Cutting Nippers with replaceable blades

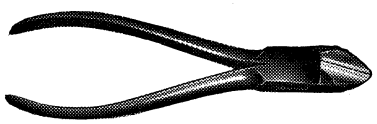


No. 1519 - 9" 8.50
Extra Blades 2.90

PIANO WIRE End Cutting Nippers

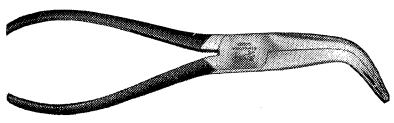
No. 527 ..... 6" 3.50 7" 3.95

Straight Cutting Pliers with extended jaws



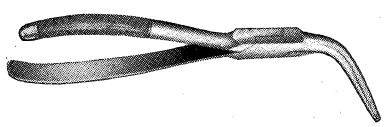
No. 1529 - 6 1/2" 3.95

Special Bent Nose Pliers



No. 2533-B - 8" 4.95

Curved Nose Pliers



No. 1631 - 5 1/2" 3.85

50 OTHER SIZES AND TYPES AVAILABLE

ERIKSON SPECIALIZED TOOL COMPANY

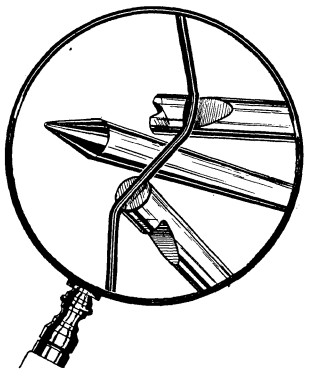
© U.C.P., Inc.

Norseman ELECTRONIC TOOLS

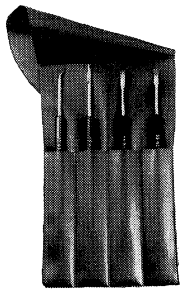
JIGGLE STICKS

Probes of Lucite, 1 end forked for pushing other end pointed for probing, notched on side for pulling wires.

PR 532-6 5/32" dia. .30 net
PR 316-8 3/16" dia. .35 net



NORSEMAN SOLDERING AID KIT



MTSA-4 miniature soldering aid kit with 4 tools M2T, M3T, M4T, M5T in vinyl kit complete ..... $4.50 net

Vinyl plastic kit, packed with 4 Norseman Soldering Aids (TN-22, TN-33, TN-44, TN-55) as illustrated.
TNSA-4 complete kit ..... $4.50 net

Kit with 4 Norseman Soldering Aids with unbreakable aluminum handles (AL-22, AL-33, AL-44 & AL-55).
ALSA-4 complete kit ..... $4.50 net

NORSEMEN SOLDERING AIDS

Red Handle

TN-22 Tenite II Handle	7⅝" Long	$ .90 net
M2T Tenite II Handle	5¼" Long	$ .90 net
AL-22 Aluminum Handle	7⅝" Long	$ .90 net

Black Handle

TN-44 Tenite II Handle	7½" Long	$1.05 net
M4T Tenite II Handle	5¼" Long	$1.05 net
AL-44 Aluminum Handle	7½" Long	$1.05 net

Green Handle

TN-33 Tenite II Handle	7⅝" Long	$ .90 net
M3T Tenite II Handle	5¼" Long	$ .90 net
AL-33 Aluminum Handle	7⅝" Long	$ .90 net

Blue Handle

TN-55 Tenite II Handle	6¾" Long	$1.05 net
M5T Tenite II Handle	5¼" Long	$1.05 net
AL-55 Aluminum Handle	6¾" Long	$1.05 net

PLASTIC HANDLES— (TN-22, TN-33, TN-44, TN-55) (M2T, M3T, M4T, M5T) are of Tenite II, hex and will not roll off the work bench. Shock-proof, practically unbreakable and will stand rough use on industrial production lines.

METAL HANDLES—(AL-22, AL-33, AL-44, AL-55) are aluminum alloy 4" x ⅜" hex and won't roll off the work bench. Being metal, are NOT SHOCK-PROOF and hence not recommended for ordinary radio-TV service work, especially on a 'live' unit. However, these handles are practically unbreakable and were designed to take rough use on industrial assembly lines and can be used as PRY BARS in lining up components.

METAL ENDS—(separated from each other) non-magnetic stainless steel, to which solder won't adhere. Are firmly seated in handles and are twist-proof.

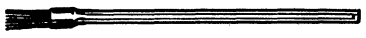
FORKED END—straddles the wire and with a slight twist, grips it for easy unwinding and removal, or guides it into another lug for soldering. Since plastic handles act as insulation, there is no danger of shock when working on sets in operation. ⅛" forks are made especially for use on printed circuits and transistors.

SPADE END—is a reamer to clean lug holes of solder.

CURVED END—can be used as a scriber for marking chassis. As a circuit tracer when looking for loose connections. As a dial cord stringer. Hook can be bent to a 90 degree angle if desired.

KNIFE & SCRAPER—for cutting and repairing printed circuits.

WIRE BRUSH — has approx. 200 bristles of stainless wire .0035 in dia. to which solder will not adhere. For use in cleaning connections before soldering, brushing out splattered solder and in repairing printed circuits.



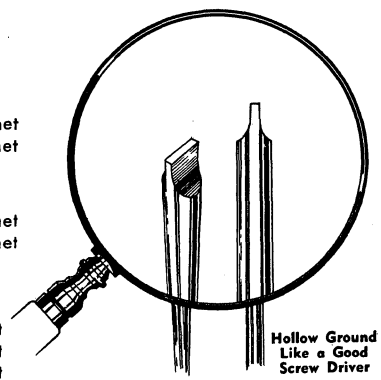
STAINLESS STEEL WIRE BRUSHES
on steel shaft approximately 2" long overall. Can be used in a regular pin vise. **.35 net**
Packed 25 or 50 per box

DIDDLE STICKS

Alignment tools —
Lucite 5/32" dia.
LU-53210 10" long ...25 net
LU-53214 14" long ...35 net

Rigid Vinyl 3/16" dia.
RV-31610 10" long.....25 net
RV-31614 14" long.....35 net

Fibre Glass ⅛" dia.
FG-1810 10" long....35 net
FG-1814 14" long....50 net
FG-1818 18" long....65 net

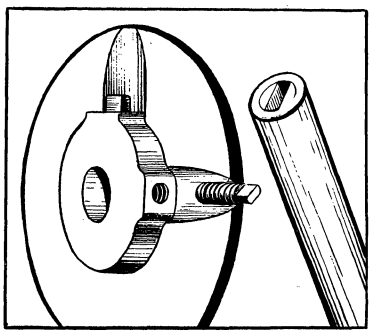


Hollow Ground Like a Good Screw Driver

SLAB-HEAD DRIVERS

Drivers for SLAB-HEAD screws as used in Delco auto radios, Zenith & Arvin TV and 1956 models of Webcor recorders.

246-P .....$2.00 net



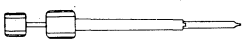
Clutch Head Screw and Driver

ERIKSON SPECIALIZED TOOL COMPANY

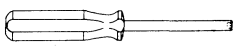
© U.C.P., Inc.

GC ALIGNMENT TOOLS

G-C SHORTY ALIGNMENT TOOL
A convenient tool for hard-to-get-at places. Has 3 16" shaft, 2" length. Over
3 16" shaft, 2" length. Overalll length of tool 4".
Cat. No 9298 ..... Net **$ .48**



G-C COLOR TV TOOL
Used on convergence controls and others in color sets. The outer sleeve fits into the O.D. adjusting slot and the inner drive penetrates to the inside slot.
Cat. No. 9299 ..... Net **$1.45**



G-C RCA WRENCH FOR VHF CHANNEL SELECTOR
Tool is made to fit square headed set screws in RCA VHF Channel Selector gear assembly without removing chassis.
Cat. No. 6035 ..... Net **$1.20**

G-C NEW TRANSISTOR I.F. CORE ALIGNMENT TOOL
One end square .055, opposite end rectangle nib. .047 x .078 to reach bottom slugs in iron cores.
Cat. No. 9440 ..... 11-3 4" long ..... Net **$ .63**

G-C RCA ALIGNING TOOL
Made of 7 32" Butyrate rod, narrow screwdriver on one end and screw nig inserted on other end.
Cat. No. 5003 ..... Net **$ .53**

G-C NO-METAL INSULATING ADJUSTMENT SCREWDRIVER
Made of black bone fibre. Indispensable for aligning all-wave sets.
Cat. No. 5004 ..... 7" long ..... Net **$ .48**
Low-Loss Polystyrene Type–Ideal for U.H.F. Sets

G-C NEUTRALIZING TOOL
Combination screw driver and 5 16" hex wrench. Approved by U. S. Army Signal Corps.
Cat. No. 5027 ..... Net **$2.10**

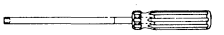
G-C 4-in-1 ALIGNMENT TOOL
Screw driver with metal nib, 1 4" hex wrench slotted and 5 16" hex wrench on other end.
Cat. No. 5014 ..... Net **$1.00**

G-C 5-in-1 ALIGNMENT TOOL
Consists of screw driver with metal nib, 5 16" hex wrench, 1 4" hex wrench slotted, with metal screw driver on one end.
Cat. No. 5015 ..... Net **$1.27**

G-C 6-in-1 ALIGNMENT TOOL
Consists of screw driver with metal nib, 5 16" hex wrench, 1 4" hex side wrench and 1 4" hex end wrench slotted.
Cat. No. 5016 ..... Net **$1.57**

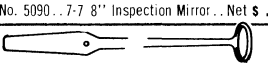
G-C ALIGNMENT SCREWDRIVER
Low inductance metal tip screwdriver made of Butyrate material.
Cat. No. 5000 1 4" Diameter x 6" Tool Net **$ .42**

G-C TV ALIGNMENT TOOL
Very short, sturdy tool with a fine metal screwdriver blade.
Cat. No. 5066 2-1 2" long.3 16" Shaft Dia. Net **$ .40**



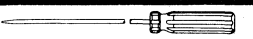
G-C TV ALIGNING WRENCH
New tool with 1 8" square socket wrench, 7 32" shaft with insulated handle.
Cat. No. 5080 ..... Net **$ .60**

G-C INSPECTION MIRROR
Handy inspection mirror to inspect parts, coils, wiring, etc. Made of metal shaft with glass mirror and a plastic handle.
Cat. No. 5090 .. 7-7 8" Inspection Mirror .. Net **$ .42**



G-C NEW ALL PLASTIC INSPECTION MIRROR
Use to inspect coils, resistors, sockets, etc. while the chassis is hot. No danger of shorting.
Cat. No. 5090-P ... 7-7 8" Plastic Mirror .. Net **$ .38**

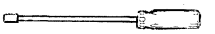
G-C K-TRAN TOOL
Specially designed for K-tran and I.F. transformers. Butyrate material, screwdriver on both ends.
Cat. No. 5097 ..... Net **$ .78**
6" long, 5 32" Delrin tip, 1 8" metal Tip



G-C TV CHANNEL TUNING TOOL
Completely insulated, non-metallic tool with long 1 8" narrow blade. Made of bone fibre.
Cat. No. 8195 7-1 4" long, 1 8" shaft dia. Net **$ .72**

G-C TV AND FM TUNING TOOL
Special short tool with fine recessed screwdriver top for Television and FM adjustments. Made of Butyrate
Cat. No. 8196 ..... Net **$ .42**
2-1 2" long, 7 32" shaft dia.

G-C TV CORE ALIGNER
For Motorola and other sets using Stackpole or other stud type cores that are not slotted. Milled steel insert on one end, thin screwdriver blade on other end.
Cat. No. 8271 16" long. 7 32" shaft dia. Net **$ .60**



G-C TV I.F. OSCILLATOR ALIGNER
Specially made for I.F. and oscillator adjustments. Will fit all makes of sets–R.C.A., G.E., Philco, Admiral and others.
Cat. No. 8272 6-1 2" long, 1 4" tip dia. Net **$1.20**

G-C TV ALL-PURPOSE ALIGNER
Specially made for TV I.F. adjustments. Very thin spring steel tip is recessed so the tool will guide itself over the screws.
Cat. No. 8273 8" long, 7 32" shaft dia. Net **$ .92**

G-C TV LONG REACH ALIGNER
Specially made for Admiral, Zenith, R.C.A. and other sets for adjustments of nested iron cores that are hard to reach.
Cat. No. 8274 .. 9" long, 1 8" shaft dia. .. Net **$ .90**

G-C TV ZENITH UNIVERSAL ALIGNER
Specially designed for Zenith and other sets. Made of bone fibre and plastic handle.
Cat. No. 8275 5" long, 1 8" shaft dia.. 1 4" Net **$ .52**

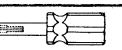
G-C TV DUPLEX ALIGNER
An all-purpose TV aligner for trimmers and I.F. transformers. Made of Butyrate material with extra thin spring steel tips.
Cat. No. 8276 6" long, 7 32" shaft dia. Net **$ .52**

G-C TV "SHORTY" DUPLEX ALIGNER
Specially made for trimmer and I.F. transformers where space does not permit the use of a longer tool.
Cat. No. 8277 2-1 2" long, 7 32" shaft dia. Net **$ .52**

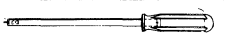
G-C TV TUNING WAND
Brass insert on end reduces inductance and iron core on other end increases the inductance.
Cat. No. 8278 6" long, 7 32" shaft dia. Net **$ .60**

G-C TV CORE ALIGNER
Tool has a recessed steel milled slot to fit over the Stackpole and other type stud cores that are not slotted.
Cat. No. 8279 ..... Net **$ .75**
7-1 2" long, 7 32" shaft dia.

G-C NEW ZENITH TV WRENCH & ALIGNER
New nylon plastic molded special tool made specially for Zenith TV sets.
Cat. No. 8282 ..... Net **$ .37**
5-7 16" long, .100 Dia. Hex Wrench, .109 Screw Driver Dia.



G-C "SHORTY" TV ALIGNMENT SCREW DRIVER
Only 2" long overall to adjust hard-to-get-at places under TV tubes, etc.
Cat. No. 8289 2" long. 7 32" shaft dia. Net **$ .60**

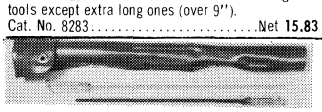


G-C UNIVERSAL SCREW DRIVER ALIGNER
Made of unbreakable flexible clear plastic shaft and an amber plastic handle.
Cat. No. 8290 7" long, 7 32" shaft dia. Net **$ .70**

G-C ZENITH-ADMIRAL NYLON HEX WRENCH
New nylon hex wrench alignment tool for Zenith, Admiral and other sets.
Cat. No. 8606 .. 5" wrench, 11" long .. Net **$ .48**
Cat. No. 8606-L .. 11" wrench, 11" long .. **.63**

GC ALIGNMENT TOOL KITS

MASTER DELUXE TOOL KIT
A super-deluxe kit in a leatherette roll type case. Contains 25 tools and includes all TV alignment tools except extra long ones (over 9").
Cat. No. 8283 ..... Net **15.83**

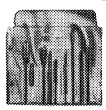


DELUXE ALIGNMENT TOOL KIT
Case is made of durable leatherette for long service. Steel tips are extra thin and of the best grade hardened spring steel. Kit contains one each of 16 tools.
Cat. No. 8280 ..... Net **10.30**

NEW TINNERMAN NUT REMOVER
G-C Tinnerman Nut Remover is a handy dual purpose tool for removing large or small tinnerman nuts with just a twist. Eliminates fumbling with hard-to-remove nuts.
Cat. No. 9355 ..... Net **$ .93**

G-C ILLUMINATED INSPECTION AND SERVICE MIRROR
A hinge-mounted mirror fastens to a 6" transparent lucite rod which transmits light from a small anodized aluminum flashlight.
Cat. No. 8725 ..... Net **$2.02**
7 8" Mirror, frame O.D. 1-1 16"

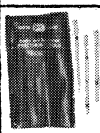
G-C CONTACT BURNISHING TOOL KIT
A complete kit for the servicing of relays, switches, etc. where critical contact points must be kept clean.
Cat. No. 9339 ..... Net **$ .95**



STANDARD ALIGNMENT TOOL KIT
Made to last and wear–a quality kit; contains 9 essential tools in roll type case.
Cat. No. 8455 ..... Net **6.26**

G-C SPEEDEX SLIM TYPE SOLDER IRON TIPS
A new high-heat, turned-down tip made of one piece copper. Will fit 3 8" irons. Tips 4-1 2" long.
Cat. No. 8741 ..... Net **$ .73**

G-C No. 5040 TOP 12 TOOL KIT
12 most popular TV alignment tools. Plastic roll-up case.
Cat. No. 5040 ..... Net **8.79**

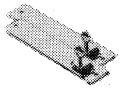


CB ALIGNMENT TOOL KIT
Plastic pouch with nine precision tools for tuning I.F. transformers, R.F. coils, Antenna and oscillator coils; countless other fine adjustments.
Cat. No. 9210 ..... Net **$4.89**

G-C SOLDER IRON TIPS
Bright plated to resist corrosion. These tips are made of best grade hard-drawn copper.

	Dia.	Long	
Cat. No. 724	1 4"	x3"	Net **$ .50**
725	5 16"	x4-1 2"	**.55**
726	3 8"	x4-1 2"	**.62**

GC SERVICE AIDS....WIRE STRIPPERS .... GC SERVICE AIDS....WIRE STRIPPERS



G-C TV CHASSIS SUPPORT
Prop chassis to easy working position on your bench or in the home. Simply slip on the flange of chassis, tighten thumb screws and tilt chassis to position desired.
Cat. No. 9176 Pair ..... Net **$1.80**

SPEEDEX WIRE STRIPPER KITS
Complete with Wire Strippers and seven different size blades in plastic box. Handy for tool box, home workshop, maintenance and production.
Cat. No. 733-K .. Standard Stripper Kit .. Net **$10.83**
744-K .. Automatic Stripper Kit .. Net **$13.16**
766-K .Speed-O-Matic Stripper Kit Net **$13.16**

SPEEDEX STANDARD WIRE STRIPPER
Popular inexpensive Speedex model for 90% of all stripping jobs. Blades are inter-changeable, hardened and precision ground to razor sharp edges

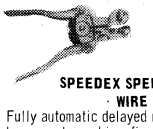
No.	For Sizes Listed Below
733	12 to 20 Wire
733-A	14 to 30 Wire
733-B	10 to 18 Wire
733-C	8 to 10 Wire
733-D	16, 18, 20, 22 Wires
733-E	14, 16, 18 Wires
733-F	10, 12, 14 Wires
733-G	For No. 18 POSJ or Parallel Wire
733-H	For 300 ohm TV and FM twin transmission line
733-I	10, 12, 14, 16, 18, 20, 22 Wire
733-M	10 to 20 Wire
733-N	Straight Cutter Blades

Cat. No. 733 ..... Net **$4.77**

SPEEDEX AUTOMATIC WIRE STRIPPER
Equipped with "Trig-O-Matic" Stay-Open feature; keeps wires from being crushed.

No.	For Sizes Listed Below
744	12 to 20 Wire
744-A	14 to 30 Wire
744-B	10 to 18 Wire
744-C	8 to 10 Wire
744-D	16, 18, 20, 22 Wires
744-E	14, 16, 18 Wires
744-F	10, 12, 14 Wires
744-G	For No. 18 POSJ or Parallel Wire
744-H	For 300 ohm TV and FM twin transmission line
744-I	10, 12, 14, 16, 18, 20, 22 Wire
744-M	10 to 20 Wire
744-N	Straight Cutter Blades

Cat. No. 744 ..... Net **$5.93**



SPEEDEX SPEED-O-MATIC WIRE STRIPPER
Fully automatic delayed return action to prevent crushing fine wires. The Speed-O-Matic combines the features of all Speedex Wire Strippers.

No.	For Sizes Listed Below
766	12 to 20 Wire
766-A	14 to 30 Wire
766-B	10 to 18 Wire
766-C	8 to 10 Wire
766-D	16, 18, 20, 22 Wire
766-E	14, 16, 18 Wire
766-F	10, 12, 14 Wire
766-G	For No. 18 POSJ or Parallel Wire
766-H	For 300 ohm TV and FM twin transmission line
766-I	10, 12, 14, 16, 18, 20, 22 Wire
766-M	10 to 20 Wire
766-N	Straight Cutter Blades

Cat. No. 766 ..... Net **$5.93**

SPEEDEX WHIZ WIRE STRIPPER
Economy model–an all round general use wire stripper. Precision milled, hardened steel cutters.

Cat. No. 788	3 Hole Blade,	Gauges 12 thru 22
788-B	3 Hole Blade	Gauges 10 thru 16
788-D	4 Hole Blade	Gauges 14 thru 24
788-H	300 ohm Blade for	Twin Lead-In

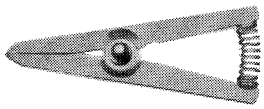
Cat. No. 788 ..... Net **$3.97**

© U.C.P., Inc.

GC ELECTRONICS

GC ALIGNMENT TOOLS & Service Aids

GC DUO-TONGS
Universal Fuse Pullers . . .will accommodate all types of fuses, including household screw-in plug type, industrial cartridge fuses up to 3 4" or 100 amp. capacity, as Automotive, Aircraft, Television and Electronic Industries. Non-conductive, non-inflammable, and virtually unbreakable thus exceeding all Military Specifications.
Cat. No. 9356 ..... Net $ .89



HEAT SINK
Protects Transistors and Diodes when Soldering. . . firm grip. Aluminum will not stick to solder.
Cat. No. 9077 ..... Net $ .36

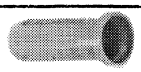
GC POCKET HEX KEY WRENCH SET
Seven popular wrench sizes--opens like pocket knife. .050" to 3/16" in steel case.
Cat.No. 9124 ..... Net $1.83

CAPACITOR AND TUNER ADJUSTING TOOL
For trimmer capacitors, sealed capacitors, and miniature L. C. Tuners. White Delrin with .050" hex head one end and screwdriver tip on the other end. Overall length 5-1/8".
Cat. No. 8605 ..... Net $ .63

GC CAPACITOR TAB TWIST TOOL
For replacing twist lock condensors. Slotted end fits over capacitor tabs; won't slip off. A quick twist locks or unlocks the tabs. 8" long; plastic handle.
Cat. No. 9446 ..... Net $ .89

SHAFT EXTENSION INSULATOR
Standard TV control 21 Suregrip ribs . . . Fits all shafts. Cut off worn ends, or to desired length.
Cat. No. 5150 ..... Net $ .36

HI-VOLTAGE GAUGE
Measures TV Voltage Pulse . . . No current drain during operation. Snaps directly to plate cup of any listed tubes. Push plunger in slowly till neon light glows. Voltage read on calibrated rod.
Cat. No. 8840 ..... Net $2.30

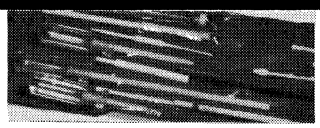


TWISTMASTER
Twice the Leverage of the Bare Hand . . . Slips easily on any standard screwdriver. Insulates against shock, prevents blisters.
Cat. No. 9320 ..... Net $ .29

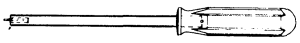
GC HANDY PICK-UP TOOL
"Mechanical Fingers" Pick-up parts dropped into inaccessible places. Holds screws, nuts to start. 24" long.
Cat.No. 5089 ..... Net $1.15

SOLDERING AID TOOLS
Won't stick to Solder...Heat-treated tool steel, chrome plated.
Cat. No. 9075 ..... Straight ..... Net $ .80
Cat. No. 9076 ..... Angled ..... Net $ .80

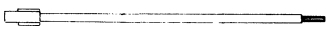
GC MAGNAVOX TUNING TOOL
Head for Magnavox chassis Nos. 201 and 202 and other sets. Hex wrench on both ends, one end undercut so it will reach bottom slugs in iron coils.
Cat. No. 8284 ..... Net $ .48



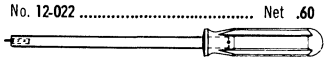
OSCILLOSCOPE TOOL KIT
Kit contains 1 each of tools listed below:
No. 12-036 ..... Net 11.50



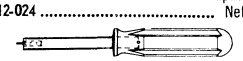
GC 6½" Ceramic Capacitor Alignment Tool - ¼" nylon shaft. Plated steel tip .030" thick by 1/8" wide fits most trimmer capacitors.
No. 12-020 ..... Net .77



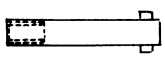
GC Long Reach Hex Wrench - 4¾" Universal .075" hex wrench of white delrin. Use handle No. 12-038.
No. 12-022 ..... Net .60



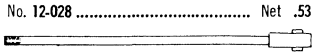
GC 10¼" Ceramic Capacitor Alignment Tool ¼" nylon shaft. Plated steel tips .030" thick and 1/8" wide fits most TV trimmer capacitors.
No. 12-024 ..... Net 2.66



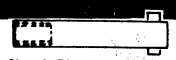
GC 4¾" Ceramic Capacitor Alignment Tool - ¼" nylon shaft. Plated steel tip .030" thick by 1/8" wide fits most trimmer capacitors.
No. 12-026 ..... Net .82



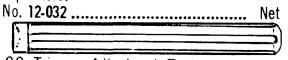
GC Piston-Type Capacitor Alignment Tool - black delrin 1¼" long, recessed steel tip. Use handle No. 12-038 to adjust coil slugs and piston capacitors.
No. 12-028 ..... Net .53



GC Delrin Alignment Tool - 4½" long with .030" x 3/32" steel tip recessed in 9/64" shank. Use handle No. 12-038.
No. 12-030 ..... Net .60

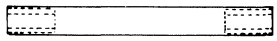


GC Delrin Slug & Piston Capacitor Tool - white delrin tool 1¼" long, with recessed steel tip. Use handle No. 12-038 to adjust coil slugs and piston capacitors.
No. 12-032 ..... Net .63

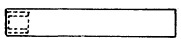


GC Trimmer Adjustment Tool - plastic handled tool 4¼" long. White Delrin tip pilots on trimmer and drives adjustment with special key.
No. 12-034 ..... Net 1.57

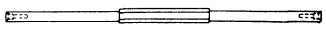
GC 7" Nylon Tool Handle - white nylon handle for use with alignment tool tip No. 12-040.
No. 12-036 ..... Net .65



GC 3" Tool Handle - for use with alignment tools No. 12-022, 12-028, 12-030, and 12-032. Extra diameter of handle makes adjustments easier.
No. 12-038 ..... Net .63

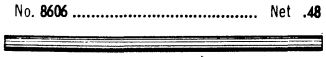


GC Alignment Tool Tip - 2½" white Delrin alignment tip with .015" x 3/32" steel insert. Use with either 12-036 or 12-038 handle.
No. 12-040 ..... Net .53



GC TV 2-in-1 Long-reach Duplex Aligner - one end for thin, other end for standard diameter studs. Tips made of spring steel, recessed. 7/32" shaft diameter.
No. 8722 ..... Net .67

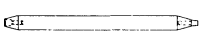
GC Zenith-Admiral Delrin Hex Wrench - delrin hex wrench alignment tool for Zenith, Admiral, and other sets. .100 across flats of both hex. ICA type No. 6199.
No. 8606 ..... Net .48



GC ¼" Hex I.D. Neutralizing Wrench - if corners wear round due to use, just trim back. 7½" long, 3/8" round O.D.
No. 9360 ..... Net .37

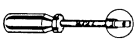
GC ALIGNMENT TOOLS ● GC ALIGNMENT TOOLS ● GC ALIGNMENT TOOLS

G-C NEW NYLON TV LONG REACH ALIGNER
Long-reach TV aligner with insulated metal shaft and nylon tip. 12-1/4" long overall, .195 Shaft Dia.
Cat. No. 8607 ..... TV Tool ..... Net $1.60

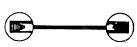


G-C ALIGNMENT TOOL
Handy to align and adjust TV sets, radio sets, etc. Made of clear plastic 5" long x 3/8" dia.
Cat. No. 8609 ..... Net $ .63

G-C TV 2-IN-1 LONG-REACH DUPLEX ALIGNER
Made of clear, unbreakable plastic material. Ends colored red and blue for size identification. Tips are made of spring steel recessed for easy location of stud.
Cat. No. 8721 9" long, 7/32" Shaft Dia. Net $ .78
8722 7" long, 7/32" Shaft Dia. Net $ .67



NEW G-C K-TRAN TELEVISION ALIGNER
Specially made for K-Tran I.F. Transformer tuner slugs. Precision made of bone fibre.
Cat. No. 8727 6-1/4" long, 5/32" Tip Dia. Net $ .65



TV LONG REACH ALIGNMENT SCREWDRIVER
Made of bone fibre, extra thin 1/8" diameter screw drivers for adjustment of TV receivers. Screw driver tip on both ends--can be re-ground.
Cat. No. 8728A ..... 1/8" x 7" long ..... Net $ .43
8728 ..... 1/8" x 12" long ..... .53
8729 ..... 1/8" x 16" long ..... .70

G-C LONG ARM TV TOOL PLASTIC SHAFT
Extra-long-reach alignment tool for Zenith sets and others where adjustments are hard to get at. Tool is 18" long overall. 18" long, 7/32" Shaft Diameter.
Cat. No. 8821 TV Tool (Type A) ..... Net $1.00
8896 ..... TV Tool (Type B) 1.00
8897 ..... TV Tool (Type C) 1.00

ZENITH-RCA ALIGNING TOOL WITH HANDLE
For better grip and easier adjustments. Length is 2-1/2" with a 1-1/2" shaft length. 7/32" diameter blade with recessed slot in blade end.
Cat. No. 9051 ..... Net $ .58

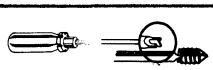
G-C STANDARD COIL SLUG TUNER ADJUSTING TOOL
A new special slug tuning tool for adjusting Standard Tuners, etc. Completely insulated. 7-1/2" long, 1/4" shaft diameter, shaft ends .170 diameter.
Cat. No. 9087 ..... Net $ .75

G-C ADJUSTABLE SHORTY
Recessed tip TV alignment tool. Adjustable from 1-1/4" to 2" in length, for hard-to-get-at places.
Cat. No. 9090 ..... Net $ .65

G-C DOUBLE END IRON CORE TOOL
All nylon hex tool for cores with .125 hex opening. One end of tool undercut so it can reach the bottom slug in coils without turning the top slug.
Cat. No. 9091 ..... 5" long ..... Net $ .48
9091-L ..... 11" long ..... .70

G-C PRINT KOTE SOLDER AID PROBE
Handy, fine point probe specially designed to aid in probing and soldering printed circuits.
Cat. No. 9093 ..... 8" Length ..... Net $1.00

G-C PRINT KOTE BRUSH AND SCRAPER
Fine Stainless Steel brush and hardened steel scraper are required to scrape and clean the Silicone Resin from printed circuits.
Cat. No. 9094 ..... 8" Length ..... Net $ .98

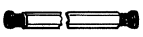


G-C SLUG RETRIEVER TOOL
A precision made tool with hardened steel tips made for removing lost TV tuner slugs in Standard Coil tuners. Ends ground to fit standard coils.
Cat. No. 9096 ..... 12" Retreiver ..... Net $2.70
9097 ..... 15" Retreiver 3.25

G-C MINI HOLD SCREWDRIVERS
Designed with exclusive "Wedge Action" for gripping of tiny screws. (Nos. 0, 1, 2, 3 and No. 8 set screws and smaller) Special short length (2-7/8" when in use).
Cat. No. 9346 3-1/4" long, 2-7/8" in use Net $2.14
9347 7" long, 6-3/4" in use 2.40

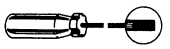
G-C RCA TV ALIGNMENT TOOL
Double end nylon tool with a recessed metal tip on one end and a plastic slot on the other end.
Cat. No. 9150 ..... 6" Length ..... Net $ .93

G-C SCREW STARTER SCREW DRIVER
A handy screw holding screwdriver that will start screws in hard-to-get-at places. Holds the screw securely while it starts it.
Cat. No. 9148 ..... 12" ..... Net $2.75

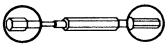


G-C DUAL NUT STARTER
New tool that holds and starts hex nuts or hex head screws in hard-to-get-at places. Fits 1/4" and 5/16" hex nuts. Pat. 2664021.
Cat. No. 9147 ..... Net $1.85

G-C TV AND AUTO RADIO WRENCH
Special female slotted wrench to remove screws and stud screws from auto radios and backs of TV sets, etc.
Cat. No. 9211 ..... Net $1.20



G-C FIBREGLASS SCREWDRIVER
Gives full protection on hot chassis when adjusting high potentials. For close-up hard-to-reach places.
Cat. No. 9291 ..... 7" ..... Net $ .85



G-C NYLON HEX TOOLS
For adjusting iron cores inside mounted chassis, and tuner adjustment of iron and brass slugs with hex heads. Has .100" hex and 5/32" handle.
Cat. No. 9295 ..... 11" x .100" Hex ..... Net $ .63
9296 ..... 11" x .075" Hex ..... .63
9297 ..... 11" x .075" Hex ..... .63

GC ELECTRONICS

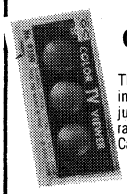
COLOR TV SERVICE AIDS

RCA COLOR TV HARNESSES & SOCKETS FOR SERVICE & REPLACEMENT

Part No.	Description	Net
9436	**ADAPTER SOCKET** ..... Converts 23" & 25" CRT Base to 21" type for use with current test equipment. RCA No. 937848; Admiral No. BP196.	3.50
9437	**UNIVERSAL KINESCOPE SOCKET EXTENSION**..... **CABLE**—fits all 21", 23" and 25" round and rectangular CRT. 48" leads. RCA No. 13B111 and 937846; Admiral No. BP191.	7.50
9438	**KINESCOPE EXTENSION SOCKET**..... 48" leads—converts a 23" or 25" CRT base to 21" type for use with current test equipment. RCA No 13B111 and 937847; Admiral No. BP190.	8.95
9439	**KINESCOPE SOCKET EXTENSION CABLE**..... For all 21AXP or equivalent round picture tubes. Extends kinescope socket cable for chassis removal when servicing, or use with color test tube jig. Admiral No. BP192.	4.95
9441	**REPLACEMENT SOCKET & LEADS**..... For 21" color tubes—24" leads.	2.25
9443	**REPLACEMENT SOCKET & LEADS**..... For 23" and 25" color tubes—24" leads.	2.25
9447	**DEFLECTION YOKE EXTENSION CABLE**..... For 21" color tubes—48" leads. Use with all 21AXP22 or equivalent tubes. Extends yoke cable for servicing chassis without removing picture tube.	4.85
9448	**DEFLECTION YOKE EXTENSION CABLE**..... 48" leads extend yoke cable when chassis is removed for servicing. For 23" or 25" picture tubes. Male octal plug one end, push-on connectors on other end for connecting to deflection yoke, or test jig.	1.95
9453	**ANODE EXTENSION**..... High voltage extension cable with 48" leads for use when TV chassis is removed from set for servicing.	1.95
9445	**CONVERGENCE MAGNET DEFLECTION YOKE**..... **EXTENSION.** For RCA, Admiral, Motorola, Zenith. Extension leads for chassis removal without removing picture tube. For RCA CTC7 to CTC15 chassis. Deflection yoke extension for RCA 600 & 700 series.	4.95

COLOR TV RECTIFIER KIT

Only one kit needed to service nearly all makes of color TV sets, including RCA, Zenith, General Electric, Philco, etc.
Cat. No. 16-500 Net **4.40**



COLOR TV VIEWER

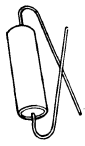
Three transparent optical filters sealed in plastic. For phase and matrix adjustment in the home, using a saturated color for signal.
Cat. No. 9309 Net **1.50**

COLOR TV GLO-BAR THERMISTOR

Exact Replacement for RCA No.113996, Zenith No.635444,Magnavox No.230170 -1, and others.
Cat. No. 25-908-S Net **.75**

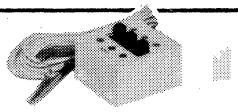
COLOR TV CHEATER

Removes the "ground" from the high voltage supply when back cover of set is removed. Permits insertion of hi-voltage probe, through cheater.
Cat. No. 5650 Net **.75**



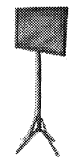
COLOR TV CAPACITOR

(Value -.001 MFD at 2000V DC) A new replacement capacitor for Color TV sets that can be used on all makes of color sets. Also an Exact Replacement for RCA No. 945328 & Admiral No. 62C2-773 TV sets.
Cat. No. 25-902-S Net **.39**



GRID GROUNDING BOX

For easy convergence and matrix adjustment. Consists of small box with 3 switches and 4 leads. Permits individual grounding of color control grids through built-in resistors.
Cat. No. 9318 Net **5.10**



COLOR TV SERVICE MIRROR

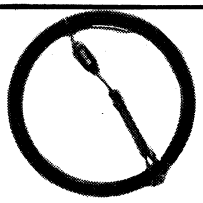
High quality polished glass mirror in metal frame, nickel plated. 10" x 12" Complete with adjustable, collapsible stand for easy storage.
Cat. No. 8390 Net **5.91**

COLOR TV TOOL

Double screwdriver for adjustment of various controls on color TV sets where dual potentiometer are used. Indispensable for Color TV work.
Cat. No. 9299 Net **1.45**

7" DEGAUSSING COIL
IN-THE-HOME MODEL

For the home or serviceman. Molded of hi-impact plastic with momentary push-button switch, this coil will easily fit into tube caddy or will hang on the back of TV set. Low cost...easy resale to TV set owner.
Cat. No. 2592 Net **5.95**



GC DEGAUSSING COIL
PROFESSIONAL MODEL

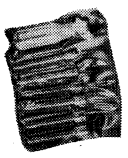
Eliminates stray magnetic fields in color TV sets as required prior to purity adjustment. Durable, molded hi-impact case. Supplied with 9' cord, momentary push-button switch which permits de-energizing of coil without pulling plug. Safe, easy to use; will last a lifetime.
Cat. No. 9317 Net **17.97**

GC SERVICE AIDS

GC TV 3-WAY ANTENNA KLIP

Buy them by the bag and have clips ready to sell and ready to install on TV sets.
Cat. No. 9015-X bag of 10 Net **1.43**

GC INTERCHANGEABLE HEX NUT DRIVER KIT



6 assorted nut drivers in a handy plastic case. Handle is non-flammable amber plastic with a quick change chuck.
Cat. No. 9206 Net **3.30**

SPRAY CAN HANDLE

For all aerosol spray cans, including new 24 and 35 oz. size cans. Attaches or detaches in seconds. Converts any spray can to professional spray gun.
Cat. No. 5900 Net **.49**

GC STICKLEBABY

Ideal for custom installations. Combination drill, saw, rasp. Use where power tools are impractical. For use on wood, plaster, plastic and masonite.
Cat. No. 8870 Net **1.50**

"QUICK SNAP" ANTENNA CLIP

New side clip allows fast connecting with antenna lines; ideal for the service bench. Accepts A-N-P, Pin, and flat terminal type lines.
Cat. No. 9030 bag of 2 clips Net **.49**

GC NEW TV AND AUTO RADIO WRENCH

Special female slotted wrench to remove screws and stud screws from auto radios and backs of TV sets, etc.
Cat. No. 9211 Net **1.20**

GC PLASTIC ELECTRICAL TAPE

Insulates tools, electrical splices and connections. Has minimum dielectric strength of 10,000 volts. Wrap tool handles for "non-slip" grip.
Cat. No. 16-890 1/2" x 12' Net **.26**
Cat. No. 16-892 3/4" x 20' Net **.45**

GC 3-STEP TAP

Three-in-1 tool for tapping or rethreading holes. 3 most popular tap sizes: 6/32, 8/32 and 10/32. Heavy plastic handle.
Cat. No. 8871 Net **3.75**

GC NEW LOW LOSS TV LINE KLIP

A new all plastic clip with metal ends only. The best for UHF or fringe areas. Made of genuine polyethylene.
Cat. No. 9055 Net **.15**
Cat. No. 9055-X Bag of 10 Net **1.44**

SLAB TYPE CLUTCH-HEAD SCREWDRIVERS

The only tools for servicing the Admiral Tilt-Out Tuner TV sets. Two sizes are available. A must for working on Color TV sets.
Cat. No. 12-015 for No. 6 clutch-head screws Net **1.95**
Cat. No. 12-016 for No.8 clutch-head screws Net **1.95**

TV CONTROL SHAFT EXTENSION

21 sure grip ribs. Extends and insulates all standard shafts. Fits flatted, splined, split or full round shafts. May be cut to desired lengths.
Cat. No. 5150 19" Net **.36**
Cat. No. 5091 9" Net **.18**

GC TUBE PIN STRAIGHTENER

Plastic 6" ruler/tube pin straightener for Compactrons, large 7-pin, 9 and 10 pin, and 7-pin tubes. Drilled holes for bench mounting.
Cat. No. 9135 Net **.59**

Net

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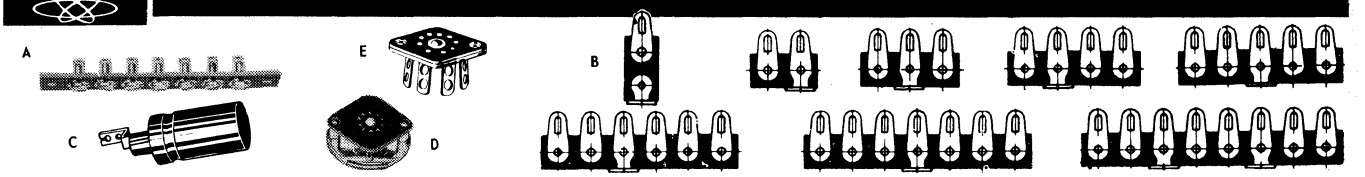
GC COMPONENTS..SERVICE AIDS



A GC SCREW TYPE TERMINAL STRIPS

Mounted on laminated bakelite strips, rigidly constructed, terminals will not turn and short.

Cat. No. 1772	2 contacts	Net	.09
Cat. No. 1772-C	100 No. 1772	Net	8.10
Cat. No. 1773	3 contacts	Net	.12
Cat. No. 1773-C	100 No. 1773	Net	10.05
Cat. No. 1774	4 contacts	Net	.15
Cat. No. 1774-C	100 No. 1774	Net	13.20
Cat. No. 1775	5 contacts	Net	.20
Cat. No. 1775-C	100 No. 1775	Net	18.67
Cat. No. 1776	6 contacts	Net	.22
Cat. No. 1776-C	100 No. 1776	Net	20.17
Cat. No. 1777	7 contacts	Net	.25
Cat. No. 1777-C	100 No. 1777	Net	23.85
Cat. No. 1778	8 contacts	Net	.30
Cat. No. 1778-C	100 No. 1778	Net	27.00
Cat. No. 1779	9 contacts	Net	.33
Cat. No. 1779-C	100 No. 1779	Net	30.00
Cat. No. 1780	10 contacts	Net	.37
Cat. No. 1780-C	100 No. 1780	Net	33.45

B GC STANDARD TERMINAL STRIPS

Insulation 1/16" thick, 3/8" spacing.

Cat. No. 1781	1 lug	Net	.04
Cat. No. 1781-C	100 No. 1781	Net	2.97
Cat. No. 1782	2 lugs	Net	.04
Cat. No. 1782-C	100 No. 1782	Net	2.97
Cat. No. 1783	3 lugs	Net	.05
Cat. No. 1783-C	100 No. 1783	Net	3.10
Cat. No. 1784	4 lugs	Net	.06
Cat. No. 1784-C	100 No. 1784	Net	4.29
Cat. No. 1785	5 lugs	Net	.07
Cat. No. 1785-C	100 No. 1785	Net	4.95
Cat. No. 1786	6 lugs	Net	.08
Cat. No. 1786-C	100 No. 1786	Net	5.28
Cat. No. 1787	7 lugs	Net	.13
Cat. No. 1787-C	100 No. 1787	Net	9.57
Cat. No. 1788	8 lugs	Net	.15
Cat. No. 1788-C	100 No. 1788	Net	10.56

SPECIAL TERMINAL AVAILABLE IN QUANTITIES. SEND PRINTS FOR QUOTATIONS

C GC EXTENSION JACK & CONNECTOR

Special jack used in extending radio antenna cables and phonograph attachments.

Cat. No. 1744		Net	.10
Cat. No. 1744-C	100	Net	8.93

D HIGH VOLTAGE ANTI-CORONA TV SOCKET

8-prong octal and 9-pin miniature sockets for use in high voltage circuits using the 1B3, 1AX2, 1AX2A, etc.

Cat. No. 9070	8-prong octal	Net	.53
Cat. No. 9071	9-pin miniature	Net	.53

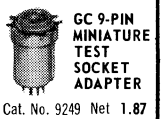
E GC 9-PIN MINIATURE WAFER SOCKET

High quality plastic wafter socket, 9-pin type with phosphor bronze contacts. Standard 1-1/8" mounting centers.

Cat. No. 1543	9-pin wafer sockets	Net	.12
Cat. No. 1544	9-pin wafer socket with grounding strap	Net	.13

GC 7-PIN MINIATURE TEST SOCKET ADAPTER

Cat. No. 9247 Net **1.65**



GC 9-PIN MINIATURE TEST SOCKET ADAPTER

Cat. No. 9249 Net **1.87**

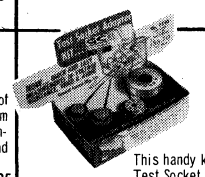
GC 8-PIN OCTAL TEST SOCKET ADAPTER

Cat. No. 9248 Net **1.57**

GC DUO-DECAL TV TUBE TEST SOCKET ADAPTER

Designed for making measurements of voltage, resistance and video from the base of the picture tube. It is inserted between C.R. tube base and its socket.

Cat. No. 9251 Net **1.95**



GC TEST SOCKET ADAPTER KIT

This handy kit contains all 4 of GC's Test Socket Adapters.

Cat. No. 9250 Net **6.98**

GC CONTROL GUN KIT

Cleans and lubricates noisey volume controls. Solid aluminum kit includes Gun, Adaptor for 1/2 - 28 thread, and Auto Adaptor for 7/16 - 28 thread.

Cat. No. 9285		Net **4.50**
Cat. No. 65-16	16 oz. bottle cleaner	Net **2.25**
Cat. No. 65-G	1 gallon	Net **9.90**
Cat. No. 9280	Control gun only	Net **3.75**
Cat. No. 9281	Adaptor for 1/2 - 28 thrd. shaft	Net **.50**
Cat. No. 9283	Adaptor for 7/16-28 thrd. shaft	Net **.50**
Cat. No. 9282	Adaptor for extra long shaft	Net **.50**

GC MINIATURE TUBE PIN STRAIGHTENER

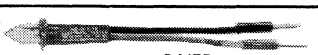
Precision-constructed steel die, for straightening pins on fragile miniature tubes of the 1S5, 6AK5 9002 variety.

For 7-pin Min. Tubes (red base)
Cat. No. 5191 Net **.75**
For 9-pin Jumbo Tubes (blue base)
Cat. No. 8105 Net **.75**

GC "QUICK-RIG" RADIO-PHONO CHASSIS REPAIR CRADLE

Complete 360 degree rotation to lock chassis at best working angle. Clamps security, makeshift setups, all metal.

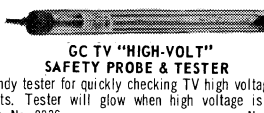
Cat. No. 5212 Net **7.50**



GC NE-O-LITE

Electrical circuit tester...easy to use with a Neon Glow Lamp which varies in light intensity according to voltages. Traces all types of trouble, such as grounded lines, open circuits, short circuits, etc.

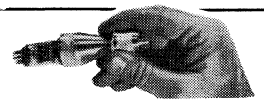
Cat. No. 5100 Net **.45**



GC TV "HIGH-VOLT" SAFETY PROBE & TESTER

Handy tester for quickly checking TV high voltage circuits. Tester will glow when high voltage is okay.

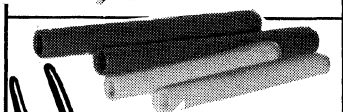
Cat. No. 8836 Net **2.13**



GC AMO MINIATURE TUBE PULLER

AMO makes it possible to easily remove or insert miniature tubes such as 6AG5, 50B5, etc. It works on the suction and vacuum principle.

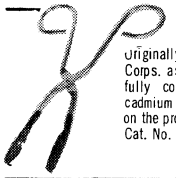
Cat. No. 5093	For 7-pin tubes	Net **1.30**
Cat. No. 8106	For 9-pin tubes	Net **1.30**



GC NO-JOLT TOOL GRIPS

Modernizes old tools with new safety grip handles. Grease and oil resistant.

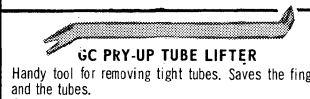
Cat. No. 5647	Small (1 pair)	Net **.23**
Cat. No. 5648	Med.(1 pair)	Net **.27**
Cat. No. 5649	Large(1 pair)	Net **.33**



GC TUBE & PARTS EXTRACTOR

originally designed by the U.S. Signal Corps. as standard equipment. Skillfully constructed of spring steel, cadmium plated. Has rubber cushion on the prongs.

Cat. No. 5092 Net **.98**



GC DUPLEX TUBE PIN STRAIGHTENER

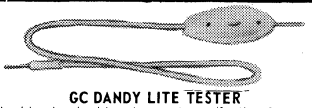
The handiest tube pin straightener for both miniature and jumbo miniature tubes of the 7- and 9-pin types.

Cat. No. 8655 Net **1.50**

GC LONG-REACH TV AND RADIO LUBRICATOR

For radio and TV controls, bearings, phono motors, etc. Buy them by the pair -- one for grease and one for light oil.

Cat. No. 8690 Net **.53**



GC DANDY LITE TESTER

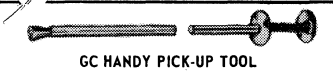
Hand touches lead to only one side of the line for extra safety. A dependable tester for tracing electrical circuits, grounded lines, shorts, etc.

Cat. No. 8585 Net **.90**

GC PRY-UP TUBE LIFTER

Handy tool for removing tight tubes. Saves the fingers and the tubes.

Cat. No. 9213 Net **.30**



GC HANDY PICK-UP TOOL

One of the handiest tools you can have in your home, shop, office or farm. Tool is 15 inches long.

Cat. No. 5089 Net **1.15**

GC 4-IN-1 TUBE GADGET

Four tools in one. Pure rubber, will not break.

Cat. No. 9130 Net **.92**

SUPER PICTURE WIDENER

Increases over-all TV picture size by boosting low-sweep output from horizontal circuit. No soldering, no wiring. Plugs onto horizontal damper tube.

Cat. No. 8761 Net **.75**

GC SPEEDEX FUSE PULLERS

Inexpensive...non-slip, fuse puller. Safe and handy for cartridge fuses.

Cat. No. 5525	Midget size for fuses 1/4" to 1/2" diameter	Net	.60
Cat. No. 5526	Pocket size for fuses 1/2" to 1-1/2" dia. Voltages to 200 amps at 250 volts and 100 amps at 600 volts.	Net	1.30

GC KLEER LENS

A superior lens cleaning fluid packaged in a handy plastic spray type container. This cleaner will make the transparent protection shield in front of the picture tube crystal clear.

Cat. No. 9081 6 oz. Net **.75**

GC HEXAGON KEY WRENCHES

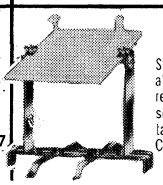
Kit of 5 assorted wrenches in Leatherette case.

Cat. No. 5029 Net **.80**

GC DUAL TUBE PIN STRAIGHTENER

A handy, miniature pin straightener for 7-pin and 9-pin miniature tubes. Metal inserts on either end of the tool body, each of hardened metal for accuracy and long life.

Cat. No. 9092 Net **1.27**



GC PHONO TURNTABLE STAND

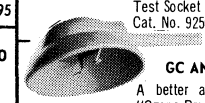
Stand raises the turntable about 15" above the bench for repairs. Easily adjusted to all sizes and types of phono turntables. Sturdily made of steel.

Cat. No. 5205 Net **4.95**

SPLINE KEY WRENCHES

Kit of 6 assorted wrenches in Leatherette case.

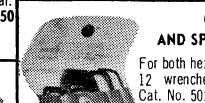
Cat. No. 5070 Net **.80**



GC ANGLE ANODE LEAD

A better anode lead with special "Ozone Proof"

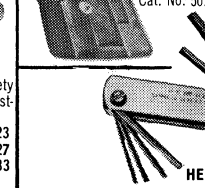
Cat. No. 8637 Net **.42**



GC HEX-KEY AND SPLINE WRENCH KIT

For both hex and spline type screws. 12 wrenches in leatherette case.

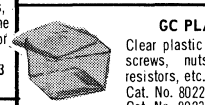
Cat. No. 5028 Net **1.35**



GC POCKET HEX KEY WRENCH SET

7 popular size wrenches. .050 to 3/16" fitted in a steel case-like pocket knife blades.

Cat. No. 9124 Net **1.83**



GC PLASTIC BOXES

Clear plastic boxes for small parts, screws, nuts, bolts, condensers, resistors, etc. Size 4" x 4".

Cat. No. 8022	2½" deep	Net	.40
Cat. No. 8023	8" deep	Net	.77

GC TV RADIO KNOB PULLER

Simply slip the GC Puller behind the knob and pull it off. Saves time, the cabinet and the knob.

Cat. No. 23-954 Net **.30**

GC TWEEZERS

Self-closing tweezer opens when squeezed; blunt points.

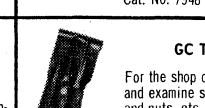
Cat. No. 7946 Net **.99**

6½" heavy duty type, with slide lock feature; blunt points.

Cat. No. 7947 Net **1.10**

4½" tweezer, narrow pointed ends for delicate work.

Cat. No. 7948 Net **.75**



GC TWEEZER KIT

For the shop or laboratory to pick up and examine small parts, start screws and nuts, etc.

Cat. No. 7950 Net **2.84**

SOLDERING IRONS

6 to 230 VOLTS 12 to 140 WATTS

A complete line of high quality soldering irons specifically designed for production-line soldering in the electronic, instrument, and communications industries—including irons for soldering miniature and subminiature components. Also ideally suited for intermittent operations such as repair, maintenance, laboratory work, and electronic kit construction. Irons up to 1250 watts are available.

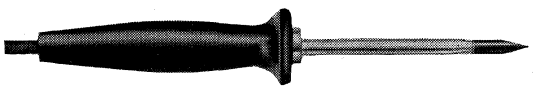
PENLINE-120 SOLDERING IRONS — 120 VOLTS; 25, 30, 40 AND 45 WATTS — UL LISTED

Lowest cost G-E iron; ideally suited for light to medium production in electronics, communications, and allied industries, for repair and maintenance operations, and by the "do-it-yourself" electronics kit builder.

Description	Cat. No.	List Price Each‡
Handle and 6-foot Cordset		
Two-conductor	6D400	$3.00
Three-conductor, with NEMA standard plug	6D400G2	4.00
Tip and Heater Units — Ironclad		
1/8" Chisel Tip 30 watts	6D410	$4.70
5/32" Chisel Tip 30 watts	6D411	4.80
5/32" Chisel Tip 45 watts	6D412	4.90
Heater for Threaded Tips		
25 watts	6D415	$4.00
30 watts	6D414	4.00
40 watts	6D413	4.00

Use interchangeable threaded tips listed on next page.

LIGHTWEIGHT SOLDERING IRONS — 120 VOLTS; 40 AND 60 WATTS — UL LISTED

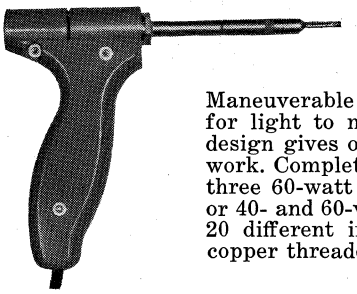


Ideal for light and medium production-line soldering and maintenance and repair operations in electronics and communications industries. Tip and heater units can be changed in seconds.

Complete Iron — Includes handle and 6-foot cordset, and tip and heater unit			
1/32" Ironclad Chisel Tip		6A273	$14.20
3/16" Ironclad Pyramid Tip		6A283	14.20
3/16" Ironclad Chisel Tip		6A283G23	14.20
Handle and 6-foot Cordset			
Two-conductor		6A273G62	$7.25
Three-conductor with NEMA standard plug		6A273G63	8.45
Tip and Heater Units			
1/32" Ironclad Chisel Tip		6A300	$6.95
3/16" Ironclad Pyramid Tip		6A301	6.95
3/16" Ironclad Chisel Tip		6A301G4	6.95
Heater Units for Threaded Tips			
40 watts		6A304	$6.05
60 watts		6A301G7	6.70

Use interchangeable threaded tips listed on next page.
‡ Manufacturer's suggested resale price.

PISTOL-GRIP SOLDERING IRONS — 120 VOLTS; 40 AND 60 WATTS

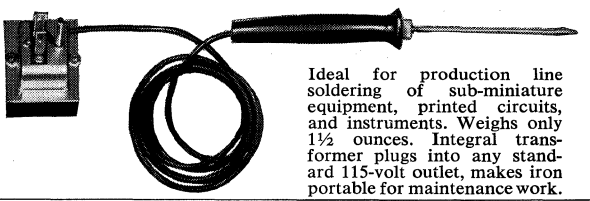


Maneuverable and comfortable, excellent for light to medium production. Unique design gives operator a clear view of the work. Complete versatility with choice of three 60-watt tip and heater assemblies; or 40- and 60-watt heater assemblies with 20 different interchangeable ironclad or copper threaded tips.

Description	Cat. No.	List Price Each‡
Handle and cordset, three-wire with NEMA plug	6A303	$8.50

Can be used with Lightweight tip and heater units, or with Lightweight heater units and interchangeable threaded tips listed on next page.

MINIATURE SOLDERING IRONS — 6 VOLTS, 12 WATTS



Ideal for production line soldering of sub-miniature equipment, printed circuits, and instruments. Weighs only 1½ ounces. Integral transformer plugs into any standard 115-volt outlet, makes iron portable for maintenance work.

Complete Iron — Includes tip and heater unit, 6-foot cordset, and transformer with grounded plug.			
5/64" Chisel Tip	3" Shank	6A428G3	$15.00
5/64" Chisel Tip	6" Shank	6A428G4	15.00
5/64" Pyramid Tip	3" Shank	6A428G7	15.00
5/64" Pyramid Tip	6" Shank	6A428G8	15.00
Complete Iron Less Transformer — Includes tip and heater unit, and 6-foot cordset with terminals			
5/64" Chisel Tip	3" Shank	6A428G5	$9.50
5/64" Chisel Tip	6" Shank	6A428G6	9.50
Renewal Tip and Heater Units			
5/64" Chisel Tip	3" Shank	6A429G3	$5.75
5/64" Chisel Tip	6" Shank	6A429G4	5.75
5/64" Pyramid Tip	3" Shank	6A429G5	5.75
5/64" Pyramid Tip	6" Shank	6A429G6	5.75
Handle and Cordset Only			
6-foot Cordset with Terminals		6A428G62	$4.90
Renewal Transformer — Includes — 6-foot integral cordset			
6-volt Secondary 115-volt Primary		6A430	$7.80

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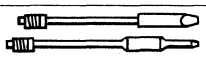
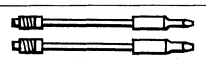
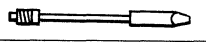
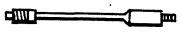
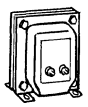
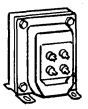
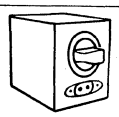
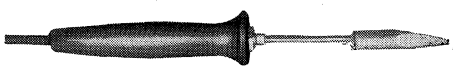
MIDGET SOLDERING IRONS — 6 VOLTS; 18 to 45 WATTS (with transformers) — UL LISTED

A versatile iron for light production in electronics, and communication industries — handles like a pencil, weighs but 1¾ oz. Tip renewal is easy and fast — complete tip and heater unit can be changed in a few seconds. Heat output can be varied from 18 to 45 watts with standard G-E transformers.

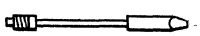
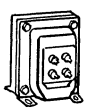
Description		Cat. No.	List Price Each‡
Handle and 6-foot cordset			
	For single- and 4-tap transformers	6A203	$3.65
	For transformer with 3-heat switch	6A203G2	4.15
Tip and Heater Units — All ironclad tips			
	5/32" Chisel Tip 25 watts ⅛" Cone Tip 25 watts	6A211 6A213	$4.05 4.05
	3/16" Pyramid Tip 25 watts ⅛" Chisel Tip 25 watts	6A215 6A217	4.05 4.05
	3/16" Chisel Tip 45 watts	6A211G31	4.60
Heater for Threaded Tips			
	25 watts	6A221	$4.05
Transformers for Midget Iron — 115-volt Primary*			
	Single Tap 6.3-volt secondary	6A362G2	$6.90
	Four Tap 5.4/5.7/6.0/6.3-volt secondary	6A364G2	9.20
	With Three-heat Switch 4.9/6.3/6.9-volt secondary For use only with Handle and Cordset 6A203G2.	6A434	19.80

* Single- and four-tap transformers are available with 240-volt primary in quantities of 36 or more, specify catalog number desired and note on order, "except with 240-volt primary." Use interchangeable threaded tips.

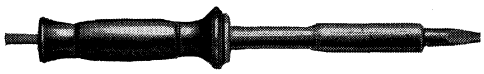
MIGHTY MIDGET SOLDERING IRON — 12 VOLTS; 100 WATTS



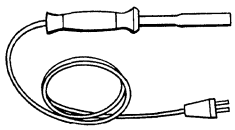
A lightweight iron with high heat capacity for heavy soldering where larger irons, up to 200 watts, prove unwieldy for rapid repetitive soldering, such as production soldering of tuner chassis, tinware, can seams, etc.

Description		Cat. No.	List Price Each‡
Handle and Cordset — Two-conductor			
		6A210G61	$8.00
Tip and Heater Unit			
	½" Ironclad Chisel Tip	6A211G33	$4.50
Transformer for Mighty Midget — 115-volt primary			
	Four Tap — for 55/70/85/100 watts	6A364G7	16.00

6A160 SERIES SOLDERING IRONS — 115 VOLTS§, 75 TO 140 WATTS — UL LISTED



Ideal for medium to heavy production, and maintenance and repair operations. Available with any of 12 different tips, calorized or ironclad.

Description		Cat. No.	List Price Each‡
Complete Iron Less Tip — Includes 6-foot two-conductor cordset			
	75 Watts 100 Watts 110 Watts 125 Watts 140 Watts	6A161 6A162 6A162G6 6A162G3 6A162G12	$14.95 14.95 15.50 15.50 15.50

Tips — Fit all irons listed above

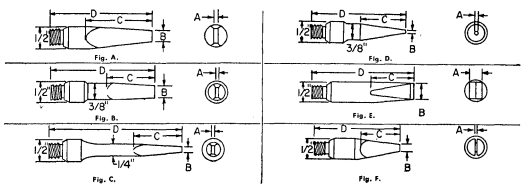
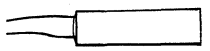


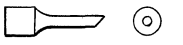
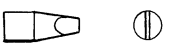
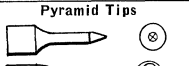
Fig.		A	B	C	D		
A. ½"-Dia. Chisel	Calorized	1/32	3/16	1½	2⅜	6D1P1	$1.05
	Ironclad	1/16	7/32	1½	2⅜	6D1P2	1.85
	Calorized	1/16	7/32	2¾	4	6D1P3	1.75
	Ironclad	3/32	¼	2¾	4	6D1P4	3.55
	Calorized	5/32	¼	1¼	2⅛	6D1P11	2.20
B. ⅜"-Dia. Chisel	Ironclad	1/16	3/16	1⅛	2⅜	6D1P8	1.85
	Calorized	1/32	5/32	1⅛	2⅜	6D1P6	1.05
	Ironclad	1/16	5/16	1⅛	2⅜	6D1P7	1.85
C. ¼"-Dia. Chisel	Ironclad	1/16	⅛	1	3⅛	6D1P5	1.75
D. Cone	Ironclad	1/16	1/16	13/16	2⅜16	6D1P12	1.80
E. Pointed Chisel	Ironclad	¼	13/32	1	1⅞	6D1P9	2.30
	Ironclad	¼	13/32	1	2⅜	6D1P10	2.75
F. Slim Chisel	Ironclad	1/16	5/32	⅞	2	6D1P19	3.00

Renewal Heater — 115 Volts§

	75 Watts	6A31	$4.50
	100 Watts	6A32	4.50
	110 Watts	7C342	4.80
	125 Watts	8A88	5.30
	140 Watts	7C474	5.30

§ Also available for 230-volt operation.
‡ Manufacturer's suggested resale price.

INTERCHANGEABLE THREADED TIPS For Penline-120, Pistol-grip, Lightweight, and Midget Irons

Description (Copper Tip, Surface Plating)		Cat. No.	List Price Each‡
Spade Tips	1/16" Dia—Nickel	6D4P1	$0.50
	5/32" Dia—Ironclad	6D4P2	1.40
	⅛" Dia—Nickel	6D4P3	0.50
	5/32" Dia—Ironclad	6D4P4	1.40
Chisel Tips	1/16" Dia—Nickel	6D4P5	0.50
	1/16" Dia—Ironclad	6D4P21	1.40
	3/32" Dia—Ironclad	6D4P6	1.40
	⅛" Dia—Nickel	6D4P7	0.50
	⅛" Dia—Ironclad	6D4P22	1.40
	5/32" Dia—Ironclad	6D4P8	1.40
	3/16" Dia—Nickel	6D4P9	0.50
	7/32" Dia—Ironclad	6D4P10	1.40
	5/32" Dia—Nickel	6D4P11	0.50
	3/16" Dia—Ironclad	6D4P12	1.40
Long Chisel Tips	3/16" Dia—Nickel	6D4P13	0.55
	7/32" Dia—Ironclad	6D4P14	1.50
Pyramid Tips	⅛" Dia—Nickel	6D4P15	0.50
	5/32" Dia—Ironclad	6D4P16	1.40
	11/32" Dia—Nickel	6D4P17	0.50
	3/8" Dia—Ironclad	6D4P18	1.40
Cone Tips	⅛" Dia—Nickel	6D4P19	0.50
	5/32" Dia—Ironclad	6D4P20	1.40

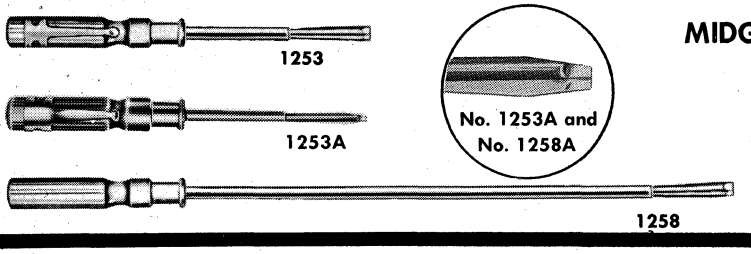
Quick-Wedge® SCREW-HOLDING Screwdrivers

14 Different Sizes Handle Every Screwdriving Job!

Hold - Start - Drive the Screw
AND THEY'RE UNCONDITIONALLY GUARANTEED

- One screwdriver drives many sizes of screws • Shockproof, unbreakable Tenite II handle • Hollow-ground bit fits any slotted screw • Use instead of conventional screwdriver • Tough, durable spring steel blades. Positively will not mar screw slot • Fast, positive action — easy to use • No pressure wedge to wear out • Foolproof construction.

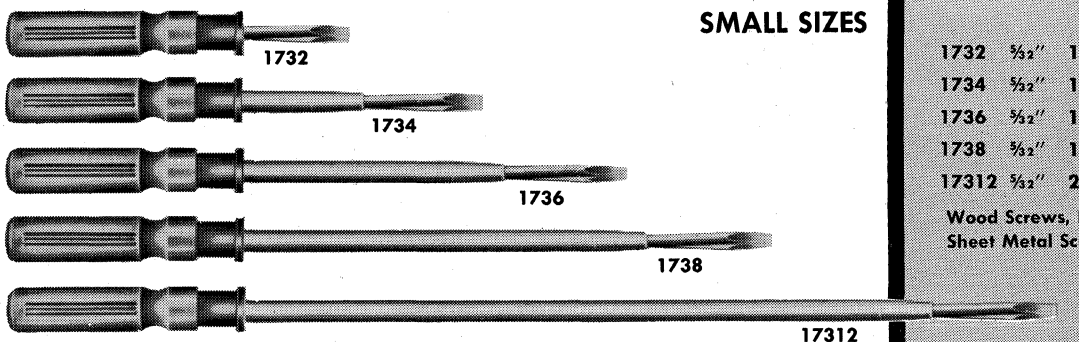
MIDGET SIZES



NO.	BLADE DIAM.	WT. LBS. PER DOZ.	DOZ.	EACH
1253	1/8"	9 oz.	$15.00	$1.25
1253A	1/8"	9 oz.	16.80	1.40
1258	1/8"	15 oz.	18.00	1.50
1258A	1/8"	15 oz.	19.80	1.65

Wood Screws, Bolts—No. 0 to No. 4
Sheet Metal Screws—No. 2 to No. 4

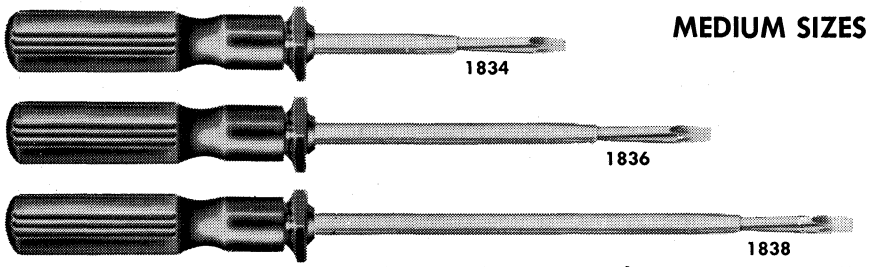
SMALL SIZES



1732	5/32"	1	$14.40	$1.20
1734	5/32"	1¼	15.00	1.25
1736	5/32"	1½	15.60	1.30
1738	5/32"	1¾	16.20	1.35
17312	5/32"	2	18.00	1.50

Wood Screws, Bolts—No. 3 to No. 7
Sheet Metal Screws—No. 3 to No. 6

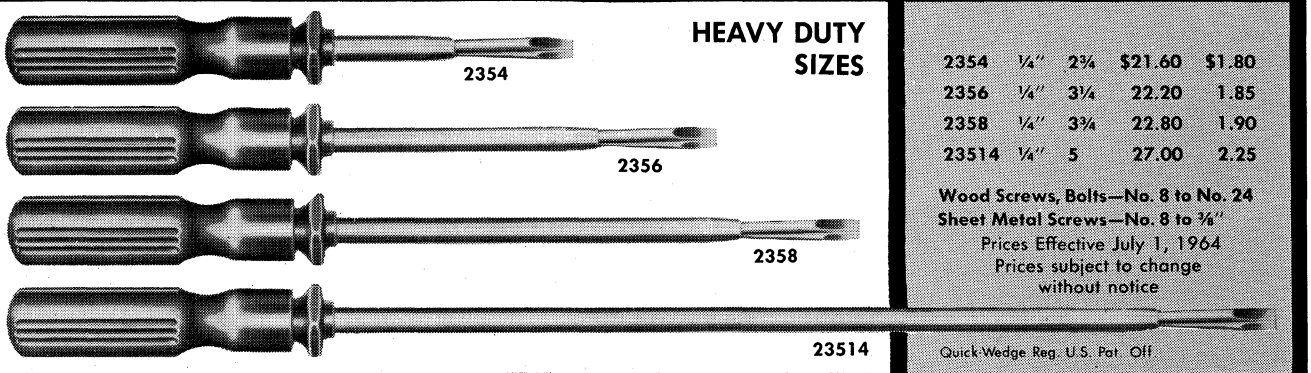
MEDIUM SIZES



1834	3/16"	2	$20.40	$1.70
1836	3/16"	2¼	21.00	1.75
1838	3/16"	2½	21.60	1.80

Wood Screws, Bolts—No. 6 to No. 12
Sheet Metal Screws—No. 6 to No. 12

HEAVY DUTY SIZES

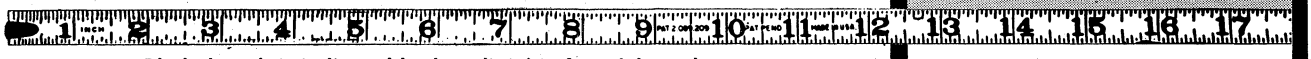


2354	¼"	2¾	$21.60	$1.80
2356	¼"	3¼	22.20	1.85
2358	¼"	3¾	22.80	1.90
23514	¼"	5	27.00	2.25

Wood Screws, Bolts—No. 8 to No. 24
Sheet Metal Screws—No. 8 to ⅜"

Prices Effective July 1, 1964
Prices subject to change without notice

Quick-Wedge Reg. U.S. Pat. Off.



Blade length is indicated by last digit(s) of model number.
("17312" has a 12" blade — "23514" has a 14" blade)

ELECTRICAL SIZES

All but No. 1732 (above) available with shockproof, Vinyl covered tubing, 15¢ additional per screwdriver. Specify "E" after number.

KEDMAN COMPANY

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Net

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GREENLEE TOOL CO

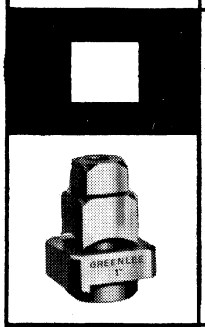
Division of Greenlee Bros. & Co.

CHASSIS PUNCHES

ROUND, SQUARE, "KEY," AND "D" TYPES

NO. 730 ROUND PUNCH

Swiftly cuts clean, accurate holes in radio chassis for sockets, switches, controls and other equipment. Operates simply with an ordinary wrench for drive power . . . just insert in a small drilled hole and turn drive screw. No reaming or filing . . . hole is smooth, perfect. 29 sizes from ½" to 3⅛" diameter. New Ball-Bearing Drive available for even easier, speedier operation.

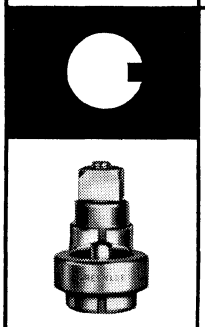


NO. 731 SQUARE PUNCH

Cuts square or oblong openings as desired. Available in five sizes for making ½", ⅝", ¾", ⅞", and 1" square holes. Drive screw fits into ½" hole, which can be drilled or made with ½" No. 730 GREENLEE Round Punch. Operates with an ordinary wrench for drive power. Individually packed.

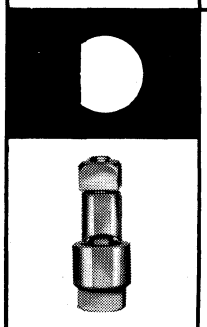
NO. 731-R KHP RELAY PUNCH

Makes clean, accurate, *finished* holes in up to 16-gauge metal for Potter & Brumfield KHP miniature relay sockets. Makes 1.015" x .859" hole.



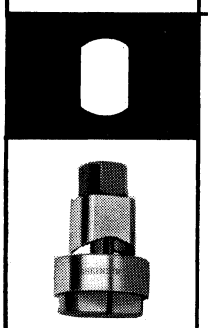
NO. 732 "KEY" PUNCH

Quickly, easily cuts holes for keyed radio sockets. Operates on same principle as other GREENLEE Radio Chassis Punches . . . an ordinary wrench supplies the drive power. In five sizes to make openings of 15/32", 15/16", 1 11/64", 1 17/64", 1 21/64". Drive screw fits into ½" hole. Individually packed.



NO. 733 "D" PUNCH

Simplifies and speeds the work of making "D"-shaped openings for high-frequency, miniature tube sockets and other equipment using this type opening. Available in ½" and ⅝" sizes. Operates on same principle as other GREENLEE Radio Chassis Punches with an ordinary wrench supplying the drive power. Drive screw fits into ⅜" drilled hole. Individually packed.



NO. 734 DOUBLE "D" PUNCH

Quickly makes standard electrical receptacle openings. Cuts standard hole 1⅛" dia. across parallel sides, 1⅜" dia. across rounded ends. Simply insert into a ½" hole and turn with an ordinary wrench. Does the work in less than five minutes . . . eliminates all tedious hand filing . . . gives a smooth, perfect opening.

PRICES...Nos. 730, 731, 731-R, 732, 733, 734

No. 730 ROUND PUNCH

Size	Net User Price	Size	Net User Price
½"	$2.60	1¾"	$5.60
9/16"	2.60	1⅞"	7.00
⅝"	2.60	2"	7.50
11/16"	2.60	2⅛"	11.20
¾"	2.60	2¼"	8.10
13/16"	2.60	2½"	13.20
⅞"	2.60	2¾"	18.30
15/16"	2.90	2 25/32"	12.60
1"	2.90	3"	25.50
1 1/16"	3.00	3⅛"	28.00
1⅛"	3.00	Following sizes also available with larger drive screw for cutting thicker metals (No. 730X)	
1 5/32"	3.00		
1 3/16"	3.00		
1 7/32"	5.50		
1¼"	3.00	1⅛"	6.00
1 5/16"	3.60	1 3/16"	6.00
1⅜"	3.60	1¼"	6.00
1½"	4.10	1⅜"	6.85
1⅝"	4.90	1½"	7.80

No. 731 SQUARE PUNCH

Size	Net User Price	Size	Net User Price
½"	$6.00	⅞"	$7.75
⅝"	5.90	1"	8.00
¾"	6.65		

No. 731-R KHP RELAY PUNCH

Size	Net User Price
1.018" x .861"	$13.75

No. 732 "KEY" PUNCH

Size	Net User Price	Size	Net User Price
15/32"	$5.40	1 17/64"	$6.70
15/16"	5.35	1 21/64"	7.50
1 11/64"	6.00		

No. 733 "D" PUNCH

Size	Net User Price	Size	Net User Price
½"	$4.65	⅝"	$4.95

No. 734 DOUBLE "D" PUNCH

Size	Net User Price
1⅛" x 1⅜"	$27.00

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ELECTRIC SOLDERING IRONS

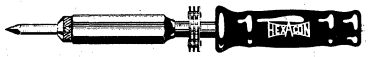
HEXACON

VOLTAGE RANGE: 6 to 250 OPERATES IDENTICALLY ON A.C. OR D.C., ANY CYCLE
STANDARD VOLTAGES 110/120, 121/130, 220/250 SPECIFY VOLTAGE ON ORDER

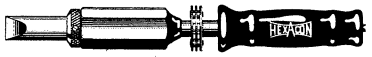
HEXACON

Equipped with flexible 6-ft. approved Neoprene rubber heater cord, which is water-proof, kink-free, and resistant to oil, abrasion and heat. Nickel-chromium replaceable heating elements, insulated with finest mica, protected by rugged outer housing. Replaceable tips.

PLUG-TIP IRONS



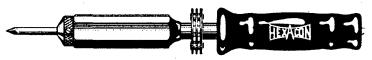
Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
P70	100	3/8"	1 1/8 lbs.	8.09	7.64
P100	110	3/8"	1 3/8 lbs.	8.47	7.95
P111	125	3/8"	1 3/8 lbs.	8.47	7.95
P115	150	3/8"	1 1/2 lbs.	8.75	8.23
P150	150	3/8"	1 1/2 lbs.	9.28	8.78
P153	175	3/8"	1 1/2 lbs.	9.63	9.11
P155	190	3/8"	1 1/2 lbs.	9.63	9.11
P151	175	1/2"	1 5/8 lbs.	10.01	9.14
P152	200	1/2"	1 5/8 lbs.	10.01	9.14
P200	200	5/8"	2 3/8 lbs.	10.47	9.25
P250	250	5/8"	2 3/8 lbs.	12.01	10.79



P300	300	7/8"	3 lbs.	14.21	11.86
P550	550	1 1/8"	4 3/8 lbs.	18.31	13.90

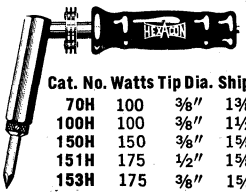
SUPER-POWERED IRONS

HIGHER SPEED SMALLER TIPS



Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
P114	100	1/4"	1 3/8 lbs.	9.28	8.89
P154	150	1/4"	1 1/2 lbs.	10.01	9.63
P238	200	3/8"	2 1/4 lbs.	10.82	10.30
P212	200	1/2"	2 1/4 lbs.	11.03	10.14
P338	300	3/8"	2 3/4 lbs.	15.44	14.84

HATCHET TYPE IRONS



Perfect Balance
Less Fatigue
See What You Solder

Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
70H	100	3/8"	1 3/8 lbs.	10.01	9.57
100H	100	3/8"	1 1/2 lbs.	10.22	9.70
150H	150	3/8"	1 5/8 lbs.	11.03	10.49
151H	175	1/2"	1 5/8 lbs.	11.55	10.68
153H	175	3/8"	1 5/8 lbs.	11.41	10.89
200H	200	5/8"	2 1/4 lbs.	12.01	10.78
300H	300	7/8"	3 lbs.	15.44	13.08

SCREW TIP IRONS

Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
85	90	1/2"	1 1/8 lbs.	9.10	8.48
120	120	5/8"	1 3/8 lbs.	10.01	9.09
170	175	1"	2 1/4 lbs.	12.71	10.78

225	250	1 1/8"	2 3/4 lbs.	15.02	12.47
350	350	1 3/8"	3 1/2 lbs.	17.58	13.72
500	500	1 5/8"	4 3/8 lbs.	20.02	14.51
700	700	1 3/4"	5 5/8 lbs.	36.40	29.23

INSTANT SOLDER GUNS

Solders in seconds. Weight only 8 oz. Lifetime tip, cannot bend or wear. Ideal for intermittent soldering. 120 volts, AC-DC.

Model G14 150 watts has 1/4" tip. **$5.99 Net**
Model G148 150 watts has 1/8" tip. **$5.99 Net**
Model G14K Kit has Model G14 solder gun, cutting tip, smoothing tip, core solder, sandpaper. **$7.07 Net**

SUPER-PENCIL IRONS

HOT TIP — COOL HANDLE

Weighs only 2 oz.

Short Reach 3"

All the advantages of a Soldering Pencil, but a full-fledged industrial soldering iron with nickle-chromium mica-wound element. Tiny tips outperform irons with larger tips and higher wattages.

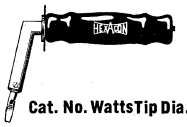
Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
25S	25	1/8"	1/2 lb.	5.15	4.94
25S20	20	1/8"	1/2 lb.	5.15	4.94
25S30	30	1/8"	1/2 lb.	5.15	4.94
25S35	35	1/8"	1/2 lb.	5.15	4.94
*25S50	50	1/8"	1/2 lb.	7.28*	5.67
26S	30	3/16"	1/2 lb.	5.22	5.21
26S35	35	3/16"	1/2 lb.	5.22	5.21
26S40	40	3/16"	1/2 lb.	7.39*	5.71
*26S50	50	3/16"	1/2 lb.	7.39*	5.71

FASTEST AND MOST DURABLE PENCIL IRON. Weighs but 2 oz.

*24S	50	1/4"	1/2 lb.	7.84*	5.92
*24S40	40	1/4"	1/2 lb.	7.84*	5.92
*24S60	60	1/4"	1/2 lb.	7.84*	5.92

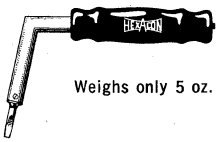
BANTAM HATCHET IRONS

PERFECT BALANCE
FOR INACCESSIBLE PLACES



Weighs only 3 oz.

Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
25H	25	1/8"	1/2 lb.	6.27	6.01
25H35	35	1/8"	1/2 lb.	6.27	6.01
*25H50	50	1/8"	1/2 lb.	7.67*	6.01
26H	30	3/16"	1/2 lb.	6.34	6.09
26H35	35	3/16"	1/2 lb.	6.34	6.09
*26H50	50	3/16"	1/2 lb.	7.77*	6.09
24H	50	1/4"	1/2 lb.	8.16*	6.23
24H40	40	1/4"	1/2 lb.	8.16*	6.23
*24H60	60	1/4"	1/2 lb.	8.16*	6.23

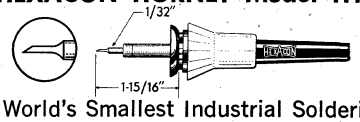


Weighs only 5 oz.

**30H	60	1/4"	7/8 lb.	6.86	6.53
**30H40	40	1/4"	7/8 lb.	6.86	6.53
**30H50	50	1/4"	7/8 lb.	6.86	6.53
**30H70	70	1/4"	7/8 lb.	6.86	6.53
**30H75	75	1/4"	7/8 lb.	6.86	6.53

**Extra 1/8" tip furnished with each iron.
*STANDARD EQUIPMENT **DUROTHERM** NON-STICKING LONG-LIFE TIPS.

HEXACON HORNET Model H10



World's Smallest Industrial Soldering Iron for Micro-Electronic Soldering

Cat. No. H10K Kit‡ (H10 Iron, 2 Tips and Sponge†).....*Net $7.21
Cat. No. H11K Kit (H11 Iron, 2 Tips and Sponge†).....*Net $7.21
Cat. No. H14K Kit (H14 Iron, 2 Tips and Sponge†).....*Net $7.21
*Tip Cleaning Sponge in Container

Cat. No. H10‡ Iron less tip, 12 Watts.....**Net $5.50**
Cat. No. H11 Iron Less tip, 17 Watts.....**Net $5.50**
Cat. No. H14 Iron less tip, 20 Watts.....**Net $5.50**
Iron with 3-wire cord and Nema plug available

Cat. No. 91 Package of 12 tip cleaning sponges in container.....**Net $2.20**

- Smallest Iron — Only 5 7/8"
- Lowest Wattage — 12 Watts
- Hot tip Gets In and Out Fast
- No Damage to Insulation
- Lightweight • Cool Handle‡

DUROTHERM NON-FREEZING TIP — 1/32" and 1/16" diameters

XTRADUR LONG-LIFE TIPS — 1/8" diameter

‡Plastic handle, cooled thru ventilated design and stainless steel mirror, reflects heat away from hand.

PINPOINT SOLDERING IRONS

FOR PINPOINT ACCURACY
ON PRECISION SOLDERING
Long Reach 4 1/2" (Weigh Only 3 oz.)

Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
P25	25	1/8"	1/2 lb.	5.15	4.94
P2530	30	1/8"	1/2 lb.	5.15	4.94
P2535	35	1/8"	1/2 lb.	5.15	4.94
*P2550	50	1/8"	1/2 lb.	6.55*	4.94
P26	30	3/16"	1/2 lb.	5.22	4.97
P2635	35	3/16"	1/2 lb.	5.22	4.97
P2640	40	3/16"	1/2 lb.	6.65*	4.97
*P2650	50	3/16"	1/2 lb.	6.65*	4.97
*P24	50	1/4"	1/2 lb.	7.49*	5.57
*P2440	40	1/4"	1/2 lb.	7.49*	5.57
*P2460	60	1/4"	1/2 lb.	7.49*	5.57
**P30	60	1/4"	7/8 lb.	6.27	5.94
**P3040	40	1/4"	7/8 lb.	6.27	5.94
**P3050	50	1/4"	7/8 lb.	6.27	5.94
**P3070	70	1/4"	7/8 lb.	6.27	5.94
**P3075	75	1/4"	7/8 lb.	6.27	5.94

**Extra 1/8" tip furnished with each iron.
*STANDARD EQUIPMENT **DUROTHERM** NON-STICKING LONG-LIFE TIPS.

CORD AND CORD SETS

2 WIRE 18 GAUGE, 2 CONDUCTOR 18/2

Cord Assembled to Iron Cat. No.	Extra Net	Cord and Plug Only Cat. No.	Extra Net
* SP2S	No	SP2S	1.05
**PN2S	Extra	PN2S	1.05
SJ2S	Charge	SJ2S	1.05
HD2S	.49	HD2S	1.40
KSJ2S	2.21	KSJ2S	2.94
KSV2S	2.21	KSV2S	2.94
KPN2S	.91	KPN2S	1.65

3 WIRE 18 GAUGE, 3 CONDUCTOR 18/3

Cord Assembled to Iron Cat. No.	Net	Cord and Plug Only Cat. No.	Net
* SP3N	1.05	SP3N	1.79
SP3C	1.05	SP3C	1.79
**SJ3N	1.05	SJ3N	1.79
SJ3C	1.05	SJ3C	1.79
HD3N	1.12	HD3N	1.86
HD3C	1.12	HD3C	1.86
KSJ3N	3.15	KSJ3N	3.85
KSV3N	3.15	KSV3N	3.85

*Standard on INSTRUMENT IRONS **Standard on LARGE IRONS

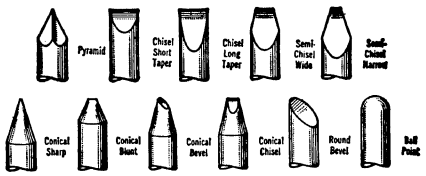
HEXACON ELECTRIC COMPANY

© U.C.P., Inc.

HEXACON LONG-LIFE SOLDERING TIPS
OUTLAST COPPER TIPS UP TO 20 TO 1

HEXACON

DUROTHERM NON-FREEZING TIPS: Iron coated and immunized. Absolutely prevents tips from sticking. Minimum loss of heat delivery.
Note: Also available; XTRADUR Iron-coated Pretinned Tips. Multi-coated for extra long wear which immunizes shank of tip from solder, thus preventing adhering of solder, except on working surface of tip — prevents creeping and spilling of solder.

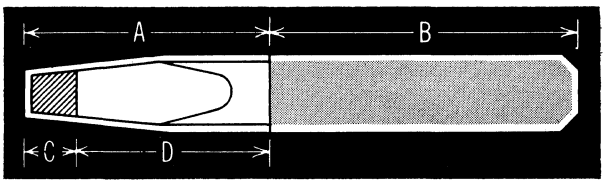


BASIC TIP SHAPES

YOUR SPECIAL TIPS QUOTED ON REQUEST
FIT ALL MAKES

CONSTRUCTION OF DUROTHERM NON-FREEZING TIP — U.S. Pat. No. 3,109,231

A — Heavy Iron Coating
B — Scale-Resistant **DUROTHERM COATING** Bonded to Base Copper
C — Pretinned Section
D — Multi-coated and immunized



LONGEST WEARING AND BEST PERFORMING TIP EVER PRODUCED

HEXCLAD, XTRADUR AND DUROTHERM TIPS AVAILABLE IN ALL CATALOG NUMBERS LISTED BELOW

Tip No.	Style of Point	Net Price
⅛" x 2¼" Fit Iron Nos. 25S, P25, 25H		
Tip No.	**Style of Point**	**Net Price**
HT248D	Pyramid	$1.61
HT249D	Chisel, short	1.61
HT376D	Chisel, long	1.61
HT560D	Semi-chisel	1.61
HT222D	Conical, blunt	1.61
HT331D	Conical, sharp	1.61
HT638D	Round,bevel	1.61
HT361D	Chisel, TT 1/16"	2.00
HT693D	R. B., TT 1/16"	2.00
HT1044D	R. B., TT 1/32"	2.00
HT609	Chisel, long	1.61
HT610	Semi-chisel	1.61
3/16" x 2¼" Fit Iron Nos. 26S, P26, 26H		
HT251D	Pyramid	1.68
HT294D	Chisel, short	1.68
HT195D	Chisel, long	1.68
HT207D	Semi-chisel,N	1.68
HT190D	Semi-chisel, W	1.68
HT214D	Conical, blunt	1.68
HT281D	Conical, sharp	1.68
HT288D	Pryramid, TT 1/8"	1.79
HT290D	Chisel, TT 1/8"	1.79
HT548D	S-Chisel, N, TT 1/8"	1.79
HT479D	Conical TT 1/8"	1.79
HT220D	R.B., TT 1/16"	2.07
HT392D	Chisel, long	1.68
HT423D	Semi-chisel	1.68
¼" x 2¼" Fit Iron Nos. 24S, P24, 24H		
HT325D	Pyramid	1.93
HT553D	Chisel, short	1.93
HT313D	Semi-chisel, W	1.93
HT397D	Semi-chisel, M	1.93
HT417D	Semi-chisel, N	1.93
HT418D	Conical, blunt	1.93
HT102D	Round, bevel	1.93
HT586D	Conical, S-chisel	2.00
HT691D	Chisel, TT 1/16"	2.17
HT699D	S-chisel, Lg. TT 1/8"	2.00
HT451D	Chisel, L, TT 1/8"	2.00
HT324D	Chisel, S, TT 1/8"	2.00
HT513D	Conical, TT 1/8"	2.00
HT463D	Chisel, L, TT 3/16"	2.00
HT841D	S-chisel, N, TT 1/8"	2.00
HT692D	Chisel, L, TT 1/8"	2.17
HT552D	S-chisel, 3/8" Shank	2.42
¼" x 2¾" Fit Iron Nos. P30, 30H		
HT252D	Pyramid	1.93
HT253D	Chisel, short	1.93
HT202D	S-chisel, Wide	1.93
HT426D	S-chisel, N	1.93
HT131D	Conical, sharp	1.93
HT263D	Pyramid, TT 1/8"	2.00
HT264D	Chisel, Sh, TT 1/8"	2.00
HT356D	Chisel, M, TT 1/8"	2.00
HT685D	Chisel, Lg, TT 1/8"	2.00
HT452D	Conical, TT 1/8"	2.00
HT580D	Conical, TT 3/16"	2.00
HT473D	Chisel, TT 3/16"	2.00
HT130D	Round,bevel	1.93
¼" x 3" Extra long for P30, 30H Also for competitive makes		
HT413D	Pyramid, long	1.93
HT468D	Chisel, long	1.93
HT299D	Semi-chisel, W	1.93
HT328D	Semi-chisel, N	2.00
HT708D	S-chisel, N, Lg	2.00
HT453D	Conical, bevel	2.00
HT234D	Chisel, Lg, TT 3/32"	2.00
HT487D	Chisel, Lg, TT 1/8"	2.00
HT519D	Chisel, Lg, TT 1/8"	2.00
HT362D	Conical groove	2.21
¼" x 3¾" Extra long for P30, 30H Also for competitive makes		
HT563D	Pyramid, long	1.93
HT188D	Chisel, long	1.93
HT382D	Semi-chisel, W	1.93
HT626D	Pyramid, TT 1/8"	2.00
HT698D	S-chisel, TT 1/8"	2.00
HT603D	Chisel, Lg, TT 1/8"	2.00
HT391D	Semi-chisel, N	2.00
HT277D	Chisel, Lg, TT 3/16"	2.00
¼" x 4" Fit Irons P114, P154, P214		
HT496D	Chisel, long	2.14
HT494D	Semi-chisel, N	2.14
HT495D	Chisel, Lg, TT 3/16"	2.24
¼" x 4½" Fit Irons P114, P154, P214		
HT258D	Pyramid	2.21
HT259D	Chisel, short	2.21
HT230D	Semi-chisel, W	2.21
HT460D	Conical, bevel	2.31
⅜" x 4⅛" Fit Iron Nos. P100, P150, P238, P338, 100H, 150H		
HT255D	Pyramid	2.07
HT493D	Chisel, short	2.07
HT151D	Semi-chisel, W	2.07
HT183D	Semi-chisel, N	2.07
HT108D	Conical,sharp	2.07
HT114D	Conical, blunt, Sm	2.07
HT240D	Conical, blunt M	2.07
HT374D	Semi-chisel, W	2.07
HT265D	Pyramid, TT ¼"	2.42
HT266D	Chisel, Sh, TT ¼"	2.42
HT335D	Chisel, Lg, TT ¼"	2.42
HT177D	S-chisel, W, TT ¼"	2.42
HT577D	S-chisel, N, TT ¼"	2.42
HT145D	Chisel, Sh, TT 3/16"	2.42
HT475D	S-chisel, N, TT 3/16"	2.42
HT289D	Pyramid, TT ⅛"	2.42
⅜" x 4" Fit Iron Nos. P100, P150, P238, 100H, 150H; Extra long for P70, 70H; Also other makes		
HT566D	Pyramid	2.07
HT198D	Chisel, short	2.07
HT918D	S-chisel, Sh, M	2.07
HT365D	Semi-chisel, thin	2.07
HT370D	S-chisel, Lg, N	2.42
HT140D	Semi-chisel, W	2.07
HT430D	Round,bevel	2.07
HT319D	S-chisel, N, TT ¼"	2.42
HT481D	Chisel, N, Sh, TT ⅛"	2.42
⅜" x 3¾" Fit Iron Nos. P70, 70H; Also fit other makes		
HT254D	Pyramid	2.07
HT488D	Chisel, short	2.07
HT129D	Semi-chisel, W	2.07
HT510D	Conical, sharp	2.07
HT309D	Conical, blunt	2.07
HT464D	Conical, chisel	2.21
HT339D	S-chisel, N, TT ¼"	2.42
HT581D	Chisel, Sh, TT ¼"	2.42
HT498D	Chisel, Lg, TT ¼"	2.42
HT291D	S-chisel, W, TT ¼"	2.42
HT497D	Chisel, Lg, TT 3/16"	2.42
½" x 4⅛" Fit Iron Nos. P151, 151H, P212		
HT257D	Pyramid	3.26
HT293D	Chisel, short	3.26
HT323D	Chisel, short, blunt	3.26
HT163D	S-chisel, N	3.26
HT194D	Semi-chisel, thin	3.40
HT444D	S-chisel, Lg, Taper	3.50
HT203D	Conical, blunt	3.26
HT446D	S-chisel, Lg, Taper	3.50
HT123D	S-chisel, N, TT ⅜"	3.50
⅝" x 4" Fit Iron Nos. P125, P200, 200H, P250		
HT256D	Pyramid	3.43
HT891D	Chisel, long	3.43
HT178D	Semi-chisel, W	3.43
⅝" x 4⅞" Fit Iron Nos.		
HT260D	Pyramid	3.43
HT499D	Chisel, long	3.43
HT371D	Semi-chisel, N	3.57
HT180D	Semi-chisel	3.43
HT802D	S-chisel, TT ⅜"	3.71
HT766D	Shisel, TT 1/16"	3.71
⅞" x 4¾" Fit Iron Nos. P300, 300H		
HT261D	Chisel, short	5.53
HT179D	Semi-chisel, W	5.32
1⅛" x 5¼" Fits No. 500		
HT262X	Chisel	7.74
HT229X	Semi-chisel	7.74
HT233X	Pyramid	7.74

SCREW TIPS

All Conventional Semi-chisel Types

Tip No.	Dia.	Thread	Fits All Makes Iron No.	Net
HT267X	7/16"	1/4-20	50	1.82
HT268X	½"	5/16-18	60 and 85	2.35
HT269X	⅝"	3/16-18	120	2.94
HT270X	⅞"	½-13	130	4.27
HT271X	1"	½-13	170	4.87
HT272X	1⅛"	⅝-11	225	6.48
HT273X	1⅜"	⅝-11	350	9.10
HT274X	1⅝"	⅝-11	500	12.29
HT275X	1¾"	⅝-11	700	14.60

HORNET TIPS

TIPS FOR IRONS Nos. H10 and H11

No.	Dia.	Duotherm Net	Xtradur Net
HT866D	1/32"	.84	
HT867D	1/32"	.84	
HT868D	1/16"	.84	
HT869D	1/16"	.84	
HT864X	⅛"		.63
HT870X	⅛"		.63
HT871X	⅛"		.63
HT873X	⅛"		.63

TIPS FOR IRON No. H14

No.	Dia.	Xtradur Net
HT654X	⅛"	.84
HT655X	⅛"	.84
HT656X	3/16"	.63
HT657X	3/16"	.63
HT658X	⅛"	.84
HT659X	⅛"	.84

CATALOG NOS. shown are for DUROTHERM. For HEXCLAD drop "D"; cost approximately 30% less than DUROTHERM. For XTRADUR substitute "X" for "D"; cost approximately 10% less than DUROTHERM.
ABBREVIATIONS: TT, Turned to; S-chis, Semi-chisel; W. Wide; N, Narrow; Lg, Long; Sh, Short; L, Large; M, Medium; Sm, Small; RB, Round Bevel.
SAMPLE TIPS for your evaluation. Ask for new Tip Sketch Catalog with detailed sketches of 180 Standard Coated Tips.

SOLDERING ACCESSORIES

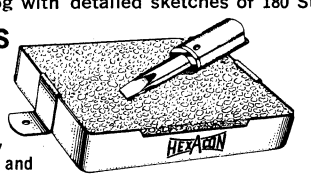
HEAT SINKS — Copper Tipped Clips

Net Price $.56 No. 34C 1⅛" Long
Net Price $1.47 No. 60A 2½" long
Net Price $1.47 No. 30A 1½" long

Protect heat sensitive components such as transistors and diodes from thermal damage.

TIP CLEANING SPONGE IN METAL TRAY

Insures reliability of soldered joints and extends tip life. Eliminates contimination. Pure cellulose sponge contains no harmful acids.



PRICES

Sponge in Metal Tray	#810.....	$1.12 Net
Sponge only	#8101....	.42 Net
Tray only	#8102....	.70 Net

ANTI-WICKING TWEEZERS Solid Berillium Copper

Cat. No.	Gauge	Net Price	Cat. No.	Gauge	Net Price
817	16-18	$5.46	820N	20*	$5.46
821	20-22	5.46	822N	22*	5.46
825	24-26	5.46	824N	24*	5.46
830	28-30	5.46	826N	26*	5.46

Prevents harmful effects of excess capillary action of solder along stranded wire beneath insulation. Order tool number by wire size being used.
*"N" Type Tweezers are made for one gauge wire only (not for a range of sizes). Therefore give better fit on wire for greater efficiency. Shorter tip hole provides for close inspection gap on precision soldering such as called for in current NASA specifications.

HEXACON ELECTRIC COMPANY

JIC ELECTRONIC TOOLS FOR PRODUCTION, SERVICE & MAINTENANCE

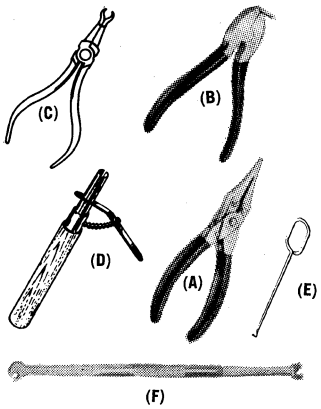
SPECIALIZED TOOLS

A carefully selected group of tools, widely used, for maintenance and service of instruments, panel boards, relays, office and telecommunication equipment.

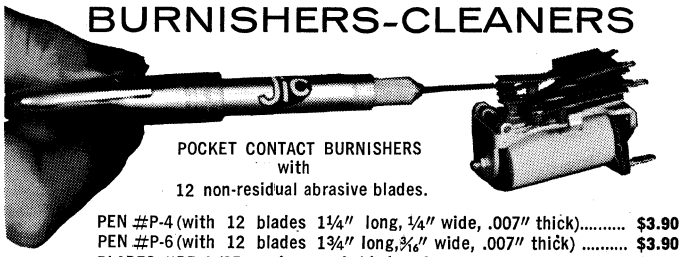
(A) PLS-7 Parallel Duck bill plier, 6" long **$6.98**
(B) PLS-44 Inserting & removing plier, 5½" long **$6.46**
(C) S-42 Plier, lamp cap extractor, 5" long **$4.32**
(D) S-339 Switchboard lamp extractor **$1.65**
(E) M-120 Hook spring pull, 6"..... **$1.19**
M-125 Hook spring push, 6"..... **$1.19**

Adjustment slim open end wrenches, bent 90° one end.

(F) DW-4 8" long, ¼" opening **$2.48**
DW-16 8" long, 3/16" opening **$2.48**
DW-32 8" long, 7/32" opening **$2.48**



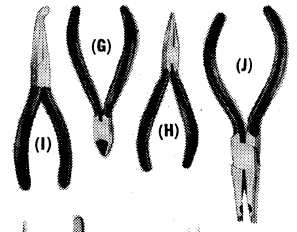
BURNISHERS-CLEANERS

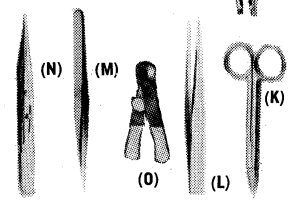


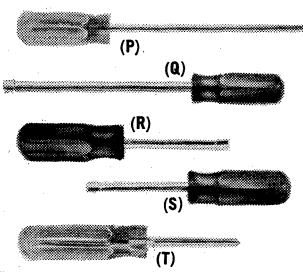
POCKET CONTACT BURNISHERS with 12 non-residual abrasive blades.

PEN #P-4 (with 12 blades 1¼" long, ¼" wide, .007" thick)..... **$3.90**
PEN #P-6 (with 12 blades 1¾" long, 3/16" wide, .007" thick) **$3.90**
BLADES #RB-4 (25 replacement blades for P-4) **$3.75**
BLADES #RB-6 (25 replacement blades for P-6) **$3.75**

PRODUCTION TOOLS





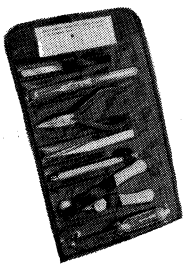


Precision group of high-quality hand tools widely used in production and assembly of electronic components and equipment.

(G) PL-3 DIAGONAL CUTTING PLIER, 4½" **$4.15**
(H) PL-6 CHAIN NOSE PLIER, 4½" **$3.80**
(I) PLS-9 PLIER, BENT NOSE DUCK BILL, 5½" **$4.92**
(J) PL-10 CHAIN NOSE PLIER with cutter on tip, 6" **$4.96**
(K) FS-66 FILAMENT CUTTING SCISSOR, 4" **$2.98**
(L) TW-57 TWEEZER, FINE POINTS, 4½" **$1.65**
(M) TW-58 TWEEZER, BRASS non-magnetic, extra fine points, 5" **$1.98**
(N) W-59 Slide lock tweezers, corrugated point 5½"..... **$2.96**
(O) WS-61 Wire stripper, 12 to 26 gauge **$1.38**
(P) M-140 Screwdriver, beryllium copper, 8½" long **$1.38**
(Q) M-145 Nut driver ¼", length 9" **$1.90**
(R) M-150 Nut driver 3/16", Length 3½" **$1.38**
(S) M-155 Nut driver 7/32", Length 3½" **$1.38**
(T) M-160 Combination reversible phillips and standard screwdriver **$2.48**

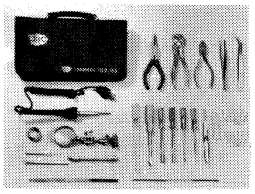
ELECTRONIC TOOL KITS

NEW COMPACT ELECTRONIC KIT



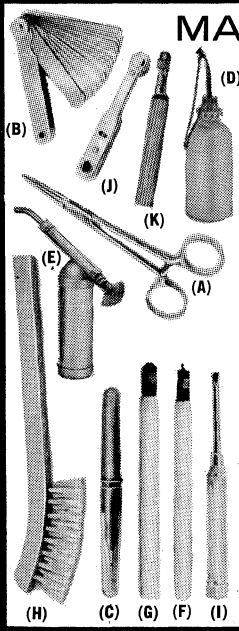
A set of most widely used precision tools for servicing all type of electronic equipment. Packaged in sturdy roll up vinyl protective case. Kit contains: chain nose plier, wire stripper, injecting oiler, fine nose tweezer, industrial burnisher, pin vise, combination screw and ¼" nut driver. **KE-7 $9.90.**

MASTER 20 PIECE SERVICE TOOL KIT



Ideal kit for service and repair of radio, TV, instruments and office equipment. Comes in protective leatherette zippered case. Kit contains: Diagonal chain nose and groove grip pliers, soldering iron with solder core, pen burnisher with 12 blades, straight and bent nose tweezers, 2 jewelers screw drivers, nut drivers ¼" and 3/16", standard and phillips screwdrivers, 2 needle files, magnifier, pin vise, aligner and chisel. **K-600 $24.75.**

MAINTENANCE AND SERVICE TOOLS



High-quality precision-designed tools for ease in maintenance and service of delicate electronic equipment.

(A) M-100S Retriever clamp, straight type, 5½" long **$4.74**
M-100C Retriever clamp, curved type, 5½" long **$4.88**
(B) T-720N Straight thickness gauge, 26 blades Length 3" .0015—025" **$3.90**
(C) OS-84 Precision injecting oiler, 6" long **$1.89**
(D) S-393 Plastic 4 oz. Industrial oiler **$3.90**
(E) S-395 Spring loaded pressure type oiler 4 oz. **$4.90**
(F) S-81 Standard screw starter, nylon handle **$2.40**
(G) S-82 Phillips screw starter, nylon handle **$2.50**
(H) WB-70 Stainless steel wire brush 9" long wire .005" filament..... **$1.85**
(I) M-50 Reversible nylon shaft screwdriver **$1.68**
(J) M-130 Ratchet offset screwdriver **$1.29**
(K) M-135 Pin vise **$1.18**

KONTACT 60 AEROSOL CONTACT CLEANER

For contacts, switches, controls, tuners, all Electronic Equipment. Leaves anti-corrosion film and long-lasting lubricant.

K-60 6 oz. can with needle injector..... **$1.98**

WRITE FOR COMPLETE CATALOG OF J.I.C. PRECISION TOOLS

JONARD INDUSTRIES CORP., PRECISION TOOLS DIV.

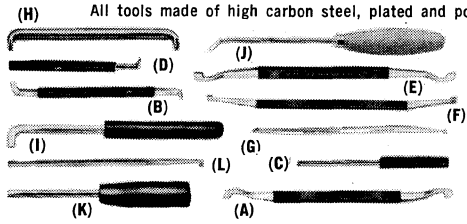
Net
© U.C.P., Inc.

J.I.C PRECISION TOOLS

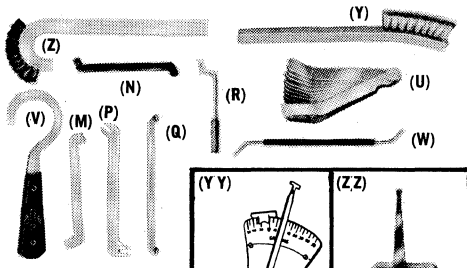
FOR RELAY, COMMUNICATION & INSTRUMENTS

RELAY SPRING ADJUSTING TOOLS

All tools made of high carbon steel, plated and polished, heat treated and tempered to exact requirements. Insulated handles for work on live equipment.

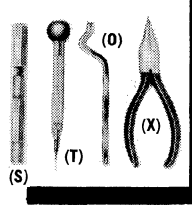


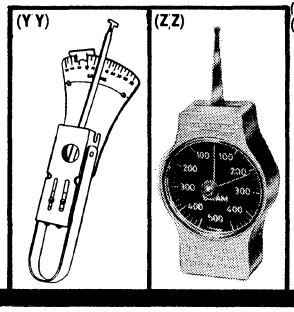
(A) SA-2	Offset type, 6½″ long, saw slot both ends .032″	$2.48
(B) SA-6A	Cross & lengthwise slots, 5½″ long. Slot .030″	$2.45
(C) SA-7	One end saw slot straight 4½″ long. Slot .015″	$1.35
(D) SA-8	Heavy duty. Round head, 4½″ long. Cross slot .045″	$2.48
(E) SA-16	Offset type 6½″ long, saw slot both ends .018″	$2.40
(F) SA-17	Offset slim type. Saw slot both ends .023″ 8″ long	$2.95
(G) SA-20	Opposite-faced thin headed slots. 7″ long Slots .022″	$3.50
(H) SA-24	Crosswise slots. 5½″ long, Slots .040 & .028″	$2.88
(I) SA-25	Angled. 6½″ long. Saw slot .032″	$2.48
(J) SA-143	Bent, 8″ long, Saw slot .025″	$2.28
(K) SA-163	Straight driver type, 5½″ long, cross slot .038″	$2.19
(L) SA-175	Closely set saw slot, 5¼″ long, slot .031″	$2.92



RELAY & INSTRUMENT TOOLS

(M) AB-21	Adjuster, Armature, 4″ long, slot width each end .110″	$1.30
(N) AB-20	Adjuster, Armature, 3 slots .114″	$1.40
(O) SB-22	Adjuster, Armature stop, 5″ long, slots .032″	$1.48
(P) S-187	Adjuster, double dog, 4″ long, slot both ends. 3/32″	$1.64
(Q) S-201	Adjuster, aid spring, 4¼″ long, slot both ends .034″	$2.49
(R) J-34	Adjuster, pole piece, 3″ long	$1.68
(S) FW-24	Hex wrench, double end, with screw driver, 4¾″ long, 7/32″ and ¼″ hexagon	$2.70
(T) J-23	Screwdriver, guide pin 4½″ long	$3.60
(U) T-255	Angled thickness gauge, 9 blades .009″ to .026″	$2.24
(V) BC-23	Bank cleaner, abrasive surface 1½″ dia. 6″ long	$2.49
(W) S-457	Wire & spring aid, bent 30° opposite ends, 5½″ long	$1.38
(X) PL-8	Spring duck bill plier, 5½″ long	$4.40
(Y) WB-65	Nickel silver wire brush, 9″ long	$1.95
(Z) HB-75	Curved hair brush. Radius 1¾″, Length 8″	$2.35





SPRING TENSION GAUGES (Y Y)

Precision-made to accurately determine the setting, testing and adjusting of relay spring tension and other delicate electronic tensioned movable components.

G-10	0-10 grams	$6.48	GP-50	0-50 grams (preset)	$7.48
G-30	0-30 grams	$6.48	G-150	0-150 grams	$6.48
G-50	0-50 grams	$6.48	G-700	0-700 grams	$7.96

DYNAMOMETERS (Z Z)

Dial gauges to determine force required to actuate delicate mechanisms.

- Spring tension indicator
- Stylus pressure gauge
- Verification of contact blades.

GD-5	5-50 grams	$13.55
GD-15	15-150 grams	$13.55
GD-100	100-1000 grams	$31.25

RELAY TOOL KITS

MASTER 15-PIECE RELAY TOOL KIT

Precision-made and professionally-designed group of new tools for adjusting and maintaining relays, contactors, switches, controls, and other components for the telecommunication and electronic industries.

Kit contains: 2 spring adjusters, tension & thickness gauges, Duck Bill plier, Screw Driver, Tweezer, Mirror, 4-way Tool, Brush, Armature & Stop Benders, Contact Spray, Contact Burnisher. **KIT K-55 $34.00**

NEW COMPACT RELAY ADJUSTING KIT

Precision-made tools for setting, adjusting and testing most type relays. All tools highly polished and made of finest quality steel for most accurate and delicate work. Packaged in fine protective zippered case.

Kit contains: Spring adjuster, Armature bender, Arm bender, Relay spring Duck Bill Plier, Burnisher, Tension gauge 0-50 gram. **KIT KR-6 $19.90**

RELAY & CONTACT BURNISHER-CLEANERS

DIAMOND BURNISHERS

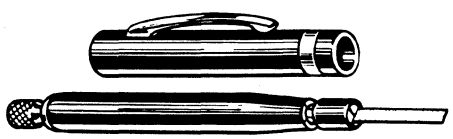
Exclusive Features:
- Strong abrasive power
- Long lasting

Consists of abrasive Diamond particles - Developed for any type contacts: Silver, Platinum, Gold, Palladium, Tungsten, Molybdenum - Length 5⅝″ - Diamond coated face 1″ x ¼″ - Nylon Shaft - Three types to meet every application: Type 200 (coarse) for Industrial Relays - Type 300 (medium) for Intermediate and Telephone relays - Type 400 (fine) for Sensitive Relays.

K-234 Set of 3 ..... **$14.85**
Individual spatulas and Kits packaged in rigid plastic boxes.

D-200	Shaft green ..	$4.95
D-300	Shaft red	$4.95
D-400	Shaft blue	$4.95

POCKET-TYPE BURNISHERS



Used for cleaning general type relay contacts. Economical—supplied with 6 non-residual abrasive replaceable blades stored in pen barrel. Pen made of sturdy plastic for dielectric work. Length 4½″ Dia. ⅜″ Blades 3/16″ wide 1¾″ long .007″ and .0035″ thick.

PEN #PB-7 (with 6 blades .007″ thick).....	$3.48
PEN #PB-3 (with 6 blades .0035″ thick)....	$3.78
BLADES #B-7 (25 replacement blades for PB-7)	$3.55
BLADES #B-3 (25 replacement blades for PB-3)	$3.65

ECONOMY BURNISHERS

For Industrial and general type contacts. Flexible, Non-residual. Leave no grit or dust and will not affect contact points. Plastic insulated handles for working on live contacts. Packaged in vinyl pouches for full protection.

(Standard packages 48 pcs.)

OB-1 (for fine contacts. Abrasive coated 3½″ long, 3/16″ wide, .007″ thick)..... **$.23 ea.**

(Standard Packages 48 Pieces)

OB-2 (for extra sensitive points. Non-abrasive, nickel plated) 3½″ long, ¼″ wide, .010″ thick ..... **$.42 ea.**

(Standard Packages 24 Pieces)

OB-3 (for general purpose contacts. Abrasive—cadmium plated. Hard molded handle. 3½″ long, ¼″ wide, .010″ thick) ..... **$.65 ea.**

OB-4 (for industrial use. Abrasive—cadmium plated. Hard molded handle. 3½″ long, ¼″ wide, .020″ thick) ..... **$.78 ea.**

WRITE FOR COMPLETE CATALOG OF J.I.C PRECISION TOOLS

JONARD INDUSTRIES CORP., PRECISION TOOLS DIV.

© U.C.P., Inc.

Available in the 7 lb. bench reel, 1 lb. dispenser carton.

New Easy Dispenser Pak 60/40-18 S.W.G.

Latest PC (Printed Circuit) Pak 60/40 22 S.W.G.

TECHNICAL ADVANTAGES

Ersin Flux is exclusive to Multicore and will not be found in any other solder. It is a high-grade, water white resin, homogeneously activated.

Ersin Flux has a vigorous fluxing action and possesses the non-corrosive and protective features of the original resin. Soldered joints made with Ersin Flux do not corrode, even after prolonged exposure to any degree of humidity. It has been tested under climatic conditions ranging from the Arctic to the tropics.

Ersin Flux reduces the surface tension of molten solder causing it to wet metals rapidly, increasing speed of operation with resultant production economies.

Free from objectionable odors. Non-toxic in use.

Leaves nothing but pure resin on the work after soldering and may be used whenever plain resin is specified.

Complies with all pertinent federal specifications QQS-571.

Multicore construction. 5 separate cores of flux eliminate possibility of no flux in a portion of the wire, which may occur in single cored solder.

Guaranteed continuity of the flux stream prevents dry joints, i.e., those having high electrical resistance.

Although there are 5 cores of flux in Multicore, the total percentage of flux to solder is less than many single cored solders.

Very rapid melting results from the multiple core construction, which provides thinner walls of solder, than are found in same gauge single cored solder.

Multicore's unique properties make perfect joints possible on difficult metals and alloys, even if oxidized.

Ability to tin rapidly produces perfect joints with less solder. Greater coverage per pound.

Ersin Multicore Solder is non-toxic in use. Cadmium is completely eliminated. The quantity of antimony is less than government standards allow. There is no danger of harmful effects caused by such impurities.

Every package of Ersin Multicore is labelled with the exact tin/lead content. This precise labelling results from Multicore's precise manufacturing methods.

SPECIAL ALLOYS AND EXTRA FINE GAUGES

ONLY from ERSIN Multicore — For IMMEDIATE OFF-THE-SHELF DELIVERY*

ALLOY	S.W.G.	CHARACTERISTICS
H.M.P.	16-18	High Melting Point—565°F
L.M.P.	16-18-22	Low Melting Point—354°F
63/37	16-18-20-22 Fine Gauges 24-28-32	Eutectic—361°F
SAVBIT	14-16-18-20-22	Copper-Loaded—419°F

NOTE: Bit of soldering iron used should always be 108°F above melting point of alloy.

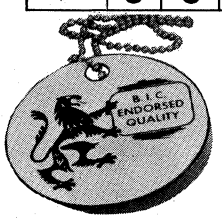
*ERSIN Multicore's national network of industrial distributors—in 50 states—facilitates prompt off-the-shelf delivery at factory-low prices.

STANDARD GAUGES TIN/LEAD ALLOYS

For the finest wire cored solder— SPECIFY ERSIN MULTICORE 5-CORE

EXTRA FINE GAUGES

ALLOY	4	16	18	20	21	22	24	28	32	34	S.W.G.
60/40	●	●	●	●	●	●	●	●	●	●	
50/50	●	●	●								
45/55	●	●	●								
40/60	●	●	●								



FREE EVALUATION TEST SAMPLE— address request on company letterhead to Dept. MY1294.

Multicore conforms to all Applicable Federal Specifications

COPPER-LOADED SAVBIT ALLOY

Multicore's SAVBIT Alloy is entirely new and different—it is patented.

Copper-loaded **SAVBIT** stops the wear and erosion of copper soldering iron tips . . . increases tip life by 1,000%.

Characteristics and specifications:

Savbit Alloy is available in Ersin Multicore 5-Core Solder containing non-corrosive extra fast Ersin flux in 14, 16, 18, 20 and 22 gauge.

Excellent conductivity, tensile and shear strength.

Available in the 7 lb. bench reel and 1 lb. Dispenser Carton

MULTICORE SALES CORPORATION

© U.C.P., Inc.

LOWEST COST INDUSTRIAL QUALITY SOLDERING IRONS!

Every SIDCO handle and soldering tip is unconditionally guaranteed to give satisfactory service — in the opinion of the user — or it will be replaced without charge.

Every SIDCO heating element and handle is listed by Underwriters' Laboratories.

Every SIDCO heating element is individually tested for wattage to a tolerance of ± 3%.

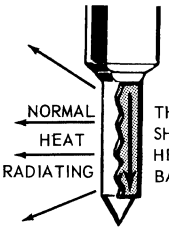
SIDCO®

INTERCHANGEABLE INDUSTRIAL SOLDERING TIPS

Manufactured by Electronic IDEAS Incorporated

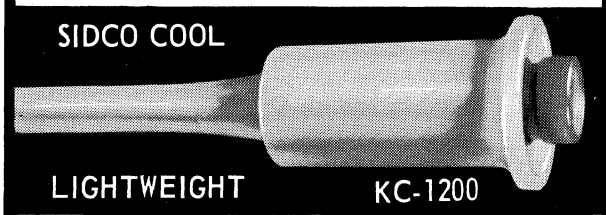
Choice of major missile and industrial manufacturers / Meets Spec. W-S-570a / (UL) (CSA) / Patent No. 2,997,684 / Made in U.S.A.

Extras — Available *only* from SIDCO



THERMOSHIELD™ catches the heat normally radiated from the metal body and SQUEEZES it out the end through the tips' working surface. Tests indicate 25% greater soldering efficiency with THERMOSHIELD™. EXTRA BONUS — No burned insulation in tight spots — only the working surface is hot!

Top Quality, 100% Nylon, Lightweight, Cool, Unbreakable, Dust Repellent, Boilable Soldering Iron Handles



Patented floating contact guarantees reliable long life operation, cannot loosen. Handle is complete with cord — Add any heating unit from table at right, and you have a complete, quality soldering tool — at minimum cost. These are not cheap phenolic handles with plastic or cork sleeves added as an afterthought — but solid nylon designed especially for cool, clean production line use.

STANDARD KISS'N COOL HANDLE **$1.44 NET**

FOR SAFETY'S SAKE USE SIDCO SENTRY HANDLES

SENTRY HANDLE — **COMPLETE $1.98 NET**

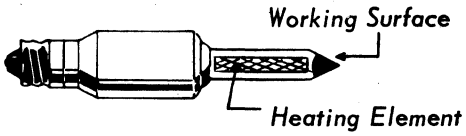
Complete line of screw-in tiplets

1/8" TIPLETS	3/16" TIPLETS
T2/PL2	T57
T1/PL1	PL54
T3/PL3	PL57
PL4	PL58
PL5	

Net Prices:
1/8" Tiplets for 50W35, 40W35 and 25W35
T1, T2, T3 — 16c each
PL1, PL2, PL3, PL4, PL5 — 48c each
3/16" Tiplets for 50W45
T57 — Desoldering — 48c
PL54 — 1" long chisel — 52c
PL57 — 1" long pencil — 52c
PL58 — 1¾" long chisel — 80c

Skin packed in dozens on compact 2½" x 5" cards. **All** are chemically treated to prevent binding or freezing. (Why pay extra for anti-seize compound?) T Series tiplets are pure copper, pretinned to save you work. Since copper dissolves in solder, the PL series of tiplets have been developed for heavy industrial usage. This series has a protective layer of metal, impervious to solder, over the copper. A final silver coating is applied for ease in tinning.

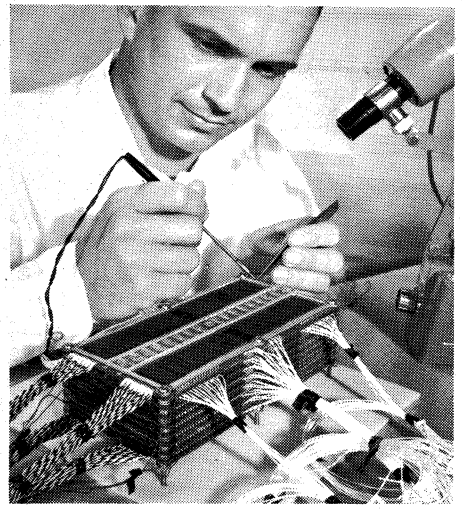
Screw-in base heating units
High heat, right at the tip, minimizes the time required to bring a joint to soldering temperature. As a result, there is less possibility of damage to delicate components from heat conducted along their lead wires. Thermal time constant approximately 80 seconds.



DESCRIPTION	MODEL All Ratings at 115 V-AC or DC	Heat Capacity	Heat Trans. Rate	Unit Price (Net)
50 watt, plated steel body tapped for 1/8" tiplet; 1¼" long x 3/8" diam.	50-W-35	3800 Joules	120 watts (with T-1 tiplet)	$1.98
50W35 with THERMOSHIELD™	50-W-35TH	4300 Joules	140 watts	$2.58
40 watt, plated steel body tapped for 1/8" tiplet; 1¼" long x 3/8" diam.	40-W-35	3300 Joules	100 watts (with T-1 tiplet)	$1.20
25 watt, plated steel body tapped for 1/8" tiplet; 1⅛" long x 5/16" diam.	25-W-35	1750 Joules	60 watts (with T-1 tiplet)	$1.00
Same as 50W35, except tapped for 3/16" tiplet	50-W-45	4500 Joules	240 watts (with T-57 tiplet)	$1.98
50W45 with THERMOSHIELD™	50-W-45TH	5,000 Joules	275 watts	$2.58
50 watt chisel tip, premium quality, heavy iron plated, solid copper; 1⅝" long x 3/8" diam.	50-W-33	3400 Joules	970 watts	$2.40
50W33 with THERMOSHIELD™	50-W-33TH	3,800 Joules	1100 watts	$3.00
50 watt chisel tip, solid iron, plated, 1⅝" long x 3/8" diam.	50-W-33AR	4300 Joules	80 watts	$1.60
50W33-AR with THERMOSHIELD™	50-W-33AR TH	4,800 Joules	90 watts	$2.20
40 watt pyramid tip, solid iron, plated; 1⅛" long x 3/8" diam.	40-W-36	3000 Joules	80 watts	$1.20
25 watt chisel tip, unplated tellurium copper; 1⅝" long x 5/16" diam.	25-W-33	2500 Joules	450 watts	$1.00
25 watt pyramid tip, unplated tellurium copper; 1⅛" long x 5/16" diam.	25-W-36	1400 Joules	450 watts	$1.00

O.E.M.'s — contact your distributor for special quantity discounts. Iron plated tips are available to fit any iron.

ORYX PRECISION SOLDERING INSTRUMENTS



FIVE REASONS WHY PRODUCTION MANAGERS CHOOSE ORYX SOLDERING IRONS

1. MINIATURE SIZE

ORYX soldering irons are small and easy to handle as pencils. Their miniature size helps to speed any precision soldering operation. Damage to adjacent components is eliminated. If you can see it, you can solder it with ORYX!

2. FEATHER WEIGHT

A standard, utility-type 100 watt soldering iron weighs about 2 lbs. The so-called pencil-type irons typically weigh between 2 and 6 ounces. ORYX soldering irons, by contrast, weigh as little as ¼ ounce. This true feather weight virtually eliminates hand fatigue. Workers can turn out many more joints per hour with fewer rejects.

3. HIGH EFFICIENCY

All ORYX soldering irons utilize a unique element-in-the-tip design principle. By generating the heat **within** the tip, far fewer watts are needed to achieve results comparable to much larger irons. This principle also provides quicker heat recovery because the heat path between element and joint is so very short. The need for large insulating handles is eliminated.

4. SAFETY

ORYX low-voltage irons are polarized, making it possible to directly ground the shaft, tip, and one side of the heating element. This provides a maximum degree of safety, both to the operator and to delicate circuitry. The ORYX line of 115 V. plug-in models includes 3-wire styles whose shafts and tips may be connected to ground for safety.

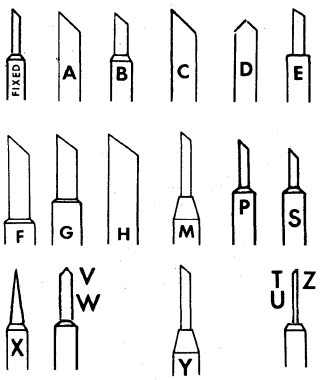
5. ECONOMY

A standard ORYX low-voltage industrial iron costs less than $5 in production quantities.

←**Photo shows ORYX soldering iron used to assemble computer memory stack from ALERT system. (Courtesy Military Products Group, Honeywell, Inc.)**

LOW-VOLTAGE, MINIATURE PRODUCTION SOLDERING IRONS

Model	Volts	Watts	Temp.	Length	Weight	Tip Type	Tip Dia.	Also Takes	Net Ea.	12 or More
5A	6	5	600°F.	5½″	¼ oz.	P	1/16″	T, U, Z	$5.45	$4.95
5S	4.5	4.5	575°F.	4¾″	⅕ oz.	S	1/16″	T, U, Z	5.45	4.95
6	6	6	625°F.	6″	¼ oz.	Fixed	1/16″	—	5.45	4.95
6A	6	6	690°F.	6″	¼ oz.	B	3/32″	P, V, X	5.45	4.95
9-6	6	8.3	750°F.	6″	¼ oz.	A	5/32″	B, V	5.45	4.95
9-12	12	8.3	750°F.	6″	¼ oz.	A	5/32″	B, V	5.45	4.95
9-24	24	8.3	750°F.	6″	¼ oz.	A	5/32″	B, V	5.45	4.95
11-6	6	10	835°F.	6″	¼ oz.	D	5/32″	E	6.95	6.45
12-6	6	12	700°F.	6¼″	½ oz.	C	3/16″	—	5.45	4.95
12-12	12	12	700°F.	6¼″	½ oz.	C	3/16″	—	5.45	4.95
12-24	24	12	700°F.	6¼″	½ oz.	C	3/16″	—	5.45	4.95
18-6	6	18	800°F.	7¼″	¾ oz.	F	3/16″	M, Y	7.50	7.05
25-12	12	25	1000°F.	7¼″	1 oz.	G	3/16″	H	8.00	7.55



REPLACEMENT TIPS for low-voltage soldering irons

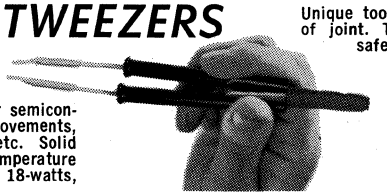
Oryx tips are precision machined from a special copper alloy with outstanding heat conduction characteristics. Nickel plating reduces scaling. Iron-plated tips and solid nickel tips give much longer life with slightly reduced heat transfer. Gold tips recommended for microcircuits only.

Type	Material	Plating	Diameter	For Model	Net. Ea.
A	Copper alloy	Nickel	5/32″	9-6	$ .54
B	Copper alloy	Nickel	3/32″	6A, 9-6	.54
C	Copper alloy	Nickel	3/16″	12-6	.54
D	Solid nickel	—	5/32″	11-6	1.80
E	Solid nickel	—	3/32″	11-6	1.80
F	Copper alloy	Nickel	3/16″	18-6	1.25
G	Solid nickel end	Nickel	3/16″	25-12	1.85
H	Copper alloy	Nickel	1/4″	25-12	2.35
M	Solid nickel end	Nickel	3/32″	18-6	1.85
N	Copper alloy	Nickel	1/8″	TW-12	1.25

Type	Material	Plating	Diameter	For Model	Net. Ea.
P	Copper alloy	Nickel	1/16″	5A, 6A	$ .60
S	Copper alloy	Nickel	1/16″ (short)	5-S	.60
T	Gold end, copper body	Nickel	1/25″	5A, 6A	2.35
U	Gold end, nickel body	—	1/25″	5A, 6A	2.35
V-PL	Copper alloy	Iron	3/32″	6A, 9-6	1.50
W	Copper alloy	Bare (NASA)	3/32″	6A, 9-6	.45
X	Copper alloy	Nickel	1/25″	6A, 9-6	.85
X-PL	Copper alloy	Iron	1/25″	6A, 9-6	1.50
Y-PL	Copper alloy	Iron	3/32″	18-6	2.25
Z	Copper alloy	Nickel	1/25″	5A, 5S	.85
Z-PL	Copper alloy	Iron	1/25″	6A, 9-6	1.50

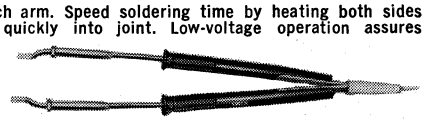
SOLDERING TWEEZERS

Unique tools with heating elements in each arm. Speed soldering time by heating both sides of joint. Tweezer action conducts heat quickly into joint. Low-voltage operation assures safety to circuitry and to operator.



MODEL TW-6—Precision model for semiconductors, solid state, hairspring movements, miniature relays, thermostats, etc. Solid nickel 3/32″ fixed tips. Nominal temperature 550° F. Weighs 1 oz. 6-volts, 18-watts, AC or DC.

MODEL TW-6, complete with 4½′ cord.....Net **$14.95 ea.**
(12 or more **$14.45** ea.)



MODEL TW-12
Heavy duty model for regular production-line soldering of radio, TV, radar, telephone, and switchboard assemblies. Furnished with replaceable 1/8″ N tips. Nominal temperature 625°F. Weighs 2 oz. 12-volts, 25-watts, AC or DC.

MODEL TW-12, complete with 4½′ cord.....Net **$14.95** ea.
(12 or more **$14.45** ea.)

SK-12 stripper heads for TW-12 (kit of 2 heads and 2 screws).....Net **$1.35** kit

ACCESSORIES

6-VOLT TRANSFORMER—Model 54203-6V. Output 6-volts, 18-watts. For use with all 6-volt Oryx tools. Operates on 115 V. AC. with 4½′ cord set — ready to plug in. Clip-holder on top for iron.....Net **$5.50** ea.

12-VOLT TRANSFORMER—Model 5420-12V. Output 12-volts, 25-watts. For all 12-volt Oryx tools. Operates on 115 V. AC. With 4½′ cord set—ready to plug in .....Net **$6.45** ea.

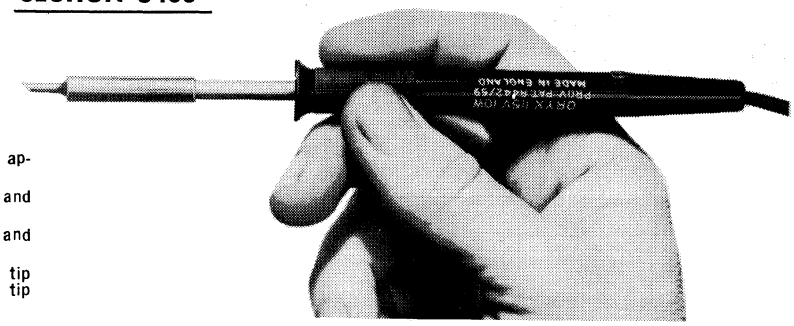
TAPPED TRANSFORMER—Output 4½ to 6-volts in ½ v. steps. For exact temperature control on all Oryx 6-volt tools. Operates on 115 V. AC—ready to plug in. Model 54204-T.....Net **$6.50** ea.

TW-6E REPLACEMENT ASSEMBLY—Includes element, tip, and bushing (for one TW-6 tweezer arm only).....Net **$5.30** ea.

S-1 SOLDERING IRON STAND.....Net **$1.50** ea.

© U.C.P., Inc.

PLUG-IN 115 V. MINIATURE IRONS



- **NO TRANSFORMER.** Standard models furnished with U/L approved 4½′ cord set. Ready to plug in!
- **COMPACT DESIGN** for light production, laboratory, and service use. Irons weigh only 1 oz., plus cord.
- **HEAT QUICKLY** (about 1 minute) to 675° F. (10 W.) and 725° F. (15 W.)
- **REPLACEABLE TIPS.** 10 W. model furnished with 3/32″ J tip (also takes K tip). 15 W. model furnished with 3/16″ K tip (also takes other tips and solder cups listed below).

MODEL 115-10J —Complete with J tip and cord set. Ready to plug in ..... **Net $6.95** ea. (12 or more **$6.45** ea.)
MODEL 115-15K —Complete with K tip and cord set. Ready to plug in ..... **Net $6.95** ea. (12 or more **$6.45** ea.)
MODEL 115-10J-3—Complete with J tip and 3-wire grounding-type cord. Less plug ..... **Net $6.95** ea. (12 or more **$6.45** ea.)
MODEL 115-15K-3—Complete with K tip and 3-wire grounding-type cord. Less plug ..... **Net $6.95** ea. (12 or more **$6.45** ea.)

REPLACEMENT TIPS AND ELEMENTS for 115 V. irons.

Type	Material	Diameter	Use with	Net ea.
J	Copper alloy	3/32″	115-10	**$1.55**
J-PL	Copper, iron plated	3/32″	115-15	**2.25**
K	Copper alloy	3/16″	115-10, 115-15	**1.70**
L	Copper alloy	1/4″	115-15	**2.25**

Type	Material	Diameter	Use with	Net ea.
Q	Solid nickel end	3/32″	115-15	**$1.85**
R	Solid nickel end	1/16″	115-15	**1.85**
115-10E	Replacement element for model 115-10			**3.60**
115-15E	Replacement element for model 115-15			**3.60**

THERMAL WIRE STRIPPERS

Reach those hard-to-get-at spots. Miniature tweezer design.

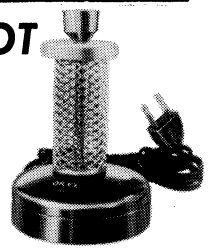
Ideal for repair and prototype work where a bench stripper is unsuitable. Strips Nylon, rubber, PVC, Kel-F, Polystyrene, and similar medium-temperature insulations. Stainless steel stripping heads are abrasive-tumbled to eliminate sharp edges which might damage conductors. Operating temperature: ST-6, 400°F. ST-18-6, 475°F., ST-18-12, 500°F. Furnished with 4½′ cord.

MODEL ST-6. For 6-volts, AC-DC, 12 watts.
MODEL ST-18-6. For 6-volts, 18 watts. **MODEL ST-18-12.** For 12-volts, 25 watts.
ALL MODELS ..... Net **$14.95** ea.
ST-6E Replacement element-head assembly for ST-6 ..... Net $ **5.30** ea.

SOLDERING AIDS

Three-piece miniature kit consists of fork and hook, fork and reamer, and brush. Non-magnetic. Solder will not adhere. Hex plastic handles. For delicate work.
KIT, MODEL K-700 ..... Net **$2.95** ea.

MINIATURE SOLDER POT



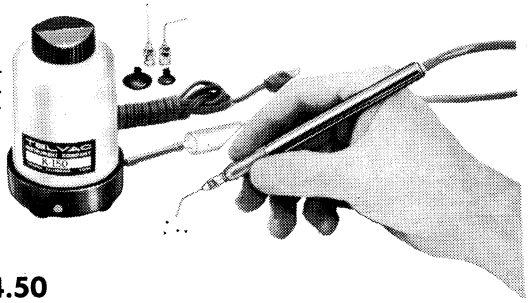
Quick-heating, miniature solder pot for production, service, or laboratory use. Heats to 550°F in just 4 minutes. For tinning wires and component leads; heating waxes and potting compounds. Capacity 2.5 cc. For 115 V. AC or DC.
SP-115. With cord set ready to plug in.
SP-115-3. 3-wire grounding model, less plug.
EITHER MODEL ..... Net **$11.95** ea.
SPC. Replacement cup and stem ..... **2.85** ea.
SP-115-E. Replacement element ..... **3.60** ea.
60-40 solder slugs for above ..... **.40** ea.

SOLDER CUPS

Solder cups replace tips on Oryx model 18 and 115-15 soldering irons. For tinning wires and component leads. Hold 2.5 cc. Nominal temperature 550-600°F.

SC-18 (Use with Oryx 18-6 soldering iron.)
SC-115 (Use with Oryx 115-15 soldering iron.)
EITHER MODEL ..... Net **$2.25** ea.

NEW! VACUUM TWEEZER SYSTEM



This new parts-handling system positively and precisely lifts parts varying in size from microscopic to those weighing several ounces. Parts are handled without damage or contamination. Defects caused by pinching, scratching, or marring are eliminated. Critical surfaces are protected. Vacuum is turned on and off with the forefinger. For 115 V. A.C. complete system, ready to plug in.

COMPONENT PARTS OF SYSTEM

Cat. No.	Description	Net ea.	Cat. No.	Description	Net ea.
1505	Vacuum generator	**$22.50**	1565	Tip, .047″ i.d., #16	**$ .75**
1575	Probe	**7.95**	1580	Cup, 0.5″ dia.	**.75**
1550	Tip, .006″ i.d., #30	**.75**	1585	Cup, 0.25″ dia.	**.75**
1555	Tip, .0095″ i.d., #25	**.75**	1510	Tubing, 4′ length	**1.00**
1560	Tip, .0155″ i.d., #22	**.75**	1590	Filter	**.90**

Complete System K-150
Net ea. $34.50

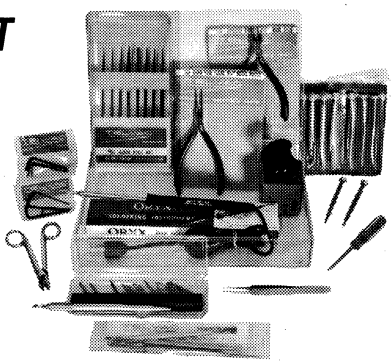
HEADBAND VIEWER

Stereoscopic magnifier used in precision work

A stereoscopic magnifier with large field of view. Magnification 2½x at 8″. Accurately ground lenses have the required prismatic effect to prevent eyestrain. A watchmaker's glass may be switched to either eye to increase magnification to 5X at 2-3″. A hood shields the eyes from glare, even under brilliant illumination. The lower side is open, allowing unrestricted downward vision for handling tools and taking notes. May be worn with glasses.

MODEL 606 ..... Net **$17.95**

INSTRUMENT REPAIR KIT



- **35 PIECES**
- **FINEST PRECISION TOOLS**

Every instrument shop and laboratory needs the Telvac K-50 Instrument Tool Kit. A 35-piece assortment of the finest small tools used in instrument repair, precision mechanics, and fine electronic assembly.

Each kit contains a 10-watt miniature soldering iron, a 4″ fine taper-jaw diagonal cutter, a 4″ needle-nose plier, a 5-piece precision screwdriver set, a Phillips screwdriver with No. 0 point, a pair of stub-nosed scissors, a 10-power eye loupe, an 8-piece 4″ needle-file set, an 11-piece precision knife set, a 6-piece hex wrench set, a 6-piece spline wrench set, a 3-piece miniature soldering aid set, and a #5 Dumont-type stainless precision tweezer.

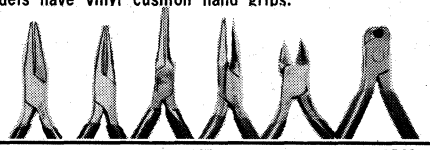
INSTRUMENT TOOL KIT, MODEL K-50 ..... Net **$49.50** ea.

TELVAC INSTRUMENT COMPANY
Formerly ORYX CO.

TELVAC INSTRUMENT ASSEMBLY TOOLS

BOX JOINT PLIERS

Precision tools for delicate instrument and electronic work. Featuring box joints and unusually small, fine heads. Each pair of pliers accurately adjusted. All models have vinyl cushion hand grips.



DESCRIPTION	SIZE 5¼" - 5¾" Cat. No.	SIZE 4¼" - 4¾" Cat. No.	PRICES, EITHER SIZE Net ea.	10 or more
Flat nose	11B	10B	$3.60	$3.25
Round nose	21B	20B	3.60	3.25
Needle nose	26B	25B	3.90	3.50
Chain nose	31B	30B	3.60	3.25
Diagonal cutter	41B	40B	4.90	4.40
Flush end cutter	51B	50B	4.90	4.40

All models are heavily nickel plated to prevent rusting. Red plastic cushion-grips reduce operator fatigue. Needle-nose pliers have smooth surfaces, with radius edges for bending fine wires. Chain-nose pliers have fine serrations on tips for gripping. The diagonal cutter is new taper-jaw style and gives a flush cut. All cutters are available with return spring. Add X to catalog number and 25¢ to net price.

PRECISION KNIFE SET

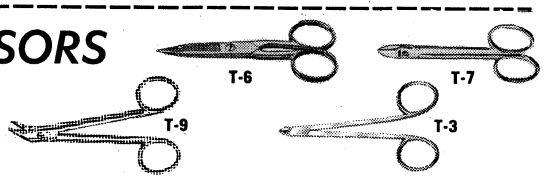
A beautifully-made set for deburring, scraping, stripping fine wires, printed-circuit repairs, etc. Kit consists of handle and an assortment of 10 tiny blades in a plastic case.

KIT, MODEL K-90.....Net **$2.95**

Replacement blades for K-90 kit. Package of 10 blades (assorted — 9 styles).

EXTRA BLADES, **Cat. No. 9100** .....Net **$1.98**

SCISSORS



Four models for electronic work. T-3 is box joint cutter for very fine wires. T-6 is popular "electrician's" model for all cutting jobs. T-7 has small cut length for close-quarter jobs and wire cutting. T-9 is a high-leverage cutter for very hard wires and light sheet meal. All models nickel plated.

Cat. No.	Description	Length	Net ea.	10 or more
T-3	Fine wire nipper	4"	$3.55	$3.20
T-6	Electrician's scissors	5"	2.40	2.15
T-7	Stub-nosed scissors	4"	2.40	2.15
T-9	High-leverage cutter	4¾"	7.49	6.75

PRECISION DRIVERS

539

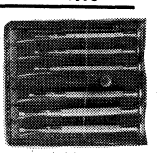
579

High-quality, miniature precision screwdrivers. Type 539 has plastic insulating handle. Type 579 has removeable blade. Blades are chrome-vanadium steel, specially hardened and blued. Replacement blades available for Type 579.

Cat. No.	Blade Size	Length	Net ea.	10 or more
539-10	.04"	3.4"	$ .82	$ .74
539-15	.06"	4.0"	.82	.74
539-20	.08"	4.0"	.82	.74
539-25	.10"	4.4"	.82	.74
539-30	.12"	4.4"	.82	.74
579-A	.025"	4.0"	1.29	1.16
579-B	.040"	4.0"	1.29	1.16
579-C	.055"	4.0"	1.29	1.16
579-D	.070"	4.0"	1.29	1.16
579-E	.080"	4.0"	1.29	1.16
579-F	.090"	4.0"	1.29	1.16

SCREWDRIVER SETS in plastic cases

Cat. No.	Description	Pieces	Net ea.	10 or more
540	Set of #539 drivers	5	$3.95	$3.55
579	Set of #579 drivers	6	7.95	7.15
583	Fixed-blade set	6	2.35	2.10



TWEEZERS

102

612

ASSEMBLY TWEEZERS

Industrial assembly tweezers with vinyl cushion finger grips to reduce operator fatigue. Bright nickel plated. 9 models.

Cat. No.	End Style	Configuration	Length	Net ea.	10 or more
102	Pointed	Straight	4"	$1.10	$1.00
112	Pointed	Angled	4"	1.35	1.22
202	Round	Straight	4"	1.10	1.00
207	Round	Straight	7"	2.75	2.35
217	Round	Angled	7"	2.75	2.35
212	Round	Angled	4"	1.35	1.22
302	Flat	Straight	4"	1.10	1.00
312	Flat	Angled	4"	1.55	1.35
402	Oblique	Straight	4"	1.10	1.00
512	Large oblong	Angled	4"	1.45	1.30
612	Medium oblong	Angled	4½"	1.45	1.30

STAINLESS STEEL TEFLON-COATED TWEEZERS

216

All models are stainless steel. All models have broad holding surfaces. 700-series are reverse-action clamping types for holding or heat-sink. Teflon coated models are used in acid or where metal cannot touch parts being handled.

Cat. No.	Style	Length	Configuration	Teflon coated?	Net ea.	10 or more
603	Semiconductor	4½"	Straight	No	$1.89	$1.70
613	Semiconductor	4½"	Angled	No	2.10	1.89
653	Semiconductor	4½"	Straight	Yes	2.49	2.24
663	Semiconductor	4½"	Angled	Yes	2.70	2.43
206	Heavy-duty	7"	Straight	No	3.39	3.05
216	Heavy-duty	7"	Angled	No	3.66	3.30
256	Heavy-duty	7"	Straight	Yes	4.14	3.73
266	Heavy-duty	7"	Angled	Yes	4.41	3.98
702	Small clamping	4"	Straight	No	2.76	2.48
712	Small clamping	4"	Angled	No	2.97	2.67
752	small clamping	4"	Straight	Yes	3.36	3.02
762	Small clamping	4"	Angled	Yes	3.57	3.22
706	Large clamping	6¼"	Straight	No	4.23	3.81
766	Large clamping	6¼"	Straight	Yes	4.83	4.35

DUMONT STYLE TWEEZERS

105

For extremely delicate work. Dumont-style tweezers are an order of magnitude finer than ordinary tweezers. 105 and 107 are stainless steel.

Cat. No.	Style	Description	Length	Net ea.	10 or more
105	#5	Extra-fine points	4½"	$4.20	$3.80
107	#7	Fine points, curved	4½"	4.60	4.15
10-D	D	Top flush cutter	4½"	3.75	3.35

NEEDLE FILES

Precision Swiss needle files with vinyl cushion finger grips. 8 styles in 2 sizes. For delicate work. No. 2 cut. Made in Switzerland.

Cat. No. 4"	Cat. No. 6¼"	Style	Cut Symbol
1000	1100	Round	
1001	1101	Square	
1002	1102	Triangular	
1003	1103	Knife	
1004	1104	Equalling	
1005	1105	Oval	
1006	1106	Flat	
1007	1107	Half round	

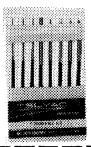
Net ea. — 4" styles .....**$.59** (10 or more, **$.53**)
— 6¼" styles .....**$.72** (10 or more, **$.65**)

FILE KITS

Set of 8 precision Telvac files in plastic case.

Cat. No. 2000 (4" styles) .....Net **$5.55** ea.

Cat. No. 2100 (6¼" styles) .....Net **6.55** ea.

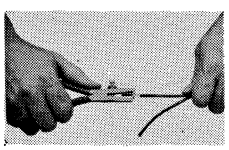


2000

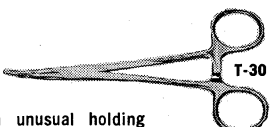
STRIPPER

Unique wire-stripping plier. Just squeeze, twist, and pull. For wires AWG #8 to #22. Positive adjustment with lock nut is set to protect conductors. Tool-steel heads with razor sharp edges. Vinyl cushion handle grips.

MODEL T-22 .....Net **$3.90** ea.



SEIZERS



Hemostat clamps. Versatile tools with unusual holding qualities. Three position snap lock clamps work tightly. Holds wires for soldering; acts as a heat sink; retrieves small parts. Box joint construction. Nickel finish.

MODEL T-20 (straight Net **$3.85** ea. **MODEL T-30** (curved) Net **$3.95** ea.

TELVAC INSTRUMENT COMPANY

Formerly ORYX CO.

Net

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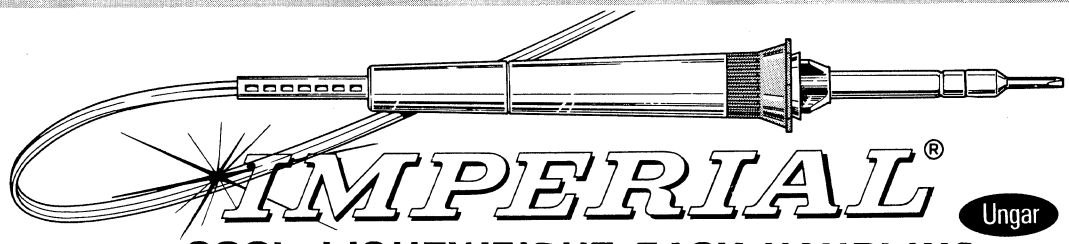
MOST VERSATILE SOLDERING IRON EVER INVENTED



IMPERIAL®

Ungar

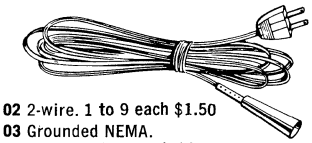
COOL, LIGHTWEIGHT, EASY-HANDLING

Ungar...developers of the industry's first miniature, low wattage, high temperature, pencil type iron...now brings you the ultimate in time-saving, money-saving soldering irons.

PERMA COOL COLORED HANDLES

#6100 turquoise, beige, ivory, and black* 1 to 9 each $1.28

INTERCHANGEABLE CORD SETS
2-wire or grounded 3-wire



#6102 2-wire. 1 to 9 each $1.50
#6103 Grounded NEMA. 1 to 9 each $2.46

*Note: Designate color for handles and cord sets by adding suffice (—1 for turquoise, —2 for beige, —3 for ivory, —5 for black).

NEW 100 WATT
"Long Life" Interchangeable Heat Cartridges.

#6207 100 Watt (850-1150°F temp. range). 1 to 9 each $5.97
#6203 60 Watt (850-1050°F temp. range). 1 to 9 each $4.06
#6200 40 Watt (750-950°F temp. range). 1 to 9 each $3.58
#6201 30 Watt (650-850°F temp. range). 1 to 9 each $3.58
#6202 25 Watt (600-800°F temp. range). 1 to 9 each $3.58
#6206 15 Watt (700-750°F temp. range). 1 to 9 each $3.58

IMPERIAL MINI-TIP®
Thread-on soldering tips

All easy-thread tips are completely interchangeable.

#6304 Micro-Chisel, Iron Clad, Gold Plated (24 kt.) 3/64 x ½ 1 to 9 each $.89

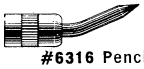
#6305 Micro-Spade, Iron Clad, Gold Plated (24 kt.) 3/64 x ½ 1 to 9 each $.89

#6482 Micro-Spade, Stepped, Iron Clad, Gold Plated (24 kt.) 3/64 x ½ 1 to 9 each $.89

#6481 Tapered Screwdriver, Iron Clad, Gold Plated (24 kt.) ¾ x 3/32. 1 to 9 each $.89

#6312 Pencil, Rugged Copper Alloy, ⅛ x ¾ 1 to 9 each $.36

#6313 Pencil, Iron Clad, Gold Plated (24 kt.) ⅛ x ¾ 1 to 9 each $.89



#6316 Pencil, Offset, Iron Clad, Gold Plated (24 kt.) 1 to 9 each $.89

#6318 Long Taper Chisel, Rugged Copper Alloy, ⅛ x ¾ 1 to 9 each $.36

#6319 Long Taper Chisel, Iron Clad, Gold Plated (24 kt.) ⅛ x ¾ 1 to 9 each $.89

#6324 Long Taper Pyramid, Rugged Copper Alloy, ⅛ x ¾ 1 to 9 each $.36

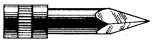
#6325 Long Taper Pyramid, Iron Clad, Gold Plated (24 kt.) ⅛ x ¾ 1 to 9 each $.89

#6331 Screwdriver, Iron Clad, Gold Plated (24 kt.) ⅛ x ¾ 1 to 9 each $.89

#6333 Needle, Iron Clad, Gold Plated (24 kt.) ⅛ x ¾ 1 to 9 each $.89

#6336 Spade, Iron Clad, Gold Plated (24 kt.) ⅛ x ¾ 1 to 9 each $.89

#6366 Long Taper Chisel, Iron Clad, Gold Plated (24 kt.) 3/16 x ¾ 1 to 9 each $1.04



#6368 Long Taper Pyramid, Rugged Copper Alloy, 3/16 x ¾ 1 to 9 each $.44

#6372 Screwdriver, Iron Clad, Gold Plated (24 kt.) 3/16 x ¾ 1 to 9 each $1.04

#6373 Slotted Tip, Rugged Copper Alloy, 3/16 x ¾ 1 to 9 each $.89

#6390 Screwdriver, Iron Clad, Gold Plated (24 kt.) 3/16 x 1½ 1 to 9 each $1.04

#6424 Long Taper Chisel, Iron Clad, Gold Plated (24 kt.) ¼ x ¾ 1 to 9 each $1.06

#6473 Long Taper Chisel, Rugged Copper Alloy, ⅜ x ¾ 1 to 9 each $.45

#6474 Long Taper Chisel, Iron Clad, Gold Plated (24 kt.) ⅜ x ¾ 1 to 9 each $1.25

Specially Designed IMPERIAL HOLDER

Protects iron, keeps it safely out of the way. Black with gold cage guard and heat sink. **#6800.** 1 to 9 each $1.60

New heavy duty tips.
#6500 Long taper chisel, Tellurium Copper, Iron Clad, Gold Plated. 1 to 9 each $2.15
#6520 Long taper chisel, Tellurium Copper.
Use above tips only with #6207 Cartridge. 1 to 9 each $1.04

NEW MICRO-TIPS
Thread-on soldering tips
For use with Imperial 15 watt cartridges only.

#6550 Tapered Screwdriver, Iron Clad, Gold Plated (24 kt.) .040 x .40 1 to 9 each $1.04

#6551 Stepped Spade, Iron Clad, Gold Plated (24 kt.) .050 x .40 1 to 9 each $1.04

#6553 Stepped Chisel, Iron Clad, Gold Plated (24 kt.) .050 x .40 1 to 9 each $1.04

#6554 Stepped Pencil, Iron Clad, Gold Plated (25 kt.) .050 x .40 1 to 9 each $1.04

NEW...FOR MICROSCOPIC ASSEMBLY

#6391 Precision Point, Tellurium Copper. .770 L. x .125 D. stepped to .090 D., ground and honed to .005 P. 1 to 9 each $.64

#6392 Precision Point, Tellurium Copper, Iron Clad, Gold Plated (24 kt.). .770 L. x .135 D. stepped to .098 D., ground and honed to .010 P. 1 to 9 each $1.35

ALL ABOVE PRICES ARE USER NET. PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Ungar® STANDARD LINE SOLDERING IRON

UNGAR fast, safe De-Soldering Tips

For use with #4045 Heating Unit.

#856 5/8" Cup Tip
1 to 9 each $.68

#855 3/4" Cup Tip
1 to 9 each $.68

#854 1" Cup Tip
1 to 9 each $.68

#858 Bar Tip
1 to 9 each $.68

#862 Offset Slotted Tip
1 to 9 each $.68

#857 Slotted Tip
1 to 9 each $.68

#863 Cube Tip
1 to 9 each $.68

#861 Triangle Tip
1 to 9 each $.68

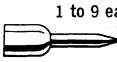
#270 UNGAR De-Soldering Kit. Complete, 7 pieces including handle, Heating Unit #4045 and five De-Soldering Tips in metal case. 1 to 9 each $6.60

New UNGAR HEATING UNITS AND THREAD-ON TIPS for Hi-Speed Repeat Soldering

#537 Hi-Speed Heating Unit — 600° to 650°F — 23½ Watts
1 to 9 each $1.45

#1237 Hi-Speed Heating Unit — 750°-800°F. 37½ Watts
1 to 9 each $1.58

#4037 Hi-Speed Heating Unit — 850°-900°F. 47½ Watts.
1 to 9 each $2.65



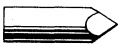
#PL 111 PENCIL TIP. ⅛" x ¾" iron clad, Silver Plated.
1 to 9 each $.63

#111 Plain Copper 1 to 9 each $.29

#PL 113 CHISEL TIP. ⅛" x ¾" iron clad, Silver Plated.
1 to 9 each $.63

#113 Plain Copper. 1 to 9 each $.29

#PL 114 Stepped Micro-Spade, Iron Clad, Silver Plated
1 to 9 each $.63



#116 5/16" Pyramid, Rugged Copper Alloy 1 to 9 each $.29

#PL 116 5/16" Pyramid, Iron Clad, Silver Plated 1 to 9 each $.63

UNGAR TIPLET Soldering Tips

for Heating Units shown below

800 Series TIPLETS fits Ungar #4045 heating unit only.

#PL 331 Pencil Tip. ⅛" x 1", iron clad, Silver Plated. 1 to 9 each $.50

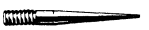
#331 Plain Copper. 1 to 9 each $.19

#PL 332 Pencil Offset. ⅛" x 1", iron clad, Silver Plated. 1 to 9 each $.50

#332 Plain Copper. 1 to 9 each $.19

#PL 333 Chisel, Long Taper. ⅛" x 1", iron clad, Silver Plated. 1 to 9 each $.50

#333 Plain Copper. 1 to 9 each $.19

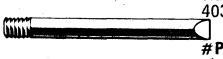


#PL 338 Tapered Needle. 1/16" x 1¾", iron clad. Silver Plated. 1 to 9 each $.50

#PL 340 Micro-Needle. 3/64"x¾", for microscopic soldering, iron clad, Silver Plated—Actual size.
1 to 9 each $.50

#7154 Stepped Pencil, 1/16" pencil tip. Iron clad, silver plated. Fits #535, 1235, and 4035. 1 to 9 each $.50

#7155 Stepped Chisel, 1/16" chisel tip. Iron clad, silver plated. Fits #535, 1235 and 4035. 1 to 9 each $.50

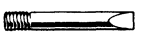


#PL 833 Chisel, Long Taper. 3/16" x 1¾", iron clad. Silver Plated. 1 to 9 each $.83

#PL 834 Chisel, Long Taper, Offset. 3/16" x 1¾", iron clad, Silver Plated. 1 to 9 each $.83

#PL 823 Pyramid, 3/16" x 1", iron clad, Silver Plated. 1 to 9 each $.55

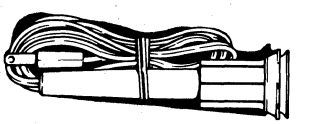
#823 Plain Copper. 1 to 9 each $.19



#PL 824 Chisel, Long Taper. 3/16" x 1", iron clad. Silver Plated. 1 to 9 each $.55

#824 Plain Copper. 1 to 9 each $.19

New#777"CLEANROOM" Soldering Handle

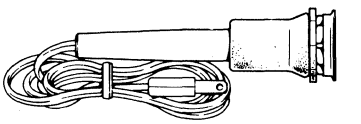


"CLEAN ROOM" GRIP • STAINLESS STEEL HEAT REFLECTOR • FULL-CONTACT SPRING SOCKET, NO TIP WOBBLE • HANDLE IN PASTEL COLOR • NEW POLY-VINYL INSULATED CORD • OCTAGON SHAPE GUARD WASHER

1 to 9 each $1.53

#776 SOLDERING HANDLE

Ungar's red handle with cork grip. Same features as above.



1 to 9 each $1.35

New...Special Purpose Tiplets

#7012 Precision Point, Cadmium Copper. .770 L. x .125 D. stepped to .090 D., ground and honed to .005 P.
1 to 9 each $.50

#7062 Precision Point, Cadmium Copper, Iron Clad, Silver Plated. .770 L. x .135 D. stepped to .098 D., ground and honed to .010 P.
1 to 9 each $1.00

Ungar Interchangeable Tips...the right tip at the right temperature.

TIP TEMPERATURES	CHISEL TIP LONG TAPER	PYRAMID TIP	CHISEL TIP SHORT TAPER	THREAD-IN HEATING UNITS
850° to 1000° F. #4000 Super Hi-Heat Series 47-1/2 Watt	#4033 Tip 1-5/8" long, 1/4" wide. New copper alloy, iron clad, silver plated. 1 to 9 each $2.65	#4036 Tip 1-1/8" long, 3/8" diameter. Copper, iron clad, silver plated. 1 to 9 each $2.65	#4039 Tip 1-1/8" long, 3/8" diameter. Copper, iron clad, silver plated. 1 to 9 each $2.65	#4035 Steel body, nickel plated. For use with 300 Series Tiplets. #4045. For use with 800 Series Tiplets. ABOVE 1 to 9 each $2.65
750° to 800° F. #1200 Hi-Heat Series 37-1/2 Watt	#1233 Tip 1-5/8" long, 1/4" wide. Copper, unplated. 1 to 9 each $1.53	#1236 Tip 1-1/8" long, 5/16" diameter. Pure solid Armco iron, silver plated. 1 to 9 each $1.53	#1239 Tip 1-1/8" long, 3/8" diameter. Pure solid Armco iron, silver plated. 1 to 9 each $1.53	#1235 37½ watt. Hi-Temperature steel body specially treated for corrosion resistance. 1 to 9 each $1.53
650° to 750° F. #500 Standard Series 23-1/2 Watt	#533 Tip 1-5/8" long, 3/16" wide. Copper, unplated. 1 to 9 each $1.27	#536 Tip 1-1/8" long, 5/16" diameter. Copper, unplated. 1 to 9 each $1.27	#539 Tip 1-1/8" long, 5/16" diameter. Copper, unplated. 1 to 9 each $1.27	#535 23½ watt. Hi-Temperature steel body specially treated for corrosion resistance. 1 to 9 each $1.27

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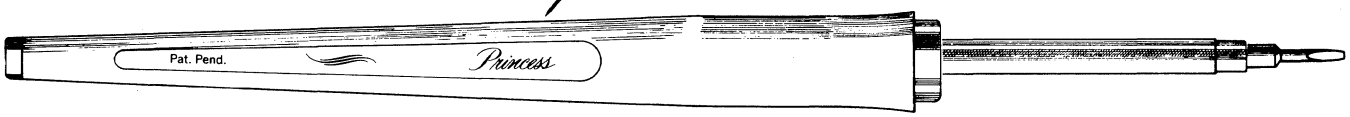
Ungar® / *Princess*™



NEW for MICROelectronic soldering

UNGAR Electric Tools, alert to the changing profile of the electronic industry, introduces **Princess,** a completely new **miniature** soldering iron.

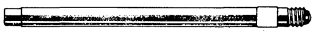
HANDLES

Turquoise, molded of heat resistant ABS. Two and three conductor cords are flexible, vinyl covered. Rated 120V AC-DC.

#6902—Two wire handle. U.L. listed 1 to 9 each $2.45

#6903—Three wire handle with molded NEMA plug. 1 to 9 each $3.12

HEAT CAPSULES



Rated at 120V; copper alloy heating conductor is threaded to accept 1/8" Nibs. Over-all length: 3 1/8". Extends 1 5/8" from handle. U.L. listed.

#6906—Tip temperature from 400°F to 450°F. 6W. 1 to 9 each $2.92

#6910—Tip temperature from 550°F to 650°F. 10W. 1 to 9 each $2.92

#6915—Tip temperature from 700°F to 800°F. 15W. 1 to 9 each $2.92

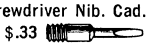
#6918—Tip temperature from 900°F to 1000°F. 18W. 1 to 9 each $2.92

SOLDERING NIBS

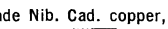
Copper alloy; also in iron clad, gold plated (24K). Threaded (1/8") to fit PRINCESS Heat Capsules.

#6950—Pencil Nib. Cad. copper, .61"L. stepped to .080" D. x .015" P. 1 to 9 each $.33

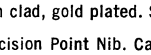
#6960—Iron clad, gold plated. Same as #6950. 1 to 9 each $.59

#6951—Screwdriver Nib. Cad. copper, .68" L. stepped to .080" D. x .055" P. 1 to 9 each $.33 

#6961—Iron clad, gold plated. Same as #6951. 1 to 9 each $.59

#6952—Spade Nib. Cad. copper, 61" L. stepped to .080" D. with 45° spade tip. 1 to 9 each $.33 

#6962—Iron clad, gold plated. Same as #6952. 1 to 9 each $.59

#6953—Precision Point Nib. Cad. copper, .61" L. stepped to .080" D. x .005" P. 1 to 9 each $.50 

#6963—Iron clad, gold plated. Same as #6953. 1 to 9 each $1.00

PRINCESS HOLDER

#6990—Base and sponge holder molded of thermoset plastic. Stainless steel cage mounted on a swivel. Equipped with specially processed sponge. 1 to 9 each $2.50

#6991—Refill sponge. 1 to 9 each $.40

PRE-ASSEMBLED PACKAGED COMBINATIONS

#6975—Assembled and Packaged Princess Soldering Iron. Consists of the following parts:

(1) One **#6902** Handle, Two-Wire

(2) One **#6910** 10-Watt Heat Capsule

(3) One each of the following Princess copper Soldering Nibs:

#6950—Pencil

#6951—Screwdriver

#6952—Spade 1 to 9 each $5.99

#6900—Princess Packaged Soldering Station. Consists of the following units: A complete assembled iron consisting of:

One **#6902** Handle, Two-Wire

One **#6910** 10-Watt Head Capsule

One **#6950** Pencil Copper Nib

One **#6951** Screwdriver, Copper Nib

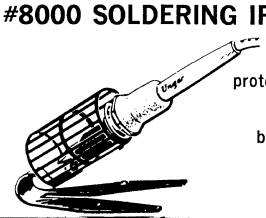
One **#6952** Spade Copper Nib

One **#6990** Princess Soldering Iron Holder, equipped with one (1) **#6991** Sponge 1 to 9 each $7.99

#8001 ANTI-SEIZE

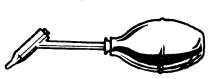
½ oz. tube
New Ungar Anti-Seize guards against "freezing."
1 to 9 each $.55

#8000 SOLDERING IRON HOLDER



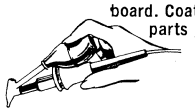
Exclusive Ungar double safety guard protects operator against accidental burns and protects iron against breakage. Individually boxed. 1 to 9 each $1.70

#6825 DE-SOLDERING ATTACHMENT



Fits 25, 30, 40 and 60-Watt Imperial Heat Cartridges. Vacuum action lifts solder from board. Coating on tip and metal parts prevents solder from sticking or clogging. See replacement tips above. 1 to 9 each $7.77

#7800 HOT-VAC DE-SOLDERING TOOL



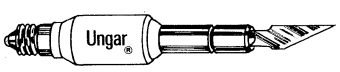
Vacuum action lifts solder from board. Coating on tip and metal parts prevents solder from sticking or clogging. 1 to 9 each $9.95

NEW

Replacement tips for Hot-Vac and #6825

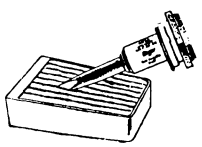
#7812 Hole Dia. .033 ....1 to 9 each $.65
#7813 Hole Dia. .069 ....1 to 9 each $.65
#7806 Hole Dia. .057 ....1 to 9 each $.65

#4025 HOT-KNIFE



Includes a 47½ Watt Heating Unit with collet closure and one stainless steel blade. Individually bubble packaged. Blade temperature 500°F. Can be used in either Ungar's Red Standard Line Handle #776 or the new Clean-Room Handle #777. 1 to 9 each $3.00.

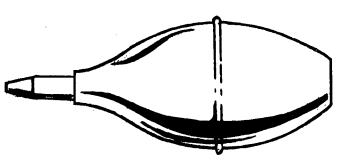
KLEEN-TIP SPONGE



Removes oxidation, doubles life of tips.
#400 with tray.
1 to 9 each $1.00
#455 refill sponges
1 to 9 each $.40

#7805 SOLDER-OFF

Ungar's de-soldering bulb with a TFE tip for safe, easy removal of components from printed circuit boards. 1 to 9 each $1.10.



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UTICA

KELSEY-HAYES TOOL DIVISION

WORLD'S MOST COMPLETE LINE OF STANDARD AND SPECIAL ELECTRONIC PLIERS!

NEW UA-300 POWER WRITER

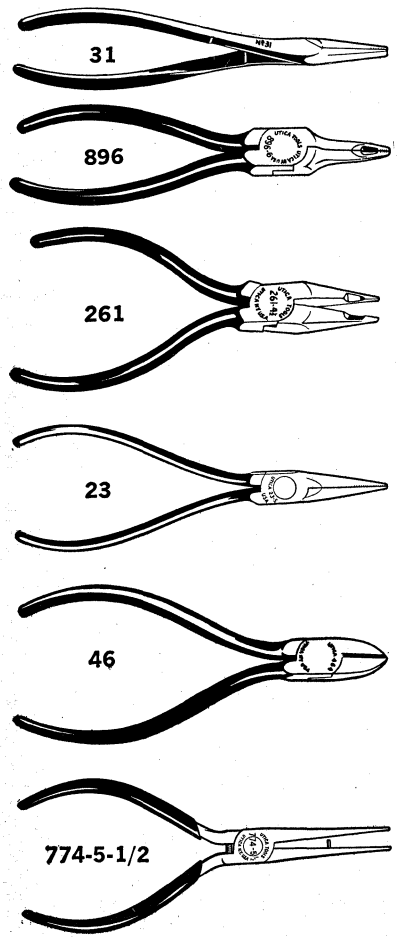
Just as the name implies, the UA-300 Power Writer is a power writing tool. It's a pencil styled, air-activated tool for inscribing, coding, labeling or marking all types of materials such as hard and soft metals, plastics, ceramics and glass.

NEW UA-200 THE VERSATILE MULTI-PURPOSE POWER CUTTER With Interchangeable Cutting Heads

This latest and most versatile addition to the Utica line of production tools is available with four optional, interchangeable cutting heads. Each head is designed for a specific cutting purpose and all have electronically induction hardened jaws.

A REVOLUTIONARY NEW WIRE STRIPPER

Strip fast and clean! Eliminate nicking! Reduce insulation marking! Handle any wire size from #12 to #26 . . . and do it all with Stripwright® . . . Utica's revolutionary new wire stripper.



No. 31 DUCK BILL WIRING PLIERS
Long reach duck bill pliers. Serrated jaws. Size: 8″.

No. 896 RADIO AND IGNITION CUTTING PLIERS
For cutting and forming wire. Center cutter near tip of jaws. Size: 6″.

No. 261 SPECIAL SHORT CHAIN NOSE CUTTING PLIERS
Flush cutter near tip of jaws for close cuts. Size: 4½″ (formerly custom tool No. B801).

No. 23 NEW MIDGET SHORT CHAIN NOSE PLIERS
Very thin nose for delicate electronic subminiature assembly. Sizes: 4″, 4½″, 5″.

No. 46 MIDGET DIAGONAL PLIERS
Small, light, sturdy diagonal for work on small electronic assemblies. Size: 4″.

No. 774-5-1/2 PICK-UP AND WIRING PLIERS
Ideal for looping, twisting, bending and picking up finest wires.

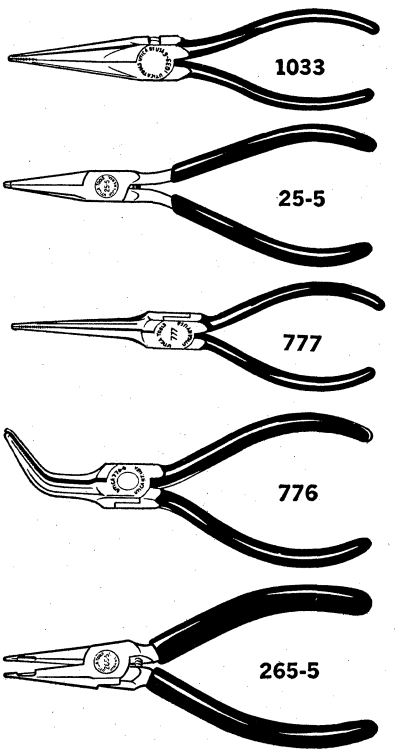
No. 1033 LONG CHAIN NOSE PLIERS
For general wiring. 3/32″ nose and deep serrated jaws. Sizes: 6″, 7″.

No. 25-5 BENT CHAIN NOSE PLIERS
Finely serrated jaws for sensitive circuit wiring. Size: 5″.

No. 777 LONG NEEDLE NOSE PLIERS
Long, spring tempered jaws for very fine work in assembling small electronic apparatus. Size: 6″.

No. 776 CURVED LONG NEEDLE NOSE PLIERS
Fine, spring tempered pliers with bent nose for offset work. Size: 6″.

No. 265-5 WIRING PLIERS
Cutter designed to snap-cut, loop or twist. Size: 5″.



TOOL DIVISION · KELSEY-HAYES

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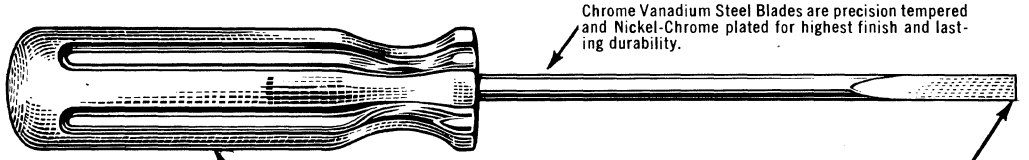
Precision Ground, Unconditionally Guaranteed

VACO® PRODUCTS CO.

SCREW DRIVERS • NUT DRIVERS • HAND TOOLS

- **Nickel-Chrome Plated #6150 Steel Blades will not rust or corrode**
- **Comfordome Slo-Burn S/B® Amberyl® Handles are easy on the hands**



Chrome Vanadium Steel Blades are precision tempered and Nickel-Chrome plated for highest finish and lasting durability.

Vaco Amberyl® S/B® Handles bear the Underwriters' Laboratories Re-examination Service Marker.

Vaco Amberyl® Handles are a dense, resilient, thermal plastic material that is break-proof, shock-proof, fire-safe, non-absorbent and therefore impervious to most acids and alkalies.

Blade Tips are precision ground and designed to perfectly fit the screw slot.

ROUND BLADE

1/8" Cabinet Style—Round Blades

Stock Number	Blade Diameter and Length	Price
A 216-4	1/8"x4"	$ .75
A 216-6	1/8"x6"	.77
A 216-8	1/8"x8"	.84
A 216-10	1/8"x10"	.92

3/16" Cabinet Style—Round Blades

A 316-4	3/16"x4"	.99
A 316-5	3/16"x5"	1.05
A 316-6	3/16"x6"	1.10
A 316-8	3/16"x8"	1.16
A 316-10	3/16"x10"	1.27

1/4" General Service—Round Blades

A 416-4	1/4"x4"	1.20
A 416-5	1/4"x5"	1.23
A 416-6	1/4"x6"	1.27
A 416-8	1/4"x8"	1.33
A 416-10	1/4"x10"	1.46

5/16" Heavy Duty—Round Blades

A 516-6	5/16"x6"	1.60
A 516-8	5/16"x8"	1.70
A 516-10	5/16"x10"	1.90

Stubbys

A 132	1/4"x1-1/4"	.90
A 135	5/16"x1-3/4"	1.18

PHILLIPS DRIVERS

Stock Number	Point No.	Blade Diameter and Length	Price
P 01	0	1/8"x2-1/2"	$ .80
P 1	1	3/16"x3"	1.08
P 2	2	1/4"x4"	1.35
P 3	3	5/16"x6"	1.85
P 5 (Stub)	2	1/4"x1-3/4"	1.18
P 6 (Stub)	1	3/16"x1-1/4"	1.08
P 12 (Pocket Clip)	1	1/8"x2-1/2"	.80

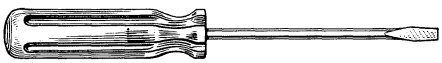
CLUTCH HEAD DRIVERS

Stock Number	Bit Point Diameter and Blade Length	Price
CH 43	1/8"x3"	$1.40
CH 54	5/32"x4-1/4"	1.40
CH 64	3/16"x4-1/4"	1.40
CH 86	1/4"x6"	1.85
CH 106	5/16"x6"	2.39
	Stub Styles	
CH 51	5/32"x1-1/2"	1.25
CH 61	3/16"x1-1/2"	1.25

SCREW HOLDING DRIVERS

Stock Number	Blade Diameter and Length	Price
OK 23	1/8"x3"	$1.05
OK 24	1/8"x4"	1.10
OK 26	1/8"x6"	1.16
OK 28	1/8"x8"	1.20
OK 34	3/16"x4"	1.40
OK 36	3/16"x6"	1.46
OK 38	3/16"x8"	1.53

BULL DRIVERS® FOR EXTRA POWER

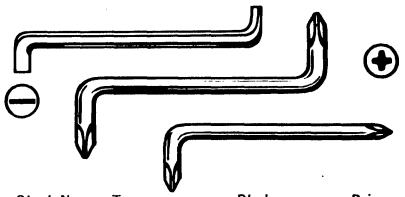


A man's size driver for a man's size job. 35% larger handle provides 35% more power and 100% more comfort.

Round Blade (Keystone Blade)

Stock Number	Blade Diameter and Length	Price
BD 144	1/4"x4"	$1.59
BD 146	1/4"x6"	1.70
BD 156	5/16"x6"	2.13
BD 158	5/16"x8"	2.24
Phillips Blade		
BD 122	#2 Phillips	1.59
BD 133	#3 Phillips	2.13

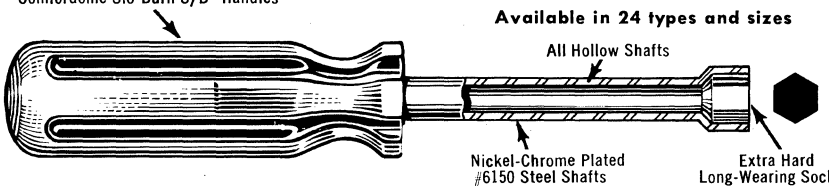
OFFSET SCREW DRIVERS

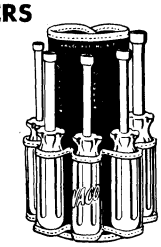


Stock No.	Type	Blade	Price
VO 1	Regular	5/32" x 3"	$ .52
VO 2	Regular	1/4" x 4"	.84
P 120	Phillips	#1 point one end, #2 point other end	.73
P 111	Phillips	#1 point both ends	.58
P 222	Phillips	#2 point both ends	.64

VACO ALL HOLLOW SHAFT NUT DRIVERS

Available in 24 types and sizes





K-7 Self-Standing Kit **$9.70**
Includes 7 nut drivers (3" shaft lengths) each in own pocket marked for size and color.

COLOR CODED HANDLES FOR QUICK IDENTIFICATION

Standard 3" Shaft Lengths

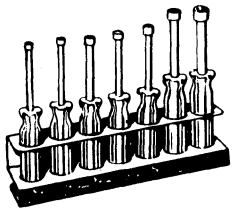
Stock No.	Hex Size	Overall Length	Color Key	Price
S 6	3/16"	6-5/8"	Black	$1.10
S 8	1/4"	6-5/8"	Red	1.10
S 10	5/16"	6-5/8"	Yellow	1.10
S 11	11/32"	6-5/8"	Green	1.10
S 12	3/8"	6-5/8"	Blue	1.10
S 14	7/16"	7"	Brown	$1.35
S 16	1/2"	7"	Orange	1.35

ALSO AVAILABLE

Stubby sizes 1/4", 5/16", 3/8"

Odd sizes 7/32", 9/32"

Extra Large sizes 9/16", 5/8"



S-700 Bench Stand **$9.14**
All metal for permanent attachment to bench or wall. 7 drivers.

© U.C.P., Inc.

Trade Discount Applies To List Prices Only

WALSCO ALIGNMENT & SPECIAL TOOLS

WALSCO SPECIAL TOOLS

SOLDER-AID TOOL
Wire brush makes removing of solder a cinch. Forked tool end and brush made of special stainless steel to which solder will not stick.
Cat. No. 2529 8" long plastic handle Net 1.00

SOLDER-AID TOOL
Similar to No. 2529 but has very thin curved hook in place of brush. Designed for use in delicate printed circuit work.
Cat. No. 2530 8" long plastic handle Net 1.00

INSPECTION MIRROR
High-visibility polished glass reflection mirror is protected against breakage by a heavy gauge plated metal backing. Has plastic, insulated grip.
Cat. No. 554 Net .42

MINI-HOLD SCREWDRIVERS
INNER BLADE ROTATES
Designed primarily to speed replacing phono cartridges. Exclusive "wedge-action" securely grips extremely small screws (No. 1 to No. 4) "Mini-hold" measures just 2-7 8" when in use.
Cat. No. 2568 2-7 8" long, open length 3¼" Net 2.14
Cat. No. 2569 7" long Net 2.40

REACH-ALL PEN OILER
Precision instrument oiler. Features extending and retracting tube. Disposes a drop or fraction of a drop of high quality oil.
Cat.No. 984 Net .99

SERVICE TWEEZERS
Cat. No. 570 Self-Closing Tweezer with cross-over action, 6½" long, serrated, blunt points. Net .99
Cat. No. 571 Heavy-Duty Tweezer with slide-lock feature. 6½" length, serrated, blunt points. Net 1.10
Cat. No. 572 Precision Tweezer with narrow, pointed ends especially suitable for delicate work. Over-all length 4½". Net .75
Cat. No. 575 Tweezer Kit, made of durable leatherette, containing one each of the above listed tweezers. Net 2.84

HEX WRENCH POCKET SET
Contains the 6 most popular size wrenches from .050 to 3 16". Mounted in convenient handle.
Cat. No. 564 Net 1.83

WALSCO LUBRICATOR
Designed for a light grease or oil such as Walsco-lub-B, Lubriplate, Tunerlub, etc. Operates by simple thumb pressure.
Cat. No. 988 Net .53

WALSCO SLUG RETRIEVING & SCREW HOLDING TOOL
Especially designed for removing "lost" TV Tuner slugs in Standard Coil Tuners. Excellent screw holding tool. End is precision-ground of hardened steel.
Cat. No. 2565 11" length Net 2.70
Cat. No. 2566 15" length Net 3.25
Cat. No. 2567 19" length Net 4.30

KEY WRENCHES
SPLINE SOCKET HEX SOCKET
Assortment of 4 small spline wrenches. Fits all set screws up to ¼" and cap screws up to No. 8.
Cat. No. 8602-F Net .63

EASY-ON TOOL GRIP
Designed for pliers,cutters, diagonals, wire, snippers, etc. Made of flexible, elastic plastic. Gives superior insulation and protection against electrical shock.
Cat. No. 521 Small, per pair Net .23
Cat. No. 522 Medium, per pair Net .27
Cat. No. 523 Large, per pair Net .33

PROTECTO TUBE
Insulate the handles of your pliers, wire cutters, screwdriver shanks neatly and effectively with Walsco Protecto Tube.
Cat. No. 18K Net 1.20

3-STEP TAP
Eliminates the need for carrying 3 separate taps and handle. Designed for reaming holes, tapping new holes, etc. Sizes are 6-32, 8-32 and 10-32.
Cat. No. 2574 Net 3.50

KNURL-TITE WRENCH
Tighten or loosen knurled finish nuts quickly and easily. The knurled nut is slipped into the collet-type pressure jaws. A quarter turn of the handle results in a positive vise-like grip.
Cat. No. 2581 3 8" diameter nut Net 4.83
Cat. No. 2582 1 2" diameter nut Net 4.83
Cat. No. 2583 5 8" diameter nut Net 4.83

NON-MAGNETIC BERYLLIUM SCREWDRIVERS
Ideal for making adjustments near magnetic fields such as in focalizers of TV sets. Does not affect TV picture as a steel tool would.
Cat. No. 2560 1 8" dia., 9" overall length Net .95
Cat. No. 2561 1 8" dia., 13" overall length Net 1.05
Cat. No. 2562 3 16" dia., 9" overall length Net 1.48
Cat. No. 2564 3 16" dia., 13" overall length Net 1.65

HEAT SINK
Protects transistors and diodes when soldering. Firm grip, light weight; solder will not stick to aluminum body.
Cat. No. 2577 Net .36

WALSCO PICK-UP TOOL
For home, shop, office, or farm. many uses. Picks up pieces dropped in inaccessible places, start screws, nuts bolts in hard places. Ideal for radio men, electricians, auto mechanics. Housewives use to wash bottles, clean, polish places hard to reach.
Cat. No. 2563 24" inches Net .98

TRIG-O-MATIC WIRE STRIPPERS
Similar to 594 but has a Trig-O-Matic action that holds jaws open until released. Especially desirable for stripping of fine stranded wire.
Cat. No. 593-01 for No. 10 to 22 Net 5.93
Cat. No. 593-02 for No. 10 to 18 Net 5.93
Cat. No. 593-03 for No. 14 to 30 Net 5.93
Cat. No. 593-04 for No. 16 to 22 Net 5.93
Extra Blades for above per set Net 1.35

SPEED-O-MATIC WIRE STRIPPERS
With fully automatic...delayed-action return that prevents the crushing of fine stranded wires...Completes the stripping operation with one simple squeeze of the handles. Strips all types of wire insulation from No. 10 to No. 30 wires by easy exchange of cutter blades.
Cat. No. 594-01 for No. 8 to 22 Net 5.93
Cat. No. 594-02 for No. 10 to 18 Net 5.93
Cat. No. 594-03 for No. 14 to 30 Net 5.93
Cat. No. 594-04 for No. 16 to 22 Net 5.93
Extra Blades for above per set Net 1.43

STRIP-ER-CLIP
Eight-stop gauge wire stripper. Strips and clips all wires from 12 to 26 gauge. Prevents accidental nicking or cutting of wires.
Cat. No. 595-X Net 1.38

ALL-PURPOSE WIRE STRIPPER
Automatically strips insulation from fine stranded wires. "Stay open" feature prevents crushing fine wires. Blades are easily replaced if necessary.
Cat. No. 591-00W Net 5.93

WALSCO OILETTE
Filled with high grade Walsco oil. Dispenses accurately one drop at a time. For use on electronic and electrical devices, clocks, office machines, sporting goods, etc.
Cat. No. 986 Net .83
Cat. No. 986-22 refill for Oilette Net .33

NEW WALSCO CHEM-O-JECTOR
A new type applicator for lubricant, greases, certain adhesives and many cleaning fluids, used in electronics. Uses the "hypodermic" plunger principal, which makes it possible to reach "hard-to-get-at" places.
Cat. No. 987 Net .30

LONG REACH OILER
Extension telescopes to over 7" Excellent for lubricating hard-to-reach places. Contains finest quality all-purpose oil.
Cat. No. 985 Net 1.07

FREE CATALOG
...Send for the Big New Catalog of the Complete Walsco Line.

WALSCO ELECTRONICS
A Division of GC Electronics
Rockford, Ill., U.S.A.

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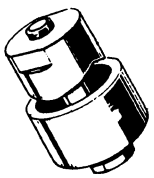
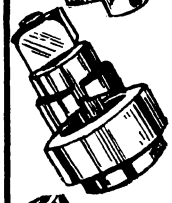
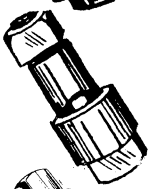
Walsco ELECTRONICS

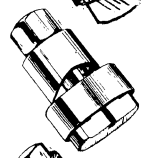
CHASSIS PUNCHES

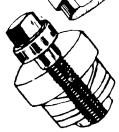


PART NO.	PUNCH SIZE	PILOT BOLT SIZE	PILOT HOLE DRILL SIZE	NET
ROUND PUNCHES				
3050-R	1/2"	1/4"	5/16"	2.60
3052-R	9/16"	1/4"	5/16"	2.60
3062-R	5/8"	3/8"	3/8"	2.60
3069-R	11/16"	3/8"	7/16"	2.60
3075-R	3/4"	3/8"	7/16"	2.60
3081-R	13/16"	3/8"	7/16"	2.60
3087-R	7/8"	3/8"	7/16"	2.60
3094-R	15/16"	3/8"	7/16"	2.90
3100-R	1"	3/8"	7/16"	2.90
3106-R	1-1/16"	3/8"	7/16"	3.00
3112-R	1-1/8"	3/8"	7/16"	3.00
3116-R	1-5/32"	3/8"	7/16"	3.00
3119-R	1-3/16"	3/8"	7/16"	3.00
3125-R	1-1/4"	3/8"	7/16"	3.00
3131-R	1-5/16"	3/8"	7/16"	3.60
3137-R	1-3/8"	1/2"	9/16"	3.60
3150-R	1-1/2"	1/2"	9/16"	4.10
3162-R	1-5/8"	3/4"	7/8"	4.90
3175-R	1-3/4"	3/4"	7/8"	5.60
3187-R	1-7/8"	3/4"	7/8"	7.00
3200-R	2"	3/4"	7/8"	7.50
3212-R	2-1/8"	3/4"	7/8"	11.20
3225-R	2-1/4"	3/4"	7/8"	8.10
3250-R	2-1/2"	3/4"	7/8"	13.20
3275-R	2-3/4"	3/4"	7/8"	18.30
3300-R	3"	3/4"	7/8"	25.50
SQUARE PUNCHES				
3050-S	1/2"	1/4"	3/8"	6.00
3062-S	5/8"	3/8"	1/2"	6.00



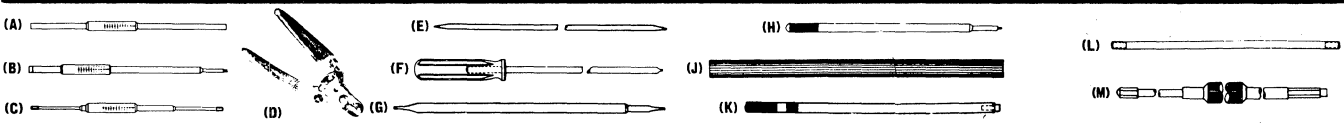






PART NO.	PUNCH SIZE	PILOT BOLT SIZE	PILOT HOLE DRILL SIZE	NET
SQUARE PUNCHES (cont.)				
3075-S	3/4"	3/8"	1/2"	6.65
3087-S	7/8"	3/8"	1/2"	7.75
3100-S	1"	3/8"	1/2"	8.00
METER HOLE PUNCHES (Round)				
3278	2-25/32"	3/4"	7/8"	12.60
KEY PUNCHES				
3254	15/32"	1/4"	5/16"	5.40
3256	15/16"	3/8"	7/16"	5.35
3258	1-11/64"	3/8"	7/16"	6.00
3260	1-17/64"	3/8"	7/16"	6.70
3262	1-21/64"	3/8"	7/16"	7.50
RADIO "D" PUNCHES				
3270	1/2" x 15/32"	5/16"	11-32"	4.65
3272	5/8" x 19/32"	5/16"	11/32"	4.95
DOUBLE "D" PUNCH				
3274	1-1/8" x 1-3/8"	1/2"	9/16"	27.00
BALL BEARING PUNCH DRIVES				
For use with punch sizes:				
3282	11/64" thru 15/16"			1.05
3284	1" thru 1-1/2"			1.15
3286	1-5/8" thru 1-3/4"			2.60
3288	1-7/8" thru 2-1/2"			2.75
3290	2-3/4" thru 3"			5.00

WALSCO ALIGNMENT & SPECIAL TOOLS



(A) I.F. Allgner and also double-ended. One end fits a No. 4 stud, the other end fits a No. 6 stud.
Cat. No. 2586.....Tel-A-Turn Tool.....Net **$1.05**

(B) An alignment screwdriver with a standard metal tip at one end. The other end has a very thin 7/64" wide metal blade for small can openings.
Cat. No. 2587.....Tel-A-Turn Tool.....Net **$1.05**

(C) A double ended Hex Aligner that turns both top and bottom slugs. One end has .100" hex, the other end is .125" hex.
Cat. No. 2588.....Tel-A-Turn Tool.....Net **$1.05**

(D) WALSCO STRIP-ER-CLIP. A brand new precision tool with an exclusive safeguard that prevents accidental nicking or cutting while wires are being stripped. Strips and clips all wires ranging from 12 to 26 gauge.
Cat. No. 595-X.....Net **$1.38**

(E) NEW "SLIM FIBREGLASS STICKS." New precision made Walsco Slim-Sticks are made of durable fibreglass. Completely non-metallic.
Cat. No. 2531-X 1/8" Dia. x 12" Long Net **$ .42**
2532-X 1/8" Dia. x 16" Long Net **.57**
2534-X 5/32" Dia. x 12" Long Net **.48**
2535-X 5/32" Dia. x 16" Long Net **.72**

(F) WALSCO "GLAS-STICKS." Precision made machined fiberglas reinforced polyester alignment screwdriver.
Cat. No. 2537....5/32" Dia., 7" blade...Net **$ .85**
Cat. No. 2538....5/32" Dia.,14" blade... **1.15**

(G) DUPLEX ALIGNMENT SCREWDRIVER. Large end is 7/32" wide; small end, 5/32" wide. Tip thickness conforms to standard slot dimensions, 7" long.
Cat. No. 2520.....Net **$ .62**

(H) ALIGNMENT TOOL FOR WESTINGHOUSE, ETC. Especially designed to fit Westinghouse and other sets. Very thin tip for small can openings.
Cat. No. 2541.....5-3/4" long.....Net **$ .57**

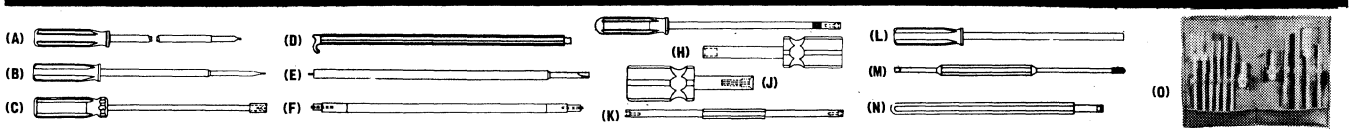
1/4" HEX I.D. NEUTRALIZING WRENCH. Made of tough, flexible, Lo-loss plastic. If corners wear round, just trim back, 7-1/2" long. 3/8" round O.D.
Cat. No. 2503.....Net **$ .37**

(J) 5/16" HEX I.D. NEUTRALIZING WRENCH. Durable Lo-loss plastic gives long service life. 7-1/2" long, 7/16" O.D.
Cat. No. 2508.....Net **$ .37**

(K) METAL TIP ALIGNMENT SCREWDRIVER. Combines low capacitance desirable in alignment tool with mechanical strength of metal screwdriver. Plastic handle, 7/32" diameter, 6" long over all.
Cat. No. 2525.....Net **$ .42**

(L) WALSCO TUNING WAND. Rod with one end made of brass, the other loaded with powdered iron–for checking coils.
Cat. No. 2540.....Net **$ .53**

(M) DOUBLE END DELRIN HEX IRON CORE TOOLS For .075", .100" and .125" Cores. Turn both top and bottom coil slugs with this one handy tool. One end under cut for turning bottom slug separately.
Cat. No. 2542.....Net **$ .48**
.125" Hex 5" long, Hex Handle
Cat. No. 2543.....Net **$ .48**
.100" Hex, 5" long, Hex Handle
Cat. No. 2544.....Net **$ .63**
.100" Hex, 11" long, knurled 1/4" Handle
Cat. No. 2545.....Net **$ .63**
.100" Hex, 11" long, thin, 5/32" Handle
Cat. No. 2546.....Net **$ .63**
.075" Hex, 11" long, knurled 1/4" Handle
Cat. No. 2547.....Net **$ .63**
.075" Hex, 11" Long, Thin 5/32" Hdle.



(A) "THE LONG RANGER." A full 12", slim completely insulated tuner alignment tool. Features tough, replaceable, molded nylon tip.
Cat. No. 2523.....Net **$1.60**

(B) TURRET TUNER TOOL. A tool for adjusting all sets using "Standard Coil" and similar turret-type tuners.
Cat. No. 2522.....Net **$ .92**

(C) PHILCO TUNER TOOL. A special tool for 1946-48 front-end tuners.
Cat. No. 2518.....Net **$1.20**

(D) WIRE DRESSING & ALIGNMENT TOOL. A handy dual-purpose tool with a thin 7/32" plastic, handle. One end is a special tool for dressing wires in hard-to-reach places. Other end with a low capacitance metal screwdriver tip.
Cat. No. 2512.....Net **$ .45**

(E) K-TRAN ALIGNMENT TOOL. This tough, double-use tool is machined at one end to fit the slots on all K-Tran miniature I.F. transformers.
Cat. No. 2515.....Net **$ .60**

(F) "SLUG SAVER" TUNER TOOL. New patented tool for aligning "Standard Coil" front ends. Prevents "loosing" slugs, thru ingenious "step" design.
Cat. No. 2528.....7-1/2" long.....Net **$ .67**

(G) SLOTTED STUD DRIVER. An 8-1/4" long precision screwdriver with blade to fit No. 6 studs.
Cat. No. 2516.....Net **$ .92**

(H) I.F. ALIGNER. 2-1/2" long molded plastic ... for RCA, Zenith and others.
Cat. No. 2527.....Net **$ .58**

(J) STUBBY STUD DRIVER. The only screwdriver only 2" long overall. Fits No. 6 studs.
Cat. No. 2517.....Net **$ .60**

(K) STANDARD ALIGNMENT TOOL. Screwdriver blades are made with extra-thin tempered Swedish steel and are recessed so that they will slide easily over a stud and will not slip off.
Cat. No. 2519.....Net **$ .67**

(L) SLOTTED SCREWDRIVER. Instead of a blade, this tool has a slot to fit No. 6 studs. For many of the older TV sets.
Cat. No. 2524.....Net **$1.00**

(M) DOUBLE ENDER. A 5-1/2" long, molded-nylon tool with one end to fit hex studs, the other end being a very small screwdriver.
Cat. No. 2526.....Net **$ .37**

(N) I.F. ALIGNER TOOL. Designed for I.F. Alignment of Zenith, RCA and other similar types. Made of molded plastic 5-1/2" long.
Cat. No. 2521.....Net **$ .53**

(O) WALSCO TV-FM ALIGNMENT TOOL KIT. Kit contains 12 tools. These are all standard Walsco tools and come in a handy leatherette case or wall rack for mounting above work bench.
Cat. No. 580....Leatherette case.....Net **$7.20**
581....in wall rack..... **7.50**

Weller DUAL HEAT Soldering Guns

Dual heat. All Weller guns offer Dual Heat, an original Weller feature that provides two tip temperatures from the same gun. Two trigger positions permit instant switching to high or low heat, whichever is best suited for the job. The use of low heat prevents damage when soldering near heat-sensitive components and prolongs tip life. High heat is instantly available when needed.

Instant heat. Solders in seconds. No waiting for the tip to heat. No wasted current.

High-Efficiency Tip. Made of copper for superior heat transfer and optimum soldering results. Slips easily into difficult places.

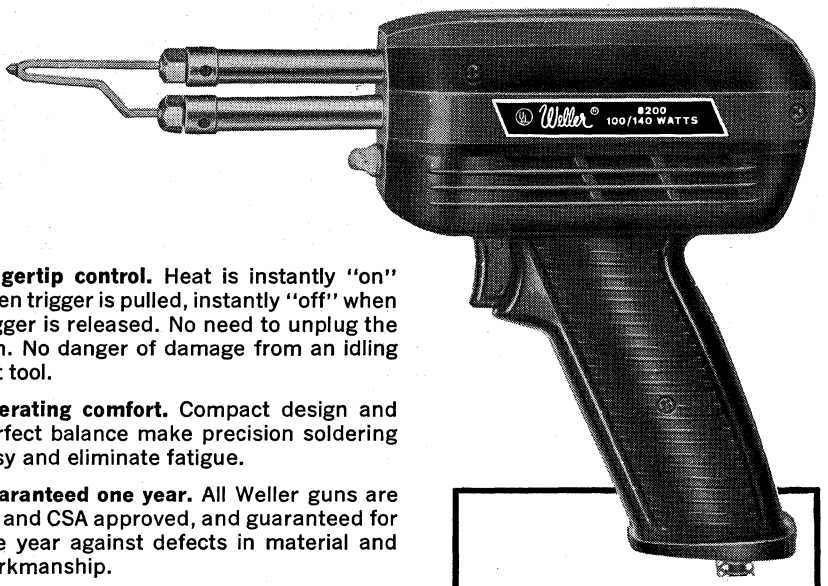
Exclusive Tip Grip. Wiping action of tip fastening nuts eliminates contact resistance and oxidation. This assures full, constant heat.

Spotlight. Illuminates the work and eliminates shadows.

Fingertip control. Heat is instantly "on" when trigger is pulled, instantly "off" when trigger is released. No need to unplug the gun. No danger of damage from an idling hot tool.

Operating comfort. Compact design and perfect balance make precision soldering easy and eliminate fatigue.

Guaranteed one year. All Weller guns are UL and CSA approved, and guaranteed for one year against defects in material and workmanship.



3 Dual Heat Models

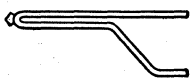
MODEL 8200—100/140 watts
MODEL D-440—145/210 watts
MODEL D-550—240/325 watts

KITS WITH ACCESSORIES

MODEL 8200PK—Dual heat 100/140 watt gun, 3 soldering tips, tip-changing wrench, flux brush, soldering aid, solder, plastic case.

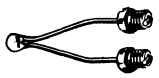
MODEL D-550PK—Heavy-duty 240/325 watt dual heat gun; soldering, cutting and smoothing tips; tip-changing wrench; solder; plastic case.

Accessory and Replacement Tips for Weller Dual Heat Guns



SOLDERING
For gun model 8200—Tip 7135N
For gun model D-440—Tip 7135N
For gun model D-550—Tip 7250N

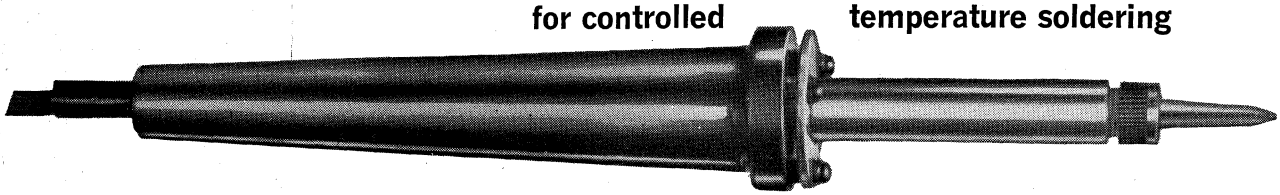
SMOOTHING
For gun models D-440 and 8200—Tip 6120
For gun model D-550—Tip 6140



CUTTING
For gun models D-440 and 8200—Tip 6110
For gun model D-550—Tip 6130

Weller MAGNASTAT® Soldering Irons

for controlled temperature soldering



Only Weller brings you soldering irons with temperature control in the tip. One Magnastat iron with 3 different controlled temperature tips does the work of 3 different irons. And it maintains proper temperature for secure, reliable soldered connections.

- Tip temperature will not vary more than ±3% when idling.
- A Magnastat iron provides efficient soldering temperature under load and excellent recovery.
- Your choice of 3 different controlled temperatures by interchanging Magnastat tips.

STANDARD WELLER MAGNASTAT IRONS

MODEL NO.	WATTS	TIPS
W-60	60	5-CIN—750°F
W-80	80	6-EIN—750°F
TC1202	120	12-G4N—750°F

Furnished with standard two-wire cord and tip number designated.

- Weller Magnastat irons do the work of uncontrolled irons that require much higher wattage and weigh twice as much.
- The light weight of a Weller Magnastat iron reduces operator fatigue. Handle remains cool.

Over 90 Magnastat Wellertips are available. Tips come in 3 controlled temperature ranges—600°F, 700°F and 750°F—and in many different shapes.

WELLER ELECTRIC CORP.

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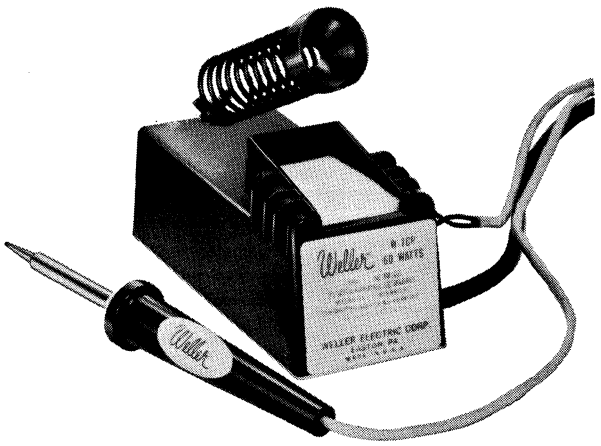
Weller® PENCIL Soldering Units



Temperature Controlled "Low Voltage" Soldering Pencil with 3/16" 700°F tip and power unit—**MODEL W-TCP**

SPECIFICATIONS

Wattage	Voltage	Weight with Tip, Less Power Unit and Cord	Overall Length of Iron with Tip	Tip Retainer O. D.
60	120 V.* 50/60 Cycles	1¼ oz.	7½"	5/16"

*230/250V., 50/60 Cycles available upon request at same price.

Temperature Controlled "Low Voltage" Soldering Unit

For production line and research laboratory use where accurate control of tip temperature is essential to meet rigid soldering specifications. Choice of 4 different tip temperatures from one soldering pencil merely by interchanging 4 different controlled temperature tips.

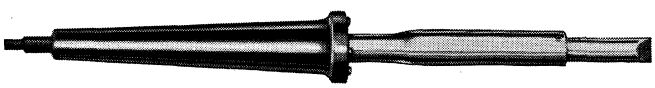
- Temperature control is in the tip. Choice of 500°F, 600°F, 700°F and 800°F tip temperatures.
- Extremely small and light in weight. Easy to control.
- Suitable for miniature or general soldering.
- High efficiency and rapid recovery. Packed with plenty of reserve power.
- Low 24 volt operation for component and user protection.
- Isolated for elimination of leakage current.
- Handle of high-impact plastic remains cool.
- Interchangeable tips are premium plated.
- Soldering iron stand attached to power unit.
- Power cord is silicon rubber covered, extremely flexible and easy to maneuver. Doesn't break or burn.

Interchangeable tips available: 1/16", 1/32", 3/32", 1/8", 3/16" and 1/4" screwdriver with choice of 500°F, 600°F, 700°F and 800°F controlled temperatures.

Continuously Variable Temperature Controlled Soldering Unit with SCR and Thermistor Control Circuit

Features continuously variable tip temperatures from 200°F to 450°F—simply dial the temperature required. This unit is specifically engineered for low-temperature, miniature soldering applications. Interchangeable tips include 1/16" (standard) and 1/32" conical flat. Otherwise identical to W-TCP (above) except wattage: 20 instead of 60.

Weller® Utility Soldering Irons



Marksman Soldering Irons

Feature stainless steel, long-reach barrels, 1/8" replaceable tips. All operate at 120 volts; all provide Weller quality.

Model No.	Wattage	Weight (Oz.)
SP-23*	25	1¾
SP-40	40	2
SP-80	80	4
SP-120	120	10
SP-175	175	16

*Also available as a kit (Model SP-23K). Includes iron; screwdriver. cone and chisel tips; soldering aid and extra supply of solder.

"Industrial Rated" Pencil Soldering Irons

- Low cost 115 volt iron has tip temperature of 860°F with 25 watt input. Ideal for miniature type soldering.
- High efficiency and rapid recovery.
- Does the work of irons that require much higher wattage.
- Lightweight design reduces operator fatigue, provides accurate control.
- Rugged heating element designed for durability, long service.
- Readily replaceable parts. Change your own heating element or cord set.

Interchangeable tips available: 1/16", 3/32" and 1/8" screwdriver. Premium plated for long life.

WELLER ELECTRIC CORP.

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WALLBRAND SOLDERING PENCILS, IRONS AND GUNS

SINCE 1864

Here are a few of the reasons why engineers choose WallBrand pencils and irons. They're Thermogram Rated for better efficiency. Cooler Handles. Feather Light. Perfect Balance. Extreme Operator Comfort.

Production Line Model 18HD—Thermogram Value: 300—25 watt input. Engineered for continuous precision soldering applications, the Model 18 has a total weight (less cord) of only 1½ ounces. A wide selection of tips available. Specifically engineered for the demanding applications of micro-circuitry, and high density packaging, precision work on solid state devices, printed circuits, etc. Designed with the critical temperature ranges of micro-miniature components in mind.

Production Line Model 14HD—Thermogram Value: 900—40 watt input. The Model 14 has the same precision components as the Model 18 and is designed for continuous production line work requiring more heat in a wide variety of tip sizes. Also 50 watt. Now, in addition to the present Wall soldering pencil irons, you can have Wall soldering pencils in a *new plug type system.* All heating elements for the 614-618 and subminiature 6116 are interchangeable with one handle and cord assembly.

HD Type for continuous, heavy duty soldering requirements:
• Triple-life resistance wire wound on pure mica. • Offers constant, even tip temperature. • Extra fast recovery. • Excellent balance. • 120 or 130 volts, ac or dc (other voltages on request).

TRIG-R-HEAT SOLDERING GUN SPECIFICATIONS

Model	Tip Size	Max. Watts	Min. Watts	Voltage AC or DC	Weight W/O Cord
214LT	¼″	400	150	110-120	14 oz.
212LT	½″	500	300	110-120	24 oz.
TIP AND ELEMENT ASSEMBLY					
214TE	¼″	400	150	110-120	
212TE	½″	550	300	110-120	

Model	Watt Input	Tip Size	Length W/O Tip	Therma/ Gram Value
18HD	25	⅛″	6⅝″	300
14HD	40	¼″	7½″	900
618HD	25	⅛″	6⅝″	300
614HD	40	¼″	7½″	900
6116	11	⅛″	6¼″	125
38HD	80	⅜″	10¼″	1500
12HD	125	½″	10¼″	2000
58HD	200	⅝″	12¼″	3500
78HD	250	⅞″	12⅜″	5400

TechniMaster 863

Model	Watt. Input	Voltage	Tiplet Size	Length W/O Tiplet
863	40	125	3/16″	8⅜″

The Wall Trig-R-Heat Soldering Gun—Feather light, 14 oz., no heavy transformer. You can reach hard to get spots, tip will not deform. It has an insulated spot light switch, independent of trigger action. Heats instantly, recovers instantly. Rugged, precision built, made to last. One gun with two interchangeable tip and element assemblies to solve all soldering problems. This gun is made for the man who wants the best.

Economaster 6316—Industrial type soldering pencil at a popular price. Light weight, excellent balance, rugged construction, stable tip temperature. Ideally suited for all soldering applications.

14DS New Wall Desoldering Tool—Keeps solder in a molten state in reservoir, operated with one hand, fits existing Wall HD Iron. Replaceable tip (.080 opening).

538HD Swivel Iron—Adjustable, seven positions. From straight to 90° in 15° increments. Quick positive locking adjustment. 80W or 100W ⅜″ tip size.

2AG Heat Gun, AG Heat Gun—Plug-type hot air guns from 200 to 600 watts, adaptable for any usage requiring up to 1000° F. **2AG pistol grip** available with trigger at additional cost. Opens air and heat at same time. Apply heat only when you need it. **AG handle grip.** One heating element fits both guns. All five tip styles interchangeable. Special tips upon request. Three-wire cord assembly. The perfect guns for hundreds of different uses—to shape, form, weld and seal thermoplastics. Excellent heat source for shrinkable tubing. Gun includes neoprene air hose, hose fittings and pressure regulator valve.

Soldering Tips for Pencils and Irons—Wall has an extremely wide selection of soldering tips. Write for Bulletin I-464. These soldering tips are available in three different series, for WallBrand irons and pencils.

Anniversary—Industrial grade. Highest quality. Copper core. Special iron coating. Centerless-ground shaft. Non-freeze. Bright finish. Ultra long life for precision work and rigorous production line demand.

WallKlad—Industrial grade. Copper core, iron coating chrome plated for production applications, critical laboratory use.

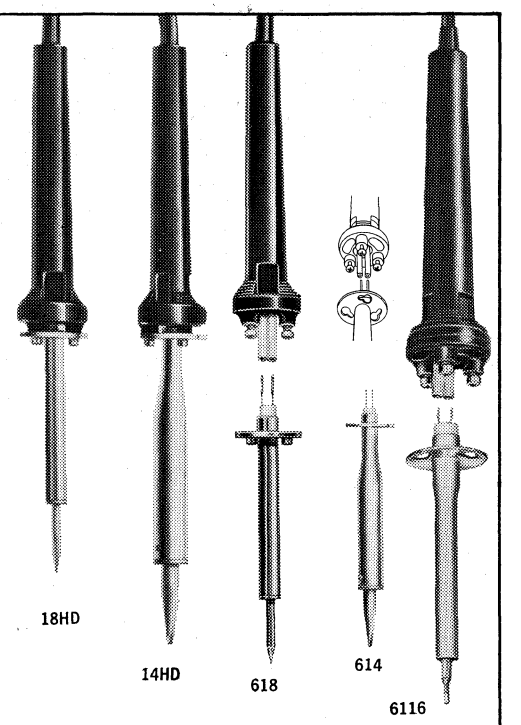
WallBrand—Commercial grade, copper, nickel plated for some production and all commercial applications.

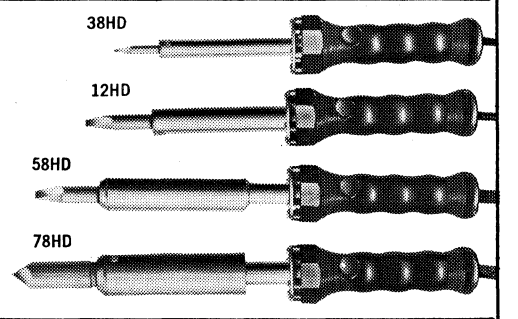
A complete selection of tips from ⅛″, 3/16″, ¼″, ⅜″, ½″, ⅝″ and ⅞″. Special tips to specification, designed upon request.

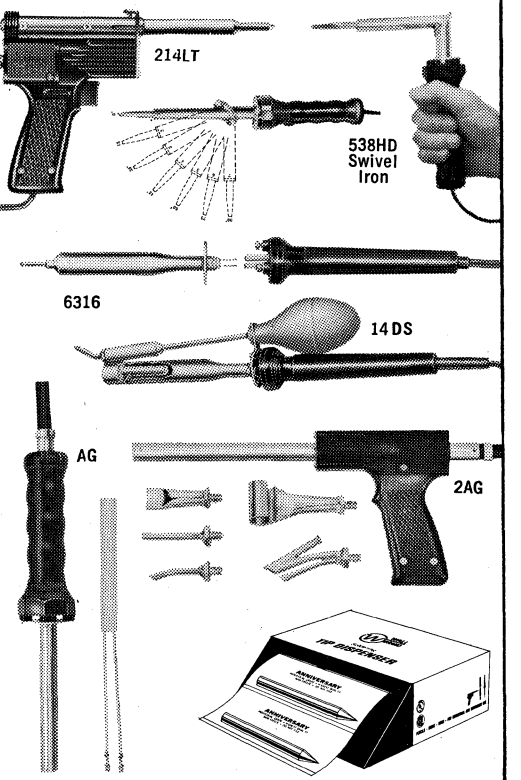
New Soldering Tip Dispenser Pac. WallBrand tips are available in a handy tip dispenser pac. Tip sizes ⅛″ through ⅜″. This unique Wall development keeps tip individually sealed in a color coded, continuous belting, plastic envelope. These envelopes are loaded in the popular Tip Dispenser Pac. The WallBrand individual Tip Dispenser Pac is ideally suited for production line station or stock distribution.

WALL MANUFACTURING CO.,

Industrial Soldering Pencils are built to exceed federal specification W-S-570a as amended. WallBrand soldering products are UL and CSA listed.







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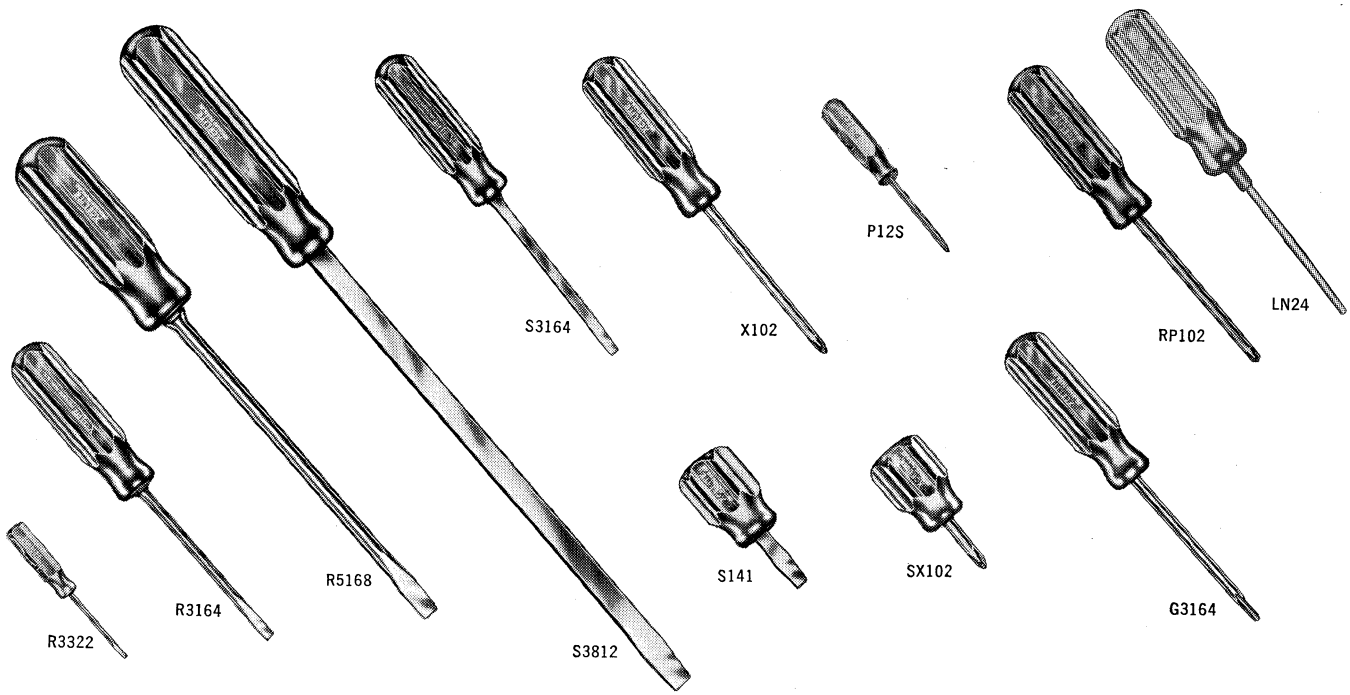
XCELITE® QUALITY PROFESSIONAL TOOLS

SCREWDRIVERS

AISI 6150 chrome vanadium steel blades. Shockproof, breakproof, plastic (UL) handles.



ROUND BLADE

Number	Size Blade	Net
	Regular	
R182	1/8″ x 2″	$ .33
R184	1/8″ x 4″	.42
R186	1/8″ x 6″	.48
R188	1/8″ x 8″	.57
R1810	1/8″ x 10″	.69
R5323	5/32″ x 3″	.45
R5324	5/32″ x 4″	.45
R5325	5/32″ x 5″	.48
R5328	5/32″ x 8″	.63
R3163	3/16″ x 3″	.60
R3164	3/16″ x 4″	.69
R3166	3/16″ x 6″	.75
R3168	3/16″ x 8″	.87
R31610	3/16″ x 10″	.99
R142	1/4″ x 8″	.69
R144	1/4″ x 4″	.87
R146	1/4″ x 6″	.96
R148	1/4″ x 8″	1.02
R1410	1/4″ x 10″	1.08
R5164	5/16″ x 4″	.96
R5166	5/16″ x 6″	1.08
R5168	5/16″ x 8″	1.17
R388	3/8″ x 8″	1.50
	Pocket Clip Style	
R3322	3/32″ x 2″	$ .30
R3323	3/32″ x 3″	.33
R3324	3/32″ x 4″	.33
R181	1/8″ x 2″	.30
R183	1/8″ x 3″	.33
R184½	1/8″ x 4″	.36

SQUARE BLADE

Number	Size Blade	Net
	Regular	
S3163	3/16″ x 3″	$ .66
S3164	3/16″ x 4″	.72
S3166	3/16″ x 6″	.84
S3168	3/16″ x 8″	.96
S31610	3/16″ x 10″	1.14
S142	1/4″ x 2″	.75
S144	1/4″ x 4″	.90
S146	1/4″ x 6″	.99
S148	1/4″ x 8″	1.11
S1424	1/4″ x 24″	2.40
S5162	5/16″ x 2″	.81
S5164	5/16″ x 4″	.99
S5166	5/16″ x 6″	1.14
S5168	5/16″ x 8″	1.26
S51610	5/16″ x 10″	1.44
S51612	5/16″ x 12″	1.68
S388	3/8″ x 8″	1.50
S3812	3/8″ x 12″	2.40
S3818	3/8″ x 18″	2.70
S7166	7/16″ x 6″	1.95
S71612	7/16″ x 12″	2.40
S71618	7/16″ x 18″	2.70
	Stubby	
S3161	3/16″ x 1″	$ .48
S141	1/4″ x 1″	.51
S5161	5/16″ x 1″	.51

PHILLIPS

Number	Point Size	Size Blade	Net
		Extra Long	
X1010	1	3/16″ x 10″	$1.14
X1020	2	1/4″ x 10″	1.29
		Regular	
X100	0	1/8″ x 2″	$ .48
X101	1	3/16″ x 3″	.75
X108	1	3/16″ x 6″	.84
X102	2	1/4″ x 4″	.93
X103	3	5/16″ x 6″	1.26
X104	4	3/8″ x 8″	1.59
		Stubby	
SX101	1	3/16″ x 1 7/16″	$ .69
SX102	2	1/4″ x 1 5/16″	.78
		Pocket Clip Style	
P12S	0	1/8″ x 2″	$ .39

ALLEN TYPE

Number	Hex Size	Blade Length	Net
LN20	.050″	4″	$ .69
LN21	1/16″	4″	.69
LN22	5/64″	4″	.69
LN23	3/32″	4″	.69
LN764	7/64″	4″	.69
LN24	1/8″	4″	.75
LN964	9/64″	4″	.75
LN25	5/32″	6″	.75
LN26	3/16″	6″	.75
LN27	7/32″	6″	.84
LN28	1/4″	6″	.87

FREARSON (Reed & Prince)

Number	Point Size	Size Blade	Net
RP101	1	3/16″ x 3″	$ .75
RP102	2	1/4″ x 4″	.90
RP103	3	5/16″ x 6″	1.20
RP104	4	3/8″ x 8″	1.50

CLUTCH HEAD

Type G No.	Tip Size	Size Blade	Net
G3324	3/32″	1/8″ x 4″	$ .78
G183	1/8″	3/16″ x 3″	.78
G5324	5/32″	3/16″ x 4″	.93
G3164	3/16″	1/4″ x 4″	.93
G146	1/4″	9/32″ x 6″	1.17
G5166	5/16″	3/8″ x 6″	1.44

NON-MAGNETIC BERRYLLIUM — Copper blades

Non-sparking.
Higher fatigue resistance than steel.

Number	Size Blade	Net
	Regular	
BR186	1/8″ x 6″	$ .84
BR1810	1/8″ x 10″	.96
BR3168	3/16″ x 8″	1.44
BR146	1/4″ x 6″	1.80
BR148	1/4″ x 8″	1.95
	Pocket-Clip Style	
BR181	1/8″ x 2″	$ .36

SUBJECT TO CHANGE WITHOUT NOTICE

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XCELITE® QUALITY PROFESSIONAL TOOLS

COMBINATION-REVERSIBLE SCREWDRIVERS

AISI 6150 chrome vanadium steel blades. Shockproof, breakproof, plastic (UL) handles. Patented spring holds blades securely. 7/16" hex opening doubles as a nutdriver.

COMPLETE UNITS

Regular Type	Net
CR1—No. 25 handle & RB1 blade	$1.47
CR2—No. 25 handle & RB2 blade	1.47
CR3—No. 25 handle & RB3 blade	1.47
Stubby Type	
CS1—No. 26 handle & SB1 blade	1.41
CS2—No. 26 handle & SB2 blade	1.41

HANDLES ONLY

25—Regular ..... .63
26—Stubby ..... .60

BLADES ONLY

Regular Type

RB1—No. 1 Phillips & 3/16" Slotted .84
RB2—No. 2 Phillips & 1/4" Slotted .84
RB3—No. 3 Phillips & 5/16" Slotted .84
RB12—No. 1 & No. 2 Phillips..... .99
GB1—3/16"G & 5/32"G Clutch..... .99
GB2—5/16"G & 1/4"G Clutch..... .99

Stubby Type

SB1—No. 1 Phillips & 3/16" Slotted $ .81
SB2—No. 2 Phillips & 1/4" Slotted .81
GS1—3/16"G & 5/32"G Clutch..... .87

POCKET ROLL KITS

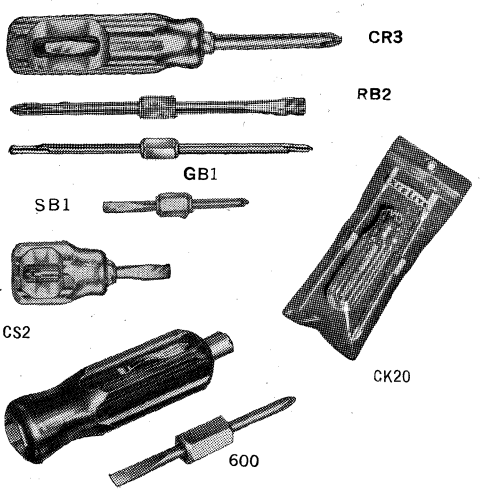
CK2 — Contains RB1, RB2 blades and No. 25 handle $2.85
CK3 — Same as CK2, plus RB3 blade.. 3.69
CK5 — Same as CK2, plus RB3, GB1, and GB2 blades 5.67

PLASTIC VIEW KITS

SK20 — Contains SB1, SB2 blades and No. 26 handle $2.49
CK20 — Contains RB1, RB2 blades and No. 25 handle 2.94
CK23—Same as CK20, plus RB3 blade 3.78

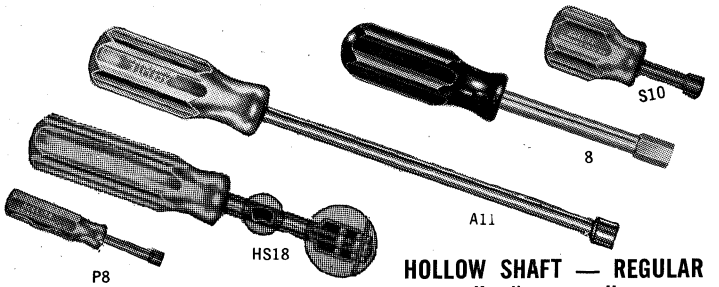
COMBINATION SCREW AND NUTDRIVER TOOL

600—Handy 4-way tool with pocket clip. 1/4" and 7/16" hex openings. Reversible SB1 blade ..... Net $1.50



NUTDRIVERS (Color-Coded Handles)

Polished-plated, steel shafts. Shockproof, breakproof, plastic (UL) handles. Precision, cold drawn, case hardened sockets.



SOLID SHAFT — REGULAR

Number	Handle Color	Hex Opening	Net
	(6" Overall Length)		
5	Amber	5/32"	$ .78
6	Black	3/16"	.78
7	Brown	7/32"	.78
8	Red	1/4"	.78
9	Orange	9/32"	.78
10	Amber	5/16"	.78
11	Green	11/32"	.78
12	Blue	3/8"	.78
	(7 1/4" Overall Length)		
14	Brown	7/16"	$ .99
16	Red	1/2"	.99
	STUBBY		
	(3 1/4" Overall Length)		
S6	Black	3/16"	$ .69
S8	Red	1/4"	.69
S10	Amber	5/16"	.69
S11	Green	11/32"	.69
S12	Blue	3/8"	.69
	POCKET CLIP STYLE		
	(3 1/2" Overall Length)		
P3	Amber	3/32"	$ .51
P4	Red	1/8"	.51
P5	Amber	5/32"	.51
P6	Black	3/16"	.51
P7	Brown	7/32"	.51
P8	Red	1/4"	.51
P9	Orange	9/32"	.51
P10	Amber	5/16"	.51
P11	Green	11/32"	.51
P12	Blue	3/8"	.51

HOLLOW SHAFT — REGULAR

Number	Handle Color	Hex Opening	Net
	(6 1/8" Overall Length)		
HS6	Black	3/16"	$ .93
HS7	Brown	7/32"	.93
	(7" Overall Length)		
HS8	Red	1/4"	$ .93
HS9	Orange	9/32"	.93
HS10	Amber	5/16"	.93
HS11	Green	11/32"	.93
HS12	Blue	3/8"	.93
	(7 1/4" Overall Length)		
HS13	Amber	13/32"	$1.05
HS14	Brown	7/16"	1.05
HS15	Amber	15/32"	1.08
HS16	Red	1/2"	1.08
HS17	Amber	17/32"	1.14
HS18	Orange	9/16"	1.14
HS19	Amber	19/32"	1.26
HS20	Amber	5/8"	1.26
HS22	Amber	11/16"	1.59
HS24	Amber	3/4"	1.59
	EXTRA LONG		
	(9" Overall Length)		
A6	Black	3/16"	$1.11
A7	Brown	7/32"	1.11
A8	Red	1/4"	1.11
A9	Orange	9/32"	1.11
A10	Amber	5/16"	1.11
A11	Green	11/32"	1.11
A12	Blue	3/8"	1.11
	EXTERNAL HEX		
	(For control shaft nuts on Arvin and Philco poratble stereo sets. 6 1/4" Overall Length. 7/16" External Hex.)		
PN-716	Black	....	$ .93

SUBJECT TO CHANGE WITHOUT NOTICE

NUTDRIVER SETS

Carrying cases made of durable, pebble grain plastic. No. 77 has hole in lid lock for wall hanging. Molded plastic "Tray Bien" bench trays have fold-away stands and provision for wall mounting. Snap lock feature holds tools securely, yet permits easy removal.

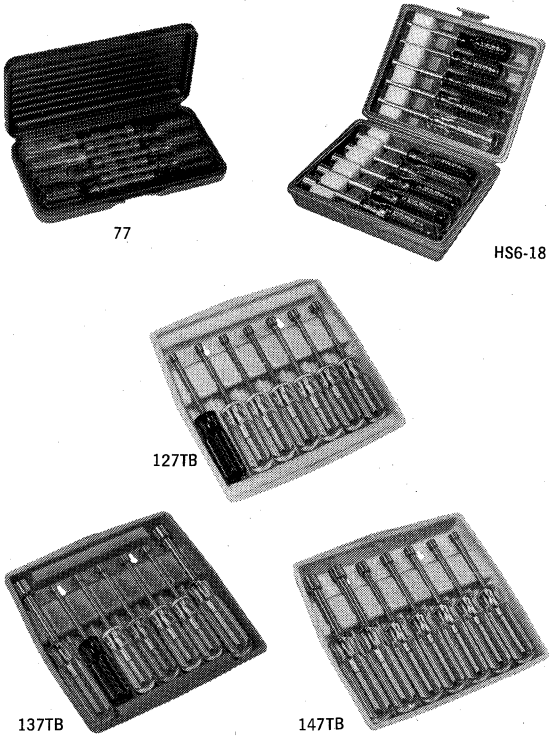
No. 77 CARRYING CASE Net $6.75
Contains solid shaft Nos. 6, 7, 8, 9, 10, 11 and 12.

No. HS6-18 CARRYING CASE Net $11.10
Contains hollow shaft Nos. HS6, HS7, HS8, HS9, HS10, HS11, HS12, HS14, HS16 and HS18.

No. 127TB "TRAY BIEN" Net $6.60
Contains solid shaft Nos. 6, 7, 8, 9, 10, 11 and 12.

No. 137TB "TRAY BIEN" Net $7.35
Contains solid shaft Nos. 6, 8, 10, 11 and 12 and hollow shaft Nos. HS16 and HS18.

No. 147TB "TRAY BIEN" Net $8.70
Contains hollow shaft Nos. HS8, HS9, HS10, HS11, HS12, HS14 and HS16.



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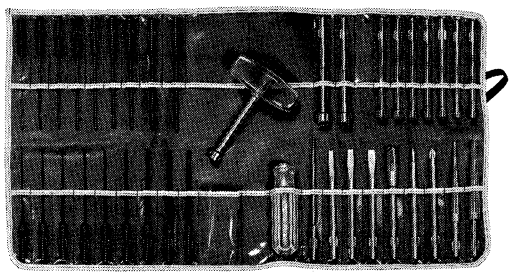
XCELITE® QUALITY PROFESSIONAL TOOLS

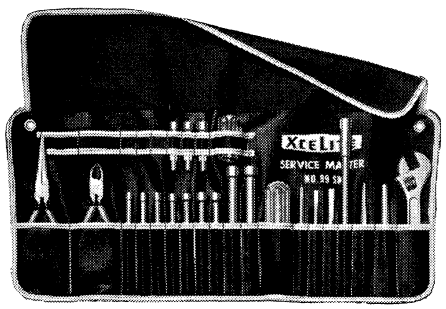
SERIES "99" SERVICE KITS, BLADES, AND HANDLES



No. 99MP MULTI-PURPOSE TOOL KIT — Net $28.35

39-piece kit contains 99-1 (Regular) and 99-4 (Tee) handles, ten regular nutdrivers (99-5 thru 99-16), nine Allen Hex type screwdrivers (99-20, thru 99-26), nine Bristol Multiple Spline screwdrivers (99-61 thru 99-69), three slotted screwdrivers (99-811, 99-250, 99-312), two Phillips screwdrivers (99-821, 99-822), two reamers (99-38, 99-39), awl/scriber (99-70), extension blade (99-X5).

99MPK, Canvas case only.....**Net $3.27**



No. 99SM SERVICE MASTER — Net $24.87

23-piece kit contains 99-1 (Regular) and 99-3 (Stubby) handles, nine regular and three stubby nutdrivers (99-6 thru 99-16), two slotted screwdrivers (99-811, 99-812), one Phillips screwdriver (99-821), two reamers (99-38, 99-39), extension blade (99-X10), 6" long nose cushion grip plier (52CG), 5" diagonal cushion grip plier (55CG), 6" adjustable wrench (46C).

99SMK, Canvas case only.....**Net $2.25**

ROLL KITS

No. 99PR — Net $9.42

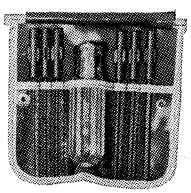
Contains nine regular nutdrivers (99-6 thru 99-16), 99-81 (Slotted) and 99-82 (Phillips) reversible screwdriver blades, 99-1 handle (Regular).

99K, Kit only .....**Net $1.05**

No. 99JR — Net $8.28

Contains seven regular nutdrivers (99-6 thru 99-12) four screwdriver blades 99-811 and 99-812 (Slotted), and 99-821 and 99-822 (Phillips), 99-2 handle (Junior).

99KJR, Kit only .....**Net $1.05**



No. 99LN — Net $4.47

Contains six Allen type screwdriver blades (99-21, 22, 23, 24, 25, 26) and 99-1 handle (Regular).

No. 99-30 CLEAR PLASTIC POUCH — Net $3.24

Heat sealed plastic snap case with size numbers on pockets for convenient selecting and storing. Contains six Allen type screwdriver blades (99-21, 22, 23, 24, 25 and 26).

PLASTIC VIEW KITS

No. 99SL — Net $3.75

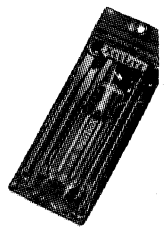
Contains five Scrulox® screwdriver blades for square recess screws (SL 00, 0, 1, 2, 3), 99-1 handle (Regular).

No. 99PV4 — Net $2.67

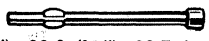
Contains three slotted screwdriver blades (99-811, 99-250, 99-312), 99-1 handle (Regular).

No. 99PV6 — Net $3.75

Contains three slotted screwdriver blades (99-811, 99-250, 99-312), two Phillips screwdriver blades (99-821, 99-822), 99-1 handle (Regular).

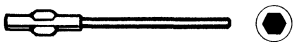


	Net
99-1 (1 1/16" x 4 1/8") Regular Handle (for all blades, single-end and reversible)	$ .69
99-2 (1" x 3 1/8") Junior Handle (for single-end blades only)	.63
99-3 (1/16" x 2") Stubby Handle (for single-end blades only)	.60
99-4 (1" x 3 3/8") Tee Handle (for single-end blades only)	.90

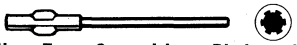


Nutdriver Blades: 99-5 (5/32"), 99-6 (3/16"), 99-7 (7/32"), 99-8 (1/4"), 99-9 (9/32"), 99-10 (5/16"), 99-11 (11/32"), 99-12 (3/8")	.60
99-14 (7/16"), 99-16 (1/2")	.75

Stubby Nutdriver Blades: 99-S8, 99-S10, 99-S12	.48



Allen Type Screwdriver Blades: 99-20 (.050"), 99-21 (1/16"), 99-22 (5/64"), 9-23 (3/32"), 99-764 (7/64"), 99-24 (1/8"), 99-964 (9/64"), 99-25 (5/32"), 99-26 (3/16")	.54

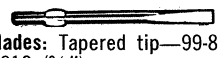


Bristol Multiple-Spline Type Screwdriver Blades: 99-61 (.048", flute), 99-62 (.060", 6-flute), 99-63 (.069", 4-flute), 99-64 (.072", 6-flute), 99-65 (.076", 4-flute), 99-66 (.096", 6-flute), 99-67 (.111", 6-flute), 99-68 (.145", 6-flute), 99-69 (.183", 6-flute)	.54

99-81 Slotted Screwdriver Reversible Blade (3/16" & 5/32")	1.02

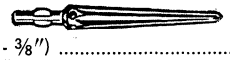
99-82 Phillips Screwdriver Reversible Blade (#1 & #2)	1.02
99-83 Reed & Prince Screwdriver Reversible Blade (3/16" & 5/32")	1.02

99-84 Clutch "G" Screwdriver Reversible Blade (3/16" & 5/32")	1.02



Slotted Screwdriver Blades: Tapered tip—99-811 (3/16"), 99-250 (1/4"), 99-812 (5/32")	.60
Flared tip — 99-312 (5/16")	.60

Phillips Screwdriver Blades: 99-821 (#1), 99-822 (#2)	.60



Reamers: 99-38 (1/8" - 3/8")	1.32
99-39 (1/4" - 1/2")	1.65

99-X5 Extension Shaft. Adds 4" reach to single-end blades	.90
99-X10 Extension Shaft. Adds 7" reach to single-end blades	.90
99-70 Awl/Scriber (4 1/2")	.60

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XCELITE® QUALITY PROFESSIONAL TOOLS

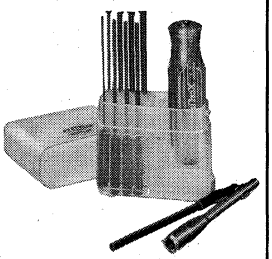
COMPACT SETS

Series "99" Sets

Each set contains a Series "99" regular handle and various Series "99" interchangeable blades. See-thru plastic case is pocket size, has flat base that permits its use as a bench stand.

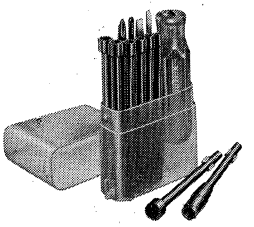
No. 99PS-40 ALLEN HEX TYPE SCREWDRIVER SET

Includes nine Allen Hex type screwdriver blades (99-20 thru 99-26), 99-X5 extension blade, 99-1 handle, and see-thru case.
Net $6.75



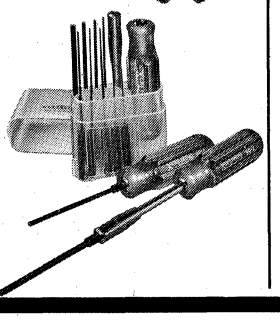
No. 99-PS50 NUTDRIVER/SCREWDRIVER SET

Includes seven regular nutdriver blades (99-6 thru 99-12), two slot tip screwdriver blades (99-811 and 99-812), two Phillips screwdriver blades (99-821 and 99-822), 99-X5 extension blade, 99-1 handle, and see-thru case.
Net $8.55



No. 99PS-60 BRISTOL MULTIPLE-SPLINE TYPE SCREWDRIVER SET

Includes nine Bristol Multiple-Spline type screwdriver blades (99-61 thru 99-69), 99-X5 extension blade, 99-1 handle, and see-thru case.
Net $6.75



Convertible Nutdriver and Screwdriver Sets

Black plastic torque amplifier handle (1" x 3⅛") slips over handles of pocket size (3½") nutdrivers and screwdrivers . . . provides larger grip, extends reach and increases driving power to that of standard size tools. See-thru plastic case fits pocket, stands upright on bench.

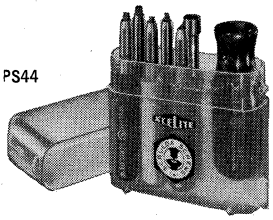
No. PS7 NUTDRIVER/SCREWDRIVER SET

Contains two nutdrivers (¼" and 5/16"), two slot tip screwdrivers (3/16" and 3/32"), two Phillips screwdrivers (#0 and #1), hollow handle, and case.
Net $3.60

No. PS44 SCRULOX SCREWDRIVER SET

Includes five Scrulox screwdrivers (#1 thru #14), one nutdriver (¼"), hollow handle, and case.
Net $3.45

PS44



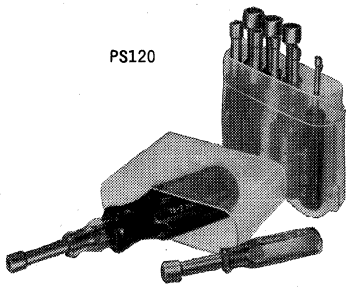
No. PS88 SCREWDRIVER SET

Contains five slot tip screwdrivers (3/32", ⅛", 5/32", 3/16", ¼"), three Phillips screwdrivers (#0, #1, #2), hollow handle, and case,
Net $3.93

No. PS120 NUTDRIVER SET

Contains ten color coded nutdrivers (3/32" thru ⅜"), hollow handle, and case.
Net $5.55

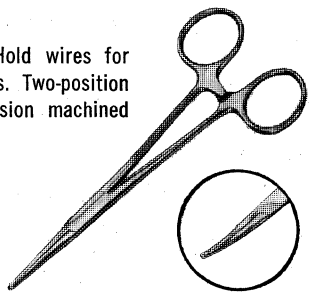
PS120



REGULAR AND JR. SEIZERS®

Outreach, outhold needle nose pliers. Clamp tightly. Hold wires for soldering and serve as heat sinks. Retrieve small parts. Two-position snap-lock. Stainless steel, box-joint construction. Precision machined and tempered.

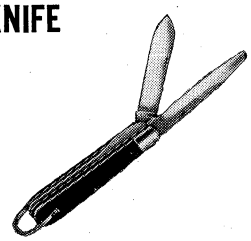
Regular 6" Seizers have serrated jaws. Jr. Seizers are 5" long, have smooth jaws that won't mar delicate materials.



Number		Net
42H	6" Straight Nose	$3.93
43H	6" Curved Nose	4.07
32H	5" Straight Nose	3.93
33H	5" Curved Nose	4.07

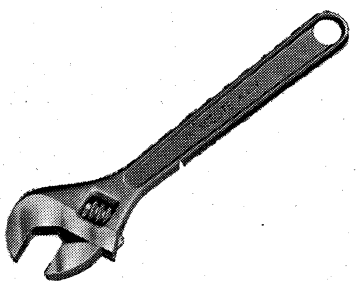
No. K22 ELECTRICIAN'S KNIFE

Two blades. One is combination insulation-scraper and screwdriver. Has positive lock when open .....**Net $2.13**



ADJUSTABLE WRENCHES

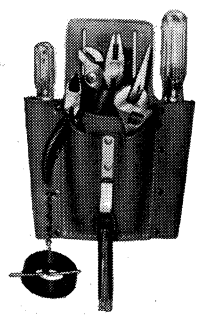
Thin-pattern permits access to close-quarter work. Chrome-plated forged alloy steel. Polished heads.



Plain Handle			Cushion Grip	
Number	Net	Size	Number	Net
44C	$2.16	4"	44CG	$2.40
46C	2.19	6"	46CG	2.48
48C	2.48	8"	48CG	2.77
40-10C	3.20	10"	40-10CG	3.60
40-12C	4.67	12"	40-12CG	5.07

No. 150 TOOL HOLSTER

Has tape holder, knife clip, and 5 tool pockets. Durably made of pliable saddle leather with natural cowhide finish. Features comfortable hip-contoured back, hot-waxed stitching, and brass rivets.....**Net $3.80**



Net

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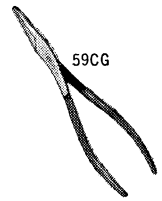
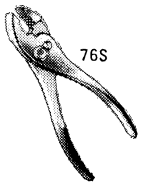
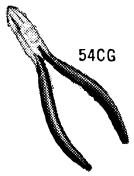
XCELITE® QUALITY PROFESSIONAL TOOLS

PLIERS

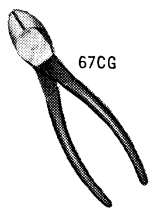
Precision-machined forged alloy steel. Perfectly aligned jaws. Hand-honed, mated cutting edges. Polished heads.

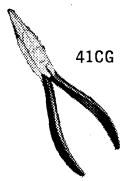


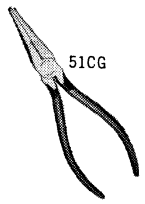




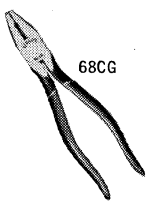
Number		Net
59CG	— CHAIN NOSE ELECTRICIAN'S PLIERS (8″)—Cushion Grip	**$3.07**
75C	— COMBINATION SLIP JOINT PLIER (5″)—Chrome-Plated	**1.20**
76C	— COMBINATION SLIP JOINT PLIER (6″)—Chrome-Plated	**1.27**
76S	— Satin Finish	**.75**
78C	— COMBINATION SLIP JOINT PLIER (8″)—Chrome-Plated	**1.60**
54	— DIAGONAL PLIER (Midget 4″)	**2.64**
54CG	— Cushion Grip	**2.93**
55	— DIAGONAL PLIER (5″)	**2.53**
55CG	— Cushion Grip	**2.87**
66CG	— DIAGONAL PLIER (6″)—Cushion Grip	**3.20**

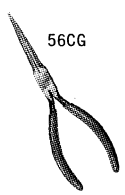


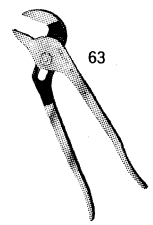




Number		Net
67	— DIAGONAL PLIER (7″)	**2.93**
67CG	— Cushion Grip	**3.27**
41CG	— LONG NOSE PLIER (Midget 4″)—Without Side Cutters—Cushion Grip	**2.64**
52	— LONG NOSE PLIER (6″)—Without Side Cutters	**2.27**
52CG	— Cushion Grip	**2.53**
51	— LONG NOSE PLIER (6″)—With Side Cutters	**2.85**
51CG	— Cushion Grip	**3.20**



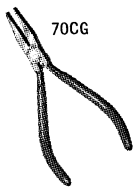


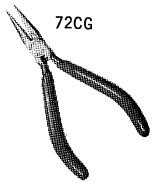


Number		Net
56CG	— NEEDLE NOSE PLIER (6″)—Cushion Grip	**2.93**
58CG	— RADIO AND TV PLIER (6″)—Cushion Grip	**3.73**
60CG	— SIDE CUTTING PLIER (6″)—Cushion Grip	**3.00**
68CG	— SIDE CUTTING PLIER (8″)—Cushion Grip	**3.60**
62CG	— TRAVERSE CUTTING PLIER (6″)—Cushion Grip	**3.67**
53CG	— UTILITY PLIER (6″)—Forged Rib-Lock—Cushion Grip	**2.19**
63	— UTILITY PLIER (10″)—Forged Rib-Lock	**2.53**
63CG	— Cushion Grip	**3.07**

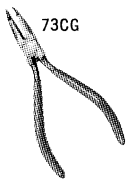
MINIATURE ELECTRONIC PLIERS

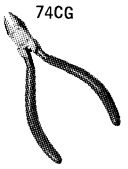
Small, lightweight. For handling fine wires. All cushion grip handles. Coil spring openers. Polished heads and shoulders.

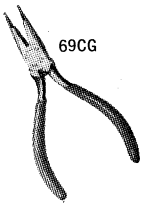




Number		Net
70CG	— FLAT NOSE PLIERS (4½″)	**$3.25**
71CG	— ROUND NOSE PLIERS (4½″)	**3.27**
72CG	— CHAIN NOSE PLIERS (4″)	**3.33**



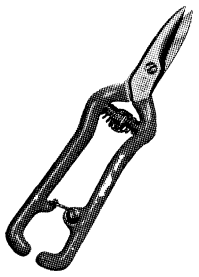




Number		Net
73CG	— SPECIAL TIP CUTTING PLIERS (4½″)	**4.27**
74CG	— DIAGONAL FLUSH CUTTING PLIERS (4″)	**4.32**
69CG	— RADIO AND TV PLIER (5″)	**5.00**

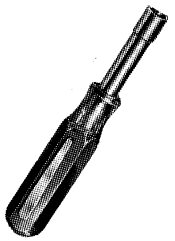
No. 86CG ELECTRONIC SNIPS

6½″ size. Shearing action of pointed blades (1½″ cut) prevents peaks on fine wire and filaments. Useful also for removing insulation and cutting light sheet metal. Coil spring opens blades . . . latch holds them closed. Cushion grip **Net $3.07**



TERMINAL WRENCHES

For spanner nuts on external antenna and earphone jacks of transistor radios and CB walkie-talkies. 3⅝″ overall length.



Number	Handle Color	Spanner Nut O.D.	Net
TW32	Green	¼″	**$ .48**
TW140	Red	5/16″	**.48**

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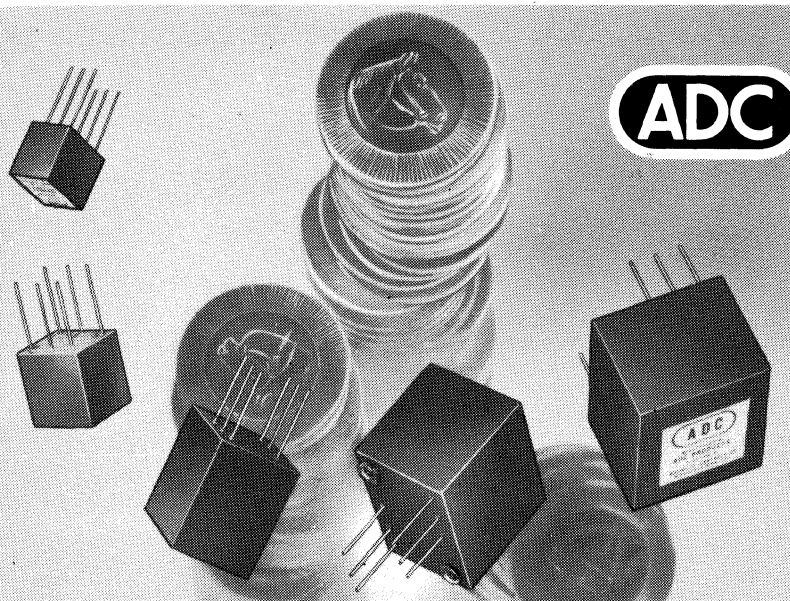


"BLUE CHIP" TRANSFORMERS

62 TYPES
5 DIFFERENT SIZES

Tiny, plastic cased, Blue Chip transformers for printed circuit applications, are available for a wide choice of power ratings.

Five different sizes, from .10 to 1.2 cubic inches with a total of 62 new ratings are listed below to indicate the available power levels for both voice frequency range and extended frequency operation. These ratings take into account not only power handling capacities at minimum frequencies, but also total harmonic distortion under stated conditions. Within the limits shown on the rating charts, variations in both power and distortion levels are possible depending upon the minimum operating frequency.

Blue Chip transformers meet Mil-T-27A, Grade 5, Class S requirements. These versatile transformers are available from ADC, or through your distributor.

CATALOG NUMBER	PRIMARY IMPED.—OHMS	SECONDARY IMPED.—OHMS	PRIMARY-SECONDARY DC RESISTANCE-OHMS		MAX. DC IN PRIM. MA.
324-6A	★100K-CT	1000-CT	3300	70	0
324-6B	25K-CT	1000-CT	2800	150	0
124-6C	10K-CT	10K-CT	1100	1400	1
324-6D	10K-CT	1500-CT	1100	180	1
324-6E	10K-CT	600-CT	1100	75	1
224-6F	4000-CT	10K-CT	440	1400	1.5
324-6G	1000-CT	600-CT	110	75	3
324-6H	1000-CT	4	110	0.5	3
224-6J	600-CT	25K-CT	65	3500	4
124-6K	600-CT	600-CT	65	75	4
324-6L	600-CT	60	65	7	4
324-6M	600-CT	4	65	0.5	4
★Max. power level: 10 mw at 300 cps.					
324-5A	100K-CT	1000-CT	6000	60	0
324-5B	25K-CT	1000-CT	2800	120	0
124-5C	10K-CT	10K-CT	1100	1200	1
324-5D	10K-CT	1500-CT	1100	200	1
324-5E	10K-CT	600-CT	1100	75	1
224-5F	4000-CT	10K-CT	440	1200	1.5
324-5G	1000-CT	600-CT	100	60	3
324-5H	1000-CT	4	100	0.4	3
224-5J	600-CT	25K-CT	65	3500	4
124-5K	600-CT	600-CT	65	75	4
324-5L	600-CT	60	65	7	4
324-5M	600-CT	4	65	0.5	4
324-4B	25K-CT	1000-CT	2800	120	0
124-4C	10K-CT	10K-CT	1100	1200	1
324-4D	10K-CT	1500-CT	1100	180	1
324-4E	10K-CT	600-CT	1100	75	1
324-4F	10K-CT	4	1100	0.5	1
224-4G	4000-CT	10K-CT	440	1200	1.5
324-4H	1500-CT	15	165	2	2.5
324-4J	1000-CT	600-CT	110	75	3
324-4K	1000-CT	4	110	0.5	3
224-4L	600-CT	25K-CT	65	3000	4
124-4M	600-CT	600-CT	65	75	4
324-4N	600-CT	60	65	7	4
324-4P	600-CT	15	65	2	4
324-4Q	600-CT	4	65	0.5	4
224-4R	250	600-CT	30	75	7
324-3A	10K-CT	10K-CT	800	1100	1
324-3B	10K-CT	600-CT	800	65	1
324-3C	10K-CT	4	800	0.5	1
324-3D	1500-CT	15	110	1.6	2.5
324-3E	1000-CT	600-CT	75	65	3
324-3F	1000-CT	4	75	0.5	3
224-3G	★600-CT	25K-CT	45	2800	4
124-3H	600-CT	600-CT	45	65	4
324-3J	600-CT	60	45	7	4
324-3K	600-CT	15	45	1.6	4
324-3L	600-CT	4	45	0.5	4
224-3M	250	600-CT	20	65	7
★Max. power level: 2.5 w.					
124-2A	★10K-CT	10K-CT	700	900	1
324-2B	★10K-CT	600-CT	700	55	1
324-2C	★10K-CT	4	700	0.4	1
324-2D	1500-CT	15	100	1.5	2.5
324-2E	1000-CT	600-CT	65	55	3
324-2F	1000-CT	4	65	0.4	3
124-2H	600-CT	600-CT	40	55	4
324-2J	600-CT	60	40	6	4
324-2K	600-CT	15	40	1.5	4
324-2L	600-CT	4	40	0.4	4
224-2M	250	600-CT	16	55	7

★Max. power level: 6 w.

Pin Diameter: .030"
Pin Length: ½"
Weight: 0.15 oz.

RESPONSE: ± 2 DB 300 to 100,000 CPS.
DISTORTION: 10% at 30 MW, 300 to 100,000 CPS, except as noted.

Pin Diameter: .030"
Pin Length: ½"
Weight: 0.4 oz.

RESPONSE: ± 1 DB 200 to 50,000 CPS.
DISTORTION: 10% at 150 MW, 200 to 50,000 CPS.

Pin Diameter: .030"
Pin Length: ½"
Weight: 0.9 oz.

RESPONSE: ± 1 DB 200 to 20,000 CPS.
DISTORTION: 10% at 750 MW, 200 to 20,000 CPS.

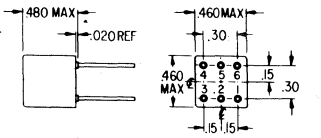
Pin Diameter: .030"
Pin Length: ½"
Weight: 1.5 oz.
Mounting: 2—4x40 inserts, 0.6"x0.8"

RESPONSE: ± 1 DB 100 to 10,000 CPS.
DISTORTION: 1.5% at 60 MW, 100 to 10,000 CPS, or 10% at 3.5 W, 200 to 10,000 CPS, except as noted.

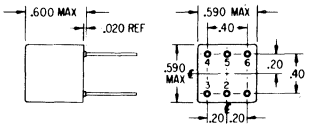
Pin Diameter: .030"
Pin Length: ½"
Weight: 2.5 oz.
Mounting: 2—4x40 inserts, 0.8"x0.8"

RESPONSE: ± 1 DB 60 to 10,000 CPS.
DISTORTION: 1% at 250 MW, 60 to 10,000 CPS or 10% at 7.5 W, 200 to 10,000 CPS, except as noted.

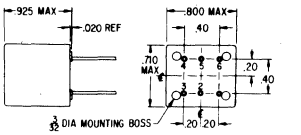
6 SIZE CASE DATA



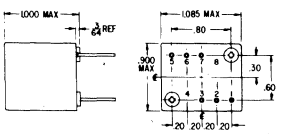
5 SIZE CASE DATA



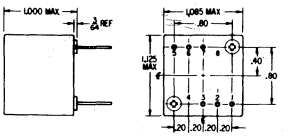
4 SIZE CASE DATA



3 SIZE CASE DATA



2 SIZE CASE DATA



ALL RATINGS BASED UPON MAXIMUM UNBALANCED DC IN PRIMARY AS LISTED

ALL CASED DIMENSIONS ARE MAXIMUM

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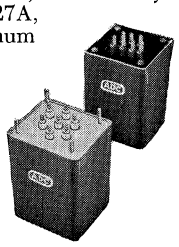
ADC PRODUCTS, INC.

POWER TRANSFORMERS *FOR MILITARY AND INDUSTRIAL APPLICATIONS*

Reliability, minimum size and long life under rugged environmental conditions are prime requisites in today's military electronic equipment. To meet these modern standards, ADC offers a complete line of hermetically sealed power transformers. Designed to meet MIL-T-27A specifications and utilizing MIL cases and mounting dimensions, these units offer our customers a ready source for prototype and production applications. All military contractors and commercial electronic engineers with stringent environmental conditions will find these carefully rated units ideally suited. For those applications where hermetic sealing is not necessary, we offer the conservative transformer designs of our hermetically sealed line, in drawn steel cases of MIL size and mounting dimensions with phenolic terminal plates and solder lug terminals.

POWER TRANSFORMERS—60 Cycle

ADC offers these standard power transformer designs to cover a wide range of requirements for electronic circuit application. They are available in standard MIL case sizes, hermetically sealed to meet all requirements of MIL-T-27A, Grade 4, Class R, life expectancy X. Maximum operating altitude is 10,000 feet.



The same electrical ratings are also available as commercial grade fully enclosed units for non-military applications in the same MIL case sizes. This version is furnished with a phenolic terminal board and heavy duty solder lug terminals. Mounting screws and tapped inserts provide the same mounting centers as MIL-T-27A versions.

COMBINATION PLATE AND FILAMENT TRANSFORMERS

PRIMARY: 105/115/125 V., 50-60 CPS

Catalog No. Comm'l Case	Catalog No. Hermetic Seal	Plate Winding AC Volts	Plate Winding DC Ma	Plate Winding DC Volts	Filament Windings Volts/Amps		MIL Case
522A	523A	250-0-250 C Input	20	300	6.3 CT/5	2	FA
522B	523B	300-0-300 C Input	60	310	5	2	HA
					6.3 CT	2	
522C	523C	350-0-350 C Input	110	355	5	2	JA
		L Input		265	6.3 CT	4	
522D	523D	375-0-375 C Input	150	380	5	3	LA
		L Input		280	6.3 CT	5	
522E	523E	385-0-385 C Input	200	360	5	3	
		L Input		280	6.3 CT	5	
					6.3 CT	2	MA
522F	523F	500-0-500 L Input	300	400	6.3/5	6	
					6.3 CT	6	NA

FILAMENT TRANSFORMERS

PRIMARY: 105/115/125 V., 50-60 CPS

Catalog No. Commercial Case	Catalog No. Hermetic Seal	Sec. Volts	Sec. Amps.	Insulation Volts RMS	MIL Case
522FA	523FA	2.5 CT	5.5	3,500	FA
522FB	523FB	2.5 CT	10.0	7,500	GA
522FC	523FC	2.5 CT	15.0	10,000	JA
522FD	523FD	5.0 CT	4	3,500	GA
522FE	523FE	5.0 CT	10	5,000	HA
522FF	523FF	5.0 CT	20	10,000	MA
522FG	523FG	6.3 CT	3.0	2,500	FA
522FH	523FH	6.3 CT	5.5	2,500	GA
522FJ	523FJ	6.3 CT	10	2,500	JB
522FK	523FK	6.3 CT	20	2,500	KA
522FL	523FL	12.6 CT	2	2,500	GA

POWER TRANSFORMERS—400 Cycle

These items are especially designed for maximum performance in 380 to 1500 CPS applications, with maximum altitude ratings of 50,000 feet. They are hermetically sealed to meet all requirements of MIL-T-27A, Grade 4, Class R. Standard MIL case sizes and construction are used.

COMBINATION PLATE AND FILAMENT TRANSFORMERS

PRIMARY: 115 V., 380-1500 CPS

Catalog No. Comm'l Case	Catalog No. Hermetic Seal	Plate Winding AC Volts	Filament Windings DC Ma	Volts / Amps		MIL Case
512A	513A	240-0-240 C Input	20	6.3 CT	1.5	AJ
512B	513B	250-0-250 C Input	40	6.3 CT	2.5	EA
512C	513C	300-0-300 C Input	80	6.3 CT	5	GA
				6.3/5V	2	
512D	513D	350-0-350 C Input	150	6.3 CT	4	HA
				6.3/5V	3	
512E	513E	450-0-450 C Input	200	6.3 CT	8	JA
				6.3/5V	3	

FILAMENT TRANSFORMERS

PRIMARY: 115 V., 380-1500 CPS

Catalog No. Commercial Case	Catalog No. Hermetic Seal	Sec. Volts	Sec. Amps	Insulation Volts RMS	MIL Case
512FA	513FA	6.3 CT	1	1,500	AH
512FB	513FB	6.3 CT	3	1,500	AJ
512FC	513FC	6.3 CT	5.5	2,500	EA
512FD	513FD	6.3 CT	10	2,500	FA
512FE	513FE	6.3 CT	20	2,500	GA
512FF	513FF	26 CT	1	2,500	EA
512FG	513FG	26 CT	3	2,500	FA

MILITARY STANDARD TRANSFORMERS

These Military Standard transformers have been specified by ASESA and are established by the three Military Services and the transformer industry as standards for Military transformer applications. Each item is available as either Grade 1 or Grade 4 (ruggedized) as requested. Tests have been conducted in ADC's environmental laboratory which indicate that these units will meet the requirements of MIL-T-27A, Grade 4, Class R operating temperature; life expectancy X 10,000 hours minimum).

MILITARY STANDARD POWER TRANSFORMERS

Military Part No.	Catalog No.	Type Designation	Secondary AC Volts	#1 DC Ma	#1 DC Volts	Sec #2 Volts/ Amps	Sec. #3 Volts/ Amps
MS-90026	521A	TF 4RX 03HA001	200-100-0-100-200	70	140	6.3/5 2	6.3 3
MS-90027	521B	TF 4RX 03JB002	325-0-325	70	250	6.3/5 2	6.3 4
MS-90028	521C	TF 4RX 03KB006	325-0-325	150	240	6.3 5	5 3
MS-90029	521D	TF 4RX 03LB003	400-0-400	175	290	5 3	6.3 8
MS-90030	521E	TF 4RX 03MB004	450-0-450	250	320	5 3	6.3 8
MS-90031	521F	TF 4RX 02KB001	350-0-350	250	250	-- --	-- --
MS-90032	521G	TF 4RX 02LB002	550-0-550	250	400	-- --	-- --
MS-90036	521H	TF 4RX 02NB003	800-0-800	250	575	-- --	-- --

NOTE: 1. Primaries 105/115/125V., 54-66 CPS.
2. Secondary #1 DC voltage based upon inductive input filter.
3. Max. operating altitude 10,000 ft.
4. These items are also available as Grade 1 components.

MILITARY STANDARD FILAMENT TRANSFORMERS

Military Part No.	Catalog No.	Type Designation	Secondary Volts	Secondary Amps	Insulation Volts RMS
MS-90016	521M	TF 4RX 01EB002	2.5	3.0	2500
MS-90017	521N	TF 4RX 01GB003	2.5	10	2500
MS-90018	521P	TF 4RX 01FB004	5.0	3.0	2500
MS-90019	521Q	TF 4RX 01HB005	5.0	10	2500
MS-90020	521R	TF 4RX 01FB006	6.3	2.0	2500
MS-90021	521S	TF 4RX 01GB007	6.3	5.0	2500
MS-90022	521T	TF 4RX 01JB008	6.3	10	2500
MS-90023	521U	TF 4RX 01KB009	6.3	20	2500
MS-90024	521V	TF 4RX 01JB012	2.5	10	10000
MS-90025	521W	TF 4RX 01KB013	5.0	10	10000

NOTE: 1. Primaries 105/115/125 V., 54-66 CPS.
2. Max. operating altitude 10,000 ft.
3. These items are also available as Grade 1 components.

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ADC PRODUCTS, INC.

INDUCTORS *FOR MILITARY AND INDUSTRIAL APPLICATIONS*

ADC's line of inductors are circuit running mates to ADC's power transformers. They are available hermetically sealed, to meet MIL-T-27A requirements Grade 4, Class R, life expectancy X. For commercial applications, where hermetic sealing is not necessary, these same ratings are available in MIL cases and mounting dimensions, but with phenolic terminal board and solder lug terminals.

FOR 50-60 CYCLE POWER SUPPLIES

Catalog No. Commercial Case	Catalog No. Hermetic Seal	Inductance Henries	DC Current MA	DC Resistance Ohms	Insulation Volts RMS	MIL Case
422A	423A	15	20	700	1000	AJ
422B	423B	20	40	475	2500	EB
422C	423C	15	60	230	2500	FA
422D	423D	12	80	175	2500	FA
422E	423E	10	110	175	2500	GA
422F	423F	8	150	100	2500	HA
422G	423G	8	200	85	2500	JA
422H	423H	8	250	85	2500	KB
422J	423J	8	325	55	2500	LA
422K	423K	4	500	30	2500	LA
422L	423L	5/25	250/25	160	2500	KB
422M	423M	5/25	325/30	110	2500	LA

FOR 380-1500 CYCLE POWER SUPPLIES

Catalog No. Commercial Case	Catalog No. Hermetic Seal	Inductance Henries	DC Current Ma	DC Resistance Ohms	Insulation Volts RMS	MIL Case
422V	423V	2.5	50	175	2500	AH
422W	423W	5	50	350	2500	AJ
422X	423X	2	80	250	2500	AJ
422Y	423Y	2	150	100	2500	EB
422Z	423Z	2	200	100	2500	EA

MILITARY STANDARD INDUCTORS (power)

These Military Standard inductors have been specified by ASESA and are established by the three military services and the transformer industry as standards for military inductor applications. They are hermetically sealed to meet all MIL-T-27A requirements Grade 1, Class R, life expectancy X.

Military Part No.	Catalog No.	Type Designation	Inductance Series	Inductance Parallel	DC Resistance Ohms		Insulation Volts RMS
MS90009	421A	TF 1RX 04FA001	16 hy .08 a	4 hy .16 a	1-2 3-4	295 350	2400
MS90010	421B	TF 1RX 04GA002	25 hy .08 a	6.25 hy .16 a	1-2 3-4	300 370	2400
MS90011	421C	TF 1RX 04HA003	40 hy .08 a	10 hy .16 a	1-2 3-4	450 570	2400
MS90013	421D	TF 1RX 04HA005	16 hy .125 a	4 hy .25 a	1-2 3-4	145 185	3800
MS90014	421E	TF 1RX 04JB006	25 hy .125 a	6.25 hy .25 a	1-2 3-4	225 235	3800
MS90037	421F	TF 1RX 04KA007	40 hy .125 a	10 hy .25 a	1-2 3-4	240 295	5900
MS75000	421G	TF 1RX 04LA009	16 hy .20 a	4 hy .40 a	1-2 3-4	80 100	5900
MS75001	421H	TF 1RX 04MA010	25 hy .20 a	6.25 hy .40 a	1-2 3-4	90 120	5900
MS75002	421J	TF 1RX 04NA012	16 hy .315 a	4 hy .63 a	1-2 3-4	45 60	5900
MS75003	421K	TF 1RX 04YY013	25 hy .315 a	6.25 hy .63 a	1-2 3-4	70 80	5900

NET PRICE LIST (Prices subject to change without notice)

CAT. NO.	NET PRICE
108A	8.25
103A	3.15
103B	3.39
103C	3.30
104A	8.70
104B	9.54
114A	23.85
114B	19.80
114C	23.85
114E	23.85
114F	23.85
114G	18.00
121A	14.40
121B	14.40
122A	24.30
122B	25.20
122C	24.30
122D	16.80
122E	19.80
122F	15.90
122G	22.20
123A	26.40
123B	27.30
123C	26.40
123D	17.40
123E	21.30
123F	16.80
124-2A	8.10
124-2H	7.20
124-3A	7.80
124-3H	6.90
124-4C	7.20
124-4M	6.60
124-5C	6.90
124-5K	6.90
124-6C	6.60
124-6K	6.00
208A thru F	7.50
208G	9.00
214A	23.70
214B	16.20
214C	23.70
214H	15.45
214J	16.80
214L	16.80
220A thru D	20.85
221A	15.45
221B	13.20
222A	22.50
222B	22.50
222C	25.20
222D	19.80
222E	19.80
222F	17.40
222G	17.40
223A	24.90
223B	24.90
223C	28.20
223D	21.60
223E	21.60
223F	18.30
223G	18.30
224-2M	6.60
224-3G	7.80
224-3M	6.30
224-4G	7.20
224-4L	7.80
224-4R	6.00
224-5F	6.90
224-5J	7.80
224-6F	6.60
224-6J	7.20
308E, F	7.50
308G, H	9.00
314A	20.40
314B	18.00
320A thru F	20.85
320Y, Z	20.85
321A thru E	12.90
322A	11.70
322B	16.80
322C	15.90
322D	17.40
322E	17.40
322F	19.80
322G	21.00
322H	20.40
322J	22.80
322K	31.50
322L	33.90
322M	23.70
322N	21.60
322P	17.10
323A	13.50
323B	20.70
323C	17.40
323D	21.60
324-2B	7.80
324-2C	7.20
324-2D	6.60
324-2E	7.20
324-2F	6.60
324-2J	6.60
324-2K	6.60
324-2L	6.60
324-3B	7.50
324-3C	6.90
324-3D	6.30
324-3E	6.90
324-3F	6.30
324-3J	6.30
324-3K	6.30
324-3L	6.30
324-4B	7.80
324-4D	7.20
324-4E	7.20
324-4F	6.60
324-4H	6.00
324-4J	6.60
324-4K	6.00
324-4N	6.00
324-4P	6.00
324-5A	8.70
324-5B	7.80
324-5D	6.90
324-5E	6.90
324-5G	6.90
324-5H	5.70
324-5L	5.70
324-5M	5.70
324-6A	7.50
324-6B	7.20
324-6D	6.60
324-6E	6.60
324-6G	6.00
324-6H	5.40
324-6L	5.40
324-6M	5.40
408D	6.75
419AL thru AW	6.75
419AY thru BE	7.50
419BG thru BN	8.25
419BQ thru BS	9.00
419BU	9.00
419BW	10.50
419CE thru CS	8.25
419CU thru DA	8.70
419DC thru DG	9.00
419DJ	9.75
419DL	10.50
419EA thru EN	6.75
419EQ thru EY	7.50
419FA thru FC	8.25
419FE	8.70
419FG	9.00
419FJ	9.75
419GL thru GY	7.50
419HA thru HG	8.25
419HJ thru HN	8.70
419HQ thru HS	9.00
419HU	9.75
419HW	10.50
419HY	11.25
419KL thru LC	9.75
419LE thru LJ	10.50
419LL thru LN	11.25
419LQ thru LS	12.00
419LU	12.45
419LW	12.90
420A thru H	17.64
421A	11.10
421B	12.30
421C	13.20
421D	14.10
421E	14.70
421F	20.10
421G	21.30
421H	24.90
421J	36.90
421K	30.00
422A	5.40
422B	6.00
422C	6.45
422D	6.45
422E	6.90
422F	7.95
422G	9.60
422H	10.20
422J	12.90
422K	12.00
422L	10.20
422M	12.90
422V	7.05
422W	6.00
422X	6.00
422Y	6.90
422Z	7.20
423A	6.60
423B	7.65
423C	8.10
423D	8.10
423E	9.15
423F	10.20
423G	12.00
423H	12.90
423J	15.90
423K	14.70
423L	12.90
423M	15.90
423V	7.80
423W	7.50
423X	7.50
423Y	8.70
423Z	9.00
512A	11.70
512B	12.60
512C	17.10
512D	18.90
512E	20.55
512FA	9.00
512FB	9.60
512FC	10.35
512FD	10.80
512FE	12.90
512FF	10.65
512FG	11.25
513A	12.60
513B	14.25
513C	21.45
513D	23.70
513E	25.65
513FA	11.25
513FB	12.15
513FC	12.90
513FD	13.50
513FE	16.20
513FF	13.20
513FG	13.80
521A	22.20
521B	21.30
521C	23.70
521D	26.70
521E	30.90
521F	19.80
521G	24.90
521H	29.70
521M	13.80
521N	14.10
521P	12.90
521Q	15.60
521R	13.20
521S	15.60
521T	18.00
521U	22.05
521V	21.30
521W	22.20
522A	13.50
522B	15.00
522C	17.40
522D	18.30
522E	26.70
522F	26.70
522FA	10.80
522FB	13.20
522FC	14.40
522FD	11.70
522FE	12.90
522FF	21.30
522FG	10.80
522FH	11.70
522FJ	14.10
522FK	18.30
522FL	11.70
523A	15.90
523B	19.80
523C	21.00
523D	21.60
523D	21.60
523E	32.80
523F	32.80
523FA	12.90
523FB	16.20
523FC	20.10
523FD	14.70
523FE	15.90
523FF	27.60
523FG	12.60
523FH	14.70
523FJ	17.10
523FK	21.30
523FL	14.70

Net

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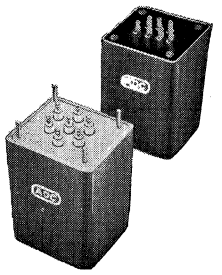
ADC PRODUCTS, INC.

AUDIO TRANSFORMERS *FOR MILITARY AND COMMERCIAL APPLICATIONS*

ADC offers the following designs to cover a wide range of standard audio applications, from low power transistors through heavy duty output circuits. They are conservatively rated at ±½ db from 30 to 15,000 cycles at the maximum rated power. Each is designed for minimum insertion loss, is fully impregnated before potting and rated for dependable continuous duty operation.



These audio transformers are available in standard MIL cases, hermetically sealed to meet all requirements of MIL-T-27A. THE SAME RATINGS ARE ALSO AVAILABLE AS COMMERCIAL GRADE COMPONENTS, featuring the lower cost construction of a phenolic terminal board with solder lug terminals in the same drawn MIL cases.

INPUT TRANSFORMERS Response ±½ db, 30-15,000 cps

Catalog No. Commercial Case	Hermetic Seal	Application	Primary Impedance Rating (Ohms)	Secondary Impedance Rating (Ohms)	Max. Level	Hum Reduction	Case Size
222A	223A	Line to Single or Push Pull Grids.	600[1]	60,000[1] Split	+ 10 dbm	—65 db	AJ
222B	223B	Low Impedance Line to Grid.	12.5/50/200	80,000	+ 10 dbm	—65 db	AJ
222C	223C	Line and Bridging to Single or Push Pull Grids. [3-4]	150/600/15,000	60,000[1] Split	+ 10 dbm	—65 db	AJ
222D	223D	High Impedance Pickup or Plate to Push Pull Grids.	10,000 (10MA DC)	80,000[1] Split	+ 22 dbm	—35 db	EA
222E	223E	Push Pull Plates to Push Pull Grids.	20,000[1] Split	90,000[1] Split	+ 24 dbm	—35 db	EA

MILITARY STANDARD AUDIO TRANSFORMERS

These Military Standard audio transformers have been specified by ASESA and are established by the three Military Services and the transformer industry as standards for Military transformer applications. Tests have been conducted in ADC's environmental laboratory which indicate that these units will meet the requirements of MIL-T-27A, Grade 1, Class R operating temperature, life expectancy X (10,000 hours minimum).

Catalog No.	MIL-T-27A Classification	MIL-T-27A Part No.	Application	Impedance (Ohms)	Operating Level	Pri. DCMA Bal.	Pri. DCMA Unbal.
221A	TF 1RX 15AJ001	MS-90000	Push Pull Plates to Push Pull Grids	Pri. 10,000 CT Sec. 90,000 CT 22,500 CT	15 dbm	--	10
121A	TF 1RX 16AJ002	MS 90001	Line to Voice Coil	Pri. 600 CT (150) Sec. 4/8/16	2 W	--	--
221B	TF 1RX 10AJ001	MS-90002	Line to Push Pull Grids	Pri. 600 CT (150) Sec. 135,000 CT	15 dbm	--	--
121B	TF 1RX 16AJ001	MS-90003	Line to Line	Pri. 600 CT (150) Sec. 600 CT (150)	15 dbm	--	--
321A	TF 1RX 13AJ001	MS-90004	Plate to Line	Pri. 7600/4800 Sec. 600 CT (150)	2 W	--	40
321B	TF 1RX 13AJ002	MS-90005	Plate to Voice Coil	Pri. 7600/4800 Sec. 4/8/16	2 W	--	40
321C	TF 1RX 13AJ003	MS-90006	Push Pull Plates to Line	Pri. 15,000 CT Sec. 600 CT (150)	2 W	--	10
321D	TF 1RX 13AJ004	MS-90007	Push Pull Plates to Line	Pri. 24,000 CT Sec. 600 CT (150)	1 W	20	1
321E	TF 1RX 13AJ005	MS-90008	Push Pull Plates to Line	Pri. 60,000 CT Sec. 600 CT (150)	.5 W	20	1

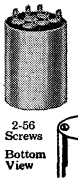
OUTPUT TRANSFORMERS Response ±½ db, 30-15,000 cps (Power Response at Rated Output)

Catalog No. Commercial Case	Hermetic Seal	Application	Primary Impedance Rating (Ohms)	Secondary Impedance Rating (Ohms)	Max. Level	Case Size
322A	323A[6]	Plate to Line	15,000 (10 MA DC)	600/250 (150/62.5)[2]	+ 20 dbm (.1 W)	EB
322B[5]	323B[5]	Plate to Voice Coil	5,000 (40 MA DC)	16/8/4	+ 37 dbm (5 W)	FA
322C	323C	Push Pull Plates to Line	20,000 CT	600/250 (150/62.5)[2]	+ 30 dbm (1 W)	EB
322D	323D	Push Pull Plates to Line and Voice Coil	10,000 CT	600 (150)[2] 16/8/4	+ 40 dbm (10 W)	GA
322E	323E[1]	Push Pull Plates to Voice Coil[4]	9,000/2,250 Split[2]	16/8/4	+ 40 dbm (10 W)	GA
322F	323F[1]	Push Pull Plates to Voice Coil[3]	10,000 Split[2]	16/8/4	+ 43 dbm (20 W)	JA
322G	322G[1]	Push Pull Plates to Voice Coil[4]	8,000/1,600 Split[2]	16/8/4	+ 42 dbm (15 W)	JB
322H	323H[1]	Push Pull Plates to Voice Coil[4]	5,000/3,000 Split[2]	16/8/4	+ 43 dbm (20 W)	JA
322J	323J[1]	Push Pull Plates to Voice Coil[4]	6,600/1,650 Split[2]	16/8/4	+ 45 dbm (30 W)	KA
322K	323K[1]	Push Pull Plates to Voice Coil[4]	3,500/700 Split[2]	16/8/4	+ 48 dbm (70 W)	LA
322L	323L[1]	Push Pull Par Plates to Voice Coil	2,500/1,500 Split[2]	16/8/4	+ 49 dbm (80 W)	MA
322M	323M[1]	Push Pull Class A Transistors to Voice Coil	48/16/8 Split[2]	16/8/4	+ 47 dbm (50 W)	KA
322N	323N[1]	Class A Transistor to Voice Coil	10 (1.25a. DC)	16/8/4	+ 38 dbm (7 W)	JB
322P	323P[1]	Push Pull Transistors to Voice Coil	48/32 CT	16/8/4	+ 40 dbm (10 W)	GA

NOTES:
[1]These items are not normally carried in stock.
[2]"Split" indicates 2 separate, symmetrical windings. Impedances shown are for series connection. Where impedances are shown in parenthesis, they indicate the impedances resulting when windings are connected in parallel.
[3]Balanced, for Williamson type circuit operation.
[4]Has primary taps suitable for Screen loading
[5]Power response ±½ db, 50-15,000 cps.
[6]Response is ±1 db, 30-15,000 cps.

All of these designs are available on special order with output impedances of other values than shown above.

MINIATURE AUDIO TRANSFORMERS



These transformers offer a variety of special design features on a catalog basis for particular circuit and chassis applications. They are available for plug-in and printed circuit applications as well as standard installations. The special cases shown allow the maximum of electrical performance for each type as well as variety and flexibility in mechanical arrangement. All electrical ratings are shown for continuous duty at full specified power levels. Dia. ⅞", Ht. 1⅜", 2-56 Mtg. screws on 11/16" centers.

MINIATURE SERIES

Cat. No.	Type	Application	Primary Impedance (Ohms)	Secondary Impedance (Ohms)	Max. Level	Response
108A	Impedance	Line to Line	50/250/600	50/250/600	+ 8 dbm	±1 db 30-15,000
208A	Input	Line to Single Grid	50/250/600	80,000	+ 10 dbm	±1 db 30-15,000
208B	Input	Line to Push Pull Grids	50/250/600	80,000CT	+ 10 dbm	±1 db 30-15,000
208C	Input	Low Impedance to Grid	7.5/30	80,000	+ 8 dbm	±1 db 30-15,000
208D	Interstage	Plate (O DC) to Push Pull Grids	15,000	60,000CT	+ 10 dbm	±1 db 30-10,000
208E	Interstage	Plate (3MA DC) to Push Pull Grids	15,000	60,000CT	+ 10 dbm	±2 db 200-10,000
208F	Input	Line to Single Grid	50/250/600	500,000	+ 10 dbm	±3 db 200-3000
208G	Interstage	Transistor to Transistors (20 MA DC)	10,000 (2500) Split	4000/ 1000CT	+ 10 dbm	±2 db 100-10,000
308E	Output	Plate to Line (O DC)	15,000	50/250/600	+ 10 dbm	±1 db 40-15,000
308F	Output	Plate to Line (3MA DC)	15,000	50/250/600	+ 10 dbm	±2 db 100-15,000
308G	Output	Push Pull Plates to Line	30,000CT	50/250/6600	+ 10 dbm	±1 db 30-15.000
308H	Output	Class B Transistors to Voice Coil	2000/ 500CT	16/8/4	+ 23 dbm	±1 db 100-10,000
408D	Inductor	200 Hy @ 0 DC; ;100 Hy @ 2MA DC; 50 Hy @ 4MA DC; 16 Hy @ 10MA DC; 6000 Ohms Resistance				

NOTE: These items are also available, on special request, as plug-in transformers with:

1. Mumetal case 15/16" dia. by 1-5/16" high. 35 db shielding.
2. Mumetal case plus 1 Mumetal shield 1-1/16" dia. by 1½" high. 65 db shielding.

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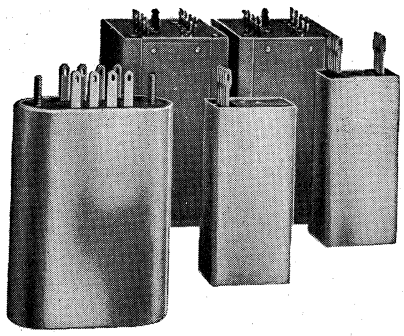
ADC PRODUCTS, INC.

TELEPHONE COILS

For many years, ADC has been a dependable source of transformers and filters for the telephone and telegraph industry. Recently, we have designed and tooled for additional items in a series of "coils" which are electrically and physically interchangeable with similar components made by Western Electric. These items are listed below with the equivalent Western Electric number. All items in this series can be supplied in MIL cases if desired.



ADC Inductors	W.E. Indr. or Ret.	Fig.
409BB	149B	2
409BC	149C	2
409BD	149D	2
409E	149E	2
409G	149G	2
409H	149H	2
409J	149J	2
409K	149K	2
409M	149M	2
409N	149N	2
409P	149P	2
409R	149R	2
405A	152B	*
405H	225A	*
405E	250C	*
412AC	274C	1A
412AD	274D	1A
412AG	274G	1A
412AH	274H	1A
412AJ	274J	1A
412AL	274L	1A
412AR	274R	1A
412AS	274S	1A
412BB	274AB	1A
412T	307B	1A
412C	307C	1A
412F	307F	1A
412G	307G	1A
412H	307H	1A
412J	307J	1A
412K	307K	1A
412L	307L	1A
412M	307M	1A
412B	307N	1A
412A[1]	307P	1A
412R	307R	1A

ADC Imped. Trans.	W.E. Repeat Coil	Fig.
118A	67E	*
113A	91A	5
113A	93A	5
113B	93B	5
113F	93F	5
113G	93G	5
113H	93H	5
113J	93J	5
109S[1]	94E	2
109T	94F	2
109J	94G	2
109K[1]	93H	2
109V	94K	2
109W	94L	2
109Y	94N	2
109Z	94P	2
109BB	94S	2
109BC	94T	2
109BD	94U	2
109BE	94W	2
109BF	94Y	2
109BG[1]	94AA	2
118F	106A	*
118S	119C	*
118U	119E	*
109B[1]	120C	2
109C[1]	120D	2
109D[1]	120E	2
109E[1]	120F	2
109F[1]	120H	2
109G[1]	120J	2
109H[1]	120K	2
109P[1]	120L	2
109L	146A	*
109M	146U	*
119P	170A	*

ADC Imped. Trans.	W.E. Repeat Coil	Fig.
119C	177C	*
119D	177D	*
112G	189A	1
112B	189D	1A
112C	189E	1A

ADC Imped. Trans.	W.E. Auto Trans.	Fig.
109A	23A	*
112A[1]	181B	1
112E	181C	1
112H	D166840	1A

[1]These represent most commonly used items and are normally carried in stock.
*Space did not permit outline drawings for all types. Dimensions will be sent on your request.

Fig. 1 and 1A

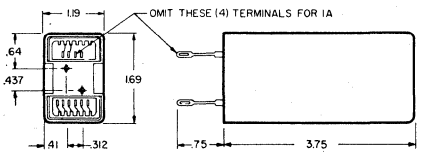


Fig. 2

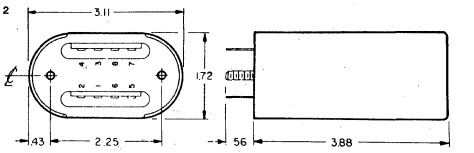
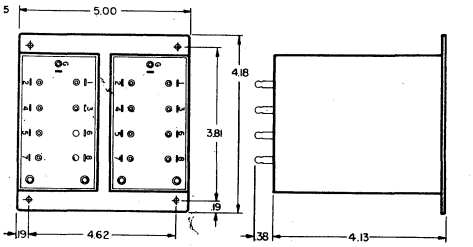
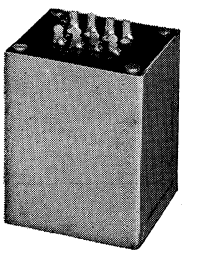


Fig. 5



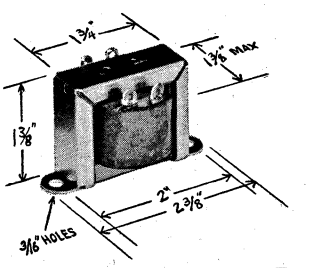


ADC REPEATING COILS

104A—Cord Circuit. This repeating coil is designed to have good transmission efficiency for voice frequencies. Low frequency ringing currents are attenuated and circuit will not ring through. Case is heavy steel to eliminate all cross-talk. Core will not saturate at maximum normal current.

104B—Phantom. The 104B Repeating Coil is a 4-winding coil, for use in phantom circuits. The phantom winding (5-6-7-8) is parallel wound. Heavy Formvar wire is used for maximum surge voltage or lightning protection. This coil has good transmission efficiency at both ringing and voice frequencies.

Type	PRI. DCR 1-2	PRI. DCR 3-4	SEC. DCR 5-6	SEC. DCR 7-8	Case	Mounting Screw	Mounting Centers
104A	10.3	16.5	12.5	14.5	2¼x1 11/16x3½ high	(4) 6-32	1⅝x1⅛
104B	16.5	20	24	24	2¾x2⅜x3½ high	(4) 8-32	1⅞x2¼



INDUCTION COILS

103A—Induction Coil is a 2-winding coil for local battery telephones.

103B—Anti-Sidetone Induction Coil is similar to 103A, but with an additional winding for anti-sidetone connection.

103C—Anti-Sidetone Induction Coil is designed for common battery telephone use.

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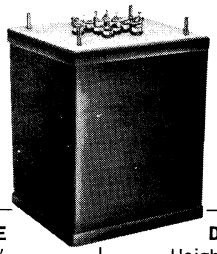
FREED TRANSFORMER CO., INC.

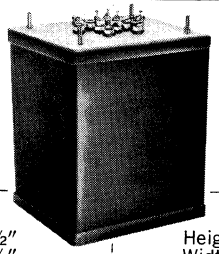
BROADCAST QUALITY COMPONENTS

CASE DIMENSIONS



DC-2B CASE
Height: 3½″
Width: 2⅝″
Depth: 2¼″
Mtg. Cen.: 2″x1¾″
Studs: 4 8-32
Knockout: 1½″ dia.

DC-4A CASE
Height: 3¾″
Width: 3⅛″
Depth: 3″
Mtg. Cen.: 2½″x2½″
Studs: 4 8-32
Knockout: 2″ dia.



DC-2B CASE
Height: 3½″
Width: 2⅝″
Depth: 2¼″
Mtg. Cen.: 2″x1¾″
Studs: 4 8-32
Knockout: 1½″ dia.

DC-4A CASE
Height: 3¾″
Width: 3⅛″
Depth: 3″
Mtg. Cen.: 2½″x2½″
Studs: 4 8-32
Knockout: 2″ dia.

DC-4B CASE
Same as 4A—4″ high

DC-5B CASE
Height: 4½″
Width: 4⅛″
Depth: 3½″
Mtg. Cen.: 3″x2⅝″
Studs: 4 10-32
Knockout: 3″ dia.

DC-6A CASE
Height: 4⅞″
Width: 5″
Depth: 4⅛″
Mtg. Cen.: 3¾″x3″
Studs: 4 10-32
Knockout: 3″ dia.

DC-6B CASE
Height: 6″
Width: 5″
Depth: 4⅛″
Mtg. Cen.: 3¾″x3″
Studs: 4 10-32
Knockout: 3″ dia.

DC-7 CASE
Height: 5⅜″
Width: 5½″
Depth: 5″
Mtg. Cen.: 4⅜″x3¾″
Studs: 4 ¼″-20
Knockout: 3″ dia.

INPUT TRANSFORMERS
Frequency Response 20-20,000 C.P.S. ±1.0 DB

Catalog No.	Application	Impedance Level Ohms Primary	Secondary	Maximum Power Level DBM	Ratio	Equivalent Shielding D.B.	Maximum Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
QGA 1	Universal 500 ohm line to push-pull grids	U-500	100,000 split	+10	1:14.1	70	0	0	DC-2B
QGA 2	Universal 500 ohm line to push-pull grids	U-500	100,000 split	+10	1:14.1	90	0	0	DC-2B
QGA 3	Universal 500 ohm line to single or push-pull grids	U-500	60,000 split	+10	1:11	70	0	0	DC-2B
QGA 4	Universal 500 ohm line to single or push-pull grids	U-500	60,000 split	+10	1:11	90	0	0	DC-2B
QGA 5	Universal low impedance microphone, pickup or line to single or push-pull grids	U-60	60,000 split	+10	1:31.6	70	0	0	DC-2B
QGA 6	Universal low impedance microphone, pickup or line to single or push-pull grids	U-60	60,000 split	+10	1:31.6	90	0	0	DC-2B

U-60 IMPEDANCES IN OHMS:
2.5, 5, 10, 15, 20, 30, 40, 60

U-500 IMPEDANCES IN OHMS:
50, 125, 200 CT, 250, 330, 500 CT.
125 and 500 ohms can be used for 150 and 600 ohms.

HYBRID AND REPEAT COILS
Frequency Response 20-20,000 C.P.S. ±1.0 DB

Catalog No.	Application	Impedance Level Ohms Primary	Secondary	Maximum Power Level DBM	Ratio	Equivalent Shielding D.B.	Maximum Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
QGA 7	Hybrid. Unbalanced 500/600 ohm lines to 600 ohms.	Total Pri 1200/1000 split 300/250 300/250	600/150 or 500/125 split	+10	1.41:1	70	0	0	DC-2B
QGA 8	Hybrid. Balanced 500/600 ohm lines to 600 ohms. Longitudinal balance 70 DB	Total Pri 1200/1000 split 300/250 C.T. 300/250 C.T.	600/150 or 500/125 split	+10	1.41:1	70	0	0	DC-2B
QGA 9	Hybrid. Unbalanced 500/600 ohm lines to triode plate. No. D.C. in secondary	Total Pri 1200/1000 split 300/250 300/250	15,000 or 12,500	+10	1:3.54	70	0	0	DC-2B
QGA 10	Hybrid. Balanced 500/600 ohm lines to triode plate. No. D.C. in secondary. Longitudinal balance 70 DB.	Total Pri 1200/1000 split 300/250 C.T. 300/250 C.T.	15,000 or 12,500	+10	1:3.54	70	0	0	DC-2B
QGA 11	Repeat coil for low frequency ringing. Longitudinal balance 70 DB.	600/500 split	600/500 split Balanced		1:1	90	0	0	DC-4A

INTERSTAGE TRANSFORMERS
Frequency Response 20-20,000 C.P.S. ±10 D.B. *50-20,000 C.P.S. ±1.0 D.B.

Catalog No.	Application	Impedance Level Ohms Primary	Secondary	Maximum Power Level DBM	Ratio	Equivalent Shielding D.B.	Maximum Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
QGA 12	Bridging line to single or push-pull grids.	10,000	60,000 split	+10	1:2.45	70	0	0	DC-2B
QGA 13	Single 6C4, 6J5 ½ 6SN7 triode to push-pull grids. Shunt feed.	15,000	60,000 split	+18	1:2	45	0	0	DC-2B
QGA 14*	Single 6C4, 6J5 ½ 6SN7 triode to push-pull grids.	15,000	60,000 split	+18	1:2	45	8	8	DC-2B
QGA 15	Push-pull triode plates to push-pull class A grids.	20,000 split	45,000 split	+25	1:1.5	30	8	0.5	DC-4A

HIGH LEVEL OUTPUT TRANSFORMERS
Frequency Response 20-30,000 C.P.S. ±0.5 DB

Catalog No.	Application	Impedance Level Ohms Primary	Secondary	Maximum Power Level DBM	Watts	Ratio	Maximum D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
QGA 25	PP 5881, 6B4, 6L6, 300A, 275A to Universal 500 ohm line.	5,000 split	U-500	+42	15	3.16:1	70	7	DC-5B
QGA 26	As above to Universal voice coil.	5,000 split	U-16	+42	15	17.7:1	70	7	DC-5B
QGA 27	Push-pull 6V6, 6AQ5, 7C5, 6N7 to Universal 500 ohm line.	8,000 split	U-500	+42	15	4:1	50	5	DC-5B
QGA 28	As above to Universal voice coil.	8,000 split	U-16	+42	.5	22.4:1	50	5	DC-5B
QGA 29	P.P. 6F6, 6V6, 6AQ5, 7C5, 7B5, 6AR5, 6K6, 6L6 to Universal 500 ohm line.	10,000 split	U-500	+42	15	4.47:1	40	4	DC-5B
QGA 30	As above to Universal voice coil.	10,000 split	U-16	+42	15	25:1	40	4	DC-5B
QGA 31	P.P. 807, 1614, KT-66, (Williamson Amplifier) to Universal 500 ohm line.	10,000 split	U-500	+45.5	36	4.47:1	60	6	DC-6A
QGA 32	As above to Universal voice coil.	10,000 split	U-16	+45.5	36	25:1	60	6	DC-6A
QGA 33	P.P. Parallel, 6A5G, 300A to Universal 500 ohm line.	2,500 split	U-500	+45.5	36	2.24:1	100	10	DC-6A
QGA 34	As above to Universal voice coil.	2,500 split	U-16	+45.5	36	12.5:1	100	10	DC-6A
QGA 35	P.P. 6L6 or P.P. Parallel 6L6 to Universal 500 ohm line.	3,800 split	U-500	+47	50	2.75:1	140	14	DC-6B
QGA 36	As above to Universal voice coil.	3,800 split	U-16	+47	50	15.4:1	140	14	DC-6B
QGA 37	High level multiple line to Universal voice coil.	U-500	U-16	+42	15	5.6:1	0	0	DC-5B
QGA 38	High level multiple line to Universal voice coil.	U-500	U-16	+47	50	5.6:1	0	0	DC-6B
QGA 39*	5881 or 6146 Class AB1 to Universal 500 ohm line.	6,600 split	U-500	+45.5	36	3.64:1	70	7	DC-6A
QGA 40*	5881 or 6146 Class AB1 to Universal voice coil.	6,600 split	U-16	+45.5	36	20:1	70	7	DC-6A
QGA 41	6550 AB1 or 6146 AB2 to Universal 500 ohm line.	5,000 split	U-500	+50	100	3.16:1	140	14	DC-7
QGA 42	6550AB1 or 6146AB2 to Universal voice coil.	5,000 split	U-16	+50	100	17.7:1	140	14	DC-7

*These units supplied with taps for applying screen feedback
U-16 IMPEDANCES IN OHMS: 2, 4, 8, 12, 16.

U-500 IMPEDANCES IN OHMS. 50, 125, 200, C.T., 250, 330, 500 C.T.
125 and 500 ohms can be used for 150 and 600 ohms.

LOW LEVEL OUTPUT, MIXING, MATCHING TRANSFORMERS
Frequency Response 20-20,000 C.P.S. ±1.0 DB *50-20,000 C.P.S. ±1.0 DB

Catalog No.	Application	Impedance Level Ohms Primary	Secondary	Maximum Power Level DBM	Ratio	Equivalent Shielding D.B.	Maximum Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
QGA 16	Single plate or bridging line to Universal 500 ohm line. Shunt feed.	15,000	U-500	+18	5.5:1	70	0	0	DC-2B
QGA 17*	Single plate to Universal 500 ohm line.	15,000	U-500	+18	5.5:1	70	8	8	DC-2B
QGA 18	Push-pull triode plates to Universal 500 ohm line.	20,000 C.T.	U-500	+25	6.3:1	70	8	0.5	DC-2B
QGA 19	Mixing, low impedance microphone or line to Universal 500 ohm line.	U-500	U-500	+12	1:1	70	0	0	DC-2B
QGA 20	Line level mixing and matching.	U-500	U-500	+30	1:1	70	0	0	DC-2B
QGA 21	High mu triode photo-cell to Universal 500 ohm line.	100,000	U-500	+12	14.1:1	70	0	0	DC-2B

DRIVER TRANSFORMERS
Frequency Response 20-20,000 C.P.S. ±1.0 DB

Catalog No.	Application	Primary Impedance Ohms	Maximum Power Level DBM	Turn Ratio Pri.: ½ Sec.	Maximum Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
QGA 22	Universal 500 ohm line to Class B grids.	U-500	+40	1:1	0	0	DC-4A
QGA 23	Push-pull 6J5, etc. to push-pull 2A3's, 6L6's, etc.	20,000 C.T.	+30	3.2:1	8	0.5	DC-2B
QGA 24	Push-pull 2A3, 6B4 to push-pull 809, T2-40, 4/125A.	5,000 C.T.	+40	3.1:1	50	5	DC-4B

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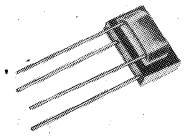
See Freed Price Pages 1400 — 1402

FREED TRANSFORMER CO., INC.

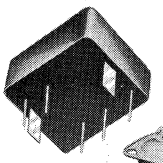
MINIATURE TRANSISTOR AUDIO TRANSFORMERS

These high quality miniature transformers are high efficiency audio components featuring hermetic sealing for maximum protection against electrolysis and subsequent corrosion of fine wires caused by moisture penetration. The units are constructed in accordance with MIL-T-27A Specifications. Transistor transformers can also be supplied in an open or encapsulated type of construction.

TYPE		TSA			TNA			TPA			TTA		
MAX. POWER		500 MW			1 W			3 W			5 W		
FREQ. RESPONSE		.3 — 15 KC ± 2DB			.2 — 15 KC ± 2 DB			.15 — 15 KC ± 2 DB			.15 — 15 KC ± 2 DB		
SIZE	UNCASED	—			—			7/16 x 19/32 x 3/4			1 7/16 x 1 3/16 x 1 3/16		
	CASED MIL-T-27A-4RX	7/16 D., 1 3/32 H.			3/4 D. x 2 3/32 H.			1 5/16 D. x 1 1/4 H.			1 3/16 D. x 1 3/4 H.		
	MOLDED MIL-T-27A-5RX	1/2 D. x 1/2 H.			1 3/32 x 1 3/32 x 1 3/32			7/8 x 25/32 x 1 7/32			1 3/32 x 1 x 1 3/32		
MATCHING IMP. Pri.	Sec.	Cat. No.	Max. I (MA) Total Pri.	Max I dc (MA) Unbal. 1/2 Pri.	Cat. No.	Max. I (MA) Total Pri.	Max I dc (MA) Unbal. 1/2 Pri.	Cat. No.	Max. I (MA) Total Pri.	Max I dc (MA) Unbal. 1/2 Pri.	Cat. No.	Max. I (MA) Total Pri.	Max I dc (MA) Unbal. 1/2 Pri.
150 (CT)	3.2	**28**	35	12	**28**	40	16	**30**	45	20	**15**	130	50
150 (CT)	12	**29**	35	12	**29**	40	16	**31**	45	20	**17**	130	50
150 (CT)	50	**30**	35	12	**30**	40	16	**32**	45	20	**18**	130	50
300 (CT)	3.2	**31**	30	8	**31**	32	14	**33**	35	16	**20**	100	35
300 (CT)	12	**32**	30	8	**32**	32	14	**34**	35	16	**21**	100	35
300 (CT)	50	**33**	30	8	**33**	32	14	**35**	35	16	**22**	100	35
500 (CT)	500	**34**	20	6	**34**	22	10	**36**	25	12	**1**	80	25
600 (SP)	3.2	**1**	16	6	**1**	18	8	**1**	20	10	**23**	65	25
600 (SP)	12	**2**	16	6	**2**	18	8	**2**	20	10	**24**	65	25
600 (SP)	50	**35**	16	6	**35**	18	8	**3**	20	10	**25**	65	25
600 (SP)	600 (SP)	**3**	16	6	**3**	18	8	**4**	20	10	**26**	65	25
600 (SP)	1.2K (CT)	**22**	16	6	**22**	18	8	**37**	20	10	**7**	65	25
1K (CT)	3.2	**36**	14	4	**36**	15	6	**38**	16	8	**19**	50	20
1K (CT)	12	**37**	14	4	**37**	15	6	**39**	16	8	**27**	50	20
1K (CT)	50	**26**	14	4	**26**	15	6	**40**	16	8	**13**	50	20
1.2K (SP)	3.2	**4**	12	4	**4**	14	6	**5**	16	8	**28**	40	15
1.2K (SP)	12	**5**	12	4	**5**	14	6	**6**	16	8	**29**	40	15
1.2K (SP)	50	**38**	12	4	**38**	14	6	**7**	16	8	**30**	40	15
1.2K (SP)	600 (SP)	**6**	12	4	**6**	14	6	**8**	16	8	**31**	40	15
2K (SP)	3.2	**7**	9	3	**7**	10	5	**9**	14	6	**10**	25	12
2K (SP)	12	**8**	9	3	**8**	10	5	**10**	14	6	**32**	25	12
2K (SP)	600 (SP)	**9**	9	3	**9**	10	5	**11**	14	6	**33**	25	12
4K (SP)	3.2	**10**	6.5	2	**10**	8	3	**12**	9	4	**11**	20	10
4K (SP)	12	**11**	6.5	2	**11**	8	3	**13**	9	4	**34**	20	10
4K (SP)	600 (SP)	**12**	6.5	2	**12**	8	3	**14**	9	4	**9**	20	10
10K (SP)	3.2	**13**	5	1	**13**	6	2	**15**	7	3	**35**	15	9
10K (SP)	12	**14**	5	1	**14**	6	2	**16**	7	3	**36**	15	9
10K (SP)	50	**39**	5	1	**39**	6	2	**17**	7	3	**37**	15	9
10K (SP)	600 (SP)	**15**	5	1	**15**	6	2	**18**	7	3	**38**	15	9
10K	1K	**40**	5	1	**40**	6	1.5	**19**	7	1.8	**39**	15	5
10K	10K (SP)	**16**	5	1	**16**	6	1.5	**20**	7	1.8	**40**	15	5
20K (CT)	50	**25**	2.5	.8	**25**	3	1	**21**	5	2	**12**	8	6
20K (CT)	600 (CT)	**41**	2.5	.8	**41**	3	1	**22**	5	2	**16**	8	6
25K (CT)	600 (CT)	**23**	2.5	.8	**23**	3	1	**23**	5	2	**8**	6	4
25K (CT)	1.2K (CT)	**21**	2.5	.8	**21**	3	1	**24**	5	2	**5**	6	4
50K (CT)	6 (CT)	**18**	2	.6	**18**	2.5	1	**25**	3.5	1	**3**	5	3
50K (CT)	500 (CT)	**17**	2	.6	**17**	2.5	1	**26**	3.5	1	**2**	5	3
50K (CT)	1.2K (CT)	**20**	2	.6	**20**	2.5	1	**27**	3.5	1	**6**	5	3
100K (CT)	1K (CT)	**27**	2	.4	**27**	2	.8	**28**	2	1	**14**	4	2
100K (CT)	1.2K (CT)	**19**	2	.4	**19**	2	.8	**29**	2	1	**4**	4	2

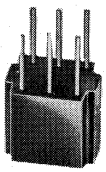


TTA, TPA UNCASED

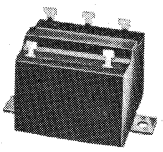


TPA MOLDED

TTA, TPA CASED



TNA MOLDED



TTA MOLDED

TUA, TSA, TNA CASED
TSA MOLDED

TYPE		TUA					
MAX. POWER		500 MW					
FREQ. RESPONSE		.4 — 15 KC ± 2 DB					
SIZE	UNCASED	—					
	CASED MIL-T-27A-4RX	1 1/32 D. x 1/2 H.					
	MOLDED	—					
MATCHING IMP. Pri.	Sec.	Cat. No.	Max. I (MA) Total Pri.	Max. I dc (MA) Unbal. 1/2 Pri.	MATCHING IMP. Pri.	Sec.	Cat. No.	Max. I (MA) Total Pri.	Max. I dc (MA) Unbal. 1/2 Pri.
150 (CT)	3.2	**16**	15	10	2K (CT)	3.2	**28**	3.5	2.5
150 (CT)	12	**17**	15	10	2K (CT)	12	**29**	3.5	2.5
150 (CT)	50	**21**	15	10	2K (CT)	600	**30**	3.5	2.5
300 (CT)	3.2	**20**	9	7	4K (CT)	3.2	**8**	3.5	1.5
300 (CT)	12	**19**	9	7	4K (CT)	12	**9**	3.5	1.5
300 (CT)	50	**22**	9	7	4K (CT)	600	**10**	3.5	1.5
500 (CT)	500	**23**	7	5	10K (CT)	3.2	**7**	2	1
600 (CT)	3.2	**1**	7	5	10K (CT)	12	**11**	2	1
600 (CT)	12	**2**	7	5	10K (CT)	50	**12**	2	1
600 (CT)	50	**13**	7	5	10K (CT)	600	**15**	2	1
600 (CT)	600	**3**	7	5	10K (CT)	1K	**18**	2	1
600 (CT)	1.2K	**24**	7	5	10K	10K (CT)	**31**	2	1
1K (CT)	3.2	**4**	6	3.5	20K (CT)	50	**32**	2	.8
1K (CT)	12	**25**	6	3.5	20K (CT)	600 (CT)	**33**	2	.8
1K (CT)	50	**14**	6	3.5	25K (CT)	600 (CT)	**34**	2	.8
1.2K (CT)	3.2	**26**	6	3.5	25K (CT)	1.2K (CT)	**35**	2	.8
1.2K (CT)	12	**5**	6	3.5	50K (CT)	6 (CT)	**36**	2	.6
1.2K (CT)	50	**27**	6	3.5	50K (CT)	500 (CT)	**37**	2	.5
1.2K (CT)	600	**6**	6	3.5	50K (CT)	1.2K (CT)	**38**	2	.5

CT = Center Tap. SP = Split Winding.

MINIATURE AUDIO TRANSFORMERS

These high quality, miniature transformers feature hermetically sealing for maximum protection from moisture penetration with subsequent electrolysis and corrosion of fine wires. While primarily intended for non-military equipment, these units are constructed in accordance with MIL-T-27A Specifications.

Frequency response: ± 2DB 30-20,000 CPS *± 2DB 200-10,000 CPS.

Catalog No.	Application	MIL Type	Impedance Level Ohms Primary	Secondary	Max. Power Level DBM	Ratio	Equivalent Shielding D.B.	Max. Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
PMA 1	Line or microphone to single or push-pull grids.	TF4RX10YY	50/200/500	60,000 C.T.	+8	1:11		0	0	DM-20
PMA 2	Dynamic microphone or speaker voice coil to single or P.P. grid.	TF4RX10YY	4/8	60,000 C.T.	+8	1:86.6		0	0	DM-20
PMA 3	Line or microphone to single or push-pull grids. Magnetically shielded.	TF4RX10YY	50/200/500	60,000 C.T.	+8	1:11	30	0	0	DM-20
PMA 4	Single triode plate to single or push-pull grids.	TF4RX10YY	15,000	60,000 C.T.	+8	1:2		0	0	DM-20
PMA 5*	Single triode plate to push-pull grids.	TF4RX12YY	15,000	60,000 C.T.	+8	1:2		2	2	DM-20
PMA 6	Single triode plate to multiple line.	TF4RX16YY	15,000	50/200/500	+8	5.48:1		0	0	DM-20
PMA 7*	Single triode plate to multiple line.	TF4RX12YY	15,000	50/200/500	+8	5.48:1		2	2	DM-20
PMA 8	Push-pull triode plates to multiple line.	TF4RX12YY	30,000 C.T.	50/200/500	+8	7.75:1		2	0.25	DM-20
PMA 9	Crystal mike or pickup to multiple line.	TF4RX16YY	60,000 C.T.	50/200/500	+8	11:1		0	0	DM-20
PMA 10	Mixing or matching.	TF4RX16YY	50/200	50/200/500	+8	1:1.50		0	0	DM-20
PMA 11	Parallel Feed Reactor.	TF4RX20YY	40 hy, 3 ma dc, 3500 ohms d.c. resistance							DM-20
PMA 12	Microphone or line to grid.	TF4RX10YY	50/200/500 C.T.	60,000 C.T.	+5	1.11		0	0	DM-20
PMA 13	Mixing and matching.	TF4RX16YY	150/600	600 C.T.	+8	1.1		0	0	DM-20
PMA 14	Single triode plate to push-pull grids.	TF4RX15YY	15,000	95,000 Split	+5	1:2.5		0	0	DM-20
PMA 15*	Single triode plate to push-pull grids.	TF4RX15YY	15,000	95,000 Split	15	1:2.5		4	4	DM-20

CASE DIMENSIONS

DM-20 CASE

Height: 1 9/16″
Dia.: 15/16″
Mtg. Cen.: 1 1/8″ to 1 17/32″
Mtg. 2 holes: 166 x .120
Flange Lgth.: 1 13/32″
Flange D.: .975″

See Freed Price Pages 1400 — 1402

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FREED TRANSFORMER CO., INC.

MINIATURE TRANSISTOR TRANSFORMERS

These high quality miniature transformers are high efficiency audio components featuring hermetically sealing for maximum protection against electrolysis and subsequent corrosion of fine wires caused by moisture penetration. The units are constructed in accordance with MIL-T-27A Specifications.

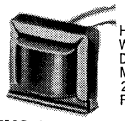
Transistor Transformers can also be supplied in an open or encapsulated type of construction

CASE DIMENSIONS

DM-01 CASE

Height: 2″
Width: 1½″
Depth: 1½″
Mtg. Cen.: 1 1/16″x1 1/16″
Studs: 4 6-32
Knockout: 1⅜″ dia.

UNCASED DIMENSIONS



TMO 1 TO 14

Height: 13/16″
Width: 1 1/16″
Depth: 21/32″
Mtg. Cen.: 1⅜″
2 Mtg. Holes: .120 dia.
Flange Lgth: 1⅝″

TMO 15 TO 18

Height: 21/32″
Width: 9/16″
Depth: 13/16″

TMO-19

Height: 13/16″
Width: 1 15/32″
Depth: 1½″
Mtg. Cen.: 1⅜″
2 Mtg. Holes: 3/16″ dia.
Flange Lgth: 2 1/16″

Catalog No.	MIL Type	Impedance Ohms Pri.	Ct.	Sec.	Ct.	D.B.	Frequency Response C.P.S.	Unbalance Primary Current M.A./D.C.	D.C. Resistance Ohms Pri.	Sec.	Max. Power Output M.W.	Case No.
TMA 1*	TF4RX16YY	500		500		1	200 to 15,000	0	18	.24	250	DM-20
TMA 2*	TF4RX12YY	50K		500		2	300 to 15,000	3	2,200	49	250	DM-20
TMA 3*	TF4RX13YY	50K		6		2	300 to 15,000	3	2,200	.55	250	DM-20
TMA 4*	TF4RX12YY	100K		1.2K	✓	3	300 to 15,000	1	2,790	95	100	DM-20
TMA 5*	TF4RX12YY	25K		1.2K	✓	2	200 to 15,000	3	1,740	110	250	DM-20
TMA 6*	TF4RX12YY	50K		1.2K	✓	2	300 to 15,000	3	2,200	106	250	DM-20
TMA 7*	TF4RX17YY	600/150		1.2K	✓	1	200 to 15,000	4	30	95	250	DM-20
TMA 8*	TF4RX12YY	25K		600		2	200 to 15,000	3	1,740	61	250	DM-20
TMA 9*	TF4RX12YY	4K	✓	600/150	✓	1	200 to 15,000	1	274	43	250	DM-20
TMA 10*	TF4RX13YY	2K		3.2		2	200 to 15,000	10	160	.28	250	DM-20
TMA 11*	TF4RX13YY	4K	✓	3.2		1	200 to 15,000	1	274	.26	250	DM-20
TMA 12*	TF4RX13YY	20K		50		2	300 to 15,000	4	1,340	2.9	250	DM-20
TMA 13*	TF4RX17YY	1K		50		2	300 to 15,000	8	42.6	2.5	250	DM-20
TMA 14*	TF4RX16YY	100K		1K		2	300 to 15,000	0	1,550	16.8	100	DM-20
TMO 15		20K		50		2	300 to 15,000	1	2,215	7.25	40	open
TMO 16		20K		600		2	300 to 15,000	1	2,215	102	40	open
TMO 17		1K		50		2	300 to 15,000	3	93	5.6	60	open
TMO 18		100K		1K		2	300 to 15,000	0	3,000	57.5	100	open
TMA 19*	TF4RX13YY	1K		3.2		2	200 to 15,000	20	38	.19	1000	DM-01

*When ordering open units specify TMO - - when ordering encapsulated units specify TMC.

PROFESSIONAL GRADE COMPONENTS

This group of components has been designed for use in high fidelity and professional equipment and for public address service. Freed has developed this series of units employing the latest design techniques and the best commercially available materials. Except for units carrying unbalanced direct current the frequency response is ± 1 DB from 30 to 15,000 cps. All units feature excellent performance characteristics with minimum size and weight.

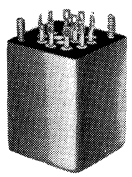
All units are vacuum varnished and then potted in compound to insure long life and trouble free performance.

Professional Grade components are supplied cased. Upon request these units can be supplied open or in shell type construction.

All cased Professional Grade Components supplied with terminals meet "EIA" standards.

Transformers PGA 1 through PGA 10 are supplied in hermetically sealed cases.

CASE DIMENSIONS



DM-01 CASE

Height: 2¼″
Width: 1½″
Depth: 1½″
Mtg. Cen.: 1 1/16″x1 1/16″
Studs: 2 6-32
Knockout: 1⅜″ dia.

DC-1A CASE

Height: 2½″
Width: 2 1/16″
Depth: 1 13/16″
Mtg. Cen.: 1½″x1¼″
Studs: 4 8-32

DC-2A CASE

Height: 3″
Width: 2⅝″
Depth: 2¼″
Mtg. Cen.: 2″x1¾″
Studs: 4 8-32

INPUT TRANSFORMERS

Frequency Response 30-15,000 C.P.S. ±1.0 DB

Catalog No.	Application	Impedance Level Ohms Primary	Secondary	Maximum Power Level DBM	Ratio	Equivalent Shielding D.B.	Max. Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
PGA 1	Universal 500 ohm line to single grid.	U-500	50,000	+12	1:10	50	0	0	DM-01
PGA 2	Universal 500 ohm line to push-pull grids.	U-500	60,000 split	+12	1:11	50	0	0	DM-01
PGA 3	Universal 500 ohm line to push-pull grids.	U-500	100,000 split	+12	1:14.1	50	0	0	DM-01
PGA 4	Bridging line to single grid.	10,000	60,000	+12	1:2.45	50	0	0	DM-01
PGA 5	Bridging line to push-pull grids.	10,000	60,000 center tap	+12	1:2.45	50	0	0	DM-01
PGA 6	Low level line matching.	U-500	U-500	+18	1:1	50	0	0	DM-01

LOW LEVEL OUTPUT AND MIXING TRANSFORMERS

Frequency Response 30-15,000 C.P.S. ±1.0 DB

Catalog No.	Application	Impedance Level Ohms Primary	Secondary	Maximum Power Level DBM	Ratio	Max. Pri. D.C. Per Side Ma.	D.C. Unbalance Ma.	Case Number
PGA 7	Single triode plate to Universal 500 ohm line. Shunt feed.	15,000	U500	+18	5.48:1	0	0	DM-01
PGA 8	Single triode plate to Universal 500 ohm line.	15,000	U500	+18	5.48:1	8	8	DM-01
PGA 9	Push-pull triode plates to Universal 500 ohm	20,000 CT	U500	+30	6.32:1	8	0.5	DM-01
PGA 10	Low level line matching.	U500	U500	+18	1:1	0	0	DM-01

U-500 IMPEDANCES IN OHMS: 50, 125, 200 CT, 250, 330, 500 CT. 125 and 500 ohms can be used for 150 and 600 ohms.

DRIVER TRANSFORMERS

Frequency Response 30-15,000 C.P.S. ±1.0 DB

Catalog No.	Application	Primary Impedance Ohms	Turn Ratio Pri: ½ Sec.	Max. Level DBM	Max. Pri. D.C. Per Side Ma.	Max. D.C. Unbalance Ma.	Case Number
PGA 11	Universal 500 ohm line to push-pull grids.	U500	1:1	+40	0	0	DC-2A
PGA 12	Push-pull 6C4, 6SN7 triodes to push-pull 2A3, 6L6 grids.	20,000 C.T.	3.0:1	+30	10	1	DC-1A
PGA 13	Push-pull 2A3, 6B4, 6A5G to push-pull 809, TZ-40, 4/125A	5,000 C.T.	3.2:1	+40	50	5	DC-2A

All units supplied with leads.

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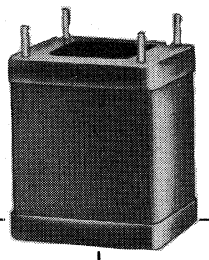
See Freed Price Pages 1400 — 1402

FREED TRANSFORMER CO., INC.

PROFESSIONAL GRADE COMPONENTS

CASE DIMENSIONS



DC-1A CASE
Height: 2½"
Width: 2 1/16"
Depth: 1 13/16"
Mtg. Cen.: 1½"x1¼"
Studs: 4 8-32
Knockout: 1¼" dia.

DC-4A CASE
Height: 3¾"
Width: 3⅛"
Depth: 3"
Mtg. Cen.: 2½"x2½"
Studs: 4 8-32
Knockout: 2"x1¾"

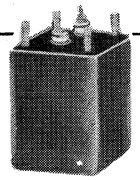
DC-2A CASE
Height: 3"
Width: 2⅝"
Depth: 2¼"
Mtg. Cen.: 2"x1¾"
Studs: 4 8-32
Knockout: 1½"x1⅜"

DC-5A CASE
Height: 3⅞"
Width: 4⅛"
Depth: 3½"
Mtg. Cen.: 3⅛"x2⅝"
Studs: 4 10-32
Knockout: 2½"x2"

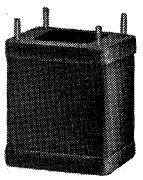
DC-2B CASE
Height: 3½"
Width: 2⅝"
Depth: 2¼"
Mtg. Cen.: 2"x1¾"
Studs: 4 8-32
Knockout: 1½"x1⅜"

DC-6A CASE
Height: 4⅞"
Width: 5"
Depth: 4⅛"
Mtg. Cen.: 3¾"x3"
Studs: 4 10-32
Knockout: 3"x2½"

CASE DIMENSIONS



DM-01 CASE
Height: 2"
Width: 1½"
Depth: 1½"
Mtg. Cen.: 1 1/16"x1⅛"
Studs: 4 6-32



DC CASE STYLE

DC-2B
Height: 3½"
Width: 2⅝"
Depth: 2¼"
Mtg. Cen.: 2"x1¾"
Studs: 4 8-32

DC-1A
Height: 2½"
Width: 2 1/16"
Depth: 1 13/16"
Mtg. Cen.: 1½"x1¼"
Studs: 4 8-32

DC-4A
Height: 3¾"
Width: 3⅛"
Depth: 3"
Mtg. Cen.: 2½"x2½"
Studs: 4 8-32

DC-2A
Height: 3"
Width: 2⅝"
Depth: 2¼"
Mtg. Cen.: 2"x1¾"
Studs: 4 8-32

DC-5A CASE
Height: 3⅞"
Width: 4⅛"
Depth: 3½"
Mtg. Cen.: 3⅛"x2⅝"
Studs: 4 10-32

DC-5B
Height: 4½"
Width: 4⅛"
Depth: 3½"
Mtg. Cen.: 3⅛"x2⅝"
Studs: 4 10-32

HIGH LEVEL OUTPUT TRANSFORMERS

Frequency Response 30-15,000 C.P.S. ±1.0 DB

Catalog No.	Application	Impedance Level Ohms Primary	Secondary	Maximum Power Level DBM	Watts	Ratio	Max. Pri. D.C. Per Side Ma	DC Unbalance Ma	Case Number
PGA 14	P.P. 6K6, 6AR5, 7B5 Class A to Universal voice coil.	12,000 C.T.	U16	+40	10	27.4:1	40	4	DC-2B
PGA 15	P.P. 6F6 Cl. AB_2, P.P. 6V6, 6AQ5, 7C5, Cl. AB_1, 6L6 or 5881 Triode to Universal voice coil.	10,000 C.T.	U16	+43	20	25:1	50	5	DC-4A
PGA 16	P.P. 6L6 Cl. AB_2, self bias to Universal 500 ohm line.	9,000	U500	+44.8	30	4.23:1	50	5	DC-4A
PGA 17	As above to Universal voice coil.	9,000	U16	+44.8	30	23.7:1	50	5	DC-4A
PGA 18	P.P. 6N7 Cl. B, P.P. 6V6, 6AQ5, 7C5, Cl. AB_1 to Universal voice coil.	8,000 C.T.	U16	+41.8	15	22.3:1	45	5	DC-4A
PGA 19*	P.P. 6L6, fixed bias, Cl. AB_1, to Universal 500 ohm line.	6,600 C.T.	U500	+44.8	30	3.63:1	70	7	DC-4A
PGA 20	As above to Universal voice coil.	6,600 C.T.	U16	+44.8	30	20.3:1	70	7	DC-4A
PGA 21	P.P. 6L6 Cl. A, P.P. 2A3, 6A5G, 6B4 self bias P.P. Par. 6V6 Cl. AB_1 to Universal voice coil.	5,000 C.T.	U16	+43	20	17.7:1	80	8	DC-4A
PGA 22	P.P. Par 6L6 Cl. AB_1, self bias P. P. 6L6 Cl. AB_2 fixed bias PP807 Cl. AB_2 to Universal 500 ohm line.	4000 C.T.	U500	+47	50	2.83:1	100	10	DC-5A
PGA 23	As above to Universal voice coil.	4000 C.T.	U16	+47	50	15.8:1	100	10	DC-5A
PGA 24	P.P. 6A5G, 6B4, 2A3, fixed bias Universal voice coil.	3000 C.T.	U16	+41.8	15	13.7:1	75	7.5	DC-4A
PGA 25	P.P. Par. 807 Cl. AB_2 to Universal 500 ohm line.	2100 C.T.	U500	+51.8	150	2.05:1	240	12	DC-6A
PGA 26	P.P. Par 2A3, 6A5G, fixed bias 6B4, 300A Cl. AB_1, P.P. Par 6L6 Cl. A to Universal 500 ohm line.	1500 C.T.	U500	+44.8	30	1.73:1	180	15	DC-4A
PGA 27	As above to Universal voice coil.	1500 C.T.	U16	+44.8	30	9.7:1	150	15	DC-4A
PGA 28	Matching line to Universal voice coil.	U500	U16	+44.8	30	5.6:1	0	0	DC-4A
PGA 29	Matching line to Universal voice coil.	U500	U16	+47	50	5.6:1	0	0	DC-5A
PGA 30	Matching line to Universal voice coil.	U500	U16	+50	100	5.6:1	0	0	DC-6A

†Available with taps to apply screen feedback.

U-16 IMPEDANCES IN OHMS:
2, 4, 8, 12, 16
U-500 IMPEDANCES IN OHMS:
50, 125, 200 C.T., 250, 330, 500 C.T., 125 and 500 ohms can be used for 150 and 600 ohms.

*PGA 28, 29 & 30 supplied with terminals, all other units with leads.

A 70 volts level can be obtained for the following impedances:
500 ohms — 10 watts +40 DBM
330 ohms — 15 watts +42 DBM
250 ohms — 20 watts +43 DBM
200 ohms — 25 watts +44 DBM
125 ohms — 40 watts +46 DBM
50 ohms — 100 watts +50 DBM

FILTER REACTORS

Inductance measured at 50V, 60 cycles with rated direct current in the winding

Catalog No.	Inductance in Henries	Rated Current D.C. Ma.	D.C. Resistance Ohms	Dielectric Test Voltage VRMS	Case Number
PGC 1	40	15	2000	1000	DM-01
PGC 2	12	40	400	1000	DC-1A
PGC 3	8	50	300	1000	DC-1A
PGC 4	20	50	425	2500	DC-2A
PGC 5	10	70	250	2500	DC-2A
PGC 6	6	100	160	2500	DC-2A
PGC 7	6	150	115	2500	DC-2B
PGC 8	10	150	160	2500	DC-4A
PGC 9	5.5	200	95	2500	DC-4A
PGC 10	10	200	150	2500	DC-4A
PGC 11	10	250	135	2500	DC-5B
PGC 12	8	300	95	2500	DC-5B
PGC 13	7	400	60	2500	DC-5B
		PARALLEL FEED	AUDIO CHOKES		
PGC 14	100	10	3500	1000	DM-01
PGC 15	30	50	650	1500	DC-2A
PGC 16	400	1	6000	1000	DM-01

SWINGING INPUT REACTORS

Catalog No.	Inductance in Henries*	Rated Current D.C. Ma.	D.C. Resistance Ohms	Dielectric Test Voltage VRMS	Case Number
PGC 17	5-20	150	160	1500	DC-4A
PGC 18	5-20	250	135	1500	DC-5B
PGC 19	3-15	300	95	1500	DC-5B
PGC 20	3-15	400	60	1500	DC-5B

*Inductance values for 100% and 10% of rated Direct Current.

See Freed Price Pages 1400 — 1402

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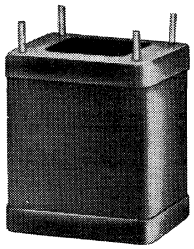
FREED TRANSFORMER CO., INC.

PROFESSIONAL GRADE COMPONENTS



DC-2B	DC-5B
Height: 3½"	Height: 4½"
Width: 2⅜"	Width: 4⅛"
Depth: 2¼"	Depth: 3½"
Mtg. Cen.: 2"x1¾"	Mtg. Cen.: 3⅛"x2⅝"
Studs: 4 8-32	Studs: 4 10-32
DC-4A	**DC-6A CASE**
Height: 3¾"	Height: 4⅞"
Width: 3⅛"	Width: 5"
Depth: 3"	Depth: 4⅛"
Mtg. Cen.: 2½"x2½"	Mtg. Cen.: 3¾"x3"
Studs: 4 8-32	Studs: 4 10-32
DC-5A CASE	**DC-7B CASE**
Height: 3⅞"	Height: 6¾"
Width: 4⅛"	Width: 5½"
Depth: 3½"	Depth: 5"
Mtg. Cen.: 3⅛"x2⅝"	Mtg. Cen.: 4⅜"x3¾"
Studs: 4 10-32	Studs: 4½-20

POWER TRANSFORMERS

ALL PRIMARIES ARE FOR 115V., 50/60 c.p.s. **Temperature rises range from 45° to 50°C.**

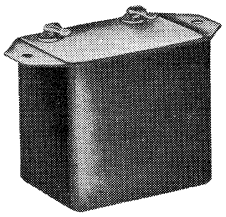
Catalog No.	Py Va	Hi Volt	Choke Input D.C.V.	D.C. Ma	Con. Input D.C.V.	D.C. Ma.	Bias Tap.	Rectifier	Fil. No. 1	Fil. No. 2	Fil. No. 3	Case No.
PGP 1	15	440V C.T.	Low flux density, hum-bucking. For Preamplifier service.		270	15		6X4	6.3VCT @ 0.6A	6.3V @ 0.3A		DC-2B
PGP 2	30	550V C.T.	Low flux density, hum-bucking. For Preamplifier service.		310	35		6X4	6.3VCT @ 0.6A	6.3VCT@0.9A		DC-4A
PGP 3	45	500V C.T.			270	40		6X4, 5Y3	5/6.3V @ 2A	6.3V @ 2A		DC-4A
PGP 4	57	600V C.T.			330	50		6X4, 5Y3	5/6.3V @ 2A	6.3V @ 2.5A		DC-4A
PGP 5	64	650V C.T.			370	50		6X4, 5Y3	5/6.3V @ 2A	6.3V @ 3A		DC-4A
PGP 6	73	600V C.T.			320	70		6X4, 5Y3	5/6.3V @ 2A	6.3V @ 3A		DC-4A
PGP 7	110	650V C.T.	225	140	330	100		5Y3, 5U4	5V @ 3A	6.3V @ 5A		DC-5B
PGP 8	76	700V C.T.	260	100	385	70		5Y3	5V @ 2A	6.3V @ 2.5A		DC-5A
PGP 9	108	700V C.T.	250	125	370	90		5Y3, 5U4	5V @ 3A	6.3V @ 5A		DC-5B
PGP 10	127	700V C.T.	260	170	350	120		5U4	5V @ 3A	6.3V @ 5A		DC-5B
PGP 11	146	700V C.T.	260	210	350	150		5U4	5V @ 3A	6.3V @ 5A	6.3V @ 1A	DC-6A
PGP 12	207	800V C.T.	295	280	400	200		5U4, 2-5Y3	5V @ 4A	6.3V @ 6A		DC-6A
PGP 13	225	800V C.T.	295	280	400	200	80	5U4, 2-5Y3	5V @ 4A	6.3V @ 6A	5/6.3V @ 2A	DC-6A
PGP 14	268	840V C.T.	330	350	450	250	80	2-5U4	5V @ 6A	6.3V @ 6A	5/6.3V @ 2A	DC-6A
PGP 15	320	900V C.T.	340	420	490	300	80	2-5U4	5V @ 6A	6.3V @ 6A	5/6.3V @ 2A	DC-7B
PGP 16	127	900V C.T.	360	150				5U4	5V @ 3A	6.3V @ 5A		DC-6A
PGP 17	150	900V C.T.	350	200				5U4	5V @ 3A	6.3V @ 5A		DC-6A
PGP 18	203	1100V C.T.	400	250				5R4GY	5V @ 3A	6.3V @ 5A		DC-6A
PGP 19	248	1100V C.T.	420	300				2-5R4GY	5V @ 4A	6.3V @ 7A		DC-6A
PGP 20	310	1280V C.T.	480	350				2-5R4GY	5V @ 4A	6.3V @ 7A		DC-7B

All units supplied with leads.

PQC HIGH Q REACTORS

PQC-Reactors are low-priced High Q components designed for use in selective circuits such as wave filters, wave traps, and noise suppressors.

CASE DIMENSIONS



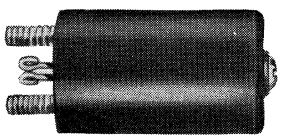
DM-02 CASE
Height: $1\frac{21}{32}$"
Width: $1\frac{21}{32}$"
Depth: $1\frac{13}{32}$"
Flange L: $2\frac{3}{8}$"
Mtg. Cen.: 2"

Catalog No.	Application	Rated Ind. in Henries	Q	Tuning Capacitor (MF)	Case Size
PQC 1	60 cps resonant trap	14.00	10	.5	DM-02
PQC 2	400 cps resonant trap	1.58	15	.1	DM-02
PQC 3	1000 cps resonant trap	1.00	20	.025	DM-02
PQC 4	Dynamic noise suppression inductor	2.40	20 @ 4 KC		DM-02
PQC 5	Dynamic noise suppression inductor	2.00	15 @ 4 KC		DM-02
PQC 6	Dynamic noise suppression inductor	1.30	15 @ 4 KC		DM-02
PQC 7	Dynamic noise suppression inductor	.80	15 @ 4 KC		DM-02
PQC 8	Dynamic noise suppression inductor	.60	15 @ 4 KC		DM-02
PQC 9	Dynamic noise suppression inductor	.40	15 @ 4 KC		DM-02

MINIATURE VARIABLE HIGH FREQUENCY INDUCTORS

- Continuous variation of inductance
- Q practically constant over whole range of variation
- Hermetically sealed
- Inductances other than those listed can be supplied to special order

CASE DIMENSIONS



VI-1
Height: 1"
Diameter: ¾"
2 Studs: 4-40
Mtg. Cen.: ⅜"

Catalog No.	Test Freq. (MC)	Inductance Min.	Inductance Max.	Variations of Q @ L Min.	Variations of Q @ L Max.	RDC (Ω) Nominal	Self Res. Freq. (MC) @ L Max.	Max. Non Destruct Current (MA)	Case Size
VHI-1	.1	1.1 MH	1.75 MH	93.5	100.5	.75	2.2	250	VI-1
VHI-2	.1	1.7 MH	2.5 MH	94.5	96.5	1.1	1.9	200	VI-1
VHI-3	.1	2.3 MH	3.7 MH	94.5	97.2	1.4	1.6	200	VI-1
VHI-4	.1	3. MH	4.5 MH	100.7	101.7	1.9	1.4	160	VI-1
VHI-5	.1	4. MH	5.7 MH	107.	108.	2.2	1.3	160	VI-1
VHI-6	.1	5.5 MH	7.5 MH	112.	119.	3.1	1.	130	VI-1
VHI-7	.1	7. MH	10.5 MH	116.	120.5	4.5	.9	100	VI-1
VHI-8	.1	10. MH	15. MH	106.	109.	6.6	.85	80	VI-1
VHI-9	.1	14.5 MH	20.5 MH	101.	101.5	9.2	.6	60	VI-1
VHI-10	.1	20. MH	30. MH	105.	115.	13.7	.55	50	VI-1
VHI-11	1.	9.50 μH	11.0 μH	104.	114.	.24	>10	150	VI-1
VHI-12	1.	14.0 μH	15.6 μH	113.	127.	.29	>10	150	VI-1
VHI-13	1.	24.5 μH	28.0 μH	145.	156.	.37	>10	150	VI-1
VHI-14	1.	47.0 μH	52.0 μH	178.	195.	.46	>10	150	VI-1
VHI-15	.5	71.0 μH	79.5 μH	152.	168.	.56	>10	150	VI-1
VHI-16	.5	94.0 μH	105.0 μH	165.	173.	.64	>10	150	VI-1
VHI-17	.5	145.0 μH	165.0 μH	200.	222.	.75	9.7	150	VI-1
VHI-18	.5	191.0 μH	218.0 μH	204.	229.	.9	9.4	150	VI-1
VHI-19	.5	234.0 μH	265.0 μH	216.	238.	1.0	8.3	150	VI-1
VHI-20	.5	279.0 μH	318.0 μH	219.	236.	1.1	7.	150	VI-1
VHI-21	.5	380.0 μH	416.0 μH	216.	230.	1.3	6.5	150	VI-1
VHI-22	.5	480.0 μH	545.0 μH	220.	237.	1.5	7.	150	VI-1

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FREED TRANSFORMER CO., INC.

HIGH "Q" REACTORS

QGC—are hermetically sealed, MIL-T-27A, Grade 4, Class R, High Q Reactors for low audio frequency application with an excellent inductance stability with variations of A.C. and D.C. currents, frequencies and temperatures.

SPECIAL REACTORS:
(1) with a center tap
(2) with a split winding
(3) with inductances other than those listed can be supplied.

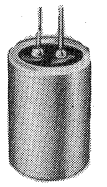
DC-2A CASE
Height: 3″
Width: 2⅝″
Depth: 2¼″
Mtg. Cen.: 2″ x 1¾″
Studs: 4 8-32
Knockout: 1½″ x 1⅜″

AJ CASE
Height: 2⅜″
Width: 1⅝″
Depth: 1⅝″
Mtg. Cen: 1¾″ x 1¾₁₆″
Studs: 4 6-32

AH CASE
Height: 1¾″
Width: 1⅝₁₆″
Depth: 1⅝₁₆″
Mtg. Cen.: 1¼″
Studs: 2 6-32

DM-20 CASE
Height: 1¾₁₆″
Diameter: 1¾₁₆″
Flange L: 1¹³⁄₃₂″
Flange D: 0.975″
Mtg. Cen.: 1⅛″ x 1⅞₂″
2 Slots: .166″ x .120″
Knockouts: .875″

DM-30 CASE
Height: ²⁹⁄₃₂″
Diameter: 1¾₁₆″
Flange L: 1¹³⁄₃₂″
Flange D: 0.975″
Mtg. Cen.: 1⅛″ to 1⅞₂″
2 Slots: .166″ x .120″
Knockouts: .875″



DM-40 CASE
Height: ²¹⁄₃₂″
Diameter: 9⁄16″
Pig Tails:

Catalog No.	Ind. H (±2%)	Ω/H Max.	Max. Norm DC*	Max. Norm AC**	Self Res. Freq. ±25%	Case	"Q" Max.	@ Freq.
QGC-1	100						40	250
QGC-2	75						48	280
QGC-3	50						51	300
QGC-4	25	20	85	0.58	$F_O = 22/\sqrt{L_H}$	DC-2A	53	320
QGC-5	10						58	350
QGC-6	5						59	400
QGC-7	1						60	400
QGC-8	75						32	600
QGC-9	50						37	600
QGC-10	25						39	700
QGC-11	10	55	60	0.5	$F_O = 7.2/\sqrt{L_H}$	AJ	43	700
QGC-12	5						46	700
QGC-13	1						53	800
QGC-14	50						29.5	500
QGC-15	25						31.5	500
QGC-16	10	70	40	0.25	$F_O = 35/\sqrt{L_H}$	AH	32	600
QGC-17	5						33	600
QGC-18	1						36	700
QGC-19	10						23	700
QGC-20	7.5						23	730
QGC-21	5	110	15	0.15	$F_O = 34/\sqrt{L_H}$	DM-20	24	730
QGC-22	2.5						24	750
QGC-23	1						25	750
QGC-24	.5						25	750
QGC-25	5						23	1500
QGC-26	2.5						23	1550
QGC-27	1						24	1600
QGC-28	.75	250	13	0.11	$F_O = 35/\sqrt{L_H}$	DM-30	24	1650
QGC-29	.5						24	1700
QGC-30	.2						25	1750
QGC-31	.1						25	1800
QGC-32	2						15	1500
QGC-33	1.5						15	1500
QGC-34	1						15	1800
QGC-35	.75						15	1800
QGC-36	.5						16	2000
QGC-37	.25	500	10	0.04	$F_O = 45/\sqrt{L_H}$	DM-40	16	2000
QGC-38	.1						16	2000
QGC-39	.075						17	2200
QGC-40	.05						17	2200
QGC-41	.025						17	2500
QGC-42	.01						17	2500

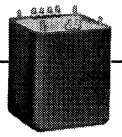
*Max. Norm. D.C. = I D.C. (MA) $\sqrt{L_H}$ } at which the inductance
**Max. Norm. A.C. = V/F ~ $\sqrt{L_H}$ } will decrease by 20%.

STANDARD MILITARY TRANSFORMERS

The group comprises audio and power units designed to meet MIL-T-27 A specifications.
The functional characteristics of these transformers were established by the Armed Service Standardization Program. These units are supplied in standard MIL cases.

CASE DIMENSIONS

AJ CASE
Height: 2⅜″
Width: 1⅝″
Depth: 1⅝″
Mtg. Cen.: 1¾₁₆″x1¾₁₆″
Studs: 4 6-32
Cut Out: 1⅛″ D



HA CASE
Height: 4¼″
Width: 3¹⁄₁₆″
Depth: 2⅝″
Mtg. Cen.: 2¹⁹⁄₆₄″x1⁵⁵⁄₆₄″
Studs: 4 8-32

LB CASE
Height: 4½″
Width: 4⅝₁₆″
Depth: 3¹¹⁄₁₆″
Mtg. Cen.: 3⅝₁₆″x2¹¹⁄₁₆″
Studs: 4 10-32

JB CASE
Height: 3⅞″
Width: 3⅜₁₆″
Depth: 3¹⁄₁₆″
Mtg. Cen.: 2⅝″x2⅛″
Studs: 4 8-32

MB CASE
Height: 4¹⁵⁄₁₆″
Width: 4¹¹⁄₁₆″
Depth: 4″
Mtg. Cen.: 3¹¹⁄₁₆″x3″
Studs: 4 ¼-20

KB CASE
Height: 4⅝₁₆″
Width: 3¹⁵⁄₁₆″
Depth: 3⅜″
Mtg. Cen.: 3″x2⁷⁄₁₆″
Studs: 4 10-32

NB CASE
Height: 5½″
Width: 5¹⁄₁₆″
Depth: 4⅝₁₆″
Mtg. Cen.: 4¹⁄₁₆″x3⅝₁₆″
Studs: 4 ¼-20

Transformers meeting MIL-T-27A specifications Grade 1 through 6 with temperature characteristics of Class S, T, or U can be supplied on special order.
Encapsulated units using either Epoxy-Resins or Fosterite can be supplied for Grade 2 and 5.
Class U components can be supplied molded in special high temperature Freed resin.

STANDARD MILITARY AUDIO TRANSFORMERS
Frequency Response 300-10,000 C.P.S. ±2 DB

Catalog No.	Application	Type Designation	Impedance Level in Ohms Primary	Secondary	Ratio	Max. Power Level DBM	Pri. D.C. Per Side in Ma	Max. D.C. unbalance	Case
MGA 1	Transformer; interstage, single or P.P. plates to single or P.P. grid	TF4RX15AJ	10,000 C.T.	90,000 split and C.T.	1:3 overall	+15	10	10	AJ
MGA 2	Transformer; matching 600 ohm line to voice coil.	TF4RX16AJ	600 split	4, 8, 16	6.12:1 overall	+33	0	0	AJ
MGA 3	Transformer; input, 600 ohm line to single or P.P. grids.	TF4RX10AJ	600 split	135,000 C.T.	1:15	+15	0	0	AJ
MGA 4	Transformer; matching, 600 ohm line to 600 ohm line.	TF4RX16AJ	600 split	600 split	1:1	+15	0	0	AJ
MGA 5	Transformer; output, single plate 7,600 ohm, 4,800 ohm to 600 ohm line.	TF4RX13AJ	7,600 tap @ 4,800	600 split	3.56:1	+33	40	40	AJ
MGA 6	Transformer; output, single plate 7,600 ohm, 4,800 ohm to voice coil.	TF4RX13AJ	7,600 tap @ 4,800	4, 8, 16	21.8:1	+33	40	40	AJ
MGA 7	Transformer; output, single or P.P. plates to 600 ohm line.	TF4RX13AJ	15,000 C.T.	600 split	5:1	+33	10	10	AJ
MGA 8	Transformer; output, P.P. plates to 600 ohm line.	TF4RX13AJ	24,000 C.T.	600 split	6.32:1	+30	10	1	AJ
MGA 9	Transformer; output, P.P. plates to 600 ohm line.	TF4RX13AJ	60,000 C.T.	600 split	10:1	+27	10	1	AJ

STANDARD MILITARY POWER TRANSFORMERS
Primary 105/115/125V 60~
SINGLE PHASE 400 CPS, AND THREE PHASE 60 AND 400 CPS TRANSFORMERS CAN BE SUPPLIED ON SPECIAL ORDER.

Catalog No.	MIL-T-27 Type Designation	Hi Volt	D.C. Volts	D.C. Amps	Fil. No. 1	Fil. No. 2	Case
MGP 1	TF4RX03HA001	200/100/0/100/200	185	.070	5/6. 3V @ 2A	6. 3V @ 3A	HA
MGP 2	TF4RX03JB002	650 C.T.	260	.070	5/6. 3V @ 2A	6. 3V @ 4A	JB
MGP 3	TF4RX03KB006	650 C.T.	245	.150	6. 3V @ 5A	5V @ 3A	KB
MGP 4	TF4RX03LB003	800 C.T.	318	.175	5V @ 3A	6. 3V @ 8A	LB
MGP 5	TF4RX03MB004	900 C.T.	345	.250	5V @ 3A	6. 3V @ 8A	MB
MGP 6	TF4RX02KB001	700 C.T.	255	.250			KB
MGP 7	TF4RX02LB002	1100 C.T.	419	.250			LB
MGP 8	TF4RX02NB003	1600 C.T.	640	.250			NB

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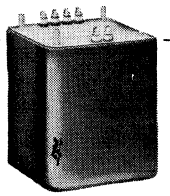
STANDARD MILITARY TRANSFORMERS



EB CASE
Height: 2 7/16"
Width: 1 15/16"
Depth: 1 13/16"
Mtg. Cen.: 1 3/8" x 1 1/4"
Studs: 4 6-32

FB CASE
Height: 2 1/2"
Width: 2 5/16"
Depth: 2 1/16"
Mtg. Cen.: 1 11/16" x 1 7/16"
Studs: 4 6-32

GB CASE
Height: 2 13/16"
Width: 2 3/4"
Depth: 2 3/4"
Mtg. Cen.: 2 1/8" x 1 3/4"
Studs: 4 6-32

HB CASE
Height: 3 3/16"
Width: 3 1/16"
Depth: 2 5/8"
Mtg. Cen.: 2 19/64" x 1 55/64"
Studs: 4 8-32

STANDARD MILITARY FILAMENT TRANSFORMERS

Primary 105/115/125V 60~

SINGLE PHASE 400 CPS, AND THREE PHASE 60 AND 400 CPS TRANSFORMERS CAN BE SUPPLIED ON SPECIAL ORDER.

Catalog No.	MIL-T-27 Type Designation	Secondary Volts	Secondary Current Amps	Secondary Test Volts RMS	Case
MGF 1	TF4RX01EB002	2.5	3.0	2,500	EB
MGF 2	TF4RX01GB003	2.5	10.0	2,500	GB
MGF 3	TF4RX01FB004	5.0	3.0	2,500	FB
MGF 4	TF4RX01HB005	5.0	10.0	2,500	HB
MGF 5	TF4RX01FB006	6.3	2.0	2,500	FB
MGF 6	TF4RX01GB007	6.3	5.0	2,500	GB
MGF 7	TF4RX01JB008	6.3	10.0	2,500	JB
MGF 8	TF4RX01KB009	6.3	20.0	2,500	KB
MGF 9	TF4RX01JB012	2.5	10.0	10,000	JB
MGF 10	TF4RX01KB013	5.0	10.0	10,000	KB

*Standard Military Filament and Power Transformers are also available in Grade 4.

HERMETICALLY SEALED PULSE TRANSFORMERS

Hermetically sealed Pulse Transformers for use in blocking oscillator, low level interstage coupling, and modulator output circuits. These components meet MIL-T-27 A specifications. The pulse transformers are designed for maximum power, efficiency, and optimum pulse performance. Balanced coil structures permit series or parallel connection of windings for turn ratios other than unity. Pulse characteristics, voltages and impedance levels will depend upon the interconnections made.

CASE DIMENSIONS

DM-8 CASE
Height: 1 1/2"
Width: 1 3/32"
Flange D.: 1 1/4"

DM-01 CASE
Height: 2"
Width: 1 1/2"
Depth: 1 1/2"
Mtg. Cen.: 1 1/16" x 1 1/16"
Studs: 4 6-32
Knockout: 1 1/4 dia.

DM-20 CASE
Height: 1 9/16
Diameter: 1 1/16"
Flange L: 1 13/32"
Flange D: 0.975"
Mtg. Cen.: 1 1/8" x 1 7/32"
2 Holes: .147 wide
Knockout: .875

DM-18 CASE
Height: 1"
Width: 2 1/4"
Depth: 1 1/8"
Mtg. Cen.: 9/16"
Studs: 2 6-32

MM-1
Length: 3/4"
Diameter: 1/2"

MM-2
Length: 23/32"
Width: 23/32"
Height: 1/2"

MM-3
Length: 1 1/4"
Width: 1 1/4"
Height: 1/2"
Mtg. Cen.: 1 1/2"
Mtg. Flange: 1 11/16"

MM-4
Length: 1 13/16"
Depth: 1 1/4"
Height: 1/2"
Mtg. Cen.: 2 1/8"
Mtg. Flange: 2 1/2"

MOLDED DIMENSIONS

MMO-1
Diameter: 11/16"
Thickness: 29/64"

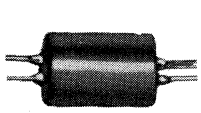
MMO-2
Diameter: 13/16"
Thickness: 19/32"

PULSE TRANSFORMERS

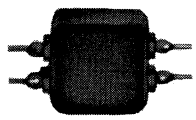
Catalog No.	MIL Type	Blocking Osc.	Interstage Coupling	Low Power Output	Pulse Voltage Kilovolts	Pulse Duration Microseconds	Duty Date	No. of Windings	Test Voltage KV., RMS	Characteristic Impedance Ohms	Case No.
MPT-1	TF4RX35YY	✓	✓		0.25/0.25/0.25	0.2-1.0	.004	3	0.7	250	DM-20
MPT-2	TF4RX35YY	✓	✓		0.25/0.25	0.2-1.0	.004	2	0.7	250	DM-20
MPT-3	TF4RX35YY	✓	✓		0.5/0.5/0.5	0.2-1.5	.002	3	1.0	250	DM-18
MPT-4	TF4RX35YY	✓	✓		0.5/0.5	0.2-1.5	.002	2	1.0	250	DM-18
MPT-5	TF4RX35YY	✓	✓		0.5/0.5/0.5	0.5-2.0	.002	3	1.0	500	DM-20
MPT-6	TF4RX35YY	✓	✓		0.5/0.5	0.5-2.0	.002	2	1.0	500	DM-20
MPT-7	TF4RX35YY	✓	✓	✓	0.7/0.7/0.7	0.5-1.5	.002	3	1.5	200	DM-18
MPT-8	TF4RX35YY	✓	✓	✓	0.7/0.7	0.5-1.5	.002	2	1.5	200	DM-18
MPT-9	TF4RX35YY	✓	✓	✓	1.0/1.0/1.0	0.7-3.5	.002	3	2.0	200	DM-18
MPT-10	TF4RX35YY	✓	✓	✓	1.0/1.0	0.7-3.5	.002	2	2.0	200	DM-18
MPT-11	TF4RX35YY	✓	✓	✓	1.0/1.0/1.0	1.0-5.0	.002	3	2.0	500	DM-01
MPT-12	TF4RX35YY	✓	✓	✓	0.15/0.15/0.3/0.3	0.2-1.0	.004	4	0.7	700	DM-8

ULTRA MINIATURE PULSE TRANSFORMERS

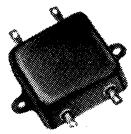
- Meet all requirements of MIL-T-27 A.
- Negligible weight.
- Exceedingly small size.
- Encapsulated or hermetically sealed.



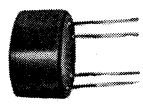
MM-1



MM-2



MM-3
MM-4



MMO-1
MMO-2

Catalog No.	MIL Type	Application	Pulse Volts	Pulse Width usec	Rise time usec	Inductance Prin. uhy	Inductance Leakage uhy	PPS. Mcs	Turns Ratio	Zo ohms	Case Des.
EPT-1	TF4RX31YY	Impedance matching & Interstage coupling	20	.07	.03	125	12	2	1:1	200	MM-1
EPT-2	TF4RX31YY		20	.07	.03	150	15	2	2:1	200	MM-1
EPT-3	TF4RX31YY		20	.07	.03	160	15	2	3:1	100	MM-1
EPT-4	TF4RX31YY		20	.07	.03	200	20	2	4:1	100	MM-1
EPT-5	TF4RX31YY		17	.10	.04	200	6	2	4:1	100	MM-1
EPT-6	TF4RX31YY		15	.10	.04	200	5	2	5:1	100	MM-1
EPT-7	TF4RX31YY		25	.50	.05	1,200	20	1	7:1:1		MM-1
EPT-8	TF4RX31YY		10	10	.04	12,000	70	.01	5:1		MM-2
EPT-9	TF4RX31YY		10	5	.04	7,500	22	.01	3:1	100	MM-2
EPT-11	TF4RX35YY	Blocking oscillator	100	.25	.02	200	2	.012	1:1		MM-1
EPT-12	TF4RX35YY		50	.33	.07	240	2	.002	1:1		MM-1
EPT-13	TF4RX35YY		40	.5	.07	6,000	15		2:1		MM-2
EPT-14	TF4RX35YY		15	6	.1	16,000	15	.0004	1:1.4		MM-2
EPT-15	TF4RX36YY	Memory core &	5	1.5	.25	4,000	300		5:5:1PP	10	MM-4
EPT-16	TF4RX36YY	Current driver	2.5	2.4	.2	2,800	200		3.3:3.3:1PP	6	MM-4
EPT-17	TF4RX32YY	Current driver	21	1.4	.22	18,000	800	.250	6:1	200	MM-3
EPT-18	TF4RX32YY	Current transformer	10	6	.2	90,000	200	.05	11:1	75	MM-3
EPT-19	TF4RX36YY	Pulse inversion	22	1.7	.25	55,000	300	.05	6:1.1	400	MM-3

When ordering encapsulated units add "M" to the catalog number.

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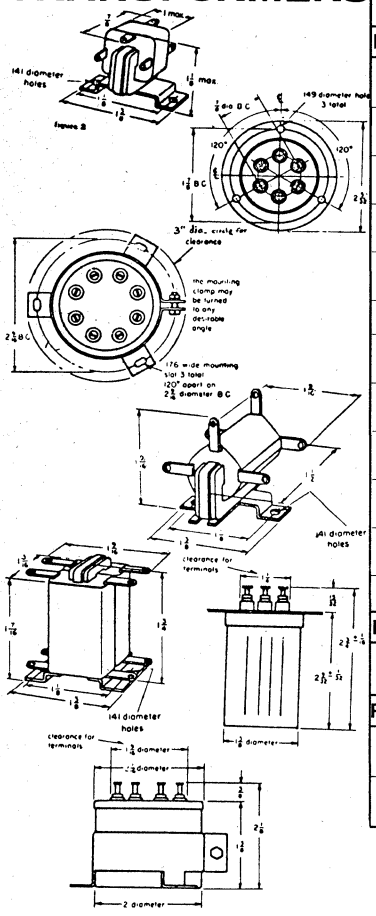
FREED TRANSFORMER CO., INC.

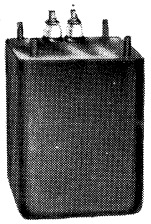
PULSE TRANSFORMERS



Freed No.	Radiation Laboratory No.	Westinghouse No.	Dimension Figure	GUIDANCE VALUES: Pulse Voltage (KV)	Pulse Duration (Microseconds)	Maximum Duty Ratio	Load Impedance (Ohms)	Test Voltage (60 Cycle RMS)
BLOCKING OSCILLATOR, REGENERATIVE DRIVER OR COUPLING TRANSFORMERS								
MPT-13C	132AW2	1P1	1	1.0/1.0/1.0	0.3 to 1.5	0.002	250	1000
MPT-13M	132AW2F	7P1	1					
MPT-13H	132AW2P	4P101	4					
MPT-14C	132BW2	1P2	1	0.5/0.5/0.5/0.15	0.3 to 1.5	0.002	200	1000
MPT-14M	132BW2F	7P2	1					
MPT-14H	132BW2P	4P102	5					
MPT-15C	132DW2	1P3	1	0.5/0.5/0.5	0.1 to 0.5	0.002	300	1000
MPT-15M	132DW2F	7P3	1					
MPT-15H	132DW2P	4P103	4					
MPT-16C	134BW2	1P4	3	2.5/2.5; 2.5/1.25	1 to 2.5	0.002	1500	1500
MPT-16M	134BW2F	7P4	3	1.5/1.5; 1.5/0.75	1 to 5	0.002	1500	
MPT-16H	134BW2P	4P104	5					
MPT-17C	134CW2	1P5	1	2.0/2.0/1.0	1 to 2.5	0.002	1200	1000
MPT-17M	134CW2F	7P5	1	1.5/1.5/0.75	1 to 5	0.002	1200	
MPT-17H	134CW2P	4P105	4					
MPT-18C	134EW2	1P6	2	2.0/2.0/1.0	0.3 to 1	0.002	800	750
MPT-18M	134EW2F	7P6	2	1.5/1.4/0.75	0.3 to 1.5	0.002	800	
MPT-19C	145CW2	1P7	1	0.5/0.5/0.5	1.0 to 5	0.002	500	1000
MPT-19M	145CW2F	7P7	1					
MPT-19H	145CW2P	4P107	4					
MPT-20C	145EW2	1P8	1	1.0/1.0/1.0	1.0 to 5	0.002	800	1000
MPT-20M	145EW2F	7P8	1					
MPT-20H	145EW2P	4P108	4					
MPT-21C	166AW2	1P9	1	1.0/0.67/0.67	1.0 to 5	0.002	800	1000
MPT-21M	166AW2F	7P9	1					
MPT-21H	166AW2P	4P109	4					
MPT-22C	176AW2	1P10	1	2.0/1.0/1.0	1 to 2.5	0.002	1000	1000
MPT-22M	176AW2F	7P10	1	1.5/0.75/0.75		0.002	1000	
MPT-22H	176AW2P	4P110	4					
MPT-23C	187AW2	1P11	1	1.0/0.5/0.5	0.5 to 2	0.002	400	1000
MPT-23M	187AW2F	7P11	1					
MPT-23H	187AW2P	4P111	4					
MPT-24C	224AW2	1P12	2	1.0/1.0/1.0/0.3	0.1 to 0.5	0.002	1000	750
MPT-24M	224AW2F	7P12	2					
PULSE TRIGGERING OR CURRENT TRANSFORMERS								
MPT-25C	139DW2	1P13	1		0.25 to 5	0.002		1000
MPT-25M	139DW2F	7P13	1					
MPT-25H	139DW2P	4P113	4					
PULSE OUTPUT TRANSFORMERS								
MPT-26C	148CW2	1P14	3	0.2/2.0	0.6 to 3	0.002	1600	1500
MPT-26M	148CW2F	7P14	3	0.4/2.0	0.25 to 1.25	0.002	1000	
MPT-26H	148CW2P	4P114	5	0.4/2.0	0.5 to 2.5	0.002	2000	
MPT-27C	148DW2	1P15	3	0.29/2.0	0.5 to 2.5	0.002	1200	1500
MPT-27M	148DW2F	7P15	3	0.57/2.0	0.2 to 1.0	0.002	800	
MPT-27H	148DW2P	4P115	5	0.57/2.0	0.4 to 2.0	0.002	1500	

C Indicates—varnish impregnated commercial construction.
M Indicates—encapsulated or molded construction to MIL-T-27A Grade 5 Class R.
H Indicates—hermetically sealed to MIL-T-27A Grade 4 Class R.

HERMETICALLY SEALED FILTER REACTORS

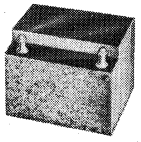


MEET MIL-T-27A SPECIFICATIONS

Catalog No.	MIL Type	Inductance Henry	Rat. Current DC Ma.	DC Res. Ohms	Test Volt Kilovolts	Case No.
MGC 1	TF4RX04AJ	100	10	3,500	1.	AJ
MGC 2	TF4RX04AJ	4	50	230	1.	AJ
MGC 3	TF4RX04EB	10	50	325	1.	EB
MGC 4	TF4RX04FA	20	50	475	1.5	FA
MGC 5	TF4RX04FA	30	50	650	1.5	FA
MGC 6	TF4RX04AJ	3	75	175	1.	AJ
MGC 7	TF4RX04EB	6	75	235	1.5	EB
MGC 8	TF4RX04FA	12	75	265	1.5	FA
MGC 9	TF4RX04EB	3.5	100	145	1.	EB
MGC 10	TF4RX04FA	8	100	180	1.5	FA
MGC 11	TF4RX04GA	12	100	190	2.	GA
MGC 12	TF4RX04EB	2	150	92	1.5	EB
MGC 13	TF4RX04FA	4	150	115	1.5	FA
MGC 14	TF4RX04GA	8	150	125	2.	GA
MGC 15	TF4RX04JB	11	150	120	2.5	JB
MGC 16	TF4RX04FA	2.5	200	70	1.5	FA
MGC 17	TF4RX04GA	4	200	80	2.	GA
MGC 18	TF4RX04HB	7	200	135	2.	HB
MGC 19	TF4RX04JA	10	200	125	2.5	JA
MGC 20	TF4RX04GA	2.5	300	50	2.	GA
MGC 21*	TF4RX04HB	4	300	62	2.5	HB
MGC 22	TF4RX04JB	6	300	85	2.5	JB
MGC 23*	TF4RX04KB	8	300	65	2.5	KB
MGC 24	TF4RX04LA	10	300	100	2.5	LA
MGC 25*	TF4RX04HB	2	400	37	2.5	HB
MGC 26	TF4RX04KB	6	400	60	2.5	KB
MGC 27*	TF4RX04JA	2	500	35	2.5	JA
MGC 28	TF4RX04KB	4	500	45	2.5	KB
MGC 29*	TF4RX04MB	7	500	50	2.5	MB
MGC 30*	TF4RX04LB	2	700	20	2.5	LB
MGC 31*	TF4RX04MB	1.75	1,000	12.5	2.5	MB

*Not stocked, available on short delivery.
Above units available in Grade 4.

Case	Height	Depth	Width	Mtg. Centers	Studs
AJ	2 3/8	1 5/8	1 5/8	1 3/16 x 1 3/16	4 6-32
EB	2 7/16	1 13/16	1 13/16	1 3/16 x 1 1/4	4 6-32
FA	3 1/8	2 1/16	2 5/16	1 11/16 x 1 7/16	4 6-32
GA	3 13/16	2 3/8	2 3/4	2 1/8 x 1 3/4	4 6-32
HB	3 3/16	3 1/16	2 5/8	2 1/64 x 1 55/64	4 8-32
JA	3 9/16	3 1/16	4 7/8	2 5/8 x 2 1/8	4 8-32
JB	3 7/8	3 1/16	3 9/16	2 5/8 x 2 1/8	4 8-32
KB	4 5/16	3 3/8	3 15/16	3 x 2 7/16	4 10-32
LA	5 5/16	3 11/16	4 5/16	3 5/16 x 2 11/16	4 10-32
LB	4 1/2	3 11/16	4 5/16	3 5/16 x 2 11/16	4 10-32
MB	4 15/16	4	4 11/16	3 11/16 x 3	4 1/4-20



MC-10 CASE
Height: 15/16"
Width: 1 1/4"
Depth: 15/16"
Mtg. Cen.: 9/16" x 7/8"
Mtg.: 2 4-40 threaded inserts

See Freed Price Pages 1400 — 1402
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FREED TRANSFORMER CO., INC.

HERMETICALLY SEALED, MIL-T-27A, GRADE 5, CLASS S FILTER REACTORS

These reactors have a split winding for series or parallel connections.

When using two sections in parallel, double the Idc. Both inductance and resistance are divided by 4.

Catalog No.	Min. Inductance @ Idc (Series Connection)				Max. Rdc	Test Voltage	Case No.
MGC-32	3.2 H @ Odc	2.1 H @ 25 MA	1.70 H @ 35 MA	1.4 H @ 45 MA	220 Ohms	1000 V	MC-10
MGC-33	1.3 H @ Odc	1.1 H @ 50 MA	0.8 H @ 70 MA	0.5 H @ 90 MA	100 Ohms	1000 V	MC-10
MGC-34	400 MH @ Odc	300 MH @ 100 MA	240 MH @ 130 MA	190 MH @ 160 MA	35 Ohms	1000 V	MC-10
MGC-35	105 MH @ Odc	100 MH @ 200 MA	80 MH @ 250 MA	50 MH @ 300 MA	10 Ohms	1000 V	MC-10
MGC-36	25 MH @ Odc	23.5 MH @ 400 MA	15 MH @ 500 MA	11 MH @ 600 MA	2 Ohms	1000 V	MC-10
MGC-37	5.7 MC @ Odc	4.5 MH @ 0.8 A	3.9 MH @ 1 A	3 MH @ 1.2 A	0.5 Ohms	1000 V	MC-10

TOROIDAL INDUCTORS

Using the latest developments in the field of magnetic materials and new impregnation and molding techniques the Freed Transformer Co. makes available to the industry the most extensive line of toroidal inductors.

Freed toroids are available in three types of constructions. Open units coated with a special high temperature extremely low loss compound, hermetically sealed in metal cases or molded in special **Freed Epoxy Resin.** Both hermetically sealed and molded units meet the latest military specification MIL-T-27A(graded 1 or 4 and 2 or 5 respectively.)Freed toroidal inductors are supplied with either molypermalloy or carbonyl iron powder cores

1. Temperature Stabilization:

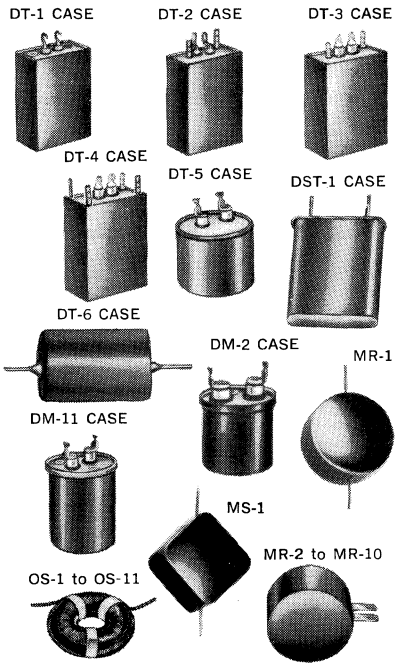
The molypermalloy and carbonyl iron powder cores have a temperature coefficient of inductance. Depending on the degree of temperature stabilization the cores have different temperature coefficients. The degree of stabilization is denoted by a two-letter code.

SF Non-stabilized cores, ±2½% inductance variations from —55°C to +85°C.
SN Non-stabilized cores, +2% inductance variations from —55°C to +85°C.
SE Temperature stabilized cores, +0.1% to —0.4% inductance variations from —1.5°C to +54°C.
SB Temperature stabilized cores, ±0.1% inductance variations from +13°C to +35°C.
SD Temperature stabilized cores, ±0.1% inductance variations from —1.5°C to +54°C.
SW Temperature stabilized cores, ±0.25% inductance variations from —54°C to +85°C.
SM Temperature stabilized cores, ±.25% —65°C to +125°C.
SP Temperature stable carbonyl iron cores, ±0.3% inductance variations from —55°C to +85°C.

The temperature (stabilization) coefficient of an inductor will depend upon the nominal inductance value, operating frequency and A.C. voltage across the coil. Under some unfavorable working conditions the temperature coefficient of inductance corresponding to a given stability characteristic may be exceeded.

Toroids with special requirements such as tapped toroids, toroidal transformers, molded and cased units with dimensions other than standard sizes and high temperature toroids can be supplied on request. Our engineering and laboratory facilities are available for consultation, research and development.

CASED, UNCASED AND MOLDED UNITS



TOROIDAL INDUCTORS

Type	Ω/H	Max. Norm. Idc	Max. Norm. Iac	Max. Norm. Vac
TI- 1	70	55	73.5	0.46
TI- 1A	68	75	90.5	0.57
TI- 2	160	90	135	0.85
TI- 3	600	100	67	0.42
TI- 3A	310	150	240	1.5
TI- 4	110	55	67	0.42
TI- 5	260	28	35	0.22
TI- 6	230	75	125	0.80
TI- 7	480	40	53	0.33
TI- 8	1,500	50	80	0.5
TI- 9	150	200	240	1.5
TI-10	430	125	270	1.7
TI-11	30	120	190	1.2
TI-12	45	100	160	1
TI-13	55	140	175	1.1
TI-14	580	150	—	—
TI-15	900	100	—	—
TI-16	600	16	21	0.13
TI-17	1,200	20	29	0.18
TI-18	2,600	30	40	0.25

Type	Ω/H	Max. Norm. Idc	Max. Norm. Iac	Max. Norm. Vac
TI-19	4,500	25	29	0.18
TI-20	2,750	100	*	*
TI-21	1,200	350	*	*
TI-22	5,600	210	*	*
TI-23	7,000	250	*	*
TI-24	330	15	18	0.11
TI-25	200	20	24	0.15
TI-26	150	25	32	0.20
TI-27	76.5	50	62	0.39
TI-28	48.5	50	64	0.40
TI-29	33.5	70	88	0.55
TI-30	28	100	135	0.84
TI-31	19.5	100	136	0.85
TI-32	48.5	6	14.5	0.09
TI-33	2,150	8	13	0.08
TI-34	1,700	8	9.5	0.06
TI-35	4,100	10	18	0.11
TI-36	3,950	10	11	0.07
TI-37	23.5	10	32	0.20
TI-38	100	4	9.5	0.06

*TI-20 through TI-23 have a very low voltage coefficient and inductance will change very little with voltage. Because of high frequency application, the maximum voltage is limited rather by breakdown than by saturation.

UNCASED

Type	O.D.	Hi.
OS-1	5/8"	5/16"
OS-2	7/8"	3/8"
OS-3	1"	3/8"
OS-4	1"	5/16"
OS-5	1 5/16"	5/8"
OS-6	1 5/8"	7/8"
OS-7	1 11/16"	5/8"
OS-8	1 7/8"	11/16"
OS-9	2 1/4"	1 1/8"
OS-10	2 3/8"	1 1/4"
OS-11	2 5/8"	1 1/8"
OS-12	13/16"	3/8"
OS-13	3/8"	1/4"
OS-14	7/16"	7/32"

CASE

Type	Hi.	Dia.	Length	Width	Mtg.	Mtg. Cen.	Cutout
DT-1	1 7/32"		1 1/16"	1/2"	2 4-40 inserts	3/4"	5/16" x 1/2"
DT-2	1 3/4"		1 7/16"	13/16"	2 6-32 studs	7/8" x 3/32"	3/8" x 11/16"
DT-3	2"		1 25/32"	7/8"	2 6-32 studs	1 1/4" x 3/8"	3/8" x 3/4"
DT-4	3 1/8"		2 3/4"	1 5/16"	4 8-32 studs	2 1/16" x 1 1/16"	3/4" x 3/8"
DT-5	1 3/16"	1 13/16"			2 6-32 inserts	1 1/8"	3/8" x 1"
DT-6	5/8"	1/2"			Pig Tails		
DM-2	1"	1 1/8"			2 4-40 inserts	5/8"	3/8" x 7/8"
DM-11	1 1/2"	1 3/8"			2 6-32 inserts	7/8"	3/8" x 7/8"
DST-1	25/32"		3/4"	11/32"	1/4" long pins	To fit 1/2" crystal socket	

MOLD

Type	O.D.	Hi.	Clearance Hole Mounting
MR-1	7/8"	13/32"	Pig Tails
MR-2	1 1/16"	1/2"	No. 4
MR-3	1 3/16"	1/2"	No. 6
MR-3A	1 3/16"	11/16"	No. 6
MR-4	1 1/2"	3/4"	No. 8
MR-5	1 7/8"	1"	No. 8
MR-6	2 1/8"	7/8"	No. 8
MR-7	2 3/8"	1 5/16"	No. 10
MR-8	2 1/2"	1 3/8"	No. 10
MR-9	2 5/8"	1 7/16"	No. 10
MR-10	2 7/8"	1 3/8"	No. 10
MR-11	7/16"	1/4"	Pig Tails
MS-1	25/32" x 25/32"	13/32"	Pig Tails

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See Freed Price Pages 1400 — 1402

FREED TRANSFORMER CO., INC.

LOW FREQUENCY TOROIDAL INDUCTORS

Freq. Range	100 ~ to 10 KC			200 ~ to 12 KC								Freq. Range
TYPE	TI-38	TI-32	TI-37	TI-24	TI-25	TI-26	TI-27	TI-28	TI-29	TI-30	TI-31	TYPE
Temp. Stability	SF	SF	SF	SN	SN	SN	SN	SN	SN	SN	SN	Temp. Stability
Size / Uncased Case Mold	OS1 DST1 MR1, MS1	OS3 DT1, DM2 MR3	OS5 DT2, DM11 MR4	OS1 DST1 MR1, MS1	OS12 DT1 MR2	OS3 DT1, DM2 MR3	OS5 DT2, DM11 MR4	OS8 DT3, DT5 MR6	OS9 DT4 MR7	OS9 DT4 MR8	OS11 DT4 MR10	Size / Uncased Case Mold
Nominal Inductance	CATALOG NUMBER											Nominal Inductance
1 MH				F2400	F2450	F2500	F2550	F2600	F2650	F2700	F2750	1 MH
2 MH				F2401	F2451	F2501	F2551	F2601	F2651	F2701	F2751	2 MH
3 MH				F2402	F2452	F2502	F2552	F2602	F2652	F2702	F2752	3 MH
5 MH	F3550			F2403	F2453	F2503	F2553	F2603	F2653	F2703	F2753	5 MH
7.5 MH	F3551			F2404	F2454	F2504	F2554	F2604	F2654	F2704	F2754	7.5 MH
10 MH	F3552			F2405	F2455	F2505	F2555	F2605	F2655	F2705	F2755	10 MH
15 MH	F3553			F2406	F2456	F2506	F2556	F2606	F2656	F2706	F2756	15 MH
20 MH	F3554			F2407	F2457	F2507	F2557	F2607	F2657	F2707	F2757	20 MH
30 MH	F3555			F2408	F2458	F2508	F2558	F2608	F2658	F2708	F2758	30 MH
50 MH	F3556	F2800	F4000	F2409	F2459	F2509	F2559	F2609	F2659	F2709	F2759	50 MH
75 MH	F3557	F2801	F4001	F2410	F2460	F2510	F2560	F2610	F2660	F2710	F2760	75 MH
100 MH	F3558	F2802	F4002	F2411	F2461	F2511	F2561	F2611	F2661	F2711	F2761	100 MH
150 MH	F3559	F2803	F4003	F2412	F2462	F2512	F2562	F2612	F2662	F2712	F2762	150 MH
200 MH	F3560	F2804	F4004	F2413	F2463	F2513	F2563	F2613	F2663	F2713	F2763	200 MH
300 MH	F3561	F2805	F4005	F2414	F2464	F2514	F2564	F2614	F2664	F2714	F2764	300 MH
400 MH	F3562	F2806	F4006	F2415	F2465	F2515	F2565	F2615	F2665	F2715	F2765	400 MH
500 MH	F3563	F2807	F4007	F2416	F2466	F2516	F2566	F2616	F2666	F2716	F2766	500 MH
750 MH	F3564	F2808	F4008	F2417	F2467	F2517	F2567	F2617	F2667	F2717	F2767	750 MH
1 H	F3565	F2809	F4009	F2418	F2468	F2518	F2568	F2618	F2668	F2718	F2768	1 H
1.25 H	F3566	F2810	F4010	F2419	F2469	F2519	F2569	F2619	F2669	F2719	F2769	1.25 H
1.5 H	F3567	F2811	F4011	F2420	F2470	F2520	F2570	F2620	F2670	F2720	F2770	1.5 H
1.75 H	F3568	F2812	F4012	F2421	F2471	F2521	F2571	F2621	F2671	F2721	F2771	1.75 H
2 H	F3569	F2813	F4013	F2422	F2472	F2522	F2572	F2622	F2672	F2722	F2772	2 H
2.25 H	F3570	F2814	F4014		F2473	F2523	F2573	F2623	F2673	F2723	F2773	2.25 H
2.5 H	F3571	F2815	F4015		F2474	F2524	F2574	F2624	F2674	F2724	F2774	2.5 H
3 H	F3572	F2816	F4016		F2575	F2525	F2575	F2625	F2675	F2725	F2775	3 H
3.5 H	F3573	F2817	F4017		F2476	F2526	F2576	F2626	F2676	F2726	F2776	3.5 H
4 H	F3574	F2818	F4018		F2477	F2527	F2577	F2627	F2677	F2727	F2777	4 H
4.5 H	F3575	F2819	F4019		F2478	F2528	F2578	F2628	F2678	F2728	F2778	4.5 H
5 H	F3576	F2820	F4020		F2479	F2529	R2579	F2629	F2679	F2729	F2779	5 H
7.5 H	F3577	F2821	F4021		F2480	F2530	F2580	F2630	F2680	F2730	F2780	7.5 H
10 H	F3578	F2822	F4022		F2481	F2531	F2581	F2631	F2681	F2731	F2781	10 H
15 H		F2823	F4023			F2532	F2582	F2632	F2682	F2732	F2782	15 H
20 H		F2824	F4024			F2533	F2583	F2633	F2683	F2733	F2783	20 H
25 H			F4025									25 H
30 H									F2684	F2734	F2784	30 H
40 H									F2685	F2735	F2785	40 H
50 H									F2686	F2736	F2786	50 H
75 H											F2787	75 H
100 H											F2788	100 H

See Freed Price Pages 1400 — 1402

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FREED TRANSFORMER CO., INC.

LOW FREQUENCY TOROIDAL INDUCTORS

Freq. Range	1 KC to 15 KC									Freq. Range
TYPE	TI-33	TI-34	TI-16	TI-5	TI-4	TI-1	TI-1A	TI-12	TI-11	TYPE
Temp. Stability	SN	SN	SN	SN, SE SD	SN, SD, SW	SN	SN, SD SW	SN, SD, SW	SN, SD, SW	Temp. Stability
Size / Uncased Case Mold	OS13 DT6 MR11	OS14 DT6 MR11	OS1 DST1 MR1, MS1	OS3 DT1, DM2, MR3	OS5 DT2, DM11, MR4	OS8 DT3, DT5, MR6	OS9 DT4 MR7	OS9 DT4 MR8	OS11 DT4 MR10	Size / Uncased Case Mold
Nominal Inductance	Catalog Number									Nominal Inductance
.25 MH	F2850	F2900								.25 MH
.5 MH	F2851	F2901								.5 MH
.75 MH	F2852	F2902								.75 MH
1 MH	F2853	F2903	F2050				F1500	F1655	F1747	1 MH
1.5 MH	F2854	F2904								1.5 MH
2 MH	F2855	F2905					F1501	F1656	F1748	2 MH
2.5 MH	F2856	F2906								2.5 MH
3 MH	F2857	F2907	F2051				F1502	F1657	F1749	3 MH
4 MH	F2858	F2908					F1503	F1658	F1750	4 MH
5 MH	F2859	F2909	F2052	F1700	F850	F800	F1504	F1659	F1751	5 MH
7.5 MH	F2860	F2910					F1505	F1660		7.5 MH
10 MH	F2861	F2911	F2053	F1701	F851	F801	F1506	F1661	F1752	10 MH
12.5 MH	F2862	F2912								12.5 MH
15 MH	F2863	F2913	F2054	F1702	F852	F802	F1507	F1662	F1753	15 MH
17.5 MH	F2864	F2914								17.5 MH
20 MH	F2865	F2915								20 MH
25 MH	F2866	F2916								25 MH
30 MH	F2867	F2917	F2055	F1703	F853	F803	F1508	F1663	F1754	30 MH
50 MH		F2918	F2056	F1704	F854	F804	F1509	F1664	F1755	50 MH
75 MH		F2919	F2057	F1705	F855	F805	F1510	F1665	F1756	75 MH
100 MH		F2920	F2058	F1706	F856	F806	F1511	F1666	F1757	100 MH
150 MH			F2059	F1707	F857	F807	F1512	F1667	F1758	150 MH
200 MH			F2060	F1708	F858	F808	F1513	F1668	F1759	200 MH
300 MH			F2061	F1709	F859		F1514	F1669	F1760	300 MH
400 MH			F2062	F1710	F860		F1515	F1670	F1761	400 MH
500 MH			F2063	F1711	F861	F809	F1516	F1671	F1762	500 MH
600 MH				F1712	F862		F1517	F1672		600 MH
700 MH				F1713	F863					700 MH
750 MH			F2064			F810	F1518	F1673	F1763	750 MH
800 MH				F1714	F864					800 MH
900 MH				F1715	F865					900 MH
1.0 HY			F2065	F1716	F866	F811	F1519	F1674	F1764	1.0 HY
1.25 HY			F2066	F1717	F867	F812				1.25 HY
1.5 HY			F2067	F1718	F868	F813	F1520	F1675	F1765	1.5 HY
1.75 HY			F2068	F1719	F869	F814				1.75 HY
2 HY			F2069	F1720	F870	F815	F1521	F1676	F1766	2 HY
2.25 HY					F871	F816				2.25 HY
2.5 HY					F872	F817	F1522	F1677	F1767	2.5 HY
2.75 HY					F873	F818				2.75 HY
3 HY					F874	F819	F1523	F1678	F1768	3 HY
3.5 HY					F875	F820	F1524	F1679	F1769	3.5 HY
4 HY					F876	F821	F1525	F1680	F1770	4 HY
4.5 HY					F877	F822	F1526	F1681	F1771	4.5 HY
5 HY					F878	F823	F1527	F1682	F1772	5 HY
6 HY						F824	F1528	F1683		6 HY
7 HY						F825	F1529	F1684		7 HY
7.5 HY									F1773	7.5 HY
8 HY						F826	F1530	F1685		8 HY
9 HY						F827	F1531	F1686		9 HY
10 HY						F828	F1532	F1687	F1774	10 HY
12 HY							F1533	F1688		12 HY
15 HY						F829	F1534	F1689	F1775	15 HY
17 HY							F1535	F1690		17 HY
20 HY						F830	F1536	F1691	F1776	20 HY
25 HY							F1537	F1692	F1777	25 HY
30 HY							F1538	F1693	F1778	30 HY
40 HY									F1779	40 HY
50 HY									F1780	50 HY

MEDIUM FREQUENCY TOROIDAL INDUCTORS

Freq. Range	10 KC to 50 KC							30 KC to 75 KC				Freq. Range
TYPE	TI-35	TI-36	TI-17	TI-7	TI-6	TI-2	TI-13	TI-18	TI-8	TI-10	TI-9	TYPE
Temp. Stability	SN	SN	SN	SN	SN, SD SW	SD	SN	SN	SN, SD	SB	SB	Temp. Stability
Size / Uncased Case Mold	OS13 DT6 MR11	OS14 DT6 MR11	OS1 DST1 MR1, MS1	OS3 DT1, DM2 MR3	OS5 DT2, DM11 MR4	OS6 DT3, DT5 MR5	OS9 DT4 MR8	OS1 DST1 MR1, MS1	OS3 DT1, DM2 MR3	OS7 DT3, DT5 MR5	OS10 DT4 MR9	Size / Uncased Case Mold
Nominal Inductance	Catalog Number											Nominal Inductance
.1 MH			F2100					F2140	F1821			.1 MH
.2 MH			F2101					F2141	F1822			.2 MH
.25 MH	F2950	F3000										.25 MH
.3 MH			F2102					F2142	F1823			.3 MH
.4 MH			F2103					F2143	F1824			.4 MH
.5 MH	F2951	F3001	F2104	F1781				F2144	F1825			.5 MH
.75 MH	F2952	F3002										.75 MH
1 MH	F2953	F3003	F2105	F1782	F1726	F1800	F1629	F2145	F1826	F1579	F1554	1 MH
1.5 MH	F2954	F3004										1.5 MH
2 MH	F2955	F3005	F2106	F1783	F1727	F1801	F1630	F2146	F1827	F1580	F1555	2 MH
2.5 MH	F2956	F3006										2.5 MH
3 MH	F2957	F3007	F2107	F1784	F1728	F1802	F1631	F2147	F1828	F1581	F1556	3 MH
4 MH	F2958	F3008	F2108		F1729	F1803	F1632	F2148	F1829	F1582	F1557	4 MH
5 MH	F2959	F3009	F2109	F1785	F1730	F1804	F1633	F2149	F1830	F1583	F1558	5 MH
7.5 MH	F2960	F3010	F2110	F1786	F1731		F1634	F2150	F1831	F1584	F1559	7.5 MH
10 MH	F2961	F3011	F2111	F1787	F1732	F1805	F1635	F2151	F1832	F1585	F1560	10 MH
12.5 MH	F2962	F3012										12.5 MH
15 MH	F2963	F3013	F2112	F1788	F1733	F1806	F1636	F2152	F1833	F1586	F1561	15 MH
17.5 MH		F3014										17.5 MH
20 MH		F3015	F2113	F1789	F1734			F2153	F1834			20 MH
25 MH		F3016		F1790					F1835			25 MH
30 MH		F3017	F2114	F1791	F1735	F1807	F1637	F2154	F1836	F1587	F1562	30 MH
40 MH				F1792					F1837			40 MH
50 MH			F2115	F1793	F1736	F1808	F1638	F2155	F1838	F1588	F1563	50 MH
75 MH			F2116	F1794	F1737	F1809	F1639	F2156	F1839	F1589	F1564	75 MH
100 MH			F2117	F1795	F1738	F1810	F1640	F2157	F1840	F1590	F1565	100 MH
150 MH				F1796	F1739	F1811	F1641			F1591	F1566	150 MH
200 MH				F1797	F1740	F1812	F1642			F1592	F1567	200 MH
250 MH					F1741							250 MH
300 MH					F1742	F1813	F1643				F1568	300 MH
400 MH						F1814	F1644				F1569	400 MH
500 MH					F1743	F1815	F1645				F1570	500 MH

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FREED TRANSFORMER CO., INC.

HIGH FREQUENCY TOROIDAL INDUCTORS

Freq. Range	10 KC to 100 KC		50 KC to 200 KC			20 KC to 2 MC	50 KC to 5 MC		100 KC to 10 MC	Freq. Range
TYPE	TI-15	TI-14	TI-19	TI-3	TI-3A	TI-20	TI-22	TI-23	TI-21	TYPE
Temp. Stability	SN	SN	SN	SD	SB	SP	SP	SP	SP	Temp. Stability
Size / Uncased Case Mold	OS3 DT1, DM2 MR3	OS5 DT2, DM11 MR4	OS1 DST 1 MR1, MS1	OS6 DT3, DT5 MR5	OS10 DT4 MR8	OS4 DT2 MR3A	OS2 DT1 MR2	OS2 DT1 MR2	OS1 DT1 MR1, MS1	Size / Uncased Case Mold
Nominal Inductance	Catalog Number									Nominal Inductance
.010 MH							F2270	F2301	F2240	.010 MH
.015 MH							F2271	F2302	F2241	.015 MH
.020 MH							F2272	F2303	F2242	.020 MH
.030MH							F2273	F2304	F2243	.030MH
.040 MH							F2274	F2305	F2244	.040 MH
.050 MH						F2201	F2275	F2306	F2245	.050 MH
.075 MH							F2276	F2307	F2246	.075 MH
.100 MH	F1870		F2180	F1846		F2202	F2277	F2308	F2247	.100 MH
.125 MH									F2248	.125 MH
.150 MH							F2278	F2309	F2249	.150 MH
.200 MH	F1871		F2181	F1847		F2203	F2279	F2310		.200 MH
.300 MH	F1872		F2182	F1848		F2204	F2280	F2311		.300 MH
.400 MH	F1873		F2183	F1849			F2281	F2312		.400 MH
.500 MH	F1874		F2184	F1850		F2205	F2282	F2313		.500 MH
.600 MH			F2185				F2283			.600 MH
.700 MH			F2186				F2284			.700 MH
.750 MH						F2206				.750 MH
.800 MH			F2187							.800 MH
.900 MH			F2188							.900 MH
1 MH	F1875	F1920	F2189	F1851		F2207				1 MH
1.5 MH						F2208				1.5 MH
2 MH	F1876	F1921	F2190	F1852		F2209				2 MH
2.5 MH						F2210				2.5 MH
3 MH	F1877	F1922	F2191	F1853		F2211				3 MH
3.5 MH						F2212				3.5 MH
4 MH	F1878	F1923	F2192	F1854		F2213				4 MH
4.5 MH						F2214				4.5 MH
5 MH	F1879	F1924	F2193	F1855		F2215				5 MH
7.5 MH	F1880	F1925		F1845						7.5 MH
10 MH	F1881	F1926		F1844	F1856					10 MH
15 MH	F1882	F1927			F1857					15 MH
20 MH	F1883	F1928			F1858					20 MH
25 MH	F1884									25 MH
30 MH	F1885	F1929			F1659					30 MH
40 MH	F1886				F1860					40 MH
50 MH	F1887	F1930			F1861					50 MH
75 MH	F1888	F1931			F1862					75 MH
100 MH	F1889	F1932			F1863					100 MH
150 MH		F1933								150 MH
200 MH		F1934								200 MH
250 MH		F1935								250 MH
300 MH		F1936								300 MH

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FREED TRANSFORMER CO., INC.

MAGNETIC AMPLIFIERS AND SATURABLE TRANSFORMERS

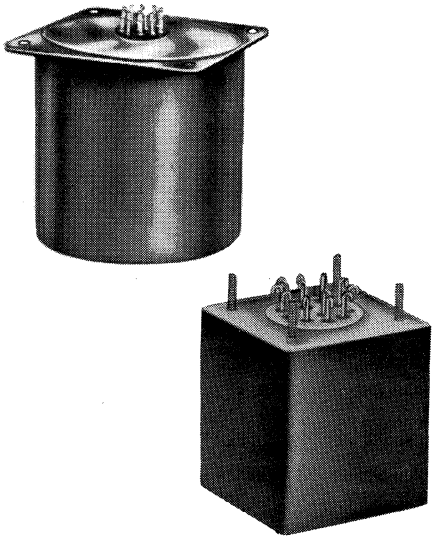
The ever increasing demand for reliability, ruggedness, miniaturization and high performance has made the magnetic amplifier an indispensable component of many military and industrial automatic control and servo systems. Recent advances in materials and techniques permit an even greater utilization of the well-known inherent advantages of magnetic amplifiers such as direct operation from line voltage, no warm-up time, long-life components, ease of signal mixing and hermetic sealing.

Freed Transformer Co. manufactures an extensive line of magnetic amplifiers, ranging from saturable transformers to half-wave type, fast-response servo amplifiers. Choice of catalog amplifiers assures standardization, lowest possible cost and rapid delivery.

All standard units are designed for continuous operation and will operate in an ambient temperature range of —55°C to +75°C.

In addition to standard items, Freed Transformer Co. has extensive facilities for the design and production of special amplifiers, saturable reactors and magnetic components.

ALL ITEMS LISTED ARE AVAILABLE FROM STOCK.



FAST RESPONSE MAGNETIC AMPLIFIERS

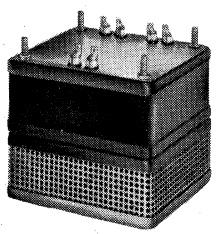
The MAF Type of fast response magnetic amplifier combines high power gain, ruggedness, and reliability with a maximum 2 cycle response. All MAF units are phase-reversible.

Freed No.	MAF-4*	MAF-5*	MAF-6	MAF-7
Power Supply	115V 400 cps	115V 400 cps	115V 400 cps	115V 400 cps
Maximum Output Wattage	10	15	10	15
Output Voltage	57.5V RMS	57.5V RMS	57.5V RMS	57.5V RMS
Typical Load	Kearfott R110-2 Kearfott R111-2	Kearfott R112-2	Kearfott R110-2 Kearfott R111-2	Kearfott R111-2 Kearfott R112-2
Input Signal Required for Full Output	8V AC	8V AC	R110-2 10K 1K 1.2V .4V R111-2 10K 1K 1.6V .6V	R111-2 10K 1K 1.2V .6V R112-2 10K 1K 2.5V 1.0V
Control Winding Resistance	60 Ohms CT 150 Ohms CT	60 Ohms CT 150 Ohms CT	AC or DC 10,000 Ohms Min. 1,000 Ohms Min.	AC or DC 10,000 Ohms Min. 1,000 Ohms Min.
Physical Dimensions	2 3/16" O.D. x 2 3/8" H	2 1/2" O.D. x 2 1/2" H	4 3/8" x 4 1/4" x 2 7/8" H	4 3/8" x 4 1/4" x 2 7/8" H
Weight	13 oz.	18 oz.	4 1/2 lbs.	4 1/2 lbs.

*Designed for use with MAT-1 Transistor Preamplifier.

PUSH-PULL MAGNETIC AMPLIFIERS

The map line of push-pull magnetic amplifiers features high gain, polarity-sensitive amplification and a phase-reversible output.



Freed No.	MAP-1	MAP-2	MAP-3	MAP-301
Power Supply	115V A.C. 60 Cycles (To MAPT-1)	115V A.C. 60 Cycles (To MAPT-2)	115V A.C. 60 Cycles (To MAPT-3)	115V A.C. 60 Cycles (To MAPT-301)
Maximum Output Wattage	2.8 Watts	15 Watts	50 Watts	50 Watts
Voltage	140V	150V	120V	140V
Typical Load	Kollsman 951-0160	Diehl FPE 25-11	Diehl FPF 49-9	Diehl FPF 49-9
Input Signal Required for Full Output	1.2 ma.	1 ma.	2 ma.	4.5 ma.
Resp. Time	ON OFF 15 cycles 60	ON OFF 5 cycles 38	ON OFF 3 cycles 15	ON OFF 5 cycles 20
Control Winding Resistance	620 ohms each	1230 ohms each	250 ohms each	1700 ohms each
Physical Dimensions	3 3/8"x3 1/2"x5 7/8"H M.A. 2 5/8"x2 1/4"x3"H T.	3 7/8"x4 5/8"x7"H M.A. 2 3/16"x2 3/4"x3 3/4"H T.	5 1/8"x6 7/8"x8"H M.A. 3 3/16"x3 7/8"x4 1/4"H T.	5 1/2"x5"x8"H M.A. 3 5/8"x4 1/4"x3 3/8"H T.
Weight	6 lbs. M.A. 3 lbs. T.	11 lbs. M.A. 3 1/2 lbs. T.	26 1/2 lbs. M.A. 8 lbs. T.	20 lbs. M.A. 8 lbs. T.

Freed No.	MAP-4	MAP-7	MAP-8	MAP-11
Power Supply	115V A.C. 60 Cycles (To MAPT-4)	115V A.C. 400 Cycles	115V A.C. 400 Cycles (To MAPT-8)	115V A.C. 400 Cycles
Maximum Output Wattage	175 Watts	15 Watts	50 Watts	10 Watts
Voltage	130V	125V	115V	115V
Typical Load	Diehl FPF 85-18-1	Kearfott R112-2A	Bendix CK-3000-1-A	Kearfott R111-2A
Input Signal Required for Full Output	8 ma.	.5 ma.	1.8 ma.	.9 ma.
Resp. Time	ON OFF 17 cycles 66	ON OFF 5 cycles 15	ON OFF 45 cycles 60	ON OFF 4 cycles 75
Control Winding Resistance	3000 ohms each	4,400 ohms each	320 ohms each	3300 ohms each
Physical Dimensions	7 1/4"x5"x7 7/8"H M.A. 4"x4 3/4"x5 5/8"H T.	3 1/4"x3 5/8"x7"H	3 7/8"x3 7/8"x7 7/8"H M.A. 2 15/16"x2 3/4"x3 3/4"H T.	4 1/8"x3 1/2"x5 1/4"H
Weight	35 lbs. M.A. 12 lbs. T.	7 lbs.	7 1/2 lbs. M.A. 4 lbs. T.	5 lbs.

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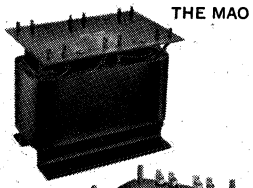
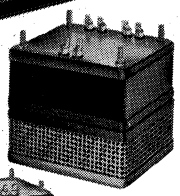
FREED TRANSFORMER CO., INC.

SINGLE ENDED MAGNETIC AMPLIFIERS

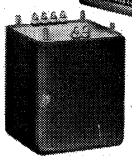


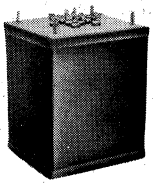


THE MAO LINE OF SINGLE-ENDED MAGNETIC AMPLIFIERS PROVIDES A SINGLE STAGE OF DC CONTROLLED AMPLIFICATION, UTILIZING POSITIVE FEEDBACK TO OBTAIN MUCH HIGHER GAIN THAN THAT OF A SATURABLE REACTOR.

Freed No.	MAO-1	MAO-2	MAO-3	MAO-4	MAO-5
Power Supply	115V A.C. 60 Cycles	115V A.C. 60 Cycles	115V A.C. 60 Cycles	115V A.C. 60 Cycles	115V A.C. to the MAO-T-5 Transformer 60 Cycles
Maximum Output Wattage	4 watts	20 watts	100 watts	400 watts	575 watts
Voltage	120V	120V	100V	100V	135V
Typical Load	4000 ohms	700 ohms	100 ohms	25 ohms	25 ohms
Input Signal Req. for Full Output	3 ma.	1.8 ma.	9 ma.	9 ma.	6 ma.
Control Winding Resistance	300 ohms each	700 ohms each	5600 ohms each	4500 ohms each	4,500 ohms
Physical Dimensions	3¾"x4"x3½" H	4¼"x3⅝"x6⅜" H	3¼"x5½"x4 13/16"H	5"x7½"x6" H	5"x7½"x6" H Trans. 3⅞"x3¾"x3¾" H
Weight	4 lbs.	7 lbs.	8½ lbs.	21 lbs.	21 lbs. Trans. 7¼ lbs.

TRANSISTOR CONVERTERS





THE FREED LINE OF DC TO AC AND DC TO DC TRANSISTOR CONVERTERS PROVIDE A HIGH EFFICIENCY VOLTAGE CONVERSION FROM BATTERY SOURCES TO AN AC LINE VOLTAGE OR HIGH DC VOLTAGE WITHOUT THE USE OF MOVING PARTS.

Freed Transformer Co. maintains a stock line of reliable, highly efficient static DC to DC and DC to AC converters. DC to DC converters in hermetically sealed cans. RF filters included inside case.

The MAC Line of Static DC to AC Converters provide a highly efficient voltage conversion from battery sources to AC voltage without the use of moving parts.

The output voltage and/or frequency is directly proportional to source voltage variation.

Special regulators can be supplied to compensate for this variation.

- **RUGGED, QUIET, MAINTENANCE FREE, LONG LIFE OPERATION.**
- **HIGH POWER TO WEIGHT RATIO, ARC-FREE OPERATION.**

DC TO DC CONVERTERS

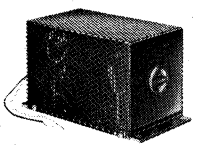
All TDC units are Hermetically Sealed, Oil Filled. Mtg. base plate must be mounted on a sink of sufficient area to maintain a base temperature of 70°C. Maximum output regulation 5% from half load to full load. Ripple frequency 4 to 5 KC; Ripple content 0.1%.

UNREGULATED TDC STOCK UNITS

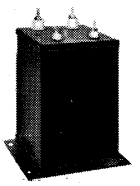
Type No.	NOM. V in	V out	MAX 1 out MA	Case Size	Type No.	NOM. V in	V out	MAX 1 out MA	Case Size
TDC 6-15-03	6v	150	50	2 x 2¼ x 3⅛	TDC 28-30-15	28v	300	150	2⅝ x 2¼ x 3½
TDC 12-30-15	12v	300	150	2⅝ x 2¼ x 3½	TDC 28-25-12	28v	250	120	2⅝ x 2¼ x 3½
TDC 12-25-12	12v	250	120	2⅝ x 2¼ x 3½	TDC 28-30-05	28v	300	50	2 x 2¼ x 3⅛
TDC 12-30-05	12v	300	50	2 x 2¼ x 3½	TDC 28-20-05	28v	200	50	2 x 2¼ x 3⅛
TDC 12-20-05	12v	200	50	2 x 2¼ x 3⅛	TDC 48-20-15	48v	200	150	2⅝ x 2¼ x 3½
					TDC 48-30-15	48v	300	150	2⅝ x 2¼ x 3½

DC TO AC TRANSISTOR CONVERTERS

Input Voltage—12 VDC Output Frequency—60 CPS.—Square Wave

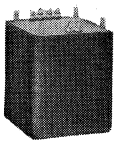


OPEN CASE



SEALED CASE

Freed No.	Output Voltage	Power	Type of Case	Dimensions
MAC 12-3-60	115 VRMS	30 VA	Cased	7¼" x 3⅛" x 4¾"
MAC-12-10-1	115 VRMS	100 VA	Cased	7¼" x 4" x 5"
MAC 12-10-2	115 VRMS	100 VA	Herm. Sealed	7¼" x 4⅛" x 4 13/16"
MAC 12-20-1	115 VRMS	180 VA	Cased	6" x 4⅛" x 6"
MAC 12-20-2	115 VRMS	180 VA	Herm. Sealed	6" x 4⅛" x 6"
MAC 12-30-1	115 VRMS	250 VA	Cased	5⅞" x 6⅛" x 7 1/16"
MAC 12-30-2	115 VRMS	250 VA	Herm. Sealed	5⅞" x 6⅛" x 7 1/16"



- Output Waveform — Square Wave
- Output Frequency — 60 cps (Adjustment Control)
- Frequency Stability ±3%
- Hermetically Sealed
- Maximum Ambient Temperature 50°C
- Temperautre of Base Mounting Plate must not exceed 70°C.
- Output Voltage Variation — Varies Directly with Input Voltage

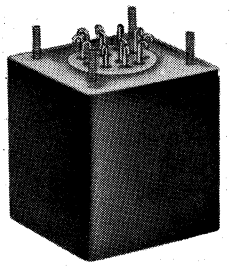
	Nominal Input V.D.C.	Output @ 115V VA	Case Size
TAC 6-50	6	50	4⅛ x 3½ x 4½ H
TAC-12-50	12	50	4⅛ x 3½ x 4½ H
TAC-12-90	12	90	4⅛ x 3½ x 4⅞ H
TAC-12-175	12	175	5 x 4⅛ x 6 H
TAC-28-50	28	50	4⅛ x 3½ x 4½ H
TAC-28-100	28	100	4⅛ x 3½ x 4⅞ H
TAC-28-175	28	175	5 x 4⅛ x 6 H
TAC-28-250	28	250	5½ x 5 x 6¾ H

400 CYCLE TRANSISTOR CONVERTERS
Frequency Regulation ±2%

Type No.	Nom. Input V.D.C.	Output VA	Case Size
TAC-12-50-4	12	50	3 x 3⅛ x 3¾
TAC-12-100-4	12	100	4⅛ x 3½ x 4½
TAC-28-50-4	28	50	3 x 3⅛ x 3⅜
TAC-28-150-4	28	150	4⅛ x 3½ x 4½

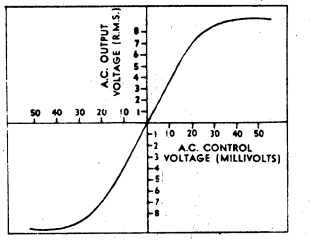
MINIATURIZED SILICON TRANSISTOR PREAMPLIFIER

THE MAT TYPE OF TRANSISTOR PREAMPLIFIER COMBINES LOW POWER CONSUMPTION, HIGH POWER GAIN AND SMALL SIZE AND WEIGHT.



Freed No.	MAT-1-1
Power Supply	115V 400~
Voltage Gain	400
Maximum Output Voltage	10V (RL = 1.5K)
Typical Load	Freed MAF-4 and MAF-5 Magnetic Amplifiers
Input Signal Required for Full Output	50MV
Input Impedance	>10,000 OHMS
Physical Dimensions	1¾" x 1⅛" x 2⅝" H
Weight	10 oz.

TRANSFER CHARACTERISTIC CURVE



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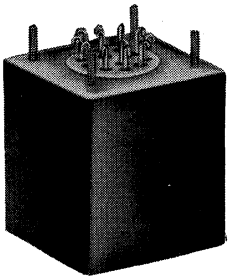
FREED TRANSFORMER CO., INC.

FREED SATURABLE TRANSFORMERS

DC CONTROLLED

The MAS line of saturable transformers, commonly controlled by dual-triodes or transistors, emphasizes low cost, small size, extreme reliability (no rectifiers) and phase-reversible output.



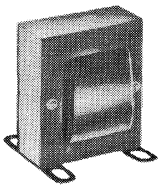
Freed No.	MAS-1	MAS-101	MAS-2	MAS-3	MAS-4	MAS-5	MAS-6	MAS-7	MAS-9
Power Supply	115V A.C. 60 Cycles	115V A.C. 60 Cycles	115V A.C. 400 Cycles	115V A.C. 60 Cycles	115V A.C. 60 Cycles	115V A.C. 400 Cycles	115V A.C. 400 Cycles	115V A.C. 400 Cycles	115V A.C. 60 Cycles
Maximum Output	15 watts	15 watts	6 watts	30 watts	60 watts	2.7 watts	30 watts	40 watts	125 watts
Wattage Voltage	130V	120V	120V	120V	120V	26V	120V	115V	115V
Typical Load	Diehl FPE 25-11	Diehl FPE 25-11	Kearfott R-110	Diehl FPE 49-7	250 ohms	Kearfott R-118	Diehl FPE 49-13-1	Bendix CK-3000-1A	110 Ω
Input Signal Required for Full Output	6 ma.	9 ma.	3 ma	8 ma.	20 ma.	4 ma.	4 ma.	6 ma.	15 ma. D-C
Resp. Time	ON OFF 2 cycles 5	ON OFF 3 cycles 6	ON OFF 3 cycles 6	ON OFF 3 cycles 30	ON OFF 5 cycles 35	ON OFF 10 cycles 35	ON OFF 12 cycles 9	ON OFF 12 cycles 9	ON OFF 5 cycles 35
Control Winding Resistance	14 K ohms each	3200 ohms each	2000 ohms each	6800 ohms each	2000 ohms each	1500 ohms each	4000 ohms each	4000 ohms each	500 ohms each
Physical Dimensions	3½"x4¼" x5½" H	3¼"x4¼" x5½" H	1¾"x2⅝" 2¹³⁄₁₆" H	4¾"x5⅞" x5½" H	7"x5¼" x7" H	2¼"x2⅛" x2¼" H	3¾"x3¼" x4" H	3¹³⁄₁₆"x3¼" x4" H	9"x6¾"x8"
Weight	9 lbs.	9.75 lbs.	2 lbs.	18.5 lbs.	29 lbs.	1.25 lbs.	6 lbs.	6 lbs.	65 lb.

CONSTANT VOLTAGE TRANSFORMERS

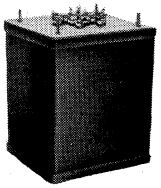
The MCV line of constant voltage transformers provides accurate regulation against line and/or load variations, without the use of tubes or moving parts.

- MILITARY SPECIFICATIONS
- NO TUBES
- COMMERCIAL
- NO MOVING PARTS
- ACCURATE REGULATIONS
- FAST RESPONSE
- FULLY AUTOMATIC

Rated output within ±2% of nominal value. Regulation automatically maintained within ±1%. Regulation from 25% to full load ±2%.



COMMERCIAL



MILITARY

Reg. Output in R.M.S. Volts	Input Range in R.M.S. Volts	Output in V.A. P.F-1	CATALOG NUMBERS 60 Cycles Comm.	60 Cycles Military*	400 Cycles Comm.*	400 Cycles Military*
115	95-130	5	MCV65LC	MCV65LM	MCV45LC	MCV45LM
115	95-130	25	MCV625LC	MCV625LM	MCV425LC	MCV425LM
115	95-130	75	MCV675LC	MCV675LM	MCV475LC	MCV475LM
115	95-130	125	MCV6125LC	MCV6125LM	MCV4125LC	MCV4125LM
115	95-130	175	MCV6175LC	MCV6175LM	MCV4175LC	MCV4175LM
115	95-130	250	MCV6250LC	MCV6250LM	MCV4250LC	MCV4250LM
115	95-130	375	MCV6375LC	MCV6375LM	MCV4375LC	MCV4375LM
115	95-130	500	MCV6500LC	MCV6500LM	MCV4500LC	MCV4500LM
115	95-130	750	MCV6750LC	MCV6750LM	MCV4750LC	MCV4750LM
115	95-130	1000	MCV61000LC	MCV61000LM	MCV41000LC	MCV41000LM
26	95-130	5	MCV654FC	MCV654FM	MCV454FC	MCV454FM
26	95-130	25	MCV6254FC	MCV6254FM	MCV4254FC	MCV4254FM
26	95-130	75	MCV6754FC	MCV6754FM	MCV4754FC	MCV4754FM
26	95-130	125	MCV61254FC	MCV61254FM	MCV41254FC	MCV41254FM
6.4	95-130	5	MCV65FC	MCV65FM	MCV45FC	MCV45FM
6.4	95-130	25	MCV625FC	MCV625FM	MCV425FC	MCV425FM
6.4	95-130	75	MCV675FC	MCV675FM	MCV475FC	MCV475FM
6.4	95-130	125	MCV6125FC	MCV6125FM	MCV4125FC	MCV4125FM

*Condensers are not provided with units. Where condensers are provided they are external to units.

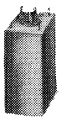
TELEMETERING COMPONENTS

A complete line of Band Pass Filters, Low Pass Filters and Discriminators is available for multi-channel telemetering applications. These components cover the frequency range from 400 cps to 70,000 cps. The filters feature **exceptional phase linearity,** excellent selectivity characteristics and plug-in construction. The Discriminators, either fixed or slug tuned, have exceptional linearity, high amplification, and utmost stability.

TELEMETERING BAND PASS FILTERS

Hermetically sealed to MIL-T-27A and MIL-F-18327

These filters cover the frequencies from 400 c.p.s. to 70KC. Narrow frequency B.P.F. have a band width of ±9¼% of center frequency and 45 DB (minimum) points at ±7½% of center frequency of higher or lower adjacent channels. Wide frequency B.P.F. have a band width of ±19½% of center frequency and 50 D.B. points at ±15% of center frequencies of higher or lower second adjacent channels.



FA-5 CASE

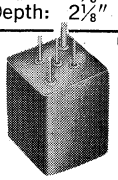
Height: 4½"
Width: 3½"
Depth: 2⅛"
Mtg. Cen.: 2⁷⁄₁₆"x1⁹⁄₁₆"
Studs: 5 8-32x½"
Octal Header

FA-10 CASE

Height: 4½"
Width: 3½"
Depth: 2⅛"
Mtg. Cen.: 1¹¹⁄₁₆"x1⁹⁄₁₆"
Studs: 4 8-32x½"
Knockout: 1½" dia.

FA-15 CASE

Height: 4½"
Width: 2⅞"
Depth: 2⅛"
Mtg. Cen.: 1¹¹⁄₁₆x1⁹⁄₁₆"
Studs: 4 8-32x½"
Knockout: 1½" dia.



CASE SIZES

DF-01
¾ x ¾ x 1⅜
MTN-2.3 Thru MTW-70

DF-02
1 x 1 x 1⅜
MTN-4 Thru MTN 1.7

Characteristic Impedance 500 Ω Catalog No.	Center Frequency c.p.s.	3 DB Band Width % of C.F.	Case No.
FBP-10	400	± 9¼	FA-10
FBP-11	560	± 9¼	FA-10
FBP-12	730	± 9¼	FA-10
FBP-13	960	± 9¼	FA-10
FBP-14	1,300	± 9¼	FA-10
FBP-15	1,700	± 9¼	FA-10
FBP-16	2,300	± 9¼	FA-10
FBP-17	3,000	± 9¼	FA-15
FBP-18	3,900	± 9¼	FA-15
FBP-19	5,400	± 9¼	FA-15
FBP-20	7,350	± 9¼	FA-15
FBP-21	10,500	± 9¼	FA-15
FBP-22	12,300	± 9¼	FA-15
FBP-23	14,500	± 9¼	FA-15
FBP-24	22,000	± 9¼	FA-15
FBP-25	22,000	±19½	FA-15
FBP-26	30,000	± 9¼	FA-15
FBP-27	30,000	±19½	FA-15
FBP-28	40,000	± 9¼	FA-15
FBP-29	40,000	±19½	FA-15
FBP-30	52,500	± 9¼	FA-15
FBP-31	52,500	±19½	FA-15
FBP-32	70,000	± 9¼	FA-15
FBP-33	70,000	±19½	FA-15

Characteristic Impedance 2,500 Ω Catalog No.	Center Frequency c.p.s.	3 DB Band Width % of C.F.	Case No.
FBP-34	400	± 9¼	FA-5
FBP-35	560	± 9¼	FA-5
FBP-36	730	± 9¼	FA-5
FBP-37	960	± 9¼	FA-5
FBP-38	1,300	± 9¼	FA-5
FBP-39	1,700	± 9¼	FA-5
FBP-40	2,300	± 9¼	FA-5
FBP-41	3,000	± 9¼	FA-5
FBP-42	3,900	± 9¼	FA-5
FBP-43	5,400	± 9¼	FA-5
FBP-44	7,350	± 9¼	FA-5
FBP-45	10,500	± 9¼	FA-5
FBP-46	12,300	± 9¼	FA-5
FBP-47	14,500	± 9¼	FA-5
FBP-48	22,000	± 9¼	FA-5
FBP-49	22,000	±19½	FA-5
FBP-50	30,000	± 9¼	FA-5
FBP-51	30,000	±19½	FA-5
FBP-52	40,000	± 9¼	FA-5
FBP-53	40,000	±19½	FA-5
FBP-54	52,500	± 9¼	FA-5
FBP-55	52,500	±19½	FA-5
FBP-56	70,000	± 9¼	FA-5
FBP-57	70,000	±19½	FA-5

SUBMINIATURE TELEMETERING BAND PASS FILTERS

Manufactured to Specification MIL-F-18327A—Type FR-4RX22YY
RBD Standard Frequency Channels

Input and Output Impedance 10K ohms Type No.	Center Frequency Fo - in KC	Band Width <3DB	Stop Band Attenuation	Type No.	Center Frequency Fo - in KC	Band Width <3DB	Stop Band Attenuation
MTN-.4	.4	±7½%	≧ 38 DB @ 1.75 & .58 Fo	MTN-14.5	14.5	±7½%	≧ 38 DB @ 1.75 & .58 Fo
MTN-.56	.56	±7½%	≧ 38 DB @ 1.75 & .58 Fo	MTN-22	22	±7½%	≧ 38 DB @ 1.75 & .58 Fo
MTN-.73	.73	±7½%	≧ 38 DB @ 1.75 & .58 Fo	MTN-30	30	±7½%	≧ 38 DB @ 1.75 & .58 Fo
MTN-.96	.96	±7½%	≧ 38 DB @ 1.75 & .58 Fo	MTN-40	40	±7½%	≧ 38 DB @ 1.75 & .58 Fo
MTN-1.3	1.3	±7½%	≧ 38 DB @ 1.75 & .58 Fo	MTN-52.5	52.5	±7½%	≧ 38 DB @ 1.75 & .58 Fo
MTN-1.7	1.7	±7½%	≧ 38 DB @ 1.75 & .58 Fo	MTN-70	70	±7½%	≧ 38 DB @ 1.75 & .58 Fo
MTN-2.3	2.3	±7½%	≧ 38 DB @ 1.75 & .58 Fo	MTW-22	22	±15%	≧ 40 DB @ 2.5 & .4 Fo
MTH-3.0	3.0	±7½%	≧ 38 DB @ 1.75 & .58 Fo	MTW-30	30	±15%	≧ 40 DB @ 2.5 & .4 Fo
MTH-3.9	3.9	±7½%	≧ 38 DB @ 1.75 & .58 Fo	MTW-40	40	±15%	≧ 40 DB @ 2.5 & .4 Fo
MTN-5.4	5.4	±7½%	≧ 38 DB @ 1.75 & .58 Fo	MTW-52.5	52.5	±15%	≧ 40 DB @ 2.5 & .4 Fo
MTH-7.35	7.35	±7½%	≧ 38 DB @ 1.75 & .58 Fo	MTW-70	70	±15%	≧ 40 DB @ 2.5 & .4 Fo
MTH-10.5	10.5	±7½%	≧ 38 DB @ 1.75 & .58 Fo				

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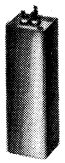
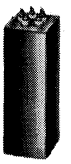
See Freed Price Pages 1400 — 1402

FREED TRANSFORMER CO., INC.

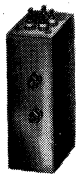
CASE DIMENSIONS



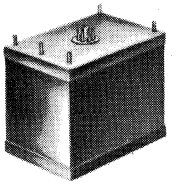
FA-1 CASE
Height: 4½"
Width: 1½"
Depth: 1½"
Mtg. Cen.: 31/32" sq.
4 Inserts: 6-32
Knockout: 1"



FA-185 CASE
Height: 4½"
Width: 1⅞"
Depth: 1⅝"
Mtg. Cen.: 1 15/64"x1 1/16"
4 Inserts: 6-32
Knockout: 1½"



FA-190 CASE
Height: 4½"
Width: 2¼"
Depth: 1⅝"
Mtg. Cen.: 1 1/32"x1 1/16"
4 Inserts: 6-32
Knockout: 1½"



FA-410 CASE
Height: 4½"
Width: 6"
Depth: 4"
Mtg. Cen.: 5¼"x3¼"
5 Studs: 10-32
Octal Header

DISCRIMINATOR INPUT LOW PASS FILTER

HERMETICALLY SEALED TO MIL-T-27A AND MIL-F-18327 SPECIFICATIONS

Catalog No.	Fo Center Freq. in c.p.s.	Characteristic Impedance Ohms	Case No.
LPI-10	400	30,000	FA-1
LPI-11	560	30,000	FA-1
LPI-12	730	30,000	FA-1
LPI-13	960	30,000	FA-1
LPI-14	1,300	30,000	FA-1
LPI-15	1,700	30,000	FA-1
LPI-16	2,300	30,000	FA-1
LPI-17	3,000	30,000	FA-1
LPI-18	3,900	30,000	FA-1

Band Pass Attenuation: 0.05 DB ±9¾% of Center Frequency
30 DB at second harmonic of Pass Band Frequencies
50 DB at third harmonic of Pass Band Frequencies
40 DB above third harmonic of Pass Band Frequencies

Catalog No.	Fo Center Freq. in c.p.s.	Characteristic Impedance Ohms	Case No.
LPI-19	5,400	30,000	FA-1
LPI-20	7,350	30,000	FA-1
LPI-21	10,500	30,000	FA-1
LPI-22	12,300	30,000	FA-1
LPI-23	14,500	30,000	FA-1
LPI-24	22,000	5,100	FA-1
LPI-25	30,000	5,100	FA-1
LPI-26	40,000	5,100	FA-1
LPI-27	52,500	5,100	FA-1
LPI-28	70,000	5,100	FA-1

Band Pass Attenuation: 0.05 DB ±15% of Center Frequency
30 DB at second harmonic of Pass Band Frequencies
50 DB at third harmonic of Pass Band Frequencies
40 DB above third harmonic of Pass Band Frequencies

DISCRIMINATOR OUTPUT LOW PASS FILTER

HERMETICALLY SEALED TO MIL-T-27A AND MIL-F-18327 SPECIFICATIONS

Catalog No.	Fo c.p.s.	Characteristic Impedance Ohms	Case No.
LPO-10	6	330	FA-410
LPO-11	8	330	FA-410
LPO-12	11	330	FA-410
LPO-13	14	330	FA-410
LPO-14	20	330	FA-410
LPO-15	25	330	FA-410
LPO-16	35	330	FA-410
LPO-17	45	330	FA-410
LPO-18	60	330	FA-410
LPO-19	81	330	FA-410
LPO-20	110	330	FA-410
LPO-21	160	330	FA-410
LPO-22	185	330	FA-410

Catalog No.	Fo c.p.s.	Characteristic Impedance Ohms	Case No.
LPO-23	220	330	FA-410
LPO-24	330	330	FA-410
LPO-25	450	330	FA-410
LPO-26	600	330	FA-410
LPO-27	660	330	FA-410
LPO-28	790	330	FA-410
LPO-29	900	330	FA-410
LPO-30	1,050	330	FA-410
LPO-31	1,200	330	FA-410
LPO-32	1,600	330	FA-410
LPO-33	2,100	330	FA-410
LPO-34	7,200	330	FA-410
LPO-35	10,000	330	FA-410

Attenuation: <0.2 DB up to 0.5 times Fo
<0.7 DB from 0.5 to 1. times Fo
>20 DB at 2 Fo to 2.5 Fo
>30 DB from 2.5 times Fo to 100 Kc

FIXED DISCRIMINATORS

HERMETICALLY SEALED TO MIL-T-27A AND MIL-F-18327 SPECIFICATIONS

Catalog No.	Center Frequency (cps)	% Deviation of Fo	Linearity	D.C. Output Volts	Case No.
DST-10	400	±8½	±0.5%	32.5	FA-185
DST-11	560	±8½	±0.5%	32.5	FA-185
DST-12	730	±8½	±0.5%	32.5	FA-185
DST-13	960	±8½	±0.5%	32.5	FA-185
DST-14	1,300	±8½	±0.5%	32.5	FA-185
DST-15	1,700	±8½	±0.5%	32.5	FA-185
DST-16	2,300	±8½	±0.5%	32.5	FA-185

SLUG TUNED DISCRIMINATORS

Catalog No.	Center Frequency (Kc.)	% Deviation of Fo	Linearity	D.C. Output Volts	Case No.
DST-17	3.0	±8½	±0.5%	32.5	FA-190
DST-18	3.9	±8½	±0.5%	32.5	FA-190
DST-19	5.4	±8½	±0.5%	32.5	FA-190
DST-20	7.35	±8½	±0.5%	32.5	FA-190
DST-21	10.5	±8½	±0.5%	32.5	FA-190
DST-22	12.3	±8½	±0.5%	32.5	FA-190
DST-23	14.5	±8½	±0.5%	32.5	FA-190
DST-24	22.0	±8½	±0.5%	32.5	FA-190
DST-25	30.0	±8½	±0.5%	32.5	FA-190

Catalog No.	Center Frequency (Kc)	% Deviation of Fo	Linearity	D.C. Output Volts	Case No.
DST-26	40.0	±8½	±0.5%	32.5	FA-190
DST-27	52.5	±8½	±0.5%	32.5	FA-190
DST-28	70.0	±8½	±0.5%	32.5	FA-190
DST-29	22.0	±15	±1.0%	26.0	FA-190
DST-30	30.0	±15	±1.0%	26.0	FA-190
DST-31	40.0	±15	±1.0%	26.0	FA-190
DST-32	52.5	±15	±1.0%	26.0	FA-190
DST-33	70.0	±15	±1.0%	26.0	FA-190

FREED FILTERS

To MIL-T-27A and MIL-F-18327

Freed Standard Filters are **Hermetically Sealed Miniature and Sub-Miniature** high performance components designed for both production and laboratory applications in the Communications and Electronic industry. In order to achieve attenuation requirements not obtainable with one single filter, one can combine several standard filters of different transmission characteristics. Wide Band Pass characteristics are obtainable by combining low and high Pass Units. The astatic construction of inductive components together with special shielding reduces the hum pick-up of the standard filters.

The standard filters are available in Low Pass, High Pass and Band Pass Filters.

Low Pass Filters: The attenuation characteristics of Low Pass Filters are 6db or less at cut-off frequency, 35db or more at 1.5 cut-off frequency and 40db or more at 2 cut-off frequency.

ILP Interstage Low Pass Filter. Characteristic Impedance 10,000 ohms, in and out.

LLP Line Low Pass Filter. Characteristic Impedance 500 to 600 Ω, in and out.

High Pass Filters: The attenuation characteristics of High Pass Filters are 6db or less at cut-off frequency, 35db and 40db or more at 0.67 and 0.5 cut-off frequency.

IHP Interstage High Pass Filter. Characteristic Impedance 10,000 ohms, in and out.

LHP Line High Pass Filter. Characteristic Impedance 500 to 600 Ω, in and out.

Band Pass Filters: The attenuation characteristics of Band Pass Filters are 2db or less at plus or minus 3% of center frequency 40db or more at 0.5 and 2 center frequency.

IBP Interstage Band Pass Filter. Nominal input impedance—10,000 ohms. Nominal output impedance 5 megohms or grid of vacuum tube. Effective voltage step-up 2:1. (Output voltage to source voltage.)

LBP Line Band Pass Filter. Nominal input impedance 500 to 600 ohms. Nominal output impedance 5 megohms or grid of vacuum tube. Effective voltage step-up 9:1. (Output voltage to source voltage.)

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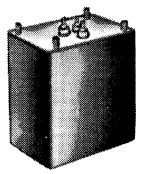
FREED TRANSFORMER CO., INC.

FREED FILTERS
TO MIL-T-27A AND MIL-F-18327



DF-1 CASE
Height: 2½"
Width: 1 1/16"
Depth: 1 3/16"
Mtg. Cen.: 1¼"x¾"
Studs: 4 6-32x⅜"
Knockout: ⅞" dia.

Catalog No.	Cut-off Frequency c.p.s.
ILP- 100	100
ILP- 200	200
ILP- 300	300
ILP- 500	500
ILP- 750	750
ILP- 1,000	1,000
ILP- 1,500	1,500
ILP- 2,000	2,000
ILP- 2,500	2,500
ILP- 3,000	3,000
ILP- 5,000	5,000
ILP- 7,000	7,000
ILP- 10,000	10,000
ILP- 15,000	15,000
ILP- 20,000	20,000
ILP- 23,000	23,000
ILP- 25,000	25,000
ILP- 32,000	32,000
ILP-130,000	130,000
ILP-150,000	150,000

Special filters in all six types are available for any frequency from 100 to 20,000 cycles

Catalog No.	Cut-off Frequency c.p.s.
LLP- 500	500
LLP- 1,000	1,000
LLP- 1,500	1,500
LLP- 1,600	1,600
LLP- 2,000	2,000
LLP- 2,500	2,500
LLP- 3,000	3,000
LLP-16,000	16,000
LLP-20,000	20,000
LLP-70,000	70,000
LLP-80,000	80,000
IHP- 200	200
IHP- 250	250
IHP- 300	300
IHP- 400	400
IHP- 500	500
IHP- 1,000	1,000
IHP- 2,000	2,000
IHP- 3,000	3,000
IHP-10,000	10,000
IHP-15,000	15,000
LHP- 200	200
LHP- 300	300
LHP- 400	400
LHP- 500	500
LHP- 800	800
LHP- 1,000	1,000
LHP- 2,000	2,000
LHP- 6,000	6,000
LHP-10,000	10,000

Catalog No.	Cut-off Frequency c.p.s.
IBP- 100	100
IBP- 200	200
IBP- 250	250
IBP- 400	400
IBP- 500	500
IBP- 700	700
IBP- 800	800
IBP- 900	900
IBP- 1,000	1,000
IBP- 1,500	1,500
IBP- 2,000	2,000
IBP- 3,000	3,000
IBP- 5,000	5,000
IBP- 7,200	7,200
IBP-10,000	10,000
IBP-12,000	12,000
IBP-15,000	15,000
IBP-30,000	30,000
IBP-57,600	57,600
LBP- 100	100
LBP- 300	300
LBP- 400	400
LBP- 600	600
LBP- 800	800
LBP- 1,000	1,000
LBP- 1,500	1,500
LBP- 2,000	2,000
LBP- 3,000	3,000
LBP- 7,200	7,200
LBP-10,000	10,000
LBP-14,400	14,400
LBP-20,000	20,000
LBP-28,800	28,800

HERMETICALLY SEALED SUB-MINIATURE FILTERS

Low Pass Filters: The attenuation characteristics of Low Pass Filters are 6db or less at cut-off frequency, 30db or more at 1.5 cut-off frequency and 40db or more at 2 cut-off frequency.

ILM Interstage Low Pass Filter. Characteristic impedance 10,000 ohms, in and out.

LLM Line Low Pass Filter. Characteristic Impedance 500 to 600 ohms, in and out.

High Pass Filters: The attenuation characteristics of High Pass Filters are 6db or less at cut-off frequency, 30db and 40db or more at 0.67 and 0.5 cut-off frequency.

IHM Interstage High Pass Filter. Characteristic Impedance 10,000 ohms, in and out.

LHM Line High Pass Filter. Characteristic Impedance 500 to 600 ohms, in and out.

Band Pass Filters: The attenuation characteristics of Band Pass Filters are 2db or less at plus or minus 3% of center frequency 35db or more at 0.5 and 2 center frequency.

IBM Interstage Band Pass Filter. Nominal input impedance—10,000 ohms. Nominal output impedance 5 megohms or grid of vacuum tube. Effective voltage step-up 2:1. (Output voltage to source voltage.)

LBM Line Band Pass Filter. Nominal input impedance 500 to 600 ohms. Nominal output impedance 5 megohms or grid of vacuum tube. Effective voltage step-up 5:1. (Output voltage to source voltage.)

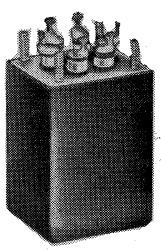
Special filters in all six types are available for any frequency from 200 to 20,000 cycles.

Catalog No.	Cut-off Freq. c.p.s.	Case No.
IBM- 400	400	DF-02
IBM- 500	500	DF-02
IBM- 700	700	DF-02
IBM- 800	800	DF-02
IBM- 900	900	DF-02
IBM- 1,000	1,000	DF-02
IBM- 1,500	1,500	DF-02
IBM- 2,000	2,000	DF-01
IBM- 3,000	3,000	DF-01
IBM- 5,000	5,000	DF-01
IBM- 7,200	7,200	DF-01
IBM-10,000	10,000	DF-01
IBM-12,000	12,000	DF-01
IBM-15,000	15,000	DF-01
IBM-30,000	30,000	DF-01
IBM-57,600	57,600	DF-01
IHM- 300	300	DF-01
IHM- 400	400	DF-01
IHM- 500	500	DF-01
IHM- 1,000	1,000	DF-01
IHM- 2,000	2,000	DF-01
IHM- 3,000	3,000	DF-01
IHM-10,000	10,000	DF-01
IHM-15,000	15,000	DF-01

Catalog No.	Cut-off Freq. c.p.s.	Case No.
ILM- 300	300	DF-01
ILM- 500	500	DF-01
ILM- 750	750	DF-01
ILM- 1,000	1,000	DF-01
ILM- 1,500	1,500	DF-01
ILM- 2,000	2,000	DF-01
ILM- 2,500	2,500	DF-01
ILM- 3,000	3,000	DF-01
ILM- 5,000	5,000	DF-01
ILM- 7,000	7,000	DF-01
ILM- 10,000	10,000	DF-01
ILM- 15,000	15,000	DF-01
ILM- 20,000	20,000	DF-01
ILM- 23,000	23,000	DF-01
ILM- 25,000	25,000	DF-01
ILM- 32,000	32,000	DF-01
ILM-130,000	130,000	DF-01
ILM-150,000	150,000	DF-01
LHM- 300	300	DF-03
LHM- 400	400	DF-03
LHM- 500	500	DF-03
LHM- 800	800	DF-03
LHM- 1,000	1,000	DF-02
LHM- 2,000	2,000	DF-02
LHM- 6,000	6,000	DF-02
LHM-10,000	10,000	DF-02

Catalog No.	Cut-off Freq. c.p.s.	Case No.
LBM- 300	300	DF-02
LBM- 400	400	DF-02
LBM- 600	600	DF-02
LBM- 800	800	DF-02
LBM- 1,000	1,000	DF-01
LBM- 1,500	1,500	DF-01
LBM- 2,000	2,000	DF-01
LBM- 3,000	3,000	DF-01
LBM- 7,200	7,200	DF-01
LBM-10,000	10,000	DF-01
LBM-14,400	14,400	DF-01
LBM-20,000	20,000	DF-01
LBM-28,800	28,800	DF-01
LLM- 500	500	DF-03
LLM- 1,000	1,000	DF-03
LLM- 1,500	1,500	DF-02
LLM- 1,600	1,600	DF-02
LLM- 2,000	2,000	DF-02
LLM- 2,500	2,500	DF-02
LLM- 3,000	3,000	DF-02
LLM-16,000	16,000	DF-02
LLM-20,000	20,000	DF-02
LLM-70,000	70,000	DF-02
LLM-80,000	80,000	DF-02

SERIES 1950 NULL "T" FILTERS



The Freed Series 1950 Null T networks consist of two resistance capacitance networks, whose outputs completely cancel each other at the balance frequency. They may be used as rejection networks particularly at low frequencies where LC filters become excessively large and unstable.

Standard models are available for 30, 60 and 120 cycles in a wide range of impedances. Each network will give a minimum of 50 db attenuation at the null frequency.

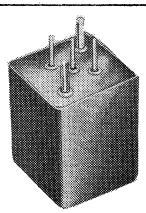
The null frequency is adjusted to a tolerance of ±2%.

All Null T Filters are hermetically sealed.

Prices on request.

Catalog No.	Frequency
NTF- 30	30 cps
NTF- 60	60 cps
NTF-120	120 cps

CASE DIMENSIONS



DF CASE STYLE

DF-01
Height: 1⅜"
Width: ¾"
Depth.: ¾"
Mtg. Cen.: 5/16" Diag.
Studs: 2 ÷ 4-40

DF-02
Height: 1⅜"
Width: 1"
Depth.: 1"
Mtg. Cen.: ¾" Diag.
Studs: 2 ÷ 4-40

DF-03
Height: 1¾"
Width: 1"
Depth.: 1"
Mtg. Cen.: ¾"
Studs: 2 ÷ 4-40

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See Freed Price Pages 1400 — 1402

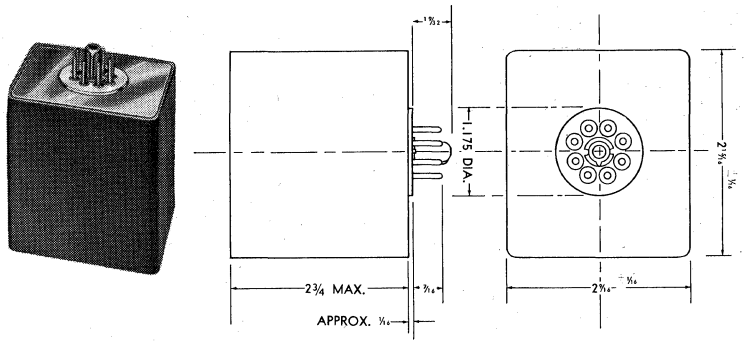
FREED TRANSFORMER CO., INC.

TELEGRAPH TONE CHANNEL FILTERS

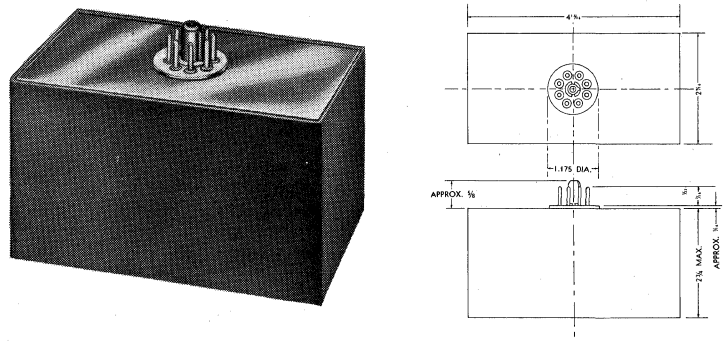
HERMETICALLY SEALED TO MIL-T-27A AND MIL-F-18327 SPECIFICATIONS

Freed Band Pass Filters are extensively used in multiplex frequency shift transmitting and receiving. Stock filters cover all narrow and wide band channels. All units are built with a standard octal socket.

FBT Transmitting Filters are built for a 600 ohm in and out characteristic impedance. Filter configuration allows paralleling of channel outputs. 10db adjacent channel crossover attenuation.



FBR Receiving Filters are designed for a characteristic impedance of 600 ohms in and out. Filter configuration permits paralleling of channel inputs. 20db adjacent channel crossover attenuation.



RECEIVING FILTERS

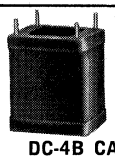
Catalog No. Case FA-950	Center Frequency (c.p.s.) Insertion Loss 6db	Pass Band (c.p.s.) Attenuation 2db	Stop Band (c.p.s.) Attenuation 33db
FBR-10	425	±42.5	±130
FBR-11	595	±42.5	±130
FBR-12	765	±42.5	±130
FBR-13	935	±42.5	±130
FBR-14	1,105	±42.5	±130
FBR-15	1,275	±42.5	±130
FBR-16	1,445	±42.5	±130
FBR-17	1,615	±42.5	±130
FBR-18	1,785	±42.5	±130
FBR-19	1,955	±42.5	±130
FBR-20	2,125	±42.5	±130
FBR-21	2,295	±42.5	±130
FBR-22	2,465	±42.5	±130
FBR-23	2,635	±42.5	±130
FBR-24	2,805	±42.5	±130
FBR-25	2,975	±42.5	±130
FBR-26	1,955	±85	±260
FBR-27	2,380	±85	±260
FBR-28	2,805	±85	±260
FBR-29	3,230	±85	±260

TRANSMITTING FILTERS

Catalog No. Case FA-955	Center Frequency (c.p.s.) Insertion Loss 5db	Pass Band (c.p.s.) Attenuation 2db	Stop Band (c.p.s.) Attenuation 20db
FBT-10	425	±42.5	±130
FBT-11	595	±42.5	±130
FBT-12	765	±42.5	±130
FBT-13	935	±42.5	±130
FBT-14	1,105	±42.5	±130
FBT-15	1,275	±42.5	±130
FBT-16	1,445	±42.5	±130
FBT-17	1,615	±42.5	±130
FBT-18	1,785	±42.5	±130
FBT-19	1,955	±42.5	±130
FBT-20	2,125	±42.5	±130
FBT-21	2,295	±42.5	±130
FBT-22	2,465	±42.5	±130
FBT-23	2,635	±42.5	±130
FBT-24	2,805	±42.5	±130
FBT-25	2,975	±42.5	±130
FBT-26	1,955	±85	±260
FBT-27	2,380	±85	±260
FBT-28	2,805	±85	±260
FBT-29	3,230	±85	±260

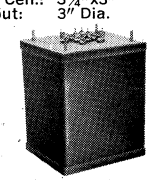
ULTRASONICS

CASE DIMENSIONS



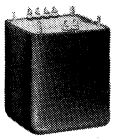
DC-4B CASE
Height: 4¾″
Width: 3⅛″
Length: 3″
Mounting: 4 8-32 Studs
Mtg. Cen.: 2½″x2½″
Cutout: (2) 1⅜″x⅝″

DC-6B CASE
Height: 6″
Width: 5″
Length: 4⅛″
Mounting: 4 10-32 Studs
Mtg. Cen.: 3¾″x3″
Cutout: 3″ Dia.



MA-2 CASE
Height: 4″
Width: 4⅝″
Length: 3¹⁵⁄₁₆″
Mounting: 4 10-32 Studs
Mtg. Cen.: 2½″x3¾″
Cutout: (2) 2¾″x¾″

OL-112-1 CASE
Height: 6″
Width: 5⅞″
Length: 4¾″
Mounting: 4 ¼-20 Studs
Mtg. Cen.: 4¾″x3⅝″
Cutout: 3″ dia.



EA CASE
Height: 2¹¹⁄₁₆
Width: 1⅞″
Length: 1¾″
Mounting: 4 6-32 Studs
Mtg. Cen.: 1⅜″x1¼″
Cutout: 1¾₁₆″

DM-03 CASE
Height: 2½″
Width: 1½″
Length: 1½″
Mounting: 4 6-32 Studs
Mtg. Cen.: 1⅛″x1⅛″
Cutout: 1¼″ Dia.

New developments and applications of ultrasonics for industrial cleaning, soldering, welding, and mixing have created a demand for generators and components specifically designed for ultrasonic applications.

Using the latest developments in the field of special magnetic materials the FREED ultrasonic transformers are designed for greatest efficiency and maximum reliability. They feature small size excellent performance and long life under continuous duty operation.

Transformers with an extended frequency range (frequencies up to 2 MC) can be supplied upon request.

ULTRASONIC DRIVER AND INPUT TRANSFORMERS
Frequency Response: ±1 DB 10 KC to 60 KC.

Catalog No.	Application	Primary Impedance Ohms	Ratio	Maximum Power Watts	Maximum Primary D.C. per Side Ma.	Case Size
ULI-20	Transducer to PP 811A	1, 2, 4	1:17.3	5		DM-03
ULD-20	PP 6CM6 to PP 811A	10,000	4.4:1	5	50	DM-03
ULD-50	PP 5881 to PP 8000	7,200	1.7:1	25	90	EA

ULTRASONIC OUTPUT TRANSFORMERS
Frequency response: ±1 DB 20 KC to 60 KC.

Catalog No.	Application	Impedance in Ohms Primary	Secondary	Maximum Power Watts	Maximum Primary D.C. per Side Ma.	Case Size
ULO-10	PP 6083 to transducer	7,600	1/4	100	120	DC-4B
ULO-11	Same	7,600	2/8	100	120	DC-4B
ULO-12	Same	7,600	4/16	100	120	DC-4B
ULO-13	Same	7,600	7.5/30	100	120	DC-4B
ULO-30	PP 811A to transducer	12,400	1/4	300	170	DC-4B
ULO-31	Same	12,400	2/8	300	170	DC-4B
ULO-32	Same	12,400	4/16	300	170	DC-4B
ULO-33	Same	12,400	7.5/30	300	170	DC-4B
ULO-34	Same	12,400	25	300	170	DC-4B
ULO-35	Same	12,400	125/500	300	170	DC-4B
ULO-36	Same	12,400	250/1000	300	170	DC-4B
ULO-37	Same	12,400	75/300	300	170	DC-4B
ULO-52	PP 8000 to transducer	10,800	4/16	500	230	MA-2
ULO-53	Same	10,800	7.5/30	500	230	MA-2
ULO-54	Same	10,800	25/100	500	230	MA-2
ULO-55	Same	10,800	125/500	500	320	MA-2
ULO-56	Same	10,800	250/1000	500	230	MA-2
ULO-101	PP. Par. 8000 to transducer	5,400	25/100	1000	430	DC-6B
ULO-104	Same	5,400	75/300	1000	430	DC-6B
ULO-110	PP 4-250A to transducer	10,900	18.8/75/300	800	250	OL-112-1

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FREED TRANSFORMER CO., INC.

COMMERCIAL GRADE COMPONENTS

These components are designed to meet the demand for low-cost replacement parts for commercial electronic equipment.

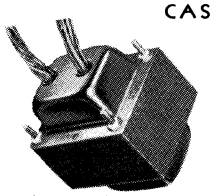
The best commercially available materials have been utilized in the design of these units, to insure reliability and excellent performance characteristics. Vacuum impregnation with a non-hygroscopic varnish to prevent penetration of humidity are employed to give these units long life and trouble-free performance.

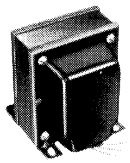
230-115 V, 50-60 C.P.S. Stepdown Transformers rated from 25 V A up to 5,000 V A Rating and line booster transformers are included in this series.

All units, with only a few exceptions, are uncased or of shell-type construction.

Isolation transformers and Stepdown transformers are equipped with line cord and receptacle.

CASE DIMENSIONS





Case No.	Height	Width	Depth	Mtg. Centers	Mtg. Studs
HS300	2⅝	3	2½	2½x2	(4) 3/16x3/8
HS303	2⅞	3	2½	2½x2	(4) 3/16x3/8
HS306	3¼	3	2½	2½x2	(4) 3/16x3/8
HS307	3⅜	3	2½	2½x2	(4) 3/16x3/8
HS503	3½	3¾	3⅛	3⅛x2½	(4) 3/16x3/8
HS505	3¾	3¾	3⅛	3⅛x2½	(4) 3/16x3/8
HS603	3¾	4½	3¾	3¾x3	(4) 3/16x3/8
HS605	4	4½	3¾	3¾x3	(4) 3/16x3/8
HS606	4⅛	4½	3¾	3¾x3	(4) 3/16x3/8
HS610	4⅝	4½	3¾	3¾x3	(4) 3/16x3/8
HS612	4⅞	4½	3¾	3¾x3	(4) 3/16x3/8
HS708	5⅞	5¼	4⅜	4⅜x3½	(4) 9/32x21/32
HS709	6	5¼	4⅜	4⅜x3½	(4) 9/32x21/32

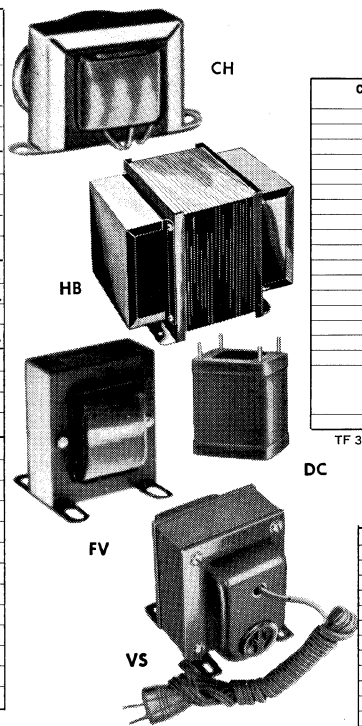
Case No.	Height	Width	Depth	Mtg. Centers	Mtg. Holes
VS300	3 13/32	2⅝	2¾	2x1 11/16	(4) 3/16x3/8
VS303	3 13/32	2⅝	3	2x1 13/16	(4) 3/16x3/8
VS304	3 29/32	4¼	3¼	2½x3	(4) 3/16x3/8
VS306	3 13/32	2⅝	3⅜	2x2 1/16	(4) 3/16x3/8
VS307	3 13/32	2⅝	3½	2x2 1/16	(4) 3/16x3/8
VS503	3 29/32	3¼	3⅝	2½x2 5/16	(4) 3/16x3/8
VS505	3 29/32	3¼	3⅞	2½x2 5/8	(4) 3/16x3/8
VS506	3 29/32	3¼	4¼	2¼x3	3/16x3/8
VS508	3⅝	2⅝	3⅛	2x2 1/8	(4) 3/16x3/8
VS603	4 21/32	3⅞	3⅞	3x2 11/16	(4) 3/16x3/8
VS605	4 21/32	3⅞	4⅛	3x2 15/16	(4) 3/16x3/8
VS606	4 21/32	3⅞	4¼	3x3 1/8	(4) 3/16x3/8
VS610	4 21/32	3⅞	4¾	3x3 9/16	(4) 3/16x3/8
VS612	4 21/32	3⅞	5	3x3 15/16	(4) 3/16x3/8
VS708	5 1/16	4 9/16	5¾	3½x4	(4) 9/32x21/32
VS709	5 1/16	4 9/16	5⅞	3½x4 1/8	(4) 9/32x21/32

POWER TRANSFORMERS

All primaries designed for 115-volt, 50-60 cycle operation.

Catalog No.	Py Va	Hi Volt	Choke Input D.C.V.	Choke Input D.C.Ma.	Cond. Input D.C.V.	Cond. Input D.C.Ma.	Bias Tap	Rectifier	Fil. No.1	Fil. No. 2	Fil. No. 3	Case No.
RGP 1	45	500V CT			270	40		6X4,5Y3	5/6.3V @ 2A	6.3V @ 2A		VS300
RGP 2	45	500V CT			270	40		6X4,5Y3	5/6.3V @ 2A	6.3V @ 2A		HS300
RGP 3	57	600V CT			330	50		6X4,5Y3	5/6.3V @ 2A	6.3V @ 2.5A		VS303
RGP 4	57	600V CT			330	50		6X4,5Y3	5/6.3V @ 2A	6.3V @ 2.5A		HS303
RGP 5	64	650V CT			370	50		6X4,5Y3	5/6.3V @ 2A	6.3V @ 3A		VS303
RGP 6	64	650V CT			370	50		6X4,5Y3	5/6.3V @ 2A	6.3V @ 3A		HS303
RGP 7	73	600V CT			320	70		6X4,5Y3	5/6.3V @ 2A	6.3V @ 3A		VS306
RGP 8	73	600V CT			320	70		6X4,5Y3	5/6.3V @ 2A	6.3V @ 3A		HS306
RGP 9	110	650V CT	225	140	330	100		5Y3,5U4	5V @ 3A	6.3V @ 5A		VS503
RGP 10	110	650V CT	225	140	330	100		5Y3,5U4	5V @ 3A	6.3V @ 5A		HS503
RGP 11	76	700V CT	260	100	385	70		5Y3	5V @ 2A	6.3V @ 2.5A		VS307
RGP 12	76	700V CT	260	100	385	70		5Y3	5V @ 2A	6.3V @ 2.5A		HS307
RGP 13	108	700V CT	250	125	370	90		5Y3,5U4	5V @ 3A	6.3V @ 5A		VS503
RGP 14	108	700V CT	250	125	370	90		5Y3,5U4	5V @ 3A	6.3V @ 5A		HS503
RGP 15	127	700V CT	260	170	350	120		5U4	5V @ 3A	6.3V @ 5A		VS505
RGP 16	127	700V CT	260	170	350	120		5U4	5V @ 3A	6.3V @ 5A		HS505
RGP 17	146	700V CT	260	210	350	150		5U4	5V @ 3A	6.3V @ 5A	6.3V @ 1A	VS603
RGP 18	146	700V CT	260	210	350	150		5U4	5V @ 3A	6.3V @ 5A	6.3V @ 1A	HS603
RGP 19	207	800V CT	295	280	400	200		5U4,2-5Y3	5V @ 4A	6.3V @ 6A		VS606
RGP 20	207	800V CT	295	280	400	200		5U4,2-5Y3	5V @ 4A	6.3V @ 6A		HS606
RGP 21	225	800V CT	295	280	400	200	80	5U4,2-5Y3	5V @ 4A	6.3V @ 6A	5/6.3V @ 2A	VS606
RGP 22	225	800V CT	295	280	400	200	80	5U4,2-5Y3	5V @ 4A	6.3V @ 6A	5/6.3V @ 2A	HS606
RGP 23	268	840V CT	330	350	450	250	80	2-5U4	5V @ 6A	6.3V @ 6A	5/6.3V @ 2A	VS612
RGP 24	268	840V CT	330	350	450	250	80	2-5U4	5V @ 6A	6.3V @ 6A	5/6.3V @ 2A	HS612
RGP 25	320	900V CT	340	420	490	300	80	2-5U4	5V @ 6A	6.3V @ 6A	5/6.3V @ 2A	VS708
RGP 26	320	900V CT	340	420	490	300	80	2-5U4	5V @ 6A	6.3V @ 6A	5/6.3V @ 2A	HS708
RGP 27	127	900V CT	360	150				5U4	5V @ 3A	6.3V @ 5A		VS603
RGP 28	127	900V CT	360	150				5U4	5V @ 3A	6.3V @ 5A		HS603
RGP 29	150	900V CT	350	200				5U4	5V @ 3A	6.3V @ 5A		VS605
RGP 30	150	900V CT	350	200				5U4	5V @ 3A	6.3V @ 5A		HS605
RGP 31	203	1100V CT	400	250				5R4GY	5V @ 3A	6.3V @ 5A		VS610
RGP 32	203	1100V CT	400	250				5R4GY	5V @ 3A	6.3V @ 5A		HS610
RGP 33	248	1100V CT	420	300				2-5R4GY	5V @ 4A	6.3V @ 7A		VS612
RGP 34	248	1100V CT	420	300				2-5R4GY	5V @ 4A	6.3V @ 7A		HS612
RGP 35	310	1280V CT	480	350				2-5R4GY	5V @ 4A	6.3V @ 7A		VS709
RGP 36	310	1280V CT	480	350				2-5R4GY	5V @ 4A	6.3V @ 7A		HS709

Case No.	Height	Width	Depth	Mtg. Centers	Mtg. Studs
DC2B	3½	2⅝	2¼	2x1¾	(4) 8-32
DC4A	3¾	3⅛	3	2½x2½	(4) 8-32
DC5C	4⅞	4⅛	3½	3⅛x2⅝	(4) 10-32
DC6A	4⅞	5	4⅛	3¾x3	(4) 10-32
CH50	1 11/16	2 13/16	1¾	2⅜	(2) 3/16
CH60	2	3¼	1¾	2 13/16	(2) 3/16
CH62	2	3¼	2⅛	2 13/16	(2) 3/16
CH70	2 5/16	3 11/16	2¼	3⅛	(2) 3/16
CH80	2⅝	4	2⅝	3 9/16	(2) 3/16
FV10	3 1/16	2½	2⅝	2x2	(4) 13/64x21/64
FV12	3 1/16	2½	2 11/16	2x2⅛	(4) 13/64x21/64
FV22	3 7/16	2 13/16	2⅞	2¼x2¼	(4) 3/16x3/8
FV30	4 1/32	3⅛	3	2½x2¼	(4) 13/64x21/64
HB718	6¼	6½	8½	4¾x4½	(4) 9/32x21/32
HB728	6¼	6½	9¾	4¾x5¾	(4) 9/32x21/32
HB828	6⅝	7⅜	9⅞	5⅝x5¾	(4) 9/32x21/32
HB920	6⅝	7⅞	10¼	6½x7 3/16	(4) 9/32x21/32
VS300	3 13/32	2⅝	3	2x2	(4) 3/16x3/8
VS401	3 9/16	2 15/16	3¼	2¼x1 15/16	(4) 3/16x3/8
VS501	3 29/32	3¼	3⅜	2½x2 1/16	(4) 3/16x3/8
VS503	3 29/32	3¼	3⅝	2½x2 5/16	(4) 3/16x3/8
VS601	4 21/32	3⅞	3⅝	3x2 7/16	(4) 3/16x3/8
VS604	4 21/32	3⅞	4	3x2 7/8	(4) 3/16x3/8
VS611	4 21/32	3⅞	4⅞	3x3 11/16	(4) 3/16x3/8
VS612	4 21/32	3⅞	5	3x3 13/16	(4) 3/16x3/8
VS700	5 7/16	3⅞	5	3½x3¼	(4) 3/16x3/8
VS706	5 7/16	4 9/16	5½	3½x3¾	(4) 3/16x3/8
VS714	5 7/16	4 9/16	6½	3½x4¾	(4) 3/16x3/8
VS718	5 7/16	4 9/16	7	3½x5¼	(4) 9/32x21/32
VS728	5 7/16	4 9/16	8¼	3½x6½	(4) 3/16x3/8



FILAMENT TRANSFORMERS

All primaries are for 115V, 50/60 c.p.s.

Catalog No.	Secondary Voltage	Secondary Current Amps	Secondary Test Voltage RMS	Case Size
TF 1	2.5 (C.T.)	7.5	1500	CH60
TF 2	2.5 (C.T.)	10	1500	CH70
TF 3	2.5 (C.T.)	5	7500	DC2B
TF 4	2.5 (C.T.)	10	7500	DC4A
TF 5	5.0 (C.T.)	4	1500	CH60
TF 6	5.0 (C.T.)	6	1500	CH70
TF 7	5.0 (C.T.)	10	1500	CH80
TF 8	5.0 (C.T.)	10	1500	FV10
TF 9	5.0 (C.T.)	20	2500	FV30
TF 10	5.0 (C.T.)	20	10,000	DC6A
TF 11	6.3 (C.T.)	1.35	1500	CH50
TF 12	6.3 (C.T.)	3	1500	CH60
TF 13	6.3 (C.T.)	5	1500	CH70
TF 14	6.3 (C.T.)	7	1500	FV12
TF 15	6.3 (C.T.)	10	1500	FV22
TF 16	10 (C.T.)	5	2500	CH80
TF 17	10 (C.T.)	5	2500	FV10
TF 18	10 (C.T.) or 11 (C.T.) (tapped primary)	12 or 11	7500	DC-5C
TF 19	12.6 (C.T.)	2	1500	CH62

TF 3, 4, 10 & 18 supplied with terminals. All others with leads.

AUTO TRANSFORMERS

To be used as step-down transformer. Equipped with standard receptacle and line cord.

Catalog No.	Transformation	VA Rating	Weight (lbs.)	Case Size
SDT 1*	230/115 V. 50/60 c.p.s.	25	1	CH-60
SDT 2*	230/115 V. 50/60 c.p.s.	50	1¼	CH-62
SDT 3	230/115 V. 50/60 c.p.s.	50	2½	VS-300
SDT 4	230/115 V. 50/60 c.p.s.	100	3	VS-401
SDT 5	230/115 V. 50/60 c.p.s.	200	5	VS-501
SDT 6	230/115 V. 50/60 c.p.s.	300	6½	VS-601
SDT 7	230/115 V. 50/60 c.p.s.	400	8	VS-604
SDT 8	230/115 V. 50/60 c.p.s.	500	11	VS-611
SDT 9	230/115 V. 50/60 c.p.s.	750	15	VS-706
SDT 10	230/115 V. 50/60 c.p.s.	1000	23	VS-718
SDT 11	230/115 V. 50/60 c.p.s.	1500	29½	VS-728
SDT 12*	230/115 V. 50/60 c.p.s.	2000	37	HB-718
SDT 13*	230/115 V. 50/60 c.p.s.	2500	47	HB-728
SDT 14*	230/115 V. 50/60 c.p.s.	3000	58	HB-828
SDT 15*	230/115 V. 50/60 c.p.s.	5000	72	HB-920

*Supplied with leads without line cord and receptacle.

ISOLATION TRANSFORMERS

Electrostatic shield between primary and secondary. Equipped with standard receptacle and line cord.

Catalog Number	Primary Voltage 50/60 c.p.s.	Secondary Voltage	VA Rating	Case Size
IT 1	115	115	50	VS-401
IT 2	115	115	100	VS-503
IT 3	115	115	300	VS-700
IT 4	115	115	500	VS-714
IT 5*	220/440	110/220	250	VS-612
IT 6*	220/440	110/220	500	VS-714

*Supplied with leads without line cords and receptacle.

LINE BOOSTER TRANSFORMERS

Operates from 90 to 110 volts input to provide 10% step-up.

Catalog Number	Primary Voltage	Secondary Voltage	VA Rating	Case Size
LB-1	90-110	1.1 x input	350	VS-300
LB-2	90-110	1.1 x input	2000	VS-611

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See Freed Price Pages 1400 — 1402

FREED TRANSFORMER CO., INC.

COMMERCIAL GRADE COMPONENTS

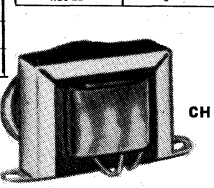
AUDIO TRANSFORMERS

Catalog No.	Application	Impedance Level Ohms Primary	Secondary	Max. Power Level DBM or Power in Watts	Ratio	Max. Pri D.C. per Side Ma.	D.C. Unbalance Ma.	Freq. Response C.P.S.	Case No.
RGA 1	Input; multiple line or double button mike to single or push-pull grids.	500 CT 200 CT	100.000 CT	+20	1:14.1	50	5	±2DB 200-5000	CH-40
RGA 2	Input; single button mike to single or push-pull grids.	100	100.000 CT	+20	1:31.6	50		±2DB 200-5000	CH-40
RGA 3	Input; voice coil to grid. Intercom	3.2	100,000	+20	1:179			±2DB 200-5000	CH-40
RGA 4	Mixing and matching line to line	600 CT 500 CT 200 CT 150/125/50	600 CT 500 CT 200 CT 150/125/50	+20	1:1			±2DB 100-5000	CH-40
RGA 5	Interstage; single triode plate to single or P.P. grids.	10.000	90.000 CT	+30	1:3	10		±2DB 200-5000	CH-40
RGA 6	Output; single plate to line or mixer.	10.000	600 CT 500 CT 200 CT 150/125/50	+30	4.8:1	10		±2DB 200-5000	CH-40
RGA 7	Output; Push-pull plate to line or mixer.	20.000 CT	600 CT 500 CT 200 CT 150/125/50	+30	6.32:1	10	1	±2DB 200-5000	CH-40
RGA 8	Output; plate to V.C. 6AL6, 6L6, 6Y6, 25B6, 25C6, 35A5, 35B5, 35C5, 50B5, 50C5, 50C6, 50L6, 117N7.	2500	3.2	5W		70		±3DB 200-10000	CH-40
RGA 9	Output; plate to V.C. 6V6, 6AQ5, 6AS5, 7C5.	5000	3.2	5W		50		±3DB 200-10000	CH-40
RGA 10	Output; plate to V.C. 6AR5, 6K6, 6V6, 7B5, 14A5, 3S4, 3U4, 3Q4, 3Q5, 3C5, 3A4.	10.000 or 7500	3.2	5W		30		±3DB 200-10000	CH-40
RGA 11	Output; P.P. plates to V.C. P.P. 6V6, PP6K6.	12.000 CT or 8000 CT	3.2	15W		50	5	±2DB 200-8000	CH-60
RGA-12	Output: TP to V.C. 6V6, 6AQ5, 7C5, C1AB.	10,000 CT	3.2	10W	5.6:1	40	4	±3DB 200-10000	CH-60

COMMERCIAL GRADE CHOKES

Catalog No.	Inductance in Henries	Rated Current D.C. Ma.	D.C. Resistance	Dielectric Test Voltage	Case Number
RGC 17	40	15	2000	1000	CH-40
RGC 1	4	40	200	1000	CH-40
RGC 2	9	40	400	1000	CH-40
RGC 3	6	50	400	1000	CH-40
RGC 18	20	50	425	1500	CH-60
RGC 4	10	55	400	1500	CH-50
RGC 19	3	75	200	1500	CH-40
RGC 5	10	75	250	1500	CH-60
RGC 6	10	75	250	1500	VS-100
RGC 7	6	100	150	1500	CH-60
RGC 8	6	100	150	1500	VS-100
RGC 9	3.5	150	100	1500	CH-60
RGC 10	3.5	150	100	1500	VS-100
RGC 20	12	160	180	2500	VS-306
RGC 11	2	200	60	1500	CH-60
RGC 12	2	200	60	1500	VS-100
RGC 13	3.7	200	65	1500	CH-80
RGC 21	7	200	100	2500	VS-303
RGC 14	3.7	200	65	1500	VS-300
RGC 15	2.8	300	65	1500	CH-80
RGC 16	2.8	300	65	1500	VS-300
RGC 22	5	300	65	2500	VS-308

CASE DIMENSIONS



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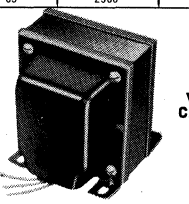

VS CASE

CH-40 CASE
Height: 1 7/16"
Width: 2 3/8"
Depth: 1 3/16"
Mtg. Cen.: 2"

CH-50 CASE
Height: 1 11/16"
Width: 2 13/16"
Depth: 1 3/4"
Mtg. Cen.: 2 3/8"

CH-60 CASE
Height: 2"
Width: 3 1/4"
Depth: 1 3/4"
Mtg. Cen.: 2 13/16"

CH-80 CASE
Height: 2 5/8"
Width: 4"
Depth: 2 5/8"
Mtg. Cen.: 3 9/16"

VS-100 CASE
Height: 2 11/32"
Width: 1 7/8"
Depth: 2 1/4"
Mtg. Cen.: 1 1/2" x 1 7/16"

VS-300 CASE
Height: 3 3/32"
Width: 2 5/8"
Depth: 2 3/4"
Mtg. Cen.: 2" x 1 11/16"

VS-303 CASE
Height: 3 5/32"
Width: 2 5/8"
Depth: 3"
Mtg. Cen.: 2x1 13/16"
Mtg. Hole: (4) 3/16 x 3/8"

VS-306 CASE
Height: 3 5/32"
Width: 2 5/8"
Depth: 3 3/4"
Mtg. Cen.: 2x2 5/16"
Mtg. Hole: (4) 3/16 x 3/8"

VS-308 CASE
Height: 3 33/64"
Width: 2 27/32"
Depth: 3 3/4"
Mtg. Cen.: 2" x 2 5/16"

PRICE LIST

Catalog No.	Net Price
EPT-1	8.75
EPT-2	8.75
EPT-3	8.75
EPT-4	8.75
EPT-5	8.75
EPT-6	8.75
EPT-7	8.75
EPT-8	11.00
EPT-9	11.00
EPT-11	8.75
EPT-12	8.75
EPT-13	11.00
EPT-14	11.00
EPT-15	14.00
EPT-16	14.00
EPT-17	13.50
EPT-18	13.50
EPT-19	13.50
Note—Molded Units $1.00 additional.	
IT-1	7.25
IT-2	11.40
IT-3	26.40
IT-4	31.95
IT-5	26.40
IT-6	34.95
KA-10	18.96
KP-11	10.50
KC-10	5.40
KC-11	1.90
LB-1	8.40
LB-2	23.25
MAC-5-2-F1	42.50
MAC-5-1-F2	42.50
MAC-5-3F2	42.50
MAC-5-4-F	42.50
MAC-12-3-60	29.95
MAC-12-10-1	36.50
MAC-12-10-2	44.20
MAC-12-20-1	46.50
MAC-12-20-2	57.00
MAC-12-30-1	63.70
MAC-12-30-2	77.50
MAF-4	78.00
MAF-5	80.00
MAF-6	180.00
MAF-7	180.00
MAO-1	70.00
MAO-2	102.00
MAO-3	110.00
MAO-4	155.00
MAO-5	175.00
MAP-1	90.00
MAP-2	150.00
MAP-3	225.00
MAP-301	175.00
MAP-4	280.00
MAP-7	105.00
MAP-8	133.00
MAP-11	95.00

Catalog No.	Net Price
MAS-1	55.00
MAS-2	37.00
MAS-3	65.00
MAS-4	73.00
MAS-5	33.00
MAS-6	50.00
MAS-7	60.00
MAS-8	24.00
MAS-9	87.50
MAS-101	62.50
MAT-1-1	148.50
MCV-4-5LC	14.00
MCV-4-25LC	20.00
MCV-4-75LC	30.00
MCV-4-125LC	38.00
MCV-4-175LC	45.00
MCV-4-250LC	54.00
MCV-4-375LC	69.00
MCV-4-500LC	85.00
MCV-4-750LC	115.00
MCV-4-1000LC	143.00
MCV-4-5-4FC	14.00
MCV-4-25-4FC	20.00
MCV-4-75-4FC	30.00
MCV-4-125-4FC	38.00
MCV-4-5FC	15.00
MCV-4-25FC	21.00
MCV-4-75FC	31.00
MCV-4-125FC	39.00
MCV-4-5LM	22.00
MCV-4-25LM	28.00
MCV-4-75LM	39.00
MCV-4-125LM	48.00
MCV-4-175LM	55.00
MCV-4-250LM	66.00
MCV-4-375LM	81.00
MCV-4-500LM	100.00
MCV-4-750LM	131.00
MCV-4-1000LM	160.00
MCV-4-5-4FM	22.00
MCV-4-25-4FM	28.00
MCV-4-75-4FM	39.00
MCV-4-125-4FM	48.00
MCV-4-5FM	23.00
MCV-4-25FM	29.00
MCV-4-75FM	40.00
MCV-4-125FM	49.00
MCV-6-5LC	11.00
MCV-6-25LC	17.00
MCV-6-75LC	27.00
MCV-6-125LC	34.00
MCV-6-175LC	41.00
MCV-6-250LC	50.00
MCV-6-375LC	64.00
MCV-6-500LC	76.00
MCV-6-750LC	104.00
MCV-6-1000LC	128.00
MCV-6-54FC	11.00
MCV-6-25-4FC	17.00
MCV-6-75-4FC	27.00
MCV-6-125-4FC	34.00

Catalog No.	Net Price
MCV-6-5FC	12.00
MCV-6-25FC	18.00
MCV-6-75FC	28.00
MCV-6-125FC	35.00
MCV-6-5LM	20.00
MCV-6-25LM	26.00
MCV-6-75LM	37.00
MCV-6-125LM	45.00
MCV-6-175LM	53.00
MCV-6-250LM	62.00
MCV-6-375LM	76.00
MCV-6-500LM	90.00
MCV-6-750LM	123.00
MCV-6-1000LM	150.00
MCV-6-54FM	20.00
MCV-6-25-4FM	26.00
MCV-6-75-4FM	37.00
MCV-6-125-4FM	45.00
MCV-6-5FM	21.00
MCV-6-25FM	27.00
MCV-6-75FM	38.00
MCV-6-125FM	46.00
MGA-1	10.15
MGA-2	10.15
MGA-3	10.65
MGA-4	10.65
MGA-5	9.90
MGA-6	9.90
MGA-7	9.90
MGA-8	10.15
MGA-9	10.15
MGC-1	8.60
MGC-2	7.10
MGC-3	7.50
MGC-4	8.35
MGC-5	8.60
MGC-6	7.10
MGC-7	7.50
MGC-8	8.05
MGC-9	7.50
MGC-10	8.05
MGC-11	10.00
MGC-12	7.50
MGC-13	8.05
MGC-14	10.00
MGC-15	10.90
MGC-16	8.05
MGC-17	10.00
MGC-18	11.50
MGC-19	14.40
MGC-20	10.00
MGC-21	*
MGC-22	10.90
MGC-23	*
MGC-24	20.70
MGC-25	*
MGC-26	18.40
MGC-27	*
MGC-28	18.40
MGC-29	*
MGC-30	*

Catalog No.	Net Price
MGC-31	*
MGC-32	7.90
MGC-33	7.90
MGC-34	7.90
MGC-35	7.90
MGC-36	7.90
MGC-37	7.90
*Not stocked, available on short delivery. Prices on request.	
MGF-1	13.50
MGF-2	15.00
MGF-3	13.50
MGF-4	18.00
MGF-5	13.50
MGF-6	15.00
MGF-7	19.50
MGF-8	24.00
MGF-9	19.50
MGF-10	22.50
MGP-1	22.20
MGP-2	24.00
MGP-3	26.40
MGP-4	33.00
MGP-5	39.00
MGP-6	21.00
MGP-7	28.50
MGP-8	37.50
MPT-1	20.20
MPT-2	17.25
MPT-3	25.90
MPT-4	23.00
MPT-5	20.20
MPT-6	17.25
MPT-7	20.20
MPT-8	17.25
MPT-9	25.90
MPT-10	23.00
MPT-11	20.20
MPT-12	31.60
MPT-13C	13.40
MPT-13M	17.70
MPT-13H	22.10
MPT-14C	19.45
MPT-14M	24.00
MPT-14H	29.00
MPT-15C	17.95
MPT-15M	22.40
MPT-15H	30.50
MPT-16C	21.70
MPT-16M	26.30
MPT-16H	32.30
MPT-17C	22.40
MPT-17M	26.00
MPT-17H	30.60
MPT-18C	14.70
MPT-18M	19.10
MPT-19C	22.40
MPT-19M	26.00
MPT-19H	26.00

Catalog No.	Net Price
MPT-20C	17.00
MPT-20M	21.40
MPT-20H	27.60
MPT-21C	24.00
MPT-21M	27.00
MPT-21H	27.60
MPT-22C	22.40
MPT-22M	26.00
MPT-22H	30.60
MPT-23C	24.00
MPT-23M	27.10
MPT-23H	29.40
MPT-24C	15.75
MPT-24M	19.30
MPT-25C	16.10
MPT-25M	20.80
MPT-25H	26.60
MPT-26C	24.00
MPT-26M	25.30
MPT-26H	34.50
MPT-27C	23.40
MPT-27M	25.30
MPT-27H	34.50
PGA-1	16.50
PGA-2	16.50
PGA-3	16.50
PGA-4	14.10
PGA-5	14.85
PGA-6	18.15
PGA-7	12.40
PGA-8	12.40
PGA-9	12.40
PGA-10	13.20
PGA-11	14.05
PGA-12	14.05
PGA-13	16.50
PGA-14	16.50
PGA-15	20.65
PGA-16	20.65
PGA-17	20.65
PGA-18	19.00
PGA-19	20.65
PGA-20	20.65
PGA-21	20.65
PGA-22	22.55
PGA-23	22.55
PGA-24	20.65
PGA-25	36.30
PGA-26	20.65
PGA-27	20.65
PGA-28	20.65
PGA-29	20.65
PGA-30	36.30
PGC-1	6.30
PGC-2	6.30
PGC-3	6.30
PGC-4	7.05
PGC-5	7.05
PGC-6	7.05
PGC-7	7.65
PGC-8	8.70

Catalog No.	Net Price
PGC-9	8.70
PGC-10	9.00
PGC-11	12.30
PGC-12	12.30
PGC-13	13.95
PGC-14	8.75
PGC-15	9.45
PGC-16	9.15
PGC-17	8.70
PGC-18	12.20
PGC-19	12.20
PGC-20	13.85
PGP-1	16.20
PGP-2	18.00
PGP-3	9.60
PGP-4	10.08
PGP-5	10.08
PGP-6	10.80
PGP-7	12.60
PGP-8	10.80
PGP-9	12.60
PGP-10	13.20
PGP-11	16.60
PGP-12	19.80
PGP-13	21.80
PGP-14	26.15
PGP-15	30.40
PGP-16	15.12
PGP-17	16.20
PGP-18	21.80
PGP-19	26.15
PGP-20	32.40
PMA-1	10.90
PMA-2	8.93
PMA-3	12.58
PMA-4	8.93
PMA-5	8.93
PMA-6	10.90
PMA-7	10.90
PMA-8	10.90
PMA-9	10.90
PMA-10	10.23
PMA-11	7.92
PMA-12	10.90
PMA-13	9.90
PMA-14	11.10
PMA-15	10.90
PQC-1	9.40
PQC-2	9.40
PQC-3	9.40
PQC-4	9.40
PQC-5	9.40
PQC-6	9.40
PQC-7	9.40
PQC-8	9.40
PQC-9	9.40
QGA-1	22.30
QGA-2	27.70
QGA-3	19.80
QGA-4	27.70
QGA-5	25.20

Catalog No.	Net Price
QGA-6	29.20
QGA-7	19.80
QGA-8	27.70
QGA-9	27.70
QGA-10	31.60
QGA-11	23.80
QGA-12	23.80
QGA-13	19.80
QGA-14	20.50
QGA-15	25.20
QGA-16	20.50
QGA-17	20.50
QGA-18	22.00
QGA-19	20.50
QGA-20	26.30
QGA-21	23.80
QGA-22	39.60
QGA-23	27.70
QGA-24	27.70
QGA-25	27.70
QGA-26	27.70
QGA-27	27.70
QGA-28	27.70
QGA-29	27.70
QGA-30	27.70
QGA-31	35.60
QGA-32	35.60
QGA-33	35.60
QGA-34	35.60
QGA-35	39.20
QGA-36	39.20
QGA-37	23.80
QGA-38	39.20
QGA-39	27.70
QGA-40	27.70
QGA-41	39.20
QGA-42	39.20
QGC-1	22.50
QGC-2	22.50
QGC-3	22.50
QGC-4	22.50
QGC-5	22.50
QGC-6	22.50
QGC-7	22.50
QGC-8	15.00
QGC-9	15.00
QGC-10	15.00
QGC-11	15.00
QGC-12	15.00
QGC-13	15.00
QGC-14	13.50
QGC-15	13.50
QGC-16	13.50
QGC-17	13.50
QGC-18	13.50
QGC-19	11.50
QGC-20	11.50
QGC-21	11.50
QGC-22	11.50
QGC-23	11.50
QGC-24	11.50

Net

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FREED TRANSFORMER CO., INC.

PRICE LIST

Catalog No.	Net Price
QGC-25	10.50
QGC-26	10.50
QGC-27	10.50
QGC-28	10.50
QGC-29	10.50
QGC-30	10.50
QGC-31	10.50
QGC-32	10.50
QGC-33	10.50
QGC-34	10.50
QGC-35	10.50
QGC-36	10.50
QGC-37	10.50
QGC-38	10.80
QGC-39	10.50
QGC-40	10.50
QGC-41	10.50
QGC-42	10.50
RGA-1	4.50
RGA-2	3.63
RGA-3	3.63
RGA-4	4.50
RGA-5	3.63
RGA-6	4.33
RGA-7	4.50
RGA-8	2.06
RGA-9	2.06
RGA-10	2.48
RGA-11	3.63
RGA-12	4.50
RGC-1	1.69
RGC-2	1.69
RGC-3	1.69
RGC-4	1.90
RGC-5	2.29
RGC-6	3.41
RGC-7	2.29
RGC-8	3.41
RGC-9	2.29
RGC-10	3.41
RGC-11	2.29
RGC-12	3.41
RGC-13	3.62
RGC-14	5.17
RGC-15	3.62
RGC-16	5.17
RGC-17	2.07
RGC-18	2.60
RGC-19	1.69
RGC-20	5.85
RGC-21	5.85
RGC-22	7.60
RGP-1	6.62
RGP-2	6.62
RGP-3	7.04
RGP-4	7.04
RGP-5	7.04
RGP-6	7.04
RGP-7	7.75
RGP-8	7.75
RGP-9	9.50
RGP-10	9.50
RGP-11	7.75
RGP-12	7.75
RGP-13	9.50
RGP-14	9.50
RGP-15	10.00
RGP-16	10.00
RGP-17	11.74
RGP-18	11.74
RGP-19	12.40
RGP-20	12.40
RGP-21	16.20
RGP-22	16.20
RGP-23	21.80
RGP-24	21.80
RGP-25	26.00
RGP-26	26.00
RGP-27	9.65
RGP-28	9.65
RGP-29	11.74
RGP-30	11.74
RGP-31	17.30
RGP-32	17.30
RGP-33	21.80
RGP-34	21.80
RGP-35	26.00
RGP-36	26.00
SDT-1	2.63
SDT-2	3.07
SDT-3	5.39
SDT-4	7.18
SDT-5	8.98
SDT-6	12.05
SDT-7	12.78
SDT-8	13.51
SDT-9	18.30
SDT-10	23.30
SDT-11	36.10
SDT-12	42.00
SDT-13	54.80
SDT-14	72.00
SDT-15	112.50
TAC 6-50	55.75
TAC-12-50	65.55
TAC-12-90	73.00
TAC-12-175	88.50
TAC-28-50	73.50
TAC-28-100	81.50
TAC-28-175	95.50
TAC-28-250	105.50
TAC-12-50-4	65.50
TAC-12-100-4	73.00
TAC-28-50-4	73.50
TAC-28-150-4	81.50
TDC-6-15-05	39.50
TDC-12-30-15	51.70
TDC-12-25-12	50.55
TDC-12-30-05	42.50
TDC-12-20-05	39.50
TDC-28-30-15	56.45
TDC-28-25-12	54.80
TDC-28-30-05	45.30
TDC-28-20-05	42.90
TDC-48-20-15	72.50
TDC-48-30-15	75.00
TF-1	3.42
TF-2	4.55
TF-3	11.40
TF-4	14.00
TF-5	3.42
TF-6	4.55
TF-7	5.00
TF-8	7.15
TF-9	8.74
TF-10	18.20
TF-11	2.28
TF-12	3.42
TF-13	4.55
TF-14	5.53
TF-15	6.74
TF-16	5.00
TF-17	7.15
TF-18	18.20
TF-19	3.80
TMA-1	8.25
TMA-2	10.56
TMA-3	8.60
TMA-4	10.90
TMA-5	10.90
TMA-6	10.90
TMA-7	8.90
TMA-8	10.56
TMA-9	8.60
TMA-10	8.25
TMA-11	8.60
TMA-12	10.90
TMA-13	8.25
TMA-14	10.90
TMO-15	4.30
TMO-16	4.30
TMO-17	3.64
TMO-18	4.30
TMA-19	8.25
TNA-1	6.95
TNA-2	6.95
TNA-3	7.38
TNA-4	6.60
TNA-5	6.60
TNA-6	7.38
TNA-7	6.95
TNA-8	6.95
TNA-9	8.15
TNA-10	7.50
TNA-11	7.50
TNA-12	8.15
TNA-13	8.15
TNA-14	8.15
TNA-15	8.25
TNA-16	7.38
TNA-17	7.38
TNA-18	7.38
TNA-19	7.93
TNA-20	7.38
TNA-21	6.60
TNA-22	7.25
TNA-23	6.95
TNA-25	6.95
TNA-26	6.50
TNA-27	7.93
TNA-28	6.38
TNA-29	6.38
TNA-30	6.60
TNA-31	6.38
TNA-32	6.38
TNA-33	6.60
TNA-34	6.95
TNA-35	6.95
TNA-36	6.50
TNA-37	6.95
TNA-38	6.95
TNA-39	7.50
TNA-40	6.95
TNA-41	7.15
TPA-1	8.36
TPA-2	8.36
TPA-3	8.36
TPA-4	8.85
TPA-5	8.36
TPA-6	8.36
TPA-7	8.36
TPA-8	8.85
TPA-9	8.36
TPA-10	8.36
TPA-11	8.85
TPA-12	8.36
TPA-13	8.36
TPA-14	8.85
TPA-15	9.13
TPA-16	9.13
TPA-17	8.60
TPA-18	9.35
TPA-19	8.25
TPA-20	9.13
TPA-21	8.58
TPA-22	9.13
TPA-23	9.13
TPA-24	9.13
TPA-25	9.13
TPA-26	9.13
TPA-27	9.13
TPA-28	9.68
TPA-29	9.68
TPA-30	8.03
TPA-31	8.03
TPA-32	8.03
TPA-33	8.03
TPA-34	8.03
TPA-35	8.03
TPA-36	8.03
TPA-37	8.75
TPA-38	8.03
TPA-39	8.03
TPA-40	8.03
TSA-1	7.15
TSA-2	7.15
TSA-3	7.70
TSA-4	6.93
TSA-5	6.93
TSA-6	7.70
TSA-7	7.15
TSA-8	7.15
TSA-9	7.15
TSA-10	7.70
TSA-11	7.70
TSA-12	8.25
TSA-13	8.25
TSA-14	8.25
TSA-15	8.80
TSA-16	7.70
TSA-17	7.70
TSA-18	7.70
TSA-19	8.25
TSA-20	7.70
TSA-21	7.15
TSA-22	7.42
TSA-23	7.15
TSA-25	7.15
TSA-26	6.60
TSA-27	8.25
TSA-28	6.60
TSA-29	6.60
TSA-30	6.93
TSA-31	6.60
TSA-32	6.60
TSA-33	6.93
TSA-34	7.15
TSA-35	7.15
TSA-36	6.60
TSA-37	6.60
TSA-38	7.15
TSA-39	7.70
TSA-40	7.15
TSA-41	7.42
TTA-1	8.90
TTA-2	7.26
TTA-3	9.46
TTA-4	10.00
TTA-5	9.46
TTA-6	7.26
TTA-7	9.63
TTA-8	9.46
TTA-9	9.76
TTA-10	9.30
TTA-11	9.30
TTA-12	9.35
TTA-13	8.90
TTA-14	10.00
TTA-15	8.90
TTA-16	9.40
TTA-17	8.90
TTA-18	8.90
TTA-19	8.90
TTA-20	8.90
TTA-21	8.90
TTA-22	8.90
TTA-23	9.30
TTA-24	9.30
TTA-25	9.30
TTA-26	9.79
TTA-27	8.90
TTA-28	9.30
TTA-29	9.30
TTA-30	9.30
TTA-31	9.79
TTA-32	9.30
TTA-33	9.79
TTA-34	9.30
TTA-35	9.46
TTA-36	9.35
TTA-37	10.00
TTA-38	9.20
TTA-39	9.46
TTA-40	6.60
TUA-1	6.60
TUA-2	6.60
TUA-3	6.60
TUA-4	6.60
TUA-5	6.60
TUA-6	6.60
TUA-7	6.93
TUA-8	6.93
TUA-9	6.93
TUA-10	7.26
TUA-11	6.93
TUA-12	7.15
TUA-13	5.94
TUA-14	6.93
TUA-15	7.26
TUA-16	6.27
TUA-17	6.27
TUA-18	7.26
TUA-19	6.27
TUA-20	6.27
TUA-21	6.32
TUA-22	6.32
TUA-23	6.60
TUA-24	6.71
TUA-25	6.60
TUA-26	6.60
TUA-27	5.94
TUA-28	6.60
TUA-29	6.60
TUA-30	7.26
TUA-31	8.25
TUA-32	7.26
TUA-33	7.59
TUA-34	7.59
TUA-35	7.59
TUA-36	7.59
TUA-37	7.59
TUA-38	7.59
ULD-20	12.50
ULD-50	19.55
ULI-20	12.50
ULO-10	31.20
ULO-11	31.20
ULO-12	31.20
ULO-13	31.20
ULO-30	35.75
ULO-31	35.75
ULO-32	35.75
ULO-33	35.75
ULO-34	35.75
ULO-35	35.75
ULO-36	35.75
ULO-37	35.75
ULO-52	93.75
ULO-53	93.75
ULO-54	93.75
ULO-55	93.75
ULO-56	93.75
ULO-101	181.00
ULO-104	181.00
ULO-110	181.00
VHI-1	9.50
VHI-2	9.50
VHI-3	9.50
VHI-4	9.50
VHI-5	9.50
VHI-6	9.50
VHI-7	9.50
VHI-8	9.50
VHI-9	9.50
VHI-10	9.50
VHI-11	9.50
VHI-12	9.50
VHI-13	9.50
VHI-14	9.50
VHI-15	9.50
VHI-16	9.50
VHI-17	9.50
VHI-18	9.50
VHI-19	9.50
VHI-20	9.50
VHI-21	9.50
VHI-22	9.50

Filters & Discriminators

MTN .4 TO 7.35	35.00
MTN 10.5 to MTW 70	38.00
IBM*	25.00
	35.00
IBP*	25.00
	35.00
IHM*	25.00
	35.00
IHP*	25.00
	35.00
ILM*	25.00
	35.00
ILP*	25.00
	35.00
LBM*	25.00
	35.00
LBP*	25.00
	35.00
LHM*	25.00
	35.00
LHP*	25.00
	35.00
LLM*	25.00
	35.00
LLP*	25.00
	35.00

*Stock Frequencies are $35.00 Net.

Special Frequencies are $40.00 Net

DSF-10	39.50
DSF-11	39.50
DSF-12	39.50
DSF-13	39.50
DSF-14	39.50
DSF-15	39.50
DSF-16	39.50
DSF-17	39.50
DSF-18	39.50
DSF-19	39.50
DSF-20	39.50
DSF-21	39.50
DSF-22	39.50
DSF-23	39.50
DSF-24	39.50
DSF-25	39.50
DSF-26	39.50
DSF-27	39.50
DSF-28	39.50
DSF-29	39.50
DST-10	50.00
DST-11	50.00
DST-12	50.00
DST-13	50.00
DST-14	50.00
DST-15	50.00
DST-16	60.00
DST-17	50.00
DST-18	50.00
DST-19	50.00
DST-20	50.00
DST-21	50.00
DST-22	50.00
DST-23	50.00
DST-24	60.00
DST-25	60.00
DST-26	60.00
DST-27	50.00
DST-28	60.00
DST-29	60.00
DST-30	60.00
DST-31	60.00
DST-32	60.00
DST-33	60.00
FBP-10	86.00
FBP-11	86.00
FBP-12	86.00
FBP-13	86.00
FBP-14	70.80
FBP-15	70.80
FBP-16	70.80
FBP-17	70.80
FBP-18	70.80
FBP-19	70.80
FBP-20	70.80
FBP-21	70.80
FBP-22	70.80
FBP-23	70.80
FBP-24	86.00
FBP-25	70.80
FBP-26	86.00
FBP-27	86.00
FBP-28	86.00
FBP-29	86.00
FBP-30	86.00
FBP-31	86.00
FBP-32	86.00
FBP-33	86.00
FBP-34	73.00
FBP-35	73.00
FBP-36	73.00
FBP-37	73.00
FBP-38	73.00
FBP-39	80.00
FBP-40	88.00
FBP-41	88.00
FBP-42	88.00
FBP-43	88.00
FBP-44	88.00
FBP-45	88.00
FBP-46	88.00
FBP-47	88.00
FBP-48	88.00
FBP-49	88.00
FBP-50	88.00
FBP-51	88.00
FBP-52	88.00
FBP-53	88.00
FBP-54	88.00
FBP-55	88.00
FBP-56	88.00
FBP-57	88.00
FBR-10	89.50
FBR-11	89.50
FBR-12	89.50
FBR-13	89.50
FBR-14	89.50
FBR-15	89.50
FBR-16	89.50
FBR-17	89.50
FBR-18	89.50
FBR-19	89.50
FBR-20	89.50
FBR-21	89.50
FBR-22	89.50
FBR-23	89.50
FBR-24	89.50
FBR-25	89.50
FBR-26	89.50
FBR-27	89.50
FBR-28	89.50
FBR-29	89.50
FBT-10	42.50
FBT-11	42.50
FBT-12	42.50
FBT-13	42.50
FBT-14	42.50
FBT-15	42.50
FBT-16	42.50
FBT-17	42.50
FBT-18	42.50
FBT-19	42.50
FBT-20	42.50
FBT-21	42.50
FBT-22	42.50
FBT-23	42.50
FBT-24	42.50
FBT-25	42.50
FBT-26	42.50
FBT-27	42.50
FBT-28	42.50
FBT-29	42.50
LPI-10	43.25
LPI-11	43.25
LPI-12	43.25
LPI-13	43.25
LPI-14	43.25
LPI-15	43.25
LPI-16	43.25
LPI-17	43.25
LPI-18	43.25
LPI-19	43.25
LPI-20	43.25
LPI-21	43.25
LPI-22	43.25
LPI-23	43.25
LPI-24	43.25
LPI-25	43.25
LPI-26	43.25
LPI-27	43.25
LPI-28	43.25
LPO-10	93.30
LPO-11	85.50
LPO-12	81.30
LPO-13	85.00
LPO-14	72.00
LPO-15	68.85
LPO-16	64.50
LPO-17	62.50
LPO-18	61.60
LPO-19	62.80
LPO-20	61.15
LPO-21	55.60
LPO-22	55.60
LPO-23	48.20
LPO-24	47.10
LPO-25	47.10
LPO-26	47.10
LPO-27	48.20
LPO-28	47.10
LPO-29	47.10
LPO-30	47.10
LPO-31	48.20
LPO-32	47.10
LPO-33	47.10
LPO-34	47.10
LPO-35	47.10
NTF-30	25.00
NTF-60	25.00
NTF-120	25.00

Toroidal Inductors

Prices shown are Net for Hermetically Sealed. Deduct $1.50 from Net for Uncased units. Add $1.00 to Net for Encapsulated units.

Type TI-1

F-800	6.65
F-801	6.65
F-802	6.65
F-803	7.10
F-804	6.60
F-805	6.60
F-806	8.50
F-807	8.50
F-808	8.50
F-809	9.50
F-810	9.50
F-811	10.50
F-812	10.50
F-813	10.50
F-814	10.50
F-815	10.50
F-816	11.00
F-817	11.50
F-818	12.00
F-819	12.35
F-820	12.65
F-821	12.75
F-822	13.00
F-823	13.30
F-824	13.75
F-825	14.25
F-826	14.50
F-827	14.80
F-828	15.20
F-829	16.15
F-830	17.10

Type TI-4 and 4s

F-850	7.90
F-851	7.90
F-852	7.90
F-853	7.90
F-854	7.90
F-855	7.90
F-856	8.25
F-857	8.60
F-858	8.80
F-859	8.95
F-860	9.05
F-861	9.20
F-862	9.35
F-863	9.50
F-864	9.80
F-865	10.35
F-866	10.65
F-867	10.65
F-868	10.65
F-869	11.15
F-870	11.15
F-871	11.15
F-872	11.50
F-873	11.50
F-874	12.00
F-875	12.45
F-876	12.90
F-877	13.40
F-878	13.90

Type TI-IA and As

F-1500	7.50
F-1501	7.50
F-1502	7.50
F-1503	7.50
F-1504	7.50
F-1505	7.50
F-1506	7.50
F-1507	7.75
F-1508	7.75
F-1509	7.75
F-1510	7.75
F-1511	7.75
F-1512	7.75
F-1513	7.90
F-1514	7.90
F-1515	7.90
F-1516	8.10
F-1517	8.10
F-1518	8.10
F-1519	8.35
F-1520	8.35
F-1521	8.55
F-1522	8.55
F-1523	8.75
F-1524	8.75
F-1525	9.05
F-1526	9.05
F-1527	9.25
F-1528	9.75
F-1529	10.10
F-1530	10.10
F-1531	10.35
F-1532	10.75
F-1533	11.25
F-1534	11.75
F-1535	11.75
F-1536	12.75
F-1537	13.10
F-1538	13.60

Type TI-9s

F-1554	16.60
F-1555	16.80
F-1556	17.00
F-1557	17.30
F-1558	17.40
F-1559	17.50
F-1560	17.60
F-1561	17.80
F-1562	18.05
F-1563	18.30
F-1564	18.50
F-1565	18.50
F-1566	19.00
F-1567	19.50
F-1568	19.95
F-1569	20.40
F-1570	21.40

Type TI-10s

F-1579	14.15
F-1580	14.15
F-1581	14.35
F-1582	14.45
F-1583	14.50
F-1584	14.60
F-1585	14.70
F-1586	14.80
F-1587	14.90
F-1588	15.00
F-1589	15.10
F-1590	15.30
F-1591	15.40
F-1592	15.60

Type TI-13

F-1629	16.60
F-1630	16.80
F-1631	17.00
F-1632	17.30
F-1633	17.40
F-1634	17.50
F-1635	17.60
F-1636	17.80
F-1637	18.05
F-1638	18.30
F-1639	18.50
F-1640	18.50
F-1641	19.00
F-1642	19.50
F-1643	19.95
F-1644	20.40
F-1645	21.40

Type TI-12 and 12s

F-1655	13.60
F-1656	13.60
F-1657	13.60
F-1658	14.05
F-1659	14.05
F-1660	14.05
F-1661	14.65
F-1662	14.65
F-1663	15.10
F-1664	15.10
F-1665	13.75
F-1666	13.75
F-1667	14.15
F-1668	14.15
F-1669	14.65
F-1670	14.65
F-1671	14.65
F-1672	15.10
F-1673	15.60
F-1674	16.05
F-1675	16.05
F-1676	16.50
F-1677	16.50
F-1678	17.00
F-1679	17.00
F-1680	17.50
F-1681	17.50
F-1682	17.50
F-1683	17.95
F-1684	17.95
F-1685	17.95
F-1686	18.45
F-1687	18.90
F-1688	19.50
F-1689	19.95
F-1690	20.40
F-1691	20.90
F-1692	21.40
F-1693	21.85

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FREED TRANSFORMER CO., INC.

PRICE LIST

Catalog No.	Net Price
Type TI-5	
F-1700	5.70
F-1701	5.70
F-1702	5.70
F-1703	6.20
F-1704	6.65
F-1705	6.90
F-1706	7.10
F-1707	7.35
F-1708	7.60
F-1709	7.85
F-1710	8.05
F-1711	8.30
F-1712	9.00
F-1713	9.60
F-1714	9.80
F-1715	10.25
F-1716	10.60
F-1717	10.95
F-1718	11.20
F-1719	11.50
F-1720	11.90
Type TI-5s	
F-1700s	7.90
F-1701s	7.90
F-1702s	7.90
F-1703s	7.90
F-1704s	7.90
F-1705s	8.15
F-1706s	8.25
F-1707s	8.50
F-1708s	8.80
F-1709s	8.95
F-1710s	9.05
F-1711s	9.20
F-1712s	9.30
F-1713s	9.60
F-1714s	9.80
F-1715s	10.25
F-1716s	10.65
F-1717s	10.85
F-1718s	11.20
F-1719s	11.50
F-1720s	11.90
Type TI-6 and 6s	
F-1726	8.15
F-1727	8.15
F-1728	8.15
F-1729	8.15
F-1730	8.15
F-1731	8.15
F-1732	8.45
F-1733	8.45
F-1734	8.55
F-1735	8.55
F-1736	8.55
F-1737	9.00
F-1738	10.00
F-1739	10.00
F-1740	10.00
F-1741	10.00
F-1742	10.45
F-1743	11.90
Type TI-11s	
F-1747	14.20
F-1748	14.20
F-1749	14.20
F-1750	14.20
F-1751	14.20
F-1752	15.20
F-1753	15.20
F-1754	15.20
F-1755	15.20
F-1756	15.20
F-1757	14.20
F-1758	14.20
F-1759	14.65
F-1760	14.65
F-1761	15.20
F-1762	15.85
F-1763	16.15
F-1764	16.65
F-1765	17.10
F-1766	17.60
F-1767	17.80
F-1768	18.05
F-1769	18.45
F-1770	18.45
F-1771	18.45
F-1772	19.00
F-1773	19.50
F-1774	19.95
F-1775	20.40
F-1776	20.90
F-1777	21.85
F-1778	22.80
F-1779	23.75
F-1780	24.70
Type TI-7	
F-1781	7.90
F-1782	7.90
F-1783	7.90
F-1784	7.90
F-1785	7.90
F-1786	7.90
F-1787	8.05
F-1788	8.05
F-1789	8.25
F-1790	8.25
F-1791	8.45
F-1792	8.65
F-1793	8.65
F-1794	8.65
F-1795	9.00
F-1796	9.45
F-1797	10.00
Type TI-2s	
F-1800	14.20
F-1801	14.20
F-1802	14.20
F-1803	14.20
F-1804	14.20
F-1805	14.65
F-1806	14.65
F-1807	14.65
F-1808	14.65
F-1809	14.65
F-1810	14.65
F-1811	14.90
F-1812	14.90
F-1813	14.90
F-1814	14.90
F-1815	14.90
Type TI-8 and 8s	
F-1821	8.65
F-1822	8.65
F-1823	8.65
F-1824	8.65
F-1825	8.65
F-1826	8.65
F-1827	8.65
F-1828	8.65
F-1829	8.65
F-1830	8.65
F-1831	8.65
F-1832	8.75
F-1833	8.85
F-1834	9.00
F-1835	9.00
F-1836	9.00
F-1837	9.10
F-1838	9.40
F-1839	9.50
F-1840	9.90
Type TI-3s	
F-1844	14.25
F-1845	14.25
F-1846	14.25
F-1847	14.25
F-1848	14.25
F-1849	14.25
F-1850	14.25
F-1851	14.25
F-1852	14.25
F-1853	14.25
F-1854	14.25
F-1855	14.25
Type TI-3As	
F-1856	20.00
F-1857	20.50
F-1858	20.50
F-1859	22.30
F-1860	22.80
F-1861	22.80
F-1862	23.30
F-1863	23.30
Type TI-15	
F-1870	7.25
F-1871	7.25
F-1872	7.25
F-1873	7.25
F-1874	7.25
F-1875	7.25
F-1876	7.25
F-1877	7.25
F-1878	7.25
F-1879	7.25
F-1880	7.25
F-1881	7.45
F-1882	7.45
F-1883	7.65
F-1884	7.65
F-1885	7.85
F-1886	8.05
F-1887	8.05
F-1888	8.05
F-1889	8.45
Type TI-14	
F-1920	7.40
F-1921	7.40
F-1922	7.40
F-1923	7.40
F-1924	7.40
F-1925	7.40
F-1926	7.85
F-1927	7.85
F-1928	7.95
F-1929	7.95
F-1930	7.95
F-1931	8.40
F-1932	8.75
F-1933	8.75
F-1934	9.00
F-1935	9.25
F-1936	9.75
Type TI-16	
F-2050	6.05
F-2051	6.05
F-2052	6.05
F-2053	5.85
F-2054	5.85
F-2055	6.30
F-2056	6.80
F-2057	7.05
F-2058	7.25
F-2059	7.35
F-2060	7.70
F-2061	8.00
F-2062	8.20
F-2063	8.45
F-2064	9.75
F-2065	10.80
F-2066	11.00
F-2067	11.40
F-2068	11.65
F-2069	12.00
Type TI-17	
F-2100	7.90
F-2101	7.90
F-2102	7.90
F-2103	7.90
F-2104	7.90
F-2105	7.90
F-2106	7.90
F-2107	7.90
F-2108	7.90
F-2109	7.90
F-2110	7.90
F-2111	8.05
F-2112	8.05
F-2113	8.25
F-2114	8.25
F-2115	8.65
F-2116	8.65
F-2117	9.05
Type TI-18	
F-2140	8.65
F-2141	8.65
F-2142	8.65
F-2143	8.65
F-2144	8.65
F-2145	8.65
F-2146	8.65
F-2147	8.65
F-2148	8.65
F-2149	8.65
F-2150	8.65
F-2151	8.75
F-2152	8.85
F-2153	9.00
F-2154	9.00
F-2155	9.20
F-2156	9.50
F-2157	9.70
Type TI-19	
F-2180	7.90
F-2181	7.90
F-2182	7.90
F-2183	7.90
F-2184	7.90
F-2185	7.90
F-2186	7.90
F-2187	7.90
F-2188	7.90
F-2189	7.90
F-2190	7.90
F-2191	7.90
F-2192	7.90
F-2193	7.90
Type TI-20s	
F-2201	6.40
F-2202	6.40
F-2203	6.95
F-2204	6.95
F-2205	6.95
F-2206	7.15
F-2207	7.45
F-2208	8.10
F-2209	8.10
F-2210	8.10
F-2211	8.10
F-2212	8.10
F-2213	8.10
F-2214	8.10
F-2215	8.10
Type TI-21s	
F-2240	6.00
F-2241	6.00
F-2242	6.00
F-2243	6.00
F-2244	6.00
F-2245	6.00
F-2246	6.40
F-2247	6.40
F-2248	6.40
F-2249	6.40
Type TI-22s	
F-2270	6.00
F-2271	6.00
F-2272	6.00
F-2273	6.00
F-2274	6.00
F-2275	6.00
F-2276	6.40
F-2277	6.40
F-2278	6.40
F-2279	6.40
F-2280	7.15
F-2281	7.15
F-2282	7.15
F-2283	7.15
F-2284	7.15
Type TI-23s	
F-2301	6.25
F-2302	6.25
F-2303	6.25
F-2304	6.25
F-2305	6.25
F-2306	6.25
F-2307	6.75
F-2308	6.75
F-2309	6.75
F-2310	6.75
F-2311	7.50
F-2312	7.50
F-2313	7.50
Type TI-24	
F-2400	5.90
F-2401	5.90
F-2402	5.90
F-2403	5.90
F-2404	6.05
F-2405	6.05
F-2406	6.05
F-2407	6.05
F-2408	6.30
F-2409	6.30
F-2410	6.80
F-2411	7.05
F-2412	7.25
F-2413	7.35
F-2414	7.70
F-2415	8.00
F-2416	8.20
F-2417	8.45
F-2418	9.75
F-2419	10.50
F-2420	10.80
F-2421	11.00
F-2422	11.40
Type TI-25	
F-2450	7.90
F-2451	7.90
F-2452	7.90
F-2453	7.90
F-2454	7.70
F-2455	7.70
F-2456	7.50
F-2457	7.50
F-2458	7.30
F-2459	7.30
F-2460	7.20
F-2461	7.10
F-2462	7.10
F-2463	7.05
F-2464	7.00
F-2465	7.00
F-2466	7.05
F-2467	7.10
F-2468	7.20
F-2469	7.20
F-2470	7.40
F-2471	7.40
F-2472	7.60
F-2473	7.80
F-2474	8.00
F-2475	8.40
F-2476	8.80
F-2477	9.50
F-2478	9.80
F-2479	9.95
F-2480	10.20
F-2481	10.50
Type TI-26	
F-2500	5.70
F-2501	5.70
F-2502	5.70
F-2503	5.70
F-2504	5.70
F-2505	5.70
F-2506	5.70
F-2507	5.70
F-2508	6.05
F-2509	6.20
F-2510	6.60
F-2511	6.80
F-2512	7.10
F-2513	7.35
F-2514	7.60
F-2515	7.80
F-2516	8.05
F-2517	8.30
F-2518	8.50
F-2519	8.70
F-2520	8.90
F-2521	9.20
F-2522	9.50
F-2523	9.90
F-2524	10.30
F-2525	10.80
F-2526	11.05
F-2527	11.30
F-2528	11.50
F-2529	11.90
F-2530	12.20
F-2531	12.60
F-2532	13.05
F-2533	13.80
Type TI-27	
F-2550	7.90
F-2551	7.90
F-2552	7.90
F-2553	7.90
F-2554	7.90
F-2555	8.10
F-2556	8.10
F-2557	8.20
F-2558	8.40
F-2559	8.20
F-2560	8.30
F-2561	8.50
F-2562	8.60
F-2563	8.80
F-2564	8.95
F-2565	9.10
F-2566	9.30
F-2567	9.50
F-2568	9.90
F-2569	10.50
F-2570	10.70
F-2571	10.90
F-2572	11.40
F-2573	11.60
F-2574	12.10
F-2575	12.40
F-2576	12.90
F-2577	13.40
F-2578	13.70
F-2579	13.90
F-2580	14.20
F-2581	14.20
F-2582	14.50
F-2583	14.50
Type TI-28	
F-2600	6.75
F-2601	6.85
F-2602	6.90
F-2603	6.95
F-2604	7.05
F-2605	7.10
F-2606	7.30
F-2607	7.40
F-2608	7.60
F-2609	7.80
F-2610	7.20
F-2611	7.60
F-2612	8.40
F-2613	8.50
F-2614	8.70
F-2615	9.20
F-2616	9.40
F-2617	9.55
F-2618	9.70
F-2619	9.90
F-2620	10.05
F-2621	10.10
F-2622	10.20
F-2623	10.30
F-2624	10.50
F-2625	10.80
F-2626	11.80
F-2627	12.20
F-2628	12.35
F-2629	12.65
F-2630	13.30
F-2631	14.65
F-2632	15.20
F-2633	16.15
Type TI-29	
F-2650	8.05
F-2651	8.10
F-2652	8.20
F-2653	8.20
F-2654	8.20
F-2655	8.20
F-2656	8.20
F-2657	8.30
F-2658	8.10
F-2659	8.10
F-2660	7.90
F-2661	7.60
F-2662	7.70
F-2663	7.75
F-2664	7.80
F-2665	7.90
F-2666	7.90
F-2667	8.00
F-2668	8.00
F-2669	8.10
F-2670	8.15
F-2671	8.20
F-2672	8.25
F-2673	8.30
F-2674	8.35
F-2675	8.40
F-2676	8.50
F-2677	8.60
F-2678	8.75
F-2679	8.75
F-2680	9.25
F-2681	10.10
F-2682	10.75
F-2683	11.75
F-2684	12.75
F-2685	13.60
F-2686	13.80
Type TI-30	
F-2700	12.05
F-2701	12.30
F-2702	12.50
F-2703	12.80
F-2704	12.95
F-2705	13.20
F-2706	13.50
F-2707	13.70
F-2708	13.90
F-2709	14.20
F-2710	14.50
F-2711	13.60
F-2712	13.75
F-2713	14.10
F-2714	14.20
F-2715	14.30
F-2716	14.50
F-2717	14.70
F-2718	15.10
F-2719	15.20
F-2720	15.30
F-2721	15.50
F-2722	15.70
F-2723	15.80
F-2724	15.95
F-2725	16.05
F-2726	16.20
F-2727	16.50
F-2728	16.70
F-2729	17.00
F-2730	17.50
F-2731	17.95
F-2732	18.90
F-2733	19.45
F-2734	20.40
F-2735	21.85
F-2736	22.50
Type TI-31	
F-2750	14.40
F-2751	14.80
F-2752	14.90
F-2753	14.90
F-2754	14.90
F-2755	14.90
F-2756	14.90
F-2757	14.90
F-2758	15.05
F-2759	15.10
F-2760	15.20
F-2761	15.20
F-2762	14.50
F-2763	14.80
F-2764	15.10
F-2765	15.50
F-2766	15.80
F-2767	16.05
F-2768	16.10
F-2769	16.20
F-2770	16.40
F-2771	16.60
F-2772	16.80
F-2773	17.00
F-2774	17.10
F-2775	17.40
F-2776	17.60
F-2777	17.90
F-2778	18.05
F-2779	18.45
F-2780	19.00
F-2781	19.50
F-2782	19.95
F-2783	20.90
F-2784	21.80
F-2785	22.80
F-2786	23.80
F-2787	24.70
F-2788	27.50
Type TI-32	
F-2800	7.40
F-2801	7.60
F-2802	7.80
F-2803	8.40
F-2804	8.60
F-2805	8.70
F-2806	8.80
F-2807	8.90
F-2808	9.60
F-2809	9.80
F-2810	10.20
F-2811	10.40
F-2812	10.60
F-2813	10.80
F-2814	11.05
F-2815	11.20
F-2816	11.40
F-2817	11.65
F-2818	12.10
F-2819	12.20
F-2820	12.30
F-2821	12.50
F-2822	12.70
F-2823	13.05
F-2824	13.30
Type TI-33	
F-2850	5.90
F-2851	6.00
F-2852	6.10
F-2853	6.30
F-2854	6.40
F-2855	6.70
F-2856	6.90
F-2857	7.10
F-2858	7.30
F-2859	7.40
F-2860	7.60
F-2861	7.70
F-2862	7.80
F-2863	8.10
F-2864	8.20
F-2865	8.30
F-2866	8.50
F-2867	8.60
Type TI-34	
F-2900	5.60
F-2901	5.60
F-2902	5.60
F-2903	5.60
F-2904	5.60
F-2905	5.80
F-2906	5.80
F-2907	6.00
F-2908	6.00
F-2909	6.00
F-2910	6.30
F-2911	6.60
F-2912	6.60
F-2913	7.30
F-2914	8.30
F-2915	8.30
F-2916	8.40
F-2917	8.60
F-2918	8.80
F-2919	8.80
F-2920	8.90
Type TI-35	
F-2950	6.60
F-2951	6.90
F-2952	7.20
F-2953	7.40
F-2954	7.60
F-2955	7.80
F-2956	8.00
F-2957	8.10
F-2958	8.30
F-2959	8.50
F-2960	8.70
F-2961	8.90
F-2962	9.05
F-2963	9.20
Type TI-36	
F-3000	5.90
F-3001	5.90
F-3002	5.90
F-3003	6.00
F-3004	6.00
F-3005	6.15
F-3006	6.30
F-3007	6.30
F-3008	6.60
F-3009	6.60
F-3010	6.80
F-3011	7.20
F-3012	7.40
F-3013	7.70
F-3014	8.20
F-3015	8.50
F-3016	8.80
F-3017	8.90
Type TI-38	
F-3550	7.50
F-3551	7.50
F-3552	7.50
F-3553	7.45
F-3554	7.40
F-3555	7.35
F-3556	7.30
F-3557	7.25
F-3558	7.75
F-3559	8.00
F-3560	8.25
F-3561	8.50
F-3562	8.65
F-3563	8.85
F-3564	9.00
F-3565	9.10
F-3566	9.30
F-3567	9.60
F-3568	9.80
F-3569	10.20
F-3570	10.60
F-3571	10.90
F-3572	11.15
F-3573	11.50
F-3574	11.90
F-3575	12.30
F-3576	12.70
F-3577	13.10
F-3578	13.50
Type TI-37	
F-4000	9.30
F-4001	9.30
F-4002	9.30
F-4003	9.30
F-4004	9.10
F-4005	9.10
F-4006	9.05
F-4007	9.00
F-4008	8.80
F-4009	8.70
F-4010	8.60
F-4011	8.80
F-4012	8.90
F-4013	9.20
F-4014	9.30
F-4015	9.50
F-4016	9.70
F-4017	9.90
F-4018	10.30
F-4019	10.60
F-4020	11.10
F-4021	11.70
F-4022	12.50
F-4023	13.10
F-4024	13.50
F-4025	13.90

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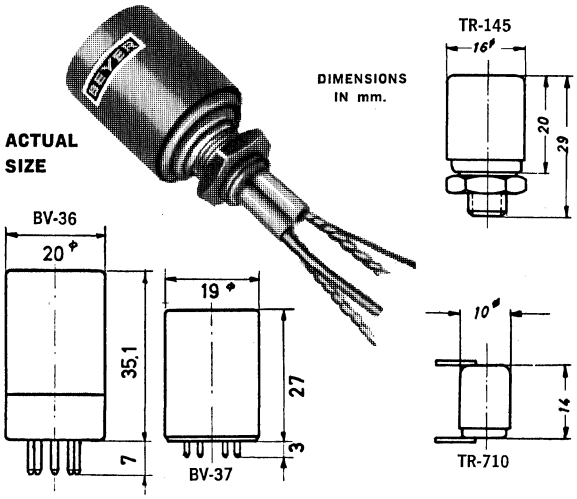
GOTHAM

BEYER TRANSFORMERS
MINIATURE AUDIO



The BEYER line of miniature audio transformers distributed by GOTHAM represents over 30 years of experience in the field on the part of one of Europe's largest quality microphone manufacturers. It is for this reason that we make only one type of transformer in two sizes: A low level audio transformer suitable for microphones, tape playback heads, etc.

A special winding process permits these transformers to be made in this miniature size while maintaining studio quality frequency response, distortion, and level capability. The coil is wound on a continuous laminated core which means the elimination of the split core with its inherent losses. Result is a semi-toroidal construction with its superior resistance to hum induction.

BEYER transformers are used in professional audio equipment by such outstanding manufacturers as Ampex, Bauer, Collins, Precision Instrument, Rust, and many others. All transformers are made to special order to O.E.M. users' specifications. Samples can be supplied within 2 weeks, production usually within 4 weeks.

FOUR PHYSICAL MOUNTINGS ARE AVAILABLE:

Threaded Stud: The Model TR-45 Commercial Quality and TR-145 Studio Quality units are offered in mu-metal housing with threaded stud supplied with two nuts.

Solder Lug: The Model TR-45L and TR-145L are same as above but have radial lugs each end of housing to permit terminal board or Vector socket mounting. Also available in sub-miniature TR-710 Model (see fig.). Primary and secondary windings brought out opposite ends of mu-metal can.

Plug-in: The Model BV-36 is encapsulation of TR-45 and TR-145 Models shown above in molded plastic housing with 7-pin miniature plug base. Same mu-metal shielding.

Printed Circuit: The Model BV-37 is encapsulation of TR-45 and TR-145 Models shown above in molded plastic housing only 1.09″ high with special 7-pin, 8-pin, or 9-pin printed circuit base.

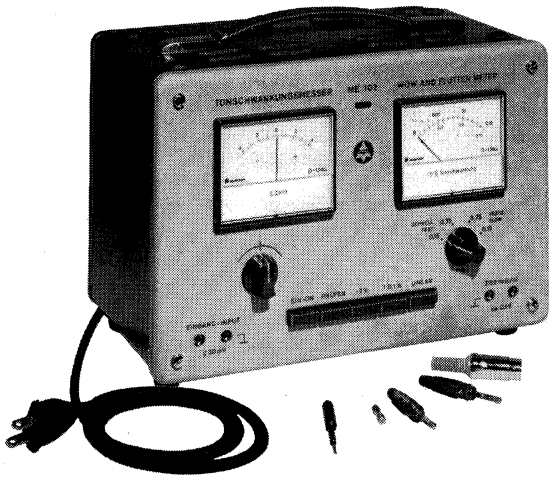
ELECTRICAL CHARACTERISTICS:

Transformers are supplied with any turns ratio from 1:1 to 1:150, tapped and split windings, static shielding, high voltage test, vacuum impregnating or other requirements.

TYPICAL TRANSFORMER SPECIFICATIONS:
Model TR-145/BV35570 (This Model stocked)

Turns ratio	1:15 ±10%
Impedance ratio	200/45,000 Ohms nominal
Frequency response	±0.2 dB 20 - 20,000 cps.
Maximum input level at 1% THD	370 mV at 30 cps.
Primary open circuit inductance (50 cps)	6.0 H
Primary open circuit impedance (50 cps)	1000 Ohms
Primary DC resistance	70 Ohms
Secondary DC resistance	10,000 Ohms
Hum shielding (EIA std.)	> 70 dB.
BASIC PRICE IN QUANTITY OF 1000 UNITS	$6.48 each

WOW & FLUTTER METERS
ME 101/102



The ME-101/102 instruments are intended for the measurement of the wow and flutter content of all types of recording and reproducing devices. They are fully transistorized, simple and convenient to use. The units are particularly suited for production testing and service work in addition to laboratory testing.

An internal signal generator provides the standard frequency of 3150 Hz. For the purpose of static and dynamic recalibration of the measuring unit, the generator can be detuned in a definite manner or can be frequency modulated from the power line.

Tone fluctuations from ±0.02 to ±2.5% for the ME-101 and ±0.01 to ±0.75% for the ME-102 can be read linearly or weighted as quasi-peak values (according to CCIR and DIN). Hence the properties of high quality tape and record playing equipment, as well as those of dictating machines and home equipment come within the ranges of the instruments. The fluctuation meter ballistics conform to the CCIR standard. A second instrument, the "drift" indicator, measures the frequency deviation of the recorded tone from 3150 Hz. Both indicating instruments can be switched to "rapid" or "slow" indication, as desired.

Besides the normal measuring connections on the front of the instruments, the back is provided with a connector for testing home tape recorders and record players. Other connectors are provided for the connection of external filters, oscilloscopes and graphic recorders.

SPECIFICATIONS

POWER: ..... 110-125/220-240V, 40-60 Hz.

OSCILLATOR UNIT:

Measuring frequency: 3150 Hz (constancy 1 × 10^3 after starting up period).

Output voltage: Approx. 0.4Vrms at test output connector and approx. 20mV (p. p.) at auxiliary output.

Calibrating device: +2% detuning for static and ±0.3% (60 Hz) for dynamic recalibration of measuring unit.

MEASURING UNIT:

Input voltage: ..... 30mV to 30V, 3150 Hz ±5%.

Input impedance: ..... >10 kOhm.

Measuring ranges: ME-101 — ±0.02 to ±0.5% and ±0.1 to ±2.5%; ME-102 — ±0.15% and ±0.75%.

Frequency response of fluctuation indication: Linear position, 0.50 to 500 Hz (-3 dB points). Weighted position, according to CCIR standard with external filter as required.

Drift indication: ..... Max. ±4.5%.

Auxiliary output: ..... Approx. 20V peak to peak at 22 kOhm.

Dimensions: ..... 7″ x 8″ x 11¾″.

Weight: ..... Approx. 11 lbs.

ME-101 — net price F.O.B. N.Y. ..... $375.

ME-102 — net price F.O.B. N.Y. ..... $395.

GOTHAM AUDIO CORPORATION

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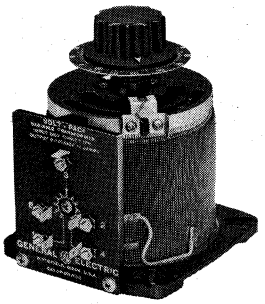
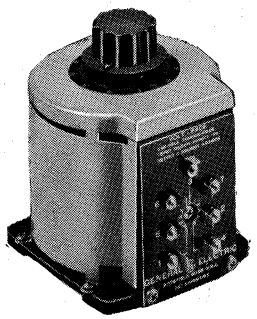
volt-pac® VARIABLE TRANSFORMERS

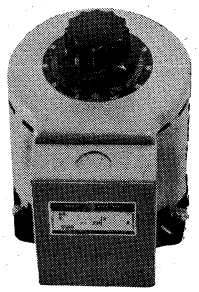
ELECTRONIC INNOVATIONS IN ACTION



Manual uncased unit—exposed terminals



Manual cased unit—exposed terminals



Manual cased unit—enclosed terminals

The Volt-Pac variable transformer is a control device which provides continuously adjustable output voltage from a fixed line input to vary the voltage applied to a particular electrical load. With Volt-Pac units, output voltage is changed by flux transformation . . . in the unsaturated range of the magnetic core. The results . . . low cost, versatility, reliability, simplicity, and no wave form distortion.

Volt-Pac units, for surface or back-of-panel mounting, are designed for operation in ambients of —20C to +40C at full rated load, and under all load conditions have low electrical losses.

* When Overvoltage Connection is used, rated current should not be exceeded. Output kva for Overvoltage Connection is maximum output voltage times rated current.

† When using extended tap connections, operation is for 60 cycles per second only.

‡ Output at Overvoltage Connection is 0-132 volts.

§ When operated on lower input-voltage tap, rated current must be reduced when output voltage exceeds 140 percent of input voltage.

¶ For Line-voltage Connection only — No Overvoltage Connection provided.

■ For 240-volt input, 0-240-volt output, application only.

• For 480-volt input, 0-480-volt output, application only.

ϕ 60 cycles only.

Line-voltage Connection		Over-voltage Connection,	UNCASED MODELS Exposed Terminals		CASED MODELS Exposed Terminals		Enclosed Terminals	
Rated Amp	Max Amp	Amp*	Model Number	List Price	Model Number	List Price	Model Number	List Price
MANUAL — SINGLE-PHASE, 50/60 CYCLES								
120 VOLT INPUT: OUTPUT — 0-120 VOLT (LINE VOLTAGE CONN.) 0-140 VOLT (OVERVOLTAGE CONN.)								
2.5‡†	3.2	2.5	9T92Y1	$ 9.00	.....	.....	.....	.....
4.0†	5.8	4.0	9T92Y5	14.00	.....	.....	.....	.....
7.5†	10.8	7.5	9T92Y7	18.00	9T92Y7G2	$23.00	9T92Y7G3	$24.00
9.0†	11.5	9.0	9T92Y9	22.00	9T92Y9G2	27.00	9T92Y9G3	28.00
10.0ϕ	13.0	None	9T92Y8¶	18.00	9T92Y8G2¶	23.00	9T92Y8G3¶	24.00
11.5ϕ	14.5	None	9T92Y10¶	28.00	9T92Y10G2¶	33.00	9T92Y10G3¶	34.00
15.0†	19.0	15.0	9T92Y27	38.00	9T92Y27G2	43.00	9T92Y27G3	46.00
18.0†	21.7	18.0	9T92Y28	45.00	9T92Y28G2	50.00	9T92Y28G3	53.00
30.0†	34.0	30.0	9T92Y37	89.00	9T92Y37G2	94.00	9T92Y37G3	100.00
37.0†	37.0	37.0	9T92Y38	106.00	9T92Y38G2	111.00	9T92Y38G3	117.00
50.0	55.0	50.0	9T92Y49	130.00	9T92Y49G2	136.00	9T92Y49G3	144.00
60.0	60.0	60.0	9T92Y50	185.00	9T92Y50G2	191.00	9T92Y50G3	199.00
74.0†	74.0	74.0	9T92Y41	235.00	9T92Y41G2	245.00	9T92Y41G3	257.00
100.0	110.0	100.0	9T92Y53	325.00	9T92Y53G2	337.00	9T92Y53G3	353.00
120.0	120.0	120.0	9T92Y54	395.00	9T92Y54G2	407.00	9T92Y54G3	423.00
150.0	165.0	150.0	9T92Y55	518.00	9T92Y55G2	536.00	9T92Y55G3	560.00
180.0	180.0	180.0	9T92Y56	661.00	9T92Y56G2	679.00	9T92Y56G3	703.00
240.0	240.0	240.0	9T92Y57	952.00	9T92Y57G2	976.00	9T92Y57G3	1010.00
300.0	300.0	300.0	9T92Y58	1332.00	9T92Y58G2	1362.00	9T92Y58G3	1404.00
360.0	360.0	360.0	9T92Y59	1745.00	9T92Y59G2	1781.00	9T92Y59G3	1831.00
120/240 VOLT INPUT§ OUTPUT 0-240 VOLT (LINE VOLTAGE CONN.) 0-280 VOLT (OVERVOLTAGE CONN.)								
3.5†	5.0	3.5	9T92Y13	$20.00	9T92Y13G2	$25.00	9T92Y13G3	$26.00
4.0ϕ	5.8	None	9T92Y12■	20.00	9T92Y12G2■	25.00	9T92Y12G3■	26.00
5.0ϕ	6.8	None	9T92Y14■	30.00	9T92Y14G2■	35.00	9T92Y14G3■	36.00
7.0†	10.1	7.0	9T92Y29	40.00	9T92Y29G2	45.00	9T92Y29G3	48.00
8.5†	11.0	8.5	9T92Y30	47.00	9T92Y30G2	52.00	9T92Y30G3	55.00
14.0†	14.0	14.0	9T92Y39	89.00	9T92Y39G2	94.00	9T92Y39G3	100.00
16.0†	16.0	16.0	9T92Y40	102.00	9T92Y40G2	107.00	9T92Y40G3	113.00
30.0	33.0	30.0	9T92Y51	130.00	9T92Y51G2	136.00	9T92Y51G3	144.00
35.0	35.0	35.0	9T92Y52	185.00	9T92Y52G2	191.00	9T92Y52G3	199.00
60.0	66.0	60.0	9T92Y60	325.00	9T92Y60G2	337.00	9T92Y60G3	353.00
70.0	70.0	70.0	9T92Y61	395.00	9T92Y61G2	407.00	9T92Y61G3	423.00
90.0	99.0	90.0	9T92Y62	644.00	9T92Y62G2	662.00	9T92Y62G3	686.00
105.0	105.0	105.0	9T92Y63	661.00	9T92Y63G2	679.00	9T92Y63G3	703.00
120.0	132.0	120.0	9T92Y5021	720.00	9T92Y5021G2	744.00	9T92Y5021G3	778.00
140.0	140.0	140.0	9T92Y64	880.00	9T92Y64G2	904.00	9T92Y64G3	938.00
175.0	175.0	175.0	9T92Y65	1290.00	9T92Y65G2	1320.00	9T92Y65G3	1362.00
210.0	210.0	210.0	9T92Y66	1680.00	9T92Y66G2	1716.00	9T92Y66G3	1766.00
240/480 VOLT INPUT§ OUTPUT 0-480 VOLT (LINE VOLTAGE CONN.) 0-560 VOLT (OVERVOLTAGE CONN.)								
3.5†	5.0	3.5	9T92Y17	$54.00	9T92Y17G2	$63.00	9T92Y17G3	$66.00
4.0ϕ	5.8	None	9T92Y16•	56.00	9T92Y16G2•	65.00	9T92Y16G3•	68.00
5.0ϕ	6.8	None	9T92Y18•	69.00	9T92Y18G2•	78.00	9T92Y18G3•	81.00
7.0†	10.1	7.0	9T92Y31	95.00	9T92Y31G2	104.00	9T92Y31G3	110.00
8.5†	11.0	8.5	9T92Y32	113.00	9T92Y32G2	122.00	9T92Y32G3	128.00
14.0†	14.0	14.0	9T92Y42	201.00	9T92Y42G2	211.00	9T92Y42G3	223.00
16.0†	16.0	16.0	9T92Y43	225.00	9T92Y43G2	235.00	9T92Y43G3	247.00
30.0	33.0	30.0	9T92Y67	289.00	9T92Y67G2	301.00	9T92Y67G3	317.00
35.0	35.0	35.0	9T92Y68	395.00	9T92Y68G2	407.00	9T92Y68G3	423.00
60.0	66.0	60.0	9T92Y69	670.00	9T92Y69G2	694.00	9T92Y69G3	728.00
70.0	70.0	70.0	9T92Y70	970.00	9T92Y70G2	994.00	9T92Y70G3	1028.00
90.0	99.0	90.0	9T92Y71	1260.00	9T92Y71G2	1296.00	9T92Y71G3	1346.00
105.0	105.0	105.0	9T92Y72	1745.00	9T92Y72G2	1781.00	9T92Y72G3	1831.00
MANUAL — THREE-PHASE, 50/60 CYCLES								
240 VOLT LINE TO LINE INPUT: OUTPUT — 0-240 VOLT (LINE VOLTAGE CONN.) 0-280 VOLT (OVERVOLTAGE CONN.)								
2.5ϕ	3.2	None	9T92Y3¶	$44.00	.....	.....	.....	.....
4.0ϕ	5.8	None	9T92Y6¶	65.00	.....	.....	.....	.....
7.5	10.8	7.5	9T92Y19	68.00	9T92Y19G2	$81.00	9T92Y19G3	$86.00
9.0	11.5	9.0	9T92Y21	92.00	9T92Y21G2	105.00	9T92Y21G3	110.00
10.0ϕ	13.0	None	9T92Y20¶	69.00	9T92Y20G2¶	82.00	9T92Y20G3	87.00
11.5ϕ	14.5	None	9T92Y22¶	94.00	9T92Y22G2¶	107.00	9T92Y22G3	112.00
15.0	19.0	15.0	9T92Y33	130.00	9T92Y33G2	143.00	9T92Y33G3	152.00
18.0	21.7	18.0	9T92Y34	155.00	9T92Y34G2	168.00	9T92Y34G3	177.00
30.0	34.0	30.0	9T92Y44	272.00	9T92Y44G2	287.00	9T92Y44G3	305.00
37.0	37.0	37.0	9T92Y45	341.00	9T92Y45G2	356.00	9T92Y45G3	374.00
50.0	55.0	50.0	9T92Y74	440.00	9T92Y74G2	458.00	9T92Y74G3	482.00
60.0	60.0	60.0	9T92Y75	646.00	9T92Y75G2	664.00	9T92Y75G3	688.00
74.0	72.0	72.0	9T92Y48	800.00	9T92Y48G2	833.00	9T92Y48G3	866.00
100.0	110.0	100.0	9T92Y78	1265.00	9T92Y78G2	1301.00	9T92Y78G3	1351.00
120.0	120.0	120.0	9T92Y79	1445.00	9T92Y79G2	1481.00	9T92Y79G3	1531.00
240/480 VOLT LINE TO LINE INPUT§ OUTPUT — 0-480 VOLT (LINE VOLTAGE CONN.) 0-560 VOLT (OVERVOLTAGE CONN.)								
3.5	5.0	3.5	9T92Y25	$76.00	9T92Y25G2	$89.00	9T92Y25G3	$94.00
4.0ϕ	5.8	None	9T92Y24•	80.00	9T92Y24G2•	93.00	9T92Y24G3	98.00
5.0ϕ	6.8	None	9T92Y26•	105.00	9T92Y26G2•	118.00	9T92Y26G3	123.00
7.0	10.1	7.0	9T92Y35	135.00	9T92Y35G2	148.00	9T92Y35G3	157.00
8.5	11.0	8.5	9T92Y36	160.00	9T92Y36G2	173.00	9T92Y36G3	182.00
14.0	14.0	14.0	9T92Y46	272.00	9T92Y46G2	287.00	9T92Y46G3	305.00
16.0	16.0	16.0	9T92Y47	320.00	9T92Y47G2	335.00	9T92Y47G3	353.00
30.0	33.0	30.0	9T92Y76	430.00	9T92Y76G2	448.00	9T92Y76G3	472.00
35.0	35.0	35.0	9T92Y77	700.00	9T92Y77G2	718.00	9T92Y77G3	742.00
60.0	66.0	60.0	9T92Y80	1120.00	9T92Y80G2	1156.00	9T92Y80G3	1206.00
70.0	70.0	70.0	9T92Y81	1400.00	9T92Y81G2	1436.00	9T92Y81G3	1486.00

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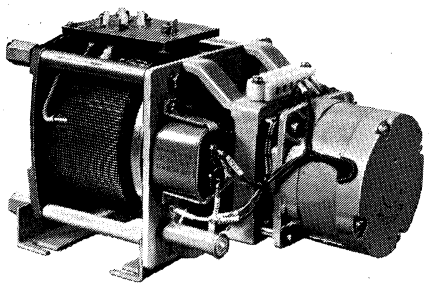
volt-pac® VARIABLE TRANSFORMERS

ELECTRONIC INNOVATIONS IN ACTION



Motor uncased unit — exposed terminals

Line Voltage Connection Rated Amp	Line Voltage Connection Max Amp	Over-voltage Connection Amp*	UNCASED MODELS Exposed Terminals Model Number (For 28-second Operation Only△)	UNCASED MODELS Exposed Terminals List Price	CASED MODELS Enclosed Terminals Model Number (For 28-second Operation Only△)	CASED MODELS Enclosed Terminals List Price
MOTOR-OPERATED — SINGLE-PHASE, 50/60 CYCLES						
120 VOLT INPUT: OUTPUT 0-120 VOLT (LINE VOLTAGE CONN) 0-140 VOLT (OVERVOLTAGE CONN)						
2.5‡†	3.2	2.5	9T92Y1G51	$ 97.00	.....	.....
4.0†	5.8	4.0	9T92Y5G51	102.00	.....	.....
7.5†	10.8	7.5	9T92Y7G51	106.00	9T92Y7G54	$117.00
9.0†	11.5	9.0	9T92Y9G51	110.00	9T92Y9G54	121.00
10.0ϕ	13.0	None	9T92Y8G51¶	106.00	9T92Y8G54¶	117.00
11.5ϕ	14.5	None	9T92Y10G51¶	116.00	9T92Y10G54¶	127.00
15.0†	19.0	15.0	9T92Y27G51	170.00	9T92Y27G54	179.00
18.0†	21.7	18.0	9T92Y28G51	177.00	9T92Y28G54	186.00
30.0†	34.0	30.0	9T92Y37G51	221.00	9T92Y37G54	236.00
37.0†	37.0	37.0	9T92Y38G51	238.00	9T92Y38G54	253.00
50.0	55.0	50.0	9T92Y49G51	262.00	9T92Y49G54	280.00
60.0	60.0	60.0	9T92Y50G51	317.00	9T92Y50G54	335.00
74.0†	74.0	74.0	9T92Y41G51	367.00	9T92Y41G54	382.00
100.0	110.0	100.0	9T92Y53G51	457.00	9T92Y53G54	475.00
120.0	120.0	120.0	9T92Y54G51	527.00	9T92Y54G54	545.00
150.0	165.0	150.0	9T92Y55G51	650.00	9T92Y55G54	668.00
180.0	180.0	180.0	9T92Y56G51	793.00	9T92Y56G54	811.00
240.0	240.0	240.0	9T92Y57G51	1084.00	9T92Y57G54	1108.00
300.0	300.0	300.0	9T92Y58G51	1464.00	9T92Y58G54	1494.00
360.0	360.0	360.0	9T92Y59G51	1877.00	9T92Y59G54	1913.00
120/240 VOLT INPUT§: OUTPUT 0-240 VOLT (LINE VOLTAGE CONN) 0-280 VOLT (OVERVOLTAGE CONN)						
3.5†	5.0	3.5	9T92Y13G51	$108.00	9T92Y13G54	$119.00
4.0ϕ	5.8	None	9T92Y12G51■	108.00	9T92Y12G54■	119.00
5.0ϕ	6.8	None	9T92Y14G51■	118.00	9T92Y14G54■	129.00
7.0	10.1	7.0	9T92Y29G51	172.00	9T92Y29G54	117.00
8.5†	11.0	8.5	9T92Y30G51	179.00	9T92Y30G54	184.00
14.0†	14.0	14.0	9T92Y39G51	221.00	9T92Y39G54	236.00
16.0†	16.0	16.0	9T92Y40G51	234.00	9T92Y40G54	249.00
30.0	33.0	30.0	9T92Y51G51	264.00	9T92Y51G54	282.00
35.0	35.0	35.0	9T92Y52G51	317.00	9T92Y52G54	335.00
60.0	66.0	60.0	9T92Y60G51	457.00	9T92Y60G54	475.00
70.0	70.0	70.0	9T92Y61G51	527.00	9T92Y61G54	545.00
90.0	99.0	90.0	9T92Y62G51	776.00	9T92Y62G54	794.00
105.0	105.0	105.0	9T92Y63G51	793.00	9T92Y63BG4	811.00
120.0	132.0	120.0	9T92Y5021G51	852.00	9T92Y5021G54	876.00
140.0	140.0	140.0	9T92Y64G51	1012.00	9T92Y64G54	1036.00
175.0	175.0	175.0	9T92Y65G51	1422.00	9T92Y65G54	1452.00
210.0	210.0	210.0	9T92Y66G51	1812.00	9T92Y66G54	1848.00
240/480 VOLT INPUT§: OUTPUT 0-480 VOLT (LINE VOLTAGE CONN) 0-560 VOLT (OVERVOLTAGE CONN)						
3.5†	5.0	3.5	9T92Y17G51	$142.00	9T92Y17G54	$157.00
4.0ϕ	5.8	None	9T92Y16G51•	144.00	9T92Y16G54•	159.00
5.0ϕ	6.8	None	9T92Y18G51•	157.00	9T92Y18G54•	172.00
7.0†	10.1	7.0	9T92Y31G51	227.00	9T92Y31G54	236.00
8.5†	11.0	8.5	9T92Y32G51	245.00	9T92Y32G54	254.00
14.0†	14.0	14.0	9T92Y42G51	330.00	9T92Y42G54	348.00
16.0†	16.0	16.0	9T92Y43G51	357.00	9T92Y43G54	372.00
30.0	33.0	30.0	9T92Y67G51	421.00	9T92Y67G54	439.00
35.0	35.0	35.0	9T92Y68G51	527.00	9T92Y68G54	545.00
60.0	66.0	60.0	9T92Y69G51	802.00	9T92Y69G54	826.00
70.0	70.0	70.0	9T92Y70G51	1102.00	9T92Y70G54	1126.00
90.0	99.0	90.0	9T92Y71G51	1392.00	9T92Y71G54	1428.00
105.0	105.0	105.0	9T92Y72G51	1877.00	9T92Y72G54	1913.00
140.0	140.0	140.0	9T92Y73G51	2459.00	9T92Y73G54	2497.00

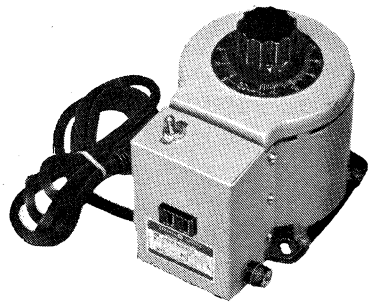
△ Time to change output from 0 to 100%. Other times, from 2.5 to 60 sec, are available.

For other footnotes, see opposite page.

Line Voltage Connection Rated Amp	Line Voltage Connection Max Amp	Over-voltage Connection Amp*	UNCASED MODELS Exposed Terminals Model Number (For 28-second Operation Only△)	UNCASED MODELS Exposed Terminals List Price	CASED MODELS Enclosed Terminals Model Number (For 28-second Operation Only△)	CASED MODELS Enclosed Terminals List Price
MOTOR-OPERATED — THREE-PHASE, 50/60 CYCLES†						
240 VOLT LINE TO LINE INPUT: OUTPUT 0-240 VOLT (LINE VOLTAGE CONN) 0-280 VOLT (OVERVOLTAGE CONN)						
2.5ϕ	3.2	None	9T92Y3G51¶	$132.00	.....	.....
4.0ϕ	5.8	None	9T92Y6G51¶	153.00	.....	.....
7.5	10.8	7.5	9T92Y19G51	156.00	9T92Y19G54	$175.00
9.0	11.5	9.0	9T92Y21G51	180.00	9T92Y21G54	199.00
10.0ϕ	13.0	None	9T92Y20G51¶	157.00	9T92Y20G54¶	176.00
11.5ϕ	14.5	None	9T92Y22G51¶	182.00	9T92Y22G54¶	201.00
15.0	19.0	15.0	9T92Y33G51	262.00	9T92Y33G54	275.00
18.0	21.7	18.0	9T92Y34G51	287.00	9T92Y34G54	300.00
30.0	34.0	30.0	9T92Y44G51	404.00	9T92Y44G54	419.00
37.0	37.0	37.0	9T92Y45G51	473.00	9T92Y45G54	488.00
50.0	55.0	50.0	9T92Y74G51	572.00	9T92Y74G54	590.00
60.0	60.0	60.0	9T92Y75G51	778.00	9T92Y75G54	796.00
72.0	72.0	72.0	9T92Y48G51	932.00	9T92Y48G54	965.00
100.0	110.0	100.0	9T92Y78G51	1397.00	9T92Y78G54	1433.00
120.0	120.0	120.0	9T92Y79G51	1577.00	9T92Y79G54	1613.00
150.0	165.0	150.0	9T92Y82G51	1892.00	9T92Y82G54	1946.00
180.0	180.0	180.0	9T92Y83G51	2210.00	9T92Y83G54	2264.00
240/480 VOLT LINE TO LINE INPUT§: OUTPUT 0-480 VOLT (LINE VOLTAGE CONN) 0-560 VOLT (OVERVOLTAGE CONN)						
3.5	5.0	3.5	9T92Y25G51	$164.00	9T92Y25G54	$183.00
4.0ϕ	5.8	None	9T92Y24G51•	168.00	9T92Y24G54•	187.00
5.0ϕ	6.8	None	9T92Y26G51•	193.00	9T92Y26G54•	212.00
7.0	10.1	7.0	9T92Y35G51	267.00	9T92Y35G54	280.00
8.5	11.0	8.5	9T92Y36G51	292.00	9T92Y36G54	305.00
14.0	14.0	14.0	9T92Y46G51	404.00	9T92Y46G54	419.00
16.0	16.0	16.0	9T92Y47G51	454.00	9T92Y47G54	469.00
30.0	33.0	30.0	9T92Y76G51	562.00	9T92Y76G54	580.00
35.0	35.0	35.0	9T92Y77G51	832.00	9T92Y77G54	850.00
60.0	66.0	60.0	9T92Y80G51	1252.00	9T92Y80G54	1288.00
70.0	70.0	70.0	9T92Y81G51	1532.00	9T92Y81G54	1568.00
90.0	99.0	90.0	9T92Y84G51	1814.00	9T92Y84G54	1868.00
105.0	105.0	105.0	9T92Y85G51	2210.00	9T92Y85G54	2264.00

PLUG-IN SETS

For laboratory or shop source of adjustable a-c voltage. Provides output voltage of 0-117% of input voltage. Equipped with a line switch and a fuse for overload protection.



Cord is 6 feet long.

Line Voltage Connection Rated Amp	Line Voltage Connection Max Amp	Over-voltage Connection Amp*	New Model Number	List Price	Type Plug and Rec¶	Receptacle Configuration Fig. No.
120 VOLT INPUT: OUTPUT 0-120 VOLT (LINE VOLTAGE CONN) 0-140 VOLT (OVERVOLTAGE CONN)						
7.5	10.8	7.5	9T92Y90	$26.00	Ungrounded	Fig. 2
7.5	10.8	7.5	9T92Y86	30.00	Grounded	Fig. 1
9.0	11.5	9.0	9T92Y91	38.00	Ungrounded	Fig. 2
9.0	11.5	9.0	9T92Y87	38.00	Grounded	Fig. 1
15.0	19.0	15.0	9T92Y88	50.00	Grounded	Fig. 1
18.0	21.7	18.0	9T92Y89	65.00	Grounded	Fig. 3
120/240 VOLT INPUT†: OUTPUT 0-240 (LINE CONN) 0-280 VOLT (OVERVOLTAGE CONN)						
3.5	5.0	3.5	9T92Y93	$29.00	Ungrounded	Fig. 2
3.5	5.0	3.5	9T92Y95	33.00	Grounded	Fig. 4
7.0	10.1	7.0	9T92Y96	50.00	Grounded	Fig. 4
8.5	11.0	8.5	9T92Y97	65.00	Grounded	Fig. 4

RECEPTACLE CONFIGURATIONS

Fig. 1

Fig. 2

Fig. 3

Fig. 4

GENERAL ELECTRIC

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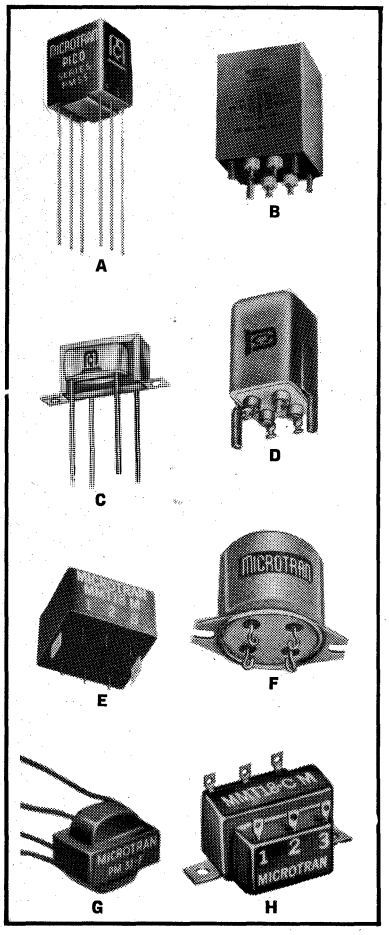
MICROTRAN Miniaturized Transformers



COMPLETE SCHEMATICS SHOWING CONNECTIONS AND PARTS LIST SUPPLIED WITH ALL DC TO DC CONVERTER TRANSFORMERS.

PICO MINIATURE TRANSFORMERS — PM SERIES (FIG. A)

PM-M (fig. A) Epoxy molded finish with gold plated leads, 0.020″ x ¾″. Frequency Response ±2db, 300 cps to 100 kc, except PM3 and PM5, to 45 kc. Power level given for 15% max. distortion, except PM35, 20% and PM37, 25%. Maximum size, .465″ x .310″. Weight, 0.1 oz. MIL type TF5RX-ZZ (Insert MIL No. from table). PM-F (fig. G) Open Frame 4 inch #30 plastic leads, resin impregnated. Size .250″ x .375″ x .406″ MIL type TF5RX-ZZ (Insert MIL No. from table).

Microtran No.	Application	Impedance Primary	Impedance Secondary	Pri DC Ma*	DC Resist., Ohms Pri.	DC Resist., Ohms Sec.	Power Level Mw	MIL No.	Net Each Lots of 1 - 9* —M	Net Each Lots of 1 - 9* —F
PM3	Input	200K CT	1K CT	0	5300	110	10	16	$8.25	——
PM5	Input	200K	1K	0	5300	110	10	16	7.50	——
PM7	Interstage	50K CT	1K CT	0	3300	75	10	16	7.95	——
PM9	Interstage	50K	1K/250‡	0	3300	75	10	16	8.10	——
PM11	Interstage	25K CT	1K CT	0.5	1700	110	40	12	7.35	——
PM13	Interstage	25K	1K/250‡	0.25	1700	110	40	12	7.65	——
• PM15	Interstage	25K	1K	0.25	1700	110	40	12	6.90	5.10
PM17	Isolation	10K CT	10K CT	1	1000	1300	50	12	7.80	——
PM19	Driver	10K CT	2K CT	1	1000	300	50	12	7.05	——
PM21	Driver	10K	2K/500‡	0.5	1000	300	50	12	7.65	——
PM23	Driver	10K CT	1200 CT	1					7.05	——
PM25	Driver	10K	1200/300‡	0.5	1050	280	50	12	7.20	——
• PM27	Driver	10K	1200	0.5	1050	280	50	12	6.00	4.80
PM29	Driver	10K CT	500 CT	1	1050	80	50	12	7.05	——
• PM31	Isolation	2500	2500 CT	1	250	325	50	12	6.60	5.94
• PM33	Output	1500 CT	600	3	170	95	50	12	6.45	4.95
• PM35	Output	500	50	3	60	8	50	17	6.00	4.35
• PM37	Output	120 CT	3.2	10	16	0.75	50	17	6.30	4.65
• PM39	Audio Choke	6 hys.	.....	2	1800	.....	....	20	5.85	4.20
• PM41	Audio Choke	.3 hys.	.....	42	43	.....	....	20	5.25	3.90

*Unbalanced. ‡Split. •These items available in open frame construction.

DC TO DC CONVERTER TRANSFORMERS

SWITCHING TYPE

Provides improved reliability and efficiency over vibrator and rotary power converters. Approx. 800 cps repetition rate. Full wave and CT loads may be drawn simultaneously, but VA output should not be exceeded for continuous duty. Fig. B except M8072, Fig. C.

Microtran No.	Input VDC	VA Output	Transistors Suggested	DC Output V.	DC Output Ma	DC Output CT FW V.	DC Output CT FW Ma	Size, Inches W. x D. x H.	Mtg. Ctrs., In. ML	Mtg. Ctrs., In. MW	MIL Case	Net Each, 1-9*
M8034	28	125	Delco 2N174	500	250	250	420	2⅜ x2¾ x3 13/16	2⅛	1¾	GA	$26.70
M8035	13.6	125	Delco 2N442	500	250	250	420	2⅜ x2¾ x3 13/16	2⅛	1¾	GA	26.70
M8036	13.6	40	Delco 2N442	450	90	225	155	2 1/16 x2 5/16 x3⅛	1 11/16	1 7/16	FA	24.90
M8072	2.7	190†	Delco 2N1307	480*	400‡	.....	.....	13/16x1 11/16x 27/32	1⅜	.....	ZZ	5.40

*Output when used with half wave cap. input rectifier. ‡μa. †Mw.

BLOCKING OSCILLATOR TYPE

Approx. 400 cps repetition rate. Fig. C, except M8051, Fig. D.

Microtran No.	Turns Ratio HV: Coll.: Feedback	Input DC V.	Input DC Ma	Output DC Volts	Output DC μa	Sizes, Inches W. x D. x H.	Mtg. Ctr., In.	Net Each, 1-9*
M8050	600:12:1	3	20	1000*	25	13/16x1 11/16x 27/32	1⅜	$ .555
M8051	600:12:1	3	20	1000*	25	1 x1 x1⅜	1⅛	11.85
M8073	44:1:1	4	2—15‡	425—500‡	50‡●	7/16 x ½ x 7/16	.....	5.25
M8074	65.5:.33:1	3	45	535*	90	13/16x1 11/16x 27/32	1⅜	5.10

*When used in blocking oscillator circuit with single cap. input rectifier. ‡Varies with load and bias conditions. Frequency varies from 100 to 2800 cps. •Maximum.

MICRO-MINIATURE AUDIO AND TRANSISTOR TRANSFORMERS — MM AND MMT SERIES

MM-M (Fig. E): Molded, for plug-in printed circuit applications. Cast epoxy resin for high resistance to extremes of ambient temperature. MIL Type TF6RX — ZZ (Insert MIL No. from table). Size 7/8″ x 25/32″ x 17/32″ with 5/32″ pins, .020″ dia. Weight, ½ oz. **MM-H (Fig. F):** Hermetically sealed with high compression glass terminals. Gray enamel finish. MIL Type TF4RX — YY. Size, 13/16″ dia. x 1 1/16″. Weight, ¾ oz. **MM-FB (Fig. G):** Open frame with channel on special order. MIL Type TF6RX — ZZ. Size, 1 3/16″ x 1 9/32″ x 1 5/32″, plus tabs. **MM-CM (Fig. H):** Contour molded on special order only, size 7/8″ x 5/16″ x 25/32″. Designed for chassis mounting with solder terminals on top of transformer.

Microtran No. †	Application	Impedance Pri.	Impedance Sec.	Pri. Unbal. DC Ma	Oper. Level, dbm	Freq. Resp. ±2 db CPS	MIL No.	Net Each, Lots of 1-9* -FB	Net Each, Lots of 1-9* -H	Net Each, Lots of 1-9* -M, -CM
MM1-	Input	200/50	250K/62.5K	0	4	200—10K	10	$4.50	$7.35	$8.55
MM2-	Interstage 3:1	10K	90K	0	4	150—10K	10	4.80	7.50	8.70
MM3-	Plate to line	10K	200	3	20	150—10K	13	4.20	7.20	8.40
MM4-	Output	30K	50	1	20	150—10K	13	4.05	7.05	8.25
MM5-	Reactor 50 hy. at 1 mil DC	4.7K ohms	DC Res.	....	...	.....	20	4.05	6.90	8.10
MM6-	Output	100K	60	0.5	20	250—10K	13	4.20	7.20	8.40
MM7-	Output	30K	1200	0.5	20	200—10K	13	3.30	6.45	7.65
MMT1-	Line to base	600	600	8	22	200—15K	17	3.90	7.35	8.55
MMT3-	Coll. to base or line	50K	600	0.7	20	200—15K	13	4.05	7.50	8.70
MMT4-	P-p coll. to p-p base	50K CT	600 CT	1.4	20	200—15K	13	4.80	8.55	9.75
MMT5-	Coll. to speaker	50K	6	1	20	200—15K	13	4.35	7.95	9.15
MMT7-	Coll. to p-p base	25K	1200 CT	1	20	200—15K	13	4.50	8.40	9.60
MMT8-	P-p coll. to p-p base	50K CT	1200 CT	1.4	20	200—15K	13	4.65	8.55	9.75
MMT9-	Line to p-p base	600 CT	1200 CT	16	22	200—15K	17	4.20	7.65	8.85
MMT10-	Coll. to base	25K	600	1	20	200—15K	13	3.45	7.20	8.40
MMT11-	P-p coll. to p-p base or line	4K CT	600 CT	5	28	200—15K	12	4.35	7.80	9.00
MMT12-	Coll. to speaker	2K	3.4	5	28	200—15K	13	3.90	7.35	8.55
MMT13-	Output p-p coll. to speaker	4K CT	3.4	5	28	200—15K	13	4.05	7.50	8.70
MMT16-	Coll. to p-p base	10K	1500 CT	1	20	200—15K	13	4.50	8.40	9.60
MMT17-	P-p coll. to p-p base	10K CT	200 CT	6	20	200—15K	13	4.50	8.10	9.30
MMT18-	P-p coll. to p-p base	25K CT	1200 CT	2	20	200—15K	13	4.65	8.55	9.75
MMT19-	Coll. to p-p base	2500	2500 CT	2	23	200—15K	13	4.05	7.50	8.70
MMT21-	P-p coll. to p-p base	4K CT	600/150 Split	5	28	200—15K	13	4.65	8.55	9.75
MMT25-	P-p coll. to p-p base	7500 CT	600 CT	4	22	200—15K	13	4.35	7.80	9.00
MMT26-	Line to base	600 CT	600 CT	16	22	200—15K	17	4.20	7.65	8.85
MMT27-	P-p coll. to p-p base	25K CT	600 CT	2	20	200—15K	13	4.50	8.40	9.60
MMT28-	P-p coll. to p-p base	10K CT	1500 CT	2	20	200—15K	13	4.65	8.55	9.75
MMT29-	Driver/Isolation	10K CT	10K CT	2	20	200—15K	13	4.65	8.55	9.75
MMT30-	P-p coll. to p-p base	7500 CT	1200 CT	4	22	200—15K	13	4.50	8.40	9.60
MMT31-	P-p coll. to p-p base	2K CT	500 CT	10	28	200—15K	13	4.35	8.25	9.45
MMT32-	Line to p-p base	600 CT	1200/300 Split	16	22	200—15K	17	4.65	8.55	9.75

-CM $12.50 setup charge

★SEE FOURTH MICROTRAN PAGE FOR QUANTITY PRICING AND MIL CASE SIZES

†ORDER BY COMPLETE MICROTRAN NUMBER; EXAMPLE MM1-FB.

Also see EEM pages for additional items and list of franchised distributors.

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MICROTRAN Miniaturized Transformers

ULTRA-MINIATURE TRANSISTOR TRANSFORMERS — UM SERIES

Frequency Response: ±2 db, 300-10K cps. Leads supplied, 4" #27 color-coded. Power Levels given for 7½% max. distortion. **UM-F (Fig. A):** Size, ⅜" x ⅜" x 1⅛". Weight, 0.08 oz. MIL type TF6RX — ZZ (Insert MIL No. from table). **UMM-M (Fig. B):** Size, ½" dia. x ½". Wt., 0.14 oz. MIL type TF5RX — ZZ.

Microtran No.†	Application	Impedance Primary	Impedance Sec.	Unbal. Pri., DC Ma	DC Resist., Ohms Pri.	DC Resist., Ohms Sec.	Level at 1 kc, mw	MIL No.	Net Each, 1-9* -F	Net Each, 1-9* -M
UM21-	Input	100K	1K	0	1900	135	70	16	$6.00	$6.60
UM22-	Driver	20K	1K	0.5	1100	100	300	13	4.35	5.40
UM23-	Driver	20K	1200 CT	0.5	1100	110	300	13	4.65	6.00
UM24-	Output	1K	50	3	65	10	500	17	3.90	4.95
UM25-	Output	400	50	3	35	5	500	17	3.90	4.95
UM26-	Output	400	11	3	35	1.5	500	17	3.90	4.95
UM27-	Output	400 CT	11	6	35	1.5	500	17	4.20	5.25
UM28-	Choke	10 hy., (0 DC)	.....	8 hy., (0.5 ma)	650	.....	.....	20	3.75	5.25
UM29-	Interstage	600 CT	600 CT	7	45	60	400	21	4.65	5.70
UM30-	Choke	1.5 hy., (0 DC)	.....	7 hy., (2 ma)	100	.....	.....	20	3.60	4.50
UM31-	Interstage	10K CT	1200 CT	2	850	120	500	21	4.80	5.85
UM32-	Output	1500 CT	600	5	135	65	500	17	4.35	5.40
UM33-	Output	1K CT	600	6	80	65	500	17	4.35	5.40
UM34-	Driver	10K CT	600 CT	2	850	40	500	13	4.50	5.55
UM35-	Isolation	15K CT	15K CT	1	930	1210	300	15	4.95	6.15

UM-90: Shield can for all UM-M Series, UM90 (Fig. J).

VERI-MINIATURE TRANSISTOR TRANSFORMERS — VM SERIES

Frequency Response: ±2 db, 200-10K cps. Leads supplied, 4" #27 color-coded. Power levels given for 7½% max. distortion. **VM-M (Fig. C):** For plug-in printed circuit applications. Cast Epoxy resin provides high resistance. Size, 5/16" x 5/16" x ½". Weight, 0.25 oz. MIL type TF2RX—ZZ (Insert MIL No. from table). **VM-FPB (Fig. D):** Plug-in tab mounted channel. Size, 17/32" x 13/32" x 7/16". Weight, 0.2 oz. MIL type TF6RX—ZZ.

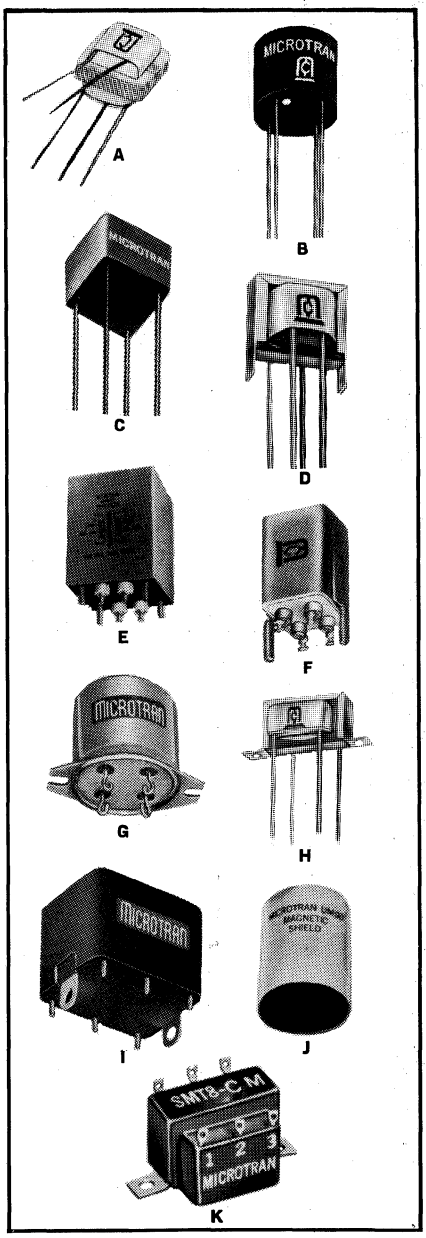
Micro-No.†	Application	Impedance Primary	Impedance Secondary	DCR, Ohms Pri.	DCR, Ohms Sec.	Level, mw	MIL No.	Net Ea., 1-9* -FPB	Net Ea., 1-9* -M
VM1-	Input	50	600, (1.5 ma)	7	90	15	21	$4.20	$5.55
VM2-	Input or intrstg.	200K	600, (1.0 ma)	3000	110	5	21	5.70	7.20
VM3-	Interstage	25K	600, (1.0 ma)	720	45	5	21	4.50	6.30
VM4-	Input or intrstg.	200K	1200, (.72 ma)	3100	165	5	21	5.70	7.20
VM5-	Interstage	50K	600, (1.0 ma)	830	55	5	21	4.65	6.60
VM6-	Interstage	100K	1200‡, (.72 ma)	2000	150	5	21	5.85	7.35
VM7-	Output	500, (3.5 ma)	3.4	50	0.5	15	21	4.20	5.55
VM8-	Output	1250, (2.0) ma)	3.4	135	0.5	15	21	4.35	5.70
VM9-	Output	1250, (2.0 ma)	50	135	6.5	15	21	4.35	5.70
VM10-	Interstage	2500, (1.5 ma)	2500 CT	225	215	3	21	4.65	6.90
VM11-	Choke	20 hy., (0 ma)	12 hy., .5 ma)	1000	.....	....	21	4.05	5.10
VM12-	Interstage	20K	1000, (.75 ma)	625	85	5	21	4.50	6.30
VM13-	Interstage	20K	1000‡, (.75 ma)	625	85	5	21	4.65	6.90
VM14-	Interstage	600‡, (7 ma)	600 CT	50	65	15	17	4.50	6.75
VM15-	Isolation	50K CT	50K CT	2000	2600	5	15	6.00	8.40
VM16-	Driver	500‡, (7.5 ma)	250 CT	40	13	15	17	4.50	6.75

TRANSISTOR DRIVER AND OUTPUT TRANSFORMERS (FIG. E)

Hermetically sealed and magnetically shielded with MIL-T-27B construction. MIL Type TF4RX—(Add MIL No. 17 and Case from table). MIL No. 17 except where noted.

Micro. No.	Application	Impedance Pri.	Impedance Sec.	Pri. Unb. DC Ma	Level Watts	Freq. Resp. ±2 db, cps	MIL Case	Net Ea., 1-9*
M8002*	Coll. to p-p base	560	400 CT	18	0.15	200—20K	AJ	$11.25
M8003*	Coll. to p-p base	625 CT	100 CT	20	1.5	200—20K	AJ	12.30
M8004	Coll. to p-p base	5400	600 CT	15	0.075	200—15K	AH#	14.85
M8005	Coll. to p-p base	7000	320 CT	7	0.040	70—15K	AH#	14.85
M8006	Coll. to p-p base	10K	6500 CT	0.75	0.005	200—15K	YY#	9.45
M8008	Coll. to speaker	25	3—4	600	3	200—20K	AJ	11.10
M8007*	P-p auto transformer	30 CT	3—4	200	2	100—20K	AJ	11.40
M8009	P-p output to spkr.	48 CT	3.2/8	50	5	200—20K	AJ	11.70
M8010	P-p coll. to servo	120 CT	1K	40	6	300—15K	AJ	11.55
M8011	P-p output to spkr.	125 CT	3—4	20	1.5	200—15K	AH	14.55
M8012*	P-p coll. to servo	140 CT	500	50	6	300—15K	AJ	11.25
M8013*	P-p output to spkr.	250 CT	3—4	20	0.4	70—15K	AH	14.55
M8014	P-p output to spkr.	400 CT	11	2	0.25	300—15K	YY	9.15
M8015	P-p coll. to servo	1600 CT	800	5	2.5	150—20K	AJ	12.00
M8016	P-p output to spkr.	2500 CT	12	4	0.10	300—15K	YY	9.30
M8054	P-p output to servo	250 CT	130	20	3	200—15K	AH	14.55

‡CT. *Bi-filar wound to minimize switching transients. #MIL No. 13.



SUBMINIATURE AUDIO AND TRANSISTOR TRANSFORMERS — SM, SMT and SM-CM SERIES

SM-AF (Fig. F): MIL-T-27B-AF modified case with compression sealed ceramic terminals. Gray enamel finish. MIL Type TF4RX—YY (Insert MIL No. from table). Max. Size, ¾" x ¾" x 1⅛" with two 4-40NC-2 spade mtg. bolts. Weight, 1⅛ oz. **SM-H (Fig. G):** Hermetically sealed with high compression glass terminals, gray enamel finish. MIL Type TF4RX—YY. Size, 13/16 dia. x 13/16" h. Weight, 1 oz. **SM-FB (Fig. H):** Open frame with channel. Available with plug-in tab mounted channel or without channel on special order. MIL Type TF6RX — ZZ. Size, 15/16" x 19/32" x ¾", plus tabs. Weight, 0.710 oz. **SM-M (Fig. 1):** Molded, for plug-in printed circuit applications. MIL Type TF5RX — ZZ. Size, 1 5/32" max. x ⅞" x ¾". Weight, 1½ oz. **SM-CM (Fig. K):** Contour molded, not stocked — on special order only.

Microtran No.†	Application	Impedance Pri.	Impedance Sec.	Pri. Unbal. DC Ma	Oper-Level, dbm	Frequency Resp., ±2 db, cps	MIL No.	Net Each, Lots of 1-9* AF-	-FB	-H	-M, -CM
SM1-	Input	200/50	250K/62.5K	0	6	80—10K	10	$9.00	$4.35	$7.20	$9.00
SM2-	Interstage 3:1	10K	90K	0	8	100—10K	10	8.70	3.90	6.90	9.00
SM3-	Plate-to-line	10K	200	3	21	150—10K	13	8.70	3.90	6.90	9.00
SM4-	Output	30K	50	1	21	150—10K	13	8.70	3.90	6.90	9.00
SM5-	Reactor 50 hy. at 1 mil DC	3K ohms	DC Resis.	.....	....	.....	20	7.20	3.30	6.30	8.40
SM6-	Output	100K	60	0.5	21	150—10K	13	8.70	4.35	7.05	9.00
SMT1-	Line to base	600	600	9	23	200—15K	17	6.75	3.90	6.00	7.20
SMT3-	Coll. to base or line	50K	600	1	20	300—15K	13	7.35	4.50	6.60	7.80
SMT4-	P-p coll to p-p base	50K CT	600 CT	2	20	200—15K	13	.....	4.95	7.05	8.25
SMT5-	Coll. to speaker	50K	6	1	20	300—15K	13	7.20	4.35	6.45	7.65
SMT7-	Coll. to p-p base	25K	1200 CT	1.5	20	200—15K	13	7.50	4.65	6.75	7.95
SMT8-	P-p coll. to p-p base	50K CT	1200 CT	2	20	200—15K	13	.....	4.95	7.05	8.25
SMT9-	Line to p-p base	600 CT	1200 CT	18	23	200—15K	17	.....	4.20	6.30	7.50
SMT10-	Coll. to base	25K	600	2	20	200—15K	13	7.05	4.20	6.30	7.50
SMT12-	Output coll. to speaker	2K	3.4	5	30	200—15K	13	6.75	3.90	6.00	7.20
SMT13-	Output p-p coll. to speaker	4K CT	3.4	5	30	200—15K	13	6.90	4.05	6.15	7.35
SMT16-	Coll. to p-p base	10K	1500 CT	1	23	200—15K	13	7.50	4.65	6.75	7.95
SMT17-	P-p coll. to p-p base	10K CT	200 CT	6	20	200—15K	13	.....	4.80	6.90	8.10
SMT18-	P-p coll. to p-p base	25K CT	1200 CT	3	20	200—15K	13	.....	4.95	7.05	8.25
SMT19-	Coll. to p-p base	2500	2500 CT	2.5	26	200—15K	13	7.50	4.65	6.75	7.95
SMT26-	Line to base	600 CT	600 CT	18	23	200—15K	17	.....	4.50	6.60	7.80

-CM $12.50 setup charge

★SEE FOURTH PAGE FOR QUANTITY PRICING AND MIL CASE SIZES

†ORDER BY COMPLETE MICROTRAN NO. EXAMPLE, UM21-M

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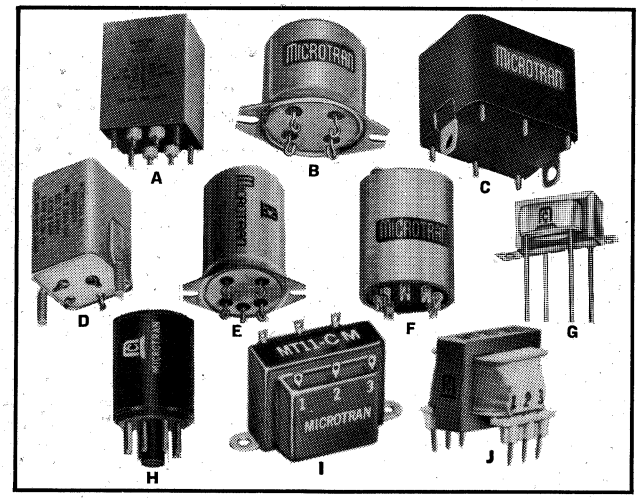
MICROTRAN Miniaturized Transformers



POWER SUPPLY TRANSFORMERS

For silicon rectifier circuitry and filament applications. Hermetically sealed. Primary, 105/115/125 v. Output voltage given for resistive or inductive loads, based on approx. 1 v. drop per rectifier. MIL Type TF4RX01 — (Add MIL Case Type from table) per MIL-T-27B. Fig. A except M8063 and M8069, Fig. B.

400 CYCLE TYPE

Micro. No.	Secondary VAC	Secondary RMS	Rect. Cir. VDC‡	Rect. Cir. VDC#	Size, Inches W. x D. x H.	MIL Case	Net, 1-9*
M8063§	2.85	.045 a.	1.5	3	15/16 dia. x 1 1/16	YY	$10.50
	2.85	.045 a.					
M8064§	6.3 CT	.6 a.	1.9	3.8	1 5/16 x 1 5/16 x 1 3/4	AH	11.10
M8039	12.6 CT	.8 a.	10.5	21	1 5/8 x 1 5/8 x 2 3/8	AJ	15.15
	12.6 CT	.8 a.					
M8018	18.5 CT	1 a.	7	14	1 13/16 x 1 15/16 x 2 3/4	EA	15.30
M8019	18.5 CT	3 a.	7	14	2 1/16 x 2 5/16 x 3 1/8	FA	15.90
M8065	26 CT	1.5 a.	10.7	21.5	1 13/16 x 1 15/16 x 2 3/4	EA	15.60
M8066	26 CT	3	10.7	21.5	2 1/16 x 2 5/16 x 3 1/8	FA	16.05
M8067	30 CT	.5 a.	12.5	25	2 1/16 x 2 5/16 x 2 1/2	FB	15.00
M8020	35 CT	3	14.5	29	2 3/8 x 2 3/4 x 3 13/16	GA	18.00
M8068	40 CT	.2 a.	17	34	1 5/8 x 1 5/8 x 2 3/8	AJ	13.20
M8041§	50 CT	.25 a.	21.5	43	1 5/16 x 1 5/16 x 1 3/4	AH	11.10
M8069§	60 CT	.003 a.	26	52	15/16 dia. x 1 1/16	YY	9.75
M8070§	65 CT	.170 a.	28.4	56.8	1 5/16 x 1 5/16 x 1 3/4	AH	11.25
M8021	70 CT	1 a.	30	60	2 1/16 x 2 5/16 x 3 1/8	FA	16.05
M8071	80 CT	.90 a.	35.2	70.4	2 1/16 x 2 5/16 x 3 1/8	FA	16.20

60 CYCLE TYPE

M8042	6.3 CT	.6 a.	1.9	3.8	1 5/8 x 1 5/8 x 2 3/8	AJ	$10.20
M8043	6.3 CT	2 a.	1.9	3.8	2 1/16 x 2 5/16 x 2 1/2	FB	12.00
M8044	12.6 CT	2 a.	10.5	21	3 1/16 x 3 3/16 x 3 7/8	JB	21.60
	12.6 CT	2 a.					
M8022	18.5 CT	3 a.	7	14	3 1/16 x 3 3/16 x 3 7/8	JB	20.25
M8045	28 CT	.6 a.	11.7	23.4	2 1/16 x 2 5/16 x 3 1/8	FA	16.35
M8055	30 CT	2.5 a.	12.5	25	3 1/16 x 3 3/16 x 4 7/8	JA	25.65
M8023	35 CT	3 a.	14.5	29	3 3/8 x 3 15/16 x 5 1/4	KA	26.10
M8046	49 CT	2.5 a.	21	42	3 11/16 x 4 5/16 x 5 5/16	LA	28.20
M8024	70 CT	1 a.	30	60	3 1/16 x 3 3/16 x 4 7/8	JA	25.65
M8056	80 CT	.6 a.	35	70.5	2 5/8 x 3 1/16 x 4 1/4	HA	16.65
M8057	115 CT	.9 a.	51	102	3 3/8 x 3 15/16 x 5 1/4	KA	25.35

‡CT full wave. #F.W. bridge. §Pri. 115v. only.

400 CYCLE ISOLATION TRANSFORMERS

Electrostatic shielding. Also for use in either F.W. bridge or F.W. CT circuit. MIL Type TF4RX01—. Fig. A except M8058, Fig. B.

No. Micro.	Volts Input	Volts Output	Amps RMS	VA	Size, Inches W. x D. x H.	MIL Case	Net, 1-9*
M8058	115	115 CT	.017	2	15/16 x dia. x 1 7/16	YY	$ 9.60
M8059	115	115 CT	.35	40	1 13/16 x 1 15/16 x 2 7/16	EB	14.70
M8060	115	115 CT	1.3	150	2 3/8 x 2 3/4 x 3 13/16	GA	18.45
M8061	115*	115 CT	2.6	300	3 1/16 x 3 3/16 x 4 7/8	JA	24.90
M8062	115*	115 CT	4.4	500	3 3/8 x 3 15/16 x 5 1/4	KA	26.85

*Primary 105/115/125v.

MINIATURE TRANSISTOR AND AUDIO TRANSFORMERS—MT AND M SERIES

M-M (Fig. C): Molded, for plug-in printed circuit use. Cast epoxy resin provides highest resistance to temperature extremes. MIL Type TF5RX—ZZ (Insert MIL No. from table). Max. Size, 1 9/32" x 7/8" x 7/8". Weight, 1¾ oz. **M-AG (Fig. D):** Enclosed in modified MIL-T-27 BG case with compression sealed ceramic terminals. MIL Type TF4RX—YY. Max. Size, 1" x 1" x 1 3/8". Weight, 2 3/8" oz. **M-H (Fig. E):** Hermetically sealed with high compression glass terminals, gray enamel finish. Available on special order with .120" holes. MIL Type TF4RX—YY. Size 15/16" dia. x 1 1/16" max. Weight, 1¼ oz. **M-A (Fig. F):** Aluminum case with 2-56 screws. MIL Type TF6RX—ZZ. Size, .875" dia. x 1 3/16". Weight, 1.25 oz. **M-FB (Fig. G):** Open frame with channel. Available with plug-in tab channel or without channel on special order. MIL Type TF6RX—ZZ. Size, 1 3/64" x 1 3/16" x 27/32" max., plus tabs. Weight, 1.13 oz. **M-P (Fig. H):** Octal plug-in type in sealed plastic housing. MIL Type TF6RX—ZZ. Size, 1 9/32" dia. x 1 5/32". Weight, 2 oz. **M-A-Sh Shield:** 25 db magnetic shield to match Type M-A. Two clearance holes on 1 1/16" centers. **M-PC (fig. J)** Open Frame printed circuit with terminals molded into bobbin to maintain accurate dimensions for printed circuit board, weight 1.2 oz. size 7/8" x 1 1/32" x 1", terminals 3/16" below bobbin, MIL type TF6RX — ZZ. **M-CM (fig. I)** Contour molded, not stocked-on special order only. Size 1 5/32" x 7/8" x 7/8". $12.50 setup charge.

MINIATURE AUDIO TRANSFORMERS — M SERIES

Microtran No.†	Application	Impedance Pri.	Impedance Sec.	Pri. DC Ma*	Oper. Level, dbm	Freq. Resp. ± 2 db, cps	MIL No.	Net Each, Lots of 1-9* -A	-AG	-FB, -PC	-H	-M, -CM	-P
•M1-	Mike or line to 1 grid	‡	50K	0	5	20—20K	10	$ 7.50	$ 9.90	$ 4.05	$ 9.00	$ 9.90	$ 8.85
•M2-	Mike or line to 2 grids	‡	50K CT	0	5	20—20K	10	7.65	10.35	4.20	9.45	10.20	8.85
M3-	Dynamic mike to 1 grid	7.5/30	50K	0	5	20—20K	10	7.50	9.90	3.90	9.00	9.75	8.40
M4-	Single plate to 1 grid	15K	60K	0	6	20—15K	10	6.45	8.55	3.45	7.65	8.55	7.50
M5-	Single plate to 1 grid	15K	60K	4	14	200—20K	15	6.45	8.55	3.45	7.65	8.55	7.50
M6-	Single plate to 2 grids	15K	95K CT	0	5	20—15K	10	7.35	9.45	3.60	8.55	9.45	8.25
M7-	Single plate to 2 grids	15K	95K CT	4	11	200—20K	15	7.35	9.75	3.75	8.85	9.75	8.25
M8-	Single plate to line	15K	‡	0	8	20—20K	16	7.65	10.50	3.75	9.60	10.50	8.85
M9-	Single plate to line	15K	‡	0	21	150—20K	13	7.65	10.50	3.75	9.60	10.50	8.85
•M10-	Push-pull plate to line	30K, p-p	‡	0	8	30—50K	16	8.25	10.80	3.90	9.60	10.80	9.00
•M11-	Crystal mike to line	50K	‡	0	5	20—20K	16	7.65	10.50	3.75	9.30	10.50	8.85
•M12-	Mixing and matching	§	‡	0	8	20—20K	16	7.50	10.50	3.75	9.30	10.50	9.00
M13-	Reactor	300#	¶	.....	....	6K ohms DCR	20	6.15	8.25	3.30	7.35	8.25	7.50
M14-	50:1 mike to grid	200	½ meg.	0	9	80— 3K	10	7.35	9.90	3.90	9.00	10.20	8.85
M15-	10:1 plate to grid	10K	1 meg.	0	11	100—2500	10	7.35	9.30	3.60	8.40	9.30	8.85

MINIATURE TRANSISTOR TRANSFORMERS — MT SERIES

MT1-	Line to base	600	600	10	23	200—15K	17	$7.20	$8.70	$3.60	$7.80	$9.00	$7.35
•MT2-	Coll. to p-p base 2N57	100	10 CT/ 40 CT	100	27	200—20K	17	8.10	9.60	4.20	8.70	9.90	8.25
MT3-	Coll. to base or line	50K	600	3	20	300—15K	13	7.80	9.30	3.90	8.40	9.60	7.95
MT5-	Coll. to speaker	50K	6	3	20	300—15K	13	7.80	9.30	3.90	8.40	9.60	7.95
MT6-	Coll. to p-p base	100K	1200 CT	1.4	17	200—15K	13	7.95	9.45	4.05	8.55	9.75	8.10
MT7-	Coll. to p-p base	25K	1200 CT	3	22	200—15K	13	7.95	9.45	4.05	8.55	9.75	8.10
MT8-	P-p coll. to p-p base	50K CT	1200 CT	3	20	300—15K	13	8.10	9.60	4.20	8.70	9.90	8.25
MT9-	Line to p-p base	600 CT	1200 CT	4	23	200—15K	17	8.10	9.60	4.20	8.70	9.90	7.80
MT10-	Coll. to base	25K	600	3	22	200—15K	13	7.80	9.30	3.90	8.40	9.60	7.95
MT11-	P-p coll. to p-p base	4K CT	600 CT	3	32	200—15K	13	8.10	9.60	4.20	8.70	9.90	8.25
MT12-	Output coll. to spkr.	2K	3.4	10	32	200—15K	13	7.80	9.30	3.90	8.40	9.60	7.95
MT13-	P-p coll. to spkr.	4K CT	3.4	3	32	200—15K	13	7.95	9.45	4.05	8.55	9.75	8.10
MT14-	Coll. to spkr. 2N179	400	10	50	25	200—20K	13	7.20	8.70	3.60	7.80	9.00	7.35
MT15-	P-p servo output 2N57	500 CT	210	30	27	300—20K	17	7.80	9.30	3.90	8.40	9.60	7.95
MT18-	P-p coll. to p-p base	25K CT	1200 CT	6	22	200—15K	13	8.10	9.60	4.20	8.70	9.90	8.25
•MT20-	P-p coll. to p-p base	50K CT	△	3	20	300—15K	13	8.40	9.90	4.50	9.00	10.20	8.55
•MT21-	P-p coll. to p-p base	4K CT	■	3	32	200—15K	13	8.25	9.75	4.35	8.85	10.05	8.40
•MT22-	Line to p-p base	■	1200 CT	4	23	200—15K	17	8.25	9.75	4.35	8.85	10.05	8.40
MT23-	P-p coll. to servo	250 CT	1000	10	30	200—15K	17	7.80	9.30	3.90	8.40	9.60	7.95
MT24-	Coll. to p-p base	2500	600 CT	10	32	200—15K	17	7.80	9.30	3.90	8.40	9.60	7.95
MT25-	P-p coll. to p-p base	7500 CT	600 CT	8	32	200—15K	12	8.10	9.60	4.20	8.70	9.90	8.25
MT26-	Line to p-p base	600 CT	600 CT	20	23	200—15K	17	7.95	9.45	4.05	8.55	9.75	8.10
MT29-	P-p coll. to servo	1600 CT	450	15	30	200—15K	17	7.80	9.30	3.90	8.40	9.60	7.95
MT30-	P-p coll. to servo	250 CT	500	10	30	200—15K	17	7.80	9.30	3.90	8.40	9.60	7.95
M-A-Sh	Shield can for M-A	.....	.....	.....	....	.....	....	1.35	.....	.....	.....	.....	.....

*Unbalanced. ‡50/250/600 CT. §50/250 CT. #Hy. 0 DC. ¶50 h. at 3 ma. △1200/300 split. ■600/150 split. •These items are not available in —PC construction.

★SEE FOURTH PAGE FOR QUANTITY PRICING. †ORDER BY COMPLETE MICROTRAN NUMBER: EXAMPLE M1-A.
Also see EEM pages for additional items and list of franchised distributors.

Net
© U.C.P., Inc.

MICROTRAN Miniaturized Transformers

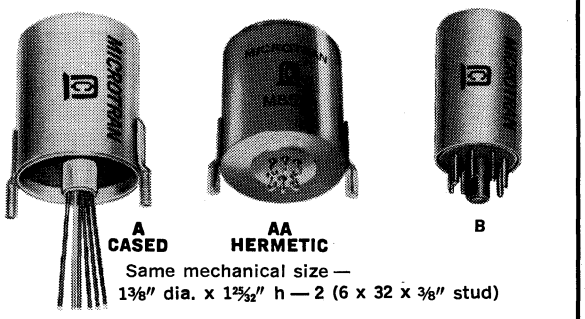
LOW LEVEL CHOPPER INPUT TRANSFORMERS

Efficiently transfers 30—500 cps. Transducer or thermocouple signals to instrument amplifiers. Resin impregnated to minimize mechanical vibration noise signal. Three mu-metal and two copper shields insure low hum pickup. Accurate center taps and external electrostatic shield connection improve low level operation. Signal level range. 0.5 μv to 0.5 v. 90 db magnetic shielding. Size, 1⅜" dia. x 1²³⁄₃₂" h — 2 (6 x 32 x ⅜" stud), on 1½" centers. Weight 4.5 oz.

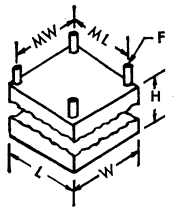
Microtran No.	Turn Ratio Full Pri.- Full Sec.	Turn Ratio ½ Pri.- Full Sec.	Full Pri. Hys*	Full Pri. Imped.*	DC Resis. Full Pri.	DC Resis. Sec.	Fig. No.	Net Each, 1-9*
M8025	1:7.7	1:15.4	17.5	6,600	365Ω	4140Ω	A	$13.80
M8026	1:3.2	1:6.4	60 hy	22,500	455Ω	3500Ω	A	13.80
M8052	1:4.53	1:9.06	90	34,000	760Ω	5220Ω	A	14.25
M8053*	1:0.5	1:1	140	53,000	920Ω	653Ω	A	13.65

Microtran No.	Turn Ratio Full Pri.- Full Sec.	Turn Ratio ½ Pri.- Full Sec.	Full Pri. Hys*	Full Pri. Imped.*	DC Resis. Full Pri.	DC Resis. Sec.	Fig. No.	Net Each, 1-9*
M8525	1:7.7	1:15.4	17.5	6,600	365Ω	4140Ω	AA	$16.65
M8526	1:3.2	1:6.4	60 hy	22,500	455Ω	3500Ω	AA	16.55
M8552	1:4.53	1:9.06	90	34,000	760Ω	5220Ω	AA	17.10
M8553*	1:0.5	1:1	140	53,000	920Ω	653Ω	AA	16.50

*Secondary is center tapped. At 0.5 v., 60 cps.



Same mechanical size — 1⅜" dia. x 1²³⁄₃₂" h — 2 (6 x 32 x ⅜" stud)



Case Sizes

PLUG-IN TRANSFORMERS (FIG. B)

Broadcast fidelity type, double mu-metal shielded. Octal base, except M8032 and M8033, 9-pin.
M8030 is designed as a replacement for Ampex No. 1733-1; M8032 and M8033 mate with sockets on many RCA amplifiers. Frequency Response: ±2 db, 20-20K. (M8031, ±2 db, 30-20K.) Magnetic shielding, 65 db. Level, +5 dbm.

Micro No.	Impedance Pri.	Impedance Sec.	Size, In. H. x Dia.	Wt., Oz.	Net Ea., 1-9*
M8030	200/50 CT	50K	2⅛ x 1⅛ dia.	6	$13.50
M8031	600 CT/150	50K	2⅛ x 1⅛ dia.	6	13.35
M8032	250 CT	50K	2⅛ x 1⅛ dia.	6	13.05
M8033	50 CT	50K	2⅛ x 1⅛ dia.	6	13.05

MODEL 400K TRANSISTOR TRANSFORMER SELECTOR KIT (FIG. C)

- **IDEAL FOR BREADBOARD CIRCUITRY**
- **FULL DESIGN DATA**

Set of nine transistor transformers covers impedance range of 150 through 200K ohms, matching most new transistor impedance ratings. Sizes range from a ⅜" cube to ¾" x ¾" x 1". All units vacuum resin impregnated for long, reliable life and for protection against rough handling. Each type has 4" color-coded leads. Includes full design data: nomographs and circuitry for determining correct impedances for Class A and B transistor amplifiers; power versus dbm chart; terminal connection sheet; guide to MIL-T-27B; cross reference index; outline drawings for later selection of stock items with same electrical ratings in many other mechanical constructions. Individually boxed in transparent plastic case. **Model 400K Transistor Transformer Selector Kit** Net Each $29.50*
*Standard quantity discounts do **not** apply.

MICROTRAN TRANSFORMERS ARE AVAILABLE IN MANY OTHER MECHANICAL AND ELECTRICAL TYPES ON SPECIAL ORDER. WRITE FOR COMPLETE INFORMATION.

STANDARD MIL-T-27B CASE SIZES

Case Type	Size, Inches W. x L. x H.	Mtg. Centers, In. ML	Mtg. Centers, In. MW	Stud Type F
AF	¾ x ¾ x 1⅛	1³⁄₁₆*	.....	4-40 x ⅜
AG	1 x 1 x 1⅜	1⅛*	.....	6-32 x ⅜
AH	1⅝ x 1⅝ x 1¾	1¼†	.....	6-32 x ⅜
AJ	1⅝ x 1⅝ x 2⅜	1³⁄₁₆	1³⁄₁₆	6-32 x ⅜
EA	1¹³⁄₁₆ x 1¹⁵⁄₁₆ x 2¾	1⅜	1¼	6-32 x ⅜
EB	1¹³⁄₁₆ x 1¹⁵⁄₁₆ x 2⅞	1⅜	1¼	6-32 x ⅜
FA	2⅛ x 2⅝ x 3⅛	1¹¹⁄₁₆	1⅞	6-32 x ⅜
FB	2⅛ x 2⅝ x 2½	1¹¹⁄₁₆	1⅞	6-32 x ⅜
GA	2⅜ x 2¾ x 3¹³⁄₁₆	2⅛	1¾	6-32 x ⅜
HA	2⅝ x 3⅛ x 4¼	2¹⁹⁄₆₄	1⁵⁵⁄₆₄	8-32 x ⅜
JA	3⅛ x 3⅝ x 4⅞	2⅝	2⅛	8-32 x ⅜
JB	3⅛ x 3⅝ x 3⅞	2⅝	2⅛	8-32 x ⅜
KA	3⅜ x 3¹⁵⁄₁₆ x 5¼	3	2⅞	10-32 x ½
LA	3¹¹⁄₁₆ x 4⅝ x 5⅞	3⅝	2¹¹⁄₁₆	10-32 x ½
YY	All metal not included above or with non-std. mtg. ctrs.			
ZZ	Open type and encapsulated			

*Not in conformance with MIL-T-27B. †Two studs in a diagonal.

★QUANTITY PRICING

Net Each, 1-9	Net Each, Lots of 10-49	50-99	100-249
$ 1.35	$ 1.22	$ 1.13	$ 0.90
3.30	2.97	2.75	2.20
3.45	3.10	2.88	2.30
3.60	3.24	3.00	2.40
3.75	3.38	3.13	2.50
3.90	3.51	3.25	2.60
4.05	3.64	3.38	2.70
4.20	3.78	3.50	2.80
4.35	3.92	3.63	2.90
4.50	4.05	3.75	3.00
4.65	4.19	3.88	3.10
4.80	4.32	4.00	3.20
4.95	4.46	4.13	3.30
5.10	4.59	4.25	3.40
5.25	4.73	4.38	3.50
5.40	4.86	4.50	3.60
5.55	5.00	4.63	3.70
5.70	5.13	4.75	3.80
5.85	5.27	4.88	3.90
6.00	5.40	5.00	4.00
6.15	5.54	5.13	4.10
6.30	5.67	5.25	4.20
6.45	5.81	5.38	4.30
6.60	5.94	5.50	4.40
6.75	6.08	5.63	4.50
6.90	6.21	5.75	4.60
7.05	6.35	5.88	4.70
7.20	6.48	6.00	4.80
7.35	6.62	6.13	4.90
7.50	6.75	6.25	5.00

Net Each, 1-9	Net Each, Lots of 10-49	50-99	100-249
$ 7.65	$ 6.89	$ 6.38	$5.10
7.80	7.02	6.50	5.20
7.95	7.16	6.63	5.30
8.10	7.29	6.75	5.40
8.25	7.43	6.88	5.50
8.40	7.56	7.00	5.60
8.55	7.70	7.13	5.70
8.70	7.83	7.25	5.80
8.85	7.97	7.38	5.90
9.00	8.10	7.50	6.00
9.15	8.24	7.63	6.10
9.30	8.37	7.75	6.20
9.45	8.51	7.88	6.30
9.60	8.64	8.00	6.40
9.75	8.77	8.13	6.50
9.90	8.91	8.25	6.60
10.05	9.05	8.38	6.70
10.20	9.18	8.50	6.80
10.35	9.32	8.63	6.90
10.50	9.45	8.75	7.00
10.80	9.72	9.00	7.20
11.10	9.99	9.25	7.40
11.25	10.12	9.38	7.50
11.40	10.26	9.50	7.60
11.55	10.39	9.63	7.70
11.70	10.53	9.75	7.80
11.85	10.66	9.88	7.90
12.00	10.80	10.00	8.00
12.30	11.07	10.25	8.20
13.05	11.74	10.88	8.70

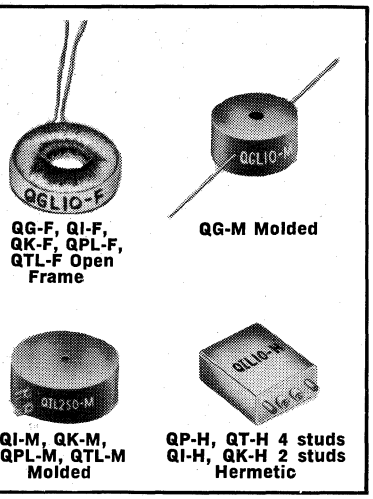
Net Each, 1-9	Net Each, Lots of 10-49	50-99	100-249
$13.20	$11.88	$11.00	$ 8.80
13.35	12.01	11.13	8.90
13.50	12.15	11.25	9.00
13.65	12.28	11.38	9.10
13.80	12.42	11.50	9.20
14.25	12.82	11.88	9.50
14.55	13.09	12.13	9.70
14.70	13.23	12.25	9.80
14.85	13.36	12.38	9.90
15.00	13.50	12.50	10.00
15.15	13.63	12.63	10.10
15.30	13.77	12.75	10.20
15.60	14.04	13.00	10.40
15.90	14.31	13.25	10.60
16.05	14.44	13.38	10.70
16.20	14.58	13.50	10.80
16.35	14.71	13.63	10.90
16.65	14.98	13.88	11.10
18.00	16.20	15.00	12.00
18.45	16.60	15.37	12.30
20.25	18.22	16.87	13.50
21.60	19.44	18.00	14.40
24.90	22.41	20.75	16.60
25.35	22.81	21.12	16.90
25.65	23.09	21.38	17.10
26.10	23.49	21.75	17.40
26.70	24.03	22.25	17.80
26.85	24.16	22.38	17.90
28.20	25.38	23.50	18.80

ORDER BY COMPLETE MICROTRAN NUMBER
Also see EEM pages for additional items and list of franchised distributors.

MICROTRAN Toroidal Inductors

MICRO-MINIATURE TOROIDAL INDUCTORS — QG SERIES

QG-F: Open frame microcrystalline wax dipped with 4" #27 plastic leads. Size, 5/8" dia. x 9/32". **QG-M:** Molded in high temperature epoxy resin with .020" x 2" gold plated nickel alloy leads. Leads may be bent downward for plug-in printed circuit use. Size, 7/8" dia. x 3/8".



QG-F, QI-F, QK-F, QPL-F, QTL-F Open Frame

QG-M Molded

QI-M, QK-M, QPL-M, QTL-M Molded

QP-H, QT-H 4 studs
QI-H, QK-H 2 studs
Hermetic

QGL SERIES

Frequency range, to 20 kc; accuracy, ±2%.

Microtran No.†	Inductance	Typ. DC Res., Ohms	Typ. Dist. Cap. μμf	-F Open Frame Net Each, Lots of 1-9	10-49	50-99	100-249	-M Molded Net Each, Lots of 1-9	10-49	50-99	100-249
QGL5-	5 mh	2.5	30	$4.35	$3.92	$3.63	$2.90	$5.70	$5.13	$4.75	$3.80
QGL10-	10 mh	5	33	4.35	3.92	3.63	2.90	5.70	5.13	4.75	3.80
QGL15-	15 mh	8	34	4.50	4.05	3.75	3.00	5.85	5.27	4.88	3.90
QGL50-	50 mh	28	40	4.80	4.32	4.00	3.20	6.30	5.67	5.25	4.20
QGL100-	100 mh	50	42	4.95	4.46	4.13	3.30	6.45	5.81	5.38	4.30
QGL500-	500 mh	290	48	5.40	4.86	4.50	3.60	7.20	6.48	6.00	4.80
QGL1000-	1 hy.	530	51	6.15	5.54	5.13	4.10	7.95	7.16	6.63	5.30
QGL1500-	1.5 hys.	825	53	6.30	5.67	5.25	4.20	8.70	7.83	7.25	5.80

QGM SERIES

Frequency range, 2-100 kc; accuracy, ±2%.

QGM1-	1 mh	1.4	22	$4.80	$4.32	$4.00	$3.20	$6.45	$5.81	$5.38	$4.30
QGM5-	5 mh	6	28	5.10	4.59	4.25	3.40	6.60	5.94	5.50	4.40
QGM10-	10 mh	12	31	5.25	4.73	4.38	3.50	6.75	6.08	5.63	4.50
GM15-	15 mh	18	32	5.40	4.86	4.50	3.60	6.90	6.21	5.75	4.60
QGM25-	25 mh	30	35	5.70	5.13	4.75	3.80	7.05	6.35	5.88	4.70
QGM50-	50 mh	52	37	6.30	5.67	5.25	4.20	7.35	6.62	6.13	4.90

SUBMINIATURE TOROIDAL INDUCTORS — QIL SERIES

Frequency range to 20 kc; accuracy ±2%. **QIL-M:** Molded in high temperature epoxy with silver plated turret lugs. Size, 13/16" dia. x 1/2". **QIL-H:** Hermetically sealed in metal case with Teflon® terminals. Size, 1 1/16" x 1/2" x 1 7/32". **QIL-F:** Open frame. Microcrystalline wax dipped with 4" #27 plastic leads. Size, 1" dia. x 13/32".

®Registered DuPont trademark.

Microtran No.†	Inductance	Type. DC Res., Ohms	Type. Dist. Cap., μμf	-F Open Frame Net Each, Lots of 1-9	10-49	50-99	100-249	-H Hermetic Net Each, Lots of 1-9	10-49	50-99	100-249	-M Molded Net Each, Lots of 1-9	10-49	50-99	100-249
QIL5-	5 mh	1.1	38	$3.90	$3.51	$3.25	$2.60	$6.75	$6.08	$5.63	$4.50	$5.25	$4.73	$4.38	$3.50
QIL10-	10 mh	2.1	40	3.90	3.51	3.25	2.60	6.75	6.08	5.63	4.50	5.25	4.73	4.38	3.50
QIL25-	25 mh	5.3	45	4.05	3.65	3.38	2.70	7.20	6.48	6.00	4.80	5.40	4.86	4.50	3.60
QIL50-	50 mh	11	47	4.05	3.65	3.38	2.70	7.20	6.48	6.00	4.80	5.40	4.86	4.50	3.60
QIL100-	100 mh	22	49	4.20	3.78	3.50	2.80	7.65	6.89	6.38	5.10	5.70	5.13	4.75	3.80
QIL250-	250 mh	55	53	4.50	4.05	3.75	3.00	8.25	7.43	6.88	5.50	6.00	5.40	5.00	4.00
QIL500-	500 mh	95	55	4.80	4.32	4.00	3.20	8.55	7.70	7.13	5.70	6.30	5.67	5.25	4.20
QIL1000-	1 hy.	210	57	5.10	4.59	4.25	3.40	9.00	8.10	7.50	6.00	6.75	6.08	5.63	4.50
QIL2500-	2.5 hys.	550	61	6.75	6.08	5.63	4.50	10.80	9.72	9.00	7.20	8.70	7.83	7.25	5.80

MINIATURE TOROIDAL INDUCTORS — QK SERIES

QK-F: Open frame, microcrystalline wax dipped; 4" # 27 plastic leads. Size, 1 1/4" dia. x 5/8". **QK-H:** Hermetic with Teflon terminals. Size, 1 15/32" x 25/32" x 1 47/64". **QK-M:** Molded in high temperature epoxy resin; silver plated turret lugs. Size, 1 3/8" dia. x 3/4².

QKL SERIES

Frequency range, 10 kc; accuracy, ±2%.

Microtran No.†	Inductance	Type. DC Res., Ohms	Type. Dist. Cap., μμf	-F Open Frame Net Each, Lots of 1-9	10-49	50-99	100-249	-H Hermetic Net Each, Lots of 1-9	10-49	50-99	100-249	-M Molded Net Each, Lots of 1-9	10-49	50-99	100-249
QKL10-	10 mh	1.1	66	$4.50	$4.05	$3.75	$3.00	$7.20	$6.48	$6.00	$4.80	$6.15	$5.54	$5.13	$4.10
QKL25-	25 mh	2.8	72	4.65	4.19	3.88	3.10	7.50	6.75	6.25	5.00	6.15	5.54	5.13	4.10
QKL50-	50 mh	6	76	4.65	4.19	3.88	3.10	7.80	7.02	6.50	5.20	6.15	5.54	5.13	4.10
QKL100-	100 mh	11	81	4.80	4.32	4.00	3.20	8.40	7.56	7.00	5.60	6.60	5.94	5.50	4.40
QKL250-	100 mh	28	87	4.95	4.46	4.13	3.30	8.85	7.97	7.38	5.90	6.75	6.08	5.63	4.50
QKL500-	500 mh	63	91	5.10	4.59	4.25	3.40	9.15	8.24	7.63	6.10	6.90	6.21	5.75	4.60
QKL1000-	1 hy.	110	96	5.25	4.73	4.38	3.50	9.60	8.64	8.00	6.40	7.20	6.48	6.00	4.80
QKL5000-	5 hys.	645	106	6.75	6.08	5.63	4.50	11.10	9.99	9.25	7.40	8.40	7.56	7.00	5.60
QKL10,000-	10 hys.	1175	112	7.50	6.75	6.25	5.00	12.45	11.20	10.38	8.30	9.60	8.64	8.00	6.40

QKM SERIES

Frequency range, 5-50 kc; accuracy, ±2%.

QKM2-	2 mh	0.45	52	$5.10	$4.59	$4.25	$3.40	$8.25	$7.43	$6.88	$5.50	$6.30	$5.67	$5.25	$4.20
QKM5-	5 mh	1.1	58	5.25	4.73	4.38	3.50	8.40	7.56	7.00	5.60	6.45	5.81	5.38	4.30
QKM10-	10 mh	2.5	62	5.25	4.73	4.38	3.50	8.55	7.70	7.13	5.70	6.60	5.94	5.50	4.40
QKM25-	25 mh	6.5	70	5.40	4.86	4.50	3.60	8.85	7.97	7.38	5.90	6.75	6.08	5.63	4.50
QKM50-	50mh	11	74	5.55	5.00	4.63	3.70	9.00	8.10	7.50	6.00	6.90	6.21	5.75	4.60

HIGH-Q TOROIDAL INDUCTORS — QPL SERIES

Frequency range to 10 kc; accuracy ±2%. **QPL-F:** Open frame, microcrystalline wax dipped; 4" #24 leads. Size, 1 15/16" dia. x 7/8". **QPL-H:** Hermetically sealed with Teflon terminals. Size, 1 15/16" x 1 1/16" x 2 9/32". **QPL-M:** Molded in high temperature epoxy resin; silver plated turret lugs. Size, 2" dia. x 1".

Microtran No.†	Inductance	Type. DC Res., Ohms	Type. Dist. Cap., μμf	-F Open Frame Net Each, Lots of 1-9	10-49	50-99	100-249	-H Hermetic Net Each, Lots of 1-9	10-49	50-99	100-249	-M Molded Net Each, Lots of 1-9	10-49	50-99	100-249
QPL25-	25 mh	1.5	100	$ 6.90	$ 6.21	$ 5.75	$ 4.60	$10.35	$ 9.32	$ 8.63	$ 6.90	$ 8.55	$ 7.70	$ 7.13	$ 5.70
QPL50-	50 mh	2.5	105	7.05	6.35	5.88	4.70	10.50	9.45	8.75	7.00	8.70	7.83	7.25	5.80
QPL100-	100 mh	6	110	7.20	6.48	6.00	4.80	10.65	9.58	8.88	7.10	8.85	7.97	7.38	5.90
QPL500-	500 mh	25	120	7.50	6.75	6.25	5.00	10.95	9.82	9.13	7.30	9.60	8.64	8.00	6.40
QPL1000-	1 hy.	60	125	7.80	7.02	6.50	5.20	11.40	10.26	9.50	7.60	9.90	8.91	8.25	6.60
QPL5000-	5 hys.	350	138	9.45	8.51	7.88	6.30	13.20	11.88	11.00	8.80	11.10	9.99	9.25	7.40
QPL10,000-	10 hys.	600	142	11.10	9.99	9.25	7.40	15.00	13.50	12.50	10.00	12.90	11.61	10.75	8.60
QPL25,000-	25 hys.	1500	150	13.05	11.74	10.88	8.70	17.55	15.80	14.63	11.70	15.45	13.90	12.88	10.30

HIGH-Q TOROIDAL INDUCTORS — QTL SERIES

Frequency range to 15 kc; accuracy, ±2%. **QTL-F:** Open frame, microcrystalline wax dipped with 4" #24 leads. Size 2 1/16" dia. x 1". **QTL-H:** Hermetic, Teflon terminals. Size, 2 1/16" x 1 5/16" x 2 13/16". **QTL-M:** Molded in epoxy resin. Size, 2 7/8" dia. x 1 3/8".

QTL50-	50 mh	1.5	136	$10.95	$ 9.85	$ 9.13	$ 7.30	$13.65	$12.28	$11.38	$ 9.10	$12.75	$11.47	$10.63	$ 8.50
QTL100-	100 mh	2.8	144	11.25	10.12	9.38	7.50	13.95	12.55	11.63	9.30	13.05	11.74	10.88	8.70
QTL500-	500 mh	15	164	12.15	10.93	10.13	8.10	14.85	13.36	12.38	9.90	13.95	12.55	11.63	9.30
QTL1000-	1 hy.	27	173	12.15	10.93	10.13	8.10	15.15	13.63	12.63	10.10	13.95	12.55	11.63	9.30
QTL2500	2.5 hys.	70	184	13.05	11.74	10.88	8.70	16.05	14.44	13.38	10.70	14.85	13.36	12.38	9.90
QTL5000-	5 hys.	140	192	13.05	11.74	10.88	8.70	16.65	14.98	13.88	11.10	15.00	13.50	12.50	10.00
QTL10,000-	10 hys.	270	200	14.25	12.82	11.88	9.50	17.25	15.53	14.38	11.50	16.20	14.58	13.50	10.80
QTL25,000-	25 hys.	850	212	16.50	14.85	13.75	11.00	19.50	17.55	16.25	13.00	18.45	16.61	15.38	12.30
QTL50,000-	50 hys.	1500	221	22.20	19.98	18.50	14.80	25.20	22.68	21.00	16.80	24.15	21.74	20.13	16.10

†ORDER BY COMPLETE MICROTRAN NUMBER; EXAMPLE QGL5-F.
Also see EEM pages for additional items and list of franchised distributors.

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MICROTRAN company, inc.

designs to meet your needs

PROTOTYPES • SHORT RUNS • PRODUCTION RUNS SOLICITED

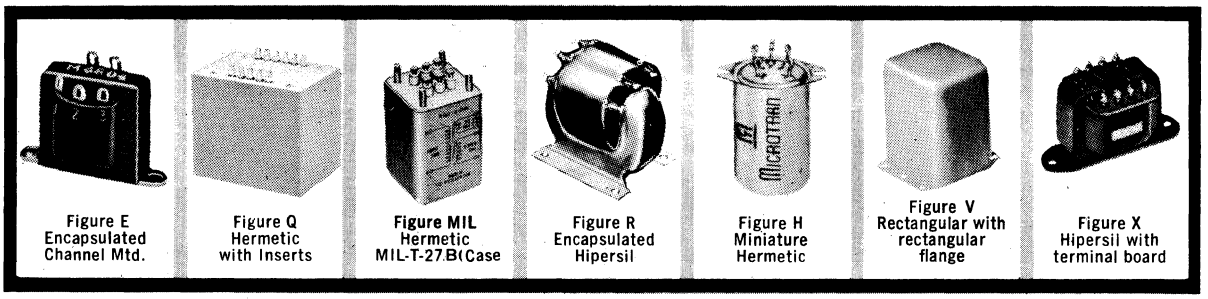

Figure E Encapsulated Channel Mtd. | Figure Q Hermetic with Inserts | Figure MIL Hermetic MIL-T-27B Case | Figure R Encapsulated Hipersil | Figure H Miniature Hermetic | Figure V Rectangular with rectangular flange | Figure X Hipersil with terminal board

Separate Sampling Department for quick delivery. Immediate service assured by large stocks of high temperature insulation and other specialized materials. IN-PLANT TESTING assures full compliance with military requirements and often saves weeks on contract completion. Units can be supplied to meet MIL-T-27B, MIL-T-9219, CAA-R-9786, MIL-E-5400, MIL-E-16400, MIL-E-4158, MIL-E-8189A, MCREE-553, MIL-T-21200, MIL-Q-9858.

NOT STOCK, CUSTOM BUILT TO ORDER ONLY

400 CYCLE POWER SUPPLY TRANSFORMERS

Part No.	Secondary A.C. Volts	Secondary R.M.S. Amps.	Test Volts R.M.S.	Figure
M3144	1	3	1000	AG
M2655	6.3/6.3#	1.5/1.5	1500	MIL
M2810	6.3C.T./6.3C.T.#	2.0/2.0	100	MIL-EA
M2611	6.3C.T./6.3C.T.#	2.0/10.0	100	Q
M4282*†	6.3C.T.	10.0	2500	MIL-FA
M4076††	6.3	20.0	2000	MIL-JB
M4042	12.6	0.25	1000	MIL-AH
M2724	12.6C.T./6.3#	3.0/1.2	1000	MIL
M2830	12.6C.T./12.6C.T.#	5.0/5.0	500	MIL-IA
M4017	26C.T./6.3C.T.#	0.1/1.7	1000	FB
M3142	26	6.5	1500	MIL-JA
M2880**	32	5.5	500	MIL-KA

400 CYCLE PLATE/FILAMENT POWER TRANSFORMERS

Part No.	Plate Supply A.C. Volts	Plate Supply D.C. Ma.	Rectifier Volts	Filament Amps	Figure
M2751	115	5	6.3	0.35	W
M2448	128/26	20/800	6.3	2.6	MIL-FA
M1092-2	800C.T.	60	12.6C.T.	1.0	R
M1144	40	180	26.0	1.2	MIL-FA

*105/115/125 Pri. **110/115/120 Pri. †MS 16472 ††MS 16402 #Separate Wdgs

60 CYCLE POWER SUPPLY TRANSFORMERS

Part No.	Secondary A.C. Volts	Secondary R.M.S. Amps	Test Volts R.M.S.	Figure
M1606	2.5	.01	500	H
M2229	6.3C.T./6.3C.T.#	0.6	1,000	FB
M2551	6.3	2.0	1,500	FB
M1395*	24.0	1.0	1,500	MIL-GA
M2530	25.0/25.0#	.23/.23	1,000	MIL-GB
M2808	34.0	15.0	500	MIL
M2531	40.0/40.0#	.4/.4	1,000	MIL-HB

*117V Primary

60 CYCLE ISOLATION TRANSFORMER

Part No.	Input Voltage	Output Voltage	V.A. Rating	Figure
M2787†	110	110	0.8	FB
M2901	115	115	6.0	V
M2294†	105/115/125	118C.T.	90.	MIL
M2595	117	117	250.	K

*117V Primary. #Separate Winding. †Electrostatic Shielding.

FILTER REACTORS

Part No.	Current D.C. Ma.	Inductance Henries	D.C.R. Ohms	Test Volts	Figure
FR-2	60	10	230	2,000	MIL-FA
M2490	85	15	300	2,500	V
M2243	500	2	30	1,500	MIL-KA
M2278	1A	0.05	2	500	MIL-FA
M2909	1.75A	0.016	0.5	500	MIL-GA
M2474	5A	0.005	0.03	500	MIL
M3494	6.5A	0.04	0.5	1,000	MIL-NA
M2473	25A	0.005	0.032	500	MIL

400 CYCLE SERVO DRIVER & OUTPUT TRANSFORMERS

Part No.	Primary Impedance	Pri. Unbal. D.C. Ma.	Secondary Impedance	Power Level	Figure
M2996	†20 K	3.	25	25 Mw.	MIL-AG
M2956	1,000 C.T.	0.	1,000 C.T.	150 Mw.	FPB
M2477	8,000 C.T.	4.	500 C.T.	500 Mw.	FB
M1378	6,000	38.	180	1.3 Watts	H
M2254	200 C.T.	20.	1,000	3.0 Watts	F
M2769	10,000 C.T.	9.	500	7 Watts	E
M2795	48 C.T.	30.	176	9 Watts	FB
M2849	62 C.T.	75.	510 C.T.	16 Watts	MIL-FB

†40 db Magnetic Shielding

400 CYCLE DEMODULATOR SUPPLY TRANSFORMERS

Part No.	Primary Volts	Secondary A.C. Volts	Secondary R.M.S. Ma.	Figure
M4035	6.3	2.2/2.2	10/10	M
M4284	26	3.5/3.5	15/15	F
M3434	115/57.5	5/5	1/1	R
M3472	115	30 C.T./0.5	4/50	E

AUDIO REACTORS

Part No.	Inductance Henries	Current D.C. Ma.	D.C.R. Ohms.	Figure
M2495	1.0	0	50	F
M1812	2.0	3.0	780	F
M2501	10.0	0	318	FPB
M3285	30.0	0	390	F
M2402	100.0	0	1,700	FB
M2180	25/50/250	1/0.5/0	770	F

LOW LEVEL CHOPPER INPUT TRANSFORMERS

Part No.	Freq.	Turns Ratio ½ Pri. to Full Sec.	Ind. of Full Pri.	Imped. of Full Pr.	Magnetic Shielding	Figure
M3297	400	15.8/1	.65 Hy.	1 MEG	45 db	G
M3174	100	1/1	50	30 K	90 db	S
M2988	55	1/1	140	10 K	90 db	S
M2057	400	1/2.81	100	250 K	None	H

Also see EEM pages for additional items and list of franchised distributors.

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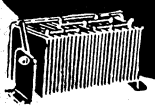
DIRECTRON

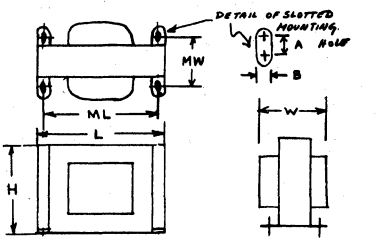


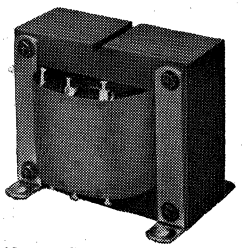
Industrial Transformers, Selenium and Silicon Rectifiers, Chokes and Power Supplies

RECTIFIER TRANSFORMERS

Transformers are with 2 — 18 volt center-tapped windings. Connected in series delivers 36 volts as rated. Connected in parallel — delivers 18 volts at twice rated current. (Taps 9, 18, 27, 36 V.)

Primary taps at 100, 105, 110 and 115 volts available on 12 amp, 24 amp, 30 amp and 50 amp transformers. No extra charge.





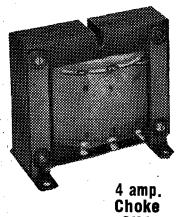
12 amp. Transformer 18T12

Part No.	Amp.	Users Net Price	L (MAX)	W (MAX)	H (MAX)	ML ±1/16	MW ±1/8	A ±1/64	B ±1/64	Weight
18 T 1	1	$ 5.75	2 31/32	3	2 3/4	2 1/2.	2 1/4	1/8	13/64	2.5
18 T 2	2	7.90	3 13/16	3	2 3/8	3 1/8	2			3.4
18 T 4	4	9.50	4 3/16	3	3 3/4	3 7/16	2 3/8			5.5
18 T 8	8	16.50	4 7/16	3 5/8	4	3 3/4	3			9.5
18 T 12	12	18.00	5 5/16	4 1/4	4 1/2	4 3/8	3 3/8		9/32	14.5
18 T 24	24	39.00	6 1/2	4 5/8	5 1/2	5 5/16	3 3/8	9/32		22
18 T 30	30	48.00	6 1/2	5	5 1/2	5 5/16	3 5/8			25
18 T 50	50	58.00	6 1/2	5 3/4	5 1/2	5 5/16	4 3/8			33
WITH 2-28 CENTER TAP WINDINGS										
28 T 2	2	$ 9.25	3 7/8	3 1/4	3 1/8	2 1/2	2 3/8	1/8	13/16	5
28 T 4	4	13.75	4 1/4	3 3/4	3 7/16	3	3			8
28 T 6	6	25.50	5 5/16	4 1/4	4 1/2	4 3/8	3 5/8	3/8	9/32	14
28 T 12	12	33.00	6 1/2	5	5 1/2	5 5/16	3 3/8			21
28 T 24	24	72.00	6 1/2	6 1/2	5 1/2	5 3/8	3 1/2			24.5

STEP UP TRANSFORMERS

PRIMARY WINDINGS — 100-105-110-115 VOLT			SECONDARY WINDINGS — 130-135-140 VOLT		
Part No.	Amps.	Users Net Price	Part No.	Amps.	Users Net Price
SU 10	10	$ 70.00	SU 25	25	$128.00
SU 15	15	85.00	SU 30	30	160.00
SU 20	20	112.50	SU 35	35	185.00

HIGH CURRENT CHOKES



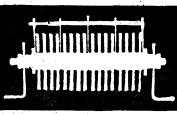
4 amp. Choke CK4

Part No.	Amps.	Hy.	Ohms	Users Net Price	L (MAX)	W (MAX)	H (MAX)	ML ±1/16	MW ±1/8	A ±1/64	B ±1/64	Weight
CK 1	1	.1	1.5	$ 5.45	3 1/32	2 3/4	2 3/4	2 1/2	2	1/8	13/64	2
CK 2	2	.04	.9	6.50	3 7/16	3 3/4	3 1/8	2 13/16	2 1/8			3.1
CK 4	4	.07	.6	8.50	3 13/16	3 1/8	3 3/8	3 1/8	2 1/2			5
CK 8	8	.03	.3	13.25	4 3/16	3 5/8	3 3/4	3 7/16	3			8
CK 12	12	.01	.1	15.75	5 5/16	3 3/4	4 1/2	4 3/8	2 7/8		9/32	11.5
CK 20	20	.004	.05	19.50	5 1/4	5	4 1/2	4 1/2	4	1/2		14
CK 24	24	.004	.025	28.50	5 5/16	4 3/4	4 1/2	4 3/8	3 7/8			17.5
CK 30	30	.003	.01	39.00	6 1/2	4 5/8	5 1/2	5 5/16	3 3/8			22
CK 50	50	.001	.001	49.50	6 1/2	4 7/8	5 1/2	5 1/16	3 3/8			23
CK 100	100	.0005	.005	58.50	6 1/2	6	5 1/2	5 5/16	4 1/8			30

CUSTOM BUILT TRANSFORMERS AND CHOKES — 48 HOUR SERVICE

POWER SUPPLIES TO **YOUR** SPECIFICATIONS, QUOTATIONS ON REQUEST

SEE OUR AD UNDER "RECTIFIERS" IN SECTION 4800 FOR SELENIUM AND SILICON STACKS



Mfd. by SANFORD MILLER CORP.

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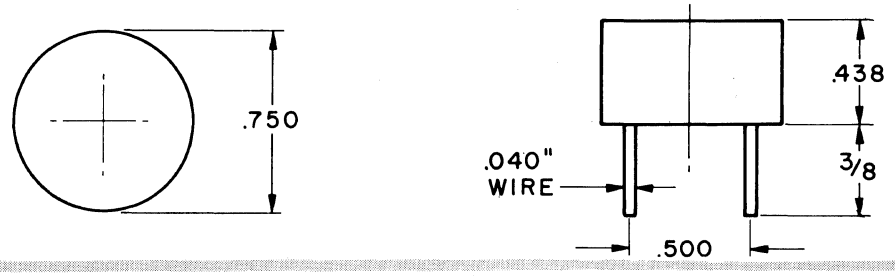
TOROIDAL INDUCTORS

ALL UNITS IMMEDIATELY AVAILABLE FROM STOCK

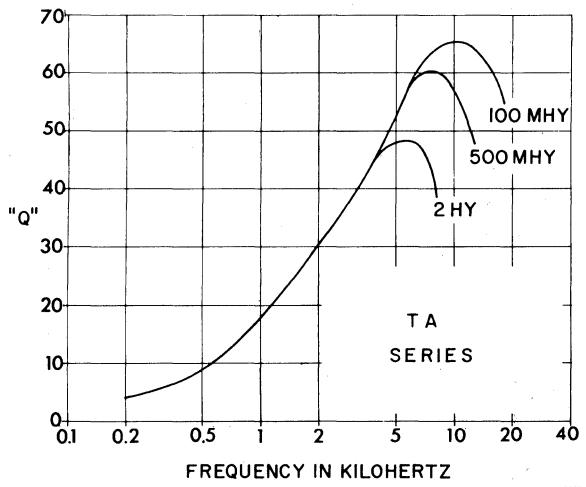
All units cased and suitable for printed circuit wiring.
Manufactured to MIL-T-27B Tolerance: ±2%



TA series

are designed for use from 200 hz to 20 khz, and have maximum Q's from 6 khz to 10 khz, depending on inductance.

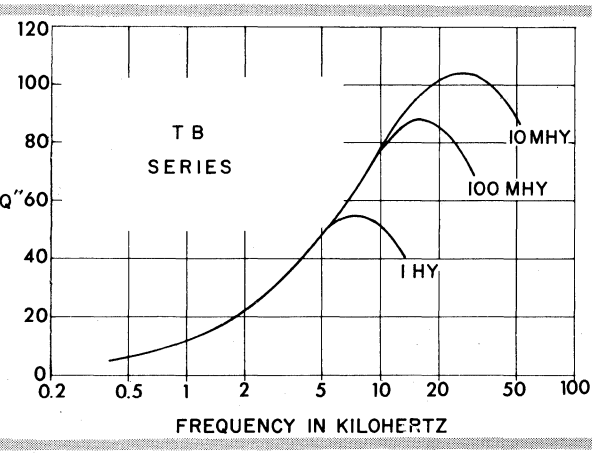
Part No.	Inductance, henries	Approx. DC Resistance, ohms	Net Price
TA-101	0.1	30	$ 7.10
TA-251	0.25	78	7.10
TA-501	0.50	160	7.50
TA-751	0.75	225	8.00
TA-102	1.0	265	8.50
TA-152	1.5	430	9.00
TA-202	2.0	540	10.00



TB series

are designed for use from 400 hz to 80 khz, and have maximum Q's from 7 khz to 25 khz, depending on inductance.

Part No.	Inductance, millhenries	Approx. DC Resistance, ohms	Net Price
TB-100	10	5.7	$6.10
TB-250	25	12	6.10
TB-500	50	25	6.40
TB-750	75	38	6.40
TB-101	100	51	7.00
TB-251	250	125	7.00
TB-501	500	255	7.40
TB-751	750	385	7.80
TB-102	1000	510	8.25



MF ELECTRONICS CORP.
INDUCTOR DIVISION

NOTE

Basic mounting types are classified as "A," "B," "C," "D," "E," "F," "G," "H," "J," and Bx.

Explanation of Suffix Symbols

L = Leads
T = Lugs
P = Cord and Plug
SP = Switch, Cord and Plug

Please write for information on any units not listed

Style BxL Mtg.

Style AL Mtg.

Style CL Mtg.

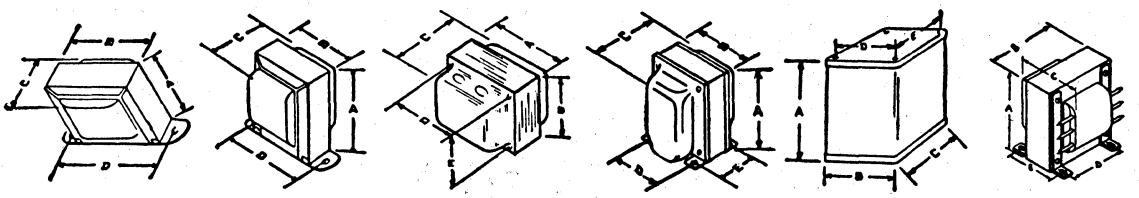
Style BL Mtg.

Style GL Mtg.

Style HT Mtg.

Style FL Mtg.

DIMENSIONAL ILLUSTRATIONS



CHOKES AND REACTORS — THE "TWO" SERIES

FILTER AND SWINGING CHOKES

Type Number	D.C. Mills Nom.	D.C. Mills Max.	Inductance 0-D.C.	Inductance 50% Nom.D.C.	Inductance Nom.D.C.	Inductance Max.D.C.	Insul. Test Voltage	D.C. Res.	Mtg. Style	Dimensions A	B	C	D	E	Net Weight	Net Prices
2P132	40	50	22	13	8	6	2000	450	AL	1 5/16	1 5/8	1 1/8	2		.3	1.39
2P135	65	80	18	11	8	7	2000	300	AL	1 5/16	1 7/8	1 3/8	2 3/8		.5	1.64
SP138	85	100	30	16	8	7	2000	350	AL	1 7/8	2 1/4	1 7/8	2 13/16		1.2	2.08
2P144	150	180	26	13	8	5.5	2000	190	BL	3	2 1/2	2 1/8	3 1/8		2.1	2.80
2P147	200	250	16	10	8	6.5	2000	110	GL	3 1/2	2 7/8	3 1/8	2 1/4	2	3.2	4.95
2P148	200-20	—	—	—	3-15	—	2000	110	GL	3 1/2	2 7/8	3 1/8	2 1/4	2	3.2	4.95
2P151	300	350	18	11	8	7	3500	75	GL	4 5/8	3 3/4	3 7/8	3	2 13/16	7.5	8.44
2P152	300-30	—	—	—	3-15	—	3500	75	GL	4 5/8	3 3/4	3 7/8	3	2 13/16	7.5	8.44
2P155	500	600	16	10	8	5.5	5000	55	HT	7 1/8	5 1/2	5 15/16	4 3/8	4 13/16	22.8	23.78
2P156	500-50	—	—	—	3-15	—	5000	55	HT	7 1/8	5 1/2	5 15/16	4 3/8	4 13/16	22.8	23.78

FILAMENT TRANSFORMERS — THE "FOUR" SERIES

Most SNC Filament Transformers are constructed to provide two identical center tapped secondary windings and offer a minimum of three applications. They provide three-fold the number of possible applications of ordinary filament types. A few are single secondary units and are so designed. All have 117 V. 50/60 cycle primary.

Type Number	Applications: Parallel Secondaries	Applications: Series Secondaries	Applications: Independent Identical Secondaries	Test Voltages	Mtg. Style	Dimensions A	B	C	D	E	Net Weight	Net Prices
4P222	2.5V. C.T. @ 5 A.	5 V. C.T. @ 2.5 A.	2 of 2.5V.C.T.@ 2.5 A.	2000	BL	2 1/4	1 7/8	1 3/4	2 3/8		1.0	2.71
4P226*	2.5V. C.T. @ 10 A.*			7500	BL	3	2 1/2	2 3/8	3 1/8		2.0	4.13
4P227	2.5V. C.T. @ 10 A.	5 V. C.T. @ 5 A.	2 of 2.5V.C.T.@ 5 A.	2000	BL	2 5/8	2 3/16	2	2 13/16		1.5	3.69
4P234	2.5V. C.T. @ 15 A.	5 V. C.T. @ 7.5 A.	2 of 2.5V.C.T.@ 7.5 A.	2000	BL	3	2 1/2	2 1/4	3 1/8		2.2	4.35
4P239	5 V. C.T. @ 6.5A.	10 V. C.T. @ 3.25A.	2 of 5 V.C.T.@ 3.25A.	2000	BL	3	2 1/2	2 1/4	3 1/8		2.2	3.87
4P242*	5 V. C.T. @ 20 A*			10000	BxL	4 1/8	3 7/16	2 3/4	2 3/4	2 1/8	4.6	7.75
4P243	5 V. C.T. @ 20 A.	10 V. C.T. @ 10 A.	2 of 5 V.C.T.@10 A.	2000	BxL	3 3/4	3 1/8	2 3/4	2 1/2	2 1/4	4.3	6.87
4P244*	6.3V. C.T. @ 0.6A.*			2000	BL	1 7/8	1 5/16	1 1/2	2		.6	2.68
4P245*	6.3V. C.T. @ 1.2A.*			2000	BL	1 7/8	1 5/16	1 5/8	2		.7	2.90
4P246	6.3A. C.T. @ 2 A.	12.6V. C.T. @ 1 A.	2 of 6.3V.C.T.@ 1 A.	2000	BL	2 1/4	1 7/8	1 3/4	2 3/8		1.0	3.18
4P251	6.3V. C.T. @ 6 A.	12.6V. C.T. @ 3 A.	2 of 6.3V.C.T.@ 3 A.	2000	BL	3	2 1/2	2 1/4	3 1/8		2.0	3.72
4P256	6.3V. C.T. @ 10 A.	12.6V. C.T. @ 5 A.	2 of 6.3V.C.T.@ 5 A.	2000	BxL	3 3/8	2 13/16	2 1/2	2 1/4	2 1/8	2.9	4.82
4P260	7.5V. C.T. @ 3 A.	15 V. C.T. @ 1.5 A.	2 of 7.5V.C.T.@ 1.5 A.	2000	BL	2 5/8	2 3/16	2	2 13/16		1.5	3.87
4P267	7.5V. C.T. @ 4.5A.	15 V. C.T. @ 2.3 A.	2 of 7.5V.C.T.@ 2.3 A.	2000	BL	3	2 1/2	2 1/4	3 1/8		2.0	4.82
4P272	11 V. C.T. @ 10 A.	22 V. C.T. @ 5 A.	2 of 11 V.C.T.@ 5 A.	2000	BxL	3 3/4	3 1/8	2 3/4	2 1/2	2 1/4	4.1	6.87

*Single Secondary Units.

POWER TRANSFORMERS — THE "EIGHT" SERIES

All units conservatively rated for operation on either 50 or 60 cycles and contain an electrostatic shield between primary and all other windings.

REPLACEMENT TYPES (6.3 Volt Heater Winding)

Type Number	Primary Voltage	R.M.S.—High Volt. Secondary	Sec. D.C. Mills	Rectifier Filament	Heater Winding Center Tapped	Mtg. Style	Dimensions A	B	C	D	E	Net Weight	Net Prices
8P040	117	265-0-265	40	5V. @ 2A.	6.3V. @ 2A.	FL	3	2 1/2	2 3/4	2 1/2	2	2.3	4.13
8P055	117	300-0-300	55	5V. @ 2A.	6.3A. @ 2.5A	FL	3	2 1/2	3 1/8	2 1/2	2	2.8	4.16
8P070	117	325-0-325	70	5V. @ 2A.	6.3V. @ 3A.	FL	3	2 1/2	3 1/2	2 1/2	2	3.2	5.26
8P199	117	400-0-400	70	5V. @ 3A.	6.3V. @ 3.5A	FL	3 3/4	3 1/8	4	3 1/8	2 1/2	5.8	8.00
8P199G						GL	3 13/16	3 5/32	3 7/8	2 1/2	2 11/16		
8P202	117	450-0-450	200	5V. @ 3A.	6.3V. @ 5A.	FL	4 1/2	3 3/4	4 3/4	3 3/4	3	10.7	11.43
8P202G						GL	4 5/16	3 25/32	4 3/8	3	3 11/16		

BIAS TYPES

8P510	117	40-0-40	25	5V. @ 2A.		CL	1 7/8	2 1/4	1 3/4	2 13/16		1.0	3.43
8P511	117	0-90-150-200-250	50	5V. @ 2A.		GL	3 1/16	2 1/32	2 5/8	2	1 11/16	2.0	4.98

SNC MANUFACTURING CO., INC.

Net

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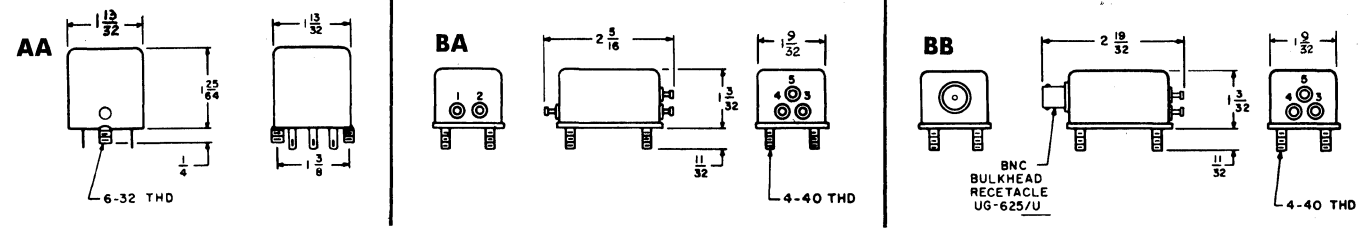
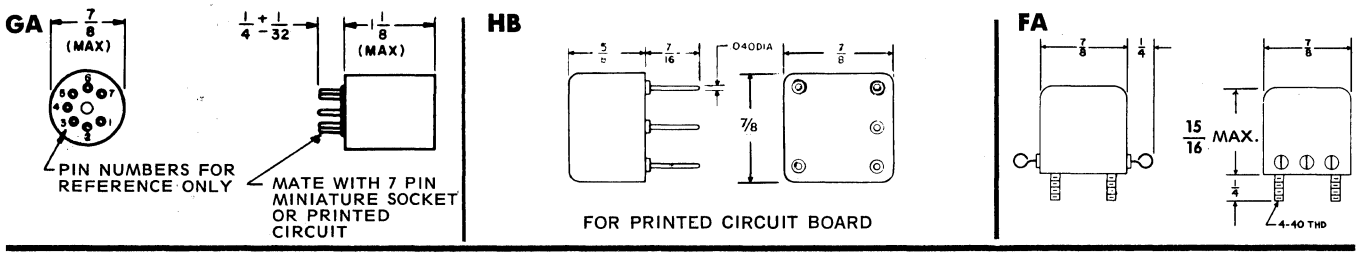
NORTH HILLS WIDE BAND TRANSFORMERS





- **Antenna Matching**
- **Interstage Coupling**
- **Impedance Matching**
- **Computer Drive Circuits**
- **Signal Distribution**
- **Pulse Applications**
- **Voltage Step-Up**
- **DC Isolation**
- **Phase Detectors**
- **Balanced Modulators**

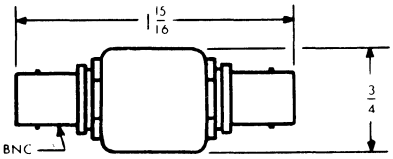
Type No.	Impedance Ratio	Nominal Bandwidth (mc)	Type No.	Impedance Ratio	Nominal Bandwidth (mc)
0001	50 Unb/50 Bal	.1-100	1100	75 Unb/75 Bal	.1-100
0101	50 Unb/75 Bal	.1-125	1300	75 Unb/100 Bal	.1-100
0300	50 Unb/100 Bal	.1-100	1400	75 Unb/150 Bal	.1-100
0400	50 Unb/150 Bal	.1-100	1500	75 Unb/200 Bal	.1-100
0500	50 Unb/200 Bal	.1-100	1501	75 Unb/300 Bal	.1-100
0501	50 Unb/300 Bal	.1-100	1600	75 Unb/450 Bal	.1-60
0502	50 Unb/200 Unb	.1-40	1700	75 Unb/600 Bal	.1-60
0503*	50 Unb/200 Bal	.4-250	1701	75 Unb/600 Bal	.3-100
0504*	50 Unb/200 Unb	.1-250	1702	75 Unb/600 Bal	.007-8
0600	50 Unb/450 Bal	.1-65	†1703	75 Unb/600 Bal	.1-30
0700	50 Unb/600 Bal	.1-65	1800	75 Unb/800 Bal	.2-30
†0701	50 Unb/600 Bal	.1-30	1900	75 Unb/1200 Bal	.1-30
0800	50 Unb/800 Bal	.1-60	1901	75 Unb/1850 Bal	.01-10
0900	50 Unb/1200 Bal	.1-30	7700	600 Unb/600 Bal	.1-30

Data sheets for all types on request.
* No DC isolation. † 20 watts.

North Hills wideband transformers have been designed for low insertion loss (less than 1 db) and good matching characteristics over wide frequency ranges. Balanced windings feature extremely low unbalanced voltages and have a center tap. Complete specifications are available upon request.

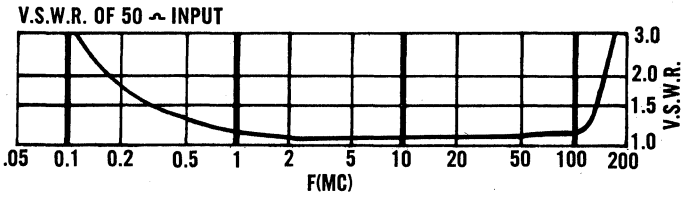
Several case styles are offered. Series AA models are potted in metal cases with a terminal board on the bottom and two 6-32 spade mounting bolts. Series BA are hermetically sealed with glass terminals at the case ends and two 4-40 studs on the bottom for mounting. Series BB is similar to BA except that the unbalanced connection is provided by a BNC connector. The above three styles are rated at 2 watts. Series FA, GA, and HB are hermetically sealed and are rated at ½ watt.

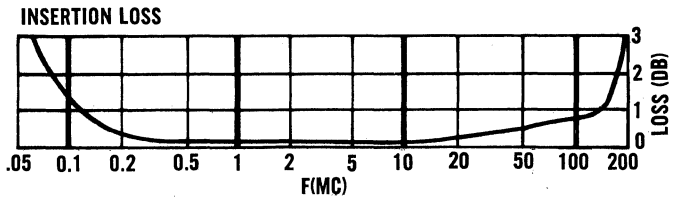
Type 0102JA WIDE BAND ADAPTOR



50Ω to 75Ω coax transformers (Unb. to Unb.)
0.4-250 mc 0.25 db loss. VSWR 1.1

TYPICAL CHARACTERISTICS (0501)*





*Data sheets for all types on request.
Custom units designed to your specifications include power wideband transformers, pulse transformers, filters, adjustable inductors, and hybrid units.

See Section 4000 for Precision AC and DC Power Sources, EEM.
See Section 2900 for Bridges, Potentiometers, Galvanometers, Electromagnets, AC Line Stabilizers, EEM.
See Section 1800 for Variable Inductors.

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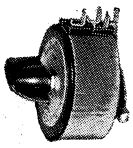
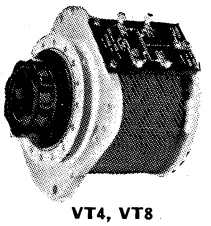
OHMITE

resistors • rheostats • tap switches • relays
variable transformers • tantalum capacitors
semiconductor devices • r.f. chokes

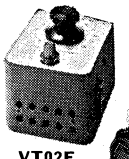
OHMITE Variable Transformers



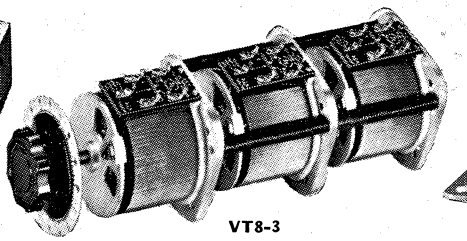
VT1, VT02, VT3



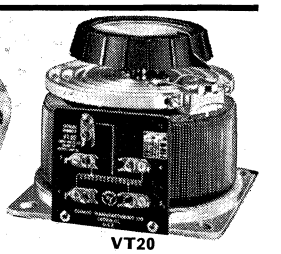
VT4, VT8



VT02F



VT8-3



VT20

Seven basic physical types meet most industrial requirements with long, maintenance-free life. Excellent regulation at any point within the rated load; free from wave-form distortion. U/L Listed for VT4 and VT8 units rated 120 volts input. Direct-reading 2-scale (1 per side) dial supplied; CCW also available. New space-saving low power types VT1, VT02 and VT3 have adjustable shaft independent of brush assembly, 3-way terminals, instantly replaceable brush contacts and improved heat dissipation. **Mounting:** Easily replace other brands: VT2LN, VT1, VT02 and VT3 have ⅜-32 thd. bushing; VT8 and VT20, 4-hole bolt mount; VT4, 3-hole bolt mount convertible to 4-hole with adapter plate.

Enclosed Types: Gray wrinkle-finish cases. Units with suffix **B** have exposed terminal panel and mounting base; **E,** fixed type for table or panel mounting; **F,** portable with cord, outlet socket and fuse; **G,** deluxe portable with handle, circuit breaker and switch for overvoltage selection. Final suffix: **V** indicates with voltmeter; **VA,** voltammeter; **VW,** volt/wattmeter; all come with handle except VT8NF series. **Other Options:** All transformer types except the VT2LN offer shafts, extendable from either brush or base side; ganged versions have thru-shaft with same flexibility. Types with final suffix **C** come with 3-conductor input and output with one grounded to case.

SINGLE TRANSFORMERS

UNCASED, SINGLE-PHASE TRANSFORMERS

Ohmite Number	Input Volts	Input cps*	Max. Output Amps	Max. Output Volts	Feature or Connection	Size, Inches W. x D.♦ x H.	Wt., Lbs.††	Net Each, Lots of 1-9	10-24	25-49	50-99
VT1	120	60	1.0	0–120/132	Low power, space saver	2 7/8 dia. x 1 13/16 d.	1.5	$ 8.00	$ 7.20	$ 6.80	$ 6.40
VT1N	120	60	1.2	0–120	Same, no overvoltage	2 7/8 dia. x 1 13/16 d.	1.5	8.00	7.20	6.80	6.40
VT02	120	60	1.75	0–120/132	Low power, space saver	2 7/8 dia. x 2 5/16 d.	2.25	9.00	8.10	7.65	7.20
VT02N	120	60	2.0	0–120	Same, no overvoltage	2 7/8 dia. x 2 5/16 d.	2.25	9.00	8.10	7.65	7.20
VT2LN	40	60	5.0	0–40	High amps, low volts	2 13/16 dia. x 2 1/8 d.	2.4	11.00	9.90	9.35	8.80
VT3	120	60	2.6	0–120/132	Low power, space saver	2 7/8 dia. x 2 13/16 d.	3.0	10.50	9.45	8.93	8.40
VT3N	120	60	3.0	0–120	Same, no overvoltage	2 7/8 dia. x 2 13/16 d.	3.0	10.50	9.45	8.93	8.40
VT4	120	50	3.5	0–120/132	Basic, 3.5-amp model	4 5/32 x 4 3/4 x 4 13/16	5.25	14.00	12.60	11.90	11.20
VT4N	120	50	4.75	0–120	Same, no overvoltage	4 5/32 x 4 3/4 x 4 13/16	5.25	14.00	12.60	11.90	11.20
VT4LN	40	50	12.0	0–40	High amps, low volts	4 5/32 x 4 3/4 x 4 13/16	5.25	16.00	14.40	13.60	12.80
VT8	120	50	7.5	0–120/140	Basic 7.5-amp model	4 7/8 x 5 5/8 x 5 11/16	10.25	18.00	16.20	15.30	14.40
VT8N	120	50	10.0	0–120	Same, no overvoltage	4 7/8 x 5 5/8 x 5 11/16	10.25	18.00	16.20	15.30	14.40
VT8LN	40	50	22.0	0–40	High amps, low volts	4 7/8 x 5 5/8 x 5 11/16	10.25	20.00	18.00	17.00	16.00
VT8H	240‡	50	3.0	0–240/480	240 V input, 120 V tap	4 7/8 x 5 5/8 x 5 11/16	10.25	20.00	18.00	17.00	16.00
VT8HN	240‡	50	4.0	0–240	Same, no overvoltage	4 7/8 x 5 5/8 x 5 11/16	10.25	20.00	18.00	17.00	16.00
VT20	120	50	20.0	0–120/140	Basic 20-amp model	7 1/2 x 5 5/8 x 8 1/16	22.0	50.00	45.00	42.50	40.00
VT20N	120	50	25.0	0–120	Same, no overvoltage	7 1/2 x 5 5/8 x 8 1/16	22.0	50.00	45.00	42.50	40.00
VT20H	240‡	50	9.0	0–240/280	240 V input, 120 V tap	7 1/2 x 5 5/8 x 8 1/16	22.0	52.00	46.80	44.20	41.60
VT20HN	240‡	50	11.0	0–240	Same, no overvoltage	7 1/2 x 5 5/8 x 8 1/16	22.0	52.00	46.80	44.20	41.60

CASED, SINGLE-PHASE TRANSFORMERS

VT1E	120	60†	.8	0–132§	Fixed mounting	3 3/8 x 2 1/2 x 4 1/4	1.9	$13.00	$11.70	$11.05	$10.40
VT1NE	120	60	1.0	0–120	Fixed mounting	3 3/8 x 2 1/2 x 4 1/4	1.9	13.00	11.70	11.05	10.40
VT1F	120	60†	1.0	0–132#	Portable	3 3/8 x 2 1/2 x 4 1/4	2.3	14.50	13.05	12.33	11.60
VT1NF	120	60	1.2	0–120	Portable	3 3/8 x 2 1/2 x 4 1/4	2.3	14.50	13.05	12.33	11.60
VT02E	120	60†	1.4	0–132§	Fixed mounting	3 3/8 x 2 1/2 x 4 1/4	2.8	14.00	12.60	11.90	11.20
VT02NE	120	60	1.6	0–120	Fixed mounting	3 3/8 x 2 1/2 x 4 1/4	2.8	14.00	12.60	11.90	11.20
VT02F	120	60†	1.75	0–132#	Portable	3 3/8 x 2 1/2 x 4 1/4	3.2	15.50	13.95	13.18	12.40
VT02NF	120	60	2.0	0–120	Portable	3 3/8 x 2 1/2 x 4 1/4	3.2	15.50	13.95	13.18	12.40
VT4E	120	50	2.8	0–140§	Fixed mounting	4 1/2 x 4 1/2 x 6 3/16	7.4	19.00	17.10	16.15	15.20
VT4NE	120	50	3.8	0–120	Fixed mounting	4 1/2 x 4 1/2 x 6 3/16	7.4	19.00	17.10	16.15	15.20
VT4F	120	50	3.5	0–140#	Portable	4 1/2 x 4 1/2 x 6 1/4	7.8	20.50	18.45	17.43	16.40
VT4NF	120	50	4.75	0–120	Portable	4 1/2 x 4 1/2 x 6 1/4	7.8	20.50	18.45	17.43	16.40
VT4FC	120	50	3.5	0–140#	In/out grounded VT4F	4 1/2 x 4 1/2 x 6 1/4	7.8	23.50	21.15	19.98	18.80
VT4NFC	120	50	4.75	0–120	In/out grounded VT4NF	4 1/2 x 4 1/2 x 6 1/4	7.8	23.50	21.15	19.98	18.80
VT8E	120	50	6.0	0–140§	Fixed mounting	5 5/16 x 5 1/4 x 7 1/16	13.5	23.00	20.70	19.55	18.40
VT8NE	120	50	8.0	0–120	Fixed mounting	5 5/16 x 5 1/4 x 7 1/16	13.5	23.00	20.70	19.55	18.40
VT8F	120	50	7.5	0–140#	Portable	5 11/32 x 5 1/4 x 7 3/8	13.8	24.50	22.05	20.83	19.60
VT8NF	120	50	10.0	0–120	Portable	5 11/32 x 5 1/4 x 7 3/8	13.8	24.50	22.05	20.83	19.60
VT8FC	120	50	7.5	0–140#	In/out grounded VT8F	5 11/32 x 5 1/4 x 7 3/8	13.8	27.50	24.75	23.38	22.00
VT8NFC	120	50	10.0	0–120	In/out grounded VT8NF	5 11/32 x 5 1/4 x 7 3/8	13.8	27.50	24.75	23.38	22.00
VT8G	120	50	6.0	0–120/140•	Deluxe portable, handle	5 5/16 ^x 5 1/4 x 7 3/8 ▪	14.2	28.00	25.20	23.80	22.40
VT8GC	120	50	6.0	0–120/140•	In/out grounded VT8G	5 5/16 ^x 5 1/4 x 7 3/8 ▪	14.2	31.00	27.90	26.35	24.80
VT20B	120	50	20.0	0–120/140	Basic case model	7 5/8 x 8 1/8 x 4 7/8 ♦	22.5	55.00	49.50	46.75	44.00
VT20NB	120	50	25.0	0–120	No overvoltage	7 5/8 x 8 1/8 x 4 7/8 ♦	22.5	55.00	49.50	46.75	44.00
VT20E	120	50	20.0	0–120/140§	Fixed mounting	7 3/4 x 5 1/2 x 10 15/16	29.0	67.50	60.75	57.38	54.00
VT20NE	120	50	25.0	0–120	No overvoltage	7 3/4 x 5 1/2 x 10 15/16	29.0	67.50	60.75	57.38	54.00
VT20FC	120	50	20.0	0–140	Portable	8 1/4 x 5 1/2 x 11 1/4	31.0	75.50	67.95	64.18	60.40
VT20NFC	120	50	25.0	0–120	Portable	8 1/4 x 5 1/2 x 11 1/4	31.0	75.50	67.95	64.18	60.40
VT20GC	120	50	20.0	0–120/140•	In/out grounded	7 3/4 I x 5 1/2 x 11 1/4 ▪	31.0	88.00	79.20	74.80	70.40
VT20HB	240‡	50	9.0	0–240/280	Basic case model	7 5/8 x 8 1/8 x 4 7/8 ♦	21.5	57.00	51.30	48.45	45.60
VT20HNB	240‡	50	11.0	0–240	Same, no overvoltage	7 5/8 x 8 1/8 x 4 7/8 ♦	21.5	57.00	51.30	48.45	45.60
VT20HE	240‡	50	9.0	0–240/280	Fixed mounting	7 3/4 x 5 1/2 x 10 15/16	28.0	69.50	62.55	59.08	55.60
VT20HNE	240‡	50	11.0	0–240	Same, no overvoltage	7 3/4 x 5 1/2 x 10 15/16	28.0	69.50	62.55	59.08	55.60
VT20HFC	240‡	50	9.0	0–240/280	Portable	8 1/4 x 5 1/2 x 11 1/4	30.0	77.50	69.75	65.88	62.00
VT20HNFC	240‡	50	11.0	0–240	Portable	8 1/4 x 5 1/2 x 11 1/4	30.0	77.50	69.75	65.88	62.00

CASED WITH METERS, SINGLE-PHASE TRANSFORMERS

VT8GCV	120	50	6.0	0–120/140•	Voltmeter, grnd. conn.	7 x 5 1/4 x 10 1/2 ▪	15.2	$ 58.00	$ 52.20	$ 49.30	$ 46.40
VT8GCVA	120	50	6.0	0–120/140•	Volt/ammeter, grounded	7 x 5 1/4 x 10 1/2 ▪	15.5	88.00	79.20	74.80	70.40
VT8GCVW	120	50	6.0	0–120/140•	Volt/wattmeter, grnd.	7 x 5 1/4 x 10 1/2 ▪	15.5	118.00	106.20	100.30	94.40
VT8NFCV	120	50	10.0	0–120	Voltmeter, grnd. conn.	7 3/8 x 5 1/4 x 10 1/2	14.8	54.50	49.05	46.33	43.60
VT8NFCVA	120	50	10.0	0–120	Volt/ammeter, grounded	7 3/8 x 5 1/4 x 10 1/2	15.2	84.50	76.05	71.83	67.60
VT8NFCVW	120	50	10.0	0–120	Volt/wattmeter, grnd.	7 3/8 x 5 1/4 x 10 1/2	15.2	114.50	103.50	97.33	91.60
VT20GCV	120	50	20.0	0–120/140•	Voltmeter, grnd. conn.	8 1/4 x 5 1/2 x 14 ▪	32.0	126.00	113.40	107.10	100.80
VT20GCVA	120	50	20.0	0–120/140•	Volt/ammeter, grounded	8 1/4 x 5 1/2 x 14 ▪	32.2	156.00	140.40	133.60	124.80
VT20GCVW	120	50	20.0	0–120/140•	Volt/wattmeter, grnd.	8 1/4 x 5 1/2 x 14 ▪	32.2	224.00	201.60	190.40	179.20
VT20NFCV	120	50	25.0	0–120	Voltmeter, grnd. conn.	8 1/4 x 5 1/2 x 14 ▪	32.0	113.50	102.15	96.48	90.80
VT20NFCVA	120	50	25.0	0–120	Volt/ammeter, grounded	8 1/4 x 5 1/2 x 14 ▪	32.2	143.50	129.15	121.98	114.80
VT20NFCVW	120	50	25.0	0–120	Volt/wattmeter, grnd.	8 1/4 x 5 1/2 x 14 ▪	32.2	211.50	190.35	179.78	169.20

*Minimum; max. of 400 cps for all models. †Use also at 50 cps if connected at no overvoltage output. ‡With 120 V input tap at which the max. current output rating applies up to 120 volts, but reduces approx. 50% at max. output voltage shown. In tandem units, the use of low voltage inputs would halve the rated input and output voltages. §User wires for desired output; dial normally calibrated for overvoltage. #Factory-connected for overvoltage output; easily re-connected by user for no overvoltage. •Switch selects overvoltage or no overvoltage. ^5¾" including handle. ▪Case height only, excluding handle. ♦Depth behind panel; add 1" for knob thickness for VT8 types; 1/8", VT02 or VT4 types; 1¼" for VT20 types. I9" including handle. ††Includes knob, dial and hardware.

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OHMITE Variable Transformers

MULTIPLE, IN-TANDEM TRANSFORMER ASSEMBLIES

SINGLE-PHASE, TWO-IN-TANDEM ASSEMBLIES

Normally wired for series connection; when so connected, load cannot be grounded. Standard CW dial 240/280 volts except VT02 tandems where 240/264 V dial is supplied; on VT8H-2, 480/560 volt dial is standard. Other dials available as listed elsewhere on these pages.

Ohmite Number	Input Volts	Input cps*	Max. Output Amps	Max. Output Volts	Feature or Connection	Size, Inches W. x D.♦ x H.	Wt., Lbs.††	Net Each, Lots of 1-4	5-12	13-24	25-49
VT1-2	240	60†	1.0	0-240/264	Uncased, series conn.	2 7/8 x 4 7/32 x 4 1/4	3.5	$ 25.00	$ 22.50	$ 21.25	$20.00
VT1N-2	240	60	1.2	0-240	Same, no overvoltage	2 7/8 x 4 7/32 x 4 1/4	3.5	25.00	22.50	21.25	20.00
VT02-2	240	60†	1.75	0-240/264	Uncased, series conn.	2 7/8 x 5 7/32 x 4 1/4	5.25	27.00	24.30	22.95	21.60
VT02N-2	240	60	2.0	0-240	Same, no overvoltage	2 7/8 x 5 7/32 x 4 1/4	5.25	27.00	24.30	22.95	21.60
VT3-2	240	60†	2.6	0-240/264	Uncased, series conn.	2 7/8 x 6 17/32 x 4 1/4	6.5	30.00	27.00	25.50	24.00
VT3N-2	240	60	3.0	0-240	Same, no overvoltage	2 7/8 x 6 17/32 x 4 1/4	6.5	30.00	27.00	25.50	24.00
VT4-2	240	50	3.5	0-240/280	Uncased, series conn.	4 5/32 x 7 13/16 x 4 13/16	11.3	38.50	34.65	32.73	30.80
VT4N-2	240	50	4.75	0-240	Same, no overvoltage	4 5/32 x 7 13/16 x 4 13/16	11.3	38.50	34.65	32.73	30.80
VT8-2	240	50	7.5	0-240/280	Uncased, series conn.	4 7/8 x 9 5/16 x 5 11/16	20.6	46.50	41.85	39.53	37.20
VT8N-2	240	50	10.0	0-240	Same, no overvoltage	4 7/8 x 9 5/16 x 5 11/16	20.6	46.50	41.85	39.53	37.20
VT8H-2	480‡	50	3.0	0-480/560	480 V input VT8-2	4 7/8 x 9 5/16 x 5 11/16	20.6	50.50	45.45	42.93	40.40
VT8HN-2	480‡	50	4.0	0-480	Same, no overvoltage	4 7/8 x 9 5/16 x 5 11/16	20.6	50.50	45.45	42.93	40.40
VT20-2	240	50	20.0	0-240/280	Uncased, series conn.	7 1/2‡ x 10 x 8 1/16	45.0	113.00	101.70	96.05	90.40
VT20N-2	240	50	25.0	0-240	Same, no overvoltage	7 1/2‡ x 10 x 8 1/16	45.0	113.00	101.70	96.05	90.40
VT20-2B	240	50	20.0	0-240/280	B-cased version VT20-2	7 1/2 x 10 1/2 x 8 1/16	46.0	123.00	110.70	104.55	98.40
VT20N-2B	240	50	25.0	0-240	Same, no overvoltage	7 1/2 x 10 1/2 x 8 1/16	46.0	123.00	110.70	104.55	98.40
VT20H-2	480‡	50	9.0	0-480/560	480 V input VT20-2	7 1/2‡ x 10 x 8 1/16	44.0	117.00	105.30	99.45	93.60
VT20HN-2	480‡	50	11.0	0-480	Same, no overvoltage	7 1/2‡ x 10 x 8 1/16	44.0	117.00	105.30	99.45	93.60

THREE-PHASE, TWO-IN-TANDEM ASSEMBLIES

Supplied with 240/280 volt CW dial, except VT02 (240/264 V). Other dials available as listed elsewhere on these pages.

VT1-2	120	60	1.0	0-120/132	Uncased, open delta con.	2 7/8 x 4 7/32 x 4 1/4	3.5	$ 24.00	$ 21.60	$ 20.40	$19.20
VT1N-2	120	60	1.2	0-120	Same, no overvoltage	2 7/8 x 4 7/32 x 4 1/4	3.5	24.00	21.60	20.40	19.20
VT02-2	120	60	1.75	0-120/132	Uncased, open delta con.	2 7/8 x 5 7/32 x 4 1/4	5.25	26.00	23.40	22.10	20.80
VT02N-2	120	60	2.0	0-120	Same, no overvoltage	2 7/8 x 5 7/32 x 4 1/4	5.25	26.00	23.40	22.10	20.80
VT3-2	120	60	2.6	0-120/132	Uncased, open delta con.	2 7/8 x 6 17/32 x 4 1/4	6.5	29.00	26.10	24.70	23.20
VT3N-2	120	60	3.0	0-120	Same, no overvoltage	2 7/8 x 6 17/32 x 4 1/4	6.5	29.00	26.10	24.70	23.20
VT4-2	120	50	3.5	0-120/140	Uncased, open delta con.	4 5/32 x 7 13/16 x 4 13/16	11.3	38.50	34.65	32.73	30.80
VT4N-2	120	50	4.75	0-120	Same, no overvoltage	4 5/32 x 7 13/16 x 4 13/16	11.3	38.50	34.65	32.73	30.80
VT8-2	120	50	7.5	0-120/140	Uncased, open delta con.	4 7/8 x 9 5/16 x 5 11/16	20.6	46.50	41.85	39.53	37.20
VT8N-2	120	50	10.0	0-120	Same, no overvoltage	4 7/8 x 9 5/16 x 5 11/16	20.6	46.50	41.85	39.53	37.20
VT8H-2	240‡	50	3.0	0-240/280	240 V input VT8-2	4 7/8 x 9 5/16 x 5 11/16	20.6	50.50	45.45	42.93	40.40
VT8HN-2	240‡	50	4.0	0-240	Same, no overvoltage	4 7/8 x 9 5/16 x 5 11/16	20.6	50.50	45.45	42.93	40.40
VT20-2	120	50	20.0	0-120/140	Uncased, open delta con.	7 1/2‡ x 10 x 8 1/16	45.0	113.00	101.70	96.05	90.40
VT20N-2	120	60	25.0	0-120	Same, no overvoltage	7 1/2‡ x 10 x 8 1/16	45.0	113.00	101.70	96.05	90.40
VT20-2B	120	50	20.0	0-120/140	B-case version VT20-2	7 1/2 x 10 1/2 x 8 1/16	46.0	123.00	110.70	104.55	98.40
VT20N-2B	120	60	25.0	0-120	Same, no overvoltage,	7 1/2 x 10 1/2 x 8 1/16	46.0	123.00	110.70	104.55	98.40
VT20H-2	240‡	50	9.0	0-240/280	240 V input VT20-2	7 1/2‡ x 10 x 8 1/16	44.0	117.00	105.30	99.45	93.60
VT20HN-2	240‡	50	11.0	0-240	Same, no overvoltage	7 1/2‡ x 10 x 8 1/16	44.0	117.00	105.30	99.45	93.60

THREE-PHASE, THREE-IN-TANDEM ASSEMBLIES

Normally wired for Y-connection. Standard CW dial 240/280 volts except VT02 types where 240/264 V dial is supplied, and VT8H-3, where 480/560 volt dial is standard. Other dials available as listed elsewhere on these pages.

Ohmite Number	Input Volts	Input cps*	Max. Output Amps	Max. Output Volts	Feature or Connection	Size, Inches W. x D.♦ x H.	Wt., Lbs.	Net Each, Lots of 1-3	4-8	9-16	17-33
VT1-3	240	60	1.0	0-240**	Uncased, Y-connection	2 7/8 x 6 17/32 x 4 1/4	5.3	$ 36.50	$ 32.85	$ 31.03	$ 29.20
VT02-3	240	60	1.75	0-240**	Uncased, Y-connection	2 7/8 x 8 1/32 x 4 1/4	8.0	39.50	35.55	33.58	31.60
VT3-3	240	60	2.6	0-240**	Uncased, Y-connection	2 7/8 x 9 17/32 x 4 1/4	9.8	44.00	39.60	37.40	35.20
VT4-3	240	60†	3.5	0-240/280	Uncased, Y-connection	4 5/32 x 11 7/8 x 4 13/16	17.0	56.00	50.40	47.60	44.80
VT8-3	240	60†	7.5	0-240/280	Uncased, Y-connection	4 7/8 x 14 1/8 x 5 11/16	31.0	68.00	61.20	57.80	54.40
VT8-3E	240	60†	6.0	0-240/280	E-case version VT8-3	5 3/16 x 15 3/4 x 7 3/16	40.0	83.00	74.70	70.55	66.40
VT8H-3	480‡	60†	3.0	0-480/560	Uncased, Y-connection	4 7/8 x 14 1/8 x 5 11/16	31.0	74.00	66.60	62.90	59.20
VT20-3	240	60†	20.0	0-240/280	Uncased, Y-connection	7 1/2‡ x 15 1/16 x 8 1/16	68.0	167.50	150.75	142.38	134.00
VT20N-3	240	60	25.0	0-240	No overvoltage VT20-3	7 1/2‡ x 15 1/16 x 8 1/16	68.0	167.50	150.75	142.38	134.00
VT20-3B	240	60†	20.0	0-240/280	B-cased version VT20-3	7 1/2 x 15 13/16 x 8 1/16	69.5	182.50	164.25	155.13	146.00
VT20N-3B	240	60	25.0	0-240	Same, no overvoltage	7 1/2 x 15 13/16 x 8 1/16	69.5	182.50	164.25	155.13	146.00
VT20H-3	480‡	60	9.0	0-480/560	480 V input VT20-3	7 1/2‡ x 15 1/16 x 8 1/16	65.0	173.50	156.15	147.48	138.80
VT20HN-3	480‡	60	11.0	0-480	Same, no overvoltage	7 1/2‡ x 15 1/16 x 8 1/16	65.0	173.50	156.15	147.48	138.80

*Minimum; max. of 400 cps for all models. †Use also at 50 cps if connected at no overvoltage output. ‡With 120 V input tap at which the max. current output rating applies up to 120 volts, but reduces approx. 50% at max. output voltage shown. In tandem units, the use of low voltage inputs would halve the rated input and output voltages. ♦Depth behind panel; add 1" for knob thickness for VT8 types; 7/8", VT02 or VT4 types; 1 1/4" for VT20 types. ‡For mounting bracket, add 1 1/4" w. x 1/16" d. **Must not be connected for over-voltage. ††Includes knob, dial and hardware.

TRANSFORMER ACCESSORIES

EXTRA DIALS

Ohmite No. Rotation of CW	Ohmite No. Rotation of CCW	For Type	Dial Calibration	Net Each, Lots of 1-9	10-24	25-49	50-99
5005	.....	VT1, VT02, VT3	0-120, 0-132	$0.25	$0.23	$0.21	$0.20
5006	5008	VT4, VT8	0-120, 0-140	.50	.45	.43	.40
5009	5010	VT4, VT8	0-240, 0-280	.50	.45	.43	.40
5011	.....	VT1, VT02, VT2LN, VT3	0-100, 100-0*	.25	.23	.21	.20
5012	.....	VT4, VT8	0-100, 100-0*	.50	.45	.43	.40
5013	5014	VT20	0-120, 0-140	1.20	1.08	1.02	.96
5015	5016	VT20	0-240, 0-280	1.20	1.08	1.02	.96
5017	.....	VT20	0-100, 100-0	1.20	1.08	1.02	.96
5018	.....	VT4, VT8	0-480, 0-560	.50	.45	.43	.40
5019	.....	VT1, VT02, VT3	0-240, 0-264	.25	.23	.21	.20
5025	.....	VT20	0-480, 0-560	1.20	1.08	1.02	.96

*Percent-of-output dial, supplied with "LN" types.

ADJUSTABLE STOPS

Limit rotational arc of transformers.

Ohmite No.	For Transformer Series	Net Each, Lots of 1-9	10-24	25-49	50-99
6536	All VT4's	$0.50	$0.45	$0.43	$0.40
6537	All VT8's	.50	.45	.43	.40
6538	All VT20's	1.00	.90	.85	.80

EXTRA KNOBS FOR UNCASED UNITS

Ohmite No.	For Transformer Series	Net Each, Lots of 1-9	10-24	25-49	50-99
5155	VT4 or VT8 types	$1.00	$0.90	$0.85	$0.80
5157	VT20 types	1.75	1.58	1.49	1.40
5158	VT1, VT02, VT2LN, VT3 types	.35	.32	.30	.28

BRUSH CONTACT ASSEMBLIES

Ohmite No.	For Transformer Type	Net Each, Lots of 1-9	10-24	25-49	50-99
6507	VT1, VT1N, VT02, VT02N, VT3, VT3N	$1.00	$0.90	$0.85	$0.80
6517	VT2LN	2.00	1.80	1.70	1.60
6515	VT4 except VT4LN	1.00	.90	.85	.80
6518	VT4LN	2.00	1.80	1.70	1.60
6516	VT8 except H, HN or LN	1.25	1.13	1.06	1.00
6516H	VT8H and VT8HN	1.25	1.13	1.06	1.00
6519	VT8LN	2.50	2.25	2.13	2.00
6590	VT20 except VT20N	1.75	1.58	1.49	1.40
6596	VT20H and VT20HN	1.75	1.58	1.49	1.40
6594	VT20N	1.75	1.58	1.49	1.40

ADAPTER PLATE

For 4-hole mounting of VT4. Matches other popular 4-hole mountings.
Ohmite No. 6512—Net Each, Lots of: 1–9..**$1.00**; 10–24..**$0.90**
Net Each, Lots of: 25–49.....**$0.85**; 50–99..... **.80**

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MOST COMPLETE LINE IN THE INDUSTRY

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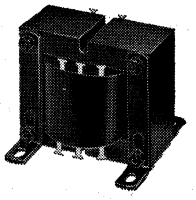

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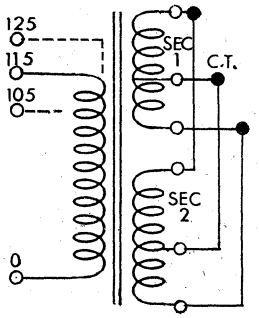

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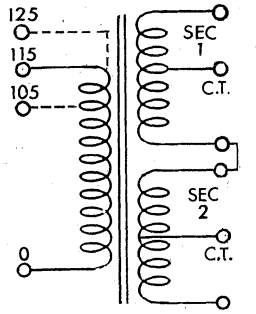

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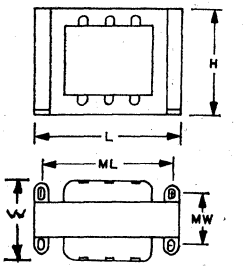

SECONDARY VOLTS	Part No.	Primary Volts 50-500 cps	Secondary Amps Series	Secondary Amps Parallel	Dimensions L	W	H	ML	MW	Apprx. Lbs.	User Net
12.8 or 6.4 C.T. Series 0 - 3.2 - 6.4 - 9.6 - 12.8 V Parallel 0 - 3.2 - 6.4 V @ 2 x Current	12.8-2	115	2	4	3	2½	2½	2½	2	2.2	$ 5.70
	12.8-4	115	4	8	3	3	2½	2½	2⅜	3.0	7.30
	12.8-6	115	6	12	3⅜	3¼	2 13/16	2 13/16	2½	4.2	8.30
	12.8-8	115	8	16	3¾	2⅝	3⅛	3⅛	2¼	4.5	8.70
	12.8-12	115	12	24	4⅛	3¼	3 7/16	3 7/16	2⅜	6.0	10.00
	12.8-25	115	25	50	5¼	4¼	4⅜	4⅜	2⅞	12.0	21.40
	12.8-50	105, 115, 125	50	100	5¼	5¾	4⅜	4⅜	4⅛	20.0	29.00
	12.8-100	105, 115, 125	100	200	6⅜	6⅜	5 5/16	5 5/16	4⅜	32.0	42.50
24 or 12 C.T. Series 0 - 6 - 12 - 18 - 24 V Parallel 0 - 6 - 12 V @ 2 x Current	24-1	115	1	2	3	2½	2½	2½	2	2.2	$ 5.70
	24-2	115	2	4	3	3	2½	2½	2⅜	3.0	7.20
	24-4	115	4	8	3¾	2⅝	3⅛	3⅛	2¼	4.5	8.70
	24-6	115	6	12	4⅛	3¼	3 7/16	3 7/16	2⅜	6.0	10.00
	24-8	115	8	16	4⅛	3⅞	3 7/16	3 7/16	3	8.0	14.30
	24-12	105, 115, 125	12	24	4½	4½	3¾	3¾	3⅜	11.5	17.80
	24-20	105, 115, 125	20	40	5¼	4¾	4⅜	4⅜	3⅜	15.0	21.40
	24-25	105, 115, 125	25	50	5¼	5¾	4⅜	4⅜	4⅛	20.0	28.50
	24-50	105, 115, 125	50	100	6⅜	6⅜	5 5/16	5 5/16	4⅜	32.0	41.50
	24-100	115/230	100	200	7½	7	6¼	6¾	4⅛	45.0	60.00
36 or 18 C.T. Series 0 - 9 - 18 - 27 - 36 V Parallel 0 - 9 - 18 V @ 2 x Current	36-1	115	1	2	3	2¾	2½	2½	2¼	2.5	$ 5.80
	36-2	115	2	4	3⅜	3	2 13/16	2 13/16	2⅜	3.8	7.60
	36-4	115	4	8	4⅛	3¾	3 7/16	3 7/16	2⅝	6.7	9.50
	36-6	115	6	12	4½	3¾	3¾	3¾	2¾	8.6	15.30
	36-8	105, 115, 125	8	16	4½	4⅛	3¾	3¾	3⅜	11.0	16.70
	36-12	105, 115, 125	12	24	5¼	4⅞	4⅜	4⅜	3⅜	14.5	18.50
	36-20	105, 115, 125	20	40	6⅜	5½	5 5/16	5 5/16	3⅜	23.0	32.50
	36-25	105, 115, 125	25	50	6⅜	6	5 5/16	5 5/16	3¾	27.0	35.00
	36-30	105, 115, 125	30	60	6⅜	6½	5 5/16	5 5/16	4⅜	32.0	42.40
	36-50	115/230	50	100	6⅜	7¾	5 5/16	5 5/16	5⅛	40.0	49.50
	36-100	115/230	100	200	7½	8 5/16	6¼	6¾	5 7/16	62.0	98.00
56 or 28 C.T. Series 0 - 14 - 28 - 42 - 56 V Parallel 0 - 14 - 18 V @ 2 x Current	56-1	115	1	2	3⅜	2¾	2 13/16	2 13/16	2¼	3.8	$ 8.25
	56-2	115	2	4	3¾	3¼	3⅛	3⅛	2½	5.0	8.80
	56-4	115	4	8	4⅛	3¾	3 7/16	3 7/16	3	8.0	13.60
	56-6	115	6	12	5¼	4¼	4⅜	4⅜	2⅞	12.0	21.50
	56-8	105, 115, 125	8	16	5¼	5	4⅜	4⅜	3⅝	17.0	26.50
	56-12	105, 115, 125	12	24	6⅜	5½	5 5/16	5 5/16	3⅜	22.0	32.00
	56-25	105, 115, 125	25	50	6⅜	7⅛	5 5/16	5 5/16	5⅛	38.0	53.00
	56-50	115/230	50	100	7½	7¼	6¼	6¾	4⅞	54.0	98.00
	56-100	115/230	100	200	7½	11	6¼	6¾	8⅛	100.0	145.00
68 or 34 C.T. Series 0 - 17 - 34 - 51 - 68 V Parallel 0 - 17 - 34 V @ 2 x Current	68-½	115	½	1	3	2¾	2½	2½	2¼	2.5	$ 6.10
	68-1	115	1	2	3⅜	3	2 13/16	2 13/16	2⅜	3.8	7.90
	68-2	115	2	4	4⅛	3¾	3 7/16	3 7/16	2⅝	6.7	9.80
	68-4	115	4	8	4½	4⅛	3¾	3¾	3⅜	11.0	17.20
	68-6	105, 115, 125	6	12	5¼	4⅞	4⅜	4⅜	3⅜	14.5	19.00
	68-8	105, 115, 125	8	16	5¼	5½	4⅜	4⅜	3⅞	19.0	27.00
	68-12	105, 115, 125	12	24	6⅜	6	5 5/16	5 5/16	3¾	27.0	36.00
	68-25	115/230	25	50	6⅜	7¾	5 5/16	5 5/16	5⅛	40.0	52.00
	68-50	115/230	50	100	7½	8 5/16	6¼	6¾	5 7/16	62.0	98.00
80 or 40 C.T. Series 0 - 20 - 40 - 60 - 80 V Parallel 0 - 20 - 40 V @ 2 x Current	80-½	115	½	1	3	2¾	2½	2½	2¼	3.0	$ 5.80
	80-1	115	1	2	3⅜	3¼	2 13/16	2 13/16	2½	4.2	8.50
	80-2	115	2	4	4⅛	3⅝	3 7/16	3 7/16	2⅝	7.0	12.70
	80-4	115	4	8	5¼	4¼	4⅜	4⅜	2⅞	13.0	21.00
	80-6	105, 115, 125	6	12	5¼	5⅛	4⅜	4⅜	3⅞	19.0	27.00
	80-8	105, 115, 125	8	16	6⅜	5¼	5 5/16	5 5/16	3¼	22.0	30.50
	80-12	105, 115, 125	12	24	6⅜	6	5 5/16	5 5/16	4⅛	29.0	39.50
	80-25	115/230	25	50	7½	6½	6¼	6¾	3⅞	40.0	64.00
	80-50	115/230	50	100	7½	9	6¼	6¾	6½	78.0	120.00
120 or 60 C.T. Series 0 - 30 - 60 - 90 - 120 V Parallen 0 - 30 - 60 V @ 2 x Current	120-½	115	½	1	3⅜	2¾	2 13/16	2 13/16	2¼	3.5	$ 8.20
	120-1	115	1	2	3¾	3½	3⅛	3⅛	2¾	6.0	9.80
	120-2	115	2	4	4½	4	3¾	3¾	2¾	8.5	14.70
	120-4	115	4	8	5¼	5½	4⅜	4⅜	3⅞	18.0	25.60
	120-6	105, 115, 125	6	12	6⅜	6	5 5/16	5 5/16	3⅞	27.0	32.70
	120-8	105, 115, 125	8	16	6⅜	7¼	5 5/16	5 5/16	4⅝	34.0	39.50
	120-12	105, 115, 125	12	24	6⅜	7	5 5/16	5 5/16	5⅜	42.0	48.00
	120-20	105, 115, 125	20	40	7½	7½	6¼	6¾	5⅜	57.0	58.00
160 or 80 C.T. Series 0 - 40 - 80 - 120 - 160 V Parallel 0 - 40 - 80 V @ 2 x Current	160-½	115	½	1	3⅜	3¼	2 13/16	2 13/16	2½	4.2	$ 8.70
	160-1	115	1	2	4⅛	3⅝	3 7/16	3 7/16	2⅝	7.0	12.90
	160-2	115	2	4	4½	4 5/16	3¾	3¾	3⅜	11.0	18.00
	160-4	105, 115, 125	4	8	6⅜	5¼	5 5/16	5 5/16	3¼	19.0	31.00
	160-8	105, 115, 125	8	16	6⅜	6⅝	5 5/16	5 5/16	4⅞	36.0	48.50
	160-12	115/230	12	24	7½	6½	6¼	6¾	3⅞	40.0	65.00
180 or 90 C.T. Series 0 - 45 - 90 - 135 - 180 V Parallel 0 - 45 - 90 V @ 2 x Current	180-½	115	½	1	3¾	3	3⅛	3⅛	2¾	5.7	$ 8.40
	180-1	115	1	2	4⅛	4¼	3 7/16	3 7/16	3	6.7	14.20
	180-2	115	2	4	5¼	5	4⅜	4⅜	3⅝	16.5	22.80
	180-4	115	4	8	6⅜	5½	5 5/16	5 5/16	3¾	27.0	33.00
	180-6	105, 115, 125	6	12	6⅜	7⅛	5 5/16	5 5/16	5⅛	35.0	42.50
	180-8	105, 115, 125	8	16	6⅜	7½	5 5/16	5 5/16	5⅝	42.0	49.00
	180-12	105, 115, 125	12	24	7½	8	6¼	6¾	5⅝	62.0	69.00

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MOST COMPLETE LINE IN THE INDUSTRY

HIGH CURRENT TRANSFORMERS

SHIPPED FROM STOCK IMMEDIATELY

SECONDARY VOLTS

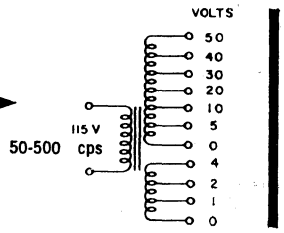
	Part No.	Primary Volts 50-500 cps	Secondary Amps Series	Secondary Amps Parallel	L	W	H	ML	MW	Appr. Lbs.	User Net
230 or 115 C.T. Series 0 - 57½ - 115 - 172½ - 230 V Parallel 57½ - 115 V @ 2 x Current	230-½	115	½	1	3¾	4	3⅛	3⅛	3	6.5	$10.50
	230-1	115	1	2	4½	4	3¾	3¾	3	9.5	15.00
	230-2	115	2	4	5¼	4¾	4⅜	4⅜	3⅜	14.5	19.70
	230-4	105, 115, 125	4	8	6⅜	6	5 5/16	5 5/16	4⅛	30.0	39.80
	230-6	105, 115, 125	6	12	6⅜	7¼	5 5/16	5 5/16	5⅛	40.0	48.50
300 or 150 C.T. Series 0 - 75 - 150 - 225 - 300 V Parallel 0 - 75 - 150 V @ 2 x Current	300-½	115	½	1	4½	4	3¾	3¾	2½	7.0	$11.00
	300-1	115	1	2	5¼	4¼	4⅜	4⅜	3	13.0	19.70
	300-2	115	2	4	5¼	6	4⅜	4⅜	4½	21.0	28.80
	300-4	105, 115, 125	4	8	6⅜	6	5 5/16	5 5/16	3⅞	28.0	35.80

METHOD OF DETERMINING SECONDARY CURRENT RATING

Since our transformers may be used in many possible configurations, the current shown is rms secondary winding current. Secondary current ratings are rms ac values, NOT dc values. When selecting the "Secondary Amp" rating, the conversion chart at the right should be used.

RECTIFIER TYPE	FILTER TYPE	SECONDARY CURRENT
Full Wave Center-Tap	Choke Input	.7 times DC current
Full Wave Center-Tap	Capacitor Input	1.2 times DC current
Full Wave Bridge	Choke Input	Equal to DC current
Full Wave Bridge	Capacitor Input	1.8 times DC current

MULTI-VOLT 1 to 54 VOLTS in 1 VOLT STEPS



MV (multi-voltage) secondaries may be series connected for any output from 1 to 54 volts, in 1 volt steps, at rated current. This is accomplished by using the small buck-boost secondary.

Part No.	Secondary Amps	DIMENSIONS L	W	H	ML	MW	Appr. Wt.	Users Net
MV-2	2	4⅛	3⅛	3¼	3⅛	2⅜	5	$15.00
MV-4	4	5¼	3⅝	4	3¾	2½	7.5	20.00

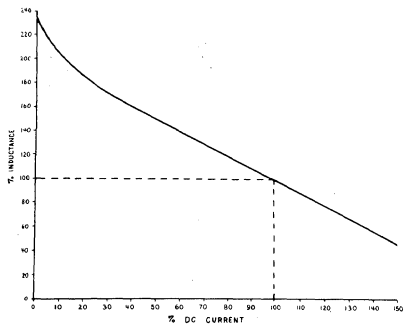
HIGH CURRENT CHOKES

HIGH CURRENT CHOKES

Signal's line of High Current Chokes is the most extensive available. It is designed to complement the selection of High Current Transformers so that a set may be specified for power supplies using inductive filters.

The inductance ratings given are minimum values guaranteed at full rated DC current. All resistance ratings are maximum values.

Special variations or intermediate values of Inductance, current, or resistance can be supplied promptly and accurately.



PART NO.	INDUCTANCE (Milli-hy.)	CURRENT (amps)	RESIS. (ohms)	DIMENSIONS L	W	H	ML	MW	APPR. WT.	USERS NET
CH-1	100	1	1.5	3 1/16	2½	2¾	2½	2	2.5	$ 5.20
CH-2	70	2	0.9	3 7/16	2¾	3⅛	2 13/16	2⅛	3.5	6.00
CH-4	70	4	0.6	3 13/16	3⅜	3⅜	3⅛	2½	5.5	7.50
CH-6	40	6	0.4	3 13/16	3¾	3⅜	3⅛	3	7	10.20
CH-8	30	8	0.3	4 3/16	3⅝	3¾	3 7/16	3	8	12.80
CH-12	15	12	0.1	5 5/16	4	4⅝	4⅜	3⅛	13	16.80
CH-20	7	20	0.05	5 5/16	4	4⅝	4⅜	3⅛	13	17.50
CH-25	5	25	0.025	5 5/16	4¾	4⅝	4⅜	3⅞	18	25.60
CH-30	4	30	0.01	6½	5½	5⅝	5 5/16	3⅜	25	31.40
CH-50	1.4	50	0.01	6½	5¾	5⅝	5 5/16	3¾	27	34.50
CH-100	0.5	100	0.005	6½	6½	5⅝	5 5/16	4⅛	32	39.00
CH-200	0.3	200	0.0025	7 1/16	7	6⅜	6¾	4⅛	45	58.00
CH-500	0.055	500	0.00027	7½	6½	6¼	6¾	4⅛	50	88.00
CH-1000	0.015	1,000	0.000065	7½	7½	6¼	6¾	5⅛	70	99.00

INDUCTANCE VARIATION WITH DC CURRENT

The curve shown applies to the whole line of chokes. It allows the user to determine the value of inductance which will be obtained at intermediate and overload values of DC current. The values on the curve are stated in generalized coordinates of % inductance versus % DC current.

For example, the CH-100 at 50 amperes (50% DC Current) will have an inductance of 0.75 MHY (150% of rating), the CH-25 at 31 amperes (125% DC current) will have an inductance of 3.5 MHY (70% of rating).

It is not recommended that chokes be used at over 100% of rated current since temperature rise will then be excessive. However, if load current is intermittent, and RMS current is less than maximum rated current, it is permissible.

Special "swinging chokes" can be supplied where the slope of this characteristic is emphasized. Specify minimum inductance required at two current values (usually maximum and minimum current) and we will furnish prompt quotations.

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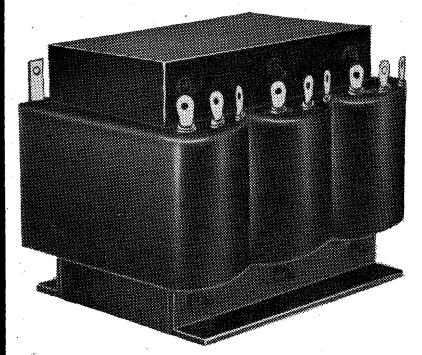
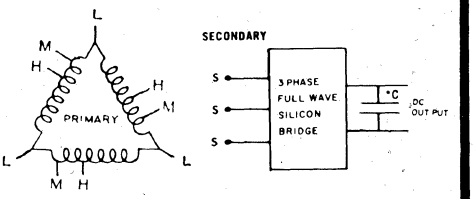
3 PHASE HIGH CURRENT RECTIFIER TRANSFORMERS

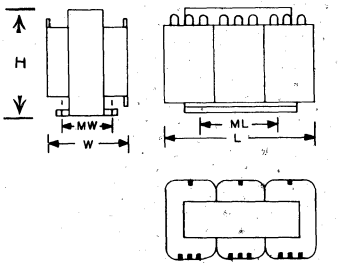


SCHEMATIC DIAGRAM



*C — Optional, no capacitor will give DC output shown at approx. 5% ripple.

MECHANICAL DIMENSIONS



DC OUTPUT VOLTAGE

PART NO.	PRI TAP "L" SUPPLY VOLTAGE 208	PRI TAP "L" SUPPLY VOLTAGE 220	PRI TAP "M" SUPPLY VOLTAGE 208	PRI TAP "M" SUPPLY VOLTAGE 220	PRI TAP "H" SUPPLY VOLTAGE 208	PRI TAP "H" SUPPLY VOLTAGE 220	DC RATED AMPS	APPROX. DIMENSIONS L	W	H	ML	MW	APX. LBS.	NET PRICE
3PH 24-50	24	25	26	27.5	28	30	50	7¾	6	5½	4.8	4⅞	35	$85.00
3PH 24-100	24	25	26	27.5	28	30	100	11½	5	8¼	7.2	4	42	120.00
3PH 24-200	24	25	26	27.5	28	30	200	11½	8⅝	8¼	7.2	6¼	90	195.00
3PH 48-30	42	44	47	50	52	55	30	7¾	6	5½	4.8	4⅞	35	85.00
3PH 48-60	42	44	47	50	52	55	60	11½	5	8¼	7.2	4	42	120.00
3PH 48-120	42	44	47	50	52	55	120	11½	8⅝	8¼	7.2	6¼	90	195.00

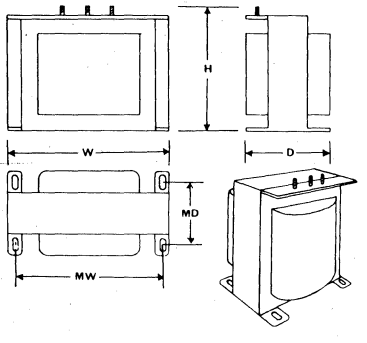
At higher power loads (above 2-3 KVA) it becomes inefficient to use single phase 115 or 230 volt standard lines. With this in mind, our engineering staff has developed a line of 3 phase transformers for use off 208 or 220V 3 phase power lines. These offer the significantly higher conversion efficiency and lighter power line drain of 3 phase systems.

Since the principal application of these items is in high power dc power supplies, output ratings are given in dc voltage and current assuming the use of a 3 phase full wave rectifier.

STEP DOWN AUTO TRANSFORMERS

230 TO 115 VOLTS 50/60 CPS

PART NO.	VA (WATTAGE) RATING	W	D	H	MW	MD	MTG. SCREW	WT.	USER NET
SD-100	100	2⅝	2⅞	3⅛	2	1 13/16	#8	2.3	$7.30
SD-150	150	2⅝	3½	3⅛	2	2 1/16	#8	3.6	8.60
SD-250	250	3 1/16	4⅛	4¼	2¾	2 15/16	#8	6.2	10.70
SD-350	350	3⅞	4¼	4⅝	3	3 1/16	#8	8.3	14.30
SD-500	500	3⅞	4¾	4⅝	3	3 1/16	#8	10.5	16.10
SD-750	750	4⅝	5⅜	5⅜	3½	3¾	¼	14.5	20.70
SD-1000	1000	4⅝	5⅞	5⅜	3½	4¼	¼	18	24.00
SD-1500	1500	4⅝	6⅝	5⅜	3½	5	¼	22	30.00
SD-2000	2000	4⅝	7⅛	5⅜	3½	5½	¼	26	36.00
HSD-3000	3000	7½	6	6¾	6¾	4⅛	¼	40	47.00
HSD-4000	4000	7½	6½	6¾	6¾	4⅝	¼	46	55.00
HSD-5000	5000	7½	7	6¾	6¾	5⅛	¼	52	62.00
HSD-6000	6000	7½	8	6¾	6¾	6⅛	¼	65	76.00



TYPE HSD

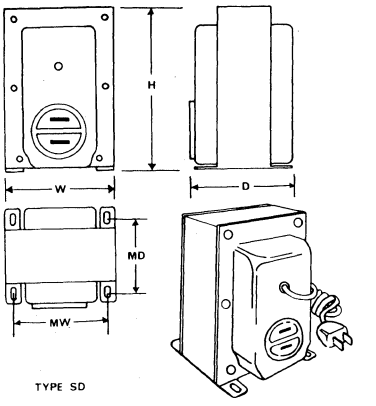
STEP-DOWN AUTO TRANSFORMERS

(3000-6000 VA) TYPE HSD

Very low Regulation • 45°C Temperature Rise • Black High Gloss Enamel Finish • Screw type terminals on phenolic board.

(100-2000 VA) TYPE SD

Low Regulation • Fully encased—Gray Wrinkle Finish • 45°C Temperature Rise • U/L Approved 2 prong line cord and receptacle.



TYPE SD

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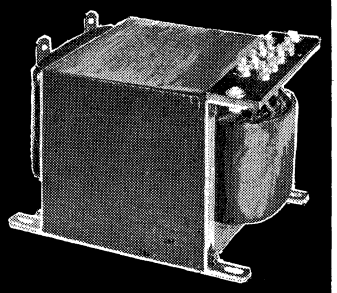
VERY HIGH CURRENT

TRANSFORMERS & CHOKES

500 to 1400 AMPERES

NEVER AVAILABLE BEFORE

STOCKED FOR SAME DAY SHIPMENT

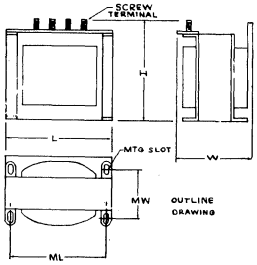


TRANSFORMERS

Part No.	Secondary Volts	Secondary Amps. Nominal (45°C rise)	Secondary Amps. Max. (100°C rise)	Dimensions L	W	H	ML	MW	Mtg. Screw	Appr. Lbs.	User Net Price
6-500	6	500	700	7½	6	7¼	6¾	4⅞	¼	40	$94.00
9-500	9	500	700	7½	7½	7¼	6¾	6⅛	¼	60	121.00
12-500	12	500	700	7½	9	7¼	6¾	7⅜	¼	80	152.00
3-1000	3	1000	1400	7½	6	7¼	6¾	4⅞	¼	40	99.00
6-1000	6	1000	1400	7½	9	7¼	6¾	7⅜	¼	80	160.00

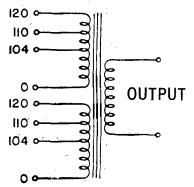
CHOKES

Part No.	Inductance (Milli-hy)	Current (Amperes)	Resis. (Ohms)	L	W	H	ML	MW	Mtg. Screw	Appr. Lbs.	User Net Price
CH-500	.055	500	.00027	7½	6½	6¼	6¾	4⅛	¼	50	88.00
CH-1000	.015	1000	.000065	7½	7½	6¼	6¾	5⅛	¼	70	99.00



As shown on the schematic diagram dual primaries are provided. This permits parallel connection for 104, 110, or 120 volts or series connection for 208, 214, 220, 230, and 240 volts. Frequency range is 50 to 500 cps.

It is important to note that primary taps may be used to adjust the secondary voltages. Line voltages up to 125V (parallel) or 250V (series) may be used on the lowest primary tap. Nickel plated screw terminals are provided on a heavy phenolic board for easy primary connections.



NEW DESIGN AND CONSTRUCTION

SMALLER • LIGHTER • MORE EFFICIENT

GRAIN-ORIENTED STEEL CORE

These cores permit the use of higher peak flux densities for the same core loss. This results in a lower number of turns required and therefore, a smaller, more compact transformer.

STRIP-WOUND SECONDARIES

At the heavy current used in this line it becomes practical and desirable to use wide copper strip (as wide as the coil itself) for windings. Besides the obvious advantages of excellent winding space factor, the heat dissipation of the coil is improved. This improvement is due to the fact that the heat generated in the windings has a pure copper path to the coil ends, where it can be dissipated. In conventional windings of many turns per layer this heat flow is impeded by wire insulation and air spaces between turns. Therefore, the use of copper strip windings yields a dramatic reduction in size and weight.

CLASS F INSULATION USED THROUGHOUT

Class F insulation is rated for unlimited life at a total temperature of 155°C (ambient plus temperature rise).

Class A insulation has a maximum temperature rating of 105°C. The "nominal" current ratings given to this series are for a temperature rise of 45°C above 55°C ambient (Class A). Since Class F insulation is used it is permissible to increase these ratings by 40% (700 and 1400 amperes) without reducing the reliability of the transformer. The temperature rise will be 100°C over a 55°C ambient. The only limitation is not the transformer, but the temperature rating of surrounding components which may be affected by the additional heat radiated by the transformer.

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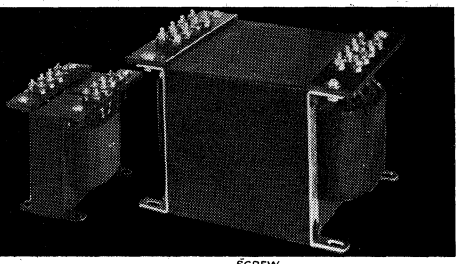
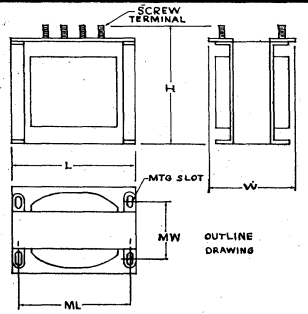
INDUSTRIAL GRADE
STEP-UP OR STEP-DOWN
POWER ISOLATION OR AUTO-TRANSFORMERS
HIGH DEGREE OF VERSATILITY OFFERS MANY POSSIBLE VOLTAGE RATINGS



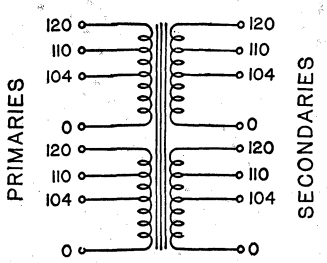
AVAILABLE FROM STOCK FOR IMMEDIATE SHIPMENT

The "DU" and "UP" lines are designed for a maximum of 55°C rise above ambient, for use on standard power lines from 50 to 500 Cps. Only prime raw materials are used. Units are thoroughly impregnated and baked with Signal's own high gloss black baking varnish. The transformers are rugged in construction, well-insulated, and have a consistently uniform appearance. All ratings are at full load current, continuous operation.

Heavy ¼ inch phenolic terminal boards are provided with plated brass screws and flat washers. Connections can be easily made with a nut driver. It is also simple to alter the inter-connections to change transformer ratings.



"DU SERIES" 110/220 Dual Primary To 110/220 Dual Sec.

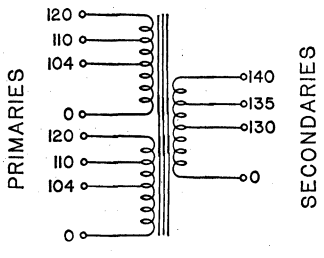


As shown on the schematic diagram the "DU" line is designed with dual primaries and secondaries. All four windings are identically rated at 0/104/110/120 volts. This permits series or parallel connections on either primary or secondary. Therefore, a nominal 110 to 110 volt, 220 to 220 volt, 110 to 220 volt, or 220 to 110 volt transformer can be set up. The winding taps permit intermediate series ratings such as 208, 214, or 230 volts.

It is also possible to make auto-transformer connections by connecting a primary group in series with a secondary group. Such nominal ratings as 440 to 220 volts or 220 to 440 volts can be set-up, in addition to the standard ratings described above. A further advantage to auto-transformer connection is the fact that the KVA rating of a particular type is **doubled.**

Part No.	KVA	Series Secondaries		Parallel Secondaries		Mechanical Dimensions					Mtg. Screw	Appr. Lbs.	User Net Price
		Volts	Max. Amps	Volts	Max. Amps	L (Max.)	W (Max.)	H (Max.)	ML ± 1/32	MW ± 1/16			
DU-¼	¼	0/208/220/240	1.1	0/104/110/120	2.2	5 5/16	4¼	5¼	4⅜	2½	#10	12	$27.00
DU-½	½	0/208/220/240	2.3	0/104/110/120	4.6	5 5/16	5 5/16	5¼	4⅜	3⅝	#10	18	32.00
DU-1	1	0/208/220/240	4.5	0/104/110/120	9	7 9/16	6¼	7¼	6¾	4⅛	¼	33	50.00
DU-2	2	0/208/220/240	9	0/104/110/120	18	7 9/16	8¼	7¼	6¾	6	¼	56	66.00
DU-3	3	0/208/220/240	14	0/104/110/120	28	7 9/16	9¼	7¼	6¾	7	¼	70	91.00
DU-5	5	0/208/220/240	23	0/104/110/120	46	7 9/16	10¾	7¼	6¾	8½	¼	89	138.00

"UP SERIES" 110/220 Dual Primary To 0/130/135/140 V. Sec.



The "UP" line utilizes the same dual primary as the "DU" line. It has, however, a single secondary rated at 0/130/135/140 volts.
This type is quite useful to boost low line voltages or raise line voltages to compensate for drops in series elements. It also finds application in bridge rectifiers for DC voltage outputs of approximately 115 to 130 volts.

Part No.	KVA	Secondary Volts	Max. Secondary Amps	L (Max.)	W (Max.)	H (Max.)	ML ± 1/32	MW ± 1/16	Mtg. Screw	Appr. Lbs.	User Net Price
UP-2	¼	0/130/135/140	2	5 5/16	4¼	5¼	4⅜	2½	#10	12	$24.00
UP-4	½	0/130/135/140	4	5 5/16	5 5/16	5¼	4⅜	3⅝	#10	18	31.00
UP-8	1	0/130/135/140	8	7 9/16	6¼	7¼	6¾	4⅛	¼	33	47.00
UP-15	2	0/130/135/140	15	7 9/16	8¼	7¼	6¾	6	¼	56	64.00
UP-25	3	0/130/135/140	25	7 9/16	9¼	7¼	6¾	7	¼	70	88.00
UP-40	5	0/130/135/140	40	7 9/16	10¾	7¼	6¾	8½	¼	89	132.00

SIGNALS CUSTOM SERVICE

Many of our customers do not realize that the major portion of our shipments consists of "special" or "custom" items.

Usually, the final application of one of our stock transformers does not require the full number of taps or windings provided. These naturally are part of the cost of the item. If we are advised as to the specific taps used or as to what intermediate voltage or current is required we can begin production quickly on this variation of our stock item. If we define production quantities as roughly over 50 pieces, the customer will do better price-wise on his custom made item than on the standard.

SIGNAL TRANSFORMER CO., INC

ENGINEERS • DESIGNERS • MANUFACTURERS

Net

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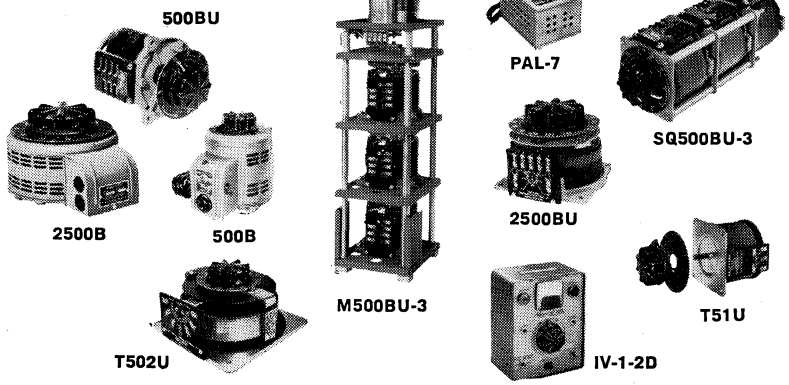
STACO® INCORPORATED

Adjust-A-Volt® VARIABLE AUTO-TRANSFORMERS



Industries widest selection of adjustable variable auto-transformers designed to deliver variable output voltages with high efficiency, reliability and minimum maintenance. Ratings from .165 to 265 KVA. Bench and panel mounting. Manual or motor driven. Single or ganged assemblies. Military designs, specials, 36 volt types. All Adjust-A-Volts feature zero wave form distortion with high voltage resolution, and regulation with conservative ratings. Design features rugged mechanical construction and precious metal-plated commutators.

Brush design provides smooth flow of input current and voltage and ease of brush replacement which is seldom required. All Adjust-A-Volts operate on 50/60 cycle current except certain SQ models which are 60 cycle*. Operation is permissible at 50% of rated power output. Bench models are housed in grey wrinkle painted die-cast aluminum cases equipped with pilot light, switch, line cord, and an output receptacle. Write for complete catalog.

MFR. MODEL NO.	MAX. KVA	INPUT VOLT.	OUTPUT VOLTS	OUTPUT AMPS	DESCRIPTION	SIZE	WGT. LBS.
100BU	.165	120	0-132/0-120	1.25	Panel type for panels to 1/4" thick	2-3/32 x 2-13/16"	2
PA-1	.165	120	0-132	1.25	Portable; fused w/switch; pilot light, line cord	3⅞ x 3⅞ x 3½"	3
175BU	.23	120	0-132/0-120	1.75	Panel type for panels to 1/4" thick	2-3/32 x 2-13/32"	2
PA-175	.23	120	0-132	1.75	Portable; fused w/switch; pilot light, line cord	3⅞ x 3⅞ x 3½"	3
250BU	.33	120	0-132/0-120	2.5	Panel type for panels to 1/4" thick	2-1/16 x 2-13/16"	2.5
T21U	.33	120	0-140/0-120	2.4	Panel type for panels to ⅜" thick	3¼ x 3¼ x 3-15/16"	3
300BU	.42	120	0-140/0-120	3.0	Panel type for panels to ½" thick	3-11/16 x 4"	4
3PNPA-375	.53	120	0-140	3.75	Portable, fused, w/switch, pilot light, line cord	6½ x 6⅛ x 6½"	5
375BU	.53	120	0-140/0-120	3.75	Panel type for panels to ½" thick	3¾ x 3¾ x 3¼"	5
PA-375	.53	120	0-140	3.75	Portable; fused w/switch; pilot light, line cord	6½" x 6⅛ x 6½"	6
T51U	.84	120	0-140/0-120	6.0	Panel type for panels to ⅜" thick	4½ x 4½ x 3-15/16"	7
500BU	1.05	120	0-140/0-120	7.5	Panel type for panels to ½" thick	5-11/16 x 5"	8
SQ500BU	1.05	120	0-140/0-120	7.5	Panel type for panels to ½" thick	4½ x 4½ x 3-15/16"	9
500B	1.05	120	0-140	7.5	Enclosed; fused w/switch & pilot light, line cord	7¼ x 6½"	9
3PN500B	1.05	120	0-140	7.5	Enclosed; 3 prong plug & outlet, fused w/switch, pilot light	7¼ x 6½"	10
T101U	1.4	120	0-140/0-120	10.0	Panel type for panels to ½" thick	5¾ x 5¾ x 4-1/16"	12.5
T1500U	2.1	120	0-140/0-120	15.0	Panel type for panels to ½" thick	6⅛ x 6⅝ x 4⅜"	16
1500B	2.1	120	0-140/0-120	15.0	For panels to ½" or bench use, enclosed	8-1/16 x 8¼"	17
3PN1500B	2.1	120	0-140	15.0	Enclosed, 2 blade & U blade, receptacle, fuse	9 x 8¼"	17
SQ510BU	1.2	120	0-120	10.0	Panel type for panels to ½" thick	4¼ x 4¼ x 3-15/16"	9
510BU	1.2	120	0-120	10.0	Panel type for panels to ½" thick	5-11/16 x 5"	9
3PN510B	1.2	120	0-120	10.0	Enclosed, 3 prong plug & outlet, receptacle, fuse	7¼ x 6½"	9
520BU	.84	240	0-280/0-240	3.0	Panel type for panels to ½" thick	5-11/16 x 5"	9
SQ520BU	.84	240	0-280/0-240	3.0	Panel type for panels to ½" thick	4¼ x 4¼ x 3-15/16"	9
520B	.84	240	0-280	3.0	Enclosed, fused with switch, pilot light, line cord	5-11/16 x 5"	9
3PN520B	.84	240	0-280	3	Enclosed, 2 blade & U blade, receptacle,fuse	7¼ x 6½"	9
530BU	.96	240	0-240	4	Panel type for panels to ½" thick	5-11/16 x 5"	9
SQ530BU	.96	240	0-240	4	Panel type for panels to ½" thick	4¼ x 4¼ x 3-15/16"	9
3PN530B	.96	240	0-240	4	Enclosed, 2 blade & U blade, receptacle, fuse	7¼ x 6½"	9
F1500B	2.1	120	0-140	15	With fuse & conduit box, panel or bench use	9 x 8¼"	17
1520B	2.5	240	0-280	9	Panel type to ½" panel or bench use	8-1/16 x 8¼"	17
F1520B	2.5	240	0-280	9	With fuse & conduit box, panel or bench use	9 x 8¼"	17
3PN1520B	2.5	240	0-280	9	Enclosed, 2 blade & U blade, receptacle, fuse	9 x 8¼"	17
1500BD	2.1	120	0-140	15.0	Cased; output voltmeters, cord, receptacle; fused	9½ x 8¼"	17
1520BD	2.5	240	0-280	9.0	Cased; output voltmeters, cord, receptacle; fused	9½ x 8¼"	17
T1500U	2.1	120	0-140	15.0	Panel type for panels to ½" thick	6⅛ x 4⅜"	20
T1520U	2.7	240	0-280	9.5	Panel type for panels to ½" thick	6⅛ x 4-13/16"	23
2500BU	3.5	120	0-140/0-120	25	Panel type for panels to ½" thick	8-3/16 x 7⅝ x 5-21/32"	17
2500B	3.5	120	0-140/0-120	25	Enclosed; with junction box	9-9/16 x 7⅝ x 5-21/32"	17
2520BU	2.8	240	0-280/0-240	10	Panel type for panels to ½" thick	8-3/16 x 7⅝ x 5-21/32"	17
F2520BU	2.8	240	0-280/0-240	10	Panel type for panels to ½" thick with fuse	8-3/16 x 7⅝ x 5-21/32"	17
2520B	2.8	240	0-280/0-240	10	Enclosed with junction box	9-9/16 x 7⅝ x 5-21/32"	17
F2520B	2.8	240	0-280/0-240	10	Enclosed with junction box with fuse	9-9/16 x 7⅝ x 5-21/32"	17
T501U	7.0	120	0-140	50	For panels to ⅝" thick or bench use	12½ x 12½ x 5½"	5.2
T501U-25	14	240	0-280	50	Panel type to ⅝" thick or bench use 2 stack	12½ x 12½ x 14⅝"	120
T501U-2P	14.0	120	0-140	100	Panel type to ⅝" thick or bench use 2 stack	12½ x 12½ x 14⅝"	120
T501U-3P	21	120	0-140	150	Panel type to ⅝" thick or bench use 3 stack	12½ x 12½ x 20¾"	181
T502U	7.8	240	0-280/0-240	28	Panel type to ⅝" thick or bench use	12½ x 12⅝ x 5½"	52
175BU-36	0.22	36	0-36	6	Panel type for panels to 1/4" thick	2-13/16 x 2⅝"	3.5
375BU-36	0.55	36	0-36	15	Panel type for panels to ½" thick	3¾ x 3¾ x 2⅞"	6
500BU-36	0.9	36	0-36	25	Panel type for panels to ½" thick	5-11/16 x 5	10
THREE PHASE TYPES							
100BU-3	.52	240	0-240UG	1.25	3 stack panel type for panels to 1/4" thick	3⅞ x 7⅜"	6
175BU-3	.73	240	0-240UG	1.75	3 stack panel type for panels to 1/4" thick	3⅞ x 7⅜"	6
250BU-3	1.04	240	0-240UG	2.5	3 stack panel type for panels to 1/4" thick	3⅞ x 9½"	7.5
T21U-3	1.15	240	0-280UG/0-240	2.4	3 stack panel type for panels to ⅜" thick	3¼ x 3¼ x 11-31/32"	12
300BU-3	1.25	240	0-240UG	3	3 stack panel type for panels to ½" thick	3⅞ x 3⅞ x 12-⅜"	13
375BU-3	1.6	240	0-240UG	3.75	3 stack panel type for panels to ½" thick	3¾ x 3¾ x 11⅝"	15
T51U-3	2.9	240	0-280UG/0-240UG	6	3 stack panel type for panels to ⅜" thick	4½ x 4½ x 12-3/32"	21
510BU-2	2.1	120	0-120	10	2 stack panel type for panels to ½" thick	5-11/16 x 10-9/16"	18
510BU-3	4.2	240	0-240UG	10	3 stack panel type for panels to ½" thick	5-11/16 x 15½"	28
500BU-3	3.6	240	0-280UG/0-240UG	7.5	3 stack panel type for panels to ½" thick	5-11/16 x 15½"	28
500B-3	3.6	240	0-280UG/0-240UG	7.5	3 stack panel type for panels to ½" thick	7¼" x 16¾"	28
500B-2	1.8	120	0-140/0-120	7.5	2 stack panel type for panels to ½" thick	7¼ x 11⅞"	18
500BU-2	1.8	120	0-140/0-120	7.5	2 stack panel type for panels to ½" thick	5-11/16 x 10-9/16"	18
1500B-2	3.6	12	0-140	15	2 stack panel type for panels to ½" thick	8-1/16 x 12-15/32"	39
1500B-3	7.3	240	0-280UG	15	3 stack panel type for panels to ½" thick	8-1/16 x 15-15/32"	60
2500BU-2	6	120	0-140/0-120	25	2 stack panel type for ½" panel thickness	8-3/16 x 7⅝ x 10-1/16"	43
T1500U-3	7.3	240	0-280	7.3	3 stack panel type for panels to ½" thick	6⅝ x 15"	56
2500BU-3	12	240	0-28UG/0-240UG	25	2 stack panel type for ½" panel thickness	8-3/16 x 7⅝" x 14⅞"	66
1520B-3	8.7	480	0-560UG	9	3 stack bench type, enclosed, with terminal board	8-1/16 x 15-15/32"	60
T1520U-3	7.9	240	0-280	28.5	3 stack panel type for panels to ½" thick	6⅝ x 16-5/16"	65
2520BU-3	9.7	480	0-560/0-480UG	10	3 stack panel type for ½" panel thickness	8-3/16 x 7⅝ x 14-⅞"	68
2520B-3	9.7	480	0-560UG/0-480UG	10	3 stack bench type, enclosed with terminal cover	9-9/16 x 7⅝ x 14⅞"	71

STACO, INCORPORATED

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SOLA ELECTRIC

DIVISION OF SOLA BASIC INDUSTRIES

CV Transformers

AUTOMATIC, INSTANTANEOUS VOLTAGE REGULATION FOR A WIDE VARIETY OF ELECTRIC AND ELECTRONIC DEVICES

Constant-voltage Sola transformers provide a stabilized output voltage even though the input voltage varies over a considerable range. Their applications are numerous and varied. CV's are especially ideal for high-accuracy requirements such as in computers and data-processing equipment.

Another advantage in CV transformers is their ability to prolong the life of electronic components by eliminating injurious over- and under-voltages. The Sola transformer's current-limiting factor protects semiconductors and other components from excessive inrush and fault currents.

Sola Sinusoidal Type (CVS) *LESS THAN 3% HARMONIC CONTENT*

ELECTRICAL SPECIFICATIONS • 60 CYCLE SINGLE PHASE — **MECHANICAL SPECIFICATIONS**

Voltage Rating					Nominal Dimensions		Approximate Shipping Weight Lbs.	* Structure Code
Regulated Output	Input Range	VA	Catalog Number	Price Ind'l & Govt. Users	Outline	Mounting		
118	95-130	30	23-13-030(a)	$27.00	6⅛ x 4 x 5 5/16	3 x 3½	9	W
	190-260X 380-520	30	23-23-030(a)	29.00	6⅛ x 4 x 5 5/16	3 x 3½	9	W
	95-130	60	23-13-060(a)	32.00	6 13/16 x 4 x 5 5/16	3 x 3½	10	W
	190-260X 380-520	60	23-23-060(a)	35.00	6 13/16 x 4 x 5 5/16	3 x 3½	10	W
	95-130X 190-260	120	23-22-112(a)	41.00	8 x 4 x 5 5/16	3 x 3½	14	W
	190-260X 380-520	120	23-23-112(a)	44.00	8 x 4 x 5 5/16	3 x 3½	14	W
	95-130X 190-260	250	23-22-125(b)	56.00	9⅝ x 5⅜ x 7 1/16	4⅛ x 4¾	28	W
	190-260X 380-520	250	23-23-125(b)	60.00	10 x 5⅜ x 7 1/16	4⅛ x 4¾	28	W
	95-130X 190-260	500	23-22-150(c)	87.00	12 7/16 x 9 x 6 7/16	5⅝ x 8⅛	47	W
118 x 236	190-260X 380-520 95-130X 175-235X	500	23-26-150(c)	93.00	12 7/16 x 9 x 6 7/16	5⅝ x 8⅛	47	W
	190-260	1000	23-25-210(c)	146.00	17 15/16 x 9 x 6 7/16	5⅝ x 8⅛	80	W
	190-260X 380-520	1000	23-26-210(c)	146.00	17 15/16 x 9 x 6 7/16	5⅝ x 8⅛	80	W
	95-130X 175-235X 190-260	2000	23-25-220	265.00	19 15/16 x 12¾ x 10 11/16	4½ x 11¾	145	W
	190-260X 380-520	2000	23-26-220	265.00	19 15/16 x 12¾ x 10 11/16	4½ x 11¾	145	W
	95-130X 175-235X 190-260	3000	23-25-230-3	356.00	21⅛ x 12¾ x 10 11/16	6 7/16 x 11¾	192	W
	190-260X 380-520	3000	23-26-230	356.00	21⅛ x 12¾ x 10 11/16	6 7/16 x 11¾	192	W
	95-130X 175-235X 190-260	5000	23-25-250	556.00	20 9/16 x 25 13/16 x 10 11/16	5 7/16 x 24 13/16	475	Y
	190-260X 380-520	5000	23-26-250	556.00	20⅞ x 25 13/16 x 10 11/16	5 7/16 x 24 13/16	475	Y
	190-260X 380-520	7500	23-28-275	826.00	20 9/16 x 38¼ x 11 1/16	5 7/16 x 37¼	710	Z

An adjustable CVS, the ac Solavolt is available with output range from 0-130 v. 500 va. Write for Solavolt bulletin.

Normal Harmonic Type (CVN)

ELECTRICAL SPECIFICATIONS • 60 CYCLE SINGLE PHASE — **MECHANICAL SPECIFICATIONS**

Voltage Rating		Output Capacity in VA	Catalog Numbers	Approx. Net Price Each to Industrial, Commercial or Govt. Users	Nominal Dimensions (Inches)		Approx. Ship. Wt. in Lbs.	* Structure Code
Regulated Output	Input Range				Outline	Mounting		
118	95-130	15	20-10-015	$16.00	5 5/16 x 2 5/8 x 3½	5 1/16 x 1⅛	4	D
			20-11-015	22.00	5¼ x 3½ x 2¼	3 x 1½	4	S
			20-14-015	15.00	4 5/16 x 2⅜ x 2 1/16	1¾ x 1⅞	3	E
		30	20-14-030	17.00	4 5/16 x 2⅜ x 3 5/16	1⅞ x 2⅝	5	E
			20-13-030(a)	22.00	6 x 4 x 5 5/16	3 x 3½	7	W
		60	20-13-060(a)	27.00	6 13/16 x 4 x 5 5/16	3 x 3½	10	W
			20-14-060	23.00	4 13/16 x 3⅛ x 3⅞	2½ x 3⅞	8	E
118	95-130	120	20-14-112	31.00	4 13/16 x 3⅛ x 4 15/16	2½ x 3⅞	11	E
			20-13-112(a)	36.00	7⅜ x 4 x 5 5/16	3 x 3½	13	W
236	190-260	120	20-21-112(a)	36.00	7⅞ x 4 x 5 5/16	3 x 3½	13	W
118	95-130	150	20-13-115(b)	43.00	8⅞ x 5⅜ x 7 1/16	4⅛ x 4¾	22	W
	190-260x 380-520	250	20-13-125(c)	53.00	11⅛ x 6 15/16 x 6 7/16	4⅝ x 6⅛	25	W
			20-23-125(c)	53.00	11⅛ x 6 15/16 x 6 7/16	4⅝ x 6⅛	25	W
	95-130	500	20-13-150(c)	83.00	12 5/16 x 6 15/16 x 6 7/16	4⅝ x 6⅛	36	W
	190-260x 380-520		20-23-150(c)	83.00				
236			20-24-150(c)	83.00	12½ x 6 15/16 x 6 7/16			
118	95-130	1000	20-13-210	138.00	15⅛ x 6 15/16 x 6 7/16	4⅝ x 6⅛	54	W
	190-260		20-20-210	138.00				
118x 236	95-130x 175-235x 190-260	2000	20-25-220	251.00	20 x 10½ x 10 11/16	4 9/16 x 9½	166	W
		3000	20-25-230	340.00	22 x 10½ x 10 11/16	6 7/16 x 9½	230	W
	190-260x 380-520	5000	20-27-250	529.00	21 x 14½ x 14⅜	7 x 13	279	W
		10000	20-26-310	999.00	21 x 29 7/16 x 14⅜	7 x 27 13/16	590	Y

Letter following a catalog number designates units which may be converted to cord input and receptacle output. See Adapter Kit table on page 1425.

Outline dimensions are the overall outside dimensions of the unit, not including separate capacitor where employed. Dimensions are subject to manufacturing tolerances of ±1/32 to ±1/8 inch.

For more information on SOLA CVDC Power Supplies, see page 1023, Section 4000.

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SOLA ELECTRIC

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Electronic-Power Types

± 1% REGULATION FOR FILAMENT TYPE,
± 3% FOR PLATE-FILAMENT TYPE

The electronic-power type of Sola transformer is designed as a component for simple assembly into many kinds of electronic equipment. The filament type (CVF) provides 6.0 or 6.3 volts of output regulated within ± 1% over line variations of ± 15%; the combination plate-and-filament type (CVE) regulates within ± 3%.

for filament service (Type CVF)

ELECTRICAL SPECIFICATIONS • 60 CYCLE SINGLE PHASE — **MECHANICAL SPECIFICATIONS**

Voltage Rating		Output Capacity in Amps.	Catalog Number	Approx. Net Price Each to Industrial Users	Nominal Dimensions (Inches)		Approx. Ship. Wt. in Lbs.	* Structure Code
Regulated ±1% Output	Input Range				Outline	Mounting		
6.0	95-130	2.50	20-01-015	$16.00	5 5/16 x 2 5/8 x 3 1/2	5 1/16 x 1 1/8	6	D
			20-06-015	15.00	4 13/16 x 2 3/8 x 2 7/16	1 3/4 x 1 7/8	4	E
6.3	95-130	2.38	20-02-015	16.00	5 5/16 x 2 5/8 x 3 1/2	5 1/16 x 1 1/8	6	D
			20-03-015	22.00	4 13/16 x 2 3/8 x 2 7/16	1 3/4 x 1 7/8	4	S
			20-04-015	15.00	4 13/16 x 2 3/8 x 2 7/16	1 3/4 x 1 7/8	4	E
	95-130X 190-260	5.0	20-04-030	17.00	4 13/16 x 3 1/8 x 3 1/8	2 1/2 x 2 1/16	6	E
		10.0	20-04-065	22.00	4 13/16 x 3 1/8 x 3 3/4	2 1/2 x 2 11/16	7	E
		15.0	20-04-095	26.00	4 13/16 x 3 1/8 x 4 11/16	2 1/2 x 3 5/8	11	E
		25.0	20-04-116	38.00	7 x 4 1/2 x 5 11/16	3 5/8 x 4 1/8	23	E

for plate filament service (Type CVE)

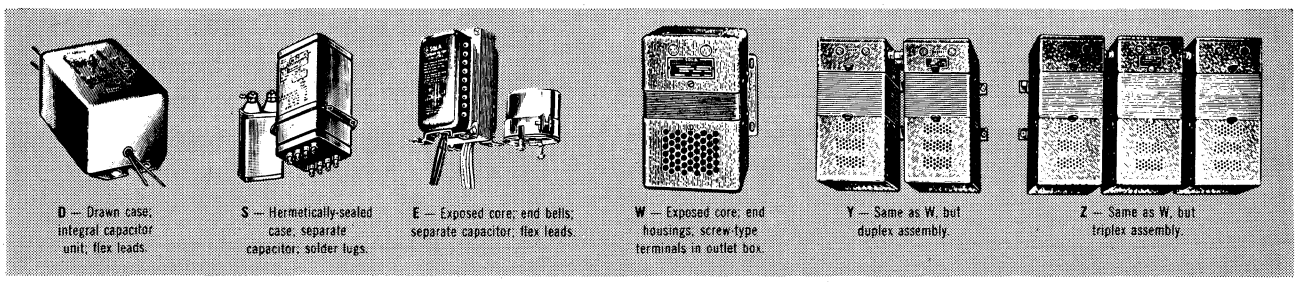
ELECTRICAL SPECIFICATIONS • 60 CYCLE SINGLE PHASE — **MECHANICAL SPECIFICATIONS**
Input range, 100-130 volts

Typical Rectifier Tube	Average D.C. Input Volts to Filter*	Filament Windings		Catalog Number	Approx. Net Price Each to Industrial Users	Nominal Dimensions (Inches)		Approx. Ship. Wt. in Lbs.	* Structure Code
		6.3 Volts	5.0 Volts			Outline	Mounting		
5Y3	275v D.C. @ 50 M.A.	2.5 amps C.T.	2.0 amps	7104	$13.00	4 13/16 x 3 1/8 x 3 3/16	2 1/2 x 2 1/8	6	E
5Y3	385v D.C. @ 110 M.A.	3.0 amps C.T.	2.0 amps	7106	16.00	4 13/16 x 3 1/8 x 3 13/16	2 1/2 x 2 7/8	8	E
5U4	380v D.C. @ 250 M.A.	No. 1: 4.0 amps No. 2: 8.0 amps unregulated	3.0 amps	7107	30.00	7 x 4 1/2 x 4 7/8	3 5/8 x 3 1/8	19	E

**Voltage values are taken at output of 5Y3GT rectifier for No. 7104 and No. 7106 transformers and at output of 5U4GA-GB for No. 7107. Guaranteed regulation of ±3% on plate voltage output is contingent on the use of Sola-regulated 5.0v filament supply winding for the rectifier tube.*

*Mechanical Structures

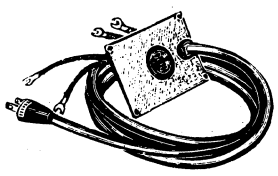
"STRUCTURE CODE" LETTER REFERS TO ONE OF THESE GENERAL TYPES OF MECHANICAL ASSEMBLIES:



D — Drawn case; integral capacitor unit; flex leads.
S — Hermetically-sealed case; separate capacitor; solder lugs.
E — Exposed core; end bells; separate capacitor; flex leads.
W — Exposed core; end housings; screw-type terminals in outlet box.
Y — Same as W, but duplex assembly.
Z — Same as W, but triplex assembly.

Cord/Receptacle Adapter Kits

Adapter kits may be used when the convenience of input plug and output receptacle is preferred to the standard arrangement of terminals in the transformer housing. See accompanying chart.



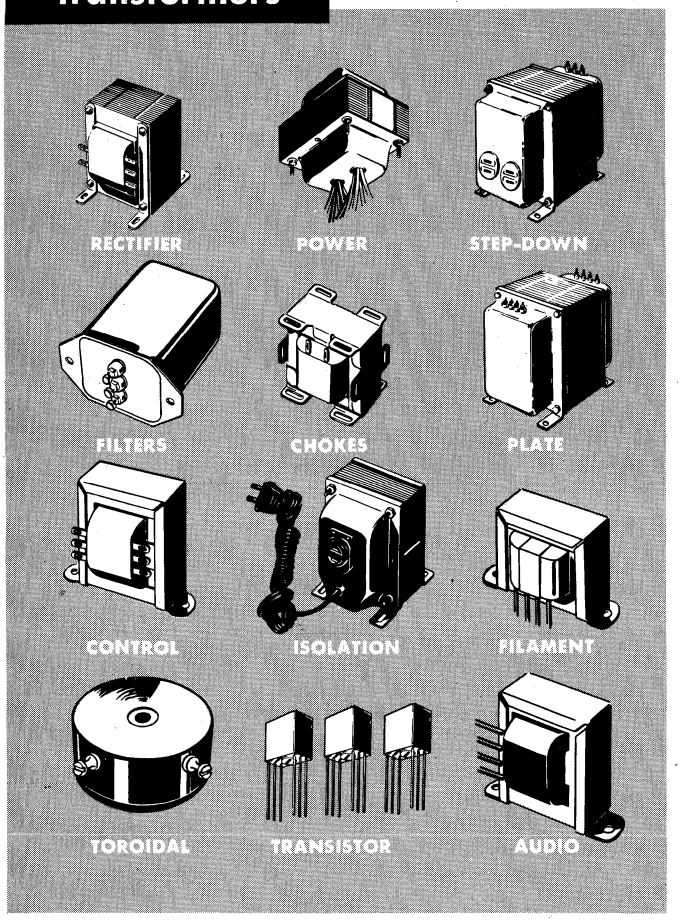
Code	Adapter Kit Catalog No.	Input Cord	Output-Connections	Net price each to industrial users
(a)	999-004 999-018	2-wire 3-wire	2-wire receptacle 3-wire receptacle	$1.75 2.50
(b)	999-005 999-019	2-wire 3-wire	2-wire receptacle 3-wire receptacle	1.75 2.50
(c)	999-009 999-020	2-wire 3-wire	2-wire receptacle 3-wire receptacle	2.00 2.50

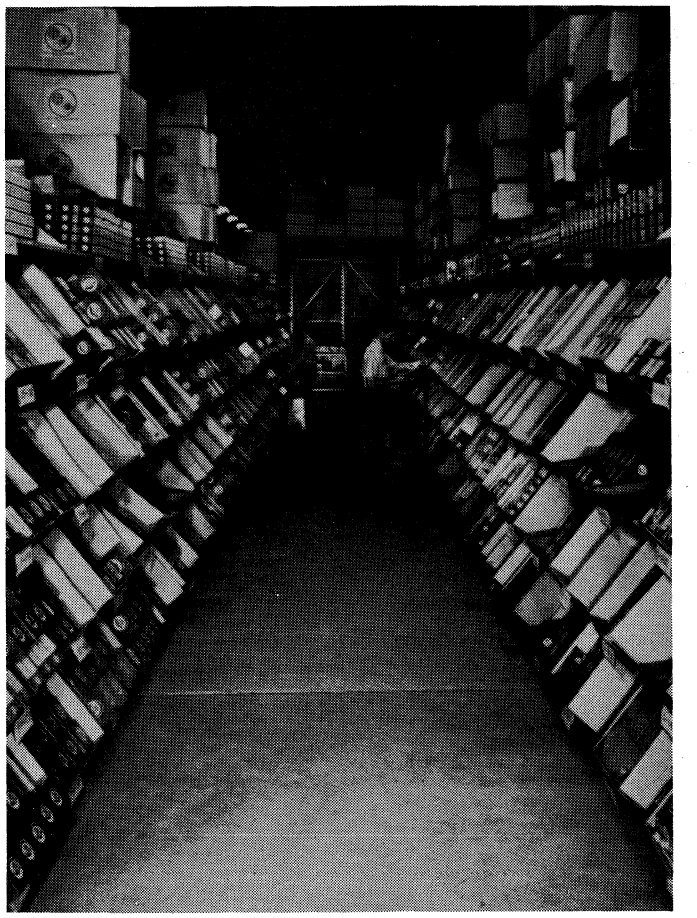
The transformers described in this folder are manufactured under one or more of the following United States Patents: Nos. 2,694,177; 2,753,513; 2,806,199, and patents pending.

For more information on SOLA CVDC Power Supplies, see page 1023, Section 4000.

STANCOR

standard transformers





When you use STANCOR STANDARD Transformers you are assured of . . .

Immediate Availability — sold by over 150 Industrial Electronic Distributors in major marketing areas — AT FACTORY PRICES IN ANY QUANTITY.

Highest Quality — Stancor has specialized in manufacturing millions of standard transformers, time-tested and field-proven for over 35 years.

Stock In Depth — over 300,000 transformers stocked in Chicago with branch warehouses at Atlanta, Dallas, Los Angeles and Hackensack, N. J. **Bulk shipments from Chicago, only.**

Service Replacement — available from over 1000 Industrial and Service Parts Electronic Distributors located in over 500 cities throughout the U.S.

Competitive Prices — mass production facilities — to supply its extensive distributor organization — enable Stancor to manufacture at lowest costs.

SOLD NATIONALLY THROUGH ELECTRONIC DISTRIBUTORS BY

ELECTRONIC MARKETING DIVISION
ESSEX WIRE CORPORATION

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STANCOR

transformers

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1BC-150	16c	16.54	A-3872	6c	5.22	A-8061	7b	15.44	A-8132/			A-8232/			A-8264/		
1BS-150	16c	22.15	A-3876	6a	1.67	A-8062	7b	15.40	HO-161	27	16.00	HO-181	27	15.00	HO-214	27	17.50
2BC-150	16c	14.69	A-3877	6a	1.67	A-8063	7b	15.39	A-8133/			A-8233/			A-8265/		
2BS-150	16c	22.93	A-3878	6b	1.74	A-8064	7b	15.44	HO-162	27	18.50	HO-182	27	15.00	HO-215	27	17.00
A-52C	9f	2.57	A-3879	6b	1.70	A-8066	7b	14.60	A-8134/			A-8234/			*A-8266/		
A-53	9e	2.34	A-3880	7a	4.94	A-8070	6a	1.59	HO-163	27	18.50	HO-183	27	10.00	HO-216	27	12.00
A-53C	9f	2.74	A-3881	6b	2.17	A-8072	7b	19.47	A-8135/			A-8235/			A-8267/		
A-62C	9f	3.02	A-3882	8d	9.10	A-8080	8b	3.22	HO-164	27	17.30	HO-184	27	10.00	HO-217	27	15.00
A-63C	9f	3.22	A-3883	8d	3.85	A-8081	8b	3.54	A-8136/			A-8236/			*A-8268/		
A-64C	9f	3.19	A-3885	6c	9.90	A-8082	8b	4.30	HO-165	27	15.00	HO-185	27	15.00	HO-218	27	15.00
A-73C	9f	3.80	A-3890	7a	6.99	A-8083	8b	2.50	A-8137/			*A-8237/			*A-8269/		
A-2203	6a	2.65	A-3891	10f	11.74	A-8084	8b	2.91	HO-166	27	13.50	HO-186	27	13.50	HO-219	27	15.00
A-2312	6d	3.33	A-3892	10f	15.17	A-8087	8a	2.42	A-8138/			A-8238/			A-8270/		
A-2313	6b	3.05	A-3893	10f	15.72	A-8088	8a	2.91	HO-167	27	13.50	HO-188	27	13.50	HO-220	27	15.00
A-2855	7a	4.69	A-3894	10f	20.64	A-8090	8f	2.20	*A-8139/			*A-8239/			A-8271/		
A-3250	6bd	4.62	A-3898	10f	132.50	A-8091	8f	2.39	HO-168	27	13.50	HO-189	27	15.00	HO-221	27	15.00
A-3303	6d	7.87	A-3899	10f	151.55	A-8092	6a	2.49	A-8140/			A-8240/			*A-8272/		
A-3304	6c	7.32	A-4208	10ad	7.27	A-8093	6d	2.60	V0-88	30a	9.92	HO-190	27	15.00	HO-222	27	15.00
A-3307	6c	8.49	*A-4210	10c	6.32	A-8094	6c	4.89	A-8141/			A-8241/			*A-8273/		
A-3309	6a	2.19	A-4212	10d	6.24	A-8095	8a	2.89	V0-89	30a	8.00	HO-191	27	13.50	HO-223	27	10.00
A-3310	6a	7.00	A-4292	10c	2.84	A-8096	8a	4.24	A-8142/			*A-8242/			*A-8274/		
A-3311	6c	7.39	A-4350	8e	4.80	A-8097	8a	5.22	V0-90	30a	9.89	HO-192	27	12.00	HO-224	27	12.50
A-3315	6bd	10.37	A-4351	9a	5.46	A-8098	6c	9.65	A-8143/			*A-8243/			A-8275/		
A-3327	6b	2.14	A-4352	9a	5.72	A-8099	8a	3.02	V0-91	30a	6.58	HO-193	27	9.00	HO-225	27	13.50
A-3328	6a	1.62	A-4407	8e	11.12	A-8101	8d	1.99	A-8144/			A-8244/			A-8276/		
A-3329	6b	1.62	*A-4420	9f	2.45	A-8102	8d	3.97	V0-92	30a	6.11	HO-194	27	15.00	HO-226	27	13.50
A-3330	6a	2.47	A-4431	6a	2.19	A-8103	8b	5.44	A-8145/			*A-8245/			*A-8277/		
A-3332	6a	1.57	A-4432	6c	3.14	A-8104	8d	4.77	V0-93	30b	8.22	HO-195	27	12.90	HO-227	27	9.90
A-3335	6d	3.57	*A-4701	10d	6.85	A-8105	8b	3.24	A-8146/			*A-8246/			*A-8278/		
A-3336	6a	2.30	A-4702	10c	5.70	A-8106	8c	4.04	V0-94	30b	6.11	HO-196	27	12.80	HO-228	27	12.50
A-3337	6a	2.57	A-4705	8g	3.77	A-8107	8c	6.04	A-8147/			*A-8247/			*A-8279/		
A-3496	6d	3.34	A-4706	8g	2.73	A-8108	8c	3.15	V0-95	30b	6.00	HO-197	27	18.50	HO-229	27	15.00
A-3800	6c	7.77	A-4708	8g	3.90	A-8109	8b	2.70	A-8148/			A-8248/			*A-8280/		
A-3301	6c	9.89	A-4709	9a	6.60	A-8111/			V0-96	30b	6.58	HO-198	27	18.50	HO-230	27	12.50
A-3802	6c	17.95	A-4711	10a	3.85	VBO-194	30f	3.83	A-8149/			*A-8249/			*A-8281/		
A-3808	10e	18.55	A-4713	10c	2.50	A-8112/			V0-97	30b	5.56	HO-199	27	12.50	HO-231	27	12.50
A-3812	10e	2.80	A-4719	9f	6.19	V0-83	30a	5.78	A-8150/			*A-8250/			*A-8282/		
A-3817	8f	3.79	*A-4722	10c	5.02	A-8113/			V0-98	30b	8.22	HO-200	27	11.10	HO-232	27	12.50
A-3818	8d	5.57	A-4723	10c	2.55	V0-84	30a	6.64	A-8151/			*A-8251/			*A-8283/		
*A-3820	8d	13.82	A-4742	8g	4.02	A-8114	6b	2.22	V0-99	30b	6.69	HO-201	27	13.50	HO-233	27	13.00
A-3822	7a	2.29	A-4744	8f	2.32	A-8115/			A-8220/			A-8252/			A-8284/		
A-3823	7a	3.79	A-4745	9f	6.49	V0-85	30a	11.22	HO-169	27	16.50	HO-202	27	13.50	HO-234	27	13.50
A-3824	7a	3.67	A-4747	8g	3.39	*A-8119/			*A-8221/			A-8253/			A-8285/		
A-3825	7a	3.04	A-4748	8f	3.22	HO-155	27	15.00	HO-170	27	15.00	HO-203	27	13.50	HO-235	27	15.00
A-3829	10e	21.10	A-4749	8f	7.49	A-8121/			*A-8222/			A-8254/			*A-8287/		
A-3830	7a	4.89	A-4752	10c	3.54	VBO-195	30f	4.89	HO-171	27	15.00	HO-204	27	13.50	HO-237	27	13.90
A-3831	6c	3.15	A-4761	10d	12.34	A-8122/			*A-8223/			A-8255/			A-8288/		
A-3833	8f	3.07	A-4762	10d	14.24	VBO-196	30f	7.72	HO-172	27	13.50	HO-205	27	13.50	HO-238	27	13.50
A-3836	8f	3.17	A-4765	10d	15.27	A-8123/			A-8224/			*A-8256/			A-8289/		
A-3837	8d	4.84	A-4770	6b	6.44	V0-87	30a	5.61	HO-173	27	16.60	HO-206	27	13.50	HO-239	27	12.00
A-3838	8e	6.04	A-4773	10b	6.74	A-8125/			*A-8225/			*A-8257/			A-8290/		
A-3839	6d	5.79	A-4774	10b	3.67	VBO-198	30f	3.67	HO-174	27	16.60	HO-207	27	13.50	HO-240	27	13.50
A-3841	6b	5.95	A-4778	9a	4.87	A-8126/			A-8226/			*A-8258/			*A-8291/		
A-3842	6d	6.14	A-4779	9a	3.06	VBO-199	30f	4.11	HO-175	27	16.60	HO-208	27	12.00	HO-241	27	12.00
A-3845	10e	6.89	A-4780	9a	5.39	*A-8127/			*A-8227/			*A-8259/			A-8292/		
A-3848	7a	3.02	A-7947	8d	3.29	HO-156	27	15.00	HO-176	27	13.50	HO-209	27	12.00	HO-242	27	13.50
A-3849	7a	3.65	A-7949	8d	3.85	*A-8128/			A-8228/			*A-8260/			A-8293/		
A-3850	7a	3.82	A-8050	7b	15.89	HO-157	27	15.00	HO-177	27	13.50	HO-210	27	13.50	HO-243	27	15.00
A-3851	6c	8.99	A-8051	7b	15.02	A-8129/			A-8229/			A-8261/			A-8294/		
A-3852	7a	4.57	A-8052	7b	15.35	HO-158	27	13.50	HO-178	27	13.50	HO-211	27	13.50	HO-244	27	13.50
A-3856	7a	3.20	A-8053	7b	16.27	A-8130/			A-8230/			A-8262/			A-8295/		
A-3857	6d	2.77	A-8054	7b	16.30	HO-159	27	15.00	HO-179	27	16.50	HO-212	27	15.00	HO-245	27	15.00
A-3870	7a	4.70	A-8056	7b	16.30	A-8131/			A-8231/			A-8263/			A-8296/		
A-3871	10e	5.22	A-8060	7b	12.12	HO-160	27	13.00	HO-180	27	16.50	HO-213	27	13.50	HO-246	27	13.50

Prices subject to change without notice. Contact your STANCOR Distributor for quantity discount schedule.

* Available until stock is depleted.

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Net

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A-8297/ HO-247	27	15.00	*C-2332-1	7d	18.19	DY-53A	29g	22.00	HO-289	27	15.00	HO-369	27	17.50	P-5015	17c	5.27
			C-2334	19d	6.17	DY-54A	29g	22.00	HO-290	27	13.50	HO-370	27	15.00	P-5016	17d	6.74
A-8298/ HO-248	27	16.00	C-2335	19c	5.92	DY-55A	29g	20.00	*HO-291	27	12.90	HO-371	27	15.00	P-5059	14d	15.04
			C-2340	10h	36.59	DY-56A	29g	18.50	*HO-292	27	13.50	HO-372	27	15.00	P-5062	24a	8.52
A-8299/ HO-249	27	15.00	C-2343	19d	1.74	DY-57AT	29h	25.00	HO-293	27	16.50	HO-373	27	15.00	P-5063	24a	9.87
			C-2344	19a	1.37	DY-58AT	29h	25.00	HO-294	27	12.00	HO-374	27	15.00	P-5064	24a	11.19
BD-1	10e	36.47	C-2345	19a	3.94	DY-59AT	29h	22.00	HO-295	27	16.50	HO-375	27	15.00	P-5065	24a	14.77
*BD-2	10e	37.24	C-2346	19a	1.95	DY-60AT	29h	20.00	*HO-296	27	16.50	HO-376	27	15.00	P-6007	15d	14.15
BI-1	9b	32.24	C-2347	20a	3.15	DY-61AT	29h	20.00	HO-297	27	15.00	HO-377	27	15.00	*P-6008	15c	16.14
BI-2	9b	41.12	C-2685	20c	3.95	DY-62A	29h	15.00	*HO-298	27	12.20	HO-378	27	16.50	P-6010	14c	8.82
BI-3	9b	35.58	C-2686	20c	6.90	DY-90AC	29h	45.00	HO-299	27	15.00	HO-379	27	15.00	P-6011	14d	8.34
BI-4	9b	35.65	C-2687	20c	9.04	•DY-91AC	29h	43.65	*HO-300	27	15.00	HO-380	27	18.00	P-6012	14d	9.90
BI-5	9b	63.50	C-2688	20c	10.50	*F-1	18a	19.24	HO-301	27	13.50	HO-381	27	16.50	P-6013	14e	10.37
BI-6	9b	36.47	C-2689	20c	15.14	*F-2	18b	16.42	*HO-302	27	13.50	HO-382	27	12.40	P-6014	15b	11.65
BI-7	9b	33.77	C-2690	20c	8.59	*F-3	18b	19.57	HO-303	27	12.00	HO-383	27	15.00	P-6123	24e	126.97
BM-1	10f	84.55	C-2691	20c	11.95	*F-4	18b	22.50	HO-304	27	15.00	HO-384	27	16.50	P-6124	24a	58.17
BO-1	7c	16.97	C-2704	19c	3.62	*F-5	18b	24.09	HO-305	27	16.50	HO-385	27	15.00	P-6125	24e	85.20
BO-2	7c	20.50	C-2705	19d	8.47	*F-6	18e	19.80	HO-306	27	20.00	HO-386	27	14.20	P-6131	37c	8.94
BO-5	7c	26.10	C-2706	20a	7.20	*F-7	18f	22.22	HO-307	27	15.00	HO-387	27	14.20	P-6133	17a	4.30
BO-6	7c	31.49	C-2707	19a	1.72	*F-8	18d	27.40	HO-308	27	16.00	HO-388	27	14.20	P-6134	17b	2.39
BO-9	7c	32.92	C-2708	20a	3.49	F-25	17a	14.62	*HO-309	27	12.00	•HO-389	27	13.50	P-6135	17a	6.00
BO-10	7c	37.34	C-2709	20a	5.19	F-54	17a	9.54	*HO-310	27	15.00	•HO-390	27	13.50	P-6137	17b	10.70
BO-11	7c	43.15	*CIC-1	9a	17.89	F-58	17a	16.07	HO-311	27	10.25	•HO-391	27	13.50	P-6138	17c	8.60
BO-12	7c	36.90	*CIC-2	9a	7.97	F-63	17b	9.67	HO-312	27	15.00	•HO-392	27	13.50	P-6139	17d	8.62
BO-13	7c	31.72	CIS-1	9a	21.75	F-65	17c	13.35	HO-313	27	15.00	•HO-393	27	13.50	P-6141	24a	19.55
BO-14	7c	48.60	*CIS-2	9a	11.47	F-104	17c	13.20	HO-314	27	14.00	•HO-394	27	13.50	P-6143	15e	13.84
BO-15	7c	30.80	COC-1	6a	9.05	F-106	17d	19.62	HO-315	27	15.00	•HO-395	27	13.50	P-6144	18a	10.10
BR-1	10f	110.94	*COC-2	6b	10.84	F-210	17a	12.97	HO-316	27	15.00	•HO-396	27	13.50	P-6146	13b	9.79
C-1001	19c	4.02	COS-1	6a	14.69	F-210H	17a	17.02	HO-317	27	12.00	•HO-397	27	15.00	P-6160	24e	16.47
C-1002	19b	3.15	COS-2	6b	13.39	F-215H	17a	28.09	HO-318	27	13.50	•HO-398	27	17.30	P-6161	24e	22.90
C-1003	19b	2.37	DCT-1	22b	16.82	F-510H	17b	29.37	HO-319	27	15.00	HO-600C	27	24.00	P-6166	22d	15.37
C-1080	19a	1.82	DCT-2	22b	20.82	F-516	17b	20.32	HO-320	27	15.00	•HO-601C	27	22.50	P-6287	24a	7.60
C-1215	19a	1.89	DGC-100	31	14.75	F-520HB	17b	28.50	HO-321	27	15.00	IS-50	24d	12.22	P-6298	24e	59.70
C-1227	19a	2.19	*DY-1A	29a	15.50	F-530	17b	20.54	*HO-322	27	13.50	IS-100	24d	21.29	*P-6299	24h	16.74
C-1277	19a	2.22	DY-2A	29a	15.50	*F-530BX	17b	44.52	HO-323	27	15.00	IS-150	24d	25.64	P-6302	17b	35.64
C-1279	19a	1.85	DY-8A	29a	15.50	F-610	17c	19.80	HO-324	27	15.00	IS-250	24d	32.05	P-6305	17b	36.07
C-1325	19a	1.97	DY-9A	29a	15.50	F-615	17b	14.60	*HO-325	27	15.00	*LPF-1	10g	33.45	P-6308	17c	7.34
C-1333	19a	2.04	DY-10A	29a	16.50	F-712	17c	21.99	*HO-326	27	11.00	NCF-1550	25a	9.60	P-6309	17c	*11.19
C-1355	19b	2.84	DY-11A	29a	17.00	F-725	17c	33.32	*HO-327	27	14.00	NCF-1650	25a	8.12	P-6315	15b	16.85
C-1400	20b	5.87	*DY-12A	29a	15.50	F-751	17c	58.22	*HO-328	27	13.50	NCF-2425	25a	6.79	P-6317	16c	14.34
C-1401	20b	7.10	DY-13A	29b	17.30	F-1010	17d	21.04	HO-329	27	13.50	NCF-2450	25a	8.02	P-6318	16c	17.62
C-1402	20b	8.10	DY-14A	29b	15.50	*HO-250	27	11.80	HO-330	27	12.00	NCF-2475	25a	8.92	P-6333	18d	11.82
C-1403	20b	14.17	DY-15A	29b	15.50	HO-251	27	13.50	HO-331	27	16.00	NCF-24100	25a	11.95	P-6338	18a	10.00
C-1404	20b	18.19	DY-16A	29b	18.00	HO-252	27	13.50	HO-332	27	13.50	NCF-24150	25a	16.02	P-6348	13d	6.65
C-1405	20b	53.45	*DY-17A	29b	16.50	*HO-253	27	15.00	HO-333	27	13.50	NCF-3250	25a	8.49	P-6358	14b	6.52
C-1410	19c	5.39	*DY-18A	29b	15.00	HO-254	27	13.50	HO-334	27	13.50	NCF-3275	25a	9.60	P-6371	24e	22.12
C-1411	19c	6.47	*DY-19A	29b	13.50	HO-255	27	15.00	HO-335	27	16.50	NCF-32150	25a	15.10	P-6375	25d	3.67
C-1412	19d	7.97	*DY-20A	29c	13.50	HO-256	27	15.00	HO-336	27	16.50	P-45	23a	33.77	P-6376	25d	4.30
C-1413	20a	13.52	DY-21A	29c	15.50	*HO-257	27	18.75	HO-337	27	10.00	P-67	23a	33.14	P-6377	25d	5.35
C-1414	20a	18.29	*DY-22A	29c	16.50	*HO-258	27	12.00	HO-338	27	17.50	P-1240	23b	51.79	P-6378	25d	8.70
C-1415	20a	61.49	DY-23A	29c	18.00	HO-259	27	13.50	HO-339	27	17.50	P-1512	23b	133.39	P-6379	25d	14.25
C-1420	19b	5.64	DY-24A	29c	15.00	*HO-260	27	15.00	HO-340	27	17.50	P-1834-3	18f	10.94	P-6383	24f	16.15
C-1421	19c	5.14	*DY-25A	29c	15.00	*HO-261	27	9.90	HO-341	27	6.40	P-2126	23c	217.52	P-6385	24f	26.05
C-1515	19a	2.60	DY-26A	29c	19.00	*HO-262	27	14.00	HO-342	27	13.50	P-2520	23c	137.85	P-6387	24f	69.07
C-1645	20b	7.84	DY-27A	29c	19.00	*HO-263	27	10.50	HO-343	27	15.00	P-3020	17d	11.54	P-6389	24f	83.17
C-1646	19c	7.94	DY-28A	29d	13.50	HO-264	27	13.50	HO-344	27	15.00	P-3024	17a	5.60	P-6390	24f	123.29
C-1702	20b	8.04	DY-29A	29d	15.00	HO-265	27	11.50	HO-345	27	15.00	P-3026	17a	5.89	P-6410	24e	8.49
C-1703	19d	7.02	DY-30A	29d	15.00	*HO-266	27	10.00	HO-346	27	15.00	P-3060	17a	7.70	P-6415	24g	27.65
C-1706	19a	1.49	DY-31A	29d	17.00	HO-267	27	15.00	HO-347	27	15.00	P-3062	17a	5.55	P-6425	16f	4.17
C-1707	19a	1.74	DY-32A	29d	18.50	HO-268	27	13.50	HO-348	27	15.00	P-3064	17c	5.80	P-6426	16f	1.84
C-1708	19b	2.67	DY-33A	29d	15.00	HO-269	27	10.50	HO-349	27	16.50	P-4004	15d	18.69	P-6428	18e	7.32
C-1709	19b	2.70	DY-34A	29d	17.00	*HO-270	27	15.00	HO-350	27	15.00	P-4019	17c	5.85	P-6429	18f	9.79
C-1710	19c	4.22	DY-35A	29e	15.00	HO-271	27	13.50	HO-351	27	15.00	P-4022	18c	10.32	P-6430	18e	6.49
C-1718	20b	5.37	DY-36A	29e	18.00	HO-272	27	13.50	HO-352	27	15.00	P-4026	17a	3.32	P-6431	18f	9.70
C-1720	20b	13.39	DY-37A	29e	17.00	*HO-273	27	12.00	HO-353	27	15.00	P-4062	37c	5.84	P-6432	17b	9.85
C-1721	19d	8.57	DY-38A	29e	17.00	HO-274	27	13.50	HO-354	27	15.00	P-4063	37c	7.14	P-6433	17b	8.39
C-1722	19d	11.99	DY-39A	29e	16.50	HO-275	27	13.50	HO-355	27	15.00	P-4082	17a	5.82	P-6454	17a	4.67
C-1723	19a	1.85	DY-40A	29e	18.00	HO-276	27	19.60	HO-356	27	15.25	P-4083	17a	6.39	P-6455	17a	5.20
C-2303	19c	2.54	DY-41A	29e	17.00	HO-277	27	18.50	HO-357	27	15.00	P-4086	17b	33.85	P-6456	17c	4.39
C-2304	19c	2.57	DY-42A	29e	18.00	*HO-278	27	12.90	HO-358	27	13.40	P-4088	17a	4.64	P-6457	17c	15.04
C-2305	19b	3.89	DY-43A	29f	20.00	HO-279	27	11.10	HO-359	27	15.00	P-4089	17c	7.55	P-6458	17d	5.34
C-2307	20b	13.85	DY-44A	29f	18.00	HO-280	27	17.30	HO-360	27	16.00	P-4091	17c	8.15	P-6459	16e	5.85
C-2308	19d	14.19	DY-45A	29f	22.00	HO-281	27	18.50	HO-361	27	15.00	P-4096	17d	8.35	P-6461	17d	9.67
C-2309	19c	2.97	DY-46A	29f	20.00	HO-282	27	16.50	HO-362	27	15.00	P-4097	17d	8.37	P-6462	17c	6.60
C-2317	10g	6.64	DY-47A	29f	15.50	HO-283	27	12.00	HO-363	27	16.50	P-4353	23c	520.27	P-6463	18d	9.57
C-2318	19a	2.20	DY-48A	29f	10.00	HO-284	27	13.50	HO-364	27	15.00	P-5000	17a	6.60	P-6464	17c	7.64
C-2325	19c	3.27	DY-49A	29f	16.50	HO-285	27	15.00	HO-365	27	15.00	P-5002	17d	36.74	P-6465	17b	2.24
C-2326	19d	3.27	*DY-50A	29f	18.50	*HO-286	27	15.60	HO-366	27	16.50	P-5008	18c	10.04	P-6466	17c	3.62
C-2327	19c	2.19	DY-51A	29g	22.00	HO-287	27	13.50	HO-367	27	16.50	P-5009	18c	9.84	P-6467	17a	3.65
C-2328	20a	4.12	DY-52A	29g	20.25	*HO-288	27	10.00	HO-368	27	16.50	P-5014	17c	5.00	P-6468	17b	16.05

• New Part Number.
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P-6469	17d	3.69	P-8338	14c	22.30	*PCC-120	15b	19.27	PSR-105	16a	21.02	TA-9	11a	5.89	UME-21	26c	6.67
P-6471	31a	6.20	P-8339	14c	15.94	PCC-150	15b	23.84	PSR-120	16a	27.99	TA-10	11a	6.00	UME-22	26c	5.95
P-6476	31a	6.34	P-8340	14e	23.32	PCC-200	15c	25.50	PSR-150	16a	32.44	TA-11	11a	4.52	UME-23	26c	5.95
P-6477	31a	3.55	P-8341	15a	18.95	PCC-250	15e	29.15	PSR-200	16a	34.22	TA-12	11a	2.22	UME-24	26c	6.00
P-6478	31a	4.07	P-8342	15a	21.67	PCF-2025	25b	6.79	PSR-300	16a	50.30	TA-13	11a	5.72	UME-25	26c	6.00
P-6480	31a	4.35	P-8343	15a	20.67	PCF-2050	25b	8.62	PSU-2000	24j	19.60	TA-14	11a	13.74	UME-26	26c	6.00
P-6481	31a	5.19	P-8344	15a	18.70	PCF-24075	25b	9.64	PSU-3000	24j	23.12	TA-15	10j	2.00	UME-27	26d	6.00
P-6482	31b	10.32	P-8345	14e	19.02	*PCF-24100	25b	12.49	PT-8311	23d	21.12	TA-16	10j	2.24	UME-28	26d	6.60
P-6489	31b	4.50	P-8346	15e	18.52	*PCF-24150	25b	15.62	PT-8312	23d	39.30	TA-17	10j	7.85	UME-29	26d	6.00
P-6490	31a	4.03	P-8347	15d	22.97	PCF-24250	25b	12.20	PT-8313	23d	33.27	TA-18	12a	4.15			
P-6491	31c	4.39	P-8348	15b	17.89	PCO-150	6d	15.19	PT-8314	23d	37.32	TA-19	12a	4.47	UME-30	26d	6.00
P-6492	17b	13.39	P-8349	15a	21.39	PCO-150A	6d	15.34	PT-8315	23d	38.47	TA-20	12a	4.57	UME-31	26d	6.00
P-6493	31b	5.94	P-8350	14e	20.60	*PCO-200	6c	18.35	PV-6441	24c	23.82	TA-21	12a	4.19	UME-32	26d	6.00
P-6494	31b	4.50	P-8351	15a	18.49	PCR-55	16a	12.25	PV-6442	24c	25.44	TA-22	12a	4.44	UME-33	26d	6.95
P-6495	31b	6.10	P-8352	14a	16.30	PCR-70	16a	13.72	PV-6443	24c	30.15	TA-23	12a	4.57	UME-34	26d	7.67
P-6496	22d	14.90	P-8353	13d	23.37	PCR-85	16a	14.27	PV-6444	24c	49.22	TA-24	12a	3.99	UME-35	26d	7.02
P-6497	31b	4.54	P-8354	13d	18.32	PCR-105	16a	14.87	R-63	19d	40.87	TA-25	12a	3.99	UME-36	26d	5.95
P-6499	31a	9.44	P-8355	14a	13.64	PCR-120	16a	19.20	R-65	20a	114.04	TA-26	12a	3.99	UME-37	26d	5.25
P-8025	23b	109.22	P-8356	13e	12.65	PCR-150	16a	25.74	R-67	20a	84.57	TA-27	12a	3.99	UME-38	26d	5.25
P-8026	23b	109.67	P-8357	17d	5.95	PCR-200	16a	26.44	R-103	20a	54.34	TA-28	12a	3.99	UME-39	26d	6.00
P-8027	23b	107.52	P-8358	17d	4.82	PCR-300	16a	35.23	R-105	20a	119.29	TA-29	12a	3.99	VBO-200	30f	3.75
P-8028	23b	122.54	P-8359	13b	9.05	PCT-14	26a	8.35	RC-1055	19b	5.92	TA-30	12a	4.00	VBO-201	30f	4.17
P-8029	23b	136.79	P-8360	15e	17.84	PCT-15	26a	8.19	RC-1085	19b	6.74	TA-31	12a	3.99	VO-100	30c	6.75
P-8030	23c	117.07	•P-8361	25c	3.39	PCT-16	26a	11.85	RC-1540	19a	5.62	TA-32	12a	3.99	VO-101	30c	6.28
P-8031	23b	137.22	•P-8362	25c	3.50	PCT-17	26a	7.23	RC-1555	19b	6.44	TA-33	12a	4.22	VO-102	30c	8.42
P-8032	23c	126.20	•P-8363	25c	3.67	PCT-21	26a	6.75	RC-1585	19b	7.40	TA-34	12a	4.22	VO-103	30c	9.25
P-8033	23c	164.77	•P-8364	25c	4.25	PCT-23	26a	7.71	RC-8105	19b	8.72	TA-35	12a	3.99	VO-105	30c	5.61
P-8034	23c	156.30	P-8365	14a	15.74	PCT-25	26a	7.71	RC-8150	19c	11.45	TA-36	12a	3.99	VO-106	30c	5.06
P-8035	23c	186.17	P-8366	15b	16.74	PCT-30	26a	7.39	RC-8200	19d	12.97	TA-37	12a	3.99	VO-108	30c	5.36
P-8040	23a	17.77	P-8367	14a	20.15	PCT-31	26a	7.39	RC-8250	19d	16.02	TA-38	12a	4.05	VO-109	30c	10.44
P-8041	23a	19.84	P-8369	14c	21.32	PCT-39	26a	7.39	RC-8300	19d	19.30	TA-39	12b	4.17	VO-110	30c	5.75
P-8042	23a	25.99	P-8370	14b	22.94	PCT-43	26a	6.26	RC-12105	19b	11.99	TA-40	12b	4.39	VO-111	30c	6.69
P-8043	23a	101.49	P-8371	14c	18.69	PCT-54	26a	6.42	RC-12150	19c	13.75	TA-41	12b	3.99	VO-112	30c	6.86
P-8044	23b	48.11	P-8372	13b	13.52	PCT-60	26a	6.42	RC-12200	19d	12.40	TA-42	12b	3.99	VO-113	30d	5.64
P-8130	17d	3.95	P-8373	14a	15.50	PCT-61	26a	6.58	RP-400	21a	14.82	TA-43	12b	4.17	VO-114	30d	5.75
P-8150	16d	9.99	P-8374	13c	15.64	PCT-62	26a	6.75	RP-600	21a	14.57	TA-44	12b	4.37	VO-115	30d	6.72
P-8151	16d	14.79	P-8375	14a	17.90	PCT-70	26b	6.26	RP-800	21a	14.50	TA-45	12b	4.04	VO-116	30d	7.19
*P-8154	15c	16.10	P-8376	13e	15.49	PCT-71	26b	6.42	RP-1600	21a	13.50	TA-46	12b	3.99	VO-117	30d	7.89
P-8155	13c	9.67	P-8377	13e	13.80	PCT-76	26b	8.35	RP-2000	21a	14.04	TA-47	12b	3.99	VO-118	30d	7.19
*P-8156	15a	24.85	P-8378	14a	15.47	PCT-77	26b	10.07	RP-2500	21a	16.65	TA-48	11b	2.77	VO-119	30d	6.97
*P-8157	15d	20.87	P-8379	13a	12.02	PCT-116	26b	6.10	RS-1055	19b	8.32	TA-49	11b	3.70	VO-120	30d	7.58
P-8158	13a	12.89	P-8381	14a	16.50	PCT-117	26b	5.14	RS-1085	19b	9.05	TA-50	11b	3.22	VO-122	30e	6.97
*P-8159	15a	20.55	P-8382	13c	11.89	PCT-118	26b	5.14	RS-1540	19a	7.87	TA-51	11b	2.35	VO-123	30e	8.17
*P-8160	15a	18.50	P-8383	13b	14.45	PCT-128	26b	5.14	RS-1555	19b	8.94	TA-52	12b	3.74	VO-126	30e	8.06
*P-8161	15d	21.80	P-8386	13a	13.80	PM-8401	13c	6.77	RS-1585	19b	10.24	TA-53	12a	3.47	VO-127	30e	7.81
*P-8162	15c	18.70	P-8388	17d	6.00	PM-8402	13c	6.62	RS-8105	19b	11.45	TA-54	12a	3.22	VO-128	30e	7.22
*P-8163	15b	19.44	P-8389	17b	2.22	PM-8403	13d	7.29	RS-8150	19c	15.12	TA-55	12b	4.54	VO-129	30e	6.67
P-8164	14b	18.79	P-9000C	13b	19.00	PM-8404	13d	7.60	RS-8200	19d	13.00	TA-56	11a	3.57	VO-700C	30e	7.72
*P-8165	14e	22.00	PA-8421	13b	4.22	PM-8405	13e	10.72	RS-8250	19d	18.22	TA-57	11a	3.74	WC-1	31d	2.22
P-8166	14d	23.90	PC-8301	23e	8.84	PM-8406	14c	6.82	RS-8300	19d	24.49	TA-58	11a	2.60	WC-2	31d	2.79
P-8167	13e	23.44	PC-8302	23e	11.82	PM-8407	14c	7.00	RS-12105	19c	12.05	TA-59	11a	2.67	*WC-4	31d	2.71
*P-8168	13c	21.67	PC-8303	23e	16.12	PM-8408	14d	8.55	RS-12150	19c	13.05	TA-60	11a	5.27	WC-5	31d	3.28
P-8169	15c	20.84	PC-8304	23e	16.90	PM-8409	14d	8.87	RS-12200	19d	17.12	TA-61	11a	3.14	WC-6	31e	2.97
P-8170	15c	19.27	PC-8305	23e	18.87	PM-8410	14e	10.72	RT-201	22a	5.55	TA-62	11a	2.40	WC-7	31c	2.97
P-8171	15c	21.02	PC-8306	23e	19.50	PM-8411	15b	15.37	RT-202	22a	7.72	TA-63	12b	5.24	WC-8	31e	2.89
P-8172	13e	16.44	PC-8401	13c	6.15	PM-8412	15e	14.60	RT-204	22a	9.95	TC-1	20c	1.45	*WC-9	31e	2.82
P-8173	13d	5.69	PC-8402	13c	5.87	PM-8413	13c	5.44	RT-206	22a	14.24	TC-2	20c	1.44	WC-10	31e	3.87
P-8174	13d	5.87	PC-8403	13d	7.02	PM-8419	13d	6.29	RT-208	22a	17.95	TP-1	21e	5.60	WC-11	31e	3.50
P-8175	14b	9.12	PC-8404	13d	7.90	PM-8420	13d	7.49	RT-408	22a	47.94	TP-2	21e	4.52	*WC-12	31e	3.27
P-8176	14e	12.20	PC-8405	13e	10.30	PM-8422	14c	11.64	RT-2012	22a	31.35	TP-3	21e	6.07	WC-13	31f	3.27
P-8177	14b	10.77	PC-8406	14c	6.65	PM-8423	14b	9.27	RT-4012	22a	62.27	TP-4	21e	10.19	WC-14	31f	2.80
P-8178	16d	11.70	PC-8407	14c	6.90	PS-8415	13b	2.69	RTC-8628	37d	2.05	*TT-11	9d	14.39	*WC-15	31f	2.65
P-8179	16d	12.69	PC-8408	14d	8.49	PS-8416	13b	3.22	RTC-8629	37d	2.75	*TT-12	9d	15.27	*WC-16	31f	2.83
P-8180	17d	3.72	PC-8409	14d	10.48	PSC-40	13c	16.14	SD-50	24b	7.57	*TT-13	9d	9.12	*WC-17	31f	2.38
P-8181	13b	3.84	PC-8410	14e	10.04	PSC-55	13e	18.64	SD-100	24b	9.80	*TT-14	9d	8.60	WC-18	31f	3.28
P-8190	17b	3.10	PC-8411	15b	13.80	PSC-60	14b	19.15	SD-150	24b	14.69	UM-110	12c	6.79	*WC-1A	31d	2.22
P-8191	17b	3.64	PC-8412	15e	14.37	PSC-70	14d	18.72	SD-250	24b	16.54	UM-111	12c	4.65	WC-2A	31d	2.79
P-8192	37	4.49	PC-8413	15e	15.52	PSC-85	14d	19.57	SD-500	24b	21.84	UM-112	12c	7.50	WC-4A	31d	2.71
P-8193	21e	9.97	PC-8414	15e	17.15	PSC-105	14d	21.07	SD-1000	24b	35.70	UM-113	12c	5.49	WC-5A	31d	3.28
P-8194	21e	16.80	PC-8417	13b	7.37	PSC-120	15b	24.42	SPCT-10	27b	.90	UM-114	12c	4.65	WC-6A	31e	2.97
P-8195	22c	14.90	PC-8418	13c	5.34	PSC-150	15b	33.19	SR-300	10g	40.21	UME-11	26c	7.51	WC-7A	31e	2.97
P-8196	21e	7.65	PC-8419	13d	6.12	PSC-165	16b	41.00	SR-500	10g	44.56	UME-12	26c	5.87	WC-8A	31e	2.89
*P-8307	15e	16.70	PC-8420	13d	7.14	PSC-200	15c	33.82	TA-1	11a	2.37	UME-13	26c	5.87	*WC-9A	31e	2.82
P-8331	14b	17.67	PC-8422	14c	10.94	PSC-205	16b	34.82	TA-2	11a	2.24	UME-14	26c	5.87	*WC-10A	31e	3.87
P-8332	13e	19.27	PCC-40	13c	10.62	*PSC-250	15e	40.42	TA-3	11a	2.22	UME-15	26c	5.87	WC-14A	31f	2.80
P-8333	14a	18.55	PCC-55	13e	12.27	PSO-150	6d	23.24	TA-4	11a	3.15	UME-16	26c	6.00	*WC-16A	31f	2.83
P-8334	13e	19.95	PCC-60	14b	12.67	PSO-200	6c	25.13	TA-5	11a	5.44	UME-17	26c	7.93	WC-18A	31f	3.28
P-8335	14b	21.15	PCC-70	14d	13.09	PSR-55	16a	17.54	TA-6	11a	5.82	UME-18	26c	5.25	WF-20	9c	19.10
P-8336	13a	15.29	PCC-85	14d	14.20	PSR-70	16a	19.25	TA-7	11a	2.19	UME-19	26c	6.69	WF-21	9c	22.70
P-8337	14b	*6.47	PCC-105	14d	14.75	PSR-85	16a	21.10	TA-8	11a	4.65	UME-20	26c	7.00	WF-22	9c	19.24
															WF-28	9c	18.52
															WF-30	9c	20.35
															WF-35	9c	19.84
															WF-36	9c	14.01
															WM-8	7	6.16

• New Part Number.

* Available until stock is depleted.

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Net

STANCOR OUTPUT TRANSFORMER CHART

audio transformers

A simplified selection of the proper transformer for use as a replacement in radio receivers or in the construction of audio amplifiers. **To use this chart,** check the first column for the tube being used, then read across for the applicable operating characteristics and correct Stancor transformer. In most cases, two Stancor part numbers are indicated in order to give a choice of Mounting styles.

Tube	Use	Class	Watts	Load Res. in Ohms	Stancor Part No.	Universal Part No.
1A5-GT	S.	A	.10	25K	A-3327	
1AC5	S.	A	.05	25K	A-3327	
1AG4	S.	A	.035	12K	A-3879	A-3822
1B8-GT	S.	A	.21	14K	A-3881	A-3848
1C5-GT	S.	A	.24	8K	A-3329	A-3848
1D8-GT	S.	A	.20	12K	A-3879	A-3822
1E7-G(GT)	S.	A	.29	16K	A-3881	A-3848
	P.P.	A	.575	24K	A-3857	
1F4	S.	A	.31	16K	A-3881	A-3848
1F5-G	S.	A	.31	16K	A-3881	A-3848
1G5-G	S.	A	.55	9K	A-3879	A-3822
1G6-GT	P.P.	B	.675	12K	A-3831	A-3856
1J5-G	S.	A	.45	13.5K	A-3881	A-3848
1J6-G (GT) (GX)	P.P.	B	2.1	10K	A-3831	A-3856
1LA4	S.	A	.1	25K	A-3327	
1LB4	S.	A	.2	12K	A-3879	A-3822
1N6-G (GT)	S.	A	.1	25K	A-3327	
1Q5-GT	S.	A	.27	8K	A-3329	A-3848
1S4	S.	A	.27	8K	A-3329	A-3848
1T5-GT	S.	A	.17	14K	A-3881	A-3848
1V5	S.	A	.05	25K	A-3327	
1W4	S.	A	.2	12K	A-3879	A-3822
2A3	S.	A	3.5	2.5K	A-3876	A-3825
	P.P.	AB1	15	3K	A-3301	A-3830
2A5	S.	A	4.8	7K	A-3878	A-3850
	P.P.	AB2	18.5	10K	A-3311	A-3830
2E24	S.	A	3.9	6K	A-3878	A-3848
2E26	S.	A	4.0	5.5K	A-3877	A-3849
2E30	S.	A	4.5	4.5K	A-3877	A-3849
3A4	S.	A	.7	8K	A-8114	A-3822
3B5-GT	S.	A	.2	5K	A-3878	A-3856
3B7/1291	P.P.	AB2	1.5	16K	A-2312	A-3880
3C5-GT	S.	A	.2	8K	A-3329	A-3848
	S.	A	.26	10K	A-3879	A-3848
3D6	S.	A	.6	14K	A-3881	A-3848
3E5	S.	A	.25	8K	A-3329	A-3848
3LE4	S.	A	.325	6K	A-3878	A-3848
3LF4	S.	A	.4	8K	A-3329	A-3848
3Q4	S.	A	.27	10K	A-3879	A-3822
3Q5-GT	S.	A	.4	8K	A-3329	A-3822
3S4	S.	A	.18	5K	A-3877	A-3856
	S.	A	.27	8K	A-3329	A-3848
3V4	S.	A	.27	10K	A-3879	A-3822
3W4	S.	A	0.25	11K	A-3879	A-3822
4A6-G	P.P.	B	1.0	8K		A-3856
5AQ5	S.	A	2.0	5.5K	A-3877	A-3849
	S.	A	4.5	5K	A-3877	A-3849
5CM6	S.	A	4.5	5K	A-3877	A-3856
	P.P.	AB1	10.	10K	A-3335	A-3823
5CZ5	S.	A	5.4	5K	A-3877	A-3849
	P.P.	AB1	21.5	7.5K		A-3830
5V6(GT)	S.	A	5.5	5K	A-3877	A-3823
	P.P.	AB1	10.	10K	A-3311	A-3880
6A3	S.	A	3.2	2.5K	A-3876	A-3825
	P.P.	AB1	15	3K	A-3301	A-3830
6A4/LA	S.	A	1.4	8K	A-8114	A-3822
6A5-G	S.	A	3.75	2.5K	A-3876	A-3825
	P.P.	A	15	3K	A-3301	A-3830
6A6	P.P.	B	10	8K	A-3329	A-3822
6AB8	S.	A	1.4	11K	A-3879	
6AC5-GT	P.P.	B	8	10K	A-3335	A-3823
6AC6-GT	S.	A	3.6	3.5K	A-2203	A-3825
6AD7-G	S.	A	3.2	7K	A-2313	A-3822
6AE7-GT	P.P.		9.5	10K	A-2312	A-3880
6AG6-G	S.	A	3.8	8.4K	A-3329	A-3822
6AG7	S.	A	3	10K	A-3879	A-3822
6AH5-G	S.	A	10.8	4.2K	A-3337	A-3849
6AJ5	P.P.	AB1	1.0	28K	A-3857	
6AK6	S.	A	1.1	10K	A-3879	A-3822
6AK7	S.	A	3	10K	A-3879	A-3822
6AL6-G	S.	A	6.5	2.5K	A-3876	A-3825
6AL11	S.	A1	4	5K	A-3877	A-3856
6AM5	S.	A	1.4	16K	A-3881	A-3848
	P.P.	AB1	4.8	20K	A-3857	A-3856
6AN5	S.	A	1.3	2.5K	A-3332	A-3825
6AQ5A/W	S.	A	4.5	5K	A-3877	A-3849
6AQ5A/W	P.P.	AB1	10	10K	A-3335	A-3852
6AR5	S.	A	3.4	7.6K	A-8114	A-3822
6AS5	S.	A	2.2	4.5K	A-3877	A-3849
6B4-G	S.	A	3.2	2.5K	A-3876	A-3825
	P.P.	AB	15	3K	A-3301	A-3830
6B5	S.	A	4	7K	A-2313	A-3823
6BF5	S.	A	1.9	2.5K	A-3332	A-3825
6BF6	S.	A	0.3	10K	A-3879	A-3822
6BJ5	S.	A	4.0	7K	A-3878	A-3849
6BK5	S.	A	3.5	6.5K	A-3878	A-3849
6BM5	S.	A	3.5	7K	A-3878	A-3849
6BM8	S.	A	3.5	5.6K	A-3877	A-3822
6BQ5	S.	A	5.7	4.5K	A-8092	A-3849
	P.P.	AB1	11.0	8K	A-3335	A-3849
6BS5	S.	A	4.5	5K	A-3877	A-3849
6BU6	S.	A	0.3	10K	A-3879	A-3822
6BW6	S.	A	4.5	5K	A-3877	A-3823
	S.	A	5.5	8.5K	A-3879	A-3849
6CA5	S.	A1	1.5	4.5K	A-3877	A-3856
6CA7	S.	A	11.0	2K		A-3849
6CL6	S.	A	2.8	7.5K	A-3329	A-3822
6CM6	S.	A	4.5	5K	A-3877	A-3823
	P.P.	AB1	10.	10K	A-3335	A-3849
6CS5	S.	A	3.8	4K	A-3877	A-3856
6CU5	S.	A	2.3	2.5K	A-3332	A-3825
6CZ5	S.	A	5.4	5K	A-8092	A-3823
	P.P.	AB1	21.5	7.5K		A-3830
6D5G	S.	A	1.4	7.2K	A-3878	A-3856
6DB5	S.	A	3.8	4K	A-3877	A-3856
6DG6-GT	S.	A	3.8	4K	A-3877	A-3856
6DS5	S.	A	3.6	8K	A-8114	A-3822
6DZ8	S.	A	2.0	2.5K	A-3822	A-3825
6E6	P.P.	A	1.6	14K	A-8496	A-3856
6EH5	S.	A	1.4	3K	A-3328	A-3825
	P.P.	A	3.8	6K		A-3822
6F6(GT)	S.	A	4.8	7K	A-3878	A-3822
	P.P.	AB	18.5	10K	A-3311	A-3870
6FE5	S.	A1	4	1K	A-8070	
	P.P.	A1	8	1.6K		
6G6-G	S.	A	1.1	10K	A-3879	A-3822
6GC5	S.	A1	2	2K	A-3876	A-3856
	S.	A1	4	4K	A-2203	A-3856
6GK6	S.	A1	5.7	5.2K	A-3877	A-3823
	P.P.	AB1	17	8K		A-3852
6HG5	S.	A1	4.5	5K	A-8092	A-3823
6K6-GT	S.	A	4.5	9K	A-3879	A-3822
	P.P.	A	10.5	12K	A-2312	A-3880
6J10	S.	A1	4.2	5K	A-8092	A-3823
6L6(G)(GA)	S.	A	6.5	2.5K	A-3876	A-3825
	S.	A	10.8	4.2K	A-2203	A-3849
	P.P.	A	17.5	5K	A-3872	A-3830
	P.P.	AB1	26.5	6.6K	A-3801	A-3830
	P.P.	AB1	18	3.8K	A-3802	A-3830
	P.P.	AB2	31	6K	A-3307	
	P.P.	AB2	47	3.8K	A-3802	
6M5	S.	A	3.9	7K	A-3878	A-3824
	P.P.	AB1	9.4	7K	A-3801	A-3880
6N6-G	S.	A	4	7K	A-3878	A-3824
6N7	P.P.	B	10	8K		A-3880
6R8	S.	A	0.3	10K	A-3879	A-3856
6SR7	S.	A	0.3	10K	A-3879	A-3856
6U6-GT	S.	A	5.5	3K		A-3849
6V5-GT	S.	A	4.5	5K	A-3877	A-3824
	P.P.	AB1	10	10K	A-3311	A-3880
6V6(GT)	S.	A	5.5	5K	A-3877	A-3823
	P.P.	AB1	10	10K	A-3311	A-3880
6V7-G	S.	A	0.35	20K	A-3327	
6W6-GT	S.	A	3.8	5K	A-3877	A-3849
6Y6-G(GT)	S.	A	6.0	2.6K	A-3876	A-3825
6Y7-G	P.P.	B	8.0	14K	A-2312	A-3823
6Z7-G	P.P.	B	4.2	12K	A-3831	A-3823
7A5	S.	A	1.5	2.5K	A-3332	A-3849
7B5	S.	A	4.5	9K	A-3879	A-3822
	P.P.	AB2	19	10K	A-2312	A-3880
7C5	S.	A	5.5	8.5K	A-3879	A-3822
	P.P.	A	8	10K	A-3335	A-3823
8BQ5	S.	A	5.7	4.5K	A-8092	A-3849
	P.P.	AB1	11.0	8K	A-3335	A-3849
9DZ8	S.	A	2.0	2.5K	A-3332	A-3825
10AL11	S.	A1	4	5K	A-3877	A-3856
11C5	S.	A	1.5	2.5K	A-3332	A-3825
12A5	S.	A	3.4	3.3K	A-2203	A-3825
12A6(GT)	S.	A	3.4	7.5K	A-8114	A-3822
12A7	S.	A	.55	13.5K	A-3881	A-3848
12AB5	S.	A	4.5	5K	A-3877	A-3823
	P.P.	AB1	10.0	10K	A-3335	A-3849
12AL8	S.	A	0.02	.8K	TA-9	
12AL11	S.	A1	4	5K	A-3877	A-3856
12AQ5	S.	A	4.5	5K	A-3877	A-3823
	P.P.	AB1	10.0	10K	A-3335	A-3849
12BF6	S.	A	0.3	10K	A-3879	A-3856
12BK5	S.	A	3.5	6.5K	A-3878	A-3849
12BU6	S.	A	0.3	10K	A-3879	A-3856
12C5	S.	A	2.3	2.5K	A-3332	A-3825
12CA5	S.	A	1.5	4.5K	A-3877	A-3856
12CM6	S.	A1	2.0	5.5K	A-3877	A-3849
	S.	A1	5.5	8.5K		A-3849
12CS5	S.	A	3.8	4K	A-3877	A-3856
12CU5	S.	A	2.3	2.5K	A-3332	A-3825
12DB5	S.	A	3.8	4K	A-3877	A-3856
12DL8	S.	A	0.04	.8K	TA-9	
12DM5	S.	A	1.9	2.5K	A-3332	A-3825
12DU7	S.	A	0.025	2.7K	TA-29	
12DV8	S.	A	0.005	1.25K	TA-26	
12DZ8	S.	A	2.0	2.5K	A-3332	A-3825
12ED5	S.	A	1.5	4.5K	A-3328	A-3825
12EH5	S.	A	1.4	3K	A-3328	A-3825
	P.P.	AB1	3.8	6K		A-3822
12EM6	S.	A	0.01	3.5K	TA-45	
12FX5	S.	A1	1.3	3K	A-3336	A-3856
12J8	S.	A	0.02	2.7K	TA-29	
12K5	S.	A	0.04	.8K	TA-25	
12L6-GT	S.	A	3.8	4K	A-3877	A-3856
12L8-GT	S.	A	1.0	10K	A-3879	A-3848
12V6-GT	S.	A	4.5	5K	A-3877	A-3823
	P.P.	AB1	10.0	10K	A-8093	A-3880
12W6-GT	S.	A	3.8	4K	A-3877	A-3856
13J10	S.	A1	4.2	5K	A-8092	A-3823
14A5	S.	A	2.8	7.5K	A-8114	A-3822
14C5	S.	A	5.5	8.5K	A-2313	A-3849
	P.P.	AB	14	8K		A-3880
17C5	S.	A	2.3	2.5K	A-3332	A-3825
17CA5	S.	A	1.5	4.5K	A-3877	A-3856
17CU5	S.	A	2.3	2.5K	A-3332	A-3825
17L6-GT	S.	A	3.8	4K	A-3877	A-3856
19	P.P.	B	2.1	10K	A-3335	A-3880
19AQ5	S.	A	4.5	5K	A-3877	A-3849
25A6(GT)	S.	A	2.2	5K	A-3877	A-3849
25A7-GT	S.	A	.77	4.5K	A-3877	A-3825
25AC5-GT	P.P.	B	6	4.8K	A-3872	A-3823
	S.	A	2	2K	A-3332	A-3825
25B5	S.	A	3.9	4K	A-2203	A-3825
25B6-G	S.	A	7.1	2.5K	A-3876	A-3849
25BK5	S.	A	3.5	6.5K	A-3878	A-3849
25C5	S.	A1	2	2.5K	A-3332	A-3856
25C6-G	S.	A	6.0	2.6K	A-3876	A-3849
25CA5	S.	A	1.5	4.5K	A-3328	A-3825
25EH5	S.	A	1.4	3K	A-3328	A-3825
	P.P.	AB1	3.8	6K		A-3822
25F5	S.	A	1.2	2.5K	A-3332	A-3825
	P.P.	A	2.9	4.5K	A-3872	A-3823
25L6(GT)	S.	A	2.1	2K	A-3876	A-3849
	S.	A	4.3	3K		A-3823
	S.	A	3.8	4K	A-2203	A-3823
25N6-G	S.	A	3.8	4K	A-2203	A-3822
25W6	S.	A	3.8	4K	A-3877	A-3856
26A7-GT	S.	A	.18	1.5K	A-3332	A-3825
26E6-G	S.	A	6.0	2.6K		A-3825
28D7	S.	A	.1	4K	A-3328	A-3848
32ET5	S.	A	1.2	2.8K	A-3328	A-3825
32L7-GT	S.	A	1	2.6K	A-3332	A-3822
34GD5A	S.	A	1.4	2.5K	A-3332	A-3856
35A5	S.	A	1.5	2.5K	A-3332	A-3856
	S.	A	3	5K	A-3877	A-3849
35B5	S.	A	1.5	2.5K	A-3332	A-3856
35C5	S.	A	1.5	2.5K	A-3332	A-3849
35DZ8	S.	A	2.0	2.5K	A-3332	A-3825
35EH5	S.	A1	1.2	3K	A-3336	A-3856
35L6-GT	S.	A	1.5	2.5K	A-3332	A-3856
	S.	A	3	5K	A-3877	A-3849
42	S.	A	4.8	7K	A-3878	A-3849
	P.P.	A	18.5	10K	A-3311	A-3830
50A5	S.	A	2.1	2K	A-3876	A-3856
	S.	A	3.8	4K	A-2203	A-3825
50B5	S.	A	1.9	2.5K	A-3332	A-3825
50BK5	S.	A	3.5	6.5K	A-3878	A-3856
50C5	S.	A	1.9	2.5K	A-3332	A-3825
50C6-G	S.	A	3.6	2K	A-3876	A-3825
50CA5	S.	A	1.1	3.5K	A-3328	A-3825
50EH5	S.	A	1.4	3K	A-3328	A-3825
	P.P.	A	3.8	6K		A-3822
50FE5	S.	A1	4	1K	A-8070	
	P.P.	A1	8	1.6K		
50FK5	S.	A1	1.2	3K	A-3336	A-3856
50L6-GT	S.	A	2.1	2K	A-3876	A-3856
	S.	A	3.8	4K	A-2203	A-3825
60FX5	S.	A1	1.3	3K	A-3336	A-3856
70A7-GT	S.	A	1.5	2.5K	A-3332	A-3825
70L7-GT	S.	A	1.8	2K	A-3332	A-3825
117L7/M7-GT	S.	A	.85	4K	A-2203	A-3825
117N7-GT	S.	A	1.2	3K	A-3332	A-3825
117P7-GT	S.	A	.85	4K	A-2203	A-3825
1631	P.P.	AB1	26.5	6.6K	A-3801	
1632	S.	A	2.1	2K	A-3332	A-3825
1644	P.P.	A	1.0	10K	A-3831	A-3856
5640	S.	A	1.25	3K	A-3332	A-3825
5670	P.P.	AB1	1.0	27K	A-3857	
5672	S.	A	.065	20K	A-3327	
5686	S.	A	2.7	9K	A-3879	A-3822
5812	S.	A	4.3	1.7K	A-3876	A-3825
5824	S.	A	4.3	1.7K	A-3876	A-3825
5871	S.	A	5.5	8.5K	A-3879	A-3822
5902	S.	A	1	3K	A-3328	A-3825
6005	S.	A	2.0	5.5K	A-4431	A-3856
6095	P.P.	AB1	10.0	10K	A-3335	A-3849
6216	S.	A	3.8	4.5K	A-3877	A-3856
6287	S.	A	4.5	6K	A-4431	A-3823
6360	P.P.	AB1	9.3	8K	A-3335	A-3849
6516	S.	A	1.4	16K	A-3881	A-3856
6526	S.	A	0.375	10K	A-3879	A-3856
6669	S.	A	4.5	5K	A-3877	A-3823
	P.P.	AB1	10.0	10K	A-8093	A-3880
6677	S.	A	2.8	7.5K	A-8114	A-3822
6945	S.	A	0.8	3K	A-3328	A-3825
6973	P.P.	AB1	15	5.5K	A-3307	A-3880
	P.P.	AB1	20	7.5K	A-3885	A-3830
7061	S.	A	3.0	5K	A-3877	A-3856

High Fidelity Applications

Tube	Use	Class	Watts	Load Res. in Ohms	Stancor Part No.
807/W	P.P.	A*	8.0	10K	A-8054
	P.P.	A#	25.0	7.6K	A-8072
	P.P.	AB1	15.0	3K	A-8052
	P.P.	AB2	55.0	3.2K	A-8052
1614	P.P.	A*	10.0	10K	BO-12
	P.P.	AB1	26.5	6.6K	A-8056
5881	P.P.	A*	8.0	10K	BO-12
	P.P.	A#	25.0	7.6K	A-8072
	P.P.	AB1	26.5	6.6K	A-8056
6146	P.P.	A*	18.0	10K	BO-13
6550	P.P.	A	55.0	3.5K	A-8052
	P.P.	AB1#	60.0	4.3K	BO-15
	P.P.	AB1#•	100.0	5K	BO-14
7027	P.P.	AB1	31.5	4.5K	A-8053
	P.P.	AB1	34.0	6.6K	A-8056
	P.P.	AB1	50.0	6K	A-8056
	P.P.	AB	24.0	8K	A-8072
7189	P.P.	AB1	24.0	8K	A-8072
	P.P.	AB1	16.5	11K	BO-13
7212	P.P.	TR1	22.0	8K	A-8072
	P.P.	AB1	37.0	6.6K	A-8056
7408	S.	A1	4.5	5K	A-8092
7868	S.	A1	11	3K	A-3830
	P.P.	AB1	30	6.6K	A-8056
EL-34	P.P.	AB1	37.0	6.6K	A-8056
(6CA7)	P.P.	AB1#	60.0	4.3K	BO-15
EL-37	P.P.	AB1	69.0	3.25K	BO-15
EL-84	S.	A	5.7	5.2K	A-8053
(6BQ5)	P.P.	AB1	17.0	8K	A-8072
KT-66	P.P.	A*	10.0	10K	A-8054
	P.P.	AB1#	20.0	10K	BO-13
	P.P.	AB1#	25.0	7.6K	A-8072
KT-88	P.P.	AB1#	60.0	4.3K	BO-15
	P.P.	AB1#•	100.0	5K	BO-14

K is symbol for 1,000: 25K=25,000 2.5K=2,500 .25K=250

*Triode Connected (Williamson Circuit). #Ultra Linear (Williamson Circuit).

•Pentode Operation. Write for "Hi-Fi Library" showing complete construction details for amplifiers from 8 watts to 100 watts

STANCOR PAGE 5

See Pages 1427, 1428 and 1429 for complete price list.

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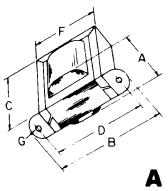

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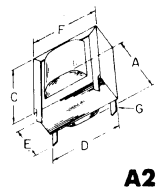

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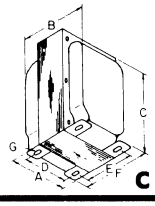

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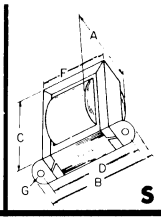

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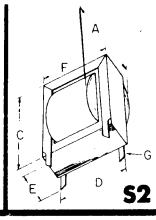

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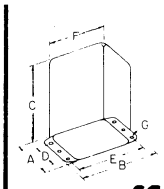

SC

STANCOR

COMMERCIAL

output transformers

OUTPUT: SINGLE PLATE TO VOICE COIL AND/OR LINE

	Catalog No.	Impedance in Ohms Primary	Impedance in Ohms Secondary	Max Pri DCMA	Audio Watts	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
a	A-8070	1000	4.0	90	4	Leads	Leads	A	1 1/2	2 3/8	1 3/8	2	—	1 3/4	3/16	0.4
	A-3332	2000	3.2	50	3	Leads	Leads	A	1 1/4	2 1/8	1 1/4	1 3/4	—	1 1/2	3/16	0.4
	A-3330	2000 a	3.5	60	5	Leads	Leads	A	1 1/2	2 3/8	1 3/8	2	—	1 3/4	3/16	0.4
	A-3876	2000	4.0	60	5	Leads	Leads	A	1 3/8	2 3/8	1 3/8	2	—	1 3/4	3/16	0.4
	A-3336	2500 b	3.5	50	5	Leads	Leads	A	1 5/8	2 3/8	1 3/8	2	—	1 3/4	3/16	0.4
	A-3328	4000	3.5	10	3	Leads	Leads	A	1 1/8	2 1/8	1 1/4	1 3/4	—	1 1/2	3/16	0.4
	A-2203	4000	8.0	40	5	Leads	Leads	A	1 1/2	2 7/8	1 5/8	2 3/8	—	2	3/16	0.7
	A-3877	5000	4.0	40	5	Leads	Leads	A	1 3/8	2 3/8	1 3/8	2	—	1 3/4	3/16	0.4
	A-3309	5000	3-4	35	3	Leads	Leads	A	1 3/8	2 1/8	1 1/4	1 3/4	—	1 1/2	3/16	0.4
	A-8092	5000	3-4	50	8	Leads	Leads	A	1 1/2	2 7/8	1 5/8	2 3/8	—	2	3/16	0.5
	A-3337	5000	6-8	40	10	Leads	Leads	S	1 3/4	2 7/8	2 3/8	2 3/8	—	2	3/16	1.0
	A-3310	5000	500/15/8/4	55	20	Leads	Leads	C	2 1/2	2 3/4	3 1/8	2	1 3/4	2 3/8	3/16 x 3/8	2.5
	COC-1	5000	600/150/16/8/4	55	5	Leads	Leads	SC	2 1/2	3	3 1/16	1 3/4	2 11/16	2 3/8	3/16	2.25
	COS-1	5000	600/150/16/8/4	55	5	Lugs	Lugs	SC	2 1/2	3	3 1/16	1 3/4	2 11/16	2 3/8	3/16	2.25
	A-4431	6000	3-4	35	5	Leads	Leads	A2	1 1/2	—	1 5/8	1 3/4	11/16	2	5/32	0.8
b	A-3878	7000	4.0	30	5	Leads	Leads	A	1 1/4	2 3/8	1 3/8	2	—	1 3/4	3/16	0.4
	A-2313	7000	8.0	40	10	Leads	Leads	A	2	3 1/4	2	2 13/16	—	2 3/8	3/16	1.0
	A-3841	7000/6000/5000/4000/2500	500	60	10	Lugs	Lugs	S	2	3 1/8	2 3/4	2 13/16	—	2 1/4	3/16	1.5
	A-4770	7000/6000/5000/4000/2500	500	60	20	Leads	Lugs	S	2 1/8	3 5/8	3 1/8	3 1/8	—	2 5/8	3/16	2.4
	A-8114	7600	3.2	32	5	Leads	Leads	A	1 3/8	2 3/8	1 3/8	2	—	1 3/4	3/16	0.4
	A-3329	8000	3.5	10	3	Leads	Leads	A	1 1/8	2 1/8	1 1/4	1 3/4	—	1 1/2	3/16	0.4
	*COC-2	8000	600/150/16/8/4	55	5	Leads	Leads	SC	2 1/2	3	3 1/16	1 3/4	2 11/16	2 3/8	3/16	2.25
	COS-2	8000	600/150/16/8/4	55	5	Lugs	Lugs	SC	2 1/2	3	3 1/16	1 3/4	2 11/16	2 3/8	3/16	2.25
	A-3879	10000	4.0	30	5	Leads	Leads	A	1 3/8	2 3/8	1 3/8	2	—	1 3/4	3/16	0.4
	A-3881	15000	4.0	10	5	Leads	Leads	A	1 3/8	2 3/8	1 3/8	2	—	1 3/4	3/16	0.4
	A-3250	20000/10000/5000	500/333/200/125/50	15	5	Lugs	Lugs	A	1 7/8	3 1/4	2	2 13/16	—	2 3/8	3/16	1.0
	A-3315	20000/10000/5000	500/333/200/125/50	35	20	Lugs	Lugs	C	2 1/2	2 3/4	3 1/8	2	1 3/4	2 3/8	3/16 x 3/8	2.7
	A-3327	25000	4.0	5	5	Leads	Leads	A	1 3/8	2 3/8	1 3/8	2	—	1 3/4	3/16	0.4

OUTPUT: PUSH-PULL PLATES TO VOICE COIL AND/OR LINE

	Catalog No.	Impedance in Ohms Primary	Impedance in Ohms Secondary	Max Pri DCMA	Audio Watts	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
c	A-8098	2000 C.T.	32/16/8	140	15	Leads	Leads	C	2 1/2	3 1/4	3 1/8	2	2 1/4	2 7/8	3/16 x 3/8	3.3
	A-3802	3800/3300 C.T.	500/250/8/4	125	75	Leads	Leads	C	3 3/4	4	4 11/16	3	2 13/16	3 5/8	3/16 x 3/8	7.9
	A-8094	4000 C.T.	32/16/8	80	7.5	Leads	Leads	A	2 1/4	3 3/4	2 3/8	3 1/8	—	2 3/4	3/16	1.5
	A-3851	4400 C.T. c	500/250/15/8/4	70	30	Leads	Leads	C	2 13/16	3 1/4	3 1/2	2 1/4	2	2 3/4	3/16 x 3/8	3.6
	A-3872	5000 C.T.	15/8/4	75	18	Leads	Leads	SC	2 1/4	2 3/4	2 11/16	1 1/2	2 3/8	2	3/16	1.7
	A-3800	5000 C.T.	500/250/15/8/4	80	30	Leads	Leads	C	2 13/16	3 1/4	3 1/2	2 1/4	2	2 3/4	3/16 x 3/8	3.7
	A-3307	6000 C.T.	500/15/8/4	100	30	Leads	Leads	C	2 13/16	3 1/4	3 1/2	2 1/4	2	2 3/4	3/16 x 3/8	3.5
	*PCO-200	6000 C.T. c	600/150/16/8/4	250	30	Leads	Leads	SC	4 9/16	5 1/4	5 5/16	2 1/2	4 3/4	4 1/8	7/32	9.0
	PSO-200	6000 C.T. c	600/150/16/8/4	250	30	Lugs	Lugs	SC	4 9/16	5 1/4	5 5/16	2 1/2	4 3/4	4 1/8	7/32	9.0
	A-3801	6600 C.T.	500/250/15/8/4	150	35	Leads	Leads	C	3 1/8	3 1/2	3 7/8	2 1/2	2 3/16	3 1/16	3/16 x 3/8	4.8
	A-3885	9000 C.T.	500/250/15/8/4	150	35	Leads	Leads	C	3 1/8	3 3/8	3 7/8	2 1/2	2 3/16	3 1/16	3/16 x 3/8	4.8
	A-4432	10000 C.T.	4.0	50	10	Leads	Leads	S2	1 5/8	—	2 3/8	1 7/8	11/16	2	5/32	1.0
	A-3304	10000/7000 C.T.	500/15/8/4	60	25	Leads	Leads	C	2 1/2	2 3/4	3 1/8	2	1 3/4	2 3/8	3/16 x 3/8	2.7
	A-3311	10000 C.T.	500/15/8/4	70	25	Leads	Leads	C	2 13/16	3 1/4	3 1/2	2 1/4	2	2 3/4	3/16 x 3/8	3.5
	A-3831	10000 C.T.	8/4/2	40	5	Leads	Leads	A	1 3/4	2 7/8	1 5/8	2 3/8	—	2	3/16	0.7
d	A-8093	10000 C.T.	3-4	40	10	Leads	Leads	A	1 1/2	2 7/8	1 5/8	2 3/8	—	2	3/16	0.7
	A-3335	10000 C.T.	6-8/3.2-4	40	10	Leads	Leads	S	2	2 7/8	2 3/8	2 3/8	—	2	3/16	1.0
	PCO-150	10000 C.T. c	600/150/16/8/4	200	15	Leads	Leads	SC	3 1/4	4	4 1/4	2 1/4	3 1/2	2 15/16	7/32	5.0
	PSO-150	10000 C.T. c	600/150/16/8/4	200	15	Lugs	Lugs	SC	3 1/4	4	4 1/4	2 1/4	3 1/2	2 15/16	7/32	5.0
	A-3839	10000 C.T.	2000 and 15/8/4	30	10	Leads	Leads	SC	2 1/4	2 3/4	2 11/16	1 1/2	2 3/8	2	3/16	1.3
	PCO-150A	12000 C.T.	600/150/16/8/4	200	15	Leads	Leads	SC	3 1/4	4	4 1/4	2 1/4	3 1/2	2 15/16	7/32	5.0
	A-2312	14000 C.T.	4.0	40	10	Leads	Leads	A	1 7/8	2 7/8	1 5/8	2 3/8	—	2	3/16	1.0
	A-3496	14000 C.T.	4.0	25	5	Leads	Leads	A	1 3/8	2 3/8	1 3/8	2	—	1 3/4	3/16	0.4
	A-3303	14000 C.T.	500/15/8/4	55	20	Leads	Leads	C	2 1/2	2 5/8	3 1/8	2	1 11/16	2 5/16	3/16 x 3/8	2.7
	A-3842	14000/12000/10000/8000 C.T.	500	55	10	Lugs	Lugs	S	2	3 1/8	2 3/4	2 13/16	—	2 1/4	3/16	1.7
	A-3250	20000 C.T.	500/333/200/125/50	15	5	Lugs	Lugs	A	1 7/8	3 1/4	2	2 13/16	—	2 3/8	3/16	1.0
	A-3315	20000 C.T.	500/333/200/125/50	35	20	Lugs	Lugs	C	2 1/2	2 3/4	3 1/8	2	1 11/16	2 1/2	3/16 x 3/8	2.7
	A-3857	25000 C.T.	4.0	10	5	Leads	Leads	A	1 1/2	2 3/8	1 3/8	2	—	1 3/4	3/16	0.4

a Has 4.5% primary Tap.

b Has 3% and 6% primary Taps.

c. Has Tertiary Winding to provide 10% inverse feedback.

*Available until stock is depleted

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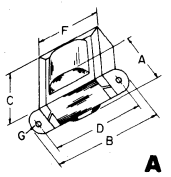
See Pages 1427, 1428 and 1429 for complete price list.

STANCOR

COMMERCIAL

output transformers



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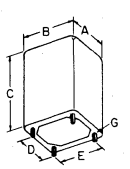

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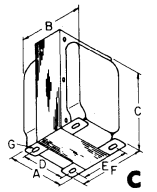

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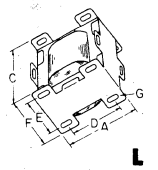

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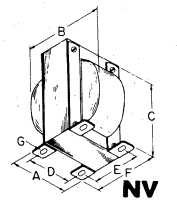


NV

UNIVERSAL OUTPUT

	Catalog No.	Impedance in Ohms Primary	Impedance in Ohms Secondary	Max Pri DCMA	Audio Watts	Termination Pri.	Termination Sec.	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
a	A-3856	S. or P.P. Plates 4000 to 14000	.05 to 122	35	4	Leads	Lugs	A	1 1/2	2 3/8	1 3/8	2	—	1 3/4	3/16	0.4
	A-3822	S. Plate 7000 to 10000	.7 to 4	35	4	Leads	Lugs	A	1 3/8	2 3/8	1 3/8	2	—	1 3/4	3/16	0.4
	A-3848	S. Plate 7000 to 16000	.4 to 4	10	5	Leads	Lugs	A	1 3/8	2 3/8	1 3/8	2	—	1 3/4	3/16	0.4
	A-3823	S or P.P. Plates 4000 to 14000	.05 to 122	40	8	Leads	Lugs	A	1 5/8	2 7/8	1 5/8	2 3/8	—	2	3/16	0.7
	A-3850	S or P.P. Plates 4000 to 14000	.05 to 122	40	8	Leads	Lugs	S	1 5/8	2 3/8	2	2	—	1 5/8	3/16	0.7
	A-3825	S. Plate 1500 to 4500	.3 to 4	75	8	Leads	Lugs	A	1 3/4	3 1/4	2	2 13/16	—	2 3/8	3/16	0.9
	A-3824	S. or P.P. Plates 6000 to 10000	.6 to 4	75	8	Leads	Lugs	A	2	3 1/4	2	2 13/16	—	2 3/8	3/16	1.4
	A-3849	S. Plate 1500 to 10000	.02 to 21	55	10	Lugs	Lugs	A	1 1/2	2 7/8	1 5/8	2 3/8	—	2	3/16	0.7
	A-3880	P.P. Plates 4000 to 14000	.05 to 122	40	15	Lugs	Lugs	A	2 1/8	3 3/4	2 3/8	3 1/8	—	2 3/4	3/16	1.7
	A-2855	P.P. Plates 4000 to 14000	.05 to 122	50	15	Lugs	Lugs	L	2 3/8		2	1 1/2	1 3/16	1 5/8	3/16 x 1/2	1.0
	A-3890	P.P. Plates 4000 to 14000	.05 to 122	50	15	Leads	Leads	SC	2 1/4	2 3/4	2 11/16	1 1/2	2 3/8	2	3/16	1.5
	A-3852	P.P. Plates 4000 to 14000	.05 to 122	40	18	Leads	Lugs	S	2	2 7/8	2 3/8	2 3/8	—	2	3/16	1.3
	A-3870	P.P. Plates 4000 to 14000	.05 to 122	50	18	Lugs	Lugs	A	2	3 1/4	2	2 13/16	—	2 3/8	3/16	1.3
	A-3830	P.P. Plates 3000 to 10000	.04 to 122	60	20	Leads	Lugs	S	2 1/8	3 1/8	2 3/4	2 13/16	—	2 1/4	3/16	1.8
OUTPUT: HIGH FIDELITY: FREQ. RESPONSE ±1 DB 20 TO 20,000 CYCLES																
b	A-8050	1500 C.T.	16/8	200	50	Leads	Leads	C	3 7/16	4 1/4	4 1/4	2 3/4	3 1/16	3 7/8	3/16 x 3/8	6.5
	A-8060	1500 C.T.	500	200	50	Leads	Leads	C	3 7/16	4 1/4	4 1/4	2 3/4	3 1/16	3 7/8	3/16 x 3/8	6.5
	A-8051	2500 C.T.	16/8	150	50	Leads	Leads	C	3 7/16	4 1/4	4 1/4	2 3/4	3 1/16	3 7/8	3/16 x 3/8	6.5
	A-8061	2500 C.T.	500	150	50	Leads	Leads	C	3 7/16	4 1/4	4 1/4	2 3/4	3 1/16	3 7/8	3/16 x 3/8	6.5
	A-8052	3000 C.T.	16/8	175	50	Leads	Leads	C	3 7/16	4 1/4	4 1/4	2 3/4	3 1/16	3 7/8	3/16 x 3/8	6.5
	A-8062	3000 C.T.	500	175	50	Leads	Leads	C	3 7/16	4 1/4	4 1/4	2 3/4	3 1/16	3 7/8	3/16 x 3/8	6.5
	A-8053	5000 C.T.	16/8	150	50	Leads	Leads	C	3 7/16	4 1/4	4 1/4	2 3/4	3 1/16	3 7/8	3/16 x 3/8	6.5
	A-8063	5000 C.T.	500	150	50	Leads	Leads	C	3 7/16	4 1/4	4 1/4	2 3/4	3 1/16	3 7/8	3/16 x 3/8	6.5
	A-8056	6600 C.T.	16/8	125	50	Leads	Leads	C	3 7/16	4 1/4	4 1/4	2 3/4	3 1/16	3 7/8	3/16 x 3/8	6.5
	A-8066	6600 C.T.	500	125	50	Leads	Leads	C	3 7/16	4 1/4	4 1/4	2 3/4	3 1/16	3 7/8	3/16 x 3/8	6.5
	A-8072	7600 C.T. a	16/8/4	100	25	Leads	Leads	C	3 7/16	4 1/4	4 1/4	2 3/4	3 1/16	3 7/8	3/16 x 3/8	6.5
	A-8054	9000 C.T.	16/8	100	50	Leads	Leads	C	3 7/16	4 1/4	4 1/4	2 3/4	3 1/16	3 7/8	3/16 x 3/8	6.5
	A-8064	9000 C.T.	500	100	50	Leads	Leads	C	3 7/16	4 1/4	4 1/4	2 3/4	3 1/16	3 7/8	3/16 x 3/8	6.5
OUTPUT: HIGH FIDELITY: FREQ. RESPONSE ±1 1/2 DB 30 TO 20,000 CYCLES																
c	BO-1	15,000 b	600/150	10	.032	Lugs	Lugs	B	2 3/8	2 1/2	3 1/16	1 11/16	1 3/16	—	6-32	2.25
	BO-2	20,000 C.T.	600/150	10	1.0	Lugs	Lugs	B	2 11/16	2 7/8	3 1/2	1 7/8	2	—	8-32	3.0
	BO-5	10,000 C.T.	600/150/16/8/4	45	5.0	Lugs	Lugs	B	3	3 1/4	3 7/8	2 1/8	2 3/8	—	8-32	4.0
	BO-6	7500 C.T.	20/8	80	20	Lugs	Lugs	B	3 5/16	3 11/16	4 5/16	2 3/8	2 5/8	—	10-32	5.75
	BO-9	5000/3000 C.T.	600/150/16/8/4	75	15	Lugs	Lugs	B	3 5/16	3 11/16	4 5/16	2 3/8	2 5/8	—	10-32	6.0
	BO-10	20,000 C.T.	600/150	10	.032	Lugs	Lugs	B	2 1/8	2 1/4	2 11/16	1 3/8	1 5/16	—	6-32	1.5
	BO-11	3000/2500 C.T.	600/150/16/8/4	150	40	Lugs	Lugs	B	4 1/8	4 7/16	5 5/16	3 3/8	3 3/8	—	10-32	9.5
	BO-12	10,000 C.T.	600/16/8	100	10	Lugs	Lugs	B	4 1/8	4 7/16	5 5/16	3 3/8	3 3/8	—	10-32	9.0
	BO-13	10,000 C.T. a	16/8/4	100	20	Lugs	Lugs	B	3 5/16	3 11/16	4 11/16	2 3/8	2 5/8	—	10-32	7.0
	BO-14	5000 C.T. a,c	16/8 and 70V.	150	100	Leads	Leads	SC	5 5/16	5 7/8	6 1/16	3 1/2	5 3/8	4 3/4	1/4	21.0
	BO-15	4300 C.T. a,c	16/8	150	65	Leads	Leads	SC	4 9/16	5 1/4	5 5/16	2 1/2	4 3/4	4 1/8	7/32	12.0
TONE CONTROL CHOKE: WRITE FOR BULLETIN 456R																
d	* C-2332-1	1.6 hy	For use in Pre-amplifiers for Separate Tone Control						h=2 1/2, w=2, d=2 1/8,							1.3

a. Has Screen grid taps on primary. b. Has Tertiary Winding to provide 15% inverse feedback. c. Has cathode feedback Winding.
*Available until stock is depleted

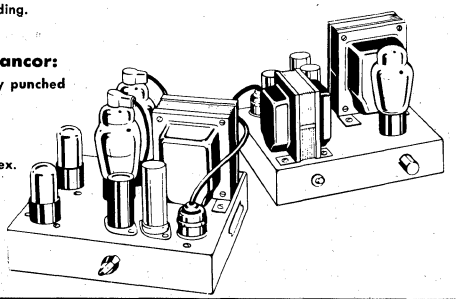
STANCOR-WILLIAMSON ULTRA-LINEAR HIGH FIDELITY AMPLIFIER

Has had wide acceptance due to its fine perfomance characteristics and ease of assembly.

Power output — 25 watts with less than 1% total Harmonic distortion and negligible intermodulation distortion. Frequency response — flat from 20 cycles to 40KC. Write for Bulletin 479 for complete Parts List, schematic and performance curves.

Parts Available from Stancor:

WM-8 Chassis set — Completely punched and finished
PC-8412 Power Transformer
C-1411 Choke
A-8072 Output Transformer
For Transformer ratings, refer to index.



See Pages 1427, 1428 and 1429 for complete price list.

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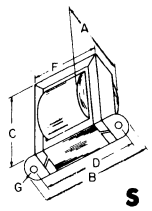

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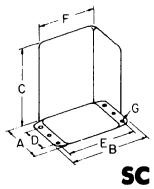

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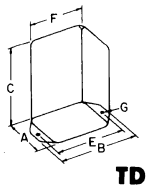

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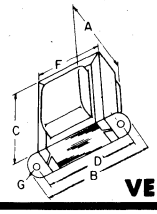

VE

STANCOR
COMMERCIAL
audio transformers

25 VOLT LINE TO VOICE COIL

	Catalog No.	Impedance in Ohms Primary	Impedance in Ohms Secondary	Audio Watts	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT Lbs.
a	A-8099	312/625/1250	8/4	2/1/.5	Lugs	Lugs	A	1 3/8	2 1/8	1 1/4	1 3/4	—	1 1/2	3/16	0.3
	A-8087	312/625/1250	8	2/1/.5	Leads	Leads	A	1 3/8	2 3/8	1 3/8	2	—	1 3/4	3/16	0.4
	A-8088	156/312/625/1250 2500/5000	8	4/2/1/.5 .25/.12	Leads	Leads	A	1 5/8	2 7/8	1 5/8	2 3/8	—	2	3/16	0.7
	A-8095	125/250/500 1000/2000	8/4	5/2.5/1.25 .62/.31	Lugs	Lugs	A	1 1/2	2 3/8	1 3/8	2	—	1 3/4	3/16	0.4
	A-8096	78/156/312/625 1250	16/8/4	8/4/2/1/.5	Lugs	Lugs	S	1 5/8	2 3/8	2	2	—	1 5/8	3/16	0.65
	A-8097	39/78/156/312 625/1250	16/8/4	16/8/4/2 1/.5	Lugs	Lugs	S	2 1/8	3 1/8	2 3/4	2 13/16	—	2 1/4	3/16	1.6

70.7 VOLT LINE TO VOICE COIL

	Catalog No.	Impedance in Ohms Primary	Impedance in Ohms Secondary	Audio Watts	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT Lbs.
b	A-8109	2500/5000/10000	8/4	2/1/.5	Lugs	Lugs	A	1 3/8	2 1/8	1 1/4	1 3/4	—	1 1/2	3/16	0.3
	A-8083	2500/5000/10000	8	2/1/.5	Leads	Leads	A	1 3/8	2 3/8	1 3/8	2	—	1 3/4	3/16	0.4
	A-8084	1250/2500/5000 10000/20000/40000	8	4/2/1/.5 .25/.12	Leads	Leads	A	1 5/8	2 7/8	1 5/8	2 3/8	—	2	3/16	0.7
	A-8105	1000/2000/4000 8000/16000	8/4	5/2.5/1.25 .62/.31	Lugs	Lugs	A	1 1/2	2 3/8	1 3/8	2	—	1 3/4	3/16	0.4
	A-8080	1000/1250/1667 2500/5000	16/8	5/4/3/2/1	Lugs	Lugs	A	1 1/2	2 3/8	1 3/8	2	—	1 3/4	3/16	0.4
	A-8102	625/1250/2500 5000/10000	16/8/4	8/4/2/1/.5	Lugs	Lugs	S	1 1/2	2 3/8	2	2	—	1 5/8	3/16	0.7
	A-8081	500/555/625 715/833	16/8	10/9/8/7/6	Lugs	Lugs	S	1 5/8	2 3/8	2	2	—	1 5/8	3/16	0.7
	A-8082	333/357/384 417/455	16/8	15/14/13 12/11	Lugs	Lugs	S	1 3/4	2 7/8	2 3/8	2 3/8	—	2	3/16	1.2
	A-8103	312/625/1250 2500/5000/10000	16/8/4	16/8/4 2/1/.5	Lugs	Lugs	S	2 1/8	3 1/8	2 3/4	2 13/16	—	2 1/4	3/16	1.5

140 VOLT LINE TO VOICE COIL

	Catalog No.	Impedance in Ohms Primary	Impedance in Ohms Secondary	Audio Watts	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT Lbs.
c	A-8108	4000/8000 16000/32000	8/4	5/2.5/1.25 .62	Lugs	Lugs	A	1 1/2	2 3/8	1 3/8	2	—	1 3/4	3/16	0.4
	A-8106	2500/5000 10000/20000	16/8/4	8/4/2/1	Lugs	Lugs	S	1 5/8	2 3/8	2	2	—	1 5/8	3/16	0.7
	A-8107	1250/2500/5000 10000/20000	16/8/4	16/8/4/2/1	Lugs	Lugs	S	2	3 1/8	2 3/4	2 13/16	—	2 1/4	3/16	1.8

LINE TO VOICE COIL

	Catalog No.	Impedance in Ohms Primary	Impedance in Ohms Secondary	Audio Watts	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT Lbs.
d	A-8101	500	6-8/3.2	5	Lugs	Leads	A	1 1/2	2 3/8	1 3/8	2	—	1 3/4	3/16	0.4
	A-3883	500	15/8/6/4	25	Lugs	Lugs	S	1 3/4	2 7/8	2 3/8	2 3/8	—	2	3/16	1.1
	A-3882	500/333/250	15/8/4	25	Lugs	Lugs	C	2 1/2	2 3/4	3 1/8	2	1 3/4	2 3/8	3/16 x 3/8	2.4
	A-3818	1500/1000/500	15/8/4	25	Lugs	Lugs	S	2 1/8	3 3/8	3 1/8	3 1/8	—	2 5/8	3/16	2.2
	A-7947	2000/1500/1000 500	6-8/3.2	8	Lugs	Lugs	A	1 5/8	2 7/8	1 5/8	2 3/8	—	2	3/16	0.7
	A-7949	2000/1500/1000 500	6-8/3.2	12	Lugs	Lugs	S	1 3/4	2 7/8	2 3/8	2 3/8	—	2	3/16	1.1
	* A-3820	2000/1500/1000 500	15/8/4	40	Lugs	Lugs	C	3 7/16	3 3/4	4 1/8	2 3/4	2 5/16	3 3/8	3/16 x 3/8	5.0
	A-8104	3000/2000/1500 1000/500	16/8/4	10	Lugs	Lugs	S	1 3/4	2 7/8	2 3/8	2 3/8	—	2	3/16	1.5
	A-3837	500	.06 to 48	15	Lugs	Lugs	S	2	2 7/8	2 3/8	2 3/8	—	2	3/16	1.4

LINE TO LINE

	Catalog No.	Impedance in Ohms Primary	Impedance in Ohms Secondary	Audio Watts	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT Lbs.
e	A-4350	500/333/200 125/50	500/333/200 125/50	10	Lugs	Lugs	A	1 7/8	3 1/4	2	2 13/16	—	2 3/8	3/16	1.0
	A-4407	500/333/200 125/50	500/333/200 125/50	20	Lugs	Lugs	C	2 1/2	2 3/4	3 1/8	2	1 3/4	2 3/8	3/16 x 3/8	2.4
	A-3838	500	250/166/125 100/84	30	Lugs	Lugs	NV	2 1/2	2 3/16	3 1/8	2	2	2 11/16	5/16 x 3/8	2.3

FOR INTERCOMS AND TRANSCEIVERS

	Catalog No.	Application	Impedance in Ohms * Primary	Impedance in Ohms * Sec.	Audio Watts	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT Lbs.
f	A-4744	Intercom Input	4	25,000	—	Leads	Leads	VE	1 1/2	2 3/8	1 3/8	2	—	1 3/4	3/16	0.5
	A-4748	Intercom Input	45 or 50	50,000	—	Leads	Leads	A	1 3/8	2 1/8	1 1/4	1 3/4	—	1 1/2	3/16	0.4
	A-8090	Line to Voice Coil	45 or 50	6-8/3-4	3	Lugs	Lugs	A	1 1/4	2 3/8	1 3/8	2	—	1 3/4	3/16	0.5
	A-8091	Line to Voice Coil	45 or 50	6-8/3-4	8	Lugs	Lugs	A	1 1/2	2 7/8	1 5/8	2 3/8	—	2	3/16	0.7
	A-3817	Transceiver Modulation and Output	5000 @ 50 Madc	6750 @ 50 Madc and 4	10	Leads	Leads	S	2	2 3/8	2	2	—	1 5/8	3/16	0.7
	A-3833	Transceiver Input Mic. or Plate to Grid	5000/200	60,000	—	Leads	Leads	A	1 5/8	2 7/8	1 5/8	2 3/8	—	2	3/16	0.7
	A-3836	Transceiver Output	10,000	2000/50	5	Leads	Leads	A	1 11/16	2 7/8	1 5/8	2 3/8	—	2	3/16	0.7
	A-4749	Telephone patch Circuit	10,000	500	—	Leads	Leads	TD	1 1/2	2 1/4	1 13/16	—	1 13/16	1 1/2	3/16	1.0

MICROPHONE, PICKUP OR LINE TO GRID

	Catalog No.	Application	Impedance in Ohms Primary	Impedance in Ohms Secondary	Ratio	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
g	A-4705	S.B. Mic. to S. Grid	200/70	80,000	1:20	Leads	Leads	A	1 3/8	2 3/8	1 3/8	2	—	1 3/4	3/16	0.5
	A-4706	S.B. Mic. to S. Grid	100	60,000	1:24.5	Leads	Leads	A	1 1/2	2 3/8	1 3/8	2	—	1 3/4	3/16	0.5
	A-4708	D.B. Mic. to S. Grid	200 C.T.	57,000	1:17	Lugs	Lugs	S	1 1/2	2 3/8	2	2	—	1 5/8	3/16	0.7
	A-4742	S.B. Mic to P.P. Grids	100	400,000 C.T.	1:64	Leads	Leads	S	1 7/8	2 7/8	2 3/8	2 3/8	—	2	3/16	1.2
	A-4747	S.B. Mic. or Line to S. Grid	70	1,300,000	1:137	Leads	Leads	VE	1 1/4	1 13/16	1 7/16	1 1/2	—	1 1/4	3/16	0.5

*Available until stock is depleted

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See Pages 1427, 1428 and 1429 for complete price list.

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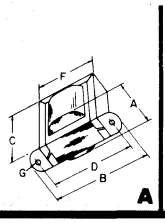

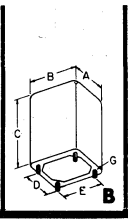

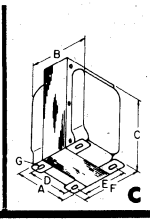

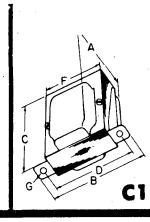

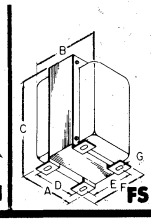

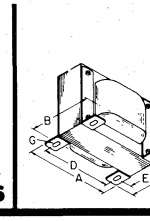

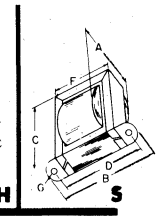

MICROPHONE, PICKUP OR LINE TO GRID

	Catalog No.	Application	Impedance in Ohms Primary	Impedance in Ohms Secondary	Ratio	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
a	A-4351	Mic. or Line to S. Grid	500/333/200/125/50	89,000	1:13.3	Leads	Leads	SC	2¼	2 11/16	2 11/16	1½	—	2	3/16	1.4
	A-4352	Mic or Line to P.P. Grids	500/333/200/125/50	89,000 C.T.	1:13.3	Lugs	Lugs	A	1⅞	3¼	2	2 13/16	—	2⅜	3/16	1.0
	A-4709	Dyn. mic or Pickup to S. Grid	30/15/8/4	106,000	1:60	Leads	Leads	SC	2¼	2 11/16	2 11/16	1½	—	2	3/16	1.7
	A-4778	Line to S. Grid	600/500 C.T.	240,000	1:20	Leads	Leads	C1	1 13/16	2⅞	2¼	2⅜	—	2	3/16	1.0
	A-4779	Line to S. or P.P. Grids	600/500 C.T.	60,000 C.T.	1:10	Leads	Leads	A	1⅜	2⅜	1⅜	2	—	1¾	3/16	0.5
	A-4780	Line to P.P. Grids	600/500 C.T.	240,000 C.T.	1:20	Leads	Leads	VE	1 11/16	3¼	2	2 13/16	—	2⅜	3/16	1.0
	* CIC-1	Line to P.P. Grids	600/150	100,000 C.T.	1:13	Leads	Leads	TD	1½	2¼	2⅛	—	1 15/16	1½	3/16	0.75
	CIS-1	Line to P.P. Grids	600/150	100,000 C.T.	1:13	Lugs	Lugs	TD	1½	2¼	2⅛	—	1 15/16	1½	3/16	0.75
	* CIC-2	S.B. or D.B. Mic. to P.P. Grids	125/50	125,000	1:32	Leads	Leads	TD	1½	2¼	2⅛	—	1 15/16	1½	3/16	0.75
	* CIS-2	S.B. or D.B. Mic. to P.P. Grids	125/50	125,000	1:32	Lugs	Lugs	TD	1½	2¼	2⅛	—	1 15/16	1½	3/16	0.75

INPUT: HIGH FIDELITY–SHIELDED–FREQ. RESPONSE ±1 DB 30 TO 15,000 CYCLES

	Catalog No.	Application	Impedance in Ohms Primary	Impedance in Ohms Secondary	Audio Level	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
b	BI-1	Line to S. or P.P. Grids	600/150 C.T.	50,000 C.T.	+15 dbm	Lugs	Lugs	B	2⅛	2¼	2 11/16	1⅜	1 9/16	—	6-32	1.5
	BI-2	Line to S. or P.P. Grids	600/150 C.T.	50,000 C.T.	+15 dbm	Lugs	Lugs	Ba	2⅛	2¼	2 11/16	1⅜	1 9/16	—	6-32	1.5
	BI-3	Line Bridging to P.P. Grids	8000/6000 C.T.	50,000 C.T.	+15 dbm	Lugs	Lugs	B	2⅛	2¼	2 11/16	1⅜	1 9/16	—	6-32	1.5
	BI-4	Line to Line	600/150 C.T.	600/150 C.T.	+15 dbm	Lugs	Lugs	B	2⅛	2¼	2 11/16	1⅜	1 9/16	—	6-32	1.5
	BI-5	Line to Line	600/150 C.T.	600/150 C.T.	+30 dbm	Lugs	Lugs	Ba	3	3¼	3⅞	2⅛	2⅜	—	8-32	3.25
	BI-6	P.P. Plates to S. or P.P.Grids	20,000 C.T.	50,000 C.T.	+15 dbm	Lugs	Lugs	B	2⅛	2¼	2 11/16	1⅜	1 9/16	—	6-32	1.5
	BI-7	Mic., Pickup or Line to Grid	600/250/150/50	50,000 C.T.	+15 dbm	Lugs	Lugs	B	2⅛	2¼	2 11/16	1⅜	1 9/16	—	6-32	1.5

INPUT: WF SERIES–SHIELDED–FREQ. RESPONSE ±2 DB 30 TO 20,000 CYCLES

	Catalog No.	Application	Impedance in Ohms Primary	Impedance in Ohms Secondary	Audio Level	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
c	WF-20	Mic., pickup or Line to Grid	500-600/333/250/200/125-.50/50	50,000 C.T.	+7 db	Lugs	Lugs	WF	1½	1½	2	1 5/32	1 5/32	—	4-40	0.6
	WF-21	Mic., pickup or Line to Grid	500/200/50	50,000 C.T.	+7 db	Lugs	Lugs	WFa	1½	1½	2	1 5/32	1 5/32	—	4-40	0.6
	WF-22	Mic., pickup or Line to Grid	500-600/333/250/200/125-150/50	80,000 C.T.	+7 db	Lugs	Lugs	WF	1½	1½	2	1 5/32	1 5/32	—	4-40	0.6
	WF-28	S. or P.P. Plates to S. or P.P. Grids	15,000 C.T.	80,000 C.T.	+7 db	Lugs	Lugs	WF	1½	1½	2	1 5/32	1 5/32	—	4-40	0.6
	WF-30	Mixer, Mic., pickup, or Line to Line	500-600/333/250/200/125-150/50	500-600/333/250/200/125-150/50	+7 db	Lugs	Lugs	WF	1½	1½	2	1 5/32	1 5/32	—	4-40	0.6
	WF-35	S. Plate to Line	15,000	500-600/333/250/200/125-150/50	+7 db	Lugs	Lugs	WF	1½	1½	2	1 5/32	1 5/32	—	4-40	0.6
	WF-36	PP. Plates to Line	30,000 C.T.	500-600/333/250/200/125-150/50	+7 db	Lugs	Lugs	WF	1½	1½	2	1 5/32	1 5/32	—	4-40	0.6

INPUT: MINIATURE FREQ. RESPONSE ±1 DB 30 TO 15,000 CYCLES

	Catalog No.	Application	Impedance in Ohms Primary	Impedance in Ohms Secondary	Audio Level	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
d	* TT-11	Mic., pickup or Line to Grid	500-600/200-250/50	50,000	0db	Lugs	Lugs	TT	⅞	⅞	1¼	—	—	11/16	2-56	.08
	* TT-12	Mic., pickup or Line to Grids	500-600/200-250/50	50,000 C.T.	0db	Lugs	Lugs	TT	⅞	⅞	1¼	—	—	11/16	2-56	.08

INTERSTAGE: SINGLE PLATE (7,000 TO 20,000 OHM) TO SINGLE GRID

	Catalog No.	Ratio	Max. Pri DCMA	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
e	A-53	1:3	10	Leads	Leads	A	1⅜	2⅜	1⅜	2	—	1¾	3/16	0.5

INTERSTAGE: SINGLE PLATE (7,000 TO 15,000 OHM) TO PUSH PULL GRIDS

	Catalog No.	Ratio	Max. Pri DCMA	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
f	A-52C	1:2	10	Leads	Leads	A	1½	2⅜	1⅜	2	—	1¾	3/16	0.4
	A-62C	1:2	10	Leads	Leads	A	1⅝	2⅞	1⅝	2⅜	—	2	3/16	0.7
	A-4745	1:2	10	Leads	Leads	SC	2¼	2 11/16	2 11/16	1½	2⅜	2	3/16	1.7
	A-53C	1:3	10	Leads	Leads	A	1⅜	2⅜	1⅜	2	—	1¾	3/16	0.5
	A-63C	1:3	10	Leads	Leads	A	1½	2⅞	1⅝	2⅜	—	2	3/16	0.7
	A-73C	1:3	10	Leads	Leads	A	1¾	3¼	2	2 13/16	—	2⅜	3/16	1.0
	A-4719	1:3	10	Leads	Leads	SC	2¼	2 11/16	2 11/16	1½	2⅜	2	3/16	1.7
	A-64C	1:4	10	Leads	Leads	S	1⅝	2⅜	2	2	—	1⅝	3/16	0.7
	* A-4420	Replacement for Delco 6061		Leads	Leads	S2	1¼	—	1⅝	1 3/16	⅝	1⅜	⅛	0.5

*Available until stock is depleted

a. Has multiple internal magnetic shields.

STANCOR PAGE 9

See Pages 1427, 1428 and 1429 for complete price list.

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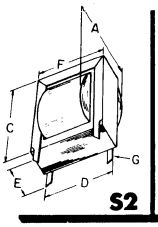

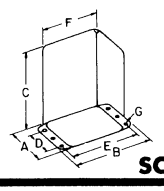

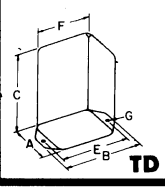

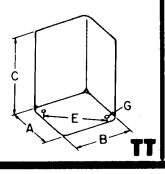

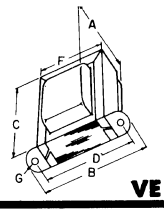

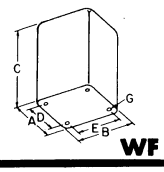

STANCOR

COMMERCIAL

audio transformers

INTERSTAGE: PUSH-PULL PLATES (7,000 TO 15,000 OHMS) TO PUSH-PULL GRIDS

a

Catalog No.	Ratio	Max. Pri DCMA	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
A-4711	1:1	10	Leads	Leads	A	1 5/8	2 7/8	1 5/8	2 3/8	—	2	3/16	0.7
A-4208	1:1.4	15	Leads	Leads	C	2 1/2	2 3/4	3 1/8	2	1 3/4	2 3/8	3/16 x 3/8	2.5

INTERSTAGE: MULTI-PURPOSE (7,000 TO 15,000 OHM PLATES)

b

Catalog No.	Ratio	Max. Pri DCMA	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
A-4774	1:3	10	Leads	Leads	S	1 3/4	2 7/8	2 3/8	2 3/8	—	2	3/16	1.2
A-4773	1:3	10	Leads	Leads	SC	2 1/4	2 11/16	2 11/16	1 1/2	2 3/8	2	3/16	1.7

Proper Connections will provide Ratios of 1:1, 1:3, or 1:6 May be Used for Single or Push-Pull Plates to Single or Push-Pull Grids

DRIVER: SINGLE PLATE TO PUSH-PULL GRIDS

c

Catalog No.	Pri. Impedance in Ohms	Max Pri DCMA	Ratio Pri: ½ Sec	Audio Watts	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
A-4713	10,000	30	2:1	5	Leads	Leads	A	1 5/8	2 7/8	1 5/8	2 3/8	—	2	3/16	0.7
A-4752	10,000	40	2/1.5/1:1	10	Leads	Leads	A	1 3/4	3 1/4	2	2 13/16	—	2 3/8	3/16	1.2
* A-4722	10,000	30	2:1	10	Leads	Leads	SC	2 1/4	2 11/16	2 11/16	1 1/2	2 3/8	2	3/16	1.7
A-4292	10,000	20	2.5:1	5	Leads	Leads	A	1 1/2	2 7/8	1 5/8	2 3/8	—	2	3/16	0.7
A-4723	10,000	30	3:1	5	Leads	Leads	A	1 5/8	2 7/8	1 5/8	2 3/8	—	2	3/16	0.7
* A-4210	1500 to 5000	40	3:1	15	Leads	Leads	C	2 1/2	2 3/4	3 1/8	2	1 3/4	2 3/8	3/16 x 3/8	2.5
A-4702	1500 to 5000	80	5:1	20	Leads	Leads	C	2 1/2	2 3/4	3 1/8	2	1 3/4	2 3/8	3/16 x 3/8	2.5

DRIVER: PUSH-PULL PLATES TO PUSH-PULL GRIDS

d

Catalog No.	Pri. Impedance in Ohms	Max Pri DCMA	Ratio Pri: ½ Sec	Audio Watts	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
A-4208	10,000 to 30,000 C.T.	15	2.8:1	15	Leads	Leads	C	2 1/2	2 3/4	3 1/8	2	1 3/4	2 3/8	3/16 x 3/8	2.5
* A-4701	20,000 C.T.	25	3:1	15	Leads	Leads	C	2 1/2	2 3/8	3 1/8	2	1 3/4	2 3/8	3/16 x 3/8	2.5
A-4212	1500 to 5000 C.T.	50	3.2:1	20	Leads	Leads	C	2 1/2	2 3/4	3 1/8	2	1 3/4	2 3/8	3/16 x 3/8	2.5

DRIVER: "POLY-PEDANCE"-MULTIPLE TAPS OFFER A WIDE RANGE OF RATIO SELECTION

d

Catalog No.	Pri. Impedance in Ohms	Max Pri DCMA	Ratio Pri: ½ Sec	Audio Watts	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
A-4761	5000 to 15,000 C.T.	100	{2.4/2.2/2.1/1.8/ 1.6/1.4/1.25:1}	15	Leads	Leads Lugs	C	2 1/2	3 1/8	3 1/8	2	2 1/8	2 3/4	3/16 x 3/8	3.4
A-4762	5000 to 15,000 C.T.	100	{5/4.5/4/3.4/3.2 3.1/2.6:1}	15	Leads	Leads Lugs	C	2 1/2	2 3/4	3 1/8	2	1 3/4	2 3/8	3/16 x 3/8	2.7
A-4765	500	—	{1.33/1.2/1/.8/.7/ .5/.45/.4/.36 .32:1}	15	Leads	Leads Lugs	C	2 1/2	2 3/4	3 1/8	2	1 3/4	2 3/8	3/16 x 3/8	3.2

DRIVER: BROADCAST FREQ. RESPONSE ±1 DB 30 TO 15,000 CYCLES

e

Catalog No.	Pri. Impedance in Ohms	Max Pri DCMA	Ratio Pri: ½ Sec	Audio Watts	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
BD-1	3000 C.T.	100	3.5:1	10	Terms	Terms	B	3 1/4	3 5/8	4 5/16	2 3/4	2 5/8	—	10-32	6.5
* BD-2	5000 C.T.	100	3:1	35	Terms	Terms	SC	5 5/16	5 7/8	6 1/16	3 1/2	5 3/8	4 3/4	1/4	12.3

MODULATI

e

Catalog No.	Impedance in Ohms Primary	Impedance in Ohms Secondary	Max. Sec DCMA	Audio Watts	Termination Pri	Termination Sec	Style	Dimensions A	B	C	E	D	F	G	WT. Lbs.
A-3812	10,000 C.T.	4000	50	5	Leads	Leads	A	1 5/8	2 7/8	1 5/8	2 3/8	—	2	3/16	0.7
A-3871	4500	8500	50	10	Leads	Leads	SC	2 1/4	2 11/16	2 11/16	1 1/2	2 3/8	2	3/16	1.4
A-3845	10,000 C.T.	8000/6500/5000/3000	100	25	Leads	Leads	C	2 1/2	2 7/8	3 1/8	2	1 7/8	2 1/2	3/16 x 3/8	2.8
A-3808	3800/3300 C.T.	{10 000/7500/5000/ 4000}	170	60	Lugs	Lugs	C	3 3/4	4	4 11/16	3	2 13/16	3 5/8	3/16 x 3/8	7.7
A-3829	9000/6900 C.T.	6250/5000/4000/3300	300	175	Lugs	Lugs	C	3 3/4	5	4 11/16	3	3 13/16	4 5/8	3/16 x 3/8	11.4

MODULATION: "POLYPEDANCE" — MULTIPLE TAPS OFFER A WIDE RANGE OF IMPEDANCE MATCH

f

Catalog No.	Impedance in Ohms Primary	Impedance in Ohms Secondary	Max. Sec DCMA	Audio Watts	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
A-3891	2000 to 20,000	2000 to 20,000	100	15	Lugs	Lugs	C	2 1/2	2 3/4	3 1/8	2	1 3/4	2 3/8	3/16 x 3/8	2.5
A-3892	2000 to 20,000	2000 to 20,000	150	30	Lugs	Lugs	C	3 1/8	3 1/2	3 7/8	2 1/2	2 3/16	3	3/16 x 3/8	4.3
A-3893	2000 to 20,000	2000 to 20,000	180	60	Lugs	Lugs	C	3 1/8	4	3 7/8	2 1/2	2 11/16	3 1/2	3/16 x 3/8	6.2
A-3894	2000 to 20,000	2000 to 20,000	225	125	Lugs	Lugs	C	3 3/4	4 1/2	4 11/16	3	3 5/16	4 1/8	3/16 x 3/8	9.4
A-3898	2000 to 20,000	2000 to 20,000	260	300	Terms	Terms	FS	5 3/4	7 5/8	8 1/8	4 5/8	4 3/4	5 3/4	3/8 x 1/2	38
A-3899	2000 to 20,000	2000 to 20,000	500	600	Terms	Terms	FS	7 1/4	10 1/4	9 1/8	6	5 5/8	6 7/8	7/16 x 5/8	70

MODULATION: BROADCAST FREQ. RESPONSE ±1 DB 30 TO 15,000 CYCLES

f

Catalog No.	Impedance in Ohms		Max. Sec DCMA	Audio Watts	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
BM-1	7500 C.T.	5000	0	125	Terms	Terms	SC	6 1/8	6 1/2	7 1/16	4 1/4	6	5 1/4	1/4	25

MODULATION REACTOR:

f

Catalog No.	Inductance in Henries	DCMA	Insul. Test RMS Volts	Termination		Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
BR-1	65	250	7500	Terms		SC	7 1/16	7 7/8	8 1/16	5	7	5 1/4	1/4	41

SPLATTER CHOKES: FOR HIGH LEVEL "CLIPPER" FILTERS

g

Catalog No.	Inductance in Henries	DCMA	Insul. Test RMS Volts	Termination		Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
C-2317	.048 to 0.9	300	5000	Lugs		NH	3	3	2 5/8	2 1/2	2	2 3/4	3/16 x 5/16	2.3
SR-300	.02 to 1.5	300	7500	Terms		SC	4 5/16	5 1/4	5 5/16	2 1/2	4 3/4	4 1/4	7/32	10
SR-500	.02 to 1.5	500	10000	Terms		SC	5 5/16	5 7/8	6 1/16	3 1/2	5 3/8	4 13/16	1/4	14.5

LOW PASS FILTER: CUT OFF FREQ. 3,000 CYCLES

g

Catalog No.	Impedance in Ohms Input	Impedance in Ohms Output	Audio Level	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
* LPF-1	15,000	500 or 100,000	10 V. output	Lugs	Lugs	SC	2 1/4	2 11/16	2 11/16	1 1/2	2 3/8	2	3/16	0.9

BAND PASS FILTER: 200 TO 3,000 CYCLES

h

Catalog No.	Impedance in Ohms		Audio Level	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
C-2340	10,000	500 or 100,000	10 V. output	Lugs	Lugs	SC	2 1/4	2 11/16	2 11/16	1 1/2	2 3/8	2	3/16	0.6

FOR TRANSISTOR MOBILE MODULATOR (WRITE FOR BULLETIN 545 FOR CIRCUIT)

j

Catalog No.	Application	Impedance in Ohms Pri	Impedance in Ohms Sec	Max Pri DCMA	Audio Watts	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
TA-15	Input	50 to 100	10	50	.005	Leads	Leads	A	1	1 5/8	13/16	1 3/8	—	1 1/16	1/8	0.15
TA-16	Driver	20	36 C.T.	400	1.0	Leads	Leads	A	1 1/8	2 1/8	1 1/4	1 3/4	—	1 1/2	3/16	0.20
TA-17	Modulation	8 C.T.	{7500/5000 @ 120 Ma}	—	35.0	Leads	Leads	C	2 1/2	3	3 1/8	2	2	2 5/8	3/16 x 3/8	3.0

* Available until stock is depleted

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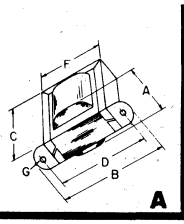
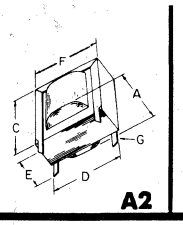
See Pages 1427, 1428 and 1429 for complete price list.

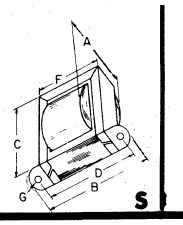
STANCOR

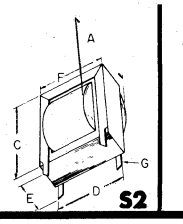
COMMERCIAL

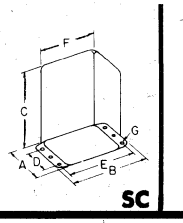
transistor transformers

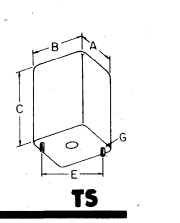












FOR AUDIO APPLICATIONS: ALL UNITS TERMINATE WITH LEADS

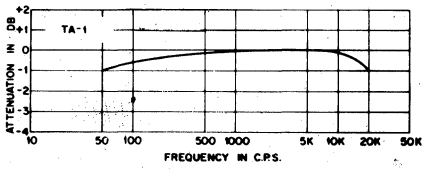
	Catalog No.	Application	Impedance in Ohms Pri.	Impedance in Ohms Sec.	Max. Pri. DCMA	Audio Watts	D.C. Res. in Ohms Pri	D.C. Res. in Ohms Sec	Style	Dimensions A	B	C	D	E	F	G	WT Lbs.
a	TA-1	Input	600 C.T.	10	20	.05	42	0.8	A	1	1 5/8	13/16	1 3/8	—	1 1/16	1/8	.07
	TA-2	Interstage	100 C.T.	10 C.T.	100	.25	4.3	0.8	A	1 1/2	2 1/8	1 1/4	1 3/4	—	1 1/2	3/16	.25
	TA-3	Interstage	100	1000 C.T.	100	.25	5.8	45	A	1 1/2	2 3/8	1 3/8	2	—	1 3/4	3/16	.35
	TA-4	Interstage	500 C.T.	5000 C.T.	12	.03	37	250	A	1 5/8	2 3/8	1 3/8	2	—	1 3/4	3/16	.35
	TA-5	Driver	1000	200 C.T.	10	.05	400	115	A	5/8	1 5/16	11/16	1 1/16	—	13/16	1/8	.05
	TA-6	Driver	2000	200 C.T.	5	.05	720	115	A	5/8	1 5/16	11/16	1 1/16	—	13/16	1/8	.05
	TA-7	Driver	100	100 C.T.	100	.5	12	12	A	1 5/8	2 7/8	1 5/8	2 3/8	—	2	3/16	.60
	TA-8	Output	9800	15	2	.05	640	2	A	5/8	1 5/16	11/16	1 1/16	—	13/16	1/8	.05
	TA-9	Output	1000	16/8/4	10	.2	180	3.5	A	7/8	1 5/8	13/16	1 3/8	—	1 1/16	1/8	.07
	TA-10	Output	2000 C.T.	16/8/4	—	.2	250	4	A	7/8	1 5/8	13/16	1 3/8	—	1 1/16	1/8	.08
	TA-11	Output	48 C.T.	16/8	275	5	5	1.5	A	1 7/8	3 1/4	2	2 13/16	—	2 3/8	3/16	1.0
	TA-12	Output	20 C.T.	8	500	10	.55	.35	A	1 5/8	2 3/8	1 3/8	2	—	1 3/4	3/16	.45
	TA-13	Driver	200 C.T.	400 C.T.	10	.6	4	7	SC	2 1/4	2 11/16	2 13/16	1 1/2	2 3/8	2	3/16	1.5
	TA-14	Output	24 C.T.	16/4	200	10	2	1.2	SC	3 11/16	4 7/16	4 5/16	2 3/4	3 7/8	3 1/4	3/16	6.6
	TA-56	Output	48 C.T.	16/8/3.2	550	10	3.6	1.4	S†	1 3/4	2 7/8	2 3/8	2 3/8	—	2	3/16	.90
	TA-57	Output	100 C.T.	16/8/3.2	500	10	6.6	1.5	S	1 7/8	2 7/8	2 3/8	2 3/8	—	2	3/16	.95
	TA-58	Driver	100	200 C.T.	200	.5	6.5	15.5	A	1 1/4	2 1/8	1 1/4	1 3/4	—	1 1/2	3/16	.20
	TA-59	Driver	500 C.T.	200 C.T.	50	.5	36.5	15.5	A	1 3/8	2 1/8	1 1/4	1 3/4	—	1 1/2	3/16	.20
	TA-60	Output	125 C.T.	8	50	1.5	7.5	0.9	TS	1 5/16	1 5/16	1 11/16	—	1 9/32	—	6-32	.30
	TA-61	Driver	*	*	—	—	1.8	1.8	S	1 1/2	2 3/8	2	2	—	1 5/8	3/16	.60
	TA-62	Output	25	4	400	4	1.5	0.4	A	1 5/8	2 7/8	1 5/8	2 3/8	—	2	3/16	.60

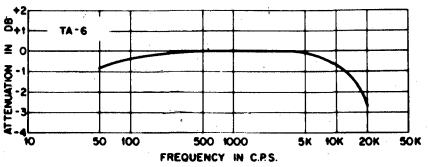
FOR TRANSISTORIZED AUTO RADIOS

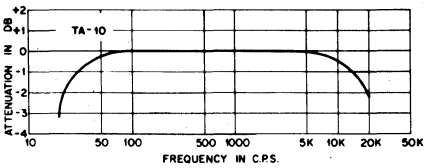
b	TA-48	Interstage	1000	40	10	2	136	2.8	S2	1 1/4	—	1 3/4	1 3/16	7/16	1 3/8	1/8	.35
	TA-49	Output	30 C.T.	4	50	10	2.2	0.3	S	1 1/2	2 7/8	2 3/8	2 3/8	—	2	3/16	.80
	TA-50	Output	9	4	920	10	1.5	1.0	A2	1 5/8	—	2	2	3/4	2 3/8	3/16	1.0
	TA-51	Interstage	1000	10	10	2	170	1.0	S2	1 1/4	—	1 3/4	1 3/16	7/16	1 3/8	1/8	.35

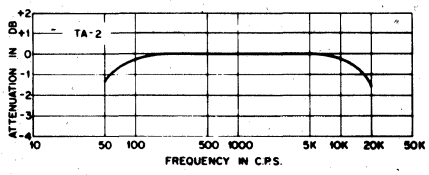
*Trifilar Wound-Ratio 1:1:1. †Has Lugs on Secondary.

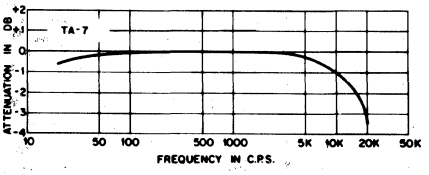
TYPICAL FREQUENCY RESPONSE CURVES

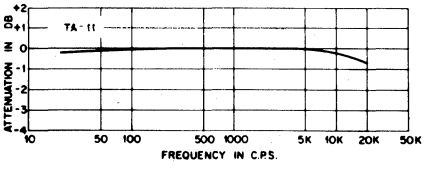


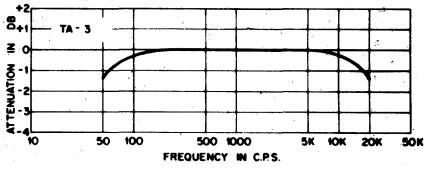


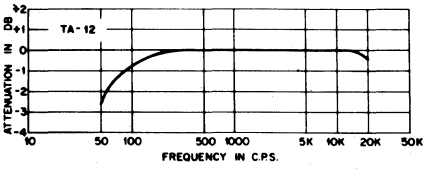


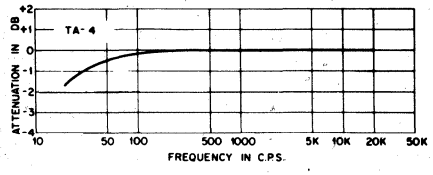


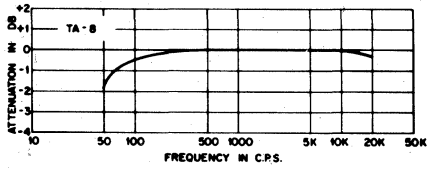


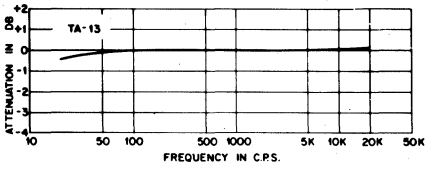


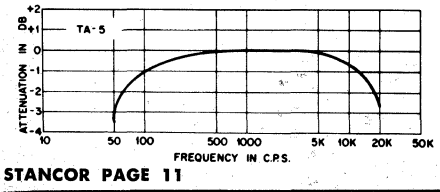


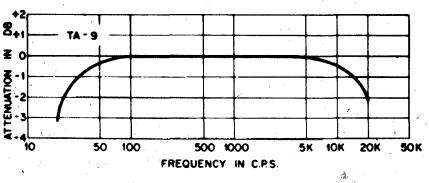


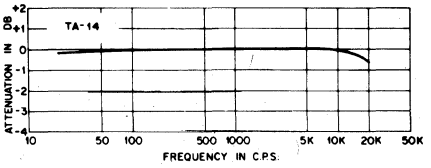












See Pages 1427, 1428 and 1429 for complete price list.

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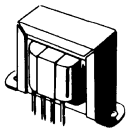
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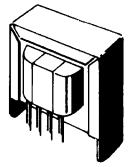

A1

STANCOR
COMMERCIAL
transistor transformers

MINIATURE AUDIOS

.150 WATT GROUP — Dimensions: HxWxD, 21/32" x 13/16" x 5/8". Mounting tabs 3/16" wide, 25/32" centers • Weight .65 oz. Mounting Type A1.

a

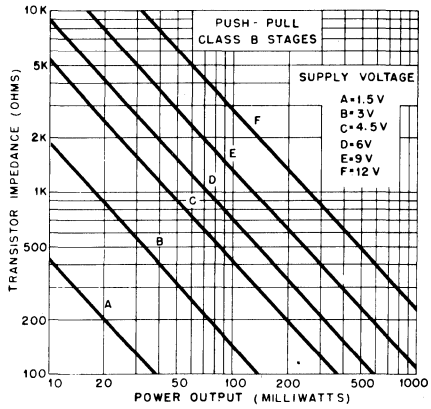
Catalog No.	Application	Turns Ratio Pri. to Sec.	Impedance in Ohms Pri.	Impedance in Ohms Sec.	D.C. Res. in Ohms Pri.	D.C. Res. in Ohms Sec.
TA-18	Input	1.00:45.5	30 CT	50,000	14.7	4060
TA-19	Interstage	3.08:1	100 CT	10 CT	19	1.27
TA-20	Output	5.22:1	350 CT	4, 12	38	1.45
TA-21	Output	5.53:1	500 CT	4, 8, 16	75.3	3.55
TA-22	Interstage	3.16:1	500 CT	50	59.7	7.9
TA-23	Output	5.65:1	600 CT	4, 8, 16	73.2	3.2
TA-24	Interstage	10.0:1	500 CT	50,000	76.8	5135
TA-25	Output	6.75:1	825 CT	4, 8, 16	74	2.7
TA-26	Output	9.80:1	1,250	4, 12	132.5	1.4
TA-27	Interstage	1:4.08	1,200	20,000 CT	142	1860
TA-28	Interstage	1.65:1	1,500	500 CT	104	46.5
TA-29	Output	11.8:1	2,500	4, 16	370	2.3
TA-30	Interstage	1.00:1.22	5,000 CT	7,500 CT	650	790
TA-31	Interstage	1.00:1.41	5,000 CT	10,000 CT	635	825
TA-53	Interstage	3:1	5,000 CT	45,000	310	1400
TA-32	Interstage	1.00:4	5,000 CT	80,000 CT	573	5740
TA-33	Output	24.6:1	10,000 CT	4, 8, 16	1174	2.6
TA-34	Interstage	6.97:1	10,000	200 CT	1200	33.4
TA-35	Interstage	2.24:1	10,000	2,000 CT	1200	257
TA-36	Interstage	1.83:1	10,000	3,000 CT	1200	385
TA-54	Interstage	5:1	20,000	800 CT	1350	95
TA-37	Output	5.55:1	400 CT	11	71.5	1.5
TA-38	Interstage	1.72:1	500 CT	150 CT	62	21.2

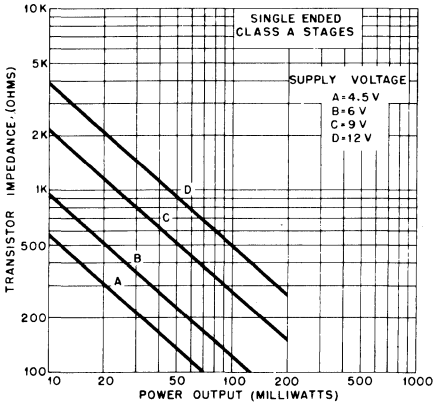
.300 WATT GROUP — Dimensions: HxWxD, 13/16" x 1 5/8" x 3/4". Mounting Centers: 1 3/8" • Weight 1.2 oz. Mounting Type A.

b

Catalog No.	Application	Turns Ratio Pri. to Sec.	Impedance in Ohms Pri.	Impedance in Ohms Sec.	D.C. Res. in Ohms Pri.	D.C. Res. in Ohms Sec.
TA-39	Output	2.5:1	100 CT	4, 8, 16	10.9	1.45
TA-40	Output	3.27:1	160	4, 8, 16	18.7	1.4
TA-41	Output	5.00:1	400 CT	4, 8, 16	34	1.5
TA-42	Output	5.60:1	500 CT	4, 8, 16	47	.85
TA-52	Interstage	1:1	500 CT	500 CT	40	55
TA-43	Output	6.63:1	700 CT	4, 8, 16	77	1.15
TA-44	Output	12.5:1	2,500	4, 8, 16	172	1.15
TA-45	Output	13.7:1	3,000	4, 8, 16	192	1.2
TA-46	Interstage	8.17:1	100,000	1,500 CT	3250	143
TA-55	Input	50:1	500,000	200 CT	7000	8.5
TA-47	Input	1.00:14.1	1,000 CT	200,000 CT	123	1815
TA-63	Driver	3.17:1	20,000 CT	2,000 CT	2140	325

Transistor Impedance Characteristic Curves





ULTRA MINIATURE

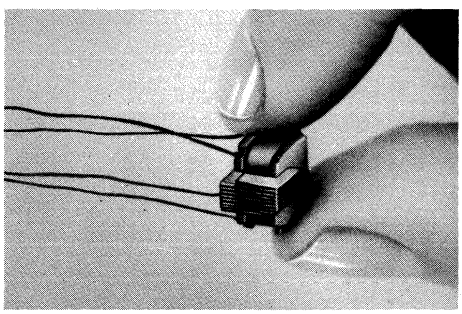
Here are the smallest iron core audio transformers ever built. They weigh less than 1/10 ounce and are no larger than the transistors they power.

These transformers are designed primarily for transistor audio applications but they can be used wherever low power is involved. Useful range, below 1 mw level. They are constructed of extremely fine wire, wound on molded nylon bobbins, with special nickel alloy steel laminations.

c

Catalog No.	Application	Pri. Imp.	Sec. Imp.	Pri. DC Res.	Sec. DC Res.	Weight
UM-110	Interstage	20,000	1,000	1675	285	0.07
UM-111	Output or matching	1,000	50/60	120	9.0	0.10
UM-112	High imp. mic. input	200,000	1,000	4000	195	0.10
UM-113	Interstage	20,000	1,000	1350	205	0.10
UM-114	Output or matching	500	50/60	70	9.0	0.10

Dimensions* UM-110, 1/4" x 3/8" x 3/8"; UM-111, 112, 113, 114, 3/8" x 3/8" x 3/8". *Dimensions ±.015".



STANCOR PAGE 12

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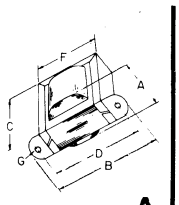
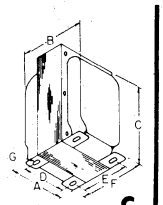
See Pages 1427, 1428 and 1429 for complete price list.

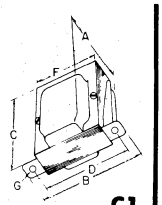
STANCOR

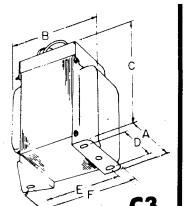
COMMERCIAL

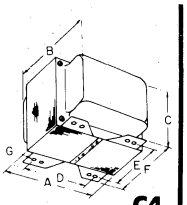
power transformers

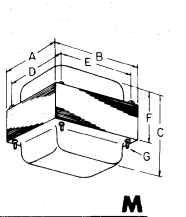












Stancor's broad line of commercial grade power transformers offers a choice of standard mounting styles. Listings are in ascending order of plate-supply voltage for ease of selection.

All units are designed and built to meet the exacting requirements of EIA for electrical tolerances, dielectric strength, temperature rise and construction. All are insulated with class A materials; (105°C max. operating temperature).

Transformers designed for full-wave C.T. rectification with capacitor input filter may be used with choke input filter allowing an increase in D.C. current of 30%.

Transformers designed for full-wave C.T. rectification with choke input filter may be used with capacitor input filter requiring a decrease in D.C. current of 25%.

CONSULT FACTORY for detailed information concerning electrical rating and/or mechanical characteristics.

FOR CAPACITOR INPUT SYSTEMS — PRIMARIES 117 VOLTS 60 CYCLES

	Catalog No.	Plate Windings		Rectifier Fil.		Other Windings		Termination			Dimensions							Wt.
		AC Volts	DCMA	Volts	Amps	Volts	Amps	Pri.	Sec.	Style	A	B	C	D	E	F	G	lbs.
a	P-8379	115[a]	290			2.7 6.3	.45 8.0	Leads	Leads	M†	2 13/16	3 7/16	4	2 7/16	3	2 7/8	8-32	5.7
	P-8158	117[a]	200			6.3 6.3 6.3	4.25 4.0 2.0	Leads	Leads	M†	3 7/16	4 3/16	3 5/8	2 3/4	3 7/16	2 3/8	8-32	6.2
	P-8336	117[a]	280			6.3 6.3 6.3	9.5 1.2 .6	Leads	Leads	M†	3 3/4	4 9/16	4 1/4	3 1/4	4 1/16	3	8-32	8.0
	P-8386	117[a]	300			6.3	10.0	Leads	Leads	C4†	3 3/4	4	3 1/8	2 1/8	2 1/2	2 5/8	3/16 x 3/8	6.9
b	P-6146	120-0-120	250	5.0	3.0			Leads	Leads	C	3 1/8	3 1/4	3 7/8	2 1/2	1 15/16	2 15/16	3/16 x 3/8	4.2
	PS-8415	125[b]	15			6.3	.6	Leads	Leads	S	1 3/8	2 3/8	1 15/16	2	—	1 11/16	3/16	.7
	PS-8416	125-0-125	25			6.3	1.0	Leads	Leads	S	1 3/4	2 13/16	2 5/16	2 3/8	—	2	3/16	1.0
	PA-8421	125[b]	50			6.3	2.0	Leads	Leads	A	2 1/8	3 11/16	2 1/4	3 1/8	—	2 3/4	3/16	1.5
	P-8181	150[b]	25			6.3 C.T.	.5	Leads	Leads	VE	1 13/16	2 3/8	1 15/16	2	—	1 5/8	3/16	.8
	P-8372	150[b]	250			6.3 6.3	8.0 1.2	Leads	Leads	M	3 3/4	4 1/2	4 1/8	3	3 3/4	2 5/8	8-32	8.7
	P-9000C	155[a]	450			6.3 6.3	2.0 13.5	Leads	Leads	C†	3 1/2	4 7/8	4 3/16	3 1/16	3 13/16	4 1/2	1/4 x 3/8	12.0
	P-8359	190-160-0-160-190	70			6.3 C.T. 6.3	3.0 .6	Leads	Leads	C	2 1/2	2 5/8	3 1/8	2	1 7/8	2 5/16	3/16 x 3/8	2.8
	P-8383	200-0-200	110			6.3 6.3 C.T.	2.0 4.0	Leads	Leads	C	2 1/2	3 1/4	3 1/8	2	2 1/4	2 5/16	3/16 x 3/8	3.0
	PC-8417	220-0-220	50			6.3 25.2	.6 .5	Leads	Leads	C	2 1/2	2 5/8	3 1/8	2	1 9/16	2 5/16	3/16 x 3/8	2.2
c	*P-8168	220-0-220 130-0-130	330 220	5.0	3.0	6.3 6.3	6.5 6.5	Leads	Leads	M†	3 3/4	4 9/16	4 7/8	3	3 3/4	3 5/8	8-32	10.5
	PCC-40	225-0-225	40	5.0	2.0	6.3 C.T.	2.0	Leads	Leads	SC	2 7/8	3 1/2	3 1/2	2	3 1/8	2 11/16	3/16	3.2
	PSC-40	225-0-225	40	5.0	2.0	6.3 C.T.	2.0	Lugs	Lugs	SC	2 7/8	3 1/2	3 3/4	2	3 1/8	2 11/16	3/16	3.2
	P-8155	225-0-225	90	5.0	2.0	6.3	5.15	Leads	Leads	M	2 13/16	3 3/8	3 3/4	2 1/4	2 13/16	2 1/2	8-32	4.5
	PC-8418	230-0-230	50			6.3	2.5	Leads	Leads	C	2 1/2	2 5/8	3 1/8	2	1 9/16	2 5/16	3/16 x 3/8	2.2
	PM-8418	230-0-230	50			6.3	2.5	Leads	Leads	M	2 1/2	3	2 5/8	2	2 1/2	1 1/2	8-32	2.2
	PC-8401	235-0-235	40	5.0	2.0	6.3 C.T.	2.0	Leads	Leads	C	2 1/2	2 5/8	3 1/8	2	1 9/16	2 5/16	3/16 x 3/8	2.2
	PM-8401	235-0-235	40	5.0	2.0	6.3 C.T.	2.0	Leads	Leads	M	2 1/2	3	2 5/8	2	2 1/2	1 7/8	8-32	2.2
	P-8374	235-0-235	260	5.0	6.0	6.3 6.3 6.3	5.0 5.0 1.2	Leads	Leads	M†	3 7/16	4 3/16	4 7/8	3	3 11/16	3 5/8	8-32	10.0
	P-8382	235[b] 35	20 1	5.0	2.0	6.3	2.85	Leads	Leads	M6	2 3/16	2 5/8	3 1/8	2 13/16	—	—	.136	2.5
	PC-8402	240-0-240	55	5.0	2.0	6.3 C.T.	2.0	Leads	Leads	C	2 1/2	2 3/4	3 1/8	2	1 3/4	2 7/16	3/16 x 3/8	2.4
	PM-8402	240-0-240	55	5.0	2.0	6.3 C.T.	2.0	Leads	Leads	M	2 1/2	3	2 3/4	2	2 1/2	1 7/8	8-32	2.4
d	P-6348	240-0-240	60			6.3 C.T.	2.75	Leads	Leads	M	2 3/16	2 5/8	2 3/4	1 15/16	—	2 1/8	6-32	2.3
	PC-8419	240-0-240	70			6.3	3.0	Leads	Leads	C	2 1/2	2 7/8	3 1/8	2	1 13/16	2 5/16	3/16 x 3/8	2.6
	PM-8419	240-0-240	70			6.3	3.0	Leads	Leads	M	2 1/2	3	2 7/8	2	2 1/2	2	8-32	2.6
	P-8173	250-0-250	10			6.3 6.3	.6 1.2	Leads	Leads	C1	2 7/8	2 1/8	2 1/4	2 3/8	—	1 1/2	3/16	1.0
	P-8174	250-0-250	20			6.3 6.3	.6 1.2	Leads	Leads	C1	3 5/16	2 1/4	2 5/8	2 13/16	—	2 5/16	3/16	1.5
	PC-8403	250-0-250	70	5.0	2.0	6.3 C.T.	2.5	Leads	Leads	C	2 1/2	3 1/8	3 1/8	2	2 1/16	2 13/16	3/16 x 3/8	3.2
	PM-8403	250-0-250	70	5.0	2.0	6.3 C.T.	2.5	Leads	Leads	M	2 1/2	3	3 1/8	2	2 1/2	2 1/4	8-32	3.2
	PC-8404	260-0-260	90	5.0	2.0	6.3 C.T.	3.0	Leads	Leads	C	2 13/16	3 1/2	3 1/2	2 1/4	2 1/4	3 1/16	3/16 x 3/8	4.0
	PM-8404	260-0-260	90	5.0	2.0	6.3 C.T.	3.0	Leads	Leads	M	2 13/16	3 3/8	3 1/2	2 1/4	2 13/16	2 3/8	8-32	4.0
	PC-8420	260-0-260	90			6.3	4.0	Leads	Leads	C	2 13/16	3 1/4	3 1/2	2 1/4	2	2 13/16	3/16 x 3/8	3.5
	PM-8420	260-0-260	90			6.3	4.0	Leads	Leads	M	2 13/16	3 3/8	3 1/2	2 1/4	2 13/16	2 1/8	8-32	3.5
	P-8354	260-0-260	325	5.0 C.T.	6.0	6.3	11.0	Leads	Leads ‡	M5†	3 3/4	4 1/2	5 1/4	3 5/16	4 1/16	4	8-32	11.0
	P-8353	265-0-265	300	5.0	6.0	12.6 C.T.	6.0	Leads	Leads ‡	C3	3 3/4	4 3/4	5 7/8	3	4	5 1/4	7/32 x 1/2	12.5
e	PCC-55	270-0-270	55	5.0	2.0	6.3 C.T.	2.0	Leads	Leads	SC	2 7/8	3 1/2	3 1/2	2	3 1/8	2 11/16	3/16	3.5
	PSC-55	270-0-270	55	5.0	2.0	6.3 C.T.	2.0	Lugs	Lugs	SC	2 7/8	3 1/2	3 3/4	2	3 1/8	2 11/16	3/16	3.5
	PC-8405	270-0-270	120	5.0	3.0	6.3 C.T.	3.5	Leads	Leads	C	3 1/8	3 1/2	3 7/8	2 1/2	2 3/16	3 1/16	3/16 x 3/8	4.9
	PM-8405	270-0-270	120	5.0	3.0	6.3 C.T.	3.5	Leads	Leads	M	3 1/8	3 3/4	3 7/16	2 1/2	3 1/8	2 3/8	8-32	4.9
	P-8172	270-0-270	200	5.0	3.0	6.3	8.5	Leads	Leads	M	3 1/8	3 3/4	4 7/16	2 11/16	3 5/16	3 1/4	8-32	7.0
	P-8356	270-0-270	260	5.0	3.0	6.3	8.8	Leads	Leads	C†	3 1/8	3 3/8	3 7/8	2 1/2	2 1/4	2 13/16	.136	6.5
	P-8376	270-0-270	320	5.0	4.0	6.3	10.0	Leads	Leads	M†	3 7/16	4 1/4	4 1/8	3	3 11/16	2 7/8	8-32	8.5
	P-8377	270-0-270	280	5.0	3.0	6.3	10.0	Leads	Leads	M†	3 1/8	3 15/16	3 5/8	2 11/16	3 5/16	2 3/4	8-32	6.7
	P-8334	275-0-275	305	5.0	5.0	6.3 6.3	8.5 1.2	Leads	Leads	M†	3 3/4	4 9/16	5 1/8	3 1/4	4 1/16	4	8-32	13.0
	P-8167	280-0-280	400	5.0	6.0	6.3 6.3	4.5 8.5	Leads	Leads	M†	3 3/4	4 9/16	5 1/2	3 1/4	4 1/16	4 1/4	8-32	13.0
	P-8332	280-0-280	260	5.0	5.0	6.3 6.3 6.3	7.1 1.2 .9	Leads	Leads	M†	3 3/4	4 9/16	4 15/16	3 1/4	4 1/16	3 5/8	8-32	11.0

a. For use in Voltage Doubler Circuits. b. For use in Half-Wave Circuits. † With Copper shorting band to reduce external Magnetic Field.
‡ Plate wdg and rectifier filament wdg Connected to Tube Socket. *Available until stock is depleted.

STANCOR PAGE 13 **ALL SECONDARY A.C. VOLTAGES ±3%** **ALL PCC AND PSC NUMBERS MAY BE OPERATED AT 50 CYCLES**

See Pages 1427, 1428 and 1429 for complete price list.
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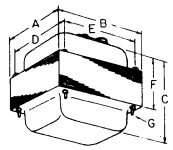
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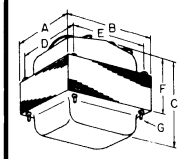
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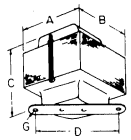
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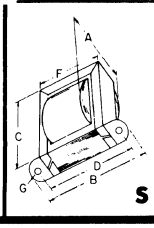
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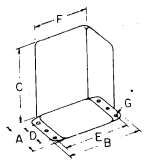
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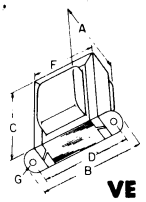
VE

STANCOR

COMMERCIAL

power transformers

FOR CAPACITOR INPUT SYSTEMS

PRIMARIES 117 VOLTS 60 CYCLES

	Catalog No.	Plate Windings AC Volts	Plate Windings DCMA	Rectifier Fil. Volts	Rectifier Fil. Amps	Other Windings Volts	Other Windings Amps	Termination Pri.	Termination Sec.	Style	Dimensions A	B	C	D	E	F	G	Wt. lbs.
a	P-8373	280-0-280	280	5.0	3.0	6.3 24.0	10.0 2.6	Leads	Leads	M	3 1/8	3 3/4	4 1/4	2 11/16	3 5/16	3 1/8	8-32	8.0
	P-8378	280-0-280 250-0-250	300	5.0/3.0	4.5	6.3 24.0	10.0 1.2	Leads	Leads	C†	3 1/8	4 5/8	3 7/8	2 1/2	3 1/4	4 3/16	3/16 x 3/8	7.9
	P-8375	283-0-283	210	5.0 C.T.	3.0	6.3 6.3 6.3	7.5 1.5 1.2	Leads	Leads ‡	M3†	3 3/4	4 5/16	4 5/8	3	3 3/4	3 1/4	8-32	8.3
	P-8355	285-0-285	250	5.0	3.0	6.3	9.5	Leads	Leads	C4†	3 3/4	3 1/2	3 5/16	2 1/2	2 5/16	2 3/4	8-32	6.5
	P-8365	285-0-285	325	5.0	6.0	12.6 C.T	6.0	Leads	Leads	M†	3 3/4	4 5/16	4 5/16	3	3 3/4	3	8-32	10.2
	P-8352	290-0-290	240	5.0	3.0	12.6 C.T.	5.25	Leads	Leads	C	3 3/4	3 15/16	4 13/16	3	3 5/8	4 3/4	3/16 x 1/2	8.5
	P-8367	290-0-290	270	5.0	6.0	6.3 6.3	8.5 1.2	Leads	Leads ‡	M5†	3 3/4	4 1/2	5 1/8	3	3 3/4	3 3/4	8-32	12.5
	P-8381	290-0-290	290	5.0	3.0	6.3 6.3	5.0 5.0	Leads	Leads	M†	3 1/8	3 13/16	5	2 11/16	3 5/16	3 7/8	8-32	6.9
	P-8333	295-0-295	225	5.0 C.T.	3.0	6.3 6.3	11.4 .9	Leads	Leads ‡	M3†	3 3/4	4 5/16	4 7/8	3 1/4	4 1/16	3 5/8	8-32	10.0
b	PCC-60	300-0-300	60	5.0	2.0	6.3 C.T.	3.0	Leads	Leads	SC	3 1/4	4	3 7/8	2 3/4	3 1/2	2 15/16	7/32	4.5
	PSC-60	300-0-300	60	5.0	2.0	6.3 C.T.	3.0	Lugs	Lugs	SC	3 1/4	4	4 1/4	2 1/4	3 1/2	2 15/16	7/32	4.5
	P-6358	300-0-300	65			6.3 C.T.	2.7	Leads	Leads	C	2 1/2	2 1/2	3 1/8	2	1 3/4	2 3/16	3/16 x 3/8	3.0
	P-8175	300-0-300	70	5.0	3.0	6.3 C.T.	3.0	Leads	Leads	C	2 7/8	3 1/8	3 1/2	2 1/4	2 1/4	3 1/8	3/16 x 7/16	4.0
	PM-8423	300-0-300	90	5.0	2.0	6.3 C.T.	3.5	Leads	Leads	M	2 13/16	3 3/8	3	2 1/4	2 13/16	2	8-32	4.0
	P-8177	300-0-300	120	5.0	3.0	6.3 C.T.	3.0	Leads	Leads	C	3 3/16	3 5/8	3 7/8	2 3/4	2 9/16	3 5/8	3/16 x 1/2	5.8
	P-8164	300-0-300	225	5.0	3.0	6.3	9.0	Leads	Leads	M†	3 7/16	4 3/16	4 1/8	2 3/4	3 7/16	3 1/8	8-32	7.5
	P-8335	300-0-300	325	5.0	6.0	6.3 6.3	8.8 1.5	Leads	Leads	M†	3 3/4	4 9/16	5 1/8	3 1/4	4 1/16	4	8-32	13.0
	P-8331	310-0-310	240	5.0	3.0	6.3 6.3	6.4 3.0	Leads	Leads	M†	3 3/4	4 9/16	4 1/2	3 1/4	4 1/16	3 1/4	8-32	9.0
	P-8370	310-0-310	320	5.0 C.T.	6.0	6.3 6.3 6.3	11.0 1.2 1.2	Leads	Leads d	M5†	3 3/4	4 5/8	5 5/8	3	3 3/4	4 3/8	8-32	14.0
	P-8337	315-0-315	225	5.0	3.0	6.3	8.25	Leads	Leads ‡	M3†	3 3/4	4 1/2	4 1/2	3 1/4	4 1/16	3 1/4	8-32	8.5
c	P-8338	315-0-315	310	5.0	6.0	6.7 6.4 6.3	10.0 1.6 4.0	Leads	Leads	M†	3 7/8	4 3/4	5 3/8	3	3 3/4	4	10-32	12.5
	P-8371	320-0-320 200-0-200	200 80	5.0 C.T.	3.0	6.3 6.3	4.0 3.0	Leads	Leads ‡	M3†	3 3/4	4 5/8	5 3/8	3	3 3/4	4	8-32	11.3
	P-6010	325-0-325	40	5.0 C.T.	2.0	6.3 C.T.	2.0	Leads	Leads	M	2 1/2	3	2 3/4	2	2 1/2	1 7/8	8-32	2.4
	PC-8406	325-0-325	40	5.0	2.0	6.3 C.T.	2.0	Leads	Leads	C	2 1/2	2 3/4	3 1/8	2	1 11/16	2 7/16	3/16 x 3/8	2.4
	PM-8406	325-0-325	40	5.0	2.0	6.3 C.T.	2.0	Leads	Leads	M	2 1/2	3	2 3/4	2	2 1/2	1 7/8	8-32	2.4
	PC-8407	325-0-325	55	5.0	2.0	6.3 C.T.	2.0	Leads	Leads	C	2 1/2	3 1/8	3 1/8	2	2 1/16	2 13/16	3/16 x 3/8	3.2
	PM-8407	325-0-325	55	5.0	2.0	6.3 C.T.	2.0	Leads	Leads	M	2 1/2	3	3 1/8	2	2 1/2	2 1/4	8-32	3.2
	PC-8422	325-0-325	150	5.0	3.0	6.3 C.T.	5.0	Leads	Leads	C	3 1/8	3 7/8	3 7/8	2 1/2	2 9/16	3 7/16	3/16 x 3/8	5.8
	PM-8422	325-0-325	150	5.0	3.0	6.3 C.T.	5.0	Leads	Leads	M	3 1/8	3 3/4	3 5/8	2 1/2	3 1/8	2 5/8	8-32	5.8
	P-8339	325-0-325	255	5.0	3.0	12.6 C.T.	5.25	Leads	Leads	C	3 3/4	4	4 7/8	3	3 3/4	4 3/4	3/16 x 1/2	8.5
	P-8369	325-0-325	240	5.0 C.T.	3.0	6.3 6.3 6.3	10.0 .9 1.2	Leads	Leads ‡	M3†	3 3/4	4 5/8	5 3/8	3	3 3/4	4 1/8	8-32	11.5
d	PCC-85	330-0-330	85	5.0	2.0	6.3 C.T.	3.0	Leads	Leads	SC	3 11/16	4 7/16	4 5/16	2 3/4	3 7/8	3 1/4	7/16	6.0
	PSC-85	330-0-330	85	5.0	2.0	6.3 C.T.	3.0	Lugs	Lugs	SC	3 11/16	4 7/16	4 5/16	2 3/4	3 7/8	3 1/4	7/32	6.0
	PCC-70	335-0-335	70	5.0	2.0	6.3 C.T.	3.0	Leads	Leads	SC	3 1/4	4	3 7/8	2 1/4	3 1/2	2 15/16	7/32	4.5
	PSC-70	335-0-335	70	5.0	2.0	6.3 C.T.	3.0	Lugs	Lugs	SC	3 1/4	4	4 1/4	2 1/4	3 1/2	2 15/16	7/32	4.5
	P-5059	337-0-337	200	5.0 C.T.	3.0	6.3 C.T.	5.0	Leads▲	Leads	C	3 3/4	4 5/16	4 11/16	3	3 3/16	4	3/16 x 3/8	9.6
	PC-8408	340-0-340	70	5.0	2.0	6.3 C.T.	2.5	Leads	Leads	C	2 13/16	3 3/8	3 1/2	2 1/4	2 1/8	2 15/16	3/16 x 3/8	3.8
	PM-8408	340-0-340	70	5.0	2.0	6.3 C.T.	2.5	Leads	Leads	M	2 13/16	3 3/8	3 1/2	2 1/4	2 13/16	2 1/4	8-32	3.8
	P-8166	340-0-340	330	5.0	6.0	6.3 6.3 6.3	2.5 5.0 5.0	Leads	Leads	M†	3 3/4	4 9/16	5 3/8	3 1/4	4 1/16	4 1/8	8-32	13.0
	PCC-105	345-0-345	105	5.0	2.0	6.3 C.T.	3.5	Leads	Leads	SC	3 11/16	4 7/16	4 5/16	2 3/4	3 7/8	3 1/4	7/32	6.5
	PSC-105	345-0-345	105	5.0	2.0	6.3 C.T.	3.5	Lugs	Lugs	SC	3 11/16	4 7/16	4 11/16	2 3/4	3 7/8	3 1/4	7/32	6.5
	P-6011	350-0-350	70	5.0 C.T.	3.0	6.3 C.T.	2.5	Leads	Leads	M	2 1/2	3	3 3/8	2	2 1/2	2 1/2	8-32	3.5
	P-6012	350-0-350	90	5.0 C.T.	3.0	6.3 C.T.	3.5	Leads	Leads	M	2 13/16	3 3/8	3 1/2	2 1/4	2 13/16	2 1/2	8-32	4.2
	PC-8409	350-0-350	90	5.0	2.0	6.3 C.T.	3.0	Leads	Leads	C	2 13/16	3 3/8	3 1/2	2 1/4	2 3/8	3 3/16	3/16 x 3/8	4.5
	PM-8409	350-0-350	90	5.0	2.0	6.3 C.T.	3.0	Leads	Leads	M	2 13/16	3 3/8	3 1/2	2 1/4	2 13/16	2 1/2	8-32	4.5
e	P-8176	350-0-350	110	5.0	2.0	6.3 C.T. 6.3 C.T.	3.0 3.0	Leads	Leads	C	3 1/4	3 7/8	3 13/16	2 3/4	3	3 7/8	1/16 x 1/2	5.5
	P-6013	350-0-350	120	5.0 C.T.	3.0	6.3 C.T.	4.7	Leads	Leads	M	3 1/8	3 3/4	3 3/8	2 1/2	3 1/8	2 3/8	8-32	5.2
	P-8345	350-0-350	215	5.0	3.0	6.3 6.3	9.0 1.2	Leads	Leads	M†	3 3/4	4 9/16	5	3 1/4	4 1/16	3 5/8	8-32	11.5
	*P-8165	350-0-350 220-0-220	180 70	5.0	3.0	6.3 6.3	2.0 10.0	Leads	Leads	M†	3 3/4	4 9/16	4 3/4	3	3 3/4	3 1/2	8-32	11.0
	P-8350	350-0-350	270	5.0 5.0	6.0 2.0	6.3 6.6	1.5 7.8	Leads	Leads	M†	3 3/4	4 9/16	5 1/2	3 1/4	4 1/16	4	8-32	13.0
	P-8340	355-0-355	270	5.0	6.0	6.3 6.3 6.3	9.5 1.65 2.4	Leads	Leads	M†	3 3/4	4 9/16	5 3/8	3 1/4	4 1/16	4 1/8	8-32	12.0
	PC-8410	360-0-360	120	5.0	3.0	6.3 C.T.	3.5	Leads	Leads	C	3 1/8	3 3/4	3 7/8	2 1/2	2 7/16	3 5/16	3/16 x 3/8	5.5
	PM-8410	360-0-360	120	5.0	3.0	6.3 C.T.	3.5	Leads	Leads	M	3 1/8	3 3/4	3 1/2	2 1/2	3 1/8	2 1/2	8-32	5.5

† With Copper shorting band to reduce external Magnetic Field. ‡ Plate wdg and rectifier filament wdg Connected to Tube Socket. ▲ Primary for 117-107 volts.

*Available until stock is depleted

ALL SECONDARY A.C. VOLTAGES ±3% **ALL PCC AND PSC NUMBERS MAY BE OPERATED AT 50 CYCLES**

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See Pages 1427, 1428 and 1429 for complete price list.

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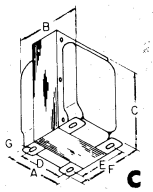

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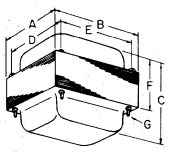

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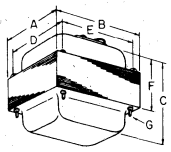

M3

FOR CAPACITOR INPUT SYSTEMS — PRIMARIES 117 VOLTS 60 CYCLES

	Catalog No.	Plate Windings AC Volts	Plate Windings DCMA	Rectifier Fil. Volts	Rectifier Fil. Amps.	Other Windings Volts	Other Windings Amps	Termination Pri.	Termination Sec.	Style	Dimensions A	B	C	D	E	F	G	Wt. lbs.
a	*P-8160	360-0-360 165-0-165	185 65	5.0	3.0	6.45	12.0	Leads	Leads	M	3¾	4½	4¼	3	3¾	3⅛	8-32	9.6
	P-8341	360-0-360 220-0-220	175 110	5.0 5.0	3.0 2.0	12.6 C.T.	5.45	Leads	Leads	C†	3¾	4⅞	4¾	3	3½	4⁹⁄₁₆	⅜ x ½	11.0
	P-8349	360-0-360	260	5.0	6.0	5.0 6.3	2.0 8.85	Leads	Leads	M†	3¾	4⁹⁄₁₆	5½	3¼	4¹⁄₁₆	4	8-32	13.0
	*P-8159	360-0-360	250	5.0 5.0	3.0 2.0	6.3 6.3	8.0 .6	Leads	Leads	M†	3¾	4⁹⁄₁₆	4⅞	3¼	4¹⁄₁₆	3⅝	8-32	10.0
	P-8351	360-0-360	240	5.0	6.0	6.5	9.3	Leads	Leads	M	3¾	4⁹⁄₁₆	4¹³⁄₁₆	3¼	4¹⁄₁₆	3⅝	8-32	10.5
	P-8343	360-0-360 220-0-220	220 110	5.0 5.0	3.0 2.0	12.8 C.T.	5.8	Leads	Leads	C	3¾	5¼	4¾	3	3⅞	4¹⁵⁄₁₆	⅜ x ½	11.5
	P-8344	365-0-365 200-0-200	170 84	5.0 5.0	3.0 2.0	12.6	4.25	Leads	Leads	C†	3¾	4½	4¾	3	3⅛	4³⁄₁₆	⅜ x ½	9.0
	P-8342	365-0-365	260	5.0	6.0	6.3 6.3	8.85 1.2	Leads	Leads	M†	3¾	4⁹⁄₁₆	5⅜	3¼	4¹⁄₁₆	4	8-32	13.0
	*P-8156	365-0-365	295	5.0	6.0	5.0 12.6C.T	2.0 5.0	Leads	Leads	M†	3¾	4⁹⁄₁₆	6⅝	3¼	4¹⁄₁₆	5¼	8-32	16.5
b	P-8348	365-0-365	270	5.0	6.0	6.7	4.5	Leads	Leads	M†	3¾	4⁹⁄₁₆	4⅞	3¼	4¹⁄₁₆	3⅜	8-32	10.0
	PCC-150	370-0-370	150	5.0	3.0	6.3 C.T. 6.3 C.T.	4.0 1.0	Leads	Leads	SC	4⁹⁄₁₆	5¼	5⁵⁄₁₆	2½	4¾	4⅛	1⁵⁄₆₄	11.5
	PSC-150	370-0-370	150	5.0	3.0	6.3 C.T. 6.3 C.T.	4.0 1.0	Lugs	Lugs	SC	4⁹⁄₁₆	5¼	5⁵⁄₁₆	2½	4¾	4⅛	1⁵⁄₆₄	11.5
	*P-8163	370-0-370	190	5.0	3.0	6.3 6.3	7.75 1.2	Leads	Leads	M†	3¾	4⁹⁄₁₆	5⁹⁄₁₆	3¼	4¹⁄₁₆	3¾	8-32	10.8
	P-6315	370-0-370	275	5.0 C.T	3.0	6.3 C.T.	7.0	Leads	Leads	M	3¾	4½	4¼	3	3¾	3	8-32	9.3
	P-8366	370-0-370	220	5.0	6.0	6.3 6.3 6.3	6.0 4.0 1.2	Leads	Leads	M†	3¾	4⁹⁄₁₆	5¼	3	3¾	3½	8-32	11.0
	*PCC-120	375-0-375	120	5.0	3.0	6.3 C.T.	4.0	Leads	Leads	SC	4⁹⁄₁₆	5¼	5⁵⁄₁₆	2½	4¾	4⅛	1⁵⁄₆₄	9.5
	PSC-120	375-0-375	120	5.0	3.0	6.3 C.T.	4.0	Lugs	Lugs	SC	4⁹⁄₁₆	5¼	5⁵⁄₁₆	2½	4¾	4⅛	1⁵⁄₆₄	9.5
	P-6014	375-0-375	150	5.0 C.T	3.0	6.3 C.T.	5.0	Leads	Leads	M	3⅛	3¾	3¾	2½	3⅛	2¾	8-32	6.0
	PC-8411	375-0-375	150	5.0	3.0	6.3 C.T.	4.5	Leads	Leads	C	3⁷⁄₁₆	4	4¼	2¾	2¹³⁄₁₆	3¹¹⁄₁₆	⅜ x ⅜	5.8
	PM-8411	375-0-375	150	5.0	3.0	6.3 C.T.	4.5	Leads	Leads	M	3⁷⁄₁₆	4⅛	3⅞	2¾	3⁷⁄₁₆	2½	8-32	5.8
c	*P-6008	375-0-375	180	5.0 C.T	3.0	2.5 C.T. 6.3 C.T.	6.0 3.3	Leads	Leads	M	3⁷⁄₁₆	4⅛	3⅝	2¾	3⁷⁄₁₆	2⅜	8-32	6.2
	*P-8154	375-0-375	205	5.0	3.0	5.0 6.3	2.0 5.6	Leads	Leads	M	3¾	4½	4¼	3	3¾	3⅛	8-32	9.1
	P-8171	375-0-375	225	5.0 C.T	3.0	6.3 6.3	2.0 9.0	Leads	Leads ‡	M3†	3¾	4½	4⅞	3	3¾	3⅝	8-32	10.5
	*P-8162	380-0-380	180	5.0 C.T	3.0	6.3	9.0	Leads	Leads ‡	M3†	3⁷⁄₁₆	4⅛	5¼	2¾	3⁷⁄₁₆	4⅛	8-32	9.0
	P-8169	380-0-380	220	5.0	3.0	6.3 6.3 6.3 6.3	1.2 5.0 7.0 1.2	Leads	Leads	M†	3¾	4⁹⁄₁₆	4¾	3	3¾	3½	8-32	10.5
	P-8170	380-0-380	220	5.0	3.0	6.3 6.3 6.3	5.0 7.0	Leads	Leads	C†	3¾	4¾	4¾	3	3⁹⁄₁₆	4⁷⁄₁₆	⅜ x ⅜	10.5
	PCC-200	385-0-385	200	5.0	3.0	6.3 C.T. 6.3 C.T.	4.5 1.0	Leads	Leads	SC	4⁹⁄₁₆	5¼	5⁵⁄₁₆	2½	4¾	4⅛	1⁵⁄₆₄	12.0
	PSC-200	385-0-385	200	5.0	3.0	6.3 C.T. 6.3 C.T.	4.5 1.0	Lugs	Lugs	SC	4⁹⁄₁₆	5¼	5⁵⁄₁₆	2½	4¾	4⅛	1⁵⁄₆₄	12.0
d	P-8347	385-0-385	230	5.0	3.0	5.0 6.45 6.3	2.0 7.4 1.6	Leads	Leads	M†	3¾	4⁹⁄₁₆	5⁹⁄₁₆	3¼	4¹⁄₁₆	4	8-32	13.0
	*P-8157	385-0-385 235-0-235	195 105	5.0 5.0	3.0 2.0	5.0 6.3 6.3	2.0 7.65 .6	Leads	Leads	M	3¾	4½	4¾	3	3¾	3½	8-32	11.1
	*P-8161	385-0-385	230	5.0	3.0	5.0 6.3	2.0 9.0	Leads	Leads	M†	3¾	4½	5⁹⁄₁₆	3¼	4¹⁄₁₆	3⅞	8-32	11.8
	P-6007	400-0-400	110	5.0 C.T.	3.0	2.5 C.T. 2.5 C.T.	15.0 3.5	Leads	Leads	M	3⅛	3¾	3½	2½	3⅛	2½	8-32	5.4
	P-4004	400-0-400 80v. Bias	175	5.0 C.T.	3.0	2.5 6.3 C.T. 6.3 C.T.	1.75 2.5 2.5	Leads▲	Leads	C	3¾	3⅞	4¹¹⁄₁₆	3	2¹³⁄₁₆	3⁹⁄₁₆	⅜ x ⅜	8.3
e	P-8346	400-0-400 330-0-330	180 180	5.0 5.0	3.0 3.0			Leads	Leads	C	3¾	4¾	4¾	3	3½	4⁷⁄₁₆	⅜ x ½	11.0
	PC-8412	400-0-400	200	5.0	3.0	6.3 C.T.	5.0	Leads	Leads	C	3¾	4	4¹¹⁄₁₆	3	2¹³⁄₁₆	3¹¹⁄₁₆	⅜ x ⅜	8.2
	PM-8412	400-0-400	200	5.0	3.0	6.3 C.T.	5.0	Leads	Leads	M	3¾	4½	3⅞	3	3¾	2⅝	8-32	8.2
	PC-8413	400-0-400	250	5.0	4.0	6.3 C.T.	5.0	Leads	Leads	C	3¾	4½	4¹¹⁄₁₆	3	3⁵⁄₁₆	4³⁄₁₆	⅜ x ⅜	10.0
	PCC-250	400-80-0-80-400	250	5.0	6.0	5.0 6.3 C.T.	2.0 7.0	Leads	Leads	SC	5⁵⁄₁₆	5⅞	6⅛	3½	5⅜	4¾	1⅞4	15.0
	*PSC-250	400-80-0-80-400	250	5.0	6.0	5.0 6.3 C.T.	2.0 7.0	Lugs	Lugs	SC	5⁵⁄₁₆	5⅞	6⅛	3½	5⅜	4¾	1⅞4	15.0
	P-8360	437-0-437	185	5.0	3.0	6.3 6.3	3.0 4.0	Leads	Leads	C	3¾	4½	4¹¹⁄₁₆	3	3⅜	4³⁄₁₆	⅜ x ⅜	9.5
	P-6143	440-0-440	130	5.0	3.0	6.3 C.T.	3.5	Leads	Leads	C	3⁷⁄₁₆	4¹⁄₁₆	4¼	2¾	2¹³⁄₁₆	3¾	⅜ x ⅜	7.0
	PC-8414	600-0-600	200	5.0	3.0	6.3 6.3	3.0 3.0	Leads	Leads	C	3¾	4¼	4¹¹⁄₁₆	3	3¹⁄₁₆	3¹⁵⁄₁₆	⅜ x ⅜	8.3
	*P-8307	870-0-870 410-0-410	f 150 60	5.0	2.0	6.3	3.5	Leads	Leads	SC	3¹¹⁄₁₆	4⁷⁄₁₆	4¼	2¾	3⅞	3¼	7⁄32	5.9

† With Copper shorting band to reduce external Magnetic Field. ‡ Plate wdg and rectifier filament wdg Connected to Tube Socket. ▲ Primary for 117-107 Volts. f. Intermittent duty.
*Available until stock is depleted

STANCOR PAGE 15 — **ALL SECONDARY A.C. VOLTAGES ±3%** — **ALL PCC AND PSC NUMBERS MAY BE OPERATED AT 50 CYCLES**

See Pages 1427, 1428 and 1429 for complete price list.
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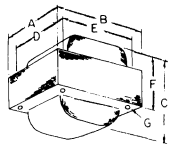

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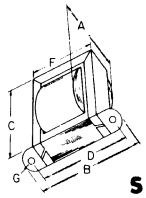

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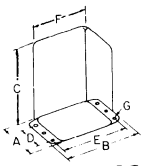

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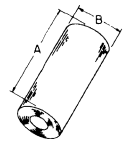

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STANCOR
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power transformers

FOR REACTOR INPUT SYSTEMS — PRIMARIES 117 VOLTS 50/60 CYCLES

	Catalog No.	Plate Windings AC Volts	Plate Windings DCMA	Rectifier Fil. Volts	Rectifier Fil. Amps.	Other Windings Volts	Other Windings Amps.	Termination Pri.	Termination Sec.	Style	Dimensions A	B	C	D	E	F	G	Wt. lbs.
a	PCR-55	350-0-350	55	5.0	2.0	6.3 C.T.	2.0	Leads	Leads	SC	2 7/8	3 1/2	3 1/2	2	3 1/8	2 11/16	3/16	3 1/4
	PSR-55	350-0-350	55	5.0	2.0	6.3 C.T.	2.0	Lugs	Lugs	SC	2 7/8	3 1/2	3 3/4	2	3 1/8	2 11/16	3/16	3 1/4
	PCR-70	425-0-425	70	5.0	2.0	6.3 C.T.	3.0	Leads	Leads	SC	3 1/4	4	3 7/8	2 1/4	3 1/2	2 15/16	7/32	4 1/2
	PSR-70	425-0-425	70	5.0	2.0	6.3 C.T.	3.0	Lugs	Lugs	SC	3 1/4	4	4 1/4	2 1/4	3 1/2	2 15/16	7/32	4 1/2
	PCR-85	440-0-440	85	5.0	2.0	6.3 C.T.	3.0	Leads	Leads	SC	3 11/16	4 7/16	4 5/16	2 3/4	3 7/8	3 1/4	7/32	6
	PSR-85	440-0-440	85	5.0	2.0	6.3 C.T.	3.0	Lugs	Lugs	SC	3 11/16	4 7/16	4 5/16	2 3/4	3 7/8	3 1/4	7/32	6
	PCR-105	450-0-450	105	5.0	2.0	6.3 C.T.	3.5	Leads	Leads	SC	3 11/16	4 7/16	4 5/16	2 3/4	3 7/8	3 1/4	7/32	6 1/2
	PSR-105	450-0-450	105	5.0	2.0	6.3 C.T.	3.5	Lugs	Lugs	SC	3 11/16	4 7/16	4 11/16	2 3/4	3 7/8	3 1/4	7/32	6 1/2
	PCR-120	500-0-500	120	5.0	3.0	6.3 C.T.	4.0	Leads	Leads	SC	4 9/16	5 1/4	5 5/16	2 1/2	4 3/4	4 1/8	15/64	9 1/2
	PSR-120	500-0-500	120	5.0	3.0	6.3 C.T.	4.0	Lugs	Lugs	SC	4 9/16	5 1/4	5 5/16	2 1/2	4 3/4	4 1/8	15/64	9 1/2
	PCR-150	510-0-510	150	5.0	3.0	6.3 C.T. 6.3 C.T.	1.0 4.0	Leads	Leads	SC	4 9/16	5 1/4	5 5/16	2 1/2	4 3/4	4 1/8	15/64	11 1/2
	PSR-150	510-0-510	150	5.0	3.0	6.3 C.T. 6.3 C.T.	1.0 4.0	Lugs	Lugs	SC	4 9/16	5 1/4	5 5/16	2 1/2	4 3/4	4 1/8	15/64	11 1/2
	PCR-200	520-0-520	200	5.0	3.0	6.3 C.T. 6.3 C.T.	1.0 4.5	Leads	Leads	SC	4 9/16	5 1/4	5 5/16	2 1/2	4 3/4	4 1/8	15/64	12 1/4
	PSR-200	520-0-520	200	5.0	3.0	6.3 C.T. 6.3 C.T.	1.0 4.5	Lugs	Lugs	SC	4 9/16	5 1/4	5 5/16	2 1/2	4 3/4	4 1/8	15/64	12 1/4
	PCR-300	550-370-75-0 -75-370-550	300	5.0	6.0	6.3 C.T. 6.3 C.T.	1.0 5.0	Leads	Leads	SC	5 5/16	5 7/8	6 1/16	3 1/2	5 3/8	4 3/4	17/64	17 1/2
	PSR-300	550-370-75-0 -75-370-550	300	5.0	6.0	6.3 C.T. 6.3 C.T.	1.0 5.0	Lugs	Lugs	SC	5 5/16	5 7/8	6 1/16	3 1/2	5 3/8	4 3/4	17/64	17 1/2

FOR REGULATED POWER SUPPLIES — PRIMARIES 117 VOLTS 50/60 CYCLES

b	PSC-165	440-0-440	165	5.0	3.0	6.3 6.3 6.3 6.3	0.6 3.0 3.0 7.5	Lugs	Lugs	SC	4 9/16	5 1/4	5 5/16	2 1/2	4 3/4	4 1/8	15/64	12
	PSC-205	450-0-450	200	5.0	2.0	6.3 6.3 6.3	0.6 4.0 4.0	Lugs	Lugs	SC	4 9/16	5 1/4	5 5/16	2 1/2	4 3/4	4 1/8	15/64	12

FOR BIAS SUPPLIES — PRIMARIES 117 VOLTS 50/60 CYCLES

c	IBC-150	180-160-140-120-0-120-140-160-180	150	5.0	3.0			Leads	Leads	SC	3 1/4	4	4 1/4	2 1/4	3 1/2	2 15/16	7/32	5
	IBS-150	180-160-140-120-0-120-140-160-180	150	5.0	3.0			Lugs	Lugs	SC	3 1/4	4	4 1/4	2 1/4	3 1/2	2 15/16	7/32	5
	2BC-150	180-160-140-120-0-120-140-160-180	150	5.0	3.0	(Pri.-230v.)		Leads	Leads	SC	3 1/4	4	4 1/4	2 1/4	3 1/2	2 15/16	7/32	5
	2BS-150	180-160-140-120-0-120-140-160-180	150	5.0	3.0	(Pri.-230v.)		Lugs	Lugs	SC	3 1/4	4	4 1/4	2 1/4	3 1/2	2 15/16	7/32	5
	P-6317	200-170-130-90-0-90-130-170-200	200	5.0	3.0			Leads	Leads/ Lugs	C	3 1/8	3 7/8	3 7/8	2 1/2	2 3/16	3 1/16	3/16 x 3/8	4.9
	P-6318	450-400-350-250-0-250-350-400-450	200	5.0	3.0			Leads	Leads/ Lugs	C	3 7/16	4 1/4	4 5/16	2 3/4	2 13/16	3 15/16	3/16 x 3/8	7.0

FOR CATHODE RAY TUBES — PRIMARIES 117 VOLTS 60 CYCLES

d	P-8150	1550 b	1.5	2.5	1.75			Leads	Leads	SC	2 1/2	3	3 1/16	1 3/4	2 11/16	2 5/16	3/16	1.8
	P-8179	1600 b	3.0			6.3/5/2.5 6.3/5/2.5	1.0 3.0	Lugs	Lugs	M	2 1/2	3	3 1/2	2	2 1/2	2 1/2	8-32	3.5
	P-8178	1800 b	2.0	2.5	1.8	2.5 6.3	2.2 0.6	Leads	Leads	C	3 1/8	3 3/4	3 7/8	2 1/2	2 1/2	3 5/16	3/16 x 3/8	5
	P-8151	2400 b	5.0	2.5	2.0	2.5	2.0	Leads	Leads	C	3 7/16	3 7/8	4 1/4	2 3/4	2 11/16	3 5/16	3/16 x 3/8	6.4

FOR SOLAR CF-160 CONDENSER TESTER — PRIMARY 117 VOLTS 60 CYCLES

e	P-6459	550 b 55	30 60			6.3 6.3	0.9 0.6	Leads	Leads	R	2 3/16	2 5/8	2 1/4	1 3/4	2 3/16	1 11/16	5/32	1.4

FOR 100 WS ELECTRONIC PHOTOFLASH — PRIMARY 105/115/125 VOLTS 60 CYCLES

f	P-6425	380 b	20					Leads	Leads	S	2	2 7/8	2 5/16	2 3/8	—	2	3/16	1.4
		Charges 1050 mfd. to 450 volts D.C.																
	P-6426	Trigger Coil for use with **P-6425** Ratio 1 to 35						Leads	Leads	W	3/4	9/16	—	—	—	—	—	.2
		Write for Bulletin #470R for Circuit Details																

b. For use in Half-Wave Circuits.

ALL SECONDARY A.C. VOLTAGES ±3%

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See Pages 1427, 1428 and 1429 for complete price list.

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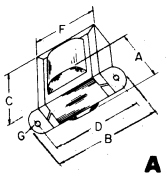

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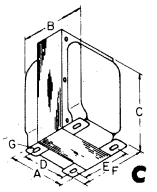

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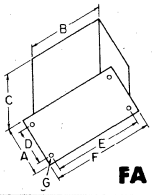

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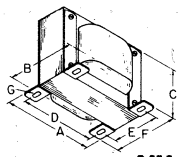

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WITH SINGLE SECONDARY: ALL PRIMARIES 50/60 CYCLES

	Catalog No.	Secondary Volts	Secondary Amps.	Insulation Test RMS Volts	Primary Volts	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT Lbs.
a	P-4026	2.5	1.5	2500	117	Leads	Leads	A	1 5/8	2 7/8	1 5/8	2 3/8	—	2	3/16	0.7
	P-4082	2.5 CT	2.5	2500	117/107	Leads	Leads	SC	2 1/4	2 11/16	2 11/16	1 1/2	2 3/8	2	3/16	1.5
	P-6133†	2.5 CT	5.0	7500	117	Leads	Leads	S	2 1/4	3 1/8	2 3/4	2 13/16	—	2 1/4	3/16	1.5
	F-25	2.5 CT	5.25	3500	115/230	Lugs	Lugs	SC	2 1/2	3	3 1/16	1 3/4	2 11/16	2 3/8	3/16	2.0
	P-4083†	2.5 CT	6.0	2500	117/107	Leads	Leads	C	2 1/2	2 1/2	3 1/8	2	1 1/2	2 1/8	3/16 x 3/8	2.2
	P-3024†	2.5 CT	10.0	2500	117/107	Leads	Leads	C	2 1/2	2 3/4	3 1/8	2	1 3/4	2 3/8	3/16 x 3/8	2.5
	P-6454	2.5 CT	10.0	7500	117/107	Leads	Leads	S	2 1/2	3 5/8	3 1/8	3 1/8	—	2 5/8	3/16	2.5
	P-3060	2.5 CT	10.0	10000	117	Lugs	Lugs	NV	2 13/16	2 3/8	3 7/16	2 1/4	1 7/8	2 1/2	3/16 x 5/16	2.5
	F-210	2.5 CT	10.0	5000	115/230	Terms	Terms	SC	2 7/8	3 1/2	3 3/4	2	3 1/8	2 11/16	3/16	3.0
	F-210H	2.5 CT	10.0	9000	115/230	Terms	Terms	SC	3 1/4	4	4 1/4	2 1/4	3 1/2	3	3/16	4.0
	F-215H	2.5 CT	15.0	9000	115/230	Terms	Terms	SC	3 11/16	4 7/16	4 5/16	2 3/4	3 7/8	3 1/4	3/16	6.0
	P-3026†	5.0 CT	3.0	2500	117/107	Leads	Leads	C	2 1/2	2 5/8	3 1/8	2	1 5/8	2 1/4	3/16 x 3/8	2.4
	P-4088†	5.0 CT	3.0	2500	117	Lugs	Lugs	NV	2 1/2	1 5/8	3 1/8	2	1 5/8	2 1/4	3/16 x 5/16	1.8
	P-6467	5.0 CT	3.0	2500	117	Leads	Leads	A	2 1/8	3 1/4	2	2 13/16	—	2 3/8	3/16	1.4
	F-54†	5.0 CT	4.0	2500	115/230	Lugs	Lugs	SC	2 1/2	3	3 5/16	1 3/4	2 11/16	2 3/8	3/16	2.2
	P-6455	5.0 CT	6.0	2000	117/107	Leads	Leads	S	2 1/8	3 1/8	2 3/4	2 13/16	—	2 1/4	3/16	2.0
	P-3062†	5.0 CT	6.0	2500	117	Lugs	Lugs	NV	2 1/2	2 1/4	3 1/8	2	2	2 5/8	3/16 x 5/16	2.3
	P-5000†	5.0 CT	6.0	2500	117/107	Leads	Leads	C	2 1/2	3	3 1/8	2	2	2 5/8	3/16 x 3/8	3.1
	P-6135	5.0 CT	10.0	2500	117	Leads	Leads	NV	2 1/2	2 3/4	3 1/8	2	2 3/8	3	3/16 x 5/16	3.0
	F-58	5.0 CT	10.0	2500	115/230	Terms	Terms	SC	2 7/8	3 1/2	3 3/4	2	3 1/8	2 11/16	3/16	3.5
b	F-510H†	5.0 CT	10.0	10000	115/230	Terms	Terms	SC	3 11/16	4 7/16	4 11/16	2 3/4	3 7/8	3 1/4	3/16	6.5
	P-4086†	5.0 CT	14.0	10000	117/107	Terms	Terms	FA	4 1/4	5 1/2	5 1/8	2 3/4	6	7	1/4	12.3
	P-6433†	5.0 CT	15.0	2500	117	Leads	Leads/Lugs	NV	2 1/2	2 3/4	3 1/8	2	2 1/4	2 7/8	3/16 x 5/16	3.0
	F-516	5.0 CT	20.0	2500	115/230	Terms	Terms	SC	3 11/16	4 7/16	4 11/16	2 3/4	3 7/8	3 1/4	3/16	6.5
	F-520HB	5.0 CT	20.0	10000	115/230	Terms	Terms	SC	4 9/16	5 1/4	5 5/16	2 1/2	4 3/4	4 1/8	3/16	13.0
	P-6432†	5.0 CT	21.0	2500	117	Leads	Leads/Lugs	NV	3 1/8	2 7/8	3 13/16	2 1/2	2 1/4	2 7/8	3/16 x 5/16	4.5
	P-6302†	5.0 CT	22.0	10000	117/107	Terms	Terms	FA	4 1/4	5 1/2	5 1/8	2 3/4	6	7	1/4	13.5
	P-6492	5.0 CT	30.0	2500	117	Leads	Leads	C	3 3/4	4	4 11/16	3	2 13/16	3 5/8	3/16 x 3/8	7.5
	P-6468†	5.0 CT	30.0	2500	117/107	Lugs	Lugs	C	3 7/16	3 7/8	4 1/4	2 3/4	2 11/16	3 1/2	3/16 x 3/8	6.3
	F-530	5.0 CT	30.0	2500	115/230	Terms	Terms	SC	4 9/16	5 1/4	5 5/16	2 1/2	4 3/4	4 1/8	3/16	10.5
	* F-530BX	5.0 CT	30.0	2500	115/230	Terms	Terms	SC	4 9/16	5 1/4	5 5/16	2 1/2	4 3/4	4 1/8	3/16	10.5
	P-6305†	5.0 CT	30.0	10000	117/107	Terms	Terms	FA	4 1/4	7	5	3 3/8	7 3/4	8 1/2	1/4	18.3
	P-6137†	5.25 CT	13.0	2500	117	Leads	Leads	NV	3 1/8	2 7/8	3 13/16	2 1/2	2 1/2	3 1/8	3/16 x 5/16	5.2
	P-6465	6.3 CT	.6	1500	117	Leads	Leads	A	1 1/2	2 3/8	1 3/8	2	—	1 3/4	3/16	0.4
	P-8389	6.3	1.0	1500	117	Leads	Leads	A	1 1/2	2 7/8	1 5/8	2 3/8	—	2	3/16	0.6
	P-6134	6.3 CT	1.2	3000	117	Leads	Leads	A	1 7/8	2 7/8	1 5/8	2 3/8	—	2	3/16	0.8
	P-8190	6.3	1.2	5000	117	Leads	Leads	A	1 7/8	3 1/4	2	2 13/16	—	2 3/8	3/16	1.0
	P-8191	6.3	1.2	5000	6.3	Leads	Leads	A	2	3 1/4	2	2 13/16	—	2 3/8	3/16	1.0
	F-615†	6.3 CT	1.5	2500	115/230	Lugs	Lugs	SC	2 1/4	2 11/16	2 11/16	1 1/2	2 3/8	2	3/16	1.0
	F-63†	6.3 CT	3.0	2500	115/230	Lugs	Lugs	SC	2 1/2	3	3 1/16	1 3/4	2 11/16	2 3/8	3/16	2.0
c	P-5014†	6.3 CT	3.0	2500	117	Lugs	Lugs	NV	2 1/2	2	3 1/8	2	1 3/4	2 3/8	3/16 x 5/16	2.0
	P-6466	6.3 CT	3.0	2500	117	Leads	Leads	A	2 1/8	3 1/4	2	2 13/16	—	2 3/8	3/16	1.4
	P-6462	6.3	3.0	7000	117/107	Leads	Leads	S	2 3/8	3 5/8	3 1/8	3 1/8	—	2 5/8	3/16	2.0
	P-4019†	6.3 CT	4.0	2500	117/107	Leads	Leads	C	2 1/2	2 3/4	3 1/8	2	1 3/4	2 3/8	3/16 x 3/8	2.7
	F-65	6.3 CT	5.5	2500	115/230	Lugs	Lugs	SC	2 7/8	3 1/2	3 3/4	2	3 1/8	2 11/16	3/16	3.0
	P-3064†	6.3 CT	6.0	2500	117	Lugs	Lugs	NV	2 1/2	2 3/8	3 1/8	2	2	2 5/8	3/16 x 5/16	2.4
	P-4089†	6.3 CT	6.0	2500	117/107	Leads	Leads	C	2 13/16	3 1/4	3 1/2	2 1/4	2	2 3/4	3/16 x 3/8	3.5
	P-6456	6.3 CT	6.0	2000	117/107	Leads	Leads	A	2 3/8	3 3/4	2 3/8	3 1/8	—	2 3/4	3/16	2.0
	P-6464	6.3 CT	10.0	2000	117	Leads	Leads	C	2 13/16	3 1/4	3 1/2	2 1/4	2	2 3/4	3/16 x 3/8	3.5
	P-6308†	6.3 CT	10.0	2500	117/107	Leads	Leads	NV	2 13/16	2 5/8	3 7/16	2 1/4	2 1/8	2 3/4	3/16 x 5/16	3.4
	F-610	6.3 CT	10.0	2500	115/230	Terms	Terms	SC	3 1/4	4	4 1/4	2 1/4	3 1/2	3	3/16	5.0
	P-6309†	6.3 CT	20.0	2500	117/107	Leads	Leads	NV	3 3/4	3 3/8	4 9/16	3	2 3/8	3	3/16 x 5/16	6.7
	P-5015†	7.5 CT	4.0	2500	117	Lugs	Lugs	NV	2 1/2	2 1/4	3 1/8	2	2 1/8	2 3/4	3/16 x 5/16	2.7
	P-4091†	7.5 CT	5.0	2500	117/107	Leads	Leads	C	2 13/16	3 1/8	3 1/2	2 1/4	1 7/8	2 5/8	3/16 x 3/8	3.4
	P-6138†	7.5 CT	8.0	2500	117	Leads	Leads	NV	3 1/8	2 3/4	3 13/16	2 1/2	2 3/8	3	3/16 x 5/16	4.7
	F-712	7.5 CT	12.0	2500	115/230	Terms	Terms	SC	3 11/16	4 7/16	4 11/16	2 3/4	3 7/8	3 1/4	3/16	6.5
	P-6457	7.5 CT	21.0	2000	117/107	Leads	Leads	C	3 3/4	4	4 5/8	3	2 3/4	4	1/4 x 1/2	8.0
	F-725	7.5 CT	25.0	2500	115/230	Terms	Terms	SC	4 9/16	5 1/4	5 5/16	2 1/2	4 3/4	4 1/8	3/16	12.0
	F-751	7.75 CT	51.0	2500	115/230	Terms	Terms	SC	6 1/8	6 1/2	7 1/16	4 1/4	6	5 1/4	1/4	29.0
	F-104	10.0 CT	4.0	2500	115/230	Lugs	Lugs	SC	2 7/8	3 1/2	3 3/4	2	3 1/8	2 11/16	3/16	3.2
d	P-5016†	10.0 CT	4.0	2500	117	Lugs	Lugs	NV	2 13/16	2 1/2	3 7/16	2 1/4	2	2 5/8	3/16 x 5/16	3.3
	P-6458	10.0 CT	5.0	2000	117/107	Leads	Leads	NV	2 1/2	2 1/2	3 1/16	2 1/8	1 15/16	2 3/4	3/16 x 1/2	3.0
	P-4096†	10.0 CT	5.0	2500	117/107	Leads	Leads	C	3 1/8	3 1/4	3 7/8	2 1/2	1 15/16	2 3/4	3/16 x 3/8	4.0
	F-106	10.0 CT	6.5	2500	115/230	Terms	Terms	SC	3 1/4	4	4 1/4	2 1/4	3 1/2	3	3/16	5.0
	P-6139†	10.0 CT	8.0	2500	117	Leads	Leads	NV	3 1/8	3	3 13/16	2 1/2	2 3/8	3	3/16 x 5/16	4.9
	P-4097†	10.0 CT	8.0	2500	117/107	Leads	Leads	C	3 1/8	3 3/4	3 7/8	2 1/2	2 1/2	3 1/8	3/16 x 3/8	5.2
	P-6461	10.0 CT	10.0	2000	117	Leads	Leads	C	3 1/4	3 5/16	3 7/8	2 3/4	2 11/16	2 11/16	3/16 x 1/2	5.0
	F-1010	10.0 CT	10.0	2500	115/230	Terms	Terms	SC	3 11/16	4 7/16	4 11/16	2 3/4	3 7/8	3 1/4	3/16	6.5
	P-5002†	10.0 CT	12.0	7500	117/107	Terms	Terms	FA	4 1/4	5 1/2	5 1/8	2 3/4	6	7	1/4	14.7
	P-3020†	11.0 CT	10.0	2500	117/107	Leads	Leads	C	3 3/4	3 5/8	4 11/16	3	2 7/16	3 1/4	3/16 x 3/8	7.7
	P-8130	12.6 CT	2.0	1500	117	Leads	Leads	A	2 1/8	3 1/4	2	2 13/16	—	2 3/8	3/16	1.4
	P-8358	12.6 CT	3.0	1500	117	Leads	Leads	A	2 1/4	3 3/4	2 3/8	3 1/8	—	2 3/4	3/16	1.6
	P-6469	25.2	1.0	1500	117	Leads	Leads	A	2 1/8	3 1/4	2	2 13/16	—	2 3/8	3/16	1.4
	P-8180	25.2 CT	1.0	1500	117	Leads	Leads	A	2 1/8	3 1/4	2	2 13/16	—	2 3/8	3/16	1.4
	P-8357	25.2 CT	2.0	1500	117	Leads	Leads	A	2 1/4	4	2 5/8	3 5/16	—	3 1/8	3/16	2.2
	P-8388	25.2 CT	2.8	1500	117	Leads	Leads	A	2 1/4	4	2 5/8	3 5/16	—	3 1/8	3/16	2.2

ALL SECONDARY VOLTAGES ±3%

STANCOR PAGE 17

*Available until stock is depleted

†Has Electrostatic shield.

Insulation Test Voltage: Twice Allowable RMS Working Voltage plus 1000 Volts.

See Pages 1427, 1428 and 1429 for complete price list.

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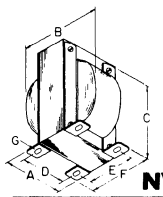

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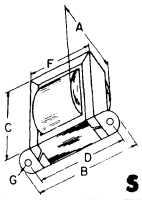

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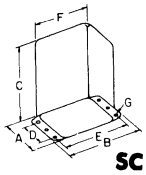

SC

STANCOR
COMMERCIAL
filament transformers

WITH MULTIPLE SECONDARIES: ALL PRIMARIES 50/60 CYCLES

	Catalog No.	Secondary Volts	Secondary Amps.	Insulation Test RMS Volts	Primary Volts	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT Lbs.
a	P-6144†	2.5 CT 5.0 CT 6.3 CT	3.5 3.0 3.0	2500	117	Leads	Leads	C	2 13/16	3 1/4	3 1/2	2 1/4	2	2 3/4	3/16 x 3/8	3.7
	P-6338	2.5 5.0 5.0 CT 6.3 CT	3.0 3.0 2.0 3.0	2500	117	Leads	Leads	NH	3 3/8	2 3/4	2 7/8	2 13/16	2 1/8	2 3/4	3/16 x 5/16	3.4
	*F1†	5.0 6.3 CT	2.0 2.5	2500	105/115/125	Lugs	Lugs	SC	2 1/2	3	3 5/16	1 3/4	2 11/16	2 3/8	3/16	2.7
b	*F2†	5.0 12.6 CT	2.0 1.25	2500	105/115/125	Lugs	Lugs	SC	2 1/2	3	3 5/16	1 3/4	2 11/16	2 3/8	3/16	2.7
	*F3†	5.0 6.3 CT	3.0 5.0	2500	105/115/125	Lugs	Lugs	SC	2 7/8	3 1/2	3 3/4	2	3 1/8	2 11/16	3/16	3.5
	*F4†	5.0 6.3 CT 6.3 CT or 12.6 CT	3.0 3.0 3.0 3.0	2500	105/115/125	Lugs	Lugs	SC	3 1/4	4	3 7/8	2 1/4	3 1/2	3	3/16	4.7
	*F5†	5.0 6.3 CT 6.3 CT	3.0 1.0 5.0	2500	105/115/125	Lugs	Lugs	SC	3 1/4	4	3 7/8	2 1/4	3 1/2	3	3/16	4.7
c	P-5009†	5.0 CT 6.3 CT	3.0 6.0	2500	117/107	Leads	Leads	C	3 1/8	3 3/8	3 7/8	2 1/2	2 1/16	2 7/8	3/16 x 3/8	4.5
	P-5008†	5.0 CT 6.3 CT	4.0 3.6	2500	117/107	Leads	Leads	C	2 13/16	3 1/4	3 1/2	2 1/4	2	2 3/4	3/16 x 3/8	3.8
	P-4022†	5.0 CT 6.3 CT	6.0 6.0	2500	117/107	Leads	Leads	C	3 1/8	3 1/2	3 7/8	2 1/2	2 1/16	2 7/8	3/16 x 3/8	4.8
d	P-6333	5.0 5.0 6.3 CT 7.5/6.3 CT	3.0 3.0 4.0 3.0	2500	117	Lugs	Lugs	NH	3 3/8	3 1/4	2 7/8	2 13/16	2 3/4	3 3/8	3/16 x 5/16	4.7
	*F8†	5.0 CT 5.0 CT 5.0 CT	3.0 3.0 6.0	5000	105/115/125	Lugs	Lugs	SC	3 11/16	4 7/16	4 11/16	2 3/4	3 7/8	3 1/4	3/16	7.0
	P-6463	6.0 CT or 6.5 CT or 7.0 CT	13	2000	117	Lugs	Lugs	NV	2 13/16	2 7/8	3 7/16	2 1/4	2 11/16	3 5/16	3/16 x 5/16	4.5
e	P-6428†	6.3 6.3 6.3 6.3 CT	1.75 1.75 1.75 1.75	2500	117	Leads	Leads	C	2 1/2	3 1/8	3 1/8	2	2	2 5/8	3/16 x 3/8	3.0
	P-6430†	6.3 CT 6.3 CT	3.0 3.0	2500	117	Leads	Leads	C	2 1/2	2 7/8	3 1/8	2	1 7/8	2 1/2	3/16 x 3/8	2.8
	*F-6†	6.3 CT 6.3 CT or 12.6 CT	3.0 3.0 3.0	2500	105/115/125	Lugs	Lugs	SC	2 7/8	3 1/2	3 3/4	2	3 1/8	2 11/16	3/16	3.5
f	P-6429†	6.3 6.3 6.3 6.3 CT	3.5 3.5 3.5 3.5	2500	117	Leads	Leads	C	3 1/8	3 1/2	3 7/8	2 1/2	2 3/16	3	3/16 x 3/8	4.8
	P-6431†	6.3 CT 6.3 CT	6.0 6.0	2500	117	Leads	Leads	C	3 1/8	3 1/2	3 7/8	2 1/2	2 3/16	3	3/16 x 3/8	4.8
	*F-7†	6.3 CT 6.3 CT or 12.6 CT	6.0 6.0 6.0	2500	105/115/125	Lugs	Lugs	SC	3 11/16	4 7/16	4 11/16	2 3/4	3 7/8	3 1/4	3/16	6.5

MULTI-TAPPED FOR TUBE CHECKERS: PRIMARY 50/60 CYCLES

	Catalog No.	Secondary Volts	Primary Volts	Termination Pri	Termination Sec	Style	Dimensions A	B	C	D	E	F	G	WT Lbs.
g	P-1834-3	1.1/1.4/1.5/2.0/2.5/3.0/3.3/4.0 5.0/6.3/7.5/12/20/25/30/35 50/70/85/110/117	105/115/125	Leads	Leads/ Lugs	A	2 7/8	4	2 5/8	3 5/16	—	3 1/8	3/16	2.4

*Available until stock is depleted
†Has Electrostatic shield.
ALL SECONDARY VOLTAGES ±3%

Insulation Test Voltage: Twice Allowable RMS Working Voltage plus 1000 Volts.

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See Pages 1427, 1428 and 1429 for complete price list.

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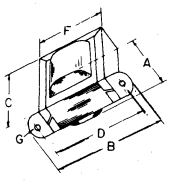

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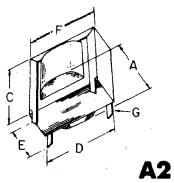

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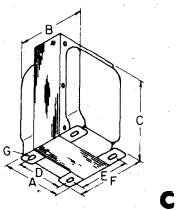

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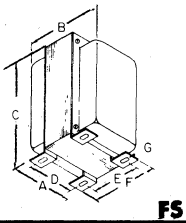

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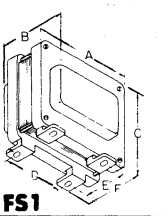

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SMOOTHING CHOKES: INDUCTANCE TOLERANCE-MINUS 15% PLUS 50% AT 10 VOLTS 60 CYCLES

	Catalog No.	Inductance Henries	DCMA	DC. Res. ohms	Insul. Test RMS Volts	Termination	Style	Dimensions A	B	C	D	E	F	G	WT Lbs
a	C-2345	350	5	5600	2500	Leads	A	1 3/4	3 1/4	2	2 13/16	—	2 3/8	3/16	1.0
	C-2344	1.5	10	85	2500	Leads	A	1 1/8	2 1/8	1 1/4	1 3/4	—	1 1/2	3/16	0.4
	C-2707	2.0	15	70	1500	Leads	A	1 1/8	2 1/8	1 1/4	1 3/4	—	1 1/2	3/16	0.4
	C-1515	20.0	15	900	1500	Leads	A	1 3/8	2 7/8	1 5/8	2 3/8	—	2	3/16	0.7
	C-2346	35	15	1800	2500	Leads	A	1 3/8	2 3/8	1 3/8	2	—	1 3/4	3/16	0.5
	C-2318	12.0	30	400	2000	Leads	A	1 3/8	2 3/8	1 3/8	2	—	1 3/4	3/16	0.5
	RC-1540	15.0	40	475	2500	Leads	SC	2 1/4	2 11/16	2 11/16	1 1/2	2 3/8	2	3/16	1.5
	RS-1540	15.0	40	475	2500	Lugs	SC	2 1/4	2 11/16	2 11/16	1 1/2	2 3/8	2	3/16	1.5
	C-1080	3.5	50	200	1500	Leads	A	1 3/8	2 7/8	1 5/8	2 3/8	—	2	3/16	0.7
	C-1706	4.5	50	300	1500	Leads	A	1 1/4	2 3/8	1 3/8	2	—	1 3/4	3/16	0.5
	C-1723	4.5	50	325	1500	Leads	A	1 3/8	2 3/8	1 3/8	2	—	1 3/4	3/16	0.5
	C-1325	5.0	50	250	1500	Leads	A	1 1/4	2 7/8	1 5/8	2 3/8	—	2	3/16	0.7
	C-1277	7.0	50	300	1500	Leads	A	1 3/8	2 7/8	1 5/8	2 3/8	—	2	3/16	0.7
	C-1227	7.0	50	350	1500	Leads	A	1 3/8	2 7/8	1 5/8	2 3/8	—	2	3/16	0.7
	C-1707	7.0	50	550	1500	Leads	A	1 1/4	2 3/8	1 3/8	2	—	1 3/4	3/16	0.5
	C-1333	8.0	50	450	1500	Leads	A	1 3/8	2 7/8	1 5/8	2 3/8	—	2	3/16	0.7
	C-1279	8.5	50	400	1500	Leads	A	1 3/8	2 7/8	1 5/8	2 3/8	—	2	3/16	0.7
	C-1215	9.0	50	500	1500	Leads	A	1 3/8	2 7/8	1 5/8	2 3/8	—	2	3/16	0.7
b	C-1003	16.0	50	580	1500	Leads	A	1 5/8	3 1/4	2	2 13/16	—	2 3/8	3/16	1.0
	RC-1055	10.0	55	230	2500	Leads	SC	2 1/4	2 11/16	2 11/16	1 1/2	2 3/8	2	3/16	1.7
	RS-1055	10.0	55	230	2500	Lugs	SC	2 1/4	2 11/16	2 11/16	1 1/2	2 3/8	2	3/16	1.7
	RC-1555	15.0	55	380	2500	Leads	SC	2 1/4	2 11/16	2 11/16	1 1/2	2 3/8	2	3/16	2.0
	RS-1555	15.0	55	380	2500	Lugs	SC	2 1/4	2 11/16	2 11/16	1 1/2	2 3/8	2	3/16	2.0
	C-1708	13.0	65	500	1500	Leads	A	1 3/4	3 1/4	2	2 13/16	—	2 3/8	3/16	1.0
	C-1355	8.0	75	290	1500	Lugs	L	2 3/8	—	2	1 1/2	1 3/16	1 5/8	3/16 x 1/2	1.0
	C-1002	15.0	75	400	1500	Leads	A	1 7/8	3 3/4	2 3/8	3 1/8	—	2 3/4	3/16	1.7
	C-1420	16.0	80	360	1500	Leads	C	2 1/2	2 3/4	3 1/8	2	1 3/4	2 3/8	3/16 x 3/8	2.5
	C-1709	8.0	85	250	1500	Leads	A	1 7/8	3 1/4	2	2 13/16	—	2 3/8	3/16	1.4
	RC-1085	10.0	85	175	2500	Leads	SC	2 1/2	3	3 1/16	1 3/4	2 11/16	2 3/8	3/16	2.5
	RS-1085	10.0	85	175	2500	Lugs	SC	2 1/2	3	3 5/16	1 3/4	2 11/16	2 3/8	3/16	2.5
	RC-1585	15.0	85	285	2500	Leads	SC	2 1/2	3	3 1/16	1 3/4	2 11/16	2 3/8	3/16	2.7
	RS-1585	15.0	85	285	2500	Lugs	SC	2 1/2	3	3 5/16	1 3/4	2 11/16	2 3/8	3/16	2.7
	C-2305	5.0	100	300	1500	Leads	SC	2 1/4	2 11/16	2 11/16	1 1/2	2 3/8	2	3/16	1.5
	RC-8105	8.0	105	100	2500	Leads	SC	2 7/8	3 1/2	3 1/2	2	3 1/8	2 11/16	3/16	3.7
	RS-8105	8.0	105	100	2500	Lugs	SC	2 7/8	3 1/2	3 3/4	2	3 1/8	2 11/16	3/16	3.7
	RC-12105	12.0	105	170	2500	Leads	SC	2 7/8	3 1/2	3 1/2	2	3 1/8	2 11/16	3/16	4.0
c	RS-12105	12.0	105	170	2500	Lugs	SC	2 7/8	3 1/2	3 3/4	2	3 1/8	2 11/16	3/16	4.0
	C-1001	10.5	110	225	3000	Leads	A	2 1/8	4	2 5/8	3 9/16	—	3 1/8	3/16	2.3
	C-2704	9.0	125	250	1500	Leads	A	1 7/8	3 3/4	2 3/8	3 1/8	—	2 3/4	3/16	1.8
	C-2303	2.5	130	100	2000	Leads	A	1 5/8	3 1/4	2	2 13/16	—	2 3/8	3/16	1.0
	C-1421	7.0	140	165	3000	Leads	C	2 1/2	2 3/4	3 1/8	2	1 3/4	2 3/8	3/16 x 3/8	2.5
	C-2304	2.3	150	60	1500	Leads	A	1 3/4	3 1/4	2	2 13/16	—	2 3/8	3/16	1.0
	C-2309	3.0	150	90	2000	Leads	A	1 7/8	3 3/4	2 3/8	3 1/8	—	2 3/4	3/16	1.7
	C-2335	7.0	150	170	1500	Leads	SC	2 1/2	3	3 1/16	1 3/4	2 11/16	2 3/8	3/16	2.3
	C-1710	7.0	150	200	1500	Leads	A	2	4	2 5/8	3 9/16	—	3 1/8	3/16	2.2
	RC-8150	8.0	150	100	2500	Leads	SC	3 1/4	4	3 7/8	2 1/4	3 1/2	3	3/16	5.2
	RS-8150	8.0	150	100	2500	Lugs	SC	3 1/4	4	4 1/4	2 1/4	3 1/2	3	3/16	5.2
	RC-12150	12.0	150	150	2500	Leads	SC	3 1/4	4	3 7/8	2 1/4	3 1/2	3	3/16	5.5
	RS-12150	12.0	150	150	2500	Lugs	SC	3 1/4	4	4 1/4	2 1/4	3 1/2	3	3/16	5.5
	C-1410	4.0	175	100	3000	Leads	C	2 1/2	2 3/4	3 1/4	2	1 3/4	2 3/8	3/16 x 3/8	2.4
	C-2327	1.5	200	85	1500	Leads	A	1 1/2	2 7/8	1 5/8	2 3/8	—	2	3/16	0.7
	C-2325	2.0	200	60	1500	Leads	A	1 7/8	3 3/4	2 3/8	3 1/8	—	2 3/4	3/16	1.8
	C-1411	4.5	200	80	3000	Leads	C	2 13/16	4 1/4	3 1/2	2 1/4	2	2 3/4	3/16	3.5
	C-1646	5.0	200	90	5000	Leads	C	3 1/8	3 1/2	3 7/8	2 1/2	2 3/16	3	3/16 x 3/8	4.5
d	RC-8200	8.0	200	85	2500	Leads	SC	3 11/16	4 7/16	4 5/16	2 3/4	3 7/8	3 1/4	3/16	7.0
	RS-8200	8.0	200	85	2500	Lugs	SC	3 11/16	4 7/16	4 11/16	2 3/4	3 7/8	3 1/4	3/16	7.0
	C-1721	8.5	200	120	3000	Leads	NV	2 13/16	2 5/8	3 7/16	2 1/4	2 1/2	3 1/8	3/16 x 5/16	4.4
	C-2705	10.0	200	150	2500	Leads	C	2 13/16	3 9/16	3 1/2	2 1/4	2 5/16	3 1/16	3/16 x 3/8	4.5
	RC-12200	12.0	200	140	2500	Leads	SC	3 11/16	4 7/16	4 5/16	2 3/4	3 7/8	3 1/4	3/16	7.0
	RS-12200	12.0	200	140	2500	Lugs	SC	3 11/16	4 7/16	4 11/16	2 3/4	3 7/8	3 1/4	3/16	7.0
	C-1703	4.0	250	60	3000	Lugs	NV	2 13/16	2 5/8	3 7/16	2 1/4	2 1/2	3 1/8	3/16 x 5/16	4.2
	C-1412	4.0	250	60	3000	Leads	C	2 13/16	3 5/8	3 1/2	2 1/4	2 3/8	3 1/8	3/16 x 3/8	4.3
	RC-8250	8.0	250	90	2500	Leads	SC	4 5/16	5 1/4	5 5/16	2 1/2	4 3/4	4 1/8	3/16	10.5
	RS-8250	8.0	250	90	2500	Lugs	SC	4 5/16	5 1/4	5 5/16	2 1/2	4 3/4	4 1/8	3/16	10.5
	C-2343	0.75	300	32	1500	Leads	A	1 3/8	2 7/8	1 5/8	2 3/8	—	2	3/16	0.7
	C-2326	1.0	300	43	1500	Leads	A	2	3 3/4	2 3/4	3 1/8	—	2 3/4	3/16	1.7
	C-2334	2.8	300	60	1500	Leads	A	2 1/8	4	2 5/8	3 9/16	—	3 1/8	3/16	2.5
	R-63	6.0	300	35	7500	Terms	SC	5 5/16	5 7/8	6 1/16	3 1/2	5 3/8	4 3/4	1/4	16.5
	RC-8300	8.0	300	60	3500	Leads	SC	4 5/16	5 1/4	5 5/16	2 1/2	4 3/4	4 1/8	3/16	12.5
	RS-8300	8.0	300	60	3500	Lugs	SC	4 5/16	5 1/4	5 5/16	2 1/2	4 3/4	4 1/8	3/16	12.5
	C-1722	8.0	300	80	3000	Leads	NV	3 3/4	3	4 5/16	3	2 1/2	3 1/8	3/16 x 5/16	7.3
	C-2308	8.0	300	80	3000	Leads	C	3 3/4	4	4 11/16	3	2 13/16	3 5/8	3/16 x 3/8	7.8

Insulation Test Voltage: Twice Allowable RMS Working Voltage plus 1000 Volts.

See Pages 1427, 1428 and 1429 for complete price list.

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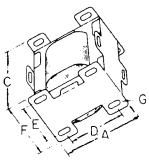
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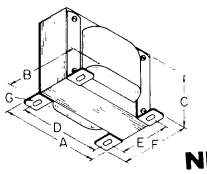
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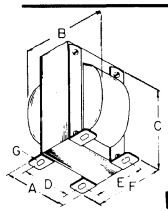
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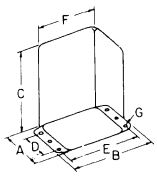
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SMOOTHING CHOKES: INDUCTANCE TOLERANCE-MINUS 15% PLUS 50% AT 10 VOLTS 60 CYCLES

	Catalog No.	Inductance Henries	DCMA	DC. Res. ohms	Insul. Test RMS Volts	Termination	Style	Dimensions A	B	C	D	E	F	G	WT Lbs
a	C-1413	8.0	300	80	3000	Lugs	C	3 3/4	4	4 11/16	3	2 13/16	3 5/8	3/16 x 3/8	7.8
	R-103	10.0	300	40	2500	Terms	SC	6 1/8	6 1/2	7 1/16	4 1/4	6	5 1/8	1/4	22.0
	C-2706	2.6	310	50	1500	Leads	C	2 1/2	3 3/8	3 1/8	2	2 3/8	3	3/16 x 3/8	4.0
	C-2347	1.0	350	40	1500	Leads	A	1 3/4	3 1/4	2	2 13/16	—	2 3/8	3/16	1.0
	C-2328	0.8	375	25	1500	Leads	A	1 7/8	3 3/4	2 3/8	3 1/8	—	2 3/4	3/16	1.5
	C-2709	2.0	400	40	2500	Leads	A	2 1/8	4	2 5/8	3 9/16	—	3 1/8	3/16	2.3
	C-1414	7.5	400	60	5000	Lugs	C	3 3/4	5	4 11/16	3	3 13/16	4 5/8	3/16 x 3/8	11.8
	R-65	6.0	500	35	9000	Terms	FS1	7 1/2	3 1/4	7	4 3/4	5 1/4	6 3/8	3/8 x 3/4	35.0
	C-1415	6.0	500	75	7500	Terms	FS	5 5/8	5 1/2	7 1/8	4 5/8	3 5/8	4 5/8	3/8 x 1/2	23.7
	R-105	10.0	500	40	9000	Terms	FS1	7 1/2	4	7	4 3/4	6	7 1/8	3/8 x 3/4	35.0
	C-2708	0.32	600	10	1500	Leads	A	1 5/8	3 1/4	2	2 13/16		2 3/8	3/16	1.3
	R-67	6.0	700	35	10000	Terms	FS1	7 1/2	4 1/4	7	4 3/4	5 5/8	6 3/4	3/8 x 3/4	35.0

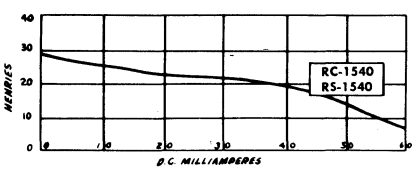
SWINGING CHOKES: INDUCTANCE MEASURED AT 50 VOLTS 60 CYCLES

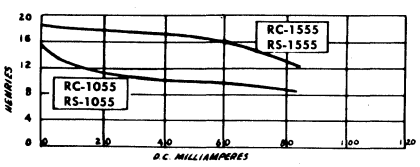
	Catalog No.	Inductance Henries	DCMA	DC. Res. ohms	Insul. Test RMS Volts	Termination	Style	Dimensions A	B	C	D	E	F	G	WT Lbs
b	C-1718	13.5 / 3.5	15 / 150	130	2000	Leads	C	2 1/2	2 5/8	3 1/8	2	1 5/8	2 1/4	3/16 x 3/8	2.3
	C-1400	12.0 / 2.0	17.5 / 175	100	3000	Leads	C	2 1/2	2 3/4	3 1/8	2	1 3/4	2 3/8	3/16 x 3/8	2.4
	C-1401	12.0 / 2.0	20 / 200	80	3000	Leads	C	2 13/16	3 1/4	3 1/2	2 1/4	2	2 3/4	3/16 x 3/8	3.5
	C-1645	12.0 / 2.0	20 / 200	90	5000	Leads	C	3 1/8	3 1/2	3 7/8	2 1/2	2 3/16	3	3/16 x 3/8	4.5
	C-1702	12.0 / 2.0	25 / 250	60	3000	Lugs	NV	2 13/16	2 3/4	3 7/16	2 1/4	2 1/2	3 1/8	3/16 x 5/16	4.3
	C-1402	12.0 / 2.0	25 / 250	60	3000	Leads	C	2 13/16	3 5/8	3 1/2	2 1/4	2 3/8	3 1/8	3/16 x 3/8	4.3
	C-1720	20.0 / 4.0	30 / 300	80	3000	Leads	NV	3 3/4	3 1/8	4 9/16	3	2 1/2	3 1/8	3/16 x 5/16	7.2
	C-2307	20.0 / 4.0	30 / 300	80	3000	Leads	C	3 3/4	4	4 11/16	3	2 13/16	3 5/8	3/16 x 3/8	7.9
	C-1403	20.0 / 4.0	30 / 300	80	5000	Lugs	C	3 3/4	4	4 11/16	3	2 13/16	3 5/8	3/16 x 3/8	7.7
	C-1404	17.0 / 3.0	40 / 400	60	5000	Lugs	C	3 3/4	5	4 11/16	3	3 13/16	4 5/8	3/16 x 3/8	11.7
	C-1405	16.0 / 4.0	50 / 500	75	7500	Terms	FS	5 5/8	5 1/4	7 1/8	4 5/8	3 5/8	4 5/8	3/8 x 1/2	24.3

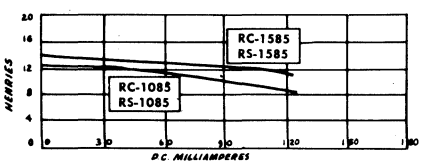
HIGH CURRENT CHOKES: INDUCTANCE MEASURED AT 1 VOLT 60 CYCLES

	Catalog No.	Inductance Millihenries	DC Amps	DC. Res. ohms	Insul. Test RMS Volts	Termination	Style	Dimensions A	B	C	D	E	F	G	WT Lbs
c	TC-1	3.0	1.0	.25	1000	Leads	A2	1 1/8	—	1 3/16	1 3/16	7/16	1 1/2	3/32	0.6
	TC-2	11.0	1.0	.75	1000	Leads	A2	1 1/8	—	1 3/16	1 3/16	7/16	1 1/2	3/32	0.6
	C-2690	300 / or 75	1.0 / 2.0	3.0 / .75	1500	Leads	NV	2 13/16	3	3 7/16	2 1/4	2 5/8	3 1/4	3/16 x 5/16	5.0
	C-2685	35	2.0	.75	1500	Leads	NH	2 5/8	2 1/8	2 5/16	2 3/16	2	2 5/8	3/16 x 5/16	1.9
	C-2691	80 / or 20	2.5 / 5.0	.60 / .15	1500	Leads	NV	3 1/8	3 1/2	3 13/16	2 1/2	3	3 5/8	3/16 x 5/16	7.0
	C-2686	25	4.0	.425	1500	Leads	NH	3 3/8	2 5/8	2 7/8	2 13/16	2 1/8	2 3/4	3/16 x 5/16	3.4
	C-2687	10	8.0	.15	1500	Leads	NH	3 3/4	3	3 3/16	3 1/8	2 1/2	3 1/8	3/16 x 5/16	5.3
	C-2688	10	12.5	.11	1500	Leads	NH	4 1/8	2 7/8	3 1/2	3 7/16	2 3/8	3	3/16 x 5/16	5.9
	C-2689	5	22.5	.03	1500	Leads	NH	4 1/2	4 3/8	3 13/16	3 3/4	3 1/2	4 1/8	3/16 x 5/16	11.9

TYPICAL INDUCTANCE CHARACTERISTIC CURVES







Insulation Test Voltage: Twice Allowable RMS Working Voltage plus 1000 Volts.

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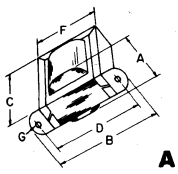
See Pages 1427, 1428 and 1429 for complete price list.

STANCOR
COMMERCIAL
rectifier transformers



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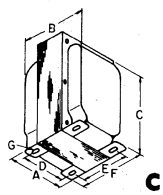

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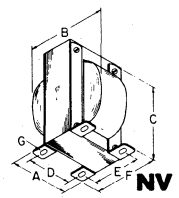


NV

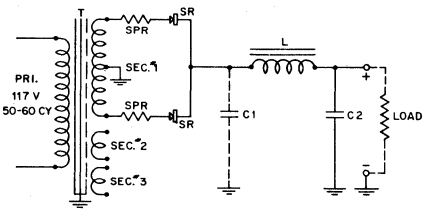
SILICON RECTIFIER POWER TRANSFORMERS: Primaries — 117 Volts 50/60 Cycle-Lead Wire Termination.

a

Catalog No.	Secondary #1 Volts	Secondary #1 DCMA †	Secondary #2 Volts	Secondary #2 Amps.	Secondary #3 Volts	Secondary #3 Amps.	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
RP-400	400 C.T.	400	6.3	3.0	6.3	3.0	C	3 7/16	4 1/4	4 1/4	2 3/4	3 1/16	3 7/8	3/16 x 3/8	7.1
RP-600	300 C.T.	600	6.3	2.5	6.3	2.5	C	3 7/16	4 1/4	4 1/4	2 3/4	3 1/16	3 7/8	3/16 x 3/8	7.1
RP-800	200 C.T.	800	6.3	2.0	6.3	2.0	C	3 7/16	4 1/8	4 1/4	2 3/4	2 15/16	3 3/4	3/16 x 3/8	6.9
RP-1600	100 C.T.	1600	6.3	1.5	6.3	1.5	C	3 7/16	3 7/8	4 1/4	2 3/4	2 11/16	3 1/2	3/16 x 3/8	6.0
RP-2000	80 C.T.	2000	6.3	1.5	6.3	1.5	C	3 7/16	4	4 1/4	2 3/4	2 13/16	3 5/8	3/16 x 3/8	6.5
RP-2500	60 C.T.	2500	6.3	1.5	6.3	1.5	C	3 7/16	3 7/8	4 1/4	2 3/4	2 11/16	3 1/2	3/16 x 3/8	6.0

†Refer to operating. Conditions as shown below.

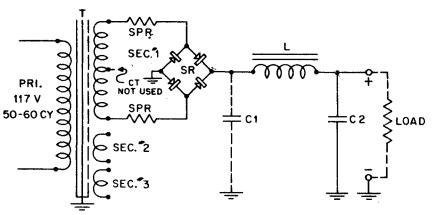
b



FULL-WAVE C.T.

T Stancor No.	SR★	L Stancor No.	C1 (in MFD)	C2 (in MFD)	SPR*	D.C. Ouput Volts	D.C. Ouput MA.	Rectifier Load
RP-400	Four #F-4	C-2709	10	10	Yes	192	400	Capacitive
RP-400	Four #F-4	C-2690	—	200	No	173	540	Inductive
RP-600	Four #F-6	C-2334	80	80	Yes	190	600	Capacitive
RP-600	Four #F-6	C-2690	—	125	No	126	1090	Inductive
RP-800	Two #40-L	C-2690	40	150	Yes	105	800	Capacitive
RP-800	Two #40-L	C-2690	—	350	No	86	1340	Inductive
RP-1600	Two #40-L	C-2690	200	200	Yes	53	1600	Capacitive
RP-1600	Two #40-L	C-2691	—	300	No	41	2600	Inductive
RP-2000	Two #40-L	C-2690	500	500	Yes	47	2000	Capacitive
RP-2000	Two #40-L	C-2686	—	1000	No	33	2950	Inductive
RP-2500	Two #40-LF	C-2691	500	500	Yes	31	2500	Capacitive
RP-2500	Two #40-LF	C-2686	—	1000	No	23	3950	Inductive

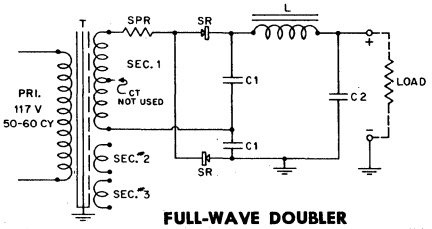
c



FULL-WAVE BRIDGE

T Stancor No.	SR★	L Stancor No.	C1 (in MFD)	C2 (in MFD)	SPR*	D.C. Ouput Volts	D.C. Ouput MA.	Rectifier Load
RP-400	Four #F-4	C-1710	.8	10	Yes	502	150	Capacitive
RP-400	Four #F-4	C-1722	—	20	No	330	302	Inductive
RP-600	Four #F-6	C-2334	8	20	Yes	322	305	Capacitive
RP-600	Four #F-6	C-2690	—	125	No	285	425	Inductive
RP-800	Four #F-6	C-2709	30	40	Yes	247	377	Capacitive
RP-800	Four #F-6	C-2708	—	250	No	172	625	Inductive
RP-1600	Four #F-4	C-2690	40	80	Yes	100	880	Capacitive
RP-1600	Four #F-4	C-2690	—	300	No	88	1160	Inductive
RP-2000	Four #F-4	C-2690	100	100	Yes	93	810	Capacitive
RP-2000	Four #40-L	C-2690	—	250	No	71	1450	Inductive
RP-2500	Four #40-L	C-2690	200	200	Yes	70	1060	Capacitive
RP-2500	Four #40-L	C-2690	—	500	No	50	1950	Inductive

d



FULL-WAVE DOUBLER

T Stancor No.	SR★	L Stancor No.	C1 (in MFD)	C2 (in MFD)	SPR*	D.C. Ouput Volts	D.C. Ouput MA.	Rectifier Load
RP-400	Four #F-6	C-1420	8	0.5	Yes	1040	75	Capacitive
RP-600	Four #F-6	—	60	—	Yes	802	142	Capacitive
RP-800	Two #F-6	—	80	—	Yes	536	188	Capacitive
RP-1600	Two #F-6	C-2326	80	16	Yes	240	325	Capacitive
RP-2000	Two #F-6	—	150	—	Yes	212	390	Capacitive
RP-2500	Two #40-L	—	500	—	Yes	150	553	Capacitive

Note: Filtering shown permits maximum output ripple voltage of 3% or less.

★Quantity Shown is Total Number used in a given circuit. Rectifiers should be equivalent to Sarkes Tarzian numbers shown.

*Surge protection resistors are recommended when capacitor input filters are used. Allow 3.3 ohms per 70 volts R.M.S. applied voltage. Transformer secondary winding D.C. resistance may be used as part or all of the amount required.

FOR TRANSISTOR POWER SUPPLIES: Primary 117 Volts 60 Cycles — Lead Wire Termination.

e

Catalog No.	Secondary #1 Volts	Secondary #1 DCMA	Secondary #2 Volts	Secondary #2 DCMA	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
TP-1	13/18	900	13/18	900	C	2 1/2	3	3 1/8	2	2	2 5/8	3/16 x 3/8	2.7
TP-2	10/20 C.T./40 C.T.	100	—	—	A	1 7/8	2 7/8	1 5/8	2 3/8	—	2	3/16	0.7
TP-3	10/20 C.T./40 C.T.	300	—	—	A	2 1/8	3 3/4	2 3/8	3 1/8	—	2 3/4	3/16	1.5
TP-4	10/20 C.T./40 C.T.	1000	—	—	C	2 1/2	3 1/8	3 1/8	2	2 1/8	2 3/4	3/16 x 3/8	3.2
P-8193▲	17/18	6 Amps. RMS	—	—	NV	3 1/8	3 1/8	3 13/16	2 1/2	2 5/8	3 5/16	3/16 x 5/16	6.0
P-8194▲	36	3 Amps. RMS	36	3 Amps. RMS	NV	3 3/4	3 3/4	4 5/16	3	3	3 11/16	3/16 x 5/16	10
P-8196	80 C.T.	1200	—	—	C	2 13/16	3 5/8	3 1/2	2 1/4	2 3/8	3 1/8	3/16 x 3/8	4.5

▲Write for Bulletin #587 for Rectifier Circuits showing D.C. Voltages and allowable D.C. Current.

See Pages 1427, 1428 and 1429 for complete price list.

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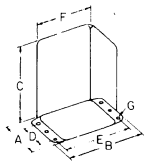

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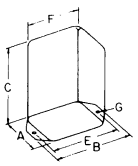


TD

STANCOR
COMMERCIAL
rectifier & inverter trans.

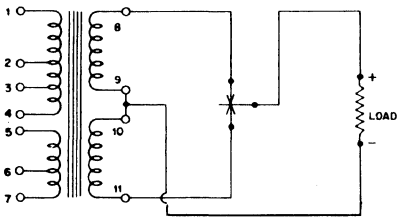
SILICON OR SELENIUM RECTIFIER TRANSFORMERS:

Primary — 117 Volts 50/60 Cycles.
Solder Lug Termination

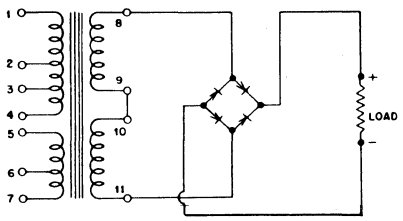
These transformers have been designed to operate in full-wave center tap or bridge rectifier circuits. The D.C. voltages shown are approximate since they depend on the internal drop of the rectifiers used.

Primary taps and an additional buck or boost tapped winding provides a wide range of output voltages. For detailed terminal connections, output voltages, etc. write for bulletin 518-R. For matching high current chokes see page 20.

FULL-WAVE C. T.



FULL-WAVE BRIDGE



a

Catalog No.	Rectifier Circuit	Range of Applied A.C. Volts Under Load (Approx.)	Output Resistive or Inductive Load Max D.C. Volts	Output Resistive or Inductive Load Max D.C. Amps.	Output Capacitive Load* Max. D.C. Volts	Output Capacitive Load* Max. D.C. Amps.	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
RT-201	C. T.	11.7 to 29.4	11.2	2.0	13.8[1]	2.0	NV	2 1/2	2 3/8	3 1/8	2	2 1/8	2 13/16	3/16 s 5/16	2.5
	Bridge	11.1 to 28.5	23.0	1.25	30.0[2]	1.25									
RT-202	C. T.	12.0 to 29.8	11.1	4.0	14.7[3]	4.0	NV	2 13/16	2 3/4	3 7/16	2 1/4	2 3/8	3 1/16	3/16 x 5/16	3.8
	Bridge	12.0 to 29.8	24.3	2.0	33.0[1]	2.0									
RT-204	C. T.	11.7 to 29.2	12.0	8.0	14.5[4]	8.0	NV	3 1/8	3 1/2	3 13/16	2 1/2	2 7/8	3 9/16	3/16 x 5/16	6 1
	Bridge	11.6 to 29.2	24.0	4.0	32.4[3]	4.0									
RT-206	C. T.	12.0 to 29.7	11.5	12.0	14.4[5]	12.0	NV	3 7/16	4	4 3/16	2 3/4	3 1/4	3 15/16	3/16 x 5/16	9.1
	Bridge	12.0 to 29.7	24.0	6.0	32.0[6]	6.0									
RT-208	C. T.	12.1 to 29.2	11.4	15.0	14.8[7]	15.0	NV	3 3/4	5	4 9/16	2 15/16	3 3/4	4 7/16	3/16 x 5/16	12.6
	Bridge	12.1 to 29.2	23.7	8.0	32.5[4]	8.0									
RT-2012	C. T.	12.2 to 29.0	11.4	22.5	14.3[8]	22.5	NV	4 3/8	5 7/8	5 5/16	3 1/2	4 1/4	4 15/16	3/16 x 5/16	20.5
	Bridge	12.2 to 29.0	23.5	12.0	33.0[5]	12.0									
RT-408	Bridge	25.0 to 53.5	44.0	8.0	63.0[4]	8.0	NV	4 3/8	6 3/4	5 5/16	3 1/2	5 1/4	5 15/16	3/16 x 5/16	26.5
RT-4012	Bridge	25.0 to 53.0	43.5	12.0	60.0[5]	12.0	NV	5 3/8	6	7 1/8	4 5/8	5 1/2	6 1/2	3/8 x 1/2	34

*MFD Filter Capacitor 1-1000, 2-500, 3-2000, 4-4000, 5-6000, 6-3000, 7-7500, 8-12000.

TRANSISTOR INVERTER TRANSFORMERS:

Write for Bulletin CT-43 for Circuit Diagram.
Lead Wire Termination.

b

Catalog No.	Input	Output Volts	MADC	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
DCT-1	12 Volts D.C.	275 D.C.	125	TD	1 7/8	2 7/16	2 1/4	—	2 1/8	1 7/8	3/16	0.9
DCT-2	12 Volts D.C.	250 D.C. or 500 D.C.	275 / 165	SC	2 1/4	2 11/16	2 11/16	1 1/2	2 3/8	2	3/16	1.5

TRANSISTOR INVERTER TRANSFORMER:

With 12 Volts D.C. and 117 Volts 60 Cycle Primary.
Write for Bulletin 596 for Circuit Diagram.

c

Catalog No.	D.C. Output Volts	D.C. Output DCMA	Filament Winding	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
P-8195	280	150 CCS 250 ICAS	12.6 V. @ 3 Amps. (with 117 V. Pri)	C	3 1/8	3 15/16	3 7/8	2 1/2	2 5/8	3 7/8	3/16 x 3/8	6.0

SPECIAL VIBRATOR TRANSFORMERS:

With D.C. and 117 Volts 60 Cycle Primary.
Lead Wire Termination.

d

Catalog No.	D.C. Pri.	Plate Winding A.C. Volts	Plate Winding DCMA	Buffer Cap.	Filament Winding Volts	Filament Winding Amps.	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
P-6166	6 V.	350-0-350	135	.01 mfd	6.3	2.25	C	3 3/4	3 3/4	4 11/16	3	2 9/16	3 3/8	3/16 x 3/8	6.9
P-6496	12 V.	350-0-350	100	.005 mfd	12.6 C.T.	2.0	C	3 3/4	4	4 11/16	3	2 13/16	3 5/8	3/16 x 3/8	7.9

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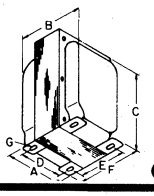
See Pages 1427, 1428 and 1429 for complete price list.

STANCOR

COMMERCIAL

plate transformers



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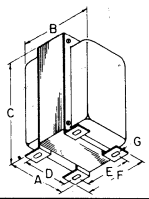

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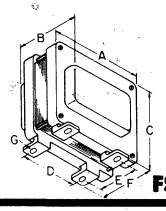

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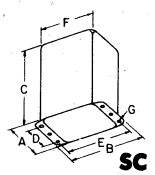

SC

FOR REACTOR INPUT SYSTEMS: All Primaries — 50/60 Cycles.

	Catalog No.	Plate Winding AC Volts	DC Volts	DCMA CCS	DCMA ICAS	Primary Volts	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
a	P-8040*	500-40-0-500	400 / 40	300	375	115	C	3¾	4⅝	4 11/16	3	3 7/16	4¼	3/16 x ⅜	9.8
	P-8041*	615-520-40-0 / 520-615	500 / 400 / 40	250	310	115	C	3¾	5¼	4 11/16	3	4 1/16	4⅞	3/16 x ⅜	13.6
	P-45††	675-575-0 / 575-675	500 / 400	250	325	115/230	SC	4 9/16	5¼	5 5/16	2½	4¾	4⅛	3/16	12.0
	P-8042*	770-510-40-0 / 510-770	600 / 400 / 40	300	375	115	C	3¾	6½	4 11/16	3	5 5/16	6⅛	3/16 x ⅜	18.0
	P-67††	900-735-0 / 735-900	750 / 600	250	325	115/230	SC	4 9/16	5¼	5 5/16	2½	4¾	4⅛	3/16	13.5
	P-8043*	950-750-40-0 / 750-950	750 / 600 / 40	300	375	115	FS	5⅝	6¾	7⅛	4⅝	4	5	⅜ x ½	29.0
b	P-8044*	1200-0-1200† / 535-0-535	1000 / 400	150 / 150	190 / 190	115	FS	6⅛	8¼	7⅝	4¾	4	5	5/16 x ¾	29.8
	P-8025*	1230-940-0 / 940-1230	1000 / 750	400	500	115	FS	5⅝	7½	7⅛	4⅝	4¾	5¾	⅜ x ½	35.0
	P-1240††	1425-0-1425† / 600-0-600	1250 / 400	150 / 200	200 / 260	115/230	SC	5 5/16	5⅞	6 1/16	3½	5⅜	4 11/16	¼	26.0
	P-8026*	1475-1175-0 / 1175-1475	1250 / 1000	300	375	115	FS	5⅝	7½	7⅛	4⅝	4¾	5¾	⅜ x ½	36.5
	P-8027*	1510-1210-0 / 1210-1510	1250 / 1000	500	625	115	FS	5⅝	8¼	7⅛	4⅝	5½	6½	⅜ x ½	45.2
	P-1512††	1710-1430-0 / 1430-1710	1500 / 1250	300	425	115/230	FS-1	7½	7	7	4¾	6	7⅛	⅜ x ¾	43.0
	P-8028*	1740-1460-0 / 1460-1740	1500 / 1250	300	375	115	FS	5⅝	7¾	7⅛	4⅝	5	6	⅜ x ½	38.7
	P-8029*	1775-1500-0 / 1500-1775	1500 / 1250	500	625	115/230	FS	7¼	8⅛	9	6	5⅝	6⅞	7/16 x ⅝	65.0
	P-8031*	2075-1775-0 / 1775-2075	1750 / 1500	500	625	115/230	FS	7¼	8⅛	9	6	5⅝	6⅞	7/16 x ⅝	65.0
c	P-8030*	2100-1800-0 / 1800-2100	1750 / 1500	300	375	115	FS	5⅝	7¼	7⅛	4⅝	5½	6½	⅜ x ½	45.8
	P-8033*	2375-2065-0 / 2065-2375	2000 / 1750	500	625	115/230	FS	7¼	8⅜	9	6	5⅞	7⅛	7/16 x ⅝	77.0
	P-8032*	2400-2100-0 / 2100-2400	2000 / 1750	300	375	115	FS	5⅝	8	7⅛	4⅝	6¼	7¼	⅜ x ½	46.0
	P-2520††	2820-2260-0 / 2260-2820	2500 / 2000	300	425	115/230	FS-1	8⅞	7½	8½	5½	6⅝	8⅛	⅜	71.0
	P-8034*	2900-2385-0 / 2385-2900	2500 / 2000	300	375	115/230	FS	7¼	8⅛	9	6	5⅝	6⅞	7/16 x ⅝	62.8
	P-2126††	2900-2320-0 / 2320-2900	2600 / 2100	500	700	115/230	FS	7¼	10½	9	6	7¾	9	7/16 x ⅝	95.0
	P-8035*	2950-2375-0 / 2375-2950	2500 / 2000	500	575	115/230	FS	7¼	9⅝	9	6	7 1/16	8⅜	7/16 x ⅝	80.0
	P-4353††	4600-4050-3400 / 0-3400-4050 / 4600	4000 / 3500 / 3000	600	800	115/230	FS-1	13⅞	10	12¾	9	8⅞	10½	½	150.

WITH PLATE LEADS OUT OF TOP: For Reactor Input Systems. All Primaries — 50/60 Cycles.

d	PT-8311††	1200-0-1200	1000	225	280	117	C	3¾	5¼	4 11/16	3	4 1/16	4⅞	3/16 x ⅜	13.0
	PT-8312††	1200-0-1200	1000	325	405	117	C	4⅝	6¾	5⅜	3½	5⅛	6¼	¼ x ⅝	22.5
	PT-8313††	1475-0-1475	1250	250	310	117	C	4⅝	6⅝	5⅜	3½	5	6⅛	¼ x ⅝	22.0
	PT-8314††	1790-0-1790	1500	225	280	117	C	4⅝	6½	5⅜	3½	4⅞	6	¼ x ⅝	21.5
	PT-8315††	2065-0-2065	1750	200	250	117	C	4⅝	6⅝	5⅜	3½	5	6⅛	¼ x ⅝	22.0

CCS RATING FOR REACTOR INPUT — ICAS RATING FOR CAPACITOR INPUT: All Primaries — 50/60 Cycles.

e	PC-8301††	415-0-415	300 / 425	200	160	117	C	3⅛	3½	3⅞	2½	2 3/16	3	3/16 x ⅜	4.8
	PC-8302††	515-0-515	385 / 500	235	200	117	C	3 7/16	4⅛	4¼	2¾	2 15/16	3¾	3/16 x ⅜	6.8
	PC-8303††	665-0-665	500 / 750	250	200	117	C	3¾	4⅜	4 11/16	3	3 3/16	4	3/16 x ⅜	9.6
	PC-8304††	750-0-750	600 / 850	265	200	117	C	3¾	4⅞	4 11/16	3	3 11/16	4½	3/16 x ⅜	11.5
	PC-8305††	920-0-920	750 / 1000	250	200	117	C	3¾	5	4 11/16	3	3 13/16	4⅝	3/16 x ⅜	11.9
	PC-8306††	920-0-920 / 500-0-500 ††	750 / 1100	150	125	117	C	3¾	5	4 11/16	3	3 13/16	4⅝	3/16 x ⅜	11.9
			380 / 550	150	125										

All "C" style have Leads; "SC" style have lugs; "FS" and "FS1" have Terminals.
†Both Secondaries may be Loaded Simultaneously.
††Secondary C.T. must be grounded.
*May be used with Secondary C.T. ungrounded.
All Secondary A.C. Voltages ±3%.

STANCOR PAGE 23

See Pages 1427, 1428 and 1429 for complete price list.

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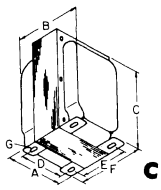
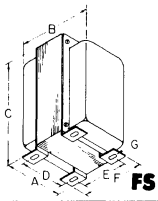
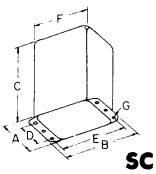


C



FS



SC

STANCOR
COMMERCIAL
isolation/auto transformers

STEP-DOWN AUTO-TRANSFORMERS:
Primary — 230 Volts 50/60 Cycles — Line Cord and Plug.
Secondary — 115 Volts — Standard Female Receptable.

	Catalog No.	Watts	Style	Dimensions A	B	C	D	E	F	G	Wt. Lbs.
a	P-6287	40	C	2 5/8	2 1/2	3 1/2	2	1 1/2	2 1/8	3/16 x 3/8	2.2
	P-5062	80	C	2 13/16	3 3/8	3 1/2	2 1/4	2 1/8	2 7/8	3/16 x 3/8	3.8
	P-5063	100	C	3 1/8	3 5/8	3 7/8	2 1/2	2 1/16	2 7/8	3/16 x 3/8	4.5
	P-5064	150	C	3 7/16	3 5/8	4 1/4	2 3/4	2 7/16	3 1/4	3/16 x 3/8	5.2
	P-5065	300	C	3 3/4	4 1/4	4 11/16	3	3 1/16	3 7/8	3/16 x 3/8	8.8
	P-6141	500	C	3 3/4	5 1/4	4 11/16	3	4 1/16	4 7/8	3/16 x 3/8	13.7
	P-6124	1000	FS	5 5/8	6 3/4	7 1/8	4 5/8	4	5	3/8 x 1/2	24.7
b	SD-50	50	SC	2 7/8	3 1/2	3 1/2	2	3 1/8	2 11/16	3/16	2.8
	SD-100	100	SC	3 11/16	4 7/16	4 5/16	2 3/4	3 7/8	3 1/4	3/16	4.3
	SD-150	150	SC	4 9/16	5 1/4	5 5/16	2 1/2	4 3/4	4 1/8	3/16	7.0
	SD-250	250	SC	4 9/16	5 1/4	5 5/16	2 1/2	4 3/4	4 1/8	3/16	8.8
	SD-500	500	SC	5 5/16	5 7/8	6 1/16	3 1/2	5 3/8	4 11/16	1/4	14.5
	SD-1000	1000	SC	6 1/8	6 1/2	7 1/16	4 1/4	6	5 1/8	1/4	22.5

LINE ADJUSTING AUTO-TRANSFORMERS:
Primary — 50/60 Cycle. Line Cord and Selector Switch.
Secondary — Female Receptacle with Voltmeter.

	Catalog No.	Watts	Input Voltage	Output Voltage	Style	Dimensions A	B	C	D	E	F	G	WT. Lbs.
c	PV-6441	150	65/75/90/100/115/130/145	115	C	3 3/4	5 3/8	5 1/2	3	4 5/16	5 1/8	3/16 x 3/8	6.4
	PV-6442	350	65/75/90/100/115/130/145	115	C	3 3/4	6 1/8	5 1/2	3	5 1/16	5 7/8	3/16 x 3/8	10.5
	PV-6443	500	65/75/90/100/115/130/145	115	C	3 3/4	6 7/8	5 1/2	3	5 13/16	6 5/8	3/16 x 3/8	15
	PV-6444	750	65/75/90/100/115/130/145	115	C	4 5/8	8 1/8	6 5/16	3 1/2	6 5/8	7 3/4	1/4 x 5/8	19

LINE ADJUSTING ISOLATION TRANSFORMERS:
Primary — 50/60 Cycles. Line Cord and Selector Switch.
Secondary Standard Female Receptacle.

d	IS-50	50	105/115/125	††125/115/105	SC	3 11/16	4 7/16	4 11/16	2 3/4	3 7/8	3 1/4	3/16	5
	IS-100	100	105/115/125	††125/115/105	SC	4 9/16	5 1/4	5 5/16	2 1/2	4 3/4	4 1/8	3/16	8.5
	IS-150	150	105/115/125	††125/115/105	SC	5 5/16	5 7/8	6 1/16	3 1/2	5 3/8	4 11/16	1/4	12.5
	IS-250	250	105/115/125	††125/115/105	SC	5 5/16	5 7/8	6 1/16	3 1/2	5 3/8	4 11/16	1/4	18.3

STRAIGHT ISOLATION: ELECTROSTATIC SHIELDS GROUNDED TO CORE
Primary — 50/60 Cycles. Line Cord.
Secondary — Female Receptacle.

e	P-6410	50	115	115	C	2 13/16	3 1/8	3 1/2	2 1/4	1 7/8	2 5/8	3/16 x 3/8	3.7
	P-6160†	100	105/115/125	115	C	3 3/4	3 3/4	4 11/16	3	2 5/16	3 3/8	3/16 x 3/8	7.0
	P-6371	175	117	117	SC	4 9/16	5 1/4	5 5/16	2 1/2	4 3/4	4 1/8	3/16	9.0
	P-6161†	250	105/115/125	115	C	3 3/4	5 1/2	4 11/16	3	4 5/16	5 1/8	3/16 x 3/8	14.2
	P-6298†	500	105/115/125	115	FS	5 5/8	7 1/8	7 5/8	4 5/8	4 1/4	5 1/4	3/8 x 1/2	28
	P-6125▲	1000	105/115/125	115	FS	5 5/8	7 3/4	7 1/8	4 5/8	5	6	3/8 x 1/2	35
	P-6123▲	1500	105/115/125	115	FS	5 5/8	9	7 1/8	4 5/8	6 1/4	7 1/4	3/8 x 1/2	50

STEP-DOWN ISOLATION: ELECTROSTATIC SHIELDS GROUNDED TO CORE
Primary — 50/60 Cycles. Line Cord.
Secondary — Female Receptacle.

f	P-6383†	100	210/230/250	115	C	3 3/4	3 3/4	4 11/16	3	2 5/16	3 3/8	3/16 x 3/8	7.3
	P-6385†	250	210/230/250	115	C	3 3/4	5 1/2	4 11/16	3	4 5/16	5 1/8	3/16 x 3/8	14.2
	P-6387†	500	210/230/250	115	FS	5 5/8	7 1/8	7 3/4	4 5/8	4 1/4	5 1/4	3/8 x 1/2	29.5
	P-6389▲	1000	210/230/250	115	FS	5 5/8	7 7/8	7 1/8	4 5/8	5	6	3/8 x 1/2	34
	P-6390▲	1500	210/230/250	115	FS	5 5/8	9 3/8	7 1/8	4 5/8	6 1/2	7 1/2	3/8 x 1/2	50

ISOLATION TESTING TRANSFORMERS: ELECTROSTATIC SHIELD GROUNDED TO CORE
Primary—50/60 Cycles. Line Cord.
Secondary—Three Female Receptacles.

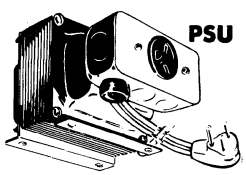
g	P-6415	350	117	105/115/125	C	4 5/8	5 11/16	5 3/8	3 1/2	4 11/16	5 3/16	1/4 x 5/8	17

AUTO-TRANSFORMERS FOR TESTING:
Primary 50/60 Cycles — Line Cord and Selector Switch.
Secondary — Female Receptacle.

h	*P-6299	150	115	{90/100/110/120 | 130/140/150}	C	3 1/8	3 7/8	3 7/8	2 1/2	2 5/16	3 3/8	3/16 x 3/8	6

STEP UP — STEP-DOWN AUTO-TRANSFORMERS:
(Three wire Line Cord and Receptable)
208 V./230 V., or 230 V./208 V. 60 Cy. by means of Connection. Change inside outlet Box.

	Catalog No.	Application	Style	Height	Base Area	Mtg Ctrs	Wt. Lbs
j	PSU-2000	2.3 KVA for 1/2 to 1 hp Motors	PSU	3 1/2	3 3/4 x 6 1/2	2 7/8 x 3 1/4	9
	PSU-3000	3 KVA for 1 to 2 hp Motors	PSU	4	4 1/2 x 6	2 1/2 x 3 3/4	10


PSU

† Has Primary Switch. ▲ Has Primary Terminals. †† With 115 volt input.
*Available until stock is depleted

STANCOR PAGE 24

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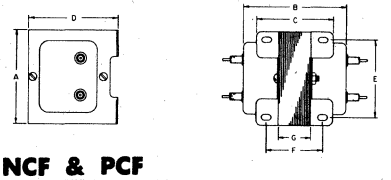
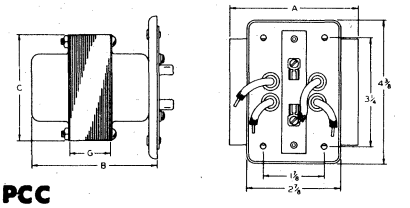
See Pages 1427, 1428 and 1429 for complete price list.

STANCOR
COMMERCIAL
control transformers



NCF & PCF



PCC

NORMAL REACTANCE TYPE: Primary 115 Volts 50/60 Cycles — Lead Wire Termination.

a

Catalog Number	Secondary			Dimensions in Inches							Approx. Weight Lbs.
	Volts	Amps.	V-A Cap.	A	B	C	D	E	F	G	
NCF-1650	16	3.15	50	3	3¼	2⅜	2¾	2⅜	1¾	1	3½
NCF-2425	24	1.05	25	2⅝	2½	2⅛	2½	2⅛	1½	⅞	2¼
NCF-2450	24	2.1	50	3	3¼	2⅜	2¾	2⅜	1¾	1	3½
NCF-2475	24	3.15	75	3½	3⅝	2⅞	3 3/16	3	2¼	1 7/16	4½
NCF-24100	24	4.15	100	3 15/16	3 15/16	3 13/16	3½	3 3/16	2 15/16	1 9/16	5¼
NCF-24150	24	6.25	150	4½	4⅛	3¾	4	3¾	3	1½	8½
NCF-3250	32	1.55	50	3	3¼	2⅜	2¾	2⅜	1¾	1	3½
NCF-3275	32	2.35	75	3½	3⅝	2⅞	3 3/16	3	2¼	1 7/16	4½
NCF-32150	32	4.7	150	4½	4⅛	3¾	4	3¾	3	1½	8½
NCF-1550	550	(NL)	50	2⅞	2⅞	2⅞	3½	2¼	2⅛	1⅛	3½

POWER CIRCUIT TRANSFORMERS: Primary 50/60 Cycles. Lead Wire Termination.

b

Catalog Number	Primary Volts	Secondary			Dimensions in Inches							Weight Lbs.
		Volts	Amps.	V-A Cap.	A	B	C	D	E	F	G	
PCF-2025	230	115	.25	25	3	3	2⅛	2 13/16	2⅜	1½	¾	2
PCF-2050	230	115	.45	50	3	3½	2⅝	2 13/16	2⅜	2	1¼	2¾
PCF-24075	230/460	115	.65	75	3½	3⅝	2⅞	3 3/16	3	2¼	1 7/16	4¼
PCF-24100	230/460	115	.85	100	3 15/16	4⅛	3 13/16	3½	3 3/16	2 15/16	1 9/16	5¼
PCF-24150	230/460	115	1.5	150	4½	4⅛	3¾	4	3¾	3	1½	7¾
PCF-24250	230/460	115	2.2	250	5¼	4 5/16	3 15/16	4 5/16	4¼	3	1 11/16	12

LOW CURRENT CONTROL TRANSFORMERS:

Primary 117 Volts 50/60 cycles
Lead Wire Termination

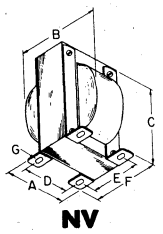
c

Catalog No.	Secondary #1		Secondary #2		Secondary #3		Style	Dimensions							Wt. Lbs.
	Volts	Amps	Volts	Amps	Volts	Amps		A	B	C	D	E	F	G	
• P-8361	12	.10	12	.10	12 C.T.	.10	S	1½	2	1¾	1¾	—	1⅜	3/16	.36
• P-8362	12	.15	12	.15	12 C.T.	.15	S	1¾	2⅜	2	2	—	1⅝	3/16	.60
• P-8363	12	.25	12	.25	12 C.T.	.25	S	1¾	2⅞	2⅜	2⅜	—	2	3/16	.85
• P-8364	12	.50	12	.50	12 C.T.	.50	S	2⅛	2⅞	2⅜	2⅜	—	2	3/16	1.25

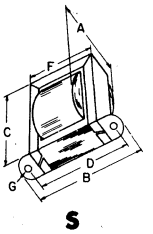
CONTROL TRANSFORMERS: Primary — 115/230 Volts 50/60 Cycles — Solder Lug Termination.

d

Typical Applications: Automatic Assembly equipment. Relays, Solenoids, Small Motors, Speed Changers, Recording Device, Pumps, Electronic Tubes, Heating Elements, Elevators, Door Openers, Automatic Musical Instruments, Low Voltage Lighting Signal Lamps, Spark Plug Testers, Control Valves for Fluids and Gases, Fans and Blowers, Mechanical and Electrical Signs and similar applications.



NV



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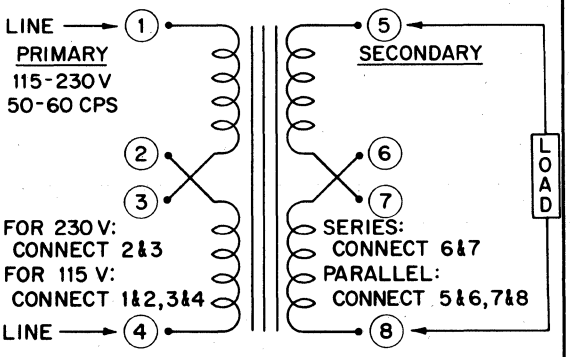

Catalog No.	VA Cap.	Secondary		Style	Dimensions							WT. Lbs.
		Parallel	Series		A	B	C	D	E	F	G	
P-6375	12	6V @ 2A	12V @ 1A	S	1⅝	2⅞	2⅜	2⅜	—	2	3/16	1.0
P-6376	24	6V @ 4A	12V @ 2A	S	1⅞	3⅛	2¾	2 13/16	—	2¼	3/16	1.5
P-6377	48	12V @ 4A	24V @ 2A	S	2¼	3⅝	3⅛	3⅛	—	2⅝	3/16	2.5
P-6378	96	12V @ 8A	24V @ 4A	NV	2 13/16	2⅞	3 7/16	2¼	2¼	2⅞	3/16 x 5/16	4.2
P-6379	192	12V @ 16A	24V @ 8A	NV	3 7/16	3⅜	4 5/16	2¾	3	3 11/16	3/16 x 5/16	8.0

STANCOR PAGE 25 • New Part Number.

See Pages 1427, 1428 and 1429 for complete price list.
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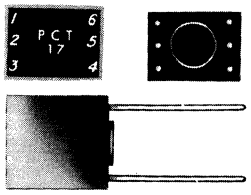

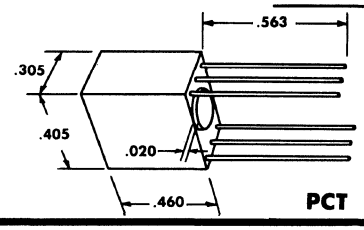

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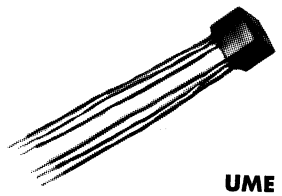


UME

STANCOR
COMMERCIAL
miniature audio

POLYCHROMATRANS With Multiples of 0.1" Grid Spacing for Printed Circuits.

COLOR CODING by application to assure immediate and positive transformer identification.

RECTANGULAR SHAPE allows the utmost utilization of space and stacking in limited area.

PROTECTIVE STAND-OFF prevents solder flow-back and maximum lead exit protection.

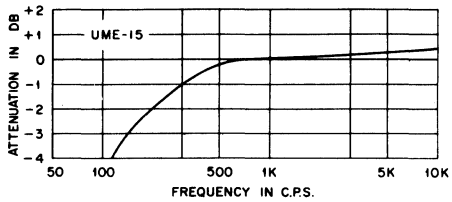
SPACED LEADS of fatigue resistant gold plated nickel-iron alloy are .020" in diameter, 9/16" long and have multiples of 0.1" grid spacing for printed circuit application.

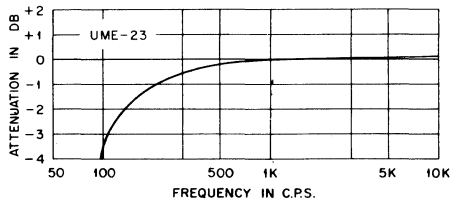
	Catalog No.	Power Level in M.W.	Application	Color Application Guide	Matching Impedance Primary	Matching Impedance Secondary	Max. MA. D.C. Unbal. in Pri.	D.C. Resistance Primary	D.C. Resistance Secondary	Overall Turns Ratio	RMS Test Volts
a	PCT-14	15	Input	Brown	200,000 CT	1,000 CT	0	6300	130	14.1:1	500
	PCT-15	35	Input	Brown	50,000 CT	1,000 CT	0	4600	90	7.1:1	500
	PCT-16	.5	Input	Brown	250,000	250,000	0	3500	4500	1:1	500
	PCT-17	15	Input	Brown	200,000	1,000	0	6300	130	14.1:1	500
	PCT-21	55	Interstage	Red	25,000	1,000	.5	2000	140	5:1	500
	PCT-23	55	Interstage	Red	25,000 CT	1,000 CT	.5	2000	140	5:1	500
	PCT-25	75	Interstage	Red	10,000 CT	1,500 CT	1	1250	360	2.57:1	500
	PCT-30	75	Driver	Orange	10,000 CT	1,200 CT	1	1250	240	2.88:1	500
	PCT-31	75	Driver	Orange	10,000 CT	2,000 CT	1	1250	400	2.24:1	500
	PCT-39	75	Driver	Orange	10,000 CT	500 CT	1	1250	100	4.47:1	500
	PCT-43	75	Output	Yellow	1,000	50	3	175	9.5	4.4:1	500
	PCT-54	75	Output	Yellow	600 CT	12	4.5	92	3.6	7.06:1	500
	PCT-60	75	Output	Yellow	500 CT	600	3	80	118	1.1:1	500
	PCT-61	75	Output	Yellow	900 CT	600	4	125	115	1.22:1	500
	PCT-62	75	Output	Yellow	1,500 CT	600	3	200	110	1.58:1	500
b	PCT-70	75	Output	Yellow	320 CT	3.2	6	52	.9	10:1	500
	PCT-71	75	Output	Yellow	600 CT	3.2	4.5	84	1	13.6:1	500
	PCT-76	75	Output Isolation	Green	10,000 CT	10,000 CT	1	1100	1400	1:1	500
	PCT-77	75	Output Isolation	Green	600 CT	600 CT	3	85	110	1:1	500
	PCT-116	—	Choke	Blue	6 HYS.	—	2	1800	—	—	500
	PCT-117	—	Choke	Blue	1.25 HYS.	—	2	200	—	—	500
	PCT-118	—	Choke	Blue	3.5 HYS.	—	2	1200	—	—	500
	PCT-128	—	Choke	Blue	.3 HY.	—	4	50	—	—	500
	SPCT-10 Magnetic Alloy Shield-fits all PCT Transformers.										

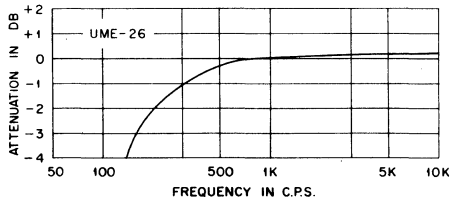
ULTRA MINIATURE ENCAPSULATED TRANSFORMERS Size .312" x .400" x .426". Insulation Test — 100 Volts

	Catalog No.	Application	Pri. Res.	Pri. Imp. in Ohms	D.C. MA in Pri.	Sec. Imp. in Ohms	Sec. Res.	Mw. Level
c	UME-11	interstage	1500	30,000	.5	1200	185	50
	UME-12	output	120	600	3	60	13	100
	UME-13	output	250	1200	3	60	17	100
	UME-14	output	70	600	3	3.2	.7	100
	UME-15	output	170	1200	2	3.2	.75	100
	UME-16	output	1200	10,000	1	3.2	.7	100
	UME-17	input	7500	200,000	0	1000	260	25
	UME-18	reactor	1000	3 hy @ 2 MADC	2	—	—	—
	UME-19	output or driver	1100	12,500 CT	1	600 CT	45	100
	UME-20	driver	1000	12,500	1	1500 CT	100	100
	UME-21	driver	1100	12,500	1	2500 CT	160	100
	UME-22	single or PP output	25	200 CT	10	16	3	500
	UME-23	single or PP output	35	400 CT	7	16	2.5	500
	UME-24	single or PP output	75	800 CT	5	16	2	500
	UME-25	single or PP output	85	1070 CT	4	16	2	500
	UME-26	single or PP output	120	1330 CT	3.5	16	2	500
d	UME-27	single or PP output	225	2000 CT	3	16	2.5	500
	UME-28	single or PP output	750	10,000 CT	1	16	2.5	500
	UME-29	output	35	300 CT	7	600	110	500
	UME-30	output	60	500 CT	5.5	600	110	500
	UME-31	output	105	900 CT	4	600	110	500
	UME-32	output	200	1500 CT	3	600	120	500
	UME-33	interstage	1500	30,000 CT	.5	1200 CT	175	100
	UME-34	input	6500	200,000 CT	0	1000 CT	250	25
	UME-35	interstage	1000	12,000 CT	1	1800 CT	115	100
	UME-36	reactor	2600	6 hy @ 2 MADC	2	—	—	—
	UME-37	reactor	190	1 hy @ 2 MADC	2	—	—	—
	UME-38	reactor	1800	12 hy @ 0 DC	0	—	—	—
	UME-39	reactor	2700	20 hy @ 0 DC	0	—	—	—

Typical Response Curves







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See Pages 1427, 1428 and 1429 for complete price list.

STANCOR
COMMERCIAL
t.v. replacement

T.V. REPLACEMENT FLYBACKS

REFER TO STANCOR T. V. REPLACEMENT GUIDE FOR APPLICATION

Part No.	Mtg. Type	Part No.	Mtg. Type	Part No.	Mtg. Type	Part No.	Mtg. Type
*A-8119/HO-155	1	A-8267/HO-217	32	HO-279	55	HO-340	67
*A-8127/HO-156	1	* A-8268/HO-218	32	HO-280	56	HO-341	Coil Only
*A-8128/HO-157	1	* A-8269/HO-219	33	HO-281	24	HO-342	56
A-8129/HO-158	1	A-8270/HO-220	33	HO-282	56	HO-343	55
A-8130/HO-159	2	A-8271/HO-221	33	HO-283	58	HO-344	55
A-8131/HO-160	3	* A-8272/HO-222	33	HO-284	59	HO-345	63
A-8132/HO-161	4	* A-8273/HO-223	62	HO-285	58	HO-346	63
A-8133/HO-162	5	* A-8274/HO-224	34	* HO-286	24	HO-347	64
A-8134/HO-163	5	A-8275/HO-225	35	HO-287	60	HO-348	65
A-8135/HO-164	6	A-8276/HO-226	35	* HO-288	61	HO-349	66
A-8136/HO-165	7	* A-8277/HO-227	35	HO-289	58	HO-350	40
A-8137/HO-166	8	* A-8278/HO-228	8	HO-290	53	HO-351	26
A-8138/HO-167	8	* A-8279/HO-229	8	* HO-291	59	HO-352	65
*A-8139/HO-168	9	* A-8280/HO-230	8	* HO-292	58	HO-353	61
A-8220/HO-169	10	* A-8281/HO-231	30	HO-293	56	HO-354	40
*A-8221/HO-170	10	* A-8282/HO-232	22	HO-294	9	HO-355	40
*A-8222/HO-171	11	* A-8283/HO-233	8	HO-295	9	HO-356	40
*A-8223/HO-172	8	A-8284/HO-234	36	* HO-296	58	HO-357	40
A-8224/HO-173	12	A-8285/HO-235	37	HO-297	50	HO-358	61
*A-8225/HO-174	12	* A-8287/HO-237	6	* HO-298	44	HO-359	40
A-8226/HO-175	12	A-8288/HO-238	31	HO-299	44	HO-360	62
*A-8227/HO-176	13	A-8289/HO-239	31	* HO-300	38	HO-361	53
A-8228/HO-177	13	A-8290/HO-240	31	HO-301	26	HO-362	68
A-8229/HO-178	13	* A-8291/HO-241	38	* HO-302	26	HO-363	68
A-8230/HO-179	14	A-8292/HO-242	26	HO-303	26	HO-364	68
A-8231/HO-180	14	A-8293/HO-243	39	HO-304	26	HO-365	68
A-8232/HO-181	16	A-8294/HO-244	40	HO-305	20	HO-366	68
A-8233/HO-182	8	A-8295/HO-245	40	HO-306	24	HO-367	68
A-8234/HO-183	17	A-8296/HO-246	41	HO-307	54	HO-368	67
A-8235/HO-184	17	A-8297/HO-247	30	HO-308	54	HO-369	67
A-8236/HO-185	39	A-8298/HO-248	42	* HO-309	9	HO-370	67
*A-8237/HO-186	18	A-8299/HO-249	30	* HO-310	8	HO-371	40
A-8238/HO-188	18	* HO-250	41	HO-311	38	HO-372	40
*A-8239/HO-189	19	HO-251	41	HO-312	9	HO-373	40
A-8240/HO-190	4	HO-252	43	HO-313	8	HO-374	40
A-8241/HO-191	20	* HO-253	44	HO-314	8	HO-375	55
*A-8242/HO-192	21	HO-254	43	HO-315	42	HO-376	49
*A-8243/HO-193	17	HO-255	45	HO-316	50	HO-377	44
A-8244/HO-194	22	HO-256	8	HO-317	26	HO-378	44
*A-8245/HO-195	23	* HO-257	42	HO-318	26	HO-379	40
*A-8246/HO-196	23	* HO-258	15	HO-319	40	HO-380	68
*A-8247/HO-197	24	HO-259	13	HO-320	40	HO-381	40
A-8248/HO-198	12	* HO-260	30	HO-321	53	HO-382	40
*A-8249/HO-199	16	* HO-261	20	* HO-322	22	HO-383	40
*A-8250/HO-200	14	* HO-262	47	HO-323	26	HO-384	40
*A-8251/HO-201	8	* HO-263	48	HO-324	42	HO-385	40
A-8252/HO-202	8	HO-264	42	* HO-325	45	HO-386	40
A-8253/HO-203	25	HO-265	49	* HO-326	2	HO-387	26
A-8254/HO-204	26	* HO-266	50	* HO-327	27	HO-388	40
A-8255/HO-205	26	HO-267	62	* HO-328	27	• HO-389	71
*A-8256/HO-206	27	HO-268	35	HO-329	27	• HO-390	71
*A-8257/HO-207	27	HO-269	35	HO-330	55	• HO-391	71
*A-8258/HO-208	28	* HO-270	62	HO-331	14	• HO-392	71
*A-8259/HO-209	27	HO-271	52	HO-332	27	• HO-393	71
*A-8260/HO-210	27	HO-272	53	HO-333	40	• HO-394	71
A-8261/HO-211	2	* HO-273	30	HO-334	40	• HO-395	71
A-8262/HO-212	29	HO-274	54	HO-335	40	• HO-396	71
A-8263/HO-213	20	HO-275	16	HO-336	56	• HO-397	72
A-8264/HO-214	30	HO-276	48	HO-337	54	• HO-398	72
A-8265/HO-215	8	HO-277	47	HO-338	2	HO-600C†	69
*A-8266/HO-216	31	* HO-278	59	HO-339	32	HO-601C†	70

STANCOR PAGE 27

*Available until stock is depleted • New Part Number. †For Color T.V.

See Pages 1427, 1428 and 1429 for complete price list.
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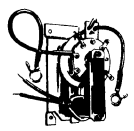
FLYBACK MOUNTING TYPES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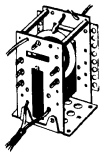
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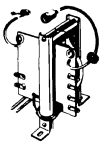
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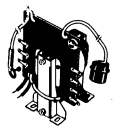
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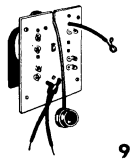
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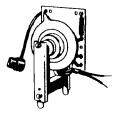
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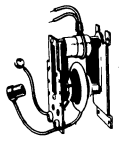
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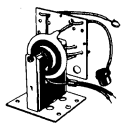
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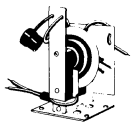
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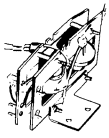
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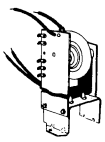
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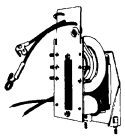
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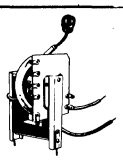
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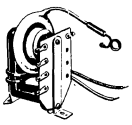
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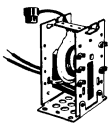
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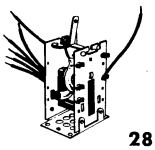
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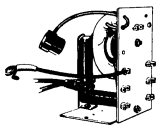
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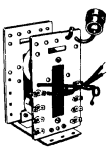
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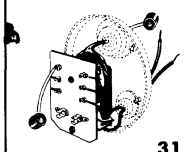
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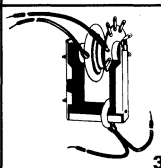
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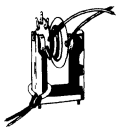
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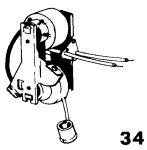
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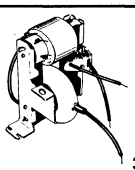
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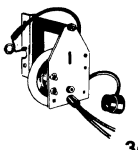
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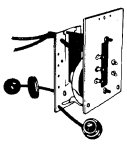
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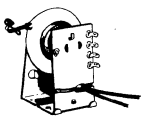
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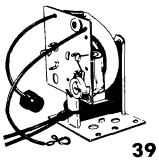
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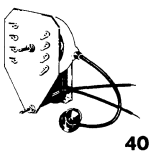
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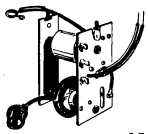
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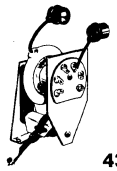
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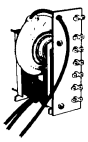
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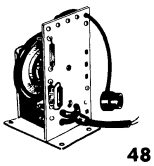
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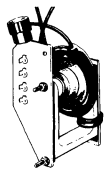
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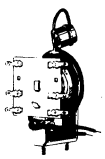
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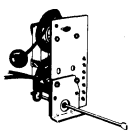
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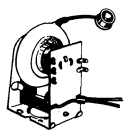
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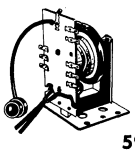
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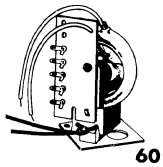
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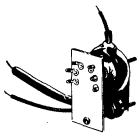
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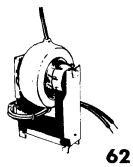
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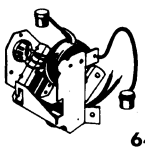
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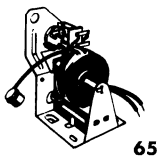
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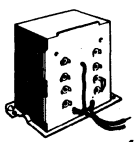
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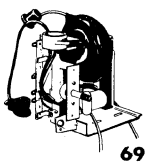
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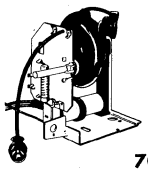
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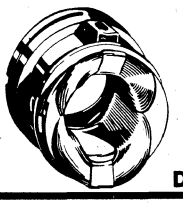
STANCOR
COMMERCIAL
t.v. replacement

DY


DY

DEFLECTION YOKES

Refer to Stancor T.V. replacement guide for Application.

	Part No.	Coil Inductance in MH		Coil Resistance in Ohms		Max. Scan.	Case Diam.	Unit Length	Mtg. Type	Application
		Horizontal	Vertical	Horizontal	Vertical					
a	* DY-1A	8.3	50	13.5	66	53°	3 1/8	3	DY	Multi-Purpose
	DY-2A	10.3	50	14.5	66	70°	3 1/8	2 3/4	DY	Multi-Purpose
	DY-8A	8.5	50	14.5	52.5	70°	3 1/8	2 3/4	DY	Multi-Purpose
	DY-9A	13.5	50	17.5	53.5	70°	3 1/8	2 3/4	DY	Multi-Purpose
	DY-10A	30.0	3.5	45	3.5	70°	3 1/8	2 3/4	DY	Multi-Purpose
	DY-11A	20.0	50	31	50	70°	3 1/8	2 3/4	DY	Multi-Purpose
	* DY-12A	30.0	50	22	50	70°	3 1/8	2 3/4	DY	Multi-Purpose
b	DY-13A	12.5	48	15	52	90°	3 1/2	3	DY	Muntz
	DY-14A	30.0	3.5	45	3.5	70°	3 1/8	2 3/4	DY	RCA
	DY-15A	25.0	40.0	35	50	70°	3 1/8	2 3/4	DY	Motorola
	DY-16A	20	44.0	26	45	90°	3 7/8	3 1/8	DY	Multi-Purpose
	* DY-17A	12.0	42.0	20	43	90°	3 3/4	3	DY	G. E.
	* DY-18A	14.5	41.5	18	50	70°	3 1/4	3 1/4	DY	Sylvania
	* DY-19A	20.0	41.5	28	50	70°	3 1/4	3 1/4	DY	Sylvania
c	* DY-20A	20.0	41.5	28	50	70°	3 1/4	3 1/4	DY	Sylvania
	DY-21A	14.5	3.1	10	3.5	70°	3 1/8	2 7/8	DY	RCA
	* DY-22A	20	46.0	25	45	70°	3 1/8	2 7/8	DY	Hoffman
	DY-23A	20.0	45.0	27	43	90°	3 3/4	3 1/8	DY	RCA
	DY-24A	18.5	11.0	34	11.5	90°	4	2 3/4	DY	RCA
	* DY-25A	24.0	11.0	46	11.0	90°	4	2 3/4	DY	Emerson
	DY-26A	19.0	11.5	34	16.5	110°	4 1/4	2 1/4	DY	RCA
	DY-27A	17.5	12.3	35.5	13.5	110°	4 1/4	2 1/4	DY	RCA
d	DY-28A	24	3.2	36	3.4	70°	3 1/4	2 7/8	DY	Motorola
	DY-29A	24	3.2	36	3.4	70°	3 1/4	2 7/8	DY	Motorola
	DY-30A	24	3.2	36	3.4	70°	3 1/4	2 7/8	DY	Motorola
	DY-31A	24	42	44.2	42	90°	4 1/4	3 1/4	DY	Motorola
	DY-32A	24	42	34	42	90°	4 1/8	3 1/4	DY	Motorola
	DY-33A	30.5	43	34	50	70°	3 3/4	2 1/2	DY	Philco
	DY-34A	30	47	45	42	90°	3 3/4	2 3/4	DY	Philco
e	DY-35A	20	45	28	45	90°	4	3	DY	Philco
	DY-36A	24	40	43	37	90°	3 1/2	4	DY	Emerson
	DY-37A	20	45	28	45	90°	4	3 1/4	DY	Emerson
	DY-38A	20	34.4	38	34	110°	4 1/4	3 3/4	DY	Emerson
	DY-39A	13	40	22	41	90°	4	3 1/4	DY	Zenith
	DY-40A	12	40	17	39	110°	4 1/4	3 3/4	DY	G. E.
	DY-41A	13.3	41	20	54	70°	3 1/4	3	DY	RCA
	DY-42A	30.4	34	47.2	34	110°	4 1/4	3 3/4	DY	RCA
f	DY-43A	24	3.3	31	3	90°	4	3	DY	Motorola
	DY-44A	18.5	34	33	34	110°	4 1/4	2 1/8	DY	Westinghouse
	DY-45A	18.6	14.8	35	13.8	110°	4 1/4	3 3/4	DY	Admiral
	DY-46A	20	40	38	39	110°	4 1/4	3 3/4	DY	Olympic
	DY-47A	8.2	41	19.7	72	70°	3 1/2	2 1/2	DY	G. E.
	DY-48A	14	29	33	60	70°	3 1/2	2 1/2	DY	G. E.
	DY-49A	44	38	110	80	70°	3 3/4	2 7/8	DY	G. E.
	* DY-50A	12	33	28	83	70°	3 3/8	2 3/8	DY	G. E.
g	DY-51A	18.6	15	38	17.2	110°	3 3/4	3	DY	Packard-Bell
	DY-52A	20.5	37.5	30	35	90°	3 1/4	3 3/4	DY	Westinghouse
	DY-53A	24	39	40	37.0	110°	3 1/8	3 3/8	DY	Philco
	DY-54A	24	40	40	37	110°	3 1/4	3 1/4	DY	Philco
	DY-55A	23.5	14.8	41	13.8	114°	3 1/2	3 3/4	DY	Magnavox
	DY-56A	15	40	29.5	39.5	110°	3 3/4	3 1/4	DY	Zenith
h	DY-57AT	24	70	40	29	114°	3 1/4	2 3/4	DY	Multi-Purpose
	DY-58AT	18.5	70	30	29	114°	3 1/4	2 3/4	DY	Multi-Purpose
	DY-59AT	24	15	40	6	114°	3 1/4	2 3/4	DY	Multi-Purpose
	DY-60AT	18.5	35	35	28	114°	3 1/4	2 3/4	DY	Multi-Purpose
	DY-61AT	20	20	22	5.5	114°	3 1/4	2 3/4	DY	Multi-Purpose
	• DY-62A	12.5	48	22	40	92°	4	3 1/4	DY	Zenith
	DY-90AC	12	39	6.5	23	70°	6 7/8	4 1/4	DY	Color
	• DY-91AC	11.5	23.5	8.5	12.5	90°	6 1/2	3 3/4	DY	Zenith Color

• New part number * Available until stock is depleted

See Pages 1427, 1428 and 1429 for complete price list.

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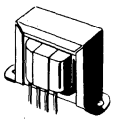
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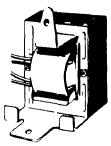
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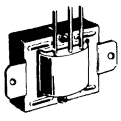
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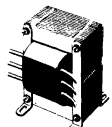
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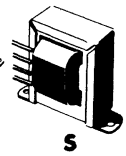
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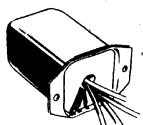
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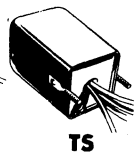
TS

STANCOR
COMMERCIAL
t.v. replacement

VERTICAL DEFLECTION OUTPUT TRANSFORMERS: Refer to Stancor T.V. replacement guide for Application.

	Part No.	Turns Ratio Pri./Sec.	Primary Impedance#	D.C. Res. In Ohms Pri.	D.C. Res. In Ohms Sec.	Height Overall	Base Area	Mtg. Ctrs.	Mtg. Type	Shpg. Wt. In Lbs.
a	A-8112/VO-83	10:1	18,000 Ω @ 12 DCMA	1300	10	2	1 3/4 x 3 1/4	2 13/16	A	1.0
	A-8113/VO-84	8:8:1	16,500 Ω @ 10 DCMA	700	12	2	1 3/4 x 3 1/4	2 13/16	A	1.0
	A-8115/VO-85	10:1	19,000 Ω @ 13 DCMA	600	7	3 1/16	2 1/2 x 2 1/2	1 19/32 x 2	NV	2.5
	A-8123/VO-87§	11.4:1	17,000 Ω @ 20 DCMA	1200	11	2	1 3/4 x 3 1/4	2 13/16	A	1.2
	A-8140/VO-88	44:1	11,000 Ω @ 20 DCMA	400	0.3	3 1/16	2 1/2 x 2 1/2	1 19/32 x 2	NV	2.5
	A-8141/VO-89§	18:1	30,000 Ω @ 10 DCMA	1650	4.5	2 1/4	3 3/4 x 2 1/8	3 1/8	A	1.5
	A-8142/VO-90	8:1	19,000 Ω @ 13 DCMA	540	10.5	2 5/8	2 1/4 x 3	2 3/8 x 1 5/8	NH	2 1/2
	A-8143/VO-91	10:1	14,000 Ω@ 15 DCMA	625	14	2 1/4	2 1/4 x 3 5/8	3 1/8	A	2
	A-8144/VO-92	9:1	9,500 Ω @ 30 DCMA	540	15	2 1/4	1 3/4 x 3 5/8	3 1/8	A	1 1/2
b	A-8145/VO-93	9:1	11,000 Ω @ 19 DCMA 6,000 Ω @ 15 DCMA	540	14	2 5/8	2 1/4 x 2 1/2	3	N1	2
	A-8146/VO-94§▲	6.9:1	4,700 Ω @ 50 DCMA	375	10	2	1 7/8 x 3 1/4	2 13/16	A	1 1/2
	A-8147/VO-95§	6:1	3,200 Ω @ 40 DCMA 6,000 Ω @ 15 DCMA	300	9	2	1 3/4 x 3 1/4	2 13/16	A	1
	A-8148/VO-96§▲	8:1	4,700 Ω @ 50 DCMA	375	6.5	2	1 7/8 x 3 1/4	2 13/16	A	1 1/2
	A-8149/VO-97§	6.9:1	11,500 Ω @ 20 DCMA	330	8.5	2	1 5/8 x 3 1/4	2 13/16	A	1
	A-8150/VO-98§	9:1	11,000 Ω @ 19 DCMA	450	11.3	2	3 3/4 x 2 3/16	3 5/16	N2	1.7
	A-8151/VO-99	7.5/15:1	8,500 Ω @ 19 DCMA	580	6.7	2 1/4	3 3/4 x 2 1/4	3 1/8	N1	1.7
c	VO-100§◆	9.2:1	7,500 Ω @ 30 DCMA	360	14.0	2 1/8	3 5/8 x 1 7/8	3 1/8	A	1 1/2
	VO-101§	12:1	16,000 Ω @ 15 DCMA	675	6.8	2 1/4	3 5/8 x 1 3/4	3 1/8	A	1 1/2
	VO-102§	6.5:1	6,700 Ω @ 25 DCMA	275	10	2 5/8	4 x 2 1/4	3 5/16	A	2 1/2
	VO-103§	16:1	10,000 Ω @ 15 DCMA	530	5.5	2	3 1/4 x 1 1/2	2 13/16	A	1 1/2
	VO-105§	44.5:1	24,000 Ω @ 15 DCMA	740	.8	2	3 1/4 x 1 1/2	2 13/16	A	1 1/2
	VO-106	35.5:1	35,000 Ω @ 0 DCMA	1400	3.8	1 5/8	2 7/8 x 1 1/2	2 3/8	A	1
	VO-108§	9:1	10,000 Ω @ 25 DCMA	350	10.3	2	3 1/4 x 2	2 13/16	A	1.3
	VO-109	Multi-Ratio 5:1 to 50:1	40 MA Max.	—	—	2	3 1/4 x 2	2 13/16	A	1.3
	VO-110	16:1	18,000 Ω @ 20 DCMA	1670	7.0	2	2 x 3 1/4	2 13/16	A	1.3
	VO-111	18-1	20,000 Ω @ 20 DCMA	1425	7.5	2	2 x 3 1/2	2 13/16	A	1.3
	VO-112	8:1	7,000 Ω @ 30 DCMA	384	3.5	2 1/4	3 5/8 x 2 1/8	3 1/8	A	1.8
d	VO-113§	15:1	13,000 Ω @ 20 DCMA	1435	19.7	2 5/16	1 3/4 x 2 15/16	2 3/8	S	1.3
	VO-114	6:1	5,000 Ω @ 30 DCMA	250	6.0	2	3 1/4 x 1 5/8	2 13/16	A	1
	VO-115§	12:1	7,000 Ω @ 35 DCMA	360	2.4	2 5/16	3 3/4 x 1 7/8	3 1/8	A	1.4
	VO-116	18:1	32,000 Ω @ 15 DCMA 11,000 Ω @ 30 DCMA	1500	5.3	2 5/16	3 3/4 x 1 13/16	3 1/8	A	1.5
	VO-117	13:1	9,500 Ω @ 25 DCMA 8,000 Ω @ 50 DCMA	275	4.0	2 5/16	3 3/4 x 2 3/16	3 1/8	A	2.0
	VO-118	8:1	9,000 Ω @ 35 DCMA 3,000 Ω @ 70 DCMA	350	4.0	2 5/16	3 3/4 x 2	3 1/8	A	1.6
	VO-119§	8:1	6,000 Ω @ 30 DCMA 4,500 Ω @ 60 DCMA	385	8.0	2 5/16	3 3/4 x 1 7/8	3 1/8	A	1.5
	VO-120§	7.5:1	7,800 Ω @ 35 DCMA 5,000 Ω @ 70 DCMA	235	6.0	2 5/16	3 3/4 x 2 1/16	3 1/8	A	1.8
e	VO-122§	6.5:1	3,500 Ω @ 45 DCMA 2,000 Ω @ 65 DCMA	145	4.0	2 5/16	3 3/4 x 1 7/8	3 1/8	A	1.5
	VO-123◆	7:1	5,300 Ω @ 35 DCMA 2,000 Ω @ 70 DCMA	180†	4.0	2 5/16	3 3/4 x 2	3 1/8	A	1.6
	VO-126§	14.5:1	6,000 Ω @ 40 DCMA 1,800 Ω @ 80 DCMA	260	1.4	2 5/16	3 3/4 x 2	3 1/8	A	1.6
	VO-127§	16:1	10,500 Ω @ 20 DCMA 8,000 Ω @ 40 DCMA	460	3.4	2 5/16	3 3/4 x 2	3 1/8	A	1.6
	VO-128§▲	17:1	20,000 Ω @ 20 DCMA 4,800 Ω @ 45 DCMA	2250	8.0	2	2 x 3 1/4	2 13/16	A	1
	VO-129§▲	11:1	6,000 Ω @ 50 DCMA 4,000 Ω @ 75 DCMA	430	4.5	2 3/16	2 x 3 3/4	3 1/8	A	1.6
	VO-700C†	10:1	7,500 Ω @ 32 DCMA	370	20	2 5/16	2 3/8 x 3 3/4	3 1/8	A	1.6

VERTICAL BLOCKING-OSCILLATOR TRANSFORMERS

	Part No.	Turns Ratio Pri./Sec.	Height Overall	Base Area	Mounting Centers	Mounting Type	Shpg. Wt. In Lbs.
f	A-8111/VBO-194	1:4.2	1 3/8	1 1/2 x 2 1/2	2	A	0.4
	A-8121/VBO-195	1:4.2	1 3/4	1 1/2 x 2 5/16	1 5/16	TD	0.4
	A-8122/VBO-196	1:4.2	1 9/16	1 3/16 x 1 3/16	1 13/64	TS	0.3
	A-8125/VBO-198	1:4.2	1 3/16	2 3/16 x 1 1/4	1 3/4	A	0.4
	A-8126/VBO-199	1:1.5	1 3/4	1 1/2 x 2	1 3/4	S	0.5
	VBO-200	1:1.5	1 3/8	1 1/2 x 2 1/2	2	A	0.5
	VBO-201	1:3.33	1 3/16	2 3/16 x 1 1/4	1 3/4	A	0.4

†For color T.V. ▲Has vertical blanking winding. ◆Has screen grid tap. §Autoformer.

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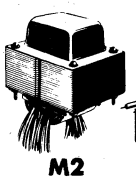
See Pages 1427, 1428 and 1429 for complete price list.

STANCOR

COMMERCIAL

radio & t.v. replacement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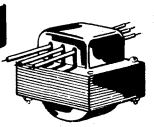
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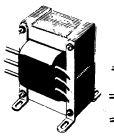
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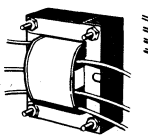
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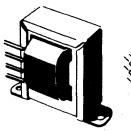
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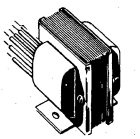
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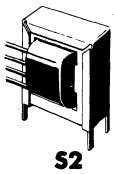
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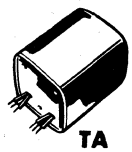
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AUTO RADIO VIBRATOR TRANSFORMERS Exact Duplicate for 6 Volt D.C. Primary.

	Part No.	Original Part No.	Trade Name	D.C. Volts at Filter Input	D.C. MA.	Mtg. Type	Recommended Buffer Cap. (mfd.)	Height Overall	Base Area	Shpg. Wt. In Lbs.
a	P-6471	25B472533 D71014	Motorola (408, 508, etc.) Colonial-Detrola No. 8072	235	70	TA	0.006	3	2 3/8 x 2 3/16	2.0
a	P-6476	D70267 C70267	Colonial-Detrola No. 7070 Col.-Mot.-Det. No. 8030	220	53.5	TA	0.008	2 5/8	2 27/32 x 2 5/32	2.0
a	P-6477	25C500189	Motorola	150	50	M2	0.03	2	1 7/8 x 2 1/4	1.0
a	P-6478	25C501644	Motorola	225	70	R	0.02	2 1/4	2 3/16 x 2 5/8	1.5
a	P-6480	65-0347	Philco	225	70	R	0.0033	2 3/16	2 1/4 x 2 5/8	1.5
a	P-6481	32-8313-1	Philco	250	60	M4	0.0068	2 1/4	2 3/16 x 2 5/8	1.5
a	P-6490	C 291787-1	Bendix (Ford Model 5B8F)	265	52	R	0.006	2 1/8	2 3/16 x 2 5/8	1.5
a	P-6499	1220163[1]	United Motors (Delco)	250	60	TA	0.006	3 7/32	2 5/8 x 2 1/2	2.3
	Exact Duplicate For 12 Volt D.C. Primary									
b	P-6482	6084	United Motors (Delco)	250	60	TA	.004	3 1/4	2 11/16 x 2 11/16	2.5
b	P-6489	6067	United Motors (Delco)	250	60	R	.004	2 3/16	2 3/16 x 2 5/8	2.0
b	P-6493	*25C535794	Motorola	275	75	S1	(See Footnote)	2 3/4	2 3/8 x 2	1.7
b	P-6494	32-8592-1	Philco	245	70	R	0.0047	2 3/16	2 5/8 x 2 1/8	1.5
b	P-6495	*25K535795	Motorola	275	75	S1	(See Footnote)	2 3/4	2 3/8 x 2 1/8	1.7
b	P-6497	7265604[2]	United Motors (Delco)	250	55	S2	.007[3]	2 9/16	2 1/4 x 2	1.8

*2 buffer capacitors used 0.5 mfd. and 0.04 mfd. as in original circuit.

[1]17261386 and 7262956 replaced by P-6499
[2]7269118 replaced by P-6497
[3]+15K–1W. Res.

UNIVERSAL VIBRATOR TRANSFORMERS With 6 Volts D.C. Primary

	Part No.	Secondary A.C. Volts	D.C. Volts At Filter Input	D.C. M.A.	Recommended Buffer Cap.	Mtg. Type	Height Overall	Base Area	Mtg. Ctrs.	Shpg. Wt. In Lbs.
c	P-6491	188-0-188	200	40	0.003 mfd.	S	2 1/4	3 1/8 x 2 1/8	2 13/16	1.5
c	P-4062	300-0-300	260	65	0.006 mfd.	NV	3 1/8	2 1/2 x 2 3/8	2 x 2	2.3
c	P-4063	320-0-320	285	75	0.006 mfd.	NV	3 1/8	2 1/2 x 2 3/4	2 x 2 1/4	2.8
c	P-6131	370-0-370	330	100	0.007 mfd.	NV	3 1/2	2 7/8 x 2 7/8	2 1/4 x 2 1/4	3.5

WIDTH AND LINEARITY CONTROLS

	Stancor No.	Application	Ind. in Mh.	Res. in Ohms	AGC Ind. in Mh.	AGC Res. in Ohms
d	RTC-8628†	Width or Linearity Coil	2.5-17.	24	—	—
d	RTC-8629†	Width or Linearity Coil	15.-60.	55	—	—
d	WC-1*,WC-1A*‡	Width Coil	.05-50.	.53	—	—
d	WC-2*,WC-2A*	Tapped Linearity Coil	.55-4.6	8.3	—	—
d	WC-4*‡,WC-4A*	Width Coil	.17-.61	1.0	—	—
d	WC-5*,WC-5A*	Width or Linearity Coil	4.-39.	32.	2.7-7.6	19.5
e	WC-6*,WC-6*A	Tapped Linearity Coil	1.3-4.1	5.6	—	—
e	WC-7*,WC-7A*	Width Coil	.5-3.5	2.3	—	—
e	WC-8*,WC-8A*	Width Coil	1.-10.	8.0	—	—
e	WC-9*‡,WC-9A*‡	Width Coil with Keyed Winding	3.2-9.	28.	.16-.7	1.
e	WC-10*,WC-10A*‡	Width Coil with AGC	2.6-7.5	12.	4.-28.	32.
e	WC-11▲	Tapped Width Coil	2.3-11.8	10.	—	—
e	WC-12§‡	Width Coil with AGC	4.-30.	27.	.075-80.	2.
f	WC-13§	Width Coil with AGC	4.-30.	27.	.185-1.82	3.
f	WC-14*,WC14-A*	Width Coil	45.-215.	130.	—	—
f	WC-15▲#‡	Width Coil with AGC	3.1-21.	18.8	.39-2.4	2.4
f	WC-16*‡,WC-16A*‡	Width Coil with Tapped AGC	1.5-11.	9.	9.-24.	49.5
f	WC-17▲‡	Tapped Width Coil	47.-110.	175.	—	
f	WC-18*,WC-18A*	Width Coil	4.-29.	29.	—	

*Available for either 5/16" or 7/16" Mounting hole. Use suffix "A" for 7/16" hole.
†Adapter supplied for either 5/16" or 7/16" Mounting hole.
▲Only for 7/16" Mounting hole.
§For 1 3/4" Mounting Centers equipped with slider.
#Shipped without core, use original core.
‡Available until stock is depleted

COLOR DEGAUSSING COIL:

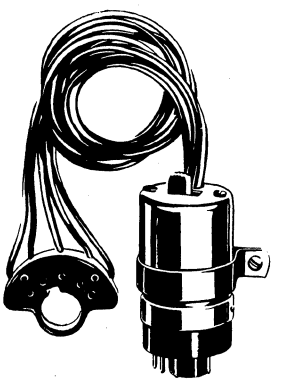
Catalog No. — **DGC-100**

With 10-foot Line Cord and In-Line Switch

C.R. TUBE BOOSTER:

Catalog No. — **P-8192**

(For parallel heaters only)


CRTB

- **No connections to solder.**
- **HI-LO switch provides two levels of brilliance.**
- **Does not require AC line connections.**
- **Measures only 3½" high, 1½" in diameter.**
- **Does not change CR tube space requirements.**

See Pages 1427, 1428 and 1429 for complete price list.

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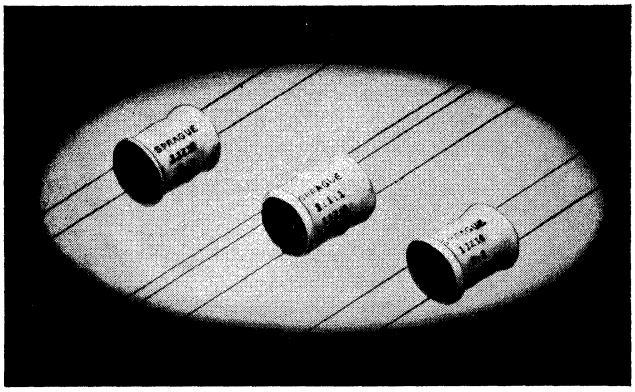
SPRAGUE PULSE TRANSFORMERS AND DECADE INDUCTORS

Type 11Z

TRIGATE* PULSE TRANSFORMERS

FOR LOW-COST SCR CIRCUIT APPLICATIONS

- Specifically Designed For Commercial and Industrial SCR Triggering Applications Where Low Cost and Excellent Performance Are Required
- Balanced Pulse Characteristics and Energy Transfer Between Windings
- Minimum Saturation Effect To Allow Operation Where Increased Pulse Widths Are Required
- Fast Pulse Rise Time and Increased Current Capability To Prevent SCR di/dt Failure
- Operating Temperature Range of −10 C to +70 C
- For Complete Technical Data, See Latest Issue of Sprague Engineering Bulletin 40003
- Call Your Sprague Industrial Distributor For Current Quantity Prices



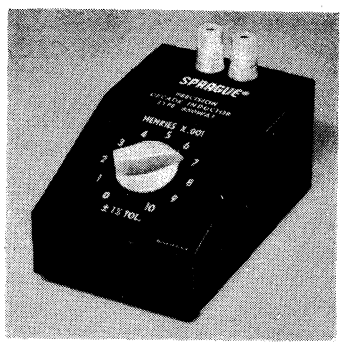
DIMENSIONS		
Diameter	x	Length
0.593	x	0.828

Turns Ratio	Catalog Number	Min. Lp (μH)	Typ. LL (μH)	Typ. CC (pF)	Max. RDCP (Ω)	Max. RDCS (Ω)	Typ. Vμsec Output Winding	60 Cycle Dielectric Test (Volts RMS)	Max. 60 Cy. A-C Line Voltage
1:1	11Z12	200	2	500	1.5	1.5	2000	1600	240
1:1:1	11Z13	200	2	500	1.5	1.5	2000	1600	240
2:1	11Z14	1300	6	1000	10.0	1.7	2000	1600	240
2:1:1	11Z15	1300	10	1000	10.0	1.7	2000	1600	240
5:1	11Z16	6000	1000	200	13.0	2.0	2000	1600	240

★ Trademark

TYPE 850W PRECISION DECADE INDUCTORS

- Indispensable For Design and Experimental Work on Audio Filters, Equalizers, and Tuned Circuits. Frequency Range is 150 to 20,000 Cycles per Second
- Excellent Stability With Respect to Current and Ambient Temperature Changes
- All Four Decade Inductors May Be Connected in Series to Provide 11,110 Steps of Inductance
- Housed in Blue Aluminum Case with Sloping Front to Facilitate Bench-Top Readings. Measures 3" Wide, 2½" High, 5½" Long. Fitted with Five-way Binding Posts.
- For Complete Technical Data, Refer to Latest Issue of Engineering Bulletin 90,500.
- Call Your Sprague Industrial Distributor for Current Quantity Prices



Cat. No.	Inductance Steps	Optimum Freq. Range in cps	Average Q Factor at 1000 cps	Average Q Factor at 4500 cps	Max. Milliamperes D-C	Max. Milliamperes A-C
850WA1	10 x 0.001H	400 to 20,000	40	75	250	700
850WA2	10 x 0.01H	400 to 20,000	60	125	79	220
850WA3	10 x 0.1H	400 to 20,000	60	125	25	70
850WA4	10 x 1.0H	400 to 5,000	60	125	8	22

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IND-REM-66-6611

All sizes subject to change without notice.

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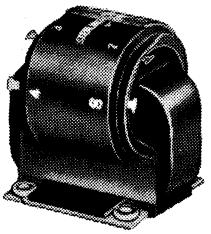
STERLING TRANSFORMER

ENCAPSULATED 400 cps transformers

CLIPPER SERIES

Fig.	Cat. No.	Sec. Volts	Sec. Amp	Insul. Volts (RMS)	Pri. Volts	Mold Size	Net Price
19	4C1	6.3 CT	0.8	1500	115	SM3	13.80
19	4C2	6.3 CT	1.2	1500	115	SM2	13.80
19	4C3	6.3 CT	6.8	1500	110/115/120	2	22.15
20	4C4	6.3 6.3	4.9 2.7	1500	115	3	19.80
19	4C5	6.3 CT	7.2	1500	115	35	23.00
21	4C6	6.3 6.3 6.3	7 7 1.5	1500 1500 1500	120	35	22.40
22	4C7	6.3 CT 6.3 CT	7 7	1500 1500	120	4	26.65
21	4C8	6.3 6.3 6.3	13.7 2.9 0.3	1500 1500 1500	115	4	26.65
19	4C9	6.3 CT	12.3	1500	115	5	24.65
21	4C11	6.3 6.3 6.3	2.4 2.5 2.7	1500	115	3	24.65
19	4C26	6.3 CT	2	1500	115	SM1	17.55
19	4C27	6.3 CT	3	1500	115	1A	18.25
19	4C28	6.3 CT	5	1500	115	2	18.90
19	4C29	5 CT	3	2500	115	SM1	17.55
19	4C30	5 CT	6	2500	115	2	18.90
19	4C31	8.5 CT	12	1500	115	5	24.63
19	4C32	8.5 CT	23	1500	115	7	27.30
19	4C33	8.5 CT	35	1500	115	8	29.75
19	4C34	8.5 CT	45	1500	115	9	35.90
19	4C12	14.1	3	1500	115	3	18.79
19	4C35	21 CT	4.5	1500	115	5	24.63
19	4C13	21 CT	9	1500	115	7	27.30
19	4C36	21 CT	18	1500	115	9	35.90
19	4C10	20 CT	0.6	1500	115	SM1	17.55

FREQUENCY
380-1000 cps.



FOR MINIMUM SIZE & MINIMUM WEIGHT
- CONTOUR MOLDED
- HIPERSIL CORES

MIL-T27B Specifications

MIL Type TF5SX01ZZ

85°C Max. Ambient Operating Temp.

HIGH SHOCK EXTREME ENVIRONMENT CONDITIONS
LIGHT WEIGHT FOR AIRBORNE USE
10,000 HOUR PLUS-LIFE
SERVO APPLICATIONS
ISOLATION
POWER SUPPLIES
AIRBORNE CONTROL CIRCUITS
MISSILE CIRCUITS

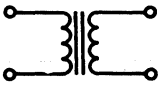


FIG. 18

FIG. 19

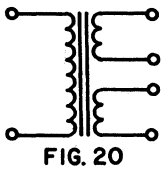


FIG. 20

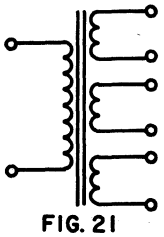


FIG. 21

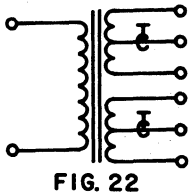


FIG. 22

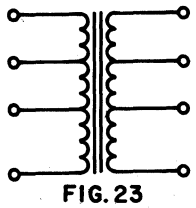


FIG. 23

STERLING TRANSFORMER CORP.

© U.C.P., Inc.

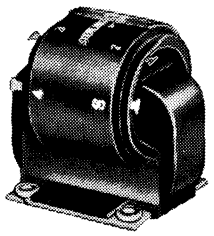
STERLING TRANSFORMER

ENCAPSULATED 400 cps transformers

CLIPPER SERIES

Fig.	Cat. No.	Sec. Volts	Sec. Amp.	Insul. Volts (RMS)	Pri. Volts	Mold Size	Net Price
19	4C37	21 CT	24	1500	115	10	43.10
19	4C38	24 CT	4	1500	115	5	24.63
19	4C39	24 CT	8	1500	115	7	27.30
19	4C40	24 CT	16	1500	115	9	35.90
19	4C41	24 CT	21	1500	115	10	43.10
19	4C14	26	0.5	1500	115	SM1	17.12
19	4C15	26 CT	1.5	1500	115	3	18.79
19	4C23	26 CT	3	1500	115	4	21.30
19	4C24	26 CT	5	1500	115	6	24.85
19	4C16	28 CT 6.3 CT	0.8 7	1500	115	3	24.62
19	4C42	41 CT	2.3	1500	115	5	24.63
19	4C43	41 CT	4.5	1500	115	7	27.30
19	4C44	41 CT	9	1500	115	9	35.90
19	4C45	41 CT	12	1500	115	10	43.10
19	4C46	48 CT	2	1500	115	5	24.63
19	4C47	48 CT	4	1500	115	7	27.30
19	4C48	48 CT	8	1500	115	9	35.90
19	4C49	48 CT	10	1500	115	10	43.10
19	4C25	52 CT	2	1500	115	5	24.63
19	4C17	52 CT	0.2	1500	115	SM1	18.99
19	4C18	90 CT	4.5	1500	115	9	35.90
18	4C19	115	.05	1500	115	SM2	14.10
18	4C21	115	2.8	1500	115	8	29.23
23	4C20	105/115/125	0.4	1500	105/115/125	2	20.30
23	4C50	105/115/125	1	1500	105/115/125	6	25.75
23	4C51	105/115/125	2.4	1500	105/115/125	8	30.20
23	4C52	105/115/125	3.2	1500	105/115/125	9	36.40
23	4C53	105/115/125	4	1500	105/115/125	10	43.70
23	4C22	334	0.3	1500	115	SM1	16.12

FREQUENCY
380-1000 cps.



FOR MINIMUM SIZE & MINIMUM WEIGHT
- CONTOUR MOLDED
- HIPERSIL CORES

MIL-T27B Specifications

MIL Type TF5SX01ZZ

85°C Max. Ambient Operating Temp.

HIGH SHOCK EXTREME ENVIRONMENT CONDITIONS
LIGHT WEIGHT FOR AIRBORNE USE
10,000 HOUR PLUS-LIFE
SERVO APPLICATIONS
ISOLATION
POWER SUPPLIES
AIRBORNE CONTROL CIRCUITS
MISSILE CIRCUITS

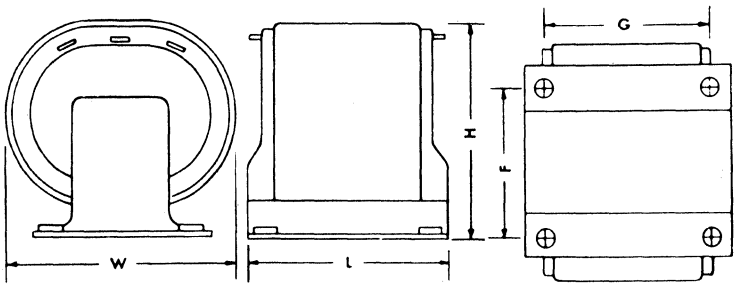
MOLD NO.	OVERALL DIMENSIONS L	W	H	MTG. DIMENSIONS F	G	APP. WT. (LBS.)	MTG. METH.
SM3	1	1-1/4	1-3/16	1	Note 1	0.06	Note 1
SM2	1-1/2	1-1/4	1-11/16	1	Note 1	0.10	Note 1
SM1	1-1/2	1-1/2	1-11/16	1-1/8	Note 1	0.16	Note 1
1	1-13/16	1-7/8	1-13/16	1-1/4	1-7/16	0.25	Note 2
1A	1-11/16	1-17/32	1-13/16	1-5/32	1-1/8	0.25	Note 2
2	2	1-15/16	2-1/8	1-9/32	1-1/4	0.40	Note 2
3	2-5/16	1-13/16	2-1/8	1-9/32	1-7/16	0.45	Note 2
35	2-1/16	2-3/8	2-3/16	1-17/32	1-11/16	0.70	Note 2
4	2-5/16	2-3/8	2-9/16	1-17/32	1-11/16	0.90	Note 2
5	2-3/4	2-3/8	2-7/8	1-17/32	2-3/16	1.20	Note 2
6	2-3/4	2-5/8	3-1/8	1-17/32	2-3/16	1.50	Note 2
7	3	2-7/8	3-3/8	1-25/32	2-1/2	2.00	Note 2
8	3-3/8	2-7/8	3-3/8	1-25/32	2-1/2	2.50	Note 2
83	3-3/4	3-1/4	3-3/8	2-1/4	3	3.25	Note 3
86	3-3/4	3-3/4	3-3/8	2-3/4	3-1/8	4.25	Note 3
9	4-1/16	3-3/8	3-7/8	2-3/16	3-1/2	5.00	Note 3
10	4-1/2	3-15/16	3-15/16	2-3/4	3-1/8	6.00	Note 3

Note 1—SM series are two hole mounting with holes on center line. #4-40 Pem nuts are fastened to the bracket.

Note 2—#6-32 Pem nuts on bracket are standard.

Note 3—#8-32 Pem nuts on bracket are standard.

- All primaries 380-1000 cps
- Dielectric test voltages:
  PRIMARIES 1500 Volts RMS
  SECONDARIES 1500 Volts RMS
- Epoxy resin used as encapsulant
- Prices subject to change without notice



STERLING TRANSFORMER CORP.

transistor transformers

STERLING TRANSFORMER

UNIVERSAL DC POWER MODULE TRANSFORMERS

High reliability transformers having a tapped primary and single or dual secondary windings which may be connected F.W. bridge or F.W. center tap so as to obtain a wide range of DC voltages and current ratings.

INPUT PRIMARY 115 volts 50-500 cps

TYPE	FIG.		F.W. BRIDGE								F.W. CT			MIL STD'D* HERM SEAL TF 45x02		INDUST. OPEN FRAME	
		AC VOLT	40 5	32.25	28.5	24	20.25	16 5	12	8.25	40.5	24	16.5	Style	Net Pr.	Style	Net Pr.
		DC VOLT	53.0	41.0	34	25	24	18	12	6	24	12	6.6				
7K1	1	DC AMP	.025	.035	.040	.042	.055	.042	.070	.085	.042	.055	.068	H	12.90	F	7.90
		INPUT CAP	(.1)	(.1)	(.1)	(.1)	(.2)	(.2)	(.2)	(.2)	(.2)	(.2)	(.2)				
7K2	1	DC AMP	.085	.12	.13	.14	.18	.14	.23	.23	.14	.17	.21	H	14.20	L	9.20
		INPUT CAP	(.1)	(.1)	(.1)	(.1)	(.2)	(.2)	(.2)	(.2)	(.2)	(.2)	(.2)				
7K3	1	DC AMP	.48	.60	.60	.64	1.0	.8	1.2	1.52	.8	.883	.92	H	15.85	F	8.15
		INPUT CAP	(.5)	(.5)	(.5)	(.5)	(1.0)	(1.0)	(2.0)	(2.0)	(1.0)	(1.0)	(2.0)				
7K4	1	DC AMP	1.2	1.5	1.5	1.6	2.5	2.0	3.0	3.8	2.0	2.2	2.8	H	21.80	L	13.40
		INPUT CAP	(.5)	(.5)	(.5)	(.5)	(1.0)	(1.0)	(2.0)	(2.0)	(1.0)	(1.0)	(2.0)				
7K5	1	DC AMP	3.0	3.5	3.8	4.0	6.0	4.5	7.5	9.0	4.5	5.5	6.7	H	31.70	L	22.65
		INPUT CAP	(1.0)	(1.0)	(1.0)	(1.0)	(2.0)	(2.0)	(4)	(4)	(2.0)	(2.0)	(2.0)				
7K6	1	DC AMP	7.5	8.5	9.5	10	15	11	19	23	11	13.5	17	H	52.80	L	39.80
		INPUT CAP	(4.0)	(4.0)	(4.0)	(4.0)	(4.0)	(6.0)	(12)	(12)	(6)	(6)	(12)				
TYPE	FIG.	AC VOLTS	81	64.5	57.0	48	40.5	33	24	16.5	81	48	33				
		DC VOLT	106	82	68	50	48	36	24	12	48	24	13				
7K7	2	DC AMP	0.6	0.75	0.75	0.8	1.25	1.0	1.5	1.9	1.0	1.1	1.4	H	22.44	L	14.05
		INPUT CAP	(.125)	(.125)	(.125)	(.125)	(.25)	(.25)	(.5)	(0.5)	(.25)	(.25)	(.5)				

TYPE	FIG.	PRI TAP	F.W. BRIDGE SEC. AC Volt	SEC. AC Amp	CHOKE INPUT DC Volt	CHOKE INPUT DC Amp	CAP INPUT DC Volt	CAP INPUT DC Amp	CAP INPUT Cap	F.W. CT CHOKE INPUT DC Volt	CHOKE INPUT DC Amp	CAP INPUT DC Volt	CAP INPUT DC Amp	CAP INPUT Cap	MIL STD * HERM SEAL Style	Net Pr.	INDUST. OPEN FRAME Style	Net Pr.
7K8	3	—	20CT	0.3	16.5	0.3	26	0.2	(.2)	8	0.43	12	0.3	(.5)	H	11.25	F	5.70
7K9	3	—	20CT	0.6	16.5	0.6	26	0.4	(.4)	9	0.85	13	0.6	(1.0)	H	14.20	F	8.65

			F.W. BRIDGE SEC. in PARALLEL CONN.							SEC. in SERIES CONN.								
7K10	4	L	17	1.5	14	3.0	18.5	2.0	(1.0)	28	1.5	45	1	(.5)	H	20.50	L	13.40
		H	21.5	1.5	17.5	3.0	25	2.0	(1.0)	35	1.5	36	1	(.5)				
7K11	4	L	17	4	14	8.0	18.5	5.0	(2.0)	28	4.0	45	2.5	(1.0)	H	33.00	L	23.60
		H	21.5	4	17.5	8.0	25	5.0	(2.0)	35	4.0	36	2.5	(1.0)				
7K12	4	L	17	9	14	18.0	18.5	12.0	(6.0)	28	9.0	45	6	(4.0)	H	50.50	L	37.10
		H	21.5	9	17.5	18.0	25	12.0	(6.0)	35	9.0	36	6	(4.0)				
7K13	4	L	34	4.5	28	9.0	43	6.0	(4.0)	56	4.5	85	3 0	(1.0)	H	50.50	L	37.10
		H	43	4.5	35	9.0	56	6.0	(4.0)	70	4.5	110	3.0	(1.0)				
7K14	4	L H	10	20	8.2	20	10	13	(12)	—	—	—	—	—	H	29.70	L	22.95

*FOR MILITARY USE REDUCE DC AMP 20%. Note Input Cap = (K) 1000 MFD. in Rectifier Circuit.

HIGH CURRENT TRANSFORMERS AND CHOKES

115V. 50-500 CPS

TRANSFORMERS

TYPE	FIG.	SEC. IN PARALLEL AC Volt	SEC. IN PARALLEL AC Amp	SEC. IN SERIES AC Volt	SEC. IN SERIES AC Amp	Net Price
7K15	5	3.2/6.4	16	3.2/6.4/9.6/12.8	8	7.55
7K16	5	3.2/6.4	24	3.2/6.4/9.6/12.8	12	8.95
7K17	5	3.2/6.4	50	3.2/6.4/9.6/12.8	25	18.90
7K18	5	3.2/6.4	100	3.2/6.4/9.6/12.8	50	26.20
7K19	5	6/12	16	6/12/18/24	8	12.55
7K20	5	6/12	24	6/12/18/24	12	15.70

TYPE	FIG.	SEC. IN PARALLEL AC Volt	SEC. IN PARALLEL AC Amp	SEC. IN SERIES AC Volt	SEC. IN SERIES AC Amp	Net Price
7K21	5	6/12	50	6/12/18/24	25	25.10
7K22	5	6/12	100	6/12/18/24	50	37.65
7K23	5	9/18	16	9/18/27/36	8	14.55
7K24	5	9/18	24	9/18/27/36	12	15.95
7K25	5	9/18	50	9/18/27/36	25	31.10
7K26	5	9/18	100	9/18/27/36	50	45.00

CHOKES

TYPE	FIG.	INDUCTANCE (Millihenries)	D.C. Amps	DCR (Ω)	Net Price
7K27	9	30	8	0.3	11.35
7K28	9	15	12	0.1	14.65

TYPE	FIG.	INDUCTANCE (Millihenries)	D.C. Amps	DCR (Ω)	Net Price
7K29	9	5	25	0.025	23.00
7K30	9	1.4	50	0.01	31.35

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STERLING TRANSFORMER

transistor transformers

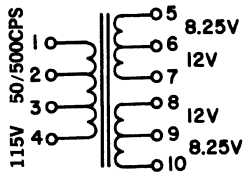

FIG. 1

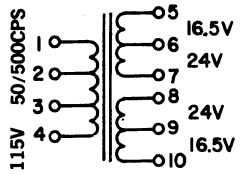

FIG. 2

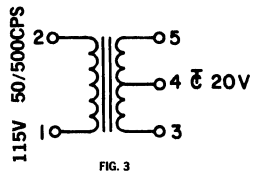

FIG. 3

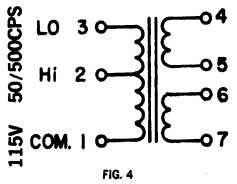

FIG. 4

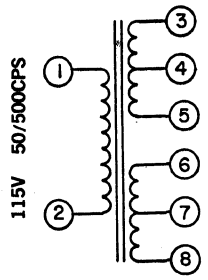

FIG. 5

TYPE	STYLE	FIG.	L	W	H	M1	M2	MTG. HOLES	STUDS
7K1	H	8	1.313	1.313	1.75	1.25	—	—	(2) 6-32
	F	6	2.125	1.25	1.25	1.75	—	(2) .188	—
7K2	H	8	1.625	1.625	2.375	1.188	1.188	—	(4) 6-32
	L	7	1.375	1.5	2.063	1.063	1.375	(4) .156	—
7K3	H	8	2.313	2.063	3.125	1.688	1.438	—	(4) 6-32
	F	6	3.75	1.813	2.313	3.125	—	(2) .188	—
7K4	H	8	3.063	2.625	4.25	2.297	1.859	—	(4) 8-32
	L	7	2.875	2.5	3.438	2.25	2.125	(4) .203	—
7K5	H	8	3.938	3.375	5.25	3	2.438	—	(4) 10-32
	L	7	3.813	3.25	4.563	3	2.5	(4) .203	—
7K6	H	8	5.5	4.5	6.75	3.75	3	—	(4) ¼-20
	L	7	4.438	4.5	5.313	3.5	3.5	(4) .281	—
7K7	H	8	3.063	2.625	4.25	2.297	1.859	—	(4) 8-32
	L	7	2.875	2.5	3.438	2.25	2.125	(4) .203	—
7K8	H	8	1.938	1.813	2.438	1.375	1.25	—	(4) 6-32
	F	6	2.875	1.438	1.625	2.375	—	(2) .188	—
7K9	H	8	1.938	1.813	2.75	1.375	1.25	—	(4) 6-32
	F	6	1.75	1.75	2.375	1.375	1.375	(4) .156	—
7K10	H	8	3.063	2.625	4.25	2.297	1.859	—	(4) 8-32
	L	7	2.875	2.438	3.438	2.25	2	(4) .203	—
7K11	H	8	4.313	3.688	5.563	3.313	2.75	—	(4) 10-32
	L	7	3.813	3.625	4.563	3	2.75	(4) .188	—
7K12	H	8	5.875	4.75	6.656	4.125	3.5	—	(4) ¼-20
	L	7	4.438	5.25	5.313	3.5	4.125	(4) .281	—
7K13	H	8	5.875	4.75	6.656	4.125	3.5	—	(4) ¼-20
	L	7	4.438	5.25	5.313	3.5	4.125	(4) .281	—
7K14	H	8	3.938	3.375	5.25	3	2.438	—	(4) 10-32
	L	7	3.813	3.5	4.563	3	2.5	(4) .203	—
7K15	L	9	3.813	2.625	3	3.125	2.25	(4) .203	—
7K16	L	9	4.188	3.25	3.625	3.438	2.375	(4) .203	—
7K17	L	9	5.375	4.25	4.625	4.375	2.875	(4) .281	—
7K18	L	9	5.313	5.75	4.625	4.375	4.125	(4) .281	—
7K19	L	9	4.188	3.875	3.625	3.438	3	(4) .203	—
7K20	L	9	4.563	4.5	4	3.75	3.375	(4) .203	—
7K21	L	9	5.313	5.75	4.625	4.375	4.125	(4) .281	—
7K22	L	9	6.5	6.375	5.625	5.313	4.375	(4) .281	—
7K23	L	9	4.563	4.125	4	3.75	3.375	(4) .203	—
7K24	L	9	5.313	4.875	4.625	4.375	3.375	(4) .281	—
7K25	L	9	6.5	6	5.625	5.313	3.75	(4) .281	—
7K26	L	9	6.5	7.75	5.625	5.313	5.125	(4) .281	—
7K27	L	9	4.188	3.625	3.75	3.438	3	(4) .203	—
7K28	L	9	5.313	4	4.625	4.375	3.125	(4) .281	—
7K29	L	9	5.313	4.75	4.625	4.375	3.875	(4) .281	—
7K30	L	9	6.5	5.75	5.625	5.313	4.125	(4) .281	—

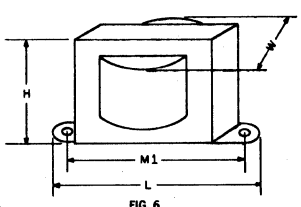

FIG. 6

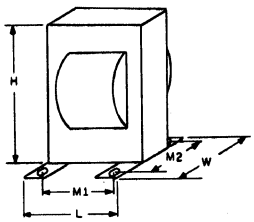

FIG. 7

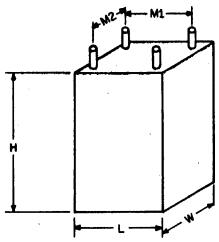

FIG. 8

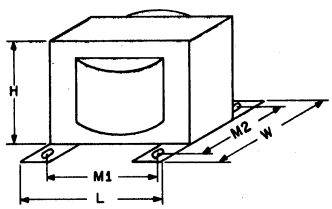

FIG. 9

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STERLING TRANSFORMER

MINISPEC TRANSISTOR TRANSFORMERS — 300 SERIES

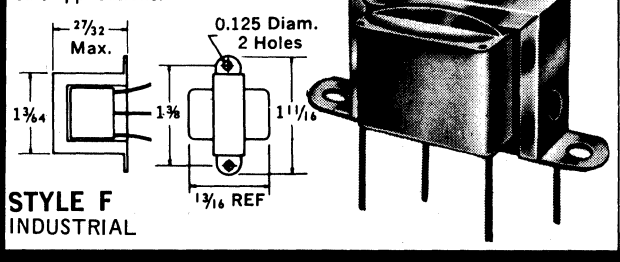
Part No.	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Unbal. Ma.	Oper. Lev. DBM	Freq. Response ±2 db.	Net Price 1–9 pcs. F	H
300	Line to Base	600	600	10	23	200–15,000	$4.00	$8.60
301	Coll. to P.P. Base	100	10 C.T./40 C.T.	100	27	200–20,000	4.65	9.60
302	Coll. to Base or line	50,000	600	3	20	300–15,000	4.30	9.25
303	Collector to speaker	50,000	6	3	20	300–15,000	4.30	9.25
304	Coll. to P.P. Base	100,000	1,200 C.T.	1.4	17	200–15,000	4.50	9.45
305	Coll. to P.P. Base	25,000	1,200 C.T.	3	22	200–15,000	4.50	9.45
306	P.P. Coll. to P.P. Base	50,000 C.T.	1,200 C.T.	3	20	300–15,000	4.65	9.60
307	Line to P.P. Base	600 C.T.	1,200 C.T.	4	23	200–15,000	4.65	9.60
308	Collector to Base	25,000	600	3	22	200–15,000	4.30	9.25
309	P.P. Coll. to P.P. Base	4,000 C.T.	600 C.T.	3	32	200–15,000	4.65	9.60
310	Output Coll. to speaker	2,000	3.4	10	32	200–15,000	4.30	9.25
311	P.P. Coll. to speaker	4,000 C.T.	3.4	3	32	200–15,000	4.50	9.45
312	Coll. to Speaker	400	10	50	25	200–20,000	4.00	8.60
313	P.P. Servo Output	500 C.T.	210	30	27	300–20,000	4.30	9.25
314	P.P. Coll. to P.P. Base	25,000 C.T.	1,200 C.T.	6	22	200–15,000	4.65	9.60
315	P.P. Coll. to P.P. Base	50,000 C.T.	1200/300 Split	3	20	300–15,000	4.95	9.90
316	P.P. Coll. to P.P. Base	4,000 C.T.	600/150 Split	3	32	200–15,000	4.80	9.75
317	Line to P.P. Base	600/150 Split	1,200 C.T.	4	23	200–15,000	4.80	9.75
318	P.P. Coll. to Servo	250 C.T.	1,000	10	30	200–15,000	4.30	9.25
319	Coll. to P.P. Base	2,500	600 C.T.	10	32	200–15,000	4.30	9.25
320	P.P. Coll. to P.P. Base	7,500 C.T.	600 C.T.	8	32	200–15,000	4.65	9.60
321	Line to P.P. Base	600 C.T.	600 C.T.	20	23	200–15,000	4.50	9.45
322	P.P. Coll. to Servo	1,600 C.T.	450	15	30	200–15,000	4.30	9.25
323	P.P. Coll. to Servo	250 C.T.	500	10	30	200–15,000	4.30	9.25

MINISPEC AUDIO TRANSFORMERS — 300 SERIES

Part No.	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Unbal. Ma.	Oper. Lev. DBM	Freq. Response ±2 db.	Net Price 1–9 pcs. F	H
375	Mike or line to 1 grid	50/250/600 C.T.	50,000	0	5	20–20,000	$4.50	$9.90
376	Mike or line to 2 grids	50/250/600 C.T.	50,000 C.T.	0	5	20–20,000	4.65	10.40
377	Dynamic mike to 1 grid	7.5/30	50,000	0	5	20–20,000	4.30	9.90
378	Single plate to 1 grid	15,000	60,000	0	6	20–15,000	3.80	8.45
379	Single plate to 1 grid	15,000	60,000	4	14	200–20,000	3.80	8.45
380	Single plate to 2 grids	15,000	95,000 C.T.	0	5	20–15,000	4.00	9.45
381	Single plate to 2 grids	15,000	95,000 C.T.	4	11	200–20,000	4.15	9.75
382	Single plate to line	15,000	50/250/600 C.T.	0	8	20–20,000	4.15	10.60
383	Single plate to line	15,000	50/250/600 C.T.	4	21	150–20,000	4.15	10.60
384	Push pull plates to line	30,000 C.T.	50/250/600 C.T.	0	8	30–50,000	4.30	10.60
385	Crystal mike to line	50,000	50/250/600 C.T.	0	5	20–20,000	4.15	10.25
386	Mixing and matching	50/250 C.T.	50/250/600 C.T.	0	8	20–20,000	4.15	10.25
387	Reactor	300 hy. 0 d.c.	50 hy. @ 3 ma.			DCR 6,000	3.65	8.10
388	50:1 mike to grid	200	½ Megohm	0	9	80–3,000	4.30	9.90
389	10:1 plate to grid	10,000	1 Megohm	0	11	100–2,500	4.00	9.25

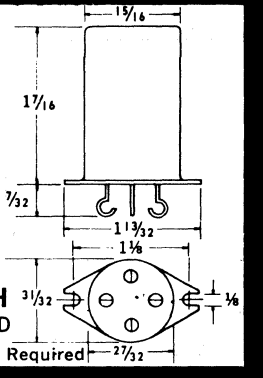
MINISPEC 300 SERIES
Highest efficiency miniature transformer for transistor and audio circuit applications.

MILITARY STYLE ENCAPSULATED VERSIONS ARE AVAILABLE



STYLE F
INDUSTRIAL

STYLE H
HERMETICALLY SEALED



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Net

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STERLING TRANSFORMER

transistor transformers

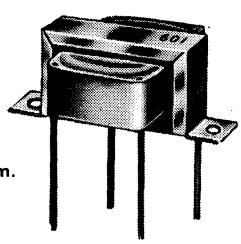
MICROSPEC TRANSISTOR TRANSFORMERS — 600 SERIES

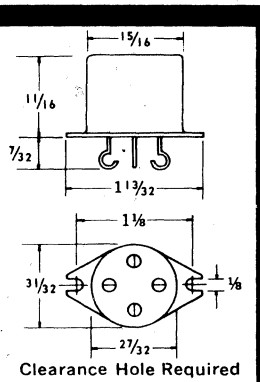
Part No.	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Unbal. Ma.	Oper. Lev. DBM	Freq. Response ±2 db.	Net Price 1–9 pcs. F	H
601	Line to Base	600	600	8	22	200–15,000	$4.30	$8.10
602	Coll. to Base or line	50,000	600	0.7	20	200–15,000	4.50	8.25
603	P.P. coll. to P.P. Base	50,000 C.T.	600 C.T.	1.4	20	200–15,000	5.30	9.45
604	Collector to speaker	50,000	6	1	20	200–15,000	4.80	8.75
605	Coll. to P.P. Base	25,000	1,200 C.T.	1	20	200–15,000	4.95	9.25
606	P.P. coll. to P.P. Base	50,000 C.T.	1,200 C.T.	1.4	20	200–15,000	5.15	9.45
607	Line to P.P. Base	600 C.T.	1,200 C.T.	16	22	200–15,000	4.65	8.45
608	Collector to Base	25,000	600	1	20	200–15,000	3.80	7.95
609	P.P. coll. to P.P. Base or line	4,000 C.T.	600 C.T.	5	28	200–15,000	4.80	8.60
610	Coll. to Spkr.	2,000	3.4	5	28	200–15,000	4.30	8.10
611	Output P.P. coll. to spkr.	4,000 C.T.	3.4	5	28	200–15,000	4.50	8.25
612	Coll. to P.P. Base	10,000	1,500 C.T.	1	20	200–15,000	4.95	9.25
613	P.P. Coll. to P.P. Base	10,000 C.T.	200 C.T.	6	20	200–15,000	4.95	8.95
614	P.P. Coll. to P.P. Base	25,000 C.T.	1,200 C.T.	2	20	200–15,000	5.15	9.45
615	Coll. to P.P. Base	2,500	2,500 C.T.	2	23	200–15,000	4.50	8.25
616	P.P. Coll. to P.P. Base	4,000 C.T.	600/150 split	5	28	200–15,000	5.15	9.45
617	P.P. Coll. to P.P. Base	7,500 C.T.	600 C.T.	4	22	200–15,000	4.80	8.60
618	Line to Base	600 C.T.	600 C.T.	16	22	200–15,000	4.65	8.45
619	P.P. Coll. to P.P. Base	25,000 C.T.	600 C.T.	2	20	200–15,000	4.95	9.25
620	P.P. Coll. to P.P. Base	10,000 C.T.	1,500 C.T.	2	20	200–15,000	5.15	9.45
621	Driver/Isolation	10,000 C.T.	10,000 C.T.	2	20	200–15,000	5.15	9.45
622	P.P. Coll. to P.P. Base	7,500 C.T.	1,200 C.T.	4	22	200–15,000	4.95	9.25
623	P.P. Coll. to P.P. Base	2,000 C.T.	500 C.T.	10	28	200–15,000	4.80	9.10
624	Line to P.P. Base	600 C.T.	1200/300 split	16	22	200–15,000	5.15	9.45

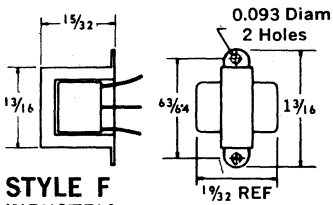
MICROSPEC AUDIO TRANSFORMERS — 600 SERIES

Part No.	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Unbal. Ma.	Oper. Lev. DBM	Freq. Response ±2 db.	Net Price 1–9 pcs. F	H
675	Input	200/50	250,000/62,500	0	4	200–10,000	$4.95	$8.10
676	Interstage 3:1	10,000	90,000	0	4	150–10,000	5.30	8.25
677	Plate to line	10,000	200	3	20	150–10,000	4.65	7.95
678	Output	30,000	50	1	20	150–10,000	4.50	7.80
679	Reactor 50 HY at 1 madc				4700	ohms DCR	4.50	7.60
680	Output	100,000	60	0.5	20	250–10,000	4.65	7.95
681	Output	30,000	1,200	0.5	20	200–10,000	3.65	7.10

MICROSPEC 600 SERIES
Subminiature transformers
for high efficiency circuits.







STYLE F
INDUSTRIAL

MILITARY STYLE ENCAPSULATED
VERSIONS ARE AVAILABLE

Clearance Hole Required
STYLE H
HERMETICALLY SEALED

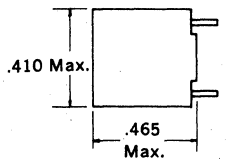
STERLING TRANSFORMER CORP.

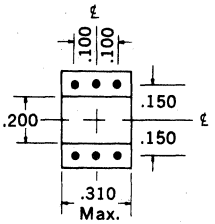
STERLING TRANSFORMER

transistor transformers

NANOSPEC TRANSISTOR TRANSFORMERS — 900 SERIES
Frequency Response ± 2 db 300 Cycles to 90 KC

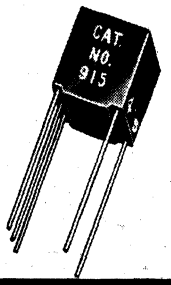
Part No.	Application	Color Application Guide	Primary Impedance	Secondary Impedance	Unbal. Pri. DC Ma.	Power Level MW.	DC Resistance		Net Price
							Primary	Secondary	1-9 Pcs.
903	Interstage	Red	50,000 CT	1,000 CT	0	10	3300	75	8.25
904	Interstage	Red	50,000	1000/250 Split	0	10	3300	75	8.95
905	Interstage	Red	25,000 CT	1,000 CT	0.5	40	1700	115	7.80
906	Interstage	Red	25,000	1000/250 Split	0.25	40	1700	115	8.45
907	Interstage	Red	25,000	1,000	0.25	40	1700	115	7.15
908	Isolation	Green	10,000 CT	10,000 CT	1	50	1200	1300	8.45
909	Driver	Orange	10,000 CT	2,000 CT	1	50	1050	300	7.45
910	Driver	Orange	10,000	2000/500 Split	0.5	50	1050	300	8.10
911	Driver	Orange	10,000 CT	1,200 CT	1	50	1050	280	7.45
912	Driver	Orange	10,000	1200/300 Split	0.5	50	1050	280	7.95
913	Driver	Orange	10,000	1,200	0.5	50	1050	280	6.60
914	Driver	Orange	10,000 CT	500 CT	1	50	1050	80	7.45
915	Isolation	Green	2,500	2,500 CT	1	50	250	325	6.95
916	Output	Yellow	1,500 CT	600	3	50	170	135	6.80
917	Output	Yellow	500	50	3	50	60	8	5.95
918	Output	Yellow	120 CT	3.2	10	50	17	.75	6.30
919	Audio Choke	Blue	6 HY.	DCR 1800 OHMS	2				5.95
920	Audio Choke	Blue	.3 HY.	DCR 45 OHMS	4				5.15
921	Audio Choke	Blue	1.25 H	DCR 180 OHMS	2				5.30
922	Audio Choke	Blue	3.5 H	DCR 1040 OHMS	2				5.30
923	Audio Choke	Blue	.9 H	DCR 110 OHMS	2				5.30
924	Audio Choke	Blue	.1 H	DCR 15 OHMS	5				5.30
925	Interstage	Red	10,000 CT	1,500 CT	1	50	1050	300	7.95
926	Isolation	Green	600 CT	600 CT	3	50	72	92	7.95
927	Output	Yellow	1,000	50	3	50	145	8	6.45
928	Output	Yellow	300 CT	600	7	50	41	98	6.60
929	Output	Yellow	500 CT	600	3	50	67	98	6.60
930	Output	Yellow	900 CT	600	4	50	104	96	6.80
931	Output	Yellow	150 CT	12	10	50	18	3.5	6.45
932	Output	Yellow	300 CT	12	7	50	42	3.4	6.45
933	Output	Yellow	600 CT	12	4.5	50	77	3	6.60
934	Output	Yellow	1,000 CT	12	3.5	50	120	3	6.80
935	Output	Yellow	1,500 CT	12	3	50	179	2.9	6.95
936	Output	Yellow	7,500 CT	12	1	50	796	2.9	7.45
937	Output	Yellow	320 CT	3.2	6	50	44	.77	6.45
938	Output	Yellow	600	3.2	3	50	70	.76	6.15
939	Output	Yellow	600 CT	3.2	4.5	50	70	.85	6.60
940	Output	Yellow	800 CT	3.2	4	50	107	.86	6.80
941	Output	Yellow	1,200	3.2	2	50	131	.76	6.15
942	Output	Yellow	1,200 CT	3.2	3	50	131	.87	6.80
943	Output	Yellow	1,600 CT	3.2	2.5	50	186	.8	6.95
944	Output	Yellow	10,000	3.2	1	50	1160	.81	6.80
945	Output	Yellow	8,000 CT	3.2	1	50	790	.76	7.45





NANOSPEC 900 SERIES

Designed for printed circuit transistor use in high component density applications.
Epoxy resin encapsulated.



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STERLING TRANSFORMER

STANDARD INTERSTAGE AND LINE TRANSISTOR AND TUBE APPLICATIONS *filters*

Hermetically Sealed — Manufactured to MIL-F-18327B Available in Other Frequencies

LOW PASS

INTERSTAGE

LI units have a loss of approximately 3 db at cutoff frequency, and an attenuation of 35 db at 1.5 cutoff frequency. Input and output 10,000 ohms. LI units are MIL type FR4RX11YY.

Part No.	Frequency	Case Size	Net Price
LI-60	60 cps	A	34.65
LI-100	100 cps	A	34.65
LI-200	200 cps	B	34.65
LI-400	400 cps	B	34.65
LI-500	500 cps	B	34.65
LI-800	800 cps	B	34.65
LI-1,000	1,000 cps	B	34.65
LI-1,500	1,500 cps	B	34.65
LI-2,000	2,000 cps	B	34.65
LI-2,500	2,500 cps	B	34.65
LI-3,000	3,000 cps	B	34.65
LI-4,000	4,000 cps	B	34.65
LI-5,000	5,000 cps	B	34.65
LI-10,000	10,000 cps	B	34.65

LINE

LL units have a loss of approximately 3 db at cutoff frequency, and an attenuation of 35 db at 1.5 cutoff frequency. Input and output 500/600 ohms. LL units are MIL type FR4RX11YY.

Part No.	Frequency	Case Size	Net Price
LL-600	600 cps	A	34.65
LL-1,000	1,000 cps	A	34.65
LL-1,500	1,500 cps	A	34.65
LL-2,000	2,000 cps	A	34.65
LL-2,500	2,500 cps	A	34.65
LL-4,000	4,000 cps	A	34.65
LL-8,000	8,000 cps	A	34.65
LL-10,000	10,000 cps	A	34.65
LL-12,000	12,000 cps	A	34.65

HIGH PASS

INTERSTAGE

HI units have a loss of less than 6 db at cutoff frequency, and an attenuation of 35 db at .67 cutoff frequency. Input and output 10,000 ohms. HI units are MIL type FR4RX33YY.

Part No.	Frequency	Case Size	Net Price
HI-100	100 cps	A	34.65
HI-200	200 cps	A	34.65
HI-300	300 cps	A	34.65
HI-400	400 cps	A	34.65
HI-500	500 cps	A	34.65
HI-800	800 cps	A	34.65
HI-1,000	1,000 cps	A	34.65
HI-2,000	2,000 cps	A	34.65
HI-3,000	3,000 cps	A	34.65

LINE

HL units have a loss of less than 6 db at cutoff frequency, and an attenuation of 35 db at .67 cutoff frequency. Input and output 500/600 ohms. HL units are MIL type FR4RX33YY.

Part No.	Frequency	Case Size	Net Price
HL-200	200 cps	A	42.90
HL-300	300 cps	A	42.90
HL-500	500 cps	A	42.90
HL-1,000	1,000 cps	A	42.90

FOR WIDE BAND PASS FILTERS THE LI & HI OR LL & HL MAY BE CONNECTED IN SERIES.

BAND PASS

INTERSTAGE

BI units have 2:1 voltage gain. They are sharply peaked, having approximately 2 db attenuation at plus or minus 3% from center frequency and attenuation greater than 40 db at 1/2 and twice center frequency. Input 10,000 ohms, output to grid. BI units are MIL type FR4RX22YY.

Part No.	Frequency	Case Size	Net Price
BI-50	50 cps	A	33.00
BI-60	60 cps	A	33.00
BI-100	100 cps	A	33.00
BI-120	120 cps	B	33.00
BI-200	200 cps	B	33.00
BI-240	240 cps	B	33.00
BI-400	400 cps	B	33.00
BI-500	500 cps	B	33.00
BI-750	750 cps	B	33.00
BI-800	800 cps	B	33.00
BI-1,000	1,000 cps	B	33.00
BI-1,500	1,500 cps	B	33.00
BI-2,000	2,000 cps	B	33.00
BI-3,000	3,000 cps	B	33.00
BI-4,000	4,000 cps	B	33.00
BI-5,000	5,000 cps	B	33.00
BI-10,000	10,000 cps	B	33.00

LINE

BL units have 9:1 voltage gain. They are sharply peaked, having approximately 2 db attenuation at plus or minus 3% from center frequency and attenuation greater than 40 db at 1/2 and twice center frequency. Input 500/600 ohms, output to grid. BL units are MIL type FR4RX22YY.

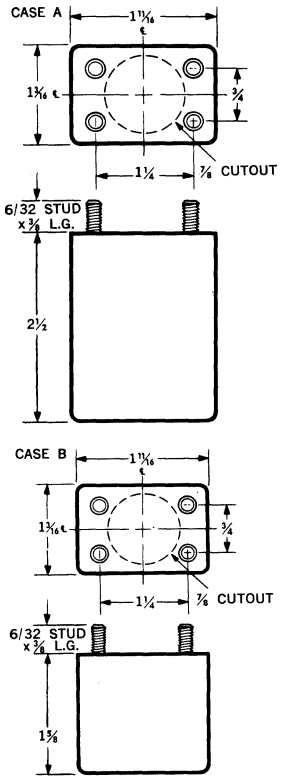
Part No.	Frequency	Case Size	Net Price
BL-400	400 cps	B	33.00
BL-1,000	1,000 cps	B	33.00

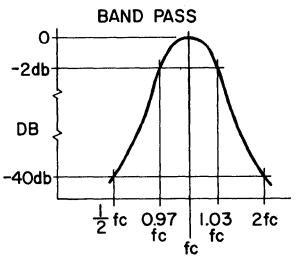
TRANSISTOR INTERSTAGE

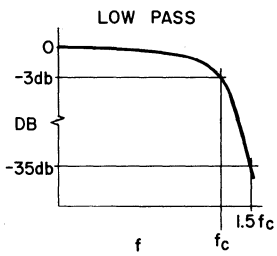
They are sharply peaked, having approximately 2 db attenuation at plus or minus 3% from center frequency and attenuation greater than 40 db at 1/2 and twice center frequency. Input 10,000 ohms, output 10,000 ohms. BIT units are MIL type FR4RX22YY.

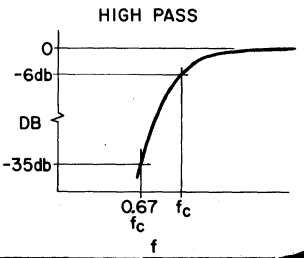
Part No.	Frequency	Case Size	Net Price
BIT-60	60 cps	A	39.60
BIT-100	100 cps	A	39.60
BIT-120	120 cps	B	39.60

CASE DETAIL









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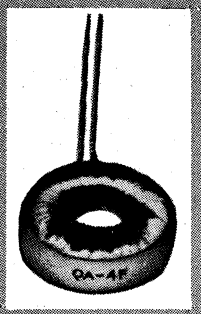
STERLING TRANSFORMER

hi-Q toroidal inductors

MANUFACTURED TO MIL-T-27A. ALL HERMETICALLY SEALED UNITS (STYLE H) ARE MIL TYPE TF4RX20YY

- ALL MOLDED UNITS STYLE M ARE MIL TYPE TF5RX20ZZ
- ALSO TOROIDAL INDUCTORS IN OTHER SIZES AND VALUES AVAILABLE ON SPECIAL ORDER.
- MOLYBDENUM PERMALLOY POWDER CORES USED IN ALL UNITS.

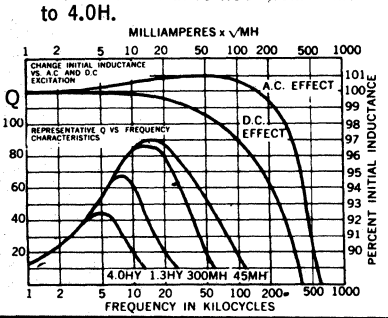


STYLE F
* ALL INDUCTORS SHOWN AVAILABLE IN OPEN STYLE F.

QA SERIES

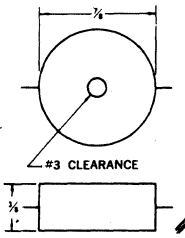
FREQUENCY TO 20KC•ACCURACY ± 1%

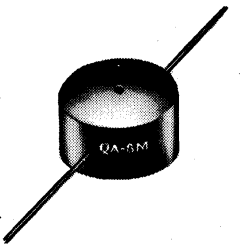
The QA series is designed to optimize small size and high "Q" for miniaturized applications. These units are available on special order with stabilized cores and inductance from 1MH to 4.0H.



AVAILABLE ON SPECIAL ORDER
HERMETICALLY SEALED

Part No.	Inductance	Approx. DCR Ohms	Approx. Distributed Capacity PF	Net Price 1–9 pcs. Style F	Style M
QA-1	5MH	2.5	30	4.80	6.30
QA-2	10	5	33	4.80	6.30
QA-3	15	8	34	4.95	6.45
QA-4	20	11.2	36	5.10	6.60
QA-5	30	17	37	5.15	6.80
QA-6	50	28	40	5.30	6.95
QA-7	100	50	42	5.45	7.10
QA-8	150	80	44	5.65	7.30
QA-9	200	120	45	5.75	7.40
QA-10	300	150	46	5.85	7.65
QA-11	500	290	48	5.95	7.95
QA-12	1.00H	530	51	6.80	8.75
QA-13	1.50	825	53	6.95	9.60





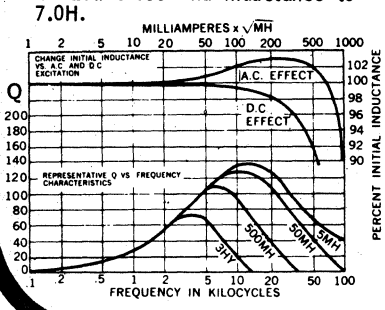
MOLDED STYLE M

Encapsulated in Epoxy Resin. Pigtail leads for printed circuit applications.

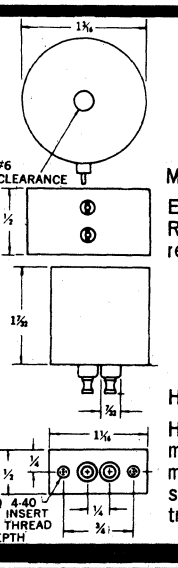
QB SERIES

FREQUENCY TO 20KC•ACCURACY ± 1%

The QB series is designed for airborne applications where stable high "Q" is needed with minimized size and weight. Available on special order with stabilized cores and inductance to 7.0H.



Part No.	Inductance	Approx. DCR Ohms	Approx. Distributed Capacity PF	Net Price 1–9 pcs. Style F	Style H	Style M
QB-1	5MH	1.1	38	4.30	7.45	5.80
QB-2	10	2.1	40	4.30	7.45	5.80
QB-3	15	3.3	42	4.30	7.45	5.95
QB-4	20	3.7	43	4.35	7.55	6.05
QB-5	30	5.8	45	4.40	7.70	6.15
QB-6	50	11	47	4.50	7.95	6.25
QB-7	100	22	49	4.65	8.45	6.30
QB-8	150	34	50	4.80	8.60	6.45
QB-9	200	47	52	5.05	9.00	6.70
QB-10	300	60	53	5.15	9.25	6.80
QB-11	500	95	55	5.30	9.45	6.95
QB-12	1.00H	213	57	5.65	9.90	7.45
QB-13	1.50	335	59	6.45	10.40	8.10



MOLDED STYLE M

Encapsulated in Epoxy Resin. Silver plated turret lugs.

HERMETIC STYLE H

Hermetically sealed in metal case. Teflon terminals assure permanent seal at temperature extremes.

STERLING TRANSFORMER CORP.

Net

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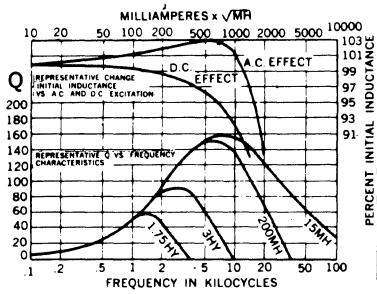
hi-Q toroidal inductors

STERLING TRANSFORMER

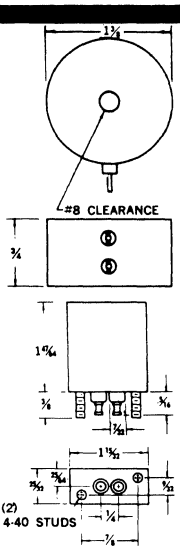
QC SERIES

FREQUENCY TO 10KC
ACCURACY ± 1%

The QC series is designed for high "Q", increased power level & stability. Available on spe-order with stabilized cores and inductance to 20H.



Part No.	Inductance	Approx. DCR Ohms	Approx. Distributed Capacity PF	Net Price 1–9 pcs. Style F	Style H	Style M
QC-1	5MH	0.62	60	4.80	7.80	6.80
QC-2	10	1.1	66	4.95	7.95	6.80
QC-3	15	1.7	68	4.95	8.10	6.80
QC-4	20	1.9	70	5.05	8.25	6.80
QC-5	30	3	72	5.10	8.45	6.80
QC-6	50	6	76	5.15	8.60	6.80
QC-7	100	11	81	5.30	9.25	7.30
QC-8	150	17	83	5.45	9.45	7.30
QC-9	200	24	85	5.50	9.65	7.40
QC-10	300	37	88	5.60	9.80	7.50
QC-11	500	63	91	5.65	10.10	7.60
QC-12	1.00H	110	96	5.80	10.60	7.95
QC-13	1.50	185	98	5.95	10.75	8.10
QC-14	2.00	250	100	6.50	11.20	8.40
QC-15	3.00	380	103	7.05	11.65	8.80
QC-16	5.00	645	106	7.45	12.25	9.25
QC-17	7.50	950	109	8.00	13.00	10.05
QC-18	10.00	1175	112	8.25	13.70	10.60



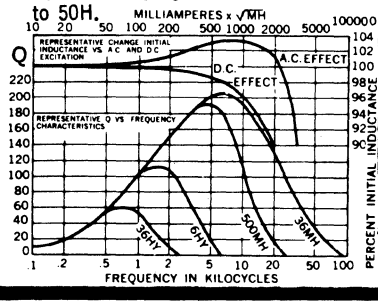
MOLDED STYLE M
Encapsulated in Epoxy Resin. Silver plated turret lugs.

HERMETIC STYLE H
Hermetically sealed in metal case. Teflon terminals assure permanent seal at temperature extremes.

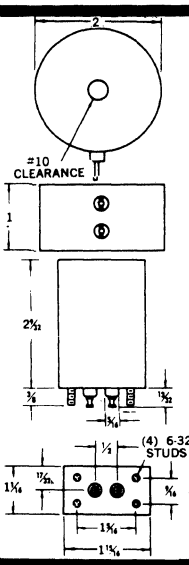
QD SERIES

FREQUENCY TO 10KC•ACCURACY ± 1%

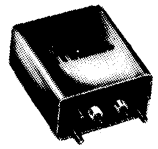
The QD series is designed for very high "Q" in the audio band allowing for application in sharp frequency filters with high power levels and low losses. They are excellent for tuned transformers and oscillators. Available on special order with stabilized cores and inductance to 50H.



Part No.	Inductance	Approx. DCR Ohms	Approx. Distributed Capacity PF	Net Price 1–9 pcs. Style F	Style H	Style M
QD-1	20MH	1.0	97	7.80	11.60	9.60
QD-2	30	1.5	100	7.80	11.60	9.60
QD-3	50	2.5	105	7.80	11.60	9.60
QD-4	100	6	110	7.95	11.75	9.75
QD-5	150	7	113	8.10	11.85	10.35
QD-6	200	10	115	8.10	11.85	10.35
QD-7	300	15	117	8.25	12.05	10.60
QD-8	500	25	121	8.25	12.05	10.60
QD-9	1.00H	60	126	8.60	12.55	10.90
QD-10	1.50	90	130	8.95	12.90	11.25
QD-11	2.00	100	131	9.85	13.90	11.70
QD-12	3.00	155	134	10.20	14.30	12.00
QD-13	5.00	275	138	10.40	14.55	12.25
QD-14	7.50	400	140	11.10	15.55	13.20
QD-15	10.00	600	142	12.25	16.50	14.20
QD-16	15.00	900	146	13.20	17.35	15.20
QD-17	20.00	1100	148	14.15	19.10	16.80
QD-18	25.00	1500	150	14.40	19.35	17.00



MOLDED STYLE M
Encapsulated in Epoxy Resin. Silver plated turret lugs.

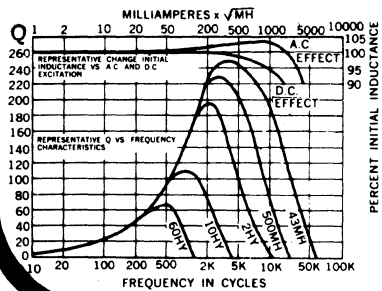


HERMETIC STYLE H
Hermetically sealed in metal case. Teflon terminals assure permanent seal at temperature extremes.

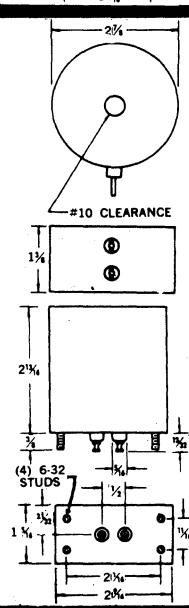
QE SERIES

FREQUENCY TO 15KC
ACCURACY ± 1%

The QE series is most widely used in low audio frequency applications where high "Q" is essential. They are used where inductance stability over a wide voltage range is required. Available on special order with inductance to 75H.



Part No.	Inductance	Approx. DCR Ohms	Approx. Distributed Capacity PF	Net Price 1–9 pcs. Style F	Style H	Style M
QE-1	25MH	0.85	127	11.90	14.85	13.90
QE-2	50	1.6	136	12.05	15.05	14.05
QE-3	100	3	144	15.35	15.35	14.40
QE-4	150	3.9	149	15.70	15.70	15.05
QE-5	200	5.9	153	16.25	16.25	15.25
QE-6	300	8.5	158	16.30	16.30	15.30
QE-7	500	15	164	16.35	16.35	15.35
QE-8	1.00H	30	173	16.70	16.70	15.35
QE-9	1.50	40	177	17.00	17.00	15.70
QE-10	2.00	60	181	17.95	17.95	16.10
QE-11	3.00	85	185	18.05	18.05	16.30
QE-12	5.00	142	192	18.35	18.35	16.50
QE-13	7.50	215	196	18.70	18.70	17.55
QE-14	10.00	300	200	19.00	19.00	17.85
QE-15	15.00	430	205	20.15	20.15	19.00
QE-16	20.00	550	209	21.20	21.20	20.00
QE-17	25.00	800	212	21.45	21.45	20.30
QE-18	30.00	850	214	25.30	25.30	24.15
QE-19	50.00	1500	221	27.75	27.75	26.60



MOLDED STYLE M
Encapsulated in Epoxy Resin. Silver plated turret lugs.

HERMETIC STYLE H
Hermetically sealed in metal case. Teflon terminals assure permanent seal at temperature extremes.

STERLING TRANSFORMER CORP

POWERSTAT® *Variable Transformers now*

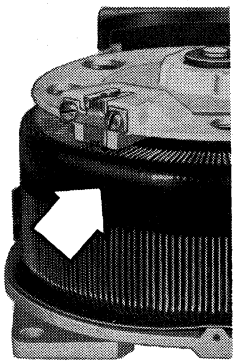
New epoxy-coated POWERKOTE Coils make the POWERSTAT line the most outstanding value in variable transformers today. *Without increase in price, size or weight,* only POWERSTAT Variable Transformers give an average of 20% higher current ratings, 10:1 greater overload capability, longer life, greater resistance to fungus, salt spray and other contaminating atmospheres. POWERKOTE Coil commutator bars are embedded in place preventing steady-state operating temperature and severe overloads from distorting the commutator.

POWERSTAT Variable Transformers are designed to deliver continuously adjustable voltage from a-c power lines. They introduce no waveform distortion and feature rugged construction, precious metal plated commutators, excellent regulation, high efficiency and conservative ratings. All manually operated types listed in the charts except the 10B-12, EN116B-EN216B and EN117B-EN217B Series are available with motor drives if desired. Motor-driven speeds are 5, 15, 30 or 60 seconds for full range travel on all except types having -4, -5, or -6 suffixes which do not offer the 5-second speed. Single types in the 116B-216B, 117B-217B, 126-226 and 136B-236B Series are also offered with 2- or 3-wire cord-plug sets. 1156D-1256D Series types are available in ratings to 244 kva.

HIGHER RATINGS

HIGHER OVERLOAD CAPABILITIES

LONGER LIFE



RATINGS AND SPECIFICATIONS

INPUT		OUTPUT						
			Const. Current Load		Const. Impedance Load			
Volts	Cycles	Volts	Max. Amp.	Max. KVA	Max. Amp.	Max. KVA	TYPE	Ship. Wt. Lbs.
10B-12 SERIES								
Single Phase								
120	60	0-132	1	0.13	—	—	2PF10	3½
120	50/60	0-120	2.25*	0.27	3‡	0.36	10B	2½
120	60	0-132	2.25*	0.30	—	—		
240	50/60	0-240	0.7*	0.17	0.9‡	0.22	12	2½
240	50/60	0-264	0.5**	0.13	—	—		
240	50/60	0-240	2.25*	0.54	3‡	0.72	10B-2	6
240	60	0-264	2.25*	0.59	—	—		
480	50/60	0-480	0.7*	0.34	0.9‡	0.43	12-2	6
480	50/60	0-528	0.5**	0.26	—	—		
Three Phase								
120	50/60	0-120	2.25*	0.47	3‡	0.62	10B-2	6
120	60	0-132	2.25*	0.51	—	—		
240	50/60	0-240	0.7*	0.29	0.9‡	0.37	12-2	6
240	50/60	0-264	0.5**	0.23	—	—		
240	60	0-240	2.25*	0.94	3‡	1.2	10B-3	8½
480	50/60	0-480	0.7*	0.58	0.9‡	0.75	12-3	8½
480	60	0-528	0.5**	0.46	—	—		
21-22 SERIES								
Single Phase								
120	50/60	0-120	4.5	0.54	6.5	0.78	21	6
120	50/60	0-140	4.5	0.63	—	—		
240	50/60	0-240	2.25	0.54	3.25	0.78	22	6
240	50/60	0-280	2.25	0.63	—	—		
240	50/60	0-240	4.5	1.1	6.5	1.6	21-2	13½
240	50/60	0-280	4.5	1.3	—	—		
480	50/60	0-480	2.25	1.1	3.25	1.6	22-2	13½
480	50/60	0-560	2.25	1.3	—	—		
Three Phase								
120	50/60	0-120	4.5	0.94	6.5	1.4	21-2	13½
120	50/60	0-140	4.5	1.1	—	—		
240	50/60	0-240	2.25	0.94	3.25	1.4	22-2	13½
240	50/60	0-280	2.25	1.1	—	—		
240	50/60	0-240	4.5	1.9	6.5	2.7	21-3	19
240	60	0-280	4.5	2.2	—	—		
480	50/60	0-480	2.25	1.9	3.25	2.7	22-3	19
480	60	0-560	2.25	2.2	—	—		

*Rating when mounted on metal panel. On bracket or nonmetallic panel, derate 10B Series to 1.75 amp., 12 Series to 0.5 amp.
‡Rating when mounted on metal panel. On bracket or nonmetallic panel, derate 10B Series to 2.5 amp., 12 Series to 0.75 amp.
**0.7 amp. maximum in range from 0 to line voltage when mounted on metal panel.

INPUT		OUTPUT						
			Const. Current Load		Const. Impedance Load			
Volts	Cycles	Volts	Max. Amp.	Max. KVA	Max. Amp.	Max. KVA	TYPE	Ship. Wt. Lbs.
116B-216B and 117B-217B SERIES†								
Single Phase								
120	50/60	0-120	10	1.2	13	1.6	116B	12
120	50/60	0-140	10	1.4	—	—		
120	60	0-120	12	1.4	15	1.8	117BT	12
240	50/60	0-240	3.5	0.84	5	1.2	216B	12
240	50/60	0-280	3.5	0.98	—	—		
240	60	0-240	5	1.2	7	1.7	217BT	12
240	50/60	0-240	10	2.4	13	3.1	116BT-2	24
240	50/60	0-280	10	2.8	—	—		
240	60	0-240	12	2.9	15	3.6	117BT-2	24
480	50/60	0-480	3.5	1.7	5	2.4	216BT-2	24
480	50/60	0-560	3.5	2.0	—	—		
480	60	0-480	5	2.4	7	3.4	217BT-2	24
Three Phase								
120	50/60	0-120	10	2.1	13	2.7	116BT-2	24
120	50/60	0-140	10	2.4	—	—		
120	60	0-120	12	2.5	15	3.1	117BT-2	24
240	50/50	0-240	3.5	1.5	5	2.1	216BT-2	24
240	50/60	0-280	3.5	1.7	—	—		
240	60	0-240	5	2.1	7	2.9	217BT-2	24
240	50/60	0-240	10	4.2	13	5.4	116BT-3	36
240	60	0-280	10	4.8	—	—		
240	60	0-240	12	5.0	15	6.2	117BT-3	36
480	50/60	0-480	3.5	2.9	5	4.2	216BT-3	36
480	60	0-560	3.5	3.4	—	—		
480	60	0-480	5	4.2	7	5.8	217BT-3	36
EN116B-EN216B and EN117B-EN217B SERIES								
Single Phase								
120	50/60	0-120	8	0.96	13	1.6	EN116B	15
120	50/60	0-140	8	1.1	—	—		
120	60	0-120	10	1.2	14.5	1.7	EN117B	15
240	50/60	0-240	3	0.72	4.5	1.1	EN216B	15
240	50/60	0-280	3	0.84	—	—		
240	60	0-240	4.4	1.1	5.8	1.4	EN217B	15
240	50/60	0-240	8	1.9	13	3.1	EN116B-2	28
240	50/60	0-280	8	2.2	—	—		
240	60	0-240	10	2.4	14.5	3.5	EN117B-2	28
480	50/60	0-480	3	1.4	4.5	2.2	EN216B-2	28
480	50/60	0-560	3	1.7	—	—		
480	60	0-480	4.4	2.1	5.8	2.8	EN217B-2	28
Three Phase								
120	50/60	0-120	8	1.7	13	2.7	EN116B-2	28
120	50/60	0-140	8	1.9	—	—		
120	60	0-120	10	2.1	14.5	3.0	EN117B-2	28
240	50/60	0-240	3	1.2	4.5	1.9	EN216B-2	28
240	50/60	0-280	3	1.5	—	—		
240	60	0-240	4.4	1.8	5.8	2.4	EN217B-2	28
240	50/60	0-240	8	3.3	13	5.4	EN116B-3	39
240	60	0-280	8	3.9	—	—		
240	60	0-240	10	4.2	14.5	6.0	EN117B-3	39
480	50/60	0-480	3	2.5	4.5	3.7	EN216B-3	39
480	60	0-560	3	2.9	—	—		
480	60	0-480	4.4	3.7	5.8	4.8	EN217B-3	39

†Also available with open construction. Suffix U when ordering.

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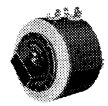
PATENT PENDING



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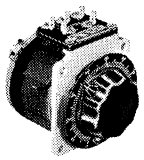

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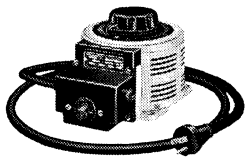

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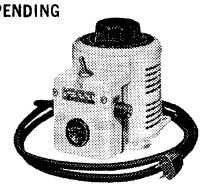

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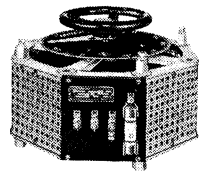

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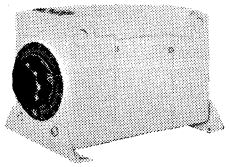

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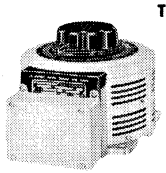
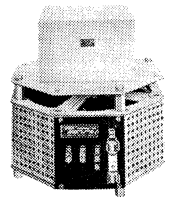


TYPE 136BT

TYPE 146



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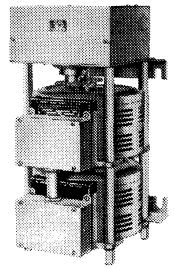
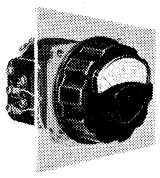


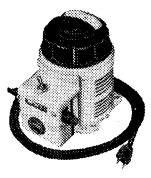
INPUT		OUTPUT						
			Const. Current Load		Const. Impedance Load			
Volts	Cycles	Volts	Max. Amp.	Max. KVA	Max. Amp.	Max. KVA	TYPE	Ship. Wt. Lbs.
126-226 SERIES†								
Single Phase								
120	50/60	0-120	15	1.8	20	2.4	126	17
120	50/60	0-140	15	2.1	—	—		
240	50/60	0-240	7.5	1.8	10	2.4	226	17
240	50/60	0-280	7.5	2.1	—	—		
240	50/60	0-240	15	3.6	20	4.8	126-2	32
240	50/60	0-280	15	4.2	—	—		
480	50/60	0-480	7.5	3.6	10	4.8	226-2	32
480	50/60	0-560	7.5	4.2	—	—		
Three Phase								
120	50/60	0-120	15	3.1	20	4.2	126-2	32
120	50/60	0-140	15	3.6	—	—		
240	50/60	0-240	7.5	3.1	10	4.2	226-2	32
240	50/60	0-280	7.5	3.6	—	—		
240	50/60	0-240	15	6.2	20	8.3	126-3	49
240	60	0-280	15	7.3	—	—		
480	50/60	0-480	7.5	6.2	10	8.3	226-3	49
480	60	0-560	7.5	7.3	—	—		
136B-236B SERIES†								
Single Phase								
120	50/60	0-120	22	2.6	28	3.4	136B	25
120	50/60	0-140	22	3.1	—	—		
120	50/60	0-120	44	5.3	56	6.7	136B-2§	52
120	50/60	0-140	44	6.2	—	—		
240	50/60	0-240	10	2.4	13	3.1	236B	25
240	50/60	0-280	10	2.8	—	—		
240	50/60	0-240	22	5.3	28	6.7	136B-2	52
240	50/60	0-280	22	6.2	—	—		
480	50/60	0-480	20	4.8	26	6.2	236B-2	52
480	50/60	0-560	20	5.6	—	—		
Three Phase								
120	50/60	0-120	22	4.6	28	5.8	136B-2	52
120	50/60	0-140	22	5.3	—	—		
240	50/60	0-240	10	4.2	13	5.4	236B-2	52
240	50/60	0-280	10	4.8	—	—		
240	50/60	0-240	22	9.1	28	11.6	136B-3	76
240	60	0-280	22	10.7	—	—		
480	50/60	0-480	10	8.3	13	10.8	236B-3	76
480	60	0-560	10	9.7	—	—		
146-246 SERIES†								
Single Phase								
120	50/60	0-120	30	3.6	35	4.2	146	38
120	50/60	0-140	30	4.2	—	—		
120	50/60	0-120	60	7.2	70	8.4	146-2§§	83
120	50/60	0-140	60	8.4	—	—		
240	50/60	0-240	15	3.6	19	4.6	246	38
240	50/60	0-280	15	4.2	—	—		
240	50/60	0-240	30	7.2	35	8.4	146-2	83
240	50/60	0-280	30	8.4	—	—		
480	50/60	0-480	15	7.2	19	9.1	246-2	83
480	50/60	0-560	15	8.4	—	—		

†Also available with open construction. Suffix U when ordering.
§Requires also one paralleling choke type T5000.
§§Requires also one paralleling choke type T6053.

IN SECTIONS 2100, 3500 AND 4000

INPUT		OUTPUT						
			Const. Current Load		Const. Impedance Load			
Volts	Cycles	Volts	Max. Amps.	Max. KVA	Max. Amps.	Max. KVA	TYPE	Ship. Wt. Lbs.
146-246 SERIES† (contd.)								
Three Phase								
120	50/60	0-120	30	6.2	35	7.3	146-2	83
120	50/60	0-140	30	7.3	—	—		
240	50/60	0-240	15	6.2	19	7.9	246-2	83
240	50/60	0-280	15	7.3	—	—		
240	50/60	0-240	30	12.5	35	14.5	146-3	125
240	60	0-280	30	14.5	—	—		
480	50/60	0-480	15	12.5	19	15.8	246-3	125
480	60	0-560	15	14.5	—	—		
1156D-1256D SERIES†								
Single Phase								
120	50/60	0-120	50	6.0	55	6.6	1156D	82
120	50/60	0-140	50	7.0	—	—		
120	50/60	0-120	100	12.0	110	13.2	1156D-2P	169
120	50/60	0-140	100	14.0	—	—		
120	50/60	0-120	150	18.0	165	19.8	1156D-3P	272
120	50/60	0-140	150	21.0	—	—		
240	50/60	0-240	28	6.7	28	6.7	1256D	82
240	50/60	0-280	28	7.8	—	—		
240	50/60	0-240	50	12.0	55	13.2	1156D-2S	156
240	50/60	0-280	50	14.0	—	—		
240	50/60	0-240	56	13.4	56	13.4	1256D-2P	169
240	50/60	0-280	56	15.7	—	—		
240	50/60	0-240	84	20.2	84	20.2	1256D-3P	272
240	50/60	0-280	84	23.5	—	—		
240	50/60	0-240	100	24.0	110	26.4	1156D-4PS	361
240	50/60	0-280	100	28.0	—	—		
480	50/60	0-480	28	13.4	28	13.4	1256D-2S	156
480	50/60	0-560	28	15.7	—	—		
480	50/60	0-480	56	26.9	56	26.9	1256D-4PS	361
480	50/60	0-560	56	31.4	—	—		
Three Phase								
120	50/60	0-120	50	10.4	55	11.4	1156D-2D	155
120	50/60	0-140	50	12.1	—	—		
240	50/60	0-240	28	11.6	28	11.6	1256D-2D	155
240	50/60	0-280	28	13.6	—	—		
240	50/60	0-240	50	20.8	55	22.9	1156D-3Y	230
240	60	0-280	50	24.2	—	—		
240	50/60	0-240	100	41.6	110	45.7	1156D-6Y	507
240	50/60	0-280	100	48.5	—	—		
480	50/60	0-480	28	23.3	28	23.3	1256D-3Y	235
480	60	0-560	28	27.2	—	—		
480	50/60	0-480	56	46.6	56	46.6	1256D-6Y	507
480	60	0-560	56	54.3	—	—		





STATIONARY METERED KNOB TYPES

Single units (those listed in charts without -2 or -3 suffixes) in the 116B-216B, 117B-217B, 126-226, 136B-236B and 146-246 series are also available with metered knobs. Stationary voltmeter does not turn with knob. Voltmeter accurate within ±2.5% of full scale and insensitive to stray magnetic fields. When ordering, add VS prefix to type number. *Back-of-panel* mounted types in the 21-22 through 146-246 series can be combined with Metered Knob Assemblies. Existing models can be retrofitted also. Assembly type VS150 has a 0-150 volt scale and type VS300 has 0-300.

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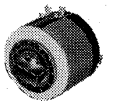
POWERSTAT® Variable Transformers

NOW WITH POWERKOTE* COILS

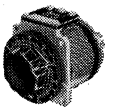
*PATENT PENDING

40-VOLT SERIES

Meet high current, low voltage requirements of low voltage power supplies and a wide range of transistor circuit applications. Manually-operated and motor-driven single, 2- and 3-gang single phase types available.



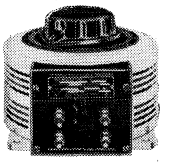
TYPE 10B-40

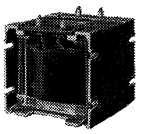


TYPE 21-40

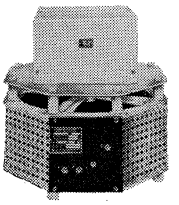
LINE CORRECTORS

Used to correct line voltage variations to maintain a constant output voltage or to supply a limited range of output voltage from a stable a-c source. Manually operated and motor-driven types available.





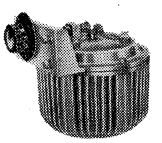
TYPE LC2106D



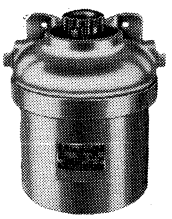
TYPE 5MLC2115E

OIL-COOLED AND EXPLOSION-PROOF

Oil-cooled units substantially increase ratings above equivalent air-cooled types and provide a measure of safety. Explosion-proof models are Underwriters' Laboratories listed for Class 1, Group D service. Both are manually operated only.



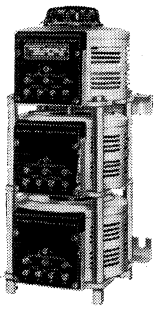
OIL-COOLED
TYPE 0-116B



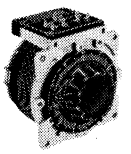
EXPLOSION-PROOF
TYPE X-116

LW136B SERIES

Have three windings. Connections can be made for operation as a source of adjustable low output voltage, a line voltage corrector or a limited range variable transformer. Manually operated and motor-driven, open and enclosed construction types available. Full connections and ratings on request.



TYPE LW136B-3



TYPE LW136BU

THE SUPERIOR ELECTRIC COMPANY

40-VOLT SERIES

INPUT		OUTPUT						
			Const. Current Load		Const. Impedance Load			Ship.
Volts	Cycles	Volts	Max. Amps.	Max. KVA	Max. Amps.	Max. KVA	TYPE	Wt. Lbs.
Single Phase								
40	60	0-40	7	0.28	9	0.36	10B-40	3½
			18	0.72	22	0.88	21-40	6
			25	1.0	30	1.2	116BU-40	11

LINE CORRECTOR SERIES

INPUT		OUTPUT				Ship.
Volts	Cycles	Volts	Max. Amps.	Max. KVA	TYPE	Wt. Lbs.
Used as Line Corectors — SINGLE PHASE						
95-135	50/60	115	17.5	2.0	LC2102D	55
95-135	50/60	115	52	6.0	LC2106D	80
95-135	50/60	115	130	15.0	LC2115E	200
195-255	50/60	230	32.5	7.5	LC2207D	85
205-250	50/60	230	120	27.5	LC2228E	205
400-520	50/60	460	15	6.9	LC2407D	85
400-520	50/60	460	40	18.4	LC2418E	205
Used as Line Correctors — THREE PHASE						
195-255	50/60	230	25	10.0	LC3210YD	211
195-255	50/60	230	38	15.0	LC3215YD	226
195-255	50/60	230	50	20.0	LC3220YD	241
195-255	50/60	230	113	45.0	LC3245YE	615
195-255	50/60	230	175	70.0	LC3270DE	795
400-520	50/60	460	16	12.7	LC3412YD	200
400-520	50/60	460	22	17.5	LC3417YD	215
400-520	50/60	460	33	26.3	LC3425YD	230
400-520	50/60	460	66	52.6	LC3450YE	580
400-520	50/60	460	100	79.7	LC3475YE	630
420-500	50/60	460	131	104	LC34100YE	630

When units of the LC series are used as limited range adjustable transformers, the input voltage is the output voltage shown in the above chart and the output voltage is the input voltage shown in the above chart.

OIL-COOLED

INPUT		OUTPUT				Ship.
Volts	Cycles	Volts	Max. Amps.	Max. KVA	TYPE††	Wt. Lbs.
120	50/60	0-120	15	1.8	0-116B	32
120	50/60	0-140	15	2.1		
120	50/60	0-140	30	4.2	0-1126	100
240	50/60	0-240	6	1.4	0-216B	32
240	50/60	0-280	6	1.7		
240	50/60	0-280	18	5.0	0-1226	105

†† Other Types available on special order.

EXPLOSION-PROOF

120	50/60	0-120	7.5	0.90	X-116	47
120	50/60	0-140	7.5	1.0		
120	50/60	0-140	12	1.7	X-1126	142
240	50/60	0-240	3	0.72	X-216	47
240	50/60	0-280	3	0.84		
240	50/60	0-280	6	1.7	X-1226	142

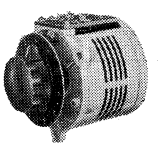
LW136B SERIES

INPUT		OUTPUT‡‡				Ship.
Volts	Cycles	Volts	Max. Amps.	Max. KVA	TYPE	Wt. Lbs.
Single Phase						
120/240	50/60	15-0-15	35	0.52	LW136B	25
120/240/480	50/60	30-0-30	35	1.0	LW136B-2	52
120/240	50/60	45-0-45	35	1.6	LW136B-3	76
120/240	50/60	0-30	25	0.75	LW136B	25
120/240/480	50/60	0-60	25	1.5	LW136B-2	52
120/240	50/60	0-90	25	2.2	LW136B-3	76
Three Phase						
120/240	50/60	0-30	25	1.3	LW136B-2	52
120/240	50/60	0-30	43.3	2.2	LW136B-3	76
120/240	50/60	0-52	25	2.2	LW136B-3	76
240/480	60	0-35	43.3	2.6	LW136B-3	76
240/480	60	0-60	25	2.6	LW136B-3	76

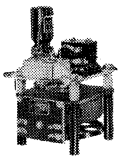
‡‡ LW136B Series ratings are for use as low voltage isolated output transformer.

HIGH FREQUENCY POWERSTAT® VARIABLE TRANSFORMERS

TYPE 5-1011



TYPE 1HMD07CKI



TYPE AM1HMS07U

Standard types designed to meet applicable military specifications are available: manually operated and motor-driven types for 28, 120, 240 and 480 volt, 400/800 cycle single and three phase operation in ratings from 56 VA to 8.7 KVA; manually operated types for 115 volt, 400/800 cycle single phase service with outputs of 0-28 volts, 2.5, 5 or 8 amperes and 0-5 volts, 6 or 12 amperes; manually operated types for 400/1600 cycle service as limited range variable transformers, low voltage output variable transformers or line correctors.

SEE OTHER SUPERIOR ELECTRIC PRODUCT PAGES

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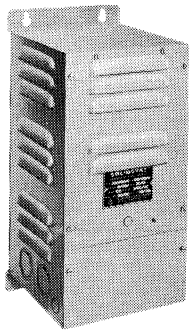
SOLIDSTAT® Variable Voltage Controls



TYPE CSR106

- SOLID-STATE VOLTAGE CONTROL
- 6, 12 AND 24 KVA MODELS
- 120, 240 AND 480 VOLT TYPES

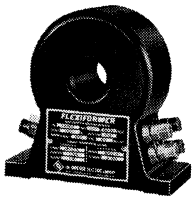
Solid-state, semiconductor variable a-c voltage controls for all loads from unity power factor to zero power factor lagging inductive load. Operating on a closed-loop, error-detector principle, they can be controlled by a potentiometer, by a current feedback sensing circuit or by a voltage sensing circuit. Any load from zero up to the full rating can be controlled with an efficiency of 98% or higher. Have unique lock-out overload protection circuit. Provide instantaneous response and are insensitive to line or load voltage changes.

INPUT		OUTPUT				
VOLTS*	FREQUENCY (CYCLES)	VOLTS	MAX. AMPS AT MAX. VOLTS	MAX. KVA	TYPE	APPROXIMATE NET WEIGHT (POUNDS)
120	60	0-115	50	6.0	CSR106	16
240	60	0-230	50	12.0	CSR212	16
480	60	0-470	50	24.0	CSR424	18
120	60	0-115	100	12.0	CSR112	34
240	60	0-230	100	24.0	CSR224	34
480	60	0-470	100	48.0	CSR448	38

*208 and 277 volt types available on special order.

FLEXIFORMER® Packaged Transformer Primaries

● A SOURCE OF A-C VOLTAGE ● A CURRENT TRANSFORMER ● 150 VA AND 1000 VA TYPES

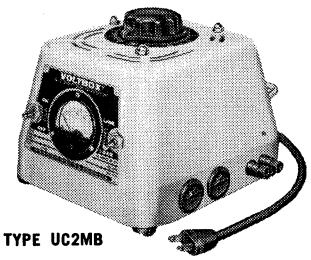


TYPE TP150

These "do-it-yourself" transformers are essentially self-contained toroidal primary coils encased in durable high impact plastic. Colored SUPERIOR 5-WAY Binding Posts for connections are integrally mounted. When used as a source of a-c voltage, the center opening permits hand-threading the correct number of secondary winding turns to obtain the desired output voltage. When used as a current transformer, the FLEXIFORMER winding is shunted by an ammeter which indicates the current flow in a conductor hand-threaded through the center opening. Can be used as portable units or permanently mounted. Request free copy of "Experiments Using FLEXIFORMER Packaged Transformer Primary."

	AS A SOURCE OF A-C VOLTAGE			AS A CURRENT TRANSFORMER		
TYPE	NOMINAL PRIMARY VOLTS	VOLTS PER SECONDARY TURN	MAXIMUM VA	INPUT/ OUTPUT RATIO	MAXIMUM PRIMARY AMPERES	MAXIMUM SECONDARY AMPERES
TP150	120	0.3	150	400/1	400	1.0
TP1000	120	0.75	1000	160/1	800	5.0
TP152	240	0.3	150	800/1	400	0.5
TP1020	240	0.75	1000	320/1	800	2.5

VOLTBOX® A-C Power Supply

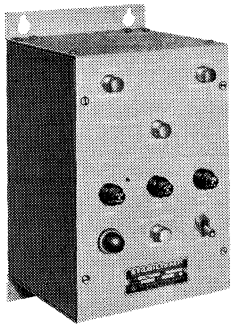


TYPE UC2MB

Compact versatile instrument containing all the necessary components for tests involving a-c voltage: POWERSTAT Variable Transformer, direct reading voltmeter, three output receptacles; two SUPERIOR 5-WAY Binding Posts, "on-off" switch, line-load meter switches, fuse and 6-foot cord-plug. Designed for 50/60 cycle service. Type UC1MB ratings are 120 volt input and 0-140 volt, 10 ampere, 1.4 KVA output; type UC2MB ratings are 240 volt input and 0-280 volt, 3.5 ampere, 0.98 KVA output. Other types available on special order.

IN SECTIONS 2100, 3500 AND 4000

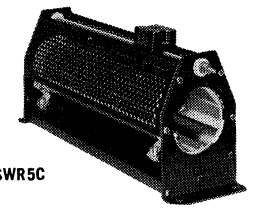
STABILTEMP® Proportioning Temperature Coupler



TYPE PTC5

Maintains voltage needed to keep electric furnaces and ovens at correct temperature when incorporated into systems using commercially available current proportioning temperature controllers. Use with cataloged motor-driven 120 or 240 volt, 50/60 cycle single phase POWERSTAT Variable Transformers. Voltage is regulated at any point within the range of the POWERSTAT as determined by the controller current command signal regardless of variations in line voltage or load current. Type PTC5 rated for 5 milliampere maximum command signal; user provides resistors for 20 or 50 milliampere signals.

OHMSTAT™ Slidewire Resistors



TYPE SWR5C

Feature unbreakable, high-temperature coated, split aluminum tube with stainless steel spring expansion compensator. Operates at peak rating with no slackening of wire turns. Excellent heat conducting properties of aluminum prevent "hot spots." Slider bar is chrome-plated brass; double sliding contact provides reliable connection with resistance wire. Negligible inductance through 400 cycles. Screened for user protection. Baseplate shields mounting surface.

TYPE	RATED AMPERES	NOMINAL RESISTANCE OHMS	WATTS	MAXIMUM INPUT VOLTS
SWR05C	0.5	1000	250	500
SWR1C	1	500	500	500
SWR2C	2	125	500	250
SWR3C	3	55	500	165
SWR5C	5	20	500	100
SWR10C	10	5	500	50
SWR20C	20	1.25	500	25

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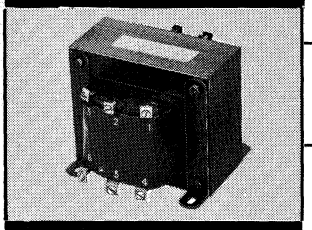
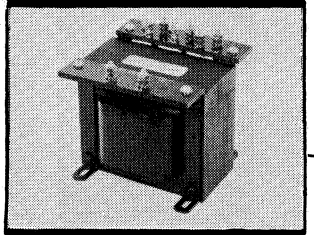
HIGH CURRENT TRANSFORMERS & CHOKES
ELECTRICAL SPECIFICATIONS

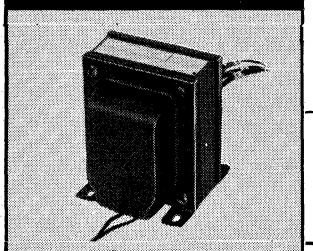
SHIP

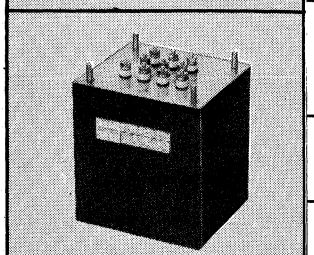


SAME



DAY





50-500 cy ALL UNITS	PART NO.	PRIMARY VOLTS	SECONDARY AMPS FOR OPTIONAL WIRING — SERIES	PARALLEL
10 VOLTS Series 2.5-5-7.5-10 Parallel 2.5-5	10 02	115	2	4
	10 04	115	4	8
	10 06	115	6	12
	10 08	115	8	16
	10 10	115	10	20
	10 25	115	25	50
12.6 VOLTS Series 3.1-6.3-9.4-12.6 Parallel 3.1-6.3	12.6 02	115	2	4
	12.6 04	115	4	8
	12.6 06	115	6	12
	12.6 08	115	8	16
	12.6 12	115	12	24
	12.6 25	115	25	50
24 VOLTS Series 6-12-18-24 Parallel 6-12	24 01	115	1	2
	24 02	115	2	4
	24 04	115	4	8
	24 06	115	6	12
	24 08	115	8	16
	24 12	105. 115, 125	12	24
	24 20	105. 115, 125	20	40
	24 25	105. 115, 125	25	50
	24 50	105. 115, 125	50	100
	24 100	115, 230	100	200
36 VOLTS Series 9-18-27-36 Parallel 9-18	36 01	115	1	2
	36 02	115	2	4
	36 04	115	4	8
	36 06	115	6	12
	36 08	105. 115, 125	8	16
	36 12	105. 115, 125	12	24
	36 20	105. 115, 125	20	40
	36 25	105. 115, 125	25	50
	36 30	105. 115, 125	30	60
	36 50	115, 230	50	100
	36 100	115, 230	100	200
56 VOLTS Series 14-28-42-56 Parallel 14-28	56 01	115	1	2
	56 02	115	2	4
	56 04	115	4	8
	56 06	115	6	12
	56 08	105. 115, 125	8	16
	56 12	105. 115, 125	12	24
	56 25	105. 115, 125	25	50
	56 50	115, 230	50	100
	56 100	115, 230	100	200
80 VOLTS Series 20-40-60-80 Parallel 20-40	80 005	115	0.5	1
	80 01	115	1	2
	80 02	115	2	4
	80 04	115	4	8
	80 06	105. 115, 125	6	12
	80 08	105. 115, 125	8	16
	80 12	105. 115, 125	12	24
	80 25	115, 230	25	50
	80 50	115, 230	50	100
120 VOLTS Series 30-60-90-120 Parallel 30-60	120 005	115	0.5	1
	120 01	115	1	2
	120 02	115	2	4
	120 04	115	4	8
	120 06	105, 115, 125	6	12
	120 08	105, 115, 125	8	16
	120 12	105, 115, 125	12	24
	120 20	105, 115, 125	20	40
180 VOLTS Series 45-90-135-180 Parallel 45-90	180 005	115	0.5	1
	180 01	115	1	2
	180 02	115	2	4
	180 04	115	4	8
	180 06	115	6	12
	180 08	105, 115, 125	8	16
	180 12	105, 115, 125	12	24
230 VOLTS 57.5-115-172.5-230 Series Parallel 57.5-115	230 005	115	0.5	1
	230 01	115	1	2
	230 02	115	2	4
	230 04	105, 115, 125	4	8
	230 06	105, 115, 125	6	12
300 VOLTS Series 75-150-225-300 Parallel 75-150	300 005	115	0.5	1
	300 01	115	1	2
	300 02	115	2	4
	300 04	105, 115, 125	4	8

Transformer Current = DC Current × Factor Below

	Choke Input Filter or Inductive Load	Resistive Load	Capacitor Input Filter or Capacitive Load
FULL WAVE BRIDGE	1.0	1.0	1.8
FULL WAVE C.T.	.7	.7	1.1

This series of high current transformers and chokes are most widely used for high power rectifier and high current A.C. applications. It is one of the industries most popular items. All types are designed for a nominal temperature rise of 45°C at full load and will easily withstand unusual overloads. The regulation is extremely low, varying from 5% on the smallest unit to 1% on the largest. All units have name plates and wiring diagrams for installation ease, future reference and permanent identification.

Five constructional types are available for maximum flexibility for use in either the laboratory or production.

HORIZONTAL BRACKET MOUNT (STYLE B) is an "open" unit, double vacuum varnish impregnated to insure long life and give maximum protection against humidity.

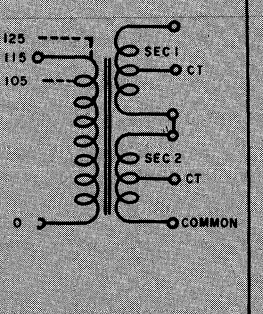
EPOXY UNITS (STYLE BE) are electrically and mechanically identical to style B and are vacuum encapsulated to withstand environmental conditions per MIL-T-27B, Grade 5, Class S.

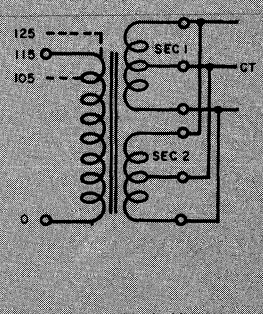
SHELL ENCLOSED (STYLE V) offers excellent mechanical protection to the coil. This is in addition to functional appearance and the ease of "wiring with leads." Double vacuum varnish impregnation further assures adequate moisture protection and long life.

CAN ENCLOSED (STYLE C) units are ruggedly constructed and embedded in a rigid potting compound to insure maximum heat transfer. Professional Todd finish enhances any chassis.

HERMETICALLY SEALED (STYLE CM) units are manufactured to MIL-T-27B, Grade 4, Class S to withstand the most rigorous environmental conditions.

CONTACT TODD FOR CUSTOM VARIATIONS





• ENGINEERING • RELIABILITY • SERVICE

TODD ELECTRIC *CO., INC.,*

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All units have name plates and wiring diagrams for installation ease, future reference and permanent identification.

MECHANICAL SPECIFICATIONS

FOR HIGH CURRENT TRANSFORMERS & CHOKES

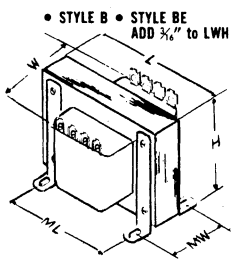
SPECIFY STYLE DESIRED WHEN ORDERING

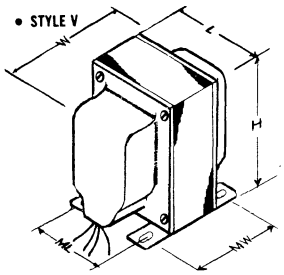
45° TEMPERATURE RISE MINIMUM REGULATION

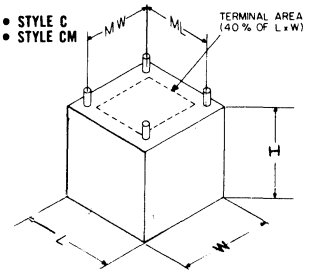
• BRACKET MTD (STYLE B) • ENCAPSULATED (STYLE BE)							STYLE B	STYLE BE
L	W	H	ML	MW	WT		Price	Price
3	2 5/32	2 1/2	2 1/2	1 1/2	1.5		$ 5.40	$ 9.58
3	2 15/32	2 1/2	2 1/2	1 15/16	2.3		5.70	10.28
3 3/8	3	2 13/16	2 13/16	2 1/8	3.0		6.08	10.95
3 3/8	3 1/16	2 13/16	2 13/16	2 3/8	4.0		6.39	11.52
3 3/4	3 3/4	3 1/8	3 1/8	2 5/16	5.0		7.70	13.90
4 1/2	5 7/32	3 3/4	3 3/4	3 1/4	11.2		16.15	29.00
3	2 1/2	2 1/2	2 1/2	2	2.6		5.45	9.68
3	3	2 1/2	2 1/2	2 3/8	3.0		5.80	10.46
3 3/8	3 1/4	2 13/16	2 13/16	2 1/2	4.2		6.35	11.35
3 3/4	2 3/4	3 1/8	3 1/8	2 1/4	4.5		7.70	13.90
4 1/8	3 1/4	3 7/16	3 7/16	2 3/8	6.0		9.25	15.10
5 1/4	4 1/4	4 3/8	4 3/8	2 7/8	12.0		14.50	23.29
3	2 5/32	2 1/2	2 1/2	2	2.6		5.45	9.68
3	2 3/4	2 1/2	2 1/2	2	2.8		5.77	10.42
3 3/4	2 3/4	3 1/8	3 1/8	2 1/4	5.0		7.70	13.90
4 1/8	3 1/2	3 7/16	3 7/16	2 3/8	6.5		9.25	15.10
4 1/8	4 1/4	3 7/16	3 7/16	3	8.7		12.90	20.75
4 1/2	4 1/2	3 3/4	3 3/4	3 3/8	11.0		13.49	23.15
5 1/4	5 3/4	4 3/8	4 3/8	3 1/2	15.4		21.78	34.90
5 1/4	5 3/4	4 3/8	4 3/8	4 1/2	22.0		26.00	41.50
6 3/8	6 3/8	5	5 5/16	4 3/8	30.0		41.05	63.40
7 1/2	7	6 1/4	6 3/4	4 1/8	38.0		60.20	91.10
3	2 1/2	2 1/2	2 1/2	2 1/8	2.5		5.63	10.15
3 3/8	3 1/8	2 13/16	2 13/16	2 1/4	3.6		6.28	11.28
4 1/8	4	3 7/16	3 7/16	2 5/8	6.9		9.51	15.25
4 1/2	3 7/8	3 3/4	3 3/4	2 3/4	9.0		13.18	21.15
4 1/2	4 1/2	3 3/4	3 3/4	3 1/2	12.0		13.60	21.80
5 1/4	5 5/16	4 3/8	4 3/8	3 1/2	17.2		24.00	31.86
6 3/8	5 3/4	5 5/16	5 5/16	3 5/16	25.5		32.18	50.70
6 3/8	6 1/4	5 5/16	5 5/16	4 1/4	32.2		34.80	55.05
6 3/8	6 3/8	5 5/16	5 5/16	4 1/2	36.0		39.60	61.00
7 1/16	8	7 1/8	5 13/16	5 3/4	51.0		58.10	88.40
7 1/2	8 1/4	7 3/8	6 3/4	6	70.0		92.40	135.10
3 3/8	2 25/32	2 13/16	2 13/16	2 1/8	3.3		6.03	10.85
3 3/4	3 1/2	3 1/8	3 1/8	2 1/2	5.6		7.76	13.98
4 1/8	4 1/16	3 7/16	3 7/16	3	8.4		13.25	21.25
5 1/4	4 1/2	4 3/8	4 3/8	2 1/4	10.7		14.92	24.90
5 1/4	5 1/4	4 3/8	4 3/8	3 3/4	17.3		21.25	33.65
6 3/8	5 1/2	5 5/16	5 5/16	3 3/4	24.5		31.05	49.05
6 3/8	7 3/32	5 5/16	5 5/16	5 1/4	39.7		47.80	73.90
7 1/2	7 1/4	7 3/8	6 3/4	5	54.0		77.40	115.90
7 1/2	10	7 3/8	6 3/4	8 1/8	100.0		126.00	182.50
3	2 1/2	2 1/2	2 1/2	2 1/4	2.6		5.70	10.28
3 3/8	3 1/4	2 13/16	2 13/16	2 1/2	4.4		6.39	11.52
4 1/8	4	3 7/16	3 7/16	2 3/4	7.8		8.16	14.72
5 1/4	4 1/4	4 3/8	4 3/8	3	13.00		14.51	23.29
5 1/4	5 7/8	4 3/8	4 3/8	4	18.3		22.10	35.40
6 3/8	5 3/8	5 5/16	5 5/16	3 1/2	22.0		30.95	48.00
6 3/8	6 1/8	5 5/16	5 5/16	4 3/8	32.5		38.25	58.00
7 1/2	6 3/4	7 3/8	5 13/16	4 1/2	34.0		58.90	90.20
7 1/2	9	7 3/8	5 13/16	7 1/8	60.0		99.60	144.25
3 3/8	2 3/4	2 13/16	2 13/16	2 1/4	3.6		6.08	10.95
3 3/4	3 1/2	3 1/8	3 1/8	2 13/16	6.0		7.89	14.18
4 1/2	4	3 3/4	3 3/4	2 3/4	9.0		9.86	17.20
5 1/4	6 11/32	4 3/8	4 3/8	4	18.5		22.28	35.65
6 3/8	6	5 5/16	5 5/16	4 1/8	32.0		32.38	51.00
6 3/8	7 1/16	5 5/16	5 5/16	5 1/4	34.0		38.40	58.15
6 3/8	7 1/4	5 5/16	5 5/16	5 3/8	45.0		49.35	76.40
7 1/16	10 1/2	7 1/8	5 13/16	5 3/4	75.0		60.45	91.60
3 3/4	2 3/4	3 1/8	3 1/8	2	3.8		7.63	13.71
4 1/8	4 3/4	3 7/16	3 7/16	2 3/8	6.6		8.66	15.45
5 1/4	5 1/2	4 3/8	4 3/8	3 3/4	17.3		15.08	31.10
6 3/8	6	5 5/16	5 5/16	4 1/8	32.0		32.45	51.10
6 3/8	7 7/32	5 5/16	5 5/16	5 5/32	34.0		39.80	61.50
6 3/8	7 1/2	5 5/16	5 5/16	5 13/32	36.0		50.40	76.50
7 1/2	8 1/4	7 3/8	5 1/2	6	65.0		59.40	90.70
3 3/4	3 3/16	3 1/8	3 1/8	3 1/2	5.0		7.81	14.05
4 1/8	4 1/4	3 7/16	3 7/16	3	8.5		9.34	16.82
5 1/4	5 5/8	4 3/8	4 3/8	3 7/8	17.3		21.60	34.55
6 3/8	6 1/4	3 3/8	4 3/4	4 3/8	37.0		39.45	58.30
6 3/8	7 1/2	5 5/16	5 5/16	5 13/32	40.0		46.55	70.30
4 1/2	4 1/4	3 3/4	3 3/4	2 3/4	7.0		7.98	14.33
5 1/4	4 1/4	4 3/8	4 3/4	3	12.5		13.88	22.25
5 1/4	6	4 3/8	4 3/8	4 1/2	21.0		26.75	42.20
6 3/8	6 3/8	5 5/16	5 5/16	4 3/8	36.0		41.40	63.80

• FULLY MTD. SHELLS STYLE V							STYLE V
L	W	H	ML	MW	WT		Price
2 19/32	2 3/16	3 1/8	2	1 3/16	2.0		$ 4.28
2 19/32	2 11/16	3 1/8	2	1 11/16	2.8		4.38
2 29/32	3 3/16	3 15/32	2 1/4	2	3.5		5.07
2 29/32	3 7/16	3 15/32	2 1/4	2 1/4	4.5		5.40
3 7/32	3 5/16	3 27/32	2 1/2	2 5/16	5.5		6.61
3 27/32	4 11/16	4 5/16	3	3 13/16	11.5		9.04
2 19/32	2 11/16	3 1/8	2	1 11/16	2.6		4.32
2 19/32	3 1/16	3 1/8	2	2 1/16	3.8		4.72
2 29/32	3 5/16	3 15/32	2 1/4	2 3/8	5.5		5.18
3 7/32	3 7/16	3 27/32	2 1/2	2 5/16	5.0		6.61
3 17/32	3 13/16	4 7/32	2 3/4	2 11/16	6.5		8.71
4 1/2	4 15/16	5 5/16	3 1/2	3 3/8	13.0		13.84
2 19/32	2 11/16	3 1/8	2	1 11/16	2.6		4.32
2 19/32	2 11/16	3 1/8	2	1 11/16	2.8		4.69
3 7/32	3 7/16	3 27/32	2 1/2	2 5/16	5.0		6.61
3 17/32	3 13/16	4 7/32	2 3/4	2 11/16	6.5		8.71
3 27/32	4 13/16	4 9/16	3	3 11/16	11.0		12.32
4 1/2	5 7/16	5 5/16	3 1/2	3 7/8	15.4		20.85
4 1/2	6 7/16	5 5/16	3 1/2	4 7/8	22.0		23.80
2 19/32	2 13/16	3 1/8	2	1 13/16	2.5		4.61
2 29/32	3 5/16	3 15/32	2 1/4	2 1/8	3.6		5.11
3 17/32	4 1/16	4 7/32	2 3/4	2 15/16	6.9		8.80
3 27/32	4 5/16	4 9/16	3	3 1/16	9.0		11.72
3 27/32	4 13/16	4 9/16	3	3 13/16	12.0		12.46
4 1/2	5 7/16	5 5/16	3 1/2	3 3/4	17.2		19.95

• ENCASED COMMERCIAL (STYLE C) • HERMETIC SEALED MIL-T (STYLE CM)							STYLE C	STYLE CM	
L	W	H	ML	MW	WT		Price	Price	Part No.
3	3 1/2	3 13/16	2 1/8	2 5/8	3.1		$11.80	$16.30	10 02
3	3 1/2	3 13/16	2 1/8	2 5/8	3.8		12.33	17.14	10 04
3 5/16	3 7/8	4 1/4	2 7/16	3	4.5		13.88	19.25	10 06
3 5/16	3 7/8	4 1/4	2 7/16	3	5.2		14.81	20.55	10 08
3 5/8	4 1/2	4 7/16	2 11/16	3 5/16	6.0		16.63	23.10	10 10
4 1/4	5	5 7/16	3 5/16	4 1/16	14.7		19.45	27.00	10 25
3	3 1/2	4 13/16	3 13/16	2 5/8	3.1		11.90	16.42	12.6 02
3	3 1/2	4 13/16	3 13/16	2 5/8	4.0		12.90	17.87	12.6 04
3 5/16	3 7/8	5 3/16	4 1/4	3	4.8		13.82	20.00	12.6 06
3 5/8	4 1/4	5 1/2	4 7/16	3 5/16	5.5		14.81	20.55	12.6 08
3 15/16	4 5/8	5 15/16	4 7/8	3 11/16	6.6		20.70	28.70	12.6 12
5 3/4	4 7/8	6 1/4	3 1/2	4 3/8	17.6		27.40	38.10	12.6 25
3	3 1/2	3 13/16	2 1/8	2 5/8	3.1		13.49	16.42	24 01
3	3 1/2	3 13/16	2 1/8	2 5/8	4.0		14.38	17.80	24 02
3 5/8	4 1/4	4 7/16	2 11/16	3 5/16	5.5		16.63	23.10	24 04
3 15/16	4 5/8	4 7/8	3	3 11/16	6.6		20.70	28.70	24 06
3 15/16	4 7/8	4 7/8	3	3 11/16	8.8		20.90	29.00	24 08
4 1/4	5	5 7/16	3 5/16	4 1/16	14.7		24.45	33.85	24 12
5 3/4	4 7/8	6 1/4	3 1/2	4 3/8	17.6		41.40	59.45	24 20
5 3/4	4 7/8	6 1/4	3 1/2	4 3/8	21.0		46.70	64.45	24 25
6 7/8	5 13/16	7 1/2	4 1/4	5 5/16	37.0		83.15	115.30	24 50
6 3/4	8	8 3/4	5 1/2	6 3/4	60.0		122.85	170.80	24 100
3	3 1/2	3 13/16	2 1/8	2 5/8	3.4		12.58	17.50	36 01
3 5/16	3 7/8	4 1/4	2 7/16	3	4.8		13.75	19.42	36 02
3 15/16	4 5/8	4 7/8	3	3 11/16	7.8		20.90	28.95	36 04
4 1/4	5	5 7/16	3 5/16	4 1/16	10.7		24.35	35.40	36 06
4 1/4	5	5 7/16	3 5/16	4 1/16	13.1		26.45	39.80	36 08
5 3/4	4 7/8	6 1/4	3 1/2	4 3/8	16.9		37.53	51.90	36 12
5 13/16	6 7/8	7 1/2	4 1/4	5 5/16	27.0		66.50	92.25	36 20
5 13/16	6 7/8	7 1/2	4 1/4	5 5/16	29.5		72.00	100.50	36 25
5 13/16	6 7/8	7 1/2	4 1/4	5 5/16	39.5		79.70	111.00	36 30
5 13/16	6 7/8	7 1/2	4 1/4	5 5/16	43.7		118.20	165.50	36 50
6 3/4	8	10 3/8	5 1/2	6 3/4	58.0		166.20	231.00	36 100
3 5/16	3 7/8	4 1/4	2 7/16	3	3.3		13.60	18.83	56 01
3 5/8	4 1/4	4 7/16	2 11/16	3 5/16	6.3		16.89	23.50	56 02
3 15/16	4 5/8	4 7/8	3	3 11/16	10.1		26.40	36.85	56 04
5 3/4	4 7/8	6 1/4	3 1/2	4 3/8	15.6		28.90	40.15	56 06
5 3/4	4 7/8	6 1/4	3 1/2	4 3/8	18.6		39.85	55.40	56 08
5 13/16	6 7/8	7 1/2	4 1/4	5 5/16	26.3		64.00	89.00	56 12
5 13/16	6 7/8	7 1/2	4 1/4	5 5/16	43.0		96.50	134.20	56 25
6 3/4	8	8 3/4	5 1/2	6 3/4	65.0		139.00	193.00	56 50
									56 100
3 5/16	3 7/8	3 13/16	2 1/8	2 5/8	4.0		12.33	17.14	80 005
3 5/16	3 7/8	4 1/4	2 7/16	3	5.6		14.81	20.55	80 01
3 15/16	4 5/8	4 7/8	3	3 11/16	8.7		17.58	24.40	80 02
3 5/8	4 1/4	4 7/16	2 11/16	3 5/16	14.4		27.40	38.10	80 04
3 5/8	4 1/4	4 7/16	2 11/16	3 5/16	20.0		42.00	58.30	80 06
5 13/16	6 7/8	7 1/2	4 1/4	5 5/16	24.0		55.70	78.75	80 08
5 13/16	6 7/8	7 1/2	4 1/4	5 5/16	32.0		77.30	107.00	80 12
6 3/4	8	8 3/4	5 1/2	6 3/4	46.0		120.80	166.40	80 25
									80 50
3 5/16	3 7/8	4 1/4	2 7/16	3	4.2		13.88	19.25	120 005
3 5/8	4 1/4	4 7/16	2 11/16	3 5/16	7.0		17.25	24.00	120 01
4 1/4	5	5 7/16	3 5/16	4 1/16	10.5		19.45	27.00	120 02
5 3/4	4 7/8	6 1/4	3 1/2	4 3/8	20.0		42.60	59.45	120 04
5 13/16	6 7/8	7 1/2	4 1/4	5 5/16	36.0		66.65	92.50	120 06
5 13/16	6 7/8	7 1/2	4 1/4	5 5/16	44.0		77.45	107.25	120 08
5 13/16	6 7/8	7 1/2	4 1/4	5 5/16	48.0		99.50	138.30	120 12
6 17/32	7 5/16	8 1/4	4 25/32	5 13/16	69.0		123.25	170.90	120 20
3 5/8	4 1/4	4 7/16	2 11/16	3 5/16	3.8		16.50	22.85	180 005
3 15/16	4 5/8	4 7/8	3	3 11/16	7.6		19.70	27.40	180 01
5 1/4	4 7/8	6 1/4	4 1/4	4	20.3		33.25	46.10	180 02
5 13/16	6 7/8	7 1/2	4 1/4	5 5/16	34.0		66.80	92.75	180 04
5 13/16	6 7/8	7 1/2	4 1/4	5 5/16	39.0		80.40	111.75	180 06
5 13/16	6 7/8	7 1/2	4 1/4	5 5/16	46.0		100.20	139.00	180 08
6 3/4	8	8 3/4	5 1/2	6 3/4	70.0		121.50	169.00	180 12
3 5/8	4 1/4	4 7/16	2 11/16	3 5/16	6.0		17.07	23.78	230 005
3 15/16	4 5/8	4 7/8	3	3 11/16	8.5		19.30	26.85	230 01
5 3/4	4 7/8	6 1/4	3 1/2	4 3/8	45.0		40.45	56.15	230 02
6 7/8	5 13/16	7 1/2	4 1/4	5 5/16	45.0		77.45	107.90	230 04
6 7/8	5 13/16	7 1/2	4 1/4	5 5/16	47.0		91.80	127.80	230 06
4 1/4	5	5 7/16	3 5/16	4 1/16	8.0		17.45	24.25	300 005
5 3/4	4 7/8	6 1/4	3 1/2	4 3/8	12.5		25.75	35.70	300 01
5 3/4	4 7/8	6 1/4	3 1/2	4 3/8	23.0		47.50	66.00	300 02
6 7/8	5 13/16	7 1/2	4 1/4	5 5/16	42.0		83.40	115.90	300 04







• ENGINEERING • RELIABILITY • SERVICE

TODD ELECTRIC CO., INC.,

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Net ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

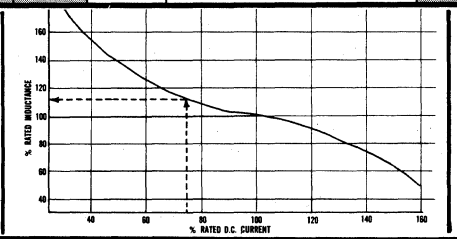
HIGH CURRENT CHOKES | FILAMENT TRANSFORMERS

HIGH CURRENT CHOKES

50/400 CYCLES
(DIMENSIONS REFER TO HIGH CURRENT XFMR STYLES)

SPECIFICATIONS				• BRACKET MTD (STYLE B) • ENCAPSULATED (STYLE BE)						Style B	Style BE	• FULLY MTD. SHELLS STYLE V						Style V	• ENCASED COMMERCIAL (STYLE C) • HERMETIC SEALED MIL-T (STYLE CM)						Style C	Style CM
Part No.	Inductance	Cur. (D.C.)	Resistance	L	W	H	ML	MW	WT	Price	Price	L	W	H	ML	MW	WT	Price	L	W	H	ML	MW	WT	Price	Price
CH-01	100	1	1.5	3	2½	2¾	2½	2	2.6	5.16	6.66	2 19/32	2 1/16	3⅛	2	1 1/16	2.6	5.60	3	3½	4 13/16	2⅛	2⅝	3.0	11.20	15.46
CH-02	80	2	.9	3	2½	2¾	2½	2	2.6	6.56	8.05	2 19/32	2 1/16	3⅛	2	1 1/16	3.2	6.76	3	3½	4 13/16	2⅛	2⅝	3.8	13.53	18.68
CH-04	70	4	.6	3¾	4¼	3⅛	3⅛	2¾	6.0	8.43	10.83	3 3/32	3 5/16	3 27/32	2½	2 1/16	6.0	9.10	3⅝	4¼	5½	2 1/16	3⅝	7.0	18.20	25.13
CH-06	40	6	.4	3¾	4¼	3⅛	3⅛	2¾	6.0	10.33	12.77	3 3/32	3 5/16	3 27/32	2½	2 1/16	6.0	10.73	3⅝	4¼	5½	2 1/16	3⅝	7.0	21.46	29.64
CH-08	30	8	.3	4⅛	4	3 7/16	3 7/16	3	8.7	12.61	16.25	3 17/32	4 7/16	4 7/32	2¾	3⅝	8.7	13.65	3 15/16	4⅝	5 1/16	3	3 1/16	10.0	27.30	37.70
CH-12	20	12	.1	5¼	4¼	4⅝	4⅜	3⅛	13.0	16.08	20.42	4½	5 5/16	5 5/16	3½	3⅝	13.0	17.15	4⅞	5¾	7	3½	4⅜	16.0	34.30	47.36
CH-20	10	20	.05	5¼	4¼	4⅝	4⅜	3⅛	13.0	16.64	20.70	4½	5 5/16	5 5/16	3½	3⅝	13.0	17.38	4⅞	5¾	7	3½	4⅜	16.0	34.76	48.01
CH-25	7	25	.025	5¼	5	4⅝	4⅜	3⅞	18.0	23.77	30.55	4½	6 1/16	5 5/16	3½	4½	18.0	25.66	4⅞	5¾	7	3½	4⅜	21.0	51.33	70.88
CH-30	5	30	.016	6⅜	5	4⅝	4⅜	3¼	21.5	29.88	37.50								5 13/16	6⅞	8⅜	4¼	5 5/16	25.0	63.00	87.00
CH-50	2	50	.001	6⅜	5½	5⅝	5 5/16	3¾	24.0	33.66	41.66								5 13/16	6⅞	8⅜	4¼	5 5/16	30.0	70.00	96.66
CH-100	.6	100	.005	6⅜	6½	5⅝	5 5/16	4⅛	32.0	37.05	47.22								5 13/16	6⅞	8⅜	4¼	5 5/16	37.0	79.33	109.55
CH-200	.4	200	.002	7½	7	6¼	6¾	4⅛	45.0	55.11	70.22															

MILLIHENRIES — AMPS — OHMS



TODD ELECTRIC HIGH CURRENT CHOKES are the perfect companion to our High Current Transformers when utilizing inductive filtering in designing a power supply.

INDUCTANCE VARIATION

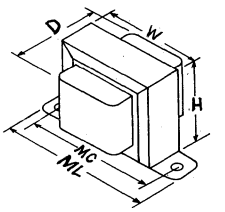
The inductance realized from any stock High Current Choke will vary from the nominal rated values as shown by the graph when subjected to a non-rated current. Steady state current of over 115% is not recommended due to its greater heating loss but may be used for intermittent operation.

FILAMENT TRANSFORMERS

50/60 CYCLES
SINGLE SECONDARY — CENTER TAPPED

CHANNEL MOUNTED — PRIMARY 117 VOLTS

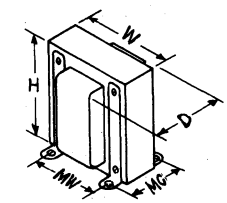
Part No.	Secondary Volts (CT)	Secondary Amps	Rms Hipot Test Volts	Dimensions H	W	D	MC	ML	Weight	Net Price
F2 15	2.5	1.5	2500	1⅝	2	1⅝	2⅜	2⅞	.75	2.30
F2 30	2.5	3	1500	1⅝	2	1⅝	2⅜	2 13/16	.7	2.64
F5 30	5	3	2500	2	2⅜	2⅛	2 13/16	3¼	1.4	3.21
F5 60	5	6	1500	2 3/32	2¾	2⅛	3⅛	3¾	1.7	4.38
F5 80	5	8	2500	2⅝	3⅛	2¼	3 7/16	4	2.5	5.18
F6 06	6.3	.6	2500	1⅜	1¾	1½	2	2⅜	.4	2.36
F6 12	6.3	1.2	2500	1⅝	2	1⅞	2⅜	2⅞	.8	2.71
F6 13	6.3	1.2	5000	2	2⅜	1⅞	2 13/16	3¼	.8	3.58
F6 30	6.3	3	2500	2	2⅜	2⅛	2 13/16	3¼	1.4	3.56
F6 60	6.3	6	2000	2⅜	2¾	2⅜	3⅛	3¾	2	5.07
F12 20	12.6	2	1500	2	2⅜	2⅛	2 13/16	3¼	1.4	4.02
F12 30	12.6	3	1500	2⅜	2¾	2¼	3⅛	3¾	1.6	5.14
F25 10	25.2	1	1500	2	2⅜	2⅛	2 13/16	3¼	1.4	4.12
F25 20	25.2	2	1500	2⅝	3⅛	2¼	3 7/16	4	2.2	6.09



8" LEAD TERMINALS

BRACKET MOUNTED — PRIMARY 117 VOLTS — ELECTROSTATIC SHIELD GROUNDED TO FRAME

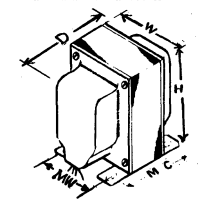
Part No.	Secondary Volts (CT)	Secondary Amps	Rms Hipot Test Volts	Dimensions H	W	D	MC	MW	Weight	Net Price
F2 100	2.5	10	10000	3 7/16	2 13/16	2⅜	1⅞	2¼	2.5	7.92
F5 050	5	5	2500	3⅛	2½	2⅛	1⅞	2	2.2	5.32
F5 100	5	10	2500	3⅛	2½	2¾	2⅜	2	3.0	7.15
F5 150	5	15	2000	3⅛	2½	2¾	2¼	2	3.5	8.91
F5 250	5	25	2500	3⅞	2⅞	3⅜	2⅝	2½	4.8	12.80
F6 040	6.3	4	2500	3⅛	2½	2⅜	2⅛	2	2.4	5.41
F6 060	6.3	6	2000	3⅛	2½	2⅜	2	2	2.4	6.26
F6 100	6.3	10	2500	3 7/16	2⅞	2⅝	2⅛	2¼	3.5	8.15
F6 200	6.3	20	2500	4⅝	3¾	3⅜	2⅜	3	6.8	12.97
F7 040	7.5	4	2000	3⅛	2½	2¼	2⅛	2	2.8	5.71
F7 080	7.5	8	2500	3⅞	3⅛	2¾	2⅜	2½	4.8	7.86
F10 040	10	4	2500	3 7/16	2⅞	2½	2	2¼	3.4	6.42
F10 080	10	8	2500	3⅞	3⅛	3	2⅜	2½	5.0	9.35



LUG TERMINALS

VERTICAL SHELL MOUNTED — PRIMARY 117/105 VOLTS (Tapped) — ELECTROSTATIC SHIELD GROUNDED TO FRAME

Part No.	Secondary Volts (CT)	Secondary Amps	Rms Hipot Test Volts	Dimensions H	W	D	MC	MW	Weight	Net Price
F2 061	2.5	6	2500	3⅛	2½	2½	1½	2	2.2	6.58
F2 101	2.5	10	2500	3⅛	2½	2⅞	1¾	2	2.5	5.74
F5 031	5	3	2500	3⅛	2½	2½	1½	2	2.4	6.10
F5 061	5	6	2000	3⅛	2½	3	2	2	3.1	6.74
F5 301	5	30	2500	4¼	3 7/16	3⅞	2¾	2¾	6.3	17.10
F6 041	6.3	4	2000	3⅛	2½	2¾	1¾	2	2.7	6.08
F6 061	6.3	6	2500	3½	2⅞	3⅛	2	2¼	3.5	7.80
F6 101	6.3	10	2000	3½	2⅞	3⅜	2⅜	2¼	3.8	7.97
F7 051	7.5	5	2500	3½	2⅞	3⅛	2	2¼	3.4	8.41
F7 051	10	5	2500	3⅞	3⅛	3¼	1⅞	2½	4.0	9.15
F10 081	10	8	2000	3⅞	3⅛	3¾	2½	2½	5.2	8.71
F10 101	10	10	2000	3⅞	3⅛	3⅞	2¾	2½	5.8	10.21



12" LEAD TERMINALS

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TODD ELECTRIC CO., INC.

Net

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STEPDOWN AUTO TRANSFORMERS | LINE ISOLATION

STEPDOWN AUTO TRANSFORMERS

50/60 CYCLES—UL COMPONENTS
(MOST UNITS CAN BE REVERSED FOR STEPUP USE)

HEAVY DUTY MODEL — 220/240 Input 110/120 Output

Catalog Number	Rating Watts	Weight Lbs.	Dimension Inches H	W	D	List Price
SD-15	75	2¼	3 3/16	2¾	3 3/16	$ 8.35
SD-16	100	2⅓	3 3/16	2¾	3 5/16	8.60
SD-17	150	3⅔	3 3/16	2¾	3 15/16	10.15
SD-12	250	6	4⅝	3⅞	3⅝	14.00
SD-18	350	6⅔	4⅝	3⅞	3¾	15.10
SD-11	500	10⅔	4⅝	3⅞	4⅞	18.10
SD-19	750	12	4⅝	3⅞	5⅛	23.10
SD-13	1000	15⅔	4⅝	3⅞	6⅛	30.20
SD-14	1500	20	4⅝	3⅞	7⅛	39.40
SD-20	2000	24	6	4½	6⅝	74.20

UL LINE CORD & RECEPTACLE

NORMAL DUTY MODEL — 220/240 Input 110/120 Output

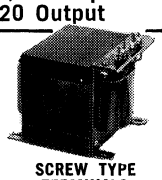
Catalog Number	Rating Watts	Weight Lbs.	Dimension Inches H	W	D	List Price
SD-24	50	1½	2⅜	3¾	2¼	$ 5.20
SD-21	65	1⅔	2⅜	3¾	2¼	5.45
SD-25	80	1⅔	2⅜	3¾	2¼	5.70
SD-23	100	1⅔	2⅜	3¾	2⅜	5.95
SD-26	125	2	2 1/16	4	2⅝	6.75
SD-27	150	2¼	2 1/16	4	2⅝	7.30

UL LINE CORD & RECEPTACLE

INDUSTRIAL MODEL — 208/220/240 Input 110/120 Output

Catalog Number	Rating Watts	Weight Lbs.	Dimension Inches H	W	D	List Price
SD-28	3000	38	6⅛	7 1/16	6¼	$181.25
SD-29	4000	47	6⅛	7 1/16	6¼	212.00
SD-22	5000	58	6⅛	7 1/16	6¼	247.00
SD-30	6000	70	6⅛	7 1/16	6¼	300.00

*Available Panel MTD. Add Suffix "P"



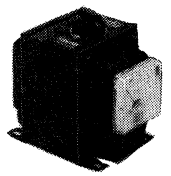
SCREW TYPE TERMINALS

REGULATORS

TYPE	PRIMARY INPUT TAPS ON SELECTOR SWITCH	OUTPUT VOLTS
11	84 92 100 108 115 122 130 138	115
12	84 92 100 108 115 122 130 138	208/230
22	170 185 200 215 230 245 260 275	115
21	170 185 200 215 230 245 260 275	208/230

HEAVY DUTY VOLTAGE REGULATOR — WITH METER & SWITCH (See Chart Above For Volts)

Catalog Number	Type	Rating W.	WT. Lbs.	Dimension (") H	W	D	List Price
TC-17	11 or 22	150	6	5 13/32	3 25/32	5	$26.70
TC-18	11 or 22	350	7	5 13/32	3 25/32	5⅜	37.75
TC-11	11 or 22	500	11	5 13/32	3 25/32	5¾	43.45
TC-19	11 or 22	750	15	5 13/32	3 25/32	6⅜	54.40
TC-13	11 or 22	1000	20	5 13/32	3 25/32	7⅛	66.00
TC-14	11 or 22	1500	25	5 13/32	3 25/32	8⅛	86.40
TC-20	11 or 22	2000	30	6 21/32	4 9/32	8¾	164.30
TC-17	12 or 21	150	6	5 13/32	3 25/32	5¼	31.25
TC-18	12 or 21	350	7	5 13/32	3 25/32	5¾	48.60
TC-11	12 or 21	500	11	5 13/32	3 25/32	6	50.15
TC-19	12 or 21	750	15	5 13/32	3 25/32	6¾	64.15
TC-13	12 or 21	1000	20	6 21/32	4 9/32	7¾	79.50
TC-14	12 or 21	1500	25	6 21/32	4 9/32	8¾	97.80
TC-20	12 or 21	2000	30	6 21/32	4 9/32	9¾	188.70



UL LINE CORD & RECEPTACLE

PANEL MOUNTED VOLTAGE REGULATOR — WITH METER & SWITCH (See Chart Above For Volts)

Catalog Number	Type	Rating W.	WT. Lbs.	Dimension (") H	W	D	List Price
TA-20	11 or 22	2000	40	6⅞	7½	17⅜	$192.90
TA-28	11 or 22	3000	50	6⅞	7½	17⅜	220.50
TA-29	11 or 22	4000	60	6⅞	7½	17⅜	268.20
TA-22	11 or 22	5000	70	6⅞	7½	17⅜	310.60
TA-30	11 or 22	6000	85	6⅞	7½	17⅜	368.90
TA-20	12 or 21	2000	40	6⅞	7½	17⅜	209.90
TA-28	12 or 21	3000	50	6⅞	7½	17⅜	235.30
TA-29	12 or 21	4000	60	6⅞	7½	17⅜	286.20
TA-22	12 or 21	5000	70	6⅞	7½	17⅜	331.80
TA-30	12 or 21	6000	85	6⅞	7½	17⅜	392.20

Packed One Per Carton

LEAD TERMINALS INSIDE REMOVABLE COVER

LINE ISOLATION

50/60 CYCLES—OUTPUT 115 VOLTS
UL COMPONENTS

STRAIGHT ISOLATION — ELECTROSTATIC SHIELD CONNECTED TO CORE

Part No.	Watts	Input Volts	Rms Hipot Test Volts	Dimensions H	W	D	MC	MW	Weight	Price: Line Cord & Receptacle	Price Leads Only
LI-50	50	115	2000	3½	2⅞	3⅛	1⅞	2¼	3.7	8.40	8.02
LI-100	100	115	2000	4¾	3¾	3	2	3	6.2	11.20	10.61
LI-175	175	115	2000	4¾	3¾	4¼	3⅜	3	8.8	16.10	15.29
LI-250	250	115	2000	4¾	3¾	5⅛	4⅛	3	12.0	19.89	18.91
LI-500	500	115	2000	5 5/16	4½	6⅛	5⅛	3½	20.0	32.50	30.90
LI-750	750	115	2000	5 5/16	4½	7	6	3½	25.2	38.25	36.40
LI-1000	1000	115	2000	5 5/16	4½	7⅞	6⅞	3½	30.0	44.50	42.15
LI-1500	1500	115	2000	7⅜	6¼	7¼	6⅛	4¾	36.2	54.40	51.80
LI-1001	100	230	2500	4¾	3¾	3	2	3	6.5	11.45	10.89
LI-2501	250	230	2500	4⅜	3¾	5⅛	4⅛	3	12.5	20.80	19.80
LI-5001	500	230	2500	5 5/16	4½	6⅛	5⅛	3½	21.0	33.10	34.55
LI-10001	1000	230	2500	5 5/16	4½	8	7	3½	31.0	45.15	42.97

ALSO AVAILABLE LEADS ONLY

ADJUSTABLE ISOLATION — ELECTROSTATIC SHIELD CONNECTED TO CORE — INPUT TAP SWITCH MOUNTED IN SHELL

Part No.	Watts	Input Volts	Rms Hipot Test Volts	Dimensions H	W	D	MC	MW	Weight	Price: Line Cord & Receptacle	Price Leads Only
LI-1002	100	105/115/125	2000	4¾	3¾	3¾	2⅝	3	7.8	16.47	15.63
LI-25002	250	105/115/125	2000	4¾	3¾	5½	4¾	3	14.3	26.80	25.31
LI-5002	500	105/115/125	2000	5 5/16	4½	6⅝	5⅜	3½	22	37.45	35.40
LI-10002	1000	105/115/125	2000	5 5/16	4½	8½	7⅜	3½	33.5	50.80	48.10
LI-1003	100	210/230/250	2500	4¾	3¾	3¾	2⅝	3	7.5	16.15	15.38
LI-2503	250	210/230/250	2500	4¾	3¾	5½	4⅜	3	14	26.05	24.91
LI-5003	500	210/230/250	2500	5 5/16	4½	6½	5½	3½	21	36.60	34.85
LI-10003	1000	210/230/250	2500	5 5/16	4½	8⅜	7¼	3½	32	49.80	47.18

ALSO AVAILABLE LEADS ONLY

• ENGINEERING • RELIABILITY • SERVICE
TODD ELECTRIC CO., INC.

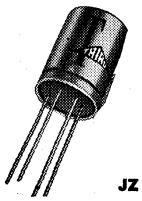
TRIAD DISTRIBUTOR DIVISION

A DIVISION OF LITTON INDUSTRIES

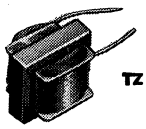
MINIATURES

†† JAF SERIES — Hermetically Sealed

Type No.	Primary Impedance	Secondary Impedance	Max. Level-DBM	Freq. Resp.	** MTG.
JAF-1‡	600/250/50	50000	0	60-15000	AF
JAF-2‡	600/250/50	250000	0	100-15000	AF
JAF-3	600/250/50	60000 CT.	0	60-15000	AF
JAF-5‡	30/12/4	50000	0	50-15000	AF
JAF-11	15000	50000	10	60-15000	AF
JAF-12	15000	60000 CT.	10	250-15000	AF
JAF-13	15000 (3 Ma.)	95000 CT.	10	250-15000	AF
JAF-14‡	200	½ megohm	10	350-5000	AF
JAF-15	15000	1 megohm	10	300-3000	AF
JAF-21	15000	600/250/50	10	60-15000	AF
JAF-22	15000 (3 Ma.)	600/250/50	10	350-7000	AF
JAF-23	20000 CT.	600/250/50	10	60-15000	AF
JAF-24	10000 CT.	2000 CT.	10	50-20000	AF
JAF-25	12000CT.(2 Ma.)	600 CT./150	12	50-15000	AF
JAF-26	50000CT.(.5Ma.)	600 CT./150	10	100-15000	AF
JAF-31‡	600/250/50	600/250/50	10	60-15000	AF
JAF-32	1500 CT. (2Ma.)	600 CT./150	14	20-20000	AF
JAF-33‡	5000 CT.	5000 CT.	10	60-15000	AF
JAF-34	500 CT.	500 CT./125	14	50-20000	AF
JAF-35	600 CT.	2000 CT./500	14	50-20000	AF
JAF-101	50 h.-.75 Ma.				AF
JAF-102	6 HY.—3 MA. or 4 HY.—6 Ma.				



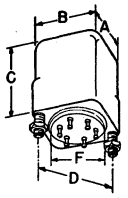
JZ



TZ

SUB-MINIATURE AUDIO — Hermetically Sealed

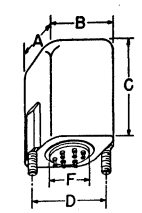
Type No.	Primary Impedance	Secondary Impedance	DC Res. Ohms (Approx.) Pri.	Sec.	** Case
JZ-1	600/250/50	60000	350	4100	JZ
JZ-5	30/12/4	50000	11.5	3800	JZ
JZ-13	15000 (1. Ma.)	135000 CT.	1150	4400	JZ
JZ-15	20000 (.5 Ma.)	1200/600/100	2700	350	JZ
JZ-25	10000 (1 Ma.)	200	1500	120	JZ
JZ-26	1000 (5 Ma.)	50	355	30	JZ



AF
AJ

SUB-MINIATURE AUDIO — Open Frame

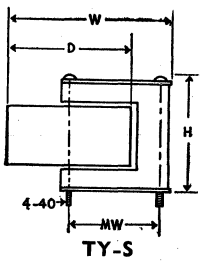
Type No.	Primary Impedance	Secondary Impedance	DC Res. Ohms (Approx.) Pri.	Sec.
TZ-1	600/250/50	60000	350	4100
TZ-2XT	200 CT.	200000	35	5000
TZ-5	30/12/4	50000	6	3500
TZ-7	30/12/4	1000	5	480
TZ-13	15000 (1 Ma.)	135000 CT.	985	4400
TZ-15	20000 (.5 Ma.)	1200/600/100	2700	350
TZ-24XT	25000 CT.	500 CT.	2000	60
TZ-29XT	10000 CT.	10,000 CT	1100	1400
TZ-25	10000 1 Ma.)	200	1500	120
TZ-32XT	1500 CT.	600 CT./150	160	65
TZ-26	1000 (5 Ma.)	50	355	20
TZ-103XT	4 Hy. or 1 Hy.	—	400	—
T-41X	1000 (10 Ma.)	200 CT.	430	130
T-42X	9800 (2 Ma.)	16	855	1.7
TY-44X	1000 (10 Ma.)	16/8/4	180	3.8
TY-47X	2000 CT.(10 Ma.)	16/8/4	260	4



AG
AH

TRANSFORMERS FOR TRANSISTOR POWER SUPPLIES

Type No.	D.C. Volts Out of Rect.	D.C. Ma. Max.	Dimensions—Inches H	W	D	MW
TY-68S	250	65	1¾	1¾	1 11/32	1½
TY-69S	300	100	1⅞	2⅜	1⅞	1½
TY-70S	325	150	2	2⅜	2 7/16	1½
TY-71S	375	200	2	2⅜	2 7/16	1½
TY-74S	600	200	2	4⅛	3	3¾

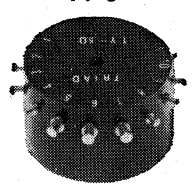


TY-S

EPOXY MOLDED TOROIDAL TYPE

Type No.	D.C. Source Volts	D.C. Volts Out Of Rectifier	D.C. Ma. Max.	Dimension—Inches Dia.	Ht.	Wt. Lbs.
TY-78	12.6	250/125	100	1¾	1 1/16	.35
TY-79	12.6	300/150	200	1¾	1	.35
TY-80	12.6	325/162.5	150	1¾	1	.35
TY-81	12.6	375/187.5	200	2	1	.50
TY-82	12.6	450/225	150	2	1	.50
TY-83	12.6	500/250	250	2¾	1⅜	.85
TY-84	12.6	600/300	200	2¾	1⅜	1.00
TY-85	12.6	600/300	350	2⅞	2½	2.00
•TY-86	12.6	425/212.5	350	2¾	1⅜	1.00
•TY-87§	12.6	600/300	200	2¾	1⅜	1.00
TY-88	28	250/125	80	1 5/16	5/16	.25
TY-89	28	300/150	100	1¾	1 1/16	.35
TY-90	28	325/162.5	200	1¾	1	.35
TY-91	28	375/187.5	200	2	1	.50
TY-92	28	450/225	200	2	1	.50
TY-93	28	500/250	250	2¾	1⅜	.85
TY-94	28	600/300	200	2¾	1⅜	1.00
TY-99	6.3	300/150	100	1¾	1	.35
TY-100	6.3	325/162.5	150	2	1	.50
TY-101	6.3	375/187.5	200	2¾	1⅜	1.00
TY-102	6.3	450/225	150	2¾	1⅜	1.00

§ Additional winding 125 V. @ 10 ma. for SSB.



TY-MOLDED

‡Static Shield •New item

†† MINIATURE AUDIO — "Trijets"

Type No.	Primary Impedance	Secondary Impedance	Max. Level-DBM	Freq. Resp.
T-1X‡	600/250/50	50000	0	60-15000
T-2X‡	600/250/50	250000	0	100-15000
T-3X	600/250/50	60000 CT.	0	60-15000
T-5X‡	30/12/4	50000	0	50-15000
T-11X	15000	50000	10	60-15000
T-12X	15000	60000 CT.	10	60-15000
T-13X	15000 (3 Ma.)	950000 CT.	10	250-15000
T-14X‡	200	500000	10	200-10000
T-15X	15000	1 Megohm	10	150-15000
T-20X	15000	600/250/50	10	60-15000
T-21X	3000	50	10	100-15000
T-22X	15000 (3 Ma.)	600/250/50	10	100-50000
T-23X	2000 CT.	600/250/50	10	40-30000
T-24X	10000 CT.	2000 CT.	10	50-20000
T-25X	12000 CT.(2 Ma.)	600 CT. 150	10	50-16000
T-26X	50000 CT.(.5 Ma.)	600 CT./150	10	100-15000
T-31X‡	600/250/50	600/250/50	10	50-15000
T-32X	1500 CT. (2 Ma.)	600 CT./150	13	50-20000
T-33X‡	5000 CT.	5000 CT.	10	60-15000
T-34X	500 CT.	500 CT./125	13	50-20000
T-35X	600 CT.	2000 CT./500	13	50-20000
T-101X	50 henries @ .75 Ma.			
T-102X	6 Hy.-3 Ma. or 4 Hy.-6 Ma.			

††Low frequency loss will result from DC in windings other than where specified.

See Case Chart on Triad Page 15

MINIATURES

TRANSISTOR TRANSFORMERS

Type No.	Primary Matching Impedance	Primary Current MA	Secondary Matching Impedance	Maximum Level
TY-23X	50000	.5	500 CT.	100 MW
TY-24X	50000	.5	3000 CT.	200 MW
TY-25X	100000	.5	200 CT.	200 MW
TY-26X	100000	.5	3000 CT.	200 MW
TY-27XT	500 CT.	2	500 CT.	10 MW
TY-28XT	500 CT.	2	200 CT.	10 MW
TY-29X	24 CT.	500	8/4	8W
TY-30X	100 CT.	100	8/4	2W
TY-31X	200 CT.	50	8/4	2W
TY-32X	200 CT.	2	2000 CT.	200 MW
TY-33X	400 CT.	5	16/8/4	200 MW
TY-34X	400 CT.	5	2000 CT.	200 MW
TY-35X	500 CT.	2	150 CT.	100 MW
TY-36X	2000	2	1500 CT.	200 MW
TY-37X	2000 CT.	4	8000 CT.	200 MW
TY-38X	3000 CT.	4	1000 CT.	200 MW
TY-39X	4000 CT.		16/8/4	200 MW
TY-40X	5000	1	200 CT.	100 MW
TY-41X	16000	1	4000	100 MW
TY-42X	20000	.5	8/4	100 MW
TY-43X	20000	.5	800 CT.	100 MW
TY-44X	1000	10	16/8/4	200 MW

Continued on TRIAD Page 2

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TRIAD DISTRIBUTOR DIVISION

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MINIATURES (Continued)

Type No.	Primary Matching Impedance	Primary Current MA	Secondary Matching Impedance	Maximum Level
TY-45X	500 CT.	5	16/8/4	200 MW
TY-46X	100	100	1000 CT.	1 W
TY-47X	2000 CT.	10	16/8/4	200 MW
TY-48X	100 CT.	40	16/8/4	.5 W
TY-49X	500 CT.	12	5000 CT.	1 W
TY-50X	125000	0	2000 CT.	40 MW
TY-51X	2000 CT.	10	200 CT.	100 MW
TY-52X	20000 CT.	1	2000 CT.	200 MW
TY-53X	200 CT.	10	400 CT.	6 W
TY-54X	15000	1.5	200 CT.	200 MW
TY-55X	2000 CT.	2	500 CT.	200 MW
TY-56X	10000	1	2000 CT.	200 MW
TY-57X	250 CT.	10	16/8/4	200 MW
TY-58X	125 CT.	15	8/4	200 MW
TY-59X	5000 CT.	1	50000 CT.	200 MW
TY-60X	200000	0	1000	100 MW
TY-61X	100	100	100 CT.	4 W
TY-62X	10000	2	4	100 MW
TY-63X	48 CT.	275	16/8	8 W
TY-64X	32 CT.	575	16/8/4	10 W
TY-65Z	32 CT.	575	6K/4K/3K	10 W
TY-66A	6 CT.	5A	6K/4K/3K	40 W
TY-67A	6 CT.	5A	16/8/4	40 W

†† JO SERIES — Hermetically Sealed

Type No.	Primary Impedance	Secondary Impedance	Max. Level-DBM	Freq. Resp.	Case
JO-1	600/250/50	50000	0	60-15000	JOA
JO-2	600/250/50	250000	0	60-15000	JOA
JO-3	600/250/50	60000 CT.	0	50150000	JOA
JO-11	15000	60000	10	50-15000	JOB
JO-12	15000	60000 CT.	10	50-15000	JOB
JO-13	15000-3 Ma.	95000 CT.	10	50-15000	JOB
JO-21	15000	600/250/50	10	20-20000	JOB
JO-22	15000-3 Ma.	600/250/50	10	100-10000	JOB
JO-23	20000 CT.	600/250/50	10	40-30000	JOB
JO-31	600/250/50	600/250/50	10	40-20000	JOB
JO-101	50 h.-2 Ma.				JOB

DC TO AC TRANSISTOR TRANSFORMERS

Type	Primary	Secondary		
TY-75A	12v	115v	60cps	115 watts
TY-76A	12v	115v	60cps	60 watts
TY-468	28v	115v	400cps	60 watts
TY-462	12v	115v	400cps	60 watts

DC TO DC CONVERTER TRANSFORMERS
For use in blocking oscillator type power supplies

No. Type	L.	W.	H.	Mtg. Centers	*Typical Operation Input	Output
TY-200X	1⅝	⅞	13/16	1⅜	3VDC @ 20 Ma.	1050VDC @ 25 μa
TY-201TZ	½	7/16	7/16	—	4VDC @ 15 Ma.	500VDC @ 50 μa
TY202X	1⅝	⅞	13/16	1⅜	3VDC @ 45 Ma.	550VDC @ 80 μa

POWER COMPONENTS
HERMETICALLY SEALED

Combined PLATE and FILAMENT Transformers
Primary 115V — 50/60 cycle

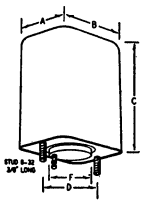
Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Filaments	F Dim. (Min.) Inches	Case
HSM-200	120	100	6.3 CT.-1.6A.	1	FA
HSM-201	500 CT.	20	6.3 CT.-2A.	1 1/16	GA
HSM-202	120	20	6.3 CT.-.6A.	1 5/16	EA
HSM-203	600 CT.	50	6.3 CT.-2.5A. 5 -2A.	1 1/16	JB
HSM-205	700 CT.	70	6.3 CT.-3A. 5 -3A.	1 1/16	JA
HSM-207	700 CT.	120	6.3 CT.-5A. 5 -3A.	1 1/16	KA
HSM-208	626 CT.	200	6.3/5.0-3A. 6.3 CT. 5	1 1/16	KA
HSM-241	700 CT.- 70V. bias.tap.	150	6.3 CT.-6A. 6.3-V. -2A. 5 -3A.	1 1/16	LA
HSM-212	1000/ 800 CT.	190 (ch. in.) 150 (cd. in.)	6.3/5-4A. 6.3 CT.-4A. 6.3 V-4A.	1 1/16	FA
HSM-245	800/ 700 CT. 70 V. bias tap.	200	6.3 CT.-6A. 6.3-V. -4A. 5 -6A.	1 1/16	MA
HSM-216	1000/ 800 CT.	254 (ch. in.) 200 (cd. in.)	6.3/5-4A. 6.3 CT.-5A. 6.3-5A.	1 1/16	MA
HS-247	800/ 700 CT. 70 V. bias tap.	300	6.3 CT.-8A. 6.3-V. -4A. 5 -6A.	1 1/16	GP-15
HSM-218	1000/ 800 CT.	300 (ch. in.) 235 (cd. in.)	6.3/5-6A. 6.3 CT.-6A. 6.3-6A.	1 1/16	GP-15
HSM-219	(115/ 230 pri.) 760/ 1600 CT.	40/230 (ch.input)		Spcl.	GP-15

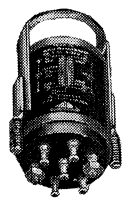
All types electrostatically shielded
GP-15 dimens. 4¾" x 5⅞" x 6⅝" high. Wt. approx. 22 lbs.
Mtg. centers 3¾" x 4⅞".

HS Series

Combined PLATE and FILAMENT Transformers
Primary 115V—400 cycle to operate 380 to 1500 cycles

Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Filaments	Insur. Test Volt.	F Dim. (Min.) Inches	Case
HS-401	500 CT.	40	6.3 CT.-1A. 6.3-1A	1500	1	EB
HS-400	125	25	6.3 CT.-8A.	1500	2 3/32	AH
HS-404	500 CT.	120	6.3 CT.-3A. 6.3/5.0-3A.	1500	1 5/16	FA
HS-405	600 CT.	70	6.3 CT.-2A. 6.3-2A. *6.3-2A.	1500	1 1/16	GA
HS-407	600 CT.	120	6.3 CT.-3.5A. 6.3-3.5A. *6.3/5-3A.	1500	1 1/16	JB
HS-409	700 CT.	150	6.3 CT.-4A. *6.3/5-3A.	1500	1 1/16	HA
HS-413	450 CT.	200	6.3 CT.-6A. 6.3 -6A. *6.3/5-4A.	1500	1 1/16	JA
HS-415	800/ 600 CT.	200	63. CT.-6A. 6.3-6A. 6.3/5-6A.	2500	1 1/16	KB
HS-417	800/ 600 CT.	300	6.3 CT.-6A. 6.3-6A. 6.3/5-6A.	2500	1 1/16	LA




JO Series

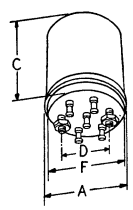
* Tapped for 5 volt rectifier use. All types electrostatically shielded.

SOLID STATE LOW-VOLTAGE TRANSFORMER
Primary 10/115/125 volts — 50/60 cycles

Type No.	Secondary AC Volts	Secondary RMS Amps	Rectifier Circuit CT. Full Wave	Rectifier Circuit Bridge FW	Case
•HSM-248	35 CT.	3	14.5v	29v	KA

AUDIO INTERSTAGE Transformers

Type No.	Primary Imped.	Turn Ratio	Freq. Resp.	Power Output	Shld'g	Case
HS-25	15000	1:2.72 overall	20-20000	75 MW	P-1	GP-4
HS-35	15000	1:2.72 overall	20-20000	26 MW	P-1	GP-2
HS-27	20000/ 5000	1:1.72 overall	20-20000	130 MW	P-1	GP-4
HS-29	20000/ 5000	1:2 overall	20-20000	30 MW	P-5	GP-4
HSM-31	20000/ 5000	1:1 or 2:1	20-20000	3 W		FA
HS-32	15000 (6 Ma.)	1:2 overall	20-15000	200 MW	P-1	GP-5



•New item

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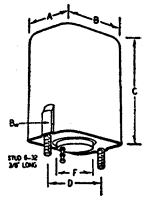
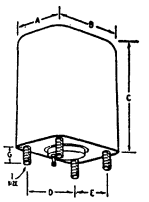
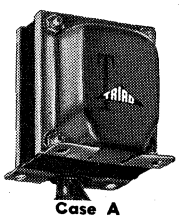


GP 1, 2, 3



MIL-T-27A CASE

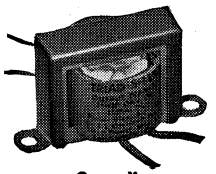


Case A

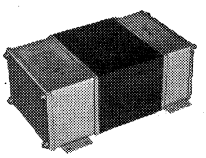
PL-4

PL-5

PL-6



Case X



Case SC

POWER OUTPUT to Line and VC. Hermetically Sealed

Type No.	Primary Impedance	Secondary Impedance	Max. Level-Watts	Freq. Resp.	** Case
HS-71	10000 (10 Ma.)	600/150	2	150-15000	AH-2
HS-73	5000 (40 Ma.)	500/250/ 16/8/4	5	70-15000	AJ-2
HS-75	1000 CT. (50 Ma. bal.)	500/250/ 16/8/4	10	100-25000	EB
HS-77	9000 CT. (120 Ma. bal.)	500/250/ 16/8/4	25	70-20000	GA

LOW LEVEL AUDIO

AUDIO INPUT TRANSFORMERS Hermetically Sealed

Type No.	Primary Imped.	Turn Ratio	Freq. Resp.	Power Output MW	Shld'g	** Case
HS-1	600*/250*/ 150/62.5	1:11.3	20-20000	10	P-5	GP-4
HS-11	Same as above				P-1	GP-2
HS-3	600*/250*/ 150/62.5	1:14 overall	20-20000	10	P-5	GP-4
HS-4	Same as above				P-3	GP-4
HS-14	Same as above				P-1	GP-3
HS-15	600*/250*/ 150/62.5 (10 Ma.)	1:8 overall	30-20000	100	P-3	GP-5
HS-5	30	1:65.7	40-12000	1	P-5	GP-4

*Balanced center tap.

OUTPUT, MIXING, MATCHING, BRIDGING

Type No.	Primary Imped.	Secondary Impedance	Freq. Resp.	Power Output MW	Shld'g	** Case
HS-50	15000	600*/250*/ 150/62.5	20-20000	400	P-3	GP-4
HS-60	15000	600*/350*/ 150/62.5	20-20000	20	P-1	GP-4
HS-61	15000 (5 Ma.)	600*/250*/ 150/6.25	40-15000	200	P-1	GP-5
HS-52	20000 CT./ 5000	600*/250*/ 150/6.25	20-20000	400	P-1	GP-4
HS-54	20000 CT./ 5000	600*/250*/ 150/6.25	20-20000	30	P-5	GP-4
HS-56V	600*/250*/ 150*62.5	600*/250*/ 150/6.25	10-30000	100	P-3	GP-4
HS-66	600*/250*/ 150*62.5	600*/250*/ 150/6.25	10-30000	100	P-1	GP-3
HS-58	600*/250*/ 150*62.5	600*/250*/ 150/6.25	20-30000	50	P-3H	GP-5

* Balanced center tap.

POWER COMPONENTS

Type No.	Primary Volts	Secondary Volts	Secondary Amperes	Insulation Test Voltage	** Case
HSM-223	115	6.3	0.6	1500	AJ-2
HSM-225	105-115-125	6.3 CT.	2	1500	EA
HSM-226	105-115-125	6.3 CT.	3.6	1500	FA
HSM-224	105-115-125	6.3 CT.	5.5	2500	HB
HSM-234	105-115-125	†6.3 CT. 6.3	10 10	2500	KA
HSM-227	105-115-125	†6.3 CT. 6.3	3 3	2500	GA
HSM-229	105-115-125	6.3 CT.	8	2500	JB
HSM-233	105-115-125	12.6 CT.	.8	1500	EA
HSM-237	105-115-125	12.6 CT.	2	2000	FA
HSM-230	105-115-125	24 CT.	0.8	1500	FA
HSM-239	105-115-125	24 CT.	1.5	2500	GA
HSM-240	115/230	†12.6 CT. †12.6	1.5 1.5	2500	GA
HSM-236	105-115-125	†12.6 CT. 12.6	2 2	2500	JB
HSM-228	105-115-125	†6.3 CT. 6.3	6 6	2500	JA
HSM-231	105-115-125	6.3 CT. 5 CT.	5 3	2500	JB
HSM-235	105-115-125	2.5 CT. 10 CT.	10 10	7500 2500	MA
HSM-238	105-115-125	†26 CT. †26	2 2	2500	JA

† Series or parallel connections.
** See case chart Triad Page 15.

FILAMENT Transformers, 380/1500 cycle

Type No.	Primary Volts	Secondary Volts	Secondary Amperes	Insulation Test Voltage	** Case
HS-436	115	6.3 CT.	1	1500	AH
HS-425	105-115-125	6.3 CT.	2	1500	AJ-2
HS-427	105-115-125	6.3 CT.	5	2500	EA
HS-445	105-115-125	24 CT.	3	2500	EA
HS-438	105-115-125	24 CT.	1.5	1500	EA
HS-433	105-115-125	*6.3 CT. *6.3	5 5	2500	FA
HS-435	105-115-125	*6.3 CT. *6.3 †6.3/5	3.5 3.5 3	2000	FA
HS-441	105-115-125	*5 CT. *5 2.5 CT.	10 10 10	2000 7500	HA
HS-443	105-115-125	*12.6 CT. *12.6	0.8 0.8	1500	AJ-2
HS-442△	57.5-99.7-115-120 Single phase.	*12.6 CT. *12.6	2 2	1500	EA
HS-444△	57.5-99.7-115-120	*26 CT. *26 CT.	2 2	2000	FA

△ Two Units can be used, 115 volt 3 phase to 26 volt 2 phase, Scott-connected. * Series or parallel connection. † 5 volt tap for filament type rectifiers.

UNIVERSAL RECTIFIER POWER SUPPLY TRANSFORMERS Primaries 115 Volts, 50/60 Cycles

Type No.	DC Range	MIL Case
HSM-249	6V.-.065A. to 53V.-.02A.	AH
HSM-250	6V.-.22A. to 53V.-.07A.	AJ
HMS-251	6V.-1.2A. to 53V.-.4A.	FA
HSM-252	6V.-3A. to 53V.-1A.	HA
HSM-253	6V.-7.5A. to 53V.-2.5A.	KA
HSM-254	6V.-18A. to 53V.-6A.	OA

HIGH FIDELITY OUTPUT

HIGH LEVEL OUTPUT — Hermetically Sealed

Type No.	Primary Impedance	Secondary Impedance	Freq. Resp.	Max. Level Watts	F Di. Min. In.	** Case
HSM-79	20000 CT. (20 Ma.) or 5000 (40 Ma.)	16/8/4	40-20000	5	1 1/16	FA
HSM-80	20000 CT. (20 Ma.) or 5000 (40 Ma.)	600/ 250 CT. or 150/62.5	40-20000	5	1 1/16	FA
HSM-81	8000 CT. Split primary.	16/8/4	7-50000	15	1 1/16	JB
HSM-82	8000 CT.	600/ 250/125	7-50000	15	1 1/16	JB
HSM-182	8000/ 2000 CT. Split primary.	600/ 250/125	7-50000	15	1 1/16	JB
HSM-84	5000 CT.	16/8/4	15-30000	20	1 1/16	JB
HSM-184	8000	16/8/4	10-50000	25	1 1/16	KB
HSM-189	10000/ 2500 CT. Split primary.	16/8/4	7-50000	25	1 1/16	KB
HSM-190	10000/ 2500 CT. Split primary.	500/ 250/125	7-50000	25	1 1/16	KB
HSM-187	6600 CT. or 1650 CT. Split primary.	500/ 250/125 250/125	7-50000	25	1 1/16	KB

(Continued on next page.)

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HIGH FIDELITY OUTPUT (cont.)

HSM-94	4500 CT.	16/8/4	7-50000	55	1⅞	LA

HIGH LEVEL OUTPUT

Type No.	Primary Impedance	Secondary Impedance	Output Watts
S-34X	4000 CT.	32/16/8	7.5
S-31A	8000 CT.	16/8/4	15
S-32A	8000 CT.	500/250/125	15
†S-142A	8000 CT.	16/8/4	15
S-35A	5000 CT.	16/8/4	20
S-36A	5000 CT.	500/250/125	20
†S-146A	6600 CT.	16/8/4	25
S-149A	3300 CT.	16/8/4	50
SR-45Z*	4000/2000/1000/500	16/8/4	10
S-46A	2000/1000/500/250	16/8/4	20
†SX-201	3300 ohms CT.	4-8-16 ohms	10-15
†SX-202	4500 ohms CT.	4-8-16 ohms	10-15
SX-203	5000 ohms	4-8-16 ohms	5-7
SX-204	5000 ohms CT.	4-8-16 ohms	10-15
SX-205	6600 ohms CT.	4-8-16 ohms	10-15
†SX-206	6600 ohms CT.	4-8-16 ohms	10-15
†SX-207	8000 ohms CT.	4-8-16 ohms	10-15
SX-208	8000 ohms CT.	4-8-16 ohms	10-15

† Williamson type circuit. Proper taps on primary for screen operation, leads out both end bells.
* Replaces S-45Z.

LINE POWER

ISOLATION Transformers, 50/60 cycles

(See Triad page 6 for 380/1500 cycle isolation transformers)

Type No.	V. A. Output	Input Volts	Output Volts
N-51X	35	115	115
N-68X	50	230/115	115
N-53M	85	115	115
N-54M	150	115	115
N-67A	150	230/115	115
N-55M	250	115	115
N-66A	250	230/115	115
N-57M	500	115	115
N-59M	1000	115	115
†N-52M	350	95 to 130 (in 5V steps)	115
†N-56M	150	95 to 130 (in 5V. steps)	115
	†With switch and meter for primary voltage control. Detachable cord.		
N-469A	50	460/230	115
N-470A	150	460/230	115
N-471A	300	460/230	115

CONSTANT VOLTAGE TRANSFORMERS

Type No.	Rating V. A.	Input Volts	Output Volts
K-100	30	95-130	117
K-101	60	95-130	117
K-102	120	95-130	117
K-103	250	95-130	117
K-104	500	95-130	117
K-105	750	95-130	117

STEPDOWN Autoformers, 50/60 cycles

Type No.	V. A. Output	Input Volts	Output Volts
N-1X	50	230	115
N-3M	85	230	115
N-4M	150	230	115
N-5M	250	230	115
N-7M	600	230	115
N-9M	1250	230	115
N-11M	2000	230	115
N-34X	150	95/105/115/125/135	115
†N-35M	250	95 to 130 (in 5V. steps)	115
†N-50M	500	95 to 130 (in 5V. steps)	115
	With switch and meter.		

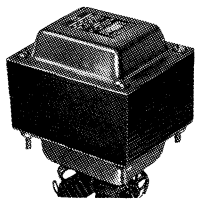
† M case with switch for primary voltage control and detachable cord.

Note: Last letter of Type No. denotes case style.

FILTER REACTORS

Type No.	Current DC Ma.	Inductance *Henries	Resistance Ohms	Insulation Test Voltage
HSM-301	20	30	1000	1500
HSM-302	20	14	560	1500
HS-331	40	4	375	1500
HS-303	50	12	385	1500
HS-333	70	3	225	1500
HSM-305	70	15	300	2500
HS-335	120	3	150	1500
HSM-307	120	15	185	2500
HSM-309	150	9	115	2500
HS-339	200	3	105	2000
HSM-315	200	10	100	2500
HS-341	300	2	48	2000
HSM-319	300	10	85	2500

Minimum Inductance—20%

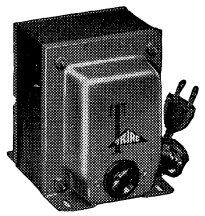


Case B

PULSE TRANSFORMERS
BLOCKING OSCILLATOR TYPE

Type No.	Pulse Voltage per Winding	Pulse Duration—us	Load Impedance —Ohms
PL-4	100-100	.54 to .66	500*
*PL-5	100-100-100	.36 to .54	2000*
PL-6	100-100-100	.36 to .54	2000*

* As blocking oscillator in Triad circuit. Can be used with lower impedances and higher peak power at lower duty cycle.

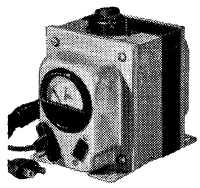


Case M

HIGH SPEED FERRITE TOROIDAL CORE
LOW POWER

Type No.	Turns Ratio	Pulse Width μ Sec.	Rise Time μ Sec.	Repetition Rate	Suggested Load Ohms	Volts
PL-80E	1-1	.07	.03	1-2 Mc	200	15
PL-81E PL-81H PL-81P	2-1	.07	.03	1-2 Mc	200	20
PL-82H PL-82P	3-1	.08	.03	1-2 Mc	100	15
PL-83E PL-83H PL-83P	4-1	.08	.03	1-2 Mc	100	15
PL-84E PL-84H	5-1	.08	.03	1-2 Mc	100	15

The letter "H" indicates Hermetically Sealed, the letter "P" indicates Miniature Plug-in and the letter "E" indicates Epoxy Molded.

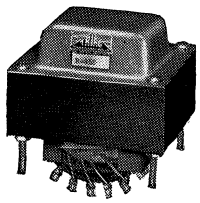


Case M with Meter

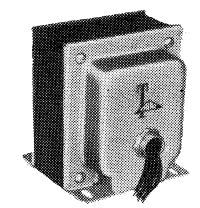
LOW SPEED SILICON CORE LOW POWER

Type No.	Pulse Voltage per Winding	Pulse Duration—μ Sec.	Load Impedance —Ohms
PL-124H	300-300-300	.6 to 5	150
PL-140E PL-140H PL-140M	100-400-100	.6 to 5	175
PL-139E PL-139H PL-139M	100-100	.3 to 1.5	250
PL-146E PL-146H PL-146M	300-300	.6 to 5	250

Letter "M" indicates MIL type case. For pulse types only.



Case C



Case AC

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TRIAD DISTRIBUTOR DIVISION

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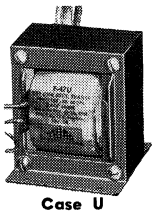
Instrument POWER SUPPLY Transformers

For PREAMPLIFIERS, VTVM, etc.

Primary 115 volts — 60 cycles

Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Filament Windings Volts and Amperes
R-68A	800 CT.	30	5V.-2A, 6.3V-1.2A, 6.3V-1.2A.
R-2C	135	15	6.3V-.9A.
R-23B	250 CT.	22	6.3-.8A. 15.5/12.6V-.6A.
R-3A	500 CT.	20	6.3V CT.-2A.
R-29A	230 CT.	40	6.3V.CT.-1.5A.
R-30X	135	50	6.3V.-1.5A.
R-54X	115	15	6.3V.-.6A.
R-56A	130	20	0/15/22.5/30V-.6A.
R-73B	135	200	6.3V CT.-5.5A.



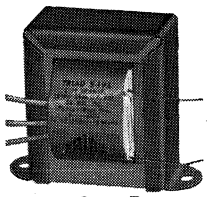
Case U

For CATHODE RAY Tubes

Primary 115 volts — 60 cycles

Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Filament Windings Volts and Amperes	
R-41C	440-0-440-1250.	125/5	*6.3V.-.6A. †2.5V.-1.75A. 5V.-3A.	†2.5V.-1.75A. 5V.-3A.
R-45C	400-0-400-800.	30/5	*6.3V.-.6A. 6.3 CT.-3A. †5V.-2A	6.3V.-1A. 5V.-2A.
R-43C	1600	3	*6.3/5/2.5V.-1A. †6.3/5/2.5V.-3A.	

* Static shielded and insulated for full plate voltage.
† Insulated for full plate voltage.



Case Z

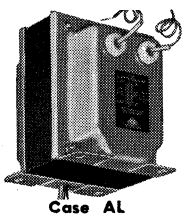
For REGULATED POWER SUPPLIES

Primary 115 volts — 60 cycles

Type No.	Plate Supply AC Volts	Plate Supply DC Ma. Choke Input	Filament Windings Volts and Amperes	
R-70A	880 CT.	75	6.3V.-.6A. 6.3V.-.3A.	6.3V.-.9A. 6.3V.-3A.
R-26A	880-720 CT.	200	6.3 CT.-8A. 6.3V.-1A.	6.3V.-3A. 5V.-3A.
R-28A	1250 CT.	300	6.3 CT.-8A. 6.3V.-3A.	6.3V.-3A. 5V.-6A.
R-46A	1250 CT. 130 (Bias winding)	350	5V.-4A.	6.3V.-4A. 6.3V.-1A. 6.3V.-1A.

R-46A will supply 550 V. D.C. using 2 5R4G rectifier tubes, choke input. Will also supply 130 V. for bias using Selenuim rectifier. Sufficient filament windings to regulate screen voltages.

R-27A	1500 CT.	400	5V.-6A.	6.3V.-3A. 6.3V.-8A.



Case AL

UNIVERSAL

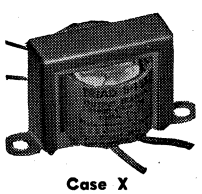
Isolation, Autoformer, Voltage Control 50/60CPS

Type No.	V.A. (Isolation)	V.A. (Autoformer)
N-64AC	500	1000
N-62AC	1000	2000
N-60SC	2000	4000

SOLID STATE RECTIFIER POWER TRANSFORMERS

Primary 117 volts — 50/60 cycles

Type No.	Secondary No. 1 Volts	Secondary No. 1 MADC	Secondary No. 2 Volts @ A		Secondary No. 3 Volts @ A		Mounting Centers
R-82B	35-0-35	3.5 Amp.	—	—	—	—	3 x3¾
R200A	200-0-200	400	6.3	3	6.3	3	2¾x3 1/16
R201A	150-0-150	600	6.3	2.5	6.3	2.5	2¾x3 1/16
R202A	100-0-100	800	6.3	2	6.3	2	2¾x2 13/16
R-203A	50-0-50	1600	6.3	1.5	6.3	1.5	2¾x2 1/16
R-204A	40-0-40	2000	6.3	1.5	6.3	1.5	2¾x2 13/16
R-205A	30-0-30	2500	6.3	1.5	6.3	1.5	2¾x2 1/16
R-206B	27-0-27	1.9 Amp.	—	—	—	—	2½x3⅛



Case X

SELENIUM RECTIFIER Transformers Primary 60 cycles

These transformers are for use with Selenium rectifiers. Rectifiers *not* included.

Type No.	Primary Volts	Secondary AC Volts	Secondary Amperes RMS	Half Wave Volts DC	Full Wave Volts DC
F-47U	115	17-18	3	6-7	13-14
F-48U	115	17-18	6	6-7	13-14
F-49U	115	36 36	3 3	13	26
F-60U	115	6.5-13-19.5-26	3 (int.)	9	18
F-61U	115	24-27-30 33-36	3	13	26
F-67U	110-120	24-27-30-33-36	8	13	26
F-63U	115	8-9 8-9	2 2		6-7
F-64U	115	7-8-9	7		6-7
F-62U	105-115-125	9-9-9-9	10 ea. wdg.		6-7 ea. wdg.
F-68U	115	9 CT. 9 9 9	3.5 3.5 3.5 3.5		6-7 ea. wdg.
F-65U	110-120	140-150-160	.75	60	115
F-66U	110-120	140-150-160	2.5	60	115
F-79U	115	24-26-28-30	15	11.4	22.8
F-80U	tapped for mult. sec.	12 to 18 or 24 to 36CT	40 20	—	13
F-84AC	230-115	24CT or 12CT	10 20	—	8.5
F-90X	115 tapped	40CT-20CT-10	100ma	15	30
F-91X	115 tapped	40CT-20CT-10	300ma	15	30
F-92A	115 tapped	40CT-20CT-10	1 amp	15	30
R-93A	115	6.3CT (voltage doubler circuit) 150-160-170	6 (500ma)	65	120
F-93X	115V tapped	40CT-20CT-10	750ma	15	30
F-94X	115X tapped	40CT-20CT-10	35ma	15	30

FILAMENT Transformers, Single Secondary

Primary 115 volts — 60 cycles

Type No.	Secondary Volts	Secondary Amperes	Test Volts
F-1X	2.5 CT.	3	1500
F-72Z	2.5 CT.	5	7500
F-6X	2.5 CT.	6	2500
F-3X	2.5 CT.	10	3000
F-5U	2.5 CT.	10	7500
F-71U	2.5 CT.	10	10000
F-7X	5 CT.	3	1500
F-8X	5 CT.	6	1500
F-12X	5 CT.	8	2500
F-9A	5.2 CT.	13	1500
F-10U	5 CT.	14	10000
F-9U	5.2 CT.	13	1500
F-15U	5 CT.	15	3000
F-11U	5.2 CT.	24	1500
F-13X	6.3	.6	1500
F-14X	6.3 CT.	1.2	2500
†F-52X	6.3	1.2	5000
†F-51X	6.3/5	2	5000
†F-53X	6.3	4	5000
F-16X	6.3 CT.	3	2500
F-18X	6.3 CT.	6	1500
F-18A	6.3 CT.	6	1500
F-19X	6.3/6 CT.	6	2000
F-21A	6.3 CT.	10	1500
F-20U	6.3/6 CT.	11	3000
F-17U	6.3 CT.	15	Pri. 1500 Sec. 10000
F-22A	6.3 CT.	20	2000
F-24U	7.5/6.3 CT.	8	3000
F-28U	7.5/6.3 CT.	25	3000
F-23U	10 CT.	7	1500
F-29U	12/11/10 CT.	11	3000
F-25X	12.6 CT.	1.5	1500

(Continued on next page.)

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F-44X	12.6 CT.	2	1500
F-26X	12.6 CT.	2.5	1500
F-45X	24 CT	1	1500
F-41X	25.2 CT.	2	1500
F-40X	26.8 CT	1	1500
F-50X	Filament line transformer Pri. 6.3V/5V Sec. 6.3/5V 2A		5000
•F-54X	35 CT.	1.5	1500
F-83A	12.6 CT. 12.6 CT.	5 5	1500
•F-85U	5 or 7.5 CT. 5 or 7.5 CT.	20 20	1500 1500

† Low capacity—High voltage for damper tube operation.

CHOKES

SWINGING FILTER REACTORS

Type No.	Inductance Henries	Current Ma.	Resistance Ohms	Test Volts RMS
C-31A	25/5	20/200	150	2500
C-33A	25/5	30/300	105	3000
C-32AL	20/4	35/350	105	5000
C-35A	20/4	40/400	65	3000
C-39A	25/5	50/500	65	3000
C-38AL	25/5	50/500	65	5000

SMOOTHING FILTER REACTORS

Type No.	Inductance Henries	Current Ma.	Resistance Ohms	Test Volts RMS
C-30X	50	15	3500	1500
C-2X	2	15	70	1500
C-1X	15	20	1000	1500
C-3X	10	50	500	1500
C-4X	4	50	360	1500
C-6X	5	65	330	1500
C-5X	12	75	390	1500
C-8X	7	75	240	1500
C-7X	10	90	270	1500
C-9X	4	90	100	1500
C-11X	6	110	160	1500
C-10X	9	125	250	1500
C-12X	6	160	165	1500
C-12A	6	160	165	1500
C-13X	3	160	75	1500
C-14X	6	200	150	1500
C-14A	6	200	150	1500
C-16A	10	200	150	2500
C-21X	1.5	225	65	1500
C-15X	4	250	100	1500
C-15A	4	250	100	1500
C-23X	1.2	260	45	1500
C-24X	1	240	50	1500
C-27X	.7	290	25	1500
C-36X	.5	300	30	1500
C-17X	1.5	300	40	1500
C-18A	8	300	90	2500
C-19A	10	300	105	3000
C-25A	2.6	310	60	1500
C-42AL	8	350	105	5000
C-34X	.6	350	35	1500
C-28X	1	350	35	1500
C-29X	1.5	375	50	1500
C-50X	2	400	40	2500
C-20A	6	400	60	3000
C-22A	10	500	65	3000
C-40X	.32	600	10	1500
C-47U	.3-.075	1A-2A	3-.75	1500
C-48U	.08-.02	2.5A-5A	.57-.143	1500
C-49U	.032-.008	5A-10A	.19-.05	1500
C-80U	.024-.006	20A-40A	.096-.024	1500
•C-56X	.035	2.0A	.75	1500
•C-57U	.025	4.0A	.55	1500
•C-58U	.01	8.0A	.15	1500
•C-59U	.01	12.5A	.10	1500
•C-60U	.005	22.5A	.06	1500

ISOLATION Transformers

Primary 115V—400 cycle to operate 380 to 1500 cycles

Type No.	Secondary Volts	Amp.	V. A.	F Dim. (Min.) Inches	Case
HS-470	115	.35	40	1	EA
HS-471	115	.7	80	1	FA
HS-472	115	1.4	160	1	GA
HS-474	115	2.6	300	1	JA
HS-475	115	4.4	500	1	KA

60 cycle — hermetically sealed

Type No.	secondary volts	amp.	V.A.	F dim. (Min.) inches	Case
HSM-270	105-115-125	.4	50	1	JB
HSM-271	105-115-125	1	125	1	KA
HSM-272	105-115-125	2	250	1 7/16	NB

All isolation transformers electrostatically shielded.

FILAMENT Transformers, Multiple Secondary

Primary 115 volts — 60 cycles

Type No.	Secondary Volts and Amperes		Test Volts RMS
F-27U	10 CT.-10A.	2.5 CT.-10A.	1500 7500
F-30A	5 CT.-3A.	6.3 CT.-8A.	1500
F-32A	6.3 CT.-3A.	6.3 CT.-3A.	1500
F-34A	6.3 CT.-1.75A. 6.3V.-1.75A.	6.3V.-1.75A. 6.3V.-1.75A.	1500
F-36A	6.3 CT.-3.5A. 6.3V.-3.5A.	6.3V.-3.5A. 6.3V.-3.5A.	1500
F-38A	6.3 CT.-5A. 6.3V.-1A. 5V.-4A.	6.3V.-5A. 5 CT.-2A.	1500
F-42A	12.6 CT.-2.5A.	12.6-2.5A.	1500

AUDIO INPUT TRANSFORMERS

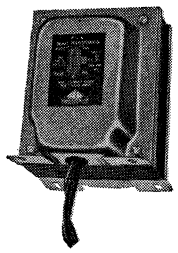
Low Level Input

Type No.	Application	Frequency Response	Primary Impedance	Turn Ratio
A-9J	line or mike to grid	30-15000	600/250/50	12
A-10J	line to grid	30-15000	600/150 split wdgs.	10.5
A-11J	line or mike to grid 60-80DB shielding	30-15000	600/250/50	10
A-12J	same as A-11J	30-15000	600 CT./150 split windings	10
A-13J	line to transistor or line to line (70 db Shldg)	30-15000	600/300/ 200 CT./110/50 split windings	1
A-40J	par. fed 6J5 or 6SN7 plate to P.P. grids	30-15000	15000	2.76
A-50J	pp plates to voice coil	30-15000	10000 CT.	35.3
A-52J	line or transistor to line or transistor	30-15000	500/CT./125 20 MA. D.C. Split Winding	2
A-55J	par. fed 6J5 or 6SN7 to line	30-15000	15000	5
A-56J	line or transistor to Voice Coil	30-15000	500 CT./125 20 MA. D.C. Split Winding	5.6
•A-61J	line to 2 lines or transistors	60-15000	600/150 split wdgs.	1.41:1:1
A-65J	par. fed 6J5 or 6SN7 to line	30-15000	15000 CT.	5
A-66J	same as A-65J— 5 ma DC in primary	40-15000	15000	5
A-67J	line to line	30-15000	600 CT./150 split windings	1
A-68J	pp plate to line 4 ma DC in primary	30-15000	15000 CT.	5
A-69J	pp plates or bridging to line 3 MA. D.C. in Primary	30-15000	25,000 CT./ 6250 Split Winding	7.1
A-70J	line or transistor to line or transistor	30-15000	500 CT./125 15 MA. D.C. Split Winding	2.24
A-77J	Audio choke — dual winding	250 henries - 5 ma DC 62.5 henries - 10 ma DC		
A-57J	line or transistor to line	30-15000	600/250/50	1:1
A-79J	Transistor inter-stage 10ma in primary	20-15000	1000	2.2

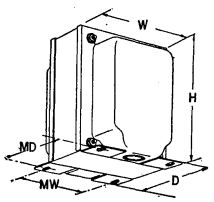
Line or Microphone to Grid

Type No.	Application	Frequency Response	Primary Impedance	Turn Ratio
A-1X	Line or single button mike to grid.	100-15000	100	31.4
A-3X	Line or D.B. mike to grid.	200-10000	400 CT.	22.1
A-4X	Line to grid.	100-20000	500/200/ 67.5 CT.	12
A-5X	Single button mike to p.p. grids—Hi-gain.	100-15000	100	84
A-6X	Speaker V.C. to grid	150-20000	8/3.2	79
A-7J	Voice coil to grid	150-10000	3.2	124

• New item.



Case A



Case A

Triad J Series offers flexibility enabling your amplifiers to exceed broadcast standards. Although economy in construction has cut costs, these transformers approach and closely approximate performance characteristics found in more costly hermetically sealed parts. Single hole mounting provides for rotation for maximum reduction of hum . . . alloy shielding gives you 40-60 db hum reduction (60-80 db in Types A-11J & A-12J) . . . you can obtain wide frequency ranges . . . flexible leads facilitate ease in mounting . . . input units are electrostatically and magnetically shielded . . . light weight and encased in Triad's satin smooth baked gray enamel cases, 1⅜" diameter, 1¾" above chassis . . . legible circuit diagrams are permanently affixed to every case.

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TRIAD DISTRIBUTOR DIVISION

A DIVISION OF LITTON INDUSTRIES

AUDIO OUTPUT TRANSFORMERS
Line to Voice Coil

Type No.	Primary Impedance	Output Imped.	Output Watts	Freq. Resp.
S-23X	50 (autoformer).	3.2	1	100-8000
S-26X	500/50 (autoformer).	3.2	4	100-8000
S-65X	500	8/4	5	100-10000
S-66X	500 (autoformer).	16/8/4	3	100-10000
S-76Z	250/125/62.5/31	16/8/4	10	40-15000
S-77U	500 CT./125 split wdgs.	32/16/8/ 4/2	30	40-15000

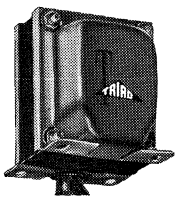
POWER

Combined PLATE and FILAMENT Transformers
Primary 115 volts — 60 cycles

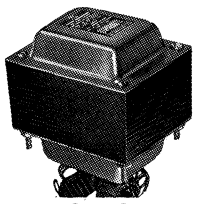
Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Rect. Fil. Volts	Rect. Fil. Amp.	Other Fil. Volts	Other Fil. Amp.
R-22A	380/320 CT.	70	6.3	.6	6.3 CT.	3
R-22B	380/320 CT.	70	6.3	.6	6.3 CT.	3
R-4A	500 CT.	40			6.3 CT.	2
R-4B	500 CT.	40			6.3 CT.	2
R-5A	600 CT.	65			6.3 CT.	2.7
R-5B	600 CT.	65			6.3 CT.	2.7
R-6A	480 CT.	50	5	2	6.3 CT.	2
R-6B	480 CT.	50	5	2	6.3 CT.	2
R-7A	600 CT.	50	5	2	6.3 CT.	2
R-7B	600 CT.	50	5	2	6.3 CT.	2
R-8A	500 CT.	75	5	2	6.3 CT.	2.5
R-8B	500 CT.	75	5	2	6.3 CT.	2.5
R-9A	600 CT.	75	5	2	6.3 CT.	3
R-9B	600 CT.	75	5	2	6.3 CT.	3
R-10A	525 CT.	90	5	2	6.3 CT.	5
R-10B	525 CT.	90	5	2	6.3 CT.	5
R-11A	700 CT.	90	5	2	6.3 CT.	3.5
R-11B	700 CT.	90	5	2	6.3 CT.	3.5
R-12A	550 CT.	110	5	2	6.3 CT.	5
R-12B	550 CT.	110	5	2	6.3 CT.	5
R-14A	700 CT.	125	5	3	6.3 CT.	4.5
R-14B	700 CT.	125	5	3	6.3 CT.	4.5
R-16A	700 CT.	160	5	3	6.3 CT.	5
R-16B	700 CT.	160	5	3	6.3 CT.	5
R-17A	750 CT. 80 Tap	160	5	3	6.3 CT. 2.5 CT.	5 5
R-18A	750 CT.	175	5	3	6.3 CT.	8
R-18B	750 CT.	175	5	3	6.3 CT.	8
R-19A	750 CT. 80 Tap	200	5	3	6.3 CT. 2.5 CT.	6 10
R-20A	700 CT.	200	5	3	6.3 CT.	8
R-20B	700 CT.	200	5	3	6.3 CT.	8
R-72A	800 CT.	140	5	3	6.3 CT.	4
R-21A	800 CT.	200	5	3	6.3 CT.	6
R-21B	800 CT.	200	5	3	6.3 CT.	6
R-24A	800 CT.	300	5	6	6.3 CT.	6
R-24B	800 CT.	300	5	6	6.3 CT.	6
R-25A	800 CT.	500	5	6	6.3 6.3 CT.	3 7
R-58A	875 CT.	185	5	3	6.3 6.3	4 3
R-71A	900 CT.	250	5 CT.	4	6.3 CT. 6.3	2 4

Combined PLATE and FILAMENT Transformers "100" Series

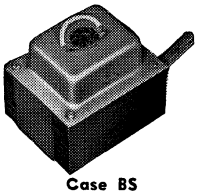
Never have the outstanding features of Triad Combined Plate and Filament Power Transformers been available at such realistic costs. No quality or performance requirement has been overlooked... specify Triad and be certain. Shielding, impregnation, chatter freedom ... to Triad's demanding quality control standards.



Case A



Case B



Case BS

PRIMARY 115 VOLTS 60 CYCLES

Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Rect. Filaments Volts	Rect. Filaments Amp.	Other Filaments Volts	Other Filaments Amp.	Case Dim. H	Case Dim. W	Case Dim. D	Mtg. Dim. MW	Mtg. Dim. MD	Wt. Lbs.
R-104A	500 C.T.	40			6.3 V.C.T.	2	2¾	2⅜	2¼	1¾	1½	1.55
R-104B	500 C.T.	40			6.3 V.C.T.	2	1⅝	2¾	2¼	2 3/16	1¾	1.55
R-105A	600 C.T.	65			6.3 V.C.T.	2.7	3⅛	2⅝	2½	2	1¾	2
R-105B	600 C.T.	65			6.3 V.C.T.	2.7	1¾	3 1/16	2⅝	2½	2	2
R-106A	480 C.T.	50	5	2	6.3 V.C.T.	2	3⅛	2⅝	2⅜	2	1⅝	2.05
R-106B	480 C.T.	50	5	2	6.3 V.C.T.	2	1⅝	3 1/16	2⅝	2½	2	2.05
R-107A	600 C.T.	50	5	2	6.3 V.C.T.	2	3⅛	2⅝	2½	2	1¾	2.35
R-107B	600 C.T.	50	5	2	6.3 V.C.T	2	1¾	3 1/16	2⅝	2½	2	2.35
R-108A	500 C.T.	75	5	2	6.3 V.C.T.	2.5	3⅛	2⅝	2⅝	2	1⅞	2.4
R-108B	500 C.T.	75	5	2	6.3 V.C.T.	2.5	1⅞	3 1/16	2⅝	2½	2	2.4
R-109A	600 C.T.	75	5	2	6.3 V.C.T.	3	3½	3	2⅞	2¼	1¾	2.9
R-109B	600 C.T.	75	5	2	6.3 V.C.T.	3	1¾	3 1/16	2⅞	2 13/16	2¼	2.9
R-110A	525 C.T.	90	5	2	6.3 V.C.T.	5	3½	3	3¼	2¼	2	3.25
R-110B	525 C.T.	90	5	2	6.3 V.C.T.	5	2	3 1/16	2⅞	2 13/16	2¼	3.25
R-111A	700 C.T.	90	5	3	6.3 V.C.T.	3.5	3½	3	3¼	2¼	2	3.55
R-111B	700 C.T.	90	5	3	6.3 V.C.T.	3.5	2	3 1/16	2⅞	2 13/16	2¼	3.55
R-112A	550 C.T.	110	5	2	6.3 V.C.T.	5	3½	3	3⅜	2¼	2⅛	3.7
R-112B	550 C.T.	110	5	2	6.3 V.C.T	5	2⅛	3 1/16	2⅞	2 13/16	2¼	3.7
R-113A	650 C.T.	40	5	2	6.3 V.C.T.	2	3⅛	2⅝	2¾	2	1¾	2.3
R-113B	650 C.T.	40	5	2	6.3 V.C.T.	2	2	3	2½	2½	2	2.3
R-114A	700 C.T.	125	5	3	6.3 V.C.T.	4.5	3⅞	3¼	3¼	2½	2⅜	4.7
R-114B	700 C.T.	125	5	3	6.3 V.C.T.	4.5	2½	3¾	3⅛	3⅛	2½	4.7
R-115A	680 C.T.	70	5	2	6.3 V.C.T.	2.5	3⅝	3	3⅜	2¼	2⅛	3.5
R-115B	680 C.T.	70	5	2	6.3 V.C.T.	2.5	2	3 1/16	2⅞	2 13/16	2¼	3.5
R-116A	700 C.T.	160	5	3	6.3 V.C.T.	5	3⅞	3¼	3⅝	2½	2⅝	5.65
R-116B	700 C.T.	160	5	3	6.3 V.C.T.	5	2⅝	3¾	3⅛	3⅛	2½	5.65
R-118A	750 C.T.	175	5	3	6.3 V.C.T.	8	4¼	3⅝	4	2¾	2⅞	7.45
R-118B	750 C.T.	175	5	3	6.3 V.C.T.	8	2⅞	4⅛	3½	3 1/16	2¾	7.45
R-120A	700 C.T.	200	5	3	6.3 V.C.T.	8	4¼	3⅝	4⅛	2¾	2⅞	8.25
R-120B	700 C.T.	200	5	3	6.3 V.C.T.	8	3	4⅛	3½	3 1/16	2¾	8.25
R-121A	800 C.T.	200	5	3	6.3 V.C.T.	6	4¼	3⅝	4⅜	2¾	3¼	8.25
R-121B	800 C.T.	200	5	3	6.3 V.C.T.	6	3¼	4⅛	3½	3 1/16	2¾	8.25

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TRIAD DISTRIBUTOR DIVISION

A DIVISION OF LITTON INDUSTRIES

PLATE POWER Transformers
Primary 115 volts — 50/60 cycles

Type No.	Secondary Volts AC	Secondary Volts DC	Sec. D.C. Ma. CCS	Sec. D.C. Ma. ICAS	Rect. Fil.
P-1A	440/220 CT.	180/90	160	190	5V-3A
P-3A	600/300 CT.	250/125	300	360	5V-4A
P-5A°	1100 CT.	400	250	300	5V-4A
P-7A°	1235 CT.	500	250	300	5V-4A
P-9A	1235 CT.	500	500	600	5V-6A
P-11A°	1455 CT.	600	250	300	
P-213AL*†	1780 CT.	750	250	300	
§P-14A	1780 CT.	750/600	250	300	
P-215AL*†	2340 CT.	1000	250	300	
P-216AL*†	2430 CT.	1000	500	600	
P-217AL*†	2880 CT.	1250	250	300	
P218AL*†	2880 CT.	1250	500	600	
P-220AL*†	3300 CT.	1500	350	420	
PR-21AL	3300 CT.	1500	500	600	

† Plate leads out side of case for 866 rectifiers.
§ Tapped Pri. to produce the lower D.C. voltage.
*Prl. is 230/115V.
°60 cycle only.

POWER TRANSFORMERS

Combined Plate and Filament
Electrostatically shielded. Primary 115 volts 60 cycles.

Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Filaments — Volts and Amperes	
R-37BC	735 V.C.T.	275	5V.—6A.	6.3V.—8.5A. 6.3V./5V.—2A.*
R-38A	750 V.C.T.	225	5V.—3A.	6.3V.—10A. 6.3V.—1.2A.* 6.3V.—2.5A.
R-40BC	780/440 V.C.T.	300	5V.—3A. 5V.—3A. 5V.—2A.	6.3V.—8.5A. 6.3V.—3.5A.
R-49BS	650 V.C.T.	240	5V.—3A.	6.3V.—9A. 6.3V.—0.9A. 6.3V.—1.2A.*
R-49BC				
R-50A	790/650 V.C.T.	310	5V.—3A. 5V.—3A. 5V.—2A.	6.3V.—5A. 6.3V.—5A. 6.3V.—2.6A.
R-50BC				
R-51BC	505 V.C.T.	320	5V.—6A.	6.3V.—5A. 6.3V.—5A. 6.3V.—1.2A.*
R-60BC	460 V.C.T.	300	5V.—6A.	6.3V.—10A. 6.3V.—1.2A.* 6.3V.—2.5A.
R-61BC	560 V.C.T.	275	5V.—6A.	6.3V.—6A. 6.3V.—6A. 6.3V.—1.2A.*
R-62BC	680 V.C.T.	290	5V.—6A.	6.3V.—10A. 6.3V.—1.5A. 6.3V.—1.2A.*
R-64BC	520 V.C.T.	270	5V.—3A.	6.3V.—10A.
R-65BC	550 V.C.T.	270	5V. —3A.	6.3V. —10A.
R-66BC	580 V.C.T.	270	5V. —3A.	6.3V. —10A.
R-67BC	600 V.C.T.	250	5V. —3A.	6.3V. —9A.
R-69BC	550 V.C.T.	270	5V. —3A.	6.3V. —10A.
R-74BC	680 V.C.T.	190	6.3V.—7.8A. 6.3V.—1.2A.	5V.—3A. (damper wdg)
R-75BA	560 .C.T.	280	5V.—3A.	6.3V.—9.5A.
R-79BA	127V.	1000	6.3V.-2A 6.3V.-10A.	12.6V.-2A 12.6V.CT.-2A.
R-80BA	500V.CT.	300	5V.-6A 6.3V.-2.0A	6.3V.-8A 6.3V.-5A
R-86BA	117/129*141 multi-purpose	1000	6.3V.-6A 6.3V.-6A	12.6V.CT.-2A

* Less than 100 m.m.f.d. capacity to ground and insulated for high voltage damper tube.
Height of transformers in BC cases is measured from chassis line to top of case. Copper shading ring on all BC cases to reduce external magnetic field.

Note: Last letter of Type No. denotes case style.

AUDIO

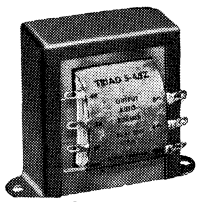
Triad Replacement Output Transformers furnish a wide range of size and mounting characteristics . . . specifically engineered for mounting in precise location in chassis. Climatite treated . . . manufactured to exacting quality standards of more costly types . . . progressively designed for advanced circuitry and audio tubes . . . total complete coverage over impedance and wattage ranges . . . Triad units provide finest response in minimum space . . . and outlive all others.

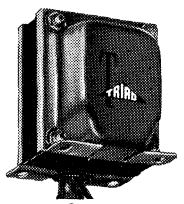
REPLACEMENT OUTPUT TRANSFORMERS
Single Tube To Standard Voice Coil 3-4 Ohms

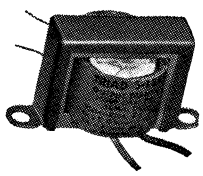
Type No.	Primary Impedance	D.C. Ma	Audio Watt
S-20X	2000	50	2-3
S-20Z	2000	50	2-3
S-2X	2000	55	3-5
S-12X	2500	50	2-3
S-12Z	2500	50	2-3
S-1X	2500	60	3-5
S-50X	2500	60	4-6
S-16X	3000 5% Tap	50	2-3
S-30X	3000	60	3-5
S-67X	3200	60	4-6
S-4X	3000	70	5-8
S-14Z	4000	50	2-3
S-41X	4000	50	3-5
S-41Z	4000	50	3-5
S-6X	5000	35	2-3
S-6Z	5000	35	2-3
S-3X	5000	40	3-5
S-5X	5000	50	5-8
S-5Z	5000	50	5-8
S-48X	6500	35	2-3
S-48Z	6500	35	2-3
S-49X	6500	35	3-5
S-7X	7500	30	3-5
S-9X	7500	50	5-8
S-9Z	7500	50	5-8
S-8X	8000	30	2-3
S-8Z	8000	30	2-3
S18X	8000	45	4-6
S-18Z	8000	45	4-6
S-11X	10000	30	2-3
S-11Z	10000	30	2-3
S-17X	10000	30	3-5
S-10X	10000	45	4-6
S-40X	14000	5.5	¼
S-38X	16000	15	2-3
S-38Z	16000	15	2-3
S-37X	25000	4.0	¼
S-13X	25000	10	2-3
S-13Z	25000	10	2-3

REPLACEMENT PUSH-PULL OUTPUT TRANSFORMERS
Push-Pull Tubes To Voice Coil 3-4 Ohms

Type No.	Impedance	D.C. MA. Each Side	Audio Watts
S-39X	12000 CT.	30	3-4
S-64X	6000 CT.	40	4-6
S-15X	10000 CT.	35	7-10
S-19Z	10000 CT.	50	10-14
S-68Z	3000/3800 CT.	90	15-18
S-69Z	5000 CT.	60	15-18
S-21A	8000 CT.	55	15-18
S-21Z	8000 CT.	55	15-18


Case Z


Case A


Case X

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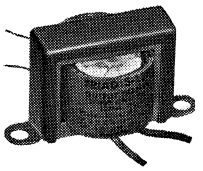
AUDIO

LOW LEVEL OUTPUT Transformers

Type No.	Application	Freq. Resp.	Pri. Imped.	Second. Imped.
A-51X	Tube to line.	300-3000	7000	50
A-53X	Single or p.p. tubes to line.	70-7000	18000 CT.	600/250/50
A-55J	Parallel-fed 6J5 or 6SN7 to line. 45 db. shielding	30-15000	15000	600/250/50
A-65J	Parallel-fed 6J5 or 6SN7 to line. 45 db. shielding.	30-15000	15000	600/150 Split winding
S-58X	Line to line.	300-3000	600/150	600/150 —Split windings—
A-67J	Line to line. 45 db. shielding.	30-15000	600/150	600/150 —Split windings—



Case X

SPLATTER Chokes

Type No.	Inductance Henries	Current Ma.	Res. Ohms	Wt. Lbs.
C-26X	Tapped to 1.5	100	95	1¼
C-43X	Tapped .05 to 1	300	40	2

UNIVERSAL OUTPUT Transformers
Single Or Push-Pull Tubes To Voice Coil

Case J

Type No.	Application	Impedance	DC MA	Audio Watts
S-62X	Single or P.p. plates	2000-10000	30	2
S-52X	Single or p.p. plates	4000-24000	30	4
S-51X	Single or p.p. plates	4000-14000	35	5
S-63X	Single or p.p. plates	1500- 7000	50	6
S-54X	Single	1500- 5000	70	8
S-53X	Single or p.p. plates	4000-14000	40	8
S-55X	P.p. plates	4000-14000	40	10
S-55Z	P.p. plates	4000-14000	40	10
S-56Z	Single	1500- 6000	85	12
S-59Z	P.p. plates	1500- 4000	65	15
S-57Z	P.p. plates	4000-14000	55	15
S-61Z	P.p. plates	4000-10000	60	20

Case P

PLUG-IN INPUT Transformers

Type No.	Application	Pri. Imped.	Second Imped.	Freq. Resp.	Shld'g
A-202P	Same as above.	200/50 CT. △	36,000	20-20000	90 db.
HS-273P	Same as above	200/50 CT. △	80,000	30-30000	70 db.
A-210P	Stereo Isolation	1:1 ratio	30,000	20-20000	45 db.

△ Split Winding

INTERSTAGE Transformers
Plate to Grid

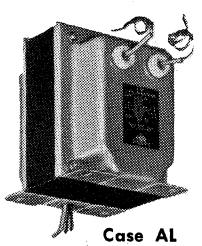
Type No.	Application	Freq. Resp.	Pri. Imped.	Second Imped.	Ratio
A-31X	Plate to single or p.p. grids	300-3000	10000	90000CT	1 : 3
A-33X	Plate to single or p.p. grids	70-7000	10000	90000CT	1 : 3
A-42Z	Multi-ratio single or p.p. plates to single or p.p. grids.	70-7000	15000 CT.	135000C.T. or 33750	1 : 1.5 1 : 3 1 : 6
A-35A	Plate to single or p.p. grids	50-10000	10000	90000CT	1 : 3
A-40J	Parallel-fed 6J5 or 6SN7. Plate to p.p. grid 45 db. shielding.	30-15000	15000	115000CT	1 : 2.76

MODULATION Transformers
Tube to RF Load

Type No.	Primary	Freq. Resp.	Secondary Impedance	Secondary Ma.	Aud. Wtts.
TY-65Z	32 CT. (575 Ma.) (Transistor use)	70-15000	3000-4000-6000	100	10
M-4Z	5000 (Auto-former).	300-3000	6750 4	100 (total)	10
M-1X	10000 CT. for 19, 1J6, 6N7, 6A6, etc.	300-3000	5000-8000-10000	50	5
M-3X	10000 CT. for 6N7, 6A6, 6F6's, etc.	300-3000	3000-5000-8000	100	20
TY-66A	6 CT. (5A) (Transistor use)	300-3000	3000-4000-6000	200	40
†M-7AL	4250 CT. for 807's	300-3000	3000-5000-8000	200	60
†M-12AL	Multi-match	300-3000	4000 to 20000	300	125

DRIVER Transformers

Type No.	Driver Tubes	Output Tubes	Frequency Response	Ratio Primary ½ Sec.	Primary D.C. Ma.
A-81X	30, 1H4, etc.	19, 30's, 1J6, etc.	200-20,000	2.66:1	15
A-83X	6F6, 42, 45, etc.	6L6, 6F6, 6V6, 807, etc.	70-7000	1.33:1	40
A-85X	6F6, 42, 45, etc.	6L6, 6F6, 6V6, 807, etc.	50-10000	2.66:1	40
A-89A	P.p. plates to class B or AB grids—Universal 15 watt.	Any class B or AB tubes. 100-500 watts output	50-10000	3.1 or 1.8:1	100 per side
TY-61X	Transistor use		70-10000	1:0.5	100
TY-158X	Transistor use, dual secondaries		20-20,000	1.5:1:1	50
TY-159X	Transistor use, dual secondaries		20-20,000	3:1:1	50
TY-160X	Transistor use, dual secondaries		20-20,000	6:1:1	50



Case AL

†Plate leads out side

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OUTPUT Transformers
Tube to Voice Coil and Line

Type No.	Tubes	Pri. Imped.	Sec. Imped.	DC Pri.	Audio Watts
S-27A	2A3, 6A3, 6B4, 6L6, 6U6, 6Y6, 12A5, 25B6, 35B5, 50A5.	2500	500/16/8/4	80	8
S-28X	2A5, 6AC5, 6B5, 6F6, 6K6, 7B5, 14A5, 25AC5.	7500	500/16/8/4	40	5
S-29X	6AQ5, 6AS5, 6V6, 7C5, 25A6, 25B5, 25L6, 25N6, 35A5, 35L6.	5000	500/16/8/4	45	5
S-22A	P.p. 2A3, 6B4, 6A5, 6L6, etc.	5000 CT.	500/16/8/4	100 (bal.)	15
S-24A	P.p. 6V6, 7C5, 6K6, 6F6, etc.	8000 CT.	500/16/8/4	80 (bal.)	15
S-60A	P.p. 6L6, 5881, 807, etc.	6600 CT.	500/250/16/8/4	120 (bal.)	35

70.7 volt Line to Voice Coil

Type No.	Primary Impedance	Sec. Imped.	Output Watts	Freq. Resp.
S-70Z	Autoformer 16000/8000/4000/2000/1000.	8/4	5	40-15000
S-71Z	Autoformer 4000/2000/1000/500.	16/8/4	10	40-20000
S-25Z	Autoformer 4000/2000/1000/500.	8/4	10	30-20000
SR-45Z	Autoformer 4000/2000/1000/500.	16/8/4	10	20-20000
SR-74K	Weatherproof autoformer 4000/2000/1000/500.	16/8/4	10	20-20000
S-72Z	Autoformer 2000/1000/500/250.	16/8/4	20	40-20000

70.7 volt Line to Voice Coil (Cont.)

Type No.	Primary Impedance	Sec. Imped.	Output Watts	Freq. Resp.
S-46A	Autoformer 2000/1000/500/250.	16/8/4	20	20-20000
S-75K	Weatherproof autoformer 2000/1000/500/250.	16/8/4	20	20-20000
S-78Z	Isolation 4000/2000/1000/500.	16/8/4	10	40-20000
S-79Z	Isolation 2000/1000/500/250.	16/8/4	20	40-20000
S-47Z	10K/5K/2.5K/1250/625	16/8/4	8	20-20000
S-73X	Isolation 16K/8K/4K/2K/1K	16/8/4	5	40-15000

25 VOLT LINE TRANSFORMERS

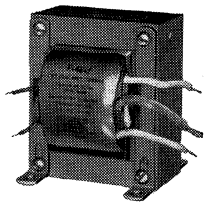
Type No.	Primary Matching Impedance	Secondary Load Impedance	Output Watts
S-131X	1250/625/312	8/4	2
S-132X	1000/500/250/125	16/8/4	5
S-133Z	500/250/125/62.5	16/8/4	10

MATCHING TRANSFORMERS FOR 25 OR 70.7 VOLT LINE

S-129Z	70.7V line to 25V line or, 25V line to 70.7V line	30	20-15000
S-130Z	70.7V line to 25V line or, 25V line to 70.7V line	10	20-15000

Special TRANSCEIVER Transformers
(Voice Frequencies)

Type No.	Application	Primary Impedance	Secondary Impedance
A-21X	S.B. mike or plate to grid (2 primaries)	100 10000	100000
A-23X	Tube to line and hi-impedance phones.	10000	50 and 2000



Case U

INSTRUMENTATION GEOFORMERS

LOW FREQUENCY TRANSISTOR TRANSFORMERS

Type No.	Impedance Ohms Pri.	Impedance Ohms Sec.	Turns Ratio	Min. pri. Ind. @ 100MV—60 cy. With No Unbalanced D.C. Current	D. C. Resistance (Ohms) Pri.	D. C. Resistance (Ohms) Sec	Frequency Response in Cycles Primary Signal of 1 Volt Unbalanced D.C. Secondary Current of 1 Ma. —3DB	1 Ma. —1DB	2 Ma. —3DB	2 Ma. —1DB	3 Ma. —3DB	3 Ma. —1DB	5 Ma. —3DB	5 Ma. —1DB	Shielding	Case Mtg.	Wt.
G-18	1000 or 250	125 or 31	2:83:1	60.	500	44	5 to 20000	8 to 7000	5 to 20000	8 to 7000	6 to 20000	9 to 7000	7 to 20000	10 to 7000	P1-H	GP-1F	3.2 oz.
G-19	1000 or 250	1000 or 250	1:1	65.	540	230	12 to 7000	15 to 3800	12 to 7000	15 to 3800	12 to 7000	15 to 3800	20 to 7000	40 to 3800	P1-H	GP-2L	5¼ oz.
G-30	1000 CT.	2500 CT.	1:1.58	20.	350	1800	20 to 8000	40 to 4200	22 to 8000	45 to 4200	40 to 8000	75 to 4200	70 to 8000	160 to 4200	P1	GP-1F	3.2 oz.

CHOPPER INPUT TRANSFORMERS

Triad Chopper Input Transformers provide exceedingly close balance between the two halves of the primary winding . . . minimum noise in microvolt ranges of input signals is assured with Triad's special core treatment techniques. For demanding transistor and tube applications, Triad's special design capabilities have an outstanding record. For special applications, consult Triad.

Type No.	Turns Ratio	Minimum Primary Inductance @ 1V—60	Maximum Primary Volts @ 60	Primary Matching Impedance In Ohms	Secondary Matching Impedance In Ohms	D.C. Resistance Primary In Ohms	D.C. Resistance Secondary In Ohms	Stray Fields Shield	Case and Mounting	Weight
G-20‡	1:8	120 h.	25	10,000 CT or 2500	640,000 CT	370	21,000	P5-H	GP-4T	11½ oz.
G-21‡ G-21TS‡	4:1	1200 h.	84	20,000 CT	12,500 CT	4000	1300	P1-H P5-H	GP-2L GP-4T	5¼ oz. 11½ oz.
G-22‡	1:4	1000 h.	90	50,000 CT	800,000 CT	2200	19,000	P5-H	GP-5W	1 lb.
G-23‡	6.32:1	1000 h.	75	40,000 CT	1000 CT	4400	160	P1-H	GP-2L	5¼ oz.
G-24‡	1:1	400 h. Low capacity coupling less than .02 $\mu\mu$F between windings.	19.5	40,000 CT	40,000 CT	1625	1625	P5	GP-5S	1 lb.
G-25‡ G-25TS‡	2:1	800 h.	70	40,000 CT or 10,000 CT	10,000 CT	3200	2200	P1-H P5-H	GP-2L GP-4T	5¼ oz. 11½ oz.

‡Static Shield

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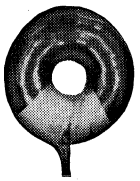
TOROIDS

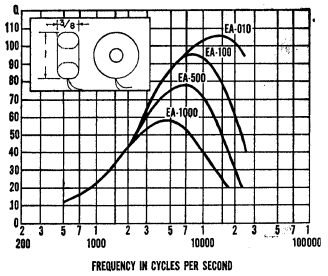
Triad toroids may be ordered with standard leads in strong plastic coating, or epoxy molded encapsulated per Specification MIL-T-27A; TF5RX20ZZ. To specify molded toroids with gold-plated fixed terminals, an "A" should be added to the full type number; for example, EM-001A.

A

TOROIDS

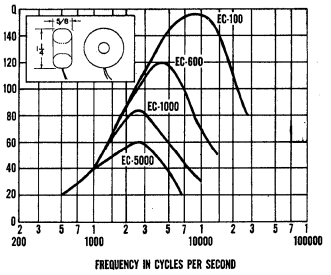


EA SERIES



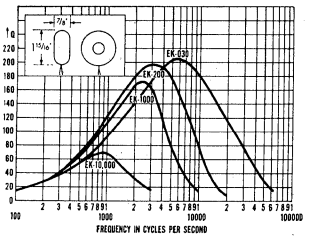
Type No.	Ind.	Res-Ohms Average	D.C.-Ma. for 5% Ind. drop
EA-001	1 mh	.40	270
EA-002	2 mh	.58	192
EA-003	3 mh	.73	157
EA-004	4 mh	.85	135
EA-005	5 mh	1.20	121
EA-007	7 mh	1.42	102
EA-010	10 mh	2.20	86
EA-015	15 mh	3.40	70
EA-020	20 mh	5.05	60
EA-025	25 mh	5.80	54
EA-030	30 mh	7.90	50
EA-040	40 mh	11.40	43
EA-050	50 mh	12.80	38
EA-070	70 mh	19.00	32
EA-100	100 mh	30.00	27
EA-150	150 mh	46.00	22
EA-200	200 mh	52.00	19
EA-250	250 mh	73.00	17
EA-300	300 mh	80.00	16
EA-400	400 mh	115.00	14
EA-500	500 mh	126.00	12
EA-600	600 mh	178.00	11
EA-700	700 mh	193.00	10
EA-1000	1000 mh	297.00	8.6

EC SERIES



Type No.	Ind.	Res-Ohms Average	D.C.-Ma. for 5% Ind. drop
EC-001	1 mh	.40	520
EC-002	2 mh	.56	368
EC-003	3 mh	.70	300
EC-004	4 mh	.82	260
EC-005	5 mh	.92	233
EC-007	7 mh	1.05	195
EC-010	10 mh	1.30	165
EC-015	15 mh	1.60	134
EC-020	20 mh	1.85	116
EC-030	30 mh	2.85	95
EC-040	40 mh	4.20	82
EC-050	50 mh	4.60	74
EC-070	70 mh	4.60	74
EC-100	100 mh	8.00	52
EC-200	200 mh	25.00	37
EC-250	250 mh	28.00	33
EC-300	300 mh	38.20	30
EC-400	400 mh	44.00	26
EC-500	500 mh	63.50	23
EC-600	600 mh	71.00	21
EC-700	700 mh	80.00	19.5
EC-1000	1000 mh	113.00	16.5
EC-1500	1500 mh	175.00	13.5
EC-2000	2000 mh	243.00	11.6
EC-3000	3000 mh	370.00	9.5
EC-4000	4000 mh	435.00	6.2
EC-5000	5000 mh	645.00	7.4
EC-7000	7000 mh	780.00	6.2
■EC-10000	10000 mh	1190.00	5.2

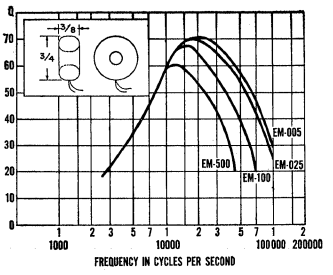
EK SERIES



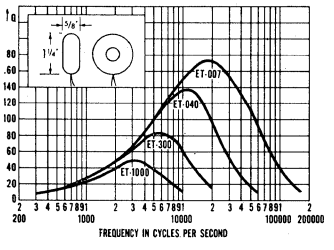
Type No.	Ind.	Res-Ohms Average	D.C.-Ma. for 5% Ind. drop
EK-010	10 mh	.92	262
EK-020	20 mh	1.30	184
EK-030	30 mh	1.65	150
EK-040	40 mh	1.90	130
EK-050	50 mh	3.50	116
EK-060	60 mh	4.00	106
EK-080	80 mh	4.60	92
EK-100	100 mh	5.20	82
EK-120	120 mh	5.50	75
EK-150	150 mh	6.20	67
EK-200	200 mh	7.50	58
EK-250	250 mh	10.30	52
EK-300	300 mh	12.00	47
EK-400	400 mh	16.50	41
EK-500	500 mh	23.60	37
■EK-700	700 mh	30.00	31
EK-1000	1000 mh	45.00	26
EK-1500	1500 mh	67.00	21
EK-2000	2000 mh	100.00	18.4
EK-2500	2500 mh	108	16.5
EK-3000	3000 mh	151	15
EK-4000	4000 mh	175	13
EK-5000	5000 mh	250	11.6
EK-7000	7000 mh	380	9.8
EK-10000	10000 mh	500	8.2
EK-20000	20000 mh	1000	5.8
EK-30000	30000 mh	1500	4.1
EK-40000	40000 mh	1850	4.1

Type No.	Ind.	Res-Ohms Average	D.C.-Ma. for 5% Ind. drop
EM-001	1 mh	2.8	150
■EM-002	2 mh	4.1	108
EM-003	3 mh	5.1	87
EM-004	4 mh	6.0	76
EM-005	5 mh	6.8	68
EM-007	7 mh	8.2	57
EM-010	10 mh	10	48
EM-015	15 mh	12.5	39
EM-020	20 mh	14.5	34
EM-025	25 mh	16.5	30
EM-030	30 mh	18	27.6
EM-040	40 mh	27	24
EM-050	50 mh	30	22
EM-060	60 mh	40	19.5
EM-070	70 mh	43	18
EM-100	100 mh	66	15
EM-150	150 mh	100	12.5
EM-200	200 mh	115	11
EM-250	250 mh	167	9.6
EM-300	300 mh	180	8.8
EM-400	400 mh	265	7.6
EM-500	500 mh	295	7
EM-700	700 mh	440	5.8
EM-1000	1000 mh	650	4.8

EM SERIES



ET SERIES



Type No.	Ind.	Res Ohms Approx.	D.C.-Ma. for 5% Ind. drop
ET-001	1 mh	.57	680
ET-002	2 mh	.82	480
ET-003	3 mh	.98	396
ET-004	4 mh	1.10	342
ET-005	5 mh	1.35	306
ET-007	7 mh	1.50	260
ET-010	10 mh	2	217
ET-015	15 mh	3	177
ET-020	20 mh	4.3	153
ET-025	25 mh	4.8	137
ET-030	30 mh	6.9	125
ET-040	40 mh	7.2	108
ET-050	50 mh	8	97
ET-060	60 mh	15.5	88
ET-070	70 mh	16.8	82
ET-100	100 mh	26.0	68
ET-150	150 mh	38.5	56
ET-200	200 mh	44.5	48
ET-250	250 mh	64	43
ET-300	300 mh	72	40
ET-400	400 mh	103	34
ET-500	500 mh	118	31
ET-700	700 mh	173	26
ET-1000	1000 mh	245	22

■Discontinued item, available until stock depleted.

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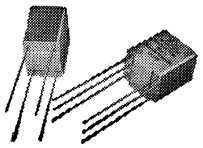
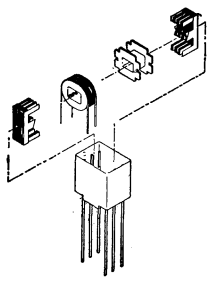
RED SPEC TRANSISTOR TRANSFORMERS

Type No.	Application Type	MIL-T-27A Designation	Primary Impedance	D.C. Res. Pri. Ohms	Max. Unbal. Pri. D.C. Ma.	Secondary Impedance	Max. Power MW
SP-4	Input	TF5RX16ZZ	200000 c.t.	5300	0	1000 c.t.	10
SP-5	Input	TF5RX16ZZ	50000 c.t.	3800	0	1000 c.t.	25
■SP-7	Input	TF5RX16ZZ	200000	5300	0	1000	10
SP-11	Interstage	TF5RX13ZZ	25000	1700	.5	1000	40
SP-13	Interstage	TF5RX13ZZ	25000 c.t.	1700	.5	1000 c.t.	40
SP-15	Interstage	TF5RX13ZZ	10000 c.t.	1050	1	1500 c.t.	50
SP-20	Driver	TF5RX13ZZ	10000 c.t.	1050	1	1200 c.t.	50
SP-21	Driver	TF5RX13ZZ	10000 c.t.	1050	1	2000 c.t.	50
SP-22	Driver	TF5SX13ZZ	10000	1050	1	2000 c.t./500†	50
SP-29	Driver	TF5RX13ZZ	10000 c.t.	1050	1	500 c.t.	50
*SP-32	Output	TF5RX17ZZ	500	60	3	50	50
SP-33	Output	TF5RX17ZZ	1000	145	3	50	50
SP-34	Output	TF5RX17ZZ	600	70	3	3.2	50
SP-35	Output	TF5RX13ZZ	1200	120	2	3.2	50
SP-36	Output	TF5RX13ZZ	10000	1160	1	3.2	50
SP-42	Output	TF5RX17ZZ	150 c.t.	18	10	12	50
■SP-43	Output	TF5RX17ZZ	300 c.t.	38	7	12	50
■SP-44	Output	TF5RX17ZZ	600 c.t.	75	4.5	12	50
■SP-46	Output	TF5RX17ZZ	1000 c.t.	120	3.5	12	50
SP-47	Output	TF5RX13ZZ	1500 c.t.	180	3	12	50
SP-47	Output	TF5RX13ZZ	7500 c.t.	820	1	12	50
SP-49	Output	TF5RX17ZZ	300 c.t.	37	7	600	50
SP-50	Output	TF5RX17ZZ	500 c.t.	60	3	600	50
SP-51	Output	TF5RX17ZZ	900 c.t.	100	4	600	50
SP-52	Output	TF5RX13ZZ	1500 c.t.	170	3	600	50
■SP-59	Output	TF5RX17ZZ	120 c.t.	15	10	3.2	50
■SP-60	Output	TF5RX17ZZ	320 c.t.	40	6	3.2	50
■SP-61	Output	TF5RX17ZZ	600 c.t.	70	4.5	3.2	50
■SP-62	Output	TF5RX17ZZ	800 c.t.	100	4	3.2	50
SP-63	Output	TF5RX13ZZ	1200 c.t.	125	3	3.2	50
■SP-64	Output	TF5RX13ZZ	1600 c.t.	190	2.5	3.2	50
SP-65	Output	TF5RX13ZZ	8000 c.t.	820	1	3.2	50
SP-66	Output Isolation	TF5RX13ZZ	10000 c.t.	1000	1	10000 c.t.	50
SP-67	Output Isolation	TF5RX17ZZ	600 c.t.	73	3	600 CT.	50
SP-68	Output Isolation	TF5SX13ZZ	10000	1000	1	10000 c.t./2500†	50
SP-69	Output Isolation	TF5SX17ZZ	600	72	3	600 c.t./150†	50
SP-70	Output Isolation	TF5RX17ZZ	600	73	3	600	50
SP-106	Choke	TF5RX20ZZ	6 hy.	1700	2		
SP-107	Choke	TF5RX20ZZ	1.25 hy.	180	2		
SP-108	Choke	TF5RX20ZZ	3.5 hy.	1100	2		
■SP-117	Choke	TF5RX20ZZ	.9HY	110	2	—	—
SP-118	Choke	TF5RX20ZZ	.3 hy.	42	4		
SP-128	Choke	TF5RX20ZZ	.1HY	15	5	—	—
SP-310	Magnetic shielding case						

CT For Center Tap. †Split secondary. ■Discontinued item.





Sub-miniature Encapsulated TOROIDAL INDUCTORS

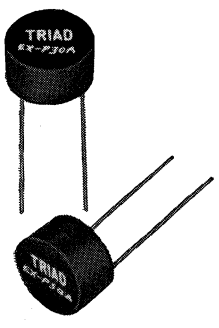
Triad sub-miniature toroidal inductors, designed for quick, easy printed-circuit board mounting, are now stocked for immediate delivery in a range of standard ratings from 50 micro-henries to 500 milli-henries. Many uses, especially in airborne telemetering applications incorporating Triad's sub-miniature filters FL-384 through FL-388. Case size of units is 7/16 inch diameter by 1/4 inch high. Providing an optimum combination of high Q and extremely small-size, this series is ideal for printed board, transistor or vacuum tube application.

Triad sub-miniature inductors are toroidally wound on permalloy powdered cores. Encapsulated in high temperature epoxy resin. Weldable or solderable leads of gold plated nickel alloy. Highly resistant to severe acceleration, shock or vibration. Manufactured to MIL-T-27A, Grade 5 Class S (MIL type TF5SX20ZZ).

NOTE: Ma. DC maximum is for approximately 5% drop in inductance. Those figures marked * will give less than 5% inductance drop but should not be exceeded under operating conditions.

Inductance tolerance of EX-P05A through EX-P50A is ±5%; EX-001A through EX-500A is ±2%.

Cat. No.	Inductance (0 DC)	DCR (ohms) ±25%	Maximum Ma. DC
EX-P05A	50 μh	1.0	150*
EX-P10A	100 μh	1.4	150*
EX-P20A	200 μh	1.9	150*
EX-P30A	300 μh	2.3	150*
EX-P50A	500 μh	3.0	150*
EX-001A	1 mh	4.3	150*
EX-002A	2 mh	8	110
EX-003A	3 mh	6.5	60
EX-005A	5 mh	11	47
EX-010A	10 mh	15.6	33
EX-020A	20 mh	28	23
EX-030A	30 mh	42	19
EX-050A	50 mh	48	14
EX-100A	100 mh	86	10
EX-200A	200 mh	139	6
EX-300A	300 mh	206	5
EX-400A	400 mh	310	4.5



Prices subject to change without notice. Net prices shown for 1-9 quantity. For 1 to 249 pieces, see your stocking Triad Distributor for quantity discount schedule. For 250 or more pieces, contact your Triad Representative or call the factory.

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TRIAD DISTRIBUTOR DIVISION

A DIVISION OF LITTON INDUSTRIES

PRICE INDEX BY TYPE NUMBER

Triad No.	Sugg'd Resale Price
A-1X	2.97
A-3X	3.32
A-4X	4.15
A-5X	4.28
A-6X	3.25
A-7J	4.95
A-9J	10.00
A-10J	9.43
A-11J	9.64
A-12J	9.95
A-13J	9.35
A-21X	3.53
A-23X	2.85
A-31X	3.90
A-33X	4.85
A-35A	6.18
■A-39A	8.65
A-40J	9.82
■A-41J	9.24
A-42Z	5.13
A-50J	6.55
A-51X	3.33
A-52J	6.80
A-53X	4.08
■A-54X	2.73
A-55J	9.47
A-571	9.12
■A-58J	7.73
†A-61J	9.52
■A-64J	6.30
A-65J	9.69
A-66J	8.65
A-67J	9.77
A-68J	9.07
A-69J	8.34
A-70J	6.45
A-75J	5.85
A-77J	8.39
■A-78J	8.42
A-79J	8.32
A-81X	3.23
A-83X	3.75
A-85X	4.12
A-89A	8.55
■A-91A	8.45
A-95X	3.08
A-96X	3.67
A-97K	4.28
A-97X	3.05
A-97Y	4.70
■A-97Z	3.38
A-98K	5.10
A-98X	2.68
A-99X	4.65
A-101U	6.00
A-102X	4.07
A-103X	3.93
A-104X	4.73
A-105X	3.93
A-107X	5.68
A-108X	4.52
A-109X	4.82
A-110X	4.08
A-111X	3.98
A-112X	4.43
A-113X	4.27
A-113Z	3.43
A-114X	4.90
A-115X	4.35
A-115Z	3.40
A-116X	3.82
■A-117X	4.08
A-118X	4.53
A-119X	5.20
■A-120X	3.05
A-120Z	2.83
A-122X	2.72
A-122Z	2.72
A-131X	3.85
A-132X	6.63
A-133X	4.32
A-134X	4.50
A-135X	4.75
A-136X	3.98
A-137X	4.07
A-138X	3.15
A-139X	4.98
A-140X	5.07
A-141X	4.08
A-142X	4.48
A-143X	3.53
A-144X	4.53
A-146X	4.57
A-300X	5.55
A-301X	5.13
A-302X	5.33
A-304X	5.95
A-305X	6.17
■A-200P	15.00
A-202P	20.85
A-210P	10.86
C-1X	2.35
C-2X	2.07
C-3X	2.75
C-4X	2.30
C-5X	3.28
C-6X	2.73
C-7X	3.48
C-8X	3.38
C-9X	2.90
C-10X	4.13
C-11X	3.62
C-12A	6.00
C-12X	4.32
C-13X	4.55
C-14A	6.48
C-14X	4.75
C-15A	6.27
C-15X	4.58
C-16A	8.25
C-17X	3.77
C-18A	9.80
C-19A	12.30
C-20A	13.65
C-21X	3.15
C-22A	22.50
C-23X	3.67
C-24X	2.68
C-25A	6.10
C-26X	3.55
C-27X	2.50
C-28X	3.57
C-29X	3.80
C-30X	3.00
C-31A	8.13
C-32AL	13.00
C-33A	12.22
C-34X	2.68
C-35A	13.98
C-36X	2.42
C-38AL	24.73
C-39A	23.34
C-40X	3.15
C-42AL	12.62
C-43X	4.77
■C-45AL	30.74
C-47U	7.60
C-48U	9.55
C-49U	14.69
C-50X	6.53
†C-56X	3.90
†C-57U	6.05
†C-58U	8.53
†C-59U	9.63
†C-60U	17.12
C-80U	36.97
CE-1	9.92
CE-4	11.50
†CE-5	10.85
CL-1	.60
D-2	6.90
D-11	10.22
D-14R	7.80
D-19	9.01
DA-20	4.75
D-22	7.80
D-27	7.82
D-28	6.57
D-33	7.14
D-36	3.77
DA-37	2.49
D-40	9.95
■D-41	6.28
D-42	8.92
D-43	7.82
D-44	6.65
D-45R	6.40
D-46	9.32
D-47R	7.50
D-48	7.12
■D-49	9.32
D-50	8.63
D-52	4.98
D-53	8.67
D-54	5.10
D-55	9.55
D-56	8.07
D-57	9.15
D-58	6.63
D-59	7.35
D-60R	6.43
D-61	5.55
D-62	5.82
D-63	6.40
D-64	7.50
D-65	9.25
D-66	9.60
D-67	9.98
D-68	10.15
D-69	7.28
D-70	8.40
D-71	7.20
D-72	8.27
D-73R	8.57
D-74	7.14
D-75	8.40
D-76R	9.02
D-77R	9.47
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D-79	7.57
D-80	7.95
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D-82	9.32
D-83R	5.95
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D-89R	9.55
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D-97R	10.30
D-98R	10.57
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D-107	8.44
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D-109	6.90
D-110	8.28
D-111	8.10
D-112	8.62
D-113	8.57
D-114	9.35
D-115R	7.17
D-116	10.94
D-117	7.02
D-118R	8.40
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D-122	7.30
D-123	7.88
D-124	6.67
D-125	7.62
D-126	9.87
D-127	7.44
D-128	2.53
D-129	6.82
D-130R	6.47
D-131	9.58
D-132	7.77
D-133	9.12
D-134	7.58
D-135	2.02
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D-137	7.23
D-138	7.68
D-139	7.42
D-141	7.50
D-142	12.89
D-143	8.60
D-151R	7.42
D-152	8.83
D-153 Kit	9.92
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D-169	8.40
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†D-223	11.10
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D-609	6.82
D-610	7.80
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D-613	7.77
D-614	8.34
D-615	6.68
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D-623	8.40
D-624	8.80
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D-632	7.86
D-638	7.72
†D-639	7.00
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EA-001A	5.70
EA-002	3.32
EA-002A	5.73
EA-003	3.33
EA-003A	5.75
EA-004	3.35
EA-004A	5.77
EA-005	3.37
EA-005A	5.78
EA-007	3.37
EA-007A	5.78
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EA-010A	5.80
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EA-015A	5.90
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EA-020A	5.92
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EA-025A	6.08
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EA-250A	6.58
EA-300	3.88
EA-300A	6.63
EA-400	3.97
EA-400A	6.72
EA-500	4.08
EA-500A	6.83
EA-6000	4.17
EA-600A	6.92
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EA-1000A	7.10
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EC-004A	6.03
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EC-005A	5.73
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EC-015A	6.23
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EC-030A	5.92
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EC-070	4.13
EC-070A	6.63
EC-100	4.18
EC-100A	6.92
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EC-500A	6.93
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EC-1500A	7.57
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EC-5000A	8.32
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EK-020A	8.92
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EK-030A	8.95
EK-040	5.82
EK-040A	9.00
EK-050	5.87
EK-050A	9.00
EK-060	5.93
EK-060A	9.09
EK-080	5.98
EK-080A	9.24
EK-100	5.92
EK-100A	9.45
EK-120	6.13
EK-120A	9.40
EK-150	6.20
EK-150A	9.55
EK-200	6.27
EK-200A	9.55
EK-250	6.40
EK-250A	9.74
EK-300	6.57
EK-300A	9.85
EK-400	6.70
EK-400A	10.00
EK-500	6.77
EK-500A	10.07
EK-700	6.85
EK-700A	10.17
EK-1000	7.15
EK-1000A	10.24
EK-1500	7.05
EK-1500A	10.37
EK-2000	7.08
EK-2000A	10.44
EK-2500	7.15
EK-2500A	10.54
EK-3000	7.25
EK-3000A	10.57
EK-4000	7.35
EK-4000A	10.67
EK-5000	7.47
EK-5000A	10.87
EK-7000	7.58
EK-7000A	10.97
EK-10000	7.74
EK-10000A	11.10
EK-20000	7.87
EK-20000A	11.24
EK-25000	8.00
EK-25000A	11.37
EK-30000	8.28
EK-30000A	11.60
EK-40000	8.44
EK-40000A	11.74
EM-001	3.92
EM-001A	5.60
EM-002	3.93
EM-002A	3.93
EM-003	3.95
EM-003A	5.63
EM-004	3.98
EM-004A	5.67
EM-005	4.03
EM-005A	5.73
EM-007	4.08
EM-007A	5.75
EM-010	4.15
EM-010A	5.80
EM-015	4.23
EM-015A	5.88
EM-020	4.30
EM-020A	5.95
EM-025	4.38
EM-025A	6.00
EM-030	4.45
EM-030A	6.17
EM-040	4.50
EM-040A	6.20
EM-050	4.53
EM-050A	6.22
EM-060	4.55
EM-060A	6.25
EM-070	4.60
EM-070A	6.27
EM-100	4.65
EM-100A	6.33
EM-150	4.73
EM-150A	6.40
EM-200	4.83
EM-200A	6.47
EM-250	4.88
EM-250A	6.57
EM-300	4.93
EM-300A	6.67
EM-400	4.98
EM-400A	6.72
EM-500	5.03
EM-500A	6.73
EM-700	5.10
EM-700A	6.83
EM-1000	5.15
EM-1000A	6.92
ET-001	4.47
ET-001A	6.83
ET-002	4.50
ET-002A	6.92
ET-003	4.52
ET-003A	6.93
ET-004	4.53
ET-004A	6.97
ET-005	4.57
ET-005A	7.00
ET-007	4.60
ET-007A	7.03
ET-010	4.62
ET-010A	7.08
ET-015	4.63
ET-015A	7.10
ET-020	4.65
ET-020A	7.17
ET-025	4.70
ET-025A	7.20
ET-030	4.73
ET-030A	7.25
ET-040	4.80
ET-040A	7.37
ET-050	4.85
ET-050A	7.43
ET-060	4.90
ET-060A	7.50
ET-070	4.92
ET-070A	7.52
ET-100	4.93
ET-100A	7.55
ET-150	4.97
ET-150A	7.58
ET-200	5.00
ET-200A	7.60
ET-250	5.02
ET-250A	7.62
ET-300	5.05
ET-300A	7.62
ET-400	5.07
ET-400A	7.67
ET-500	5.10
ET-500A	7.70
ET-700	5.10
ET-700A	7.70
ET-1000	5.13
ET-1000A	7.75
EX-P05A	8.10
EX-P10A	8.10
EX-P20A	8.10
EX-P30A	8.10
EX-P50A	8.10
EX-001A	8.10
EX-002A	8.10
EX-003A	8.50
EX-005A	8.50
EX-010A	8.72
EX-020A	8.72
EX-030A	9.27
EX-050A	9.27
EX-100A	9.89
EX-200A	10.55
EX-300A	10.77
EX-400A	10.99
F-1X	3.55
F-3X	4.98
F-5U	6.38
F-6X	4.62
F-7X	4.00
F-8X	5.22
F-9A	9.97
F-9U	9.62
F-10U	10.07
F-11U	10.79
F-12X	6.05
F-13X	2.67
F-14X	3.17
F-14Z	3.55
F-15U	9.32
F-16X	3.98
F-17U	12.94
F-18A	7.05
F-18X	5.88
F-19X	6.15
F-20U	9.82
F-21A	9.00
F-22A	12.50
F-23U	7.77
F-24U	8.44
F-25X	3.75
F-26X	4.15
F-27U	13.82
F-28U	18.07
F-29U	12.51
F-30A	9.97
F-32A	7.02
F-34A	8.67
F-36A	11.39
F-38A	11.94
F-40X	3.38
F-41X	4.82
F-42A	7.40
F-43X	4.38
F-44X	3.73
F-45X	3.77
F-47U	8.07
F-48U	9.97
F-49U	16.39
F-50X	5.35
F-51X	5.68
F-52X	4.15
F-53X	5.48
†F-54X	4.87
F-60U	7.10
F-61U	10.17
F-62U	25.24
F-63U	7.05
F-64U	8.79
F-65U	10.17
F-66U	28.94
F-67U	19.52
F-68U	10.55
F-71U	7.72
F-72Z	5.77
F-79U	28.19
F-80U	47.68
F-83A	12.27
F-84AC	22.60
†F-85U	18.73
F-90X	3.77
F-91X	4.45
F-92A	7.73
F-93X	5.48
F-94X	3.72
F-102X	6.33

†New item ■Discontinued item. Available until supply is exhausted

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TRIAD PAGE 13

Net

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TRIAD DISTRIBUTOR DIVISION

A DIVISION OF LITTON INDUSTRIES

PRICE INDEX BY TYPE NUMBER

Triad No.	Sugg'd Resale Price
F-104U	8.65
F-105Z	4.17
F-106Z	5.05
F-107Z	7.50
F-108U	9.97
F-109U	17.89
F-200A	7.22
F-202U	7.23
F-203U	8.89
F-204U	13.10
F-205U	16.67
FL-381	43.90
FL-384	62.25
FL-385	61.42
FL-386	61.42
FL-387	61.42
FL-388	63.62
FL-389	41.39
FL-404	39.00
FL-405	39.00
FL-406	39.00
FL-407	39.00
FL-408	39.00
FL-409	39.00
FL-410	39.00
FL-411	39.00
FL-412	39.00
FL-413	39.00
FL-414	39.00
FL-415	42.00
FL-416	42.00
FL-417	42.00
FL-418	42.00
FL-419	42.00
FL-429	42.00
FL-421	42.00
G-2	33.61
■G-2N3	23.65
G-4	33.44
G-5	31.77
■G-5TS	28.90
G-7	31.69
G-8	39.22
G-10	39.99
G-12	27.84
■G-14	19.60
G-14TS	32.74
G-17	30.84
G-18	23.49
■G-18TS	24.40
G-19	25.11
■G-19TS	24.53
G-20	37.51
G-21	31.69
G-21TS	38.67
G-22	38.12
■G-22H	25.85
G-23	31.22
G-24	33.34
G-25	31.11
G-25TS	38.22
G-30	18.00
G-31	25.69
G-32	32.74
G-33	30.79
■G-34	27.89
G-36	19.79
G-40	29.86
G-40TS	37.27
G-48	18.40
G-48TS	26.69
G-51	22.02
G-51A	22.62
G-53	29.02
■G-53A	20.80
G-54	28.79
G-57	19.62
G-59	31.39
G-64	17.40
G-65	17.40
■G-72	21.20
G-80	31.32
■G-84	21.20
G-85	21.20
G-101	26.22
G-101TS	32.67
G-135	24.02
■G-150	19.60
G-183	29.41
■G-201	19.60
G-202	26.21
G-235	24.17
G-250	22.19
G-255	23.10
G-266	26.61
G-274	26.17
■G-283	24.92
G-284	24.57
G-285	20.00
G-301	20.82
G-306	21.40
G-313	21.77
G-315	21.57
G-335	20.00
G-336	19.74
■G-350	18.91
G-355	18.72
G-388	16.34
■G-389	16.34
■G-391	18.91
■G-394	14.02
■G-401	19.60
G-435	23.89
■G-435TS	25.85
G-437	23.52
■G-437TS	25.85
G-455	23.07
G-500	34.44
G-501	32.84
G-502	35.84
GF-600	36.84
GF-601	47.87
GF-602	33.25
HC-115	29.25
HC-300	38.10
HS-1	25.27
HS-3	31.92
HS-4	28.40
HS-5	22.00
■HS-8	28.58
HS-11	19.05
HS-14	25.59
HS-15	31.92
■HS-23	22.87
HS-25	26.22
HS-27	24.72
HS-29	25.92
HSM-31	27.33
HS-32	26.84
HS-35	19.51
HS-50	25.29
HS-52	26.27
HS-54	25.71
HS-56V	30.19
HS-58	36.64
HS-60	19.32
HS-61	20.64
HS-66	25.71
HS-71	14.10
HS-73	16.75
HS-75	24.39
HS-77	21.20
HSM-79	22.89
HSM-80	24.45
HSM-81	33.92
HSM-82	35.64
HSM-84	34.02
HSM-85R	36.52
■HSM-91	39.33
HSM-94	49.87
■HSM-95	43.65
■HS-97	82.28
■HSM-181	23.60
HSM-182	37.21
HSM-184	30.02
■HSM-186	30.02
HSM-187	44.43
HSM-189	43.14
HSM-190	45.19
■HSM-192	45.04
■HSM-193	45.04
HSM-200	18.20
HSM-201	23.09
HSM-202	17.79
HSM-203	26.34
HSM-205	33.87
HSM-207	36.24
HSM-208	44.49
HSM-212	47.43
HSM-216	54.64
HSM-218	78.78
HSM-219	72.53
HSM-223	11.62
HSM-224	19.94
HSM-225	22.47
HSM-226	19.00
HSM-227	22.42
HSM-228	26.66
HSM-229	24.25
HSM-230	17.35
HSM-231	25.39
HSM-232	33.14
HSM-233	18.97
HSM-234	37.61
HSM-235	50.43
HSM-236	23.15
HSM-237	16.49
HSM-238	30.19
HSM-239	18.67
HSM-240	21.77
HSM-241	44.83
HSM-245	53.51
HS-247	70.53
HSM-248	29.18
†HSM-249	15.25
†HSM-250	17.60
†HSM-251	24.27
†HSM-252	31.16
†HSM-253	47.06
†HSM-254	67.46
HSM-270	26.04
HSM-271	33.87
HSM-272	48.19
HS-273P	19.65
HSM-301	21.10
HSM-302	12.44
HS-303	14.49
HSM-305	16.95
HSM-307	22.65
HSM-309	21.82
HSM-315	23.59
HSM-319	33.87
HS-331	9.37
HS-333	10.67
HS-335	14.20
HS-339	16.50
HS-341	17.75
HS-400	15.34
HS-401	23.17
■HS-402	15.96
HS-404	26.47
HS-405	28.56
HS-407	34.32
HS-409	30.87
HS-413	34.82
HS-415	47.21
HS-417	49.44
HS-425	16.34
HS-427	21.19
HS-433	23.34
HS-435	25.54
HS-436	11.75
HS-438	20.59
HS-441	39.47
HS-442	22.34
HS-443	18.69
HS-444	31.32
HS-445	21.89
HS-470	17.97
HS-471	20.75
HS-472	22.09
HS-474	31.77
HS-475	35.92
JAF-1	16.25
JAF-2	15.33
JAF-3	16.25
JAF-5	16.25
JAF-11	16.25
JAF-12	16.25
JAF-13	16.25
JAF-14	16.25
JAF-15	14.57
JAF-21	16.25
JAF-22	16.25
JAF-23	16.25
JAF-24	16.25
JAF-25	16.25
JAF-26	16.25
JAF-31	16 25
JAF-32	16.25
JAF 33	16.49
JAF 34	16.25
JAF-35	16.25
JAF-101	16.25
JAF-102	16.25
JO-1	12.84
JO-2	12.84
JO-3	12.84
■JO-5	12.84
JO-11	12.84
JO-12	12.84
JO 13	12.84
JO 21	12.84
JO-22	12.84
JO-23	12.84
JO-31	12.84
JO-101	12.84
JZ-1	10.83
JZ-5	10.83
■JZ-7	10.83
JZ-13	10.83
JZ-15	10.83
JZ-25	10.83
JZ-26	10.83
K-20 Kit	6.98
K-100	24.00
K-101	27.33
K-102	35.00
K-103	52.00
K-104	82.00
K-105	100.00
†KA-1	2.50
†KA-2	2.50
†KA-3	3.25
M-1X	3.48
M-3X	5.77
M-4Z	4.17
■M-5Z	4.11
M-6X	4.77
M-7AL	11.22
M-8AL	14.77
M-12AL	22.15
■M-15A	9.05
M-16AL	11.34
MB-20	.72
MB-31	.45
MK-1	3.58
MK-2	3.58
MK-3	4.42
MK-4	4.42
N-1X	4.10
N-3M	8.90
N-4M	10.20
N-5M	13.30
N-7M	22.72
N-9M	50.10
N-11M	56.55
N-34X	6.25
N-35M	18.17
N-50M	41.58
N-51X	4.73
N-52M	57.08
N-53M	12.83
N-54M	14.83
N-55M	22.67
N-56M	39.17
N-57M	52.33
N-59M	56.95
N-60SC	119.17
N-62AC	54.30
N-64AC	30.22
N-66A	17.95
N-67A	11.55
N68X	5.88
N-73A	11.28
N-74A	11.67
N-469A	7.35
N-470A	10.62
N-471A	16.92
NW-1	.60
NW-2	.72
NW-3	.78
NW-4	.78
NW-5	.78
NW-6	.72
NW-7	.60
NW-10	.60
NW-14	.78
NW-18	.60
NW-19	.60
NW-21	.67
NW-22	.82
NW-23	.72
NW-24	.72
NW-25	.67
P-1A	9.10
P-3A	11.02
P-5A	14.47
P-7A	15.40
P-9A	27.87
P-11A	13.98
P-14A	21.22
P-15AL	25.50
P-16AL	45.03
P-17AL	25.22
P-18AL	49.48
P-20AL	48.62
PR-21AL	50.67
P-213AL	19.50
P-215AL	21.65
P-216AL	43.32
P-217AL	24.67
P-218AL	48.30
P-220AL	43.33
PL-4	10.05
PL-5	12.13
PL-6	12.13
PL-10	1.78
PL-80E	10.94
■PL-80H	12.14
■PL-80P	11.52
PL-81E	11.47
PL-81H	12.25
PL-81P	11.67
■PL-82E	11.39
PL-82H	12.69
PL-82P	12.02
PL-83E	12.17
PL-83H	12.92
PL-83P	12.27
PL-84E	11.82
PL-84H	13.07
■PL-84P	12.42
■PL-124E	11.39
PL-124H	12.77
PL-139E	9.80
PL-139H	10.88
PL-139M	11.75
PL-140E	11.39
PL-140H	12.77
PL-140M	13.85
PL-146E	11.39
PL-146H	12.72
PL-146M	13.84
R-2C	6.35
R-3A	6.83
R-4A	6.65
R-4B	6.53
R-5A	7.77
R-5B	7.73
R-6A	8.03
R-6B	7.95
R-7A	8.22
R-7B	8.13
R-8A	8.65
R-8B	8.57
R-9A	10.15
R-9B	10.05
R-10A	10.09
R-10B	10.00
R11A	10.77
R-11B	10.70
R-12A	9.64
R-12B	9.64
R-14A	12.67
R-14B	12.67
R-16A	13.87
R-16B	13.87
R-17A	15.27
R-18A	16.13
R-18B	15.92
R-19A	16.45
R-20A	15.95
R-20B	15.64
R-21A	17.28
R-21B	17.00
R-22A	7.90
R-22B	7.80
R-23B	6.45
R-24A	19.65
R-24B	19.65
R-25A	34.01
R-26A	22.29
R-27A	41.21
R-28A	30.09
R-29A	5.92
R-30X	5.45
R-35A	19.09
R-37BC	25.57
R-38A	23.59
■R-38BC	20.45
■R-39A	18.05
■R-39BC	18.90
R-40BC	26.07
R-41C	15.97
■R-42BC	14.49
R-43C	12.49
R-45C	14.99
R-46A	28.51
R-49BC	22.90
R-49BS	21.27
R-50A	26.06
R-50BC	24.60
R-51BC	22.19
■R-52BC	17.15
R-54X	2.72
R-56A	6.55
R-58A	18.39
R-60BC	20.39
R-61BC	22.29
R-62BC	28.42
R-63BC	16.15
R-64BC	18.19
R-64BC	18.19
R-65BC	17.24
R-66BC	18.59
■R-67BC	16.15
R-68A	9.77
R-69BC	17.37
R-70A	11.97
R-71A	18.94
R-72A	12.20
R-73B	8.64
R-74BC	17.99
R-75BA	19.29
R-76BC	19.72
R-77BC	20.27
R-77BS	31.72
R-78BC	18.65
R-79BA	13.19
R-80BA	24.72
R-81BC	24.32
R-81BS	32.09
†R-82B	13.93
R-83A	18.59
R-84K	6.15
R-85A	15.99
R-86BA	12.48
R-87BC	16.62
R-88A	17.92
R-89BC	17.60
R-90BC	18.10
R-91HA	17.82
R-92A	18.15
■R-93A	16.17
R-94H	26.11
R-104A	6.00
R-104B	6.02
R-105A	6.90
R-105B	6.90
R-106A	7.28
R-106B	7.33
R-107A	7.60
R-107B	7.60
R-108A	7.82
R-1088	7.73
R-109A	7.38
R-109B	7.38
R-110A	8.65
R-110B	8.65
R-111A	8.95
R-111B	8.95
R-112A	9.15
R-112B	9.15
R-113A	7.57
R-113B	7.57
R-114A	9.95
R-114B	9.95
R-115A	8.50
R-115B	8.50
R-116A	11.07
R-116B	11.07
R-118A	13.00
R-118B	13.00
R-120A	12.75
R-120B	12.75
R-121A	14.65
R-121B	14.65
R-122A	17.15
R-123HA	16.47
R-124BC	13.84
R-125BC	16.15
R-126A	15.44
R-127A	16.14
R-128BC	17.34
R-129BC	19.00
R-131A	24.25
R-132BC	15.55
R-133A	17.15
R-134A	16.40
R-135BC	18.14
R-136BC	15.84
■R-138A	15.74
■R-139A	15.45
R-200A	16.20
R-201A	15.82
R-202A	15.07
R-203A	14.15
R-204A	14.87
R-205A	14.27
†R-206B	10.48
R-300A	19.00
R-675A	19.00
S-1X	2.70
S-2X	2.45
S-3X	2.60
S-4X	2.98
S-5X	3.32
S-5Z	3.32
S-6X	2.30
S-6Z	2.45
S-7X	2.60
S-8X	2.33
S-8Z	2.47
S-9Z	3.12
S-9Z	3.27
S-10X	2.87
S-11X	2.45
S-11Z	2.45
S-12X	2.37
S-12Z	2.38
S-13X	2.48
S-13Z	2.58
S-14Z	2.47
S-15X	3.27
S-16X	2.28
S-17X	2.43
S-18X	2.33
S-18Z	2.35
S-19Z	4.22
S-20X	2.40
S-20Z	2.40
S-21A	4.72
S-21Z	4.05
S-22A	7.13
S23X	2.37
S-24A	6.77
S-25Z	3.98
S-26X	2.50
S-27A	6.05
S-28X	4.72
S-29X	4.77
S-30X	2.67
S-31A	8.67
S-32A	8.82
S-34X	4.73
S-35A	10.27
S-36A	9.32
S-37X	4.43
S-38X	2.15
S-38Z	2.15
S-39X	2.40
S-40X	3.48
S-41X	2.30
S-41Z	2.05
■S-42A	15.19
SR-45Z	6.40
S-46A	9.67
S-47Z	4.03
S-48X	2.00
S-48Z	2.00
S-49X	2.12
S-50X	2.27
S-51X	3.57
S-52X	4.38
S-53X	4.10
S-54X	4.52
S-55X	5.45
S-55Z	5.57
S-56Z	5.27
S-57Z	5.93
S-58X	3.18
S-59Z	5.72
S-60A	10.24
S-61Z	5.93
S-62X	4.17
S-63X	3.52
S-64X	2.80
S-65X	2.57
S-66X	2.85
S-67X	2.77
S-68Z	3.78
S-69Z	5.35
S-70Z	3.63
S-71Z	5.10
S-72Z	4.20
S-73X	4.00
SR-74K	6.45
■S-75K	11.32
S-76Z	5.23
S-77U	10.22
S-78Z	4.47
S-79Z	4.92
S-129Z	4.95
S-130Z	3.75
S-131X	3.00
S-132X	3.63
S-133Z	5.27
S-142A	10.38
S-144A	15.24
S-146A	15.78
S-148A	15.35

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TRIAD DISTRIBUTOR DIVISION

A DIVISION OF LITTON INDUSTRIES

PRICE INDEX BY TYPE NUMBER

Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price
S-149A	18.35	SP-66	8.48	T-32X	3.35	TY-46X	3.03	TY-86	21.80	WLC-4	1.32	V-21	5.23	Y-60R	9.29
S-152A	19.77	SP-67	7.55	T-33X	4.90	TY-47X	4.55	†TY-87	22.50	WLC-5	1.33	V-21B	5.93	Y-60-1	9.29
■S-154A	21.57	SP-68	8.90	T-34X	3.38	TY-48X	4.02	TY-88	13.02	WLC-6	1.32	V-21K	9.19	Y-60-2	11.49
■S-156A	16.50	SP-69	8.50	T-35X	3.98	TY-49X	3.98	TY-89	12.82	WLC-7	1.35	V-21Z	5.38	Y-62	8.59
■S-158A	25.54	†SP-70	6.95	T-41X	4.62	TY-50X	7.13	TY-90	16.10	WLC-8	1.80	V-23	5.50	Y-62-1	9.40
SP-4	10.50	SP-106	7.07	T-42X	3.90	TY-51X	4.50	TY-91	15.37	WLC-8A	1.80	V-23B	6.65	Y-64	9.15
SP-5	9.95	SP-107	5.98	T-101X	4.02	TY-52X	5.63	TY-92	15.50	WLC-9	1.88	V-23K	8.34	Y-64-1	9.35
■SP-7	9.52	SP-108	6.22	T-102X	2.77	TY-53X	4.20	TY-93	24.77	WLC-10	1.59	V-23Z	5.67	Y-66-1	9.29
SP-11	8.27	■SP-117	6.28	TY-1XT	3.82	TY-54X	5.22	TY-94	22.64	WLC-11	2.05	Y-22	8.42	Y-70	8.94
SP-13	9.07	SP-118	6.02	TY-2Z	4.13	TY-55X	5.22	TY-99	15.10	WLC-12	1.38	Y-22-1	9.09	Y-70-1	9.49
SP-15	8.99	SP-128	5.93	TY-3XT	3.73	TY-56X	3.77	TY-100	23.95	WLC-17	1.41	Y-22-3	9.07	Y-72-1	10.09
SP-20	8.72	SP-310	.84	TY-4XT	3.18	TY-57X	4.07	TY-101	19.39	WLC-21	1.33	Y-24	9.74	Y-81-3	11.62
SP-21	8.77	SX-201	7.44	TY-16XT	1.67	TY-58X	3.78	TY-102	19.75	WLC-23	1.33	Y-24-3	7.00	Y-83-1	9.92
SP-22	9.10	SX-202	7.41	TY-17XT	2.32	TY-59X	6.73	†TY-158X	4.88	WLC-25	1.52	Y-25	5.83	Y-82-1	9.59
SP-29	8.49	SX-203	7.26	TY-23X	5.57	TY-60X	6.32	†TY-159X	4.93	WLC-26	1.62	Y-25-1	6.45	YC-1	.82
SP-32	6.87	SX-204	7.44	TY-24X	5.42	TY-61X	3.49	†TY-160X	5.47	WLC 29	1.85	Y-25-3	6.33	YC-110	1.17
SP-33	7.10	SX-205	7.50	TY-25X	6.17	TY-62X	4.32	TY-200X	7.57	WLC-30	1.68	Y-26-2	8.67	YC-111	1.17
SP-34	6.55	SX-206	7.59	TY-26X	9.17	TY-63X	4.83	TY-201TZ	5.32	WLC-31	1.88	Y-28	7.97	YC-112	1.17
SP-35	6.65	SX-207	7.62	TY-27XT	4.22	TY-64X	4.95	TY-202X	5.77	Y-12	6.52	Y-28-3	8.37	YC-300-1	22.50
SP-36	7.05	SX-208	7.50	TY-28XT	4.67	TY-65Z	4.52	TY-462	16.64	Y-12-1	7.68	Y-30G	8.94	YT-101	8.91
SP-42	7.28	T-1X	4.35	TY-29X	4.95	TY-66A	10.22	TY-468	13.35	Y-12-3	7.23	Y-31G	9.24	YT-102-2	9.09
■SP-43	6.70	T?2X	5.30	TY-30X	3.32	TY-67A	9.89	TZ-1	6.05	Y-17	7.77	Y-40	8.32	YT-103-1	10.00
■SP-44	7.33	T-3X	5.27	TY-31X	3.25	TY-68S	7.52	TZ-2XT	6.38	Y-17-1	6.05	Y-40-3	8.80	YT-106-2	9.80
■SP-46	7.12	T-5X	4.32	TY-32X	3.77	TY-69S	9.49	TZ-5	8.07	Y-17-2	8.65	Y-41	7.63	13125	4.90
SP-47	7.70	T-11X	4.57	TY-33X	3.72	TY-70S	10.10	TZ-7	4.75	Y-17-3	8.54	Y-41-2	9.37	13500-1	6.60
SP-48	7.78	T-12X	5.32	TY-34X	3.60	TY-71S	10.20	TZ-13	6.37	Y-19	8.03	Y-41-3	8.87	†13500-2	8.20
SP-49	7.48	T-13X	5.08	TY-35X	3.17	TY-74S	8.94	TZ-15	4.62	Y-19-1	6.82	Y-42-2	8.73	13510	6.60
SP-50	7.62	T-14X	4.00	TY-36X	3.57	TY-75A	16.54	■TZ-17XT	5.07	Y-19-3	8.22	Y-44	8.75	13510-2	8.20
SP-51	7.67	T-15X	4.12	TY-37X	4.47	TY-76A	10.67	TZ-24XT	5.80	Y-20	7.78	Y-44-1	9.39	13511	14.25
SP-52	7.98	T-20X	4.35	TY-38X	4.30	TY-78	14.72	TZ-25	5.25	Y-20-2	8.90	Y-45	9.15	†13540	6.60
■SP-59	6.88	T-21X	4.17	TY-39X	5.15	TY-79	14.72	TZ-26	4.65	Y-20-3	8.20	Y-45-2	9.90	†13541	6.60
■SP-60	7.00	T-22X	4.00	TY-40X	4.18	TY-80	15.94	■TZ-28	4.08	Y-21	8.50	Y-46	5.95	13600	9.20
■SP-61	6.67	T-23X	4.68	TY-41X	5.13	TY-81	15.19	VR-30Z	4.15	Y-21-1	8.90	Y-46-3	7.57	13600-2	11.50
■SP-62	6.83	T-24X	3.98	TY-42X	4.97	TY-82	14.72	V-31	4.47	Y-21-3	7.05	Y-47	5.98	13751	3.92
SP-63	7.23	T-25X	4.03	TY-43X	4.88	TY-83	21.17	V-31K	6.96	TZ-29XT	4.72	Y-48	6.40	13750	3.92
■SP-64	7.27	T-26X	3.73	TY-44X	4.08	TY-84	21.57	WC-13	1.32	TZ-32XT	4.87	Y-48-3	7.48	13800	1.40
SP-65	7.50	T-31X	4.20	TY-45X	4.12	TY-85	22.94	WLC-3	1.33	TZ-103XT	3.53	Y-49	7.68	13801	1.40

■Discontinued item. Available until supply is exhausted

TRIAD CASES

	GB	HA	HB	JA	JB	KA	KB
A	2 3/8	2 5/8	2 5/8	3 1/16	3 1/16	3 3/8	3 3/8
B	2 3/4	3 1/16	3 1/16	3 5/16	3 5/16	3 15/16	3 15/16
C	2 13/16	4 1/4	3 3/16	4 7/8	3 7/8	5 1/4	4 5/16
D	2 1/8	2 1/64	2 1/64	2 5/8	2 5/8	3	3
E	1 3/4	1 55/64	1 55/64	2 1/8	2 1/8	2 7/16	2 7/16
G	3/8	3/8	3/8	3/8	3/8	1/2	1/2
I	6-32	8-32	8-32	8-32	8-32	10-32	10-32
Wt. (avg.) lbs.	1 3/4	2 1/2	2 1/4	4 1/2	4	7 3/4	7

	LA	LB	MA	MB	NA	NB
A	3 11/16	3 11/16	4	4	4 5/16	4 5/16
B	4 5/16	4 5/16	4 11/16	4 11/16	5 1/16	5 1/16
C	5 5/16	4 1/2	6	4 15/16	6 13/16	5 1/2
D	3 5/16	3 5/16	3 11/16	3 11/16	4 1/16	4 1/16
E	2 11/16	2 11/16	3	3	3 5/16	3 5/16
G	1/2	1/2	5/8	5/8	5/8	5/8
I	10-32	10-32	1/4-20	1/4-20	1/4-20	1/4-20
Wt. (avg.) lbs.	9 1/4	8 1/2	13 1/2	12 1/2	18	16

	AH	AJ	EA	EB	FA	FB	GA
A	1 5/16	1 5/8	1 13/16	1 13/16	2 1/16	2 1/16	2 3/8
B	1 5/16	1 5/8	1 13/16	1 13/16	2 5/16	2 5/16	2 3/4
C	1 3/4	2 3/8	2 3/4	2 7/16	3 1/8	2 1/2	3 13/16
D	1 1/4	1 3/16	1 3/8	1 3/8	1 11/16	1 11/16	2 1/8
E		1 3/16	1 1/4	1 1/4	1 7/16	1 7/16	1 3/4
G	3/8	3/8	3/8	3/8	3/8	3/8	3/8
I	6-32	6-32	6-32	6-32	6-32	6-32	6-32
Wt. (avg.) lbs.	4 oz.	9 oz.	1	15 oz.	1 3/4	1 1/2	2

	AF	AG	AH-2	AJ-2	JZ*†
A	3/4	1	1-5/16	1-5/8	9/16 dia.
B	3/4	1	1-5/16	1-5/8	Round
*†Bw	1-3/64	1-3/32	1-11/32		
C	1-1/8	1-3/8	1-3/4	2-3/8	25/32
D	*27/32	*1-1/32	*1-11/32	*1-5/8	
F	5/8	3/4	7/8	7/8	
I	4/40	6/32	6/32	6/32	
Unit	1-1/4	2-1/2	5-1/4	11	.5
Wt.	oz.	oz.	oz.	oz.	oz.

* Not in conformance with MIL-T-27A.
† Not in conformance with MIL-T-27

	GP-1	GP-2	GP-3	GP-4	GP-5
A	7/8	1 1/16	1 1/4	1 7/16	1 5/8
B	1 1/16	1 1/4	1 1/2	1 3/4	2
Bw	1 1/16	1 11/32	1 5/16		
C	1 11/16	2 1/4	2 3/8	2 1/2	2 3/4
D	1 3/32	1 3/16	1 13/32	1 1/2	1 1/2
F	3/4	3/4	15/16	15/16	15/16
Wt.	3 oz.	5 1/2 oz.	8 oz.	12 oz.	17 oz.

	JOA	JOB
A	15/16 dia.	15/16 dia.
B	Round	Round
C	1 13/32	1 25/32
D	5/16	5/16
F	7/8	7/8
Unit Wt.	2 oz.	2 1/2 oz.

SHIELDING

P-1—One nickel alloy high permeability shield — 45db. reduction in pickup.
P-3—Two nickel alloy shields interleaved with one heavy copper shading ring — 70db. reduction in pickup.
P-5—Three nickel alloy shields interleaved with two heavy copper shading rings— 95 db. reduction in pickup.

Prices subject to change without notice. Net prices shown for 1-9 quantity. For 1 to 249 pieces, see your stocking Triad Distributor for quantity discount schedule. For 250 or more pieces, contact your Triad Representative or call the factory.

TRIAD PAGE 15

Net

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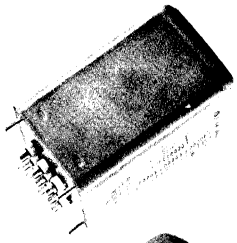
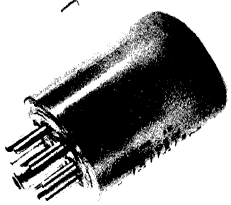
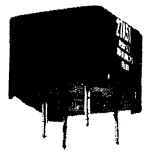
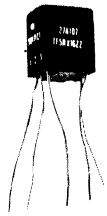
THORDARSON MEISSNER

INCORPORATED









THE FOLLOWING 29 PAGES LIST MORE THAN 6,500 DIFFERENT TYPES OF TRANSFORMERS INCLUDING: ALL MILITARY STANDARDS TO MIL-T-27B SPECIFICATIONS, MINIATURE CONFIGURATIONS, TOROIDS, ALIGNAIRE ADJUSTABLE INDUCTORS, COMMERCIAL TRANSFORMERS AND CHOKES, CONTROL AND ISOLATION TRANSFORMERS. CROSS REFERENCES TO COMPETITIVE MANUFACTURERS START ON PAGE 1518. THORDARSON MEISSNER ALSO MANUFACTURES A COMPLETE LINE OF TIME-CYCLE CONTROLLERS, PROGRAM AND SEQUENCE TIMERS, AND MERCURY SWITCHES. SEE PAGE 802 FOR DETAILED INFORMATION.

THORDARSON MEISSNER

INCORPORATED

ELECTRONIC CENTER

Transistor

Output-Transistor To Voice Coil

LISTED IN ORDER OF THE PRIMARY IMPEDANCE

Part No.	Impedance Primary	Impedance Secondary	Primary MADC	Resistance Primary	Resistance Secondary	Power In Watts	Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D
TR 199	6CT	4/8/16	5A	.17	.24	40	GGV	2 1/2 x 2 1/4	3 7/8	3 9/32	3 1/8
TR 161	9	3.5	750	1.1	.7	5	BAH	2	1 3/8	2 7/16	1 3/8
TR 160	9 §	3.5	750	1.9	1.2	8	BCH-1	1 5/8 x 11/16	1 5/8	2	1 1/4
TR 162	9	3.5	750	1.3	.48	8	BAH	2 3/8	1 5/8	2 7/8	1 3/8
TR 163	9 §	3.5	920	1.5	1.0	10	BCH-1	1 15/16 x 13/16	2	2 5/16	1 1/2
TR 164	12 §	3.5/8	750	1.6	.9	5	BAH	2	1 3/8	2 3/8	1 1/8
TR 165	18 §	6-8	425	2.8	1.0	8	BAH	2 3/8	1 5/8	2 7/8	1 1/4
	Feedback - 168:1 Pri. to Tap										
TR 300	20CT	8	500	.55	.35	10	BAH	2	1 3/8	2 7/16	1 1/2
TR 166	22 §	3.5	400	2.23	.8	5	† BCV-2	1 3/16	1 3/4	1 3/8	1 1/4
TR 167	22	3.5	400	2	.6	5	BAH	2	1 3/8	2 3/8	1 3/8
TR 168	22 §	3.5	425	2.5	.6	5	BAH	2	1 3/8	2 3/8	1 3/8
TR 169	22 §	8-10	375	3.5	1.8	5	BAH	2	1 3/8	2 3/8	1 1/8
TR 191	24CT	4/8	500	2.6	2.2	8	BAH	2 13/16	1 15/16	3 5/16	1 15/16
25581	24CT	16CT*	200	2	1.2	10	TAV	3 7/8 x 2-3/4	4 1/4	3 3/8	3 9/16
TR 304	25	4	400	1.5	.4	4	BAH	2 3/8	1 5/8	2 13/16	1 1/2
TR 170	30 §	3.5	400	1.8	.7	5	BAH	2	1 3/8	2 3/8	1 5/16
TR 171	30CT	3.5 Tapped	350	2	.3	8	BAV	2	2		1 1/2
	Feedback - 3,16:1 Pri. to Tap										
TR 57	32CT	1.6/4	575			10	BAH	2 13/16	2	3 5/16	1 7/8
TR 58	32CT	3.5/8/16	575			10	BAH	2 13/16	2	3 5/16	1 7/8
TR 172	40 §	3.5	300	2.5	.7	5	BAH	2	1 3/8	2 3/8	1 1/4
TR 173	45CT	3.5	350	1.3	.4	8	BAH	2 3/8	1 5/8	2 7/8	1 1/4
TR 8	48CT	4/8		4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16
TR 318	48CT	4/8		4	1.2	.3	PCT-3	See Dwg.	13/16	1	7/8
TR 110	48CT	4/8/16		4.1	.78	.3	BAH	1 3/8	3/4	1 5/8	13/16
TR 348	48CT	8	550	2.4	1	5	BAH	2	1 3/8	2 3/8	1 1/4
TR 61	48CT	3.2/8/16	550			5	BHV	1 3/4	1 3/4	2	1 1/4
25514	48CT	4/8/16CT*	750			5	UTV	1 5/32 x 1-5/32	2	1 1/2	1 1/2
TR 196	48CT	8/16	275	4.5	1.4	8	BAH	2 13/16	1 15/16	3 5/8	1 3/8
TR 59	48CT	1.6/4	550			10	BAV	2 3/8	2 5/16	2 7/8	2
TR 60	48CT	3.2/8/16	550			10	BHV	2 3/8	2 5/16	2 7/8	2
TR 111	100CT	4/8/16		11	1.5	.3	BAH	1 3/8	3/4	1 5/8	13/16
TR 193	100CT	4/8	100	14.4	1.1	2	BAH	1 3/4	1 3/16	2 1/16	1 1/4
TR 62	100	3.2/8/16	150			3	BAV	1 1/2	1 1/2	1 7/8	1 1/4
TR 63	100CT	3.2/8/16	500			10	BAV	2 3/8	2 5/16	2 7/8	2
TR 43	125CT	10		11	1	.05	MAH		7/16	1/2	7/16
TR 67	125CT	8	50#			1.5	XAV	1 1/4	1 3/4	1 1/4	1 1/4
TR 21	160CT	4/8		12	1	.3	BAH	1-3/8	3/4	1 5/8	13/16
TR 331	160CT	4/8		12	1	.3	PCT-3	See Dwg.	13/16	1	7/8
TR 112	160CT	4/8/16		19	1.5	.3	BAH	1 3/8	3/4	1 5/8	13/16
TR 50	200CT	3.2		18	.36	.05	MAH		7/16	1/2	7/16
TR 46	200CT	10		18	1	.05	MAH		7/16	1/2	7/16
TR 193	200CT	4/8	50	27	1.4	2	BAH	1 3/4	1 3/16	2 1/16	1 1/4
TR 264	250CT	4/8/16	10	34	3.7	.2	BAH	1-3/8	13/16	1 5/8	1
TR 51	300CT	3.2		27	.36	.05	MAH		7/16	1/2	7/16
TR 47	300CT	10		27	1	.05	MAH		7/16	1/2	7/16
TR 15	300CT	15		21	2.5	.15	BCH	13/16	11/16	13/16	5/8
TR 325	300CT	15		21	2.5	.15	PCT	See Dwg.	11/16	3/4	9/16
TR 101	350CT	4/12		38	1.45	.15	BCH	13/16	11/16	13/16	5/8
TR 174	360CT	10	100	56	1.3	.3	BCH	1 1/16	5/8	1 9/32	3/4
TR 450	400	10	50			.2	BAH	1 3/8	3/4	1 5/8	13/16
TR 364	400	11	3	35	1.5	.015	MAH		3/8	3/8	3/8
TR 365	400CT	11	6	35	1.5	.015	MAH		3/8	3/8	3/8
TR 19	400CT	11		27	1.3	.15	BCH	13/16	11/16	13/16	5/8
TR 329	400CT	11		27	1.3	.15	PCT	See Dwg.	11/16	3/4	9/16
TR 16	400CT	16		28	2	.15	BCH	13/16	11/16	13/16	5/8
TR 326	400CT	16		28	2	.15	PCT	See Dwg.	11/16	3/4	9/16
TR 27	400CT	4/8		26	1.1	.3	BAH	1 3/8	3/4	1 5/8	13/16
TR 332	400CT	4/8		26	1.1	.3	PCT-3	See Dwg.	13/16	1	7/8
TR 113	400CT	4/8/16		32	1.5	.3	BAH	1 3/8	3/4	1 5/8	13/16
TR 389	500	3.4	3.5	50	.5	.015	BCH	17/32	15/32	17/32	7/16
TR 53	500CT	3.2		40	.36	.05	MAH		7/16	1/2	7/16
TR 49	500CT	10		40	1	.05	MAH		7/16	1/2	7/16
TR 20	500CT	3.2		30	.3	.15	BCH	13/16	11/16	13/16	5/8
TR 330	500CT	3.2		30	.3	.150	PCT	See Dwg.	11/16	3/4	9/16
TR 102	500CT	4/8/16		75	3.5	.15	BCH	13/16	11/16	13/16	5/8
TR 18	500CT	16.4		30	1.7	.15	BCH	13/16	11/16	13/16	5/8
TR 328	500CT	16.4		30	1.7	.15	PCT	See Dwg.	11/16	3/4	9/16
TR 220	500CT	3.2	0#	15	.35	.25	MAH		19/32	7/8	43/64
TR 114	500CT	4/8/16		47	.85	.3	BAH	1 3/8	3/4	1 5/8	13/16
25511	500CT	16CT*	20	36		1	UTV	1 5/32 x 1 5/32	2	1 1/2	1 1/2

Output-Transistor To Voice Coil Continued

Part No.	Impedance Primary	Impedance Secondary	Primary MADC	Resistance Primary	Resistance Secondary	Power In Watts	Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D
TR 103	600CT	4/8/16		73	3.2	.15	BCH	13/16	11/16	13/16	5/8
TR 20	650CT	16.8		38	1.4	.15	BCH	13/16	11/16	13/16	5/8
TR 330	650CT	16.8		38	1.4	.150	PCT	See Dwg.	11/16	3/4	9/16
TR 115	700CT	4/8/16		77	1.15	.300	BAH	1 3/8	3/4	1 5/8	13/16
TR 29	825CT	3.4		40	.25	.15	BCH	13/16	11/16	13/16	5/8
TR 339	825CT	3.4		40	.25	.15	PCT	See Dwg.	11/16	3/4	9/16
TR 104	825CT	4/8/16		74	2.7	.15	BCH	13/16	11/16	13/16	5/8
TR 116	1,000	4/8/16		120	1.6	.3	BAH	1 3/8	3/4	1 5/8	13/16
TR 209	1,200 to 1,500	3.2 to 4	3#	70	.45	.1	MAH		7/16	3/4	5/8
TR 390	1,250	3.4	2	135	.5	.015	BCH	17/32	15/32	17/32	7/16
TR 105	1,250	4/12		132	1.4	.15	BCH	13/16	11/16	13/16	5/8
TR 408	2,000	3.4	5			.6	BAH	1	15/32	1 3/16	19/32
TR 431	2,000	3.4	5			1	BAH	1 5/32	5/8	1 13/32	3/4
TR 448	2,000	3.4	10			1.5	BAH	1 3/8	3/4	1 5/8	13/16
TR 258	2,000CT	4/8/16	10	260	4	.2	BAH	1 3/8	3/4	1 5/8	13/16
TR 221	2,000 to 4,000CT	8 to 16	4#	290	2	.25	MAH		19/32	7/8	43/64
TR 107	2,500	4/16		370	2.3	.15	BCH	13/16	11/16	13/16	5/8
TR 117	2,500	4/8/16		172	1.15	.3	BAH	1 3/8	3/4	1 5/8	13/16
TR 118	3,000	4/8/16		192	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16
TR 409	4,000CT	3.4	5			.6	BAH	1	15/32	1 3/16	19/32
TR 432	4,000CT	3.4	5			1.	BAH	1 5/32	5/8	1 13/32	3/4
TR 449	4,000CT	3.4	3			1.5	BAH	1 3/8	3/4	1 5/8	13/16
TR 252	4,000CT	4/8/16		333	1.8	.2	BAH	1 3/8	13/16	1 5/8	1
TR 211	7,500 to 9,400CT	3.2 to 4	4#	770	.73	.1	MAH		7/16	3/4	5/8
TR 239	9,800	15	2#	855	1.73	1MW	BAH	1 1/16	5/8	1 9/32	11/16
TR 299	9,800	15	2#	640	2	.5	BAH	2	1 3/8	2 7/16	1 3/8
TR 32	9,800	15		1,070	2.5	.15	BCH	13/16	11/16	13/16	5/8
TR 342	9,800	15		1,070	2.5	.15	PCT	See Dwg.	11/16	3/4	9/16
TR 268	10,000	4	2	709	1.5	.1	BAH	1 1/16	5/8	1 9/32	11/16
TR 203	10,000	3.2	2	800	.65	.1	MAH		7/16	3/4	5/8
TR 202	10,000	16	2	800	2.7	.1	MAH		7/16	3/4	5/8
TR 109	10,000CT	4/8/16		1,174	2.6	.150	BCH	13/16	11/16	13/16	5/8
TR 255	20,000	4/8	.5#	1,440	1	.1	BAH	1 1/16	5/8	1 9/32	11/16
TR 402	50,000	6	1			.01	BAH	1	15/32	1 3/16	19/32
TR 426	50,000	6	1			.01	BAH	1 5/32	5/8	1 13/32	3/4
TR 441	50,000	6	3			.01	BAH	1 3/8	3/4	1 5/8	13/16

Chokes-Transistor Auto Radio

Part No.	Inductance Rating Millihenrys	Inductance Rating Amps DC	Resistance in Ohms	Test Volts RMS	Mtg Type	Mtg Centers	Dimensions H	Dimensions W	Dimensions D
TR 152	12	.6	.58	500	BAH	1-3/4	1 1/4	2 1/8	1-1/16
TR 153	3	1.0	.25	1,000	BCH-1	1-1/4 x 7/16	1 1/4	1 1/2	1
TR 154	11	1.0	.75	1,000	BCH-1	1-1/4 x 7/16	1 1/4	1 1/2	1
TR 155	8	1.9	.5	500	BAH	1-3/4	1 1/4	2 1/8	1 1/8
TR 156	5	2.0	.33	500	BAH	1-3/4	1 1/4	2 1/8	7/8
TR 157	5	2.0	.35	500	BAH	1-3/8	3/4	1 5/8	3/4
TR 158	5	2.0	.33	500	BAV	1-1/2	1 3/8	1 1/4	1 1/8
TR 159	3	3.0	.22	500	BAH	1-3/8	3/4	1 5/8	3/4

§ Autoformer * Split CT Winding # Maximum Unbalanced Primary Current

† BCV-2 — Exact Replacement for Ford (Bendix) 2090260-1

Audio Transistor-Open Frame

INCLUDES: (A) INPUT, (J) INTERSTAGE, (D) DRIVER AND (S) OUTPUT TO LINE.

Part No.	Application	Impedance Primary	Impedance Secondary	Unbal. Pri. MADC	Resistance Primary	Resistance Secondary	Power Milliwatts	Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D
TR 303	D	30	120*		1.8	3.6	4W	BAV	2	2	2 3/8	1 1/2
TR 226	A	30/12/4	1,000		5	480	1	MAH		7/16	1/2	7/16
TR 383	A	50	600	1.5	7	90	15	BCH	17/32	15/32	17/32	7/16
TR 305	A	50/100	10	50†			5	BAH	1 3/8	3/4	1 5/8	15/16
TR 225	J	80CT	32*	16	4.9	3.2	250	MAH		19/32	7/8	43/64
		100CT	40*									
TR 12	J	100CT	10CT	10	13	1.5	150	BCH	13/16	11/16	13/16	5/8
TR 322	J	100CT	10CT	10	13	1.5	150	PCT	See Dwg.	11/16	3/4	9/16
TR 349	J	100CT	10CT	100†	10	3	300	BAH	1 3/8	3/4	1 5/8	13/16
TR 296	J	100CT	10CT	100†	4.3	.8	250	BAH	1 3/4	1 1/4	2 1/8	1 1/16
TR 439	J	100	40*	100†			500	BAH	1 3/8	3/4	1 5/8	13/16
TR 64	D	100	100CT	200	6.5	8.5	500	BAH	1 3/4	1 1/4	2 1/8	1
TR 195	D	100	100CT	100†	9.1	10	4W	BAH	2 3/8	1 5/8	2 13/16	1 1/2
TR 65	D	100	200CT	200	6.5	16.5	500	BAH	1 3/4	1 1/4	2 1/8	1
TR 257	J	100	1,000CT	100†	5.5	60	1W	BAH	2	1 3/8	2 3/8	1 1/2
TR 366	A	100	78,000		20	1,700	10	MAH		15/32	25/32	19/32
TR 301	D	200CT	400CT	10†			600	TAV	2 3/8 x 1/2	3	2 11/16	2 5/16
TR 194	D	200CT	400CT	10	26.5	58.6	6W	BAH	2 13/16	1 15/16	3 5/16	1 3/4

THORDARSON MEISSNER

Audio Transistor-Open Frame

INCLUDES: (A) INPUT, (J) INTERSTAGE, (D) DRIVER, (S) OUTPUT TO LINE . Continued

Part No.	Application	Impedance Primary	Impedance Secondary	Unbal. Pri. MADC	Resistance Primary	Resistance Secondary	Power Milli-watts	Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D
TR 246	J	200CT	2,000CT	2	29	233	200	BAH	1 3/8	3/4	1 5/8	1
TR 461	S,J	250CT	500	10			1	BAH	1 3/8	3/4	1 5/8	13/16
TR 456	S,J	250CT	1,000	10			1	BAH	1 3/8	3/4	1 5/8	13/16
TR 15	J	300CT	15	2	21	2.5	150	BCH	13/16	11/16	13/16	5/8
TR 325	J	300CT	15	2	21	2.5	150	PCT	See Dwg.	11/16	3/4	9/16
TR 224	J	400CT	40*	8	20	4.5	250	MAH		19/32	7/8	43/64
		500CT	50*									
TR 223	J	400CT	120*	8	20	12.6	250	MAH		19/32	7/8	43/64
		500CT	150*									
TR 222	J	400CT	400*	8	20	45	250	MAH		19/32	7/8	43/64
		500CT	500*									
TR 247	J	400CT	2,000CT	5	41	128	200	BAH	1 3/8	3/4	1 5/8	1
TR 5	D	490CT	150CT	0	30	16	150	BCH	13/16	11/16	13/16	5/8
TR 315	D	490CT	150CT	0	32	14	150	PCT	See Dwg.	11/16	3/4	9/16
TR 41	D,S	500	50	2	35	4.6	50	MAH		7/16	1/2	7/16
TR 11	D,S	500CT	50	3	30	5	150	BCH	13/16	11/16	13/16	5/8
TR 321	D,S	500CT	50	3	30	5	150	PCT	See Dwg.	11/16	3/4	9/16
TR 204	D,S	500	50	3.5	50	5	100	MAH		7/16	3/4	5/8
		600	60									
TR 248	J	500CT	150CT	2	57	32	100	BAH	1 1/16	5/8	1 9/32	11/16
TR 232	J	500CT	200CT	2	38	25	10	BCH	9/16	1/2	9/16	1/2
TR 66	D	500CT	200CT	50	37	17	500	BAH	1 3/4	1 1/4	2 1/8	1
TR 451	S	500CT	210	30			500	BAH	1 3/8	3/4	1 5/8	13/16
TR 398	D	500CT	250CT	7.5	40	13	15	BCH	17/32	15/32	17/32	7/16
TR 233	S	500CT	500CT	2	37	51	10	BCH	9/16	1/2	9/16	1/2
TR 240	S	500CT	500*	5	50	55	20	BAH	1	5/8	1 7/32	3/4
TR 37	S	500CT	500CT	3	34	42	50	MAH		7/16	1/2	7/16
TR 1	D,S	500CT	500CT	4	40	55	300	BAH	1 3/8	3/4	1 5/8	13/16
TR 311	D,S	500CT	500CT	4	40	55	300	PCT-3	See Dwg.	13/16	1	7/8
TR 212	S	500CT	600CT	10	26	70	100	MAH		7/16	3/4	5/8
TR 259	J	500CT	5,000CT	12‡	40	245	1W	BAH	2	1 3/8	2 3/8	1 3/8
TR 295	J	600CT	10	20‡	40	.8	50	BAH	1 3/8	13/16	1 9/16	15/16
TR 438	D,J	600	600	10			200	BAH	1 3/8	3/4	1 5/8	13/16
TR 423	D,J	600	600	9			200	BAH	1 5/32	5/8	1 13/32	3/4
TR 399	D,J	600	600	8			150	BAH	1	15/32	1 3/16	19/32
TR 376	J	600CT	600CT	7	45	60	5	MAH		3/8	3/8	3/8
TR 396	J	600CT	600CT	7	50	65	15	BCH	17/32	15/32	17/32	7/16
TR 373	J	600CT	600CT	16	30	45	100	MAH		1/2	17/32	1/2
TR 416	J	600CT	600CT	16			150	BAH	1	15/32	1 3/16	19/32
TR 437	J	600CT	600CT	18			200	BAH	1 5/32	5/8	1 13/32	3/4
TR 459	J	600CT	600CT	20			200	BAH	1 3/8	3/4	1 5/8	13/16
TR 359	J, S	600CT	600*	5	35	60	250	MAH		19/32	7/8	11/16
TR 405	J	600CT	1,200CT	16			150	BAH	1	15/32	1 3/16	19/32
TR 422	J	600CT	1,200*	16			150	BAH	1	15/32	1 3/16	19/32
TR 429	J	600CT	1,200CT	18			200	BAH	1 5/32	5/8	1 13/32	3/4
TR 445	J	600CT	1,200CT	4			200	BAH	1 3/8	3/4	1 5/8	13/16
TR 453	J	600*	1,200CT	4			200	BAH	1 3/8	3/4	1 5/8	13/16
TR 241	J	600CT	2,000*		60	200	20	BAH	1	5/8	1 7/32	3/4
TR 180	D	660	16		49	2.2	1W	BAH	1 3/4	1 1/4	2	1 1/8
TR 182	D	720	20		180	3	1W	BCH-1	1 5/8 x 11/16	1 3/16	2	1
TR 178	D	950	45CT		120	5.2	2W	BAV	1 3/4	1 11/16	2	1 1/8
TR 184	D	960	15		350	5	2W	BCH	1 11/16	1 3/8	1 3/4	1 1/4
TR 186	D	1,000	10		160	1	2W	BCV-1	1 3/32 x 17/32	1 11/16	1 1/2	1 3/8
TR 179	D	1,000	40		130	2.8	2W	BCV-1	1 3/32 x 17/32	1 11/16	1 1/2	1 1/4
TR 183	D	1,000	50/60	3	155	9.7	1	MAH		3/8	3/8	19/64
TR 234	D,S	1,000	50		355	20	1	MAH		7/16	1/2	7/16
TR 43	D,S	1,000	50		73	4.6	50	MAH		7/16	1/2	7/16
TR 205	S	1,000	50	3	90	5	100	MAH		7/16	3/4	5/8
		1,200	60									
TR 1	D	1,000	100		210	20	2W	BCH‡	1 11/16	1 3/8	1 3/4	1 1/4
TR 238	D	1,000	200CT	10	428	128	1	BAH	1 1/16	5/8	1 9/32	11/16
TR 380	S	1,000CT	600	6	80	65	5	MAH		3/8	3/8	3/8
TR 391	S	1,250	50	2	135	6.5	15	BCH	17/32	15/32	17/32	7/16
TR 181	D	1,500	30		200	5.5	300	BAH	1 3/8	3/4	1 5/8	3/4
TR 4	D,S	1,500	500CT		100	45	150	BCH	13/16	11/16	13/16	5/8
TR 318	D,S	1,500	500CT		100	45	150	PCT	See Dwg.	14/16	3/4	9/16
TR 329	S	1,500CT	600CT	5	135	65	5	MAH		3/8	3/8	3/8
TR 328	J,S	1,500CT	600*		160	65	10	BCH	17/32	7/16	17/32	7/16
TR 230	J,S	1,500CT	600*	6	150	60	20	BAH	1	5/8	1 7/32	3/4
TR 213	J,S	1,500CT	600CT	7	70	65	100	MAH		7/16	3/4	5/8
TR 460	S	1,600CT	450	15			1,000	BAH	1 3/8	3/4	1 5/8	13/16
TR 85	D	2,000	20		220	5	1W	BAH	1 3/4	1 3/16	2 1/8	15/16
TR 260	D	2,000CT	200CT	10	748	120	100	BAH	1 1/16	5/8	1 9/32	11/16
TR 176	D	2,000	250		880	9	300	BAH	1 3/8	3/4	1 5/8	3/4
TR 421	J	2,000CT	500CT	10			600	BAH	1	15/32	1 3/16	19/32
TR 263	J	2,000CT	500CT	2	140	65	200	BAH	1 3/8	3/4	1 5/8	1
TR 269	J	2,000CT	1,500CT	2	165	140	200	BAH	1 3/8	3/4	1 5/8	1
TR 290	J	2,000CT	8,000CT	4	200	550	200	BAH	1 3/8	3/4	1 5/8	1
TR 188	D	2,250	40		420	3.7	2W	BAV	1 3/4	1 5/8	2 1/8	1 1/8
TR 457	J	2,500	600CT	10			1.5W	BAH	1 3/8	3/4	1 5/8	13/16
TR 356	J	2,500CT	2,500*	4	140	300	250	MAH		19/32	7/8	11/16
TR 392	J	2,500	2,500CT	1.5	225	215	3	BCH	17/32	15/32	17/32	7/16
TR 413	J	2,500	2,500CT	2			200	BAH	1	15/32	1 3/16	19/32
TR 436	J	2,500	2,500CT	2.5			400	BAH	1 5/32	5/8	1 13/32	3/4
TR 251	J	3,000CT	1,000CT	4	263	105	200	BAH	1 3/8	3/4	1 5/8	1
TR 188	D	3,400	10		270	1.6	1W	BAH	1 3/4	1 1/4	2 1/8	1
TR 338	D,S	4,000CT	600*	2.5	155	47	10	MAH		7/16	3/4	43/64
TR 402	J	4,000CT	600CT	5			600	BAH	1	15/32	1 3/16	19/32
TR 416	J	4,000CT	600*	5			600	BAH	1	15/32	1 3/16	19/32
TR 44	D,J	4,000CT	600CT	3			1.5W	BAH	1 3/8	3/4	1 5/8	13/16
TR 454	D,J	4,000CT	600*	3			1.5W	BAH	1 3/8	3/4	1 5/8	13/16
TR 39	D,J	4,000	2,600CT		330	220	50	MAH		7/16	1/2	7/16
TR 187	D	4,500	20		150	1.6	2W	BAH	2	1 3/8	2 3/8	1 1/8
TR 190	D	5,000	50		900	8	300	BAH	1 3/8	3/4	1 5/8	13/16
TR 253	J	5,000	200CT	1	440	27	100	BAH	1 1/16	5/8	1 9/32	11/16
TR 68	D	5,000	3,000CT	20	185	103	200	XAV	1 1/4	1 3/4	1 1/4	1 1/4
TR 2	D,J	5,000CT	7,500CT	1	550	980	150	BCH	13/16	11/16	13/16	5/8
TR 312	D,J	5,000CT	7,500CT	1	550	980	150	PCT	See Dwg.	11/16	3/4	9/16
TR 3	D,J	5,000CT	10,000CT	1	550	1,100	150	BCH	13/16	11/16	13/16	5/8
TR 313	D,J	5,000CT	10,000CT	1	550	1,100	150	PCT	See Dwg.	11/16	3/4	9/16
TR 9	A,J	5,000	30,000CT	3	370	1,300	150	BCH	13/16	11/16	13/16	5/8
TR 319	A,J	5,000	30,000CT	3	370	1,300	150	PCT	See Dwg.	11/16	3/4	9/16
TR 10	A,J	5,000CT	45,000	2	310	1,400	150	BCH	13/16	11/16	13/16	5/8
TR 320	A,J	5,000CT	45,000	2	310	1,400	150	PCT	See Dwg.	11/16	3/4	9/16
TR 256	J	5,000CT	50,000CT	1	378	6,410	200	BAH	1 3/8	13/16	1 5/8	1
TR 13	A,J	5,000CT	80,000	2	260	1,520	150	BCH	13/16	11/16	13/16	5/8
TR 323	A,J	5,000CT	80,000	2	260	1,520	150	PCT	See Dwg.	11/16	3/4	9/16
TR 108	A,J	5,000CT	80,000CT	0	573	5,740	150	BCH	13/16	11/16	13/16	5/8
TR 308	A,J	5,000CT	80,000CT	0	573	5,740	150	PCT	See Dwg.	11/16	3/4	9/16
TR 33	D	6,000	280CT	4	747	6.7	20	BAH	1 3/8	3/4	1 5/8	13/16
TR 34	D,J	6,000	5,000CT	2	330	250	50	MAH		7/16	1/2	7/16
TR 52	S	7,000	50	2	440	4.6	50	MAH		7/16	1/2	7/16
TR 413	J	7,500CT	600CT	4			150	BAH	1	15/32	1 3/16	13/32
TR 438	D,J	7,500CT	600CT	8			1.5W	BAH	1 3/8	3/4	1 5/8	13/16
TR 420	J	7,500CT	1,200CT	4			150	BAH	1	15/32	1 3/16	19/32
TR 366	J	7,500	5,000CT	0	925	1,000	1	MAH		1/4	3/8	5/16
TR 169	D	8,000	20		210	3.3	2W	BAH	2	1 3/8	2 3/8	1 3/8
TR 350	D	8,000	2,000CT	4	355	205	500	BCH	1 3/8	1 3/16	1 7/16	1
TR 23	D,S	10,000	200CT	1	900	11	150	BCH	13/16	11/16	13/16	5/8
TR 333	D,S	10,000	200CT	1	900	11	150	PCT	See Dwg.	11/16	3/4	9/16
TR 411	J	10,000CT	200CT	6			100	BAH	1	15/32	1 3/16	19/32
TR 434	J	10,000CT	200CT	6			100	BAH	1 5/32	5/8	1 13/32	3/4
TR 209	J	10,000CT	200CT	2	650	22	100	MAH		7/16	3/4	5/8
		25,000CT	500CT	1								
TR 210	D,S	10,000	500CT	2	800	95	100	MAH		7/16	3/4	5/8
		12,500	600CT									
TR 381	D	10,000CT	600CT	2	850	40	5	MAH		3/8	3/8	3/8
TR 378	J	10,000CT	1,200CT	2	850	120	5	MAH		3/8	3/8	3/8
TR 374	J	10,000CT	1,200CT	3	850	120	10	MAH		13/32	27/64	5/16
TR 215	J	10,000CT	1,500CT	4	800	300	100	MAH		7/16	3/4	5/8
		12,000CT	1,800CT									
TR 410	J	10,000	1,500CT	1			100	BAH	1	15/32	1 3/16	19/32
TR 418	J	10,000CT	1,500CT	2			100	BAH	1	15/32	1 3/16	19/32
TR 433	J	10,000	1,500CT	1			200	BAH	1 5/32	5/8	1 13/32	3/4
TR 229	J	10,000CT	2,000CT	0	1,000	250	1	BCH	17/32	7/16	17/32	7/16
TR 235	J	10,000CT	2,000CT	0	1,000	200	10	BAH	1	5/8	1 7/32	3/4
TR 40	J	10,000	2,000CT	2	295	147	50	MAH		7/16	1/2	7/16
TR 201	J	10,000	2,000CT	1	1,200	45	100	MAH		7/16	3/4	5/16
TR 7	J	10,000	2,000CT	2	740	300	150	BCH	13/16	11/16	13/16	5/8
TR 317	J	10,000	2,000CT	2	740	300	150	PCT	See Dwg.	11/16	3/4	9/16
TR 212	J	10,000	2,000CT	1	1,000	40	200	MAH		19/32	7/8	43/64
TR 264	J	10,000	2,000CT	1	1,034	334	250	BAH	1 3/8	13/16	1 5/8	1
TR 175	D	10,000	2,000CT		1,600	310	300	BCH‡	1 11/16	13/16	1 1/8	7/8
TR 6	D,J	10,000	3,000CT	3	820	660	150	BCH	13/16	11/16	13/16	5/8

Audio Transistor-Open Frame

INCLUDES: (A) INPUT, (J) INTERSTAGE, (D) DRIVER, (S) OUTPUT TO LINE . Continued

Part No.	Application	Impedance Primary	Impedance Secondary	Unbal. Pri. MADC	Resistance Primary	Resistance Secondary	Power Milli-watts	Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D
TR 316	D,J	10,000	3,000CT	3	820	660	150	PCT	See Dwg.	11/16	3/4	9/16
TR 369	J	10,000	10,000	0	730	1,000	150	BCH	13/16	11/16	13/16	5/8
TR 419	J	10,000CT	10,000CT	2			100	BAH	1	15/32	1 3/16	19/32
TR 230	‡‡	10,000CT	10,000CT	0	1,100	1,400	1	BCH	17/32	7/16	17/32	7/16
TR 216	‡‡	10,000CT	10,000CT	1	560	650	100	MAH		7/16	3/4	5/8
		12,000CT	12,000CT									
TR 361	J	10,000	250,000	2	1,020	7,100	150	BCH	13/16	11/16	13/16	5/8
TR 25	J,S	15,000	200CT	2	1,100	11	150	BCH	13/16	11/16	13/16	5/8
TR 335	J,S	15,000	200CT	2	1,100	11	150	PCT	See Dwg.	11/16	3/4	9/16
TR 262	J,S	15,000	200CT	1.5	2,130	30	200	BAH	1 3/8	13/16	1 5/8	1
TR 382	J,S	15,000CT	15,000CT	1	930	1,200	5	MAH		3/8	3/8	3/8
TR 254	J	16,000	4,000	1	1,373	330	100	BAH	1 1/16	5/8	1 9/32	11/16
TR 48	A,J	20,000	600	1	560	43	50	MAH		7/16	1/2	7/16
TR 256	J	20,000	800CT	.5	1,435	82	100	BAH	1 1/16	5/8	1 9/32	11/16
TR 17	J	20,000	800CT	1	1,350	95	150	BCH	13/16	11/16	13/16	5/8
TR 327	J	20,000	800CT	1	1,350	95	150	PCT	See Dwg.	11/16	3/4	9/16
TR 200	J	20,000	800	.5	800	110	100	MAH		7/16	3/4	5/8
		30,000	1,200									
TR 218	J	20,000	800	.5	450	32	200	MAH		19/32	7/8	43/64
		30,000	1,200									
TR 208	J	20,000CT	800CT	1	800	110	100	MAH		7/16	3/4	5/8
		30,000CT	1,200CT									
TR 371	A	20,000	1,000	.5	1,700	274	1	MAH		17/64	25/32	25/32
TR 394	J	20,000	1,000	.75	625	85	5	BCH	17/32	15/32	17/32	7/16
TR 395	J	20,000	1,000CT	.75	625	85	5	BCH	17/32	15/32	17/32	7/16
TR 363	D	20,000	1,200CT	.5	1,100	110	5	MAH		3/8	3/8	3/8
TR 44	A,J	20,000	1,200	1	560	72	50	MAH		7/16	1/2	7/16
TR 14	A,J	20,000	1,200	2	1,250	94	150	BCH	13/16	11/16	13/16	5/8
TR 324	A,J	20,000	1,200	2	1,250	94	150	PCT	See Dwg.	11/16	3/4	9/16
TR 106	A,J	20,000CT	1,200	2	1,860	142	150	BCH	13/16	11/16	13/16	5/8
TR 372	A,J	20,000CT	1,200	2	1,860	142	150	PCT	See Dwg.	11/16	3/4	9/16
TR 227	J	20,000	1,200/600/100	.5	2,700	350	1	MAH		7/16	1/2	7/16
TR 42	A,J	20,000	2,000CT	2	560	140	50	MAH		7/16	1/2	7/16
TR 261	D	20,000CT	2,000CT	1	2,140	327	200	BAH	1 3/8	13/16	1 5/8	1
TR 367	A,J	20,000	3,000CT	1	675	483	300	BAH	1 3/8	3/4	1 5/8	3/4
TR 228	J,S	25,000CT	500CT		2,000	60	1	BCH	17/32	7/16	17/32	7/16
TR 385	J	25,000	600	1	720	45	5	BCH	17/32	15/32	17/32	7/16
TR 406	J	25,000	600	1			100	BAH	1	15/32	1 3/16	19/32
TR 417	J	25,000CT	600CT	2			100	BAH	1	15/32	1 3/16	19/32
TR 430	J	25,000	600	2			100	BAH	1 5/32	5/8	1 13/32	3/4
TR 446	J	25,000	600	3			150	BAH	1 3/8	3/4	1 5/8	13/16
TR 403	J	25,000	1,200CT	1			100	BAH	1	15/32	1 3/16	19/32
TR 412	J	25,000CT	1,200CT	2			100	BAH	1	15/32	1 3/16	19/32
TR 427	J	25,000	1,200CT	1.5			100	BAH	1 5/32	5/8	1 13/32	3/4
TR 435	J	25,000CT	1,200CT	3			100	BAH	1 5/32	5/8	1 13/32	3/4
TR 452	J	25,000CT	1,200CT	6			150	BAH	1 3/8	3/4	1 5/8	13/16
TR 443	J	25,000	1,200CT	3			150	BAH	1 3/8	3/4	1 5/8	13/16
TR 31	A,S	40,000	100	1	1,150	5	150	BCH	13/16	11/16	13/16	5/8
TR 341	A,S	40,000	100	1	1,150	5	150	PCT	See Dwg.	11/16	3/4	9/16
TR 217	J	40,000CT	400*	.5	1,900	43	100	MAH		7/16	3/4	5/8
		50,000CT	500*									
TR 34	A	50,000	30CT	0	1,400	2.5	150	BCH	13/16	11/16	13/16	5/8
TR 344	A	50,000	30CT	0	1,400	2.5	150	PCT	See Dwg.	11/16	3/4	9/16
TR 30	A,S	50,000	200CT	1	1,400	9	150	BCH	13/16	11/16	13/16	5/8
TR 340	A,S	50,000	200CT	1	1,400	9	150	PCT	See Dwg.	11/16	3/4	9/16
TR 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	13/16	13/16
TR 247	A,D	50,000	500CT	.5	6,090	47.5	100	BAH	1 1/16	5/8	1 9/32	11/16
TR 26	A,D	50,000	500CT	1	1,300	30	150	BCH	13/16	11/16	13/16	5/8
TR 326	A,D	50,000	500CT	1	1,300	30	150	PCT	See Dwg.	11/16	3/4	9/16
TR 367	A,J	50,000	600	1	830	55	5	BCH	17/32	15/32	17/32	7/16
TR 400	A,J	50,000	600	.7			100	BAH	1	15/32	1 3/16	19/32
TR 236	J,S	50,000	600*	.5	3,800	60	10	BAH	1	5/8	1 7/32	3/4
TR 424	A,J	50,000	600	1			100	BAH	1 5/32	5/8	1 13/32	3/4
TR 401	A,J	50,000	600CT	1.4			100	BAH	1	15/32	1 3/16	19/32
TR 425	A,J	50,000	600CT	2			100	BAH	1 5/32	5/8	1 13/32	3/4
TR 440	A,J	50,000	600	3			100	BAH	1 3/8	3/4	1 5/8	13/16
TR 444	A,J	50,000CT	1,200CT	3			100	BAH	1 3/8	3/4	1 5/8	13/16
TR 453	A,J	50,000CT	1,200*	3			100	BAH	1 3/8	3/4	1 5/8	13/16
TR 428	A,J	50,000CT	1,200CT	2			100	BAH	1 5/32	5/8	1 13/32	3/4
TR 404	A,J	50,000CT	1,200CT	1.4			100	BAH	1	15/32	1 3/32	19/32
TR 243	D	50,000	3,000CT	.5	3,720	250	200	BAH	1 3/8	13/16	1 5/8	1
TR 397	‡‡	50,000CT	50,000CT	0	2,000	2,600	5	BCH	17/32	15/32	17/32	7/16
TR 55	A	100,000	50	0	1,170	1.7	50	MAH		7/16	1/2	7/16
TR 35	A	100,000	50	0	3,100	5	300	BAH	1 3/8	3/4	1 5/8	13/16
TR 345	A	100,000	50	0	3,100	5	300	PCT-3	See Dwg.	13/16	1	7/8
TR 244	D	100,000	200CT	.5	9,900	19.5	200	BAH	1 3/8	3/4	1 5/8	1
TR 362	A	100,000	1,000	0	1,900	135	5	MAH		3/8	3/8	3/8
TR 388	J	100,000	1,200CT	.72	2,000	150	5	BCH	17/32	15/32	17/32	7/16
TR 442	J	100,000	1,200CT	1.4			50	BAH	1 3/8	3/4	1 5/8	13/16
TR 24	A,J	100,000	1,500CT	.5	3,000	45	300	BAH	1 3/8	3/4	1 5/8	13/16
TR 334	A,J	100,000	1,500CT	.5	3,000	45	300	PCT-3	See Dwg.	13/16	1	7/8
TR 245	D	100,000	3,000CT	.5	9,880	318	200	BAH	1 3/8	13/16	1 5/8	1
TR 384	A,J	200,000	600	1	3,000	110	5	BCH	17/32	15/32	17/32	7/16
TR 206	A	200,000	1,000	0	4,000	190	5	MAH		7/16	3/4	5/8
TR 386	A,J	200,000	1,200	.72	3,100	165	5	BCH	17/32	15/32	17/32	7/16
TR 214	A	200,000CT	1,000CT	0	4,000	200	5	MAH		7/16	3/4	5/8
TR 94	A,J	200,000	1,000	0	1,330	20	50	MAH		7/16	1/2	7/16
TR 267	A	200,000	1,000	0	840	195	100	BAH	1 1/16	5/8	1 9/32	11/16
TR 28	A	200,000	1,000	0	3,000	30	300	BAH	1 3/8	3/4	1 5/8	13/16
TR 338	A	200,000	1,000	0	3,000	30	300	PCT-3	See Dwg.	13/16	1	7/8
TR 119	A	200,000CT	1,000CT	0	1,815	123	300	BAH	1 3/8	3/4	1 5/8	13/16
TR 33	A	250,000	200CT	0	4,400	8.5	300	BAH	1 3/8	3/4	1 5/8	13/16
TR 343	A	250,000	200CT	0	4,400	8.5	300	PCT-3	See Dwg.	13/16	1	7/8
TR 36	A	500,000	200CT	0	7,000	8.5	300	BAH	1 3/8	3/4	1 5/8	13/16
TR 346	A	500,000	200CT	0	7,000	8.5	300	PCT-3	See Dwg.	13/16	1	7/8
TR 377	Choke	1.5 Hy. @ 0 MADC, .7 Hy. @ 2 MADC, 100 Ohms						MAH		3/8	3/8	3/8
TR 375	Choke	10 Hy. @ 0 MADC, 8 Hy. @ .5 MADC, 650 Ohms						MAH		3/8	3/8	3/8
TR 357	Split Inductor	Series - 16 Hy. @ 2 MADC, 8 Hy. @ 4 MADC, 1,100 Ohms Parallel - 4 Hy. @ 4 MADC,

Printed Circuit -Open Frame -Transistor (Continued)

150 Milliwatt

MOUNTING PCT WEIGHT .05 LBS.

LISTED IN ORDER OF THE TURNS RATIO

Part No.	Turns Ratio	Impedance Pri.	Impedance Sec.	Resistance Pri.	Resistance Sec.	Application
TR 312	1.23:1	5,000CT	7,500CT	550	980	D,J
TR 313	1.41:1	5,000CT	10,000CT	550	1,100	D,J
TR 314	1.73:1	1,500	500CT	100	45	D,J,S
TR 315	1.81:1	490CT	150CT	32	14	D,S
TR 316	1.82:1	10,000	3,000CT	820	660	D,J
TR 317	2.24:1	10,000	2,000CT	740	300	D,J
TR 319	2.45:1	5,000	30,000CT	370	1,300	A,J
TR 320	3:1	5,000CT	45,000	310	1,400	A,J
TR 321	3.16:1	500CT	50	30	5	D,S
TR 322	3.16:1	100CT	10CT	13	1.5	D,S
TR 323	4:1	5,000CT	80,000	260	1,520	A,J
TR 308	4:1	5,000CT	80,000CT	573	5,740	A,J
TR 324	4.08:1	20,000	1,200	1,250	94	A,J
TR 372	4.08:1	20,000CT	1,200	1,860	142	A,J
TR 325	4.47:1	300CT	15	21	2.5	S
TR 326	5:1	400CT	16	28	2	S
TR 327	5:1	20,000	800CT	1,350	95	A,D,J
TR 328	5.52:1	500CT	16.4	30	1.7	S
TR 329	6.04:1	400CT	11	27	1.3	S
TR 330	6.22:1	650CT	16.8	38	1.4	S
TR 333	7.07:1	10,000	200CT	900	11	S
TR 335	8.66:1	15,000	200CT	1,100	11	J,S
TR 336	10:1	50,000	500CT	1,300	30	A,D
TR 337	12.5:1	500CT	3.2	30	.3	S
TR 339	15.6:1	825CT	3.4	40	.25	S
TR 340	15.8:1	50,000	200CT	1,400	9	A
TR 341	20:1	40,000	100	1,150	5	A
TR 342	25.5:1	9,800	15	1,070	2.5	S
TR 344	40.8:1	50,000	30CT	1,400	2.5	A

LISTED IN ORDER OF THE PRIMARY IMPEDANCE

Part No.	Impedance Pri.	Impedance Sec.	Resistance Pri.	Resistance Sec.	Application
TR 322	100CT	10CT	13	1.5	D,S
TR 325	300CT	15	21	2.5	S
TR 329	400CT	11	27	1.3	S
TR 326	400CT	16	28	2	S
TR 315	490CT	150CT	32	14	D,S
TR 337	500CT	3.2	30	.3	S
TR 328	500CT	16.4	30	1.7	S
TR 321	500CT	50	30	5	D,S
TR 330	650CT	16.8	38	1.4	S
TR 339	825CT	3.4	40	.25	S
TR 314	1,500	500CT	100	45	D,J,S
TR 312	5,000CT	7,500CT	550	980	D,J
TR 313	5,000CT	10,000CT	550	1,100	D,J
TR 319	5,000	30,000CT	370	1,300	A,J
TR 320	5,000CT	45,000	310	1,400	A,J
TR 323	5,000CT	80,000	260	1,520	A,J
TR 308	5,000CT	80,000CT	573	5,740	A,J
TR 342	9,800	15	1,070	2.5	S
TR 316	10,000	3,000CT	820	660	D,J
TR 317	10,000	2,000CT	740	300	D,J
TR 316	10,000	3,000CT	820	660	D,J
TR 335	15,000	200CT	1,100	11	J,S
TR 327	20,000	800CT	1,350	95	A,D,J
TR 324	20,000	1,200	1,250	94	A,J
TR 372	20,000CT	1,200	1,860	142	A,J
TR 341	40,000	100	1,150	5	A
TR 344	50,000	30CT	1,400	2.5	A
TR 340	50,000	200CT	1,400	9	A
TR 336	50,000	500CT	1,300	30	A,D

Audio Reactor

MOUNTING PCT-3 WEIGHT .08 LBS.

Part No.	Inductance Millihenrys	Inductance MADC	DC Res. In Ohms	Test Volts RMS	Mtg Type
TR 347	150	0	14	500	PCT-3

Encased-Transistor Transformers

INCLUDES: (A) INPUT, (J) INTERSTAGE, (L) LINE TO TRANSISTOR, (S) OUTPUT.

The high performance characteristics such as frequency response, high permeability lamination, and low insertion losses equal those of the more costly hermetically sealed units. The mounting type of the units appearing in the second column under "Part No." are as listed in the last column on the page, while the otherwise identical units listed in the first column are mounted by means of an octal plug-in socket.

Part No. Octal Plug-in	Part No. As Listed	Application	Impedance Primary	Impedance Secondary	Unbalanced Primary MADC	Resistance In Primary	Power In Watts	Frequency Response ±2 DB	Mtg. Type
	2SS111	S	8*	500*			50	6-70,000	UTV
	2SS81	S	24CT	16/4*	200§	2	10	50-15,000	TAV-7
	2SS14	S	48CT	16/8/4*	750§	5	5	40-20,000	UTV
	2SS56	S	48CT	16/8/4*	750§		5	50-15,000	NTV-4
2SA187	2SA175	J	100	40CT*	100		.5	200-20,000	RTV
	2SA106	J	100CT*	40CT*	30	10	1	30-15,000#	TAJ
	2SA49	J	100CT*	40CT*	40	9	1	100-20,000†	RTV
	2SA71	J	100CT*	40CT*	40	6.2	1	40-20,000	UTV
2SS129	2SS122	S§§	250CT	500	10		1	200-15,000	RTV
2SS127	2SS120	S§§	250CT	1,000	10		1	200-15,000	RTV
	2SS06	S	400CT	3.2	20	35	1	100-20,000	RTV
2SS125	2SS118	S	400	10	50		300MW	200-20,000	RTV
	2SS67	S	500CT*	16CT*	20	50	100MW	30-15,000#	TAJ
	2SS11	S	500CT*	16CT*	20	36	1	40-20,000	UTV
	2SS55	S	500CT*	16CT*	20		1	50-15,000	NTV-4
	2SA48	J	500CT*	50CT*	20	33	1	100-20,000†	RTV
	2SA70	J	500CT*	50CT*	20	36	1	40-20,000	UTV
	2SA107	J	500CT*	100CT*	15	50	100MW	30-15,000#	TAJ
	2SA47	J	500CT*	150CT*	20	35	1	100-20,000†	RTV
	2SA69	J	500CT	150CT*	20	36	1	40-20,000	UTV
2SS126	2SS119	S§§	500CT	210	30		.5	300-20,000	RTV
	2SA127	J	500	500	1	34	50MW	300-15,000	MI
	2SS10	S	500CT	500CT*	20	36	1	40-20,000	UTV
	2SA46	J	500CT*	500CT*	20	37	1	100-20,000†	RTV
	2SA128	J	500CT*	500CT*	20		1	50-15,000	NTV-4
	2SA105	J	500CT*	2,000CT*	20	50	100MW	30-15,000#	TAJ
	2SA99	J	500CT*	2,000CT*	20		1	50-15,000	NTV-4
	2SA126	J	500	5,000	1	84	50MW	300-15,000	MI
2SA186	2SA174	J	600	600	10		200MW	200-15,000	RTV
2SA202	2SA206	J	600CT	600CT	20		200MW	200-15,000	RTV
	2SA112	L	600/250/50	600/250/50	0	40	50MW	30-15,000	TAJ
	2SA104	L	600/300/200CT*	600CT*	0	62	1MW	30-15,000#	TAJ
	2SA63	‡	600CT*	600CT*	0	45	3MW	20-30,000	UTV##
2SA193	2SA180	L	600CT	1,200CT	4		200MW	200-15,000	RTV
2SA199	2SA203	L	600CT*	1,200CT	4		200MW	200-15,000	RTV
	2SA34	A,L	600CT*	2,000CT*	0	70	30MW	50-20,000†	RTV
	2SA62	A,L	600CT*	2,000CT*	0	70	10MW	20-20,000	UTV###
	2SA108	J	1,000	200CT*	10	302	200MW	20-15,000#	TAJ
	2SS04	S	1,500CT	500CT*	8	100	100MW	100-20,000†	RTV
2SS128	2SS121	S§§	1,600CT	450	15		1	200-15,000	RTV
2SS123	2SS116	S	2,000	3.4	10		1.5	200-15,000	RTV
	2SS05	S	2,000/4,000CT	8/16	4	200	100MW	100-20,000†	RTV
2SA200	2SA204	J	2,500	600CT	10		1.5	200-15,000	RTV
	2SS74	S	2,000CT	600CT	0	112	100MW	30-15,000#	TAJ
2SS124	2SS117	S	4,000CT	3.4	3		1.5	200-15,000	RTV
2SA195	2SA182	J	4,000CT	600CT	3		1.5	200-15,000	RTV
2SA198	2SA185	J	4,000CT	600CT*	3		1.5	200-15,000	RTV
	2SA154	J,L	4,000CT*	600CT*	4	395	1	100-20,000†	RTV
	2SA135	J,L	4,000CT*	600CT*	12	310	1	30-20,000	UTV
2SA201	2SA205	J	7,500CT	600CT	8		1.5	200-15,000	RTV
	2SA43	J	10,000CT	500CT*	4	750	100MW	100-20,000†	RTV
	2SA68	J	10,000CT*	500CT*	8	610	1	30-20,000	UTV
	2SA109	J	10,000CT*	2,000CT*	4	1,000	100MW	30-15,000#	TAJ
	2SA40	J	10,000CT*	2,000CT*	4	800	100MW	100-20,000†	RTV
	2SA64	J	10,000CT*	2,000CT*	8	600	1	50-15,000	UTV
	2SA98	J	10,000CT*	2,000CT*	8	600	1	50-15,000	NTV-4
	2SA41	J	10,000CT*	4,000CT*	4	800	100MW	100-20,000†	RTV
	2SA42	J	10,000CT	10,000CT	4	700	100MW	100-20,000†	RTV
	2SA125	J	24,000	600	5	2,660	1MW	350-3,500†	RTV▲
	2SA67	J	25,000CT*	500CT*	3	1,620	1	30-20,000	UTV
2SA194	2SA181	J	25,000	600	3		150MW	200-15,000	RTV
2SA191	2SA178	J	25,000	1,200CT	3		150MW	200-15,000	RTV
2SA196	2SA183	J	25,000CT	1,200CT	6		150MW	200-15,000	RTV
2SS189	2SS115	S	50,000	6	3		100MW	300-15,000	RTV
	2SA44	J	50,000CT	500CT*	2	3,200	100MW	100-20,000†	RTV
2SA188	2SA176	J,L	50,000	600	3		100MW	300-15,000	RTV
2SA192	2SA179	J	50,000CT	1,200CT	3		100MW	300-15,000	RTV
2SA197	2SA184	J	50,000CT	1,200CT*	3		100MW	300-15,000	RTV
	2SA124	J**	65,000	65,000	0	2,500	1MW		RTV▲
2SA190	2SA177	J	100,000	1,200CT	1.4		50MW	200-15,000	RTV
	2SA164		High permeability shield for RTV (7/8 Dia.) Cases Provides 25 DB Shielding						
	2SA165		Mounting "U" bracket for RTV (7/8 Dia.) Cases						

Miniature Transformers

INCLUDES: (A) INPUT, (J) INTERSTAGE, (S) OUTPUT, (C) REACTOR, (L) LINE TO LINE.

The most complete line of top efficiency miniature transformers ever made available. These Miniature transformers are designed for a wide range of civilian and goverment applications. Used by many manufacturers of hearing aids and a variety of miniature electronic devices where maximum efficiency is necessary. Ideally suited for installation in original equipment and for replacement.

Part No.	Typical Application	Impedance Primary	Impedance Secondary	Unbal. Pri. MADC	Power In MW	Resistance Primary	Resistance Secondary	Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W x D
MIT 106	A	8/4	50,000CT	0	20	.35	2,600	BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 107	A	8/4	50,000CT	0	20	.35	2,600	NTV-2	1 1/8	1 7/16	15/16 Dia.
MIT 149	A	30/12/4	50,000	0	4	11.5	3,800	MAH		7/16	1/2 x 7/16
MIT 156	A	30/12/4	50,000	0	12	7	3,500	BAH	1 1/16	5/8	1 7/32 x 3/4
MIT 184	A	30/7.5	50,000	0	3		.25	BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 141	A	50 to 200	62,500 to 250,000	0	12	16	2,500	MAH		19/32	7/8 x 43/64
MIT 121	S	160	4/8	35	20	13.7	.72	BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 122	S	160	4/8	35	20	13.7	.72	NAV-2	1 1/8	1 7/16	15/16 Dia.
MIT 148	A	200CT	200,000	0	4	35	5,000	BCH	9/16	1/2	9/16 x 7/16
MIT 169	A	200CT*	250,000CT*	0	4			BAH	1	1/2	1 3/16 x 19/32
MIT 176	A	200CT*	250,000CT*	0	5			BAH	1 5/32	5/8	1 13/32 x 3/4
MIT 67	A	200	250,000	0	9	13.4	3,580	MAH		7/16	3/4 x 5/8
MIT 68	A	200	250,000	0	9	13.4	3,580	RAV-3	1 5/32	29/32	7/8 Dia.
MIT 85	A	200	250,000	0	12	21.5	2,650	BAH	1 1/16	5/8	1 1/4 x 19/32
MIT 86	A	200	250,000	0	12	21.5	2,650	RAV-3	1 5/32	1 3/32	7/8 Dia.
MIT 160	A	200	500,000	0	12	63	4,900	BAH	1 1/16	5/8	1 1/4 x 3/4
MIT 133	A	200	500,000	0	20	17.5	4,800	BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 134	A	200	500,000	0	20	17.5	4,800	NAV-2	1 1/8	1 7/16	15/16 Dia.
MIT 196	A	200	500,000	0	20			BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 127	A	250/50	600/250/50	0	20	17.5	33.5	BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 193	L	250/50CT	600/250/50CT	0	6			BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 128	A	250/50	600/250/50	0	20	17.5	33.5	NAV-2	1 1/8	1 7/16	15/16 Dia.
MIT 109	S	400CT	4/8	0	20	37	1	BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 110	S	400CT	4/8	0	20	37	1	NAV-2	1 1/8	1 7/16	15/16 Dia.
MIT 10	S	400	50	3	1	70	9.3	MAH		3/8	3/8 x 11/32
MIT 11	S	400	50	3	1	70	9.3	RAV-1		27/64	7/16 Dia.
MIT 24	S	400	50	3	2.5	54	6.3	MAH		3/8	3/8 x 3/8
MIT 25	S	400	50	3	2.5	54	6.3	RAV-2		41/64	17/32 Dia.
MIT 41	J	500	500	0	4	45	45	MAH		7/16	1/2 x 7/16
MIT 42	J	500	500	0	4	45	45	RAV-2		23/32	21/32 Dia.
MIT 7	S	600	50	3	1	66	7.7	MAH		3/8	3/8 x 11/32
MIT 8	S	600	50	3	1	66	7.7	RAV-1		27/64	7/16 Dia.
MIT 27	S	600	50	3	2.5	64	7.5	MAH		3/8	3/8 x 3/8
MIT 28	S	600	50	3	2.5	64	7.5	RAV-2		41/64	17/32 Dia.
MIT 44	S	600	50	3	4	58	5.4	MAH		7/16	1/2 x 7/16
MIT 45	S	600	50	3	4	58	5.4	RAV-2		23/32	21/32 Dia.
MIT 166	L	600/250/50	600/250/50	2	12	80	85	BAH	1 1/16	5/8	1 7/32 x 3/4
MIT 56	A	600CT	1,200CT	.5	4	55	109	MAH		7/16	1/2 x 7/16
MIT 57	A	600CT	1,200CT	.5	4	55	109	RAV-2		23/32	21/32 Dia.
MIT 153	A	600/250/50	50,000	0	12	80	3,200	BAH	1 1/16	5/8	1 1/4 x 3/4
MIT 182	A	600/250/50CT	50,000	0	3			BAH	1 3/4	3/4	1 5/8 x 13/16
MIT 183	A	600/250/50CT	50,000CT	0	3			BAH	1 3/4	3/4	1 5/8 x 13/16
MIT 103	A	600/250/50	50,000CT	0	20	24.5	2,480	BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 104	A	600/250/50	50,000CT	0	20	24.5	2,480	NAV-2	1 1/8	1 7/16	15/16 Dia.
MIT 147	A	600/250/50	60,000	0	4	350	4,100	MAH		7/16	1/2 x 7/16
MIT 155	A	600/250/50	60,000CT	0	12	100	3,600	BAH	1 1/16	5/8	1 1/4 x 3/4
MIT 154	A	600/250/50	250,000	0	12	44	3,600	BAH	1 1/16	5/8	1 1/4 x 3/4
MIT 16	S	1,000	50/60	3	1	160	9	MAH		3/8	3/8 x 11/32
MIT 17	S	1,000	50/60	3	1	160	9,600	RAV-1		27/64	7/16 Dia.
MIT 33	S	1,000	50	3	2.5	163	11.7	MAH		3/8	3/8 x 3/8
MIT 34	S	1,000	50	3	2.5	163	11.7	RAV-2		41/64	17/32 Dia.
MIT 62	S	4,000	3.2	0	4	488	.5	MAH		7/16	1/2 x 7/16
MIT 63	S	4,000	3.2	0	4	488	.5	RAV-2		23/32	21/32 Dia.
MIT 167	J	5,000CT	5,000CT	0	12	1,710	2,425	BAH	1 1/16	5/8	1 7/32 x 3/4
MIT 151	S	10,000	200	1	4	1,500	120	MAH		7/16	1/2 x 7/16
MIT 171	S	10,000	200	3	100			BAH	1	1/2	1 3/16 x 19/32
MIT 178	S	10,000	200	3	120			BAH	1 5/32	5/8	1 13/32 x 3/4
MIT 143	S	10,000 to 25,000	200 to 500	3	200	1,225	30	MAH		19/32	7/8 x 43/64
				1.5							
MIT 170	J	10,000	90,000	0	3			BAH	1	1/2	1 3/16 x 19/32
MIT 70	J	10,000	90,000	.25	9	820	3,500	MAH		7/16	3/4 x 5/8
MIT 71	J	10,000	90,000	.25	9	820	3,500	RAV-3	1 5/32	29/32	7/8 Dia.
MIT 88	J	10,000	90,000	.25	12	222	2,800	BAH	1 1/16	5/8	1 1/4 x 19/32
MIT 89	J	10,000	90,000	.25	12	222	2,800	RAV-3	1 5/32	1 3/32	7/8 Dia.
MIT 177	J	10,000	90,000	0	9			BAH	1 5/32	5/8	1 13/32 x 3/4
MIT 142	J	10,000	90,000	0	200	215	1,850	MAH		19/32	7/8 x 43/64
MIT-192	J	10,000	1 MEG	0	12			BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 136	J	10,000	1 MEG	0	20	377	5,400	BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 137	J	10,000	1 MEG	0	20			NAV-2	1 1/8	1 7/16	15/16 Dia.
MIT 165	J	12,000CT	600CT*	2	12	1,000	60	BAH	1 1/16	5/8	1 1/4 x 3/4
MIT 163	S	15,000	600/250/50	3	12	1,450	59	BAH	1 1/16	5/8	1 1/4 x 3/4
MIT 162	S	15,000	600/250/50	4	12	1,330	58	BAH	1 1/16	5/8	1 1/4 x 3/4
MIT 118	S	15,000	600/250/50	4	20	1,250	32	BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 158	S	15,000	600/250/50	4	20	1,250	32	NAV-2	1 1/8	1 7/16	15/16 Dia.
MIT 189	S	15,000	600/250/50CT	0	8			BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 190	S	15,000	600/250/50CT	21	4			BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 157	J	15,000	50,000	3	12	1,100	2,860	BAH	1 1/16	5/8	1 1/4 x 3/4
MIT 158	J	15,000	60,000CT	3	12	1,350	2,700	BAH	1 1/16	5/8	1 1/4 x 3/4
MIT 185	J	15,000	60,000	0	4			BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 186	J	15,000	60,000	4	25			BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 112	J	15,000	60,000	2	20	1,250	3,450	BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 113	J	15,000	60,000	2	20	1,250	3,450	NAV-2	1 1/8	1 7/16	15/16 Dia.
MIT 115	J	15,000	90,000	0	20	1,250	5,900	BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 116	J	15,000	90,000	0	20	1,250	5,900	NAV-2	1 1/8	1 7/16	15/16 Dia.
MIT 159	J	15,000	95,000CT	3	12	1,330	3,330	BAH	1 1/16	5/8	1 1/4 x 3/4
MIT 187	J	15,000	95,000CT	0	3			BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 188	J	15,000	95,000CT	4	12			BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 150	J	15,000	135,000	1	4	985	4,400	MAH		7/16	1/2 x 7/16
MIT 161	J	15,000	1 MEG	1	12	550	4,450	BAH	1 1/16	5/8	1 1/4 x 3/4
MIT 164	S	20,000CT	600/250/50	2	12	2,000	70	BAH	1 1/16	5/8	1 1/4 x 3/4
MIT 4	J	20,000	1,000	.5	1	930	95	MAH		3/8	3/8 x 11/32
MIT 5	J	20,000	1,000	.5	1	930	95	RAV-1		27/64	7/16 Dia.
MIT 1	J	20,000	1,000	.5	1	1,150	175	MAH		3/8	3/8 x 11/32
MIT 2	J	20,000	1,000	.5	1	1,150	175	RAV-1		27/64	7/16 Dia.
MIT 21	J	20,000	1,000	.5	2.5	1,080	125	MAH		3/8	3/8 x 3/8
MIT 22	J	20,000	1,000	.5	2.5	1,080	125	RAV-2		41/64	17/32 Dia.
MIT 73	S	25,000	500	.5	9	1,750	30	MAH		7/16	3/4 x 5/8
MIT 74	S	25,000	500	.5	9	1,750	30	RAV-3	1 5/32	29/32	7/8 Dia.
MIT 91	S	25,000	500	1.5	12	1,750	29	BAH	1 1/16	5/8	1 1/4 x 19/32
MIT 92	S	25,000	500	1.5	12	1,750	29	RAV-3	1 5/32	1 3/32	7/8 Dia.
MIT 59	J	25,000	600	.5	4	1,620	36	MAH		7/16	1/2 x 7/16
MIT 60	J	25,000	600	.5	4	1,620	36	RAV-2		23/32	21/32 Dia.
MIT 53	J	25,000CT	1,200	.5	4	1,580	97	MAH		7/16	1/2 x 7/16
MIT 54	J	25,000CT	1,200	.5	4	1,580	97	RAV-2		23/32	21/32 Dia.
MIT 76	S	30,000	50	1	9	2,600	4.7	MAH		7/16	3/4 x 5/8
MIT 77	S	30,000	50	1	9	2,600	4.7	RAV-3	1 5/32	29/32	7/8 Dia.
MIT 94	S	30,000	50	1	12	1,900	3.9	BAH	1 1/16	5/8	1 1/4 x 19/32
MIT 95	S	30,000	50	1	12	1,900	3.9	RAV-3	1 5/32	1 3/32	7/8 Dia.
MIT 172	S	30,000	50	1	100			BAH	1	1/2	1 3/16 x 19/32
MIT 179	S	30,000	50	1	100			BAH	1 5/32	5/8	1 13/32 x 3/4
MIT 144	S	30,000	50	1	200	1,850	3.8	MAH		19/32	7/8 x 43/64
MIT 36	J	30,000	150	.5	2.5	1,610	15	MAH		3/8	3/8 x 3/8
MIT 37	J	30,000	150	.5	2.5	1,610	15	RAV-2		41/64	17/32 Dia.
MIT 191	J	30,000CT	600/250/50CT	0	8			BAH	1 3/8	3/4	1 5/8 x 13/16
MIT-175	S	30,000	1,200	.5	100			BAH	1	1/2	1 3/16 x 19/32
MIT 47	S	50,000	3.4	.5	4	2,270	.9	MAH		7/16	1/2 x 7/16
MIT 48	S	50,000	3.4	.5	4	2,270	.9	RAV-2		23/32	21/32 Dia.
MIT 192	L	50,000	600/250/50CT	0	3			BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 124	L	50,000CT	600/250/50	0	20	2,480	24.5	BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 125	L	50,000CT	600/250/50	0	20	2,480	24.5	NAV-2	1 1/8	1 7/16	15/16 Dia.
MIT 79	S	100,000	60	.25	9	4,800	3.5	MAH		7/16	3/4 x 5/8
MIT 80	S	100,000	60	.25	9	4,800	3.5	RAV-3	1 5/32	29/32	7/8 Dia.
MIT 97	S	100,000	60	.25	12	4,000	4.3	BAH	1 1/16	5/8	1 1/4 x 19/32
MIT 98	S	100,000	60	.25	12	4,000	4.3	RAV-3	1 5/32	1 3/32	7/8 Dia.
MIT 174	S	100,000	60	.5	100			BAH	1	1/2	1 3/16 x 19/32
MIT 181	S	100,000	60	.5	120			BAH	1 5/32	5/8	1 13/32 x 3/4
MIT 146	S	100,000	60	.5	200	3,400	3.7	MAH		19/32	7/8 x 43/64
MIT 50	J	100,000	1,200	0	4	2,850	94	MAH		7/16	1/2 x 7/16
MIT 51	J	100,000	1,200	0	4	2,850	94	RAV-2		23/32	21/32 Dia.
MIT 13	A	200,000	1,000	0	1	2,600	135	MAH		3/8	3/8 x 11/32
MIT 14	A	200,000	1,000	0	1	2,600	135	RAV-1		27/64	7/16 Dia.
MIT 30	A	200,000	1,000	0	2.5	3,200	181	MAH		3/8	3/8 x 3/8
MIT 31	A	200,000	1,000	0	2.5	3,200	181	RAV-2		41/64	17/32 Dia.

Miniature Audio Inductors

OPEN FRAME AND ENCASED

Similar in operation to the military units above these units are ideally suited for coupling inductors, filters or audio suppresser applications in either transistor or tube type circuitry.

Part No.	Series Connected Inductance Henrys	Series Connected MADC	Series Connected Resistance In Ohms	Parallel Connected Inductance Henrys	Parallel Connected MADC	Parallel Connected Resistance In Ohms	Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W x D

THORDARSON MEISSNER

Inverters-DC to AC

Recent developments in the power transistor field have made possible the design or circuits which are efficient and rugged converters of low voltage DC to high voltage AC or DC power. These transistorized power supplies are ideally suited for powering all kinds of battery operated equipment such as mobile communication systems, aircraft and marine navigational systems, photoflash, ultrasonic applications and even 117V 60CPS from an automobile battery so as to operate 117V radio, television, electric shavers, etc. These transistor power supply transformers give a wide range of voltage and power to choose from. Complete instructions supplied with each transformer.

Part No.	DC Supply Voltage	Output Voltage	Power In Watts	Mtg. Type	Mtg. Centers	Dimensions H	W	D
TR 69	6	117 V @ 60 CPS	50†	GGV	1 5/8 x 2	3 1/8	2 5/8	2 5/8
TR 70	12	117 V @ 60 CPS	50†	GGV	1 5/8 x 2	3 1/8	2 5/8	2 5/8
TR 354	12	110/115/125 V @ 60 CPS	60†	GGV	2 x 1 7/8	3 1/8	2 5/8	2 5/8
TR 288	12	110/115/125 V @ 400 CPS	60†	TYL	1 7/8 x 1 3/8	1 7/8	2 1/4	2
TR 71	12	117 V @ 60 CPS	110†	GGV	2 3/16 x 2 1/2	3 7/8	3 3/16	3 1/2
TR 355	12	110/115/125 V @ 60 CPS	115†	GGV	2 1/2 x 2 3/8	3 7/8	3 9/32	3 1/4
TR 72	12	117 V @ 60 CPS	250†	GGV	3 1/16 x 3	4 5/8	3 13/16	4 9/16
TR 73	24	117 V @ 60 CPS	400†	GGV	3 5/8 x 3 7/8	5 7/8	4 3/8	6
TR 287	28	110/115/125 V @ 400 CPS	60†	TYL	1 7/8 x 1 3/8	1 7/8	2 1/4	2

Converter-Epoxy Molded Toroid DC to DC

Part No.	DC Supply Voltage	DC Output Voltage	Output Current In MADC	Power Output In Watts	Mtg. Type	Mtg. Hole Diameter	Dimensions H	Dia.
TR 269	12.6	250/125	100/200	25	TM1	11/64	11/16	1 3/4
TR 270	12.6	300/150	200/400	60	TM1	11/64	1	1 3/4
TR 271	12.6	325/162.5	150/300	49	TM1	11/64	1	1 3/4
TR 272	12.6	375/187.5	200/400	75	TM1	11/64	1	2
TR 273	12.6	450/225	150/300	68	TM1	11/64	1	2
TR 274	12.6	500/250	250/500	125	TM1	3/16	1 3/8	2 3/4
TR 275	12.6	600/300	200/400	120	TM1	3/16	1 3/8	2 3/4
TR 276	28	250/125	80/160	20	TM1	7/64	9/16	1 5/16
TR 277	28	300/150	100/200	30	TM1	11/64	11/16	1 3/4
TR 278	28	325/162.5	200/400	65	TM1	11/64	1	1 3/4
TR 279	28	375/187.5	200/400	75	TM1	11/64	1	2
TR 280	28	450/225	200/400	90	TM1	11/64	1	2
TR 281	28	500/250	250/500	125	TM1	3/16	1 3/8	2 3/4
TR 282	28	600/300	200/400	120	TM1	3/16	1 3/8	2 3/4
TR 283	6	300/150	100/200	30	TM1	11/64	1	1 3/4
TR 284	6	325/162.5	150/300	49	TM1	11/64	1	2
TR 285	6	375/187.5	200/400	75	TM1	3/16	1 3/8	2 3/4
TR 286	6	450/225	150/300	68	TM1	3/16	1 3/8	2 3/4

Converter-Encased-DC to DC-MIL-T-27B

Part No.	DC Supply Voltage	DC Output Voltage	Output Current In MADC	Power Output In Watts	Mtg. Type	Mtg. Centers	Dimensions H	W	D
27R167	3	1,000 (1/2 Wave)	.025	.025	AG-2	1 1/8	1 3/8	1	1
TR 463	2.7	480 (1/2 Wave)	.4	.195	BAH	1 3/8	1 11/16	13/16	2 7/32
27R20	12/14 or 24/28	250	60	15	AH	1 1/4	1 3/4	1 5/16	1 5/16
27R21	12/14 or 24/28	375	100	37.5	AJ	1 3/16 x 1 3/16	2 3/8	1 5/8	1 5/8
27R166	12/14	450/225	90/155	40	FA	1 11/16 x 1 7/16	3 1/8	2 5/16	2 1/16
27R22	12/14 or 24/28	425	175	53	FA	1 11/16 x 1 7/16	3 1/8	2 5/16	2 1/16
27R165	12/14	500/250	240/420	125	GA	2 1/8 x 1 3/4	3 13/14	2 3/4	2 3/8
27R23	12/14 or 24/28	550	200	110	GB	2 1/8 x 1 3/4	2 13/16	2 3/4	2 3/8
27R164	28	500/250	250/420	125	GA	2 1/8 x 1 3/4	3 13/16	2 3/4	2 3/8

† Power Rating for Resistive Loads. * Split C T Winding

Converter-DC to DC

POTTED & OPEN FRAME

Part No.	DC Supply Voltage	DC Output Voltage	Output Current In MADC	Power Output In Watts	Mtg. Type	Mtg. Centers	Dimensions H	W	D
TR 78	12	250/125	65/130	16.5	DAH	1 1/2	1 3/4	1 3/4	1 3/8
TR 79	6	250	200	50	TAV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16
TR 80	12	250	200	50	TAV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16
TR 81	12	250/125	400/800	100	TAV	1 3/4 x 2 11/16	3 5/16	2 1/2	3
TR 99	6 or 12	275-250 225-200	72	20	TAV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16
TR 74	12	300/150	67/133	20	TAV	1 1/4 x 2 1/8	2 1/4	1 7/8	2 7/16
TR 83	12	300/150	100/200	30	DAH	1 1/2	1 7/8	2 3/8	1 7/8
TR 84	12	300/150	400/800	120	TAV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16
TR 85	12	325/162	150/300	50	DAH	1 1/2	2	2 3/8	2 7/16
TR 87	12	375/187	200/400	75	DAH	1 1/2	2	2 3/8	2 7/16
TR 88	4.5	390/195	30/60	12	DAH	1 1/2	1 3/4	1 3/4	1 11/32
TR 75	12	400/200	50/100	20	TAV	1 1/4 x 2 1/8	2 1/4	1 7/8	2 7/16
TR 89	12	400	125	50	TAV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16
TR 76	6	450/225	40/80	18	TAV	1 1/4 x 2 1/8	2 1/4	1 7/8	2 7/16
TR 77	12	450/225	40/80	18	TAV	1 1/4 x 2 1/8	2 1/4	1 7/8	2 7/16
TR 90	12	450/225	89/178	40	TAV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16
TR 91	12	450/225	270/540	120	TAV	1 3/4 x 2 11/16	3 5/16	2 1/2	3
TR 92	12	500/250	165/275	82	TAV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16
TR 93	12	500/250	200/400	100	TAV	1 3/4 x 2 11/16	3 5/16	2 1/2	3
TR 94	12	500/250	300/600	150	TAV	1 3/4 x 2 11/16	3 5/16	2 1/2	3
TR 82	12	500/275	62.5/125	35	TAV	1 1/4 x 2 1/8	2 1/4	1 7/8	2 7/16
TR 95	12	600/300	200/400	120	DAH	3 11/16	2	4 1/8	3
TR 86	12	700/350	43/86	30	TAV	1 1/4 x 2 1/8	2 1/4	1 7/8	2 7/16
TR 96	12	800/400	150/300	120	TAV	1 3/4 x 2 11/16	3 5/16	2 1/2	3
TR 97	12	1,000/500	100/200	100	TAV	1 3/4 x 2 11/16	3 5/16	2 1/2	3
TR 98	12	3,000/1,500	6.5/13	20	TAV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16

Converter

MOBILE OR FIXED POWER SUPPLY

Part No.	Primaries	Secondaries	Mtg. Type	Mtg. Centers	Dimensions H	W	D
TR 294	12.6 Volts DC or 117 Volts AC @ 60 Cycles	280 Volts DC @ 150 MADC and 12.6 Volts AC @ 3 Amps (With 117 Volt Pri. only)	GGV	2 1/2 x 2 11/16	3 7/8	3 7/8	3 1/8

Converter-Photoflash Power Supply

Part No.	Primary	Secondary	Mtg. Type	Mtg. Centers	Dimensions H	W	D
25R58	Discharge for .25 MFD at 225 or 250 Volts DC Trigger Type Transformer	6 KV Peak	RTV		15/16	7/8 Dia.	
25R57	4.5 V DC (Inverter Type)	Output to Feed 25R56	RTV	11/16	1 3/16	7/8 Dia.	
25R56	115 V, 50/60 CPS or 4.5 Volts DC. Battery switched with 25R57 Inverter.	400 Volts DC from Voltage Doubler Circuit.	KTH-A	2 3/8	1 7/8	2 13/16	1 3/4

Blocking Oscillator-Converters

Designed specifically for use in single transistor blocking oscillator circuits. The DC output voltage of TR 464 is rated for a quadruple rectifier circuit and may vary some from these ratings due to bias and component value. All other DC voltage ratings are with 1/2 wave single capacitor input filter.

Part No.	DC Supply Voltage	DC Output Voltage	Output Current In Micro Amps	Turns Ratio Pri. : Sec.	Turns Ratio Feed-back	Mtg. Type	Mtg. Centers	Dimensions H	W	D
TR 464	4	425/500	50	44 : 1	: 1	MAH		7/16	7/16	1/2
TR 465	3	535 (1/2 Wave)	90	65.5 : .33	: 1	BAH	1 3/8	3/4	1 5/8	13/16
TR 462	3	1,000 (1/2 Wave)	25	600 : 12	: 1	BAH	1 3/8	3/4	1 5/8	13/16
27R167	3	1,000 (1/2 Wave)	25	600 : 12	: 1	AG-2	1 1/8	1 3/8	1	1

TRANSFORMERS — Mil-T-27B Steel Jacket Line

Mil-T-27B Case Dimensions

AS DESIGNATED IN MIL-T-27B SPECIFICATIONS

Mtg. Type	-A-	-B-	-C-	D. x E.	Stud Size	Mtg. Type	-A-	-B-	-C-	D. x E.	Stud Size
AF	3/4	3/4	1 1/8	9/16	4-40x3/8	JA	3 9/16	3 1/16	4 7/8	2 5/8x2 1/8	8-32x3/8
AG	1	1	1 3/8	3/4	4-40x3/8	JB	3 9/16	3 1/16	3 7/8	2 5/8x2 1/8	8-32x3/8
AH	1 5/16	1 5/16	1 3/4	1 1/4	6-32x3/8	KA	3 15/16	3 3/8	5 1/4	3x2 7/16	10-32x1/2
AJ	1 5/8	1 5/8	2 3/8	1 3/16x1 3/16	6-32x3/8	KB	3 15/16	3 3/8	4 5/16	3x2 7/16	10-32x1/2
EA	1 15/16	1 13/16	2 3/4	1 3/8x1 1/4	6-32x3/8	LA	4 5/16	3 11/16	5 9/16	3 5/16x2 11/16	10-32x1/2
EB	1 15/16	1 13/16	2 7/16	1 3/8x1 1/4	6-32x3/8	LB	4 5/16	3 11/16	4 1/2	3 5/16x2 11/16	10-32x1/2
FA	2 5/16	2 1/16	3 1/8	1 11/16x1 7/16	6-32x3/8	MA	4 11/16	4	6	3 11/16x3	1/4-20x5/8
FB	2 5/16	2 1/16	2 1/2	1 11/16x1 7/16	6-32x3/8	MB	4 11/16	4	4 15/16	3 11/16x3	1/4-20x5/8
GA	2 3/4	2 3/8	3 13/16	2 1/8x1 3/4	6-32x3/8	NA	5 1/16	4 5/16	6 13/16	4 1/16x3 5/16	1/4-20x5/8
GB	2 3/4	2 3/8	2 13/16	2 1/8x1 3/4	6-32x3/8	NB	5 1/16	4 5/16	5 1/2	4 1/16x3 5/16	1/4-20x5/8
HA	3 1/16	2 5/8	4 1/4	2 19/64x1 55/64	8-32x3/8	OA	5 1/2	4 1/2	6 3/4	3 3/4x3	1/4-20x5/8
HB	3 1/16	2 5/8	3 3/16	2 19/64x1 55/64	8-32x3/8						

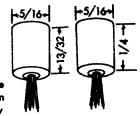
YY and ZZ Case Types

	A	B	C	D	E
YY-1	1.198	1.198	2	1 5/32	
YY-2	1 1/4	1 1/16	2 1/4	1 3/16	
YY-3	1 5/16	1 5/16	1 3/4	1 11/32	
YY-4	1 7/16	1 7/16	2 1/2	1 3/8	
YY-5	1 7/16	1 7/16	2 1/2	1	1
YY-6	1.361	1.361	2.037	1 5/16	
YY-7	1 1/2	1 1/4	2 3/8	1 15/32	
YY-8	1 1/2	1 1/2	2	1	1
YY-9	1 1/2	1 1/2	2 1/2	1	1
YY-10	1 35/64	1 35/64	2 9/64	1	1
YY-11	1 9/16	1 9/16	3	1	1
YY-12	1 3/4	1 7/16	2 1/2	1 1/2	
YY-13	2	1 5/8	2 3/4	1 1/2	
YY-14	1 5/8	1 5/8	2 3/8	1 5/8	
YY-15	1.901	1.791	2.205	1 5/16	1 1/16
YY-16	1.901	1.791	2.424	1 5/16	1 1/16
YY-17	2.241	2.101	2.680	1 9/16	1 3/8
YY-18	2.241	2.101	2.930	1 9/16	1 3/8
YY-19	2 5/16	2 1/16	3 1/8	1 13/16	1 3/8
YY-20	2 1/2	2 3/16	1 7/8	1 3/4	1 3/8
YY-21	2.521	2.381	3.049	1 13/16	1 11/16
YY-22	2.521	2.381	3.299	1 13/16	1 11/16
YY-23	2 13/32	2 17/32	3 1/16	1 3/4	1 5/8
YY-24	2 9/16	2 3/16	4	1 3/4	1 3/4
YY-25	2 3/4	2 3/8	3 3/16	2 1/8	1 11/16
YY-26	1 13/16	1 11/16	2 1/8	2 1/8	1/2
YY-27	2.861	2.711	3.492	2	1 7/8
YY-28	2.861	2.711	3.742	2	1 7/8
YY-29	3	2 1/2	3 5/16	2 11/16	1 3/4
YY-30	3 1/16	2 11/16	3 5/8	2 7/8	1 15/16
YY-31	3.245	2.979	3.867	2 3/8	2 1/8
YY-32	3.245	2.979	4.242	2 3/8	2 1/8
YY-33	3.667	3.292	4.305	2 5/8	2 3/8
YY-34	3.667	3.292	4.680	2 5/8	2 3/8
YY-35	3 17/32	2 27/32	4	2 1/2	2 1/16
YY-36	3 9/16	2 13/16	3 1/2	2 1/2	2 1/16
YY-37	2 23/32	3 15/32	4 15/32	2 3/4	2 1/2
YY-39	3 15/16	3 3/8	5	2 3/4	2 1/2
YY-40	3 17/32	3 1/32	4 1/2	2 5/8	2 1/8
YY-41	4 1/8	3	3 1/8	3 5/8	2
YY-42	4.573	4.120	5.318	3 3/8	3
YY-43	5.323	4.792	6.068	3 3/8	3
YY-44	5	4	5	3 3/4	2 3/4
YY-45	5 7/8	4 3/4	6 5/8	4 7/8	3 3/4
YY-46A	6	5 1/8	6 3/4	5	4 3/16

	A	B	C	D	E
YY-47	6 1/4	5 3/4	6 3/4	5 1/8	4 1/4
YY-47A	6 1/4	5 3/4	6 3/4	4-1/4	4 1/2
YY-49	6 1/2	5 1/2	7 3/4	5 3/8	4 3/8
YY-50	6 3/4	6 1/2	8	5 5/8	5 3/8
YY-51	7	5 3/16	7 5/8	5	3 7/8
YY-52	6 1/2	5 1/2	7 3/4	5 3/8	4 1/8
YY-53	5 1/16	5 1/16	5 7/16	4 1/8	4 1/8
YY-54	3 29/32	3 5/32	4	2 13/16	2 1/4
YY-55	5 1/16	4 1/16	4 3/4	3 3/4	3 1/4
YY-56	4 5/8	3 15/16	5 15/16	3 3/8	3 3/16
YY-57	3 3/16	2 1/2	3 1/4	2 3/8	1 3/4
YY-58	6 1/32	5 7/16	5 1/4	4 3/8	4 1/4
YY-59	4 31/32	4 11/32	5 15/32	4 1/4	3 5/8
YY-60	1 3/4	1 7/8	2 13/32	1 1/16	1 5/16
YY-61	2 21/32	2 19/64	3 13/16	2	1 5/8
YY-62	4 23/32	4 11/32	5	4 5/16	3 7/8
YY-63	2 5/16	2 1/16	2 9/16	1 3/8	1 1/2
YY-64	3 5/16	2 9/16	2 13/16	2 5/8	2 1/8
YY-65	2 1/8	2 1/2	2 13/16	1 1/2	1 1/2
YY-66	3 9/16	2 13/16	4	2 1/2	2 1/16
YY-67	6 3/8	4 3/8	5 3/4	5 1/2	3 7/16
YY-68	4 19/32	4 31/32	4 1/8	3 1/4	3 3/8
YY-69	2 7/32	2 1/16	2 11/16	1 3/8	1 9/16
YY-70	3 1/2	2 25/32	3 1/2	3 1/8	2
YY-71	3 7/32	3	3 27/32	2 3/8	2 1/8
YY-72	4 5/16	4	5 9/16	3 5/16	2 11/16
YY-73	4 1/32	4 1/32	3 1/32	3 3/8	3 3/8
YY-74	5 11/32	5	3 1/2	4 5/8	4 5/16
YY-75	5 17/32	5 17/32	4 17/32	4 13/16	4 13/16
YY-76	8	6 17/32	5 17/32	7 1/16	5 5/8
YY-77	7 7/16	7 7/16	5	5 13/16	5 13/16
YY-78	12 7/8	2 11/16	3 3/8	2	1 3/4

NSV NTV	MTG. CENTERS	H	W	D
-3	1 1/8 x 1 1/8	1 5/8	1 3/8	1 3/8
-4	1 5/16 x 1 5/16	2 1/4	1 5/8	1 5/8
-5	1 1/2 x 1 1/2	2 1/2	1 13/16	1 13/16
-6	1 13/16 x 1 13/16	2 7/8	2 3/16	2 3/16
-7	2 3/32 x 2 3/32	3 1/4	2 9/16	2 9/16
-8	2 3/8 x 2 3/8	3 3/4	3	3
-9	2 11/16 x 2 11/16	4 1/8	3 7/16	3 7/16
-10	3 x 3	4 1/2	3 3/4	3 3/4
-11	3 9/16 x 3 9/16	5 1/2	4 1/2	4 1/2
-12	4 1/8 x 4 1/8	5 1/2	5 1/8	5 1/8
-13	4 7/8 x 4 7/8	7	5 3/4	5 3/4

Miniature Transistor Transformers



RAV 6 RAV 4

INCLUDES: (A) INPUT, (J) INTERSTAGE, (D) DRIVER, (M) MIXING OR MATCHING, (P) HAS PULSE APPLICATIONS, (S) OUTPUT.

Designed and built to meet MIL-T-27B Grade 4, Class R specifications. Ruggedly constructed, these units have exceptional reliability along with the highest ratings available today for their size. They can be used for different impedances than specified, the impedance ratio being constant. Useable frequency range is 100 cycles to 20,000 cycles. The dimensions shown in the RAV-6 drawing are optimum.

Part No.	MIL-T-27B Classification	Application	Overall Turns Ratio	Impedance Primary	Impedance Secondary	Unbal Pri MADC	Primary Resistance	Power In Milliwatts
MIT 241	TF4RX17YY	J, S, P	1:1	400/500CT	400/500*	8/6	47	500
MIT 296	TF4RX13YY	J, P	1:1	2,000/2,500CT	2,000/2,500*	3	200	100
MIT 247	TF4RX13YY	J	1:1	9,000/10,000CT†	9,000/10,000CT	1	801	100
MIT 236	TF4RX13YY	J, P	1:1	10,000/12,000CT	10,000/12,000CT	1	872	100
MIT 220	TF4RX17YY	S, M	1:1.1	500CT	600	5.6	35	500
MIT 221	TF4RX17YY	S	1.22:1	900CT	600	4	61	500
MIT 219	TF4RX17YY	S, M	1:1.41	300CT	600	7	20.1	500
MIT 297	TF4RX13YY	J	1:1.41	4,000/5,000CT†	8,000/10,000CT	2	320	100
MIT 244	TF4RX17YY	J, M, S	1.57:1	80/100CT	32/40*	12/10	10.9	500
MIT 222	TF4RX13YY	S, M	1.58:1	1,500CT	600	3	85	500
MIT 242	TF4RX17YY	D, J	1.82:1	400/500CT	120/150*	8/6	47	500
MIT 237	TF4RX13YY	J, P	1:2	2,000/2,500CT	8,000/10,000*	3	228	100
MIT 211	TF4RX13YY	D, J	2.21:1	10,000/12,500	2,000/2,500CT	1	820	100
MIT 238	TF4RX13YY	D, J	2.23:1	10,000/12,000CT	2,000/2,400*	1	612	100
MIT 225	TF4RX13YY	D, J	2.58:1	10,000/12,000CT	1,500/1,800CT	1	822	100
MIT 248	TF4RX13YY	J	2.58:1	8,000/10,000CT	1,200/1,500CT	1	640	100
MIT 210	TF4RX13YY	D, J	2.88:1	10,000/12,500	1,200/1,500CT	1	822	100
MIT 243	TF4RX17YY	J, M, S	3.15:1	400/500CT	40/50*	8/6	42	500
MIT 202	TF4RX17YY	S, M	3.17:1	500/600	50/60	3	73	100
MIT 212	TF4RX17YY	S	3.54:1	150/200CT	12/16	10	11	500
MIT 245	TF4RX12YY	J, P	4:1	1,000/1,250CT	16,000/20,000*	3.5	105	100
MIT 203	TF4RX13YY	S, M	4.47:1	1,000/1,200	50/60	3	114	100
MIT 209	TF4RX13YY	D, S	4.5:1	10,000/12,000	500/600CT	1	708	100
MIT 239	TF4RX13YY	D, J	4.5:1	20,000/30,000CT	1,000/1,500*	.5	780	100
MIT 213	TF4RX17YY	S	5:1	300/400CT	12/16	7	20	500
MIT 201	TF4RX13YY	D, J	5:1	20,000/30,000	800/1,200	.5	915	50
MIT 223	TF4RX13YY	D, J	5:1	20,000/30,000CT	800/1,200CT	.5	915	100
MIT 229	TF4RX17YY	S	6.35:1	120/150CT	3.2/4	10	10	500
MIT 214	TF4RX17YY	S	7.06:1	600/800CT	12/16	5	42	500
MIT 215	TF4RX17YY	S	8.2:1	800/1,070CT	12/16	4	51	500
MIT 216	TF4RX13YY	S	9.12:1	1,000/1,330CT	12/16	3.5	70	500
MIT 230	TF4RX17YY	S	10:1	320/400CT	3.2/4	7	20.1	500
MIT 217	TF4RX13YY	S	11.2:1	1,500/2,000CT	12/16	3	110	500
MIT 204	TF4RX17YY	S, M	13.7:1	600	3.2	3	60.2	100
MIT 231	TF4RX17YY	S	14.1:1	640/800CT	3.2/4	5	42	500
MIT 246	TF4RX16YY	A	14.6:1	100,000CT†	500CT	0	7,500	25
MIT 207	TF4RX16YY	A	14.6:1	200,000	1,000	0	8,200	25
MIT 224	TF4RX16YY	A	14.6:1	200,000CT	1,000CT	0	8,200	25
MIT 232	TF4RX17YY	S	15.8:1	800/1,000CT	3.2/4	4	53	500
MIT 233	TF4RX13YY	S	18.2:1	1,060/1,330CT	3.2/4	3.5	71	500
MIT 205	TF4RX13YY	S	19.3:1	1,200	3.2	2	125	100
MIT 234	TF4RX13YY	S	20.3:1	1,600/2,000CT	3.2/4	3	110	500
MIT 218	TF4RX13YY	S	25:1	7,500/10,000CT	12/16	1	500	100
MIT 240	TF4RX13YY	J, S	31.6:1	40,000/50,000CT	400/500*	.25	1,700	50
MIT 235	TF4RX13YY	S	50:1	8,000/10,000CT	3.2/4	1	425	500
MIT 206	TF4RX13YY	S	56:1	10,000	3.2	1	795	100
MIT 249	TF4RX20YY	Inductor	Series Connected: 8H @ 3MADC Parallel Connected: 2H @ 6MADC				5,100 1,270	
MIT 226	TF4RX20YY	Inductor	1.5H @ 5MADC				2,160	
MIT 208	TF4RX20YY	Inductor	1H @ 5MADC				617	
MIT 227	TF4RX20YY	Inductor	.5H @ 11MADC				103	
MIT 228	TF4RX20YY	Inductor	.15H @ 20MADC				24	
MIT 250	TF4RX20YY	Inductor	Series Connected: .06H @ 30MADC Parallel Connected: .015H @ 60MADC				10 2.5	
MIT 200	TF4RX03YY	Filament	Primary: 28 Volts @ 380 to 1,000 Cycles Secondary: 6.3 Volts @ 60MADC					
MIT 298	TF4RX03YY	Filament	Primary: 28 Volts @ 380 to 1,000 Cycles Secondary: 6.3 Volts @ 30MADC and 6.3 Volts @ 30MADC					
MIT 299	TF4RX03YY	Isolation	Primary: 28 Volts @ 380 to 1,000 Cycles Secondary: 28 Volts @ 20MADC					
MIT 300		Shield	High Permeability cover and shield, providing 25 to 30DB shielding					

† Static Shielded. * Split Windina.

For Mounting Illustrations and Cross References See Pages 1517-1520

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Miniature Transistor Transformers

RAV 5

INCLUDES: (A) INPUT, (J) INTERSTAGE, (D) DRIVER, (S) OUTPUT, (M) MIXING OR MATCHING, (P) HAS PULSE APPLICATIONS.

Designed and built to meet MIL-T-27B Grade 4, Class R specifications. The same rugged construction used in the manufacture of the units on the preceding page has been followed and these units have been reduced in height by almost 40%. They can be used for different impedances than specified, the impedance ratio being constant. Useable frequency range is 200 to 20,000 Cycles. The dimensions shown in the RAV-4 drawing are optimum.

Part No.	MIL-T-27B Classification	Application	Overall Turns Ratio	Impedance Primary	Impedance Secondary	Unbal. Pri. MADC	Primary Resistance	Power In Milliwatts
MIT 271	TF4RX17YY	J, S, P	1:1	400/500CT	400/500*	8/6	51	500
MIT 274	TF4RX13YY	J, P	1:1	2,000/2,500CT	2,000/2,500*	3	180	100
MIT 268	TF4RX13YY	J, P	1:1	10,000/12,000CT	10,000/12,000CT	1	970	100
MIT 262	TF4RX17YY	S, M	1:1.1	500CT	600	5	31	500
MIT 263	TF4RX17YY	J, S	1.22:1	900CT	600	4	52	500
MIT 261	TF4RX17YY	J, S	1:1.41	300CT	600	7	20	500
MIT 275	TF4RX13YY	J	1:1.41	4,000/5,000CT†	8,000/10,000CT	2	300	100
MIT 273	TF4RX17YY	J, S	1.58:1	80/100CT	32/40*	12/10	12	500
MIT 252	TF4RX13YY	S	1.58:1	1,500CT	600	3	90	500
MIT 269	TF4RX13YY	J, P	1:2	2,000/2,500CT	8,000/10,000*	3	180	100
MIT 270	TF4RX13YY	J	2.23:1	10,000/12,000CT	2,000/2,400*	1	620	100
MIT 260	TF4RX13YY	D	2.23:1	10,000/12,500	2,000/2,500CT	1	875	100
MIT 264	TF4RX13YY	J	2.58:1	10,000/12,000CT	1,500/1,800CT	1	875	100
MIT 259	TF4RX13YY	D	2.9:1	10,000/12,500	1,200/1,500CT	1	875	100
MIT 272	TF4RX17YY	J, S	3.16:1	400/500CT	40/50*	8/6	51	500
MIT 255	TF4RX17YY	S	3.16:1	500/600	50/60	3	65	100
MIT 256	TF4RX17YY	S	4.47:1	1,000/1,200	50/60	3	111	100
MIT 251	TF4RX13YY	D, S	4.47:1	10,000/12,000	500/600CT	1	880	100
MIT 254	TF4RX13YY	J	5:1	20,000/30,000	800/1,200	.5	705	50
MIT 253	TF4RX13YY	D, J	5:1	20,000/30,000CT	800/1,200CT	.5	705	50
MIT 257	TF4RX13YY	S	19.4:1	1,200	3.2	2	111	100
MIT 265	TF4RX20YY	Inductor	1.2H @ 4MADC				2,300	
MIT 258	TF4RX20YY	Inductor	.9H @ 4MADC				635	
MIT 266	TF4RX20YY	Inductor	.5H @ 6MADC				105	
MIT 267	TF4RX20YY	Inductor	.08H @ 10MADC				25	
MIT 295		High Permeability cover and shield providing 25 to 30 DB shielding						

Designed and built to meet MIL-T-27B Grade 4, Class R specifications. Rugged construction, exceptional reliability, high power rating — all have been maintained in the design of these units. Provided with non-insulated .017 diameter, 1 1/4" long, gold plated lead wire, these units may be welded or soldered in the circuitry. Standardized with the semiconductor industry, the leads are spaced on a .2" diameter circle. These units can be used for different impedances than shown, the impedance ratio being constant. Useable frequency range is 200 to 20,000 Cycles. The dimensions shown in the RAV-5 drawing are optimum.

Part No.	MIL-T-27B Classification	Application	Overall Turns Ratio	Impedance Primary	Impedance Secondary	Unbal. Pri. MADC	Primary Resistance	Power In Milliwatts
MIT 283	TF4RX17YY	J, S, P	1:1	400/500CT	400/500*	8/6	50	500
MIT 293	TF4RX13YY	J, P	1:1	10,000/12,000CT	10,000/12,000CT	1	975	100
MIT 285	TF4RX17YY	S, M	1:1.1	500CT	600CT	5	34	500
MIT 281	TF4RX17YY	J, S, M	1:1.41	300CT	600CT	7	20	500
MIT 280	TF4RX17YY	J, S	1.58:1	80/100CT	32/40*	12/10	10	500
MIT 287	TF4RX17YY	S, M	1.58:1	1,500CT	600CT	3	91	500
MIT 288	TF4RX13YY	J, P	1:2	2,000/2,500CT	8,000/10,000*	3	185	100
MIT 291	TF4RX13YY	D, J	2.23:1	10,000/12,000CT	2,000/2,400CT	1	875	100
MIT 292	TF4RX13YY	D, J	2.23:1	10,000/12,500CT	2,000/2,500*	1	620	100
MIT 290	TF4RX13YY	D, S	2.9:1	10,000/12,500CT	1,200/1,500CT	1	87	100
MIT 282	TF4RX17YY	J, S	3.16:1	400/500CT	40/50*	8/6	50	500
MIT 284	TF4RX17YY	S, M	3.16:1	500/600CT	50/60CT	3	65	500
MIT 286	TF4RX13YY	S, M	4.47:1	1,000/1,200CT	50/60CT	3	111	500
MIT 289	TF4RX13YY	D, S	4.47:1	10,000/12,000CT	500/600CT	1	87	100
MIT 294	TF4RX13YY	D, J	5:1	20,000/30,000CT	800/1,200CT	.5	875	50
MIT 279	TF4RX20YY	Split Inductor	Series Connected: 1.2H @ 4MADC				2,300	
			Parallel Connected: .3H @ 8MADC				575	
MIT 278	TF4RX20YY	Split Inductor	Series Connected: .9H @ 4MADC				635	
			Parallel Connected: .2H @ 8MADC				155	
MIT 277	TF4RX20YY	Split Inductor	Series Connected: .5H @ 6MADC				100	
			Parallel Connected: .1H @ 12MADC				25	
MIT 276	TF4RX20YY	Split Inductor	Series Connected: .08H @ 10MADC				25	
			Parallel Connected: .02H @ 20MADC				6	

* Split winding. † Static Shielded.

Input-Interstage-Driver

INCLUDES: TRANSISTOR AND TUBE TYPE — MOLDED AND ENCASED

Designed and built to meet all the requirements of MIL-T-27B specifications for their specified class of operations. Listed in order of the primary impedance — this complete list of Input-Interstage & Driver Transformers makes available an almost endless variety of high quality-miniature and compact audio transformers. Both Transistor (Tr.) and tube type transformers may be used at slightly different impedances than specified, the impedance ratio being constant. The dimensions shown in the RAV-4, RAV-5, and RAV-6 drawings are optimum.

Part No. Molded	Part No. Encased	MIL-T-27B Classification	Application	Impedance Primary	Impedance Secondary	Pri. MADC	Power In MW	Frequency Response ±2DB	Case Size
	27A96	TF4QX16YY	Mike or V.C. to Tr.	30/12/4	1,000	0	1	40-24,000§	TJZ
	27A95	TF4QX10YY	Mike or V.C. to Grid	30/12/4	50,000	0	1	70-20,000§	TJZ
	27A84	TF4RX10YY	Mike or V.C. to Grid	30/12/4	50,000	0	1	50-15,000§	AF-1
	27A22	TF4RX10YY	Mike or V.C. to Grid	30/12/4	50,000	0	1	50-12,000	NSV-2
27A282		TF5RX10ZZ	Mike to Grid	30/7.5	50,000	0	3	20-20,000	M-11
	27A271	TF4RX10YY	Mike to Grid	30/7.5	50,000	0	3	20-20,000	NSV-2
	27A258	TF4RX10YY	Mike to Grid	30/7.5	50,000	0	3	20-20,000	AG-2
	27A75▲	TF4RX10YY	Mike to Grid	30	127,500	0	1	40-12,000§	YY-12
27A170		TF5RX21ZZ	TR. Input	50	600	1.5	15	200-10,000	M8
	27A143	TF4RX11YY	Mike to Grid	50	50,000	1	1	200-5,000	NSV-2**
	27A16	TF4RX10YY	Input to Grid	50	62,500	0	20	100-15,000§	TSM
27A68		TF5RX17ZZ	Tr. Interstage	80CT to 100CT	32CT to * 40CT*	16	250	50-20,000	M2
	MIT 273	TF4RX17YY	Tr. Interstage	80CT to 100CT	32CT to * 40CT*	12 10	500	††	RAV-4
	MIT 280	TF4RX17YY	Tr. Interstage	80CT to 100CT	32CT to* 40CT*	12 10	500	††	RAV-5
	MIT 244	TF4RX17YY	Tr. Interstage	80CT to 100CT	32CT to* 40CT*	12 10	500	††	RAV-6
	27A36	TF4RX11YY	Mike to Grid	82	135,000	50	63	250-8,000	NSV-2
	27A114	TF4RX17AH	Tr. Interstage	100CT	10CT		250		AH
	27A149	TF4RX17YY	Tr. Interstage	100CT*	40CT*	40	250	100-20,000	NSV-2
27A328		TF5RX17ZZ	Tr. Interstage	100	40CT*	100	500	200-20,000	M-11
	27A312	TF4RX17YY	Tr. Interstage	100	40CT*	100	500	200-20,000	NSV-2
	27A296	TF4RX17YY	Tr. Interstage	100	40CT*	100	500	200-20,000	AG-2
	27A119	TF4RX17EB	Tr. Interstage	100	100CT	100	500		EB
	27A115	TF4RX17AJ	Tr. Interstage	100	1,000CT	100	250		AJ
	27A142	¥F4RX11YY	Tr. Input	100CT	90,000CT	1	1		NSV-2**
	27A131	TF4SY21AG	Tr. Input or Interstage	125	500CT	4	300	100-8,000	AG
	27A145	TF4RX10YY	Line to Grid	125	120,000	0	3	400-5,000§§	NSV-4
	27A10	TF4RX11FA	Mike to Grid	125/50	125,000CT	0	10	200-3,500§§	FA
	27A127	TF4RX11YY	Mike to Grid	125/50	125,000CT	0	10	200-3,500§§	YY-17
	27A138	TF4QX11AH	Input	150	100,000CT	0	10	200-3,000§§	AH
	27D36	TF4RX17YY	Tr.Driver	200CT	400CT*	20	1W	40-20,000	NSV-4
27A183		TF5RX10ZZ	Input	200/50	250,000/62,500	0	3	200-10,000	M-9
	27A180	TF4RX10YY	Input	200/50	250,000/62,500	0	3	200-10,000	NSV-2B
27A347		TF5RX10ZZ	Input	200/50	250,000/62,500	0	4	80-10,000	M-10
	27A345	TF4RX10YY	Input	200/50	250,000/62,500	0	4	80-10,000	NSV-2C
	27A343	TF4RX10YY	Input	200/50	250,000/62,500	0	4	80-10,000	AF-2
27A50		TF5RX10ZZ	Input	200/50	250,000/62,500	0	5		M2A
27A61		TF5RX10ZZ	Input	200/50	250,000/62,500	0	10	50-20,000	M-2
27A293		TF5RX10ZZ	Mike to Grid	200	500,000	0	8	80-3,000	M-11
	27A279	TF4RX10YY	Mike to Grid	200	500,000	0	8	80-3,000	NSV-2
	27A269	TF4RX10YY	Mike to Grid	200	500,000	0	8	80-3,000	AG-2
	27A87	TF4QX10YY	Mike to Grid	200	500,000	0	10	200-10,000§	AF-1
27A291		TF5RX16ZZ	Mixing or Matching	250/50CT	600/250/50CT	0	6	20-20,000	M-11
	27A278	TF4RX16YY	Mixing or Matching	250/50CT	600/250/50CT	0	6	20-20,000	NSV-2
	27A267	TF4RX16YY	Mixing or Matching	250/50CT	600/250/50CT	0	6	20-20,000	AG-2
	27A99	TF4RX10YY	Line to Grid	250CT	50,000	0	6.3	30-20,000§§	Plug-In
	27A43	TF4RX10YY	Line to Grid	250 to 500CT	50,000 to 100,000CT	0	4	30-20,000	NSV-4
	MIT 261	TF4RX17YY	Mixing or Matching	300CT	600	7	500	††	RAV-4
	MIT 281	TF4RX17YY	Mixing or Matching	300CT	600CT	7	500	††	RAV-5

§ Response at ±3 DB §§ Response at ±1 DB ** Height = 1 11/16
‡ Static Shielded * Split C.T. Winding
▲ This unit is shielded for -90 DB hum reduction †† Average useable frequency range from 100 to 20,000 Cycles

Input-Interstage-Driver

INCLUDES: TRANSISTOR AND TUBE TYPE — MOLDED AND ENCASED

Part No. Molded	Part No. Encased	MIL-T-27B Classification	Application	Impedance Primary	Impedance Secondary	Unbal. Pri. MADC	Power In MW	Frequency Response ±2DB	Case Size
	MIT 219	TF4RX17YY	Mixing or Matching	300CT	600	7	500	††	RAV-6
27A67		TF5RX17ZZ	Interstage	400CT to 500CT	40CT to* 50CT*	8	250	50-20,000§	M2
	MIT 272	TF4RX17YY	Interstage	400CT to 500CT	40CT to* 50CT*	8 6	500	††	RAV-4
	MIT 282	TF4RX17YY	Interstage	400CT to 500CT	40CT to* 50CT*	8 6	500	††	RAV-5
	MIT 243	TF4RX17YY	Interstage	400CT to 500CT	40CT to* 50CT*	8 6	500	††	RAV-6
27A66		TF5RX17ZZ	Interstage	400CT to 500CT	120CT to* 150CT*	8	250		M2
	MIT 242	TF4RX17YY	Interstage	400CT to 500CT	120CT to* 150CT*	8 6	500	††	RAV-6
27A65		TF5RX17ZZ	Interstage	400CT to 500CT	400CT to* 500CT*	8	250	50-20,000	M2
	MIT 271	TF4RX17YY	Interstage	400CT to 500CT	40CT to* 500CT*	8 6	500	††	RAV-4
	MIT 283	TF4RX17YY	Interstage	400CT to 500CT	40CT to* 500CT*	8 6	500	††	RAV-5
	MIT 241	TF4RX17YY	Interstage	400CT to 500CT	40CT to* 500CT*	8 6	500	††	RAV-6
	MIT 255	TF4RX17YY	Matching	500 to 600	50 to 60	3	500	††	RAV-4
	MIT 284	TF4RX17YY	Matching	500CT to 600CT	50CT to 60CT	3	500	††	RAV-5
	MIT 202	TF4RX17YY	Matching	500 to 600	50 to 60	3	500	††	RAV-6
	27A42	TF4RX17YY	Tr. Interstage	500CT*	150CT*	20	250‡‡	100-20,000	NSV-2
27D50		TF5RX17ZZ	Tr. Driver	500CT	250CT	7.5	15	200-10,000	M8
	27A46	TF4RX17YY	Tr. to Line	500CT	500CT*	20	1	40-20,000	NSV-4
	27A92	TF4QX17YY	Tr. to Line	500CT	500CT	20	25	50-20,000§	AF-1
	27A41	TF4RX17YY	Tr. Interstage	500CT*	500CT*	20	250‡	100-20,000	NSV-2
	27A132	TF4RX17AG	Tr. Interstage	500CT*	500CT*	3	300		AG
TR 121		TF5RX17ZZ	Tr. Driver	500CT*	600	5.5	500	100-100,000‡	M1
	MIT 262	TF4RX17YY	Tr. to Line	500CT	600	5.5	500	††	RAV-4
	MIT 285	TF4RX17YY	Tr. to Line	500CT	600CT	5.5	500	††	RAV-5
	MIT 220	TF4RX17YY	Tr. to Line	500CT	600	5.5	500	††	RAV-6
	27A116	TF4RX17AJ	Tr. Interstage	500CT	5,000CT	0	30		AJ
	27A136	TF4RX17YY	Input	500CT/330/250/200CT/125/50	60,000CT*	0	63	30-20,000	YY-19
	27A20	TF4RX10YY	Mike, Line to Grid	500CT/200CT/50	50,000	0	3.2	50-15,000	NSV-2
	27A21	TF4RX10YY	Mike, Line to Grid	500CT/200CT/50*	50,000CT	0	3.2	50-15,000	NSV-2
	27D51	TF4RX17AJ	Tr. Interstage	560	400CT	18	150	200-20,000	AJ
	27A113	TF4RX17AG	Tr. Interstage	600CT	10	0	50		AG
	27A90‡	TF4QX16YY	Tr. Interstage	600/250/50	600/250/50	0	10	50-50,000§	AF-1
	27A29	TF4RX16YY	Tr. Interstage	600/250/50	600/150/50	0	10	50-15,000	NSV-2
	27A05■	TF4RX16FA	Tr. Interstage	600/150CT	600/150CT	0	31	30-15,000	FA
	27A12■	TF4RX16YY	Tr. Interstage	600/150CT	600/150CT	0	31	30-15,000	YY-18
	27A48	TF4RX16YY	Tr. Interstage	600,500/333/250,200/150,125/50	600,500/333/250,200/150 125/50	0	30	20-50,000	NSV-4
27A207		TF5RX17ZZ	Tr. Interstage	600	600	8	150	200-15,000	M9
	27A186	TF4RX17YY	Tr. Interstage	600	600	8	150	200-15,000	NSV-2B
27A327		TF5RX17ZZ	Tr. Interstage	600	600	10	200	200-15,000	M11
27A244		TF5RX17ZZ	Tr. Interstage	600	600				
	27A233	TF4RX17YY	Tr. Interstage	600	600	9	200	200-15,000	NSV-2C
	27A311	TF4RX17YY	Tr. Interstage	600	600	10	200	200-15,000	NSV-2
	27A228	TF4RX17YY	Tr. Interstage	600	600	9	200	200-15,000	AF-2
	27A295	TF4RX17YY	Tr. Interstage	600	600	10	200	200-15,000	AG-2
27A167		TF5RX21ZZ	Tr. Interstage	600CT	600CT	7	5	300-10,000	M7A
	27A37	TF4RX16YY	Mixing or Matching	600CT*	600CT	0	6.3	50-10,000	NSV-2
27A178		TF5RX17ZZ	Tr. Interstage	600CT	600CT	7	15	200-10,000	M8
27A221		TF5RX17ZZ	Tr. Interstage	600CT	600CT	16	150	200-15,000	M9
	27A200	TF4RX17YY	Tr. Interstage	600CT	600CT	16	150	200-15,000	NSV-2B
27A255		TF5RX17ZZ	Tr. Interstage	600CT	600CT	18	200	200-15,000	M10
27A342		TF5RX17ZZ	Tr. Interstage	600CT	600CT	20	200	200-15,000	M11
	27A243	TF4RX17YY	Tr. Interstage	600CT	600CT	18	200	200-15,000	NSV-2C
	27A326	TF4RX17YY	Tr. Interstage	600CT	600CT	20	200	200-15,000	NSV-2
	27A310	TF4RX17YY	Tr. Interstage	600CT	600CT	20	200	200-15,000	AG-2
27A148		TF5RX17ZZ	Tr. Interstage	600CT	600CT*	5	250	200-15,000	M2
27A212		TF5RX17ZZ	Tr. Interstage	600CT	1,200CT	16	150	200-15,000	M9
	27A191	TF4RX17YY	Tr. Interstage	600CT	1,200CT	16	150	200-15,000	NSV-2B
27A333		TF5RX17ZZ	Tr. Interstage	600CT	1,200CT	4	200	200-15,000	M11
27A249		TF5RX17ZZ	Tr. Interstage	600CT	1,200CT	18	200	200-15,000	M10
	27A317	TF4RX17YY	Tr. Interstage	600CT	1,200CT	4	200	200-15,000	NSV-2
	27A238	TF4RX17YY	Tr. Interstage	600CT	1,200CT	18	200	200-15,000	NSV-2C
	27A301	TF4RX17YY	Tr. Interstage	600CT	1,200CT	4	200	200-15,000	AG-2
27A227		TF5RX17ZZ	Tr. Interstage	600CT	1,200CT*	16	150	200-15,000	M9
	27A206	TF4RX17YY	Tr. Interstage	600CT	1,200CT*	16	150	200-15,000	NSV-2B
27A339		TF5RX17ZZ	Tr. Interstage	600CT*	1,200CT	4	200	200-15,000	M11
	27A323	TF4RX17YY	Tr. Interstage	600CT*	1,200CT	4	200	200-15,000	NSV-2
	27A307	TF4RX17YY	Tr. Interstage	600CT*	1,200CT	4	200	200-15,000	AG-2
	27A93	TF4QX17YY	Tr. Interstage	600CT	2,000CT*	0	25	50-20,000§	AF-1
	27A38	TF4RX16YY	Tr. Input	600CT*	2,000CT*	0	31	50-20,000§	NSV-2
	27A81	TF4QX10YY	Line or Mike to Grid	600/250/50	15,000	0	1	60-15,000§	AF-1
	27A130	TF4SY11AG	Tr. Input	600/50	20,000	0	60	400-7,500§	AG
	27A74■	TF4QX11YY	Line or Mike to Grid	600*/250*	38,400CT	10	100	30-20,000§	YY-13
27A280		TF5RX10ZZ	Line or Mike to Grid	600CT/250/50	50,000	0	3	20-20,000	M11
27A281		TF5RX10ZZ	Line or Mike to Grid	600CT/250/50	50,000CT	0	3	20-20,000	M11
	27A256	TF4RX10YY	Line or Mike to Grid	600CT/250/50	50,000	0	3	20-20,000	AG-2
	27A257	TF4RX10YY	Line or Mike to Grid	600CT/250/50	50,000CT	0	3	20-20,000	AG-2
	27A04■	TF4RX10FA	Line or Mike to Grid	600CT*	50,000CT*	0	31	30-15,000	FA
	27A120■	TF4RX10YY	Line or Mike to Grid	600CT*	50,000CT*	0	31	30-15,000	YY-18
	27A07■	TF4RX10FA	Line or Mike to Grid	600/250/150/50	50,000CT*	0	31	30-15,000	FA
	27A123■	TF4RX10YY	Line or Mike to Grid	600/250/150/50	50,000CT*	0	31	30-15,000	YY-18
	27A94	TF4QX10YY	Line or Mike to Grid	600/250/50	60,000	0	1	70-20,000§	TJZ
	27A83	TF4QX10YY	Line or Mike to Grid	600/250/50	60,000CT	0	1	60-15,000§	AF-1
	27A71‡	TF4QX10YY	Line or Mike to Grid	600*/250*/150/62.5	77,000	0	10	20-20,000§	YY-2
	27A70▲	TF4QX10YY	Line or Mike to Grid Static Shielded	600*/250*/150/62.5	77,000	0	10	20-20,000§	YY-12
	27A09	TF4RX10AJ	Line or Mike to Grid	600/150	100,000CT*	0	10	200-3,500	AJ
	27A126	TF4RX10YY	Line or Mike to Grid	600/150	100,000CT*	0	10	200-3,500	YY-10
	27A139	TF4RX10YY	Line or Mike to Grid	600,500CT/333 250,250CT/150,125/50	100,000CT*	0	15	30-15,000	YY-8
	27A14	TF4RX10YY	Line or Mike to Grid	600*/250CT*/150/62.5	117,600CT	0	10	30-15,000	YY-8
	27A76	TF4QX10YY	Line or Mike to Grid	600*/250CT*/150/62.5	117,600CT	0	10	20-20,000§	YY-12
	27A73■	TF4QX10YY	Line or Mike to Grid Static Shielded	600*/250CT*/150/62.5	117,600CT	0	10	20-20,000§	YY-12
	27A72▲	TF4QX10YY	Line or Mike to Grid Static Shielded	600*/250CT*/150/62.5	117,600CT	0	10	20-20,000§	YY-13
	27A82‡	TF4QX10YY	Line or Mike to Grid	600/250/50	250,000	0	1	100-15,000§	AF-1
	27A32	TF4RX10YY	Line or Mike to Grid	600/150CT*	1 MEG	0	10	300-2,500	NSV-2
	27D52	TF4RX17AJ	Tr. Interstage	625CT	100CT	20	1.5W	200-20,000	AJ
	27A137	TF4RX17YY	Tr. Interstage	800CT	600	50	250	300-3,000	NSV-2
	MIT 263	TF4RX17YY	Tr. Interstage	900CT	600	4	500	††	RAV-4
	MIT 221	TF4RX17YY	Tr. Interstage	900CT	600	4	500	††	RAV-6
TR 123		TF5RX17ZZ	Tr. Interstage	900CT*	600	4	500	100-100,000	M1
	27587	TF4QX21YY	Tr. to Line	1,000	50	5	1	100-10,000§	TJZ
	MIT 256	TF4RX13YY	Tr. to Line	1,000/1,200	50/60	3	100	††	RAV-4
	MIT 286	TF4RX13YY	Tr. to Line	1,000/1,200CT	50/60CT	3	500	††	RAV-5
	MIT 203	TF4RX13YY	Tr. to Line	1,000/1,200	50/60	3	100	††	RAV-6
	27A117	TF4RX17AG	Tr. Interstage	1,000	200CT	10	50		AG
27A133		TF2RX17ZZ	Tr. Interstage	1,000	5,000	1	10		BCH
	MIT 245	TF4RX12YY	Tr. Interstage	1,000CT to 1,250CT	16,000CT to* 20,000CT*	3.5 3.5	100	††	RAV-6
	27A146	TF4RX10AJ	Input	1,000	225,000	0	1	12-5,000	AJ
TR 124		TF5RX13ZZ	Driver	1,500CT*	600	3	500	100-10,000	M1
	MIT 252	TF4RX13YY	Driver	1,500CT	600	3	500	††	RAV-4
	MIT 287	TF4RX13YY	Driver	1,500CT	600CT	3	500	††	RAV-5
	MIT 222	TF4RX13YY	Driver	1,500CT	600	3	500	††	RAV-6
	27A118	TF4RX12AG	Tr. Interstage	2,000	200CT	5	50		AG
27A226		TF5RX13ZZ	Tr. Interstage	2,000CT	500CT	10	600	200-15,000	M-9
	27A205	TF4RX13YY	Tr. Interstage	2,000CT	500CT	10	600	200-15,000	NSV-2B
	MIT 274	TF4RX13YY	Tr. Interstage	2,000/2,500CT	2,000/2,500CT*	3	100	††	RAV-4

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For Mounting Illustrations and Cross References See Pages 1517-1520

THORDARSON MEISSNER

Input-Interstage-Driver

INCLUDES: TRANSISTOR AND TUBE TYPE — MOLDED AND ENCASED

Part No. Molded	Part No. Encased	MIL-T-27B Classification	Application	Impedance Primary	Impedance Secondary	Unbal. Pri. MADC	Power In MW	Frequency Response ±2DB	Case Size
	MIT 296	TF4RX13YY	Tr. Interstage	2,000/2,500CT	2,000/2,500CT*	3	100	††	RAV-6
	MIT 269	TF4RX13YY	Tr. Interstage	2,000/2,500CT	8,000/10,000CT*	3	100	††	RAV-4
	MIT 288	TF4RX13YY	Tr. Interstage	2,000/2,500CT	8,000/10,000CT*	3	100	††	RAV-5
	MIT 237	TF4RX13YY	Tr. Interstage	2,000/2,500CT	8,000/10,000CT*	3	100	††	RAV-6
27A340		TF5RX12ZZ	Tr. Interstage	2,500	600CT	10	1.5W	200-15,000	M11
	27A324	TF4RX12ZZ	Tr. Interstage	2,500	600CT	10	1.5W	200-15,000	NSV-2
	27A308	TF4RX12ZZ	Tr. Interstage	2,500	600CT	10	1.5W	200-15,000	AG-2
27A176		TF5RX21ZZ	Tr. Interstage	2,500	2,500CT	1.5	3	200-10,000	M8
27A165		TF5RX12ZZ	Tr. Interstage	2,500	2,500CT	1	50	300-100,000	M7
27A156		TF5RX12ZZ	Tr. Interstage	2,500	2,500CT	1	50	300-100,000	M3
27A218		TF5RX12ZZ	Tr. Interstage	2,500	2,500CT	2	200	200-15,000	M9
	27A197	TF4RX13YY	Tr. Interstage	2,500	2,500CT	2	200	200-15,000	NSV-2B
27A254		TF5RX13ZZ	Tr. Interstage	2,500	2,500CT	2.5	400	200-15,000	M10
	27A242	TF4RX13YY	Tr. Interstage	2,500	2,500CT	2.5	400	200-15,000	NSV-2C
	27A232	TF4RX13YY	Tr. Interstage	2,500	2,500CT	2.5	400	200-15,000	AF-2
27A214		TF5RX12ZZ	Tr. Interstage	4,000CT	600CT	5	600	200-15,000	M9
	27A193	TF4RX12YY	Tr. Interstage	4,000CT	600CT	5	600	200-15,000	NSV-2B
27A219		TF5RX13ZZ	Tr. Interstage	4,000CT	600CT*	5	600	200-15,000	M9
	27A198	TF4RX13YY	Tr. Interstage	4,000CT	600CT*	5	600	200-15,000	NSV-2B
27A335		TF5RX13ZZ	Tr. Interstage	4,000CT	600CT	3	1.5W	200-15,000	M11
	27A319	TF4RX13YY	Tr. Interstage	4,000CT	600CT	3	1.5W	200-15,000	NSV-2
	27A303	TF4RX13YY	Tr. Interstage	4,000CT	600CT	3	1.5W	200-15,000	AG-2
27A338		TF5RX13ZZ	Tr. Interstage	4,000CT	600CT*	3	1.5W	200-15,000	M11
	27A322	TF4RX13YY	Tr. Interstage	4,000CT	600CT*	3	1.5W	200-15,000	NSV-2
	27A306	TF4RX13YY	Tr. Interstage	4,000CT	600CT*	3	1.5W	200-15,000	AG-2
	MIT 275	TF4RX13YY	Tr. Interstage Static Shielded	4,000CT to 5,000CT	8,000CT to 10,000CT	2 2	100	††	RAV-4
	MIT 297	TF4RX13YY	Tr. Interstage Static Shielded	4,000CT to 5,000CT	8,000CT to 10,000CT	2	100	††	RAV-6
	27A91‡	TF4QX21YY	Isolation	5,000CT	5,000CT	1	10	60-15,000§	AF-1
	27D53	TF4RX13AH	Driver	5,400	600CT	15	75	200-15,000	AH
	27D54	TF4RX13AH	Driver	7,000	320CT	7	40	70-15,000	AH
27A220		TF5RX13ZZ	Tr. Interstage	7,500CT	600CT	4	150	200-15,000	M9
	27A199	TF4RX13YY	Tr. Interstage	7,500CT	600CT	4	150	200-15,000	NSV-2B
27A341		TF5RX12ZZ	Tr. Interstage	7,500CT	600CT	8	1.5W	200-15,000	M11
	27A325	TF4RX12YY	Tr. Interstage	7,500CT	600CT	8	1.5W	200-15,000	NSV-2
	27A309	TF4RX12YY	Tr. Interstage	7,500CT	600CT	8	1.5W	200-15,000	AG-2
27A225		TF5RX13ZZ	Tr. Interstage	7,500CT	1,200CT	4	150	300-15,000	M9
	27A204	TF4RX13YY	Tr. Interstage	7,500CT	1,200CT	4	150	300-15,000	NSV-2B
	27A151	TF4RX12YY	Chopper	8,000CT/2,000CT	312,000	(Pri. Ind. = 30 Hy @ 1 V. 60 N)			NSV-5
	MIT 248	TF4RX13YY	Tr. Interstage Static Shielded	8,000CT to 10,000CT	1,200CT to 1,500CT	1	100	††	RAV-6
	MIT 247	TF4RX13YY	Tr. Interstage Static Shielded	9,000CT to 10,000CT	9,000CT to 10,000CT	1	100	††	RAV-6
27A185		TF5RX13ZZ	Plate to Line	10,000	200	3	100	150-10,000	M9
	27A182	TF4RX13YY	Plate to Line	10,000	200	3	100	150-10,000	NSV-2B
27A216		TF5RX13ZZ	Interstage	10,000CT	200CT	6	100	200-15,000	M9
27A252		TF5RX13ZZ	Interstage	10,000CT	200CT	6	100	200-15,000	M10
	27A195	TF4RX13YY	Interstage	10,000CT	200CT	6	100	200-15,000	NSV-2B
	27A240	TF4RX13YY	Interstage	10,000CT	200CT	6	100	200-15,000	NSV-2C
	27A281	TF4RX13YY	Interstage	10,000CT*	200CT*	2	100	250-20,000§	TFH
27A55		TF5RX13ZZ	Interstage	10,000CT to 20,000CT	200CT to 500CT	2 1	100	80-20,000§	M2A
27D39		TF5RX13ZZ	Driver	10,000CT	500CT	1	50	100-100,000	M3
27D46		TF5RX13ZZ	Driver	10,000CT	500CT	1	50	100-100,000	M7
	MIT 251	TF4RX13YY	Driver	10,000 to 12,000	500CT to 600CT	1	100	††	RAV-4
	MIT 289	TF4RX13YY	Driver	10,000CT to 12,000CT	500CT to 600CT	1 1	100	††	RAV-5
	MIT 209	TF4RX13YY	Driver	10,000 to 12,000	500CT to 600CT	1 1	100	††	RAV-6
TR 133		TF5RX13ZZ	Driver	10,000CT*	500CT*	1	100	100-100,000	M1
	27A39	TF4RX13YY	Tr. Interstage	10,000CT	500CT*	4	100	100-10,000	NSV-2
27D49		TF5RX13ZZ	Driver	10,000CT	600CT	2	5	300-15,000	M7A
27A168		TF5RX13ZZ	Driver	10,000CT	1,200CT	2	5	300-10,000	M7A
	27A18	TF4RX13YY	Tr. Interstage	10,000CT	1,200CT	2	30	250-15,000	TSM
27D45		TF5RX13ZZ	Driver	10,000	1,200	.5	50	300-10,000	M7
27D41		TF5RX13ZZ	Driver	10,000	1,200	.5	50	300-10,000	M3
27D37		TF5RX13ZZ	Driver	10,000CT	1,200CT	1	50	100-100,000	M3
27D43		TF5RX13ZZ	Driver	10,000CT	1,200CT	1	50	100-100,000	M7
27D44		TF5RX13ZZ	Driver	10,000	1,200CT*	.5	50	100-100,000	M7
27D40		TF5RX13ZZ	Driver	10,000	1,200CT*	.5	50	100-100,000	M3
TR 127		TF5RX13ZZ	Driver	10,000	1,200CT*	1	100	100-100,000	M1
	MIT 259	TF4RX13YY	Driver	10,000 to 12,500	1,200CT to 1,500CT	1	100	††	RAV-4
	MIT 290	TF4RX13YY	Driver	10,000CT to 12,500CT	1,200CT to 1,500CT	1	100	††	RAV-5
	MIT 210	TF4RX13YY	Driver	10,000 to 12,500	1,200CT to 1,500CT	1	100	††	RAV-6
27A112		TF5RX13ZZ	Tr. Interstage	10,000CT	1,500CT	1	50	100-100,000§	M3
27A215		TF5RX13ZZ	Tr. Interstage	10,000CT	1,500CT	1	100	200-15,000	M9
27A58		TF5RX13ZZ	Tr. Interstage	10,000CT to 12,000CT	1,500CT to 1,800CT	4	100	80-20,000§	M2A
	MIT 264	TF4RX13YY	Tr. Interstage	10,000CT to 12,000CT	1,500CT to 1,800CT	1	100	††	RAV-4
	MIT 225	TF4RX13YY	Tr. Interstage	10,000CT to 12,000CT	1,500CT to 1,800CT	1	100	††	RAV-6
	27A194	TF4RX13YY	Tr. Interstage	10,000	1,500CT	1	100	200-15,000	NSV-2B
27A223		TF5RX13ZZ	Tr. Interstage	10,000CT	1,500CT	2	100	200-15,000	M9
TR 130		TF5RX13ZZ	Tr. Interstage	10,000CT*	1,500CT*	1	100	100-100,000	M1
27A251		TF5RX13ZZ	Tr. Interstage	10,000	1,500CT	1	200	200-15,000	M10
	27A239	TF4RX13YY	Tr. Interstage	10,000	1,500CT	1	200	200-15,000	NSV-2C
	27A350	TF4RX13YY	Tr. Interstage	10,000	1,500CT	1	200	200-15,000	AF-2
	27A202	TF4RX13YY	Tr. Interstage	10,000CT	1,500CT	2	100	200-15,000	NSV-2B
27A164		TF5RX12ZZ	Tr. Interstage	10,000	2,000CT*	.5	50	100-100,000§	M7
27A155		TF5RX12ZZ	Tr. Interstage	10,000	2,000CT*	.5	50	100-100,000§	M3
27A53		TF5RX13ZZ	Tr. Interstage	10,000	2,000CT	1	100	80-20,000	M2A
	MIT 260	TF4RX13YY	Driver	10,000 to 12,500	2,000CT to 2,500CT	1 1	100	††	RAV-4
TR 125		TF5RX13ZZ	Driver	10,000	2,000CT*	1	100	100-100,000	M1
	27A129	TF4RX21AG	Tr. Interstage	10,000	2,000	5	150	100-8,000§	AG
27A64		TF5RX13ZZ	Tr. Interstage	10,000	2,000CT	1	200	50-20,000§	M2
	27A47	TF4RX13YY	Tr. Interstage	10,000CT*	2,000CT*	8	1	40-20,000	NSV-4
	27A89	TF4QX13YY	Tr. Interstage	10,000CT	2,000CT	2	10	50-20,000§	AF-1
	27A19	TF4RX13YY	Tr. Interstage	10,000CT	2,000CT	2	30	250-15,000§	TSM
27D38		TF5RX13ZZ	Driver	10,000CT	2,000CT	1	50	300-100,000§	M3
27D42		TF5RX12ZZ	Driver	10,000CT	2,000CT	1	50	300-100,000	M7
	MIT 291	TF4RX13YY	Tr. Interstage, Driver	10,000CT to 12,000CT	2,000CT to 2,400CT	1	100	††	RAV-5
	MIT 211	TF4RX13YY	Tr. Interstage, Driver	10,000 to 12,500	2,000CT to 2,500CT	1	100	††	RAV-6
	MIT 270	TF4RX13YY	Tr. Interstage, Driver	10,000 to 12,000CT	2,000CT* to 2,400CT*	1	100	††	RAV-4
	MIT 292	TF4RX13YY	Tr. Interstage, Driver	10,000 to 12,000CT	2,000CT* to 2,400CT*	1	100	††	RAV-5
	MIT 238	TF4RX13YY	Tr. Interstage, Driver	10,000CT to 12,000CT	2,000CT* to 2,400CT*	1	100	††	RAV-6
	27A33	TF4RX13YY	Tr. Interstage	10,000CT*	2,000CT*	4	100	100-10,000	NSV-2
	27A34	TF4RX13YY	Tr. Interstage	10,000CT*	4,000CT*	4	100	100-10,000	NSV-2
	27D55	TF4RX13YY	Tr. Interstage	10,000	6,500CT	.75	5	200-15,000§	AF-1
27A59		TF5RX15ZZ	Interstage	10,000CT to 12,000CT	10,000CT to 12,000CT	1	100	80-20,000§	M2A
27A224		TF5RX13ZZ	Interstage	10,000CT	10,000CT	2	100	200-15,000	M9
	27A203	TF4RX13YY	Interstage	10,000CT	10,000CT	2	100	200-15,000	NSV-2B
	27A27	TF4RX13YY	Interstage	10,000CT	10,000CT	1	100	250-15,000§	TSM
	MIT 268	TF4RX13YY	Interstage	10,000CT to 12,000CT	10,000CT to 12,000CT	1	100	††	RAV-4
	MIT 293	TF4RX13YY	Interstage	10,000CT to 12,000CT	10,000CT to 12,000CT	1	100	††	RAV-5
	MIT 236	TF4RX13YY	Interstage	10,000CT to 12,000CT	10,000CT to 12,000CT	1	100	††	RAV-6
	27A141	TF4RX15YY	Interstage	10,000CT to 20,000CT	20,000CT* to 40,000CT*	10	50	100-10,000§§	RSV##
	27A08■	TF4RX10FA	Interstage	10,000	50,000CT*	0	31	30-15,000	FA
	27A124■	TF4RX10YY	Interstage	10,000	50,000CT*	0	31	30-15,000	YY-18
27A184		TF5RX10ZZ	Interstage	10,000	90,000	0	3	150-10,000	M9
	27A181	TF4RX10YY	Interstage	10,000	90,000	0	3	150-10,000	NSV-2B
27A348		TF5RX10ZZ	Interstage	10,000	90,000	0	6	100-10,000	M10
	27A344	TF4RX10YY	Interstage	10,000	90,000	0	6	100-10,000	AF-2
	27A346	TF4RX10YY	Interstage	10,000	90,000	0	6	100-10,000	NSV-2C
	27518	TF4RX15YY	Plate to Grid	10,000	90,000	0	20	250-15,000§	TSM

Input-Interstage-Driver

Part No. Molded	Part No. Encased	MIL-T-27B Classification	Application	Impedance Primary	Impedance Secondary	Unbal. Pri. MADC	Power In MW	Frequency Response ±2DB	Case Size
27A51		TF5RX15ZZ	Interstage	10,000	90,000	.25	30	80-20,000§	M2A
27A62		TF5RX15ZZ	Interstage	10,000	90,000	.25	100	50-20,000§	M2
	27A140	TF4RX10AJ	Interstage	10,000	90,000CT	0	2W	50-10,000§	AJ
	27A150Δ	TF4RX10YY	Chopper (Pri. Inductance 90 Hy.	10,000‡ Min. 1 V 60 CPS)	100,000	0	2.75V		NSV-4
	27A30	TF4RX15YY	Interstage	10,000	1 Meg.	0	10	300-2,500	NSV-2
27A294		TF5RX10ZZ	Interstage	10,000	1 Meg.	0	12	100-2,500	M11
	27A270	TF4RX10YY	Interstage	10,000	1 Meg.	0	12	100-2,500	AG-2
27A287		TF5RX16ZZ	Plate to Line	15,000	50/250/600CT	0	6	20-20,000	M11
	27A274	TF4RX16YY	Plate to Line	15,000	50/250/600CT	0	6	20-20,000	NSV-2
	27A263	TF4RX16YY	Plate to Line	15,000	50/250/600CT	0	6	20-20,000	AG-2
27A288		TF5RX13ZZ	Plate to Line	15,000	50/250/600CT	4	120	150-20,000	M11
	27A275	TF4RX13YY	Plate to Line	15,000	50/250/600CT	4	120	150-20,000	NSV-2
	27A264	TF4RX13YY	Plate to Line	15,000	50/250/600CT	4	120	150-20,000	AG-2
27A169		TF5RX13ZZ	Isolation or Interstage	15,000CT	15,000CT	1	3	300-10,000	M7A
	27A85	TF4QX10YY	Plate to Grid	15,000	50,000	0	10	60-15,000§	AF-1
27A285		TF4RX10ZZ	Plate to Grid	15,000	60,000	0	4	20-15,000	M11
	27A259	TF4RX10YY	Plate to Grid	15,000	60,000	0	4	20-15,000	AG-2
27A284		TF5RX15ZZ	Plate to Grid	15,000	60,000	4	25	200-20,000	M11
	27A272	TF4RX15YY	Plate to Grid	15,000	60,000	4	25	200-20,000	NSV-2
	27A260	TF4RX15YY	Plate to Grid	15,000	60,000	4	25	200-20,000	AG-2
	27A23	TF4RX15YY	Plate to Grid	15,000	60,000	0	10	50-15,000	NSV-2
	27A13	TF4RX10YY	Plate to Grid	15,000	60,000CT*	6	25	30-15,000§§	YY-12
	27A24	TF4RX15YY	Plate to Grid	15,000	60,000CT	4	25	200-10,000	NSV-2
	27A86	TF4QX10YY	Plate to Grid	15,000	60,000CT	4	10	60-15,000§	AF-1
	27A44	TF4RX15YY	Plate to Grid	15,000	80,000CT*	0	15	30-20,000	NSV-4
	27A45	TF4RX15YY	Plate to Grid	15,000	80,000CT*	8	200	100-20,000	NSV-4
27A285		TF5RX10ZZ	Plate to Grid	15,000	95,000CT	0	3	20-15,000	M11
	27A261	TF4RX10YY	Plate to Grid	15,000	95,000CT	0	3	20-15,000	AG-2
	27A25	TF4RX10YY	Plate to Grid	15,000	95,000CT	0	3.2	50-10,000	NSV-2
	27A15	TF4QX15YY	Plate to Grid	15,000	95,000CT	3	10	250-55,000§	AF-1
27A286		TF5RX15ZZ	Plate to Grid	15,000	95,000CT	4	12	200-20,000	M11
	27A273	TF4RX15YY	Plate to Grid	15,000	95,000CT	4	12	200-20,000	NSV-2
	27A26	TF4RX15YY	Plate to Grid	15,000	95,000CT*	4	12	200-10,000	NSV-2
	27A262	TF4RX15YY	Plate to Grid	15,000	95,000CT	4	12	200-20,000	AG-2
	27A77	TF4QX10YY	Plate to Grid	15,000	110,000	0	40	20-20,000§	YY-12
	27A79	TF4QX10YY	Plate to Grid	15,000	111,000CT	0	26	20-20,000§	YY-2
	27A78	TF4QX10YY	Plate to Grid	15,000	111,000CT*	0	75	20-20,000§	YY-12
	27A97	TF4QX15YY	Plate to Grid	15,000	135,000CT	1	1	70-15,000	TJZ
	27A88	TF4QX10YY	Plate to Grid	15,000	1 Meg.	0	10	150-15,000§	AF-1
	MIT 254	TF4RX13YY	Interstage	20,000 to 30,000	800 to 1,200	.5	50	††	RAV-4
	MIT 201	TF4RX13YY	Interstage	20,000 to 30,000	800 to 1,200	.5	50	††	RAV-6
27A52		TF5RX13ZZ	Interstage	20,000 to 30,000	800 to 1,200	.5	100	80-20,000§	M2A
27A63		TF5RX13ZZ	Interstage	20,000 to 30,000	800 to 1,200	.5	200	50-20,000§	M2
	MIT 294	TF4RX13YY	Interstage or Driver	20,000CT to 30,000CT	800CT to 1,200CT	.5	50	††	RAV-4
	MIT 223	TF4RX13YY	Interstage or Driver	20,000CT to 30,000CT	800CT to 1,200CT	.5	100	††	RAV-6
27A56		TF5RX13ZZ	Interstage or Driver	20,000CT to 30,000CT	800CT to 1,200CT	1	100	80-20,000§	M2A
	27A351	TF4RX13YY	Tr. Interstage	20,000CT*	800CT*	.1	100	250-20,000§	TFH
27D47		TF5RX15ZZ	Tr. Driver	20,000	1,000	.5	5	300-10,000	M7A
27A349		TF5RX21ZZ	Tr. Interstage	20,000	1,000	.75●	5	200-10,000	M8
TR132		TF5RX13ZZ	Tr. Interstage	20,000	1,000	1	100	100-100,000	M1
27A134		TF5RX21ZZ	Tr. Interstage	20,000	1,000	.5	10	200-10,000	M3†
27A177		TF5RX21ZZ	Tr. Interstage	20,000	1,000CT	.75●	5	200-10,000§	M8
	MIT 239	TF4RX13YY	Tr. Interstage	20,000CT to* 30,000CT	1,000CT to* 1,500CT*	.5	100	††	RAV-6
	27A98	TF4QX15YY	Tr. Interstage	20,000	1,200/600/100	.5	1	70-15,000§	TJZ
27D48		TF5RX13ZZ	Driver	20,000	1,200CT	.5	5	300-10,000	M7A
	27A80	TF4RX21FA	Plate to Grid	20,000CT*	20,000CT*		3W	20-20,000	FA
	27A125	TF4RX21FA	Plate to Grid	20,000CT*	20,000CT*	.5	3.1W	30-15,000	FA
	27A144	TF4RX21FA	Plate to Grid	20,000CT*	38,500CT*		10	65V##	
	27A06■	TF4RX15FA	Plate to Grid	20,000CT*	50,000CT*		31	30-15,000	FA
	27A122■	TF4RX15YY	Plate to Grid	20,000CT*	50,000CT*		31	30-15,000	YY-18
	27A11	TF4RX15YY	Plate to Grid	20,000CT*	60,000CT*		125	30-15,000	YY-9
	27A12Δ	TF4RX15YY	Plate to Grid	20,000CT*	80,000CT*		31	30-15,000	YY-9
27A172		TF5RX21ZZ	Interstage	25,000	600	1●	3	200-10,000	M8
27A213		TF5RX13ZZ	Interstage	25,000	600	1	100	200-15,000	M9
27A250		TF5RX13ZZ	Interstage	25,000	600	2●	100	200-15,000	M10
27A334		TF5RX13ZZ	Interstage	25,000	600	3	150	200-15,000	M11
	27A192	TF4RX13YY	Interstage	25,000	600	1	100	200-15,000	NSV-2B
	27A351	TF4RX13YY	Interstage	25,000	600	2	100	200-15,000	NSV-2C
	27A318	TF4RX13YY	Interstage	25,000	600	3	150	200-15,000	NSV-2
	27A231	TF4RX13YY	Interstage	25,000	600	2	100	200-15,000	AF-2
	27A302	TF4RX13YY	Interstage	25,000	600	3	150	200-15,000	AG-2
27A222		TF5RX13ZZ	Interstage	25,000CT	600CT	2	100	200-15,000	M9
	27A201	TF4RX13YY	Interstage	25,000CT	600CT	2	100	200-15,000	NSV-2B
	27A17	TF4RX15YY	Tr. Interstage	25,000	1,000	.5	10	250-15,000	TSM
27A163		TF5RX12ZZ	Tr. Interstage	25,000	1,000	.25	40	300-100,000§	M7
27A110		TF5RX12ZZ	Tr. Interstage	25,000	1,000	.5	40	300-100,000§	M3
27A111		TF5RX12ZZ	Tr. Interstage	25,000CT	1,000CT	.5	40	300-100,000§	M3
27A161		TF5RX12ZZ	Tr. Interstage	25,000CT	1,000CT	.5	40	300-100,000§	M7
27A162		TF5RX12ZZ	Tr. Interstage	25,000	1,000CT*	.25	40	300-100,000§	M7
27A154		TF5RX12ZZ	Tr. Interstage	25,000	1,000CT*	.25	40	300-100,000§	M3
27A210		TF5RX13ZZ	Tr. Interstage	25,000	1,200CT	1	100	200-15,000	M9
27A247		TF5RX13ZZ	Tr. Interstage	25,000	1,200CT	1.5	100	200-15,000	M10
27A331		TF5RX13ZZ	Tr. Interstage	25,000	1,200CT	3	150	200-15,000	M11
	27A189	TF4RX13YY	Tr. Interstage	25,000	1,200CT	1	100	200-15,000	NSV-2B
	27A236	TF4RX13YY	Tr. Interstage	25,000	1,200CT	1.5	100	200-15,000	NSV-2C
	27A315	TF4RX13YY	Tr. Interstage	25,000	1,200CT	3	150	200-15,000	NSV-2
	27A230	TF4RX13YY	Tr. Interstage	25,000	1,200CT	1.5	100	200-15,000	AF-2
	27A299	TF4RX13YY	Tr. Interstage	25,000	1,200CT	3	150	200-15,000	AG-2
27A217		TF5RX13ZZ	Interstage	25,000CT	1,200CT	2	100	200-15,000	M9
27A253		TF5RX13ZZ	Interstage	25,000CT	1,200CT	3	100	200-15,000	M10
27A336		TF5RX13ZZ	Interstage	25,000CT	1,200CT	6	150	200-15,000	M11
	27A196	TF4RX13YY	Interstage	25,000CT	1,200CT	2	100	200-15,000	NSV-2B
	27A241	TF4RX13YY	Interstage	25,000CT	1,200CT	3	100	200-15,000	NSV-2C
	27A320	TF4RX13YY	Interstage	25,000CT	1,200CT	6	150	200-15,000	NSV-2
	27A304	TF4RX13YY	Interstage	25,000CT	1,200CT	6	150	200-15,000	AG-2
27A289		TF5RX16ZZ	Plate to Line	30,000CT	50/250/600CT	0	6	30-50,000	M11
	27A276	TF4RX16YY	Plate to Line	30,000CT	50/250/600CT	0	6	30-50,000	NSV-2
	27A265	TF4RX16YY	Plate to Line	30,000CT	50/250/600CT	0	6	30-50,000	AG-2
TR 134		TF5RX13ZZ	Interstage	30,000	1,200	.5	50	100-100,000	M1
TR 135		TF5RX13ZZ	Interstage	30,000CT*	1,200CT*	.5	100	100-100,000	M1
	27A152	TF4RX12YY	Chopper	4,000CT/10,000CT	50,000	(Pri. Ind. = 200 Hy. @ 1V. 60N)			NSV-3
	MIT 240	TF4RX13YY	Interstage	40,000CT to 50,000CT	40CT to* 500CT*	.25	50	††	RAV-6
	27A60	TF5RX13ZZ	Interstage	50,000CT	500CT*	.5	100	80-20,000	M2A
27A290		TF5RX16ZZ	Input	50,000	50/250/600CT	0	3	20-20,000	M11
	27A277	TF4RX16YY	Input	50,000	50/250/600CT	0	3	20-20,000	NSV-2
	27A266	TF4RX16YY	Input	50,000	50/250/600CT	0	3	20-20,000	AG-2
	27A40	TF4RX13YY	Tr. Interstage	50,000CT	500CT*	2	100	100-20,000	NSV-2
27A174		TF4RX21ZZ	Tr. Interstage	50,000	600	1	5	200-10,000	M8
27A208		TF5RX13ZZ	Tr. Interstage	50,000	600	.7	100	200-15,000	M9
27A245		TF5RX13ZZ	Tr. Interstage	50,000	600	1	100	300-15,000	M10
27A329		TF5RX13ZZ	Tr. Interstage	50,000	600	3	100	300-15,000	M11
	27A187	TF4RX13YY	Tr. Interstage	50,000	600	.7	100	200-15,000	NSV-2B
	27A234	TF4RX13YY	Tr. Interstage	50,000	600	1	100	300-15,000	NSV-2C
	27A313	TF4RX13YY	Tr. Interstage	50,000	600	3	100	300-15,000	NSV-2
	27A297	TF4RX13YY	Tr. Interstage	50,000	600	3	100	300-15,000	AG-2
	27A229	TF4RX13YY	Tr. Interstage	50,000	600	1	100	300-15,000	AF-2
27A246		TF5RX13ZZ	Tr. Interstage	50,000CT	600CT	2	100	200-15,000	M10
27A209		TF5RX13ZZ	Tr. Interstage	50,000CT	600CT	1.4	100	200-15,000	M9
	27A235	TF4RX13YY	Tr. Interstage	50,000CT	600CT	2	100	200-15,000	NSV-2C
	27A188	TF4RX13YY	Tr. Interstage	50,000CT	600CT	1.4	100	200-15,000	NSV-2B
27A160		TF5RX16ZZ	Tr. Interstage	50,000	1,000CT*	0	10	300-100,000	M7
27A153		TF5RX16ZZ	Tr. Interstage	50,000	1,000CT*	0	10	300-100,000	M3
27A108		TF5RX16ZZ	Tr. Interstage	50,000CT	1,000CT	0	25	300-100,000	M3
27A159		TF5RX16ZZ	Tr. Interstage	50,000CT	1,000CT	0	25	300-100,000	M7
27A211		TF5RX13ZZ	Tr. Interstage	50,000CT	1,200CT	1.4	100	200-15,000	M9

▲ This unit is shielded for 70 DB hum reduction
‡ Static Shielded
§ Response at ±3 DB
* Split CT Winding
§§ Response at ±1 DB
● Secondary Current rating
†† Average useable frequency range from 100 to 20,000 Cycles
† Width - .421, Depth - .377, Height - .310
Height - 2", Diameter - 1 5/8, Mounting Centers 1 5/16 x 1 5/16
■ This unit is shielded for - 70 DB hum reduction

For Mounting Illustrations and Cross References See Pages 1517-1520
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Input-Interstage-Driver

INCLUDES: TRANSISTOR AND TUBE TYPE — MOLDED AND ENCASED

Part No. Molded	Part No. Encased	MIL-T-27B Classification	Application	Impedance Primary	Impedance Secondary	Unbal. Pri. MADC	Power In MW	Frequency Response ±2DB	Case Size
27A248		TF5RX13ZZ	Tr. Interstage	50,000CT	1,200CT	2	100	200-15,000	M10
27A332		TF5RX13ZZ	Tr. Interstage	50,000CT	1,200CT	3	100	300-15,000	M11
	27A316	TF4RX13YY	Tr. Interstage	50,000CT	1,200CT	3	100	300-15,000	NSV-2
	27A190	TF4RX13YY	Tr. Interstage	50,000CT	1,200CT	1.4	100	200-15,000	NSV-2B
	27A237	TF4RX13YY	Tr. Interstage	50,000CT	1,200CT	2	100	200-15,000	NSV-2C
	27A300	TF4RX13YY	Tr. Interstage	50,000CT	1,200CT	3	100	300-15,000	AG-2
27A337		TF5RX13ZZ	Tr. Interstage	50,000CT	1,200CT*	3	100	300-15,000	M11
	27A321	TF4RX13YY	Tr. Interstage	50,000CT	1,200CT*	3	100	300-15,000	NSV-2
	27A305	TF4RX13YY	Tr. Interstage	50,000CT	1,200CT*	3	100	300-15,000	AG-2
27A179		TF5RX15ZZ	Isolation	50,000CT	50,000CT		5	200-10,000	M8
27A147		TF5RX15ZZ	Interstage	80,000	5,000	3	150	300-10,000$	MAH
	27A135	TF4RX21YY	Tr. Input	100,000	50	0	300	200-10,000	NSV-2
	MIT 246	TF4RX16YY	Input or Chopper	100,000CT	500CT	0	25	††	RAV-6
27A166		TF5RX16ZZ	Input	100,000	1,000	0	5	300-10,000	M7A
27A175		TF5RX21ZZ	Input or Interstage	100,000	1,200CT	.75	5	200-10,000	M8
27A330		TF5RX13ZZ	Input or Interstage	100,000	1,200CT	1.4	50	200-15,000	M11
	27A314	TF4RX13ZZ	Input or Interstage	100,000	1,200CT	1.4	50	200-15,000	NSV-2
	27A298	TF4RX13ZZ	Input or Interstage	100,000	1,200CT	1.4	50	200-15,000	AG-2
27A171		TF5RX21ZZ	Input or Interstage	200,000	600	1●	5	200-10,000	M8
27A54		TF5RX16ZZ	Input	200,000	1,000	0	5	80-20,000$	M2A
27A158		TF5RX16ZZ	Input	200,000	1,000	0	10	300-45,000	M7
27A109		TF5RX16ZZ	Input	200,000	1,000	0	10	300-45,000	M3
TR 142		TF5RX16ZZ	Input	200,000	1,000	0	25	100-45,000$	M1
	MIT 207	TF4RX16YY	Input	20,000	1,000	0	25	100-20,000$	RAV-6
27A57		TF5RX16ZZ	Input or Chopper	200,000CT	1,000CT	0	5	80-20,000	M2A
27A157		TF5RX16ZZ	Input or Chopper	200,000CT	1,000CT	0	10	300-45,000	M7
27A107		TF5RX16ZZ	Input or Chopper	200,000CT	1,000CT	0	10	300-45,000	M3
TR 143		TF5RX16ZZ	Input or Chopper	200,000CT	1,000CT	0	25	100-45,000$	M1
	MIT 224	TF4RX16YY	Input or Chopper	200,000CT	1,000CT	0	25	††	RAV-6
27A173		TF5RX21ZZ	Input or Chopper	200,000	1,200	.72	5	200-10,000	M8
27A69		TF5RX16ZZ	Input or Chopper	200,000	1,000	0	10	200-20,000	TAM

Drivers

Part No.	MIL-T-27B Classification	Application	Primary Impedance	Primary MADC	Power Output In Watts	Turns Ratio Pri : 1/2 Sec.	Frequency Response ± 1 DB	Case Size	Wt. Lbs.
27D32	TF4RX12GA	PP Plates to Grid 6N7,6A6,6J5,6C4, etc.	20,000CT	10	3	3 : 1	50-10,000	GA	2.25
27D30	TF4RX12YY	PP Plates to Grid 6N7,6A6,6J5,6C4, etc.	20,000CT	10	3	3 : 1	50-10,000	YY-21	2.25
27D33	TF4RX12GA	PP Plates to Grid 6N7,6A6,6J5,6C4, etc.	20,000CT	25	5	3 : 1	50-10,000	GA	2.5
27D31	TF4RX12YY	PP Plates to Grid 6N7,6A6,6J5,6C4, etc.	20,000CT	25	5	3 : 1	50-10,000	YY-22	2.5
27D35	TF4RX12HA	PP Plates to PP Grids 2A3,6B4G, etc.	5,000CT	100	10	3 : 1	200- 3,500	HA	3.5
27D34	TF4RX12JA	PP Plates to Grid 6B4,45,2A3,6L6, etc.	10,000/ 5,000CT	100	10	5 : 1	50-10,000	JA	4.5

● Secondary Current rating

Output

INCLUDES: TRANSISTOR AND TUBE TYPE — MOLDED AND ENCASED

Designed and built to meet all the requirements of MIL-T-27B specifications for their specified class of operation. Listed in order of the primary impedance— this complete list of output transformers makes available under one listing a wide variety of high quality output transformers for both transistor and tube type circuitry.

Part No. Molded	Part No. Encased	MIL-T-27B Classification	Application	Impedance Primary	Impedance Secondary	Unbal. Pri. MADC	Power In MW	Frequency Response ±2DB	Case Size
27S124		TF2RX16ZZ	70.7V Line Matching Autoformer 50V to 70.7V				125		LHH
	27S30	TF4RX17YY	Tr. to V.C.	20CT	4/8/16	1A(Bal.)	10	70-20,000	NSV-5
	27S116	TF4RX17AJ	Tr. to V.C.	20CT	8	500	10W		AJ
	27S204	TF4RX17AJ	Tr. to V.C.	25	3.4	600	3W	200-20,000	AJ
	27S203	TF4RX17AJ	Output Autoformer	30CTe	3.4	200	2W	100-20,000	AJ
	27S205	TF4RX17AJ	Tr. to V.C.	48CT	3.2/8	50	5W	200-20,000	AJ
	27S115	TF4RX17FA	Tr. to V.C.	48CT	8/16	275	5W		FA
	27S29	TF4RX17YY	Tr. to V.C.	48CT	4/8/16	750(Bal.)	5W	40-20,000	NSV-4
27S103		TF5RX17ZZ	Tr. to V.C.	120CT	3.2	10	50	100-100,000$	M3
27S139		TF5RX17ZZ	Tr. to V.C.	120CT	3.2	10	50	100-100,000$	M7
	MIT 229	TF4RX17YY	Tr. to V.C.	120CT to 150CT	3.2 to 4	10	500	††	RAV-6
	27S206	TF4RX17AJ	Tr. to Servo	120CT	1,000	40	6W	300-15,000	AJ
	27S207	TF4RX17AH	Tr. to V.C.	125CT	3.4	20	1.5W	200-15,000	AH
	27S208	TF4RX17AJ	Tr. to Servo	140CTe	500	50	6W	300-15,000	AJ
27S93		TF5RX17ZZ	Tr. to V.C.	150CT	12	10	50	100-100,000$	M3
	MIT 212	TF4RX17YY	Tr. to V.C.	150CT to 200CT	12 to 16	10	500	††	RAV-6
TR 129		TF5RX17ZZ	Tr. to V.C.	200CT	16	10	500	100-100,000$	M1
	27S209	TF4RX17AH	Tr. to V.C.	250CT	3.4	20	400	70-15,000	AH
	27S213	TF4RX17AH	Tr. to Servo	250CT	130	20	3W	200-15,000	AH
27S202		TF5RX17ZZ	Tr. to Servo	250CT	500	10	1W	200-15,000	M9
	27S194	TF4RX17YY	Tr. to Servo	250CT	500	10	1W	200-15,000	NSV-2
	27S191	TF4RX17YY	Tr. to Servo	250CT	500	10	1W	200-15,000	AG-2
27S200		TF5RX17ZZ	Tr. to Servo	250CT	1,000	10	1W	200-15,000	M11
	27S192	TF4RX17YY	Tr. to Servo	250CT	1,000	10	1W	200-15,000	NSV-2
	27S189	TF4RX17YY	Tr. to Servo	250CT	1,000	10	1W	200-15,000	AG-2
27S94		TF4RX17ZZ	Tr. to V.C.	300CT	12	7	50	100-100,000$	M3
	MIT 213	TF4RX17YY	Tr. to V.C.	300CT to 400CT	12CT to 16	7	500	††	RAV-6
27S99		TF4RX17YY	Tr. to Line	300CT	600	7	50	100-100,000$	M3
	MIT 261	TF4RX17YY	Tr. to Line	300CT	600	7	500	††	RAV-4
	MIT 281	TF4RX17YY	Tr. to Line	300CT	600	7	500	††	RAV-5
	MIT 219	TF4RX17YY	Tr. to Line	300CT	600	7	500	††	RAV-6
TR 122		TF5RX17ZZ	Tr. to Line	300CT*	600	7	500	100-100,000$	M1
27S104		TF5RX17ZZ	Tr. to V.C.	320CT	3.2	6	50	100-100,000$	M3
	MIT 230	TF4RX17YY	Tr. to V.C.	320CT to 400CT	3.2 to 4	7	500	††	RAV-6
27S198		TF5RX17ZZ	Tr. to V.C.	400	10	50	300	200-20,000	M11
	27S187	TF4RX17YY	Tr. to V.C.	400	10	50	300	200-20,000	NSV-2
	27S182	TF4RX17YY	Tr. to V.C.	400	10	50	300	200-20,000	AG-2
27S142		TF5RX17ZZ	Tr. to V.C.	400	11	3	15	300-10,000	M7A
27S143		TF5RX17ZZ	Tr. to V.C.	400CT	11	6	15	300-10,000	M7A
	27S210	TF4RX17YY	Tr. to V.C.	400CT	11	2	250	300-15,000	AF-1
TR 136		TF5RX17ZZ	Tr. to V.C.	400CT*	16	7	500	100-100,000$	M1
27S141		TF5RX17ZZ	Tr. to Line	400	50	3	15	300-10,000$	M7A
TR 126		TF5RX17ZZ	Tr. to Line	400	50	3	100	100-100,000$	M1
	MIT 271	TF4RX17YY	Tr. to Line & 2:1:1 Pulse	400CT to 500CT*	400CT* to 500CT*	8 6	500	††	RAV-4
	MIT 283	TF4RX17YY	Tr. to Line & 2:1:1 Pulse	400CT to 500CT	400CT* to 500CT*	8 6	50	††	RAV-5
	MIT 241	TF4RX17YY	Tr. to Line & 2:1:1 Pulse	400CT to 500CT	400CT* to 500CT*	8 6	50	††	RAV-6
	27S26	TF4RX17YY	Tr. to V.C.	500CT	4/16CT*	20	1	40-20,000	NSV-4
27S146		TF5RX17ZZ	Tr. to V.C.	500	3.2	3.5	15	200-10,000	M8
27S52		TF5RX17ZZ	Tr. to V.C.	500CT	3.2	0	250	50-20,000$	M2
	27S21	TF4RX17YY	Tr. to Line	500CT	50	3.5	30	250-15,000$	TSM
27S88		TF5RX17ZZ	Tr. to Line	500	50	3	50	300-100,000$	M3
27S138		TF5RX17ZZ	Tr. to Line	500	50	3	50	300-100,000	M7
TR 128		TF5RX17ZZ	Tr. to Line	500	50	3	100	100-100,000$	M1
27S42		TF5RX17ZZ	Tr. to Line	500-600	50-60	3.5	100	80-20,000$	M2A
	MIT 202	TF4RX17YY	Tr. to Line	500/600	50-60	3	100	††	RAV-6
	MIT 255	TF4RX17YY	Tr. to Line	500-600	50-60	3	100	††	RAV-4
	MIT 284	TF4RX17YY	Tr. to Line	500-600CT	50-60CT	3	500	††	RAV-5
27S199		TF5RX17ZZ	Tr. to Servo	500CT	210	30	500	300-20,000	M11
	27S188	TF4RX17YY	Tr. to Servo	500CT	210	30	500	300-20,000	NSV-2
	27S183	TF4RX17YY	Tr. to Servo	500CT	210	30	500	300-20,000	AG-2
	27S22	TF4RX17YY	Output or Mixing	500CT	600CT	10	30	250-15,000$	TSM
27S100		TF5RX17ZZ	Output or Mixing	500CT	600	3	50	100-100,000$	M3
27S47		TF5RX17ZZ	Output or Mixing	500CT	600CT	10	100	80-20,000$	M2A
	MIT 262	TF4RX17YY	Output or Mixing	500CT	600	5.5	500	††	RAV-4
	MIT 285	TF4RX17YY	Output or Mixing	500CT	600CT	5.5	500	††	RAV-5
	MIT 220	TF4RX17YY	Output or Mixing	500CT	600	5.5	500	††	RAV-6
27S90		TF5RX17ZZ	Tr. to V.C.	600	3.2	3	50	100-100,000$	M3
TR 141		TF5RX17ZZ	Tr. to V.C.	600	3.2	3	100	100-100,000$	M1
	MIT 204	TF4RX17YY	Tr. to V.C.	600	3.2	3	100	††	RAV-6
27S105		TF5RX17ZZ	Tr. to V.C.	600CT	3.2	4.5	50	100-100,000$	M3

Outputs

INCLUDES: TRANSISTOR AND TUBE TYPE — MOLDED AND ENCASED

Part No. Molded	Part No. Encased	MIL-T-27B & Classification	Application	Impedance Primary	Impedance Secondary	Unbal. Pri. MADC	Power In MW	Frequency Response ±2DB	Case Size
27S95		TF5RX17ZZ	Tr. to V.C.	600CT	12	4.5	50	100-100,000$	M3
	MIT 214	TF4RX17YY	Tr. to V.C.	600-800CT	12/16	5	500	††	RAV-6
	27S78	TF4QX16YY	Output-Line to Line	600*/250*/ 150/62.5	600*/250*/ 150/62.5	0	100	10-30,000$	YY-7
	27S77■	TF4QX16YY	Output-Line to Line	600*/250*/ 150/62.5	600*/250*/ 150/62.5	0	100	10-30,000$	YY-12
	27S79■	TF4QX16YY	Bal. R&C Output Static Shielded	600*/250*/ 150/62.5	600*/250*/ 150/62.5	0	50	20-20,000$$	YY-13
27S111		TF5RX17ZZ	Tr. or Line to Line	600CT	600CT	3	50	100-100,000$	M3
	MIT 231	TF4RX17YY	Tr. to V.C.	640-800CT	3.2-4	5	500	††	RAV-6
27S106		TF5RX17ZZ	Tr. to V.C.	800CT	3.2	4	50	100-100,000$	M3
	MIT 232	TF4RX13YY	Tr. to V.C.	800-1,000CT	3.2-4	4	500	††	RAV-6
	MIT 215	TF4RX17YY	Tr. to V.C.	800-1,070CT	12-16	4	500	††	RAV-6
TR137		TF5RX17ZZ	Tr. to V.C.	800CT	16	5	500	100-100,000$	M1
27S101		TF5RX17ZZ	Tr. to Line	900CT	600	4	50	100-100,000$	M3
	MIT 263	TF4RX17YY	Tr. to Line	900CT	600	4	500	††	RAV-4
27S113		TF4RX17AG	Tr. to V.C.	1,000	4/8/16	10	200		AG
27S96		TF5RX17ZZ	Tr. to V.C.	1,000CT	12	3.5	50	100-100,000$	M3
	MIT 216	TF4RX17YY	Tr. to V.C.	1,000-1,330CT	12-16	3.5	500	††	RAV-5
	27S87	TF4QX21YY	Tr. to Line	1,000	50	5	1	100-10,000$	TJZ*
27S140		TF5RX17ZZ	Tr. to Line	1,000	50	3	5	300-10,000	M7A
27S89		TF5RX17ZZ	Tr. to Line	1,000	50	3	5	100-100,000$	M3
TR 131		TF5RX13ZZ	Tr. to Line	1,000	50	3	100	100-100,000$	M1
27S43		TF5RX13ZZ	Tr. to Line	1,000-1,200	50-60	3	100	80-20,000$	M2A
	MIT 256	TF4RX13YY	Output or Matching	1,000-1,200	50-60	3	100	††	RAV-4
	MIT 286	TF4RX13YY	Output or Matching	1,000-1,200CT	50-60CT	3	100	††	RAV-5
	MIT 203	TF4RX13YY	Output or Matching	1,000-1,200	50-60	3	100	††	RAV-6
27S145		TF5RX17ZZ	Tr. to Line	1,000CT	600	6	5	300-20,000	M7A
	MIT 233	TF4RX13YY	Tr. to V.C.	1,060-1,330CT	3.2-4	3.5	500	††	RAV-6
TR 138		TF5RX13ZZ	Tr. to V.C.	1,070CT	16	4	500	100-100,000$	M1
27S91		TF5RX13ZZ	Tr. to V.C.	1,200	3.2	2	50	100-100,000$	M3
TR 144		TF5RX13ZZ	Tr. to V.C.	1,200	3.2	2	100	100-100,000$	M1
27S44		TF5RX13ZZ	Tr. to V.C.	1,200-1,500	3.2-4	3	100	80-20,000	M2A
	MIT 257	TF4RX13YY	Tr. to V.C.	1,200	3.2	2	100	††	RAV-4
	MIT 205	TF4RX13YY	Tr. to V.C.	1,200	3.2	2	100	††	RAV-6
27S107		TF5RX13ZZ	Tr. to V.C.	1,200CT	3.2	3	50	100-100,000$	M3
27S147		TF5RX13ZZ	Tr. to V.C.	1,250	3.4	2	15	200-10,000	M8
27S148		TF5RX13ZZ	Tr. to Line	1,250	50	2	15	200-10,000	M8
TR 139		TF5RX13ZZ	Tr. to V.C.	1,330CT*	16	3.5	500	100-100,000$	M1
27S97		TF5RX13ZZ	Tr. to V.C.	1,500CT	12	3	50	100-100,000$	M3
	MIT 217	TF4RX13YY	Tr. to V.C.	1,500-2,000CT	12-16	3	500	††	RAV-6
27S128		TF2RX13ZZ	Tr. to Line	1,500	200	3	500	100-20,000	BHH
	27S35	TF4RX13YY	Tr. to Line	1,500CT	500CT*	8	100	100-10,000	NSV-2
27S144		TF5RX13ZZ	Tr. to Line	1,500CT	600	5	5	300-10,000	M7A
	27S23	TF4RX13YY	Tr. to Line	1,500CT	600CT	7	30	250-15,000$	TSM
27S102		TF5RX13ZZ	Tr. to Line	1,500CT	600	3	50	300-100,000	M3
27S137		TF5RX13ZZ	Tr. to Line	1,500CT	600	3	50	300-100,000	M7
27S48		TF5RX13ZZ	Tr. to Line	1,500CT	600CT	7	100	80-20,000$	M2A
TR 124		TF5RX13ZZ	Tr. to Line	1,500CT*	600	3	500	100-100,000$	M1
	MIT 252	TF4RX13YY	Tr. to Line	1,500CT	600	3	500	††	RAV-4
	MIT 287	TF4RX13YY	Tr. to Line	1,500CT	600CT	3	500	††	RAV-5
	MIT 222	TF4RX13YY	Tr. to Line	1,500CT	600	3	500	††	RAV-6
27S108		TF5RX12ZZ	Tr. to V.C.	1,600CT	3.2	2.5	50	100-100,000$	M3
	MIT 234	TF5RX13ZZ	Tr. to V.C.	1,600-2,000CT	3.2-4	3	500	††	RAV-6
27S201		TF5RX12ZZ	Tr. to Line	1,600CT	450	15	1W	200-15,000	M11
27S193		TF4RX12ZZ	Tr. to Line	1,600CT	450	15	1W	200-15,000	NSV-2
27S190		TF4RX12ZZ	Tr. to Line	1,600CT	450	15	1W	200-15,000	AG-2
27S211		TF4RX12AJ	Tr. to Servo	1,600CT	800	5	2.5W	150-20,000	AJ
27S159		TF5RX13ZZ	Tr. to V.C.	2,000	3.4	5	600	200-15,000	M9
	27S156	TF4RX13YY	Tr. to V.C.	2,000	3.4	5	600	200-15,000	NSV-2B
27S177		TF5RX13ZZ	Tr. to V.C.	2,000	3.4	5	1W	200-15,000	M10
	27S174	TF4RX13YY	Tr. to V.C.	2,000	3.4	5	1W	200-15,000	NSV-2C
	27S171	TF4RX13YY	Tr. to V.C.	2,000	3.4	5	1W	200-15,000	AF-2
27S196		TF5RX13ZZ	Tr. to V.C.	2,000	3.4	10	2W	200-15,000	M11
	27S185	TF4RX13YY	Tr. to V.C.	2,000	3.4	10	2W	200-15,000	NSV-2
	27S180	TF4RX13YY	Tr. to V.C.	2,000	3.4	10	2W	200-15,000	AG-2
	27S114	TF4RX12AG	Tr. to V.C.	2,000	4/8/16				AG
	27S36	TF4RX13YY	Tr. to V.C.	2,000-4,000CT	8-16	4	100	100-100,000$	NSV-2
27S53		TF5RX13ZZ	Tr. to V.C.	2,000-4,000CT	8-16	4-2	250	50-20,000$	M2
TR 140		TF5RX13ZZ	Tr. to V.C.	2,000CT*	16	3	500	100-100,000$	M1
27S212		TF4RX12YY	Tr. to V.C.	2,500CT	12	4	100	300-15,000	AF-1
27S129		TF4RX21YY	Output: with added 4:1 Tertiary Winding	3,000CT	600	0	500		YY-8†
27S160		TF5RX13ZZ	Tr. to V.C.	4,000CT	3.4	5	600	200-15,000	M9
	27S157	TF4RX13YY	Tr. to V.C.	4,000CT	3.4	5	600	200-15,000	NSV-2B
27S178		TF5RX13ZZ	Tr. to V.C.	4,000CT	3.4	5	1W	200-15,000	M10
	27S172	TF4RX13YY	Tr. to V.C.	4,000CT	3.4	5	1W	200-15,000	AF-2
	27S175	TF4RX13YY	Tr. to V.C.	4,000CT	3.4	5	1W	200-15,000	NSV-2C
27S197		TF5RX13ZZ	Tr. to V.C.	4,000CT	3.4	3	2W	200-15,000	M11
	27S186	TF4RX13YY	Tr. to V.C.	4,000CT	3.4	3	2W	200-15,000	NSV-2
	27S181	TF4RX13YY	Tr. to V.C.	4,000CT	3.4	3	2W	200-15,000	AG-2
	27S135	TF4RX16YY	Tr. to V.C.	4,000	8	0	2W	250-5,000$$	NSV‡
	27S67	TF4RX13LA	HI-Fi Output with Screen Taps	4,000* 1,000/445*	4/8/16	200	65W	15-30,000$	LA
	27S68	TF4RX13LA	HI-Fi Output with Screen Taps	4,000* 1,000/445*	125/250/500	200	65W	15-30,000$	LA
	27S66	TF4RX13LA	HI-Fi Output with Screen Taps	4,500CT*	4/8/16	180	55W	15-30,000$	LA
	27S70	TF4RX13YY	Plate to Line or Voice Coil	5,000	4/8/16/ 250/500	40	5W	70-15,000$	YY-14
	27S15	TF4RX13GA	Plate to Line or Voice Coil	5,000	4/8/16/ 150/600	55	5W	200-3,500$	GA
	27S122	TF4RX13YY	Plate to Line or Voice Coil	5,000	4/8/16/ 150/600	55	5W	200-3,500$	YY-21
	27S12	TF4RX13JA	PP Plate to Line or V.C. 10% Feedback Winding	5,000CT	4/8/16/ 150/600	120	20W	50-10,000$$$	JA
	27S60	TF4RX13JB	PP Plate to Voice Coil	5,000CT*	4/8/16/	80	20W	15-30,000$	JB
	27S11	TF4RX13JA	PP Plate to Line or Voice Coil	5,000/3,000*	4/8*/16*/ 150/600*		.5W	30-15,000$$	JA
	27S121	TF4RX13YY	PP Plate to Line or Voice Coil	5,000/3,000*	4/8*/16*/ 150/600*		15W	30-15,000$$	YY-33
	27S14	TF4RX13MA	PP Plate to Line or V.C. +10%Feedback Winding	6,000CT	4/8/16/ 150/600	250	30W	50-10,000$$$	MA
27S131		TF5RX13ZZ	Plate to Line or V.C.	6,500	8/500	75	20W	30-15,000$$	DAF
	27S64	TF4RX13KB	HI-Fi Output with Screen Taps	6,600CT* or 1,650	4/8/16	80	25W	10-50,000$	KB
	27S65	TF4RX13KB	HI-Fi Output with Screen Taps	6,600CT* or1,650	125/150/500	80	25W	10-50,000$	KB
	27S130	TF4RX13EA	Plate to Line	7,200	50 and 500	42	2W	250-5,000	EA
27S46		TF5RX13ZZ	Plate to V.C.	7,500CT to 9,400CT	3.2 to 4	4	100	80-20,000$	M2A
27S98		TF5RX13ZZ	Plate to V.C.	7,500CT	12	1	50	100-100,000$	M3
	MIT 218	TF4RX13YY	Plate to V.C.	7,500CT to 10,000CT	12 to 16	1	100	††	RAV-6
	27S09	TF4RX13JA	PP Plate to Line	7,500CT	600/150*	0	20W	30-15,000$$	JA
	27S119	TF4RX13YY	PP Plate to Line	7,500CT	600/150*	0	20W	30-15,000$$	YY-33
27S109		TF5RX13ZZ	Tr. to V.C.	8,000CT	3.2	1	50	100-100,000$	M3
	MIT 235	TF4RX13YY	Tr. to V.C.	8,000CT to 10,000CT	3.2 to 4	1	100	††	RAV-6
27S133		TF2RX13ZZ	Plate to V.C.	8,000	3.2	10	3W	200-4,000$	BAH
	27S16	TF4RX13GA	Plate to Line or V.C.	8,000	4/8/16/ 150/600	55	5W	200-3,500$$	GA
	27S123	TF4RX13YY	Plate to Line or V.C.	8,000	4/8/16/ 150/600	55	5W	200-3,500$$	YY-21
	27S56	TF4RX13JB	PP Plate to V.C.	8,000CT*	4/8/16	50	15W	15-30,000$$	JB
	27S57	TF4RX13JB	PP Plate to Line	8,000CT*	125/250/600	50	15W	15-30,000$$	JB
	27S58	TF4RX13JB	PP Plate to V.C. with Screen Taps	8,000CT*/ 2,000CT*	4/8/16	50	15W	15-30,000$	JB
	27S59	TF4RX13JB	PP Plate to V.C. with Screen Taps	8,000CT*/ 2,000CT*	125/150/600	50	15W	15-30,000$	JB
	27S134	TF4RX13YY	PP Plate to 70.7V line + 15V Tertiary	8,000CT	70.7V & 15V	130	20W	200-8,000$$	YY-78
	27S61	TF4RX13KB	PP Plate to V.C. with Screen Taps	8,000CT*	4/8/16*	100	25W	10-50,000$	KB

†† Useable frequency range from 100 to 100,000 cycles
$ Frequency response at ± 3DB
* Split CT Winding
† Unit has inserts instead of studs
$$ Frequency response at ± 1DB
‡ 1-5/8 High, 1-5/16 Diameter, 1-19/32 Mounting Centers
$$$ Frequency response at ± 1/2DB
■ This unit shielded for −70DB hum reduction
$$$ Frequency response at ± 1/2DB
● Bifilar wound

THORDARSON MEISSNER

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For Mounting Illustrations and Cross References See Pages 1517-1520

THORDARSON MEISSNER

Output

INCLUDES: TRANSISTOR AND TUBE TYPE — MOLDED AND ENCASED

Part No. Molded	Part No. Encased	MIL-T-27 B Classification	Application	Impedance Primary	Impedance Secondary	Unbal. Pri. MADC	Power In MW	Frequency Response ±2DB	Case Size
	27S72	TF4RX13GA	PP Plate to Line or V.C.	9,000CT	4/8/16/ 250/500	120	25W	70-20,000§	GA
	27S125	TF4RX13GA	PP Plate to Line	9,000CT	500	90	20W	50-10,000§§	GA
	27S112	TF4RX12AG	Tr. to V.C.	9,800	15	12	50		AG
27S92		TF5RX13ZZ	Tr. to V.C.	10,000	3.2	1	50	100-100,000§	M3
27S41		TF5RX13ZZ	Tr. to V.C.	10,000	3.2	2	100	80-20,000§	M2A
TR 146		TF5RX13ZZ	Tr. to V.C.	10,000	3.2	1	100	100-100,000§	M1
	MIT 206	TF4RX13YY	Tr. to V.C.	10,000	3.2	1	100	††	RAV-6
27S40		TF5RX13ZZ	Tr. to V.C.	10,000	16	2	100	80-20,000§	M2A
TR 145		TF5RX13ZZ	Tr. to V.C.	10,000CT*	16	1	500	100-100,000§	M1
	27S10	TF4RX13HA	PP Plate to Line or Voice Coil	10,000CT*	4/8*/16* 150/600*		5W	30-15,000§§	HA
	27S120	TF4RX13HA	PP Plate to Line or Voice Coil	10,000CT*	4/8*/16* 150/600*		5W	30-15,000§§	HA
	27S71	TF4RX13EB	PP Plate to Line or Voice Coil	10,000CT	4/8/16/ 250/500	50	10W	100-25,000§§	EB
	27S13	TF4RX13JA	Plate to Line or V.C. * 10% Feedback Winding	10,000CT	4/8/16/ 150/600	200	15W	50-10,000§§§	JA
	27S62	TF4RX13KB	Plate to V.C. with Screen Taps	10,000CT*	4/8/16	100	25W	15-30,000§	KB
	27S63	TF4RX13KB	Plate to Line with Screen Taps	10,000CT*	125/250/500	100	25W	15-30,000§	KB
27S126		TF5RX16ZZ	Plate to Line	10,000CT	150CT	0	63	300-3,000§§§	ZZ1
	27S86	TF4RX13YY	Plate or Tr. to Tr.	10,000	200	1	1	70-20,000§	TJZ
	27S19	TF4RX13YY	Plate to Line	10,000 to 25,000	200 to 500	3 1.5	20	250-15,000§	TSM
27S37		TF5RX13ZZ	Plate to Line	10,000 to 25,000	200 to 500	3 1.5	100	80-20,000§	M2A
27S49		TF5RX13ZZ	Plate to Line	10,000 to 25,000	200 to 500	3 1.5	200	50-20,000§	M2
27S167		TF5RX13ZZ	Plate to Line	10,000	200	3	120	150-10,000	M10
	27S164	TF4RX13YY	Plate to Line	10,000	200	3	120	150-10,000	NSV-2C
	27S161	TF4RX13YY	Plate to Line	10,000	200	3	120	150-10,000	AF-2
27S45		TF5RX13ZZ	Output or Driver	10,000 to 12,500	500CT to 600CT	2	100	80-20,000§	M2A
	MIT 251	TF4RX13YY	Output or Driver	10,000 to 12,500	500CT to 600CT	1	100	††	RAV-4
	MIT 289	TF4RX13YY	Output or Driver	10,000 to 12,500	500CT to 600CT	1	100	††	RAV-5
	MIT 209	TF4RX13YY	Output or Driver	10,000 to 12,500	500CT to 600CT	1	100	††	RAV-6
	27S69	TF4QX13YY	Plate to Line	10,000	600*	10	2W	150-15,000§§	YY-3
	MIT 290	TF4RX13YY	Output or Driver	10,000CT to 12,500CT	1,200CT to 1,500CT	1	100	††	RAV-4
	MIT 210	TF4RX13YY	Output or Driver	10,000 to 12,500	1,200CT to 1,500CT to	1	100	††	RAV-6
	27S132	TF4RX13FA	Plate to Line	10,000	2,000	40	5W	200-5,000§	FA
27S110		TF5RX13ZZ	Output or Isolation	10,000CT	10,000CT	1	50	300-100,000§	M3
27S136		TF5RX13ZZ	Output or Isolation	10,000CT	10,000CT	1	50	300-100,000§	M7
27S127		TF5RX13ZZ	Plate to Line	15,000CT	30	5	15		BHV
	27S80	TF4QX16YY	Plate to Line	15,000	50/250/600	0	10	60-15,000§	AF-1
	27S27	TF4RX16YY	Plate to Line	15,000	50/250/600	0	10	50-15,000	NSV-2
	27S28	TF4RX12YY	Plate to Line	15,000	50/250/600	3	10	200-10,000	NSV-2
	27S81	TF4QX13YY	Plate to Line	15,000	50/250/600	3	10	100-50,000§	AF-1
	27S82	TF4QX13YY	Tr. to Tr. or Line	15,000CT	600CT*	1	15	50-15,000§	AF-1
	27S85	TF4QX13YY	Tr. to Tr. or Line	15,000CT	600CT*	2	25	50-15,000§	AF-1
	27S07	TF4RX13FA	Plate to Line	15,000	600CT*	10	31	30-50,000§§	FA
	27S117	TF4RX13YY	Plate to Line	15,000	600CT*	10	31	30-50,000§§	YY-21
	27S24	TF4RX13YY	Plate to Line	15,000	50/125/ 200/500	8	200	50-20,000	NSV-4
	27S73	TF4QX16YY	Plate to Line	15,000	62.5/150/ 250*/500*	0	20	20-20,000§	YY-2
	27S74	TF4QX13YY	Plate to Line	15,000	62.5/150/ 250*/500*	5	200	40-15,000§§	YY-13
	27S17■	TF4RX13YY	Plate to Line	15,000	62.5/150/ 250/600	10	400	30-15,000§§	YY-9
	27S82	TF4QX13YY	Plate to Line	20,000CT	50/250/600	0	10	40-30,000§	AF-1
	27S76▲	TF4QX13YY	Plate to Line	20,000CT*	62.5/150/ 250*/600*		30	20-20,000§	YY-12
	27S75	TF4QX13YY	Plate to Line	20,000CT*	62.5/150 250*/600*		400	20-20,000§	YY-12
	27S31	TF4RX13YY	Plate to Line	20,000CT	600CT*	4	125	200-10,000	NSV-2
	27S08	TF4RX13GA	Plate to Line	20,000CT*	600CT*		1W	30-15,000§§	GA
	27S118	TF4RX13YY	Plate to Line	20,000CT*	600CT*		1W	30-15,000§§	YY-27
	27S54	TF4RX13FA	PP Plate to V.C.	20,000CT*	4/8/16	20	5W	40-20,000§	FA
	27S55	TF4RX13FA	PP Plate to Line	20,000CT*	62.5/150/ 250CT/600CT	20	5W	40-20,000§	FA
	27S20	TF4RX13YY	Plate to low Imp.	30,000	50	1	30	250-15,000§	TSM
27S38		TF5RX13ZZ	Plate to low Imp.	30,000	50	1	100	80-20,000§	M2A
27S152		TF5RX13ZZ	Plate to low Imp.	30,000	50	1	100	150-10,000	M9
	27S149	TF4RX13YY	Plate to low Imp.	30,000	50	1	100	150-10,000	NSV-2B
27S168		TF5RX13ZZ	Plate to low Imp.	30,000	50	1	120	150-10,000	M10
	27S165	TF4RX13YY	Plate to low Imp.	30,000	50	1	120	150-10,000	NSV-2C
	27S162	TF4RX13YY	Plate to low Imp.	30,000	50	1	120	150-10,000	AF-2
27S50		TF5RX13ZZ	Plate to low Imp.	30,000	50	1	200	50-20,000§	M2
	27S25	TF4RX13YY	Plate to low Imp.	30,000CT*	50/125/ 200/500	0	80	30-20,000	NSV-4
27S154		TF5RX13ZZ	Plate to Line	30,000	1,200	.5	100	200-10,000	M9
	27S151	TF4RX13YY	Plate to Line	30,000	1,200	.5	100	200-10,000	NSV-2B
27S158		TF5RX13ZZ	Tr. to V.C.	50,000	6	1	100	200-15,000	M9
	27S155	TF4RX13YY	Tr. to V.C.	50,000	6	1	100	200-15,000	NSV-2B
27S176		TF5RX13ZZ	Tr. to V.C.	50,000	6	1	100	300-15,000	M10
	27S173	TF4RX13YY	Tr. to V.C.	50,000	6	1	100	300-15,000	NSV-2C
	27S170	TF4RX13YY	Tr. to V.C.	50,000	6	1	100	300-15,000	AF-2
27S195		TF5RX13ZZ	Tr. to V.C.	50,000	6	3	100	300-15,000	M11
	27S184	TF4RX13YY	Tr. to V.C.	50,000	6	3	100	300-15,000	NSV-2
	27S179	TF4RX13YY	Tr. to V.C.	50,000	6	3	100	300-15,000	AG-2
	27S84	TF4RX13YY	Tr. to Tr. or Line	50,000CT	600CT*	.5	10	100-15,000	AF-1
27S153		TF5RX13ZZ	Output	100,000	60	.5	100	250-10,000	M9
27S39		TF5RX13ZZ	Output	100,000	60	.5	100	80-20,000§	M2A
	27S150	TF4RX13YY	Output	100,000	60	.5	100	250-10,000	NSV-2B
27S169		TF5RX13ZZ	Output	100,000	60	.5	120	150-10,000	M10
	27S166	TF4RX13YY	Output	100,000	60	.5	120	150-10,000	NSV-2C
	27S163	TF4RX13YY	Output	100,000	60	.5	120	150-10,000	AF-2
27S51		TF5RX13ZZ	Output	100,000	60	.5	200	50-20,000§	M2
	27S18	TF4RX15YY	Plate to Grid	10,000	90,000	0	20	250-15,000§	TSM

* Split CT Winding
§ Frequency response at ±3DB
§§ Frequency response at ± 1DB
■ This unit shielded for −70DB hum reduction
▲ This unit shielded for −90DB hum reduction

Chokes

Designed and built to meet MIL-T-27B specifications. These units provide the maximum inductance at the given current rating in a minimum size. All AJ, FA, GA, etc. case sizes are identical to MIL-T-27B specifications

Part No.	MIL-T-27B Classification	Inductance In Henrys	MADC	Resistance In Ohms	Test Volts RMS	Case Size	Wt. Lbs
27C11	TF4RX04AJ	15	10	680	1,000	AJ	1
27C85	TF4RX04YY	15	10	680	1,000	YY-10A	1
27C158	TF4RX04YY	120	12	2,600	2,500	15V-5	1.8
27C111	TF4RX04LA	95	14	1,600	12,500	LA	10.5
27C162	TF4RX04YY	35	15	1,850	1,200	AJ§	1
27C12	TF4RX04AJ	15	20	680	1,000	AJ	1
27C86	TF4RX04YY	15	20	680	1,000	YY-10A	1
27C170	TF5RX04ZZ Dual Choke	20 20	20 20	400 400	700 700	DHF-3	2.3
27C35	TF4RX04EB	30	20	1,000	2,500	EB	1.25
27C47	TF4RX04AH	20 or 18 or 14.5 or 10	20 25 30 35	925	1,000	AH	.25
27C231	TF5SX04ZZ	2.5 2 1.5	25 35 45	225	1,000	ZZ-2	.1
27C175‡	TF5RX04ZZ	3	30	400	6,000	BHH	.2
27C176	TF5RX04ZZ	6	30	145	500	BHV	.4
27C112	TF4RX04YY	10	30	350	1,500	YY-5	1

Chokes

Part No.	MIL-T-27 B Classification	Inductance In Henrys	MADC	Resistance In Ohms	Test Volts RMS	Case Size	Wt. Lbs
27C100	TF4SX04AH	2*	40	T90	2,500	AH	.25
27C70	TF4RX04YY	4	40	375	1,500	YY-3	.35
27C113	TF4RX04YY	8	40	400	1,780	YY-11	1
27C13	TF4RX04FB	15	40	475	2,500	FB	1.5
27C87	TF4RX04YY	15	40	475	2,500	YY-L7	1.5
27C32	TF4RX04FB	20	40	350	2,500	FB	1.75
27C114	TF4RX04YY	20-	40	350	2,500	YY 3	1.75
27C118	TF4RX04YY	5.5 or 4	50 75	360	1,500	YY-4	1.25
27C155	TF4RX04YY	10	50	160	1,765	YY-69	1
27C115	TF4RX04YY	10	50	300	5,000	YY-41	3.5
27C33	TF4RX04EB	12	50	385	2,500	EB	1.25
27C26	TF4SX04AH	2*	55	160	2,500	AH	.25
27C105	TF4SX04YY	2*	55	160	2,500	YY-1	.25
27C167	TF2RX04ZZ	3.2	55	360	2,000	BHV	.2
27C14	TF4RX04FB	10	55	230	2,500	FB	1.75
27C116	TF4RX04EB	10	55	250	1,500	EB	1.12
27C88	TF4RX04YY	10	55	230	2,500	YY-18	1.75
27C15	TF4RX04FB	15	55	420	2,500	FB	2
27C89	TF4RX04YY	15	55	420	2,500	YY-18	2
27C154	TF5SX04ZZ	2.25 1.75 1.25	60 80 100	110	1,000	ZZ-2	.28
27C161	TF4RX04AJ	6	65	450	1,500	AJ	1
27C27	TF4SX04AH	2*	70	165	2,500	AH	.5
27C101	TF4SX04AJ	2*	70	165	2,500	AJ	.75
27C117	TF4SY04EB	2*	70	100	1,500	EB	1.12
27C106	TF4SX04YY	2*	70	165	2,500	YY-6	.5
27C71	TF4RX04YY	3*	70	225	1,500	YY-14	.75
27C48	TF4RX04GB	13 or 11.5 or 9.5 or 7	70 85 105 125	215	2,500	GB	2.5
27C72	TF4RX04GB	13	70	300	2,500	GB	2.4
27C119	TF4RX04YY	6	75	280	500	YY-26	1.2
27C120	TF4RX04GA	15	75	270	1,500	GA	2.5
27C121	TF4RX04YY	12	80	300	1,500	YY-24	2.5
27C168	TF2RX04ZZ	12	80	325	2,200	BHH	.4
27C160	TF4RX04YY	12 8	80 100	325	1,500	FA§	1.5
27C102	TF4SX04AH	2*	85	135	2,500	AH	.375
27C16	TF4RX04GB	10	85	175	2,500	GB	2.5
27C90	TF4RX04YY	10	85	175	2,500	YY-21	2.5
27C17	TF4RX04GB	15	85	285	2,500	GB	2.75
27C91	TF4RX04YY	15	85	285	2,500	YY-21	2.75
27C159	TF4RX04YY	15	85	365	1,600	YY-70	1.8
27C122	TF4RX04ZZ	7	90	270	1,500	ZZ-3	1
27C123	TF4RX04GB	10†	90	175	1,500	GB	2
27C124	TF4RX04YY	3.8	100	105	1,750	YY-25	2
27C125	TF4RX04YY	10	100	200	2,500	YY-36	2.5
26C126	TF4RX04LB	25	100	380	2,500	LB	11
27C103	TF4SX04EB	2*	105	110	2,500	EB	.5
27C18	TF4RX04HB	8	105	100	2,500	HB	3.75
27C92	TF4RX04YY	8	105	100	2,500	YY-28	3.75
27C19	TF4RX04HB	12	105	170	2,500	HB	4
27C93	TF4RX04YY	12	105	170	2,500	YY-28	4
27C28	TF4SX04EB	2*	120	100	2,500	EB	1
27C127	TF4SY04FB	2*	120	75	1,500	FB	1.2
27C107	TF4SX04YY	2*	120	100	2,500	YY-16	1
27C73	TF4RX04EB	3	120	150	1,500	EB	1.12
27C179	TF4RX04YY	10	120	200	2,000	NSV-7	2
27C74	TF4RX04JB	15	120	185	2,500	JB	5.25
27C232	TF5SX04ZZ	2 1.5 1	120 160 200	55	2,500	ZZ-2	.9
27C128	TF2SY04ZZ	7	125	300	1,000	ZZ-3	.7
27C129	TF1RX04YY	8	125	135	2,700	YY-35	4
27C130	TF4RX04GA	10	125	200	2,000	GA	3
27C131	TF4RX04YY	10	136	100	2,500	YY-38	4
27C104	TF4SX04EB	2*	150	95	2,500	EB	1
27C157	TF4RX04YY	2	150	165	1,500	EB§	1
27C20	TF4RX04JB	8	150	100	2,500	JB	5.25
27C94	TF4RX04YY	8	150	100	2,500	YY-31	5.25
27C21	TF4RX04JB	12	150	150	2,500	JB	5.5
27C95	TF4RX04YY	12	150	150	2,500	YY-32	5.5
27C174	TF2RX04ZZ	4	160	64	1,700	LHV	2
27C29	TF4SX04EB	2*	165	90	2,500	EB	1.5
27C108	TF4SX04YY	2*	165	90	2,500	YY-16	1.5
27C133	TF4RX04GA	7.5	165	200	1,500	GA	2.25
27C156	TF4RX04YY	6	190	150	500	YY-71	2.5
27C173	TF5RX04ZZ	.5#	200	63	2,500	ZZ-1	.5
27C172	TF5RX04ZZ	1.5ç	200	63	2,500	ZZ-1	.6
27C30	TF4SX04FB	2*	200	73	2,500	FB	1.75
27C109	TF4SX04YY	2*	200	73	2,500	YY-18	1.75
27C75	TF4RX04FB	3*	200	105	2,000	FB	1.75
27C169	TF4RX04YY	4	200	70	1,500	GB(a)	2
27C163	TF4RX04GA	4.5	200	67	2,500	GA	3
27C164	TF4RX04YY	4.5	200	67	2,500	GA§	3
27C22	TF4RX04JB	8	200	85	2,500	JB	7
27C96	TF4RX04YY	8	200	85	2,500	YY-33	7
27C76	TF4RX04JA	10	200	100	2,500	JA	6.6
27C49	TF4RX04KB	11 or 10 or 8.5	200 230 250	90	2,500	KB	7
27C50	TF4RX04LB	11 or 10 or 8.5	200 230 250	85	4,500	LB	8.5
27C23	TF4RX04JB	12	200	140	2,500	JB	7
27C97	TF4RX04YY	12	200	140	2,500	YY-33	7
27C60	TF5SX04ZZ	2or 1.5 or 1	220 270 325	35	2,500	ZZ-3	1.7
27C24	TF4RX04MB	8	250	90	2,500	MB	10.5
27C98	TF4RX04YY	8	250	90	2,500	YY-42	10.5
27C134	TF4RX04JA	10	250	110	1,500	JA	4.5
27C135	TF4RX04YY	10	275	120	2,500	YY-37	7
27C31	TF4SX04HB	2*	300	47	2,500	HB	3.25
27C34	TF4RX04GB	2*	300	48	2,500	GB	2.5
27C110	TF4SX04YY	2*	300	47	2,500	YY-27	3.25
27C136	TF4RX04JA	6	300	68	1,500	JA	4.5
27C25	TF4RX04MB	8	300	60	3,500	MB	12.5
27C99	TF4RX04YY	8	300	60	3,500	YY-42	12.5
27C36	TF1RX04LA	10	300	85	2,500	LA	10.5
27C51	TF4RX04MB	10 or 9	300 350	60	5,500	MB	12.5
27C137	TF4RX04KB	3	400	50	1,500	KB	7
27C166	TF4RX04YY	3	400	18.6	2,000	YY-72	6.1
27C52	TF4RX04OA	7	400	48	7,000	OA	21
27C138	TF4RX04YY	1	420	16	2,000	YY-30	3
27C139	TF4SY04JB	2*	500	40	1,500	JB	4
27C140	TF1RX04YY	11	500	60	10,000	YY-48	25
27C141	TF4RX04JA	.5	800	3	1,500	JA	6
27C142	TF4RX04AJ	.01	900	1.7	1,000	AJ	.5
27C143	TF4RX04YY	.04	1 Amp.	1.7	1,500	YY-20	1.2
27C144	TF4RX04GB	.2	1 Amp.	5	1,680	GB	2.5
27C145	TF4RX04JA	.5	1 Amp.	5	2,000	JA	4.5
27C146	TF4RX04KB	.025	4 Amp.	.25	500	KB	5.5
27C147	TF4RX04KB	.85	12 Amp.	.015	900	KB	6
27C148	TF1RX04YY	.005	30 Amp.	.05	900	YY-51	25

* Designed for 400 Cycle Operation
# Tolerance ± 10% @ 200 V. 4,500 CPS
(a) Mounting Centers are 1 3/4 x 2 1/16
† Constructed with Hum Bucking Windings
‡ Charging Choke
§ This unit has terminals opposite end of mounting studs.
ç Tolerance ± 3% @ 200 V. 4,500 CPS

For Mounting Illustrations and Cross References See Pages 1517-1520
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Dual Winding - Chokes and Inductors

Designed and built to meet MIL-T-27B specifications. These units provide the maximum inductance at the given current ratings in a minimum size. All AJ, FA, GA, etc. case sizes are identical to MIL-T-27B specifications

Part No.	MIL-T-27B Classification	Series Connected: Inductance In Henrys	Series Connected: MADC	Series Connected: Resistance In Ohms	Parallel Connected: Inductance In Henrys	Parallel Connected: MADC	Parallel Connected: Resistance In Ohms	Case Size	Wt. Lbs.
27C44	TF4RX20YY	450 or 250	0 5	6,000	65	10	1,500	NSV-4	.5
27C66	TF5RX20ZZ	20 40	2 1	2,675	5 10	4 2	670	M2	.05
MIT 249	TF4RX20YY	20 or 8	1 3	5,100	5 or 2	2 6	1,270	RAV-6	.1 oz.
27C41	TF4RX04YY	2.4	2	160	.6	4	40	TFH	.8 oz.
MIT 278	TF4RX20YY	.90 2.5	4 2	635	.20 .60	8 4	155	RAV-5	.07 oz.#
MIT 279	TF4RX20ZZ	1.2 4.5	4 2	2,300	.30 1.1	8 4	575	RAV-5	.07 oz.
27C234	TF4RX20YY	8 16	4 2	1,100	2 4	8 4	275	M2	.05
TR 357	TF4RX20YY	8 16	4 2	1,100	2 4	8 4	275	MAH	.03
27C65	TF5RX20ZZ	1.5 3.5	5 2	160	.40 .90	10 4	40	M2A	.04
27C64	TF5RX20ZZ	4 8	5 2	600	1 2	10 4	150	M2A	.04
MIT 277	TF4RX20YY	.50 .90	6 2	100	.10 .20	12 4	25	RAV-5	.07 oz.
MIT 276	TF4RX20YY	.08 .10	10 4	25	.02 .025	20 8	6	RAV-5	.07 oz.
27C62	TF5SX04ZZ	1 or .2 or .16	5 50 100	40	1.25 or .05 or .04	10 100 200	10	ZZ-3	.05
27C40	TF4RX04YY	1	8	100	.25	10	25	TFH	.8 oz.
MIT 250	TF4RX20YY	75 MH or 60 MH	10 30	10	18 MH or 15 MH	20 60	2.5	RAV-6	.1 oz.
27C46	TF4RX04YY	40	15	1,000	10	30	250	NSV-4	.5
27C43	TF4RX04YY	1	20	60	.25	40	15	NSV-2	.1
27C170	TF4RX20YY	20 20 Dual Choke	200	400				DHF	2.5
27C39	TF4RX04YY	60 MH	32	6	15 MH	64	1.5	TFH	.8 oz.
27C53	TF4RX04AG	52 MH or 40 MH or 18 MH or 9 MH	35 75 350 750	1	13 MH or 10 MH or 4.5 MH or 2.25 MH	70 150 70 1.5 Amp.	.25	AG	.1
27C54‡	TF4RX04AH	125 MH or 80 MH or 20 MH or 12 MH	50 100 500 1 Amp.	1.2	31 MH or 20 MH or 5 MH or 3 MH	100 200 1 Amp. 2 Amp.	.3	AH	.4
27C45	TF4RX04YY	4	50	100	1	100	25	NSV-4	.5
27C149§	TF4RX04FA	10	60	300	2.5	120	75	FA	1
27C57■	TF4RX04JA	9 MH or 5 MH or 2.2 MH or 1.6 MH	75 1.5 Amp. 7.5 Amp. 15 Amp.	.03	2.25 MH or 1.5 MH or .55 MH or .4 MH	1.5 Amp. 3 Amp. 15 Amp. 30 Amp.	.0075	JA	4.5
27C42	TF4RX04YY	60 MH	80	4	15 MH	160	1	NSV-2	.1
27C151o	TF4RX04HA	4	90	50	1	180	12.5	HA	4
27C55★	TF4RX04AJ	68 MH or 52 MH or 20 MH or 14 MH	100 200 1 Amp. 2 Amp.	.8	17 MH 13 MH 5 MH 3.5 MH	200 400 2 Amp. 4 Amp.	.2	AJ	.6
27C56	TF4RX04GB	180 MH or 140 MH or 25 MH or 11 MH	125 250 1.25 Amp. 2.5 Amp	.6	45 MH or 35 MH or 6.5 MH or 3 MH	250 500 2.5 Amp. 5 Amp.	15	GB	1.75
27C150o	TF4RX04JA	10	140	100	2.5	280	25	JA	5
27C61	TF5SX04ZZ	200 MH or 25 MH or 11 MH	150 1.25 Amp. 2.5 Amp.	.6	55 MH or 6.2 MH or 2.7 MH	250 2.5 Amp. 5 Amp.	.15	ZZ-3	1.7
27C152Δ	TF4RX04KA	10	210	140	2.5	420	35	KA	5.2
27C58■	TF4RX04HA	70 MH or 65 MH or 20 MH or 9 MH	250 400 2 Amp. 4 Amp.	.22	12.5 MH 16 MH 5 MH 2.25 MH	500 800 4 Amp. 8 Amp.	.055	HA	2.5
27C59	TF4RX04KA	90 MH or 80 MH or 18 MH or 9 MH	500 800 4 Amp. 8 Amp.	.15	22.5 MH or 20 MH or 4.5 MH or 2.25 MH	1 Amp. 1.6 Amp. 8 Amp. 16 Amp.	.035	KA	5.2

‡ 500 Volts RMS Test § 1,700 Volts RMS Test ■ 1,000 Volts RMS Test
★ 750 Volts RMS Test o 1,500 Volts RMS Test Δ 1,875 Volts RMS Test

Audio Inductors

Designed and built to provide a full range of inductance and current ratings in epoxy molded, encased, and encapsulated units from .06 Hy. to 450 Hy. at tolerances of less than ± 5%. Units marked * have a tolerance ± 3% and a Q of 22 or more at approximately 1,000 cycles. Units marked # have an inductance tolerance of ± 2% and a Q of 25 or more at 1,700 cycles for low inductance units and 400 cycles for high inductance units. Stable operation is provided from .1 to 30 volts and over the full MIL temperature range.

Part No. Molded	Part No. Encased	MIL-T-27B Classification	Series Connected: Inductance Henrys	Series Connected: MADC	Series Connected: Resistance Ohms	Parallel Connected: Inductance Henrys	Parallel Connected: MADC	Parallel Connected: Resistance Ohms	Mtg. Type
	MIT 250	TF4RX20YY	.06/.075	30/10	10	.015/.018	60/20	2.5	RAV-6
	MIT 267	TF4RX20YY	.08/.10	10/4	25				RAV-4
	MIT 276	TF4RX20YY	.08/.10	10/4	25	.02/.025	20/8	6	RAV-5
27C265		TF5RX20ZZ	.10#	55‡	13.5				M2B
27C84		TF5RX20ZZ	.10	5	15				M3
27C236		TF5RX20ZZ	.15*	12‡	33				TAM
27C267		TF5RX20ZZ	.15#	45‡	22				M2B
	MIT 228	TF4RX20YY	.15/.30	20/4	24				RAV-6
27C237		TF5RX20ZZ	.25*	9‡	55				TAM
27C266		TF5RX20ZZ	.30#	28‡	34				M2B
27C83		TF5RX20ZZ	.30	4	44				M3
27C506		TF5RX20ZZ	.30	4	44				M7
27C238		TF5RX20ZZ	.40*	7‡	90				TAM
27C269		TF5RX20ZZ	.50#	23‡	54				M2B
	MIT 266	TF4RX20YY	.50/.90	6/2	105				RAV-4
	MIT 277	TF4RX20YY	.50/.90	6/2	100	.10/.20	12/4	25	RAV-5
	MIT 227	TF4RX20YY	.50/1.25	11/2	103				RAV-6
27C239		TF5RX20ZZ	.70*	5‡	130				TAM
27C512		TF5RX20ZZ	.70/1.5	2/0	100				M7A
27C82		TF5RX20ZZ	.90	2	110				M3
	MIT 258	TF4RX20YY	.90/2.5	4/2	635				RAV-4
	MIT 278	TF4RX20YY	.90/2.5	4/2	635	.20/.60	8/4	155	RAV-5
27C268		TF5RX20ZZ	1#	16‡	130				M2B
TR 147		TF5RX20ZZ	1	2	130				M1
	MIT 208	TF4RX20ZZ	1/3.5	5/2	617				RAV-6
	MIT 265	TF4RX20ZZ	1.2/4.5	4/2	2,300				RAV-4
	MIT 279	TF4RX20ZZ	1.2/4.5	4/2	2,300	.30/1.1	8/4	575	RAV-5
27C80		TF5RX20ZZ	1.25	2	180				M3
27C242		TF5RX20ZZ	1.4*	3‡	210				TAM
	MIT 226	TF4RX20YY	1.5/6	5/2	2,160				RAV-6
27C65		TF5RX20ZZ	1.5/3.5	5/2	160	.40/.90	10/4	40	M2A
27C270		TF5RX20ZZ	2#	8‡	130				M2B
	27C68	TF4QJX20YY	2/8	6/3	220				AF-1
27C241		TF5RX20ZZ	2.5*	1‡	210				TAM
TR 148		TF5RX20ZZ	3	2	330				M1
27C81		TF5RX20ZZ	3.5	2	1,040				M3
27C240		TF5RX20ZZ	4*	.7‡	340				TAM
27C64		TF5RX20ZZ	4/8	5/2	600	1/2	10/4	150	M2A
27C271		TF5RX20ZZ	5#	5‡	340				M2B
27C243		TF5RX20ZZ	6*	.6‡	530				TAM
27C79		TF5RX20ZZ	6	2	1,800				M3
27C505		TF5RX20ZZ	6	2	1,800				M7
TR 149		TF5RX20ZZ	6	2	1,180				M1
27C273		TF5RX20ZZ	7.5#	4.5‡	517				M2B
27C511		TF5RX20ZZ	8/10	.5/0	650				M7A
27C234		TF5RX20ZZ	8/16	4/2	1,100	2/4	8/4	275	M2
	MIT 249	TF4RX20YY	8/20	3/1	5,100	2/5	6/2	1,270	RAV-6
27C244		TF5RX20ZZ	10*	.5‡	850				TAM
	MIT 20	TF5RX20YY	12	0	830				RSV-1
TR 150		TF5RX20ZZ	12	0	1,880				M1
27C513		TF5RX20ZZ	12	.5	1,000				M8
27C272		TF5RX20ZZ	20#	2.7‡	1,300				M2B

Audio Inductors

Part No. Molded	Part No. Encased	MIL-T-27B Classification	Series Connected: Inductance Henrys	Series Connected: MADC	Series Connected: Resistance Ohms	Parallel Connected: Inductance Henrys	Parallel Connected: MADC	Parallel Connected: Resistance Ohms	Mtg. Type
TR 151		TF5RX20ZZ	20	0	2,850				M1
	MIT 40	TF4RX20YY	20	1	2,200				RSV-1A
27C66		TF5RX20ZZ	20/40	2/1	2,675	5/10	4/2	670	M2
27C246		TF5RX20ZZ	25*	.3‡	2,300				TAM
	MIT 66	TF4RX20YY	30	1	4,000				RSV-1B
27C178		TF2RX20ZZ	41	0	1,500				BAH
	27C67	TF4QJX20YY	50	.75	4,000				AF-1
27C509		TF5RX20ZZ	50	1	3,000				M10
	27C507	TF4RX20YY	50	1	3,000				AF-2
	27C508	TF4RX20YY	50	1	3,000				NSV-2C
	MIT 102	TF4RX20YY	50	1	3,200				RSV-2A
27C63		TF5RX20ZZ	50	1	4,400				M2A
	27C38	TF4RX20YY	50	1	4,400				TSM
	MIT 84	TF4RX20YY	50	1	4,500				RSV-2
27C515		TF5RX20ZZ	50	1	4,700				M9
	27C514	TF4RX20YY	50	1	4,700				NSV-2B
27C275		TF5RX20ZZ	50#	1.4‡	3,180				M2B
	MIT 132	TF5RX20ZZ	50	3	500				NSV-2
27C447		TF5RX20ZZ	50/300	3/0	6,000				M11
	27C37	TF4RX20YY	50/300	3/0	6,000				NSV-2
	27C510	TF4RX20YY	50/300	3/0	6,000				AG-2
27C245		TF5RX20ZZ	60*	.2‡	5,160				TAM
27C276		TF5RX20ZZ	100#	1.1‡	8,550				M2B
	27C44	TF4RX20YY	250/450	5/0	6,000	60	10	1,500	NSV-4

§ Maximum MADC. Inductance rating for 0 MADC # Inductance tolerance ± 2% * Inductance tolerance ± 3%

Alignaire Inductors - Variable

These Alignaire Inductors are ideally suited for hard to align or frequently changed circuits such as low frequency oscillators, attenuators, low frequency tuned amplifiers, filters and delay lines. The high frequency and temperature stability built into these units make them most applicable to mid-audio tuned frequency circuits.

Provided in a wide range of inductance values, these units require only a simple screw driver adjustment to achieve the exact inductance required for the circuit. Less than three turns of the alignment screw are necessary to move the internal piston through its complete range.

Internal construction of the AL-3 units is similar to the AL-1 and AL-2 but have an allen alignment screw on the side of the case.

Part No.	MIL-T-27B Classification	Inductance * In Henrys: Maximum	Inductance * In Henrys: Minimum	Max. MADC	Resistance In Ohms	Case Type	Mtg. Centers	Dimensions: H	Dimensions: W	Dimensions: D
27C288	TF4RX20YY	.0065	.0053	200	.45	AL-1	27/32	1 7/32	1 1/8	25/32
27C203	TF3RX20YY	.015	.0046	75	.91	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C287	TF4RX20YY	.016	.013	125	1.00	AL-1	27/32	1 7/32	1 1/8	25/32
27C180	TF4RX20YY	.020	.002	100	.51	AL-1	27/32	1 7/32	1 1/8	25/32
†27C191	TF4RX20YY	.020	.002	100	.51	AL-2	17/32	1 7/32	1 1/8	25/32
27C204	TF3RX20YY	.024	.007	60	1.35	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C205	TF3RX20YY	.039	.011	50	2.35	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C289	TF4RX20YY	.044	.035	82	2.80	AL-1	27/32	1 7/32	1 1/8	25/32
27C181	TF4RX20YY	.050	.005	60	1.42	AL-1	27/32	1 7/32	1 1/8	25/32
†27C192	TF4RX20YY	.050	.005	60	1.42	AL-2	17/32	1 7/32	1 1/8	25/32
27C206	TF3RX20YY	.063	.019	40	3.6	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C207	TF3RX20YY	.098	.029	36	6.0	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C290	TF4RX20YY	.111	.091	50	7.0	AL-1	27/32	1 7/32	1 1/8	25/32
27C182	TF4RX20YY	.111	.011	40	3.5	AL-1	27/32	1 7/32	1 1/8	25/32
†27C193	TF4RX20YY	.111	.011	40	3.5	AL-2	17/32	1 7/32	1 1/8	25/32
27C208	TF3RX20YY	.155	.046	30	9.3	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C209	TF3RX20YY	.240	.071	25	15.5	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C292	TF4RX20YY	.275	.225	30	18.0	AL-1	27/32	1 7/32	1 1/8	25/32
27C183	TF4RX20YY	.300	.030	30	8.7	AL-1	27/32	1 7/32	1 1/8	25/32
†27C194	TF4RX20YY	.300	.030	30	8.7	AL-2	17/32	1 7/32	1 1/8	25/32
27C210	TF3RX20YY	.390	.115	20	24	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C211	TF3RX20YY	.628	.187	20	36	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C291	TF4RX20YY	.660	.540	20	43	AL-1	27/32	1 7/32	1 1/8	25/32
27C184	TF4RX20YY	.700	.070	20	22	AL-1	27/32	1 7/32	1 1/8	25/32
†27C195	TF4RX20YY	.700	.070	20	22	AL-2	17/32	1 7/32	1 1/8	25/32
27C212	TF3RX20YY	1.00	.300	15	58	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C213	TF3RX20YY	1.57	.467	13	94	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C293	TF4RX20YY	1.65	.135	14	103	AL-1	27/32	1 7/32	1 1/8	25/32
27C185	TF4RX20YY	2.00	.200	16	55	AL-1	27/32	1 7/32	1 1/8	25/32
†27C196	TF4RX20YY	2.00	.200	16	55	AL-2	17/32	1 7/32	1 1/8	25/32
27C214	TF3RX20YY	2.40	.716	10	150	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C215	TF3RX20YY	4.07	1.2	8	235	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C294	TF4RX20YY	4.40	3.60	7	270	AL-1	27/32	1 7/32	1 1/8	25/32
27C153	TF4RX20YY	5.00	.500	10	140	AL-1	27/32	1 7/32	1 1/8	25/32
†27C197	TF4RX20YY	5.00	.500	10	140	AL-2	17/32	1 7/32	1 1/8	25/32
27C216	TF3RX20YY	6.28	1.87	6.5	375	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C217	TF3RX20YY	10.0	3.00	6	585	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C295	TF4RX20YY	11.0	9.00	5	720	AL-1	27/32	1 7/32	1 1/8	25/32
27C186	TF4RX20YY	11.0	1.10	7	365	AL-1	27/32	1 7/32	1 1/8	25/32
†27C198	TF4RX20YY	11.0	1.10	7	365	AL-2	17/32	1 7/32	1 1/8	25/32
27C218	TF3RX20YY	15.7	4.65	5	955	AL-3	13/32 x 29/32	1 7/16	1 7/32	1 11/32
27C219	TF3RX20YY	24.0	7.16	4	1,500	AL-3	13/32 x 29/32	1 7/16	1 7/32	1 11/32
27C296	TF4RX20YY	27.5	22.4	3	1,760	AL-1	27/32	1 7/32	1 1/8	25/32
27C187	TF4RX20YY	30.0	3.00	5	945	AL-1	27/32	1 7/32	1 1/8	25/32
†27C199	TF4RX20YY	30.0	3.00	5	945	AL-2	17/32	1 7/32	1 1/8	25/32
27C220	TF3RX20YY	39.0	11.5	3.5	2,300	AL-3	13/32 x 29/32	1 7/16	1 7/32	1 11/32
27C221	TF3RX20YY	61.0	18.0	3	3,580	AL-3	13/32 x 29/32	1 7/16	1 7/32	1 11/32
27C297	TF4RX20YY	66.0	54.0	2	4,325	AL-1	27/32	1 7/32	1 1/8	25/32
27C188	TF4RX20YY	70.0	7.0	3.6	2,200	AL-1	27/32	1 7/32	1 1/8	25/32
†27C200	TF4RX20YY	70.0	7.0	3.6	2,200	AL-2	17/32	1 7/32	1 1/8	25/32
27C222	TF3RX20YY	96.0	28.6	2	5,840	AL-3	13/32 x 29/32	1 7/16	1 7/32	1 11/32
27C223	TF3RX20YY	154	45.7	1.5	9,340	AL-3	13/32 x 29/32	1 7/16	1 7/32	1 11/32
27C298	TF4RX20YY	165	135	1.3	10,500	AL-1	27/32	1 7/32	1 1/8	25/32
27C189	TF4RX20YY	200	20	2.1	5,500	AL-1	27/32	1 7/32	1 1/8	25/32
†27C201	TF4RX20YY	200	20	2.1	5,500	AL-2	17/32	1 7/32	1 1/8	25/32
27C224	TF3RX20YY	240	71.6	1	14,900	AL-3	13/32 x 29/32	1 7/16	1 7/32	1 11/32
27C190	TF4RX20YY	500	50	1.5	15,500	AL-1	27/32	1 7/32	1 1/8	25/32
†27C202	TF4RX20YY	500	50	1.5	15,500	AL-2	17/32	1 7/32	1 1/8	25/32

* Inductance Range given for 0 MADC † Winding Tapped at 30% and 50%

Filament Single Secondary

50/60 CYCLES

These transformers have been designed and built to meet MIL-T-27B specifications. All EB, GA, GB, etc. case sizes are identical to MIL-T-27B specifications

See next page for multiple secondary filament transformers.

Part No.	MIL-T-27B Classification	Primary Voltage	Secondary: Volts	Secondary: Amps.	Test Volts RMS	Case Size	Wt. Lbs.
27F36	TF4RX01EB002	105/115/125	2.5	3	2,500	EB	1.5
27F46	TF4RX01GA	115/230	2.5CT	5.25	3,500	GA	2
27F24	TF4RX01YY	115/230	2.5CT	5.25	3,500	YY-22	2
27F37	TF4RX01GB003	105/115/125	2.5	10	2,500	GB	2.5
27F88	TF4RX01GB	105/115/210/230	2.5	10	4,000	GB	2.5
27F47	TF4RX01GA	115/230	2.5CT	10	5,000	GA	3
27F25	TF4RX01YY	115/230	2.5CT	10	5,000	YY-22	3
27F48	TF4RX01JA	115/230	2.5CT	10	9,000	JA	4
27F26	TF4RX01YY	115/230	2.5CT	10	9,000	YY-32	4
27F89	TF4RX01JB	105/115/210/230	2.5	10	10,000	JB	5
27F44	TF4RX01JB012	105/115/125	2.5	10	10,000	JB	4.75
27F49	TF4RX01KA	115/230	2.5CT	15	9,000	KA	5.25
27F27	TF4RX01YY	115/230	2.5CT	15	9,000	YY-34	5.25
27F63	TF4RX01KB	105/115/210/230	2.5	20	10,000	KB	7.25
27F134	TF4RX01JA	100/115	2.6CT	10	10,000	JA	4
27F38	TF4RX01FB004	105/115/125	5.0	3	2,500	FB	1.75
27F65	TF4RX01FB	105/115/210/230	5.0	3	2,000	FB	1.75
27F50	TF4RX01GA	115/230	5.0CT	4	2,500	GA	2.25
27F28	TF4RX01YY	115/230	5.0CT	4	2,500	YY-22	2.25
27F39	TF4RX01HB005	105/115/125	5.0	10	2,500	HB	4
27F51	TF4RX01HA	115/230	5.0CT	10	2,500	HA	3.5
27F29	TF4RX01YY	115/230	5.0CT	10	2,500	YY-28	3.5
27F52	TF4RX01KA	115/230	5.0CT	10	8,000	KA	6
27F30	TF4RX01YY	115/230	5.0CT	10	8,000	YY-34	6

† Static Shielded ‡ Terminals located opposite mounting studs # @ 60 Cycles only
(a) Width: 2-5/8; Depth: 2; Height: 2-1/8; Mtg.Ctrs: 2-1/32

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For Mounting Illustrations and Cross References See Pages 1517-1520

THORDARSON MEISSNER

Filament Single Secondary

50/60 CYCLES

Part No.	MIL-T-27B Classification	Primary Voltage	Secondary Volts	Secondary Amps.	Test Volts RMS	Case Size	Wt. Lbs.
27F66	TF4RX01KB	105/115/210/230	5.0	10	10,000	KB	7.5
27F45	TF4RX01KB013	105/115/125	5.0	10	10,000	KB	7.5
27F109	TF4RX01YY	115#	5.0CT	20	2,500	YY-62	4.5
27F53	TF4RX01MA	115/230	5.0CT	20	10,000	MA	13
27F31	TF4RX01YY	115/230	5.0CT	20	10,000	YY-43	13
27F67	TF4RX01LA	105/115/210/230	5.0	20	10,000	LA	10.5
27F68	TF4RX01NA	105/115/210/230	5.0	20	21,000	NA‡	18
27F69	TF4RX01YY	105/115/210/230	5.0	60	21,000	YY-52	34
27F110	TF4RX01YY	105/115/125†	5.25CT	14	2,500	YY-39	4
27F71	TF4RX01AH	115	6.3CT	.3	1,500	AH	.5
27F72	TF4RX01AJ	115	6.3CT	.6	1,500	AJ	1
27F01	TF4RX01YY	115	6.3	.6	1,500	YY-14	.75
27F113	TF4RX01EA	115#	6.3CT	1	1,600	EA	1
27F116	TF2RX01ZZ	117	6.3CT	1	1,600	BHV(a)	.4
27F125	TF4RX01YY	115#	6.3	1	1,780	YY-63	1
27F54	TF4RX01FA	115/230	6.3CT	1.5	2,500	FA	1
27F32	TF4RX01YY	115/230	6.3CT	1.5	2,500	YY-17	1
27F111	TF4RX01YY	120#	6.3	1.6	1,500	YY-64	2
27F33	TF4RX01EA	105/115/125	6.3CT	2	2,000	EA	1
27F40	TF4RX01FB006	105/115/125	6.3	2	2,500	FB	1.75
27F73	TF4RX01FB	115/230	6.3CT	2	2,500	FB	1.75
27F112	TF4RX01FA	115#	6.3CT	3	1,600	FA	1
27F133	TF4RX01YY	115#†	6.3	3	1,600	YY-65	1.3
27F55	TF4RX01GA	115/230	6.3CT	3	2,500	GA	2
27F90	TF4RX01YY	115/230	6.3CT	3	2,500	YY-21	2
27F34	TF4RX01FA	105/115/125	6.3CT	3.6	2,000	FA	1.75
27F41	TF4RX01GB007	105/115/125	6.3	5	2,500	GB	2.75
27F56	TF4RX01HA	115/230	6.3CT	5.5	2,500	HA	3
27F02	TF4RX01HB	105/115/125	6.3CT	5.5	2,000	HB	4
27F91	TF4RX01YY	115/230	6.3CT	5.5	2,500	YY-27	3
27F75	TF4RX01HB	105/115/210/230	6.3CT	7	2,500	HB	4
27F05	TF4RX01JB	105/115/125	6.3CT	8	2,500	JB	5
27F57	TF4RX01JA	115/230	6.3CT	10	2,500	JA	5
27F42	TF4RX01JB008	105/115/125	6.3	10	2,500	JB	5
27F76	TF4RX01HA	105/115/210/230	6.3CT	10	2,500	HA	3.5
27F92	TF4RX01YY	115/230	6.3CT	10	2,500	YY-32	5
27F107	TF4SX01YY	105/115/125	6.3CT	10	2,500	YY-18	1.75
27F43	TF4RX01KB009	105/115/125	6.3	20	2,500	KB	8
27F58	TF4RX01HA	115/230	10.0CT	4	2,500	HA	3.25
27F93	TF4RX01YY	115/230	10.0CT	4	2,500	YY-28	3.25
27F77	TF4RX01JB	105/115/210/230	10.0CT	10	2,500	JB	5
27F117	TF4RX01YY	115#	10.7	1.5	2,700	YY-66	2.1
27F78	TF4RX01LA	105/115/210/230	11/12/14CT	10	2,500	LA	10.5
27F06	TF4RX01EA	105/115/125	12.6CT	.8	1,500	EA	1.25
27F07	TF4RX01FA	105/115/125	12.6CT	2	2,000	FA	2
27F08	TF4RX01FA	105/115/125	24CT	.8	1,500	FA	2
27F09	TF4RX01GA	105/115/125	24CT	1.5	1,500	GA	3.25

† Static Shielded ‡ Terminals located opposite mounting studs # @ 60 Cycles only
(a) Width: 2-5/8; Depth: 2; Height: 2-1/8; Mtg.Ctrs: 2-1/32

Filament-Multiple Secondary

These transformers have been designed and built to meet all requirements of MIL-T-27B for their specific class of operation. All EB, GA, GB, etc. case sizes are identical to MIL-T-27B specifications

Part No.	MIL-T-27B Classification	Primary Voltage	Secondary Volts	Secondary Amps.	Test Volts RMS	Case Size	Wt. Lbs.
27F64	TF4RX01NB	105/115/210/230	2.5 2.5 2.5	5 5 10	10,000	NB	15
27F101	TF4RX01KA	105/115/125	5.0CT 5.0CT 5.0CT	3 3 6	5,000	KA	7
27F70	TF4RX01YY	105/115/210/230	5.0 5.0 5.0	10 10 20	21,000	YY-49	28
27F94	TF4RX01GA	105/115/125	5.0 6.3CT	2 2.5	2,500	GA	3.5
27F123	TF4RX01YY	115 57/63CPS	5.0 5.0 6.3 6.3 6.3 6.3	2 2 .6 1.185 1.2 14	1,780	JA‡	5.5
27F96	TF4RX01HA	105/115/125	5.0 6.3CT	3 5	2,500	HA	4
27F13	TF4RX01JB	105/115/125	5.0CT 6.3CT	3 5	2,500	JB	4.75
27F97	TF4RX01JB	105/115/125	5.0 6.3CT 6.3CT	3 3 3	2,500	JB	4.75
27F98	TF4RX01JB	105/115/125	5.0 6.3CT 6.3CT	3 1 5	2,500	JB	4.75
27F119	TF4RX01KA	115 60CPS	5.0CT 6.3CT 6.3CT 6.3 6.3	6 1 1.2 2 6	1,500	KA	7
27F118	TF4RX01YY	105/115/125/210/230/250 60CPS	5.0 6.3 6.5	3 3 20	1,600	YY-67	12.3
27F95	TF4RX01GA	105/115/125	5.0 12.6CT	2 1.25	2,500	GA	3.5
27F132	TF4RX01YY	105/115/125	5.25CT 5.25CT	14.5 14.5	2,500	YY-44	5
27F115	TF4RX01YY	115§ 45 to 60 CPS	5.3/5.5/ 5.7CT Plus 85% Tap from CT 5.3/5.5/ 5.7CT Plus 85% Tap from CT	4.75 26.5	500	YY-68‡	10
27F79	TF4RX01EB	115	6.3CT 6.3CT	.6 .6	1,500	EB	8
27F127	TF4RX01YY	115	6.3 6.3	.75 .75	2,000	YY-23	1.2
27F126	TF4RX01JA	115	6.3 6.3 6.3	1.2 3 10	2,700	JA	5.5
27F128	TF4RX01GA	115†	6.3 6.3	3 .6	1,000 2,500	GA	2
27F04	TF4RX01GA	105/115/125	6.3 6.3CT	3 3	2,500 Pri. 1,500	GA	2.25
27F99	TF4RX01HA	105/115/125	6.3CT 6.3CT	3 3	2,500	HA	4
27F131	TF4RX01JA	115	6.3 6.3 6.3 6.3	3 3 3 3	2,500	JA	4
27F18	TF4RX01FA	105/115/125	6.3 6.3CT 6.3/5.0	3.5 3.5 3	2,000	FA	1.85
27F17	TF4RX01FA	105/115/125	6.3 6.3CT	5 5	2,500 Pri. 1,500	FA	2
27F12	TF4RX01JA	105/115/125	6.3CT 6.3	6 6	2,500 Pri. 1,500	JA	6.3
27F100	TF4RX01KA	105/115/125	6.3CT 6.3CT	6 6	2,500	KA	8
27F74	TF4RX01JA	105/115/210/230	6.3CT 6.3CT	6 6	2,500	JA	6.3
27F03	TF4RX01KA	105/115/125	6.3CT 6.3	10 10	2,500 Pri. 1,500	KA	8
27F130	TF4RX01GA	115 60 CPS	6.3 12.6	2.5 2.5	1,500	GA	2.75
27F129	TF4RX01EA	115 60 CPS	12.6 12.6	.25 .25	500	EA	1
27F10	TF4RX01GA	105/115/125	12.6CT 12.6CT	1.5 1.5	1,500	GA	3.25
27F11	TF4RX01JB	105/115/125	12.6CT 12.6	2 2	2,500	JB	6.5

§ Secondary Voltage changed by means of primary taps † Static Shielded ‡ Terminals located opposite mounting studs

Filament-Multiple Secondary

Part No.	MIL-T-27B Classification	Primary Voltage	Secondary Volts	Secondary Amps.	Test Volts RMS	Case Size	Wt. Lbs.
27F80	TF4RX01GA	115	12.6CT 12.6CT	2 2	1,500	GA	3.5
27F23	TF4RX01JA	105/115/125	26CT 26	2 2	2,000	JA	6.3

Filament 400 CPS OPERATION

These transformers have been designed and built to meet all requirements of MIL-T-27B for their specific class of operation. All EB, GA, GB, etc. case sizes are identical to MIL-T27B specifications

Part No.	MIL-T-27B Classification	Primary Voltage	Secondary Voltage	Secondary Amps.	Test Volts RMS	Case Size	Wt. Lbs.
27F87	TF5RX01ZZ	105/115	6.3CT	.3	500	M-2	.05
27F82	TF4RX01YY	115	6.3	.6	500	N5V-2	.1
27F14	TF4RX01AH	115	6.3CT	1	1,500	AH	.3
27F124	TF5RX01ZZ	115	6.3	1.2	500	CHH(a)	.1
27F121	TF2SX01ZZ	115	6.3CT	2	1,500	ZZ-1	.33
27F35	TF4SX01YY	105/115/125	6.3CT	2	2,000	YY-14	.75
27F135	TF4SX01AH	105/115/125	6.3CT	2¢	2,500	AH	.3
27F59	TF4SX01AJ	105/115/125	6.3CT	3	2,500	AJ	.75
27F102	TF4SX01EB	105/115/125	6.3CT	3	2,500	EB	1
27F105	TF4SX01YY	105/115/125	6.3CT	3	2,500	YY-15	.75
27F83	TF5SX01ZZ	105/115	6.3CT	3.5	2,500	ZZ-1	.3
27F122	TF2SX01ZZ	115	6.3CT	4	1,500	ZZ-1	.45
27F120	TF4RX01FB	105/115/125	6.3	5	2,500	FB	.75
27F60	TF4SX01EA	105/115/125	6.3CT	5.5	2,500	EA	1
27F84	TF5SX01ZZ	105/115	6.3CT	5.5	2,500	ZZ-1	.44
27F106	TF4SX01YY	105/115/125	6.3CT	5.5	2,500	YY-16	1
27F61	TF4SX01FA	105/115/125	6.3CT	10	2,500	FA	1.75
27F85	TF5SX01ZZ	105/115	6.3CT	10	2,500	ZZ-1	.8
27F136	TF4SX01FA	105/115/125	6.3CT	10	2,500	FA	1.75
27F108	TF4SY01YY	105/115/125	6.3CT	20	2,500	YY-22	2.5
27F62	TF4SX01GA	105/115/125	6.3CT	20	2,500	GA	2.5
27F86	TF5SX01ZZ	105/115	6.3CT	25	2,500	ZZ-1	1.5
27F15	TF4RX01EA	105/115/125	12.6CT	2.5	2,000	EA	1.2
27F16	TF4RX01EA	105/115/125	24CT	1.5	1,500	EA	1.2
27F19	TF4RX01HA	105/115/125	2.5CT 5.0CT 5.0	10 10 10	2,500 Pri. 2,000	HA	4
27F114	TF2SX01ZZ	115†	6.3 6.3 6.3 7.5	1.8 2.5 3.2 .6	1,500 4,000 1,500 1,500	ZZ-1(d)	.8
27F137	TF4SX01GB	105/115/125	6.3CT 6.3CT	6†† 6	2,500	GB	2.5
27F103	TF4RX01AJ	105/115/125	12.6CT 12.6	.8 .8	1,500	AJ	.8
27F20	TF4RX01YY	105/115/125	12.6CT 12.6	.8 .8	1,500	YY-14	.75
27F104	TF4RX01EA	105/115/125	12.6CT 12.6	2 2	1,500	EA	1.3
27F21	TF4RX01EA	57.5/99.7/115/120*	12.6CT 12.6	2 2	1,500	EA	1.25
27F81	TF4RX01FA	57.5/99.7/115*	12.6CT 12.6	2 2	1,500	FA	1.75
27F22	TF4RX01FA	57.5/99.7/115/120*	26CT 26CT	2 2	2,000	FA	1.9

†† Both windings rated 7 Amps. for industrial applications ¢ Rated 2.5 Amps. for industrial application
* Two units Scott connected provide 26 Volts two phase from 115 Volts 3 – phase, 400 cycle input. † Static Shielded
(a) Width: 1 5/16; Depth: 1 1/2; Height: 1 7/16; Mtg. Ctrs: 1.687 x 1 1/2
(d) Width: 2 1/2; Depth: 2 1/8; Height: 2 1/4 Max; Mtg. Ctrs: 1.687 x 1 1/2

Power Transformers

PRIMARY 117 VOLTS 50/60 CYCLES

These units have been designed and built to all requirements of MIL-T-27B for their specific class of operation. All EB, GA, GB, etc. case sizes are identical to MIL-T-27B specifications. These units meet the requirements for circuit and mobile communications, control equipment, guided missile controls as well as marine equipment and any field where maximum sealing quality is a prime requisite.

Part No.	MIL-T-27B Classification	PLATE SUPPLY MADC† Volts	C	L	RECTIFIER Volts	RECTIFIER Amps.	FILAMENT Volts	FILAMENT Amps.	Case Size	Wt. Lbs.
27R18	TF4RX03FA	120	100	127			6.3CT	1.6	FA	2
▲27R149	TF5RX03ZZ	125(c)	100				6.3	2	DHF-1	12.3
▪27R150	TF4RX02YY	220(c)		1.15A					YY-53	9.6
27R17	TF4RX03HA	*800/1,600/ 2,400	5‡		1.25 (Autoformer on H.V.Sec.)	.2	6.3 (5.2KV Test)	.6	HA	4
27R127	TF4RX03KA	3,200	3		1.25 (Autoformer on H.V.Sec.)	.2	1.25 (13KV Test)	.2	KA	8
★27R105	TF4RX03LA	30-0-30	2.5A	3.9A	3.9A		6.3 6.3	1.5 1.5	LA	9
★27R104	TF4RX03LA	40-0-40	2A	2.9A			6.3 6.3	1.5 1.5	LA	9.6
★27R103	TF4RX03LA	50-0-50	1.6A	2.6A			6.3 6.3	1.5 1.5	LA	10.5
27R13	TF4RX03HA	100-0-100 or 117-0-117	85‡ 75	140 125			6.3	3.5	HA	4
★27R102	TF4RX03LA	100-0-100	80Ø	1.34A			6.3 6.3	2 2	LA	10
27R14	TF4RX031A	108-0-108 or 232-0-232	180‡ 150	285 240			6.3	5	JA	5
27R15	TF4RX03KA	115-0-115 or 142-0-142	280‡ 235	445 380			6.3 6.3	5 1.5	KA	8
27R16	TF4RX03MB	130-0-130 or 160-0-160	320‡ 260	500 420			6.3 6.3	6 2	MB	14
★27R101	TF4RX03LA	150-0-150	600	1A			6.3 6.3	2.5 2.5	LA	10.5
27R85	TF4RX03JA	180-0-180 160-0-160 140-0-140 120-0-120	150		5.0	3			JA	5
27R60	TF4RX03YY	180-0-180 160-0-160 140-0-140 120-0-120	150		5.0	3			YY-32	5
★27R100	TF4RX03LA	200-0-200	400	540			6.3 6.3	3 3	LA	10.5
27R86	TF4RX03HA001	200-100-0 100-200		70	6.3/5	2	6.3	3	HA	4
27R01	TF4RX03FA	225-0-225	30‡				6.3CT	2	FA	2
27R65	TF4RX03HA	225-0-225	40		5.0	2	6.3CT	2	HA	2
27R40	TF4RX03YY	225-0-225	40		5.0	2	6.3CT	2	YY-28	3.25
●27R143	TF4RX03YY	225-0-225	40		5.	4	6.3	3.8	TSV-12	4.9
‡27R154	TF5RX03ZZ	230-0-230	20		6.3	6	6.3	1.25	DHF-2	1.6
27R63	TF4RX03GA	250-0-250	10		6.3	.6	6.3	1.2	GA	2
27R38	TF4RX03YY	250-0-250	10		6.3	.6	6.3	1.2	YY-21	2
27R64	TF4RX03GA	250-0-250	20		6.3	.6	6.3	1.2	GA	2
27R39	TF4RX03YY	250-0-250	20		6.3	.6	6.3	1.2	YY-22	2
27R19	TF4RX03GA	250-0-250	20	25.4			6.3CT	2	GA	2
27R128	TF4RX03GA	250-0-250	45		6.3	.6	6.3	.8	GA	2
27R02	TF4RX03HA	250-0-250 or 275-0-275	55‡ 50	95 85	5.0	2	6.3CT	3	HA	4
27R66	TF4RX03HA	270-0-270	55		5.0	2	6.3CT	2	HA	3.5
27R41	TF4RX03YY	270-0-270	55		5.0	2	6.3CT	2	YY-28	3.5
27R129	TF4RX03YY	275-0-275	90		5.0	2	6.3	3.5	YY-40	6
27R03	TF4RX03YY	275-0-275 or 300-0-300	90 85	145 135	5.0	2	6.3CT	4	JB	5
27R141	TF4RX03YY	280-0-280	400		5.0	6	6.3 6.3	4.5 8.5	YY-56	10.5

★ Silicon Rectifier Power Transformer – See Yellow Pages for Voltage and Circuit (c) Voltage Doubler Circuit
▲ Primary 115 V @ 60 Cycles ▪ Primary 110 V @ 60 Cycles ● Primary 115 V @ 50/60 Cycles
‡ Reduce secondary current by 10% for 50 Cycle operation (a) To be used with full wave bridge; choke input
†† Primary 115/230V @ 50 to 1,000 Cycles * Highly shielded scope transformers † C – Capacitor Input Filter
L – Choke Input Filter

For Mounting Illustrations and Cross References See Pages 1517-1520
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Power

PRIMARY 117 VOLTS 50/60 CYCLES

Part No.	MIL-T-27B Classification	PLATE SUPPLY Volts	MADCT C	MADCT L	RECTIFIER Volts	RECTIFIER Amps.	FILAMENT Volts	FILAMENT Amps.	Case Size	Wt Lbs.
27R24	TF4RX03JB	300-0-300	50	63.5	5.0	2	6.3CT	2.5	JB	5
27R67	TF4RX03JA	300-0-300	60		5.0	2	6.3CT	3	JA	5.5
27R42	TF4RX03YY	300-0-300	60		5.0	2	6.3CT	3	YY-32	5.5
27R04	TF4RX03JA	300-0-300 or 335-0-335	100‡ 90	165 150	5.0	2	6.3CT	5	JA	5.5
27R87	TF4RX03JB002	325-0-325		70	6.3/5	2	6.3	4	JB	5
27R88	TF4RX03KB006	325-0-325		150	5.0	3	6.3	5	KB	7.25
27R69	TF4RX03JA	330-0-330	85		5.0	2	6.3CT	3	JA	6
27R44	TF4RX03YY	330-0-330	85		5.0	2	6.3CT	3	YY-33	6
27R68	TF4RX03JA	335-0-335	70		5.0	2	6.3CT	3	JA	4.5
27R43	TF4RX03YY	335-0-335	70		5.0	2	6.3CT	3	YY-32	4.5
27R134	TF4RX03KB	340-0-340	75		5.0	3			KB	2.6
27R70	TF4RX03KA	345-0-345	105		5.0	2	6.3CT	3.5	KA	6.5
▲27R145	TF4RX03YY	350-0-350	40				6.3	2.6	YY-57	2.5
27R45	TF4RX03YY	345-0-345	105		5.0	2	6.3CT	3.5	YY-34	6.5
27R75	TF4RX03HA	350-0-350	55		5.0	2	6.3CT	2	HA	3.25
27R50	TF4RX03YY	350-0-350	55		5.0	2	6.3CT	2	YY-28	3.25
27R61	TF4RX03JA	350-0-350	70		5.0	3	6.3CT	3	JA	4.5
▲27R147	TF4RX03YY	350-0-350	70		5	3	6.3CT	3	YY-54	4.2
27R25	TF4RX03KA	350-0-350	120	153	5.0	3	6.3CT	5	KA	8.75
27R05	TF4RX03KA	350-0-350 or 375-0-375	135‡ 125	225 205	5.0	3	6.3CT	1 5	KA	8.75
27R26	TF4RX03LA	350-70-0-350	150	190	5.0	3	6.3CT 6.3	6 2	LA	10.75
27R06	TF4RX03LA	350-0-350 or 375-0-375	190	300	5.0	3	6.3CT 6.3CT	6 1.5	LA	10.75
27R28	TF4RX03MA	350-0-350 or 400-0-400 0-70	200 Bias	254	5.0	6	6.3CT 6.3	6 4	MA	15
27R30	TF4RX03YY	350-0-350 or 400-0-400 0-70	300 Bias	380	5.0	6	6.3CT 6.3	8 4	YY-45	21.75
27R07	TF4RX03MB	360-0-360 or 385-0-385	180‡ 160	310 300	5.0	3	6.3CT 6.3CT	2 6	MB	14
27R08	TF4RX03NB	365-0-365 or 400-0-400	275‡ 250	420 400	5.0	4	6.3CT 6.3CT	2 6	NB	15
27R72	TF4RX03MA	370-0-370	150		5.0	3	6.3CT 6.3CT	4 1	MA	11.5
27R47	TF4RX03YY	370-0-370	150		5.0	3	6.3CT 6.3CT	4 1	YY-42	11.5
27R82	TF4RX03NA	370-0-370 or 550-0-550 75-0-75	Bias	300	5.0	6	6.3CT 6.3CT	5 1	NA	17.5
27R57	TF4RX03YY	370-0-370 or 550-0-550 75-0-75	Bias	300	5.0	6	6.3CT 6.3CT	5 1	YY-43	17.5
27R71	TF4RX03KA	375-0-375	120		5.0	3	6.3CT	4	KA	9.5
27R46	TF4RX03YY	375-0-375	120		5.0	3	6.3CT	4	YY-34	9.5
27R73	TF4RX03MA	385-0-385	200		5.0	3	6.3CT 6.3CT	4.5 1	MA	12
27R48	TF4RX03YY	385-0-385	200		5.0	3	6.3CT 6.3CT	4.5 1	YY-42	12
27R27	TF4RX03LA	400-0-400 500-0-500	150	190	6.3/5	4	6.3CT 6.3	4 4	LA	11
▲27R144	TF4RX03YY	400-0-400	175		5	3	6.3CT 6.3CT	2.5 2.5	YY-55	11.7
27R89	TF4RX03LB003	400-0-400		175	5.0	3	6.3	8	LB	10
27R29	TF4RX03MA	400-0-400 500-0-500	200	254	6.3/5	4	6.3CT	5	MA	14.5
27R74	TF4RX03NA	400-0-400 80-0-80	250 Bias		5.0 5.0	6 2	6.3CT	7	NA	15
27R49	TF4RX03YY	400-0-400 80-0-80	250 Bias		5.0 5.0	6 2	6.3CT	7	YY-43	15
¢27R162	TF4SX02JA	406(b)	170						JA	6
27R76	TF4RX03JA	425-0-425		70	5.0	2	6.3CT	3	JA	4.5
27R51	TF4RX03YY	425-0-425		70	5.0	2	6.3CT	3	YY-32	4.5
27R135	TF4RX03LB	425-0-425	80		5.0	3	6.3 6.3	5 2	LB	8
$27R159	TF4RX03NA	425-0-425	310				6.3CT 6.3CT	5.5 18	NA	17.5
27R09	TF4RX03OA	425-0-425 or 525-0-525	280‡ 260	430 400	5.0	6	6.3 6.3	8 4	OA	21
27R77	TF4RX03JA	440-0-440		85	5.0	2	6.3CT	3	JA	6
27R52	TF4RX03YY	440-0-440		85	5.0	2	6.3CT	3	YY-33	6
27R83	TF4RX03MA	440-0-440	165		5.0 6.3	3 .6	6.3 6.3 6.3	7.5 3 3	MA	12
27R58	TF4RX03YY	440-0-440	165		5.0 6.3	3 .6	6.3 6.3 6.3	7.5 3 3	YY-42	12
27R131	TF4RX03KB	450-0-450	100		5.0	3			KB	4
27R78	TF4RX03KA	450-0-450		105	5.0	2	6.3CT	3.5	KA	6.5
27R53	TF4RX03YY	450-0-450		105	5.0	2	6.3CT	3.5	YY-34	6.5
##27R163	TF4RX03NB	450-0-450	180		5	3	6.3	6	NB	15
27R84	TF4RX03MA	450-0-450	200		5.0 6.3	2 .6	6.3 6.3	4 4	MA	12
27R59	TF4RX03YY	450-0-450	200		5.0 6.3	2 .6	6.3 6.3	4 4	YY-42	12
27R10	TF4RX03KA	450-0-450 500-0-500		200 190	5.0	3	6.3CT 6.3CT	5 1	KA	6.5
27R90	TF4RX03MB004	450-0-450	250		5.0	3	6.3	8	MB	13
27R11	TF4RX03MB	450-0-450 525-0-525		265 240	5.0	4	6.3 6.3	6 2	MB	13
27R132	TF4RX03HB	500-0-500	55		5.0CT	3			HB	3.8
27R79	TF4RX03KA	500-0-500		120	5.0	3	6.3CT	4	KA	9.5
27R54	TF4RX03YY	500-0-500		120	5.0	3	6.3CT	4	YY-34	9.5
27R12	TF4RX03OA	500-0-500 600-0-600		300‡ 265	5.0	6	6.3	8	OA	21
27R80	TF4RX03MA	510-0-510		150	5.0	3	6.3CT 6.3CT	4 1	MA	11.5
27R55	TF4RX03YY	510-0-510		150	5.0	3	6.3CT 6.3CT	4 1	YY-42	11.5
27R81	TF4RX03MA	520-0-520		200	5.0	3	6.3CT 6.3CT	4.5 1	MA	12.5
27R56	TF4RX03YY	520-0-520		200	5.0	3	6.3CT 6.3CT	4.5 1	YY-42	12.5
27R133	TF4RX03GA	600-0-600	15		5.0CT	3			GA	2.2
¢¢ 27R152	TF4RX02JA	1,050‡‡	25						JA	6
▲27R158	TF4RX03YY	1,050‡‡ 625‡‡	10 5				2.5 2.5 6.3 26.3	3 3 3.5 4.5	YY-58	11
●27R161	TF4RX03EB	1,550‡‡	1.5						EB	1.5
▲27R148	TF4RX03YY	2,900‡‡	30				2.5	5	YY-59	6.9

Power

PRIMARY 105/115/125 VOLTS 380-1,000 CYCLES

These transformers have been designed to meet all requirements of MIL-T-27B for their specific class of operation. All EB, GA, GB, etc. case sizes are identical to MIL-T-27B specifications. These units meet the rigid requirements for aircraft and mobile communication, control equipment, ballistic and guided missile control, marine equipment, as well as any field where maximum sealing quality is a prime requisite.

Part No.	MIL-T-27B Classification	PLATE SUPPLY Volts	MADCT C	MADCT L	RECTIFIER Volts	RECTIFIER Amps.	FILAMENT Volts	FILAMENT Amps	Case Size	Wt. Lbs
●27R153	TF4RX01AG	10.8(a)	200						AG	.1
●27R142#	TF4RX03YY	57.5-0-57.5	200		5	2			YY-60	.3
●27R155	TF5RX01ZZ	115(a)	7						CHV-1	.05
●27R156	TF4RX03AJ	220(a)	4				6.3CT 6.3CT 6.3	1.4 .150 .045	AJ	.75

Power

PRIMARY 105/115/125 VOLTS 380-1,000 CYCLES

Part No.	MIL-T-27B Classification	PLATE SUPPLY Volts	MADCT C	MADCT L	RECTIFIER Volts	RECTIFIER Amps.	FILAMENT Volts	FILAMENT Amps	Case Size	Wt. Lbs
●27R35	TF4RX03JA	225-0-225	200	254	6.3/5	4	6.3CT 6.3	6 6	JA	5.5
●27R31	TF4RX03AJ	238-0-238	20	25.4			6.3CT	1.5	AJ	.75
●27R62	TF4RX03EB	250-0-250	40				6.3CT 6.3	2 1	EB	1.5
27R106	TF4SX03GB	255-0-255	40		5.0	2	6.3CT	2	GB	1.5
27R94	TF4SX03FA	270-0-270	55		5.0	2	6.3CT	2	FA	1.5
27R107	TF4SX03GB	270-0-270	55		5.0	2	6.3CT	2	GB	1.75
27R114	TF4SX03YY	270-0-270	55		5.0	2	6.3CT	2	YY-18	1.5
●27R139	TF2RX03ZZ	270-0-270(b)	400		5	2	6.3CT 50	2.3 .001	DAF-2	.80
●27R32	TF4RX03GA	300-0-300	70	89	6.3/5	2	6.3CT 6.3	2 2	GA	2.7
●27R33	TF4RX03JB	300-0-300	120	152	6.3/5	3	6.3CT 6.3	3.5 3.5	JB	4.6
●27R36	TF4RX03KB	300-0-300 or 400-0-400	200	254	6.3/5	6	6.3CT 6.3	6 6	KB	7.5
●27R37	TF4RX03LA	300-0-300 or 400-0-400	300	380	6.3/5	6	6.3CT 6.3	6 6	LA	10
●27R151	TF5RX03ZZ	330-0-330 308-0-308* 505-0-505* 2,200*	35 250 30 7				2.5 2.5*	1.75 1.75	LHH-1	3.8
27R109	TF4SX03GA	330-0-330	85		5.0	2	6.3CT	3	GA	2.5
27R95	TF4SX03FA	335-0-335	70		5.0	2	6.3CT	3	FA	1.75
27R108	TF4SX03GB	335-0-335	70		5.0	2	6.3CT	3	GB	1.75
27R115	TF4SX03YY	335-0-335	70		5.0	2	6.3CT	3	YY-18	1.75
●27R140##	TF4RX03YY	340(a) 340(a)	50 50		10* 10*	.250 .250	26# 15* 15*	.5 .100 .100	YY-61	1.5
27R110	TF4SX03GA	345-0-345	105		5.0	2	6.3CT	3.5	GA	2.25
27R121	TF4SY03HA	350-0-350	70		5.0	3	6.3	3	HA	2.25
27R124	TF4SX03JA	350-0-350 or 450-0-450	120		5.0	3	6.3	4	JA	3.8
●27R34	TF4RX03HA	350-0-350	150	190	6.3/5	3	6.3CT	4	HA	3.75
27R122	TF4SX03KB	350-0-350	300		5.0	3	6.3	5	KB	5.2
27R111	TF4SX03JB	370-0-370	150		5.0	3	6.3CT 6.3CT	4 1	JB	4.25
27R99	TF4SX03KA	370-0-370 or 550-0-550 75-0-75	Bias	300	5.0	6	6.3CT 6.3CT	5 1	KA	6.5
27R119	TF4SX03YY	370-0-370 or 550-0-550 75-0-75	Bias	300	5.0	6	6.3CT 6.3CT	5 1	YY-34	6.5
27R96	TF4SX03HA	375-0-375	120		5.0	3	6.3CT	4	HA	2.5
27R116	TF4SX03YY	375-0-375	120		5.0	3	6.3CT	4	YY-28	2.5
27R97	TF4SX03JA	440-0-440	165		5.0	3	6.3 6.3/6.3 6.3	7.5 3/3 .6	JA	6
27R112	TF4SX03KB	440-0-440	165		5.0	3	6.3 6.3/6.3 6.3	7.5 3/3 .6	KB	6.5
27R117	TF4SX03YY	440-0-440	165		5.0	3	6.3 6.3/6.3 6.3	7.5 3/3 .6	YY-33	6
27R98	TF4SX03JA	450-0-450	200		5.0	2	6.3/6.3 6.3	4/4 .6	JA	5.75
27R113	TF4SX03KB	450-0-450	200		5.0	2	6.3/6.3 6.3	4/4 .6	KB	6.5
27R118	TF4SX03YY	450-0-450	200		5.0	2	6.3/6.3 6.3	4/4 .6	YY-33	6
27R123	TF4SX03MB	450-0-450		500	5.0	6	6.3	6	MB	7
●27R138##	TF2SX02ZZ	500-325-0-325-500	50/175 (1,000 V. CT @ 50 MADC)						ZZ-1	2
●27R136##	TF2RX02ZZ	640/660/680*	12						ZZ-1	.6
●27R137##	TF2RX02ZZ	640/660/680	25						ZZ-1	.7
●27R160	TF2RX02ZZ	125/1,300/1,350‡	12						ZZ-1	3

Low Voltage Rectifier Transformers

DUAL SECONDARY — TAPPED PRIMARY

For transistor supply, bias supply, battery chargers, and similar applications. Designed and built to MIL-T-27B specifications. Industrial ratings are also given.

PRIMARY 115 VOLTS 50/60 CYCLES

Part No.	MIL-T-27B Classification	Military DC Range	Industrial DC Range	MIL Case	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
27V60	TF4RX02AH	6V - .065A to 53V - .025A	6V - .085A to 53V - .025A	AH	1 1/4	1 3/4	1 5/16	1 5/16	.37
27V61	TF4RX02AJ	6V - .22A to 53V - .07A	6V - .028A to 53V - .085A	AJ	1 3/16 x 1 3/16	2 3/8	1 5/8	1 5/8	.6
27V62	TF4RX02FA	6V - 1.2A to 53V - .4A	6V-1.52A to 53V - .48A	FA	1 11/16 x 1 7/16	3 1/8	2 1/16	2 5/16	1.75
27V63	TF4RX02HA	6V - 3A to 53V - 1A	6V 3.8A to 53V - 1.2A	HA	2 19/64 x 1 55/64	4 1/4	2 5/8	2 5/8	4.5
27V64	TF4RX02KA	6V - 7.5A to 53V - 3A	6V - 9A to 53V - 3A	KA	3 x 2 7/16	5 1/4	3 3/8	3 15/16	8.5
27V65	TF4RX02OA	6V - 18A to 53V - 6A	6V - 23A to 53V - 7.5A	OA	3 3/4 x 3	6 3/4	4 1/2	5 1/2	21
27V66	TF4RX02HA	12V - 1.5A to 106V - .5A	12V - 1.9A to 106V - .6A	HA	2 19/64 x 1 55/64	4 1/4	2 5/8	3 1/16	4.5

Low Voltage Rectifier Transformers

PRIMARY 117 VOLT 50/60 CYCLES DUAL SECONDARY

These units have been designed and built to meet MIL-T-27B, Grade 4, Class R specifications. Ideally suited for Selenium or Silicon rectifier power supplies used for transistor circuits.

Part No.	MIL-T-27B Classification	Secondary Volts	Secondary Amps.	SECONDARY IN PARALLEL Choke Input DC V	DC A	SECONDARY IN PARALLEL Condenser Input DC V	DC A	C	SECONDARY IN SERIES Choke Input DC V	DC A	SECONDARY IN SERIES Condenser Input DC V	DC A	C	Case Size
27V69	TF4RX02HA	17/21.5 17/21.5	1.5 1.5	14/17.5	3	18.5/25	2	1	28/35	1.5	43/56	1	.5	HA
27V70	TF4RX02LA	17/21.5 17/21.5	4 4	14/17.5	8	18.5/25	5	2	28/35	4	43/56	2.5	1	LA
27V71	TF4RX02YY	17/21.5 17/21.5	9 9	14/17.5	18	18.5/25	12	6	28/35	9	43/56	6	4	NSV-13
27V72	TF4RX02YY	34/43	4.5	28/35	9	43/46	6	4	56/70	4.5	85/110	3	1	NSV-13

Low Voltage Rectifier Transformers

60 CYCLES

Silicon rectifiers, bias, and filament supply, and all 60 cycle low voltage power supply applications. All units hermetically sealed, designed and constructed to MIL-T-27B, Grade 4, Class R specifications.

Part No.	MIL-T-27B Classification	@ 50/66 CPS. Volts Primary	Secondary Volts	Secondary Amps.	Approx. DC Volts Res. or Ind. Load Full Wave	Approx. DC Volts Res. or Ind. Load Bridge	Case Size	Wt. Lbs.
27V93	TF4RX02AJ	105/115/125	6.3CT	.6	1.9	3.8	AJ	.75
27V94	TF4RX02FB	105/115/125	6.3CT	2	1.9	3.8	FB	1.75
27V73	TF4RX02KA	117	10	20			KA	9.25
27V74	TF4RX02GB	117	17	1			GB	1.75
27V89	TF4RX02JB	105/115/125	18.5CT	3	7	14	JB	4.7
27V67	TF4RX02EB	117	20CT	.3	8	16.5	EB	.8
27V68	TF4RX02EA	117	20CT	.6	8	16.5	EA	1
27V95	TF4RX02FA	105/115/125	28CT	.6	11.7	23.4	FA	17.5
27V97	TF4RX02NA	105/115/125	30CT	2.5	12.5	25	JA	6.25
27V90	TF4RX02KA	105/115/125	35CT	3	14.5	29	KA	8.75
27V96	TF4RX02LA	105/115/125	49CT	2.5	21	42	LA	10
27V79	TF4RX02MB	115	58/62/66/70	3			MB	13
27V81	TF4RX09MA	107/111/115/119/123/127#	64.4CT	.4	28.5	57	MA	11.5
27V91	TF4RX02JA	105/115/125	70CT	1	30	60	JA	6.25
27V98	TF4RX02HA	105/115/125	80CT	.6	35	70.5	HA	3.75
27V99	TF4RX02KA	105/115/125	115CT	.9	51	102	KA	9.25

(a) Half-Wave Application (b) Intermittent operation pulsed, 8 times per second; on time: 3 Milli-seconds
● Primary 115 Volts 380 - 1,000 Cycles * Autoformer Winding † C - Capacitor Input Filter
Primary Tapped $ Voltage Doubler ■ Static Shielded L - Choke Input Filter
‡ Reduce secondary current by 10% for 50 Cycle operation ‡‡ Half-Wave application
¢¢ Primary 110/112/115/117/120 V @ 60 Cycles ¢ Primary 115 V @ 57-63 Cycles
$ Primary 107/117 V @ 50/2,000 Cycles ▲ Primary 115 V @ 60 Cycles
Primary 115 V @ 50 to 1,000 Cycles (b) Bridge Application

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For Mounting Illustrations and Cross References See Pages 1517-1520

THORDARSON MEISSNER

Line Isolation Transformers

50/60 CYCLES

Part No.	MIL-T-27B Classification	Primary Voltage	Secondary Voltage	VA Output	Case Size	Wt. Lbs.
27V20	TF4RX01YY	440	220	25	YY-29	2
27V44	TF4RX01JB	115/230	105/115/125	50	JB	4.7
27V23	TF4RX01KB	115	115	115	KB	6
27V45	TF4RX01KA	115/230	105/115/125	125	KA	9.25
27V46	TF4RX01NB	115/230	105/115/125	250	NB	17.25
27V24	TF4SX01YY	115	115	600	YY-47	27
27V78	TF4RX01YY	115/230	106/110/120/126	650	YY-77	13.9
27V21	TF2RX01ZZ	115/230	115/2301	670	ZZ-2	21
27V25	TF4SX01YY	115	115*	1,000	YY-47A	35
27V19	TF4RX01YY	440	115*	1,000	YY-47	40
	AUTOFORMER					
27V22	TF4RX01YY	105/115/125	25/35/45/65/ 75/85/95/ 105/115/125	2,000	TSV	20

† Secondary windings may be used independently to supply two isolated 115 Volt windings at 2.9 Amps. each
* Static Shielded

Multi Shielded-Line Isolation

50/60 CYCLES

These Multi-shielded line isolation transformers have been specifically designed for critical circuitry where minimum coupling capacity is imperative and battery-type isolation is desired. 27V47, 27V48, 27V49 are vacuum potted with epoxy resin in standard MIL-T-27 cases and have less than .03 MMFD capacity coupling between windings. Other units in YY cases have coupling capacitance of less than .1 MMFD. 27V43 is for 400 cycle operation only.

Part No.	MIL-T-27B Classification	Primary Voltage	Secondary Voltage	VA Output		Case Size	Wt. Lbs.
				Military	Industrial		
27V47	TF2RX01GA	115	115	25	30	GA	3
27V50	TF4RX01YY	115	115	50	60	YY-73	5.5
27V43	TF4RX01YY	115 @ 400 CPS	115	80	100	YY-73	5.5
27V48	TF2RX01KA	115	115	115	140	KA	8.5
27V51	TF4RX01YY	115	115	120	150	YY-74	13
27V52	TF4RX01YY	115	115	160	200	YY-75	15.5
27V49	TF2RX01NB	115	115	300	360	NB	20
27V53	TF4RX01YY	115	115	400	480	YY-76	35

Signaling and Power Circuit Transformers

50/60 CYCLES

Part No.	MIL-T-27B Classification	Primary Voltage	Secondary Voltage	VA Output	Case Size	Wt. Lbs.
27V31	TF4RX01AJ	115	6	7.2	AJ	.75
27V75	TF2RX01ZZ	115/230	12 12	48	CHV	2
27V28	TF4RX01JB	115	6,8,10,12,14	50	JB	5
27V32	TF4RX01MB	115	26	250	MB	13

Low Voltage Rectifier Transformers

400 CYCLES

These units have been designed and built for 400 cycle power supply applications. Full Wave, Bridge, Rectifier, and Fitlament circuitry values are specified. All units meet MIL-T-27B, Grade 4, Class R specifications.

Part No.	MIL-T-27B Classification	Primary Volts	Secondary		Approx. DC Volts Res. or Ind. Load		Case Size	Wt. Lbs.
			Volts	Amps	Full Wave	Bridge		
27V36	TF4RX02AH	115	6.3CT	.6	1.9	3.8	AH	.37
27V37	TF4RX02YY	115	2.85 2.85	.045 .045	1.5	3	NSV-2B	.1
27V85	TF4RX02EA	105/115/125	18.5CT	1	7	14	EA	1.5
27V86	TF4RX02FA	105/115/125	18.5CT	3	7	14	FA	2
27V35	TF4RX02EA	105/115/125	26CT	1.5	10.7	21.5	EA	1.5
27V34	TF4RX02FA	105/115/125	26CT	3	10.7	21.5	FA	2
27V33	TF4RX02FB	105/115/125	30CT	.5	12.5	25	FB	1.75
27V87	TF4RX02GA	105/115/125	35CT	3	14.5	29	GA	3.1
27V16	TF4RX02AJ	105/115/125	40CT	.2	17	34	AJ	.75
27V92	TF4RX03AH	115	50CT	.25	21.5	43	AH	.37
27V15	TF4RX02YY	115	60CT	.003	26	52	NSV-2B	.1
27V14	TF4RX02AH	115	65CT	.170	28.4	56.8	AH	.37
27V88	TF4RX02FA	105/115/125	70CT	1	30	60	FA	2
27V13	TF4RX02FA	105/115/125	80CT	.9	35.2	70.4	FA	2
27V77	TF4RX02YY	115	122CT	.04	53	106	RSV	.2
27V82	TF4RX02AJ	115	6 to 53	1.2 .4			AJ	.75
27V83	TF4RX02FA	115	6 to 53	3 1			FA	2
27V84	TF4RX02HA	115	6 to 53	7.5 2.5			HA	3

Line Isolation Transformers

380 TO 1,500 CYCLES

These units have been designed and built to MIL-T-27B, Grade 4, Class R specifications. Applicable to communications, lighting, and equipment systems requiring isolation. All units are static shielded.

Part No.	MIL-T-27B Classification	Primary Voltage	Secondary Voltage	VA Output	Case Size	Wt. Lbs.
27V42	TF4RX01YY	115	115CT#	2	NSV-2	.1
27V54	TF4RX01EA	115	115	40	EA	1.5
27V41	TF4RX01EB	115	115CT#	40	EB	1.5
27V55	TF4RX01FA	115	115	80	FA	2
27V40	TF4RX01GA	115	115CT#	150	GA	3.1
27V56	TF4RX01GA	115	115	160	GA	3.1
27V57	TF4RX01JA	115	115	300	JA	6.25
27V39	TF4RX01JA	105/115/125	115CT#	300	JA	6.25
27V38	TF4RX01KA	105/115/125	115CT#	500	KA	8.75
27V58	TF4RX01KA	115	115	505	KA	8.75
▲27V43	TF4RX01YY	115	115	80†	YY-73	5.5

May be used for Full Wave Bridge or Full Wave Center tap applications
† 100 VA output for industrial applications
▲ Multi-shielded; Less than .1 MMFD coupling between windings.

Step Down Transformers

THREE PHASE — 400 CYCLES

These transformers are designed primarily for airborne communication and control equipment. 27V17 and 27V18 are YY connected 400 cycle, three-phase, Primary - 115 volts per phase. 27V80 is delta-delta connected, Primary - 200 volts per phase.

Part No.	MIL-T-27B Classification	Primary Voltage	Secondary Voltage	VA Output	Case Size	Wt. Lbs
27V17	TF4RX01HA	115	28.5	140	HA	3
27V18	TF4RX01YY	115	28.5	140	YY-28	3
27V80	TF4SY01JA	200	115	500	JA	6

Chopper Input Transformers

STATIC SHIELDED

Part No.	Impedance In Ohms		Primary Inductance	DC Resistance		Turns Ratio	Case Type	Wt. In Oz.
	Primary	Secondary		Primary	Secondary			
GEO 68	10,000CT or 2,500	640,000CT	120 h.	370	21,000	1:8	3A	5.25
GEO 69	200,000CT	12,500CT	1,200 h.	4,000	1,300	4:1	3A	5.25
GEO 70	50,000CT	800,000CT	1,000 h.	2,200	19,000	1:4	4A	7.75
GEO 71■	50,000CT	800,000CT	1,000 h.	2,200	19,000	1:4	6A	1 lbs.
GEO 72	40,000CT	1,000CT	1,000 h.	4,400	160	6.32:1	3A	5.25
GEO 73	40,000CT or 10,000CT	10,000CT	800 h.	3,200	2,200	2:1	3A	5.25

Input

ALL UNITS HAVE HUMBUCKING CORE AND COIL CONSTRUCTION

Part No.	Impedance In Ohms		Primary Inductance	DC Resistance		Turns Ratio	Case Type	Wt. In Oz.
	Primary	Secondary		Primary	Secondary			
GEO 1	500§-333-233-200§-125*-67.5§-50*-17*	157,000§CT	8.7 h.	50	10,400	1:17.7	3	5.25
GEO 74★	500§-333-233-200§-125*-67.5§-50*-17*	157,000§CT	8.7 h.	50	10,400	1:17.7	4A	8
GEO 2■	500§-333-233-200§-125*-67.5§-50*-17*	157,000§ or 39,250	8.7 h.	50	10,400	1:17.7	5	11.5
GEO 3	60§-44-30§-25-15*-7.5*-5§-1.25	157,000§CT	.9 h.	9	10,400	1:51	4	5.25
GEO 75★	60§-44-30§-25-15*-7.5*-5§-1.25	157,000§CT	.9 h.	9	10,400	1:51	4A	8
GEO 4■	60§-44-30§-25-15*-7.5*-5§-1.25	157,000§CT or 39,250	.9 h.	9	10,400	1:51	5	11.5
GEO 5	1,000§-666-466-400§-250*-135§-100*-34*	137,000§ or 34,250*	55 h.	225	15,500	1:11.75	4	7.75
GEO 76■	1,000§-666-466-400§-250*-135§-100*-34*	137,000§ or 34,250*	55 h.	225	15,500	1:11.75	6A	1 lbs.
GEO 6	500§-333-233-200§-125*-67.5§-50*-17*	315,000§ or 78,750*	11.5 h.	58	16,200	1:25	4	7.75
GEO 7■	500§-333-233-200§-125*-67.5§-50*-17*	315,000§ or 78,750*	11.5 h.	58	16,200	1:25	6	1 lb.
GEO 8	500§-333-233-200§-125*-67.5§-50*-17*	712,000§ or 178,000*	8 h.	72	20,000	1:37.7	4	7.75
GEO 9■	500§-333-233-200§-125*-67.5§-50*-17*	712,000§ or 178,000*	8 h.	72	20,000	1:37.7	6	1 lbs.
GEO 10	500§ or 125*	50,000§CT	10 h.	150	20,000	1:10	3	5.25
GEO 11	500§-333-233-200§-125*-67.5§-50*-17*	450,000§CT	6.8 h.	54	12,500	1:30	3	5.25
GEO 77■	500§-333-233-200§-125*-67.5§-50*-17*	145,000 CT Bal.	8.3 h.	120	10,000	1:17	4A	10
GEO 12■	500§CT	200,000§CT	12 h.	80	9,800	1:20	6	1 lbs.
GEO 13	500§ or 125*	50,000§CT	10 h.	200	36,000	1:10	4	7.75
GEO 14★	200§ or 50*	442,000§CT	4 h.	17	26,000	1:47	4	8

Input

MINIATURE AND SUB MINIATURE
ALL UNITS HAVE HUMBUCKING CORE AND COIL CONSTRUCTION

Part No.	Impedance In Ohms		Primary Inductance	DC Resistance		Turns Ratio	Case Type	Wt. In Oz.
	Primary	Secondary		Primary	Secondary			
GEO 15	500§-333-233-200§-125*-67.5§-50*-17*	145,000§CT	8.8 h.	100	10,000	1:17	2	3.2
GEO 16	500*-125*	145,000§CT	8.8 h.	100	10,000	1:17	2	3.2
GEO 17	500§-125*	145,000§CT	3 h.	106	5,860	1:17	1	1.5
GEO 18	500§-125*	60,000§CT	7 h.	140	5,600	1:11	1	1.5
GEO 19	500§-125*	36,000§CT	10.5 h.	320	5,300	1:8.5	1	1.5
GEO 20	500§-125*	114,000§CT	5.2 h.	210	6,200	1:15.1	1	1.5
GEO 21	500§-125*	157,000§CT	8	100	9,500	1:17.7	2	3.2

Interstage

ALL UNITS HAVE HUMBUCKING CORE AND COIL CONSTRUCTION

Part No.	Impedance In Ohms		Primary Inductance	DC Resistance		Turns Ratio	Case Type	Wt. In Oz.
	Primary	Secondary		Primary	Secondary			
GEO 22	10,000§ or 2,500*	100,000§ or 25,000*	350 h.	1,540	10,000	1:3.16	3	5.25
GEO 23■	10,000§ or 2,500*	100,000§ or 25,000*	350 h.	1,540	10,000	1:3.16	5	11.5
GEO 24	10,000§ or 2,500*	90,000§ or 25,000*	725 h.	2,100	14,000	1:3	4	7.75
GEO 25■	10,000§ or 2,500*	90,000§ or 22,500*	725 h.	2,100	14,000	1:3	6	1 lbs
GEO 26	10,000§ or 2,500*	483,000§ or 120,700*	230 h.	1,100	17,000	1:7	4	7.75
GEO 84	10,000§ or 2,500*	483,000§ or 120,700*	230 h.	1,100	17,000	1:7	6A	1 lbs
GEO 27●	10,000§ or 2,500*	22,500* or 5,625*	135 h.	1,600	2,350	1:1.5	2	2.75
GEO 83■	10,000§ or 2,500*	22,500* or 5,625*	135 h.	1,600	2,350	1:1.5	4A	10
GEO 28●	10,000§ or 2,500*	250§ or 62.5*	18 h.	165	40	2:1	2	2.75
GEO 85■	10,000§ or 2,500*	250§ or 62.5*	18 h.	165	40	2:1	4B	10
GEO 29	10,000§ or 2,500*	75,000§ or 18,750*	300 h.	2,500	8,500	1:2.75	2	3.2
GEO 30	10,000§ or 2,500*	75,000§CT	80 h.	1,700	5,400	1:2.72	1	1.5
GEO 31	10,000§ or 2,500*	22,500§CT	160 h.	2,600	3,900	1:1.5	1	1.5
GEO 32	10,000§ or 2,500*	90,000§CT	285 h.	2,600	9,500	1:3	2	3.2
GEO 86■	10,000§ or 2,500*	90,000§CT	285 h.	2,600	9,500	1:3	4A	10
GEO 33	10,000§ or 2,500*	22,500*CT	375 h.	2,000	3,650	1:1.5	2	3.2
GEO 87■	10,000§ or 2,500*	22,500*CT	375 h.	2,000	3,650	1:1.5	4B	10

Output

ALL UNITS HAVE HUMBUCKING CORE AND COIL CONSTRUCTION

Part No.	Impedance In Ohms		Primary Inductance	DC Resistance		Turns Ratio	Case Type	Wt. In Oz.
	Primary	Secondary		Primary	Secondary			
GEO 34	15,000§ or 3,750*	500§-125*	915 h.	2,600	80	5.5:1	3	5.25
GEO 35	15,000§ or 3,750*	500§-125* Hi Level	65 h.	2,600	80	5.5:1	3	5.25
GEO 36	20,000§ or 5,000*	16§-1*-8§-6.5-4*-2*-1-1.5§-.35*	1,750 h.	4,000	3.2	35.5:1	4	7.75
GEO 37	16,000§ or 4,000*	500§-333-233-200§-125*-67.5-50*-17*	1,600 h.	3,500	100	5.65:1	4	7.75
GEO 38	15,000§ or 4,000*	500§-333-233-200§-125*-67.5-50*-17* Hi Level	94 h.	3,500	100	5.65:1	4	8.25
GEO 39	20,000§ or 5,000*	60§-45-30§-24-15*-7.5*-5§-1.3*	1,750 h.	4,000	12.5	18.25:1	4	7.75
GEO 40	600*-150*	600*-150*	15 h.	36	52	1:1 or 2:1 or 1:2	4	7.75
GEO 41	18,000CT	500§-333-233-200§-125*-67.5§-50*-17*	280 h.	2,500	137	6:1	2	2.75
GEO 42	500 or 125	500 or 125	3 h.	70	70	1:1	2	2.75
GEO 43	500 or 125	16 or 4	3 h.	72	3.9	5.6:1	2	2.75
GEO 44	15,000§CT	16§-12-8§-6.5-4*-2*-1.5§-.35*	1,000 h.	5,000	4	30.5:1	2	3.2
GEO 45	15,000§CT	60§-45-30§-24-15*-7.5*-5§-1.3*	1,000 h.	5,000	18	15.8:1	2	3.2
GEO 46	15,000§CT	16§ or 4*	400 h.	3,800	7	30.6:1	1	1.5
GEO 47	15,000§CT	45§ or 11*	400 h.	3,800	11	18.25:1	1	1.5
GEO 48	20,000§ or 5,000*	50§-25-12.5-3	1,450 h.	4,000	20	20:1	2	3.2

§ Balanced, two windings
● Constructed with Single Coil
★ Constructed with 3 Interleaved Cases
■ Constructed with 5 Interleaved Cases
* Balanced, parallel windings

For Mounting Illustrations and Cross References See Pages 1517-1520
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Output

FOR AUTOMATIC VOLUME CONTROL CIRCUITS
ALL UNITS HAVE HUMBUCKING CORE AND COIL CONSTRUCTION

Part No.	Impedance In Ohms Primary	Impedance In Ohms Secondary	Primary Inductance	DC Resistance Primary	DC Resistance Secondary	Turns Ratio	Case Type	Wt. In. Oz.
GEO 49	16,000$ or 4,000*	256,000$ or 64,000* and 150$ or 37.5*	500 h.	1,900	16,000 32	1:4 10.3:1	4	7.75
GEO 50	15,000$	240,000$CT and 140$ or 35*	300 h.	2,100	12,000 35	1:4 10.2:1	3	5.25
GEO 51	10,000$ or 2,500*	10,000$CT and 10,000$	150 h.	700	1,220 1,440	1:1:1	2	3.2
GEO 52	15,000$	240,000$CT and 140$ or 35*	200 h.	2,000	9,800 55	1:4 10.3:1	2	3.2
GEO 53	15,000$CT	240,000$CT and 35	200 h.	2,000	9,800 13.5	1:4 20.6:1	2	3.2
GEO 54	20,000$CT	240,000$CT and 24$CT	230 h.	2,400	10,000 5	1:3.46 28.8:1	2	3.2
GEO 55	15,000$CT	240,000$CT and 35*	230 h.	2,400	11,000 10	1:4 20.6:1	2	3.2

Reactor

ALL UNITS HAVE HUMBUCKING CORE AND COIL CONSTRUCTION

Part No.	Inductance In Henrys	D.C. Resistance In Ohms	Low Percentage Taps	Mtg. Type	Wt. In Oz.
GEO 56	1,050-800-550-400-280$	13,000	None	3	5.5
GEO 57	1,000$-250*	10,000	4 — 2-1/2% 2 — 5%	4	8.25
GEO 58	500$-125*	6,000	4 — 3% 2 — 6%	4	8.25
GEO 59	50$ to 53	750	6 — 1/2 h. Taps From one end	3	5.5
GEO 60	1,050-800-550-400-280-245-153-133-80-68-45$	11,500	None	2A	3.4
GEO 61	1,000$-250*	13,000	4 — 2%	2A	3.4
GEO 62	500$-125*	10,500	4 — 2-1/2%	2A	3.4
GEO 63■	1,090-770-555-385-275	12,000	None	2	3.2
GEO 64	1,000	12,000	2 — 2%	1	1.5
GEO 65	500	12,000	2 — 2%	1	1.5
GEO 66	300	5,400	2 — 2%	1	1.5
GEO 67	100	11,950	2 — 2%	1	1.5

Low Frequency Transistor Transformers

Part No.	Impedance In Ohms Primary	Impedance In Ohms Secondary	Primary Inductance	DC Resistance Primary	DC Resistance Secondary	Turns Ratio	Freq. Resp. @ 5 MADC ±3DB	Case Type
GEO 78	1,000$ or 250*	125$ or 31*	60 h.	500	44	2.83:1	7 to 20,000	2
GEO 79■	1,000$ or 250*	125$ or 31*	60 h.	500	44	2.83:1	7 to 20,000	4B
GEO 80	1,000$ or 250*	1,000$ or 250*	65 h.	540	230	1:1	20 to 7,000	3A
GEO 81	1,000CT	2,500CT	20 h.	350	1,800	1:1.58	70 to 8,000	2

$ Balanced, two windings
* Balanced, parallel windings
■ Single coil construction
■ Constructed with 5 Interleaved Cases

Band Pass Filters

These units have been designed and built to meet MIL-F-18327B for their specific class of operation and are high performance units applicable to production or laboratory communication and electronic equipment. They have been carefully adjusted to the specified frequencies with proper input and output impedances.
Output impedances indicated as "To Grid" should be terminated in a open grid circuit. Tapped outputs — marked (*) — provide for either 10,000 ohm transistor termination or high impedance grid termination.

Part No.	MIL-F-18327B Classification	Center Frequency (Fc)	Approximately 2 DB Attenuation At: (In Cycles)	Attenuation At Fc/2 & 2 Fc	Impedance Input	Impedance Output	Case Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D
27C386	FR4RX22YY	30	29-31	40DB	10,000	To Grid	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C387	FR4RX22YY	50	48.5-51.6	40DB	10,000	To Grid	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C313	FR4RX22YY	60	58-62	40DB	10,000	10,000	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C300	FR4RX22YY	60	58-62	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C388	FR4RX22YY	90	87.4-92.8	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C314	FR4RX22YY	100	97-103	40DB	10,000	10,000	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C301	FR4RX22YY	100	97-103	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C315	FR4RX22YY	120	116.5-123.6	40DB	10,000	10,000	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C302	FR4RX22YY	120	116.5-123.6	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C389	FR4RX22YY	150	145.5-154.5	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C390	FR4RX22YY	200	194-206	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C391	FR4RX22YY	240	233-247	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C349	FR4RX22AF	400	388-412	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C303	FR4RX22YY	400	388-412	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C335	FR4RX22YY	400	388-412	40DB	500/600	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C395	FR4RX22AF	440	427-458	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C396	FR4RX22AF	500	485-515	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C304	FR4RX22YY	500	485-515	40DB	10,000	To Grid	YY	3/4 x1 1/4	1 5/8	1 3/16	1 11/16
27C397	FR4RX22AF	600	580-620	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C350	FR4RX22AF	750	728-772	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C305	FR4RX22YY	750	728-772	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C398	FR4RX22AF	800	776-825	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C392	FR4RX22YY	800	776-825	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C351	FR4RX22AF	1,000	970-1,030	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C306	FR4RX22YY	1,000	970-1,030	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C336	FR4RX22YY	1,000	970-1,030	40DB	500/600	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C399	FR4RX22AF	1,200	1,165-1,236	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C352	FR4RX22AF	1,500	1,455-1,545	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C307	FR4RX22YY	1,500	1,455-1,545	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C400	FR4RX22AF	1,600	1,550-1,650	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C353	FR4RX22AF	2,000	1,940-2,060	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C308	FR4RX22YY	2,000	1,940-2,060	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C401	FR4RX22AF	2,500	2,420-2,570	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C402	FR4RX22AF	3,000	2,910-3,090	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C309	FR4RX22YY	3,000	2,910-3,090	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C403	FR4RX22AF	3,200	3,100-3,290	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C404	FR4RX22AF	4,000	3,880-4,120	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C310	FR4RX22YY	4,000	3,880-4,120	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C405	FR4RX22AF	4,800	4,650-4,940	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C406	FR4RX22AF	5,000	4,850-5,150	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C311	FR4RX22YY	5,000	4,850-5,150	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C407	FR4RX22AF	6,400	6,200-6,600	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C408	FR4RX22AF	8,000	7,760-8,250	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C354	FR4RX22AF	10,000	9,500-10,500	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C312	FR4RX22YY	10,000	9,500-10,500	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C393	FR4RX22AF	50,000	47,500-52,500	40DB	500	500	AF	9/16	1 1/8	3/4	3/4
27C394	FR4RX22AF	100,000	95,000-105,000	40DB	500	500	AF	9/16	1 1/8	3/4	3/4

Telemetering Band Pass Filters

These units have been designed and built to meet MIL-F-18327B for their specific class of operation. The Steel Jacket filters in YY cases are designed with 4 pin plug-in type terminals and the Molded (ZZ) units have straight wire terminals. Twenty-three separate channels are provided with a choice of either Molded or Steel jacket case types.

Part No.	MIL-F-18327B Classification	Center Frequency (Fc)	3DB Bandwidth % of Fc	Approx. Attenuation Fc/2 & 2Fc	Impedance Input	Impedance Output	Case Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D
27C363	FR4RX22YY	400	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C421	FR5RX22ZZ	400	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C364	FR4RX22YY	560	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C423	FR5RX22ZZ	560	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C365	FR4RX22YY	730	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C422	FR5RX22ZZ	730	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C366	FR4RX22YY	960	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4

* Output tapped for 10,000 ohm transistor or high impedance grid.

Telemetering Band Pass Filters (Continued)

Part No.	MIL-F-18327B Classification	Center Frequency (Fc)	3DB Bandwidth % of Fc	Approx. Attenuation Fc/2 & 2Fc	Impedance Input	Impedance Output	Case Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D
27C424	FR5RX22ZZ	960	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C367	FR4RX22YY	1,300	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C425	FR5RX22ZZ	1,300	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C368	FR4RX22YY	1,700	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C426	FR5RX22ZZ	1,700	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C369	FR4RX22YY	2,300	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C427	FR5RX22ZZ	2,300	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C370	FR4RX22YY	3,000	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C429	FR5RX22ZZ	3,000	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C371	FR4RX22YY	3,900	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C428	FR5RX22ZZ	3,900	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C372	FR4RX22YY	5,400	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C430	FR5RX22ZZ	5,400	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C373	FR4RX22YY	7,350	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C431	FR5RX22ZZ	7,350	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C374	FR4RX22YY	10,500	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C433	FR5RX22ZZ	10,500	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C375	FR4RX22YY	14,500	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C432	FR5RX22ZZ	14,500	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C376	FR4RX22YY	22,000	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C435	FR5RX22ZZ	22,000	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C381	FR4RX22YY	22,000	±15.1%	45DB	100,000	100,000	YY	4 Pin Plug	2	1 9/32	11/16
27C440	FR5RX22ZZ	22,000	±15.1%	45DB	10,000	10,000	M4	4 Leads	1/2	1 3/16	1 3/16
27C377	FR4RX22YY	30,000	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C436	FR5RX22ZZ	30,000	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C382	FR4RX22YY	30,000	±15.1%	45DB	100,000	100,000	YY	4 Pin Plug	2	1 9/32	11/16
27C442	FR5RX22ZZ	30,000	±15.1%	45DB	10,000	10,000	M4	4 Leads	1/2	1 3/16	1 3/16
27C378	FR4RX22YY	40,000	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C437	FR5RX22ZZ	40,000	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C383	FR4RX22YY	40,000	±15.1%	45DB	100,000	100,000	YY	4 Pin Plug	2	1 9/32	11/16
27C441	FR5RX22ZZ	40,000	±15.1%	45DB	10,000	10,000	M4	4 Leads	1/2	1 3/16	1 3/16
27C379	FR4RX22YY	52,500	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C438	FR5RX22ZZ	52,500	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C384	FR4RX22YY	52,500	±15.1%	45DB	100,000	100,000	YY	4 Pin Plug	2	1 9/32	11/16
27C443	FR5RX22ZZ	52,500	±15.1%	45DB	10,000	10,000	M4	4 Leads	1/2	1 3/16	1 3/16
27C380	FR4RX22YY	70,000	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C439	FR5RX22ZZ	70,000	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C385	FR4RX22YY	70,000	±15.1%	45DB	100,000	100,000	YY	4 Pin Plug	2	1 9/32	11/16
27C444	FR5RX22ZZ	70,000	±15.1%	45DB	10,000	10,000	M4	4 Leads	1/2	1 3/16	1 3/16

Band Pass Filters — 400 Cycle Power Filters

These Power filters eliminate harmonic distortion and interference caused by generator loading or external influences. Designed and built to meet all requirements of MIL-F-18327B Grade 4, Class R, these units are ideally suited for airborne or mobile application.

Part No.	MIL-F-18327B Classification	Band Pass Filter Description
27C446	FR4RX22LB	The output of the 27C446 is 115 Volts, 13 Watts at c frequency of 375 to 425 Cycles (Within ±1DB). Attenuation at other frequencies include: 30DB at 60 Cycles, 20DB at 120 Cycles, 14DB at 800 Cycles, and 44DB at 1,200 Cycles and above. This unit operates from any 115 Volt — 400 Cycle source.

Low Pass Filters — 400 Cycle Power Filters

Part No.	MIL-F-18327B Classification	Low Pass Filter Description
27C445	FR4RX11NB	The output of the 27C445 is 115 Volts, 26 Watts at a frequency of 375 to 425 Cycles (Within ±1DB). Attenuation of the second harmonic (800 Cycles) is 30DB and is 50DB at the third harmonic (1,200 Cycles) and above. The filter operates from any 115 Volt — 400 Cycle source.

Low Pass Filters

These units have been designed and built to meet MIL-F-18327B for their specified class of operation. These low pass filters may be connected in conjunction with the high pass filters below to obtain almost any band pass desired. Attenuation is less than 6DB at the cut off frequency and is 40DB at approximately 1.6 of FC as shown.

Part No.	MIL-F-18327B Classification	Cut-off Frequency (Fc)	Attenuation 40DB AT: (Freq. In Cycles)	Impedance Input	Impedance Output	Case Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D
27C414	FR4RX11FA	10*	20	100,000	100,000	FA	1 7/16 x 1 11/16	3 1/8	2 1/16	2 5/16
27C415	FR4RX11YY	100	160	10,000	10,000	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C323	FR4RX11YY	200	320	10,000	10,000	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C355	FR4RX11AG	200	330	10,000	10,000	AG	3/4	1 3/8	1	1
27C417	FR4RX11AG	300	495	10,000	10,000	AG	3/4	1 3/8	1	1
27C324	FR4RX11YY	400	640	10,000	10,000	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C325	FR4RX11YY	500	800	10,000	10,000	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C356	FR4RX11AG	500	825	10,000	10,000	AG	3/4	1 3/8	1	1
27C326	FR4RX11YY	800	1,280	10,000	10,000	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C327	FR4RX11YY	1,000	1,600	10,000	10,000	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C357	FR4RX11AG	1,000	1,650	10,000	10,000	AG	3/4	1 3/8	1	1
27C341	FR4RX11YY	1,000	1,600	500/600	500/600	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C328	FR4RX11YY	1,500	2,400	10,000	10,000	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C274	FR4RX11AG	1,500	2,470	10,000	10,000	AG	3/4	1 3/8	1	1
27C342	FR4RX11YY	1,500	2,400	500/600	500/600	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C329	FR4RX11YY	2,000	3,200	10,000	10,000	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C358	FR4RX11AG	2,000	3,300	10,000	10,000	AG	3/4	1 3/8	1	1
27C343	FR4RX11YY	2,000	3,200	500/600	500/600	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C330	FR4RX11YY	2,500	4,000	10,000	10,000	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C344	FR4RX11YY	2,500	4,000	500/600	500/600	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C331	FR4RX11YY	3,000	4,800	10,000	10,000	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C359	FR4RX11AG	3,000	4,950	10,000	10,000	AG	3/4	1 3/8	1	1
27C416	FR4RX11YY	3,000	4,800	500/600	500/600	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C332	FR4RX11YY	4,000	6,400	10,000	10,000	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C345	FR4RX11YY	4,000	6,400	500/600	500/600	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C333	FR4RX11YY	5,000	8,000	10,000	10,000	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C360	FR4RX11AG	5,000	8,250	10,000	10,000	AG	3/4	1 3/8	1	1
27C418	FR4RX11AF	6,000	9,900	10,000	10,000	AF	9/16	1 1/8	3/4	3/4
27C346	FR4RX11YY	8,000	12,800	500/600	500/600	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C334	FR4RX11YY	10,000	16,000	10,000	10,000	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C419	FR4RX11AF	10,000	16,500	10,000	10,000	AF	9/16	1 1/8	3/4	3/4
27C347	FR4RX11YY	10,000	16,000	500/600	500/600	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C348	FR4RX11YY	12,000	19,200	500/600	500/600	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C420	FR4RX11AF	15,000	24,700	10,000	10,000	AF	9/16	1 1/8	3/4	3/4

High Pass Filters

These units have been designed and built to meet MIL-F-18327B for their specified class of operation and are high performance units applicable to production or laboratory communications and electronic equipment. These high pass filters are carefully adjusted to specified frequencies with the proper terminating input and output loads. Attenuation is less than 6DB at the cut off frequency and is 40DB at approximately .6 to .63 of Fc as shown.

Part No.	MIL-F-18327B Classification	Cut-off Frequency (FC)	Attenuation 40DB AT: (Freq. In Cycles)	Impedance Input	Impedance Output	Case Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D
27C409	FR4RX33YY	50	33	10,000	10,000	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C410	FR4RX33YY	100	63	10,000	10,000	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C316	FR4RX33YY	200	126	10,000	10,000	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C337	FR4RX33YY	200	126	500/600	500/600	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C411	FR4RX33YY	300	189	10,000	10,000	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C338	FR4RX33YY	300	189	500/600	500/600	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C317	FR4RX33YY	400	250	10,000	10,000	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C361	FR4RX33AG	500	300	10,000	10,000	AG	3/4	1 3/8	1	1
27C318	FR4RX33YY	500	315	10,000	10,000	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C339	FR4RX33YY	500	315	500/600	500/600	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C319	FR4RX33YY	800	500	10,000	10,000	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C362	FR4RX33AG	1,000	600	10,000	10,000	AG	3/4	1 3/8	1	1
27C320	FR4RX33YY	1,000	630	10,000	10,000	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C340	FR4RX33YY	1,000	630	500/600	500/600	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C412	FR4RX33AG	1,500	900	10,000	10,000	AG	3/4	1 3/8	1	1
27C321	FR4RX33YY	2,000	1,260	10,000	10,000	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C322	FR4RX33YY	3,000	1,890	10,000	10,000	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C413	FR4RX33AG	4,000	2,400	10,000	10,000	AG	3/4	1 3/8	1	1

* Less than 3DB attenuation at the cut-off frequency

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For Mounting Illustrations and Cross References See Pages 1517-1520

THORDARSON MEISSNER

MIL-T-27B Low Frequency High Q Inductors

These inductors have been designed and built to meet the requirements of MIL-T-27B for their specific class of operation. Constructed with only the highest grade materials these units have magnetic shielding as well as humbucking construction. Designed to a Q of 40 or more on frequencies ranging from 60 to 300 cycles. Split winding termination permits series, parallel or series center tap connections, such as might be used in filters, tuned circuits or coupling inductors.

Part No.	MIL-T-27B Classification	Series Inductance ±2%	Series Resistance ±20%	Parallel Inductance ±2%	Parallel Resistance ±20%	Mtg. Type
27C225	TF4RX20YY	1	5	.25	1.25	NSV-5
27C500	TF4SX20YY	2	21	.5	5.25	NSV-3
27C226	TF4RX20YY	10	50	2.5	12.5	NSV-5
27C501	TF4SX20YY	16	143	4	36	NSV-3
27C227	TF4RX20YY	20	82	5	20	NSV-5
27C503	TF4SX20YY	40	365	10	91	NSV-3
27C228	TF4RX20YY	200	820	50	205	NSV-5
27C502	TF4SX20YY	300	3,750	75	937	NSV-3
27C229	TF4RX20YY	400	2,100	100	525	NSV-5
27C504	TF4SX20YY	600	5,700	150	1,425	NSV-3
27C230	TF4RX20YY	2,500	13,100	625	3,275	NSV-5

Pulse Transformers — DESIGNED AND BUILT TO MEET MIL-T-21038B

Tube Type

When used as coupling transformers this group of units have the following additional parameters: Overshoot ranges from 5 to 30 micro-seconds with the lower overshoot at the higher pulse widths; Output voltages of 15 to 25 volts may be expected with a normal droop of 10 to 15 %; Blocking oscillator overshoots are held to less than 2%.

Part No.	MIL-T-21038B Classification	Turns Ratio	COUPLING CIRCUIT Pulse Width (Micro-Sec.)	COUPLING CIRCUIT Rise Time (Micro-Sec.)	COUPLING CIRCUIT Impedance (In/Out)	BLOCKING OSC. Pulse Width (Micro-Sec.)	BLOCKING OSC. Rise Time (Micro-Sec.)	Case Type	Dimensions Dia.	Dimensions H
PUL 10	TP7SX1110AZ	1:1:1	.05	.010	250/250	05	.020	M6	3/8	3/8
PUL 11	TP7SX1110AZ	1:1:1	.10	.010	250/250	.10	.020	M6	3/8	3/8
PUL 23	TP7SX5310AZ	5:3:1	.10	.020	700/250	.10	.022	M6	3/8	3/8
PUL 12	TP7SX1110AZ	1:1:1	.20	.010	500/500	.20	.025	M6	9/16	9/16
PUL 13	TP7SX1110AZ	1:1:1	.50	.010	500/500	.50	.030	M6	9/16	9/16
PUL 14	TP7SX1110AZ	1:1:1	1.0	.02	500/500	1.0	.042	M6	9/16	9/16
PUL 15	TP7SX1110AZ	1:1:1	2.0	.05	500/500	2.0	.050	M6	9/16	9/16
PUL 24	TP7SX5310AZ	5:3:1	2.0	.062	1,400/500	2.0	.075	M6	9/16	9/16
PUL 16	TP7SX1110AZ	1:1:1	3.0	.071	500/500	3.0	.11	M6	9/16	9/16
PUL 17	TP7SX1110AZ	1:1:1	5.0	.15	1,000/1,000	5.0	.14	M6	9/16	9/16
PUL 18	TP7SX1110AN	1:1:1	7.0	.21	1,000/1,000	7.0	.27	M6	5/8	5/8
PUL 25	TP7SX5310AN	5:3:1	7.0	.22	2,800/1,000	7.0	.31	M6	5/8	5/8
PUL 19	TP7SX1110AN	1:1:1	10.0	.24	1,000/1,000	10.0	.31	M6	5/8	5/8
PUL 20	TP7SX1110AN	1:1:1	16.0	.40	1,000/1,000	16.0	.74	M6	5/8	5/8
PUL 21	TP7SX1110AN	1:1:1	20.0	.62	1,000/1,000	20.0	1.20	M6	5/8	5/8
PUL 26	TP7SX5310AN	5:3:1	20.0	.71	2,800/1,000	20.0	1.70	M6	5/8	5/8
PUL 22	TP7SX1110AN	1:1:1	25.0	1.52	1,000/1,000	25.0	2.1	M6	5/8	5/8

Pulse Transformers — DESIGNED AND BUILT TO MEET MIL-T-21038B

Transistor Type

Additional parameters for these transistor type pulse transformers are: 0% overshoots in almost all of these units, Output voltage of approximately 8 volts may be expected with no droop on units below .5 micro-seconds pulse width and approximately 15% droop on units above .5 micro-seconds pulse width. The average backswing will be 20-30% when connected in the transistor blocking oscillator circuit.

Part No.	MIL-T-21038B Classification	Turns Ratio	COUPLING CIRCUIT Pulse Width (Micro-Sec.)	COUPLING CIRCUIT Rise Time (Micro-Sec.)	COUPLING CIRCUIT Impedance (In/Out)	BLOCKING OSC. Pulse Width (Micro-Sec.)	BLOCKING OSC. Rise Time (Micro-Sec.)	Case Type	Dimensions Dia.	Dimensions H.
PUL 39	TP6RX4410CZ	4:4:1	.05	.017	50/50	.05	.02	RAV-7	5/16	3/16
PUL 27	TP7SX4410AZ	4:4:1	.05	.013	50/50	.05	.017	M5	3/8	3/8
PUL 40	TP6RX4410CZ	4:4:1	.10	.024	50/50	.10	.022	RAV-7	5/16	3/16
PUL 28	TP7SX4410AZ	4:4:1	.10	.020	50/50	.10	.016	M5	3/8	3/8
PUL 48	TP6RX5310CZ	5:3:1	.10	.010	145/50	.10	.010	RAV-7	5/16	3/16
PUL 36	TP7SX5310AZ	5:3:1	.10	.021	145/50	.10	.020	M5	3/8	3/8
PUL 41	TP6RX4410CZ	4:4:1	.20	.035	100/100	.20	.033	RAV-7	5/16	3/16
PUL 29	TP7SX4410AZ	4:4:1	.20	.035	100/100	.20	.025	M5	3/8	3/8
PUL 42	TP6RX4410CZ	4:4:1	.50	.061	100/100	.50	.052	RAV-7	5/16	3/16
PUL 30	TP7SX4410AZ	4:4:1	.50	.046	100/100	.50	.029	M5	3/8	3/8
PUL 43	TP6RX4410CZ	4:4:1	1.0	.150	100/100	1.0	.09	RAV-7	5/16	3/16
PUL 31	TP7SX4410AZ	4:4:1	1.0	.079	100/100	1.0	.035	M5	3/8	3/8
PUL 49	TP6RX5310CZ	5:3:1	1.0	.050	285/100	1.0	.022	RAV-7	5/16	3/16
PUL 37	TP7SX5310AZ	5:3:1	1.0	.070	285/100	1.0	.042	M5	3/8	3/8
PUL 44	TP6RX4410CZ	4:4:1	2.0	.181	100/100	2.0	.110	RAV-7	5/16	3/16
PUL 32	TP7SX4410AZ	4:4:1	2.0	.142	100/100	2.0	.070	M5	3/8	3/8
PUL 45	TP6RX4410CZ	4:4:1	3.0	.210	100/100	3.0	.210	RAV-7	5/16	3/16
PUL 33	TP7SX4410AZ	4:4:1	3.0	.180	100/100	3.0	.088	M5	3/8	3/8
PUL 46	TP6RX4410CZ	4:4:1	5.0	.230	200/200	5.0	.31	RAV-7	5/16	3/16
PUL 34	TP7SX4410AZ	4:4:1	5.0	.210	200/200	5.0	.095	M5	3/8	3/8
PUL 50	TP6RX5310CZ	5:3:1	5.0	.091	565/200	5.0	.051	RAV-7	5/16	3/16
PUL 38	TP7SX5310AZ	5:3:1	5.0	.21	565/200	5.0	.081	M5	3/8	3/8
PUL 47	TP6RX4410CZ	4:4:1	10.0	.41	200/200	10.0	.351	RAV-7	5/16	3/16
PUL 35	TP7RX4410AZ	4:4:1	10.0	.41	200/200	10.0	.141	M5	3/8	3/8

Pulse Transformers — DESIGNED AND BUILT TO MEET MIL-T-21038B

Part No.	MIL-T-21038B Classification	Turns Ratio	Pulse Width (Micro-Sec.)	Rise Time (Micro-Sec.)	Impedance (In/Out)	Case Type	Dimensions Diameter	Dimensions H
PUL 63	TP6RX1100BZ	1:1	.07	.030	200/200	RSV-1C	1/2	3/4
PUL 64	TP6RX1100EQ	1:1	.07	.030	200/200	RSV-1E	3/4	3/4
PUL 65	TP7RX1100CZ	1:1	.07	.030	200/200	M7B	5/8	3/8
PUL 60	TP6RX2100BZ	2:1	.07	.030	200/200	RSV-1C	1/2	3/4
PUL 61	TP6RX2100EQ	2:1	.07	.030	200/200	RSV-1E	3/4	3/4
PUL 62	TP7RX2100CZ	2:1	.07	.030	200/200	M7B	1/2	3/8
PUL 57	TP6RX3100BC	3:1	.08	.030	100/100	RSV-1C	1/2	3/4
PUL 58	TP6RX3100EQ	3:1	.08	.030	100/100	RSV-1E	3/4	3/4
PUL 59	TP7 RX3100CZ	3:1	.08	.030	100/100	M7B	1/2	3/8
PUL 54	TP6RX4100BC	4:1	.08	.030	100/100	RSV-1C	1/2	3/4
PUL 55	TP6RX4100EQ	4:1	.08	.030	100/100	RSV-1E	3/4	3/4
PUL 56	TP7RX4100CZ	4:1	.08	.030	100/100	M7B	1/2	3/8
PUL 51	TP6RX5100BC	5:1	.08	.03	100/100	RSV-1C	1/2	3/4
PUL 52	TP6RX5100EQ	5:1	.08	.03	100/100	RSV-1E	3/4	3/4
PUL 53	TP7RX5100CZ	5:1	.08	.03	100/100	M7B	1/2	3/8
PUL 23	TP7SX5310AZ	5:3:1	.10	.020	700/250	M6	3/8	3/8
PUL 72	TP7QX1100CZ	1:1	.3 to 1.5		250/250	ZZ-4	1 1/16 x 11/16	1 1/8
PUL 73	TP6QX1100BZ	1:1	.3 to 1.5		250/250	YY-79	1 1/8 x 9/32	1 7/8
PUL 74	TP6QX1100CR	1:1	.3 to 1.5		250/250	AF	See Page 35	
PUL 67	TP6QX1110BZ	1:1:1	.36 to .54		2,000/2,000	RSV-1D	1/2	11/16
PUL 68	TP6QX1110CZ	1:1:1	.36 to .54		2,000/2,000	RSV-1B	11/16	3/4
PUL 66	TP6QX1100BZ	1:1	.54 to .66		500/500	RSV-1C	13/32	5/8
PUL 78	TP7QX1110CZ	1:1:1	.6 to 5		150/150	ZZ-4	1 1/16 x 11/16	1 1/8
PUL 79	TP6QX1110BZ	1:1:1	.6 to 5		150/150	YY-79	1 1/8 x 9/32	1 7/8
PUL 75	TP7QX1410CZ	1:4:1	.6 to 5		175/175	ZZ-4	1 1/16 x 11/16	1 1/8
PUL 76	TP6QX1410BZ	1:4:1	.6 to 5		175/175	YY-79	1 1/8 x 9/32	1 7/8
PUL 77	TP6QX1410CZ	1:4:1	.6 to 5		175/175	AG	See Page 35	
PUL 69	TP7QX1100CZ	1:1	.6 to 5		250/250	ZZ-4	1 1/16 x 11/16	1 1/8
PUL 70	TP6QX1100BZ	1:1	.6 to 5		250/250	YY-79	1 1/8 x 9/32	1 7/8
PUL 71	TP6QX1100CZ	1:1	.6 to 5		250/250	AG	See Page 35	

TRANSFORMERS — Output

Single Plate to Line or Voice Coil

Part No.	Primary Impedance	Secondary Impedance	Primary MADC	Watts	✱Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
24S41	900	4/8	120	10	BAH	2 13/16	2	3 1/8	2	1.2
24S78	1,500	2/4/6	55	5	BAH	2	1 3/8	2 3/8	1 3/4	.5
22S45	1,500-3,000	3.5	55	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
22S20	2,000	3.5	50	3	BAV	1 1/2	1 7/16	1 7/8	1 1/4	.2
24S53	2,000	3.5	50	3	BAH	1 3/4	1 3/16	2 1/8	1	.2
24S50	2,000	3.5	55	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
24S50A	2,000†	3.5	55	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
24S85	2,000*	3.5	60	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
24S95	2,000 or 6,000	3.5	60 10	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
22S46	2-3,000	3.5	35	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
26S58	2,500	3.5	50	3	BAV	1 1/2	1 3/8	1 7/8	1 1/4	.2
24S87	2,500*	3.5	50	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
22S34	2,500	3.5	60	6	BAH	2 3/8	1 5/8	2 13/16	1 1/2	.6
22S15	2,500	4/8/16/500	80	8	GGV	1 3/4 x 1 5/8	2 3/4	2 3/8	2 3/8	1.75
24S88	2,500	4/8/16	60	10	BAH‡	2 13/16	2	3 1/8	1 3/4	1
22S22	3,000†	3.5	50	3	BAH	1 3/4	1 3/16	2 1/16	1 1/4	.21
24S89	3,000†	3.5	50	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
22S38	3,000	3.5	70	8	BAH	2 13/16	2	3 1/8	1 3/4	1
26S50	3,500	3.5	60	8	BAH	2 3/8	1 5/8	2 7/8	1 5/8	.75
22S23	4,000	3.5	50	3	BAV	1 1/2	1 7/16	1 7/8	1 1/4	.2
24S48	4-5,000	3.5	40	3	BAH	1 3/4	1 1/4	2 1/8	1	.4
22S32	4,000	3.5	50	5	BAV	1 3/4	1 5/8	2	1 3/8	.45
22S31	4,000	3.5	50	5	BAH	2	1 3/8	2 3/8	1 3/8	.45
24S115	4,000	8	40	5	BAH	2 3/8	1 5/8	2 7/8	1 5/8	.7
24S90	4,000	4/8/16	40	10	BAH	2 13/16	2	3 1/8	1 3/4	1
24S133	4,500	3.5	35	3	BGH	2	1 3/8	2 3/8	1 1/4	.3
22S24	5,000	3.5	35	3	BAV	1 1/2	1 7/16	1 7/8	1 1/4	.21
24S30	5,000	3.5	30	3	BCV‡	1 3/16	1 7/16	1 3/16	1	.2
24S51	5,000	3.5	40	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
24S51A	5,000†	3.5	40	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
22S17	5,000	4/8/16/500	45	5	BAH	2 13/16	2	3 5/16	1 3/4	1
25S38	5,000	4/8/16/150/500	55	5	TAV	1 3/4 x 2 11/16	3 1/8	2 1/4	3	2.25
25S43	5,000	4/8/16/150/500	55	5	TTV	1 3/4 x 2 11/16	3 1/8	2 1/4	3	2.25
26S49	5,000	3.5	50	8	BAH	2 3/8	2 5/8	1 7/8	1 5/8	.75
22S35	5,000	3.5	50	5	BAH	2 13/16	2	3 1/8	1 3/4	1
24S92	5,000	4/8/16	50	10	BAH	2 13/16	2	3 1/8	1 3/4	1
24S91	5,000	4/8/16/500	55	10	GGV	2 x 1 11/16	3 1/8	2 5/8	2 5/8	2.5
22S26	6,000	3.5	35	3	BAV	1 1/2	1 7/16	1 7/8	1 1/4	.21
24S94	6,000	3.5	10	3	BAH	1 3/4	1 3/16	2 1/8	7/8	.3
24S116	6,000	3.5	35	5	BCH	1 9/16 x 5/8	1 5/8	2	1 3/8	.8
22S25	6,500	3.5	35	3	BAH	1 3/4	1 3/16	2 1/8	1 1/4	.21
22S33	6,500	3.5	35	5	BAH	2	1 3/8	2 3/8	1 3/8	.45
24S49	7-8,000	3.5	30	3	BAH	1 3/4	1 3/16	2 1/8	1	.4
24S32	7,000	3.5	20	3	BCH	1 7/16	1 3/16	1 7/16	1	.25
24S33	7,000	3.5	30	5	BCV	1 3/8	1 11/16	1 3/8	1 1/4	.3
24S31	7,000	3.5	30	5	BCH	1 11/16	1 3/8	1 11/16	1 1/4	.3
24S52	7-10,000	3.5	30	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
26S48	7,000	3.5	40	8	BAH	2 3/8	1 5/8	2 7/8	1 5/8	.75
24S96	7,000	4/8/16	40	10	BAH	2 13/16	2	3 1/8	1 3/4	1
22S16	7,500	4/8/16/500	40	5	BHH	2 13/16	2	3 1/8	1 3/4	1
24S81	8,000	3.5	30	3	BAV	1 1/2	1 3/8	1 7/8	1	.25
24S82	8,000	3.5	30	3	BAH	1 3/4	1 3/16	2 1/8	1	.25
24S34	8,000	3.5	30	5	BCH	1 11/16	1 3/8	1 11/16	1 1/4	.3
27S123	8,000	4/8/16/150/600	55	5	YY	1 13/16 x 1 11/16	3.049	2.521	2.381	2.25
25S39	8,000	4/8/16/150/600	55	5	TAV	1 3/4 x 2 11/16	3 1/8	2 1/2	3	2.25
25S44	8,000	4/8/16/150/600	55	5	TTV	1 3/4 x 2 11/16	3 1/8	2 1/2	3	2.25
22S36	8,000	4/8/16/150/600	45	6	BAV	2	2	2 3/8	2	.6
24S35	9,000	3.5	30	5	BCH	1 11/16	1 3/8	1 11/16	1 1/4	.3
24S97	9,000/2,500	3.5	10 40	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
24S36	10,000	3.5	30	3	BCH	1 7/16	1 3/16	1 7/16	1	.2
24S37	10,000	3.5	30	3	BCV	1 3/16	1 7/16	1 3/16	1	.2
24S83	10,000	3.5	30	3	BAH	1 3/4	1 3/16	2 1/8	1 1/4	.2
24S84	10,000	3.5	30	3	BAV	1 1/2	1 3/8	1 7/8	1 1/4	.2
24S38	10,000	3.5	30	5	BCH	1 11/16	1 3/8	1 11/16	1 1/4	.3
24S39	10,000	3.5	30	5	BCV‡	1 3/8	1 11/16	1 3/8	1 1/4	.3
24S98	10,000	3.5	30	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
22S37	10,000	3.5	45	6	BAH	2 3/8	1 5/8	2 7/8	1 1/2	.6
25S96	15,000	50/125-150/200-250/333/500-600	8	.2	UTV	1 15/16 x 2 5/16	3 1/4	3 1/8	2 5/8	.5
25S97	15,000	50/125-150/200-250/333/500/600	0	.2	UTV	1 15/16 x 2 5/16	3 1/4	3 1/8	2 5/8	.5
25S61	15,000	200/500	10	4	KTH-B	2 7/8 x 2 3/8	2 5/16	3 3/8	1 5/16	1.5
24S54	15-20,000	3.5	10	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
22S28	16,000	3.5	15	3	BAV	1 1/2	1 7/16	1 7/8	1 1/4	.21
22S27	16,000	3.5	15	3	BAH	1 3/4	1 3/16	2 1/8	1 1/4	.21
22S122	20,000	500CT	10	1	BHH	2 13/16	2	3 1/16	2 1/8	1
22S19	25,000	3.5	4	.25	BAH	1 3/8	13/16	1 5/8	1	.08
22S30	25,000	3.5	10	3	BAV	1 1/2	1 7/16	1 7/8	1 1/4	.21
22S29	25,000	3.5	10	3	BAH	1 3/4	1 3/16	2 1/8	1 1/4	.21
24S99	25,000	3.5	5	5	BAH	2	1 3/8	2 3/8	1 1/4	.5

Push Pull Plates to Line or Voice Coil

Part No.	Impedance Primary	Impedance Secondary	Balanced Pri. MADC	Watts	✱Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
22S106	1,500CT	8/16	200	50	GGV	2 3/4 x 3 1/16	4 5/16	3 9/16	4 1/4	6.5
25S103▲	1,500/2,500	1.5/2.5/5/7.5/10/15/20/30/50/125-150/200-250/333/500-600		40	UTV	4 3/16 x 5 1/32	4 11/16	5 13/16	5	15
24S117	2,000CT	8/16/32	140	15	GGV	2 x 2 1/4	3 3/16	2 5/8	3 1/4	3.3
22S60	2,500/4,000CT	3.5/8	60	10	BAH	2 13/16	2	3 1/8	1 3/4	1.25
22S29	2,500/3,000CT**	8/16/600CT** and 4/150	130	40	UTV	2 11/16 x 3 5/16	3 9/16	3 11/16	4 5/16	9.5
22S107	2,500CT	8/16	150	50	GGV	2 3/4 x 3 1/16	4 5/16	3 9/16	4 1/4	6.5
25S27	3,000/5,000CT**	8/16/600CT** and 4/150	100	15	UTV	2 1/8 x 2 5/8	4 7/8	3 1/16	3 9/16	6
22S96	3,000/5,000CT	3.5/8/16	60	15	WTV	2 3/4 x 2 3/8	4 3/8	3	3 3/8	9.25
25S19	3,000/5,000CT	1.2/2.5/5/7.5 10/15/20/30		18	UTV	2 x 2 3/4	3 1/2	2 13/16	3 9/16	5
25S46	3,000/5,000CT	1.5/3/5/8/16/200/500		20	NTV	2 3/8 x 2 3/8	3 3/4	3	3	3.5
22S72	3,000CT	3.5/8/16/250/500	90	25	GGV	1 3/4 x 2 USE 250 OHM TAP FOR 70.7 VOLT LINE @ 20 WATTS	3 1/8	2 5/8	2 5/8	2.5
22S95	3,000/5,000CT	3.5/8/16	60	25	GGV	1 3/4 x 2	3 1/8	2 5/8	2 5/8	2.5
22S41	3,000CT	8/16	175	50	GGV	2 3/4 x 3 1/16	4 5/16	3 1/2	4 1/4	7.5

▲ SPECIFIC APPLICATIONS:

25S101, 25S102, 25S103 — PP 6AS7G, 6L6, 300B, 6080 7027, 7355, 7581, 7868

** Split Center Tap

† 3% and 6% Primary humbucking tap
* 5% Primary Humbucking tap
‡ Twist leg mounting for slotted chassis or speaker housing
# 6% Primary Humbucking tap

For Mounting Illustrations and Cross References See Pages 1517-1520

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Push Pull Plates to Line or Voice Coil

Part No.	Impedance Primary	Impedance Secondary	Balanced Pri. MADC	Watts	★Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
25S102▲	3,000/5,000CT	1.2/2.5/5/7.5/10/15/20/30		20	UTV	2 11/16 x 3 11/16	4 3/16	4 7/16	3 1/2	7.5
25S101▲	3,000/5,000CT	1.2/2.5/5/7.5/10/15/20/30/50/125-150/200-250/333/500-600		20	UTV	2 11/16 x 3 11/16	4 3/16	4 7/16	3 1/2	7.5
25S66	3,000/6,000/9,000/10,000CT	2/8/15/500		30	KTH-D	3 5/8 x 3 1/8	2 15/16	4 1/8	2 5/16	3
22S10	3,300CT	4/8/16	130	50	GGV	3 x 3 3/8	4 5/8	4	4 1/2	8
	WITH SCREEN TAPS									
25S51	3,300CT	4/8/16	90	50	NTV	3 9/16 x 3 9/16	5 1/2	4 1/2	4 1/2	11
	WITH SCREEN TAPS									
22S78	3,300CT	3.5/8/16/250/500	180	60	GGV	2 1/2 x 2 1/2	3 7/8	3 1/4	3 3/4	5.25
24S142	3,300CT	4/8/16/25V./70V.	140	60	GGV	2 3/4 x 3 1/4	4 5/16	3 1/2	4 3/8	8
24S79	3,300/3,800CT	4/8/250/500	125	75	GGV	3 x 2 13/16	4 3/4	4	3 7/8	8
22S52	3,400CT	3.5	90	18	BAV	2 13/16	2 3/4	3 1/8	2	1.6
22S124	3,500CT	4/6/8/16/125/150/500	130	50	GGV	2 1/2 x 2 1/2	3 3/4	3 1/8	2 5/8	4
24S141	3,800CT	4/8/16/25V./70V.	130	50	GGV	2 3/4 x 3 1/4	4 5/16	3 1/2	4 3/8	8
25S109□	3,800/4,500CT	1.2/2.5/5/7.5/10/15/20/30/50/125-150/200-250/333/500-600		55	UTV	4 3/16 x 5 1/32	4 11/16	5 13/16	5	15
25S88	3,800/4,500/5,000CT	2/8/15/500		55	KTH-E	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
24S134	4,000CT	6-8	80	5	BAH	2	1 3/8	2 3/8	1 1/4	.45
22S21	4,000CT	8/16/32	75	7.5	BAH	3 1/8	2 1/4	3 3/4	2	2.2
22S12	4,000CT	4/8/16	200	65	GGV	2 3/4 x 3 1/2	4 1/4	3 5/8	4 5/8	7
	WITH SCREEN TAPS									
22S80	4,000CT	4/8/16	100	65	TTV	2 1/2 x 4 3/4	5 5/16	5 1/4	4 1/2	10
	WITH SCREEN TAPS									
22S13	4,000CT	4/8/16	210	70	GGV	3 x 3 7/8	4 5/8	4	5	12.5
	WITH SCREEN TAPS									
25S65	4,000/5,000/10,000CT	2/8/15/500		12	KTH-B	2 7/8 x 2 3/8	2 5/16	3 3/8	1 15/16	1.5
25S76	4,300CT*	8/16		65	TAV	2 1/2 x 4 3/4	5 5/16	5 1/4	4 9/16	12
	WITH SCREEN TAPS									
24S77	4,400CT##	4/8/16/250/500	70	30	GGV	2 x 2 1/4	3 5/8	3	3 1/8	3.5
22S11	4,500CT	4/8/16	140	50	GGV	2 3/4 x 3 1/2	4 1/4	3 5/8	4 5/8	8.25
22S14	4,500CT		120	100	GGV	3 1/2 x 4 1/8	5 5/16	4 9/16	5 1/8	14.7
	WITH SCREEN TAPS									
22S58	5,000/7,000CT	3.5/8	45	10	BAH	2 13/16	2	3 1/8	1 3/4	1.25
24S17	5,000CT	4/8/16	80	15	BAV	2 3/8	2 3/8	2 7/8	1 3/4	1
22S54	5,000CT	3.5	60	18	BAV	2 13/16	2 3/4	3 1/8	2	1.6
25S77	5,000CT	4/8/16	75	18	TAV	1 1/2 x 2 3/8	1 1/2	2 11/16	2 1/4	1.75
24S43	5,000CT	2/4/8/16/250/500	70	20	BHH	3 1/8	2 3/16	3 11/16	2	1.5
22S04	5,000CT	4/8/16	80	20	GGV	2 x 2 7/8	3 1/8	2 3/4	3 5/8	4.3
22S05	5,000CT	125/250/500	80	20	GGV	2 x 2 7/8	3 1/8	2 3/4	3 5/8	4.3
25S35	5,000CT	4/8/16/150/600	120	20	TAV	2 3/4 x 3 7/8	4 1/4	3 5/8	4 7/16	6.5
25S40	5,000CT	4/8/16/150/600	120	20	TTV	2 3/4 x 3 7/8	4 1/4	3 5/8	4 7/16	6.5
22S70	5,000CT	3.5/8/16/250/500	80	25	GGV	1 3/4 x 2	3 1/8	2 5/8	2 5/8	2.5
		USE 250 OHM TAP FOR 70.7 VOLT LINE @ 20 WATTS								
25S50	5,000CT	4/8/16/70V	90	25	NTV	3 x 3	4 1/2	3 3/4	3 3/4	6.5
	WITH SCREEN TAPS									
22S71	5,000CT	4/8/16/250/500	80	30	GGV	2 x 2 1/4	3 5/8	3	3 3/8	3.7
22S63	5,000CT	8/16	150	50	GGV	2 3/4 x 3 1/6	4 5/16	3 1/2	4 1/4	6
25S75	5,000CT■	8/16/70V.		100	TAV	3 1/2 x 5 3/8	6 1/16	5 7/8	5 5/16	16
	WITH SCREEN TAPS									
22S47	6,000/7,000CT	3.5	35	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
25S47	6,000/10,000CT	1.5/3/5/8/16/200/500		20	NTV	2 3/8 x 2 3/8	3 3/4	3	3	3.5
25S20	6,000CT	4/8/16		20	UTV	2 x 2 3/4	3 1/2	2 13/16	3 9/16	5
	WITH SCREEN TAPS									
22S98	6,000CT	3.5/8/16/250/500	60	20	WTV	2 3/4 x 2 3/8	4 3/4	3	3 3/8	7.25
22S97	6,000CT	3.5/8/16/250/500	60	25	GGV	2 x 1 3/4	3 1/8	2 5/8	2 5/8	2.5
		USE 250 OHM TAP FOR 70.7 VOLT LINE @ 20 WATTS								
22S108●	6,000CT	4/8/16		40	GGH	3 1/4 x 2 7/16	3 7/16	3 3/4	3 5/8	6
24S119	6,000CT	4/8/16/500	100	30	GGV	2 1/4 x 2	3 5/8	3	3 1/8	3.5
25S37	6,000CT	4/8/16/150/600	250	30	TAV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	9
25S42	6,000CT	4/8/16/150/600	250	30	TTV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	9
25S107★	6,000/10,000CT	1.2/2.5/5/7.5/10/15/20/30		20	UTV	2 11/16 x 3 11/16	4 7/16	4 7/16	3 1/2	7.5
25S106★	6,000/10,000CT	1.2/2.5/5/7.5/10/15/20/30/50/125-150/200-250/333/500-600		20	UTV	2 11/16 x 3 11/16	4 3/16	4 7/16	2 1/2	7.5
22S68	6,500CT	3.5/8/16/250/500	70	25	GGV	1 3/4 x 2	3 1/8	2 5/8	2 5/8	2.5
		USE 250 OHM TAP FOR 70.7 VOLT LINE @ 20 WATTS								
22S39	6,600CT	4/8/16	100	20	TAV	2 3/4 x 3 7/8	4 1/4	3 9/16	4 7/16	4
	WITH SCREEN TAPS									
22S07	6,600CT	4/8/16	80	25	GGV	2 1/4 x 3 1/8	3 1/2	3	4 1/4	5.75
	WITH SCREEN TAPS									
24S138	6,600CT	4/8/16/25V./70V.	80	25	GGV	2 x 2	3 1/8	2 5/8	3	3
22S09	6,600CT	4/8/16	80	30	GGV	2 1/4 x 2 5/8	3 1/2	3	3 3/4	5
	WITH SCREEN TAPS									
24S139	6,600CT	4/8/16/25V./70V.	80	30	GGV	2 1/4 x 2 1/4	3 1/2	3	3 3/8	4.5
24S140	6,600CT	4/8/16/25V./70V.	100	35	GGV	2 1/4 x 2 5/8	3 1/2	3	3 3/4	5
24S57	6,600CT	4/8/16/250/500	150	35	GGV	2 1/2 x 2 3/16	4	3 1/4	3 1/8	4
24S18	6,600CT##	4/8/16/500	150	35	GGV	2 1/2 x 2 3/16	4	3 1/4	3 3/8	4.8
22S67	6,600CT	8/16	125	50	GGV	2 3/4 x 3 1/16	4 5/16	3 9/16	4 1/4	6
24S58	7,000/10,000CT	3.5/8/16/500	60	25	GGV	2 x 1 11/16	3 3/16	2 5/8	2 5/8	2.7
22S42	7,400CT	4/8/16	100	40	GGV	2 1/2 x 2 7/8	3 7/8	3 1/4	3 7/8	6
	WITH SCREEN TAPS									
22S43	7,400CT	4/8/16	100	40	TAV	2 3/4 x 3 7/8	4 1/4	4 7/16	3 5/8	7.5
	WITH SCREEN TAPS									
25S26	7,500CT	8/20	120	20	UTV	2 5/8 x 2 1/8	4 7/8	3 1/16	3 9/16	5.75
25S82	7,500CT**	600CT/250CT	0	11	RTV	2 1/8 x 2 1/8	3 17/32	2 15/16	DIA.	.3
22S65	7,600CT	4/8/16	100	25	GGV	2 3/4 x 3 1/16	4 5/16	3 9/16	4 1/4	6
24S143	8,000CT	8	60	10	BAH	2 13/16	2	3 1/8	2 1/8	1
22S56	8,000/10,000CT	3.5/8	35	10	BAH	2 13/16	2	3 1/8	1 3/4	1.2
22S01	8,000CT	4/8/16	40	15	GGV	2 x 2 5/8	3 1/8	2 5/8	3 3/8	3.8
22S02	8,000CT	125/250/500	40	15	GGV	2 x 2 5/8	3 1/8	2 5/8	3 3/8	3.8
22S03	8,000CT	4/8/16	50	15	GGV	2 x 2 5/8	3 1/8	2 5/8	3 3/8	3.8
	WITH SCREEN TAPS									

▲ SPECIFIC APPLICATIONS:
25S101, 25S102, 25S103 } PP 6AS7G, 6L6, 300B, 6080, 7027, 7355, 7581, 7868.

● SPECIFIC APPLICATIONS:
25S104, 25S105 } PP 6L6, 6V6, 6AQ5, 6BQ5, 12BA5, 5881, 7189A.
25S108 PP 6146, 6159, 6L6 Fixed Or Self Bias

★ SPECIFIC APPLICATIONS:
25S106 PP TRIODE, KT66, 6AS7G, 6L6, 807, 1614, 5881, 6080

□ SPECIFIC APPLICATIONS:
25S108 PP 6146, 6159, 6L6 Fixed Or Self Bias.

■ Has cathode feedback winding
Has extra 10% feedback winding
** Split Center Tap

Push Pull Plates to Line or Voice Coil (Continued)

Part No.	Impedance Primary	Impedance Secondary	Balanced Pri. MADC	Watts	★Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
22S57	8,000CT	3.5	55	18	BAV	2 13/16	2 3/4	3 1/8	2	1.6
24S144	8,000CT	8	80	18	BAH	3 1/8	2 1/4	3 11/16	2 1/8	1.5
22S55	8,000CT	3.5	55	18	GGV	1 3/4 x 1 5/8	2 13/16	2 3/8	2 3/8	1.75
24S145	8,000CT	8/25V./70V.	100	20	BAH	3 1/8	2 1/4	3 11/16	3 1/8	1.5
25S105●	8,000CT	1.2/2.5/5/7.5/10/15/20/30		20	UTV	2 11/16 x 3 11/16	4 3/16	4 7/16	3 1/2	7.5
25S104●	8,000CT	1.2/2.5/5/7.5/10/15/20/30/50/125-150/200-250/333/500-600		20	UTV	2 11/16 x 3 11/16	4 3/16	4 7/16	3 1/2	7.5
25S45	8,000CT	1.5/3/5/8/16/200/500		20	NTV	2 3/8 x 2 3/8	3 3/4	3	3	3.5
24S137	8,000CT	4/8/16/25V./70V.	80	25	GGV	2 x 2	3 1/8	2 5/8	3	3
22S06	8,000CT		100	25	GGV	2 1/4 x 3 1/8	3 1/2	4	4 1/4	6
	WITH SCREEN TAPS									
22S66	8,000CT	3.5/8/16/250/500	60	25	GGV	1 3/4 x 2	3 1/8	2 5/8	2 5/8	2.5
		USE 250 OHM TAP FOR 70.7 VOLT LINE @ 20 WATTS								
24S120	9,000CT	3.2	40	5	BCH	1 13/16 x 11/16	2	2 3/8	1 5/8	1
25S108●	9,000CT	1.2/2.5/5/7.5/10/15/20/30/50/125-150/200-250/333/500-600		30	UTV	4 3/16 x 5 1/32	4 11/16	5 13/16	5	15
25S49	9,000CT	1.5/3/5/8/16/200/500		30	NTV	3 x 3	4 1/2	3 3/4	3 3/4	6.5
24S121	9,000CT	4/8/15/500	150	35	GGV	2 1/2 x 2 3/16	4	3 1/4	3 3/8	4.8
22S69	9,000CT	8/16	100	50	GGV	2 3/4 x 3 1/16	4 5/16	3 9/16	4 1/4	6
22S44	9,500CT	3.5/8/16	35	12	VAV	1 7/8 x 2	3	2 1/2	2 3/8	2.5
24S136	9,500CT	4/8/16/25V./70V.	40	15	GGV	2 x 1 3/4	3 1/8	2 5/8	2 5/8	2.5
22S49	9,500CT	4/8/16	100	15	TAV	2 3/4 x 3 7/8	4 1/4	3 9/16	4 7/16	4
	WITH SCREEN TAPS									
22S94	9,500CT	3.5/8/16	50	20	WTV	2 3/4 x 2 3/8	4 3/8	3	3 3/8	7.25
22S93	9,500CT	3.5/8/16	50	25	GGV	2 x 1 3/4	3 1/8	2 5/8	2 5/8	2.5
25S68	10,000CT	4/8		750MW TAJ		3/8 HOLE	1 3/4	1 3/8	DIA.	.35
24S93	10,000CT	3.5	40	5	BAH	2	1 3/8	2 3/8	1 1/4	.4
22S48	10,000/12,000CT	3.5	8	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
25S25	10,000CT**	8/16/600CT** and 4/150	80	5	UTV	2 19/64 x 1 55/64	4 1/4	3 1/16	2 5/8	4
25S30	10,000CT	8/16/500CT**	80	5	UTV	2 5/8 x 2 1/8	4 7/8	3 1/16	3 9/16	6
24S56	10,000CT	2/4/8	75	8	BAH	2 3/8	1 5/8	2 7/8	1 1/2	.7
24S122	10,000CT	4	50	10	BCV	1 9/16 x 5/8	2 3/8	2	1 5/8	1
25S78	10,000CT	4/8/15 and 2,000	30	10	TAV	1 1/2 x 2 3/8	2 7/8	2 11/16	2 1/4	1.5
26S59	10,000CT	4/8/16	30	12	BAH	2 13/16	2	3 1/8	1 3/4	1
24S19	10,000CT	4/8/16	60	12	BAV	2 3/8	2 3/8	2 7/8	1 3/4	1
24S44	10,000CT	2/4/8/16/250/500	45	15	BHH	2 13/16	2	3 1/4	1 3/4	1
		USE 500 OHM TAP FOR 70.7 VOLT LINE @ 10 WATTS								
25S36	10,000CT*	4/8/16/150/600	200	15	TAV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	5
25S41	10,000CT*	4/8/16/150/600	200	15	TTV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	5
25S31	10,000CT	4/8/16	130	20	UTV	2 1/8 x 2 5/8	4 7/8	3 1/16	3 9/16	7
	WITH SCREEN TAPS									
22S64	10,000CT	3.5/8/16/250/500	50	25	GGV	1 3/4 x 2	3 1/8	2 5/8	2 5/8	2.5
22S08	10,000CT	4/8/16	80	25	GGV	2 1/4 x 3 1/8	3 1/2	3	4 1/4	6
	WITH SCREEN TAPS									
22S50	12,000CT	3-4	30	4	BAH	2	1 3/8	2 3/8	1 3/8	.45
26S47	14,000CT	3.5	35	12	BAH	2 13/16	2	3 1/8	2	1
24S20	14,000CT	4/8/16	60	15	BAV	2 3/8	2 3/8	2 7/8	1 3/4	1
25S48	14,000/20,000CT	1.5/3/5/8/16/200/500		20	NTV	2 3/8 x 2 3/8	3 3/4	3	3	3.5
24S26	20,000CT	4/8/16	50	15	BAV	2 3/8	2 3/8	2 7/8	1 3/4	1
22S123	20,000CT	125/500	8	10	FGV	2 3/8	2 3/8	2 27/32	2 1/8	
24S59	25,000CT	3.5	20	5	BAH	2	1 3/8	2 3/8	1 3/8	.4
25S100	30,000CT	50/125-150/200/250/333/500-600	1	.25	UTV	1 15/16 x 2 7/16	3 1/4	3 1/8	2 5/8	3
24S28	50,000CT	3.5	20	5	BAH	2	1 3/8	2 3/8	1 1/4	.4
24S29	50,000CT	3.5	20	8	BAH	2 3/8	1 5/8	2 7/8	1 1/2	.6

Universal Output

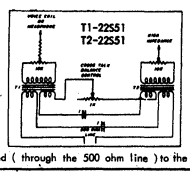
SINGLE OR PUSH-PULL PLATES TO VOICE COIL

Part No.	Primary Impedance	Secondary Impedance	Primary MADC	Watts	Mtg. Type	Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
22S61	2,000 to 10,000CT	.64 to 26.3	30	2	BAH	1 3/4	1 3/16	2 1/16	1 1/4	.21
22S86	2,000 to 14,000CT	3,5/8	50	3	BAH	2	1 3/8	2 3/8	1 1/4	.5
24S04	4,000 to 14,000CT	.1 to 50	35	4	BHH	2	1 3/8	2 3/8	1 1/4	.5
24S05	2,000 to 13,000CT	.1 to 50	50	4	BHH	2	1 3/8	2 3/8	1 1/4	.5
24S60	4,000 to 14,000CT	.1 to 30	35	4	BHH	2	1 3/8	2 3/8	1 1/4	.5
25S73	4,000 to 24,000CT	1.3 to 24.5	25	4	BAH	2	1 3/8	2 3/8	1 1/4	.5
22S87	2,000 to 14,000CT	3.5/8	50	6	BAH	2	1 3/8	2 3/8	1 3/8	1
24S09	2,500 to 13,000CT	.1 to 50	70	8	BHV	2	2	2 3/8	2 1/8	.75
24S08	4,000 to 20,000CT	.5 to 50	50	8	BHV	2	2	2 3/8	2 1/8	.75
24S07	4,000 to 10,000	3 to 8	40	8	BHH	2 3/8	1 5/8	2 7/8	1 1/2	.75
24S06	4,000 to 14,000CT	.1 to 50	40	8	BHH	2 3/8	1 5/8	2 7/8	1 1/2	.75
24S61	4,000 to 14,000CT	.1 to 30	40	8	BHH	2 3/8	1 5/8	2 7/8	2	1
24S63	1,500 to 4,500	.1 to 7.2	75	8	BHH	2 13/16	2	3 1/8	1 5/8	1
22S62	1,500 to 4,000CT	.1 to 30	50	8	BHH	2 13/16	2	3 1/8	2 1/8	1.25
22S88	2,000 to 14,000CT	3.5/8	50	8	BAH	2 13/16	2	3 1/8	1 3/8	1
24S64	1,500 to 10,000	.02 to 30	55	10	BHH	2 3/8	1 5/8	2 7/8	1 1/2	.7
24S11	2,500 to 14,000CT	.1 to 30	50	10	BHV	2 3/8	2 3/8	2 7/8	1 1/2	1
25S52	3,000 to 14,000CT	1.5/3/5/8/16/50/200/500		12	NTV	2 3/8 x 2 3/8	3 3/4	3	3	3.5
22S79	6,000 to 15,000	.35 to 24	85	12	BAV	2 13/16	2 3/4	3 1/8	2	1.6
24S13	2,500 to 13,000CT	.1 to 50	75	15	BHV	2 3/8	2 3/8	2 7/8	2 3/8	1.5
22S89	1,500 to 6,000CT	.8 to 25.4	87	15	BAV	2 13/16	2 3/4	3 1/8	2	1.6
24S12	3,500 to 14,000CT	.1 to 50	40	18	BHV	2 3/8	2 3/8	2 7/8	2	1.33
24S46	4,000 to 14,000CT	.1 to 30	40	18	BHV	2 3/8	2 3/8	2 7/8	2 1/4	1.5
24S14	4,000 to 14,000CT	.1 to 50	50	18	BHH	2 13/16	2	3 1/8	2	1.25
24S15	8,000 to 14,000CT	4/8/16/500	60	18	GGV	2 x 1 7/16	3 1/8	2 5/8	2 1/2	2.25
24S55	3,000 to 10,000CT	1 to 30	60	20	BHV	2 13/16	2 5/8	2 1/4	3 5/16	1.8
24S16	4,000 to 14,000CT	.1 to 5	60	20	BHV	3 1/8	3 1/8	3 5/8	2 1/2	3
24S42	3,000 to 10,000CT	.17 to 32	70	24	BHH	3 1/8	2 1/4	3 11/16	2 1/8	1.8
22S74	2,500 to 14,000CT	1 to 30	80	25	BHH	3 5/8	2 1/2	4	2 5/8	2.5
25S53	3,000 to 14,000CT	1.5/3/5/8/16/50/200/500		30	NTV	3 x 3	4 1/2	3 3/4	3 3/4	6.5
25S54	3,000 to 14,000CT	1.5/3/5/8/16/50/200/500		60	NTV	3 9/16 x 3 9/16	5 1/2	4 1/2	4 1/2	11
25S86	3,000 to 14,000CT	1.5/3/5/8/16/50/200/500		125	NTV	4 1/8 x 4 1/8	5 1/2	5 1/8	5 1/8	15.5
25S87	3,000 to 14,000CT	1.5/3/5/8/16/50/200/500		300	NTV	4 7/8 x 4 7/8	7	5 3/4	5 3/4	22

Hybrid Circuit Output

The circuit shown at the right is a typical "Patch" hybrid circuit using two 22S51 transformers.

This circuit is ideally suited for use in duplex radio communications where two way communication to and from a remote point is desired. It may also be adopted to operate sound distribution systems or speech amplifier and modulator for transmission from remote point. The output from a radio receiver may then be connected to the transformer marked T2 so that the received signal may be transmitted (through the 500 ohm line) to the remote point.



Part No.	Impedance In Ohms Primary	Impedance In Ohms Secondary	Mtg. Type	Mtg. Centers	Dimensions H.	Dimensions W. x D.	Wt. Lbs.
22S84	300CT	10,000	RTV	1 5/16 x 1 5/16	.2	1 5/8 Dia.	.15
	300CT	25 Ω Monitor					
22S51	10,000	500 each	TAV-1	1 15/16	1 15/16	1 9/16 x 2 1/4	1.0

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For Mountina Illustrations and Cross References See Pages 1517-1520

THORDARSON MEISSNER

Line To Voice Coil

Part No.	Impedance Primary	Impedance Secondary	Output Watts	Mtg. Type	Mtg. Centers	Dimensions H	W	D	Wt. Lbs.
TR 141	600	3.2	.025	M1		.312	.426	.400	.1
TR 53	500CT	3.2	.050	MAH		7/16	1/2	7/16	.1oz.
TR 49	500CT	10	.050	MAH		7/16	1/2	7/16	.1oz.
25S67	500**	4/16**	.100	TAJ	3/8 Hole	1 3/4	1 3/8 Dia.		.35
TR 27	500CT	3.2	.150	BCH	13/16	11/16	13/16	5/8	.05
TR 337	500CT	3.2	.150	PCT	Printed Ckt.	11/16	3/4	9/16	.05
TR 18	500CT	16.4	.150	BCH	13/16	11/16	13/16	5/8	.05
TR 328	500CT	16.4	.150	PCT	Printed Ckt.	11/16	3/4	9/16	.05
TR 102	500CT	4/8/16	.150	BCH	13/16	11/16	13/16	5/8	.05
TR 103	600CT	4/8/16	.150	BCH	13/16	11/16	13/16	5/8	.05
TR 220	500CT	3.2	.250	MAH		19/32	7/8	43/64	.03
TR 110	48CT(50)	4/8/16	.300	BAH	1 3/8	3/4	1 5/8	13/16	.1
TR 8	48CT(50)	4/8	.300	BAH	1 3/8	3/4	1 5/8	13/16	.1
TR 114	500CT	4/8/16	.300	BAH	1 3/8	3/4	1 5/8	13/16	.1
TR 18	500CT	16.4	.300	BAH	1 3/8	3/4	1 5/8	13/16	.1
22S100	50■	3.5	1	BAH	1 3/4	1 3/16	2 1/16	1 1/4	.21
25S55	125/500**	4/16**	1	NTV	1 5/16 x 1 5/16	2 1/4	1 5/8	1 5/8	.5
25S83	250	14	1	TTV	3 1/8 x 2	3 1/2	3 1/2	2 25/32	1.5
25S06	400-500CT	3.2-4	1	RTV	11/16	1 3/16	7/8 Dia.		.06
25S11	500CT	4/16**	1	UTV	1 5/32 x 1 5/32	2	1 1/2	1 1/2	.5
22S118	45-50	3.5/6-8	3	BHH	2	1 3/8	2 3/8	1 1/8	.5
22S102	500	4/8/16	3	BAH	2	1 3/8	2 3/8	1 3/8	.45
22S126	600	3.2	3	BHH	2	1 3/8	2 3/8	1 5/8	.25
22S101	50/500	3.5	4	BAH	1 3/4	1 3/16	2 1/16	1 1/4	.21
TR 61	48CT(50)	3.2/8/16	5	BHV	1 3/4	1 3/4	2	1 1/4	.5
22S125	50/250/500	6/8	5	BHH	2 13/16	2	3 1/16	2 1/8	.75
22S103	500	4/8	5	BAH	2	1 3/8	2 3/8	1 3/8	.45
24S75	500	4/8	5	BHH	2	1 3/8	2 3/8	1 1/4	.45
22S81	45/50	3.5/8	8	BAH	2 3/8	1 5/8	2 7/8	1 5/8	1
22S127	45-50	8/16	8	BAH	2 13/16	2	3 1/16	2 1/8	.6
22S80	500/600	3.5/8/16	8	BHH	3 1/8	2 1/4	3 3/4	2 1/4	1.5
22S84	500/1,000/1,500/2,000	3.5/8/16	8	BAH	2 13/16	2	3 1/8	1 3/4	1
24S46	500/1,000/1,500/2,000	3.5/8	8	BHH	2 3/8	1 5/8	2 7/8	1 5/8	1.2
22S85	500/1,000/1,500/2,000	3.5/8/16	8	BAH	2 3/8	1 5/8	2 7/8	1 5/8	1.2
22S104	31/62.5/125/250	4/8/16	10	BHV	2 13/16	2 23/32	3 1/8	2 1/8	1.8
24S66	500/1,000/1,500/2,000	3.5/8	10	BAH	2	2	2 1/2	1 5/8	1
22S109	500/1,000/1,500/2,000/3,000	4/8/16	10	BHV	2 3/8	2 5/16	2 15/16	1 3/4	1.5
25S64	2,500/4,000/7,000/10,000	2/8/15/500	10	KTH	2 7/8 x 2 3/8	2 5/16	3 3/8	1 15/16	1.5
24S47	500/1,000/1,500/2,000	3.5/8	12	BHV	2 3/8	2 5/16	2 7/8	1 7/8	1.2
24S10	2,500/4,000/6,000/8,000	6-8	12	BAV	2 3/8	2 5/16	2 7/8	1 3/4	1.1
25S57	500	.2 to 75	15	NTV	2 3/32 x 2 3/32	3 1/4	2 9/16	2 9/16	2.5
24S45	500	4/6/8/15	15	BHV	2 3/8	2 5/16	2 7/8	1 3/4	1.2
22S83	500/1,000/1,500/2,000	3.5/8/16	15	BAH	3 1/8	2 1/4	3 3/4	2	2.25
25S62	500/2,000/4,000	2/4/8/15	15	KTH	2 7/8 x 2 3/8	2 5/16	3 3/8	1 15/16	1.5
24S67	500/1,000/1,500/2,000	3.5/8	18	BHV	2 3/8	2 5/16	2 7/8	2	1.7
22S82	500/1,000/1,500/2,000	3.5/8	25	BHH	3 5/8	2 1/2	4	2 5/8	2.25
24S00	500/1,000/1,500	4/8/16	25	BHV	3 1/8	3 1/8	3 5/8	2 1/4	2.5
22S105	500**	2/4/8/16/32	30	LHV	2 1/4 x 3 1/8	3 7/16	2 13/16	4 9/16	5
25S63	500/2,000/4,000	2/4/8/15	30	KTH	3 5/8 x 3 1/8	2 15/16	4 1/8	2 5/16	3
25S58	500	.2 to 75	40	NTV	3 x 3	4 1/2	3 3/4	3 3/4	6.5
25S79	4	.017/.05/.1 .25/.5/1 VOICE COIL TO MULTIPLE VOICE COIL	50	KTV	2 5/8 x 3 1/8	4 7/16	4 7/16	3 5/16	6
25S59	500	.2 to 75	75	NTV	3 9/16 x 3 9/16	5 1/2	4 1/2	4 1/2	11

Line To Multiple Voice Coil

Part No.	Impedance In Ohms	Output Watts	Mtg. Type	Mtg. Centers	Dimensions H	W	D	Wt. Lbs.
24S76	Pri. 500/1,000/1,500/2,000/2,500/3,000 Sec. .06 to 8 ohms when pri. is 500 ohms .12 to 16 ohms when pri. is 1,000 ohms,etc.	15	BHV	2 3/8	2 5/16	2 7/8	2	1.4
24S62	Pri. 500/1,000/1,500/2,000/2,500/3,000 Sec. .06 to 8 ohms when pri. is 500 ohms .12 to 16 ohms when pri. is 1,000 ohms,etc.	25	BAV	3	3	3 3/8	2 1/8	2

Tube To Line Or Line Mixer

Part No.	Impedance Primary	Impedance Secondary	Primary MADC	Output Watts	★ Mtg. Type	Mtg. Centers	Dimensions H	W	D
25S01	15,000	50/200-250/500-600	0	.006	RTV	11/16	1 3/16	7/8 Dia.	
25S07	15,000	50/200-250/500-600	0	.006	Plug-In	8 Pin Octal	1 15/32	1 3/32 Dia.	
25S02	15,000	50/200-250/500-600	4	.006	RTV	11/16	1 3/16	7/8 Dia.	
25S08	15,000	50/200-250/500-600	4	.006	Plug In	8 Pin Octal	1 15/32	1 3/32 Dia.	
25S03	30,000CT	50/200-250/500-600	0*	.006	RTV	11/16	1 3/16	7/8 Dia.	
25S09	30,000CT	50/200-250/500-600	0*	.006	Plug-In	8 Pin Octal	1 15/32	1 3/32 Dia.	
22S53	8,000 to 15,000CT**	50/125,200/250/333/500	1	.01	RAV	2 1/4	2 5/8	1 3/4	
25S23	15,000	150/600**	10	.031	UTV	1 3/8 x 1 9/16	3 1/8	2 1/16	2 5/16
25S12	15,000**	50/125-150/200-250/333/500-600	0*	.031	UTV	1 5/32 x 1 5/32	2	1 1/2	1 1/2
25S13	15,000	50/125-150/200-250/333/500-600	8	.031	UTV	1 5/32 x 1 5/32	2	1 1/2	1 1/2
25S69	15,000	50/250/600		.1	TAJ	3/8 Hole	1 3/4	1 3/8 Dia.	
25S71	15,000	50/250/600	5	.1	TAJ	3/8 Hole	1 3/4	1 3/8 Dia.	
25S70	15,000CT	150/600**		.1	TAJ	3/8 Hole	1 3/4	1 3/8 Dia.	
25S72	15,000CT	150/600**	4	.1	TAJ	3/8 Hole	1 3/4	1 3/8 Dia.	
25S15	15,000**	50/125-150/200-250/333/500-600	0	.125	UTV	1 3/8 x 1 13/16	3 1/8	1 15/16	2 3/8
25S17	15,000**	50/125-150/200-250/333/500-600	8	.160	UTV	1 3/8 x 1 13/16	3 1/8	1 15/16	2 3/8
25S96	15,000	50/125-150/200-250/333/500-600	8	.12	UTV1	1 15/16 x 2 5/16	3 1/4	3 1/8	2 5/8
25S73	25,000**	500**	3	.2	TAJ	3/8 Hole	29/32	1/2	11/16
25S16	30,000CT	50/125-150/200-250/333/500-600	1	.2	UTV	1 3/8 x 1 13/16	3 1/8	1 15/16	2 3/8
25S97	15,000	50/125-150/200-250/333/500-600	0	.2	UTV1	1 5/16 x 2 7/16	3 1/4	3 1/8	2 5/8
25S32	15,000	50/150/200/250/333/500	0	.5	UTV-1	1 1/8 x 1 1/8	2	1 1/2	1 1/2
25S34	15,000	50/150/200/250/333/500	0	.5	UTV-1	1 1/8 x 1 1/8	2	1 1/2	1 1/2
25S33	30,000CT	50/150/200/250/333/500	5	.5	UTV-1	1 1/8 x 1 1/8	2	1 1/2	1 1/2
25S21	15,000	50/200/500	8	1	NTV	1 5/16 x 1 5/16	2 1/4	1 5/8	1 5/8
22S122	20,000	500CT	10	1W	BHH	2 13/16	2	3 1/16	2 1/8
25S24	20,000CT	150/600**	0	1	UTV	2 1/8 x 1 3/4	3 13/16	2 3/8	2 3/4
25S22	30,000CT	50/200/500	0	1.5	NSV	1 5/16 x 1 5/16	2 1/4	1 5/8	1 5/8
24S80	10,000	50 and 2,000		2	BAH	2	1 3/8	2 3/8	1 3/8
25S61	15,000	200/500	10	2	KTH	2 7/8 x 2 3/8	2 5/16	3 3/8	1 15/16
22S75	7,000	50	30	3	BAH	1 3/4	1 3/16	2 1/8	1 1/4
25S60	20,000CT	125/500**	10	3	RTV	1 3/8 x 1 3/8	2	1 5/8 Dia.	
22S92	20,000CT	125/200/500	10	3	RTV	1 3/8 x 1 3/8	2	1 5/8 Dia.	
22S59	15,000	500CT	10	4	BGH	2 3/8	1 5/8	2 7/8	1 5/8
22S119	10,000	50 and 2,000		5	BAH	2 3/8	1 5/8	2 7/8	1 1/2
25S25	10,000CT	8/16/600**	60	5	UTV	1 7/8 x 2	4 1/4	2 5/8	3 1/16
24S114	18,000CT	50/250/600	20	5	BAH	2 3/8	1 5/8	2 13/16	1 1/2
22S91	20,000CT	125/200/500	25	8	BAH	2 13/16	2	3 1/8	2
22S90	20,000	125/200/500	25	8	FGV	2 3/8	2 3/8	2 7/8	1 7/8
22S77	2,500 to 7,000	500	60	10	BHV	2 13/16	2 11/16	3 1/8	2 1/4
24S27	5,000/10,000/20,000CT	50/125/333/500	15	10	BHH	2 13/16	2	3 1/8	1 3/4
24S25	8,000/14,000CT	500	55	10	BHV	2 13/16	2 3/4	3 1/8	2 1/4
25S18	5,000/9,400CT	50/125-150/200-250/333/500-600		15	UTV	2 x 2 3/4	3 1/2	2 13/16	3 9/16
22S02	8,000CT	125/250/500	40	15	GGV	2 x 2 5/8	3 1/8	2 5/8	3 3/8
22S116	2,500/4,000/5,000/6,000/7,000	500	60	20	BHV	3 1/8	3 1/8	3 5/8	2 1/4
22S05	5,000CT	125/250/500	80	20	GGV	2 x 2 7/8	3 1/8	2 5/8	3 5/8
22S76	3,000 to 14,000CT	500	60	25	BHH	3 5/8	2 1/2	4	2 5/8

10KC to 50KC Output Transformers

FREQUENCY RANGE 10KC TO 50KC

Ideally suited for Ultrasonic generators and amplifiers for use in military and industrial cleaning, degreasing, mixing and other ultrasonic applications.

Part No.	Application	Impedance Primary	Impedance Secondary	Output Watts	Mtg. Type	Mtg. Centers	Dimensions H	W	D
25S89	PP 6550	5,000CT	18.75/75/170/300	100	NTV-5	1 1/2 x 1 1/2	2 1/2	1 13/16	1 13/16
25S90	PP 6155, PP 4-125	7,200CT	18.75/75/170/300	300	NTV-7	2 3/32 x 2 3/32	3 1/4	2 9/16	2 9/16
25S91	PP 6155, PP 4-125	7,200CT	1.88/7.5/17/30	300	NTV-7	2 3/32 x 2 3/32	3 1/4	2 9/16	2 9/16
25S92	PP 6156, PP 250TH	4,500CT	18.75/75/170/300	600	NTV-10	3 x 3	4 1/2	3 3/4	3 3/4
25S93	PP 6156, PP 250TH	4,500CT	1.88/7.5/17/30	600	NTV-10	3 x 3	4 1/2	3 3/4	3 3/4
25S94	PP 6156	9,200CT	18.75/75/170/300	1,000	NTV-13	4 7/8 x 4 7/8	7	5 3/4	5 3/4
25S95	PP 5868	10,200CT	18.75/75/170/300	2,000	SYV		5 1/4	5 9/16	8

Speaker Matching

AUTOFORMER

For use in speaker voice coil impedance matching applications. Frequency response 100 to 20,000 cycles ± 1 DB.

Part No.	Impedance Primary and Secondary	Power Watts	Mtg. Type	Mtg. Centers	Dimensions H	W	D
25S114	0/4/8/16	1	RTV	11/16	1 3/16	7/8 Dia.	
25S85	4/8/16	4	UTV	1 5/32 x 1 5/32	2	1 1/2	1 1/2

High Fidelity Output Transformers

Part No.	Impedance Primary	Impedance Secondary	Primary MADC Each Side CT	Output Watts	★ Mtg. Type	Mtg. Centers	Dimensions H	W	D	Wt. Lbs.
22S106	1,500CT	8/16	200	50	GGV	2 3/4 x 3 1/16	4 5/16	3 9/16	4 1/4	6.5
25S29	2,500/3,000*	8/16/600* 4/150	130	40	UTV	2 11/16 x 3 5/16	5 9/16	3 11/16	4 5/16	9.5
22S107	2,500CT	8/16	150	50	GGV	2 3/4 x 3 1/16	4 5/16	3 9/16	4 1/4	6.5
22S41	3,000CT	8/16	175	50	GGV	2 3/4 x 3 1/16	4 5/16	3 9/16	4 1/4	6.5
25S27	3,000/5,000*	8/16/600* 4/150	100	50	UTV	2 5/8 x 2 1/8	4 7/8	3 9/16	3 1/16	6
25S19	3,000/5,000CT	1.2/2.5/5/7.5/10/15/20/30		18	UTV	2 x 2 3/4	3 1/2	2 13/16	3 9/16	5
22S10	3,300CT WITH SCREEN TAPS	4/8/16	130	50	GGV	3 x 3 3/8	4 5/8	3 15/16	4 1/2	8
25S51	3,300CT WITH SCREEN TAPS	4/8/16/70V	90	50	NTV	3 9/16 x 3 9/16	5 1/2	4 1/2	4 1/2	11
25S112	3,300CT WITH SCREEN TAPS	4/8/16		60	UTV	4 3/16 x 5 1/32	4 11/16	5 13/16	5	15
22S12	4,000CT WITH SCREEN TAPS	4/8/16	200	65	GGV	2 3/4 x 3 1/2	4 1/4	3 5/8	4 5/8	9.75
25S80	4,000CT WITH SCREEN TAPS	4/8/16	100	65	TTV	2 1/2 x 4 3/4	5 5/16	5 1/4	4 1/2	10
22S13	4,000CT WITH SCREEN TAPS	4/8/16	210	70	GGV	3 x 3 7/8	4 5/8	3 15/16	5	12.5
22S121	4,250CT WITH SCREEN TAPS	4/8/16/125/250/500	100	40	HFF	2 3/4 x 3 7/16	2 3/4	4 1/8	3 7/16	6
25S76	4,300* WITH SCREEN TAPS	8/16*		65	TAV	2 1/2 x 4 3/4	5 9/16	4 9/16	5 1/4	12.5
22S11	4,500CT	4/8/16	140	50	GGV	2 3/4 x 3 1/2	4 1/4	3 5/8	4 5/8	8.25
22S14	4,500CT WITH SCREEN TAPS	4/8/16	120	100	GGV	3 1/2 x 4 1/8	5 5/16	4 9/16	5 1/8	14.7
22S04	5,000CT	4/8/16	80	20	GGV	2 x 2 7/8	3 1/8	2 5/8	3 5/8	4.3
22S05	5,000CT	125/250/500	80	20	GGV	2 x 2 7/8	3 1/8	2 5/8	3 5/8	4.3
22S63	5,000CT	8/16	150	50	GGV	2 3/4 x 3 1/16	4 5/16	3 1/2	4 1/4	6
25S113	5,000CT WITH SCREEN TAPS	4/8/16		35	UTV	4 3/16 x 5 1/32	4 11/16	5 13/16	5	7.5
25S50	5,000CT WITH SCREEN TAPS	4/8/16/70V.	90	25	NTV	3 x 3	4 1/2	3 3/4	3 3/4	6.5
25S75	5,000CT* WITH SCREEN TAPS	8/16/70V.		100	TAV	5 3/8 x 3 1/2	6 1/16	5 7/8	5 5/16	21
22S39	6,600CT WITH SCREEN TAPS	4/8/16	100	20	TAV	2 3/4 x 3 7/8	4 1/4	3 9/16	4 7/16	4
25S20	6,600CT WITH SCREEN TAPS	4/8/16	80	20	UTV	2 x 2 3/4	3 1/2	2 13/16	3 9/16	5
22S07	6,600CT WITH SCREEN TAPS	4/8/16	80	25	GGV	2 1/4 x 3 1/8	3 1/2	3	4 1/4	5.7
22S09	6,600CT WITH SCREEN TAPS	4/8/16	80	50	GGV	2 1/4 x 2 5/8	3 1/2	3	3 3/4	5
22S67	6,600CT	8/16	125	50	GGV	2 3/4 x 3 1/16	4 5/16	3 9/16	4 1/4	6
22S42	7,400 WITH SCREEN TAPS	4/8/16	100	40	GGV	2 1/2 x 2 7/8	3 7/8	3 1/4	3 7/8	6
22S43	7,400CT WITH SCREEN TAPS	4/8/16	100	40	TAV	2 3/4 x 3 7/8	4 1/4	4 7/16	3 5/8	7.5
25S26	7,500CT	8/20	120	20	UTV	2 1/8 x 2 3/8	4 7/8	3 9/16	3 1/16	5.7
22S65	7,600CT WITH SCREEN TAPS	4/8/16	100	25	GGV	2 3/4 x 3 1/16	4 5/16	3 9/16	4 1/4	6
22S01	8,000CT	4/8/16	40	15	GGV	2 x 2 5/8	3 1/8	2 5/8	3 3/8	3.8
22S02	8,000CT	125/250/500	40	15	GGV	2 x 2 5/8	3 1/8	2 5/8	3 3/8	3.8
22S03	8,000CT WITH SCREEN TAPS	4/8/16	50	15	GGV	2 x 2 5/8	3 1/8	2 5/8	3 3/8	3.8

25V Line To Voice Coil

Part No.	Power Steps In Watts	Impedance In Ohms Primary	Impedance In Ohms Secondary	Mtg. Type	Mtg. Centers	Dimensions H	W	D	Wts. Lbs.
24S126	2/1/.5	312/625/1,250	4/8	BHH	1 3/4	1 1/4	2 1/8	1 3/8	.3
24S109	2/1/.5	312/625/1,250	4/8	BAH	2	1 3/8	2 3/8	1 3/8	.45
24S24	5/2.5/1.25/.625/.312	125/250/500/1,000/2,000	4/8	BHV	1 3/4	1 3/4	2	1 1/4	.4
24S110	5/2.5/1.25/.625	125/250/500/1,000	4/8/16	BAH	2 3/8	1 5/8	2 13/16	1 5/8	.8
24S21	8/4/2/1/.5	78/156/312.5/625/1,250	4/8/16	BHV	2	2	2 5/8	1 3/4	1
24S23	10/5/2.5/1.25 AUTOFORMER	62.5/125/250/500	4/8	BHV	2 3/8	2 3/8	2 7/8	1 3/4	1.4
24S111	10/5/2.5/1.25§	62.5/125/250/500	4/8/16	BAV	3 1/8	3 1/16	3 5/8	2	1.6
24S22	16/8/4/2/1/.5	39/78/156/312.5/625/1,250	4/8/16	BHV	2 13/16	2 3/4	3 1/4	2 1/8	1.75
24S148	32/16/8/4/2/1/.5/.25 WITH TAP SWITCH	4/8/16 625/1,250/2,500/5,000/10,000/20,000	Special Plate Mounting To Fit 4 x 4 Junction Box						7.5

Matching Lines

25 VOLT LINE TO 70.7 VOLT LINE OR 70.7 VOLT LINE TO 25 VOLT LINE

Part No.	Application	Impedance In Ohms	Mtg. Type	Mtg. Centers	Dimensions H	W	D	Wt. Lbs.
24S112	25 V. Line to 70.7 V. Line or 70 V. Line to 25 V. Line 10 Watts	62.5CT to 500CT§ or 500CT to 62.5CT§	BAV	2 3/8	2 5/16	2 7/8	1 3/4	1
24S113	25 V. Line to 70.7 V. Line or 70 V. Line to 25 V. Line 30 Watts	20.8CT to 166CT§ or 166CT to 20.8CT§	BAV	3 1/8	3 1/16	3 5/8	2 1/4	2.3

Frequency Response ± 3DB - 20-20,000 Cycles

* Unbalanced Primary Current
** Split Center Tap
§ 5 Interleaved Cases – 90 DB Shielding
■ Autoformer
† See page 35 for case
# Has Cathode Feedback Winding
† Multiple Static Shielding
§§ Has Extra 15% feedback Winding

For Mounting Illustrations and Cross References See Pages 1517-1520

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70.7V Line To Voice Coil

Part No.	Power Steps In Watts	Impedance In Ohms Primary	Impedance In Ohms Secondary	Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
24S01	2·1/.5/.25/.125	2,500/5,000/10,000 20,000/40,000	4/8	BHV	1 3/4	1 5/8	2	1 1/4	.5
24S100	5/2.5/1.25/.62/.31 AUTOFORMER	1,000/2,000/4,000 8,000/16,000	4/8	BAV	1 3/4	1 5/8	2	1 3/8	.5
24S74	5/2.5/1.25/.62/.31	1,000/2,000/4,000/ 8,000/16,000	4/8	BHH	2	1 3/8	2 3/8	1 1/4	.5
24S125	5/4/3/2/1	1,000/1,250/1,667 2,500/5,000	8/16	BHH	2	1 3/8	2 3/8	1 3/8	.5
24S71	8/4/2/1/.5	625/1,250/2,500/ 5,000/10,000	4/8/16	BHV	2	2	2 1/2	1 5/8	1
24S73	10/5/2.5/1.25 AUTOFORMER	500/1,000/2,000/ 4,000	4/8/16	BAV	2	2	2 3/8	1 1/2	.6
24S101	10/5/2.5/1.25	500/1,000/2,000/ 4,000	4/8/16	BAV	2	2	2 3/8	1 1/2	.6
24S124	10/9/8/7/6	500/555/625/715/ 833	8/16	BHV	2	2	2 3/8	1 5/8	.7
24S102	10/5/2.5/1.25 AUTOFORMER	500/1,000/2,000/ 4,000	4/8/16	BAV	2	2	2 3/8	1 1/2	.6
24S103	10/5/2.5/1.25§ AUTOFORMER	500/1,000/2,000/ 4,000	4/8/16	BAV	2 13/16	2 3/4	3 1/8	2 1/8	1.8
24S104	10/5/2.5/1.25§ WEATHER PROOF AUTOFORMER	500/1,000/2,000/ 4,000	4/8/16	TTV	1 3/4 x 2 11/16	3 5/16	3	2 1/2	2.25
24S123	15/14/13/12/11	333/357/384/ 417/455	8/16	BHV	2 3/8	2 5/16	2 7/8	1 3/4	1.2
24S72	16/8/4/2/1/.5	312.5/625/1,250/ 2,500/5,000/10,000	4/8/16	BHV	2 13/16	2 5/8	3 1/8	2 1/4	1.75
24S70	16/8/4/2/1/.5 WITH WATTAGE SELECTION SWITCH	312.5/625/1,250/ 2,500/5,000/10,000	4/8/16	TAV Special	3 1/8 x 2	3 9/16	3 1/2	2 7/8	2.5
24S107	20/10/5/2.5 AUTOFORMER	250/500/1,000/ 2,000	4/8/16	BAV	2 3/8	2 3/8	2 7/8	1 3/4	1
24S105	20/10/5/2.5	250/500/1,000/ 2,000	4/8/16	BAV	2 3/8	2 3/8	2 7/8	1 3/4	1
24S108	20/10/5/2.5§ AUTOFORMER	250/500/1,000/ 2,000	4/8/16	GGV	2 x 2 5/8	3 1/8	2 5/8	3 3/8	4
24S106	20/10/5/2.5§ WEATHER PROOF AUTOFORMER	250/500/1,000/ 2,000	4/8/16	TTV	2 3/4 x 3 7/8	4 5/16	3 11/16	4 7/16	6
24S02	24/12/6/3/1.5	208/416/832/ 1,664/3,330	4/8/16	BHV	3 1/8	3 1/16	3 5/8	2	2.5
24S148	32/16/8/4/ 2/1/.5/.25 WITH TAP SWITCH	156/312/ 625/1,250/ 2,500/5,000/ 10,000/20,000	4/8/16	Special Plate Mounting To Fit 4 x 4 Junction Box,					7.5

Molded And Plastic Coated Toroid Inductors

These high Q Toroid inductors have the highest inductive stability available to the industry. Each coil has an inductance tolerance of plus or minus 2%. Available in either plastic coated units with leads (TOR 800 and TOR 900 series) or in epoxy molded MIL-T-27B encapsulation (TOR 700 and TOR 7100 and up).

Part No.	Inductance In MH ± 2%	Resistance In Ohms	MADC For 5% Ind. Drop	Typical Q @	Typical Center Frequency	Mtg. Type	Dimensions Diameter	Dimensions Height	Hole Dia.
TOR 7257	.6	1.5	91*	100	100KC	TM2	7/16	1/4	
TOR 940	1	1.4	110	120	60KC	TO	5/8	9/32	
TOR 7310	1	1.4	110	120	60KC	TM3	7/8	3/8	.100
TOR 800	1	1.25	150	75	25KC	TO	3/4	3/8	
TOR 700	1	1.25	150	75	25KC	TM	3/4	3/8	.116
TOR 848	1	.40	270	110	18KC	TO	1	3/8	
TOR 748	1	.40	270	110	18KC	TM	1 1/16	1/2	.144
TOR 875	1	.40	520	160	10KC	TO	1 1/4	5/8	
TOR 775	1	.40	520	160	10KC	TM	1 5/16	23/32	.173
TOR 824	1	.20	680	180	20KC	TO	1 1/4	5/8	
TOR 724	1	.20	680	180	20KC	TM	1 5/16	23/32	.173
TOR 7258	1.5	4.1	55*	98	100KC	TM2	7/16	1/4	
TOR 941	2	2.5	95	120	75KC	TO	5/8	9/32	
TOR 7311	2	2.5	95	120	75KC	TM3	7/8	3/8	.100
TOR 801	2	1.7	108	75	25KC	TO	3/4	3/8	
TOR 701	2	1.7	108	75	25KC	TM	3/4	3/8	.116
TOR 849	2	.58	192	110	18KC	TO	1	3/8	
TOR 749	2	.58	192	110	18KC	TM	1 1/16	1/2	.144
TOR 876	2	.56	368	160	20KC	TO	1 1/4	5/8	
TOR 776	2	.56	368	160	20KC	TM	1 5/16	23/32	.173
TOR 825	2	.50	480	180	20KC	TO	1 1/4	5/8	
TOR 725	2	.50	480	180	20KC	TM	1 5/16	23/32	.173
TOR 7259	2.5	6.75	45*	98	100KC	TM2	7/16	1/4	
TOR 7249	3	4.1	51*	60	25KC	TM2	7/16	1/4	
TOR 802	3	2.25	87	70	20KC	TO	3/4	3/8	
TOR 702	3	2.25	87	70	20KC	TM	3/4	3/8	.116
TOR 850	3	.73	157	110	18KC	TO	1	3/8	
TOR 750	3	.73	157	110	18KC	TM	1 1/16	1/2	.144
TOR 877	3	.70	300	160	10KC	TO	1 1/4	5/8	
TOR 777	3	.70	300	160	10KC	TM	1 5/16	23/32	.173
TOR 826	3	.68	396	160	20KC	TO	1 1/4	5/8	
TOR 726	3	.68	396	160	20KC	TM	1 5/16	23/32	.173
TOR 803	4	2.6	76	70	20KC	TO	3/4	3/8	
TOR 703	4	2.6	76	70	20KC	TM	3/4	3/8	.116
TOR 851	4	.85	135	110	18KC	TO	1	3/8	
TOR 751	4	.85	135	110	18KC	TM	1 1/16	1/2	.144
TOR 878	4	.82	260	160	10KC	TO	1 1/4	5/8	
TOR 778	4	.82	260	160	10KC	TM	1 5/16	23/32	.173
TOR 827	4	.81	342	180	20KC	TO	1 1/4	5/8	
TOR 727	4	.81	342	180	20KC	TM	1 5/16	23/32	.173
TOR 7250	5	6.8	40*	60	22KC	TM2	7/16	1/4	
TOR 942	5	6	40	110	50KC	TO	5/8	9/30	
TOR 7312	5	6	40	110	50KC	TM3	7/8	3/8	.100
TOR 804	5	3.1	68	70	20KC	TO	3/4	3/8	
TOR 704	5	3.1	68	70	20KC	TM	3/4	3/8	.116
TOR 930	5	2.4	80	90	18KC	TO	5/8	9/32	
TOR 7284	5	2.4	80	90	18KC	TM3	7/8	3/8	.100
TOR 852	5	1.1	121	110	15KC	TO	1	3/8	
TOR 752	5	1.1	121	110	15KC	TM	1 1/16	1/2	.144
TOR 879	5	.90	233	160	10KC	TO	1 1/4	5/8	
TOR 779	5	.90	233	160	10KC	TM	1 5/16	23/32	.173
TOR 828	5	1.1	306	180	22KC	TO	1 1/4	5/8	
TOR 728	5	1.1	306	180	22KC	TM	1 5/16	23/32	.173
TOR 7260	6	15	28*	85	75KC	TM2	7/16	1/4	
TOR 805	7	4.5	57	70	20KC	TO	3/4	3/8	
TOR 705	7	4.5	57	70	20KC	TM	3/4	3/8	.116
TOR 853	7	1.35	102	105	15KC	TO	1	3/8	
TOR 753	7	1.35	102	105	15KC	TM	1 1/16	1/2	.144
TOR 829	7	1.5	260	175	20KC	TO	1 1/4	5/8	
TOR 729	7	1.5	260	175	20KC	TM	1 5/16	23/32	.173
TOR 880	7	1.05	195	155	10KC	TO	1 1/4	5/8	
TOR 780	7	1.05	195	155	10KC	TM	1 5/16	23/32	.173
TOR 7251	8	10.5	30*	60	22KC	TM2	7/16	1/4	
TOR 854	8	2	95	105	15KC	TO	1	3/8	
TOR 754	8	2	95	105	15KC	TM	1 1/16	1/2	.144
TOR 7261	10	26.5	22*	65	90KC	TM2	7/16	1/4	
TOR 943	10	12	30	110	45KC	TO	5/8	9/32	
TOR 7313	10	12	30	110	45KC	TM3	7/8	3/8	.100
TOR 806	10	6.5	48	70	20KC	TO	3/4	3/8	
TOR 706	10	6.5	48	70	20KC	TM	3/4	3/8	.116
TOR 931	10	5	50	85	10KC	TO	5/8	9/32	
TOR 7285	10	5	50	85	10KC	TM3	7/8	3/8	.100
TOR 855	10	2.1	86	110	12KC	TO	1	3/8	
TOR 755	10	2.1	86	110	12KC	TM	1 1/16	1/2	.144
TOR 881	10	1.3	165	155	9KC	TO	1 1/4	5/8	
TOR 781	10	1.3	165	155	9KC	TM	1 5/16	23/32	.173
TOR 830	10	2	217	180	19KC	TO	1 1/4	5/8	
TOR 730	10	2	217	180	19KC	TM	1 5/16	23/32	.173
TOR 904	10	.92	262	220	8KC	TO	1 15/16	7/8	
TOR 7104	10	.92	262	220	8KC	TM	2	1	.173
TOR 7252	12.5	15.5	24*	60	22KC	TM2	7/16	1/4	
TOR 7262	15	40	18.5*	65	90KC	TM2	7/16	1/4	

Molded And Plastic Coated Toroid Inductors

Part No.	Inductance In MH ± 2%	Resistance In Ohms	MADC For 5% Ind. Drop	Typical Q @	Typical Center Frequency	Mtg. Type	Dimensions Diameter	Dimensions Height	Hole Dia.
TOR 944	15	18	20	110	50KC	TO	5/8	9/32	
TOR 7314	15	18	20	110	50KC	TM3	7/8	3/8	.100
TOR 807	15	10	39	70	18KC	TO	3/4	3/8	
TOR 707	15	10	39	70	18KC	TM	3/4	3/8	.116
TOR 932	15	8	40	85	15KC	TO	5/8	9/32	
TOR 7286	15	8	40	85	15KC	TM3	7/8	3/8	.100
TOR 856	15	3.1	70	130	11KC	TO	1	3/8	
TOR 756	15	3.1	70	130	11KC	TM	1 1/16	1/2	.144
TOR 831	15	2.85	177	160	13KC	TO	1 1/4	5/8	
TOR 731	15	2.85	177	160	13KC	TM	1 5/16	23/32	.173
TOR 882	15	1.6	134	160	10KC	TO	1 1/4	5/8	
TOR 782	15	1.6	134	160	10KC	TM	1 5/16	23/32	.173
TOR 7253	20	.25	20.5*	65	30KC	TM2	7/16	1/4	
TOR 808	20	11	34	70	20KC	TO	3/4	3/8	
TOR 708	20	11	34	70	20KC	TM	3/4	3/8	.116
TOR 857	20	4.25	60	105	13KC	TO	1	3/8	
TOR 757	20	4.25	60	105	13KC	TM	1 1/16	1/2	.144
TOR 832	20	4	153	160	12KC	TO	1 1/4	5/8	
TOR 732	20	4	153	160	12KC	TM	1 5/16	23/32	.173
TOR 883	20	1.85	116	150	9KC	TO	1 1/4	5/8	
TOR 783	20	1.85	116	150	9KC	TM	1 5/16	23/32	.173
TOR 7105	20	1.1	185	200	5KC	TM	2	1	.173
TOR 7263	25	67	15*	65	90KC	TM2	7/16	1/4	
TOR 945	25	30	18	98	40KC	TO	5/8	9/32	
TOR 7315	25	30	18	98	40KC	TM3	7/8	3/4	.100
TOR 809	25	16.5	30	70	20KC	TO	3/4	3/8	
TOR 709	25	16.5	30	70	20KC	TM	3/4	3/8	.116
TOR 958	25	6.5	140	200	15KC	TO	1 1/4	5/8	
TOR 7360	25	6.5	140	200	15KC	TM	1 5/16	23/32	.173
TOR 858	25	4.8	54	100	11KC	TO	1	3/8	
TOR 758	25	4.8	54	100	11KC	TM	1 1/16	1/2	.144
TOR 833	25	4.8	137	140	11KC	TO	1 1/4	5/8	
TOR 733	25	4.8	137	140	11KC	TM	1 5/16	23/32	.173
TOR 955	25	2.8	150	145	8KC	TO	1 1/4	5/8	
TOR 7344	25	2.8	150	145	8KC	TM	1 5/16	23/32	.173
TOR 960	25	1.5	220	200	7KC	TO	1 15/16	7/8	
TOR 7376	25	1.5	220	200	7KC	TM	2	1	.173
TOR 970	25	.85	200	250	4KC	TO	2 7/16	1	
TOR 7403	25	.85	200	250	4KC	TM	2 7/8	1 3/8	.173
TOR 7254	30	40	15*	60	30KC	TM2	7/16	1/4	
TOR 810	30	18	27	70	20KC	TO	3/4	3/8	
TOR 710	30	18	27	70	20KC	TM	3/4	3/8	.116
TOR 933	30	17	30	90	18KC	TO	5/8	9/32	
TOR 7287	30	17	30	90	18KC	TM	7/8	3/8	.100
TOR 859	30	6.7	50	100	11KC	TO	1	3/8	
TOR 759	30	6.7	50	100	11KC	TM	1 1/16	1/2	.144
TOR 834	30	6.5	125	160	18KC	TO	1 1/4	5/8	
TOR 734	30	6.5	125	160	18KC	TM	1 5/16	23/32	.173
TOR 884	30	2.85	95	150	7KC	TO	1 1/4	5/8	
TOR 784	30	2.85	95	150	7KC	TM	1 5/16	23/32	.173
TOR 906	30	1.4	150	200	5KC	TO	1 15/16	7/8	
TOR 7106	30	1.4	150	200	5KC	TM	2	1	.173
TOR 7417	40	110	10*	60	80KC	TM2	7/16	1/4	
TOR 811	40	27	24	70	18KC	TO	3/4	3/8	
TOR 711	40	27	24	70	18KC	TM	3/4	3/8	.116
TOR 860	40	9.5	43	100	15KC	TO	1	3/8	
TOR 760	40	9.5	43	100	15KC	TM	1 1/16	23/32	.144
TOR 835	40	9.2	108	140	10KC	TO	1 1/4	5/8	
TOR 735	40	9.2	108	140	10KC	TM	1 5/16	23/32	.173
TOR 885	40	4.2	82	150	9KC	TO	1 1/4	5/8	
TOR 785	40	4.2	82	150	9KC	TM	1 5/16	23/32	.173
TOR 907	40	1.9	130	200	5KC	TO	1 15/16	7/8	
TOR 7107	40	1.9	130	200	5KC	TM	2	1	.173
TOR 946	50	52	15	90	30KC	TO	5/8	9/32	
TOR 7316	50	52	15	90	30KC	TM3	7/8	3/8	.100
TOR 812	50	30	22	65	19KC	TO	3/4	3/8	
TOR 712	50	30	22	65	18KC	TM	3/4	3/8	.116
TOR 934	50	28	20	90	18KC	TO	5/8	9/32	
TOR 7288	50	28	20	90	18KC	TM3	7/8	3/8	.100
TOR 7418	50	26.5	25*	90	18KC	TM2	23/32	13/32	
TOR 861	50	11	38	100	11KC	TO	1	3/8	
TOR 761	50	11	38	100	11KC	TM	1 1/16	1/2	.144
TOR 959	50	11	100	160	11KC	TO	1 1/4	5/8	
TOR 7361	50	11	100	160	11KC	TM	1 5/16	23/32	.173
TOR 836	50	10.3	97	140	10KC	TO	1 1/4	5/8	
TOR 736	50	10.3	97	140	10KC	TM	1 5/16	23/32	.173
TOR 886	50	5.5	74	160	10KC	TO	1 1/4	5/8	
TOR 786	50	5.5	74	160	10KC	TM	1 5/16	23/32	.173
TOR 908	50	2.5	116	200	5KC	TO	1 15/16	7/8	
TOR 7108	50	2.5	116	200	5KC	TM	2	1	.173
TOR 937	50	1.5	130	240	4KC	TO	2 7/16	1	
TOR 7404	50	1.5	130	240	4KC	TM	2 7/8	1 3/8	.173
TOR 7255	60	75	11.5*	60	30KC	TM2	7/16	1/4	
TOR 813	60	40	20	65	18KC	TO	3/4	3/8	
TOR 713	60	40	20	65	18KC	TM	3/4	3/8	.116
TOR 837	60	14.5	88	140	10KC	TO	1 1/4	5/8	
TOR 737	60	14.5	88	140	10KC	TM	1 5/16	23/32	.173
TOR 909	60	2.6	106	200	4KC	TO	1 15/16	7/8	
TOR 7109	60	2.6	106	200	4KC	TM	2	1	.173
TOR 814	70	43	18	70	18KC	TO	3/4	3/8	
TOR 714	70	43	18	70	18KC	TM	3/4	3/8	.116
TOR 862	70	16	32	100	15KC	TO	1	3/8	
TOR 762	70	16	32	100	15KC	TM	1 1/16	1/2	.144
TOR 838	70	15	82	120	8KC	TO	1 1/4	5/8	
TOR 738	70	15	82	120	8KC	TM	1 5/16	23/32	.173
TOR 887	70	8.3	62	150	10KC	TO	1 1/4	5/8	
TOR 787	70	8.3	62	150	10KC	TM	1 5/16	23/32	.173
TOR 863	80	23	29	95	7KC	TO	1	3/8	
TOR 763	80	23	29	95	7KC	TM	1 1/16	1/2	.144
TOR 910	80	3.1	92	200	5KC	TO	1 15/16	7/8	
TOR 7110	80	3.1	92	200	5KC	TM	2	1	.173
TOR 947	100	115	30	80	20KC	TO	5/8	9/32	
TOR 7317	100	115	30	80	20KC	TM3	7/8	3/8	.100
TOR 815	100	66	18	70	15KC	TO	3/4	3/8	
TOR 715	100	66	18	70	15KC	TM	3/4	3/8	.116
TOR 7419	100	50	18*	90	15KC	TM2	23/32	13/32	
TOR 935	100	50	18	85	15KC	TO	5/8	9/32	
TOR 7289	100	50	18	85	15KC	TM3	7/8	3/8	.100
TOR 839	100	24	68	140	7KC	TO	1 1/4	5/8	
TOR 739	100	24	68	140	7KC	TM	1 5/16	23/32	.173
TOR 864	100	23	27	95	8KC	TO	1	3/8	
TOR 764	100	23	27	95	8KC	TM	1 1/16	1/2	.144
TOR 948	100	22	30	120	10KC	TO	1	13/32	
TOR 7334	100	22	30	120	10KC	TM	1 1/16	1/2	.144
TOR 888	100	13	52	150	7KC	TO	1 1/4	5/8	
TOR 788	100	13	52	150	7KC	TM	1 5/16	23/32	.173
TOR 911	100	5	82	190	9KC	TO	1 15/16	7/8	
TOR 7111	100	5	82	190	9KC	TM	2	1	.173
TOR 972	100	2.8	100	220	7KC	TO	2 7/16	1	
TOR 7405	100	2.8	100	220	7KC	TM	2 7/8	1 3/8	.173
TOR 7256	120	160	8*	60	30KC	TM2	7/16	1/4	
TOR 912	120	4.8	75	200	4KC	TO	1 15/16	7/8	
TOR 7112	120	4.8	75	200	4KC	TM	2	1	.173
TOR 816	150	100	12.5	68	15KC	TO	3/4	3/8	
TOR 716	150	100	12.5	68	15KC	TM	3/4	3/8	.116
TOR 865	150	37	22	100	10KC	TO	1	3/8	
TOR 765	150	37	22	100	10KC	TM	1 1/16	1/2	.144
TOR 840	150	35	56	120	9KC	TO	1 1/4	5/8	
TOR 740	150	35	56	120	9KC	TM	1 5/16	23/32	.173
TOR 949	150	34	23	130	10KC	TO	1	1 13/32	
TOR 7335	150	34	23	130	10KC	TM	1 1/16	1/2	.144
TOR 956	150	17	60	150	7KC	TO	1 1/4	5/8	
TOR 7347	150	17	60	150	7KC	TM	1 5/16	23/32	.173
TOR 913	150	6.2	67	180	3KC	TO	1 15/16	7/8	
TOR 7113	150	6.2	67	180	3 KC	TM	2	1	.173
TOR 973	150	4	70	220	3KC	TO	2 7/16	1	
TOR 7406	150	4	70	220	3KC	TM	2 7/8	1 3/8	.173
TOR 817	200	115	11	68	15KC	TO	3/4	3/8	

Maximum current rating
Inductance tolerance ± 1%
§ Frequency Response ±3DB 20 to 20,000 Cycles

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For Mounting Illustrations and Cross References See Pages 1517-1520

THORDARSON MEISSNER

Molded And Plastic Coated Toroid Inductors

Part No.	Inductance In MH ± 2%	Resistance In Ohms	MADC For 5% Ind. Drop	Typical Q @	Typical Center Frequency	Mtg. Type	Dimensions Diameter	Dimensions Height	Hole Dia.
TOR 717	200	115	11	68	15KC	TM	3/4	3/8	.116
TOR 866	200	42	19	90	8KC	TO	1	3/8	
TOR 766	200	42	19	90	8KC	TM	1 1/16	1/2	.144
TOR 841	200	44	48	100	8KC	TO	1 1/4	5/8	
TOR 741	200	44	48	100	8KC	TM	1 5/16	23/32	.173
TOR 889	200	23	37	150	10KC	TO	1 1/4	5/8	
TOR 789	200	23	37	150	10KC	TM	1 5/16	23/32	.173
TOR 914	200	7.5	58	180	3KC	TO	1 15/16	7/8	
TOR 7114	200	7.5	58	180	3KC	TM	2	1	.173
TOR 818	250	155	9.6	65	15KC	TO	3/4	3/8	
TOR 718	250	155	9.6	65	15KC	TM	3/4	3/8	.116
TOR 7420	250#	135	11*	80	14KC	TM2	23/32	13/32	
TOR 936	250	130	12	85	12KC	TO	5/8	9/32	
TOR 7290	250	130	12	85	12KC	TM3	7/8	3/8	.100
TOR 842	250	64	43	100	7KC	TO	1 1/4	5/8	
TOR 742	250	64	43	100	7KC	TM	1 5/16	23/32	.173
TOR 867	250	60	17	90	7KC	TO	1	3/8	
TOR 767	250	60	17	90	7KC	TM	1 1/16	1/2	.144
TOR 950	250	55	20	120	10KC	TO	1	13/32	
TOR 7336	250	55	20	120	10KC	TM	1 1/16	1/2	.144
TOR 893	250	33	33	140	7KC	TO	1 1/4	5/8	
TOR 790	250	33	33	140	7KC	TM	1 5/16	23/32	.173
TOR 961	250	15	40	190	7KC	TO	1 15/16	7/8	
TOR 7379	250	15	40	190	7KC	TM	2	1	.173
TOR 915	250	10.3	52	180	3KC	TO	1 15/16	7/8	
TOR 7115	250	10.3	52	180	3KC	TM	2	1	.173
TOR 974	250	7	55	220	3KC	TO	2 7/16	1	
TOR 7407	250	7	55	220	3KC	TM	2 7/8	1 3/8	.173
TOR 819	300	180	8.8	62	12KC	TO	3/4	3/8	
TOR 719	300	180	8.8	62	12KC	TM	3/4	3/8	.116
TOR 843	300	72	40	80	6KC	TO	1 1/4	5/8	
TOR 743	300	72	40	80	6KC	TM	1 5/16	23/32	.173
TOR 868	300	70	16	80	7KC	TO	1	3/8	
TOR 768	300	70	16	80	7KC	TM	1 1/16	1/2	.144
TOR 891	300	38	30	120	5KC	TO	1 1/4	5/8	
TOR 791	300	38	30	120	5KC	TM	1 5/16	23/32	.173
TOR 916	300	12	47	200	3KC	TO	1 15/16	7/8	
TOR 7116	300	12	47	200	3KC	TM	2	1	.173
TOR 820	400	265	7.6	60	10KC	TO	3/4	3/8	
TOR 720	400	265	7.6	60	10KC	TM	3/4	3/8	.116
TOR 869	400	95	14	80	7KC	TO	1	3/8	
TOR 769	400	95	14	80	7KC	TM	1 1/16	1/2	.144
TOR 844	400	94	34	80	5KC	TO	1 1/4	5/8	
TOR 744	400	94	34	80	5KC	TM	1 5/16	23/32	.173
TOR 892	400	44	26	120	4KC	TO	1 1/4	5/8	
TOR 792	400	44	26	120	4KC	TM	1 5/16	23/32	.173
TOR 917	400	14.5	41	180	3KC	TO	1 5/16	7/8	
TOR 7117	400	14.5	41	180	3KC	TM	2	1	.173
TOR 821	500	295	7	60	12KC	TO	3/4	3/8	
TOR 721	500	295	7	60	12KC	TM	3/4	3/8	.116
TOR 937	500	290	8	80	12KC	TO	5/8	9/32	
TOR 7291	500	290	8	80	12KC	TM3	7/8	3/8	.100
TOR 7421	500#	250	8*	80	12KC	TM2	23/32	13/32	
TOR 870	500	115	12	80	7KC	TO	1	3/8	
TOR 770	500	115	12	80	7KC	TM	1 1/16	1/2	.144
TOR 845	500	108	31	80	5KC	TO	1 1/4	5/8	
TOR 745	500	108	31	80	5KC	TM	1 5/16	23/32	.173
TOR 951	500	95	15	100	7KC	TO	1	13/32	
TOR 7337	500	95	15	100	7KC	TM	1 1/16	1/2	.144
TOR 893	500	63.5	23	120	4KC	TO	1 1/4	5/8	
TOR 793	500	63.5	23	120	4KC	TM	1 5/16	23/32	.173
TOR 918	500	19	37	180	3KC	TO	1 15/16	7/8	
TOR 7118	500	19	37	180	3KC	TM	2	1	.173
TOR 975	500	15	38	200	2KC	TO	2 7/16	1	
TOR 7408	500	15	38	200	2KC	TM	2 7/8	1 3/8	.173
TOR 871	600	150	11	70	6KC	TO	1	3/8	
TOR 771	600	150	11	70	6KC	TM	1 1/16	1/2	.144
TOR 894	600	71	21	120	4KC	TO	1 1/4	5/8	
TOR 794	600	71	21	120	4KC	TM	1 5/16	23/32	.173
TOR 822	700	440	5.8	60	11KC	TO	3/4	3/8	
TOR 722	700	440	5.8	60	11KC	TM	3/4	3/8	.116
TOR 846	700	173	26	60	3KC	TO	1 1/4	5/8	
TOR 746	700	173	26	60	3KC	TM	1 5/16	23/32	.173
TOR 872	700	160	10	80	7KC	TO	1	3/8	
TOR 772	700	160	10	80	7KC	TM	1 1/16	1/2	.144
TOR 895	700	80	19.5	120	5KC	TO	1 1/4	5/8	
TOR 795	700	80	19.5	120	5KC	TM	1 5/16	23/32	.173
TOR 919	700	30	31	180	2.5KC	TO	1 15/16	7/8	
TOR 7119	700	30	31	180	2.5KC	TM	2	1	.173
TOR 7422	750#	350	7*	60	10KC	TM2	23/32	13/32	
TOR 873	800	300	9	60	5KC	TO	1	3/8	
TOR 773	800	300	9	60	5KC	TM	1 1/16	1/2	.144
TOR 823	1,000	650	4.8	55	10KC	TO	3/4	3/8	
TOR 723	1,000	650	4.8	55	10KC	TM	3/4	3/8	.116
TOR 938	1,000	530	5.5	60	7KC	TO	5/8	9/32	
TOR 7292	1,000	530	5.5	60	7KC	TM3	7/8	3/8	.100
TOR 7423	1,000#	500	6*	60	10KC	TM2	23/32	13/32	
TOR 874	1,000	260	8.6	60	5KC	TO	1	3/8	
TOR 774	1,000	260	8.6	60	5KC	TM	1 1/16	1/2	.144
TOR 847	1,000	230	22	50	3KC	TO	1 1/4	5/8	
TOR 747	1,000	230	22	50	3KC	TM	1 5/16	23/32	.173
TOR 952	1,000	210	25	80	5KC	TO	1	13/32	
TOR 7338	1,000	210	25	80	5KC	TM	1 1/16	1/2	.144
TOR 896	1,000	128	16.5	80	3KC	TO	1 1/4	5/8	
TOR 796	1,000	128	16.5	80	3KC	TM	1 5/16	23/32	.173
TOR 962	1,000	60	20	160	3KC	TO	1 15/16	7/8	
TOR 7381	1,000	60	20	160	3KC	TM	2	1	.173
TOR 920	1,000	45	26	160	2.5KC	TO	1 15/16	7/8	
TOR 7120	1,000	45	26	160	2.5KC	TM	2	1	.173
TOR 976	1,000	27	50	200	2KC	TO	2 7/16	1	
Tor 7409	1,000	27	50	200	2KC	TM	2 7/8	1 3/8	.173
TOR 7424	1,200#	560	5*	60	10KC	TM2	23/32	13/32	
TOR 7293	1,500	825	3	60	7KC	TM3	7/8	3/8	.100
TOR 953	1,500	335	6	80	5KC	TO	1	13/32	
TOR 7339	1,500	335	6	80	5KC	TM	1 1/16	1/2	.144
TOR 897	1,500	200	13.5	80	2.5KC	TO	1 1/4	5/8	
TOR 797	1,500	200	13.5	80	2.5KC	TM	1 5/16	23/32	.173
TOR 963	1,500	90	30	140	2.5KC	TO	1 15/16	7/8	
TOR 7382	1,500	90	30	140	2.5KC	TM	2	1	.173
TOR 977	1,500	40	33	200	3KC	TO	2 7/16	1	
TOR 7410	1,500	40	33	200	3KC	TM	2 7/8	1 3/8	.173
TOR 7425	2,000#	875	4#	55	8KC	TM2	23/32	13/32	
TOR 898	2,000	220	11.6	80	2KC	TO	1 1/4	5/8	
TOR 798	2,000	220	11.6	80	2KC	TM	1 5/16	23/32	.173
TOR 921	2,000	100	18.4	160	2KC	TO	1 15/16	7/8	
TOR 7121	2,000	100	18.4	160	2KC	TM	2	1	.173
TOR 954	2,500	550	5	80	5KC	TO	1	13/32	
TOR 7340	2,500	550	5	80	5KC	TM	1 1/16	1/2	.144
TOR 957	2,500	275	10	85	3KC	TO	1 1/4	5/8	
TOR 7352	2,500	275	10	85	3KC	TM	1 5/16	23/32	.173
TOR 964	2,500	150	15	140	2.5KC	TO	1 15/16	7/8	
TOR 7383	2,500	150	15	140	2.5KC	TM	2	1	.173
TOR 978	2,500	70	18	200	3KC	TO	2 7/16	1	
TOR 7411	2,500	70	18	200	3KC	TM	2 7/8	1 3/8	.173
TOR 7426	3,000#	1,350	3.6*	50	7KC	TM2	23/32	13/32	
TOR 899	3,000	370	9.5	80	2.5KC	TO	1 1/4	5/8	
TOR 799	3,000	370	9.5	80	2.5KC	TM	1 5/16	23/32	.173
TOR 922	3,000	116	15	160	2KC	TO	1 15/16	7/8	
TOR 7122	3,000	116	15	160	2KC	TM	2	1	.173
TOR 900	4,000	435	8.2	60	2.5KC	TO	1 1/4	5/8	
TOR 7100	4,000	435	8.2	60	2.5KC	TM	1 5/16	23/32	.173
TOR 923	4,000	175	13	140	3KC	TO	1 15/16	7/8	
TOR 7123	4,000	175	13	140	3KC	TM	2	1	.173
TOR 7427	5,000#	2,400	3*	50	5KC	TM2	23/32	13/32	
TOR 901	5,000	645	7.4	60	2.5KC	TO	1 1/4	5/8	
TOR 7101	5,000	645	7.4	60	2.5KC	TM	1 5/16	23/32	.173
TOR 965	5,000	350	8	120	2KC	TO	1 15/16	7/8	
TOR 7384	5,000	350	8	120	2KC	TM	2	1	.173
TOR 924	5,000	200	11.6	140	2KC	TO	1 15/16	7/8	
TOR 7124	5,000	200	11.6	140	2KC	TM	2	1	.173

Molded And Plastic Coated Toroid Inductors

Part No.	Inductance In MH ± 2%	Resistance In Ohms	MADC For 5% Ind. Drop	Typical Q @	Typical Center Frequency	Mtg. Type	Dimensions Diameter	Dimensions Height	Hole Dia.
TOR 979	5,000	140	15	140	1.5KC	TO	2 7/16	1	
TOR 7412	5,000	140	15	140	1.5KC	TM	2 7/8	1 3/8	.173
TOR 902	7,000	780	6.2	60	2.8KC	TO	1 1/4	5/8	
TOR 7102	7,000	780	6.2	60	2.8KC	TM	1 5/16	23/32	.173
TOR 925	7,000	310	10	140	2KC	TO	1 15/16	7/8	
TOR 7125	7,000	310	10	140	2KC	TM	2	1	.173
TOR 966	7,500	525	8	110	1.8KC	TO	1 15/16	7/8	
TOR 7385	7,500	525	8	110	1.8KC	TM	2	1	.173
TOR 903	10,000	1,100	5.2	70	1.8KC	TO	1 1/4	5/8	
TOR 7103	10,000	1,100	5.2	70	1.8KC	TM	1 5/16	23/32	.173
TOR 967	10,000	600	6	90	1.5KC	TO	1 15/16	7/8	
TOR 7386	10,000	600	6	90	1.5KC	TM	2	1	.173
TOR 926	10,000	350	8.2	70	1KC	TO	1 15/16	7/8	
TOR 7126	10,000	350	8.2	70	1KC	TM	2	1	.173
TOR 980	10,000	270	9	100	1KC	TO	2 7/16	1	
TOR 7413	10,000	270	9	100	1KC	TM	2 7/8	1 3/8	.173
TOR 968	15,000	900	5	80	1KC	TO	1 15/16	7/8	
TOR 7387	15,000	900	5	80	1KC	TM	2	1	.173
TOR 981	15,000	430	7	90	.7KC	TO	2 7/16	1	
TOR 7414	15,000	430	7	90	.7KC	TM	2 7/8	1 3/8	.173
TOR 927	20,000	950	5.8	60	1KC	TO	1 15/16	7/8	
TOR 7127	20,000	950	5.8	60	1KC	TM	2	1	.173
TOR 969	25,000	1,500	4	70	.8KC	TO	1 15/16	7/8	
TOR 7388	25,000	1,500	4	70	.8KC	TM	2	1	.173
TOR 982	25,000	850	6	80	.8KC	TO	2 7/16	1	
TOR 7415	25,000	850	6	80	.8KC	TM	2 7/8	1 3/8	.173
TOR 928	30,000	1,250	4.7	60	.9KC	TO	1 15/16	7/8	
TOR 7128	30,000	1,250	4.7	60	.9KC	TM	2	1	.173
TOR 929	40,000	2,000	4.1	40	.6KC	TO	1 15/16	7/8	
TOR 7129	40,000	2,000	4.1	40	.6KC	TM	2	1	.173
TOR 983	50,000	1,500	3	65	.5KC	TO	2 7/16	1	
TOR 7416	50,000	1,500	3	65	.5KC	TM	2 7/8	1 3/8	.173

Encased Shielded Toroid Inductors

These high grade toroid wound coils have been designed and built to meet MIL-T-278, TF4RX20YY specifications. They have excellent stability over a wide temperature and voltage range....low hum pickup....high Q....plus or minus 1% inductance tolerance.

Part No.	Inductance In MH ± 1%	Resistance In Ohms ±20	MADC For 5% Inductance Drop	Typical Q @	Typical Center Frequency	Case Size
TOR 7294	1	1.4	110	120	60KC	TH1
TOR 7302	1	1.4	110	120	60KC	TH9
TOR 7239	1	.76	820*	180	50KC	TH5
TOR 7230	1	.25	1,350*	260	25KC	TH2
TOR 7295	2	2.5	95	120	75KC	TH1
TOR 7303	2	2.5	95	120	75KC	TH9
TOR 7240	2	1.6	585*	180	50KC	TH5
TOR 7357	2	.56	368	160	20KC	TH6
TOR 7231	2.5	.5	850*	260	25KC	TH2
TOR 7241	3	2.4	475*	180	50KC	TH5
TOR 7328	3	.73	157	110	18KC	TH4
TOR 7238	4	.7	160*	140	10KC	TH3
TOR 7296	5	6	40	110	50KC	TH1
TOR 7304	5	6	40	110	50KC	TH9
TOR 7242	5	4.1	360*	150	50KC	TH5
TOR 7264	5	2.4	80	90	18KC	TH1
TOR 7274	5	2.4	80	90	18KC	TH9
TOR 7145	5	1.3	150*	120	10KC	TH3
TOR 7232	5	1.25	600*	260	25KC	TH2
TOR 7329	5	1.1	121	110	15KC	TH4
TOR 7358	5	1.1	306	180	22KC	TH6
TOR 7341	5	.9	233	160	10KC	TH6
TOR 7212	5	.51	400*	130	4KC	TH2
TOR 7243	7	5.2	300*	170	40KC	TH5
TOR 7130	7	1.2	130*	140	9KC	TH3
TOR 7174	7	.61	255*	160	7KC	TH5
TOR 7193	7CT	.7	255*	160	7KC	TH5
TOR 7297	10	12	30	110	45KC	TH1
TOR 7305	10	12	30	110	45KC	TH9
TOR 7265	10	5	50	85	18KC	TH1
TOR 7275	10	5	50	85	18KC	TH9
TOR 7233	10	3.1	425*	260	25KC	TH2
TOR 7146	10	2.5	111*	115	10KC	TH3
TOR 7330	10	2.1	86	130	12KC	TH4
TOR 7359	10	2	217	180	19KC	TH6
TOR 7342	10	1.3	165	155	9KC	TH6
TOR 7162	10	.31	400*	240	5KC	TH12
TOR 7150	10	.31	415*	210	3KC	TH7
TOR 7244	12	6.7	245*	180	40KC	TH5
TOR 7131	12	2.1	100*	130	7KC	TH3
TOR 7194	12CT	1.31	205*	160	7KC	TH5
TOR 7175	12	1.21	205*	160	7KC	TH5
TOR 7213	12.5	.95	262*	140	4KC	TH2
TOR 7298	15	18	20	110	50KC	TH1
TOR 7306	15	18	20	110	50KC	TH9
TOR 7266	15	8	40	85	15KC	TH1
TOR 7276	15	8	40	85	15KC	TH9
TOR 7331	15	3.1	70	130	11KC	TH4
TOR 7343	15	1.6	134	160	10KC	TH6
TOR 7245	20	12	180*	170	40KC	TH5
TOR 7234	20	4.9	302*	250	25KC	TH2
TOR 7132	20	3	80*	125	10KC	TH3
TOR 7195	20CT	2	150*	120	4KC	TH5
TOR 7176	20	1.8	150*	120	4KC	TH5
TOR 7214	20	1.7	205*	140	4KC	TH2
TOR 7299	25	30	18	98	40KC	TH1
TOR 7307	25	30	18	98	40KC	TH9
TOR 7355	25	6.5	140	200	15KC	TH6
TOR 7332	25	4.8	54	100	11KC	TH4
TOR 7325	25	2.8	150	145	8KC	TH6
TOR 7366	25	1.5	220	200	7KC	TH11
TOR 7389	25	.85	200	250	4KC	TH10
TOR 7267	30	17	30	90	18KC	TH1
TOR 7277	30	17	30	90	18KC	TH9
TOR 7246	30	17	150*	150	40KC	TH5
TOR 7133	30	4.9	63*	130	10KC	TH3
TOR 7196	30CT	3	125*	160	8KC	TH5
TOR 7177	30	2.6	120*	160	8KC	TH5
TOR 7215	30	2.4	165*	130	4KC	TH2
TOR 7151	30	.95	240*	210	3KC	TH7
TOR 7163	30	.91	255*	240	4KC	TH12
TOR 7300	50	52	15	90	30KC	TH1
TOR 7308	50	52	15	90	30KC	TH9
TOR 7268	50	28	20	90	18KC	TH1
TOR 7278	50	28	20	90	18KC	TH9
TOR 7147	50	14.5	51*	120	10KC	TH3
TOR 7333	50	11	38	100	11KC	TH4
TOR 7356	50	11	100	160	11KC	TH6
TOR 7134	50	8.1	50*	140	9KC	TH3
TOR 7345	50	5.5	7.4	160	10KC	TH6
TOR 7197	50CT	5	100*	160	9KC	TH5
TOR 7178	50	4	100*	160	9KC	TH5
TOR 7216	50	3.5	130*	140	4KC	TH2
TOR 7377	50	2.5	116	200	5KC	TH11
TOR 7390	50	1.5	130	240	4KC	TH10
TOR 7135	70	12.5	40*	140	10KC	TH3
TOR 7198	70CT	7	81*	160	5KC	TH5
TOR 7179	70	6	81*	160	5KC	TH5
TOR 7164	70	2.3	175*	240	4KC	TH12
TOR 7152	70	2.3	175*	210	3KC	TH7
TOR 7217	80	6	101*	130	4KC	TH2

* Maximum current rating
\# Inductance tolerance ± 1%

For Mounting Illustrations and Cross References See Pages 1517-1520

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Encased Shielded Toroid Inductors

Part No.	Inductance In MH ±1%	Resistance In Ohms ±20	MADC For 5% Inductance Drop	Typical Q @	Typical Center Frequency	Case Size
TOR 7301	100	115	30	80	20KC	TH1
TOR 7309	100	115	30	80	20KC	TH9
TOR 7269	100	50	18	85	15KC	TH1
TOR 7279	100	50	18	85	15KC	TH9
TOR 7148	100	25	35*	115	10KC	TH3
TOR 7362	100	24	68	140	7KC	TH6
TOR 7318	100	22	30	120	10KC	TH4
TOR 7136	100	18	36*	140	7KC	TH3
TOR 7346	100	13	52	150	7KC	TH6
TOR 7378	100	5	82	190	9KC	TH11
TOR 7391	100	2.8	100	220	7KC	TH10
TOR 7199	120CT	12	61*	160	5KC	TH5
TOR 7180	120	10	61*	160	5KC	TH5
TOR 7165	120	3.7	125*	240	4KC	TH12
TOR 7153	120	3.7	125*	210	3KC	TH7
TOR 7218	125	9.2	86*	130	4KC	TH2
TOR 7319	150	34	23	130	10KC	TH4
TOR 7137	150	28	30*	140	10KC	TH3
TOR 7326	150	17	60	150	7KC	TH6
TOR 7392	150	4	70	220	3KC	TH10
TOR 7149	200	52	26*	115	9KC	TH3
TOR 7200	200CT	21	51*	160	5KC	TH5
TOR 7181	200	16	51*	160	5KC	TH5
TOR 7219	200	14.5	66*	130	3.75KC	TH2
TOR 7270	250	130	12	85	12KC	TH1
TOR 7280	250	130	12	85	12KC	TH9
TOR 7363	250	64	43	100	7KC	TH6
TOR 7320	250	55	20	120	10KC	TH4
TOR 7138	250	42	25*	120	5KC	TH3
TOR 7348	250	33	33	140	7KC	TH6
TOR 7367	250	15	40	190	7KC	TH11
TOR 7393	250	7	55	220	3KC	TH10
TOR 7201	300CT	31	41*	160	5KC	TH5
TOR 7182	300	26	41*	160	5KC	TH5
TOR 7220	300	25.5	51*	130	4KC	TH2
TOR 7139	400	70	18*	120	5KC	TH3
TOR 7271	500	290	8	80	12KC	TH1
TOR 7281	500	290	8	80	12KC	TH9
TOR 7364	500	108	31	80	5KC	TH6
TOR 7321	500	95	15	100	7KC	TH4
TOR 7349	500	63.5	23	120	4KC	TH6
TOR 7202	500CT	50	30*	130	4KC	TH5
TOR 7183	500	40	30*	130	4KC	TH5
TOR 7221	500	38	41*	130	4KC	TH2
TOR 7380	500	19	37	180	3KC	TH11
TOR 7166	500	16	61*	240	4KC	TH12
TOR 7154	500	15	61*	210	3KC	TH7
TOR 7394	500	15	38	200	2KC	TH10
TOR 7140	600	103	15*	110	5KC	TH3
TOR 7203	700CT	75	25*	130	4KC	TH5
TOR 7184	700	60	25*	155	5KC	TH5
TOR 7222	750	55	37*	160	4KC	TH2
TOR 7141	900	165	12*	110	5KC	TH3
TOR 7272	1,000	530	5.5	60	7KC	TH1
TOR 7282	1,000	530	5.5	60	7KC	TH9
TOR 7365	1,000	230	22	50	3KC	TH6
TOR 7322	1,000	210	25	80	5KC	TH4
TOR 7350	1,000	128	16.5	80	3KC	TH6
TOR 7204	1,000CT	105	20*	130	4KC	TH5
TOR 7185	1,000	85	20*	120	4KC	TH5
TOR 7368	1,000	60	20	160	2KC	TH11
TOR 7395	1,000	27	50	200	2KC	TH10
TOR 7167	1,000	27	41*	180	2KC	TH12
TOR 7155	1,000	26	41*	210	3KC	TH7
TOR 7223	1,250	95	27*	130	4KC	TH2
TOR 7273	1,500	825	3	60	7KC	TH1
TOR 7283	1,500	825	3	60	7KC	TH9
TOR 7323	1,500	335	6	80	5KC	TH4
TOR 7142	1,500	265	10*	110	5KC	TH3
TOR 7351	1,500	200	13.5	80	2.5KC	TH6
TOR 7205	1,500CT	160	18*	110	4KC	TH5
TOR 7186	1,500	135	18*	120	3KC	TH5
TOR 7369	1,500	90	30	140	2.5KC	TH11
TOR 7396	1,500	40	33	200	3KC	TH10
TOR 7143	2,000	380	9*	110	5KC	TH3
TOR 7224	2,000	155	19*	120	4KC	TH2
TOR 7168	2,000	65	30*	180	2.5KC	TH12
TOR 7156	2,000	60	30*	210	3KC	TH7
TOR 7324	2,500	550	5	80	5KC	TH4
TOR 7327	2,500	275	10	85	3KC	TH6
TOR 7206	2,500CT	270	14*	125	4KC	TH5
TOR 7187	2,500	220	14*	120	4KC	TH5
TOR 7370	2,500	150	15	140	2.5KC	TH11
TOR 7397	2,500	70	18	200	3KC	TH10
TOR 7144	2,800	550	8*	110	5KC	TH3
TOR 7225	3,000	255	15*	130	4KC	TH2
TOR 7169	3,500	105	22*	180	2KC	TH12
TOR 7157	3,500	104	22*	210	3KC	TH7
TOR 7247	4,000	855	5.1*	110	5KC	TH3
TOR 7207	4,000CT	430	10*	130	4KC	TH5
TOR 7188	4,000	330	10	120	3KC	TH5
TOR 7353	5,000	645	7.4	60	2.5KC	TH6
TOR 7226	5,000	400	14	130	4KC	TH2
TOR 7371	5,000	350	8	120	2KC	TH11
TOR 7398	5,000	140	15	140	1.5KC	TH10
TOR 7208	6,000CT	650	9.5*	130	4KC	TH5
TOR 7189	6,000	505	9.5*	130	4KC	TH5
TOR 7227	7,500	620	10*	140	4KC	TH2
TOR 7372	7,500	525	8	110	1.8KC	TH11
TOR 7170	7,500	235	16*	180	2.5KC	TH12
TOR 7158	7,500	225	16*	210	3KC	TH7
TOR 7354	10,000	1,100	5.2	70	1.8KC	TH6
TOR 7209	10,000CT	1,050	7.2*	130	4KC	TH5
TOR 7190	10,000	850	7.2*	120	3KC	TH5
TOR 7228	10,000	750	8.5*	140	4KC	TH2
TOR 7373	10,000	600	6	90	1.5KC	TH11
TOR 7399	10,000	270	9	100	1KC	TH10
TOR 7171	12,000	380	11.5*	180	2.5KC	TH12
TOR 7159	12,000	360	11.5*	210	3KC	TH7
TOR 7210	15,000CT	1,750	5.1*	130	4KC	TH5
TOR 7191	15,000	1,345	5.1*	120	3KC	TH5
TOR 7229	15,000	1,120	8.2*	140	4KC	TH2
TOR 7374	15,000	900	5	80	1KC	TH11
TOR 7400	15,000	430	7	90	.7KC	TH10
TOR 7160	18,000	480	9.5*	210	3KC	TH7
TOR 7172	18,000	470	9.5*	180	2.5KC	TH12
TOR 7211	22,000CT	2,500	4*	120	4KC	TH5
TOR 7192	22,000	2,000	4*	118	3KC	TH5
TOR 7375	25,000	1,500	4	70	.8KC	TH11
TOR 7401	25,000	850	6	80	.8KC	TH10
TOR 7161	25,000	685	8*	210	3KC	TH7
TOR 7173	25,000	675	8*	180	2KC	TH12
TOR 7248	35,000CT	4,000	3*	130	4KC	TH5
TOR 7235	35,000	3,250	3*	120	3KC	TH5
TOR 7236	40,000	1,050	6*	180	2.5KC	TH12
TOR 7402	50,000	1,500	3	65	.5KC	TH10
TOR 7237	60,000	1,690	4*	180	2.5KC	TH12

Maximum current rating

Chokes

IN ORDER OF MADC

Part No.	Inductance Henrys	Inductance MADC	DC Res. In Ohms	Test Volts RMS	✱Mtg. Type	·Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
26C40	1.5	10	95	2,500	BAH	1 3/4	1 1/4	2 1/8	1 1/8	.5
20C157	10	10	700	1,000	BAH	1 3/8	3/4	1 5/8	13/16	.05
20C112	40	10	1,200	3,000	CHV	1 1/4 x 1 3/16	2 1/4	1 7/8	1 1/4	.75
25C38	.8*	15	135	500	TTV-1	2	1 3/4	2 3/8	1 1/2	.5
20C102	2	15	70	1,500	BAH	1 3/4	1 3/16	2 3/16	1 1/4	.4
25C39	2.4*	15	280	500	TTV-1	2	1 3/4	2 3/8	1 1/2	.5
20C43	20	15	900	2,500	BAH	2 3/8	1 5/8	2 7/8	1 1/2	.75
20C51	35	15	1,850	2,500	BAH	2	1 3/8	2 3/8	1 1/4	.5
20C04	50	15	3,500	1,500	BAH	2	1 3/8	2 3/8	1 1/2	.5
25C63	250	15	5,000	1,750	NTV	2 3/32 x 2 3/32	3 1/4	2 9/16	2 9/16	2.5
20C05	15	20	1,000	1,000	BAH	1 3/4	1 3/16	2 1/16	1 1/4	.21
20C36	15	30	630	2,500	BAH	2 3/8	1 11/16	2 7/8	1 1/2	.75
25C81	30	30	800	1,500	KTH-B	2 7/8 x 2 3/8	2 5/16	3 3/8	1 15/16	1.5
20C159	22	35	405	1,600	FGV	2 3/8	2 3/8	2 3/4	2 1/8	1.5
20C44	30	35	700	2,500	BAH	2 13/16	2	3 1/4	1 3/4	1.0
20C113	1	40	170	500	BAH	2	1 3/8	2 3/8	1 1/4	.5
20C114	4	40	219	500	BAV	2 1/8	2	2 5/8	1 5/8	.75
20C35	8	40	250	1,500	BAH	2 3/8	1 5/8	2 7/8	1 1/2	.75
20C52	8	40	450	2,500	BAH	2	1 3/8	2 3/8	1 1/4	.5
20C45	12	40	400	2,500	BAH	2 3/8	1 5/8	2 7/8	1 1/2	.75
20C46	15	40	400	2,500	BAH	2 13/16	2	3 1/4	1 3/4	1.0
25C25	15	40	475	2,500	TAV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16	1.5
25C49	15	40	475	2,500	TTV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16	1.5
20C37	20	40	850	1,500	BAH	2 13/16	2	3 5/16	1 5/8	1
20C116	3.5	50	200	1,500	BAH	2	1 3/8	2 3/8	1 1/4	.5
20C82	3.5	50	200	2,500	BHH	2 3/8	1 5/8	2 7/8	1 1/2	.75
26C42	4.5	50	200	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	.8
20C47	4.5	50	300	2,500	BAH	2	1 3/8	2 3/8	1 3/8	.5
20C83	6	50	300	2,500	BAH	2 3/8	1 5/8	2 7/8	1 1/2	.75
20C84	7	50	550	2,500	BAH	2	1 3/8	2 3/8	1 3/8	.5
20C117	8.5	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	.8
20C81	8.5	50	400	2,500	BAH	2 3/8	1 5/8	2 7/8	1 1/2	.75
20C66	9	50	500	2,500	BAH	2 3/8	1 5/8	2 7/8	1 1/2	.75
26C87	16	50	580	2,500	BAH	2 13/16	2	3 1/4	2 1/8	1.2
25C64	75	50	2,200	1,750	NTV	2 3/32 x 2 3/32	3 1/4	2 9/16	2 9/16	2.5
20C59	7	55	200	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	.75
25C26	10	55	230	2,500	TAV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16	1.75
25C50	10	55	230	2,500	TTV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16	1.75
25C27	15	55	420	2,500	TAV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16	2
25C51	15	55	420	2,500	TTV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16	2
20C103	5	60	260	2,000	BAH	2 3/8	1 5/8	2 13/16	1 3/4	.6
25C82	12	60	250	1,500	KTH	2 7/8 x 2 3/8	2 5/16	3 3/8	1 15/16	1.5
20C85	13	65	500	2,500	BAH	2 13/16	2	3 1/4	1 3/4	1.2
26C84	9	70	270	2,500	BGH	2 13/16	2	3 1/4	2 1/8	1.5
26C82	3.2	75	120	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	.75
20C65	6	75	200	2,500	BAV	2 3/8	2 3/8	2 7/8	2	1
20C166	8	75	290	1,500	CHL	1 3/16 x 1 1/2	2 1/16	2 5/16	1 3/4	1.0
20C120	10	75	250	2,000	BAH	2 13/16	2	3 1/16	1 3/4	.8
26C86	15	75	400	2,500	BAH	3 1/8	2 1/4	3 3/4	2 5/8	1.5
25C83	25	75	350	1,500	KTH	3 5/8 x 3 1/8	2 15/16	4 1/8	2 5/16	3
20C48	8	80	250	2,500	BAH	2 13/16	2	3 1/4	2 1/8	1.5
20C53	12	80	375	2,500	BAH	2 13/16	2	3 1/4	2 1/8	1.5
20C71	16	80	360	2,500	GGV	2 x 1 11/16	3 3/16	2 5/8	2 5/8	2.5
20C86	20	80	350	2,500	BAH	3 1/8	2 1/4	3 3/4	2 1/4	1.5
20C87	8	85	250	2,500	BAH	3 1/8	2 1/4	3 3/4	2 1/4	1.5
25C28	10	85	175	2,500	TAV	1 3/4 x 2 11/16	3 5/16	3	2 1/2	2.5
25C52	10	85	175	2,500	TTV	1 3/4 x 2 11/16	3 5/16	3	2 1/2	2.5
25C29	15	85	285	2,500	TAV	1 3/4 x 2 11/16	3 5/16	3	2 1/2	2.75
25C53	15	85	285	2,500	TTV	1 3/4 x 2 11/16	3 5/16	3	2 1/2	2.75
20C0/	4	90	100	1,500	BAH	2 13/16	2	3 5/16	1 3/4	1
20C06	10	90	270	1,000	BAH	2 13/16	2	3 5/16	2	1.3
20C62	.2 to 1.5	100	95	2,700	BAH	2 13/16	2	3 1/4	2	1.25
20C123	2	100	100	500	BAH	2	1 3/8	2 3/8	1 1/4	.5
20C88	5	100	300	3,000	BAH	2 13/16	2	3 1/4	1 3/4	1.2
20C67	5	100	300	2,500	TAV	2 3/8 x 1 1/2	2 3/4	2 1/4	2 11/16	1.5
20C38	14	100	450	1,500	BAH	3 1/8	2 5/16	3 3/4	1 5/8	1.5
25C84	20	100	350	1,500	KTH	3 5/8 x 3 1/8	2 15/16	4 1/8	2 5/16	3
25C62	30	100	400	1,750	NTV	2 3/8 x 2 3/8	3 3/4	3	3	3.5
25C30	8	105	100	2,500	TAV	2 x 3 1/8	3 1/2	2 7/8	3 1/2	3.75
25C54	8	105	100	2,500	TTV	2 x 3 1/8	3 1/2	2 7/8	3 1/2	3.75
25C31	12	105	170	2,500	TAV	2 x 3 1/8	3 1/2	2 7/8	3 1/2	4
25C55	12	105	170	2,500	TTV	2 x 3 1/8	3 1/2	2 7/8	3 1/2	4
20C08	6	110	160	1,500	BAH	3 1/8	2 5/16	3 3/4	2	1.5
26C85	10.5	110	225	3,000	BAH	3 9/16	2 5/8	2 1/2	4	1.75
20C89	12	110	250	2,500	GGV	2 x 1 11/16	3 1/8	3	2 5/8	2.5
20C90	8	120	350	2,500	BAH	3 5/8	2 5/8	4	2 1/8	1.5
26C83	7	125	300	2,500	BAH	2 13/16	2	3 1/4	2 1/8	1.5
20C09	9	125	250	1,000	BAH	3 1/8	2 5/16	3 3/4	2	1.5
26C88	2.5	130	100	2,500	BAH	2 13/16	2	3 1/4	1 3/4	1.2
20C64	4	130	100	2,500	BAH	3 1/8	2 1/4	3 3/4	2 5/8	1.5
20C91	8	130	110	2,500	GGV	2 x 1 15/16	3 p/8	3	2 3/4	2.5
20C124	10	130	125	2,700	GGV	2 1/4 x 2	3 1/2	2 13/16	3 1/8	2.8
20C162	1.5	150	67	750	BAH	2 3/8	1 5/8	2 13/16	2	.5
26C89	2.3	150	60	2,500	BAH	2 13/16	2	3 1/4	1 3/4	1
20C68	7	150	200	2,500	BAH	3 9/16	2 5/8	4	2 1/4	2.2
25C92	7	150	170	1,500	TAV	1 3/4 x 2 11/16	3	2 1/2	3	2.3
20C92	7.5	150	160	2,500	GGV	2 x 1 15/16	3 1/8	3	2 3/4	2.3
20C54	8	150	145	2,700	GGV	2 x 1 3/4	3 1/8	2 5/8	2 5/8	2.2
20C54P	8	150	145	2,700	WAV	2 3/4 x 2 3/8	4 3/8	3	3 3/8	3
25C32	8	150	100	2,500	TAV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	5.25
25C56	8	150	100	2,500	TTV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	5.25
25C65	12	150	110	2,500	NTV	3 x 3	4 1/2	3 3/4	3 3/4	6.5
25C33	12	150	150	2,500	TAV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	5.5
25C57	12	150	150	2,500	TTV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	5.5
25C75	10	160	246	2,700	WTV	3 1/8 x 3 5/8	4 3/16	3 1/4	2 7/8	8.5
20C12	3	160	75	1,500	BAH	3 1/8	2 5/16	3 3/4	2 1/8	1.75
20C11	6	160	165	1,500	BAH	3 1/8	2 5/16	3 3/4	2 1/8	1.75
20C10	6	160	165	1,500	GGV	1 3/4 x 1 3/4	2 25/32	2 11/32	2 1/2	2
20C93	4	175	100	3,000	GGV	2 x 1 11/16	3 1/8	3	2 5/8	2.5
25C85	6	175	90	1,500	KTH	3 1/8 x 3 5/8	2 15/16	4 1/8	2 5/16	3
20C125	.1	200	21	500	BAH	1 3/4	1 3/16	2 1/8	1	.3
20C126	.63	200	42	500	BAH	2	1 3/8	2 3/8	1 1/4	.5
26C41	1.5	200	90	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	.75
26C43	2	200	50	2,500	BAH	2 13/16	2	3 1/8	1 5/8	1
26C94	2	200	60	2,500	BAH	3 1/8	2 1/4	3 3/8	2 1/4	1.5
20C49	4.5	200	58	2,500	BAH	3 5/8	2 5/8	4	2 1/8	2.5
20C94	4.5	200	80	3,000	GGV	2 1/4 x 2	3 5/8	3	3 1/8	3.5
20C105	5	200	90	5,000	GGV	2 1/2 x 2 3/16	4	3 1/4	3 3/8	4.5
20C55	6	200	75	2,500	GGV	2 x 2 1/4	3 1/8	2 7/8	3 1/4	3.5
20C55P	6	200	75	2,500	WAV	3 1/8 x 3 5/8	4 7/8	4 1/4	3 3/4	5
20C14	6	200	150	1,500	BAH	3 9/16	2 5/8	4	2 1/4	2.3
20C13	6	200	150	1,500	GGV	2 x 1 7/8	3 3/32	2 21/32	2 5/8	2.5
20C95	8	200	125	3,000	GGV	2 1/4 x 2	3 5/8	3	3 1/8	3.5
25C34	8	200	85	2,500	TAV	3 7/8 x 2 3/4	4 1/4	3 5/8	4 7/16	7
25C58	8	200	85	2,500	TTV	3 7/8 x 2 3/4	4 1/4	3 5/8	4 7/16	7
20C96	8.5	200	120	3,000	LAV	3 1/2 x 2 1/4	3 7/8	3 1/8	3	4.5
20C45	10	200	140	3,000	GGV	2 7/8 x 2 1/4	3 1/2	2 7/8	4 1/8	4.9
25C61	10	200	110	1,750	NTV	2 11/16 x 2 11/16	4 1/8	3 7/16	3 7/16	5
25C35	12	200	140	2,500	TAV	3 7/8 x 2 3/4	4 1/4	3 5/8	4 7/16	7
25C59	12	200	140	2,500	TTV	3 7/8 x 2 3/4	4 1/4	3 5/8	4 7/16	7
20C97	15	200	150	5,000	GGV	3 x 2 9/16	4 3/4	4	3 3/4	5.5
20C127	20	200	56	3,000	GGV	3 x 4 13/16	4 5/8	3 3/4	5 7/8	15
25C87	6	225	100	2,700	KTH	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
26C76	1	240	50	1,500	BAH	2 3/8	1 5/8	2 7/8	1 1/2	.75
20C129	12	240	126	2,400	GUV	3 x 3	4 5/8	3 3/4	4 1/8	7
20C16	4	250	100	1,500	BAH	3 9/16	2 5/8	4	2 1/4	2.3
26C90	4	250	60	3,000	GGV	2 1/4 x 2 3/8	3 5/8	3	3 1/2	4.3
20C98	4	250	60	3,000	LAV	2 1/4 x 2 1/2	3 1/2	2 7/8	3 1/8	4.25
20C15	4	250	100	1,500	GGV	2 x 1 7/8	3 1/8	2 11/16	2 5/8	3
20C130	4.5	250	100	1,000	LHH	2 1/8 x 2 1/2	2 5/8	3 1/8	2 1/4	3.2
20C131	5	250	70	3,000	GGV	2 x 2	3 1/8	2 11/16	2 7/8	3
20C56	8	250	60	3,500	GGV	2 1/2 x 3	3 7/8	3 1/2	4 1/4	6.7
20C56P	8	250	60	3,500	WTV	3 1/8 x 3 5/8	4 7/8	4 1/4	3 3/4	8.5
25C36	8	250	90	2,500	TAV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	10.5
25C60	8	250	90	2,500	TTV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	10.5
20C132	12	250	100	2,250	GGV	2 1/2 x 2 3/4	3 7/8	3 1/8	3 7/8	5
25C66	12	250	100	3,000	NSV	3 9/16 x 3 9/16	5 1/2	4 1/2	4 1/2	11

* High Q Choke, minimum Q is 20 for 0 up to 15 MADC
** Case with Terminals on Top
// Encapsulated

THORDARSON MEISSNER

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For Mounting Illustrations and Cross References See Pages 1517-1520

THORDARSON MEISSNER

Filament Transformers with Single Secondary

Part No.	Primary Voltage	Secondary Volts	Secondary Amps	Test Volts RMS (Sec.)	✱Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
21F115	117	7.5CT	4	2,500	BAV	2 13/16	2 3/4	3 3/8	2 1/8	2
21F45	117	7.5CT	4	2,500	LHV	2 x 2 1/8	3 1/8	2 7/8	2 1/8	2.7
21F110	107/117	7.5CT	5	2,500	GGV	2 1/4 x 1 7/8	3 5/8	3	3	3.4
25F71	115/230	7.5CT	5	2,500	TTV	2 x 3 1/8	3 1/2	2 7/8	3 1/2	3.25
21F78	117	7.5CT/ 6.3CT	8	3,000	LAV	2 1/4 x 2 5/16	3 1/2	2 7/8	2 13/16	3.65
21F16	117	7.5CT	8	2,500	CAV	2 x 2	3 1/8	2 3/4	2 1/2	3.25
21F62	117	7.5CT	8	2,500	LAV	2 1/2 x 2 3/8	3 7/8	3 1/8	2 7/8	4.7
21F46	107/117	7.5CT	8	2,500	GGV	2 1/2 x 2 3/16	3 7/8	3 1/4	3 3/8	4.7
25F82	105/115/ 210/220/230	7.5/ 6.3	10	4,000	NTV	3 x 3	4 1/2	3 3/4	3 3/4	6.5
21F17	117	7.5CT	12	2,500	CAV	2 1/4 x 2 1/4	3 1/2	2 7/8	3 1/4	5
25F72	115/230	7.5CT	12	2,500	TTV	2 3/4 x 3 7/8	4 1/4	3 5/8	4 7/16	6.5
21F111	107/117	7.5CT	21	2,500	GGV	2 3/4 x 3	4 1/2	3 3/4	4	8
21F79	117	7.5CT & 3CT	25	3,000	LHV	3 x 3 1/16	4 5/8	3 13/16	3 7/16	7.5
25F18	115/230	7.5CT	25	2,500	TTV	2 1/2 x 4 3/4	5 5/16	4 9/16	5 1/4	12
21F26	115/230	7.5CT	51	9,000	CTH	3 5/8 x 4 1/16	4 1/8	4 3/8	4 7/8	15
25F17	115/230	7.75CT	51	2,500	TSV	4 1/4 x 6	7 1/16	6 1/8	6 1/2	29
21F61	117	10.0CT	4	2,500	LHV	2 1/4 x 2 1/8	3 1/2	2 7/8	2 5/8	3.25
25F73	115/230	10.0CT	4	2,500	TTV	2 x 3 1/8	3 1/2	2 7/8	3 1/2	3.25
21F18	117	10.0CT	5	2,500	CAV	2 x 1 3/4	3 1/8	2 1/4	2 1/2	2.25
25F95	220(a)	10CT	5	1,500	TAV	2 x 3 1/8	3 1/2	3 1/2	2 25/32	3
21F47	107/117	10.0CT	5	2,500	GGV	2 1/2 x 1 15/16	3 7/8	3 1/4	3 1/8	4
25F74	115/230	10.0CT	6.5	2,500	TTV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	5
21F28	117	10.0CT	8	2,500	CAV	2 1/2 x 2 3/8	3 7/8	3 1/8	3 1/8	4.9
21F29	107/117	10.0CT	8	2,500	GGV	2 1/2 x 2 7/16	3 7/8	3 1/4	3 5/8	5.2
21F112	117	10.0CT	10	2,000	GGV	2 1/2 x 2 7/16	3 7/8	3 1/4	3 5/8	5.2
25F75	115/230	10.0CT	10	2,500	TTV	2 3/4 x 3 7/8	4 1/4	3 5/8	4 7/16	6.5
25F29	105/115	10CT	10	3,000	KTH	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
25F83	105/115/ 210/220/230	10.0	10	4,000	NTV	3 9/16 x 3 9/16	5 1/2	4 1/2	4 1/2	11
21F48	107/117	10.0CT	12	7,500	KTV	2 3/4 x 6	5 1/8	4 1/4	8 1/2	14.7
21F68	115	10CT/ 11CT/ 12CT	11	3,000	LAV	2 3/4 x 2 9/16	4 3/8	3 1/2	3 1/16	6.5
21F146	117	10.0	15	2,500	CAV	2 3/4 x 2 3/8	4 3/16	3 7/16	3	5
21F147	210/220/230	10.0CT	23.5	10,000	CTH	3 3/4 x 3 1/4	3 13/16	4 1/2	3 3/4	12
21F113	107/117	11.0CT	10	2,500	GGV	3 x 2 7/16	4 3/4	4	3 1/2	7.7
21F49	107/117	11.0CT	10	7,500	KTV	2 3/4 x 6	5 1/8	4 1/4	8 1/2	13
25F84	105/115/ 210/220/230	11/12/ 14	10	4,000	NTV	3 9/16 x 3 9/16	5 1/2	4 1/2	4 1/2	11
26F70	6.3	12.6 or 6.3	1 1.2	5,000	BAH	2 13/16	2	3 1/4	2	1.25
26F67	117	12.6CT	2	2,500	BAH	2 13/16	2	3 1/4	2	1.25
21F81	117	12.6CT	3	2,500	BAH	3 1/8	2 1/4	3 5/8	2 1/8	1.6
21F50	117	12.6CT	3	2,500	LAV	2 x 2 1/16	3	2 1/2	2 7/8	3.5
21F52	117	12.6 or 25.2	7 3.5	2,500	GGV	2 1/4 x 2 5/8	3 5/8	3	3 1/2	5
26F68	117	24.0	1	2,500	BAH	2 13/16	2	3 1/4	2	1.5
21F84	117	24.0CT	1	2,500	BAH	2 13/16	2	3 1/4	2	1.5
21F98	117	24.0CT or 12	1 2	2,500	BAH	3 1/8	2 5/16	3 3/4	2 1/8	1.5
21F97	117	24.0CT or 12	2 4	1,500	BAH	3 9/16	2 11/16	4	2 5/8	2.5
21F153	117	24.0CT	10	1,500	CAV	3 x 2 3/4	4 9/16	3 3/4	3 1/4	7.5
21F51	117	25.2	1	2,500	BAH	2 13/16	2	3 1/4	2	1.5
21F83	117	25.2CT	2	1,500	BAH	3 9/16	2 9/16	4	2 1/4	2.2
21F114	117	25.2CT	2	2,500	BAH	3 9/16	2 9/16	4	2 1/4	2.2
21F100	117*	26.0CT	.04	2,500	BAH	1 3/4	1 1/4	2 1/8	1 3/4	.25
21F101	117*	26.0CT	.25	2,500	BAH	2 3/8	1 11/16	2 7/8	1 5/8	.75
21F27	117	26.5CT	.6	7,500	BAH	2 13/16	2	3 1/4	2 1/8	1.6
21F82	117	26.8CT	1	1,500	BAH	2 13/16	2	3 1/4	2	1.6
21F66	230(a)	26.8CT	1	1,000	BAH	2 13/16	2	3 1/16	2 1/8	1.3
21F99	117	36.0CT or 18	1.3 2.6	1,500	BAH	3 9/16	2 5/8	4	2 5/8	2.5

Filament Transformers with Multiple Secondary 50/60 CYCLES

Part No.	Primary Voltage	Secondary Volts	Secondary Amps.	Test Volts RMS (Sec.)	✱ Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
21F53	117	2.5CT 5.0CT	6 3	1,500 1,500	LAV	2 x 2	3	2 1/2	2 1/2	2.5
21F14	117	2.5 or 5 or 6.3	2.5	1,600	BAH	2 13/16	2	3 1/4	1 3/4	1.5
21F115	117	2.5CT 5.0CT 6.3CT	3.5 3 3	2,500 2,500 2,500	GGV	2 1/4 x 2	3 5/8	3	3 1/8	3.7
21F116	117	2.5 5.0CT 5.0 6.3CT	3 2 3 3	2,500 2,500 2,500 2,500	LHV	2 1/4 x 2 1/8	3 1/2	2 7/8	2 3/4	3.4
25F31	105/115	2.5CT 2.5CT 5.0CT	5 5 6	3,000 3,000 3,000	KTH	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
25F35	105/115	2.5CT 2.5CT 2.5CT	6 6 12	10,000 10,000 10,000	KTH	4 27/32 x 3 25/32	4 5/8	4 5/8	5 1/2	8
21F85	117	2.5CT 10.0CT	10 10	7,500 1,500	LAV	2 3/4 x 2 9/16	4 3/4	3 1/2	3 1/16	6.2
21F22	117	5.0 7.5 or 6.3 or 5.0	3 6	2,500 2,500	GGV	2 x 2 1/2	3 7/8	3 1/4	3 1/4	5.5
21F54	117	5.0CT 5.0CT	3 3	2,500 2,500	BAV	2 13/16	2 3/4	3 1/4	2 1/2	1.7
25F38	105/115	5.0CT 5.0CT 5.0CT	3 3 6	5,000	KTH	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
25F93	105/115/125	5.0CT 5.0CT 5.0CT	3 3 6	5,000 5,000 5,000	TTV	2 3/4 x 3 7/8	4 5/16	4 7/16	3 11/16	7
25F33	105/115	5.0CT 6.3CT 7.5CT	3 4 5	3,000	KTH	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
25F32	105/115	5.0CT 6.3CT	6 5	3,000	KTH	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
25F25	105/115	5.0 to 5.25CT	13	5,000	KTH	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
25F27	105/115	5.0 to 5.25CT	22	10,000	KTH	4 27/32 x 3 25/32	4 5/8	4 5/8	5 1/2	8
25F86	105/115/125	5.0 6.3CT	2 2.5	2,500 2,500	TTV	2 11/16 x 1 3/4	3 5/16	3	2 1/2	2.75
25F88	105/115/125	5.0 6.3CT 5.0CT	3 5 3	2,500 2,500 2,500	TTV	3 1/8 x 2	3 9/16	3 1/2	2 7/8	3.5
26F61	117	5.0CT 6.3	3 3.6	2,500 2,500	BAH	3 9/16	2 1/2	4	2 1/8	2.5
21F55	117	5.0CT 6.3CT	3 6	2,500 2,500	GGV	2 1/2 x 2 1/16	3 7/8	3 1/4	3 1/4	4
21F23	117	5.0CT 6.3CT	6 6	2,500 2,500	GGV	2 1/2 x 2 1/4	3 7/8	3 1/4	3 3/8	4.8
21F56	107/117	5.0CT 6.3CT	6 6	1,765 1,765	GGV	2 1/2 x 2 3/16	3 7/8	3 1/4	3 3/8	4.8
21F86	115	5.0CT 6.3CT	3 8	2,500 2,500	GGV	2 1/4 x 2 1/8	3 1/2	3	3 1/4	4
21F117	107/117	5.0CT 6.3CT	4 3.6	2,500 2,500	GGV	2 1/4 x 2 1/8	3 5/8	3	3 1/4	4
25F90	105/115/125	5.0 6.3CT 6.3CT	3 1 5	2,500 2,500 2,500	TTV	3 1/2 x 2 1/4	4	4	3 1/4	4.25
25F89	105/115/125	5.0 6.3CT 6.3CT	3 3 3	2,500 2,500 2,500	TTV	3 1/2 x 2 1/4	4	4	3 1/4	4.75
21F57	117	5.0CT 7.5CT	3 3.25	2,500 2,500	GGV	2 1/2 x 1 15/16	3 7/8	3 1/4	3 1/4	3
21F118	117	5.0 5.0 6.3CT 7.5/ 6.3CT	3 3 4 3	2,500 2,500 2,500 2,500	LHH	2 13/16 x 2 7/16	2 7/8	2 7/8	3 3/8	4.7

✱ Primary tapped for − 6%, + 6% and + 12% Secondary Voltages
Industrial Rating – Use 10 Amps. for Military Rating

† Secondary voltage varied by means of a Primary Tap

Filament Transformers with Multiple Secondary 50/60 CYCLES

Part No.	Primary Voltage	Secondary Volts	Secondary Amps.	Test Volts RMS (Sec)	✱ Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
21F89	115	5.0 5.0CT 6.3CT 6.3 6.3	4 2 5 5 1	1,500 1,500 1,500 1,500 1,500	GGV	2 1/2 x 2 5/8	3 7/8	3 9/32	3 1/2	6
25F87	105/115/125	5.0 12.6CT	2 1.25	2,500 2,500	TTV	2 11/16 x 1 3/4	3 5/16	3	2 1/2	2.75
25F26	115	6.3CT 6.3CT	.2 .2	1,500 1,500	UTV	1 5/32 x 1 5/32	2	1 1/2	1 1/2	.5
21F161	107/117	6.3 6.3	.6 .6	7,500 7,500	BAH	3 1/8	2 1/4	3 11/16	2	1.5
25F36	115	6.3 6.3	.6 .6	1,500	KTH	2 3/8 x 2	1 7/8	2 13/16	1 3/4	1
21F134	117	6.3 .078	1 5	1,000	BAV	2 3/8	1 5/8	2 13/16	1 3/8	.5
21F88	115	6.3 6.3 6.3 6.3CT	1.75 1.75 1.75 1.75	1,500 1,500 1,500 1,500	GGV	2 x 2 1/4	3 1/8	2 5/8	3	3.5
26F63	117	6.3 6.3	3 3	5,000 5,000	BAV	3 1/8	3	3 5/8	2 1/2	2
21F87	117	6.3CT 6.3CT	3 3	1,500 1,500	GGV	2 x 1 7/8	3 3/32	2 21/32	2 5/8	2.5
25F91	105/115/125	6.3CT 6.3CT	3 3	2,500 2,500	TTV	3 1/8 x 2	3 9/16	3 1/2	2 7/8	3.5
21F24	117	6.3 6.3 6.3 6.3	3 3 3 3	2,500 2,500 2,500 2,500	GGV	2 1/2 x 2 1/4	3 7/8	3 1/4	3 3/8	5
25F97	105/115/ 210/220/ 230	6.3 6.3	5 5	2,000	NTV	2 3/8	3 3/4	3	3	3.5
25F34	105/115	6.3CT 6.3CT	5 5	3,000	KTH	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
26F69	117	6.3 6.3	3 6	1,600 1,600	HKT	2 1/4 x 2 13/16	3 1/4	3 3/8	2 7/8	3
21F119	117	6.3CT 6.3CT	6 6	2,500 2,500	GGV	2 1/2 x 2 3/16	3 7/8	3 1/8	3 1/2	4.8
25F92	105/115/125	6.3CT 6.3CT	6 6	2,500 2,500	TTV	3 7/8 x 2 3/4	4 5/16	4 7/16	3 11/16	6.5
25F28	105/115	6.3CT 7.5CT	10 10	3,000	KTH	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
21F19	117	10.0CT 11.0CT	12 11	2,500 2,500	CAV	2 1/2 x 2 1/4	3 7/8	3 1/8	2 7/8	6
25F37	115	12.6 12.6	2.5 2	1,500	KTH	3 5/8 x 3 1/8	2 15/16	4 1/8	2 5/16	3
21F90	115	12.6 12.6CT	2.5 2.5	1,500 1,500	GGV	2 1/4 x 2	3 1/2	3	3 1/8	3.7
21F91	105/115/125	12.6 12.6CT	5 5	2,500 2,500	GGV	2 1/2 x 2 5/8	3 7/8	3 7/32	3 1/2	6
25F30	105/115/	11/12/14CT	10	5,000	KTH	4 27/32 x 3 25/32	4 5/8	4 5/8	5 1/2	8
25F85	105/115/ 210/220/230	14/11/10 14/11/10	10 10	4,000 4,000	NTV	4 1/8 x 4 1/8	5 1/2	5 1/8	5 1/8	15.5
26F64	117†	25† 6.3† 6.3	.320 6 1.2	1,500 1,500 2,500	GGV	2 x 1 3/4	3 1/8	2 5/8	2 3/4	3.5

‡‡‡ Industrial Rating – Use 7 Amps. for Military Rating
† Autoformer Winding
‡‡ Industrial Rating – Use 2 Amps. for Military Rating
** Industrial Rating – Use 6 Amps. for Military Rating
(g) Both winding rated 7 Amps. for Industrial applications
‡ Two units may be scott connected to provide two
* Industrial Rating – Use .6 Amps. for Military Rating
(c) Static Shielded

Industrial Rating – Use 10 Amps. for Military Rating
Industrial Rating – Use 20 Amps. for Military Rating
(e) Terminals located opposite mounting studs
(f) Secondary voltage changed by means of primary taps
■ Industrial Rating – Use 5 Amps. for Military Rating
Industrial Rating – Use 20 Amps. for Military Rating
(a) 60 Cycles only

Power Transformers

PRIMARY 117 VOLTS 50/60 CYCLES

Part No.	Notes	Plate Supply Volts	Plate Supply MADC	Rectifier Fil. Volts	Rectifier Fil. Amps.	Other Fil. Volts	Other Fil. Amps.	✱ Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
25R50	1	Any DC voltage from 15 to 100 volts ±6% @ 250madc						NTV	3 x 3	4 1/2	3 3/4	3 3/4	6.5
25R51	1	Any DC voltage from 75 to 400 volts ±6% @ 250madc						NTV	4 1/8 x 4 1/8	5 1/2	5 1/8	5 1/8	15.5
24R105	2	30-0-30	2.5A			6.3 6.3	1.5 1.5	GGV	2 3/4 x 2 11/16	4 5/16	3 5/8	3 15/16	6
24R104	2	40-0-40	2 A			6.3 6.3	1.5 1.5	GGV	2 3/4 x 2 13/16	4 5/16	3 5/8	4 1/16	6.5
24R103	2	50-0-50	1.6A			6.3 6.3	1.5 1.5	GGV	2 3/4 x 2 11/16	4 5/16	3 5/8	3 15/16	6
24R115		62-0-62	30			12.6CT	.8	BAH	2 13/16	2	3 1/4	1 3/4	.7
24R102	2	100-0-100	800			6.3 6.3	2 2	GGV	2 3/4 x 2 15/16	4 5/16	3 5/8	4 3/16	6.9
24R70		115-0-115	40			6.3CT	1.5	GGV	1 3/4 x 1 5/8	2 3/4	2 11/32	2 3/8	1.75
24R116		120-0-120	75			6.3	2	GGV	1 3/4 x 1 3/4	2 5/8	2 3/16	2 1/2	1.5
24R108		120-0-120	250	5	3			GGV	2 1/2 x 1 15/16	4	3 1/4	3 1/8	4.2
24R68		125-0-125	22			6.3 15.5- 12.6	.8 .6	AGF	2 3/16 x 1 3/4	1 7/8	2 5/8	2 3/16	1.75
22R39		125-0-125	25			6.3	1	BAV	2 3/8	2 3/8	2 7/8	1 3/4	1.0
22R135	5	125-0-125	25			6.3	1	BAV	2 3/8	2 3/8	2 27/32	1 3/4	.8
25R55	8,h	150-0-150* 1800 (h) 1800 (h)	100 4 4			6.3CT 6.3CT	5 3	TTV	3 7/8 x 2 3/4	4 1/4	4 7/16	3 5/8	3.5
24R101	2	150-0-150	600			6.3 6.3	2.5 2.5	GGV	2 3/4 x 3 1/16	4 5/16	3 5/8	4 5/16	7.1
22R38		180-0-180	42			6.3	2.8	AGF	1 3/4 x 2 1/4	2 3/4	2 5/8	2 1/4	1.8
25R21		180-160-140-120-0-120-140-160-180	150	5	3			TAV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	5
25R42		180-160-140-120-0-120-140-160-180	150	5	3			TTV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	5
25R22	5	180-160-140-120-0-120-140-160-180	150	5	3			TAV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	5
25R43	5	180-160-140-120-0-120-140-160-180	150	5	3			TTV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	5
22R95		190-160-0-160-190	70			6.3CT 6.3	3 .6	AGF	2 1/2 x 2	1 3/4	3	2 1/2	2.75
22R94		190-160-0-160-190	70			6.3CT 6.3	3 .6	GGV	2 x 1 7/8	3 3/32	2 21/32	2 5/8	2.75
24RT00	2	200-0-200	400			6.3 6.3	3 3	GGV	2 3/4 x 3 1/16	4 5/16	3 5/8	4 5/16	7.1
24R46	Bias Supply	200-170-130-90-0-90-130-170-200	200	5	3			GTV	2 1/2 x 2 3/16	4	3 1/4	3 5/8	4.9
25R44		220-0-220	15	6.3CT	.6	6.3CT	1.2	UTV	1 3/8 x 1 13/16	3 1/8	1 15/16	2 3/8	2
24R10		220-0-220	50	6.3	.6	25.2	.5	GGV	2 x 1 9/16	3 3/16	2 5/8	2 5/8	2.2
24R82	1	220-110-0-110-220	160	5	3			GGV	2 1/4 x 2 1/8	3 1/2	3	3 1/4	4
26R81		220-0-220 130-0-130	330 220	5	3	6.3 6.3	6.5 6.5	AGF	3 x 3 3/4	4 7/8	3 3/4	4 1/2	10.5
25R01		225-0-225	40	5	2	6.3CT	2	TAV	2 x 3 1/8	3 1/2	2 7/8	3 1/2	3.2
25R23		225-0-225	40	5	2	6.3CT	2	TTV	2 x 3 1/8	3 1/2	2 7/8	3 1/2	3.2
26R63		225-0-225	90	5	2	6.3	5.15	AGF	2 1/4 x 2 13/16	3 3/4	2 13/16	3 3/8	4.5
24R11		230-0-230	50			6.3	2.5	AGF	2 x 2 1/2	2 5/8	3	2 1/2	2.2
24R11U		230-0-230	50			6.3	2.5	GGV	2 x 1 9/16	3 3/16	2 5/8	2 5/8	2.2
26R09		230-0-230	300	5	6	6.3 6.3 6.3	10 2.5 1.2	AGF	3 3/4 x 3	3 3/8	4 1/2	3 3/4	12
24R117	b	235-0-235	600	5	6			CAH	2 13/16 x 5 3/4	2 7/8	3 3/8	6	12
24R00		240-0-240	40	5	2	6.3CT	2	AGF	2 x 2 1/2	2 5/8	3	2 1/2	2
24R00U		240-0-240	40	5	2	6.3CT	2	GGV	2 x 1 5/8	3 1/8	2 5/8	2 5/8	2
24R118	8	240-0-240	40	5	2	6.3CT	2	GGV	2 x 1 5/8	3 1/8	2 5/8	2 5/8	2

1 MADC rating for choke-input filter. For Capacitor input filter divide MADC rating by 1.30
2 Refer to the Silicon Rectifier page at the end of this section for complete voltage and circuit details
3 MADC rating for bridge rectifier circuits. Reduce secondary current 10% for 50 cycle operation
4 The ratings listed here are for industrial applications. For MIL-T-278 ratings refer to the green section of this catalog
5 Pri. 230 Volts 50/60 Cycles
8 Pri. 115/230 Volts 50/60 Cycles
18 Pri. 115 Volts @ 400 Cycles
(h) Half-Wave Application
* Static Shielded

For Mounting Illustrations and Cross References See Pages 1517-1520
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Power Transformers

PRIMARY 117 VOLTS 50/60 CYCLES

Part No.	Notes	Plate Supply Volts	MADC	Rectifier Fil. Volts	Amps.	Other Fil. Volts	Amps.	Mtg. Type	Mtg. Center	Dimensions H	W	D	Wt. Lbs.
24R16		240-0-240	50			6.3	2.5	GGV	2 x 1 9/16	3 1/8	2 5/8	2 5/8	2
24R19		240-0-240	55	5	2	6.3CT	2	AGF	2 x 2 1/2	2 3/4	2 1/2	3	2.5
24R19U		240-0-240	55	5	2	6.3CT	2	GGV	2 x 1 11/16	3 1/8	2 5/8	2 3/4	2.5
24R88		240-0-240	60			6.3CT	2.75	AGF	2 11 5/16	2 3/4	2 3/16	2 11/16	2.3
24R12		240-0-240	70			6.3	3	AGF	2 x 2 1/2	2 7/8	2 1/2	3	2.6
24R12U		240-0-240	70			6.3	3	GGV	2 1 13/16	3 1/8	2 1/2	2 7/8	2.6
24R119	8	240-0-240	70			6.3	3	GGV	2 x 2	3 1/8	2 1/2	3	2.8
24R154	8	240-0-240	120			6.3CT	1.5	GGV	2 x 2 3/16	3	2 1/2	3 1/8	2.5
24R120		240-0-240	125	5	2	6.3	5	AGF	3 1/8 x 2 1/2	3 1/4	3 3/4	3 1/8	4
24R89		250-0-250	10	6.3	.6	6.3	1.2	FGV	2 3/8	2 1/4	2 7/8	2 1/8	1
24R90		250-0-250	20	6.3	.6	6.3	1.2	FGV	2 13/16	2 5/8	3 1/4	2 1/4	1.5
24R69		250-0-250	20			6.3	2	GGV	1 3/4 x 1 3/4	2 3/4	2 3/8	2 1/2	1.7
22R08		250-0-250	40	5	2	2.5CT	4	AGF	2 x 2 1/2	2 1/2	2 1/2	3	1.7
22R00		250-0-250	40	5	2	6.3CT	2	AGF	2 x 2 1/2	2 1/2	3	2 1/2	2
22R124		250-0-250	40	5	2	6.3CT	2	BAH	3 9/16	2 1/2	4	2 5/8	1
24R121	8	250-0-250	40	5	2	6.3CT	2	GGV	2 x 1 5/8	3 1/8	2 1/2	2 1/2	2
24R50		250-0-250	40			6.3CT	2	GGV	1 3/4 x 1 1/2	2 3/4	2 3/8	2 1/4	1.5
24R51		250-0-250	40			6.3CT	2	AGF	2 3/16 x 1 3/4	1 1/2	2 5/8	2 3/8	1.5
24R09		250-0-250	70	5	2	6.3CT	2.5	AGF	2 x 2 1/2	3 1/2	3	2 1/2	3.2
24R09U		250-0-250	70	5	2	6.3CT	2.5	GGV	2 1 1/16	3 1/8	2 5/8	3 1/8	3.2
26R33		250-0-250 or 300-0-300	280 250	5 5	3 3	6.3 6.3	5 5	AGF	3 x 3 3/4	4 1/2	3 3/4	4 1/2	11
26R109		250-0-250	300	5/3	3.8	6.3	10	GGV	2 1/2 x 2 11/16	3 7/8	3 1/8	3 15/16	4.5
26R110		250-0-250	300	5/3	3.8	6.3	11	GGV	2 3/4 x 2 5/8	4 1/8	3 7/16	3 5/8	5
26R111		250-0-250	280	5/3	3.8	6.3	10	AGF	3 7/16 x 2 3/4	2 15/16	4 1/8	3 7/16	5
24R122		250-0-250	500	5	6			GGV	3 x 2 13/16	4 5/8	3 3/4	3 7/8	7
26R112		255-0-255	300	5/3	3.8	6.3	10	GGV	2 1/4 x 2 7/8	3 1/2	2 13/16	4	6
26R113		255-0-255	300	5/3	3.8	6.3	10	AGF	3 5/16 x 2 11/16	2 3/8	3 3/4	3 1/8	6
26R114		255-0-255	300	5/3	3.8	6.3	10	GGH	3 5/16 x 3 3/16	3 1/8	3 3/4	3 3/4	6
26R31		260-0-260	90			6.3	4	AGF	2 1/4 x 2 13/16	3 1/2	2 5/8	3 3/8	3.5
26R31U		260-0-260	90			6.3	4	GGV	2 x 2 1/4	3 1/8	2 5/8	3 1/8	3.5
26R142	8	260-0-260	90			6.3CT	3.5	GGV	2 x 2 7/16	3 1/8	2 5/8	3 1/4	3.5
24R13		260-0-260	90	5	2	6.3CT	3	AGF	2 1/4 x 2 13/16	3 5/8	2 7/8	3 1/8	4
24R13U		260-0-260	90	5	2	6.3CT	3	GGV	2 1/4 x 2 1/4	3 1/2	2 7/8	3 5/8	4
24R123	8	260-0-260	90	5	2	6.3CT	3	GGV	2 1/4 x 2 1/4	3 1/2	2 7/8	3 5/8	4
26R36		260-0-260	150	5	5	6.3	5	AGF	2 1/2 x 3 1/8	3 3/4	3 1/8	3 3/4	4.2
26R143	8	260-0-260	150	5	5	6.3	5	AGF	2 1/2 x 3 1/8	3 3/4	3 1/8	3 3/4	4.2
26R10		260-0-260	270	5	3	6.3	10	AGF	3 x 3 3/4	2 5/8	3 3/4	4 1/2	8.7
26R52		260-0-260	380	5CT	6	12.6CT	6.4	GRV-1	3 x 5 1/2	6	3 3/4	5 1/2	11
26R126		262.5-0-262.5	300	5	3	6.3	10	AGF	2 1/4 x 2 13/16	2 7/8	3 3/8	2 13/16	4
24R81		262.5-0-262.5	90	5	2	6.3CT	5	AGF	2 1/4 x 2 13/16	1 7/8	3 3/8	2 13/16	3.2
22R97		262.5-0-262.5	90	5	2	6.3CT	5	AGF	2 1/4 x 2 13/16	2 3/8	3 3/8	2 13/16	4.5
24R80		262.5-0-262.5	90	5	2	6.3CT	5	GGV	2 1/4 x 2	3 1/2	3	3 1/8	3.2
22R96		262.5-0-262.5	90	5	2	6.3CT	5	GGV	2 1/4 x 2 1/2	3 1/2	3	3 5/8	4.5
26R48		265-0-265	228	5	3	12.6CT	5.5	AGF	2 1/2 x 3 1/8	3 7/8	3 1/8	3 3/4	5
26R59		265-0-265	300	5	6	12.6CT	6	GRV-1	3 x 5 1/2	6	3 3/4	5 1/2	11
26R88		265-0-265	300	5	6	6.3 6.3 6.3	6 6 1.2	AGF	3 x 3 3/4	5	3 3/4	4 1/2	11
26R47		268-0-268	260	5	3	6.3	10.5	AGF	2 1/2 x 3 1/8	3	3 1/8	3 3/4	5
26R53		268-0-268	260	5	3	6.3	8	GGV	2 3/4 x 2 15/16	4 1/4	3 7/16	4	6.2
25R02		270-0-270	55	5	2	6.3CT	2	TAV	2 x 3 1/8	3 1/2	2 7/8	3 1/2	3.5
25R24		270-0-270	55	5	2	6.3CT	2	TTV	2 x 3 1/8	3 1/2	2 7/8	3 1/2	3.5
24R20		270-0-270	120	5	3	6.3CT	3.5	AGF	2 1/2 x 3 1/8	3 1/2	3 1/8	3 3/4	5
24R20U		270-0-270	120	5	3	6.3CT	3.5	GGV	2 1/2 x 2 3/16	3 7/8	3 1/8	3 1/2	5
26R44		270-0-270	200	5	3	6.3	8.5	AGF	2 11/16 x 3 5/16	4 1/4	3 1/8	3 3/4	6.2
26R49		270-0-270	200	5	3	12.6CT	4.5	AGF	2 1/2 x 3 1/8	3 5/8	3 1/8	3 3/4	5
26R115		270-0-270	280	5/3	3.8	6.3	9	GGV	2 1/2 x 2 5/8	3 3/4	3 1/8	4 1/8	5.5
26R118		270-0-270	300	5/3	3.8	6.3	10	GGV	2 1/4 x 3 1/4	3 1/2	2 13/16	4 3/8	5.5
26R116		270-0-270	300	5/3	3.8	6.3	10	AGF	3 5/16 x 2 11/16	2 9/16	3 3/4	3 1/8	5.5
26R117		270-0-270	300	5/3	3.8	12.6CT	6	AGF	3 5/16 x 2 11/16	2 3/4	3 3/4	3 1/8	5.7
26R119		272.5-0-272.5	280	5/3	3.8	6.3	11	GGV	2 3/4 x 2 3/4	4 1/8	3 7/16	3 1/2	5.7
26R120		272.5-0-272.5	300	5/3	3.8	6.3	10	AGF	3 7/16 x 2 3/4	2 5/8	4 1/8	3 7/16	5.7
25R45		275-0-275	35	6.3CT	.6	6.3CT	2	UTV	2 x 2 3/4	3 1/2	2 13/16	3 9/16	5
22R09		275-0-275	50	5	2	2.5CT	7.5	AGF	2 x 2 1/2	2 5/8	2 1/2	3	2
22R01		275-0-275	50	5	2	6.3CT	2.5	AGF	2 x 2 1/2	2 1/2	3	2 1/2	2.2
22R101	8	275-0-275	50	5	2	6.3CT	2.5	AGF	2 x 2 1/2	2 1/2	3	2 1/2	2.2
22R30		275-0-275	50	5	2	6.3CT	2.5	GGV	2 x 2 1/4	3 1/8	2 5/8	3 1/8	2.2
22R98		275-0-275	110	5	2	6.3CT	5	GGV	2 1/2 x 2 1/4	3 7/8	3 1/4	3 1/8	4.5
24R56		275-0-275	110	5	2	6.3CT	5	GGV	2 1/4 x 2 1/8	3 1/2	3	3 1/4	3.7
22R99		275-0-275	110	5	2	6.3CT	5	AGF	3 1/8 x 2 1/2	2 1/4	3 3/4	3 1/8	4.5
24R57		275-0-275	110	5	2	6.3CT	5	AGF	2 13/16 x 2 1/4	2	3 3/8	2 13/16	3.7
26R41		275-0-275	220	5	3	6.3 7	8.5 .47	AGF	3 x 3 11/16	3 3/4	3 7/16	4 1/8	5
26R11		275-0-275	270	5	3	6.3	10	AGF	3 x 3 3/4	2 3/4	4 1/2	3 3/4	9
26R77		275-0-275	270	5	3	6.3	10	AGF	2 3/4 x 3 7/16	3 1/8	4 1/8	3 7/16	9
26R43		275-0-275	275	5	3	12.6CT	6	GGV	2 1/2 x 3 1/8	3 3/4	3 1/8	4 3/8	7
26R121		275-0-275	300	5	6	6.3 6.3 6.3	8 5 2	AGF GGV GGH	3 1/8 x 2 1/2 2 1/2 x 3 3/8 2 1/2 x 3 3/8	3 13/16 3 3/4 3 1/8	3 3/4 3 1/8 3 3/4	3 1/8 4 3/4 4 3/8	7.5
26R56		275-0-275	310	5CT	3	6.3	12.6	ARF	3 5/16 x 4 1/16	5	3 3/4	4 1/2	8.2
26R79		275-0-275	350	5CT	6	6.3 6.3 6.3	8 6 2	AGF	3 x 3 3/4	3 3/8	4 1/2	3 3/4	12
26R80		275-0-275	350	5CT	6	6.3 6.3 6.3	8 6 2	ARF-1	3 x 3 3/4	3 3/8	4 1/2	3 3/4	12
26R58		276-0-276	315	5	6	6.3	11.5	AGF	3 3/16 x 4 1/16	5	3 3/4	4 1/2	8.2
26R50		279-0-279	265	5	5	6.3 6.3 6.3	7.1 1.2 .9	AGF	3 x 3 3/4	4 3/4	3 3/4	4 1/2	8
24R125		280-0-280	35			6.3CT	2.5	AGF	1 3/4 x 2 3/16	2 11/16	2 5/8	2 3/16	1.8
24R32		280-0-280	50	5	2	6.3 6.3	1.5 .6	AGF	2 x 2 1/2	3	2 1/2	3	3.5
26R89		280-0-280	260	5	3	6.3 6.3 6.3	8 1.5 1.2	ARF	3 x 3 3/4	5 1/8	4 1/2	3 3/4	11.2
26R90		280-0-280	260	5	3	6.3 6.3 6.3	8 1.5 1.2	AGF	3 x 3 3/4	5	4 1/2	3 3/4	11
26R122		280-0-280	280	5	3	6.3	9.5	AGF GGV GGH	3 1/8 x 2 1/2 2 1/2 x 2 5/16 2 1/2 x 2 5/16	3 1/16 3 3/4 3 1/8	3 3/4 3 1/8 3 3/4	3 1/8 3 11/16 3 11/16	7
26R123		280-0-280	300	5	4	6.3	10	GGV	3 11/16 x 3 3/16	3 3/4	3 1/8	3 7/8	7
26R72		280-0-280	400	5	6	6.3 6.3	4.5 8.5	AGF	3 3/16 x 4 1/16	6	3 13/16	4 3/4	13
26R51		281-0-281	250	5	3	6.3	9.5	LGH	2 3/8 x 2 1/2	4	3 7/16	4 1/8	6.2
26R61		282-0-282	240	5	3	6.3	8.7	AGF	3 3/16 x 4 1/16	4 1/4	3 3/4	4 1/2	6.5
26R124		285-0-285	300	5	3.8	12.6CT	5.2	GGV	2 1/2 x 2 3/4	3 3/4	3 1/8	3 5/8	7
26R125		285-0-285	300	5	3.8	12.6CT	5.2	AGF	2 5/16 x 2 11/16	2 3/4	3 3/4	3 1/8	7
24R127		288-0-288	25			6.3	2.7	BAH	3 1/8	2 1/4	3 5/8	2	1.3
26R98		290-0-290	200	5CT	3	6.3 6.4	1.2 8.4	ARF	2 3/4 x 3 7/16	4 9/16	3 7/16	4 1/8	6
26R12		290-0-290	270	5	3	6.3	10	AGF	3 x 3 3/4	2 7/8	4 1/2	3 3/4	9
26R127		290-0-290	300	5/3	3.8	6.3	10	GGV	2 3/4 x 2 3/4	3 3/4	3 1/8	4	7.5
26R128		290-0-290	300	5	3.8	6.3	10	AGF	3 5/16 x 2 11/16	2 13/16	3 3/4	3 1/8	7.5
26R129		290-0-290	300	5/3	3.8	6.3	10	GGH	3 5/16 x 3 9/16 or 2 1/2 x 3 9/16	3 1/8	3 3/4	4	7.5
26R130		290-0-290	300	5/3	3.8	6.3	11	GGH	3 7/16 x 2 5/8 or 3 7/16 x 3 1/4	3 7/16	4 1/8	3 1/2	7.6
26R40		292-0-292	.285	5	3	6.3	8.5	AGF	2 3/4 x 3 7/16	4 3/8	3 1/2	4 1/8	7.3
26R131		292-0-292	280	5/3	3.8	6.3	10	GGV	2 3/4 x 3 1/16	4 1/8	3 7/16	4 1/8	7
26R132		292-0-292	300	5/3	3.8	6.3	11	AGF	3 7/16 x 2 3/4	2 3/4	4 1/8	3 7/16	7
26R137		295-0-295	225	5CT	3	6.3 6.3	11.4 .9	ARF	3 5/16 x 4 1/16	4 5/8	3 3/4	4 1/2	10
26R100		295-0-295	350	5	6	6.3 6.3 6.3	8 5 2	AGF	3 x 3 3/4	3 5/8	3 3/4	4 1/2	12
26R101		295-0-295	350	5	6	6.3 6.3 6.3	8 5 2	ARF-1	3 x 3 3/4	3 5/8	3 3/4	4 1/2	12
22R92		300-0-300	50	5	2	6.3CT	2	GGV	2 x 1 7/8	3 1/8	2 5/8	2 5/8	2.7
24R54		300-0-300	50	5	2	6.3CT	2	GGV	2 x 1 3/4	3 1/8	2 5/8	2 1/2	2
24R43		300-0-300	50	5	2	6.3CT	2.7	GGV	2 x 1 3/4	3 1/8	2 5/8	2 13/16	2.7
22R122		300-0-300*				6.3CT 6.3 6.3	1.2 2 1	GGV	2 x 2 3/16	3	2 1/2	3	2.5
22R93		300-0-300	50	5	2	6.3CT	2	AGF	2 x 2 1/2	1 3/4	2 1/2	3	2.7
24R55		300-0-300	50	5	2	6.3CT	2	AGF	2 x 2 1/2	1 5/8	2 1/2	3	2
25R03		300-0-300	60	5	2	6.3CT	3	TAV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	4.5
25R26		300-0-300	60	5	2	6.3CT	3	TTV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	4.5
22R90		300-0-300	65			6.3CT	2.7	GGV	2 x 1 7/8	3 1/8	2 5/8	2 5/8	2.7
22R91		300-0-300	65			6.3CT	2.7	AGF	2 x 2 1/2	1 3/4	3	2 1/2	2.7
24R53		300-0-300	65			6.3CT	2.7	AGF	2 x 2 1/2	1 5/8	3	2 1/2	2

Power Transformers

Part No.	Notes	Plate Supply Volts	MADC	Rectifier Fil. Volts	Amps.	Other Fil. Volts	Amps.	Mtg. Type	Mtg. Centers	Dimensions H	W	D	Wt. Lbs.
24R52		300-0-300	65			6.3CT	2.7	GGV	2 x 1 3/4	3 1/8	2 5/8	2 1/2	2
24R96		300-0-300	65			6.3CT	2.7	GGV	2 x 1 3/4	3 1/8	2 5/8	2 1/2	2.7
22R02		300-0-300	70	5	2	6.3CT	3	AGF	2 x 2 1/2	3 1/8	2 1/2	3	2.7
22R102	8	300-0-300	70	5	2	6.3CT	3	AGF	2 x 2 1/2	3 1/4	2 1/2	3	2.7
22R103		300-0-300	70	5	2	6.3CT	3	GGV	2 x 2	3 1/8	2 1/2	2 7/8	2.7
24R21		300-0-300	70	5	3	6.3CT	3	AGF	2 1/4 x 2 13/16	3 1/4	2 13/16	3 3/8	4
24R21U		300-0-300	70	5	3	6.3CT	3	GGV	2 1/4 x 2 3/16	3 5/8	3	3 1/4	4
22R128		300-0-300	75			6.3/ 12.6/ 18.9/25	.65	GGV	2 1/8 x 2 1/4	3 3/8	2 13/16	3 1/4	2.8
22R04		300-0-300	90	5	2	6.3CT	3.5	AGF	2 1/4 x 2 7/8	3 1/4	2 13/16	3 3/8	3
22R121	h	300-0-300* 1000 (h)	110 2	5CT	2	2.5 6.3CT 6.3	1.75 5 .75	AGF	2 1/2 x 3 1/8	3 3/8	3 3/4	3 1/8	3.2
22R05		300-0-300	120	5	3	6.3CT	5	AGF	2 1/2 x 3 1/8	3 5/8	3 1/8	3 3/4	4.2
22R105	8	300-0-300	120	5	3	6.3CT	5	AGF	2 1/2 x 3 1/8	3 1/2	3 1/8	3 3/4	4.2
22R05U		300-0-300	120	5	3	6.3CT	5	GGV	2 1/2 x 2 9/16	3 7/8	3 1/4	3 3/8	4.2
22R104	8	300-0-300	120	5	3	6.3CT	5	GGV	2 1/2 x 2 9/16	3 7/8	3 1/4	3 3/8	4.2
24R83		300-150-0-300 150-300	175	5	4			GGV	2 1/2 x 2 3/4	3 7/8	3 1/4	3 5/8	6
26R71		300-0-300	230	5	3	6.3	9	AGF	2 3/4 x 3 7/16	4 1/4	3 7/16	4 1/8	8
26R91		300-0-300	250	5	3	6.3 6.3	11.7 1.2	AGF	2 3/4 x 3 7/16	4 7/8	3 7/16	4 1/8	9.5
26R33		300-0-300 or 250-0-250	250 280	5 5	3 3	6.3 6.3	5 5	AGF	3 x 3 3/4	4 1/2	3 3/4	4 1/2	11
26R08		300-0-300	270	5	3	6.3 6.3 6.3	5 5 1.2	AGF	3 x 3 3/4	4 1/4	3 3/4	4 1/2	11
26R136		300-0-300	325	5	6	6.3 6.3	8.8 1.5	AGF	3 5/16 x 4 1/16	5 1/8	3 3/4	4 1/2	13
26R34		300-0-300	340	5	6	6.3 6.3 6.3	10.2 1.2 1.2	ARF-1	3 x 3 3/4	5 1/2	3 3/4	4 1/2	13
26R92		300-0-300	400	5	6	6.3 6.3 6.3	9 4.5 1.2	AGF	3 x 3 3/4	5 3/8	3 3/4	4 1/2	13.5
26R42		306-0-306	460	5	6	6.3 4.6	11.4 .150	AGF	3 1/2 x 4 3/8	4 3/4	4 3/8	5 1/4	11.5
26R138		310-0-310	240	5	3	6.3 6.3	6.4 3	AGF	3 5/16 x 4 1/16	4 1/2	3 3/4	4 1/2	9
26R135		315-0-315	225	5	3	6.3	8.25	ARF	3 5/16 x 4 1/16	4 1/2	3 3/4	4 1/2	9
26R93		315-0-315	310	5	6	6.3 6.3 6.3 6.3	6 6 1.2 1	AGF	3 x 3 3/4	5	3 3/4	4 1/2	11
22R131	8,h	320-0-320* 1600 (h)	75 2			2.5 6.3	1.75 5	GGV	2 3/4 x 2 1/2	3 3/4	3 1/8	3 1/2	4.7
24R37		320-0-320	150	5	3	6.3 6.3 6.3	3 8 1	GGV	3 x 3 3/16	4 3/4	4	4 1/4	9.5
26R24		322-0-322 205-0-205	180 70	5CT	3	6.3 6.3	10 3	ARF	3 x 3 3/4	4 3/4	3 3/4	4 1/2	11.2
22R13		325-0-325	40	5	2	2.5	4	AGF	2 x 2 1/2	2 3/4	2 1/2	3	2.5
24R01		325-0-325	40	5	2	6.3CT	2	AGF	2 x 2 1/2	2 7/8	2 1/2	3	2.5
24R128	8	325-0-325	40	5	2	6.3CT	2	AGF	2 x 2 1/2	2 7/8	2 1/2	3	2.5
24R01U		325-0-325	40	5	2	6.3CT	2	GGV	2 x 1 3/4	3 1/8	2 5/8	2 5/8	2.5
24R08		325-0-325	55	5	2	6.3CT	2	AGF	2 x 2 1/2	3 1/8	3	2 1/2	3.2
24R08U		325-0-325	55	5	2	6.3CT	2	GGV	2 x 2	3 1/8	2 1/2	3 1/8	3.2
24R139	h	325-0-325 1200 (h)	60 4			1.25 6.3CT 6.3	.2 3 .6	GGV	2 1/2 x 2 11/16	3 3/4	3 1/8	4	4.7
24R17		325-0-325	70	5	3	6.3	3.5	AGF	2 x 2 1/2	3 3/8	3	2 1/2	3.2
22R37		325-0-325	80	5	2	6.3 6.3	1.2 .3	AGF	2 x 2 1/2	3 1/2	3	2 1/2	3.5
22R10		325-0-325	85	5	2	2.5CT 2.5CT	9 3.5	AGF	2 1/2 x 3 1/8	3 3/8	3 1/8	3 3/4	3.2
24R146	h,k	325-0-325 300	100 50	5	2	12.6 16	.6 .1	CHV	2 1/2 x 2 3/8	3 3/4	3 1/8	2 1/2	4.2
22R11		325-0-325	120	5	3	2.5CT 2.5CT	5 12.5	AGF	2 1/2 x 3 1/8	4 1/8	3 1/8	3 3/4	5.5
22R14		325-0-325 77V, Bias Tap	135	5 5	3 2	6.3CT 6.3CT	2 4	WAV	3 3/4 x 4 5/8	5 3/4	4 5/8	5 5/8	12.7
22R06		325-0-325	150	5	3	6.3CT	5	AGF	2 1/2 x 3 1/8	3 3/4	3 1/8	3 3/4	5.5
22R106	8	325-0-325	150	5	3	6.3CT	5	GGV	2 1/2 x 2 5/8	3 7/8	3 1/8	3 3/4	5.5
24R87	1	325-0-325	150	5	3	6.3CT	5	GGV	2 1/2 x 2 9/16	4	3 1/8	3 3/4	5.8
24R129	8	325-0-325	225	5	2	6.3CT	2	GGV	2 x 2	3 1/8	2 1/2	3	2.4
26R04		325-0-325	240	5	3	6.3 6.3 6.3	9 1.2 .9	AGF	3 x 3 3/4	3 11/16	4 1/2	3 3/4	13
26R07		325-0-325	240	5	3	6.3 6.3 6.3	9 1.2 .9	ARF	3 x 3 3/4	3 11/16	4 1/2	3 3/4	13
26R45		328-0-328	270	5	3	12.6CT	5.25	GGV-1	3 x 4 7/16	4 5/8	3 3/4	4 13/16	8
25R05		330-0-330	85	5	2	6.3CT	3	TAV	2 3/4 x 3 7/8	4 1/4	3 5/8	4 7/16	6
25R28		330-0-330	85	5	2	6.3CT	3	TTV	2 3/4 x 3 7/8	4 1/4	3 5/8	4 7/16	6
24R130		330-0-330	90	5	2	6.3	1.5	AGF	2 1/4 x 2 13/16	4 3/16	3 3/8	2 13/16	4.5
26R102		330-0-330	270	5	6	6.3 6.3	9.35 1.2	GGV	3 x 3 5/8	4 5/8	4	4 3/4	10
25R04		335-0-335	70	5	2	6.3CT	3	TAV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	4.5
25R27		335-0-335	70	5	2	6.3CT	3	TTV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	4.5
26R64		335-0-335	175	5	2	6.3 6.3	7 1.2	GGV	3 x 2 13/16	4 5/8	3 3/4	3 7/8	8.2
26R03		337-0-337	185

THORDARSON MEISSNER

Chokes

Part No.	Inductance Henrys	Inductance MADC	DC Res. In Ohms	Test Volts RMS	★Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
25C40	.65	250	200	5,000	TSV	5 x 7	8	7 7/8	7 1/16	41
26C77	.7	290	30	1,500	BAH	2 3/8	1 5/8	2 13/16	1 1/2	.75
20C60	.2 to 1.5	300	47	9,000	KTV	3 1/8 x 2 5/8	4 1/2	3 1/2	4 3/8	7
20C29	.05 to 1 Tapped	300	40	5,000	BHH	3 9/16	2 5/8	4	2 1/4	2
26C80	.5	300	30	1,500	BAH	2	1 3/8	2 3/8	1 1/2	.5
20C133	.5	300	5	1,000	CAV	2 1/4 x 2 1/8	3 7/16	2 13/16	3	3.5
26C93	1	300	45	2,500	BAH	3 1/8	2 1/4	3 3/4	2 1/4	1.7
26C44	1	300	60	2,500	BAH	2 13/16	2	3 1/4	2 1/8	1.5
26C91	2.8	300	60	2,500	BAH	3 9/16	2 5/8	2 1/4	4	2.5
20C134	6	300	68	1,500	GGV	2 1/2 x 2 1/2	3 7/8	3 1/8	3 5/8	4.5
25C48	6	300	35	7,500	TYV	3 1/2 x 5 3/8	6 1/16	5 1/16	5 7/8	16.5
20C17	8	300	90	2,500	GGV	2 1/2 x 2 3/4	3 7/8	3 9/32	3 5/8	6.3
20C69	8	300	80	3,000	GGV	3 x 2 13/16	4 3/4	4	3 7/8	7.8
20C106	8	300	80	3,000	GTV	3 x 2 13/16	4 3/4	4	3 7/8	7.8
20C70	8	300	80	3,000	CAV	3 x 2 1/2	4 5/8	3 1/2	3 3/4	7.3
25C37	8	300	60	3,500	TAV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	12.5
25C43	8	300	60	3,500	TTV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	12.5
25C89	8	300	100	4,000	KTH	4 27/32 x 4 15/32	4 5/8	4 5/8	5 1/2	8
20C18	10	300	105	3,000	GGV	2 3/4 x 3	4 1/4	3 5/8	4 1/8	7.75
25C47	10	300	40	7,500	TYV	6 x 4 1/4	7 1/16	6 1/8	6 1/2	22
20C19	2.6	310	60	1,500	GGV	2 x 2 3/8	3 1/8	2 11/16	3 1/8	3.6
26C79	.6	350	35	1,500	BAH	2 3/8	1 5/8	2 13/16	1 1/2	.6
26C78	1	350	35	1,500	BAH	2 13/16	2	3 5/16	2	1.35
20C154	5	350	60	3,500	GGV	2 1/2 x 3	3 3/4	3 1/8	4 1/8	6
20C20	8	350	105	5,000	GGV-2	3 x 2 7/8	4 5/8	3 15/16	4	8
25C67	10	350	90	5,000	NTV	4 1/8 x 4 1/8	5 1/2	5 1/8	5 1/8	15.5
20C99	15	350	150	5,000	GGV	3 x 4 1/16	4 3/4	4	5 1/4	11
26C92	.8	375	25	2,500	BAH	3 1/8	2 5/16	3 11/16	2	1.5
20C21	1.5	375	50	1,500	BAH	3 1/8	2 5/16	3 11/16	2	1.5
26C95	2.75	380	46	2,500	BAH	3 9/16	2 5/8	4	2	2.5
20C22	6	400	60	300	GGV	3 x 3 3/4	4 5/8	3 15/16	4 1/2	10.5
20C107	7.5	400	60	5,000	GTV	3 x 3 13/16	4-3/4	4	5 1/8	11.8
25C91	8	400	60	5,000	KTH-G	4 25/32 x 4 3/4	4 5/8	5 3/8	5 3/8	12
25C41	50	400	200	10,000	PUV	4 9/32 x 9 1/8	9 5/8	7 9/16	9 7/8	50
20C135	1	500	10	1,000	CAV	2 x 2	3 1/16	2 1/2	2 1/2	2.4
25C46	6	500	35	9,000	PUH	4 3/4 x 5 1/2	7	6 5/16	7 1/2	35
20C23	10	500	65	3,000	GGV	3 1/2 x 4 1/8	5 5/16	4 1/2	5 1/8	16.5
20C24	10	500	65	5,000	GGV-2	3 1/2 x 4 1/8	5 5/16	4 1/2	5 1/8	17.75
25C68	10	500	52	7,000	NSV-13	4 7/8 x 4 7/8	7	5 3/4	5 3/4	22
20C57	10	500	65	7,000	PUV	7 x 2 3/4	6	4 3/4	7 3/4	25
25C45	10	500	40	9,000	PUH	6 1/4 x 4 3/4	7	7 1/2	7 1/8	35
25C94	8	550	60	6,000	KTH-G	4 25/32 x 4 3/4	4 5/8	5 3/8	5 3/8	12
TR 152	.012	600	.58	500	BAH	1 3/4	1 3/16	2	1 1/16	.2
20C136	.16	600	6	1,000	BAH	2 3/8	1 5/8	2 13/16	1 5/8	.8
20C137	.25	600	8	1,000	BAH	2 13/16	2	3 1/4	2 1/8	1.5
26C81	.32	600	10	1,500	BAH	2 13/16	2	3 1/4	2	1.3
20C138	.12	675	3.6	1,500	BHH	2 13/16	2	3 1/4	1 3/4	1
25C44	6	700	35	10,000	PUH	4 3/4 x 5 5/16	7	7 1/2	6 7/8	35
20C139	10	700	40	10,000	CTH	5 5/16 x 4	5 3/8	6 3/16	4	15
20C164	.5	750	10	1,500	CAV	2 x 2	3	2 1/2	2 1/4	2.1
20C140	.15	800	2.3	1,000	BAV	2 13/16	2 11/16	3 5/16	2 1/8	1.5
TR 158	.003	1 A.	.25	1,000	BCH	1 1/4 x 7/16	1 1/4	1 1/2	1	.6
TR-154	.011	1 A.	.75	1,000	BCH	1 1/4 x 7/16	1 1/4	1 1/2	1	.6
20C141	.16	1 A.	3.6	1,000	BAH	3 1/8	2 1/4	3 11/16	2	1.5
20C142	.25	1 A.	6.5	1,000	BAH	3 9/16	2 1/2	4	2 1/4	2.5
20C143	.5	1 A.	10	1,000	CAV	2 1/2 x 2 1/8	3 13/16	3 1/8	2 5/8	4
20C144	5	1 A.	24	3,500	CTV	4 1/4 x 6 3/8	6 7/16	5 1/4	7 3/8	33
20C145	8	1 A.	70	5,000	CTV	4 1/4 x 5 3/8	6 7/16	5 1/4	6 3/8	29
25C77	10	1 A.	40	9,000	PUV	2 11/16 x 10 5/8	6	4 3/4	11 1/2	40
20C146	2.5	1.5 A.	20	2,000	CAV	3 5/16 x 4 1/2	8 9/16	6 3/16	5 1/2	34
TR 155	.008	1.9 A.	.5	500	BAH	1 3/4	1 3/16	2	1 1/8	.25
TR 156	.005	2 A.	.33	500	BAH	1 3/4	1 3/16	2	7/8	.2
TR 157	.005	2 A.	.35	500	BAH	1 3/8	3/4	1 5/8	3/4	.05
TR 158	.005	2 A.	.33	500	BAV	1 1/2	1 7/16	1 7/8	1 1/8	.17
20C00	.035	2 A.	.75	1,500	LHH	2 3/16 x 2	2 3/8	2 5/8	2 3/4	1.9
20C147	.04	2 A.	1.0	500	BAH	3 1/8	2 1/4	3 11/16	2	1.5
20C148	.5	2.5 A.	3.5	1,500	CAV	3 1/4 x 2 1/2	5	4 1/16	3 1/2	10
TR 159	.003	3 A.	.22	500	BAH	1 3/8	3/4	1 5/8	3/4	.05
20C150	.085	3 A.	.25	1,500	CAV	3 1/4 x 3 5/8	5	4 1/16	5	13.5
20C151	.087	3 A.	.372	1,500	CAH	3 3/4 x 4	3 13/16	4 1/2	4 1/2	12.5
20C01	.025	4 A.	.425	1,500	LHH	2 13/16 x 2 1/8	3	3 3/8	2 7/8	3.4
20C02	.01	8 A.	.15	1,500	LHH	3 1/8 x 2 1/2	3 1/4	3 3/4	3 3/16	5.3
20C153	1	9 A.	1	2,700	PUV	4 9/32 x 4 3/8	9 5/8	7 9/16	13	70
20C03	.01	12.5 A.	.11	1,500	LHH	3 7/16 x 2 3/8	3 1/2	4 1/8	3 1/16	5.9
20C160	.05	15 A.	.01	500	HFF	2 x 2 1/2	2 3/8	3	2 1/2	2.6
20C100	.005	22.5	.03	1,500	LHH	3 3/4 x 3 1/2	3 7/8	4 1/2	4 1/2	11.9

Dual Winding Chokes

LISTED IN ORDER OF MADC

Part No.	Series Inductance Henrys	Series Inductance MADC	Parallel Inductance Henrys	Parallel Inductance MADC	Total D.C.Res.	Test Volts RMS	★Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D
25C06	250	5	65	10	6,000	500	UTV	1 5/32 x 1 5/32	2	1 1/2	1 1/2
25C07	60	15	15	30	2,000	500	UTV	1 5/32 x 1 5/32	2	1 1/2	1 1/2
25C79	1.75/7	17.5	.45/1.8	35	.036	1,500	NSV-10	3 x 3	4 1/2	3 3/4	3 3/4
25C05	1	20	.25	40	60	500	RTV	11/16	1 3/16	7/8 Dia.	
25C09	4	50	1	100	100	500	UTV	1 5/32 x 1 5/32	2	1 1/2	1 1/2
25C04	60 MH	80	15 MH	160	4	500	RTV	11/16	1 3/16	7/8 Dia.	
20C163	11.5	110			550	6,500	PUV	6 11/16 x 2 11/16	6	4 3/4	7 1/4
25C08	240 MH	200	60 MH	400	6	500	UTV	1 5/32 x 1 5/32	2	1 1/2	1 1/2
20C25	300 MH	1 A.	75 MH	2 A.	3	1,500	LAV	2 1/4 x 2 11/16	3 1/2	2 7/8	3 3/16
20C26	80 MH	2.5 A.	20 MH	5 A.	.61	1,500	LAV	2 1/2 x 3 1/16	3 13/16	3 3/16	3 9/16
20C27	32 MH	5 A.	8 MH	10 A.	.19	1,500	LAV	2 3/4 x 3 1/16	4 1/4	3 1/2	3 9/16
25C78	10/40	6A.	2.5/10	12 A.	.25	1,500	NTV-9	2 11/16 x 2 11/16	4 1/8	3 7/16	3 7/16
20C28	24 MH	10 A.	6 MH	20 A.	.1	1,500	LAV	2 3/4 x 4 1/2	5 5/16	4 9/16	5 1/2

Swinging Chokes

Part No.	Inductance Henrys	Inductance MADC	D.C. Res. In Ohms	Test Volts RMS	Mtg. Type	Mtgs. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
25C79	1.75-7	17.5-1.75	.036	1,500	NTV-10	3 x 3	4 1/2	3 3/4	3 3/4	6.5
20C75	4-14	150-15	125	2,000	GGV	2 x 1 9/16	3 1/8	2 5/8	2 1/2	2.5
25C69	5-25	150-15	110	2, 500	NTV	3 x 3	4 1/2	3 3/4	3 3/4	6.5
20C76	2-12	175-17.5	100	3,000	GGV	2 x 1 11/16	3 1/8	2 5/8	2 5/8	2.5
25C86	4-20	175-17.5	90	1,500	KTH-D	3 5/8 x 3 1/8	2 15/16	4 1/8	2 5/16	3
20C77	2-12	200-20	80	3,000	GGV	2 1/16 x 2 1/4	3 5/8	3	3 1/8	3.5
20C108	2-12	200-20	90	5,000	GGV	2 1/2 x 2 3/16	4	3 1/4	3 3/8	4.5
20C39	3-15	200-20	90	1,500	BAH	3 9/16	2 5/8	4 1/8	2 1/4	2.5
20C30	5-25	200-20	150	2,500	GGV	2 1/4 x 2 3/8	3 1/2	3	3 1/2	4.6
25C80	20	225-22.5	100	2,000	KTH-E	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/8	4.5
20C109	2-12	250-25	60	3,000	LHV	2 1/4 x 2 1/2	3 1/2	2 7/8	3 1/8	4.2
20C78	2-12	250-25	60	3,000	GGV	2 1/4 x 2 3/8	3 5/8	3	3 1/2	4.25
20C72	4-16	250-25	130	3,000	GGV	2 1/2 x 2 1/2	3 7/8	3 1/4	3 3/4	6
20C155	5-25	250-25	100	2,000	GGV	2 1/2 x 2 3/8	3 7/8	3 1/8	3 1/2	5.5
25C70	5-25	250-25	100	3,000	NTV	3 9/16 x 3 9/16	5 1/2	4 1/2	4 1/2	11
20C110	4-20	300-30	80	3,000	LAV	3 x 2 1/2	4 5/8	3 3/4	3 1/2	7.2
20C79	4-20	300-30	80	3,000	GGV	3 x 2 13/16	4 3/4	4	3 7/8	8
25C90	4-20	300-30	100	4,000	KTH-F	4 27/32 x 3 25/32	4 5/8	4 5/8	5 1/2	8
20C31	5-25	300-30	105	3,000	GGV	2 3/4 x 3	4 1/4	3 5/8	4 1/8	7.6
20C32	4-20	350-35	105	5,000	GGV-2	3 x 2 7/8	4 5/8	3 15/16	4	8
20C80	5-15	350-35	100	5,000	GGV	3 x 2 9/16	4 3/4	4	3 3/4	8
25C71	5-25	350-35	90	5,000	NTV	4 1/8 x 4 1/8	5 1/2	5 1/8	5 1/8	15.5
25C91	4-20	400-40	60	5,000	KTH-G	4 25/32 x 4 3/4	4 5/8	5 3/8	5 3/8	12
20C33	4-20	400-40	65	3,000	GGV	3 x 3 3/4	4 5/8	3 15/16	4 1/2	10.5
20C41	5-25	500-50	65	3,000	GGV	3 1/2 x 4 1/8	5 5/16	4 1/2	5 1/8	16.75
20C34	5-25	500-50	65	5,000	GGV-2	3 1/2 x 4 1/8	5 5/16	4 1/2	5 1/8	17
25C72	5-25	500-50	52	7,000	NTV	4 7/8 x 4 7/8	7	5 3/4	5 3/4	22
25C95	4-20	5[illegible]-55	60	6,000	KTH-G	4 25/32 x 4 3/4	4 5/8	5 3/8	5 3/8	12
25C76	5-25	1A.-.1A.	40	9,000	PUV	2 11/16 x 10 5/8	6	4 3/4	11 1/2	42
25C96	10-45 MH	1.75-.175	.5	500	KTH-A	2 3/8 x 2	1 7/8	2 13/16	1 3/8	1
25C97	8-180 MH* 2-25 MH#	2.5-.25A. 5-.5A.	.6 .15	1,500	KTH-C	3 1/4 x 2 3/4	2 1/2	3 3/4	2 5/32	2
20C40	8-100 MH* 2-25 MH#	2.5A.-250 5A.-500	.6 .16	1,500	BAH	3 1/8	2 5/16	3 3/4	2	1.5
25C73	10-100 MH* 2.5-25 MH#	2.5A.-250 5A.-500	.6 .15	1,500	NTV	2 3/16 x 2 3/16	3 1/4	2 9/16	2 9/16	2.5
25C78	10-40 MH* 2.5-10 MH#	12A.	.25 .06	1,500	NTV-9	2 11/16 x 2 11/16	4 1/8	3 7/16	3 7/16	5

Filament Transformers with Single Secondary

50/60 cycles

Part No.	Primary Voltage	Secondary Volts	Secondary Amps.	Test Volts RMS (Sec.)	★Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
21F34	117	2.5	1.5	2,500	BAH	2 3/8	1 5/8	2 7/8	1 1/2	.7
21F35	117	2.5CT	2.5	2,500	BAH	2 3/8	1 5/8	2 7/8	1 1/2	.7
25F94	107/117	2.5CT	2.5	2,500	TAV	2 3/8 x 1 1/2	2 11/16	2 3/4	2 1/4	1.5
21F120	117	2.5CT	3	1,500	BAH	2 3/8	1 5/8	2 7/8	1 3/4	.6
21F00	117	2.5CT	5	2,500	BAV	2 3/8	2 3/8	2 7/8	1 3/4	1
21F31	117	2.5CT	5	7,500	BAV	2 13/16	2 11/16	3 5/16	2 1/4	1.5
21F130	100/115/200/220	2.5CT	5	20,000	CAV	3 1/4 x 2 3/4	4 7/8	4 1/8	2 3/4	3.5
25F56	115/230	2.5CT	5.25	3,500	TTV	2 11/16 x 1 3/4	3 1/8	3	2 1/2	2
21F92	117	2.5CT	6	1,500	BAH	2 13/16	2	3 5/16	1 7/8	1
21F102	107/117	2.5CT	6	2,500	GGV	2 x 1 7/16	3 3/16	2 5/8	2 3/8	2.2
25F20	105/115	2.5CT	10	1,500	KTH-C	3 1/4 x 2 3/4	2 1/2	3 3/4	2 5/32	2
21F93	117	2.5CT	10	1,500	BAH	3 1/8	2 5/16	3 3/4	2 1/8	1.5
21F01	117	2.5CT	10	2,500	BAV	2 13/16	2 11/16	3 5/16	2	1.5
21F103	107/117	2.5CT	10	7,500	BAV	3 1/8	3 1/8	3 5/8	2 1/2	2.5
21F32	107/117	2.5CT	10	2,500	GGV	2 x 1 3/4	3 1/8	2 5/8	2 5/8	2.5
25F57	115/230	2.5CT	10	2,500	TTV	3 1/8 x 2	3 3/4	2 7/8	3 1/2	3
25F79	105/115/ 220/230	2.5CT	10	6,000	NTV	2 11/16 x 2 11/16	4 1/8	3 7/16	3 7/16	5
21F02P	117	2.5CT	10	7,500	WAV	2 3/8 x 2 3/4	4 1/4	3	3 3/8	8.5
21F02	117	2.5CT	10	10,000	CAV	2 x 1 3/4	3 1/8	2 1/2	2 1/4	2.75
21F58	117	2.5CT	10.	10,000	LHV	2 1/4 x 1 7/8	3 1/2	2 7/8	2 1/2	2.5
25F23	105/115	2.5CT	10	10,000	KTH-E	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
25F80	105/115/210/ 220/230	2.5CT	10	11,000	NTV	3 x 3	4 1/2	3 3/4	3 3/4	6.5
25F59	115/230	2.5CT	15	9,000	TTV	3 7/8 x 2 3/4	4 1/4	3 5/8	4 7/16	6
21F121	117	2.5	16	500	BAH	3 1/8	2 1/4	3 11/16	2 1/8	1.7
25F24	105/115	2.5CT	20	10,000	KTH-E	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
21F122	117	2.5	60	1,500	CTH	4 1/16 x 2 1/8	4 1/8	4 7/8	2 1/2	5
21F123	117	5.0CT	2.5	7,500	BAH	3 9/16	2 1/2	4	2 1/4	2
21F94	117	5.0CT	3	1,500	BAH	2 13/16	2	3 5/16	2	1.3
21F03	117	5.0CT	3	2,500	BAV	2 3/8	2 3/8	2 7/8	1 3/4	1
21F104	117	5.0CT	3	2,500	LHV	2 x 1 5/8	3 1/8	2 1/2	2 1/2	1.8
21F36	117	5.0CT	3	5,000	GGV	2 x 1 1/2	3 1/8	2 5/8	2 1/2	2.5
21F05	117	5.0CT	3	10,000	CAV	2 x 1 3/4	3 1/8	2 1/4	2 1/2	2.5
25F21	105/115	5.0CT	4	2,500	KTH-C	3 1/4 x 2 3/4	2 1/2	3 3/4	2 5/32	2
25F60	115/230	5.0CT	4	2,500	TTV	1 3/4 x 2 11/16	3 1/8	2 1/2	3	2.25
21F60	117	5.0CT	6	1,500	BAH	3 1/8	2 1/4	3 11/16	2 1/8	1.7
21F105	107/117	5.0CT	6	2,000	BAV	2 11/16	2 5/8	3 5/16	2 1/4	2
21F37	117	5.0CT	6	2,500	LHV	2 x 2	3 1/8	2 1/2	2 1/2	2.25
21F133	105	5.0	6.5	35,500	CTV	6 7/8 x 3 5/8	9 1/4	7 5/8	4 1/2	32
25F39	125/135/230	5.0CT	7.5	15,000	PUV	2 3/16 x 5 5/8	5 3/16	4 1/16	6 1/8	9
21F63	117	5.0CT	8	2,500	BAH	3 9/16	2 9/16	4	2 1/4	2.5
21F04	117	5.0CT	8	2,500	CAV	2 x 1 3/4	3 1/8	2 1/4	2 1/2	2.5
21F13	117	5.0CT	10	2,500	CAV	2 x 2 3/8	3 1/8	2 7/8	2 1/2	3
27F51	115/230	5.0CT	10	2,500	HA	2 19/64 x 1 55/64	4 1/4	2 5/8	3 1/16	3.5
25F61	115/230	5.0CT	10	2,500	TTV	2 x 3 1/8	3 1/2	3 1/2	2 7/8	3.5
25F62	115/230	5.0CT	10	10,000	TTV	2 3/4 x 3 7/8	4 1/4	3 5/8	4 7/16	6
21F124	230	5.0CT	10	11,000	LTH	3 3/4 x 2 1/8	3 7/8	4 1/2	3 1/4	6
21F125	117	5.0CT	10	40,000	LTV-1	2 7/8 x 5 9/16	7	6 5/8	3 5/8	7.2
21F06	117	5.0CT	13	2,500	CAV	2 x 2	3 1/8	2 1/2	2 1/2	3.25
21F38	107/117	5.0CT	14	10,000	KTV	2 3/4 x 6	5 1/8	4 5/8	8 1/2	12.5
26F66	117	5.0CT	15	2,500	LAV	2 x 2 1/4	3 1/8	2 1/2	2 7/8	3.5
21F20	117	5.0CT	15	10,000	CAV	2 1/2 x 3	4 5/8	3 3/4	3 1/4	6.75
21F126	220	5.0CT	15	10,000	CAV	2 1/2 x 3	4 5/8	3 3/4	3 1/4	6.75
21F20P	115	5.0CT	15	10,000	WAV	3 3/4 x 4 5/8	5 3/4	4 5/8	5 3/8	13
25F63	115/230	5.0CT	20	2,500	TTV	2 3/4 x 3 7/8	4 1/4	3 5/8	4 7/16	6.5
25F64	115/230	5.0CT	20	10,000	TTV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	13
21F07	117	5.0CT	21	2,500	CAV	2 1/4 x 2 1/2	3 7/8	2 3/8	2 5/8	5
21F39	107/117	5.0CT	22	10,000	KTV	2 3/4 x 6	5 1/8	4 5/8	8 1/2	13.5
25F81	105/115 210/220/230	5.0	25	11,000	NTV	3 9/16 x 3 9/16	5 1/2	4 1/2	4 1/2	11
21F07A	117	5.0CT	29	2,500	CAV	2 1/2 x 2 1/2	3 7/8	3 1/8	3 1/8	5.5
21F33	110/115/120	5.0CT	30	2,500	GTV	2 1/2 x 3 1/8	3 7/8	3 3/16	4 7/8	6.2
25F65	115/230	5.0CT	30	2,500	TTV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	10.5
25F66	115/230	5.0CT	30	2,500	TSV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	10.5
21F128	230	5.0CT	30	11,000	LTH	3 3/4 x 3	3 7/8	4 1/2	4	9
21F129	117	5.0	100	1,500	LAH	4 15/16 x 3 3/8	4 5/16	5 3/4	4 3/4	13
21F64	117	5.2CT	13	1,500	GGV	2 1/4 x 2 1/4	3 1/2	3	3 3/8	4.25
21F65	117	5.2CT	13	1,500	LAV	2 1/4 x 2 1/2	3 7/16	2 13/16	2 15/16	4
21F67	117	5.2CT	24	1,500	LAV	2 1/2 x 3/16	3 13/16	3 3/16	3 7/16	6.75
21F73	117‡	6.0CT/ 6.3CT	6	2,000	BAH	3 9/16	2 9/16	4	2 1/4	2.5
21F75	117‡	6.0CT/ 6.3CT	11	3,000	LAV	2 1/4 x 2 7/16	3 1/2	2 7/8	2 15/16	4
21F109	117‡	6.0CT 6.5CT/ 7.0CT	13 A.	2,000	LHV	2 1/4 x 2 11/16	3 3/8	2 13/16	3 3/8	4.5
21F106	115(a)	6.3	.5	1,500	BAH	2	1 3/8	2 3/8	1 1/4	.3
21F127	250(a)	6.3	.6	1,500	BAH	2	1 3/8	2 3/8	1 1/4	.3
21F21	117	6.3	.6	2,500	BAH	2	1 3/8	2 3/8	1 1/4	.75
25F19	117	6.3	.6	3,500	TAV	1 1/2 x 2 3/8	2 7/8	2 11/16	2 1/4	2
21F08	117	6.3CT	1	2,500	BAV	2	2	2 3/8	1 1/2	.7
21F131	220	6.3CT	1	2,500	BAV	2	2	2 3/8	1 1/2	.7
21F132	117	6.3	1	1,780	BAV	2 1/32	2	2 3/8	1 7/16	.7
21F140	117(a)	6.3CT	1.2	1,700	BAV	2 3/8	1 5/8	2 7/8	1 5/8	1.8
21F09	117	6.3CT	1.2	2,500	BAH	2 3/8	1 5/8	1 5/8	2 7/8	1
25F77	117	6.3CT	1.2	2,500	NTV	1 1/2 x 1 1/2	2 1/2	1 13/16	1 13/16	1
26F60	117	6.3	1.2	5,000	BAH	2 13/16	2	3 1/4	2	1.25
26F65	6.3	6.3	1.2	5,000	BAH	2 13/16	2	3 1/4	2	1.25
25F67	115/230	6.3CT	1.5	2,500	TTV	1 1/2 x 2 3/8	2 3/4	2 1/4	2 11/16	1
25F22	105/115	6.3CT	3	1,500	KTH-C	3 1/4 x 2 3/4	2 1/2	3 3/4	2 5/32	2
21F69	117	6.3/5

Power Transformers

Part No.	Notes	Plate Supply Volts	MADC	Rectifier Fil. Volts	Amps.	Other Fil. Volts	Amps.	★Mtg. Type	Mtg. Centers	Dimensions H	W	D	Wt. Lbs.
22R108	8	350-0-350	90	5CT	3	2.5CT	3.5	GGV	2 1/4 x 2 5/8	3 1/2	2 7/8	3 3/4	4.5
22R109		350-0-350	90	5	3	6.3CT	3.5	GGV	2 3/4 x 2 5/16	4 1/4	2 3/16	3 1/2	4.4
22R32		350-0-350	110	5CT	2	6.3CT 6.3CT	3 3	GGV	2 1/2 x 2 3/4	3 7/8	3 1/4	4	5.8
22R110	8	350-0-350	110	5CT	2	6.3CT 6.3CT	3 3	GGV	2 1/2 x 2 3/4	3 7/8	3 1/4	4	5.8
22R15		350-0-350	110	5CT	2	6.3CT 6.3CT	3 3	WAV	3 1/2 x 3 5/8	5 1/2	4 1/8	4 1/4	8.1
22R111	6	350-0-350	110	5CT	3	6.3CT	4.5	GGV	3 x 2 5/16	4 5/8	3 3/4	3 3/8	4.5
24R134		350-0-350	110			6.3CT 12.6	5 2.4	GGV	2 1/2 x 2 3/4	3 7/8	3 1/8	3 7/8	5.5
24R36		350-0-350	120	5CT	3	2.5CT 2.5CT	3.5 12.5	AGF	2 3/4 x 3 7/16	3 5/8	3 7/16	4 1/8	5.5
24R05		350-0-350	120	5	3	6.3CT	4.7	AGF	2 1/2 x 3 1/8	4 1/8	3 1/8	3 3/4	5.7
24R05U		350-0-350	120	5	3	6.3CT	4.7	GGV	2 3/4 x 2 1/2	3 7/8	3 1/4	3 7/8	5.7
24R135	8	350-0-350	120	5	3	6.3CT	4.7	GGV	2 3/4 x 2 1/2	3 7/8	3 1/4	3 7/8	5.7
24R18		350-0-350	150	5	3	6.3	6.5	GGV	2 1/2 x 2 7/8	3 7/8	4 1/4	4 1/8	6
24R60		350-0-350	160	5	3	6.3CT	5	GGV	2 1/2 x 2 5/8	3 7/8	3 9/32	3 1/2	5.7
24R61		350-0-350	160	5	3	6.3CT	5	AGF	3 1/8 x 2 1/2	2 5/8	3 3/4	3 1/8	5.6
24R98		350-0-350	175	5 5	3 2	6.3 6.3	7 .9	AGF	3 x 3 3/4	4 1/8	3 3/4	4 1/2	8.5
26R74		350-0-350 220-0-220	180 70	5	3	6.3 6.3	10 2	AGF	3 x 3 3/4	4 3/4	3 3/4	4 1/2	11.5
22R07		350-0-350	200	5	3	6.3CT	6	AGF	3 x 3 3/4	3 7/8	3 3/4	4 1/2	7
22R88		350-0-350	200	5	3	6.3CT	8	AGF	3 7/16 x 2 3/4	3 1/8	4 1/8	3 7/16	8
22R107	8	350-0-350	200	5	3	6.3CT	6	AGF	3 x 3 3/4	3 7/8	3 3/4	4 1/2	7
24R65		350-0-350	200	5	3	6.3CT	8	AGF	3 7/16 x 2 3/4	2 7/8	4 1/8	3 7/16	8
22R87		350-0-350	200	5	3	6.3CT	8	GGV	2 3/4 x 3 1/4	4 1/4	3 5/8	4 3/8	8
22R112		350-0-350	200	5	3	6.3CT	6	GGV	3 x 2 9/16	4 5/8	3 3/4	3 5/8	7
24R64		350-0-350	200	5	3	6.3CT	8	GGV	2 3/4 x 3	4 1/4	3 5/8	4 1/8	8
26R99		350-0-350	200	5	3	6.3 6.3 6.3	6 4 2	AGF	3 x 3 3/4	2 5/8	3 3/4	4 1/2	9
26R25U		350-0-350	200	5 5	3 3	6.3 6.3	7 .6	GGV	3 x 3 3/4	4 5/8	3 7/8	4 7/8	11.2
26R20		350-0-350	225	5CT	3	6.3 6.3	10.7 2.7	ARF	3 x 3 3/4	4 3/4	3 3/4	4 1/2	11.5
26R21		350-0-350	225	5	3	6.3 6.3	10 2.7	AGF	3 x 3 3/4	4 3/4	3 3/4	4 1/2	11.5
26R69		350-0-350	270	5 6	2 3	6.3 6.3	7.8 1.6	AGF	3 x 3 3/4	5 1/4	3 3/4	4 1/2	13.1
26R54		356-0-356 268-0-268	180 148	5 5	3 3	12.6CT	6	GGV	3 x 4	4 1/2	3 3/4	5	11.6
26R73		356-0-356	295	5 5	2 6	12.6	5	AGF	3 3/16 x 4 1/16	6 5/8	3 13/16	4 3/4	17.2
26R62		356-0-356	458	5	6	6.3 6.3	14.5 2	VAV	3 5/16 x 4 1/16	4 3/4	4 7/8	4	11
22R31		360-0-360	80	5	2	6.3CT	2.5	GGV	2 x 2 3/4	3 1/8	2 9/16	4	4
24R22		360-0-360	120	5	3	6.3CT	3.5	AGF	2 1/2 x 3 1/8	3 3/4	3 1/8	3 3/4	5.5
24R22U		360-0-360	120	5	3	6.3CT	3.5	GGV	2 1/2 x 2 7/16	3 7/8	3 1/4	3 3/4	5.5
26R23		360-0-360	180	5	3	6.3	9	AGF	2 3/4 x 3 1/2	4 1/4	3 1/2	4 1/8	8
26R22		360-0-360	180	5CT	3	6.3	9	ARF	2 3/4 x 3 1/2	4 1/4	3 1/2	4 1/8	8
26R82		360-0-360 165-0-165	185 65	5	3	6.45	12	AGF	3 x 3 3/4	4 1/4	3 3/4	4 1/2	9.6
26R96	12	360-0-360 165-0-165	185	5	3	6.3	12	AGF	3 x 3 3/4	4 3/8	3 3/4	4 1/2	10.5
26R65		360-0-360	200	5	3	6.3 6.3	1.2 7.75	AGF	3 3/16 x 4 1/16	5 9/16	3 13/16	4 3/4	16
26R141		360-0-360 220-0-220	220 110	5 5	2 3	12.6CT	5.8	GGV	3 x 3 7/8	4 7/8	3 3/4	5 1/4	11.5
26R17		360-0-360	250	5 5	3 3	6.3 6.3	9 3	AGF	3 x 3 3/4	5 1/8	3 3/4	4 1/2	11
26R15		360-0-360	250	5 5	3 3	6.3 6.3	9 3	AGF	3 x 3 3/4	5 1/8	3 3/4	4 1/2	11
26R68		360-0-360	250	5 5	2 3	6.3 6.3	8 .6	AGF	3 3/16 x 4 1/16	5 5/16	3 3/4	4 1/2	11.5
26R134		360-0-360	260	5 5	6 2	6.3	8.85	AGF	3 3/16 x 4 1/16	5 1/2	3 3/4	4 1/2	13
26R35		360-0-360	270	5 5	3 3	6.3 6.3 6.3 6.3	4.5 4.5 1.6 2.5	AGF	3 x 3 3/4	4 1/4	3 3/4	4 1/2	10
22R116		360-0-360 80V. Bias Tap	300	5	3	6.3 6.3	4 4	HHF	2 3/4 x 3 7/16	3 3/16	3 7/16	4 7/8	7.8
26R16		362-0-362	295	5 5	2 6	12.6CT	5	AGF	3 x 3 3/4	4 3/4	3 3/4	4 1/2	10.7
24R94		365-0-365 200-0-200	210 90	5 5	2 6	6.3 6.3	5 5	AGF	3 x 3 3/4	5 7/8	3 3/4	4 1/2	16
26R133		365-0-365	270	5	6	6.7	4.5	AGF	3 3/16 x 4 1/16	4 7/8	3 3/4	4 1/2	10
26R01		367.5-0-367.5	275	5 6.3/5	6 2	6.3CT	8.5	AGF	3 x 3 3/4	3 7/8	3 3/4	4 1/2	13
25R09		370-0-370	150	5	3	6.3CT 6.3CT	4 1	TAV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	11.5
25R32		370-0-370	150	5	3	6.3CT 6.3CT	4 1	TTV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	11.5
26R83		370-0-370	190	5	3	6.3 6.3	7.75 1.2	AGF	3 x 3 3/4	4 9/16	3 3/4	4 1/2	10.8
26R46		370-0-370	190	5	3	6.3 6.3	7.9 1.2	AGF	3 3/16 x 4 1/16	5 3/16	3 3/4	4 1/2	11.2
24R24		370-0-370	275	5CT	3	6.3CT	7	AGF	3 x 3 3/4	4 1/4	3 3/4	4 1/2	9.5
25R08		375-0-375	120	5	3	6.3CT	4	TAV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	9.5
25R31		375-0-375	120	5	3	6.3CT	4	TTV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	9.5
24R06		375-0-375	150	5	3	6.3CT	4.7	AGF	2 3/4 x 3 1/2	3 7/8	3 7/8	4 1/8	6.2
24R06U		375-0-375	150	5	3	6.3CT	4.7	GGV	2 3/4 x 2 7/8	4 1/4	3 1/2	4	6.2
24R137		375-0-375	150	5	3	6.3CT	4.7	GGV	2 3/4 x 2 7/8	4 1/4	3 1/2	4	6.2
24R138		375-0-375	150	5	3	12.6CT	2.5	AGF	2 3/4 x 3 7/16	3 7/8	3 1/2	4	5.5
22R17		375-0-375	160	5	3	12.6CT	3.5	WAV	3 3/4 x 4 5/8	5 3/4	4 5/8	5 3/8	12.2
22R33		375-0-375	160	5	3	6.3CT	5	GGV	2 7/8 x 3	4 5/8	3 7/8	4	7.5
22R68		375-0-80-375	160	5	3	6.3CT 2.5CT	5 5	GGV	2 3/4 x 3 1/8	4 1/4	3 5/8	4 1/4	7.2
26R18		375-0-375 325-0-325	170 130	5 5 5	3 3 2	12.6CT 6.3	5 2.6	AGF	3 x 3 3/4	4 3/4	3 3/4	4 1/2	11.5
24R48		375-0-375	175	5	3	6.3CT	8	GGV	2 3/4 x 3 1/4	4 1/4	3 5/8	4 3/8	8.5
24R62		375-0-375	175	5	3	6.3CT	8	GGV	2 3/4 x 2 7/8	4 1/4	3 5/8	4	7.4
24R49		375-0-375	175	5	3	6.3CT	8	AGF	3 7/16 x 2 3/4	3 1/8	4 1/8	3 7/16	8.5
24R63		375-0-375	175	5	3	6.3CT	8	AGF	3 7/16 x 2 3/4	2 3/4	4 1/8	3 7/16	7.4
24R95		375-0-375	180	5CT	3	6.3CT 2.5CT	3.3 6	AGF	2 3/4 x 3 7/16	3 3/8	4 1/8	3 7/16	8.2
22R66		375-80-0-375	200	5	3	6.3CT 2.5CT	6 10	GGV	3 x 3 3/8	4 5/8	4	4 1/2	9
26R84		375-0-375	205	5 5	3 2	6.3	5.6	AGF	3 x 3 3/4	4 1/4	3 3/4	4 1/2	9.1
26R85		375-0-375	225	5CT	3	6.3 6.3	9 2	ARF	3 x 3 3/4	5	3 3/4	4 1/2	10.5
26R66		378-0-378	205	5	3	6.3 6.3	9.5 1.2	GGV	3 x 3 9/16	4 5/8	3 3/4	4 5/8	10.8
22R118		380-0-380 *	125	5	3	6.3CT	2.85	GGV	2 3/4 x 3	4 1/8	3 1/2	4 1/8	4.9
22R125		380-0-380	150	5 5	2 2			HKF	2 3/4 x 3 7/16	2 9/16	4 1/8	3 7/16	4.7
26R97		380-0-380	180	5	3	6.3	9	ARF	2 3/4 x 3 7/16	5 1/2	3 7/16	4 1/8	9.7
26R86		380-0-380	220	5	3	6.3 6.3 6.3	7 5 1.2	GGV	3 x 3 9/16	4 3/4	4	4 3/4	10.5
26R95		380-0-380	250	5	3	6.3 6.3 6.3	7 5 1.2	AGF	3 x 3 3/4	5	3 3/4	4 1/2	10.5
22R126		380-0-380 35V. Bias Tap	340 25	5	6	6.3CT	5.6	GGV	3 x 3 3/4	4 1/2	3 3/4	4 7/8	10.5
24R42		385-0-385	160	5	3	6.3CT	5	AGF	2 1/2 x 3 1/8	4 5/16	3 3/4	3 1/8	7
26R87		385-0-385 235-0-235	195 105	5 5 5	2 3 2	6.3 6.3	7.65 .6	AGF	3 x 3 3/4	4 3/4	3 3/4	4 1/2	11
25R10		385-0-385	200	5	3	6.3CT 6.3CT	4.5 1	TAV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	12
25R33		385-0-385	200	5	3	6.3CT 6.3CT	4.5 1	TTV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	12
22R34		385-0-385	225	5	3	6.3	5	GGV	3 x 3 5/16	4 5/8	3 7/8	4 3/8	9.2
22R113	8	385-0-385	225	5	3	6.3	5	GGV	3 x 3 5/16	4 5/8	3 7/8	4 3/8	9.2
26R67		385-0-385	230	5 5	3 2	6.3	9	AGF	3 3/16 x 4 1/16	5 9/16	3 13/16	4 3/4	12
26R140		385-0-385	230	5 5	3 2	6.3 6.45	1.2 7.4	AGF	3 3/16 x 4 1/16	5 9/16	3 3/4	4 1/2	13
26R103		388-0-388	275	5	6	6.3 6.3	8.5 1.2	GGV	3 x 4 1/8	4 3/4	3 7/8	5 1/4	10

Power Transformers

PRIMARY 117 VOLTS 50/60 CYCLES

Part No.	Notes	Plate Supply Volts	MADC	Rectifier Fil. Volts	Amps.	Other Fil. Volts	Amps.	★Mtg. Type	Mtg. Centers	Dimensions H	W	D	Wt. Lbs.
26R104		388-0-388	230	5 6.3/5	3 2	6.3	9	AGF	3 x 3 3/4	3 7/16	3 3/4	4 1/2	10
26R02		390-0-390 or 220-0-220	300	5 5 5	3 3 2	6.3 6.3	8.5 3.5	AGF	3 x 3 3/4	5	3 3/4	4 1/2	14
26R27U		390-0-390 325-0-325	160 130	5 5 5	3 3 3	6.3 6.3	8 4	AGF	3 x 3 3/4	4 5/8	3 3/4	4 1/2	12
26R05		395-0-395 or 325-0-325	310	5 5	3 2	6.3 6.3	5 5	AGF	3 x 3 3/4	4 1/8	3 3/4	4 1/2	11
26R06		395-0-395 or 325-0-325	310	5 5	3 2	6.3 6.3 6.3	5 5 2.6	GGV	3 x 4 3/8	4 3/4	3 7/8	5 1/2	13
24R66		400-0-400	30	5	2	6.3 6.3	1.2 1.2	GGV	2 x 2 3/8	3 1/8	2 5/8	3 1/8	3
24R76		400-0-400 and 800	30 5	5 5	2 2	6.3CT 6.3 6.3	3 1 .6	HKF	3 1/8 x 2 1/4	2 5/8	3 3/4	3 1/8	4.5
24R78	13	400-0-400 and 650	70 3	1.25	.3	6.3CT 6.3	3.5 .6	GGV	2 1/4 x 2 5/8	3 1/2	3	3 3/4	5
24R35		400-0-400	110	5CT	3	2.5CT 2.5CT	3.5 15	AGF	2 1/2 x 3 1/8	3 3/8	3 1/8	3 3/4	5.5
24R140		400-0-400	125	5	2	6.3CT	2.5	GGV	2 1/2 x 2 3/8	3 7/8	3 1/8	3 1/2	4.2
24R45		400-0-400	140	5	3	6.3CT	4	GGV	2 3/4 x 2 1/2	4 1/4	3 5/8	3 5/8	5.7
24R26		400-0-400	175	5	3	6.3	4.5	AGF	3 x 3 3/4	3 7/8	3 3/4	4 1/2	8
24R26U		400-0-400	175	5	3	6.3	4.5	GGV	3 x 2 13/16	4 3/4	4	4	8
24R38		400-0-400 80V. Bias Tap	175	5CT	3	2.5 6.3CT 6.3CT	1.75 2.5 2.5	GGV	3 x 2 13/16	4 3/4	4	3 7/8	8.2
26R139		400-0-400 330-0-330	180 180	5 5	3 3			GGV	3 x 3 1/2	4 5/8	3 3/4	4 3/4	11
24R07		400-0-400	200	5	3	6.3CT	5	AGF	3 x 3 3/4	4 1/2	3 3/4	4 1/2	9.2
24R142	8	400-0-400	200	5	3	6.3CT	5	AGF	3 x 3 3/4	4 1/2	3 3/4	4 1/2	9.2
24R07U		400-0-400	200	5	3	6.3CT	5	GGV	3 x 3 3/8	4 5/8	3 3/4	4 1/2	9.2
24R141	8	400-0-400	200	5	3	6.3CT	5	GGV	3 x 3 3/8	4 5/8	3 3/4	4 1/2	9.2
24R39		400-0-400	200	5	3	6.3CT 18) 24) 50 W. 50)	5.3	AGF	3 x 3 3/4	4 1/8	3 3/4	4 1/2	7.7
26R19		400-0-400 212-0-212	220 90	5 5	3 2	6.3 6.3	10 2.6	AGF	3 x 3 3/4	4 3/4	3 3/4	4 1/2	11.7
26R75		400-0-400 212-0-212	220 90	5 5 5	3 3 2	6.3 6.3	10 2.6	AGF	3 x 3 3/4	5 1/4	3 3/4	4 1/2	11.9
24R03		400-0-400	250	5	4	6.3CT	5	GGV	3 x 3 5/16	4 5/8	3 7/8	4 3/8	8
24R143	8	400-0-400	250	5	4	6.3CT	5	GGV	3 x 3 5/16	4 5/8	3 7/8	4 3/8	8
25R11		400-80-0-80-400	250	5 5 5	6 2	6.3CT	7	TAV	3 1/2 x 5 3/8	6 1/16	5 1/16	5 7/8	15
25R34		400-80-0-80-400	250	5 5	6 2	6.3CT	7	TTV	3 1/2 x 5 3/8	6 1/16	5 1/16	5 7/8	15
22R64		400-0-400	300	5	6	6.3CT	6	GGV	3 x 3 3/8	4 5/8	4	4 1/2	11
22R65		400-0-400	300	5	6	6.3CT	6	AGF	3 x 3 3/4	4 1/4	3 3/4	4 1/2	11
26R26U		400-0-400	300	5 5	3 6	12.6CT	10	GGV	3 1/2 x 4 1/4	5 1/2	4 5/8	5 3/4	10.2
22R35		400-0-400	340	5	6	6.3CT	7	GGV	3 x 4	4 5/8	3 7/8	5 1/4	12.5
22R114	8	400-0-400	340	5	6	6.3CT	7	GGV	3 x 4	4 5/8	3 7/8	5 1/4	12.5
22R59		400-0-400	500	5	6	6.3CT 6.3	7 3	GGV	3 1/2 x 4 5/8	5 5/16	4 1/2	5 5/8	19
25R59		410-0-410	70			6.3	1	RTV	2 1/8 x 2 1/8	3 17/32	2 15/16	Dia.	1.8
26R00		420-0-420 360-0-360 300-0-300	295	5 5	6 3	6.3 6.3 6.3 6.3	3 3 3 3	AGF	3 x 3 3/4	5	3 3/4	4 1/2	11
26R76		420-0-420 365-0-365 300-0-300 185-0-185	300	5 5	6 4	6.3 6.3 6.3 6.3	4 4 4 1.2	AGF	3 x 3 3/4	5 1/8	3 3/4	4 1/2	13
25R12		425-0-425	70	5	2	6.3CT	3	TAV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	4.5
25R35		425-0-425	70	5	2	6.3CT	3	TTV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	4.5
25R76	1	425-0-425	70	5	2	6.3CT	3	TA	2 5/8 x 2 1/8	4 7/8	3 1/16	3 9/16	4.5
25R46		435-365-0-365-435 125-0-125	125 25	5 5	3 2	6.3CT 2.5CT	3 5	NTV	3 9/16 x 3 9/16	5 1/2	4 1/2	4 1/2	6.5
24R14		435-0-435 80V. Bias Tap	250	5 6.3/5	3 3	6.3CT 2.5	3 10	GGV	3 x 3 13/16	4 5/8	3 13/16	4 7/8	11.8
24R15		438-0-438	185	5	3	6.3 6.3	4 3	GGV	3 x 3 3/8	4 5/8	3 7/8	4 1/2	9.5
25R13		440-0-440	50	5	2	6.3CT	3	TAV	2 3/4 x 3 7/8	4 1/4	3 5/8	4 7/16	6
25R36		440-0-440	50	5	2	6.3CT	3	TTV	2 3/4 x 3 7/8	4 1/4	3 5/8	4 7/16	6
22R45		440-0-440	59	6.3 6.3	.6 .3	6.3 6.3	.9 3	GGV	2 1/2 x 2 1/4	3 7/8	3 1/4	3 1/8	4.5
24R75		440-0-440 1250	125 5	5 5	3 3	6.3 2.5 2.5	.6 1.75 1.75	HKF	3 7/16 x 2 3/4	3 1/4	4 3/16	3 1/2	7.5
24R25		440-0-440	130	5	3	6.3CT	3.5	GGV	2 3/4 x 2 13/16	4 1/4	3 1/2	4 1/8	7
22R49		440-360-0-360-440	157	5	3	6.3CT 6.3 6.3	8 3 1	GGV	3 x 3 5/8	4 5/8	4	4 3/4	12
25R14		440-0-440	165	5	3	6.3 6.3 6.3 6.3	7.5 3 3 .6	TTV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	12
25R16		450-0-450	60	5	2	6.3CT	3.4	TAV	2 3/4 x 3 7/8	4 1/4	3 5/8	4 7/16	6.5
25R37		450-0-450	60	5	2	6.3CT	3.4	TTV	2 3/4 x 3 7/8	4 1/4	3 5/8	4 7/16	6.5
22R130	h	450-0-450 800 (h)	125 2	5	3	6.3 2.5 6.3 6.3	1.75 1.75 6.25 .6	GGV	3 x 4	4 1/2	3 3/4	4 7/8	12.1
25R15		450-0-450	200	5	2	6.3 6.3 6.3	4 4 .6	TTV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	12
26R30U		450-0-450 325-0-325	240 200	5 5 5	3 3 3	6.3 6.3 6.3	6 6 2.6	GGV	3 5/8 x 3 7/8	6	4 3/4	5 7/8	16
22R60		450-0-450	250	5	4	6.3CT 6.3	2 4	GGV	3 x 3 5/8	4 5/8	4	4 3/4	12
24R150		450-0-450	250			18	.65	CAV	2 1/2 x 3	3 3/4	3 1/8	3 1/2	6
25R52	1	490-400-0-400-490	175	5	3	2.5CT 6.3CT	6 4	KTH-F	4 27/32 x 3 25/32	4 5/8	4 5/8	5 1/2	8
25R17		500-0-500	70	5	3	6.3CT	4	TAV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	9.5
25R38		500-0-500	70	5	3	6.3CT	4	TTV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	9.5
25R47	1	500-0-500 and 80-0-80	250 100	5 5	3 2	6.3CT 6.3CT/ 2.5CT	4 3	NTV	4 1/8 x 4 1/8	5 1/2	5 1/8	5 1/8	15
25R49	1	500-400-0-400-500 80-0-80	500 100	5 5	6 2	6.3CT 6.3CT	5 3	NTV-B	4 7/8	7	5 3/4	5 3/4	22
25R18		510-0-510	85	5	3	6.3CT 6.3CT	4 1	TAV	2 1/2 x 4 3/8	5 5/16	4 1/2	5 1/4	11.5
25R39		510-0-510	85	5	3	6.3CT 6.3CT	4 1	TTV	2 1/2 x 4 3/8	5 5/16	4 1/2	5 1/4	11.5
25R19		520-0-520	115	5	3	6.3CT 6.3CT	4.5 1	TAV	2 1/2 x 4 3/8	5 5/16	4 1/2	5 1/4	11.5
25R40		520-0-520	115	5	3	6.3CT 6.3CT	4.5 1	TTV	2 1/2 x 4 3/8	5 5/16	4 1/2	5 1/4	11.5
25R53	1	525-425-0-425-525	250	5	3	6.3CT 6.3CT	3 3	KTH-F	4 27/32 x 3 25/32	4 5/8	4 5/8	5 1/2	8
25R20		550-370-75-0-75-370-550	175	5	6	6.3CT 6.3CT	5 1	TAV	3 1/2 x 5 3/8	6 1/16	5 1/16	5 7/8	17.5
25R41		550-370-75-0-75-370-550	175	5	6	6.3CT 6.3CT	5 1	TTV	3 1/2 x 5 3/8	6 1/16	5 1/16	5 7/8	17.5
24R84		550-0-550	250	5	4			GGV	3 x 2 7/8	4 5/8	3 15/16	4	8
26R145		560-0-560*	300	5	3	6.3 6.3 6.3	.6 1.2 10.5	AGF	4 1/16 x 3 3/16	2 7/16	4 1/2	3 5/8	8

1 MADC rating for choke input filter. For capacit

THORDARSON MEISSNER

Power Transformers

PRIMARY 117 VOLTS 50/60 CYCLES

Part No.	Notes	Plate Supply Volts	Plate Supply MADC	Rectifier Fil. Volts	Rectifier Fil. Amps.	Other Fil. Volts	Other Fil. Amps.	Mtg.* Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
25R60	1	600-0-600	200	5	3	6.3CT 6.3 7.5	2 3 3	KTH-F	4 27/32 x 3 25/32	4 5/8	4 5/8	5 1/2	8
22R36		600-0-600	200	5	3	6.3	5	GGV	3 x 3 3/8	4 5/8	3 7/8	4 1/2	9.5
24R27		600-0-600	200	5	3	6.3 6.3	3 3	GGV	3 x 3 1/16	4 5/8	3 7/8	4 1/4	8.5
25R48		600-525-0-525-600	250	5	3	6.3CT 7.5CT/ 6.3CT	3 3 4	NTV	4 1/8 x 4 1/8	5 1/2	5 1/8	5 1/8	15.5
25R61	1	600-525-0-525-600	300	5	6	6.3CT 6.3 7.5	3 3 3	KTH-G	4 25/32 x 4 3/4	4 5/8	5 3/8	5 3/8	12
24R85		617-0-617	250	5	4			GGV	3 x 3 1/8	4 5/8	4	4 1/4	9
24R86		617-0-617	500	5	6			GGV	3 1/2 x 4 5/8	5 5/16	4 1/2	5 5/8	20
22R51		625-0-625	236	5	6	6.3CT 6.3 6.3	8 3 3	GGV	3 1/2 x 4 5/8	5 5/16	4 1/2	5 5/8	20
22R56		625-0-625 and 130	278 50	5	4	6.3 6.3 6.3	4 1 1	GGV	3 1/2 x 4 5/8	5 5/16	4 1/2	5 5/8	20
22R58		750-0-750	315	5	6	6.3 6.3	8 3	GGV	3 1/2 x 6 1/8	4 1/2	5 5/16	7 1/8	30

Half-Wave-Power Transformers

PRIMARY 117 VOLTS 50/60 CYCLES

Part No.	Notes	Plate Wave Volts	Plate Wave MADC	Filament Supply Volts	Filament Supply Amps.	*Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
25R54	23	30	50	6.3CT 35	.2(RMS) 1	KAV	2 3/8 x 2 3/16	2 5/16	3 1/4	2 3/4	
22R129	18 Bias Supply	7.5 36 50 300	100AC 100AC 150AC 10AC			FGV	2 3/8 x 21/32	2 3/8	2 7/8	1 7/8	.75
24R145		85	300	6.3 6.3 6.3 6.3	6.6 3 5 6.3	HFF	3 x 3 3/4	2 5/16	4 1/2	3 3/4	7
26R55		96	145	6.3	6.45	AGF	2 3/16	3 1/8	2 1/2	3	2.6
24R144	23	100 300 Full Wave 15 Full Wave	100 500 600			HFF	3 x 3 3/4	2 15/16	4 1/2	3 3/4	2.5
24R72		117	15	6.3	.6	BAH	2 3/8	1 5/8	2 13/16	1 5/8	1
26R32		117	20	6.3CT	.7	BGV	2	2	1 5/8	2 1/2	1
26R144		117	70	6.3	.7	BGV	2 1/8	2	2 5/8	1 5/8	1
22R134		117*	100	6.3	1.1	BHH	3 1/8	2 1/4	3 11/16	2 1/4	2.1
26R14		117	200	6.3 6.3 6.3	4.5 4 2	AGF	2 3/4 x 2 1/2	3 1/2	3 1/2	4 1/8	5.2
24R155	26	117	400(RMS)	6.3 6.3 24	.1 5 1	GGV	2 1/2 x 1 3/4	3 7/8	3 1/8	3 7/8	4.6

Half-Wave Power Transformers

PRIMARY 117 VOLTS 50/60 CYCLES

Part No.	Notes	Plate Supply Volts	Plate Supply MADC	Filament Supply Volts	Filament Supply Amps.	*Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
26R106		117/110	900	6.3	10	AGF	2 13/16 x 2 1/4	2 5/8	3 3/8	2 13/16	4
26R105		117/110	900	6.3	10	GGH	3 5/16 x 3 3/16 or 2 1/2 x 3 3/16	3 1/8	3 3/4	3 3/4	4
26R37		125	15	6.3	.6	BAV	2	2	2 3/8	1 3/8	.7
26R38		125	50	6.3	2	BAH	3 1/8	2 1/4	3 1/4	2 1/8	1.5
26R107		127/115	1,000	12.6CT 12.6CT 6.3 6.3	5 2 10 2	AGF GGV GGH	3 1/8 x 2 1/2 2 1/2 x 2 1/8 2 1/2 x 2 1/8	3 1/2 3 3/4 3 1/8	3 3/4 3 1/8 3 3/4	3 1/8 3 1/2 3 1/2	6
24R111		128	300	6.3	2.5	GGV	2 x 1 13/16	3 1/8	2 1/2	2 7/8	2.2
24R73		130	20	0-15-225-30	.6	GGV	1 3/4 x 2	2 3/4	2 3/8	2 3/4	2
24R67		135	15	6.3	.9	HFF	1 1/4	1 3/4	1 7/8	1 9/16	1
24R71		135	50	6.3	1.5	BAH	3 1/8	2 1/4	3 3/4	2 1/8	1.5
24R74		135	200	6.3CT	5.5	AGF	2 13/16 x 2 1/4	1 7/8	3 3/4	2 13/16	2.5
26R13		140/117	300	6.3 6.3 6.3	9 2 1	AGF	3 x 3 3/4	3 7/8	3 3/4	4 1/2	7.5
26R108		140/127/115	1,000	6.3 6.3 12.6CT	6 6 2	AGF CGV GGH	2 1/4 x 2 13/16 2 1/4 x 2 1/8 2 1/8 x 2 13/16	3 1/8 3 1/2 3	3 3/8 2 13/16 3 3/8	2 13/16 3 1/8 3 1/8	6
26R60		150	25	6.3	.5	BGV	2	2	1 3/4	2 1/2	.7
22R12		150	50	6.3	1.5	BAH	3 1/8	2 1/4	2	3 3/4	1.5
22R21	11	170/160/150	500 250 MA Doubler	6.3CT	6	GGV	2 3/4 x 3 3/4	4 1/4	3 5/8	4 7/8	9
26R39		184 Tap 92	260 .6			AGF	1 3/4 x 2 3/16	2 3/4	2 3/16	2 5/8	2
22R03	14	180 177	500 5 (Bias)	6.3 6.3	5.5 5.5	GGH	3 3/4 x 4 3/8	3 15/16	4 5/8	5 1/2	17
22R120		220 Autoformer on Primary	8.5	6.0	.3	BAH	2 3/8	1 5/8	2 13/16	1 3/4	.5
24R146	k	300 325-0-325 8-0-8	50 100 100	5 12.6	2 .6	CHV	2 1/2 x 2 3/8	3 3/4	3 1/8	2 1/2	4.2
24R112		320	13 Plus 50 MA (RMS)	6.3	.6	BHV	2 3/8	2 3/8	2 7/8	1 3/4	1
24R113	8	550	25	6.3 6.3	1.5 1.5	AGF	2 x 2 1/2	2 3/4	3	2 1/2	2
24R109	15	550 55	30 60	6.3 6.3	.9 .6	DAF		2 1/4	2 5/8	2 3/16	1.4
22R133		800 Tap 500	40 Total	6/9/12	2	BAH	3 9/16	2 1/2	4	2 5/8	1.7
24R149	27	950	20			BAV	2 13/16	2 11/16	3 5/16	2 1/8	1.5
22R121		1,000* 300-0-300	2 110	2.5 5CT 6.3 6.3CT	1.75 2 .75 5	AGF	2 1/2 x 3 1/8	3 3/8	3 3/4	3 1/8	7
24R152		1,000*	4			BAV	2 13/16	2 11/16	3 5/16	2 1/8	.9
24R151		1,000	30			DHF	2 x 2 1/2	1 7/8	3	2 1/2	2.1
24R148		1,100	.5	6.3	.75	BAV	3 1/8	2 1/4	3 11/16	2 1/4	1.5
24R139		1,200 325-0-325	4	1.25 6.3 6.3CT	.2 .6 3	GGV	2 1/2 x 2 11/16	3 3/4	3 1/8	4	6.2
24R31		1,500	10	2.5 2.5	1.75 2.1	GGV	2 1/2 x 2 1/16	3 7/16	3 1/4	3 1/4	4
24R28		1,600	2	2/1.25 6.3 6.3	1.75 .3 .3	GGV	2 1/2 x 2 1/16	3 7/8	3 1/4	3 1/4	4
24R77		1,600	3	2.5-5-6.3 2.5-5-6.3	1 3	HKF	2 1/2 x 2	2 3/8	3 1/16	2 9/16	3.5
22R131	8,h	1,600* 320-0-320	2 75	2.5 6.3	1.75 5	GGV	2 3/4 x 2 1/2	3 3/4	3 1/8	3 1/2	4.7
26R28U		1,750	2	2.5 6.3/2.5	2 2	GGV	2 x 2	3 1/8	2 5/8	2 7/8	2.6
22R40		1,800	2	2.5 2.5 or 6.3	1.8 2.2 .6	GGV	2 1/2 x 1/2	3 7/8	3 1/4	3 3/4	5
24R91		1,800	4	2.5	1.75	GGV	2 x 2	3 1/8	2 5/8	2 7/8	2.7
24R153	5	1,800	4	2.5	1.75	GGV	2 x 2	3 1/8	2 5/8	2 7/8	2.7
25R55	8	1,800* 1,800 150-0-150	4 4 100	6.3CT 6.3CT	5 3	TTV	3 7/8 x 2 3/4	4 1/4	4 7/16	3 5/8	3.5
24R79	16	1,825 180 117	3 475(RMS) 200(RMS)	6.3CT 1.25	5.65 .2	GGV	2 1/2 x 3 3/4	3 7/8	3 1/4	4 5/8	7.5
22R42		1,880	1.5	2.5	1.75	BAH	3 5/8	2 1/2	2 5/8	4	2
24R92		2,400	5	2.5	1.75	GGV	2 3/4 x 2 3/4	4 1/4	3 1/2	3 7/8	5.6
24R30		2,400	5	2.5 2.5	2 2	GGV	2 3/4 x 2 11/16	4 1/4	3 1/4	3 3/4	5.5
22R127		2,500	1.16			BAH	3 9/16	2 1/2	4	2 5/8	1.8
26R29U		2,500	5	2.5 6.3/2.5	2 3	GGV	2 1/4 x 2 1/2	3 7/8	3 1/4	3 1/2	4.5

Half-Wave-Power Transformers

PRIMARY 117 VOLTS 50/60 CYCLES

Part No.	Notes	Plate Wave Volts	Plate Wave MADC	Filament Supply Volts	Filament Supply Amps	★Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
22R119		2,700*	2	1.25 or 2 6.3 6.3	1.75 .6 .6	GGV	2 1/2 x 2 1/4	3 3/4	3 1/8	2 1/2	3.5
24R29		2,700	2	2/1.75 6.3 6.3	1.75 .3 .3	GGV	2 1/2 x 2 1/4	3 7/8	3 1/4	3 1/2	4.6

1 MADC rating for choke input filter. For capacitor input filter divide MADC rating by 1.30
4 The ratings listed here are for industrial applications. For MIL-T-27B rating refer to the green section of this catalog
5 Pri. 230 Volts 50/60 Cycles 6 Pri. 105/115/125 Volts 54/64 Cycles 8 Primary 115/230 Volts 50/60 Cycles
10 Pri. 105/115/125 Volts 380/1000 Cycles
11 Primary 107/117 Volts 50/60 Cycles
14 500 MA Rating is for use in doubler circuit
15 Exact replacement for Solar Model CF-160 Condenser Tester. Use original mounting brackets
16 Exact replacement for Heathkit Model OP-1 Scope. To replace complete power transformer use 21F68 and 24R79
17 Highly shielded scope transformer
18 Primary 115 V. @ 400 Cycles
19 Voltage Doubler Application
20 Primary 110 V. @ 60 Cycles.
21 Ratings for Full Wave Bridge Choke input application.
22 Unit also has Autoformer taps of: 15V @ 10 MA, 10V. @ 250 MA; 10V. @ 250 MA; 15V @ 10 MA
23 Bridge Application
24 Primary 110, 112, 115/117/120 V. @ 60 Cycles
25 Secondary tap 625 V. @ 5 MADC
26 Primary 110, 125 V. 50/60 Cycles
27 Primary 125 V. 50/60 Cycles
(h) Half-Wave Application
(k) Primary 120/130/140/150 @ 60 Cycles

Photoflash Transformers

Part No.	Primary Volts	Secondary Voltage	Secondary MADC	Filament Volts	Filament Amps.	Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
22R41	4 V DC Vibrator	450 V DC or 900 V DC in Doubler Ckt.	16 8			BAV	2 3/8	2 3/8	2 1/8	2 7/8	1
22R42	117 @ 60 CPS	1,880	1.5	2.5	1.75	BAH	3 5/8	2 1/2	2 5/8	4	2
22R43	117 @ 60 CPS or 4 V DC Vibrator	1,100 or 2,200 V in Doubler Ckt.	4			BAV	2 13/16	2 3/4	2 1/8	3 3/8	2
22R24	117 @ 60 CPS or 6 V DC Vibrator	350-0-350	135	6.3 With 117 V. Only	4.7	GGV	3 x 3 1/8	4 5/8	3 7/8	4 1/4	8.75
22R46	117 @ 60 CPS or 6 or 12 V DC Vibrator	350-0-350	135	6.3 6.3	3 3	GGV	3 x 3	4 5/8	3 7/8	4	8.7
24R107	105/115/125 60 CPS	Charges up to 1,050 MFD to 450 Volts DC				BAV	2 3/8	2 5/16	2 15/16	2	1.4
22R47	115 60 CPS	Charges up to 100 MFD to 2,200 Volts DC				KTH	3 1/4	2 1/2	3 3/4	2 5/32	2
22R44	Discharge From 200 Volt Condenser	15 KV Peak				Single Hole Mounting		1 1/2	1 1/8	2 1/4	.2
22R48	Discharge From 200 Volt Condenser	15KV Peak				Phenolic Tube		3 long	7/8 Dia.		.2
22R115	Photoflash trigger coil for 450 V flash tube Replaces GE 86G41							3/4 long	9/16 Dia.		

Converter-Photoflash Transformers

Part No.	Primary	Secondary	Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D
25R58	Discharge for .25 MFD at 225 or 250 Volts DC Trigger Type Transformer	6 KV Peak	RTV		15/16	7/8 Dia.	
25R57	4.5 V DC (Inverter Type)	Output to Feed 25R56	RTV	11/16	1 3/16	7/8 Dia.	
25R56	115 V. 50/60 CPS or 4.5 Volts DC. Battery switched with 25R57 Inverter.	400 Volts DC from Voltage Doubler Circuit.	KTH-A	2 3/8	1 7/8	2 13/16	1 3/4

Low Voltage Rectifier Transformers

50/60 Cycles

Part No.	Primary Voltage	Secondary AC Voltage	Secondary AC Amps	★ Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
23V103	115	6.3/13/19.5/26	3	LAV	2 1/4 x 2 3/16	3 1/2	2 7/8	2 11/16	3.5
23V106	115	8/9‡ 8.9‡	2 2	LAV	2 x 2 1/16	3 1/8	2 9/16	2 9/16	2.3
23V107	115	7/8/9	7	LAV	2 1/4 x 2 3/16	3 1/8	2 7/8	2 11/16	3.5
23V109	115	9CT‡ 9‡ 9‡ 9‡	3.5 3.5 3.5 3.5	LAV	2 1/2 x 2 7/16	3 13/16	3 3/16	2 15/16	5
23V108	105/115/125	9‡ 9‡ 9‡ 9‡	10 10 10 10	LAV	3 x 4 9/16	4 5/8	3 13/16	5 1/16	16
23V208	115	9.5	13.8	CAV	2 1/2 x 2 1/8	3 13/16	3 1/8	2 5/8	4
23V115	115 ●	10/20CT/40CT	.035	BAH	2	1 3/8	2 3/8	1 3/8	.5
23V116	115 ●	10/20CT/40CT	.1	BAH	2 3/8	1 5/8	2 13/16	1 5/8	.7
23V117	115 ●	10/20CT/40CT	.3	BAH	3 1/8	2 9/32	3 11/16	2	1.5
23V118	115 ●	10/20CT/40CT	.75	BAH	3 9/16	2 5/8	4	2 1/4	2.4
23V119	115 ●	10/20CT/40CT	1	GGV	2 x 2 1/4	3 1/4	2 11/16	3	3.25
23V114	115/230	12CT 12CT	10	GGV▲	3 x 3 5/8	4 5/8	3 15/16	4 3/4	12.7
23V113	115	12/13.5/15/16.5/18 12/13.5/15/16.5/18	20 20	LAV	2 3/4 x 4 1/2	5 3/8	4 7/16	4 3/4	25
23V121	115	13/18‡ 13/18‡	.900 .900	GGV	1 15/16 x 2	3 1/8	3	2 1/2	2.75
23V47	115	13‡ 13‡	3 3	LAH	2 13/16 x 2 1/8	2 13/16	3 1/8	2 3/4	3.2
23V207	230	15.2‡	7	CAH	3 1/8 x 1 3/4	3 3/16	3 3/4	2 1/4	3.2
23V100	115	17/18	3	LAV	1 5/8 x 2 3/8	3 1/8	2 9/16	2 13/16	3.2
23V101	115	17/18	6	LAV	2 1/2 x 2 11/16	3 13/16	3 5/16	3 3/16	5.5
25V06	115	17/21.5‡ 17/21.5‡ 17/21.5‡	1.5 1.5 1.5	NTV NTV KTH-E	2 11/16 x 2 11/16	4 1/8	3 7/16	3 7/16	5
25V34	115	17/21.5‡ 17/21.5‡	1.5 1.5	KTH-E	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
23V210	115	18.4CT	.9	BAH	2 13/16	2	3 1/16	1 3/4	.75
23V104	115	24/27/30/33/36	3	LAV	2 1/2 x 2 11/16	3 13/16	3 3/16	3 3/16	5.65
23V105	110/120	24/27/30/33/36	8	LAV	3 x 3 5/16	4 5/8	3 13/16	3 13/16	10.75
23V112	115	24/26/28/30	15	LHV	3 3/4 x 4 9/16	3 13/16	4 5/8	5 1/16	18.5
23V167	115	24	20	PUV	2 3/16 x 7	5 1/4	4 1/16	7 1/2	18
23V211	115	25.6	2	GGV	2 x 2 3/16	3 1/8	2 5/8	3 1/8	3
23V162	117	27.5CT	25MA	BAV	1 1/2	1 3/8	1 7/8	1 1/4	.75
23V212	115	26CT	2.5	BAV	3 1/8	3 1/16	3 5/8	2 1/4	2
23V214	115	32CT	2	LAH	2 13/16 x 2	2 7/8	3 3/8	2 1/4	2.5
23V535	115	34/43‡ 34/43‡	4.5 4.5	KTH-H	6 3/32 x 4 19/32	5 7/8	5 3/8	6 3/4	21
25V07	115 ⁵	34/43‡ 34/43‡	4.5 4.5	NTV	4 7/8 x 4 7/8	7	5 3/4	5 3/4	22
23V102	115	36‡ 36‡	3 3	LAV	3 x 3 1/16	4 5/8	3 13/16	3 9/16	9.75
23V184	115	37.5CT	500MA	GGH	2 1/2 x 2 1/4	2 1/2	3	3 1/4	3.5
23V187	115/230	40CT	100MA	BAH	2 3/8	1 5/8	2 13/16	2	.6
23V171	115	50	50MA	BHH	2 3/8	1 5/8	2 13/16	2	.6
23V215	115	64CT	.9	BAH	3 9/16	2 1/2	4	2 1/4	1.75
23V89	115	72CT	.075	BAH	2 3/8	1 5/8	2 13/16	1 5/8	.6
23V68	115	77 Autoformer	8	GGV	3 1/16 x 3	4 5/8	3 3/4	4 1/4	6.75
23V122	115	80CT	1.2	GGV	2 1/2 x 2 3/8	3 1/2	2 7/8	3 1/2	4.5
23V216	115	92CT	1	LAH	2 1/8 x 2 1/2	2 5/8	3	2 7/8	2.3
23V188	105/115/125	125CT	300MA	BGH	3 9/16	2 1/2	4	2 3/4	1.8
23V110	110/120	140/150/160	.75	LAV	2 1/2 x 2 13/16	3 13/16	3 3/16	3 5/16	5.8
23V111	110/120	140/150/150	2.5	LAV	3 1/2 x 4	5 3/8	4 7/16	5	19
23V69	115	154 Autoformer	4	GGV	2 9/16 x 3	4 5/8	3 3/4	3 5/8	5
23V150	95/105/115/125	240CT	300MA	LAH	2 x 3 3/4	3 7/8	4 1/2	2 1/2	4.5
23V161	95/105/115/125	240CT	300MA	LAV	2 1/8 x 3	4 1/2	3 7/8	2 1/2	4.5

▲ Top chassis mounting – lead holes on side of shield ● Primary tapped to produce lower secondary voltages

For Mounting Illustrations and Cross References See Pages 1517-1520
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Multi-Tapped-Low Voltage Rectifier

SELENIUM OR SILICON RECTIFIERS
PRIMARY 117 VOLT 50/60 CYCLES

Each Selenium Rectifier Transformer listed in this section has terminal numbering and winding arrangement as shown in schematics. Primary connections are made to terminals 1, 2, 3, 4, 5, 6 and 7. The winding connected to terminals 5, 6 and 7 is a separate isolated primary winding, designed for the purpose of extending the voltage range of the transformer. This is accomplished by connecting the winding in series aiding or in series bucking with terminals 2, 3 or 4. Two identical secondary windings are connected to terminals 8 and 9 and to 10 and 11. Complete connection data supplied with each unit.

Part No.	Rectifier Circuit	Secondary AC Volts (Approx.)	OUTPUT * Res. or Ind. Load DC Volts	DCA	Capacitive Load DC Volts	DCA	Recommended Capacitor	Mtg. Centers
23V60	Full Wave Bridge	11.7 to 29.4 11.1 to 28.5 Height	3.3 to 11.2 7.4 to 23.0 3 1/8 Width	2 1.25 2 1/2	3.5 to 13.8 8.7 to 30.0 Depth 3 3/8	2 1.25 Weight	1,000 MFD 500 MFD 2.5	2 x 2 1/8
23V61	Full Wave Bridge	12.2 to 29.7 12.2 to 29.7 Height	3.7 to 11.1 8.9 to 24.3 3 5/8 Width	4 2 2 7/8	4 to 14.7 10.8 to 33 Depth 3 1/2	4 2 Weight	2,000 MFD 1,000 MFD 3.8	2 1/4 x 2 3/8
23V62	Full Wave Bridge	11.7 to 29.2 11.8 to 29.2 Height	4.3 to 12 8.8 to 24 4 Width	3 1/4	4.5 to 14.5 11.4 to 32.4 Depth 4 1/8	8 4 Weight	4,000 MFD 2,000 MFD 6.1	2 1/2 x 2 7/8
23V63	Full Wave Bridge	12.0 to 29.8 12.0 to 29.6 Height	3.4 to 11.5 8.4 to 24 4 1/4 Width	12 3 7/16	3.9 to 14.4 10 to 32 Depth 5 1/8	12 6 Weight	6,000 MFD 3,000 MFD 9.1	2 3/4 x 3 1/4
23V64	Full Wave Bridge	12.2 to 29.7 12.1 to 29.2 Height	3.9 to 11.4 8.7 to 23.7 4 3/4 Width	15 8 3 3/4	4.4 to 14.8 10.4 to 32.5 Depth 5 1/4	15 8 Weight	7,500 MFD 4,000 MFD 12.6	2 15/16 x 3 3/4
23V66	Full Wave Bridge	12.2 to 29.1 12.2 to 29.0 Height	3.9 to 11.4 8.6 to 23.5 5 3/8 Width	22.5 12.0 4 3/8	4 to 14.3 10.8 to 33 Depth 6 3/8	22.5 12.0 Weight	11,250 MFD 6,000 MFD 20.5	3 1/2 x 4 1/4
23V65	Bridge	25 to 53.5 Height	8 to 44 5 3/8 Width	8 4 3/8	25 to 63 Depth 7 1/2	8 Weight	4,000 MFD 26	3 1/2 x 5 1/4
23V67	Bridge	25 to 53 Height	18 to 43.5 7 1/8 Width	12 5 5/8	24 to 60 Depth 6 1/4	12 Weight	6,000 MFD 23	4 5/8 x 5 1/2

* DC Voltages may vary slightly from those shown due to rectifier voltage drops, lead loses and capacitor value used.

Low Voltage Control

Part No.	VA Output	Primary Voltage	Secondary Voltage	Secondary Amps.	★Mtg. Type	Mtg. Centers	Dimensions H	W	D	Wt. Lbs.
23V153	.5	115**	24	40MA	DAF		7/8	3/4	1	.1
23V141	1.2	115	12	100MA	BAH	1 3/4	1 3/8	2 1/8	1	.2
23V179	2	115	21	95MA	BAH	2	1 3/8	2 3/8	1 5/8	.5
23V182	2	440	21	95MA	BAH	2	1 3/8	2 3/8	1 5/8	.5
23V154	3.1	115**	24	130MA	BGH	2	1 3/8	2 3/8	1 3/8	.5
23V170	3.1	115	25	125MA	BGH	2	1 3/8	2 3/8	1 3/4	.5
23V174	3.4	117	13.5	250MA	BAH	2	1 3/8	2 3/8	1 5/8	.5
23V175	4	117	16 or 19	250 or 125MA	BHH	2	1 3/8	2 3/8	1 5/8	.5
23V178	4	250	16 or 19	250 or 125MA	BHH	2	1 3/8	2 3/8	1 5/8	.5
23V147	4.5	115**	20	225MA	BAH	2 3/8	1 5/8	2 13/16	1 5/8	.5
23V98	4.8	220	6	800MA	BHH	2 13/16	2	3 1/16	2	1.2
23V99	5	115	20	250MA	BAH	2 3/8	1 5/8	2 13/16	1 3/4	.8
23V172	5.6	115**	28	200MA	BAV	2 3/8	2 3/8	2 7/8	2 1/8	1.2
23V132	6	115	6	1	BHH	2 13/16	2	3 1/16	2 1/8	1.3
23V123	6	115/230	12	500MA	BAV	2	2	2 1/4	1 3/4	1
23V136	7.4	117	21	3.5	LAH	2 1/4 x 2 13/16	2 25/32	3 3/8	2 5/8	1.5
23V156	9.6	220**	24	400MA	BAV	2 1/8	2	2 5/8	1 5/8	.5
23V139	9.6	440	24	400MA	BAV	2 3/8	2 3/8	2 27/32	1 3/4	1
23V155	10	115	24	417MA	BAV	2 3/8	2 3/8	2 7/8	1 3/4	.8
23V157	10	115/230	24	417MA	BAH	2 3/8	1 5/8	2 13/16	1 7/8	.5
23V193	10	110/220	35	286MA	BAH	2 13/16	2	3 1/16	2 1/8	1.3
23V50	12	115/230	6 12	2 or 4	BHV	2 3/8	2 3/8	2 7/8	2	.75 1
23V225	14.5	110/115**	4/6.75/7.25	2	BAH	2 13/16	2	3 1/8	2 1/8	1.5
23V158	14.5	115	24	600MA	BAH	2 13/16	2	3 1/8	1 3/4	1.2
23V168	15	115	25	600MA	BAV	2 3/8	2 3/8	2 7/8	1 3/4	.8
21F27	16	115	26.5CT	600MA	BAH	2 13/16	2	3 1/4	2 1/8	1.6
23V51	24	115/230	6 or 12	4 2	BHV	2 13/16	3 5/8	3 3/8	2 1/4	1.5 1.5
21F68	24	115	24	1	BAH	2 13/16	2	3 1/4	2	1.3
21F84	24	115	24CT	1	BAH	2 13/16	2	3 1/4	2	1.3
23V160	24	115	24	1	BGH	2 13/16	2	3 1/4	1 7/8	1.3
23V97	24	220	24	1	BGH	2 13/16	2	3 1/16	2	1.2
23V159	24	110/220	24	1	BAH	2 13/16	2	2 13/16	1 7/8	1.3
23V134	25	115	1	25	CAV	2 x 1 3/4	3	2 1/2	2 1/2	2
25V31	25	115	12.6	2.18	TTV	1 3/4 x 2 11/16	3 1/8	3	2 9/16	3
21F51	25.2	115	25.2	1	BAH	2 13/16	2	3 1/4	2	1.3
23V176	25.6	220**	32	800MA	BAH	3 1/8	2 1/4	3 11/16	2 1/8	1.7
21F82	26.8	115	26.8CT	1	BAH	2 13/16	2	3 1/4	2	1.3
23V226	36	115	6/12/18/24	1.5	BAH	3 1/8	2 1/4	3 11/16	2 1/8	1.5
23V163	36	115	24	1.5	BAV	2 13/16	2 11/16	3 5/16	2 1/4	1.3
25V30	36	100/110/125	60	600MA	TSV	2 x 3 1/8	3 1/2	3 1/2	2 25/32	1.8
23V223	40●	100/115/125	6/10/15/20/25	1.6 Max.■	BGH	3 9/16	2 1/2	4	2 1/2	2
23V03	48	115	4/8/12/16/20/24	2 Max.■	BAH	3 1/8	2 1/4	3 11/16	2 1/2	1.7
23V224	48	115**	12 12	2 2	BAH	3 1/8	2 1/4	3 11/16	2 1/8	1.5 1.5
23V52	48	115/230	12 or 24	4 2	BHV	3 1/8	3 1/8	3 5/8	2 3/8	2 2
23V192	48	115	24 24	1 1	BAH	3 9/16	2 1/2	4	2 5/8	2.2 2.2
23V40	50	115	4/8/12/16/24	2.08 Max.■	GTV	2 1/4 x 1 7/8	3 9/16	3	3 1/2	3
23V142	50	220	12	4.16	BAV	3 1/8	3 1/16	3 5/8	2 1/4	2
23V144	50	120	16	3.12	CAH	2 13/16 x 2 7/8	2 7/8	3 3/8	2 1/4	3
23V165	50	220	24	2.08	GGV	2 x 2 1/4	3 1/2	2 7/8	3 1/4	2.8
23V166	50	440	24	2.08	GGV	2 x 2 1/4	3 1/2	2 7/8	3 1/4	2.8
25V32	50	440	20/24/28	1.785	KAV	6 3/8 x 2 13/16	4 3/16	7 1/8	4 1/16	2
21F83	50	115	25.2CT	2	BAH	3 9/16	2 5/8	4	2 1/4	2.2
23V177	54	440	32	1.56	CAV	2 1/4 x 2	3 7/16	2 13/16	2 1/2	3.4
23V151	80	115/230	22.6	3.5	LAV	2 x 2 1/4	3 1/16	2 1/2	2 1/4	3
23V152	80	230	22.8	3.5	GGV	2 1/4 x 2	3 1/2	2 7/8	3 1/4	3
23V04	96	115	4/8/12/16/20/24	4 Max.■	LAV	2 1/4 x 2 1/16	3 1/2	2 7/8	2 9/16	3.1
23V53	96	115/230	12 or 24	8 4	CHV	2 3/8 x 2 1/4	3 3/8	2 7/8	3	3.5 3.5
23V41	100	115	4/8/12/16/24	4.2 Max.■	GTV	2 1/2 x 2 1/8	4	3 1/4	4	5
23V145	100	115	16	6.25	CAH	3 1/8 x 2	3 1/8	3 3/4	2 1/2	3.5
23V183	108	115/230	13.5 13.5	4 4	CHV	2 3/8 x 2 1/4	3 3/8	2 13/16	2 7/8	3.5 3.5
23V148	120	115	20	6	GGV	2 1/2 x 2 5/8	3 7/8	3 1/8	3 3/4	5
25V33	150	230	20/24/28	5.36	KAV	8 3/8 x 2 13/16	4 3/4	9 1/8	4 3/4	12
23V146	180	115	18	10	CTH	3 7/16 x 2 3/8	3 1/2	4 1/8	3 1/2	6
23V218	190	115/230	7.5/12.5	15	CAV	2 1/2 x 2 1/4	3 7/8	3 1/8	2 3/4	4.5
23V54	192	115/230	12 or 24	16 8	CHV	2 7/8 x 2 3/4	4 1/8	3 1/2	3 1/2	8 8
25V21	200	115	16/18/20	10	KTV	4 1/16 x 3 5/16	5 1/2	5 1/16	4 5/16	11
23V140	210	220/440	2.5 110	40 1	CAV	3 1/4 x 3 3/8	5	4 1/16	4	10 10
23V137	215	105/125	15 13.2	2 14	LAH	2 1/4 x 3 1/8	3 1/16	3 3/4	2 5/8	3 3
23V186	230	117	24 31.5	2.34 5.55	DAF	2 3/4 x 3 7/16	3	4 1/8	3 7/16	8 8
23V143	240	115	12	20	GGV	3 x 3 5/8	4 5/8	3 3/4	4 3/4	10
23V42	250	115	4/8/12/16/24	10.5 Max.■	GTV	3 x 3 1/4	4 5/8	4	5	10
23V181	250	115	48	5.2	CTH	3 3/4 x 2 3/4	3 7/8	4 1/2	3 3/8	7
25V29	250	230	20/24/28	8.92	KAV	8 3/8 x 2 13/16	4 3/4	9 1/8	4 11/16	11.7
23V180	430	115	36	12	CTH	4 1/16 x 3 3/8	4 1/8	4 7/8	4	14
25V28	500	115	20/24/28	17.9	KAV	10 3/16 x 4 1/4	5 3/4	11	5 7/8	17
23V185	570	117/208/230	24† 26/39/52/# 65/78/91 104/117/130	1 3/3.3/6/ 3.9/3.9/3.9/ 3.9/3.9/4.2	LHH	3 3/4 x 3 3/8	3 3/4	4 1/2	4 3/8	10.7
23V221	1,200	115	48 8 16 20	150 Max.§ 150 Max. 75 Max. 20 Max.	CTH	6 x 4 1/4	6 1/2	5 5/16	7	37
23V138	1,200	115	8	150	CAH	7 3/4 x 4 1/8	6 1/2	8 3/4	6 1/4	21
23V222	1,900	115/230	88 16 32 64 128	180 Max.§ 100 Max. 30 Max. 30 Max. 10 Max.	CTH	8 x 5	7 5/8	9	6	54

■ Maximum current may be increased 40% when using any of the 3 low voltage taps.
† Isolated winding
§ Any combination of the given voltages and currents may be used as long as the total VA does not exceed the rated VA
# Any combination may be used
● Unit has internal 80° C Thermal cutout for maximum protection
‡ Encapsulated to meet MIL-T27B

Automation Control

These units have been ruggedized to provide trouble-free performance for high speed automatic assembly equipment. Particularly well adapted to relays and pilot lamps.

Part No.	VA Rating	Secondary Parallel	Secondary Series	Mtg. Type	Mtg. Centers	Dimensions H	W	D	Wt. Lbs.
23V50	12	6V @ 2A	12V @ 1A	BHV	2 3/8	2 3/8	2 7/8	2	.75
23V51	24	6V @ 4A	12V @ 2A	BHV	2 7/8	3 5/8	3 3/8	2 1/4	1.5
23V52	48	12V @ 4A	24V @ 2A	BHV	3 1/8	3 1/8	3 5/8	2 3/8	2
23V53	96	12V @ 8A	24V @ 4A	CHV	2 3/8 x 2 1/4	3 3/8	2 7/8	3	3.5
23V54	192	12V @ 16A	24V @ 8A	CHV	2 7/8 x 2 3/4	4 1/8	3 1/2	3 1/2	8

Control Service Transformers

D-11 — MOUNTING
DOUBLE WOUND 50/60 CYCLES

WIRING DIAGRAMS AND INSTRUCTIONS are furnished with each unit. The 24 Volt and 32 Volt secondary leads have individual grommets for each stranded lead. All primary and 115 Volt secondary leads are brought out through a threaded pipe nipple for attaching conduit or a bushing.

APPLICATIONS:
small motors and pumps
oil burner controls
signaling systems
solenoids and relays
burglar alarms
heating elements
control systems
switchboards and panels
pilot lights
electrically operated valves for controlling the flow of gas or liquids

Part No.	VA Output	Primary Voltage	Secondary Voltage	Wiring Diagram	Mtg. Centers D	E	Dimensions A	B	C	Wt. Lbs.
G 326	25	115	24	S-5	2 7/8	1 3/8	3 1/4	2 1/2	2 11/16	2
G 327	50	115	24	S-5	2 1/8	1 7/8	3 1/4	2 1/2	3 1/4	2.75
G 328	75	115	24	S-5	2 5/8	2 1/8	4 1/8	3 1/4	3 1/2	4.25
G 329	100	115	24	S-5	2 5/8	2 1/4	4 1/8	3 1/4	3 5/8	5
G 330	150	115	24	S-5	3	2 1/2	4 15/16	3 15/16	4 3/16	8.25
G 331	250	115	24	S-5	3	3 1/4	4 15/16	3 15/16	4 15/16	9.5
G 332	50	115	32	S-5	2 1/8	1 7/8	3 1/4	2 1/2	3 1/4	2.75
G333	100	115	32	S-5	2 5/8	2 1/4	4 1/8	3 1/4	3 9/16	5
G 334	150	115	32	S-5	3	2 1/8	4 15/16	3 15/16	4 3/16	8.25
G 335	250	115	32	S-5	3	3 1/4	4 15/16	3 15/16	4 15/16	9.5
G 351	75	115/230	24	S-5	2 3/8	3 1/8	3 3/4	2 3/4	3 1/16	2.75
G336	25	230/460	115	S-6	2 1/8	1 3/8	3 1/4	2 1/2	2 11/16	2
G337	50	230/460	115	S-6	2 1/8	2 1/8	3 1/4	2 1/2	3 7/16	3.25
G 338	75	230/460	115	S-6	3 1/4	2	3 1/2	3 7/8	3 7/16	4.25
G 339	100	230/460	115	S-6	3 1/4	2 3/8	3 1/2	3 7/8	3 13/16	5.5
G 340	150	230/460	115	S-6	3	2 1/2	4 15/16	3 15/16	4 3/16	8
G 341	250	230/460	115	S-6	3	3 1/4	4 15/16	3 15/16	4 15/16	11
G 350	500	220/440	110	S-6	5 1/8	3 1/8	4 1/8	7 5/8	4 1/4	13
G 349	500	550	110	S-6	5 1/8	3 1/8	4 1/8	7 5/8	4 1/4	13

Signaling and Power Circuit Transformers

50/60 CYCLES

Part No.	VA Output	Primary Voltage	Secondary Voltage	Secondary Amps	★Mtg. Type	Mtg. Centers	Dimensions H	W	D	Wt. Lbs.
23V226	36	115	6/12/18/24	1.5	BAH	3 1/8	2 1/4	3 11/16	2 1/8	1.5
23V223	40●	100/115/125	6/10/15/20/25	1.6 Max.■	BGH	3 9/16	2 1/2	4	2 1/2	2
23V03	48	115	4/8/12/16/20/24	2 Max.■	BAH	3 1/8	2 1/4	3 11/16	2 1/2	1.7
23V40	50	115	4/8/12/16/24	2.08 Max.■	GTV	2 1/4 x 1 7/8	3 9/16	3	3 1/2	3
23V04	96	115	4/8/12/16/20/24	4 Max.■	LAV	2 1/4 x 2 1/16	3 1/2	2 7/8	2 9/16	3.1
23V41	100	115	4/8/12/16/24	4.2 Max.■	GTV	2 1/2 x 2 1/8	4	3 1/4	4	5
23V42	250	115	4/8/12/16/24	10.5 Max.■	GTV	3 x 3 1/4	4 5/8	4	5	10
23V221	1,200	115	48 8 16 20	150 Max.§ 150 Max. 75 Max. 20 Max.	CTH	6 x 4 1/4	6 1/2	5 5/16	7	37
23V222	1,900	115/220	88 16 32 64 128	180 Max.§ 100 Max. 30 Max. 30 Max. 10 Max.		8 x 5	7 5/8	9	6	54

Multi-Purpose 1:1:1:1 Isolation Control

50/60 CYCLES

This series has four isolated windings with seven possible combinations: for step-up, step-down, and isolation applications in industrial, home or laboratory use. They are particulary well adapted to 220-volt line step-down to provide 115-volt power source to operate machine tools and other automated equipment.

Part No.	VA Output	Primary Voltage	Secondary Voltage	★Mtg. Type	Mtg. Centers	Dimensions H	W	D	Wt. Lbs.
23V34	50	115/230	115/230	CTH	2 1/2 x 2 1/8	2 5/8	3	3 5/8	2.75
23V35	100	115/230	115/230	CTH	3 1/8 x 2 1/8	3 1/4	3 3/4	2 7/8	5
23V36	200	115/230	115/230	CTH	3 3/4 x 2 3/4	2 7/8	4 1/2	3 5/8	9
23V37	300	115/230	115/230	CTH	4 1/8 x 2 7/8	4 1/8	4 7/8	3 3/4	11
23V38	500	115/230	115/230	CTH	4 1/8 x 4 1/8	4 1/8	4 7/8	5	17
23V39	1,000	115/230	115/230	CTH	5 3/8 x 4 1/2	5 3/8	6 3/8	5 1/2	23
23V197	2,500	115/230	115/230	CTH	8 x 4 1/2	7 5/8	9	5 1/2	40

Isolation Transformers

50/60 CYCLES

Isolation control transformers provide 115 Volts power or lighting within machine tools or other automated equipment from various line voltages from 115 Volts to 600 Volts. They also permit direct grounded lighting systems or control circuits independent of power distribution grounds for greater operator safety. For complete specifications of 400 Cycle isolation transformers refer to the green section of this catalog.

Part No.	VA Output	Primary Voltage	Secondary Voltage	★ Mtg. Type	Mtg. Centers	Dimensions H	W	D	Wt. Lbs.
23V189	10	115	115	BHH	2 13/16	2	3 1/16	2 1/8	1
23V190	10	230	230	BHH	2 13/16	2	3 1/16	2 1/8	1
23V149	10	230	230	BAV	2 3/8	2 3/8	2 27/32	1 3/4	.8
25V22	15	440	115	KAV	6 3/8 x 2 9/16 to 3 1/8	4 5/32	7 1/8	4 11/16	2
23V195	20	440	110	BAH	2 13/16	2	3 3/16	2 1/8	1
23V17	35	115	115	BAH	3 1/8	2 1/4	3 13/16	2 1/4	1.75
23V86	40	110-120	110-120	GMV	2 x 1 7/8	3 1/8	2 5/8	3 1/8	4
23V80	40	115/230	115	BAH	3 1/8	2 1/4	3 13/16	2 1/2	1.75
23V45	50	115	115	GMV	2 1/2 x 1 15/16	3 7/8	3 1/4	3 1/4	4.25
25V16	50	105/115/125	115 or 125/115/105 With 115 V. Pri.	TMV*	2 3/4 x 3 7/8	2 3/4	3 11/16	4 7/16	5
23V198	50	115/230/460	115	CTH	2 1/2 x 2 1/8	2 5/8	3	2 3/8	2.6
23V95	50	230/440	115	GGV	2 x 1 3/4	3 3/32	2 5/8	2 1/2	2.3
25V23	50	240/480	120/240	KAV	6 3/8 x 2 9/16 to 3 1/8	4 5/32	7 1/8	4 11/16	2.75
25V24	50	550/600	110/220	KAV	6 3/8 x 2 9/16 to 3 1/8	4 5/32	7 1/8	4 11/16	2.5
23V18	80	115	115	GGV	2 1/2 x 2 5/16	3 7/8	3 3/16	3 1/2	5
23V48	100	115	115	GMV	3 x 2 7/16	4 3/4	3 7/8	3 1/2	6.5
23V25	100	105/115/125	115	GMV	2 3/4 x 3 1/16	4 1/4	3 1/2	3 7/8	6.2
23V87	100	110/120	110/120	GMV	2 1/2 x 2 3/8	3 7/8	3 3/4	3 1/4	6
25V17	100	105/115/125	115 or 125/115/105 With 115 V. Pri.	TMV*	2 1/2 x 4 3/4	5 5/16	4 9/16	5 1/4	8.5
23V128	100	210/230/250	115	GMV*	3 x 2 9/16	4 3/4	4	3 3/4	7.3
25V25	100	440	115	KAV	8 3/8 x 2 9/16 to 3 1/8	4 3/4	9 1/8	4 11/16	6
23V169	150	115	57.5/115††	GGV	2 1/2 x 3	3 7/8	3 9/32	3 7/8	7
23V49	150	115	115	GMV	3 x 2 9/16	4 3/4	3 7/8	3 3/4	7
25V18	150	105/115/125	115 or 125/115/105 With 115 V. Pri.	TMV*	3 1/2 x 5 3/8	6 1/16	5 7/8	5 5/16	12.5
23V59	150	115	115/230	GGV	2 1/2 x 3	3 7/8	3 9/32	3 7/8	7
23V74	150	115/230	115	GGV	2 1/2 x 3	3 7/8	3 9/32	3 7/8	7
23V96	150	220/440	115	GGV	2 1/2 x 2 1/2	3 7/8	3 9/32	3 3/8	5.5
25V26	150	440	115	KAV	8 3/8 x 2 9/16 to 3 1/8	4 [illegible]	9 1/8	4 11/16	6
23V199	150	200/220/380/400/440/500/550	125	CAH	3 7/16 x 2 1/2	3 1/2	4 1/8	3	6
25V20	175	115	115	TMV	2 1/2 x 4 3/4	5 5/16	5 1/4	4 9/16	9
23V33	185	115	115	GMV	2 3/4 x 3 11/16	4 1/4	3 1/2	4 3/4	7
23V58	250	115	115	GMV	3 x 3 9/16	4 3/4	3 7/8	5 3/4	12.5
23V126	250	115	125/115/105	GMV*	3 x 4 5/16	4 3/4	4	5 3/8	14.2
25V19	250	105/115/125	115 or 125/115/105 With 115 V. Pri.	TMV*	3 1/2 x 5 3/8	6 1/16	5 7/8	5 5/16	18.2
23V94	250	115/230	115	GGV	3 x 3 5/8	4 5/8	3 15/16	4 3/4	11
23V90	250	220	120	GMV	3 x 3 1/2	4 5/8	3 7/8	4 7/8	12
23V129	250	210/230/250	115	GMV*	3 x 4 5/16	4 3/4	4	5 3/8	14.2
25V27	250	440	115	KAV	8 3/8 x 2 9/16 to 3 1/8	4 3/4	9 1/8	4 11/16	12
23V26	300	105/115/125	115	PUV	2 3/4 x 6 1/4	6	4 3/4	7 1/8	18

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For Mounting Illustrations and Cross References See Pages 1517-1520

THORDARSON MEISSNER

Isolation Transformers

50/60 CYCLES

Part No.	VA Output	Primary Voltage	Secondary Voltage	★ Mtg. Type	Mtg. Centers	Dimensions H	W	D	Wt Lbs
23V133	300	220/440	115	GGV	3 x 3 3/8	4 5/8	3 15/16	4 1/2	10.2
23V19	350	115	105/115/125	GMV	3 1/2 x 3 7/8	5 3/8	4 1/2	5 3/4	13
23V28	500	105/115/125	115	GMV	4 5/8 x 4 1/4	6 3/8	5 3/8	7 5/8	22
23V130	500	210/230/250	115	GMV*	4 5/8 x 4 1/4	7 3/4	5 5/8	7 1/2	29.5
23V44	600	115	115	GMV	3 x 6	4 5/8	3 7/8	6 1/4	16
23V27	1,000	105/115/125	115	JUV#	4 5/8 x 5 3/4	9 7/8	6 3/4	6 1/4	38
23V88	1,200	110/120	110/120	GMV	3 5/8 x 6 5/8	5 7/8	4 1/2	8 1/2	30

† Ultrashielded - epoxy potted with leads
* Complete with tap switch
†† Split winding
# Has octagon outlet box for house wiring connections

Autoformers

50/60 Cycles

These Autoformers provide a smaller and more economical method of changing from 115 to 220 or 220 to 115 Volts. They provide correct line voltages for machine tool control units such as sequence timers, solenoids and lighting systems.

Part No.	VA Output	Primary Voltage	Secondary Voltage	Mtg. Type	Mtg. Centers	Dimensions H	W	D	Wt. Lbs.
23V191	40	220	115	GMV	2 x 1 7/16	3 1/2	2 11/16	2 7/16	2.2
23V79	50	230	115	BAH	3 1/8	2 1/4	3 5/8	2	1.5
25V10	50	220/250	110/125	TMV	2 x 3 1/8	3 9/16	3 1/2	2 7/8	2.7
23V70	65	230	115	GMV	2 x 1 11/16	3 1/16	2 1/2	2 3/4	2.7
23V202	80	115	230	CAV	1 3/4 x 2 1/4	2 5/8	2 3/16	2 7/8	2
23V81	85	220/240	110/120	GMV	2 x 1 7/8	3 1/8	2 5/8	2 7/8	4
23V21	100	220/250	110/125	GMV	2 1/2 x 1 3/4	3 7/8	3 1/4	2 7/8	3
23V71	100	230	115	GMV	2 x 2 1/4	3 1/2	3	3 1/8	3.7
25V11	100	220/250	110/125	TMV	2 3/4 x 3 7/8	4 5/16	3 11/16	4 7/16	6.5
23V82	125	220/240	110/120	GMV	2 1/16 x 2 1/4	3 1/2	3	3 1/2	4
23V22	150	220/250	110/125	GMV	2 x 2 1/2	3 7/8	3 1/4	3 1/8	4
25V12	150	220/250	110/125	TMV	2 1/2 x 4 3/4	5 5/16	4 9/16	5 1/4	9
23V83	175	220/240	110/120	GMV	2 1/2 x 2 1/4	3 7/8	3 1/4	3 3/4	5.5
23V131	250	115	190/220	LHH	2 7/16 x 3 7/16	3 5/8	4 1/8	3	6
23V23	250	220/250	110/125	GMV	3 x 2 3/8	4 5/8	3 7/8	3 1/2	6.2
23V72	250	230	115	GMV	2 3/4 x 2 7/8	4 1/4	3 7/8	3 1/2	7
25V13	250	220/250	110/125	TMV	2 1/2 x 4 3/4	5 5/16	4 9/16	5 1/4	8.7
23V20	300	230	115	GMV	3 x 3 1/16	4 5/8	3 7/8	4 1/8	10
23V24	500	220/250	110/125	GMV	3 x 3 3/8	4 5/8	3 7/8	4 1/2	10.2
25V14	500	220/250	110/125	TMV	3 1/2 x 5 3/8	6 1/16	5 7/8	5 5/16	14.5
23V78	600	230	115	GMV	3 x 3 7/8	4 5/8	4	5	12
23V73	1,000	230	115	GMV	3 1/2 x 4 1/4	5 1/4	4 3/8	5 3/4	19.5
23V32	1,000	220/250	110/125	JUV#	4 1/4 x 3 1/2	6 5/8	5	6 5/8	20
25V15	1,000	220/250	110/125	TMV	4 1/4 x 6	7 1/16	6 1/8	6 1/2	22
23V201	1,000	120	440	GGV	3 7/16 x 5 5/8	5 3/4	4 1/4	7 1/2	25
23V84	1,200	220/240	110/120	GMV	3 x 5 1/2	4 5/8	3 7/8	6 7/8	18
23V120	2,000	230	115	GMV	3 1/2 x 6 7/8	5 5/16	4 1/2	7 7/8	33
23V85	2,500	220/240	110/120	JUV	3 7/8 x 9 7/8	6 3/4	4 3/4	10 1/2	30
23V200	3,000	230	115	JUV	4 1/4 x 6	6 3/8	5 5/16	7 5/8	40
23V46	3,000	208 or 230	230 or 208	GMH	2 1/2 x 3 3/4	4	4 1/2	6	10

Has octagon outlet box for house wiring connections.
▲ VA Ratings are for industrial applications

Line Voltage Regulators-Autoformers

50/60 CYCLES

Part No.	VA Output	Primary Voltage	Secondary Voltage	Mtg. Type	Mtg. Centers	Dimensions H	W	D	Wt. Lbs.
23V91	85††	105/115/125/135/ 150/210/230/250-	115	GMV*	2 1/4 x 2 1/4	3 1/2	3	4 5/8	4.5
23V77	150	95/105/115/125/ 135	115	BHH	3 9/16	2 5/8	4	2 1/4	2.2
23V92	150††	105/115/125/135/ 150/210/230/250	115	GMV*	2 1/2 x 2 1/2	4	3 1/4	4 3/4	5.5
23V76	350	95/100/105/110/ 115/120/125/130	115	GMV*	2 3/4 x 2	4 1/4	3 5/8	3 1/4	4.2
23V93	350	85/90/95/100/105/ 110/115/120/125	115	GMV*	2 1/2 x 2 3/4	4	3 1/4	5	5
23V203	125	115	90/95/100/105/110/ 115/120/125/150/ 155/160	LHH	3 1/8 x 3	3 1/8	3 3/4	3 1/4	6
25V01	150	115	25/55/75/95/100/ 105/110/115/120/ 125/130	NTV	2 11/16 x 2 11/16	4 1/8	3 7/16	3 7/16	5
25V02	250	115	25/55/75/95/100/ 105/110/115/120/ 125/130	NTV	3 x 3	4 1/2	3 3/4	3 3/4	6.5
23V204	250	230	180/190/200/210/ 230/240/250/290/ 300/310	CHH	3 7/16 x 2 3/8	3 1/2	4 1/8	3 1/2	7.5
25V03	500	115	25/55/75/95/100/ 105/110/115/120/ 125/130	NTV	3 9/16 x 3 9/16	5 1/2	4 1/2	4 1/2	11
23V205	500	230	180/190/200/210/ 230/240/250/290/ 300/310	LHH	4 1/16 x 3 1/2	4 1/8	4 7/8	4 1/2	13.5
25V04	1,000	115	25/55/75/95/100/ 105/110/115/120/ 125/130	NTV	4 1/8 x 4 1/8	5 1/2	5 1/8	5 1/8	15.5
25V05	2,000	115	25/55/75/95/100/ 105/110/115/120/ 125/130	NTV	4 7/8 x 4 7/8	7	5 3/4	5 3/4	22

Line Voltage Regulators-Isolation

MTG. TYPE — GMV WITH METER

Part No.	VA Output	Input Voltage 50/60 Cycle	Output Voltage	Mtg. Centers	Dimensions H	W	D	Wt. Lbs.
23V55	150	95/100/105/110/115/120/125/130	* 115	3 x 4 1/4	4 5/8	3 15/16	5 3/8	7
23V57	350	95/100/105/110/115/120/125/130	115	3 x 6 5/8	4 5/8	3 15/16	7 3/4	17

Varivolt Isolation Transformers

COMPLETE WITH TAP SWITCH TO COVER 95 TO 145 V. RANGE

Part No.	Output Range on 117 Volt Line	VA Output (Resistive Load)	Dimensions H	W	D	Wt. Lbs.
23V56	95-145	500	7 1/4	5 7/8	8	25
23V75	95-145	150	5 1/4	6	4 13/16	12

Line Voltage Regulators-Autoformers-With Meter

These Line Voltage Regulators provide the correct voltage to radios, TV Sets, air conditioners, refrigerators, deep freezers, automatic washers and many other appliances, even with variation in line voltage of 65-75-90-100-115-130 or 145 volts. They are also useful in altering the 115 volt line above and below the line voltage. An output receptacle and volt meter are internally connected to the 115 volt tap. All units are supplied with 6 ft. line cord and plug. All units have GMV Type Mounting with Meters.

Part No.	VA Output	Input Voltage 50/60 Cycle	Output Voltage	Mtg. Centers	Dimensions H	W	D	Wt. Lbs.
23V11	150	65/75/90/100/115/130/145	115	3 x 4 5/16	5 1/8	3 7/8	5 3/8	6.4
23V12	350	65/75/90/100/115/130/145	115	3 x 5 1/16	5 1/2	3 7/8	6 1/8	10.5
23V13	500	65/75/90/100/115/130/145	115	3 x 5 13/16	5 1/2	3 7/8	6 7/8	15
23V07	500	95/100/105/110/115/120/125/130	115	3 x 4 1/8	4 5/8	3 15/16	5 1/4	7.25
23V14	750	65/75/90/100/115/130/145	115	3 1/2 x 6 5/8	6 5/16	4 1/2	8 1/8	19
23V09	1,100	65/75/90/100/115/130/145	115	3 1/2 x 7 3/4	6 5/16	4 1/2	10	25
23V08	1,200	230	†	3 x 9 1/8	4 5/8	3 15/16	10 1/4	21

Dry Type - Distribution

INDOOR — SINGLE PHASE — DOUBLE WOUND — 50/60 CYCLES
D-1 MOUNTING.

DRY TYPE GENERAL PURPOSE TRANSFORMERS are supplied in either double winding isolation or single winding auto-transformer types for 50/60 CPS applications. Either type may be used single phase or connected in a group of three for three phase. All units are Class B insulation for 80°C rise except the units marked (§) Class A for 55°C rise.
CASE AND JUNCTION BOX. A stamped steel case encloses the entire coil assembly and presents an attractive appearance. The junction box is an integrated part of the case and provides easy access and wiring to the individually marked primary and secondary leads. Knock outs are provided on the junction box for attaching conduit or bushings.
WIRING DIAGRAMS AND INSTRUCTIONS are furnished with each unit. On the inside of the junction box cover, a decal shows the schematic diagram and ratings of each transformer.
APPLICATIONS
1. To provide 120 Volt Lighting or 120/240 Volt Power from 240-480-600 Volt distribution circuits.
2. To insulate or isolate lighting circuits from power circuits allowing the use of grounded or ungrounded circuits independent of power or other lighting circuit grounds.
3. The auto-transformers provide a smaller and more economical method of voltage changing. These auto-transformers may be used to obtain 120 Volts from a 240 Volt circuit, to establish a neutral ground from a 240 Volt circuit, or to balance the 120/240 Volt loading on a three phase line to obtain lower demand billing by the utility company.

Part No.	VA Output	Primary Voltage	Secondary Voltage	Wiring Diagram	Mtg. Centers D	E	Dimensions A	B	C	Wt. Lbs.
G-301	50§	230/460	115/230	S-1	5 3/8	2 1/2	6 1/4	3 3/16	3	3.5
G-302	50§	575	115/230	S-2	5 3/8	2 1/2	6 1/4	3 3/16	3	3.5
G-303	75§	230/460	115/230	S-1	5 3/4	2 1/2	6 1/2	3 3/16	3	4
G-304	75§	575	115/230	S-2	5 3/4	2 1/2	6 1/2	3 3/16	3	4
G-305	100	240/480	120/240	S-1	6	2 1/2	6 13/16	3 3/16	3	5
G-306	100	600	120/240	S-2	6	2 1/2	6 13/16	3 3/16	3	3.5
G-307	150	240/480	120/240	S-1	6 3/8	3 1/4	7 3/8	3 7/8	3 1/2	6
G-308	150	600	120/240	S-2	6 3/8	3 1/4	7 3/8	3 7/8	3 1/2	6
G-309	250	240/480	120/240	S-1	7	3 1/4	8	3 7/8	3 1/2	8
G-310	250	600	120/240	S-2	7	3 1/4	8	3 7/8	3 1/2	8
G-311	500	240/480	120/240	S-1	8 7/8	3 7/8	10	4 11/16	4 9/32	15
G-312	500	600	120/240	S-2	8 7/8	3 7/8	10	4 11/16	4 9/32	15
G-313	750	240/480	120/240	S-1	10 7/8	3 7/8	12	4 11/16	4 9/32	20
G-314	750	600	120/240	S-2	10 7/8	3 7/8	12	4 11/16	4 9/32	20
G-315	1,000	240/480	120/240	S-1	8 3/4	4 1/2	10 1/4	5 1/2	4 7/8	29
G-316	1,000	480*	120/240	S-3	8 3/4	4 1/2	10 1/4	5 1/2	4 7/8	29
G-317	1,000	600*	120/240	S-3	8 3/4	4 1/2	10 1/4	5 1/2	4 7/8	29

Dry Type - Distribution

INDOOR — SINGLE PHASE — AUTOFORMERS — 50/60 CYCLES
D-1 MOUNTING.

Part No.	VA Output	Primary Voltage	Secondary Voltage	Wiring Diagram	Mtg. Centers D	E	Dimensions A	B	C	Wt. Lbs.
G-318	100§	115/230	115/230	S-4	5 1/8	2 1/2	5 7/8	3 7/16	3	3
G-319	150§	115/230	115/230	S-4	5 3/4	2 1/2	6 1/2	3 3/16	3	4
G-320	250§	115/230	115/230	S-4	6 5/8	3 1/4	7 5/8	3 7/8	3 1/2	7
G-321	500§	115/230	115/230	S-4	9 1/4	3 7/8	10 3/8	4 11/16	4 9/32	15
G-322	750	120/240	120/240	S-4	7 7/8	3 1/4	8 7/8	3 7/8	3 1/2	9.5
G-323	1,000	120/240	120/240	S-4	8 5/8	3 7/8	9 3/4	4 11/16	4 9/32	12.5
G-324	1,500	120/240	120/240	S-4	9 7/8	3 7/8	11	4 11/16	4 9/32	17
G-325	2,000	120/240	120/240	S-4	8 3/8	4 1/2	9 3/4	5 1/2	4 7/8	23

Control Transformers - Machine Tool Type

MACHINE TOOL TYPE CONTROL TRANSFORMERS are double winding isolation type for 50/60 CPS applications. They feature rugged design, compactness, and low regulation at economical prices.
WIRING DIAGRAMS AND INSTRUCTIONS are furnished with each unit.
Screw terminals are provided to facilitate wiring connections.
APPLICATIONS
1. To provide 115 Volt Power or Lighting within machine tools or other equipment from 230/460 Volt power circuits.
2. To permit direct grounding lighting or control circuits independent of power distribution grounds for greater operator safety.

Part No.	VA Output	Primary Voltage	Secondary Voltage	Wiring Diagram	Mtg. Centers D	E	Dimensions A	B	C	Wt. Lbs.
G-342	50	230/460	115	S-6	3 1/8	1 1/2	3 3/16	3 3/4	3 3/16	3
G-343	75	230/460	115	S-6	3 1/8	1 3/4	3 3/16	3 3/4	3 7/16	4
G-344	150	230/460	115	S-6	3 3/4	2 3/8	3 7/8	4 5/8	3 15/16	7.5
G-345	300	230/460	115	S-6	3 3/4	4	3 7/8	4 5/8	5 9/16	13.5
G-346	500	230/460	115	S-6	4 3/8	3 9/16	4 13/16	5 1/4	5	13.5
G-347	750	230/460	115	S-6	4 3/8	5	4 13/16	5 1/4	6 7/16	21
G-348	1,000	230/460	115	S-6	5 1/2	3 1/2	6 1/8	6 3/4	5 7/8	26.5

* 2 — 5% Taps FCBN (Full Capacity Below Normal Voltage)

THORDARSON MEISSNER

ALSO MANUFACTURES A COMPLETE LINE OF

TIME CYCLE CONTROLLERS, PROGRAMMERS, SEQUENCE TIMERS,

LIMIT SWITCHES AND MERCURY SWITCHES.

CATALOG AVAILABLE UPON REQUEST.

For Mounting Illustrations and Cross References See Pages 1517-1520
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Mounting Illustrations

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For Cross References See Pages 1518-1520

TRIAD to THORDARSON MEISSNER (T-M)

Cross Reference To Competitor

XR-64-T5

PART NUMBER Competitor	T-M
A-1X	20A35
A-4X	20A08
A-5X	20A09
A-6X	20A12
A-7J	20A15
A-9J	25A100
A-10J	25A101
A-11J	25A102
A-12J	25A103
A-13J	25A104
A-21X	20A80
A-23X	24S80
A-31X	20A18
A-33X	20A22
A-35A	20A23 *
A-39A	20A13
A-40J	25A110
A-41J	25A111
A-42Z	20A14
A-50J	25S68
A-51X	22S75
A-52J	25A105
A-53X	24S114
A-55J	25S69
A-56J	25S67
A-57J	25A112
A-58J	25A109
A-64J	25A106
A-65J	25S70
A-66J	25S71
A-67J	25A113
A-68J	25S72
A-69J	25S73
A-70J	25A107
A-77J	25C10
A-78J	25S74
A-79J	25A108
A-81X	20D88
A-83X	20D89
A-85X	20D86
A-200P	25A114
A-202P	25A115
C-1X	20C05
C-2X	20C102
C-3X	20C66
C-4X	20C47
C-5X	20C53
C-6X	20C59 ††
C-7X	20C06
C-8X	20C48
C-9X	20C07
C-10X	20C09
C-11X	20C08
C-12A	20C10
C-12X	20C11
C-13X	20C12
C-14A	20C13
C-14X	20C14
C-15A	20C15
C-15X	20C16
C-16A	26C45
C-17X	26C93
C-18A	20C17
C-19A	20C18
C-20A	20C22
C-21X	26C43
C-22A	20C23
C-23X	26C44 †††
C-24X	26C76
C-25A	20C19
C-26X	20C62
C-27X	26C77
C-28X	26C78
C-29X	20C21
C-30X	20C04
C-31A	20C30
C-32AL	20C32
C-33A	20C31
C-34X	26C79
C-35A	20C33
C-36X	26C80
C-38AL	20C34
C-39A	20C41
C-40X	26C81
C-42AL	20C20
C-43X	20C29
C-45AL	20C24
C-47U	20C25
C-48U	20C26
C-49U	20C27
C-80U	20C28
EA-001	TOR 848
EA-001A	TOR 748
EA-002	TOR 849
EA-002A	TOR 749
EA-003	TOR 850
EA-003A	TOR 750
EA-004	TOR 851
EA-004A	TOR 751
EA-005	TOR 852
EA-005A	TOR 752
EA-007	TOR 853
EA-007A	TOR 753
EA-010	TOR 855
EA-010A	TOR 755
EA-015	TOR 856
EA-015A	TOR 756
EA-020	TOR 857
EA-020A	TOR 757
EA-025	TOR 858
EA-025A	TOR 758
EA-030	TOR 859
EA-030A	TOR 759
EA-040	TOR 860
EA-040A	TOR 760
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EA-050A	TOR 761
EA-070	TOR 862
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EA-100	TOR 864
EA-100A	TOR 764
EA-150	TOR 865
EA-150A	TOR 765
EA-200	TOR 866
EA-200A	TOR 766
EA-250	TOR 867
EA-250A	TOR 767
EA-300	TOR 868
EA-300A	TOR 768
EA-400	TOR 869
EA-400A	TOR 769
EA-500	TOR 870
EA-500A	TOR 770
EA-600	TOR 871
EA-600A	TOR 771
EA-700	TOR 872
EA-700A	TOR 772
EA-1000	TOR 874
EA-1000A	TOR 774
EC-001	TOR 875
EC-001A	TOR 775
EC-002	TOR 876
EC-002A	TOR 776
EC-003	TOR 877
EC-003A	TOR 777
EC-004	TOR 878
EC-004A	TOR 778
EC-005	TOR 879
EC-005A	TOR 779
EC-007	TOR 880
EC-007A	TOR 780
EC-010	TOR 881
EC-010A	TOR 781
EC-015	TOR 882
EC-015A	TOR 782
EC-020	TOR 883
EC-020A	TOR 783
EC-030	TOR 884
EC-030A	TOR 784
EC-040	TOR 885
EC-040A	TOR 785
EC-050	TOR 886
EC-050A	TOR 786
EC-070	TOR 887
EC-070A	TOR 787
EC-100	TOR 888
EC-100A	TOR 788
EC-200	TOR 889
EC-200A	TOR 789
EC-250	TOR 890
EC-250A	TOR 790
EC-300	TOR 891
EC-300A	TOR 791
EC-400	TOR 892
EC-400A	TOR 792
EC-500	TOR 893
EC-500A	TOR 793
EC-600	TOR 894
EC-600A	TOR 794
EC-700	TOR 895
EC-700A	TOR 795
EC-1000	TOR 896
EC-1000A	TOR 796
EC-1500	TOR 897
EC-1500A	TOR 797
EC-2000	TOR 898
EC-2000A	TOR 798
EC-3000	TOR 899
EC-3000A	TOR 799
EC-4000	TOR 900
EC-4000A	TOR 7100
EC-5000	TOR 901
EC-5000A	TOR 7101
EC-7000	TOR 902
EC-7000A	TOR 7102
EC-10000	TOR 903
EC-10000A	TOR 7103
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EK-010A	TOR 7104
EK-020	TOR 905
EK-020A	TOR 7105
EK-030	TOR 906
EK-030A	TOR 7106
EK-040	TOR 907
EK-040A	TOR 7107
EK-050	TOR 908
EK-050A	TOR 7108
EK-060	TOR 909
EK-060A	TOR 7109
EK-080	TOR 910
EK-080A	TOR 7110
EK-100	TOR 911
EK-100A	TOR 7111
EK-120	TOR 912
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EK-200	TOR 914
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EK-700A	TOR 7119
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EK-7000A	TOR 7125
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EK-30000A	TOR 7128
EK-40000	TOR 929
EK-40000A	TOR 7129
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EM-030A	TOR 710
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EM-040A	TOR 711
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EM-400	TOR 820
EM-400A	TOR 720
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EM-500A	TOR 721
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EM-700A	TOR 722
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EM-1000A	TOR 723
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ET-002A	TOR 725
ET-003	TOR 826
ET-003A	TOR 726
ET-004	TOR 827
ET-004A	TOR 727
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ET-005A	TOR 728
ET-007	TOR 829
ET-007A	TOR 729
ET-010	TOR 830
ET-010A	TOR 730
ET-015	TOR 831
ET-015A	TOR 731
ET-020	TOR 832
ET-020A	TOR 732
ET-025	TOR 833
ET-025A	TOR 733
ET-030	TOR 834
ET-030A	TOR 734
ET-040	TOR 835
ET-040A	TOR 735
ET-050	TOR 836
ET-050A	TOR 736
ET-060	TOR 837
ET-060A	TOR 737
ET-070	TOR 838
ET-070A	TOR 738
ET-100	TOR 839
ET-100A	TOR 739
ET-150	TOR 840
ET-150A	TOR 740
ET-200	TOR 841
ET-200A	TOR 741
ET-250	TOR 842
ET-250A	TOR 742
ET-300	TOR 843
ET-300A	TOR 743
ET-400	TOR 844
ET-400A	TOR 744
ET-500	TOR 845
ET-500A	TOR 745
ET-700	TOR 846
ET-700A	TOR 746
ET-1000	TOR-847
ET-1000A	TOR 747
F-1X	21F120
F-3X	21F93
F-5U	21F02
F-6X	21F92
F-7X	21F94
F-8X	21F60
F-9A	21F64
F-9U	21F65
F-10U	21F20
F-11U	21F67
F-12X	21F63
F-13X	21F21
F-14X	21F09
F-15U	26F66
F-16X	21F10
F-17U	21F76
F-18A	21F42*
F-18X	21F72*
F-19X	21F73
F-20U	21F75
F-21A	21F74
F-22A	21F77
F-23U	21F28*
F-24U	21F78
F-25X	26F67 ^A
F-26X	21F81
F-27U	21F85
F-28U	21F79
F-29U	21F68
F-30A	21F86
F-32A	21F87
F-34A	21F88
F-36A	21F24
F-38A	21F89
F-40X	21F82
F-41X	21F83
F-42A	21F90
F-43X	21F71
F-44X	26F67
F-45X	21F84
F-47U	23V100
F-48U	23V101
F-49U	23V102
F-50X	26F65
F-51X	21F69
F-52X	26F60
F-53X	21F70
F-60U	23V103
F-61U	23V104
F-62U	23V108
F-63U	23V106
F-64U	23V107
F-65U	23V110
F-66U	23V111
F-67U	23V105
F-68U	23V109
F-71U	21F58 *
F-72Z	21F31
F-79U	23V112
F-80U	23V113
F-83A	21F91
F-84AC	23V114
F-90X	23V116
F-91X	23V117
F-92A	23V119
F-93X	23V118
F-94X	23V115
F-102X	23V03
F-104U	23V04
G-1	GEO 1
G-2	GEO 2
G-3	GEO 3
G-2H3	GEO 74
G-4	GEO 4
G-4H3	GEO 75
G-5	GEO 5
G-5TS	GEO 76
G-7	GEO 6
G-8	GEO 7
G-9	GEO 8
G-10	GEO 9
G-12	GEO 10
G-14	GEO 11
G-15	GEO 12
G-16	GEO 13
G-17	GEO 14
G-18	GEO 78
G-18TS	GEO 79
G-19	GEO 80
G-20H	GEO 68
G-21	GEO 69
G-22	GEO 71
G-22H	GEO 70
G-23	GEO 72
G-25	GEO 73
G-30	GEO 81
G-30TS	GEO 82
G-31	GEO 22
G-32	GEO 23
G-33	GEO 24
G-34	GEO 25
G-36	GEO 27
G-36TS	GEO 83
G-40	GEO 26
G-40TS	GEO 84
G-48	GEO 28
G-48TS	GEO 85
G-51	GEO 34
G-51A	GEO 35
G-52	GEO 36
G-53	GEO 37
G-53A	GEO 38
G-54	GEO 39
G-57	GEO 41
G-58	GEO 40
G-64	GEO 42
G-65	GEO 43
G-72	GEO 49
G-74	GEO 50
G-80	GEO 56
G-84	GEO 57
G-85	GEO 58
G-92	GEO 59
G-101	GEO 15
G-101TS	GEO 77
G-150	GEO 44
G-155	GEO 45
G-183	GEO 60
G-201	GEO 16
G-235	GEO 29
G-250	GEO 44
G-255	GEO 45
G-266	GEO 51
G-274	GEO 52
G-275	GEO 53
G-276	GEO 54
G-284	GEO 61
G-285	GEO 62
G-301	GEO 17
G-306	GEO 18
G-313	GEO 19
G-315	GEO 20
G-335	GEO 30
G-336	GEO 31
G-350	GEO 46
G-355	GEO 47
G-388	GEO 64
G-389	GEO 65
G-391	GEO 66
G-394	GEO 67
G-401	GEO 21
G-435	GEO 32
G-435TS	GEO 86
G-437	GEO 33
G-437TS	GEO 87
G-455	GEO 48
G-475	GEO 55
G-493	GEO 63
HC-25	27V47
HC-115	27V48
HC-300	27V49
HS-1	27A70
HS-3	27A72
HS-4	27A73
HS-5	27A75
HS-8	27A76
HS-11	27A71
HS-14	27A14
HS-15	27A74
HS-23	27A77
HS-25	27A78
HS-27	27A11
HS-29	27A12
HSM-31	27A80
HS-32	27A13
HS-35	27A79
HS-50	27S17
HS-52	27S75
HS-54	27S76
HS-56	27S77
HS-58	27S79
HS-60	27S73
HS-61	27S74
HS-66	27S78
HS-71	27S69
HS-73	27S70
HS-75	27S71
HS-77	27S72
HSM-79	27S54
HSM-80	27S55
HSM-81	27S56
HSM-82	27S57
HSM-84	27S60
HSM-94	27S66
HSM-181	27S58
HSM-182	27S59
HSM-184	27S61
HSM-186	27S64
HSM-187	27S65
HSM-189	27S62
HSM-190	27S63
HSM-192	27S67
HSM-193	27S68
HSM-200	27R18
HSM-201	27R19
HSM-203	27R24
HSM-205	27R61
HSM-207	27R25
HSM-212	27R27
HSM-216	27R29
HSM-223	27F01
HSM-224	27F02
HSM-225	27F33
HSM-226	27F34
HSM-227	27F04
HSM-228	27F12
HSM-229	27F05
HSM-230	27F08
HSM-231	27F13
HSM-233	27F06
HSM-234	27F03
HSM-236	27F11
HSM-237	27F07
HSM-238	27F23
HSM-239	27F09
HSM-240	27F10
HSM-241	27R26
HSM-245	27R28
HS-247	27R30
HSM-248	**27V90**
HSM-270	27V44
HSM-271	27V45
HSM-272	27V46
HS-273P	25A116
HSM-301	27C35
HSM-302	27C12 **
HS-303	27C33
HSM-305	27C72
HSM-307	27C74
HSM-309	27C20 ***
HSM-315	27C76
HSM-319	27C36
HS-331	27C70
HS-333	27C71
HS-335	27C73
HS-339	27C75
HS-341	27C34
HS-401	27R62
HS-402	27R31
HS-405	27R32
HS-407	27R33
HS-409	27R34
HS-413	27R35
HS-415	27R36
HS-417	27R37
HS-425	27F35
HS-427	27F60
HS-433	27F17
HS-435	27F18
HS-436	27F14
HS-438	27F16
HS-441	27F19
HS-442	27F21
HS-443	27F20
HS-444	27F22
HS-445	27F15
HS-470	27V54
HS-471	27V55
HS-472	27V56
HS-474	27V57
HS-475	27V58
JAF-1	27A81
JAF-2	27A82
JAF-3	27A83
JAF-5	27A84
JAF-11	27A85
JAF-12	27A86
JAF-13	27A15
JAF-14	27A87
JAF-15	27A88
JAF-21	27S80
JAF-22	27S81
JAF-23	27S82
JAF-24	27A89
JAF-25	27S83
JAF-26	27S84
JAF-31	27A90
JAF-32	27S85
JAF-33	27A91
JAF-34	27A92
JAF-35	27A93
JAF-101	27C67
JAF-102	27C68
JO-21	27S27
JO-22	27S28
JZ-1	27A94
JZ-5	27A95
JZ-7	27A96
JZ-13	27A97
JZ-15	27A98
JZ-25	27S86
JZ-26	27S87
M-1X	21M73
M-3X	21M75
M-4Z	21M55
M-5Z	21M74
M-6X	21M76
M-7AL	21M77
M-12AL	21M62A
M-15A	21M71
M-16AL	21M61A
N-1X	23V79
N-3M	23V81
N-4M	23V82
N-5M	23V23
N-7M	23V78
N-9M	23V84
N-11M	23V120
N-34X	23V77
N-35M	23V76
N-50M	23V07
N-51X	23V17
N-52M	23V57
N-53M	23V18
N-54M	23V49
N-55M	23V58
N-56M	23V55
N-57M	23V44 *
N-62AC	23V39 *
N-64AC	23V38 *
N-66A	23V94
N-67A	23V74
N-68X	23V80
N-73A	23V59
N-469A	23V95
N-470A	23V96
N-471A	23V133
P-1A	24R82
P-3A	24R83
P-5A	24R84
P-7A	24R85
P-9A	24R86
P-11A	21P65
P-15AL	21P88
P-17AL	21P92
PR-21AL	21P72
P-213AL	21P66
P-215AL	21P67
P-216AL	21P68
P-217AL	21P69
P-218AL	21P70
P-220AL	21P71
R-2C	24R67
R-3A	24R69
R-4A	24R11U ‡‡
R-4B	24R11 ‡‡
R-5A	22R90
R-5B	22R91
R-6A	24R19U
R-6B	24R19
R-7A	22R92
R-7B	22R93
R-8A	24R09U
R-8B	24R09
R-9A	24R21U
R-9B	24R21
R-10A	22R96
R-10B	22R97
R-11A	24R04U
R-11B	24R04
R-12A	22R98
R-12B	22R99
R-14A	24R05U
R-14B	24R05
R-16A	24R18 ■
R-17A	22R68
R-18A	24R48
R-18B	24R49
R-19A	22R66
R-20A	22R87
R-20B	22R88
R-21A	24R07U
R-21B	24R07
R-22A	22R94
R-22B	22R95
R-23B	24R68
R-24A	22R64
R-24B	22R65
R-25A	22R59
R-26A	22R49
R-27A	22R58
R-28A	22R51
R-29A	24R70
R-30X	24R71
R-33BC	26R104
R-36A	26R103
R-36BC	26R35
R-37BC	26R01
R-38A	26R86 §§
R-38BC	26R95 cc
R-39BC	26R91
R-40BC	26R02
R-41C	24R75
R-42BC	26R03
R-43C	24R77
R-44BS	26R98 c
R-45C	24R76
R-46A	22R56
R-47BS	26R20
R-48BS	26R85
R-49BC	26R04
R-49BS	26R07
R-50A	26R06
R-50BC	26R05
R-51BC	26R88
R-52BC	26R08
R-54X	24R72
R-56A	24R73
R-58A	24R15 ^
R-60BC	26R09
R-61BC	26R88 *
R-62BC	26R57
R-64BC	26R10
R-65BC	26R11
R-66BC	26R12
R-67BC	26R71
R-68A	24R66
R-69BC	26R77
R-70A	22R45
R-71A	22R60
R-72A	24R45
R-73B	24R74
R-74BC	26R78
R-75BA	26R122
R-76BC	26R94
R-77BC	26R79
R-77BS	26R80
R-78BC	26R99
R-79BA	26R107
R-80BA/BC	26R21
R-81BC	26R100
R-81BS	26R101
R-83A	24R78
R-84K	25F19
R-85A	24R79
R-86BA	26R108
R-87BC	26R116
R-88A	26R124
R-89BC	26R128
R-90BC	26R126
R-91HA	26R129
R-92A	26R109
R-93A	22R21
R-94H	22R03
R-104A	24R50
R-104B	24R51
R-105A	24R52
R-105B	24R53
R-106A	24R19U
R-106B	24R19
R-107A	24R54
R-107B	24R55
R-108A	24R09U
R-108B	24R09
R-109A	24R21U
R-109B	24R21
R-110A	24R80
R-110B	24R81
R-111A	24R40U 66
R-111B	24R40 ★
R-112A	24R56 c
R-112B	24R57
R-113A	24R01U
R-113B	24R01
R-114A	24R05U *
R-114B	24R05 #
R-115A	24R58
R-115B	24R59
R-116A	24R60
R-116B	24R61
R-118A	24R62
R-118B	24R63
R-120A	24R64
R-120B	24R65
R-121A	24R07U
R-121B	24R07
R-122A	26R123
R-123HA	26R105
R-124BC	26R106
R-125BC	26R113
R-126A	26R131
R-127A	26R112
R-128BC	26R125
R-129BC	26R117
R-130HA	26R114
R-131A	26R119
R-132BC	26R111
R-133A	26R115
R-134A	26R127
R-135BC	26R120
R-136BC	26R132
R-137HA	26R130
R-138A	26R110
R-139A	26R118
R-200A	**24R100**
R-201A	**24R101**
R-202A	**24R102**
R203A	**24R103**
R-204A	**24R104**
R-205A	**24R105**
R-300	**26R150**
R-675A	26R102
S-1X	22S45
S-2X	24S50
S-3X	24S51
S-4X	22S38
S-5X	22S35
S-5Z	26S49 †
S-6X	24S48
S-6Z	22S24
S-7X	24S52
S-8X	24S82
S-8Z	24S81
S-9X	26S48 †
S-9Z	26S48
S-10X	22S37
S-11X	24S83
S-11Z	24S84
S-12X	24S53 ç
S-12Z	26S58
S-13X	22S29
S-13Z	22S30
S-14Z	22S23
S-15X	24S56 §§
S-16X	22S22
S-17X	24S98
S-18X	26S48 ç
S-18Z	22S36
S-19Z	24S196
S-20X	24S53
S-20Z	22S20
S-21A	22S55
S-21Z	22S57
S-22A	22S70
S-23X	22S100
S-24A	22S66
S-25Z	24S73
S-26X	22S101
S-27A	22S15
S-28X	22S16
S-29X	22S17
S-30X	22S45
S-31A	22S01
S-32A	22S02
S-34X	22S21
S-35A	22S04
S-36A	22S05
S-37X	22S19
S-38X	22S27
S-38Z	22S28
S-39X	22S50
S-40X	22S18
S-41X	22S31
S-41Z	22S32
S-42A	22S11
SR-45Z	24S103
S-46A	24S108
S-47Z	24S71
S-48X	22S25
S-48Z	22S26
S-49X	22S33
S-50X	22S34
S-51X	24S60 #
S-52X	22S73
S-53X	24S06 #
S-54X	24S61 #
S-55X	24S14 #
S-55Z	26S46
S-56Z	22S79
S-57Z	24S14 #
S-59Z	22S89
S-60A	24S57
S-61Z	24S55 #
S-62X	22S61
S-63X	24S04 #
S-64X	22S47 ç
S-65X	22S103
S-66X	22S102
S-67X	26S50
S-68Z	22S52
S-69Z	22S54
S-70Z	24S100
S-71Z	24S102
S-72Z	24S107
S-73X	24S74 †††
SR-74K	24S104
S-75K	24S106
S-76Z	22S104
S-77U	22S105
S-78Z	24S101
S-79Z	24S105
S-129Z	24S113
S-130Z	24S112
S-131X	24S109
S-132X	24S110
S-133Z	24S111
S-142A	22S03
S-144A	22S06
S-146A	22S07
S-148A	22S08
S-149A	22S10
S-152A	22S12
S-154A	22S13
S-156A	22S09
S-158A	22S14
SP-4	27A107
SP-5	27A108
SP-7	27A109
SP-11	27A110
SP-13	27A111
SP-15	27A112
SP-20	27D37
SP-21	27D38
SP-29	27D39
SP-32	27S88
SP-33	27S89
SP-34	27S90
SP-35	27S91
SP-36	27S92
SP-42	27S93
SP-43	27S94
SP-44	27S95
SP-46	27S96
SP-47	27S97
SP-48	27S98
SP-49	27S99
SP-50	27S100
SP-51	27S101
SP-52	27S102
SP-59	27S103
SP-60	27S104
SP-61	27S105
SP-62	27S106
SP-63	27S107
SP-64	27S108
SP-65	27S109
SP-66	27S110
SP-67	27S111
SP-106	27C79
SP-107	27C80
SP-108	27C81
SP-117	27C82
SP-118	27C83
SP-128	27C84
T-1X	MIT 153
T-2X	MIT 154
T-3X	MIT 155
T-5X	MIT 156
T-11X	MIT 157
T-12X	MIT 158
T-13X	MIT 159
T-14X	MIT 160
T-15X	MIT 161
T-20X	MIT 162
T-21X	MIT 94
T-22X	MIT 163
T-23X	MIT 164
T-24X	TR 235
T-25X	MIT 165
T-26X	TR 236
T-31X	MIT 166
T-32X	TR 237
T-33X	MIT 167
T-34X	TR 240
T-35X	TR 241
T-41X	TR 238
T-42X	TR 239
T-101X	MIT 100
T-102X	MIT 168
TY-1XT	**TR 179**
TY-3XT	**TR 163**
TY-4XT	**TR 186**
TY-16XT	**TR 153**
TY-17XT	**TR 154**
TY-23X	TR 242
TY-24X	TR 243
TY-25X	TR 244
TY-26X	TR 245
TY-27XT	TR 233
TY-28XT	TR 232
TY-29X	TR 191
TY-30X	TR 193
TY-31X	TR 192
TY-32X	TR 246
TY-33X	TR 113
TY-34X	TR 247
TY-35X	TR 248
TY-36X	TR 249
TY-37X	TR 250
TY-38X	TR 251
TY-39X	TR 252
TY-40X	TR 253
TY-41X	TR 254
TY-42X	TR 255
TY-43X	TR 256
TY-44X	TR 116
TY-45X	TR 114
TY-46X	TR 257
TY-47X	TR-258
TY-48X	TR 111
TY-49X	TR 259
TY-50X	TR 24 ç
TY-51X	TR 260
TY-52X	TR 261
TY-53X	TR 194
TY-54X	TR 262
TY-55X	TR 263
TY-56X	TR 264
TY-57X	TR 265
TY-58X	TR 21 ç
TY-59X	TR 266
TY-60X	TR 267
TY-61X	TR 195
TY-62X	TR 268
TY-63X	TR 196
TY-64X	TR 58
TY-65Z	TR 197
TY-66A	TR 198
TY-67A	TR 199
TY-68S	TR 78
TY-69S	TR 83
TY-70S	TR 85
TY-71S	TR 87
TY-74S	TR 95
TY-75A	TR 355
TY-76A	TR 354
TY-78	TR 269
TY-79	TR 270
TY-80	TR 271
TY-81	TR 272
TY-82	TR 273
TY-83	TR 274
TY-84	TR 275
TY-88	TR 276
TY-89	TR 277
TY-90	TR 278
TY-91	TR 279
TY-92	TR 280
TY-93	TR 281
TY-94	TR 282
TY-99	TR 283
TY-100	TR 284
TY-101	TR 285
TY-102	TR 286
TY-462	TR 288
TY-468	TR 287
TZ-1	MIT 147
TZ-2XT	MIT 148
TZ-5	MIT 149
TZ-7	TR 226
TZ-13	MIT 150
TZ-15	TR 227
TZ-17XT	TR 229
TZ-24XT	TR 228
TZ-25	MIT 151
TZ-26	TR 234
TZ-29XT	TR 230
TZ-32XT	TR 231
TZ-103XT	MIT 152

†† The C-6X is rated at 5H @ 65MADC @ 330 Ohms, while the 20C59 is rated at 7H @ 55MADC @ 200 Ohms. The inductance of the 20C59 will be approximately 6H at the 65MADC level.

††† The C-23X is rated at

THORDARSON MEISSNER

UNITED TRANSFORMER CORP. to THORDARSON MEISSNER (T-M)

Cross Reference To Competitor

XR-64-U5

PART NUMBER Competitor	T-M
A-10	25A58
A-11	25A59
A-12	25A18
A-15	25A64
A-16	25A20
A-17	25A65
A-18	25A21
A-19	25A66
A-20	25A22
A-21	25A60
A-22	25S10
A-23	25S11
A-24	25S12
A-25	25S13
A-26	25S33
A-27	25A61
A-28	25S14
A-30	25C06
A-32	25C07
A-33	25A166
A-34	25A67
A-35	25A68
A-36	25A69
A-37	25A70
A-38	25A71
A-39	25A62
A-40	25F26
A-41	25C08
A-42	25C09
A-43	25A63
A-44	25A135
A-45	25S85
A-46	25A138
A-47	25A139
BMI-30	27C386
BMI-50	27C387
BMI-60	27C300
BMI-90	27C388
BMI-100	27C301
BMI-120	27C302
BMI-150	27C389
BMI-200	27C390
BMI-240	27C391
BMI-400	27C303
BMI-500	27C304
BMI-750	27C305
BMI-800	27C392
BMI-1000	27C306
BMI-1500	27C307
BMI-2000	27C308
BMI-3000	27C309
BMI-4000	27C310
BMI-5000	27C311
BMI-10000	27C312
BML-400	27C335
BML-1000	27C336
BPH-50000	27C393
BPH-100000	27C394
BPM-400	27C349
BPM-440	27C395
BPM-500	27C396
BPM-600	27C397
BPM-750	27C350
BPM-800	27C398
BPM-1000	27C351
BPM-1200	27C399
BPM-1500	27C352
BPM-1600	27C400
BPM-2000	27C353
BPM-2500	27C401
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HA-137	25A84
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HP-123	25R45
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HVV-.015	27C287
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HVV-4	27C294
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HVV-25	27C296
HVV-60	27C297
HVV-150	27C298
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PF-6	25R57
PF-7	25R58
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PIP-12	PUL 50
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PLP-13	27C446
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R-77	23V206
R-78	23V11*
R-79	23V12*
R-80	23V13*
R-81	23V09*
R-86	23V08
R-97	23V90
R-101	22R01
R-102	24R41
R-103	24R04
R-104	24R05
R-105	24R42
R-110	24R43
R-111	24R44
R-112	24R05U*
R-113	24R07U*
R-220	20C40
S-1	25A159
S-2	25A160
S-3	25A161
S-5	25A162
S-6	25A163
S-8	25D65
S-9	25D66
S-10	25D67
S-11	25S61
S-12	25S62
S-13	25S63
S-14	25S64
S-15	25S65
S-16	25S66
S-17	25S88
S-18	25M88
S-19	25M89
S-20	25M90
S-21	25M91
S-22	25M92
S-23	25C74
S-24	25C80
S-25	25C81
S-26	25C82
S-27	25C83
S-28	25C84
S-29	25C85
S-30	25C86
S-31	25C87
S-32	25C88
S-33	25C89
S-34	25C90
S-35	25C91
S-36	25C93
S-37	25C94
S-38	25C95
S-39	25R52
S-40	25R53
S-41	25R60
S-42	25R61
S-44	25P56
S-45	25P57
S-46	25P58
S-47	25P59
S-48	25P60
S-49	25P61
S-50	25P62
S-51	25P63
S-52	25P64
S-53	25F20
S-54	23F21
S-55	25F22
S-57	25F23
S-58	25F24
S-59	25F25
S-60	25F27
S-61	25F28
S-62	25F29
S-63	25F30
S-64	25F31
S-67	25F32
S-68	25F33
S-70	25F34
S-71	25F35
S-72	25F38
S-75	25F36
S-76	25F37
S-77	25V34
S-78	25V35
S-80	25C96
S-81	25C97
SC-3	23V40
SC-4	23V41
SC-5	23V42
SML-70	27A69
SO-1	MIT 141
SO-2	MIT 142
SO-3	MIT 143
SO-4	MIT 144
SO-5	MIT 145
SO-6	MIT 146
SO-7	TR 218
SO-8	TR 219
SO-9	TR 220
SO-10	TR 221
SO-11	TR 222
SO-12	TR 223
SO-13	TR 224
SO-14	TR 225
SO-15	TR 359
SO-16	TR 358
SO-17	TR 357
SO-2P	27A62
SO-3P	27S49
SO-5P	27C66
SO-7P	27A63
SO-8P	27A64
SO-9P	27S52
SO-14P	27A68
SO-15P	27A148
SO-17P	27C234
SO-CH	TR 352
SSO-1	MIT 67
SSO-2	MIT 70
SSO-3	MIT 73¢
SSO-4	MIT 76
SSO-5	MIT 82
SSO-6	MIT 79¢
SSO-7	TR 200
SSO-8	TR 201
SSO-9	TR 202
SSO-10	TR 203
SSO-11	TR 204
SSO-12	TR 205
SSO-13	TR 206
SSO-14	TR 207
SSO-15	TR 208
SSO-16	TR 209
SSO-17	TR 210
SSO-18	TR 211
SSO-19	TR 212
SSO-20	TR 213
SSO-21	TR 214
SSO-22	TR 215
SSO-23	MIT 139
SSO-24	MIT 140
SSO-25	TR 216
SSO-26	TR 217
SSO-27	TR 356
SSO-3P	27S37
SSO-5P	27C63
SSO-8P	27A53
SSO-14P	27A55
SSO-15P	27A56
SSO-19P	27S47
SSO-20P	27S48
SSO-21P	27A57
SSO-22P	27A58
SSO-23P	27C64
SSO-24P	27C65
SSO-25P	27A59

UNITED TRANSFORMER CORP. to THORDARSON MEISSNER (T-M)

Cross Reference To Competitor

XR-64-U5

PART NUMBER Competitor	T-M	PART NUMBER Competitor	T-M	PART NUMBER Competitor	T-M	PART NUMBER Competitor	T-M	PART NUMBER Competitor	T-M	PART NUMBER Competitor	T-M
VIC-17	27C219	VIC-22	27C224	W-786	27A03	W-790	27S05	Z-850	27C03	Z-854	27C07
VIC-18	27C220	W-783	27A01	W-787	27S02	W-791	27S06	Z-851	27C04	Z-855	27C08
VIC-19	27C221	W-784	27S01	W-788	27S03	Z-848	27C01	Z-852	27C05	Z-856	27C09
VIC-20	27C222	W-785	27A02	W-789	27S04	Z-849	27C02	Z-853	27C06	Z-857	27C10
VIC-21	27C223										

CHICAGO-STANCOR Industrial Transformers to THORDARSON MEISSNER (T-M)

XR-64-C5

1BC-150	25R21	BM-1	25M78	FH-210H	27F26	PCR-120	25R17	PSD-25	25D56	TAMS-1	27A113
1BH-150	27R60	BM-2	25M80	FH-215H	27F27	PCR-150	25R18	PSD-100	25D57	TAMS-2	27A114
1BS-150	25R42	BM-4	25M79	FH-510H	27F30	PCR-200	25R19	PSO-80	25S40	TAMS-3	27A115
2BC-150	25R22	BO-1	25S23 *	FH-520HB	27F31	PCR-300	25R20	PSO-150	25S41	TAMS-4	27A116
2BS-150	25R43	BO-2	25S24 *	FH-610	27F92	PCT-14	27A107	PSO-200	25S42	TAMS-5	27A117
4FH-63	27F105	BO-5	25S25 *	FH-615	27F32	PCT-15	27A108	PSR-55	25R30	TAMS-6	27A118
4FH-65	27F106	BO-6	25S26 *	FMS-1	27F94	PCT-17	27A109	PSR-70	25R35	TAMS-7	27A119
4FH-610	27F107	BO-9	25S27 *	FMS-2	27F95	PCT-21	27A110	PSR-85	25R36	TAMS-8	27S112
4FH-620	27F108	BO-10	25S28 *	FMS-3	27F96	PCT-23	27A111	PSR-105	25R37	TAMS-9	27S113
4FMS-63	27F102	BO-11	25S29 *	FMS-4	27F97	PCT-25	27A112	PSR-120	25R38	TAMS-10	27S114
4FMS-65	27F60	BO-12	25S30 *	FMS-5	27F98	PCT-30	27D37	PSR-150	25R39	TAMS-11	27S115
4FMS-122	27F104	BO-13	25S31 *	FMS-6	27F99	PCT-31	27D38	PSR-200	25R40	TAMS-12	27S116
4FMS-610	27F61	BO-14	25S75	FMS-7	27F100	PCT-39	27D39	PSR-300	25R41	TM-1A	TOR 748
4FMS-620	27F62	BO-15	25S76	FMS-8	27F101	PCT-43	27S89	R-63	25C48	TM-2A	TOR 749
4FMS-1208	27F103	BOH-1	27S117	FMS-23	27F36	PCT-54	27S95	R-65	25C46	TM-5A	TOR 752
4FMS-2415	27F16	BOH-2	27S118	FMS-53	27F38	PCT-60	27S100	R-67	25C44	TM-8A	TOR 754
4IMS-40	27V54	BOH-4	27S119	FMS-62	27F40	PCT-61	27S101	R-103	25C47	TM-10A	TOR 755
4IMS-160	27V56	BOH-5	27S120	FMS-65	27F41	PCT-62	27S102	R-105	25C45	TM-20A	TOR 757
4PHC-55	27R114	BOH-9	27S121	FMS-210	27F37	PCT-70	27S104	RC-1055	25C26	TM-50A	TOR 761
4PHC-70	27R115	BR-1	25C40	FMS-210H	27F44	PCT-71	27S105	RC-1085	25C28	TM-80A	TOR 763
4PHC-120	27R116	CDC-1	25D52	FMS-510	27F39	PCT-76	27S110	RC-1540	25C25	TM-100A	TOR 764
4PHC-165	27R117	CDS-1	25D58	FMS-510H	27F45	PCT-77	27S111	RC-1555	25C27	TM-200A	TOR 766
4PHC-200A	27R118	CDH-1	27D35	FMS-610	27F42	PCT-116	27C79	RC-1585	25C29	TM-500A	TOR 770
4PHR-300	27R119	CIC-1	25A23	FMS-620	27F43	PCT-117	27C80	RC-8105	25C30	TM-800A	TOR 773
4PMS-40	27R106	CIC-2	25A24	HF-20	25A08	PCT-118	27C81	RC-8150	25C32	TM-1000A	TOR 774
4PMS-55	27R107	CIH-1	27A126	HF-20X	25A09	PCT-128	27C83	RC-8200	25C34	TT-11	25A117
4PMS-70	27R108	CIH-2	27A127	HF-22	25A10	PHC-10	27R38	RC-8250	25C36	TT-12	25A118
4PMS-85	27R109	CIS-1	25A25	HF-22X	25A11	PHC-20	27R39	RC-8300	25C37	TT-13	25A119
4PMS-105	27R110	CIS-2	25A26	HF-29	25A11	PHC-40	27R40	RC-12105	25C31	TT-14	25A120
4PMS-120	27R96	CMS-1	25M76	HF-31	25A13	PHC-55	27R41	RC-12150	25C33	UM-110	TR 467
4PMS-150	27R111	CMS-3	25M77	HF-32	25A14	PHC-60	27R42	RC-12200	25C35	UM-111	TR 468
4PMS-165	27R112	COC-1	25S38	HF-40	25A15	PHC-70	27R43	RH-1055	27C88	UM-112	TR 469
4PMS-200A	27R113	COC-2	25S39	HP3-140	27V18	PHC-85	27R44	RH-1085	27C90	UM-113	TR 470
4PMS-300	27R99	COH-1	27S122	HRP-400	27R100	PHC-105	27R45	RH-1510	27C85	UM-114	TR 471
4RH-255	27C105	COH-2	27S123	HRP-600	27R101	PHC-120	27R46	RH-1520	27C86	UME-11	TR 134
4RH-270	27C106	COS-1	25S43	HRP-800	27R102	PHC-150	27R47	RH-1540	27C87	UME-12	TR 128
4RH-2120	27C107	COS-2	25S44	HRP-1600	27R103	PHC-165	27R58	RH-1555	27C89	UME-13	TR 131
4RH-2165	27C108	DCT-1	TR-82 Δ	HRP-2000	27R104	PHC-200	27R48	RH-1585	27C91	UME-14	TR 141
4RH-2200	27C109	DCT-2	TR-92 Δ	HRP-2500	27R105	PHC-200A	27R59	RH-8105	27C92	UME-15	TR 144
4RH-2300	27C110	F-1	25F86	IS-50	25V16	PHC-250	27R49	RH-8150	27C94	UME-16	TR 146
4RMS-240	27C100	F-2	25F87	IS-100	25V17	PHD-10	27D30	RH-8200	27C96	UME-17	TR 142
4RMS-255	27C26	F-3	25F88	IS-150	25V18	PHD-25	27D31	RH-8250	27C98	UME-18	TR 148
4RMS-270	27C101	F-4	25F89	IS-250	25V19	PHD-100	27D34 §	RH-8300	27C99	UME-19	TR 133
4RMS-285	27C102	F-5	25F90	LPF-1	20C73 ‡	PHO-80	27S12 §§	RH-12105	27C93	UME-20	TR 127
4RMS-2105	27C103	F-6	25F91	NSI-1	25C38	PHO-150	27S13	RH-12150	27C95	UME-21	TR 125
4RMS-2120	27C28	F-7	25F92	NSI-2	25C39	PHO-200	27S14	RH-12200	27C97	UME-22	TR 129
4RMS-2150	27C104	F-8	25F93	P-45	25P82	PHR-55	27R50	RP-400	24R100	UME-23	TR 136
4RMS-2165	27C29	F-25	25F56	P-67	25P83	PHR-70	27R51	RP-600	24R101	UME-24	TR 137
4RMS-2200	27C30	F-54	25F60	P-107	25P84	PHR-85	27R52	RP-800	24R102	UME-25	TR 138
4RMS-2300	27C31	F-58	25F61	P-1240	25P85	PHR-105	27R53	RP-1600	24R103	UME-26	TR 139
4RMS-3120	27C73	F-63	25F68	P-1512	25P86	PHR-120	27R54	RP-2000	24R104	UME-27	TR 140
AMS-1	27A01	F-65	25F69	P-2126	25P88	PHR-150	27R55	RP-2500	24R105	UME-28	TR 145
AMS-2	27S01	F-75	25F71	P-2520	25P87	PHR-200	27R56	RS-1055	25C50	UME-29	TR 122
AMS-3	27A02	F-104	25F73	P-3025	25P89	PHR-300	27R57	RS-1085	25C52	UME-30	TR 121
AMS-4	27A03	F-106	25F74	P-4353	25P90	PMS-70	27R86	RS-1540	25C49	UME-31	TR 123
AMS-5	27S02	F-210	25F57	PCC-40	25R01	PMS-70A	27R87	RS-1555	25C51	UME-32	TR 124
AMS-6	27S03	F-210H	25F58	PCC-55	25R02	PMS-150	27R88	RS-1585	25C53	UME-33	TR 135
AMS-7	27S04	F-215H	25F59	PCC-60	25R03	PMS-175	27R89	RS-8105	25C54	UME-34	TR 143
AMS-8	27S05	F-510H	25F62	PCC-70	25R04	PMS-250	27R90	RS-8150	25C56	UME-35	TR 130
AMS-9	27S06	F-516	25F63	PCC-85	25R05	PMS-350	27R91	RS-8200	25C58	UME-36	TR 149
BD-1	25D53	F-520HB	25F64	PCC-105	25R06	PMS-550	27R92	RS-8250	25C60	UME-37	TR 147
BD-2	25D54	F-530	25F65	PCC-120	25R08	PMS-800	27R93	RS-8300	25C43	UME-38	TR 150
BI-1	25A01 *	F-530BX	25F66	PCC-150	25R09	PSC-40	25R23	RS-12105	25C55	UME-39	TR 151
BI-2	25A02 *	F-610	25F70	PCC-200	25R10	PSC-55	25R24	RS-12150	25C57	WF-20	25A16
BI-3	25A03 *	F-615	25F67	PCC-250	25R11	PSC-60	25R26	RS-12200	25C59	WF-21	25A17
BI-4	25A04 *	F-712	25F72	PCD-10	25D49	PSC-70	25R27	SD-50	25V10	WF-22	25A18 *
BI-5	25A05 *	F-725	25F18	PCD-25	25D50	PSC-85	25R28	SD-100	25V11	WF-24	25A19
BI-6	25A06 *	F-1010	25F75	PCD-100	25D51	PSC-105	25R29	SD-150	25V12	WF-26	25A20
BI-7	25A07 *	FH-25	27F24	PCO-80	25S35	PSC-120	25R31	SD-250	25V13	WF-28	25A21
BIH-1	27A120	FH-54	27F28	PCO-150	25S36	PSC-150	25R32	SD-500	25V14	WF-30	25A22 *
BIH-4	27A121	FH-58	27F29	PCO-200	25S37	PSC-165	25R14	SD-1000	25V15	WF-34	25S32
BIH-6	27A122	FH-63	27F90	PCR-55	25R07	PSC-200	25R33	SPCT-10	TR 466	WF-35	25S34
BIH-7	27A123	FH-65	27F91	PCR-70	25R12	PSC-205	25R15	SR-300	20C60 ‡	WF-36	25S33 *
BIH-8	27A124	FH-104	27F93	PCR-85	25R13	PSC-250	25R34	SR-500	20C61 ‡		
BIH-10	27A125	FH-210	27F25	PCR-105	25R16	PSD-10	25D55				

STANCOR to THORDARSON MEISSNER (T-M)

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A-52C	20A16	A-3812	21M59	A-3883	24S45	A-4744	20A04 (m)	A-8094	22S21	C-1411	20C94
A-53	20A45	A-3817	21M55	A-3885	24S121	A-4745	20A17 *	A-8095	24S24	C-1412	26C90
A-53C	20A18	A-3818	24S00	A-3891	21M60A	A-4747	20A30	A-8096	24S21	C-1413	20C106
A-62C	20A49	A-3823	24S06	A-3892	21M71	A-4748	20A35	A-8097	24S22	C-1414	20C107
A-63C	20A93	A-3825	24S63	A-3893	21M61A	A-4749	22S51	A-8098	24S117	C-1415	25C46 (s)
A-64C	20A48	A-3829	21M69	A-3894	21M72	A-4752	20D31	A-8099	24S126	C-1420	20C71
A-73C	20A22	A-3830	24S55 #	A-3898	21M64	A-4765	20D32	A-8101	24S75	C-1421	20C54
A-2203	24S115	A-3831	24S56	A-3899	21M65	A-4770	22S116	A-8102	24S71	C-1515	20C43
A-2312	26S47	A-3833	20A42	A-4212	20D80 (a)	A-4773	20A24 *	A-8103	24S72	C-1645	20C108
A-2313	24S96	A-3836	22S119	A-4292	20D21	A-4774	20A19 (n)	A-8104	22S109	C-1646	20C105
A-2855	26S46 #	A-3837	24S76	A-4350	20A07	A-4778	20A01	A-8105	24S74	C-1702	20C109
A-3250	24S27	A-3839	25S78	A-4351	25A121	A-4779	20A00	A-8109	24S01 (w)	C-1703	20C98
A-3304	24S58	A-3841	22S77	A-4352	20A31	A-4780	20A11	C-1001	26C85	C-1706	20C47
A-3307	24S119	A-3842	24S25	A-4407	20D20	A-7947	24S46	C-1002	26C86	C-1707	20C84
A-3310	24S91	A-3845	21M67	A-4420	20A28	A-7949	24S47	C-1003	26C87	C-1708	20C85
A-3311	22S64	A-3849	24S64	A-4430	24S120	A-8050	22S106	C-1080	20C82	C-1709	20C48
A-3327	24S99	A-3850	24S08 #	A-4431	24S116	A-8051	22S107	C-1215	20C66	C-1710	20C68
A-3328	24S48	A-3851	24S77	A-4432	24S122	A-8052	22S41	C-1227	20C59 (p)	C-1718	20C75
A-3329	24S49	A-3852	24S12 #	A-4702	20D30	A-8053	22S63	C-1277	20C59 (r)	C-1720	20C110
A-3330	24S85	A-3856	24S04	A-4703	20D81 *	A-8054	22S69	C-1279	20C81	C-1721	20C96
A-3332	24S53	A-3857	24S59	A-4705	20A32	A-8056	22S67	C-1325	26C42	C-1722	20C70
A-3335	24S19 (z)	A-3870	24S14 #	A-4706	20A33	A-8072	22S65	C-1333	20C81	C-1723	20C47
A-3336	24S89	A-3871	21M63	A-4708	20A21	A-8080	24S125	C-1355	20C166	C-2301	20C63
A-3337	24S92*	A-3872	25S77	A-4709	25A123	A-8081	24S124	C-1400	20C76	C-2303	26C88
A-3496	22S48	A-3876	24S50	A-4711	20A101	A-8082	24S123	C-1401	20C77	C-2304	26C89
A-3800	22S71	A-3877	24S51	A-4713	20D23	A-8090	22S118	C-1402	20C78	C-2305	20C67
A-3801	24S57	A-3878	24S52	A-4719	25A122	A-8091	22S81	C-1403	20C31	C-2307	20C79
A-3802	24S79	A-3879	24S98	A-4723	20D89	A-8092	26S49	C-1404	20C33 *	C-2308	20C69
A-3808	21M51	A-3881	24S54	A-4742	20A36	A-8093	24S56 §	C-1410	20C93	C-2309	20C64

PART NUMBER Competitor	T-M	PART NUMBER Competitor	T-M	PART NUMBER Competitor	T-M	PART NUMBER Competitor	T-M
C-2317	20C167	P-6458	21F18	P-8339	26R45	RT-408	23V65
C-2318	20C52	P-6459	24R109	P-8340	26R57	RT-2012	23V66
C-2325	26C94	P-6461	21F112	P-8341	26R54 *	RT-4012	23V67
C-2326	26C93	P-6462	21F108	P-8342	26R01 (h)	RTC-8611	HS-2
C-2327	26C41	P-6463	21F109	P-8343	26R141	RTC-8612	HS-3
C-2328	26C92	P-6464	21F74	P-8345	26R21	RTC-8613	HS-9
C-2332-1	20C74 ‡	P-6465	21F21 (bb)	P-8346	26R139	RTC-8617	HS-1
C-2334	26C91	P-6466	21F10	P-8347	26R140	RTC-8623	HS-5
C-2335	25C92	P-6467	21F94	P-8348	26R133	RTC-8628	WC-18
C-2340	20C73 ‡	P-6468	21F33*	P-8349	26R134	RTC-8629	WC-19
C-2343	26C77	P-6469	21F51	P-8350	26R69	RTC-8630	HS-6
C-2344	26C40	P-6470	22R25	P-8351	26R15	TA-1	TR-295
C-2345	20C50	P-6471	22R67	P-8352	26R33 (k)	TA-2	TR-296
C-2346	20C51	P-6472	22R73	P-8353	26R59	TA-3	TR-257 †
C-2685	20C00	P-6473	22R75	P-8355	26R51	TA-4	TR-259 †
C-2686	20C01	P-6474	22R76	P-8356	26R51	TA-5	TR-238 †
C-2687	20C02	P-6476	22R27	P-8357	21F114	TA-6	TR-260 †
C-2688	20C03	P-6477	22R57	P-8358	21F81	TA-7	TR-195 †
C-2689	20C100	P-6479	22R69	P-8359	22R94	TA-8	TR-299
C-2690	20C25	P-6481	22R69	P-8360	24R15	TA-9	TR-116
C-2691	20C26	P-6482	22R89	PA-8421	26R38	TA-10	TR-258
C-2704	20C09	P-6484	22R75	PC-8301	21P73	TA-11	TR-196
C-2705	26C45	P-6486	22R28	PC-8302	21P76	TA-12	TR-300
C-2706	20C19	P-6487	22R23	PC-8303	21P80	TA-13	TR-301
C-2707	20C102	P-6488	22R61	PC-8304	21P84	TA-14	25S81
C-2708	26C81	P-6489	22R52	PC-8305	21P86	TA-15	TR-305
P-1834-3	21F30	P-6491	22R61	PC-8401	24R00U	TA-16	TR-306
P-3020	21F113	P-6492	21F33*	PC-8402	24R19U	TA-17	TR-307
P-3024	21F32	P-6496	22R46 (g)	PC-8403	24R09U	TA-18	TR-34 ★
P-3026	21F36 (v)	P-8028	21P79 *	PC-8404	24R13U	TA-19	TR-12
P-3060	21F58	P-8034	21P77	PC-8405	24R20U	TA-20	TR-101
P-3062	21F37	P-8035	21P96 *	PC-8406	24R01U	TA-21	TR-102
P-3064	21F59	P-8040	21P51	PC-8407	24R08U	TA-22	TR-11
P-4004	24R38	P-8041	21P52	PC-8408	24R02U	TA-23	TR-103
P-4019	21F41	P-8042	21P53	PC-8409	24R40U	TA-24	TR-26 ★
P-4022	21F56	P-8130	26F67	PC-8410	24R22U	TA-25	TR-104
P-4026	21F34	P-8150	24R91 (d)	PC-8411	24R06U	TA-26	TR-105
P-4047	24R93	P-8151	24R30	PC-8412	24R07U	TA-27	TR-106
P-4063	22R18	P-8154	26R84	PC-8413	24R03	TA-28	TR-4
P-4064	22R77	P-8155	26R63	PC-8414	24R27	TA-29	TR-107
P-4065	22R78	P-8156	26R73	PC-8417	24R10	TA-30	TR-2
P-4082	25F94	P-8157	26R87	PC-8418	24R11U	TA-31	TR-3
P-4083	21F102	P-8158	26R14	PC-8419	24R12U	TA-32	TR-108
P-4086	21F38	P-8159	26R68	PC-8420	26R31U	TA-33	TR-109
P-4088	21F104	P-8160	26R82	PC-8422	24R87	TA-34	TR-23 ★
P-4089	21F42	P-8161	26R67	PM-8401	24R00	TA-35	TR-7
P-4091	21F110	P-8162	26R97	PM-8402	24R19	TA-36	TR-6
P-4096	21F47	P-8163	26R65	PM-8403	24R09	TA-37	TR-19
P-4097	21F29	P-8164	26R71	PM-8404	24R13	TA-38	TR-5
P-5000	21F04 (b)	P-8165	26R74	PM-8405	24R20	TA-39	TR-111
P-5002	21F48	P-8166	26R70	PM-8406	24R01	TA-40	TR-112
P-5008	21F117	P-8167	26R72	PM-8407	24R08	TA-41	TR-113
P-5009	21F55	P-8168	26R81	PM-8408	24R02	TA-42	TR-114
P-5014	21F107	P-8169	26R95	PM-8409	24R40	TA-43	TR-115
P-5015	21F45	P-8170	26R86	PM-8410	24R22	TA-44	TR-117
P-5016	21F61	P-8171	26R85	PM-8411	24R06	TA-45	TR-118
P-5059	2 R23	P-8172	26R44	PM-8412	24R07	TA-46	TR-24
P-5062	23V81	P-8173	24R89	PM-8418	24R11	TA-47	TR-119
P-5063	23V21	P-8174	24R90	PM-8419	24R12	TA-48	TR-179
P-5064	23V22	P-8175	24R21U	PM-8420	26R31	TA-50	TR-163
P-5065	23V20	P-8176	22R32	PM-8422	22R06	TA-51	TR-186
P-6001	22R13	P-8177	22R05U	PM-8423	22R04	TA-52	TR-1
P-6007	24R35	P-8178	22R40	PS-8415	26R37	TA-53	TR-10
P-6008	24R95	P-8179	24R77	PS-8416	22R39	TA-54	TR-17
P-6010	24R01 (c)	P-8181	26R60	PSU-3000	23V46	TA-55	TR-36
P-6011	24R02	P-8190	26F60	PT-8311	21P88	TA-56	TR-60
P-6012	24R04	P-8191	26F65	PT-8312	21P90	TA-57	TR-63
P-6013	24R05	P-8193	23V101	PT-8313	21P92	TA-58	TR-65
P-6014	24R06	P-8194	23V102	PT-8314	21P94	TA-59	TR-66
P-6119	22R02 (e)	P-8195	TR-294	PT-8315	21P95	TA-60	TR-67
P-6124	23V73	P-8196	23V122	PV-6441	23V11	TA-61	TR-303
P-6125	23V27	P-8331	26R138	PV-6442	23V12	TA-62	TR-304
P-6131	22R19	P-8332	26R50	PV-6443	23V13	TA-63	TR-261
P-6133	21F31	P-8333	26R137	PV-6444	23V14	TC-1	TR-153
P-6134	21F09	P-8334	26R88 (x)	RT-201	23V60	TC-2	TR-154
P-6135	21F13	P-8335	26R136	RT-202	23V61	TP-1	23V121
P-6137	21F65*	P-8336	26R13 (j)	RT-204	23V62	TP-2	23V116
P-6138	21F62	P-8337	26R135	RT-206	23V63	TP-3	23V117
P-6139	21F28	P-8338	26R93 (y)	RT-208	23V64	TP-4	23V118(aa)
P-6141	23V24						
P-6143	24R25						
P-6144	21F115						
P-6146	24R108						
P-6160	23V25						
P-6161	23V126						
P-6166	22R24 (f)						
P-6287	23V191						
P-6298	23V28						
P-6301	22R55						
P-6302	21F39						
P-6308	21F43						
P-6309	21F25						
P-6315	24R24						
P-6317	24R46						
P-6333	21F118						
P-6338	21F116						
P-6348	24R88						
P-6358	24R96						
P-6371	25V20						
P-6375	23V50						
P-6376	23V51						
P-6377	23V52						
P-6378	23V53						
P-6379	23V54						
P-6383	23V128						
P-6385	23V129						
P-6387	23V130						
P-6410	23V45						
P-6415	23V19						
P-6425	24R107						
P-6426	22R115						
P-6428	21F88*						
P-6429	21F24 (t)						
P-6430	21F87						
P-6431	21F119						
P-6432	21F07						
P-6433	26F66						
P-6454	21F103						
P-6455	21F105						
P-6456	21F72						
P-6457	21F111						

§ The PHD-100 unit is in an MIL-YY case while the 27D34 is in an MIL-FA case.
§§ The PHO-80 unit is in an MIL-YY case while the 27S12 is in an MIL-JA case.
Δ Transistor Power Supply Transformers—Voltage and Power output ratings are the same; however, circuit details may differ slightly.
‡ Electrical and Mechanical differences exist between these units.
* Mounting dimensions for the competitor's unit are not the same as the T-M units.
# Universal output transformer-The impedance range of these transformers differ slightly.
§ The 24S56 has an additional 2 & 8 Ohm tap.
(a) The 20D80 has an additional 2:1 Turns Ratio Tap.
(b) The P-5000 is rated at 5 Volts CT @ 6 Amps. while the 21F04 is rated at 5 Volts CT @ 8 Amps. Mounting dimensions of the competitor's unit are not the same as the T-M unit.
(c) The P-6010 is rated at 5 Volts @ 3 Amps. while the 24R01 is rated at 5 Volts @ 2 Amps.
(d) The P-8150 is rated at 1550 Volts @ 1.5MADC - case mounting, while the 24R91 is rated at 1800 Volts @ 4MADC - GGV type mounting.
(e) The P-6119 is rated at 300-0-300 at 55MADC while the 22R02 is rated at 300-0-300 at 70MADC.
(f) The P-6166 is rated at 6.3 Volts @ 2.25 Amps. while the 22R24 is rated at 6.3 Volts @ 4.7 Amps. Mounting dimensions are not the same as the T-M unit.
(g) The P-6496 is rated at 12.6 Volts CT @ 2 Amps. while the 22R46 has 2 - 6.3 Volts @ 3 Amps. Windings, which may be connected in Series for 12.6 Volts CT @ 3 Amps. The 22R46 also has a 6 Volt DC Primary Tap.
(h) The 26R01 has a 5 Volt Tap on the 6.3 Volt damper winding.
(i) The P-8336 high voltage is rated at 117 Volts @ 280MADC while the 26R13 high voltage is rated at 140 Volts tapped @ 117 Volts @ 300MADC.
(k) The 26R33 has an additional high voltage tap and an additional 5 Volts @ 3 Amps. winding.
(m) The 20A04 has an additional 6 Ohm Tap.
(n) The A-4774 has a split center tapped secondary while the 20A19 has a secondary center tap but it is not split. A-4774 unit mounted in a vertical channel frame - T-M mounted in a horizontal channel frame but both units have the same mounting dimensions.
(p) The C-1227 has a DC Resistance of 350 Ohms while the 20C59 has a DC Resistance of 200 Ohms.
(r) The C-1277 is rated at 300 Ohms DC Resistance while the 20C59 has a DC Resistance of 200 Ohms.
(s) The C-1415 is rated at 75 Ohms and 7500 Volt test while the 25C46 is rated at 35 Ohms and 9000 Volt test. Mounting dimensions of the competitor's unit are not the same as the T-M unit.
(t) The P-6429 has one of its four secondary windings center tapped, the 21F24 has no center tapped winding.
(v) The P-3026 has an additional low voltage primary tap.
(w) The 24S01 has 2 additional voltage taps.
(x) The P-8334 is rated 6.3 Volts @ 8.5 Amps. while the 26R88 is rated at 6.3 Volts @ 6 Amps.
(y) The P-8338 is rated at 6.7 Volts @ 10 Amps. while the 26R93 has two 6.3 Volts @ 6 Amps. windings that may be connected in parallel to get 6.3 Volts @ 12 Amps. The 26R93 also has an additional 6.3 Volts @ 1 Amp. winding.
(z) The 24S19 has an additional 16 Ohm tap.
(aa) The TP-4 is mounted with coil shields while the 23V118 is mounted with a channel frame.
† Transistor Transformers. Power ratings are different.
★ Transistor Transformers. DC Resistance values are different.

THORDARSON MEISSNER

For Mounting Illustrations See Page 1517
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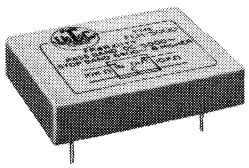
NEW

TRANSFORMERS, FILTERS, MAGAMPS, HIGH Q COILS

NEW UTC "FLATS"* ELECTRIC WAVE FILTERS



For other Filters see page 7.

Designed, Manufactured and Successfully Tested to Complete MIL-F-18327B Specifications

These filters meet today's need for flat component configurations, have excellent attenuation characteristics and are ruggedized to Grade 4, MIL-F-18372B. Straight pin terminals and flat construction make these units ideally suited for printed circuit applications. These filters are hermetically sealed in flat metal cases shielded to reduce hum pickup. FP-A case: 2 x 2 x ½" h., 2.5 oz. FP-B case: 2 x 1½ x ⅜" h., 2 oz. **Stock price: $42.00 each net.**

FHH-200: Flat package high pass filter, source and load 10K ohms. Units are within 1 db up to 300 cycles 3 db ± 1 db at 200 cycles, and have an attenuation of at least 40 db at frequencies below 140 cycles. FP-A case. Mil Type: FR4RX33YY.

FLH-600: Flat package low pass filter, source and load 10K ohms. Units are within 1 db from DC to 450 cycles, 3 db ±1 db at 600 cycles, and have an attenuation of at least 40 db at frequencies above 800 cycles. FP-A case. Mil Type: FR4RX11YY.

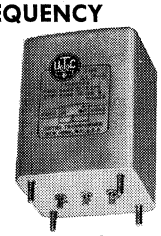
FLH-5000: Flat package low pass filter, source and load 10K ohms. Units are within 1 db from DC to 4.2 KC, 3 db ± 1 db at 5 KC, and have an attenuation of at least 43 db at frequencies above 6400 cycles. FP-B case. Mil Type: FR4RX11YY.

FLL-3500: Flat package low pass filter, source and load 600 ohms. Units are within 1 db from DC to 3 KC, 3 db ± 1 db at 3500 cycles, and have an attenuation of at least 40 db at frequencies above 4500 cycles. FP-A case. Mil Type: FR4RX11YY.

FLL-18000: Flat package low pass filter, source and load 600 ohms. Units are within 1 db from DC to 15 KC, 3 db ± 1 db at 18 KC, and have an attenuation of at least 43 db at frequencies above 23 KC. FP-A case. Mil Type: FR4RX11YY.

FLL-50000: Flat package low pass filter, source and load 600 ohms. Units are within 1 db from DC to 42 KC, 3 db ± 1 db at 50 KC, and have an attenuation of at least 43 db above 64 KC. FP-B case. Mil Type: FR4RX11YY.

NEW, LLP-15, STANDARD LOW FREQUENCY LOW PASS FILTER



For other Filters see page 7.

Designed, Manufactured and Successfully Tested to Complete MIL-T-27B Specifications.

The LLP-15 low frequency low pass filter has a loss of less than 3 db at 15 cycles and attenuation of more than 40 db at 30 cycles. Source and load impedance 100K ohms. MIL Type FR4RX11FA. **Dim:** 2 1/16 x 2 5/16 x 3 1/8" h., 1½ lbs. **Price: $60.00 net.**

NEW "FE,* FI,* FO"* MINIATURE INDUCTORS

For other High Q Coils see page 8.

Designed, Manufactured and Successfully Tested to Complete MIL-T-27B Specifications.

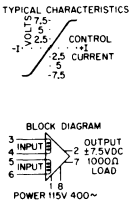
FE, FI, FO miniature inductors are ideal for transistor and printed circuit applications, having both pin terminals and a molded flat construction. These units are symmetrical toroids providing maximum Q in minimum size. The FE and FI inductors are adjusted at 1 V, 1 KC. The FO units are adjusted at 1 V, 400 cycles. All units are adjusted to a tolerance of ±1%. The ma DC Max shown is for approximately 5% drop in inductance. The temperature stability is unequalled from −55°C to +100°C. For AC level limitations, a general rule of thumb would be to consider the maximum AC current approximately equal to the maximum DC current rating. However, for specific applications, contact UTC with exact level, frequency, and Q requirements to determine suitability of part in application. All FE, FI, FO inductors are equally well suited for vacuum tube application. All units Mil Type: TF5RX20ZZ.

Type No.	Ind. Hy, (0 DC)	ma DC Max.	DCR Max.	Price Net
FE-.02	.0200	50	5.1	$ 9.00
FE-.05	.0500	30	12	9.60
FE-.1	.100	22	22	10.20
FE-.5	.500	10	122	10.80
FE-1	1.00	7	250	11.40
FE-2	2.00	5	500	12.00
FI-.04	.0400	50	4.3	10.80
FI-.1	.100	30	11	11.10
FI-.25	.250	20	27	11.40
FI-.5	.500	14	60	11.70
FI-1	1.00	10	110	12.00
FI-4	4.00	5	430	12.90
FO-.1	.100	60	4.2	15.00
FO-.5	.500	25	23	15.00
FO-1	1.00	18	43	15.60
FO-2	2.00	12	92	16.20
FO-5	5.00	8	240	16.80
FO-10	10.0	6	440	18.00

NEW LINE OF SOLID STATE "MAS"* PUSH-PULL MAGNETIC AMPLIFIERS

For other Magamps see page 6.

The "MAS" magamps operate on an input of 115 V 400 cycles with an output of ±7.5 V DC, 1000 ohm load and have 2 isolated control inputs. These magnetic amplifiers afford a **power gain of approximately 30,000.** The power input and output are also completely and individually isolated. The "MAS" magamps are manufactured to MIL-T-27B standards. Units are housed in a hermetically sealed steel case with plug-in octal compressed glass terminals. The "MAS" magamps are 3 inches high with a 1½ inch diameter and weighs approximately ½ pound.

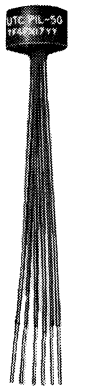


The "MAS" magamps have many advantages over other active circuit elements such as tubes, transistors: • Long life and years of maintenance free operation due to magnetic characteristics and solid state elements. • Ruggedness can withstand high shock, vibration, radiation, and moisture. • Reliability — can withstand 10 times overloads and operate into short without damage.

Possible applications include: • Control Amplifier • Photocell • SCR Controls • Strain Gauge Amplifier • Meter Preamps • Thermocouple • Differential Amplifier • Signal mixing, summing, integration • Hydraulic Servo Valve Driver • Servo Motor • Linear Amplifications of Transducer Signals.

Type Number	Winding Number	Input Resistance Ohms	Trans-resistance Ohms	Nominal DC μamps 5V DC Output 1000Ω Load	Price Net
MAS-400	1	45	2.5 x 10⁴	200	135.00
	2	45	2.5 x 10⁴	200	
MAS-410	1	500	8.0 x 10⁴	60	135.00
	2	500	8.0 x 10⁴	60	
MAS-420	1	1000	12.5 x 10⁴	40	135.00
	2	100	4.0 x 10⁴	125	

NEW "PIL"* AUDIO TRANSFORMERS



For other PIL'S see page 2.

Designed, Manufactured and Successfully Tested to Complete MIL-T-27B Specifications.

These units are the smallest audio transformers available. The DO-T type structure incorporated overcomes inherently poor electrical characteristics usually found in miniature audio transformers. These ultraminiature PIL transformers are engineered to provide top electrical performance. All units are subjected to a 500 volt dielectric strength test, instead of the usual 100 volts, for higher safety margins and reliability.

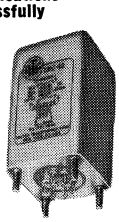
Units are designed to a field-proven, ruggedized construction with a completely rigid cylindrical bobbin eliminating wire movement and stress. The turns are circular, effecting uniform wire lay and eliminating corner stress. The leads are rigidly anchored to the coil wire terminal board fashion, eliminating the use of tape, and brought out through strain relief. The units are terminated in weldable and solderable, insulated Gold plated Dumet leads. **Dim:** 5/16" dia. x 3/16" h., 1/20 oz.

All units are metal encased to Grade 4. Units made to Class S are available on special order. U. S. Patent No. 2,949,591.

Type No.	MIL Type	Pri Imp	Unbal D.C. ma In Pri	Sec Imp	Pri DCR	Max Mw Level	±3 db Fre Range @ 1 Mw	Net Price
PIL-50	TF4RX17YY	500 CT	3	500 CT	40	100	800 cps-250KC	7.20
PIL-70	TF4RX13YY	10K CT	1	500 CT	530	100	800 cps-250KC	7.50
PIL-75	TF4RX13YY	10K CT	1	2K CT	530	100	800 cps-250KC	7.50

PRECISION SCOTT-T REFERENCE TRANSFORMER NEW SCR-10*

Tested to Complete MIL-T-27B Specifications Designed, Manufactured and Successfully



Used in the precise conversion of three wire synchro information to equivalent resolver information. Two outputs 90° apart are obtained, which can be utilized in analog and digital computer application or coordinate transformation applications. Mil type TF4SX09AJ.

Special custom built units with other electrical values are available to your requirements

Input 90V 60/400~ 3 Phase high impedance suitable for synchro output.

Output 1) 3V @ .25 MA } 2 Phase Output.
2) 3V @ .25 MA }

a) Magnitudes of output voltage matched within 0.25%.
b) Phase angle of output voltages is 90° ± .225°. **AJ case, see page 13**

Net Each: $24.00

*UTC Trade Mark. All Product Lines or Type Designations are UTC Trade Marks. Specify by Trade Mark to assure UTC high quality and reliability. © 1965, 1966 United Transformer Co., Div. of TRW INC.

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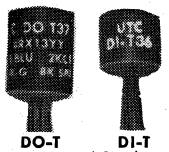
TRANSISTOR TRANSFORMERS

Designed, Manufactured and Successfully Tested to Complete MIL-T-27B Specifications.

DO-T* AND DI-T* TRANSISTOR TRANSFORMERS



DO-T DI-T
(Actual Size)

Revolutionary transistor transformers hermetically sealed to MIL-T-27B specs. Plastic insulated solderable leads, firmly anchored to withstand 10 pound pull. Ideal for printed circuits. DO-T: 5/16" dia. x 13/16" long, wt., 1/10 oz. DI-T: 5/16" dia. x 7/8" long, wt., 1/15 oz. these compact units provide frequency response, high efficiency and low distortion. U.S. Pat. No. 2,949,591

DO-T Type	DI-T Type	Net Each	Applica-tion	Pri. Imped., Ohms	Sec. Imped. Ohms
DO-T1	DI-T1	$6.00	a	20K/30K, 0.5 ma	800/1200
DO-T2	DI-T2	5.40	b	500/600, 3 ma	50/60
DO-T3	DI-T3	5.40	b	1K/1.2K, 3 ma	50/60
DO-T4	.....	5.40	b	600, 3 ma	3.2
DO-T5	DI-T5	5.40	b	1.2K, 2 ma	3.2
DO-T6	.....	6.00	b	10K, 1 ma	3.2
DO-T7	.....	9.30	c	200K	1K
DO-T8	DI-T8	4.80	d•	3.5 hys. @ 2 ma	2.5 hys.‡‡
DO-T9	DI-T9	6.60	e	10K/12K, 1 ma	500/600 CT
DO-T10	DI-T10	6.60	f	10K/12.5K, 1 ma	1.2K-1.5K CT
DO-T11	DI-T11	6.60	f	10K/12.5K, 1 ma	2K/2.5K CT
DO-T12	.....	5.70	b	150/200 CT, 10 ma	12/16
DO-T13	.....	5.70	b	300/400 CT, 7 ma	12/16
DO-T14	.....	6.00	b	600/800 CT, 5 ma	12/16
DO-T15	.....	6.00	b	800/1070 CT, 4 ma	12/16
DO-T16	.....	6.00	b	1K/1330 CT, 3.5 ma	12/16
DO-T17	.....	6.00	b	1.5K/2K CT, 3 ma	12/16
DO-T18	.....	6.30	b	7.5K/10K CT, 1 ma	12/16
DO-T19	DI-T19	6.00	b	300 CT, 7 ma	600
DO-T20	DI-T20	6.00	b	500 CT, 5.5 ma	600
DO-T21	DI-T21	6.00	b	900 CT, 4 ma	600
DO-T22	DI-T22	6.00	b	1500 CT, 3 ma	600
DO-T23	DI-T23	6.90	a	20K/30K CT, .5 ma	0.8K/1.2K CT
DO-T24	.....	9.90	c	200K CT	1K CT
DO-T25	DI-T25	7.20	a	10K/12K CT, 1 ma	1.5K/1.8K CT
DO-T26	DI-T26	5.70	d†	6 hys. @ 2 ma	4.5 hys.‡‡
DO-T27	DI-T27	4.80	d‡	1.25 hys. @ 2 ma	0.9 hy.‡‡
DO-T28	DI-T28	4.80	d§	0.3 hy. @ 4 ma	0.1 hy.‡‡
DO-T29	.....	5.70	b	120/150 CT, 10 ma	3.2/4
DO-T30	.....	5.70	b	320/400 CT, 7 ma	3.2/4
DO-T31	.....	6.00	b	640/800 CT, 5 ma	3.2/4
DO-T32	.....	6.00	b	800/1K CT, 4 ma	3.2/4
DO-T33	.....	6.00	b	1060/1330 CT, 3.5 ma	3.2/4
DO-T34	.....	6.00	b	1.6K/2K CT, 3 ma	3.2/4
DO-T35	.....	6.30	b	8K/10K CT, 1 ma	3.2/4
DO-T36	DI-T36	7.50	a	10K/12K CT, 1 ma	10K/12K CT
DO-T37	DI-T37	7.80	a	2K/2.5K CT, 3 ma	8K/10K Split
DO-T38	DI-T38	7.80	a	10K/12K CT, 1 ma	2K/2.4 Split
DO-T39	.....	7.80	a	20K/30K CT, .5 ma	1K/1.5K Split
DO-T40	.....	8.40	a	40K/50K CT, .25 ma	400/500 Split
DO-T41	DI-T41	7.50	a	400/500 CT, 8/6 ma	400/500 Split
DO-T42	.....	7.50	a	400/500 CT, 8/6 ma	120/150 Split
DO-T43	DI-T43	7.50	a	400/500 CT, 8/6 ma	40/50 Split
DO-T44	DI-T44	7.50	a	80/100 CT, 12/10 ma	32/40 Split
DO-T45	.....	7.80	a	1K/1.25K CT, 3.5 ma	16K/20K Split
DO-T46	.....	9.60	c	100K CT	500 CT
DO-T47	.....	8.10	a	9K/10K, 1 ma	9K/10K CT
DO-T48	.....	7.80	a	8K/10K, 1 ma	1.2K/1.5K CT
DO-T49	.....	7.80	d§§	Series—20 hys @ 1 ma, 5100Ω Parallel—5 hys @ 2 ma, 1275Ω	
DO-T50	.....	5.70	d§§	Series—.075 hys @ 10 ma, 10.5Ω Parallel—.018 hys @ 20 ma, 2.6Ω	
DO-T51	DI-T51	7.80	a	2K/2.5K CT, 3 ma	2K/2.5 K split
DO-T52	DI-T51	7.80	a	4K/5K CT, 2 ma	8K/10K CT
DO-T400	.....	6.60	h	28V, 380-1 KC	6.3 V, 60 ma
DO-T410	.....	7.80	h	28V, 380-1 KC	Two 6.3 V, 30 ma
DO-T420	.....	7.80	h	28V, 380-1 KC	28 V, 10 ma
DO-TSH	DI-TSH	.90		High mu shield and cover; 25 db	

•630 ohms. †2100 ohms. ‡100 ohms. §25 ohms.
‡‡DI-T primary impedance. §§2 Wdgs.
a—Interstage; b—Output; c—Input; d—Inductor; e—Driver or Output; f—Driver; g—matching; h—Power Unit.

NEW DI-T200* SERIES TRANSISTOR TRANSFORMERS

These revolutionary transistor transformers embody the same rugged reliable construction afforded by the unique winding techniques and physical construction found in the DO-T & DI-T transformers. DI-T200 series differ by having straight pin, 1" long, .017 d. Dumet wire, gold plated leads.
To MIL-T-27B, size 5/16 x 3/8", wt. 1/15 oz. U.S. Pat. No. 2,949,591

Type No.	Application	Pri. Imped., Ohms	Sec. Imped., Ohms	Net Each
DI-T225	Interstage	80 CT 100 CT	32 Split 40 Split	$8.40
DI-T230	Output or Matching	300 CT	600 Split	7.20
DI-T235	Interstage	400 CT 500 CT	40 Split 50 Split	8.40
DI-T240	Interstage or Output (Ratio 2:1:1)	400 CT 500 CT	400 Split 500 Split	8.40
DI-T245	Output or Matching	500 CT 600 CT	50 CT 60 CT	6.90
DI-T250	Output or Mixing	500 CT	600 CT	7.20
DI-T255	Output or Matching	1,000 CT 1,200 CT	50 CT 60 CT	6.90
DI-T260	Output	1,500 CT	600 CT	7.20
DI-T265	Isolation or Interstage	2,000 CT 2,500 CT	8,000 Split 10,000 Split	8.70
DI-T270	Output or Driver	10,000 CT 12,000 CT	500 CT 600 CT	7.80
DI-T273	Output or Driver	10,000 CT 12,500 CT	1,200 CT 1,500 CT	7.80
DI-T276	Interstage or Driver	10,000 CT 12,000 CT	2,000 CT 2,400 CT	7.80
DI-T278	Interstage or Driver	10,000 CT 12,500 CT	2,000 Split 2,500 Split	8.70
DI-T283	Isolation or Interstage	10,000 CT 12,000 CT	10,000 CT 12,000 CT	8.40
DI-T288	Interstage or Driver	20,000 CT 30,000 CT	800 CT 1,200 CT	8.10
DI-T204	Split Inductor (2 wdgs)	Series: .1 hy @ 4 ma DC, 25Ω Parallel: .025 hy @ 8 ma DC, 6Ω		6.00
DI-T208	Split Inductor (2 wdgs)	Series: .9 hy @ 2 ma DC, 105Ω Parallel: .2 hy @ 4 ma DC, 26Ω		6.00
DI-T212	Split Inductor (2 wdgs)	Series: 2.5 hy @ 2 ma DC, 630Ω Parallel: .6 hy @ 4 ma DC, 157Ω		6.00
DI-T216	Split Inductor (2 wdgs)	Series: 4.5 hy @ 2 ma DC, 2300Ω Parallel: 1.1 hy @ 4 ma DC, 575Ω		6.90
DI-T200SH	Drawn Hipermalloy shield provides 15 to 20 db shielding through side of case			.75

NEW PIL* ULTRAMINIATURE AUDIO INDUCTORS

The new PIL series constitutes the smallest audio inductors available. These units are metal encased, ruggedized manufactured and guaranteed to MIL-T-27B. They are MIL Type TF4RX-20YY. Physical construction is that of the PIP (DO-T, DI-T) units shown on this page.
PIL units shown: Net Each $6.00

For new PIL transformers See pg. 1.

Type No.	Con-nec-tion	Ind.Hys. Min @ IV, 1KC	DC ma	DCR Ohms
PIL-5	Series	.12	0	43
	Parallel	.03	0	10.7
	Series	.10	10	
	Parallel	.025	10	
PIL-8	Series	.32	0	115
	Parallel	.08	0	28
	Series	.16	10	
	Parallel	.06	10	
PIL-12	Series	.8	0	300
	Parallel	.2	0	75
	Series	.4	5	
	Parallel	.15	5	

5/16" Dia. x 3/4" high Wt. 1/20 oz.

PIP* SERIES TRANSISTOR PULSE TRANSFORMERS

UTC's PIP series of subminiature transistor type pulse transformers is designed to give a maximum of component density in equipments, their configuration being especially compatible with transistors. The design is based on the UTC DO-T and DI-T series to impart exceptional reliability. PIP-1 through PIP-9 have a ratio of 4:4:1, PIP-10 through PIP-12 have a ratio of 5:3:1. All units are checked and adjusted in a transistor test circuit to give the required pulse width.

Hermetically sealed, manufactured & guaranteed to MIL-T-20138B by full environmental testing . . . all units, completely METAL CASED, MIL type TP6RX4410CZ. See UTC page 6 for other miniature pulse transformers.

All Units Individually Adjusted to Parameters Shown in Table

U.S. Pat. No. 2,949,591

5/16" Dia. x 3/16" high
Weight 1/20 oz.

Type No.	APPROX. DCR, OHMS 1-Brn 2-Rd	3-Org 4-Yel	5-Grn 6-Blu	BLOCKING OSCILLATOR PULSE Width μSec.	Rise Time	% Over Shoot	% Droop	% Back Swing	COUPLING CIRCUIT CHARACTERISTICS P Width μSec.	Volt Out	Rise Time	% Over Shoot	% Droop	Back Swing	Imp. in, out,	Net Each
PIP-1	.18	.20	.07	.05	.02	0	0	37	.05	9	.018	0	0	12	50	$6.00
PIP-2	.47	.56	.17	.1	.025	0	0	25	.1	8	.02	0	0	5	50	6.00
PIP-3	1.01	1.25	.37	.2	.030	2	0	15	.2	7	.035	0	0	5	100	6.00
PIP-4	1.5	1.85	.54	.5	.05	0	0	15	.5	7	.06	0	0	0	100	6.00
PIP-5	2.45	3.1	.9	1	.08	0	0	14	1	6.8	.15	0	0	5	100	6.00
PIP-6	3.0	3.7	1.1	2	.10	0	0	15	2	6.6	.18	0	2	10	100	6.00
PIP-7	4.9	6.05	1.8	3	.20	0	0	14	3	6.8	.20	0	2	10	100	6.00
PIP-8	8.0	9.7	2.9	5	.30	0	0	3	5	7.9	.22	0	13	25	200	6.00
PIP-9	13.1	15.9	4.7	10	.35	0	5	12	10	6.5	.4	0	15	20	200	6.00
PIP-10	.55	.41	.15	.1	.01	0	0	20	.1	8	.01	0	0	5	140/50	6.00
PIP-11	2.9	2.2	.82	1	.02	4	4	6	1	6.6	.05	0	6	12	280/100	6.00
PIP-12	9.4	7.1	2.6	5	.05	0	12	12	5	8	.09	2	12	25	560/200	6.00
PIP-100	Transistor pulse transformer kit, consisting of PIP-1 thru PIP-9 in plastic case.															51.00
PIP-SH	Drawn Hipermalloy shield and cover for PIP's provides 20 to 30 db shielding.															.90

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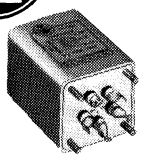
TRANSISTOR TRANSFORMERS

Designed, Manufactured and Successfully Tested to Complete MIL-T-27B Specifications.

TRANSISTOR SUPPLY TRANSFORMERS



Primary 115V. 50/60 cycles (tapped on H-143 thru H-146 for dual secondary voltages). DC ratings are approximate, based on silicon bridge rectifier (except H-141, H-142 also shown F.W.CT.). Choke input DCV is based on 10% voltage drop in choke. Condenser value, C, is in 1000 mfd. H-141, H-142, H-147 listing under "Secs in parallel" is single winding. All units MIL type TF4RX02.

Type No.	Sec. V Rms	Sec. A Rms	Sec. in Parallel: Choke DCV	Input DCA	Cond. DVC	Input DCA	C	Sec. in Series: Choke DCV	Input DCA	Cond. DVC	Input DCA	C	MIL Case Pg. 13	Net Each
H-141	20 CT	.3	16.5	.3	26	.2	.2						EB	$10.80
			8	.43	12	.3	.5							
H-142	20 CT	.6	16.5	.6	26	.4	.4						EA	13.50
			9	.85	13	.6	1							
H-143	17/21.5 17/21.5	1.5 1.5	14/17.5	3	18.5/25	2	1	28/35	1.5	43/56	1	.5	HA	19.80
H-144	17/21.5 17/21.5	4 4	14/17.5	8	18.5/25	5	2	28/35	4	43/56	2.5	1	LA	33.00
H-145	17/21.5 17/21.5	9 9	14/17.5	18	18.5/25	12	6	28/35	9	43/56	6	4	RC-175	51.00
H-146	34/43 34/43	4.5 4.5	28/35	9	43/56	6	4	56/70	4.5	85/110	3	1	UTC Pg.10	51.00
H-147	10	20	8.2	20	10	13	12						KA	30.00

UNIVERSAL TRANSISTOR SUPPLY TRANSFORMERS

Low Voltage DC Supply
Telephone Supply
Bias Supply
Battery Chargers
Plating Rectifiers

UTC universal transistor supply transformers are high reliability units in drawn MIL cases. Primary tapes can modify nom. AC voltages by −6%, +6%, and +12%. The capacitor following the rectifier affects the DC voltage.

PRIMARY 115 VOLTS, 50/60 CYCLES
NOMINAL SEC. VOLTS, 8.25 to 40.5

Type No.	MIL DC Range	Indust. DC Range	MIL Case (Pg. 13)	Net Each
H-915	6V-.065A to 53V-.02A	6V-.085A to 53V-.025A	AH	$13.50
H-925	6V-.22A to 53V-.07A	6V-.28A to 53V-.085A	AJ	14.10
H-935	6V-1.2A to 53V-4A	6V-1.52A to 53V-.48A	FA	15.60
H-94	6V-3A to 53V-1A	6V-3.8A to 53V-1.2A	HA	22.50
H-95	6V-7.5A to 53V-2.5A	6V-9A to 53V-3A	KA	30.00
H-96	6V-18A to 53V-6A	6V-23A to 53V-7.5A	OA	54.00
	PRIMARY 115 VOLTS, 50/60 CYCLES NOMINAL SEC. VOLTS, 16.5 TO 81			
H-965	12V-1.5A to 106V-.5A	12V-1.9A to 106V-.6A	HA	$22.50

NEW 400-CYCLE MET* TYPES

PRIMARY 115 VOLTS, 400 CPS.
NOMINAL SEC., 8.25-40.5 VOLTS

MET 455	6V-1.2A to 53V-.4A	6V-1.52A to 53V-.48A	AJ	$15.00
MET 465	6V-3A to 53V-.4A	6V-3.8A to 53V-1.2A	FA	15.60
MET 475	6V-7.5A to 53V-2.5A	6V-9A to 53V-3A	HA	21.00

NEW MET* 400-CYCLE SERIES

Type No.	MIL Type	Sec. Volt	Amps. (MIL)	Amps. (Indust.)	Sec. Test V.RMS	MIL Case (Pg. 13)	Net Each
MET-410#	TF4SXO1YY 400 cy. pri.	6.3	.6	.75	500	RC-25 (Pg. 10)	$ 7.80
MET-420	TF4SXO1AH 3800-1000 cy.‡	6.3CT	2	2.5	1500	AH	12.00
MET-430±	TF4SXO1FA 400 cycles§	12.6CT 12.6	2 2	2.5 2.5	1500	FA	19.50
MET-435	TF4SXO1FA 380-1000 cy.‡	6.3CT	10	12	2500	FA	15.00
MET-440	TR4SXO1GB 380-1000 cy.‡	6.3CT 6.3CT	6 6	7 7	2500	GB	15.00

†Two MET-430's, Scott-connected, provide 26v., 2-phase from 115 v., 3-phase 400 cps input. Replaces former No. H-139. ‡105/115/125 v. primary. §57.5/99.7/115 v. primary. #Replaces former No. H-140.

400 CYCLE MOLDED TYPES

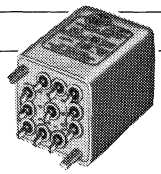
Primary 105/115 Volts 380-1000 Cycles. Sec: 6.3 VCT 2500V RMS Test — MOLDED 400 CYCLE TYPE TF5SX01ZZ

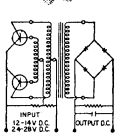
Type No.	Sec. Amp.	L In.	W In.	H In.	Wt. Lbs.	Net Each
H-101	3.5	1 25/32	1 21/32	2	.3	$15.60
H-102	5.5	1 3/4	2	2 1/4	.44	16.50
H-103	10	2 5/16	2 1/8	2 1/2	.8	21.00
H-104	25	2 7/8	2 1/2	3 1/32	1.5	24.00
H-118	.3	Sub ounces mold see pg. 11				9.90

TRANSISTOR INVERTER TRANSFORMERS

High reliability (layer insulated) types providing high efficiency in small size. Units are in drawn MIL cases. Circuit details supplied with transformer. With 6 V. input instead of 12 V., output voltage is halved, current rating remains the same.

FOR 12/14 OR 24/48 VOLT BATTERY





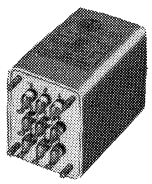
Type No.	DC output, when used in circut shown	MIL Case	Net Each
H-97	250V.-60MA	AH	$16.50
H-98	375V.-100MA	AJ	17.40
H-99	425V.-175MA	FA	22.20
H-100	550V.-200MA	GB	22.20

IMMEDIATE DELIVERY ON ALL ITEMS FROM STOCK

HERMETIC SEALED TRANSISTOR/FILAMENT SUPPLY TRANSFORMER

Primary: 105/115/210/220 volts, 50/60 cycles, except H-130, H-137, H-138, H-104 (115v.) and H-131 (115/220v.) Suited to 400/100 cycle service. H-128: 6½" x 5½" x 7¾" h. (wt. 34 lbs.) H-129: 6½" x 5½" x 7¾" h. (wt. 28 lbs.)

METAL CASED TF4 TYPE



MIL T-27B RATINGS IN REGULAR TYPE, **INDUSTRIAL RATINGS IN BOLD TYPE**

Type No.	MIL Type	Sec. Volts	Amps. (MIL)	Amps. (Indust.)	Sec. Test V. RMS	MIL Case Pg. 13	Net Each
H-119	TF4RX01AH	6.3CT	.3	.38	1500	AH	$ 9.00
H-120	TF4RX01GB	2.5	10	12	4000	GB	15.00
H-121	TF4RX01JB	2.5	10	12	10000	JB	19.50
H-122	TF4RX01KB	2.5	20	26	10000	KB	24.00
H-123	TF4RX01NB	2.5	5	7.5	10000	NB	41.70
		2.5	5	7.5			
		2.5	10	15			
H-124	TF4RX01FB	5	3	3	2000	FB	14.10
H-125	TF4RX01KB	5	10	12	10000	KB	24.00
H-126	TF4RX01LA	5	20	25	10000	LA	31.50
H-127	TF4RX01NA Term. Opp. Mtg.	5	20	30	21000	NA	54.00
H-128	TF4RX01YY Term. Opp. Mtg.	5	60	75	21000		87.00
H-129	TF4RX01YY Term. Opp. Mtg.	5	10	12	21000		99.00
		5	10	12			
		5	20	24			
H-130	TF4RX01AJ	6.3CT	.6	.75	1500	AJ	9.90
H-131	TF4RX01FB	6.3CT	2	2.5	2500	FB	13.50
H-132	TF4RX01JA	6.3CT	6	7	2500	JA	21.00
		6.3CT	6	7			
H-133	TF4RX01HB	6.3CT	7	8	2500	HB	16.50
H-134	TF4RX01HA	6.3CT	10	12	2500	HA	19.50
H-135	TF4RX01JB	10 CT	10	13	2500	JB	22.50
H-136	TF4RX01LA	14, 12, 11 CT	10	14	2500	LA	31.50
H-137	TF4RX01EB	6.3	.6	.75	1500	EB	13.50
		6.3	.6	.75			
H-138	TF4RX01GA	12.6	2	2.5	1500	GA	21.00
		12.6	2	2.5			

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TRANSISTOR TRANSFORMERS
(Commercial Types)
& M-S Transformers & Inductors

TRANSISTOR TRANSFORMERS *(Commercial Type)*

NEW CAT★ TRANSISTOR IMPEDANCE TYPES

All units in RC-50 case. (See page 10.) Frequency range ± 2 db, 50-15,000 cps. Power level 1 watt except CAT-15, 5 watts.

UTC Type	Application	Imped. Ohms	Primary Unbal. Ma DC	Secondary Imped., Ohms	Net Each
CAT-15	Output	48/12 spl.	750•	16 spl./8/4	$8.85
CAT-20	Istg./outp.	500/125 spl.	20	16/4 split	8.10
CAT-25	Isol./outp.	500/125 spl.	20	500/125 spl.	8.70
CAT-30	Input/istg.	500/125 spl.	20	2K/500 split	8.40
CAT-40	Istg./outp.	10K/2.5K spl.	8	2K/500 split	8.40

•Balance. ★Trade mark.

CHANNEL FRAME FILAMENT/TRANSISTOR TRANSFORMERS
Pri. 115 V. 50/60 Cycles—Test Volts RMS: 1500

Type No.	Secondary	W	D	H	M	Lbs.	Net Each
FT-1	2.5 VCT-3A	2⅞	1⅝	1 11/16	2⅜	¾	$4.50
FT-2	6.3 VCT-1.2A	2⅞	1⅝	1 11/16	2⅜	¾	4.50
FT-3	2.5 VCT-6A	3 5/16	1⅞	2	2 13/16	1	5.10
FT-4	5.3 VCT-3A	3 5/16	1⅞	2	2 13/16	1	5.10
FT-5	2.5 VCT-10A	3¾	2⅛	2 5/16	3⅛	1½	5.70
FT-6	5 VCT-3A	3¾	2⅛	2 5/16	3⅛	1½	5.70
FT-7	7.5 VCT-3A	3¾	2⅛	2 5/16	3⅛	1½	5.70
FT-8	6.3 VCT-8A	4	2½	2⅝	3 5/16	2½	6.30
FT-10	24 VCT-2A or 12V-4A	4	2⅝	2 11/16	3 5/16	2½	6.90
FT-11	24 VCT-1A or 12 V-2A	3¾	2⅛	2 5/16	3⅛	1½	6.00
FT-12	36 VCT-1.3A or 18 V-2.6A	4	2⅝	2⅝	3 5/16	2½	6.90

Taps on pri. of FT-13, FT-14 & FT-15 to modify sec. nominal V, −6% +6%, +12%

FT-13	26 VCT-.04A	2⅛	1⅜	1¼	1¾	¼	$5.70
FT-14	26 VCT-.25A	2⅞	1⅝	1 11/16	2⅜	¾	5.70
FT-15	48VCT-1A	4	2½	2⅝	3 5/16	2½	7.80
FT-16*	11 VCT-2.5A or 5.5 VCT-5A	3¼	2⅛	2 5/16	3⅛	1½	7.80

* For 120 V input, use 6% tap

TRANSISTOR/FILAMENT TRANSFORMERS
Pri. 115 x 50/60 Cycles; Bridge Rectifier
S-77, S-78 & S-79 Tapped For Dual Secondary Voltages

UTC Type	DCV	DCA	Case No. See Page 12	Net Each
S-75	5.2/14	1.2/.4	G-1	$ 6.60
S-76	10/26	4/1.4	G-4	9.90
S-77	14/56	3/1	G-5	11.40
S-78	28/110	9/3	G-10	33.00
S-79	32/120	3/1	G-7	18.00

CIRCUIT DEVELOPMENT TRANSFORMERS FOR TRANSISTORS

The UTC LABoratory circuit development transformers aid the designer in selecting optimum impedances for best power and distortion results from his transistor circuit.

LAB-5
• 20 Cycles to 20kc
Up to 50mw Continuous

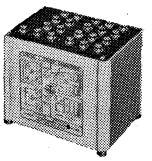
Pri Imp. Ω	Sec. Imp. Ω
125	125
200 split	200 split
500 split	500 split
2000 split	2000 split

Net Each: $48.00

LAB-5 & LAB-10
units in LS-1 case
3⅛x2⅝x3¼"; 3 lbs.

LAB-20
units in LS-3 case
5 13/16x5x4 1/16"; 15 lbs.

LAB* UNIT



Terminal board as shown above

LAB-10
20 Cycles to 20kc
Up to 1W Continuous

Pri. Imp. Ω Range	Pri. to Sec. Ratio	Sec. Imp. Ω Range
1900 Ω to 14,400 Ω	20:1 or 10:1	19 Ω to 36 Ω
925 Ω to 7600 Ω	10:1 or 5:1	37 Ω to 76 Ω

Net Each: $30.00

LAB-20
20 Cycles to 20kc
Up to 50W Continuous

Pri. Imp. Ω	Sec. Imp.
6, 12, 24, 40, 54, 70,	4, 8, 16, 64

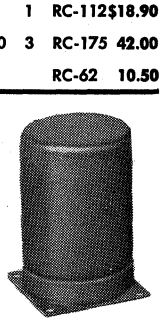
Net Each: $60.00

TRANSISTOR/FILAMENT SUPPLY TRANSFORMERS
Primary 115 volts 50/60 cycles

Type No.	Sec. V RMS	Sec. A RMS	In Parallel Choke in DCV	In Parallel Choke in DCA	In Parallel C in DCV	In Parallel C in DCA	In Series Choke in DCV	In Series Choke in DCA	In Series C in DCV	In Series C in DCA	Case No. See Pg. 9	Net Each
CG-30	17/21.5	1.5	14/17.5	3	18.5/25	2	28/35	1.5	43/56	1	RC-112	$18.90
	17/21.5	1.5										
CG-31	34/43	4.5	28/35	9	43/56	6	56/70	4.5	85/110	3	RC-175	42.00
	34/43	4.5										
CG-32	6.3VCT	1.2									RC-62	10.50

FILAMENT/TRANSISTOR SUPPLY TRANSFORMERS

Primary 105, 115, 210, 220, 230 volts, 50/60 cycles, except CG-34 . . . 105, 115, 220, 230. These transformers may be used on 25 to 43 cycles if 220 volt primary is used on 110 volts. Secondary voltage is simultaneously reduced to half.



RC CASE
See Pg. 10

Type No.	Sec. Volts C.T.	Sec. Amp.	Working Voltage	Sec. Test Volts RMS	Case No. See Page 10	Net Each
CG-33	6.3	4	500	2000	RC-75	$10.50
CG-34	2.5	10	2500	6000	RC-112	12.60
CG-35	6.3	6	500	2000	RC-87	12.00
CG-36•	6.3/6.3	5/5	500	2000	RC-100	15.60
CG-120	2.5	10	5000	11000	RC-125	18.00
CG-121	5	25	5000	11000	RC-150	22.50
CG-122	7.5/6.3	10	1500	4000	RC-125	18.00
CG-124	10	10	1500	4000	RC-150	18.00
CG-125	14/12/11	10	1500	4000	RC-150	21.00
CG-126	14/11/10	10	1500	4000	RC-152	30.00
	14/11/10					

MILITARY STANDARD TRANSFORMERS AND INDUCTORS

Designed, Manufactured and Successfully Tested to Complete MIL-F-18327B Specifications

FILAMENT, POWER, PLATE TRANSFORMERS

Primary 105/115/125 v., 54/66 cycles. Current ratings are for high voltage secondary DC, choke input filter. For condenser input, reduce by 70%. All units are MIL grade 4, ruggedized; equally usable where grade 1 is specified. Electrostatically shielded.

UTC Type	MS No.	MIL Type TF4RX-	Secondary Rating	MIL Case (Pg. 13)	Net Each
N-583A	90016-2	01EB002	2.5 v.-3 a.; 1000 WV	EB	$13.50
N-584A	90017-2	01GB003	2.5 v.-10 a.; 1000 WV	GB	15.00
N-585A	90018-2	01FB004	5 v.-3 a.; 1000 WV	FB	13.50
N-586A	90019-2	01HB005	5 v.-10 a.; 1000 WV	HB	18.00
N-587A	90020-2	01FB006	6.3 v.-2 a.; 1000 WV	FB	13.50
N-588A	90021-2	01GB007	6.3 v.-5 a.; 1000 WV	GB	15.00
N-589A	90022-2	01JB008	6.3 v.-10 a.; 1000 WV	JB	19.50
N-590A	90023-2	01KB009	6.3 v.-20 a.; 1000 WV	KB	24.00
N-591A	90024-2	01JB012	2.5 v.-10 a.; 6300 WV	JB	19.50
N-592A	90025-2	01KB013	5 v.-10 a.; 6300 WV	KB	22.50
N-593A	90026-2	03HA001	200-100-0-100-200, 70 ma; 6.3/5 v.-2 a.; 6.3 v.-3 a.	HA	22.20
N-594A	90027-2	03JB002	325-0-325, 70 ma; 6.3/5 v.-2 a.; 6.3 v.-4 a.	JB	24.00
N-595A	90028-2	03KB006	325-0-325, 150 ma; 5 v.-3 a.; 6.3 v.-5 a.	KB	26.40
N-596A	90029-2	03LB003	400-0-400, 175 ma; 5 v.-3 a.; 6.3 v.-8 a.	LB	33.00
N-597A	90030-2	03MB004	450-0-450, 250 ma; 5 v.-3 a.; 6.3 v.-8 a.	MB	39.00
N-598A	90031-2	02KB001	350-0-350, 250 ma	KB	21.00
N-599A	90032-2	02LB002	550-0-550, 250 ma	LB	28.50
N-600A	90036-2	02NB003	800-0-800, 250 ma	NB	37.50

AUDIO TRANSFORMERS

Frequency response 300-10,000 cps ± 2 db. Split 600-ohm units provides for 600 ohms CT and 1500 ohms. Electrostatic shielding provided on W-784, W-785 and W-786. No. W-783 has center-tapped secondary for 90K CT or 22.5K CT. All units in AJ case (Pg. 13). Wt., 0.6 lb.

UTC Type	MS No.	MIL Type TF1RX-	#	Pri. Ohms	Pri. DC Ma., Unbal.	Sec. Ohms	Net Each
W-783	90000-1	15AJ001	a	10K CT	10	90K spl.	$16.50
W-784	90001-1	16AJ002	b	600 spl.	.....	4/8/16	15.90
W-785	90002-1	10AJ001	c	600 spl.	.....	135K CT	15.30
W-786	90003-1	16AJ001	d	600 spl.	.....	600 spl.	15.30
W-787	90004-1	13AJ001	e	7.6K/4.8K	40	600 spl.	13.95
W-788	90005-1	13AJ002	f	7.6K/4.8K	40	4/8/16	14.25
W-789	90006-1	13AJ003	g‡	15K CT	10	600 spl.	13.95
W-790	90007-1	13AJ004	g+	24K CT	20†	600 spl.	14.25
W-791	90008-1	13AJ005	g#	60K CT	20+	600 spl.	13.95

Use: a—PP plates to pp grids, 15 dbm level. b—Line to VC, 2 watts. c—Line to pp grids, 15 dbm. d—Line to line, 15 dbm. e—Plate to line, 2 watts. f—Plate to VC, 2 watts. g—PP plates to line. †Balanced. ‡2 watts. +1 watt. #0.5 watt.

INDUCTORS

Two windings for series or parallel connection. Inductance shown for series connection. All but Z-847 are standard MIL case types. Rated 3500 WVDC, unless otherwise noted.

UTC Type	MS No.	MIL Type	Induct. Hy.	Ma DC	DCR Ohms	MIL Case Pg. 13	Net Each
Z-848•	90009-1	04FA001■	16	80	645	FA	$12.60
Z-849•	90010-1	04GA002■	25	80	670	GA	15.00
Z-850•	90011-1	04HA003■	40	80	1020	HA	22.50
Z-851†	90013-1	04HA005■	16	125	330	HA	18.00
Z-852†	90014-1	04JB006■	25	125	460	JB	25.50
Z-853	90037-1	04KA007■	40	125	535	KA	31.50
Z-854	75000-2	04LA009•	16	200	180	LA	33.00
Z-855	75001-2	04MA010•	25	200	210	MA	37.50
Z-856	75002-2	04NA012•	16	315	105	NA	45.30
Z-857	75003-2	04YY013•	25	315	150	YY	75.00

•1000 WVDC. †2000 WVDC. ■TF1RX-. •TF4RX.

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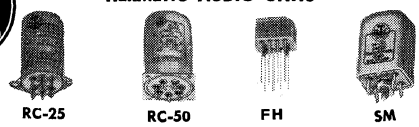
HERMETIC COMPONENTS

Designed, Manufactured and Successfully Tested to Complete MIL-T-27B Specifications.

HERMETIC AUDIO UNITS



RC-25 RC-50 FH SM

These extremely compact units are proved to specifications of MIL-T-27B. **Response & level ratings:** RC-25: Similar to Ouncers for case (1 13/32" x 6 1/64" x 1 7/16" h. 1.5 oz.). RC-50: Similar to ultra compact units for case (1 5/8" x 1 5/8" x 2 5/16" h. 8 oz.). SM: Similar to SSO units for case (1 1/16" x 1 1/2" x 2 9/32" h. 0.8 oz.). FH: 27/32" x 23/32" x 9/16", h. .8 oz.

UTC Type	Application	Pri. Imped., Ohms	Sec. Imped., Ohms	#	Net Each
H-1	Line to grid	50, 200 CT, 500 CT	50K	a	$9.00
H-2	Mike to grid	82, 50 ma	135K	a	9.90
H-3	Pl. to grid	15K	60K	a	7.80
H-4	Pl. to grid	15K, 4 ma	60K	a	7.80
H-5	Pl. to p-p	15K	95K CT	a	8.40
H-6	Pl. to p-p	15K, 4 ma	95K split	a	10.20
H-7	Pl. to line	20K CT, 4 ma	150/600	a	9.60
H-8	Mixing	150/600	600 CT	a	9.00
H-9	Input	150/600	1 meg.	a	9.00
H-10	Pl. to grid	10K	1 meg.	a	8.40
H-11	Reactor: 300 hys.	50 hys @ 3 ma, 600 ohms		a	7.50
H-12	Line to p-p	50, 200 CT, 500 CT	50K CT	a	9.60
H-13	Interstage	10K/2.5K split	2K/.5K split	a	9.00
H-14	Interstage	10K/2.5K split	4K/1K split	a	9.00
H-15	Tr. to line	1.5K CT	500/125 split	a	9.00
H-16	Tr. to V.C.	2K/4K CT	8/16	a	9.00
H-17	Tr. Input	600/150 split	2K/500 split	a	8.70
H-18	Tr. Interstage	10K CT	500/125 split	a	8.70
H-19A	Input*	250 CT/500 CT	50K/100 CT	b	16.50
H-20	Interstage	15K split	80K split	b	15.90
H-21	Pl. to p-p	15K, 8 ma	80K split	b	18.00
H-219	Tr. Interstage	50K CT	500/125 split	a	9.30
H-22	Pl. to line	15K, 8 ma	50/200, 125/500	b	16.50
H-220	Tr. Interstage	500/125 split	500/125 split	a	9.00
H-221	Tr. Interstage	500/125 split	150/37.5 split	a	9.00
H-222	Split Inductor:	Series: 60 Mhy-80 ma, 4 ohms Parallel: 15 Mhy-160 ma, 1 ohm		a	6.60
H-224	Split Inductor:	Series: 1 Hy-20 ma, 60 ohms Parallel: .25 Hy-40 ma, 15 ohms		a	6.60
H-225	Tr. Interstage	100/25 split	40/10 split	a	9.00
H-23	P-p to line	30K split	50/200, 125/500	b	16.80
H-24	Inductor: 250 hys.	@ 5 mat, 65 hys. @ 10 mat		b	12.00
H-25	Mixing	500 CT	125/500	b	15.00
H-26	Interstage	10K/2.5K split	2K/500 split	b	15.00
H-27	Tr. to V.C.	500 CT	16/4 split	b	15.00
H-280	Interstage	200 CT	400 split	b	12.60
H-281	Tr. to V.C.§	48 CT	16, 8, 4	b	12.60
H-282	Tr. to V.C.††	20 CT	16, 8, 4	c	13.50
H-283	Mixing/ Matching	50, 125/150 200/250, 333 500/600	50, 125/150, 200/250, 333 500/600	b	18.00
H-284	Split Inductor:	Series: 4 Hys-50 ma, 100 ohms Parallel: 1 Hy-100 ma, 25 ohms		b	8.10
H-286	Split Inductor:	Series: 40 Hys-15 ma, 1000 ohms Parallel: 10 Hys-30 ma, 250 ohms		b	8.40
H-290	Shld. chopper	2500 e. s.	100K	b	21.00
H-291	Max. shld. chop.	2000/500 e. s.	312K	c	30.00
H-295	Shld. chopper	10K/2.5K e. s.	50K	f	18.00
H-30	Input	50	62,500	d	9.00
H-31	Pl. to grid	10K	90K	d	8.40
H-32	Pl. to line	10K, 3 ma	200	d	8.40
H-33	Output	30K, 1 ma	50	d	9.00
H-35	Inductor: 100 hys.	50 hys. @ 1 ma, 4400 ohms		d	6.90
H-36	Interstage	25K, 0.5 ma	1K	d	7.50
H-37A	Tr. output	500 CT	50	d	7.50
H-38	Interstage	10K CT, 2 ma	1.2K CT	d	7.50
H-39	Interstage	10K CT, 2 ma	2K CT	d	7.50
H-40A	Tr. output	500 CT	600 CT	d	7.50
H-41A	Tr. output	1500 CT	600 CT	d	7.50
H-42A	Isol./Tr. Inter.	10K CT	10K CT	d	8.40
FHA-15	Tr. Interstage	10K CT/2.5K split	200 CT/50 split	e	8.10
FHA-25	Tr. Interstage	20K CT/5K split	800 CT/200 split	e	8.10
FHI-3	Split Inductor:	Series: 60 Mhys-32 ma, 6 ohms Parallel: 15 Mhys-64 ma, 1.5 ohms		e	6.00
FHI-7	Split Inductor:	Series: 1 Hy-8 ma, 100 ohms Parallel: .25 Hy-16 ma, 25 ohms		e	6.00
FHI-11	Split Inductor:	Series: 2.4 Hys-2 ma, 160 ohms Parallel: .6 Hys-4 ma, 40 ohms		e	6.00

*Has 75 db shielding. †6000 ohms. ‡1500 ohms. §5 watts. ††10 watts.

#Case: a—RC-25. b—RC-50. c—RC-62. d—SM. e—FH. f—RC-37. (See above & pg.10)

HERMETIC SEALED FILTER INDUCTORS TUBE and TRANSISTOR TYPE

METAL CASED TF4 TYPE H-70 thru H-79, H-164 thru H-173

MOLDED MIL TYPE TF5SX04ZZ H-105 thru H-109 & H-300

The multiple ratings for the "H" series of filter chokes suit these units for the complete gamut of military and industrial applications. Transistor supply units are swinging type to enhance regulation. H-79 terminals opposite mounting.

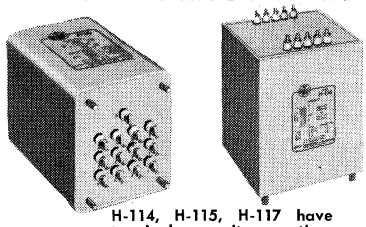
*Relates to ripple voltage, in input filter circuits only.

Type No.	Ind. Hys.	@	MA DC	Res. Ohms	Max. DCV* Ch. Input	Test V. RMS	MIL Case Pg. 13	Net Each
H-70	20		20	925	350	1000	AH	$ 8.10
H-71	20		40	350	500	2500	FB	10.50
H-72	13		70	215	500	2500	GB	11.40
H-73	11		100	150	700	2500	HB	12.00
H-74	11		150	135	700	2500	JB	15.60
H-75	11		200	90	700	2500	KB	21.00
H-76	11		200	85	1500	4500	LB	27.00
H-77	10		300	60	2000	5500	MB	31.50
H-78	7		400	48	2500	7000	OA	37.50
H-79	7		800	20	3000	9000	7x7x8	96.00
H-164 +	45‡		35	1.2		500	AG	7.50
(2 wdgs.) *	11.25‡		70	.295				
H-166 †	125‡		50	1.2		500	AH	9.00
(2 wdgs.) *	31‡		100	.3				
H-168 †	68‡		100	.8		750	AJ	9.90
(2 wdgs.) *	17‡		200	.2				
H170 +	.18		125	.6		1000	GB	11.70
(2 wdgs.) *	.045		250	.15				
H-171 +	9‡		.75A	.03		1000	JA	18.00
(2 wdgs.) *	2.25‡		1.5A	.0075				
H-172 +	70‡		.25A	.22		1000	HA	16.20
(2 wdgs.) *	17.5‡		.5A	.055				
H-173 †	90‡		.5A	.15		1000	KA	25.50
(2 wdgs.) *	22.5‡		1A	.038				
H-174+	50‡		.65A	.08		1000	MB	30.00
(2 wdgs.)*	12.5‡		1.3A	.02				

Type No.	Inductance Henries @ DC MA	Ohms	DCR Test Volts	L	W	H	Wgt. Lbs.	Net Each
H-105	2.5 @ 25 MA	225	1000	1 1/4	15/16	1 3/16	.1	$ 6.30
H-106	2.25 @ 60 MA	110	1000	1 5/8	1 5/16	1 3/8	.28	6.60
H-107	2 @ 120 MA	55	2500	2 1/8	1 3/4	1 55/64	.9	8.40
H-108	2 @ 220 MA	35	2500	2 7/8	2 1/2	2 17/32	1.7	11.40
H-109†	.2 @ 150 MA	.6	750	2 7/8	2 1/2	2 17/32	1.7	12.30
(2 wdgs.)*	.06 @ 250 MA	.15						
H-300 †	1 @ 5 MA	40	500	1	3/4	23/32	0.5	6.90
(2 wdgs.)*	.25 @ 10 MA	10						

†Split winding in series *Split winding in parallel
‡Rated in millihenries

HERMETIC SEALED POWER and PLATE TRANSFORMERS



H-114, H-115, H-117 have terminals opposite mounting.

Power transformers: primary 115V, 60 cycles suited to 50*-1000 cycles service. Plate transformers: primary 105/115/210/220 volts, 50/60 cycles. "L" ratings are choke input . . . "C" ratings are condenser input. H-80 thru H-197 MIL type TF4RX03, H-110 thru H-117 MIL type TF4RX02. The tapped high voltage winding provides either of two secondary voltages for greatest versatility. The power transformer listings indicate DC voltages and permissible currents for both choke and condenser input filters, as well as for military and industrial applications.

"W" suffix units designed for full wave center tap and full wave bridge application. Center tap of secondary may be disconnected from ground.

MIL-T-27B Ratings in Regular Type, Industrial Ratings in Bold Type

Type No.	HV Sec. C. T.	DC	Approx. DC Volts	DC MA	Fil. Wdg.	DC	Approx. DC Volts	DC MA	Fil. Wdg.	MIL Case Pg. 13	Net Each
H-80	450	C	240	30	6.3VCT-2A	C	215	38	6.3VCT-2.5A	FA	$15.60
H-81	500	L	170	95		L	160	110		HA	21.00
		C	270	55	6.3VCT-3A	C	245	75	6.3VCT-3A		
	550	L	200	85	5V-2A	L	180	105	5V-2A		
		C	310	50		C	280	65			
H-82	550	L	180	145		L	160	190		JB	24.00
		C	290	90	6.3VCT-4A	C	270	115	6.3VCT-4.5A		
	600	L	215	135	5V-2A	L	190	180	5V-2A		
		C	330	85		C	315	100			
H-83	600	L	215	165		L	200	210		JA	24.00
		C	315	100	6.3V-5A	C	320	120	6.3V-6A		
	670	L	250	150	5V-2A	L	230	200	5V-2A		
		C	400	90		C	380	110			
H-84	700	L	245	225		L	240	255		KA	30.00
		C	390	135	6.3V-5A	C	375	160	6.3V-6A		
	750	L	275	205	6.3V-1A	L	270	230	6.3V-1.5A		
		C	430	125	5V-3A	C	410	150	5V-4A		
H-85	700	L	245	300		L	230	370		LA	34.50
		C	390	190	6.3V-6A	C	355	230	6.3V-6A		
	750	L	270	280	6.3V-1.5A	L	250	350	6.3V-2A		
		C	425	170	5V-3A	C	395	210	5V-4A		
H-86	720	L	270	310		L	250	360		MB	36.00
		C	425	180	6.3V-6A	C	395	225	6.3V-7.5A		
	790	L	295	300	6.3V-2A	L	280	350	6.3V-2A		
		C	475	160	5V-3A	C	440	210	5V-4A		
H-87	730	L	245	420		L	230	515		NB	42.60
		C	390	275	6.3V-6A	C	390	300	6.3V-6A		
	800	L	275	400	6.3V-2A	L	275	480	6.3V-2A		
		C	440	250	5V-4A	C	430	290	5V-6A		
H-89	850	L	305	430		L	275	550		OA	55.60
		C	460	280	6.3V-8A	C	445	340	6.3V-10A		
	1050	L	400	400	6.3V-4A	L	370	500	6.3V-5A		
		C	600	260	5V-6A	C	575	320	5V-6A		
H-91	900	L	340	200	6.3V-5A	L	330	220	6.3V-6A	KA	30.60
	1000	L	390	190	6.3V-1A 5V-3A	L	385	195	6.3V-1.5A 5V-4A		
H-92	900	L	340	265	6.3V-6A	L	330	310	6.3V-8A	MB	39.00
	1050	L	400	240	6.3V-2A 5V-4A	L	395	290	6.3V-2A 5V-4A		
H-93	1000	L	370	300	6.3V-8A	L	340	390	6.3V-10A	OA	55.50
	1200	L	465	265	6.3V-4A 5V-6A	L	455	350	6.3V-5A 5V-6A		
H-194**	200	L	170	140	6.3V-3.5A	L	160	155	6.3V-4A	HA	24.00
		C	275	85		C	260	95			
	235	L	200	125		L	190	135			
		C	325	75		C	310	85			
H-195**	215	L	185	285	6.3V-5A	L	175	300		JA	25.50
		C	300	180		C	285	195	6.3V-6A		
	265	L	230	240		L	220	255			
		C	375	150		C	360	165			
H-196**	230	L	200	445	6.3V-5A	L	190	480		KA	30.00
		C	320	280	6.3V-1.5A	C	300	300	6.3V-6A		
	285	L	250	380		L	240	420	6.3V-2A		
		C	400	235		C	380	260			
H-197**	260	L	230	500	6.3V-6A	L	220	550		MB	42.00
		C	360	320	6.3V-2A	C	340	350	6.3V-7A		
	320	L	280	420		L	270	470	6.3V-2A		
		C	450	260		C	430	290			
H-198 Highly shielded Scope transformer	No CT 800 1600 2400		1000 2000 3000	5 5 5	1.25 V—.2A connected to one end of HV winding. 6.3 V—.6A 5.2 KV RMS test voltage					HA	27.00
H-110	1050	L	365	300		L	400			MB	30.90
	1200	L	430	275		L	385				
H-110W ‡		L	730	210		L	280				33.00
		L	860	190		L	265				
H-111	1050	L	415	500		L	600			NA	36.00
	1200	L	480	450		L	550				
H-111W ‡		L	830	350		L	420				42.60
		L	960	310		L	380				
H-112	1500	L	615	320		L	385			NA	42.60
	1900	L	790	275		L	330				
H-112W ‡		L	1230	220		L	270				45.00
		L	1580	190		L	230				
H-113	2500	L	1050	310		L	375			†	60.00
	3000	L	1275	275		L	330				
H-114	2500	L	1050	475		L	525			‡	84.00
	3000	L	1265	425		L	475				
H-115	3500	L	1500	275		L	375			‡	81.00
	4400	L	1900	235		L	320				
H-117	5000	L	2125	950		L	1150			††	291.00
	6000	L	2550	850		L	1050				

*For 50 cycles, secondary current ratings reduced by 10%.
**DC ratings for bridge rectifier circuits.
†6x5 1/8x6 3/4, ‡6 3/4x6 1/2x8, ††11x11x14 3/4
‡ New full wave bridge rectifier types

IMMEDIATE DELIVERY ON ALL UTC STOCK ITEMS

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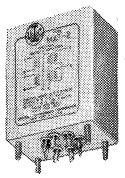
HERMETIC COMPONENTS

Designed, Manufactured and Successfully Tested to Complete MIL-T-27B Specifications.

MAT* MAGNETIC AMPLIFIERS FOR SERVO MOTOR APPLICATIONS

For new Magamps see page 1.

VACUUM TUBE TYPE



The MAT 1-4 Magnetic Amplifiers are exceptionally stable units designed for the control of 2 phase, 115V., 400 cycle servo motors. They are compact . . . hermetically sealed . . . magnetically shielded . . . and meet MIL-T-27B and MIL-E-5400 Specifications. The output is sinusoidal, amplitude variable, and phase reversible. Control is provided by a dual triode such as 12AU7 operating with a plate voltage of 115 volts, 400 cycles, or higher. The signal to the triode grids can be polarity reversible DC or phase reversible 400 cycles with or without suppressed carrier modulation. These units eliminate DC power requirements as well as temperature sensitive dry disc rectifiers. The high input impedance provides minimum loading on sensing elements and high power gain. Ringing at low load level has been reduced to a minimum through high internal damping factors. The power output figures are conservative . . . power gain of the *Magnetic Structure* is approximately 40 . . . response time approximately 7.5 milliseconds. The maximum null voltage is 3 volts RMS. For single phase supply voltage the load capacitor should effect 90° phase shift with motor load . . . for 3 phase, 30° phase shift.

Type No.	MAT-1	MAT-2	MAT-3	MAT-4
230 Volt Supply				
Power output	4 W.	8 W.	11 W.	18 W.
RL, ohms	3300	1600	1200	720
CL, mfd., approx.	.2	.3	.5	.7
115 Volt Supply				
Power output	2 W.	4 W.	6 W.	9 W.
RL, ohms	6500	3300	2200	1450
CL, mfd.	.13	.2	.3	.45
Reson. Freq.	40 cyc.	35 cyc.	35 cyc.	20 cyc.
Log-Decr.	.18	.23	.03	.65
Cont. Wdg. Res.	6200 ohms	8450 ohms	4750 ohms	5650 ohms
Case, Length, in.	1¼	1½	1¾	2⅛
Width, In.	1 15/16	2⅛	2½	3⅛
Height, In.	2⅝	2¾	2 15/16	3⅜
Mtg. Dim., In.	13/16 x 1½	1 x 1⅝	1⅛ x 1⅞	1½ x 2½
Studs, stainless	4-40	6-32	8-32	8-32
Cutout, in.	1	1	1	1
Unit Weight, lbs.	.67	1.1	1.7	2.75
Net Each	**$27.00**	**$30.00**	**$36.00**	**$39.00**

MAT-5 115V.-400 cyc to 460 VCT; provides 230V. 48 MA DC or 460V. 24 MA DC. RC-37 Case (UTC pg. 10). MIL type TF4SY02YY. **Net Each $10.80**

MAT-6 Input . . . 10,000 ohms pri. . . . 1:15 C.T. ratio . . . phase shift under 1°. . . . RC-25 case (UTC pg. 5). MIL- type TF4RX10YY. **Net Each $9.00**

TRANSISTOR TYPE

UTC transistor MAT units are identical to their vacuum tube counterparts, but designed for low impedance control. The input transformer may be chosen by impedance ratio rather than precise rated impedance.

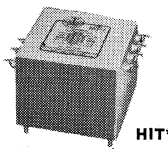
Type No.	MAT-7	MAT-8	MAT-9	MAT-10	MAT-60
Power output	4 W.	8 W.	11 W.	18 W.	50 W.
RL, ohms	3300	1600	1200	720	260
CL, mfd approx.	.2	.3	.5	.7	.7
Cont. Wind. Res.	38Ω	52Ω	30Ω	36Ω	50
Case Length, In.	2 5/16	2½	2¾	2 23/32	MIL MB
Width, In.	1 13/16	2¼	2½	2 29/32	
Height, In.	1 1/32	1 1/16	2	2¼	
Mtg. Dim., In.	1⅜ x 1⅞	1 13/16 x 2	1 15/16 x 2⅜	2⅜ x 2⅜	60 cycle type
Studs, stainless	4-40	6-32	8-32	8-32	
Cutout, In.	1	1	1	1	
Weights, lbs.	.65	1.1	1.7	2.75	
Net Each	**$25.80**	**$28.80**	**$34.50**	**$37.50**	**$54.00**

MAT-11 115V.-400 cyc. to two 28 Volt .2A windings for 56 VCT-.2A or 28V.-.4A RC-37 (UTC pg. 10) case. MIL type TF4SY02YY. **Net Each $10.05**

MAT-65 115V.60 cyc. to 8.5 VCT @ 500 ma & 63 VCT @ 300 ma. FA case (pg. 13). MIL Type TF4SX02FA. **Net Each $12.60**

ULTRASHIELDED POWER-LINE ISOLATION TRANSFORMERS

Simulates battery operation for critical circuits requiring extreme isolation from power line.



HIT*

Designed to give the ultimate in isolation, for line-powered equipment, which formerly could only be obtained from battery power. The effective capacity coupling between primary and secondary windings is less than 0.1 MMFD. For this purpose shields are individually terminated to allow maximum flexibility. Input and output terminals are brought out on opposite sides of a special housing in order to maintain the excellent isolation between line and load.

MIL-T-27B Ratings in Regular Type
Industrial Ratings in Bold Type
Primary 115 V 50/60 Cycles

Type No.	Power Watts	Power Watts	Case Size	Net Each
HIT-1	50	**60**	4 1/32 x 4 1/32 x 3 1/32"	**$33.00**
HIT-15	120	**150**	5 1/32 x 5 x 3 1/2"	**39.00**
HIT-2	160	**200**	5 17/32 x 5 17/32 x 4 17/32"	**48.00**
HIT-3	400	**480**	8 x 6 17/32 x 5 17/32"	**69.00**
HIT-4	1000	**1200**	9 x 7 1/2 x 7 1/2"	**120.00**
HIT-450†	80	**100**	4 1/32 x 4 1/32 x 3 1/32"	**33.00**

†Primary, 115v. 400 cps. Secondary, 115 volts.

PRECISION MINIATURE WIDE APPLICATION PULSE TRANSFORMERS

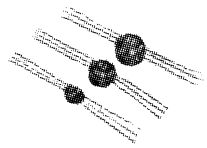
UTC miniature, wound core, pulse transformers are individually precision adjusted in standard test circuits to close tolerances. They are high reliability units, hermetically sealed by vacuum molding and suited for service from −70° C. to +130° C. Wound core structure provides excellent temperature stability (unlike ferrite). Designs are high inductance type to provide minimum of droop and assure true pulse width. H-45 thru H-57 ratio 1:1:1. H-60 thru H-69 ratio 4:4:1. Others ratio 5:3:1.

See PIP pulse units on UTC page 2.

ALL UNITS INDIVIDUALLY ADJUSTED TO PARAMETERS SHOWN IN TABLES

TRANSISTOR PULSE TRANSFORMERS

Type No.	APPROX. DCR, OHMS 1-2	3-4	5-6	BLOCKING OSCILLATOR PULSE Width μ Sec.	Rise Time	% Over Shoot	% Droop	% Back Swing	COUPLING CIRCUIT CHARACTERISTICS P Width μ Sec.	Volts Out	Rise Time	% Over Shoot	% Droop	% Back Swing	Imp. in, out, ohms	Net Each
H-60	.124	.14	.05	.05	.016	0	0	30*	.05	9.3	.012	0	0	20	50	**$ 6.60**
H-61	.41	.48	.19	.1	.016	0	0	30	.1	8.2	.021	0	0	15	50	**6.60**
H-62	.78	.94	.33	.2	.022	0	0	18	.2	7.4	.034	0	5	12	100	**6.60**
H-63	1.86	2.26	.70	.5	.027	2	10	20	.5	7.5	.045	0	20	25	100	**6.60**
H-64	3.73	4.4	1.33	1	.033	0	12	25	1	7	.078	0	15	23	100	**6.60**
H-65	6.2	7.3	2.22	2	.066	0	15	25	2	6.6	.14	0	10	20	100	**7.50**
H-66	10.2	12	3.6	3	.087	0	18	30	3	6.8	.17	0	10	20	100	**7.50**
H-67	14.5	17.5	5.14	5	.097	0	23	28	5	7.9	.2	0	18	28	200	**7.50**
H-68	42.3	52.1	14.8	10	.14	0	15	28	10	6.5	.4	0	15	30	200	**7.50**
H-611	.426	.32	.132	.1	.018	8	0	12	.1	8.2	.02	0	0	30	140/50	**7.20**
H-641	5	3.6	1.4	1	.04	0	10	10	1	7	.07	0	20	30	280/100	**7.20**
H-671	21	16	6	5	.08	0	14	12	5	8	.2	0	25	30	560/200	**7.50**
H-69	Transistor pulse tranformer kit, consists of H-60 thru H-68 in plastic case.															**60.00**



Size & weight of these units same as H-45.

VACUUM TUBE PULSE TRANSFORMERS

Type No.	APPROX. DCR, OHMS 1-2	3-4	5-6	BLOCKING OSCILLATOR PULSE Width μ Sec.	Rise Time	% Over Shoot	% Droop	% Back Swing	COUPLING CIRCUIT CHARACTERISTICS P Width μ Sec.	Volts Out	Rise Time	% Over Shoot	% Droop	% Back Swing	DIMENSIONS Imp.in, out, ohms	L In.	W In.	Wt. Grams	Net Each
H-45	3	3.5	4	.05	.022	0	20	10	.05	17	.01	20	0	35	250	⅜	⅜	1	**$ 7.35**
H-46	5.5	6.5	7	.10	.024	0	25	10	.10	19	.01	30	10	50	250	⅜	⅜	1	**7.35**
H-47	3.7	4.0	4	.20	.026	0	25	8	.20	18	.01	30	15	65	500	9/16	9/16	4	**6.60**
H-48	5.5	5.8	6	.50	.03	0	20	5	.50	20	.01	30	20	65	500	9/16	9/16	4	**6.60**
H-49	8	8.5	9	1	.04	0	20	10	1	24	.02	15	15	65	500	9/16	9/16	4	**6.60**
H-50	20	21	22	2	.05	0	20	10	2	27	.05	10	15	35	500	9/16	9/16	4	**6.60**
H-51	28	31	33	3	.10	1	20	8	3	26	.07	10	10	35	500	9/16	9/16	4	**6.60**
H-52	36	41	44	5	.13	1	25	8	5	23	.15	10	10	45	1000	9/16	9/16	4	**6.60**
H-53	37	44	49	7	.28	0	25	8	7	24	.20	10	10	50	1000	⅝	⅝	6	**6.60**
H-54	50	58	67	10	.30	0	20	8	10	24	.25	10	10	50	1000	⅝	⅝	6	**6.90**
H-55	78	96	112	16	.75	0	20	10	16	23	.40	5	15	20	1000	⅝	⅝	6	**6.90**
H-56	93	116	138	20	1.25	0	25	10	20	23	.6	5	10	10	1000	⅝	⅝	6	**6.90**
H-57	104	135	165	25	2.0	0	30	10	25	24	1.5	5	10	10	1000	⅝	⅝	6	**6.90**
H-461	9.6	6.4	2.5	.1	.025	0	0	8	.1	19	.02	3	5	20	700/250	⅜	⅜	1	**7.50**
H-501	30	20	7	2	.08	0	12	5	2	27	.06	12	15	35	1400/500	5/16	5/16	4	**6.60**
H-531	66	47	17	7	.32	0	12	3	7	24	.23	12	10	40	2800/1000	⅝	⅝	6	**6.60**
H-561	180	142	53	20	1.75	0	13	5	20	23	.7	5	10	10	2800/1000	⅝	⅝	6	**6.90**
H-58	Pulse transformer kit. Consisting of H-45 thru H-57 in a partitioned plastic case.																		**88.20**

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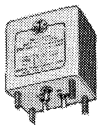
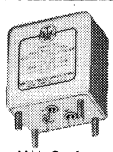
ELECTRIC WAVE FILTERS

Designed, Manufactured and Successfully Tested to Complete MIL-F-18327B Specifications.



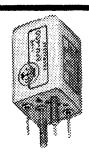
BM & LM Series



HM Series

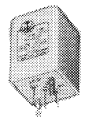
SPECIAL FREQUENCY FILTERS

BMI, BML, BPH, BPM, BTI, HMI, HML, HPM, LMI, LML, LPM	$48.00
MNF, MWF, TMN, TMW	$60.00
TGR	$90.00
TGT	$54.00



BPM

MINIFILTERS*



HPM & LPM

For NEW Filters See page 1.

INTERSTAGE AND LINE FILTERS

Available in stock frequencies listed below (numerical part of type number is cutoff frequency in cps). Compact shielded cases hermetically sealed to MIL-T-27B specs. BMI, LMI, BML cases: 1 3/16" x 1 11/16" x 1 5/8" h.; wt., 6 oz. HMI, HML, LML cases: 1 3/16" x 1 11/16" x 2 1/2" h.; wt., 9 oz. The BMI filters are band pass interstage units designed to operate between a vacuum tube plate (or 10,000 ohms) and a grid. They provide a gain of 2 at center frequency. BTI units are same as BMI, but 10,000 ohms output.

BML band pass filters, similarly, work into a grid, but have an input impedance of 500/600 ohms. They provide a gain of 9.

HMI filters are high pass interstage units.

LMI filters are low pass interstage units.

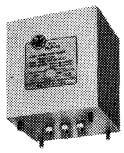
HML filter are high pass with input and output impedance of 500/600 ohms.

LML filters are low pass filters with input and output impedance of 500/600 ohms.

LLP low frequency low pass filter, loss of less than 40 db at 20 cycles. Source & load 100K ohms.

UTC Type	Net Ea.	UTC Type	Net Ea.	UTC Type	Net Ea.
BMI-30	$36.00	LMI-200	$31.50	HMI-800	$31.50
BMI-50	30.00	LMI-400	31.50	HMI-1000	31.50
BMI-60	30.00	LMI-500	31.50	HMI-2000	31.50
BMI-90	30.00	LMI-800	31.50	HMI-3000	31.50
BMI-100	30.00	LMI-1000	31.50	BML-400	30.00
BMI-120	30.00	LMI-1500	31.50	BML-1000	30.00
BMI-150	30.00	LMI-2000	31.50	HML-200	39.00
BMI-200	30.00	LMI-2500	31.50	HML-300	39.00
BMI-240	30.00	LMI-3000	31.50	HML-500	39.00
BMI-300	30.00	LMI-4000	31.50	HML-1000	39.00
BMI-400	30.00	LMI-5000	31.50	LML-1000	31.50
BMI-500	30.00	LMI-10000	31.50	LML-1500	31.50
BMI-750	30.00	BTI-60	36.00	LML-2000	31.50
BMI-800	30.00	BTI-100	36.00	LML-2500	31.50
BMI-1000	30.00	BTI-120	36.00	LML-3000	31.50
BMI-1500	30.00	HMI-50	31.50	LML-4000	31.50
BMI-2000	30.00	HMI-100	31.50	LML-8000	31.50
BMI-3000	30.00	HMI-200	31.50	LML-10000	31.50
BMI-4000	30.00	HMI-300	31.50	LML-12000	31.50
BMI-5000	30.00	HMI-400	31.50	LLP-10	60.00
BMI-10000	30.00	HMI-500	31.50		
LMI-100	31.50				

NEW 400-CYCLE 115 V. LINE FILTERS

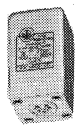


Intended for use on 115 v., 400 cps line to eliminate harmonic distortion.

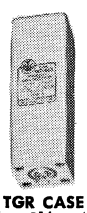
UTC No. PLF-25 — Gives 150 v. output into 500 ohm load with ±1 db, 375-425 cps. Will attenuate 800 cycles by 30 db; 1200 cycles and higher by at least 50 db. MIL type, FR4RX11NB. Meets MIL-F-18327B. Size 4 5/16" w. x 5 1/16" d. x 5 1/2" h. Weight, 10 lbs. Net Each $66.00

UTC No. PLP-13 — Eliminates harmonic distortion, rejects 60 and 120 cycles, and gives zero phase shift at 400 cycles. Operating into 1000 ohm load, provides 115 v. output at 400 cycles, within ±1 db, 375-425 cycles. Attenuates 800 cycles by 15 db; 1200 cps by 45 db; above 1200 cps by at least 35 db; 120 cps by 20 db; and, 60 cps by 30 db. MIL type FR4RX22-LB; meets MIL-F-18327B specifications. Size, 3 11/16" w. x 4 5/16" d. x 4 1/2" h. Weight, 6 1/2 lbs. Net Each $66.00

TELEGRAPH TONE CHANNEL FILTERS



TGT CASE
1 1/2 x 1 1/2 x 2 1/2
Mtg 1 1/16 x 1 1/16"
Screws 6-32
Weight .....8 oz.



TGR CASE
1 1/2 x 1 1/2 x 4 1/4
Mtg 1 1/16 x 1 1/16"
Screws 6-32
Weight ....15 oz.

UTC band pass filters for mutiplex transmitting and receiving provide maximum stability in miniature sizes. Stock filters cover all standard transmit and receive bands. All units employ 7 terminal header matching subminiature 7 pin socket.

TGR (receiving) & TGT (transmitting) filters are 600 ohms in and out. They are down less than 3 db at ± 42.5 cycles from center frequency. TGR units are down more than 30 db at ± 170 cycles. Attenuation is greater than 15 db at adjacent channel crossover.

TGT units are down more than 16 db at ± 170 cycles. Attenuation is greater than 7.5 db at adjacent channel crossover. *All units are MIL type FR4RX-22YY.*

IMMEDIATE DELIVERY ON ALL ITEMS

UTC Type	Net Each	Center Frequency (Cyc.)	UTC Type	Net Each
TGT-425	$42.00	425	TGR-425	$72.00
TGT-595	42.00	595	TGR-595	72.00
TGT-765	42.00	765	TGR-765	72.00
TGT-935	42.00	935	TGR-935	72.00
TGT-1105	36.00	1105	TGR-1105	63.00
TGT-1275	36.00	1275	TGR-1275	63.00
TGT-1445	36.00	1445	TGR-1445	63.00
TGT-1615	36.00	1615	TGR-1615	63.00
TGT-1785	33.00	1785	TGR-1785	60.00
TGT-1955	33.00	1955	TGR-1955	60.00
TGT-2125	33.00	2125	TGR-2125	60.00
TGT-2295	33.00	2295	TGR-2295	60.00
TGT-2465	30.00	2465	TGR-2465	57.00
TGT-2635	30.00	2635	TGR-2635	57.00
TGT-2805	30.00	2805	TGR-2805	57.00
TGT-2975	30.00	2975	TGR-2975	57.00
TGT-3145	30.00	3145	TGR-3145	57.00
TGT-3315	30.00	3315	TGR-3315	57.00

These units provide almost the same characteristics as the standard interstage units listed to the left, although extremely miniaturized. Hermetically sealed to MIL-T-27B specs. B type case: 3/4" x 3/4" x 1 1/8" h.; wt., 1 oz. H and L cases: 1" x 1" x 1 3/8" h.; wt., 2 1/4 oz. Cutoff frequencies in cps indicated by type number.

BPM units (BAND PASS) have 2:1 gain. Attenuation is approximately 2 db ±3% from center frequency, and 35 db per octave as shown. Input 10,000 ohms, output to grid, tapped for 10,000 ohms to provide for transistor circuits. For tube circuits continuity is on grid side, for transistor use continuity is on input side.

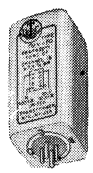
BPH units (BAND PASS) attenuation less than 3 db ±5% from center frequency, and 40 db per octave. Source and load 500 ohms.

HPM units (HIGH PASS) are down less than 6 db at cutoff frequency, and more than 30 db at .67 cutoff frequency, 40 db at .6 cutoff frequency. Input and output 10,000 ohms.

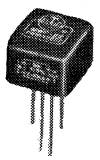
LPM units (LOW PASS) are down less than 6 db at cutoff frequency, and more than 30 db at 1.5 cutoff frequency, 40 db at 1.65 cutoff frequency. Input and output 10,000 ohms.

UTC Type	Net. Ea.	UTC Type	Net. Ea.	UTC Type	Net. Ea.
BPH-50000	$27.00	BPM-2500	$27.00	HPM-1500	$30.00
BPH-100000	27.00	BPM-3000	27.00	HPM-4000	30.00
BPM-400	27.00	BPM-3200	27.00	LPM-200	30.00
BPM-440	27.00			LPM-300	30.00
BPM-500	27.00	BPM-4000	27.00	LPM-500	30.00
BPM-600	27.00	BPM-4800	27.00	LPM-1000	30.00
BPM-750	27.00	BPM-5000	27.00	LPM-1500	30.00
BPM-800	27.00	BPM-6000	27.00	LPM-2000	30.00
BPM-1000	27.00	BPM-6400	27.00	LPM-3000	30.00
BPM-1200	27.00	BPM-8000	27.00	LPM-5000	30.00
BPM-1500	27.00	BPM-10000	27.00	LPM-6000	30.00
BPM-1600	27.00	BPM-20000	27.00	LPM-8000	30.00
BPM-1800	27.00	HPM-500	30.00	LPM-10000	30.00
BPM-2000	27.00	HPM-1000	30.00	LPM-15000	30.00

TELEMETERING BAND PASS FILTERS



TMN-.4 thru TMN-1.7
1 1/16 x 1 9/32 x 2"
Weight 3.5 oz
TMN-2.3 thru TMW-70
23/32 x 23/32 x 1 3/8"
Weight 1.2 oz.



MNF-.4 thru MNF-5.4
1 3/16" Sq. x 1/2" high
Weight 1 oz.
MNF-7.35 thru MWF-70
23/32" Sq. x 1/2" high
Weight 1/3 oz.

Both TMN and TMW types are designed for 100 K input and output impedance and have an insertion loss of less than 6 db. Four pin hermetic header matches small Winchester socket.

TMN filters are down less than 3 db at ± 7.5% of center frequency. They are down more than 18 db at ± 25% of center frequency. Attenuation is greater than 40 db beyond 1.75 Fc and .58 Fc.

TMW filters are down less than 3 db at ± 15% of center frequency. They are down more than 20 db at ± 50% of center frequency. Attenuation is greater than 40 db beyond 2.5 Fc and .4 Fc.

MNF and MWF (Minifilter) provide same performance as filters described above but are extremely miniaturized. Slanted toward use with transistors. Pin terminals ideally suited for printed circuits.

UTC Type	Net Each	Center Frequ'cy KC	Band Width±	UTC Type	Net Each
TMN- .4	$39.00	.4	7 1/2%	MNF- .4	$39.00
TMN- .56	39.00	.56	7 1/2%	MNF- .56	39.00
TMN- .73	39.00	.73	7 1/2%	MNF- .73	39.00
TMN- .96	39.00	.96	7 1/2%	MNF- .96	39.00
TMN-1.3	39.00	1.3	7 1/2%	MNF-1.3	39.00
TMN-1.7	39.00	1.7	7 1/2%	MNF-1.7	39.00
TMN-2.3	39.00	2.3	7 1/2%	MNF-2.3	39.00
TMN-3.0	39.00	3.0	7 1/2%	MNF-3.0	39.00
TMN-3.9	39.00	3.9	7 1/2%	MNF-3.9	39.00
TMN-5.4	39.00	5.4	7 1/2%	MNF-5.4	39.00
TMN-7.35	39.00	7.35	7 1/2%	MNF-7.35	39.00
TMN-10.5	42.00	10.5	7 1/2%	MNF-10.5	42.00
TMN-14.5	42.00	14.5	7 1/2%	MNF-14.5	42.00
TMN-22	42.00	22	7 1/2%	MNF-22	42.00
TMN-30	42.00	30	7 1/2%	MNF-30	42.00
TMN-40	42.00	40	7 1/2%	MNF-40	42.00
TMN-52.5	42.00	52.5	7 1/2%	MNF-52.5	42.00
TMN-70	42.00	70	7 1/2%	MNF-70	42.00
TMW-22	42.00	22	15%	MWF-22'	42.00
TMW-30	42.00	30	15%	MWF-30	42.00
TMW-40	42.00	40	15%	MWF-40	42.00
TMW-52.5	42.00	52.5	15%	MWF-52.5	42.00
TMW-70	42.00	70	15%	MWF-70	42.00

HIGH Q PRECISION INDUCTANCE DECADE

Invaluable instruments for design and experimental work with tuned circuits, wave filters, and equalizers. The low hum pickup toroid coils employ a new permalloy dust core which, combined with special winding methods, provides very high Q, excellent voltage and temperature stability, and high self resonance frequency. The inductance values are laboratory adjusted to better than 1% precision, with calibration noted on base.

DI CASE
Length ..... 4 1/2"
Width ..... 4 3/8"
Height ..... 2 3/8"
Weight ..... 2 lbs.

Type No.	Induct. Henries	Optimum Range	Max. Q	Max. ACMA	Ins. Test Volts RMS	Net Each
DI-1	10 x .01	2-60 KC	200	500	500	$42.00
DI-2	10 x .1	.25-20 KC	200	150	500	54.00
DI-3	10 x 1	.25-10 KC	200	50	500	57.00
DI-4	10 x 10	.2-1.5 KC	100	15	500	72.00

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HIGH Q COILS & INDUCTORS

Designed, Manufactured and Successfully Tested to Complete MIL-T-27B Specifications.

For NEW Inductors See page 1.

MINIDUCTORS *

All these ultracompact high Q units are grade 5, hermetically sealed to (MIL-T-27B). All give extra temperature stability rated at 1%, −55° C to +100° C.

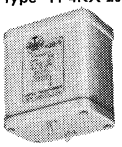
MM—Ultraminiature epoxy molded toroidal inductors with pin terminals for printed circuit application. Maximum Q at 30 KC. 7/16 dia. x 1/4"; wt. .07 oz.
MH—Ultraminiature epoxy molded toroidal inductors similar to MM except maximum Q at 100 KC. Size & wt. as MM.
ML—Ultraminiature hipermalloy cased inductors with epoxy board and pin terminals for printed circuit application. Maximum Q at 800 cps to 2 KC, depending on inductance. 7/16 x 31/64 x 9/16"; wt. .2 oz.
MO—Miniature epoxy molded inductors with pin terminals for printed circuit application. Maximum Q at 600 cps to 1500 cps depending on inductance. 3/4 x 1 1/16 x 1 3/16"; wt. 1 oz.
MW—Miniature epoxy molded toroidal inductors with pin terminals for printed circuit application. Maximum Q at 5 to 10 KC. 23/32 dia. x 1 3/32"; wt. .25 oz.

UTC Type	Induct., Hys.	Net Each	UTC Type	Induct., Hys.	Net Each	UTC Type	Induct., Hys.	Net Each
ML-0	.15	$ 8.40	MM-6	.03	$ 8.10	MO-2	2	$9.60
ML-1	.25	8.40	MM-7	.06	8.40	MO-5	5	9.60
ML-2	.40	8.40	MM-8	.12	8.40	MO-7.5	7.5	9.60
ML-3	.70	8.40	MH-1	.0006	8.10	MO-20	20	9.60
ML-4	1.4	8.40	MH-2	.0015	8.10	MO-50	50	9.90
ML-5	2.5	8.40	MH-3	.0025	8.40	MO-100	100	9.90
ML-6	4.0	8.40	MH-4	.006	8.40	MW-.05	.05	7.20
ML-7	6.0	8.40	MH-5	.01	8.70	MW-.10	.10	7.50
ML-8	10	8.40	MH-6	.015	8.70	MW-.25	.25	7.50
ML-9	25	8.70	MH-7	.025	9.00	MW-.5	.5	7.80
ML-10	60	9.90	MH-8	.04	9.00	MW-.75	.75	8.40
MM-1	.003	7.50	MO-.1	.1	9.30	MW-1	1	8.70
MM-2	.005	7.50	MO-.15	.15	9.30	MW-1.2	1.2	9.30
MM-3	.008	7.80	MI-.3	.3	9.30	MW-2	2	10.80
MM-4	.0125	7.80	MO-.5	.5	9.30	MW-3	3	11.70
MM-5	.02	8.10	MO-1	1	9.30	MW-5	5	13.50

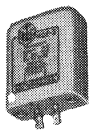
HIGH Q TOROID INDUCTORS

Favorites for over fifteen years, UTC HQ Toroids are only excelled by the preferred new "M" series. As typical Q curves show, HQ coils are available for application from 100 cycles to 100 KC. Adjusted to 1%, the inductance is virtually independent of frequency, temperature, and vibration. Voltage stability is excellent, and shielding case assures 80 db coupling attenuation. Hermetically to MIL-T-27B. All units MIL type TF4RX-20YY.

HQA and HQC CASE
Diamter 1 13/16"
Height 1 3/16"
Mounting 1 1/8"
Screws 6-32
Cutout 9/16 x 1 3/16"
Weight 5 oz.



HBQ CASE
Length 2 5/8"
Width 1 5/8"
Height 2 5/8"
Mounting 1 11/64 x 2 11/64"
Screws 6-32
Cutout 9/16 x 1 1/8"
Weight 14 oz.



HQE CASE
Length 1 1/16"
Widtth 1/2"
Height 1 7/32"
Mounting 3/4"
Screws 4-40
Cutout 5/16 x 1/2"
Weight 1.5 oz.

Type No.	Inductance (O DC)		DC MA Max.	Net Each	Type No.	Inductance (O DC)		DC MA Max.	Net Each
HQA-1	5	mhy.	400	$7.50	HQB-1	10	mhy.	410	$15.00
HQA-2	12.5	mhy.	260	7.80	HQB-2	30	mhy.	240	15.30
HQA-3	20	mhy.	200	8.10	HQB-3	70	mhy.	170	15.90
HQA-4	30	mhy.	160	8.40	HQB-4	120	mhy.	120	16.80
HQA-5	50	mhy.	130	8.70	HQB-5	.5	hy.	60	17.40
HQA-6	80	mhy.	100	9.00	HQB-6	1	hy.	41	18.00
HQA-7	125	mhy.	85	9.00	HQB-7	2	hy.	30	18.90
HQA-8	200	mhy.	65	9.60	HQB-8	3.5	hy.	22	19.80
HQA-9	300	mhy.	50	9.60	HQB-9	7.5	hy.	16	21.00
HQA-10	.5	hy.	40	9.90	HQB-10	12	hy.	11	21.90
HQA-11	.75	hy.	35	9.90	HQB-11	18	hy.	9	22.80
HQA-12	1.25	hy.	26	10.80	HQB-12	25	hy.	8	24.00
HQA-13	2	hy.	20	11.40					
HQA-14	3	hy.	16	12.90	HQC-1	1	mhy.	1350	15.60
HQA-15	5	hy.	13	13.80	HQC-2	2.5	mhy.	850	16.80
HQA-16	7.5	hy.	10	15.00	HQC-3	5	mhy.	600	18.00
HQA-17	10	hy.	9	15.90	HQC-4	10	mhy.	420	19.80
HQA-18	15	hy.	8	16.80	HQC-5	20	mhy.	300	24.00
					HQE-1	5	mhy.	155	7.80
					HQE-2	10	mhy.	110	7.80
					HQE-3	50	mhy.	50	8.10
					HQE-4	100	mhy.	35	8.40
					HQE-5	200	mhy.	25	8.70

HERMETIC "M" TYPE TOROIDS

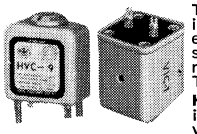
UTC permalloy dust toroids provide highest Q factor with miniaturized dimensions. Lab adjusted to 1% tolerance and sealed to MIL-T-27B specs. Magnetic case plus toroid provide 80 db shielding.

Type
MQA 40 at 500 cps, 160 at 5 kc, approx. 40 at 20 kc. SIZE (1 1/16" x 1 9/32" x 1 23/32" h.; wt. 4 oz.)
MQB 40 at 250 cps, 250 at 3 kc, approx. 40 at 20 kc. SIZE 1 3/16" x 2 9/16" x 2 13/16" h.; wt. 14 oz.
MQD 40 at 5 kc, 185 at 50 kc, approx. 40 at 300 kc. SIZE 1 1/16" x 1 9/32" x 1 23/32" h.; wt. 4 oz.
MQE 20 at 600 cps, 140 at 10 kc, approx. 40 at 40 kc. SIZE 1/2" x 1 1/16" x 1 7/32" h.; wt. 1.5 oz.

TQA units are similar to MQA but center tapped for ocillator application, etc. Net each: TQA-1 thru TQA-15, $1.50 more than MQA's; TQA-16, 14.70; TQA-17, 15.90; TQA-18, 17.40; TQA-19, 21.00; TQA-20, 23.40.

UTC Type	Ind., Hys.	Net Each	UTC Type	Ind., Hys.	Net Each	UTC Type	Ind., Hys.	Net Each
MQA-1	.007	$ 7.50	MQB-1	.010	$12.90	MQD-6	.020	$21.00
MQA-2	.012	7.80	MQB-2	.030	13.20	MQD-7	.030	22.80
MQA-3	.020	8.10	MQB-3	.070	13.50	MQE-0	.004	6.90
MQA-4	.030	8.40	MQB-4	.120	13.80	MQE-1	.007	7.20
MQA-5	.050	8.70	MQB-5	.50	14.10	MQE-2	.012	7.50
MQA-6	.070	9.00	MQB-6	1.0	14.40	MQE-3	.020	7.80
MQA-7	.120	9.30	MQB-7	2.0	14.70	MQE-4	.030	7.80
MQA-8	.20	9.60	MQB-8	3.5	15.00	MQE-5	.050	8.10
MQA-9	.30	9.90	MQB-9	7.5	15.90	MQE-6	.070	8.40
MQA-10	.50	10.20	MQB-10	12	16.80	MQE-7	.100	8.40
MQA-11	.70	10.50	MQB-11	18	18.00	MQE-8	.150	8.70
MQA-12	1.0	10.80	MQB-12	25	19.20	MQE-9	.250	8.70
MQA-13	1.5	11.10	MQB-13	40.0	21.00	MQE-10	.40	9.00
MQA-14	2.5	11.40	MQB-14	60.0	24.00	MQE-11	.60	9.00
MQA-15	4.0	12.00	MQD-0	.001	14.70	MQE-12	.90	9.30
MQA-16	6.0	12.90	MQD-1	.002	15.00	MQE-13	1.5	9.90
MQA-17	10.0	13.80	MQD-2	.003	15.60	MQE-14	2.0	10.80
MQA-18	15.0	15.00	MQD-3	.005	16.20	MQE-15	2.8	12.00
MQA-19	22.0	18.00	MQD-4	.007	16.80	MQE-16	4.0	13.50
MQA-20	35.0	20.70	MQD-5	.012	18.00			

VARIDUCTORS



HVC & HVV **VIC** (*VIC is not a MIL item)

These variable inductors are ideal for use in tuned circuits, equalizers, oscillators, etc. TYPE HVC:—Gives highest Q and stability; adjustable −70% to +200% of mean value. Hermetically sealed to MIL-T-27B.

HVV Types: For precise matching; vernier inductance variation ±10% of nominal value. Offer high Q over a wide frequency range and high temperature stability.

VIC:—Adjustable −45% to +85% of mean value.

Size: HVC, TVC and HVV types, 1 1/8" lg. x 25/32" w. x 1 7/32" h.; weight 2 oz. VIC type, 1 11/32" lg. x 1 1/4" w. x 1 1/16" h.; weight 5 1/2 oz. HVC, TVC, U.S. Pat. No. 2,879,489; HVV, Pat. Pend.

TVC type inductors are identical to HVC units, but provide taps at 30% and 50% of total turns — ideal for oscillator circuits, etc. HVC & TVC, U. S. Pat. No. 2,879,489

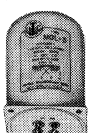
UTC Type	Mean Hys.	DC Ma.	Net Each	UTC Type	Mean Hys.	DC Ma.	Net Each
HVC-1	.006	100	$ 9.00	TVC-6	.6	15	$11.10
HVC-2	.015	60	9.00	TVC-7	1.5	10	11.70
HVC-3	.040	40	9.00	TVC-8	4	7	11.70
HVC-4	.1	30	9.00	TVC-9	10	5	11.70
HVC-5	.25	20	9.00	TVC-10	25	3.5	12.90
HVC-6	.6	15	9.00	TVC-11	60	2	14.10
HVC-7	1.5	10	9.60	TVC-12	150	1.5	15.30
HVC-8	4	7	9.60				
HVC-9	10	5	9.60	VIC-1	.0085	75	6.60
HVC-10	25	3.5	9.90	VIC-2	.013	60	6.60
HVC-11	60	2	10.80	VIC-3	.021	50	6.60
HVC-12	150	1.5	12.00	VIC-4	.034	40	6.60
				VIC-5	.053	35	6.60
HVV-.006	.006	200	12.00	VIC-6	.084	30	6.60
HVV-.015	.015	120	12.00	VIC-7	.13	25	6.60
HVV-.04	.04	80	12.00	VIC-8	.21	21	6.90
HVV-.1	.10	50	12.00	VIC-9	.34	18	6.90
HVV-.25	.25	30	12.00	VIC-10	.54	15	6.90
HVV-.6	.6	20	12.00	VIC-11	.85	12	6.90
HVV-1.5	1.5	13	12.90	VIC-12	1.3	10	7.20
HVV-4	4	6	12.90	VIC-13	2.2	8	7.20
HVV-10	10	4.5	12.90	VIC-14	3.4	7	7.20
HVV-25	25	3	13.20	VIC-15	5.4	6	7.50
HVV-60	60	2	14.40	VIC-16	8.5	5	7.50
HVV-150	150	1.3	15.90	VIC-17	13	4	7.50
				VIC-18	21	3.5	7.80
TVC-1	.006	100	11.10	VIC-19	33	3	7.80
TVC-2	.015	60	11.10	VIC-20	52	2	8.40
TVC-3	.040	40	11.10	VIC-21	83	1.5	9.00
TVC-4	.1	30	11.10	VIC-22	130	1	12.00
TVC-5	.25	20	11.10				

LOW FREQUENCY HIGH Q COILS

MQL TYPES

All these units of MIL type TF4RX20YY induct value to 2% tolerance at 1v., 60 cycles. Exceptional Q and stability, inductance swing less than 3.5% from −55°C to +85°C. The case, sealed hermetically to MIL-T-27B is 1 13/16" dia. 2 1/2" h. Either transformer, parallel, series or center type connections are permitted due to dual windings to 4 terminals. Mounting 1 1/2" sq. with a 6-32 screw. Cutout 1 1/2" dia wt. 1 lb.

Type No.	Hys. (0 DC) Series	Parallel	Net Each	Type No.	Hys. (0 DC) Series	Parallel	Net Each
MQL-0	1	.25	$30.00	MQL-3	200	50	$30.00
MQL-1	10	2.5	30.00	MQL-4	400	100	31.50
MQL-2	20	5	30.00	MQL-5	2500	625	33.00



MQM TYPES

Designed for high Q at low frequencies. Structure provides exceptional stability, adjusted to 2% at 1V. 60 cycles. Inductance variation less than 2% from −55°C to +130°C. Made to MIL-T-27B, MIL type TF4SX20YY. Size 1 5/16" d x 1 5/8" h., cutout: 1" d., wt. 5 oz.

Type No.	Series Hy (0 DC)	Parallel Hy (0 DC)	Series DCRΩ ±20%	Net Each
MQM-2	2	.5	21	$12.60
MQM-16	16	4	143	12.60
MQM-40	40	10	368	12.60
MQM-300	300	75	3700	13.50
MQM-600	600	150	5720	13.50

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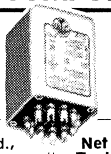
HI-FI & BROADCASTING COMPONENTS

ULTRACOMPACT* HI-FI AUDIOS



Small light weight, wide range units. Level +15 dbm except where otherwise noted. Top and bottom mounting. Die cast case, 1½" x 1½" x 2" h. Weight, ½ lb.

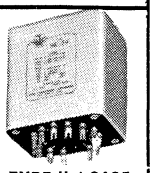
UTC Type	Application	Primary Impedance, Ohms	Sec. Imped., Ohms	#	Net Each
A-10	Input	50, 125/150, 200/250, 333, 500/600	50K split	a	$15.00
A-11	Shield. Input	50, 200, 500	50K CT	a	12.00
A-12	Input	Same as A-10	80K split	a	13.50
A-15	Interstage*	10K/2.5K split**	2K/500 sp.	c	10.80
A-16	Pl. to grid	15K	60K	a	11.40
A-17	Pl. to grid	15K, 8 ma	60K	c	15.00
A-18	Pl. to p-p	15K split	80K split	a	13.20
A-19	Pl. to p-p	15K, 8 ma	80K split	c	12.00
A-20	Mixing	Same as A-10	Same as pri.	d	14.40
A-21	Shield Mixing	50, 200/250, 500/600	Same as pri.	e	12.00
A-22	Tr. to line*	500 CT	500/125 spl.	c	9.90
A-23	Tr. to V.C.*	500 CT	16/4 split	c	9.90
A-24	Pl. to line	15K split	See A-10 pri.	f	14.70
A-25	Pl. to line	15K, 8 ma	See A-10 pri.	c	12.00
A-26	P-p to line	30K CT	See A-10 pri.	f	15.30
A-27	Input	100K split	See A-10 pri.	b	13.50
A-28	Tr. to V.C.	48 CT, 5 w.	16 (split), 8, 4	c	10.20
A-34		25K/6250 split	500/125 split	b	10.20
A-35	Transistor	10K/2.5K split	500/125 split	b	9.90
A-36	Interstage	500/125 split	150/37.5 split	c	9.60
A-37		500/125 split	50/12.5 split	c	9.60
A-38		100/25 split	40/10 split	c	9.30
A-39	line to transist.	600/150 split	2K/500 split	a	11.70
A-30	Inductor: 250 hys. @ 5 ma†; 65 hys @ 10 ma‡				10.20
A-32 (2-wdgs.)	Split Filter Inductor	Series: 60 Hys @ 15 ma, 2000 ohms Parallel: 15 Hys @ 30 ma, 500 ohms			7.50
A-33	Hipermalloy shield fits A units 20 db				3.00
A-40	Power transformer: 115v 60 cycles to two 6.3 CT—.2A Secs.				9.90
A-41 (2-wdgs.)	Split Filter Inductor	Series: 240 Mhy @ .2A, 6 ohms Parallel: 60 Mhy @ .4A, 1.50 ohms			6.60
A-42 (2-wdgs.)	Split Filter Inductor	Series: 4 hys-50 ma, 100 ohms Parallel: 1 hy-100 ma, 25 ohms			6.60
A-43	Matching to 2 simult. lines or Tr.	600/150 split	(2) 600/150 split g		14.70
A-44	l'stge/output	4K/1K split, 12 ma	600/150 spl.	b	12.00
A-45	Spkr. match	4, 8, 16	4 w. max lvl.	c	12.00
A-46	Chopper	10K/2.5K	50K		18.00
A-47	3-wdg. hybrd.	500/600CT	2 x 500/600CT		15.00

*+30 dbm. †6K ohms. ‡1.5K ohms. §2K ohms. ††500 ohms. **8 ma.
#Frequency response (±2 db), cps: a—20-20,000. b—30-20,000. c—40-20,000. d—10-50,000. e—30-30,000. f—20-40,000. g—20-30,000.

HIPERMALLOY* TRANSFORMERS

Hipermalloy audio and power transformers are specifically designed for portable and compact service. High fidelity though light in weight and dependable. The frequency characteristic of the Hipermalloy audio units is uniform from 30 to 20,000 cycles. They incorporate a Hipermalloy nickel iron core and hum balanced coil structure. The rugged die cast case is of high conductivity alloy finished in grey, arranged for mounting with the terminals either up or down. DC in Primary shown is maximum unbalanced.

TYPE H-2 CASE
Length ..... 3⅜"
Width ..... 2⅛"
Height ..... 3⅛"
Mounting 2 x 2¾"
Screws 6-32
Cutout 2¹¹⁄₁₆" dia.
Unit Wt. ..5 lbs.



TYPE H-1 CASE
Length ..... 2⅜"
Width ..... 1⅛"
Height ..... 3⅛"
Mount 1⅜ x 1¹³⁄₁₆"
Screws 6-32
Cutout 1¹³⁄₁₆" dia.
Unit Wt. ..2 lbs.

LOW IMPEDANCE TO GRID AND MIXING TRANSFORMERS
Units Housed in Type H-1 Case

UTC Type	Application	Primary Imped. Ohms	Sec. Imped. Ohms	Level dbm	Net Each
HA-100	Line to grid	50, 125/150, 200, 250, 333, 500/600	60K split	+18	$21.00
HA-100X	As above but multiple alloy shields for low hum pick up			+16	21.00
HA-101	Line to grids	Same as HA-100	120K split	+18	27.00
HA-101X	As above but muliple alloy shields for low hum pickup		80K split	+16	19.50
HA-103A	Mike/mixer to grid	2.5, 5.5, 10, 15, 22, 30, 38, 60	60K split 60K split	+18	16.50
HA-108*	Mixing	Same as HA-100	Same as Pri	+20	24.00
HA-108X*	As above but multiple alloy shields for low hum pick up			+18	24.00
HA-130X	Line to grids.	30, 50, 200, 250	60K Split	+18	27.00

INTERSTAGE AUDIO TRANSFORMERS
Units Housed in Type H-1 Case, except HA-107: in H-2 Case

UTC Type	Application	Primary Imped. Ohms	Sec. Imped. Ohms	Level Mw.	Net Each
HA-104	Pl. to grids	15K split	95K	100	$17.70
HA-105	Pl. to grid	15K	60K	100	24.00
HA-106	Pl. to grids	15K split	135K	100	24.00
HA-107	Pl's. to grids	30K	80K	600	33.00
HA-137	Pl's. to grids	30K	68K	100	21.00

Continued on next column

LINEAR STANDARD* TRANSFORMERS

Guaranteed frequency response of ±1 db 20-20,000 cps, ±1 db 7-50,000 cps on high level units, make these ideal transformers for uniform frequency response and low distortion. High efficiency and dependability through shielding. Top and bottom mounting.

LOW LEVEL TRANSFORMERS

Type LS-1 case, 2⅝" x 3⅛" x 3¼" h. Suffix X indicates multiple alloy shield. Weight, 3 lbs.

UTC Type	Application	Pri. Imp., Ohms	Sec. mp., Ohms	Level, dbm	Net Each
LS-10	Input	50, 125/150, 200, 250, 333, 500/600	60K split	+19	$27.00
LS-10X	Input	As above	50K	+17	27.00
LS-12	Input	As above	120K split	+19	30.00
LS-12X	Input	As above	80K split	+17	24.00
LS-30	Mixing	As above	Same as pri.	+23	27.00
LS-30X	Mixing	As above	Same as pri.	+20	30.00
LS-19	Pl. to grids	15K	95K	+20	24.00
LS-21	Pl. to p-p	15K	135K split	+20	27.00
LS-40	Pl. to p-p	15K, 8 ma	135K split	+20	33.00
LS-25	P-P to p-p	30K split	50K split	+23	33.00
LS-27	Pl. to line	15K, 8 ma	See LS-10 pri.	+23	30.00
LS-50	Pl. to line	15K	See LS-10 pri.	+23	27.00
LS-51	P-p to line	30K split	See LS-10 pri.	+24	33.00
LS-14X	Lo-Z to grids	2.5, 5.5, 10, 15, 22, 30, 38, 60	50K	+17	27.00
LS-26	Line to grids	5K	60K	+23	27.00
LS-31	Line to line	30, 50, 200,250	See LS-10 pri.	+23	27.00
LS-32	Lo-Z to line	Same as LS-14X	See LS-10 pri.	+23	33.00
LS-68	Matching to 2 Simult. lines or Tr..	600/150 split	(2) 600/150 split	+15	27.00
LS-150	Line to line	4K	See LS-10 pri.	+23	27.00
LS-151	Line to line	16K	See LS-10 pri.	+26	27.00
LS-140	70 db hybrid	500/600 split	Same as pri.	+18	27.00
LS-141	Hybrid †	500/600 split	Same as pri.	+18	24.00

† Has 3 sets of coils.

HIGH LEVEL TRANSFORMERS

Sizes: LS-33, -47, -52, -54, -55, -56, -57, -61, -63, 3½" x 4⅞" x 4⅜" h. (Wt., 7½ lbs.). LS-6L1, -6L4, -34, -35, -48, -58, -65, -666, -667, 5" x 5⅛" x 4¹¹⁄₁₆" h. (Wt., 15 lbs.). LS-691, 13" x 15¾" x 24" h. (Wt., 370 lbs.). LS-692, 13" x 15¾" x 28" h. (Wt., 520 lbs.).

UTC Type	Application	Pri. Imped., Ohms	#	Level Watts	Net Each
LS-33	Matching	50, 125/150, 200, 250, 333, 500/600	a	20	$24.00
LS-34	Matching	As above	a	40	33.00
LS-47	Driver	5K	i	20	27.00
LS-48	Driver	12K	i	40	66.00
LS-6L1	P-p output	9K	b	30	39.00
LS-6L4	P-p output	4,500/3,800	b	55	66.00
LS-58	P-p output	2.5K/1.5K	b	40	66.00
LS-52	P-p output	8000	b	20	24.00
LS-55	P-p output	5K/3K split	b	20	27.00
LS-61	P-p output	10K/6K split	b	20	24.00
LS-54	P-p output	8000	c	20	21.00
LS-57	P-p output	5K/3K split	c	20	24.00
LS-63	P-p output	10K/6K split	c	20	21.00
LS-56	P-p output	5K/3K split	d	20	30.00
LS-35	EL-34's†	5K CT 43% taps	e	35	36.00
LS-65	6550's†	3.3K CT 40% taps	e	60	45.00
LS-666	P-p transistor	8 split	f	50	36.00
LS-667	P-p transistor	8 split	e	50	33.00
LS-691	Modulation	10,400	g	1,000	690.00
LS-692	Modulation	4,750	h	2,500	990.00

† With feedback. #Secondary Impedance: a—1.2, 2.5, 5, 7.5, 10, 15, 20, 30, 50, 125/150, 200/250, 333, 500/600 ohms. b—500, 333, 250/200, 125, 50, 30, 20, 10, 7.5, 5, 2.5, 1.2 ohms. c—30, 20, 15, 10, 7.5, 5, 2.5, 1.2 ohms. d—6K, 5K, 4K, 1.8K, 1.5K, 1K, 30, 20, 15, 10, 7.5, 5, 2.5, 1.2 ohms. e—4, 8, 16 ohms. f—500 ohms split. g—4.5K, 4K, 3.5K, 2.75K, 2K. h—2.5K, 2K, 1.75K, 1.5K, 1.25K. i—Pri./½ Sec. 3.2:1. j—Pri./½ Sec. 5.1:1.

Continued from bottom of previous column

PLATE TO LINE TRANSFORMERS
Units Housed in Type H-1 Case

UTC Type	Application	Prim. Imped. Ohms	Sec. Imped. Ohms	Level Mw	Net Each
HA-113	to multiple line	15K split	50, 125/150, 200, 250, 333, 500/600	125	$21.90
HA-114	Lo-Z to multi-line	30K		200	25.80
HA-133	to multi-line	15K split		160	27.00

OUTPUT TRANSFORMERS
Units Housed in Type H-2 Case

UTC Type	Application	Prim. Imped. Ohms	Sec. Imped. Ohms	Level Watts	Net Each
HA-134	P-p to line	5K/9.4K	50, 125/150, 200, 250, 330, 500/600	15	$19.80
HA-135	P-p to V.C.	3K/5K	30, 20, 15, 10, 7.5, 5, 2.5, 1.2	18	19.20
HA-136	5881's screen-taps	6.6K	4, 8, 16	20	21.00

POWER TRANSFORMERS
Units Housed: HP-122 in Type H-1 Case; HP-123 in Type H-2 Case

UTC Type	Application	Psi. Volt 50/60μ	Hi-Volt	Fil. Wind	Net Each
HP-122	Pre-amp	115	220-O-220 15 Ma	6.3 V.C.T.—.6A 6.3 V.C.T.—1.2A	$12.00
HP-123	Pre-amp or Tuner	115	275-O-275 35 Ma	6.3 V.C.T.—.6A 6.3 V.C.T.—2A	12.00

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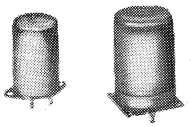
COMMERCIAL GRADE COMPONENTS

DIMENSIONS, COMMERCIAL GRADE "RC" CASE



Performance insured during constant usage due to the ruggedness of this vacuum impregnated component with special sealing compound. Case, finished in light gray enamel, is ready for mounting on chassis. (All audio components linear).

Case No.	Base Dim.(Sq.)	Mounting Dim. (Sq.)	Ht., +1/8, −1/16	Cutout Dia.	Unit Wt. (Lbs.)
RC-37	1 3/8	1 1/8	1 5/8	1 1/4	.35
RC-50	1 5/8	1 3/16	2 1/4	1 1/2	1/2
RC-62	1 13/16	1 1/2	2 1/2	1 1/2	1
RC-75	2 3/16	1 13/16	2 7/8	1 7/8	1 1/2
RC-87	2 9/16	2 3/32	3 1/4	2	2 1/2
RC-100	3	2 3/8	3 3/4	2 5/8	3 1/2
RC-112	3 7/16	2 11/16	4 1/8	2 7/8	5
RC-125	3 3/4	3	4 1/2	3	6 1/2
RC-150	4 1/2	3 9/16	5 1/2	3 3/4	11
RC-152	5 1/8	4 1/8	5 1/2	4	15 1/2
RC-175	5 3/4	4 7/8	7	4	22

SWINGING INPUT AND FILTER INDUCTORS

UTC Type	Induct. Henries	DC MA	DC Res. Ohms	Test Volts	Case No.	Net Each
CG-40	10	200	110	1750	RC-112	$10.20
CG-44	30	100	400	1750	RC-100	8.10
CG-45	250	15	5000	1750	RC-87	7.50
CG-48C	75	50	2200	1750	RC-87	9.00
CG-100	12	150	110	2500	RC-125	10.50
CG-102	12	250	100	3000	RC-150	15.60
CG-104	10	350	90	5000	RC-152	18.90
CG-108	10	500	52	7000	RC-175	30.00
CG-1S	10	1000	40	9000	11 1/2 x 4 3/4 x 6 7/8 H. Wt., 40 lbs.	75.00
CG-101	25/5	150	110	2500	RC-125	10.50
CG-103	25/5	250	100	3000	RC-150	15.60
CG-105	25/5	350	90	5000	RC-152	18.90
CG-109	25/5	500	52	7000	RC-175	30.00
CG-111§	100/10mh	2.5a.	.6	1500	RC-87	11.40
(2 wdgs)‡	25/2.5mh	.5a.	.15			
CG-112§	40/10mh	6 a.	.24	1500	RC-112	12.60
(2 wdgs)‡	10/2.5mh	12 a.	.06			
CG-113§	7/1.75mh	17.5a.	.036	1500	RC-125	14.70
(2 wdgs)‡	1.8/.45mh	35 a.	.009			
CG-1C	25/5	1000	40	9000	11 1/2 x 4 3/4 x 6 7/8 H. Wt., 40 lbs.	75.00

§Split winding in series. †Wt., 40 lbs. ‡Split winding in parallel.

PLATE TRANSFORMERS

Primaries for 105, 115, 220, 230 volts; 50/60 cycles. For reduced power, secondary can be cut in half, using 220 v. primary on 110 volts; may be used on 25 to 43 cycles in this case. "W" suffix units designed for full wave center tap and full wave bridge application. Center tap may be disconnected from ground.

UTC Type	High Voltage	DC Volts	Case No.	Net Each
CG-300	625-515-0-515-625	500/400	RC-150	$21.00
CG-300W	625-515-0-515-625	1000/800	RC-150	22.50
CG-301	580-530-300-0-300-530-580	475/425/250	RC-152	33.00
CG-301W	580-530-300-0-300-530-580	950/850/500	RC-152	36.00
CG-302	950-750-0-750-950	760/610	RC-175	39.00
CG-302W	950-750-0-750-950	1520/1220	RC-175	42.00
CG-303	1500-1235-400-0-400-1235-1500	1250/1000 300	RC-175	43.50
CG-303W	1500-1235-400-0-400-1235-1500	2500/2000 600	RC-175	48.00

POWER AND BIAS TRANSFORMERS

Primary 115 volts, 50/60 cycles. DCMA is for choke input; reduce 70% for condenser input. Filament 1 is 5 volts, 3 amps., and Filament 2 is 5 volts, 2 amps., except as otherwise noted.

UTC Type	High Voltage	DC Ma	Filament 3	Filament 4	Case No.	Net Each
CG-422	435-365-0-365-435 125-0-125	125 25	6.3 VCT-3A	2.5 VCT-5A	RC-150	$27.00
CG-428	500-0-500 80-0-80	250 100	6.3 VCT-4A	6.3 VCT-3A, tapped 2.5 VCT-3A	RC-152	31.50
CG-429*	600-525-0-525-600	250	7.5 VCT-3A, tapped 6.3 VCT-4A		RC-152	31.50
CG-431†	500-400-0-400-500 80-0-80	500 100	6.3 VCT-5A	6.3 VCT-3A	RC-175	42.60
CG-315	Tapped for any DC voltage from 15 to 100 volts within 6%—250 MA				RC-125	16.50
CG-316	Tapped for any DC voltage from 75 to 400 volts within 6%—250 MA				RC-152	27.00

*Filament 2 is 6.3 VCT-3A. †Filament 1 is 5V-6A.

AUDIO UNITS

UTC Type	Use †	Pri. Imped., Ohms	Level	Case RC-	Net Each
CG-131	a	15K	+28 dbm	50	$13.50
CG-132	b	15K	+30 dbm	62	13.50
CG-133	c	30K CT	+32 dbm	75	13.50
CG-134	d	50, 200, 500	+30 dbm	50	11.40
CG-135	e	50, 200, 500	+30 dbm	50	12.90
CG-235	f	50, 200, 500	+28 dbm	75	21.00
CG-136	g	15K, 50, 200	+30 dbm	62	18.00
CG-137	h	50, 200, 500	+28 dbm	50	10.80
CG-140	i	15K	+30 dbm	50	9.90
CG-141	j	30K CT	+32 dbm	50	9.60
CG-233	k	30K CT	+35 dbm	87	15.00
CG-333	k	30K CT	+35 dbm	87	15.00
CG-433	k	5K CT	10 w.	100	12.00
CG-15	l	8K CT	20 w.	100	13.50
CG-16	l	3K/5K CT	20 w.	100	14.70
CG-19	l	6K/10K CT	20 w.	100	14.00
CG-710	l	14K/20K CT	20 w.	100	18.00
CG-2L6	l	9K CT	30 w.	125	16.50
CG-20	m	5K CT, 43% screen taps	25 w.	125	18.00
CG-21	m	3.3K CT, 40% screen taps	50 w.	150	24.00
CVP-1	n	3K/5K/6K/8K/10K/14K CT	12 w.	100	16.80
CVP-2	n	"	30 w.	125	18.90
CVP-3	n	"	60 w.	150	27.00
CVP-4	n	"	125 w.	152	33.00
CVP-5	n	"	300 w.	175	48.00
CVL-1	p	500	15 w.	87	12.00
CVL-2	p	500	40 w.	125	18.00
CVL-3	p	500	75 w.	150	21.00
CVM-0	q	Any Class B	12 w.	100	14.10
CVM-1	q	"	30 w.	125	18.00
CVM-2	q	"	60 w.	150	22.50
CVM-3	q	"	125 w.	152	30.00
CVM-4	q	"	300 w.	175	54.00
CVM-5	q	"	600 w.	†	168.00
CG-51AX	r	15K	5 w.	87	15.00
CG-53AX	r	3K/10K/ CT	20 w.	112	15.00
CG-59AX	r	50, 200, 500	20 w.	112	15.00

† 7" x 12" x 9"; Wt., 60 lbs. †a—Pl. to grid. b—Pl. to 2 grids. c—2 pl. to 2 grids. d—Input, humbucking. e—P-p input, humbucking. f—Input, mag. shielded. g—Dual input, humbucking. h—Mixing. i—Pl. to line. j—P-p to line. k—Driver. l—Output. m—Feedback output. n—Universal output. p—Universal matching. q—Universal modulator. r—Universal driver.

END CASTING UNITS

See note on "W" suffix units under plate transformers.

UCT Type	High Volt	DC Volt	L	W	H	Wt. Lbs.	Net Each
CG-304	1500-1235-0-1235-1500	1.25K	1K	14 5/8	8 1/2	10 3/8 100	$198.00
CG-304W†	1500-1235-0-1235-1500	2.5K	2K	14 5/8	8 1/2	10 3/8 100	219.00
CG-305	2400-1750-0-1750-2400	2K	1.5K	10 1/2	4 3/4	6 7/8 50	75.00
CG-305W†	2400-1750-0-1750-2400	4K	3K	10 1/2	4 3/4	6 7/8 50	81.00
CG-306	as above	2K	1.5K	13 7/8	8 1/2	10 3/8 100	174.00
CG-306W†	as above	4K	3K	13 7/8	8 1/2	10 3/8 100	186.00
CG-307	3500-3000-2400-0-2400-3000-3500	3K 2K	2.5K	13 5/8	8 1/2	10 3/8 90	183.00
CG-308	as CG-307	3K 2K	2.5K	15 1/8	8 1/2	10 3/8 125	225.00
CG-309	as CG-307	3K 2K	2.5K	21	10	13 1/4 253	450.00
CG-310	4600-4050-3500-0-3500-4050-4600	4K 3K	3.5K	17 1/4	10	13 1/4 150	420.00
CG-311	1500-1235-0-1235-1500	1.25K	1K	10 1/2	4 3/4	6 7/8 50	75.00
CG-311W†	1500-1235-0-1235-1500	2.5K	2K	10 1/2	4 3/4	6 7/8 50	78.60
CG-312	1800-1500-0-1500-1800	1.5K	1.25K	10 1/2	4 3/4	6 7/8 38	81.00

† Full Wave Bridge Rectifier types.

VARIPOWER* AUTOFORMERS

Simultaneous control of filament, plate and line voltage. Filament voltage control within 2 1/2%. Output voltage from 0 to 130 volts. 50/60 cycles. Taps at 25, 55, 75, 95, 100, 105, 110, 115, 120, 125, and 130 volts.

UTC Type	Watts Output	Case No.	Net Each	UTC Type	Watts Output	Case No.	Net Each
CVA-1	150	RC-112	$13.50	CVA-4	1000	RC-152	$27.00
CVA-2	250	RC-125	18.00	CVA-5	2000	RC-175	42.60
CVA-3	500	RC-150	22.50				

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Net

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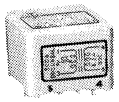
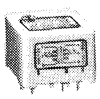
MINIATURE, OUNCER, SUBOUNCER & SUB-SUBOUNCER UNITS

SUBOUNCER*& SUB-SUBOUNCER*AUDIO TRANSFORMERS
TRANSISTOR & TUBE TYPES HERMETICALLY SEALED





Designed, Manufactured and Successfully Tested to complete MIL - T - 27B Specifications.

UTC SSO-#P and SO-#P units are ideal miniaturized components having high efficiency and wide frequency response. Special nickel iron core materials and winding methods provide exceptional performance and reliability.

SO-#P UNIT Dim. ¾x1x2 3/32" Pin Length ¼" Wt. .....05 lb.

SSO-#P UNIT Dim. ¾x⅞x9/16" Pin Length ¼" Wt. .....04 lb.

SML-70 7/16x31/64x9/16" Wt. .2 oz.

These units are vacuum molded to MIL Grade 5. They employ 50 mil deeply anchored pin terminals ideally suited for printed circuit and transistor application. Terminals are strong enough to support these light weight units.

The UTC SML-70 is an ultra miniature transformer providing high shielding, extremely low insertion loss with wide band response, 200 cycles to 20 kc. These units are provided with pin terminals (.025 dia.) strong enough to support the unit and are ideal for printed circuits.

PRINTED CIRCUIT AUDIO UNIT — HIPERMALLOY SHIELD CASE

Type No.	Application	Pri. Imp. ohms	Sec. Imp. ohms	Net Each
SML-70	Input or Chopper Service	200K	1K	$8.40

MIL TYPE: TF5RX16ZZ.

PRINTED CIRCUIT MOLDED TYPES TO MIL GRADE 5

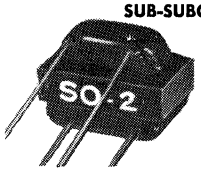
Type No.	Application	Pri. Imp. ohms	Sec. Imp. ohms	Net Each
SO-2P	Interstage/3:1	10K	90K	$6.90
SO-3P*	Plate to Line	10K	200	6.90
		25K	500	
SO-5P	Inductor: 40 hy at 1 ma, 2675 ohms, series; 4 hy at 4 ma, 670 ohms, parallel;			6.90
SO-7P*	Transistor	20K	800	6.60
	Interstage	30K	1200	
SO-8P	Transistor to PP Sec.	10K	2000 CT	7.50
SO-9P	PP Transistor to V.C.	500 CT	3.2	7.50
SO-14P	Transistor	80 CT	32 Split	7.80
	Interstage	100 CT	40 Split	
SO-15P	Tr. output	600 CT	600 Split	7.80
SO-17P	Inductor: 16 hy at 2 ma, 1.1K ohms, series; 4 hy at 4 ma, 275 ohms, parallel;			6.90

MIL TYPES: TF5RX13ZZ: SO-3P, SO-7P, SO-8P; TF5RX15ZZ: SO-2P; TF5RX17ZZ: SO-9P, SO-14P, SO-15P, SO-17P; TF5RX20ZZ: SO-5P.

SSO-3P	Plate to line	10K	200	$7.20
		25K		
SSO-5P	Inductor: 100 hy at 0 ma, 4.4K ohms, series; 25 hy at 0 ma, 1.1K ohms, parallel			6.90
SSO-8P	Transistor to pp sec.	10K	2000 CT	7.20
SSO-14P	Transistor	10K CT	200 CT	7.50
	Interstage	25K CT	500 CT	
SSO-15P	Transistor	20K CT	800 CT	7.50
	Interstage	30K CT	1200 CT	
SSO-19P	Output matching	500 CT	600 CT	7.20
SSO-20P	Output	1.5K CT	600 CT	7.20
SSO-21P	Crystal/Chopper	200K CT	1000 CT	8.10
SSO-22P	Interstage	10K CT	1500 CT	7.20
		12K CT	1800 CT	
SSO-23P	Inductor: 8 hy at 2 ma, 600 ohms, series; 2 hy at 4 ma, 150 ohms, parallel			6.90
SSO-24P	Inductor: 3.5 hy at 2 ma, 160 ohms, series; 0.9 hy at 4 ma, 40 ohms, parallel			6.90
SSO-25P	Transistor	10K CT	10K/	8.10
	Interstage		2.5K spl.	
SSO-27P	Tr. Output	4K CT 2.5 ma	600 spl.	8.10

MIL TYPES: TF5RX13ZZ: SSO-3P, SSO-8P, SSO-14P, SSO-15P, SSO-22P, SSO-25P, SSO-27P; TF5RX16ZZ: SSO-21P; TF5RX17ZZ: SSO-19P, SSO-20P; TF5RX20ZZ: SSO-5P, SSO-23P, SSO-24P.

SUB-SUBOUNCERS*AND SUBOUNCERS*



Lead mounted (channel available as separate item) miniature nickel iron core units for transistor or vacuum tube circuits. Plastic mounted leads. SSO Sub-Subouncers: Approx. 2 db, 140-10,000 cps; +20 VU except inputs +7 VU. (7/16" x ¾" x 43/64"; wt., .02 lb.) SO Subouncers: Approx. 2 db., 100-10,000 cps; +24 VU except inputs +10 VU. (19/32" x 43/64" x ⅞"; wt., .03 lbs.)

UTC SSO-	Net Each	Application	Pri. Imp., Ohms	Sec. Imp., Ohms	UTC SO-	Net Each
1	$4.50	Input	50/200	62.5K/250K	1	$3.60
2	4.80	Interstage	10K, .25 ma	90K	2	3.30
3	4.20	Pl. to line	10K/25K, 1.5 ma	200/500	3	3.30
4	3.90	Output	30K, 1 ma	50	4	3.30
5	3.90	Inductor:	50 hys. @ 1 ma	4400 ohms#	5‡	3.00
6	4.20	Output	100K, .5 ma	60	6	3.90
7	3.30	Tr. intrstg.	20K/30K†	80/1200	7	3.00
8	3.90	Tr. intrstg.	10K, 1 ma	2K CT	8	3.60
9	3.00	Tr. to V.C.	10K, 2 ma	16	.....	.....
.....	.....	Tr. to V.C.	500 CT	3.2	9	3.60
10	3.00	Tr. to V.C.	10K, 2 ma	3.2	.....	.....
.....	.....	Tr. to V.C.	2K/4K CT	8/16	10	3.60
11	3.00	Tr. Output	500/600§	50/60	.....	.....
.....	.....	Transist. Int.	400/500 CT	400/500 Split	11	4.20
12	3.00	Tr. Output	1K/1.2K††	50/60	.....	.....
.....	.....	Transist. Int.	400/500 CT	120/150 Split	12	4.20
13	4.50	Input	200K	1K	.....	.....
.....	.....	Transist. Int.	400/500 CT	40/50 Split	13	4.20
14	4.20	Tr. intrstg.	10K/25K CT	200/500 CT	.....	.....
.....	.....	Transist. Int.	80/100 CT	32/40 Split	14	4.20
15	4.20	Tr. intrstg.	20K/30K CT	.8K/1.2K CT	.....	.....
.....	.....	Tr. output	600 CT, 5 ma	600 Split	15	4.20
16	3.00	Tr. output	1.2K/1.5K††	3.2/4	.....	.....
.....	.....	Tr. intrstg.	2.5K CT, 4 ma	2500 Split	16	4.20
17	3.30	Output	10K/12.5K**	500/600 CT	.....	.....
.....	.....	Inductor: 16 hy at 2ma, 1.1K ohms, series; 4 hy at 4 ma, 275 ohms, parallel			17	3.30
18	3.30	Output	7.5K/9.4K CT	3.2/4	.....	.....
19	3.30	Matching	500 CT	600 CT	.....	.....
20	3.30	Output	1.5K CT	600 CT	.....	.....
21	4.80	Chopper	200K CT	1K CT	.....	.....
22	3.90	Tr. intrstg.	10K/12K CT	1.5K/1.8K CT	.....	.....
23	3.00	Inductor: 4 hys @ 5 ma, 650 ohms				
24	3.00	Inductor: 1.5 hys. @ 5 ma, 160 ohms				
25	5.10	Transist. Int.	10K/12K CT	10K/12 CT	.....	.....
26	5.10	Transist. Int.	40K/50K CT	400/500 Split	.....	.....
27	5.10	Tr. output	4K CT, 2.5 ma	600 Split	.....	.....
CH	.30	Mounting channel for any of above			CH	.30

†0.5 ma. ‡Resis., 2675 ohms. §3.5 ma. **2 ma. ††3 ma. #DC resis.

OUNCER*AUDIO UNITS
Standard and Plug-in Types

UTC ouncer components provide wide range ±1 db, 30 to 20,000 cps (except Nos. 0-14 and 0-15). In compact ⅞" dia. case. No. 0-16 has heavy shielding (case 1 1/16" dia.). P-16 has 9 pin plug (1 3/16" dia.). Wt., 4 oz. max.

UTC No.	Net Each	Application	Pri. Imped., Ohms	Sec. Imped., Ohms	UTC No.	Net Each
O-1	$7.80	Input	50, 200, 500	50K	P-1	$9.00
O-2	7.80	P-p input	50, 200, 500	50K CT	P-2	9.00
O-3	7.50	Input	7.5/30	50K	P-3	8.40
O-4	6.60	Pl. to grid	15K	60K	.....	.....
O-5	6.60	Pl. to grid	15K, 2 ma	60K	.....	.....
O-6	7.50	Pl. to p-p	15K	95K CT	P-6	8.40
O-7	7.50	Pl. to p-p	15K, 2 ma	95K CT	P-7	8.40
O-8	7.80	Pl. to line	15K	50, 200, 500	P-8	9.00
O-9	7.80	Pl. to line	15K, 2 ma	50, 200, 500	P-9	9.00
O-10	8.40	P-p to line	30K CT	50, 200, 500	P-10	9.00
O-11	7.80	Cryst. out.	50K	50, 200, 500	P-11	9.00
O-12	7.80	Mixing	50, 200, 500	50, 200, 500	P-12	9.00
O-13	6.30	Inductor	300 Hys-0 ma; 6000 ohms		.....	.....
O-14	7.50	50:1 input	200	500K	.....	.....
O-15	7.50	10:1 P/G	15K	1 meg.	P-15	9.00
O-16	10.20	Shld. input	250 CT	50K	P-16	11.40
O-17	1.50	Hipermalloy shield, 25 db, for Ouncers			.....	.....
O-18	7.80	Tr. intrstg.	10K split	2K split	.....	.....
O-19	7.80	Tr. intrstg.	10K split	4K split	.....	.....
O-20	6.30	Tr. to line	1.5K CT	500 split	.....	.....
O-21	5.40	Tr. to V.C.	2K/4K CT	8/16	.....	.....
O-22	5.40	Tr. to V.C.	500/400 CT	4/3.2	.....	.....
O-23	5.10	Inductor	7 Hys-3 ma; 230 ohms		.....	.....
O-24	5.10	Inductor	1.6 Hys-3 ma; 25 ohms		.....	.....
O-25	8.10	Transist. Input	600/150 split	2K/500 split	.....	.....
O-26	8.10	Transist. Int.	10K CT 4 ma.	10K CT	.....	.....
O-27	8.40	Transist. Int.	10K CT 4 ma.	500/125 split	.....	.....
O-28	8.40	Transist. Int.	50K CT. 2 ma.	500/125 split	.....	.....
O-29	8.70	Transist. Int. or chopper	100K CT 1 ma.	500/125 split	.....	.....
O-30	8.10	Transist. Int.	500/125 split	500/125 split	.....	.....
O-31	8.10	Transist. Int.	500/125 split	150/37.5 split	.....	.....
O-32	8.10	Transist. Int.	500/125 split	50/12.5 split	.....	.....
O-33	8.10	Transist. Int.	100/25 split	40/10 split	.....	.....
O-34	5.10	Split Inductor	Series: 60 Mhy-80 ma; 4 ohms Parallel: 15 Mhy-160 ma; 1 ohm		.....	
O-36	5.10	Split Inductor	Series: 1 Hy-20 ma; 60 ohms Parallel: .25 Hy-40 ma; 15 ohms		.....	
O-37	8.10	Tr. to line	4K/1K spl., 4 ma	650/150 split	....	
O-38	5.10	Spkr. match	0, 4, 8, 16 ODC		....	....
O-BR	.21	Mounting U-bracket for ouncers			....	

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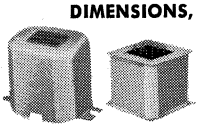
AMATEUR & PUBLIC ADDRESS TRANSFORMERS "S"* SERIES

DIMENSIONS, SPECIAL SERIES TRANSFORMERS



G-1 thru G-4 G-5 thru G-12

UTC Special Series transformers are specifically designed for amateur and popular-priced PA service. These units are finished in a rich, commercial type medium gray enamel. A recessed terminal strip is provided, permitting above chassis or breadboard wiring in addition to standard chassis type.

G-CASE SIZES

Case	Height, In.	Width, In.	Depth, In.	Wt., Lbs.
G-1	1 7/8	2 13/16	1 3/4	1
G-2	2 3/16	3 3/8	1 15/16	1 1/2
G-3	2 1/2	3 3/4	2 5/32	2
G-4	2 15/16	4 1/8	2 5/16	3
G-5	3 3/4	3 1/8	4 1/2	4 1/2
G-7	4 5/8	4 5/8	5 1/2	8
G-8	4 5/8	5 3/8	5 3/8	12
G-9	5 7/8	5 3/8	6 3/4	21
G-10	5 7/8	6 1/8	6 5/8	24
G-11	5 7/8	6 1/2	7 3/8	31
G-12	10 1/4	7 3/8	9 1/4	52

INPUT AND DRIVER TRANSFORMERS

Type UTC	Application	Ratio Pri. to Sec.	Level	Case	Net Each
S-1	Plate to grid	1:3 1/2	+30 dbm	G-2	$ 5.40
S-2	Plate to p-p grids	1:4 †	+30 dbm	G-2	6.60
S-3	Pl. to 1 or 2 grids	1:4 †	+25 dbm	G-1	4.80
S-5	Line to grid, humbkg.	1:16	+30 dbm	G-2	5.70
S-6	Line to grid, compact	1:16	+25 dbm	G-1	4.80
S-8	Driver pl. to p-p	2.66:1, 5:1 †	5 w.	G-3	7.20
S-9	Driver p-p to p-p	2.66:1, 3.6:1 5:1 †	20 w.	G-4	9.60
S-10	Driver p-p to p-p	2.25:1 †	5 w.	G-3	7.20

† Center tapped.

MATCHING, OUTPUT AND MODULATION UNITS

UTC Type	Application	Pri. Imped., Ohms	†	Level, Watts	Case	Net Each
S-11	Pl. to line	15K	a	.25	G-2	$ 5.70
S-12	Line to V.C.	.5K/2K/4K	b	15	G-2	6.00
S-13	Line to V.C.	.5K/2K/4K	b	30	G-4	9.00
S-14	Output	2.5K/4K/7K/10K	c	10	G-2	7.20
S-15	PP output	4K/5K/10K CT	c	12	G-2	7.80
S-16	PP output	3K/6K/9/10K CT	c	30	G-4	9.30
S-17	PP output	3.8K/4.5/5K CT	c	55	G-5	13.20
S-18	Univ. modul.	Any Class B	d	12	G-3	8.40
S-19	Univ. modul.	Any Class B	d	30	G-4	9.90
S-20	Univ. modul.	Any Class B	d	55	G-5	16.50
S-21	Univ. modul.	Any Class B	d	110	G-7	22.50
S-22	Univ. modul.	Any Class B	d	250	G-9	36.00

†Secondary Impedance: a—200/500 ohms. b—2, 4, 8, 15 ohms. c—2, 8, 15, 500 ohms. d—Any Class C.

FILTER, SWINGING AND AUDIO INDUCTORS

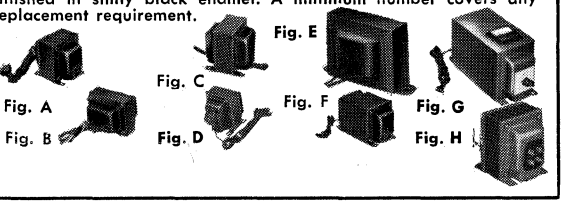
Type	Henries	Ma. DC	Ohms	Insul.	Case	Net Each
S-23§	300	5	5000	1500 v.	G-2	$ 4.80
S-24‡	500	3	6000	1500 v.	G-2	5.40
S-25	30	30	800	1500 v.	G-2	4.20
S-26	12	60	250	1500 v.	G-2	4.20
S-27	25	75	350	1500 v.	G-4	5.40
S-28	20	100	350	1500 v.	G-4	6.90
S-29	6	175	90	1500 v.	G-4	5.40
S-30†	4/20	175	90	1500 v.	G-4	5.40
S-31	6	225	100	2700 v.	G-5	7.50
S-32†	4/20	225	100	2700 v.	G-5	7.50
S-33	8	300	100	4000 v.	G-7	9.90
S-34†	4/20	300	100	4000 v.	G-7	10.50
S-35	8	400	60	5000 v.	G-8	12.90
S-36†	4/20	400	60	5000 v.	G-8	12.90
S-37	8	550	60	6000 v.	G-8	16.50
S-38†	4/20	550	60	6000 v.	G-8	16.50
S-80	50/10 Mhy	1.75A	.5	500 v.	G-1	4.50
S-81	100/8 Mhy	2.5A	.6	1500 v.	G-3	6.60
(2Wdgs)	25/2 Mhy	5A	.15			

§Audio. ‡P.P. Audio C. T. †Swinging.

Information on components in this box listed on UTC page 13.

REPLACEMENT TYPE COMPONENTS

The shells and brackets of these vacuum sealed components are finished in shiny black enamel. A minimum number covers any replacement requirement.



FILAMENT TRANSFORMERS

Primary Tapped 105, 115 Volts, 50-60 Cy.

UTC Type	Secondary Volts	Secondary Current	Insulation	Case No.	Net Each
S-53	2.5 VCT	10 Amp	1500 V	G-3	$ 6.90
S-54	5 VCT	4 Amp	2500 V	G-3	6.30
S-55	6.3 VCT	3 Amp	1500 V	G-3	6.00
S-57	2.5 VCT	10 Amp	10000 V	G-5	9.90
S-58	2.5 VCT	20 Amp	10000 V	G-5	10.50
S-59	5 to 5.25 VCT	13 Amp	5000 V	G-5	9.90
S-60	5 to 5.25 VCT	22 Amp	10000 V	G-7	15.00
S-61	7.5 VCT tapped 6.3 VCT	10 Amp	3000 V	G-5	12.00
S-62	10 VCT	10 Amp	3000 V	G-5	10.20
S-63	14 VCT tapped 12 VCT & 11 VCT	10 Amp	5000 V	G-7	15.00

Type	Filament 1	Filament 2	Filament 3	Case	Net
‡S-64	2.5 VCT-5A	2.5 VCT-5A	5 VCT-6A	G-5	$12.00
‡S-67	5 VCT-6A	6.3 VCT-5A		G-5	11.40
‡S-68	5 VCT-3A	6.3 VCT-4A	7.5 VCT-5A	G-5	11.70
‡S-70	6.3 VCT-5A	6.3 VCT-5A	.....	G-5	11.40
§S-71	2.5 VCT 6A	2.5 VCT-6A	2.5 VCT-12A	G-7	16.50
†S-72	5 VCT-3A	5 VCT-3A	5 VCT-6A	G-5	13.50

§Insulation 10,000 v. †Insulation 5000 v. ‡Insulation 3000 v.

COMBINED PLATE AND FILAMENT TRANSFORMERS

Primary 115 V., 50-60 Cy.

UTC Type	Voltage	DC V.	Rect. Fil.	Filament No. 1	Filament No. 2	Case No.	Net Each
S-39	490-400-0-400-490 175 ma	400/310	5V-3A	2.5 VCT-6A	6.3 VCT-4A	G-7	$18.00
S-40	525-425-0-425-525 250 ma	400/310	5V-3A	6.3 VCT-3A	6.3 VCT-3A	G-7	19.50
S-41	600-0-600 200 ma	475	5 V-3A	7.5 V tapped 6.3 V-3A	6.3 VCT-2A	G-7	19.50
S-42	600-525-0-525-600 300 ma	480/400	5 V-6A	7.5 V tapped 6.3 V-3A	6.3 VCT-3A	G-7	21.00

PLATE AND BIAS TRANSFORMERS

Primary 115 V. 50/06 Cycles

UTC Type	2.5 VCT-12A High Voltage	DC Voltages †	DC Ma	Case	Net Each
S-44	575-525-0-525-575	470/430	500	G-9	$27.00
S-45	900-750-0-750-900	750/620	200	G-8	22.50
S-46	1000-750-0-750-1000	825/600	300	G-9	25.50
S-47	1500-1250-1000-0-1000-1250-1500	1275/1050/825	300	G-10	36.00
S-48	1500-1250-1000-0-1000-1250-1500	1300/1075/850	500	G-11	42.00
S-49	2100-1800-1500-0-1500-1800-2100	1815/1540/1275	300	G-11	39.00
S-50	3000-2500-0-2500-3000	2625/2175	300	G-12	66.00
S-51	Any bias voltage from 15 to 100 ± 6%		200	G-5	13.20
S-52	Any bias voltage from 75 to 400 ± 6%		200	G-7	18.00

†Based on two section filter for 200 ma. and 300 ma. units. Single section filter for 500 ma. units, both choke input.

IMMEDIATE DELIVERY
ON ALL UTC STOCK ITEMS
AND SPECIAL CUSTOM BUILT UNITS TO YOUR SPECS.

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TRANSFORMERS FOR INDUSTRY WIDE APPLICATIONS

DOUBLE SHELL POWER TRANSFORMERS (FIG. B SEE PG. 12)

Rectifier filaments 5 volts, 3 amps except R-101, 2 amps.

UTC Type	High V.	DC Ma.	Amplifier Filament	Overall Height	Wt., Lbs.	Net Each
R-101	275-0-275	50	6.3 v. CT-2.7A	3"	2½	$ 8.70
R-102	350-0-350	70	6.3 v. CT-3A	3⅝"	3½	10.20
R-103	350-0-350	90	6.3 v. CT-3.5A	3 15/16"	4½	10.35
R-104	350-0-350	120	6.3 v. CT-5A	3⅞"	5½	11.10
R-105	385-0-385	160	6.3 v. CT-5A	4 5/16"	7	12.00

VERTICAL SHELL POWER TRANSFORMERS (FIG. C SEE PG. 12)

Rectifier filaments 5 volts, 3 amps., except R-110, 2 amps.

R-110	300-0-300	50	6.3 v. CT-2.7A	3¼"	2½	$ 8.70
R-111	350-0-350	70	6.3 v. CT-3A	3¼"	3½	10.20
R-112	350-0-350	120	6.3 v. CT-5A	4"	5½	11.10
R-113	400-0-400	200	6.3 v. CT-6A	4⅝"	8	14.10

CHANNEL FRAME FILTER INDUCTORS (FIG. E SEE PG. 12)

Inductance Shown is at Rated D.C.M.A.—Test Volts RMS: 1500

Type No.	Induct. Hys.	Current	Resist. Ohms	Dimensions, in. W	D	H	M	Wt. Lbs.	Net Each
R-55	6	40MA	300	2⅜	1⅜	1⅜	2	½	$ 1.80
R-14	8	40MA	250	2⅞	1½	1 1/16	2⅜	¾	2.25
R-15	12	30MA	450	2⅞	1½	1 1/16	2⅜	¾	2.25
R-16	15	30MA	630	2⅞	1½	1 1/16	2⅜	¾	2.25
R-17	20	40MA	850	3 5/16	1⅝	2	2 3/16	1	2.70
R-18	8	80MA	250	3 9/32	1⅝	2	2 3/16	1	2.85
R-19	14	100MA	450	3¾	1⅞	2 5/16	3⅛	1½	3.45
R-20	5	200MA	90	4⅛	2¼	2⅝	3 5/16	2½	3.90
R-21	15/3	200MA	90	4⅛	2¼	2⅝	3 5/16	2½	3.90
R-220	100/8 Mhy.	2.5A	.6	3¾	2	2 5/16	3⅛	1½	4.20
	25/2 Mhy.	5A	.16						

PHOTOFLASH TRANSFORMERS

STANDARD 982

Can be used for either standard (Amglo type) or trigger (Sylvania type) multiple flash tubes. Circuit details included with transformer.

PF-1 Primary for 115 volts, 50/60 cycles. Secondaries for power supply delivering 2200 volts DC to condenser up to 100 Mfd. Compound sealed in G-3 (Pg.11) case 2⅛ x 2¾ (3¾ including flanges) x 2½ inches high. Weight 2 lbs. **Net Each $8.40**

PF-3 Trigger Transformer 15 KV peak. ⅞ O.D.x3 long. Weight 2 oz. **Net each: $6.00**

PF-6

TRANSISTOR TYPE

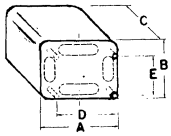
These are miniaturized light weight units for transistor type photoflash supply.

PF-5 Primary for 115 volts. 50/60 cycles or for 4½ V. battery switched by PF-6 inverter transformer. Output delivers 400 V.-DC when used in voltage doubler circuit to charge photoflash capacitor (typically 40 watt-Sec.). G-1 case (Pg. 11)
Net each: $8.40

PF-6 Inverter transformer transforms 4½ V. DC from battery to input for PF-5 stepup transformer. Ouncer case (Pg. 11)
Net each: $5.10

PF-7 Trigger transformer. Shorting .25 mfd. capacitor (charged to approx. 225 V. DC) across terminals 1-2 produces 6 KV pulse at terminal 3 for triggering flash tube. ⅞" Dia. x 15/16"; Wt. ½ oz. **Net each: $3.60**

MIL-T-27B CASE SIZES



MIL Case	Size, Inches: A	B	C	Dimension D	E	Mtg. Studs
AF	¾	¾	1⅛	Diag.	5/16	4-40 x 3/8
AG	1	1	1⅜	Diag.	¾	4-40 x 3/8
AH	1 5/16	1 5/16	1¾	Diag.	1¼	6-32 x 3/8
AJ	1⅝	1⅝	2⅜	1 3/16	1 3/16	6-32 x 3/8
EA	1 15/16	1 3/16	2¾	1⅜	1¼	6-32 x 3/8
EB	1 15/16	1 3/16	2 7/16	1⅜	1¼	6-32 x 3/8
FA	2 5/16	2 1/16	3⅛	1 11/16	1 7/16	6-32 x 3/8
FB	2 5/16	2 1/16	2½	1 11/16	1 7/16	6-32 x 3/8
GA	2¾	2⅜	3 13/16	2⅛	1¾	6-32 x 3/8
GB	2¾	2⅜	2 13/16	2⅛	1¾	6-32 x 3/8
HA	3 1/16	2⅝	4¼	2 15/64	1 55/64	8-32 x 3/8
HB	3 1/16	2⅝	3¾	2 15/64	1 55/64	8-32 x 3/8
JA	3 1/16	3 1/16	4⅞	2⅝	2⅛	8-32 x 3/8
JB	3 1/16	3 1/16	3⅞	2⅝	2⅛	8-32 x 3/8
KA	3 15/16	3⅜	5¼	3	2 7/16	10-32 x ½
KB	3 15/16	3⅜	4⅝	3	2 7/16	10-32 x ½
LA	4 5/16	3 11/16	5 9/16	3 5/16	2 11/16	10-32 x ½
LB	4 5/16	3 11/16	4½	3 5/16	2 11/16	10-32 x ½
MA	4 11/16	4	6	3 11/16	3	¼-20 x 5/8
MB	4 11/16	4	4 15/16	3 11/16	3	¼-20 x 5/8
NA	5 1/16	4 5/16	6 13/16	4 1/16	3 5/16	¼-20 x 5/8
NB	5 1/16	4 5/16	5½	4 1/16	3 5/16	¼-20 x 5/8
OA	5½	4½	6¾	3¾	3	¼-20 x 5/8

STEP-DOWN AUTO-TRANSFORMERS (FIG. A SEE PG. 12)

With 6-ft. cord and female receptacle, except R-64; 220/240 to 110/120 v., 50/60 cps.

UTC Type	Rating	Size, Inches L.	W.	H.	Wt., Lbs.	Net Each
R-41	85 watt capacity	3 3/16	2⅝	3⅛	4	$ 7.20
R-42	125 watt capacity	3½	3	3½	5	8.70
R-43	175 watt capacity	3¾	3¼	3⅞	5½	9.00
R-44	250 watt capacity	4⅜	3¼	3⅞	6½	12.00
R-45	500 watt capacity	4⅝	3⅞	4⅝	12	13.50
R-46	1200 watt capacity	6⅞	3⅞	4⅝	18	24.00
R-64	2500 watts, no cord	10½	4¾	6¾	30	57.00

ISOLATION TRANSFORMERS (FIG. F SEE PG.12)

Ideal for isolating line noise. AC-DC sets, etc. Excellent electrostatic shielding 1500 volt breakdown test. Six foot cord and female receptacle, except R-77.

Primary 110-120 volts 50/60 cycles—Secondary 110-120 volts
Except R-97 220 volt Primary—120 volt Sec.

Type No.	Rating Watts	L	W	H	Mtg. Dim.	Wgt. Lbs.	Net Each
R-72	40	3⅛	2⅝	3⅛	2x1 7/8	4	$ 7.20
R-73	100	3¾	3¼	3⅞	2½x2⅜	6	11.40
R-74	250	4⅞	3⅞	4⅝	3x3½	12	18.00
R-75	600	7⅜	3⅞	4⅝	3x5⅞	20	24.00
R-76	1200	8½	4½	6⅛	3⅝x6⅝	30	57.00
R-77	2500	12	7	9	6x11	70	111.00
R-97	250	4⅞	3⅞	4⅝	3x3½	12	15.00

LINE VOLTAGE ADJUSTERS WITH METER (FIG. G. SEE PG. 12)

The perfect answer to abnormal or fluctuating line voltage. Adjust switch so that meter reads at red line and you know that your equipment is working at correct voltage. These units combine a tapped auto-transformer with a switch and meter in a compact, rugged assembly. The nine tap switch provides for line voltage of 60 to 140 volts on 115 volt output models and 160 to 240 volts on 230 volt output model. All units are designed for 50/60 cycles service and come complete with 6 foot input cord and plug and outlet receptacle.

Type No.	Primary Voltages	Sec. Volts	Watts Ratings	L	W	H	Wgt. Lbs.	Net Each
R-78	†	115	150	7	4	4¾	6	$19.50
R-79	†	115	300	7	4	4¾	9	21.00
R-80	†	115	600	10¼	4	4¾	13	24.00
R-81	†	115	1200	10¼	4	4¾	21	33.00
R-86	‡	230	1200	10¼	4	4¾	21	33.00

† 60, 70, 80, 90, 100, 110, 120, 130, 140
‡ 160, 170, 180, 190, 200, 210, 220, 230, 240

EXPORT VOLTAGE ADAPTER (FIG. D SEE PG. 12)

Complete with cord and plug and special locking switch providing for line voltages of 105, 115, 125, 135, 150, 210, 230, 250 volts; 42 to 60 cycles. Output voltage 115.

Type No.	Rating Watts	L	W	H	Mtg. Dim.	Wgt. Lbs.	Net Each
R-47	85	4⅝	3	3½	2¼x2¼	4½	$12.60
R-48	150	4¾	3¼	4	2½x2½	5½	12.60

TV VOLTAGE REGULATOR (FIG. D SEE PG. 12)

Complete with cord, plug, and special locking switch. Permits operation of 115 volt 50/60 cycle TV sets on line voltages of 85, 90, 95, 100, 105, 110, 120, 125 V.

Type No.	Rating Watts	L	W	H	Mtg. Dim.	Wgt. Lbs.	Net Each
R-49	350	5	3¼	4	2½x2¾	5	$12.90

SIGNALLING AND CONTROL TRANSFORMERS (FIG. H SEE PG. 12)

Primary 110-120 volts, 50/60 cycles—Secondary
4/8/12/16/20/24 volts

High power transformers suitable for operating relays, sirens horns, gongs, etc. from 115 V. 50/60 cycle line. These units have four secondary terminals providing 4, 8, 12, 16, 20 and 24 volt output. The volt ampere rating is based on the 24 volt secondary tap with corresponding reduction at the lower voltages. Underwriters' approved primary leads are employed, and screw-type binding posts.

Type No.	Rating Watts	L	W	H	Mtg. Dim.	Wgt. Lbs.	Net Each
SC-3	50	3	3 1/16	3 3/16	1¾x2¼	3	$8.40
SC-4	100	3¼	3 7/16	4	2⅛x2½	5	9.90
SC-5	250	4	4⅝	4¾	3 5/16x3	10	14.40

INDUSTRIAL DISCOUNTS

Applicable to any UTC products listed in this catalog.

Assorted Quantities, Lots of 1-24	25-99	100 up	100-499/One Type
Net Price	Net —15%	Net —20%	Net —33⅓%

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Amperex Industrial, Communication,

TUBE TYPE
OA2
OB2
OE3
OG3
1A3/DA90
1AB6
1AC6
1AH5
1AJ4
1AN5
1B3GT
1BG2
1CP1
1CP31/DH3-91
1G3GT/1B3GT
1L4/DF92
1M3/DM70
1N3/DM71
1R5/DK91
1S2A/DY87
1S5/DAF91
1T4/DF91
1U4
1U5/DAF92
1X2B
2D21
2ER5/XC95
2FY5/XC97
2GK5
2HA5
2J42
2J55
3AMP1/DG7-32
3A4/DL93
3A5/DCC90
3AU6
3BH2
3BU8
3B28
3BKP2/DN7-78
3BKP7/DP7-78
3BKP11/DB7-78
3BKP31/DH7-78
3BYP2/DN7-11
3BYP7/DP7-11
3BYP11/DB7-11
3BYP31/DH7-11
3BZ6
3C4/DL96
3CB6
3EH7/XF183
3EJ7/XF184
3ER5
3GK5
3HA5/LC900
3NP4/MW6-2
3Q4/DL95
3S4/DL92
3V4/DL94
3-400Z
4-65A
4-125A
4-250A
4-400A
4B32
4BL8/XCF80
4C35
4CX250B
4CX250B(JAN)
4CX250F
4X250FG/8621
4CX250F(JAN)
4CX250R
4CX350A/8321
4CX350F/8322
4CX2500R(JAN)
4EH7
4EJ7
4ES8
4ES8/XCC189
4GK5
4HA5/PC900
4X150A
4X150OA(JAN)
4X150D
4X150OD(JAN)
4X250B
4X250F
4X500A
5AQ4

TUBE TYPE
5AR4/GZ34
5BHP2
5BHP7
5BHP31
5C22
5EJP31/D13-22GH
5ELP2/D13-21GP
5ELP7/D13-21GM
5ELP11/D13-21BE
5ELP31/D13-21GH
5GJ7/LCF801
5HG8/LCF86
5R4GY
5R4GYB
5U8
5U9/LCF201
5X9/LCF200
5Z4G
6AB8
6AJ8/ECH81
6AK5/EF95
6AK5W
6AK8
6AL3/EY88
6AL5/EAA91
6AL5W/5726
6AM5
6AM6
6AQ5/EL90
6AQ5/EL90MP
6AQ5A
6AQ8/ECC85
6AT6/EBC90
6AU4GTA
6AU6/EF94
6AU6A
6AV6/EBC91
6AX4GT
6AX4GTB
6BA6/EF93
6BD7A
6BE6/EK90
6BE7
6BH6
6BJ6
6BL8/ECF80
6BM8/ECL82
6BQ5/EL84
6BQ5/EL84MP
6BR5/EM80
6BT4
6BX6/EF80
6BYF
6BZ6
6CA4/EZ81
6CA7/EL34
6CA7/EL34MP
6CB6A
6CD7/EM34
6CG7
6CH6
6CJ5
6CJ6
6CK5
6CK6
6CM4/EC86
6CM5
6CN6
6CQ6
6CS6/EH90
6CT7
6CU7
6CV7
6CW5/EL86
6CW7
6DA5/EM81
6DA6/EF89
6DC8/EBF89
6DE6
6DJ8/ECC88
6DL4/EC88
6DL5
6DL5MP
6DR8
6DS8
6DT6
6DX8/ECL8
6DY5
6EH7/EF183
6EJ7/EF184

TUBE TYPE
6ER5/EC95
6ES6
6ES8/ECC189
6ET6
6EU7
6FG6/EM84
6FY5/EC97
6GB5/EL500
6GJ7/ECF801
6GK5
6GK6
6GM8/ECC86
6GV8/ECL85
6GW8/ECL86
6HA5/EC900
6HG8/ECF86
6HU6/EM87
6GV8
6GW8
6J6/ECC91
6J6A
6JW8/ECF802
6JX8/ECH84
6KG6
6LN8/LCF80
6LX8/LCF802
6N3
6N8
6Q4/EC80
6R3/EY81
6R4/EC81
6S2
6S2A
6S4A
6SN7GTB
6U3
6U8
6U8A
6U8/ELL80
6U9/ECF201
6V4/EZ80
6V9/ECH200
6W4GT
6X2
6X4/EZ90
6X9/ECF200
6Y9/EFL200
7AN7
7AU7
7C24
7DJ8
7HG8/PCF86
8BQ5/XL84
8CW5/XL86
8GJ7/PCK801
8MB6
8MG6
8MY6
8U9/PCF201
8X9/PCF200
9A8/PCF80
9AB4
9AK8
9AQ8/PCC85
9VG8/XCL85
9U8/PCF82
PU8A
9V9/PCH200
10CW5/LL86
10DX8/LCL84
11Y9/LFL200
12AC5
12AJ7
12AT6/HBC90
12AT7/ECC81
12AU6/HF94
12AU7/ECC82
12AU7A/ECC82
12AV6/HBC91
12AX4GTA
12AX4GTB
12AX7
12AX7A/ECC83
12AX7WA/6681
12BL6
12DS7
12DS7A
12S7
12SN7GTA
12X4/HZ90

TUBE TYPE
13GB5/XL500
14K7
14L7
14GW8
15A6
15CW5/PL84
15DQ8/PCL84
16A5
16A8/PCL82
16AQ3/XY88
16GK6
16Y9/PFL200
17EW8/HCC85
17Z3
18GB5/LL500
18GV8
19AU4
19AU4GTA
19BR5
19D8
19D8
19KF6
19X3
19Y3
20AQ3/LY88
21A6
25E5
25L6GT
27GB5/PL500
30A5
31A3
35L6GT
38A3
40GK6
45A5
45B5/UL84
45B5/UL84MP
50BM8/UCL82
50BM8/UCL82MP
53CG
54AVP
54AUP
55N3
56AVP
56CVP
56UVP
57AVP
58AVP
58CG
58CV
60AVP
75C1
75N
75NB3
76NB3
80N
85A1/OE3
85A2/OG3
90AG
90AV
90C1
90CG
90CV
90NB3/900V
90NB4/900V
90NS
100C
100CB
100EI
100HB
100LB
100NB/900V
120C
120BN/900V
150A1
150AVP
150B2/6354
150C1
150CVP
150N/900V
150CN/900V
150UVP
153C
155N
160G
161G
171G
200C
200CB
200HB

TUBE TYPE
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200N
200NB/900V
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357
300PC
310PC
400PC
404A
417A
500N
501N
501R
502N
504R
505N
506N
507N
575A
632B
651
652
653B
655
673
725A
805
807
810
811A
812A
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828
829B
832A
833A
833A(JAN)
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838
845
849
857B
857B(JAN)
866AX
869B
869B(JAN)
869BL
872AX
880
892
892R
912NB3/900V
912NB4/900V
967
1119
1164
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1805
1838
1849
1875
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1910
1913
1941A
2050
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3538
3545
3546PW
3554
4065
4152
4654
4699
5544
5545
5551A
5552A
5553B
5555
5557/FG17
5559
5560/FG95
5586
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5604
5632/C3J

TUBE TYPE
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5654/6AK5W
5657
5658
5666
5667
5678
5684/C3JA
5685/C6JA
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5726/6AL5W
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5771
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5894(JAN)
5894MIL
5894A
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6201
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6211A
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6267/EF86
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6339
6354
6360 COMM
6360(JAN)
6360 MIL
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6375
6463
6508
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6617
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6661
6662
6681/EC3CC
6681/12AX7WA
6686
6687
6688
6688A
6688 (JAN)
6688 (JAN)
6689

TUBE TYPE
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6700/ET51
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6759
6779
6786
6800A
6801
6816
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6907
6907 (JAN)
6922
6922 USN
6922M
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6939 USN
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7204/4CX250 (JAN)
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7308 USN
7316
7230/E84L
7377
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7459
7527
7534
7580
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7609 (JAN)
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7711
7714
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7722/E280F
7737
7737M
7737 USN
7753
7788
7788 USN
7800
7804
7805
7806
7807
7843
7844
7854
7899
7900
7983
7986/5866A
8008AX
8020AX
8032
8042
8078

AMPEREX ELECTRONIC CORPORATION / **Amperex®**

Net

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and Receiving Tubes....

TUBE TYPE
8108/EC157
8116
8117
8118
8119/TBL/400
8120/TBL/500
8163
8177
8179
8228
8223/E288CC
8228
8223/E288CC
8228
8233
8254
8255
8268
8269
8270
8278/EL503
8300
8321/4CX350A
8322/4CX350F
8348
8408
8416
8436/EC158
8453/Z550M
8457
8458
8463
8482
8483/5585ON
8505
8509
8560/DX278
8577
8579
8580
8595
8608
8621/4CX250FG
8624
8637
8639
8643
13201AE
18042
18045
18503
18504
18505
18506
18508
18509
18510
18515
18516
18517
18518
18522
18526
18529
18536
18550
18552
40466
40701
55850AM
55125
5850N/8483
55850S
56001
56073
56127
56128
56129
56131
56132
56134
65135

TUBE TYPE
Alpha-Numeral Listing
AB2
ABC1
ABL1
AF3
AF7
AGR9950
AGR9951
AK2
AL4
AX50
AX105/FG105
AX260
AX569
AX5842
AX9900
AX9901
AX9902
AX9903
AX9904
AX904R
AX9907
AX9907R
AX9908
AX9909
AX9910
AX9911
AX9912
AZ1
AZ4
AZ11
AZ12
AZ31
AZ41
AZ50
B8, 700-40
B8, 700-42
B8, 700, 67
B8, 700, 86
C3J
C3JA
C3M
C6JA
C8
C10
C12
CBL1
CF3
CF7
CF50
CK1
CL4
CY1
CY2
D3A/7721
D10-11BE
D10-11GH
D10-11GM
D10-11GP
D10-12BE
D10-12GH
D10-12GM
D10-12GP
D13-15BE
D13-15GH
D13-15GM
D13-15GP
D13-16BE
D13-16GH
D13-16GP
D13-17BE
D13-17GH
D13-17GP
D13-19BE
D13-19GH
D13-19GM
D13-19GP
D13-20BE
D13-21BE/5ELP11
D13-21GH/5ELP31
D13-21GM/5ELP7
D13-21GP/5ELP2
D13-22GH/5EJP31
D13-23GH
D13-24BE
D13-26GH
DA90
DAC21
DAF40
DAF41

TUBE TYPE
DAF91
DAF92
DAF96
DB711-/3BYP11
DB7-78/3BKP11
DC70/6375
DCC90/3A5
DCG1/250
DCG4/1000G
DCG5/5000EG
DF21
DF22
DF91
DF92/1L4
DF96
DF97
DF904
DG7-5
DG7-6
DG7-31
DG7/3AMP1
DH3-91/1CP31
DH7-11/3BYP31
DH7-78/3BKP31
DH13-10
DK21
DK40
DK91
DK92
DK96
DL21
DL41
DL92
DL93/3A4
DL94
DL95
DL96
DLL21
DM70/1M3
DM71/1N3
DN7-11/3BYP2
DN7-78/3BKP2
DP7-11/3BYP7
DP7-78/3BKP7
DX278/8560
DY86
DY87/1S2A
E1T/6370
E10-10BE
E10-10GH
E10-10GM
E10-10GP
E10-12BE
E10-12GH
E10-12GM
E10-12GP
E55L-8233
E80CC/6085
E80CF/7643
E80F/6084
E80L/6227
E80T/6218
E81CC/6201
E82CC/6189
E81L/6686
E83CC/6681
E83F/6689
E84L/7320
E86C
E88C/8255
E88C/C6922
E90CC/5920
E90F/7693
E91H/6687
E91AA/5726
E91N/5727
E92CC
E95F/5654
E99F/7694
E130L/7534
E180CC/7062
E180F/6688
E182CC/7119
E182F/5847
E186F/7737
E280F/7722
E283CC
E288CC/8233
EA50
EA52/6923
EA53

TUBE TYPE
EA76
EAA91/6AL5
EABC80
EAC91
EAF42
EB34
EB41
EB91
EBC3
EBC33
EBC41
EBC81
EBC90/6AT6
EBC91/6AV6
EBF2
EBF32
EBF35
EBF80
EBF83
EBF89/6DC8
EBL1
EBL21
EC50
EC55/5861
EC80/6Q4
EC81/6R4
EC86/6CM4
EC88/6DL4
EC90
EC91
EC92
EC95/6ER5
EC97/6FY5
EC157/8108
EC158/8436
EC900/6HA5
EC1000/8254
ECC32
ECC33
ECC34
ECC35
ECC40
ECC81/12AT7
ECC82/12AU7
ECC82/12AU7A
ECC83/12AX7
ECC83/12AX7A
ECC84
ECC85/6AQ8
ECC86/6GM8
ECC88/6DJ8
ECC91/6J6
ECC189/6ES8
ECC2000
ECF1
ECF80/6BL8
ECF82
ECF86/6HGH
ECF200/6X9
ECF201/6110
ECF801
ECF801/6GJ7
ECF802/6JW8
ECH3
ECH4
ECH21
ECH35
ECH41
ECH42
ECH81/6AJ8
ECH83
ECH84/6JX8
ECH200
ECL11
ECL80
ECL82/6BM8
ECL83
ECL84/6DX8
ECL85/6GV8
ECL86/6GW8
EEP1
EF6(N)
EF9
EF22
EF36
EF37A
EF39
EF40
EF41
EF42
EF43

TUBE TYPE
EF50
EF55
EF80/6BX6
EF83
EF85
EF86/6267
EF89/6DA6
EF91
EF92
EF93/6BA6
EF94/6AU6
EF95
EF97
EF98
EF183/6EH7
EF184/6EJ7
EFF51
EFL200/6Y9
EFM11
EFP60
EH90
EK2
EK90/6BE6
EL2
EL3(N)
EL5
EL6
EL11
EL12
EL33
EL34
EL34MP
EL34/6CA7
EL34/6CA7MP
EL36
EL37
EL37MP
EL38
EL41
EL42
EL50
EL51
EL60
EL81
EL82
EL83
EL84
EL84MP
EL84/6BQ5
EL84/6BQ5MP
EL85
EL86/6CW5
EL90
EL90MP
EL91
EL95
EL95MP
EL360
EL500/6GB5
EL503
EL821
EL822
ELL80
EM1
EM4
EM34/6CD7
EM80/6BR5
EM81/6DA5
EM84/6FG6
EM87/6HU6
EQ80
ET51/6700
EY51
EY80
EY81/6R3
EY82
EY86
EY87
EY88/6AL3
EZ22
EZ40
EZ41
EZ80/6V4
EZ81/6CA4
EZ90/6X4
FG17
FG95
FG105
GZ30
GZ32
GZ33

TUBE TYPE
GZ34/5AR4
HBC90
HBC91
HCC85/17EW8
HCH81
HF93
HF94
HF200
HF300
HK90
HL92
HL94
HY90
HZ90
K81A
LC900/3HA5
LCF80/6LN8
LCF200/5X9
LCF201/5U9
LCF801/5GJ7
LCF802/6LX8
LCL84/10DX8
LL86-10CW5
LL500/18GB5
LY88/20AQ3
OPR30
ORP50
ORP60
ORP61
ORP62
ORP63
PABC80
PB2/500
PC88
PC900/4H5A
PCC84
PCC85/9AQ8
PCC88
PCC189
PCF80/9A8
PCF82
PCF86/7HG8
PCF200/8X9
PCF201/8U9
PCF801/8GJ7
PCH200
PCL82
PCL84
PCL85
PCL86
PEO5/25
PEO6/40E
PEO6/40N
PEO6/40P
PF86
PFL200/16Y9
PL21
PL36
PL81
PL82
PL83
PL84/15CW5
PL150
PL500/27GB5
PL1067
PL6574
PL6755
QEO4/10
RPY14
RYP17
RPY18
RPY19
RPY20
RYP27
SD504
SD540
SD560
PY80
PY81
PY82
PY88
TBH6/14
TBH7/8000
TBH7/9000
TBL2/400/8119
TBL2/500/8120
TP101
U30
UABC80
UAF42
UB41

TUBE TYPE
UBC41
UBC81
UBF80
UBF89
UBL1
UBL21
UC92
UCC85
UCH4
UCH21
UCH41
UCH42
UCH81
UCL11
UCL82MP
UCL82/50BM8
UCL83
UF21
UF41
UF42
UF43
UF80
UF85
UF86
UF89
UL41
UL44
UL84MP
UL84/45B5
UM4
UM80
UY1(N)
UY11
UY41
UY42
UY82
UY85
UY89
VC25/20
VC25/32
VC50/20
VC50/32
VC100/20
VC100/32
VC250/32
XC95/2ER5
XC97/2FY5
XC900/2HA5
XCC189/4ES8
XCF80
XCL85/9GV8
XCL86/5HG8
XF183/3EH7
XF184/3EJ7
XL84/8BQ5
XL86/8CW5
XL500/13GB5
XP1000
XP1002
XP1004
XP1010
XP1011
XP1020
XP1030
XP1031
XP1032
XP1040
XP1110
XP1111
XP1112
XP1113
XY88/16AQ3
YJ1080
Z50T
Z70U/7710
Z300T
Z303C
Z50T
Z70W/7709
Z71U/7711
Z502S
Z504S
Z505S
Z550M/8453
Z803U/6779
Z805U/7714
Z900T/5823
ZB3200
ZM1030
ZM1032
ZZ1000/8228

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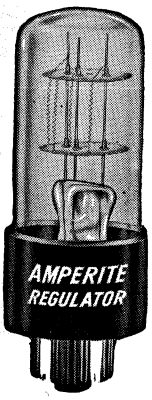
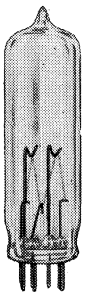
AUTOMATIC AMPERITE REGULATOR

BALLAST TUBE FOR AUTOMATIC REGULATION OF CURRENT AND VOLTAGE



STANDARD



MINIATURE

AUTOMATIC REGULATION

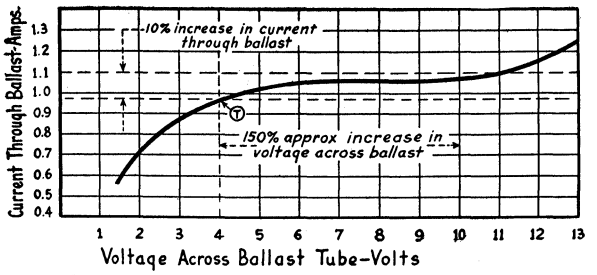
WHAT IT IS

The *AMPERITE Ballast-Regulating Tube* is an automatic *"rheostat"* designed to keep the current in a circuit at a definite value, for example, 0.5 amp.

Should the supply voltage increase, the *Amperite* will automatically increase in resistance enough to take up the increase in supply voltage — keeping the voltage on the load constant. It consists of an iron wire *hermetically sealed* in a bulb containing *hydrogen* or *helium* — the two gases with the *highest heat conductivity*. Its regulating action is based on the high temperature co-efficient of resistance of the iron wire and the rapid cooling of *hydrogen* or *helium* gas.

Being a constant current device, the *AMPERITE Ballast-Regulating Tube* can be used only to regulate a constant load—fixed wattage. Thermostatic relays can sometimes be included in these regulators to reduce initial surge.

We strongly recommend that you send us your specifications on special problems, and let us recommend the BALLAST TUBE you need.



T = Threshold Current & Voltage

Characteristic curve of a typical Amperite. Approximate curve of any other Amperite can be obtained by multiplying or dividing the current or voltage scale by any number.

Standard Types of Amperite Ballast Tubes.....Net $1.80
Amperite NE70V Neon Lamp .....Net $1.80

D6-1E	1H20	*3T4	4A10	6-3	7-4	9-4A	12-4
*D6T4	1H22	*3T4A	4-12	6-4	**7TF4	9-7	12-7
**D6TK7	**2TK7	**3TF4A	4H3	6-4A	7A10	9-8	12A10
**D6TF10	2A10	**3TF4	4H4	6-4B	7-11	9A10	12-11
**D6TF30	2A12	**3TFV4	4H4C	*6T4	**7HTF2	10T1	13-4
D7-20	2A20	3V4	**4HTF4	*6T4F	**7HTF3	**10TF2	15-2
D7H4	*2HT2	3-7	**4HTF7	**6TF4	**7HTF4	10-3	15-4
*D7HT4	2H4	**3TF7	4H10	6-7	7H4	10-4A	16-4
*D7HT11	*2HT4	3A10	4H11	**6TF7	7H4B	10-4B	17-3
1A10	**2HTF4	3-11	5E1	6-8B	7H7	10-4C	20-3
**1TF10	2H10	3H11	**5TF2	6A10	7H11	10-4D	20-4
1-15	3-2	*3T11	5-4	6-11	**8TF2	10-4E	22-4
*1HT2	**3TF2	3TF11	**5TF4	6-12	8-3B	10A10	24-3
*1HT4	**3TK2	**3TF12	5A10	6-13	8-4	10A12	34-2
1H10	3-4	3-14	5-11	6A15	8A10	10-25	35-4
**1HTF10	3H-1-7	3-16	5-16	6-36	**9TF2	11-3	40-6E
*1HT11	3H4	3A20	5H3	6H4	9-3	11-4	41-7E
**1HTF11	**3HTF4	3H-25	5H4	**6HTF4	9-4	11A10	55-1
		3-38A	5H10	6H6		11-11	55-4
		3-50A	5H11				

*T denotes T5½ bulb-7 pin miniature, e.g., 3T4.
**TF denotes T6½ bulb-9 pin miniature, e.g., 3TF4.
Base Wiring: Octal, 7 and 9 pin miniature—prongs 2-7.

AMPERITE NEON LAMP
TYPE NE70V Net $1.80

GENERAL ADVANTAGES:

• Light, compact • No moving parts • Rugged; will withstand vibration of 10G. minimum • Hermetically sealed; not affected by altitude or humidity changes • Can be changed as easily as a radio tube • Operates equally well on A.C. or D.C. • Inexpensive

CAPACITIES AVAILABLE

Current values of 60 ma. to 5 amps; threshold voltage 0.4 to 40 V. Maximum dissipation 50w per tube (ST19 bulb). Any number of AMPERITES with the same voltage range can be operated in parallel. AMPERITES should not be used in series.

AGEING

AMPERITE Ballast Tubes may change approximately up to 3% in current if aged for 4 to 8 hours, at maximum voltage. They will change very little thereafter.

LIFE EXPECTANCY

Average life if operated as recommended	**2000 Hours**
If operated continuously at maximum voltage	**1000 Hours**
If operated continuously at 80% maximum voltage	**5000 Hours**
If filament is operated below glow point	**5000 Hours up**

In operation, the *Amperite* filament starts to glow at one point; as the voltage is increased, the glow spreads over the entire filament. Like incandescent lamps, turning *Amperite* on and off reduces its life, especially if operating near its maximum voltage.

TIME LAG CHARACTERISTICS

Time lag encountered in an *Amperite Ballast Tube* depends upon the wattage consumed by the ballast and the size of the bulb. Where the wattage is small for the size of the bulb, the action can be made practically instantaneous — less than 1 second. In such cases the bulb will remain at practically ambient temperature. When the wattage is high enough to heat the bulb to a temperature uncomfortable to the hand (160°F) the lag might be as much as several minutes for final readings—but normally reaches within 90% of final readings within a few seconds.

AMPERITE NUMBERING SYSTEM

In general, the AMPERITE number approximately denotes the current—voltage threshold value. For example:

Amperite Number	3-4	3H4	10-7	12-11	12H11
Threshold Current	0.3	0.35	1.0	1.2	1.25
Threshold Voltage	4.0	4.0	7.0	11.0	11.0

We strongly recommend that you send us your specifications on special problems, and let us recommend the BALLAST TUBE you need.

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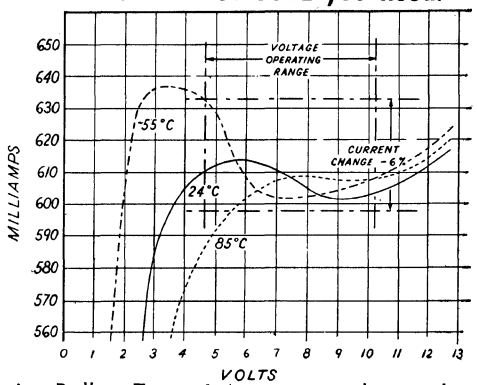
AUTOMATIC AMPERITE REGULATOR

BALLAST TUBE FOR AUTOMATIC REGULATION OF CURRENT AND VOLTAGE

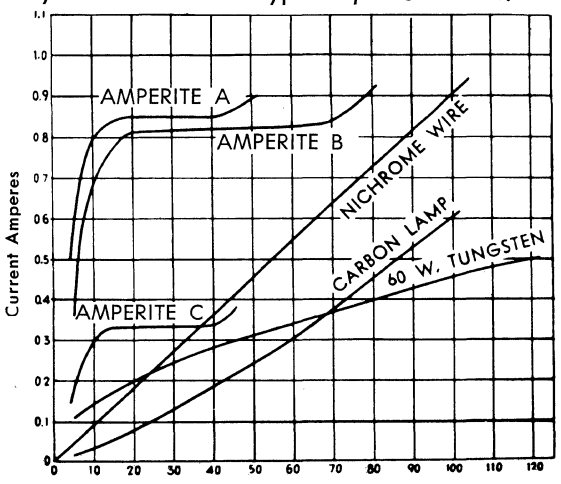
AMBIENT EFFECTS

Ambient temperature variation of −50° to +70° C will change the current value of an *Amperite* approximately 2% on regulating portion of curve as shown directly below. Being hermetically sealed the *Amperite* is not affected by altitude or humidity changes.

We strongly recommend that you send us your specifications on special problems, and let us recommend the BALLAST TUBE you need.



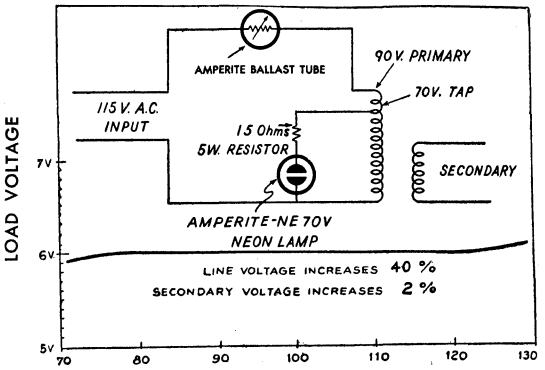
Amperite Ballast-Type 6-4 current voltage characteristic under ambient conditions of −55°, 24°, and 85° C. The percentage change with ambient is approximately the same with all type *Amperite* ballasts.



This diagram illustrates far superior regulating characteristics of the *Amperite* Ballast-Regulating Tube. ***STANDARD SIZES available for various wattage consumption . . . For good regulation, a bulb should not be required to dissipate more than 50% of maximum wattage.***

BATTERY CHARGING AND DISCHARGING

Amperite Ballast Tubes are very successfully used for keeping the current constant in charging and discharging batteries. Any number of *Amperites* of the same voltage range can be placed in parallel to obtain proper current. The current can be kept to ± 1%. Advise voltage variation and currents desired.



A light, compact, and inexpensive method of obtaining close regulation is to use an *Amperite Ballast Tube* with an *Amperite* Neon Lamp — type NE70V. Base octal-base wiring-prongs 2-5. One NE70V is used for all loads up to 100W.

POWER SUPPLIES

We strongly recommend, for any particular application, to fill in and return one of our special problem sheets (ASP 343) and permit us to recommend the most suitable AMPERITE.

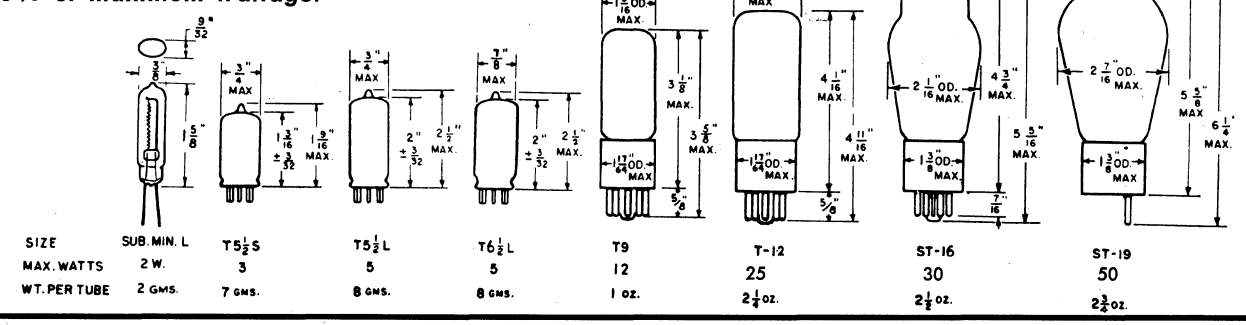
POWER SUPPLY	Dry Cells	6 Volts	12 Volts	26 Volts	115 Volts
Supply Variation	2.2-3.0V	5.5-7.5V	11.4-13.8V	22.0-30.0V	105-125V
Desired on Load	1.8-2.0V	3.9-4.1V	6.1- 6.4V	12.4-12.8V	90- 95V
Required on AMPERITE	0.4-1.0V	1.6-3.4V	5.3- 7.4V	9.6-19.2V	15- 30V
Current Variation	.29-.32a	.29-.32a	.29- .32a	.29- .32a	.29-.32a

The above chart shows the maximum load voltage for the given supply to obtain ± 2% current regulation on load. Better regulation is obtainable by increasing the voltage across the **AMPERITE.** Up to a point, the higher the percentage of the supply voltage taken up by the **AMPERITE,** the better the regulation.

Radio tube filament loads — have low cold resistance which causes a high initial surge. For such loads we recommend a bleeder of 20 to 50% prox. of load and the corresponding **AMPERITE.** e.g.

FILAMENT LOAD	USE AMPERITE	TOTAL CURRENT
0.3a	4HTF4	0.45a
0.6a	8-4	0.8a
0.7a	9H4	0.95a

On Radio tube filament loads the bleeder will also improve the regulation.



Electrons Industrial Components

TYPE	OTHER DESIGNATIONS	DESCRIPTION	MAX. CONTINUOUS AVERAGE DC ANODE CURRENT (AMPS)	OSCILLOGRAPH PEAK ANODE CURRENT CONTINUOUSLY RECURRING (AMPS)	MAX. INSTANTANEOUS PEAK FORWARD VOLTAGE	MAX. INSTANTANEOUS PEAK INVERSE VOLTAGE
RECTIFIERS Xenon-Filled						
EL 1C	3B22	Full Wave. A4-10 Base. Single End.	1.0	4.0		725
EL 3B	6013	Half Wave A4-10 Base. Anode Cap.	2.5	20		920
EL 3C	4B24	Full Wave. A4-81 Base. Single End.	2.5	10		725
EL 3C/L	6982	Full Wave. Lug Type Base. Single End.	2.5	10		725
EL 6B	5892	Half Wave. A4-81 Base. Anode Cap.	6.4	77		920
EL 6B/L	6983	Half Wave. Lug Type Base. Anode Cap.	6.4	77		920
EL 6C		Full Wave. A4-81 Base. Single End.	6.4	25.6		725
EL 6F	6015	Half Wave. Panel Mounted. Flexible Leads	6.4	77		920
EL 16F		Half Wave. Panel Mounted. Flexible Leads	16.0	96		620
THYRATRONS						
EL C1B	3C31	A4-10 Base. Anode Cap. Xenon	1.0	8.0	525	700
EL C1B/A	5664	A4-10 Base. Anode Cap. Xenon	1.0	8.0	750	1250
EL C1K	6014	A4-10 Base. Single End. Xenon	1.0	8.0	1000	1250
EL C1K/B	7319	A4-10 Base. Single End. Xenon	1.0	8.0	2000	2000
EL C3J	5632	A4-10 Base. Anode Cap. Xenon	2.5	30	900	1250
EL C3J/A	5684	A4-10 Base. Anode Cap. Xenon	2.5	30	1000	1250
EL C3J/L	7216	Lug Type Base. Anode Cap. Xenon	2.5	30	900	1250
EL C3J/AL	7556	Lug Type Base. Anode Cap. Xenon	2.5	30	1000	1250
EL C4H-1		A4-81 Base. Anode Cap. Xenon	4.0	50	1700	1700
EL C4H-2		Panel Mounted. Anode Cap. Xenon	4.0	50	1700	1700
EL C4H-3		Lug Type Base. Anode Cap. Xenon	4.0	50	1700	1700
EL C4H-4		Panel Mounted. Flexible Leads. Xenon	4.0	50	1700	1700
EL C4H-5		Lug Type Base. Flexible Lead. Xenon	4.0	50	1700	1700
EL C6C	6987	#4310 Base. Anode Cap. Xenon	6.4	77	2000	4000
EL C6H-1		A4-81 Base. Anode Cap. Xenon	6.4	80	1700	1700
EL C6H-2		Panel Mounted. Anode Cap. Xenon	6.4	80	1700	1700
EL C6H-3		Lug Type Base. Anode Cap. Xenon	6.4	80	1700	1700
EL C6H-4		Panel Mounted. Flexible Leads. Xenon	6.4	80	1700	1700
EL C6H-5		Lug Type Base. Flexible Lead. Xenon	6.4	80	1700	1700
EL C6J	5C21	A4-81 Base. Anode Cap. Xenon	6.4	77	750	1250
EL C6J/A	5685	A4-81 Base. Anode Cap. Xenon	6.4	77	1000	1250
EL C6J/F	6860	Panel Mounted. Anode Cap. Xenon	6.4	77	1000	1250
EL C6J/L	6988	Lug Type Base. Anode Cap. Xenon	6.4	77	750	1250
EL C6J/K	6864	A4-81 Base. Anode Cap. Xenon	6.4	77	1000	1250
EL C6J/KF	6871	Panel Mounted. Flexible Leads. Xenon	6.4	77	1000	1250
EL C6J/KL	6989	Lug Type Base. Anode Cap. Xenon	6.4	77	1000	1250
EL C16J	5665	Panel Mounted. Flexible Leads. Xenon	16.0	160	1000	1250
EL C16H		Panel Mounted. Flexible Leads. Xenon	16.0	160	1700	1700
EL 6011/710	7307A	A4-10 Base. Anode Cap. Mercury Gas	2.5	30	1700	1700
EL 7518/710L	7509A	Lug Type Base. Anode Cap. Mercury Gas	2.5	30	1700	1700

SURGE ARRESTERS

TYPE		DESCRIPTION	TYPICAL RMS AC VOLTS BREAKDOWN
EL 2120		A4-10 Base. 3 Electrodes	200
EL 2140		A4-10 Base. 3 Electrodes	400
EL 2175		A4-10 Base. 3 Electrodes	750
EL 2420		Solder Terminals. 2 Electrodes	200
EL 2440		Solder Terminals. 2 Electrodes	400
EL 2475		Solder Terminals. 2 Electrodes	750
EL 2940		One Bracket. One Flexible Lead	400
EL 2975		One Bracket. One Flexible Lead	750

ELECTRONS COMPANY

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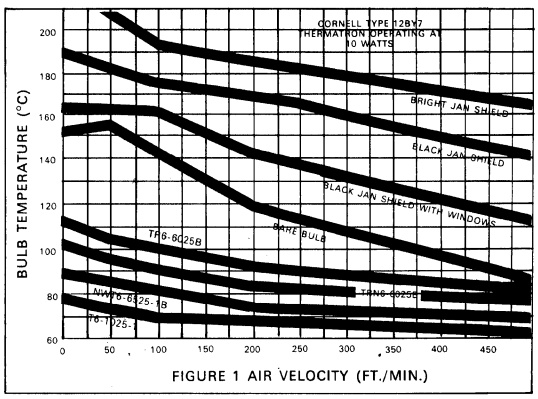
Heat Dissipating Electron Tube Shields

Most tube type electronic equipment failures occur because of tube failures. Tubes fail primarily because of the heat they generate and the environment in which they operate. If tubes are operated at a lower bulb temperature, their life can be extended.

The simple solution to high tube temperature is the application of *heat dissipating tube shields*. The former universally used but now obsolete JAN shield (specifically prohibited by all military services and FAA, although millions are still in use) actually raises bulb temperature above that of the bare tube. The JAN shield was applied to shield tubes electrostatically and retain them in the socket. However, it allows a dead air space between shield and tube that, in effect, traps the heat generated by the tube, raises the bulb temperature and reduces the life of the electron tube.

On the other hand, a tube with an efficient heat dissipating shield will operate cooler in a still air environment than a bare tube in a 500 fpm forced air environment. This is illustrated in Figure 1.



It is conservatively estimated that if effective heat dissipating tube shields were applied to all tubes in the average equipment, at least half of all tube failures would be eliminated with resulting reductions in maintenance and down-time costs.

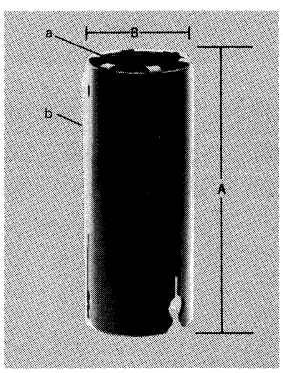
TRN SERIES HEAT DISSIPATING SHIELDS

IERC's TRN Therma-rel shield can give you six times longer use of electronic equipment before failure. A full set of TRN shields can frequently be installed in an average piece of test equipment for less than the labor cost of replacing one bad tube. Cost of an individual TRN shield is only a fraction of that of a replacement tube. In spite of the low cost, the TRN shield meets or exceeds all military requirements for heat dissipating tube shields, and is qualified to MIL-S-9372C (USAF). You can increase the reliability and decrease maintenance cost of Hi-Fi or ham gear, test equipment in lab or production line, or the systems, sub-systems and test equipment your company builds, by using IERC heat dissipating tube shields. The IERC TRN shields are designed to replace the obsolete JAN shield, as well as for use in new equipment. A flexible, black cadmium plated beryllium copper liner hugs the bulb of the tube, adapting to variations in bulb contour and diameter. Positive base attachment gives TRN shields superior retention in a shock and vibration environment. Act now—order from your nearest IERC authorized industrial distributor.

IERC PART NO.	MS PART NO.	DIMENSIONS A MAX.	DIMENSIONS B DIA.	TUBE SIZE	QUANTITY PRICES 1-24	25-99	100-499	500-999
TRN5-5015B	MS-24233-1	1-1/2"	7/8"	SHORT 7 PIN	$.40	.32	.29	.27
TRN5-5020B	MS-24233-2	2"	7/8"	MED. 7 PIN	.40	.32	.29	.27
TRN5-5025B	MS-24233-3	2-1/2"	7/8"	LONG 7 PIN	.45	.39	.35	.31
TRN6-6015B	MS-24233-4	1-1/2"	1"	SHORT 9 PIN	.40	.32	.29	.27
TRN6-6020B	MS-24233-5	2"	1"	MED. 9 PIN	.40	.32	.29	.27
TRN6-6025B	MS-24233-6	2-1/2"	1"	LONG 9 PIN	.45	.39	.35	.31
TRN6-6027B	MS-24233-7	2-3/4"	1"	EX. LONG 9 PIN	.55	.47	.41	.37

Note: TRN6-6027B is designed for use with 6094 and similar size tubes.

DRAWING CODE	Component Part	Material	Finish
a	Liner	Beryllium Copper QQ-C-533	Black Cadmium QQ-P-416
b	Shell	Aluminum QQ-A-318	Black Anodize MIL-A-8625



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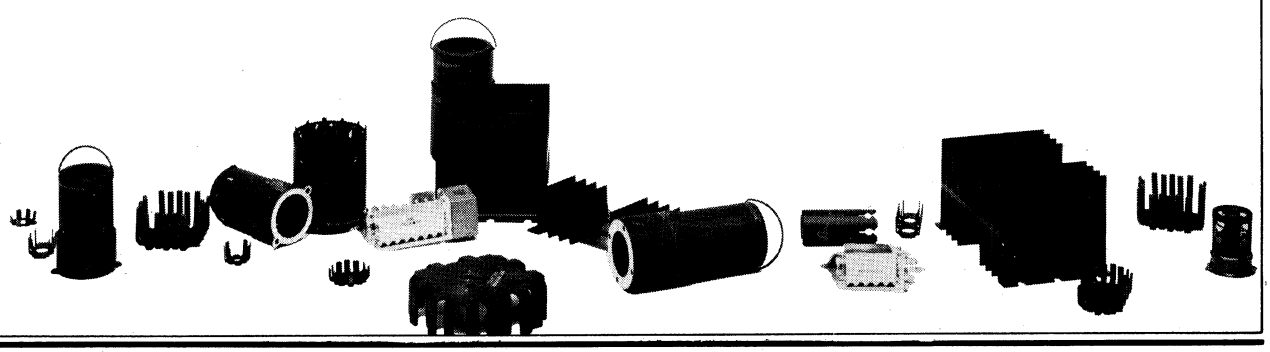
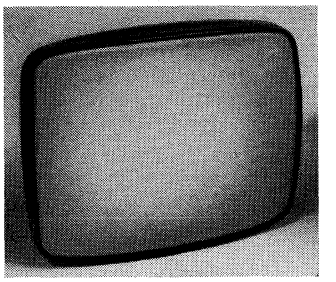
International Electronic Research Corporation

A Subsidiary of Dynamics Corporation of America



TV PICTURE TUBES

ELECTRONIC INNOVATIONS IN ACTION



General Electric TV picture tubes feature many multipurpose designs that replace several of the most commonly used types. Each SG type replaces a number of other types, as shown in the tables.

All material and parts used in the manufacture of General Electric picture tubes are new except for the envelope (and screen and aperture mask assembly in the case of color tubes) which, prior to re-use, have been inspected and tested to meet our high quality standards.

Tube Type	Sugg'd Price
8AP4A	$11.60
9QP4A	22.60
★ 11AP4	22.15
★ 12CDP4	24.35
12BMP4	Use 12CDP4
★ 12KP4A	Use SG-12KP4A
★ SG-12KP4A	27.80
12LP4A	Use SG-12KP4A
12TP4	Use SG-12KP4A
★ 14ATP4	25.55
★ 14AUP4	25.55
★ 14AVP4	Use SG-14AJP4
14BAP4	Use SG-14QP4A
14BP4	Use SG-14CP4A
14HP4	Use SG-14QP4A
14NP4	Use SG-14WP4
★ 14NP4A	Use SG-14WP4
14AP4	Use SG-14QP4A
★ 14QP4A	Use SG-14QP4A
★ SG-14QP4A	24.70
14RP4	Use SG-14WP4
★ 14RP4A	Use SG-14WP4
★ 14SP4	Use SG-14WP4
★ 14WP4	Use SG-14WP4
★ SG-14WP4	25.55
★ 14XP4A	25.55
★ 14ZP4	Use SG-14WP4
★ 16ASP4	38.30
16AZP4	29.30
★ 16ATP4	36.50
★ 16BUP4	29.30
★ 16BVP4	33.80
★ 16CFP4	28.75
16GP4	25.20
16GP4B	25.20
16KP4	Use SG-16KP4A
★ 16KP4A	Use SG-16KP4A
★ SG-16KP4A	17.35
16QP4	Use SG-16KP4A
16RP4	Use SG-16KP4A
★ 16RP4A	Use SG-16KP4A
16TP4	Use SG-16KP4A
16UP4	Use SG-16KP4A
16ZP4	Use SG-16KP4A
16ZP4	Use 16LP4A/ZP4
17AP4	Use SG-17BP4B
17ATP4	Use SG-17BJP4
★ 17ATP4A	Use SG-17BJP4
17AVP4	Use SG-17BJP4
★ 17AVP4A	Use SG-17BJP4
★ 17BJP4	Use SG-17BJP4
★ SG-17BJP4	17.30
17BP4	Use SG-17BP4B
17BP4A	Use SG-17BP4B
★ 17BP4B	Use SG-17BP4B
★ SG-17BP4B	16.55
17BP4C	Use SG-17BP4B
★ 17BRP4	Use 17DSP4
★ 17BUP4	Use SG-17BJP4
★ 17BVP4	Use SG-17BWP4
★ 17BWP4	Use SG-17BWP4
★ SG-17BWP4	22.40
★ 17BZP4	Use 17DSP4
★ 17CAP4	Use 17DSP4
★ 17CBP4	Use SG-17BJP4
★ 17CDP4	28.80
★ 17CFP4	22.60
★ 17CKP4	Use 17DSP4
★ SG-17CKP4	22.40
★ 17CLP4	Use SG-17BJP4
★ 17CP4	24.95
★ 17CRP4	23.20
★ 17CSP4	Use SG-17BWP4
★ 17CTP4	22.40
★ 17CWP4	Use 17DSP4
★ 17DAP4	27.60
★ 17DKP4/DTP4	22.40
★ 17DLP4	22.40
★ 17DQP4	22.40
★ 17DRP4	27.60
★ 17DSP4	22.20
★ 17DTP4	Use 17DKP4/DTP4
★ 17DXP4/DZP4	22.40
17FP4/FP4A	21.30
17HP4	Use SG-17HP4B
17HP4A	Use SG-17HP4B
★ 17HP4B	Use SG-17HP4B
★ SG-17HP4B	16.55
17JP4	Use SG-17BP4B
17LP4	Use SG-17LP4A
★ 17LP4A	Use SG-17LP4A
★ SG-17LP4A	$19.60
17QP4	Use SG-17QP4A
★ 17QP4A	Use SG-17QP4A
★ SG-17QP4A	19.60
17RP4	Use SG-17HP4B
★ 17RP4C	Use SG-17HP4B
17UP4	Use SG-17QP4A
17VP4	Use SG-17LP4A
★ 17VP4B	Use SG-17LP4A
17YP4	Use SG-17QP4A
★ 19ABP4	29.35
★ 19ACP4	Use 19CFP4
★ 19AFP4	34.20
★ 19AHP4	25.90
★ 19AJP4	25.90
19AP4B	29.00
★ 19ARP4	Use 19AFP4
★ 19AUP4	Use 19AFP4
★ 19AVP4	25.90
★ 19AXP4/AYP4	25.90
★ 19BDP4	25.80
★ 19BHP4	25.90
★ 19BLP4	25.90
★ 19BMP4	Use 19AFP4
★ 19BNP4	Use 19BQP4
★ 19BQP4	35.25
★ 19BTP4/YP4	25.90
★ 19BVP4	Use 19AVP4
★ 19CFP4	29.35
★ 19CHP4	Use 19CFP4
★ 19CKP4	Use 19CFP4
★ 19CUP4	29.35
★ 19DEP4	25.80
★ 19DFP4	29.35
★ 19DUP4	38.40
★ 19DVP4	33.50
★ 19DZP4	33.50
★ 19ECP4	41.40
★ 19XP4	Use 19AVP4
★ 19YP4	Use 19BTP4/YP4
★ 19ZP4	Use 19BHP4
20CP4	Use SG-20CP4D
20CP4A	Use SG-20CP4D
★ 20CP4B	Use SG-20CP4D
20CP4C	Use SG-20CP4D
★ 20CP4D	Use SG-20CP4D
★ SG-20CP4D	29.55
20DP4	Use SG-20CP4D
20DP4A	Use SG-20CP4D
★ 20DP4B	Use SG-20CP4D
★ 20DP4C	Use SG-20CP4D
20HP4	Use SG-20HP4D
20HP4A	Use SG-20HP4D
20HP4B	Use SG-20HP4D
★ 20HP4C	Use SG-20HP4D
★ 20HP4D	Use SG-20HP4D
★ SG-20HP4D	29.55
20LP4	Use SG-20HP4D
20MP4	Use SG-20HP4D
21ACP4	Use SG-21ACP4A
★ 21ACP4A	Use SG-21ACP4A
★ SG-21ACP4A	16.50
21AFP4	Use SG-21YP4A
21ALP4	Use SG-21FLP4
★ 21ALP4A	Use SG-21FLP4
★ 21ALP4B	Use SG-21FLP4
21AMP4	Use SG-21ACP4A
★ 21AMP4A	Use SG-21ACP4A
★ 21AMP23A	Use SG-21ACP4A
21ANP4	Use SG-21FLP4
★ 21ANP4A	Use SG-21FLP4
21AQP4	Use SG-21ACP4A
★ 21AQP4A	Use SG-21ACP4A
21ASP4	Use SG-21XP4A
★ 21ATP4	Use SG-21FLP4
★ 21ATP4A	Use SG-21FLP4
21ATP4B	Use SG-21FLP4
21AUP4	Use SG-21AUP4B
★ 21AUP4A	Use SG-21AUP4B
★ 21AUP4B	Use SG-21AUP4B
★ SG-21AUP4B	21.35
21AVP4	Use SG-21AUP4B
★ 21AVP4A	Use SG-21AUP4B
★ 21AVP4B	Use SG-21AUP4B
★ 21AWP4	Use SG-AWP4
★ SG-21AWP4	21.35
21AXP22A(Color)	78.95
21AYP4	Use SG-21XP4A
★ 21BAP4	Use SG-21FLP4
★ 21BCP4	Use SG-21YP4A
★ 21BDP4	Use SG-21AUP4B
★ 21BNP4	Use SG-21FLP4
★ 21BSP4	Use SG-21ACP4
★ 21BTP4	Use SG-21FLP4
★ 21CBP4	Use SG-21FLP4
★ 21CBP4A	Use SG-21FLP4
★ 21CEP4/CEP4A/DFP4	$20.70
★ 21CMP4	Use SG-21FLP4
★ 21CQP4	24.30
★ 21CVP4	Use SG-21FLP4
★ 21CWP4	Use SG-21FLP4
★ 21CXP4/DSP4	20.90
★ 21CYP22A(Color)	72.20
★ 21CZP4	Use SG-21DEP4A
★ 21DAP4	Use SG-21DEP4A
★ 21DEP4/DEP4A	Use SG-21DEP4A
★ SG-21DEP4A	20.70
★ 21DFP4	Use 21CEP4/CEP4A/DFP4
★ 21DHP4	24.30
★ 21DLP4/DQP4	23.10
★ 21DNP4	Use SG-21FLP4
★ 21DQP4	Use 21DLP4/DQP4
★ 21DSP4	Use 21CXP4/DSP4
★ 21EAP4	Use 21FDP4
★ 21EMP4	Use 21EQP4
21EP4	Use SG-21EP4B
21EP4A	Use SG-21EP4B
★ 21EP4B	Use SG-21EP4B
★ SG-21EP4B	23.20
★ 21EQP4	24.30
★ 21ESP4	20.70
21FB22(Color)	78.25
21FBP22A(Color)	100.00
★ 21FDP4	32.10
21FJP22(Color)	88.45
21FJP22A(Color)	111.25
★ 21FLP4	Use SG-21FLP4
★ SG-21FLP4	16.50
★ 21FMP4	24.30
21FP4	Use SG-21FP4C
21FP4A	Use SG-21FP4C
★ 21FP4C	Use SG-21FP4C
★ SG-21FP4C	23.20
★ 21GBP4	39.55
21WP4	Use SG-21WP4A
★ 21WP4A	Use SG-21WP4A
★ SG-21WP4A	27.80
21XP4A	Use SG-21XP4A
★ 21XP4A	Use SG-21XP4A
★ SG-21XP4A	27.80
21YP4	Use SG-21YP4A
★ 21YP4A	Use SG-21YP4A
★ SG-21YP4A	16.70
21ZP4	Use SG-21ZP4B
21ZP4A	Use SG-21ZP4B
★ 21ZP4B	Use SG-21ZP4B
★ SG-21ZP4B	16.70
★ 23AFP4	Use 23BTP4
★ 23AHP4	29.55
★ 23ANP4	Use 23BKP4
★ 23ASP4	29.55
★ 23ATP4	Use 23BKP4
★ 23AVP4	Use 23CP4
★ 23AUP4	Use 23AHP4
★ 23AWP4/BJP4	29.55
★ 23BDP4	Use 23BTP4
★ 23BGP4	Use 23BHP4
★ 23BJP4	Use 23AWP4/BJP4
★ 23BKP4	$35.60
★ 23BLP4	Use 23BKP4
★ 23BMP4	Use 23BTP4
★ 23BNP4	41.00
★ 23BQP4	35.60
★ 23BTP4	35.60
★ 23BVP4	41.00
23CBP4	Use 23BQP4
★ 23CP4	35.60
★ 23CP4A	Use 23CP4
★ 23CZP4	Use 23AHP4
★ 23DBP4	34.90
★ 23DKP4	42.80
★ 23DLP4	38.20
★ 23DQP4	48.45
★ 23DSP4A	48.65
★ 23DWP4	47.35
★ 23DYP4	Use 23FVP4
★ 23EP4	35.60
★ 23ESP4	38.15
★ 23FP4	Use 23FP4A
★ 23FP4A	30.90
★ 23FVP4	42.70
★ 23GP4	Use 23CP4
★ 23HP4	Use 23CP4
★ 23JP4	35.60
★ 23KP4/KP4A	30.90
★ 23MP4	Use 23FP4A
★ 23MP4A	Use 23FP4A
★ 23NP4	30.90
★ 23TP4	45.60
★ 23UP4	42.15
★ 23WP4	Use 23FP4A
★ 23XP4	Use 23BTP4
★ 23YP4	Use 23BTP4
★ 23ZP4	39.10
★ 24ADP4	Use SG-24CP4A
★ 24AEP4	Use SG-24AEP4
★ SG-24AEP4	23.80
★ 24AHP4/ALP4	35.10
★ 24AJP4	33.35
★ 24ALP4	Use 24AHP4/ALP4
★ 24ANP4	Use SG-24AEP4
★ 24AUP4	33.35
★ 24AVP4	Use 24BEP4
★ 24BEP4	44.95
24CP4	Use SG-24CP4A
★ 24CP4A	Use SG-24CP4A
★ SG-24CP4A	23.80
24DP4	Use SG-24AEP4
★ 24DP4A	Use SG-24AEP4
24QP4	Use SG-24CP4A
★ 24TP4	Use SG-24CP4A
24VP4	Use SG-24CP4A
★ 24VP4A	Use SG-24CP4A
24XP4	Use SG-24CP4A
★ 24YP4	Use SG-24AEP4
★ 24ZP4	Use SG-24AEP4
25AP22A(Color)	146.85
★ 27EP4	Use SG-27RP4
27GP4	Use SG-27RP4
★ 27LP4	66.45
27NP4	Use SG-27RP4
★ 27RP4	Use SG-27RP4
★ SG-27RP4	66.45
★ 27XP4	66.45

★ Black-Daylight aluminized tube.

GENERAL ELECTRIC

Net

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RECEIVING TUBES

ELECTRONIC INNOVATIONS IN ACTION

Type	Suggested List Price‡
0Z4	$2.40
0Z4A	2.45
1A7GT	5.40
1AD2	2.80
1AY2	2.60
1B3GT	2.75
1BC2	2.90
1DN5	4.40
1G3GT/1B3GT	2.75
1H2	3.95
1J3	2.75
1K3	2.75
1L4	3.25
1LA6	5.85
1LH4	7.60
1N2A	4.40
1R5	3.25
1S2A	2.90
1S5	3.05
1T4	3.05
1U4	3.05
1U5	2.90
1V2	2.15
1X2A/1X2B	2.90
2AF4	3.85
24F4B/2DZ4	3.85
2AH2	3.40
2AS2	3.00
2DH2	3.40
2AV2	2.15
2BN4A	2.75
2CW4	4.60
2CY5	3.30
2DS4	4.60
2DV4	6.45
2DZ4	3.85
2EN5	3.20
2ER5	3.30
2FH5	3.15
2FQ5A	3.85
2FS5	4.85
2GK5	3.85
2GU5	4.50
2HA5	3.85
2HK5	3.85
2HQ5	3.80
3A2	5.50
3A3/3AW3	3.20
3AF4B/3DZ4	3.80
3AL5	1.95
3AT2	3.05
3AU6	2.20
3AV6	2.20
3AW2	3.20
3AW3	3.20
3BE6	2.70
3BN4	3.05
3BN6	3.60
3BU8	3.55
3BY6	2.75
3BZ6	2.15
3CA3	3.20
3CB6	2.15
SCE5/3BC5	2.45
3CF6	2.55
3CS6	2.75
SCY5	3.75
3DG4	4.10
3DK6	2.30
3DT6	2.30
3DZ4	3.80
3EA5	3.55
3EH7	3.55
3EJ7	3.55
3ER5	3.30
3FS5	4.30
3GK5	3.85
3GS8/3BU8	3.55
3HA5	3.85
3HM5/3HA5	3.85
3HQ5	3.85
3Q4	3.35$
3S4	3.40
3V4	2.60
4AU6	2.70
4BC8	3.85
4BL8/XCF80	2.40
4BN6	3.85
4BQ7A	4.10
4BS8	4.25
4BU8	3.70
4BZ6	2.10
4BZ7	3.85
4CB6	2.15
4CE5/4BC5	3.05
4CS6	2.90
4CY5	2.70
4DE6	2.50
4DK6	2.55
4DT6	$2.10
4EH7	3.55
4EJ7	3.55
4ES8	4.05
4EW6	2.90
4GK5	3.85
4GS8/4BU8	3.70
4GZ5	3.55
4HA5	2.95
4HA7/4HC7	3.05
4HM6	2.80
4HQ5	$3.85
4HS8	3.05
4HT6	2.55
4JC6	3.60
4JD6	3.60
4LJ8	4.10
5AM8	4.05
5AN8	4.45
5AQ5	2.40
5AR4	4.25
5AS4A	3.45
5AS8	4.40
5AT8	3.80
5AU4	3.65
5AV8	3.85
5B8	5.50
5BC3	3.15
5BK7A	3.75
5BQ7A	4.00
5BR8	4.20
5BT8	3.10
5BW8	3.20
5CG8	3.15
5CL8A	3.85
5CM8	3.55
5CQ8	4.10
5CZ5	4.45
5DH8	5.50
5DJ4	3.35
5EA8	3.80
5ES8	5.50
5EU8	3.45
5EW6	3.05
5FG7	3.05
5FV8	3.00
5GH8	4.10
5GM6	2.80
5GX6	2.45
5GX7	3.60
5HA7	3.05
5HG8	3.70
5J6	3.25
4JK6	3.85
5KD8	3.10
5KE8	5.20
5KZ8	2.45
5LJ8	4.10
5T8	4.20
5U4G8	2.10
5U8	3.10
5U9	2.95
5V3	3.50
5V4GA	3.55
5V6GT	3.40
5X8	3.75
5Y3GT	1.75
5Z3	3.90
6AB4	2.45
6AC7	5.50
6AC10	3.70
6AD10	7.00
6AF3	3.10
6AF4	3.75
6AF4A/6DZ4	3.75
6AF9	3.50
6AF11	4.75
6AG5	2.85
6AG7	6.20
6AG11	4.10
6AH4GT	3.25
6AH6	4.40
6AK5	4.50
6AL3	2.90
6AL5	1.75
6AL7GT	6.90
6AL11	4.10
6AM4	5.55
6AM8A	3.25
6AN4	6.15
6AN8A	3.75
6AQ5/6HG5	2.25
6AQ6	2.70
6AQ7GT	4.10
6AQ8/ECC85	3.00
6AR5	2.45
6AR8	4.85
6AR11	4.10
6AS5	2.75
6AS8	3.95
6AS11	5.10
6AT6	2.05
6AT8A	3.95
6AU4GTA	3.40
6AU5GT	$4.65
6AU6A	1.95
6AU8A	4.40
6AV5GA	4.70
6AV6	1.75
6AV11	4.40
6AW8A	3.60
6AX3	2.55
6AX4GTB	2.50
6AX5GT	3.25
6AX8	3.45
6AY3B	2.90
6AY11	4.50
6AZ8	5.55
6B10	3.30
6BA6	2.10
6BA7	5.90
6BA8A	$4.00
6BA11	4.10
6BC7	3.60
6BC7	3.60
6BC8	3.75
6BD6	2.30
6BD11	5.05
6BE3	2.80
6BE6	2.40
6BF5	3.35
6BF6	1.95
6BF11	4.90
6BG6GA	6.15
6BH6	2.75
6BH8	4.00
6BH11	3.90
6BJ3	2.80
6BJ6A	2.75
6BJ7	2.95
6BJ8	3.60
6BK4A	7.55
6BK5	3.45
6BK7B	3.55
6BL7GTA	4.40
6BL8/ECF80	3.75
6BM8/ECL82	2.90
6BN4A	3.40
6BN6/6KS6	3.00
6BN8	3.15
6BN11	4.10
6BQ5/EL84	2.65
6BQ6GA/ 6CU6	4.10
6BQ6GTB	4.10
6BQ7A	3.75
6BR8A	3.85
6BS8	3.75
6BU8	3.40
6BV8	3.00
6BW4	2.75
6BW8	3.30
6BW11	4.40
6BX7GT	5.60
6BY5GA	4.80
6BY6	2.75
6BY8	2.70
6BZ3	2.95
6BZ6	2.10
6BZ7	3.75
6BZ8	4.20
6C4	1.75
6C5	5.35
6C9	5.50
6C10	3.70
6CA4	2.30
6CA5	3.00
6CA7/EL34	5.35
6CB5A	9.40
6CB6A	2.10
6CD3	3.40
6CD6GA	5.50
6CE5/6BC5	2.20
6CF6	2.75
6CG3/6CD3	3.40
6CG7	2.35
6CG8A	3.10
6CH8	5.65
6CJ3	3.60
6CK4	3.55
6CL6	3.80
6CL8A	3.75
6CM6	3.35
6CM7	2.75
6CM8	4.05
6CN7	4.00
6CQ4	3.55
6CQ8	3.30
6CR6	2.95
6CS6	2.45
6CS7	2.80
6CU5	2.70
6CU6	4.10
6CU8	4.50
6CW4	4.60
6CW5	3.10
6CX8	4.25
6CY5	$3.45
6CY7	3.05
6CZ5	4.15
6D10	3.85
6DA4A	3.05
6DB5	5.00
6DC6	3.55
6DE4	3.05
6DE6	2.40
6DE7	3.65
6DG6GT	3.55
6DK6	2.25
6DM4	3.05
6DN6	7.00
6DN7	3.30
6DQ5	7.85
6DQ6B	4.20
6DR7	4.10
6DS4	4.60
6DS5	3.30
6DT5	3.55
6DT 6A	2.05
6DT8	3.55
6DV4	6.45
6DW4B	$3.50
6DX8	2.95
6DZ4	3.75
6DZ7	8.70
6E5	5.65
6EA4	7.30
6EA5	3.55
6EA7	5.20
6EA8	3.00
6EB5	4.60
6EB8	4.40
6EF4	7.60
6EH5	2.90
6EH7/EF183	3.85
6EH8	3.30
6EJ7/EF184	3.55
6EM5	3.20
6EM7	4.80
6EQ7	2.75
6ER5	3.55
6ES5	2.85
6ES8	5.45
6ET7	4.00
6EU7	2.70
6EU8	3.35
6EV5	2.80
6EV7	2.75
6EW6	2.30
6EW7	5.50
6EX6	7.50
6EY6	3.60
6EZ5	4.05
6EZ8	3.55
6F5	5.50
6F6	5.80
6F6GT	5.80
6FD6	3.55
6FD7	5.05
6FG5	5.35
6FG6/EM84	3.30
6FG7	3.55
6FH5	3.15
6FJ7	3.75
6FM7	3.25
6FM8	2.80
6FQ5A	3.85
6FQ7/6CG7	2.35
6FS5	4.10
6FV6	4.05
6FV8A	3.30
6FW5	3.85
6FY5	2.75
6FY7	3.20
6G11	4.40
6BG5/EL500	3.80
6GC5	4.00
6GE5	3.85
6GF5	3.45
6GF7A	4.85
6GH8A	3.20
6GJ5A	5.60
6GJ7	3.10
6GK5	3.85
6GK6	3.00
6GL7	5.45
6GM5	3.05
6GM6	2.75
6GM8/ECC86	4.35
6GN8	4.10
6GQ7	3.75
6GT5	5.40
6GU5	4.10
6GU7	3.20
6GV5	4.10
6GW6	4.20
6GW8/ECL86	3.05
6GX6	2.60
6GX7	$3.70
6GY5	4.60
6GY6/6GX6	2.60
6GY8	3.55
6GZ5	2.70
6H6	4.30
6HA5	3.85
6HA6	4.45
6HB5	4.20
6HB6/6HA6	4.45
6HB7	3.35
6HE5	3.70
6HF5	7.30
6HF8	3.95
6HG5	2.25
6HG8/ECF86	4.10
6HJ8	3.10
6HK5	3.90
6HL8	3.05
6HM5/6HA5	3.85
6HQ5	4.45
6HR5	2.55
6HS5	7.75
6HS6	2.75
6HS8	3.55
6HZ6	2.75
6HZ8	5.50
6J5	3.70
6J6A	2.65
6J7	5.00
6J10/6Z10	5.00
6J11	4.80
6JB6A	5.85
6JC6	$3.75
6JC8	3.30
6JD6	3.30
6JE6A	8.50
6JE8	3.70
6JH6	2.45
6JH8	4.10
6JK8	4.05
6JM6A	4.10
6JN6A	3.85
6JN8	3.65
6JS6A	7.30
6JT8	4.05
6JU8A	3.30
6JV8	4.00
9CL8	2.95
9GV8	3.40
9KZ8	2.95
9U8A	3.10
10AL11	4.55
10BQ5	2.30
10C8	5.15
10CW5	3.40
10DE7	3.45
10DX8	2.90
10EG7	4.40
10EW7	4.40
10GK6	3.05
10GN8	3.55
10HF8	4.65
10JA8	3.75
10JT8	4.05
10JY8	3.65
10KR8	4.25
10LE8	$5.90
10LW8	4.25
10LZ8	2.95
11AR11	4.10
11BQ11	4.10
11BT11	5.40
11CY7	3.60
11FY7	3.40
11JE8	3.85
11KV8	5.90
11LQ8	5.90
11Y9	3.75
12AB5	3.30
12AC6	2.10
12AD6	2.80
12AE6A	2.75
12AE10	4.25
12AF3	3.85
12AF6	2.85
12AL5	2.05
12AL8	6.20
12AL11	4.20
12AQ5	2.45
12AT6	1.75
12AT7	2.85
12AU6	2.00
12AU7A	2.30
12AV5GA	4.50
12AV6	1.60
12AV7	3.40
12AW6	3.10
12AX3	3.00
12AX4-GTB	2.55
12AX7	2.40
12AY3	2.65
12AZ7A	2.85
12B4A	3.05
12BA6	1.80
12BA7	5.60
12BD6	2.30
12BE3	3.05
12BE6	1.95
12BF6	2.10
12BF11	4.35
12BH7A	2.90
12BK5	3.75
12BL6	2.85
12BN6	3.65
12BQ6GA/ 12CU6	4.20
12BQ6-GTB	4.20
12BR7	3.05
12BT3	2.85
12BV7	3.30
12BW4	2.75
12BY7A	3.05
12BZ7	4.15
12CA5	2.80
12CN5	3.25
12CR6	2.95
12CT8	4.95
12CU5/12C5	2.75
12CX6	2.75
12D4	2.75
12DB5	2.60
12DE8	3.10
12DQ6B	4.25
12DQ7	3.25
12DS7	4.05
12DTS	3.10
12DT8	3.55
12DU7	4.40
12DV7	3.55
12DV8	$3.95
12DY8	7.95
12DZ6/12EA6	3.60
12ED5	$2.70
12EG6	3.45
12EK6	3.10
12EQ7	2.75
12EZ6	3.55
12F8	2.90
12FK6	2.15
12FM6	2.60
12FQ8	4.10
12FR8	6.90
12FX5	2.45
12FX8A	3.85
12GA6	2.70
12GC6	3.95
12GE5	4.10
12GN7A	3.90
12H6	3.95
12HE7	6.80
12HG7	3.90
12HL7	3.90
12J5	4.10
12J8	4.35
12JN6	3.90
12JN8	3.70
12K5	3.45
12L6GT	3.55
12R5	3.30
12SA7	4.40
12SC7	5.15
12SF5	3.95
12SG7	4.70
12SJ7	4.30
12SK7	4.00
12SL7GT	3.55
12SN7-GTA	2.80
12SQ7	3.75
12T10	4.25
12V6GT	3.75
12W6GT	3.75
12X4	1.95
13DE7	3.50
13DR7	3.85
13EM7/ 15EA7	4.80
13FD7	4.55
13FM7	3.00
13GB5	3.80
13GF7A	4.70
13J10/13Z10	5.05
13V10	4.10
13Z10	5.05
14B6	5.25
14BL11	5.10
14BR11	4.80
14GT8	3.35
14JG8	3.10
15AF11	4.75
15DB11	4.85
15CW5/PL84	2.65
15DQ8	3.55
15EA7	4.80
15EW6	3.45
15FM7/ 13FM7	3.00
15FY7	3.55
15HB6	3.85
15KY8A	4.75
15LE8	7.65
16A8	$3.45
16AQ3/XY88	2.70
16GK6	3.05
16GY5	4.85
16KA6	4.45
17AX3	2.60
17AX4-GTA	3.05
17AY3A	2.70
17BE3	2.90
17BF11	4.55
17BS3A	3.30
17BZ3	2.90
17C5/ 17CU5	2.20
17C9	7.15
17CU5	2.30
17D4	3.05
17DE4	3.20
17DQ6B	4.25
17EW8/ HCC85	2.75
17GE5	4.35
17GJ5	5.50
17GT5	4.00
17GV5	4.20
17GW6	4.25
17H3	2.75
17JB6A	5.50
17JM6A	4.20
17JN6A	3.90
17JZ8	3.55
18A5	3.90
18FW6	2.45
18FX6	2.40
18FY6	2.15
19AU4-GTA	3.55
19BG6GA	6.65
19CL8A	3.70
19EA8	3.85
19EZ8	4.50
19GQ7	3.80
19HV8	3.55
19JN8	$3.05
19KG8	3.10
19T8	4.05
20AQ3	3.30
20EZ7	3.45
21GY5	4.60
21HB5A	4.35
21JV6	4.20
21JZ6	4.40
21KA6	4.45
21LU8	4.65
22BH3A	3.10
22BW3	3.05
22DE4	3.40
22JG6A	5.90
22JU6	5.75
23Z9	4.75
25AV5GA	4.80
25AX4GT	3.05
25BK5	3.40
25BQ6GA/ 25CU6	4.35
25BQ6-GTB	4.35
25C5	2.20
25CA5	3.60
25CD6GB	5.75
25DK4	2.20
25DN6	5.95
25EC6	6.15
25EH5	2.90
25F5A	$3.85
25L6GT	2.95
25W4GT	2.55
25W6GT	3.40
25Z6GT	3.25
27	5.10
27GB5/ PL500	3.70
29GK6	3.60
30AG11	4.85
31JS6A	7.30
32ET5A	2.40
33GT7	6.95
33GY7	6.05
33GY7A	6.05
33JV6	4.20
34GD5	2.20
35B5	3.20
35C5	2.10
35DZ8	4.00
35EH5	2.75
35GL6	2.75
35L6GT	2.75
35W4	1.25
35Y4	4.50
35Z5GT	2.15
36AM3A	1.55
38HE7	6.65
38HK7	6.55
40KD6	8.05
45B5/UL84	2.80
50B5	2.60
50C5	2.20
50DC4	1.95
50EH5	2.30
50FE5	2.30
50HC6	2.40
50HK6	2.40
50HN5	2.75
50L6GT	2.80
60FX5	2.60
75	6.40
80	4.80
117Z3	4.50
6267	2.80
6931	3.40
6973	4.25
7025/ 12AX7A	2.80
702A	6.75
7189A	2.80
7199	4.45
7247	3.20
7355	3.45
7408	3.05
7543	2.90
7581A	4.55
7591A	2.80
7695	4.40
7668	3.85
8136	2.55
8425A/ 6AU6A	2.55
8426A/ 12AU6	2.80
ECF80	3.75
EZ80	1.50
ECL82	2.90
EL84	2.65
EM84	3.30
ECC85	2.75
HCC85	2.75
EF183	3.85
EF184	3.55

‡ Manufacture's suggested list price; subject to change without notice.

GENERAL ELECTRIC

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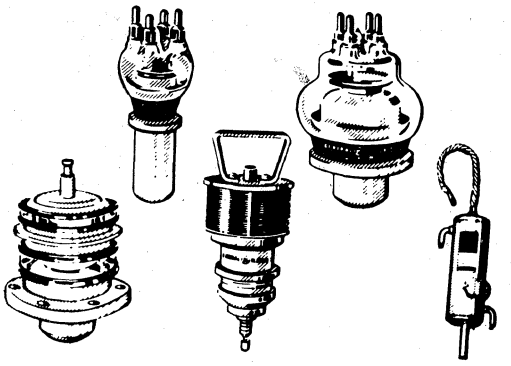
Trade Discount Applies To List Prices Only

INDUSTRIAL TUBES

ELECTRONIC INNOVATIONS IN ACTION

- CATHODE-RAY
- FIVE-STAR
- MILITARY
- POWER
- COMMUNICATION
- TRANSMITTING



G-E Type	Price Each¶
0A2	$ 1.32
043	1.55
0A4G	1.90
0B2	1.37
0B3	2.35
0C3	1.50
0D3	1.45
1AD4	2.80
1D21/SN4	12.90
C1K	(Use GL-6014/C1K)
GL-1L21	25.00
GL-1L36	18.50
1P40	4.10
2B22	31.00
GL-2B23	85.00
2C	6.90
2C39A	20.75
2C39B	32.15
2C39WA	29.00
2C40	29.30
2C40A	34.00
2C42	27.10
2C43	27.50
2C46	29.50
2D21	1.30
2D21W	(Use 5727)
2DF4	11.65
2E26	3.75
2H21	340.00
2X2A	3.85
3B24W	11.25
3B28	7.00
3C23	11.98
3CX100A5	32.00
KC-4	(Use GL-5575/100)
4-400A	48.00
4-1000A	132.00
4D21/4-125A	36.00
4X150A/7034	(Use 7034/4X150A)
5R4GYA	2.05
5R4GYB	2.05
5Y3WGTB★	(Use 6087)
FA-6	(Use GL-5627)
6AC7WA★	5.45
6AK5W	(Use 5654)
6AK5WB	5.45
6AK6	1.40
6AL5W	(Use 5726)
6AN5	4.20
6AS6	3.45
6AS6W	(Use 5725)
6AS7GA	4.95
6AU6WB	(Use 6136)
6B6W	(Use 5749)
6BE6W	(Use 5750)
6C4WA★	3.15
6D4	2.85
6DJ8	1.80
6J4	4.02
6SK7WA	(Use 6137)
6X4W(R)	4.10
6X4WA	(Use 6202)
GL-7C29	189.50
GL-7D21	790.00
PJ-8	(Use GL-5556)
12A6	3.36
12AT7WB	(Use 6201)
12AY7	2.45

G-E Type	Price Each¶
FA-13	(Use GL-5628)
C16J	(Use GL-5665/C16J)
FG-17	(Use GL-5557)
PJ-23	(Use GL-868)
28D7	$4.95
FG-32	(Use GL-5558)
FG-33	(Use GL-5720)
FG-41	(Use GL-5830)
B-47	(Use GL-5623)
FG-57	(Use GL-5559)
FG-67	(Use GL-5728)
FG-81A	32.50
83	1.75
FG-95	(Use GL-5560/FG-95)
FG-97	62.00
FG-98A	77.00
FG-104	(Use GL-5561)
FG-105	59.00
FG-154	108.00
FG-172	129.00
FG-259B	(Use GL-5554)
FG-280	109.00
393A	13.25
407A	5.95
408A	4.95
GL-414	280.00
GL-415	(Use GL-5550)
502A	2.30
GL-506	(Use GL-6228)
575A	21.00
672A	39.85
GL-673	20.15
GL-678	49.50
760	(Use GL-6858/760)
760P	(Use GL-6859/760P)
807	3.10
809	8.20
810	28.60
811A	7.00
812A	7.45
813	24.30
816	3.60
829B	20.00
830B	17.35
832A	16.65
833A	61.20
GL-838	20.00
GL-857B	218.50
862A	1775.00
866A	3.25
GL-869B	138.00
GL-870A	1990.00
872A/872	9.90
GL-880A	760.00
884	2.30
889A	290.00
892	345.00
927	4.70
929	2.35
930	3.80
931A	12.30
2050	2.40
2050A	2.03
GL-5513	620.00
GL-5518	1400.00
GL-5544	32.50
GL-5549	653.50
GL-5550/GL-415	49.00
GL-5551A	65.00

G-E Type	Price Each¶
GL-5551A Pl. Coated	$65.00
GL-5551A Pl. Coated	65.00
GL-5552A	99.00
GL-5552A Pl. Coated	99.00
GL-5553B	245.00
GL-5553B Pl. Coated	245.00
GL-5554/FG-259B	215.00
GL-5555/FG-238B	316.00
GL-5556	54.25
5557/FG17	9.50
5558/FG32	17.50
5559/FG57	23.00
5560/FG95	33.00
5561/FG104	59.00
5563A	51.25
GL-5564/GL-507	850.00
5575/100/616	225.00
GL-5593	340.00
5610	1.05
GL-5623/B-47	30.00
GL-5627	80.00
GL-5628/FA-13	60.00
GL-5630	1900.00
5632/C3J	12.70
5636★	6.10
5642	3.55
5651	1.80
5654★	2.45
5662	1.45
5663	2.10
5665/C16J	52.50
5670★	2.45
GL-5674	225.00
5675	8.95
5686★	3.40
5687★	4.00
5687WA★	5.70
5691	8.75
5692	8.25
5693	6.60
5096A	1.95
5702WA	6.50
5702WB	9.55
5703WA	7.10
5703WB	8.80
5718★	3.65
5719★	3.15
GL-5720/FA-33	34.75
5725★	3.15
5726★	1.55
5727★	2.90
GL-5728/FG-67	74.00
5736	205.00
5744WA	7.10
5744WB	9.00
5749★	2.20
5750★	3.45
5751★	2.55
5762/7C24	255.00
5763	2.45
GL-5779	200.00
GL-5788	545.00
5814A★	2.35
5814WB	6.25
GL-5820A	995.00
5820A/R	995.00
GL-5822A	116.00
5823	1.75
5824	3.60
GL-5830	540.00

G-E Type	Price Each¶
5840★	$5.35
5844★	2.30
5855	85.00
5879	1.85
5881	3.50
5886(R)	5.00
5894	25.00
5896★	3.75
5899★	5.50
5902★	4.80
5963	1.50
5964	1.55
5965A	1.90
GL-5973	495.00
5998A	12.20
6005★	3.25
6011/710	12.70
6012★	7.65
GL-6014/C1K	11.80
6019	751.75
6021★	3.50
GL-6039	2070.00
6046	1.55
6072A	3.90
6080★	5.35
6087★	5.75
6111★	3.70
6112★	4.10
6134★	5.70
6135★	2.40
6136★	2.70
6137★	2.85
6146A	4.30
6146B/8298A	5.15
6161	125.00
6166A	(Use 7007/6166A)
6183	(Use 6942)
6189★	3.65
6197	2.30
6198A	185.00
6201★	2.55
6202	4.10
6203★	4.10
6205★	5.35
6206★	7.25
6211A	2.35
6216	4.00
6222★	7.35
GL-6228/GL-506	3695.25
GL-6251	2790.00
6265★	4.10
GL-6283	500.00
6299	56.00
6336A	19.40
GL-6346	70.00
GL-6347	(Use GL-5552A)
GL-6348	(Use GL-5553)
6350	1.85
6360	4.95
6386★	7.40
6397	8.30
6414	3.65
6442	39.00
6463	1.90
6485	2.05
GL-6511	(Use 5822A)
GL-6512	310.00
GL-6513	420.00
GL-6514	575.00
GL-6515	1060.00

¶ Manufactur's suggested price.
★ Five-Star type.
△ Communication type.

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ELECTRONIC INNOVATIONS IN ACTION

INDUSTRIAL TUBES (Cont'd)

G-E Type	Price Each¶
6550	$4.30
6660△	1.01
6661△	1.34
6662△	1.29
6663△	.92
6664△	1.15
6669△	1.06
6676△	1.06
6677△	1.85
6678△	1.62
6679△	1.50
6680△	1.22
6681△	1.26
6688A	8.75
6771	71.90
GL-6848	2070.00
6807	32.25
6808	32.90
6809	35.50
6814★	5.90
6829★	6.10
6858/760	28.10
6859/760P	29.80
GL-6878	3060.00
6883	4.30
6897	32.15
6907	27.00
6919	1.35
6942	960.00
7007/6166A	1020.00
7034/4X150A	25.00
7036	1.50
GL-7038	185.00
7044	2.70
7054	1.55
7056	$0.95
7058	1.30
7059	1.50
7061	1.30
7077	39.05
7226	315.00
GL-7151	750.00
7167	1.45
GL-7171	81.50
7226	315.00
7233	2.40
7239★	6.25
7262A	250.00
7263A	430.00
7266	35.44
7289	30.75
7293	1050.00
7293A/R	1050.00
7295	14440.00
7296	49.61
7325	185.00
7370	10.80
7295	1440.00
7391	67.00
GL-7399	520.00
7427	2.65
7462	39.05
7486	39.05
7518	14.00
7588	101.59
7625	39.05
7629A	1700.00
7629A/R	1700.00
7644	65.00
GL-7669	65.00
GL-7669 Pd. Coated	$65.00
GL-7670	77.20
GL-7671	99.00
GL-7671 Pl. Coated	99.00
GL-7672	116.00
GL-7673	245.00
GL-7673 Pl. Coated	245.00
GL-7681 Pl. Coated	155.00
GL-7681	155.00
7697	185.00
7701	2.15
GL-7703	190.00
7716	1.75
7717	1.40
7720	39.05
7724	1.50
7725	13.50
7726	16.30
7735A	185.00
7735B	185.00
7736	850.00
7768	111.04
7784	65.00
7815	30.75
7815R	39.25
7841	35.44
7861★	3.50
Z7890	1800.00
7910	82.69
7913	122.85
GL-7964	85.00
7984	5.35
GL-7985	2225.00
GL-7998	155.00
8005	17.85
8008	$10.85
GL-8020	16.00
8068	3.60
8081	40.16
8082	40.16
8083	40.16
GL8092A	1870.00
8092A/R	1870.00
GL-8093A	1350.00
8093A/R	1350.00
8102	1.45
8106	1.55
8113★	6.45
8136	1.20
8156	3.90
GL-8205	825.00
8360	77.20
GL-8465	500.00
GL-8466	535.00
8484	185.00
8507	250.00
8511	315.00
8541	310.00
8572	260.00
8573	310.00
8604	310.00

¶ Manufactur's suggested price.
★ Five-Star type.
△ Communication type.

THEMOSTAT KITS FOR IGNITRON

Kit No.	Price, Each¶
N-15272AA (Flying Leads)	$ 7.30
N-15273AA (Flying Leads)	8.00
N-15286AA (Technical Block)	10.10
N-15287AA (Terminal Block)	9.70

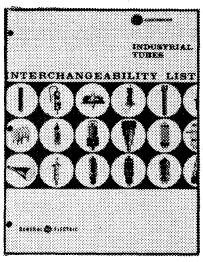
MC LEOD GAGES

Type	Price, Each¶
N-24900 AAG1	$320.00
N-24900 AAG2	325.00

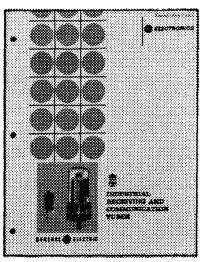
GLASS PARTS

N-24900 AEG1	98.00
N-24900 AEG2	103.00

NEW G-E INDUSTRIAL TUBE CATALOGS

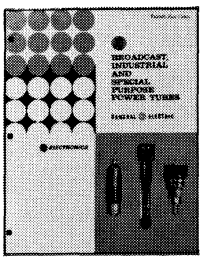


ETI-719D 25¢
Alpha-numerical listing of G-E replacements for nearly 3,000 types of industrial tubes.

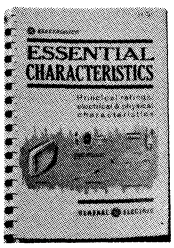


ETI-2387A 25¢
Complete specifications of G-E industrial receiving, communications, 5-Star and ceramic receiving tubes.

ETI-2388A 25¢
Specifications and data on 80 types of G-E Ignitrons and Thyratrons, plus operating guide.



ETI-2389A 25¢
Lists 125 special-purpose and broadcast power tubes and rectifiers, including installation information.



ETR-15L $1.50
Lists all receiving, TV picture, 5-Star, and small special-purpose tubes, and G-E capacitors.

These Catalogs Are Available From Your General Electric Tube Distributor

GENERAL ELECTRIC

IEC Mullard — Electron Tubes For Entertainment And Industry

PREFERRED ENTERTAINMENT RECEIVING TUBES

For • High-Fidelity • AM-FM • Television • Industry • Foreign Replacement

Mullard electron tubes, universally recognized for their advanced designs and reliability, offer a comprehensive range of tubes for High-Fidelity, AM-FM, Television, and Industrial Applications. The vast manufacturing resources of the Mullard organization, including the world's most modern research laboratories, is your assurance of guaranteed tube design advantages for maximum performance in electronic equipment.

Tube Type	Cross Ref.	List Price
DAF96	1AH5	$2.60
DK96	1AB6	2.85
DM70	1M3	2.40
DM71	1N3	2.45
DY87	1S2A	2.60
EABC80	6AK8	3.35
EB91	6AL5	1.75
EBC90	6AT6	2.05
EBC91	6AV6	1.60
EBF80	6N8	2.70
EBF83	6DR8	3.50
EBF89	6DC8	3.05
EC80	6Q4	9.80
EC81	6R4	8.50
EC86	6CM4	5.50
EC88	6DL4	5.50
EC90	6C4	1.75
EC92	6AB4	2.45
EC95	6ER5	3.55
EC97	6FY5	2.75
EC900	6HA5	3.85
ECC33		4.90
ECC81	12AT7	2.85
ECC82	12AU7	2.35
ECC83	12AX7	2.40
ECC85	6AQ8	3.00
ECC86	6GM8	4.55
ECC88	6DJ8	4.45
ECC91	6J6	2.65
ECC189	6ES8	5.45
ECF80	6BL8	3.75
ECF82	6U8	3.10
ECF86	6HG8	4.10
ECF801	6GJ7	3.40
ECH81	6AJ8	2.80
ECH84	6JX8	2.70
ECL80	6AB8	3.25
ECL82	6BM8	2.90
ECL84	6DX8	2.90
ECL85	6GV8	3.10
ECL86	6GW8	3.05
EF80	6BX6	3.05
EF85	6BY7	3.05
EF86	6267	2.60
EF89	6DA6	2.85
EF91	6AM6	3.10
EF92	6CQ6	2.80
EF93	6BA6	1.90
EF94	6AU6	1.95
EF95	6AK5	4.50
EF183	6EH7	3.85
EF184	6EJ7	3.85
EK90	6BE6	2.10
EL34	6CA7	5.75
EL37		7.10
EL41	6CK5	3.05
EL81	6CJ6	4.05
EL84	6BQ5	2.30
EL85	6BN5	5.70
EL86	6CW5	3.10
EL90	6AQ5	2.00
EL91	6AM5	3.35
EL95	6DL5	3.05
EL500	6GB5	3.70
EM34	6CD7	4.15
EM81	6DA5	2.95
EM84	6FG6	3.35
EM87	6HU6	3.40
EY81	6R3	2.60
EY88	6AL3	2.75
EZ80	6V4	1.60
EZ81	6CA4	2.30
EZ90	6X4	1.60
GZ30	5Z4G	5.10
GZ32	5AQ4	4.55
GZ34	5AR4	4.25
HBC91	12AV6	1.60
HCC85	17EW8	2.60
HF93	12BA6	1.60
HK90	12BE6	1.65
HL92	50C5	2.00
HY90	35W4	1.05
KT66		7.75
KT88		11.80
LC900	3HA5	$3.85
LCF801	5GJ7	3.00
LF183	4EH7	3.55
LF184	4EJ7	3.55
PC900	4HA5	3.85
PCC85	9AQ8	3.00
PCC88	7DJ8	4.50
PCF80	9A8	3.40
PCF86	8HG8	2.95
PCF801	8GJ7	3.25
PCL82	16A8	3.00
PCL84	15DQ8	3.05
PCL85	18GV8	3.10
PCL86	14GW8	3.10
PL36	25E5	5.25
PL81	21A6	4.30
PL84	15CW5	2.65
PL500	27GB5	3.70
PY81	17Z3	3.35
PY88	30AE3	2.70
UBF80	17C8	3.30
UCL82	50BM8	3.00
UL84	45B5	2.70
UY85	38A3	2.65
XC95	2ER5	3.30
XC900	2HA5	3.85
XCF80	4BL8	2.40
XCF801	4GJ7	3.55
XY88	16AQ3	2.70

Numerical cross listing begins here and includes additional EIA types not listed previously.

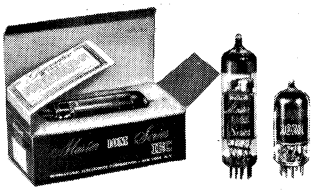
1M3	DM70	$2.40
1N3	DM71	2.45
1S2A	DY87	2.60
2ER5	XC95	3.30
2GK5		3.85
2HA5	XC900	3.85
3GK5		3.85
3HA5	LC900	3.85
4BL8	XCF80	2.40
4EH7	LF183	3.55
4EJ7	LF184	3.55
4HA5	PC900	3.85
5AQ4	GZ32	4.55
5AR4	GZ34	4.25
5GJ7	LCF801	3.00
5Z4GT	GZ30	5.10
6AB4	EC92	2.45
6AB8	ECL80	3.25
6AF4		3.75
6AF4A		3.75
6AJ8	ECH81	2.80
6AK5	EF95	4.50
6AK8	EABC80	3.35
6AL3	EY88	2.75
6AL5	EB91	1.75
6AM5	EL91	3.35
6AM6	EF91	3.10
6AQ5	EL90	2.00
6AQ5A		2.00
6AQ8	ECC85	3.00
6AT6	EBC90	2.05
6AU6	EF94	1.95
6AU6A		1.95
6AV6	EBC91	1.60
6BA6	EF93	1.90
6BE6	EK90	2.10
6BL8	ECF80	3.75
6BM8	ECL82	2.90
6BN5	EL85	5.70
6BQ5	EL84	2.30
6BQ5A		2.30
6BX6	EF80	3.05
6BY7	EF85	3.05
6BZ6		2.10
6BZ6A		2.10
6C4	EC90	1.75
6CA4	EZ81	2.30
6CA7	EL34	4.00
6CB6		$2.10
6CB6A		2.10
6CD7	EM34	4.15
6CJ6	EL81	4.05
6CK5	EL41	3.05
6CM4	EC86	5.50
6CQ6	EF92	2.80
6CW5	EL86	3.10
6DA5	EM81	2.95
6DA6	EF89	2.85
6DC8	EBF89	3.05
6DJ8	ECC88	4.45
6DL4	EC88	5.50
6DL5	EL95	3.05
6DR8	EBF83	3.50
6DX8	ECL84	2.90
6EH7	EF183	3.85
6EJ7	EF184	3.85
6EM5		3.20
6ER5	EC95	3.55
6ES8	ECC189	5.45
6EU7		2.70
6FG6	EM84	3.35
6FY5	EC97	2.75
6GB5	EL500	3.70
6GK5		3.85
6GJ7	ECF801	3.40
6GM8	ECC86	4.55
6GV8	ECL85	3.10
6GW8	ECL86	3.05
6HA5	EC900	3.85
6HG8	ECF86	4.10
6HU6	EM87	3.40
6J6	ECC91	2.65
6JX8	ECH84	2.70
6N8	EBF80	2.70
6Q4	EC80	9.80
6R3	EY81	2.60
6R4	EC81	8.50
6T8A		3.20
6U8	ECF82	3.10
6U8A		3.10
6V4	EZ80	1.60
6W4GT		2.30
6W6GT		2.70
6X4	EZ90	1.60
7DJ8	PCC88	4.50
8GJ7	PCF801	3.25
8HG8	PCF86	2.95
9A8	PCF80	3.40
9AQ8	PCC85	3.00
12AT7	ECC81	2.85
12AT7A		2.85
12AU7	ECC82	2.35
12AU7A		2.35
12AV6	HBC91	1.60
12AX7	ECC83	2.40
12AX7A		2.40
12BA6	HF93	1.60
12BE6	HK90	1.65
14GW8	PCL86	3.10
15CW5	PL84	2.65
15DQ8	PCL84	3.05
16A8	PCL82	3.00
16AQ3	XY88	2.70
17C8	UBF80	3.30
17EW8	HCC85	2.60
17Z3	PY81	3.35
18GV8	PCL85	3.10
21A6	PL81	4.30
25E5	PL36	5.25
27GB5	PL500	3.70
30AE3	PY88	2.70
35W4	HY90	1.05
38A3	UY85	2.65
45B5	UL84	2.70
50BM8	UCL82	3.00
50C5	HL92	2.00
6267	EF86	2.60
7025		2.80
7025A		2.80
7189		2.70
7189A		2.70
7247		3.20

Laboratory-Balanced **MATCHED PAIRS**

For Optimum Performance of Hi-Fidelity Equipment

Tube Type	Cross Ref.	
ECL82MP	6BM8MP	$6.80
ECL86MP	6GW8MP	7.25
EL34MP	6CA7MP	12.35
EL37MP		15.40
EL84MP	6BQ5MP	5.15
EL86MP	6CW5MP	8.00
EL90MP	6AQ5MP	4.70
EL95MP	6DL5MP	7.10
KT66MP		16.85
KT77MP		19.40
KT88MP		24.95
UCL82MP	50BM8MP	6.80
UL84MP	45B5MP	6.15
7189MP		6.94

Master 10M Series



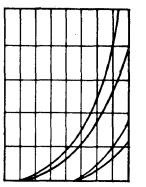
- TUBE-TO-TUBE UNIFORMITY
- SECTION-TO-SECTION UNIFORMITY
- LONG LIFE
- GUARANTEED PERFORMANCE
- FOR THE BALANCE ORIGINALLY DESIGNED INTO THE CIRCUIT

A selected series of individually laboratory-tested tubes, ideal for today's technically-advanced and exacting electronic equipment . . . meets more stringent requirements . . . individual foam cushion packaging for protection during handling and shipping. Each Master 10M tube guaranteed for 10,000 hours of effective performance within two years from date of purchase. Recommended for the full range of electronic equipment.

TYPICAL TEST SPECIFICATIONS 12AT7 DOUBLE TRIODE

TEST CONDITIONS:
Vf 12.6V
Va 250V
V_{g1} —2V

LIMIT EACH TRIODE
Ia Min. 8.8 Ma
Max. 12 Ma
I_{g1} Less than 7μA
Ia Triode No. 1 vs. Triode No. 2 Less than 15% deviation.



Cutoff less than 20 μA with 8V on grid.
Insulation heater to cathode, less than 7μA.
Insulation heater to cathode less than 7μA.
Insulation heater positive, cathode negative with 125V on plate: Less than 20μA.

HUM AND MICROPHONICS

Check to close parameters special test specifications and circuits to be given upon request.

Typical Ia curves with voltage ratings from 100 to 250V.

10M TUBES

Tube Type	Sugg. Resale Price	Tube Type	Sugg. Resale Price
6AB8	$2.75	12AX7A	$2.20
6AJ8	2.65	12DW7	2.55
6AK5	3.25	15CW5	2.50
6AK8	2.80	6267	2.50
6AL5	1.95	7025	2.35
6AQ5	2.15	7247	2.55
6AQ5A	2.15	EABC80/6AK8	2.80
6AQ8	2.40	EB91/6AL5	1.95
6AT6	2.00	EBC90/6AT6	2.00
6AU6	2.05	EBC91/6AV6	1.95
6AU6A	2.05	EBF89/6DC8	2.65
6AV6	1.95	EC90/6C4	2.85
6BA6	2.00	EC95/6ER5	2.40
6BE6	2.10	EC97/6FY5	2.35
6BL8	3.05	ECC81/12AT7	2.55
6BQ5	2.15	ECC82/12AU7	2.20
6BQ5A	2.15	ECC83/12AX7	2.20
6C4	2.85	ECC85/6AQ8	2.40
6DA6	2.55	ECC88/6DJ8	3.10
6DC8	2.65	ECC91/6J6	2.55
6DJ8	3.10	ECC189/6ES8	3.50
6DL5	2.55	ECF80/6BL8	3.05
6DX8	2.85	ECF86/6HG8	3.10
6EH7	2.60	ECH81/6AJ8	2.65
6EJ7	2.60	ECL80/6AB8	2.75
6ER5	2.40	ECL84/6DX8	2.85
6ES8	3.50	EF86/6267	2.50
6EU7	2.35	EF89/6DA6	2.55
6FY5	2.35	EF93/6BA6	2.00
6GK5	2.40	EF94/6AU6	2.05
6HG8	3.10	EF95/6AK5	3.25
6J6	2.55	EF183/6EH7	2.60
6J6A	2.55	EF184/6EJ7	2.60
6T8A	2.80	EK90/6BE6	2.10
8HG8	2.65	EL84/6BQ5	2.15
9A8	3.25	EL90/6AQ5	2.15
12AT7	2.55	EL95/6DL5	2.55
12AU7	2.20	HBC91/12AV6	1.95
12AU7A	2.20	PCF80/9A8	3.25
12AV6	1.95	PCF86/8HG8	2.65
12AX7	2.20	PL84/15CW5	2.50

INDUSTRIAL TUBES

An extensive range of over 700 dependable Special Purposes Tubes for virtually every industrial application, including Cathode Ray Tubes, Image Converter Tubes, Photosensitive Devices, Counting Tubes, Indicator Tubes, Electrometer Tubes, Trigger Tubes, Voltage Reference Tubes, High Voltage Rectifiers, Thyratrons, Power Triodes and Tetrodes, Microwave Tubes, etc. Each tube reflects traditional MULLARD quality construction . . . for example . . .

Tube Type	Cross Reference	Sugg. Resale Price
AW17-20		$135.00
BPY10		5.50
DH3-91	1CP1	17.70
DM160	6977	2.50
EIT	6370	16.50
E55L	8233	13.25
E80CC	6085	3.30
E80CF	7643	4.95
E80F	6084	3.30
E80L	6227	3.05
E81L	6686	4.10
E83F	6689	3.85
E88CC	6922	4.87
E88CC/01		6.00
E90CC	5920	3.20
E91H	6687	2.75
E92CC		2.00
E180CC	7062	2.25
E180F	6688	6.80
E182CC	7119	2.95
E810F	7788	9.75
EA52	6923	11.00
EA76	6489	4.70
EC70	6778	8.95
EL360		4.75
EN32	6574	8.00
EN91	2D21	1.29
EN93	6D4	9.25
JP92.5	7028	142.00
M8079	6058	4.20
M8080	6C4WA, 6100	7.25
M8081	6J6WA, 6101	5.35
M8082	6516	5.75
M8083	6064	4.75
M8091	6443	6.50
M8096	6062	7.60
M8097		10.50
M8098		7.50
M8099		10.50
M8100	6AK5W, 6096, 5654	2.45
M8136	12AU7WA/6189	3.70
M8137	6057	6.50
M8161	6065	5.85
M8162	12AT7WA	3.25
M8163		7.95
M8190	5783WA	14.00
M8195	185A3	6.00
M8196	6AS6W/5725	8.50
M8204	2D21W/5727	2.50
M8206		7.50
M8207		12.00
M8212/6AL5W	6097	1.55
M8223	OA2WA	3.35
M8224	OB2WA	6.50
M8225		6.00
M8248	6J4WA	11.60
ME1400		6.70
ME1401/4065		15.50
ME1402/4066		29.50
ME1403/4068	5886	21.50
ME1404/4069		13.85
ORP10		88.00
OCP71		5.50
QQV02-6	6939	12.00
QQV03-10	6360	4.95
QV06-20	6146	4.35
QY5-3000A	6076	305.00
TD03-10	5861	26.50
TD03-10E		33.75
XR1-3200	5544	32.50
XR1-3200A	7981	71.85
XR1-6400	5545	29.30
Z502S		$13.65
Z700U	7710	1.95
Z803U	6779	5.75
Z900T	5823	3.45
OA2	150C4	1.26
OA2WA	M8223	3.35
OB2	108C1	1.32
OB2WA	M8224	6.50
OD3		5.20
OE3	85A1	2.50
OG3	85A2	2.30
1CP1/1CP31	DH3-91	17.70
2D21	EN91	1.29
6D4	EN93	9.25
6J4WA	M8248	11.60
12AT7WA	M8162	3.25
58CV		8.50
61SV		22.00
75C1		2.40
83A1	7980	5.50
85A1	OE3	2.50
85A2	OG3	2.30
90AG		5.90
90AV		5.90
90CG		3.80
90CV		1.05
90C1		2.25
108C1	OB2	1.32
150B2	6354	2.55
150B3		5.45
150C4	OA2	1.26
5544	XR1-3200	32.50
5545	XR1-6400	29.30
5725	M8196/6AS6W	8.50
5727	M8204/2D21W	2.50
5783WA	M8190/85A3	14.00
5823	Z900T	3.45
5861	TD03-10/EL55	26.50
5886	ME1403/4068	21.50
5920	E90CC	3.20
6057	M8137	6.50
6058	M8079	4.20
6064	M8083	4.75
6065	M8161	5.85
6076	QY5-3000A	305.00
6084	E80F	3.30
6085	E80CC	3.30
6096/5654	M8100/6AK5W	2.45
6097/5726	M8212/6AL5W	1.55
6100	M8080/6C4WA	7.25
6101	M8081/6J6WA	5.35
6146	QV06-20	4.35
6189	M8136/12AU7WA	3.70
6211		3.20
6227	E80L	3.05
6360	QQV03-10	4.95
6370	EIT	16.50
6443	M8091	6.50
6489	EA76	4.70
6516	M8082	5.75
6574	EN32	8.00
6686	E81L	4.10
6687	E91H	2.75
6688	E180F	6.80
6689	E83F	3.85
6778	EC70	8.95
6779	Z803U	5.75
6922	E88CC	4.87
6923	EA52	11.00
6939	QQV02-6	12.00
6977	DM160	2.50
7028	JP9-2.5	142.00
7062	E180CC	2.25
7119	E182CC	2.95
7643	E80CF	4.95
7710	Z700U	1.95
7788	E810F	9.75
7981	XR1-3200A	71.85
8233	E55L	13.25

Trade Discount Applies To List Prices Only

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NATIONAL®

ELECTRONIC CONTROL DEVICES FOR INDUSTRY

Ignitrons, Rectifier Tubes, Thyratrons, Silicon Devices and Readout Tubes

IGNITRONS

Type Number	Net Selling Price	Type Number	Net Selling Price	Type Number	Net Selling Price
NL-1009A	$155.00	NL-1051A*	$ 65.00	NL-1081*	$ 75.00
NL-1011A	65.00	NL-1052A*	99.00	NL-1082*	107.00
NL-1012A	99.00	NL-1053A	284.00	NL-1091*	75.00
NL-1013A	245.00	NL-1054A	750.00	NL-1092*	107.00
NL-1014A	750.00	NL-1059A	333.00	NL-5550	49.00
NL-1016A	155.00	NL-1061*	65.00	NL-5553B*	245.00
NL-1022A	116.00	NL-1062*	99.00	NL-5553BL	245.00
NL-1031	65.00	NL-1063	284.00	NL-5555	316.00
NL-1036	98.00	NL-1064	825.00	NL-5555A	316.00
NL-1037	134.00	NL-1066*	77.20	NL-7673*	245.00
NL-1038	333.00	NL-1069	155.00	NL-7703	190.00
NL-1039	132.00			NL-7703H	190.00
NL-1040	1,075.00				

RECTIFIERS

Type Number	Net Selling Price
NL-RX21A	$25.75
NL-575A	20.15
NL-604§	11.80
NL-606§	21.40
NL-610/7723	11.40
NL-615	10.05
NL-617	15.00
NL-619	10.00
NL-623	13.35
NL-635/7019†§	13.00
NL-643	13.50
NL-649/5834	11.15
NL-660†§	13.00
NL-664L†	27.50
NL-673	20.15
NL-869B	138.00
NL-869B/L	138.00
NL-5558/FG32	17.50
NL-6894	25.00
NL-6895	25.00
NL-7723-Ne	13.10
NL-7786-Ne	15.50

THYRATRONS

NL-C3J/AL	$14.60	NL-710A/7725	$15.52	NL-5559/FG57	$23.00
NL-C3J/AL-Ne	18.40	NL-710AL	19.55	NL-5560/FG-95	33.00
NL-C3J/L	14.20	NL-710L/7518	14.20	NL-5563A	50.00
NL-3C23	11.98	NL-714	10.00	NL-5632/C3J	12.70
NL-C6J†§	28.10	NL-716	12.50	NL-5665/C16J	52.50
NL-C6J/K†	28.30	NL-718	64.00	NL-5684/C3J/A	13.10
NL-C6J/K-Ne	32.50	NL-732	120.00	NL-5684-Ne	16.70
NL-KY21A	26.75	NL-734/5544§	22.50	NL-5684A-Ne	17.90
FG-105	59.00	NL-740/6856†§	21.70	NL-6014/C1K	11.80
NL-632B	33.00	NL-760†§	28.10	NL-6989/C6J/KL	29.45
NL-678	49.00	NL-770L†	45.25	NL-6989-Ne	33.90
NL-710/6011	12.70	NL-5557/FG17/715	9.50	NL-7556A-Ne	19.60

STUD MOUNTED SILICON CONTROLLED RECTIFIERS

	16 Amp r.m.s.		35 Amp r.m.s.		55 Amp r.m.s.				110 Amp r.m.s.			
PRV	Type Number	Net Sell. Price	Type Number	Net Sell. Price	Type Number	Net Sell. Price	Type Number	Net Sell. Price	Type Number	Net Sell. Price	Type Number	Net Sell. Price
25	NL-C36U/ 2N1842	$5.10	NL-C35U/ 2N681	$6.40	NL-C45U — NL-C46U	$9.36			NL-C50U/ 2N1909 — NL-C52U	$12.08		
50	NL-C36F/ 2N1843	5.60	NL-C35F/ 2N682	7.05	NL-C45F — NL-C46F	11.86	NL-555F — NL-556F	$12.85	NL-C50F/ 2N1910 — NL-C52F/ 2N1792	15.36		
100	NL-C36A/ 2N1844	6.20	NL-C35A/ 2N683	7.65	NL-C45A — NL-C46A	13.44	NL-555A — NL-556A	14.80	NL-C50A/ 2N1911 — NL-C52A/ 2N1793	17.84		
150	NL-C36G/ 2N1845	7.35	NL-C35G/ 2N684	9.40	NL-C45G — NL-C46G	15.68			NL-C50G/ 2N1912 — NL-C52G/ 2N1794	20.64		
200	NL-C36B/ 2N1846	8.70	NL-C35B/ 2N685	10.70	NL-C45B — NL-C46B	17.84	NL-555B — NL-556B	19.60	NL-C50B/ 2N1913 — NL-C52B/ 2N1795	23.52		
250	NL-C36H/ 2N1847	9.75	NL-C35H/ 2N686	12.45	NL-C45H — NL-C46H	20.00			NL-C50H/ 2N1914 — NL-C52H/ 2N1796	25.00		
300	NL-C36C/ 2N1848	11.65	NL-C35C/ 2N687	14.60	NL-C45C — NL-C46C	23.76	NL-555C — NL-556C	26.15	NL-C50C/ 2N1915 — NL-C52C/ 2N1797	28.75		
400	NL-C36D/ 2N1849	13.85	NL-C35D/ 2N688	15.75	NL-C45D — NL-C46D	31.40	NL-555D — NL-556D	34.55	NL-C50D/ 2N1916 — NL-C52D/ 2N1798	36.60		
500	NL-C36E/ 2N1850	16.00	NL-C35E/ 2N689	16.95	NL-C45E — NL-C46E	37.72	NL-555E — NL-556E	41.50	NL-C50E/ 2N1805 — NL-C52E/ 2N1799	46.35	NL-C150E — NL-C152E	$60.48
600	NL-C36M/ 516M	19.10	NL-C35M/ 2N690	20.65	NL-C45M — NL-C46M	45.80	NL-555M — NL-556M	50.40	NL-C50M/ 2N1806 — NL-C52M/ 2N1800	56.50	NL-C150M — NL-C152M	73.44
700	NL-C36S/ 516S	20.50	NL-C35S/ 2N691	23.40	NL-C45S — NL-C46S	56.16	NL-555S — NL-556S	61.75	NL-C50S — NL-C52S/ 2N1801	66.90	NL-C150S — NL-C152S	89.60
800	NL-C36N/ 516N	24.05	NL-C35N/ 2N692	26.25	NL-C45N — NL-C46N	68.04	NL-555N — NL-556N	74.85	NL-C50N — NL-C52N/ 2N1802	78.50	NL-C150N — NL-C152N	108.80
800	NL-511-3	25.00										
900			NL-C35T	31.90	NL-C45T — NL-C46T	79.50	NL-555T — NL-556T	87.45	NL-C50T — NL-C52T/ 2N1803	94.20	NL-C150T — NL-C152T	129.60
1000	NL-511-4	32.50	NL-C35P	37.50			NL-555P — NL-556P	103.65			NL-C150P — NL-C152P	152.80
1100							NL-555PA — NL-556PA	121.10			NL-C150PA — NL-C152PA	178.40
1200	NL-511-6	56.25					NL-555PB — NL-556PB	140.65			NL-C150PB — NL-C152PB	207.20
1300							NL-555PC — NL-556PC	158.75			NL-C150PC — NL-C152PC	233.60

READOUT TUBES

0.3 Character Size		0.6 Character Size				Larger Character Sizes	
Type Number	Net Selling Price	Type Number	Net Selling Price	Type Number	Net Selling Price	Type Number	Net Selling Price
NL-4022	$19.00	NL-803	$ 8.00	NL-5030	$10.50	NL-807	$10.00
NL-4026	33.00	NL-809	16.25	NL-5032	15.75	NL-821	10.50
NL-4031	33.00	NL-811	8.00	NL-5992	15.75	NL-6012	14.50
NL-7009	19.00	NL-812	8.75	NL-6844A	11.00	NL-6034	20.00
NL-7009A	20.90	NL-840	8.00	NL-8037/5031	15.75	NL-7037	26.50
NL-7977/4032	33.00	NL-841	8.75	NL-8421/5092	15.75	NL-7094	30.00
NL-7977A	36.30	NL-842	8.75	NL-8422/5991	15.75	NL-7153	14.50
NL-8502/4021	33.00	NL-843	8.00	NL-50911	15.75	NL-8091	22.50
		NL-5016	11.00			NL-8423/4021	19.00

WRITE FOR INDIVIDUAL DATA SHEETS FOR DETAILED RATINGS

NOTES: * Plastic coated version available, indicated by the addition of the suffix letter P.
† Available with bracket base for panel mounting, designated by the addition of suffix letter P.
§ Available with lug base, designated by the addition of suffix letter L.

NATIONAL ELECTRONICS INC.

a varian subsidiary

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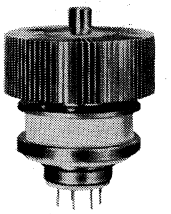
PL-6775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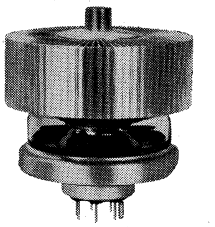
PL-8295/PL-172

PL-175A

PENTA POWER TUBES

Beam Pentodes
Tetrodes
Triodes
Vacuum Switches

When you specify Penta Power Tubes, you can enjoy the same benefits that hundreds of equipment manufacturers and power tube users receive today. The "extra care" production and test methods Penta employs in manufacture result in proven power tube reliability, long life and high efficiency.

POWER TUBES

Type	Fil. Volts	Fil. Current Amps.	Plate Diss. Max. W.	Plate Volt. Max.	Plate Current Ma., Max.	Type Cathode	Price
BEAM PENTODES							
PL-4E27A	5.0	7.5	125	4,000	200	ThW	$ 45.00
PL-175A	5.0	14.5	400	4,000	350	ThW	$ 52.00
PL-177A	6.0	3.2	75	2,000	175	ThW	$ 31.00
PL-177WA	6.0	3.2	75	2,000	175	ThW	$ 35.50
PL-195	6.0	17.0	4,000	5,000	2,000	Oxide	$385.00
*PL-272(A)	6.0	17.0	5,000	5,000	2,000	Oxide	$550.00
PL-285	6.0	85.0	5,000	7,500	2,500	ThW	$480.00
PL-6549	6.0	3.2	75	2,000	175	ThW	$ 31.00
PL-8295/172	6.0	8.2	1,000	3,000	1,000	Oxide	$157.00
PL-8295A	6.0	8.2	1,000	3,000	1,000	Oxide	$160.00
PL-8432	6.0	8.2	1,000	3,000	1,000	Oxide	$162.00
PL-8576/264	6.0	17.0	3,000	5,000	2,000	Oxide	$395.00
PL-8583/267	26.5	1.0	350	2,000	300	Oxide	$ 87.00
PL-8641/274	6.0	85.0	3,000	5,000	2,000	ThW	$420.00

*Vapor Cooled—integral vapor jacket

	Fil. Volts	Fil. Current Amps.	Plate Diss. Max. W.	Plate Volt. Max.	Plate Current Ma., Max.	Screen Volt. Max.	Price
POWER TETRODES							
PL-4D21/4-125A	5.0	6.5	125	3,000	225	600	$ 36.00
PL-4D21A	5.0	6.5	175	3,000	225	600	$ 39.00
PL-4X500	5.0	13.5	500	4,000	350	500	$127.50
PL-5D22/4-250A	5.0	14.5	250	4,000	350	800	$ 46.50
PL-6775	5.0	14.5	400	4,000	350	800	$ 51.00
PL-8165/4-65A	6.0	3.5	65	2,000	150	600	$ 27.00
PL-8166/4-1,000A	7.5	21.0	1,000	6,000	700	1,000	$131.50
PL-8438/4-400A	5.0	14.5	400	4,000	350	800	$ 48.00
HIGH-VOLTAGE RECTIFIER							
PL-250R	5.0	10.5	....	60,000	250	....	$ 36.00

	Fil. Volts	Fil. Current Amps.	Plate Diss. Max. W.	Plate Volt. Max.	PK Plate Current A	Screen Volt. Max.	Price
PULSE TETRODES							
PL-8187/4PR65A	6.0	3.5	65	15,000	1.0	2,000	$ 43.00
PL-8247/4PR125A	5.0	6.5	125	18,000	1.5	2,000	$ 57.00
PL-8188/4PR400A	5.0	14.5	400	20,000	4.0	2,500	$ 64.00
PL-8189/4PR1000A	7.5	21.0	1,000	30,000	8.0	2,500	$156.00
PL-279	7.5	30.0	750	30,000	12.0	2,500	$180.00
PL-284	7.5	21.0	1,200	45,000	8.0	2,500	$198.00

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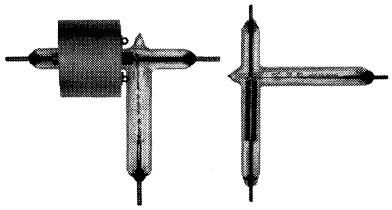
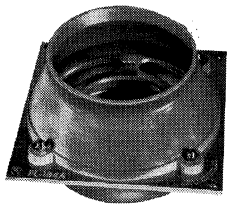
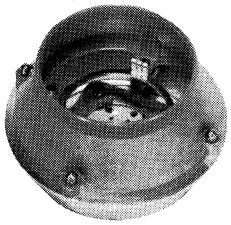
PL-177WA



Vacuum Switches



PL-184A



PL-209A

	Fil. Volts	Fil. Current Amps.	Plate Diss. Max. W.	Plate Volt. Max.	Plate Current Ma., Max.	U	Price
POWER TRIODES							
PL-254W	5.0	7.5	100	4,000	225	25	$ 28.00
PL-6569	5.0	14.5	250	4,000	300	45	$ 39.75
PL-6580	5.0	14.5	400	4,000	350	45	$ 48.75
PL-3CX2500A3	7.5	52.5	2,500	6,000	2,500	22.5	$200.00
PL-3CX2500F3	7.5	52.5	2,500	6,000	2,500	22.5	$205.00

VACUUM SWITCHES

Type Designation	Description	Peak Voltage Rating–kV	Peak Current Rating–Amps.	Average Current Rating–Amps.	Required Coil Characteristics Volts	Ma.	Ampere Turns	Price
PL-R1	Basic Switch—No Coil	21	150 (5 u sec.)	6	28	225	1,100	$ 34.00
PL-190	PL-R1 with Coil	21	150 (5 u sec.)	6	28	255	—	$ 38.00
PL-169A	Basic Switch—No Coil	21	500 (1 m sec.)	30	28	650	1,900	$ 32.00
PL-187	PL-169A with Coil	21	500 (1 m sec.)	30	28	650	—	$ 33.00
PL-191	Basic Switch—No Coil	21	Not Rated	3	28	580	1,000	$ 58.00
PL-183	PL-191 with Coil	21	Not Rated	3	28	580	—	$ 58.00
PL-186	Basic Switch—No Coil	21	Not Rated	6	28	390	1,000	$ 28.00
PL-203B	PL-186 with Coil	21	Not Rated	6	28	390	—	$ 55.00

Single-pole, double-throw switches enclosed in evacuated glass envelopes. Ideal where compact, fast-acting relays are needed to switch high-voltage circuits under a wide range of ambient atmospheric conditions, including explosive atmospheres; also, where exposed-contact relays would be unsuitable. Operated by external actuating coils excited by direct current. Designed so that soft-iron pole piece and envelope-enclosed armature assembly act to complete the magnetic circuit.

SOCKETS AND ACCESSORIES

Type	Description	Price
PL-C1	Chimney (for 4-400A, 175A, 6580, 6775)	$ 6.50
PL-184	Socket & Chimney (for PL-8295/172 & PL-8295A)	$53.00
PL-184A	Socket & Chimney (for PL-8295/172 & PL-8295A)	$49.00
PL-C184	Chimney only (for PL-8295/172 & PL-8295A)	$ 5.00
PL-205A	Socket & Chimney (for PL-195)	$69.00
PL-209A	Socket & Chimney (for PL-8432)	$49.00
PL-209B	Socket & Chimney (for PL-8432)	$52.00
PL-265A	Socket & Chimney (for PL-264)	$53.00
PL-C205	Chimney only (for PL-195)	$12.50
PL-C209	Chimney only (for PL-8432)	$ 6.00
PL-C265	Chimney only (for PL-264)	$ 6.00
PL-271A	Socket & Chimney (for PL-8583/267)	$11.50
PL-C271	Chimney (for PL-8583/267)	$ 4.00
PL-277A	Socket & Chimney (for PL-8641)	$70.00
PL-C288	Chimney (for PL-285)	$12.00
PL-288	Socket & Chimney (for PL-285)	$70.00

The Machlett Laboratories, Inc.

RAYTHEON

THE MACHLETT LABORATORIES, INC.

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RCA ELECTRON TUBES

ENTERTAINMENT RECEIVING TYPES

* Optional List

PRICE SCHEDULE — AUGUST, 1966

RCA Type	List Price*
0Z4	$2.40
1A3	6.15
1A5GT	4.00
1A7GT	5.40
1AD2	2.85
1AY2	2.60
1B3GT use 1G3GT/1B3GT	
1BC2	2.90
1DN5	3.45
1G3GT/1B3GT	2.75
1H5GT	3.90
1K3/1J3	2.75
1LA6	5.85
1N5GT	4.90
1R5	3.25
1S2A/DY87	2.90
1S4	4.10
1S5	3.05
1T4	3.05
1U4	3.05
1U5	2.65
1V2	2.20
1X2A	2.90
1X2B	2.90
2A3	9.90
2AF4B	3.80
2AH2	3.40
2AS2	3.00
2AV2	2.20
2BJ2	4.20
2BN4A	2.75
2CW4	4.60
2CY5	3.30
2DS4	4.60
2DV4	6.45
2DZ4	3.85
2EN5	3.20
2ER5	3.30
2FH5	3.15
2FS5	4.85
2GK5	3.85
2GU5	4.50
2HA5	3.85
2HQ5	3.85
3A2	5.50
3A3/3B2	3.20
3AF4A	3.80
3AL5	1.95
3AT2	3.05
3AU6	2.20
3AV6	2.20
3AW3	3.20
3BA6	2.35
3BC5/3CE5	2.45
3BN4A	3.05
3BN6	3.60
3BU8	3.55
3BY6	2.75
3BZ6	2.15
3CA3	3.20
3CB6	2.15
3CE5	2.45
3CF6	2.55
3CS6	2.75
3CY5	3.75
3DG4	4.10
3DK6	2.30
3DT6A	2.35
3DZ4	3.85
3EA5	3.55
3EH7	3.55
3EJ7	3.55
3ER5	3.30
3FH5	3.25
3FS5	4.30
3GK5	3.85
3GS8	3.55
3HM5/3HA5	3.85
3HQ5	3.85
3LF4	6.00
3Q4	3.35
3Q5GT	5.85
3S4	3.40
3V4	2.60
4AU6	2.70
4AV6	2.25
4BC8	3.85
4BL8•XCF80	$2.40
4BN6	3.85
4BQ7A	4.15
4BS8	4.25
4BU8	3.70
4BZ6	2.10
4BZ7	3.85
4CB6	2.20
4CS6	2.90
4CY5	2.70
4DE6	2.50
4DK6	2.55
4DT6A	2.10
4EH7	3.55
4EJ7	3.55
4ES8	4.05
4EW6	2.90
4GK5	3.90
4GM6	2.20
4GS8	3.70
4GX7	3.60
4GZ5	2.35
4HA5	2.95
4HA7	3.05
4HC7	3.05
4HM6	2.85
4HS8	3.35
4HT6	2.55
4JC6	3.60
4JD6	3.60
5AM8	4.05
5AN8	4.45
5AQ5	2.40
5AR4/GZ34	4.25
5AS4A	3.45
5AS8	4.40
5AT8	3.80
5AU4	3.65
5AV8	3.85
5AZ4	5.30
5B8	5.50
5BC3	3.15
5BE8	3.10
5BK7A	3.75
5BQ7A	4.00
5BR8	4.20
5BT8	3.10
5BW8	3.20
5CG8	3.15
5CL8A	3.85
5CM8	3.55
5CQ8	4.10
5CZ5	4.45
5DJ4	3.35
5EA8	3.80
5EU8	3.45
5EW6	3.05
5FG7	2.60
5FV8	3.00
5GH8	4.10
5GM6	2.80
5GX6	2.45
5GX7	3.60
5HA7	3.05
5HB7	2.75
5HG8	3.70
5J6	3.25
5JK6	3.85
5KD8	2.50
5KE8	5.20
5LJ8	4.10
5T8	4.20
5U4G	2.10
5U4GB	2.10
5U8	3.10
5V3A	3.50
5V4GA	3.55
5V6GT	3.40
5X4G	3.15
5X8	3.75
5Y3GT	1.75
5Y4GA	2.45
5Y4GT	3.40
5Z3	3.95
6A7	8.00
6A8	6.45
6AB4	2.45
6AC5GT	5.85
6AC7	$5.50
6AC10	3.70
6AD10	6.90
6AF3	3.10
6AF4	3.75
6AF4A	3.75
6AF6G	6.30
6AF11	4.75
6AG5	2.85
6AG7	6.20
6AG11	4.15
6AH4GT	3.25
6AH6	4.40
6AK5/EF95	4.50
6AL3	2.90
6AL5	1.75
6AL7GT	6.95
6AL11	4.15
6AM4	5.55
6AM8A	3.25
6AN4	6.15
6AN8A	3.75
6AQ5A	2.25
6AQ6	2.70
6AQ7GT	4.10
6AQ8/ECC85	3.00
6AR5	2.45
6AR11	4.10
6AS5	2.75
6AS8	4.00
6AS11	5.10
6AT6	2.05
6AT8A	4.00
6AU4GTA	3.40
6AU5GT	4.65
6AU6A	1.95
6AU8A	4.40
6AV5GA	4.70
6AV6	1.60
6AW8A	3.60
6AX3	2.60
6AX4GTB	2.50
6AX5GT	3.25
6AX8	3.50
6AY3B	2.90
6AY11	4.10
6AZ8	5.50
6B8	6.85
6B10	3.35
6BA3	3.05
6BA6/EF93	1.90
6BA7	5.85
6BA8A	4.00
6BA11	4.10
6BC4	5.50
6BC5	2.25
6BC7	3.60
6BC8	3.75
6BD6	2.35
6BD11	5.05
6BE3	2.85
6BE6	2.40
6BF5	3.35
6BF6	1.95
6BF11	4.90
6BG6G	6.10
6BH3	2.80
6BH6	2.75
6BH8	4.00
6BH11	3.90
6BJ3	2.80
6BJ6	2.75
6BJ7	2.95
6BJ8	3.60
6BK4B	7.55
6BK5	3.50
6BK7B	3.55
6BL7GTA	4.40
6BL8/ECF80	3.75
6BM8/ECL82	2.90
6BN4A	3.40
6BN6	3.00
6BN8	3.15
6BQ5	2.65
6BQ6GTB/ 6CU6	4.10
6BQ7A	3.75
6BR8A	3.85
6BS3A	3.30
6BS8	$3.75
6BU8	3.40
6BV8	3.00
6BW4	2.75
6BW8	3.35
6BX7GT	5.60
6BY5GA	4.80
6BY6	2.75
6BY8	2.70
6BZ6	2.10
6BZ7	3.75
6BZ8	4.20
6C4	1.75
6C5	5.35
6C6	7.85
6C9	5.50
6C10	3.70
6CA4	2.30
6CA5	3.00
6CA7/EL34	5.35
6CB5A	9.35
6CB6A	2.10
6CD6GA	5.50
6CE5	2.20
6CF6	2.75
6CG7 use 6FQ7/6CG7	
6CG8A	3.10
6CH8	5.60
6CK3	2.60
6CK4	3.55
6CL6	3.80
6CL8A	3.75
6CM6	3.35
6CM7	2.75
6CM8	4.05
6CN7	4.00
6CQ4	3.55
6CQ8	3.30
6CR6	2.95
6CS6	2.45
6CS7	2.80
6CU5	2.70
6CU6 use 6BQ6GTB/6CU6	
6CU8	4.40
6CW4	4.60
6CW5/EL86	3.10
6CX8	4.25
6CY5	3.45
6CY7	3.05
6CZ5	4.10
6D10	3.85
6DA4	3.05
6DB5	5.00
6DC6	3.55
6DC8/EBF89	3.05
6DE4	3.05
6DE6	2.40
6DE7	3.65
6DG6GT	3.55
6DK6	2.25
6DL5	2.95
6DM4A	3.05
6DN6	7.00
6DN7	3.35
6DQ4	2.45
6DQ5	7.85
6DQ6B	4.20
6DR7	4.10
6DS4	4.60
6DS5	3.30
6DT5	3.55
6DT6A	2.05
6DT8	3.55
6DV4	6.45
6DW4B	3.50
6DW5	3.85
6DX8/ECL84	2.90
6DZ4	3.75
6E5	5.65
6EA4	7.30
6EA5 use 6CY5	
6EA7	5.20
6EA8	3.00
6EB8	4.40
6EH5	2.90
6EH7/EF183	3.85
6EH8	3.00
6EJ7/EF184	$3.55
6EM5	3.20
6EM7	4.80
6EQ7	2.75
6ER5	3.55
6ES5	2.85
6ES8/ECL189	5.45
6ET7	4.00
6EU7	2.70
6EU8	3.35
6EV5	2.85
6EV7	2.75
6EW6	2.35
6EW7	5.50
6EX6	7.50
6EY6	3.60
6EZ5	4.05
6EZ8	3.55
6F5	5.50
6F6	5.80
6F6G	5.80
6F6GT	5.80
6F8G	8.45
6FA7	2.95
6FD7	5.05
6FE5	3.40
6FG6 use EM84/6FG6	
6FG7	3.55
6FH5	3.15
6FH8	4.05
6FJ7	3.75
6FM7	3.25
6FM8	2.85
6FQ5A	3.85
6FQ7/6CG7	2.35
6FS5	4.10
6FV6	4.00
6FV8A	3.30
6FW5	3.85
6FY5/EC97	2.75
6FY7	3.20
6G6G	6.80
6G11	4.40
6GB5	3.80
6GC5	4.00
6GE5	3.85
6GF5	3.50
6GF7A	4.85
6GH8A	3.20
6GJ5A	5.60
6GJ7/ECF801	3.10
6GK5	3.85
6GK6	3.00
6GL7	5.50
6GM5	3.05
6GM6	2.75
6GN8	4.10
6GQ7	3.75
6GT5A	5.40
6GU5	4.10
6GU7	3.20
6GV5	4.15
6GV8	3.10
6GW6/6DQ6B	4.20
6GW8/ECL86	3.05
6GX6	2.60
6GX7	3.60
6GY5	4.60
6GY6	2.60
6GY8	3.55
6GZ5	2.70
6H6	4.30
6HA5 use 6HM5/6HA5	
6HB5	4.20
6HB6	4.45
6HB7	3.35
6HE5	3.70
6HF5	7.30
6HF8	4.00
6HG5	2.70
6HG8/ECF86	4.10
6HJ5	5.80
6HJ8	3.10
6HK5	3.90
6HL8	3.05
6HM5/6HA5	3.85
6HM6	2.70
6HQ5	$4.50
6HR5	2.55
6HR6	2.75
6HS6	2.75
6HS8	3.55
6HZ6	2.75
6HZ8	5.50
6J5	3.70
6J5GT	3.70
6J6A	2.65
6J7	5.00
6J10	5.00
6J11	4.80
6JB6A	5.85
6JC6	3.75
6JC8	3.05
6JD6	3.30
6JE6A	8.50
6JE8	3.70
6JF6	6.10
6JG6A	6.00
6JH6	2.45
6JH8	4.10
6JK8	4.05
6JM6	4.15
6JM6A	4.15
6JN6	3.85
6JN8	3.65
6JS6	7.30
6JS6A	7.30
6JT6A	4.95
6JT8	4.00
6JU8A	3.35
6JV8	4.00
6JW8/ECF802	3.10
6JZ8	3.55
6K6GT	2.45
6K7	5.00
6K8	7.05
6K11/6Q11	3.65
6KA8	4.25
6KD6	7.70
6KD8	2.80
6KE8	5.35
6KL8	2.60
6KM6	8.20
6KM8	3.45
6KR8	4.25
6KT8	4.25
6KU8	4.80
6KV8	5.85
6KY8A	7.25
6KZ8	3.40
6L6	8.80
6L6GC	4.55
6L7	6.95
6LB8	4.70
6LC8	3.85
6LE8	5.55
6LF8	3.50
6LJ8	4.10
6LM8	4.15
6LN8	2.40
6LQ8	5.05
6LU8	4.75
6LX8 LCR802	2.60
6LY8	3.55
6LT8	2.55
6M11	4.55
6MD8	4.85
6N7	5.05
6N7GT	5.20
6Q7	5.50
6S4A	2.35
6S8GT	4.15
6SA7	4.40
6SA7GT	4.40
6SB7Y	5.95
6SC7	4.40
6SF5	3.70
6SF7	6.30
6SG7	4.70
6SH7	5.35
6SJ7	4.15
6SJ7GT	3.90
6SK7	4.25
6SK7GT	5.50
6SL7GT	3.35
6SN7GTB	2.70
6SQ7	3.85
6SQ7/GT	3.55

Net

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RCA ELECTRON TUBES

ENTERTAINMENT RECEIVING TYPES

* Optional List

PRICE SCHEDULE — AUGUST, 1966

RCA Type	List Price*
6SR7	$4.25
6T4	5.15
6T8A	3.35
6T9	3.70
6T10	4.25
6U5	7.40
6U9/ECF201	2.90
6U8A	3.10
6U10	3.65
6V3A	4.55
6V6	6.35
6V6GTA	2.40
6W4GT	2.30
6W6GT	2.95
6X4	1.60
6X5GT	2.10
6X8	3.00
6X9/ECF200	2.90
6Y6GA/6Y6G	4.05
6Y9	3.10
6Z4 use 84/6Z4	
7A5	5.65
7A7	7.15
7A8	7.80
7AU7	2.45
7C5	3.35
7C6	7.30
7C7	3.40
7EY6	3.35
7F7	7.50
7F8	8.25
7HG8/PLF86	2.95
7N7	7.10
7V7	4.65
7X7	7.65
8AU8	3.85
8AW8A	3.65
8B10	3.35
8BA8A	3.45
8BH8	3.35
8BM11	3.90
8BN8	3.05
8BQ5	2.75
8BQ11	4.30
8BU11	4.10
8CG7 use 8FQ7/8CG7	
8CM7	2.70
8CN7	3.05
8CS7	3.05
8CW5	2.55
8CX8	4.40
8EB8	4.10
8EM5	3.40
8ET7	4.15
8FQ7/8CG7	2.35
8GJ7	3.25
8GN8	3.70
8JV8	3.65
8KA8	3.85
8LC8	3.85
8LT8	2.70
9A8/PCF80	3.40
9AU7	2.65
9BJ11	4.80
9BR7	3.15
9EA8	$3.05
9GV8	3.40
9KC6	4.35
9KZ8	2.95
9U8A	3.10
10AL11	4.55
10C8	5.15
10CW5	3.40
10DE7	3.50
10DR7	4.10
10DX8/LCL84	2.75
10EG7	4.35
10EM7	4.45
10GN8	3.55
10HF8	4.65
10JA8	3.75
10JT8	4.05
10JY8	3.65
10KR8	4.25
10KU8	485
10LE8	5.90
10LW8	4.25
10LZ8	2.95
11AR11	4.10
11BQ11	4.10
11CY7	3.60
11JE8	3.85
11KV8	5.90
11LQ8	5.90
11Y9	3.10
12AB5	3.30
12AC6	2.10
12AD6	2.60
12AE6A	2.75
12AF3	3.85
12AF6	2.85
12AJ6	2.40
12AL5	2.10
12AL8	6.15
12AL11	4.20
12AQ5	2.45
12AT6	1.75
12AT7/ECC81	2.85
12AU6	2.00
12AU7A/ ECC82	2.35
12AV5GA	4.50
12AV6	1.60
12AV7	3.40
12AW6	3.10
12AX3	3.00
12AX4GTB	2.55
12AX7A/ ECC83	2.40
12AY3	2.65
12AY7	4.85
12AZ7A	2.85
12B4A	3.05
12BA6	1.60
12BA7	5.60
12BD6	2.35
12BE3	3.05
12BE6	1.95
12BF6	2.10
12BF11	4.35
12BH7A	2.90
12BK5	$3.75
12BL6	2.95
12BQ6GTB/ 12CU6	4.20
12BR7	3.05
12BS3A	3.35
12BT3	2.85
12BV7	3.30
12BW4	2.75
12BY7A	3.05
12BZ6	2.10
12BZ7	4.15
12C5 use 12CU5/12C5	
12CA5	2.85
12CN5	3.25
12CR6	2.95
12CU5/12C5	2.75
12CU6 use 12BQ6GTB/ 12CU6	
12CX6	2.75
12D4	2.75
12DB5	2.60
12DK6	2.30
12DK7	2.75
12DL8	5.85
12DQ6B	4.25
12DQ7	3.25
12DS7	4.05
12DT5	3.10
12DT8	3.55
12DU7	4.40
12DW7	3.05
12DY8	7.95
12DZ6	3.60
12EC8	3.40
12ED5	2.70
12EG6	3.45
12EK6	3.10
12EL6	1.90
12EN6	2.90
12EQ7	2.75
12F8	2.90
12FK6	2.20
12FM6	2.60
12FQ8	4.15
12FV7	3.40
12FX5	2.45
12FX8A	3.85
12GA6	2.70
12GC6	3.95
12GE5	4.10
12GJ5A	4.90
12GN7A	3.90
12GT5	5.35
12GW6/ 12DQ68	4.25
12H6	4.00
12HE7	6.80
12HG7	3.90
12J5GT	4.80
12J8	4.35
12JB6A	5.65
12JN6	3.90
12JN8	3.70
12JT6A	$4.95
12K5	3.45
12K7GT	6.60
12KL8	2.45
12L6GT	3.55
12R5	3.35
12SA7	4.40
12SA7GT	4.40
12SC7	5.20
12SF5	3.85
12SF7	6.20
12SG7	4.70
12SH7	5.40
12SJ7	4.30
12SK7	4.00
12SK7GT	4.00
12SL7GT	3.55
12SN7GTA	2.80
12SQ7	3.75
12SQ7GT	3.75
12V6GT	3.75
12W6GT	3.75
12X4	1.95
13CW4	5.05
13DE7	3.50
13DR7	3.85
13EM7	4.85
13FD7	4.55
13FM7	3.00
13GB5	3.80
13GF7	4.70
13J10	5.05
13V10	4.10
14A7	5.55
14B6	5.30
14BL11	5.10
14BR11	4.80
14GT8	3.45
14JG8	3.10
14Q7	5.85
15AF11	4.75
15BD11	4.85
15CW5/PL84	2.65
15DQ8	2.95
15FM7	3.40
15FY7	3.55
15HB6	3.85
15KY8A	4.75
15LE8	7.65
16A8	2.95
16AQ3/ XY88	2.70
16GK6	3.05
16GY5	4.85
17AX3	2.60
17AX4GTA	3.05
17AY3	2.65
17BE3	2.90
17BF11	4.55
17BH3	2.85
17BQ6GTB	5.20
17BS3A	3.35
17C5	2.20
17C9	7.15
17CK3	2.60
17CU5	2.35
17D4	$3.05
17DE4	3.20
17DM4A	3.05
17DQ6B use 176W6/ 17DQ6B	
17EW8/ HCL85	2.75
17GE5	4.35
17GJ5A	5.50
17GT5	4.45
17GV5	4.20
17GW6/ 17DQ6B	4.25
17JB6A	5.50
17JG6A	5.75
17JM6	4.20
17JN6	3.90
17JT6A	4.95
17JZ8	3.55
17LD8 use 15KY8	
17X10	4.50
18FW6A	2.45
18FX6A	2.40
18FY6A	2.20
18GD6A	2.00
19AU4GTA	3.55
19BG6GA	6.65
19CL8A	3.70
19EA8	3.85
19EZ8	4.50
19GQ7	3.80
19HR6	2.45
19HS6	2.40
19HV8	3.55
19J6	3.70
19JN8	3.05
19T8	4.05
19X8	4.10
20EZ7	3.40
21GY5	4.65
21HB5	4.35
21HJ5	5.85
21JV6	4.20
21JZ6	4.40
21LR8	6.00
22BH3A	3.10
22BW3	3.05
22DE4	3.40
22JF6	6.85
22JG6A	5.90
22JU6	5.75
23Z9	4.70
25AV5GA	4.80
25AX4GT	3.05
25BK5	3.40
25BQ6GTB/ 25CU6	4.40
25C5	2.20
25CA5	3.60
25CD6GB	5.75
25CU6 use 25BQ6GTB/ 25CU6	
25DN6	5.95
25EC6	6.15
25EH5	2.90
25F5A	$3.85
25L6GT	2.95
25W4GT	2.55
25Z5	4.35
25Z6GT	3.25
27GB5/PL500	3.70
31JS6A	7.30
32ET5A	2.40
33GT7	6.95
33GY7	6.05
33JV6	4.20
34GD5A	2.20
35A5	5.65
35B5	3.20
35C5	2.10
35DZ8	4.00
35EH5	2.75
35GL6	2.90
35L6GT	2.75
35W4	1.25
35Y4	4.50
35Z3	4.70
35Z4GT	2.55
35Z5GT	2.20
36AM3B	1.55
38HE7	6.65
38HK7	6.55
42	4.85
43	7.20
50A5	5.85
50B5	2.60
50C5	2.20
50DC4	1.95
50EH5	2.30
50FE5	4.10
50FK5	2.20
50HC6	2.40
50HK6	2.15
50L6GT	2.85
50X6	5.85
50Y6GT	4.35
50Y7GT	4.25
60FX5	2.60
80	4.80
84/6Z4	3.40
117L7/M7GT	9.55
117N7GT	12.85
117P7GT	12.85
117Z3	4.50
117Z6GT	6.70
5879	3.85
6973	4.25
7025	2.80
7027A	6.75
7189	2.85
7199	4.45
7247	3.20
7355	3.10
7408	3.35
7543	2.90
7591A	2.80
7695	4.40
7868	3.85
EM84/6FG6	3.35

INDUSTRIAL TUBES FOR DEALER SERVICE

0A2	$1.85	6AK6	$2.90	925	$5.20	5726/6AL5W	$2.20	6201	$3.55	6922	$6.85
0A2WA	4.05	6AS6	4.85	927	5.50	5727/2D21W	4.10	6202	3.80	6939	15.95
0A3	2.20	6AS7G	6.95	929	3.05	5749/6BA6W	3.10	6336A	26.70	7054	2.20
0A3A	2.20	6DJ8	2.65	930	4.45	5750	4.85	6350	2.60	7056	$1.30
0A4G	2.65	6J4	5.65	991	1.45	5751	3.60	6360	6.30	7057	2.75
0B2	1.95	6X4W	2.25	1612	8.10	5763	3.45	6386	10.35	7058	1.80
0B2WA	2.85	12A6	4.75	1614	6.95	5783	5.90	6417	$4.70	7059	2.10
0C3	2.10	12AT7WA	3.55	1619	8.75	5814A	3.30	6550	6.45	7061	1.85
0C3A	2.10	12AT7WB	3.55	1620	10.60	5823	2.45	6550V1	14.80	7167	2.00
0D3	2.05	12SW7	2.10	1625	6.45	5824	4.20	6660/6BA6	1.45	7308	6.00
0D3A	2.05	12SX7GT	3.55	1629	2.90	5881	4.35	6661/6BH6	1.90	7360	5.30
0Z4A	1.60	12SY7	3.75	1635	5.90	5915	2.30	6662/6BJ6	1.85	7551	4.75
1L4	3.10	83	2.65	2050	3.35	5963	1.95	6663/6AL5	1.30	7558	4.90
1P40	4.40	502A	3.20	2050A	2.85	5964	2.20	6664/6AB4	1.60	7717/ 6CY5	1.95
2D21	1.85	807	3.70	5581	4.30	5965	2.70	6669•6AQ5A	1.50		
2E24	7.55	811A	8.35	5642	4.95	6005	4.55	6676/6CB6A	1.50	7724/ 14GT8	2.10
2E26	4.40	812A	8.90	5651	2.50	6005/6AQ5W	4.55	6677/6CL6	2.60	7898	1.90
2X2A	5.05	816	4.20	5651A	2.50	6080	7.50	6678/6U8A	2.30	7905	5.40
3A5	2.85	866A	3.80	5654	3.40	6136	3.80	6679/12AT7	2.10	8077/ 7054	2.10
3AQP1	27.05	868	5.50	5654/6AK5W	3.45	6146A	5.15	6680/12AU7A	1.75		
3B25	10.75	884	3.20	5670	3.45	6146B/ 8298A	6.10	6681/12AX7A	1.80	8156	5.45
5CP1A	44.35	885	2.75	5672	$3.20	6159	5.65	6883	5.05	9001	7.55
5R4GY	2.85	918	$7.05	5686	4.75	6159B	6.55	6883B/8032/ 8552	6.35	9002	5.80
5R4GYB	2.85	920	8.70	5687	4.80	6197	3.25	6893	5.55	9003	7.55
5UP1	$19.30	922	4.05	5725	4.45						

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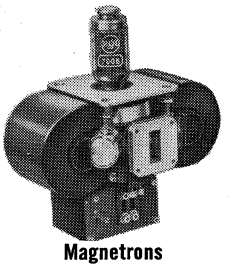
RCA ELECTRON TUBES
FOR INDUSTRY AND COMMUNICATIONS

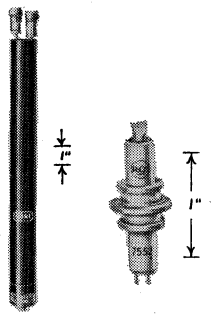
RESALE PRICE SCHEDULE • AUGUST 1, 1966

POWER/MICROWAVE/PHOTOSENSITIVE/CAMERA/DISPLAY/INDUSTRIAL RECEIVING

MICROWAVE DEVICES

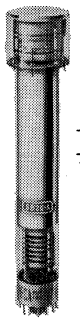


Magnetrons



Traveling Wave — Pencil

CAMERA & DISPLAY



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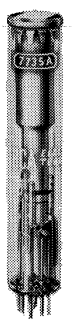

Vidicons

RCA Type	Dist. Resale Price Optional
RCA POWER TUBES	
RCA VACUUM POWER TUBES FOR CW APPLICATIONS	
2C39A	$20.75
2C39A-V1	20.75
2C39WA	29.00
2C40	29.30
2C40A	34.00
2C43	26.95
2E24	6.45
2E26	3.75
4-125A/4D21	36.00
4-250A/5D22	46.50
4E27A/5-125B	45.00
4X500A	128.50
9C21	1,865.00
9C25	1,775.00
207	400.00
801A	14.25
805	24.40
807	3.40
809	9.65
810	28.60
811A	7.15
812A	7.60
813	24.25
815	35.75
827R	470.00
828	34.50
829B	19.90
832A	16.65
833A	61.20
837	13.95
845	28.40
880	760.00
889A	290.00
889RA	435.00
891R	490.00
892	342.00
892R	440.00
1624	7.90
1625	5.50
4604	8.75
5556	52.45
5671	1,860.00
5713	420.00
5762/7C24	240.00
5770	1,500.00
5771	700.00
5786	265.00
6146A	4.35
6146B/8298A	5.20
6146W	6.75
6155	36.00
6156	42.60
6159	4.80
6159B	5.60
6159W/7357	6.75
6161	125.00
6166	735.00
6166A/7007	1,005.00
6524	22.75
6806	69.75
6816	52.90
6850	20.70
6883	4.30
6883B/8032A/8552	5.40
6884	45.75
6893	4.75
6897	32.15
7034/4X150A	25.00
7035/4X150D	27.90
7094	35.45
7203/4CX250B	35.75
7204/4CX250F	39.35
7213	410.00
7271	30.20
7457	65.25
7580	40.05
7650	240.00
7801	120.00
7842	65.25
7843	34.35
7844	$ 52.00
7870	120.00
8000	25.00
8005	17.85
8032	4.95
8072	20.00
8121	25.80
8122	31.50
8165/4-65A	27.00
8166/4-1000A	132.00
8168/4CX1000A	181.00
8170/4CX5000A	495.00
8226	83.00
8239/3X3000F1	215.00
8438/4-400A	48.00
8560	51.50
8596	106.00
RCA VACUUM POWER TUBES FOR RF-PULSE APPLICATIONS	
2C40A	34.00
2041	7825.00
4622	70.00
5946	125.00
7214	440.00
7649	70.00
7651	260.00
8227	90.10
RCA HARD-TUBE MODULATORS	
3E29	21.50
6293	5.95
RCA VACUUM POWER TUBES FOR SPECIAL APPLICATIONS	
3C33	35.75
4600A	360.00
4614	310.00
RCA RECTIFIERS VACUUM TYPES — Half-Wave Types	
2X2A	3.95
579B	20.50
836	12.65
1616	15.10
5825	26.45
8013A	19.80
8020	16.00
MERCURY-VAPOR TYPES — Half-Wave Types (except as noted)	
575A	21.00
604/7014	11.80
615/7018	10.05
635/7019	13.00
635L/7020	13.50
673	21.00
816	3.60
857B	245.00
866A	3.25
869B	155.00
872A	10.85
5558	17.50
5561	59.00
6894	25.70
6895	25.70
8008	10.85
GAS TYPES — Half-Wave Types	
3B25	9.15
3B28	7.00
RCA IGNITRONS	
5550	49.00
5551A	65.00
5552A	99.00
5553B	245.00
RCA THYRATRONS TRIODES (Mercury-Vapor Types)— For Control Service (except as noted)	
3C23	11.98
627	31.50
676	63.80
677	$63.80
710/6011	12.00
714/7021	10.00
716/6855	12.50
760/6858	28.10
5557	9.50
5559	23.00
5563A	50.00
TRIODES (Gas Types)— For Control Service (except as noted)	
3D22A	32.30
629	18.25
6130/3C45	14.00
C1K/6014	11.80
C3J/5632	12.70
C3JA/5684	13.10
C3JL	14.20
C6J/5C21	28.10
C6JA/5685	29.00
C16J/5665	52.50
TETRODES (Mercury-Vapor Types)— For Control Service (except as noted)	
105	59.00
172	129.00
632B	33.00
672A	39.85
5560	33.00
RCA MICROWAVE TUBES	
RCA MAGNETRONS For Pulsed-Oscillator Service	
6521	700.00
7008	1,110.00
6865-A	1,590.00
4011-A	1,585.00
RCA TRAVELING-WAVE TUBES	
4013	1,425.00
4015	3,160.00
4017	1,340.00
4019	1,725.00
4020	2,845.00
4021	2,635.00
6861	955.00
7642	1,265.00
RCA PENCIL TUBES	
4037A	29.60
4046	58.00
5675	8.95
5876	8.60
5876A	8.60
5893	20.75
6173	13.35
6263A	13.05
6264A	13.85
6562/5794A	6.80
7533	6.80
7552	47.70
7553	57.10
7554	40.00
RCA PHOTOSENSITIVE TUBES & DEVICES	
RCA PHOTOCONDUCTIVE CELLS	
SQ2501	2.85
SQ2502	1.90
SQ2508	1.90
SQ2509	1.00
4402	1.70
4403	1.30
4404	1.35
4413	2.35
4423	2.05
4425	2.05
4448	1.35
4450	1.40
4451	1.40
4453	1.60
7163	1.30
RCA PHOTOJUNCTION CELLS	
SQ2534	$ 1.65
RCA PHOTOVOLTAIC CELLS	
SL2205	10.30
SL2206	14.30
RCA PHOTOTUBES SINGLE- AND TWIN-UNIT TYPES — Gas Types	
1P29	6.95
1P37	5.60
1P40	4.10
1P41	4.45
868	6.30
918	6.30
920	10.75
921	5.20
923	4.30
927	6.00
930	4.95
4409	5.35
5581	4.00
5582	6.30
5583	5.70
6405/1640	7.85
6953	5.35
SINGLE AND TWIN-UNIT TYPES — Vacuum Tubes	
1P39	2.50
1P42	17.25
917	8.50
919	9.65
922	3.80
925	4.80
926	4.80
929	3.45
934	5.75
935	14.20
5652	6.25
5653	2.80
6570	10.30
7043	8.75
RCA MULTIPLIER PHOTOTUBES	
1P21	54.35
1P22	15.80
1P28	21.50
931-A	12.30
2020	85.00
2067	155.00
4438	105.00
4439	105.00
4440	105.00
4441	155.00
4441A	320.00
4459	490.00
4460	205.00
4461	260.00
4463	310.00
4464	340.00
4465	420.00
5819	64.25
6199	47.30
6217	72.00
6328	13.65
6342-A	57.20
6472	14.75
6655-A	54.35
6810-A	195.00
6903	370.00
7046	570.00
7102	110.00
7117	12.65
7200	190.00
7264	265.00
7265	375.00
7326	410.00
7746	200.00
7764	125.00
7767	120.00
7850	240.00
8053	107.25
8054	125.00
8055	170.00
8575	360.00

P—Price and Delivery on Request

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RCA ELECTRON TUBES

FOR INDUSTRY AND COMMUNICATIONS

RESALE PRICE SCHEDULE • AUGUST 1, 1966

POWER/MICROWAVE/PHOTOSENSITIVE/CAMERA/DISPLAY/INDUSTRIAL RECEIVING

RCA Type	Dist. Resale Price Optional
RCA CAMERA & DISPLAY TUBES	
RCA IMAGE ORTHICONS	
4492	$1,850.00
4513	1,320.00
4513/S	1,400.00
8092-A	1,870.00
8093-A	1,250.00
8093/AL	1,800.00
5820-A	995.00
5820A/L	1,800.00
7513	1,320.00
7513L	1,800.00
7513/S	1,400.00
4401/V1	1,320.00
4414/7611	1,620.00
4415/S**	1,400.00
4415V1	1,320.00
4416/S**	1,400.00
7295-B	1,440.00
7295/BL	1,975.00
7389-B	1,440.00
7629-A	1,700.00
RCA MONOSCOPES	
2F21	300.00
1699	P
RCA VIDICONS	
2048-A	720.00
4427	585.00
4478	107.00
4488	125.00
4493	1,055.00
4494	1,055.00
4495	1,055.00
6326	515.00
632A	515.00
7038	185.00
7262-A	250.00
7263-A	430.00
7697	185.00
7735-B	185.00
8051	575.00
8134	405.00
8134/V1	405.00
8480	820.00
8480/V1	1,200.00
8507	250.00
8572	260.00
8573	310.00
RCA IMAGE-CONVERTER TUBES	
4449-A	1,750.00
6032-A	170.00
6381	78.00
6914	99.25
6914/V1	135.00
6914/V2	140.00
6914/V3	150.00
6914-A	130.00
6929	97.00
7404	370.00
RCA CATHODE-RAY TUBES OSCILLOGRAPH TYPES	
1EP1	25.75
1EP11	28.10
2AP1-A	19.00
2BP1	20.15
2BP11	21.60
3AP1-A	27.20
3AQP1	24.20
3BP1-A	24.70
3JP1	25.75
3KP1	27.90
3RP1	15.80
3RP1-A	27.15
3WP1	30.05
5ABP1	35.75
5ADP1	34.00
5BP1-A	35.05
5CP1-A	37.90
5UP1	16.50
5UP7	26.25
7VP1	27.20
7VP31	24.85
902-A	21.45
TRANSCRIBER KINESCOPE	
5WP11	99.40
VIEW-FINDER KINESCOPES	
5FP4-A	$31.45
MONITOR KINESCOPES	
7TP4	75.80
8HP4	48.30
8NP4	30.75
14BAP4	36.25
17DWP4	25.65
21EYP4	31.85
PROJECTION KINESCOPES	
5AZP4	127.00
7NP4	1,085.00
7WP4	1,110.00
FLYING-SPOT CATHODE-RAY TUBES	
5AUP24	150.00
5WP15	99.40
5ZP16	92.25
STORAGE TUBES COMPUTER STORAGE TUBE Primary-Current-Modulation Type	
6571	77.95
DISPLAY STORAGE TUBES Direct-View Types	
4412	3,240.00
4454	1,135.00
6866	1,280.00
7183	1,000.00
7315	925.00
RADECHON Single Beam, Barrier-Grid Type	
1858	430.00
6499	360.00
GRAPHECHON Scan-Conversion Type	
7539	1,720.00
RECEIVING TYPE TUBES FOR INDUSTRY AND COMMUNICATIONS	
Beam Deflection	
7360	3.77
Beam Power	
Subminiature:	
5902	4.80
Miniature:	
5686	3.37
5763	2.45
6005	3.23
6005/6AQ5W	3.23
6005/6AQ5W/6095	3.23
6417	3.33
6669/6AQ5A	1.06
7061	1.29
7551	3.37
7558	3.49
7905	3.85
Other Air-Cooled Types:	
12A6	3.36
1614	4.93
1619	6.23
1622	5.35
1631	3.80
Diodes, Misc.	
9005	8.05
9006	2.70
Glow-Discharge	
0A2	1.32
0A3	1.54
0A3A	1.54
0A4G	1.86
0B2	1.37
0C2	1.50
0C3	1.50
0C3A	1.50
0D3	1.44
0D3A	$1.44
1C21	4.15
991	.87
5651	1.78
5651A	1.78
5651WA	3.80
5823	1.72
6072	3.90
6073	3.00
6073/0A2	3.35
6074	3.45
6074/0B2	3.70
6626/0A2WA	3.35
Pentodes	
Subminiature:	
5636	6.10
5639	5.25
5840	5.35
5899	5.55
6205	6.40
6206	7.25
Miniature:	
1L4	1.50
3A4	1.25
6AK6	1.40
6AS6	3.43
6AU6WA	2.70
6AU6WB	2.70
26A6	3.70
5618	6.75
5654	2.41
5654/6AK5W	2.45
5654/6AK5W/6096	2.45
5725	3.15
5749	2.20
5749/6BA6W	2.20
5847/404A	9.55
6136	2.70
6186	3.85
6186/6AG5WA	3.85
6189/12AU7WA	3.70
6197	2.30
6660/6BA6	1.01
6661/6BH6	1.34
6662/6BJ6	1.29
6676/6CB6A	1.06
6677/6CL6	1.86
7054	1.54
7056	.92
8077/7054	1.50
9001	5.38
9003	5.38
Acorn:	
959	13.85
Other Air-Cooled Types:	
6AC7W	5.45
6AG7Y	2.80
1613	3.30
1620	7.55
1621	3.85
5693	6.60
Rectifiers	
Vacuum:	
83	1.89
5R4GYB	2.03
6X4W	1.60
5642	3.53
Tetrodes	
Nuvistor:	
7587	5.20
Thyratrons	
Gas:	
2D21	1.29
2D21W	2.90
884	2.28
502A	2.28
2050	2.37
2050A	2.03
5696	1.95
5727	2.90
5727/2D21W	2.90
6012	7.65
Triodes	
Subminiature:	
5718	3.65
5719	3.15
6814	5.90
Miniature:	
6J4	$4.02
6J4WA	5.60
6J6WA	5.35
664/6AB4	1.12
9002	4.14
Nuvistor:	
7586	3.35
7895	3.35
8056	5.00
8058	13.25
8203	3.80
8393	3.45
Acorn:	
6F4	14.40
6L4	8.40
955	7.05
Twin Diodes	
5726	1.55
5726/6AL5W	1.55
5726/6AL5W/6097	1.55
5896	3.80
6663/6AL5	.92
6887	1.40
7055	1.00
TWIN PENTODES	
6939	11.37
TWIN TRIODES	
3A5	2.03
6AS7G	4.93
12AT7WA	2.53
12AT7WB	2.53
12SX7GT	2.53
1635	4.20
5670	2.45
5670WA	2.45
5687	4.05
5691	8.75
5692	8.25
5751	2.55
5751WA	2.55
5814A	2.35
5814WA	2.40
5842/417A	7.35
5963	1.36
5964	1.55
5965	1.92
6021	3.50
6072	3.90
6080	5.33
6080WA	10.80
6082	5.60
6101	5.35
6101/6J6WA	5.35
6111	3.70
6112	4.10
6189/12AU7WA	3.70
6201	2.95
6211	2.15
6336A	19.04
6350	1.85
6386	7.38
6679/12AT7	1.53
6680/12AU7A	1.26
6681/12AX7A	1.26
6922	4.87
7044	2.70
7057	1.95
7058	1.26
7898	1.34
TWIN DIODE TRIODES AND TRIODE PENTODES	
12SW7	1.49
26C6	3.05
678/6U8A	1.62
7059	1.48
7060	1.75
MISCELLANEOUS TYPES	
2K26	65.00
12SY7	2.67
26D6	3.05
1612	5.77
1629	2.04
5734	22.05
5750	3.45
5915	1.62
6550	4.59
7724/14GT8	1.48

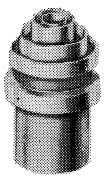
PHOTOSENSITIVE

Multiplier

Phototubes

Photocells

POWER TUBES



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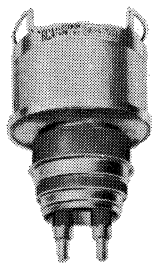

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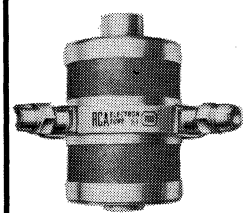

Super

* Available in matched sets of three * * Available as matched set of three—two 4415/s, one 4416/s P—Price and Delivery on Request

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Net

SHIELDMU® TAPE AND FOIL FOR ELECTROMAGNETIC SHIELDING

Table I, at right, lists the currently acceptable magnetic materials used for shielding electronic and electrical components. Stray magnetic fields are easily shunted around sensitive components by use of these high permeability magnetic materials.

Magnetic Metals' SHIELDMU gives the designer a full range of magnetic performance for construction for formed-in-place shields. All SHIELDMU types are available from stock in a number of thicknesses and width for convenient application; SHIELDMU 1 is currently available in .006" thickness only.

ECONOMICAL SHIELDING with SHIELDMU TAPE and FOIL

Magnetic Metal's SRIELDMU tapes and foils are fully processed and ready to use; heat-treatment is not required after forming. Formed-in-place shields save time and expense when compared to fabrication of special shields. This is most important where experimental results are urgently required, or where small quantity needs make tooling costs uneconomical.
Many manufacturers form shields in place around inductive components to save space and achieve magnetic component isolation. Use of tapes and foils also reduces stocking problems associated with drawn or fabricated component shields.

SELECTING SHIELDMU

Shieldmu is provided in four levels of permeability performance. Each is designed to meet the specific requirements of various shielding applications. Multi-layer shields using different materials often give the most economical result by putting high flux capability materials in the region of the strongest field. The high permeability layers are then most effective at the lower field strengths. Shieldmu with adhesive backing eliminates the necessity of taping or spot welding Shieldmu in place.

The thickness of the adhesive itself (not counting the peel-away paper layer) is nominally .001". Clear in color and chemically stabilized for long term life, the adhesive has a bond strength ranging up to 60 oz. per inch at a 90° pulling angle. It is a rubber-based thermoplastic which may be operated in temperatures up to 300°F.

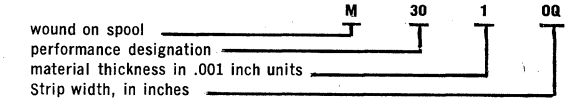
TABLE I

Typical Class of Material	Trade Designations
50% Nickel-Iron Alloys	Shieldmu 30, Hymu 80, Mumetal, Hipernom
80% Nickel-Iron Alloys	Shieldmu 10, 49 Alloy, 4750, Hipernik, Nicaloi
Silicon-Iron Alloys	Shieldmu 3
Low Carbon Steel	Shieldmu 1

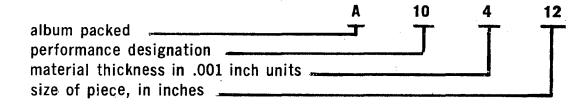
ORDERING INFORMATION:

Shieldmu is carried in stock by your local distributor in twelve-inch square pieces (album packed), as well as in various width and lengths wound on spools. When ordering, please use the part number indicated in the following price lists; each letter and digit is coded to indicate a specific requirement as shown in the examples below:

SHIELDMU wound on spools:



SHIELDMU album packed:



SHIELDMU 30 — (M 30)

Maximum flux 7,000—8,000 gausses. Typical permeabilities—initial 20,000;—maximum 150,000. For maximum atenuation, even at low inductions.
M — Prefix — Regular Back **ABM — Prefix** — Adhesive Back Please order proper prefix.

PRICE LIST per linear foot extended (pulled taut) in random lengths

Part No.	Strip Width (Inches) M	ABM	1-9 M	ABM	10-24 M	ABM	25-49 M	ABM	50-99 M	ABM	100-249 M	ABM	250-499 M	ABM	500-999 M	ABM	Thickness (Inches)
30-1-0Q	¼	—	$ .17	—	$ .16	—	$ .15	—	$ .14	—	$ .13	—	$ .12	—	$ .11	—	.001
30-1-TE	⅜	—	.24	—	.23	—	.22	—	.21	—	.20	—	.19	—	.18	—	.001
30-1-0H	½	—	.30	—	.29	—	.28	—	.27	—	.26	—	.25	—	.24	—	.001
30-1-TQ	¾	—	.48	—	.43	—	.41	—	.39	—	.38	—	.37	—	.36	—	.001
30-1-1	1	—	.63	—	.57	—	.54	—	.51	—	.49	—	.48	—	.47	—	.001
30-1-2	2	—	.99	—	.89	—	.85	—	.82	—	.79	—	.76	—	.73	—	.001
30-2-0Q	¼	¼	.24	.48	.23	.43	.22	.41	.21	.38	.20	.37	.19	.36	.18	.35	.002
30-2-TE	⅜	—	.30	—	.29	—	.28	—	.27	—	.26	—	.25	—	.24	—	.002
30-2-0H	½	½	.42	.84	.38	.76	.37	.72	.36	.69	.34	.66	.32	.63	.31	.59	.002
30-2-TQ	¾	¾	.60	1.20	.54	1.08	.52	1.04	.50	1.00	.48	.96	.46	.92	.44	.88	.002
30-2-1	1	1	.75	1.50	.68	1.35	.66	1.27	.63	1.21	.61	1.17	.59	1.13	.55	1.10	.002
30-2-2	2	2	1.14	2.28	1.03	2.05	.97	1.95	.94	1.85	.90	1.80	.88	1.75	.84	1.67	.002
30-2-4	—	4	—	4.50	—	4.05	—	3.83	—	3.70	—	3.57	—	3.44	—	3.30	.002
30-2-5TQ	—	5¾	—	6.00	—	5.40	—	5.10	—	4.93	—	4.76	—	4.59	—	4.40	.002
30-4-0Q	¼	¼	.33	.66	.31	.59	.30	.57	.29	.55	.27	.53	.26	.51	.25	.49	.004
30-4-TC	⅜	—	.39	—	.35	—	.33	—	.32	—	.30	—	.29	—	.28	—	.004
30-4-0H	½	½	.54	1.08	.49	.97	.48	.94	.46	.91	.44	.88	.42	.84	.40	.80	.004
30-4-TQ	¾	¾	.72	1.44	.65	1.29	.62	1.15	.59	1.13	.57	1.11	.55	1.09	.53	1.06	.004
30-4-1	1	1	1.05	2.10	.94	1.89	.90	1.68	.86	1.65	.83	1.62	80	1.58	.77	1.54	.004
30-4-2	2	2	1.56	3.12	1.40	2.81	1.34	2.49	1.25	2.44	1.21	2.39	1.18	2.34	1.15	2.29	.004
30-4-4	4	4	2.58	5.16	2.32	4.64	2.19	4.24	2.06	4.02	4.05	3.87	—	3.84	—	3.80	.004
30-4-8	8	8	5.25	10.50	4.72	9.45	4.50	8.40	4.20	8.05	4.05	7.84	—	7.72	—	7.60	.004
30-4-11TQ	—	11¾	—	12.00	—	10.80	—	9.60	5.40	—	5.25	—	—	—	—	—	.004
30-4-12	12	—	6.75	—	6.05	—	5.70	—	—	9.40	—	9.20	—	9.00	—	8.80	.004
30-6-0Q	¼	—	.36	—	.35	—	.34	—	.33	—	.31	—	.29	—	.27	—	.006
30-6-TE	⅜	—	.42	—	.38	—	.38	—	.35	—	.34	—	.33	—	.31	—	.006
30-6-0H	½	—	.57	—	.51	—	.49	—	.47	—	.46	—	.44	—	.42	—	.006
30-6-TQ	¾	—	.78	—	.70	—	.66	—	.64	—	.62	—	.60	—	.58	—	.006
30-6-1	1	—	1.14	—	1.02	—	.96	—	.90	—	.87	—	.86	—	.84	—	.006
30-6-2	2	—	1.74	—	1.56	—	1.50	—	1.39	—	1.35	—	1.13	—	1.28	—	.006
30-6-4	4	—	3.15	—	2.83	—	2.67	—	2.51	—	2.44	—	2.37	—	—	—	.006
30-6-8	8	—	5.85	—	4.95	—	4.68	—	4.55	—	4.42	—	—	—	—	—	.006
30-6-12	12	—	6.60	—	5.94	—	5.61	—	5.28	—	4.95	—	—	—	—	—	.006
30-6-15TE	15⅜	—	8.65	—	7.80	—	7.35	—	6.90	—	6.50	—	—	—	—	—	.006

SHIELDMU 10 — (M 10)

Maximum flux 14,000—15,000 gausses. Typical permeabilities—initial 5,000;—maximum 100,000. For good attenuation, even at high inductions.

10-1-0Q	¼	—	$ .15	—	$ .14	—	$ .13	—	$ .12	—	$ .11	—	$ .10	—	$ 0.9	—	.001
10-1-TE	⅜	—	.22	—	.21	—	.20	—	.19	—	.18	—	.17	—	.16	—	.001
10-1-0H	½	—	.27	—	.26	—	.25	—	.24	—	.23	—	.22	—	.20	—	.001
10-1-TQ	¾	—	.42	—	.38	—	.37	—	.36	—	.34	—	.32	—	.31	—	.001
10-1-1	1	—	.54	—	.49	—	.47	—	.45	—	.43	—	.41	—	.40	—	.001
10-1-2	2	—	.87	—	.78	—	.74	—	.70	—	.66	—	.65	—	.64	—	.001
10-2-0Q	¼	¼	.22	.42	.21	.38	.20	.36	.19	.35	.18	.34	.17	.33	.16	.31	.002
10-2-TE	⅜	—	.27	—	.26	—	.25	—	.24	—	.23	—	.22	—	.20	—	.002
10-2-0H	½	½	.39	.78	.37	.70	.35	.62	.32	.61	.31	.60	.30	.59	.29	.58	.002
10-2-TQ	¾	¾	.51	1.02	.46	.92	.43	.87	.41	.84	.40	.81	.39	.78	.38	.75	.002
10-2-1	1	1	.75	1.50	.68	1.35	.65	1.27	.63	1.21	.61	1.17	.59	1.13	.55	1.10	.002
10-2-2	2	2	1.11	2.22	1.01	2.00	.95	1.89	.89	1.83	.86	1.77	.84	1.70	.82	1.63	.002
10-2-4	—	4	—	3.57	—	3.21	—	3.03	—	2.93	—	2.83	—	2.73	—	2.62	.002
10-2-5TQ	—	5¾	—	4.65	—	4.18	—	3.95	—	3.82	—	3.69	—	3.55	—	3.41	.002
10-4-0Q	¼	¼	.30	.60	.27	.54	.26	.52	.25	.50	.24	.48	.23	.46	.22	.44	.004
10-4-TE	⅜	—	.36	—	.35	—	.34	—	.33	—	.31	—	.29	—	.27	—	.004
10-4-0H	½	½	.48	.96	.43	.86	.41	.83	.39	.80	.38	.77	.37	.74	.36	.71	.004
10-4-TQ	¾	¾	.63	1.26	.57	1.13	.54	1.06	.51	1.03	.49	1.00	.48	.97	.47	.93	.004
10-4-1	1	1	.93	1.86	.84	1.67	.80	1.58	.76	1.53	.72	1.48	.70	1.43	.69	1.37	.004
10-4-2	2	2	1.35	2.70	1.21	2.43	1.15	2.30	1.08	2.22	1.03	2.14	1.01	2.06	.99	1.98	.004
10-4-4	4	4	2.16	4.32	1.99	3.89	1.84	3.78	1.71	3.63	1.62	3.48	1.60	3.33	—	3.17	.004
10-4-8	8	8	4.29	8.58	3.86	7.72	3.56	7.29	3.44	7.04	3.34	6.79	—	6.52	—	6.30	.004
10-4-12	12	—	5.28	—	4.75	—	4.50	—	—	7.84	—	7.56	—	7.28	—	7.00	.004
10-4-11TQ	—	11¾	—	9.54	—	8.59	—	8.12	4.24	—	4.00	—	—	—	—	—	.004
10-6-0Q	¼	—	.33	—	.31	—	.30	—	.29	—	.27	—	.26	—	.25	—	.006
10-6-TE	⅜	—	.36	—	.35	—	.34	—	.33	—	.31	—	.29	—	.27	—	.006
10-6-0H	½	—	.51	—	.46	—	.43	—	.41	—	.40	—	.39	—	.38	—	.006
10-6-TQ	¾	—	.66	—	.59	—	.57	—	.55	—	.53	—	.51	—	.49	—	.006
10-6-1	1	—	.99	—	.89	—	.85	—	.82	—	.79	—	.76	—	.73	—	.006
10-6-2	2	—	1.47	—	1.32	—	1.18	—	1.15	—	1.12	—	1.10	—	1.08	—	.006
10-6-4	4	—	2.82	—	2.53	—	2.40	—	2.26	—	2.16	—	2.07	—	—	—	.006
10-6-8	8	—	4.74	—	4.26	—	4.03	—	3.80	—	3.56	—	—	—	—	—	.006
10-6-12	12	—	5.10	—	4.59	—	4.59	—	4.08	—	3.82	—	—	—	—	—	.006

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SHIELDMU® TAPE AND FOIL FOR ELECTROMAGNETIC SHIELDING

SHIELDMU 3 — (M 3)

Maximum flux 18,000 gausses. Typical permeabilities—initial 1,000—maximum 15,000. For ecenomical shielding with high induction cability.

PRICE LIST per linear foot extended (pulled taut) in random lengths

Part No.	Strip Width (Inches) M	ABM	1-9 M	ABM	10-24 M	ABM	25-49 M	ABM	50-99 M	ABM	100-249 M	ABM	250-499 M	ABM	500-999 M	ABM	Thickness (Inches)
3-1-0Q	1/4	—	$ .13	—	$ .12	—	$ .11	—	$ .10	—	$ .09	—	$ .08	—	$ .07	—	.001
3-1-TE	3/8	—	.19	—	.18	—	.17	—	.16	—	.15	—	.14	—	.13	—	.001
3-1-0H	1/2	—	.24	—	.23	—	.22	—	.21	—	.20	—	.19	—	.18	—	.001
3-1-TQ	3/4	—	.36	—	.35	—	.34	—	.33	—	.31	—	.29	—	.27	—	.001
3-1-1	1	—	.48	—	.43	—	.41	—	.39	—	.38	—	.37	—	.36	—	.001
3-1-2	2	—	.72	—	.65	—	.62	—	.59	—	.57	—	.55	—	.53	—	.001
3-2-0Q	1/4	1/4	.19	.36	.18	.34	.17	.32	.16	.30	.15	.29	.14	.28	.13	.27	.002
3-2-TE	3/8	—	.24	—	.23	—	.22	—	.21	—	.20	—	.19	—	.18	—	.002
3-2-0H	1/2	1/2	.33	.66	.31	.59	.30	.57	.29	.55	.27	.53	.26	.51	.25	.49	.002
3-2-TQ	3/4	3/4	.45	.90	.40	.80	.38	.76	.37	.74	.36	.72	.35	.70	.33	.66	.002
3-2-1	1	1	.60	1.20	.54	1.08	.52	1.04	.50	1.00	.48	.96	.46	.92	.44	.88	.002
3-2-2	2	2	.87	1.74	.79	1.58	.76	1.52	.73	1.46	.70	1.40	.67	1.34	.64	1.28	.002
3-2-4	—	4	—	2.92	—	2.62	—	2.47	—	2.34	—	2.27	—	2.20	—	2.15	.002
3-2-5TQ	—	5 3/4	—	3.60	—	3.24	—	3.12	—	2.88	—	2.80	—	2.72	—	2.64	.002
3-4-0Q	1/4	1/4	.24	.48	.23	.43	.22	.41	.21	.38	.20	.37	.19	.36	.18	.35	.004
3-4-TE	3/8	—	.30	—	.29	—	.28	—	.27	—	.26	—	.25	—	.24	—	.004
3-4-0H	1/2	1/2	.39	.78	.35	.70	.33	.66	.32	.64	.31	.62	.30	.60	.29	.58	.004
3-4-TQ	3/4	3/4	.54	1.08	.49	.97	.48	.92	.46	.89	.44	.86	.42	.83	.40	.80	.004
3-4-1	1	1	.75	1.50	.67	1.35	.65	1.27	.62	1.21	.59	1.17	.57	1.13	.55	1.10	.004
3-4-2	2	2	1.08	2.16	.97	1.94	.92	1.87	.89	1.80	.86	1.73	.83	1.13	.80	1.10	.004
3-4-4	4	4	1.50	3.00	1.35	2.70	1.27	2.45	1.20	2.38	1.18	2.32	1.15	2.26	1.10	2.20	.004
3-4-8	8	8	2.79	5.50	2.51	4.95	2.37	4.68	2.23	4.51	2.17	4.34	2.11	4.17	—	4.00	.004
3-4-12	12	—	4.02	—	3.62	—	3.42	—	—	5.97	—	5.75	—	5.53	—	5.33	.004
3-4-11TQ	11 3/4	—	—	7.26	—	6.53	—	6.18	3.22	—	3.13	—	—	—	—	—	.004
3-6-0Q	1/4	—	.27	—	.26	—	.25	—	.24	—	.23	—	.22	—	.20	—	.006
3-6-TE	3/8	—	.33	—	.31	—	.30	—	.29	—	.29	—	.27	—	.26	—	.006
3-6-0H	1/2	—	.42	—	.38	—	.36	—	.35	—	.34	—	.33	—	.31	—	.006
3-6-TQ	3/4	—	.57	—	.51	—	.49	—	.47	—	.46	—	.44	—	.42	—	.006
3-6-1	1	—	.84	—	.75	—	.72	—	.70	—	.68	—	.66	—	.62	—	.006
3-6-2	2	—	1.26	—	1.13	—	1.01	—	.99	—	.97	—	.95	—	.93	—	.006
3-6-4	4	—	2.34	—	2.10	—	1.92	—	1.87	—	1.82	—	1.77	—	—	—	.006
3-6-8	8	—	4.02	—	3.62	—	3.42	—	3.22	—	3.13	—	2.95	—	—	—	.006
3-6-12	12	—	4.23	—	3.81	—	3.60	—	3.38	—	3.17	—	—	—	—	—	.006

SHIELDMU 1 — (M 1)

Maximum flux 17,000 gausses. Typical permeabilities—initial 300; maximum 3,000 For economical shielding at high inductions.

1-6-1	1	—	$ .33	—	$ .31	—	$ .30	—	$ .29	—	$ .27	—	$ .26	—	$ .25	—	.006
1-6-4	4	—	.96	—	.86	—	.82	—	.78	—	.76	—	.74	—	.71	—	.006
1-6-12	12	—	2.70	—	2.43	—	2.30	—	2.16	—	2.12	—	2.05	—	—	—	.006

SHIELDMU ALBUMS: (A)
Individually Packaged Pieces, 12″ x 12″.

Part No.	Material Thickness (Inches)	1-9	10-24	25-49	50 & over
A30-6-1	.006	$7.35	$6.61	$6.35	$5.88
A10-4-12	.004	5.28	4.75	4.49	4.22
A3-4-12	.004	4.02	3.62	3.42	3.22
A1-6-12	.006	3.00	2.70	2.55	2.40

SHIELDMU ALBUMS: (ABA)
Individually Packaged Pieces, 12″ x 11¾″

Part No.	Material Thickness (Inches)	1-9	10-24	25-49	50 & over
ABA30-4-11TQ	.004	$13.20	$11.88	$11.22	$10.56
ABA3-4-11TQ	.004	7.80	7.02	6.63	6.24

Now Available . . . 2″ SHIELDFLEX FLEXIBLE TUBING

We have now added a larger diameter to our variety of Shieldflex sizes stocked at your local electronic distributor. This heavier, larger tubing is especially valuable in applications involving communications.

Part No.	I.D. (Inches)	O.D. (Inches)	Material Thickness (Inches)	Nominal Bend Inside Dia. (Inches)	Nom. Wt. per 100 Ft. Pounds	PRICE LIST per linear foot extended (pulled taut) in random lengths 1-9	10-24	25-49	50-99	100-249	250-499	500-999
F30-20-2	2	2 19/64	.020	10	70	$27.00	$24.70	$22.95	$21.60	$20.90	$19.00	$17.10

SHIELDFLEX FLEXIBLE TUBING FOR ELECTROMAGNETIC SHIELDING

Shieldflex tubing is specially designed and constructed to provide both electromagnetic and electrostatic shielding of current carrying conductors. The flexibility of the tubing permits close routing of conductors around components or other conductors, thus effecting space economy so important in miniaturization of components. Production economies are possible also because of the simple operation required — simply run the cable through a length of Shieldflex. Time consuming work of wrapping cables with Shieldmu tape can be reduced by using Shieldflex.

SHIELDFLEX flexible tubing for magnetic shielding is formed from high permeability yeylectromagnetic alloys in a spirally wound construction.

Part No.	I.D. (Inches)	O.D. (Inches)	Material Thickness (Inches)	Nominal Bend Inside Dia. (Inches)	PRICE LIST per linear foot extended (pulled taut) in random lengths 1-9	10-24	25-49	50-99	100-249	500-999
F30-10FT	5/32	15/64	.010	1 1/8	$2.22	$2.02	$1.89	$1.78	$1.75	$1.70
F30-10-TS	3/16	17/64	.010	1 1/8	2.31	2.08	1.97	1.84	1.78	1.75
F30-10-ST	7/32	19/64	.010	1 3/16	2.64	2.37	2.24	2.12	2.06	2.00
F30-10-0Q	1/4	11/32	.010	1 1/4	2.82	2.53	2.40	2.26	2.20	2.14
F30-10-NT	9/32	3/8	.010	1 7/16	3.09	2.78	2.63	2.47	2.41	2.34
F30-10-FS	5/16	13/32	.010	1 5/16	3.21	2.89	2.73	2.57	2.51	2.44
F30-10-ET	11/32	7/16	.010	1 3/4	3.33	3.00	2.82	2.67	2.60	2.53
F30-10-TE	3/8	1/2	.010	1 1/2	3.45	3.10	2.92	2.76	2.69	2.62
F30-10-SS	7/16	9/16	.010	1 3/4	3.69	3.32	3.15	2.95	2.88	2.79
F30-14-0H	1/2	5/8	.014	2	4.50	4.50	3.82	3.60	3.55	—
F30-14-NS	9/16	11/16	.014	2 1/4	4.98	4.48	4.23	3.98	3.88	—
F30-14-FE	5/8	3/4	.014	2 1/2	5.46	4.91	4.65	4.37	4.25	—
F30-14-TQ	3/4	7/8	.014	6	6.93	6.23	5.88	5.53	5.41	—
F30-14-1	1	1 1/8	.014	7	9.27	8.34	7.88	7.42	7.05	—

ORDERING INFORMATION:

Random lengths of Shieldflex in 14 diameters can be purchased from your local electronic distributor. When ordering, please use the part numbers as presented in the price list above.

EXAMPLE:

F30 — performance designation
10 — material thickness (in .001 inch units)
FT — internal diameter (in fractions of an inch)

Russell Industries, | MAGNETIC METALS

SYLVANIA INDUSTRIAL PRODUCTS

Type	Sugg. User Price
*OA2	$ 1.32
GB-OA2WA	3.35
OA3	1.54
*OA4G	1.86
*OB2	1.37
*OB2WA	2.40
GB-OB2WA	2.40
*OB3	2.35
*OC3	1.50
*OD3	1.44
OZ4A	1.12
C1K/6014	11.80
1P39	2.50
1P40	3.75
2-01C	18.00
*2C36	50.00
2C37	50.00
2C39A	20.75
2C39B	32.15
2C39WA	20.75
2C40	29.30
2C43	26.95
2C51	3.65
2D21	1.25
2D21W (See 5727/2D21W)	
2E24	6.45
2E26	3.75
*2J42	120.00
2X2A	3.95
3-400Z (See 8163/3-400Z)	
3A5	2.03
3B28	7.00
3C23	11.98
3CPN10A5 (See 7815/3CPN10A5)	
3CX100A5 (See 7289/3CX100A5)	
3CX2500A3	200.00
3CX2500F3	210.00
3E29	21.50
C3J/5632	12.70
C3J/A/5684	13.10
3X2500A3 (See 8161/3X2500A3)	
3X2500F3 (See 8251/3X2500F3)	
3X3000A1 (See 8238/3X3000A1)	
3X3000F1 (See 8239/3X3000F1)	
4-65A (See 8165/4-65A)	
4-125A	36.00
4-250A	46.50
4-400A (See 8438/4-400A)	
4-1000A (See 8166/4-1000A)	
4CX250B (See 7203/4CX250B)	
4CX250F (See 7204/4CX250F)	
4CX250K (See 8245/4CX250K)	
4CX300A (See 8167/4CX300A)	
4CX1000A (See 8168/4CX1000A)	
4CX5000A (See 8170/4CX5000A)	
4E27A/5-125B	45.00
4PR60B (See 8252/4PR60B)	
4W20,000A (See 8173/4W20,000A)	
4X150A (See 7034/4X150A)	
4X250B	35.75
4X500A	127.50
5R4GYB	2.03
*5Y3WGTA	$ 4.05
GB-5Y3WGTA	4.05
6AD4	3.40
*6AH6WA	7.60
*6AJ5	3.85
6AK6	1.40
*6AN5WA	10.80
6AS6	3.43
6AS7G	4.93
6AS7GA	4.93
*6AU6WA	2.70
*6AU6WB	2.70
*6BF7W	4.20
GB-6BQ7A	2.20
*6C4W	1.55
*6C4WA	3.15
GB-6CY5	1.85
*6D4	2.85
6DJ8 (Receiving Type)	X
GB-6DJ8	2.70
6J4	4.02
*6J4WA	5.60
GB-6J4WA	5.60
C6J/A/5685	29.00
*6J6WA	5.35
*6SJ7WGT	2.70
*6SL7WGT	3.15
GB-6SL7WGT	3.15
*6SN7WGT	2.35
GB-6SN7WGT	2.35
*6SN7WGTA	4.90
*6V6GTY	1.45
*6X4W	1.60
*6X4WA	2.85
GB-6X4WA	2.85
*6X5WGT	1.55
GB-6X5WGT	1.55
*7AK7	8.15
GB-7AK7	8.15
*7F8W	7.05
*12AT7WA	2.55
*12AT7WB	2.55
12AY7	2.45
C16J/5665	52.50
RX21A	25.75
25T	28.50
*28D7	4.95
S28D7	4.95
*28D7W	10.75
FG-95 (See 5560/FG95)	
100 (See 5575/100)	
100TH	23.50
102A	174.00
200 (See 5576/200)	
250TH	38.50
304TH	75.00
304TL	75.00
GB-407A	5.90
GB-408A	4.95
450TL	85.00
481B	10.90
575A‡	20.15
579B	20.50
592/3-200A3	46.00
604	11.80
604L	13.00
615	10.05
627	31.50
632B	33.00
635	13.00
635L	13.50
642	17.00
652 (See 5551A/652)	
672A	39.85
673	20.15
678	50.75
710 (See 6011/710)	
760	28.10
760L	29.40
807‡	3.15
810	$ 28.60
811A	7.15
812A	7.60
813	24.30
815	33.70
816	3.60
828	34.50
829B	19.85
832A	16.65
833A‡	61.20
866A	3.25
869B‡	155.00
872A	10.85
884	2.28
889RA (See 5667/889RA)	
921	4.00
922	3.45
923	3.70
929	2.60
930	3.80
931A	12.30
1000T	169.00
1051A	65.00
1052A	99.00
1061	65.00
1218A	5.00
GB-1219/5670	3.70
GB-1220/5654	3.05
1229	5.35
GB-1252/6U8A	2.00
1616	15.10
1624	7.90
2050	2.37
2050A	2.03
5530-H	425.00
5531	795.00
5541	670.00
5551A/652	65.00
5552A	99.00
5553B	245.00
5557‡	9.50
5558	17.50
5559‡	23.00
5560/FG95‡	33.00
5575/100	225.00
5576/200	245.00
5604	570.00
5606	288.00
5632 (See C3J/5632)	
*5636	6.10
*5636A	6.10
*5639	5.25
*5639A	5.25
*5641	7.55
*5641A	7.55
5642 (Receiving Type)	X
*5643	9.05
*5644	9.90
*5644A	9.90
*5647	8.65
*5647A	8.65
5651	1.90
GB-5654	2.45
*5654/6AK5W	2.45
5658	595.00
5665 (See C16J/5665)	
5667 (889RA)‡	370.00
5668	350.00
5669	515.00
*5670	2.45
GB-5670	2.45
5684 (See C3J/A/5684)	
5685 (See C6J/A/5685)	
GB-5687	4.00
*5687WA	5.66
*5692	8.25
5693	6.60
5696	2.05
*5718	$ 3.65
*5718A	3.65
*5719	3.15
*5719A	3.15
5722	8.35
GB-5725	3.15
*5725/6AS6W	3.15
GB-5726	1.55
*5726/6AL5W	1.55
*5726/6AL5W/6097	1.55
GB-5727	2.90
*5727/2D21W	2.90
5736	164.75
GB-5749	2.20
*5749/6BA6W	2.20
GB-5750	3.45
*5750/6BE6W	3.45
*5751	2.55
GB-5751	2.55
•5763	2.45
5767	50.00
*5768	50.00
5796	17.25
*5814A	2.35
GB-5814A	2.35
*5814WA	2.35
5820A	1100.00
*5823	1.72
*5840	5.35
*5840A	5.35
5845	9.95
5855	85.00
5879	1.95
5881	3.10
5894	25.00
*5896	3.80
*5896A	3.80
*5899	5.55
*5899A	5.55
*5902	4.80
*5902A	4.80
*5903	7.45
*5904	7.90
*5905	8.40
*5906	8.40
*5907	8.40
*5908	9.80
5916	9.80
*5931	6.80
GB-5931	6.80
*5932	11.30
GB-5932	11.30
*5933	12.35
GB-5933	12.35
*5933WA	16.50
5934	22.00
*5963	1.34
5964	1.54
5965	1.95
5966	42.00
*5977	6.55
*5977A	6.55
*5987	11.10
GB-6005	3.23
*6005/6AQ5W	3.23
6005/6AQ5W/6095	3.23
6011/710	12.00
6012	7.65
6014 (See C1K/6014)	
*6021	3.50
*6021A	3.50
*6028	4.95
6072	3.90
*6080	5.33
GB-6080	5.33
*6080WA	10.80
6097 (See 5726/6AL5W/6097)	
GB-6101	5.35
*6110	8.05
*6111	$ 3.70
*6111A	3.70
*6112	4.10
*6112A	4.10
*6135	2.40
GB-6135	2.40
GB-6136	2.70
•6146A	4.35
6146B/8298A	5.20
•6159	4.80
•6159A	4.80
GB-6186	3.85
*6186/6AG5WA	3.85
GB-6189	3.70
*6189/12AU7WA	3.70
*6197	2.30
GB-6201	2.55
*6205	5.90
*6205A	5.90
*6206	7.25
*6206A	7.25
6211	1.95
*6216	4.15
6257	330.00
*6308	8.25
6350	1.85
*6352	9.85
•6360	4.95
6421-F	545.00
6425-F	675.00
6481	50.00
6485	2.05
6503	66.50
6550	4.95
•6660/6BA6	1.01
•6661/6BH6	1.34
•6662/6BJ6	1.29
•6663/6AL5	.92
6664/6AB4	1.60
•6669/6AQ5A	1.06
•6676/6CB6A	1.06
•6677/6CL6	1.85
•6678/6U8A	1.62
•6679/12AT7	1.50
•6680/12AU7	1.22
•6681/12AX7	1.26
*6788	10.85
6807	32.25
*6832	20.65
•6883	4.30
•6883A	4.30
6897	32.15
6922	4.87
6939	11.37
*6943	11.10
*6944	11.10
*6945	11.10
*6946	10.85
*6947	11.35
*6948	11.35
6973 (Receiving Type)	X
6977	2.50
7006	1110.00
7007	1020.00
7025 (Receiving Type)	X
7034/4X150A	25.00
7038	185.00
7044	2.70
•7054	1.54
•7055	1.00
•7056	.92
•7057	1.95
•7058	1.26
•7059	1.48
•7060	1.75
•7061	1.30
•7167	1.45
7199 (Receiving Type)	X

Net

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SYLVANIA INDUSTRIAL PRODUCTS

Type	Sugg. User Price
7203/4CX250B	$35.75
7204/4CX250F	39.00
•7258	2.75
7289/3CX100A5	30.75
7325	185.00
GB-7327	12.45
GB-7550	13.25
7551	3.50
7735A	185.00
7738	2.80
*7759	7.35
*7760	15.25
*7761	7.40
*7762	7.40
7803	2.55
7815/ 3CPN10A5	30.75
*7887	6.70
*7888	5.25
7962	7.50
7963	7.50
8008	11.80
*8064	7.50
8070	7.50
8071	7.50
8077	1.50
8077/7054	1.50
8161/ 3X2500A3	200.00
8163/3-400Z	34.00
8165/4-65A	27.00
8166/4-1000A	132.00
8167/4CX300A	58.50
8168/ 4CX1000A	181.00
8170/ 4CX5000A	495.00
8173/ 4W20,000A	2,030.00
8210	10.75
8238/ 3X3000A1	210.00
8239/ 3X3000F1	220.00
8245/4CX250K	64.00
8251/ 3X2500F3	205.00
8252/4PR60B	107.00
8298A (See 6146B/8298A)	
8334/1218A	5.00
8438/4-400A	48.00
8484	185.00
9001	5.40

INDUSTRIAL and MILITARY CATHODE RAY TUBES

Type	Sugg. User Price
2AP1A	$19.30
2BP1	18.75
2BP11	X
*3ACP1A	43.40
*3ACP2A	43.40
*3ACP7A	43.40
*3ACP11A	43.40
3ACP12A	43.40
3ACP16A	59.50
*3ADP1	61.60
3ADP2	61.60
3ADP7	61.60
3ADP11	61.60
3ASP1	40.85
3ASP2	40.85
3ASP7	40.85
3ASP11	40.85
3BEP1	44.80
*3BGP1	51.65
3BGP2	51.65
3BGP7	51.65
3BGP11	51.65
3BMP1	55.95
3BMP2	55.95
3BMP7	$57.90
3BMP11	57.90
3BMP12	57.90
*3BP1A	33.05
*3FP7A	34.30
*3JP1	30.75
*3JP2	30.75
*3JP7	30.75
*3JP12	X
*3KP1	31.60
3KP4	31.60
3KP7	31.60
3KP11	31.60
3KP16	40.45
3MP1	26.00
*3RP1	27.05
3RP1A	32.00
3RP4	29.60
*3SP1	34.45
3SP2	34.45
3SP11	34.45
*3WP1	34.55
3WP2	34.55
3WP11	34.55
*4MP1	65.75
5ABP1	39.55
5ABP1A	42.50
5ABP4	42.10
5ABP4A	45.30
5ABP7	42.10
5ABP7A	45.30
5ABP11	42.10
5ABP11A	45.55
5ABP31A	X
*5ADP1	39.55
5ADP1A	42.50
*5ADP2	39.55
5ADP2A	42.50
*5ADP7	42.10
5ADP7A	45.30
5ADP11	42.10
5ADP11A	45.55
5ADP31A	45.55
*5AHP4A	53.20
*5AHP7A	39.30
5AHP14A	48.95
5AHP19A	48.95
*5AMP1A	56.60
*5AMP2A	56.00
*5AMP7A	71.90
*5AMP11A	71.90
5AMP31A	89.10
5AQP1A	47.50
5AQP2A	47.50
5AQP7A	47.70
5AQP11A	47.70
5AUP24	165.20
5BCP1	81.00
5BCP4	X
*5BCP7	81.00
5BCP11	81.00
5BGP1	75.00
5BGP2	75.00
5BGP7	75.00
5BGP11	75.00
5BGP15	75.00
5BHP1A	92.50
*5BHP2A	92.50
5BHP7A	92.50
5BHP11A	92.50
5BHP15A	92.50
5BNP16	35.45
*5BP1A	34.90
5BRP1	56.65
5BRP4	56.65
5BRP7	56.65
5BRP11	56.65
*5CP1A	38.85
*5CP1B	41.30
*5CP7A	38.85
5CP11A	38.85
*5CP12	38.85
5CVP1	$203.00
5CVP7	203.00
5CVP19	203.00
5DEP1	34.45
5DEP2	34.45
5DEP7	34.45
5DEP11	34.45
5DKP4	X
5DKP11	34.60
5DKP15	34.60
5DKP16	34.60
5DKP24	X
5DLP4	34.60
5FP4A	35.00
*5FP7A	26.80
5FP11A	36.50
*5FP14A	33.20
5QP4A	61.10
5RP1A	169.70
5RP2A	169.70
5RP4A	169.70
5RP5A	169.70
5RP7A	X
5RP11A	169.70
*5UP1	31.65
5UP7	31.65
5UP11	31.65
5WP11	97.70
5WP15	97.70
5ZP15	91.05
5ZP16	91.05
5ZP24	91.05
*7ABP7A	50.00
7ABP14A	55.35
7ABP19A	55.35
7AEP1	49.80
7AEP2	49.80
*7AEP7	49.80
7AEP11	49.80
7AQP4	66.30
7AQP7	66.30
7AQP16	66.30
7AQP19	66.30
7AQP25	66.30
7AUP4	66.65
7AUP7	66.65
7BP2A	35.05
*7BP7A	37.05
7JP1/7VP1	43.90
7JP7	43.90
7MP7	45.40
7MP14	45.40
7UP7	47.50
7UP25	47.50
8CP1	47.50
8CP2	47.50
8CP7	47.50
8CP11	47.50
8DP4	33.00
8FP4	51.25
8HP4	35.00
8HP7	X
8KP4	34.90
8LP4	33.85
8QP4	47.10
*10AKP7	54.90
10ANP4	89.80
*10ANP7	89.80
10ANP16	89.80
10ANP19	89.80
10ANP25	89.80
*10KP7A	51.65
10KP7B	56.95
10NP11	148.50
10SP4	69.15
10VP7	83.80
10VP15	X
*10WP7	36.60
10WP7A	38.00
10WP14	60.90
10WP14A	70.90
10WP19	X
10WP19A	X
*12ABP7A	$56.80
12ABP14A	81.40
12ABP19A	89.80
*12DP7A	60.60
*12DP7C	73.90
12SP7B	51.20
*12SP7D	55.60
17DWP4	29.90
21EYP4	33.30
SC-2558P1	180.00
SC-2558P4	180.00
SC-2558P7	180.00
SC-2830P1	55.70
SC-2854	58.25
SC-3116P/ T65P/T543P	110.00
SC-3301P/ T64P/T533P	110.00

KLYSTRONS

Type	Sugg. User Price
SK-113	$195.00
SK-114	195.00
SK-115	195.00
SK-220A-G	140.00
SK-220Z	315.00
SK-221A	160.00
SK-221B-G	145.00
SK-221H	205.00
SK-221K	160.00
SK-222A-G	145.00
SK-222Z	320.00
SYK-720A-G	145.00
SYK-720Z	325.00
SYK-722A-G	150.00
SYK-722Z	330.00
K-839B	195.00
K-841B	186.00
K4008	195.00
K-4010	195.00
K-4011	205.00
K-4012	195.00
K-4013	195.00
K-4014	195.00
K-4015	195.00
6468	195.00
6469	195.00
*6BL6	40.00
*6BM6	50.00
*6BM6A	50.00
*5836	69.00
*5837	69.00

MICROWAVE MIXER DIODES

Type	Sugg. User Price
1N21C	$ 1.02
1N21D	2.45
1N21E	4.20
1N21F	8.10
1N21G	12.60
*1N21WE	5.25
1N23C	1.02
1N23D	2.45
1N23E	$ 4.20
1N23F	8.10
1N23G	12.60
*1N23WE	5.25

SILICON EPITAXIAL VARACTORS

Type	Sugg. User Price
D4600H	$60.00
D4601H	60.00
D4610H	68.00
D4621H	75.00
D4800H	60.00
D4801H	60.00
D4810H	68.00
D4821H	75.00
D4832E	70.00

GALLIUM ARSENIDE VARACTORS

Type	Sugg. User Price
D5047A	$120.00
D5047D	300.00
D5147A	120.00
D5147C	230.00

SPECIAL LAMP PRODUCTS

Type	Sugg. User Price
Glow Modulators	
GM514	$65.60
GM514C	65.60
R1130B	22.90
R1131C	21.60
R1166	22.00
R1168	26.95
R1169	24.00
Strobotrons	
1D21/SN4	7.30
SN5	12.80
SA309	20.40
SA309A	21.30
S413	15.30
SS501	29.30
S696	23.70
S836	17.00
S840	20.60
S841	20.60
S844	20.40
S852	17.00
R4350	29.70
Flash Tubes	
FT118	9.00
FT218	9.10
R4306	9.90
R4307	5.60
R4307C	5.60
R4319	8.70
R4329	9.60
R4330	29.10
R4336	36.00
R4337	49.00
R4340	60.50
Mite-T-Lites	
ML202A	1.10

Types listed in Bold Face are Sylvania Gold Brand Tubes.

GB-Manufactured to Commercial and Industrial Specifications.

• Tubes are "Communication Quality" types.

* Indicates Military Type Approval.

‡ These tubes may be of foreign manufacture and in many cases, manufactured by the foreign affiliate of Sylvania Electric Products Inc.

x Price quoted upon request.

Prices are subject to change without notice.

SYLVANIA

SUBSIDIARY OF GENERAL TELEPHONE & ELECTRONICS GT&E

NEW CAPABILITIES IN: ELECTRONIC TUBES • SEMICONDUCTORS • MICROWAVE DEVICES • SPECIAL COMPONENTS • DISPLAY DEVICES

LEWIS AND KAUFMAN, Ltd.

SPECIAL PURPOSE TUBES — LONG LIFE — DEPENDABILITY

Number	Suggested Resale Price
0A2	$ 1.30
0A2WA	3.30
0A3	1.54
0B2	1.35
0B2WA	2.35
0B3	2.30
0C3	1.45
0D3	1.40
0D3W	6.20
0G3	2.30
2AC15	11.00
2AP1	19.50
2AP1A	19.50
2AS15	10.50
2AS15A	10.00
2B23	75.00
2BP1	20.60
2C26A	7.50
2C50	9.90
2C51	3.65
2C52	4.80
2C53	9.00
2D21	1.22
2D21W	2.90
2E22	8.40
2SM15	12.00
2X2A	3.25
3ABP1	125.00
3ACP1A	37.00
3ACP2	39.45
3ACP7	39.45
3ACP11	39.45
3AP1	24.15
3BP1	29.80
3B4WA	5.85
3B24W	9.00
3B24WA	9.90
3B28	7.50
3B29	10.30
3C23	11.98
3C24	16.00
3C45	19.00
3DP1A	35.70
3FP7A	35.00
3GP1	29.50
3JP1	30.75
3JP7	30.75
4-65	25.70
4-125A	35.50
4B24	11.80
4B26	7.00
4B31	32.83
4D21	36.00
4PR60B	107.00
5ADP7	40.20
5BCP1/T55P1	40.20
5BDP7	135.00
5BP1	33.35
5CBP1	60.00
5CP1A	35.90
5CP1B	38.85
5D21	45.00
5FP7A	32.95

Number	Suggested Resale Price
5JP1	$75.00
5JP2A	75.00
5LP1A	40.00
5MP1	40.00
5NP1	35.00
5R4GY	2.03
5RP1A	169.70
5RP11A	169.70
5SP7	160.00
5UP7	29.05
5Y3WGTA	3.75
5Y3WGTB	5.75
5YP1	55.00
5ZP16	83.00
6AC7W	3.45
6AC7WA	5.70
6AH6WA	7.50
6AJ5	3.75
6AK5W	2.35
6AL5W	1.33
6AS7G	4.93
6AU6WA	2.70
6AU6WB	2.70
6C21	90.00
6J4WA	5.50
6J6WA	4.95
6L6WGB	4.10
6Q5G	6.00
6SN7WGTA	4.90
6X4W	1.60
10QP7	75.00
12AKP7	55.00
12AT7WA	2.53
12DP7A	67.95
12SP7	46.80
25T	26.50
35T	31.00
35TG	31.00
100R	16.20
100TH	23.50
100TL	23.50
152TH	93.00
249B	18.00
250R	36.00
250TH	38.50
250TL	38.50
254W	25.00
274A	8.35
274B	9.00
300B	10.80
310A	7.70
407A	5.90
408A	4.95
715A	20.00
715B	28.50
715C	47.00
719A	88.00
807	3.15
811A	6.50
812B	6.50
814	23.50
816	3.20
826	28.00
836	11.10
838	20.00

Number	Suggested Resale Price
866A	$2.65
866JR	3.75
872A	9.85
873	19.50
918	4.65
1612	5.77
1613	3.30
1620	7.55
1621	3.85
1622	5.35
1629	1.85
1631	3.25
1635	3.80
2050A	2.35
5557/FG17	9.50
5558/FG32	17.50
5559/FG57	24.50
5651	1.78
5651WA	3.75
5654	2.35
5654/6AK5W	2.35
5654/6AK5W/6096	2.41
5670	2.11
5670WA	2.30
5685/C6JA	27.00
5687	3.15
5691	8.75
5692	8.25
5693	6.60
5725	3.05
5726	1.35
5726/6AL5W/6097	1.40
5727	2.90
5727/2D21W	2.90
5749	2.20
5749/6BA6	2.20
5750	3.45
5751	2.55
5751WA	2.85
5763	2.53
5814A	2.30
5814WA	2.30
5823	1.70
5842/417A	7.25
5847/404A	9.40
5881	3.10
5963	1.34
5964	1.55
5965	1.90
6005	3.70
6005/6AQ5W	3.75
6073	3.00
6073/0A2	3.00
6074	3.45
6074/0B2	3.45
6080	5.00
6080WA	9.95
6082	5.60
6099	15.35
6101/6J6WA	5.35
6136	2.70
6146A	4.30

Number	Suggested Resale Price
6146B	$5.20
6159	4.80
6186	3.75
6186/6AG5WA	3.75
6189/12AU7A	3.45
6197	2.48
6201/12AT7WA	2.50
6205	5.35
6211	1.95
6293	5.95
6336	18.00
6414	3.65
6528	21.55
6550	4.30
6626/0A2WA	3.30
6660/6BA6	1.01
6661/6BH6	1.34
6662/6BJ6	1.29
6663/6AL5W	.92
6664/6AB4	1.12
6676/6CB6A	1.06
6677/6CL6	1.85
6678/6U8A	1.62
6679/12AT7	1.50
6680/12AU7A	1.22
6681/12AX7	1.26
6887	1.40
6922	4.75
7054	1.54
7057	1.95
7059	1.48
7060	1.75
7061	1.29
7360	3.77
7370	10.26
7730	1.93
7898	1.34
7905	3.85
8008	9.90
8013A	17.05
8020	16.00
8020W	19.50
8077/7054	1.53
9001	5.40
9002	4.20
9003	5.40
9004	4.60
9005	8.05
9006	2.70
C1K	11.80
C6J/5C21	28.10
FG17/5557	9.50
FG57/5559	24.50
FG154	108.00
HF100	34.00
HF200	58.00
HF300	46.50
KU23	47.00
LK24G/3C24	16.00
LK54	36.00
LK72RK72	6.00
LK254W (4/66)	25.00
R1130B/1B59	22.90

LEWIS and KAUFMAN, Ltd. One of the Oldest and Most Reliable Manufacturers of Special Purpose Tubes for Industrial and Military Use

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WL-23015PC	23
WL-23016	23
WL-23017	23
WL-23018	23
WL-23027	20
WL-23028	20
WL-23029	21
WL-23034	20
WL-23035	20
WL-23036	20
WL-23041	19
WL-23042	19
WL-23046	19
WL-23049	19
WL-23052	12
WL-23059	19
WL-23060	19
WL-23063	14
WL-23095	16
WL-23102/102A	16
WL-23106	20
WL-23108	20
WL-23109	20
WL-23111	25
WL-23165	14
WL-23178	16
WL-23185	15

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DIRECT INTERCHANGEABILITY LIST

This Interchangeability Index has been prepared to assist you in finding exact replacement for electronic tubes in the Industrial, Transmitting and Special Purpose fields.

This listing is believed to be accurate to the date of issue, However, no responsibility is assumed by Westinghouse for its completeness or for its use, nor for any infringement of patents or other rights of third parties which may result from its use.

KEY TO ABBREVIATIONS

CR — Cathode Ray
CS — Camera or Storage
Glow — Glow Tube (Cold Cath.)
GA — Vacuum Gauge
Ig — Ignition
IR — Industrial Receiving
MD — Microwave Device
N — Neutron Detector
Photo — Phototube
Rect — Rectifier
Thyr — Thyratron
Trans. — Transmitting
VR — Voltage Regulator or Reference
HCDD — Hollow Cathode Discharge Device

INDEX OF COMMONLY USED MANUFACTURERS PREFIXES

A Radio Corporation of America
AH Marconi Wireless Telegraph Co.
AX Amperex Electronic Corp.
BL Bomac Laboratories
BR Standard Telephone & Cables Inc.
BT British Thomson-Houston Co.
CE Continental Electric Co.
CK Raytheon Manufacturing Co.
DET Marconi Wireless Telegraph Co.
DR General Electronics Inc.
EE Electronic Enterprises Inc.
EL Electrons Inc.
F International Telephone & Telegraph
FG General Electric Co.
G General Motors Laboratories Inc.
GL General Electric Co.
HD C B S Hytron Co.
HV United Electronics Co.
HV Japanese Manufacture
HY C B S Hytron Co.
KD Ferranti Ltd.
KI Westinghouse Electric Corp.
KU Westinghouse Electric Corp.
KU Kuthe Laboratories Inc.
KX Westinghouse Electric Corp.
M Mullard Electric Products Ltd.
ML Machlett Laboratories Inc.
MT English Electric Valve Co.
NL National Electronics Inc.
NU National Union Electric Corp.
PL Penta Laboratories Inc.
PL N. V. Philips Gloeilampenfabrieken
QK Raytheon Manufacturing Co.
R Radio Corporation of America
RK Raytheon Manufacturing Co.
SN Sylvania Electric Products Inc.
T Taylor Tubes Inc.
TT Taylor Tubes Inc.
UE United Electronics Co.
UX United Electronics Co.
V Varian Associates Inc.
VA Varian Associates Inc.
WE Western Electric Co.
WL Westinghouse Electric Corp.
WT Weltronic Co.
WTT Weltronic Co.
WX Westinghouse Electric Corp.
X Varian Associates Inc.
XG Mullard Electric Products Ltd.
Z General Electric Co.
ZP General Electric Co.

TUBE TYPE MARKED	CLASS OF TUBE	EQUIVALENT WESTINGHOUSE TYPE
SBS	Ig	WL-5551A
SCS	Ig	WL-5552A
SDR	Ig	WL-5555
SDS	Ig	WL-5553B
TGRA	Rect	WL-575A
TGRB	Rect	WL-872A
TGRG	Thyr	WL-5563A
TVTA	Trans	WL-892
TVTB	Trans	WL-833A
TVTC	Trans	WL-889A
TVTG	Trans	WL-5606
TVTP	Trans	WL-5771
WL-OAZ	VR	WL-OA2
OA2	VR	WL-OA2
WL-OA3	VR	WL-OA3
OA3	VR	WL-OA3
OA3/VR75	VR	WL-OA3
WL-OB2	VR	WL-OB2
OB2	VR	WL-OB2
WL-OB3	VR	WL-OB3
OB3	VR	WL-OB3
WL-OC3	VR	WL-OC3
OC3	VR	WL-OC3
OC3/VR105	VR	WL-OC3
WL-OD3	VR	WL-OD3
OD3	VR	WL-OD3
OD3/VR150	VR	WL-OD3
OG3	VR	WL-5651
AC-1C	Rect	WL-3B22
CT1-2500	Thyr	WL-5559
EL-1C	Rect	WL-3B22
EL-C1B	Thyr	WL-5664
EL-C1BA	Thyr	WL-5664
EL-C1J	Thyr	WL-6014
GL-C1J	Thyr	WL-6014
EL-C1JA	Thyr	WL-6014
EL-C1K	Thyr	WL-6014
GXU1	Rect	WL-3B28
MXK-1	MD	WL-6781
TQ1-2	Thyr	WL-3C23
XG1-2500	Thyr	WL-5559
XR1-3200	Thyr	WL-22994
XR1-6400	Thyr	WL-C6H-1
1G50	Thyr	WL-2050
1P32	Photo	WL-927
GL-1P40	Photo	WL-1P40
WL-1P40	Photo	WL-1P40
1P40	Photo	WL-1P40
1R21	Ig	WL-5550
B2A	Thyr	WL-2050
BTL2-1	Trans	WL-5762
D2M9	IR	WL-6663
DQ2	Rect	WL-866A
DX2	Rect	WL-3B28
H2-10	Rect	WL-2X2A
M-2K-2.5	Rect	WL-7018
M-2K-215	Rect	WL-7018
P2-12	Trans	WL-832A
P2-40	Trans	WL-829B
P2-40B	Trans	WL-829B
PC2/500	Trans	WL-803
QB2/250	Trans	WL-813
QQE02/5	Trans	WL-6939
QQV02/6	Trans	WL-6939
QY2-100	Trans	WL-813
TQ2	Thyr	WL-5557
TX2/3	Thyr	WL-22994
TX2/6	Thyr	WL-C6H-1
XGQ2-6400	Thyr	WL-105
2B4	Thyr	WL-885
2B21	Rect	WL-2X2A
2B29	Trans	WL-829B
2B32	Trans	WL-832A
2B94	Trans	WL-5894
2C4	Thyr	WL-5696
ML-2C39	Trans	WL-2C39A
2C39	Trans	WL-2C39A
WL-2C39A	Trans	WL-2C39A
2C39A	Trans	WL-2C39A
GL-2C39B	Trans	WL-2C39B
ML-2C39B	Trans	WL-2C39B
WL-2C39B	Trans	WL-2C39B
2C39B	Trans	WL-2C39B
GL-2D21	Thyr	WL-2D21
PL-2D21	Thyr	WL-2D21
WL-2D21	Thyr	WL-2D21
2D21	Thyr	WL-2D21
2D21W	Thyr	WL-5727
GL-2E24	Trans	WL-2E24
WL-2E24	Trans	WL-2E24
2E24	Trans	WL-2E24
GL-2E26	Trans	WL-2E26
WL-2E26	Trans	WL-2E26
2E26	Trans	WL-2E26
2G57	Thyr	WL-5557
2H28	Rect	WL-3B28
2H66	Rect	WL-866A
2V/400A	Rect	WL-866A
2XM600A	Rect	WL-866A
2X2/879	Rect	WL-2X2A
GL-2X2A	Rect	WL-2X2A
WL-2X2A	Rect	WL-2X2A
2X2A	Rect	WL-2X2A
EM-2.5	Rect	WL-7018
EL-C3J	Thyr	WL-5632
C3J	Thyr	WL-5632
C3J/5632	Thyr	WL-5632
EL-C3JA	Thyr	WL-7306A
EL-C3JAL	Thyr	WL-7556A
EL-3C	Rect	WL-7014
EL-3C/L	Rect	WL-7015
QB3/300	Trans	WL-4D21
QE03/10	Trans	WL-5763
QQE03/12	Trans	WL-6360
QQV03-10	Trans	WL-6360
QV03-12	Trans	WL-5763
QY3-125	Trans	WL-4D21
RG3-250A	Rect	WL-866A
RR3-250	Rect	WL-3B28
T-3C	Rect	WL-4B24
3-1000A4	Trans	WL-1000T
GL-3C23	Thyr	WL-3C23
WL-3C23	Thyr	WL-3C23
3C23	Thyr	WL-3C23
3C31	Thyr	WL-5664
3E21	Trans	WL-829B
3E29	Trans	WL-829B
3G15	Thyr	WL-5664
3G501A	Thyr	WL-C6H-1
3H150J	Trans	WL-2C39B
3V390A	Thyr	WL-5559
3X100A5	Trans	WL-2C39A
3X100A11	Trans	WL-2C39B
GL-3X2500A3	Trans	WL-3X2500A3
WL-3X2500A3	Trans	WL-3X2500A3
3X2500A3	Trans	WL-3X2500A3
WL-3X2500F3	Trans	WL-3X2500F3
3X2500F3	Trans	WL-3X2500F3
QB-3.5-750	Trans	WL-5D22
AX-4-125A	Trans	WL-4D21
AX-4-125A/6155	Trans	WL-4D21
AX-4-250A	Trans	WL-5D22
AX-4-250A/6156	Trans	WL-5D22
BPM04	IR	WL-6669
DCG4-1000G	Rect	WL-866A
DCX4-1000	Rect	WL-3B28
DQ4	Rect	WL-872A
EL-C4H-1	Thyr	WL-6856
C4H-1	Thyr	WL-6856
EL-C4H-2	Thyr	WL-6857
C4H-2	Thyr	WL-6857
EL-C4J	Thyr	WL-6856
C4J	Thyr	WL-6856
EL-C4J/F	Thyr	WL-6857
C4J/F	Thyr	WL-6857
GL-KC4	Rect	WL-5575
PM04	I R	WL-6660
QBL4-800	Trans	WL-4X500A
QQE04/20	Trans	WL-832A
QQV04-20	Trans	WL-815
QV04-15	Trans	WL-832A
QY4-250	Trans	WL-5D22
TY4-350	Trans	WL-833A
QY4-500A	Trans	WL-4X500A
4-125A	Trans	WL-4D21
4-125A/4D21	Trans	WL-4D21
4-250A	Trans	WL-5D22
4-250A/5D22	Trans	WL-5D22
GL-4-400A	Trans	WL-400A
WL-4-400A	Trans	WL-400A
4-400A	Trans	WL-400A
GL-4-1000A	Trans	WL-4-1000A
WL-41000A	Trans	WL-4-1000A
4-1000A	Trans	WL-4-1000A
4B13	Trans	WL-813
4CX250B	Trans	WL-7203
4G23	Thyr	WL-3C23
4G63	Thyr	WL-5563A
4G/280K	Thyr	WL-5727
4H72	Rect	WL-872A
4H88	Rect	WL-8008
4T100	Trans	WL-813
4T250A1	Trans	WL-813
4X250B	Trans	WX-4CX250B
GL-4X500A	Trans	WL-4X500A
WL-4X500A	Trans	WL-4X500A
4X500A	Trans	WL-4X500A
4Y25	Trans	WL-807
BT5	Thyr	WL-5559
DCG5/5000GB	Rect	WL-872A
DCG5/5000GS	Rect	WL-8008
G5D	Rect	WL-872A
PM05	I R	WL-5654
QE05/40	Trans	WL-6146
QE05/40H	Trans	WL-6159
QV05/25	Trans	WL-807
XG5-500	Thyr	WL-5557
5-125B	Trans	WL-4E27A
5B/250A	Trans	WL-807
5CEP11	C R	5CEP11
5CEP16	C R	5CEP16
5C21	Thyr	WL-5C21
5C/100A	Trans	WL-813
5DEP1	C R	5DEP1
5DEP2	C R	5DEP2
PL-5D22	Trans	WL-5D22
WL-5D22	Trans	WL-5D22
5D22	Trans	WL-5D22
5FP7	C R	5FP7A
5FP7A	C R	5FP7A

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Direct Interchangeability List

continued

TUBE TYPE MARKED	CLASS OF TUBE	EQUIVALENT WESTINGHOUSE TYPE
5FP7B	C R	5FP7B
5FP11	C R	5FP11
5FP11A	C R	5FP11A
5F22A	Trans	WL-5D22
5H69A	Rect	WL-869B
5R4-GY	Rect	WL-5R4-GYB
5R4-GYA	Rect	WL-5R4-GYB
5R4-GYB	Rect	WL-5R4-GYB
5S1	Trans	WL-807
5T33	Trans	WL-833A
5UP1	C R	5UP1
5WP11	C R	5WP11
5ZP16	C R	5ZP16
EL-C6J	C R	WL-5C21
C6J	Thyr	WL-5C21
C6J/5C21	Thyr	WL-5C21
EL-C6J/A	Thyr	WL-C6H-1
C6J/A	Thyr	WL-C6H-1
C6J/A/5685	Thyr	WL-C6H-1
EL-C6J/F	Thyr	WL-C6H-2
C6J/F	Thyr	WL-C6H-2
EL-C6J/K	Thyr	WL-C6H-1
C6J/K	Thyr	WL-C6H-1
EL-C6J/KF	Thyr	WL-C6H-2
C6J/KF	Thyr	WL-C6H-2
EL-C6J/KL	Thyr	WL-C6H-3
C6J/KL	Thyr	WL-C6H-3
EL-C6J/L	Thyr	WL-7321
C6J/L	Thyr	WL-7321
EL-C6H-1	Thyr	WL-C6H-1
WL-C6H-1	Thyr	WL-C6H-1
C6H-1	Thyr	WL-C6H-1
EL-C6H-2	Thyr	WL-C6H-2
WL-C6H-2	Thyr	WL-C6H-2
C6H-2	Thyr	WL-C6H-2
EL-C6H-3	Thyr	WL-C6H-3
WL-C6H-3	Thyr	WL-C6H-3
C6H-3	Thyr	WL-C6H-3
DD6	Thyr	WL-6663
DD6G	I R	WL-6663
DQ6	I R	WL-869B
EL-6C	Rect	WL-670
EL-6C/L	Rect	WL-7017
T-6C	Rect	WL-670
QEO6/50	Rect	WL-807
QQEO6/40	Trans	WL-5894
QQVO6/40	Trans	WL-5894
QQVO6/40A	Trans	WL-5894
QVO6/20	Trans	WL-6146
6AB4	I R	WL-6664
6AK5	I R	WL-5654
6AK5W	I R	WL-5654
6AK5W/5654	I R	WL-5654
6AL5	I R	WL-6663
6AQ5	I R	WL-6669
6AS6	I R	WL-6AS6
6AS7G	I R	WL-6AS7GA
6AS7GA	I R	WL-6AS7GA
6AU6	I R	WL-6136
6AU6W	I R	WL-6136
6AU6WA	I R	WL-6136
6B32	I R	WL-6663
6BA6	I R	WL-6660
6BH6	I R	WL-6661
6BJ6	I R	WL-6662
6C31	I R	WL-6J4
6CB6	I R	WL-7732
6CB6A	I R	WL-7732
6CL6	I R	WL-6677
6D2	I R	WL-6663
6DB6	I R	WL-6954
6F31	I R	WL-6660
6F33	I R	WL-6AS6
6F50R	Trans	WL-4X500A
6G10	Thyr	WL-105
6G45	Thyr	WL-C6H-1
6K4	I R	WL-5718
6L6	I R	WL-5881
6L6G	I R	WL-5881
6L6GA	I R	WL-5881
6L6GB	I R	WL-5881
6L6GC	I R	WL-5881
6L6W	I R	WL-5881
6L6WA	I R	WL-5881
6L6WB	I R	WL-5881
6L13	I R	WL-7729
6L41	Trans	WL-5763
6SJ7	I R	WL-5693
6SL7-GT	I R	WL-5691
6SL7-WGT	I R	WL-5691
6SN7-GT	I R	WL-5692
6SN7-GTA	I R	WL-5692
6U8	I R	WL-6678
6U8A	I R	WL-6678
QQVO7-40	Trans	WL-829B
7ABP7	C R	7ABP7A
7ABP7A	C R	7ABP7A
7AUP4	C R	7AUP4
7BP7	C R	7BP7A
7BP7A	C R	7BP7A
7BP7B	C R	7BP7B
7C24	Trans	WL-5762
7F25A	Trans	WL-4-1000A
7H57	Rect	WL-857B
7MP7	C R	7MP7
7TP4	C R	7TP4
8F66R	Trans	WL-6166A
8T92	Trans	WL-892
8T92R	Trans	WL-892R
D2M9	I R	WL-6663
TT10	Trans	WL-813
10E/9	Trans	WL-832A
10E/587	Trans	WL-807
10E/11-141	Trans	WL-807
10FP4	C R	10FP4A
10FP4A	C R	10FP4A
10KP7	C R	10KP7
10KP7A	C R	10KP7A
10KP7B	C R	10KP7B
10SP4	C R	10SP4
10UP14	C R	10UP14A
10UP14A	C R	10UP14A
10WP7	C R	10WP7
10WP7A	C R	10WP7A
GU12	Rect	WL-866A
TM12	I R	WL-6J4
X-12	M D	WL-124
12ABP7	C R	12ABP7A
12ABP7A	C R	12ABP7A
12AT7	I R	WL-6679
12AT7W	I R	WL-6201
12AT7WA	I R	WL-6201
12AU7	I R	WL-6680
12AU7W	I R	WL-6189
12AU7WA	I R	WL-6189
12AX7	I R	WL-6681
12AX7A	I R	WL-7729
12BY7	I R	WL-7733
12BY7A	I R	WL-7733
12SP7	C R	12SP7D
12SP7B	C R	12SP7D
12SP7D	C R	12SP7D
DG13-32	C R	5UP1
MF13-1	C R	5FP7A
X-13	M D	WL-122
X-13B	M D	WL-121
13D2	I R	WL-5692
AR-14	Ig	WL-5551A
MXK-14	M D	WL-6310
P-14	Thyr	WL-5557
AR-14T	Ig	WL-5551A
AR-14TP	Ig	WL-5551APC
AR-14TWS	Ig	WL-5551APC
G15F	Photo	WL-927
MXK-15	M D	WL-6312
EL-C16J	Thyr	WL-5665
GS-16SO	Photo	WL-1P40
MXK-16	M D	WL-6314
QQV16/40A	Trans	WL-5894
TT16	Trans	WL-4D21
TT16D	Trans	WL-4D21
16AKP7	C R	16AKP7
16ALP7	C R	16ALP7
DET17	Trans	WL-810
EE-17	Thyr	WL-5557
FG-17	Thyr	WL-5557
HT-17	Thyr	WL-5557
MT17	Thyr	WL-5557
RL-17	Thyr	WL-5557
TT-17	Thyr	WL-5557
WE-17	Thyr	WL-5557
WL-17	Thyr	WL-5557
17	Thyr	WL-5557
P17A	Trans	WL-807
MXK-18	M D	WL-6316
CE-20	Photo	WL-927
NU-20	Photo	WL-927
20A3	Thyr	WL-5727
KD21	V R	WL-0A3
PL21	Thyr	WL-2D21
RL-21	Thyr	WL-2D21
21A6	Thyr	WL-81A
21EWP4	C R	21EWP4
CE-23	Photo	WL-923
NU-23	Photo	WL-923
BK24	Ig	WL-5552A
KD24	V R	WL-0C3
BK24A	Ig	WL-5552A
BK24B	Ig	WL-5552A
ATS25	Trans	WL-807
G25/3000	Rect	WL-866A
KD25	V R	WL-0D3
NU-25	Photo	WL-927
ATS25A	Trans	WL-807
CE-25C	Photo	WL-927
25B6-G	I R	WL-5824
MXK-26	M D	WL-122
BT27	Thyr	WL-105
D27	I R	WL-6663
RK-28A	Trans	WL-803
CE-30	Photo	WL-1P40
NU-30	Photo	WL-930
CE-30C	Photo	WL-930
CE-30Q	Thyr	WL-5557
ECC32	I R	WL-5692
EN32	Thyr	WL-2050
FG-32	Rect	WL-5558
WL-32	Rect	WL-5558
FG-33	Thyr	WL-5720
BK34	Ig	WL-5553B
REL34	Trans	WL-2C40
BK34A	Ig	WL-5553B
BK34B	Ig	WL-5553B
ECC35	I R	WL-5691
TE-35	I R	WL-5654
EL37	I R	WL-5881
RK-39	Trans	WL-807
FG-41	Thyr	WL-5830
WL-41	Thyr	WL-5830
BK42	Ig	WL-5551A
CE-42	Photo	WL-922
EB42	Rect	WL-857B
BK42A	Ig	WL-5551A
BK42B	Ig	WL-5551A
L-FTX44-5	Thyr	WL-5665
TX44-5	Thyr	WL-5665
BK46	Ig	WL-5555
GS-47X	Photo	WL-927
HD51	V R	WL-0A2
TS51	I R	WL-5654
51A	Photo	WL-927
R-51A	Photo	WL-927
HD52	V R	WL-0B2
TE-54	I R	WL-5687
V55	M D	WL-134
V56	M D	WL-6315
FG-57	Thyr	WL-5559
MT-57	Thyr	WL-5559
PL-57	Thyr	WL-5559
RL-57	Thyr	WL-5559
TG-57	Thyr	WL-5559
WL-57	Thyr	WL-5559
V-58C	M D	WL-191
DP61	I R	WL-5654
HY-61	Trans	WL-807
HY-61/807	Trans	WL-807
R-61A	Photo	WL-930
61A3	Photo	WL-930
B65	I R	WL-5692
BK66	Ig	WL-5550
EC70	I R	WL-5718
EL71	I R	WL-5902
RKR-72	Rect	WL-481B
VR-75	V R	WL-0A3
VR-75ST	V R	WL-0A3
BT77	Thyr	WL-C6H-1
D77	I R	WL-6663
KT77	I R	WL-5881
QD77	I R	WL-5726
CC81E	I R	WL-6201
ECC81	I R	WL-6679
E81CC	I R	WL-6201
FG-81A	Thyr	WL-81A
WL-81A	Thyr	WL-81A
EBF82	I R	WL-6678
ECC82	I R	WL-6680
ECC83	I R	WL-6681
ECC84	I R	WL-6386
84A3	Photo	WL-923
85A2	V R	WL-5651
E88CC	I R	WL-6922
KT88	I R	WL-6550
E90F	I R	WL-6661
EL90	I R	WL-6669
VR-90	V R	WL-0B3
VR-90ST	V R	WL-0B3
BT-91	Thyr	WL-22994
E91AA	I R	WL-6663
E91N	Thyr	WL-2D21
EAA91	I R	WL-6663
EB91	I R	WL-6663
EN91	Thyr	WL-2D21
EC92	I R	WL-6664
EN92	Thyr	WL-5696
VA-92	M D	WL-118
VA-92B	M D	WL-116
VA-92C	M D	WL-110
VA-92D	M D	WL-141
EF93	I R	WL-6660
EF94	I R	WL-6136
E95F	I R	WL-5654
EF95	I R	WL-5654
QV95/25	Trans	WL-807
E99F	I R	WL-6662
ML-100	Rect	WL-5575
TXM100	Thyr	WL-2D21
WL-102A	Rect	WL-402A
X-103	Trans	WL-4D21
FG-104	Rect	WL-5561
WL-104	Rect	WL-5561
WTT-104	Rect	WL-575A
AX-105	Thyr	WL-105
FG-105	Thyr	WL-105
MT-105	Thyr	WL-105
PL-105	Thyr	WL-105
RL-105	Thyr	WL-105
VR-105	V R	WL-0C3

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Direct Interchangeability List

continued

TUBE TYPE MARKED	CLASS OF TUBE	EQUIVALENT WESTINGHOUSE TYPE
WL-105	Thyr	WL-105
WTT-105	Trans	WL-892
105	Thyr	WL-105
VR-105MT	V R	WL-OC3
PL-106	Thyr	WL-6858
WL-106	M D	WL-106
WTT-106	Thyr	WL-7307A
WL-107	M D	WL-107
STV108/30	V R	WL-OB2
WL-108	M D	WL-108
WTT-108	Thyr	WL-3C23
108C1	V R	WL-OB2
WL-109	M D	WL-109
WL-110	M D	WL-110
WTT-110	Thyr	WL-5830
WL-111	M D	WL-111
WTT-111	Thyr	WL-5559
WTT-112	Thyr	WL-632B
WL-113	M D	WL-113
WTT-113	Thyr	KU-676
WL-114	M D	WL-114
WL-115	M D	WL-115
WL-116	M D	WL-116
WTT-116	Thyr	WL-5664
WL-117	M D	WL-117
WTT-117	Thyr	WL-5557
X-117	Trans	WL-5D22
WL-118	M D	WL-118
WTT-118	Thyr	WL-105
WL-119	M D	WL-119
WTT-119	Thvr	WL-172
WL-121	M D	WL-121
WL-122	M D	WL-122
WL-123	M D	WL-123
WL-124	M D	WL-124
T-125	Trans	WL-810
E-125A	Trans	WL-4D21
WL-126	M D	WL-126
WTT-127	Trans	WL-833A
WL-128	M D	WL-128
WL-129	M D	WL-129
WL-130	M D	WL-130
BR-132	Trans	WL-5762
WL-132	M D	WL-132
WL-133	M D	WL-133
WL-134	M D	WL-134
WTT-134	Thyr	WL-5665
WL-135	M D	WL-135
WL-136	M D	WL-136
WL-137	M D	WL-137
WL-138	M D	WL-138
WL-139	M D	WL-139
WL-140	M D	WL-140
WL-141	M D	WL-141
B142	Trans	WL-833A
KX142	Rect	WL-2X2A
C143	Trans	WL-813
C144	Trans	WL-829B
WL-146	M D	WL-146
WL-147	M D	WL-147
WL-148	M D	WL-148
WTT-149	Thyr	WL-172
QS150-40	V R	WL-OD3
SM150-30	V R	WL-OA2
STV150/30	V R	WL-OA2
VR-150	V R	WL-OD3
VR-150-30	V R	WL-OD3
VR-150MT	V R	WL-OA2
VR-150ST	V R	WL-OD3
150C1	V R	WL-OA2
150C2	V R	WL-OA2
150C3	V R	WL-OD3
150C4	V R	WL-OA2
V151	M D	WL-6316
B152	I R	WL-6679
D152	I R	WL-6663
V153	M D	WL-6315
V154	M D	WL-133
V157	M D	WL-138
Q160-1	Trans	WL-4D21
BK168B	Ig	WL-5822A
FG-172	Thyr	WL-172
WL-172	Thyr	WL-172
172	Thyr	WL-172
WL-176	M D	WL-176
WL-177	M D	WL-177
C178	Trans	WL-5894
C180	Trans	WL-832A
G180-2M	V R	WL-OD3
WL-186	M D	WL-186
WL-187	M D	WL-187
WL-188	M D	WL-188
ECC189	I R	WL-6922
WL-189	M D	WL-189
EF190	I R	WL-6676
BR191	Trans	WL-5762
WL-191	M D	WL-191
ML-199	Rect	WL-8094
ML-200	Rect	WL-5576
AH201	Rect	WL-866A
VA-204	M D	WL-146
A-206	Rect	WL-579B
GL-207	Trans	WL-207

TUBE TYPE MARKED	CLASS OF TUBE	EQUIVALENT WESTINGHOUSE TYPE
ML-207	Trans	WL-207
RX-207	Rect	WL-670
UE-207	Trans	WL-207
WL-207	Trans	WL-207
207	Trans	WL-207
WT-210-0001	Thyr	WL-2D21
WT-210-0004	Thyr	WL-2050
WT-210-0008	Rect	WL-866A
WT-210-0011	V R	WL-OC3
WT-210-0015	Thyr	WL-5557
WT-210-0016	V R	WL-OB3
WT-210-0017	Thyr	WL-6856
WT-210-0018	V R	WL-OD3
WT-210-0027	Rect	WL-872A
WT-210-0038	Thyr	WL-172
WT-210-0043	Thyr	WL-5796
WT-210-0044	Rect	WL-575A
WT-210-0045	Trans	WL-892
WT-210-0047	Thyr	WL-3C23
WT-210-0051	V R	WL-OA2
WT-210-0054	Thyr	WL-5830
WT-210-0056	Thyr	WL-5559
WT-210-0057	Thyr	WL-632B
WT-210-0058	Thyr	KU-676
WT-210-0059	Thyr	WL-677
WT-210-0062	Thyr	WL-5557
WT-210-0063	Thyr	WL-5685
WT-210-0066	Thyr	WL-5665
WT-210-0069	Thyr	WL-5557
WT-210-0070	Ig	WL-5550
WT-210-0071	Ig	WL-5551A
WT-210-0072	Ig	WL-5552A
WT-210-0073	Ig	WL-5553B
WT-210-0074	Thyr	WL-105
WT-210-0075	Ig	WL-5822A
WT-210-0077	Thyr	WL-5727
WT-210-0078	Thyr	WL-172
WT-210-0079	Thyr	WL-105
WT-210-0086	Trans	WL-833A
WT-210-0093	Trans	WL-5668
WT-210-0100	Thyr	WL-672A
WT-210-0106	Thyr	WL-7306A
WT-210-0116	Thyr	WL-632B
WT-210-0120	Thyr	KU-610
WT-210-0134	Thyr	WL-678
WT-210-0137	Thyr	WL-502A
WT-210-0141	Thyr	WL-5796
WT-210-0147	Ig	WL-5552A
WT-210-0149	Ig	WL-5551A
WT-210-0152	Ig	WL-5553B
WT-210-0156	Ig	WL-5551A
WT-210-0157	Ig	WL-5552A
WT-210-0158	Ig	WL-5551A
WT-210-0159	Ig	WL-5552A
WT-210-0162	Thyr	WL-7509A
WT-210-0165	Ig	WL-5553B
WT-210-0170	Ig	WL-5822A
WT-210-0179	Thyr	WL-C6H-1
WT-210-0181	Thyr	WL-C6H-3
WT-210-0183	Thyr	WL-7556A
WT-210-0188	Thyr	WL-6014
WT-210-0234	Thyr	WL-5665
WT-210-0245	Thyr	WL-C6H-2
WT-210-0246	Ig	WL-7681
WT-210-0249	Ig	WL-5551APC
WT-210-0252	Ig	WL-5552APC
WT-210-0274	Ig	WL-7669
WT-210-0275	Ig	WL-7671
WT-210-0283	Ig	WL-7670
WT-210-0285	Ig	WL-7671PC
WT-210-0290	Ig	WL-7669PC
WT-210-0306	Ig	WL-5553B
AH213	Rect	WL-869B
CE-213	Rect	WL-7018
CE-213A	Rect	WL-7018
VR216A	Rect	WL-866A
AH217	Rect	WL-872A
VA-218B	M D	WL-176
CE-220	Rect	WL-481B
CE-221	Rect	WL-670
CE-222	Rect	WL-3B22
AX-224	Rect	WL-3B28
CE-224	Rect	WL-4B24
Z-225	Rect	WL-866A
ECC-230	I R	WL-6080
230N	Rect	WL-5558
CE-232	Rect	WL-5558
SRX-232	M D	WL-6781
FG-235A	Ig	WL-5552A
FG-238B	Ig	WL-5555
VA-242	M D	WL-177
CE-245	Rect	WL-7016
VA-246	M D	WL-119
WT-246	Thyr	WL-2050
VA249	M D	WL-186
G250/3000	Rect	WL-866A
GRG250/3000	Thyr	WL-5557
RG250/3000	Rect	WL-866A
E-250A	Trans	WL-5D22
K251	Rect	WL-866A
HF-255	Rect	WL-869B
PL-255	Thyr	WL-414
255A	Rect	WL-869B

TUBE TYPE MARKED	CLASS OF TUBE	EQUIVALENT WESTINGHOUSE TYPE
255B	Rect	WL-869B
FG-258A	Ig	WL-5553B
FG-258B	Ig	WL-5553B
FG-259B	Ig	WL-5554
V-260	M D	WL-6310
SRX-262	M D	WL-109
VA-262	M D	WL-187
WT-262	Rect	WL-866A
WT-269	V R	WL-OC3
V-270	M D	WL-6312
FG-271	Ig	WL-5551A
WE-272	Thyr	WL-5557
WT-272	Thyr	WL-5557
WT-272A	Thyr	WL-5557
WE-274B	Rect	WL-5R4-GYB
WT-274	V R	WL-OB3
WT-280	Thyr	WL-C6H-1
V-290	M D	WL-6314
WT-294	V R	WL-OD3
CE-303	Thyr	WL-5664
CE-306	Thyr	WL-C6H-1
F-307A	Trans	WL-207
CE-308	Thyr	WL-C6H-1
ML-308	Trans	WL-5668
ML-308R	Trans	WL-5669
B309	I R	WL-6679
CE-309	Thyr	WL-5557
CE-311	Thyr	WL-3C23
F-319A	Rect	WL-872A
WE-319A	Rect	WL-872A
CE-320	Thyr	WL-7307A
320A	Thyr	WL-7307A
WE-322A	Trans	WL-803
B329	I R	WL-6680
B339	I R	WL-6681
QK-349	M D	WL-6249B
F-353A	Rect	WL-872A
F-357A	Rect	WL-857B
F-357B	Rect	WL-857B
QK-363	M D	WL-6177
F-363A	Trans	WL-892
F-366A	Rect	WL-866A
WE-366A	Rect	WL-866A
F-369B	Rect	WL-869B
WT-373	Rect	WL-7018
F-375A	Rect	WL-575A
WT-382	Rect	WL-872A
Q400-1	Trans	WL-5D22
WE-403A	I R	WL-5654
WE-409A	I R	WL-6AS6
GL-414	Thyr	WL-414
WL-414	Thyr	WL-414
GL-415	Ig	WL-5550
QK-417	M D	WL-6310
GL-426	Rect	WL-7018
QK-436	M D	WL-6316
WT-439	Thyr	WL-172
440	Rect	WL-7018
444	Rect	WL-3B22
GL-452	Trans	WL-892
WL-456	Rect	WL-456
ZP-468	C R	7BP7B
GL-473	Trans	WL-5736
ML-473	Trans	WL-5736
WL-473	Trans	WL-5736
X-474	Trans	WL-2C39A
GL-475	C R	5FP7B
ZP-475	C R	5FP7B
WL-481	Rect	WL-481B
WL-481A	Rect	WL-481B
WL-481B	Rect	WL-481B
GL-490	Rect	WL-7016
495	Rect	WL-7016
GL-502	Thyr	WL-502A
ZP-502	Thyr	WL-502A
502	Thyr	WL-502A
GL-502A	Thyr	WL-502A
WL-502A	Thyr	WL-502A
502A	Thyr	WL-502A
GL-506	Ig	WL-6228
GL-509	Trans	WL-889A
GL-509R	Trans	WL-5667
GL-510	Rect	WL-857B
GL-512	Rect	WL-575A
GL-512A	Rect	WL-575A
VH-550A	Rect	WL-866A
VX-550A	Rect	WL-3B28
P552/1E	Trans	WL-4D21
QM559	I R	WL-5726
WT-568	Rect	WL-7018
CK-569AX	I R	WL-5678
CK-571AX	I R	WL-5886
GL-572	Trans	WL-2C39A
ZP-572	Trans	WL-2C39A
DR-575A	Rect	WL-575A
EE-575A	Rect	WL-575A
F-575A	Rect	WL-575A
GL-575A	Rect	WL-575A
ML-575A	Rect	WL-575A
WL-575A	Rect	WL-575A
575A	Rect	WL-575A
WL-579	Rect	WL-579B
WL-579A	Rect	WL-579B

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Direct Interchangeability List

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TUBE TYPE MARKED	CLASS OF TUBE	EQUIVALENT WESTINGHOUSE TYPE
WL-579B	Rect	WL-579B
579B	Rect	WL-579B
NL-600	Rect	WL-3B22
NL-604	Rect	WL-7014
NL-604L	Rect	WL-7015
NL-606	Rect	WL-7016
WT-606	Thyr	WL-2D21
NL-606L	Rect	WL-7017
KU-610	Glow	KU-610
ACC612	Thyr	WL-C6H-1
R-612G	Rect	WL-2X2A
WL-613	Rect	WL-613
613	Rect	WL-613
NL-615	Rect	WL-7018
WL-616	Rect	WL-5575
KU-618	Thyr	KU-618
ZP-620	Trans	WL-2C40
WL-624	Thyr	WL-624
GL-627	Thyr	WL-627
KU-627	Thyr	WL-627
WL-627	Thyr	WL-627
627	Thyr	WL-627
WL-629	Thyr	WL-629
629	Thyr	WL-629
WL-630	Thyr	WL-2050
WT-630	Thyr	WL-2050
WL-630A	Thyr	WL-2050
WL-631	Thyr	WL-5559
WT-631	Thyr	WL-5559
NL-632B	Thyr	WL-632B
WL-632B	Thyr	WL-632B
KU-634	Thyr	WL-677
NL-635	Rect	WL-7019
WT-635	Thyr	WL-C6H-1
NL-635L	Rect	WL-7020
NL-635P	Rect	WL-6930
KX-642	Glow	KX-642
WL-651	Ig	WL-5552A
WL-652	Ig	WL-5551A
WL-653	Ig	WL-5555
WL-653A	Ig	WL-5555
WL-653B	Ig	WL-5555
DF654	I R	WL-5678
WL-655	Ig	WL-5553B
WL-656	Ig	WL-5552A
WL-657	Ig	WL-5551A
WL-658	Ig	WL-5553B
K1-664	Rect	WL-4B24
WL-670	Rect	WL-670
WL-672	Thyr	WL-672A
GL-672	Thyr	WL-672A
672	Thyr	WL-672A
GL-672A	Thyr	WL-672A
WL-672A	Thyr	WL-672A
672A	Thyr	WL-672A
GL-673	Rect	WL-673
ML-673	Rect	WL-673
WL-673	Rect	WL-673
673	Rect	WL-673
KU-676	Thyr	KU-676
676	Thyr	KU-676
WL-677	Thyr	WL-677
677	Thyr	WL-677
GL-678	Thyr	WL-678
WL-678	Thyr	WL-678
678	Thyr	WL-678
WL-679	Ig	WL-5554
WL-681	Ig	WL-5550
WL-682	Ig	WL-5550
WL-686	Ig	WL-5550
WL-689	Ig	WL-6228
WT-699	Ig	WL-5550
NL-710	Thyr	WL-7307A
NL-710L	Thyr	WL-7509A
NL-715	Thyr	WL-5557
D717	I R	WL-6663
T717	Thyr	WL-5557
N727	I R	WL-6669
W727	I R	WL-6660
ML-728	Thyr	WL-5557
DC728A	Thyr	WL-627
XC728A	Thyr	WL-627
EF730	I R	WL-5636
NL-730	Thyr	WL-22994
731A	I R	WL-5654
EF734	I R	WL-6205
NL-734	Thyr	WL-22994
NL-740	Thyr	WL-6856
NL-740L	Thyr	WL-7022
NL-740P	Thyr	WL-6857
WL-741	Photo	WL-923
WL-759	Glow	WL-759
NL-760	Thyr	WL-C6H-1
NL-760L	Thyr	WL-7023
NL-760P	Thyr	WL-6859
NL-761	Thyr	WL-C6H-1
NL-762	G A	WL-762
WL-765	G A	WL-765
WL-765A	G A	WL-765A
XB767A	Thyr	WL-2050
BL-800	M D	WL-6780
BL-800A	M D	WL-6316
ECC801S	S P	WL-6201
BL-803	M D	WL-6781
GL-803	Trans	WL-803
HF-803	Trans	WL-803
T-803	Trans	WL-803
WL-803	Trans	WL-803
803	Trans	WL-803
BL-806	M D	WL-189
BL-807	M D	WL-188
DR-807	Trans	WL-807
GL-807	Trans	WL-807
WL-807	Trans	WL-807
807	Trans	WL-807
DR-810	Trans	WL-810
GL-810	Trans	WL-810
ML-810	Trans	WL-810
T-810	Trans	WL-810
UE-810	Trans	WL-810
WL-810	Trans	WL-810
810	Trans	WL-810
DR-811	Trans	WL-811A
GL-811	Trans	WL-811A
NU-811	Trans	WL-811A
WL-811	Trans	WL-811A
811	Trans	WL-811A
GL-811A	Trans	WL-811A
WL-811A	Trans	WL-811A
811A	Trans	WL-811A
DR-812	Trans	WL-812A
GL-812	Trans	WL-812A
NU-812	Trans	WL-812A
WL-812	Trans	WL-812A
812	Trans	WL-812A
GL-812A	Trans	WL-812A
WL-812A	Trans	WL-812A
812A	Trans	WL-812A
DR-813	Trans	WL-813
GL-813	Trans	WL-813
ML-813	Trans	WL-813
RK-813	Trans	WL-813
T-813	Trans	WL-813
UE-813	Trans	WL-813
WL-813	Trans	WL-813
813	Trans	WL-813
GL-815	Trans	WL-815
WL-815	Trans	WL-815
815	Trans	WL-815
DR-816	Rect	WL-816
GL-816	Rect	WL-816
WL-816	Rect	WL-816
816	Rect	WL-816
BL-829	M D	WL-177
GL-829	Trans	WL-829B
NU-829	Trans	WL-829B
RK-829	Trans	WL-829B
829	Trans	WL-829B
829A	Trans	WL-829B
GL-829B	Trans	WL-829B
ML-829B	Trans	WL-829B
RK-829B	Trans	WL-829B
WL-829B	Trans	WL-829B
829B	Trans	WL-829B
T830B	Photo	WL-930
GL-832	Trans	WL-832A
NU-832	Trans	WL-832A
832	Trans	WL-832A
DR-832A	Trans	WL-832A
GL832A	Trans	WL-832A
ML-832A	Trans	WL-832A
RK-832A	Trans	WL-832A
WL-832A	Trans	WL-832A
832A	Trans	WL-832A
WL-833	Trans	WL-833A
833	Trans	WL-833A
DR-833A	Trans	WL-833A
GL-833A	Trans	WL-833A
ML-833A	Trans	WL-833A
UE-833A	Trans	WL-833A
WL-833A	Trans	WL-833A
833A	Trans	WL-833A
EE-836	Rect	WL-836
GL-836	Rect	WL-836
RK-836	Rect	WL-836
WL-836	Rect	WL-836
836	Rect	WL-836
836A	Rect	WL-836
BL-841	M D	WL-177
BL-843	M D	WL-109
S-856	V R	WL-OA2
857	Rect	WL-857B
F-857A	Rect	WL-857B
GL-857A	Rect	WL-857B
857A	Rect	WL-857B
DR-857B	Rect	WL-857B
F-857B	Rect	WL-857B
GL-857B	Rect	WL-857B
ML-857B	Rect	WL-857B
WL-857B	Rect	WL-857B
857B	Rect	WL-857B
S-859	V R	WL-OC2
S-860	V R	WL-OB2
F-863	Trans	WL-892
RCA863	Trans	WL-892
F-863A	Trans	WL-892
C866	Rect	WL-866A
UX-866	Rect	WL-866A
866	Rect	WL-866A
C866A	Rect	WL-866A
CE-866A	Rect	WL-866A
EE-866A	Rect	WL-866A
GL-866A	Rect	WL-866A
HF-866A	Rect	WL-866A
ML-866A	Rect	WL-866A
NU-866A	Rect	WL-866A
RCA-866A	Rect	WL-866A
RK-866A	Rect	WL-866A
T-866A	Rect	WL-866A
UE-866A	Rect	WL-866A
WL-866A	Rect	WL-866A
866A	Rect	WL-866A
HY-866JR	Rect	WL-816
NU-866JR	Rect	WL-816
866JR	Rect	WL-816
UV-869	Rect	WL-869B
869	Rect	WL-869B
UV-869A	Rect	WL-869B
869A	Rect	WL-869B
CE-869B	Rect	WL-869B
DR-869B	Rect	WL-869B
EE-869B	Rect	WL-869B
F-869B	Rect	WL-869B
GL-869B	Rect	WL-869B
ML-869B	Rect	WL-869B
WL-869B	Rect	WL-869B
869B	Rect	WL-869B
WL869BL	Rect	WL-869BL
869BL	Rect	WL-869BL
872	Rect	WL-872A
DR-872A	Rect	WL-872A
EE-872A	Rect	WL-872A
F-872A	Rect	WL-872A
GL-872A	Rect	WL-872A
ML-872A	Rect	WL-872A
RK-872A	Rect	WL-872A
UE-872A	Rect	WL-872A
WL-872A	Rect	WL-872A
872A	Rect	WL-872A
T-875A	Rect	WL-575A
879	Rect	WL-2X2A
GL-880	Trans	WL-5658
ML-880	Trans	WL-5658
UE-880	Trans	WL-5658
WL-880	Trans	WL-5658
880	Trans	WL-5658
GL-885	Thyr	WL-885
RCA-885	Thyr	WL-885
RX-885	Thyr	WL-885
WL-885	Thyr	WL-885
885	Thyr	WL-885
889	Trans	WL-889A
F-889A	Trans	WL-889A
GL-889A	Trans	WL-889A
ML-889A	Trans	WL-889A
UE-889A	Trans	WL-889A
WL-889A	Trans	WL-889A
889A	Trans	WL-889A
889R	Trans	WL-5667
F-889RA	Trans	WL-5667
GL-889RA	Trans	WL-5667
ML-889RA	Trans	WL-5667
UE-889RA	Trans	WL-5667
WL-889RA	Trans	WL-5667
889RA	Trans	WL-5667
F-891	Trans	WL-891
GL-891	Trans	WL-891
ML-891	Trans	WL-891
UE-891	Trans	WL-891
WL-891	Trans	WL-891
891	Trans	WL-891
F-891R	Trans	WL-891R
GL-891R	Trans	WL-891R
ML-891R	Trans	WL-891R
UE-891R	Trans	WL-891R
WL-891R	Trans	WL-891R
891R	Trans	WL-891R
F-892	Trans	WL-892
GL-892	Trans	WL-892
ML-892	Trans	WL-892
UE-892	Trans	WL-892
WL-892	Trans	WL-892
892	Trans	WL-892
DR-892R	Trans	WL-892R
F-892R	Trans	WL-892R
GL-892R	Trans	WL-892R
ML-892R	Trans	WL-892R
UE-892R	Trans	WL-892R
WL-892R	Trans	WL-892R
892R	Trans	WL-892R
GL-895	Trans	WL-895
ML-895	Trans	WL-895
WL-895	Trans	WL-895
895	Trans	WL-895
GL-895R	Trans	WL-895R
ML-895R	Trans	WL-895R
WL-895R	Trans	WL-895R
895R	Trans	WL-895R
Z900T	Glow	WL-5823

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Direct Interchangeability List

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TUBE TYPE MARKED	CLASS OF TUBE	EQUIVALENT WESTINGHOUSE TYPE
EAA901	I R	WL-6663
S901C	V R	WL-5651
EAA901S	I R	WL-6663
EF905	I R	WL-5654
UL-905	Thyr	WL-5559
TX-920	Thyr	WL-5559
UL-905	Thyr	WL-5559
GL-922	Photo	WL-922
WL-922	Photo	WL-922
922	Photo	WL-922
GL-923	Photo	WL-923
WL-923	Photo	WL-923
923	Photo	WL-923
GL-927	Photo	WL-927
WL-927	Photo	WL-927
927	Photo	WL-927
GL-930	Photo	WL-930
WL-930	Photo	WL-930
930	Photo	WL-930
931	Photo	WL-931A
GL-931A	Photo	WL-931A
WL-931A	Photo	WL-931A
931A	Photo	WL-931A
UE-966	Rect	WL-866A
UE-966A	Rect	WL-866A
BM-966B	Rect	WL-866A
HV-966B	Rect	WL-866A
NU-967	Thyr	WL-5557
UE-967	Thyr	WL-5557
UE-972	Rect	WL-872A
UE-972A	Rect	WL-872A
UE-975A	Rect	WL-575A
SN976	I R	WL-5902
SN976D	I R	WL-5902
SN979	I R	WL-5718
SN979D	I R	WL-5718
RG1000/3000	Rect	WL-872A
Stel-1000-2.5-15	Thyr	WL-5559
RS-1007	Trans	WL-4D21
SN1007	I R	WL-5636
SN1007A	I R	WL-5636
WT-1009	Ig	WL-7681
NL-1009A	Ig	WL-7681
NL-1009AP	Ig	WL-7681PC
NL-1011A	Ig	WL-23011
NL-1011AP	Ig	WL-23011PC
NL-1012A	Ig	WL-23012
NL-1012AP	Ig	WL-23012PC
NL-1013A	Ig	WL-23013
NL-1016	Ig	WL-23016
NL-1022	Ig	WL-5822A
QKK-1022	M D	WL-137
WT-1022	Ig	WL-5822A
NL-1022A	Ig	WL-5822A
D1031A	Trans	WL-8045
NL-1036	Ig	WL-7171
B-1038	C R	10WP7
NL-1051	Ig	WL-5551A
NL-1051A	Ig	WL-5551A
WT-1051A	Ig	WL-5551A
NL-1051P	Ig	WL-5551APC
WT-1051P	Ig	WL-5551APC
NL-1052	Ig	WL-5552A
NL-1052A	Ig	WL-5552A
WT-1052A	Ig	WL-5552A
NL-1052P	Ig	WL-5552APC
WT-1052P	Ig	WL-5552APC
NL-1053	Ig	WL-5553B
WT-1053A	Ig	WL-5553B
WT-1053P	Ig	WL-5553BPC
NL-1061	Ig	WL-7669
NL-1061P	Ig	WL-7669PC
NL-1062	Ig	WL-7671
NL-1066	Ig	WL-7670
NL-1071	Ig	WL-23014
NL-1071P	Ig	WL-23014PC
NL-1072	Ig	WL-23015
NL-1072P	Ig	WL-23015PC
NL-1073	Ig	WL-23017
NL-1079	Ig	WL-23018
CK-1090	Glow	WL-5823
C-1108	Trans	WL-4D21
SC1156A	I R	WL-5636
K-1195P7	C R	7ABP7A
QS-1206	V R	WL-OC3
QS-1207	V R	WL-OA2
QS-1208	V R	WL-OB2
1220	I R	WL-5654
1266	V R	WL-OB3
1295	Thyr	WL-632B
Stel-1300-01-05	Thyr	WL-2D21
K-1304P7	C R	7ABP7A
1351HQ	I R	WL-5654
Z1494	I R	WL-5654
Z1498	I R	WL-6189
ME-1504	Thyr	WL-5559
GL-1614	I R	WL-5881
RK-1614	I R	WL-5881
1614	I R	WL-5881
1657	Thyr	WL-2050
1665	Thyr	WL-2050
1672	Thyr	WL-172
HF-1701	Thyr	WL-5557

TUBE TYPE MARKED	CLASS OF TUBE	EQUIVALENT WESTINGHOUSE TYPE
ZV-1798	Rect	WL-5973
1812P7	C R	5FP7B
1812P11	C R	5FP11A
1813P7	C R	7BP7B
A-1834	I R	WL-6
E-1870	Trans	WL-4D21
1971	Trans	WL-207
2014	I R	WL-6197
GL-2050	Thyr	WL-2050A
RK-2050	Thyr	WL-2050A
WL-2050	Thyr	WL-2050A
2050	Thyr	WL-2050A
GL-2050A	Thyr	WL-2050A
WL-2050A	Thyr	WL-2050A
2050A	Thyr	WL-2050A
RK-2051	Thyr	WL-2050
2051	Thyr	WL-2050
2179A	Trans	WL-2C40
A2209	I R	WL-6J4
A2209A	I R	WL-6J4
CV2210	Thyr	WL-22994
CV2215	Thyr	WL-C6H-1
A-2229A	Trans	WL-2C40
A-2251A	Trans	WL-5667
A-2251B	Trans	WL-5667
QA2404	I R	WL-6663
QA2408	I R	WL-5692
Stel-2500-6-40	Thyr	WL-105
CV2723	Rect	WL-869B
CV2957	Thyr	WL-5557
3069	Rect	WL-866A
3070	Rect	WL-872A
3071	Rect	WL-869B
WX-3072	Rect	WL-670
3072	Rect	WL-857B
WX-3141	Thyr	WL-676
WX-3172	Thyr	WL-672A
WX-3187	Thyr	WL-414
WX-3194	Ig	WL-5550
XRI-3200	Thyr	WL-22994
WX-3230	Thyr	WL-678
3546PW	Photo	WL-927
WX-3751	C R	5CEP11
3572	Rect	WL-866A
3874A	Trans	WL-813
3885A	Rect	WL-3B28
WX-3989	C S	WL-7383
4017	Rect	WL-866A
A-4051	Trans	WL-807
A-4051G	Trans	WL-807
A-4051J	Trans	WL-807
4078F	Rect	WL-869B
4078Z	Rect	WL-869B
WX-4113	G A	WL-22618
A-4229	Trans	WL-4E27A
4260	Thyr	WL-5557
4261	Thyr	WL-5557
A4273B	I R	WL-5692
SYK-4333A	M D	WL-147
WX-4424	G A	WL-22614
WX-4433	Rect	WL-22800
WX-4433A	Rect	WL-22800
WX-4436	HCDD	WL-22602
WX-4451	G A	WL-22620
A4461	I R	WL-6660
A4475	I R	WL-6A57GA
WX-4484	HCDD	WL-22603
WX-4492	Rect	WL-22801
A-4522A	I R	WL-6681
A-4524A	I R	WL-6681
A-4535	I R	WL-6080
A-4535A	I R	WL-6080
A-4541H	Trans	WL-5763
WX-4580	HCDD	WL-22604
WX-4586	Rect	WL-22802
WX-4620	HCDD	WL-22605
WX-4650	HCDD	WL-22606
WX-4651	HCDD	WL-22607
WX-4659	HCDD	WL-22608
WX-4663	HCDD	WL-22609
WX-4664	HCDD	WL-22610
WX-4680	HCDD	WL-22804
WX-4688	HCDD	WL-22809
WX-4689	HCDD	WL-22611
WX-4715A	Trans	WL-22803
WX-4743	HCDD	WL-22663
WX-4748	HCDD	WL-22811
WX-4836	N	WL-22792
WX-484Z	M D	WL-177
WX-4930	HCDD	WL-22812
WX-4931A	HCDD	WL-22822
WX-4932	HCDD	WL-22813
WX-4933	HCDD	WL-22815
WX-4934	HCDD	WL-22805
WX-4936	HCDD	WL-22816
WX-4937	HCDD	WL-22817
WX-4972	HCDD	WL-22818
ASG 5017	Thyr	WL-5557
PA-5021	Rect	WL-866A
TH 5021B	Rect	WL-866A
ASG 5023	Thyr	WL-3C23
CV5027	Thyr	WL-5559
TH5031B	Rect	WL-872A

TUBE TYPE MARKED	CLASS OF TUBE	EQUIVALENT WESTINGHOUSE TYPE
WX-5056	M D	WL-119
WX-5059	N	WL-22791
WX-5073	HCDD	WL-22819
ASG5121	Thyr	WL-2D21
WX-5382	HCDD	WL-22820
WX-5399	HCDD	WL-22821
WX-5434	HCDD	WL-22838
WX-5463	HCDD	WL-22823
WX-5464	HCDD	WL-22824
WX-5471	HCDD	WL-22825
WX-5472	HCDD	WL-22826
WX-5485	HCDD	WL-22827
WX-5486	HCDD	WL-22828
WX-5487	HCDD	WL-22829
WX-5488	HCDD	WL-22830
WX-5489	HCDD	WL-22831
WX-5490	HCDD	WL-22832
WL-5513	Trans	WL-5513
5513	Trans	WL-5513
ASG-5544	Thyr	WL-22994
GL-5544	Thyr	WL-22994
5544	Thyr	WL-22994
ASG-5545	Thyr	WL-C6H-1
GL-5545	Thyr	WL-C6H-1
5545	Thyr	WL-C6H-1
AX-5550	Ig	WL-5550
GL-5550/415	Ig	WL-5550
NL-5550	Ig	WL-5550
WL-5550	Ig	WL-5550
WT-5550	Ig	WL-5550
5550	Ig	WL-5550
AJ-5551	Ig	WL-5551A
AX-5551	Ig	WL-5551A
GL-5551	Ig	WL-5551A
NL-5551	Ig	WL-5551A
PL-5551	Ig	WL-5551A
VJ-5551	Ig	WL-5551A
WL-5551	Ig	WL-5551A
WT-5551	Ig	WL-5551A
5551	Ig	WL-5551A
AJ-5551A	Ig	WL-5551A
AX-5551A	Ig	WL-5551A
GL-5551A	Ig	WL-5551A
PL-5551A	Ig	WL-5551A
WL-5551A	Ig	WL-5551A
5551A	Ig	WL-5551A
WL-5551APC	Ig	WL-5551APC
AX-5552	Ig	WL-5552A
GL-5552	Ig	WL-5552A
NL-5552	Ig	WL-5552A
PL-5552	Ig	WL-5552A
WL-5552	Ig	WL-5552A
WT-5552	Ig	WL-5552A
5552	Ig	WL-5552A
AJ5552A	Ig	WL-5552A
GL-5552A	Ig	WL-5552A
NL-5552A	Ig	WL-5552A
PL-5552A	Ig	WL-5552A
VJ-5552A	Ig	WL-5552A
WL-5552A	Ig	WL-5552A
5552A	Ig	WL-5552A
WL-5552APC	Ig	WL-5552APC
AX-5553	Ig	WL-5553B
GL-5553	Ig	WL-5553B
WL-5553	Ig	WL-5553B
5553	Ig	WL-5553B
GL-5553A	Ig	WL-5553B
5553A	Ig	WL-5553B
AJ-5553B	Ig	WL-5553B
AX-5553B	Ig	WL-5553B
GL-5553B	Ig	WL-5553B
VJ-5553B	Ig	WL-5553B
WL-5553B	Ig	WL-5553B
5553B	Ig	WL-5553B
WL-5553BPC	Ig	WL-5553BPC
AX-5554	Ig	WL-5554
GL-5554	Ig	WL-5554
WL-5554	Ig	WL-5554
5554	Ig	WL-5554
AX-5555	Ig	WL-5555
GL-5555	Ig	WL-5555
WL-5555	Ig	WL-5555
5555	Ig	WL-5555
WL-5555A	Ig	WL-5555A
5555A	Ig	WL-5555A
AX-5557	Thyr	WL-5557
GL-5557	Thyr	WL-5557
WL-5557	Thyr	WL-5557
5557	Thyr	WL-5557
GL-5558	Rect	WL-5558
NL-5558	Rect	WL-5558
WL-5558	Rect	WL-5558
5558	Rect	WL-5558
AX-5559	Thyr	WL-5559
GL-5559	Thyr	WL-5559
NL-5559	Thyr	WL-5559
WL-5559	Thyr	WL-5559
5559	Thyr	WL-5559
5560	Thyr	WL-632B
GL-5561	Rect	WL-5561
WL-5561	Rect	WL-5561
5561	Rect	WL-5561

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Direct Interchangeability List

continued

TUBE TYPE MARKED	CLASS OF TUBE	EQUIVALENT WESTINGHOUSE TYPE
ML-5575	Rect	WL-5575
WL-5575	Rect	WL-5575
ML-5576	Rect	WL-5576
WL-5576	Rect	WL-5576
5591	I R	WL-5654
AX-5604	Trans	WL-5604
ML-5604	Trans	WL-5604
WL-5604	Trans	WL-5604
5604	Trans	WL-5604
ML-5606	Trans	WL-5606
WL-5606	Trans	WL-5606
5606	Trans	WL-5606
ML-5619	Trans	WL-5619
WL-5619	Trans	WL-5619
5619	Trans	WL-5619
GL-5625	Rect	WL-5575
5625	Rect	WL-5575
GL-5632	Thyr	WL-7307A
5632	Thyr	WL-7307A
5640	I R	WL-5902
5648	Trans	WL-2C39B
GL-5651	V R	WL-5651
WL-5651	V R	WL-5651
5651	V R	WL-5651
CK-5654	V R	WL-5654
GL-5654	I R	WL-5654
WL-5654	I R	WL-5654
5654	S P	WL-5654
ML-5658	Trans	WL-5658
WL-5658	Trans	WL-5658
5658	Trans	WL-5658
WL-5664	Thyr	WL-5664
5664	Thyr	WL-5664
GL-5665	Thyr	WL-5665
WL-5665	Thyr	WL-5665
5665	Thyr	WL-5665
F-5667	Trans	WL-5667
ML-5667	Trans	WL-5667
WL-5667	Trans	WL-5667
5667	Trans	WL-5667
F-5668	Trans	WL-5668
ML-5668	Trans	WL-5668
WL-5668	Trans	WL-5668
5668	Trans	WL-5668
F-5669	Trans	WL-5669
ML-5669	Trans	WL-5669
WL-5669	Trans	WL-5669
5669	Trans	WL-5669
CK-5678	I R	WL-5678
WL-5678	I R	WL-5678
5678	I R	WL-5678
WL-5682	Trans	WL-5682
5682	Trans	WL-5682
5683	Thyr	WL-6014
WL-5684	Thyr	WL-7306A
AX-5685	Thyr	WL-5685
WL-5685	Thyr	WL-5685
5685	Thyr	WL-5685
GL-5687	I R	WL-5687
WL-5687	I R	WL-5687
5687	I R	WL-5687
GL-5691	I R	WL-5691
WL-5691	I R	WL-5691
5691	I R	WL-5691
GL-5692	I R	WL-5692
WL-5692	I R	WL-5692
5692	I R	WL-5692
GL-5693	I R	WL-5693
WL-5693	I R	WL-5693
5693	I R	WL-5693
GL-5696	Thyr	WL-5696
WL-5696	Thyr	WL-5696
5696	Thyr	WL-5696
GL-5718	I R	WL-5718
WL-5718	I R	WL-5718
5718	I R	WL-5718
GL-5718A	I R	WL-5718
5718A	I R	WL-5718
GL-5720	Thyr	WL-5720
NL-5720	Thyr	WL-5720
WL-5720	Thyr	WL-5720
5720	Thyr	WL-5720
5725	I R	WL-6AS6
5726	I R	WL-6663
GL-5727	Thyr	WL-5727
WL-5727	Thyr	WL-5727
5727	Thyr	WL-5727
GL-5736	Trans	WL-5736
ML-5736	Trans	WL-5736
WL-5736	Trans	WL-5736
5736	Trans	WL-5736
GL-5749	I R	WL-6660
5749	I R	WL-6660
GL-5751	I R	WL-5751
WL-5751	I R	WL-5751
5751	I R	WL-5751
WL-5762	Trans	WL-5762
5762	Trans	WL-5762
GL-5763	Trans	WL-5763
WL-5763	Trans	WL-5763
5763	Trans	WL-5763
GL-5771	Trans	WL-5771
ML-5771	Trans	WL-5771
WL-5771	Trans	WL-5771
5771	Trans	WL-5771
WL-5796	Thyr	WL-5796
CK-5814	I R	WL-5814A
5814	I R	WL-5814A
GL-5814A	I R	WL-5814A
WL-5814A	I R	WL-5814A
5814A	I R	WL-5814A
GL-5820	C S	WL-5820A
ML-5820	C S	WL-5820A
WL-5820	C S	WL-5820A
5820	C S	WL-5820A
WL-5820A	C S	WL-5820A
5820A	C S	WL-5820A
GL-5822	Ig	WL-5822A
NL-5822	Ig	WL-5822A
WL-5822	Ig	WL-5822A
5822	Ig	WL-5822A
GL-5822A	Ig	WL-5822A
NL-5822A	Ig	WL-5822A
WL-5822A	Ig	WL-5822A
5822A	Ig	WL-5822A
WL-5823	Glow	WL-5823
5823	Glow	WL-5823
GL-5824	I R	WL-5824
WL-5824	I R	WL-5824
5824	I R	WL-5824
GL-5830	Thyr	WL-5830
WL-5830	Thyr	WL-5830
5830	Thyr	WL-5830
WL-5846	M D	WL-5846
WL-5859	Rect	WL-5859
WL-5860	Rect	WL-5859
WL-5877	Thyr	WL-22994
WL-5878	Thyr	WL-C6H-1
GL-5879	I R	WL-5879
WL-5879	I R	WL-5879
5879	I R	WL-5879
GL-5881	I R	WL-5881
WL-5881	I R	WL-5881
5881	I R	WL-5881
CK-5886	I R	WL-5886
WL-5886	I R	WL-5886
5886	I R	WL-5886
WL-5891	Trans	WL-5891
ML-5894	Trans	WL-5894
WL-5894	Trans	WL-5894
5894	Trans	WL-5894
GL-5902	I R	WL-5902
WL-5902	I R	WL-5902
5902	I R	WL-5902
5902A	I R	WL-5902
F-5918A	Trans	WL-5918A
WL-5918A	Trans	WL-5918A
5918A	Trans	WL-5918A
5932	I R	WL-5881
5933	Trans	WL-807
WL-5934	Rect	WL-5934
WL-5936	Trans	WL-5936
GL-5963	I R	WL-5963
WL-5963	I R	WL-5963
5963	I R	WL-5963
GL-5964	I R	WL-5964
WL-5964	I R	WL-5964
5964	I R	WL-5964
GL-5965	I R	WL-5965
WL-5965	I R	WL-5965
5965	I R	WL-5965
WL-5966	G A	WL-5966
GL-5973	Rect	WL-5973
WL-5973	Rect	WL-5973
5973	Rect	WL-5973
WL-5986	Trans	WL-5986A
WL-5986A	Trans	WL-5986A
6005	I R	WL-6669
GL-6011	Thyr	WL-7307A
PL-6011	Thyr	WL-7307A
TH-6011	Thyr	WL-5557
WL-6011	Thyr	WL-7307A
6011	Thyr	WL-7307A
WL-6012	Thyr	WL-6012
6012	Thyr	WL-6012
GL-6014	Thyr	WL-6014
WL-6014	Thyr	WL-6014
6014	Thyr	WL-6014
GL-6021	I R	WL-6021
WL-6021	I R	WL-6021
6021	I R	WL-6021
R6025	C R	10FP4A
TH-6031	Thyr	WL-5559
WL-6040	M D	WL-6040
WL-6041	M D	WL-6041
6057	I R	WL-5751
6058	I R	WL-6663
6060	I R	WL-6679
6062	Trans	WL-5763
6067	I R	WL-5814A
GL-6072	I R	WL-6072
WL-6072	I R	WL-6072
6072	I R	WL-6072
6073	V R	WL-OA2WA
6074	V R	WL-OB2WA
WL-6080	I R	WL-6080
6080	I R	WL-6080
6096	I R	WL-5654
6097	I R	WL-6663
6113	I R	WL-5691
TH-6120	Thyr	WL-105
GL-6136	I R	WL-6136
WL-6136	I R	WL-6136
6136	I R	WL-6136
GL-6146	Trans	WL-6146
R6146	Rect	WL-8008
WL-6146	Trans	WL-6146
6146	Trans	WL-6146
WL-6146A	Trans	WL-6146A
6146A	Trans	WL-6146A
6155	Trans	WL-4D21
6156	Trans	WL-5D22
GL-6159	Trans	WL-6159
WL-6159	Trans	WL-6159
6159	Trans	WL-6159
WL-6166A	Trans	WL-6166A
6166A	Trans	WL-6166A
R6175B	Rect	WL-5R4-GYB
RK-6177	M D	WL-6177
WL-6177	M D	WL-6177
6180	S P	WL-5692
6187	S P	WL-6AS6
GL-6189	S P	WL-6189
WL-6189	S P	WL-6189
6189	S P	WL-6189
WL-6197	S P	WL-6197
6197	S P	WL-6197
GL-6198	C S	See 6198A
WL-6198	C S	See 6198A
6198	C S	See 6198A
GL-6198A	C S	See 6198A
ML-6198A	C S	See 6198A
WL-6198A	C S	See 6198A
6198A	C S	WL-7038
R6200	Thyr	WL-2D21
GL-6201	I R	WL-6201
6201	I R	WL-6201
TH-6220	Thyr	WL-C6H-1
GL-6228	Ig	WL-6228
WL-6228	Ig	WL-6228
6228	Ig	WL-6228
TH-6230	Thyr	WL-3C23
RK-6249	M D	WL-6249B
WL-6249	M D	WL-6249B
RK-6249A	M D	WL-6249B
WL-6249A	M D	WL-6249B
WL-6249B	M D	WL-6249B
6265	I R	WL-6661
WL-6293	Trans	WL-6293
6293	Trans	WL-6293
WL-6307	N	WL-6307
WL-6307A	N	WL-6307A
WL-6310	M D	WL-6310
6310	M D	WL-6310
WL-6312	M D	WL-6312
6312	M D	WL-6312
WL-6314	M D	WL-6314
6314	M D	WL-6314
WL-6315	M D	WL-6315
6315	M D	WL-6315
WL-6316	M D	WL-6316
6316	M D	WL-6316
TS-6336	I R	WL-6336A
6336	I R	WL-6336A
TS-6336A	I R	WL-6336A
WL-6336A	I R	WL-6336A
6336A	I R	WL-6336A
AJ-6346	Ig	WL-5551A
6346	Ig	WL-5551A
AJ-6347	Ig	WL-5552A
6347	Ig	WL-5552A
6348	Ig	WL-5553A
WL-6376	N	WL-6376A
WL-6376A	N	WL-6376A
WL-6377	N	WL-6377
WL-6379	Trans	WL-6379
6379	Trans	WL-6379
F-6399	Trans	WL-6399
WL-6399	Trans	WL-6399
6399	Trans	WL-6399
XRI-6400	Thyr	WL-C6H-1
XRI-6400A	Thyr	WL-C6H-1
ML-6420	Trans	WL-6420
WL-6420	Trans	WL-6420
6420	Trans	WL-6420
ML-6421	Trans	WL-6421
WL-6421	Trans	WL-6421
6421	Trans	WL-6421
ML-6421F	Trans	WL-6421F
WL-6421F	Trans	WL-6421F
6421F	Trans	WL-6421F
ML-6422	Trans	WL-6422
WL-6422	Trans	WL-6422
6422	Trans	WL-6422
ML-6423	Trans	WL-6423
WL-6423	Trans	WL-6423

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Direct Interchangeability List

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TUBE TYPE MARKED	CLASS OF TUBE	EQUIVALENT WESTINGHOUSE TYPE
6423	Trans	WL-6423
ML-6423F	Trans	WL-6423F
WL-6423F	Trans	WL-6423F
6423F	Trans	WL-6423F
ML-6424	Trans	WL-6424
WL-6424	Trans	WL-6424
6424	Trans	WL-6424
ML-6425	Trans	WL-6425
WL-6425	Trans	WL-6425
6425	Trans	WL-6425
ML-6425F	Trans	WL-6425F
WL-6425F	Trans	WL-6425F
6425F	Trans	WL-6425F
ML-6426	Trans	WL-6426
WL-6426	Trans	WL-6426
6426	Trans	WL-6426
ML-6427	Trans	WL-6427
WL-6427	Trans	WL-6427
6427	Trans	WL-6427
GL-6511	Rect	WL-575A
6511	Rect	WL-575A
6520	I R	WL-6080
WL-6550	I R	WL-6550
6550	I R	WL-6550
WL-6567	Trans	WL-6567
6567	Trans	WL-6567
6582	I R	WL-5654
WL-6623	Trans	WL-6623
6623	Trans	WL-6623
6626	V R	WL-OA2WA
6627	V R	WL-OB2WA
GL-6660	I R	WL-6660
WL-6660	I R	WL-6660
6660	I R	WL-6660
GL-6661	I R	WL-6661
WL-6661	I R	WL-6661
6661	I R	WL-6661
GL-6662	I R	WL-6662
WL-6662	I R	WL-6662
6662	I R	WL-6662
GL-6663	I R	WL-6663
WL-6663	I R	WL-6663
6663	I R	WL-6663
GL-6664	I R	WL-6664
WL-6664	I R	WL-6664
6664	I R	WL-6664
GL-6669	I R	WL-6669
WL-6669	I R	WL-6669
6669	I R	WL-6669
GL-6676	I R	WL-6676
WL-6676	I R	WL-6676
6676	I R	WL-6676
GL-6677	I R	WL-6677
WL-6677	I R	WL-6677
6677	I R	WL-6677
GL-6678	I R	WL-6678
WL-6678	I R	WL-6678
6678	I R	WL-6678
GL-6679	I R	WL-6679
WL-6679	I R	WL-6679
6679	I R	WL-6679
GL-6680	I R	WL-6680
WL-6680	I R	WL-6680
6680	I R	WL-6680
GL-6681	I R	WL-6681
WL-6681	I R	WL-6681
6681	I R	WL-6681
AX-6693	Rect	WL-673
6693	Rect	WL-673
WL-6696	Trans	WL-6696
6696	Trans	WL-6696
WL-6697	Trans	WL-6697
6697	Trans	WL-6697
6778	I R	WL-5718
WL-6780	M D	WL-6780
6780	M D	WL-6780
WL-6781	M D	WL-6781
6781	M D	WL-6781
GL-6807	Thyr	WL-6807
WL-6807	Thyr	WL-6807
6807	Thyr	WL-6807
GL-6808	Thyr	WL-6808
WL-6808	Thyr	WL-6808
6808	Thyr	WL-6808
GL-6809	Thyr	WL-C6H-3
6809	Thyr	WL-C6H-3
GL-6829	I R	WL-5965
6829	I R	WL-5965
GL-6849	C S	WL-6849
WL-6849	C S	WL-6849
6849	C S	WL-6849
GL-6856	Thyr	WL-6856
WL-6856	Thyr	WL-6856
6856	Thyr	WL-6856
GL-6857	Thyr	WL-6857
WL-6857	Thyr	WL-6857
6857	Thyr	WL-6857
GL-6858	Thyr	WL-6858
WL-6858	Thyr	WL-6858
6858	Thyr	WL-6858
GL-6859	Thyr	WL-6859
WL-6859	Thyr	WL-6859
6859	Thyr	WL-6859
GL-6860	Thyr	WL-6860
WL-6860	Thyr	WL-6860
6860	Thyr	WL-6860
6864	Thyr	WL-C6H-1
6871	Thyr	WL-C6H-2
GL-6883	Trans	WL-8032
WL-6883	Trans	WL-8032
6883	Trans	WL-8032
WL-6893	Trans	WL-6893
6893	Trans	WL-6893
6900	I R	WL-5687
WL-6922	I R	WL-6922
6922	I R	WL-6922
6928	I R	WL-6669
WL-6937	N	WL-6937A
WL-6937A	N	WL-6937A
WL-6938	N	WL-6938
WL-6941	N	WL-6941A
WL-6941A	N	WL-6941A
WL-6954	I R	WL-6954
6958	I R	WL-5654
WL-6971	N	WL-6971A
WL-6971A	N	WL-6971A
6982	Rect	WL-7015
6984	Thyr	WL-6856
6985	Thyr	WL-6857
6988	Thyr	WL-7321
6989	Thyr	WL-C6H-3
WL-6998	N	WL-6998
6999	Thyr	WL-C6H-3
ML-7007	Trans	WL-7007
WL-7007	Trans	WL-7007
WL-7008	M D	WL-7008
7008	M D	WL-7008
NL-7014	Rect	WL-7014
WL-7014	Rect	WL-7014
7014	Rect	WL-7014
NL-7015	Rect	WL-7015
WL-7015	Rect	WL-7015
7015	Rect	WL-7015
NL-7016	Rect	WL-7016
WL-7016	Rect	WL-7016
7016	Rect	WL-7016
NL-7017	Rect	WL-7017
WL-7017	Rect	WL-7017
7017	Rect	WL-7017
NL-7018	Rect	WL-7018
WL-7018	Rect	WL-7018
7018	Rect	WL-7018
NL-7019	Rect	WL-7019
WL-7019	Rect	WL-7019
7019	Rect	WL-7019
NL-7020	Rect	WL-7020
TH-7020	Ig	WL-5551A
WL-7020	Rect	WL-7020
7020	Rect	WL-7020
TH7021	Ig	WL-5551A
NL-7023	Thyr	WL-7023
WL-7023	Thyr	WL-7023
7023	Thyr	WL-7023
7025	I R	WL-7729
TH7030	Ig	WL-5552A
TH7031	Ig	WL-5552A
WL-7038	C S	WL-7038
7038	C S	WL-7038
TH7040	Ig	WL-5553B
TH7041	Ig	WL-5553B
WL-7087	N	WL-7087
WL-7087A	N	WL-7087A
WL-7111	M D	WL-7111
7111	M D	WL-7111
7136	Rect	WL-575A
GL-7171	Ig	WL-7171
WL-7171	Ig	WL-7171
7171	Ig	WL-7171
WL-7186	N	WL-7186
WL-7187	N	WL-7187
WL-7188	N	WL-7188
WL-7203	Trans	WL-4CX250B
7203	Trans	WL-4CX250B
WL-7215	Trans	WL-7215
7216	Thyr	WL-7556A
WL-7243	N	WL-7243
WL-7255	Trans	WL-7255
WL-7268	C S	WL-7268A
7268	C S	WL-7268A
WL-7269	Thyr	8043
WL-7290	C S	WL-7290
WL-7297	Thyr	WL-23052
WL-7298	Thyr	WL-C6H-3
WL-7299	Thyr	WL-C6H-2
WL-7306	Thyr	WL-7306A
WL-7306A	Thyr	WL-7306A
WL-7307	Thyr	WL-7307A
WL-7307A	Thyr	WL-7307A
7316	I R	WL-6189
WL-7317	N	WL-7317
WL-7321	Thyr	WL-7321
F-7328	Trans	WL-7328A
WL-7328	Trans	WL-7328A
7328	Trans	WL-7328A
WL-7328A	Trans	WL-7328A
WL-7353	N	WL-7353
WL-7363	Thyr	WL-7363
WL-7383	C S	WL-7383
7386	Thyr	WL-C6H-1
VH7400	Rect	WL-872A
WL-7413	Trans	WL-7413
WL-7463	Trans	WL-7463
WL-7464	Trans	WL-7464
C7473D	C R	5FP7A
C7475A	C R	7BP7B
ML-7482	Trans	WL-7482
WL-7482	Trans	WL-7482
7482	Trans	WL-7482
WL-7509	Thyr	WL-7509A
WL-7509A	Thyr	WL-7509A
GL-7518	Thyr	WL-7509A
WL-7540	Trans	WL-7540
7543	I R	WL-6136
WL-7556	Thyr	WL-7556A
WL-7556A	Thyr	WL-7556A
ML-7560	Trans	WL-7560
WL-7560	Trans	WL-7560
7560	Trans	WL-7560
WL-7560V	Trans	WL-7560V
WL-7565	Trans	WL-7565
GL-7581	I R	WL-5881
7581	I R	WL-5881
AX-7585	Ig	WL-5552A
7585	Ig	WL-5552A
WL-7604	Trans	WL-7604
WL-7606	N	WL-7606
WL-7657	N	WL-7657
WL-7658	Rect	WL-7658
WL-7659	Rect	WL-7659
WL-7676	G A	WL-7676
WL-7685	Trans	WL-7685
WL-7691	Trans	WL-7691
7725	Thyr	WL-7307A
7726	Thyr	WL-7509A
WL-7729	I R	WL-6681
7729	I R	WL-6681
WL-7730	I R	WL-7730
7730	I R	WL-7730
WL-7732	I R	WL-7732
7732	I R	WL-7732
7735	C S	WL-7735A
WL-7735A	C S	WL-7735A
7735A	C S	WL-7735A
WL-7740	Ig	WL-7740
WL-7741	N	WL-7741
WL-7748	Trans	WL-7748
WL-7750	Trans	WL-7750
7752	I R	WL-6AS6
WL-7903	G A	WL-7903
WL-7904	G A	WL-7904
WL-7982	Trans	WL-7982
GL-8005	Trans	WL-8005
ML-8005	Trans	WL-8005
WL-8005	Trans	WL-8005
8005	Trans	WL-8005
DR-8008	Rect	WL-8008
EE-8008	Rect	WL-8008
GL-8008	Rect	WL-8008
ML-8008	Rect	WL-8008
UE-8008	Rect	WL-8008
WL-8008	Rect	WL-8008
8008	Rect	WL-8008
8018	Trans	WL-807
8024	Trans	WL-832A
WL-8032	Trans	WL-8032
WL-8043	Thyr	WL-8043
WL-8044	Trans	WL-8044
F-8045	Trans	WL-8045
WL-8045	Trans	WL-8045
8045	Trans	WL-8045
WL-8057	G A	WL-8057
WL-8073	N	WL-8073
WL-8074	N	WL-8074
WL-8075	N	WL-8075
M8079	I R	WL-6663
WL-8094	Rect	WL-8094
M8100	I R	WL-5654
M8101	I R	WL-6660
WL-8105	N	WL-8105
M8136	I R	WL-6189
M8137	I R	WL-5751
WL-8137	N	WL-8137
M8149	I R	WL-7730
8161	Trans	WL-3X2500A3
M8162	I R	WL-6201
8166	Trans	WL-4-1000A
8170	Trans	WL-4CX5000A
M8178	Thyr	WL-5727
M8196	I R	WL-6AS6
M8204	Thyr	WL-5727
M8212	I R	WL-6663
M8214	I R	WL-6681
WL-8214	N	WL-8214
M8223	V R	WL-OA2
M8224	V R	WL-OB2
M8245	I R	WL-6669
8251	Trans	WL-3X2500F3
8298	Trans	WL-8298
WL-8306	Ig	WL-8306

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TUBE TYPE MARKED	CLASS OF TUBE	EQUIVALENT WESTINGHOUSE TYPE
8348	Trans	WL-4-400A
WL-8461	Trans	WL-8461
GL-9002	I R	WL-9002
WL-9002	I R	WL-9002
9002	I R	WL-9002
AX-9903	Trans	WL-5894
WL-22602	HCDD	WL-22602
WL-22603	HCDD	WL-22603
WL-22604	HCDD	WL-22604
WL-22605	HCDD	WL-22605
WL-22606	HCDD	WL-22606
WL-22607	HCDD	WL-22607
WL-22608	HCDD	WL-22608
WL-22609	HCDD	WL-22609
WL-22610	HCDD	WL-22610
WL-22611	HCDD	WL-22611
WL-22612	G A	WL-22612
WL-22613	G A	WL-22613
WL-22614	G A	WL-22614
WL-22618	G A	WL-22618
WL-22619	G A	WL-22619
WL-22620	G A	WL-22620
WL-22627	G A	WL-22627
WL-22637	G A	WL-22637
WL-22640	G A	WL-22640
WL-22643	G A	WL-22643
WL-22663	HCDD	WL-22663
WL-22754	G A	WL-22754
WL-22759	Trans	WL-22759
WL-22789	Trans	WL-22759
WL-22791	N	WL-22791
WL-22792	N	WL-22792
WL-22793	N	WL-22793
WL-22800	Rect	WL-22800
WL-22801	Rect	WL-22801
WL-22802	Rect	WL-22802
WL-22803	Trans	WL-22803
WL-22804	HCDD	WL-22804
WL-22805	HCDD	WL-22805
WL-22806	HCDD	WL-22806
WL-22809	HCDD	WL-22809
WL-22810	HCDD	WL-22810
WL-22811	HCDD	WL-22811
WL-22812	HCDD	WL-22812
WL-22813	HCDD	WL-22813
WL-22814	HCDD	WL-22814
WL-22815	HCDD	WL-22815
WL-22816	HCDD	WL-22816
WL-22817	HCDD	WL-22817
WL-22818	HCDD	WL-22818
WL-22819	HCDD	WL-22819
WL-22820	HCDD	WL-22820
WL-22821	HCDD	WL-22821
WL-22822	HCDD	WL-22822
WL-22823	HCDD	WL-22823
WL-22824	HCDD	WL-22824
WL-22825	HCDD	WL-22825
WL-22826	HCDD	WL-22826
WL-22827	HCDD	WL-22827
WL-22828	HCDD	WL-22828
WL-22829	HCDD	WL-22829
WL-22830	HCDD	WL-22830
WL-22831	HCDD	WL-22831
WL-22832	HCDD	WL-22832
WL-22833	HCDD	WL-22833
WL-22834	HCDD	WL-22834
WL-22835	HCDD	WL-22835
WL-22836	HCDD	WL-22836
WL-22837	HCDD	WL-22837
WL-22838	HCDD	WL-22838
WL-22839	HCDD	WL-22839
WL-22840	HCDD	WL-22840
WL-22841	HCDD	WL-22841
WL-22842	HCDD	WL-22842
WL-22843	HCDD	WL-22843
WL-22844	HCDD	WL-22844
WL-22845	HCDD	WL-22845
WL-22846	HCDD	WL-22846
WL-22847	HCDD	WL-22847
WL-22848	HCDD	WL-22848
WL-22849	HCDD	WL-22849
WL-22850	HCDD	WL-22850
WL-22851	HCDD	WL-22851
WL-22856	HCDD	WL-22856
WL-22857	HCDD	WL-22857
WL-22858	HCDD	WL-22858
WL-22859	HCDD	WL-22859
WL-22860	HCDD	WL-22860
WL-22862	Trans	WL-22862
WL-22863	HCDD	WL-22863
WL-22864	HCDD	WL-22864
WL-22867	HCDD	WL-22867
WL-22868	G A	WL-22868
WL-22869	G A	WL-22869
WL-22870	HCDD	WL-22870
WL-22871	HCDD	WL-22871
WL-22872	HCDD	WL-22872
WL-22873	HCDD	WL-22873
WL-22874	HCDD	WL-22874
WL-22875	HCDD	WL-22875
WL-22876	HCDD	WL-22876
WL-22877	HCDD	WL-22877
WL-22878	HCDD	WL-22878
WL-22879	HCDD	WL-22879
WL-22880	HCDD	WL-22880
WL-22881	HCDD	WL-22881
WL-22882	HCDD	WL-22882
WL-22883	HCDD	WL-22883
WL-22884	HCDD	WL-22884
WL-22885	HCDD	WL-22885
WL-22886	HCDD	WL-22886
WL-22887	HCDD	WL-22887
WL-22888	HCDD	WL-22888
WL-22889	HCDD	WL-22889
WL-22890	HCDD	WL-22890
WL-22891	HCDD	WL-22891
WL-22892	HCDD	WL-22892
WL-22893	HCDD	WL-22893
WL-22894	HCDD	WL-22894
WL-22895	HCDD	WL-22895
WL-22896	HCDD	WL-22896
WL-22897	HCDD	WL-22897
WL-22898	HCDD	WL-22898
WL-22899	HCDD	WL-22899
WL-22900	HCDD	WL-22900
WL-22901	HCDD	WL-22901
WL-22902	HCDD	WL-22902
WL-22903	HCDD	WL-22903
WL-22904	HCDD	WL-22904
WL-22905	HCDD	WL-22905
WL-22906	HCDD	WL-22906
WL-22907	HCDD	WL-22907
WL-22908	HCDD	WL-22908
WL-22909	HCDD	WL-22909
WL-22910	HCDD	WL-22910
WL-22911	HCDD	WL-22911
WL-22912	HCDD	WL-22912
WL-22913	HCDD	WL-22913
WL-22914	HCDD	WL-22914
WL-22915	HCDD	WL-22915
WL-22916	HCDD	WL-22916
WL-22917	HCDD	WL-22917
WL-22923	G A	WL-22923
WL-22925	HCDD	WL-22925
WL-22926	HCDD	WL-22926
WL-22927	HCDD	WL-22927
WL-22928	HCDD	WL-22928
WL-22929	HCDD	WL-22929
WL-22930	HCDD	WL-22930
WL-22931	HCDD	WL-22931
WL-22932	HCDD	WL-22932
WL-22933	HCDD	WL-22933
WL-22934	HCDD	WL-22934
WL-22935	HCDD	WL-22935
WL-22936	HCDD	WL-22936
WL-22937	HCDD	WL-22937
WL-22938	HCDD	WL-22938
WL-22939	HCDD	WL-22939
WL-22940	HCDD	WL-22940
WL-22941	HCDD	WL-22941
WL-22942	HCDD	WL-22942
WL-22951	HCDD	WL-22951
WL-22952	HCDD	WL-22952
WL-22953	HCDD	WL-22953
WL-22954	HCDD	WL-22954
WL-22955	HCDD	WL-22955
WL-22956	HCDD	WL-22956
WL-22957	HCDD	WL-22957
WL-22958	HCDD	WL-22958
WL-22959	HCDD	WL-22959
WL-22960	HCDD	WL-22960
WL-22961	HCDD	WL-22961
WL-22962	HCDD	WL-22962
WL-22963	HCDD	WL-22963
WL-22964	HCDD	WL-22964
WL-22965	HCDD	WL-22965
WL-22966	HCDD	WL-22966
WL-22967	HCDD	WL-22967
WL-22968	HCDD	WL-22968
WL-22969	HCDD	WL-22969
WL-22970	HCDD	WL-22970
WL-22971	HCDD	WL-22971
WL-22972	HCDD	WL-22972
WL-22973	HCDD	WL-22973
WL-22974	HCDD	WL-22974
WL-22975	HCDD	WL-22975
WL-22976	HCDD	WL-22976
WL-22977	HCDD	WL-22977
WL-22978	HCDD	WL-22978
WL-22979	HCDD	WL-22979
WL-22980	HCDD	WL-22980
WL-22981	HCDD	WL-22981
WL-22982	HCDD	WL-22982
WL-22983	HCDD	WL-22983
WL-22984	HCDD	WL-22984
WL-22985	HCDD	WL-22985
WL-22986	HCDD	WL-22986
WL-22987	HCDD	WL-22987
WL-22988	HCDD	WL-22988
WL-22989	HCDD	WL-22989
WL-22990	HCDD	WL-22990
WL-22991	HCDD	WL-22991
WL-22992	HCDD	WL-22992
WL-22996	HCDD	WL-22996
WL-22997	HCDD	WL-22997
WL-22998	HCDD	WL-22998
WL-23007	HCDD	WL-23007
WL-23008	HCDD	WL-23008
WL-23009	HCDD	WL-23009
WL-23010	HCDD	WL-23010
WL-23011	Ig	WL-23011
WL-23011PC	Ig	WL-23011PC
WL-23012	Ig	WL-23012
WL-23012PC	Ig	WL-23012PC
WL-23013	Ig	WL-23013
WL-23013PC	Ig	WL-23013PC
WL-23014	Ig	WL-23014
WL-23014PC	Ig	WL-23014PC
WL-23015	Ig	WL-23015
WL-23015PC	Ig	WL-23015PC
WL-23016	Ig	WL-23016
WL-23017	Ig	WL-23017
WL-23018	Ig	WL-23018
WL-23027	HCDD	WL-23027
WL-23028	HCDD	WL-23028
WL-23029	Rect	WL-23029
WL-23034	HCDD	WL-23034
WL-23035	HCDD	WL-23035
WL-23036	HCDD	WL-23036
WL-23041	HCDD	WL-23041
WL-23042	HCDD	WL-23042
WL-23046	HCDD	WL-23046
WL-23049	HCDD	WL-23409
WL-23059	HCDD	WL-23059
WL-23060	HCDD	WL-23060
WL-23063	Trans	WL-23063
WL-23095	Rect	WL-23095
WL-23102	Rect	WL-23102
WX-30008	HCDD	WL-22806
WX-30009	HCDD	WL-22833
WX-30010	HCDD	WL-22834
WX-30011	HCDD	WL-22835
WX-30024	HCDD	WL-22837
WX-30040	HCDD	WL-22843
WX-30041	HCDD	WL-22842
WX-30042	HCDD	WL-22836
WX-30043	HCDD	WL-22841
WX-30044	HCDD	WL-22840
WX-30052	HCDD	WL-22814
WX-30053	HCDD	WL-22844
WX-30054	HCDD	WL-22839
WX-30103	HCDD	WL-22845
WX-30104	HCDD	WL-22846
WX-30105	HCDD	WL-22867
WX-30106	HCDD	WL-22847
WX-30108	HCDD	WL-22848
WX-30143	HCDD	WL-22849
WX-30144	HCDD	WL-22850
WX-30145	HCDD	WL-22851
WX-30146	HCDD	WL-22857
WX-30147	HCDD	WL-22860
WX-30148	HCDD	WL-22859
WX-30213	Ig	WL-23014
C73111	C R	10KP7A
82170	C R	10WP7A
175771	I R	WL-5814A
823623	I R	WL-6189
845712	I R	WL-6681
845722	I R	WL-6AS7GA
845723	I R	WL-5881
845724	I R	WL-5654
845926	Trans	WL-5763

Inclusion of a tube type in this book does not necessarily imply availability of that type from Westinghouse. Although every effort has been made to ensure accuracy of these data, no liability is assumed for their use.

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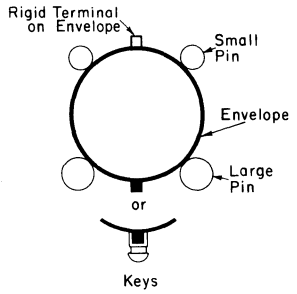
WESTINGHOUSE INDUSTRIAL AND POWER TUBES

KEY TO ABREVIATIONS

A	Anode
°	
Å	Angstrom Units
AMP	Ampere (s)
AVG	Average
CO	Cut-off
COLL	Collector
COOL	Type of Cooling
DIAM	Diameter
DISS	Dissipation
DWG	Drawing
FREQ	Frequency
G	Grid
G1	Grid One
G2	Grid Two
G3	Grid Three
GC	Gigacycle (s)
H	Heater
IC	Internal Connection (Do **NOT** Use)
ITV	Industrial & Closed Circuit TV
K	Cathode
KV	Kilovolt (s)
KVA	Kilovolt-Ampere (s)
KW	Kilowatt (s)
LUM	Luminous
Ma	Milliampere (s)
MAX	Maximum
Mc	Megacycle (s)
MIN	Minute
Min	Miniature
Min	Minimum
mmHG	Millimeters of Mercury
NC	No Connection
nv	Neutrons/cm²/Second
OAL	Overall Length
PC	Photocathode
PK	Peak
PN	Pentode
RAD	Radius
REFL	Reflector
RES	Resonator
RP	Plate Resistance
SEC	Second (s)
SENS	Sensitivity
T	Triode
Trig	Trigger Electrode
TV	Television Broadcasting
TYP	Typical
V	Volt (s)
μA	Microampere (s)
μMHOS	Micromhos
μSEC	Microsecond (s)
°C	Degrees Centigrade

GUIDE TO BASE DRAWINGS



THYRATRONS

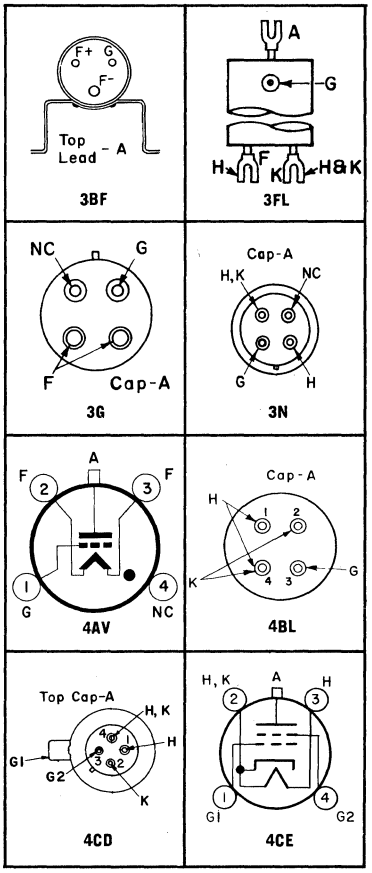
A thyratron is a gas tube having a heated cathode and one or more electrodes which initiate the current flow. The gas content may be one or more of the inert gases, mercury vapor or a combination of these. Mercury-vapor types are used where ambient temperature ranges are small. Inert gas types change characteristics very little with ambient temperature changes and do not require as long a warm-up time before applying anode voltage.

In a high vacuum tube, the negative field of the grid space charge acts to limit the flow of electrons. This space charge is neutralized by positive ions during conduction through a gas or vapor such that the voltage drop through the tube is reduced. With smaller tube losses, the thyratron can conduct more current with less cooling required than an equivalent high vacuum tube.

The grid has no control of the current after conduction starts. With direct current supplied to the anode, it is necessary to reduce the anode voltage below the ionizing potential of the gas fill, long enough for the gas to deionize and stop tube conduction. With alternating current supplied to the anode, the grid regains control of the current each time the voltage drops to zero and can delay the beginning of conduction to a later point in the next half-cycle by being held at a negative voltage. The grid can exert very fine control of the average current, with alternating current anode and grid supply by varying the phase relation between the voltages impressed on them. The grid circuit requires very little power to control the thyratron compared to the power controlled in the anode circuit.

Thyratrons are used in light duty resistance welders, motor speed and torque controllers, relaxation oscillators, variable voltage power supplies, control circuits of lighting or heating devices, light sensitive relay exciters, and other equipment requiring either precise control of average moderate currents or ability to turn on moderate currents by a small voltage change.

TUBE TYPE	CATHODE		FILL	RATINGS			MECHANICAL		
	VOLTS	AMPS		ANODE VOLTS	PEAK AMPS	AVG. AMPS	MAX. OAL	MAX. DIAM.	BASE DWG.
WL-2D21	6.3	0.6	gas	1300	0.5	0.1	2⅛"	¾"	7BN
WL-3C23	2.5	7.0	Hg.	1250	6.0	1.0	6⅛"	2 1/16"	3G
WL-5C21	2.5	21	gas	1250	77	6.4	9½"	2 1/32"	4AV
WL-C6H-1	2.5	21	gas	1700	80	6.4	8¾"	2 1/32"	4AV
WL-C6H-2	2.5	21	gas	1700	80	6.4	8"	2 1/32"	4AV(F)
WL-C6H-3	2.5	21	gas	1700	80	6.4	9¼"	2 3/16"	4AV(L)
WL-81A	2.5	5.0	gas	500	2.0	0.5	6⅝"	2 1/16"	3G
WL-105	5.0	10	Hg.	2500	40	6.4	11¼"	2 13/16"	105
WL-172	5.0	10	Hg.	2000	40	6.4	18⅞"	2¼"	3FL
WL-414	5.0	20	Hg.	2000	100	12.5	15 5/16"	3⅛"	3FL
WL-502A	6.3	0.6	gas	1300	1.0	0.1	2 19/32"	1 5/16"	6BS
KU-610	2.5	6.5	gas	500	0.4	0.1	6½"	2 1/16"	610
WL-624	5.0	10	Hg.	2500	80	6.4	11⅛"	3 5/16"	4CE
WL-627	2.5	5	Hg.	5000	2.5	0.64	6⅝"	2 1/16"	4AV
WL-629	2.5	2.6	gas	350	0.2	0.04	4¼"	1 1/16"	5A
WL-632B	5.0	5	Hg.	1500	30	2.5	8¾"	1¾"R	4CD
WL-672A	5.0	5	Hg.	2500	40	3.2	8⅜"	2 5/16"	4CE
WL-676	5.0	10	Hg.	2500	40	6.4	11¾"	3 13/16"	4PB
WL-677	5.0	10	Hg.	10000	15	4.0	11 7/16"	3 13/16"	4PB
WL-678	5.0	7.5	Hg.	15000	6.0	1.6	11 3/16"	2 9/16"	3N
WL-885	2.5	65	gas	350	0.3	0.075	4 3/16"	1 1/16"	5A
WL-2050	6.3	0.6	gas	1300	1.0	0.1	4⅛"	1 1/16"	6BS
WL-2050A	6.3	0.6	gas	1300	1.0	0.1	3 1/16"	1 3/32"	6BS
WL-5557	2.5	5	Hg.	5000	2.0	0.5	6⅛"	2 1/16"	3G
WL-5559	5.0	4.5	Hg.	1000	15	2.5	7¼"	3"	4BL
WL-5563A	5	10	Hg.	15000	10	1.8	10½"	2⅝"	3N
WL-5632	2.5	9	gas	1250	30	2.5	6"	1⅝"	4CF
WL-5664	2.5	6.3	gas	1250	8.0	1.0	4¾"	1 1/16"	3G
WL-5665	2.5	31	gas	1250	160	16.0	11¼"	2 1/16"	3BF(F)



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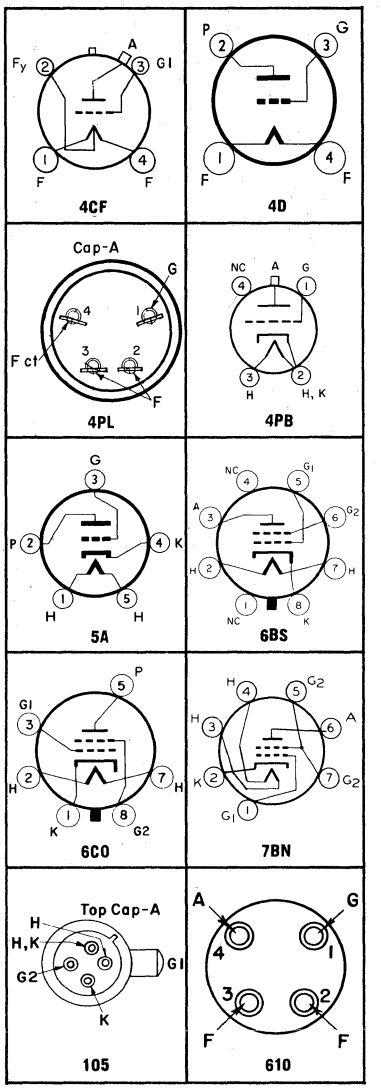
Thyratrons

continued

TUBE TYPE	CATHODE		FILL	RATINGS			MECHANICAL		
	VOLTS	AMPS		ANODE VOLTS	PEAK AMPS	AVG. AMPS	MAX. OAL	MAX. DIAM.	BASE DWG.
WL-5685	2.5	21	gas	1250	77	6.4	9½"	2⅛"	4AV
WL-5696	6.3	0.15	gas	500	0.1	0.025	1¾"	¾"	7BN
WL-5720	5.0	4.5	Hg.	1000	15	2.5	7½"	3"	4BL
WL-5727	6.3	0.60	gas	1300	0.5	0.1	2⅛"	¾"	7BN
WL-5796	2.5	8.5	gas	1500	20	1.6	5¼"	1⅛"	4CF
WL-5830	5.0	20	Hg.	10000	75	12.5	17 11/16"	5⅛"	4BL
WL-6012	6.3	2.6	gas	1300	5.0	0.5	3⅞"	1 23/32"	6CO
WL-6014	2.5	6.3	gas	1250	8.0	1.0	4¼"	1⅛"	4D
WL-6807	2.5	21	gas	1500	80	6.4	9"	2⅝"	4AV
WL-6808	2.5	21	gas	1500	80	6.4	8 5/16"	2⅝"	4AV(F)
WL-6856	2.5	16	gas & Hg.	1500	50	2.5	9½"	2 1/16"	4PB
WL-6857	2.5	16	gas & Hg.	1500	30	4.0	8⅝"	2 1/16"	4PB(F)
WL-6858	2.5	21	gas & Hg.	1500	77	6.4	9½"	2 1/16"	4AV
WL-6859	2.5	21	gas & Hg.	1500	77	6.4	8¾"	2 1/16"	4AV(F)
WL-6860	2.5	21	gas	1250	77	6.4	8¾"	2 1/32"	4AV(F)
WL-7023	2.5	21	gas & Hg.	1500	77	6.4	10"	2 1/16"	4PB(L)
WL-7297	2.5	10.8	gas	1500	40	3.2	6⅜"	2 3/16"	4PL(L)
WL-7306A	2.5	9	gas	1250	30	2.5	5 11/16"	1⅛"	4CF
WL-7307A	2.5	9	gas & Hg.	1500	30	2.5	6¼"	1⅛"	4CF
WL-7321	2.5	21	gas	1250	77	6.4	10"	2 3/16"	4AV(L)
WL-7363	2.5	8.5	gas	1500	20	1.6	5"	1⅛"	4CF
WL-7509A	2.5	9	gas & Hg.	1500	30	2.5	7"	2 3/16"	4PL(L)
WL-7556A	2.5	9	gas	1250	30	2.5	7"	2 3/16"	4PL(L)
WL-8043	5	6	Hg.	21000	50	2.5	11 3/16"	2 1/16"	3N
WL-22994/ 5877	2.5	10.8	gas	1500	40	3.2	7⅛"	2 1/32"	4AV
WL-23052/ 7297	2.5	10.8	gas	1500	40	3.2	7⅜"	2 5/32"	4PL(L)



HIGH VACUUM AMPLIFIERS

High vacuum amplifiers are multielectrode tubes with heated cathodes and one or more electrodes which are able to control the current flow through the tube. These types are similar to the high vacuum rectifiers with the addition of control electrodes.

The current is limited by the formation of a negative space charge near the cathode. A positively charged grid will tend to neutralize this space charge permitting more electrons to go to the plate. A negatively charged grid will tend to increase this space charge reducing electron flow and if the grid is sufficiently negative, it will cut off the electron flow. The grid has continuous control of the number of electrons allowed to go to the plate. This controlled power ranges from a few watts in smaller designs to hundreds of thousands of watts in the largest designs. By proper design of the electrode structure, the tube can be made to control more power in the plate circuit than is required in the grid circuit. The tube therefore can act as an amplifier. By feeding back part of the output power to the grid circuit, the tube can be made to generate sustained oscillations. This arrangement is termed an oscillator.

Additional electrodes are employed in tetrodes and pentodes as electrostatic screens and to suppress secondary emission from the plate. Electrodes may also be designed to form electrons into beams or sheets. These variations are usually incorporated to overcome inherent faults of the basic triode and to increase the efficiency and power handling capability of the tube. Some types have two units in one envelope to conserve space, reduce cost, and simplify circuit designs.

The cooling of the tubes handling large amounts of power must be carefully controlled. Radiation with free air convection is employed with types having low dissipation ratings for their size. With these types care must be taken that nearby components are not damaged by directly radiated heat. Tube types with medium size dissipation ratings often have finned radiators soldered to the anode and heat is dissipated by forcing air through the radiator. High vacuum amplifiers with high dissipation ratings are operated either water cooled or vapor cooled. Both groups require water with low mineral content. Cooling system control circuits should be provided to remove power from the tube if cooling is inadequate.

Tubes designed for communications service (such as types 891, 892, 895 and 5606) have thin anode walls and should not be used in industrial heating applications. The wide fluctuation of loading and impedance, inherent in this service, induces parasitic and arc-discharge conditions which require the greater thermal inertia of a thick anode wall. Overload and arc sensing circuits designed to remove or divert power from the tube within 6 cycles of energy are also essential.

High vacuum amplifiers are used to generate, amplify or modulate audio or radio frequencies in radio and television transmitters and induction and dielectric heating equipment for industrial use.

TUBE TYPE	COOL	CATHODE		RATINGS (1)			PERFORMANCE							MECHANICAL		
		VOLTS	AMPS.	ANODE KV	INPUT KW	DISS. KW	FREQ. MHz(3)	ANODE KV	GRID VOLTS	ANODE AMPS.	DRIVE WATTS	OUT KW	(4) gm or μ	MAX. OAL (2) INCH	MAX. DIAM. (2) INCH	BASE DWG.
WL-2C39A	F	6.3	1	1	125W	100W	2500	800V	—20(6)	80mA	6	27(5)	100	2¾	1¼	2AN
WL-2C39B	F	6.3	1	1	125W	100W	2500	800V	—20(6)	80mA	6	27(5)	100	2¾	1¼	2AN
WL-2C40	A	6.3	0.75	500V	12.5W	6.5W	3370	250V	—5	20mA	—	75(6)	36	2 9/16	1 5/16	6BY
WL-2E24	A	6.3	0.65	600V	40W	13.5W	125	600V	—50	66mA	0.21	27W	3200	3 21/32	1 5/16	7CL
WL-2E26	A	6.3	0.8	600V	40W	13.5W	125	600V	—45	66mA	0.17	27W	3500	3 21/32	1 5/16	7CK

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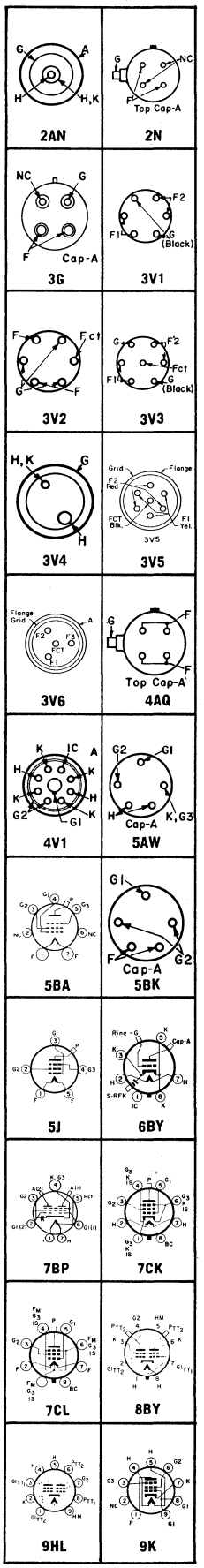
High Vacuum Amplifiers

continued

TUBE TYPE	COOL	CATHODE		RATINGS (1)			PERFORMANCE							MECHANICAL		
		VOLTS	AMPS.	ANODE KV	INPUT KW	DISS. KW	FREQ. MHz(3)	ANODE KV	GRID VOLTS	ANODE AMPS.	DRIVE WATTS	OUT KW	(4) gm or μ	MAX. OAL (2) INCH	MAX. DIAM. (2) INCH	BASE DWG.
WL-4CX250B	F	6	2.6	2	0.5	0.25	500	2	—90	0.25	1	0.4	12000	2½	1⅝	4V1
WL-4CX5000A	F	7.5	75	7.5	22.5	5	30	7.5	—350	2.8	150	16	—	9⅛	4 15/16	VC2
WL-4D21	A	5	6.5	3	0.5	125W	120	3	—150	0.167	2.5	0.375	2450	5 11/16	2¾	5BK
WL-4X500A	F	5	13.5	4	1.4	0.5	120	4	—150	0.315	5	0.835	5200	4¾	2⅝	VP1
WL-4-400A	A	5	14.5	4	1.4	0.4	110	4	—220	0.35	12	1.1	4000	6⅜	3 9/16	5BK
WL-4-1000A	F	7.5	21	6	4.2	1	110	6	—200	0.7	200	3.4	10000	9⅝	5¼	5BK
WL-5D22	F	5	14.5	4	1.4	0.25	110	4	—225	0.312	10	1	4000	6⅜	3 9/16	5BK
WL-207	W	22	52	15	30	10	1.6	12	—1660	1.67	235	15	20	20¼	4⅛	VF2
WL-803	A	10	5	2	0.35	0.125	20	2	—90	0.16	2	0.21	4000	9⅜	2 1/16	5J
WL-807	A	6.3	0.9	600V	60W	25W	60	600V	—45	100mA	0.2	40W	6000	5¾	2 1/16	5AW
WL-810	A	10	4.5	2	0.5	125W	30	2	—160	0.25	12	0.375	36	8¾	2 1/16	2N
WL-811A	A	6.3	4	1.5	260W	65W	30	1.5	—70	0.173	7.1	0.2	160	6 1/32	2 1/16	3G
WL-812A	A	6.3	4	1.5	260W	65W	30	1.5	—120	0.173	6.5	0.19	29	6 15/32	2 1/16	3G
WL-813	A	10	5	2	0.36	100W	30	2	—120	0.18	1.9	0.275	3750	7½	2 1/16	5BA
WL-815	A	12.6(8)	0.8	500V	75W	25W	150	500V	—45	0.15	0.18	56W	4000	4 7/16	2⅜	8BY
WL-829B(7)	A	12.6(8)	1.125	750V	45W	15W	200	750V	—50	0.12	0.45	65W	8500	4 5/16	2⅜	7BP
WL-832A(7)	A	12.6(8)	0.80	750V	18W	7.5W	200	750V	—65	48mA	0.19	26W	3500	3 5/16	2⅜	7BP
WL-833A	F	10	10	4	1.8	0.4	20	4	—200	0.45	26	1.44	35	8 13/16	4 19/32	VP2
WL889A	W	11	120	8.5	16	5	50	7.5	—800	2	400	10	21	10 11/16	3⅝	VP6
WL-891	W	22(9)	60	12	18	6	1.6	10	—2000	1.4	310	10	8.5	20⅞	4¼	VP3
WL-891R	F	22(9)	60	10	15	4	1.6	10	—2000	1.4	310	10	8.5	22	12	VP3
WL-892	W	22(9)	60	15	30	10	1.6	12	—1600	1.64	500	14	50	20⅞	4¼	VP3
WL-892R	F	22(9)	60	12.5	18	4	1.6	10	—1300	1.4	495	10	50	22	12	VP3
WL-895	W	19(10)	139	17	140	40	6	17	—1000	7.5	1700	100	37	23⅞	6¾	VP4
WL-895R	F	19(10)	139	17	110	20	6	17	—1800	6	2200	84	37	24½	17	VP5
WL-5513	F	6.3	30	4	3.6	1.2	220	3750	—150	0.94	64	2370	49	6⅞	3	VC1
WL-5604	F	11	176	12.5	32.5	10	25	12	—1170	2.5	470	22.5	20	13¾	8⅛	VP6
WL-5606	W	22	60	14	25	10	1.6	12	—1100	1.8	—	15.5	50	16	4 5/16	VP7
WL-5619	W	11	176	12.5	32.5	20	25	12	—1170	2.5	470	22.5	20	13	5¼	VP6
WL-5658	W	12	290	12.5	60	20	15	12	—870	4.5	800	40	20	11½	7	VP8
WL-5666	W	11	120	10	20	12.5	22.5	9	—750	2	340	12.2	21	10¾	3⅝	VP6
WL-5667	F	11	120	10	20	7.5	22.5	9	—750	2	340	12.2	21	11¾	11	VP6
WL-5668	W	22	60	14	28	20	5	12	—700	2	—	17	50	16	4 5/16	VP7
WL-5669	F	22	60	14	26	10	5	12	—700	2	—	17	50	17⅛	8⅛	VP7
WL-5682	W	16.5	325	16	300	120	30	15	—1400	18.4	7200	215	30	23¼	8 1/32	VC3
WL-5736	F	6	60	3.5	3.5	2.5	110	3.5	—300	1	85	2.55	22	7¼	3 9/16	VP9
WL-5762	F	12.6	29	6.2	8.7	3	30	6	—550	1.25	225	6	29	7⅛	4 11/16	VF3
WL-5763	A	6	0.75	300V	15W	12W	50	300V	—60	50mA	0.35	7W	7000	2⅝	⅞	9K
WL-5771	W	7.5	170	15	67.5	22.5	1.6	15	—990	4.5	1160	53	20	11 5/16	7	VP8
WL-5891	F	11	95	15	100	25	10	15	—1500	6.1	1785	73.5	36	24½	11 11/16	VP5
WL-5894(7)	A	12.6	0.9	750V	60W	20W	250	600V	—80	200mA	3	90W	—	4 5/16	1 15/16	VP0
WL-5918A	W	11	285	17.5	300	70	22	17.5	—1000	13.8	3600	180	37	23⅞	7⅛	3V1
WL-5936	W	20	143	18	180	70	15	17	—1400	10	4500	136	37	23⅞	8⅛	VP5
WL-5986A	W	11	285	17.5	300	70	22	17.5	—1000	13.8	3600	180	37	24	8 3/32	VF4
WL-6146	A	6.3	1.25	600V	67.5W	20W	60	600V	—58	112mA	0.2	52W	7000	3 13/16	1 23/32	7CK
WL-6146A	A	6.3	1.25	600V	67.5W	20W	60	600V	—58	112mA	0.2	52W	7000	3 13/16	1 23/32	7CK
WL-6146B	A	6.3	1.25	600V	90W	27W	60	600V	—70	0.15	0.3	63W	7000	3 13/16	1 23/32	7CK
WL-6159	A	26.5	0.30	600V	67.5W	20W	60	600V	—58	112mA	0.2	52W	7000	3 13/16	1 23/32	7CK
WL-6360	A	12.6(8)	0.41	300V	22.5W	10W	200	300V	—40	75mA	0.1	14.5W	3300	3 1/16	⅞	9HL
WL-6379(11)	W	11	285	17.5	150	70	Note 14	14.7	—3100	1.2 Min. 20 Max.	0	150	5	23⅞	6¾	3V1
WL-6399	W	11	29	6.2	9	6	30	6	—800	1.4	210	6	25	8½	2 15/16	3V2
WL-6420	W	7.0	85	10	20	12.5	30	9	—750	2	240	13.2	20	13¾	4 1/16	VC5
WL-6421	F	7	85	10	20	10	30	9	—750	2	240	13.2	20	17⅞	4 17/32	VC6
WL-6421F	F	7	85	10	20	7.5	30	9	—750	2	240	13.2	20	14½	8⅛	VC5
WL-6422	W	7	85	12.5	30	20	30	12	—400	2.1	200	18.2	90	15½	4 3/16	VC6



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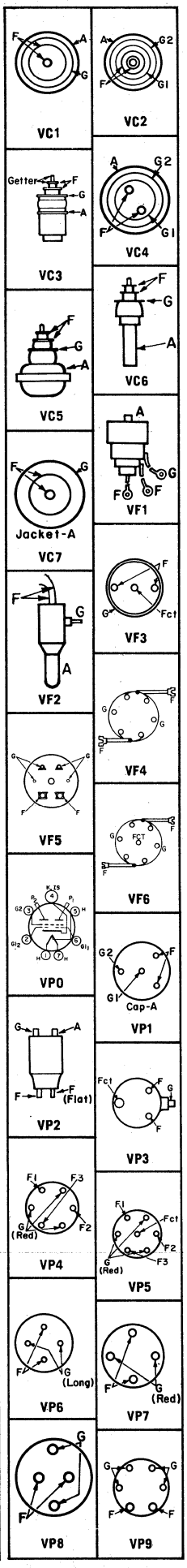
High Vacuum Amplifiers *continued*

TUBE TYPE	COOL	CATHODE		RATINGS (1)			PERFORMANCE							MECHANICAL		
		VOLTS	AMPS.	ANODE KV	INPUT KW	DISS. KW	FREQ. MHz(3)	ANODE KV	GRID VOLTS	ANODE AMPS.	DRIVE WATTS	OUT KW	(4) gm or μ	MAX. OAL (2) INCH	MAX. DIAM. (2) INCH	BASE DWG.
WL-6423	F	7	85	12.5	30	12.5	30	12	—400	2.1	200	18.2	90	15¾	5	VC6
WL-6423F	F	7	85	12.5	30	10	30	12	—400	2.1	200	18.2	90	16	8⅛	VC5
WL-6424	W	7	120	12.5	40	20	30	12	—1000	3.3	430	30.6	20	15½	4 3/16	VC6
WL-6425	F	7	120	12.5	40	12.5	30	12	—1000	3.3	430	30.6	20	15¾	5	VC6
WL-6425F	F	7	120	12.5	40	11	30	12	—1000	3.3	430	30.6	20	16	8⅛	VC5
WL-6426	W	8	200	12.5	80	40	30	7.5	—850	5.3	7500	33	20	15⅝	4¾	VC6
WL-6427	F	8	200	12.5	80	20	30	7.5	—850	5.3	7500	33	20	16¼	5¼	VC6
WL-6567	W	6	70	12	24	15	50	12	—800	1.94	445	19.3	33	11¾	3 15/16	VC7
WL-6623	F	6	60	5	5	2.5	30	5	—850	1	250	4.1	22	6 11/16	4 11/16	VF5
WL-6696	W	13	205	16	120	60	30	15	—1600	7	600	80	20	19⅜	6⅛	VC6
WL-6697	F	13	205	16	120	35	30	15	—1600	7	600	80	20	19⅞	6⅛	VC6
WL-6893	A	12.6	0.4	600V	40W	13.5W	125	600V	—45	66mA	0.17	27W	3500	3 21/32	1 5/16	7CK
WL-6939	A	12.6(8)	0.3	250V	12W	6W	500	180V	—20	55mA	1.2	5W	10500	2⅝	⅞	9HL
WL-7007	F	5	180	7.5	20	12	220	7	—300	2.6	720	12	—	11⅝	6	VC4
WL-7203	F	6	2.3	2	—	250W	500	2	—90	0.25	1	0.4	—	2 15/32	1⅝	4V1
WL-7215	W	6	60	9.2	18	9	30	9	—1400	2	337	13.6	22	8½	3⅝	VP9
WL-7255	W	6	60	9.2	18	9	30	9	—1400	2	337	13.6	22	9½	3⅝	VF5
WL-7328A(11)	F	7	245	10	50	20	Note 11	10	—2200	0.5 Min. 8.5 Max.	0	49.5	6	14½	10 1/16	3V3
WL-7463	F	6	70	12	24	12	60	12	—800	1.94	445	19.3	33	9 13/16	11	VC7
WL-7464(11)	W	6	60	8	18	8	Note 11	7.5	—1200	0.3 Min. 2.68 Max.	0	10.8	6	9½	3⅝	VP9
WL-7482	V	14.5	450	20	600	200	30	20	—1000	29	6000	440	45	26	11⅜	VC6
WL-7482V	V	14.5	450	20	600	200	30	20	—1000	29	6000	440	45	27½	11⅜	VC6
WL-7540(11)	W	5	250	15	70	35	Note 11	12.5	—2800	1 Min. 8 Max.	0	59	5	16	7¼	VF6
WL-7560	W	14.5	450	20	600	175	30	20	—1000	29	6000	440	45	29½	10	VC6
WL-7560V	W	14.5	450	20	600	175	30	20	—1000	29	6000	440	45	36½	10	VC6
WL-7565(11)	F	6	60	5	5	2.5	Note 11	7	—1140	0.5 Min. 2.2 Max.	0	7.7	6	6 11/16	4 11/16	VF5
WL-7604(12)	F	5	8	4	1.5	0.6	60	3.5	—210	0.285	65	755	20	5 5/16	2 5/16	3V4
WL-7685(12)	F	5	8	4	1.5	0.6	60	4	—550	0.12 Min. 0.64 Max.	0	1550	6.5	5 5/16	2 5/16	3V4
WL-7748	W	8	150	12.5	80	35	30	12.5	—1300	4.25	970	46.5	20	15	7¼	3V3
WL-7982(11)	W	7	265	10	75	35	Note 11	10	—2200	0.5 Min. 9.3 Max.	61	65	5.5	15	6⅞	3V3
WL-8032	A	13.5	0.585	600V	67.5W	20W	60	600V	—58	112mA	0.2	52W	7000	3 13/16	1 23/32	7CK
WL-8045	W	12.6	285	18	270	90	2	16	—1800	13.2	3250	150	20	23⅞	7⅛	3V1
WL-8161/ 3CX2500A3	F	7.5	51.5	6	12	2.5	75	6	—500	2	136	10	22.5	9	4⅛	VC1
WL-8251/ 3CX2500F3	F	7.5	51.5	6	12	2.5	30	6	—500	2	136	10	22.5	9	4⅛	VF1
WL-8298	A	6.75	1.165	600V	67.5W	20W	60	600V	—58	112mA	0.2	52W	7000	3 13/16	1 23/32	7CK
WL-22759	W	6	60	9.2	18	9	30	9	—1400	2	337	13.6	22	9½	3⅝	VF5
WL-22789	W	6	60	9.3	21	9	30	9	—1400	2	337	13.6	22	9½	3⅝	VF5
WL-22803	W	13.5	550	22	600	200	15	20	—1400	30	8800	485	35	33⅛	9½	3V5
WL-22862	W	12.6	285	18	270	90	2	16	—1800	13.2	3250	150	22	24	8 3/32	VF4
WL-22924	V	12.6	285	18	270	100	2	16	—1800	13.2	3250	150	22	25	10	VF4
WL-23063	W	13.5(10)	375	25	1000	375	15	16 20	—1900 —2200	46 52.5	17KW 18KW	550 770	22	40	15	3V6
WL-23165	W	11(10)	95	15	150	90	10	15	—1500	6.1	1785	73.5	36	23⅞	8¼	VP5



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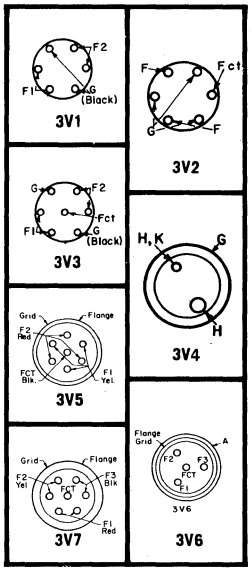
HIGH VACUUM SWITCH TUBES

TUBE TYPE	COOLING	CATHODE VOLTS	CATHODE AMP.	RATINGS ANODE KV	RATINGS DISS KW	RATINGS ANODE PK AMP.	RATINGS CATHODE PK AMP.	RATINGS PULSE μSEC	RATINGS DUTY FACTOR	CUT-OFF (13) VOLTS	MECHANICAL MAX. OAL	MECHANICAL MAX. DIAM.	BASE DWG.
WL-466R	F	13	205	45	35	150	175	1000	0.01	—3200	19⅞"	6⅛"	VC6
WL-4852	W	15(10)	390	80	375	1400	1650	500	0.008	—4200	40"	15"	3V6
WL-5682	W	16.5	325	35	120	300	360	1000	0.01	—3200	23¼"	8 1/32"	VC3
WL-6293	A	6.3	1.25	2.0 3.5	10W 10W	3 1.4	— —	30 200	0.003 0.02	—200	3 13/16"	1 23/32"	7CK
WL-6422	W	7	85	35	20	30	35	1000	0.03	—1000	15½"	4 3/16"	VC6
WL-6423	F	7	85	35	12.5	30	35	1000	0.03	—1000	15¾"	5"	VC6
WL-6423F	F	7	85	35	10	30	35	1000	0.03	—1000	16"	8⅛"	VC5
WL-6424	W	7	120	35	20	36	45	1000	0.03	—3000	15½"	4 3/16"	VC6
WL-6425	F	7	120	35	12.5	36	45	1000	0.03	—3000	15¾"	5"	VC6
WL-6425F	F	7	120	35	10	36	45	1000	0.03	—3000	16"	8⅛"	VC5
WL-6426	W	8	200	45	40	70	85	1000	0.03	—3200	15⅝"	4¾"	VC6
WL-6427	F	8	200	45	20	70	85	1000	0.03	—3200	16¼"	5¼"	VC6
WL-6696	W	13	205	45	60	150	175	1000	0.01	—3200	19⅜"	6⅛"	VC6
WL-6697	F	13	205	45	35	150	175	1000	0.01	—3200	19⅞"	6⅛"	VC6
WL-6920	F	11 11.9	285 —	35 35	10 10	100 150	140 200	15 15	0.002 0.002	—	24"	8"	3V1
WL-7328A	F	7.0	245	20	20	88	100	2000	0.01	—6000	14½"	10 1/16"	3V3
WL-7413	W	12(10) 13(10)	103 106	60 60	70(14) 70(14)	150 400	200 500	1000 0.5	0.01 0.0012	—2700	23 23/32"	8¼"	VP5
WL-7560	W	14.5	450	50	175	450	550	1000	0.01	—3500	29½"	10"	VC6
WL-7560V	W	14.5	450	50	175	450	550	1000	0.01	—3500	31½"	10"	VC6
WL-7691	F	12(10) 13(10)	103 106	60 60	10 10	150 400	200 500	1000 0.5	0.01 0.0012	—2700	23½"	8¼"	VP5
WL-7750	F	8	180	30	8	80	100	1000	0.02	—1800	14⅜"	8 1/32"	3V3
WL-7982	W	7.0	265	20	35	88	100	2000	0.01	—6000	15"	6⅞"	3V3
WL-8044	F	8	185	30	20	80	105	1000	0.02	—1800	14½"	10 1/16"	3V3
WL-8045	W	12.6	285	50	90	150	200	2000	0.06	—3000	23⅞"	7⅛"	3V1
WL-8461	W	15(10)	200	80	200	600	750	1000	0.01	—3500	33⅛"	11¾"	3V7
WL-23185	W	12.6	285	75	90	150	200	1000	0.01	—	23⅝"	7⅜"	3V1



Notes

1. Ratings and Performance are based on CCS Class C Telegraphy service unless otherwise shown.
2. Excluding flying leads and protruding side terminals, pipes or handles.
3. Highest frequency for full input.
4. For triodes, amplification factor (μ) is shown; for tetrodes, beam tubes and pentodes, transconductance (gm) in micromhos is listed.
5. Watts output at 500 megahertz.
6. Milliwatts output at 3000 megahertz.
7. Twin unit tube, Ratings are each unit, Performance for both units.
8. Parallel heater connection requires half heater voltage and twice heater current.
9. For d-c and single phase a-c. For 2 phase a-c voltage per phase will be half listed value and current per phase will be listed current value.
10. Listed values of filament voltage and current are per phase for 3 phase operation.
11. Designed for audio and ultra-sonic service, Ratings are single tube Class AB and Performance is for 2 tubes Class AB.
12. Ratings and Performance are for Class AB r-f amplifier service.
13. For anode current of 1 milliampere maximum at maximum anode voltage.
14. For oil immersion, cooling value is 14 kilowatts.

COOLING CODE = A — RADIATION
F — FORCED AIR
W — WATER
V — VAPOR

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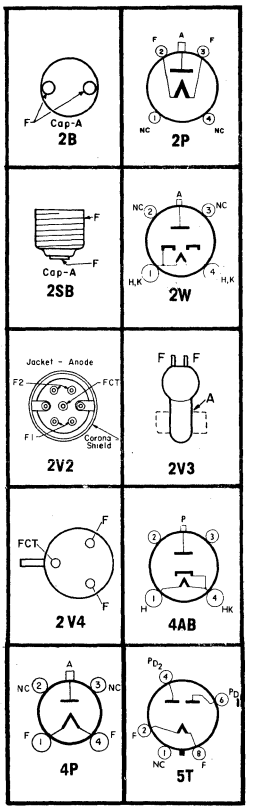
HIGH VACUUM RECTIFIERS

High vacuum rectifiers are two electrode tubes with heated cathodes. Electrons emitted from the cathode are attracted to the plate when it is positive with respect to the cathode. These electrons form the tube current. High vacuum rectifiers are not very efficient for rectifying large currents, since the space charge increases the tube drop, but in applications involving very high voltages at low currents or a linear characteristic they are necessary. The absence of gas provides very high insulation during the inverse half cycle. Pure tungsten or thoriated tungsten filaments are used to permit short delay periods between the application of filament voltage and plate voltage. High vacuum rectifiers are used in high voltage power supplies for electrostatic precipitation of vapors and dust such as the Precipitron® and high voltage testing of materials, to absorb high voltage inverse pulses such as reflected radar pulses, to permit undirectional capacitor charging in pulse shaping networks, to produce the high accelerating voltages used in x-ray tubes and any other devices requiring small currents at very high voltages.

TUBE TYPE	NOTE	CATHODE		RATINGS				MECHANICAL		
		VOLTS	AMPS	INVERSE KV	PEAK MA	AVG. MA	DROP (3) VOLTS	MAX. OAL	MAX. DIAM.	BASE DWG.
WL-2X2A	(1)	2.5	1.75	12.5	60	7.5	240	4 17/32"	1 9/16"	4AB
WL-5R4-GYB	(1)	5	2	3100	715	150	123	4 1/4"	1 9/16"	5T
WL-102A	(1)	20.0	19	75	750	120	—	16 9/16"	5 1/8"	2B
WL-399	(2)	10.0	11.5	140	—	50	—	9 3/32"	3 9/16"	2B
WL-456	(1)	11.0	20	140	500	60	1760	19"	5 1/8"	2B
WL-481B	(1)	2.5	5	25	150	30	80 (5)	4 7/8"	1 9/16"	4P
WL-579B	(1)	2.5	6	20	270	25	510	7 7/16"	2 1/16"	2P
WL-613	(1)	11.0	10	140	200	20	1040	19"	5 1/8"	2SB
WL-836	(1)	2.5	5	5	1000	250	1800	6 9/16"	2 7/16"	2W
WL-5575	(1)	20.0	24	150	1000	160	525	25 1/4"	6 1/8"	2B
WL-5576	(1)	20.0	32	150	2500	400	1000	25 1/4"	6 1/8"	2B
WL-5859/5860	(2)	10.0	11.5	140	—	100	—	7 7/8"	2 9/16"	2B
WL-5934	(1)	2.5	6	20	270	25	520	6 7/8"	2 1/16"	4P
WL-5973	(1)	16.0	19.1	75	5000	1000	950	19 1/2"	6 1/8"	2B
WL-7658	(6)	4.0	6.8	125	750	150	900	8"	2 9/16"	2B
WL-8094	(1)	12.0	23	110	10000	650	2500	25 1/4"	6 1/8"	2B
WL-22800	(7)	7	250	50	60A	20A	850	14 1/2"	10 1/16"	2V2
WL-22801	(7)	5	125	30	30A	10A	950	11"	6 7/32"	2V3
WL-22802	(8)	7	250	50	60A	20A	850	15"	8 1/8"	2V2
WL-23095(9)	(8)	9	132	30	—	3.5A	Note 9	12 15/16	4 5/8"	2V3
WL-23102/102A	(1)	20	19	75	750	120	1800	16 7/8"	5 1/8"	2B
WL-23178(9)	(8)	16	32	15	—	2A	Note 9	9 1/2"	4 1/2"	2V4



Notes

1. Air cooled.
2. Oil cooled for X-ray applications.
3. At bogey filament conditions and peak current.
4. Excluding leads.
5. Measured at 30 ma.
6. Oil cooled.
7. Forced air cooled.
8. Water cooled.
9. Control diode.

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COLD CATHODE GAS-FILLED TUBES

Cold cathode glow tubes have two or three electrodes and an inert gas fill. One popular type of two electrode tube is the voltage regulator tube. This type maintains a constant voltage drop with varying load currents.

The KX-642 provides over-voltage protection for power lines. It shorts out surges due to switching or lightning.

The gas triodes have a starting electrode which, when excited, starts tube conduction at a lower voltage.

Voltage Regulators

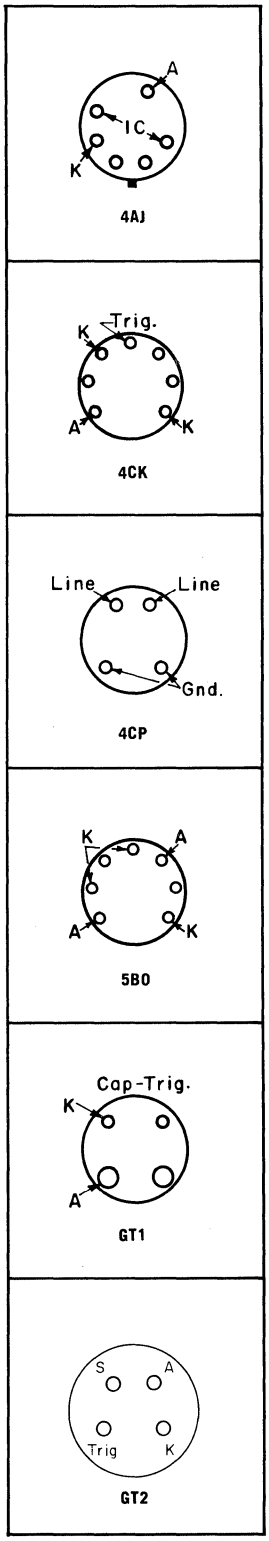
TUBE TYPE	ELECTRICAL			MECHANICAL		
	REGULATED VOLTS	MA	RANGE VOLTS	START VOLTS	MAX. OAL	MAX. DIAM.	DWG. BASE
WL-OA2	150	5 to 30	2	185	2⅝"	¾"	5BO
WL-OA2WA	150	5 to 30	2	185	2⅝"	¾"	5BO
WL-OA3/VR75	75	5 to 40	5	105	4⅛"	1 1/16"	4AJ
WL-OB2	105	5 to 30	4	135	2⅝"	¾"	5BO
WL-OB2WA	105	5 to 30	4	135	2⅝"	¾"	5BO
WL-OB3/VR90	90	5 to 30	5	130	4⅛"	1 1/16"	4AJ
WL-OC3/VR105	105	5 to 40	2	135	4⅛"	1 1/16"	4AJ
WL-5651	87	1.3 to 3.5	1.5	103	2⅛"	¾"	5BO

Line Protector

TUBE TYPE	RATINGS				MECHANICAL		
	LINE VOLTS	DISCHARGE VOLTS	2 SEC. AMPS.	10 MIN. AMPS.	MAX. OAL	MAX. DIAM.	BASE DWG.
KX-642	230	300 to 500	50	7	4 3/16"	2 3/16"	4CP

Gas Triodes

TUBE TYPE	ELECTRICAL			MECHANICAL			
	ANODE VOLTS	ANODE MA.	TRIGGER VOLTS	COOL	MAX. OAL	MAX. DIAM.	BASE DWG.
KU-618	440	15	300	air	5¾"	2 3/16"	GT2
WL-759	300	4	165	air	4"	1 1/16"	GT1
WL-5823	117	25	105	air	2⅛"	¾"	4CK



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HOLLOW CATHODE SPECTRAL TUBES For Atomic Absorption Spectroscopy

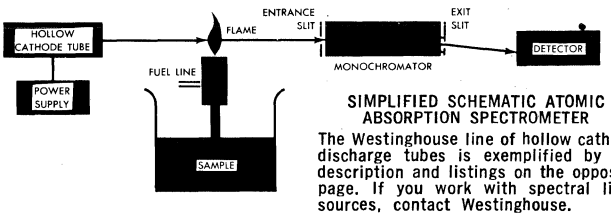
Li												B					
Na	Mg											Al	Si	P	S		
K	Ca		Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se		
Rb	Sr	Y	Zr	Nb	Mo			Rh	Pd	Ag	Cd	In	Sn	Sb	Te		
Cs	Ba	La		Ta	W	Re			Pt	Au	Hg	Tl	Pb	Bi			

Ce	Pr	Nd		Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
Th		U											

Atomic Absorption Spectroscopy

One of the major uses of Westinghouse hollow cathode tubes is in the field of atomic absorption spectroscopy to measure impurity traces as small as 50 parts per billion. This analytical technique uses a hollow cathode tube as a source of monochromatic spectral lines of the cathode element or elements. Components necessary for making atomic absorption spectroscopic measurements are 1) a source (hollow cathode tube) of atomic spectra of the desired element, 2) a flame, 3) a monochromator, and 4) a detector. These components are shown in the accompanying diagram. To perform an analysis by this technique a hollow cathode tube with a cathode of the desired element, for example copper, is used as the source of excited copper atoms. The radiation from the tube is passed through a flame, a monochromator and then into a detector where a signal will be registered at the 3247 A copper line. A solution containing copper may then be aspirated into the flame. This will cause a reduction in the signal at 3247 A because of the absorption of some of the energy from the excited copper atoms by the unexcited copper atoms in the flame. By aspirating standard samples containing varying amounts of copper into the flame a calibration curve may be drawn. An unknown sample may then be aspirated into the flame and the copper concentration determined directly from the calibration curve.

This description is rather simplified. More sophisticated systems and equipment have been devised and are now available commercially from several companies.



SIMPLIFIED SCHEMATIC ATOMIC ABSORPTION SPECTROMETER

The Westinghouse line of hollow cathode discharge tubes is exemplified by the description and listings on the opposite page. If you work with spectral light sources, contact Westinghouse.

SINGLE ELEMENT TYPES

CATHODE MAT'L & TYPES	WINDOW & SIZE Note 1	GAS FILL Note 2	MAX mA Note 3	ANALY LINES ° A
Aluminum				
WL-22804	Q-B	A	20	3092
WL-22809	P-A	Ne	20	3962
WL-22929	Q-B	Ne	20	—
WL-22954	Q-A	Ne	20	—
WL-22870	Q-A	A	20	—
Antimony				
WL-22840	Q-B	A	25	2176
WL-22931	Q-B	Ne	25	2311
WL-22956	Q-A	Ne	25	—
WL-22872	Q-A	A	25	—
Arsenic				
WL-22836	Q-B	Ne	20	1937
WL-22873	Q-A	Ne	20	1972
Barium				
WL-22834	P-A	Ne	30	5536
Bismuth				
WL-22841	Q-B	A	12	2231
WL-22874	Q-A	A	12	3068
WL-22932	Q-B	Ne	12	—
WL-22957	Q-A	Ne	12	—
Boron				
WL-22916	Q-B	A	25	2497
WL-22917	Q-A	A	25	—
Cadmium				
WL-22816	Q-B	A	12	2288
WL-22875	Q-A	A	12	3261
WL-22933	Q-B	Ne	12	—
WL-22958	Q-A	Ne	12	—
Calcium				
WL-22610	P-A	Ne	20	4227
Cerium				
WL-22977	Q-B	Ne	20	—
WL-22978	Q-A	Ne	20	—
Cesium				
WL-22817	P-A	A	30	8521
WL-22823	P-A	Ne	30	4556
Chromium				
WL-22812	P-A	A	30	3579
WL-22821	Q-B	A	30	4254
WL-22877	Q-A	A	30	—
WL-22934	Q-B	Ne	30	—
WL-22959	Q-A	Ne	30	—

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Hollow Cathode Spectral Tubes

For Atomic Absorption Spectroscopy

continued

CATHODE MAT'L & TYPES	WINDOW & SIZE Note 1	GAS FILL Note 2	MAX mA Note 3	ANALY LINES ° Å
Cobalt				
WL-22813	P-A	A	35	2407
WL-22814	Q-B	A	35	3454
WL-22928	Q-B	Ne	35	3527
WL-22953	Q-A	Ne	35	—
WL-22878	Q-A	A	35	—
Copper				
WL-22603	P-A	Ne	40	3247
WL-22606	Q-B	A	40	3274
WL-22879	Q-A	A	40	—
WL-23041	Q-B	Ne	40	—
WL-23042	Q-A	Ne	40	—
Dysprosium				
WL-22827	Q-B	Ne	25	4046
WL-22880	Q-A	Ne	25	4187
Erbium				
WL-22828	Q-B	Ne	25	4008
WL-22881	Q-A	Ne	25	—
Europium				
WL-22845	Q-B	Ne	20	4594
WL-22882	Q-A	Ne	20	4627
Gadolinium				
WL-22975	P-A	Ne	20	3684
WL-22985	Q-B	Ne	20	3713
WL-22986	Q-A	Ne	20	—
Gallium				
WL-22833	Q-B	Ne	15	2874
WL-22884	Q-A	Ne	15	4172
Gold				
WL-22839	Q-B	A	15	2428
WL-22883	Q-A	A	15	2676
WL-22935	Q-B	Ne	15	—
WL-22960	Q-A	Ne	15	—
Holmium				
WL-22829	Q-B	Ne	20	4054
WL-22885	Q-A	Ne	20	5983
Indium				
WL-22867	Q-B	A	20	3040
WL-22915	Q-A	A	20	—
WL-22996	Q-B	Ne	20	—
Iron				
WL-22602	P-A	A	40	2483
WL-22820	P-A	Ne	40	3720
WL-22611	Q-B	A	40	—
WL-22886	Q-A	A	40	—
WL-22810	Q-B	Ne	40	—
WL-22887	Q-A	Ne	40	—
High Purity Iron				
WL-22837	Q-B	Ne	35	2483
WL-22888	Q-A	Ne	35	3720
Lanthanum				
WL-22846	Q-B	A	20	4015
WL-22889	Q-A	A	20	3574
WL-23049	Q-B	Ne	20	3928
Lead				
WL-22838	Q-B	A	15	2170
WL-22890	Q-A	A	15	2833
WL-22927	Q-B	Ne	15	2614
WL-22952	Q-A	Ne	15	—
Lithium (See Note) (Natural)				
WL-22825	P-A	A	30	6708
WL-23060	P-A	Ne	30	—
Lithium-6 (See Note)				
WL-22830	P-A	Ne	30	6708
WL-22925	P-A	A	30	—
Lithium-7 (See Note)				
WL-22831	P-A	Ne	30	6708
WL-22926	P-A	A	30	—
Lutetium				
WL-23009	Q-B	Ne	20	3081
WL-23010	Q-A	Ne	20	—
Magnesium				
WL-22609	Q-B	A	20	2852
WL-22891	Q-A	A	20	2025
WL-22968	Q-B	Ne	20	2659
WL-22951	Q-A	Ne	20	—
Manganese				
WL-22608	Q-B	A	35	2795
WL-22876	Q-A	A	35	2801
WL-22815	P-A	A	35	—
WL-22936	Q-B	Ne	35	—
WL-22961	Q-A	Ne	35	—
Mercury				
WL-22847	Q-B	A	15	2537
WL-22892	Q-A	A	15	—
Molybdenum				
WL-22805	Q-B	A	35	3133
WL-22893	Q-A	A	35	3170
WL-22937	Q-B	Ne	35	—
WL-22962	Q-A	Ne	35	—
Neodymium				
WL-22979	Q-B	Ne	20	4925
WL-22980	Q-A	Ne	20	—
Nickel				
WL-22605	P-A	A	40	2320
WL-22663	Q-B	A	40	3415
WL-22894	Q-A	A	40	—
WL-22819	Q-B	Ne	40	—
WL-22895	Q-A	Ne	40	—
Niobium (Columbium)				
WL-22858	Q-B	Ne	30	4059
WL-22912	Q-A	Ne	30	4080
Palladium				
WL-22857	Q-B	A	30	2448
WL-22911	Q-A	A	30	2476
WL-22969	Q-B	Ne	30	3404
WL-22970	Q-A	Ne	30	—
Phosphorus				
WL-22989	Q-B	Ne	20	—
WL-22990	Q-A	Ne	20	—
Platinum				
WL-22851	Q-B	A	30	2659
WL-22896	Q-A	A	30	—
Potassium				
WL-22863	P-A	Ne	25	7665 4044
Praseodymium				
WL-22981	Q-B	Ne	20	4951
WL-22982	Q-A	Ne	20	5133
Rhenium				
WL-22942	Q-B	Ne	30	3460
WL-22967	Q-A	Ne	30	3465
Rhodium				
WL-22850	Q-B	A	30	3435
WL-22897	Q-A	A	30	3692
WL-22997	Q-B	Ne	30	—
Rubidium				
WL-22824	P-A	Ne	30	7800
WL-23046	Q-B	Ne	30	—
Samarium				
WL-22818	Q-B	Ne	30	3951
WL-22899	Q-A	Ne	30	4760
Selenium				
WL-22843	Q-B	A	15	1960
WL-22898	Q-A	A	15	2040
WL-22938	Q-B	Ne	15	—
WL-22963	Q-A	Ne	15	—
Silicon				
WL-22832	Q-B	A	20	2516
WL-22900	Q-A	A	20	—
WL-22939	Q-B	Ne	20	—
WL-22964	Q-A	Ne	20	—
Silver				
WL-22806	Q-B	A	20	3281
WL-22901	Q-A	A	20	3383
Sodium				
WL-22864	P-A	A		5890
WL-23059	P-A	Ne		3302
Strontium				
WL-22835	P-A	Ne	30	4607
Tantalum				
WL-22859	Q-B	A	30	3311
WL-22913	Q-A	A	30	—
WL-22971	Q-B	Ne	30	—
WL-22972	Q-A	Ne	30	—
Tellurium				
WL-22842	Q-B	A	15	2143
WL-22902	Q-A	A	15	2386
WL-22940	Q-B	Ne	15	—
WL-22965	Q-A	Ne	15	—
Terbium				
WL-22848	Q-B	Ne	30	4319
WL-22903	Q-A	Ne	30	4338

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Hollow Cathode Spectral Tubes

For Atomic Absorption Spectroscopy

continued

CATHODE MAT'L & TYPES	WINDOW & SIZE Note 1	GAS FILL Note 2	MAX mA Note 3	ANALY LINES ° A
Thorium				
WL-23027	Q-B	Ne	30	—
WL-23028	Q-A	Ne	30	—
Thulium				
WL-23007	Q-B	Ne	20	4094
WL-23008	Q-A	Ne	20	4105
Tin				
WL-22822	Q-B	A	15	2863
WL-22904	Q-A	A	15	—
WL-22941	Q-B	Ne	15	—
WL-22966	Q-A	Ne	15	—
Titanium				
WL-22991	Q-B	Ne	25	3643
WL-22992	Q-A	Ne	25	3998
Tungsten				
WL-22844	Q-B	Ne	35	4009
WL-22905	Q-A	Ne	35	4294
WL-22849	Q-B	A	35	—
WL-22906	Q-A	A	35	—
Uranium				
WL-22826	Q-B	Ne	30	5027
WL-22907	Q-A	Ne	30	5915
Vanadium				
WL-22856	Q-B	A	35	3184
WL-22910	Q-A	A	35	3855
WL-22973	Q-B	Ne	35	—
WL-22974	Q-A	Ne	35	—
Ytterbium				
WL-22983	Q-B	A	20	3988
WL-22984	Q-A	A	20	—
Yttrium				
WL-22976	P-A	Ne	20	4077
WL-22987	Q-B	Ne	20	4102
WL-22988	Q-A	Ne	20	—
Zinc				
WL-22607	Q-B	A	18	2139
WL-22908	Q-A	A	18	3076
WL-22811	Q-B	Ne	18	—
WL-22909	Q-A	Ne	18	—
Zirconium				
WL-22860	Q-B	A	30	—
WL-22914	Q-A	A	30	—
WL-22998	Q-B	Ne	30	—

MULTIPLE ELEMENT TYPES

CATHODE MAT'L & TYPES	WINDOW & SIZE Note 1	GAS FILL Note 2	MAX mA Note 3
Ca-Mg-AL			
WL-22604	Q-B	A	20
WL-22871	Q-A	A	20
WL-22930	Q-B	Ne	20
WL-22955	Q-A	Ne	20
Ba-Ca-Sr			
WL-23034	P-A	Ne	25
Ca-Mg-Al-Li			
WL-23035	Q-B	Ne	18
WL-23036	Q-A	A	18
Fe-Cu-Mn			
WL-23106	Q-B	Ne	35
Cr-Fe-Mn-Ni			
WL-23108	Q-B	Ne	30
Cu-Zn-Pb-Sn			
WL-23109	Q-B	Ne	12
As-Ni			
WL-23116	Q-B	Ne	20
Au-Ni			
WL-23117	Q-B	Ne	15
In-P			
WL-23118	Q-B	Ne	20
Cu-Ga			
WL-23119	Q-B	Ne	20
Se-Ni			
WL-23130	Q-B	Ne	15
Cu-Mn			
WL-23131	Q-B	Ne	35
Cu-Pb-Zn-Ag			
WL-23132	Q-B	Ne	15
Ba-Ca-Sr-Mg			
WL-23133	Q-B	Ne	25
Cu-Zn-Fe-Mn			
WL-23134	Q-B	Ne	15
Cu-Zn-Mo			
WL-23135	Q-B	Ne	15

NOTES

1. **WINDOW CHARACTERISTICS** – °
   P = Pyrex (70% transmission at 3050 A)
   Q = Quartz (75% transmission at 2200 A)
   A = 1½ inch diameter window
   B = 1 inch diameter window
2. **GAS FILL**
   A = Argon gas fill Ne = Neon gas fill
3. **CURRENT RATING**
   The current rating shown is the maximum permissible figure and does not represent typical operation. For optimum performance and life, a tube should be operated at the lowest current consistent with the desired output characteristics.

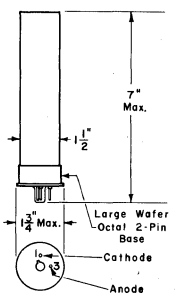
LITHIUM CAUTION

Output from a Lithium cathode tube with neon fill will experience second-order interference from the Ne-3355 line. However, operation with any one of the listed Corning Glass sharp-cutoff filters will eliminate the interference and is to be preferred over the argon-filled tube.

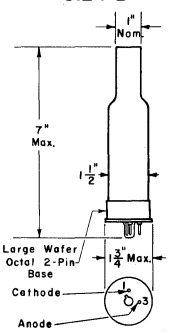
Corning Glass Filters which Eliminate Ne-3355 Line

CS 2-58	CS 2-60	CS 2-62	CS 3-66	CS 3-68
CS 2-59	CS 2-61	CS 2-63	CS 3-67	CS 3-69

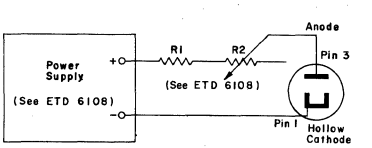
SIZE A



SIZE B



TYPICAL POWER SUPPLY CONNECTIONS



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PHOTOTUBES

Phototubes conduct electricity when light strikes the photocathode. Variations in light intensity produce variations in current conducted. Vacuum types have a linear response to light intensity whereas gas filled types are more sensitive to light changes. Photomultiplier types have internal current amplification by auxiliary electrodes called dynodes. They have, therefore, larger signal output than the gas and vacuum types.

Phototubes are used in motion-picture-film sound-pickup heads, automatic headlight dimmers, light-operated door openers and burglar alarms. Industrial uses include counting, color matching, sorting, measuring, detecting products at various stages of manufacture, printing press registry and dyestuff process control.

GAS and VACUUM TUBES

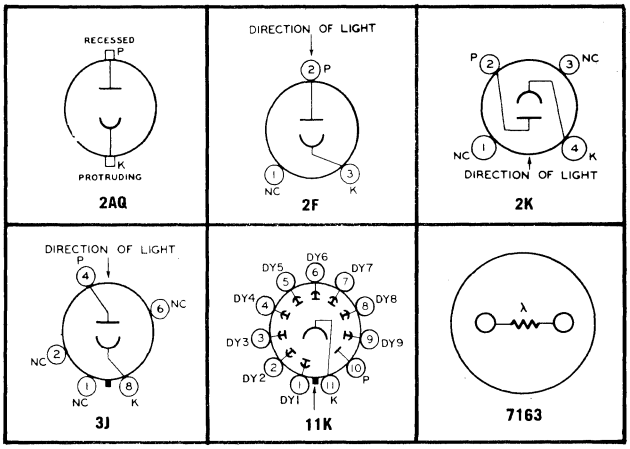
TUBE TYPE	CLASS	RATINGS			CHARACTERISTICS		MECHANICAL		
		ANODE VOLTS	CATHODE μAMPS.	TEMP. °C	PC NO.	LUM SENS(1)	MAX. OAL	MAX. DIAM.	BASE DWG.
WL-1P39	vac	250	5	75	S-4	45	3 1/16"	1 9/32"	3J
WL-1P40	gas	90	3	100	S-1	135	3 1/16"	1 9/32"	3J
WL-922	vac	500	5	100	S-1	20	1 11/16"	0.89"	2AQ
WL-923	gas	90	3	100	S-1	135	3 9/16"	1 3/16"	2K
WL-927	gas	90	2	100	S-1	125	2 13/32"	0.669"	2F
WL-930	gas	90	3	100	S-1	135	3 1/16"	1 9/32"	3J

MULTIPLIER PHOTOTUBES

TUBE TYPE	RATINGS			CHARACTERISTICS			MECHANICAL		
	SUPPLY VOLTS	ANODE μAMPS.	TEMP. °C	PC NO.	LUM SENS	CURRENT AMP.	MAX. OAL	MAX. DIAM.	BASE DWG.
WL-931A(2)	1250	1000	75	S-4	30(3)	110000(4)	3 11/16"	1 5/16"	11K

PHOTO CONDUCTIVE CELL

TUBE TYPE	MAX. RESPONSE	MAX. WATTS	CHARACTERISTIC RESISTANCE			MAX. HGT.	MAX. DIAM.	BASE DWG.
			@ 10^{-2}F-C	@ 1 F-C	@ 10^{2}F-C			
WL-7163	5800 Å	0.75	2MΩ	20KΩ	500Ω	0.9"	1.26"	7163



Notes

1. Microamperes per lumen measured with an unmodulated light source.
2. 9 stages.
3. Cathode response with 100 volts applied.
4. With 75 volts per stage.

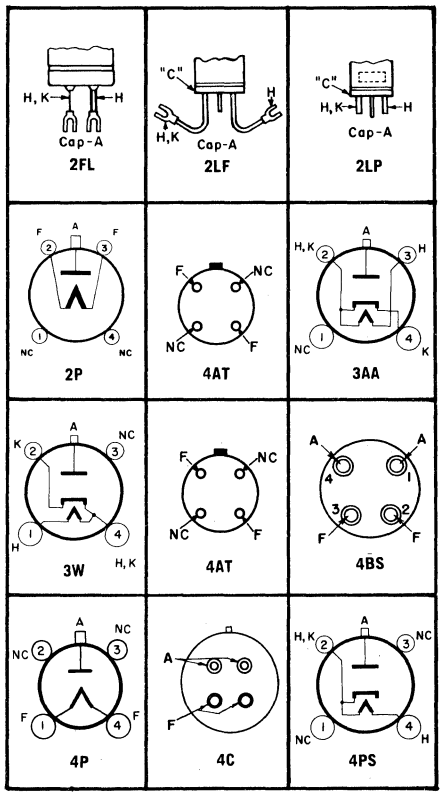
GAS AND MERCURY VAPOR RECTIFIERS

Gas and mercury vapor rectifiers are two electrode tubes with heated cathodes filled with either a low pressure of inert gas or mercury vapor. Mercury-vapor filled types are more sensitive to ambient temperature changes than types filled with inert gas.

Current conduction in an atmosphere of gas molecules causes ionization freeing ions which neutralizes the negative space charge. The removal of the space charge lowers the voltage needed to accelerate electrons from the cathode to the anode. This lower tube drop allows higher currents to be conducted with lower losses than an equivalent vacuum type.

Gas and vapor rectifiers are used in a variety of single and multiple tube circuits to provide operating voltages to large amplifier tubes used in radio broadcasting or industrial heating and in other applications requiring large amounts of current at high voltages.

TUBE TYPE	CATHODE		RATINGS				MECHANICAL			
	VOLTS	AMPS.	INVERSE VOLTS	PEAK AMP.	AVG. AMP.	DROP VOLTS (2)	COOL	MAX. (1) OAL	MAX. DIAM.	BASE DWG.
WL-3B22	2.5	6	725	4.0	1.0	8	air	6"	1 21/32"	4C
WL-3B28	2.5	5	10000	1.0	0.25	10	air	6 5/32"	2 1/16"	4P
WL-4B24	2.5	11.5	725	10.0	2.5	8	air	7 1/2"	2 3/16"	4BS
WL-575A	5.0	10	15000	6.0	1.5	10	air	11 1/16"	3 13/16"	4PS
WL-670	2.5	17	725	25.6	6.3	8	air	8"	2"	4BS
WL-673	5.0	10	15000	10.0	2.5	10	air	11 1/16"	3 1/8"	2P
WL-816	2.5	2	7500	0.5	0.125	15	air	4 11/16"	1 9/16"	4P
WL-857B(3)	5.0	30	22000	40.0	10.0	15	air	19 7/8"	7 1/8"	2FL
WL-866A	2.5	5	10000	1.0	0.25	15	air	6 9/16"	2 7/16"	4P
WL-869B	5.0	19	20000	10.0	2.5	15	air	14 7/8"	5 1/8"	2LP
WL-869BL(3)	5.0	19	20000	10.0	2.5	15	air	14 7/8"	5 1/8"	2LF
WL-872A	5.0	7.5	10000	5.0	1.25	15	air	8 1/2"	2 5/16"	4AT
WL-5558	5.0	4.5	5000	15.0	2.5	15	air	7"	3"	3W
WL-5561	5.0	10	3000	40.0	6.4	15	air	11 1/4"	3 13/16"	3AA
WL-6894	5.0	10	20000	11.5	2.5	25(4)	air	10 17/32"	2 5/8"	4AT
WL-6895	5.0	10	20000	11.5	2.5	25(4)	air	10 13/32"	2 5/8"	2P
WL-6930(3)	2.5	18	1000	77	6.4	9	air	8 5/8"	2 1/16" (5)	2P
WL-7014(6)	2.5	11.5	900	10.0	2.5	10	air	7 1/2"	2 1/16"	4BS
WL-7015(7)	2.5	11.5	900	10.0	2.5	10	air	7 1/2"	2 1/16"	4BS
WL-7016(6)	2.5	17	900	25.6	6.4	10	air	8"	2 9/16"	4BS
WL-7017(7)	2.5	17	900	25.6	6.4	10	air	8 5/8"	2 9/16"	4BS
WL-7018	2.5	7	2000	10.0	2.5	12	air	6 3/8"	2 1/16"	4P
WL-7019	2.5	18	1000	77.0	6.4	9	air	9 1/2"	2 1/16"	2P
WL-7020(8)	2.5	18	1000	77.0	6.4	9	air	9 1/2"	2 3/16"	2P
WL-7659(3)	5.0	16.25	22000	40.0	10.0	15	air	17 5/8"	7 1/2"	2FL
WL-8008	5.0	7.5	10000	5.0	1.25	15	air	8 3/4"	2 5/16"	2P
WL-23029(3)	5.0	30	22000	40.0	10.0	15	air	19 7/8"	7 1/8"	2FL



Notes

1. Excluding flying leads.
2. Average value at rated current.
3. Flying leads.
4. Max. value at rated peak current.
5. Excluding mounting bracket.
6. Twin units, ratings are per unit.
7. Lug-based, twin units, ratings are per unit.
8. Lug-based.

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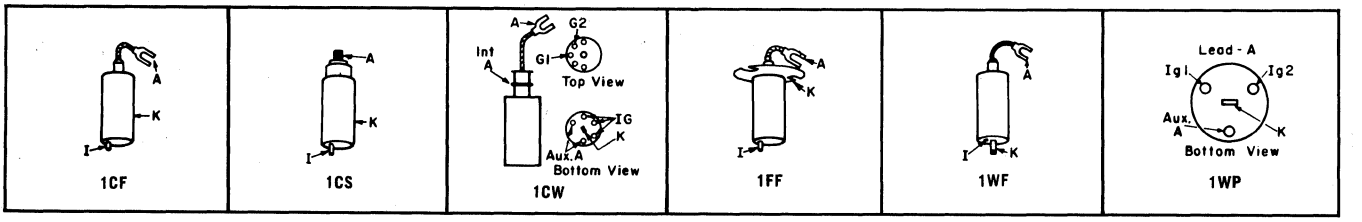
IGNITRONS

Ignitrons are gas-discharge, pool-type cathode tubes in which current conduction is initiated for each conducting cycle by means of an electrode called an ignitor. The ignitor is a small conical refractory element projecting into the mercury. When a relatively small current is conducted through the ignitor to the mercury, ionization of some mercury molecules in this area takes place. Ignitrons are of the half-wave type and current is conducted only when the anode is positive with respect to the cathode and the ignitor is fired.

Control of the average conducted current is accomplished by phase control of the point in the input cycle at which the ignitor is fired. During the non-conducting cycle, ionization in these single-anode tubes is very low; the resulting reduction of shielding necessary to prevent arc-backs lowers the arc voltage and permits operation at lower supply voltages. Ignitrons therefore have some of the control characteristics of thyratrons and, having a mercury-pool cathode, are capable of conducting very large currents. Water cooling of metal envelopes is used on most types to further increase current carrying capacity in a compact tube. Provision is made on some of the tube shells to connect thermostats for tube protection and water saving. Ignitrons are used in resistance welders, frequency-changer resistance welders, power rectifiers, high current switches in controlled fusion equipment, heat control devices for air-frame testing, and any circuit requiring precise control of large amounts of alternating or direct current.



A.C. WELDER CONTROL IGNITRONS

TUBE TYPE (NOTE 2)	SIZE	MAXIMUM RATINGS: RMS LINE VOLTS	DEMAND KVA	CORRES. CURRENT DC AMP.	DEMAND RMS AMP. 500 V. 1-30 CPS	CURRENT DC AMP.	CORRES. DEMAND KVA	MAX. AVG. TIME IN SEC. @ 250 V	@ 500 V	MAX. DIMENSIONS (NOTE 1) LENGTH	DIAM.	COOLING	BASE DWG.
WL-5550	A	250-600	300	12.1	600	22.4	100	22	11	9⅞"	2¾"	Clamp	1 CF
WL-5551A WL-5551A (PC)	B	250-600	600	30.2	1200	56	200	18	9	13"	2¾"	Water	1 WF
WL-5552A WL-5552A (PC)	C	250-600	1200	75.6	2400	140	400	14	7.1	14"	4¼"	Water	1 WF
WL-5553B WL-553B (PC)	D	250-600	2400	192	4800	355	800	11.2	5.6	19½"	5⅝"	Water	1 WF
WL-5554/679	C	2400	1200	75	500 (Note 3)	113	600	1.5 (Note 3)	—	17"	4⅛"	Water	1 WP
WL-5555/653B WL-5555A	D	2400	2400	135	1000 (Note 3)	207	1105	1.7 (Note 3)	—	20"	5¾"	Water	1 WP
WL-7669 WL-7669 (PC)	B Coax	250-600	600	30.2	1200	56	200	18	9	13"	3¼"	Water	1 FF
WL-7671 WL-7671 (PC)	C Coax	250-600	1200	75.6	2400	140	400	14	7.1	14¼"	4⅝"	Water	1 FF
WL-7681	C ½	250-600	1800	113.5	3600	210	600	9.5	7.1	17½"	4¼"	Water	1 WF

FREQUENCY CHANGER WELDING CONTROL IGNITRONS

TUBE TYPE (NOTE 2)	SIZE	PEAK INVERSE VOLTS	RATED CURRENTS: MAX. PEAK AMP.	CORRES. AVG. AMP.	MAX. AVG. AMP.	CORRES. PEAK AMP.	MAX. AVG. TIME SECONDS	MAX. DIMENSIONS (NOTE 1) LENGTH	DIAMETER	COOLING	BASE DWG.
WL-5551A WL-5551A (PC)	B	1200 1500	600 480	5 4	22.5 18	135 108	10 10	13"	2¾"	Water	1 WF
WL-5553B WL-5553B (PC)	D	1200 1500	3000 2400	40 32	140 112	840 672	6.25 6.25	19½"	5⅝"	Water	1 WF
WL-5822A	C	1200 1500	1500 1200	20 16	70 56	420 336	6.25 6.25	14"	4¼"	Water	1 WF
WL-7669 WL-7669 (PC)	B Coax	1200 1500	600 480	5 4	22.5 18	135 108	10 10	13"	3¼"	Water	1 FF
WL-7670	—	2500	2000	10	—	—	2	12"	2¾"	Water	1 FF
WL-7681	C ½	1200 1500	2250 1800	30 24	105 84	630 502	6.25 6.25	17½"	4¼"	Water	1 WF

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Ignitrons *continued*

POWER RECTIFIER IGNITRONS

TUBE TYPE	SIZE	PEAK INVERSE VOLTS	MAXIMUM CURRENT RATINGS		MAXIMUM DIMENSIONS (NOTE 1)		COOLING	BASE DWG.
			PEAK AMP.	CONT. AVG. AMP.	LENGTH	DIAMETER		
WL-5554/679	C	900 2100	900 600	100 75	17″	4⅛″	Water	1 WP
WL-5555A WL-5555/653B	D	900 2100	1800 1200	200 150	20″	5¾″	Water	1 WP
WL-6228	—	20000	900	150	42″	9″	Water	1 CW

CONTINUOUS DUTY A.C. CONTROL IGNITRONS (NOTE 4)

TUBE TYPE (NOTE 2)	SIZE	MAXIMUM RATINGS								MAX. DIMENSIONS (NOTE 1)		COOLING	BASE DWG.
		RMS LINE VOLTS	DEMAND KVA	CORRES. CURRENT DC AMP.	CONTINUOUS RMS AMP. 2 TUBES	CURRENT DC AMP.	CORRES. DEMAND KVA	MAX. AVG. TIME IN SEC. @ 250 V	@ 500 V	LENGTH	DIAM.		
WL-23011 WL-23011 (PC)	B	250-600	600	30.2	124	56	200	18	9	13″	2¾″	Water	1 WF
WL-23012 WL-23012 (PC)	C	250-600	1200	75.6	311	140	400	14	7.1	14″	4¼″	Water	1 WF
WL-23013 WL-23013 (PC)	D	250-600	2400	192	788	355	800	11.2	5.6	19½″	5⅝″	Water	1 WF
WL-23014 WL-23014 (PC)	B Coax	250-600	600	30.2	124	56	200	18	9	13″	3¼″	Water	1 FF
WL-23015 WL-23015 (PC)	C Coax	250-600	1200	75.6	311	140	400	14	7.1	14¼″	4⅝″	Water	1 FF
WL-23016	C ½	250-600	1800	113.5	466	210	600	9.5	7.1	17½″	4¼″	Water	1 WF
WL-23017	D Coax	250-600	2400	192	788	355	800	11.2	5.6	17½″	5⅝″	Water	1 FF
WL-23018	C ½ Coax	250-600	1800	113.5	466	210	600	9.5	7.1	15″	5 5/16″	Water	1 FF

CAPACITOR DISCHARGE & CROWBAR IGNITRONS

TUBE TYPE	MAXIMUM RATINGS					MAX. DIMENSIONS (NOTE 1)		COOLING	BASE DWG.
	HOLD-OFF KV	PEAK AMP.	DISCHARGE COULOMBS	REP. RATE PULSES/MIN.	AVERAGE CURRENT AMP.	LENGTH	DIAMETER		
WL-6228	60	30,000	—	—	—	42″	9″	Water	1 CW
WL-7171	10	35,000	18.6	2	0.6	8 7/16″	2 5/32″	Clamp	1 CS
WL-7703	20	100,000	—	2	—	7″	2 7/32″	Clamp	1 CS
WL-7740	20	35,000	18.6	2	0.6	8⅞″	2 5/32″	Clamp	1 CS
WL-8306	15	35,000	18.6	2	0.6	8⅞″	2 5/32″	Clamp	1 CS

PULSE MODULATOR IGNITRONS (NOTE (5)

TUBE TYPE	MAXIMUM RATINGS				PULSE		BASE DWG.
	FORWARD KV	INVERSE KV	PEAK AMP.	AVG. AMP.	LENGTH μ SEC.	REP. RATE PPS	
WL-6228	40	0.5	3300	3.8	3.2	360	1 CW

NOTES

1. Excluding flying leads, water pipes, and on coaxial tubes the mounting flange.
2. Suffix PC indicates plastic-coated tube.
3. At 2400 volts.
4. These tubes use heavy duty ignitors designed for continuous duty.
5. Consult Industrial and Transmitting Tube Development Department for pulse modulator applications. The parameters listed represent a specific application only and substantial increases can be made in some areas.

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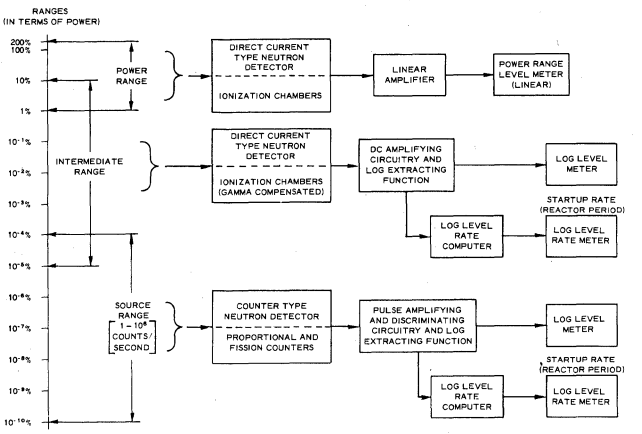
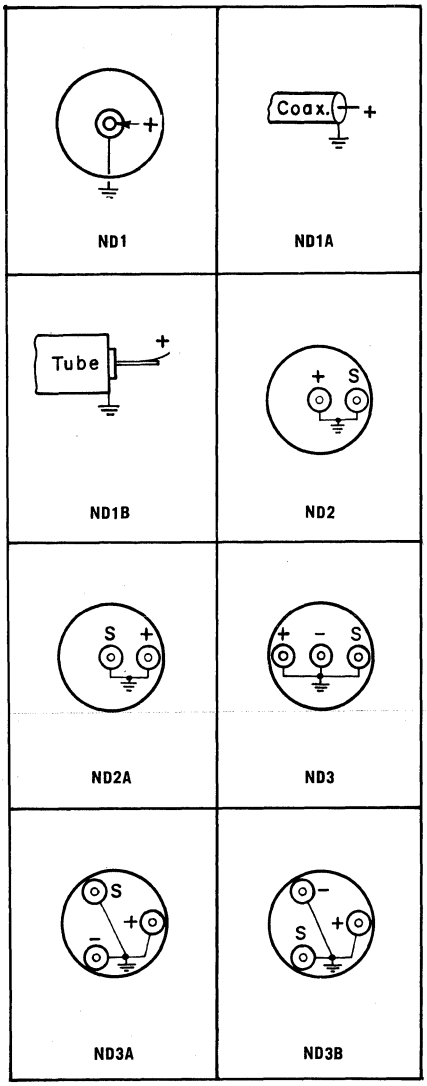
NEUTRON & RADIATION DETECTION TUBES

Radiation detection tubes are electronic devices which permit the passage of electrical current between electrodes when exposed to penetrating radiation. A variation of the intensity of radiation causes a corresponding variation in current between the electrodes. The tubes are designed to respond primarily to neutrons of thermal energies. Radiation detection tubes are of three general types: $B^{10}F_3$ (Boron Trifluoride) filled proportional counters, Uranium coated counters or ionization chambers, and B^{10} (Boron 10 Isotope) coated ionization chambers. At low levels of neutron flux, the current pulses due to the incident thermal neutrons are comparatively few in number, and therefore do not provide a steady current output. For this reason, in low flux level application, highly sensitive detector tubes, either BF_3 filled or Uranium coated are used in a pulse counting type circuit. The tube output is fed into a suitable amplifier, and pulses, proportional to the number of incident thermal neutrons, are registered on a scalar or rate meter. In applications of detector tubes in pulse counting, those pulses arising due to gamma photons which frequently accompany the neutron flux are sufficiently small that they may normally be biased out by a simple discriminator circuit. Uranium coated and B^{10} coated ionization chambers are used in higher neutron flux levels. The tubes are self-integrating, and the output, proportional to the incident thermal neutron flux, is read directly on a d-c current indicating device. The gamma photons, frequently accompanying the neutron flux, usually constitute a very small percentage at high neutron flux levels, and as such contribute insignificantly to the signal current. In applications involving a high gamma flux, however, the compensated ionization chamber may be used. This tube electrically reduces the signal due to gamma flux. This compensation is achieved by having two concentric volumes. One of these is sensitive to neutrons and gamma flux. The other is sensitive to gamma flux only. The effective gamma sensitivity of these volumes is made equal. The output signals from the volumes are combined with opposite polarity and the signals due to gamma flux cancel each other. The effectiveness of this cancellation is limited primarily by instrumentation and the reactor characteristics. In application the gamma sensitivity of this tube may thus be reduced by a factor of 100 to 1000. The lower operating limit of the compensated ion chamber is reduced still further by using a guard ring construction. With a guard ring construction, leakage currents, through the insulators due to the applied voltages, flow to ground and not through the signal circuit. Radiation detection tubes are used as laboratory instruments in atomic and nuclear radiation investigations, in the control of reactors, and in health monitoring for personnel protection.

TYPICAL NUCLEAR INSTRUMENTATION RANGES IN TERMS OF PER CENT REACTOR POWER



TUBE TYPE	SENS MAT'L.	TYPICAL OPERATION	TYPICAL APPLIED VOLTS	TYPICAL SENSITIVITY A/nv	TYPICAL SENSITIVITY CPS/nv	MAX. TEMP. °F	MECHANICAL MAX. OAL (1)	MECHANICAL MAX. DIAM.	MECHANICAL BASE DWG.
WL-6307	$B^{10}F_3$	Proportional Counter	2000	—	4.5	250	12⅛"	1$\frac{1}{32}$"	ND1
WL-6307A	$B^{10}F_3$	Proportional Counter	2000	—	4.5	300	—	—	ND1
WL-6376A	$U_3^{235}O_8$	Fission Counter Ion Chamber	300 300 to 1000	— 1.4 x 10^{-13}	0.7 —	300	11$\frac{11}{16}$"	2$\frac{1}{16}$"	ND1
WL-6377	B^{10}	Ion Chamber	300 to 800	4 x 10^{-14}	—	175	23$\frac{13}{16}$"	3$\frac{3}{16}$"	ND3
WL-6937A	B^{10}	Ion Chamber	200 to 1000	4.4 x 10^{-14}	—	300	13⅞"	3$\frac{1}{16}$"	ND2
WL-6938	$B^{10}F_3$	Proportional Counter	2000	—	45	175	32½"	7$\frac{15}{16}$"	ND1
WL-6941A	$U_3^{235}O_8$	Fission Counter Ion Chamber	300 300 to 1000	— 2.6 x 10^{-14}	0.2 —	300	11$\frac{11}{16}$"	2$\frac{1}{16}$"	ND1
WL-6971A	$U_3^{235}O_8$	Fission Counter Fission Chamber	300 300 to 1000	— 3 x 10^{-14}	0.14 —	300	11$\frac{11}{16}$"	2$\frac{1}{16}$"	ND1
WL-6998	$B^{10}F_3$	Proportional Counter	2000	—	13	225	30½"	1$\frac{1}{32}$"	ND1
WL-7087	$B^{10}F_3$	Proportional Counter	2000	—	40	175	39¾"	5⅞"	ND1A
WL-7087A	$B^{10}F_3$	Proportional Counter	2000	—	40	175	39¾"	5⅞ "	ND1A
WL-7186	$U_3^{235}O_8$	Fission Counter	250 to 400	—	0.001	125	53$\frac{9}{16}$"	⅞"	ND1
WL-7187	$U_3^{235}O_8$	Fission Counter	300	—	0.52	300	11$\frac{11}{16}$"	2$\frac{1}{16}$"	ND1
WL-7188	$U_3^{235}O_8$	Fission Counter Fission Chamber	300 300 to 1000	— 1.4 x 10^{-14}	0.07 —	300	11$\frac{11}{16}$"	2$\frac{1}{16}$"	ND1
WL-7243	$B^{10}F_3$	Proportional Counter	2000	—	13	175	15¾"	2$\frac{15}{16}$"	ND1
WL-7317	$B^{10}F_3$	Proportional Counter	2000	—	13	225	29$\frac{15}{16}$"	1$\frac{1}{32}$"	ND1B
WL-7353	B^{10}	Ion Chamber	300 to 800	4 x 10^{-14}	—	175	24¼"	3$\frac{5}{32}$"	ND3
WL-7429	$B^{10}F_3$	Proportional Counter	2000	—	40	175	39¾"	4$\frac{13}{16}$"	ND1A
WL-7469	B^{10}	Ion Chamber	300 to 800	4 x 10^{-14}	—	175	23$\frac{13}{16}$"	3$\frac{3}{16}$"	ND3
WL-7606	B^{10}	Ion Chamber	200 to 1000	4.4 x 10^{-14}	—	500	13$\frac{15}{16}$"	3$\frac{1}{16}$"	ND2
WL-7657	$U_3^{235}O_8$	Fission Counter	300	—	0.7	500	13$\frac{15}{16}$"	3$\frac{1}{16}$"	ND2
WL-7741	B^{10}	Ion Chamber	300 to 800	4 x 10^{-14}	—	500	23$\frac{13}{16}$"	3$\frac{3}{16}$"	ND3A
WL-8073	$U_3^{235}O_8$	Fission Counter Fission Chamber	300 300 to 1000	— 1.4 x 10^{-13}	0.7 —	300	11$\frac{11}{16}$"	2$\frac{1}{16}$"	ND1
WL-8074	B^{10}	Ion Chamber	300 to 800	4 x 10^{-14}	—	175	23$\frac{13}{16}$"	3$\frac{3}{16}$"	ND3
WL-8075	B^{10}	Ion Chamber	200 to 1000	4.4 x 10^{-14}	—	300	13⅞"	3$\frac{1}{16}$"	ND2
WL-8105	B^{10}	Ion Chamber	300 to 800	1.5 x 10^{-14}	—	175	10¾"	3½"	ND3B
WL-8137	B^{10}	Ion Chamber	300 to 800	1.5 x 10^{-14}	—	175	10¾"	3½"	ND2A
WL-8214	B^{10}	Ion Chamber	300 to 800	1.5 x 10^{-14}	—	175	10¾"	3½"	ND3B
WL-22791	B^{10}	Proportional Counter	800	—	10	310	30½"	1$\frac{1}{32}$"	ND1
WL-22792	B^{10}	Proportional Counter	750	—	3	310	12⅞"	1$\frac{1}{32}$"	ND1
WL-22793	B^{10}	Proportional Counter	750	—	4	310	15"	1$\frac{1}{32}$"	ND1



NOTE 1. Excluding flying leads and coaxial cables.

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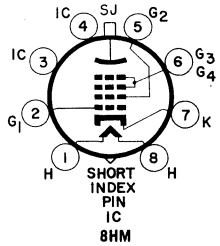
CAMERA AND STORAGE TUBES

Vidicons are compact, light-weight camera tubes which require simple circuitry and render acceptable performance in most applications. They find wide usage in closed circuit or industrial television (ITV) systems and in film cameras for commercial television stations. Common applications include industrial surveillance of property and process, remote or magnified observation of medical operations, military surveillance and remote signature check or record survey in financial institutions.

TUBE TYPE	USE	FEATURE	MAX. SJ VOLTS	BASE DWG.	TYPICAL VIDICON OPERATING VOLTS	
					Heater	6.3
WL-7290	ITV	Slow-Scan Photoconductor	25	8HM	SJ	6 to 70
					G4, G3	250
WL-7735A	ITV	Sensitive, uniform photoconductor	100	8HM	G2	300
					G1 (CO)	—45 to —100



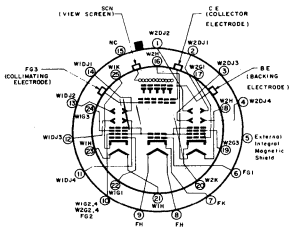
3″ IMAGE DISSECTOR TYPE W1-2311

3000 TV Line Resolution / Rugged & Reliable

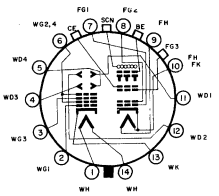
14 Shade Gray Scale / Simple Circuitry

DISPLAY - STORAGE TUBES

Display storage tubes are cathode-ray tubes with the ability to integrate successive increments of a display or repetitive weak signals to form a high-brightness image with duration sufficient to photograph or examine it. Applications range from airborne radar to transient study with sophisticated oscilloscopes.



WL-4363
WL-7268A



WL-22662

INDEX OF LEADS

12 Lead Group

White/Black···· D3
White/Red····· D4
Orange····· G2, G4 (W)
Green····· G1 (F)
Yellow····· Heater (F)
White/Yellow··· Heater, Cathode(F)
White/Green··· D1
White/Orange·· D2
Black····· Shield Ground
Light Blue····· G2, G3(F) Collimator
Red····· G4(F) Collector
Violet····· Backing Electrode

5 Lead Group

Brown····· Heater (W)
White····· G1 (W)
Gray····· Cathode (W)
White/Blue···· G3 (W)
White/Brown·· Heater (W)

WL-5308

INDEX OF LEADS

(10 LEAD GROUP)

Lead Electrode

1. DV3
2. DV4
3. G2, G4(W)
4. G1(F)
5. NC
6. Heater (F)
7. Heater (F) & Cathode(F)
8. DV1
9. DV2
10. Ground for Shield

(5 LEAD GROUP)

Lead Electrode

1. Heater (W)
2. G1 (W)
3. Cathode (W)
4. G3 (W)
5. Heater (W)

WL-5047

TUBE TYPE	WL-4363	WL-5047	WL-5308	WL-7268A	WL-22662	UNITS
Max. Diameter (Incl. Shield)	5¼	5¼	4¼	5¼	5¼	Inches
Max. Length	16	15	11	16	15	Inches
Min. Useful Screen Dia.	4	4	3	4	4	Inches
No. of Write Guns	2	1	1	2	1	—
Type of Focus	ES	ES	ES	ES	ES	—
Type of Deflection	ES	ES	ES	ES	ES	—
Min. Storage Time	30	10	30	15	60	Seconds
Min. Writing Speed	4×10^4	4×10^5	1×10^4	4×10^4	4×10^5	Inches/Second
Max. Erase Time	50	50	100	50	75	Milliseconds
Viewing Screen Voltage	10	10	8	10	10	Kilovolts
Min. Brightness	1500	1000	1200	2200	1000	Foot-Lamberts
Min. Resolution	50	90	50	70	50	Lines/Inch
Special Features		High Resolution	Compact, High Deflection Sensitivity		Long Storage Time	

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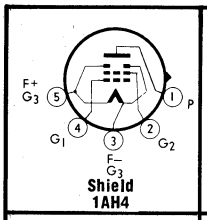
INDUSTRIAL RECEIVING TUBES

APPLICATION CLASSES FOR INDUSTRIAL RECEIVING TUBES

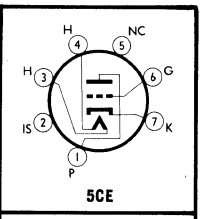
Industrial Receiving tubes serve as low-level amplifiers, mixers, detectors, gating or coincidence tubes, oscillators and relay drivers in military and industrial equipment. These tubes may incorporate one or more of the following premium design features for improved reliability: 1. rugged structure, 2. performance stabilization by burn-in or seasoning, 3. maintenance of peak emission during prolonged cutoff operation, 4. more uniform characteristics, 5. long heater life with heater cycling, and 6. low internal noise.

Special Purpose Tubes are used in industrial process control, military and commercial communication and electronic computing equipment.

| This group of types, although no longer used in new industrial equipment designs, is made available for maintenance because of their previous popularity. All of these types have been updated to the latest design techniques and new materials to



Shield 1AH4



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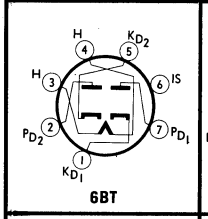

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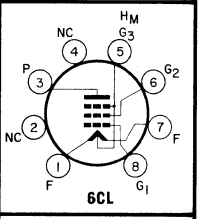

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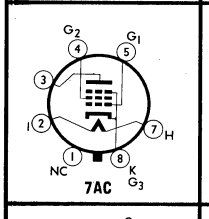

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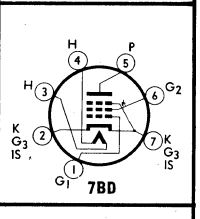

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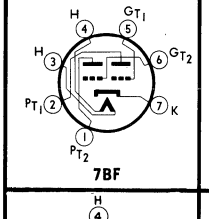

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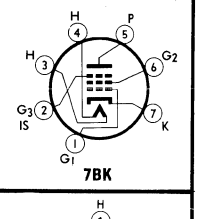

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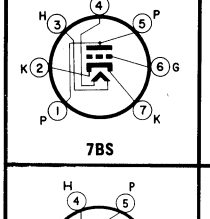

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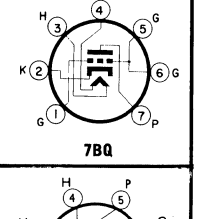

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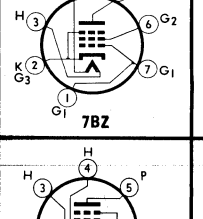

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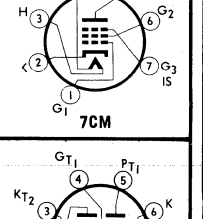

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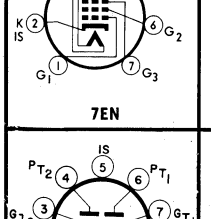

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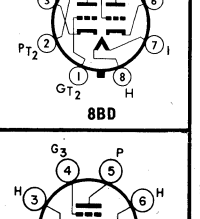

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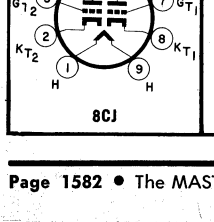

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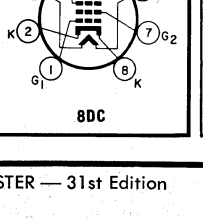

8DC

TUBE TYPE	NOTE	TUBE CLASS	CATHODE VOLTS	CATHODE AMP.	TYPICAL USE	PLATE VOLTS	PLATE MA.	G1 V OR RK	G2 VOLTS
WL-6AS6	(1)	pentode	6.3	0.175	class A amp.	120	5.2	—2	120
WL-6AS7GA	(2)	twin triode	6.3	2.5	d-c amp.	135	125	250	—
WL-6J4		high-mu triode	6.3	0.4	UHF amplifier	150	15	100	—
WL-12AY7	(3)	twin triode	12.6	0.15	class A amp.	250	3	—4	—
WL-5636	(1)	pentode	6.3	0.15	gated amplifier	100	5.3	150	100
WL-5654	(4)	pentode	6.3	0.175	class A amp.	120	7.5	—2	120
WL-5678		pentode	1.25	0.05	class A amp.	67.5	1.8	0	67.5
WL-5687	(3)	twin triode	12.6	0.45	class A amp.	250	12	—12.5	—
WL-5691	(2)	twin triode	6.3	0.6	class A amp.	250	2.3	—2	—
WL-5692	(2)	twin triode	6.3	0.6	class A amp.	250	6.5	—9	—
WL-5693	(4)	pentode	6.3	0.3	class A amp.	250	3	—3	100
WL-5718		med-mu triode	6.3	0.15	class A amp.	100	8.5	150	—
WL-5726/6AL5W/6097	(2)	twin diode	6.3	0.3	rectifier	peak inverse plate voltage: 360 volts max peak plate current: 60 mA max			
WL-5751	(3)	twin triode	12.6	0.175	class A amp.	250	1	—3	—
WL-5814A	(3)	twin triode	12.6	0.175	class A amp.	250	10.5	—8.5	—
WL-5824		beam pentode	25	0.3	class A amp.	135	61	—22	135
WL-5879	(4)	pentode	6.3	0.15	class A amp.	250	1.8	—3	100
WL-5881		beam pentode	6.3	0.9	class A amp.	350	53	—18	250
WL-5886	(5)	pentode	1.25	0.01	characteristics	12	0.006	—2	4.5
WL-5902		beam pentode	6.3	0.45	class A amp.	110	30	270	110
WL-5963	(3)	twin triode	12.6	0.15	class A amp.	67.5	8.5	0	—
WL-5964	(2)	twin triode	6.3	0.45	class A amp.	100	9.5	50	—
WL-5965	(3)	twin triode	12.6	0.225	class A amp.	150	8.5	220	—
WL-6072	(3)	twin triode	12.6	0.175	class A amp.	250	3	—4	—
WL-6080	(2)	twin triode	6.3	2.5	d-c amp.	135	125	250	—
WL-6112	(2)	twin triode	6.3	0.3	class A amp.	100	0.8	1500	—
WL-6136	(4)	pentode	6.3	0.3	class A amp.	250	10.6	68	150
WL-6189	(3)	twin triode	12.6	0.15	class A amp.	250	10.5	—8.5	—
WL-6197		pentode	6.3	0.65	class A amp.	250	30	—3	150
WL-6201	(3)	twin triode	12.6	0.15	class A amp.	250	10	200	—
WL-6205		pentode	6.3	0.15	class A amp.	100	7.5	150	100
WL-6336A	(2)	twin triode	6.3	5	d-c amplifier	190	185	200	—
WL-6350	(3)	twin triode	12.6	0.3	class A amp.	150	11	—5	—
WL-6386		twin triode	6.3	0.35	class A amp.	100	9.6	200	—
WL-6397	(7)	pentode	2.5	0.0625	class A amp.	125	7.25	—7.5	125
WL-6550		beam pentode	6.3	1.6	class A amp.	400	87	—16.5	225
WL-6660/6BA6	(6)	pentode	6.3	0.3	class A amp.	250	11	68	100
WL-6661/6BH6	(4)	pentode	6.3	0.15	class A amp.	250	7.4	100	150
WL-6662/6BJ6	(6)	pentode	6.3	0.15	class A amp.	250	9.2	80	100
WL-6663/6AL5	(2)	twin diode	6.3	0.3	rectifier	peak inverse plate voltage: 275 volts max peak plate current: 60 mA max			
WL-6664/6AB4		triode	6.3	0.15	class A amp.	250	10	200	—
WL-6669/6AQ5		beam pentode	6.3	0.45	class A amp.	250	45	—12.5	250
WL-6676/6CB6A	(4)	pentode	6.3	0.3	class A amp.	125	13	56	125
WL-6677/6CL6		pentode	6.3	0.65	class A amp.	250	30	—3	150
WL-6678/6U8A		triode pentode	6.3	0.45	class A amp. triode pentode	150 250	18 10	56 68	— 110
WL-6679/12AT7	(3)	twin triode	12.6	0.15	class A amp.	250	10	200	—
WL-6680/12AU7	(3)	twin triode	12.6	0.15	class A amp.	250	10.5	—8.5	—
WL-6681/12AX7	(3)	twin triode	12.6	0.15	class A amp.	250	1.2	—2	—
WL-6922	(2)	twin triode	6.3	0.3	class A amp.	90	12	120	—
WL-6954	(1)	pentode	6.3	0.3	gated amplifier	150	5.8	—1	150
WL-7730	(3)	twin triode	12.6	0.15	class A amp.	250	10.5	—8.5	—
WL-7732	(4)	pentode	6.3	0.3	class A amp.	250	8.5	200	150
WL-9002		med-mu triode	6.3	0.15	class A amp.	250	6.3	—7	—

OUTLINES

NO.	OAL	DIAM.	BASE	NO.	OAL	DIAM.	BASE
2-1	1½"	⅜"	Press	8-1	2⅝"	1⅝"	Octal
3-8	1⅝"	⅜"	Button	9-11	3⅜"	1 3/32"	Octal
5-1	1¾"	¾"	Min.	9-37	2⅞"	1 3/32"	Octal
5-2	2⅛"	¾"	Min.	11-A	4"	1 7/16"	Octal
5-3	2⅝"	¾"	Min.	12-16	4¼"	1 9/16"	Octal
6-1	1¾"	⅞"	Min.	12-43	4 1/16"	1 11/16"	Octal
6-2	2 1/16"	⅞"	Min.	16-A	5⅛"	2 1/16"	Octal
6-3	2⅝"	⅞"	Min.				

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INDUSTRIAL RECEIVING TUBES

continued

provide better reliability than was possible when they were originally introduced.

II Premium types designed specifically for applications involving greater shock and vibration environments. Designs are built for greater mechanical strength and rated for long life and reduced spread of characteristics.

III Designed primarily for computer service where on-off control applications with long periods of cutoff operation involved.

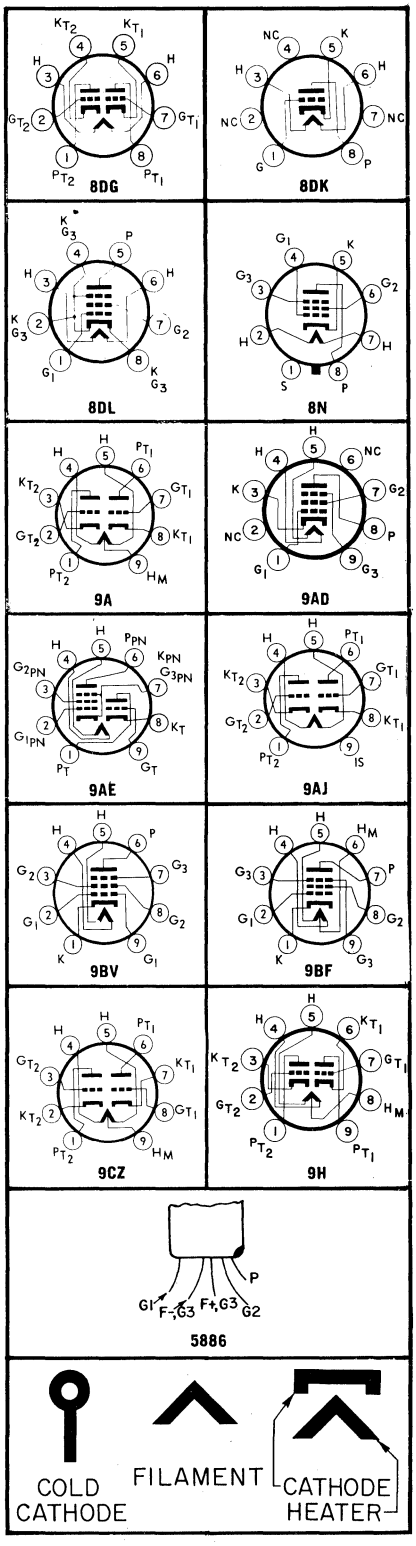
IV Special audio output beam power tubes.

V Specifically designed for mobile communications equipment to withstand variations in supply voltage and cycling conditions.

VI Types designed particularly for the instrumentation market for long life stability and low cathode interface are prime requirements.

VII Designed especially for audio amplifiers where, hum, noise and microphonics are critical.

G2 MA.	RP OHMS	GM μMHOS	AMP. FACTOR	LOAD OHMS	OUT WATTS	OUT-LINE	BASE DWG.	TUBE TYPE	APPLICATION CLASS
3.5	110000	3200	—	—	—	5-1	7CM	**WL-6AS6**	I
—	280	7000	2	—	—	12-16	8BD	**WL-6AS7GA**	I
—	4500	12000	55	—	—	5-2	7BQ	**WL-6J4**	I
—	—	1750	40	—	—	6-2	9A	**WL-12AY7**	I
3.6	110000	3200	—	—	—	3-1	8DC	**WL-5636**	II
2.5	340000	5000	—	—	—	5-1	7BD	**WL-5654**	II
0.48	1000000	1100	—	—	—	2-1	1AH4	**WL-5678**	I
—	3000	5400	16	—	—	6-2	9H	**WL-5687**	II
—	44000	1600	70	—	—	9-37	8BD	**WL-5691**	II
—	9100	2200	20	—	—	9-37	8BD	**WL-5692**	II
0.85	2500000	1650	—	—	—	8-1	8N	**WL-5693**	I
—	4650	5800	27	—	—	3-1	8DK	**WL-5718**	II
		d-c output current: 10 mA max heater-cathode voltage: 360 volts max				5-1	6BT	**WL-5726/6AL5W/ 6097**	II
—	58000	1200	70	—	—	6-2	9A	**WL-5751**	II
—	7700	2200	17	—	—	6-2	9A	**WL-5814A**	II
2.5	15000	5000	—	1700	4.3	9-11	7AC	**WL-5824**	I
0.4	2000000	1000	—	—	—	6-2	9AD	**WL-5879**	VII
2.5	48000	5200	—	4200	11.3	11-A	7AC	**WL-5881**	I
0.0036	18000000	14	—	—	—	2-1	5886	**WL-5886**	(5)
2.2	15000	4200	—	3000	1	3-3	8DL	**WL-5902**	II
—	6600	3200	21	—	—	6-2	9A	**WL-5963**	III
—	6500	6000	39	—	—	5-2	7BF	**WL-5964**	III
—	7000	6700	47	—	—	6-2	9A	**WL-5965**	III
—	25000	1750	44	—	—	6-2	9A	**WL-6072**	II
—	280	7000	2	—	—	12-43	8BD	**WL-6080**	II
—	—	1800	70	—	—	3-1	8DG	**WL-6112**	II
4.3	1000000	5200	—	—	—	5-2	7BK	**WL-6136**	II
—	7700	2200	17	—	—	6-2	9A	**WL-6189**	II
7	90000	11000	—	—	—	6-3	9BV	**WL-6197**	III
—	10900	550	60	—	—	6-2	9A	**WL-6201**	II
2.4	260000	5000	—	—	—	3-1	8DC	**WL-6205**	II
—	—	13500	2.7	—	—	16-A	8BD	**WL-6336A**	II
—	3900	4600	18	—	—	6-3	9CZ	**WL-6350**	III
—	4250	4000	17	—	—	6-1	8CJ	**WL-6386**	V
1.2	—	1950	—	—	—	3-8	6CL	**WL-6397**	I
4	27000	9000	—	3000	20	16-A	7AC	**WL-6550**	IV
4.2	1000000	4400	—	—	—	5-2	7BK	**WL-6660/6BA6**	V
2.6	140000	4600	—	—	—	5-2	7CM	**WL-6661/6BH6**	V
3.3	1300000	3600	—	—	—	5-2	7CM	**WL-6662/6BJ6**	V
		d-c output current: 10 mA max heater-cathode voltage: 275 volts max				5-1	6BT	**WL-6663/6AL5**	V
—	10900	5500	60	—	—	5-2	5CE	**WL-6664/6AB4**	V
4.5	52000	4100	—	5000	4.5	5-3	7BZ	**WL-6669/6AQ5**	V
3.7	280000	8000	—	—	—	5-2	7CM	**WL-6676/6CB6A**	V
7	150000	11000	—	7500	2.8	6-3	9BV	**WL-6677/6CL6**	V
—	5000	8500	40	—	—	6-2	9AE	**WL-6678/6U8A**	V
3.5	400000	5200	—	—	—				
—	10900	5500	60	—	—	6-2	9A	**WL-6679/12AT7**	V
—	7700	2200	17	—	—	6-2	9A	**WL-6680/12AU7**	V
—	62500	1600	100	—	—	6-2	9A	**WL-6681/12AX7**	V
—	—	11500	33	—	—	6-2	9AJ	**WL-6922**	II
6.6	50000	2050	—	—	—	5-2	7EN	**WL-6954**	III
—	7700	2200	17	—	—	6-2	9A	**WL-7730**	VI
2.5	600000	6000	—	—	—	5-2	7CM	**WL-7732**	VI
—	11400	2200	25	—	—	5-1	7BS	**WL-9002**	I



Notes

1. Dual-control pentode.
2. Data is for each unit.
3. Data is for each unit, heaters in parallel connection have half the voltage and twice the current shown.
4. Sharp-cutoff pentode.
5. Electrometer tube.
6. Remote-cutoff pentode.
7. Heaters in parallel connection have half the voltage and twice the current shown.

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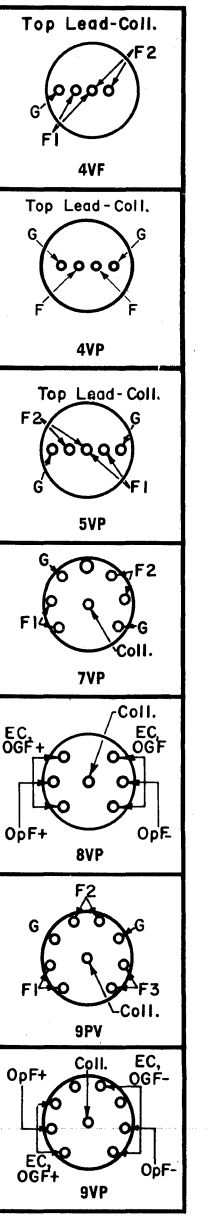
VACUUM MEASURING TUBES

Vacuum measuring tubes are designed to become part of an evacuated system. With suitable circuitry, the pressure in that system may be accurately determined. The Bayard-Alpert ionization gauge is used for measurement of very low pressures. The Schulz-Phelps ionization gauge measures pressures up to one atmosphere. The Pirani and thermocouple gauges are less accurate and measure only the higher pressures, but, their associated circuitry is much simpler.

These tubes are used in electron tube and semiconductor device processing control, vacuum deposition, research and rocket altimeter applications.

Ionization Gauges

TUBE TYPE	TUBE CLASS	RANGE TORR	ELECTRICAL				MECHANICAL				
			FILAMENT		COLL VOLTS	GRID VOLTS	TUBULATION		MAX. OAL (1)	MAX. DIAM.	BASE DWG.
			VOLTS	AMPS.			SIZE	MAT'L.			
WL-5966	Bayard-Alpert (2)	10^{-3} to 10^{-10}	7	2.5	—30	150	½"	Nonex	11½"	3⅛"	4VF
WL-7676	Schulz-Phelps	$5x10^{-1}$ to 10^{-5}	2	2.25	—60	60	½"	Nonex	7¼"	1 13/16"	8VP
WL-7903	Schulz-Phelps	$5x10^{-1}$ to 10^{-5}	1.3	2.4	—60	60	½"	Pyrex	7¼"	1 13/16"	9VP
WL-7904	Bayard-Alpert (2)	10^{-3} to 10^{-9}	4	1.5	—30	150	½"	Pyrex	7¼"	1 3/16"	9PV
WL-8057	Bayard-Alpert (3)	10^{-3} to 10^{-9}	7	2.5	—30	150	¾"	Nonex	5¼"	4 9/16"	5VP
WL-22612	Bayard-Alpert (2)	10^{-3} to 10^{-9}	7	2.5	—30	150	½"	Pyrex	11½"	3⅛"	4VF
WL-22613	Bayard-Alpert (2)	10^{-3} to 10^{-9}	7	2.5	—30	150	¾"	Pyrex	11½"	3¼"	4VF
WL-22614	Bayard-Alpert (2)	10^{-3} to 10^{-9}	7	2.5	—30	150	1"	Pyrex	11½"	3⅜"	4VF
WL-22618	Bayard-Alpert (2)	10^{-3} to 10^{-9}	7	2.5	—30	150	½"	Pyrex	5⅜"	5 9/16"	4VF
WL-22619	Bayard-Alpert (2)	10^{-3} to 10^{-9}	7	2.5	—30	150	¾"	Pyrex	5⅜"	5 9/16"	4VF
WL-22620	Bayard-Alpert (2)	10^{-3} to 10^{-9}	7	2.5	—30	150	1"	Pyrex	5⅜"	5 9/16"	4VF
WL-22627	Bayard-Alpert (2)	10^{-3} to 10^{-10}	7	2.5	—30	150	¾"	Pyrex	8"	2⅛"	7VP
WL-22637	Bayard-Alpert (3)	10^{-3} to 10^{-9}	7	2.5	—30	150	¾"	Pyrex	6⅜"	5 9/16"	5VP
WL-22640	Bayard-Alpert (3)	10^{-3} to 10^{-9}	7	2.5	—30	150	¾"	Kovar	6⅜"	5 1/16"	5VP
WL-22643	Bayard-Alpert (3)	10^{-3} to 10^{-9}	7	2.5	—30	150	¾"	Pyrex	8"	2⅛"	7VP
WL-22754	Bayard-Alpert (4)	10^{-3} to 10^{-9}	2.5	2.5	—30	150	¾"	Nonex	5¼"	4 9/16"	5VP
WL-22868	Bayard-Alpert (4)	10^{-3} to 10^{-9}	2.5	2.5	—30	150	¾"	Pyrex	5¼"	4 9/16"	5VP
WL-22869	Bayard-Alpert (4)	10^{-3} to 10^{-9}	2.5	2.5	—30	150	¾"	Kovar	5¼"	4 9/16"	5VP
WL-22923	Schulz-Phelps	$5x10^{-1}$ to 10^{-5}	2	2.25	—60	60	½"	Kovar	7¼"	1 13/16"	9VP
WL-22947	Bayard-Alpert (4)	10^{-3} to 10^{-9}	2.5	2.5	—30	150	¾"	Nonex	5¼"	4 9/16"	4VP
WL-22948	Bayard-Alpert (4)	10^{-3} to 10^{-9}	2.5	2.5	—30	150	¾"	Pyrex	5¼"	4 9/16"	4VP
WL-22949	Bayard-Alpert (4)	10^{-3} to 10^{-9}	2.5	2.5	—30	150	¾"	Kovar	5¼"	4 9/16"	4VP

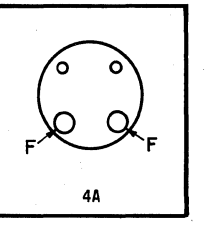


Notes

1. Excluding flexible leads. Length and diameter describe space to contain tube.
2. Grid outgassed by electron bombardment.
3. Grid outgassed by a-c current conduction.
4. Non-burn-out filament and grid outgassed by a-c current conduction.

Pirani Tubes

TUBE TYPE	FILAMENT		TUBULATION		RANGE TORR	MAX. OAL	MAX. DIAM.	BASE DWG.
	MAT'L.	AMPS.	SIZE	GLASS				
WL-762	Platinum	0 to 0.3	⅜"	Nonex	1 to $5x10^{-4}$	7 15/16"	1 1/16"	4A
WL-765	Platinum	0 to 0.3	⅝"	Nonex	1 to $5x10^{-4}$	6¾"	1 1/16"	4A
WL-765A	Platinum	0 to 0.3	None	None	1 to $5x10^{-4}$	5¼"	1 1/16"	4A



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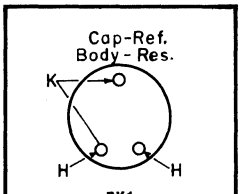
MICROWAVE TUBES AND DEVICES

Microwave Tubes and Devices fall in three main categories:
Magnetrons: Magnetrons generate energy in the microwave frequencies by interaction of an electron in a combined electrostatic and magnetic field with integral resonant cavities. They are widely used in radar transmitter, microwave test, altimeter and telemetry instruments.
Reflex Klystrons: Reflex Klystrons generate low-power energy in the microwave frequencies by electron reflection excitation of an integral resonator. They are used in radar receivers, low-power radar transmitters, telemetry, microwave communications, microwave test equipment and as parametric amplifier pumps.
Reference Cavities: Reference cavities are fixed-frequency, temperature compensated, vacuum-sealed devices used as frequency standards in microwave transmission equipment.

Reflex Klystrons

	ELECTRICAL				MECHANICAL		
TUBE TYPE	FREQ. GC	OUTPUT MILLIWATTS	BEAM VOLTS	REFL VOLTS	OUTPUT MATES	SIZE (1) L x W x H	BASE DWG.
WL-106	8.1-12.4	180	500	—100 to —600	UG-39/U	3⅛"x1¾"x1¾"	RK1
WL-107	7.5-11	180	500	—100 to —600	UG-39/U	3⅛"x1¾"x1¾"	RK1
WL-108	12.4-18	120	600	—150 to —600	UG-419/U	3⅛"x1¾"x1¾"	RK1
WL-109	Note 2	55	300	—150	UG-39/U	2¼"x1¼"x¾"	RK1
WL-110	12.4-14.5	220	600	—150 to —400	UG-419/U	3⅛"x1¾"x1¾"	RK1
WL-111	14-17.5	100	600	—200 to —600	UG-419/U	3⅛"x1¾"x1¾"	RK1
WL-113	7.5-11	180	500	—100 to —600	UG-39/U	3"x1¾"x1¾"	RK2
WL-114	8.1-12.4	180	500	—100 to —600	UG-39/U	3"x1¾"x1¾"	RK2
WL-115	8.5-10	400	500	—150 to —550	UG-39/U	3"x1¾"x1¾"	RK2
WL-116	12.4-14.5	220	600	—150 to —400	UG-419/U	3"x1¾"x1¾"	RK2
WL-117	12.4-18	120	600	—150 to —600	UG-419/U	3"x1¾"x1¾"	RK2
WL-118	14-17.5	100	600	—250 to —600	UG-419/U	3"x1¾"x1¾"	RK2
WL-119	Note 2	450	500	—295	UG-419/U	2⅜"x1⅝"x1⅝"	RK2
WL-121	7.5-11	180	500	—100 to —600	UG-39/U	4½"x1¾"x1¾"	RK1
WL-122	8.1-12.4	180	500	—100 to —600	UG-39/U	4½"x1¾"x1¾"	RK1
WL-123	12.4-14.5	220	600	—150 to —400	UG-419/U	4½"x1¾"x1¾"	RK1
WL-124	12.4-18	120	600	—150 to —600	UG-419/U	4½"x1¾"x1¾"	RK1
WL-126	14-17.5	100	600	—250 to —600	UG-419/U	4½"x1¾"x1¾"	RK1
WL-128	8.1-12.4	180	500	—100 to —600	UG-39/U	3⅛"x1¾"x1¾"	RK1
WL-129	12.4-18	120	600	—150 to —600	UG-419/U	3⅛"x1¾"x1¾"	RK1
WL-130	10-11.5	500	500	—100 to —500	UG-39/U	3⅛"x1¾"x1¾"	RK1
WL-132	Note 4	725	500	—300	UG-39/U	2⅜"x1⅝"x1⅝"	RK2
WL-133	10.5-12.2	200	400	—100 to —600	UG-39/U	3⅛"x1¾"x1¾"	RK1
WL-134	8.2-11.5	250	500	—100 to —600	UG-39/U	3⅛"x1¾"x1¾"	RK1
WL-135	10.525	100	300	—200	UG-39/U	2⅜"x1⅝"x1¼"	RK2
WL-136	10.6-12.4	200	500	—100 to —500	UG-39/U	3⅛"x1¾"x1¾"	RK1
WL-137	9.5-10.9	125	350	—170 to —350	UG-51/U	3⅛"x1¾"x1¾"	RK1
WL-138	8.5-10	200	350	—60 to —120	UG-39/U	3⅛"x1¾"x1¾"	RK1
WL-139	7.5-8.5	400	500	—100 to —500	UG-39/U	3⅛"x1¾"x1¾"	RK1
WL-140	9-10.5	450	500	—100 to —500	UG-39/U	3⅛"x1¾"x1¾"	RK1
WL-141	13.5	450	600	—450	UG-419/U	3"x1¾"x1¾"	RK1
WL-146	10.525	35	250	—70	UG-39/U	2¼"x1⅝"x1⅝"	RK4
WL-147	10.525	75	300	—200	UG-39/U	2¾"x1⅝"x1¼"	RK1
WL-148	10.525	75	300	—200	UG-39/U	2¾"x1⅝"x1¼"	RK5
WL-176	Note 2	55	300	—150	UG-39/U	2¼"x1¼"x¾"	RK1
WL-177	Note 5	725	500	—315	UG-39/U	2⅜"x1⅝"x1⅝"	RK2
WL-186	Note 5	80	300	—320	UG-39/U	2¾"x1⅝"x1⅝"	RK1
WL-187	8.5-10	100	350	—150 to —300	UG-39/U	3⅛"x1¾"x1¾"	RK1
WL-188	8.5-10.5	100	350	—100 to —250	UG-39/U	3"x1¾"x1¾"	RK3
WL-189	8.5-10	300	500	—330 to —440	UG-39/U	3⅛"x1¾"x1¾"	RK1
WL-191	8.5-10	650	500	—250 to —450	UG-39/U	3⅛"x1¾"x1¾"	RK1
WL-6310	8.5-10	85	300	—100 to —200	UG-39/U	3⅛"x1¾"x1¾"	RK1
WL-6312	8.5-10	85	300	—100 to —200	UG-39/U	3"x1¾"x1¾"	RK2
WL-6314	8.5-10.5	160	350	—100 to —200	UG-39/U	3"x1¾"x1¾"	RK2
WL-6315	8.5-10	85	300	—100 to —200	UG-39/U	3"x1¾"x1¾"	RK2
WL-6316	8.5-10	22	200	—85 to —150	UG-39/U	3"x1¾"x1¾"	RK3
WL-6780	8.5-10	22	200	—85 to —150	UG-39/U	3"x1¾"x1¾"	RK3
WL-6781	8.5-10	22	200	—85 to —150	UG-39/U	3"x1¾"x1¾"	RK3
WL-6915	8.5-10	85	300	—100 to —200	UG-39/U	3"x1¾"x1¾"	RK3



RK1

Flying Leads

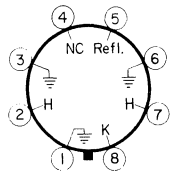
Yellow ..... H
Green ..... K
White ..... H, K
Gray ..... Refl.
Brown ..... Res.

RK2

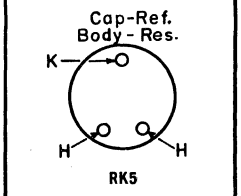
Viking Plug

A ..... H, K
B ..... H
C ..... Res.
D ..... Refl.
E ..... K

RK3



RK4



RK5

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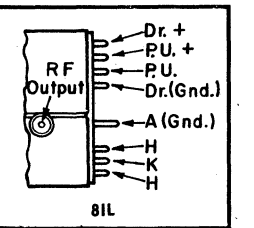
Microwave Tubes and Devices

continued

Magnetrons

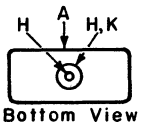
TUBE TYPE	FREQ. GC	RATINGS				MECHANICAL		
		PEAK KW	DUTY	ANODE KV	ANODE AMPS.	SIZE (1) L x W x H	OUTPUT MATES	BASE DWG.
WL-6177	4.255-4.37	0.001	CW	0.33	0.035	3¼"x2⅛"x3⅛"	UG-89/U	8IL
WL-6249B	8.5-9.6	250	0.0013	28	25	10¼"x4¼"x9⅝"	Mod UG-52A/U	MFL
WL-7008	8.5-9.6	230	0.0011	21.5	27.5	7 1/16"x4¾"x8¼"	Mod UG-52A/U	MDC
WL-7111	8.5-9.6	230	0.0011	21.5	27.5	7 1/16"x5¾"x6¼"	Mod UG-52A/U	MDC



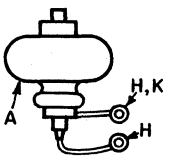
8IL

Reference Cavities

TUBE TYPE	ELECTRICAL				MECHANICAL		
	FREQ. GC	LOADED Q	INPUT WATTS	INSERT DB LOSS	SIZE (1) L x W x H	INPUT MATES	OUTPUT MATES
WL-1Q22	9.250	1900 to 2400	2	4 to 6	¾"x¾"x3 1/16"	UG-40/U	UG-40/U
WL-1Q23	9.280	1900 to 2400	2	4 to 6	¾"x¾"x3 1/16"	UG-40/U	UG-40/U
WL-1Q24	9.310	1900 to 2400	2	4 to 6	¾"x¾"x3 1/16"	UG-40/U	UG-40/U
WL-1Q25	9.375	1900 to 2400	2	4 to 6	¾"x¾"x3 1/16"	UG-40/U	UG-40/U
WL-5846	9.280	1900 to 2400	2	4 to 6	¾"x¾"x3 1/16"	UG-40/U	UG-40/U
WL-6040	9.308	1900 to 2400	2	4 to 6	¾"x¾"x3 1/16"	UG-40/U	UG-40/U
WL-6041	9.312	1900 to 2400	2	4 to 6	¾"x¾"x3 1/16"	UG-40/U	UG-40/U



MDC



MFL

Notes

1. Size of space necessary to include entire tube except flying leads.
2. Set at factory to any frequency between 8.5 and 11 GHz.
3. Fixed frequency, trimmable ±100 MHz, center frequency between 11 and 14 GHz.
4. Fixed frequency, trimmable ±150 MHz, center frequency between 8.5 and 11 GHz.
5. Fixed frequency, trimmable ±100 MHz, center frequency between 8.5 and 11 GHz.

INDUSTRIAL & MILITARY CATHODE RAY TUBES

Industrial & Military Cathode Ray Tubes are structurally similar to Television Picture Tubes. Their common characteristics include a gun which forms electrons emitted from a thermionic cathode into a cylindrical beam, suitable deflection provision for the beam to strike any area of the screen and a phosphor screen which emits light when high-velocity electrons strike it.

The Westinghouse Industrial & Military Cathode Ray Tubes represent a high degree of engineering achievement in the field of display tubes for specialized applications. High resolution guns, special phosphors and improved mechanical design are some of the distinctive features of these tubes. They are designed for service in oscilloscope, radar display, flying-spot scanner, video monitor and computer readout applications.

PHOSPHOR NUMBER	FLUORESCENT COLOR	PHOSPHORESCENT COLOR	PERSISTENCE CLASS	APPLICATIONS
1	Yellowish-Green	Yellowish-Green	Medium	Oscilloscope
2	Yellowish-Green	Yellowish-Green	Med. Short	General Purpose
4	White	White	Med. Short	Television
5	Blue	Blue	Med. Short	High-Speed Photography
7	White	Yellowish-Green	Long	Surveillance Radar
11	Blue	Blue	Med. Short	Photographic Recording
12	Orange	Orange	Long	Fire Control Radar
14	Purplish-Blue	Yellowish-Orange	Medium	Surveillance Radar
15	Green	Green	Short	Flying-Spot Scanning
16	Bluish-Purple (4)	Bluish-Purple (4)	Very Short	High-Speed Flying-Spot Scanning
17	White	Yellow	Long	Surveillance Radar
18	White	White	Medium	Television
19	Orange	Orange	Long	Night Viewed Radar
20	Yellow-Green	Yellow-Green	Med. Short	Photographic Recording
22	Note 5	Note 5	Note 6	Color Television
24	Green	Green	Short	Color TV Flying-Spot Scanning
25	Orange	Orange	Medium	Night Viewed Radar
26	Orange	Orange	Very Long	Surveillance Radar
27	Reddish-Orange	Reddish-Orange	Medium	Color TV Monitor
28	Yellow-Green	Yellow-Green	Long	Surveillance Radar
31	Green	Green	Med. Short	Oscilloscope
32	Purplish-Blue	Yellowish-Green	Long	Surveillance Radar
33	Orange	Orange	Very Long	Surveillance Radar
34	Bluish-Green	Yellow-Green	Very Long	Visual Information Storage

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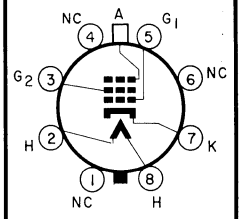
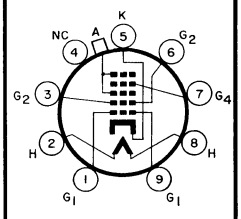
Industrial & Military Cathode Ray Tubes

continued

TUBE TYPE	BULB				ELECTRICAL					MAX. OAL
	NOTE	FACE RAD.	BASE DWG.	DEFL. ANGLE	ANODE KV	FOCUS VOLTS	GRID 2 VOLTS	GRID 1 VOLTS (1)	LINE WIDTH	
3JP-	3	8″	14J	ES	4	400 to 690	2000	—45 to —75	—	10.188″
3JP-A	3	8″	14J	ES	4	400 to 690	2000	—45 to —75	0.030″	10.188″
3WP-	3	Flat	12T	ES	2	330 to 620	—	—60 to —100	0.026″	11.625″
5CEP-	2	Flat	12Q	42°	10	2070 to 2370	300	—40 to —65	0.0015″	13.5″
5DEP-	3	20″	12E	ES	2	340 to 640	—	—90 max.	0.023″	15.125″
5DKP-	2	24″	5AN	53°	8	Mag.	250	—30 to —75	0.006″	11.5″
5PP-A	3	24″	5AN	53°	5	Mag.	250	—25 to —70	0.010″	11.5″
5UP-	3	20″	12E	ES	2	340 to 640	—	—90 max.	0.023″	15.125″
5WP-	3	Flat	12C	50°	27	4200 to 5400	200	—42 to —98	0.008″	11.812″
5ZP-	2	Flat	12C	40°	27	5544 to 7056	200	—42 to —98	0.0045″	14.75″
7ABP-	3	24″	12M	50°	7	0 to 250	300	—33 to —77	0.012″	13.5″
7ABP-A	2	24″	12M	50°	7	0 to 250	300	—33 to —77	0.012″	13.5″
7AUP-	4	24″	9HT	70°	8	0 to 300	300	—25 to —60	0.012″	8.5″
7BP-A	3	24″	5AN	53°	7	Mag.	250	—25 to —70	—	13.625″
7BP-B	3	24″	5AN	53°	7	Mag.	250	—25 to —70	0.012″	13.625″
7MP-	3	24″	12D	50°	7	Mag.	250	—27 to —63	0.012″	13.125″
7TP-	3	24″	12Q	50°	10	1170 to 1590	200	—18 to —48	0.012″	13.5″
7VP-	3	20″	14R	ES	2.5	670 to 1000	—	—70 max.	0.040″	14.875″
8CP-	3	20″	14J	ES	4	540 to 800	2000	—24 to —56	—	16.875″
8HP-	5	27″	12L	90°	11	0 to 300	300	—28 to —72	0.012″	10.25″



5AN



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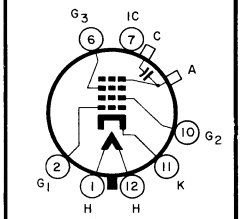

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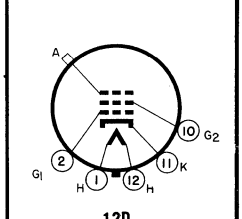

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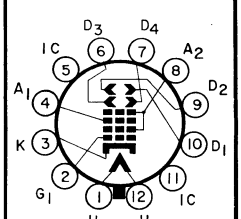

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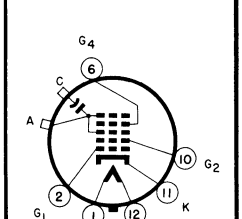

12L

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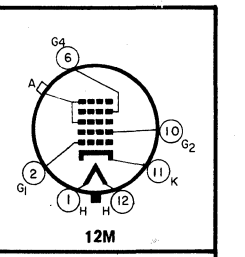
Industrial & Military Cathode Ray Tubes

continued

TUBE TYPE	BULB				ELECTRICAL					MAX. OAL
	NOTE	FACE RAD.	BASE DWG.	DEFL. ANGLE	ANODE KV	FOCUS VOLTS	GRID 2 VOLTS	GRID 1 VOLTS (1)	LINE WIDTH	
8KP-	5	27″	12M	90°	16	0 to 400	300	—35 to —72	—	12.25″
10KP-A	3	42″	12D	50°	10	Mag.	300	—35 to —72	0.015″	18″
10KP-B	2	42″	12D	50°	10	Mag.	300	—35 to —72	0.015″	18″
10SP-	2	42″	12Q	50°	14	1640 to 2225	200	—18 to —48	0.015″	17″
10UP-A	2	42″	12M	50°	10	−150 to +150	300	—33 to —77	0.015″	18″
10VP-	2	42″	12N	50°	11	Mag.	250	—28 to —72	—	18″
10WP-	3	42″	12M	50°	10	0 to 600	300	—35 to —75	0.015″	17.312″
10WP-A	2	42″	12M	50°	10	0 to 600	300	—35 to —75	0.015″	17.312″
12ABP-	3	40″	12M	55°	10	0 to 300	300	—28 to —72	0.019″	18.375″
12ABP-A	2	40″	12M	55°	10	0 to 300	300	—28 to —72	0.019″	18.375″
12SP-B	2	40″	12D	55°	9	Mag.	250	—27 to —63	0.017″	19.125″
12SP-D	2	40″	12D	55°	9	Mag.	250	—27 to —63	0.015″	19.125″
14WP-	5	24″	12L	90°	12	−50 to +350	300	—28 to —72	—	13.562″
16AKP-	2	56.312″	12M	53°	12	0 to 400	300	—35 to —75	0.025″	22.438″
16ALP-	2	56.312″	12M	53°	12	0 to 400	300	—35 to —75	0.025″	23.938″
17DWP-	5	27″	12L	70°	18	0 to 400	300	—33 to —77	—	19.562″
21EWP-	5	33″	12D	72°	16	Mag.	300	—33 to —75	0.018″	23.812″



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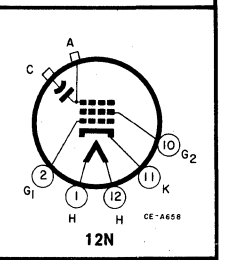

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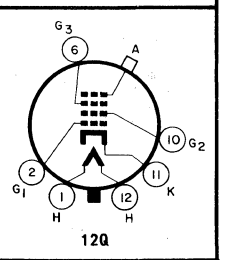

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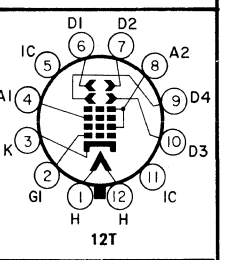

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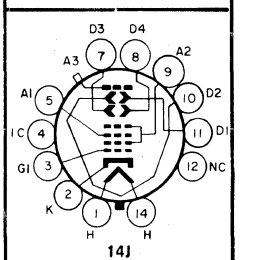

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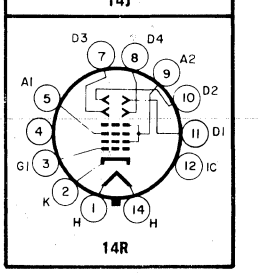

14R

Notes

1. For cutoff.
2. Aluminized screen, round faceplate.
3. Round faceplate.
4. Aluminized screen, round faceplate, 0.9″ diameter neck, 6.3 volt — 300 mA heater.
5. Aluminized screen, rectangular faceplate.

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PRICES

Prices in this MASTER should not be considered as final. INQUIRE ABOUT LATEST PRICES AND DELIVERY.

DISCOUNTS

Trade discounts apply in most cases where LIST PRICES are shown.

ORDERING

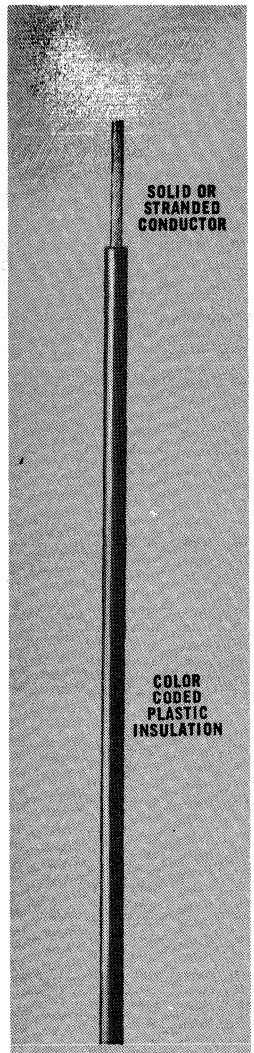
Since previous editions of the MASTER are frequently referred to, it is important, when ordering, to mention specifically the edition and page number, also the catalog number of each item. This will avoid possible confusion and delay.

INVENTORY

While most distributors maintain a large and varied stock, they do not represent that they stock all manufacturers' products shown in this MASTER catalog.

Mil-W-76B Plastic Wire

TYPE MW — UNCOVERED PLASTIC



DESCRIPTION: Solid or extra flexible stranded tinned copper, color coded **medium wall** polyvinylchloride insulation. **(Nom. wall thickness .016".)**

CHARACTERISTICS: Temperature rating −40°C to +80°C, Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

STRANDED

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOMINAL O.D.	*STOCK COLORS
1550	MW-C 24(7)U	24	7/32	.059"	1-30
1551	MW-C 22(7)U	22	7/30	.064"	1-30
1553	MW-C 20(10)U	20	10/30	.073"	1-30
1555	MW-C 18(16)U	18	16/30	.084"	1-30
1557	MW-C 16(26)U	16	26/30	.095"	1-30
1559	MW-C 14(41)U	14	41/30	.110"	1-19, 28, 29, 30
1560	MW-C 12(65)U	12	65/30	.125"	1-19, 28, 29, 30

SOLID

1561/24	MW-C 24(1)U	24	1	.055"	1-30
1561	MW-C 22(1)U	22	1	.060"	1-30
1563	MW-C 20(1)U	20	1	.066"	1-30
1565	MW-C 18(1)U	18	1	.074"	1-10
1567	MW-C 16(1)U	16	1	.083"	1-10

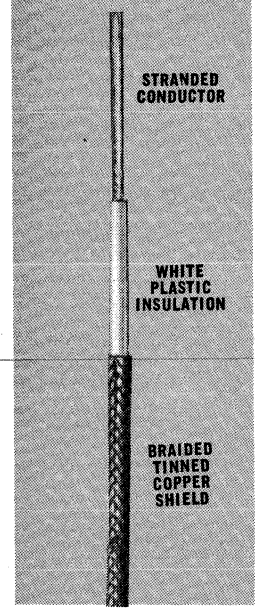
***STOCK COLORS**

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet
20—White/Black/Red
21—White/Black/Green
22—White/Black/Yellow
23—White/Black/Blue
24—White/Black/Brown
25—White/Black/Orange
26—White/Black/Gray
27—White/Black/Violet
28—Tan
29—Pink
30—Dark Blue

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED

* Other striped color combinations available to order.

TYPE MW — SHIELDED



DESCRIPTION: Extra flexible stranded tinned copper, color coded **medium wall** polyvinylchloride insulation, braided tinned copper shield overall, 80% coverage. **(Nom. wall thickness .016".)**

CHARACTERISTICS: Temperature rating −40°C to +80°C, Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOMINAL O.D.	*STOCK COLORS
1350	MW-C 24(7)S	24	7/32	.075"	White
1351	MW-C 22(7)S	22	7/30	.085"	White
1352	MW-C 20(10)S	20	10/30	.095"	White
1353	MW-C 18(16)S	18	16/30	.105"	White
1354	MW-C 16(26)S	16	26/30	.115"	White
1355	MW-C 14(41)S	14	41/30	.130"	White
1356	MW-C 12(65)S	12	65/30	.145"	White

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

* Other solid colors and striped combinations available to order.

PRICES

Alpha No.	Sugg. Resale per 1000'	Alpha No.	Sugg. Resale per 1000'	Alpha No.	Sugg. Resale per 1000'
1550	7.44	1559	37.07	1565	13.86
1551	8.66	1560	60.63	1567	19.58
1553	11.43	1561/24	6.93	1350	22.44
1555	16.46	1561	7.10	1351	23.76
1557	24.26	1563	9.53	1352	26.40

Alpha No.	Sugg. Resale per 1000'
1353	31.35
1354	42.08
1355	49.50
1356	66.00

ALPHA electronic WIRE

Net

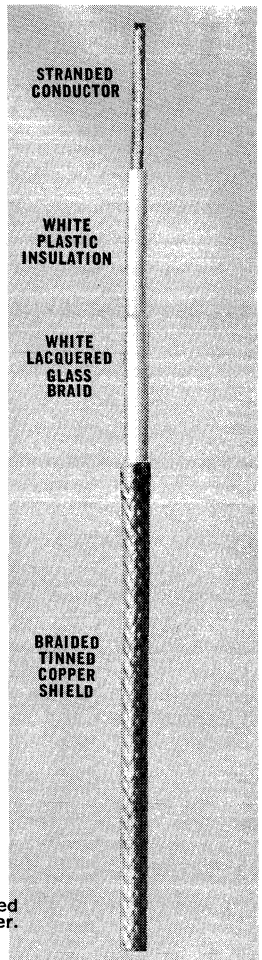
© U.C.P., Inc.

Mil-W-76B Plastic Wire

TYPE MW — GLASS BRAID — SHIELDED

DESCRIPTION: Extra flexible stranded tinned copper, white **medium wall** polyvinylchloride insulation, white flame retardant lacquered glass braid with tinned copper shield overall, 80% coverage. **(Nom. wall thickness .016".)**

CHARACTERISTICS: Temperature rating −40°C to +80°C, Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.



ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOMINAL O.D.	*STOCK COLOR
1194/24	MW-C 24(7)BS	24	7/32	.091"	White
1194/22	MW-C 22(7)BS	22	7/30	.097"	White
1194	MW-C 20(10)BS	20	10/30	.105"	White
1196	MW-C 18(16)BS	18	16/30	.117"	White
1197	MW-C 16(26)BS	16	26/30	.129"	White
1198	MW-C 14(41)BS	14	41/30	.143"	White
1199	MW-C 12(65)BS	12	65/30	.162"	White

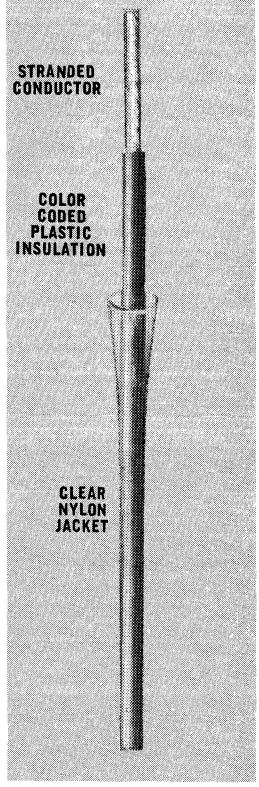
STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

* Other solid colors and striped combinations available to order.

TYPE MW — NYLON JACKET

DESCRIPTION: Extra flexible stranded tinned copper, color coded **medium wall** polyvinylchloride insulation, clear nylon (polyamide) jacket overall. **(Nom. wall thickness .016".)**

CHARACTERISTICS: Temperature rating −40°C to +90°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.



ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. JKT. THICKNESS	NOM. O.D.	*STOCK COLORS
1503	MW-C 24(7)J	24	7/32	.002"	.065"	1-10 as listed
1504	MW-C 22(7)J	22	7/30	.003"	.072"	1-10 as listed
1505	MW-C 20(10)J	20	10/30	.003"	.079"	1-10 as listed
1506	MW-C 18(16)J	18	16/30	.003"	.090"	1-10 as listed
1507	MW-C 16(26)J	16	26/30	.004"	.103"	1-10 as listed
1508	MW-C 14(41)J	14	41/30	.004"	.118"	1-6 as listed
1509	MW-C 12(65)J	12	65/30	.005"	.135"	1-3 as listed

***STOCK COLORS**
1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED

* Other solid colors and striped combinations available to order.

ALPHA electronic WIRE

PRICES

Alpha No.	Sugg. Resale per 1000'	Alpha No.	Sugg. Resale per 1000'	Alpha No.	Sugg. Resale per 1000'
1194/24	37.35	1197	56.10	1504	12.54
1194/22	37.55	1198	64.35	1505	14.27
1194	40.43	1199	85.80		
1196	44.55	1503	12.38		

Alpha No.	Sugg. Resale per 1000'
1506	21.75
1507	28.95
1508	40.50
1509	55.50

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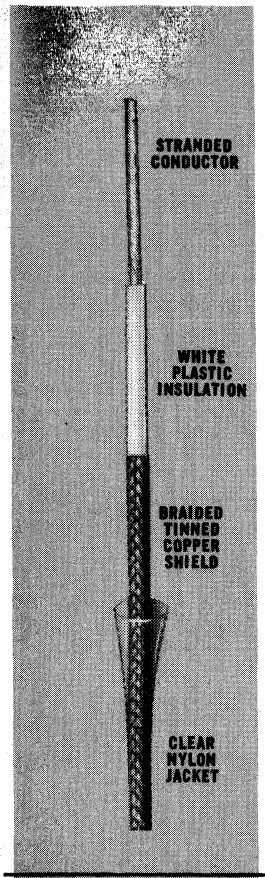
Net

Mil-W-76B Plastic Wire

TYPE MW — SHIELDED — NYLON JACKET



DESCRIPTION: Stranded tinned copper, white **medium wall** polyvinylchloride insulation, braided tinned copper shield, 80% minimum coverage, clear nylon (polyamide) jacket overall, (which can be striped to order for color identification). **(Nom. wall thickness .016".)**

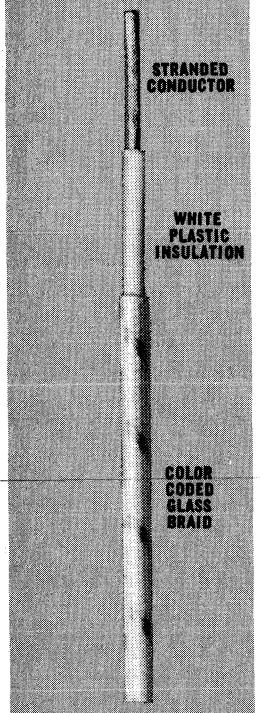
CHARACTERISTICS: Temperature rating −40°C to +90°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOMINAL JACKET	NOMINAL O.D.
1370	MW-C 24(7)SJ	24	7/32	.003″	.085″
1371	MW-C 22(7)SJ	22	7/30	.003″	.092″
1372	MW-C 20(7)SJ	20	7/28	.003″	.100″
1373	MW-C 18(19)SJ	18	19/30	.003″	.110″
1374	MW-C 16(19)SJ	16	19/29	.004″	.120″
1375	MW-C 14(19)SJ	14	19/27	.004″	.140″
1376	MW-C 12(19)SJ	12	19/25	.005″	.156″

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED.

Mil-W-76B Plastic Wire

TYPE MW — GLASS BRAID



DESCRIPTION: Extra flexible stranded tinned copper, white **medium wall** polyvinylchloride insulation, color coded flame retardant lacquered glass braid overall. **(Nom. wall thickness .016".)**

CHARACTERISTICS: Temperature rating −40°C to +80°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOMINAL O.D.	*STOCK COLORS
1590	MW-C 22(7)B	22	7/30	.080″	1-12 as listed below
1591	MW-C 20(10)B	20	10/30	.085″	1-12 as listed below
1592	MW-C 18(16)B	18	16/30	.090″	1-12 as listed below
1593	MW-C 16(26)B	16	26/30	.105″	1-12 as listed below
1594	MW-C 14(41)B	14	41/30	.120″	1, 11, 12 as listed below
1595	MW-C 12(65)B	12	65/30	.135″	1, 11, 12 as listed below

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED.

***STOCK COLORS**

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red

PRICES

Alpha No.	Sugg. Resale per 1000′	Alpha No.	Sugg. Resale per 1000′	Alpha No.	Sugg. Resale per 1000′
1370	34.43				
1371	34.65	1374	54.45	1590	17.82
1372	36.30	1375	90.75	1591	21.45
1373	41.25	1376	152.46	1592	26.73

Alpha No.	Sugg. Resale per 1000′
1593	33.00
1594	39.20
1595	66.00

ALPHA electronic WIRE

Net
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Mil-W-76B Plastic Wire

TYPE HW — UNCOVERED PLASTIC

DESCRIPTION: Stranded tinned copper, color coded **heavy wall** polyvinylchloride insulation.

CHARACTERISTICS: Temperature rating —40°C to +80°C. Resistant to acids, alkalis, oil, flame, moisture and fungus.

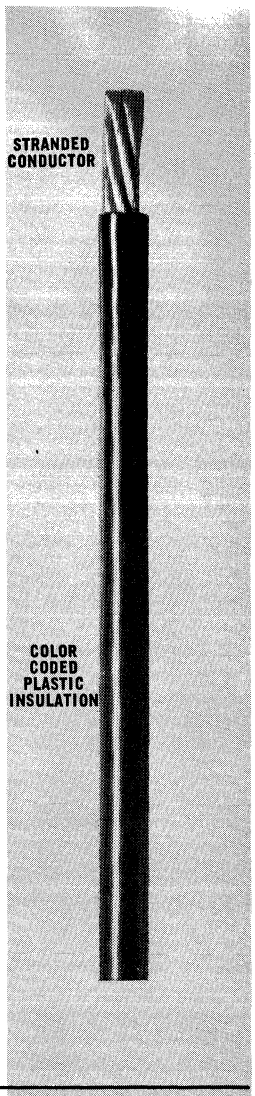
ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	VOLT RATING	NOM. O.D.	*STOCK COLORS
1571	HW-C 22(7)U	22	7/30	.032″	2500	.092″	1-10 as listed below
1573	HW-C 20(10)U	20	10/30	.032″	2500	.100″	1-10 as listed below
1575	HW-C 18(16)U	18	16/30	.032″	2500	.112″	1-10 as listed below
1577	HW-C 16(26)U	16	26/30	.032″	2500	.126″	White, Black, Red
1579	HW-C 14(41)U	14	41/30	.045″	600	.170″	White, Black, Red
1651	HW-C 12(65)U	12	65/30	.045″	600	.186″	White, Black, Red
1653	HW-C 10(105)U	10	105/30	.045″	600	.210″	White, Black, Red
1655	HW-C 8(133)U	8	133/29	.045″	600	.260″	White, Black, Red
1657	HW-C 6(133)U	6	133/27	.045″	600	.305″	White, Black, Red

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED

*** STOCK COLORS**

1—White 3—Red 5—Yellow 7—Brown 9—Gray (Slate)
2—Black 4—Green 6—Light Blue 8—Orange 10—Violet (Purple)

*Other solid and striped combinations available to order.



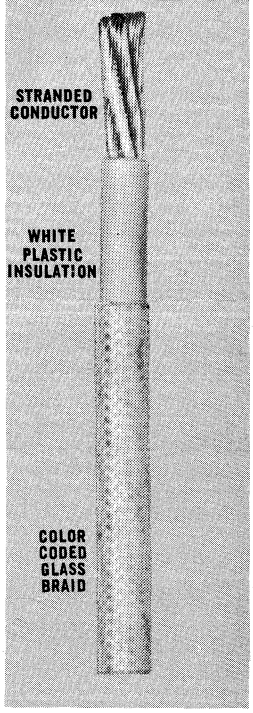
TYPE HW — GLASS BRAID

DESCRIPTION: Stranded tinned copper, white **heavy wall** polyvinylchloride insulation, color coded flame retardant lacquered glass braid overall.

CHARACTERISTICS: Temperature rating —40°C to +80°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.	STOCK COLORS
1598	HW-C 10(105)B	10	105/30	.045″	.230″	White, White/Black, White/Red
1599	HW-C 8(133)B	8	133/29	.045″	.280″	White, White/Black, White/Red
1599/6	HW-C 6(133)B	6	133/27	.045″	.325″	White, White/Black, White/Red

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED



ALPHA electronic WIRE

PRICES

Alpha No.	Sugg. Resale per 1000′				
1571	12.00	1579	43.56	1657	290.40
1573	13.73	1651	54.45	1598	119.79
1575	18.15	1653	90.75	1599	199.65
1577	23.60	1655	235.95	1599/6	268.62

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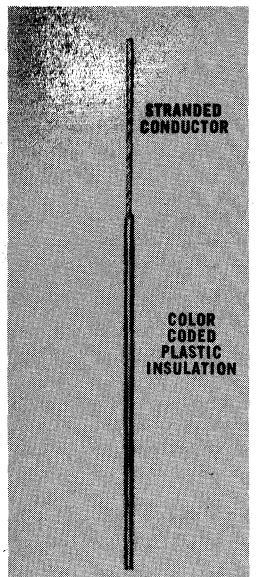
Mil-W-76B Plastic Wire

TYPE LW — UNCOVERED PLASTIC

Regular Tinned Conductor



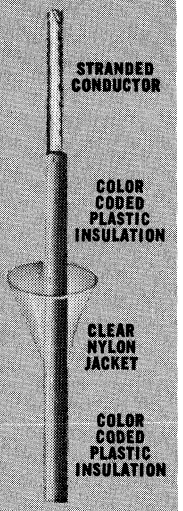
DESCRIPTION: Stranded tinned copper, color coded **light wall** polyvinylchloride insulation. **(Nom. wall thickness .010".)**

CHARACTERISTICS: Temperature rating −40°C to +80°C. Voltage rating 300 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.
1685	LW-C 30(7)U	30	7/38	.033"
1686	LW-C 28(7)U	28	7/36	.035"
1687	LW-C 26(7)U	26	7/34	.038"
1688	LW-C 24(7)U	24	7/32	.043"
1689	LW-C 22(7)U	22	7/30	.049"
1690	LW-C 20(7)U	20	7/28	.060"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED

TYPE LW — NYLON JACKET



DESCRIPTION: Stranded tinned copper, color coded **light wall** polyvinylchloride insulation, clear nylon (polyamide) jacket overall. Nominal Jacket Thickness, .002" **(Nom. wall thickness .010".)**

CHARACTERISTICS: Temperature rating −40°C to +90°C. Voltage rating 300 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.
1675	LW-C 30(7)J	30	7/38	.036"
1676	LW-C 28(7)J	28	7/36	.039"
1677	LW-C 26(7)J	26	7/34	.042"
1678	LW-C 24(7)J	24	7/32	.047"
1679	LW-C 22(7)J	22	7/30	.053"
1680	LW-C 20(7)J	20	7/28	.065"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED

STOCK COLORS

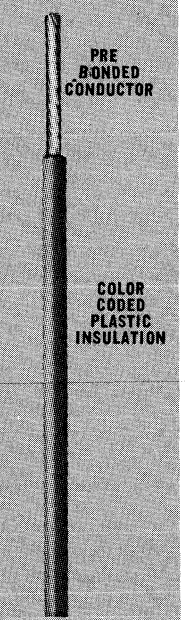
(Other striped combinations available to order.)

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet

Mil-W-16878D

TYPE B — UNCOVERED PLASTIC

Pre-Bonded Tinned Copper Conductor



DESCRIPTION: Each strand of the conductor is double tinned and then heated, which bonds the individual strands together for easy stripping. Color coded .010" polyvinylchloride insulation. The insulation meets requirements of MIL-W-16878D.

CHARACTERISTICS: Temperature rating −55°C to +105°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents, and fungus.

APPLICATION: A pre-bonded conductor is the ideal construction when leads are to be cut and stripped for point to point wiring. The pre-bonded conductor maintains much of the flexibility of an ordinary stranded wire but reduces processing and handling costs on soldering, retwisting of strands after stripping and hand tinning operations. Since the individual strands are bonded, expensive induction heating equipment is unnecessary.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.
3154	B-24	24	7/32	.010"	.044"
3155	B-22	22	7/30	.010"	.051"
3156	B-20	20	7/28	.010"	.059"
3157	B-18	18	7/26	.010"	.070"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED.

PRICES

Alpha No.	Sugg. Resale per 1000'						
1685	6.45	1689	7.13	1677	9.83	3154	9.87
1686	5.94	1690	8.10	1678	9.99	3155	11.60
1687	6.44	1675	9.66	1679	10.73	3156	16.01
1688	6.60	1676	9.66	1680	12.30	3157	22.70

ALPHA electronic WIRE

Net

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Mil-W-16878D Plastic Wire

TYPE B — UNCOVERED PLASTIC

Regular Tinned Copper Conductor

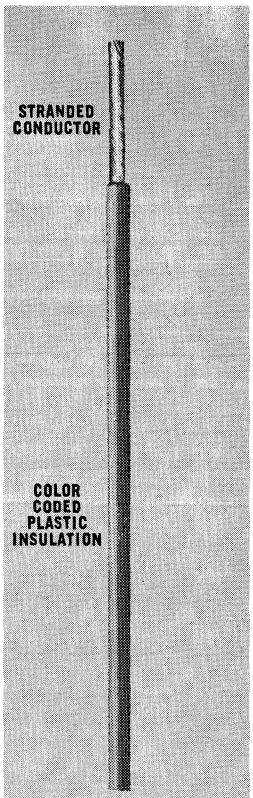
DESCRIPTION: Stranded tinned copper, color coded. .010" polyvinylchloride insulation.
CHARACTERISTICS: Temperature rating −55°C to +105°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents, and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.
1850	B-32	32	7/40	.010"	.028"
1851	B-30	30	7/38	.010"	.032"
1852	B-28	28	7/36	.010"	.034"
1853	B-26	26	7/34	.010"	.038"
1854	B-24	24	7/32	.010"	.043"
1854/19	B-24	24	19/36	.010"	.043"
1855	B-22	22	7/30	.010"	.050"
1855/19	B-22	22	19/34	.010"	.050"
1856	B-20	20	7/28	.010"	.058"
1856/19	B-20	20	19/32	.010"	.058"
1857	B-18	18	7/26	.010"	.068"
1857/19	B-18	18	19/30	.010"	.068"
1858/19	B-16	16	19/29	.010"	.077"
1859/19	B-14	14	19/27	.010"	.091"

***STOCK COLORS**
1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet

* Other striped color combinations to order.

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED.



TYPE B — NYLON JACKET

Regular Tinned Copper Conductor

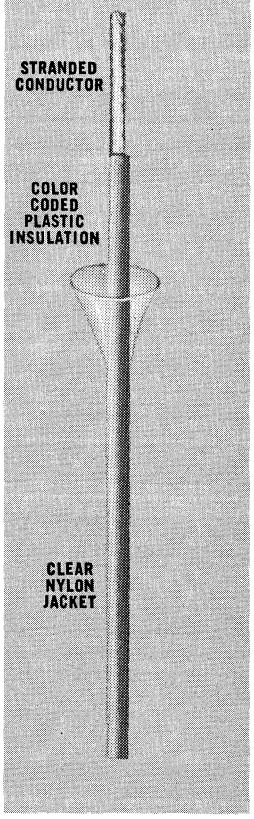
DESCRIPTION: Stranded tinned copper, color coded. .010" polyvinylchloride insulation, clear nylon (polyamide) jacket overall.
CHARACTERISTICS: Temperature rating −55°C to +115°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents, and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
1860	B-32	32	7/40	.010"	.003"	.035"
1861	B-30	30	7/38	.010"	.003"	.039"
1862	B-28	28	7/36	.010"	.003"	.041"
1863	B-26	26	7/34	.010"	.003"	.044"
1864	B-24	24	7/32	.010"	.003"	.049"
1864/19	B-24	24	19/36	.010"	.003"	.049"
1865	B-22	22	7/30	.010"	.003"	.056"
1865/19	B-22	22	19/34	.010"	.003"	.056"
1866	B-20	20	7/28	.010"	.003"	.064"
1866/19	B-20	20	19/32	.010"	.003"	.064"
1867	B-18	18	7/26	.010"	.003"	.074"
1867/19	B-18	18	19/30	.010"	.003"	.074"
1868/19	B-16	16	19/29	.010"	.003"	.085"
1869/19	B-14	14	19/27	.010"	.004"	.099"

*** STOCK COLORS**
1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet

*Other striped color combinations to order.

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED.



ALPHA electronic WIRE

PRICES

Alpha No.	Sugg. Resale per 1000'						
1850	10.73	1855/19	9.83	1860	13.20	1865/19	14.45
1851	8.58	1856	9.08	1861	12.47	1866	12.30
1852	7.43	1856/19	11.64	1862	11.81	1866/19	14.61
1853	8.91	1857	11.22	1863	11.48	1867	15.44
1854	7.68	1857/19	13.88	1864	10.32	1867/19	17.58
1854/19	9.50	1858/19	14.28	1864/19	12.63	1868/19	18.90
1855	8.42	1859/19	38.12	1865	11.48	1869/19	46.47

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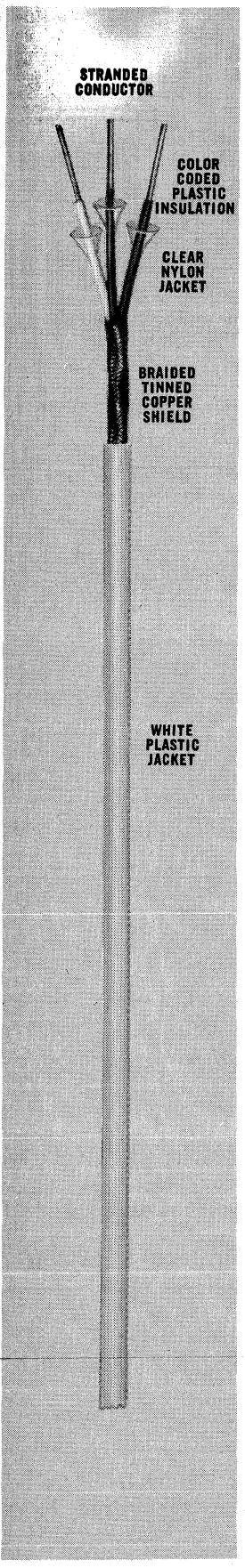
Mil-W-16878D
Multi-Conductor Cable



TYPE B — NYLON SHIELDED-PLASTIC JACKET

DESCRIPTION: Each conductor stranded tinned copper, .010″ polyvinylchloride insulation, color coded, clear nylon (polyamide) jacket, conductors cabled, braided tinned copper shield 90% coverage, **white** polyvinylchloride jacket overall.

CHARACTERISTICS: Temperature rating −55°C to +105°C. Voltage rating 600 volts, resistant to acids, alkalis, oil, flame, moisture, fungus, solvents.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. NYLON THICKNESS	NOM. OVERALL JACKET	NOM. O.D.
■ 3200	1	26	7/34	.010″	.003″	.010″	.087″
■ 3201	2	26	7/34	.010″	.003″	.014″	.138″
■ 3202	3	26	7/34	.010″	.003″	.014″	.142″
■ 3203	4	26	7/34	.010″	.003″	.016″	.162″
3210	1	24	19/36	.010″	.003″	.010″	.092″
3211	2	24	19/36	.010″	.003″	.016″	.152″
3212	3	24	19/36	.010″	.003″	.016″	.161″
■ 3213	4	24	19/36	.010″	.003″	.017″	.162″
3220	1	22	19/34	.010″	.003″	.010″	.100″
3221	2	22	19/34	.010″	.003″	.016″	.168″
3222	3	22	19/34	.010″	.003″	.017″	.178″
■ 3223	4	22	19/34	.010″	.003″	.019″	.174″
3230	1	20	19/32	.010″	.003″	.010″	.106″
3231	2	20	19/32	.010″	.003″	.019″	.186″
3232	3	20	19/32	.010″	.003″	.019″	.196″
■ 3233	4	20	19/32	.010″	.003″	.021″	.193″
3240	1	18	19/30	.010″	.003″	.012″	.120″
3241	2	18	19/30	.010″	.003″	.021″	.210″
3242	3	18	19/30	.010″	.003″	.022″	.227″
■ 3243	4	18	19/30	.010″	.003″	.023″	.218″
■ 3245	1	16	19/29	.010″	.003″	.016″	.137″
■ 3246	2	16	19/29	.010″	.003″	.023″	.236″
■ 3247	3	16	19/29	.010″	.003″	.023″	.240″
■ 3248	4	16	19/29	.010″	.003″	.025″	.274″

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

■ **NEW**

COLOR CODE OF CONDUCTORS
1—White, 2—Black, 3—Red, 4—Green

PRICES

Alpha No.	Sugg. Resale per 500′						
3200	29.93	3212	61.16	3230	33.35	3242	87.14
3201	41.73	3213	69.30	3231	55.88	3243	96.08
3202	58.28	3220	29.45	3232	75.36	3245	39.38
3203	67.73	3221	48.86	3233	81.90	3246	67.73
3210	30.32	3222	67.74	3240	34.82	3247	92.93
3211	44.79	3223	71.66	3241	65.84	3248	103.95

ALPHA electronic WIRE

Net

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Mil-W-16878D Plastic Wire

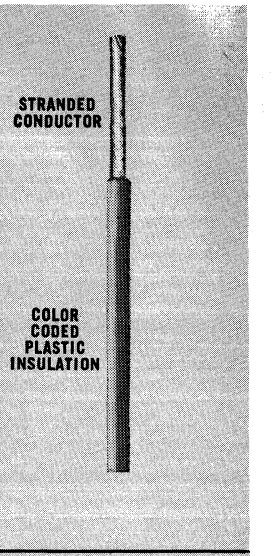
TYPE C — UNCOVERED PLASTIC

DESCRIPTION: Stranded tinned copper, color coded .016" polyvinylchloride insulation.

CHARACTERISTICS: Temperature rating —55°C to +105°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.	* STOCK COLORS
1830	C-24	24	7/32	.016"	.058"	1-19 as listed below
1831	C-22	22	7/30	.016"	.064"	1-19 as listed below
1832	C-20	20	7/28	.016"	.072"	1-19 as listed below
1833	C-18	18	7/26	.016"	.082"	1-19 as listed below
1834	C-16	16	19/29	.016"	.091"	1 & 11-19 as listed below
1835	C-14	14	19/27	.016"	.105"	1 & 11-19 as listed below
1836	C-12	12	19/25	.016"	.124"	1 & 11-19 as listed below

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED



TYPE C — NYLON JACKET

DESCRIPTION: Stranded tinned copper, color coded .016" polyvinylchloride insulation, clear nylon (polyamide) jacket overall.

CHARACTERISTICS: Temperature rating —55°C to +115°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

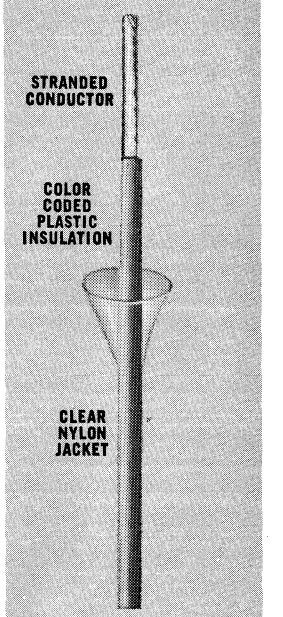
ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICK.	NOMINAL O.D.	* STOCK COLORS
1840	C-24	24	7/32	.016"	.002"	.065"	1-19 as listed below
1841	C-22	22	7/30	.016"	.003"	.072"	1-19 as listed below
1842	C-20	20	7/28	.016"	.003"	.079"	1-19 as listed below
1843	C-18	18	7/26	.016"	.003"	.090"	1-19 as listed below
1844	C-16	16	19/29	.016"	.004"	.099"	1 & 11-19 as listed below
1845	C-14	14	19/27	.016"	.004"	.114"	1 & 11-19 as listed below
1846	C-12	12	19/25	.016"	.005"	.135"	1 & 11-19 as listed below

***STOCK COLORS**

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet

* Other solid colors and striped combinations available to order.

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, MARKED AND STRIPPED



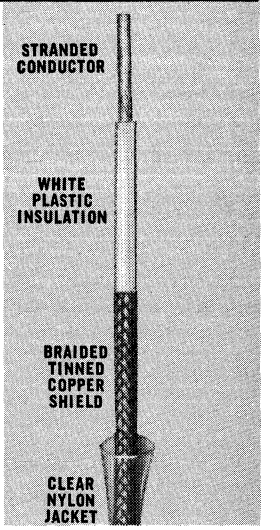
TYPE C — SHIELDED — NYLON JACKET

DESCRIPTION: Stranded tinned copper, **white** .016" polyvinylchloride insulation, braided tinned copper shield, 90% coverage, clear nylon (polyamide) jacket overall (which can be striped to order for color identification).

CHARACTERISTICS: Temperature rating —55°C. to +115°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL JKT. THICKNESS	NOMINAL O.D.
1470	C-24	24	7/32	.016"	.005"	.091"
1471	C-22	22	7/30	.016"	.005"	.098"
1472	C-20	20	7/28	.016"	.005"	.105"
1473	C-18	18	19/30	.016"	.005"	.115"
1474	C-16	16	19/29	.016"	.005"	.125"
1475	C-14	14	19/27	.016"	.005"	.142"
1476	C-12	12	19/25	.016"	.005"	.156"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED



ALPHA electronic WIRE

PRICES

Alpha No.	Sugg. Resale per 1000'						
1830	9.24	1835	31.19	1843	20.13	1471	50.82
1831	10.56	1836	59.90	1844	26.40	1472	55.17
1832	12.54	1840	14.85	1845	39.60	1473	66.26
1833	16.50	1841	14.85	1846	77.15	1474	80.22
1834	21.45	1842	18.15	1470	47.19	1475	110.36
						1476	174.24

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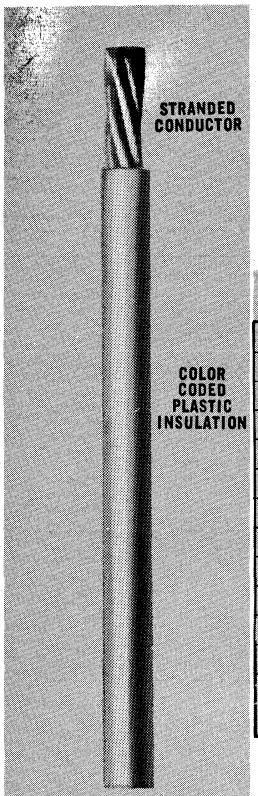
Mil-W-16878D Plastic Wire



TYPE D — UNCOVERED PLASTIC

DESCRIPTION: Stranded tinned copper, color coded polyvinylchloride insulation.

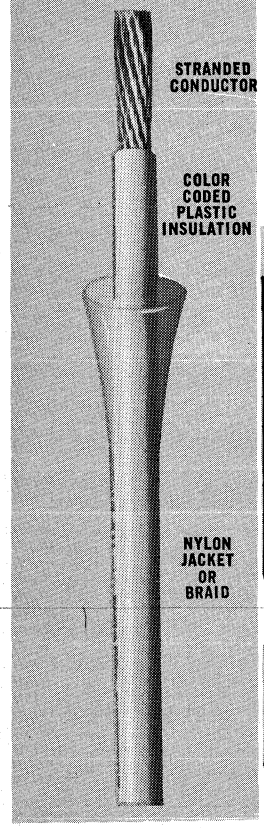
CHARACTERISTICS: Temperature rating −55°C to +105°C. Voltage rating 3000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.	*STOCK COLORS
1870	D-24	24	7/32	.029″	.082″	Wh., Blk., Red
1871	D-22	22	7/30	.029″	.088″	Wh., Blk., Red
1872	D-20	20	7/28	.029″	.096″	Wh., Blk., Red
1873	D-18	18	7/26	.029″	.106″	Wh., Blk., Red
1874	D-16	16	19/29	.029″	.115″	Wh., Blk., Red
1875	D-14	14	19/27	.029″	.129″	Wh., Blk., Red
1876	D-12	12	19/25	.034″	.158″	Wh., Blk., Red
1877	D-10	10	37/26	.037″	.185″	White
1878	D- 8	8	133/29	.040″	.247″	White
1879	D- 6	6	133/27	.040″	.290″	White
■1879/4	D- 4	4	133/25	.045″	.355″	White
■1879/2	D- 2	2	665/30	.045″	.425″	White
■1879/1	D- 1	1	817/30	.050″	.480″	White
■1879/0	D- 0	0	1045/30	.052″	.530″	White

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED

* Other solid colors and striped combinations available to order.

■ NEW



TYPE D — NYLON JACKET

DESCRIPTION: Stranded tinned copper, color coded polyvinylchloride insulation. Sizes 24-6, clear nylon (polyamide) jacket overall, sizes 4-0, white nylon braid overall.

CHARACTERISTICS: Temperature rating −55°C to +115°C. Voltage rating 3000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

CLEAR NYLON JACKET

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOMINAL O.D.	*STOCK COLORS
1880	D-24	24	7/32	.029″	.004″	.090″	Wh., Blk., Red
1881	D-22	22	7/30	.029″	.004″	.096″	Wh., Blk., Red
1882	D-20	20	7/28	.029″	.004″	.104″	Wh., Blk., Red
1883	D-18	18	7/26	.029″	.004″	.114″	Wh., Blk., Red
1884	D-16	16	19/29	.029″	.005″	.125″	Wh., Blk., Red
1885	D-14	14	19/27	.029″	.005″	.139″	Wh., Blk., Red
1886	D-12	12	19/25	.034″	.005″	.168″	Wh., Blk., Red
1887	D-10	10	37/26	.037″	.006″	.197″	White
1888	D- 8	8	133/29	.040″	.009″	.265″	White
1889	D- 6	6	133/27	.040″	.010″	.310″	White

WHITE NYLON BRAID

■1889/4	D- 4	4	133/25	.045″	.010″	.375″	White
■1889/2	D- 2	2	665/30	.045″	.011″	.447″	White
■1889/1	D- 1	1	817/30	.050″	.011″	.502″	White
■1889/0	D- 0	0	1045/30	.052″	.011″	.552″	White

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED

* Other solid colors and striped combinations available to order

■ NEW

PRICES

Alpha No.	Sugg. Resale per 1000′						
1870	17.85	1877	92.40	1880	26.51	1887	152.46
1871	18.15	1878	214.50	1881	30.50	1888	297.66
1872	21.45	1879	264.00	1882	34.67	1889	399.30
1873	26.40	1879/4	366.30	1883	43.56	1889/4	429.00
1874	39.60	1879/2	577.50	1884	61.71	1889/2	676.50
1875	44.55	1879/1	709.50	1885	76.23	1889/1	821.70
1876	70.95	1879/0	891.00	1886	110.72	1889/0	990.00

ALPHA electronic WIRE

Net

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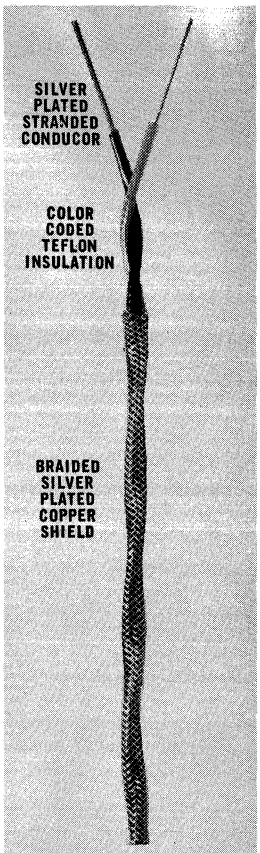
Mil-W-16878D Shielded Teflon† Cables

NO OUTER COVERING OVER SHIELD



DESCRIPTION: Each conductor stranded silver plated copper, Type E extruded TFE .010" insulation, braided silver plated copper shield over conductor(s), 90% coverage.

CHARACTERISTICS: Temperature rating −65°C to +200°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

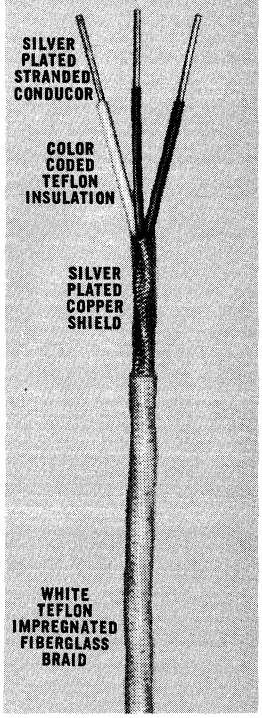
ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.	NOM. CAP. IN MMF SHIELD TO COND.	NOM. CAP. IN MMF COND. TO COND.
2809	1	24	19/36	.069"	45	—
2809/2	2	24	19/36	.112"	35	25
2809/3	3	24	19/36	.120"	35	20
2809/4	4	24	19/36	.132"	35	20
2812	1	22	19/34	.075"	55	—
2812/2	2	22	19/34	.124"	45	25
2812/3	3	22	19/34	.132"	35	25
2812/4	4	22	19/34	.146"	35	25
2815	1	20	19/32	.083"	55	—
2815/2	2	20	19/32	.142"	95	25
2815/3	3	20	19/32	.151"	85	25
2815/4	4	20	19/32	.168"	140	30
2818	1	18	19/30	.093"	70	—
2818/2	2	18	19/30	.162"	60	35
2818/3	3	18	19/30	.172"	60	35
2818/4	4	18	19/30	.192"	55	35
■2807	1	16	19/29	.103"	107	—
■2807/2	2	16	19/29	.184"	67	35

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS
1—White 3—Red
2—Black 4—Green

■ NEW

TEFLON IMPREGNATED BRAID OVER SHIELD



DESCRIPTION: Each conductor stranded silver plated copper, Type E extruded .010" TFE Teflon insulation, color coded, cabled, braided silver plated copper shield, 90% coverage, braided white fused Teflon impregnated, fiberglass braid overall.

CHARACTERISTICS: Temperature rating −65°C to +200°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.	NOM. CAP. IN MMF SHIELD TO COND.	NOM. CAP. IN MMF COND. TO COND.
2811	1	24	19/36	.081"	45	—
2811/2	2	24	19/36	.126"	35	25
2811/3	3	24	19/36	.133"	35	20
2811/4	4	24	19/36	.144"	35	20
2814	1	22	19/34	.088"	55	—
2814/2	2	22	19/34	.137"	45	25
2814/3	3	22	19/34	.144"	35	25
2814/4	4	22	19/34	.158"	35	25
2817	1	20	19/32	.097"	55	—
2817/2	2	20	19/32	.154"	95	25
2817/3	3	20	19/32	.163"	85	25
2817/4	4	20	19/32	.180"	140	30
2819	1	18	19/30	.106"	70	—
2819/2	2	18	19/30	.174"	60	35
2819/3	3	18	19/30	.185"	60	35
2819/4	4	18	19/30	.205"	55	35
■2820	1	16	19/29	.117"	107	—
■2820/2	2	16	19/29	.196"	67	35

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS
1—White 2—Black 3—Red 4—Green

†T.M. DuPont

■ NEW

ALPHA electronic WIRE

PRICES

Alpha No.	Sugg. Resale per 500'					Alpha No.	Sugg. Resale per 500'
2809	86.63	2815	116.09	2807/2	340.20	2817/2	311.85
2809/2	183.47	2815/2	265.43	2811	148.13	2817/3	426.20
2809/3	266.55	2815/3	347.88	2811/2	230.25	2817/4	564.27
2809/4	339.23	2815/4	460.85	2811/3	304.58	2819	204.44
2812	97.02	2818	140.33	2811/4	400.20	2819/2	363.83
2812/2	204.44	2818/2	329.18	2814	157.65	2819/3	469.50
2812/3	295.91	2818/3	399.86	2814/2	253.41	2819/4	634.10
2812/4	374.22	2818/4	540.54	2814/4	433.13	2820	237.83
2814/3	330.56	2807	151.20	2817	194.04	2820/2	375.63

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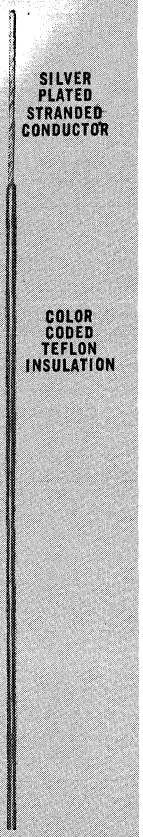
Net

Mil-W-16878D Teflon† Wire

TYPE E — EXTRUDED (600 VOLTS)



DESCRIPTION: Single conductor stranded silver plated copper, extruded TFE Teflon insulation.

CHARACTERISTICS: Temperature rating −65°C to +200°C. Voltage rating 600 volts. Resistant to acid, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.	*STOCK COLORS
2850	E-32	32	7/40	.010″	.029″	1-19 as listed
2851	E-30	30	7/38	.010″	.032″	1-19 as listed
2852	E-28	28	7/36	.010″	.036″	1-19 as listed
2853	E-26	26	7/34	.010″	.040″	1-19 as listed
2854	E-24	24	19/36	.010″	.045″	1-19 as listed
■ 2854/7	E-24	24	7/32	.010″	.044″	1-19 as listed
2855	E-22	22	19/34	.010″	.051″	1-19 as listed
■ 2855/7	E-22	22	7/30	.010″	.050″	1-19 as listed
2856	E-20	20	19/32	.010″	.059″	1-19 as listed
■ 2856/7	E-20	20	7/28	.010″	.058″	1-19 as listed
2857	E-18	18	19/30	.010″	.070″	1-19 as listed
2858	E-16	16	19/29	.010″	.077″	1-19 as listed
2859	E-14	14	19/27	.012″	.094″	1-6 & 11-19
2859/12	E-12	12	19/25	.012″	.113″	1 & 11-19
2859/10	E-10	10	37/26	.012″	.134″	1 & 11-19

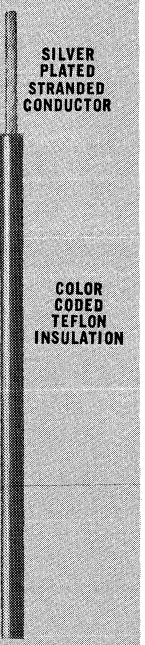
***STOCK COLORS**

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet

* Other solid colors and striped combinations available to order.

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, MARKED AND STRIPPED
■ NEW

TYPE EE — EXTRUDED (1000 VOLTS)



DESCRIPTION: Single conductor stranded silver plated copper, TFE extruded Teflon insulation.

CHARACTERISTICS: Temperature rating −65°C to +200°C. Voltage rating 1000 volts. Resistant to acid, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.	*STOCK COLORS
2874	EE-24	24	19/36	.014″	.055″	1-19
2875	EE-22	22	19/34	.014″	.062″	1-19
2876	EE-20	20	19/32	.014″	.070″	1-19
2877	EE-18	18	19/30	.014″	.080″	1-19
2878	EE-16	16	19/29	.014″	.089″	1 & 11-19
2879	EE-14	14	19/27	.017″	.106″	1 & 11-19
2879/12	EE-12	12	19/25	.017″	.124″	1 & 11-19
2879/10	EE-10	10	37/26	.017″	.145″	1 & 11-19
2879/8	EE-8	8	133/29	.020″	.210″	White only

***STOCK COLORS**

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet

* Other solid colors and striped combinations available to order.

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, MARKED AND STRIPPED

† T.M. DuPont

PRICES

Alpha No.	Sugg. Resale per 1000′							
2850	70.95	2855	102.30	2859	264.00	2877	163.35
2851	75.90	2855/7	90.00	2859/12	405.90	2878	222.75
2852	79.20	2856	132.00	2859/10	643.50	2879	297.00
2853	80.85	2856/7	120.00	2874	94.05	2879/12	462.00
2854	88.28	2857	157.41	2875	109.73	2879/10	775.50
2854/7	78.00	2858	206.25	2876	139.59	2879/8	1386.00

ALPHA electronic WIRE

Net

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Mil-W-16878D Shielded Teflon† Cables

TEFLON TAPE WRAP JACKET OVER SHIELD

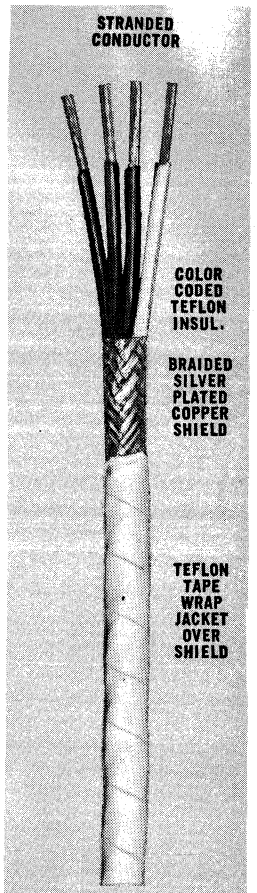
DESCRIPTION: Each conductor stranded silver plated copper, Type E extruded .010" TFE Teflon insulation, color coded, cabled, braided silver plated copper shield 90% coverage, sintered wrapped white Teflon tape jacketed overall.

CHARACTERISTICS: Temperature rating −65°C to +200°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. JKT. THICKNESS	NOM. O.D. AT HIGH POINT	NOM. CAP. IN MMF SHIELD TO COND.	NOM. CAP. IN MMF COND. TO COND.
2821	1	24	19/36	.010"	.095"	45	—
2821/2	2	24	19/36	.010"	.140"	35	25
2821/3	3	24	19/36	.010"	.147"	35	20
2821/4	4	24	19/36	.014"	.159"	35	20
2824	1	22	19/34	.010"	.102"	55	—
2824/2	2	22	19/34	.014"	.154"	45	25
2824/3	3	22	19/34	.014"	.162"	35	25
2824/4	4	22	19/34	.014"	.176"	35	25
2827	1	20	19/32	.010"	.110"	55	—
2827/2	2	20	19/32	.014"	.170"	95	25
2827/3	3	20	19/32	.014"	.175"	85	25
2827/4	4	20	19/32	.018"	.213"	140	30
2829	1	18	19/30	.010"	.120"	70	—
2829/2	2	18	19/30	.014"	.190"	60	35
2829/3	3	18	19/30	.018"	.219"	60	35
2829/4	4	18	19/30	.018"	.237"	55	35
■ 2826	1	16	19/29	.010"	.130"	107	—
■ 2826/2	2	16	19/29	.018"	.230"	67	25

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS
1—White, 2—Black, 3—Red, 4—Green



TEFLON FEP EXTRUDED JACKET OVER SHIELD

DESCRIPTION: Each conductor stranded silver plated copper, Type E extruded TFE insulation color coded, cabled, braided silver plated copper shield 90% coverage, extruded FEP white Teflon jacket overall.

CHARACTERISTICS: Temperature rating −65°C to +200°C. Voltage rating 600 volts. Resistant to acids, alkalais, oil, flame, moisture, solvents and fungus. Extruded FEP Teflon jacket is tough and abrasion resistant.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.	NOM. CAP. IN MMF SHIELD TO COND.	NOM. CAP. IN MMF COND. TO COND.
2831	1	24	19/36	.010"	.010"	.085"	45	—
2831/2	2	24	19/36	.010"	.010"	.130"	35	25
2831/3	3	24	19/36	.010"	.010"	.135"	35	20
2834	1	22	19/34	.010"	.010"	.091"	55	—
2834/2	2	22	19/34	.010"	.014"	.150"	45	25
2834/3	3	22	19/34	.010"	.014"	.158"	35	25
2837	1	20	19/32	.010"	.010"	.100"	55	—
2837/2	2	20	19/32	.010"	.014"	.168"	95	25
2837/3	3	20	19/32	.010"	.014"	.178"	85	25
2839	1	18	19/30	.010"	.010"	.110"	70	—
2839/2	2	18	19/30	.010"	.014"	.188"	60	35
2839/3	3	18	19/30	.010"	.018"	.207"	60	35
■ 2836	1	16	19/29	.010"	.010"	.123"	107	—
■ 2836/2	2	16	19/29	.010"	.018"	.220"	67	35

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS
1—White, 2—Black, 3—Red

† T.M. DuPont

■ NEW

ALPHA electronic WIRE

PRICES

Alpha No.	Sugg. Resale per 500'						
2821	194.04	2827	252.95	2826	311.85	2837	228.69
2821/2	322.25	2827/2	452.18	2826/2	513.45	2837/2	407.13
2821/3	476.43	2827/3	616.77	2831	174.98	2837/3	556.13
2812/4	564.80	2827/4	725.45	2831/2	291.06	2839	273.74
2824	218.30	2829	303.18	2831/3	429.66	2839/2	446.99
2824/2	395.01	2829/2	495.50	2834	197.51	2839/3	594.24
2824/3	521.48	2829/3	660.08	2834/2	356.90	2836	285.08
2824/4	677.40	2829/4	850.65	2834/3	469.50	2826/2	513.45

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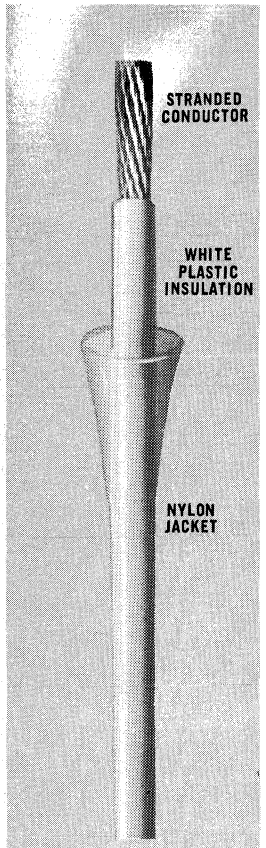
Net

Mil-W-5086A

UNSHIELDED AIRCRAFT WIRE FOR ELECTRICAL SYSTEMS



DESCRIPTION:

MIL-W-5086A—Type I — AN-22 thru AN-12—Single conductor stranded tinned copper, **white** polyvinylchloride insulation, clear nylon, (polyamide) jacket overall.

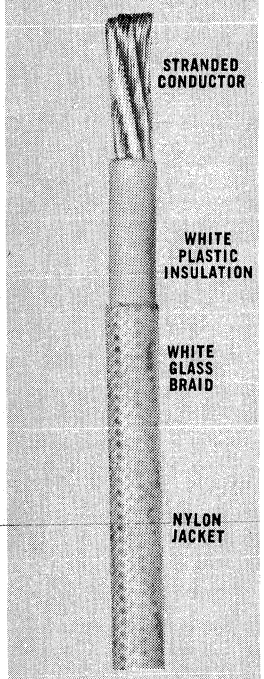
MIL-W-5086A—Type II— AN-22 thru AN-12—Single conductor stranded tinned copper, **white** polyvinylchloride insulation, white glass braid, clear nylon (polyamide) jacket overall.

MIL-W-5086A—Type II— AN-10 thru AN-0000—Single conductor stranded tinned copper, white polyvinylchloride insulation, white glass braid, flame retardant nylon lacquered nylon braid overall.

CHARACTERISTICS: Temperature rating: −55°C. to +105°C. Voltage rating: 600 volts. Resists effects of water, oil, aircraft fuels, hydraulic fluid, skydral, ethyleneglycol, alcohol, dilute acids, alkalis, fungus and abrasion.

UNSHIELDED (MIL-W-5086A) **TYPE I**

ALPHA NO.	MIL TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOMINAL O.D.	NOM. WGT LBS. PER M/FT.
1381	AN-22	22	19/34	.068″	4.0
1382	AN-20	20	19/32	.078″	5.7
1383	AN-18	18	19/30	.088″	8.3
1384	AN-16	16	19/29	.098″	10.4
1385	AN-14	14	19/27	.117″	15.9
1386	AN-12	12	19/25	.137″	23.7



UNSHIELDED (MIL-W-5086A) **TYPE II**

1341	AN-22	22	19/34	.075″	4.6
1342	AN-20	20	19/32	.085″	6.3
1343	AN-18	18	19/30	.095″	8.9
1344	AN-16	16	19/29	.105″	10.9
1345	AN-14	14	19/27	.125″	16.3
1346	AN-12	12	19/25	.143″	24.2
1387	AN-10	10	49/27	.189″	39.2
1388	AN-8	8	133/29	.240″	66.2
1389	AN-6	6	133/27	.293″	102.8
1389/4	AN-4	4	133/25	.355″	158.2
1389/2	AN-2	2	665/30	.425″	244.1
■ 1389/1	AN-1	1	817/30	.470″	300.0
1389/0	AN-0	0	1045/30	.525″	381.0
1389/00	AN-00	00	1330/30	.590″	485.0
■ 1389/000	AN-000	000	1661/30	.645″	609.0
■ 1389/0000	AN-0000	0000	2104/30	.715″	755.0

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

■ **NEW**

PRICES

Alpha No.	Sugg. Resale per 1000′	Alpha No.	Sugg. Resale per 1000′
1381	14.03	1341	20.93
1382	15.51	1342	24.53
1383	18.65	1343	27.23
1384	22.28	1344	31.68
1385	29.70	1345	40.10
1386	41.25	1346	55.44

Alpha No.	Sugg. Resale per 500′	Alpha No.	Sugg. Resale per 500′
1387	46.20	1389/0	453.75
1388	102.30	1389/00	577.50
1389	135.30	1389/000	842.16
1389/4	181.50	1389/0000	1016.40
1389/2	264.00		
1389/1	353.93		

ALPHA electronic WIRE

Net

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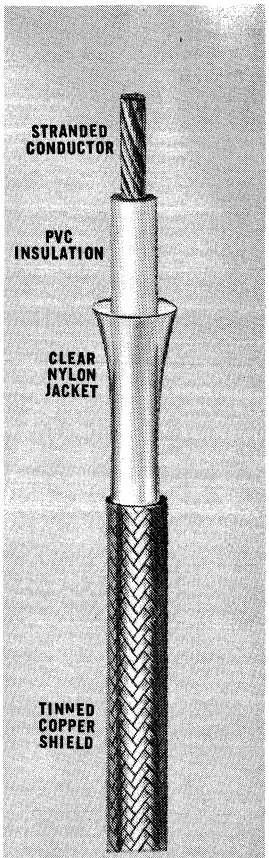
Mil-W-5086A

SHIELDED AIRCRAFT WIRE FOR ELECTRICAL SYSTEMS

UNJACKETED SHIELDED CABLE (MIL-C-7078A Type 1)
Base Wire MIL-W-5086A Type 1



DESCRIPTION: Each conductor stranded tinned copper, color coded polyvinylchloride insulation. Clear nylon jacket on each conductor, cabled, braided tinned copper shield overall. 85% coverage per Type 1 MIL-5086A, Type 1 MIL-C-7078A

CHARACTERISTICS: Temperature rating: −55°C. to +105°C. Voltage rating: 600 volts. Resists effects of water, oil, aircraft fuels, hydraulic fluid, skydral, ethyleneglycol, alcohol, dilute acids, alkalis, fungus and abrasion.

ALPHA NO.	NO. OF COND.	MIL TYPE & DESIG.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D. (Inches)	NOM. NET WT. LBS. PER M/FT.
1391	1	AN-22	22	19/34	.090	9.4
■ 1391/2	2	AN-22	22	19/34	.160	23.1
■ 1391/3	3	AN-22	22	19/34	.170	27.1
1392	1	AN-20	20	19/32	.100	11.6
■ 1392/2	2	AN-20	20	19/32	.180	33.8
■ 1392/3	3	AN-20	20	19/32	.190	36.5
1393	1	AN-18	18	19/30	.110	15.4
■ 1393/2	2	AN-18	18	19/30	.200	37.5
■ 1393/3	3	AN-18	18	19/30	.210	40.0
1394	1	AN-16	16	19/29	.120	17.6
1395	1	AN-14	14	19/27	.140	24.9
1396	1	AN-12	12	19/25	.160	34.0

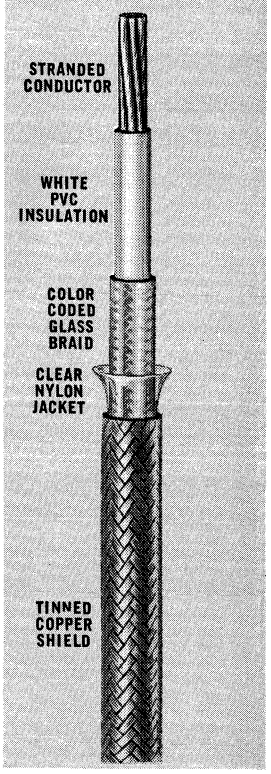
COLOR CODE OF CONDUCTORS:
1—White 2—1 White/Blue, 1 White/Red 3—1 White/Blue, 1 White/Red, 1 White/Yellow

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

■ **NEW**

UNJACKETED SHIELDED CABLE (MIL-C-7078A Type 1)
Base Wire MIL-W-5086A Type 2

NEW



DESCRIPTION: Each conductor stranded tinned copper. White PVC insulation. Color coded glass braid on each conductor. Clear nylon jacket on each conductor. Conductors cabled braided tinned copper shield overall. 85% coverage per Type 2 MIL-W-5086A, Type 1 MIL-C-7078A.

CHARACTERISTICS: Temperature rating: −55°C. to +105°C. Voltage rating: 600 volts. Resists effects of water, oil, aircraft fuels, hydraulic fluid, skydral, ethyleneglycol, alcohol, dilute acids, alkalis, fungus and abrasion.

ALPHA NO.	NO. OF COND.	MIL TYPE & DESIG.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D. (Inches)	NOM. NET WT. LBS. PER M/FT.
6442	1	AN-22	22	19/34	.095	10.1
6443	2	AN-22	22	19/34	.170	29.1
6444	3	AN-22	22	19/34	.180	34.0
6445	1	AN-20	20	19/32	.105	13.3
6446	2	AN-20	20	19/32	.190	36.0
6447	3	AN-20	20	19/32	.200	39.5
6448	1	AN-18	18	19/30	.115	15.9
6449	2	AN-18	18	19/30	.210	38.5
6450	3	AN-18	18	19/30	.224	46.1
6451	1	AN-16	16	19/29	.125	18.2
6452	1	AN-14	14	19/27	.150	25.1
6453	1	AN-12	12	19/25	.165	43.3

COLOR CODE OF CONDUCTORS:
1—White 2—1 White/Blue, 1 White/Red 3—1 White/Blue, 1 White/Red, 1 White/Yellow

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

ALPHA electronic WIRE

PRICES

Alpha No.		Sugg. Resale per 1000'	Alpha No.		Sugg. Resale per 1000'	Alpha No.	Sugg. Resale per 500'	Alpha No.	Sugg. Resale per 500'
1391/2	500	48.09	1393	1000	39.20	6442	30.23	6448	37.65
1391	1000	32.10	1393/2	500	56.54	6443	53.27	6449	68.78
1391/3	500	61.71	1393/3	500	77.85	6444	69.05	6450	90.93
1392	1000	35.64	1394	1000	44.40	6445	34.56	6451	40.01
1392/2	500	51.86	1395	1000	57.45	6446	60.80	6452	52.89
1392/3	500	66.60	1396	1000	75.00	6447	80.94	6453	66.33

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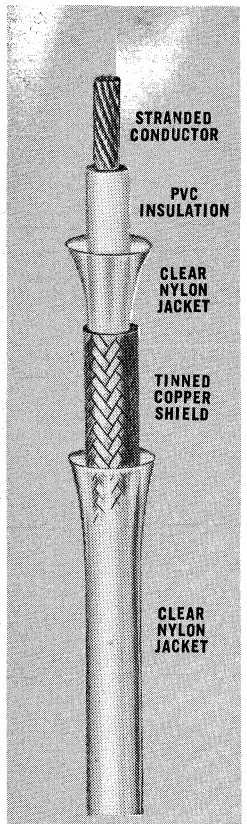
Mil-W-5086A

SHIELDED AIRCRAFT WIRE FOR ELECTRICAL SYSTEMS



NYLON JACKETED SHIELDED CABLE (MIL-C-7078A Type 2)

NEW

Base Wire MIL-W-5086A Type 1

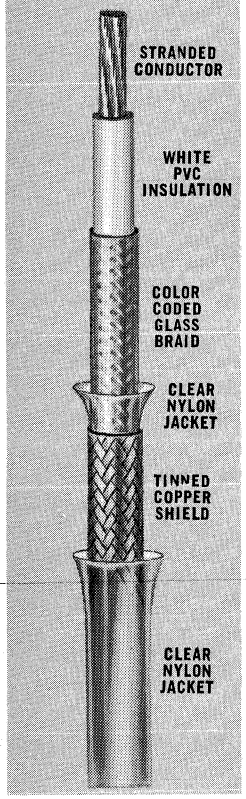
DESCRIPTION: Each conductor stranded tinned copper, color coded PVC insulation clear nylon jacket on each conductor, cabled, braided tinned copper shield. 85% coverage. Clear nylon jacket overall. Per Type 1 MIL-W-5086A; per Type 2 MIL-C-7078A.

CHARACTERISTICS: Temperature rating: −55°C. to +105°C. Voltage rating: 600 volts. Resists effects of water, oil, aircraft fuels, hydraulic fluid, skydral, ethyleneglycol, alcohol, dilute acids, alkalis, fungus and abrasion.

ALPHA NO.	NO. OF COND.	MIL TYPE DESIG.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. JKT. THICKNESS	NOM. O.D. (Inches)	NOM. NET WT. LBS. PER M/FT.
6460	1	AN-22	22	19/34	.005	.100	10.2
6461	2	AN-22	22	19/34	.005	.170	23.6
6462	3	AN-22	22	19/34	.005	.180	29.7
6463	1	AN-20	20	19/32	.005	.110	12.0
6464	2	AN-20	20	19/32	.005	.190	34.2
6465	3	AN-20	20	19/32	.005	.200	27.2
6466	1	AN-18	18	19/30	.005	.120	16.3
6467	2	AN-18	18	19/30	.005	.210	39.3
6468	3	AN-18	18	19/30	.005	.220	40.7
6469	1	AN-16	16	19/29	.005	.130	18.4
6470	1	AN-14	14	19/27	.005	.150	26.0
6471	1	AN-12	12	19/25	.005	.170	35.8

COLOR CODE OF CONDUCTORS:
1—White 2—1 White/Blue, 1 White/Red 3—1 White/Blue, 1 White/Red, 1 White/Yellow

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.



NYLON JACKETED SHIELDED CABLE (MIL-C-7078A Type 2)

NEW

Base Wire MIL-W-5086A Type 2

DESCRIPTION: Each conductor stranded tinned copper. White PVC insulation. Color coded glass braid on each conductor. Clear nylon jacket on each conductor. Conductors cabled, braided, tinned copper, shield overall. 85% coverage. Clear nylon jacket overall per Type 2, MIL-W-5086A, Type 2, MIL-C-7078A.

CHARACTERISTICS: Temperature rating: −55°C. to +105°C. Voltage rating: 600 volts. Resists effects of water, oil, aircraft fuels, hydraulic fluid, skydral, ethyleneglycol, alcohol, dilute acids, alkalis, fungus and abrasion.

ALPHA NO.	NO. OF COND.	MIL TYPE DESIG.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. JKT. THICKNESS	NOM. O.D. (Inches)	NOM. NET WT. LBS. PER M/FT
6477	1	AN-22	22	19/34	.005	.105	10.9
6478	2	AN-22	22	19/34	.005	.180	29.7
6479	3	AN-22	22	19/34	.005	.190	34.3
6480	1	AN-20	20	19/32	.005	.115	14.2
6481	2	AN-20	20	19/32	.005	.200	36.8
6482	3	AN-20	20	19/32	.005	.210	40.5
6483	1	AN-18	18	19/30	.005	.125	16.8
6484	2	AN-18	18	19/30	.005	.220	39.7
6485	3	AN-18	18	19/30	.005	.234	47.9
6486	1	AN-16	16	19/29	.005	.135	19.4
6487	1	AN-14	14	19/27	.005	.160	26.1
6488	1	AN-12	12	19/25	.005	.175	35.7

COLOR CODE OF CONDUCTORS:
1—White 2—1 White/Blue, 1 White/Red 3—1 White/Blue, 1 White/Red, 1 White/Yellow

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

PRICES

Alpha No.	Sugg. Resale per 500'	Alpha No.	Sugg. Resale per 500'	Alpha No.	Sugg. Resale per 500'
6460	34.02	6466	41.46	6477	35.28
6461	55.44	6467	65.34	6478	61.61
6462	71.33	6468	89.84	6479	79.76
6463	34.74	6469	44.46	6480	38.12
6464	59.90	6470	54.45	6481	70.23
6465	76.95	6471	67.70	6482	93.56
				6483	44.64
				6484	79.40
				6485	105.08
				6486	49.08
				6487	60.08
				6488	76.85

ALPHA electronic WIRE

Net

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Alpha RG Coaxial Cables

Now Alpha Wire, the industry's one total prime wire source, manufactures a complete line of coaxial cable. Through the most advanced manufacturing techniques, Alpha Wire now serves your every requirement for all types of coaxial cable.

For more than forty years Alpha Wire has maintained a world-wide reputation for prompt service. All the coaxial cable types, as well as the complete line of Alpha Wire, cable and tubing is ALWAYS IN STOCK.

TEFLON DIELECTRIC

ALPHA NO.	RG TYPE	COND.	NOM. WALL THICK.	NOM. JKT. THICK.	JACKET TYPE	MAX. O.D.	CAP. NOM.	IMPED. OHMS	MAX. OPER. VOLTAGE
9161	161/U	7/.004*	.020	.006	Nylon**	.090	27.5	50±2	1200
9178B	178B/U	7/.004	.012	.010	Extruded FEP	.075	27.9	50±2	1000
9179B	179B/U	7/.004	.021	.010	Extruded FEP	.105	20.4	75±3	1200
9180B	180B/U	7/.004	.045	.010	Extruded FEP	.145	15.3	93±2	850
9187A	187A/U	7/.004	.024	.012	Fused TFE Tape	.110	19.5	75±3	1200
9188A	188A/U	7/.0067	.020	.012	Fused TFE Tape	.110	27.5	50±2	1200
9195A	195A/U	7/.004	.045	.014	Fused TFE Tape	.155	14.5	95±3	1500
9196A	196A/U	7/.004	.011	.012	Fused TFE Tape	.080	28.5	50±2	1000
9316	316/U	7/.0067	.020	.010	Extruded FEP	.102	27.5	50±2	1200

* Silver Coated Cadmium Bronze
** Operating Temperature: −55°C. — +105°C.
Conductors Silver Plated Copperweld Except RG 161/U, as shown.

ALPHA electronic WIRE

PRICES — per 1000′

9161	121.50	9179B	187.50	9187A	185.10	9195A	315.75
9178B	114.00	9180B	279.30	9188A	181.50	9196A	124.43
						9316	207.60

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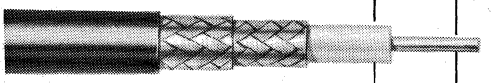
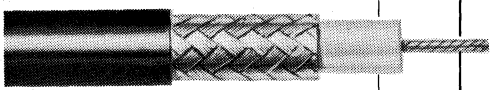
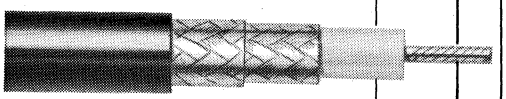
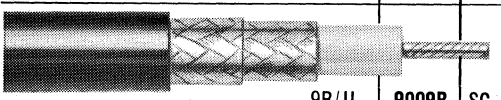
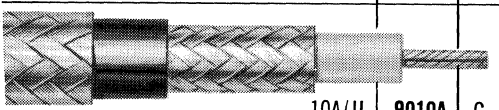
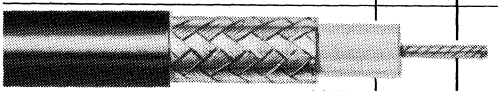
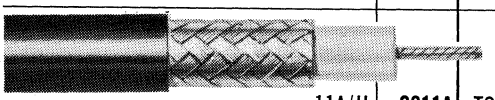
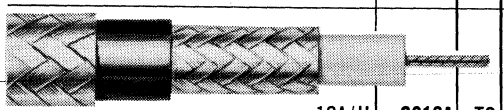
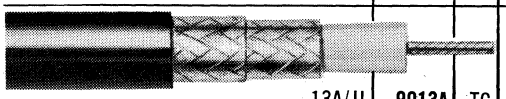
Net

Alpha RG Cable Types

POLYETHYLENE DIELECTRIC

All Illustrations — Actual Size

	RG CABLE TYPE	ALPHA PART NO.	INNER CONDUCTOR MAT.	INNER CONDUCTOR STRAND	INNER CONDUCTOR NOM. O.D.	DIELECTRIC MAT.	DIELECTRIC O.D.	SHIELDS Inner	SHIELDS Outer	SHIELDS O.D.	JACKET MAT.	JACKET O.D.	ARMOR (.0126 ALUM. WIRE)	OPR VOLTS RMS	LBS. PER M/FT.	NOM. IMPED. OHMS	NOM. CAP MMF/ FT.
	5B/U	**9005B**	SC	1	.051	PE	.185	SC	SC	.260	NCV	.335		3000	83	50	29.5
	6A/U	**9006A**	CW	1	.0285	PE	.189	SC	C	.264	NCV	.336		2700	74	75	20
	8/U	**9008**	C	7/.0285	.086	PE	.295	C	—	.340	V	.415		5000	105	52	29.5
	8A/U	**9008A**	C	7/.0285	.086	PE	.295	C	—	.340	NCV	.415		5000	99	52	29.5
	9A/U	**9009A**	SC	7/.0285	.086	PE	.285	SC	SC	.355	NCV *	.430		5000	126	52	29.5
	9B/U	**9009B**	SC	7/.0285	.086	PE	.285	SC	SC	.355	NCV	.430		5000	126	50	30
	10A/U	**9010A**	C	7/.0285	.086	PE	.295	C	—	.340	NCV	.415	.475	5000	125	52	29.5
	11/U	**9011**	TC	7/.0159	.048	PE	.295	C	—	.340	V	.415		5000	94	75	20.5
	11A/U	**9011A**	TC	7/.0159	.048	PE	.292	C	—	.340	NCV	.412		5000	89	75	20.5
	12A/U	**9012A**	TC	7/.0159	.048	PE	.292	C	—	.340	NCV	.412	.475	5000	113	75	20.5
	13A/U	**9013A**	TC	7/.0159	.048	PE	.290	C	C	.355	NCV	.430		5000	119	74	20.5

ALL TYPES LISTED CONFORM TO LATEST REVISION MIL-C-17.

ALL DIMENSIONS ARE MAXIMUM EXCEPT WHERE INDICATED

C—Bare Copper
TC—Tinned Copper
SC—Silver Covered Copper
CW—Copper Covered Steel

PE—Solid Polyethylene
SSP—Semi Solid Polyethylene
BP—Black Polyethylene—Type IIIA

NP—Natural Polyethylene—Type III
V—Polyvinylchloride—Type I
NCV—Non-Contaminating Polyvinylchloride—Type IIA

*GRAY

PRICES

Alpha No.	Sugg. Resale per 1000'	Alpha No.	Sugg. Resale per 1000'	Alpha No.	Sugg. Resale per 1000'
9005B	219.00	9008A	117.00	9010A	202.50
9006A	165.00	9009A	330.00	9011	84.00
9008	90.75	9009B	318.00	9011A	96.38
				9012A	189.00
				9013A	171.60

ALPHA electronic WIRE

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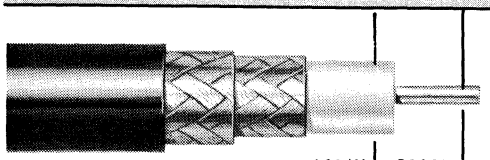
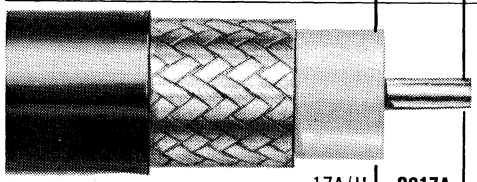
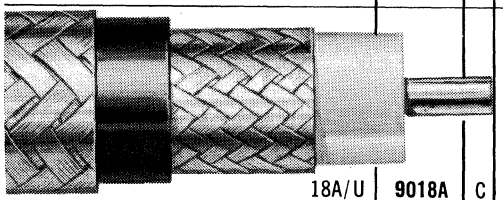
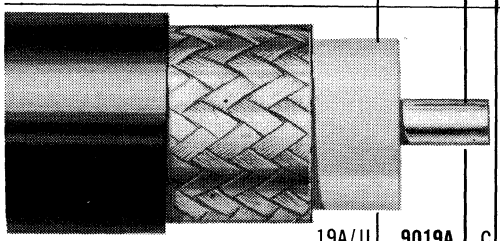
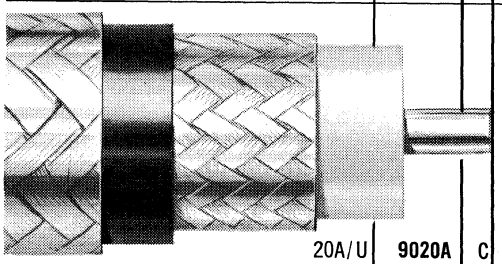
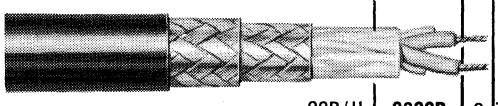
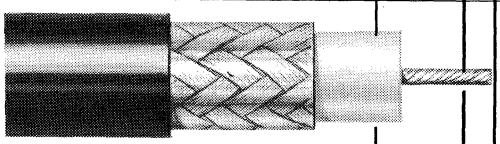
Alpha RG Cable Types

POLYETHYLENE DIELECTRIC

All Illustrations — Actual Size

	RG CABLE TYPE	ALPHA PART NO.	INNER CONDUCTOR MAT.	INNER CONDUCTOR STRAND	INNER CONDUCTOR NOM. O.D.	DIELECTRIC MAT.	DIELECTRIC O.D.	SHIELDS Inner	SHIELDS Outer	SHIELDS O.D.	JACKET MAT.	JACKET O.D.	ARMOR (.0126 ALUM. WIRE)	OPR VOLTS RMS	LBS. PER M/FT.	NOM. IMPED. OHMS	NOM. CAP MMF/ FT.
	14A/U	**9014A**	C	1	.102	PE	.383	C	C	.463	NCV	.558		7000	201	52	29.5
	17A/U	**9017A**	C	1	.188	PE	.695	C	—	.760	NCV	.885		11000	462	52	29.5
	18A/U	**9018A**	C	1	.188	PE	.695	C	—	.760	NCV	.885	.945	11000	510	52	29.5
	19A/U	**9019A**	C	1	.250	PE	.925	C	—	.990	NCV	1.135		14000	720	52	29.5
	20A/U	**9020A**	C	1	.250	PE	.925	C	—	.990	NCV	1.135	1.195	14000	786	52	29.5
	22B/U	**9022B**	C	Two 7/.0152	.047	PE	.291	TC	TC	.355	NCV	.430		1000	124	95	16
	34B/U	**9034B**	C	7/.0249	.075	PE	.470	C	—	.535	NCV	.640		6500	205	75	20

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BP—Black Polyethylene—Type IIIA

NP—Natural Polyethylene—Type III
V—Polyvinylchloride—Type I
NCV—Non-Contaminating Polyvinylchloride—Type IIA

ALPHA electronic WIRE

PRICES

Alpha No.	Sugg. Resale per 1000'	Alpha No.	Sugg. Resale per 1000'	Alpha No.	Sugg. Resale per 1000'	Alpha No.	Sugg. Resale per 1000'
9014A	264.00	9018A	663.00	9020A	1140.00	9034B	300.00
9017A	495.00	9019A	817.50	9022B	204.00		

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Alpha RG Cable Types

POLYETHYLENE DIELECTRIC

All Illustrations — Actual Size

RG CABLE TYPE	ALPHA PART NO.	INNER CONDUCTOR MAT.	INNER CONDUCTOR STRAND	INNER CONDUCTOR NOM. O.D.	DIELECTRIC MAT.	DIELECTRIC O.D.	SHIELDS Inner	SHIELDS Outer	SHIELDS O.D.	JACKET MAT.	JACKET O.D.	ARMOR (.0126 ALUM. WIRE)	OPR VOLTS RMS	LBS. PER M/FT.	NOM. IMPED. OHMS	NOM. CAP MMF/ FT.
35B/U	**9035B**	C	1	.1045	PE	.690	C	—	.760	NCV	.880	.945	10000	425	75	20.5
55/U	**9055**	C	1	.032	PE	.121	TC	TC	.176	NP	.206		1900	31	53.5	28.5
55A/U	**9055A**	SC	1	.035	PE	.121	SC	SC	.176	NCV	.216		1900	36	50	29.5
55B/U	**9055B**	SC	1	.032	PE	.121	TC	TC	.176	BP	.206		1900	32	53.5	28.5
58/U	**9058**	C	1	.032	PE	.121	TC	—	.150	V	.200		1900	24	53.5	28.5
58A/U	**9058A**	TC	19/.0071	.0375	PE	.120	TC	—	.150	V	.199		1900	25	50	29.5
58C/U	**9058C**	TC	19/.0071	.0375	PE	.120	TC	—	.150	NCV	.199		1900	25	50	29.5
59/U	**9059**	CW	1	.0253	PE	.150	C	—	.191	V	.250		2300	36	73	21
59B/U	**9059B**	CW	1	.023	PE	.150	C	—	.191	NCV	.246		2300	36	75	20.5
62/U	**9062**	CW	1	.025	SSP	.151	C	—	.191	V	.250		750	34	93	13.5
62A/U	**9062A**	CW	1	.025	SSP	.151	C	—	.191	NCV	.249		750	34	93	13.5
63B/U	**9063B**	CW	1	.0253	SSP	.295	C	—	.340	NCV	.415		1000	78	125	10
71/U	**9071**	CW	1	.025	SSP	.151	C	TC	.198	NP	.250		750	42	93	13.5

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NCV—Non-Contaminating Polyvinylchloride—Type IIA

PRICES

Alpha No.	Sugg. Resale per 1000′
9035B	690.00
9055	63.30
9055A	115.50
9055B	73.50
9058	30.75
9058A	36.75
9058C	40.80
9059	35.25
9059B	43.13
9062	39.90
9062A	51.00
9063B	118.50
9071	64.88

ALPHA electronic WIRE

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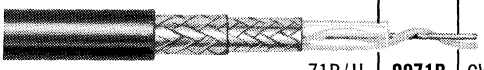
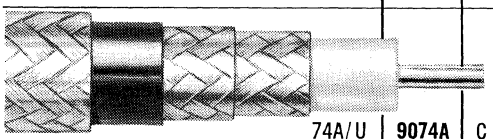
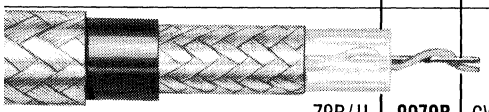
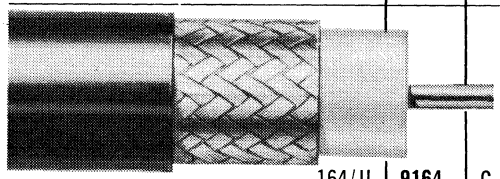
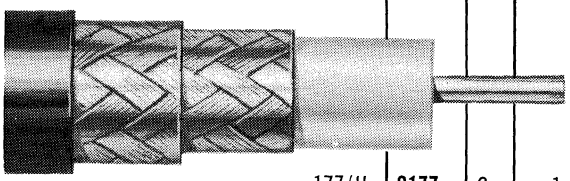
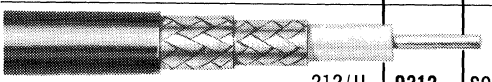
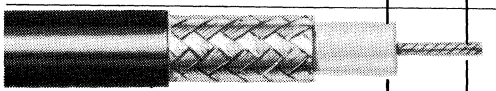
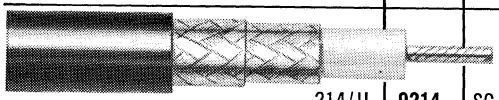
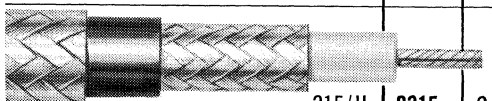
Alpha RG Cable Types

POLYETHYLENE DIELECTRIC

All Illustrations — Actual Size

	RG CABLE TYPE	ALPHA PART NO.	INNER CONDUCTOR MAT.	INNER CONDUCTOR STRAND	INNER CONDUCTOR NOM. O.D.	DIELECTRIC MAT.	DIELECTRIC O.D.	SHIELDS Inner	SHIELDS Outer	SHIELDS O.D.	JACKET MAT.	JACKET O.D.	ARMOR (.0126 ALUM. WIRE)	OPR VOLTS RMS	LBS. PER M/FT.	NOM. IMPED. OHMS	NOM. CAP MMF/ FT.
	71A/U	9071A	CW	1	.025	SSP	.151	TC	TC	.198	V	.250		750	42	93	13.5
	71B/U	9071B	CW	1	.025	SSP	.151	C	TC	.208	BP	.250		750	42	93	13.5
	74A/U	9074A	C	1	.102	PE	.383	C	C	.463	NCV	.558	.615	7000	230	52	29.5
	79B/U	9079B	CW	1	.025	SSP	.295	C	—	.340	NCV	.415	.475	1000	105	125	10
	164/U	9164	C	1	.1045	SSP	.690	C	—	.760	NCV	.890		10000	392	75	20.5
	174/U	9174	CW	7/.0063	.019	PE	.060	TC	—	.088	V	.105		1500	7	50	30
	177/U	9177	C	1	.195	PE	.690	SC	SC	.760	NCV	.910		11000	465	50	30
	212/U	9212	SC	1	.056	PE	.189	SC	SC	.265	NCV	.336		3000	85	50	29.5
	213/U	9213	C	7/.0296	.090	PE	.292	C	—	.340	NCV	.412		5000	100	50	30.5
	214/U	9214	SC	7/.0296	.090	PE	.292	SC	SC	.360	NCV	.432		5000	129	50	30.5
	215/U	9215	C	7/.0296	.090	PE	.292	C	—	.340	NCV	.412	.475	5000	122	50	30.5

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SSP—Semi Solid Polyethylene
BP—Black Polyethylene—Type IIIA

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V—Polyvinylchloride—Type I
NCV—Non-Contaminating Polyvinylchloride—Type IIA

ALPHA electronic WIRE

PRICES

Alpha No.	Sugg. Resale per 1000'	Alpha No.	Sugg. Resale per 1000'	Alpha No.	Sugg. Resale per 1000'	Alpha No.	Sugg. Resale per 1000'
9071A	82.50	9079B	181.50	9177	1003.50	9214	334.50
9071B	64.88	9164	594.00	9212	232.50	9215	202.50
9074A	450.00	9174	22.95	9213	104.55		

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Alpha RG Cable Types

POLYETHYLENE DIELECTRIC

All Illustrations — Actual Size

RG CABLE TYPE	ALPHA PART NO.	INNER CONDUCTOR MAT.	INNER CONDUCTOR STRAND	INNER CONDUCTOR NOM. O.D.	DIELECTRIC MAT.	DIELECTRIC O.D.	SHIELDS Inner	SHIELDS Outer	SHIELDS O.D.	JACKET MAT.	JACKET O.D.	ARMOR (.0126 ALUM. WIRE)	OPR VOLTS RMS	LBS. PER M/FT.	NOM. IMPED. OHMS	NOM. CAP MMF/ FT.
216/U	**9216**	TC	7/.0159	.048	PE	.292	C	C	.360	NCV	.432		5000	115	75	20.5
217/U	**9217**	C	1	.106	PE	.380	C	C	.463	NCV	.555		7000	202	50	30
218/U	**9218**	C	1	.195	PE	.690	C	—	.760	NCV	.880		11000	457	50	30
219/U	**9219**	C	1	.195	PE	.690	C	—	.760	NCV	.880	.945	11000	507	50	30
220/U	**9220**	C	1	.260	PE	.925	C	—	.990	NCV	1.135		14000	725	50	29.5
221/U	**9221**	C	1	.260	PE	.925	C	—	.990	NCV	1.135	1.195	14000	790	50	29.5
223/U	**9223**	SC	1	.036	PE	.120	SC	SC	.176	NCV	.216		1900	36	50	30
224/U	**9224**	C	1	.106	PE	.380	C	C	.463	NCV	.555	.615	7000	232	50	30

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CW—Copper Covered Steel
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SSP—Semi Solid Polyethylene
BP—Black Polyethylene—Type IIIA
NP—Natural Polyethylene—Type III
V—Polyvinylchloride—Type I
NCV—Non-Contaminating Polyvinylchloride—Type IIA

PRICES

Alpha No.	Sugg. Resale per 1000′		
9216	171.60	9220	817.50
9217	264.00	9221	1140.00
9218	495.00	9223	115.50
9219	663.00	9224	450.00

ALPHA electronic WIRE

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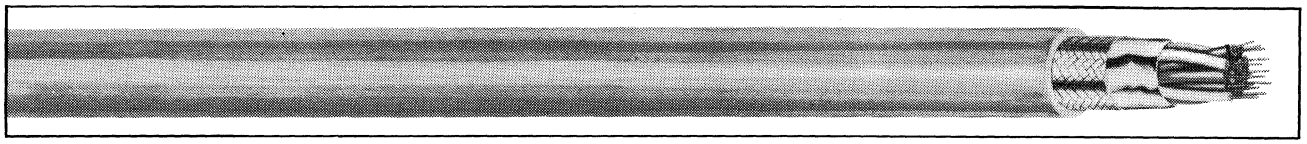


CONTROL AND INSTRUMENTATION CABLE

MULTI-CONDUCTOR SHIELDED PLASTIC JACKET PER MIL-W-16878D

DESCRIPTION: Each conductor stranded tinned copper. Color coded, polyvinylchloride insulation, cabled, mylar wrap. Braided tinned copper shield 90% coverage, chrome gray polyvinylchloride jacket overall.

CHARACTERISTICS: Temperature rating −55°C to +105°C. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

APPLICATIONS: Interconnecting cables for electronic equipment, instrumentation and control cable, telemetry data, remote control of sensitive recording instruments.

MINIATURE SHIELDED CONTROL CABLE—600 VOLT

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JACKET	NOM. O.D.
3302	2	B-28	7/36	.010″	.012″	.125″
3303	3	B-28	7/36	.010″	.012″	.130″
3304	4	B-28	7/36	.010″	.012″	.140″
3306	6	B-28	7/36	.010″	.015″	.170″
3308	8	B-28	7/36	.010″	.015″	.175″
3310	10	B-28	7/36	.010″	.018″	.210″
3312	12	B-28	7/36	.010″	.018″	.215″
3315	15	B-28	7/36	.010″	.020″	.230″
3320	20	B-28	7/36	.010″	.022″	.260″

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

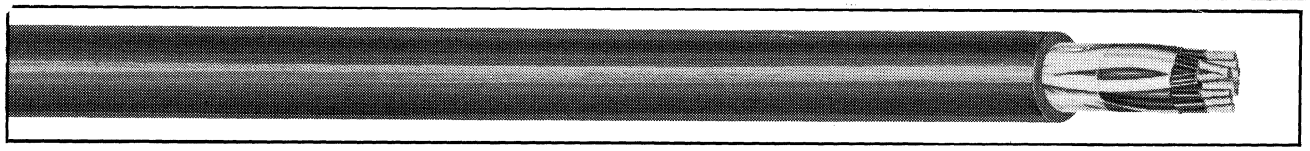
HEAVY DUTY SHIELDED CONTROL CABLE—1000 VOLT

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JACKET	NOM. O.D.
3405	5	C-18	19/30	.016″	.025″	.300″
3410	10	C-18	19/30	.016″	.035″	.405″
3415	15	C-18	19/30	.016″	.040″	.470″
3420	20	C-18	19/30	.016″	.045″	.530″
3430	30	C-18	19/30	.016″	.055″	.650″

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS

1—Black	11—Blue/Black	21—Orange/Green
2—White	12—Black/White	22—Black/White/Red
3—Red	13—Red/White	23—White/Black/Red
4—Green	14—Green/White	24—Red/Black/White
5—Orange	15—Blue/White	25—Green/Black/White
6—Blue	16—Black/Red	26—Orange/Black/White
7—White/Black	17—White/Red	27—Blue/Black/White
8—Red/Black	18—Orange/Red	28—Black/Red/Green
9—Green/Black	19—Blue/Red	29—White/Red/Green
10—Orange/Black	20—Red/Green	30—Red/Black/Green



UNSHIELDED STATION CONTROL CABLE

HEAVY-DUTY MULTI-CONDUCTOR PLASTIC JACKET—600 VOLTS

DESCRIPTION: Each conductor, stranded bare copper, .020″ polyethylene insulation, .010″ polyvinylchloride jacket over each conductor, color coded, cabled with fillers where necessary, moisture resistant tape, black polyvinylchloride jacket overall. 600 volt operating voltage.

APPLICATIONS: Remote control of automatic electrical equipment, recording and relaying devices, telemetering, switchgear operations and indicators, substation operation, temperature voltage, pressure and motor control, dimensional tolerance on automatic quality control.

16 GAUGE — 26/30 BARE COPPER

ALPHA NO.	NO. OF COND.	NOM. JKT. THICKNESS	NOM. O.D.
4102	2	.045″	.360″
4103	3	.045″	.480″
4105	5	.045″	.520″
4106	6	.045″	.550″
4107	7	.045″	.570″
4108	8	.045″	.590″
4110	10	.045″	.620″
4112	12	.045″	.660″
4114	14	.045″	.690″
4116	16	.045″	.750″
4119	19	.060″	.800″
4121	21	.060″	.810″
4122	22	.060″	.880″
4124	24	.060″	.930″
4126	26	.060″	.990″
4130	30	.060″	1.01″
4137	37	.060″	1.09″
4140	40	.060″	1.16″
4150	50	.080″	1.22″
4160	60	.080″	1.32″

*FLAT DIMENSION .233″ x .366″
**FLAT DIMENSION .252″ x .404″

COLOR CODE: The color code of neoprene jacketed control cables conforms to IPCEA standards either with full color code or surface printed with color name and number.

14 GAUGE — 7/22 BARE COPPER

4202	2 Twin	.045″	*	4214	14	.060″	.744″
4203	3 Rd.	.045″	.390″	4216	16	.060″	.798″
4204	4	.045″	.425″	4219	19	.060″	.861″
4205	5	.045″	.462″	4224	24	.080″	.947″
4206	6	.045″	.481″	4227	27	.080″	1.002″
4207	7	.045″	.502″	4230	30	.080″	1.110″
4208	8	.060″	.556″	4234	34	.080″	1.118″
4209	9	.060″	.622″	4237	37	.080″	1.124″
4210	10	.060″	.657″	4240	40	.080″	1.290″
4212	12	.060″	.696″				

12 GAUGE — 7/20 BARE COPPER

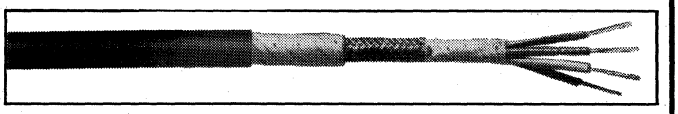
4302	2 Twin	.045″	**	4315	15	.060″	.832″
4303	3 Rd.	.045″	.431″	4316	16	.060″	.901″
4304	4	.045″	.471″	4318	18	.080″	.928″
4305	5	.045″	.523″	4319	19	.080″	.943″
4306	6	.045″	.564″	4320	20	.080″	.966″
4307	7	.060″	.599″	4322	22	.080″	1.01″
4308	8	.060″	.644″	4325	25	.080″	1.09″
4309	9	.060″	.690″	4327	27	.080″	1.129″
4310	10	.060″	.727″	4330	30	.080″	1.168″
4312	12	.060″	.775″	4334	34	.080″	1.201″
4314	14	.060″	.807″	4337	37	.080″	1.257″

STANDARD SPOOL PUT-UP: CUT TO SPECIFIC LENGTHS.

PRICES

Alpha No.	Sugg. Resale per 1000′							
3302	92.57	4108	1.09	4206	1.06	4306	1.34
3303	120.51	4110	1.20	4207	1.09	4307	1.49
3304	141.57	4112	1.45	4208	1.28	4308	1.73
3306	174.24	4114	1.64	4209	1.45	4309	1.82
3308	206.91	4116	1.82	4210	1.60	4310	2.04
3310	250.47	4202	.40	4212	1.89	4312	2.46
3312	290.40	4203	.65	4214	2.29	4314	2.65
3315	348.48	4119	2.04	4216	2.57	4315	3.27
3320	462.83	4121	2.32	4219	2.83	4316	3.41
3405	344.85	4122	2.43	4224	3.92	4318	3.62
3410	588.06	4124	2.51	4227	4.18	4319	3.73
3415	813.12	4126	2.76	4230	4.64	4320	3.99
3420	1052.70	4130	3.12	4234	5.23	4322	4.36
3430	1524.60	4137	3.45	4237	5.48	4325	5.05
4102	.33	4140	3.82	4240	7.08	4327	5.43
4103	.65	4150	4.72	4302	.47	4330	5.81
4105	.80	4160	5.81	4303	.73	4334	6.53
4106	.87	4204	.80	4304	.88	4337	7.17
4107	.98	4205	1.01	4305	1.17		

ALPHA electronic WIRE



SHIELDED CONTROL CABLE

HEAVY-DUTY MULTI-CONDUCTOR RUGGED NEOPRENE JACKET

DESCRIPTION: Each conductor stranded tinned copper, color coded rubber insulation, cabled with fillers where necessary, cotton wrap, braided tinned copper shield, cotton wrap, rugged black neoprene jacket overall.

CHARACTERISTICS: Operating Temperature: −20°C to +60°C.

#18 GAUGE CABLE

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
1450	2	18	41/34	.020″	.035″	.295″
1451	3	18	41/34	.020″	.035″	.305″
1452	4	18	41/34	.020″	.035″	.330″
1454	6	18	41/34	.020″	.035″	.370″
1456	8	18	41/34	.020″	.035″	.420″
1458	10	18	41/34	.020″	.035″	.480″
1459	12	18	41/34	.020″	.065″	.555″
1459/15	15	18	41/34	.020″	.065″	.640″
1459/20	20	18	41/34	.020″	.065″	.730″

#16 GAUGE CABLE

1450/16	2	16	65/34	.025″	.035″	.335″
1451/16	3	16	65/34	.025″	.035″	.355″
1452/16	4	16	65/34	.025″	.035″	.385″
1454/16	6	16	65/34	.025″	.040″	.445″
1456/16	8	16	65/34	.025″	.040″	.510″
1458/16	10	16	65/34	.025″	.040″	.575″

#14 GAUGE CABLE

1400	2	14	41/30	.030″	.040″	.395″
1401	3	14	41/30	.030″	.040″	.425″
1402	4	14	41/30	.030″	.040″	.455″
1404	6	14	41/30	.030″	.040″	.515″

#12 GAUGE CABLE

1410	2	12	65/30	.030″	.040″	.440″
1411	3	12	65/30	.030″	.040″	.465″
1412	4	12	65/30	.030″	.040″	.505″

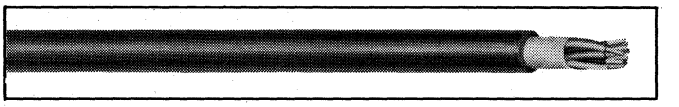
#10 GAUGE CABLE

1420	2	10	105/30	.030″	.040″	.495″
1421	3	10	105/30	.030″	.040″	.520″

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS

1—Black	11—White/Black (Braid)
2—White	12—White/Red (Braid)
3—Red	13—White/Green (Braid)
4—Green	14—White/Yellow (Braid)
5—Yellow	15—White/Blue (Braid)
6—Blue	16—White/Brown (Braid)
7—Brown	17—White/Purple (Braid)
8—Orange	18—White/Slate (Braid)
9—Slate	19—Black/Red (Braid)
10—Purple	20—Black/Yellow (Braid)



UNSHIELDED CONTROL CABLE

HEAVY-DUTY MULTI-CONDUCTOR RUGGED NEOPRENE JACKET—600 VOLTS

DESCRIPTION: Each conductor stranded bare copper, color coded rubber insulation, cabled with fillers where necessary, wrap over conductors, heavy duty black neoprene jacket overall. 600 volt operating voltage.

APPLICATIONS: Remote control of automatic electrical equipment and sub-stations, telemetering, voltage pressure and motor control, signal transmission. Flexible heavy duty neoprene jacketed cable, recommended for outside installation, cable resists oil, ozone, sunlight, moisture, abrasion and impact.

18 GAUGE #41/34 BARE COPPER — 1/32″ INSULATION THICKNESS

ALPHA NO.	NO. OF COND.	NOM. JKT. THICKNESS	NOM. O.D.
4505	5	.045″	.500″
4506	6	.045″	.540″
4507	7	.045″	.580″
4508	8	.060″	.610″
4509	9	.060″	.640″
4510	10	.060″	.730″
4514	14	.060″	.810″

ALPHA NO.	NO. OF COND.	NOM. JKT. THICKNESS	NOM. O.D.
4520	20	.060″	.965″
4526	26	.080″	1.04″
4530	30	.080″	1.10″
4540	40	.080″	1.25″
4550	50	.080″	1.35″
4560	60	.080″	1.50″

16 GAUGE #65/34 BARE COPPER — 1/32″ INSULATION THICKNESS

4605	5	.045″	.530″
4606	6	.045″	.580″
4607	7	.045″	.620″
4608	8	.060″	.660″
4610	10	.060″	.790″
4612	12	.060″	.811″
4614	14	.060″	.844″
4616	16	.060″	.875″
4619	19	.060″	.995″
4620	20	.060″	1.02″

4622	22	.080″	1.065″
4624	24	.080″	1.11″
4626	26	.080″	1.156″
4630	30	.080″	1.194″
4637	37	.080″	1.290″
4640	40	.080″	1.340″
4644	44	.080″	1.420″
4650	50	.080″	1.520″
4660	60	.080″	1.610″

14 GAUGE #105/34 BARE COPPER — 3/64″ INSULATION THICKNESS

4705	5	.095″	.700″
4706	6	.095″	.765″
4707	7	.095″	.820″
4708	8	.095″	.882″

4709	9	.095″	.930″
4710	10	.095″	.970″
4712	12	.110″	1.018″

12 GAUGE #165/34 BARE COPPER — 3/64″ INSULATION THICKNESS

4805	5	.095″	.760″
4806	6	.095″	.810″
4807	7	.095″	.870″
4808	8	.110″	.945″
4809	9	.110″	1.02″

4810	10	.110″	1.10″
4812	12	.110″	1.22″
4816	16	.110″	1.36″
4818	18	.125″	1.50″

STANDARD SPOOL PUT-UP: CUT TO SPECIFIC LENGTHS.

COLOR CODE: The color code of neoprene jacketed control cables conforms to IPCEA standards either with full color code or surface printed with color name and number.

PRICES

Alpha No.	Sugg. Resale per 1000′
1450	183.65
1451	308.55
1452	384.78
1454	562.65
1456	744.15
1458	936.54
1459	1306.80
1459/15	1631.85
1459/20	1821.60
1450/16	323.07
1451/16	399.30
1452/16	457.38
1454/16	715.11
1456/16	900.24
1458/16	1361.25
1400	417.45
1401	517.28
1402	617.10
1404	870.00
1410	711.48
1411	889.35
1412	1110.78
1420	925.65
1421	1161.60

Alpha No.	Sugg. Resale per ft.
4505	.91
4506	1.08
4507	1.23
4508	1.42
4509	1.64
4510	1.85
4514	2.46
4605	1.01
4606	1.17
4607	1.38
4608	1.64
4610	2.07
4612	2.46
4614	2.87
4616	3.12
4619	3.88
4620	4.03
4520	3.38
4526	4.61
4530	5.34
4540	7.48
4550	9.26
4560	10.42
4622	4.36
4624	4.94
4626	5.34
4630	6.25
4637	7.88
4640	8.71
4644	9.80
4650	10.71
4660	12.71
4705	1.49
4706	1.82
4707	1.96
4708	2.43
4709	2.76
4710	3.01
4712	3.55
4805	1.82
4806	2.07
4807	2.32
4808	2.65
4809	3.12
4810	3.41
4812	4.07
4816	5.12
4818	5.73

ALPHA electronic WIRE

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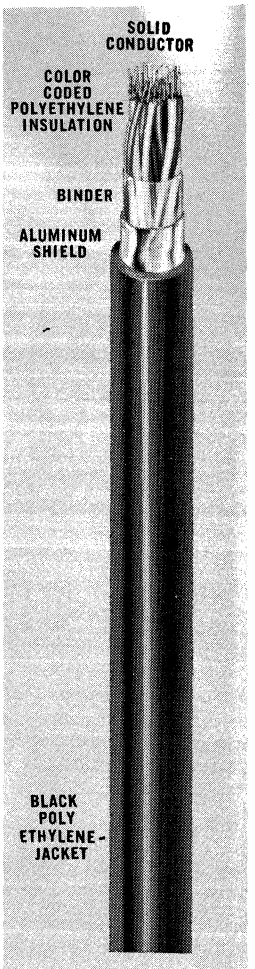
Telemetering & Supervisory Shielded Control Cable

DESCRIPTION: Each conductor bare solid copper, high molecular weight polyethylene insulation, color coded, twisted into pairs, cabled with a non-hygroscopic binder tape .008" aluminum shield, black polyethylene jacket overall. Operating voltage 300 volts.

Double jacketed types, (3903 - 4060 below) same except for additional inner black polyethylene jacket over binder, and .005" copper shield.

APPLICATIONS: Remote control of rocket recording data and test-firing control, transmission of signals which telemeter temperature, voltage pressure, etc. control of multiple circuits, measuring devices, quality control equipment, radar antenna. For aerial, duct and conduit installations.

Double jacketed types have higher dielectric strength and suited for direct burial installations.



22 AWG SOLID

ALPHA NO.	NO. OF PAIRS	NOM. INSUL. THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.	APPROX. LBS./M'
■ 3703	3	.015"	.045"	.39"	88
3706	6	.015"	.045"	.47"	108
3712	12	.015"	.060"	.59"	171
3718	18	.015"	.060"	.67"	210
3725	25	.015"	.060"	.76"	266
3750	50	.015"	.060"	1.10"	510
■ 3755	100	.015"	.060"	1.28"	815
■ 3760	200	.015"	.060"	1.84"	1490

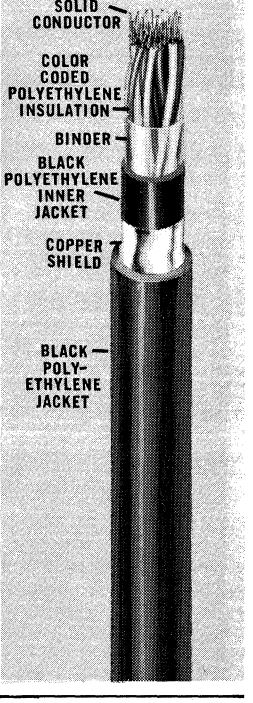
19 AWG SOLID

■ 3803	3	.015"	.045"	.42"	90
3806	6	.015"	.045"	.52"	140
3812	12	.015"	.060"	.66"	232
3818	18	.015"	.060"	.76"	301
3825	25	.015"	.060"	.92"	426
3850	50	.015"	.060"	1.20"	767
■ 3855	100	.015"	.060"	1.58"	830
■ 3860	200	.015"	.060"	2.17"	1520

16 AWG SOLID

■ 3863	3	.020"	.060"	.56"	160
■ 3864	6	.020"	.060"	.69"	240
■ 3865	12	.020"	.060"	.88"	400
■ 3866	18	.020"	.070"	1.04"	560
■ 3867	25	.020"	.070"	1.18"	720
■ 3868	50	.020"	.080"	1.62"	1350

DOUBLE JACKET — HEAVY DUTY



22 AWG SOLID

ALPHA NO.	NO. OF PAIRS	NOM. INSUL. THICKNESS	NOM. JKT. THICKNESS INNER	NOM. JKT. THICKNESS OUTER	NOM. O.D.	APPROX. LBS./M'
■ 3903	3	.015"	.047"	.045"	.43"	90
3906	6	.015"	.047"	.045"	.57"	149
3912	12	.015"	.047"	.060"	.69"	226
3918	18	.015"	.047"	.060"	.77"	281
3925	25	.015"	.047"	.080"	.92"	374
3950	50	.015"	.047"	.080"	1.20"	645
■ 3955	100	.015"	.047"	.080"	1.39"	830
■ 3960	200	.015"	.047"	.080"	1.91"	1580

19 AWG SOLID

■ 4003	3	.015"	.047"	.060"	.47"	110
4006	6	.015"	.047"	.060"	.62"	200
4012	12	.015"	.047"	.060"	.76"	297
4018	18	.015"	.047"	.060"	.92"	415
4025	25	.015"	.047"	.080"	1.00"	558
4050	50	.015"	.047"	.080"	1.30"	929
■ 4055	100	.015"	.047"	.080"	1.65"	1380
■ 4060	200	.015"	.047"	.080"	2.23"	2570

STANDARD PUT-UP: CUT TO SPECIFICATION — MIN. 25 FT.

BINDER COLORS: 1 - 25 pair, white-blue binder; 25 - 50, white-orange; 50 - 75, white-green; 75 - 100, white-black; 100 - 125, white-slate; 125 - 150, red-blue; 150 - 175, red-orange; 175 - 200, red-green. (Color code per IPCEA.)

ALPHA electronic WIRE

PRICES

Alpha No.	Sugg. Resale per ft.					Alpha No.	Sugg. Resale per ft.
3703	.74	3812	1.23	3867	8.07	4003	1.05
3706	.73	3818	1.56	3868	8.07	4006	1.06
3712	.98	3825	1.96	3903	.74	4012	1.45
3718	1.20	3850	3.34	3906	.91	4018	1.82
3725	1.45	3855	9.70	3912	1.17	4025	2.21
3750	2.46	3860	18.95	3918	1.45	4050	3.74
3755	5.84	3863	1.12	3925	1.74	4055	11.06
3760	13.75	3864	1.76	3950	2.76	4060	20.63
3803	.86	3865	3.53	3955	5.84		
3806	.91	3866	4.53	3960	13.75		

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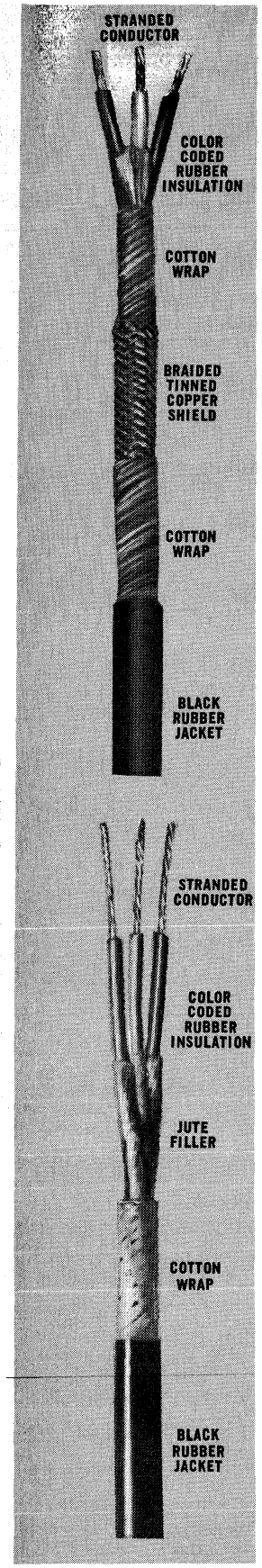

Shielded Control Cable

GENERAL PURPOSE MULTI-CONDUCTOR RUBBER INSULATED AND RUBBER JACKET

DESCRIPTION: Each conductor, stranded tinned copper, color coded rubber insulation, cabled with fillers where necessary, cotton wrap, braided tinned copper shield, cotton wrap, tough black rubber jacket overall.

CHARACTERISTICS: Suggested Operating Temperature: −20°C to +60°C.

APPLICATIONS: Cables are extremely flexible for control circuits, video and audio interconnecting cable, broadcast and heavy duty studio use.

SHIELDED MULTI-CONDUCTOR CABLE

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
1250/18	2	18	41/34	.020″	.035″	.295″
1250	2	20	26/34	.020″	.035″	.270″
1251	3	20	26/34	.020″	.035″	.285″
1252	4	20	26/34	.020″	.035″	.305″
1253	5	20	26/34	.020″	.035″	.330″
1254	6	20	26/34	.020″	.035″	.345″
1255	7	20	26/34	.020″	.035″	.355″
1255/8	8	20	26/34	.020″	.035″	.385″
1255/10	10	20	26/34	.020″	.035″	.440″
1255/12	12	20	26/34	.020″	.065″	.525″
1255/15	15	20	26/34	.020″	.065″	.595″
1255/20	20	20	26/34	.020″	.065″	.660″

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

See color code of conductors below.

Unshielded Control Cable

GENERAL PURPOSE MULTI-CONDUCTOR RUBBER INSULATED AND RUBBER JACKET

DESCRIPTION: Each conductor stranded tinned copper, color coded rubber insulation, cabled with fillers, where necessary, cotton wrap, tough black rubber jacket overall.

CHARACTERISTICS: Suggested operating temperature −20°C to +60°C.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
1244	2	20	26/34	.020″	.035″	.240″
1245	3	20	26/34	.020″	.035″	.255″
1246	4	20	26/34	.020″	.035″	.275″
1247	5	20	26/34	.020″	.035″	.300″
1247/6	6	20	26/34	.020″	.035″	.315″
1247/7	7	20	26/34	.020″	.035″	.325″
1247/8	8	20	26/34	.020″	.035″	.360″
1247/10	10	20	26/34	.020″	.035″	.410″
1247/12	12	20	26/34	.020″	.035″	.435″
1247/15	15	20	26/34	.020″	.035″	.505″
1247/20	20	20	26/34	.020″	.035″	.570″

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS

1—Black	5—Yellow	9—Slate	13—White/Green (Braid)	17—White/Purple (Braid)
2—White	6—Blue	10—Purple	14—White/Yellow (Braid)	18—White/Slate (Braid)
3—Red	7—Brown	11—White/Black (Braid)	15—White/Blue (Braid)	19—Black/Red (Braid)
4—Green	8—Orange	12—White/Red (Braid)	16—White/Brown (Braid)	20—Black/Yellow (Braid)

PRICES

Alpha No.	Sugg. Resale per 500′	Alpha No.	Sugg. Resale per 500′	Alpha No.	Sugg. Resale per 500′	Alpha No.	Sugg. Resale per 500′
1250/18	79.70	1255	104.70	1244	47.73	1247/8	114.35
1250	47.85	1255/8	121.50	1245	51.00	1247/10	199.65
1251	53.63	1255/10	263.18	1246	61.17	1247/12	272.25
1252	62.30	1255/12	363.00	1247	78.05	1247/15	399.30
1253	79.86	1255/15	471.90	1247/6	94.38	1247/20	544.50
1254	96.60	1255/20	589.88	1247/7	103.46		

ALPHA electronic WIRE

Net

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Flat Ribbon Cable

MULTI-CONDUCTOR — PLASTIC INSULATION
CONDUCTORS PER MIL-W-16878D, Type C

DESCRIPTION: Each conductor stranded tinned copper, color coded .016" polyvinyl-chloride insulation, conductors bonded together to form flat ribbon cable.

CHARACTERISTICS: Temperature rating −55°C to +105°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents, and fungus.

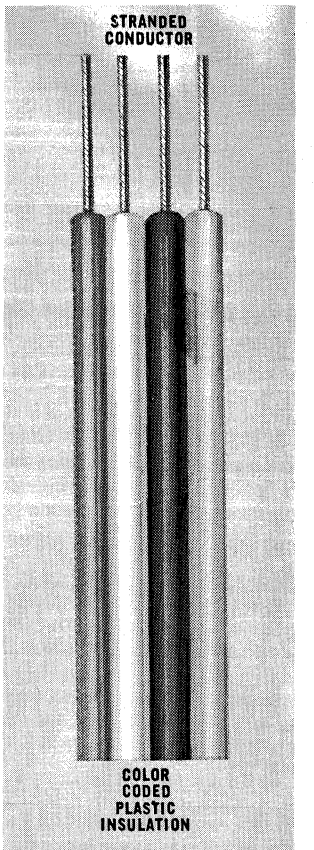
APPLICATIONS: Saves time, weight, and space on circuit connections, interconnecting assemblies and systems, wiring harnesses for racks, sliding drawer and drop panels. Conductors fully color coded and easily separated for neat terminations.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.
3504	4	22	7/30	.016"	.065" x .260"
3508	8	22	7/30	.016"	.065" x .520"
3512	12	22	7/30	.016"	.065" x .780"
3516	16	22	7/30	.016"	.065" x 1.040"
3520	20	22	7/30	.016"	.065" x 1.300"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet
20—White/Black/Red



Shielded Control Cable

GENERAL PURPOSE MULTI-CONDUCTOR
PLASTIC JACKETED CABLE

DESCRIPTION: Each conductor, stranded tinned copper, color coded, polyethylene insulation, cabled with fillers where necessary, rayon wrap, braided tinned copper shield, chrome gray polyvinylchloride jacket overall.

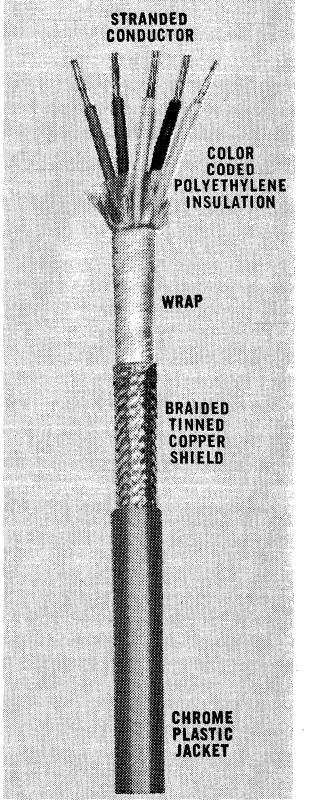
CHARACTERISTICS: Suggested Operating Temperature: −20°C to +60°C. Suggested Operating Voltage: 600 Volts.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
1712	2	20	26/34	.014"	.030"	.230"
1713	3	20	26/34	.014"	.035"	.250"
1715	4	20	26/34	.014"	.035"	.260"
1716	5	20	26/34	.014"	.035"	.275"
1717	6	20	26/34	.014"	.035"	.300"
1719	8	20	26/34	.014"	.035"	.330"
1721	10	20	26/34	.014"	.035"	.375"
1723	12	20	26/34	.014"	.035"	.380"
1726	15	20	26/34	.014"	.035"	.410"
1728	20	20	26/34	.014"	.035"	.455"

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS

1—Black
2—White
3—Red
4—Green
5—Yellow
6—Blue
7—Brown
8—Orange
9—Slate
10—Purple
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Purple
18—White/Slate
19—Black/Red
20—Black/Yellow



ALPHA electronic WIRE

PRICES

Alpha No.	Sugg. Resale per 500'	Alpha No.	Sugg. Resale per 500'	Alpha No.	Sugg. Resale per 500'	Alpha No.	Sugg. Resale per 500'
3504	47.22	3520	235.95	1716	56.10	1723	275.88
3508	85.85	1712	42.65	1717	114.35	1726	443.85
3512	133.22	1713	42.90	1719	143.39	1728	544.50
3516	190.58	1715	49.92	1721	181.50		

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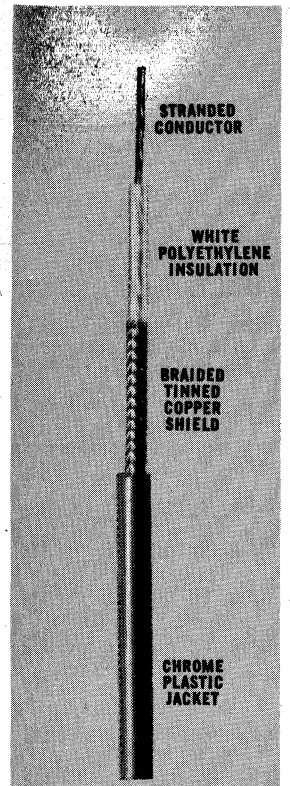
Net

Shielded Microphone Cable



PLASTIC JACKET

DESCRIPTION: 1702-1706: Single conductor, stranded tinned copper, white polyethylene insulation, braided or spiral wrapped tinned copper shield, gray polyvinylchloride jacket overall.

1709-1712: Each conductor stranded tinned copper, color coded polyethylene insulation, cabled with fillers, textile wrap, braided or spiral wrapped tinned copper shield, gray polyvinylchloride jacket overall.

APPLICATIONS: 1702-1706: All high impedance microphones, lapel, ribbon, velocity, crystal contact, hi-fi interconnecting cables.

1709-1712: All low impedance microphones—carbon, condenser, dynamic.

CHARACTERISTICS: Suggested operating temperature: −20°C to +60°C.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	*CAPACITY NOM./FT.	SUG. WORK. VOLTAGE	TYPE OF SHIELD	NOM. JKT THICKNESS	NOM. O.D.
1702	1	26	3/34† 4/34†	.016″	38 mmf.	1000	Spiral Wrapped	.020″	.110″
1703	1	24	10/34	.020″	35 mmf.	3500	Braided	.030″	.145″
1704	1	24	10/34	.040″	23 mmf.	5000	Braided	.030″	.190″
1705	1	24	10/34	.016″	45 mmf.	1000	Spiral Wrapped	.020″	.110″
1706	1	20	26/34	.030″	36 mmf.	4000	Braided	.030″	.175″
1709	2	24	10/34	.016″	38 mmf.	1000	Spiral Wrapped	.030″	.190″
1710	2	22	16/34	.025″	31 mmf.	1000	Braided	.025″	.230″
1712	2	20	26/34	.014″	45 mmf.	600	Braided	.030″	.245″

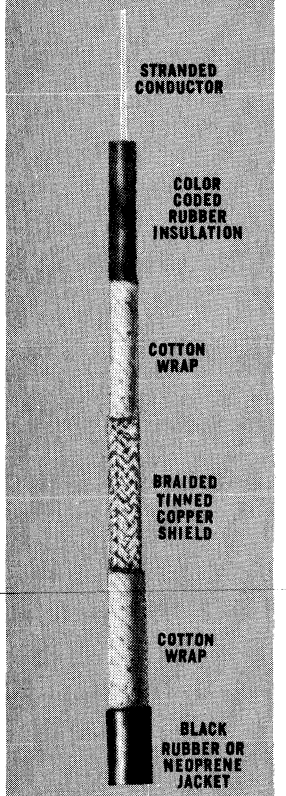
STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

*Between one conductor and remaining conductors connected to shield.

†Three strands of tinned copper and four strands of tinned copperweld.

COLOR CODE OF CONDUCTORS
1—White 2—Black

RUBBER AND NEOPRENE JACKETS



DESCRIPTION: Each conductor stranded tinned copper, color coded rubber insulation, cotton wrap, braided tinned copper shield, cotton wrap, tough black rubber or neoprene jacket overall.

APPLICATIONS: 1248-1449: All high impedance microphone, broadcast and heavy duty studio use, communication and audio systems.

1250-1450/16: All low impedance microphone, broadcast and heavy duty studio use. Can also be used for control circuits, video and audio interconnection cable, and as electronic power cables.

CHARACTERISTICS: Suggested operating temperature: −20°C to +60°C.

Rubber jacketed cable suited for standard duty indoor use.

Neoprene jacketed cable suited for heavy duty outdoor use and direct burial. Will resist oil, acid, sunlight, ageing and abrasion.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	TYPE OF JKT.	*NOM. CAP. MMF/FT.	NOM. O.D.
1248†	1	20	26/34	.025″	.030″	Rubber	97	.190″
1249	1	20	26/34	.040″	.035″	Rubber	60	.230″
1249/18	1	18	41/34	.040″	.035″	Rubber	69	.240″
1449	1	18	41/34	.040″	.035″	Neoprene	69	.240″
1250	2	20	26/34	.020″	.035″	Rubber	68	.270″
1250/18	2	18	41/34	.020″	.035″	Rubber	78	.295″
1450	2	18	41/34	.020″	.035″	Neoprene	78	.295″
1450/16	2	16	65/34	.025″	.035″	Neoprene	82	.335″

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

*Between one conductor and remaining conductors (if any) connected to shield.

†Mylar wrap under tinned copper shield.

COLOR CODE OF CONDUCTORS
1—Black 2—White

PRICES

Alpha No.	Sugg. Resale per 500′	Alpha No.	Net	Alpha No.	Net	Alpha No.	Sugg. Resale per 500′
1702	16.50	1706	34.13	1248	44.15	1250	47.85
1703	15.69	1709	39.50	1249	44.55	1250/18	79.70
1704	21.45	1710	31.19	1249/18	69.30	1450	93.56
1705	19.05	1712	42.65	1449	73.20	1450/16	172.43

ALPHA electronic WIRE

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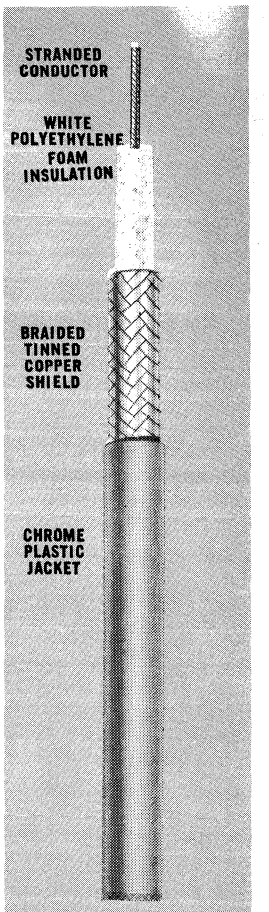
Low Capacitance Shielded Microphone Cable

CELLULAR FOAM POLYETHYLENE INSULATION — PLASTIC JACKET



DESCRIPTION: Single conductor, stranded tinned copper, white foam polyethylene insulation, braided tinned copper shield, chrome gray polyvinylchloride jacket.

Two conductors, stranded tinned copper, color coded foam polyethylene insulation, 1 white and 1 black, cabled with fillers, textile wrap, braided tinned copper shield, chrome gray polyvinylchloride jacket.

CHARACTERISTICS: Suggested operating temperature: −20°C to +60°C. Low loss foam polyethylene provides lower capacitance and attenuation than standard solid polyethylene microphone cables, thereby increasing the effective length of usable cable without loss of signal.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	*CAPACITY NOM./FT.	NOM. JKT. THICKNESS	NOM. O.D.
2310	1	26	3/34† 4/34†	.016″	30 mmf	.020″	.115″
2311	1	24	10/34	.035″	20 mmf	.030″	.180″
2312	1	24	10/34	.055″	15 mmf	.030″	.225″
2323	2	22	16/34	.035″	11 mmf	.030″	.300″

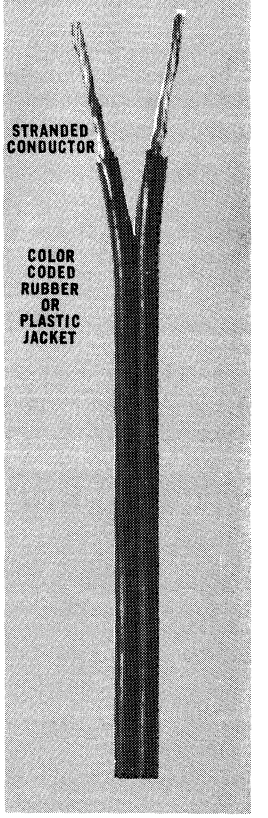
STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

* Between one conductor and remaining conductors connected to shield.
† Three strands of tinned copper and four strands of tinned copperweld.

COLOR CODE OF CONDUCTORS
1— White 2— Black

E-Z-Strip Lamp Cord

U.L. APPROVED



DESCRIPTION: Conductors parallel, stranded extra flexible bare copper, rubber or polyvinylchloride jacket overall. Slit in jacket to permit "E-Z" separation.

APPLICATIONS: For line cord on radios, lamps, electric clocks, food mixers and other small instruments and appliances.

CHARACTERISTICS: Suggested operating temperature: −20°C to +60°C. Suggested operating voltage: 300 volts.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	INSUL. TYPE	NOM. WALL THICKNESS	U/L TYPE	NOMINAL O.D.	STOCK COLORS
1967	2	18	41/34	Rubber	.032″	SP-1(POSJ)	.220″ x .120″	Brown, Black, White
1977	2	18	41/34	Plastic	.032″	SPT-1(POT)	.215″ x .115″	Brn., Blk., Wh., Gray, Tan
1978	2	18	41/34	Plastic	.045″	SPT-2(POT)	.285″ x .150″	Brown
1979	2	18	41/34	Plastic	.032″	SPT-1(POT)	.215″ x .115″	Clear
1982	2	16	65/34	Plastic	.045″	SPT-2(POT)	.300″ x .160″	Brown

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

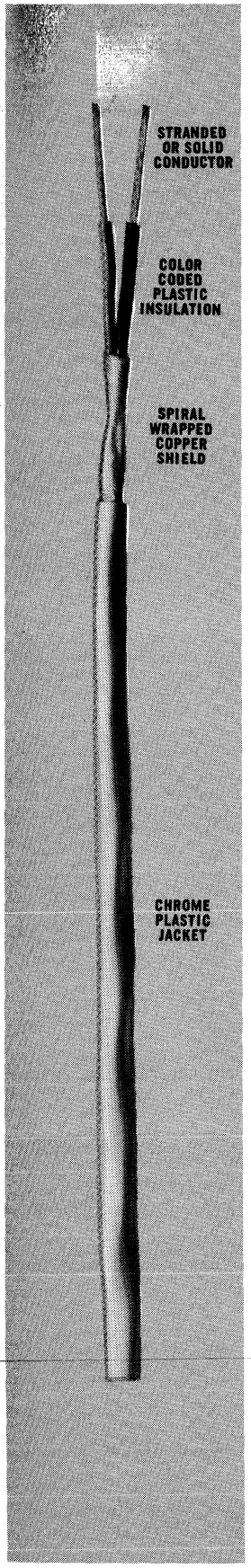
ALPHA electronic WIRE

PRICES

Alpha No.	Sugg. Resale per 500′	Alpha No.	per 250′	Alpha No.	per 250′
2310	25.41	2312	38.66	1967	8.01
2311	30.30	2323	66.71	1977	6.27
				1978	12.26
				1979	9.98
				1982	17.42

Shielded Plastic Jacketed Cable

SPIRAL WRAPPED COPPER SHIELD



DESCRIPTION: Each conductor stranded or solid tinned copper, color coded polyvinylchloride insulation, conductors twisted, spiral wrapped copper shield, gray polyvinylchloride jacket overall. **Nominal jacket thickness .020".**

CHARACTERISTICS: Use of spiral shield makes pigtailing off extremely simple and fast. Excellent for production line work. Provides close to 100% shielded coverage for audio and RF frequencies. Suggested operating temperature: −20°C to +60°C.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.	SUGG. WORKING VOLTAGE
2255	2	22	Solid	.016"	.170"	350V
2254/1	1	22	7/30	.016"	.115"	350V
2254	2	22	7/30	.016"	.175"	350V
2254/3	3	22	7/30	.016"	.190"	350V
2254/4	4	22	7/30	.016"	.200"	350V
2254/6	6	22	7/30	.016"	.235"	350V
2256/1	1	20	10/30	.016"	.130"	350V
2256	2	20	10/30	.016"	.195"	350V
2256/3	3	20	10/30	.016"	.210"	350V
2256/4	4	20	10/30	.016"	.225"	350V
2256/6	6	20	10/30	.016"	.265"	350V
2258/1	1	18	16/30	.016"	.135"	350V
2258	2	18	16/30	.016"	.230"	350V
2258/3	3	18	16/30	.016"	.235"	350V
2258/4	4	18	16/30	.016"	.245"	350V
2260	2	16	26/30	.016"	.240"	350V
2260/3	3	16	26/30	.016"	.245"	350V
2265	2	14	41/30	.020"	.285"	450V
2265/3	3	14	41/30	.020"	.290"	450V
2268	2	12	65/30	.020"	.325"	450V
2268/3	3	12	65/30	.020"	.330"	450V

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS
1—Black 2—Red 3—White 4—Green 5—Yellow 6—Blue

PRICES

Alpha No.	Sugg. Resale per 500'	Alpha No.	Net	Alpha No.	Net	Alpha No.	Sugg. Resale per 500'
2255	14.33						
2254/1	16.14	2256/1	18.24	2258/1	21.33	2260/3	66.24
2254	16.10	2256	19.64	2258	23.76	2265	68.97
2254/3	26.31	2256/3	29.04	2258/3	29.93	2265/3	116.16
2254/4	41.75	2256/4	61.71	2258/4	70.79	2268	125.24
2254/6	65.34	2256/6	81.68	2260	32.67	2268/3	192.39

ALPHA electronic WIRE

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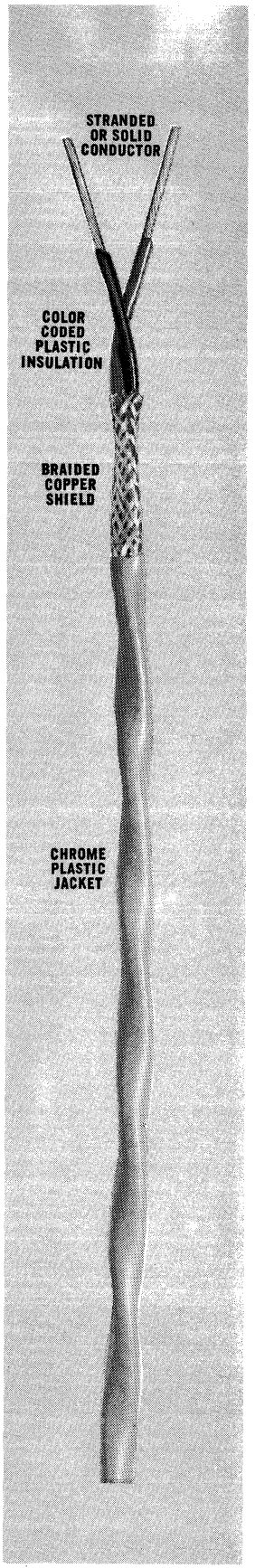
Shielded Plastic Jacketed Cable

BRAIDED COPPER SHIELD

DESCRIPTION: Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted, braided copper shield, gray polyvinylchloride jacket overall. Suitable for outdoor installations.

CHARACTERISTICS: A conventional type of braided shield providing approximately 75% coverage is particularly desirable where flexibility is required. The copper shield allows ease of pigtail soldering. Shield construction provides additional cable strength. Operating temperature: −20°C to +60°C. **Nominal jacket thickness .020".**

APPLICATIONS: For public address and sound systems, ideal for recording studios, amateur radio transmitters, shielded power or electronic circuits, wherever an economical shielded cable is required.



STRANDED

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.	SUGG. WORKING VOLTAGE
1735	1	22	7/30	.016"	.125"	350V
1736	2	22	7/30	.016"	.185"	350V
1737	3	22	7/30	.016"	.200"	350V
1738	4	22	7/30	.016"	.210"	350V
1740	1	20	10/30	.016"	.135"	350V
1741	2	20	10/30	.016"	.200"	350V
1742	3	20	10/30	.016"	.220"	350V
1743	4	20	10/30	.016"	.230"	350V
1745	1	18	16/30	.016"	.145"	350V
1746	2	18	16/30	.016"	.235"	350V
1747	3	18	16/30	.016"	.245"	350V
1747/4	4	18	16/30	.016"	.255"	350V
1748	2	16	26/30	.016"	.250"	350V
1749	3	16	26/30	.016"	.255"	350V
1750	2	14	41/30	.020"	.290"	450V
1751	3	14	41/30	.020"	.295"	450V
1760	2	12	65/30	.020"	.335"	450V
1761	3	12	65/30	.020"	.340"	450V

SOLID

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.	SUGG. WORKING VOLTAGE
1775*	2	22	1	.016"	.175"	350V
1779	2	20	1	.016"	.210"	350V
1783	2	18	1	.016"	.220"	350V

*With 22 AWG solid tinned copper ground wire under braided copper shield.

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS 1—Black 2—Red 3—White 4—Green

ALPHA electronic WIRE

PRICES

Alpha No.	Sugg. Resale per 500'	Alpha No.	Net	Alpha No.	Net	Alpha No.	Sugg. Resale per 500'
1735	22.86						
1736	24.26						
1737	32.91						
1738	43.65						
1740	25.73						
1741	34.91						
		1742	44.18	1747/4	81.86	1760	124.74
		1743	62.88	1748	60.21	1761	169.79
		1745	30.14	1749	81.86	1775	21.45
		1746	41.84	1750	79.70	1779	33.87
		1747	59.60	1751	113.04	1783	41.22

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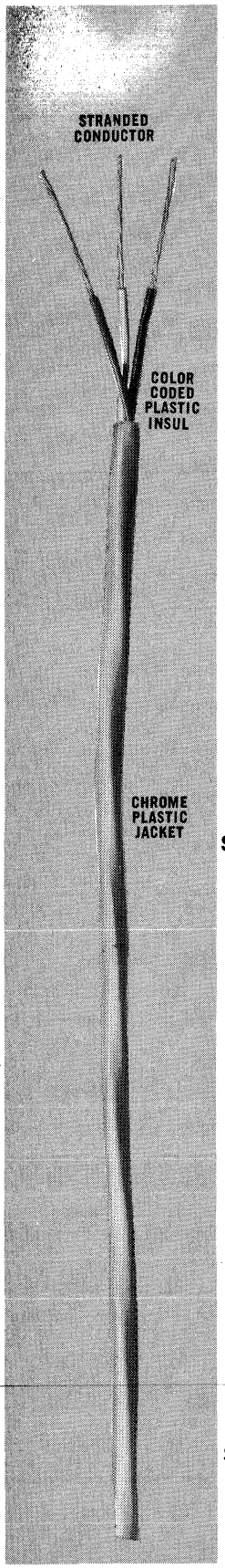
Unshielded Audio Cable

MULTI-CONDUCTOR — PLASTIC JACKET



DESCRIPTION: Each conductor stranded tinned copper, color coded polyvinylchloride insulation, conductors twisted, gray polyvinylchloride jacket overall. Suitable for outdoor installations.

APPLICATIONS: Unbalanced intercom systems. Low voltage relay control cable. P.A. systems. Electronic computer cable. Interconnecting cables. Remote control circuits. Telephones. Telemetering connecting cable. "Baby Sitter" intercom.

CHARACTERISTICS: Suggested Operating Temperature: −20°C to +60°C.

200 VOLTS — **STRANDED CONDUCTORS**

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
1172	2	22	7/30	.010″	.020″	.140″
1173	3	22	7/30	.010″	.020″	.145″
1174	4	22	7/30	.010″	.020″	.170″
1175	5	22	7/30	.010″	.020″	.175″
1176	6	22	7/30	.010″	.020″	.185″
1177	7	22	7/30	.010″	.020″	.190″
1178	8	22	7/30	.010″	.020″	.200″
1179	9	22	7/30	.010″	.020″	.225″
1180	10	22	7/30	.010″	.020″	.235″
1181	12	22	7/30	.010″	.020″	.255″
1181/15	15	22	7/30	.010″	.020″	.280″
1181/20	20	22	7/30	.010″	.020″	.310″
1181/25	25	22	7/30	.010″	.020″	.340″
1181/30	30	22	7/30	.010″	.020″	.365″
1181/40	40	22	7/30	.010″	.025″	.425″
1181/50	50	22	7/30	.010″	.035″	.500″
1181/60	60	22	7/30	.010″	.035″	.530″

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

300 VOLTS — **STRANDED CONDUCTORS**

ALPHA NO.	NO.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
1897	2	18	16/30	.016″	.020″	.200″
1898	3	18	16/30	.016″	.020″	.210″
1898/4	4	18	16/30	.016″	.020″	.240″
1898/6	6	18	16/30	.016″	.020″	.290″
1898/8	8	18	16/30	.016″	.025″	.315″
1898/10	10	18	16/30	.016″	.025″	.370″
1898/12	12	18	16/30	.016″	.025″	.385″

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

300 VOLTS — **SOLID CONDUCTORS**

ALPHA NO.	CONDUCTOR NO.	CONDUCTOR SIZE	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
1797	2	18	.016″	.020″	.190″
1798	3	18	.016″	.020″	.200″
1798/4	4	18	.016″	.020″	.220″
1798/5	5	18	.016″	.020″	.235″
1798/6	6	18	.016″	.020″	.265″

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS

1—Black
2—Red
3—White
4—Green
5—Orange
6—Blue
7—Brown
8—Yellow
9—Purple
10—Slate
11—Pink
12—Tan
13—Red/Green
14—Red/Yellow
15—Red/Black
16—White/Black
17—White/Red
18—White/Green
19—White/Yellow
20—White/Blue
21—White/Brown
22—White/Orange
23—White/Gray
24—White/Violet
25—White/Black/Red
26—White/Black/Green
27—White/Black/Yellow
28—White/Black/Blue
29—White/Black/Brown
30—White/Black/Orange
31—White/Black/Slate
32—White/Black/Purple
33—White/Black/Black
34—White/Red/Black
35—White/Red/Red
36—White/Red/Green
37—White/Red/Blue
38—White/Red/Brown
39—White/Red/Purple
40—White/Green/Black
41—White/Green/Red
42—White/Green/Green
43—White/Green/Blue
44—White/Green/Brown
45—White/Green/Purple
46—White/Blue/Black
47—White/Blue/Red
48—White/Blue/Green
49—White/Blue/Blue
50—White/Blue/Brown
51—White/Blue/Purple
52—White/Brown/Black
53—White/Brown/Red
54—White/Brown/Green
55—White/Brown/Blue
56—White/Brown/Brown
57—White/Brown/Purple
58—White/Purple/Red
59—White/Purple/Green
60—White/Purple/Blue

PRICES

Alpha No.	Sugg. Resale per 500′
1172	9.83
1173	11.15
1174	14.69
1175	17.82
1176	27.65
1177	31.35
1178	34.65
1179	38.37
1180	39.20
1181	42.08
1181/15	128.21
1181/20	164.58
1181/25	213.26
1181/30	272.25
1181/40	435.60
1181/50	544.50
1181/60	653.40
1897	23.90
1898	42.27
1898/4	60.72
1898/6	87.48
1898/8	116.94
1898/10	149.00
1898/12	176.72
1797	23.21
1798	31.97
1798/4	41.75
1798/5	54.05
1798/6	64.44

ALPHA electronic WIRE

Net

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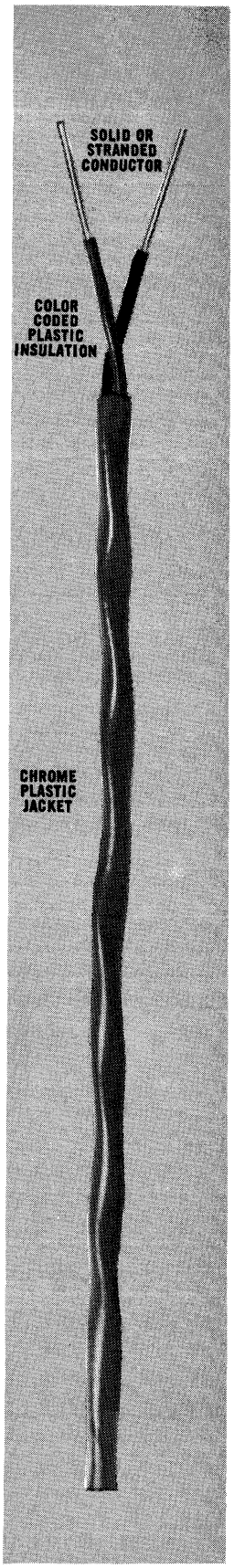
Unshielded Audio Cable

MULTI-CONDUCTOR — PLASTIC JACKET

DESCRIPTION: Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted, gray polyvinylchloride jacket overall. Suitable for outdoor installations.

APPLICATIONS: Intercoms. Interconnecting cables. Remote control circuits. Telephones. Telemetering connecting cable. "Baby Sitter" intercom.

CHARACTERISTICS: Suggested Operating Temperature: −20°C to +60°C



SOLID

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.	SUGG. OPER. VOLTAGE
1793	2	22	1	.010″	.020″	.130″	200 V
1794	3	22	1	.010″	.020″	.140″	200 V
1794/4	4	22	1	.010″	.020″	.160″	200 V
1795	2	20	1	.016″	.020″	.170″	350 V
1796	3	20	1	.016″	.020″	.180″	350 V
1796/4	4	20	1	.016″	.020″	.200″	350 V
1797	2	18	1	.016″	.020″	.190″	350 V
1798	3	18	1	.016″	.020″	.200″	350 V
1798/4	4	18	1	.016″	.020″	.220″	350 V
1799	2	16	1	.016″	.020″	.215″	350 V
1799/3	3	16	1	.016″	.020″	.230″	350 V
1799/4	4	16	1	.016″	.020″	.250″	350 V

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.
COLOR CODE OF CONDUCTORS: 1—Black 2—Red 3—White 4—Green

STRANDED

1893	2	22	7/30	.010″	.020″	.135″	200 V
1894	3	22	7/30	.010″	.020″	.145″	200 V
1894/4	4	22	7/30	.010″	.020″	.170″	200 V
1895	2	20	10/30	.016″	.020″	.180″	350 V
1896	3	20	10/30	.016″	.020″	.190″	350 V
1896/4	4	20	10/30	.016″	.020″	.215″	350 V
1897	2	18	16/30	.016″	.020″	.200″	350 V
1898	3	18	16/30	.016″	.020″	.210″	350 V
1898/4	4	18	16/30	.016″	.020″	.240″	350 V
1899	2	16	26/30	.016″	.020″	.225″	350 V
1899/3	3	16	26/30	.016″	.020″	.245″	350 V
1899/4	4	16	26/30	.016″	.020″	.270″	350 V
1891	2	14	41/30	.016″	.020″	.260″	350 V
1891/3	3	14	41/30	.016″	.020″	.280″	350 V
1892	2	12	65/30	.016″	.020″	.300″	350 V
1892/3	3	12	65/30	.016″	.020″	.320″	350 V

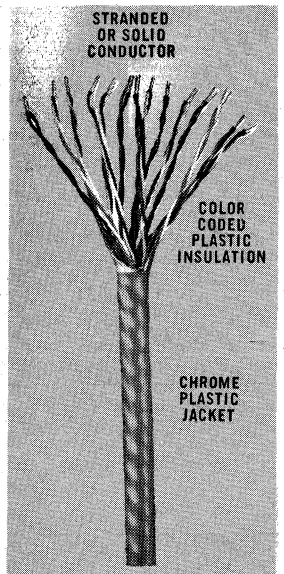
STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.
COLOR CODE OF CONDUCTORS: 1—Black 2—Red 3—White 4—Green

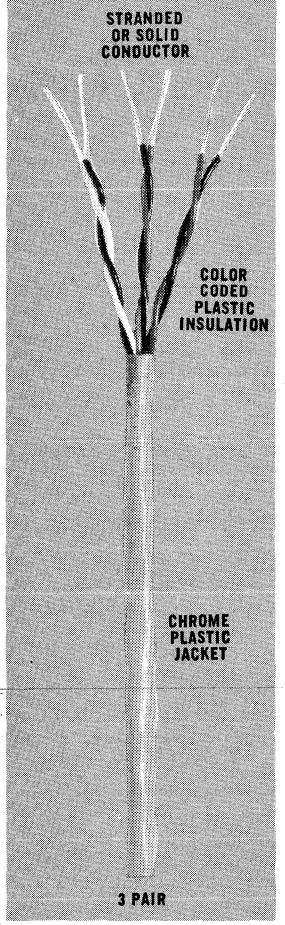
ALPHA electronic WIRE

PRICES

Alpha No.	Sugg. Resale per 500′					Alpha No.	Sugg. Resale per 500′
1793	11.25	1798	31.97	1894/4	27.29	1899	32.15
1794	16.89	1798/4	41.75	1895	16.97	1899/3	63.75
1794/4	23.73	1799	40.37	1896	32.15	1899/4	86.97
1795	19.92	1799/3	48.86	1896/4	43.31	1891	64.10
1796	28.41	1799/4	65.84	1897	23.90	1891/3	86.63
1796/4	33.35	1893	14.03	1898	42.27	1842	90.09
1797	23.21	1894	19.92	1898/4	60.72	1892/3	131.67

Net





SECTION 6000

Unshielded Intercom Cable

PAIRED CONDUCTORS — PLASTIC JACKET

DESCRIPTION: Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted into pairs, gray polyvinylchloride jacket overall. Suitable for outdoor installations.

APPLICATIONS: Balanced intercom systems. Annunciators. Telephones. Nurses call systems. Control circuit cable. Electronic computer cable. Multiple speaker cable. Signal systems. Alarm systems.

CHARACTERISTICS: Suggested operating temperature: −20°C to +60°C. Suggested operating voltage: 200 volts.

SOLID CONDUCTORS

ALPHA NO.	NO. OF PAIRS	NO. OF COND.	COND. SIZE	COND. STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
1300	1	2	22 Solid	1	.010″	.020″	.130″
1302	2	4	22 Solid	1	.010″	.020″	.195″
1304	3	6	22 Solid	1	.010″	.020″	.220″
1307	6	12	22 Solid	1	.010″	.020″	.275″
1307/7	7	14	22 Solid	1	.010″	.020″	.285″
1307/9	9	18	22 Solid	1	.010″	.020″	.310″
1308/11	11	22	22 Solid	1	.010″	.020″	.340″
1309	13	26	22 Solid	1	.010″	.025″	.380″
1309/15	15	30	22 Solid	1	.010″	.025″	.400″
1310	16	32	22 Solid	1	.010″	.025″	.420″
1313	27	54	22 Solid	1	.010″	.035″	.510″
1313/31	31	62	22 Solid	1	.010″	.035″	.555″
1313/41	41	82	22 Solid	1	.010″	.035″	.630″
1314	51	102	22 Solid	1	.010″	.045″	.735″

STRANDED CONDUCTORS

1316	1	2	22	7/30	.010″	.020″	.145″
1317	2	4	22	7/30	.010″	.020″	.210″
1318	3	6	22	7/30	.010″	.020″	.225″
1319	4	8	22	7/30	.010″	.020″	.240″
1320	5	10	22	7/30	.010″	.020″	.265″
1322	6	12	22	7/30	.010″	.020″	.290″
1323	9	18	22	7/30	.010″	.020″	.355″
1324	11	22	22	7/30	.010″	.020″	.365″
1327	15	30	22	7/30	.010″	.025″	.450″
1327/19	19	38	22	7/30	.010″	.025″	.480″
1328	23	46	22	7/30	.010″	.030″	.530″
1329	27	54	22	7/30	.010″	.035″	.570″
1329/31	31	62	22	7/30	.010″	.040″	.635″
1329/41	41	82	22	7/30	.010″	.040″	.710″
1330	51	102	22	7/30	.010″	.045″	.800″

STANDARD SPOOL PUT-UP: 50 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

PAIR NO.	COLOR COMBINATION
1	Black paired with Red
2	Black paired with White
3	Black paired with Green
4	Black paired with Blue
5	Black paired with Brown
6	Black paired with Yellow
7	Black paired with Orange
8	Red paired with Green
9	Red paired with White
10	Red paired with Blue
11	Red paired with Yellow
12	Red paired with Brown
13	Red paired with Orange
14	Green paired with Blue
15	Green paired with White
16	Green paired with Brown
17	Green paired with Orange
18	Green paired with Yellow
19	White paired with Blue
20	White paired with Brown
21	White paired with Orange
22	White paired with Yellow
23	Blue paired with Brown
24	Blue paired with Orange
25	Blue paired with Yellow
26	Brown paired with Orange
27	Brown paired with Yellow
28	Purple paired with Red
29	Purple paired with White
30	Purple paired with Green
31	Purple paired with Blue
32	Purple paired with Brown
33	Purple paired with Yellow
34	Purple paired with Orange
35	Purple paired with Slate
36	Purple paired with Black
37	Slate paired with Red
38	Slate paired with White
39	Slate paired with Green
40	Slate paired with Blue
41	Slate paired with Brown
42	Slate paired with Yellow
43	Slate paired with Orange
44	Slate paired with Black
45	White/Black paired w. Red
46	White/Black paired w. Green
47	White/Black paired w. Blue
48	White/Black paired w. Brown
49	White/Black paired w. Yellow
50	White/Black paired w. Orange
51	White/Black paired w. Purple

PRICES

Alpha No.	Sugg. Resale per 500′
1300	7.85
1302	14.28
1304	19.64
1307	33.00
1307/7	43.88
1307/9	45.80
1308/11	61.88
1309	70.13
1309/15	79.20
1310	112.61
1313	155.25
1313/31	346.50
1313/41	502.43
1314	641.03
1316	14.37
1317	31.10
1318	38.97
1319	41.58
1320	42.89
1322	44.55
1323	64.35
1324	97.02
1327	107.25
1327/19	173.25
1328	190.58
1329	207.75
1329/31	519.75
1329/41	693.00
1330	814.28

ALPHA electronic WIRE

Net

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Unshielded Audio Cable

MULTI-CONDUCTOR — OUTER COTTON BRAID

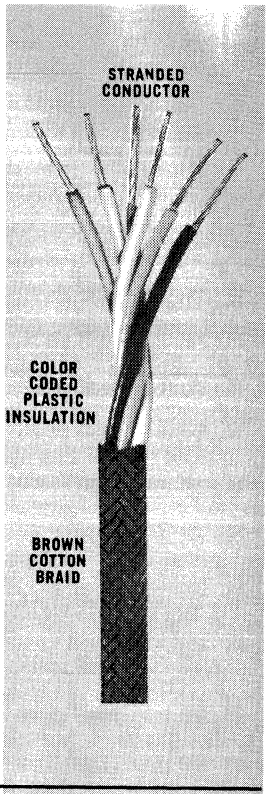
DESCRIPTION: Each conductor stranded tinned copper, color coded polyvinylchloride insulation, conductors twisted, brown cotton braid overall.

CHARACTERISTICS: Suggested operating temperature: −40°C to +80°C. Suggested operating voltage: 600 volts.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.
1182	2	20	10/30	.016″	.170″
1183	3	20	10/30	.016″	.180″
1184	4	20	10/30	.016″	.200″
1185	5	20	10/30	.016″	.220″
1186	6	20	10/30	.016″	.240″
1187	7	20	10/30	.016″	.240″
1188	8	20	10/30	.016″	.265″
1189	9	20	10/30	.016″	.285″
1190	10	20	10/30	.016″	.310″
1192	12	20	10/30	.016″	.322″
1192/15	15	20	10/30	.016″	.360″
1192/20	20	20	10/30	.016″	.405″
1192/25	25	20	10/30	.016″	.450″
1192/30	30	20	10/30	.016″	.485″

STANDARD SPOOL PUT-UP:
1182-1192/20; 100 FT., 500 FT., 1000 FT.
1192/25-1192/30; 100 FT., 250 FT., 500 FT.

COLOR CODE OF CONDUCTORS
1—Black
2—Red
3—White
4—Green
5—Orange
6—Blue
7—Brown
8—Yellow
9—Purple
10—Slate
11—Pink
12—Tan
13—White/Black
14—White/Red
15—White/Green
16—White/Orange
17—White/Blue
18—White/Brown
19—White/Yellow
20—White/Purple
21—White/Gray
22—White/Black/Red
23—White/Black/Green
24—White/Black/Yellow
25—White/Black/Blue
26—White/Black/Brown
27—White/Black/Orange
28—White/Black/Gray
29—White/Black/Violet
30—Dark Blue



MULTI-CONDUCTOR — NO OUTER JACKET

DESCRIPTION: Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted.

APPLICATIONS: Intercoms. Interconnecting cables. Remote control circuits. Telephones. Telemetering connecting cable. "Baby Sitter" intercom.

CHARACTERISTICS: Suggested Operating Temperature: −20°C to +60°C. Suggested Operating Voltage: 350 Volts.

SOLID

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.
1900	2	22	1	.016″	.100″
1901	3	22	1	.016″	.115″
1903	2	20	1	.016″	.120″
1904	3	20	1	.016″	.135″
1906	2	18	1	.016″	.145″
1907	3	18	1	.016″	.155″
1909	2	16	1	.016″	.175″
1910	3	16	1	.016″	.190″
1912	2	19*	1	.016″	.130″
1913	3	19*	1	.016″	.135″

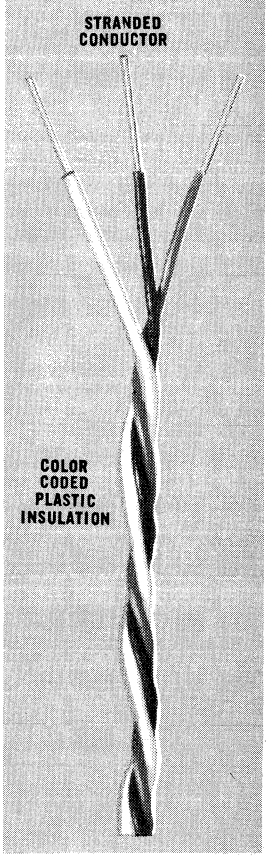
STRANDED

1915	2	22	7/30	.016″	.125″
1916	3	22	7/30	.016″	.140″
1918	2	20	10/30	.016″	.145″
1919	3	20	10/30	.016″	.160″
1921	2	18	16/30	.016″	.165″
1922	3	18	16/30	.016″	.180″
1924	2	16	26/30	.016″	.190″
1925	3	16	26/30	.016″	.210″
1927	2	14	41/30	.016″	.220″
1928	3	14	41/30	.016″	.240″

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

*Bare Untinned Copper Conductor.

COLOR CODE OF CONDUCTORS: 1—Brown 2—Tan 3—Gray



ALPHA electronic WIRE

PRICES

Alpha No.	Sugg. Resale per 500′	Alpha No.	Sugg. Resale per 500′	Alpha No.	Sugg. Resale per 500′
1182	23.60				
1183	34.11				
1184	41.37				
1185	53.00	1192	154.28	1904	17.76
1186	67.88	1192/15	199.65	1906	17.15
1187	78.05	1192/20	272.25	1907	24.69
1188	90.75	1192/25	272.25	1909	29.45
1189	112.53	1192/30	344.85	1910	43.31
1190	127.05	1900	8.63	1912	9.96
		1901	11.78	1913	15.59
		1903	11.36	1915	12.56

Alpha No.	Sugg. Resale per 500′
1916	16.46
1918	14.55
1919	21.05
1921	16.62
1922	24.00
1924	18.53
1925	34.91
1927	38.81
1928	65.84

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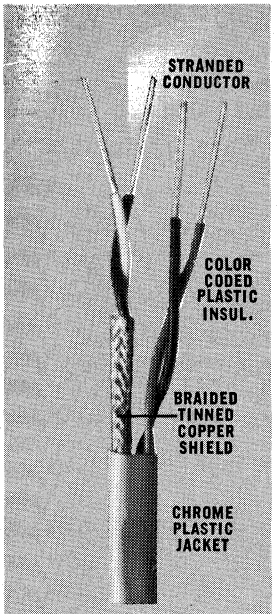
Plastic Intercom Cable



DESCRIPTION: Each conductor stranded tinned copper, color coded polyvinylchloride insulation, braided tinned copper shield (See Chart) over one, two, or three conductors, remaining conductors unshielded and paired, chrome polyvinylchloride jacket overall.

APPLICATIONS: General wiring from station to station where shielded conductor(s) is essential to eliminate cross talk.
1243 Recommended for unbalanced system with remote "break-in."
1243/4: Recommended for balanced systems.
1243/5: Recommended for coin operated phonographs.
1243/P: Recommended for circuits requiring complete isolation.

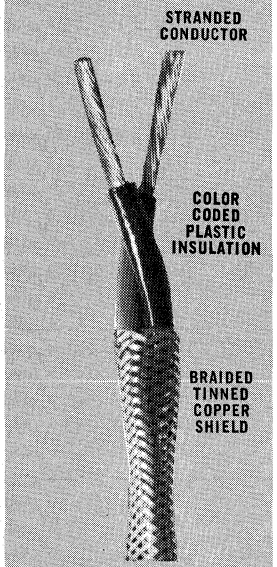
CHARACTERISTICS: Suggested operating temperature: −20°C to +60°C. Suggested operating voltage: 350 volts.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NO. COND. SHIELD	NOM. WALL THICK.	NOM. JKT.	NOMINAL O.D.	COLOR CODE OF COND.
1243	3	22	7/30	1	.016″	.020″	.200″	White—Shielded Blk., Red—Unshielded
1243/4	4	22	7/30	2	.016″	.020″	.180″x.285″	Blk., Wh.—Shielded Blk., Red—Unshielded
1243/5	5	22	7/30	3	.016″	.020″	.200″x.300″	Blk., Wh., Red—Shielded Blk., Red—Unshielded
■1243/P	4	22	7/30	2 pair	.016″	.020″	.180″x.315″	Blk.,Wh.—Shielded Blk., Red—Shielded

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.
■ **NEW**

Shielded Audio Cable

2 CONDUCTOR — NO OUTER JACKET



DESCRIPTION: Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted, braided tinned copper shield overall.

APPLICATIONS: For public address and sound systems. Transmission line. Industrial paging and call systems. Recording equipment. Hospital and school sound installations. Broadcast and audio cable. Rack and panel wiring.

CHARACTERISTICS: Suggested Operating Temperature: −20°C to +60°C.

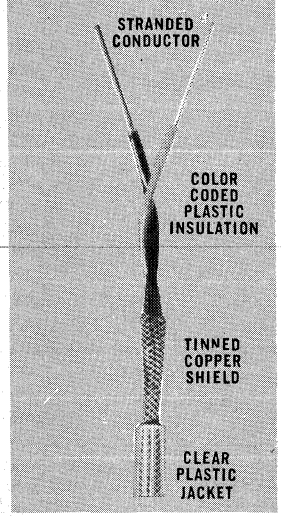
ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.	SUGG. OPER. VOLTAGE
1261/26	2	26	7/34	.010″	.095″	200V
1261	2	24	16/36	.016″	.125″	350V
1256/22V	2	22	7/30	.016″	.140″	350V
1256V	2	20	10/30	.016″	.155″	350V
1259V*	2	18	16/30	.016″	.170″	350V
1260V	2	16	26/30	.020″	.210″	450V
1260/14	2	14	41/30	.020″	.225″	450V
1260/12	2	12	65/30	.025″	.295″	600V

* 22 AWG solid tinned copper ground wire under braided copper shield.

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.
COLOR CODE OF CONDUCTORS 1—Black 2—Red

Miniature Shielded Cable

CLEAR PLASTIC JACKET



DESCRIPTION: Each conductor stranded tinned copper, color coded polyvinylchloride insulation, conductors twisted, fine braided tinned copper shield overall, clear polyvinylchloride jacket overall.

CHARACTERISTICS: Suggested operating temperature: −20°C to +60° C.
Suggested operating voltage: 200V.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
1120	2	28	7/36	.010″	.010″	.105″
1121	3	28	7/36	.010″	.010″	.115″
1122	4	28	7/36	.010″	.010″	.120″

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
COLOR CODE OF CONDUCTORS: 1—Black 2—Red 3—White 4—Green

PRICES

Alpha No.	Sugg. Resale per 500′
1243	20.46
1243/4	25.34
1243/5	55.71
1243/P	45.38
1260/12	148.83
1261	28.92
1256/22V	22.34
1256V	26.24
1261/26	30.41
1259V	38.97
1260V	45.38
1260/14	75.86

Alpha No.	Sugg. Resale per 1000′
1120	59.52
1121	70.97
1122	90.02

ALPHA electronic WIRE

Net
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Shielded Audio & Data Cable

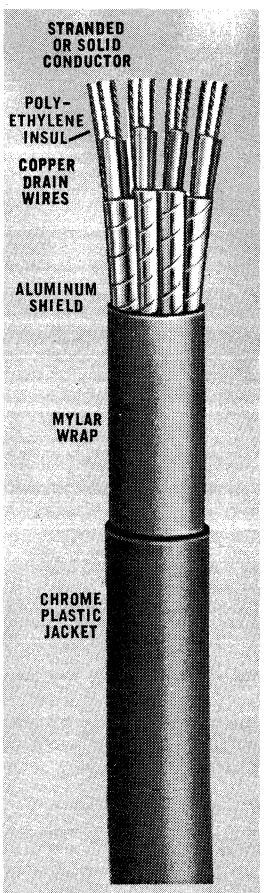
INDIVIDUALLY SHIELDED MULTIPLE PAIRS — PLASTIC JACKET

DESCRIPTION: Each conductor, tinned copper, color coded, high density polyethylene, conductors twisted into pairs. 22 gauge tinned copper drain wire. Mylar-supported aluminum foil shield, aluminum facing inward. Chrome Grey PVC jacket overall.

NEW

CHARACTERISTICS: Mutual conductance between conductors of a pair, 25 pf/ft. Capacitance of a single conductor to shield, 45 pf/ft.

APPLICATIONS: For audio, R.F. and pulse applications requiring superior circuit isolation.



#22 — SOLID

ALPHA NO.	NO. OF PAIRS	NO. OF COND.	COND. STRAND	NOM. WALL THICK. (Inches)	NOM. JKT. THICK. (Inches)	NOM. O.D. (Inches)
6000	3	6	1	.010	.025	.235
6002	6	12	1	.010	.030	.318
6004	9	18	1	.010	.030	.371
6006	11	22	1	.010	.035	.414
6008	15	30	1	.010	.040	.485

#22 — STRANDED

ALPHA NO.	NO. OF PAIRS	NO. OF COND.	COND. STRAND	NOM. WALL THICK. (Inches)	NOM. JKT. THICK. (Inches)	NOM. O.D. (Inches)
6010	3	6	7/30	.010	.025	.252
6012	6	12	7/30	.010	.030	.342
6014	9	18	7/30	.010	.035	.410
6016	11	22	7/30	.010	.040	.457
6018	15	30	7/30	.010	.040	.523
6020	19	38	7/30	.010	.050	.570
6022	27	54	7/30	.010	.055	.687

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

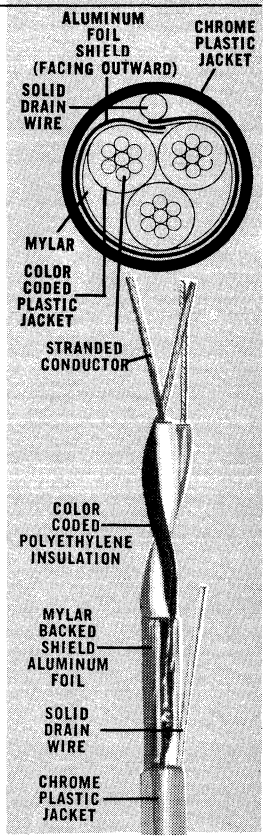
PAIR NO.	COLOR COMBINATION OF PAIRS		
1	Black paired with Red	10	Red paired with Blue
2	Black paired with White	11	Red paired with Yellow
3	Black paired with Green	12	Red paired with Brown
4	Black paired with Blue	13	Red paired with Orange
5	Black paired with Brown	14	Green paired with Blue
6	Black paired with Yellow	15	Green paired with White
7	Black paired with Orange	16	Green paired with Brown
8	Red paired with Green	17	Green paired with Orange
9	Red paired with White	18	Green paired with Yellow
19	White paired with Blue		
20	White paired with Brown		
21	White paired with Orange		
22	White paired with Yellow		
23	Blue paired with Brown		
24	Blue paired with Orange		
25	Blue paired with Yellow		
26	Brown paired with Orange		
27	Brown paired with Yellow		

Shielded Plastic Jacketed Cable

MYLAR SUPPORTED ALUMINUM FOIL SHIELD

DESCRIPTION: Each conductor stranded tinned copper, color coded polyethylene insulation, conductors cabled, wrapped mylar supported aluminum foil shield, 100% coverage with drain wire laid parallel, aluminum foil facing outward to provide maximum ground, gray pvc jacket overall.

CHARACTERISTICS: Operating temperature: −20°C to +60°C. Operating voltage: 400 volts. Light weight, reduces cable diameter, and provides 100% shield coverage.



ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
2402	2	22	7/30	.016″	.020″	.195″
2403	3	22	7/30	.016″	.020″	.210″
2404	4	22	7/30	.016″	.020″	.225″
2412	2	20	10/30	.016″	.020″	.210″
2413	3	20	10/30	.016″	.020″	.225″
2414	4	20	10/30	.016″	.020″	.240″
2422	2	18	16/30	.016″	.020″	.230″
2423	3	18	16/30	.016″	.020″	.245″
2424	4	18	16/30	.016″	.020″	.265″
2432	2	16	26/30	.016″	.020″	.255″
2433	3	16	26/30	.016″	.020″	.275″
2442	2	14	41/30	.016″	.020″	.290″
2443	3	14	41/30	.016″	.020″	.310″

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS: 1—Black 2—Red 3—White 4—Green

ALPHA electronic WIRE

PRICES

Alpha No.	Sugg. Resale per 500′	Alpha No.	Sugg. Resale per 500′	Alpha No.	Sugg. Resale per 500′	Alpha No.	Sugg. Resale per 500′
6000	41.94	6014	139.74	2403	18.15	2423	28.59
6002	81.35	6016	162.93	2404	33.57	2424	48.09
6004	113.40	6018	210.84	2412	18.15	2432	48.92
6006	135.05	6020	294.36	2413	22.68	2433	59.90
6010	51.26	6022	445.61	2414	42.65	2442	63.89
6012	98.40	2402	14.52	2422	21.33	2443	84.21

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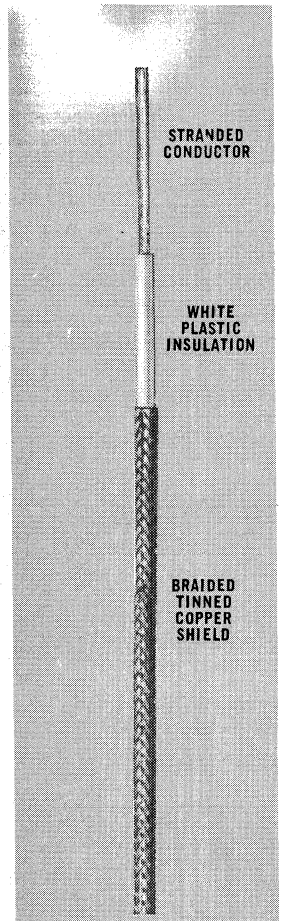
Net



Hi-Fi and Stereo Interconnecting Cable Phono Wire

DESCRIPTION

1332 and 1200: Single conductor stranded tinned copper, white polyvinylchloride insulation, fine braided tinned copper shield overall.

1201: Same as No. 1200 plus brown cotton braid over shield.

1115 and 1116: Each conductor stranded tinned copper, color coded polyvinylchloride insulation, conductors twisted.

1100-1110: Each conductor stranded tinned copper, color coded polyvinylchloride insulation, conductors twisted with an extra tight lay for flexibility. When shielded the overall shield has been specially designed for extreme limpness so as not to impede the movement of the phono arm when tracking.

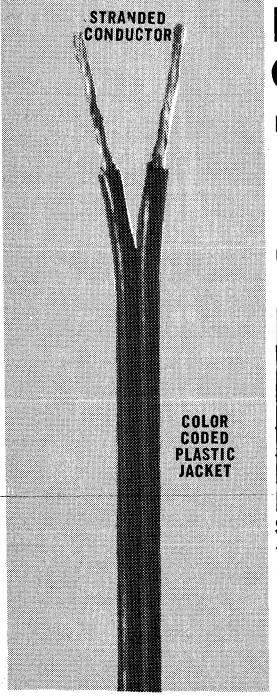
CHARACTERISTICS: Suggested Operating Temperature: −55°C to +105°C.

SINGLE CONDUCTOR SHIELDED

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.	SUGG. OPER. VOLTAGE	COLOR CODE
1332	1	30	7/38	.010″	.047″	200V	White
1200	1	24	16/36	.016″	.080″	350V	White
1201	1	24	16/36	.016″	.115″	350V	White
UNSHIELDED							
1115	2	30	7/38	.010″	.065″	200V	Black & Red
1116	3	30	7/38	.010″	.070″	200V	Blk., Red & White
STEREO (Unshielded)							
1100	2	32	7/40	.010″	.047″	200V	Black & Red
1101	3	32	7/40	.010″	.053″	200V	Blk., Red & White
1102	4	32	7/40	.010″	.061″	200V	Blk., Rd., Wh. & Gr.
STEREO (Shielded)							
1105	2	32	7/40	.010″	.055″	200V	Black & Red
1106	3	32	7/40	.010″	.061″	200V	Blk., Red & White
1107	4	32	7/40	.010″	.068″	200V	Blk., Rd., Wh. & Gr.
1110*	2	32	7/40	.010″	.063″	200V	Black & Red

STANDARD SPOOL PUT-UP: 10 FT., 100 FT., 500 FT., 1000 FT.

*Each conductor individually shielded and then twisted.



Plastic Speaker Cable Colored and Clear Insulation

DESCRIPTION: Conductors parallel, stranded bare copper, color coded polyvinylchloride insulation, conductors separate easily when slit apart.

APPLICATION: Hi-Fi speaker cable, miniature juke box speaker connection and rear auto speaker extension cable. Clear insulation will blend with interior room decor.

CHARACTERISTICS: Suggested Operating Temperature: −20°C to +60°C. Operating Voltage: 300 Volts.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.	STOCK COLORS
1944	2*	24	7/32	.016″	.057″ x .120″	Brn., Blk., Wh., Gray, Tan
1945	2*	24	7/32	.016″	.057″ x .120″	Clear
1946	2	20	10/30	.016″	.085″ x .175″	Brn., Blk., Wh., Gray, Tan
1947	2	20	10/30	.016″	.085″ x .175″	Clear
1977	2	18	41/34	.032″	.115″ x .215″	Brn., Blk., Wh., Gray, Tan
1979 †	2	18	41/34	.032″	.115″ x .215″	Clear

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

*1 Conductor Tinned, 1 Bare.
†U.L. type SPT-1

PRICES

Alpha No.	Sugg. Resale per 1000′
1332	45.38
1200	34.29
1201	43.73

Alpha No.	Sugg. Resale per 100′
1115	2.82
1116	3.99
1100	3.81
1101	5.07
1102	6.63
1105	6.03
1106	7.07
1107	8.16
1110	7.44

Alpha No.	Sugg. Resale per 500′
1944	4.95
1945	5.94
1946	8.84
1947	10.40

Alpha No.	Sugg. Resale per 250′
1977	6.27
1979	9.98

ALPHA electronic WIRE

Net

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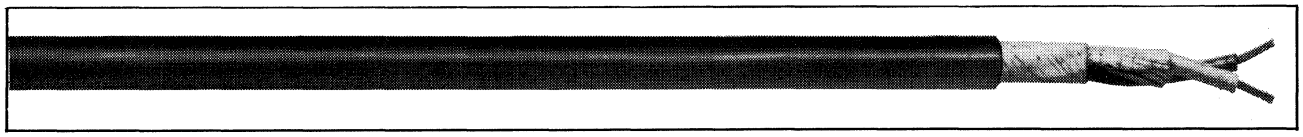

SERVICE & POWER CORDS
U.L. APPROVED

DESCRIPTION: RUBBER PORTABLE CORDS, TYPE SV, SJ, & S
Each conductor stranded bare copper, separator, color coded rubber insulation, cabled with fillers, separator, tough black rubber jacket overall.

NEOPRENE PORTABLE CORDS, TYPE SVO, SJO, & SO
Each conductor stranded bare copper, separator, color coded, rubber insulation cabled with fillers, separator, black neoprene jacket overall. Oil, grease, ozone, acid, moisture resistant.

†YELLOW PORTABLE CORDS, TYPE SVTO, SJTO, & STO
Each conductor, stranded bare copper, oil resistant polyvinylchloride insulation, cabled with fillers, separator, plastic jacket overall. Resistant to oil, acid, moisture, abrasion resistant, easy to clean.

CHARACTERISTICS & APPLICATIONS: Suggested Operating Temperatures: −20°C to +60°C.

U.L. TYPE	TYPE OF USAGE	VOLTAGE RATING
SV, SVO, SVTO	Light appliances such as fans, mixers, and office equipment.	300V
SJ, SJO, SJTO	Medium appliances, small motors, tools, amplifiers, speakers.	600V
S, SO, STO	Heavy duty equipment, generators, heaters, tools, air-conditioners.	600V

RUBBER PORTABLE CORD 300 VOLT

ALPHA NO.	TYPE	NO. OF COND.	COND. SIZE	NOM. THICKNESS INS.	NOM. THICKNESS JKT.	CURRENT CARRYING CAPACITY IN AMPS	NOM. O.D.
1951	SV	2	18	.016″	.032″	7	.250″
1952	SJ	2	18	.032″	.032″	7	.305″
1952/3	SJ	3	18	.032″	.032″	7	.330″
1952/4	SJ	4	18	.032″	.032″	6	.370″
1953	SJ	2	16	.032″	.032″	10	.330″
1953/3	SJ	3	16	.032″	.032″	10	.360″
1953/4	SJ	4	16	.032″	.032″	8	.400″

NEOPRENE PORTABLE CORD 300 VOLT

1931	SVO	2	18	.016″	.032″	7	.250″
1932	SJO	2	18	.032″	.032″	7	.305″
1932/3	SJO	3	18	.032″	.032″	7	.330″
1932/4	SJO	4	18	.032″	.032″	6	.370″
1933	SJO	2	16	.032″	.032″	10	.330″
1933/3	SJO	3	16	.032″	.032″	10	.360″
1933/4	SJO	4	16	.032″	.032″	8	.400″

PLASTIC PORTABLE CORD 300 VOLT

1991	SVTO	2	18	.016″	.032″	7	.250″
1992	SJTO	2	18	.032″	.032″	7	.305″
1992/3	SJTO	3	18	.032″	.032″	7	.330″
1992/4	SJTO	4	18	.032″	.032″	6	.370″
1993	SJTO	2	16	.032″	.032″	10	.330″
1993/3	SJTO	3	16	.032″	.032″	10	.360″
1993/4	SJTO	4	16	.032″	.032″	8	.400″

† As a safety feature jacket color is yellow for maximum visibility.

STANDARD SPOOL PUT-UP: 50 FT., 100 FT., 250 FT.
COLOR CODE OF CONDUCTORS: 1—White 2—Black 3—Green 4—Red

SERVICE & POWER CORDS
U.L. APPROVED

RUBBER 600 VOLT PORTABLE CORD

ALPHA NO.	TYPE	NO. OF COND.	COND. SIZE	NOM. THICKNESS INS.	NOM. THICKNESS JKT.	CURRENT CARRYING CAPACITY IN AMPS	NOM. O.D.
1954	S	2	18	.030″	.060″	7	.390″
1954/3	S	3	18	.030″	.060″	7	.405″
1958/3	S	4	18	.030″	.060″	6	.435″
1955	S	2	16	.030″	.060″	10	.405″
1955/3	S	3	16	.030″	.060″	10	.430″
1955/4	S	4	16	.030″	.060″	8	.485″
1956	S	2	14	.045″	.075″	15	.530″
1956/3	S	3	14	.045″	.075″	15	.560″
1956/4	S	4	14	.045″	.075″	12	.605″
1957	S	2	12	.045″	.090″	20	.600″
1957/3	S	3	12	.045″	.090″	20	.635″
1957/4	S	4	12	.045″	.090″	16	.665″
1958	S	2	10	.045″	.090″	25	.640″
1954/4	S	3	10	.045″	.090″	25	.690″
1958/4	S	4	10	.045″	.090″	20	.745″
1959		2	*8	.050″	.090″	35	.700″
1959/3		3	*8	.050″	.090″	35	.750″
1959/4		4	*8	.050″	.090″	28	.820″
1960		2	*6	.050″	.090″	45	.820″
1960/3		3	*6	.050″	.090″	45	.885″
1960/4		4	*6	.050″	.090″	36	.975″

NEOPRENE 600 VOLT PORTABLE CORD

1934	SO	2	18	.030″	.060″	7	.390″
1934/3	SO	3	18	.030″	.060″	7	.405″
1934/4	SO	4	18	.030″	.060″	6	.435″
1935	SO	2	16	.030″	.060″	10	.405″
1935/3	SO	3	16	.030″	.060″	10	.430″
1935/4	SO	4	16	.030″	.060″	8	.485″
1936	SO	2	14	.045″	.075″	15	.530″
1936/3	SO	3	14	.045″	.075″	15	.560″
1936/4	SO	4	14	.045″	.075″	12	.605″
1937	SO	2	12	.045″	.090″	20	.600″
1937/3	SO	3	12	.045″	.090″	20	.635″
1937/4	SO	4	12	.045″	.090″	16	.665″
1938	SO	2	10	.045″	.090″	25	.640″
1938/3	SO	3	10	.045″	.090″	25	.690″
1938/4	SO	4	10	.045″	.090″	20	.745″
1939		2	*8	.050″	.090″	35	.700″
1939/3		3	*8	.050″	.090″	35	.750″
1939/4		4	*8	.050″	.090″	28	.820″
1940		2	*6	.050″	.090″	45	.820″
1940/3		3	*6	.050″	.090″	45	.885″
1940/4		4	*6	.050″	.090″	36	.975″

PLASTIC 600 VOLT PORTABLE CORD

1994	STO	2	18	.030″	.060″	7	.390″
1994/3	STO	3	18	.030″	.060″	7	.405″
1994/4	STO	4	18	.030″	.060″	6	.435″
1995	STO	2	16	.030″	.060″	10	.405″
1995/3	STO	3	16	.030″	.060″	10	.430″
1995/4	STO	4	16	.030″	.060″	8	.485″
1996	STO	2	14	.045″	.075″	15	.530″
1996/3	STO	3	14	.045″	.075″	15	.560″
1996/4	STO	4	14	.045″	.075″	12	.605″
1997	STO	2	12	.045″	.090″	20	.600″
1997/3	STO	3	12	.045″	.090″	20	.635″
1997/4	STO	4	12	.045″	.090″	16	.665″
1998	STO	2	10	.045″	.090″	25	.640″
1998/3	STO	3	10	.045″	.090″	25	.690″
1998/4	STO	4	10	.045″	.090″	20	.745″

*Not listed by Underwriters Laboratories
STANDARD SPOOL PUT-UP: 50 FT., 100 FT., 250 FT.,
COLOR CODE OF CONDUCTORS 1—White 2—Black 3—Green 4—Red

PRICES

Alpha No.	Sugg. Resale per 250′	Net
1951	13.61	
1952	16.34	
1952/3	30.12	
1952/4	48.56	
1953	20.42	
1953/3	44.64	
1953/4	65.70	
1931	21.78	
1932	27.95	
1932/3	34.04	
1932/4	51.00	
1933	33.93	
1933/3	47.55	
1933/4	69.51	
1991	19.97	
1992	25.41	
1992/3	28.13	
1992/4	47.19	
1993	29.04	
1993/3	39.93	
1993/4	62.07	
1954		39.93
1954/3		51.18
1958/3		156.45
1955		43.56
1955/3		63.53
1955/4		80.22
1956		72.60
1956/3		94.38
1956/4		116.16
1957		88.94
1957/3		118.70
1957/4		148.83
1958		120.51
1954/4		65.52
1958/4		193.11
1959		217.80
1959/3		290.40
1959/4		381.15
1960		304.92
1960/3		408.38
1960/4		471.90
1934		44.82
1934/3		54.45
1934/4		68.06
1935		47.91
1935/3		68.97
1935/4		83.67
1936		81.12
1936/3		99.83
1936/4		119.79
1937		94.56
1937/3		127.05
1937/4		156.09
1938		126.14
1938/3		163.35
1938/4		204.18
1939		226.88
1939/3		317.63
1939/4		417.45
1940		326.70
1940/3		435.60
1940/4		526.35
1994		36.48
1994/3		47.73
1994/4		64.25
1995		40.83
1995/3		59.90
1995/4		77.31
1996		66.60
1996/3		90.38
1996/4		112.53
1997		85.85
1997/3		113.25
1997/4		146.10
1998		112.53
1998/3		152.46
1998/4		179.69

ALPHA electronic WIRE

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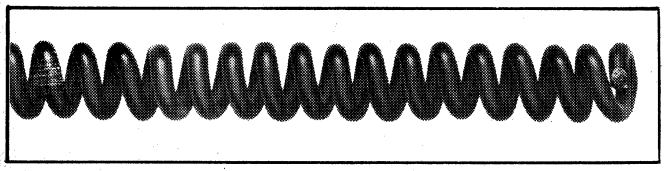

RETRACTILE COIL CORDS

POWER CORDS—NEOPRENE JACKET U.L. APPROVED

RETRACTED LENGTHS 2 & 4 FEET—EXTENDED LENGTHS 12 & 25 FEET

DESCRIPTION: Long-lasting service is assured with this quality multi-conductor power cord. Each conductor is stranded copper, with rubber installation, and a rugged weather and oil resistant neoprene jacket overall.

APPLICATION: Used on electric tools, portable drills, soldering wires, electrical appliances, household appliances, etc., to eliminate loose hanging wires and to prevent wires from tangling and twisting.

CHARACTERISTICS: Suggested operating temperature: −20°C to +60°C.

ALPHA NO. 2 FT. LGTHS.	ALPHA NO. 4 FT. LGTHS.	†1 FT. LGTHS.	NO. OF CONDS.	CONDUCTOR SIZE	CONDUCTOR STRAND	U.L. TYPE	AMP RATING	VOLT RATING	NOM. COIL O.D.	NOM. O.D CORD
660/2	660/4	660/1	2	18	41/34	SVO	7	300	7/8″	.260″
760/2	760/4		3	18	41/34	SVO	7	300	1″	.275″
661/2	661/4	661/1	2	18	41/34	SJO	7	300	1-3/16″	.320″
662/2	662/4	662/1	3	18	41/34	SJO	7	300	1-3/8″	.350″
663/2	663/4		4*	18	41/34	SJO	5.6	300	1-7/16″	.385″
762/2	762/4		3	18	41/34	SO	7	600	1-5/8″	.405″
763/2	763/4		4*	18	41/34	SO	5.6	600	1-5/8″	.435″
664/2	664/4	664/1	2	16	65/34	SJO	10	300	1-3/8″	.360″
665/2	665/4	665/1	3	16	65/34	SJO	10	300	1-7/16″	.390″
666/2	666/4		4*	16	65/34	SJO	8	300	1-1/2″	.425″
670/2	670/4		3	16	41/34	SO	10	600	1-13/16″	.470″
671/2	671/4		4*	16	65/34	SO	8	600	1-7/8″	.500″
672/2	672/4		2	14	41/30	SO	15	600	2-1/8″	.540″
673/2	673/4		3	14	41/30	SO	15	600	2-1/8″	.560″
674/2	674/4		4*	14	41/30	SO	12	600	2-1/4″	.605″
675/2	675/4		2	12	65/30	SO	20	600	2-1/4″	.605″
676/2	676/4		3	12	65/30	SO	20	600	2-3/8″	.635″
677/2	677/4		4*	12	65/30	SO	16	600	2-3/8″	.678″

COLOR CODE OF CONDUCTORS
1—Black 2—White
3—Green 4—Red

*If all four conductors normally carry current, amp rating is as shown. If one lead is used as a ground, amp rating is the same as 2 and 3 conductor cords.

†A 12″ retracted length with a 12″ straight lead on each end for easy stripping and termination. Cord extends to approximately 6 feet.

RETRACTILE TEST LEAD WIRE

RETRACTED LENGTH 12″—EXTENDED LENGTH 6 FEET

DESCRIPTION: A high grade quality rubber insulation for maximum flex life extruded over a single conductor of extra flexible tinned copper which gives long life to this retractile test lead wire. Available in a 12″ retracted length with a 6″ straight lead on each end, the cord extends to approximately 6 feet.

ALPHA NO.	CONDUCTOR SIZE	CONDUCTOR STRAND	AMP. RATED	VOLT RATING	NOM. COIL O.D.	NOM. O.D. CORD	COLOR CODE
650	20	41/36	4	5,000	¾″	.165″	Black-Red

COLOR CODE
SPECIFY BLACK OR RED.

RETRACTILE POWER CORD SETS U.L. APPROVED

RETRACTED LENGTH 18″—EXTENDED LENGTH 7½ FEET

DESCRIPTION: Coiled power cord with a sturdy molded male plug on one end. On the other end we have removed a portion of the neoprene jacket, exposed the conductors and stripped them for easy termination. Operating voltage, 300 volts.

APPLICATION: Same as power cords, but with a plug on one end.

ALPHA NO.	NO. OF CONDS.	CONDUCTOR SIZE	CONDUCTOR STRAND	U.L. TYPE	NOM. COIL O.D.	NOM. O.D. CORD
654	2	18	41/34	SVO	7/8″	.260″
655	2	18	41/34	SJO	1-3/16″	.320″
656	3	18	41/34	SJO	1-3/8″	.350″
657	2	16	65/34	SJO	1-3/8″	.360″
658	3	16	65/34	SJO	1-7/16″	.390″

COLOR CODE OF CONDUCTORS
1—Black 2—White 3—Green

RETRACTILE COIL CORDS

RETRACTILE COMMUNICATION COIL CORDS

RETRACTED LENGTHS 2 & 4 FEET—EXTENDED LENGTHS 12 & 25 FEET

DESCRIPTION: Multi-conductor communication cord manufactured with extra flexible #23 AWG-21/36 tinned soft cadmium copper for maximum flex life. Insulated with rubber for communication circuits of maximum 120 working volts. The overall jacket is a specially compounded cured neoprene jacket giving long life to the retractile cord.

APPLICATION: Used in communication equipment, such as telephone car carriers, mobile radio equipment, ham operations, head sets, citizen band units and radio transmitter to receiver head sets, communication cords eliminate hazards and inconveniences caused by tangled straight cords.

ALPHA NO. 2 FT. LGTHS.	ALPHA NO. 4 FT. LGTHS.	NO. OF CONDS.	CONDUCTOR SIZE	CONDUCTOR STRAND	AMP. RATING	VOLTAGE RATING	NOM. COIL O.D.	CORD O.D.	COLOR CODE OF CONDUCTORS
680/2	680/4	2	23	21/36	1	120	3/4″	.215″	1—Black
681/2	681/4	3	23	21/36	1	120	13/16″	.220″	2—White
682/2	682/4	4	23	21/36	1	120	15/16″	.250″	3—Red
683/2	683/4	5	23	21/36	1	120	1-1/16″	.285″	4—Green
684/2	684/4	6	23	21/36	1	120	1-1/8″	.305″	5—Blue
685/2	685/4	7	23	21/36	1	120	1-1/4″	.320″	6—Yellow
									7—Brown

RETRACTILE COMMUNICATION CORDS (SHIELDED)

RETRACTED LENGTHS 2 & 4 FEET—EXTENDED LENGTHS 12 & 25 FEET

DESCRIPTION: Same as above, except that shielded conductors are individually shielded with a cadmium copper shield to eliminate external electrical interference. Shield can be pigtailed for direct soldering connections.

APPLICATION: When shielded communication cords are needed.

ALPHA NO. 2 FT. LGTHS.	ALPHA NO. 4 FT. LGTHS.	NO. OF CONDS.	CONDUCTOR SIZE	CONDUCTOR STRAND	VOLTAGE RATING	SHIELDING	NOM. COIL O.D.	NOM. O.D. CORD	COLOR CODE OF CONDUCTORS
690/2	690/4	1	24	41/40	75	Shielded	5/8″	.160″	White
692/2	692/4	2	1-23 1-24	21/36 41/40	120 75	Unshielded Shielded	7/8″	.240″	Black White
694/2	694/4	3	2-23 1-24	21/36 41/40	120 75	Unshielded Shielded	7/8″	.240″	Black & Red White
696/2	696/4	4	2-23 2-24	21/36 41/40	120 75	Unshielded Individually Shielded	1″	.270″	Red & Black White & Green

RETRACTILE COMMUNICATION CORDS

PREPARED FOR EASY INSTALLATION AND REPLACEMENT

RETRACTED LENGTH 12″—EXTENDED LENGTH 6 FEET

DESCRIPTION: Same as communication cords except each end is prepared as indicated.

ALPHA NO.	NO. OF CONDS.	AWG	NOM. COIL O.D.	NOM. CORD O.D.	PREPARATION
686	3	23-21/36	13/16″	.220″	**1 end:** total length 1½″. Conductors stripped and tinned. **Other end:** total length 1½″ jacket removed.
687	4	23-21/36	15/16″	.250″	**1 end:** total length 1″. Conductors stripped and tinned. **Other end:** total length 1½″ jacket removed.
688	5	23-21/36	1-1/16″	.285″	**1 end:** total length 4½″. Conductors stripped and tinned. **Other end:** total length 4½″ conductors stripped and tinned.

MINIATURE RETRACTILE COMMUNICATIONS CORDS

RETRACTED LENGTH 2 FEET—EXTENDED LENGTH 10 FEET

DESCRIPTION: A small diameter plastic cord with stranded tinned copper conductors for maximum flexibility, insulated and jacketed with polyvinylchloride. Each cord is available in a 2 ft. retracted length with a 6″ straight lead on each end and extends to approximately 10 feet.

APPLICATION: For low voltage power and communication equipment where miniaturization is required due to space and weight limitations.

ALPHA NO.	NO. OF CONDS.	CONDUCTOR SIZE	CONDUCTOR STRAND	AMP RATING	VOLT RATING	NOM. COIL O.D.	NOM. CORD O.D.
651	2	28	19/40	0.5	100	½″	.135″
652	4	28	19/40	0.5	100	½″	.150″

COLOR CODE OF CONDUCTORS
1—Black 2—White
3—Green 4—Red

For 3 conductor, use 4 conductor with one lead unused

PRICES

Alpha No.	Sugg. Resale
660/2	4.08
660/4	7.26
660/1	2.18
760/2	6.35
760/4	11.25
661/2	4.53
661/4	8.16
661/1	2.54
662/2	5.63
662/4	10.52
662/1	3.18
663/2	6.71
663/4	12.71
762/2	10.34
762/4	19.23
763/2	11.61
763/4	21.59
664/2	5.25
664/4	10.44
664/1	3.08
665/2	7.07
665/4	13.61
665/1	3.44
666/2	9.08
666/4	16.70
670/2	10.16
670/4	18.87
671/2	11.25
671/4	21.05
672/2	11.27
672/4	20.87
673/2	12.71
673/4	23.60
674/2	14.52
674/4	27.23
675/2	16.88
675/4	31.94
676/2	21.05
676/4	40.29
677/2	23.33
677/4	44.82
654	3.81
655	4.53
656	6.89
657	4.89
658	7.44
650	1.07
680/2	3.99
680/4	6.53
681/2	4.53
681/4	7.62
682/2	5.18
682/4	8.88
683/2	6.71
683/4	11.97
684/2	8.34
684/4	14.88
685/2	9.26
685/4	16.70
690/2	5.72
690/4	9.98
692/2	7.62
692/4	13.79
694/2	10.52
694/4	19.59
696/2	12.08
696/4	22.68
686	3.00
687	4.89
688	5.45
651	3.26
652	4.08

ALPHA electronic WIRE

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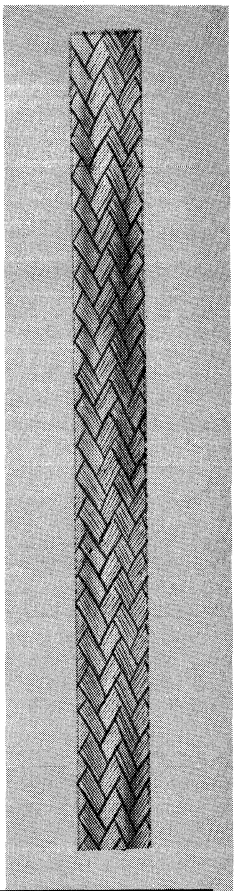
Flat Braid

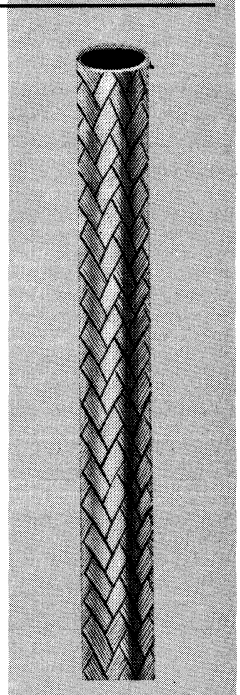


DESCRIPTION: A woven braid, composed of tinned copper strands, which is rolled flat at time of manufacture to a specific width depending upon construction.

ALPHA NO.	NOM. FLAT WIDTH	NOM. THICKNESS	BRAID CONSTRUCTION AWG OF INDIV. ENDS	CAR-RIERS	TOTAL NO. OF INDIV. ENDS	APPROX. AWG EQUIV.	NOM. CIRCULAR MILLS	*CURRENT CARRYING CAP. (Amps)	PUT-UP CODE
1221	.025	.015″	36	8	8	27	200	4.0	1 thru 5
1222	1/32″	.020″	36	16	16	24	400	6.0	1 thru 5
1223	3/64″	.020″	36	24	24	22	600	7.0	1 thru 5
1224	3/32″	.020″	36	16	48	19	1200	11.0	1 thru 5
1229	1/8″	.020″	36	24	72	18	1800	16.0	1 thru 5
1230	3/16″	.020″	36	24	120	15	3000	25.0	1 thru 5
1231	1/4″	.030″	36	24	168	14	4200	32.0	1 thru 5
1232	3/8″	.030″	36	48	288	12	7200	46.0	1 thru 5
1233/2	1/2″	.030″	36	48	384	10	9600	53.0	1 thru 5
1233	5/8″	.030″	36	48	384	10	9600	53.0	1 thru 5
1234	3/4″	.040″	36	48	832	7	20800	85.0	1 thru 5
1235	1″	.045″	36	48	832	7	20800	85.0	1 thru 5
1239	1 3/8″	.050″	30	48	336	5	33700	100.0	1 thru 5
1240	1 1/2″	.060″	30	48	528	3	53064	150.0	1 thru 3
1241	1 3/4″	.080″	30	48	1248	00	125424	280.0	1 thru 3
1242	2″	.120″	30	48	1536	000	154368	310.0	1 thru 3
1242/1	2 1/4″	.150″	30	48	1680	000	168840	320.0	1 & 2
1242/2	2 1/2″	.170″	30	48	1920	000	192000	340.0	1 & 2
1242/3	2 3/4″	.180″	30	48	2160	0000	216000	370.0	1 & 2
1242/4	3″	.200″	30	48	2256	0000	225000	390.0	1 & 2

PUT-UP CODE 1—50Ft. 2—100 Ft. 3—250 Ft. 4—500 Ft. 5—1000 Ft.

Oval Commercial Braid



DESCRIPTION: A woven tinned copper braid which is left in the tubular configuration as it leaves the braiding equipment. It is manufactured to a specific inside diameter but because of its extreme flexibility cannot maintain its completely round shape and becomes oval.

ALPHA NO.	NOM. I.D. WHEN ROUNDED	BRAID CONSTRUCTION AWG OF INDIV. ENDS	CARRIERS	TOTAL NO. OF INDIV. ENDS	APPROX. AWG. EQUIV.	NOM. CIRCULAR MILLS	*CURRENT CARRYING CAPACITY (Amps)	PUT-UP CODE
2130	1/32″	34	24	24	20	954	9.0	1 thru 5
2132	1/16″	34	16	32	19	1192	11.0	1 thru 5
2134	7/64″	34	16	64	16	2544	20.0	1 thru 5
2136	1/8″	34	24	72	15	2862	25.0	1 thru 5
2138	11/64″	34	24	120	14	4770	32.0	1 thru 5
2140	3/16″	34	24	144	13	5724	38.0	1 thru 4
2142	1/4″	34	24	168	12	6678	41.0	1 thru 4
2144	3/8″	34	24	192	11	7632	46.0	1 thru 4
2146	1/2″	34	48	336	9	13356	62.0	1 thru 3
2148	5/8″	34	48	384	8	14264	64.0	1 thru 3
2150	11/16″	34	48	480	7	19080	81.0	1 thru 3
2152	25/32″	34	48	528	7	20988	85.0	1 thru 3

PUT-UP CODE 1—50Ft. 2—100 Ft. 3—250 Ft. 4—500 Ft. 5—1000 Ft.

* Values shown are for bare cable in free air at 30°C (86°F) and intended as a reference guide only. Actual values will depend on permissible temperature rise, permissible voltage drop and other conditions of service.

PRICES

Alpha No.	Sugg. Resale per 1000′
1221	30.86
1222	31.58
1223	34.67
1224	40.65
1229	45.00
1230	49.91
1231	69.33
1232	112.53
1233/2	148.83
1233	157.53

Alpha No.	Sugg. Resale per 250′
1234	94.38
1235	101.64
1239	117.98

Alpha No.	Sugg. Resale per 500′
2140	47.37
2142	56.27
2144	65.34

Alpha No.	Sugg. Resale per 500′
2146	65.34
2148	70.34
2150	86.21
2152	94.38

Alpha No.	Sugg. Resale per 100′
1240	65.34
1241	127.05
1242	163.35

Alpha No.	Sugg. Resale per 100′
1242/1	174.24
1242/2	217.80
1242/3	245.03
1242/4	305.25

Alpha No.	Sugg. Resale per 1000′
2130	22.68
2132	36.30
2134	55.35
2136	68.97

ALPHA electronic WIRE

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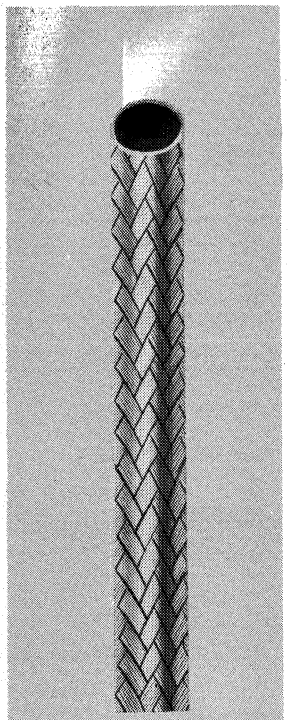
Tinned Copper Tubular Braid To MIL Spec QQ-B-575

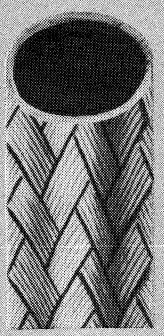


DESCRIPTION: A woven tinned copper braid which is manufactured completely round as outlined in Mil Spec QQ-B-575. Each strand of the braid is soft drawn tinned copper wire. The braid is self-supporting and maintains its round configuration. The percentage of shielding coverage is 95% or more when placed over a mandrel of an equivalent diameter to the inside braid diameter.

ALPHA NO.	NOM. I.D. WHEN ROUNDED	BRAID CONSTRUCTION AWG OF INDIV. ENDS	CARRIERS	TOTAL NO. OF INDIV. ENDS	APPROX. AWG. EQUIV.	NOM. CIRCULAR MILLS	*CURRENT CARRYING CAPACITY (Amps)	PUT-UP CODE
2160	1/32"	36	24	24	22	600	7.0	1-3
2162	1/16"	36	24	48	19	1200	11.0	1-3
2163	3/64"	36	24	72	18	1800	16.0	1-3
2164	7/64"	36	24	96	16	2400	19.0	1-3
2166	1/8"	36	24	120	15	3000	25.0	1-3
2167	5/32"	36	24	240	12	6000	40.0	1-3
2168	11/64"	36	24	168	14	4200	32.0	1-3
2170	13/64"	34	24	192	11	7630	46.0	1-2
2171	1/4"	36	24	384	10	9600	53.0	1-2
2171/1	9/32"	30	24	120	9	12060	60.0	1-2
2172	3/8"	36	48	384	10	9600	53.0	1-2
2173	7/16"	30	24	240	6	24120	90.0	1-2
2174	1/2"	36	48	528	9	13200	62.0	1-2
2175	9/16"	30	48	480	3	48240	145.0	1-2
2175/1	21/32"	30	48	768	1	77180	190.0	1-2
2176	25/32"	36	48	864	7	21600	88.0	1-2

PUT-UP CODE: 1—50 Ft. 2—100 Ft. 3—250 Ft.

EXTRA LARGE TINNED COPPER TUBULAR BRAID

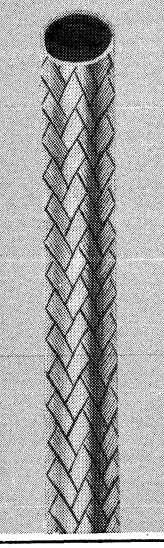


DESCRIPTION: These tubular braids manufactured to standards of QQ-B-575 although these sizes are not listed in the specification.

ALPHA NO.	NOM. I.D. WHEN ROUNDED	BRAID CONSTRUCTION AWG OF INDIV. ENDS	CARRIERS	TOTAL NO. OF INDIV. ENDS	APPROX. AWG. EQUIV.	NOM. CIRCULAR MILLS	*CURRENT CARRYING CAPACITY (Amps)	PUT-UP CODE
2177	7/8"	30	48	336	5	33700	100.0	1 & 2
2178	1"	30	48	384	4	38600	120.0	1 & 2
2179	1 1/8"	30	48	432	4	43330	130.0	1 & 2
2180	1 1/4"	30	48	480	3	48150	145.0	1 & 2
2181	1 3/8"	30	48	528	3	53000	150.0	1 & 2
2182	1 1/2"	30	48	576	2	57775	165.0	1 & 2

PUT-UP CODE: 1—50 Ft. 2—100 Ft.

SILVER PLATED TUBULAR BRAID CONSTRUCTION TO MIL SPEC QQ-B-575



DESCRIPTION: A woven silver plated copper braid which is manufactured completely round as outlined in Mil Spec QQ-B-575. Each strand of the braid is soft drawn silver plated copper wire. The braid is self-supporting and maintains its round configuration. The percentage of shielding coverage is 95% or more when placed over a mandrel of an equivalent diameter to the inside braid diameter.

ALPHA NO.	NOM. I.D. WHEN ROUNDED	BRAID CONSTRUCTION AWG OF INDIV. ENDS	CARRIERS	TOTAL NO. OF INDIV. ENDS	APPROX. AWG. EQUIV.	NOM. CIRCULAR MILLS	*CURRENT CARRYING CAPACITY (Amps)	PUT-UP CODE
2190	1/32"	36	24	24	22	600	7.0	1-3
2191	1/16"	36	24	48	19	1200	11.0	1-3
2192	3/64"	36	24	72	18	1800	16.0	1-3
2193	7/64"	36	24	96	16	2400	19.0	1-3
2194	1/8"	36	24	120	15	3000	25.0	1-3
2195	5/32"	36	24	240	12	6000	40.0	1-3
2196	11/64"	36	24	168	14	4200	32.0	1-3
2197	13/64"	34	24	192	11	7640	46.0	1 & 2
2198	1/4"	36	24	384	10	9600	53.0	1 & 2

PUT-UP CODE: 1—50 Ft. 2—100 Ft. 3—250 Ft.

* Values shown are for bare cable in free air at 30°C (86°F) and intended as a reference guide only. Actual values will depend on permissible temperature rise, permissible voltage drop and other conditions of service.

PRICES

Alpha No.	Sugg. Resale per 250'
2160	6.60
2162	12.71
2163	15.06
2164	19.23
2166	18.15
2167	36.30
2168	24.75

Alpha No.	Sugg. Resale per 100'
2170	15.78
2171	1905
2171/1	21.78
2172	20.13
2173	32.30
2174	29.70
2175	58.98
2175/1	91.65

Alpha No.	Net
2176	43.92
2177	63.53
2178	64.35
2179	76.23
2180	87.12
2181	98.01
2182	107.09

Alpha No.	Sugg. Resale per 250'
2190	12.51
2191	24.50
2192	32.67
2193	45.38
2194	49.01....
2195	90.75
2196	68.06

Alpha No.	Sugg. Resale per 100'
2197	54.63
2198	68.06

ALPHA electronic WIRE

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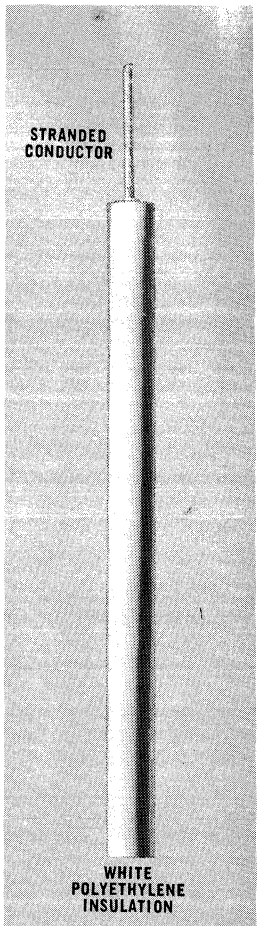
High Voltage Wire

DESCRIPTION: Single conductor, stranded tinned copper, white flame retardant polyethylene insulation. When shielded, braided tinned copper shield overall.

APPLICATIONS: Designed for use as high-voltage leads in electronic equipment, especially for cathode ray tubes in television receivers and oscilloscopes. Shielded type used to minimize RF radiation in transmitters, X-ray, and diathermy equipment.



UNSHIELDED TYPE

ALPHA NO.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	VOLTAGE BREAKDOWN AC	VOLTAGE BREAKDOWN DC	NOM. O.D.
1640	22	7/30	.047″	5,000	10,000	.124″
1641	20	10/30	.047″	5,000	10,000	.132″
1642	20	10/30	.063″	10,000	20,000	.164″
1643	18	16/30	.047″	5,000	10,000	.144″
1644	18	16/30	.063″	10,000	20,000	.176″
1645	18	16/30	.095″	15,000	40,000	.240″
1646	16	26/30	.047″	5,000	10,000	.156″
1647	16	26/30	.063″	10,000	20,000	.188″
1648	16	26/30	.095″	15,000	40,000	.252″

SHIELDED TYPE

1660	22	7/30	.047″	5,000	10,000	.144″
1661	20	10/30	.047″	5,000	10,000	.152″
1662	20	10/30	.063″	10,000	20,000	.184″
1663	18	16/30	.047″	5,000	10,000	.164″
1664	18	16/30	.063″	10,000	20,000	.196″
1665	18	16/30	.095″	15,000	40,000	.264″
1666	16	26/30	.047″	5,000	10,000	.180″
1667	16	26/30	.063″	10,000	20,000	.208″
1668	16	26/30	.095″	15,000	40,000	.276″

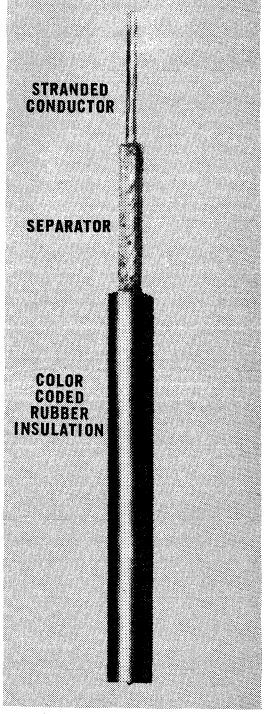
STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

Test Lead Wire

DESCRIPTION: Single conductor, extra flexible stranded tinned soft annealed copper, separator, color coded rubber insulation, smooth satin finish.

APPLICATIONS: As test leads in analyzers, oscillators, multi-meters, and all other types of testing apparatus or wherever an extra flexible insulated wire is required. Heavy Duty type designed for television, therapeutic equipment, analyzers, oscillators, etc.

Suggested Operating Temperature: −20°C to +60°C.



ALPHA NO.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	VOLTAGE BREAKDOWN	SUGG. WORKING VOLTAGE	NOM. O.D.	STOCK COLORS
1632	20	41/36	.040″	6,000 † †	1500 V	.125″	Black, Red
1635	20	41/36	.047″	12,000 † †	3000 V	.140″	Black, Red
1636	18	65/36	.045″	20,000 † †	5000 V	.140″	Black, Red
1638	18	65/36	.090″	29,000 † †	10000 V	.230″	Black, Red
* 1639	18	65/36	.047″	20,000 † †	5000 V	.145″	Black, Red Green

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

† † 60 Cycles

Military type specification MIL-W-13169B

ALPHA electronic WIRE

PRICES

Alpha No.	Sugg. Resale per 500′							
1640	16.88	1646	32.12	1663	58.53	1632	12.12
1641	19.59	1647	45.92	1664	112.98	1635	12.99
1642	29.49	1648	64.25	1665	124.28	1636	13.35
1643	23.40	1660	47.21	1666	78.95	1638	22.52
1644	36.11	1661	50.82	1667	103.91		
1645	56.27	1662	76.68	1668	131.13		

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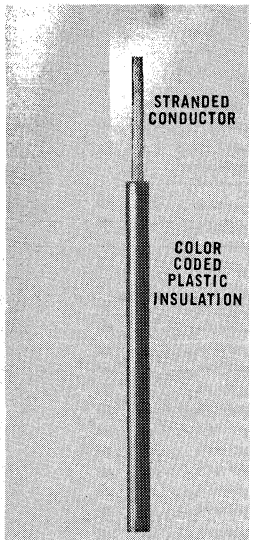
Net



U.L. Approved Hook-Up Wire

DESCRIPTION: Stranded tinned copper, color coded polyvinylchloride insulation.

CHARACTERISTICS: Temperature rating (−10°C to +80°C, 300 V) (−10°C to +105°C, 600 V). Resistant to acids, alkalis, oil, flame, moisture and fungus.

300 VOLT 80°C – STYLE No. 1007

ALPHA NO.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.
3050	24	7/32	.057″
3051	22	7/30	.065″
3053	20	10/30	.071″
3055	18	16/30	.080″
3057	16	26/30	.095″

* **STOCK COLORS: 1-19**

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet

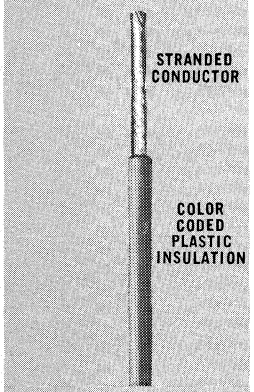
*Other striped color — combinations to order

600 VOLT* 105°C - STYLE No. 1015

ALPHA NO.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.
3071	22	7/30	.095″
3073	20	10/30	.102″
3075	18	16/30	.112″
3077	16	26/30	.125″
3079	14	41/30	.142″

* **STOCK COLORS: 1-10**

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.



U.L. Semi-Rigid Business Machine Wire

DESCRIPTION: Stranded tinned copper, color coded semi-rigid polyvinylchloride insulation.

CHARACTERISTICS: Temperature rating −10°C to +80°C, 300 volts in business machine or electronic computers only.

APPLICATIONS: Internal wiring of computers, electric bookkeeping, accounting machines, and other office and control equipment.

300 VOLT 80°C — STYLE No. 1061

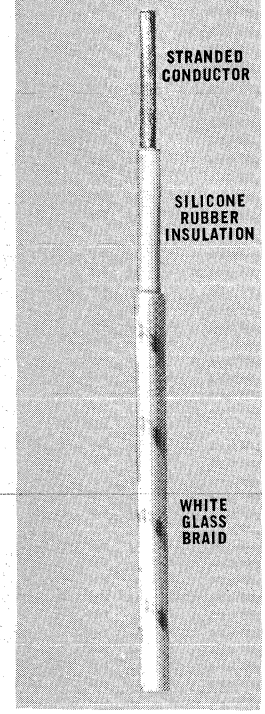
ALPHA NO.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.
3250	24	7/32	.009″	.042″
3251	22	7/30	.009″	.048″
3252	20	7/28	.009″	.056″

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT. 5000 FT.

STOCK COLORS

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Blue
7—Brown
8—Orange
9—Gray
10—Violet

*Other striped color combinations available to order.



U.L. Silicone Rubber Appliance and Fixture Wire

NEW

300 VOLT 80°C — STYLE No. 1061

DESCRIPTION: Stranded tinned copper conductor, silicone rubber insulation, impregnated white fiberglass braid overall.

CHARACTERISTICS: Resistant to abrasion, oil, moisture, and fungus.

APPLICATIONS: For wiring all types of lighting fixtures and other high wattage devices.

MAXIMUM OPERATING TEMPERATURE +200°C (392°F)

ALPHA NO.	N.E.C. TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	INSULATION WALL (64ths)	VOLTAGE RATING (Volts)	NOM. O.D. (Inches)	NET WT. LBS. PER M/FT.
6124	SF-2	18	7/26	2	600	.13	12
6125	SF-2	16	7/24	2	600	.14	16
6126	SF-2	14	7/22	2	600	.16	22
6127	—	12	19/25	2	600	.18	32
6128	—	10	41/26	3	600	.24	52

MAXIMUM OPERATING TEMPERATURE +150°C (302°F)

6129	—	22*	7/30	1	300	.08	5
6130	—	22*	7/30	2	600	.11	8
6131	—	20*	10/30	1	300	.09	7
6132	—	20*	10/30	2	600	.12	9
6133	SFF-1	18	16/30	1	300	.10	9
6134	SFF-2	18	16/30	2	600	.13	12
6135	SFF-2	16	26/30	2	600	.14	16
6136	SFF-2	14	41/30	2	600	.16	22
6137	—	12	41/28	2	600	.18	32

* Listed by U/L for radio hookup wire. **STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.**

PRICES

Alpha No.	Sugg. Resale per 1000′
3050	5.99
3051	6.89
3053	8.45
3055	10.89
3057	14.33
3071	10.89
3073	11.97
3075	14.52
3077	19.41
3079	26.31
3250	7.98
3251	8.70
3252	11.61
6124	143.13
6125	180.48
6126	218.87
6127	271.97
6128	547.44
6129	87.09
6130	94.92
6131	104.01
6132	111.83
6133	147.68
6134	145.98
6135	183.53
6136	220.38
6137	262.55

ALPHA electronic WIRE

Net

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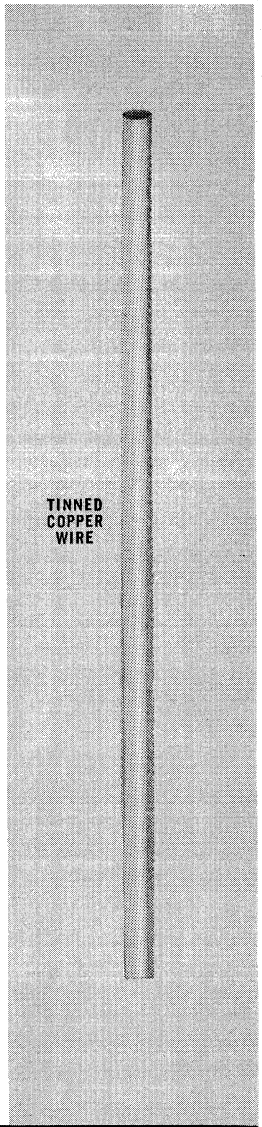
Uninsulated Tinned Copper



SOLID WIRE — SOFT DRAWN

DESCRIPTION: Pure electrolytic soft, drawn, solid, copper properly annealed and tinned for quick soldering.

APPLICATIONS: Winding of coils. Antennas. Point to point wiring. Bus-bar. Component leads. Ground wire.

SPECIFICATIONS MIL-W-3861 TYPE S — QQ-W-343 TYPE S — ASTM-B-33

ALPHA NO.	CONDUCTOR SIZE	NOMINAL CIRCULAR MIL AREA	NOMINAL O.D.
299/3	30 AWG	100.5	.010″
299/2	28 AWG	159.8	.013″
299/1	26 AWG	254.1	.016″
299	24 AWG	404.0	.020″
298	22 AWG	642.4	.025″
297	20 AWG	1022.0	.033″
296	18 AWG	1642.0	.040″
295	16 AWG	2583.0	.051″
286	14 AWG	4107.0	.065″
289	12 AWG	6530.0	.082″
292	10 AWG	10380.0	.103″
292/8	8 AWG	16510.0	.129″
292/6	6 AWG	26250.0	.162″

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

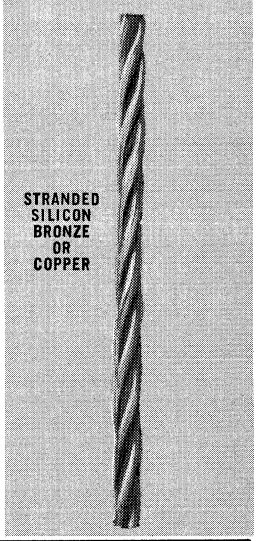
ROUND BUS-BAR — HARD DRAWN

SPECIFICATION ASTM-B-246-51

278	14 AWG	4107.0	.065″
280	12 AWG	6530.0	.082″
282	10 AWG	10380.0	.103″

STANDARD PUT-UP: TWO FOOT LENGTHS—100 PER PACKAGE

Antenna-Aerial Wire



APPLICATIONS 1159-1164: Recommended especially for ship, short-wave and transmitter antennas where high tensile strength and corrosion resistance is required.

APPLICATIONS 136 and 112: For short wave and transmitter antennas. Suitable for commercial and amateur use. Easy to install, no "backlash."

ALPHA NO.	CONDUCTOR SIZE	CONDUCTOR STRAND	BREAKING STRENGTH	CONDUCTOR TYPE	NOMINAL O.D.	GOVERNMENT SPECIFICATION
1159	16	7/24	230 Lbs.	Silicon Bronze	.060″	—
1160	14	7/22	420 Lbs.	Silicon Bronze	.075″	—
1161	12	7/20	650 Lbs.	Silicon Bronze	.100″	MIL-W-13276
1163	10	7/18	1000 Lbs.	Silicon Bronze	.122″	MIL-W-13074
1164	8	7/16	1600 Lbs.	Silicon Bronze	.150″	—
136	16	7/24	—	Bare Copper	.060″	—
112	14	7/22	—	Bare Copper	.075″	—

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

ALPHA electronic WIRE

PRICES

Alpha No.	Sugg. Resale per 1000′
299/3	3.06
299/2	3.30
299/1	3.14
299	3.47
298	3.89
297	5.28
296	8.25

Alpha No.	Sugg. Resale per 500′
295	11.55
286	17.33
292	63.53
Alpha No.	Sugg. Resale per 500′
292/8	51.09
292/6	80.58

Alpha No.	Sugg. Resale per 200′
278	6.35
280	8.52
282	11.97
Alpha No.	Sugg. Resale per 500′
1159	22.05
1160	28.49
1161	38.12

Alpha No.	Sugg. Resale per 500′
1163	58.44
1164	82.04
Alpha No.	Sugg. Resale per 1000′
136	9.90
112	16.10

Net

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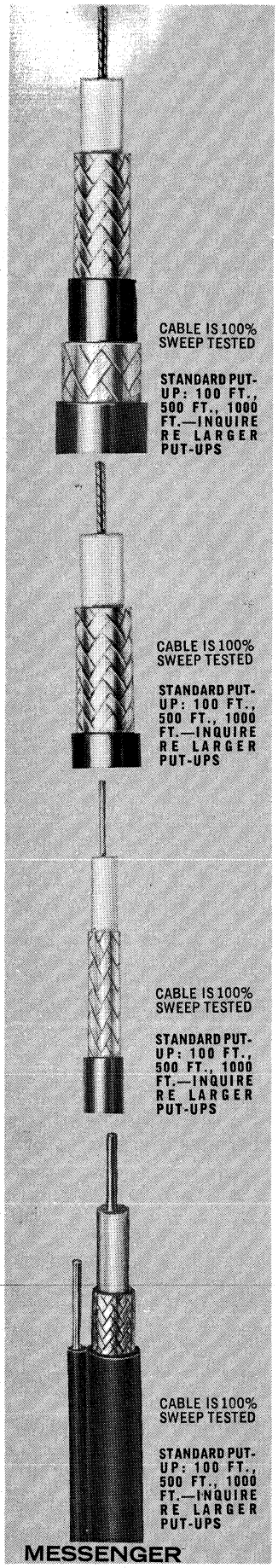


CATV Foam 75 OHM Triaxial Feeder Cable

DOUBLE SHIELD — DOUBLE JACKET — FOAM RG 11/U TYPE

This cable has been specially designed for use as a secondary distribution lead-in cable for community antenna television systems.
The double shield construction provides maximum attenuation of radiated signals and allows for a minimum of cross-cable interference and pickup.
Cable construction consists of a solid bare copper conductor, foamed polyethylene dielectric, braided copper shield, covered by an inner polyethylene jacket, and a second braided copper shield with a polyethylene jacket overall.
The outer jacket offers high resistance to sunlight, weathering, and resists attack by acid, alkalis, oil, and grease.

Alpha No.	9602F
Nominal Impedance	75 ohm
Conductor	Solid Copper
Conductor O. D.	.064″
Insulation Material	Foamed Polyethylene
Insulation O. D.	.285″
Shield Material	#33 Bare Copper
Inner Shield O. D.	.313″
Outer Shield O. D.	.396″
Jacket Material	Polyethylene
Inner Jacket O. D.	.368″
Outer Jacket O. D.	.470″
Stock Color	Black
Attenuation (db/100 ft.)	50 mc — 1.2 100 mc — 1.7 200 mc — 2.5

(All dimensions are nominal)

CATV Foam 75 OHM Coaxial Feeder Cable

SINGLE SHIELD — SINGLE JACKET — FOAM RG 11/U TYPE

A high quality foam core feeder cable with non-peaking attenuation characteristics. This foam core cable is widely used as secondary distribution lead-in cable. Cable has a solid bare copper conductor, foam polyethylene dielectric, braided copper shield with a weather proof polyethylene jacket overall. A tough, long lasting cable that is relatively light weight, flexible and easy to install.

Alpha No.	9603F
Nominal Impedance	75 ohm
Conductor	Solid Copper
Conductor O. D.	.064″
Insulation Material	Foamed Polyethylene
Insulation O. D.	.285″
Shield Material	#33 Bare Copper
Shield O. D.	.313″
Jacket Material	Polyethylene
Jacket O. D.	.405″
Stock Color	Black
Attenuation (db/100 ft.)	50 mc — 1.2 100 mc — 1.7 200 mc — 2.5

(All dimensions are nominal)

CATV Foam 75 OHM Drop Cable

FOAM RG 59/U TYPE — WITH AND WITHOUT MESSENGER

A low-loss, light weight cable with wide use as subscriber tap-off lead-in cable. Cable contains a bare copper conductor, foam polyethylene dielectric, braided copper shield with a black polyethylene jacket overall. Jacket withstands effect of weathering and sunlight and is resistant to attack by acid, alkali, oil, and grease.
Alpha No. 9606M has, in addition, a built-in #14 gauge steel wire messenger in a "figure eight" construction.

Alpha No. 9606M — Same as 9606F with steel messenger wire

Alpha No.	9606F
Nominal Impedance	75 ohm
Conductor	Solid Copper
Conductor O. D.	.0320″
Insulation Material	Foamed Polyethylene
Insulation O. D.	.146″
Shield Material	#34 Bare Copper
Shield O. D.	.170″
Jacket Material	Polyethylene
Jacket O. D.	.242″
Stock Color	Black
Attenuation (db/100 ft.)	50 mc — 2.4 100 mc — 3.2 200 mc — 4.6

(All dimensions are nominal)

CATV Solid Core 75 OHM Drop Cable

RG 59/U TYPE — WITH AND WITHOUT MESSENGER

A long lasting, weatherproof cable widely used as a subscriber tap-off lead-in cable. Cable conductor is copper coated steel, with an extruded polyethylene insulation, braided copper shield, with a grey or black PVC jacket overall.
Alpha No. 9659M has, in addition, a built-in #14 gauge steel wire messenger in a "figure eight" construction.

Alpha No. 9659M — Same as 9659F with steel messenger wire

Alpha No.	9659
Nominal Impedance	75 ohm
Conductor	Solid Copper Coated Steel
Conductor O. D.	.0253″
Insulation Material	Polyethylene
Insulation O. D.	.146″
Shield Material	#34 Bare Copper
Shield O. D.	.171″
Jacket Material	Polyvinylchloride
Jacket O. D.	.242″
Stock Color	Grey, Black
Attenuation (db/100 ft.)	50 mc — 2.7 100 mc — 4.0 200 mc — 5.7

(All dimensions are nominal)

PRICES

Alpha No.	Sugg. Resale per 1000′	Alpha No.	Sugg. Resale per 1000′
9602F	154.50	9606F	41.63
9603F	100.13	9659	35.25

Net

ALPHA electronic WIRE

© U.C.P., Inc.

75 OHM Foam TV and FM Coaxial Cable

FOAM RG 59/U TYPE LOW LOSS—MAXIMUM SIGNAL STRENGTH

Foam core coaxial cable delivers maximum low-loss performance for any TV or FM antenna system. This cable, while providing superior signal for black and white TV, is especially recommended for color TV installations.

Coaxial cable maintains a constant impedance match, eliminates ghosts and color smears, will not pick up interference and gives optimum signal in all types of weather.

The cable contains a solid bare copper conductor, foam polyethylene insulation, braided copper shield and a heavy duty black polyethylene jacket.

Alpha No.	9606F
Nominal Impedance	75 ohm
Conductor	Solid Copper
Conductor O. D.	.0320″
Insulation Material	Foamed Polyethylene
Insulation O. D.	.146″
Shield Material	#34 Bare Copper
Shield O. D.	.170″
Jacket Material	Polyethylene
Jacket O. D.	.242″
Stock Color	Black
Attenuation (db/100 ft.)	50 mc — 2.4 100 mc — 3.2 200 mc — 4.6

(All dimensions are nominal)

75 OHM Solid Core TV and FM Coaxial Cable

RG 59/U TYPE
MAXIMUM SIGNAL STRENGTH — EXTENDED OPERATING LIFE

Coaxial cable is recommended by many leading antenna manufacturers for optimum black and white and color reception. Ghosts, color smears, and noise are eliminated by use of coaxial cable and effective operating life is many times that of ordinary flat line wire. Many TV sets and antennas are now manufactured for use with 75 ohm cable and inexpensive matching transformers may be used in older sets designed for 300 ohm line.

Construction consists of a copper coated steel conductor, polyethylene dielectric, braided copper shield and a grey or black PVC jacket overall.

Alpha No.	9659
Nominal Impedance	75 ohm
Conductor	Solid Copper Coated Steel
Conductor O. D.	.0253″
Insulation Material	Polyethylene
Insulation O. D.	.146″
Shield Material	#34 Bare Copper
Shield O. D.	.171″
Jacket Material	Polyvinylchloride
Jacket O. D.	.242″
Stock Color	Grey, Black
Attenuation (db/100 ft.)	50 mc — 2.7 100 mc — 4.0 200 mc — 5.7

(All dimensions are nominal)

50 OHM Amateur Radio and CB Coaxial Cables

FOAM RG 8/U TYPE — SOLID RG 58/U TYPE

Signal loss between transmitter and antenna is minimized by the use of these specially designed coaxial cable types. In addition, the ability of these cables to shield out stray radiation fields makes them the preferred broadcast transmission cables.

Foam core cable consists of a stranded bare copper conductor, foam polyethylene dielectric, braided copper shield, and a black PVC jacket.

The solid core cable contains a solid bare copper conductor, solid polyethylene dielectric braided copper shield with a black PVC jacket overall.

Jackets resist effects of weathering and sunlight and heavy abrasion.

FOAM RG 8/U TYPE

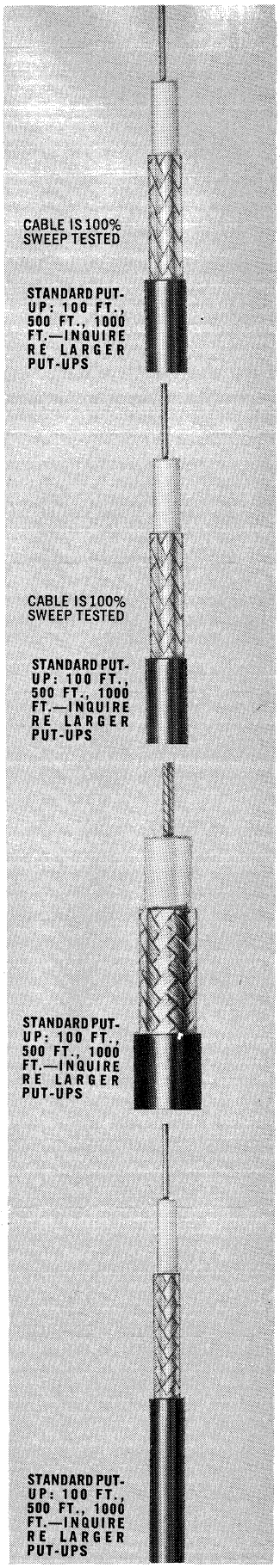
Alpha No.	9608F
Nominal Impedance	50 ohm
Conductor Stranding	7/.036 Copper
Conductor O. D.	.108″
Insulation Material	Foamed Polyethylene
Insulation O. D.	.285″
Shield Material	#33 Bare Copper
Shield O. D.	.313″
Jacket Material	Polyvinylchloride
Jacket O. D.	.405″
Stock Color	Black

(All dimensions are nominal)

RG 58/U TYPE

Alpha No.	9658
Nominal Impedance	50 ohm
Conductor Stranding	Solid Copper
Conductor O. D.	.032″
Insulation Material	Polyethylene
Insulation O. D.	.116″
Shield Material	#36 Tinned Copper
Shield O. D.	.136″
Jacket Material	Polyvinylchloride
Jacket O. D.	.195″
Stock Color	Black

(All dimensions are nominal)



ALPHA electronic WIRE

Alpha No.	Sugg. Resale per 1000′	Alpha No.	Sugg. Resale per 1000′
9606F	41.63	9608F	111.75
9659	35.25	9658	30.75

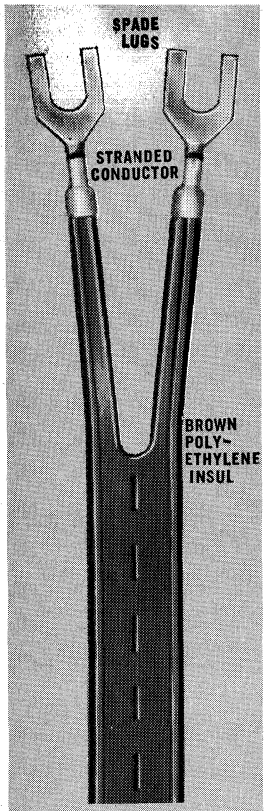
PRICES

Net

Twin Lead TV Cable

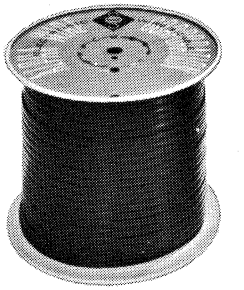
NEW

MANUFACTURED TO RIGID OPERATING SPECIFICATIONS



DESCRIPTION: Three basic types, each designed to achieve maximum signal performance in any climate and under the most severe weather conditions. Each conductor stranded bare copper, laid parallel, brown polyethylene jacket.

CHARACTERISTICS: Maximum Operating Temperature — +220°F
Water Absorption after 24 hours immersion — .001%
Resistance to Acid — Excellent
Resistance to Salt Spray — Excellent
Stress-Crack Resistance — Excellent
Hardness of Plastic — Durometer C-73
Impedance — 300 ohms
Maximum Attenuation per 100′ — .85 db @ 50mc
1.1 db @ 100mc
1.7 db @ 200mc
Dielectric Constant of Insulation (50-110mc) — 2.75
Dissipation Factor (50-110mc) — .0005
Capacity between Conductors — 4.4 mfd per ft.



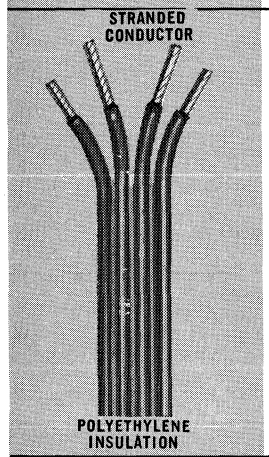
APPLICATIONS: No. 5150 — The ideal TV cable for average operating conditions
No. 5152 — Heavy duty, climate-resistant
No. 5153 — Extra-Strong, climate-resistant (Resists wind-whipping) (Recommended for antenna-mounted amplifiers.)

ALPHA NO.	CONDUCTOR SIZE	CONDUCTOR STRAND	MATERIAL	NOM. WEB THICKNESS	NOM. WIDTH	STRENGTH LBS.
5150	22	7/30	Soft drawn pure copper	.60	.400	75
5152	20	7/28	Soft drawn pure copper	.80	.400	100
5153	20	19/32	Soft drawn pure copper	.100	.400	185

STANDARD PUT-UP: 1000′ SPOOLS, 25′, 50′, 75′, 100′ hanks

Flat Rotor Cable

FOUR AND FIVE CONDUCTOR



DESCRIPTION: Each conductor stranded bare copper with 1 conductor tinned; copper conductor laid parallel, chrome polyethylene insulation.

CHARACTERISTICS: Operating voltage: 200 volts. Excellent atmosphere, weather, and abrasion resistance.

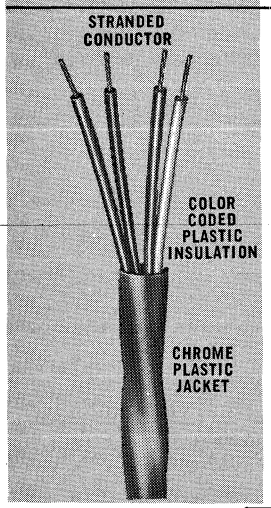
ALPHA NO.	NO. OF CONDUCTORS	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D. (Inches)
1157	4	20	7/28	.080 x .390
■ 1158	5	20	7/28	.080 x .475

STANDARD PUT-UP: 100 FT., 500 FT., 1000 FT.
■ NEW

Round Rotor Cable

NEW

FOUR, FIVE, AND EIGHT CONDUCTOR



DESCRIPTION: Each conductor stranded bare copper, color coded polyvinylchloride insulation, conductor cabled with chrome grey PVC jacket overall.

CHARACTERISTICS: Operating voltage: 200 volts. Excellent atmosphere, weather, and abrasion resistance.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.	COLOR CODE OF CONDUCTORS
6630	4	20	7/28	.010	.180	Black, Green, Red, White
6631	5	20	7/28	.010	.190	Black, Green, Red, White, Yellow
6632	8	22	7/30	.010	.205	Black, Blue, Brown, Green, Orange, Red, White, Yellow

STANDARD PUT-UP: 100 FT., 500 FT., 1000 FT.

PRICES

Alpha No.	Sugg. Resale per 1000′
5150	10.88
5152	15.45
5153	18.37

Alpha No.	Sugg. Resale per 500′
1157	13.62
1158	17.99

Alpha No.	Sugg. Resale per 500′
6630	15.53
6631	19.32
6632	22.88

ALPHA electronic WIRE

Net
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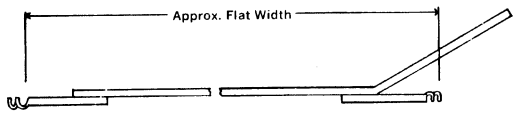
ALPHLEX® ZIPPER TUBING

DESCRIPTION Alphlex Zipper Tubing is the all purpose modern way to harness, cover and protect cables. Just zip to close — and zip to reopen. If you wish, it may be permanently sealed with PB-200 Special Compound Liquid Sealer. Alphlex Zipper Tubing is strong, flexible, durable, and offers new freedom in design, production and repair.

APPLICATIONS To shield, to harness wire, to custom-cable to any length, to enclose, to encase, to identify (such as cable markers), to protect, to replace worn jackets.

TYPES OF ZIPPER TUBING

TYPE	MATERIAL	WALL THICKNESS (Inches)	OPER. TEMP.	APPLICATIONS	STOCK COLORS	STANDARD PUT-UPS
ZIP-31	Polyvinyl-chloride made from MIL-I-631 D, GRADE C Materials	.020	—20° C to 105° C	All Purpose Type	Clear Black Yellow	25' 50' 100' 25' 50' 100' 25' 50' 100'
ZIP-31M	Polyvinyl-chloride made from MIL-I-631 D, GRADE C Materials	.040	—20° C to 105° C	Heavy Duty Constructions	Clear Black	100' 100'
ZIP-44	Polyvinyl-chloride made from MIL-I-7444 B Materials	.020	—67° C to 70° C	Extreme Flexibility, Low Temperature & Aircraft industry	Clear Black	100' 100'
ZIP-50	Polyvinyl-chloride "sandwich" of aluminum foil laminated between two sheets of polyvinyl	.040	—20° C to 105° C	100% RF shielding	Silver-Grey	100'



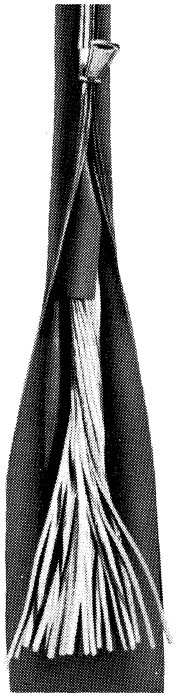
ZIPPER SPECIFICATIONS FOR ALL TYPES OF ALPHLEX ZIPPER TUBING

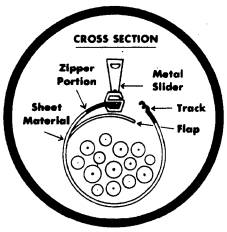
Material	Polyvinylchloride	Cold Brittleness	—86° C
Track Thickness (when closed)	.095"	Fungus-proof	will not support fungus
Dielectric Strength, V/mil	759	Flammability	self-extinguishing
Tensile Strength-P.S.I.	3810	Lateral Pull Strength (unsealed)	42.7 pounds/inch
Ultimate Elongation	255%	Lateral Pull Strength (permanently sealed)	59.8 pounds/inch
Operating Temperature, Upper Limit	106° C	Standard Colors	Black, Clear, Yellow

Contrasting color combinations of zipper and body are available to order. The zipper portion can be supplied in any of the following colors: Black, Yellow, Clear, Blue, White, Brown, Purple, Red, Orange, Green, Slate.

STANDARD SIZES FOR ALL ZIPPER TUBING

Zipper Tubing Inside Diameter	Approx. Flat Width (From track to track — excluding flap)
*¼"	1 5/16"
*3/8"	1 5/8"
½"	2"
5/8"	2 3/8"
¾"	2 3/4"
7/8"	3 1/8"
1"	3 9/16"
1⅛"	3 15/16"
1¼"	4 1/8"
1½"	4 7/8"
1¾"	5 5/8"
2"	6 3/8"





*Because of small Inside Diameter, these sizes cannot be closed by using the slider. The tracks must be closed by manual pressure.

HOW TO ORDER
Select the type of Zipper Tubing desired from the chart and the required Inside Diameter. When ordering, request as follows: For example, ZIP-31 Tubing in 5/8" Inside Diameter order — ZIP-31 — 5/8.

PRICES

Alpha No.	Sugg. Resale per 100'
ZIP-31—¼"	36.00
ZIP-31—⅜"	37.00
ZIP-31—½"	37.50
ZIP-31—⅝"	38.00
ZIP-31—¾"	38.50
ZIP-31—⅞"	39.50
ZIP-31—1"	40.00
ZIP-31—1⅛"	41.50
ZIP-31—1¼"	42.00
ZIP-31—1½"	43.50
ZIP-31—1¾"	45.00
ZIP-31—2"	46.00

Alpha No.		Sugg. Resale
LC-113—White	½ lb.	4.73
LC-113—Black	½ lb.	5.51
LC-114—White	½ lb.	4.73
LC-114—Black	½ lb.	5.51
LC-115—White	½ lb.	4.73

Alpha No.		Sugg. Resale
LC-115—Black	½ lb.	5.51
LC-132—White	500 yd.	8.45
LC-132—Black	500 yd.	9.14
LC-134—White	500 yd.	5.41
LC-134—Black	500 yd.	6.09

Alpha No.		Sugg. Resale
LC-136—White	500 yd.	8.45
LC-136—Black	500 yd.	9.14
LC-140—White	500 yd.	8.45
LC-140—Black	500 yd.	9.14
LC-143—White	500 yd.	8.45

Alpha No.		Sugg. Resale
LC-143—Black	500 yd.	9.14
LC-158—White	500 yd.	8.45
LC-158—Black	500 yd.	9.14
LC-162—White	500 yd.	8.45
LC-162—Black	500 yd.	9.14

Alpha No.	Sugg. Resale per 1000'
PVC-105/24	13.00
PVC-105/22	13.10
PVC-105/20	13.50
PVC-105/18	13.80
PVC-105/17	14.00
PVC-105/16	14.60
PVC-105/15	14.90

Alpha No.	Sugg. Resale per 500'
PVC-105/14	9.95
PVC-105/13	10.20
PVC-105/12	10.70
PVC-105/11	11.05
PVC-105/10	11.55
PVC-105/9	15.70
PVC-105/8	16.95
PVC-105/7	18.10
PVC-105/6	19.55
PVC-105/5	21.15
PVC-105/4	13.75
PVC-105/3	14.70

Alpha No.	Sugg. Resale per 100'
PVC-105/2	6.91
PVC-105/1	7.42
PVC-105/0	7.98
PVC-105/3/16	9.42
PVC-105/3/8	10.81
PVC-105/7/16	11.58
PVC-105/1/2	12.77
PVC-105/9/16	17.00
PVC-105/5/8	18.38

Alpha No.	Sugg. Resale per 50'
PVC-105/3/4	12.67
PVC-105/7/8	14.25
PVC-105/1	15.92
PVC-105/1 1/8	20.88
PVC-105/1 1/4	22.07
PVC-105/1 3/8	23.59
PVC-105/1 1/2	28.60
PVC-105/1 3/4	35.66
PVC-105/2	49.00
PVC-105/2 1/4	58.26
PVC-105/2 1/2	69.07

ALPHLEX® ELECTRONIC LACING CORDS AND TAPES

MIL-T-713A NYLON TWISTED CORD

ALPHA NO.	CLASS	TYPE	BREAKING STRENGTH	FINISH	NOMINAL DIAMETER	STOCK COLORS	YARDS PER POUND	STANDARD PUT-UP
LC-113	I	P Twine	70 lbs.	MW	.050"	Wh., Blk.	560	8 oz. spls.
LC-114	II	P Twine	48 lbs.	MW	.035"	Wh., Blk.	750	8 oz. spls.
LC-115	III	P Twine	32 lbs.	MW	.030"	Wh., Blk.	1180	8 oz. spls.

MIL-T-713A NYLON FLAT BRAIDED TAPE

ALPHA NO.	CLASS	TYPE	BREAKING STRENGTH	NOMINAL WIDTH	NOMINAL THICKNESS	FINISH	STOCK COLORS	STANDARD PUT-UP
LC-136	II	P Tape	50 lbs.	.090" (3/32")	.014"	MW	Wh., Blk.	500 yd. spls.

NYLON FLAT BRAIDED TAPE

ALPHA NO.	WIDTH	THICKNESS	TENSILE STRENGTH	FINISH	STOCK COLORS	STANDARD PUT-UP
LC-132	3/32"	.014"	50 lbs.	GE	Wh., Blk.	500 yd. tubes
LC-134	1/16"	.010"	30 lbs.	MW	Wh., Blk.	500 yd. spls.
LC-136	3/32"	.014"	50 lbs.	MW	Wh., Blk.	500 yd. spls.
LC-140	3/32"	.014"	50 lbs.	SR	Wh., Blk.	500 yd. spls.
LC-143	3/32"	.014"	50 lbs.	AM	Wh., Blk.	500 yd. spls.

DACRON FLAT BRAIDED TAPE

ALPHA NO.	WIDTH	THICKNESS	TENSILE STRENGTH	FINISH	STOCK COLORS	STANDARD PUT-UP
LC-158	3/32"	.014"	50 lbs.	GE	Wh., Blk.	500 yd. tubes
LC-162	3/32"	.014"	50 lbs.	MW	Wh., Blk.	500 yd. spls.

Other materials, finishes and sizes available to order.

Alphlex® Polyvinylchloride Plastic Tubing (PVC-105)

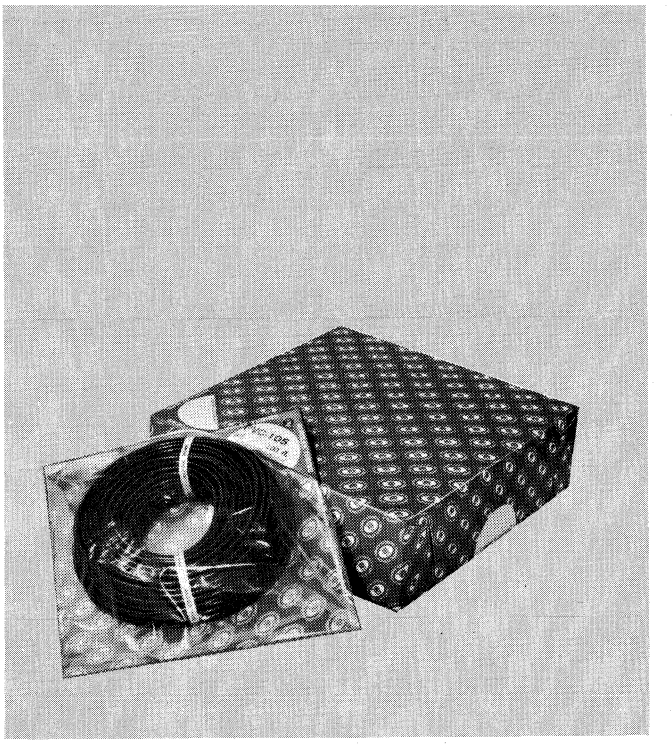
CONFORMS TO MIL-I-631D †

DESCRIPTION: The superior mechanical, thermal, and electrical properties of Alphlex PVC-105, coupled with its economical cost have led to an ever increasing use of this all-purpose insulating material. Another major advantage of Alphlex PVC-105 is its high degree of flexibility, which is maintained even under severe environmental conditions.

Rated for temperatures as high as 105°C, PVC-105 has a high dielectric strength that remains unaffected by increasing temperature throughout its range. PVC-105 maintains a high resistance to the agents of heat, oil, chemical corrosion and fungi with no loss in tensile strength, or flexibility. Other features include an exceptional resistance to abrasion and indefinite shelf life.

Alphlex PVC-105 is compounded with first quality, non-migratory resinous type plasticizers. Carefully selected stabilizers and modifiers added in the manufacturing process, counteract chemical and environmental degradation. Under adverse conditions Alphlex PVC-105 retains its flexibility which permits it to cling to and protect irregular shapes. An unusually simple to handle insulating material, PVC-105 "snakes" well under all environmental conditions.

APPLICATIONS: Designed and manufactured for general electronic, aircraft and electrical applications involving temperatures as high as 105°C. Especially useful to protect wires and cables subject to abrasion or where a flexible tubing with a high degree of resistivity to oil, chemicals or solvents is necessary.



DIMENSIONS CHART

ALPHLEX NUMBER	SIZE	NOM. INSIDE DIA. (Inch.)	NOM. WALL THICK-NESS (Inch.)	*STOCK COLORS	STANDARD PUT-UPS
PVC-105/24	24	.022	.013	1 - 6	100′, 500′, 1000′ Spools
PVC-105/22	22	.027	.012	1 - 6	100′, 500′, 1000′ Spools
PVC-105/20	20	.034	.016	1 - 6	100′, 500′, 1000′ Spools
PVC-105/19	19	.038	.016	1 - 6	100′, 500′, 1000′ Spools
PVC-105/18	18	.042	.016	1 - 6	100′, 500′, 1000′ Spools
PVC-105/17	17	.047	.016	1 - 6	100′, 500′, 1000′ Spools
PVC-105/16	16	.053	.016	1 - 6	100′, 500′, 1000′ Spools
PVC-105/15	15	.059	.016	1 - 6	100′, 500′, 1000′ Spools
PVC-105/14	14	.066	.016	1 - 6	100′, 500′, — Spools
PVC-105/13	13	.076	.016	1 - 6	100′, 500′, — Spools
PVC-105/12	12	.085	.016	1 - 6	100′, 500′, — Spools
PVC-105/11	11	.095	.016	1 - 6	100′, 500′, — Spools
PVC-105/10	10	.106	.016	1 - 6	100′, 500′, — Spools
PVC-105/9	9	.118	.020	1 - 6	100′, 500′, — Spools
PVC-105/8	8	.133	.020	1 - 6	100′, 500′, — Spools
PVC-105/7	7	.148	.020	1 - 6	100′, 500′, — Spools
PVC-105/6	6	.166	.020	1 - 6	100′, 500′, — Spools
PVC-105/5	5	.186	.020	1 - 6	100′, 500′, — Spools
PVC-105/4	4	.208	.020	1 - 6	100′, 250′, — Coils
PVC-105/3	3	.234	.020	1 - 6	100′, 250′, — Coils
PVC-105/2	2	.263	.020	1 - 6	100′, 250′ Coils
PVC-105/1	1	.294	.020	1,2,3	100′, 250′ Coils
PVC-105/0	0	.330	.020	1,2,3	100′, 250′ Coils
PVC-105/5/16″	5/16″	.312	.025	1,2,3	100′, 250′ Coils
PVC-105/3/8″	3/8″	.375	.025	1,2,3	100′, 250′ Coils
PVC-105/7/16″	7/16″	.438	.025	1,2,3	25′, 100′, — Coils
PVC-105/1/2″	1/2″	.500	.025	1,2,3	25′, 100′, — Coils
PVC-105/9/16″	9/16″	.562	.030	1,2,3	25′, 100′, — Coils
PVC-105/5/8″	5/8″	.625	.030	1,2,3	25′, 100′, — Coils
PVC-105/3/4″	3/4″	.750	.035	1,2,3	25′, 50′, — Coils
PVC-105/7/8″	7/8″	.875	.035	1,2,3	25′, 50′, — Coils
PVC-105/1″	1″	1.000	.035	1,2,3	25′, 50′, — Coils
PVC-105/1 1/8″	1 1/8″	1.125	.035	1,2	25′, 50′, — Coils
PVC-105/1 1/4″	1 1/4″	1.250	.040	1,2	25′, 50′, — Coils
PVC-105/1 3/8″	1 3/8″	1.375	.040	1,2	25′, 50′, — Coils
PVC-105/1 1/2″	1 1/2″	1.500	.045	1,2	25′, 50′, — Coils
PVC-105/1 3/4″	1 3/4″	1.750	.055	1,2	25′, 50′, — Coils
PVC-105/2″	2″	2.000	.060	1,2	25′, 50′, — Coils
PVC-105/2 1/4″	2 1/4″	2.250	.065	1,2	25′, 50′, — Coils
PVC-105/2 1/2″	2 1/2″	2.500	.070	1,2	25′, 50′, — Coils

*** STOCK COLORS** 1—Clear 2—Black 3—White 4—Yellow 5—Red 6—Green

† **MIL-I-631D, Type F, Form U, Grade C, Class I, Category 1**

SEE PAGE 1637 FOR PVC-105 PRICES

 © U.C.P., Inc.

Alphlex® Teflon Extruded Tubing

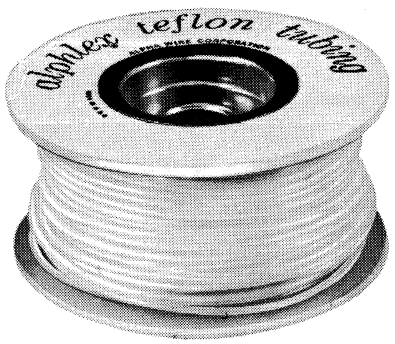
CONFORMS TO MIL-I-22129B

DESCRIPTION: Alphlex Teflon Tubing is unmatched by any other type of tubing for use in electrical applications at high frequencies and temperatures. Teflon is rated for continuous operation at 250°C, and retains an exceptional toughness and its flexibility throughout its temperature range.

Alphlex Teflon Tubing has the further advantage of a high degree of resistance to flexural fatigue and repetitive stresses; coefficient of friction lower than that of any other known solid; and a dielectric constant and power factor lower than that of any other known solid. This tubing will not crack or become brittle during aging.

Because of its resistance to soldering iron temperature, Alphlex Teflon Tubing will not shrink back during the soldering process. Alphlex Teflon Tubing will not melt and flow as do conventional thermoplastic materials. At high frequencies, its dielectric strength is many times that of other insulating materials.

Alphlex Teflon Tubing is chemically inert, has zero moisture absorption and its insulation resistance properties are unaffected by heat aging or temperature use up to 250°c.



APPLICATIONS: A thin flexible insulation, Alphlex Teflon Tubing permits a miniaturization and compactness of design never before possible. Invaluable in any application where a high heat resistant, flexible, non-flammable, chemical solvent and corrosion-resistant material is required.

ALPHLEX® THIN WALL TEFLON TUBING (TFT-200)

ALPHLEX NUMBER	SIZE	NOM. INSIDE DIA. (Inch.)	NOM. WALL THICK-NESS (Inch.)	STOCK COLORS	STANDARD PUT-UPS
TFT-200/30	30	.012	.009	Nat., Yel., Blk., Red	100′ Spools
TFT-200/28	28	.015	.009	Nat., Yel., Blk., Red	100′ Spools
TFT-200/26	26	.018	.010	Nat., Yel., Blk., Red	100′ Spools
TFT-200/24	24	.022	.010	Nat., Yel., Blk., Red	100′ Spools
TFT-200/22	22	.027	.010	Nat., Yel., Blk., Red	100′ Spools
TFT-200/20	20	.034	.012	Nat., Yel., Blk., Red	100′ Spools
TFT-200/19	19	.038	.012	Nat., Yel., Blk., Red	100′ Spools
TFT-200/18	18	.042	.012	Nat., Yel., Blk., Red	100′ Spools
TFT-200/17	17	.047	.012	Nat., Yel., Blk., Red	100′ Spools
TFT-200/16	16	.053	.012	Nat., Yel., Blk., Red	100′ Spools
TFT-200/15	15	.059	.012	Nat., Yel., Blk., Red	100′ Spools
TFT-200/14	14	.066	.012	Nat., Yel., Blk., Red	100′ Spools
TFT-200/13	13	.076	.012	Nat., Yel., Blk., Red	100′ Spools
TFT-200/12	12	.085	.012	Nat., Yel., Blk., Red	100′ Spools
TFT-200/11	11	.095	.012	Nat., Yel., Blk., Red	100′ Spools
TFT-200/10	10	.106	.012	Nat., Yel., Blk., Red	100′ Spools
TFT-200/9	9	.118	.015	Nat., Yel., Blk., Red	100′ Coils*
TFT-200/8	8	.133	.015	Nat., Yel., Blk., Red	100′ Coils*
TFT-200/7	7	.148	.015	Natural Only	100′ Coils*
TFT-200/6	6	.166	.015	Natural Only	100′ Coils*
TFT-200/5	5	.186	.015	Natural Only	100′ Coils*
TFT-200/4	4	.208	.015	Natural Only	100′ Coils*
TFT-200/3	3	.234	.015	Natural Only	100′ Coils*
TFT-200/2	2	.263	.015	Natural Only	100′ Coils*
TFT-200/1	1	.294	.015	Natural Only	100′ Coils*
TFT-200/0	0	.330	.015	Natural Only	100′ Coils*

*** RANDOM LENGTHS PACKED IN 100′ COILS**

ALPHLEX® STANDARD WALL TEFLON TUBING (TFT-250)

Similar in characteristics to TFT-200 (Thin Wall Tubing), but for use in application where additional dielectric values and mechanical strength are necessary.

ALPHLEX NUMBER	SIZE	NOM. INSIDE DIA. (Inch.)	NOM. WALL THICK-NESS (Inch.)	STOCK COLORS	STANDARD PUT-UPS
TFT-250/24	24	.022	.012	Natural Only	100′ Spools
TFT-250/22	22	.027	.012	Natural Only	100′ Spools
TFT-250/20	20	.034	.016	Natural Only	100′ Spools
TFT-250/19	19	.038	.016	Natural Only	100′ Spools
TFT-250/18	18	.042	.016	Natural Only	100′ Spools
TFT-250/17	17	.047	.016	Natural Only	100′ Spools
TFT-250/16	16	.053	.016	Natural Only	100′ Spools
TFT-250/15	15	.059	.016	Natural Only	100′ Spools
TFT-250/14	14	.066	.016	Natural Only	100′ Spools
TFT-250/13	13	.076	.016	Natural Only	100′ Spools
TFT-250/12	12	.085	.016	Natural Only	100′ Spools
TFT-250/11	11	.095	.016	Natural Only	100′ Spools
TFT-250/10	10	.106	.016	Natural Only	100′ Spools
TFT-250/9	9	.118	.020	Natural Only	100′ Coils*
TFT-250/8	8	.133	.020	Natural Only	100′ Coils*
TFT-250/7	7	.148	.020	Natural Only	100′ Coils*
TFT-250/6	6	.166	.020	Natural Only	100′ Coils*
TFT-250/5	5	.186	.020	Natural Only	100′ Coils*
TFT-250/4	4	.208	.020	Natural Only	100′ Coils*
TFT-250/3	3	.234	.020	Natural Only	100′ Coils*
TFT-250/2	2	.263	.020	Natural Only	100′ Coils*
TFT-250/1	1	.294	.020	Natural Only	100′ Coils*
TFT-250/0	0	.330	.020	Natural Only	100′ Coils*

*** RANDOM LENGTHS PACKED IN 100′ COILS**

PRICES

Alpha No.	Sugg. Resale per 100′	Alpha No.	Sugg. Resale per 100′	Alpha No.	Sugg. Resale per 100′	Alpha No.	Sugg. Resale per 100′
TFT-200/30	9.00	TFT-200/12	18.48	TFT-250/24	10.01	TFT-250/9	45.86
TFT-200/28	8.00	TFT-200/11	20.45	TFT-250/22	11.23	TFT-250/8	45.43
TFT-200/26	7.70	TFT-200/10	22.04	TFT-250/20	15.19	TFT-250/7	49.56
TFT-200/24	7.70	TFT-200/9	24.95	TFT-250/19	16.31	TFT-250/6	53.55
TFT-200/22	9.50	TFT-200/8	27.52	TFT-250/18	18.70	TFT-250/5	58.99
TFT-200/20	12.00	TFT-200/7	29.45	TFT-250/17	20.39	TFT-250/4	64.09
TFT-200/19	12.50	TFT-200/6	31.82	TFT-250/16	21.78	TFT-250/3	70.89
TFT-200/18	12.98	TFT-200/5	34.85	TFT-250/15	22.26	TFT-250/2	73.14
TFT-200/17	14.18	TFT-200/4	38.10	TFT-250/14	24.03	TFT-250/1	81.26
TFT-200/16	14.53	TFT-200/3	41.74	TFT-250/13	25.33	TFT-250/0	91.38
TFT-200/15	14.58	TFT-200/2	48.13	TFT-250/12	27.41		
TFT-200/14	16.04	TFT-200/1	52.71	TFT-250/11	30.43		
TFT-200/13	17.17	TFT-200/0	59.14	TFT-250/10	33.02		

ALPHA electronic WIRE

© U.C.P., Inc.

Net

Irradiated Polyolefin Tubing

NEW

NEW ALL-PURPOSE SHRINKABLE TUBING — FIT-221

- **SHRINKS 50% (2:1 RATIO) WITH ONLY 5% LONGITUDINAL SHRINKAGE**
- **FEWER SIZES COVERING MORE APPLICATIONS**

DESCRIPTION: Alphlex FIT-221 Shrinkable Tubing, when heated, forms a tight-mechanical bond, even over irregularly shaped materials. FIT-221 is available in a range of colors and in clear.

FIT-221 is an all-purpose polyolefin extruded tubing that is simple to use and provides a tight mechanical bond. FIT-221 is an irradiated, thermally stable, modified polyolefin base product. FIT-221 Clear may be used so that jacketed, printed components or cable data is clearly visible and inspection of insulated components, cables or terminations is simplified.

The tubing is supplied in an expanded form and easily slips over the object to be covered. When a temperature of approximately 275°F (135°C) is applied, it immediately returns to its predetermined size (approximately one-half smaller) and forms a permanent tight-fitting mechanical bond. FIT-221 Tubing will not cold-flow or melt but retains form stability throughout its temperature range. No radioactivity exists in or on the material and it will not emit radiation. Longitudinal shrinkage is 5% maximum when completely recovered.

Controlled shrinkage to the correct predetermined size takes place within seven seconds at 225°F to 255°F. Shrinkage will begin at 235°F, but at a somewhat slower rate. When using an oven, temperature may range from 235°F to 300°F. Prolonged exposure to these temperatures will not affect the physical or electrical properties of FIT-221 Shrinkable Tubing. FIT-221 Clear Tubing remains transparent over its entire operating range of −55°C to 135°C.

FLAMMABILITY: Although FIT-221 Clear is a high temperature material, it is flammable and will burn. However, when the tubing is shrunk over non-flammable or flame-resistant components, such as connectors, terminals and wire, the entire assembly will not support combustion.

All Types of FIT Tubing are available from stock and may be cut and/or marked to your specifications.

DIMENSIONS CHART

ALPHLEX NO. FIT-221	EQUIVALENT TO FIT-275/270	SIZE	MIN. I.D. BEFORE SHRINKAGE (Inches)	RECOVERED I.D. AFTER SHRINKAGE (Inches)	RECOVERED NOM. WALL THICKNESS (Inches)	STANDARD PACKAGE* 4′ LENGTHS TOT. FTG.	STANDARD PACKAGE* 4′ LENGTHS NO. OF LGTHS.	STANDARD PACKAGE* 6″ LENGTHS TOT. FTG.	STANDARD PACKAGE* 6″ LENGTHS NO. OF LGTHS.
FIT-221-3/64″	FIT-275-24	3/64	.046	.023	.016	100′	25	20′	40
FIT-221-1/16″	FIT-275-22, 20	1/16	.063	.031	.017	100′	25	18′	36
FIT-221-3/32″	FIT-275-18, 16	3/32	.093	.046	.020	100′	25	16′	32
FIT-221-1/8″	FIT-275-14	1/8	.125	.062	.020	100′	25	14′	28
FIT-221-3/16″	FIT-275-12, 10	3/16	.187	.093	.020	100′	25	12′	24
FIT-221-1/4″	FIT-275-8	1/4	.250	.125	.025	100′	25	10′	20
FIT-221-3/8″	FIT-275-6, 4	3/8	.375	.187	.025	100′	25	8′	16
FIT-221-1/2″	FIT-275-2, 5/16″	1/2	.500	.250	.025	20′	5	7′	14
FIT-221-3/4″	FIT-275-3/8″, 7/16″	3/4	.750	.375	.030	20′	5	6′	12
FIT-221-1″	FIT-275-1/2″, 5/8″	1	1.000	.500	.035	20′	5	4′	8
FIT-221-1 1/2″	FIT-275-3/4″, 7/8″	1 1/2	1.500	.750	.040	20′	5	2.5′	5
FIT-221-2″	FIT-275-1″, 1 1/4″	2	2.000	1.000	.045	20′	5	1.5′	3
FIT-221-3″	FIT-275-1 1/2″, 1 3/4″	3	3.000	1.500	.050	8′	2	1′	2
FIT-221-4″	FIT-275-2″	4	4.000	2.000	.055	8′	2	.5′	1

STOCK COLORS — Black White, Red, Yellow, Blue, and Clear

*STANDARD PACKAGE FIT-221 Tubing is available ONLY in the specified packages. When ordering, indicate package desired (6 inches or 4 foot).

PRICES — 4′ Lengths

Alpha No.	Footage	Sugg. Resale
FIT-221—3/64	100	14.10
FIT-221—1/16	100	14.80
FIT-221—3/32	100	17.15
FIT-221—1/8	100	18.35
FIT-221—3/16	100	22.35
FIT-221—1/4	100	27.95
FIT-221—3/8	100	31.00
FIT-221—1/2	20	8.25
FIT-221—3/4	20	11.00
FIT-221—1	20	15.40
FIT-221—1 1/2	20	23.10
FIT-221—2	20	31.90
FIT-221—3	8	20.24
FIT-221—4	8	29.48

ALPHA electronic WIRE

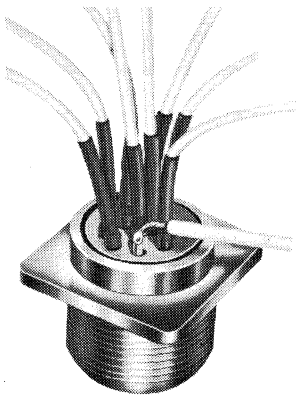
© U.C.P., Inc.

Irradiated Polyolefin Semi-Rigid Tubing FIT-295

All Types of FIT Tubing are available from stock and may be cut and/or marked to your specifications.

FOR MAXIMUM STRENGTH AT ALL STRESS POINTS

SHRINKAGE RATIO 2:1 (50% Shrinkage)



DESCRIPTION: Alphlex FIT-295 Shrinkable Tubing is designed to provide maximum mechanical strength at stress or connection points. An extremely strong, heavy wall, abrasion-resistant, extruded tubing FIT-295 is supplied in expanded form and easily slips over the object to be covered.

When a temperature of approximately 275°F (135°C) is applied, Alphlex FIT-295 immediately returns to its predetermined size (approximately ½ smaller) and forms a permanent tight-fitting mechanical bond. FIT-295 will not cold-flow or melt but retains form stability throughout its temperature range. No radioactivity exists in or on the material and it will not emit radiation. Longitudinal shrinkage is less than 5% when completely recovered.

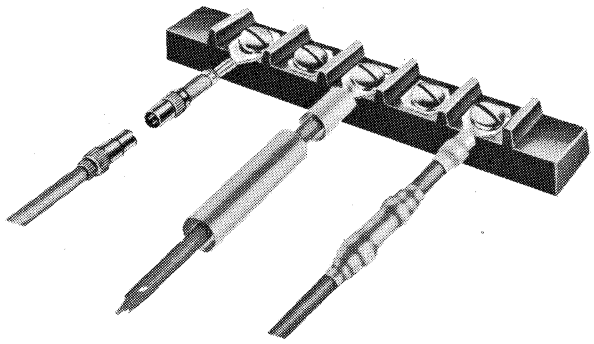
Controlled shrinkage to the correct predetermined size takes place within seven seconds at 275°F to 300°F. When using an oven, temperature may range from 235°F to 300°F. Prolonged exposure to these temperatures will not affect the physical or electrical properties of FIT-295 Tubing.

FLAMMABILITY: Although FIT-295, Clear, is a high temperature material, it is flammable and will burn. However, when the tubing is shrunk over non-flammable or flame-resistant components, such as connectors, terminals and wires, the entire assembly will not support combustion.

DIMENSIONS CHART

ALPHLEX NUMBER	STOCK COLORS	SIZE (Inches)	MINIMUM I.D. BEFORE SHRINKING (Inches)	RECOV'D I.D. SHRINKING (Inches)	NOMINAL THICKNESS (Inches)	STNDRD. PKG.* 4 FT. LENGTHS TOT. FTG.	STNDRD. PKG.* 4 FT. LENGTHS NO. LGTHS.	STNDRD. PKG.* 6 IN. LENGTHS TOT. FTG.	STNDRD. PKG.* 6 IN. LENGTHS NO. LGTHS.
FIT-295-3/64	Yellow, Clear	3/64	.046	.023	.020	100′	25	20′	40
FIT-295-1/16	White, Clear	1/16	.063	.032	.020	100′	25	18′	36
FIT-295-3/32	Blue, Clear	3/32	.093	.045	.020	100′	25	16′	32
FIT-295-1/8	Red, Clear	1/8	.125	.063	.020	100′	25	14′	28
FIT-295-3/16	Green, Clear	3/16	.187	.093	.025	100′	25	12′	24
FIT-295-1/4	Slate, Clear	1/4	.250	.125	.025	100′	25	10′	20
FIT-295-3/8	Brown, Clear	3/8	.375	.187	.030	100′	25	8′	16
FIT-295-1/2	White, Clear	1/2	.500	.250	.030	20′	5	7′	14

***STANDARD PACKAGE**
FIT-295 Tubing is available only in the specified standard packages. When ordering indicate package desired (6 inch or 4 foot.)



PACKAGED ASSORTMENTS

FIT-295-MS — Contains an assortment of 6″ lengths in all sizes. Every length identified as to size.

ALPHLEX NO.	TUBING SIZE RANGE	LENGTHS PER BOX
FIT-295-MS-1	3/64″ thru 1/2″ (8 sizes)	5 lengths per size (40 lengths)
FIT-295-MS-2	3/8″ thru 1″ (4 sizes)	6 lengths per size (24 lengths)

PRICES — 4′ Lengths

Alpha No.	Footage	Sugg. Resale
FIT-295—3/64	100	14.10
FIT-295—1/16	100	14.80
FIT-295—3/32	100	17.15
FIT-295—1/8	100	18.35
FIT-295—3/16	100	22.35
FIT-295—1/4	100	27.95
FIT-295—3/8	100	31.00
FIT-295—1/2	20	8.25

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Irradiated Polyvinylchloride Tubing FIT-105

All Types of FIT Tubing are available from stock and may be cut and/or marked to your specifications.

HIGHLY FLEXIBLE — IDEAL FOR CABLE JACKETING

Conforms to MIL-1-631D, Type F, Form U, Grade C, Class 1, Cat. 1

SHRINKAGE RATIO 2:1 (50% Shrinkage)

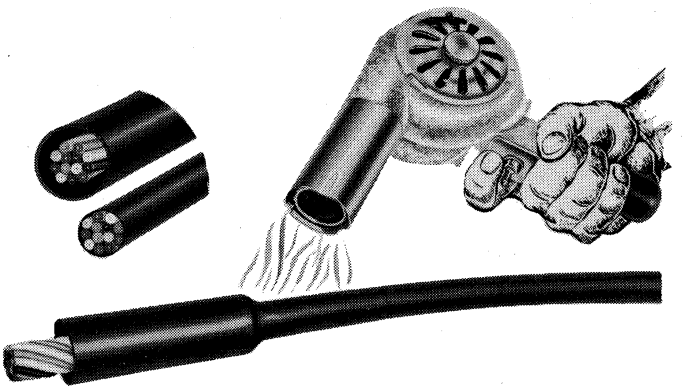
DESCRIPTION: Alphlex FIT-105 is an easy-to-use modified polyvinylchloride that provides a snug, extremely flexible insulation.

Because of its flexibility, strength and its ability to shrink 50% on application of heat, FIT-105 is ideally suited for insulating components and cables with a wide variation in shape and diameter.

Because of the 50% expanded diameter of FIT-105 Tubing, it is an extremely useful cable jacketing material. Cable cores may be pulled through FIT-105 Tubing with comparative ease and shrunk down to form a jacket with all the qualities of the finest extruded plastic jackets.

The tubing is supplied in expanded form and in continuous lengths. When a temperature of approximately 347°F (175°C) is applied, Alphlex FIT-105 Tubing immediately returns to its predetermined size (approximately 50% smaller), and forms a permanent, tight-fitting mechanical bond. FIT-105 Tubing will not cold-flow or melt but retains form stability within its temperature range. No radioactivity exists in or on the material and it will not emit radiation. Longitudinal shrinkage is less than 10%.

Controlled shrinkage to the correct predetermined size takes place within seven seconds at 325°F, or above. When using an oven, temperature may range from 325°F to 350°F.



DIMENSIONS CHART

ALPHLEX NO. (BLACK ONLY)	SIZE (Inches)	MINIMUM I.D. BEFORE SHRINKING (Inches)	RECOVERED I.D. AFTER SHRINKING (Inches)	NOMINAL WALL THICKNESS (Inches)	STANDARD PUT-UP (Feet)
FIT-105-3/64	3/64	.046	.023	.020	25, 100, 500
FIT-105-1/16	1/16	.062	.031	.020	25, 100, 500
FIT-105-3/32	3/32	.093	.046	.020	25, 100, 200
FIT-105-1/8	1/8	.125	.062	.025	25, 100, 200
FIT-105-3/16	3/16	.187	.093	.025	25, 100, 200
FIT-105-1/4	1/4	.250	.125	.025	25, 100, 200
FIT-105-3/8	3/8	.375	.187	.030	25, 100, 200
FIT-105-1/2	1/2	.500	.250	.030	25, 100
FIT-105-3/4	3/4	.775	.375	.035	25, 100
FIT-105-1	1	1.000	.500	.040	25, 100
FIT-105-1 1/2	1 1/2	1.500	.750	.045	25, 100
FIT-105-2	2	2.000	1.000	.050	10, 25, 50

STOCK COLOR — BLACK

LONG LENGTHS — MAXIMUM THREE LENGTHS PER PUT-UP.

PRICES

Alpha No.	Footage	Sugg. Resale
FIT-105—3/64	500	31.75
FIT-105—3/64	100	9.15
FIT-105—3/64	25	2.95
FIT-105—1/16	500	33.25
FIT-105—1/16	100	9.50
FIT-105—1/16	25	3.06
FIT-105—3/32	200	20.30
FIT-105—3/32	100	10.90
FIT-105—3/32	25	3.48
FIT-105—1/8	200	21.50
FIT-105—1/8	100	11.50
FIT-105—1/8	25	3.65
FIT-105—3/16	200	26.30
FIT-105—3/16	100	13.90
FIT-105—3/16	25	4.35
FIT-105—1/4	200	33.00
FIT-105—1/4	100	17.25
FIT-105—1/4	25	5.33
FIT-105—3/8	200	36.50
FIT-105—3/8	100	19.00
FIT-105—3/8	25	5.84
FIT-105—1/2	100	20.75
FIT-105—1/2	25	6.58
FIT-105—3/4	100	27.75
FIT-105—3/4	25	8.61
FIT-105—1	100	40.00
FIT-105—1	25	12.20
FIT-105—1 1/2	100	65.75
FIT-105—1 1/2	25	19.73
FIT-105—2	50	56.60
FIT-105—2	25	28.80
FIT-105—2	10	11.57

ALPHA electronic WIRE

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Irradiated Kynar* Tubing FIT-350

NEW

FIT® SHRINKABLE TUBING

HIGH TEMPERATURE TUBING

A tough, thin wall tubing with outstanding cut-through and abrasion resistance. Semi-rigid polyvinylidene fluoride.

10 sizes cover complete range of .032 — 1 inch

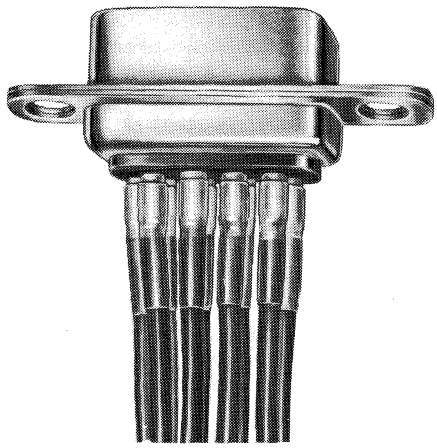
Clear and non-flammable

All FIT-350 Tubing available from stock and may be cut and/or marked to your specifications.

SHRINKAGE RATIO 2:1 (50% Shrinkage)

DESCRIPTION: Alphlex FIT-350 is a new shrinkable tubing with outstanding temperature and physical characteristics and high dielectric **strength. Longitudinal shrinkage is only 5%.**

FIT-350 is an extremely tough extruded tubing that can be repeatedly flexed, bent, or twisted without loss of its mechanical or electrical strength. Supplied as a clear tubing, FIT-350 may be used where inspection or identification of the item covered is necessary.



When a temperature of approximately 347°F. (175°C.) is applied, the tubing immediately returns to its predetermined size (approximately one-half smaller) and forms a permanent, tough mechanical bond.

FIT-350 will never cold flow or melt and will not split when shrunk over sharp or irregularly shaped objects.

FIT-350 is non-flammable and will operate continuously at temperatures from −55°C to +175°C. It will withstand intermittent heat shock at temperatures up to 350°C.

Compared with other fluorocarbon tubing types, FIT-350 has markedly superior abrasion, cut-through, and cold flow properties.

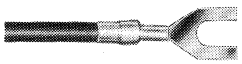
SHRINKING METHODS: The use of a hot air gun (Alpha HG-1) is recommended as being generally the easiest heating method. However, excellent results may be achieved by the use of an oven, radiant heat, dipping in hot liquids, or heating with a soldering iron, burner, or even the flame of a match.

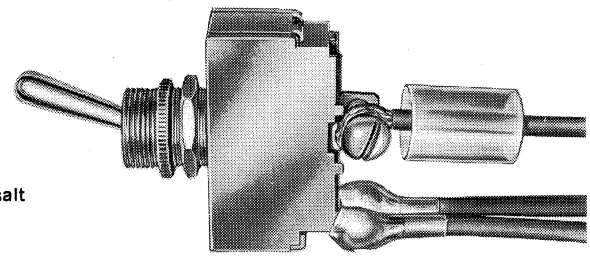
DIMENSIONS CHART

ALPHA NO.	MIN. I.D. BEFORE SHRINKAGE (Inches)	RECOVERED I.D. AFTER SHRINKAGE (Inches)	RECOVERED NOM. WALL THICKNESS (Inches)	STANDARD PACKAGE* 4′ LENGTHS TOTAL FOOTAGE	STANDARD PACKAGE* 4′ LENGTHS NO. OF LENGTHS	STANDARD PACKAGE 6″ LENGTHS TOTAL FOOTAGE	STANDARD PACKAGE 6″ LENGTHS NO. OF LENGTHS
FIT-350-3/64″	.046	.023	.010	100′	25	16′	32
FIT-350-1/16″	.063	.031	.010	100′	25	14′	28
FIT-350-3/32″	.093	.046	.010	100′	25	12′	24
FIT-350-1/8″	.125	.062	.010	100′	25	10′	20
FIT-350-3/16″	.187	.093	.010	100′	25	8′	16
FIT-350-1/4″	.250	.125	.012	100′	25	6′	12
FIT-350-3/8″	.375	.187	.012	100′	25	4′	8
FIT-350-1/2″	.500	.250	.012	20′	5	2′	4
FIT-350-3/4″	.750	.375	.017	20′	5	1′	2
FIT-350-1″	1.000	.500	.019	20′	5	5′	1

STANDARD PACKAGE: FIT-350 tubing is available only in the specified packages. When ordering, indicate package desired (6 inches or 4 foot).

STOCK COLOR: CLEAR ONLY





*T.M. Pennsalt

ALPHA electronic WIRE

PRICES — 4′ Lengths

Alpha No.	No. of Lengths	Footage	Sugg. Resale
FIT-350—3/64	25	100	14.70
FIT-350—1/16	25	100	16.05
FIT-350—3/32	25	100	19.30
FIT-350—1/8	25	100	21.20
FIT-350—3/16	25	100	32.85
FIT-350—1/4	25	100	41.20
FIT-350—3/8	25	100	58.90
FIT-350—1/2	5	20	22.46
FIT-350—3/4	5	20	41.27
FIT-350—1	5	20	75.88

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BELDEN • PRICE LIST

Reference
Bulletin E 66 P-1T
Effective Aug. 1, 1966

Trade Number Lgth. in Ft.		Sug. Trade Price Each
8000-50		1.11
8000-75		1.59
8000-100		2.01
8000-1000		18.40
8002-50		.81
8002-100		1.43
8008-100		3.85
‡8008-150		5.40
8008-200	(Obs)	5.05
8008-500		16.90
8009-100		2.40
‡8009-150		3.30
8009-200	(Obs)	3.60
8009-500		9.70
8011-100		3.00
8012-100		2.22
8012-1000		18.40
8013-100		1.50
8013-1000		12.10
8014-25		.57
8014-500		3.25
8018-50		1.05
8018-500		9.00
8019-100		1.03
8019-1000		7.75
8020-100		.81
8020-1000		5.50
8021-100		.67
8021-1000		4.00
8022-100		.66
8022-1000		3.40
8023-100		.66
8023-1000		3.10
8024-100		.66
8024-1000		3.00
8025-100		.66
8025-1000		2.70
8040		.81
8041		.87
8042		.95
8043		1.02
8044		1.13
8045		1.43
8046		1.95
8047		1.08
8048		1.08
8049		1.10
8050		1.10
8051		1.10
8052		1.13
8053		1.19
8054		1.26
8055		1.40
8056		1.58
8057		1.67
8058		1.95
8059		1.10
8060		1.10
8061		1.14
8062		1.16
8063		1.19
8064		1.20
8065		1.28
8066		1.38
8067		1.53
8068		1.65
8069		1.88
8070		2.25
8071		2.82
8072		3.48
8073		1.85
8074		1.92
8075		2.03
8076		2.03
8077		2.03
8078		2.10
8079		2.25
8080		2.46
8081		2.78
8082		3.02
8083		3.56
8084		4.53
8085		5.61
8086		7.30
*8201-100		4.15
*8201-500		17.25
*8201-1000		34.50
8205-100		2.75
8205-500		10.65
8205-1000		20.85
8208-100		6.90
8208-500		30.30
8208-1000		60.60
8209-500	(Obs)	29.25
8209-1000	(Obs)	58.50
8210-100		6.70
8210-250		15.60
8211-500		22.05
8211-1000		44.10
8211-2000		88.20
8212-500		22.05
8212-1000		44.10
8212-2000		88.20
8213-500		58.05
8213-1000		116.10
8213-2000		232.20
‡8214-50		7.75
8214-100		14.25
8214-500		57.75
8214-1000		115.50
8215-100		11.25
8215-500		48.75
8215-1000		97.50
8216-100	(RG-174/U)	3.45
8216-500	(RG-174/U)	12.30
8216-1000	(RG-174/U)	24.60
8217-100		5.70
8217-500		22.05
8217-1000		44.10
*8218-100		4.80
*8218-500		17.85
*8218-1000		35.70
*8219-100		5.70
*8219-500		22.05
*8219-1000		44.10
8222-100		1.65
8222-500		7.50
8225-25		.75
8225-50		1.17
8225-75		1.52
8225-100		1.91
8225-250		4.75
8225-500		8.95
8225-1000		17.20
‡8225-T1000		17.20
8226-25		.75
8226-50		1.17
8226-75		1.52
8226-100		1.91
8227-500		49.35
8230-25		.86
8230-50		1.29
8230-75		1.73
8230-100		2.16
8230-250		5.35
8230-500		10.35
8230-1000		19.75
‡8230-T1000		19.75
8232-500		42.25
8232-1000		84.50
8232-2000		169.00
8233-500		82.50
8233-1000		165.00
8233-2000		330.00
8235-100		4.95
8235-500		22.50
‡8237-50	(RG-8/U)	6.60
8237-100	(RG-8/U)	12.40
8237-250	(RG-8/U)	26.65
8237-500	(RG-8/U)	49.65
8237-1000	(RG-8/U)	99.30
8238-100	(RG-11/U)	11.25
8238-250	(RG-11/U)	26.25
8238-500	(RG-11/U)	45.30
8238-1000	(RG-11/U)	90.60
8239-500	(RG-54A/U)	36.40
8239-1000	(RG-54A/U)	72.80
8240-25	(RG-58/U)	1.65
8240-50	(RG-58/U)	2.65
8240-100	(RG-58/U)	4.60
8240-250	(RG-58/U)	9.90
8240-500	(RG-58/U)	16.90
8240-1000	(RG-58/U)	33.80
8241-25	(RG-59/U)	1.88
8241-50	(RG-59/U)	2.95
8241-100	(RG-59/U)	5.35
8241-250	(RG-59/U)	12.00
8241-500	(RG-59/U)	18.60
8241-1000	(RG-59/U)	37.20
8242-100	(RG-9/U)	31.15
8242-1000	(RG-9/U)	288.00
8243-500	(RG-9B/U)	175.20
8243-1000	(RG-9B/U)	350.40
8245-500	(RG-55/U)	35.50
8245-1000	(RG-55/U)	71.00
8254-100	(RG-62/U)	5.85
8254-500	(RG-62/U)	21.75
8254-1000	(RG-62/U)	43.50
8255-500	(RG-62B/U)	26.25
8255-1000	(RG-62B/U)	52.50
8257-500	(RG-71/U)	37.05
8257-1000	(RG-71/U)	74.10
8258-500	(RG-71B/U)	35.65
8258-1000	(RG-71B/U)	71.30
8259-25	(RG-58A/U)	1.88
8259-50	(RG-58A/U)	2.95
8259-100	(RG-58A/U)	5.40
8259-500	(RG-58A/U)	19.95
8259-1000	(RG-58A/U)	39.90
8261-100	(RG-11A/U)	12.15
8261-500	(RG-11A/U)	51.40
8261-1000	(RG-11A/U)	102.80
8262-500	(RG-58C/U)	21.75
8262-1000	(RG-58C/U)	43.50
8263-500	(RG-59B/U)	23.65
8263-1000	(RG-59B/U)	47.30
8264-500	(RG-5A/U)	119.25
8264-1000	(RG-5A/U)	238.50
8265-100•	(RG-178B/U)	13.00
8265-500•	(RG-178B/U)	125.25M′
8266-100•	(RG-180B/U)	34.20
8266-500•	(RG-180B/U)	304.50M′
8267-500	(RG-213/U)	57.00
8267-1000	(RG-213/U)	114.00
8268-500	(RG-214/U)	180.00
8268-1000	(RG-214/U)	360.00
8269-100•	(RG-188A/U)	22.80
8269-500•	(RG-188A/U)	205.50M′
8270-100•	(RG-196A/U)	18.25
8270-500•	(RG-196A/U)	152.00M′
8275-50		2.63
8275-75		3.70
8275-100		4.50
8275-250		10.75
8275-500		21.40
8275-1000		42.00
8279-100		9.00
8279-250		21.00
8279-500		39.00
8280§	(Cut to customer's specified length Maximum 1500′)	682.50M′
8281-500		76.90
8281-1000		153.80
8282§	(Cut to customer's specified length Maximum 2000′)	300.00M′
8283§	(Cut to customer's specified length Max. 1000′)	2520.00M′
8284§	(Cut to customer's specified length Maximum 1000′)	846.00M′
8285-50		2.85
8285-75		3.85
8285-100		4.90
8285-250		11.65
8285-500		22.50
8285-1000		45.00
*8286§	(Cut to customer's specified length Maximum 1000′)	705.00M′
*8290-50		5.80
*8290-75		7.80
*8290-100		9.90
*8290-500		47.25
8299-25		3.75 (25 per box)
8300-25	† Solid Color	2.05
8300-100	†•Solid Color	5.10
8300-500	†•Solid Color	44.55M′
8300-1000	†•Solid Color	43.75M′
8300-1000	†•Striped ▲	52.75M′
8301-25	† Solid Color	2.05
8301-100	†•Solid Color	5.25
8301-500	†•Solid Color	47.00M′
8301-1000	†•Solid Color	46.15M′
8301-1000	†•Striped ▲	55.15M′
8302-25	† Solid Color	2.05
8302-100	†•Solid Color	5.50
8302-500	†•Solid Color	48.75M′
8302-1000	†•Solid Color	48.00M′
8302-1000	†•Striped ▲	57.00M′
8303-25	† Solid Color	2.35
8303-1000	†•Solid Color	6.55
8303-500	†•Solid Color	56.65M′
8304-25	† Solid Color	2.25
8304-100	†•Solid Color	5.85
8304-500	†•Solid Color	53.25M′
8304-1000	†•Solid Color	52.50M′
8304-1000	†•Striped ▲	61.50M′
8305-25	† Solid Color	2.50
8305-100	†•Solid Color	7.05
8305-500	†•Solid Color	62.25M′
8305-1000	†•Solid Color	61.50M′
8305-1000	†•Striped ▲	70.50M′
8306-25	† Solid Color	2.65
8306-100	†•Solid Color	7.45
8306-500	†•Solid Color	68.00M′
8306-1000	†•Solid Color	67.30M′
8306-1000	†•Striped ▲	76.30M′
8307-25	† Solid Color	2.85
8307-100	†•Solid Color	8.80
8307-500	†•Solid Color	81.00M′
8307-1000	†•Solid Color	80.25M′
8307-1000	†•Striped ▲	89.25M′
8308-25	† Solid Color	2.95
8308-100	†•Solid Color	8.55
8308-500	†•Solid Color	78.00M′
8309-25	† Solid Color	3.45
8309-100	†•Solid Color	10.75
8309-500	†•Solid Color	99.00M′
8309-1000	†•Solid Color	98.25M′
8309-1000	†•Striped ▲	107.25M′
8310-25	† Solid Color	4.50
8310-100	†•Solid Color	13.00
8310-500	†•Solid Color	123.00M′
8310-1000	†•Solid Color	121.50M′
8310-1000	†•Striped ▲	130.50M′
8323-25	† Solid Color	2.80
8323-100	†•Solid Color	8.10
8323-500	†•Solid Color	72.75M′
8325-25	† Solid Color	2.85
8325-100	†•Solid Color	8.25
8325-500	†•Solid Color	74.25M′
8326-25	† Solid Color	3.00
8326-100	†•Solid Color	9.00
8326-500	†•Solid Color	82.50M′
8326-1000	†•Solid Color	81.75M′
8326-1000	†•Striped ▲	90.75M′
8327-25	† Solid Color	3.45
8327-100	†•Solid Color	10.15
8327-500	†•Solid Color	94.50M′
8327-1000	†•Solid Color	93.75M′
8327-1000	†•Striped ▲	102.75M′
8328-25	† Solid Color	3.45
8328-100	†•Solid Color	9.90
8328-500	†•Solid Color	92.25M′
8329-25	† Solid Color	4.05
8329-100	†•Solid Color	13.00
8329-500	†•Solid Color	118.50M′
8329-1000	†•Solid Color	117.75M′
8329-1000	†•Striped ▲	126.75M′
8330-25	† Solid Color	4.90
8330-100	†•Solid Color	14.65
8330-500	†•Solid Color	138.00M′
8330-1000	†•Solid Color	136.50M′
8330-1000	†•Striped ▲	145.50M′
8390-25		9.75
8390-100•		36.75
8390-500•		367.50M′
8391-25		12.15
8391-100•		45.00
8391-500•		450.00M′
8392-25		14.55
8392-100•		54.00
8392-500•		540.00M′
8401-15		1.13
8401-25		1.47
8401-50		2.60
8401-100		4.80
8401-250		10.15

Net

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Reference
Bulletin E 66 P-1T
Effective Aug. 1, 1966

Trade Number Lgth. in Ft.	Sug. Trade Price Each
8401-500	20.30
‡8401-1000	40.60
8403-15	1.80
8403-50	4.90
8403-100	9.00
8403-250	20.25
8403-500	40.50
8403-1000	81.00
8404-15	2.18
8404-100	10.15
8404-250	23.50
8404-500	47.00
8404-1000	94.00
8405-250	26.80
8405-500	53.60
8405-1000	107.20
8406-100	11.10
8406-250	26.25
8406-500	52.50
8407-100	22.15
8407-250	53.50
8409	1.05
8410-25	2.70
8410-50	4.75
8410-100	8.65
8410-250	20.25
8410-500	40.50
8411-15	.90
8411-25	1.23
8411-50	1.95
8411-100	3.75
8411-250	7.90
8411-500	15.75
‡8411-1000	31.50
8412-25	2.65
8412-50	5.10
8412-100	9.55
8412-250	21.75
8412-500	43.50
‡8412-1000	87.00
8413-15	1.80
8413-25	2.65
8413-50	4.80
8413-100	8.95
8413-250	20.65
8413-500	41.30
8414-50 (Obs)	4.90
8414-500 (Obs)	40.50
8415-1	1.41
‡8415-50	1.28
8416-15	1.25
8416-25	1.65
8416-50	3.00
8416-100	5.25
8416-250	12.15
8417-15	.98
8417-25	1.31
8417-50	2.10
8417-100	4.00
8417-250	8.65
8418-100	21.90
8418-250	54.00
8419-10	.90
8419-25	1.58
8419-250	11.35
8420-15	1.65
8420-25	2.50
8420-50	3.70
8420-100	6.90
8420-250	17.85
8420-500	32.40
8421-15	1.13
8421-25	1 .43
8421-50	2.70
8421-100	4.50
8421-250	10.05
8422-15	1.43
8422-25	2.20
8422-50	3.90
8422-100	7.00
8422-250	15.40
8422-500	30.75
‡8422-1000	61.50
8423-15	2.25
8423-50	5.95
8423-100	11.10
8423-250	25.90
8423-500	51.75
8423-1000	103.50
8424-15	2.55
8424-50	6.70
8424-100	12.60
8424-250	30.45
8424-500	59.25
8424-1000	118.50
¢425-100	15.00
8425-250	36.75
8426-100	18.40
8426-250	45.00
8427-100	19.90
8427-250	48.00
8428-100	12.90
8428-500	61.50
‡8428-1000	123.00
8429-10	.80
8429-25	1.30
8429-250	8.95
8430-10	.57
8430-25	.75
8430-250	4.50
8431-10	.66
8431-15	.75
8431-25	1.17
8431-100	3.75
8431-500	17.35
8434-100	5.50
8434-500	24.75
8434-1000	49.50
8436-500 (Obs)	24.40
8436-1000 (Obs)	44.80
8437-500	20.25
8437-1000	40.50
8441-100	5.20
8441-500	23.25
8441-1000	46.50
8442-500	9.00
8442-1000	18.00
8443-25	1.05
8443-100	2.70
‡8443-250	5.85
8443-500	10.75
8443-1000	21.45
8444-25	1.23
8444-100	3.40
‡8444-250	7.75
8444-500	14.25
8444-1000	28.50
8445-25	1.31
8445-100	4.20
‡8445-250	9.15
8445-500	17.25
8445-1000	34.50
8446-15	1.35
8446-100	6.15
‡8446-250	14.05
8446-500	26.65
8446-1000	53.30
8447-100	6.85
‡8447-250	15.75
8447-500	30.30
8447-1000	60.60
8448-15	1.50
8448-100	7.35
‡8448-250	17.25
8448-500	33.00
8448-1000	66.00
8449-15	1.65
8449-100	8.05
‡8449-250	18.75
8449-500	36.75
8449-1000	73.50
8450-100	3.45
‡8450-250	7.00
8450-500	12.75
8450-1000	25.50
8451-100	3.90
‡8451-250	8.55
8451-500	16.15
8451-1000	32.30
8452-25	1.88
8452-50	3.15
8452-100	5.40
8452-250	12.75
8452-500	25.50
8452-1000	51.00
8453-50	3.60
8453-100	7.20
8453-500	36.45
8454-50	4.60
8454-100	8.25
8454-500	38.65
8454-1000	77.30
8455-100	8.50
8455-250	21.40
8456-100	8.10
8456-500	37.15
8456-1000	74.30
8457-100	8.55
8457-500	39.75
8457-1000	79.50
8458-100	15.00
8458-500	66.75
8458-1000	133.50
8459-100	23.25
8459-500	105.00
8459-1000	210.00
8460-100	3.00
8460-500	11.70
8460-1000	23.40
8461-100	3.90
8461-500	15.40
8461-1000	30.80
8462-25 †	1.20
8462-100 †	3.60
8462-250 †	8.20
8463-50	2.18
‡8463-75	3.10
8463-100	4.00
8463-500	18.60
8464-50	1.88
8464-75	2.55
8464-100	3.30
8464-500	14.50
8464-1000	29.00
8465-100	7.20
‡8465-250	17.05
8465-500	33.40
8465-1000	66.80
8466-100	19.90
‡8466-250	48.75
8466-500	93.00
8466-1000	186.00
8467-100	10.05
‡8467-250	24.00
8467-500	46.15
8467-1000	92.30
8468-100	25.90
8468-500	120.00
8468-1000	240.00
8469-100	13.50
‡8469-250	33.00
8469-500	60.00
8469-1000	120.00
8470-500	15.40
8470-1000	30.80
8471-500	19.45
8471-1000	38.90
8472-25	2.50
8472-100	8.55
8472-250	20.25
8473-500	32.65
8473-1000	65.30
8474-100	10.15
8474-250	24.00
8475-100	5.65
8475-500	25.50
8476-100	8.10
8476-500	36.40
8478-100	5.85
8478-250	14.65
8478-1000	54.90
8481-100	1.65
8481-500	5.40
8481-1000	10.80
8482-100	2.10
8482-500	7.50
8482-1000	15.00
8483-100	2.70
8483-500	10.50
8483-1000	21.00
8484-100	3.60
8484-500	15.15
8484-1000	30.30
8485-100	4.30
8485-500	19.15
8485-1000	38.30
8486-500	10.00
8486-1000	20.00
8487-500	13.65
8487-1000	27.30
8488-100	4.95
8488-500	22.50
8488-1000	45.00
*8490	1.50
8491	1.73
8492-1000	18.00
8493-1000 (Obs)	22.75
8494	1.56
8495	1.31
8497-1	1.46
‡8497-50	1.32
8498 (Obs)	1.05
8499	.98
8500-100 † Solid Color	1.95
8500-500 † Solid Color	8.25
8500-1000† Solid Color	15.55
8500-100 † Striped¶	2.07
8500-1000† Striped¶	16.70
8501-100 † Solid Color	1.62
8501-500 † Solid Color	6.40
8501-1000† Solid Color	12.15
8501-100 † Striped¶	1.74
8501-1000† Striped¶	13.30
8502-100 † Solid Color	1.49
8502-500 † Solid Color	5.25
8502-1000† Solid Color	9.70
8502-100 † Striped¶	1.61
8502-1000† Striped¶	10.85
8503-100 † Solid Color	1.31
8503-500 † Solid Color	4.80
8503-1000† Solid Color	8.70
8503-100 † Striped¶	1.43
8503-500 † Striped¶	5.40
8503-1000† Striped¶	9.85
8504-100 † Solid Color	1.25
8504-500 † Solid Color	4.35
8504-1000† Solid Color	8.05
8504-100 † Striped¶	1.37
8504-500 † Striped¶	4.95
8504-1000† Striped¶	9.20
8505-100 † Solid Color	1.29
8505-500 † Solid Color	4.90
8505-1000† Solid Color	9.00
8505-100 † Striped¶	1.41
8505-1000† Striped¶	10.15
8507-100 † Solid Color	1.65
8507-1000† Solid Color	12.15
8507-100 † Striped¶	1.77
8507-1000† Striped¶	13.30
8508-100 † Solid Color	1.58
8508-1000† Solid Color	10.20
8508-100 † Striped¶	1.70
8508-1000† Striped¶	11.35
8509-100 † Solid Color	1.43
8509-1000† Solid Color	9.70
8509-100 † Striped¶	1.55
8509-1000† Striped¶	10.85
8510-100 † Solid Color	2.43
8510-1000† Solid Color	20.05
8510-100 † Striped¶	2.55
8510-1000† Striped¶	21.20
8511-100 † Solid Color	2.10
8511-1000† Solid Color	16.30
8511-100 † Striped¶	2.22
8511-1000† Striped¶	17.45
8512-100 † Solid Color	1.71
8512-1000† Solid Color	12.85
8512-100 † Striped¶	1.83
8512-1000† Striped¶	14.00
8513-100 † Solid Color	1.62
8513-1000† Solid Color	11.70
8513-100 † Striped¶	1.74
8513-1000† Striped¶	12.85
8514-100 † Solid Color	1.50
8514-1000† Solid Color	10.50
8514-100 † Striped¶	1.62
8514-1000† Striped¶	11.65
8515-100 † Solid Color	1.58
8515-1000† Solid Color	11.50
8516-100 † Solid Color	2.33
8516-1000† Solid Color	18.60
8516-100 † Striped¶	2.45

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Reference
Bulletin E 66 P-1T
Effective Aug. 1, 1966

Trade Number Lgth. in Ft.	Sug. Trade Price Each
8516-1000† Striped¶	19.75
8517-100 † Solid Color	1.95
8517-1000† Solid Color	15.15
8517-100 † Striped¶	2.07
8517-1000† Striped¶	16.30
8518-100 † Solid Color	1.92
8518-1000† Solid Color	14.70
8519-100 † Solid Color	1.68
8519-1000† Solid Color	12.75
8520-100 † Solid Color	3.38
8520-500 † Solid Color	15.40
8520-1000† Solid Color	28.80
8520-100 † Striped¶	3.50
8520-500 † Striped¶	16.00
8520-1000† Striped¶	29.95
8521-100 † Soldi Color	2.48
8521-500 † Solid Color	9.90
8521-1000† Solid Color	19.30
8521-100 † Striped¶	2.60
8521-500 † Striped¶	10.50
8521-1000† Striped¶	20.45
8522-25 † Solid Color	.75
8522-100 † Solid Color	1.88
8522-500 † Solid Color	7.15
8522-1000† Solid Color	13.65
8522-100 † Striped¶	2.00
8522-500 † Striped¶	7.75
8522-1000† Striped¶	14.80
8523-25 † Solid Color	.65
8523-100 † Solid Color	1.50
8523-500 † Solid Color	5.40
8523-1000† Solid Color	10.05
8523-100 † Striped¶	1.62
8523-500 † Striped¶	6.00
8523-1000† Striped¶	11.20
8524-25 † Solid Color	.57
8524-100 † Solid-Color	1.28
8524-500 † Solid Color	4.80
8524-1000† Solid Color	8.85
8524-100 † Striped¶	1.40
8524-500 † Striped¶	5.40
8524-1000† Striped¶	10.00
8525-100 † Solid Color	1.17
8525-500 † Solid Color	4.05
8525-1000† Solid Color	7.50
8525-100 † Striped¶	1.29
8525-500 † Striped¶	4.65
8525-1000† Striped¶	8.65
8527-100 † Solid Color	4.90
8527-500 † Solid Color	21.40
8527-1000† Solid Color	40.50
8528-100 † Solid Color	1.64
8528-500 † Solid Color	6.10
8528-1000† Solid Color	11.55
8529-25 † Solid Color	.57
8529-100 † Solid Color	1.28
8529-500 † Solid Color	4.50
8529-1000† Solid Color	8.40
8529-100 † Striped¶	1.40
8529-500 † Striped¶	5.10
8529-1000† Striped¶	9.55
8530-25 † Solid Color	.54
8530-100 † Solid Color	1.08
8530-500 † Solid Color	3.60
8530-1000† Solid Color	6.90
8530-100 † Striped¶	1.20
8530-500 † Striped¶	4.20
8530-1000†*Striped¶	8.05
8531-100 † Solid Color	2.03
8531-500 † Solid Color	8.25
8531-1000† Solid Color	16.05
8535-100 † Solid Color	2.81
8535-1000† Solid Color	19.90
8536-100 † Solid Color	2.01
8536-1000† Solid Color	15.15
8537-100 † Solid Color	1.89
8537-1000† Solid Color	13.05
8537-100 † Striped¶	2.01
8537-1000† Striped¶	14.20
8538-100 † Solid Color	1.11
8538-500 † Solid Color	3.35
8538-1000† Solid Color	5.95
8538-100 † Striped¶	1.23
8538-500 † Striped¶	3.95
8538-1000† Striped¶	7.10
8541-100	2.10
8541-1000	14.35
8542-100	2.25
8542-1000	16.05
8543-100	2.66
8543-1000	19.95
8544-100	3.00
8544-1000	23.80
8545-100	4.00
8545-500	16.75
8545-1000	32.25
8546-100	5.25
8546-500	23.25
8546-1000	45.00
8547-100	96.00
8548-100	81.00
8549-100	55.50
8550-100	39.00
8550-500	189.00
8551-100	29.25
8551-500	142.50
8552-100	22.35
8552-500	106.50
8553-100	10.90
8553-500	49.50
8553-1000	99.00
8554-100	6.10
8554-500	26.25
8554-1000	52.50
8555-100	4.65
8555-500	20.25
8555-1000	40.50
8556-100	3.75
8556-1000	31.50
8557-100	3.55
8557-1000	28.50
8558-100	3.00
8558-1000	23.10
8559-100	2.80
8559-1000	19.50
8561-100 †	7.15
8561-1000†	59.65
8562-100 †	4.30
8562-1000†	36.15
8563-100 †	3.85
8563-1000†	31.50
8564-100 †	3.00
8564-1000†	25.50
8565-100 †	2.55
8565-1000†	20.65
8566-100 †	2.05
8566-1000†	16.95
8567-100 † Solid Color	1.32
8567-1000† Solid Color	8.65
8568-100 † Solid Color	1.05
8568-1000† Solid Color	6.55
8569-100 † Solid Color	1.02
8569-1000† Solid Color	6.00
8570-100 † Solid Color	.98
8570-1000† Solid Color	5.85
8571-100 † Solid Color	.98
8571-1000† Solid Color	5.85
8574-1000† Solid Color	13.00
8575-1000† Solid Color	10.50
8576-1000† Solid Color	9.75
8577-1000† Solid Color	9.60
8578-1000† Solid Color	9.45
8580-100 † Solid Color	30.00
8580-500 † Solid Color	130.50
8581-100 † Solid Color	23.25
8581-500 † Solid Color	108.00
8582-100 † Solid Color	9.75
8582-1000† Solid Color	90.00
8583-100 † Solid Color	6.40
8583-1000† Solid Color	58.50
8584-100 † Solid Color	4.90
8584-1000† Solid Color	38.40
8585-100 † Solid Color	2.80
8585-1000† Solid Color	21.60
8586-100 † Solid Color	2.40
8586-1000† Solid Color	16.90
8589-100	30.00
8589-500	147.00
8590-100	20.25
8590-500	96.00
8591-100 †	10.05
8591-1000†	89.25
8597-100 † Solid Color	1.16
8597-1000† Solid Color	7.45
8598-100 † Solid Color	1.23
8598-1000† Solid Color	8.50
8599-100 † Solid Color	1.47
8599-1000† Solid Color	10.50
8601	1.05
8602	1.59
8603	1.62
8604	2.52
8620-100	9.75
8620-500	45.00
8620-1000	90.00
8621-100	16.35
8621-500	74.65
8621-1000	149.30
8622-100	27.75
8622-500	130.50
8622-1000	261.00
8623-100	39.60
8623-500	191.25
8623-1000	382.50
8624-100	45.75
8624-500	223.50
8624-1000	447.00
8627-100	16.50
8627-500	76.50
8627-1000	153.00
8628-100	29.25
8628-500	138.75
8628-1000	277.50
8629-100	48.00
8629-500	232.50
8629-1000	465.00
8640-250	6.45
8640-500	12.15
*8641-100	3.30
*8641-500	13.20
*8641-1000	26.40
8642-250	17.85
8642-500	33.15
*8649-100	2.18
*8649-500	7.80
*8649-1000	15.60
8660-10	.65
8660-50	1.94
8660-250	8.80
8661-10	.90
8661-50	3.15
8661-250•	14.50
8662-10	2.16
8662-50	9.40
8662-250•	45.45
8663-10	.96
8663-50	3.25
8663-250	15.00
8666-100 (Obs)	6.30
8668-10	.90
8668-50	2.55
8668-250	11.25
8669-10	1.56
8669-50	6.70
8669-250•	31.15
8670-10	3.00
8670-50	14.10
8670-250•	67.50
8671-10	2.45
8671-50	10.95
8671-250•	52.50
8672-10	1.75
8672-50	7.60
8672-250•	34.50
8673-100	8.70
8673-500	42.60
8674-10	.60
8674-50	1.46
8674-250	6.55
8675-100	6.75
8675-500	31.65
8676-10	.54
8676-50	.98
8676-250	4.50
8677-100	5.10
8677-500	24.15
8678-100	13.20
8678-500	63.00
*8679-100	19.90
8680-100	16.20
8681-100	10.65
8682-100	5.80
8683-100	3.90
8684-100	2.70
8685-100	2.10
*8688-100	12.00
*8689-100	6.15
8690-100	9.75
8690-500	43.95
8690-1000	87.90
8691-100	18.75
8691-500	86.25
8691-1000	172.50
8692-100	27.40
8692-500	129.75
8692-1000	259.50
8700-25	1.55
8700-50	2.52
8700-100	4.50
8700-250	10.15
8701-100	2.20
8701-500	7.75
8701-1000	15.50
8719-500	29.65
8719-1000	59.30
8720-500	45.75
8720-1000	91.50
8722-500	26.85
8722-1000	53.70
8723-100	5.10
8723-500	22.50
8723-1000	45.00
‡8724-250	11.70
8724-500	22.50
8724-1000	45.00
8725-500	99.75
8725-1000	199.50
8726-100	15.55
8726-500	72.00
8726-1000	144.00
8727-100	32.25
8727-500	161.25
8727-1000	322.50
*8729-500	37.90
*8729-1000	75.75
8731-500	16.35
8731-1000	32.70
8732-100	5.80
8732-500	24.40
8732-1000	48.80
8733-100	5.65
8733-500	25.05
8733-1000	50.10
8734-100	4.45
8734-500	18.75
8734-1000	37.50
8735-15	1.11
8735-50	2.85
8735-100	4.95
8735-500	21.40
8735-1000	42.80
8737-100	3.75
‡8737-250	8.25
8737-500	15.40
8737-1000	30.80
8738-1000	27.00
8739-100	3.30
8739-500	14.00
8739-1000	28.00
8740-100	2.06
‡8740-250	4.20
8740-500	7.30
8740-1000	14.55
8741-100	3.55
‡8741-250	7.80
8741-500	14.00
8741-1000	28.00
8742-100	4.60
‡8742-250	10.30
8742-500	19.30
8742-1000	38.60
8743-100	7.30
‡8743-250	17.65
8743-500	33.00
8743-1000	66.00
8744-100	10.05
‡8744-250	24.75
8744-500	47.25
8744-1000	94.50
8745-100	16.65
‡8745-250	40.80
8745-500	79.50

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BELDEN • PRICE LIST

Reference
Bulletin E 66 P-1T
Effective Aug. 1, 1966

Trade Number Lgth. in Ft.	Sug. Trade Price Each
8745-1000	159.00
8746§ (Cut to customer's specified length maximum 1500′)	294.00M′
8747-100	9.00
‡8747-250	21.55
8747-500	41.50
8747-1000	82.50
8748-100	12.70
‡8748-250	30.75
8748-500	60.00
8748-1000	120.00
8749-100	21.75
‡8749-250	51.60
8749-500	102.75
8749-1000	205.50
8750§ (Cut to customer's specified length maximum 1500′)	390.00M′
8751§ (Cut to customer's specified length maximum 1500′)	837.00M′
*8752§ (Cut to customer's specified length maximum 1500′)	765.00M′
8753-100	12.75
‡8753-250	31.50
8753-500	60.40
8753-1000	120.80
8754-100	14.25
‡8754-250	35.25
8754-500	69.00
8754-1000	138.00
8755-500	105.00
8755-1000	210.00
8756-500	123.00
8756-1000	246.00
8757-500	24.75
8757-1000	49.50
8758-100	4.00
8758-500	16.50
8758-1000	33.00
8759-100	4.35
8759-500	18.40
8759-1000	36.80
‡8760-250	10.75
8760-500	20.25
8760-1000	40.50
8761-500	13.50
8761-1000	27.00
8762-100	4.05
‡8762-250	9.25
8762-500	17.10
8762-1000	34.20
8763-500	21.25
8763-1000	42.50
8764-100	21.75
‡8764-250	54.00
8764-500	108.00
8764-1000	216.00
8765-100	26.25
‡8765-250	64.50
8765-500	127.50
8765-1000	255.00
8766-100	35.25
‡8766-250	84.75
8766-500	169.50
8766-1000	339.00
8767-100	8.05
‡8767-250	19.35
8767-500	36.75
8767-1000	73.50
8768-100	15.75
‡8768-250	37.50
8768-500	75.00
8768-1000	150.00
8769-100	60.00
‡8769-250	142.50
8769-500	285.00
8769-1000	570.00
8770-500	26.65
8770-1000	53.30
‡8771-250	8.70
8771-500	16.95
8771-1000	33.90
8772-500	21.40
8772-1000	42.80
8773§ (Cut to customer's specified length maximum 1000′)	846.00M′
8774-100	27.90
‡8774-250	66.40
8774-500	132.80
8774-1000	265.60
8775-100	33.00
‡8775-250	79.15
8775-500	158.30
8775-1000	316.60
8776-100	43.90
‡8776-250	105.75
8776-500	211.50
8776-1000	423.00
8777-100	9.75
‡8777-250	23.95
8777-500	47.90
8777-1000	95.80
8778-100	19.50
‡8778-250	48.00
8778-500	96.00
8778-1000	192.00
8779-500	31.15
8779-1000	62.30
8780-100	6.60
8780-500	30.40
8780-1000	60.80
8781-100	1.62
8781-500	4.60
8781-1000	9.15
8782-25	.66
8782-50	.98
8782-100	1.47
8782-500	4.90
8782-1000	9.80
8783-100	5.40
8783-500	24.40
8784-500	49.20
8786-100	6.25
8786-500	30.00
8787-500	63.00
8788-500	36.40
8789-500	23.65
8789-1000	47.30
8790-100	5.40
‡8790-250	12.30
8790-500	23.65
8790-1000	47.30
8791-100	6.60
8791-500	29.65
8791-1000	59.30
8794-500	10.90
8794-1000	21.75
*8795-500	9.00
*8795-1000	18.00
8800	.83
8817-100	.65
8818 (Obs)	5.44
8819 (Obs)	9.00
8820 (Obs)	5.44
8821 (Obs)	9.00
8822	5.70
8823	6.40
8824	5.20
8825	8.73
8826	8.38
8827	9.60
8850-100	8.05
8851-100	6.55
8852-100	5.25
8852-500	23.25
8853-100	4.65
8853-1000	40.15
8854-100	4.20
8854-1000	37.50
8855-100	3.85
8855-1000	31.50
8858-100	8.55
8858-1000	79.30
8859-100	6.75
8859-1000	62.25
8860-100	5.70
8860-1000	51.75
8861-100	4.65
8861-1000	42.75
8862-100	4.20
8862-1000	36.75
8863-100	3.85
8863-1000	35.25
8868-25	1.05
8868-100	2.60
8868-500	10.20
8869-25	.90
8869-100	2.10
8869-500	8.10
8870-100	32.25
8873-1	.48
8873-100	.33
8874	.66
8875	.42
8878	3.10 pr
8879	1.38 pr
8880-100 †	6.55
8880-1000†	59.55
8881-100 †	5.10
8881-1000†	45.60
8882-100 †	3.30
8882-1000†	32.25
8883-100 †	2.70
8883-1000†	22.80
8884-100 †	4.50
8884-1000†	39.30
8885-15	.98
8885-25	1.28
8885-100	3.75
8885-500	17.25
8886-100 †	3.15
8886-1000†	27.00
8887-100 †	2.65
8887-1000†	22.65
8888-25 †	1.13
8888-100 †	2.95
8888-250 †	6.40
8889-1	.45
8889-100	.32
8890-25 †	.90
8890-100 †	2.10
8890-500 †	8.70
8892-100	4.90
8892-500	20.25
8892-1000	40.50
8893-100	3.90
8893-500	17.05
8893-1000	34.05
8894-100	5.70
8894-1000	53.25
8895-1	.45
8895-100	.26
8896-100	4.15
8896-500	18.60
8896-1000	37.20
8897-500	14.65
8897-1000	29.30
8898-10 †	1.05
8898-25 †	1.95
8898-100 †	5.05
8898-500 †	21.00
8899-10 †	.75
8899-14	.81
8899-25 †	1.15
8899-100 †	3.60
8899-500 †	13.00
8899-1000†	26.00
8916-100 †	3.60
8916-500 †	14.95
8917-100 †	2.70
8917-500 †	10.90
8918-100 †	1.95
8918-1000†	14.85
8919-100 †	1.62
8919-1000†	12.00
8920-100 †	1.43
8920-1000†	10.00
8933-100 †	4.50
8933-500 †	19.50
8934-100 †	3.00
8934-500 †	12.60
8935-100 †	2.40
8935-1000†	18.60
8936-100 †	1.88
8936-1000†	14.55
8937-100 †	1.65
8937-1000†	12.25
8938-100 † (Obs)	3.15
8941-25 † (Obs)	.68
8941-100 † (Obs)	1.80
8941-1000† (Obs)	13.00
8942-100 † (Obs)	2.40
8942-1000† (Obs)	20.25
8943-25 † (Obs)	.68
8943-100 † (Obs)	1.80
8943-1000† (Obs)	13.90
8945-100 † (Obs)	1.90
8945-1000† (Obs)	15.30
8947-100 † (Obs)	2.03
8947-1000† (Obs)	17.25
8950-100 Solid Color	4.00
8950-1000 Solid Color	32.25
8951-100 Solid Color	2.65
8951-1000 Solid Color	21.75
8952-100 † Solid Color	2.10
8952-1000† Solid Color	16.50
8953-100 † Solid Color	1.80
8953-1000† Solid Color	13.50
8954-100 † Solid Color	1.58
8954-1000† Solid Color	11.25
8955-100 Solid Color	1.46
8955-1000 Solid Color	10.30
8956-100 Solid Color	4.15
8956-1000 Solid Color	37.50
8957-100 Solid Color	3.00
8957-1000 Solid Color	27.00
8958-100 † Solid Color	2.55
8958-1000† Solid Color	21.00
8959-100 † Solid Color	2.25
8959-1000† Solid Color	18.00
8960-100 † Solid Color	2.10
8960-1000† Solid Color	15.00
8963-100 Solid Color	24.75
8963-500 Solid Color	123.00
8964-100 Solid Color	21.25
8964-500 Solid Color	101.25
8965-100 Solid Color	8.55
8965-1000 Solid Color	85.50
8966-100 Solid Color	6.45
8966-1000 Solid Color	64.50
8967-100 Solid Color	4.00
8967-1000 Solid Color	39.75
8968-100 Solid Color	3.90
8968-1000 Solid Color	36.75
8969-100 † Solid Color	2.80
8969-1000† Solid Color	24.75
8970-100 † Solid Color	2.50
8970-1000† Solid Color	20.25
8971-100 † Solid Color	2.10
8971-1000† Solid Color	16.90

* New Item ‡ New Put-Up † Specify Color (Obs) Obsolete

ALL SPOOLS ARE ONE PIECE EXACT LENGTH. (EXCEPT SPOOLS WITH (•) FOOTNOTE)

• Spools may contain more than one piece, minimum length of any one piece is 25 ft.

When priced per M ft. length may vary ±10% from length shown; all other lengths are exact.

§ Cut to Customer's Specified Length subject to available stock lengths—minimum length 25′; 25′ to 199′, plus 25′, minus 0; 200′ or over, plus 50′, minus 0.

▲ (Teflon Hook-up Wire) Prices apply to any striped color combination in quantities of 1000′ or more. Minimum order 1000′ per stripe color combination on 500′ and 1000′ spools only. Striping adders do not apply to braided tracers—Write for prices on non-stock tracer colors.

¶ (Vinyl Hook-up Wire) Prices apply to standard stock colors as listed in our current catalog and to non-stock striped colors over stock solid colors in quantities of 10,000′ or more. Non-stock striped colors over stock solid colors in quantities of 1000′ to 9999′, add pro-rata set-up charge of $4.50 per color combination. Minimum order 1000′ per special stripe combination. Special stripe colors in any quantity will be subject to 2 piece put-up and plus or minus 10% per spool.

Prices Subject to Change Without Notice

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Belden | shielded sound and broadcast audio cables

GRAY HORIZONTAL PANEL INDICATES THAT THE BELDFOIL SHIELDED CABLES ARE ALSO RECOMMENDED FOR INSTRUMENTATION APPLICATIONS

TWO CONDUCTOR SHIELDED CABLES

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Percent Shield Coverage	Nom. *Cap. (mmf ft)	Nom. **Cap. (mmf ft)	Suggested Working Voltage	Standard Spool Lengths in ft
With JACKET	8640	26 (Solid)	.002	.020	.089	Red, Clear	100	80	140	100	250, 500
		*Solid copper, BELDSOL†† (solderable—no stripping required) insulated BELDFOIL aluminum-Mylar shield, 30 AWG solid tinned Copperweld▲ ground drain wire, **WHITE** vinyl jacket. Maximum operating temperature 105° C.* **Ideal for Instrumentation and Audio Console Work where Subminiaturization is Required.**									
BELDFOIL©	8450	22 (Solid)	.006	.018	.118	Blk, Red	100	40	76	200	100, 250, 500, 1000
	8451	22 (7x30)	.008	.020	.135	Blk, Red	100	34	67	200	100, 250, 500, 1000
Miniature Broadcast Audio Cable		*Tinned copper, Polypropylene insulated, conductors cabled, stranded tinned copper ground drain wire, BELDFOIL aluminum-Mylar shield, paper wrap,* **BLACK** *or* **GRAY** *vinyl jacket.* **Belden's Miniature Type Broadcast Audio Cable occupies ½ to ⅔ less space than required by Standard Broadcast Audio Cables. The Beldfoil Shield combines high cable reliability with ease of termination.**									
	8437	22 (Solid)	.015	.025	.200	Blk, Red	88	48	85	200	500, 1000
	8441	22 (16x34)	.015	.025	.210	Blk, Red	88	49	86	200	100, 500, 1000
Broadcast Audio Cable		*Tinned copper, vinyl insulated, conductors cabled, 8437 solid tinned copper drain wire, 8441 stranded tinned copper drain wire, tinned copper brass shield, black vinyl jacket.*									
	NEW 8641	24 (7x32)	.014	.025	.160	Blk, Wht	100	22	42	350	100, 500, 1000
	8761	22 (7x30)	.014	.025	.167	Blk, Wht	100	24	47	350	500, 1000
	8762	20 (7x28)	.014	.028	.196	Blk, Wht	100	27	49	350	100, 250, 500, 1000
BELDFOIL©	8760	18 (16x30)	.018	.028	.222	Blk, Wht	100	24	44	450	250, 500, 1000
	8719	16 (19x29)	.025	.030	.274	Blk, Wht	100	24	47	600	500, 1000
	8720	14 (19x27)	.032	.035	.340	Blk, Wht	100	24	47	750	500, 1000
		Tinned copper polyethylene insulated, BELDFOIL aluminum-Myler shield, stranded tinned copper ground drain wire, (24 AWG for 8641, 22 AWG for 8761, and 20 AWG for 8760 and 8762, 18 AWG for 8719, 16 AWG for 8720., chrome vinyl jacket.									
	8739	22 (Solid)	.015	.025	.160	Blk, Red	94.0	38	66	350	100, 500, 1000
	8737	22 (7x30)	.015	.025	.170	Blk, Red	89.3	40	70	350	100, 250, 500, 1000
	8759	20 (7x28)	.015	.025	.195	Blk, Red	81.0	47	79	350	100, 500, 1000
	8790	18 (7x26)	.020	.028	.231	Red, Wht	76.5	53	92	450	100, 250, 500, 1000
	8780	16 (19x29)	.023	.030	.266	Blk, Wht	84.1	57	98	450	100, 500, 1000
		Tinned copper, vinyl insulated, tinned copper spiral wrapped shield, chrome vinyl jacket.									
High Temperature	8390 TEFLON	22 (19x34)	.015	.015	.180	Blk, Wht	90	23	40	1000	25, 100, 500
		Stranded tinned copper, FEP teflon■ insulated, cabled tinned copper braid shield, white FEP teflon jacket. **+200° C maximum, —70° C minimum operating temperature. Ideal where chemical resistance is needed and/or extremely high or low temperatures are required.**									
	8208	18 (16x30)	.020	.025	.255	Red, Wht	69	46	77	200	100, 500, 1000
		Tinned copper, rubber insulated, braided tinned copper shield, chrome vinyl jacket.									
Without JACKET	8738	22 (Solid)	.015	—	.130	Blk, Red	72.8	35	61	350	1000
	8758	20 (7x28)	.015	—	.165	Blk, Red	63.8	42	72	350	100, 500, 1000
	8789	18 (7x26)	.020	—	.204	Blk, Wht	74	50	89	450	500, 1000
	8779	16 (19x29)	.023	—	.225	Blk, Wht	83	63	112	600	500, 1000
		Tinned copper, vinyl insulated, braided tinned copper shield.									

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**Capacitance between conductors.*
***Capacitance between 1 conductor and other conductor connected to shield.*
'Belden U.S. Patent 3,032,604.
††Belden trademark—Reg. U.S. Pat. Off.
▲Trademark of Copperweld Steel Co.
■Dupont Tradename for fluorocarbon resins.

For underground burial recommendations of all types of vinyl, polyethylene, and neoprene jacketed cables, please write for Bulletin #6 Electronic Wire Section.

See Prices on four pages at front of Belden listing

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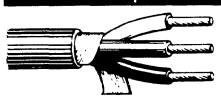
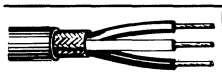
shielded instrumentation, strain gauge, sound and audio cables

Belden

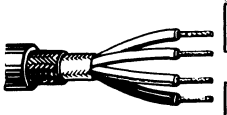
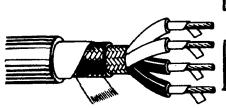
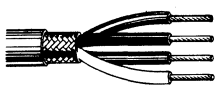
GRAY HORIZONTAL PANEL INDICATES THAT THE BELDFOIL SHIELDED CABLES ARE ALSO RECOMMENDED FOR INSTRUMENTATION APPLICATIONS

THREE CONDUCTOR SHIELDED

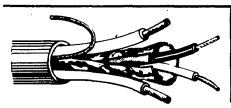
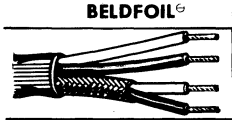
Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Percent Shield Coverage	Nom. 'Cap. (mmf ft)	Nom. ''Cap. (mmf ft)	Suggested Working Voltage	Standard Spool Lengths in ft
	**8731**	22 (Solid)	.015	.025	.178	Blk, Red, Wht	76.2	36	63	350	500, 1000
	8791	18 (7x26)	.020	.028	.236	Blk, Red, Wht	78.2	47	84	450	100, 500, 1000
		Tinned copper, vinyl insulated, conductors cabled, tinned copper spiral wrapped shield, chrome vinyl jacket.									
	8771	22 (7x30)	.014	.025	.175	Blk, Red, Wht	100	23	41	350	250, 500, 1000
	8772	20 (7x28)	.014	.028	.200	Blk, Red, Wht	100	27	51	350	500, 1000
	8770	18 (16x30)	.018	.028	.236	Blk, Red, Wht	100	24	48	450	500, 1000
BELDFOIL[⊖]		*Tinned copper, polyethylene insulated, conductors cabled, BELDFOIL aluminum-Mylar shield, stranded tinned copper ground drain wire (22 AWG for 8771, and 20 AWG for 8770 and 8772), chrome vinyl jacket.*									
	**8735**	22 (7x30)	.015	.025	.199	Blk, Red, Wht	70	34	60	350	15, 50, 100, 500, 1000
		Tinned copper, vinyl insulated, conductors cabled, tinned copper braid shield, chrome vinyl jacket.									
	8391 TEFLON	22 (19x34)	.015	.015	.190	Blk, Red, Wht	90	20	35	1000	25, 100, 500
		Stranded tinned copper, FEP teflon■ insulated, cabled tinned copper braid shield, white FEP teflon jacket. **HIGH TEMPERATURE +200°C maximum, —70°C minimum operating temperature. Ideal where chemical resistance is needed and/or extremely high or low temperatures are required.**									

QUADS

STRAIN GAUGE CABLES

Description	Trade Number	No. of Cond.	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Percent Shield Coverage	Nom. 'Cap. (mmf ft)	Nom. ''Cap. (mmf ft)	Suggested Working Voltage	Standard Spool Lengths in ft
	8434	4	25 (7x33) 3 copper 4 copper-weld	.013	.020	.179	Red, Blk, Grn, Wht	100	25	40	400	100, 500, 1000
		Tinned copper, polyethylene insulated, black and red conductors under BELDFOIL aluminum-Mylar shield, stranded ground wire, green and white conductors under over-all BELDFOIL aluminum-Mylar shield, chrome vinyl jacket.									
	8723	4	22 (7x30) copper	.008	.019	.165	Red, Blk, Grn, Wht	100	35	62	400	100, 500, 1000
BELDFOIL[⊖]		*Tinned copper, polypropylene insulated, black and red under a BELDFOIL aluminum-Mylar shield. Green and white under a BELDFOIL aluminum-Mylar shield, each pair separate, stranded tinned copper drain wire, chrome vinyl jacket.*									
	NEW 8729	4	22 (19x34)	.015	.050	.250	Wht, Blk, Red, Grn	100	22	42	600	500, 1000
BELDFOIL[⊖]		*Tinned copper, polyethylene insulated, cabled BELDFOIL aluminum-Mylar shield. 18 AWG stranded tinned copperweld ground drain wire, white vinyl jacket.*									
	**8404**	4	20 (26x34)	.015	.033	.255	Red, Blk, Grn, Wht	87	25	45	600	15, 100, 250, 500, 1000
		Tinned copper, polyethylene insulated, cabled, rayon braid, tinned copper braid shield, chrome vinyl jacket.									
	8407	4	16 (65x34)	.032	.043	.422	Red, Blk, Grn, Wht	84	37	65	600	100, 250
		*Tinned copper, separator, rubber insulated, cabled, rayon braid, tinned copper braid shield, cotton wrap, black neoprene jacket.*									
	8424	4	20 (26x34)	.020	.040	.295	Red, Blk, Grn, Wht	83.5	55	95	600	15, 50, 100, 250, 500, 1000
		Tinned copper, cotton wrap, rubber insulated, rayon braid, tinned copper braid shield, cotton wrap, black rubber jacket.									
	**8392 TEFLON**	4	22 (19x34)	.015	.015	.205	Red, Blk, Grn, Wht	90	20	35	1000	25, 100, 500
		Stranded tinned copper, FEP teflon■ insulated, cabled tinned copper braid shield, white FEP teflon jacket. **HIGH TEMPERATURE +200°C maximum, —70°C minimum operating temperature. Ideal where chemical resistance is needed and/or extremely high or low temperatures are required.**									

AUDIO AND SOUND CABLES

Description	Trade Number	No. of Cond.	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Percent Shield Coverage	Nom. 'Cap. (mmf ft)	Nom. ''Cap. (mmf ft)	Suggested Working Voltage	Standard Spool Lengths in ft
	**8724**	2 shielded 2 unshielded	22 (7x30) 22 (7x30)	.008 .008	.019	.165	Red, Blk, Grn, Wht	100	34	67	200	250, 500, 1000
	8722	2 shielded 2 unshielded	20 (7x28) 20 (7x28)	.015 .015	.028	.260	Red, Blk, Grn, Wht	100	60	99	350	500, 1000
BELDFOIL[⊖]		*Tinned copper, 8722 vinyl insulated, 8724 polypropylene insulated, BELDFOIL aluminum-Mylar shield over 2 conductors, stranded tinned copper ground drain wire (22 AWG for 8722 and 24 AWG for 8724), chrome vinyl jacket.*										
	**8732**	2 shielded 2 unshielded	22 (7x30) 22 (7x30)	.015 .015	.030	.188x .296	Blk, Wht Blk, Wht	62	21	37	350	100, 500, 1000
		Tinned copper, polyethylene insulated, tinned copper braid shield over 2 conductors, chrome vinyl jacket.										

*Capacitance between conductors.
**Capacitance between 1 conductor and other conductor connected to shield.

⊖Belden U.S. Patent 3,032,604.
■Du Pont Tradename for fluorocarbon resins.

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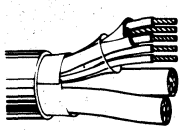
See Prices on four pages at front of Belden listing

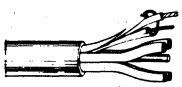
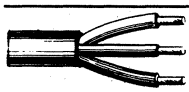
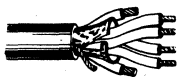
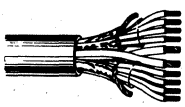
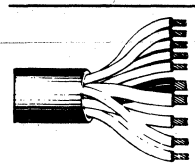
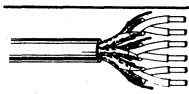
Belden | multi-purpose and special audio and sound cables

GRAY HORIZONTAL PANEL INDICATES THAT THE BELDFOIL SHIELDED CABLES ARE ALSO RECOMMENDED FOR INSTRUMENTATION APPLICATIONS

MULTIPLE QUADS AUDIO AND SOUND CABLES

Description	Trade Number	No. of Cond.	AWG & (Stranding)	Cond. Color Coding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Percent Shield Coverage	Suggested Working Voltage	Nom. 'Cap. (mmf ft)	Nom. ''Cap. (mmf ft)	Standard Spool Lengths in ft
 BELDFOIL®	8726	12 (3 QUADS)	22 (7x30)	Red, Blk, Grn, Wht	.008	.035	.330	100	200	34	67	100, 500, 1000
	8727	28 (7 QUADS)	22 (7x30)	Red, Blk, Grn, Wht	.008	.040	.450	100	200	34	67	100, 500, 1000
	*	*22 AWG tinned copper, polypropylene insulation, cabled in quads, BELDFOIL shield over black and red conductors, 24 AWG stranded tinned copper drain wire. Each quad is 8724 (on page 4) with clear Mylar tape wrap instead of vinyl jacket. Shields color coded overall chrome vinyl jacket.*										

SPECIAL AUDIO AND SOUND CABLES

	8734	1 shielded 2 unshielded	22 (7x30) 22 (7x30)	Wht Blk, Red	.015 .015	.025	.194	82	350	—	79	100, 500, 1000
		Tinned copper, vinyl insulated, tinned copper braid shield over 1 conductor, 3 conductors cabled, chrome vinyl jacket.										
BELDFOIL®	8763	2 shielded 1 unshielded	20 (7x28) 20 (7x28)	Blk, Red Wht	.014 .014	.028	.210	100	350	26	48	500, 1000
		Tinned copper, polyethylene insulated, BELDFOIL aluminum-Mylar shield over 2 conductors, 20 stranded tinned copper ground drain wire, chrome vinyl jacket.										
BELDFOIL®	8733	3 shielded	22 (7x30)	Blk, Red, White	.014	.030	.205	100	350	—	51	100, 500, 1000
		Tinned copper, polyethylene insulated, each conductor separately BELDFOIL aluminum-Mylar shielded. Ground wire for each conductor is tinned cadmium bronze ribbon under BELDFOIL "Z" fold, chrome vinyl jacket.										
 BELDFOIL®	8788	3 shielded 2 unshielded	22 (7x30)	Blk, Red, Grn, Yel, Blue	.015	.028	.236	100	350	—	125	500
		Tinned copper, vinyl insulated 3 conductors each separately BELDFOIL shielded, ground drain wire for each conductor is tinned cadmium bronze ribbon under BELDFOIL "Z" fold, 2 conductors unshielded, cabled around a vinyl filler, chrome vinyl jacket.										
	8783	3 (3 unshielded)	1-20 (10x30) 2-16 (26x30)	Blue, Grn, Org	.020 .020	.025	.250	—	450	—	—	100, 500
		Tinned copper, vinyl insulated, conductors cabled, chrome vinyl jacket.										
 BELDFOIL®	8786	6 (2 unshielded) (4 shielded)	22 (7x30) 24 (7x32)	Blu, Wht Blk, Grn, Red, Yel	.015 .015	.028	.256	100	350	—	—	100, 500
		Tinned copper, vinyl insulated, 4 conductors twisted under BELDFOIL aluminum-Mylar shield, 2 conductors unshielded, 22 AWG drain wire, chrome vinyl jacket.										
 BELDFOIL®	8787	10 (4 shielded) (4 shielded) (2 unshielded)	24 (7x32) 24 (7x32) 22 (7x30)	Gry, Wht, Blu, Grn Red, Brn, Yel, Org Wht, Blu	.012 .012 .015	.030	.290	100	350	—	—	500
		Tinned copper, 22 AWG conductors vinyl insulated, 24 AWG conductors polyethylene insulated, cabled in 2 quads, each with transparent Mylar tape wrap, 24 AWG tinned copper ground wire. Red BELDFOIL shield over one quad, green BELDFOIL shield over the other quad; plus 2 unshielded conductors, chrome vinyl jacket.										
	8784	10 (10 un-shielded)	2-16 (26x30) 1-20 (10x30) 7-22 (7x30)	Blk, Wht Gray Red, Grn, Org, Yel, Blu, Purple Brown	.016 .018 .013	.040	.295	—	300	—	—	500
		Tinned copper, vinyl insulated, conductors cabled vinyl jacket.										
 BELDFOIL®	8640	2	26 (Solid) 1 Pair	Red, Clear	.002	.020	.089	100	100	80	140	250, 500
	8642	6	26 (Solid) 3 Pair	Red, Clear	.002	.025	.140	100	100	80	140	250, 500
		Solid copper, BELDSOL†† (solderable—no stripping required), BELDFOIL aluminum-Mylar shield on each pair, red, brown, orange textile marker and isolating Mylar tape for each pair on 8642, Copperweld ground drain wire, WHITE vinyl jacket.										

Ideal for instrumentation and audio console work where subminiaturization is required.
105° C maximum operating temperature.

©Belden U.S. Patent 3,032,604.
††Belden Trademark—Reg. U.S. Pat. Off.

*Capacitance between conductors.
**Capacitance between 1 conductor and other conductor connected to shield.

BELDEN PAGE 5

See Prices on four pages at front of Belden listing

© U.C.P., Inc.

miniature coaxial and shielded paired instrumentation and sound cables

Belden

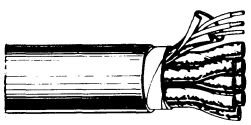
COLOR CODING FOR PAIRED CABLES

GRAY HORIZONTAL PANEL INDICATES THAT THE BELDFOIL SHIELDED CABLES ARE ALSO RECOMMENDED FOR INSTRUMENTATION APPLICATIONS

Pair Number	Color Combination	Pair Number	Color Combination	Pair Number	Color Combination
1	Black paired with Red	10	Red paired with Blue	19	White paired with Blue
2	Black paired with White	11	Red paired with Yellow	20	White paired with Yellow
3	Black paired with Green	12	Red paired with Brown	21	White paired with Brown
4	Black paired with Blue	13	Red paired with Orange	22	White paired with Orange
5	Black paired with Yellow	14	Green paired with White	23	Blue paired with Yellow
6	Black paired with Brown	15	Green paired with Blue	24	Blue paired with Brown
7	Black paired with Orange	16	Green paired with Yellow	25	Blue paired with Orange
8	Red paired with White	17	Green paired with Brown	26	Brown paired with Yellow
9	Red paired with Green	18	Green paired with Orange	27	Brown paired with Orange

MULTIPLE PAIR INDIVIDUALLY SHIELDED AUDIO AND SOUND CABLES

22 GAUGE VINYL INSULATION



BELDFOIL©

Description	Trade Number	No. of Pairs	Stranding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Nom. *Cap. (mmf ft)	Nom. **Cap. (mmf ft)	Standard Spool Lengths in ft
	8767	3	Solid	.013	.030	.270	40	77	100, 250, 500, 1000
	8768	6	Solid	.013	.037	.394	40	77	100, 250, 500, 1000
	8764	9	Solid	.013	.040	.440	40	77	100, 250, 500, 1000
	8765	11	Solid	.013	.040	.485	40	77	100, 250, 500, 1000
	8766	15	Solid	.013	.045	.540	40	77	100, 250, 500, 1000

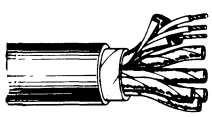
#22 tinned copper, vinyl insulated, cabled in pairs, each pair and its ground wire under BELDFOIL aluminum-Mylar shield, over-all chrome vinyl jacket. 300 Volts suggested working voltage.

Insulation resistance between shields	*100 megohms/M'*
Capacitance between adjacent shields	*115 mmf/ft*
Voltage breakdown between adjacent shields	*1500 volts*
Working voltage between adjacent shields	*50 volts*

Vinyl insulation is used for ease of stripping and soldering. Recommended for audio frequency applications requiring excellent circuit isolation. Maximum operating temperature 80°C.

MULTIPLE PAIR INDIVIDUALLY SHIELDED AUDIO AND DATA CABLES

22 GAUGE POLYPROPYLENE INSULATION



BELDFOIL©

Description	Trade Number	No. of Pairs	Stranding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Nom. *Cap. (mmf ft)	Nom. **Cap. (mmf ft)	Standard Spool Lengths in ft
	8777	3	(7x30)	.010	.030	.270	30	55	100, 250, 500, 1000
	8778	6	(7x30)	.010	.037	.394	30	55	100, 250, 500, 1000
	8774	9	(7x30)	.010	.040	.440	30	55	100, 250, 500, 1000
	8775	11	(7x30)	.010	.040	.485	30	55	100, 250, 500, 1000
	8776	15	(7x30)	.010	.045	.540	30	55	100, 250, 500, 1000
	8769	19	(7x30)	.010	.055	.620	30	55	100, 250, 500, 1000
	8773	27	(7x30)	.010	.070	.760	30	55	§Cut to customer's specified length. Maximum length 1000

#22 gauge tinned copper, polypropylene insulated, cabled in pairs, each pair and its ground wire under "Z" fold BELDFOIL aluminum-Mylar shield, over-all chrome vinyl jacket. 300 volts suggested working voltage.

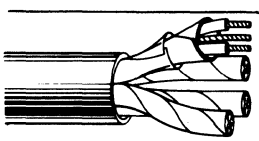
Insulation resistance between shields	*100 megohms/M'*
Capacitance between adjacent shields	*115 mmf/ft*
Voltage breakdown between adjacent shields	*1500 volts*
Working voltage between adjacent shields	*50 volts*

Recommended for audio, pulse, and radio frequency applications requiring superior circuit isolation. Polypropylene insulation is used for excellent high frequency properties and mechanical toughness. Maximum operating temperature 105 C.

SPECIAL INSTRUMENTATION CABLES

Description	Trade Number	AWG & (Standing)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Percent Shield Coverage	Nom. *Cap. (mmf ft)	Nom. **Cap. (mmf ft)	Suggested Working Voltage	Standard Spool Lengths in ft
	8700	28 (Solid) Coaxial	.005	.008	.054	Black	80	48	—	100	25,50,100,250

Solid tinned copper, polypropylene insulation, copper braid, black vinyl jacket.
May be steam sterilized for medical research.



BELDFOIL©

8725	4 pairs 20 (7x28)	.015	.030	.360	Red, Blk Grn, Wht Wht/Red Wht/Blk Wht/Grn Wht/Yel	100	27	49	400	500 1000

Tinned copper conductors, Polypropylene insulated, four groups of two conductors with #22 AWG drain wire. Each group individually BELDFOIL shielded with Mylar tape wrap, chrome vinyl jacket. 105°C Maximum operating temperature.

**Capacitance between conductors.*
***Capacitance between 1 conductor and other conductor connected to shield.*
Belden U.S. Patent 3,032,604.
§Minimum length 25'
25' to 199', plus 25', minus 0.
200' or over, plus 50', minus 0.

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See Prices on four pages at front of Belden listing

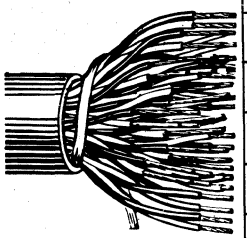
Belden | unshielded paired sound cables

MULTIPLE PAIR UNSHIELDED SOUND CABLES

TYPICAL APPLICATIONS: Balanced line sound systems.

Made with 80 C vinyl plastic compounds for high dielectric strength and the best physical properties, such as free stripping, small diameter, and tear resistance. It also resists the effects of water, sun, oil, grease, and ozone. The conductors are paired with a short-lay twist for conductor balance, providing a quiet circuit, free from cross talk.

ALL CONSTRUCTIONS:
Tinned copper, vinyl insulated cabled in pairs, chrome vinyl jacket.



1 to 27 Pairs	Trade Number	No. of Pairs	AWG & Stranding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Suggested Working Voltage	Standard Spool Lengths in ft
	8740	1	22 Solid	.015	.025	.150	200	100, 250, 500, 1000
	8741	2	22 Solid	.015	.028	.201	200	100, 250, 500, 1000
	8742	3	22 Solid	.015	.030	.240	200	100, 250, 500, 1000
	8690	3	18 (16x30)	.018	.037	.362	400	100, 500, 1000
	8757	4	22 Solid	.015	.030	.255	200	500, 1000
	8743	6	22 Solid	.010	.035	.305	200	100, 250, 500, 1000
	8747	6	22 (7x30)	.010	.035	.340	200	100, 250, 500, 1000
	8691	6	18 (16x30)	.018	.045	.550	400	100, 500, 1000
	8744	9	22 Solid	.010	.037	.354	200	100, 250, 500, 1000
	8748	9	22 (7x30)	.010	.037	.389	200	100, 250, 500, 1000
	8692	9	18 (16x30)	.018	.055	.638	400	100, 500, 1000
	8753	11	22 Solid	.010	.037	.384	200	100, 250, 500, 1000
	8754	13	22 Solid	.010	.037	.409	200	100, 250, 500, 1000
	8745	15	22 Solid	.010	.040	.420	200	100, 250, 500, 1000
	8749	15	22 (7x30)	.010	.040	.425	200	100, 250, 500, 1000
	8755	19	22 Solid	.010	.040	.480	200	500, 1000
	8756	23	22 Solid	.010	.040	.510	200	500, 1000
	8746	27	22 Solid	.010	.045	.550	200	§Cut to customer's specified length. Maximum length 1500'
	8750	27	22 (7x30)	.010	.045	.595	200	§Cut to customer's specified length. Maximum length 1500'

For color coding please refer to page 6

38 AND 51 PAIR CABLES

Description	Trade Number	No. of Pairs	Conductors	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Standard Spool Lengths in ft.
	NEW 8752	38	Solid Tinned Copper	.008	.045	.600	§Cut to customer's specified length. Maximum length 1500'
	8751	51	Solid Tinned Copper	.010	.050	.725	

#22 tinned copper, 8751 vinyl insulated, 8752 polypropylene insulated, cabled in pairs, BELDFOIL aluminum-Mylar shield over cabled pairs, #22 (7x30) stranded ground drain wire, chrome vinyl jacket. 200 Volts suggested working voltage. Color coding available on request.

§Minimum length 25'.
25' to 199', plus 25', minus 0.
200' or over, plus 50', minus 0.

For color coding information on 8751 and 8752 write for Technical Data Electronic Wire Section SO-4

© U.C.P., Inc.

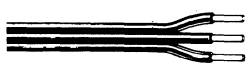
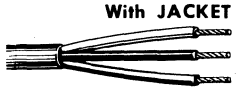
two and three conductor unshielded cables | **Belden**

TWO CONDUCTOR UNSHIELDED CABLES

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Conductor Color Coding	Nominal O.D. (Inch)	Suggested Working Voltage	Standard Spool Lengths in ft
	8782	24 (7x32)	.017	—	Chrome, Sand, White, Clear 1 condr. tinned	.058x .115	300	25, 50, 100, 500, 1000
	8781	22 (Solid)	.016	—	Chrome 1 condr. tinned	.060x .120	100	100, 500, 1000
Copper, vinyl insulated, PARALLEL	**NEW 8649**	20 (7x28)	.020	—	Chrome, Clear 1 condr. tinned	.073x .146	300	100, 500, 1000
Without JACKET	**8481**	22 (Solid)	.015	—	Brn, Tan	.112	350	100, 500, 1000
	8482	19 (Solid)	.015	—	Brn, Tan	.130	350	100, 500, 1000
	8492	19 (Solid)	.025	—	Brown or White 1 condr. tinned	.170	600	1000
	8460	18 (7x26) tinned	.020	—	Blk,-Wht	.175	450	100, 500, 1000
Copper, vinyl insulated, TWISTED.	**8470**	16 (19x29) tinned	.023	—	Blk, Wht	.195	600	500, 1000
With JACKET	**8740**	22 (Solid) tinned	.015	.025	Blk, Red	.150	200	100, 250, 500, 1000
	8442	22 (7x30) tinned	.015	.025	Blk, Red	.165	350	500, 1000
SOLID	**8205**	20 (10x30) tinned	.018	.025	Blk, Red	.190	350	100, 500, 1000
	8486	19 (Solid)	.015	.025	Brn, Tan	.162	350	500, 1000
	8461	18 (7x26) tinned	.020	.028	Blk, Wht	.226	450	100, 500, 1000
STRANDED	**8471**	16 (19x29) tinned	.023	.030	Blk, Wht	.256	600	500, 1000
Copper, vinyl insulated, CABLED, chrome vinyl jacket	**8473**	14 (19x27) tinned	.031	.035	Blk, Wht	.332	600	500, 1000

For additional 2 conductor cables see PORTABLE CORDAGE on page 12, and DUPLEX PRIMARY WIRE on page 26

THREE CONDUCTOR UNSHIELDED CABLES

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Conductor Color Coding	Nominal O.D. (Inch)	Suggested Working Voltage	Standard Spool Lengths in ft
	**8701**	22 (Solid)	.016	—	Chrome 1 condr. tinned	.060x .190	100	100, 500, 1000
	8475	16 (19x29) bare	.023	—	Wht, Brn, Red	.102x .295	300	100, 500
Copper, vinyl insulated, PARALLEL								
Without JACKET	**8483**	19 (Solid)	.015	—	Brn, Gray, Tan	.132	350	100, 500, 1000
Bare copper, vinyl insulated, CABLED								
With JACKET	**8443**	22 (7x30) tinned	.010	.025	Blk, Grn, Red	.150	200	25, 100, 250, 500, 1000
	**8487**	19 (Solid) bare	.015	.025	Brn, Gray, Tan	.180	350	500, 1000
Copper, vinyl insulated, CABLED, chrome vinyl jacket.								

For additional 3 conductor cables see PORTABLE CORDAGE on page 12.

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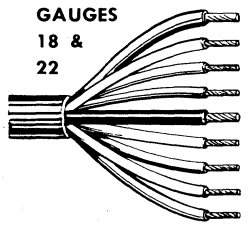
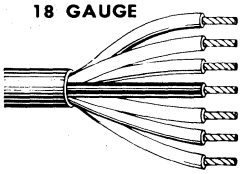
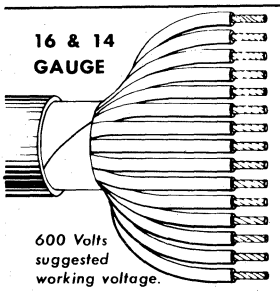
Belden | multiple unshielded cables and telephone cables

MULTIPLE CONDUCTOR CONTROL AND AUDIO CABLES (NOT PAIRED)

Description and Gauge	Trade Number	No. of Cond.	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (inch)	Nom. O D. (Inch)	Color Code or Chart No.	Standard Spool Lengths in ft.
Bare copper, polyethylene insulated, cabled, rose gray vinyl jacket.	**NEW 8795**	2	22 (Solid)	.016	.022	.160	Red, Grn	500, 1000
	8794	3	22 (Solid)	.016	.022	.168	Red,Grn, Yel	500, 1000
	•	**Telephone cable**						
All Constructions: *Tinned copper, vinyl plastic insulated, cabled, vinyl jacket.* **22 GAUGE** *200 Volts suggested working voltage.*	**8443**	3	22 (7x30)	.010	.025	.150	1	25, 100, 250, 500, 1000
	8444	4	22 (7x30)	.010	.025	.168	1	25, 100, 250, 500, 1000
	8445	5	22 (7x30)	.010	.025	.180	1	25, 100, 250, 500, 1000
	8456	10	22 (7x30)	.010	.030	.260	1	100, 500, 1000
	8457	12	22 (7x30)	.010	.030	.260	1	100, 500, 1000
	8458	15	22 (7x30)	.010	.040	.320	2	100, 500, 1000
	8459	25	22 (7x30)	.010	.040	.370	2	100, 500, 1000
COMBINATION GAUGES 18 & 22 	**8446**	6	4-22 (7x30) 2-18 (16x30)	.010 .018	.025	.222	1	15, 100, 250, 500, 1000
	8447	7	5-22 (7x30) 2-18 (16x30)	.010 .018	.028	.246	1	100, 250, 500, 1000
	8448	8	6-22 (7x30) 2-18 (16x30)	.010 .018	.028	.250	1	15, 100, 250, 500, 1000
	8449	9	7-22 (7x30) 2-18 (16x30)	.010 .018	.028	.261	1	15, 100, 250, 500, 1000
18 GAUGE  *400 Volts suggested working voltage.*	**8465**	5	18 (16x30)	.018	.030	.272	1	100, 250, 500, 1000
	8467	7	18 (16x30)	.018	.035	.320	1	100, 250, 500, 1000
	8469	9	18 (16x30)	.018	.035	.375	1	100, 250, 500, 1000
	8466	12	18 (16x30)	.018	.040	.402	2	100, 250, 500, 1000
	8468	15	18 (16x30)	.018	.045	.490	2	100, 500, 1000
16 & 14 GAUGE  *600 Volts suggested working voltage.*	**8620**	4	16 (19x29)	.030	.045	.375	2	100, 500, 1000
	8621	7	16 (19x29)	.030	.045	.455	2	100, 500, 1000
	8622	12	16 (19x29)	.030	.060	.600	2	100, 500, 1000
	8623	15	16 (19x29)	.030	.060	.650	2	100, 500, 1000
	8624	19	16 (19x29)	.030	.065	.715	2	100, 500, 1000
	8627	4	14 (19x27)	.045	.045	.495	2	100, 500, 1000
	8628	7	14 (19x27)	.045	.060	.630	2	100, 500, 1000
	8629	12	14 (19x27)	.045	.065	.770	2	100, 500, 1000

For 22 AWG and 18 AWG Combinations—22 AWG is rated at 200 volts and 18 AWG is rated at 400 volts.

COLOR CODE
Chart No. 1

Conductor	Color
1st	Black
2nd	Red
3rd	Green
4th	White
5th	Brown
6th	Blue
7th	Orange
8th	Yellow
9th	Purple
10th	Gray
11th	Pink
12th	Tan

18 Gauge conductors in cables 8446 through 8449 are Black and Red.

IPCEA COLOR CODE
(Insulated Power Cable Engineers Association)

Chart No. 2

Conductor	Color	Conductor	Color	Conductor	Color
1st	Black	9th	Green/Black	17th	White/Red
2nd	White	10th	Orange/Black	18th	Orange/Red
3rd	Red	11th	Blue/Black	19th	Blue/Red
4th	Green	12th	Black/White	20th	Red/Green
5th	Orange	13th	Red/White	21st	Orange/Green
6th	Blue	14th	Green/White	22nd	Blk/Wht/Red
7th	White/Black	15th	Blue/White	23rd	Wht/Blk/Red
8th	Red/Black	16th	Black/Red	24th	Red/Blk/Wht
				25th	Grn/Blk/Wht

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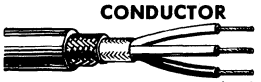
rubber and plastic microphone
and shielded power supply cables

Belden

RUBBER AND NEOPRENE MICROPHONE AND SHIELDED POWER SUPPLY CABLES

Description	Trade Number	No. of Cond.	AWG (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Percent Shield Coverage	Suggested Working Voltage	Impedance (Ohms)	Cap. (mmf/ft)	Cap. (mmf/ft)	Standard Spool Lengths in ft
SINGLE CONDUCTOR	**8410**	1	25(7x33)	.063	.025	.245	80	3000	52	—	33	25, 50, 100, 250, 500
	3 strands copper, 4 strands Copperweld tinned, cellulose yarn braid, rubber insulated, rayon braid, tinned copper braid shield, cellulose yarn wrap, black rubber jacket.											
MINIATURE	**8413**	2	24(45x40)	.019	.025	.190	100	300	—	38	71	15, 25, 50, 100, 250, 500
	8406	3	24(45x40)	.019	.025	.223	100	300	—	43	76	100, 250, 500
	Tinned cadmium bronze, cotton serve, rubber insulated, cabled with fillers, conductive textile serve, tinned copper braid shield, cotton serve, black rubber jacket.											
MULTIPLE CONDUCTOR Tinned copper, cotton wrap, rubber insulated, rayon braid, tinned copper braid shield, cotton wrap, black rubber jacket.	**8412**	2	20(26x34)	.020	.043	.268	84	600	—	42	68	25, 50, 100, 250, 500, 1000
	8423	3	20(26x34)	.020	.040	.277	84	600	—	50	85	15, 50, 100, 250, 500, 1000
	8424	4	20(26x34)	.020	.040	.295	83.5	600	—	55	95	15, 50, 100, 250, 500, 1000
	8425	5	20(26x34)	.020	.040	.323	76	600	—	44	80	100, 250
	8426	6	20(26x34)	.020	.040	.349	90	600	—	40	78	100, 250
	8427	7	20(26x34)	.020	.043	.360	90	600	—	40	75	100, 250
	8418	8	20(26x34)	.020	.043	.386	92	600	—	42	75	100, 250
	8428	2	18(41x34)	.022	.038	.295	91	600	—	47	80	100, 500, 1000
NEOPRENE HEAVY DUTY	**8407**	4	16(65x34)	.032	.043	.422	84	600	—	37	65	100, 250
	Tinned copper, separator, rubber insulated, cabled, rayon braid, tinned copper braid shield, cotton wrap, black neoprene jacket.											

VINYL MICROPHONE AND SHIELDED POWER SUPPLY CABLES

Description	Trade Number	No. of Cond.	AWG (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Percent Shield Coverage	Suggested Working Voltage	Impedance (Ohms)	Cap. (mmf/ft)	Cap. (mmf/ft)	Standard Spool Lengths in ft
SINGLE CONDUCTOR	**8411**	1	25(7x33)	.020	.020	.144	72	3500	52	—	34	15, 25, 50, 100, 250, 500, 1000
	8401	1	25(7x33)	.043	.025	.200	74	5000	57	—	25	15, 25, 50, 100, 250, 500, 1000
	3 strands copper, 4 strands Copperweld, tinned, cellulose yarn braid, polyethylene insulated, tinned copper braid shield, chrome vinyl jacket.											
MINIATURE	**8420**	2	24(45x40)	.015	.020	.185	77	500	—	22	40	15, 25, 50, 100, 250, 500
	Tinned cadmium bronze, cotton wrap, polyethylene insulated, cabled with fillers, rayon braid, tinned copper braid shield, chrome vinyl jacket.											
MULTIPLE CONDUCTOR  Tinned copper, polyethylene insulated, cabled, rayon braid, tinned copper braid shield, chrome vinyl jacket.	**8422**	2	22(16x34)	.023	.023	.231	87	1000	—	18	32	15, 25, 50, 100, 250, 500, 1000
	8403	3	20(26x34)	.015	.033	.244	89	600	—	25	45	15, 50, 100, 250, 500, 1000
	8404	4	20(26x34)	.015	.033	.255	87	600	—	25	45	15, 100, 250, 500, 1000
	8405	5	20(26x34)	.015	.035	.275	83	600	—	25	45	250, 500, 1000

RUBBER—PLASTIC—NEOPRENE

PLASTIC CABLES RECOMMENDED FOR: Lower capacitance, lower loss, greater ozone and oil resistance, lighter weight, smaller diameter.
RUBBER CABLES RECOMMENDED FOR: Greater abrasion and impact resistance, and extra limpness so cable will lie flat on stage or studio floor.
NEOPRENE CABLES RECOMMENDED FOR: Outside use, cold weather applications. Resistant to effects of sun, oil, and ozone.

**Capacitance between conductors.* ***Capacitance between 1 conductor and remaining conductors (if any) connected to shield.*

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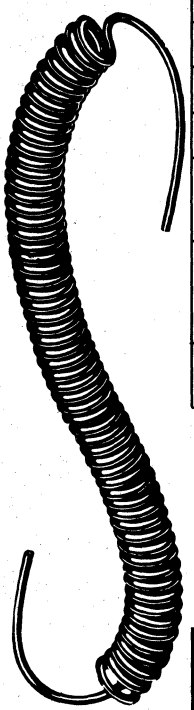
See Prices on four pages at front of Belden listing

Belden | retractile (coiled) cables and cords

NEOPRENE RETRACTILE (COILED) MICROPHONE CABLES



Description	Trade Number	No. of Cond.	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Nom. Coil O.D. (Inch)	Percent Shield Coverage	Cap. (mmf cord)	Retracted Length	Practical Extended Length	Standard Put-Up
	8409	4 unshielded	28 (7x36)	.005	.050	.165	9/16	No shield	—	12″	6′	1
		Tinned copper, nylon insulated, neoprene jacket.										
	8415	4 unshielded	23 (21x36)	.020	.055	.250	7/8	No shield	—	11½″	6′	1, 50
	8499	1 shielded	24 (45x40)	.019	.043	.160	1 1/16	80	285	7½″	4′	1
	8497	3 1 shielded 2 unshielded	23 (21x36)	.020	.046	.250	7/8	100	480	11½″	6′	1, 50
	8491	4 2 individually shielded 2 unshielded	23 (21x36)	.020	.050	.300	1 1/16	100	480	12″	6′	1
	NEW 8490	5 unshielded	23 (21x36)	.020	.045	.265	7/8	No shield	—	11½″	6′	1
		Tinned cadmium bronze, rubber insulated, paper tape wrap, black neoprene jacket. 8499 has a spiral tinned copper shield. 8497 and 8491 have a double BELDFOIL ⊖ tape shield with a (21x36) tinned cadmium bronze drain wire for each shield conductor.										

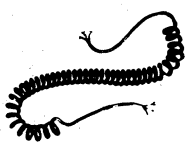
NEOPRENE RETRACTILE (COILED) POWER CONTROL CABLES

Longer lengths are available on request.

TYPICAL APPLICATIONS
- **Hams**
- **Citizen Band**
- **Hand Mikes**
- **Desk Mikes**
- **Language Labs**
- **Mobile Controls**
- **Mobile Communications**
- **Industry Applications**

Trade Number	No. of Cond.	UL Type	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Nom. Coil O.D. (Inch)	Retracted Length	Practical Extended Length	Standard Put-Up
8601	2	SVO	18 (41x34)	.016	.045	.270	1	12″	6′	1
8602	3	SJO	18 (41x34)	.031	.045	.360	1 3/8	12″	6′	1
8603	3	SJO	16 (65x34)	.031	.045	.370	1½	12″	6′	1
8604	3	SJO	16 (65x34)	.031	.045	.370	1½	22″	12′	1
	Bare copper, paper wrap, rubber insulation, cabled with fillers, paper tape wrap, black neoprene jacket. 6″ straight portion each end. Jacket removed 1½″ each end.									

VINYL RETRACTILE (COILED) TELEPHONE CORDS



Description	Trade Number	No. of Cond.	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Nom. Coil O.D. (Inch)	Retracted Length	Practical Extended Length	Standard Put-Up
	8495	3	23 (21x36)	.020	.041	.220	7/8	10″	4½′	1
	8494	4	23 (21x36)	.020	.043	.245	7/8	10″	4½′	1
	Bare cadmium bronze, vinyl insulated, cabled, paper wrapped, black vinyl jacket. 8494 one end stripped 7¾″, spade terminals attached and hook strain relief clamped over jacket. Other end stripped 6¼″ and spade terminals attached. 8495 one end stripped 2¾″, spade terminals attached and hook strain relief clamped over jacket. Other end stripped 3 7/16″ and spade terminals attached.									

Color coding of individual conductors for cables on this page and microphone cables on page 10: (1) White, (2) Black, (3) Red, (4) Green, (5) Blue, (6) Brown, (7) Yellow, (8) Orange.

****Capacitance of shielded conductor.* ⊖*Belden U.S. Patent 3,032,604.*

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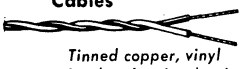
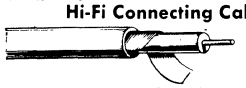
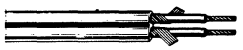
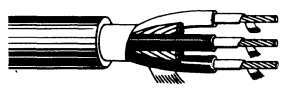
phonograph, hi-fi and stereo cables portable cordage and test prod wire

Belden

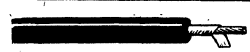
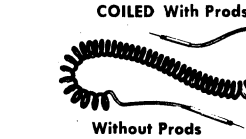
HI-FI AND STEREO CABLES

Description	Trade Number	No. of Cond.	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Nom. Cap. between condrs. (mmf ft)	Nom. Cap. condr. to other condr. & shield (mmf ft)	Standard Spool Lengths in ft
Phono Pick-Up Arm Cables  *Tinned copper, vinyl insulated, twisted pair.*	**8430**	2	32 (7x40)	.009	—	.050	Blk, Red	21	—	10, 25, 250
	→	4	Use two 8430s for maximum channel isolation, one for each channel.							
Tinned copper, vinyl insulated, twisted pair, tinned copper braid shield.	**8429**	2	32 (7x40)	.009	—	.057	Blk, Red	22	38	10, 25, 250
	8419	3	32 (7x40)	.009	—	.067	Blk, Red, Wht	30	50	10, 25, 250
	→	4	Use two 8429s for maximum channel isolation, one for each channel.							
	8431	1	24 (16x36)	.015	—	.095	—	96	—	10, 15, 25 100, 500
	Tinned copper, rubber insulated, tinned copper braid shield, brown cotton braid.									
Hi-Fi Connecting Cable 	**8421**	1	25 (7x33)	.025	.025	.180	—	18	—	15, 25, 50, 100, 250
	3 strands tinned copper and 4 tinned Copperweld, cellular polyethylene insulated, tinned copper spiral wrapped shield, chrome vinyl jacket.									
 **Dual Channel Audio Cable for stereo and language labs**	**8416**	2	25 (7x33)	.018	.020	.106 x .213	1 Wht 1 Red	35 each channel	—	15, 25, 50, 100, 250
	3 strands tinned copper and 4 tinned Copperweld, polyethylene insulated, individual tinned copper spiral wrapped shield, chrome vinyl jacket, polarity rib on red conductor.									
BELDFOIL Miniature Audio Connecting Cable totally shielded	**8417**	1	25 (7x33)	.020	.026	.140	Chrome	25	—	15, 25, 50, 100, 250
	3 strands tinned copper and 4 tinned Copperweld, cellular polyethylene insulated double BELDFOIL aluminum-Mylar shield, inner shield folded 26 AWG stranded tinned copper ground drain wire, chrome vinyl jacket.									

RUBBER-VINYL MULTI-CONDUCTOR PORTABLE CORDAGE—300V-60C

Description	Trade Number	U.L. Type	Insulation	No. of Conductors	AWG & Stranding	Insulation Thickness (Inch)	Conductor Coding	Jacket Thickness (Inch)	Nominal O.D. (Inch)	Color	Standard Spool Lengths in ft
	8462	SP-1	Rubber	2	18 (41x34) Tinned	.031	Polarity Ribbed	—	.123 x .223	Brown or Ivory	25, 100, 250
	8888	SPT-1	Vinyl	2	18 (41x34)	.031	Polarity Ribbed	—	.110 x .207	Brn, Ivory, or Gray	25, 100, 250
	Two conductors, stranded copper, parallel, insulated with one conductor polarity ribbed.										
	**8452**	SV	Rubber	2	18 (41x34)	.016	Blk, Wht	.031	.245	Black	25, 50, 100, 250, 500, 1000
	8478	SJ	Rubber	2	18 (41x34)	.031	Blk, Wht	.031	.298	Black	100, 250, 1000
	8472	SJ	Rubber	2	16 (65x34)	.031	Blk, Wht	.031	.325	Black	25, 100, 250
	8474	—	Rubber	2	14 (41x30)	.031	Blk, Wht	.035	.360	Black	100, 250
Stranded copper, rubber insulated, cabled with fillers, rubber jacket	**8453**	SV	Rubber	3	18 (41x34) Tinned	.016	Blk, Wht, Green	.031	.265	Black	50, 100, 500
	8454	—	Rubber	4	18 (41x34) Tinned	.016	Blk, Wht, Brn, Red	.031	.265	Black	50, 100, 500, 1000
	8455	—	Rubber	5	3—20 (26x34) 2—18 (41x34) Tinned	.015 .015	Brn, Grn, White Blk, Red	.031	.280	Black	100, 250

TEST PROD WIRE

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Breakdown Voltage	Suggested Working Voltage	Standard Package	Standard Spool Lengths in ft.
 *Tinned copper, separator, rubber insulated, red or black.*	**8899**	18 (65x36)	.045	.144	20,000	5,000	—	10, 14*, 25**, 100**, 500**, 1000
	* 7′ of red and 7′ of black. **Also available in green or yellow							
	8897	18 (65x36)	.045	.144	20,000	5,000	—	500, 1000
	Manufactured per MIL-W-13169							
	8898	18 (65x36)	.088	.230	29,000	10,000	—	10, 25, 100, 500
Miniature	**8890**	24 (45x40)	.019	.066	10,000	1,000	—	25, 100, 500
	Stranded tinned copper, cotton separator, rubber insulated, red or black.							
COILED With Prods  **Without Prods**	**8878**	20 (42x36)	.063	.173	20,000	5,000	1 pair Red and Black	—
	Tinned copper, rubber insulated, red or black. Retracted length 8″. Stretches to 5′.							
	8879	20 (42x36)	.063	.173	20,000	5,000	1 pair Red and Black	—
	Tinned copper, rubber insulated, red or black. Retracted length 8″. Stretches to 5′.							

Ⓤ Belden U.S. Patent 3,032,604

All breakdown voltages and suggested working voltages are AC RMS values.

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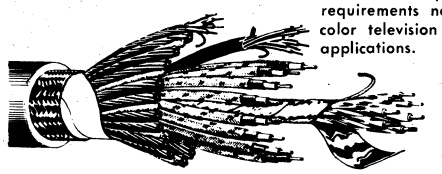
Belden | tv camera cable and 75 ohm video cables

TV CAMERA CABLES

Belden TV Broadcasting and closed circuit TV Camera Cables are precision engineered to assure reliable performance and long service life. In addition to lighter weight, greater flexibility, and easier termination these cables are designed to maintain high conductor insulation resistance regardless of changes in ambient temperatures.

Trade number 8283

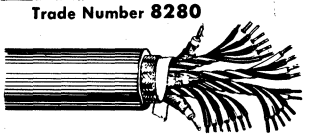


Designed to meet the critical electrical and physical requirements necessary for color television broadcast applications.

82 Conductor TV Color Camera Cable

4-14 AWG (19x27) tinned copper, vinyl plastic insulated, color coded.
3-16 AWG (26x30) tinned copper, vinyl plastic insulated, color coded.
BELDFOIL aluminum-Mylar wrapped shield around the above 7 conductors cabled with stranded tinned copper drain wire.
8 coaxial cables. Nom. impedance 53.5 ohms, color coded.
67-22 AWG (7x30) tinned copper, vinyl plastic insulated, color coded, 7 under conductive textile shield with stranded ground wire.
Tinned copper braid shield.
Chrome vinyl plastic jacket. 1.22" Nom. O.D.
§Cut to customer's specified length.
Maximum length 1000'.

Trade Number 8280

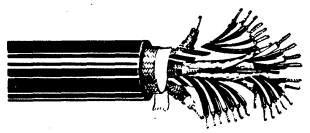


A smaller, lighter weight cable designed to make long runs easier. For black and white (Monochrome) systems.

28 Conductor TV Camera Cable

4-18 AWG (16x30) tinned copper, vinyl insulated, color coded.
21-22 AWG (7x30) tinned copper, vinyl insulated, cabled in 3 groups of 7, color coded.
3 coaxial cables. Nom. impedance 51 ohms, color coded.
Tinned copper braid shield.
Chrome vinyl jacket. .750" Nom. O.D.
§Cut to customer's specified length.
Maximum length 1500'.

Trade Number NEW 8286

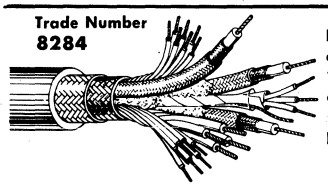


A 75 ohm cable designed to remain flexible in cold weather. Recommended for transistorized TV cameras.

NEW 28 Conductor Hypalon ♦ TV Camera Cable

4-18 AWG (16x30) tinned copper, vinyl insulated, color coded.
BELDFOIL aluminum-Mylar wrapped shield around 4 conductors with stranded drain wire, Mylar tape over this shielded group.
21-22 AWG (7x30) tinned copper, vinyl insulated, cabled in 3 groups of 7, color coded, one group of 7 has a BELDFOIL aluminum-Mylar wrapped shield overall with a stranded drain wire, Mylar tape over this shielded group.
3 coaxial cables. Nom. impedance 75 ohms.
Tinned copper braid shield.
Black Hypalon jacket. .730" O.D.
§Cut to customer's specified length.
Maximum length 1000'.

Trade Number 8284

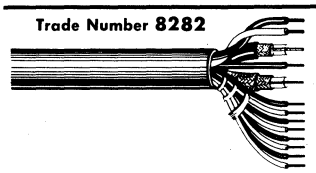


Designed specifically for color TV transmission. This cable incorporates circuit isolation assuring the reduction in AC hum level and cross talk essential for color TV broadcasting.

24 Conductor TV Camera Cable

17-22 AWG (7x30) tinned copper, vinyl insulated, color coded.
3 under BELDFOIL shield with stranded drain wire.
4-16 AWG (26x30) tinned copper, vinyl insulated, color coded.
3 coaxial cables. Nom. impedance 53.5 ohms, color coded.
Tinned copper braid shield.
Heavy cotton braid.
Chrome vinyl plastic jacket. .800" Nom. O.D.
§Cut to customer's specified length.
Maximum length 1000'.

Trade Number 8282



Especially engineered for TV Eye Cameras. Recommended for remote control, monitor and cue line applications.

13 Conductor TV Eye Cable

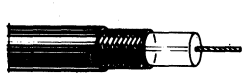
9-22 AWG (7x30) tinned copper, vinyl insulated, color coded.
2-18 AWG (16x30) tinned stranded copper conductor vinyl insulated. Black and Red.
1-RG-58A/U cable 50-ohm coax.
1-72-ohm coax, stranded conductor, Mylar tape wrapped.
Chrome vinyl jacket. .470" Nom. O.D.
§Cut to customer's specified length.
Maximum length 2000'.

This series of cables is also recommended as interconnecting cables in complex electronic applications. Each cable contains coaxial cables for RF and Video signals, pulse voltages or high voltage lines as well as many conductor groups for control and power circuits.

§Minimum length 25'. 25' to 199', plus 25', minus 0. 200' or over, plus 50, minus 0. ♦Dupont Trademark

75 OHM PRECISION VIDEO CABLE

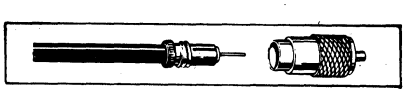
TYPICAL APPLICATIONS: Video signal transmission in Color and Monochrome TV studios. Provides high quality carrier of video signal with superior picture definition and eliminates problems of periodicity. Cable is manufactured with rigid control of concentricity and all dimensional tolerances. The black polyethylene jacket is manufactured with a non-contaminating, non-migratory compound. 100% SWEEP TESTED.

Description	Trade Number	AWG & (Stranding) Material	Nom. O.D. (Inch)	Percent Shield Coverage	Nom. Impedance (Ohms)	Nom. Velocity of Propagation	Nom. Cap. (mmf/ft)	Nom. Attenuation per 100' kc or mc	Nom. Attenuation per 100' db	Standard Spool Lengths in ft.
	8281	20 (Solid) copper	.304	96.4	75	66%	21.	10 KC 100 KC 1 MC 10 MC 100 MC	.06 .08 .25 .78 2.70	500, 1000
		Conductor, polyethylene insulated, tinned copper double braid shield, black polyethylene jacket.								
 **Miniature**	**8279**	23 (7x31) Tinned compacted conductor	.220	96	75	66%	21.	10 KC 100 KC 1 MC 10 MC 100 MC	.14 .15 .35 1.30 4.90	100, 250 500

Compacted conductor, polyethylene insulated, tinned copper braid shield, black polyethylene jacket. Fits RG 59/U connectors.
Compacted conductor combines impedance uniformity of solid conductor and "nick-resistance" of stranded conductor.

For Use on 8281 Only

8299 Adapter for use with PL-259 connector. 25 in a box.



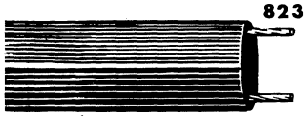
BELDEN PAGE 13

See Prices on four pages at front of Belden listing

© U.C.P., Inc.

300 ohm transmission line cables | Belden

TWIN LEAD WIRES

Description & Trade Number	AWG & (Stranding)	Color	Nom. O.D. (Inch)	Nom. Velocity of Propagation	Nom. Capacitance (mmf/ft)	Nom. Attenuation per 100' mc	Nom. Attenuation per 100' db	Standard Package Lengths in ft
Permohm★ 8285 *Copperweld, 2 conductors parallel, orange polyethylene insulation and web between conductors, cellular polyethylene oval jacket.*	22 (7x30)	Brown	.255 x .468	73.3%	5.3	100 300 500 700 900	1.4 2.8 3.8 4.8 5.6	50, 75, 100 coils in counter dispenser 250, 500 coils 1000 spool
PERMOHM Encapsulated twin lead for strong, clear signals on all channels despite salt spray, industrial contamination, rain, ice and fringe area reception. An excellent color, UHF or VHF cable. **First choice for all weather, all channel T.V. reception**								
Celluline★★ 8275 *Copperweld; 2 conductors parallel, polyethylene jacket with inert gas filled unicellular polyethylene core.*	20 (7x28)	Brown	.300 x .400	80%	4.6	100 200 300 400 500 700 900	1.05 1.64 2.12 2.5 2.98 3.62 4.3	50, 75, 100 coils in counter dispenser 250, 500 1000 spools
CELLULINE Maintains uniform electrical characteristics by eliminating all possible moisture between conductors. Installation is easier as no end-sealing is necessary. Losses are lower because of its lower dielectric constant (1.5). *The thick outer wall of brown polyethylene protects the cable from abrasion and sun damage, and the round shape offers less wind resistance. The result is a longer lasting, more efficient line which helps maintain a strong UHF or VHF reception for black and white or color.*								
8235  *Bare copper, 2 conductors parallel, polyethylene insulated.*	18 (7x26)	Brown	.185 x .520	77%	5.0	100 200 300 400 500 700 900	.85 1.35 1.80 2.20 2.60 3.25 3.85	100 coil 500 spool
Amateur transmitting and receiving twin lead—1KW(RF) rated.								
Weldohm†† 8230 *Copperweld; 2 conductors parallel, polyethylene insulated.*	20 (7x28)	Brown	.072 x .400	80%	4.4	100 200 300 400 500 700 900	1.1 1.7 2.2 2.7 3.1 3.7 4.5	25, 50, 75, 100 pancake coils in a sleeve 250, 500 1000 spools
WELDOHM This cable is 1½ times STRONGER and has 2½ times more FLEX LIFE than equivalent twin lead with all copper conductors, without changing the RF electrical characteristics. Tests prove its superior resistance to the pulling, whipping, and twisting that is so important to a long lasting installation.								
8225 *Bare copper, 2 conductors parallel, polyethylene insulated.*	20 (7x28)	Brown	.058 x .400	80%	4.4	100 200 300 400 500 700 900	1.1 1.7 2.2 2.7 3.1 3.7 4.5	25, 50, 75, 100 pancake coils in a sleeve 250, 500 1000 spools
Brown polyethylene for the best weathering.								
8226 *Bare copper, 2 conductors parallel, polyethylene insulated.*	20 (7x28)	Ivory, Clear	.058 x .400	80%	4.4	Same as 8225		25, 50, 75, 100 pancake coils in a sleeve
For indoor use only								

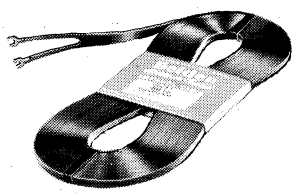
†† *Belden Trademark—Reg. U.S. Pat. Off.*

★ *Belden Trademark, Reg. U.S. Pat. Off., and Belden U.S. Pat. 2,782,251.*

★★ *Belden Trademark, Reg. U.S. Pat. Off., and Belden U.S. Pat. 2,814,666.*

BELDEN MERCHANDISERS

WITH TERMINALS



10 Pancake Coils per Box

300 ohm Line Package Coils
8225
8226 (New Indoor Ivory)
8230 (Weldohm)
Put-ups 25', 50', 75', 100'

Antenna Rotor Cables
8464 (4 conductor, flat)
Put-ups 50', 75', 100'
8463 (5 conductor, flat).
Put-ups 50', 75', 100'

300 ohm Line Coils
8275 (Celluline)
8285 (Permohm)
Put-ups 50', 75', 100'

10 Coils per box

BELDEN PAGE 14

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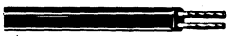
See Prices on four pages at front of Belden listing

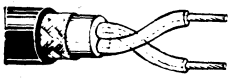
Belden

transmission line cables
and antenna rotor cables

72 OHM TRANSMISSION LINE CABLES

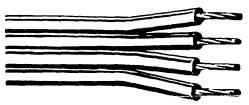
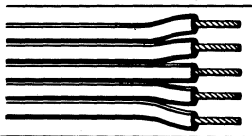
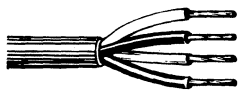
Description	Trade Number	AWG & (Stranding)	Nom. O.D. (Inch)	Nom. Velocity of Propagation	Nom. Capacitance (mmf ft)	Nom. Attenuation per 100' mc	Nom. Attenuation per 100' db	Standard Spool Lengths in ft
72 OHM LINE 	8222	20 (7x28)	.075 x .128	69%	20.3	100 200 300 400	7.7 11.0 13.6 15.9	100, 500
		Bare copper, 2 conductors parallel, brown polyethylene insulated.						
72 OHM 1 KW (RF) RATED	8210	13 (7x21)	.166 x .278	68%	21.0	100 200 300 400 500 700 900	3.8 6.0 7.8 9.3 11.0 13.7 16.0	100, 250
		Bare copper, 2 conductors parallel, brown polyethylene insulated.						

SHIELDED 100 OHM TRANSMISSION LINE

Description	Trade Number	AWG & (Stranding)	Nom. O.D. (Inch)	Nom. Velocity of Propagation	Percent Shield Coverage	Nom. Capacitance (mmf ft)	Nom. Attenuation per 100' mc	Nom. Attenuation per 100' db	Standard Spool Lengths in ft
	8227	20 (7x28)	.325	62%	83	15.5	100 200 300 400	4.1 6.4 8.4 10.2	500

One conductor tinned, one bare copper, polyethylene insulated, cabled, polyethylene jacket, tinned copper braid shield, black vinyl jacket.
This shielded transmission line offers low-loss signal transmission which remains unaffected by outside signals or noise fields. Recommended for RF applications requiring a cross-talk free, balanced operation.

ANTENNA ROTOR CABLE

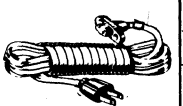
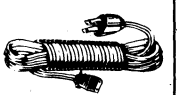
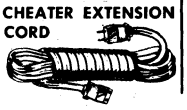
Description	Trade Number	No. of Cond.	AWG & (Stranding)	Cond. Coding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Suggested Working Voltage	Standard Package Lengths in ft
	8464	4	20 (7x28)	1 cond. tinned and insulation ribbed	—	—	.070 x .390	200	50, 75, 100 pancake coils 500, 1000 spools
		Bare copper, parallel, chrome vinyl insulated.							
	8463	5	20 (7x28)	1 cond. tinned	—	—	.070 x .375	200	50, 75, 100 pancake coils 500, spools
		Bare copper, parallel, brown polyethylene insulated. Suggested working voltage 200 volts.							
	8484	4	20 (7x28)	Blk, Grn, Red, Wht	.010	.020	.180	200	100, 500, 1000 spools
	8485	5	20 (7x28)	Blk, Grn, Red, Wht, Yel	.010	.020	.190	200	100, 500, 1000 spools
	8488	8	22 (7x30)	Blk, Blu, Brn, Grn, Org, Red, Wht, Yel	.010	.020	.205	200	100, 500, 1000 spools
Bare copper, vinyl insulated, cabled, chrome vinyl jacket.									

ALUMINUM GROUND WIRE

Packaged in counter dispensers of 10-50' connected coils, or spools of 500 ft. Wire on spools is marked every 100' for easy measuring.

Description	Trade Number	Nom. O.D. (Inch)	Standard Package Lengths in ft
8 AWG solid, soft annealed aluminum	8018	.128	500 in 10-50 connected coils 500 spools

TV AND CHEATER CORDS

Description	Trade Number	Length in ft.	Standard Package
CHEATER CORDS 	8874	6	1 in polyethylene bag with description.
SP-1 brown rubber parallel cord with male plug and TV connector.			
	8895	6	1 in polyethylene bag with description. 100 bulk hanked.
	8889	9	
SPT-1 brown plastic parallel cord with male plug and TV connector.			
 Polarized	8873	6	1 in polyethylene bag with description. 100 bulk hanked.
SPT-1 brown plastic parallel cord with Polarized male plug and TV connector.			
CHEATER EXTENSION CORD 	8875	6	1 in polyethylene bag with description.
SPT-1 red plastic parallel cord with male and female TV connectors.			

BELDEN PAGE 15

See Prices on four pages at front of Belden listing

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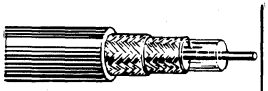
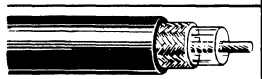
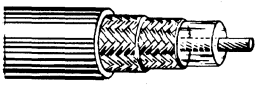
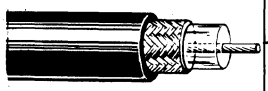
RG/U, transmission line cables | Belden

RG/U CABLES

Description	Trade Number	RG No.	AWG & (Stranding) Material	Insulation	No. of Shields & Material	Jacket	Nom. O.D. (Inch)	Nom. Imp. (Ohms)	Nom. Vel. of Prop.	Nom. Cap. (mmf ft.)	Nom. Attenuation per 100' mc	Nom. Attenuation per 100' db	Standard Spool Lengths in ft.
	**8264 JAN-C-17A**	5A/U	16 (Solid) silver coated copper	Polyethylene	2 silver-coated copper	Gray non-contaminating vinyl	.328	50	66%	28.5	100 200 400	2.40 3.50 5.25	500 1000
	**8237 JAN-C-17A**	8/U	13 (7x21) bare copper	Polyethylene	1 bare copper	Black vinyl	.405	52	66%	29.5	100 200 400	2.10 3.30 4.50	50, 100, 250, 500 1000
	**8242 JAN-C-17A**	9/U	13 (7x21) silver coated copper	Polyethylene	2 inner-silver-coated outer-bare copper	Gray non-contaminating vinyl	.420	51	66%	30.0	100 200 400	2.10 3.30 4.50	100 1000
	8243 MIL-C-17D	9B/U	13 (7x21) silver coated copper	Polyethylene	2 silver coated copper	Black non-contaminating vinyl	.420	50	66%	30.0	100 200 400	2.10 3.30 4.50	500 1000
	**8238 JAN-C-17A**	11/U	18 (7x26) tinned copper	Polyethylene	1 bare copper	Black vinyl	.405	75	66%	20.5	100 200 400	1.90 2.85 4.35	100 250, 500 1000
	8261 MIL-C-17D	11A/U	18 (7x26) tinned copper	Polyethylene	1 bare copper	Black non-contaminating vinyl	.405	75	66%	20.5	100 200 400	1.90 2.85 4.35	100 500 1000
	8239 JAN-C-17A	54A/U	18 (7x.0152) bare copper	Polyethylene	1 tinned copper	Clear polyethylene	.245	58	66%	26.5	100 200 400	3.10 4.40 6.70	500 1000
	8245 JAN-C-17A	55/U	20 (Solid) bare copper	Polyethylene	2 tinned copper	Clear polyethylene	.201	53.5	66%	28.5	100 200 400	4.10 6.20 9.50	500 1000
	8240 JAN-C-17A	58/U	20 (Solid) bare copper	Polyethylene	1 tinned copper	Black vinyl	.195	53.5	66%	28.5	100 200 400	4.10 6.20 9.50	25, 50, 100 250, 500 1000
	8259 JAN-C-17A	58A/U	20(19x.0071) tinned copper	Polyethylene	1 tinned copper	Black vinyl	.195	50	66%	30.8	100 200 400	5.30 8.20 12.60	25, 50 100, 500 1000
	8262 MIL-C-17D	58C/U	20(19x.0071) tinned copper	Polyethylene	1 tinned copper	Black non-contaminating vinyl	.195	50	66%	28.5	100 200 400	5.30 8.20 12.60	500 1000
	8241 JAN-C-17A	59/U	22 bare Copperweld	Polyethylene	1 bare copper	Black vinyl	.242	73	66%	21.0	100 200 400	3.75 5.60 8.30	25, 50, 100 250, 500 1000
	8263 MIL-C-17D	59B/U	.023 bare Copperweld	Polyethylene	1 bare copper	Black non-contaminating vinyl	.242	75	66%	20.5	100 200 400	3.75 5.60 8.30	500 1000
	8254 JAN-C-17A	62/U	22 bare Copperweld	Semi-solid Polyethylene	1 bare copper	Black vinyl	.242	93	84%	13.5	100 200 400	3.10 4.40 6.30	100 500 1000
	8255 MIL-C-17-D	62B/U	24 (7x32) bare Copperweld	Semi-solid Polyethylene	1 bare copper	Black non-contaminating vinyl	.242	93	84%	13.5	100 200 400	3.10 4.40 6.30	500 1000
	8257 JAN-C-17A	71/U	22 bare Copperweld	Semi-solid Polyethylene	2 tinned copper	Clear Polyethylene	.245	93	84%	13.5	100 200 400	3.10 4.40 6.30	500 1000
	8258 MIL-C-17-D	71B/U	22 bare Copperweld	Semi-solid Polyethylene	2 tinned copper	Black polyethylene	.245	93	84%	13.5	100 200 400	3.10 4.40 6.30	500 1000

Manufactured to current Government specifications and subsequent revisions.

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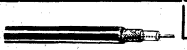
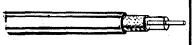
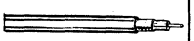
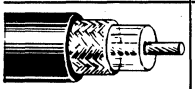
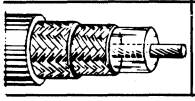
See Prices on four pages at front of Belden listing

Belden | RG/U, transmission line cables

RG/U CABLES

Description	Trade Number	RG No.	AWG & (Stranding) Material	Insulation	No. of Shields & Material	Jacket	Nom. O.D. (Inch)	Nom. Imp. (Ohms)	Nom. Vel. of Prop.	Nom. Cap. (mmf/ft)	Nom. Attenuation per 100' mc	Nom. Attenuation per 100' db	Standard Spool Lengths in ft.
 Navy Drawing RE-49B716	**8216**	174/U	7x34 bare Copper-weld	Poly-ethylene	1 tinned copper	Black vinyl	.100	50	65.5%	30.4	100 200 400	8.8 13.0 20.0	100 500 1000
	NEW 8218	—	27 7x35 bare Copper-weld	Poly-ethylene	1 tinned copper	Black vinyl	.150	75	66%	20.5	100 200 400	5.7 8.4 12.5	100 500 1000
	8265 MIL-C-17-D	178B/U	30 (7x38) Silver coated Copper-weld	TFE TEFLON	1 Silver coated copper	Brown FEP TEFLON	.072	50	69.5	29	400	29.0 Max.	100 500
	8266 MIL-C-17-D	180B/U	30 (7x38) Silver coated Copper-weld	TFE TEFLON	1 Silver coated copper	Brown FEP TEFLON	.142	95	69.5	15	400	17.0 Max.	100 500
	**8269 MIL-C-17-D**	188A/U	26 (7x.0067) Silver coated Copper-weld	TFE TEFLON	1 Silver coated copper	White TFE TEFLON	.106	50	69.5	29	400	20.0 Max.	100 500
	**8270 MIL-C-17-D**	196A/U	30 (7x38) Silver coated Copper-weld	TFE TEFLON	1 Silver coated copper	White TFE TEFLON	.076	50	69.5	29	400	29.0 Max.	100 500
	**8267 MIL-C-17-D**	213/U	13 (7x21) bare copper	Poly-ethylene	1 bare copper	Black non-contaminating vinyl	.405	50	66%	28.5	100 200 400	2.10 3.30 4.50	500 1000
	**8268 MIL-C-17-D**	214/U	13 (7x.0296) Silver coated copper	Poly-ethylene	2 Silver coated copper	Black non-contaminating vinyl	.425	50	66%	30	100 200 400	2.10 3.30 4.50	500 1000

Manufactured to current Government specifications and subsequent revisions.

REQUEST QUOTATIONS ON PRODUCTION QUANTITIES OF RG/U CABLES NOT LISTED.

RG/U COAXIAL CABLES

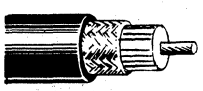
Belden's RG/U cables are manufactured and laboratory tested in accordance with existing military specifications. These cables combine low capacitance and low attenuation. The virgin polyethylene insulation assures constant electrical characteristics regardless of changes in frequency or temperature.

A variety of available jacket types include abrasion resistant polyethylene, polyvinylchloride (recommended for chemical and weather resistance) and a special non-contaminating vinyl compounded for applications above 3000 megacycles.

Typical applications: Flexible test leads, patch cords and high voltage leads (consult applicable Mil Spec for dielectric rating of individual RG/U types). Excellent for audio applications.

Note: Maximum temperature rating of polyethylene is 80°C (176°F). The polyethylene insulation begins to soften above this temperature.

FOAM CORE RG-8/U AND RG-58A/U TYPE TRANSMISSION LINE

Description	Trade Number	AWG & (Stranding) Material	Percent Shield Coverage	Nom. O.D. (Inch)	Nom. Impedance (Ohms)	Nom. Velocity of Propagation	Nom. Cap. (mmf ft)	Nom. Attenuation per 100' mc	Nom. Attenuation per 100' db	Standard Spool Lengths in ft.
	**8214**	11 (7x19)	96.8	.403	50	78%	26	50 100 200 300 400	1.20 1.80 2.60 3.30 3.80	50, 100 500 1000
	Foam core RG-8/U type—for use in citizens' band and amateur radio as a 50 ohm antenna cable.									
	NEW 8219	20 (19x32)	96	.195	50	78%	26	50 100 200 300 400	3.6 4.8 7.6 8.5 10.1	100 500 1000
Conductor, cellular polyethylene insulated, bare copper braid shield, black vinyl jacket.	**Foam core RG-58A/U type for use in citizens' band and amateur radio as a 50 ohm antenna cable.**									

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foam coaxial RG/U types and high voltage cables | **Belden**

FOAM COAXIAL RG/U TYPES AND CLOSED CIRCUIT TV CABLES

ALL CABLES IN THIS GROUP ARE SWEEP TESTED

Description	Trade Number	AWG & (Stranding) Material	Percent Shield Coverage	Nom. O.D. (Inch)	Nom. Impedance (Ohms)	Nom. Velocity of Propagation	Nom. Cap. (mmf ft)	Nom. Attenuation per 100 mc	Nom. Attenuation per 100 db	Standard Spool Lengths in ft
	8211 Black	22 (Solid) Copperweld	94.6	.242	80	78%	16.3	50 100 200 300 400	2.4 3.4 4.8 5.8 6.7	500, 1000, 2000
		Fits the same connectors as RG-59/U Foam core RG-59/U type								
Conductor, cellular polyethylene insulated, bare copper braid shield, polyethylene jacket (except 8217 extra limp vinyl jacket).	**8212** Black	20 (Solid) Copperweld	94.6	.242	75	78%	17.3	50 100 200 300 400	2.3 3.2 4.5 5.5 6.3	500, 1000, 2000
		Foam core RG-59/U type								
	8217 White	22 (Solid) Copperweld	94.6	.242	80	78%	16.3	50 100 200 300 400	2.4 3.4 4.8 5.8 6.7	100, 500, 1000
		Fits the same connectors as RG-59/U Foam core RG-59/U type								
	8213 Black	14 (Solid) copper	96.8	.405	75	78%	17.3	50 100 200 300 400	1.0 1.5 2.3 2.9 3.4	500, 1000, 2000
		Foam core RG-11/U type								
	8215 Black	21 (Solid) Copperweld	96.6 (inner shield)	.332	75	66%	20.5	50 100 200 300 400	2.0 2.9 4.3 5.4 6.5	100, 500, 1000
Conductor, polyethylene insulated, two bare copper braid shields, black polyethylene jacket.		*RG-6A/U type*								
Triaxial	**8232** Black	20 (Solid) Copperweld	94.6 (inner shield)	.315	75	78%	17.3	50 100 200 300 400	2.3 3.2 4.5 5.5 6.3	500, 1000, 2000
Conductor, cellular polyethylene insulated, bare copper braid shield, polyethylene insulated, bare copper braid shield, black polyethylene jacket.	**8233** Black	14 (Solid) copper	82.5 (inner shield)	.475	75	78%	17.3	50 100 200 300 400	1.0 1.5 2.3 2.9 3.4	500, 1000, 2000

SWEEP TESTING

For satisfactory transmission of a signal through a cable at any frequency, Belden Sweep Tests every length of its Community TV Cables at all channels in the VHF Frequency range on an oscilloscope.

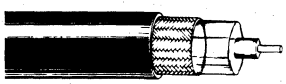
Sweep Testing, performed by trained technicians using the most modern equipment, prevents unsatisfactory program reception due to imperfections in the cable acting as "Filter Traps" at some frequencies.

The black polyethylene jackets on Belden numbers 8211, 8212, 8213, 8215, 8232, and 8233 are manufactured with a noncontaminating, nonmigratory compound specially formulated for superior weather resistance.

HIGH VOLTAGE CATHODE-RAY TUBE LEAD

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Jacket Color	Breakdown Voltage	Suggested Working Voltage	Standard Spool Lengths in ft
	8868	22 (7x30)	.045	.015	.150	Red	50,000	25,000	25, 100, 500
	8869	22 (7x30)	.030	.015	.120	Blk	35,000	17,000	25, 100, 500
Tinned copper, conductive polyethylene, polyethylene insulated, vinyl jacket.		*8869 for use with non-conductive ceramic flyback cores.*							

80 KV D.C. HIGH VOLTAGE CABLE

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Jacket Color	Breakdown Voltage	Suggested Working Voltage	Standard Spool Lengths in ft
	**8870**	22 (Solid) Copperweld	.142	.020	.440	Black	160,000 D.C.	80,000 D.C.	100
		Solid Copperweld, conductive polyethylene, polyethylene insulation, tinned copper braid equipotential sheath, black polyethylene jacket.							

Conductive polyethylene over inner conductor combined with a copper wire braid over the dielectric provides uniform distribution of voltage stress. Consult Belden Engineering Department for AC or pulse applications.

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See Prices on four pages at front of Belden listing

Belden | mil-w-16878d vinyl plastic

TYPE B—VINYL—600V—105C

Tinned copper, vinyl insulated.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100	500	1000
8599	B-32	32(7x40)	.010	.029	1 thru 10	—	1 thru 10
8598	B-30	30(7x38)	.010	.032	1 thru 10	—	1 thru 10
8597	B-28	28(7x36)	.010	.035	1 thru 10	—	1 thru 10
8505	B-26	26(7x34)	.010	.039	1 thru 10 14 thru 22	1 thru 10 —	1 thru 10 14 thru 22
8509	B-24	24(19x36)	.010	.045	9, 14 thru 22	—	9, 14 thru 22
8504	B-24	24(7x32)	.010	.044	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8508	B-22	22(19x34)	.010	.051	9, 14 thru 22	—	9, 14 thru 22
8503	B-22	22(7x30)	.010	.050	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8507	B-20	20(19x32)	.010	.059	9, 14 thru 22	—	9, 14 thru 22
8502	B-20	20(7x28)	.010	.058	1 thru 10 14 thru 22	1 thru 10 —	1 thru 10 14 thru 22
8501	B-18	18(7x26)	.010	.068	1 thru 10 14 thru 22	1 thru 10 —	1 thru 10 14 thru 22
8500	B-16	16(19x29)	.010	.077	1 thru 10 14 thru 22	1 thru 10 —	1 thru 10 14 thru 22

Stock Colors

1 Brown
2 Red
3 Orange
4 Yellow
5 Green
6 Light Blue
7 Violet (purple)
8 Gray (slate)
9 White
10 Black
14 White/Black
15 White/Red
16 White/Green
17 White/Yellow
18 White/Blue
19 White/Brown
20 White/Orange
21 White/Gray
22 White/Violet

TYPE B—VINYL-NYLON JACKET—600V—115C

Tinned copper, vinyl insulated, nylon jacket overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools	
					100	1000
8515	B-26	26(7x34)	.010	.045	1 thru 10	1 thru 10
8519	B-24	24(19x36)	.010	.051	1 thru 10	1 thru 10
8514	B-24	24(7x32)	.010	.050	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8518	B-22	22(19x34)	.010	.057	1 thru 10	1 thru 10
8513	B-22	22(7x30)	.010	.056	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8517	B-20	20(19x32)	.010	.065	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8512	B-20	20(7x28)	.010	.064	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8516	B-18	18(19x30)	.010	.075	9, 14 thru 22	9, 14 thru 22
8511	B-18	18(7x26)	.010	.074	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8510	B-16	16(19x29)	.010	.083	1 thru 10 14 thru 22	1 thru 10 14 thru 22

Stock Colors

1 Brown
2 Red
3 Orange
4 Yellow
5 Green
6 Light Blue
7 Violet (purple)
8 Gray (slate)
9 White
10 Black
14 White/Black
15 White/Red
16 White/Green
17 White/Yellow
18 White/Blue
19 White/Brown
20 White/Orange
21 White/Gray
22 White/Violet

Manufactured to current Government specifications and subsequent revisions.

See Prices on four pages at front of Belden listing

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mil-w-16878d vinyl plastic and teflon | Belden

TYPE C—VINYL & VINYL-NYLON—1000V.

VINYL

Tinned copper, vinyl insulated.

VINYL-NYLON

Tinned copper, vinyl insulated, Nylon jacket overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Type	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Temperature Rating	Stock Colors on Standard Spools 100	Stock Colors on Standard Spools 1000
8955	C-24	24(7x32)	Vinyl	.018	.058	105C	9	9
8954	C-22	22(7x30)	Vinyl	.018	.064	105C	1 thru 10	1 thru 10
8960	C-22	22(7x30)	Vinyl-Nylon	.018	.070	115C	1 thru 10	1 thru 10
8953	C-20	20(7x28)	Vinyl	.018	.072	105C	1 thru 10	1 thru 10
8959	C-20	20(7x28)	Vinyl-Nylon	.018	.078	115C	1 thru 10	1 thru 10
8952	C-18	18(7x26)	Vinyl	.018	.082	105C	1 thru 10	1 thru 10
8958	C-18	18(7x26)	Vinyl-Nylon	.018	.089	115C	1 thru 10	1 thru 10
8951	C-16	16(19x29)	Vinyl	.018	.091	105C	9	9
8957	C-16	16(19x29)	Vinyl-Nylon	.018	.098	115C	9	9
8950	C-14	14(19x27)	Vinyl	.018	.105	105C	9	9
8956	C-14	14(19x27)	Vinyl-Nylon	.018	.114	115C	9	9

Stock Colors

1 Brown
2 Red
3 Orange
4 Yellow
5 Green
6 Light Blue
7 Violet (purple)
8 Gray (slate)
9 White
10 Black
14 White/Black
15 White/Red
16 White/Green
17 White/Yellow
18 White/Blue
19 White/Brown
20 White/Orange
21 White/Gray
22 White/Violet

TYPE D—VINYL—3000V—105C

Tinned copper, vinyl insulated.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100	Stock Colors on Standard Spools 500	Stock Colors on Standard Spools 1000
8971	D-22	22(7x30)	.030	.090	1 thru 10	—	1 thru 10
8970	D-20	20(7x28)	.030	.098	1 thru 10	—	1 thru 10
8969	D-18	18(7x26)	.030	.108	1 thru 10	—	1 thru 10
8968	D-16	16(19x29)	.030	.117	9	—	9
8967	D-14	14(19x27)	.030	.131	9	—	9
8966	D-12	12(19x25)	.035	.160	9	—	9
8965	D-10	10(37x26)	.035	.178	9	—	9
8964	D-8	8(133x29)	.040	.245	9	9	—
8963	D-6	6(133x27)	.040	.290	9	9	—

Stock Colors

1 Brown
2 Red
3 Orange
4 Yellow
5 Green
6 Light Blue
7 Violet (purple)
8 Gray (slate)
9 White
10 Black
14 White/Black
15 White/Red
16 White/Green
17 White/Yellow
18 White/Blue
19 White/Brown
20 White/Orange
21 White/Gray
22 White/Violet

TYPE E—TFE TEFLON—600V—200C

TYPE E 600V—200C

Concentrically stranded silver coated copper conductor, extruded TFE Teflon insulated

Trade Number	Type Designation	AWG & (Stranding)	Nom. O.D. (Inch)	Stock Colors	Standard Spool Lengths in ft.
8300	E-30	30(7x38)	.033	1 thru 10	25, 100, 500, 1000
8301	E-28	28(7x36)	.036	1 thru 10	25, 100, 500, 1000
8302	E-26	26(7x34)	.041	1 thru 10	25, 100, 500, 1000
8303	E-24	24(19x36)	.046	1 thru 10	25, 100, 500
8304	E-24	24(7x32)	.045	1 thru 10	25, 100, 500, 1000
8305	E-22	22(7x30)	.051	1 thru 10	25, 100, 500, 1000
8306	E-22	22(19x34)	.052	1 thru 10	25, 100, 500, 1000
8307	E-20	20(19x32)	.060	1 thru 10	25, 100, 500, 1000
8308	E-20	20(7x28)	.059	1 thru 10	25, 100, 500
8309	E-18	18(19x30)	.071	1 thru 10	25, 100, 500, 1000
8310	E-16	16(19x29)	.080	1 thru 10	25, 100, 500, 1000

TYPE EE—TFE TEFLON—1000V—200C

TYPE EE 1000V—200C

Concentrically stranded silver coated copper conductor, extruded TFE Teflon insulated

Trade Number	Type Designation	AWG & (Stranding)	Nom. O.D. (Inch)	Stock Colors	Standard Spool Lengths in ft.
8323	EE-24	24(19x36)	.053	1 thru 10	25, 100, 500
8325	EE-22	22(7x30)	.058	1 thru 10	25, 100, 500
8326	EE-22	22(19x34)	.060	1 thru 10	25, 100, 500, 1000
8327	EE-20	20(19x32)	.068	1 thru 10	25, 100, 500, 1000
8328	EE-20	20(7x28)	.066	1 thru 10	25, 100, 500
8329	EE-18	18(19x30)	.079	1 thru 10	25, 100, 500, 1000
8330	EE-16	16(19x29)	.086	1 thru 10	25, 100, 500, 1000

Stock Colors

1. Brown
2. Red
3. Orange
4. Yellow
5. Green
6. Light Blue
7. Violet (purple)
8. Gray (slate)
9. White
10. Black

Color striping available on 1,000 ft. minimum per item each color on 500′ and 1000′ spools.

Manufactured to current Government specifications and subsequent revisions.

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See Prices on four pages at front of Belden listing

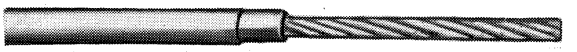
Belden | mil-w-76b vinyl plastic

TYPE MW—VINYL & VINYL-NYLON—1000 V

VINYL

Tinned copper, vinyl insulated, medium wall. The extruded vinyl insulation is flame and ozone-resistant and is inert to most chemicals, oils, and solvents.

VINYL-NYLON



Tinned copper, vinyl insulated. Medium wall, clear nylon jacket overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Type	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Temperature Rating	Stock Colors on Standard Spools 25′	100′	500′	1000′	Stock Colors
8525	MW-C-24-(7)-U	24(7x32)	Vinyl	.017	.058	80C	—	1 thru 22	1 thru 22	1 thru 22	
8538	MW-C-24-(1)-U	24(Solid)	Vinyl	.017	.054	80C	—	1 thru 22	—	1 thru 22	
8524	MW-C-22-(7)-U	22(7x30)	Vinyl	.017	.064	80C	1 thru 13	1 thru 30	1 thru 30	1 thru 30	
8530	MW-C-22-(1)-U	22(Solid)	Vinyl	.017	.059	80C	1 thru 13	1 thru 30	1 thru 30	1 thru 30	
8537	MW-C-22-(7)-J	22(7x30)	Vinyl-Nylon	.017	.069	90C	—	1 thru 10 14 thru 22	—	1 thru 10 14 thru 22	
8523	MW-C-20-(10)-U	20(10x30)	Vinyl	.017	.070	80C	1 thru 13	1 thru 30	1 thru 30	1 thru 30	
8529	MW-C-20-(1)-U	20(Solid)	Vinyl	.017	.066	80C	1 thru 13	1 thru 22	1 thru 22	1 thru 22	
8536	MW-C-20-(10)-J	20(10x30)	Vinyl-Nylon	.017	.076	90C	—	1 thru 10	—	1 thru 10	
8522	MW-C-18-(16)-U	18(16x30)	Vinyl	.017	.080	80C	1 thru 13	1 thru 30	1 thru 30	1 thru 30	
8528	MW-C-18-(1)-U	18(Solid)	Vinyl	.017	.074	80C	—	1 thru 13	1 thru 13	1 thru 13	
8535	MW-C-18-(16)-J	18(16x30)	Vinyl-Nylon	.017	.086	90C	—	1 thru 10	—	1 thru 10	
8521	MW-C-16-(26)-U	16(26x30)	Vinyl	.019	.098	80C	—	1 thru 22	1 thru 22	1 thru 22	
8531	MW-C-16-(1)-U	16(Solid)	Vinyl	.017	.085	80C	—	1 thru 10	1 thru 10	1 thru 10	
8520	MW-C-14-(41)-U	14(41x30)	Vinyl	.020	.111	80C	—	1 thru 22	1 thru 22	1 thru 22	
8527	MW-C-12-(65)-U	12(65x30)	Vinyl	.020	.130	80C	—	1 thru 10	1 thru 10	1 thru 10	

First color in stripe combination is body color and second or third colors are stripes. (White/Black/Red).

1 Brown
2 Red
3 Orange
4 Yellow
5 Green
6 Light Blue
7 Violet (purple)
8 Gray (slate)
9 White
10 Black
11 Tan
12 Pink
13 Dark Blue
14 White/Black
15 White/Red
16 White/Green
17 White/Yellow
18 White/Blue
19 White/Brown
20 White/Orange
21 White/Gray
22 White/Violet
23 White/Black/Red
24 White/Black/Green
25 White/Black/Yellow
26 White/Black/Blue
27 White/Black/Brown
28 White/Black/Orange
29 White/Black/Gray
30 White/Black/Violet

TYPE MW—SHIELDED—WITH & WITHOUT NYLON JACKET—1000V—80C

WITH JACKET

Tinned copper, vinyl insulation. Medium wall, tinned copper shield, nylon jacket.

WITHOUT JACKET

Tinned copper, vinyl insulation. Medium wall, tinned copper shield overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100	500	1000	Stock Colors
8887	MW-C-24-(7)-S	24(7x32)	.017	None	.082	1 thru 10	—	1 thru 10	
8883	MW-C-22-(7)-S	22(7x30)	.017	None	.088	1 thru 10	—	1 thru 10	
8893	MW-C-22-(7)-SJ	22(7x30)	.017	Nylon	.096	9	9	9	
8886	MW-C-20-(10)-S	20(10x30)	.017	None	.096	1 thru 10	—	1 thru 10	
8896	MW-C-20-(10)-SJ	20(10x30)	.017	Nylon	.105	9	9	9	
8882	MW-C-18-(16)-S	18(16x30)	.017	None	.105	1 thru 10	—	1 thru 10	
8892	MW-C-18-(16)-SJ	18(16x30)	.017	Nylon	.114	9	9	9	
8884	MW-C-16-(26)-S	16(26x30)	.019	None	.122	1 thru 10	—	1 thru 10	
8894	MW-C-16-(26)-SJ	16(26x30)	.019	Nylon	.132	9	—	9	
8881	MW-C-14-(41)-S	14(41x30)	.020	None	.135	9, 10	—	9, 10	
8880	MW-C-12-(65)-S	12(65x30)	.020	None	.154	9, 10	—	9, 10	

1 Brown
2 Red
3 Orange
4 Yellow
5 Green
6 Light Blue
7 Violet (purple)
8 Gray (slate)
9 White
10 Black

Manufactured to current Government specifications and subsequent revisions.

© U.C.P., Inc.

mil-w-76b vinyl plastic | **Belden**

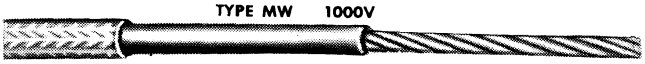
TYPE MW-GLASS BRAID-SHIELDED—1000V—80C

Tinned copper, vinyl insulated. Medium wall, lacquered glass braid, tinned copper shield overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100	Stock Colors on Standard Spools 1000	Stock Color
8863	MW-C-22(7)-BS	22(7x30)	.017	.102	9	9	White only (9)
8862	MW-C-20(10)-BS	20(10x30)	.017	.110	9	9	
8861	MW-C-18(16)-BS	18(16x30)	.017	.119	9	9	
8860	MW-C-16(26)-BS	16(26x30)	.019	.136	9	9	
8859	MW-C-14(41)-BS	14(41x30)	.020	.149	9	9	
8858	MW-C-12(65)-BS	12(65x30)	.020	.168	9	9	

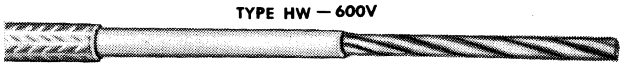
TYPE MW & HW VINYL—GLASS BRAID (OVERALL)—80C

TYPE MW 1000V



Tinned copper, vinyl insulated. Medium wall, lacquered glass braid overall.

TYPE HW — 600V



Tinned copper, vinyl insulated. Heavy wall, lacquered glass braid.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Voltage Rating	Stock Colors on Standard Spools 100	Stock Colors on Standard Spools 500	Stock Colors on Standard Spools 1000
8566	MW-C-22(7)-B	22(7x30)	.017	.078	1000V	1 thru 10	—	1 thru 10
8565	MW-C-20(10)-B	20(10x30)	.017	.086	1000V	1 thru 10	—	1 thru 10
8564	MW-C-18(16)-B	18(16x30)	.017	.095	1000V	1 thru 10 124 thru 132	— —	1 thru 10 124 thru 132
8563	MW-C-16(26)-B	16(26x30)	.019	.112	1000V	1 thru 10 124 thru 132	— —	1 thru 10 124 thru 132
8562	MW-C-14(41)-B	14(41x30)	.020	.125	1000V	9, 124 thru 132	— —	9, 124 thru 132
8561	MW-C-12(65)-B	12(65x30)	.020	.144	1000V	9, 125, 132	—	9, 125, 132
8591	HW-C-10(105)-B	10(105x30)	.048	.238	600V	9, 125, 132	—	9, 125, 132
8590	HW-C-8(133)-B	8(133x29)	.048	.279	600V	9	9	—
8589	HW-C-6(133)-B	6(133x27)	.048	.328	600V	9	9	—

Stock Colors

1 Brown	124 White/Brown
2 Red	125 White/Red
3 Orange	126 White/Orange
4 Yellow	127 White/Yellow
5 Green	128 White/Green
6 Light Blue	129 White/Blue
7 Violet (purple)	130 White/Violet
8 Gray (slate)	131 White/Gray
9 White	132 White/Black
10 Black	

TYPE LW—VINYL & VINYL-NYLON—300V

VINYL

Tinned copper, vinyl insulated. Light wall.

VINYL-NYLON

Tinned copper, vinyl insulated. Light wall, clear nylon jacket overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Type	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Temperature Rating	Stock Colors on Standard Spools 100	Stock Colors on Standard Spools 1000
8571	LW-C-28(7)-U	28(7x36)	Vinyl	.011	.037	80C	1 thru 10	1 thru 10
8578	LW-C-28(7)-J	28(7x36)	Vinyl-Nylon	.011	.042	90C	—	1 thru 10
8570	LW-C-26(7)-U	26(7x34)	Vinyl	.011	.041	80C	1 thru 10	1 thru 10
8577	LW-C-26(7)-J	26(7x34)	Vinyl-Nylon	.011	.046	90C	—	1 thru 10
8569	LW-C-24(7)-U	24(7x32)	Vinyl	.011	.046	80C	1 thru 10	1 thru 10
8576	LW-C-24(7)-J	24(7x32)	Vinyl-Nylon	.011	.051	90C	—	1 thru 10
8568	LW-C-22(7)-U	22(7x30)	Vinyl	.012	.054	80C	1 thru 10	1 thru 10
8575	LW-C-22(7)-J	22(7x30)	Vinyl-Nylon	.012	.059	90C	—	1 thru 10
8567	LW-C-20(10)-U	20(10x30)	Vinyl	.012	.060	80C	1 thru 10	1 thru 10
8574	LW-C-20(10)-J	20(10x30)	Vinyl-Nylon	.012	.065	90C	—	1 thru 10

Stock Colors

1 Brown	6 Light Blue
2 Red	7 Violet (purple)
3 Orange	8 Gray (slate)
4 Yellow	9 White
5 Green	10 Black

Manufactured to current Government specifications and subsequent revisions.

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See Prices on four pages at front of Belden listing

Belden | mil-w-76b vinyl plastic mil-w-5086a & mil-w-7078a aircraft wire

TYPE HW—VINYL—Gauges 16-22 2500V, Gauges 6-14 600V—80C

Tinned copper, vinyl insulated. Heavy wall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100'	500'	1000'
8586	HW-C-18(16)-U	18(16x30)	.034	.115	1 thru 10	—	1 thru 10
8585	HW-C-16(19)-U	16(26x30)	.034	.128	2, 9, 10	—	2, 9, 10
8584	HW-C-14(19)-U	14(41x30)	.048	.171	2, 9, 10	—	2, 9, 10
8583	HW-C-12(19)-U	12(65x30)	.048	.191	2, 9, 10	—	2, 9, 10
8582	HW-C-10(37)-U	10(105x30)	.048	.220	2, 9, 10	—	2, 9, 10
8581	HW-C-8(127)-U	8(133x29)	.048	.261	2, 9, 10	2, 9, 10	—
8580	HW-C-6(127)-U	6(133x27)	.048	.310	2, 9, 10	2, 9, 10	—

Stock Colors

1 Brown
2 Red
3 Orange
4 Yellow
5 Green
6 Light Blue
7 Violet (purple)
8 Gray (slate)
9 White
10 Black

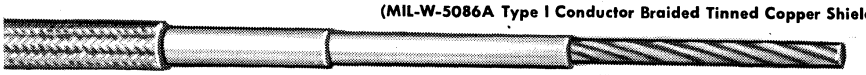
MIL-W-5086A—TYPES 1 & 2—600V

UNSHIELDED

Trade Number	MIL Type Designation	AWG & (Stranding)	Nom. O.D. (Inch)	Spec. Type	Stock Colors on Standard Spools 100'	500	1000	Stock Color
8541	AN-22	22(19x34)	.068	No. 1	9	—	9	**White only (9)**
8542	AN-20	20(19x32)	.078	No. 1	9	—	9	**Additional Description**
8543	AN-18	18(19x30)	.088	No. 1	9	—	9	**MIL-W-5086A-Type I AN-22 thru AN-12.** Stranded tinned copper, white vinyl, clear nylon jacket insulation.
8544	AN-16	16(19x29)	.098	No. 1	9	—	9	
8545	AN-14	14(19x27)	.117	No. 1	9	9	9	
8546	AN-12	12(19x25)	.137	No. 1	9	9	9	
8559	AN-22	22(19x34)	.075	No. 2	9	—	9	**MIL-W-5086A-Type II AN-22 thru AN-12** Stranded tinned copper, white vinyl insulation, saturated glass braid, clear nylon jacket.
8558	AN-20	20(19x32)	.085	No. 2	9	—	9	
8557	AN-18	18(19x30)	.095	No. 2	9	—	9	
8556	AN-16	16(19x29)	.105	No. 2	9	—	9	
8555	AN-14	14(19x27)	.125	No. 2	9	9	9	
8554	AN-12	12(19x25)	.143	No. 2	9	9	9	
8553	AN-10	10(49x27)	.190	No. 2	9	9	9	**MIL-W-5086A-Type II AN-10 thru AN-00** Stranded tinned copper, white vinyl insulation, saturated glass braid, nylon braid, nylon lacquer.
8552	AN-8	8(133x29)	.240	No. 2	9	9	–	
8551	AN-6	6(133x27)	.293	No. 2	9	9	–	
8550	AN-4	4(133x25)	.355	No. 2	9	9	–	
8549	AN-2	2(665x30)	.425	No. 2	9	—	–	
8548	AN-0	0(1045x30)	.525	No. 2	9	—	–	
8547	AN-00	00(1330x30)	.590	No. 2	9	—	–	

MIL-C-7078A—TYPE 1—600 VOLT

(MIL-W-5086A Type I Conductor Braided Tinned Copper Shield)



Trade Number	MIL Type Designation	AWG & (Stranding)	Nom. O.D (Inch)	Spec. Type	Stock Colors on Standard Spools 100	500	1000	Stock Color
8855	AN-22	22(19x34)	.092	No. 1	9	—	9	**White only (9)**
8854	AN-20	20(19x32)	.102	No. 1	9	—	9	**Additional Description**
8853	AN-18	18(19x30)	.112	No. 1	9	—	9	Stranded tinned copper, white vinyl insulation, nylon jacket, braided tinned copper shield.
8852	AN-16	16(19x29)	.122	No. 1	9	9	–	
8851	AN-14	14(19x27)	.141	No. 1	9	—	–	
8850	AN-12	12(19x25)	.156	No. 1	9	—	–	

Manufactured to current Government specifications and subsequent revisions.

BELDEN PAGE 23

See Prices on four pages at front of Belden listing

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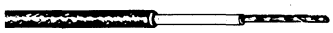
UL TYPE HOOK-UP AND LEAD WIRES

UL-600V-90C (CSA-TYPE TRB)



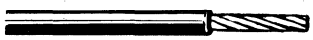
Tinned copper, vinyl insulated, cotton braid, lacquered

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors	Standard Spool Lengths in ft
8937	22(7x30)	.016	.091	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8936	20(10x30)	.017	.098	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8935	18(16x30)	.017	.113	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8934	16(26x30)	.017	.126	1, 2, 3, 4, 5, 9, 10, 13	100, 500
8933	14(41x30)	.031	.177	1, 2, 3, 4, 5, 9, 10, 13	100, 500

For color coding see Page 25.

UL rated 600V for electronic circuits only—300V for other applications.

UL-600V-105C (CSA-600V-TYPE TEW)



Tinned copper, vinyl insulated.

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors	Standard Spool Lengths in ft
8920	22(7x30)	.031	.095	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8919	20(10x30)	.031	.102	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8918	18(16x30)	.031	.112	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8917	16(26x30)	.031	.126	1, 2, 3, 4, 5, 9, 10, 13	100, 500
8916	14(41x30)	.031	.141	1, 2, 3, 4, 5, 9, 10, 13	100, 500

For color coding see Page 25.

UL rated 2500 volts peak for electronic circuits.

GRID WIRE

Description	Trade Number	AWG & Stranding	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Suggested Working Voltage	Breakdown Voltage	Nom. Cap. (mmf/ft)	Standard Spool Lengths in ft
	8885	20(10x30)	.015	.117	300	4000	80	15, 25, 100, 500

Tinned copper, rubber insulated, cellulose acetate braid, lacquered, tinned copper braid shield.

SHIELDING AND BONDING CABLES

Cables conforming to QQB575 can be manufactured on a special order basis.

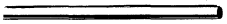
Braided tinned copper.
Standard Spool: 10, 50, 250 feet

Trade Number	Stranding	Approx. Cir. Mil. Area	Nom. I.D. (Inch)	Approx. Flat Dimension (Inch)
8676	16x36	400	1/32	.025x .035
8674	24x36	600	3/64	.030x .045
8660	96x34	3,800	1/8	.050x .150
8668	120x34	4,700	11/64	.060x .205
8663	168x34	6,700	1/4	.060x .275
8661	192x34	7,600	3/8	.060x .310
8669	336x34	13,300	1/2	.060x .520
8672	528x36	13,200	5/8	.040x .580
8662	576x34	22,900	25/32	.100x .590
8670	480x30	48,000	3/4	.125x .750
8671	864x36	21,600	1	.050x1.000

This braided cable will provide approximately 90% shield coverage when applied over the recommended diameter.
For additional sizes, see current BRAIDED AND STRANDED COPPER CABLE CATALOG.

BUS BAR WIRE

Made in accordance with Federal Spec QQ-W-343.



Solid tinned copper.
Standard Spool: 100, 1000 feet

Trade Number	AWG	Nom. O.D. (Inch)	Circular Mil. Area
8025	30	.010	100.0
8024	28	.012	159.0
8023	26	.016	253.0
8022	24	.020	404.0
8021	22	.025	640.0
8020	20	.032	1020.0
8019	18	.040	1620.0
8013	16	.050	2580.0
8012	14	.064	4110.0
8011	12	.080	6530.0

8011 Available in 100' spool only.

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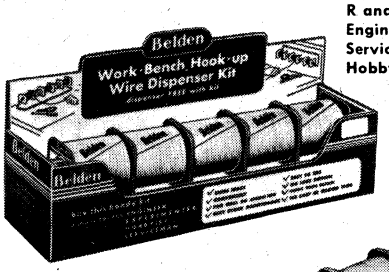
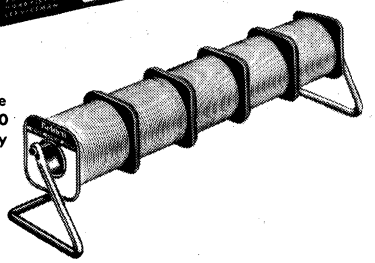
Belden | hook-up wire, antenna and litz wire

KITS—HOOK-UP WIRE ON RACKS



R and D Labs . . .
Engineers . . .
Servicemen . . .
Hobbyists



Specify Trade Number 8800 for Rack only

Each kit contains an assortment of Hook-Up Wire colors and types plus a portable metal dispenser rack for workbench or wall mounting. The dispenser rack provides a complete, compact, and convenient wire department for every working area.

Trade Number	No. of Spools	Spool Lengths	Type of Wire	Colors in Kit
8822	10	25′	20 solid, Type MW vinyl (8529-25)	1, 2, 3, 4, 5, 6, 7, 8, 9, 10
8823	5	100′	20 solid, Type MW vinyl (8529-100)	2, 5, 6, 9, 10
8824	8	25′	20 stranded, Type MW vinyl (8523-25)	1, 2, 3, 4, 5, 6, 9, 10
8825	5	100′	20 stranded, MIL-W-16878D vinyl (8507-100)	9, 14, 15, 16, 17
8826	5	100′	22 stranded, MIL-W-16878D vinyl (8508-100)	9, 14, 15, 16, 17
8827	5	100′	22 stranded, MIL-W-16878D vinyl-nylon (8518-100)	2, 5, 6, 9, 10

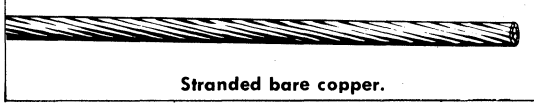
See column below for color coding.

STOCK COLORS

First color in stripe combination is body color and second or third color are stripes (White Black Red)

1	Brown	7	Violet (purple)	13	Dark Blue
2	Red	8	Gray (slate)	14	White Black
3	Orange	9	White	15	White Red
4	Yellow	10	Black	16	White Green
5	Green	11	Tan	17	White Yellow
6	Light Blue	12	Pink		

ANTENNA WIRE

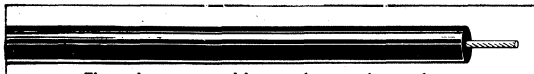


Stranded bare copper.

Copper, Belden Heavy Poly-Thermaleze insulated.

Trade Number	AWG & (Stranding)	Nom. O.D. (Inch)	Standard Spool Lengths in ft.
8002	16(7x24)	.060	50, 100
8000	14(7x22)	.076	50, 75, 100, 1000
8009	14(Solid)	.067	100, 150, 500
8008	12(Solid)	.084	100, 150, 500

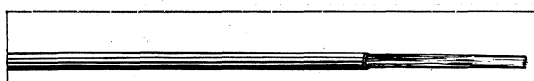
RADIO ANTENNA WIRE



Tinned copperweld, weather-resistant brown polyethylene insulation.

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Standard Spool Lengths in ft
NEW 8201	20(7x28)	.121	.278	100, 500, 1000

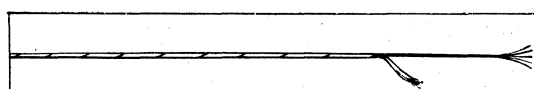
INDOOR ANTENNA WIRE



Tinned copper, chrome vinyl insulated.

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Standard Spool Lengths in ft
8014	25(13x36)	.010	.044	25, 500

LITZ WIRE



Copper, Celenamel†† insulated, nylon wrap.

Trade Number	Stranding	Nom. O.D. (Inch)	Standard Spool Lengths in ft
8817	5x44	.008	100

†† *Belden Trademark—Reg. U.S. Pat. Off.* ☐ *Licensed under U.S. Patent 3,022,200*

BELDEN PAGE 25

See Prices on four pages at front of Belden listing

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magnet wire — mobile communications cable for marine and automotive

Belden

BELDSOL Magnet Wire is a dual film insulated Magnet Wire that combines the excellent dielectric characteristics of Polyurethane and the known toughness and solvent resistance offered by an overcoat of nylon. This wire is rated by IEEE tests for 130 C usage and will solder without insulation removal at 750 F.

BELDEN POLY-THERMALEZE is a dual polyester film insulated Magnet Wire rated for 180 C usage and has exceptional ability to resist solvents and abuse in difficult windings.

SINGLE BELDSOL
Solderable

Size	¼ Pound Spool		½ Pound Spool		Turns per Linear Inch	Turns per Square Inch
	Trade Number	Approx. Length (Feet)	Trade Number	Approx. Length (Feet)		
14			**8047**	40	15.2	231
16			**8048**	63	19.1	365
18			**8049**	100	23.9	571
20			**8050**	160	29.9	894
22			**8051**	254	37.5	1410
24			**8052**	404	46.9	2200
26			**8053**	645	59.0	3480
28	**8040**	510	**8054**	1020	73.8	5450
30	**8041**	807	**8055**	1615	91.7	8410
32	**8042**	1257	**8056**	2515	114.0	13000
34	**8043**	2030	**8057**	4060	144.0	20700
36	**8044**	3200	**8058**	6400	180.0	32400
38	**8045**	5070			225.0	50600
40	**8046**	8050			290.0	84100

BELDEN HEAVY POLY-THERMALEZE
High Temperature

Size	½ Pound Spool		1 Pound Spool		Turns per Linear Inch	Turns per Square Inch
	Trade Number	Approx. Length (Feet)	Trade Number	Approx. Length (Feet)		
14	**8059**	40	**8073**	80	14.9	222
16	**8060**	63	**8074**	126	18.6	346
18	**8061**	100	**8075**	199	23.2	538
20	**8062**	157	**8076**	315	28.9	835
22	**8063**	250	**8077**	501	36.0	1296
24	**8064**	396	**8078**	793	44.7	1998
26	**8065**	630	**8079**	1260	55.7	3102
28	**8066**	995	**8080**	1990	69.4	4816
30	**8067**	1570	**8081**	3140	86.2	7430
32	**8068**	2440	**8082**	4880	106.0	11236
34	**8069**	3930	**8083**	7860	133.0	17689
36	**8070**	6200	**8084**	12400	167.0	27889
38	**8071**	9700	**8085**	19400	225.0	50600
40	**8072**	16050	**8086**	32100	290.0	84100

38 AWG & 40 AWG Polyester, Blue Color

PRIMARY WIRE—MARINE AND AUTO

S.A.E. TYPE G.P.T.
Bare copper, vinyl insulated.

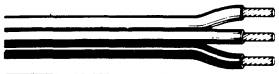
Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Color	Standard Spool
8685	16 (19x29)	.023	.102	Black	100
8684	14 (19x27)	.023	.117	Green	100
8683	12 (19x25)	.026	.142	Red	100
8682	10 (19x23)	.031	.175	White	100
8681	8 (19x21)	.037	.219	Chrome	100
8680	6 (37x21)	.043	.290	Chrome	100
NEW 8679	4 (61x22)	.061	.350	Chrome	100

MARINE RADIO ANTENNA WIRE

WEATHER-RESISTANT
Tinned Copperweld polyethylene insulated

Trade No.	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Standard Spool
NEW 8201	20 (7x28)	.121	.278	100, 500, 1000

3 & 4 CONDUCTOR PARALLEL BONDED PRIMARY WIRE



Bare copper, vinyl insulated.

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Color Coding	Standard Spool
8475	16-3 19x29	.023	.102x .295	Wht/Brn Red	100, 500
8476	16-4 19x29	.023	.102x .400	Wht/Brn Yel/Grn	100, 500

Conforms to SAE and Outboard Industries Association Color Coding for boat trailers.

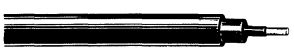
DUPLEX PRIMARY WIRE

Tinned copper, vinyl insulated, conductors parallel, chrome vinyl jacket.

Standard Spools: 100 and 500 feet

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Color Coding
8677	16 (19x29)	.032	.022	.164 x .276	Brn, Red
8675	14 (19x27)	.037	.022	.189 x .326	Brn, Red
8673	12 (19x25)	.040	.022	.213 x .384	Brn, Red
8678	10 (19x23)	.040	.025	.243 x .436	Brn, Red

7 MM IGNITION WIRE



Ignition Radiation Suppression

Standard Spool: 100 feet

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Color
NEW 8688	Elastomer Duoprene G Conductor	.104	.278	Blk.

Tinned Copperweld conductor

Standard Spool: 100 feet

NEW 8689	20 (7x28)	.120	.278	Blk.

Licensed under U.S. Patent 3,022,200

BELDEN PAGE 26

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See Prices on four pages at front of Belden listing

AUDIO CABLE SELECTION GUIDE

The choice of appropriate audio cables for runs of varying distances depends on many factors such as amplifier voltage output and power level as well as load impedances and the percent of power loss which can be tolerated. For this reason it is not practical to provide a general chart showing the recommended wire size for all conditions. The following chart shows the maximum recommended cable runs for various wire sizes selected for commonly encountered load impedances.

Wire Size (AWG)	Maximum Length of Cable Run (Ft.)					
	Low Impedance — 10% Power Loss			High Impedance — 5% Power Loss		
	4 OHM	8 OHM	16 OHM	100 OHM	250 OHM	500 OHM
14	88	176	352	1045	2610	5220
16	55	110	220	630	1574	3150
18	35	70	140	410	1020	2050
20	22	44	88	262	655	1310
22	13	26	52	164	410	820
24	8	16	32	105	262	525

The length of cable run for a given wire size can be doubled if twice the power loss can be tolerated in the cable.

The next smaller size can be used when twice the power loss can be tolerated in the cable and the length of cable run remains the same.

To use this chart for constant voltage systems, determine the load impedance using Step 1 below. If this impedance does not appear on the chart, use Step 2 to determine the maximum length of cable run for each wire size.

STEP 1 $Z\ (\text{Load Impedance}) = \frac{E^2\ (\text{Voltage} \times \text{Voltage})}{P\ (\text{Watts})}$

STEP 2 $\text{Ft. (Max.)} = \frac{\text{Ft. (chart)} \times Z\ (\text{Load Impedance})}{Z\ (\text{chart})}$

FOR EXAMPLE Find maximum length of run for #20 AWG pair in a 70 volt, 25 watt system.

1. $Z = \frac{70 \times 70}{25} = 196$ Ohms 2. Ft. (max.) $= \frac{262 \times 196}{100} = 513$ feet

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Belden Manufacturing Company

See Prices on four pages at front of Belden listing

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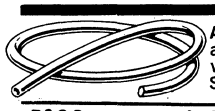
Biraco-105—EXTRUDED PLASTIC TUBING



APPROVED FOR 105°C.-OPERATION — MEETS MIL-1-631D SPECS — A quality plastic Vinyl tubing designed for electronic and electrical insulation work. Has high dielectric strength, extreme flexibility, non-flammability, abrasion resistance, impervious to oil, water, alkalies, solvents, etc., high heat stability and resistance to aging. Meets all A.S.T.M. specifications, Mil. Spec. (Type F, Form U, Grades A and C, Class 2, Category 1).

B&S Gauge Size No.	Birnbach No.	Old Part No.	Nom. I.D.	Nom. Wall
24	**B105-24**	308	.022	.012
22	**B105-22**	311	.027	.012
20	**B105-20**	313	.034	.016
19	**B105-19**	—	.038	.016
18	**B105-18**	314	.042	.016
17	**B105-17**	—	.047	.016
16	**B105-16**	315	.053	.016
15	**B105-15**	—	.059	.016
14	**B105-14**	316	.066	.016
13	**B105-13**	—	.076	.016
12	**B105-12**	317	.085	.016
11	**B105-11**	—	.095	.016
10	**B105-10**	325	.106	.016
9	**B105-9**	—	.118	.020
8	**B105-8**	318	.133	.020
7	**B105-7**	—	.148	.020
6	**B105-6**	326	.166	.020
5	**B105-5**	—	.186	.020
4	**B105-4**	319	.208	.020
3	**B105-3**	—	.234	.020
2	**B105-2**	320	.263	.020
1	**B105-1**	—	.294	.020
0	**B105-0**	—	.330	.020
5/16"	**B105-5/16"**	321	.312	.025
3/8"	**B105-3/8"**	322	.375	.025
7/16"	**B105-7/16"**	—	.438	.025
1/2"	**B105-1/2"**	323	.500	.025
9/16"	**B105-9/16"**	—	.562	.030
5/8"	**B105-5/8"**	324	.625	.030
3/4"	**B105-3/4"**	327	.750	.035
7/8"	**B105-7/8"**	360	.875	.035
1"	**B105-1"**	361	1.000	.035
1 1/8"	**B105-1 1/8"**	—	1.125	.040
1 1/4"	**B105-1 1/4"**	362	1.250	.040
1 3/8"	**B105-1 3/8"**	—	1.375	.040
1 1/2"	**B105-1 1/2"**	363	1.500	.045
1 3/4"	**B105-1 3/4"**	328	1.750	.055
2"	**B105-2"**	329	2.000	.060
2 1/4"	**B105-2 1/4"**	364	2.250	.065
2 1/2"	**B105-2 1/2"**	365	2.500	.070

STANDARD COLORS

EVEN NUMBERS — #24, 22, 20, 18, 16 — Clear Black, Yellow, Red, Green, Brown, Orange, Blue, White, Violet and Gray; #14, 12, 10, 8, 6, 4, 2, 5/16", 3/8", 1/2", 5/8" — Clear, Black, Yellow, Red, Green, Brown, Orange, Blue and White.

ODD NUMBERS — #19, 17, 15, 13, 11, 9, 7, 5, 3, 1, 0 — Clear, Black White; #3/4" thru 2 1/2" — Clear, Black, White.

STANDARD PUT-UPS

#24 thru #15	1,000' - 500' - 100' - 50' - 25' spools
#14 thru #8	500' - 100' - 50' - 25' spools
#4 thru 1/2"	250' - 100' - 50' - 25' coils
9/16" thru 7/8"	100' - 50' - 25' coils
1" & larger	50 coils

SIZES #24 THRU #15 AVAILABLE IN 36" LENGTHS

TABLE OF PHYSICAL & ELECTRICAL PROPERTIES—BIRACO TUBING

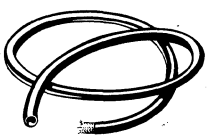
Tensile Strength—2500 Psi. (Minimum Average)
Flammability—Non-Flammable
Ultimate Elongation—340%
Recommended for Temperatures to—105° C
Cold Bend— —40° C
Dielectric Strength .020" Wall—800 V/Mil
Varnish Baking—Good
Water Absorption
Weight Increase (1 Week)—0.1%—Fungi Resistance—Yes
Oil Resistance—Indefinitely flexible when immersed in oil.
Insulation Resistance—over 1,000,000 megohms.

IN STOCK

The Birnbach Line of insulated sleeving and tubing is the basic quality line designed for the rigid performance requirements of the Aircraft, Electrical and Electronic Industries.

Meets or exceeds the required MIL Specifications and ASTM and NEMA standards. We invite your inquiries on special problems and requirements.

Birflex-130—VINYL COATED/FIBERGLASS SLEEVING Per MIL-I-3190B and NEMA Standards to 130° C.



(ASTM, NEMA Grade B-B-1) MEETS MIL-I-3190 SPECS. — Quality Electronic and Electrical Tubing. It is Class B Insulation that combines the best features of the inorganic fiberglass base sleeving with heat resistant, flexible plastic insulation. The plastic compound provides the highest electrical properties, heat stability (130° C.), flexibility and toughness. Meets performance requirements of specs. MIL-I-3190 A, NEMA VSI, ASTM D 372.

Birnbach No.	B&S Ga. Size No.	Old No.	Nom. I.D.
B130-24	24	289	.022
B130-22	22	290	.027
B130-20	20	291	.037
B130-19	19	—	.038
B130-18	18	293	.042
B130-17	17	—	.047
B130-16	16	294	.053
B130-15	15	—	.059
B130-14	14	295	.066
B130-13	13	—	.076
B130-12	12	300	.085
B130-11	11	—	.095
B130-10	10	307	.106
B130-9	9	—	.118
B130-8	8	301	.133
B130-7	7	302	.148
B130-6	6	—	.166
B130-5	5	305	.186
B130-4	4	—	.208
B130-3	3	—	.234
B130-2	2	306	.263
B130-1	1	—	.294
B130-0	0	303	.330
B130-3/8	3/8"	304	.387
B130-7/16	7/16"	—	.450
B130-1/2	1/2"	299	.512
B130-5/8	5/8"	296	.640
B130-3/4	3/4"	—	.768
B130-7/8	7/8"	—	.893
B130-1	1"	—	1.018

SIZES	STANDARD COLORS
#24, 22, 20, 18, 14, 12, 10, 8, 6, 4, 2	Black, Red, White, Yellow, Brown, Orange, Green, Blue, Gray, Purple
5/16", 3/8", 1/2", 5/8"	Black, Red, White, Yellow, Orange, Green, Blue
#19, 17, 15, 13, 11, 9, 7, 5, 3	Black, Red, Yellow, Green
#1, 0, 7/16"	Black, Yellow
3/4", 7/8", 1", 1 1/4", 1 1/2", 1 3/4", 2" 2 1/4", 2 1/2"	Black

OTHER COLORS AVAILABLE TO ORDER

DIMENSIONAL TOLERANCES OF VINYL COATED FIBERGLASS

Size	Apx. I.D.	N.E.M.A. Tolerances Inches
24	.022	.020-.027
22	.027	.025-.032
20	.034	.032-.039
18	.042	.040-.049
16	.053	.051-.061
14	.066	.064-.072
12	.085	.081-.089
10	.106	.102-.112
8	.133	.129-.141
6	.166	.162-.178
4	.208	.204-.224
1/4, 2	.263	.258-.278
5/16	.3125	.312-.328
3/8	.375	.375-.399
1/2	.500	.500-.524
5/8	.625	.625-.655

PHYSICAL & ELECTRICAL PROPERTIES BIRFLEX VINYL COATED FIBERGLASS

Class B
Grade B-1
Dielectric Strength ..... 4000 V.
Temperature Rating ..... 130° C.
Low Temp. Flexibility ..... —30° C.
Non-Flammable
Ins. Resistance ..... Over 1,000,000 MEGS.
Corrosion Resistance ..... Excellent
Oil Resistance ..... Good

COLORS:
Black, Red, White, Yellow, Brown, Orange, Green, Blue, Gray, Purple

STANDARD PUT-UPS

#24 thru #15	1000' - 500' - 250' - 100' - 50' - 25' - 30"
#14 thru #6	500' - 250' - 100' - 50' - 25' - 30"
#5 thru #2	250' - 100' - 50' - 25' - 30"
#1 thru 1/2"	250' - 100' - 50' - 25' - 36"
9/16" to 7/8"	100' - 50' - 25' - 36"
1" thru 2 1/2"	50' - 25'

ALL THE ABOVE TUBING CAN BE ORDERED CUT AND MARKED TO YOUR SPECIFICATIONS

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH RADIO COMPANY INC.

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Birflon — TEFLON* SPAGHETTI TUBING
TFE EXTRUDED TUBING

Birflon T-500 Tubing is extruded from DuPont Tetrafluoroethylene Resin. Used in electronic and electrical equipment for connection of components. Its flexibility, ease of handling has established it as the best and most popular insulation sheathing. This high temperature Class C insulation does not melt and flow as the conventional thermoplastic materials. Birflon T-500 Teflon has unique electrical, chemical and mechanical properties unmatched by any other type tubing for use in applications requiring high frequencies and high temperatures.

Because of Teflon's continuous service temperature of 250° C., which is more than 100° C. above other materials, the soldering technique is simplified since "Teflon" is not harmed by the hot barrel of the soldering iron—therefore, the assembly of aircraft, missile and electronic communication equipment is greatly speeded up. Thin Wall flexible Teflon Tubing can be processed easily into flexible and rigid printed circuits. As a thin, flexible insulation, it permits miniaturization and compactness of design never before possible.

Thin Wall

Birnbach No.	B&S Gauge Size No.	Old No.	Nom. I.D.	Nom. Wall
T500-32	32	8013	.011	.0085
T500-30	30	8014	.012	.009
T500-28	28	8015	.015	.009
T500-26	26	8016	.018	.010
T500-24	24	8000	.022	.010
T500-22	22	8001	.027	.010
T500-20	20	8002	.034	.012
T500-19	19	—	.038	.012
T500-18	18	8003	.042	.012
T500-17	17	—	.407	.012
T500-16	16	8004	.053	.012
T500-15	15	—	.059	.012
T500-14	14	8005	.066	.012
T500-13	13	—	.076	.012
T500-12	12	8006	.085	.012
T500-11	11	—	.095	.012
T500-10	10	8007	.106	.012
T500-9	9	—	.118	.015
T500-⅛	⅛	—	.125	.015
T500-8	8	8008	.133	.015
T500-7	7	—	.148	.015
T500-6*	6	8009	.166	.015
T500-5*	5	—	.186	.015
T500-4*	4	8010	.208	.015
T500-3*	3	—	.234	.015
T500-¼*	¼	—	.250	.015
T500-2*	2	8011	.263	.015
T500-1*	1	—	.294	.015
T500-5/16*	5/16	—	.312	.015
T500-0*	0	8012	.330	.015
T500-⅜*	⅜	8020	.390	.020
T500-7/16*	7/16	8021	.453	.020
T500-½*	½	8022	.515	.025
T500-9/16*	9/16	8023	.583	.025
T500-⅝*	⅝	8024	.640	.030
T500-¾*	¾	8025	.765	.030
T500-⅞*	⅞	8026	.895	.030
T500-1*	1	8027	1.025	.030
T500-1⅛*	1⅛	8028	1.150	.030
T500-1¼*	1¼	8029	1.275	.030

* In random lengths.

STANDARD PUT-UPS

SIZES #32 thru 26 ..... 1000' - 500' - 250' - 100'
SIZES #24 thru 1¼" ..... 1000' - 500' - 250' - 100' - 50' - 25'

Tolerance — Nos. 32 thru 0 — ±.003" on Wall
Tolerance — Nos. ⅜" thru 1¼" — .020" on I.D., .006" on Wall

Biraco — BIRFLON HEAT SHRINKABLE PLASTIC TUBING

BIRNBACH HEAT SHRINK POLYVINYL CHLORIDE PLASTIC TUBING
NEW ALL PURPOSE TUBING WITH CONTROLLED SHRINKAGE (2:1—50%—SHRINK RATIO)

Series SK265 covers heat shrinkable PVC polyvinyl chrolide plastic tubing. This flexible, electrical insulating tubing is extruded and its expansion is arrived at thru a patented secondary operation which builds a memory into the material. The memory is activated via the application of heat at approximately 130°C (266°F). The thinner the wall, the faster the shrinkage. The heavier the wall, the slower the shrinkage. In each case, the diameter is reduced to a predetermined size upon the application of heat and will maintain strength, insulating properties and form stability.

Material is SK265 PVC (Polyvinylchloride), flame resistant, self-extinguishing, dimensions as supplied in its expanded stage and after its recovery, with application of heat in excess of 130°C (266°F) shall be in accordance with noted table. Longitudinal shrink shall not be greater than 10%.

- NEW ALL PURPOSE TUBING — HAS CONTROLLED SHRINKAGE.
- SHRINKS IN SECONDS.
- FORMS A PERMANENT, TIGHT MECHANICAL BOND.
- PVC (POLYVINYLCHLORIDE).

SK265 PVC TUBING PROPERTIES CHART

	RATING	TEST
TENSILE STRENGTH	2960 PSI	ASTM D-876-59-T
ULTIMATE ELONGATION	200%	ASTM D-876-59-T
BRITTLENESS TEMPERATURE	—34° C.	ASTM D-746-57-T
SPECIFIC GRAVITY	1.34	MIL-I-631 D, 4. 6. 12
WATER ABSORPTION	0.06% 24 Hours	ASTM D-570-57-T Proc. A
DIELECTRIC STRENGTH	1050 Volts/Mil	ASTM D-149-55-T
VOLUME RESISTIVITY	5.2 x 10^{14} Ohm-cm	ASTM D-257-58 MIL-I-631 D 4. 6. 13
FUNGUS RESISTIVITY	0-1	MIL-I-631 D 3. 5. 7 and 4. 6. 16
FLAMMABILITY	Self-Extinguishing	ASTM D-876-60-T MIL-I-631 D, 4. 6. 13
FLEXIBILITY AFTER HEAT AGING 200 Hrs. a 100° C. BEND OVER ⅛" MANDREL	GOOD	
CORROSION ON COPPER, BRASS AND ALUMINUM AFTER 14 DAYS a 100° C.	EXCELLENT	MIL-I-7444 B

CHEMICAL RESISTANCE CHART

FUEL JP-4 MIL-J-5624	EXCELLENT
AVIATION GASOLINE 100/130	EXCELLENT
HYDRAULIC OIL MIL-O-5606	EXCELLENT
HYDROCHLORIC ACID 35%	EXCELLENT
WATER	EXCELLENT
SODIUM CHLORIDE 5%	EXCELLENT
ALKALIS	EXCELLENT

*NOTE: SK265 PVC tubing is unsuitable in contact with organic solvents.
SK265 PVC tubing has a higher resistance to oils than low density Polythylene.

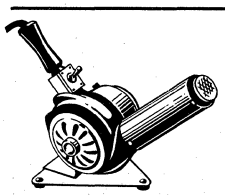
HEAT SHRINKABLE POLYVINYL TUBING DIMENSOIN CHART

Birnbach No.	Size	Min. Expanded	Max. Recovered	Wall Thickness
SK265-1/32"	1/32"	.062	.031	.020
SK265-3/64"	3/64"	.094	.047	.025
SK265-1/16"	1/16"	.125	.063	.025
SK265-3/32"	3/32"	.184	.094	.025
SK265-⅛"	⅛"	.250	.125	.025
SK265-5/32"	5/32"	.313	.156	.025
SK265-3/16"	3/16"	.375	.188	.025
SK265-¼"	¼"	.500	.250	.025
SK265-⅜"	⅜"	.750	.375	.025
SK265-½"	½"	1.00	.500	.030
SK265-¾"	¾"	1.50	.750	.035
SK265- 1"	1"	2.00	1.00	.040

STOCK COLORS: BLACK, WHITE, CLEAR

1/32" Thru ⅛" 500' — 250' — 100' — 50' — 25'
5/32" Thru ¼" 250' — 100' — 50' — 25'
⅜" Thru 1" 100' — 50' — 25'

SK275: Irradiated Polyolefin per MIL-I-23053. Available from stock as above.



HAG-12 Hot Air Gun For PVC Series
HAG-13 Hot Air Gun For TE Series

The quickest and most versatile method for applying heat is the hot air gun noted herein. Also, use of an oven, radiant heat, dipping in hot liquids, or using a soldering iron or the flame of a match.

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH RADIO COMPANY INC.

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MAGNET WIRE PER MIL-W-583B

SOLID TINNED (SOFT DRAWN) SYMBOL TC

Specification MIL-W-3861 Type S, QQ-W-343 Type S, ASTM-B-33

Cat. No.	¼ lb. SPOOL Size B&S	¼ lb. SPOOL Ft.	½ lb. SPOOL Size B&S	½ lb. SPOOL Ft.	1 lb. SPOOL Size B&S	1 lb. SPOOL Ft.	Nom. O.D.
BST-10	10	8	10	16	10	32	.031″
BST-12	12	12	12	25	12	50	.082″*
BST-14	14	20	14	40	14	80	.065″
BST-16	16	32	16	63	16	126	.051″
BST-18	18	50	18	100	18	201	.040″
BST-20	20	80	20	160	20	320	.033″
BST-22	22	127	22	254	22	508	.025″
BST-24	24	201	24	403	24	806	.020″
BST-26	26	320	26	640	26	1280	.016″
BST-28	28	507	28	1015	28	2030	.013″
BST-30	30	805	30	1610	30	3220	.010″
BST-32	32	1282	32	2564	32	5128	.008″
BST-34	34	2037	34	4075	34	8150	.006″
BST-36	36	3221	36	6443	36	12887	.005″
BST-38	38	5132	38	10246	38	20492	.004″
BST-40	40	8143	40	16286	40	32573	.003″

ALL SOLID TINNED COPPER AVAILABLE IN 1000 FT. SPOOLS
BARE COPPER — SOFT DRAWN AVAILABLE FROM STOCK

TINNED COPPER WIRE — SOLID SOFT BRAND

Pure Electrolytic, Copper, annealed, tinned for quick soldering MIL-W-3861 Type S, ASTM-B-33 specifications, QQ-W-343 Type S

Cat. No.	Put-Up	Size AWG	Area Circular Mills	O.D.
1433/4	100′ Coil	4	41,704	.204″
1433/6	100′ Coil	6	26,250	.162″
1433	100′ Coil	8	16,510	.129″
1402	100′ Coil	10	10,380	.103″
1403	1000′ Spool	10	10,380	.103″
1406	100′ Coil	12	6,530	.082″
1407	1000′ Spool	12	6,530	.082″
1410	100′ Coil	14	4,107	.065″
1411	1000′ Spool	14	4,107	.065″
1414	100′ Coil	16	2,583	.051″
1415	1000′ Spool	16	2,583	.051″
1418	100′ Coil	18	1,624	.040″
1419	1000′ Spool	18	1,624	.040″
1422	100′ Coil	20	1,022	.033″
1423	1000′ Spool	20	1,022	.033″
1434	1000′ Spool	22	624.4	.025″
1424	1000′ Spool	24	404.0	.020″
1426	1000′ Spool	26	254.1	.016″
1428	1000′ Spool	28	159.8	.013″
1430	1000′ Spool	30	100.5	.010″
1430/32	1000′ Spool	32	63.21	.008″
1430/34	1000′ Spool	34	39.75	.006″
1430/36	1000′ Spool	36	25.00	.005″
1430/38	1000′ Spool	38	15.72	.004″

BUS BAR WIRE (Hard Drawn)

QQ-W-343 type S—MIL-W-3861 type S, ASTM-B-33, ASTM-B-246-51 specifications

For hooking up all types of transmitters, especially ultra short wave equipment. All bus wire is made of hard drawn copper, tinned, straightened, and cut in 2 ft. lengths.

Cat. No.	No.		
2010	10	Round	Tinned
2013	12	Round	Tinned
2014	14	Square	Tinned
2015	14	Round	Tinned
2016	16	Round	Tinned
2018	18	Round	Tinned
2020	20	Round	Tinned
2022	22	Round	Tinned

TUBULAR BRAID PER MIL SPEC. QQ-B-575

Manufactured completely round as noted in MIL Spec. QQ-B-575, this tinned copper shielded braid has self-supporting characteristics which enables it to maintain its round shape. The shielding coverage percentage is 95% or more. This tubular braid is used in military applications where maximum shielding against electrostatic interference is indicated. In addition, it is used as a protective covering against mechanical abrasion and stresses for the wires, cables and other components.

Cat. No.	Nom. Inside Diam. When Rounded	Construction Total No. of Wires	Carriers	AWG of Indiv. Wires	Approx. AWG Equiv.	Nom. Circular Mills	*Current Carrying Capacity Amps
2250-1/32	1/32″	24	24	36	22	640	7.0
2250-1/16	1/16″	48	24	36	19	1,290	11.0
2250-5/64	5/64″	72	24	36	17	1,900	18.0
2250-7/64	7/64″	96	24	36	16	2,500	22.0
2250-1/8	1/8″	120	24	36	15	3,260	28.0
2250-5/32	5/32″	240	24	36	12	6,200	39.0
2250-11/64	11/64″	168	24	36	14	4,500	32.0
2250-3/16	3/16″	192	24	36	13	5,100	35.0
2250-13/64	13/64″	312	24	36	11	8,200	46.0
2250-1/4	1/4″	384	24	36	10	10,400	53.0
2250-3/8	3/8″	384	48	36	10	10,400	53.0
2250-1/2	1/2″	528	48	36	9	13,200	70.0
2250-9/16	9/16″	528	48	36	9	13,200	70.0
2250-11/16	11/16″	720	48	36	7	19,000	82.0
2250-25/32	25/32″	864	48	36	7	21,750	85.0
2250-13/16	13/16″	864	48	36	7	21,750	85.0

STANDARD SPOOL PUT-UPS: 50′ — 100′ — 250′

*Values based on copper in free air at 65°F.
Additional constructions and variations made to order. Also available in silver plated copper, bare copper and stainless steel.

HEAVY FORMVAR (HF) TYPE T2

Single conductor round bare copper, baked film insulation from a varnish based on a vinyl acetal resin. 105°C.

Has new tough abrasion resisting film. Replaces enamel and fabric insulations for certain applications requiring exceptional abrasion resistance. Stable under heat. High dielectric strength. Infinite resistance to water and moisture. Does not fail after two hours at 105°C. Takes up less winding space.

ALL MAGNET WIRE AVAILABLE IN LARGER PUT-UPS

Cat. No.	¼ lb. SPOOL Size B&S	¼ lb. SPOOL Ft.	½ lb. SPOOL Size B&S	½ lb. SPOOL Ft.	1 lb. SPOOL Size B&S	1 lb. SPOOL Ft.	Nom. O.D.
BHF-10	10	8	10	16	10	32	.1056″
BHF-12	12	12	12	25	12	50	.0842″
BHF-14	14	20	14	39	14	78	.0673″
BHF-16	16	31	16	62	16	124	.0539″
BHF-18	18	49	18	99	18	198	.0432″
BHF-20	20	78	20	156	20	313	.0346″
BHF-22	22	125	22	250	22	501	.0277″
BHF-24	24	200	24	399	24	798	.0224″
BHF-26	26	300	26	600	26	1200	.0180″
BHF-28	28	500	28	1000	28	1999	.0144″
BHF-30	30	800	30	1600	30	3200	.0116″
BHF-32	32	1225	32	2450	32	4900	.0095″
BHF-34	34	1988	34	3975	34	7950	.0075″
BHF-36	36	3200	36	6400	36	12800	.0060″
BHF-38	38	5050	38	10100	38	20200	.0049″
BHF-40	40	7975	40	15850	40	31700	.0038″
BHF-42	42	12375	42	24750	42	49500	.0032″
BHF-44	44	14500	44	29000	44	5800	.0026″

PLAIN ENAMEL (PE) TYPE T

Single conductor round bare copper covered with a continuous insulating film of enamel. 105°C.

Cat. No.	¼ lb. SPOOL Size B&S	¼ lb. SPOOL Ft.	½ lb. SPOOL Size B&S	½ lb. SPOOL Ft.	1 lb. SPOOL Size B&S	1 lb. SPOOL Ft.	Nom. O.D.
BPE-10	10	8	10	16	10	32	.1037″
BPE-12	12	12	12	25	12	50	.0825″
BPE-14	14	20	14	40	14	80	.0657″
BPE-16	16	32	16	63	16	126	.0522″
BPE-18	18	50	18	100	18	201	.0416″
BPE-20	20	80	20	160	20	320	.0332″
BPE-22	22	127	22	254	22	508	.0266″
BPE-24	24	201	24	403	24	806	.0212″
BPE-26	26	320	26	640	26	1280	.0169″
BPE-28	28	507	28	1015	28	2030	.0135″
BPE-30	30	805	30	1610	30	3220	.0108″
BPE-32	32	1282	32	2564	32	5128	.0087″
BPE-34	34	2037	34	4075	34	8150	.0069″
BPE-36	36	3221	36	6443	36	12887	.0055″
BPE-38	38	5132	38	10246	38	20492	.0044″
BPE-40	40	8143	40	16286	40	32573	.0034″
BPE-42	42	12803	42	25605	42	51211	.0028″
BPE-44	33	20455	44	40910	44	81819	.0023″

Shielding Braid, Insulated Copper Wire, Braiding

UNINSULATED COPPER WIRE

TINNED COPPER SHIELDING

Used for shielding and bonding on aircraft, marine and auto radio wires and cables. Shields speaker leads, lead-ins, amplifier wires. Extremely flexible, slides over wires and cables.

DESCRIPTION:
No. 853 thru 856/7—Composed of extremely flexible fine soft annealed copper tinned wires closely woven, braided and **Rolled Flat.**

No. 860—Composed of extremely flexible fine soft annealed copper wires closely woven, braided and **Rolled Flat.**

TINNED

Cat. No.	Size & No. of Wires	Inside Diam. Flat.	Approx. O.D. Flat.	Approx. AWG Equiv.	Nom. Circ. Mills	Current Carrying Cap./Amps.
853	12x 2/36	1/32″	3/64″	24	400	6.0
854	12x 2/36	3/64″	1/16″	22	600	7.0
855	16x 3/36	1/16″	3/64″	20	1200	11.00
858	24x 5/36	1/8″	5/32″	18	1800	16.00
859	24x 5/36	3/16″	7/32″	15	3000	25.00
863	24x 7/36	1/4″	9/32″	14	4200	32.00
864	48x 4/36	3/8″	15/32″	12	7200	46.00
868	48x 7/36	1/2″	19/32″	10	9600	53.00
865	48x 8/36	5/8″	23/32″	10	9600	53.00
865/1	48x11/36	3/4″	13/16″	7	20,800	85.00
857	48x19/36	25/32″	27/32″	7	20,800	85.00
856	48x19/36	1″	1 1/16″	7	20,800	85.00
856/1	48x19/36	1 3/8″	1 7/16″	7	53,064	85.00
856/2	48x19/36	1 1/2″	1 9/16″	3	125,425	150.00
856/3	48x27/30	1 3/4″	1 7/8″	001	154,368	280.00
856/4	48x32/30	2″	2 1/4″	000	192,000	310.00
856/6	48x45/30	2 1/2″	2 3/4″	000	216,000	340.00
856/7	48x64/30	3″	3 1/4″	0000	225,000	390.00

BARE

860	24x10/36	1/4″

STANDARD PUT-UPS:
#853 thru #856/1 — 50′ — 100′ — 250′ — 500′ — 1000′
#856/2 thru #856/7 — 50′ — 100′ — 250′
#860 — 50′ — 100′ — 250′ — 500′ — 1000′

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH RADIO COMPANY INC.

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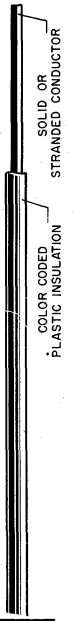
MIL-W-76B PLASTIC WIRE

TYPE MW—UNCOVERED PLASTIC 1,000 V



DESCRIPTION: Solid or extra flexible tinned copper, color coded **medium wall** polyvinylchloride insulation.

CHARACTERISTICS: Temperature rating —40° to +80°C. Voltage rating 1000 volts. Resistant to acids† alkalis, oil, flame, moisture and fungus.

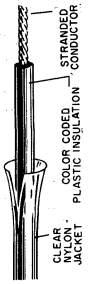
STRANDED

No. Cat.	AWG Size	Type Designation Mil-W-76A	Conductor Strand	Nom. Wall	Volt Rating	Nom. O.D.
7024	22	MW-C 24(16)U	16/36	.015″	1000	.055″
7001	22	MW-C 22(7)U	7/30	.017″	1000	.066″
7003	20	MW-C 20(10)U	10/30	.017″	1000	.074″
7005	18	MW-C 18(16)U	16/30	.017″	1000	.085″
7007	16	MW-C 16(26)U	26/30	.017″	1000	.098″
7009	14	MW-C 14(41)U	41/30	.017″	1000	.114″
7011	12	MW-C 12(65)U	65/30	.017″	1000	.132″

SOLID

7025	24	MW-C 24(1)U	1	.017″	1000	.056″
7000	22	MW-C 22(1)U	1	.017″	1000	.061″
7002	20	MW-C 20(1)U	1	.017″	1000	.068″
7004	18	MW-C 18(1)U	1	.017″	1000	.075″
7026	16	MW-C 16(1)U	1	.017″	1000	.084″

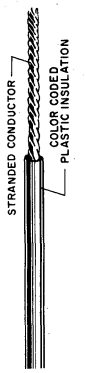
SPECIFICATION MIL-W-76B TYPE MW (Med. Wall)—NYLON JACKET 1000 V (Fungus Proof)



DESCRIPTION: One conductor stranded tinned copper with thermosplastic insulation and extruded nylon jacket overall.

Cat. No.	Size AWG	Mil-W-76A Type Designation	Conductor Strand	Nom. Wall	Volt Rating	Nom. O.D.	Stock Colors
7224	24	MW-C 24(16)J	16/36	.015″	1000	.068″	1-19
7222	22	MW-C 22(7)J	7/30	.017″	1000	.075″	1-19
7220	20	MW-C 20(10)J	10/30	.017″	1000	.087″	1-19
7218	18	MW-C 18(16)J	16/30	.017″	1000	.100″	1-19
7216	16	MW-C 16(26)J	26/30	.017″	1000	.112″	1-19
7214	14	MW-C 14(41)J	41/30	.017″	1000	.122″	1-19
7212	12	MW-C 12(65)J	65/30	.017″	1000	.140″	1-3
7210	10	HW-C 10(105)J	105/30	.045″	600	.240″	1-3

MIL-W-76B—TYPE LW (Light Wall) TYPE LW—LW—VINYL—300 VOLTS TEMP. RATING —40°C TO 80+°C



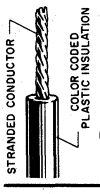
DESCRIPTION: One conductor stranded tinned copper with light wall of primary thermoplastic insulation. Nom. Wall .010″.

CHARACTERISTICS: Temperature rating —40°C to +80°C. Voltage rating 300 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

Cat. No.	Size AWG	MIL-W-76B Type Designation	Conductor Strand	Nom. O.D.
7330	30	LW-C 30(7)U	7/38	.033″
7328	28	LW-C 28(7)U	7/36	.035″
7326	26	LW-C 26(10)U	10/30	.040″
7324	24	LW-C 24(7)U	7/32	.044″
7324/22	22	LW-C 22(7)U	7/30	.050″
7324/20	20	LW-C 20(7)U	7/28	.060″

STOCK COLORS: 1 thru 19, as listed.
STANDARD PUT-UPS: 100′ - 500′ - 1000′

MIL-W-76B TYPE HW (Heavy Wall) 2500 VOLTS (Fungus Proof)



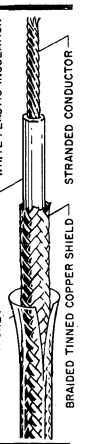
DESCRIPTION: Similar to type MW. One conductor stranded tinned copper with larger wall of primary thermoplastic insulation to take 2500 V RMS.

CHARACTERISTICS: Temperature rating —40°C to +80°C. Resistant to acids, alkalis, oil, flame, moisture and fungus.

Cat. No.	Size AWG	MIL-W-76A Type Designation	Conductor Strand	Nom. Wall	Volt Rating	Nom. O.D.	Stock Colors As Listed
7322	22	HW-C 22(7)U	7/30	.033″	2500	.105″	1-10
7320	20	HW-C 20(10)U	10/30	.033″	2500	.112″	1-10
7318	18	HW-C 18(16)U	16/30	.033″	2500	.122″	1-10
7316	16	HW-C 16(26)U	26/30	.033″	2500	.135″	1-10
7314	14	HW-C 14(41)U	41/30	.045″	600	.175″	1-10
7312	12	HW-C 12(65)U	65/30	.045″	600	.195″	1-10
*7013	10	HW-C 10(105)U	105/30	.045″	600	.217″	1-3
*7015	8	HW-C 8(133)U	133/29	.045″	600	.268″	1-3
*7017	6	HW-C 6(133)U	133/27	.045″	600	.315″	1-3

STANDARD PUT-UPS: 100′ - 500′ - 1000′

MIL-W-76B — TYPE MW — SHIELDED — NYLON JACKET



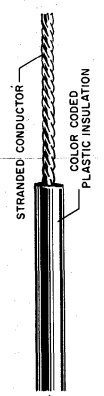
DESCRIPTION: One conductor stranded tinned copper, white medium wall polyvinyl chloride insulation, shielded tinned copper braid, minimum 80% coverage, clear nylon (polymide) jacket overall. Temperature rating —40°C to +90°C. Resistant to acids, alkalis, oil, flame, moisture, fungus.

Cat. No.	Size AWG	MIL-W-76A Type Designation	Strand	Nom. Wall	Volt Rating	Nom. O.D.
7074J	24	MW-C 24(16)SJ	16/36	.015″	1000	.091″
7072J	22	MW-C 22(7)SJ	7/30	.017″	1000	.100″
7070J	20	MW-C 20(10)SJ	10/30	.017″	1000	.105″
7068J	18	MW-C 18(16)SJ	16/30	.017″	1000	.115″
7067J	16	MW-C 16(26)SJ	26/30	.017″	1000	.125″
7066J	14	MW-C 14(41)SJ	41/30	.017″	1000	.138″
7065J	12	MW-C 12(65)SJ	65/30	.017″	1000	.160″

Additional colors available to order.
STANDARD PUT-UPS: 100′ - 500′ - 1000′

PLASTIC HOOK-UP WIRE—MIL-W-16878D

PLASTIC HOOK-UP WIRE — MIL-W-16878D — Type B — High Temperature Vinyl — 600 Volt



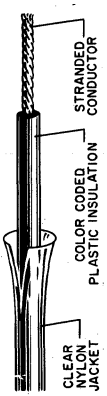
Suitable for general purpose wiring for miniature high temperature hook-ups in aircraft, electronic instruments, devices, etc., where excellent resistance to moisture and solvents may be required.

DESCRIPTION: One conductor stranded tinned copper with rated —55°C to +105°C high temperature thermoplastic light wall insulation. Resistant to acids, alkalis, oil, flame, moisture, solvents, and fungus. Nominal wall: 0.010.

Cat. No.	MIL-W-16878D Type Designation	Size AWG	Conductor Strand	Nom. O.D.
7190	B-32	32	7/40	.028″
7191	B-30	30	7/38	.030″
7192	B-28	28	7/36	.033″
7193	B-26	26	7/34	.037″
7194	B-24	24	7/32	.043″
7195	B-22	22	7/30	.048″
7196	B-20	20	7/28	.057″
7197	B-18	18	7/26	.067″
7198	B-16	16	19/29	.077″

***STOCK COLORS:** 1 thru 19, as listed.
STANDARD PUT-UPS: 100′ - 500′ - 1000′

PLASTIC HOOK-UP WIRE — MIL-W-16878D — Type B — Nylon Jacket — 600 Volt



Suitable for general purpose wiring for miniature high temperature hook-ups in aircraft, electronic instruments, devices, etc., where excellent resistance to moisture and solvents may be required.

DESCRIPTION: Stranded tinned copper, color coded. .010″ polyvinylchloride insulation, clear nylon (polyamide) jacket overall.

CHARACTERISTICS: Temperature rating —55°C to +115°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents, and fungus.

Cat. No.	Mil-W-16878D Type Designation	Size AWG	Conductor Strand	Nom. Wall Thickness		Nom. O.D.
7190N	B-32	32	7/40	.010″	600	.032″
7191N	B-30	30	7/38	.010″	600	.036″
7192N	B-28	28	7/36	.010″	600	.039″
7193N	B-26	26	7/34	.010″	600	.042″
7194N	B-24	24	7/32	.010″	600	.047″
7195N	B-22	22	7/30	.010″	600	.053″
7196N	B-20	20	7/28	.010″	600	.065″
7197N	B-18	18	7/26	.010″	600	.075″
7198N	B-16	16	19/29	.010″	600	.085″

STANDARD PUT-UPS: 100′ - 500′ - 1000′
***STOCK COLORS:** 1 thru 19, as listed.

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH RADIO COMPANY INC.

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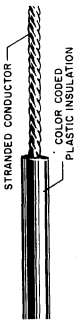
PLASTIC AND TEFLON* — MIL-W-16878D

MIL-W-16878D — Type C — High Temperature — Vinyl Jacket — 1000 Volt



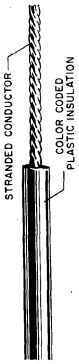
DESCRIPTION: One Conductor Similar to Type B—Heavier Wall Hi-Temp. Thermoplastic. Nom. Wall .016".

CHARACTERISTICS: Temperature rating —55°C to +105°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

Cat. No.	MIL-W-16878C Type Designation	Size AWG	Minimum Strand	Nom. O.D.
7170	C-24	24	7/32	.058"
7171	C-22	22	7/30	.064"
7172	C-20	20	7/28	.073"
7173	C-18	18	7/26	.085"
7174	C-16	16	19/29	.095"
7175	C-14	14	19/27	.109"
7176	C-12	12	19/25	.124"

***STOCK COLORS:** 1 thru 1, as listed.
STANDARD PUT-UPS: 100' - 500' - 1000'

Type D — High Temperature — Vinyl 3000 Volts



DESCRIPTION: One Conductor Stranded Similar to Type C—Heavier Wall Hi-Temp Thermoplastic Insulation. Nom. Wall 24 thru 14 .032, 12 thru 6 .040.

CHARACTERISTICS: Temperature rating —55°C to +105°C. Voltage rating 3000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

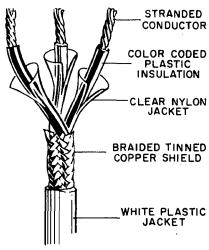
Cat. No.	MIL-W-16878D Type Designation	Size AWG	Cond. Strand	Nom. O.D.
7180	D-24	24	7/32	.084"
7181	D-22	22	7/30	.089"
7182	D-20	20	10/30	.097"
7183	D-18	18	16/30	.107"
7184	D-16	16	26/30	.116"
7185	D-14	14	41/30	.130"
7186	D-12	12	65/30	.163"
7187	D-10	10	105/30	.182"
7188	D- 8	8	133/29	.247"
7189	D- 6	6	133/27	.291"

***STOCK COLORS:** 1 thru 10, as listed.
STANDARD PUT-UPS: 100' - 500' - 1000'

MIL-W-16878D — MULTI-CONDUCTOR CABLE — Type B — Nylon Shielded-Plastic Jacket

DESCRIPTION: Each conductor stranded tinned copper, .010" polyvinylchloride insulation, color coded, clear nylon (polyamide) jacket, conductors cabled, braided tinned copper shield 90% coverage, with polyvinylchloride jacket overall.
CHARACTERISTICS: Temperature rating —55°C to +105°C. Voltage rating 600 volts, resistant to acids, alkalis, oil, flame, moisture, fungus, solvents.

Birnbach No.	No. of Cond.	Conductor Size	Conductor Strand	Nom. Wall Thickness	Nom. Nylon Thickness	Nom. Overall Jacket	Nom. O.D.
7366-1	1	24	19/36	.010"	.003"	.010"	.092"
7366-2	2	24	19/36	.010"	.003"	.016"	.152"
7366-3	3	24	19/36	.010"	.003"	.016"	.161"
7367-1	1	22	19/34	.010"	.003"	.010"	.100"
7367-2	2	22	19/34	.010"	.003"	.016"	.168"
7367-3	3	22	19/34	.010"	.003"	.017"	.178"
7368-1	1	20	19/32	.010"	.003"	.010"	.106"
7368-2	2	20	19/32	.010"	.003"	.019"	.186"
7368-3	3	20	19/32	.010"	.003"	.019"	.196"
7369-1	1	18	19/30	.010"	.003"	.012"	.120"
7369-2	2	18	19/30	.010"	.003"	.021"	.210"
7369-3	3	18	19/30	.010"	.003"	.022"	.227"



STANDARD PUT-UP: 100' - 500' - 1000' **COLOR CODE OF CONDUCTORS:** 1—White, 2—Black, 3—Red

MIL-W-16878D — TEFLON* — HOOK-UP WIRE

MIL-W-16878D — TEFLON† WIRE

Type E—Extruded (600 Volts) — High Temperature Rating — 90° To + 250°C

Chemically inert, non-flammable, excellent flexibility, easy stripping, high dielectric strength, unaffected by fungus. Exceeds Class H insulation requirements. Unaffected by high or low temperature. Outstanding for its dependability and long life under all operating conditions indoors or outdoors. Teflon permits miniaturization and compactness in electronic designs of sub-miniature components, computers, UHF equip., slip ring assemblies, leads to hermetically sealed and potted components, telemetering equip. and guided missiles. Nom wall .010". TFE extruded.

DESCRIPTION: Single conductor silver plated copper wire concentrically stranded and insulated with extruded or Teflon insulation.

Cat. No.	Size AWG	Mil Type Designation	Strand	Diam. Over Insulation Max.
8532	32	E-32	7/40	.033"
8530	30	E-30	7/38	.036"
8528	28	E-28	7/36	.039"
8526	26	E-26	7/34	.043"
8524	24	E-24	19/36	.048"
8522	22	E-22	19/34	.054"
8520	20	E-20	19/32	.062"
8518	18	E-18	19/30	.074"
8516	16	E-16	19/29	.087"
8514	14	E-14	19/27	.097"
8512	12	E-12	19/25	.120"
8510	10	E-10	37/26	.139"

STOCK COLORS: 1 thru 19, as listed.
STANDARD PUT-UPS: 25' - 50' - 100' - 250' - 500' - 1000'

MIL-W-16878D — TEFLON* WIRE

Type EE—Extruded (1000 Volts) MIL-W-16878D

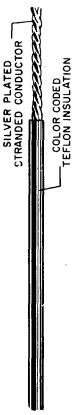
DESCRIPTION: Single conductor silver plated copper wire concentrically stranded and insulated with .016" TFE extruded TEFLON* insulation. Temperature rating —90°C to +260°C 1000 volts.

Cat. No.	Mil Type Designation	Size AWG	Strand	Nom. O.D.
9524	EE-24	24	19/36	.055"
9522	EE-22	22	19/34	.062"
9520	EE-20	20	19/32	.070"
9518	EE-18	18	19/30	.080"
9516	EE-16	16	19/29	.089"
9514	EE-14	14	19/27	.106"
9512	EE-12	12	19/25	.124"
9510	EE-10	10	37/26	.145"
9508	EE- 8	8	133/29	.210"

***STOCK COLORS:** 1 thru 19, as listed.
STANDARD PUTUPS: 100' - 250' - 500' - 1000'

SUBMINIATURE TEFLON* HOOK-UP WIRE

Per MIL-W-16878D Type ET 250 Volts, 200°C



This new exceptionally thin miniature hook-up wire is suitable in miniature slip ring assemblies, as interconnecting wire between wafers in microminiature electronic circuitry, instrument wire, medical wire, subminiature thermo-couple lead wire, strain gauge wire, etc. Provides lighter weight, greater flexibility and hi temperature resistance. Size Nos. 32 thru 20 conform to MIL-W-16878D type ET 250 volts, 200°C.

Cat. No.	Mil Type Designation	Size AWG	Strand	Nom. O.D.
8550/36	——	36	7/44	.018"
8550/34	——	34	7/42	.020"
8550/32	ET-32	32	7/40	.021"
8550/30	ET-30	30	7/38	.024"
8550/28	ET-28	28	7/36	.027"
8550/26	ET-26	26	7/34	.031"
8550/24	ET-24	24	7/32	.036"
8550/22	ET-22	22	7/30	.042"
8550/20	ET-20	20	7/28	.049"

***STOCK COLORS:** 1 thru 19, as listed.
STANDARD PUTUPS: 100' - 250' - 500' - 1000'

TEFLON* TAPE WRAP JACKET OVER SHIELD

Cat. No.	Conds.	AWG Size	Strand	Nom. O.D.
8521	1	24	19/36	.084"
8521/2	2	24	19/36	.128"
8521/3	3	24	19/36	.135"
8521/4	4	24	19/36	.148"
8521/5	5	24	19/36	.162"
8523	1	22	19/34	.090"
8523/2	2	22	19/34	.140"
8523/3	3	22	19/34	.148"
8523/4	4	22	19/34	.162"
8523/5	5	22	19/34	.183"
8525	1	20	19/32	.099"
8525/2	2	20	19/32	.158"
8525/3	3	20	19/32	.167"
8525/4	4	20	19/32	.184"
8525/5	5	20	19/32	.204"
8527	1	18	19/30	.109"
8527/2	2	18	19/30	.178"
8527/3	3	18	19/30	.189"
8527/4	4	18	19/30	.208"
8527/5	5	18	19/30	.230"

STANDARD PUT-UPS: 250' - 500' - 1000'
CONDUCTOR COLOR CODE: 1—White, 2—Black, 3—Red, 4—Green, 5—Yellow.

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH RADIO COMPANY INC.

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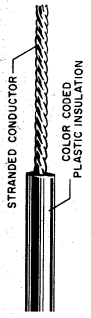
HOOK-UP AND TEST LEAD WIRES

U.L. Plastic Insulated Hook-Up Wire



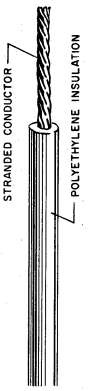
Designed for the chassis, sub-chassis wiring of radio and television receivers and transmitters inside or outside the chassis. UL approved for 105°C. (221°F.) operating temp. **105°C.—600 Volt Rating UL Approved (CSA 600V-90°C)**

DESCRIPTION: One Conductor stranded annealed copper tinned, plastic insulation.

Cat. No.	AWG	Stranding	Nom. Wall	Volt. Breakdown	DC Ins. Res. Megs./Ft.	Max. O.D.
7201	22	7/30	.032"	18000	5000	.100"
7203	20	10/30	.032"	18000	5000	.104"
7205	18	16/30	.032"	18000	5000	.112"
7207	16	26/30	.032"	18000	5000	.129"
7202	22	Solid	.032"	18000	5000	.095"
7204	20	Solid	.032"	18000	5000	.102"

STOCK COLORS: 1 thru 10, as listed
STANDARD PUT-UPS: 100' - 500' - 1000'

Hi-Voltage and Cathode Ray Cable



Used for 10,000, 20,000, 40,000, 60,000 volt applications as for cathode ray tubes in TV receivers, oscilloscopes and other electronic devices. Has dielectric constant of 2.7 and power factor of .002. Shielded Hi-Voltage type used to shield RF radiation in X-Ray, diathermy, medical equipment, and in transmitters.

DESCRIPTION—One conductor stranded copper tinned rulan (flame retarding type) polyethylene insulation. Available white/red tracer. Temp. Rating: 105°C

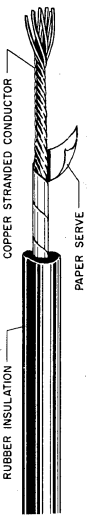
Shielded—Same as above with tinned copper braided shield overall.

UNSHIELDED

Cat. No.	Size AWG	Strand	Nom. Ins. Wall	Suggested Working Vol.	Nom. O.D.
7402	20	10/30	.047"	10,000	.125"
7412	20	10/30	.068"	20,000	.169"
7418	18	16/30	.047"	10,000	.135"
7428	18	16/30	.069"	20,000	.179"
7448	18	16/30	.095"	40,000	.231"
7449	18	16/30	.123"	60,000	.285"
		SHIELDED			
7458	18	16/30	.095"	40,000	.256"

STANDARD PUT-UPS: 100' - 500' - 1000'

KINKLESS TEST LEAD WIRE



Used with portable test equipment; as tested, leads in analyzers, oscillators, instruments; wherever extreme flexibility and limpness is required. Has excellent dielectric properties.

DESCRIPTION:

No. 61—#20—41/36 extra flexible annealed tinned copper, stranded.

No. 66—#18—65/36 extra flexible annealed tinned copper stranded; paper serve; 3/64" special low capacity rubber, wax finish.

Colors: Red, Black.

Types WS-16/U Black, WS-17/U Red; No. 70 per MIL-W-13169 Specification available same construction as Birnbach #66 except compound per specification.

Cat. No.	Size AWG	Strand	Ins.	Puncture Voltage	Nom. O.D.
61	20	41/36	3/64"	20,000 V	.137"
66	18	65/36	3/64"	22,000 V	.145"
70	18	65/36	3/64"	22,000 V	.145"

MILITARY TYPE SPECIFICATION MIL-W-13169B
WS-16/U Black WS-17/U Red
STANDARD PUT-UPS: 100' - 250' - 500' - 1000'

HEAVY DUTY HI-VOLTAGE TYPE

DESCRIPTION:

No. 68—#18—65/36 extra flexible annealed tinned copper; stranded; paper serve; 5/64" special low capacity rubber, wax finish.

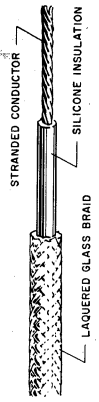
Colors: Red, Black.

Used for oscillators, analyzers, TV, therapeutic instruments, etc.; wherever an extremely flexible high voltage lead is indicated.

Cat. No.	Size AWG	Strand	Ins.	Puncture Voltage	Nom. O.D.
68	18	65/36	5/64"	29,000 V	.210"

STANDARD PUT-UPS: 100' - 250' - 500' - 1000'

200° C — Birsil Silicone Rubber Hook-Up Lead Wire — 600 Volt



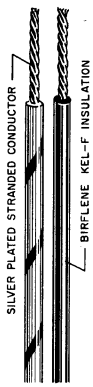
This Birsil Silicone Rubber Hook up lead wire withstands extreme temperature range and flexibility from —104°C. to +400°F. with retention of physical properties and is highly resistant to flex cracking at temperature extremes; fungus resistant; corona resistant; engineered for high-heat and hi-frequency applications; low power factor; acid-alkali-oil resistant; low dielectric constant; insulation approaching mica. Approved by U.L. but consumer must apply for Underwriter's Laboratories approval for individual product.

DESCRIPTION—One conductor, tinned copper strands, silicone rubber insulation, glass braid, lacquered. Color: White.

Cat. No.	Size AWG	Strand	Nom. Ins. Wall	Volt Rating	Breakdown Voltage AC	Nom. O.D.
7622	22	7/30	1/32"	600	11,500	.105"
7620	20	10/30	1/32"	600	18,000	.121"
7618	18	16/30	1/32"	600	21,000	.128"
7616	16	26/30	1/32"	600	20,000	.144"
7614	14	41/30	1/32"	600	15,500	.165"
7612	12	65/30	1/32"	600	14,500	.185"
7610	10	65/28	3/64"	600	20,000	.240"
7608	8	84/27	1/16"	2300	20,000	.320"

Additional sizes and colors available to order.
Types F and FF per MIL-W-16878C available to order.
STANDARD PUT-UPS: 100' - 500' - 1000'

Birflene‡ Kel-F Hook-Up Wire — 125°C to + 175°C Meets MIL-W-12349-Spec



PERFORMANCE SPECIFICATIONS

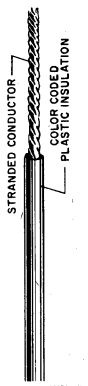
Continuous: —60° to +175°C. **Operating Voltage:** 1000 volts RMS **Spark Test:** 7500 volts. **Dielectric Strength:** 5000 volts at 60°C for 1 minute. **Insulation Resistance:** Greater than 5000 Meg Ohms/1000 Ft. at 60°C. **Moisture Absorption:** Nil. **Flammability:** Non-flammable. **Resistance to Chemicals:** All solvents and acids. **Aging:** Outdoor, 1 year; no detectable change.

DESCRIPTION—One conductor silver plated copper stranded, insulation—Monochlorotrifluoroethylene (Birflene Kel-F).

Cat. No.	Size AWG	Strand	Nom. Ins. Wall	Nom. O.D.
7130	30	7/38	.006"	.029"
7128	28	7/36	.006"	.032"
7126	26	7/34	.008"	.037"
7124	24	7/32	.008"	.043"
7122	22	7/30	.008"	.050"
7120	20	7/28	.010"	.060"
7118	18	16/30	.010"	.070"
7116	16	19/29	.010"	.079"

*Made with Kellogg Co. Kel-F or Bakelite Co. Fluorothene.
STANDARD PUT-UPS: 100' - 500' - 1000'
STOCK COLORS: 1 thru 10 as listed

Miniaturization Hook-Up Wire and Cable
High Temperature 105°C — Unshielded — One Conductor



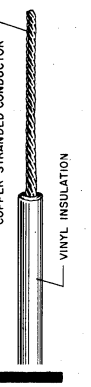
Used in miniaturized equipment Phono-pickup lead computers transistor circuits, electro-medical and electro therapeutic apparatus, instrumentation projects, miniaturization programs, where fine sizes are required with high operating temperature.

DESCRIPTION—One conductor stranded tinned copper with 105°C. high temperature thermoplastic insulation overall.

Cat. No.	No. of Cond.	Size AWG	Conductor Strand	Nom. Wall	Nom. O.D.
7534	1	34	4/40	.010"	.027"
7532	1	32	7/40	.010"	.029"
7530	1	30	7/38	.010"	.030"
7529	1	29	5/36	.010"	.030"
7528	1	28	7/36	.010"	.035"
7527	1	27	7/35	.010"	.037"
7526	1	26	10/36	.010"	.038"
7524	1	24	16/36	.015"	.055"

STOCK COLORS: 1 thru 10, as listed
STANDARD PUT-UPS: 100' - 500' - 1000'

NEW PLASTIC KINKLESS TEST LEAD WIRE



New formulation vinyl compound insulation allows maximum flexibility; rough treatment; extreme variation in climatic conditions; excellent abrasion resistance; greater temperature stability from —80°C to +115°C; fungus resistant; self extinguishing-flame proof; smooth surface. Resists exposure to gasoline and oil.

DESCRIPTION: One conductor tinned copper stranded, special formulation vinyl insulation.

Colors: Black, Red, Yellow, Green, White, Blue.

Cat. No.	Size AWG	Strand	Ins.	Nom. O.D.
1922	22	26/36	.032"	.100"
1920	20	26/34	.032"	.104"
1918	18	65/36	.032"	.112"
1916	16	65/34	.032"	.129"

For portable test equipment; as test leads for instrumentation exceeds the requirements for MIL-I-3930A type JP (PVC). It is superior to synthetic rubber spec MIL-R-6855 Class II Grade 60.
STANDARD PUT-UPS: 100' - 250' - 500' - 1000'

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH RADIO COMPANY INC.

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MULTI-CONDUCTOR, SUB-MINIATURE, AUDIO AND HOOK-UP WIRE

SUB-MINIATURE

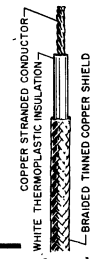
SHIELDED HOOK-UP WIRE

(Super Flexible)

DESCRIPTION: Stranded tinned copper with 105°C. high temperature thermoplastic insulation and tinned copper shielded braid overall.

Cat. No.	No. of Cond.	Size AWG	Conductor Strand	Nom. Wall	Nom. O.D.
7538	1	30	7/38	.010"	.053"
7535	1	28	7/36	.010"	.058"
7537	1	26	10/36	.010"	.061"
7536	1	24	16/36	.015"	.075"

STOCK COLOR: White (under shield)
STANDARD PUT-UPS: 100′ — 250′ — 500′ — 1000′



SUB-MINIATURE

MULTI-CONDUCTOR CABLE

(Super Flexible)

DESCRIPTION: Multi-Cond. tinned copper stranded 105°C high temperature P.V.C. thermoplastic insulation. When jacketed clear P.V.C. thermoplastic used over cabled wire.

NO OUTER JACKET

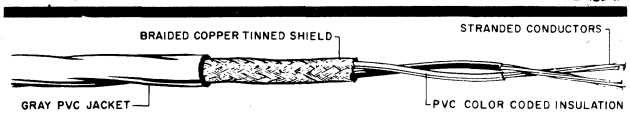
Cat. No.	No. of Cond.	Size AWG	Cond. Strand	Nom. Wall	Nom O.D.
7652	2	30	7/38	.010"	.059"
7653	3	30	7/38	.010"	.065"
7654	4	30	7/38	.010"	.072"

CONDUCTOR COLOR CODE CHART:
1—Black, 2—White, 3—Red, 4—Green

CLEAR VINYL JACKET OVERALL

Cat. No.	No. of Cond.	Size AWG	Cond. Strand	Nom. Wall Jacket	Nom O.D.
7668	2	28	7/36	.010"	.079"
7669	3	28	7/36	.010"	.086"
7670	4	28	7/36	.010"	.095"

CONDUCTOR COLOR CODE CHART:
1—Black, 2—White, 3—Red, 4—Green
STANDARD PUT-UPS: 100′ — 250′ — 500′ — 1000′



SHIELDED PLASTIC JACKETED CABLE

BRAIDED COPPER SHIELD

Designed for P.A. and sound systems, installations in schools, hospitals and institutions, transmitters, recording studios, electronic circuits, etc. The construction of the shield allows ease of pigtail soldering and the shield provides additional strength for the cable.
DESCRIPTION: Each conductor tinned copper, polyvinylchloride insulation color coded, twisted, braided copper tinned shield, gray polyvinylchloride jacket overall. Cables suitable for outdoor installations.

Stranded

Cat. No.	Cond.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	Nom. O.D.
1790	2	22	7/30	.017"	.020"	.175"
1790/3	3	22	7/30	.017"	.020"	.195"
1791	2	20	10/30	.017"	.020"	.195"
1791/3	3	20	10/30	.017"	.020"	.215"
1792	2	18	16/30	.017"	.020"	.235"
1792/3	3	18	16/30	.017"	.020"	.245"
1793	2	16	26/30	.017"	.020"	.255"
1794	2	14	41/30	.020"	.020"	.290"

Solid

DESCRIPTION: Same as above using solid conductors with black PVC jacket overall.

*1797	2	22	1	.017"	.020"	.170"
1798	2	20	1	.017"	.020"	.195"
1799	2	18	1	.017"	.020"	.220"

*No. 22 solid T.C. ground wire under braided copper shield
CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White

MULTI-CONDUCTOR FLEXIBLE CABLE

DESCRIPTION: Each conductor #22 7/30 tinned copper stranded 1/64" thermoplastic insulation, color coded, conductors twisted, gray vinyl plastic jacket overall. Used for signal, P.A. systems. Electronic computer cable, suitable for outdoor use.

Cat. No.	Cond.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	Nom. O.D.
156	2	22	7/30	.010"	.020"	.140"
157	3	22	7/30	.010"	.020"	.145"
158	4	22	7/30	.010"	.020"	.170"
159	5	22	7/30	.010"	.020"	.175"
160	6	22	7/30	.010"	.020"	.185"
161	7	22	7/30	.010"	.020"	.190"
162	8	22	7/30	.010"	.020"	.200"
163	9	22	7/30	.010"	.020"	.225"
164	10	22	7/30	.010"	.020"	.235"
165	12	22	7/30	.010"	.020"	.255"
165/15	15	22	7/30	.010"	.020"	.280"
165/20	20	22	7/30	.010"	.020"	.310"
165/25	25	22	7/30	.010"	.020"	.340"
165/30	30	22	7/30	.010"	.020"	.365"
165/40	40	22	7/30	.010"	.020"	.425"
165/50	50	22	7/30	.010"	.020"	.500"
165/60	60	22	7/30	.010"	.020"	.530"

STANDARD PUT-UPS: 100′ - 250′ - 500′ - 1000′

SUB-MINIATURE

MULTI-CONDUCTOR CABLE SHIELDED

(Super Flexible)

DESCRIPTION: Multi-conductor, tinned copper stranded 105°C high temperature P.V.C. thermoplastic insulation, tinned copper shield. When jacketed clear P.V.C. Thermoplastic jacket used over tinned copper shield.

NO OUTER JACKET

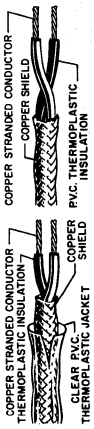
Cat. No.	No. of Cond.	Size AWG	Cond. Strand	Nom. Wall	Nom. O.D.
7542	2	24	16/36	.015"	.114"
7542/3	3	24	16/36	.015"	.123"
7542/4	4	24	16/36	.015"	.144"

CONDUCTOR COLOR CODE CHART:
1—Black, 2—White, 3—Red, 4—Green

CLEAR VINYL JACKET OVERALL

Cat. No.	No. of Cond.	Size AWG	Cond. Strand	Nom. Wall Jacket	Nom. O.D.
7552	2	28	7/36	.010"	.137"
7552/3	3	28	7/36	.010"	.145"
7552/4	4	28	7/36	.010"	.163"

CONDUCTOR COLOR CODE CHART:
1—Black, 2—White, 3—Red, 4—Green
STANDARD PUT-UPS: 100′ — 250′ — 500′ — 1000′



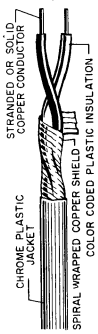
SPIRAL WRAPPED SHIELDED AUDIO and MULTI-CONDUCTOR CABLE

Plastic Jacketed — with Spiral wrapped copper shield

Designed for P.A. and sound systems, installations in schools, hospitals, and institutions, recording studios, transmitters, paging and call systems.
DESCRIPTION: Each conductor copper tinned, 1/64 plastic insulation, color coded, twisted, spiral wrapped tinned copper shield, gray plastic jacket overall.

Cat. No.	Cond.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	Nom. O.D.
941	2	22	7/30	.017"	.020"	.171"
941/1	1	22	7/30	.017"	.020"	.120"
941/3	3	22	7/30	.017"	.020"	.190"
941/4	4	22	7/30	.017"	.020"	.205"
941/6	6	22	7/30	.017"	.020"	.240"
950	2	22	1	.017"	.020"	.169"
942	2	20	10/30	.017"	.020"	.190"
942/1	1	20	10/30	.017"	.020"	.129"
943	3	20	10/30	.017"	.020"	.208"
944	4	20	10/30	.017"	.020"	.222"
945	6	20	10/30	.017"	.020"	.260"
946	1	18	16/30	.017"	.020"	.139"
947	2	18	16/30	.017"	.020"	.230"
947/3	3	18	16/30	.017"	.020"	.228"
947/4	4	18	16/30	.017"	.020"	.243"
948	2	16	26/30	.017"	.020"	.250"
949	3	16	26/30	.017"	.020"	.249"

CONDUCTOR COLOR CODE: 1-Black, 2-Red, 3-White, 4-Green
STANDARD PUT-UP: 100′ - 250′ - 500′ - 1000′



SHIELDED PLASTIC JACKETED CABLE with ALUMINUM MYLAR* FOIL SHIELD

This cable is extremely light in weight and provides 100% shield coverage at audio and radio frequencies.
DESCRIPTION: Each conductor tinned copper, color coded polyethylene insulation, twisted with #22 7/30 stranded tinned copper drain wire, aluminum Mylar* foil shield, gray polyvinylchloride jacket overall.

Cat. No.	Cond.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	Nom. O.D.
1890	2	22	7/30	.015"	.020"	.165"
1890/3	3	22	7/30	.015"	.020"	.175"
1890/4	4	22	7/30	.015"	.020"	.190"
1891	2	20	10/30	.015"	.020"	.180"
1891/3	3	20	10/30	.015"	.020"	.190"
1891/4	4	20	10/30	.015"	.020"	.200"
1892	2	18	16/30	.017"	.020"	.220"
1892/3	3	18	16/30	.017"	.020"	.230"
1892/4	4	18	16/30	.017"	.020"	.240"

CONDUCTOR COLOR CODE: 1-Black, 2-Red, 3-White, 4-Green
STANDARD PUT-UP: 100′ - 500′ - 1000′

PLASTIC—MULTI-CONDUCTOR MICROPHONE

Gen'l. Purpose Shielded Multi-Conductor Cable

Used with carbon and all low impedance microphones, control circuits, video and audio inter-connections cable, broadcast studio use.
DESCRIPTION: Each conductor tinned copper, Polyethylene insulation—color coded. Multi conductors are cushioned with jute filters, cotton wrapped under tinned copper shield, chrome vinyl jacket overall.

Cat. No.	Size No. Cond.	Awg. Stranding	Nom. Cap./Ft.	Nom. O.D.
1842	2	22 16/34	31MMF	.231"
1843	3	20 26/34	39MMF	.295"
1844	4	20 26/34	43MMF	.320"
1845	5	20 26/34	48MMF	.345"
1846	6	20 26/34	54MMF	.370"
1846/8	8	20 26/34	57MMF	.330"
1846/10	10	20 26/34	60MMF	.375"
1846/12	12	20 26/34	64MMF	.385"
1846/15	15	20 26/34	67MMF	.410"
1846/20	20	20 26/34	71MMF	.455"

STANDARD PUT-UPS: 100′ — 250′ — 500′ — 1000′

COLOR CODE OF CONDUCTORS: 1—Black, 2—White, 3—Red, 4—Green, 5—Yellow, 6—Blue, 7—Brown, 8—Orange, 9—Slate, 10—Purple, 11—White/Black, 12—White/Red, 13—White/Green, 14—White/Yellow, 15—White/Blue, 16—White/Brown, 17—White/Purple, 18—White/Slate, 19—Black/Red, 20—Black/Yellow.

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH RADIO COMPANY INC.

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MICROPHONE, MULTI-CONDUCTOR AND SERVICE CORD CABLE

RUBBER JACKETED MULTI-CONDUCTOR CABLE (Not Shielded)
GENERAL PURPOSE CONTROL CABLE

Used for permanent or portable P.A. systems, sound recording, indoor or outdoor speakers, interconnecting cable for all electronic uses. Each conductor, extra flexible stranded tinned copper, insulated with a .022" wall, special low capacity rubber, color coded, conductors twisted, filler, cotton wrap with tough weatherproof black rubber jacket overall.

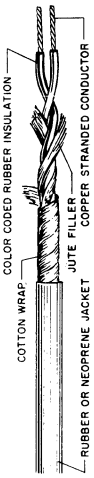
Cat. No.	Cond.	Size No. Awg	Strand.	Cap. Bet. 1 Cond. & Others	Nom. O.D.
788	2	20	26/34	40 Mmf	.245"
790	3	20	26/34	50 Mmf	.260"
792	4	20	26/34	53 Mmf	.285"
794	5	20	26/34	56 Mmf	.305"
796	6	20	26/34	58 Mmf	.320"
798	7	20	26/34	60 Mmf	.335"
749	8	20	26/34	63 Mmf	.370"
749/10	10	20	26/34	65 Mmf	.415"
749/12	12	20	26/34	67 Mmf	.435"
749/15	15	20	26/34	70 Mmf	.505"
749/20	20	20	26/34	79 Mmf	.570"

COLOR CODE OF CONDUCTORS: 1-Black, 2-White, 3-Red, 4-Green, 5-Yellow, 6-Blue, 7-Brown, 8-Orange, 9-Slate, 10-Purple, 11-White/Black (Braid), 12-White/Red (Braid), 13-White/Green (Braid), 14-White/Yellow (Braid), 15-White/Blue (Braid), 16-White/Brown (Braid), 17-White/Purple (Braid), 18-White/Slate (Braid), 19-Black/Red (Braid), 20-Black/Yellow (Braid).

STANDARD PUTUPS: 100′ — 250′ — 500′ — 1000′

RUBBER & NEOPRENE SERVICE CORD (Heavy Duty) — UL APPROVED

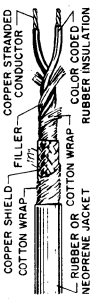
For power line requirement where rough usage is indicated as for amplifiers, sound systems, speakers, vacuum cleaners, washing machines, trouble lights, refrigerators, etc. Color coded. Underwriters approved. Neoprene construction recommended for equipment exposed to oil, acids, outdoor use, direct burial, etc. Each conductor, copper conductor, paper separator, color coded, rubber insulation, filler, separator, tough rubber or neoprene jacket.



RUBBER Cat. No.	U/L Type	NEOPRENE Cat. No.	U/L Type	Std. Put-ups	Conds.	Size No. Awg	Strand	Amp Rating	Volt Rating	Nom. O.D.
701	SV	690	SVO	250′	2	18	41/34	7	300	.250"
***701/3**	SV	690/3	SVO	250′	3	18	41/34	7	300	.265"
574	SJ	691	SJO	250′	2	18	41/34	7	300	.300"
575	SJ	692	SJO	250′	3	18	41/34	7	300	.330"
575/4	SJ	692/4	SJO	250′	4	18	41/34	7	300	.360"
578	SJ	693	SJO	250′	2	16	65/34	10	300	.325"
578/3	SJ	693/3	SJO	250′	3	16	65/34	10	300	.365"
578/4	SJ	693/4	SJO	250′	4	16	65/34	10	300	.395"
702	S	694	SO	250′	2	18	16/30	7	600	.390"
702/3	S	694/3	SO	250′	3	18	16/30	7	600	.435"
702/4	S	694/4	SO	250′	4	18	16/30	7	600	.435"
703	S	695	SO	250′	2	16	26/30	10	600	.410"
703/3	S	695/3	SO	250′	3	16	26/30	10	600	.430"
703/4	S	695/4	SO	250′	4	16	26/30	10	600	.485"
704	S	696	SO	250′	2	14	41/30	15	600	.540"
704/3	S	696/3	SO	250′	3	14	41/30	15	600	.560"
704/4	S	696/4	SO	250′	4	14	41/30	15	600	.605"
705	S	697	SO	250′	2	12	65/30	20	600	.605"
705/3	S	697/3	SO	250′	3	12	65/30	20	600	.635"
705/4	S	697/4	SO	250′	4	12	65/30	20	600	.665"
706	S	698	SO	250′	2	10	103/30	25	600	.640"
706/3	S	698/3	SO	250′	3	10	103/30	25	600	.690"
706/4	S	698/4	SO	250′	4	10	103/30	25	600	.745"

Additional Conductors Available *701/3 has tinned copper wire
CONDUCTOR COLOR CODE: 1—White, 2—Black, 3—Green, 4—Red

SERVICE CORD PER MIL-C-3432C SPEC
WITH CERTIFICATON — INSPECTION AVAILABLE

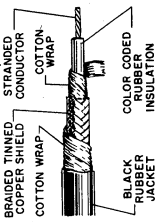


Cat. No.	Mil Type	Spec. Designation	Conds.	Awg. Size	Spec. No.	Nom. O.D.
M-218	CO-02	MGF	2	18	MIL-C-3432A	.300"
H-218	CO-02	HGF	2	18	MIL-C-3432A	.380"
L-218	CO-02	LGF	2	18	MIL-C-3432A	.250"
H-216	CO-02	HGF	2	16	MIL-C-3432A	.405"
M-216	CO-02	MGF	2	16	MIL-C-3432A	.338"
M-214	CO-02	MGF	2	14	MIL-C-3432A	.400"
H-214	CO-02	HGF	2	14	MIL-C-3432A	.535"
M-318	CO-03	MGF	3	18	MIL-C-3432A	.330"
M-316	CO-03	MGF	3	16	MIL-C-3432A	.375"
H-312	CO-03	HOE	3	12	MIL-C-3432A	.635"

ADDITIONAL NUMBERS AVAILABLE — YOUR INQUIRIES INVITED

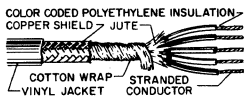
RUBBER MICROPHONE CABLE

Designed for long service life and low loss. Use with crystal, ribbon, dynamic and velocity microphones and photoelectric cells. Birnbach **#870** is used widely for lapel microphones and phono pick ups.



DESCRIPTION: **Single Conductor, 26 Strands—#34** extra flexible tinned copper, special low loss rubber compound, tinned copper braid shield, cotton wrap, tough black rubber jacket overall.

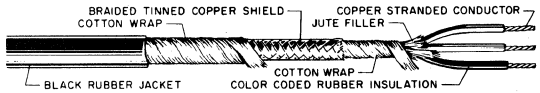
Cat. No.	Spool	Cond.	Size No. Awg.	Stranding	Nom. Cap./Ft.	Nom. O.D.
870	100′	1	20	26/34	40 Mmf	.175"
872	100′	1	20	26/34	30 Mmf	.245"



RUBBER OR NEOPRENE MICROPHONE General Purpose Multi-Conductor Shielded Control Cable

DESCRIPTION: Each Conductor, extra flexible stranded tinned copper, insulated with a .002" wall special low capacity rubber, color coded, conductors twisted, filler cotton wrap, tinned copper braided shield, cotton wrap with tough weatherproof black rubber or neoprene jacket overall.

Used for indoor and outdoor crystal, carbon and condenser microphones, public address systems, and control circuits, video and audio inter-connecting cable, broadcast and heavy-duty studio use.



RUBBER JACKET

Cat. No.	Cond.	Size Awg.	Strand.	Nom. Cap. Between 1-Cond. & Shield	Nom. Cap. Between 1-Cond. & Others Connected to Shield	Nom. Cap. Between 1-Cond. & Others	Nom. O.D.
772	2	20	26/34	65 Mmf	68 Mmf	43 Mmf	.280"
772/18	2	18	41/34	70 Mmf	73 Mmf	48 Mmf	.300"
773	3	20	26/34	68 Mmf	72 Mmf	55 Mmf	.290"
773/18	3	18	41/34	68 Mmf	72 Mmf	55 Mmf	.350"
774	4	20	26/34	68 Mmf	74 Mmf	57 Mmf	.300"
774/18	4	18	41/34	68 Mmf	74 Mmf	57 Mmf	.335"
775	5	20	26/34	75 Mmf	76 Mmf	58 Mmf	.330"
776	6	20	26/34	71 Mmf	80 Mmf	60 Mmf	.350"
777	7	20	26/34	72 Mmf	85 Mmf	62 Mmf	.365"
778	8	20	26/34	74 Mmf	90 Mmf	65 Mmf	.390"
778/10	10	20	26/34	75 Mmf	92 Mmf	67 Mmf	.440"
778/12	12	20	26/34	77 Mmf	93 Mmf	69 Mmf	.525"
778/15	15	20	26/34	79 Mmf	95 Mmf	71 Mmf	.595"
778/20	20	20	26/34	83 Mmf	96 Mmf	75 Mmf	.660"

COLOR CODE OF CONDUCTORS: 1-Black, 2-White, 3-Red, 4-Green, 5-Yellow, 6-Blue, 7-Brown, 8-Orange, 9-Slate, 10-Purple, 11-White/Black (Braid), 12-White/Red (Braid), 13-White/Green (Braid), 14-White/Yellow (Braid), 15-White/Blue (Braid), 16-White/Brown (Braid), 17-White/Purple (Braid), 18-White/Slate (Braid), 19-Black/Red (Braid), 20-Black/Yellow (Braid).

NEOPRENE JACKET — HEAVY DUTY

DESCRIPTION: Each conductor stranded tinned copper, color coded rubber insulation, cotton wrap, braided tinned copper shield, cotton wrap, tough black neoprene jacket overall.

APPLICATIONS: Shielded microphone and electronic power cable. Control circuits: Video and Audio inter-connecting cable. Broadcast and heavy studio use, and for ground support equipment related to guided missile systems.

CHARACTERISTICS: Oil and acid resistant. Suitable for outdoor use and direct burial. Will resist aging and rough usage. Neoprene jacket.

No.		Cond.	Size Awg.	Strand.	Wall Thick.	Nom. Jacket	Nom. O.D.
1781	500′	1	18	41/34	.040"	.030"	.250"
1782	500′	2	18	41/34	.020"	.035"	.305"
1783	500′	3	18	41/34	.020"	.035"	.325"
1784	500′	4	18	41/34	.020"	.035"	.335"
1786	500′	6	18	41/34	.020"	.035"	.430"

MICROPHONE CABLE COLOR CODE CHART: 1-Black, 2-White, 3-Red, 4-Green, 5-Yellow, 6-Blue, 7-Brown, 8-Orange.

STANDARD PUT-UPS: 100′ — 250′ — 500′ — 1000′

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH RADIO COMPANY INC.

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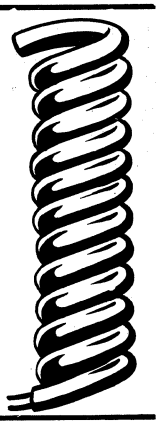
RETRACTILE CORDS

RETRACTILE COILED COMMUNICATION CORD

Multi-conductors stranded communication cord No. 23 AWG. Tinned copper wire neoprene or Geon plastic jacketed. Long lengths can be cut to exact requirement. Adds product reliability. Useful wherever cords must change length or position. Nom. cond. resistance .022 ohms per linear foot, .185 ohms per retracted foot. Maximum working voltage 120 volts. Current carrying capacity 1 ampere.

Cat. No.	Retracted Length	Approx. Length Extended	Cond.	Size AWG	Strand	Coil O.D.	Nom. O.D.
875-2	24″	12 Ft.	2	23	21/36	¾″	.200″
875	36″	18 Ft.	2	23	21/36	¾″	.200″
875-4	48″	25 Ft.	2	23	21/36	¾″	.200″
876-2	24″	12 Ft.	3	23	21/36	¾″	.210″
876	36″	18 Ft.	3	23	21/36	¾″	.210″
876-4	48″	25 Ft.	3	23	21/36	¾″	.210″
877-2	24″	12 Ft.	4	23	21/36	13⁄16″	.240″
877	36″	18 Ft.	4	23	21/36	13⁄16″	.240″
877-4	48″	25 Ft.	4	23	21/36	13⁄16″	.240″
878-2	24″	12 Ft.	5	23	21/36	1″	.285″
878	36″	18 Ft.	5	23	21/36	1″	.285″
878-4	48″	25 Ft.	5	23	21/36	1″	.285″
878/6-2	24″	12 Ft.	6	23	21/36	1⅛″	.305″
878/6	36″	18 Ft.	6	23	21/36	1⅛″	.305″
878/6-4	48″	25 Ft.	6	23	21/36	1⅛″	.305″
878/7-2	24″	12 Ft.	7	23	21/36	1¼″	.320″
878/7	36″	18 Ft.	7	23	21/36	1¼″	.320″
878/7-4	48″	25 Ft.	7	23	21/36	1¼″	.320″
878/8	48″	25 Ft.	8	23	21/36	1 3⁄32″	.360″
878/10	48″	25 Ft.	10	23	21/36	1 3⁄32″	.380″
878/12	48″	25 Ft.	12	23	21/36	1 7⁄32″	.410″
878/15	48″	25 Ft.	15	23	21/36	1 9⁄32″	.470″
878/37	48″	25 Ft.	37	23	21/36	2½″	.680″

CONDUCTOR COLOR CODING: 1-Black, 2-White, 3-Red, 4-Green, 5-Blue, 6-Yellow, 7-Brown, 8-Orange, 9-White/Black Tracer, 10-White/Red Tracer, 11-White/Green Tracer, 12-White/Blue Tracer, 13-White/Yellow Tracer, 14-White/Brown Tracer, 15-White/Orange Tracer. Also available in retracted lengths of 12″, 24″ and 48″.



RETRACTILE (KINKLESS) COILED SHIELDED COMMUNICATION CORDS

DESCRIPTION: Single and multi-conductor shielded microphone cable neoprene or geon plastic jacketed. This cable remains neat and compact with no danger of tripping or of the wire becoming entangled in equipment. Also suitable for stereo and additional speaker extensions. Shield can be pigtailed for soldering. No. 24 AWG Str. is 41/40 tinned soft cad. copper: No. 23 has 21/36 tinned soft cad. copper. Spiral wrapped tinned soft copper shielding.

Cat. No.	Retr. Length	Approx. Length Extended	Cond.	Size AWG	Coil O.D.	Nom. O.D.	Maximum Working Voltage	Capacitance MMF Lin. Ft.	Capacitance MMF Retr. Ft.	Std. Pkg.
895	48″	25 Ft.	1	No. 24 Shielded	5⁄16″	.160″	75	56	440	10
895A	12″	6 Ft.	1	No. 24 Shielded	5⁄16″	.160″	75	56	440	10
895B	6″	3 Ft.	1	No. 24 Shielded	5⁄16″	.160″	75	56	440	10
896	48″	25 Ft.	2	1-No. 23 1-No. 24 Shielded	7⁄16″	.200″	#23-120 #24- 75	56	450	10
896A	12″	6 Ft.	2	1-No. 23 1-No. 24 Shielded	7⁄16″	.200″	#23-120 #24- 75	56	450	10
897	48″	25 Ft.	3	2-No. 23 1-No. 24 Shielded	7⁄16″	.240″	#23-120 #24- 75	56	450	10
897A	12″	6 Ft.	3	2-No. 23 1-No. 24 Shielded	7⁄16″	.240″	#23-120 #24- 75	56	450	10
899	48″	25 Ft.	2	2-No. 24 Shielded	7⁄16″	.210″	75	56	450	10
899A	12″	6 Ft.	2	2-No. 24 Shielded	7⁄16″	.210″	75	56	450	10
898	48″	25 Ft.	4	2-No. 23 2-No. 24 Shielded	1″	.270″	#23-120 #24- 75	56	460	10
898A	12″	6 Ft.	4	2-No. 23 2-No. 24 Shielded	1″	.270″	#23-120 #24- 75	56	460	10

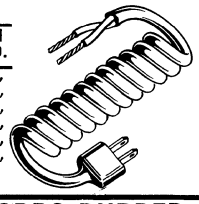
Additional conductors and sizes available. CONDUCTORS ARE COLOR CODED.

RETRACTILE (KINKLESS) POWER CORD SETS

Excellent for portable use. All mobile equipment and office equipment wherever the device application is synonymous with repetitive movement. The "Answer" to most tough hazard problems. 2 and 3 conductors SVO and SJO Retractile Kinkless Neoprene Service Cord Sets with Molded Male Plug one end, other end stripped for application. Adds reliability, compactness and portability.

Cat. No.	Retracted Length	Length Ext.	Cond.	Size AWG	UL Type	Strand	Coil O.D.
880	18″	9 Ft.	2	18	SVO	41/34	1″
880/3	18″	9 Ft.	3	18	SVO	41/34	1 1⁄16″
881	18″	9 Ft.	2	18	SJO	41/34	1¼″
881/3	18″	9 Ft.	3	18	SJO	41/34	1½″
882	18″	9 Ft.	2	16	SJO	65/34	1½″
882/3	18″	9 Ft.	3	16	SJO	65/34	1½″

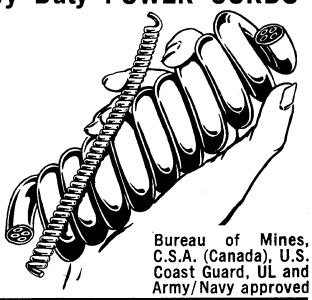
CONDUCTOR COLOR CODING: 1-Black, 2-White, 3-Green.



RETRACTILE Super Heavy Duty POWER CORDS

THIS IS A NEW CORD and should not be confused with cords of lesser quality.

BB Cat. No.	Conds.	Size AWG	Strand.	Nom. JKT. Thkns.	Nom. O.D.
1300	3	16	65/34	7/64″	.505″
1300/4	4	16	65/34	7/64″	.535″
1301	3	14	41/30	7/64″	.620″
1301/4	4	14	41/30	7/64″	.660″
1302	3	12	65/30	8/64″	.715″
1302/4	4	12	65/30	8/64″	.770″



Bureau of Mines, C.S.A. (Canada), U.S. Coast Guard, UL and Army/Navy approved

RETRACTILE (KINKLESS) POWER CORDS RUBBER, NEOPRENE AND PLASTIC — UL AND CSA APPROVED

DESCRIPTION: Multi-conductor power cords, each conductor stranded copper, tough rubber, neoprene or geon plastic jacket overall UL and CSA approved. Available from stock in indicated lengths, can be cut to desired length.

Cat. No.	Retracted Length	Approx. Length Ext.	No. Cond.	Size AWG	Strand	UL Type	Amp. Rating	Volt Rating	Coil Nom. O.D.	Cord. Nom. O.D.
886-2	24″	12′	2	18	41/34	SVO	7	300	7⁄16″	.250
886	36″	18′	2	18	41/34	SVO	7	300	7⁄16″	.250
886-4	48″	25′	2	18	41/34	SVO	7	300	7⁄16″	.250
886/3-2	24″	12′	3	18	41/34	SVO	7	300	1″	.275
886/3-3	36″	18′	3	18	41/34	SVO	7	300	1″	.275
886/3	48″	25′	3	18	41/34	SVO	7	300	1″	.275
887-2	24″	12′	2	18	41/34	SVT	7	300	7⁄16″	.250
887	36″	18′	2	18	41/34	SVT	7	300	7⁄16″	.250
887-4	48″	25′	2	18	41/34	SVT	7	300	7⁄16″	.250
889-2	24″	12′	2	18	41/34	SJO	7	300	13⁄16″	.310
889	36″	18′	2	18	41/34	SJO	7	300	13⁄16″	.310
889-4	48″	25′	2	18	41/34	SJO	7	300	13⁄16″	.310
890-2	24″	12′	2	18	41/34	SJT	7	300	13⁄16″	.310
890	36″	18′	2	18	41/34	SJT	7	300	13⁄16″	.310
890-4	48″	25′	2	18	41/34	SJT	7	300	13⁄16″	.310
889/3-2	24″	12′	3	18	41/34	SJO	7	300	1 3⁄16″	.330
889/3	36″	18′	3	18	41/34	SJO	7	300	1 3⁄16″	.330
889/3-4	48″	25′	3	18	41/34	SJO	7	300	1⅜″	.330
889/4-2	24″	12′	4	18	41/34	SJO	5.6	300	1 7⁄16″	.360
889/4	36″	18′	4	18	41/34	SJO	5.6	300	1 7⁄16″	.360
889/4-4	48″	25′	4	18	41/34	SJO	5.6	300	1 7⁄16″	.360
889/5-2	24″	12′	5	18	41/34	—	5.6	300	1¾″	.440
889/5	48″	25′	5	18	41/34	—	5.6	300	1¾″	.440
889/7-2	24″	12′	7	18	41/34	—	5.6	300	1 7⁄16″	.500
889/7	48″	25′	7	18	41/34	—	5.6	300	1⅞″	.500

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH RADIO COMPANY INC.

© U.C.P., Inc.

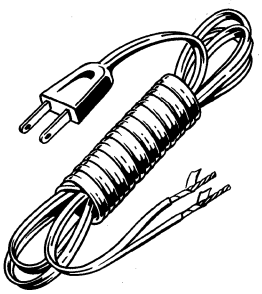
CORD SETS

SERVICE LINE CORDS
UL Approved

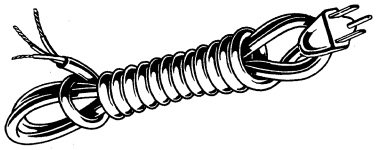
An all purpose approved power supply cord for radios, record players, lamps, & small appliances.

DESCRIPTION: Two Conductors Rubber Parallel SP-1 (POSJ) **with Molded-on Male Plug,** double brass blades, conductor end striped and tinned, hanked. Available in Black and Brown.

Cat. No.	Length Ft.	Cond.	Size AWG	Strand	Nom. O.D.
1-816	6	2	18	41/34	.130x.235
1-817	7½	2	18	41/34	.130x.235
1-819	10	2	18	41/34	.130x.235
1-820	12	2	18	41/34	.130x.235
1-821	15	2	18	41/34	.130x.235
1-822	20	2	18	41/34	.130x.235



HEAVY DUTY SERVICE CORD
CSA APPROVED — (HEAVY DUTY) — UL APPROVED



Used for heavy duty replacement on refrigerators, washing machines, machinery, tools and electronic devices.

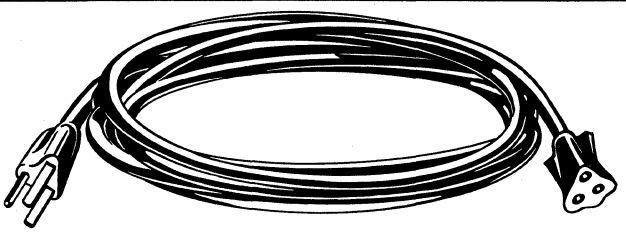
DESCRIPTION: Two and Three Conductors, Stranded Bare Copper, cotton serve, rubber insulation, jute filler, cotton wrap, tough rubber jacket overall, molded plug one end, free end stripped and tinned for easy attachment — Hankd.

Cat. No.	Length Ft.	Cond.	Size AWG	UL Type	Strand	O.D.
1-301	6	2	18	SV	41/34	.250
1-309	9	2	18	SV	41/34	.250
1-312	12	2	18	SV	41/34	.250
1-304	20	2	18	SV	41/34	.250
1-309/3	9	3	18	SV	41/34	.265
1-306	8	2	18	SJ	16/30	.300
1-307	10	2	18	SJ	16/30	.300
1-308	12	2	18	SJ	16/30	.300
1-347	8	3	18	SJ	16/30	.330
1-310	10	3	18	SJ	16/30	.330
1-311	12	3	18	SJ	16/30	.330
1-348	8	2	16	SJ	26/30	.325
1-313	10	2	16	SJ	26/30	.325
1-314	12	2	16	SJ	26/30	.325
1-346	8	3	16	SJ	26/30	.355
1-316	10	3	16	SJ	26/30	.355
1-317	12	3	16	SJ	26/30	.355

HEAVY DUTY EXTENSION CORD SETS
(UL & CSA APPROVED)

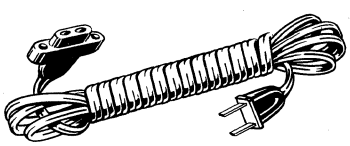
DESCRIPTION: Extension cord sets manufactured for lasting service with a flexible 2 or 3 conductor quality black rubber cord. This rugged cord has a black molded plastic male and female plug on either end to fit conventional sockets and plugs.

APPLICATION: Small business machines, vacuum cleaners, lamps, movie projectors, or any other home appliance. 3 conductor cord used when 1 conductor requires grounding.



Cat. No.	Length Ft.	Cond.	Size AWG	UL Type	Strand	O.D.
1-401	6	2	18	SV	41/34	.250
1-402	9	2	18	SV	41/34	.250
1-403	10	2	18	SJ	16/30	.300
1-404	25	2	18	SJ	16/30	.300
1-405	50	2	18	SJ	16/30	.300
1-406	10	2	16	SJ	26/30	.330
1-407	25	2	16	SJ	26/30	.330
1-408	50	2	16	SJ	26/30	.330
1-409	100	2	16	SJ	26/30	.330
1-410	15	3	18	SJ	16/30	.330
1-411	25	3	18	SJ	16/30	.330
1-412	50	3	18	SJ	16/30	.330
1-413	15	3	16	SJ	26/30	.360
1-414	25	3	16	SJ	26/30	.360
1-415	50	3	16	SJ	26/30	.360
1-416	100	3	16	SJ	26/30	.360

TV POWER SUPPLY CORD—UL APPROVED



Used extensively as replacement of damaged or worn out TV cords.

DESCRIPTION: Six Foot Rip Strip TV U.L. Approved Safety Cord. 2-cond. No. 18 SP-1 (POSJ) brown rubber cord with molded male plug and TV molded-on connector on other end.

Cat. No. 1-815 Television Power Supply Cord 6 Feet

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH RADIO COMPANY INC.

© U.C.P., Inc.

ELECTRONIC LACING CORD/TAPE
To Meet JAN-T-713 — COMP-P - Type S — MIL-T-713A - Type P*

FLAT BRAIDED LACING TAPE — NYLON

Flat braided Hi-Tenacity Nylon Fiber impregnated with (MW) microcrystalline fungicidal wax. Engineered to stay flat. Distributes stress evenly over a wide area. Resistant to fungus, flame, abrasion, acids. Will not cut or damage insulation. Has strength, toughness and stability.

PUT UP ON 500 YARDS PER TUBE

Cat No.		Class	Width	Thick.	Test lbs.	Yd./Lb.
1035	Natural White	—	.200″	.014″	150	250
1035B	Black	—	.200″	.014″	150	250
1036	Natural White	1	.120″	.014″	80	550
1036B	Black	1	.120″	.014″	80	550
1037	Natural White	2*	.090″	.014″	50	750
1037B	Black	2*	.090″	.014″	50	750
1038	Natural White	3	.062″	.010″	30	1500
1038B	Black	3	.062″	.010″	30	1500
1039	Natural White	4	.046″	.010″	15	2400
1039B	Black	4	.046″	.010″	15	2400

DACRON

Flat Braided Hi-Tenacity Dacron Fiber impregnated with special non-slip fungicidal finish. Will not cut or damage insulation. Engineered to stay flat—for strength, toughness, stability. Will not cut insulation.

PUT UP ON 500 YARDS PER TUBE

Cat. No.		Width	Thick.	Test lbs.	Yd./Lb.
1041	Natural White	.120″	.014″	80	450
1041B	Black	.120″	.014″	80	450
1042	Natural White	.090″	.014″	48	600
1042B	Black	.090″	.014″	48	600
1043	Natural White	.060″	.010″	35	850
1043B	Black	.060″	.010″	35	850
1044	Natural White	.046″	.010″	25	1100
1044B	Black	.046″	.010″	25	1100

ROUND NYLON LACING CORDS

This nylon lacing cord manufactured to meet Spec. MIL-T-713A Type P, Composition P, Classes 3, 2, 1. Wax finished — compounded with a fungicide to resist mildew.

PUT UP ON 1 LB. TUBES

	Cat. No. Natural	Cat. No. Black	Yds.	Diam.	Breaking Strength Lbs.
Class 1	**1070**	**1070B**	600	.039″	70
Class 2	**1071**	**1071B**	800	.029″	48
Class 3	**1072**	**1072B**	1140	.025″	32
Class 4	**1072/1**	**1072/1B**	2400	.020″	20

TEFLON-FIBERGLASS

Flat Braided Fiberglass, teflon coated and bonded for hi-temperature applications (550°F). Engineered to stay flat — for strength, toughness and stability. Teflon finish increases tensile strength and abrasion resistant surface. Will not cut or damage insulation. Color: White.

PUT UP ON 500 YARDS PER SPOOL

Cat. No.	Width	Thickness	Test Lbs.	Yd./Lb.
1045	.170″	.025″	150	200
1046	.120″	.020″	90	200
1047	.080″	.020″	70	280

TEFLON*

Flat Braided Teflon for hi-temperature applications (550°F). Engineered to stay flat. Will not cut or damage insulation. Color: Brown.

PUT UP ON 500 YARDS PER SPOOL

Cat. No.	Width	Thickness	Test Lbs.	Yd./Lb.
1048	.100″	.016″	35	325
1049	.075″	.010″	15	700

ROUND LINEN LACING CORDS

This linen lacing cord is made from pure flax treated with microcrystalline wax compounded with fungicide to resist mildew. The twelve, eight and six ply cord meet Spec. MIL-T-713A Type N, Classes 1, 2 and 3 respectively. Color: Natural. Also available in Black in 1 lb. Tubes.

4 OZ. TUBES

Cat. No.	Yds.	Class	Ply	Diam.	Lb. Test
1073	210	—	4	.036″	22
1076	150	3	6	.044″	33
1082	115	2	8	.051″	50
1079	100	—	9	.054″	56
1085	75	1	12	.063″	72

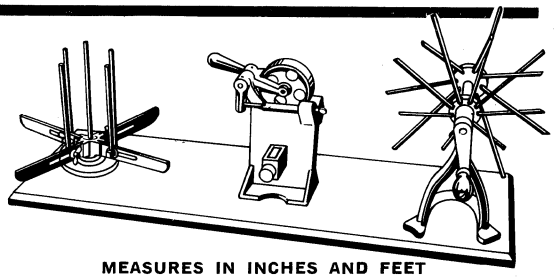
8 OZ. TUBES

1074	425	—	4	.036″	22
1077	300	3	6	.044″	33
1083	235	2	8	.051″	50
1080	200	—	9	.054″	56
1086	150	1	12	.063″	72

1 LB. TUBES

Cat. No.	Cat. No.	Yds.	Class	Ply	Diam.	Lb. Test
1075 Natural	**1075B Black**	850	—	4	.036″	22
1078 Natural	**1078B Black**	600	3	6	.044″	33
1084 Natural	**1084B Black**	470	2	8	.051″	50
1081 Natural	**1081B Black**	400	—	9	.054″	56
1087 Natural	**1087B Black**	300	1	12	.063″	72

NEW—COMPLETE WIRE MEASURING OUTFIT
ACCURATE • COMPACT • NOISELESS



MEASURING MACHINE

Sturdy and compact construction. Has a precision quality built counter with large numbers for easy reading and will register wire up to .9,999 feet for direct accurate reading. Can be easily reset to zero position.

Wire passes through two rollers, the upper roller being self-adjusting and the tension of the upper roller can be set by a thumb screw to provide the proper grip for very fine as well as for heavy wire.

Two hardened lead bushings with an opening of 5/8″ diameter will guide the wire properly through the rollers. Bushings are removable to allow cables up to 1″ dia. to pass through. Will measure accurately all electric wires, cables, coaxial cables, rope, tape, etc.

WIRE WINDER

Has adjustable arms to be set to the desired coil size and the arms will open to a flat position for easy removal of the coil. Simply open thumb screw which holds the front collar tight on the shaft, push the collar in any direction to the desired position and tighten the thumb screw again.

HOLDING REEL

Compact, adjustable to size of coil and folding. Will hold spools or coils of wire.

MEASURES IN INCHES AND FEET

CERTIFICATE OF APPROVAL NO. 498-61

DEPARTMENT OF AGRICULTURE — STATE OF CALIFORNIA

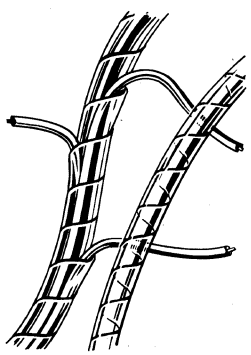
Complete:	Model No.
Wire Measuring Outfit	7389A
Separately:	
Holding Reel	7398-1M
Measuring Machine	7398-2MA
Wire Winder	9398-3M

HarnessRAP

This new spiral wrapping provides a readily flexible and strong protection for groups of conductors. Because of the facility with which it is applied it is particularly useful for temporary or experimental wiring as well as permanent installations. Leads can be brought out at any point to make a "tailor-made" harness, strong, secure, tight-fitting.

Harnessrap retains its elasticity and can be removed as easily as it is applied, then reused again and again.

Because of its flexibility it is especially useful for harnesses that carry wiring around sharp corners or that are subject to repeated flexing or bending.



Part No.	Outside Diameter	Wall Thickness
POLYETHYLENE		
BHR-⅛	⅛″	.031
BHRX-¼	¼″	.032
BHR-⅜	⅜″	.058
BHR-½	½″	.058
FLAME RETARDANT (RULAN)		
BHRF-¼	¼″	.058
BHRF-⅜	⅜″	.058

MADE IN FOUR SIZES

⅛″ O.D. 1/16″ to ½″ wire groups
¼″ O.D. 3/16″ to 1½″ wire groups
⅜″ O.D. 5/16″ to 2″ wire groups
½″ O.D. ¾″ to 4″ wire groups

PHYSICAL CHARACTERISTICS

	Standard Polyethylene	Flame Retarded Polyethylene
Temp. Range	—140°F+200°F	—90°F+180°F
Flammability	0.94	Self. Ext.
Tensile Strgth.	1700	1500
Water Absorp.		.02
24 hours	.03	2.7
Dielectric Con.	2.3	15
Wgt. thous. ft.	10	

COLORS: Natural (White). Additional colors and sizes available on request.

AVAILABLE IN 25′ - 100′ - 500′ - 2000′ Lgths.

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

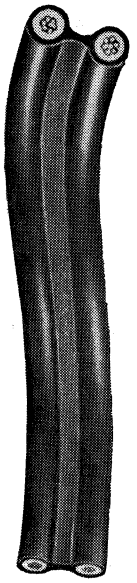
BIRNBACH RADIO COMPANY INC.

© U.C.P., Inc.

Columbia

DURAFOAM UHF/VHF TELEVISION TRANSMISSION LINE*

Over 25,000,000 Feet Already in Use



Durafoam quality is so high that we can offer an unconditional 15 year guarantee. Its high reliability construction features two tubes of cellular polyethylene, to assure low signal loss, and a heavy black polyethylene Permaline insulation, to offer the maximum protection against deterioration caused by moisture, chemicals, salts and sunlight.

Durafoam is also extremely easy to install, cutting down the amount of time required fo reach job.

Cat. No.	
5790L	50 ft.
5790S	65 ft.
5790C	100 ft.
5790D	500 ft.
5790M	1000 ft.

* U. S. Pat. #3,219,752

PERMALINE TV TRANSMISSION LINES

It is now over 12 years since Columbia introduced Permaline television transmission line, the only television wire available today with a written guarantee against deterioration. In all this time we have yet to replace one single foot of this wire for reasons of deterioration, proving beyond all doubt that Permaline insulation has no equal for long life under the most severe atmospheric conditions.

Permaline is a high molecular weight polyethylene containing a very small percentage of carbon black to provide maximum resistance to the ultra violet rays in sunlight which has been proven the chief factor in the deterioration of ordinary television wire.

Electrical characteristics of Permaline are very similar to brown polyethylene television lines, but as there is no deterioration attenuation remains constant instead of increasing as is the case with brown polyethylene which becomes brittle and cracks. Remember it is not how THICK but how GOOD!

25 YEAR WARRANTY

80 Mil 20 Ga. Str. PERMALINE Television Transmission Line
.080 x .395

CAT NO.
5050M.....1,000 Ft. Metal Spool
5050D..... 500 Ft. Metal Spool
5050C..... 100 Ft. Coil } 12 coils come packed in FREE counter
5050S..... 65 Ft. Coil } display
5050R..... 35 Ft. Coil

15 YEAR WARRANTY

50 Mil 20 Ga. Str. PERMALINE Television Transmission Line
.050 x .385

5150M.....1,000 Ft. Metal Spool
5150D..... 500 Ft. Metal Spool
5150C..... 100 Ft. Coil } 12 coils come packed in FREE counter
5150S..... 65 Ft. Coil } display
5150R..... 35 Ft. Coil

Highly resistant to:

• SUNLIGHT • MOISTURE • FAR BELOW ZERO TEMP. • CHEMICAL FUMES • OIL REFINERY FUMES • SALT AIR & SALT SPRAY • ABRASION

Tensile Strength — 2300 lbs. per Sq. In.

Separate Warranty Certificate with every spool or package of Permaline Television Transmission Line.

PERMAFOAM LOW LOSS COAXIAL CABLES

PERMAFOAM is a new type of coaxial cable for television systems, communication work, and all other co-ax applications. A foam polyethylene dielectric replaces the conventional solid polyethylene thus providing far lower capacity and attenuation. In fact, attenuation is approximately 25% lower than standard coaxial cables of same type. Overall jacket is our PERMALINE high molecular weight polyethylene. This non-contaminating jacket is unaffected by salt air, chemical fumes, damp rot, fungus, acids, alkalis, etc., and is remarkably resistant to all extreme weather conditions. Moisture resistance is so high that this insulation is now used on submarine cables. Will withstand severe temperature extremes and is immune to the deteriorating effects of sunlight and other ultra violet. Note: In addition to the PERMAFOAM cables listed below, any other RG U cable is available with a foam polyethylene dielectric on special order.

PERMAFOAM 72-75 OHM COAXIAL CABLE

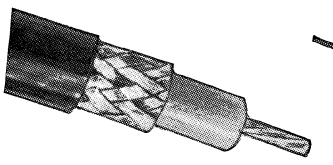
R.G. No.	Nom. Imp.	Attenuation 100 Ft. 100 MC	Wire Size	O.D.	Spool Size	Cat. No.
RG 59 U	73	2.95 DB.	22 Cpwld.	.240	500 Ft.	5035D
					1000 Ft.	5035M
RG 11 U	75	1.50 DB.	14 Solid	.405	500 Ft.	5025D
					1000 Ft.	5025M

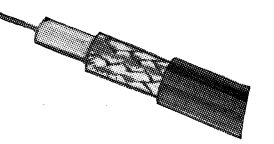
PERMAFOAM 52-53 OHM COAXIAL CABLE

R.G. No.	Nom. Imp.	Attenuation 100 Ft. 100 MC	Wire Size	O.D.	Spool Size	Cat. No.
RG 58 U	53	3.10 DB.	20 Solid	.195	100 Ft.	5045C
					500 Ft.	5045D
					1000 Ft.	5045M
RG 8 U	52	1.50 DB.	7/21	.405	100 Ft.	5015C
					500 Ft.	5015D
					1000 Ft.	5015M
RG 17 U	52	.712 DB.	5 Solid	.870	100 Ft.	5090C
					500 Ft.	5090D
					1000 Ft.	5090M

COLUMBIA STANDARD COAXIAL CABLES

Premium quality standard coaxial cable. Meets all specifications. Black vinyl jacket.





R.G. No.	Nom. Imp.	Nom. Mmfd. Ft.	Wire Size	Overall Jacket	Spool Size	Cat. No.
RG 59 U	73.0	21.0	22 C Weld	Black Vinyl	100 Ft.	1104C
				.240 O.D.	500 Ft.	1104D
					1000 Ft.	1104M
RG 8 U	52.0	29.5	7/21	Black Vinyl	100 Ft.	1154C
				.405 O.D.	500 Ft.	1154D
					1000 Ft.	1154M
RG 11 U	75.0	20.5	7/26	Black Vinyl	100 Ft.	1160C
				.405 O.D.	500 Ft.	1160D
					1000 Ft.	1160M
RG 58 U	53.5	28.5	20 Ga.	Black Vinyl	100 Ft.	1166C
				.195 O.D.	500 Ft.	1166D
					1000 Ft.	1166M
RG 58 A/U	50.0	29.0	19/.0068	Black Vinyl	100 Ft.	1178C
				.159 O.D.	500 Ft.	1178D
					1000 Ft.	1178M

Long Lengths of Any Co-ax Available Upon Request

WRITE TO YOUR LOCAL PARTS DISTRIBUTOR FOR COMPLETELY ILLUSTRATED COLUMBIA WIRE PRODUCTS CO. CATALOG

© U.C.P., Inc.

Columbia

FLEXFOAM ULTRA LOW CAPACITANCE MICROPHONE CABLES — EXCLUSIVE WITH COLUMBIA

Another Columbia first is a complete line of microphone cables with capacity as much as 35% lower than the best regular microphone cables available today. This drastic lowering of capacity has been made possible by the use of foamed polyethylene as the inner dielectric instead of solid polyethylene as normally used. This low capacitance means that lengths of microphone cable can be increased as much as 50%. These cables are also ideal for Hi-Fi and high quality sound work because of the extremely low attenuation, particularly at the higher audio-frequencies. The use of a special flexible vinyl as an outer jacket provides flexibility practically as good as rubber yet has much greater abrasion resistance. Color—Grey.

Also available in high gloss gleaming white jackets.

FLEXFOAM MIKE CABLE WITH BRAIDED SHIELD

		Per Ft.	250 Ft. Spool	Net	500 Ft. Spool
Crystal Size	(.190" O.D.)	16 MMF	No. 1399T	11.90	1399D
Lapel Size	(.140" O.D.)	19 MMF	No. 1379T	9.02	1379D

FLEXFOAM MIKE CABLE WITH SPIRAL SHIELD

Crystal Size	(.190" O.D.)	16 MMF	No. 1389T	11.07	1389D
Lapel Size	(.140" O.D.)	19 MMF	No. 1369T	8.29	1369D
Miniature	(.085" O.D.)	35 MMF	No. 1359T	6.11	1359D

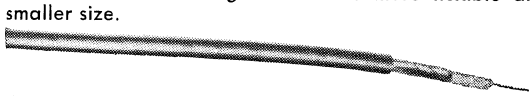
TWO CONDUCTOR PLASTIC MICROPHONE CABLE — .230 O.D. T/C BRAID SHIELD

250 Ft. Spool	22 Ga.	16/34 Stranding	1322T
500 Ft. Spool	22 Ga.	16/34 Stranding	1322D

Nominal Capacitance 30 MMF Per Ft. Between 1 Cond. and Remaining Cond. Connected to Shield

ECONOMY SPIRAL SHIELDED MICROPHONE CABLES

Plastic insulated with wrapped concentric spiral shield for more effective shielding. Cables are more flexible and of smaller size.



CRYSTAL MICROPHONE CABLE .160 O.D.

25 Ga. 7 x 33 Str.

CAT. NO.		
1314T	250 Ft. Spool	Nominal Cap. 25 MMF Per Ft.
1314D	500 Ft. Spool	Nominal Cap. 25 MMF Per Ft.

LAPEL MICROPHONE CABLE .125 O.D.

25 Ga. 7 x 33 Str.

1366T	250 Ft. Spool	Nominal Cap. 33 MMF Per Ft.
1366M	250 Ft. Spool	Nominal Cap. 33 MMF Per Ft.

HEAVY DUTY MICROPHONE CABLE

Heavy duty studio type plastic insulated microphone cable that will withstand abrasion and rough usage.

18 Ga. Str. 41 x 34 Tinned Copper Conductors.
Jute Fillers T/C Shield
.295 O.D.

		CAT. NO.
100 Ft. Spool	Color—Black	3302C
500 Ft. Spool	Color—Black	3302D

Nominal Capacitance 75 MMF. Per Ft.

Also available with bright red jackets for easy identification.

COLUMBIA *SUPER-FLEX*

ULTRA FLEXIBLE FOAM COAXIAL CABLES

We believe Super-Flex Coaxial Cables are the finest available today — not only because of their appearance and flexibility, but because they actually out-perform any similar type of coaxial cable in use today. Cables feature High Gloss Non Contaminating Jackets and have a primary insulation of foam Polyethylene to reduce attenuation as much as 25% over regular types of coaxial cables. In addition to the above features Super-Flex Coaxial Cables will not become rigid in severe cold. Can be used with standard connectors. Ideal for citizens band and amateur use. Perfect for master television systems due to the wide range of colors available. Standard stock colors are: Black-White-Silver or Beige. Other colors to special order with a minimum of 5000 ft. of a color.

SUPER-FLEX RG 8/U 52 OHM IMPEDANCE

19/.020 Conductor. Insulation Foam Poly Dielectric

Cat. No.				
1198C	100 Ft.	RG 8/U	Super-Flex	.405 O.D.
1198D	500 Ft.	RG 8/U	Super-Flex	.405 O.D.
1198M	1000 Ft.	RG 8/U	Super-Flex	.405 O.D.

Cap. 22.1 MMFD Per Ft.

Attenuation 1.50 DB Per 100 Ft. at 100 MC.

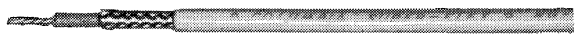
SUPER-FLEX RG 58 A/U 50 OHM IMPEDANCE

19/.0068 Conductor. Insulation Foam Poly Dielectric

1188C	100 Ft.	RG 58 A/U	Super-Flex	.195 O.D.
1188D	500 Ft.	RG 58 A/U	Super-Flex	.195 O.D.
1188M	1000 Ft.	RG 58 A/U	Super-Flex	.195 O.D.

Cap. 22.9 MMFD Per Ft.

Attenuation 4.25 DB Per 100 Ft. at 100 MC.



SUPER-FLEX RG 59/U 73 OHM IMPEDANCE

22 Solid Copperweld Conductor. Insulation Foam Poly Dielectric

1135C	100 Ft.	RG 59/U	Super-Flex	.242 O.D.
1135D	500 Ft.	RG 59/U	Super-Flex	.242 O.D.
1135M	1000 Ft.	RG 59/U	Super-Flex	.242 O.D.

Cap. 16.6 MMFD Ft.

Attenuation 2.95 DB Per 100 Ft. at 100 MC

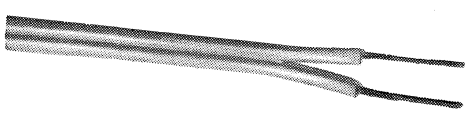
Super-Flex RG 59/U is also available with a 7/31 stranded conductor to provide still more flexibility. Center conductor can be used only with Pin Type Fittings such as used to plug into wall plates for Master Television Systems.

H'VY GAUGE JUKE BOX-H.F. SPKR CABLE

FOR LONG RUNS—LESS LOSS

This cable is similar to the 24 ga. juke box speaker cable listed in our general catalog, except that the 21 ga. conductors in this cable reduce the line loss to exactly half. Ridge in insulation over one conductor plus one tinned and one bare conductor provide double indication of polarity.

COLORS: Clear, Grey, Brown, White, Clear Gold



.180" x .090"

2 COND. 21 GA. STR. 10/31

No. 1360C	100 Ft. Spool
No. 1360D	500 Ft. Spool
No. 1360M	1000 Ft. Spool

WRITE TO YOUR LOCAL PARTS DISTRIBUTOR FOR COMPLETELY ILLUSTRATED COLUMBIA WIRE PRODUCTS CO. CATALOG

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CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

See Following Pages for Specifications

PRICE LIST

No.	Unit Pkg. or Length	Net Price Each
801	25′	.30
801	100′	.90
801	500′	4.15
801	1000′	7.85
811	25′	.35
811	100′	1.05
811	500′	4.85
811	1000′	9.00
821	25′	.35
821	100′	1.05
821	500′	4.85
821	1000′	9.00
831	25′	.43
831	100′	1.20
831	500′	6.00
831	1000′	11.75
841	25′	.46
841	100′	1.65
841	500′	7.50
841	1000′	14.00
846	25′	.51
846	100′	1.70
846	500′	7.85
846	1000′	15.00
851	25′	.42
851	100′	1.50
851	500′	6.60
851	1000′	12.35
856	25′	.50
856	100′	1.85
856	500′	7.65
856	1000′	14.50
861	25′	.60
861	100′	2.15
861	500′	9.90
861	1000′	19.00
866	25′	.55
866	100′	1.90
866	500′	7.65
866	1000′	14.50
871	25′	.61
871	100′	2.20
871	500′	8.70
871	1000′	16.85
876	25′	.70
876	100′	2.55
876	500′	10.55
876	1000′	20.50
881	100′	3.20
881	500′	15.00
881	1000′	29.75
901	25′	.33
901	100′	1.20
901	500′	5.65
901	1000′	10.55
911	25′	.38
911	100′	1.42
911	500′	6.60
911	1000′	12.50
921	25′	.38
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921	500′	7.00
921	1000′	13.85
931	25′	.51
931	100′	1.60
931	500′	7.85
931	1000′	15.45
1001	10′	.35
1001	100′	1.88
1001	250′	4.50
1001	500′	8.50
1001	1000′	16.50
1006	10′	.50
1006	100′	3.30
1006	250′	7.85
1006	500′	15.35
1006	1000′	30.35
1386	50′	1.35
1386	100′	2.63
1386	250′	5.40
1386	500′	10.50
1386	1000′	20.25
1387	50′	1.42
1387	100′	2.70
1387	250′	6.78
1387	500′	12.38
1387	1000′	24.00
1388	50′	1.50
1388	100′	2.85
1388	250′	6.75
1388	500′	13.13
1388	1000′	25.50
1389	50′	1.57
1389	100′	2.92
1389	250′	7.12
1389	500′	13.87
1389	1000′	27.37
1390	50′	1.62
1390	100′	3.07
1390	250′	7.27
1390	500′	14.25
1390	1000′	27.10
1391	50′	1.87
1391	100′	3.52
1391	250′	9.00
1391	500′	17.62
1391	1000′	34.50
1392	50′	2.48
1392	100′	4.80
1392	250′	12.00
1392	500′	23.60
1392	1000′	46.85
1393	50′	3.22
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1394	500′	47.25
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1395	50′	5.55
1395	100′	10.80
1395	250′	27.00
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1398	500′	127.50
1398	1000′	247.50
1399	50′	14.60
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1501	500′	189.00
1501	1000′	189.00
1502	100′	22.13
1502	250′	211.50
1502	500′	210.00
1502	1000′	210.00

2000 Series
See Consolidated Page 5

3815	100′	1.05
3815	1000′	9.00
3816	100′	.75
3816	1000′	6.75
3817	100′	.54
3817	1000′	4.13
3818	100′	.48
3818	1000′	3.38
3819	100′	.38
3819	1000′	2.63
3821	100′	1.47
3821	1000′	13.20
3831	100′	2.03
3831	1000′	20.25
3841	100′	4.20
3841	1000′	39.00
3845	100′	6.45
3845	1000′	60.00
3846	100′	.36
3846	1000′	2.48
3847	100′	.35
3847	1000′	2.33
3848	100′	.33
3848	1000′	2.18
4072	25′	.72
4072	50′	1.35
4072	100′	2.70
4072	250′	23.63M′
4072	500′	23.25M′
4072	1000′	23.25M′
4074	25′	1.65
4074	50′	3.15
4074	100′	5.75
4074	250′	55.00M′
4074	500′	54.00M′
4074	1000′	53.00M′
4077	25′	.60
4077	50′	1.20
4077	100′	2.32
4077	250′	18.00M′
4077	500′	17.90M′
4077	1000′	17.50M′
4079	25′	1.75
4079	50′	2.45
4079	100′	4.50
4079	250′	43.50M′
4079	500′	42.75M′
4079	1000′	42.00M′
4087	100′	6.65
4087	250′	64.25M′
4092	100′	5.75
4092	250′	54.35M′
4202	25′	1.20
4202	50′	2.25
4202	100′	4.45
4202	250′	40.25M′
4207	25′	1.50
4207	50′	2.55
4207	100′	4.90
4207	250′	44.50M′
4212	25′	2.15
4212	50′	3.45
4212	100′	7.70
4212	250′	72.50M′
4214	25′	3.75
4214	50′	7.00
4214	100′	13.50
4214	250′	127.50M′
4217	25′	1.80
4217	50′	3.30
4217	100′	6.30
4217	250′	58.50M′
4222	25′	2.70
4222	50′	4.50
4222	100′	9.65
4222	250′	92.25M′
4224	25′	4.20
4224	50′	8.25
4224	100′	16.20
4224	250′	150.00M′
4227	25′	2.45
4227	50′	4.45
4227	100′	8.35
4227	250′	79.25M′
4232	25′	3.20
4232	50′	6.00
4232	100′	11.50
4232	250′	110.50M′
4234	25′	4.72
4234	50′	9.00
4234	100′	16.95
4234	250′	165.00M′
4237	25′	3.00
4237	50′	5.40
4237	100′	10.30
4237	250′	98.55M′
4242	25′	3.97
4242	50′	7.50
4242	100′	14.00
4242	250′	135.95M′
4244	25′	5.75
4244	50′	10.80
4244	100′	20.70
4244	250′	202.50M′
4247	25′	3.90
4247	50′	7.45
4247	100′	13.95
4247	250′	135.00M′
4252	25′	5.85
4252	50′	11.30
4252	100′	21.60
4252	250′	211.90M′
4254	25′	7.15
4254	50′	15.75
4254	100′	30.45
4254	250′	300.00M′
4257	25′	6.20
4257	50′	12.00
4257	100′	22.50
4257	250′	225.00M′
4262	25′	7.50
4262	50′	14.25
4262	100′	27.20
4262	250′	267.75M′
4264	25′	9.95
4264	50′	19.05
4264	100′	37.20
4264	250′	367.50M′
4267	25′	7.50
4267	50′	14.25
4267	100′	27.75
4267	250′	267.25M′
4272	25′	9.35
4272	50′	17.50
4272	100′	32.55
4272	250′	321.15

For Single Spiral Stripe No. 637-876 Incl., add $1.50 per 1,000 ft.—Minimum quantity 1,000′ per Color.

CONSOLIDATED WIRE PAGE 1

Net

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CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

See Following Pages for Specifications

No.	Unit Pkg. or Length	Net Price Each
4274	25′	12.00
4274	50′	22.75
4274	100′	44.25
4274	250′	435.00M′
4307	25′	1.72
4307	50′	3.15
4307	100′	6.00
4307	250′	54.00M′
4312	25′	2.10
4312	50′	3.90
4312	100′	7.50
4312	250′	71.75M′
4314	25′	3.67
4314	50′	7.05
4314	100′	13.70
4314	250′	134.60M′
4317	25′	2.02
4317	50′	3.67
4317	100′	7.05
4317	250′	64.50M′
4322	25′	2.78
4322	50′	5.25
4322	100′	10.20
4322	250′	97.50M′
4324	25′	4.27
4324	50′	8.15
4324	100′	16.12
4324	250′	157.50M′
4327	25′	2.70
4327	50′	5.10
4327	100′	9.80
4327	250′	95.25M′
4332	25′	3.30
4332	50′	6.20
4332	100′	12.20
4332	250′	119.25M′
4334	25′	5.10
4334	50′	9.60
4334	100′	18.65
4334	250′	184.10M′
4337	25′	3.00
4337	50′	5.70
4337	100′	11.10
4337	250′	108.00M′
4342	25′	4.05
4342	50′	7.65
4342	100′	15.00
4342	250′	145.85M′
4344	25′	5.85
4344	50′	11.40
4344	100′	22.50
4344	250′	222.00M′
4347	25′	3.85
4347	50′	7.49
4347	100′	19.65
4347	250′	163.85M′
4352	25′	6.20
4352	50′	12.00
4352	100′	23.75
4352	250′	234.35M′
4354	25′	8.77
4354	50′	17.17
4354	100′	33.98
4354	250′	336.75M′
4357	25′	7.05
4357	50′	12.90
4357	100′	23.75
4357	250′	234.00M′
4362	25′	8.49
4362	50′	15.83
4362	100′	30.38
4362	250′	241.75M′
4364	25′	11.85
4364	50′	22.50
4364	100′	43.88
4364	250′	276.25M′
4367	25′	9.07
4367	50′	16.87
4367	100′	32.62
4367	250′	314.25M′
4372	25′	12.15
4372	50′	23.02
4372	100′	45.00
4372	250′	435.00M′
4374	25′	14.40
4374	50′	27.60
4374	100′	54.93
4374	250′	527.50M′
4401	100′	53.25M′
4401	500′	51.75M′
4401	1000′	48.75M′
4402	100′	57.75M′
4402	500′	54.00M′
4402	1000′	51.75M′
4405	100′	45.00M′
4405	500′	43.50M′
4405	1000′	41.25M′
4415	100′	117.75M′
4415	500′	116.25M′
4415	1000′	114.00M′
4419	100′	114.00M′
4419	500′	111.00M′
4419	1000′	108.00M′
4431	100′	120.00M′
4431	500′	117.75M′
4431	1000′	112.50M′
4432	100′	262.50M′
4432	500′	255.00M′
4432	1000′	247.50M′
4433	100′	183.00M′
4433	500′	179.25M′
4433	1000′	171.75M′
4434	100′	112.50M′
4434	500′	109.87M′
4434	1000′	105.00M′
4435	100′	135.00M′
4435	500′	133.50M′
4435	1000′	130.50M′
4436	100′	279.75M′
4436	500′	276.75M′
4436	1000′	264.75M′
4437	100′	342.00M′
4437	500′	336.00M′
4437	1000′	322.50M′
4438	100′	361.50M′
4438	500′	358.50M′
4438	1000′	342.00M′
4439	100′	234.00M′
4439	500′	229.50M′
4439	1000′	217.50M′
4440	100′	129.00M′
4440	500′	127.50M′
4440	1000′	124.50M′
4441	100′	225.00M′
4441	500′	222.00M′
4441	1000′	212.25M′
4442	100′	177.25M′
4442	500′	175.05M′
4442	1000′	168.00M′
4443	100′	195.00M′
4443	500′	192.00M′
4443	1000′	183.75M′
4444	100′	255.00M′
4444	500′	252.00M′
4444	1000′	241.50M′
4445	100′	300.00M′
4445	500′	297.00M′
4445	1000′	283.50M′
4446	100′	54.25M′
4446	500′	53.25M′
4446	1000′	51.00M′
4447	100′	87.75M′
4447	500′	86.25M′
4447	1000′	83.25M′
4448	100′	120.00M′
4448	500′	118.50M′
4448	1000′	115.50M′
4449	100′	51.00M′
4449	500′	49.50M′
4449	1000′	47.62M′
4450	100′	56.25M′
4450	500′	54.37M′
4450	1000′	53.62M′
4451	100′	62.25M′
4451	500′	60.75M′
4451	1000′	59.25M′
4452	100′	57.00M′
4452	500′	55.50M′
4452	1000′	52.50M′
4453	100′	63.75M′
4453	500′	63.00M′
4453	1000′	61.50M′
4454	100′	117.75M′
4454	500′	116.25M′
4454	1000′	113.25M′
4455	100′	150.00M′
4455	500′	147.25M′
4455	1000′	138.75M′
4456	100′	94.50M′
4456	500′	93.00M′
4456	1000′	90.00M′
4457	100′	52.50M′
4457	500′	51.00M′
4457	1000′	48.75M′
4459	100′	45.75M′
4459	500′	44.62M′
4459	1000′	42.37M′
4460	100′	103.50M′
4460	500′	102.00M′
4460	1000′	100.50M′
4461	100′	172.50M′
4461	500′	171.00M′
4461	1000′	168.00M′
4462	100′	243.00M′
4462	500′	240.00M′
4462	1000′	238.5M′
4463	100′	126.62M′
4463	500′	123.27M′
4463	1000′	118.87M′
4464	100′	72.75M′
4464	500′	71.25M′
4464	1000′	68.25M′
4465	100′	78.75M′
4465	500′	77.25M′
4465	1000′	74.62M′
4466	100′	101.75M′
4466	500′	99.75M′
4466	1000′	96.75M′
4467	100′	300.00M′
4467	1000′	262.50M′
4468	100′	300.00M′
4468	1000′	262.50M′
4469	100′	102.00M′
4469	500′	100.50M′
4469	1000′	90.00M′
4470	100′	62.25M′
4470	500′	60.75M′
4470	1000′	59.25M′
4471	100′	142.50M′
4471	500′	138.75M′
4471	1000′	135.00M′
4472	100′	64.50M′
4472	500′	63.75M′
4472	1000′	62.25M′
4473	100′	892.50M′
4473	500′	825.38M′
4473	1000′	825.00M′
4474	100′	56.25M′
4474	500′	52.50M′
4474	1000′	51.00M′
4475	100′	275.63M′
4475	500′	262.50M′
4475	1000′	256.50M′
4482	500′	577.50M′
4482	1000′	534.00M′
4483	500′	792.00M′
4483	1000′	729.00M′
4484	500′	91.13M′
4484	1000′	84.75M′
4485	500′	96.00M′
4485	1000′	90.00M′
4486	500′	496.50M′
4486	1000′	472.50M′
4487	500′	277.50M′
4487	1000′	264.00M′
4488	500′	243.75M′
4488	1000′	236.25M′
4489	500′	127.50M′
4489	1000′	126.00M′
4490	500′	337.50M′
4490	1000′	330.00M′
4491	500′	180.00M′
4491	1000′	177.00M′
4492	500′	292.50M′
4492	1000′	277.50M′
4493	500′	587.25M′
4493	1000′	548.25M′
4494	500′	795.00M′
4494	1000′	766.50M′
4495	500′	281.25M′
4495	1000′	273.75M′
4496	500′	134.00M′
4496	1000′	128.25M′
4497	500′	240.00M′
4497	1000′	232.50M′
4500	100′	1.28
4500	500′	9.98M′
4500	1000′	9.98M′
4503	100′	1.65
4503	500′	14.70M′
4503	1000′	14.70M′
4504	100′	1.73
4504	500′	14.15M′
4504	1000′	14.15M′
4506	100′	1.87
4506	500′	15.25M′
4506	1000′	15.25M′
4507	100′	3.00
4507	500′	28.85M′
4507	1000′	28.85M′
4508	100′	1.85
4508	500′	14.85M′
4508	1000′	14.85M′
4509	100′	2.70
4509	500′	24.30M′
4509	1000′	24.30M′
4510	100′	2.60
4510	500′	20.50M′
4510	1000′	20.50M′
4515	100′	2.62
4515	500′	23.50M′
4515	1000′	23.50M′
4521	100′	4.20
4521	500′	40.50M′
4521	1000′	39.75M′
4523	100′	5.62
4523	500′	52.50M′
4523	1000′	52.50M′
4527	100′	2.25
4527	500′	19.00M′
4527	1000′	19.00M′
5103	1000′	32.62M′
5123	500′	41.25M′
5123	1000′	40.50M′
5124	500′	54.00M′
5124	1000′	53.25M′
5135	500′	50.25M′
5135	1000′	50.25M′
5201	100′	1.65
5201	500′	6.60
5201	1000′	13.20M′
5205	100′	2.78
5205	500′	12.38
5205	1000′	24.75M′
5211	100′	3.82
5211	500′	17.25
5211	1000′	33.75M′
5221	100′	5.47
5221	500′	25.13
5221	1000′	50.25M′
5226	100′	5.55
5226	500′	26.25
5226	1000′	52.50M′
5231	100′	9.37
5231	500′	45.00
5231	1000′	90.00M′
5236	100′	9.75
5236	500′	47.25
5236	1000′	94.50M′
5241	100′	7.95
5241	500′	37.50
5241	1000′	75.00M′
5251	100′	10.95
5251	500′	54.75
5251	1000′	109.50M′
5271	100′	13.88
5271	500′	67.50
5271	1000′	135.00M′
5286	100′	25.50
5286	500′	127.50
5286	1000′	255.00M′
5400	10′	.30
5400	25′	.65
5400	100′	2.15
5400	500′	9.00
5400	1000′	18.00M′
5401	10′	.35
5401	25′	.75
5401	100′	2.33
5401	500′	9.75
5401	1000′	19.50M′
5406	25′	.90
5406	100′	2.85
5406	500′	12.75
5406	1000′	25.00
5411	25′	1.05
5411	100′	3.45
5411	500′	15.75
5411	1000′	31.50
5416	15′	.90
5416	100′	4.88
5416	500′	22.85
5416	1000′	45.75M′
5421	15′	.98
5421	100′	5.25
5421	500′	24.75
5421	1000′	49.50
5426	15′	1.05
5426	100′	5.62
5426	500′	26.25
5426	1000′	52.50M′
5431	15′	1.13
5431	100′	6.23
5431	500′	29.25
5431	1000′	58.50M′
5434	100′	8.25
5434	500′	37.50
5434	1000′	75.00M′
5501	100′	3.00
5501	500′	13.50
5501	1000′	25.62M′
5506	100′	4.50
5506	500′	20.25
5506	1000′	40.50M′
5511	100′	2.93
5511	500′	12.20
5511	1000′	24.45
5516	100′	4.50
5516	500′	21.45
5516	1000′	42.75
5521	100′	4.35
5521	500′	19.50
5521	1000′	39.00M′
5526	100′	3.38
5526	500′	16.50
5526	1000′	32.25
5531	100′	6.53
5531	500′	30.00
5531	1000′	60.00M′
5536	100′	4.50
5536	500′	21.00
5536	1000′	42.00M′
5538	100′	4.65
5538	500′	22.50
5538	1000′	45.00M′
5541	50′	3.08
5541	100′	5.63
5541	500′	27.00
5541	1000′	52.50M′
5543	100′	3.90
5543	500′	16.50
5543	1000′	33.00M′
5547	25′	.35
5547	50′	.68
5547	100′	1.28
5547	250′	3.20
5547	500′	8.55M′
5547	1000′	8.25M′
5551	10′	.45
5551	25′	.90
5551	50′	1.50
5551	100′	2.85
5551	500′	12.75
5551	1000′	25.50M′
5556	100′	1.50
5556	500′	6.53
5556	1000′	12.53M′
5561	100′	1.95
5561	500′	9.38
5561	1000′	18.00M′
5566	500′	15.60
5566	1000′	30.75M′
5568	100′	3.30
5568	250′	8.25
5568	500′	15.00
5568	1000′	30.00M′
5569	50′	2.25
5569	100′	4.25
5569	500′	19.10
5569	1000′	38.00M′
5601	100′	6.68
5601	250′	62.25M′
5606	100′	13.13
5606	250′	126.38M′
6006		204.25M′
6012		295.20M′
6018		382.50M′
6025		478.50M′
6050		897.75M′
6075		1264.50M′
6100		1608.38M′
6150		2310.00M′
6200		2988.75M′
6300		4992.38M′
6400		6277.13M′

CONSOLIDATED WIRE PAGE 2

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CONSOLIDATED

CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG

RG TYPE COAXIAL CABLES

Non-Contaminating Low Temp. Black Jacket		Vinyl & Poly. Jackets					Shields							
Number RG-/U	Cat. Number	No. RG/U	Cat. No.	Armor O.D.	Jacket O.D.	Vinyl Jacket	Outer	Inner	Dielectric O.D.	Center Conductor	V.P. %	Cap. Mmfd. /Ft.	Max. Oper. Volts Rms.	Nom. Imp. Ohms
		5	4431		.332	Black	C	C	185	16	65.9	28.5	3000	52.5
5B	4432				.332	Black	S	S	.185	.053S	65.9	29.5	3000	50
6A	4433				.332	Black	C	S	.185	21CW	65.9	20.	2700	75
		7	4434		.370	Black	—	C	.250**	19	84	12.5	1000	97
		8	4415		.405	Black	—	C	.285	7/21	65.9	29.5	4000	52
8A	4435				.405	Black	—	C	.285	7/.0296	65.9	30.5	4000	52
		9	4436		.420	Grey	C	S	.280	7/21S	65.9	30	4000	51
9A	4437				.420	Grey	S	S	.280	7/21S	65.9	30	4000	51
9B	4438				.425	Black	S	S	.285	7/.0296S	65.9	30.5	4000	50
10A	4439			.475	.405	Black	—	C	.285	7/.0296	65.9	30.5	4000	50
		11	4419		.405	Black	—	C	.285	7/26T	65.9	20.5	4000	75
11A	4440				.405	Black	—	C	.285	7/26T	65.9	20.5	4000	75
12A	4441			.475	.405	Black	—	C	.285	7/26T	65.9	20.5	4000	75
		13	4442		.425	Black	C	C	.285	7/26T	65.9	20.5	4000	75
13A	4443				.425	Black	C	C	.285	7/26T	65.9	20.5	4000	75
14A	4467				.545	Grey	C	C	.370	10	65.9	29.5	5500	52
14A	4468				.545	Black	C	C	.370	.106	65.9	30	5500	52
17A	4482				.870	Black	—	C	.680	.188C	65.9	29.5	11000	52
18A	4483			.945	.870	Black	—	C	.680	.188C	65.9	29.5	11000	52
		21	4444		.322	Grey	S	S	.185	16N	65.9	29	2700	53
21A	4445				.332	Black	S	S	.185	.053N	65.9	30	2700	50
		22	4471		.405	Black	—	T	.285	Two 7/.0152	65.9	16	1000	95
22B	4475				.420	Black	T	T	.285	Two 7/.0152	65.9	16	1000	95
		29	4446		.184	Poly	—	T	.116	20	65.9	28.5	1900	53.5
		54A	4469		.250	Poly	—	T	.178	7/.0152	65.9	26.5	3000	58
		55	4447		.206	Poly	T	T	.116	20	65.9	28.5	1900	53.5
55A	4448				.216	Black	S	S	.116	.035S	65.9	29.5	1900	50
55B	4484				.206	Black	T	T	.116	20S	65.9	28.5	1900	53.5
		58	4405		.195	Black	—	T	.116	20	65.9	28.5	1900	53.5
58A	4449				.195	Black	—	T	.116	19/.0071T	65.9	29.5	1900	50
58B	4474				.195	Black	—	T	.116	20	65.9	28.5	1900	53.5
58C	4450				.195	Black	—	T	.116	19/.0071T	65.9	29.5	1900	50
		59	4401		.242	Black	—	C	.146	22CW	65.9	21	2300	73
		59	4402		.242	Grey	—	C	.146	22CW	65.9	21	2300	73
59A	4451				.242	Black	—	C	.146	.023CW	65.9	20.5	2300	75
59B	4470				.242	Black	—	C	.146	.023CW	65.9	20.5	2300	75
		62	4452		.242	Black	—	C	.146**	22CW	84	13.5	750	93
62A	4453				.242	Black	—	C	.146**	22CW	84	13.5	750	93
62B	4472				.242	Black	—	C	.146	22CW	84	13.5	750	93
		63	4454		.405	Black	—	C	.285**	22CW	84	10	1000	125
63B	4455				.405	Black	—	C	.285**	22CW	84	10	1000	125
65A	4473				.405	Black	—	C	.340	32F	65	44	3000	950
		71	4456		.250	Poly	T	T or C	.146**	22CW	84	13.5	750	93
71A	4466				.245	Black	T	T or C	.146**	22CW	84	13.5	750	93
71B	4485				.250	Black	T	C	.146	22CW	84	13.5	750	93
74A	4486			.615	.545	Black	C	C	.370	10C	65.9	29.5	7000	52
79B	4487			.475	.405	Black	—	C	.285	22CW	84	10	1000	125
		108	4464		.235	Black	—	T	.079 ea.	Two 7/28T	68	23.5	1000	78
108A	4465				.235	Black	—	T	.079 ea.	Two .7/28T	65.9	23.5	1000	78
122	4457				.160	Black	—	T	.096	27/36T	65.9	29.5	1900	50
212	4488				.332	Black	S	S	.185	.0556S	65.9	29.5	3000	50
213	4489				.405	Black	—	C	.285	7X.0296C	65.9	29.5	5000	50
214	4490				.425	Black	S	S	.285	7X.0296C	65.9	29.5	5000	50
215	4497				.475	Black	—	C	.285	7/.029C	65.9	29.5	4000	50
216	4491				.425	Black	C	C	.285	7X26TC	65.9	20.5	5000	75
217	4492				.545	Black	C	C	.370	.106C	65.9	29.5	7000	50
218	4493				.870	Black	—	C	.680	.195C	65.9	29.5	11000	50
219	4494			.945	.870	Black	—	C	.680	.195C	65.9	29.5	11000	50
222	4495				.332	Black	S	S	.185	.0556N	65.9	29.0	2700	50
223	4496				.216	Black	S	S	.116	.035S	65.9	29.5	1900	50

**Semi-Solid Dielectric N—Nichrome C—Cooper S—Silvered Copper CW—Copperweld T—Tinned Cooper F—Formvar

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CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG

RG TYPE COAXIAL CABLES

MINIATURE COAXIAL CABLE

Non-Contaminating Low Temp. Black Jacket		Vinyl & Poly. Jackets					Shields							
Number RG/U	Cat. Number	Cat. No.	No. RG/U	Armor O.D.	Jacket O.D.	Vinyl Jacket	Outer	Inner	Dielectric O.D.	Center Conductor	V.P. %	Cap. Mmfd. /Ft.	Max. Oper. Volts Rms.	Nom. Imp. Ohms
		4459	174		.105	Black	—		.060**	7/.0063CW		30		50

**Semi-Solid Dielectric N—Nichrome C—Copper S—Silvered Copper CW—Copperweld T—Tinned Copper F—Formvar

FOAM POLYETHYLENE COAXIAL CABLE

		8	**4477**		.405	Black	—	C	.285	7/19C	80	24.5	1500	50
11	**4476**				.405	Black	—	C	.285	14C	80	16.5	3000	75
		58	**4498**		.195	Black	—	T	.116	20C	80	28.5	1900	53.5
		59	**4478**		.195	Black	—	C	.107	22CW	80	17	500	72
62	**4479**				.242	Black	—	C	.146	.023CW	80	14.5	700	93
11	**4480**				.406	Black	C	C	.285	14C	80	16.5	3000	75
59	**4481**				.242	Black	C	C	.107	.107	80	17	500	72

**Semi-Solid Dielectric N—Nichrome C—Copper S—Silvered Copper CW—Copperweld T—Tinned Copper F—Formvar

TRIAXIAL CABLE DOUBLE SHIELD DOUBLE JACKET

RG/U Type	Cat. No.	Impedance in Ohms	Jacket Diameter	Vinyl Jacket	Shields		O. D. Dielectric	Inner Conductor	V. P. %	Cap. MMFD/Ft.	Max. Oper. Volts-RMS
					1st	2nd					
Triaxial 58A	**4463**	50	.285	Black	T	T	.116	19 .0071T	65.9	28.5	1,900
Triaxial 59	**4460**	73	.242	Black	C	C	.146	22CW	65.9	21.0	2,300
Triaxial 11	**4461**	75	.460	Black	C	C	.285	7 26T	65.9	20.5	4,000
Triaxial 8	**4462**	52	.490	Black	C	C	.285	7 21C	65.9	29.5	4,000

**Semi-Solid Dielectric N—Nichrome C—Copper S—Silvered Copper CW—Copperweld T—Tinned Copper F—Formvar

TEFLON COAXIAL CABLE

Number RG/U	Cat. Number	Inner Conductor	Dielectric Material	Nominal Diameter of Dielectric (inch)	Type of Shielding Braids	Protective Covering	Nominal Over-all Diameter (inch)	Nominal Capacitance (mmfd/ft.)	Maximum Operating Voltage (Volts rms)	Nominal Impedance (Ohms)
87A	**4701**	7/.032 Silver Covered Copper	F-1	.280	Silver Coated Copper Double Braid	V	.425	29.5	5000	50
94	**4702**	19/.0225 Silver Covered Copper	F-2	.292	Copper Double Braid	V	.445	29.0	7000	50
94A	**4703**	19/.0254 Silver Plated Copper	F-2	.370	Copper Double Braid	V	.500	27.0	7000	50
115	**4704**	7/.028 Silver Covered Copper	F-2	.250	Silver Coated Copper Double Braid	V	.375	29.5	5000	50
115A	**4705**	7/.028 Silver Covered Copper	F-2	.255	Silver Coated Copper Double Braid	V	.415	29.5	4000	50
116	**4706**	7/.032 Silver Covered Copper	F-1	.280	Silver Coated Copper Double Braid	V with armor	.490	29.5	5000	50
117	**4707**	.188 Copper	F-1	.620	Copper Single Braid	V	.730	29.0	7000	50
117A	**4708**	.188 Copper	F-1	.620	Copper Single Braid	V	.730	—	7000	50
118	**4709**	.188 Copper	F-1	.620	Copper Single Braid	V with armor	.795	29.0	7000	50
118A	**4710**	.188 Copper	F-1	.620	Copper Single Braid	V with armor	.780	—	7000	50
119	**4711**	.102 Copper	F-1	.332	Copper Double Braid	V	.465	29.0	6000	50
120	**4712**	.102 Copper	F-1	.332	Copper Double Braid	V with armor	.525	29.0	6000	50
126	**4713**	7/.0203 Karma or Equal	F-1	.185	Karma or Equal Single Braid	V	.280	29.0	3000	50
140	**4714**	.025 Silver Coated Copper Steel	F-1	.146	Silver Coated Copper Single Braid	V	.233	21.0	2300	75
141	**4715**	.0359 Silver Plated Copper Weld	F-1	.116	Silver Coated Copper Single Braid	V	.190	28.5	1900	50
141A	**4716**	.039 Silver Covered Copper Steel	F-1	.116	Silver Coated Copper Single Braid	V	.190	28.5	1900	50
142	**4717**	.0359 Silver Covered Copper Steel	F-1	.116	Silver Coated Copper Double Braid	V	.206	28.5	1900	50
142A	**4718**	.039 Silver Covered Copper Steel	F-1	.116	Silver Coated Copper Double Braid	V	.206	28.5	1900	50

Continued on following page

F-1—Solid Teflon F-2—Taped Teflon F-3—Air Spaced Teflon

V—High Temperature Lacquer Impregnated Fiberglass Braid with Teflon Tape Between Shield and Jacket

VI—Polyester Fiber Impregnated with High Temperature Lacquer over Wrapped or Extruded Silicone Impregnated Fiberglass

IIA—Low Temperature Black Polyvinylchloride Non-Contaminating

FEP—Flourinated Ethylene Propylene Copolymar, 200° Teflon

TFE—Tetraflouride Ethylene Propylene Copolymar, 250°C Teflon

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CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

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TEFLON COAXIAL CABLE

Number RG/U	Cat. Number	Inner Conductor	Dielectric Material	Nominal Diameter of Dielectric (inch)	Type of Shielding Braids	Protective Covering	Nominal Over-all Diameter (inch)	Nominal Capacitance (mmfd/ft.)	Maximum Operating Voltage (Volts rms)	Nominal Impedance (Ohms)
142B	**4719**	.039 Silver Covered Copper Steel	F-1	.116	Silver Coated Copper Double Braid	FEP	.195	28.5	1900	50
143	**4720**	.057 Silver Plated Copper Weld	F-1	.185	Silver Coated Copper Double Braid	V	.325	28.5	3000	50
143A	**4721**	.059 Silver Covered Copper Steel	F-1	.185	Silver Coated Copper Double Braid	V	.325	28.5	3000	50
144	**4722**	7/.0179 Silver Covered Copper Steel	F-1	.285	Silver Coated Copper Single Braid	V	.410	20.5	5000	75
146	**4723**	.007 Copper Covered Steel	F-3	.285	Copper Single Braid	V	.375	6.0	1000	190
161	**4724**	7/38 Silver Plated Cadmium Bronze	F-1	.057	Single Silver Copper	Extruded Black Nylon	.090	20.0	1000	70
165	**4725**	7/.032 Silver Covered Copper	F-1	.285	Silver Covered Copper Single Braid	V	.410	—	5000	50
166	**4726**	7/.032 Silver Covered Copper	F-1	.285	Silver Covered Copper Single Braid	V with armor	.460	—	5000	50
178	**4727**	7/.0039 Silver Plated Copper Weld	F-1	.036	Silver Plated Copper Single Braid	KEL-F	.079	27.9	1000	50
178A	**4728**	7/.004 Silver Covered Copper Steel	F-1	.034	Silver Plated Copper Single Braid	KEL-F	.075	27.9	1000	50
178B	**4729**	7/.004 Silver Covered Copper Steel	F-1	.034	Silver Covered Copper Single Braid	FEP	.075	—	1000	50
179A	**4730**	7/.004 Silver Covered Copper Steel	F-1	.063	Silver Plated Copper Single Braid	KEL-F	.105	20.0	1200	75
179B	**4731**	7/.004 Silver Covered Copper Steel	F-1	.063	Silver Covered Copper Single Braid	FEP	.105	—	1200	75
180	**4732**	7/.0039 Silver Plated Copper Weld	F-1	.103	Silver Plated Copper Single Braid	KEL-F	.141	15.3	1500	93
180A	**4733**	7/.004 Silver Covered Copper Steel	F-1	.102	Silver Plated Copper Single Braid	KEL-F	.145	14.5	1500	95
180B	**4734**	7/.004 Silver Covered Copper Steel	F-1	.102	Silver Covered Copper Single Braid	FEP	.145	—	1500	95
187	**4735**	7/.004 Silver Covered Copper Steel	F-1	.060	Silver Covered Copper Single Braid	Teflon	.110	—	1200	75
187A	**4736**	7/.004 Silver Covered Copper Steel	F-1	.060	Silver Covered Copper Single Braid	TFE	.110	—	1200	75
188	**4737**	7/.0067 Silver Covered Copper Steel	F-1	.060	Silver Covered Copper Single Braid	Teflon	.110	—	1200	50
188A	**4738**	7/.0067 Silver Covered Copper Steel	F-1	.060	Silver Covered Copper Single Braid	TFE	.110	—	1200	50
195	**4739**	7/.004 Silver Covered Copper Steel	F-1	.102	Silver Covered Copper Single Braid	Teflon	.155	—	1500	95
195A	**4740**	7/.004 Silver Covered Copper Steel	F-1	.102	Silver Covered Copper Single Braid	TFE	.155	—	1500	95
196	**4741**	7/.004 Silver Covered Copper Steel	F-1	.034	Silver Covered Copper Single Braid	Teflon	.080	—	1000	50
196A	**4742**	7/.004 Silver Covered Copper Steel	F-1	.034	Silver Covered Copper Single Braid	TFE	.080	—	1000	50
209	**4743**	19/.037 Silver Covered Copper	F-3	.500	Silver Covered Copper Double Braid	VI	.750	—	3200	50
210	**4744**	.0253 Silver Covered Copper Steel	F-3	.146	Silver Covered Copper Single Braid	V	.242	14.5	750	93
211	**4745**	.190 Copper	F-1	.620	Copper Single Braid	V	.730	—	7000	50
211A	**4746**	.190 Copper	F-1	.620	Copper Single Braid	V	.730	—	7000	50
225	**4747**	7/.0312 Silver Covered Copper	F-1	.285	Silver Covered Copper Double Braid	V	.430	—	5000	50
226	**4748**	19/.0254 Silver Covered Copper	F-2	.370	Copper Double Braid	V	.500	—	7000	50
227	**4749**	7/.0312 Silver Covered Copper	F-1	.285	Silver Covered Copper Double Braid	V with armor	.490	—	5000	50
228	**4750**	.190 Copper	F-1	.620	Copper Single Braid	V with armor	.795	—	7000	50
228A	**4751**	.190 Copper	F-1	.620	Copper Single Braid	V with armor	.795	—	7000	50
235	**4752**	7/.028 Copper	F-2	.255	Silver Covered Copper Double Braid	VI	.490	—	5000	50
280	**4753**	.1144 Copper	F-2	.327	Silver Covered Copper Double Braid	IIA	.480	27.5	4000	50
281	**4754**	19/.0378 Silver Covered Copper	F-2	.500	Silver Covered Copper Double Braid	VI	.750	29.5	4000	50
301	**4755**	7/.0203 Karma	F-1	.185	Karma Single Braid	FEP	.245	29.0	3000	50
302	**4756**	.025 Silver Covered Copper Steel	F-1	.146	Silver Covered Copper Single Braid	FEP	.206	21.0	2300	75
303	**4757**	.039 Silver Covered Copper Steel	F-1	.116	Silver Covered Copper Single Braid	FEP	.170	28.5	1900	50
304	**4758**	.059 Silver Covered Copper Steel	F-1	.185	Silver Covered Copper Double Braid	FEP	.280	28.5	3000	50
316	**4759**	7/.0067 Silver Covered Copper Steel	F-1	.060	Silver Covered Copper Single Braid	FEP	.102	—	1200	50

F-1—Solid Teflon F-2—Taped Teflon F-3—Air Spaced Teflon

V—High Temperature Lacquer Impregnated Fiberglass Braid with Teflon Tape Between Shield and Jacket

VI—Polyester Fiber Impregnated with High Temperature Lacquer over Wrapped or Extruded Silicone Impregnated Fiberglass

IIA—Low Temperature Black Polyvinylchloride Non-Contaminating

FEP—Flourinated Ethylene Propylene Copolymar, 200° Teflon

TFE—Tetraflouride Ethylene Propylene Copolymar, 250°C Teflon

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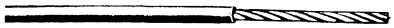
CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG

MIL-W-76

TYPE MW-VINYL — 1000V — 80C



Tinned copper, vinyl insulated, medium wall. The polyvinylchloride insulation is flame and ozone resistant and is inert to most chemicals, oils, and solvents.

STRANDED CONDUCTOR

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9001	MW-C-24-(7)-U	24(7x32)	.017	.058	As Listed	As Listed	As Listed
9002	MW-C-22-(7)-U	22(7x30)	.017	.064	As Listed	As Listed	As Listed
9003	MW-C-20-(10)-U	20(10x30)	.017	.070	As Listed	As Listed	As Listed
9004	MW-C-18-(16)-U	18(16x30)	.017	.080	As Listed	As Listed	As Listed
9005	MW-C-16-(26)-U	16(26x30)	.019	.098	As Listed	As Listed	As Listed
9006	MW-C-14-(41)-U	14(41x30)	.020	.111	As Listed	As Listed	As Listed
9007	MW-C-12-(65)-U	12(65x30)	.020	.130	As Listed	As Listed	As Listed

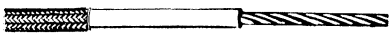
SOLID CONDUCTOR

9010	MW-C-22-(1)-U	22 (Solid)	.017	.059	As Listed	As Listed	As Listed
9011	MW-C-20-(1)-U	20 (Solid)	.017	.066	As Listed	As Listed	As Listed
9012	MW-C-18-(1)-U	18 (Solid)	.017	.074	As Listed	As Listed	As Listed
9013	MW-C-16-(1)-U	16 (Solid)	.017	.085	As Listed	As Listed	As Listed

Stock Colors*

0	Black	**92**	White/Red
1	Brown	**93**	White/Orange
2	Red	**94**	White/Yellow
3	Orange	**95**	White/Green
4	Yellow	**96**	White/Blue
5	Green	**97**	White/Violet
6	Dark Blue	**98**	White/Gray
7	Violet (Purple)	**901**	White/Black/Brown
8	Gray (Slate)	**902**	White/Black/Red
9	White	**908**	White/Black/Orange
11	Tan	**904**	White/Black/Yellow
12	Pink	**905**	White/Black/Green
13	Light Blue	**906**	White/Black/Blue
90	White/Black	**907**	White/Black/Violet
91	White/Brown	**908**	White/Black/Gray

TYPE MW-SHIELDED — 1000V — 80C



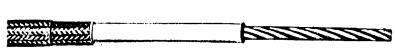
Tinned copper, polyvinylchloride insulation. Medium wall, tinned copper shield overall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9014	MW-C-24-(7)-S	24(7x32)	.017	.082	As Listed	As Listed	As Listed
9015	MW-C-22-(7)-S	22(7x30)	.017	.088	As Listed	As Listed	As Listed
9016	MW-C-20-(10)-S	20(10x30)	.017	.094	As Listed	As Listed	As Listed
9017	MW-C-18-(16)-S	18(16x30)	.017	.104	As Listed	As Listed	As Listed
9018	MW-C-16-(26)-S	16(26x30)	.019	.122	As Listed	As Listed	As Listed
9019	MW-C-14-(41)-S	14(41x30)	.020	.135	0, 2, 9	0, 2, 9	0, 2, 9
9020	MW-C-12-(65)-S	12(65x30)	.020	.154	0, 2, 9	0, 2, 9	0, 2, 9

Stock Colors*

0	Black	**5**	Green
1	Brown	**6**	Dark Blue
2	Red	**7**	Violet (Purple)
3	Orange	**8**	Gray (Slate)
4	Yellow	**9**	White

TYPE MW-SHIELDED — NYLON JACKET — 1000V — 80C



Tinned copper, polyvinylchloride insulation. Medium wall, tinned copper shield, nylon jacket.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9021	MW-C-22-(7)-SJ	22(7x30)	.017	.095	9	9	9
9022	MW-C-20-(7)-SJ	20(10x30)	.017	.101	9	9	9
9023	MW-C-18-(16)-SJ	18(16x30)	.017	.112	9	9	9
9024	MW-C-16-(19)-SJ	16(26x30)	.019	.131	9	9	9

Stock Color*

9 Vinyl insulation. **White** only.

*Stock Color Numbers in Accordance to Military Type Designation and EIA Color Coding.

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MIL-W-76

TYPE MW-GLASS BRAID — 1000V — 80C

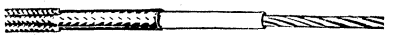
Tinned copper, polyvinylchloride insulated. Medium wall, lacquered glass braid overall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100′	500′	1000′
9025	MW-C-22(7)-B	22(7x30)	.017	.076	As Listed	As Listed	As Listed
9026	MW-C-20(10)-B	20(10x30)	.017	.084	As Listed	As Listed	As Listed
9027	MW-C-18(16)-B	18(16x30)	.017	.094	As Listed	As Listed	As Listed
9028	MW-C-16(26)-B	16(26x30)	.019	.112	As Listed	As Listed	As Listed
9029	MW-C-14(41)-B	14(41x30)	.020	.125	9,90thru98	9,90thru98	9,90thru98
9030	MW-C-12(65)-B	12(65x30)	.020	.144	9, 90, 92	9, 90, 92	9, 90, 92

Stock Colors*

0 Black	**90** White/Black
1 Brown	**91** White/Brown
2 Red	**92** White/Red
3 Orange	**93** White/Orange
4 Yellow	**94** White/Yellow
5 Green	**95** White/Green
6 Dark Blue	**96** White/Blue
7 Violet (Purple)	**97** White/Violet
8 Gray (Slate)	**98** White/Gray
9 White	

TYPE MW-GLASS BRAID-SHIELDED — 1000V — 80C



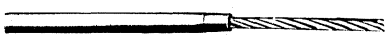
Tinned copper, polyvinylchloride insulated. Medium wall, lacquered glass braid, tinned copper shield overall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100′	500′	1000′
9031	MW-C-22(7)-BS	22(7x30)	.017	.102	9	9	9
9032	MW-C-20(7)-BS	20(10x30)	.017	.108	9	9	9
9033	MW-C-18(16)-BS	18(16x30)	.017	.118	9	9	9
9034	MW-C-16(19)-BS	16(26x30)	.019	.136	9	9	9
9035	MW-C-14(19)-BS	14(41x30)	.020	.149	9	9	9
9036	MW-C-12(19)-BS	12(65x30)	.020	.168	9	9	9

Stock Color*

9 Vinyl insulation. **White** only.

TYPE MW — NYLON JACKET — 1000V — 90C



Tinned copper, polyvinylchloride insulated. Medium wall, clear nylon jacket overall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100′	500′	1000′
9037	MW-C-22(7)-J	22(7x30)	.017	.069	As Listed	As Listed	As Listed
9038	MW-C-20(10)-J	20(10x30)	.017	.075	As Listed	As Listed	As Listed
9039	MW-C-18(16)-J	18(16x30)	.017	.086	As Listed	As Listed	As Listed
9040	MW-C-16(26)-J	16(26x30)	.019	.106	As Listed	As Listed	As Listed
9041	MW-C-14(41)-J	14(41x30)	.020	.118	0, 1, 3, 4 5, 9	0, 1, 3, 4 5, 9	0, 1, 3, 4 5, 9
9042	MW-C-12(65)-J	12(65x30)	.020	.139	0, 1, 3, 4, 5, 9	0, 1, 3, 4 5, 9	0, 1, 3, 4 5, 9

Stock Colors*

0 Black	**90** White/Black
1 Brown	**91** White/Brown
2 Red	**92** White/Red
3 Orange	**93** White/Orange
4 Yellow	**94** White/Yellow
5 Green	**95** White/Green
6 Dark Blue	**96** White/Blue
7 Violet (Purple)	**97** White/Violet
8 Gray (Slate)	**98** White/Gray
9 White	

*Stock Color Numbers in Accordance to Military Type Designation and EIA Color Coding.

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CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

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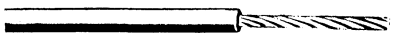
MIL-W-76

TYPE HW — VINYL — Gauges 16-22 2500V, Gauges 6-14 600—80C



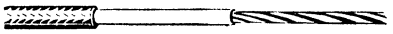
Tinned copper, polyvinylchloride insulated. Heavy wall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9100	HW-C-22(7)-U	22(7x30)	.034	.098	As Listed	As Listed	As Listed
9101	HW-C-20(10)-U	20(10x30)	.034	.104	As Listed	As Listed	As Listed
9102	HW-C-18(16)-U	18(16x30)	.034	.114	As Listed	As Listed	As Listed
9103	HW-C-16(26)-U	16(26x30)	.034	.128	0, 2, 9	0, 2, 9	0, 2, 9
9104	HW-C-14(41)-U	14(41x30)	.048	.171	0, 2, 9	0, 2, 9	0, 2, 9
9105	HW-C-12(65)-U	12(65x30)	.048	.191	0, 2, 9	0, 2, 9	0, 2, 9
9106	HW-C-10(105)-U	10(105x30)	.048	.214	0, 2, 9	0, 2, 9	0, 2, 9
9107	HW-C-8(133)-U	8(133x29)	.048	.261	0, 2, 9	0, 2, 9	0, 2, 9
9108	HW-C-6(133)-U	6(133x27)	.048	.296	0, 2, 9	0, 2, 9	0, 2, 9

Stock Colors*

0 Black
1 Brown
2 Red
3 Orange
4 Yellow
5 Green
6 Dark Blue
7 Violet (Purple)
8 Gray (Slate)
9 White

TYPE HW — GLASS BRAID — 600V — 80C



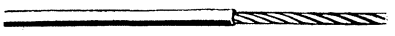
Tinned copper, polyvinylchloride insulated. Heavy wall, lacquered glass braid.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9110	HW-C-10(105)-B	10(105x30)	.048	.232	As Listed	As Listed	As Listed
9111	HW-C-8(133)-B	8(133x29)	.048	.279	As Listed	As Listed	As Listed
9112	HW-C-6(133)-B	6(133x27)	.048	.314	As Listed	As Listed	As Listed

Stock Colors*

9 White
90 White/Black
92 White/Red

TYPE LW — VINYL — 300V — 80C



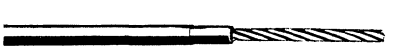
Tinned copper, polyvinylchloride insulated. Light wall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9200	LW-C-30(7)-U	30(7x38)	.011	.034	0 thru 9	0 thru 9	0 thru 9
9201	LW-C-28(7)-U	26(7x36)	.011	.037	As Listed	As Listed	As Listed
9202	LW-C-26(7)-U	26(7x34)	.011	.041	As Listed	As Listed	As Listed
9203	LW-C-24(7)-U	24(7x32)	.011	.046	As Listed	As Listed	As Listed
9204	LW-C-22(7)-U	22(7x30)	.012	.054	As Listed	As Listed	As Listed
9205	LW-C-20(10)-U	20(10x30)	.012	.060	As Listed	As Listed	As Listed

Stock Colors*

0 Black
1 Brown
2 Red
3 Orange
4 Yellow
5 Green
6 Dark Blue
7 Violet (Purple)
8 Gray (Slate)
9 White
90 White/Black
91 White/Brown
92 White/Red
93 White/Orange
94 White/Yellow
95 White/Green
96 White/Blue
97 White/Violet
98 White/Gray

TYPE LW — NYLON JACKET — 300V — 90C



Tinned copper, polyvinylchloride insulated. Light wall, clear nylon jacket overall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9210	LW-C-30(7)-J	30(7x38)	.011	.039	0 thru 9	0 thru 9	0 thru 9
9211	LW-C-28(7)-J	28(7x36)	.011	.042	As Listed	As Listed	As Listed
9212	LW-C-26(7)-J	26(7x34)	.011	.046	As Listed	As Listed	As Listed
9213	LW-C-24(7)-J	24(7x32)	.011	.051	As Listed	As Listed	As Listed
9214	LW-C-22(7)-J	22(7x30)	.012	.059	As Listed	As Listed	As Listed
9215	LW-C-20(10)-J	20(10x30)	.012	.065	As Listed	As Listed	As Listed

Stock Colors*

0 Black
1 Brown
2 Red
3 Orange
4 Yellow
5 Green
6 Dark Blue
7 Violet (Purple)
8 Gray (Slate)
9 White
90 White/Black
91 White/Brown
92 White/Red
93 White/Orange
94 White/Yellow
95 White/Green
96 White/Blue
97 White/Violet
98 White/Gray

*Stock Color Numbers in Accordance to Military Type Designation and EIA Color Coding.

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MIL-W-16878

TYPE B — VINYL — 600V — 105C

Tinned copper, polyvinylchloride insulated.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9300	B-32	32(7x40)	.010	.029	0 thru 9	0 thru 9	0 thru 9
9301	B-30	30(7x38)	.010	.032	0 thru 9	0 thru 9	0 thru 9
9302	B-28	28(7x36)	.010	.035	0 thru 9 90 thru 98	0 thru 9 90 thru 98	0 thru 9 90 thru 98
9303	B-26	26(7x34)	.010	.039	0 thru 9 90 thru 98	0 thru 9 90 thru 98	0 thru 9 90 thru 98
9304	B-24	24(19x36)	.010	.045	9,90thru98	9,90thru98	9,90thru98
9305	B-24	24(7x32)	.010	.044	As Listed	As Listed	As Listed
9306	B-22	22(19x34)	.010	.051	9,90thru98	9,90thru98	9,90thru98
9307	B-22	22(7x30)	.010	.050	As Listed	As Listed	As Listed
9308	B-20	20(19x32)	.010	.059	9,90thru98	9,90thru98	9,90thru98
9309	B-20	20(7x28)	.010	.058	As Listed	As Listed	As Listed
9310	B-18	18(19x30)	.010	.069	9,90thru98	9,90thru98	9,90thru98
9311	B-18	18(7x26)	.010	.068	0 thru 9 90 thru 98	0 thru 9 90 thru 98	0 thru 9 90 thru 98
9312	B-16	16(19x29)	.010	.077	0 thru 9 90 thru 98	0 thru 9 90 thru 98	0 thru 9 90 thru 98

Stock Colors*

0 Black	90 White/Black
1 Brown	91 White/Brown
2 Red	92 White/Red
3 Orange	93 White/Orange
4 Yellow	94 White/Yellow
5 Green	95 White/Green
6 Dark Blue	96 White/Blue
7 Violet (Purple)	97 White/Violet
8 Gray (Slate)	98 White/Gray
9 White	
11 Tan	
12 Pink	
13 Light Blue	

TYPE B — VINYL-NYLON JACKET — 600V — 115C

Tinned copper, polyvinylchloride insulated, nylon jacket overall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9313	B-32	32(7x40)	.010	.035	0 thru 9	0 thru 9	0 thru 9
9314	B-30	30(7x38)	.010	.038	0 thru 9	0 thru 9	0 thru 9
9315	B-28	28(7x36)	.010	.041	As Listed	As Listed	As Listed
9316	B-26	26(7x34)	.010	.045	As Listed	As Listed	As Listed
9317	B-24	24(19x36)	.010	.051	As Listed	As Listed	As Listed
9318	B-24	24(7x32)	.010	.050	As Listed	As Listed	As Listed
9319	B-22	22(19x34)	.010	.057	As Listed	As Listed	As Listed
9320	B-22	22(7x30)	.010	.056	As Listed	As Listed	As Listed
9321	B-20	20(19x32)	.010	.065	As Listed	As Listed	As Listed
9322	B-20	20(7x28)	.010	.064	As Listed	As Listed	As Listed
9323	B-18	18(19x30)	.010	.075	9,90thru98	9,90thru98	9,90thru98
9324	B-18	18(7x26)	.010	.074	As Listed	As Listed	As Listed
9325	B-16	16(19x29)	.010	.083	As Listed	As Listed	As Listed

Stock Colors*

0 Black	90 White/Black
1 Brown	91 White/Brown
2 Red	92 White/Red
3 Orange	93 White/Orange
4 Yellow	94 White/Yellow
5 Green	95 White/Green
6 Dark Blue	96 White/Blue
7 Violet (Purple)	97 White/Violet
8 Gray (Slate)	98 White/Gray
9 White	

*Stock Color Numbers in Accordance to Military Type Designation and EIA Color Coding.

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MIL-W-16878

TYPE C VINYL — 1000V — 105C

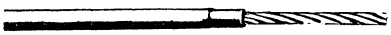
Tinned copper, polyvinylchloride insulated.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9400	C-24	24(7x32)	.018	.060	9,90thru98	9,90thru98	9,90thru98
9401	C-22	22(7x30)	.018	.066	As Listed	As Listed	As Listed
9402	C-20	20(7x28)	.018	.074	As Listed	As Listed	As Listed
9403	C-18	18(7x26)	.018	.084	As Listed	As Listed	As Listed
9404	C-16	16(19x29)	.018	.093	9,90thru98	9,90thru98	9,90thru98
9405	C-14	14(19x27)	.018	.107	9,90thru98	9,90thru98	9,90thru98

Stock Colors*

0	Black	**90**	White/Black
1	Brown	**91**	White/Brown
2	Red	**92**	White/Red
3	Orange	**93**	White/Orange
4	Yellow	**94**	White/Yellow
5	Green	**95**	White/Green
6	Dark Blue	**96**	White/Blue
7	Violet (Purple)	**97**	White/Violet
8	Gray (Slate)	**98**	White/Gray
9	White		

TYPE C — VINYL-NYLON JACKET — 1000V — 115C



Tinned copper, polyvinylchloride insulated, nylon jacket overall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9410	C-24	24(7x32)	.018	.066	9,90thru98	9,90thru98	9,90thru98
9411	C-22	22(7x30)	.018	.072	As Listed	As Listed	As Listed
9412	C-20	20(7x28)	.018	.080	As Listed	As Listed	As Listed
9413	C-18	18(7x26)	.018	.091	As Listed	As Listed	As Listed
9414	C-16	16(19x29)	.018	.100	9,90thru98	9,90thru98	9,90thru98
9415	C-14	14(19x27)	.018	.114	9,90thru98	9,90thru98	9,90thru98

Stock Colors*

0	Black	**90**	White/Black
1	Brown	**91**	White/Brown
2	Red	**92**	White/Red
3	Orange	**93**	White/Orange
4	Yellow	**94**	White/Yellow
5	Green	**95**	White/Green
6	Dark Blue	**96**	White/Blue
7	Violet (Purple)	**97**	White/Violet
8	Gray (Slate)	**98**	White/Gray
9	White		

TYPE D — VINYL — 3000V — 105C

Tinned copper, polyvinylchloride insulated.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9500	D-24	24(7x32)	.030	.084	9,90thru98	9,90thru98	9,90thru98
9501	D-22	22(7x30)	.030	.090	As Listed	As Listed	As Listed
9502	D-20	20(7x28)	.030	.098	As Listed	As Listed	As Listed
9503	D-18	18(7x26)	.030	.108	As Listed	As Listed	As Listed
9504	D-16	16(19x29)	.030	.117	9,90thru98	9,90thru98	9,90thru98
9505	D-14	14(19x27)	.030	.131	9,90thru98	9,90thru98	9,90thru98
9506	D-12	12(19x25)	.035	.160	9,90thru98	9,90thru98	9,90thru98
9507	D-10	10(37x26)	.035	.181	9,90thru98	9,90thru98	9,90thru98
9508	D- 8	8(133x29)	.040	.245	9,90thru98	9,90thru98	9,90thru98
9509	D- 6	6(133x27)	.040	.290	9,90thru98	9,90thru98	9,90thru98

Stock Colors*

0	Black	**90**	White/Black
1	Brown	**91**	White/Brown
2	Red	**92**	White/Red
3	Orange	**93**	White/Orange
4	Yellow	**94**	White/Yellow
5	Green	**95**	White/Green
6	Dark Blue	**96**	White/Blue
7	Violet (Purple)	**98**	White/Gray
8	Gray (Slate)		
9	White		

*Stock Color Numbers in Accordance to Military Type Designation and EIA Color Coding.

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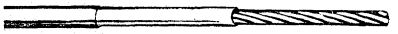
MIL-W-5086A

AIRCRAFT WIRE & CABLE

TYPES 1 & 2 — 600V



UNSHIELDED

Catalog Number	MIL Type Designation	Size & (Stranding)	Nom. O.D.	Spec. Type	Stock Colors on Standard Spools 100′	500′	1000′
9700	AN-22	22(19x34)	.068	No. 1	9	9	9
9701	AN-20	20(19x32)	.078	No. 1	9	9	9
9702	AN-18	18(19x30)	.088	No. 1	9	9	9
9703	AN-16	16(19x29)	.098	No. 1	9	9	9
9704	AN-14	14(19x27)	.117	No. 1	9	9	9
9705	AN-12	12(19x25)	.137	No. 1	9	9	9
9706	AN-22	22(19x34)	.075	No. 2	9	9	9
9707	AN-20	20(19x32)	.085	No. 2	9	9	9
9708	AN-18	18(19x30)	.095	No. 2	9	9	9
9709	AN-16	16(19x29)	.105	No. 2	9	9	9
9710	AN-14	14(19x27)	.125	No. 2	9	9	9
9711	AN-12	12(19x25)	.143	No. 2	9	9	9
9713	AN-10	10(49x27)	.189	No. 2	9	9	9
9714	AN-8	8(133x29)	.240	No. 2	9	9	9
9715	AN-6	6(133x27)	.293	No. 2	9	9	9
9716	AN-4	4(133x25)	.355	No. 2	9	9	9
9717	AN-2	2(665x30)	.425	No. 2	9	9	9
9718	AN-0	0(1045x30)	.525	No. 2	9	9	9
9719	AN-00	00(1330x30)	.590	No. 2	9	9	9

Stock Color*

White only (9)

Additional Description

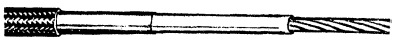
MIL-W-5086A-Type I
AN-22 thru AN-12.
Stranded tinned copper, white polyvinylchloride clear nylon jacket insulation.

MIL-W-5086A-Type II
AN-22 thru AN-12
Stranded tinned copper, white polyvinylchloride insulation, saturated glass braid, clear nylon jacket.

MIL-W-5086A-Type II
AN-10 thru AN-00
Stranded tinned copper, white polyvinylchloride insulation, saturated glass braid, nylon braid, nylon lacquer.

MIL-C-7078A — TYPE 1 — 600 VOLT

(MIL-W-5086A Type I Conductor Braided Tinned Copper Shield)



SHIELDED

Catalog Number	MIL Type Designation	Size & (Stranding)	Nom. O.D.	Spec. Type	Stock Colors on Standard Spools 100′	500′	1000′
9720	AN-22	22(10x34)	.092	No. 1	9	9	9
9721	AN-20	20(19x32)	.102	No. 1	9	9	9
9722	AN-18	18(19x30)	.112	No. 1	9	9	9
9723	AN-16	16(19x29)	.122	No. 1	9	9	9
9724	AN-14	14(19x27)	.141	No. 1	9	9	9
9725	AN-12	12(19x25)	.161	No. 1	9	9	9

Stock Color*

White only (9)

Additional Description
Stranded tinned copper, white polyvinylchloride insulation, nylon jacket, braided tinned copper shield.

*Stock Color Numbers in Accordance to Military Type Designation and EIA Color Coding.

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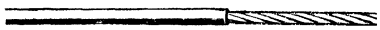
MIL-W-16878-D

TYPE E — TFE TEFLON — 600V — 200C



Concentrically stranded silver coated copper conductor, extruded TFE Teflon insulated.

Catalog Number	Type Designation	Size & (Stranding)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9600	E-32	32(7x40)	.032	As Listed	As Listed	As Listed
9601	E-30	30(7x38)	.032	As Listed	As Listed	As Listed
9602	E-28	28(7x36)	.035	As Listed	As Listed	As Listed
9603	E-26	26(19x38)	.039	As Listed	As Listed	As Listed
9604	E-26	26(7x34)	.039	As Listed	As Listed	As Listed
9605	E-24	24(19x36)	.044	As Listed	As Listed	As Listed
9606	E-24	24(7x32)	.044	As Listed	As Listed	As Listed
9607	E-22	22(19x34)	.050	As Listed	As Listed	As Listed
9608	E-22	22(7x30)	.050	As Listed	As Listed	As Listed
9609	E-20	20(19x32)	.058	As Listed	As Listed	As Listed
9610	E-20	20(7x28)	.058	As Listed	As Listed	As Listed
9611	E-18	18(19x30)	.069	As Listed	As Listed	As Listed
9612	E-18	18(7x26)	.069	As Listed	As Listed	As Listed
9613	E-16	16(19x29)	.080	As Listed	As Listed	As Listed
9614	E-14	14(19x27)	.095	As Listed	As Listed	As Listed
9615	E-12	12(19x25)	.115	As Listed	As Listed	As Listed
9616	E-10	10(37x26)	.131	As Listed	As Listed	As Listed

Stock Colors*

0 Black	**5** Green
1 Brown	**6** Dark Blue
2 Red	**7** Violet (Purple)
3 Orange	**8** Gray (Slate)
4 Yellow	**9** White

NOTE: Tracer colors available upon customer request. Minimum quantity 500 feet.

TYPE EE — TFE TEFLON — 1000V — 200C

Concentrically stranded silver coated copper conductor, extruded TFE Teflon insulated.

Catalog Number	Type Designation	Size & (Stranding)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9620	EE-32	32(7x40)	.042	As Listed	As Listed	As Listed
9621	EE-30	30(7x38)	.042	As Listed	As Listed	As Listed
9622	EE-28	28(7x36)	.045	As Listed	As Listed	As Listed
9623	EE-26	26(19x38)	.049	As Listed	As Listed	As Listed
9624	EE-26	26(7x34)	.049	As Listed	As Listed	As Listed
9625	EE-24	24(19x36)	.054	As Listed	As Listed	As Listed
9626	EE-24	24(7x32)	.054	As Listed	As Listed	As Listed
9627	EE-22	22(19x34)	.060	As Listed	As Listed	As Listed
9628	EE-22	22(7x30)	.060	As Listed	As Listed	As Listed
9629	EE-20	20(19x32)	.068	As Listed	As Listed	As Listed
9630	EE-20	20(7x28)	.068	As Listed	As Listed	As Listed
9631	EE-18	18(19x30)	.079	As Listed	As Listed	As Listed
9632	EE-18	18(7x26)	.079	As Listed	As Listed	As Listed
9633	EE-16	16(19x29)	.089	As Listed	As Listed	As Listed
9634	EE-14	14(19x27)	.110	As Listed	As Listed	As Listed
9635	EE-12	12(19x25)	.129	As Listed	As Listed	As Listed
9636	EE-10	10(37x26)	.149	As Listed	As Listed	As Listed

Stock Colors*

0 Black	**5** Green
1 Brown	**6** Dark Blue
2 Red	**7** Violet (Purple)
3 Orange	**8** Gray (Slate)
4 Yellow	**9** White

NOTE: Tracer colors available upon customer request. Minimum quantity 500 feet.

ROME SYNTHINOL
UL TYPE HOOK-UP AND LEAD WIRES

UL-300V-80C

Catalog Number	Size Awg.	Stranding	Nom. Ins. Thckns.	Volts	Max. Dia. Inches
801	22	Solid	1/64	300	.065
811	20	Solid	1/64	300	.071
841	18	Solid	1/64	300	.080
821	22	7 x No. 30	1/64	300	.069
831	20	10 x No. 30	1/64	300	.078
846	18	16 x No. 30	1/64	300	.085
881	20—2 condr. Black & Red	10 x No. 30	.025	300	.170

UL-600V-105C (CSA 600V-90C)

Catalog Number	Size Awg.	Stranding	Nom. Ins. Thckns.	Volts	Max. Dia. Inches
851	22	Solid	1/32	600	.097
856	20	Solid	1/32	600	.104
861	18	Solid	1/32	600	.112
866	22	7 x No. 30	1/32	600	.102
871	20	10 x No. 30	1/32	600	.110
876	18	16 x No. 30	1/32	600	.119

Colors: Black, Blue, Brown, Green, Orange, Pink, Purple, Red, Slate, White, Yellow

STANDARD SPOOL PUT-UP: 25 FT., 100 FT., 500 FT., 1000 FT.

*Stock Color Numbers in Accordance to Military Type Designation and EIA Color Coding.

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CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

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SHIELDED TEFLON CABLES
MIL-W-16878

Each conductor stranded silver plated copper Type E extruded Teflon .010" insulation—90% braided silver copper shield, also supplied with either a Teflon impregnated Fiberglass braid or Teflon fused tape overall jacket.

Temperature rating —65°C to +260°C. Voltage rating 600 volts.

NO OUTER COVERING OVER SHIELD

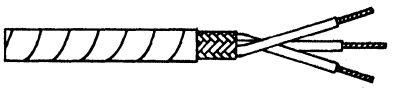
Catalog Number	No. of Cond.	Size & Stranding	Nom. O.D. (Inch)
9800	1	24(19x36)	.069
9801	2	24(19x36)	.112
9802	3	24(19x36)	.120
9803	4	24(19x36)	.132
9804	1	22(19x34)	.075
9805	2	22(19x34)	.124
9806	3	22(19x34)	.132
9807	4	22(19x34)	.146
9808	1	20(19x32)	.083
9809	2	20(19x32)	.142
9810	3	20(19x32)	.151
9811	4	20(19x32)	.168
9812	1	18(19x30)	.093
9813	2	18(19x30)	.162
9814	3	18(19x30)	.172
9815	4	18(19x30)	.192

STOCK COLORS

Catalog Numbers 9800 thru 9855

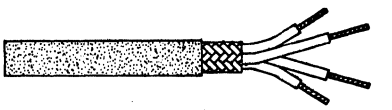
Specify color coding when ordering.

Standard spool put up Catalog Numbers 9800 thru 9855: 100 ft., 500 ft., 1000 ft.



TEFLON TAPE WRAP JACKET OVER SHIELD

Catalog Number	No. of Cond.	Size & Stranding	Nom. O.D. (Inch)
9820	1	24(19x36)	.084
9821	2	24(19x36)	.128
9822	3	24(19x36)	.135
9823	4	24(19x36)	.148
9824	1	22(19x34)	.090
9825	2	22(19x34)	.140
9826	3	22(19x34)	.148
9827	4	22(19x34)	.162
9828	1	20(19x32)	.099
9829	2	20(19x32)	.158
9830	3	20(19x32)	.167
9831	4	20(19x32)	.184
9832	1	18(19x30)	.109
9833	2	18(19x30)	.178
9834	3	18(19x30)	.189
9835	4	18(19x30)	.208



TEFLON IMPREGNATED BRAID OVER SHIELD

Catalog Number	No. of Cond.	Size & Stranding	Nom. O.D. (Inch)
9840	1	24(19x36)	.081
9841	2	24(19x36)	.126
9842	3	24(19x36)	.133
9843	4	24(19x36)	.144
9844	1	22(19x34)	.088
9845	2	22(19x34)	.137
9846	3	22(19x34)	.144
9847	4	22(19x34)	.158
9848	1	20(19x32)	.097
9849	2	20(19x32)	.154
9850	3	20(19x32)	.163
9851	4	20(19x32)	.180
9852	1	18(19x30)	.106
9853	2	18(19x30)	.174
9854	3	18(19x30)	.185
9855	4	18(19x30)	.205

Stock Color Numbers in accordance to Military Type Designation and E.I.A. Color Coding.

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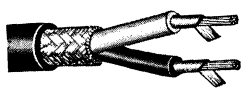
CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

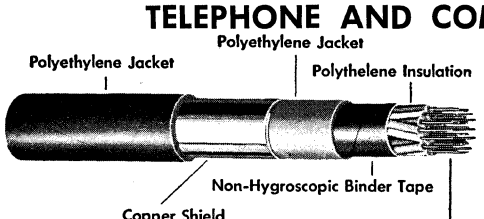
SEND FOR COMPLETE CATALOG

INTERCOMMUNICATING AND SOUND SYSTEM CABLES

STANDARD SPOOL PUT-UP: 10 FT., 25 FT., 50 FT., 100 FT., 500 FT., 1000 FT.

	NO.	TYPE	Size & Stranding	INSULATION THICKNESS (INCHES)	SPECIFICATION AND GENERAL APPLICATION	NOMINAL DIAMETER (INCHES)
STATION-TO-STATION EXTENSION WIRING SHIELDED	5501	2 Condr.	22 Solid	.015	Tinned copper vinyl plastic insulation, wires twisted together condr. red 1 condr. black—closely woven braided tinned copper shield.	.110
	5506	3 Condr.	22 Solid	.015	Same as 550+condr. red—1 condr. black—1 condr. blue.	.145
	5521	2 Condr.	20 Solid	.015	Tinned copper vinyl plastic insulation, wires twisted together—1 condr. red—1 condr. black—closely woven braided tinned copper shield.	.155
EXTENSION WIRING SHIELDED—PLASTIC JACKET	5511	2 Condr	22 Solid	.015	Tinned copper vinyl plastic insulation, wires twisted together—1 condr. red—1 condr. black—and a **spiral** tinned copper shield with .020" tubed gray vinyl plastic jacket.	.170
PAIRED CABLE—SHIELDED PLASTIC JACKET	5516	2 Pair 4 Condr	22 7x30	.015	Stranded tinned copper vinyl plastic insulation. 2 pair cabled (4 conductors—1 pair black & white with braided tinned copper shield—1 pair black & brown unshielded—both pair bunched and .020" gray vinyl plastic jacket overall.	.168x.276
EXTENSION-SPEAKERS SHIELDED FOR LONG RUNS	5526	2 Condr.	20 10x30	.015	Tinned copper vinyl plastic insulation, wires twisted together—1 condr. red—1 condr. black—closely woven tinned copper shield.	.215
	5531	3 Condr.	20 10x30	.015	Same as 5526—1 condr. red—1 condr. black—1 condr. blue.	.230
	5536	2 Condr.	18 16x30	.015	Stranded tinned copper vinyl plastic insulation, wires twisted together. 1 condr. red—1 condr. white, closely woven braided tinned copper shield.	.235
 EXPANSION-SPEAKERS SHIELDED—PLASTIC JACKET	5568	2 Condr.	22 7x30	.015	Tinned copper vinyl plastic insulation. 2 condrs.—cabled black and red—tinned copper **spiral** wrapped shield .023" chrome vinyl plastic jacket.	.166
	5569	3 Condr.	22 7x30	.015	Tinned copper vinyl plastic insulation, 3 condrs.—cabled black, red, whiet—tinned copper spiral shield —chrome vinyl plastic jacket.	.193
	5538	2 Condr.	18 16x30	.015	Stranded tinned copper vinyl plastic insulation, wires twisted together. 1 condr. red. 1 condr. white. **Spiral** tinned copper shield and .020" gray vinyl plastic jacket overall.	.225
	5543	2 Condr.	20 10x30	.015	Same as 5538 1 condr. Red. 1 condr. Black.	.185
	5541	2 Condr.	18 16x30	.015	Stranded tinned copper vinyl plastic insulation, wires twisted together. 1 condr. red—1 condr. white, closely woven braided tinned copper shield and .020" gray vinyl plastic jacket overall.	.260
JUKE BOX SPEAKER CABLE	5547	2 Condr.	24 7x32	.015	Stranded 1 condr. bare copper—1 condr. tinned copper —2 condrs. parallel gray vinyl plastic insulation. Colors—brown, clear, gray, white.	.058x.115
HIGH IMPEDANCE LAPEL MICROPHONES	5551	1 Condr.	24 16x34	.020	Stranded tinned copper polyethylene insulation closely woven braided tinned copper shield with .020" gray vinyl jacket.	.125
INTER COMMUNICATING SOUND SYSTEM	5556	2 Condr.	19 Solid	.015	Bare copper vinyl plastic insulation, wires twisted together—1 condr. brown—1 condr. tan.	.115
	5561	3 Condr.	19 Solid	.015	Same as 5556—1 condr. brown—1 condr. tan—1 condr. gray.	.132
INTER COMMUNICATING WEATHER-PROOF	5566	2 Condr.	22 Solid	.015	Bare copper .015 rubber insulation with a black cotton braid weatherproof finish. Conductors coded for easy identification. Ideal for exterior or interior communication installations.	.131x.203

TELEPHONE AND COMMUNICATION CABLE DIRECT BURIAL TYPE FULLY COLOR CODED



GENERAL APPLICATION AND ADVANTAGE

APPLICATION: Communication and Telephone Cable for use in **direct burial installations** provides a high quality product similar to that used for aerial and duct systems, but with the addition of protective armoring. This minimizes the possibility of damage to the cable from rodents and insects and, correctly installed, reduces the dangers to the cable from sharp stones and other hazards of underground burial installations.

ADVANTAGE: The lightweight, but rugged construction of direct burial Communication and Telephone Cable permits fast and economical underground installation of communication systems with the assurance of dependable and enduring service. This is made possible through utilization of the same high quality polyethylene compounds that are used in its counterpart for aerial and duct type installations, with the added protection of copper armoring tapes and a durable, high-molecular weight, polyethylene jacket.

SPECIFICATIONS

Solid bare annealed copper 22 Awg. gauge conductors; thin wall, color coded, polyethylene insulation; conductors twisted to form pairs with symmetrically varying lays to minimize cross-talk; cabled (for 6 thru 50 pairs) by stranding pairs in concentric layers, or (for 75 thru 400 pairs) by stranding pairs into concentrically formed units, which are in turn cabled to form the complete assembly; non-hygroscopic binder tape furnishing high dielectric strength between shield and individual conductors; continuous copper shielding tape; high-molecular weight, polyethlene jacket.

NO.	NO. OF PAIRS	NO. OF COND.	COND. SIZE	NOMINAL JACKET THICKNESS, MILS		NOMINAL O. D. (Inches)
				INNER	OUTER	
6006	6	12	22 Solid	40	40	.430
6012	12	24	22 Solid	40	40	.500
6018	18	36	22 Solid	40	40	.560
6025	25	50	22 Solid	40	40	.630
6050	50	100	22 Solid	40	40	.820
6075	75	150	22 Solid	50	50	.990
6100	100	200	22 Solid	50	50	1.20
6150	150	300	22 Solid	50	50	1.30
6200	200	400	22 Solid	50	50	1.50
6300	300	600	22 Solid	50	60	1.80
6400	400	800	22 Solid	50	60	2.00

CONSOLIDATED WIRE PAGE 14

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CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

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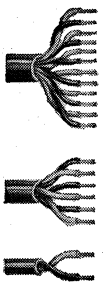
PAIRED PLASTIC CONDUCTORS

SPECIFICATIONS AND GENERAL APPLICATIONS Tinned copper conductor .010" vinyl plastic insulation. Cabled .202" gray vinyl plastic Jacket overall

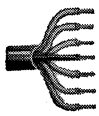


NO.	TYPE	SIZE AND STRANDING	NOMINAL DIAMETER (Inches)
5201	1 Pr. 2 Condr.	22 Solid	.145
5205	2 Pr. 4 Condr.	22 Solid	.190
5211	3 Pr. 6 Condr.	22 Solid	.230
5221	5 Pr. 10 Condr.	22 Solid	.250
5226	6 Pr. 12 Condr.	22 Solid	.265
5231	7 Pr. 14 Condr.	22 Solid	.280
5236	8 Pr. 16 Condr.	22 Solid	.300
5241	9 Pr. 18 Condr.	22 Solid	.320
5251	11 Pr. 22 Condr.	22 Solid	.360
5271	15 Pr. 30 Condr.	22 Solid	.390
5286	27 Pr. 54 Condr.	22 Solid	.510

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

MULTIPLE CONDUCTORS FULLY COLOR CODED

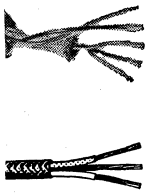
SIZE & STRANDING 22 - 7x30 SPECIFICATION AND GENERAL APPLICATION Tinned copper conductor .010" vinyl plastic insulation. Cabled .020" gray vinyl plastic Jacket overall



NO.	TYPE		NOMINAL DIAMETER (Inches)
5400	2 Condr.	22 / 7x30	.130
5401	3 Condr.	22 / 7x30	.140
5406	4 Condr.	22 / 7x30	.158
5411	5 Condr.	22 / 7x30	.170
5416	6 Condr.	22 / 7x30	.212
5421	7 Condr.	22 / 7x30	.230
5426	8 Condr.	22 / 7x30	.235
5431	9 Condr.	22	.245
5434	12 Condr.	22 / 7x30	.250

STANDARD SPOOL PUT-UP: 10 FT., 15 FT., 25 FT., 100 FT., 500 FT., 1000 FT.

PHONOGRAPH MULTIPLE CABLE STANDARD SPOOL PUT-UP: 500 FT., 1000 FT.



TYPE No.	SIZE	SPECIAL USE	SPECIFICATIONS	STRANDING	FINISHED O.D. (Inches)
5103	3-22	Same as 5030	3 condrs. No. 22 with 1/64" thermoplastic insulation, all individually color coded. All conductors grouped into cable form with a treated cotton braid overall lacquered.	7 x 30	.125
5123	2-16 1-18	Same as 5030	2 condrs. No. 16 1/64" thermoplatic insulation. 1 condr. No. 18 1/32" thermoplastic insulation, all individually color coded. All conductors grouped into cable form with gray vinyl plastic jacket.	2-26 x 30 1-16 x 30	.215
5135	22 5 condr.	Same as 5030	5 condr. No. 22 with 1/64" thermoplastic insulation; 3 condr. twisted together with a braided tinned copper shield; 2 condr. twisted; all condr. grouped into cable form with a brown cotton braid overall.	5-7 x 30	.225
5124	4-18	Same as 5030	No. 18 solid 4 condr. color coded gray plastic jacket overall.	Solid	.225

MICROPHONE CABLE

CONDUCTOR COLOR CHART: 1—Black; 2—White; 3—Red; 4—Green; 5—Yellow; 6—Blue; 7—Brown.

STANDARD SPOOL PUT-UP: 9 FT., 10 FT., 25 FT., 50 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

SHIELDED; Weatherproof rubber jacket for all microphone or weatherproof extension work. (Longer continuous lengths if desired.)

No.	TYPE	SIZE	SPECIAL USE	SPECIFICATIONS	STRANDING	FINISHED O.D. (Inches)	NOMINAL CAPACITY per ft. (mmf)
1461	1 conductor	22	Lapel microphone	Tinned copper polyethylene insulation with a closely woven tinned copper shield. Grey vinyl plastic jacket.	16 x 34	.125	34.
1457	1 conductor	22	Crystal, Ribbon and other high Impedance microphones	Same as 1461 except heavier polyethylene insulation on conductor.	16 x 34	.200	25.
					26 x 34	.175	40.
1458	2 conductor	22	Low impedance microphones	Tinned copper conductors polyethylene insulation conductors; black and white. Cabled with fillers closely woven tinned copper shield. Gray vinyl plastic jacket.	16 x 34	.231	32.
1459	1 conductor	20	Lapel microphone	Tinned Copper Wire, with polyethylene to .087" O.D. with a closely woven tinned copper shielded braid, and a heavy black plastic jacket overall.	26 x 34	.240	33.
1460	1 conductor	20	Crystal microphone	Tinned copper, yarn serve; wall of live rubber; tinned copper braid shield; rubber jacket overall.	26 x 34	.240	68.
1462	2 conductor	20	Carbon microphones	Same as 1460; color coded	00 x 00	.268	
1456	2 conductor	18	Heavy duty studio cable	Same as 1460; color coded	41 x 34	.295	80.
1463	3 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.277	85.
1464	4 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.295	95.
1465	5 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.323	
1466	6 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.350	
1467	7 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.360	
1455	8 conductor	20	Same as 1465	Same as 2460; color coded	26 x 34	.386	

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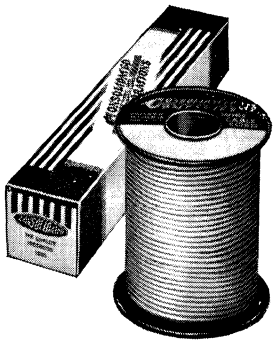

CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

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CONSOLIDATED

MAGNET WIRE

Popular, profitable specialty wire packaged for easy selling in radio-electrical, department, specialty and hardware stores. Wide variety of sizes and insulations. Keeps stock in perfect order, always saleable. Supplied on Spool as shown and in Heavier Weights for whatever weight desired. Here is a handy and convenient way to stock small quantities of wire. It prevents wire from matting or tangling.

No. 2000 VARIOUS OTHER INSULATIONS

Film	Technical Classification
ENAMEL—oleoresinous	
FORMVAR—poly vinyl acetal	
SODEREZE—polyurethane	
THERMALEZE—epoxide polyester	
NYFORM—formvar, nylon sheath	
NYLON	
BONDEZE	
GRIPEZE	
LECTRON—acrylic	
ISONSEL—terephthalic polyester	
ALKANVAR—terephthalic polyester	
SYLKYD ENAMELED	
COTTON AND COMBINATIONS	
SILK AND COMBINATIONS	
CELANESE AND COMBINATIONS	
GLASS AND COMBINATIONS	
PAPER AND COMBINATIONS	

Larger Quantities At Same Per Pound List

SPECIAL MAGNET WIRES

In addition to the standard listing shown here, we maintain an extensive stock of all other sizes in round, rectangular and square magnet wire.

PLAIN ENAMEL MAGNET WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.45	$0.75	$1.39
15	.45	.80	1.40
16	.50	.84	1.42
17	.50	.87	1.44
18	.50	.89	1.45
19	.55	.92	1.49
20	.55	.94	1.50
21	.55	.95	1.59
22	.55	.97	1.70
23	.58	.99	1.75
24	.60	1.00	1.87
25	.65	1.10	1.95
26	.65	1.10	2.03
27	.70	1.15	2.14
28	.73	1.20	2.25
29	.75	1.25	2.30
30	.80	1.30	2.35
31	.89	1.35	2.45
32	.90	1.40	2.50
33	.95	1.50	2.65
34	1.00	1.70	2.75
35	1.09	1.84	3.14
36	1.29	2.00	3.50
37	1.45	2.25	4.00
38	1.70	2.50	4.50
39	1.87	3.00	5.00
40	2.50	3.75	6.00
41	3.00	5.63	8.48
42	3.48	6.60	12.89
43	4.35	8.25	15.75
44	4.88	9.38	18.45

SINGLE FORMVAR MAGNET WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.66	$1.12	$2.07
15	.66	1.20	2.10
16	.75	1.25	2.14
17	.75	1.30	2.15
18	.75	1.34	2.17
19	.83	1.39	2.23
20	.83	1.40	2.25
21	.83	1.42	2.37
22	.83	1.45	2.56
23	.89	1.49	2.62
24	.90	1.50	2.80
25	.97	1.65	2.92
26	.99	1.65	3.05
27	1.05	1.74	3.26
28	1.10	1.80	3.37
29	1.14	1.87	3.46
30	1.20	1.95	3.52
31	1.34	2.02	3.67
32	1.35	2.10	3.75
33	1.42	2.25	3.95
34	1.50	2.55	4.12
35	1.64	2.81	4.70
36	1.92	3.00	5.26
37	2.17	3.37	6.00
38	2.55	3.75	6.76
39	2.80	4.50	7.50
40	3.75	5.64	9.00
41	3.75	6.75	12.60
42	4.28	7.40	13.43
43	5.18	7.88	14.25
44	6.60	11.70	22.58

HEAVY FORMVAR MAGNET WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.73	$1.24	$2.27
15	.73	1.34	2.33
16	.84	1.39	2.35
17	.84	1.44	2.37
18	.84	1.47	2.39
19	.92	1.52	2.45
20	.92	1.54	2.51
21	.92	1.55	2.61
22	.92	1.60	2.80
23	.97	1.64	2.87
24	1.00	1.65	3.07
25	1.15	1.97	3.50
26	1.19	1.98	3.64
27	1.25	2.07	3.84
28	1.34	2.15	4.04
29	1.37	2.24	4.14
30	1.44	2.34	4.22
31	1.67	2.52	4.58
32	1.69	2.63	4.67
33	1.77	2.81	4.94
34	1.87	3.19	5.16
35	2.04	3.46	5.88
36	2.39	3.75	6.58
37	2.72	4.20	7.50
38	3.17	4.69	8.45
39	3.50	5.64	9.38
40	4.69	7.04	11.27
41	5.18	7.59	13.65
42	5.78	8.15	14.72
43	6.00	8.63	15.08
44	7.43	11.40	23.93

DOUBLE COTTON COVERED MAGNET WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.55	$0.95	$1.87
15	.58	.98	1.90
16	.60	1.00	1.95
17	.60	1.05	2.00
18	.60	1.10	2.05
19	.65	1.15	2.28
20	.65	1.25	2.34
21	.77	1.34	2.50
22	.82	1.39	2.64
23	.88	1.50	2.75
24	.94	1.60	3.00
25	.95	1.65	3.14
26	1.00	1.75	3.39
27	1.15	1.89	3.64
28	1.20	2.14	4.00
29	1.30	2.39	4.50
30	1.32	2.50	4.75
31	1.50	2.75	5.00
32	1.75	3.00	5.64
33	1.89	3.37	6.25
34	2.14	3.89	7.00
35	2.39	4.25	7.50
36	2.75	4.89	8.65
37	2.25	6.25	11.40
38	4.75	8.65	16.50
39	6.00	11.50	20.00
40	8.00	15.00	28.15

BARE COPPER WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.53	$0.97	$1.54
15	.57	1.00	1.60
16	.60	1.10	1.83
17	.52	1.12	1.87
18	.63	1.14	1.90
19	.65	1.17	1.95
20	.67	1.20	2.00
21	.68	1.20	2.07
22	.70	1.24	2.14
23	.70	1.27	2.17
24	.70	1.30	2.20
25	.72	1.30	2.20
26	.73	1.34	2.27
27	.75	1.37	2.30
28	.77	1.40	2.40
29	.77	1.42	2.47
30	.77	1.42	2.47
31	.77	1.44	2.53
32	.77	1.44	2.60
33	.78	1.47	2.68
34	.80	1.50	2.77
35	.82	1.55	2.90
36	.84	1.60	3.04
37	.92	1.75	3.22
38	1.00	1.90	3.40
39	1.02	1.97	3.45
40	1.04	2.04	3.50

TINNED COPPER WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.67	$1.13	$1.75
15	.73	1.27	1.92
16	.80	1.40	2.00
17	.84	1.44	2.03
18	.87	1.47	2.08
19	.90	1.50	2.12
20	.94	1.53	2.17
21	.95	1.53	2.24
22	.97	1.57	2.30
23	.98	1.58	2.34
24	1.00	1.60	2.37
25	1.00	1.60	2.37
26	1.00	1.60	2.37
27	1.05	1.67	2.64
28	1.10	1.75	2.90
29	1.13	1.84	2.94
30	1.17	1.92	2.97
31	1.20	2.00	3.04
32	1.24	2.09	3.10
33	1.27	2.17	3.19
34	1.30	2.25	3.27
35	1.32	2.30	3.40
36	1.34	2.34	3.54
37	1.36	2.42	3.72
38	1.38	2.50	3.90
39	1.39	2.50	3.95
40	1.40	2.67	4.00

BARE NICKEL CHROMIUM WIRE

No. 2000

Recommended for electrical heating appliances and other devices where the highest quality in performance is required, whose operating temperatures do not exceed 1850° F. Particularly suited for heavy duty rheostats and controls which require compact resistance.

ON PROTECTA-METAL SPOOLS

Size	1 Oz.	¼ Lb.	1 Lb.
14	....	$1.52	$5.56
15	....	1.56	5.65
16	....	1.58	5.73
17	....	1.63	5.80
18	....	1.67	5.87
19	....	1.71	6.02
20	$0.67	1.76	6.17
21	.71	1.85	6.49
22	.72	1.93	6.79
23	.74	2.08	7.44
24	.76	2.22	8.09
25	.82	2.37	8.74
26	.87	2.53	9.39
27	.89	2.57	9.96
28	$0.92	$2.84	$10.53
29	1.00	2.98	11.18
30	1.09	3.11	11.83
31	1.14	3.28	12.28
32	1.18	3.43	12.73
33	1.31	3.79	14.73
34	1.44	4.16	16.73
35	1.58	4.55	17.71
36	1.71	4.94	18.69
37	2.22	6.50	23.86
38	2.74	8.05	29.03
39	2.86	8.39	31.62
40	2.98	8.95	34.20

CONSOLIDATED WIRE PAGE 16

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CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG

MULTIPLE CONDUCTOR COTTON BRAIDED CABLE

FOR SPEAKERS, TESTERS, BATTERY HOOK-UP, ETC.

SPECIFICATIONS: Tinned flexible copper; colored plastic insulation; bunched individual conductors; heavy brown cotton braid overall; color coded. Size 20; Stranding 10x30; Insulation Thickness 1/64".

TYPE NO.	TYPE	FINISHED O.D. (Inches)	TYPE NO.	TYPE	FINISHED O.D. (Inches)
1481	1 condr.	.150	1487	7 condr.	.275
1482	2 condr.	.175	1488	8 condr.	.300
1483	3 condr.	.200	1489	9 condr.	.310
1484	4 condr.	.275	1490	10 condr.	.325
1485	5 condr.	.250	1494	11 condr.	.335
1486	6 condr.	.260	1495	12 condr.	.350

MULTIPLE CONDUCTOR TINNED COPPER SHIELD CABLE

SPECIFICATIONS: Tinned flexible copper, 912E20, Stranding 10x30—1/64" plastic Insulation, color coded, Braided tinned copper shield.

TYPE NO.	TYPE	FINISHED O.D. (Inches)
1471	1 conductor	.110
1472	2 conductors	.190
1473	3 conductors	.200
1474	4 conductors	.220
1475	5 conductors	.235
1476	6 conductors	.250
1477	7 conductors	.265

ANALYZER CABLE

SPECIFICATIONS: Extra flexible tinned copper; plastic insulation; color coded; Brown cotton braid overall.

	TYPE	SIZE	STRAND-ING	INSULATION THICKNESS (Inches)	FINISHED O.D. (Inches)
1501	8 condr.	2-14	41 x 30	1/64	.300
		6-18	16 x 30		
1502	9 condr.	2-14	41 x 30	1/64	.320
		7-18	16 x 30		

TEST PROD WIRE

A Specially Constructed High Grade Wire For Use On Laboratory Test Equipment, Bench Analyzers, Etc.

SPECIFICATIONS: Extra flexible tinned copper; cotton wrap; red or black; live rubber insulation.

1001	5,000 volts	20	41 x 36	.043	.140
1006	10,000 volts	18	65 x 36	.088	.230

SHIELDING AND BONDING CABLE

DESIGNED FOR SHIELDING INSULATED WIRES AND CABLES . . . BONDING AND MANY OTHER USES

STANDARD SPOOL PUT-UP: 50 FT., 100 FT., 250 FT., 1000 FT.

NO.	APPROX. I. D.	SIZE & NUMBER OF WIRES	APPROX. AWG.	CARRYING CAPACITY IN AMPERES
1386	1/32"	24 x 36	24	7
1387	3/64"	24 x 36	23	7
1388	3/32"	48 x 36	19	12
1389	7/64"	72 x 36	18	14
1390	1/8"	96 x 36	18	15
1391	3/16"	120 x 36	15	23
1392	1/4"	168 x 36	14	30
1393	3/8"	288 x 36	11	50
1394	1/2"	386 x 36	10	55
1395	5/8"	396 x 36	10	61
1396	3/4"	832 x 36	7	80
1397	25/32"	832 x 36	7	80
1398	1"	832 x 36	7	84
1399	1 3/8"	912 x 36	7	105

TINNED COPPER BUS BAR WIRE

SOLID SOFT DRAWN COPPER AND BRIGHTLY TINNED FOR ALL TYPES OF SOLDERING CONNECTIONS AND OTHER APPLICATIONS

STANDARD SPOOL PUT-UP: 100 FT., 1000 FT.

NO.	NOMINAL DIAMETER	SIZE SOLID	CIRCULAR MIL. AREA
3845	.129"	8	16510
3841	.102"	10	10380
3831	.082"	12	6530
3821	.064"	14	4110
3815	.051"	16	2583
3816	.040"	18	1624
3817	.032"	20	1022
3818	.025"	22	642
3819	.020"	24	404
3846	.016"	26	254.1
3847	.013"	28	159.8
3848	.010"	30	100.5

LEAD COVERED CABLE

FOR FREEDOM FROM INTERFERENCE, CORROSION AND DAMPNESS.

SPECIFICATIONS: Tinned copper wire; heavy rubber insulation and cotton braid; heavy lead shield.

1453	2 cond.	18	Solid	1/32	240 x .200
1454	3 cond.	18	Solid	1/32	.420

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CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG

ELECTRICAL CORDAGES
UNDERWRITERS APPROVED

SUPPLIED ON ATTRACTIVE TRI-COLOR LITHOGRAPHED METAL SPOOLS

RUBBER HANDYCORD CENTERSTRIP

STANDARD SPOOL PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT., 500 FT., 1000FF.

NO.	NO. OF COND.	SIZE AWG.	U. L. TYPE	STRAND-ING	NOM. INS. THICKNESS	NOM. O. D.
4072	2	18	SP(P.O.S.J.)	41 x 34	1/64″	.235 x .130
4074	2	16	SP(P.O.S.J.)	65 x 34	1/32″	.300 x .160

Colors: Black, Brown, White, Gray.

PLASTIC HANDYCORD CENTERSTRIP

STANDARD SPOOL PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

4077	2	18	SPT(P.O.T.)	41 x 34	1/64″	.235 x .130
4079	2	16	SPT(P.O.T.)	65 x 34	1/32″	.300 x .160

Colors: Black, Brown, White, Gray.

RUBBER SHEATHED SERVICE CORD
UNDERWRITERS APPROVED

STANDARD PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT.

NO.	NO. OF COND.	SIZE AWG.	U. L. TYPE	CURRENT CARRYING CAPACITY	VOLTAGE RATING	NOM. O. D.
4202	2	18	SV	5 Amps.	300	.250″
4207	2	18	SJ	5 Amps.	300	.310″
4212	3	18	SJ	5 Amps.	300	.345″
4214	4	18	SJ	5 Amps.	300	.360″
4217	2	16	SJ	7 Amps.	300	.340″
4222	3	16	SJ	7 Amps.	300	.375″
4224	4	16	SJ	7 Amps.	600	.395″
4227	2	18	S	5 Amps.	600	.390″
4232	3	18	S	5 Amps.	600	.405″
4234	4	18	S	5 Amps.	600	.435″
4237	2	16	S	7 Amps.	600	.410″
4242	3	16	S	7 Amps.	600	.430″
4244	4	16	S	7 Amps.	600	.485″
4247	2	14	S	15 Amps.	600	.540″
4252	3	14	S	15 Amps.	600	.560″
4254	4	14	S	15 Amps.	600	.605″
4257	2	12	S			
4262	3	12	S	20 Amps.	600	.635″
4264	4	12	S	20 Amps.	600	.665″
4267	2	10	S	25 Amps.	600	.640″
4272	3	10	S	25 Amps.	600	.690″
4274	4	10		25 Amps.	600	.745″

SPECIFICATIONS AND APPLICATION

Extra flexible bare copper cotton served. 1/32″ rubber insulation color coded conductors cabled with fillers, cotton wrap and black, tough rubber jacket.

For all electronic equipment, household appliances, garden and power tools.

NEOPRENE SHEATHED SERVICE CORD
UNDERWRITERS APPROVED

STANDARD PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT.

4307	2	18	SJO	5 Amps.	300	.310″
4312	3	18	SJO	5 Amps.	300	.345″
4314	4	18	SJO	5 Amps.	300	.360″
4317	2	16	SJO	7 Amps.	300	.340″
4322	3	16	SJO	7 Amps.	300	.375″
4324	4	16	SO	7 Amps.	600	.395″
4327	2	18	SO	5 Amps.	600	.390″
4332	3	18	SO	5 Amps.	600	.405″
4334	4	18	SO	5 Amps.	600	.435″
4337	2	16	SO	7 Amps.	600	.410″
4342	3	16	SO	7 Amps.	600	.430″
4344	4	16	SO	7 Amps.	600	.485″
4347	2	14	SO	15 Amps.	600	.540″
4352	3	14	SO	15 Amps.	600	.560″
4354	4	14	SO	15 Amps.	600	.605″
4357	2	12	SO	20 Amps.	600	.605″
4362	3	12	SO	20 Amps.	600	.635″
4364	4	12	SO	20 Amps.	600	.665″
4367	2	10	SO	25 Amps.	600	.640″
4372	3	10	SO	25 Amps.	600	.690″
4374	4	10	SO	25 Amps.	600	.745″

SPECIFICATIONS AND APPLICATION

Same specifications as 4200 Series except black Neoprene jacket.

For all types of equipment exposed to oils, acid and excessive moisture.

HEATER CORD

Colors: Black and White Marker.

STANDARD SPOOL PUT-UP: 100 FT., 250 FT.

NO.	NO. OF COND.	SIZE AWG.	U. L. TYPE	STRAND-ING	NOM. INS. THICKNESS	NOM. O. D.
4087	2	16	HPD	65 x 34	1/32″	.275
4092	2	18	HPD	41 x 34	1/32″	.250

CONSOLIDATED WIRE PAGE 18

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DABURN ELECTRONICS & CABLE CORP.
WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

DAFLEX PLASTIC TUBING

105°C POLVINYLCHLORIDE (PVC) MEETS MIL-I-631D SPECS

Specifically compounded vinyl resins for superior all around performance. UL approved for 105°C, conforms to Spec MIL-I-631D Type F, Form U, Grades A and C. Class 1 and 2, Category 1. Resistant to heat, oil, water, chemical corrosion, fungi and aging. Very hi abrasion resistance. Will retain its flexibility. Suitable for covering and protecting wires and cables. Designed for electrical, electronic and aircraft applications. Non-flammable. Meets ASTM—D876, ASTM—D922.

DAFLEX No.	Size	Old Daburn No.	Nom. I.D.	Nom. Wall	Specify Std. Put-Up Spool or Coil
D105-24	24	808	.022″	.012″	25′, 100′, 1000′
D105-22	22	811	.027″	.012″	25′, 100′, 1000′
D105-20	20	813	.034″	.016″	25′, 100′, 1000′
D105-19	19	—	.038″	.016″	100′, 1000′
D105-18	18	814	.042″	.016″	25′, 100′, 1000′
D105-17	17	—	.047″	.016″	100′, 1000′
D105-16	16	815	.053″	.016″	25′, 100′, 1000′
D105-15	15	—	.059″	.016″	100′, 500′
D105-14	14	816	.066″	.016″	25′, 100′, 500′
D105-13	13	—	.076″	.016″	100′, 500′
D105-12	12	817	.085″	.016″	25′, 100′, 500′
D105-11	11	—	.095″	.016″	100′, 500′
D105-10	10	825	.106″	.016″	25′, 100′, 500′
D105-9	9	—	.118″	.020″	100′, 500′
D105-8	8	818	.135″	.020″	25′, 100′, 500′
D105-7	7	—	.148″	.020″	100′, 500′
D105-6	6	826	.166″	.020″	25′, 100′, 250′
D105-5	5	—	.186″	.020″	100′, 250′
D105-4	4	819	.208″	.020″	25′, 100′, 250′
D105-3	3	—	.234″	.020″	100′, 250′
D105-2	2	820	.263″	.020″	100′, 250′
D105-1	1	—	.330″	.020″	100′, 250′
D105-0	0	—	.330″	.020″	100′, 250′
D105-5/16″	5/16″	821	.312″	.025″	100′, 250′
D105-3/8″	3/8″	822	.375″	.025″	100′, 250′
D105-7/16″	7/16″	—	.438″	.025″	100′, 250′
D105-1/2″	1/2″	823	.500″	.025″	100′, 250′
D105-9/16″	9/16″	—	.562″	.030″	50′, 100′
D105-5/8″	5/8″	824	.625″	.030″	50′, 100′
D105-3/4″	3/4″	827	.750″	.035″	50′, 100′
D105-7/8″	7/8″	860	.875″	.035″	50′, 100′
D105-1″	1″	861	1.000″	.035″	50′
D105-1 1/8″	1 1/8″	—	1.125″	.040″	50′
D105-1 1/4″	1 1/4″	862	1.250″	.040″	50′
D105-1 3/8″	1 3/8″	—	1.375″	.040″	50′
D105-1 1/2″	1 1/2″	863	1.500″	.045″	50′
D105-1 3/4″	1 3/4″	828	1.750″	.055″	50′
D105-2″	2″	829	2.000″	.060″	50′
D105-2 1/4″	2 1/4″	864	2.250″	.065″	50′
D105-2 1/2″	2 1/2″	865	2.500″	.070″	50′

DIMENSIONAL TOLERANCES OF DAFLEX 105

Size	Approx. I.D., Inches	ASTM Tolerance, Inches		Wall Thickness Inches
24	.022	.020	.027	.012 ±.002
22	.027	.025	.032	.012 ±.002
20	.034	.032	.039	.016 ±.003
19	.038	.044	.036	.016 ±.003
18	.042	.040	.049	.016 ±.003
17	.047	.054	.045	.016 ±.003
16	.053	.051	.061	.016 ±.003
15	.059	.067	.057	.016 ±.003
14	.066	.064	.072	.016 ±.003
13	.076	.080	.072	.016 ±.003
12	.085	.081	.089	.016 ±.003
11	.095	.101	.091	.016 ±.003
9	.118	.124	.114	.020 ±.003
8	.133	.129	.141	.020 ±.003
7	.148	.158	.144	.020 ±.003
6	.166	.162	.178	.020 ±.003
5	.186	.198	.182	.020 ±.003
4	.208	.204	.224	.020 ±.003
3	.234	.249	.229	.020 ±.003
2	.263	.258	.278	.020 ±.003
1	.294	.311	.289	.020 ±.003
0	.330	.347	.325	.020 ±.003
5/16″	.315	.3125	.334	.025 ±.003
3/8″	.375	.375	.399	.025 ±.003
7/16″	.438	.462	.438	.025 ±.003
1/2″	.500	.500	.524	.025 ±.003
9/16″	.562	.592	.562	.030 ±.003
5/8″	.625	.625	.655	.030 ±.005
3/4″	.750	.750	.186	.035 ±.005
7/8″	.875	.875	.911	.035 ±.005
1″	1.000	1.000	1.036	.035 ±.005
1 1/8″	1.125	1.125	1.161	.035 ±.005
1 1/4″	1.250	1.250	1.286	.040 ±.005
1 3/8″	1.375	1.375	1.411	.040 ±.005
1 1/2″	1.500	1.500	1.536	.045 ±.005
1 3/4″	1.750	1.812	1.750	.055 ±.008
2″	2.000	2.000	2.070	.060 ±.010
2 1/4″	2.250	2.250	2.330	.065 ±.010
2 1/2″	2.500	2.500	2.590	.070 ±.010

IN STOCK

PROPERTIES OF DAFLEX-105 TUBING

Recommended for Temperatures to 105°C

Low Temperature Flexibility to −30°C

Dielectric Strength — .020″ Wall 800 V/MIL

Dielectric Constant 6.0

Tensile Strength — Min. (PSI) 2700

Ultimate Elongation 300%

Oil Resistance Excellent

Fungus Resistance Excellent

Flammability Self Extinguishing

Corrosion and Abrasion Resistance Excellent

COLORS AVAILABLE FROM STOCK

Sizes #24 thru 2: Clear, Black, White, Yellow, Red, Green, Brown, Blue, Orange.

Sizes 5/16″ thru 3/4″: Clear, Black, Yellow, Red, Green, White.
Sizes 7/8″ thru 2 1/2″: Clear, Black, White.
Additional Colors to Order.

ALL THE ABOVE TUBING CAN BE ORDERED CUT AND MARKED TO YOUR SPECIFICATIONS

DAFLEX VINYL COATED FIBERGLASS TUBING 130°C

MEETS MIL-I-3190B SPECS (ASTM, NEMA GRADE B-B-1)

DAFLEX 130 is recommended for continuous temperatures up to 130°C. Constructed to provide a tough, flexible, heat resistant tubing. Made from an inorganic fiberglass base sleeving with heat resistant plastic coating, extremely flexible tough plastic insulation. Will not support combustion. Meets MIL-I-3190B, NEMA VSI ASTM D372. MIL-I-21557

DAFLEX No.	Size	Old Daburn No.	Nom. I.D.	Specify Std. Put-Up Spool or Coil
D130-24	24	889	.022″	100′, 1000′
D130-22	22	890	.027″	100′, 1000′
D130-20	20	891	.034″	25′, 100′, 1000′
D130-19	19	—	.038″	100′, 1000′
D130-18	18	893	.042″	25′, 100′, 1000′
D130-17	17	—	.047″	100′, 1000′
D130-16	16	894	.053″	25′, 100′, 1000′
D130-15	15	—	.059″	100′, 1000′
D130-14	14	895	.066″	25′, 100′, 500′
D130-13	13	—	.076″	100′, 500′
D130-12	12	800	.085″	25′, 100′, 500′
D130-11	11	—	.095″	100′, 500′
D130-10	10	807	.106″	25′, 100′, 500′
D130-9	9	—	.118″	100′, 500′
D130-8	8	801	.133″	25′, 100′, 500′

DAFLEX No.	Size	Old Daburn No.	Nom. I.D.	Specify Std. Put-Up Spool or Coil
D130-7	7	—	.148″	100′, 250′
D130-6	6	802	.166″	100′, 250′
D130-5	5	—	.186″	100′, 250′
D130-4	4	805	.208″	100′, 250′
D130-3	3	—	.234″	100′, 250′
D130-2	2	806	.263″	100′, 250′
D130-1	1	—	.294″	100′
D130-0	0	803	.330″	100′
D130-3/8″	3/8″	804	.375″	100′
D130-7/16″	7/16″	—	.438″	100′
D130-1/2″	1/2″	899	.500″	100′
D130-5/8″	5/8″	896	.625″	100′
D130-3/4″	3/4″	—	.750″	100′
D130-7/8″	7/8″	—	.875″	100′
D130-1″	1″	—	1.018″	100′

DIMENSIONAL TOLERANCES OF VINYL COATED FIBERGLASS

DAFLEX 130

Size	Approx. I.D.	N.E.M.A. Tolerances Inches
24	.022	.020-.027
22	.027	.025-.032
20	.034	.032-.039
18	.042	.040-.049
16	.053	.051-.061
14	.066	.064-.072
12	.085	.081-.089
10	.106	.102-.112
8	.133	.129-.141
6	.166	.162-.178
5/16, 4	.208	.204-.224
1/4, 2	.263	.258-.278
5/16	.3125	.312-.328
3/8	.375	.375-.399
1/2	.500	.500-.524
5/8	.625	.625-.655

COLORS AVAILABLE FROM STOCK

#24 thru #2: Black, Red, Green, Yellow, Brown, Blue.
5/16″ thru 1″: Black.
Additional Colors to Order.

PROPERTIES OF DAFLEX 130 VINYL COATED FIBERGLASS

Recommended for Temperatures to 130°C

Max. Low Temperature Flexibility −20°C

Dielectric Strength 4000 V/MIL

Dielectric Constant 7.0

Tensile Strength — Min. (PSI) 1500

Ultimate Elongation 350%

Will not support Combustion, Abrasion, Oil, Chemical Corrosion Resistance Excellent

Fungus Resistance Good

Gamma Radiation Dosage to 25% 10^9

Degradation ERGS/GRAM Color Stability even on Prolonged Baking at Elevated Temperatures

See Pages 1724 and 1725 for Complete Price List
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DABURN

DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

DAFLON TEFLON* SPAGHETTI TUBING

Daflon 500 and 550 tubing is extruded from Dupont tetrafluoroethylene resin and is unmatched by any other tubing for use in applications for hi frequencies and hi temperatures. Rated for continuous operation of 250°C it retains its toughness and flexibility thruout. Has high resistance to fatigue and stresses. Will not shrink back during soldering operation. Non-flammable, flexible, it permits miniaturization of design and compactness. Lowest coefficient of friction. Inert to all fungus growth. Conforms to **MIL-I-22129C Spec.** AMS 3651B, 3653B, 3654, 3655.

TABLE OF PROPERTIES

Test	ASTM Method	Result
Tensile Strength, 73°F.	D638-52T	1500-300 Lb/Sq. In.
Elongation, 73°F.	D638-52T	100-200%
Deformation Under Load—122°F. 1200 Lb/Sq. In., 24 Hrs. 2000 Lb/Sq. In., 24 Hrs.	 D621-51 D621-51	 4-8% 25%
Hardness Durometer	D676-49T	D50-D65
Heat Distortion Temp., 6 Lb/Sq. In.	D648B-45T	250°C
Dielectric Strength, .080″	D149-44	400-500 V/MIL
Surface Arc-Resistance	D495-48T	Sec.
Volume Resistivity	D257-52T	10^{15} Ohm-CM
Surface Resistivity, 100% R.H.	D257-52T	$3.6x10^{6}$ Megohms
Dielectric Constant, 60 to 10^{8} Cycles	D150-54T	2.00
Power Factor, 60 to 10^{8} Cycles	D150-54T	0.0003
Specific Gravity	D792-50	2.1-2.2

DAFLON THIN WALL TEFLON® TUBING (DTT-500) MIL-I-22129C

DAFLON No.	Size	Nom. I.D.	Nom. Wall Thickness	Specify Std. Put-Up Spool or Coil
DTT 500-32	32	.011″	.0085″	100′, 500′, 1000′
DTT 500-30	30	.012″	.009″	100′, 500′, 1000′
DTT 500-28	28	.015″	.009″	100′, 500′, 1000′
DTT 500-26	26	.018″	.010″	100′, 500′, 1000′
DTT 500-24	24	.022″	.010″	25′, 50′, 100′, 500′, 1000′
DTT 500-22	22	.027″	.010″	25′, 50′, 100′, 500′, 1000′
DTT 500-20	20	.034″	.012″	25′, 50′, 100′, 500′, 1000′
DTT 500-19	19	.038″	.012″	100′, 500′, 1000′
DTT 500-18	18	.042″	.012″	25′, 50′, 100′, 500′, 1000′
DTT 500-17	17	.047″	.012″	100′, 500′, 1000′
DTT 500-16	16	.053″	.012″	25′, 50′, 100′, 500′, 1000′
DTT 500-15	15	.059″	.012″	100′, 500′, 1000′
DTT 500-14	14	.066″	.012″	25′, 50′, 100′, 500′, 1000′
DTT 500-13	13	.076″	.012″	100′, 500′, 1000′
DTT 500-12	12	.085″	.012″	25′, 50′, 100′, 500′, 1000′
DTT 500-11	11	.095″	.012″	100′, 500′, 1000′
DTT 500-10	10	.106″	.012″	25′, 50′, 100′, 500′, 1000′
DTT 500-9	9	.118″	.015″	100′, 500′, 1000′*
DTT 500-8	8	.133″	.015″	25′, 50′, 100′, 500′, 1000′*
DTT 500-7	7	.148″	.015″	100′, 500′, 1000′*
DTT 500-6	6	.166″	.015″	25′, 50′, 100′, 500′, 1000′*
DTT 500-5	5	.186″	.015″	100′, 500′, 1000′*
DTT-500-4	4	.208″	.015″	25′, 50′, 100′, 500′, 1000′*
DTT 500-3	3	.234″	.015″	100′, 500′, 1000′*
DTT 500-2	2	.263″	.015″	25′, 50′, 100′, 500′, 1000′*
DTT 500-1	1	.294″	.015″	100′, 500′, 1000′*
DTT 500-0	0	.330″	.015″	25′, 50′, 100′, 500′, 1000′*
DTT 500-3/8	3/8	.390″	.020″	50′, 100′*
DTT 500-7/16	7/16	.453″	.020″	50′, 100′*
DTT 500-1/2	1/2	.515″	.025″	25′, 50′, 100′*
DTT 500-9/16	9/16	.583″	.025″	25′, 50′, 100′*
DTT 500-5/8	5/8	.640″	.030″	25′, 50′, 100′*
DTT 500-3/4	3/4	.765″	.030″	25′, 50′, 100′*
DTT 500-7/8	7/8	.895″	.030″	25′, 50′, 100′*
DTT 500-1″	1″	1.025″	.030″	25′, 50′, 100′*
DTT 500-1 1/8″	1 1/8″	1.150″	.030″	25′, 50′, 100′*
DTT 500-1 1/4″	1 1/4″	1.275″	.030″	25′, 50′, 100′*

*Random Lengths in Coils.

STOCK COLORS AVAILABLE: Natural, Red, Black, Yellow, Blue, Brown, Green, Orange, Gray, Violet, White.

If no color is specified, natural will be supplied.

SMALL PIECE CUTTING AVAILABLE TO ORDER

STOCK COLORS: Natural, Red, Black, Blue, Brown, Green, Orange, Yellow, Gray, Violet, White.

Nos. **DTT500-3/8** thru **1 1/4″** available in Natural. Additional Colors, Sizes Made to Order.

Teflon Tubing can be ordered cut to your specifications.

•

Tracer Colors Available

•

We Invite Your Inquiries For Your Special Requirements.

•

WIRE — CABLE — TUBING DIVISION

PROPERTIES OF DAFLON 500 & 550 TEFLON TUBING

Continuous Service to	250°C
Low Temperature Flexibility	−90°C
Dielectric Strength Color Stability Dielectric Constant	2.0
Dielectric Strength.	500 to 1000 V/MIL
Fungus, Oil, Chemical Corrosion	Completely Inert

DAFLON STANDARD WALL TEFLON® TUBING (DTT-550) MIL-I-22129C Spec.

FOR USE WHERE GREATER MECHANICAL STRENGTH IS INDICATED

DAFLON No.	Nom. Size	Nom. I.D.	Nom. Wall Thickness	Std. Put-Up Spool or Coil
DTT 550-24	24	.022″	.012″	100′
DTT 550-22	22	.027″	.012″	100′
DTT 550-20	20	.034″	.016″	100′
DTT 550-19	19	.038″	.016″	100′
DTT 550-18	18	.042″	.016″	100′
DTT 550-17	17	.047″	.016″	100′
DTT 550-16	16	.053″	.016″	100′
DTT 550-15	15	.059″	.016″	100′
DTT 550-14	14	.066″	.016″	100′
DTT 550-13	13	.076″	.016″	100′
DTT 550-12	12	.085″	.016″	100′
DTT 550-11	11	.095″	.016″	100′
DTT 550-10	10	.106″	.016″	100′
DTT 550-9	9	.118″	.020″	100′*
DTT 550-8	8	.133″	.020″	100′*
DTT 550-7	7	.148″	.020″	100′*
DTT 550-6	6	.166″	.020″	100′*
DTT 550-5	5	.186″	.020″	100′*
DTT 550-4	4	.208″	.020″	100′*
DTT 550-3	3	.234″	.020″	100′*
DTT-550-2	2	.263″	.020″	100′*
DTT 550-1	1	.294″	.020″	100′*
DTT 550-0	0	.330″	.020″	100′*

STOCK COLORS: Natural
Available All Other Colors.

*Random Lengths in Coils.
Made from Hi Molecular Weight Virgin "TEFLON."

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DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

LOW TEMPERATURE TUBING

DAFLEX 74 EXTRUDED PLASTIC TUBING
LOW TEMPERATURE PER MIL SPEC MIL-I-7444B TO −94°C

Low temperature applications at sub-zero. Meets Mil spec. Fungus resistant. 750 V/Mil dielectric strength. Tensile strength 2200 psi. Elongation — 360%

DAFLEX No.	Size	Nom. I.D.	Nom. Wall
D74-24	24	.022″	.012″
D74-22	22	.027″	.012″
D74-20	20	.034″	.016″
D74-19	19	.038″	.016″
D74-18	18	.042″	.016″
D74-17	17	.047″	.016″
D74-16	16	.053″	.016″
D74-15	15	.059″	.016″
D74-14	14	.066″	.016″
D74-13	13	.076″	.016″
D74-12	12	.085″	.016″
D74-11	11	.095″	.016″
D74-10	10	.106″	.016″
D74-9	9	.118″	.020″
D74-8	8	.133″	.020″
D74-7	7	.148″	.020:
D74-6	6	.166″	.020″
D74-5	5	.186″	.020″
D74-4	4	.208″	.020″
D74-3	3	.234″	.020″
D74-2	2	.263″	.020″
D74-1	1	.294″	.020″
D74-0	0	.330″	.020″
D74-5/16	5/16	.312″	.025″
D74-3/8	3/8	.375″	.025″
D74-7/16	7/16	.438″	.025″
D74-1/2	1/2	.500″	.025″
D74-9/16	9/16	.562″	.030″
D74-5/8	5/8	.625″	.030″
D74-3/4	3/4	.750″	.035″
D74-7/8	7/8	.875″	.035″
D74-1″	1″	1.000″	.035″
D74-1 1/4″	1 1/4″	1.250″	.040″
D74-1 3/8″	1 3/8″	1.375″	.040″
D74-1 1/2″	1 1/2″	1.500″	.045″
D74-1 3/4″	1 3/4″	1.750″	.055″
D74-2″	2″	2.000″	.060″
D74-2 1/4″	2 1/4″	2.250″	.065″
D74-2 1/2″	2 1/2″	2.500″	.070″

STANDARD COLOR: CLEAR (NATURAL) ADDITIONAL COLORS AVAILABLE TO ORDER.
STD. PUT-UP: 100 FT., 500 FT., 1000 FT.

FIBERGLASS SLEEVING

DAFLEX 1200-FOR HIGH TEMPERATURE APPLICATIONS TO 1200°F
FLEXIBLE FIBERGLASS SLEEVING

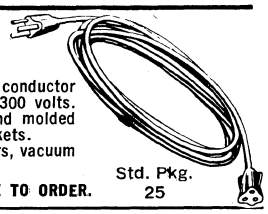
Extremely flexible class H, it is non-flammable and is treated for removal of all organic matter and glass braid is fray resistant. Will provide maximum mechanical strength. Tightly braided. Applicable specs — Nema VSI. Dielectric strength determined by space factor.

DAFLEX No.	SIZE	Nom. I.D.
D1200-24	24	.022″
D1200-22	22	.027:
D1200-20	20	.034″
D1200-19	19	.038″
D1200-18	18	.042″
D1200-17	17	.047″
D1200-16	16	.053″
D1200-15	15	.059″
D1200-14	14	.066″
D1200-13	13	.076″
D1200-12	12	.085″
D1200-11	11	.095″
D1200-10	10	.106″
D1200-9	9	.118″
D1200-8	8	.133″
D1200-7	7	.148″
D1200-6	6	.166″
D1200-5	5	.186″
D1200-4	4	.208″
D1200-3	3	.234″
D1200-2	2	.263″
D1200-1	1	.294″
D1200-0	0	.330″
D1200-3/8″	3/8″	.387″
D1200-7/16″	7/16″	.450″
D1200-1/2″	1/2″	.512″
D1200-5/8″	5/8″	.640″
D1200-3/4.″	3/4″	.768″
D1200-7/8″	7/8″	.893″
D1200-1″	1″	1.018″

STANDARD COLOR: NATURAL. ADDITIONAL COLORS AVAILABLE TO ORDER.
STD. PUT-UP: 100 FT., 500 FT., 1000 FT.

POWER CORD SETS

UL and CSA approved



Manufactured for lasting service these 2 and 3 conductor quality black rubber cords are flexible. Rated at 300 volts. One end has molded plastic male plug, other end molded female plug. Will fit conventional plugs and sockets.

Useful for business and data machines, projectors, vacuum cleaners, appliances, etc.

Std. Pkg. 25

CUSTOM CONSTRUCTION OF POWER CORDS MADE TO ORDER.

CAT. NO.	SIZE & CONDS.	CORD LGTH. FT.	UL TYPE	STRAND.	AMP RATING	NOM. O.D.
9-201	2/18	6	SV	41/34	7	.245″
9-202	2/18	9	SV	41/34	7	.245″
9-203	2/18	10	SJ	16/30	7	.300″
9-204	2/18	25	SJ	16/30	7	.300″
9-206	2/16	10	SJ	26/30	10	.325″
9-207	2/16	25	SJ	26/30	10	.325″
9-208	2/16	50	SJ	26/30	10	.325″
9-211	3/18	10	SJ	16/30	7	.330″
9-212	3/18	25	SJ	16/30	7	.330″
9-213	3/18	50	SJ	16/30	7	.330″
9-215	3/16	15	SJ	26/30	10	.365″
9-216	3/16	25	SJ	26/30	10	.365″
9-217	3/16	50	SJ	26/30	10	.365″

NEW!

NEW FROM DABURN ELECTRONICS & CABLE CORP.

- AIRCRAFT TUBING, LOW TEMPERATURE
- CAPTIVE HARDWARE
- CONTROL CABLE
- CORD SETS
- CORONA RESISTANT HIGH VOLTAGE WIRE AND CABLE
- FIBERGLASS TUBING, HIGH TEMPERATURE
- HARNESS WRAP SPIRAL TUBING
- HEAT SHRINKABLE TUBING
- PLUG — JACKS; (PHONE & TELEPHONE)
- RETRACTILE CORDS
- SOLDERLESS TERMINALS
- SPAGHETTI PACKS
- SPIRAL WRAPS
- WASHERS
- WIRE TIES

See above in Sections 2100, 2800, 3100, 5100, 6000

See Pages 1724 and 1725 for Complete Price List

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DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

SHRINKABLE IRRADIATED POLYOLEFIN TUBING

This series is designed for maximum mechanical strength at stress or points of connection. It is strong and abrasion resistant and is supplied in expanded sizes. It insulates, jackets, splices, encapsulates, weatherproofs components, connectors, cables and irregular shaped objects. When exposed to heat (235°F) the tubing shrinks 50% in diameter, 5% longitudinal contraction. Controlled shrinkage to exact requirement takes place. Meets or exceeds MIL-I-23053 (WEP) Class 1 specs.

CAT. NOS. INDICATE EXPANDED SIZE Shrinkage Ratio: 2:1 (50%)

OPERATING TEMPERATURE: −55°C to +135°C.

DAFLEX SH-275 All Purpose	DAFLEX SH-290 Semi-Rigid	Equiv. I.D. AWG	Before Shrinkage As Supplied Expand. I.D.	Recovered I.D.	Recovered Nom. Wall	Standard Package
SH-275-1/16"	SH-290-1/16"	22-20	.063"	.031"	.016"	100', 250'
SH-275-3/32"	SH-290-3/32"	18-16	.093"	.046"	.020"	100', 250'
SH-275-1/8"	SH-290-1/8"	14	.125"	.062"	.020"	100', 250'
SH-275-3/16"	SH-290-3/16"	12-10	.187"	.093"	.020"	100', 250'
SH-275-1/4"	SH-290-1/4"	8	.250"	.125"	.025"	100', 250'
SH-275-5/16"	SH-290-5/16"	6	.312"	.156"	.025"	100', 250'
SH-275-3/8"	SH-290-3/8"	4	.375"	.187"	.025"	100', 250'
SH-275-1/2"	SH-290-1/2"	2	.500"	.250"	.025"	100'
SH-275-3/4"	SH-290-3/4"	3/8	.750"	.375"	.030"	100'
SH-275-1"	SH-290-1"	1/2	1.000"	.500"	.035"	100'

STOCK COLORS: Black, White, Red, Clear.
Although processed by hi-energy radiation the **Daflex SH-275** shrinkable tubing **does not** at any time become radioactive or possess any residual radioactivity.

SPECIFICATIONS
All Tests Made on Tubing in Recovered Dimension

Continuous Operating Temperature	135°C
Longitudinal Change	5% Max.
Tensile Strength	1500 PSI Min.
Ultimate Elongation	200% Min.
Special Gravity	1.29 Max.
Low Temperature Flexibility (−54°C)	No Cracking
Shrinkage Ratio	2:1 (50%)
Dielectric Strength	500 V/MIL Min.
Dielectric Constant	2.87 Max.
Corrosive Resistance	Non-Corrosive
Resistance to Soldering Iron	Excellent
Fuel, Oil, Solvent, Acid, Alkali, Hydraulic Fluid Resistance	Excellent

DABURN SHRINKABLE POLYVINYLCHLORIDE ALL PURPOSE

Shrinkage Ratio: 2:1 (50%)

Flexible, shrinks 50% on heat application, less than 10% longitudinal contraction. Suitable for insulating components and cables in varying shapes and diameters. Has a higher resistance to oils than low density polyethylene. Conforms to MIL-I-631D, Type F, Form V, Grade A and C, Class 1 and 2, Cat. 1. Controlled shrinkage on application of heat to predetermined size takes place in seven seconds at above 266°F.

CAT. NOS. INDICATE EXPANDED SIZE

OPERATING TEMPERATURE: −20° to +105°C.

DAFLEX SH-265	Equiv. I.D. AWG	Before Shrinking As Supplied Expanded I.D.	Max. Recovered I.D.	Recovered Nom. Wall	Standard Package
SH-265-1/16"	22-20	.063"	.031"	.020"	100', 250'
SH-265-3/32"	18-16	.093"	.046"	.025"	100', 250'
SH-265-1/8"	14	.125"	.062"	.025"	100', 250'
SH-265-3/16"	12-10	.187"	.093"	.025"	100', 250'
SH-265-1/4"	8	.250"	.125"	.025"	100', 250'
SH-265-5/16"	6	.312"	.156"	.025"	100', 250'
SH-265-3/8"	4	.375"	.187"	.025"	100', 250'
SH-265-1/2"	2	.500"	.250"	.025"	25', 100'
SH-265-3/4"		.750"	.375"	.025"	25', 100'
SH-265-1"		1.000"	.500"	.030"	25', 100'
SH-265-1 1/2"		1.500"	.750"	.035"	25', 100'
SH-265-2"		2.000"	1.000"	.040"	25', 100'

COLORS: Black, White, Clear, Red.

PACK ASSORTMENTS

DAFLEX Cat. No.	Lengths Per Pack	Tubing Size
SH-275-PA1	30	1/16" thru 3/16"
SH-275-PA2	16	1/4" thru 3/4"
SH-275-PA3	10	1"

COLORS: Black, White, Clear, Red. Each pack contains an assortment of 6" lengths in mixed sizes and colors (specify).

HEAT SHRINKABLE TEFLON* TUBING

DAFLON SH-400 (FEP)

Made with Modified TEFLON* FEP will shrink over inserted objects upon exposure to moderate heat. Heretofore, many joints, parts, components, devices could not be protected because of hi temperature required for shrinkage; Can now use this FEP TEFLON* which has a continuous service temperature of 400°F. Will shrink at 300°F. Supplied in natural color. Complete shrinkage at 350°F. Now, many heat sensitive products can use the permanent protection of TEFLON.* Will not burn or support flame, long lengths available. Extruded.

DABURN No.	Size	I.D.	Min. Exp. I.D.	Max. I.D.	Wall Thickness
SH-400-24	24	.023"	.031"	.027"	.008"
SH-400-22	22	.028"	.036"	.032"	.008"
SH-400-20	20	.034"	.045"	.039"	.008"
SH-400-18	18	.042"	.060"	.049"	.008"
SH-400-16	16	.053"	.075"	.061"	.009"
SH-400-14	14	.066"	.092"	.072"	.009"
SH-400-12	12	.085"	.115"	.089"	.009"
SH-400-10	10	.108"	.141"	.114"	.010"
SH-400-9	9	.118"	.158"	.124"	.010"
SH-400-8	8	.136"	.180"	.143"	.010"
SH-400-7	7	.148"	.197"	.158"	.011"
SH-400-6	6	.170"	.225"	.180"	.011"
SH-400-5	5	.186"	.248"	.198"	.011"
SH-400-4	4	.214"	.290"	.226"	.011"
SH-400-3	3	.234"	.310"	.249"	.011"
SH-400-2	2	.268"	.365"	.280"	.012"
SH-400-1	1	.294"	.400"	.311"	.012"
SH-400-0	0	.366"	.440"	.349"	.012"
SH-400-3/8	3/8"	.375"	.500"	.383"	.015"
SH-400-7/16	7/16"	.437"	.580"	.448"	.020"
SH-400-1/2	1/2"	.500"	.666"	.510"	.020"
SH-400-5/8	5/8"	.625"	.830"	.637"	.025"
SH-400-3/4	3/4"	.750"	1.000"	.764"	.030"
SH-400-7/8	7/8"	.875"	1.170"	.891"	.035"
SH-400-1"	1"	1.000"	1.330"	1.020"	.035"

STANDARD PACKAGE: 100 Ft. * DUPONT

Daburn No. HG2 — Heat Gun for **SH-275** and **SH-290** Series.

DAFLON SHRINK SERIES SH-621

TFE TUBING MIL-I-23053 (WEP) CLASS 2

Made of modified TEFLON* polytetrafluorethylene will shrink when heated to 621°F. Suitable where hi temp protection is required. Extruded. Will not support combustion, dielectric strength (20 Mil Wall) 850 V/M, low temp. brittle point −66°F, superior chemical resistance.

DAFLON No.	Nominal Tubing Size	Minimum Expanded ID	Recovered Dimensions Maximum ID (1)	Recovered Dimensions Wall Thickness (2)
SH-621-26	26	.046"	.022"	.009"
SH-621-24	24*	.050"	.027"	.010"
SH-621-22	22*	.055"	.032"	.010"
SH-621-20	20*	.060"	.039"	.012"
SH-621-19	19	.065"	.043"	.012"
SH-621-18	18*	.076"	.049"	.012"
SH-621-17	17	.085"	.054"	.012"
SH-621-16	16*	.093"	.061"	.012"
SH-621-15	15	.110"	.067"	.012"
SH-621-14	14*	.120"	.072"	.012"
SH-621-13	13	.140"	.080"	.012"
SH-621-12	12*	.150"	.089"	.012"
SH-621-11	11	.170"	.101"	.012"
SH-621-10	10*	.191"	.112"	.012"
SH-621-9	9	.205"	.124"	.015"
SH-621-8	8*	.240"	.141"	.015"
SH-621-7	7	.270"	.158"	.015"
SH-621-6	6*	.302"	.178"	.015"
SH-621-5	5	.320"	.198"	.015"
SH-621-4	4*	.348"	.224"	.015"
SH-621-3	3	.360"	.249"	.015"
SH-621-2	2*	.375"	.278"	.015"
SH-621-1	1	.385"	.311"	.015"
SH-621-0	0*	.400"	.347"	.015"
SH-621-3/8	3/8"*	.560"	.399"	.020"
SH-621-7/16	7/16"*	.655"	.462"	.020"
SH-621-1/2	1/2"*	.750"	.524"	.020"

STANDARD PACKAGE: 100 Feet.
STANDARD PUT-UP: 36" Straight Lengths — One Foot Minimums.
WALL TOLERANCES: 26 thru 22 ± .002; 20 thru 10 ± .003; 9 thru 0 ± .004.
(*) Stock Sizes.

Daburn No. HG3 — Heat Gun for **SH-400** and **SH-621** Series.

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See Pages 1724 and 1725 for Complete Price List

DABURN

DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

TUBULAR BRAID PER MIL SPEC QQ-B-575

Tinned copper shielded braid mf'd completely round per Mil Spec QQ-B-575. Maintains its round configuration. Shielding coverage is 95% or more. Used in military applications where maximum shielding is required against electrostatic interference. Useful against mechanical abrasion and stresses for cables — as grounding cable.

DABURN No.	Nom. Inside Diam. When Rounded	Construction Total No. of Wires	Carriers	AWG of Indiv. Wires	Approx. AWG Equiv.	Nom. Circular Mils	*Current Carrying Cap.
2350-1/32	1/32"	24	24	#36	#22	640	7.0 amps.
2350-1/16	1/16"	48	24	#36	#19	1,290	11.0 amps.
2350-5/64	5/64"	72	24	#36	#17	1,900	18.0 amps.
2350-7/64	7/64"	96	24	#36	#16	2,500	22.0 amps.
2350-1/8	1/8"	120	24	#36	#15	3,260	28.0 amps.
2350-5/32	5/32"	240	24	#36	#12	6,200	39.0 amps.
2350-11/64	11/64"	168	24	#36	#14	4,500	32.0 amps.
2350-3/16	3/16"	192	24	#36	#13	5,100	35.0 amps.
2350-13/64	13/64"	312	24	#36	#11	8,200	46.0 amps.
2350-1/4	1/4"	384	24	#36	#10	10,400	53.0 amps.
2350-9/32	9/32"	120	24	#30	# 9	12,060	60.0 amps.
2350-3/8	3/8"	384	48	#36	#10	10,400	53.0 amps.
2350-7/16	7/16"	240	24	#30	# 6	24,120	90.0 amps.
2350-1/2	1/2"	528	48	#36	# 9	13,200	70.0 amps.
2350-9/16	9/16"	528	48	#36	# 9	13,200	70.0 amps.
2350-11/16	11/16"	720	48	#36	# 7	19,000	82.0 amps.
2350-25/32	25/32"	864	48	#36	# 7	21,750	85.0 amps.
2350-13/16	13/16"	864	48	#36	# 7	21,750	85.0 amps.
2350-7/8	7/8"	336	48	#30	# 5	33,700	100.0 amps.
2350-1	1"	384	48	#30	# 4	38,600	120.0 amps.
2350-1 1/8	1 1/8"	432	48	#30	# 4	43,330	130.0 amps.
2350-1 1/4	1 1/4"	480	48	#30	# 3	48,150	145.0 amps.
2350-1 3/8	1 3/8"	528	48	#30	# 3	53,000	150.0 amps.
2350-1 1/2	1 1/2"	576	48	#30	# 2	57,775	165.0 amps.

STANDARD SPOOL PUT-UP: 50 Ft., 100 Ft., 250 Ft.
Larger Spools Available — Advise.

*Values based on copper in free air at 65°F.
Additional constructions and variations made to order. Also available in silver plated copper, bare copper and stainless steel.

BARE COPPER WIRE (Soft Drawn)

QQ—W—341A SPECIFICATIONS SOLID

DABURN No.	Size AWG	Area Circular Mils	O.D.
2375/8	8	16,510	.1285"
2375/10	10	10,380	.102"
2375/12	12	6,530	.081"
2375/14	14	4,107	.064"
2375/16	16	2,583	.051"

STANDARD PUT-UP: 100 Ft., 1000 Ft.

SOLID FORMVAR COPPER WIRE

DABURN No.	Size AWG	O.D.
2380/10	10	.103"
2380/12	12	.083"
2380/14	14	.066"

STANDARD PUT-UP: 100 Ft., 150 Ft., 200 Ft., 1000 Ft.

TINNED COPPER WIRE

Pure Electrolytic, Copper, annealed, tinned for quick soldering—Solid Soft Drawn
MIL—W—3861 Type S, ASTM—B—33 Specifications, QQ—W—343 Type S

DABURN No.	Size AWG	Area Circ. Mils	O.D.	DABURN No.	Size AWG	Area Circ. Mils	O.D.
2360/4	4	41,704	.204"	2360/18	18	1,624	.040"
2360/6	6	26,250	.162"	2360/20	20	1,022	.033"
2360/8	8	16,510	.129"	2360/22	22	624.4	.025"
2360/10	10	10,380	.103"	2360/24	24	404.0	.020"
2360/12	12	6,530	.082"	2360/26	26	254.1	.016"
2360/14	14	4,107	.065"	2360/28	28	159.8	.013"
2360/16	16	2,583	.051"	2360/30	30	100.5	.010"

STANDARD PUT-UP: 100 Ft., 1000 Ft. See Magnet Wire Section For Additional Sizes

DABURN COPPERWELD WIRE

Bare Copper Welded to Core. 40% Conductivity. Hard Drawn; will not stretch. Used for hi tensile strength.

DABURN No.	Size AWG	Nom. O.D.	DABURN No.	Size AWG	Nom. O.D.
2386/20	20	.033"	2386/12	12	.080"
2386/18	18	.040"	2386/10	10	.102"
2386/16	16	.050"	2386/8	8	.129"
2386/14	14	.064"	2386/6	6	.162"

STANDARD PUT-UP: 500 Ft., 1000 Ft.

TINNED COPPER SHIELDING

Soft annealed tinned copper woven braid, rolled flat at time of manufacture. It is extremely flexible. Used as battery grounding, bonding strap for aircraft, vehicles, marine equipment. Eliminates ignition interference and moving parts Slides over wire and cables.

DABURN No.	Size of Wires	Indiv. Wires AWG	Flattened I.D.	Flattened O.D.
2355-1/32	12 x 2	36	1/32"	3/64"
2355-3/64	12 x 2	36	3/64"	1/16"
2355-1/16	16 x 3	36	1/16"	5/64"
2355-1/8	24 x 5	36	1/8"	5/32"
2355-3/16	24 x 5	36	3/16"	7/32"
2355-1/4	24 x 7	36	1/4"	9/32"
2355-3/8	48 x 4	36	3/8"	15/32"
2355-1/2	48 x 7	36	1/2"	19/32"
2355-5/8	48 x 8	36	5/8"	23/32"
2355-3/4	48 x 11	36	3/4"	13/16"
2355-25/32	48 x 19	36	25/32"	27/32"
2355-1	48 x 19	36	1"	1 1/16"
2355-1 3/8	48 x 19	36	1 3/8"	1 7/16"
2355-1 1/2	48 x 19	36	1 1/2"	1 9/16"
2355-1 3/4	48 x 27	30	1 3/4"	1 7/8"
2355-2	48 x 32	30	2"	2 1/4"
2355-2 1/4	48 x 35	30	2 1/4"	2 1/2"
2355-2 1/2	48 x 45	30	2 1/2"	2 3/4"
2355-3	48 x 64	30	3"	3 1/4"

STANDARD SPOOL PUT-UP: 50 Ft., 100 Ft., 500 Ft., 1000 Ft.

BUS BAR WIRE (Hard Drawn)

QQ—W—343 Type S

For hooking up all types of transmitters, especially ultra short wave equipment. All bus wire is made of hard drawn copper, tinned, straightened, and cut in 2 ft. lengths.

MIL—W—3861 Types S, ASTM—B—33, ASTM—B—246—51 Specifications

DABURN No.	Nom. Circ. Mil Area	Size	Nom. O.D.
2362/10	10,380	10	.103"
2362/12	6,530	12	.082"
2362/14	4,107	14	.065"
2362/16	2,583	16	.051"
2362/18	1,642	18	.040"
2362/20	1,022	20	.033"
2362/22	624	22	.025"

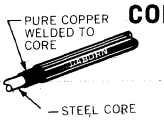
STANDARD PUT-UP: 100 Per Package in two foot lengths.

SILICON BRONZE AERIAL WIRE

Especially designed for ships, airports, short wave and transmitting antennas where high tensile strength and resistance to the elements are important.

DABURN No.	Size AWG	Strand	Breaking Strength	O.D.
2364/4	4	7/12	3670 lbs.	.240"
2364/6	6	7/14	2140 lbs.	.190"
2364/8	8	7/16	1600 lbs.	.150"
2364/10	10	7/18	1000 lbs.	.122"
2364/12	12	7/20	650 lbs.	.100"
2364/14	14	7/22	420 lbs.	.075"

STANDARD PUT-UP: 100 Ft., 500 Ft., 1000 Ft.
2364/10 and **2364/6** meets MIL-W-13074, **2364/12** meets MIL-W-13276 Specs.



COPPERWELD ANTENNA WIRE

Used where high tensile strength is required as for short wave and transmitting aerials. Has low R.F. resistance and is ideal for transmitting doublet and directional antennas. Will maintain frequency characteristics because of its stretchless qualities. 40% conductivity.

DABURN No.	Size AWG	Tensile Strength	O.D.
2382/10	10	1130 lbs.	.103"
2382/12	12	720 lbs.	.082"
2382/14	14	400 lbs.	.065"

STANDARD PUT-UP: 100 Ft., 250 Ft., 500 Ft., 1000 Ft., 2500 Ft.

STRANDED BARE COPPER WIRE

DABURN No.	Size AWG	Strand	O.D.
2366/12	12	7/20	.100"
2366/14	14	7/22	.075"
2366/16	16	7/24	.060"
2366/18	18	7/26	.050"
2366/19	19	7/27	.041"

PUT-UP: 100 Ft., 1000 Ft. Spool.

See Pages 1724 and 1725 for Complete Price List
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DABURN

DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

PLASTIC HOOK-UP WIRE

TYPE B — HIGH TEMPERATURE VINYL SPECIFICATION MIL-W-16878D

600 VOLT

DESCRIPTION: One conductor stranded tinned copper with rated −55°C to +105°C high temperature thermoplastic light wall insulation.

DABURN Cat. No.	Mil-W-16878D Type Designation	Size AWG	Conductor Strand	Nom. O.D.
2500/32	B-32	32	7/40	.028″
2500/30	B-30	30	7/38	.030″
2500/28	B-28	28	7/36	.033″
2500/26	B-26	26	7/34	.037″
2500/24	B-24	24	7/32	.043″
2500/22	B-22	22	7/30	.048″
2500/20	B-20	20	7/28	.057″
2500/18	B-18	18	7/26	.067″
2500/16	B-16	16	19/29	.077″
2500/14	B-14	14	19/27	.091″

STD. PUT-UP: 100′-1000′.

TYPE B — NYLON JACKET

NYLON JACKET THICKNESS: 32-20 .002, 18-16 .003

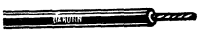
2510/32	B-32	32	7/40	.032″
2510/30	B-30	30	7/38	.036″
2510/28	B-28	28	7/36	.039″
2510/26	B-26	26	7/34	.042″
2510/24	B-24	24	7/32	.047″
2510/22	B-22	22	7/30	.053″
2510/20	B-20	20	7/28	.065″
2510/18	B-18	18	7/26	.075″
2510/16	B-16	16	19/29	.085″
2510/14	B-14	14	19/27	.099″

STD. PUT-UP: 100′-1000′
STOCK COLORS: Black, Red, Brown, Blue, Orange, White Yellow, Green Gray, Purple.

White/Black	White/Yellow	White/Orange
White/Red	White/Blue	White/Gray
White/Green	White/Brown	White/Violet

TYPE C — HIGH TEMPERATURE — VINYL JACKET SPECIFICATION MIL-W-16878D

1000 VOLT



DESCRIPTION: One conductor similar to Type B—heavier wall hi-temp thermoplastic insulation Nom. wall .016″.

DABURN Cat. No.	Mil-W-16878D Type Designation	Size AWG	Minimum Strand	Nom. O.D.
2515/24	C-24	24	7/32	.058″
2516	C-24	24	16/36	.059″
2515/22	C-22	22	7/30	.064″
2515/20	C-20	20	7/28	.079″
2515/18	C-18	18	7/26	.090″
2515/16	C-16	16	19/29	.099″
2515/14	C-14	14	19/27	.114″
2515/12	C-12	12	19/25	.135″

TYPE C — NYLON JACKET

NYLON JACKET THICKNESS: 24 .002, 22-18 .003, 16-14 .004

2520/24	C-24	24	7/32	.065″
2520/22	C-22	22	7/30	.064″
2520/20	C-20	20	7/28	.079″
2520/18	C-18	18	7/26	.090″
2520/16	C-16	16	19/29	.099″
2520/14	C-14	14	19/27	.114″
2520/12	C-12	12	19/25	.135″

STOCK COLORS: Black, Red, Brown, Blue, Orange, White, Yellow, Green, Gray, Purple. Also available in tracer colors. Additional types available to order.
STD. PUT-UP: 100 Ft.-1000 Ft.

TYPE D — HIGH TEMPERATURE — VINYL — 3000 VOLTS SPECIFICATION MIL-W-16878D

DESCRIPTION: One conductor stranded similar to Type C—heavier wall hi-temp thermoplastic insulation. Nom. wall 24 thru 14 .032, 12 thru 6 .040.

DABURN Cat. No.	Mil-W-16878D Type Designation	Size AWG	Conductor Strand	Nom. O.D.
2525/24	D-24	24	7/32	.084″
2525/22	D-22	22	7/30	.089″
2525/20	D-20	20	10/30	.097″
2525/18	D-18	18	16/30	.107″
2525/16	D-16	16	26/30	.116″
2525/14	D-14	14	41/30	.130″
2525/12	D-12	12	65/30	.163″
2525/10	D-10	10	105/30	.182″
2525/8	D- 8	8	133/29	.247″
2525/6	D- 6	6	133/27	.291″
2525/4	D- 4	4	133/25	.355″

MIL-W-16878B Type D Available with Nylon Jacket
STD. PUT-UP: 100 Ft.,-1000 Ft.

ALL WIRES ON THIS PAGE CAN BE ORDERED CUT AND STRIPPED TO YOUR SPECIFICATIONS.

PLASTIC HOOK-UP WIRE (Medium Wall)

1000 VOLTS (Fungus Proof) SPEC. MIL-W-76B TYPE MW

1000 VOLT
TEMP. RATING: −40°C to +80°C.

STRANDED

DABURN Cat. No.	Spool	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. Wall	Nom. O.D.
2555/24	1000′	24	MW-C 24(7)U	7/32	.015″	.059″
2556	1000′	24	MW-C 24(16)U	16/36	.015″	.059″
†*2555/22	1000′	22	MW-C 22(7)U	7/30	.017″	.065″
†*2555/20	1000′	20	MW-C 20(10)U	10/30	.017″	.074″
†*2555/18	1000′	18	MW-C18(16)U	16/30	.017″	.085″
2555/16	1000′	16	MW-C 16(26)U	26/30	.017″	.096″
2555/14	1000′	14	MW-C 14(41)U	41/30	.017″	.110″
2555/12	1000′	12	MW-C 12(65)U	65/30	.017″	.130″

SOLID

2560/22	1000′	22	MW-C 22(1)U	1	.017″	.060″
2560/20	1000′	20	MW-C 20(1)U	1	.017″	.066″
2560/18	1000′	18	MW-C 18(1)U	1	.017″	.074″

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft.
STOCK COLORS: White, Yellow, Lt. Blue, Black, Violet (purple), Blue, Brown, Lt. Green, Pink, Red, Green, Tan, Orange, Gray (slate).
***SINGLE SPIRAL TRACER COLORS AVAILABLE:** White/Black, White/Brown White/Red, White/Orange, White/Yellow, White/Green, White/Blue, White/Purple, White/Gray.
†**DOUBLE SPIRAL TRACER COLORS AVAILABLE:** White/Black/Red, White/Black/Green, White/Black/Yellow, White/Black/Blue, White/Black/Brown, White/Black/Orange, White/Black/Gray, White/Black/Purple.
Additional spiral tracer combination available, to order, for all numbers

1000 VOLT — NYLON JACKET (Medium Wall) SPEC. MIL-W-76B TYPE MW (Fungus Proof)

DESCRIPTION: One conductor stranded tinned copper with thermoplastic insulation and extruded nylon jacket overall.

TEMPERATURE RATING: −40°C to +90°C.

DABURN Cat. No.	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. Wall	Nom. O.D.
2565/24	24	MW-C 24(16)J	16/36	.015″	.068″
2565/22	22	MW-C 22(7)J	7/30	.017″	.075″
2565/20	20	MW-C 20(10)J	10/30	.017″	.087″
2565/18	18	MW-C 18(16)J	16/30	.017″	.100″
2565/16	16	MW-C 16(26)J	26/30	.017″	.122″
2565/14	14	MW-C 14(41)J	41/30	.017″	.122″
2565/12	12	MW-C 12(65)J	65/30	.017″	.140″
2565/10	10	MW-C 10(105)J	105/30	.045″	.240″

STD. PUT-UP: 100 Ft.-1000Ft.
NYLON JACKET THICKNESS: #24 .002; 22, 20, 18 .003; 16, 14 .004; 12 .005; 10 .007.
STOCK COLORS: White, Orange, Purple, Black, Yellow, Gray, Brown, Green, Red, Blue. White/Black, White/Brown, White/Red, White/Orange, White/Yellow, White/Green, White/Blue, White/Purple, White/Gray, White/Black/Red, White/Black/Yellow, White/Black/Blue, White/Black/Green, White/Black/Orange, White/Black/Brown, White/Black/Gray.
Nos. 2565/12 and /10 available solid colors only.

1000 VOLTS GLASS BRAID (Medium Wall) TYPE MW SPEC. MIL-W-76B

DESCRIPTION: One conductor stranded tinned copper with thermoplastic insulation and lacquered glass braid overall.
TEMPERATURE RATING: −40°C to +80°C. **NOM. WALL:** .017″

DABURN Cat. No.	Spool	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. O.D.
2570/22	100′-1000′	22	MW-C 22(7)B	7/30	.079″
2570/20	100′-1000′	20	MW-C 20(10)B	10/30	.084″
2570/18	100′-1000′	18	MW-C 18(16)B	16/30	.100″
2570/16	100′-1000′	16	MW-C 16(26)B	26/30	.116″
*2570/14	100′-1000′	14	MW-C 14(41)B	41/30	.129″
*2570/12	100′-1000′	12	MW-C 12(65)B	65/30	.149″

STOCK COLORS: White, Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray, White/Brown, White/Black, White/Orange, White/Yellow, White/Green, White/Blue, White/Red, White/Gray, White/Purple, White/Black/Red, White/Black/Yellow, White/Black/Blue, White/Black/Green, White/Black/Orange, White/Black/Brown, White/Black/Gray. *Nos. 2570/14 and /12, available stock in solid colors.

GLASS BRAID — TYPE HW (Heavy Wall)

TEMPERATURE RATING: −40°C to +80°C. **NOM WALL:** .045″

DABURN Cat. No.	Spool	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. O.D.
2575/10	100′-1000′	10	HW-C 10(105)B	105/30	.237″
2575/8	100′-1000′	8	HW-C 8(133)B	133/29	.293″
2575/6	100′-1000′	6	HW-C 6(133)B	133/27	.340″

STOCK COLORS: White, Black. Also multi-conductors can be formed to order twisted, shielded with or without plastic jacket overall.

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See Pages 1724 and 1725 for Complete Price List

TEFLON WIRE
TYPE E — 600 VOLTS
SPEC. MIL-W-16878D
High Temperature Rating —90°C to +250°C

Single conductor, stranded silver plated copper, .010″ TFE Teflon® insulation. Acid, alkalis, oil, flame, moisture, fungus, solvent resistant.

DABURN Extruded Cat. No.	DABURN Wrapped Cat. No.	Size MIL Type Designation	Strand	Max. Diam. Over Insul.
2401	—	E-32	7/40	.033″
2402	—	E-30	7/38	.036″
2403	2415/28	E-28	7/36	.039″
2404	2415/26	E-26	7/34	.043″
2405	2415/24	E-24	19/36	.048″
2406	2415/22	E-22	19/34	.054″
2407	2415/20	E-20	19/32	.062″
2408	2515/18	E-18	19/30	.074″
2409	—	E-16	19/29	.087″
2409/14	—	E-14	19/27	.097″
2409/12	—	E-12	19/25	.120″
2409/10	—	E-10	37/26	.139″

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft. Solid conductors available.

COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray, White, White/Black, White/Red, White/Green, White/Yellow, White/Blue, White/Brown, White/Orange, White/Gray, White/Violet.

Additional special custom construction available to order. Nos. 2405, 2406, 2407 available with 7 strand construction.

TEFLON* WIRE
MIL-W-16878D — TYPE EE
Extruded (1000 Volts) MIL-W-16878D

DESCRIPTION: Single conductor silver plated copper wire concentrically stranded and insulated with .016 TFE extruded TEFLON* insulation.
TEMPERATURE RATING: —90°C to +260°C, 1000 volts.

DABURN Cat. No.	Mil Type Designation	Size AWG	Strand	Nom. O.D.
2428/24	EE-24	24	19/36	.055″
2428/22	EE-22	22	19/34	.062″
2428/20	EE-20	20	19/32	.070″
2428/18	EE-18	18	19/30	.080″
2428/16	EE-16	16	19/29	.089″
2428/14	EE-14	14	19/27	.106″
2428/12	EE-12	12	19/25	.124″
2428/10	EE-10	10	37/26	.145″
2428/8 (wrapped)	EE-8	8	133/29	.210″

STANDARD SPOOL PUT-UP: 250 Ft., 500 Ft., 1000 Ft. Solid conductors available
STOCK COLORS: 1—White, 2—Black, 3—Red, 4—Green, 5—Yellow, 6—Blue, 7—Brown, 8—Orange, 9—Gray (Slate), 10—Violet (Purple). *TEFLON—Dupont

SUBMINIATURE TEFLON* HOOK-UP WIRE
PER MIL-W-16878D — TYPE ET — 250 VOLTS, 200°C

Thin miniature hook-up wire is suitable in miniature slip ring assemblies, as interconnecting wire between wafers in microminiature electronic circuitry, instrument wire, medical wire, subminiature thermo-couple lead wire, strain gauge wire, etc. Provides lighter weight, greater flexibility and hi temperature resistance. Size Nos. 32 thru 20 conform to MIL-W-16878D type ET 250 volts, 200°C. Silver plated copper conductor.

DABURN Cat. No.	Mil Type	AWG Size	Strand	Nom. O.D.
2427/36	—	36	7/44	.018″
2427/34	—	34	7/42	.020″
2427/32	ET-32	32	7/40	.021″
2427/30	ET-30	30	7/38	.024″
2427/28	ET-28	28	7/36	.027″
2427/26	ET-26	26	7/34	.031″
2427/24	ET-24	24	7/32	.036″
2427/22	ET-22	22	7/30	.042″
2427/20	ET-20	20	7/28	.049″

STANDARD SPOOL PUT-UPS: 500 Ft., 1000 Ft.

MIL-W-7139B

CLASS 1: 600V Silver Coated Copper Conductor for +200°C Operation.
CLASS 2: 600V nickel Coated Copper Conductor for +260°C Operation.

DABURN Cat. No. Class 1	DABURN Cat. No. Class 2	Size AWG	Strand	Nom. O.D.
2426-22	2425-22	22	19/34	.085″
2426-20	2425-20	20	19/32	.095″
2426-18	2425-18	18	19/30	.110″
2426-16	2425-16	16	19/29	.130″
2426-14	2425-14	14	19/27	.143″
2426-12	2425-12	12	19/25	.163″

STANDARD SPOOL PUT-UPS: 500 Ft., 1000 Ft.
STANDARD COLOR: Class: 1 — White/Blue Tracer; Class 2 — White/Orange Tracer.
ADDITIONAL SIZES AVAILABLE.

TEFLON* CABLES — Shielded and Unshielded
TO MIL-W-16878D

DESCRIPTION: One or more conductors, each conductor silver plated concentrically stranded copper wire, Type E Extruded TFE .010″ insulation. When shielded, braided silver plated copper shield over conductor(s), 90% shield coverage. When covered, either a TEFLON* impregnated fiberglass brad or a .010″ TEFLON* fused, double reversed tape jacket overall. Fungus, solvent, moisture, flame, acid, alkali and oil resistant Multiconductors are twisted.
TEMPERATURE RATING: —65°C to +260°C. **VOLTAGE RATING:** 600 Volts

TEFLON* IMPREGNATED BRAID OVER SHIELD

Daburn No.	Conds.	AWG Size	Strand	Nom. O.D.	Daburn No.	Conds.	AWG Size	Strand	Nom. O.D.
2444	1	26	7/34	.075″	2447	1	20	19/32	.093″
2444/2	2	26	7/34	.119″	2447/2	2	20	19/32	.154″
2445	1	24	19/36	.081″	2447/3	3	20	19/32	.163″
2445/2	2	24	19/36	.126″	2447/4	4	20	19/32	.180″
2445/3	3	24	19/36	.133″	2447/5	5	20	19/32	.195″
2445/4	4	24	19/36	.144″	2448	1	18	19/30	.097″
2445/5	5	24	19/36	.156″	2448/2	2	18	19/30	.162″
2446	1	22	19/34	.088″	2448/3	3	18	19/30	.172″
2446/2	2	22	19/34	.137″	2448/4	4	18	19/30	.192″
2446/3	3	22	19/34	.144″	2448/5	5	18	19/30	.207″
2446/4	4	22	19/34	.158″	2449	1	16	19/29	.117″
2446/5	5	22	19/34	.172″	2449/2	2	16	19/29	.196″

STANDARD SPOOL PUT-UPS: 250 Ft., 500 Ft., 1000 Ft.
CONDUCTOR COLOR CODE: 1—White, 2—Black, 3—Red, 4—Green, 5—Yellow.

TEFLON* TAPE WRAP JACKET OVER SHIELD

Daburn No.	Conds.	AWG Size	Strand	Nom. O.D.	Daburn No.	Conds.	AWG Size	Strand	Nom. O.D.
2454	1	26	7/34	.078″	2457	1	20	19/32	.099″
2454/2	2	26	7/34	.125″	2457/2	2	20	19/32	.158″
2455	1	24	19/36	.084″	2457/3	3	20	19/32	.167″
2455/2	2	24	19/36	.128″	2457/4	4	20	19/32	.184″
2455/3	3	24	19/36	.135″	2457/5	5	20	19/32	.204″
2455/4	4	24	19/36	.148″	2458	1	18	19/30	.109″
2455/5	5	24	19/36	.162″	2458/2	2	18	19/30	.178″
2456	1	22	19/34	.090″	2458/3	3	18	19/30	.189″
2456/2	2	22	19/34	.140″	2458/4	4	18	19/30	.208″
2456/3	3	22	19/34	.148″	2458/5	5	18	19/30	.230″
2456/4	4	22	19/34	.162″	2459	1	16	19/29	.130″
2456/5	5	22	19/34	.183″	2459/2	2	16	19/29	.230″

STANDARD SPOOL PUT-UPS: 250 Ft., 500 Ft., 1000 Ft.
CONDUCTOR COLOR CODE: 1—White, 2—Black, 3—Red, 4—Green, 5—Yellow.

SHIELDED BRAID OVERALL

Daburn Cat. No.	Conds.	AWG Size	Strand	Nom. O.D.	Daburn Cat. No.	Conds.	AWG Size	Strand	Nom. O.D.
2434	1	26	7/34	.066″	2437	1	20	19/32	.082″
2434/2	2	26	7/34	.104″	2437/2	2	20	19/32	.142″
2435	1	24	19/36	.068″	2437/3	3	20	19/32	.151″
2435/2	2	24	19/36	.112″	2437/4	4	20	19/32	.168″
2435/3	3	24	19/36	.120″	2437/5	5	20	19/32	.180″
2435/4	4	24	19/36	.132″	2438	1	18	19/30	.093″
2435/5	5	24	19/36	.140″	2438/2	2	18	19/30	.162″
2436	1	22	19/34	.075″	2438/3	3	18	19/30	.172″
2436/2	2	22	19/34	.124″	2438/4	4	18	19/30	.191″
2436/3	3	22	19/34	.132″	2438/5	5	18	19/30	.210″
2436/4	4	22	19/34	.146″	2439	1	16	19/29	.103″
2436/5	5	22	19/34	.154″	2439/2	2	16	19/29	.184″

STANDARD SPOOL PUT-UPS: 250 Ft., 500 Ft., 1000 Ft.
CONDUCTOR COLOR CODE: 1—White, 2—Black, 3—Red, 4—Green, 5—Yellow.

NO SHIELD—TEFLON* IMPREGNATED FIBERGLASS

Daburn Cat. No.	Conds.	AWG Size	Strand	Nom. O.D.	Daburn Cat. No.	Conds.	AWG Size	Strand	Nom. O.D.
2464	1	26	7/34	.040″	2467	1	20	19/32	.058″
2464/2	2	26	7/34	.080″	2467/2	2	20	19/32	.118″
2465	1	24	19/36	.044″	2467/3	3	20	19/32	.127″
2465/2	2	24	19/36	.088″	2467/4	4	20	19/32	.144″
2465/3	3	24	19/36	.096″	2467/5	5	20	19/32	.156″
2465/4	4	24	19/36	.108″	2468	1	18	19/30	.069″
2465/5	5	24	19/36	.116″	2468/2	2	18	19/30	.138″
2466	1	22	19/34	.051″	2468/3	3	18	19/30	.148″
2466/2	2	22	19/34	.100″	2468/4	4	18	19/30	.167″
2466/3	3	22	19/34	.108″	2468/5	5	18	19/30	.186″
2466/4	4	22	19/34	.122″	2469	1	16	19/29	.086″
2466/5	5	22	19/34	.131″	2469/2	2	16	19/29	.172″

STANDARD SPOOL PUT-UPS: 250 Ft., 500 Ft., 1000 Ft.
CONDUCTOR COLOR CODE: 1—White, 2—Black, 3—Red, 4—Green, 5—Yellow.

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DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

HOOK-UP WIRE

2500 VOLTS (Fungus Proof) — TYPE HW (Heavy Wall)

SPEC. MIL-W-76B

600 VOLTS SIZES — 14 through 6 — (Supersedes Jan-C-76 Type SRHV) — TEMP. RATING —40°C to 80°C.
NOM. WALL SIZE: — 22 through 16 .033: Size 14 through 6 .045

DESCRIPTION: Similar to type MW. One conductor stranded tinned copper with larger walls of primary thermoplastic insulation to take 2500 V RMS.

DABURN No.	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. O.D.
2580/22	22	HW-C 22(7)U	7/30	.092″
2580/20	20	HW-C 20(10)U	10/30	.100″
2580/18	18	HW-C 18(16)U	16/30	.112″
2580/16	16	HW-C 16(26)U	26/30	.126″
2580/14	14	HW-C 14(41)U	41/30	.170″
2580/12	12	HW-C 12(65)U	65/30	.186″
2580/10	10	HW-C 10(105)U	105/30	.210″
2580/8	8	HW-C 8(133)U	133/29	.260″
2580/6	6	HW-C 6(133)U	133/27	.305″

STD. PUT-UP: 100-1000 Ft.

STOCK COLORS: White, Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray, Additional sizes, colors available to order.

300 VOLTS — TYPE LW (Light Wall)

SPEC. MIL-W-76B

DESCRIPTION: One conductor stranded tinned copper with light wall of primary thermoplastic insulation. Nom. Wall .010″.
TEMPERATURE RATING: —40°C to +80°C.

LW — UNCOVERED

DABURN No.	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. O.D.
2585/30	30	LW-C 30(7)U	7/38	.033″
2585/28	28	LW-C 28(7)U	7/36	.035″
2585/26	26	LW-C 26(10)U	10/36	.040″
2585/24	24	LW-C 24(7)U	7/32	.044″
2585/22	22	LW-C 22(7)U	7/30	.050″
2585/20	20	LW-C 20(7)U	7/28	.060″

LW — NYLON JACKET

DABURN No.	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. O.D.
2590/30	30	LW-C 30(7)J	7/38	.036″
2590/28	28	LW-C 28(7)J	7/36	.039″
2590/26	26	LW-C 26(7)J	7/34	.042″
2590/24	24	LW-C 24(7)J	7/32	.047″
2590/22	22	LW-C 22(7)J	7/30	.053″
2590/20	20	LW-C 20(7)J	7/28	.065″

SHIELDED PLASTIC HOOK-UP WIRE

1000 VOLT — TYPE MW (Medium Wall) SHIELDED — SPEC. MIL-W-76B
TEMPERATURE RATING —40°C TO +80°C

DESCRIPTION: One conductor stranded tinned copper with thermoplastic insulation and tinned copper shielded braid overall.

DABURN Cat. No.	Size AWG	MIL-W-76B Type Designation	Strand	Nom. Wall	Nom. O.D.
2592/24	24	MW-C24(7)S	7/32	.015″	.074″
2593	24	MW-C24(16)S	16/36	.015″	.075″
2592/22	22	MW-C22(7)S	7/30	.017″	.084″
2592/20	20	MW-C20(10)S	10/30	.017″	.094″
2592/18	18	MW-C18(16)S	16/30	.017″	.106″
2592/16	16	MW-C16(26)S	26/30	.017″	.121″
2592/14	14	MW-C14(41)S	41/30	.017″	.137″
2592/12	12	MW-C12(65)S	65/30	.017″	.155″

STOCK COLORS: (Underneath Shield) Black, White, Red, Yellow, Brown, Green, Blue, Gray. Nos. 2592/14 and /12, available from stock in Black, White or Red.
STANDARD PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

Also multiconductors can be formed to order twisted shielded, with or without plastic Jacket overall.

SHIELDED PLASTIC HOOK-UP WIRE

TYPE MW — SHIELDED — NYLON JACKET
SPEC. MIL-W-76B

DESCRIPTION: One conductor stranded tinned copper, white medium wall polyvinyl chloride insulation, shielded tinned copper braid, minimum 80% coverage, clear nylon (polymide) jacket overall. Resistant to acids, alkalis, oil, flame, moisture, fungus.
TEMPERATURE RATING: —40°C to +90°C.

DABURN Cat. No.	Size AWG	MIL-W-76A Type Designation	Min. Strand	Nom. Wall	Nom. O.D.
2595/24	24	MW-C24(7)SJ	7/32	.015″	.091″
2595/22	22	MW-C22(7)SJ	7/30	.017″	.100″
2595/20	20	MW-C20(7)SJ	7/28	.017″	.105″
2595/18	18	MW-C18(19)SJ	19/30	.017″	.115″
2595/16	16	MW-C16(19)SJ	19/29	.017″	.125″
2595/14	14	MW-C14(19)SJ	19/29	.017″	.138″
2595/12	12	MW-C12(19)SJ	19/25	.017″	.160″

Additional colors available to order.
STANDARD PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

TYPE MW — SHIELDED — VINYL JACKET
SPEC. MIL-W-76B

DESCRIPTION: One conductor stranded tinned copper, white medium wall polyvinyl chloride insulation, shielded tinned copper braid, minimum 80% coverage, PVC (polyvinylchloride) jacket overall. Resistant to acids, alkalis, oil, flame, moisture, fungus.
TEMPERATURE RATING: —40°C to +90°C.

DABURN Cat. No.	Size AWG	MIL-W-76A Type Designation	Min. Strand	Nom. Wall	Nom. O.D.
2597/24	24	MW-C24(7)SJ	7/32	.015″	.095″
2597/22	22	MW-C22(7)SJ	7/30	.017″	.105″
2597/20	20	MW-C20(7)SJ	7/28	.017″	.112″
2597/18	18	MW-C18(19)SJ	19/30	.017″	.120″
2597/16	16	MW-C16(19)SJ	19/29	.017″	.133″
2597/14	14	MW-C14(19)SJ	19/27	.017″	.148″
2597/12	12	MW-C12(19)SJ	19/25	.017″	.170″

Additional colors available to order.
STANDARD PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

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DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

SHIELDED PLASTIC HOOK-UP WIRE & CABLE

PER MIL-W-16878D

1000 VOLTS — TYPE C — SHIELDED

SPEC. MIL-W-16878D

DESCRIPTION: Stranded tinned copper, .016" wall white polyvinylchloride insulation, braided tinned copper shield overall temp. rating −55°C to +105°C 1000 volts.

DABURN No.	Size AWG	Min. Strand	Nom. Wall	Nom. O.D.
2530/24	24	7/32	.016"	.075"
2530/22	22	7/30	.016"	.085"
2530/20	20	7/28	.016"	.095"
2530/18	18	7/26	.016"	.105"
2530/16	16	19/26	.016"	.115"
2530/14	14	19/27	.016"	.140"
2530/12	12	19/25	.016"	.152"

STD. PUT-UP: 1000 Ft.

1000 VOLTS — TYPE C SHIELDED NYLON JACKET

SPEC. MIL-W-16878D

DESCRIPTION: Stranded tinned copper .016" wall polyvinylchloride insulation, braided tinned copper shield, 90% coverage, clear nylon (polyamide) jacket overall. Nylon nominal jacket thickness .005".
TEMPERATURE RATING: −55°C to +115°C.

DABURN No.	Size AWG	Min. Strand	Nom. Wall	Nom. O.D.
2533/24	24	7/32	.016"	.090"
2533/22	22	7/30	.016"	.096"
2533/20	20	7/28	.016"	.105"
2533/18	18	7/26	.016"	.115"
2533/16	16	19/26	.016"	.125"
2533/14	14	19/27	.016"	.145"
2533/12	12	19/25	.016"	.157"

STD. PUT-UP: 1000 Ft.

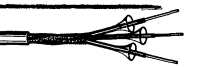
1000 VOLTS — TYPE C SHIELDED WITH VINYL JACKET — SPEC. MIL-W-16878D

DESCRIPTION: Stranded tinned copper, .016" wall white with polyvinylchloride insulation braided tinned copper shield with polyvinylchloride jacket overall. Resistant to acids, oils, alkalies, flame, fungus, solvents, moisture. Temp. rating −55°C to +105°C.

DABURN No.	Size AWG	Min. Strand	Nom. Wall	Nom. O.D.
2535/24	24	7/32	.016"	.094"
2535/22	22	7/30	.016"	.104"
2535/20	20	7/28	.016"	.112"
2535/18	18	7/26	.016"	.120"
2535/16	16	19/29	.016"	.133"
2535/14	14	19/27	.016"	.150"
2535/12	12	19/25	.016"	.165"

STD. PUT-UP: 1000 Ft.

MULTI-CONDUCTOR CABLE TYPE B NYLON SHIELDED-PLASTIC JACKET



PER MIL-W-16878D — 600 V

DESCRIPTION: One or more conductors stranded tinned copper, PVC insulation, color coded, clear nylon (polyamide) jacket, cabled conductors, 90% coverage braided tinned copper, white polyvinylchloride jacket overall.
TEMPERATURE RATING: −55°C to +105°C. Voltage rating 600 volts. Resistant to acids, alkalis, flame, fungus, oil, moisture, solvents.

DABURN Cat. No.	No. of Cond.	Size	Strand	Nom. Wall	Nom. Nylon Wall	Nom. Overall Jkt.	Nom. O.D.
2540	1	26	7/34	.010"	.003"	.010"	.087"
2541	1	24	19/36	.010"	.003"	.010"	.092"
2541/2	2	24	19/36	.010"	.003"	.016"	.152"
2541/3	3	24	19/36	.010"	.003"	.016"	.161"
2541/4	4	24	19/36	.010"	.003"	.017"	.162"
2542	1	22	19/34	.010"	.003"	.010"	.100"
2542/2	2	22	19/34	.010"	.003"	.016"	.168"
2542/3	3	22	19/34	.010"	.003"	.017"	.178"
2542/4	4	22	19/34	.010"	.003"	.019"	.174"
2543	1	20	19/32	.010"	.003"	.010"	.106"
2543/2	2	20	19/32	.010"	.003"	.019"	.186"
2543/3	3	20	19/32	.010"	.003"	.019"	.196"
2543/4	4	20	19/32	.010"	.003"	.021"	.193"
2544	1	18	19/30	.010"	.003"	.012"	.120"
2544/2	2	18	19/30	.010"	.003"	.021"	.210"
2544/3	3	18	19/30	.010"	.003"	.022"	.227"
2545	1	16	19/29	.010"	.003"	.016"	.137"
2545/2	2	16	19/29	.010"	.003"	.023"	.236"
2545/3	3	16	19/29	.010"	.003"	.023"	.240"

STD. PUT-UP: 500 Ft., 1000 Ft. **CONDUCTOR COLOR CODE:** 1-White, 2-Black, 3-Red, 4-Green. Additional sizes, conductors - variations - available to order.

AIRCRAFT PLASTIC HOOK-UP WIRE

SPECIFICATIONS MIL-W-5086A and MIL-C-7078A (105°C Rating) — **NYLON JACKET**

DESCRIPTION: Type 1 MIL-W-5086A — one conductor stranded tinned copper with plastic insulation nylon jacket overall. **Type 2 MIL-W-5086A** — one conductor stranded tinned copper, plastic insulation, nylon lacquered glass braid. Color: White. Additional colors available to order.

MIL-W-5086A UNSHIELDED (Supersedes AN-J-C-48A) — 600 V RATING

DABURN Cat. No.	Mil. Type	Type	Cond. Strand.	Nom. O.D.
2601/22	AN-22	No. 1	19/34	.070"
2601/20	AN-20	No. 1	19/32	.080"
2601/18	AN-18	No. 1	19/30	.090"
2601/16	AN-16	No. 1	19/29	.125"
2601/14	AN-14	No. 1	19/27	.125"
2601/12	AN-12	No. 1	19/25	.140"
2602/22	AN-22	No. 2	19/34	.068"
2602/20	AN-20	No. 2	19/32	.078"
2602/18	AN-18	No. 2	19/30	.088"
2602/16	AN-16	No. 2	19/29	.098"

DABURN Cat. No.	Mil. Type	Type	Cond. Strand.	Nom. O.D.
2602/14	AN-14	No. 2	19/27	.117"
2602/12	AN-12	No. 2	19/25	.137"
2602/10	AN-10	No. 2	49/27	.189"
2602/8	AN-8	No. 2	133/29	.240"
2602/6	AN-6	No. 2	133/27	.297"
2602/4	AN-4	No. 2	133/25	.355"
2602/2	AN-2	No. 2	665/30	.412"
2602/0	AN-0	No. 2	1045/30	.518"
2602/00	AN-00	No. 2	1330/30	.588"

STANDARD PUT-UP: 100 Ft., 1000 Ft.

MIL-C-7078A SHIELDED (Supersedes AN-C-168) 600 V RATING

DESCRIPTION: One conductor stranded tinned copper with plastic insulation, nylon jacket with tinned copper shielded braid overall. Color: White under shield. Additional types to order.

DABURN Cat. No.	Size AWG	Mil. Type	Type	Cond. Strand.	Nom. O.D.
2605/22	22	AN-22	No. 1	19/34	.100"
2605/20	20	AN-20	No. 1	19/32	.110"
2605/18	18	AN-18	No. 1	19/30	.124"

DABURN Cat. No.	Size AWG	Mil. Type	Type	Cond. Strand.	Nom. O.D.
2605/16	16	AN-16	No. 1	19/29	.139"
2605/14	14	AN-14	No. 1	19/27	.158"
2605/12	12	AN-12	No. 1	19/25	.177"

STANDARD PUT-UP: 100 Ft., 1000 Ft.

ALL WIRE ON THIS PAGE CAN BE CUT AND STRIPPED TO YOUR SPECIFICATION.

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WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

MINIATURIZATION HOOK-UP WIRE AND CABLE

UNSHIELDED — ONE CONDUCTOR 105°C

Used as lead computers, transistor circuits, instruments — where fine sizes are required with high temperature conditions. One conductor stranded tinned copper, 105°C vinyl resin overall.

DABURN No.	Conductor	Size	Strand	Nom. Wall	Nom. O.D.
2670/32	1	32	7/40	.010″	.029″
2670/30	1	30	7/38	.010″	.030″
2670/28	1	28	7/36	.010″	.035″
2670/26	1	26	10/36	.010″	.038″
2670/24	1	24	16/36	.015″	.055″

STD. PUT-UP: 500 Ft., 1000 Ft.
STOCK COLORS: Black, Red, Green, Yellow, Blue, Brown, White, Orange and Purple.

DESCRIPTION
One conductor stranded tinned copper with 105°C. high temperature thermoplastic insulation overall.

SHIELDED HOOK-UP WIRE
SUB-MINIATURE • SUPER FLEXIBLE

One conductor stranded tinned copper, 105°C vinyl resin overall.

DABURN No.	Conductor	Size	Strand	Nom. Wall	Nom. O.D.
2682	1	30	7/38	.010″	.052″
2684	1	28	7/36	.010″	.057″
2686	1	26	10/36	.010″	.060″
2688	1	24	16/36	.010″	.073″

STOCK COLOR: White (Under Shield).
STD. PUT-UP: 500 Ft., 1000 Ft.

DESCRIPTION
One conductor stranded tinned copper with 105°C. high temperature thermoplastic insulation and tinned copper shielded braid overall.

MULTI CONDUCTOR CABLE

SUB-MINIATURE • NOT SHIELDED • FLEXIBLE

TINNED COPPER CONDUCTORS

Suggested Operating Temp.: −55°C to +105°C

TWISTED — NO OUTER JACKET

DABORN No.	Cond.	Size	Strand	Wall Nom.	O.D. Nom.
2672	2	30	7/38	.010″	.058″
2672/3	3	30	7/38	.010″	.064″
2672/4	4	30	7/38	.010″	.072″

CONDUCTOR COLOR CODE: 1—Black, 2—White, 3—Red, 4—Green.
STD. PUT-UP: 500 Ft., 1000 Ft.

TWISTED — CLEAR VINYL JACKET OVERALL

DABORN No.	Cond.	Size	Strand	Wall Nom.	O.D. Nom.
2674	2	28	7/36	.010″	.079″
2674/3	3	28	7/36	.010″	.086″
2674/4	4	28	7/36	.010″	.095″

CONDUCTOR COLOR CODE: 1—Black, 2—White, 3—Red, 4—Green.
STD. PUT-UP: 500 Ft., 1000 Ft.

SHIELDED MULTI-CONDUCTOR CABLE

SUB-MINIATURE • SUPER FLEXIBLE

TINNED COPPER CONDUCTORS

Suggested Operating Temp.: −55°C to +105°C

TWISTED — SHIELDED — NO OUTER JACKET

DABURN No.	Cond.	Size	Strand	Nom. Wall	Nom. O.D.
2676	2	24	16/36	.015″	.114″
2676/3	3	24	16/36	.015″	.123″
2676/4	4	24	16/36	.015″	.144″

CONDUCTOR COLOR CODE: 1—Black, 2—White, 3—Red, 4—Green.
STD. PUT-UP: 500 Ft., 1000 Ft.

TWISTED — SHIELDED — CLEAR VINYL JACKET OVERALL

DABURN No.	Cond.	Size	Strand	Wall Nom.	O.D. Nom.
2678	2	28	7/36	.010″	.105″
2678/3	3	28	7/36	.010″	.115″
2678/4	4	28	7/36	.010″	.120″

CONDUCTOR COLOR CODE: 1—Black, 2—White, 3—Red, 4—Green.
STD. PUT-UP: 500 Ft., 1000 Ft.
Construction available to conform to MIL-W-16878D.

NOTE: Multi-conductors can be formed to order twisted, shielded with or without plastic jacket overall.

NEW FLAT RIBBON CABLE—MULTI-CONDUCTORS PER MIL-W-16878D

TYPES B AND C MADE TO ORDER

DABURN COAXIAL CABLES WITH HIGH TEMPERATURE TEFLON* CORE DIELECTRIC

MEETS MIL-C-17C

These Teflon* Core Dielectric Co-Axial Cables combine both miniaturization and hi-temperature qualities. The Teflon Jackets are weatherproof, resistant to fuels and are extremely flexible.

DABURN No.	Military Number RG/U Type	Ohms	Jkt. Mtl.	Cap. MMFT/Ft.	Dielectric Material	Inner Conductor	Shield	O.D. Inches	Max. Oper. Volts RMS	Nom. Atten. DB/100Ft. 400 Mc	RG/U Type
D187A/U	187A/U	75	Teflon	19.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.110	1200	16.0	187A/U
D188/U	188/U	50	TFE Teflon	29.0	Teflon	7/.0067 Silvered Copperweld	Silver Covered Copper	.110	1200	16.7	188/U
D188A/U	188A/U	50	TFE Teflon	29.0	Teflon	7/.0067 Silvered Copperweld	Silver Covered Copper	.110	1200	16.7	188A/U
D195/U	195/U	95	TFE Teflon	15.0	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.155	1500	11.0	195/U
D195A/U	195A/U	95	TFE Teflon	15.0	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	155	1500	11.0	195A/U
D196/U	196/U	50	TFE Teflon	28.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.080	1000	28.0	196/U
D196A/U	196A/U	50	TFE Teflon	28.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.080	1000	28.0	196A/U

STANDARD PUT-UP: 500 Ft., 1000 Ft. *TEFLON—DUPONT

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See Pages 1724 and 1725 for Complete Price List

AUDIO CABLE — SHIELDED 2 CONDUCTOR SHIELDED

NO OUTER JACKET

Each conductor copper tinned, plastic insulation, color coded, twisted, tinned copper shield. Suitable for sound systems, industrial paging systems, broadcast-audio cable, rack panel wiring, etc.
OPERATING TEMPERATURE: −20°C to +60°C.

DABURN Cat. No.	Conds.	Size AWG.	Strand	Nom. Wall	Nom. O.D.	Nom. Operating Voltage
2902/30	2	30	7/38	.010″	.085″	200V
2902/28	2	28	7/36	.010″	.090″	200V
2902/26	2	26	7/34	.010″	.095″	200V
2902/24	2	24	16/36	.017″	.120″	350V
2902/22	2	22	7/30	.017″	.140″	350V
2902/20	2	20	10/30	.017″	.155″	350V
2902/18	2	18	16/30	.017″	.170″	350V
2902/16	2	16	26/30	.020″	.210″	450V
2902/14	2	14	41/30	.020″	.225″	450V
2902/12	2	12	65/30	.025″	.295″	600V
2902/10	2	10	105/30	.025″	.375″	600V

STD. PUT-UP: 100 Ft., 250 Ft., 500 Ft., 1000 Ft.
CONDUCTOR COLOR CODE: 1—Black, 2—Red.

INTERCOM CABLE

INDIVIDUALLY SHIELDED MULTIPLE PAIR

This construction reduces the bulk in required cables. Multipaired #22 solid tinned copper, vinyl insulated .013″, cabled in pairs. Aluminum foil mylar shield over each pair and ground, overall grey vinyl jacket. Nom. Cap. between Conds. 40 MMF/Ft. Nom. Cap. between 1 Cond. and others connected to shield — 77 MMF/Ft.

DABURN Cat. No.	Pairs	Conds.	Nom. Jacket	Nom. O.D.
2930/3	3	6	.030″	.298″
2930/6	6	12	.037″	.394″
2930/9	9	18	.040″	.425″
2930/11	11	22	.040″	.485″
2930/15	15	30	.045″	.510″
2930/19	19	38	.055″	.678″
2930/27	27	54	.070″	.860″

STD. PUT-UP: 500 Ft. 1000 Ft. **Variations Available to Order.**

ALUMINUM MYLAR FOIL SHIELD PLASTIC JACKETED CABLE

Extremely light in weight, provides 100% shield coverage — small diameters. Each cond. tinned copper, stranded color coded polyethylene insulation, twisted, drain wire, aluminum mylar foil shield, gray polyvinylchloride jacket overall. Drain wire provides quick and easy grounding.
OPERATING TEMPERATURE: −20°C to +60°C. **OPERATING VOLTAGE:** 400 Volts.

DABURN Cat. No.	Cond.	Size	Strand	Nom. Wall	Nom. Jacket	Nom. O.D.
2960	2	22	7/30	.015″	.020″	.160″
2960/3	3	22	7/30	.015″	.020″	.185″
2960/4	4	22	7/30	.015″	.020″	.205″
2961	2	20	10/30	.015″	.020″	.185″
2961/3	3	20	10/30	.015″	.020″	.205″
2961/4	4	20	10/30	.015″	.020″	.225″
2962	2	18	16/30	.017″	.020″	.220″
2962/3	3	18	16/30	.017″	.020″	.235″
2962/4	4	18	16/30	.017″	.020″	.255″
2963	2	16	26/30	.017″	.020″	.255″
2963/3	3	16	26/30	.017″	.020″	.275″
2964	2	14	41/30	.017″	.020″	.295″
2964/3	3	14	41/30	.017″	.020″	.305″

STD. PUT-UP: 500 Ft., 1000 Ft.
CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White, 4—Green.

PLASTIC INTER-COM CABLE

Station to station wiring to eliminate cross-talk. Each conductor tinned copper stranded, color coded PVC, T.C. braid, shield where indicated, paired, grey polyvinylchloride jacket overall.
2935 — Suitable for unbalanced systems.
2935/4 — Suitable for balanced systems.
2935/5 — Suitable for coin operated phonographs.
OPERATING VOLTAGE: 350 Volts.
OPERATING TEMPERATURE: −20°C to +60°C.

DABURN Cat. No.	Cond.	Size	Strand	No. Cond. Shield	Nom. Wall	Nom. Jacket	O.D.
2935	3	22	7/30	1	.016″	.020″	.200″
2935/4	4	22	7/30	2	.016″	.020″	.180″x.285″
2935/5	5	22	7/30	3	.016″	.020″	.200″x.300″

CONDUCTOR COLOR CODE: **STD. PUT-UP:** 500 Ft., 1000 Ft.
2935 — White — shielded; Black, Red — unshielded
2935/4 — Black, White — shielded; Black, Red — unshielded.
2935/5 — Black, White, Red — shielded; Black, Red — unshielded.

SHIELDED PLASTIC MICROPHONE CABLE

Will withstand abuse and is resistant to oil, moisture, aging. Have low capacitance, Hi insulation resistance and low attenuation. Will not strain or mark.
2772 — For hi impedance microphone
2773 — For crystal, ribbon, etc. Mikes all are suitable for hi-fi interconnecting cables.
2774 — For hi impedance lapel mikes.
OPERATING TEMPERATURE: −20°C to +60°C.

PLASTIC — ONE CONDUCTOR SHIELDED CABLE

DABURN Cat. No.	Cond.	Size	Strand	Nom. Cap./Ft.	Sug. Work Voltage	Nom. O.D.
2772	1	20	26/34	36 MMF	4000	.175″
2773	1	25	7/33*	34 MMF	3500	.144″
2774	1	25	7/33*	23 MMF	5000	.190″

* 3 strands tinned copper, 4 strands tinned copperweld.

SPIRAL WRAPPED SHIELDED MICROPHONE CABLE

Uses tinned copper spiral shield — for ease in soldering — extremely flexible.

2770	1	25	7/33	23 MMF	3000	.159″
2771	1	25	7/33	33 MMF	1000	.110″

MULTI-CONDUCTOR MICROPHONE AND CONTROL CABLE

PLASTIC JACKET

Each conductor tinned copper, polyethylene insulation — color coded., twisted, tinned copper braid shield, vinyl jacket overall.
OPERATING TEMPERATURE: −20° to +60°C, 600 Volts.

2782	2	22	16/34	31 MMF	1000	.231″
2782/20	2	20	26/34	45 MMF	600	.240″

DABURN Cat. No.	Cond.	Size	Strand	Nom. Wall	Nom. Jacket	Nom. O.D.
2783	3	20	26/34	.014″	.030″	.250″
2784	4	20	26/34	.014″	.035″	.260″
2785	5	20	26/34	.014″	.035″	.275″
2786	6	20	26/34	.014″	.035″	.300″
2786/8	8	20	26/34	.014″	.035″	.330″
2786/10	10	20	26/34	.014″	.035″	.375″

STD. PUT-UP: 100 Ft., 250 Ft., 500 Ft., 1000 Ft.
CONDUCTOR COLOR CODE: 1—White, 2—Black, 3—Red, 4—Green, 5—Yellow, 6—Blue, 7—Brown, 8—Orange, 9—Purple, 10—Slate.

PLASTIC JACKETED AUDIO AND MULTI-COND. CABLE

SPIRAL WRAPPED COPPER SHIELD

Suitable for P.A. and sound systems, schools hospitals, institutions, recording studios, paging and call systems. Each conductor copper tinned, plastic insulation, color coded, twisted, spiral wrapped tinned, copper shield, gray plastic jacket.
Simplifies pigtailing. Provides almost 100% shielding coverage.

DABURN Cat. No.	Cond.	Size	Strand	Nom. Insul.	Nom. Jacket	Sug. Working Voltage	Nom. O.D.
2950	2	22	7/30	.017″	.020″	350V	.170″
2950/1	1	22	7/30	.017″	.020″	350V	.115″
2950/3	3	22	7/30	.017″	.020″	350V	.190″
2950/4	4	22	7/30	.017″	.020″	350V	.200″
2950/6	6	22	7/30	.017″	.020″	350V	.235″
2949	2	22	1	.017″	.020″	350V	.170″
2952	2	20	10/30	.017″	.020″	350V	.190″
2952/1	1	20	10/30	.017″	.020″	350V	.129″
2952/3	3	20	10/30	.017″	.020″	350V	.205″
2952/4	4	20	10/30	.017″	.020″	350V	.222″
2952/6	6	20	10/30	.017″	.020″	350V	.260″
2953	2	18	16/30	.017″	.020″	350V	.230″
2953/1	1	18	16/30	.017″	.020″	350V	.133″
2953/3	3	18	16/30	.017″	.020″	350V	.230″
2953/4	4	18	16/30	.017″	.020″	350V	.245″
2954	2	16	26/30	.017″	.020″	350V	.235″
2954/3	3	16	26/30	.017″	.020″	350V	.245″
2954/4	4	16	26/30	.017″	.020″	350V	.255″
2955	2	14	41/30	.020″	.025″	450V	.285″
2955/3	3	14	41/30	.020″	.025″	450V	.292″
2955/4	4	14	41/30	.020″	.025″	450V	.310″
2956	2	12	65/30	.020″	.025″	450V	.325″
2956/3	3	12	65/30	.020″	.025″	450V	.335″

STD. PUT-UP: 250 Ft., 500 Ft., 1000 Ft.
CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White, 4—Green.

See Pages 1724 and 1725 for Complete Price List
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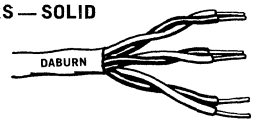
DABURN ELECTRONICS & CABLE CORP.
WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

PLASTIC INTERCOMMUNICATION CABLES

TWISTED PAIRS — SOLID

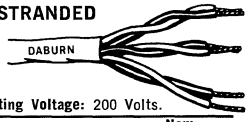


Each Cond. #22 **Solid** Tinned Copper, .010″ wall (Operating Temp. −20°C to +60°C). Vinyl plastic insulation, conductors color coded, twisted pairs, cabled, gray vinyl jacket overall. Suitable for outdoor installations.
Operating Voltage: 200 Volts.

DABURN No.	Pairs	Cond.	Size	Nom. Jacket	Nom. O.D.
3000	1	2	22 Solid	.020″	.130″
3000/2	2	4	22 Solid	.020″	.205″
3000/3	3	6	22 Solid	.020″	.215″
3000/6	6	12	22 Solid	.020″	.275″
3000/9	9	18	22 Solid	.020″	.310″
3000/11	11	22	22 Solid	.020″	.340″
3000/13	13	26	22 Solid	.025″	.385″
3000/15	15	30	22 Solid	.025″	.390″
3000/16	16	32	22 Solid	.025″	.415″
3000/27	27	54	22 Solid	.035″	.505″
3000/31	31	62	22 Solid	.035″	.555″
3000/41	41	82	22 Solid	.035″	.630″
3000/51	51	102	22 Solid	.045″	.735″
3000/76	76	152	22 Solid	.070″	.970″
3000/101	101	202	22 Solid	.080″	1.140″

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft. Other pairs available to order.

PLASTIC INTERCOMMUNICATION CABLES
TWISTED PAIRS — STRANDED

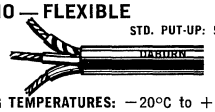


Each Cond. #22 7/30 Tinned Copper., .010″ wall vinyl plastic instulation, conductors color coded, twisted pairs, cabled, gray vinyl jacket overall. Suitable outdoor installations.
Operating Temp.: −20°C to +60°C. **Operating Voltage:** 200 Volts.

DABURN No.	Pairs	Cond.	Size	Strand	Nom. O.D.
3002	1	2	22	7/30	.145″
3002/2	2	4	22	7/30	.210″
3002/3	3	6	22	7/30	.225″
3002/4	4	8	22	7/30	.235″
3002/5	5	10	22	7/30	.245″
3002/6	6	12	22	7/30	.290″
3002/9	9	18	22	7/30	.350″
3002/15	15	30	22	7/30	.455″
3002/27	27	54	22	7/30	.570″

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft. Other pairs available to order.

MULTI-CONDUCTOR — PLASTIC JACKET
UNSHIELDED AUDIO — FLEXIBLE



STD. PUT-UP: 500 Ft.

Each Cond. #22 7/30 Tinned Copper, stranded, .010″ wall plastic insulation, color coded, twisted, gray vinyl jacket overall. Suitable for signal, P.A. systems, computer cable—for outdoor use.
OPERATING VOLTAGE: 200 Volts. **OPERATING TEMPERATURES:** −20°C to +60°C.

DABURN No.	Cond.	Size	Strand	Nom. Wall	Nom. Jacket	Nom. O.D.
3054/2	2	22	7/30	.010″	.020″	.140″
3054/3	3	22	7/30	.010″	.020″	.145″
3054/4	4	22	7/30	.010″	.020″	.170″
3054/5	5	22	7/30	.010″	.020″	.175″
3054/6	6	22	7/30	.010″	.020″	.185″
3054/7	7	22	7/30	.010″	.020″	.190″
3054/8	8	22	7/30	.010″	.020″	.200″
3054/9	9	22	7/30	.010″	.020″	.225″
3054/10	10	22	7/30	.010″	.020″	.235″
3054/12	12	22	7/30	.010″	.020″	.255″
3054/15	15	22	7/30	.010″	.020″	.280″
3054/20	20	22	7/30	.010″	.020″	.310″
3054/25	25	22	7/30	.010″	.020″	.340″
3054/30	30	22	7/30	.010″	.020″	.365″

CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White, 4—Green, 5—Orange, 6—Blue, 7—Brown, 8—Yellow, 9—Violet, 10—Slate, 11—Pink, 12—Tan, 13—Red/Green, 14—Red/Yellow, 15—Red/Black.
STD. PUT-UP: From 2 thru 7 cond. 500 ft.; from 8 thru 30 cond. 250 ft.

SHIELDED CABLE

PLASTIC JACKETED BRAIDED COPPER SHIELD

Suitable for P.A. and sound systems, installation in schools, hospitals and institutions, transmitters, electronic circuits, etc. Construction allows ease of pigtailing. Shield provides additional strength for cable. Each conductor tinned copper, PVC insulation, color coded, twisted, braided T-C shield, gray PVC jacket overall. Suitable for outdoor installations.
OPERATING TEMPERATURE: −20°C to +60°C.

DABURN No.	Cond.	Size	Strand	Nom. Wall	Nom. Jacket	Nom. O.D.
2970	2	22	7/30	.017″	.020″	.175″
2970/3	3	22	7/30	.017″	.020″	.195″
2971	2	20	10/30	.017″	.020″	.195″
2971/3	3	20	10/30	.017″	.020″	.215″
2972	2	18	16/30	.017″	.020″	.235″
2972/3	3	18	16/30	.017″	.020″	.245″
2974	2	16	26/30	.017″	.020″	.255″
2975	2	14	41/30	.020″	.020″	.290″
2975/3	3	14	41/30	.020″	.020″	.295″
2976	2	12	65/30	.020″	.020″	.335″

CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White.
STD. PUT-UP: 500 Ft., 1000 Ft.

UNSHIELDED AUDIO CABLE

SOLID AND STRANDED CONDUCTORS (2 & 3)

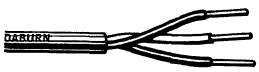
FOR INDOOR USE — NO OUTER JACKET

Tinned copper, vinyl plastic insulation, color coded, conductors twisted.

DABURN No.	Cond.	Size	Strand	Insul. Wall	Nom. O.D.
3004	2	22 Solid	1	.016″	.100″
3004/3	3	22 Solid	1	.016″	.115″
3005	2	20 Solid	1	.016″	.120″
3005/3	3	20 Solid	1	.016″	.140″
3006	2	18 Solid	1	.016″	.145″
3006/3	3	18 Solid	1	.016″	.155″
3007	2	16 Solid	1	.016″	.175″
3007/3	3	16 Solid	1	.016″	.190″
3011	2	22 Stranded	7/30	.016″	.125″
3011/3	3	22 Stranded	7/30	.016″	.140″
3012	2	20 Stranded	10/30	.016″	.145″
3012/3	3	20 Stranded	10/30	.016″	.160″
3013	2	18 Stranded	16/30	.016″	.165″
3013/3	3	18 Stranded	16/30	.016″	.180″
3014	2	16 Stranded	26/30	.016″	.190″
3014/3	3	16 Stranded	26/30	.016″	.210″
3015	2	14 Stranded	41/30	.016″	.220″
3015/3	3	14 Stranded	41/30	.016″	.240″
3016	2	12 Stranded	65/30	.016″	.250″
3016/3	3	12 Stranded	65/30	.016″	.275″

CONDUCTOR COLOR CODE: 1—Brown, 2—Tan, 3—Gray.
STD. PUT-UP: 1000 Ft.

PLASTIC JACKET OVERALL
FOR OUTDOOR USE



Tinned copper, vinyl plastic insulation, color coded, twisted, plastic jacket overall.
Operating Temp.: −20°C to +60°C.
Operating Voltage: 350 Volts.

DABURN No.	Cond.	Size	Strand	Nom. Wall	Jacket	Nom. O.D.
3020	2	22	1	.010″	.020″	.125″
3020/3	3	22	1	.010″	.020″	.130″
3020/4	4	22	1	.010″	.020″	.150″
3021	2	20	1	.016″	.020″	.170″
3021/3	3	20	1	.016″	.020″	.180″
3021/4	4	20	1	.016″	.020″	.200″
3022	2	18	1	.016″	.020″	.185″
3022/3	3	18	1	.016″	.020″	.190″
3022/4	4	18	1	.016″	.020″	.220″
3022/5	5	18	1	.016″	.020″	.235″
3022/6	6	18	1	.016″	.020″	.265″
3027	2	22	7/30	.010″	.020″	.130″
3027/3	3	22	7/30	.010″	.020″	.140″
3027/4	4	22	7/30	.010″	.020″	.165″
3028	2	20	10/30	.016″	.020″	.175″
3028/3	3	20	10/30	.016″	.020″	.185″
3028/4	4	20	10/30	.016″	.020″	.195″
3029	2	18	16/30	.016″	.020″	.195″
3029/3	3	18	16/30	.016″	.020″	.205″
3029/4	4	18	16/30	.016″	.020″	.235″
3030	2	16	26/30	.016″	.020″	.220″
3030/3	3	16	26/30	.016″	.020″	.245″
3030/4	4	16	26/30	.016″	.020″	.270″
3031	2	14	41/30	.016″	.020″	.260″
3031/3	3	14	41/30	.016″	.020″	.280″

STD. PUT-UP: 1000 Ft.
CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White, 4—Green, 5—Orange, 6—Blue.

SHIELDED ULTRA LOW CAPACITY MICROPHONE CABLE

Plastic Jacket — Cellular Foam Polyethylene Insulation
BRAIDED SHIELD

DESCRIPTION: Constructed with white foam polyethylene insulation, braided tinned copper shield, chrome gray vinyl jacket. The low loss foam polyethylene construction has lower capacitance and attenuation than standard polyethylene mike cables as much as 50%. This increases the effective length of cable as much as 50% without signal loss.

OPERATING TEMPERATURE: −20°C to +60°C.

DABURN Cat. No.	Cond.	Size	Strand	Nom. Cap./Ft.	Nom. Jacket	Nom. O.D.
2790	1	26	7/34*	30MMF	.020″	.114″
2791	1	24	10/34	20MMF	.030″	.180″
2792	1	24	10/34	15MMF	.030″	.220″
2793	2	22	16/34	11MMF	.030″	.295″

STD. PUT-UP: 100 Ft., 250 Ft., 500 Ft., 1000 Ft.
CONDUCTOR COLOR CODE: 1—White, 2—Black.
* 3 strands tinned copper, 4 strands tinned copperweld.

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See Pages 1724 and 1725 for Complete Price List

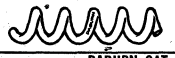
DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

Long Lasting Service — useful wherever cords must change length or position. Extend to approximately six times its retracted length. Returns to its original shape or length when released. Eliminates tangling, twisting or knots. Cords are UL and CSA approved.

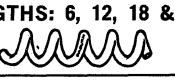
RETRACTILE COILED CORDS

POWER CORDS — RETRACTED LENGTHS: 1, 2, 3 & 4 FT. • EXTENDED LENGTHS: 6, 12, 18 & 25 FT.



UL APPROVED — NEOPRENE JACKETED CORD — CSA

Operating Temperature: −20°C to +60°C



DABURN CAT. NOS. 4 Ft.† Lgth.	3 Ft. Lgth.	2 Ft. Lgth.	1 Ft. Lgth.	No. Conds.	Size	Strand	*UL and CSA Type	Amps	Volt Rating	Coil Nom. O.D.	Cord Nom. O.D.
986-4	986-3	986-2	986-1	2	18	41/34	SVO	7	300	7/8″	.250″
986/3-4	986/3-3	986/3-2	986/3-1	3	18	41/34	SVO	7	300	1″	.275″
987-4	—	—	—	2	18	41/34	SVT	7	300	7/8″	.250″
989-4	989-3	989-2	989-1	2	18	41/34	SJO	7	300	1 1/16″	.310″
989/3-4	989/3-3	989/3-2	989/3-1	3	18	41/34	SJO	7	300	1 3/8″	.330″
989/4-4	989/4-3	989/4-2	989/4-1	4	18	41/34	SJO	5.6	300	1 7/16″	.360″
989/5-4	—	989/5-2	—	5	18	41/34	—	5.6	300	1 3/4″	.440″
989/7-4	—	989/7-2	—	7	18	41/34	—	5.6	300	1 7/8″	.500″
990-4	—	—	—	2	18	41/34	SJT	7	300	1 3/16″	.310″
991-4	991-3	991-2	991-1	2	16	65/34	SJO	10	300	1 3/8″	.330″
991/3-4	991/3-3	991/3-2	991/3-1	3	16	65/34	SJO	10	300	1 7/16″	.365″
991/4-4	—	991/4-2	—	4	16	65/34	SJO	8	300	1 5/8″	.395″
991/5-4	—	991/5-2	—	5	16	65/34	—	8	600	2″	.540″
991/6-4	—	991/6-2	—	6	16	65/34	—	8	600	2 1/8″	.550″
991/7-4	—	991/7-2	—	7	6/16 1/14	#16-65/34 #14-41/30	— —	#16-8 #14-12	600	2 1/4″	.600″
993-4	—	993-2	—	2	14	41/30	SO	15	600	2″	.535″
993/3-4	—	993/3-2	—	3	14	41/30	SO	15	600	2 1/8″	.560″
993/4-4	—	993/4-2	—	4	14	41/30	SO	12	600	2 1/4″	.605″
994-4	—	994-2	—	2	12	65/30	SO	20	600	2 1/4″	.605″
994/3-4	—	994/3-2	—	3	12	65/30	SO	20	600	2 3/8″	.635″
994/4-4	—	994/4-2	—	4	12	65/30	SO	16	600	2 1/2″	.665″
994/6-4	—	994/6-2	—	6	2-12 4-18	#12-65/30 #18-41/34	— —	#12-17 #18-6	600	2 1/4″	.605″
994/7-4	—	994/7-2	—	7	12	65/30	—	16	600	2 5/8″	.775″

* Wherever UL type is shown, approved by CSA Testing Laboratories.
† Preferred Put-up.

Std. Pkg. 5

CONDUCTOR COLOR CODE: 1-Black, 2-White, 3-Green, 4-Red, 5-Blue 6-Brown, 7-Yellow.

DABURN MINIATURE RETRACTILE COMMUNICATION CORDS

2 Feet Retracted — 10 Ft. Extended

Miniature size. Suitable for compact equipment. Black plastic jacket overall.
Operating Temperature: −20°C to +60°C — Std. Pkg. 10

DABURN No.	Conds.	Size	Strand	Coil O.D.	Cond. O.D.
975/28	2	28	19/40 T.C.	1/2″	.135″
977/28	4	28	19/40 T.C.	1/2″	.150″

RETRACTILE TEST LEAD WIRE

Stretch coiled kinkless test lead wire description. 12″ coil — stretches to approx. 6 feet. One conductor #20 stranded copper rubber insulation .165 O.D. Colors: Red, Black. Coil O.D. 3/4″. Working Voltage: 1000V, 4 Amps.

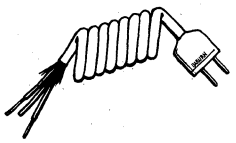
DABURN No.	Lgth.	Size	Strand	Coil O.D.	Cord O.D.
984 A	12″	20	41/36	3/4″	.165″
984	24″	20	41/36	3/4″	.165″

12″ Extends Approx. 6 Ft.
24″ Extends Approx. 12 Ft.

Specify Color, Red or Black
Std. Pkg. 6

UL APPROVED RETRACTILE POWER CORD SETS

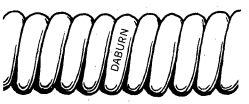
18″ Retracted — Approx. 9 Ft. Extended — 300V — UL Approved



For portable use. Mobile and office equipment. Neoprene jacketed cord sets with molded male plug on one end.
OPERATING VOLTAGE 300 VOLTS

DABURN Cat. No.	Conds.	AWG Size	Strand	Type UL	Coil O.D.	Cord O.D.
980	2	18	41/34	SVO	7/8″	.250″
980/3	3	18	41/34	SVO	1″	.275″
981	2	18	41/34	SJO	1 1/16″	.310″
981/3	3	18	41/34	SJO	1 3/8″	.330″
982	2	16	65/34	SJO	1 3/8″	.330″
982/3	3	16	65/34	SJO	1 7/16″	.365″

CONDUCTOR COLOR CODE: 1-Black, 2-White. 3-Green. — Std. Pkg. 10



RETRACTILE COMMUNICATION COIL CORDS

RETRACTED LENGTHS 2, 3 & 4 FT. — EXTENDED LENGTHS 12, 18 & 25 FT.

Multi-conductors stranded extra flexible #23 AWG 21/36 tinned soft copper for long flex life, Neoprene or "Danyon" plastic jacketed cable for long life. 120 volt working, current carrying capacity 1 ampere. Nom. cond. resist. .022 ohms per linear foot., .185 ohms per retracted foot.
For communication equip. such as ham operations, telephone car carriers, radio equip., head sets, etc.

Operating Temperature: −20°C to +60°C

DABURN CAT. NOS. 4 Ft.*	3 Ft.	2 Ft.	No. Conds.	Size	Strand	Nom. Coil O.D.	Nom. Cord O.D.
975-4	975-3	975-2	2	23	21/36	3/4″	.200″
976-4	976-3	976-2	3	23	21/36	13/16″	.210″
977-4	977-3	977-2	4	23	21/36	7/8″	.240″
978-4	978-3	978-2	5	23	21/36	1″	.285″
978/6-4	978/6-3	978/6-2	6	23	21/36	1 1/8″	.305″
978/7-4	978/7-3	978/7-2	7	23	21/36	1 1/4″	.320″

SPECIAL CONSTRUCTION AVAILABLE TO ORDER

DABURN CAT. NOS. 4 Ft.*	3 Ft.	2 Ft.	No. Conds.	Size	Strand	Nom. Coil O.D.	Nom. Cord O.D.
978/8-4	—	978/8-2	8	23	21/36	1 1/32″	.360″
978/10-4	—	978/10-2	10	23	21/36	1 1/32″	.380″
978/12-4	—	978/12-2	12	23	21/36	1 1/32″	.410″
978/15-4	—	978/15-2	15	23	21/36	1 1/32″	.470″
978/37-4	—	978/37-2	37	23	21/36	2 1/2″	.680″

CONDUCTOR COLOR CODING: 1-Black, 2-White, 3-Red, 4-Green, 5-Blue, 6-Yellow, 7-Brown, 8-Orange, 9-White / Black Tracer, 10-White / Red Tracer, 11-White / Green Tracer, 12-White/Blue Tracer, 13-White/Yellow Tracer, 14-White/Brown Tracer, 15-White / Orange Tracer. *Preferred Put-Up. Std. Pkg. 5

SHIELDED RETRACTILE COMMUNICATION CORDS

RETRACTED LENGTHS 1, 2 & 4 FT.—EXTENDED LENGTHS 6, 12 & 25 FT.

Single and multi-cond. Shielded mike cables Neoprene or "Danyon" plastic jacketed shielded conductors are individually shielded. Shield can be pigtailed for soldering. Safe — Reliable.
OPERATING TEMPERATURE: −20°C TO +60°C

DABURN CAT. NOS. 4 Ft. L'gth.	2 Ft. L'gth.	1 Ft. L'gth.	No. Conds.	Size	Strand	Nom. Coil O.D.	Nom. Cord O.D.	Volt Rating	CAPACITANCE MMF Lin. Ft.	CAPACITANCE MMF Retr. Ft.
995-4†	995-2	995-1	1	24 Shielded	41/40	5/8″	.160″	75	56	440
996-4	996-2	996-1	2	1-23 1-24 Shielded	21/36 41/40	7/8″	.210″	#23-120 #24-75	56	450
997-4	997-2	997-1	3	2-23 1-24 Shielded	21/36 41/40	7/8″	.240″	#23-120 #24-75	56	450
999-4	999-2	999-1	2	2-24 Shielded	41/40	7/8″	.210″	75	56	450
998-4	998-2	998-1	4	2-23 2-24 Shielded	21/36 41/40	1″	.270″	#23-120 #24-75	56	460

† Preferred Put-Up — Conductors are Color Coded. — Std. Pkg. 10

See Pages 1724 and 1725 for Complete Price List

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DABURN

DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

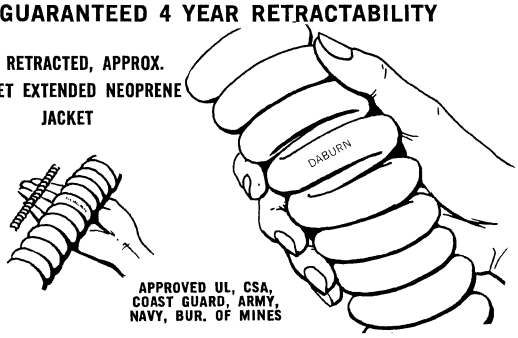
RETRACTILE

SUPA HEAVY DUTY POWER CORDS

with a

GUARANTEED 4 YEAR RETRACTABILITY

48″ RETRACTED, APPROX.
25 FEET EXTENDED NEOPRENE JACKET



APPROVED UL, CSA, COAST GUARD, ARMY, NAVY, BUR. OF MINES

SUGGESTED OPERATING TEMPERATURE: −20°C to +60°C.

Suitable for maintenance of industrial automation equip., refrigerated trucks, mass production, cherry pickers, magnetic cranes, standby power distribution. Wherever a tougher requirement is indicated. Std. Pkg. 6

Retracted length 48″ — extends to 25 ft.

DABURN Cat. No.	No. Cond.	Size	Stranding	Nom. Jacket Thickness	Nom. Cord O.D.
960	3	16	65/34	7/64″	.505″
960/4	4	16	65/34	7/64″	.535″
961	3	14	41/30	7/64″	.620″
961/4	4	14	41/30	7/64″	.660″
962	3	12	65/30	8/64″	.715″
962/4	4	12	65/30	8/64″	.770″

RETRACTILE COMMUNICATION CORD

PREPARED

Retracted length 12″ — extended length 6 feet.

Same as our regular communication cord but each end is prepared as specified.

Daburn No.	No. Cond.	Size & Strand	Coil O.D.	Cord O.D.	PREPARED
966	3	#23-21/36	13/16″	.220″	I END: L'gth 1½″. Conductor stripped and tinned. Other end: Total L'gth 1½″ jacket removed.
967	4	#23-21/36	15/16″	.250″	I END: Total length 1″. Conductors stripped and tinned. Other end: Total lgth 1½″ jacket removed.
968	5	#23-21/36	1-1/16″	.285″	I END: Total l'gth 4⅛″. Conductors stripped and tinned. Other end: Total l'gth 4⅛″ conds. stripped and tinned.

Std. Pkg. 10

HI-FI STEREO

Interconnecting Cable — Phono Wire

Extremely flexible. Designed for low hum and noise pickup. Special PVC formulation −40°C to +80°C operation.

TWISTED — UNSHIELDED

DABURN No,	Cond.	Size	Strand	Nom. Wall	Nom. O.D.
2742	2	32	7/40	.010″	.047″
2743	3	32	7/40	.010″	.053″
2744	4	32	7/40	.010″	.061″

TWISTED — SHIELDED

2746	2	32	7/40	.010″	.067″
2747	3	32	7/40	.010″	.072″
2748	4	32	7/40	.010″	.080″
2751	2	32	7/40	.010″	.080″

STD. PUT-UP: 500 Ft., 1000 Ft. **#2751** Individually Shielded.
CONDUCTOR COLOR CODE: 1-White, 2-Red, 3-Black, 4-Green.

RUBBER, NEOPRENE & PLASTIC PORTABLE CORD

UL APPROVED — 300 AND 600 VOLT

For power line requirement where rough usage is indicated as for amplifiers, sound systems, speakers, vacuum cleaners, washing machines, trouble lights, refrigerators, etc. Color coded. Underwriters approved. Neoprene and plastic construction recommended for equipment exposed to oil, acids, outdoor use, direct burial, etc.

SUGGESTED OPERATING TEMPERATURE: −20°C to +60°C.

Each conductor, copper conductor, paper separator, color coded, rubber insulation, filler, (where necessary) separator, tough rubber or neoprene jacket, black.

UL Type	Volt Rating
SV, SVO, SVTO	300V
SJ, SJO, SJTO	300V
S, SO, STO	600V

RUBBER Daburn No.	RUBBER UL Type	NEOPRENE Daburn No.	NEOPRENE UL Type	PLASTIC Daburn No.	PLASTIC UL Type	Conds. No.	Size	Amp. Rating	Nom. O.D.
2860	SV	2890	SVO	2870	SVTO	2	18	7	.250″
2860/3	SV	2890/3	SVO	2870/3	SVTO	3	18	7	.265″
2861	SJ	2891	SJO	2871	SJTO	2	18	7	.300″
2861/3	SJ	2891/3	SJO	2871/3	SJTO	3	18	7	.330″
2861/4	SJ	2891/4	SJO	2871/4	SJTO	4	18	6	.360″
2862	SJ	2892	SJO	2872	SJTO	2	16	10	.325″
2862/3	SJ	2892/3	SJO	2872/3	SJTO	3	16	10	.365″
2862/4	SJ	2892/4	SJO	2872/4	SJTO	4	16	8	.395″
2863	S	2893	SO	2873	STO	2	18	7	.390″
2863/3	S	2893/3	SO	2873/3	STO	3	18	7	.405″
2863/4	S	2893/4	SO	2873/4	STO	4	18	6	.435″
2864	S	2894	SO	2874	STO	2	16	10	.410″
2864/3	S	2894/3	SO	2874/3	STO	3	16	10	.430″
2864/4	S	2894/4	SO	2874/4	STO	4	16	8	.485″
2865	S	2895	SO	2875	STO	2	14	15	.540″
2865/3	S	2895/3	SO	2875/3	STO	3	14	15	.560″
2865/4	S	2895/4	SO	2875/4	STO	4	14	12	.605″
2866	S	2896	SO	2876	STO	2	12	20	.600″
2866/3	S	2896/3	SO	2876/3	STO	3	12	20	.635″
2866/4	S	2896/4	SO	2876/4	STO	4	12	16	.665″
2867	S	2897	SO	2877	STO	2	10	25	.640″
2867/3	S	2897/3	SO	2877/3	STO	3	10	25	.690″
2867/4	S	2897/4	SO	2877/4	STO	4	10	20	.745″
2868	—	2898	—	—	—	2	8†	35	.700″
2868/3	—	2898/3	—	—	—	3	8†	35	.750″
2868/4	—	2898/4	—	—	—	4	8†	28	.820″
2869	—	2899	—	—	—	2	6†	45	.820″
2869/3	—	2899/3	—	—	—	3	6†	45	.885″
2869/4	—	2899/4	—	—	—	4	6†	36	.975″

Additional conductors and sizes available † Not listed by UL.

CONDUCTOR COLOR CODE: 1-White, 2-Black, 3-Green, 4-Red.
STD. PUT-UP: 250 FT.

SPEC MIL-C-3432B SERVICE CORD

DABURN Cat. No.	MIL Type	Spec. Design.	Conds.	Size	Spec. No.	Nom. O.D.
2812	CO-02	MGF	2	18	MIL-C-3432B	.300″
2813	CO-02	HGF	2	18	MIL-C-3432B	.380″
2814	CO-02	LGF	2	18	MIL-C-3432B	.250″
2815	CO-02	HGF	2	16	MIL-C-3432B	.405″
2816	CO-02	MGF	2	16	MIL-C-3432B	.338″
2817	CO-02	MGF	2	14	MIL-C-3432B	.400″
2818	CO-02	HGF	2	14	MIL-C-3432B	.535″
2819	CO-03	MGF	3	18	MIL-C-3432B	.340″
2820	CO-03	MGF	3	16	MIL-C-3432B	.375″
2821	CO-03	HOE	3	12	MIL-C-3432B	.635″

Additional Numbers Available — Your Inquiries Invited

CONTROL CABLE (unshielded)

MULTI-CONDUCTOR RUBBER JACKETED — GENERAL PURPOSE

SUGGESTED OPERATING TEMPERATURE: −20°C to +60°C.

Used for permanent or portable P.A. systems, sound recording, indoor or outdoor speaker, interconnecting cable for all electronic uses.

Each conductor, extra flexible stranded tinned copper, insulated with a .022″ wall, special low capacity rubber, color coded, conductors twisted, filler (where necessary), cotton wrap with tough weatherproof black rubber jacket overall.

DABURN Cat. No.	Cond.	Size	Strand	Nom. O.D.
2802	2	20	26/34	.240″
2803	3	20	26/34	.255″
2804	4	20	26/34	.275″
2805	5	20	26/34	.300″
2806	6	20	26/34	.315″
2807	7	20	26/34	.325″
2808	8	20	26/34	.360″
2808/10	10	20	26/34	.410″
2808/12	12	20	26/34	.435″

For longer lengths and alternate Put-Ups — Specify

STD. PUT-UP: 100 Ft., 250 Ft., 500 Ft., 1000 Ft.
CONDUCTOR COLOR CODE: 1-Black, 2-White, 3-Red, 4-Green, 5-Yellow, 6-Blue, 7-Brown, 8-Orange, 9-Purple, 10-Slate, 11--Wh/Blk (Braid), 12-Wh/Red (Braid).

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See Pages 1724 and 1725 for Complete Price List

DABURN ELECTRONICS & CABLE CORP.

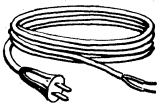
WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

SERVICE CORD — HEAVY DUTY

UL APPROVED — CSA APPROVED

Suitable for replacement on machinery, tools, refrigerators, electronic devices.

DESCRIPTION: Two and three conductors, stranded bare copper, serve, rubber insulation, filler, wrap, tough black rubber jacket overall. Molded plug one end, free end stripped and tinned — Hanked.



VOLTAGE RATING: 300V

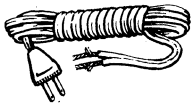
DABURN No.	Cord L'gth.Ft.	Cond.	Size	Strand	Type	Amp Rating	Cord O.D.
1980	8	2	16	65/34	SJ	10	.325″
1980/3	8	3	16	65/34	SJ	10	.355″
1982/3	8	3	18	41/34	SJ	7	.330″
1984	9	2	18	41/34	SV	7	.245″
1984/3	9	3	18	41/34	SV	7	.265″

Std. Pkg. 25

UL APPROVED — SERVICE LINE CORD

Use as an all purpose power supply cord for small appliances, lamps, radios, etc.

DESCRIPTION: Two conductors parallel SP-1 (POSJ) with molded-on male plug, double brass blades, conductor end stripped and tinned — Hanked. Available in black and brown.



DABURN No.	L'gth	Cond.	Size	Strand	Nom. O.D.	Std. Pkg.
1987	6	2	18	41/34	130″ x .235″	50
1988	7½	2	18	41/34	130″ x .235″	50

RG/U COAXIAL CABLE

DESCRIPTION: One conductor, polyethylene insulation, copper braid shield, plastic jacket overall.

DABURN No.	Spool	Type	Nom. Imp.	Size	Nom. MMFD/ FT.	Strand	O.D.
1925	500′	RG-8/U	52	13	29.5	7/21 Bare	.405″
1926	500′	RG-9/U	51	13	30.0	7/21 S	.420″
1927	500′	RG-11/U	75	18	20.5	7/26 Tinned	.405″
1928	1000′	RG-58A/U	50	20	29.0	19/.0068 Tinned	.195″
1929	1000′	RG-58/U	53.5	20	28.5	Solid	.195″
1930	1000′	RG-59/U	73	22	21.0	Solid C.W.	.242″
1931	1000′	RG-62/U	93	22	13.5	Solid	.242″

Additional RG numbers available conforming to MIL-C-17B Specs.

LAMP CORD

TYPES SP-1 (POSJ-64) — TYPE SP-1 (POT) UL APPROVED

An all purpose approved cord both SP-1 (rubber) and SPT-1 (Plastic) for lamps, radios and small instruments and appliances.

DABURN No.	Cond.	Size	Strand	Insul.	Type	UL Type	Nom. O.D.
1990	2	18	41/34	Rubber	SP-1	POSJ	.130″x.235″
1991	2	18	41/34	Plastic	SPT-1	POT	.130″x.225″
1993	2	18	41/34	Pl. Clear	SPT-1	POT	.115″x.215″
1994	2	16	65/34	Pl. Brown	SPT-2	POT	.160″x.300″

STD. PUT-UP: 100 Ft., 250 Ft., 500 Ft., 1000 Ft.

COLORS: (Rubber) Brown, Black, White.
(Plastic) Brown, Black, Ivory.

DABURN MAGNET WIRE — Per MIL-W-583B Spec.

DESCRIPTION: Plain Enamel — Single conductor round bare copper covered with a continuous insulating film of enamel. 105°C, Type T per MIL-W-583B.

DESCRIPTION: Heavy Formvar: — Single conductor round baked copper, baked film insulation from varnish base on a vinyl acetal resin. 105C°C, Type T2 per MIL-W-583B.

DESCRIPTION: Single conductor soft drawn annealed copper tinned per Spec MIL-W-3861 Type S, QQ-W-343 Type S, ASTM-B-33.

PLAIN ENAMEL (PE)

DABURN No.	Size	Nom. O.D.
DPE-10	10	.1037″
DPE-12	12	.0825″
DPE-14	14	.0657″
DPE-16	16	.0522″
DPE-18	18	.0416″
DPE-20	20	.0332″
DPE-22	22	.0266″
DPE-24	24	.0212″
DPE-26	26	.0169″
DPE-28	28	.0135″
DPE-30	30	.0108″
DPE-32	32	.0087″
DPE-34	34	.0069″
DPE-36	36	.0055″
DPE-38	38	.0044″
DPE-40	40	.0034″
DPE-42	42	.0028″
DPE-44	44	.0023″

HEAVY FORMVAR (HF)

DABURN No.	Size	Nom. O.D.
DHF-10	10	.1056″
DHF-12	12	.0842″
DHF-14	14	.0673″
DHF-16	16	.0539″
DHF-18	18	.0432″
DHF-20	20	.0346″
DHF-22	22	.0277″
DHF-24	24	.0224″
DHF-26	26	.0180″
DHF-28	28	.0144″
DHF-30	30	.0116″
DHF-32	32	.0095″
DHF-34	34	.0075″
DHF-36	36	.0060″
DHF-38	38	.0049″
DHF-40	40	.0038″
DHF-42	42	.0032″
DHF-44	44	.0026″

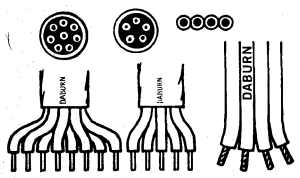
TINNED COPPER (TC)

DABURN No.	Size	Nom. O.D.
DTC-10	10	.103″
DTC-12	12	.082″
DTC-14	14	.065″
DTC-16	16	.051″
DTC-18	18	.040″
DTC-20	20	.033″
DTC-22	22	.025″
DTC-24	24	.020″
DTC-26	26	.016″
DTC-28	28	.013″
DTC-30	30	.010″
DTC-32	32	.008″
DTC-34	34	.006″
DTC-36	36	.005″
DTC-38	38	.004″
DTC-40	40	.003″

STANDARD PUT-UP: ¼ lb., ½ lb., 1 lb., 5 lbs., 10 lbs. **SIZES:** 34, 36. Largest Put-up 5 lbs **SIZES:** 38, 40, 42, 44. Largest Put-up 1 lb.

ANTENNA CONTROL ROTOR CABLE

USEFUL FOR TV ANTENNA ROTATORS, ETC.



#1909 #1908 #1907

#1907 — 4 cond. flat parallel polyethylene plastic insulation — one outer conductor tinned, balance bare copper.

#1908 — 5 cond. twisted, color coded, vinyl plastic jacket overall.

#1909 — 8 cond. twisted, color coded vinyl plastic jacket overall.

DABURN No.	Cond.	Size	Strand	Nom. O.D.
1907	4	20	7/28	.072″ x .390″
1908	5	20	7/28	.180″
1909	8	22	7/30	.205″

CONDUCTOR COLOR CHART FOR #1908, 1909
1-Black, 2-White, 3- Red, 4-Green, 5-Yellow, 6-Blue, 7-Brown, 8-Orange.
STD. PUT-UP: 500 Ft., 1000 Ft.

See Pages 1724 and 1725 for Complete Price List

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DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

HI-VOLTAGE CABLE

One conductor, stranded copper tinned, rulan — flame retardant — polyethylene insulation, braided tinned copper overall when shielded. Used as hi-voltage leads in electronic equipment to minimize RF radiation in equipment.

DESCRIPTION: One conductor stranded copper tinned rulan (flame retarding type) polyethylene insulation. Available white/red tracer. Temp. Rating: 105°C.

Shielded: Same as above with tinned copper braided shield overall.

Special construction available to order.

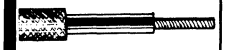
Daburn No.	Size AWG	Strand	Nom. Ins. Wall	Voltage Breakdown AC	DC	Nom. O.D.
UNSHIELDED						
2641	22	7/30	.047″	5,000	10,000	.124″
2642	20	10/30	.047″	5,000	10,000	.125″
2643	20	10/30	.068″	10,000	20,000	.168″
2644	18	16/30	.047″	5,000	10,000	.134″
2645	18	16/30	.068″	10,000	20,000	.178″
2648	18	16/30	.095″	16,000	40,000	.235″
2649	18	16/30	.124″	26,000	60,000	.280″
SHIELDED						
2652	20	10/30	.095″	16,000	40,000	.252″
2655	18	16/30	.095″	16,000	40,000	.255″
2656	16	26/30	.095″	16,000	40,000	.276″

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

SILICONE RUBBER LEAD WIRE
600 VOLT — 200°C

FLEXIBILITY FROM −104°C TO +400°F

Suitable for high-heat and hi-frequency applications. Resistant to acid, alkali, oil. Retains physical properties under extremes. Low power factor, low dielectric constant. Tinned copper, stranded, silicone rubber insulation, glass braid, lacquered. Color: White.



DESCRIPTION: One conductor, tinned copper strands, silicone rubber insulation, glass braid, lacquered.

COLOR: White.

DABURN No.	Size	Strand	Nom. Ins. Wall	Nom. O.D.
2625/22	22	7/30	1/32″	.105″
2625/20	20	10/30	1/32″	.121″
2625/18	18	16/30	1/32″	.128″
2625/16	16	26/30	1/32″	.144″
2625/14	14	41/30	1/32″	.165″
2625/12	12	65/30	1/32″	.185″
2625/10	10	65/28	3/64″	.240″
2625/8	8	84/27	1/16″	.320″

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

PLASTIC HOOK-UP WIRE

600 VOLT UL APPROVED — 105°C
(CSA 600V — 90°C)

Resistant to acids, alkalis, oil, flame, fungus and moisture. Temperature Rating: −10°C to +105°C.

DESCRIPTION: One conductor stranded annealed copper tinned, plastic insulation.

DABURN No.	Size	Strand	Nom. Ins. Wall	Nom. O.D.
STRANDED				
2630	22	7/30	.032″	.098″
2631	20	10/30	.032″	.104″
2632	18	16/30	.032″	.112″
2633	16	26/30	.032″	.126″
2633/14	14	41/30	.032″	.142″
SOLID				
2635/22	22	1	.032″	.095″
2635/20	20	1	.032″	.102″

COLORS: Black, Red, Green, Yellow, Blue, White, Orange, Gray, Purple.

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

300 VOLT UL APPROVED — 80°C

DABURN No.	Size	Strand	Nom. Ins. Wall	Nom. O.D.
2628/22	22	7/30	.016″	.057″
2628/20	20	10/30	.016″	.065″
2628/18	18	16/30	.016″	.071″
2628/16	16	26/30	.016″	.080″

COLORS: Black, Red, Green, Yellow, Blue, Brown, White, Orange, Gray, Purple.

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

NEW HI-VOLT CORONA RESISTANT TEFLON* CABLE

Voltage Rating at Sea Level • Voltage Rating at 80,000 feet, approximately 1/3 lower • Minimum life expectancy: 10,000 hours.

SMALL SIZE:
You do not need bulky, thick, insulation jacketing as used wtih silicone rubber and polyethylene insulations to get your hi-voltage requirements. Wire used is MIL-SPEC QQ-W-343 and MIL-W-16878D. insulation used conforms and surpasses MIL-SPEC-W-16878D

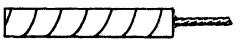
AVOID CORONA PROBLEMS:
Corona resistant Teflon construction is specifically designed to retard and prevent corona penetration.
Temperature variations from −60° to +300°C have no life effect on the corona resistant Teflon. In addition, there is no stress or crack failure under severe, adverse conditions including mechanical strain, moisture, corona or chemical conditions.

PUT-UP: 250′, 500′, 1000′

DESCRIPTION:
Single Conductor, Stranded Silver Plated Copper, Corona Resistant Teflon* Insulation.

TEMPERATURE RATING:
−90°C to +250°C.

VOLTAGE RATING:
Based on insulation thickness.



AVAILABLE COLORS:
White, Black, Red, Green, Yellow, Lt. Blue, Brown, Orange, Gray, Violet. (Also available in tracer colors)

* DUPONT

DABURN No.	AWG Size	Strand	Voltage Rating AC	DC	Nom. O.D.
CRT-12-2	12	19/25	2500	10,000	.142″
CRT-12-2.5	12	19/25	3750	12,500	.152″
CRT-12-3	12	19/25	4500	15,000	.162″
CRT-12-3.5	12	19/25	5300	17,500	.172″
CRT-12-4	12	19/25	6000	20,000	.182″
CRT-12-5	12	19/25	7500	25,000	.202″
CRT-12-6.5	12	19/25	10,000	32,500	.232″
CRT-12-8	12	19/25	12,000	40,000	.262″
CRT-12-10	12	19/25	15,000	50,000	.302″
CRT-14-2	14	19/27	2500	10,000	.124″
CRT-14-2.5	14	19/27	3750	12,500	.134″
CRT-14-3	14	19/27	4500	15,000	.144″
CRT-14-3.5	14	19/27	5300	17,500	.154″
CRT-14-4	14	19/27	6000	20,000	.164″
CRT-14-5	14	19/27	7500	25,000	.184″
CRT-14-6.5	14	19/27	10,000	32,500	.214″
CRT-14-8	14	19/27	12,000	40,000	.244″
CRT-14-10	14	19/27	15,000	50,000	.284″
CRT-16-2	16	19/29	2500	10,000	.109″
CRT-16-2.5	16	19/29	3750	12,500	.119″
CRT-16-3	16	19/29	4500	15,000	.129″
CRT-16-3.5	16	19/29	5300	17,500	.139″
CRT-16-4	16	19/29	6000	20,000	.149″
CRT-16-5	16	19/29	7500	25,000	.169″
CRT-16-6.5	16	19/29	10,000	32,500	.199″
CRT-16-8	16	19/29	12,000	40,000	.229″
CRT-16-10	16	19/29	15,000	50,000	.269″
CRT-18-2	18	19/30	2500	10,000	.102″
CRT-18-2.5	18	19/30	3750	12,500	.112″
CRT-18-3	18	19/30	4500	15,000	.122″
CRT-18-3.5	18	19/30	5300	17,500	.132″
CRT-18-4	18	19/30	6000	20,000	.142″
CRT-18-5	18	19/30	7500	25,000	.162″
CRT-18-6.5	18	19/30	10,000	32,500	.192″
CRT-18-8	18	19/30	12,000	40,000	.222″
CRT-18-10	18	19/30	15,000	50,000	.272″
CRT-20-2	20	19/32	2500	10,000	.092″
CRT-20-2.5	20	19/32	3750	12,500	.102″
CRT-20-3	20	19/32	4500	15,000	.112″
CRT-20-3.5	20	19/32	5300	17,500	.122″

DABURN No.	AWG Size	Strand	Voltage Rating AC	DC	Nom. O.D.
CRT-20-4	20	19/32	6000	20,000	.132″
CRT-20-5	20	19/32	7500	25,000	.152″
CRT-20-6.5	20	19/32	10,000	32,500	.192″
CRT-20-8	20	19/32	12,000	40,000	.212″
CRT-20-10	20	19/32	15,000	50,000	.252″
CRT-22-2	22	19/34	2500	10,000	.084″
CRT-22-2.5	22	19/34	3750	12,500	.094″
CRT-22-3	22	19/34	4500	15,000	.104″
CRT-22-3.5	22	19/34	5300	17,500	.114″
CRT-22-4	22	19/34	6000	20,000	.124″
CRT-22-5	22	19/34	7500	25,000	.144″
CRT-22-6.5	22	19/34	10,000	32,500	.174″
CRT-22-8	22	19/34	12,000	40,000	.204″
CRT-22-10	22	19/34	15,000	50,000	.244″
CRT-24-2	24	19/36	2500	10,000	.077″
CRT-24-2.5	24	19/36	2750	12,500	.087″
CRT-24-3	24	19/36	4500	15,000	.097″
CRT-24-3.5	24	19/36	5300	17,500	.107″
CRT-24-4	24	19/36	6000	20,000	.117″
CRT-24-5	24	19/36	7500	25,000	.137″
CRT-24-6.5	24	19/36	10,000	32,500	.167″
CRT-24-8	24	19/36	12,000	40,000	.197″
CRT-24-10	24	19/36	15,000	50,000	.237″
CRT-26-2	26	7/34	2500	10,000	.071″
CRT-26-2.5	26	7/34	3750	12,500	.081″
CRT-26-3	26	7/34	4500	15,000	.091″
CRT-26-3.5	26	7/34	5300	17,500	.101″
CRT-26-4	26	7/34	6000	20,000	.111″
CRT-26-5	26	7/34	7500	25,000	.131″
CRT-26-6.5	26	7/34	10,000	32,500	.161″
CRT-26-8	26	7/34	12,000	40,000	.191″
CRT-26-10	26	7/34	15,000	50,000	.231″
CRT-28-2	28	7/36	2500	10,000	.067″
CRT-28-2.5	28	7/36	3750	12,500	.077″
CRT-28-3	28	7/36	4500	15,000	.087″
CRT-28-3.5	28	7/36	5300	17,500	.097″
CRT-28-4	28	7/36	6000	20,000	.117″
CRT-28-5	28	7/36	7500	25,000	.127″
CRT-28-6.5	28	7/36	10,000	32,500	.157″
CRT-28-8	28	7/36	12,000	40,000	.187″
CRT-28-10	28	7/36	15,000	50,000	.227″

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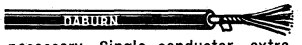
See Pages 1724 and 1725 for Complete Price List

DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

TEST LEAD WIRE



Suitable as Test Lead Wire in analyzers, instruments, oscillators, meters, etc. Wherever extra flexibility and limpness is necessary. Single conductor, extra flexible stranded soft tinned copper, separator, wall color coded rubber, smooth wax finish.

OPERATING TEMPERATURE: −20°C to +60°C.

DABURN No.	Size	Strand	Insul. Wall Nom.	Nom. O.D.
2715	20	41/36	3/64″	.137″
2716	18	65/36	3/64″	.145″
*2718	18	65/36	3/64″	.145″

*Types WS-16/U Black, WS17/U Red Per MIL-W-13169.

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

PLASTIC KINKLESS TEST LEAD WIRE

Soft formulation vinyl for maximum flexibility. Temperature stability from −80°C to +115°C. Exceed requirements for MIL-I-3930A Type JP (PVC). Suitable for test leads, etc. Resistant to gasoline and oil. Excellent abrasion Resistance.

DESCRIPTION: One conductor tinned copper stranded, special formulation vinyl insulation — smooth surface.

OPERATING TEMPERATURE: −80°C to+115°C.

COLORS: Black, Red, Yellow, Green, White, Blue.

DABURN No.	Size	Strand	Ins.	Nom. O.D.
2722/22	22	26/36	.032″	.100″
2722/20	20	26/34	.032″	.104″
2722/18	18	65/36	.032″	.112″
2722/16	16	65/34	.032″	.129″

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

7MM HIGH TENSION CABLE

#2730 — unshielded one conductor, insulation, cotton braid highly lacquered. **#2731** — same construction as above plus a closely woven tinned copper shielded braid overall.

DABURN No.	Size	Strand	Insul.	O.D.
2730	16	19/29	3/32″	.275″
2731 (Shielded)	16	19/29	3/32″	.295″

STD. PUT-UP: 100 Ft., 500 Ft.

Suitable for auto and aircraft ignition systems where grounding is indicated.

HI VOLTAGE LACQUERED WIRE

Primary wire for autos, aircraft, hi-voltage instrument leads. Resistant to acid, grease, oil, gasoline, moisture.

DABURN No.	Size	Strand	Ins.	Nom. O.D.
2725/18	18	16/30	.022″	.115″
2725/16	16	19/29	.022″	.125″
2725/14	14	19/27	.022″	.146″
2725/12	12	19/25	.027″	.171″
2725/10	10	19/23	.031″	.202″

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

TINNED COPPER SHIELDED PHONO WIRE

Suitable where small diameter, limpness and extreme flexibility is necessary as for phono pickups, stereo, etc.

OPERATING TEMPERATURE: −20°C to+60°C.

DABURN No.	Size	Strand	Overall Insul. Wall	Nom. O.D.
2737	24	16/36	.010″	.075″
2738	22	7/30	.010″	.080″
COTTON BRAID OVER SHIELD				
2739	24	16/36	.010″	.095″

STD. PUT-UP: 100 Ft., 500 Ft.

SHIELDED HOOK-UP WIRE

One conductor, tinned copper stranded, polyvinylchloride insulation, lacquered glass braid, overall tinned copper shielded braid.

Operating Temp.: −20°C to +60°C.

DABURN No.	Size	Strand	Nom. Wall	Nom. O.D.
2727/22	22	7/30	.016″	.095″
2727/20	20	10/30	.016″	.105″
2727/18	18	16/30	.016″	.125″
2727/16	16	26/30	.016″	.135″
2727/14	14	41/30	.016″	.155″
2727/12	12	65/30	.016″	.175″
2727/10	10	105/30	.025″	.200″

STD. PUT-UP: 1000 Ft.

NEW CONTROL CABLE

HEAVY DUTY MULTI-CONDUCTOR

PORTABLE TYPE SO

NEOPRENE JACKETED — 600 VOLT

DESCRIPTION: Stranded bare copper each conductor, rubber insulation color coded, filler where necessary, wrap over conductors, flexible heavy duty black Neoprene jacket overall.

Recommended for outside installation, this heavy duty control cable resists oil, ozone, sunlight, moisture, impact and abrasion. Suitable for remote control automatic equipment, telemetering, signal transmission.

No. 18 AWG-SO CONTROL CABLE

DABURN Cat. No.	Cond.	Size AWG	Strand	Nom. O.D.
3300/5	5	18	16/30	.495″
3300/6	6	18	16/30	.525″
3300/7	7	18	16/30	.525″
3300/8	8	18	16/30	.565″
3300/10	10	18	16/30	.635″
3300/12	12	18	16/30	.665″
3300/14	14	18	16/30	.715″
3300/16	16	18	16/30	.745″
3300/18	18	18	16/30	.775″
3300/20	20	18	16/30	.815″
3300/22	22	18	16/30	.875″
3300/24	24	18	16/30	.895″
3300/26	26	18	16/30	.915″
3300/30	30	18	16/30	.945″
3300/36	36	18	16/30	1.060″
3300/40	40	18	16/30	1.085″

No. 16 AWG-SO CONTROL CABLE

3305/5	5	16	26/30	.525″
3305/6	6	16	26/30	.560″
3305/7	7	16	26/30	.560″
3305/8	8	16	26/30	.605″
3305/10	10	16	26/30	.710″
3305/12	12	16	26/30	.745″
3305/14	14	16	26/30	.760″
3305/16	16	16	26/30	.800″
3305/18	18	16	26/30	.840″
3305/20	20	16	26/30	.890″
3305/22	22	16	26/30	.930″
3305/24	24	16	26/30	1.02″
3305/26	26	16	26/30	1.03″
3305/30	30	16	26/30	1.05″
3305/36	36	16	26/30	1.12″
3305/40	40	16	26/30	1.18″

No. 14 AWG-SO CONTROL CABLE

3310/5	5	14	41/30	.685″
3310/6	6	14	41/30	.745″
3310/7	7	14	41/30	.800″
3310/8	8	14	41/30	.860″
3310/10	10	14	41/30	.875″
3310/12	12	14	41/30	.945″
3310/14	14	14	41/30	1.000″
3310/16	16	14	41/30	1.075″
3310/18	18	14	41/30	1.115″
3310/20	20	14	41/30	1.155″

No. 12 AWG-SO CONTROL CABLE

3315/5	5	12	65/30	.760″
3315/6	6	12	65/30	.810″
3315/7	7	12	65/30	.860″
3315/8	8	12	65/30	.945″
3315/10	10	12	65/30	1.000″
3315/12	12	12	65/30	1.100″
3315/14	14	12	65/30	1.120″
3315/16	16	12	65/30	1.150″
3315/18	18	12	65/30	1.30″
3315/20	20	12	65/30	1.33″

STD. PUT-UP: Cut to Specific Lengths — Min. 100 Ft.

The Color Code for Neoprene Jacket Control Cables Conforms to IPCEA Standards.

See Pages 1724 and 1725 for Complete Price List

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DABURN

DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

ELECTRONIC LACING CORDS AND TAPES • CABLE CLAMPS • TIES

LACING CORD-TAPE TO MEET MIL-T-713A TYPE P*

NYLON FLAT BRAIDED LACING TAPE

Nylon fiber flat braided impregnated with MW microcrystalline fungicidal wax. Stays flat. Designed to create a wider contact to distribute the stress. Flexible. Won't slip when knotted. Resistant to fungus, flame, abrasion, acids.

DABURN No.	Color	Class	Nom. Width	Nom. Thickness	Tensile Strength	Standard Put-Up Tubes
2035	Natural White	—	.200″	.014″	150 lbs.	500 yd.
2035B	Black	—	.200″	.014″	150 lbs.	500 yd.
2036	Natural White	1	.120″	.014″	80 lbs.	500 yd.
2036B	Black	1	.120″	.014″	80 lbs.	500 yd.
2037	Natural White	2*	.090″	.014″	50 lbs.	500 yd.
2037B	Black	2*	.090″	.014″	50 lbs.	500 yd.
2038	Natural White	3	.065″	.010″	35 lbs.	500 yd.
2038B	Black	3	.065″	.010″	35 lbs.	500 yd.

DACRON FLAT BRAIDED LACING TAPE

Dacron fiber flat braided impregnated with non-slip fungicidal finish. Will not cut or damage insulation. Stays at. Has all characteristics of nylon with elongation, better resistance to acids.

DABURN No.	Color	Nom. Width	Thickness Nom.	Strength Tensile	Standard Put-Up Tubes
2041	Natural White	.120″	.014″	80	500 yd.
2041B	Black	.120″	.014″	80	500 yd.
2042	Natural White	.090″	.014″	48	500 yd.
2042B	Black	.090″	.014″	48	500 yd.
2043	Natural White	.060″	.010″	35	500 yd.
2043B	Black	.060″	.010″	35	500 yd.
2044	Natural White	.046″	.010″	25	500 yd.
2044B	Black	.046″	.010″	25	500 yd.

TEFLON* FIBERGLASS FLAT BRAIDED LACING TAPE

Teflon coated fiberglass flat braided lacing tape bonded for high temp. operations (550°F). Stays flat — for strength, stability. Teflon finish increases strength and abrasion resistant surface. Will not cut or damage insulation.

DABURN No.	Color	Nom. Width	Thickness Nom.	lbs. Test	Standard Put-Up Tubes
2045	White	.190″	.025″	150	500 yd.
2046	White	.120″	.020″	90	500 yd.
2047	White	.070″	.020″	70	500 yd.

TEFLON* FLAT BRAIDED LACING TAPE

for high temperature operations (550°F)

DABURN No.	Color	Nom. Width	Nom. Thickness	Test lbs.	Standard Put-Up Tubes
2048	Brown	.100″	.016″	35	500 yd.
2049	Brown	.060″	.010″	15	500 yd.

ROUND TWISTED NYLON LACING CORD

Manufactured to meet MIL-T-713A Type P specification, Composition P, Classes 3, 2, 1. Wax finish — compounded with fungicide to resist mildew. Easy to tie.

PUT-UP ON 1 LB. TUBES

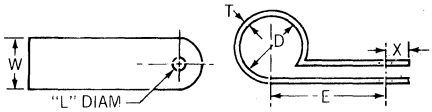
DABURN No.	Color	Class	Tensile Strength	Nom. Diam.	Yds. Per Tube
2070	Natural	1	70 lbs.	.039″	600
2070B	Black	1	70 lbs.	.039″	600
2071	Natural	2	48 lbs.	.029″	800
2071B	Black	2	48 lbs.	.029″	800
2072	Natural	3	32 lbs.	.025″	1140
2072B	Black	3	32 lbs.	.025″	1140
2072/1	Natural	4	20 lbs.	.020″	2400
2072/1B	Black	4	20 lbs.	.020″	2400

ROUND TWISTED LINEN LACING CORD

Manufactured from pure flax treated with microcrystalline wax compounded with fungicide to resist mildew. Classes 1, 2, 3 meet MIL-T-713A Type N specifications.

4 OZ. TUBE DABURN No.	Yds.	8 OZ. TUBE DABURN No.	Yds.	1 LB. TUBES DABURN No. Nat.	DABURN No. Blk.	Yds.	Class	Ply	Diam.	Lb. Test
2073	210	2074	425	2075	2075B	850	—	4	.036″	22
2076	150	2077	300	2078	2078B	600	3	6	.044″	33
2082	115	2083	235	2084	2084B	470	2	8	.051″	50
2079	100	2080	200	2081	2081B	400	—	9	.054″	56
2085	75	2086	150	2087	2087B	300	1	12	.063″	72

NYLON CABLE CLAMPS



MADE OF DU PONT "ZYTEL" 101 NYLON RESIN

Meets MIL-P-26093A and MIL-P-17091A Amend. 2

Light and tough these nylon cable clamps are used as a clamp, strain relief, clip hanger, fastener or strap. Smooth non-abrasive surfaces, rounded edges will not cause shorts or grounds in cable. Insoluble in solvents, gasoline, oils, hydraulic fluids, alcohol, acids, alkalies. Temperature range −60°F to +300°F. Does not support combustion. Inside matte finish. Prevents slippage and is self aligning. Snaps on cable. Meets MIL-P-20693A specs. fungus resistant.

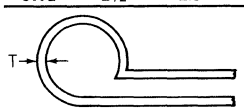
DABURN No.	To Fit Size	D	E	W	L	H	X
625	1/8″	.125	.316	3/8	.050	.177	.227
626	3/16″	.187	.378	3/8	.050	.177	.277
627	1/4″	.250	.409	3/8	.050	.177	.227
628	5/16″	.312	.441	3/8	.050	.177	.277
629	3/8″	.375	.471	3/8	.050	.177	.277
630	7/16″	.437	.519	3/8	.050	.177	.277
631	1/2″	.500	.550	3/8	.050	.177	.277
631A	9/16″	.563	.625	1/2	.060	.177	.227
632	5/8″	.625	.634	1/2	.060	.177	.227
632A	11/16″	.687	.752	1/2	.060	.177	.227
633	3/4″	.750	.718	1/2	.060	.177	.227
634	7/8″	.875	.760	1/2	.060	.177	.227
635	1″	1.000	.802	1/2	.060	.177	.227
636	1 1/8″	1.125	.968	1/2	.062	.204	.250
637	1 1/4″	1.250	1.156	1/2	.062	.204	.250
638	1 1/2″	1.500	1.188	5/8	.070	.204	.250

Std. Pkg. 100, 500, 1000

ETHYL CELLULOSE CABLE CLAMPS

Ethocel recommended for general use. Combines light weight and chemical resistance with excellent shock resisting properties in temp. range from −40°F to +185°F. Approved 7-21-44 Army-Navy Aeronautical AN-742. Also made to meet MIL STD. 242A (Ships). Suitable indoor-outdoor. Std. Pkg. 100, 1000.

DABURN No.	To Fit Size	D	E	W	L	H	X
615	1/8″	.125	.325	1/2	.060	.204	7/32
615A	3/16″	.188	.390	1/2	.060	.204	7/32
615B	1/4″	.250	.421	1/2	.060	.204	7/32
615C	5/16″	.313	.457	1/2	.060	.204	7/32
615D	3/8″	.375	.483	1/2	.060	.204	7/32
615E	7/16″	.438	.531	1/2	.060	.204	7/32
616	1/2″	.500	.562	1/2	.060	.204	7/32
616A	9/16″	.563	.625	1/2	.060	.204	7/32
616B	5/8″	.625	.610	1/2	.060	.204	7/32
616C	11/16″	.688	.666	1/2	.060	.204	7/32
616D	3/4″	.750	.766	1/2	.060	.204	7/32
616E	7/8″	.875	.813	1/2	.060	.204	7/32
617	1″	1.000	.906	1/2	.060	.204	7/32
617A	1 1/8″	1.125	.969	1/2	.060	.204	7/32
617B	1 1/4″	1.250	1.156	1/2	.060	.204	7/32
617C	1 1/2″	1.5	1.0625	5/8	.070	.204	7/32
617D	2″	2.0	1.313	5/8	.070	.204	7/32
617E	2 1/2″	2.5	1.563	5/8	.070	.204	7/32

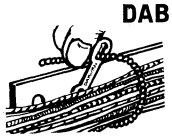


DABURN ALUMINUM CABLE CLAMPS

Made of hard drawn aluminum, light weight. Useful when mounting resonant lines, elements for beams, etc. Strong, durable, rust-proof.

DABURN No.	To Fit Size	Width	Length	Thickness	Clearance Hole For	Std. Pkg.
651A	1/8″	1/2″	13/16″	.050″	10	100
651	1/4″	1/2″	7/8″	.050″	10	100
652	5/16″	1/2″	15/16″	.050″	10	100
653	3/8″	1/2″	1″	.050″	10	100
654	1/2″	1/2″	1 1/8″	.050″	10	100
654A	5/8″	1/2″	1 1/4″	.050″	10	50
655	3/4″	3/4″	1 7/16″	.090″	1/4-20	50
657	7/8″	3/4″	1 5/8″	.090″	1/4-20	50
656	1″	3/4″	1 3/4″	.090″	1/4-20	50
656A	1 1/8″	3/4″	1 7/8″	.090″	1/4-20	50
656B	1 1/4″	3/4″	2″	.090″	1/4-20	50

DABURN PUSH BUTTON WIRE TIES



Push button wire ties for harnessing wire. 4 1/2″ in length, each tie is adjustable to 30 different diameters. Made of strong polyethylene, it is inert chemically and heat resistant. Breaking strength 45 to 95 lbs. After the tie is placed in hole for anchoring, wires can be replaced or added by loosening tie and pulling tight again. Designed to fit .250″ - .265″ hole in a .031″ to .140″ thick panel. Material conforms to Spec. LP590.

DABURN No.	(Specify Color)	Std. Pkg.
601-4	Red, Blue, Yellow	100, 1000

SPIRAL WRAP FOR HARNESSING AVAILABLE.

© U.C.P., Inc.

DABURN PRICE LIST

Daburn No.	Sugg'd. Resale
10-0	$ 13.93/C
10-01	3.13/C
10-02	6.30/C
10-03	12.00/C
10-06	12.75/C
10-16	14.00/C
10-17	19.80/C
10-30	32.60/C
10-31	43.99/C
10-32	70.29/C
10-40	16.20/C
10-40A	18.80/C
10-40B	17.85/C
10-40C	20.78/C
10-40D	29.35/C
10-40E	30.30/C
10-40F	32.20/C
10-41	13.85/C
10-41A	14.50/C
10-41B	14.50/C
10-42	15.10/C
10-42A	17.42/C
10-43	16.42/C
10-43A	18.10/C
10-44	17.50/C
10-44A	18.10/C
10-44B	18.10/C
10-44C	28.50/C
10-45	16.44/C
10-45A	18.10/C
10-45B	19.75/C
10-45C	34.92/C
10-45D	28.05/C
10-45E	37.50/C
10-45F	42.25/C
10-45G	39.42/C
10-46	23.10/C
10-46A	26.25/C
10-46B	23.10/C
10-46C	24.07/C
10-47	32.82/C
10-47B	46.06/C
10-47D	54.89/C
10-48	39.40/C
10-52	1.62
10-58	23.82/C
10-62	22.80/C
10-63	.42
10-64	33.88/C
10-65	52.65/C
10-67	28.47/C
10-68	.48
10-69	.25
10-70	85.00/C
10-71	120.00/C
10-72	37.32/C
10-73	21.82/C
10-74	20.00/C
10-76	113.00/C
10-78	36.65/C
10-79	64.15/C
10-125	42.15/C
10-176	59.58/C
10-200	26.72/C
10-201	77.00/C
10-202	127.00/C
10-203	4.27/C
10-204	22.90/C
10-205	25.70/C
10-206	22.90/C
10-207	35.25/C
10-208	1.40
10-209	3.85
10-215	9.10/C
10-234	94.88/C
10-237	261.48/C
10-238	341.60/C
11-06	25.90/C
11-07	25.90/C
11-08	27.55/C
11-10	25.90/C
11-10-01	25.90/C
11-10-02	25.90/C
11-11	25.90/C
11-11-01	25.90/C
11-12	25.90/C
11-14	25.90/C
11-15	25.90/C
11-16	25.90/C
11-17	25.90/C
11-18	25.90/C
11-19	27.50/C
11-20	31.20/C
11-21	33.00/C
11-22	36.24/C
11-23	49.00/C
11-25-01	25.55/C
11-25-02	25.55/C
11-25-03	25.55/C
14-40	3.60/C
14-40A	3.60/C
14-40B	3.60/C
14-41	3.75/C
14-41A	3.75/C
14-41B	3.75/C
14-42	3.78/C
14-42A	3.78/C
14-42B	3.78/C
14-43	3.30/C
14-43A	3.30/C
14-43B	3.30/C
14-44	3.36/C
14-44A	3.36/C
14-44B	3.36/C
14-45	3.45/C
14-45A	3.45/C
14-45B	3.45/C
14-46	3.36/C
14-46A	3.36/C
14-46B	3.36/C
14-47	3.36/C
14-47A	3.36/C
14-47A	3.36/C
14-47B	3.36/C
14-47C	3.36/C
14-48	3.45/C
14-48A	3.45/C
14-48B	3.45/C
14-48C	3.45/C
14-49	3.57/C
14-49A	3.57/C
14-49B	3.57/C
14-50	19.20/C
14-50C	19.20/C
14-51	3.36/C
14-51A	3.36/C
14-51B	3.36/C
14-52	3.45/C
14-52A	3.45/C
14-52B	3.45/C
14-52C	3.45/C
14-54	18.60/C
14-54A	18.60/C
14-55	3.60/C
14-55A	3.60/C
14-55B	3.60/C
14-56A	5.10/C
14-57	13.50/C
14-58	16.20/C
14-58C	16.20/C
14-59	16.35/C
14-60	21.00/C
14-60C	21.00/C
14-79	2.10/C
14-79A	2.10/C
14-79B	2.22/C
14-79C	2.40/C
14-79D	2.70/C
14-85	7.50/C
14-86	7.50/C
14-87	7.50/C
14-88	7.20/C
14-89	7.50/C
14-90	7.65/C
14-92	1.80/C
14-93	1.80/C
14-94	1.86/C
14-95	2.04/C
14-96	2.22/C
14-97	3.00/C
14-300	3.90/C
14-301	4.95/C
14-302	6.00/C
14-303	8.40/C
14-304	10.40/C
14-305	5.28/C
14-306	6.30/C
14-307	8.00/C
14-308	10.90/C
14-309	14.20/C
14-310	3.30/C
14-311	4.35/C
14-312	5.28/C
14-313	6.30/C
14-314	7.20/C
14-315	3.30/C
14-316	4.35/C
14-317	5.28/C
14-318	6.30/C
14-319	7.20/C
14-320	3.30/C
14-321	4.35/C
14-322	5.28/C
14-323	6.30/C
14-324	7.20/C
14-325	5.28/C
14-326	6.30/C
14-327	7.20/C
14-328	8.25/C
14-329	9.30/C
14-330	5.28/C
14-331	6.30/C
14-332	8.00/C
14-333	10.90/C
14-334	14.20/C
14-335	3.90/C
14-336	4.95/C
14-337	6.00/C
14-338	8.40/C
14-339	10.40/C
14-340	3.90/C
14-341	4.95/C
14-342	6.00/C
14-343	8.40/C
14-344	10.40/C
14-355	3.90/C
14-356	4.95/C
14-357	6.00/C
14-358	7.20/C
14-359	8.25/C
14-360	3.90/C
14-361	4.95/C
14-362	6.00/C
14-363	7.20/C
14-364	8.25/C
14-365	3.90/C
14-366	4.95/C
14-367	6.00/C
14-368	7.20/C
14-369	8.25/C
14-370	.15
14-370A	.15
14-370B	.18
14-370C	.18
14-372	.33
14-374	.45
14-376	.33
14-377	.45
15-01	7.95
15-02	2.95
15-11	.75
15-12	1.95
15-13	1.75
15-14	1.95
15-14A	1.95
15-15	1.95
15-52	2.40/C
15-52A	2.70/C
15-52B	3.30/C
15-52C	3.15/C
15-53	3.30/C
15-53A	3.60/C
15-54	3.90/C
15-54A	4.14/C
15-54B	4.50/C
15-55	5.25/C
15-55A	5.25/C
15-55B	5.70/C
15-56	6.00/C
15-56A	6.16/C
15-56B	6.60/C
15-57	6.60/C
15-58	6.60/C
15-59	7.80/C
15-60	8.10/C
15-60A	20.40/C
15-61	28.20/C
15-62	34.20/C
15-63	40.80/C
15-64	46.20/C
15-65	52.20/C
15-66	58.80/C
15-67	64.80/C
15-68	70.80/C
15-69	76.80/C
15-70	82.80/C
15-72	7.80/C
15-73	10.80/C
15-74	13.20/C
15-75	18.00/C
15-76	21.00/C
15-77	22.80/C
15-81	1.80/C
15-82	1.80/C
15-82A	1.95/C
15-82B	2.34/C
15-82C	3.33/C
15-83	2.40/C
15-83A	2.40/C
15-84	3.30/C
15-84A	3.96/C
15-84B	4.03/C
15-85	4.80/C
15-85A	4.20/C
15-85B	4.20/C
15-86	5.10/C
15-86A	5.40/C
15-86B	5.10/C
15-87	7.10/C
15-88	4.95/C
15-89	5.85/C
15-90	5.85/C
17-03	11.00/C
17-14	18.00/C
17-26	16.20/C
17-33	11.00/C
17-34	11.00/C
17-40	17.99/C
17-40A	15.00/C
17-40B	24.00/C
17-41	20.83/C
17-41B	24.00/C
17-275	56.65/C
17-276	63.30/C
17-277	71.65/C
17-278	81.65/C
17-280	.81
17-281	.87
17-282	.96
17-283	1.02
17-308	2.08
17-320	.86
17-322	.86
17-360	1.26
17-361	1.50
17-364	3.25
18-72	42.00/C
18-75	36.00/C
18-78	36.00/C
18-79	18.00/C
19-04	22.00/C
19-04B	32.64/C
19-06	14.00/C
19-07	20.99/C
19-09	15.00/C
19-10	30.00/C
19-11	.80
19-15	15.00/C
19-20	30.00/C
19-21	33.00/C
19-32	10.80/C
19-32A	1.20/C
19-33	16.20/C
19-43	33.00/C
19-44	18.00/C
19-46	19.00/C
19-46A	24.00/C
19-47	19.00/C
19-55	19.00/C
19-55B	27.00/C
19-65	19.00/C
19-65B	28.06/C
19-67B	30.00/C
19-80	30.00/C
19-90	39.00/C
19-91	15.99/C
101-00	6.00/M
101-01	9.06/M
101-02	5.10/M
101-06	7.27/M
101-07	7.27/M
101-08	9.08/M
101-09	4.78/M
101-10	15.94/M
101-11	5.40/M
101-12	5.40/M
101-13	7.66/M
101-13A	6.33/M
101-14	24.00/M
101-15	36.60/M
101-21	9.83/M
101-22	16.80/M
101-40-4	9.00/M
101-40-6	9.00/M
101-40-8	9.00/M
101-40-10	9.00/M
101-40-14	10.01/M
101-41-4	9.00/M
101-41-6	9.00/M
101-41-8	9.00/M
101-42-4	9.00/M
101-42-6	9.00/M
101-42-8	9.00/M
101-43-4	9.00/M
101-43-6	9.00/M
101-43-8	9.00/M
101-44-4	9.00/M
101-44-6	9.00/M
101-44-8	9.00/M
101-44-10	9.00/M
101-45-4	9.00/M
101-45-6	9.00/M
101-45-8	9.00/M
600-1/4	8.35/C
600-5/16	8.77/C
600-3/8	8.93/C
600-7/16	9.10/C
600-1/2	9.27/C
600-9/16	9.44/C
600-5/8	9.60/C
600-11/16	10.85/C
600-3/4	11.11/C
600-7/8	11.36/C
600-1"	11.86/C
600-1-3/8"	13.36/C
601-4	2.26/C
615	2.30/C
615A	2.40/C
615B	2.58/C
615C	2.85/C
615D	3.00/C
615E	3.30/C
616	3.50/C
616A	4.17/C
616B	4.41/C
616C	4.67/C
616D	5.00/C
616E	5.33/C
617	5.67/C
617A	6.00/C
617B	6.17/C
617C	13.33/C
617D	14.67/C
617E	16.68/C
625	3.50/C
626	3.83/C
627	4.17/C
628	4.50/C
629	4.75/C
630	5.00/C
631	5.33/C
631A	6.50/C
632	7.16/C
632A	7.42/C
633	8.00/C
634	8.66/C
635	10.00/C
636	11.83/C
637	13.66/C
638	28.75/C
651	12.08/C
651A	12.08/C
653	12.08/C
654	12.08/C
654A	12.59/C
654S	20.00/C
655	13.84/C
656	15.50/C
656A	20.67/C
656B	22.42/C
657	15.50/C
800	6.36/C
801	7.75/C
802	8.66/C
803	16.50/C
804	21.05/C
805	10.35/C
806	12.98/C
807	7.11/C
808	1.65/C
811	1.79/C
813	1.83/C
814	1.89/C
815	1.98/C
816	2.05/C
817	2.17/C
818	3.97/C
819	3.75/C
820	4.20/C
821	5.85/C
822	6.67/C
823	7.53/C
824	18.98/C
825	2.33/C
826	2.97/C
827	15.36/C
828	23.80/F
829	33.68/F
860	17.48/C
861	19.50/C
862	13.88/F
863	18.45/F
864	39.00/F
865	46.43/F
889	5.04/C
890	5.23/C
891	5.37/C
893	5.46/C
894	5.70/C
895	5.86/C
896	43.89/C
899	36.39/C
960	29.00
960/4	33.83
961	40.59
961/4	45.38
962	51.18
962/4	54.74
966	3.60
967	5.63
968	6.38
975-2	4.50
975-3	5.25
975-4	7.35
975/28	3.60
976-2	5.10
976-3	6.53
976-4	8.55
977-2	5.85
977-3	7.13
977-4	9.97
977-28	4.78
978-2	7.50
978-3	9.60
978-4	13.42
978/6-2	9.37
978/6-3	11.98
978/6-4	16.65
978/7-2	9.82
978/7-3	11.85
978/7-4	18.15
978/8-2	13.20
978.8-4	23.52
978/10-2	16.50
978/10-4	27.26
978/12-2	22.32
978/12-4	37.47
978/15-2	23.92
978/15-4	41.92
978/37-2	67.35
978/37-4	122.55
980	4.11
980/3	7.05
981	4.95
981/3	7.58
982	5.40
982/3	8.14
984	2.40
984A	1.13
986-1	2.55
986-2	4.43
986-3	5.28
986-4	8.08
986/3-1	4.35
986/3-2	7.04
986/3-3	9.77
986/3-4	13.49
989-1	2.67
989-2	5.07
989-3	7.10
989-4	9.30
989/3-1	3.59
989/3-2	7.09
989/3-3	9.15
989/3-4	11.78
989/4-1	4.77
989/4-2	7.62
989/4-3	9.60
989/4-4	14.15
989/5-2	8.73
989/5-4	15.80
989/7-2	13.05
989/7-4	23.93
991-1	3.27
991-2	5.85
991-3	8.25
991-4	11.33
991/3-1	3.74
991/3-2	7.88
991/3-3	10.13
991/3-4	15.15
991/4-2	10.20
991/4-4	18.00
991/5-2	18.00
991/5-4	29.70
991/6-2	16.95
991/6-4	31.05
991/7-2	19.80
991/7-4	36.30
993-2	12.53
993-4	22.46
998/3-2	14.25
993/3-4	26.30
993/4-2	16.13
993/4-4	30.50
994-2	18.90
994-4	35.63
994/3-2	23.49
994/3-4	43.35
994/4-2	25.43
994/4-4	48.35
994/6-2	57.59
994/6-4	108.90
994/7-2	76.58
994/7-4	137.78
995-1	2.82
995-2	5.93
995-4	11.24
996-1	5.54
996-2	8.60
996-4	15.00
997-1	6.39
997-2	12.08
997-4	21.75
998-1	7.43
998-2	14.06
998-4	25.28
999-1	8.91
999-2	12.39
999-4	22.95
1907*	21.38/E
1908*	29.37/E
1909*	37.95/E
1925	72.90/E
1926	108.00/E
1927	72.90/E
1928	59,93/M
1929	59.70/M
1930	59.63/M
1931	81.00/M
1980	1.25
1980/3	1.70
1982/3	1.47
1984	1.01
1984/3	1.58
1987	.48
1988	.61
1990*	25.50/E
1991*	22.73/E
2035	33.00
2035B	36.00
2036	15.00
2036B	18.00
2037	9.41
2037B	9.91
2038	7.00
2038B	7.50
2041	17.48
2041B	20.18
2042	12.30
2042B	15.00
2043	12.45
2043B	15.15
2044	12.45
2044B	15.15
2045	106.50
2046	79.50
2047	55.50
2048	145.50
2049	79.50
2070	8.03/lb
2070B	9.70/lb
2071	8.03/lb
2071B	9.95/lb
2072	8.55/lb
2072/1	9.95/lb
2072/1B	10.62/lb
2072B	10.20/lb
2073	1.75
2074	3.00
2075	4.85/lb
2075B	5.40/lb
2076	1.49
2077	2.85
2078	4.73/lb
2078B	5.48/lb
2079	1.59/lb
2080	2.57
2081	4.86/lb
2081B	5.40/lb
2082	1.59
2083	2.57
2084	4.73/lb
2084B	5.48/lb
2085	1.59
2086	2.57
2087	4.73/lb
2087B	5.48/lb
2350-1/32	3.38/C
2350-1/16	6.54/C
2350-5/64	7.50/C
2350-7/64	10.13/C
2350-1/8	10.88/C
2350-5/32	18.68/C
2350-11/64	13.50/C
2350-3/16*	19.05/C
2350-13/64*	20.63/C
2350-1/4*	27.00/C
2350-9/32*	28.20/C
2350-3/8*	27.45/C
2350-7/16*	45.00/C
2350-1/2*	39.45/C
2350-9/16*	69.00/C
2350-11/16*	49.50/C
2350-25/32*	54.00/C
2350-13/16*	61.50/C
2350-7/8*	72.00/C
2350-1"*	81.00/C
2350-1 1/8"*	85.50/C
2350-1 1/4"*	95.30/C
2350-1 3/8"*	160.65/C
2350-1 1/2"*	175.62/C
2355-1/32	36.23/M
2355-3/64	39.69/M
2355-1/16*	43.95/M
2355-1/8*	54.42/M
2355-3/16*	60.03/M
2355-1/4*	80.03/M
2355-3/8*	138.68/M
2355-1/2*	177.60/M
2355-5/8*	94.50/E
2355-3/4*	44.25/C
2355-25/32*	44.25/C
2355-1"*	47.48/C
2355-1 3/8"*	54.60/C
2355-1 1/2"*	75.00/C
2355-1 3/4"*	151.50/C
2355-2"*	192.00/C
2355-2 1/4"*	206.85/C
2355-2 1/2"*	270.00/C
2355-3"*	367.50/C
2360/4*	231.60/M
2360/6*	194.25/M
2360/8	130.35/M
2360/10*	80.30/M
2360/12*	35.15/M
2360/14*	22.85/M
2360/16*	14.60/M
2360/18*	11.19/M
2360/20*	7.16/M
2360/22	4.77/M
2360/24	4.20/M
2360/26	3.53/M
2360/28	3.53/M
2360/30	3.45/M
2362/10	16.43
2362/12	11.55
2362/14	8.46
2362/16	6.37
2362/18	5.85
2362/20	5.78
2362/22	5.55
2364/4*	41.85/C
2364/6*	30.83/C
2364/8*	135.23/E
2364/10*	101.25/E
2364/12*	63.90/E
2364/14*	48.38/E
2366/12*	5.06/C
2366/14*	2.55/C
2366/16*	1.65/C
2366/18*	1.49/C
2366/19	11.79/M
2375/8*	10.43/C
2375/10*	5.25/C
2375/12*	2.20/C
2375/14*	2.18/C
2375/16*	1.49/C
2380/10*	8.09/C
2380/12"	5.70/C
2380/14*	4.05/C
2382/10*	8.13/C
2382/12*	5.28/C
2382/14*	3.02/C
2384/12	52.83/M
2384/14	33.90/M
2384/16	19.50/M
2384/18	13.35/M
2384/20	8.70/M
2384/22	6.99/M
2401*‡	26.16/E
2402*‡	26.07/E
2403*‡	27.65/E
2404*‡	29.48/E
2405*‡	30.86/E
2406*‡	62.15/M
2407*‡	86.63/M
2408*‡	111.75/M
2409*‡	163.65/M
2409/10*	292.25/E
2409/12*†	174.75/E
2409/14*‡	115.76/E
2415/18*	148.50/M
2415/20*	119.85/M
2415/22*	133.50/M
2415/24*	109.70/M
2415/26*	103.95/M
2415/28*	92.07/M
2425-12/E,M*	
2424-14/E,M*	
2425-16/E,M*	
2425-18/E,M*	Price
2425-20/E,M*	
2425-22/E,M*	On
2426-12/E,M*	
2426-14/E,M*	Request
2426-16/E,M*	
2426-18/E,M*	
2426-20/E,M*	
2426-22/E,M*	
2427/20*	91.28/M
2427/22*	69.23/M
2427/24	60.15/M
2427/26*	47.25/M
2327/28*	50.04/M
2427/30*	53.03/M
2427/32*	66.30/M
2427/34*	102.30/M
2427/36*	122.31/M
2428/8*	748.13/E
2428/10*	802.13/M
2428/12*	492.83/M
2428/14*	307.05/M
2428/16*	230.10/M
2428/18*	169.05/M
2428/20*	143.18/M
2428/22*	113.16/M
2428/24*	97.20/M
2435*	89.84/E
2435/2*	190.21/E
2435/3*	276.80/E
2435/4*	353.93/E
2435/5*	232.32/D
2436*	101.64/E
2436/2*	217.80/E
2436/3*	299.48/E
2436/4*	381.15/E
2436/5*	259.56/D
2437*	129.77/E
2437/2*	290.40/E
2437/3*	379.34/E
2437/4*	486.42/E
2437/5*	335.78/D
2438*	150.65/E
2438/2*	308.60/E
2438/3*	404.75/E
2438/4*	559.04/E
2438/5*	360.03/D
2445*	166.08/E
2445/2*	261.36/E
2445/3	189.67/D
2445/4	223.25/D
2445/5*	290.58/D
2446*	178.41/E
2446/2*	256.81/E
2446/3*	379.34/E
2446/4*	477.35/E
2446/5*	317.63/D
2447*	199.65/E
2447/2*	333.96/E
2447/3*	439.23/E
2447/4*	569.31/E
2447/5*	357.56/D
2448*	312.18/E
2448/2*	399.30/E
2448/3*	522.70/E
2448/4*	689.70/E
2448/5*	473.72/D
2455*	206.91/E
2455/2*	364.82/E
2455/3*	480.98/E
2455/4*	571.73/E
2455/5*	361.19/D
2456*	236.10/E
2456/2*	399.30/E
2456/3*	526.35/E
2456/4*	686.07/E
2456/5*	424.71/D
2457*	286.77/E
2457/2*	513.65/E
2457/3*	622.55/E
2457/4*	783.63/E
2457/5*	482.79/D
2458*	311.64/E
2458/2	504.57E
2458/3*	502.77/E
2458/4*	860.31/E
2458/5*	629.98/D
2465*	81.96/E
2465/2*	178.79/E
2465/3*	213.45/E
2465/4*	288.14/E
2465/5*	183.68/D
2466	47.65/D
2466/2*	156.09/E
2466/3*	214.89/E
2466/4*	328.53/E
2466/5*	216.09/D
2467*	99.83/E
2467/2*	210.54/E
2467/3*	286.86/E
2467/4*	372.71/E
2467/5*	245.52/D
2468	64.25/D
2468/2	126.89/D
2468/3	176.81/D
2468/4	221.03/D
2468/5*	274.56/D
2500/14*	41.78/M
2500/16*†	23.93/M
2500/18*†	15.60/M
2500/20*†	11.25/M
2500/22*†	9.90/M
2500/24*†	8.85/M
2500/26*	9.75/M
2500/28*	8.15/M
2500/30*	9.75/M
2500/32	11.69/M
2510/14	51.00/M
2510/16	26.18/M
2510/18	19.20/M
2510/20	16.50/M
2510/22†	15.00/M
2510/24†	11.25/M
2510/26	12.90/M
2510/28	12.96/M
2510/30	13.70/M
2510/32	14.40/M
2512/12*	74.25/M
2515/14*	40.50/M
2515/16	26.85/M
2515/18	20.18/M
2515/20*	15.68/M
2515/22	12.38/M
2515/24*	10.80/M
2516*	12.68/M
2520/12*	87.15/M
2520/14*	53.63/M
2520/16*	35.35/M
2520/18*†	25.50/M
2520/20*†	21.30/M
2520/22*†	18.75/M
2520/24*†	16.98/M
2525/6*	391.95/M
2525/8*	319.89/M
2525/10*	113.85/M
2525/12*	82.00/M
2525/14*	51.00/M
2525/16*	42.90/M
2525/18*	29.03/M
2525/20*	23.55/M
2525/22*	19.47/M

NOTE: (in feet) C—100; D—250; E—500; F—50; M—1,000. * Preferred put-up. † Add $1.50/M' for additional stripe. ‡ Add $10.50/M' for additional stripe. * CRT Nos. Prices on Request.

Net

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DABURN PRICE LIST

Daburn No.	Sugg'd. Resale
2525/24*	19.62/M
2530/16	76.40/M
2530/18	60.60/M
2530/20	55.95/M
2530/22	51.30/M
2530/24	46.71/M
2535/16	89.10/M
2535/18	70.95/M
2535/20	64.39/M
2535/22	61.50/M
2535/24	50.82/M
2555/12*	68.55/M
2555/14*†	40.88/M
2555/16*†	28.85/M
2555/18*†	18.83/M
2555/20*†	13.50/M
2555/22*†	10.35/M
2555/24*†	8.67/M
2556*	8.91/M
2560/18*	15.75/M
2560/20*	11.03/M
2560/22*	8.10/M
2565/10*	146.39/M
2565/12*†	72.00/M
2565/14*†	50.10/M
2565/16*†	34.65/M
2565/18*†	25.05/M
2565/20*†	18.45/M
2565/22*†	15.60/M
2565/24*†	15.54/M
2570/12*†	82.95/M
2570/14*†	55.35/M
2570/16*†	41.40/M
2570/18*†	33.00/M
2570/20*†	25.13/M
2570/22*†	21.30/M
2575/6*	405.00/M
2575/8*	312.75/M
2575/10*	171.23/M
2580/6*	379.43/M
2580/8*	305.25/M
2580/10*	132.50/M
2580/12*	75.04/M
2580/14*	51.60/M
2580/16*	32.25/M
2580/18*	23.46/M
2580/20*	18.57/M
2580/22*	15.27/M
2585/20	11.40/M
2585/22	9.60/M
2585/24	8.40/M
2585/26	9.60/M
2585/28	8.70/M
2585/30	9.00/M
2590/20	14.25/M
2590/22	12.60/M
2590/24	12.00/M
2590/26	12.45/M
2590/28	12.38/M
2590/30	12.75/M
2592/12*	91.75/M
2592/14*	71.40/M
2592/16*	59.25/M
2592/18*	42.53/M
2592/20*	39.00/M
2592/22*	33.00/M
2592/24*	30.00/M
2593*	33.75/M
2595/12*	181.50/M
2595/14*	116.70/M
2595/16*	73.35/M
2595/18*	56.25/M
2595/20*	48.45/M
2595/22*	43.35/M
2595/24*	40.59/M
2597/12*	155.43/M
2597/14*	109.50/M
2597/16*	65.85/M
2597/18*	49.70/M
2597/20*	43.07/M
2597/22*	41.85/M
2597/24*	41.63/M
2601/12*	59.10/M
2601/14*	45.68/M
2601/16*	33.83/M
2601/18*	29.03/M
2601/20*	23.63/M
2601/22*	20.33/M
2602/0*	121.50/C
2602/00*	150.00/C
2602/2*	73.50/C
2602/4	51.75/C
2602/6	36.00/C
2602/8	26.70/C
2602/10	13.35/C
2602/12	8.70/C
2602/14	6.60/C
2602/16*	44.25/M
2602/18*	39.15/M
2602/20*	32.78/M
2602/22*	29.10/M
2605/12*	108.00/M
2605/14*	89.70/M
2605/16*	72.15/M
2605/18*	64.35/M
2605/20*	59.40/M
2605/22*	52.20/M
2625/8*	396.00/E
2625/10*	237.00/E
2625/12*	138.60/E
2625/14*	107.25/E
2625/16	84.15/E
2625/18*	68.85/E
2625/20*	61.50/E
2625/22*	53.28/E
2630*	19.95/M
2631*	23.58/M
2632*	30.75/M
2633*	43.50/M
2633/14*	47.63/M
2635/20*	21.75/M
2635/22*	18.75/M
2642*	23.25/E
2643*	34.50/E
2644*	27.75/E
2645*	41.25/E
2648*	59.93/E
2649*	61.50/E
2655*	145.50/E
2660/20*	11.55/M
2660/22*	8.67/M
2660/24*	7.92/M
2670/24*	12.98/M
2670/26*	11.40/M
2670/28	10.58/M
2670/30*	10.13/M
2670/32*	12.74/M
2672*	26.10/M
2672/3*	39.60/M
2672/4*	66.75/M
2674*	29.70/M
2674/3*	41.91/M
2674/4*	52.73/M
2676*	64.02/M
2676/3*	73.59/M
2676/4*	89.94/M
2678*	64.80/M
2678/3*	77.40/M
2678/4*	97.83/M
2682*	49.98/M
2684*	48.18/M
2686*	52.50/M
2688*	55.05/M
2710/6*	170.61/M
2710/8*	116.00/M
2710/10*	58.90/M
2710/12*	40.68/M
2710/14*	28.47/M
2710/16	20.29/M
2712/12*	86.79/M
2712/14*	66.58/M
2712/16*	52.47/M
2715*	14.85/E
2716*	15.45/E
2718*	30.60/E
2722/16*	39.00/E
2722/18*	25.41/E
2722/20*	22.50/E
2722/22*	17.78/E
2725/10*	37.50/E
2725/12*	26.93/E
2725/14*	19.42/E
2725/16*	16.05/E
2725/18*	19.28/E
2730*	72.00/E
2731*	114.00/E
2737*	21.30/E
2738*	29.04/E
2739*	27.30/E
2742*	18.75/E
2743*	25.65/E
2744*	36.33/E
2746*	30.60/E
2747*	37.13/E
2748*	43.35/E
2751*	38.63/E
2770*	37.65/E
2771*	19.80/E
2772*	39.75/E
2773*	20.93/E
2774*	28.43/E
2782*	41.55/E
2782/20*	53.78/E
2783*	53.85/E
2784*	62.85/E
2785*	72.60/D
2786*	147.60/D
2786/8*	188.00/D
2786/10*	234.75/D
2802*	56.07/E
2803*	59.78/E
2804*	72.23/E
2805*	91.43/E
2806*	110.55/E
2807*	121.20/E
2808*	133.95/E
2808/10*	233.85/E
2808/12*	319.20/E
2812	107.03/M
2813	175.50/M
2814	98.25/M
2815	203.25/M
2816	133.35/M
2817	228.00/M
2818	280.65/M
2819	175.50/M
2820	217.50/M
2821	553.50/M
2860	19.13/D
2860/3	32.65/D
2861	23.93/D
2861/3	39.00/D
2861/4	61.50/D
2862	28.05/D
2862/3	50.01/D
2862/4	75.60/D
2863	45.90/D
2863/3	58.80/D
2863/4	75.15/D
2864	53.25/D
2864/3	72.90/D
2864/4	91.80/D
2865	86.85/D
2865/3	108.00/D
2865/4	133.35/D
2866	106.80/D
2866/3	136.58/D
2866/4	171.00/D
2867	138.30/D
2867/3	179.48/D
2867/4	222.00/D
2868	256.35/D
2868/3	335.40/D
2868/4	440.22/D
2890	25.02/D
2890/3	43.05/D
2891	31.95/D
2891/3	39.00/D
2891/4	60.00/D
2892	39.00/D
2892/3	54.45/D
2892/4	81.00/D
2893	51.53/D
2893/3	62.93/D
2893/4	77.85/D
2894	57.00/D
2894/3	79.50/D
2894/4	96.00/D
2895	93.60/D
2895/3	114.00/D
2895/4	138.00/D
2896	116.25/D
2896/3	146.25/D
2896/4	178.50/D
2897	142.50/D
2897/3	184.50/D
2897/4	231.00/D
2898	268.50/D
2893/3	364.50/D
2898/4	465.00/D
2902/10*	222.75/E
2902/12*	171.68/E
2902/14*	105.00/E
2902/16*	66.98/E
2902/18*	44.88/E
2902/20*	30.14/E
2902/22*	25.81/E
2902/24*	34.50/E
2902/26*	35.10/E
2902/28*	39.93/E
2902/30*	41.25/E
2930/3	63.71/E
2930/6	115.50/E
2930/9	168.90/E
2930/11	214.50/E
2930/15	286.87/E
2930/19	398.33/E
2930/27	560.61/E
2932*	51.23/E
2935*	27.45/E
2935/4*	37.13/E
2935/5*	63.15/E
2949*	15.75/E
2950*	26.48/E
2950/1*	20.25/E
2950/3*	35.85/E
2950/4*	55.77/E
2950/6*	82.50/E
2952*	27.75/E
2952/1	22.73/E
2952/3*	37.50/E
2952/4*	74.55/E
2952/6*	100.88/E
2953*	33.38/E
2953/1*	26.25/E
2953/3*	44.78/E
2953/4*	85.50/E
2954*	47.03/E
2954/3	86.63/E
2954/4*	124.13/E
2955*	85.88/E
2955/3*	151.50/E
2955/4*	226.50/E
2956/3*	246.00/E
2960*	19.95/E
2960/3*	24.98/E
2960/4*	43.28/E
2961*	24.45/E
2961/3*	30.98/E
2961/4*	52.65/E
2962*	28.73/E
2962/3*	39.00/E
2962/4*	61.50/E
2963*	57.23/E
2963/3*	75.15/E
2964*	79.13/E
2964/3*	107.85/E
2970*	23.78/E
2970/3*	44.33/E
2971*	42.30/E
2971/3*	53.63/E
2972*	54.90/E
2972/3*	79.43/E
2974*	79.80/E
2975*	106.50/E
3000*	10.50/E
3000/2*	19.13/E
3000/3*	25.73/E
3000/6*	45.30/E
3000/9*	67.35/E
3000/11*	82.50/E
3000/13*	92.25/E
3000/15*	108.00/E
3000/16*	147.00/E
3000/27*	201.00/E
3000/31*	428.25/E
3000/41*	615.00/E
3000/51*	772.50/E
3000/76*	1305.00/E
3000/101*	2628.00/E
3002*	18.83/E
3002/2*	37.73/E
3002/3*	49.13/E
3002/4*	59.63/E
3002/5*	58.50/E
3002/6*	75.15/E
3002/9*	103.50/E
3002/15*	147.75/E
3002/27*	273.00/E
3004	18.90/M
3004/3	27.30/M
3005	26.10/M
3005/3	39.60/M
3006	38.70/M
3006/3	57.60/M
3007	69.75/M
3011	27.30/M
3011/3	39.75/M
3012	36.75/M
3012/3	54.00/M
3013	44.25/M
3013/3	65.85/M
3014	54.30/M
3014/3	81.00/M
3015	94.35/M
3015/3	150.00/M
3016	144.00/M
3016/3	223.50/M
3020	25.20/M
3020/3	37.50/M
3020/4	56.40/M
3021	46.95/M
3021/3	66.90/M
3021/4	81.90/M
3022	52.65/M
3022/3	75.45/M
3022/4	96.90/M
3022/5	31.25/M
3022/6	154.85/M
3027	30.90/M
3027/3	45.15/M
3027/4	63.60/M
3028	40.35/M
3028/3	74.25/M
3028/4	89.70/M
3029	57.60/M
3029/3	96.00/M
3029/4	132.45/M
3030	84.00/M
3030/3	145.05/M
3030/4	199.50/M
3031	147.00/M
3031/3	198.00/M
3054/2	12.75/E
3054/3	15.08/E
3054/4	20.10/E
3054/5	25.50/E
3054/6	36.60/E
3054/7	42.60/E
3054/8	25.50/D
3054/9	27.00/D
3054/10	29.85/D
3054/12	31.65/D
3054/15	74.25/D
3054/20	104.25/D
3054/25	135.00/D
3054/30	164.25/D
4300	75.90/C
4301	89.80/C
4302	95.30/C
4303	102.65/C
4304	139.34/C
4305	152.18/C
4306	157.68/C
4307	176.00/C
4308	91.68/C
4309	106.30/C
4310	122.85/C
4311	181.52/C
4312	207.20/C
4313	221.80/C
4314	75.16/C
4315	89.80/C
4316	115.50/C
4317	135.68/C
4318	240.20/C
4319	297.00/C
4320	89.85/C
4321	106.30/C
4322	138.60/C
4323	172.34/C
4324	280.50/C
4325	355.72/C
4326	106.30/C
4327	119.15/C
4328	119.15/C
4329	89.90/C
4330	139.30/C
4331	297.00/C
4332	106.39/C
4333	172.30/C
4334	355.70/C
4335	91.60/C
4336	106.30/C
4337	53.10/C
4338	58.65/C
4339	40.30/C
4340	42.00/C
4341	155.10/C
4342	155.10/C
4343	270.60/C
4344	270.60/C
4345	355.70/C
4346	471.20/C
4347	568.40/C
4358-21	221.10/C
4358-22	184.80/C
4358-23	221.85/C
4358-24	185.10/C
4358-25	205.35/C
4358-26	240.24/C
4358-27	240.20/C
4358-28	205.30/C
4358-29	205.30/C
4358-30	205.30/C
4358-31	240.20/C
4359-21	297.00/C
4359-22	247.50/C
4359-23	297.00/C
4359-24	247.50/C
4359-25	297.00/C
4359-26	320.80/C
4359-27	320.80/C
4359-28	297.00/C
4359-29	297.00/C
4359-30	297.00/C
4359-31	320.85/C
4360	209.00/C
4361	231.00/C
4362	231.00/C
4363	253.00/C
4364	253.00/C
4365	275.00/C
4366	275.00/C
4367	275.00/C
4370	178.20/C
4371	178.20/C
4372	190.30/C
4373	184.80/C
4374	184.80/C
4375	201.30/C
4376	201.30/C
4377	201.30/C
4380	280.50/C
4381	341.00/C
4382	341.00/C
4383	341.00/C
4384	341.00/C
4385	366.30/C
4386	366.30/C
4387	366.30/C
4390	198.00/C
4391	209.00/C
4391A	209.00/C
4392	209.00/C
4393	209.00/C
4394	242.00/C
4395	242.00/C
4396	242.00/C
4400	421.70/C
4401	504.20/C
4402	504.20/C
4405-21	540.90/C
4405-23	540.90/C
4405-24	452.90/C
4405-25	537.20/C
4405-26	586.70/C
4405-27	586.70/C
4405-28	531.70/C
4405-31	586.70/C
4410	540.90/C
4412	733.45/C
4412A	795.80/C
4412B	733.40/C
4413	676.69/C
4415	733.40/C
4417	815.90/C
4418	815.90/C
4420-11	502.40/C
4422-1	679.90/C
4422-21	679.90/C
4424-3	679.90/C
4424-23	679.90/C
4424-24	4.93
4424-25	6.49
4424-26	7.44
4424-27	7.44
4424-28	6.49
4424-31	7.44
4426-12	717.70/C
4428-13	717.70/C
4430-5	818.50/C
4432-7	818.50/C
4440	214.50/C
4440-10	7.44
4441	238.00/C
4442	238.00/C
4443	260.00/C
4444	260.00/C
4445	280.50/C
4446	280.50/C
4447	280.50/C
4450	452.10/C
4451	495.00/C
4452	495.00/C
4453	541.00/C
4454	541.00/C
4455	587.50/C
4456	587.50/C
4457	587.50/C
4458	597.40/C
4480K1	748.10/C
4480K2	1008.30/C
4480K3	1008.30/C
4480K4	758.00/C
4480K5	758.00/C
4480K6	1008.30/C
4480K7	748.00/C
4480K8	1008.30/C
4481K1	935.00/C
4481K2	1089.00/C
4481K3	1089.00/C
4481K4	935.00/C
4481K5	935.00/C
4481K6	1089.00/C
4481K7	935.00/C
4481K8	1089.00/C
4487-1	505.00/C
4487-2	505.00/C
4487-3	505.00/C
4487-4	505.00/C
4487-5	505.00/C
4487-6	524.70/C
4487-7	505.00/C
4487-8	505.00/C
4487-9	468.60/C
4488-1	580.80/C
4488-2	580.80/C
4488-3	580.80/C
4488-4	580.80/C
4488-5	580.80/C
4488-6	607.20/C
4488-7	607.20/C
4488-8	607.20/C
4488-9	528.00/C
4489-1	960.30/C
4489-2	960.30/C
4489-3	960.30/C
4489-4	960.30/C
4489-5	960.30/C
4489-6	1102.20/C
4489-7	960.30/C
4489-8	960.30/C
4489-9	828.30/C
4499-128	21.30/ea
4499-138	30.28/ea
4499-139	25.85/ea
5110	165.00/C
5111	184.29/C
5112	207.20/C
5113	227.35/C
5114	23.82/C
5115	23.82/C
5130	101.00/C
5131	120.95/C
5131B	231.57/C
5132	25.66/C
5133	171.60/C
5140	2.59
5140F	1.29
5140M	1.29
5142	1.39
5143	2.15
5144	1.94
5145	2.17
5146	2.17
5147	1.90
5148	1.32
5149	1.72
5150	2.07
5160	1.13
5161	1.43
5162	1.64
5163	1.79
5166	1.45
5167	1.62
5168	1.97
5169	2.15
5171	3.86
5172	3.86
5174	3.42
5176	2.45
5176KO	.25
5178	151.16/C
5179	4.99
5180	82.50/C
5184	148.50/C
5184A	148.50/C
5185	172.30/C
5185A	172.30/C
5186	205.00/C
5190	122.50/C
5191	122.50/C
5192	141.00/C
5193	184.85/C
5194	184.85/C
5195	205.00/C
5200	75.90/C
5201	99.00/C
5202	95.70/C
5202A	95.70/C
5203	126.50/C
5204	139.00/C
5206	158.40/C
5207	187.00/C
5208	5.93/C
5208A	5.93/C
5210	104.50/C
5212	115.50/C
5214	158.40/C
5216	196.00/C
5220	75.90/C
5221	94.96/C
5221A	101.63/C
5222	138.28/C
5223	158.27/C
5224	104.96/C
5226	216.58/C
5227	536.45/C
5228	828.00/C
5229	1004.56/C
5230	83.30/C
5231	204.92/C
5231A	204.92/C
5231B	226.58/C
5232	25.82/C
5233	84.97/C
5234	91.63/C
5235	116.62/C
5236	216.58/C
5238	216.58/C
5238B	229.91/C
5238C	229.91/C
5238D	216.58/C
5240	164.93/C
5241	144.94/C
5242	226.58/C
5244	84.97/C
5244A	84.97/C
5244B	158.27/C
5244C	108.29/C
5244D	111.62/C
5244E	111.62/C
5245	18.16/C
5245S	26.39/C
5246	18.16/C
5246S	31.65/C
5247	23.82/C
5248	23.82/C
5248M	40.32/C
5249	161.27/C
5290	15.66/C
5291	16.49/C
5292	26.39/C
5293	29.69/C
5294	32.94/C
5295	32.99/C
5295A	59.38/C
5295F	65.97/C
5296	34.79/C
5297	35.99/C
5298	59.38/C
5299	72.57/C
*CRT Nos.	Prices on Request
D187A/U*	147.75/E
D188/U*	142.50/E
D188A/U*	142.50/E
D195/U*	247.50/E
D195A/U*	247.50/E
D196/U*	124.20/E
D196A/U*	121.50/E
DHF-10*	2.46/lb
DHF-12*	2.46/lb
DHF-14*	2.51/lb
DHF-16*	2.51/lb
DHF-18*	2.54/lb
DHF-20*	2.57/lb
DHF-22*	2.76/lb
DHF-24*	2.94/lb
DHF-26*	3.19/lb
DHF-28*	3.47/lb
DHF-30*	3.73/lb
DHF-32*	4.39/lb
DHF-34*	5.08/lb
DHF-36*	6.17/lb
DHF-38*	8.37/lb
DHF-40*	12.11/lb
DHF-42*	18.48/lb
DHF-44*	22.33/lb
DPE-10*	2.24/lb
DPE-12*	2.40/lb
DPE-14*	2.51/lb
DPE-16*	2.51/lb
DPE-18*	2.51/lb
DPE-20*	2.51/lb
DPE-22*	2.51/lb
DPE-24*	2.76/lb
DPE-26*	3.00/lb
DPE-28*	3.00/lb
DPE-30*	3.49/lb
DPE-32*	3.99/lb
DPE-34*	4.51/lb
DPE-36*	6.00/lb
DPE-38*	7.23/lb
DPE-40*	12.83/lb
DPE-42*	12.15/lb
DPE-44*	21.97/lb
DTC-10*	2.84/lb
DTS-12*	2.84/lb
DTC-14*	2.84/lb
DTC-16*	3.09/lb
DTC-18*	3.09/lb
DTC-20*	3.12/lb
DTC-22*	3.12/lb
DTC-24*	3.12/lb
DTC-26*	3.12/lb
DTC-28*	3.48/lb
DTC-30*	3.51/lb
DTC-32*	3.75/lb
DTC-34*	3.96/lb
DTC-36*	4.32/lb
DTC-38*	4.65/lb
DTC-40*	6.47/lb
DTT-500-32*	11.85/C
DTT-500-30*	8.39/C
DTT-500-28*	6.90/C
DTT-500-26*	6.27/C
DTT-500-24*	6.75/C
DTT-500-22*	7.50/C
DTT-500-20*	9.68/C
DTT-500-19*	10.49/C
DTT-500-18*	11.40/C
DTT-500-17*	12.60/C
DTT-500-16*	13.65/C
DTT-500-15*	13.95/C
DTT-500-14*	14.85/C
DTT-500-13*	16.73/C
DTT-500-12*	18.00/C
DTT-500-11*	19.95/C
DTT-500-10*	21.51/C
DTT-500-9*	30.82/C
DTT-500-8*	34.04/C
DTT-500-7*	37.20/C
DTT-500-6*	39.83/C
DTT-500-5*	44.86/C
DTT-500-4*	49.05/C
DTT-500-3*	54.45/C
DTT-500-2*	60.48/C
DTT-500-1*	66.42/C
DTT-500-0*	74.93/C
DTT-500-3/8*	166.49/C
DTT-500-7/16*	99.23/ea
DTT-500-1/2*	134.67/ea
DTT-500-9/16*	84.47/ea
DTT-500-5/8*	105.44/ea
DTT-500-3/4*	124.62/ea
DTT-500-7/8*	131.84/ea
DTT-500-1"*	155.62/ea
DTT-500-1 1/8"*	159.00/ea
DTT-500-1 1/4"*	175.50/ea
DTT-550-24	8.70/C
DTT-550-22	9.60/C
DTT-550-20	12.60/C
DTT-550-19	14.40/C
DTT-550-18	15.60/C
DTT-550-17	16.95/C
DTT-550-16	18.00/C
DTT-550-15	18.60/C
DTT-550-14	20.10/C
DTT-550-13	22.28/C
DTT-550-12	24.08/C
DTT-550-11	26.78/C
DTT-550-10	29.05/C
DTT-550-9	41.55/C
DTT-550-8	45.60/C
DTT-550-7	49.12/C
DTT-550-6	53.16/C
DTT-550-5	58.75/C
DTT-550-4	63.61/C
DTT-550-3	70.35/C
DTT-550-2	77.47/C
DTT-550-1	86.03/C
DTT-550-0	96.83/C
HG-2	48.57/ea
HG-3	58.50/ea
SH-275-1/16*	14.17/C
SH-275-3/32*	16.30/C
SH-275-1/8*	17.56/C
SH-275-5/32*	32.10/C
SH-275-3/16	21.42/C
SH-275-1/4	26.77/C
SH-275-3/8	29.77/C
SH-275-1/2	33.75/C
SH-400-24	25.92/C
SH-400-22	26.82/C
SH-400-20	28.44/C
SH-400-18	30.91/C
SH-400-16	33.75/C
SH-400-14	36.68/C
SH-400-12	40.14/C
SH-400-10	50.36/C
SH-400-9	59.36/C
SH-400-8	62.06/C
SH-400-7	74.21/C
SH-400-6	77.85/C
SH-400-5	80.96/C
SH-400-4	86.04/C
SH-400-3	99.90/C
SH-400-2	106.20/C
SH-400-1	114.75/C
SH-400-0	127.57/C
SH-400-3/8	2.15/ft
SH-400-7/16	2.68/ft
SH-400-1/2	3.17/ft
SH-400-5/8	4.68/ft
SH-400-3/4	6.35/ft
SH-400-7/8	8.46/ft
SH-400-1"	9.59/ft
SH-621-26	31.95/C
SH-621-24	32.40/C
SH-621-22	32.76/C
SH-621-20	39.59/C
SH-621-19	44.10/C
SH-621-18	46.13/C
SH-621-17	47.66/C
SH-621-16	49.05/C
SH-621-15	53.10/C
SH-621-14	57.35/C
SH-621-13	62.06/C
SH-621-12	64.35/C
SH-621-11	70.65/C
SH-621-10	78.08/C
SH-621-9	100.80/C
SH-621-8	125.10/C
SH-621-7	128.25/C
SH-621-6	141.53/C
SH-621-5	159.75/C
SH-621-4	166.95/C
SH-621-3	187.65/C
SH-621-2	197.54/C
SH-621-1	287.99/C
SH-621-0	323.09/C
SH-621-3/8	4.23/ft.
SH-621-7/16	4.77/ft
SH-621-1/2	5.22/ft

NOTE: (in feet) C—100; D—250; E—500; F—50; M—1,000. * Preferred put-up. † Add $1.50/M' for additional stripe. ‡ Add $10.50/M' for additional stripe. * CRT Nos. Prices on Request.

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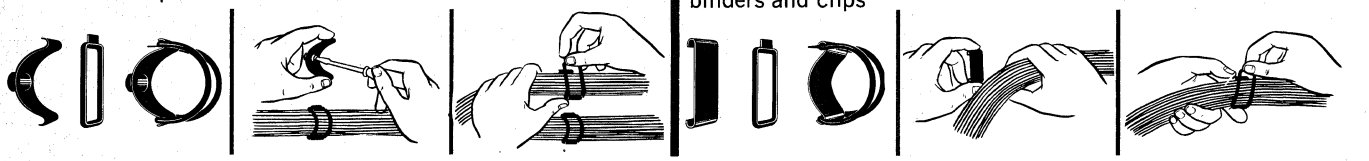
ELECTROVERT INC COMPONENTS AND EQUIPMENT DIVISION

SEND FOR COMPLETE CATALOG AND PRICES

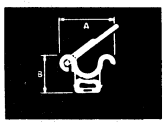
Cradleclip

FOR SUPPORTED WIRING
cradles and clips

FOR UNSUPPORTED WIRING
binders and clips

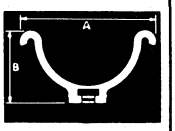


CRADLES



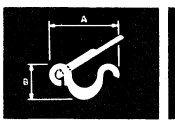
C0-N0 Miniature with captive clip

C1, C2, C3

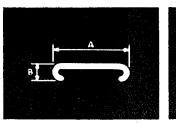


C1-M, C2-M, C3-M molded in nut to take 6/32 thread bolts

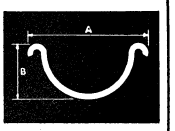
BINDERS



B0-N0 Miniature with captive clip

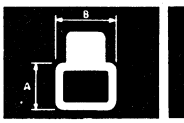


B1

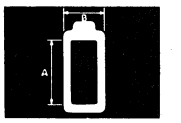


B2, B12

CLIPS



N0 miniature (for replacement)



N1. N3, N5, N7

DIMENSIONS

Type & Size	Dimensions (inches) A	B	Type & Size	Dimensions (inches) A	B
Cradles			**Binders**		
C0	.500	.335	B0	.500	.250
C1	.937	.562	B1	.875	.187
C1-M	.937	.562	B12	.937	.400
C2	1.375	.750	B2	1.875	.812
C2-M	1.375	.750	**Clips**		
C3	1.875	1.000	N0	.340	.500
C3-M	1.875	1.000	N1	.500	.937
			N3	1.000	1.000
			N5	1.750	1.000
			N7	2.562	1.000

MATERIALS
Cradles and Binders are molded from special nylon. Extensible Clips are available in Neoprene, Butyl, Viton and Silicone rubber. N0 available in Neoprene only. Temperature range −76°F to +250°F.

RECOMMENDED COMBINATIONS

DIAMETER OF CABLE FORM	SUPPORTED* WIRING Cradle Clip		UNSUPPORTED* WIRING Binder Clip	
1/8" - 5/16"	C0	N0	B0	N0
1/4" - 5/8"	C1	N1	B1	N1
1/2" - 11/16"	C1	N3	B1	N5
11/16" - 15/16"	C2	N3	B12	N3
15/16" - 1 1/16"	C2	N5	B12	N5
1" - 1 1/4"	C3	N3	B2	N3
1 1/4" - 1 1/2"	C3	N5	B2	N5
1 1/2" - 2"	C3	N7	B2	N7

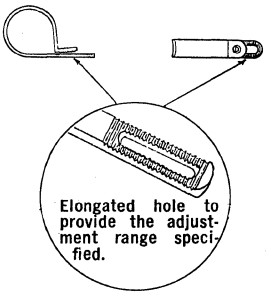
*for Neoprene, Butyl and Viton Clips. Ask for special recommendations for Silicone Clips.
Standard pack: 500. Packed in polyethylene bags in cardboard cartons.

Adjustable P-Clips Nine (9) Sizes Fit Any Loop Diameter From 1/8" Through 2".

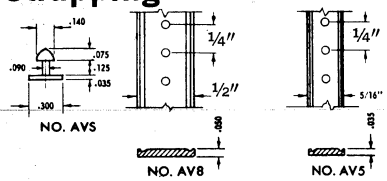
- Molded of finest natural, virgin nylon.
- Lightweight, chemical and abrasion resistant, high tensile strength, excellent dielectric properties, rust and rot resistant.
- Typical applications include: cables; bundles of wires, components, pipes and tubing wherever a clamp, strain relief or strap is required.

ADVANTAGES OF ADJUSTABLE FEATURE:
- Reduces Inventory.
- Permits Quantity Purchases with Better Discounts.
- Controls Tension.

Size No.	Adjustable Loop Range	Screw Clearance
0	1/8" - 3/16"	No. 4
1	3/16" - 1/4"	No. 4
2	1/4" - 3/8"	No. 6
3	3/8" - 9/16"	No. 6
4	9/16" - 7/8"	No. 10
5	7/8" - 1 3/16"	No. 10
6	1 3/16" - 1 1/2"	No. 10
7	1 1/2" - 1 3/4"	No. 10
8	1 3/4" - 2"	No. 10



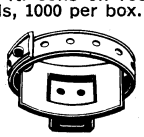
Strapping

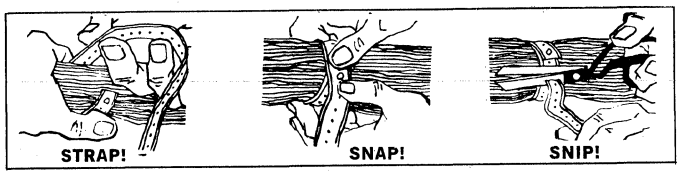


Material: PVC (Polyvinylchloride); extremely strong; temperature range −26°F to +180°F.

Packing: strap, 75 ft. coil boxed; or 500 or 1000 ft. coils on reels. Studs, 1000 per box.

For panel mounting a Strap Saddle is available for use in combination with the AV 5 strapping. Lay wire bundle into Strap Saddle fastened to panel. Thread Strapping through wings of saddle and fasten. Material is molded nylon. Temperature range: −76°F to 250°F.

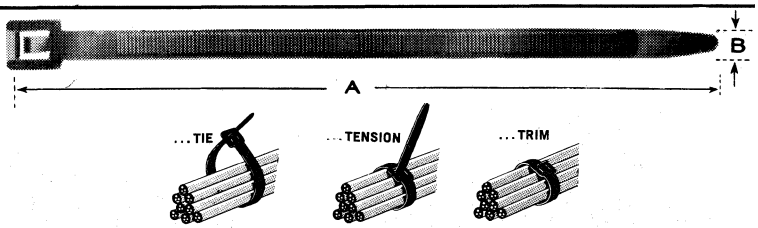




Installation: Stud is inserted in end of strap extending from dispenser carton; strap is then passed under and around wire bringing it back, under tension, over stud again. Strap is then cut at next hole. This operation should be repeated approximately every 6 inches or as required.

Cable Ties

Size No.	A	B	Thickness	To Accommodate Cable Runs From	To
				Dia.	Dia.
LK1	3"	3/16"	3/64"	3/16"	9/16"
LK2	4 11/16"	3/16"	3/64"	3/16"	1 1/16"
LK3	9"	3/8"	1/16"	3/4"	2 1/4"



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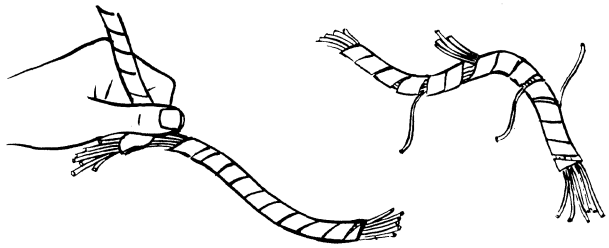
ELECTROVERT INC COMPONENTS AND EQUIPMENT DIVISION

SEND FOR COMPLETE CATALOG AND PRICES

Spiroband

Reduces inventory costs • Three standard materials — natural polyethylene, ultraviolet resistant, fire resistant • Three diameters, each for application to a wide range of bundle sizes.



Size No.	Outside Diameter	Wall Thickness	Length of Std. Coil
½	.500	.062	25 ft.
¼	.250	.045	100 ft.
⅛	.125	.032	100 ft.

MATERIAL SPECIFICATIONS

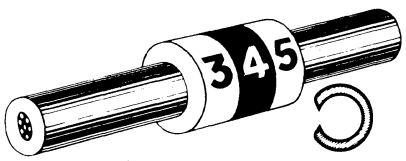
Natural Polyethylene: (grade specification shown in table at right) color is clear.

Ultraviolet Resistant: basically same as above with additives to withstand ultraviolet rays which color material black.

MATERIAL	Natural Polyethylene — DFD-2005
PROPERTIES	Brittleness (D746) −85°C = −121°F Dielectric constant (D150 −23°C) 2.27
SPECIFICATIONS	ASTM: D1248-58T, Type 1, Class A, Grade 4
	Federal: L-P-590, Type II, Grade 4
	REA: PE-23

Fire Resistant: as above, but with additive which colors material bone white.

"C" markers



Clip-on type. Quick, easy to fit after connection is made or terminal tag fitted. May be removed for re-coding. Same marker used for right or left hand entry.

Materials: Durable resilient PVC.

Colors: White with black markings (standard). Also available in black, blue, red, green and yellow.

Markings: Single; numerals 0-9, letters A to Z and symbols.

Packing: 50 markers of same size, color and marking.

Size No.	Recommended for Wires/Cable of O.D.
2	.080″ - .100″
3	.100″ - .118″
4	.118″ - .138″
5	.138″ - .156″
6	.156″ - .187″
7	.187″ - .218″
8	.218″ - .250″
9	.250″ - .280″

"Z" markers

APPLICATION SPEED

Size No.	Recommended for Wires/Cables of O.D.	Length	Thickness
22	.045″-.065″	.140″	.055″
20	.066″-.085″	.140″	.050″
18	.086″-.115″	.140″	.040″
16	.110″-.135″	.140″	.030″
14	.130″-.160″	.160″	.040″
12	.150″-.175″	.160″	.045″
10	.170″-.195″	.160″	.045″
9	.190″-.215″	.160″	.050″
8	.210″-.250″	.190″	.055″
7	.245″-.295″	.190″	.055″
6	.290″-.360″	.224″	.060″
4-1	.355″-.460″	.224″	.060″

Colors: White with black markings (Standard color). Black with white markings, Blue, Green, Yellow, Red with black markings.

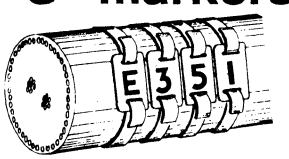
Material: PVC MIL-1-631C, Type F, Form U, Grade a & b, Class I, Category 1, finish: glossy. Specific gravity: 1.21. Hardness (shore A): 73 av. Tensile Strength: 2600 psi. av. Ultimate Elongation: 350% av. Dielectric Strength (20 mil specimen): 750 volts/mil. Cold Brittle Temp. (50% non-failure): —65° F.

Markings: Single: numerals 0-9, letters A to Z, symbols +, —, ~, ±. Multiple: any 2, 3, 4 or 5 unit combinations of above.

Packing: Coil of 50 single markers, one size, color and character per polyethylene covered cards. Coil of 500, as above, on self-servicing reels.

Min. Quantity: per size. and character: 50 single white, 500 multiple, 500 colored. **Min. Order:** 500 markers.

"S" markers for cables with O.D. of more than .500".



Strap-on-marker: Size: ⅜″ x 5/16″ x .040″, material P.V.C., colors and material same as ELECTROVERT "Z". Markings: 0-9, A-Z, +, −, ~, ±.

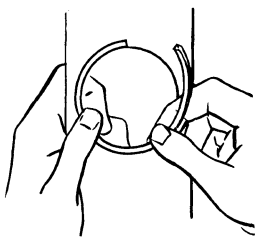
Applications Strip: P.V.C. — covered aluminum, 4 mm wide 0.6 mm thick.

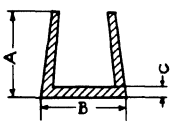
Min. Quantity: Per size, color and character: 50 markers.

Min. Order: 500 Markers, 165′ coil of strip.

Packing: Markers, 50 per indicator card pouch; strips in 165′ coils.

Grommet Strip with the "Snip-n-Fit" feature





U-shaped, strip-type grommeting material can be cut to size, provides smooth surface around edge of any hole and features quick, simple application. No adhesive or special tools required.

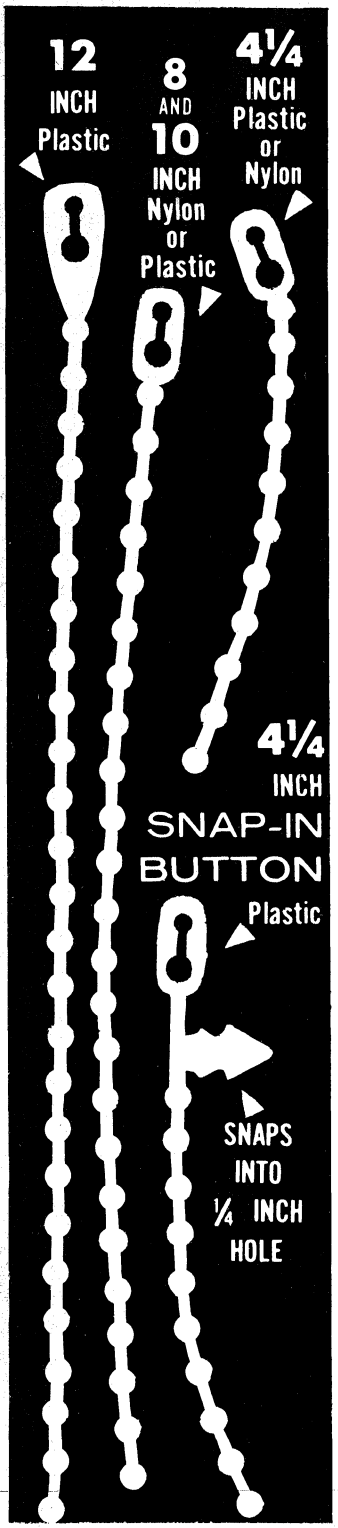
...offers the advantage of one strip only for applications to: round holes; square holes; rectangular holes; oval holes.

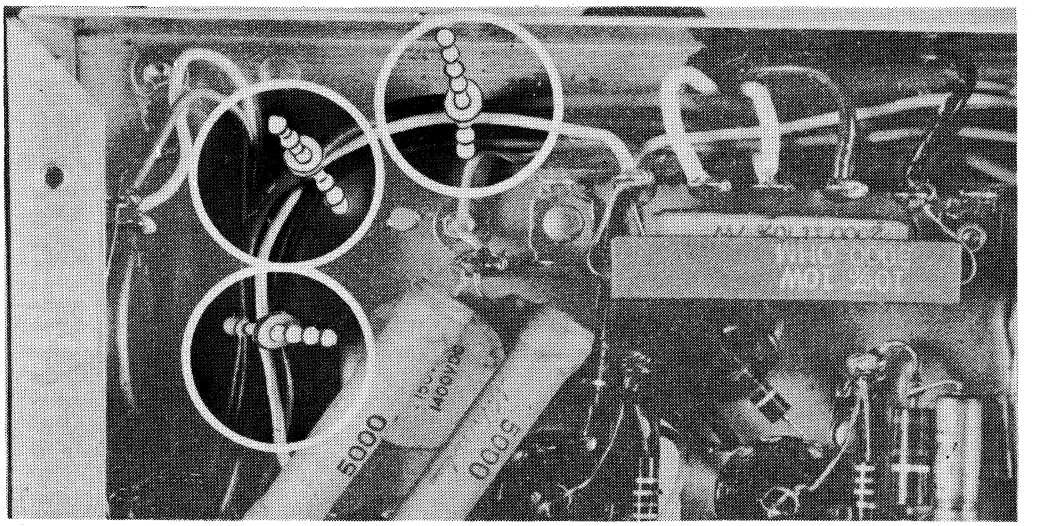
MATERIAL	Natural Polyethylene—DFD-2005				
PROPERTIES	Brittleness (D746) −85°C = −121°F Dielectric constant (D150—23°C) 2.27				
SIZE	A	B	C	APPLICATION	PACKAGING
2	.120	.100	.035	20 Ga. and smaller	75′ coils
3	.150	.150	.035	18 to 12 gauge	75′ coils
4	.150	.200	.045	11 to 8 gauge	75′ coils
5	.190	.280	.045	8 Ga. to 3/16″ thick	75′ coils
6	.250	.375	.062	3/16″ to ¼″ thick	50′ coils

Specifications: ASTM: D-1248-58T, Type 1, Class A, Grade 4. Federal: L-P-590, Type II, Grade 4. REA: PE-23. MIL-C-17C, Cable, radio frequency, coaxial, dual coaxial, twin conductor and twin lead. MIL-W-76B, Insulated hookup wire. MIL-C-915A, Electrical cable for shipboard use.

GC ELECTRONICS

WIRE and CABLE TIES





Cable ties, an efficient, cost cutting and time proven asset to any operation, large or small, as a single replacement or on an assembly line. Easily utilized by skilled or unskilled manpower and eliminating many of the problems of difficult lacing. GC cable ties are widely used today by manufacturers of electronic equipment, by the US Government, computor manufacturers, even on automobile production lines. Consider cable ties for your operation. Learn how they cut operation costs and keep customers happy.

PLASTIC

Tough and flexible. Chemically inert. Available in Red, Yellow, or Blue in four different lengths. Smart looking...a compliment to any assembly. Special SNAP BUTTON model holds wire and cable bundles to walls, chassis, cabinets, fire walls etc.

Part No.	Description	O.E.M. Net
DISPLAY CARDED PACKAGE OF 40 TIES		
34-431*	4¼" Green	.98
34-432	4¼" Red	.98
34-436	4¼" Yellow	.98
34-440	4¼" Blue	.98
BULK BOXES OF 1000 TIES*		
34-431-M	4¼" Green	11.10
34-432-M	4¼" Red	11.10
34-436-M	4¼" Yellow	11.10
34-440-M	4¼" Blue	11.10
34-443-M	8" Green	18.15
34-445-M	8" Red	18.15
34-446-M	8" Yellow	18.15
34-447-M	8" Blue	18.15
34-444-M	10" Red	21.60
34-448-M	10" Yellow	21.60
34-452-M	10" Blue	21.60
34-453-M	10" Green	21.60
34-449-M	12" Yellow	24.90
34-450-M	12" Red	24.90
34-451-M	12" Blue	24.90
34-455-M	12" Green	24.90
4¼" SNAP-IN PLASTIC CABLE TIES		
34-454-M	4¼" Red	13.95
34-456-M	4¼" Yellow	13.95
34-458-M	4¼" Blue	13.95

*Write for prices on quantities of 10,000 - up.
+Patent Pending

NYLON

Heavy duty, extra tough. All types are available in natural white only. Nylon withstands extreme temperature. Chemically inert.

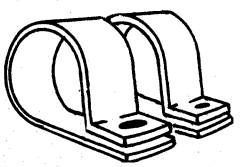
Part No.	Description	O.E.M. Net
NYLON CABLE TIES		
34-442-M	4¼" White	14.90
34-460-M	10" White	33.85

SPECIAL CABLE TIES

Special sizes and colors, even styles of cable ties are available in large quantities. Write or call your specifications today.

ELECTROCRAFT PLASTIC CABLE CLAMPS

Electrocraft Cable Clamps are used for fastening cables, harnesses, tubing, etc. Lightweight, durable, with excellent electrical and mechanical properties. Two materials: (1) Ethyl Cellulose, for normal industrial and commercial uses--where temperatures range from--40 degree F. to 185 degree F. (2) Nylon (Zytel), for extreme durability and high resistance to temperature (--60 degree F. to 300 degree F.) and most chemicals.



ETHYL CELLULOSE CABLE CLAMPS

Transparent(light yellowish)plastic. Meets specifications AN742. Plastic thickness is .063".

For Cable O.D.	Cat. No.	Net per C	Cat. No.	Net per M
1/8"	34-300C	2.33	34-300M	19.80
3/16"	34-304C	2.40	34-304M	19.92
1/4"	34-308C	2.58	34-308M	21.97
5/16"	34-312C	2.85	34-312M	24.23
3/8"	34-316C	3.00	34-316M	25.50
7/16"	34-320C	3.30	34-320M	27.83
1/2"	34-324C	3.60	34-324M	29.63
9/16"	34-328C	4.20	34-328M	34.68
19/32"	34-332C	4.50	34-332M	36.00
5/8"	34-336C	4.80	34-336M	39.83
11/16"	34-340C	5.10	34-340M	42.71
3/4"	34-344C	5.40	34-344M	44.76
7/8"	34-348C	5.70	34-348M	48.36
1"	34-352C	6.00	34-352M	51.60
1-1/8"	34-356C	6.30	34-356M	55.08
1-1/4"	34-358C	6.60	34-358M	58.20

NYLON CABLE CLAMPS

Natural color (translucent white) Nylon. Thickness is .050" on 1/ 2" diameter and smaller clamps, .060" on 9/16" and larger.

For Cable O.D.	Cat. No.	Net per C	Cat. No.	Net per M
1/8"	34-370C	3.60	34-370M	30.00
3/16"	34-374C	3.93	34-374M	31.77
1/4"	34-378C	4.17	34-378M	34.73
5/16"	34-382C	4.68	34-382M	38.37
3/8"	34-386C	4.83	34-386M	40.32
7/16"	34-390C	5.13	34-390M	42.63
1/2"	34-394C	5.47	34-394M	45.38
9/16"	34-398C	6.72	34-398M	62.26
5/8"	34-402C	7.50	34-402M	65.63
11/16"	34-406C	7.80	34-406M	77.33
3/4"	34-410C	8.40	34-410M	75.00
7/8"	34-414C	9.00	34-414M	81.00
1"	34-418C	10.50	34-418M	96.00

Net

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GC ELECTRONICS

ELECTRONIC COMPONENTS

INSULATING TEFLON* TUBING

Exceptionally tough and flexible. Withstands temperatures from 450 degree below zero F. to 500 degree above zero F. Will not melt solder joints. Outstanding dielectric properties – zero moisture absorption. Chemically inert. Completely weatherproof. Wires can be inserted much more easily than in any other tubing.

*Registered trademark DuPont Co.

Part No.	Feet Per Spool	Color	Gauge	I.D. (Inches)	Wall Thickness	Net Per Spool
7980-7	10	Nat	24	.022	.010	$ 1.33
7980-7C	100	Nat	24	.022	.010	11.83
7980-1	10	Red	24	.022	.010	1.33
7980-1C	100	Red	24	.022	.010	11.83
7980-4	10	Blue	24	.022	.010	1.33
7980-4C	100	Blue	24	.022	.010	11.83
7981-7	10	Nat	22	.027	.012	1.47
7981-7C	100	Nat	22	.027	.012	13.26
7981-1	10	Red	22	.027	.012	1.47
7981-1C	100	Red	22	.027	.012	13.26
7981-4	10	Blue	22	.027	.012	1.47
7981-4C	100	Blue	22	.027	.012	13.26
7982-7	10	Nat	20	.034	.012	1.83
7982-7C	100	Nat	20	.034	.012	18.27
7982-1	10	Red	20	.034	.012	1.83
7982-1C	100	Blue	20	.034	.012	18.27
7982-4	10	Nat	18	.042	.012	1.83
7982-4C	100	Blue	20	.034	.012	18.27
7983-7	10	Red	20	.034	.012	2.23
7983-7C	100	Nat	18	.042	.012	20.88
7983-1	10	Red	18	.042	.012	2.23
7983-1C	100	Red	18	.042	.012	20.88
7983-4	10	Blue	18	.042	.012	2.23
7983-4C	100	Blue	18	.042	.012	20.88
7984-7	10	Nat	16	.053	.012	2.65
7984-7C	100	Nat	16	.053	.012	25.02
7984-1	10	Red	16	.053	.012	2.65
7984-1C	100	Red	16	.053	.012	25.02
7984-4	10	Blue	16	.053	.012	2.65
7984-4C	100	Blue	16	.053	.012	25.02
7985-7	10	Nat	14	.066	.012	2.92
7985-7C	100	Nat	14	.066	.012	28.38
7985-1	10	Red	14	.066	.012	2.92
7985-1C	100	Red	14	.066	.012	28.38
7985-4	10	Blue	14	.066	.012	2.92
7985-4C	100	Blue	14	.066	.012	28.38
7986-7	5	Nat	12	.085	.014	1.83
7986-7C	100	Nat	12	.085	.014	34.28
7986-1	5	Red	12	.085	.014	1.83
7986-1C	100	Red	12	.085	.014	34.28
7986-4	5	Blue	12	.085	.014	1.83
7986-4C	100	Blue	12	.085	.014	34.28
7987-7	5	Nat	10	.106	.014	2.17
7987-7C	100	Nat	10	.106	.014	41.58
7987-1	5	Red	10	.106	.014	2.17
7987-1C	100	Red	10	.106	.014	41.58
7987-4	5	Blue	10	.106	.014	2.17
7987-4C	100	Blue	10	.106	.014	41.58

GC NO. 75 STANDARD THIN NYLON CORD .028" DIAMETER

Nylon cord with a fibreglass core. All especially treated to prevent stretching and slipping. GC cords No. 75, 75-A and 74 will handle 90% of replacements. 25 ft., 50 ft., 100 ft. spools are supplied in permanent, clear plastic containers.

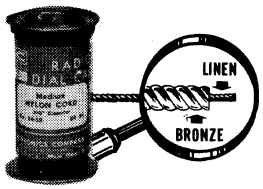
Used on 95% of the latest sets manufactured. Made of finest braided Nylon over a Fiberglas Core. It is prestretched and chemically treated.

Cat. No. 75-25	25 ft. spool	Net .75
Cat. No. 75-50	50 ft. spool	Net 1.43
Cat. No. 75-100	100 ft. spool	Net 2.37
Cat. No. 75-1000	1000 ft. spool	Net 15.57

GC NO. 75-A EXTRA THIN NYLON CORD .025" DIAMETER

Used on Motorola, RCA, Sentinel, Stromberg Carlson, and others. Extra thin, made of finest braided Nylon, chemically treated.

Cat. No. 75A-25	25 ft. spool	Net .75
Cat. No. 75A-50	50 ft. spool	Net 1.43
Cat. No. 75A-100	100 ft. spool	Net 2.37
Cat. No. 75A-1000	1000 ft. spool	Net 14.25



GC NO. 74 MEDIUM NYLON CORD .040" DIAMETER

Used on models of RCA, Philco, Majestic, Wells Gardner, etc. Made of finest braided Nylon over a Spun Fiberglas Core.

Cat. No. 74-25	25 ft. spool	Net .75
Cat. No. 74-50	50 ft. spool	Net 1.43
Cat. No. 74-100	100 ft. spool	Net 2.37
Cat. No. 74-1000	1000 ft. spool	Net 19.77

GC NO.70 BRAIDED BRONZE CABLE .035" DIAMETER

Braided phosphor bronze cable made over a Fibreglas core for greater strength and flexibility. Will not unravel.

Cat. No. 70-25	25 ft. spool	Net .97
Cat. No. 70-50	50 ft. spool	Net 1.63
Cat. No. 70-100	100 ft. spool	Net 2.70
Cat. No. 70-1000	1000 ft. spool	Net 22.20

GC NO. 71 42-STRAND BRONZE CABLE .040" DIAMETER

42-strand twisted phosphor bronze cable used on Majestic, Bosch, Philco, etc. 42 fine strands braided over a cotton core.

Cat. No. 71-25	25 ft. spool	Net 1.23
Cat. No. 71-50	50 ft. spool	Net 1.88
Cat. No. 71-100	100 ft. spool	Net 3.52
Cat. No. 71-1000	1000 ft. spool	Net 25.80

GC NO. 73 HEAVY NYLON CORD .062" DIAMETER

This is a heavier cord such as used on models of Philco, Silver Marshall, Majestic, Brunswick, etc.

Cat. No. 73-25	25 ft. spool	Net 1.02
Cat. No. 73-50	50 ft. spool	Net 1.73
Cat. No. 73-100	100 ft. spool	Net 2.97
Cat. No. 73-1000	1000 ft. spool	Net 24.90

GC NO. 76 SPECIAL THIN BRONZE CABLE .023" DIAMETER

Extra thin braided bronze cable such as is used on GE and RCA sets. Also used for speaker cones, pigtails, etc.

Cat. No. 76-25	25 ft. spool	Net .97
Cat. No. 76-50	50 ft. spool	Net 1.63
Cat. No. 76-100	100 ft. spool	Net 2.70
Cat. No. 76-1000	1000 ft. spool	Net 22.20

GC COLOR TV NO-STRETCH DIAL CORD

EXTRA FINE .025" diameter supplied on metal spools.

Cat. No. 87-25	25 ft. spool	Net .90
Cat. No. 87-100	100 ft. spool	Net 2.70

STANDARD .028" diameter - supplied on metal spools.

Cat. No. 88-25	25 ft. spool	Net .90
Cat. No. 88-100	100 ft. spool	Net 2.70

MEDIUM .040" diameter - supplied on metal spools.

Cat. No. 89-25	25 ft. spool	Net .90
Cat. No. 89-100	100 ft. spool	Net 2.70

GC DIAL CABLE TOOL

A handy tool to aid in replacing worn out cables or cables slipped off of drums, to replace dial cord springs also.
Cat. No. 5096 Net .60

GC DIAL CORD NON-SLIP DRESSING STICK

Simply rub the stick on cord and job is done. Prevents and stops slipping.
Cat. No. 1212 Net .25

GC WIRE MARKERS

Handy wire markers needed for tracing circuits, marking circuits, marking wires in replacing parts, etc.. Nos. 1 to 33 - 3 full strips included to kit.
Cat. No. 9229 Net 1.00

GC MOTOROLA TV DIAL BELT

Replacement belt as used on Motorola TV Tuners. Original replacement part.
Cat. No. 196 Net 30

GC RCA TUNER BELT

Belt used on RCA Tuners such as 8T, 8TC, 8TK, 9TC, etc.
Cat. No. 195 Net .30

Exact replacement for 1956 model RCA TV sets.
Cat. No. 197 Net 1.10

GC INSULATING CAMBRIC

Dry yellow varnished cambric for field coils, transformers, chokes, resistors, motors, etc. Roll 210 sq.in.
Cat. No. 549 .010" Net .78

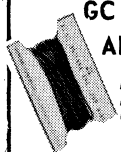
GC FYBEROID FISH PAPER

Fish paper has many uses around the shops for repair jobs where electrical insulation is required. Roll 240 sq.in.
Cat. No. 560 .010" Net .50

GC LAMINATED PHENOLIC PLASTIC PANELS

Black laminated panels. 1/16" thick stock. Color: black.

Cat. No. 590	6" x 6"	Net .42
Cat. No. 591	6" x 12"	Net .82
Cat. No. 592	12" x 12"	Net 1.58



GC AC-DC INDOOR ANTENNA WIRE

Antenna lead wire for indoor type AC-DC sets. Flexible copper wire covered with brown plastic insulation.
Cat. No. 840 25 ft. coil Net .37

GC 300-OHM LINE PROTECTIVE TUBING

Clear plastic tubing will fit over 300-ohm flat lines and will protect the line from grounding and rubbing on corners of buildings, eaves, etc. It actually protects and waterproofs the line.

Cat. No. 625	Box of 8 ft.	Net .75
Cat. No. 626	250 ft. coil	Net 18.29
Cat. No. 627	1000 ft.	Net 68.26

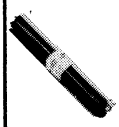
GC GENFLEX PLASTIC TUBING

High grade extremely flexible plastic tubing for radio and electronic insulation work. Highly resistant to cold or heat. High dielectric strength, average 8000 volts. Colors: Black, Red, Green and Clear (Specify color).

Cat. No. 603	18 B-S Gauge, .042 I.D., 20' pkg.	Net .82
Cat. No. 605	16 B-S Gauge, .053 I.D., 20' pkg.	Net .82
Cat. No. 607	14 B-S Gauge, .066 I.D., 20' pkg.	Net .82
Cat. No. 609	12 B-S Gauge, .085 I.D., 20' pkg.	Net .82
Cat. No. 611	10 B-S Gauge, .106 I.D., 15' pkg.	Net .82
Cat. No. 613	8 B-S Gauge, .133 I.D., 15' pkg.	Net .82
Cat. No. 616	6 B-S Gauge, .166 I.D., 10' pkg.	Net .82
Cat. No. 617	4 B-S Gauge, .208 I.D., 10' pkg.	Net .82
Cat. No. 620	2 B-S Gauge, .263 I.D., 10' pkg.	Net .82

GC SERVICEMEN'S KIT

Handy kits of assorted colors and sizes. Ideal for experimenters and servicemen. Kit of 25 ft. assorted. Sizes 18 to 10 Genflex Tubing.
Cat. No. 635 Net .82



GC ASSORTED SPAGHETTI KIT

An assortment of 7½" lengths of spaghetti sleeving. 26 lengths to the kit. Sizes include from No. 17 wire to 3/8" I.D.
Cat. No. 550 Net .40

SPAGHETTI AND SLEEVING ASSORTMENT

A variety of sizes and colors are included of high grade varnish tubing. Put up in attractive box.
Cat. No. 551 Net .90

GC PLASTIC TUBING KITS

Best grade varnished tubing put in convenient 20 ft. lengths. Will fit wire from No. 12 to No. 18. Colors: Black, Red, Yellow, Green and Blue.
Cat. No. 499 Net 1.67

GC RADIO SPAGHETTI

High grade spaghetti for radio-television work. Average dielectric strength 4000 volts. Very flexible. Smoothly coated with best grades of varnish. Material is approved by A.S.T.M. Colors: Black, Brown, Red, Green and Yellow (Specify color). 30" lengths.

Cat. No. 500	No. 20, fit 20 wire	Net .15
Cat. No. 503	No. 17, fit 18 wire	Net .17
Cat. No. 506	No. 14, fit 14 wire	Net .17
Cat. No. 508	No. 12, fit 12 wire	Net .17
Cat. No. 512	I.D. 1/8"	Net .23
Cat. No. 515	I.D. 3/16"	Net .25
Cat. No. 518	I.D. 1/4"	Net .40
Cat. No. 521	I.D. 3/8" (resist. size)	Net .63
Cat. No. 522	I.D. 7/16" (red and black	Net .73
Cat. No. 523	I.D. 1 2" (red and black)	Net 1.03

ICORE
ELECTRO-PLASTICS. INC.
a subsidiary of ICORE INDUSTRIES

HEATRAX®

HEAT SHRINKABLE TUBING

During the manufacturing process, HEATRAX tubing is expanded beyond its original extruded diameter. It will shrink back, or recover to, this original state when heat is applied briefly. Special formulations and irradiation improve its ability to return to original dimensions, assure more uniform recovery, and develop superior stress and crack resistance. When irradiated, HEATRAX materials will not melt at elevated temperatures.

HEATRAX offers these advantages in application:

1. Elastic memory—tubing shrinks quickly on application of heat to form a tight cover, even over irregularly shaped objects
2. Thermal stability
3. Outstanding electrical characteristics
4. Excellent mechanical properties
5. Excellent chemical and solvent resistance

The table of Typical Properties below supplies comparative characteristics for the various HEATRAX materials. The following brief description will also be helpful in selecting the proper type for specific applications:

Catalog #HIX—IRRADIATED POLYOLEFIN
Shrink ratio 2 to 1 (expanded to recovered diameter) Temperature range: from 135°C/275°F to —55°C/—65°F

This flexible, general purpose material will not cold flow, never melts and will not split on applications within temperature range. It is less expensive than Teflon HEATRAX. Compared with Vinyl HEATRAX, it is superior in mechanical and dielectric strength, and has less longitudinal shrinkage, higher corrosion resistance and a wider temperature range.

HIX is supplied in two classes:
I-Flame Retarded II-Clear (not flame retarded)
Available with U/L approval.

Catalog #HRX—IRRADIATED SEMI-RIGID POLYOLEFIN
Shrink ratio 2 to 1 (expanded to recovered diameter) Temperature range: from 135°C/275°F to —55°C/—65°F

This material is designed for strain relief applications and protection of delicate components. It will not cold flow, never melts, and will not split on applications within temperature range. It has better gripping power and tensile strength than HIX Irradiated Polyolefin, HCX Irradiated Vinyl and HVX Vinyl.

HRX is supplied in two classes:
I-Flame Retarded II-Clear (not flame retarded)

Catalog #HCX—IRRADIATED FLEXIBLE VINYL
Shrink ratio 2 to 1 (expanded to recovered diameter) Temperature range: from 105°C/220°F to —20°C/—5°F

This general purpose material is more flexible and less expensive than HIX Irradiated Polyolefin. Compared with HVX Flexible Vinyl, it is superior in flexibility and crack resistance and has slightly better mechanical strength.

Catalog #HVX—FLEXIBLE VINYL
Shrink ratio 2 to 1 (expanded to recovered diameter) Temperature range: from 95°C/200°F to —10°C/15°F
This material has the lowest shrink temperature and the lowest cost of all HEATRAX tubing. HVX is offered in 4 colors.

TEFLON HEATRAX:
Flexible Teflon is primarily for use in high thermal and difficult chemical environmental applications, or where a low coefficient of friction is desirable. It provides excellent electrical insulation, has excellent chemical and solvent resistance. It has the widest temperature range, best dielectric and corrosion resistant properties of all HEATRAX tubings. Temperature range of all Teflon HEATRAX is from 260°C/500°F to —65°C/—85°F.
The following types of Teflon HEATRAX are available:
Cat. #HTX-Thin Wall Teflon (AWG sizes)-Shrink ratio 1½ to 1 (expanded to recovered diameter)
Cat. #HSX-Stand. Wall Teflon (AWG sizes)-Shrink ratio 1½ to 1 (expanded to recovered diameter)
Cat. #HFX-4x Teflon (fractional sizes)-Shrink ratio is 4 to 1 (expanded to recovered diameter)

HEATRAX SPECIFICATION CHART: TYPICAL PROPERTIES

CHARACTERISTICS	ASTM TEST METHOD	UNITS	#HIX Irradiated Flexible Polyolefin	#HRX Irradiated Semi-rigid High strength Polyolefin	#HCX Irradiated Flexible Vinyl	#HVX Low cost Flexible Vinyl	#HSX & #HTX High Temperature Thin & Standard Wall Teflon, AWG Sizes	#HFX High Temperature Flexible Teflon, Fractional Sizes
Maximum continuous operating temperature		°C °F	135 275	135 275	105 220	105 220	260 500	260 500
Low temperature brittle point		°C °F	—55 —65	—55 —65	—20 — 5	—10 +15	—65 —85	—65 —85
Shrinkage ratio (Expanded size to recovered size)			2 to 1	2 to 1	2 to 1	2 to 1	1-½ to 1	4 to 1
Shrinkage temp.		°C °F	120 250	135 275	175 345	95 200	325 620	325 620
Longitudinal shrinkage (max.)		%	5	5	10	10	10	10
Ultimate elongation	D638	%	400	400	250	200	400	400
Tensile strength (min.)	D638	PSI	2500	3000	2600	2000	5000	5000
Dielectric strength	D876 D149—55T	Volts/mil	1300	1300	750	700	1300	1300
Volume resistivity	D257	Ohm-cm	10^{16}	10^{16}	10^{12}	10^{11}	10^{18}	10^{18}
Specific Gravity	D792		CLASS I-1.20 CLASS II-0.92 (clear)	CLASS I-1.25 CLASS II-0.95 (clear)	1.35	1.40	2.2	2.2
Flammability			Class I-self extinguishing class II-(Clear) slow burning	Class I-self extinguishing Class II-(Clear) slow burning	self-extinguishing in 5 sec.	self-extinguishing in 45 sec.	non-flammable	non-flammable
Fungus resistance			will not support fungus growth	will not support fungus growth	will not support fungus growth	will not support fungus growth	inert	inert
Water absorption	D570	%	Class I-0.1 Class II-0.05	Class I-0.1 Class II-0.05	0.6	1.0	.01	.01
Corrosion resistance			non-corrosive	non-corrosive	passes contact corrosion test	passes contact corrosion test	non-corrosive	non-corrosive
Specifications			MIL-I-23053A Classes 1, 2 AMS 3636, 3637	MIL-I-23053A Classes 3, 4 AMS 3638, 3639	MIL-I-23053A Class 5 MIL-I-631D Grade C	MIL-I-23053A Class 5 MIL-I-631D Grade C	MIL-I-23053A Class 6	MIL-I-23053A Class 6

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HEATRAX®
HEAT SHRINKABLE TUBING

FLEXIBLE IRRADIATED POLYOLEFIN
CATALOG #HIX Conforms to: MIL-I-23053A, Classes 1, 2 AMS 3636, 3637

Cat. # Size (Inches)	Inside Diameter Expanded — as supplied (Inches, Min.)	Inside Diameter Recovered — after heating (Inches, Max.)	Recovered Nom. Wall Thickness* (Inches)	Standard Colors**	Standard 4 foot lengths, total ft. per pkg.	Standard Spools, occasional random lengths (ft.)	Price 100'
HIX-3/64	.046	.023	.016	Black, White, Clear, Red	100, 200	1000	$ 13.80
1/16	.063	.031	.017	Black, White, Clear, Red	100, 200	1000	14.60
3/32	.093	.046	.020	Black, White, Clear, Red	100, 200	500	16.90
1/8	.125	.062	.020	Black, White, Clear, Red	100, 200	500	17.90
3/16	.187	.093	.020	Black, White, Clear, Red	100, 200	500	21.90
1/4	.250	.125	.025	Black, White, Clear, Red	100	500	27.60
3/8	.375	.187	.025	Black, White, Clear, Red	100	250	30.60
1/2	.500	.250	.025	Black, White, Clear, Red	20, 100	250	34.50
3/4	.750	.375	.030	Black, White, Clear, Red	20, 100	250	46.25
1	1.000	.500	.035	Black, White, Clear, Red	20, 48	250	65.00
1 1/2	1.500	.750	.040	Black, White, Clear, Red	20, 48	125	98.00
2	2.000	1.000	.045	Black, White, Clear, Red	20	125	135.00
3	3.000	1.500	.050	Black, White, Clear, Red	8, 24	50	213.75
4	4.000	2.000	.055	Black, White, Clear, Red	8, 24	50	312.50

* Wall thickness will be less if recovery is restricted
** Yellow and blue available on request

SEMI-RIGID IRRADIATED POLYOLEFIN
CATALOG #HRX Conforms to: MIL-I-23053A, Classes 3, 4 AMS 3638, 3639

Cat. # Size (Inches)	Inside Diameter Expanded — as supplied (Inches, Min.)	Inside Diameter Recovered — after heating (Inches, Max.)	Recovered Nom. Wall Thickness* (Inches)	Standard Colors	Standard 4 foot lengths, total ft. per pkg.	Price 100'
HRX-3/64	.046	.023	.020	Yellow, Clear	100,200	$14.10
1/16	.063	.031	.020	White, Clear	100,200	14.80
3/32	.093	.046	.020	Blue, Clear	100,200	17.15
1/8	.125	.062	.020	Red, Clear	100,200	18.35
3/16	.187	.093	.025	Green, Clear	100,200	22.35
1/4	.250	.125	.025	Slate, Clear	100	27.95
3/8	.375	.187	.030	Brown, Clear	100	31.00
1/2	.500	.250	.030	White, Clear	20,100	35.25

*Wall thickness will be less if recovery is restricted.

IRRADIATED FLEXIBLE VINYL CATALOG #HCX
Conforms to: MIL-I-23053A, Class 5 MIL-I-631D, Grade C

Cat. # Size (Inches)	Inside Diameter Expanded — as supplied (Inches, Min.)	Inside Diameter Recovered — after heating (Inches, Max.)	Recovered Nom. Wall Thickness* (Inches)	Standard Spools Occasional Random Lengths (ft.)	Price 100'
HCX-3/64	.046	.023	.020	100, 500, 1000	$ 8.25
1/16	.062	.031	.020	100, 500, 1000	8.65
3/32	.093	.046	.020	100, 500	10.15
1/8	.125	.062	.025	100, 500	10.75
3/16	.187	.093	.025	100, 500	13.15
1/4	.250	.125	.025	100, 500	16.50
3/8	.375	.187	.030	100, 250	18.25
1/2	.500	.250	.030	100, 250	20.75
3/4	.750	.375	.035	100, 250	27.75
1	1.000	.500	.040	100, 250	40.00
1 1/2	1.500	.750	.045	25, 50	65.75
2	2.000	1.000	.050	25, 50	96.75

* Wall thickness will be less if recovery is restricted.
Standard Color: Black

FLEXIBLE VINYL CATALOG #HVX
Conforms to: MIL-I-23053A, Class 5 MIL-I-631D, Grade C

Cat. # Size (Inches)	Inside Diameter Expanded — as supplied (Inches, Min.)	Inside Diameter Recovered — after heating (Inches, Max.)	Recovered Nom. Wall Thickness* (Inches)	Standard Colors	Standrad Spools Occasional Random Lengths (ft.)	Price 100'
HVX-1/16	.063	.031	.020	Black, White, Red, Clear	100, 250	$ 4.85
3/32	.093	.046	.025	Black, White, Red, Clear	100, 250	5.35
1/8	.125	.062	.025	Black, White, Red, Clear	100, 250	5.75
3/16	.187	.093	.025	Black, White, Red, Clear	100, 250	6.25
1/4	.250	.125	.025	Black, White, Red, Clear	100, 250	7.10
3/8	.375	.187	.025	Black, White, Red, Clear	100, 250	8.90
1/2	.500	.250	.025	Black, White, Red, Clear	100	10.00
3/4	.750	.375	.025	Black, White, Red, Clear	100	13.30
1	1.000	.500	.030	Black, White, Red, Clear	50, 100	17.75
1 1/2	1.500	.750	.035	Black, White, Red, Clear	25, 50	24.80
2	2.000	1.000	.040	Black, White, Red, Clear	25, 50	36.65

* Wall thickness will be less if recovery is restricted.

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TFE FLEXIBLE TEFLON HEATRAX®

HEAT SHRINKABLE TUBING

THIN WALL (AWG SIZES) CATALOG #HTX

Conforms to: MIL-I-23053A, Class 6

Cat. # Size	Inside Diameter Expanded — as supplied (Inches, Min.)	Inside Diameter Recovered — after heating (Inches, Max.)	Recovered Nom. Wall Thickness* (Inches)	Standard 4 foot lengths, total ft. per pkg.	Price 100′
HTX-30	.030	.022	.009	100	$ 19.45
28	.035	.025	.009	100	20.30
26	.040	.028	.010	100	22.05
24	.050	.032	.010	100	27.40
22	.055	.037	.010	100	29.40
20	.060	.044	.012	100	36.75
18	.076	.052	.012	100	40.40
16	.093	.063	.012	100	46.60
14	.121	.078	.012	100	52.40
12	.153	.096	.012	48	61.35
10	.191	.116	.012	48	70.80
8	.240	.144	.015	48	105.55
6	.302	.178	.015	20	141.45
4	.370	.224	.015	20	171.20
2	.430	.278	.015	20	187.05
0	.470	.347	.015	20	227.65

* Wall thickness will be less if recovery is restricted.
Standard Colors: Natural

STANDARD WALL (AWG SIZES) CATALOG #HSX

Conforms to: MIL-I-23053A, Class 6

Cat. # Size	Inside Diameter Expanded — as supplied (Inches, Min.)	Inside Diameter Recovered — after heating (Inches, Max.)	Recovered Nom. Wall Thickness* (Inches)	Standard 4 foot lengths, total ft. per pkg.	Price 100′
HSX-24	.045	.027	.012	100	$ 22.40
22	.050	.032	.012	100	24.25
20	.055	.039	.016	100	32.30
19	.060	.043	.016	100	34.35
18	.065	.049	.016	100	37.00
17	.080	.054	.016	100	39.75
16	.090	.061	.016	100	43.20
15	.110	.067	.016	100	46.20
14	.120	.072	.016	100	48.10
13	.130	.080	.016	100	51.20
12	.140	.089	.016	100	54.90
11	.160	.101	.016	100	60.35
10	.180	.112	.016	100	62.80
9	.200	.124	.020	100	81.25
8	.230	.141	.020	48	93.55
7	.240	.158	.020	48	97.80
6	.290	.178	.020	48	104.80
5	.310	.198	.020	20	114.25
4	.335	.224	.020	20	122.90
3	.350	.249	.020	20	134.80
2	.365	.278	.020	20	147.00
1	.375	.311	.020	20	161.70
0	.390	.347	.020	20	180.50

* Wall thickness will be less if recovery is restricted.
Standard Colors: Natural

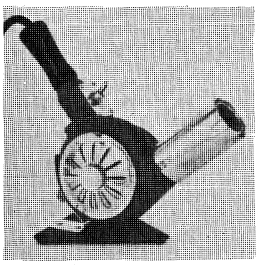
4X (FRACTIONAL SIZES) CATALOG #HFX

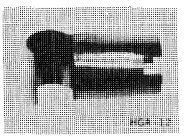
Conforms to: MIL-I-23053A Class 6

Cat. # Size	Inside Diameter Expanded — as supplied (Inches, Min.)	Inside Diameter Recovered — after heating (Inches, Max.)	Recovered Nom. Wall Thickness* (Inches)	Standard 4 foot lengths, total ft. per pkg.	Price 100′
HFX-5/64	.078	.025	.009	100	$ 42.90
1/8	.125	.037	.010	100	44.00
1/4	.250	.063	.012	100	63.80
3/8	.375	.096	.012	100	81.40
1/2	.500	.144	.015	100	126.00
5/8	.625	.178	.015	100	169.20
3/4	.750	.224	.015	100	207.00
1	1.000	.278	.015	20	279.00
1 1/4	1.250	.347	.015	20	399.60

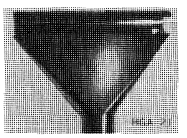
* Wall thickness will be less if recovery is restricted.
Standard Colors: Natural

HEATRAX HEAT GUN & ACCESSORIES





HGA-12



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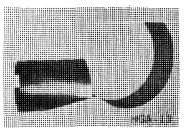

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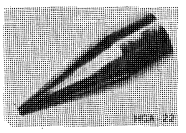

HGA-22

SHRINKING METHODS HEAT GUN & ACCESSORIES

Excellent results may be obtained by dipping HEATRAX in hot liquids, by oven heat, infrared heat, or open flame. However, the HEATRAX Heat Gun offers the easiest method of applying heat to all types of shrinkable tubing.

HEATRAX Heat Gun:

The HEATRAX Heat Gun is a flameless hot air torch — lightweight and mobile — or adaptable for permanent mounting. Three models, with different temperature ranges, are available. All models have adjustable air volume control and a three-way switch (hot-cool-off). All Heat Guns operate on 115V, 50/60 cycles and deliver an air volume of 35 CFM with a velocity of 3000 FPM.

Cat. #	Current (Amp.)	Temperature Range °C	Temperature Range °F	Price Each
HG-103	12	150/260	300/500	$40.25
HG-105	14	260/400	500/750	45.35
HG-107	18	400/525	750/1000	56.25

In addition, adaptors for the Heatgun (shown below) have been developed to concentrate heat in specific application areas.

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SPIRAL WRAP®

This expandable spiral-cut plastic wrap harnesses, insulates and protects wire assemblies up to 8" diameter.

HARNESSING:

Spiral Wrap applies a strong grip developed both from its torsional cut and the memory of plastic materials used. It retains its strength under repeated flexing and bending, follows wire paths easily, and makes neat, free-running cables. It is extremely useful on long continuous runs where many leads are required; wires can enter or break out at any point. Spiral Wrap can be removed easily for trouble shooting and then re-applied.

PROTECTION:

Spiral Wrap is available in materials which accommodate a heat range from —265°C/—450°F to 260°C/500°F for insulation purposes. It is also available in materials with high abrasion resistance and in materials for use outdoors where resistance to ultra-violet rays is required.

MATERIAL DESCRIPTION

Polyethylene	Versatile, low cost material
Polyethylene, black	In addition to above, this material is designed for outdoor use. It resists ultra-violet rays. Oper. Temp. —75°C/—105°F to 100°C/215°F.
Rulan (carbon impregnated polyethylene)	Used primarily in applications where a low cost self-extinguishing material is required. Oper. Temp. —25°C/—10°F to 95°C/200°F.
Nylon, natural	This material offers best mechanical protection; also has a higher temperature rating than polyethylene. Oper. Temp. —100°C/—150°F to 150°C/300°C.
Nylon, black	In addition to the above, this material is designed for outdoor use; it resists ultra-violet rays. Oper Temp. —100°C/—150°F to 110°C/230°F.
Teflon	Primarily used in high temperature applications; also has an extremely low operating temperature, excellent dielectric properties and is not affected by organic solvents or acids. Oper. Temp. —265°C/—450°F to 260°C/500°F.

Cat. # Size	Price 100'
SWN-1/8	$ 7.50
1/4	14.00
3/8	36.40
1/2	44.00
3/4	73.00
1"	92.00
SWP-1/8	3.60
3/16	5.30
1/4XXT	5.60
1/4XT	5.80
1/4	6.00
3/8	9.50
1/2	14.50
3/4	21.75
1XT	28.55
1"	29.25
SWR-1/8	4.65
1/4	9.00
3/8	13.00
1/2	18.00
SWT-1/8	117.00
3/16	128.00
1/4	139.00
3/8	261.00
1/2	380.00
3/4	570.00
1"	760.00

CATALOG #SWP — POLYETHYLENE Conforms to: Grade C Fed. Spec. L.P. 390 MIL-I-631D MIL-P-26692

Cat. #	Nominal Outside Dia., (Inches)	Nominal Wall (Inches)	Nominal Pitch (Inches)	Max. Bundle, Size (In.)*	Standard Colors**	Standard Package (Ft./Spool)
SWP-1/8	.125	.031	1/4	1/2	Nat., Blk.	100, 500
3/16	.187	.031	1/4	1-1/2	Nat., Blk.	100, 500
1/4XXT	.250	.031	3/8	2	Nat., Blk.	100, 500
1/4XT	.250	.040	3/8	2	Nat., Blk.	100, 500
1/4	.250	.058	5/16	2	Nat.,Blk.,Bl.,Rd.	100, 500
3/8	.375	.058	7/16	3	Nat.,Blk.,Bl.,Rd.	100, 500
1/2	.500	.058	9/16	4	Nat., Blk.	100, 250
3/4	.750	.065	7/8	6	Nat., Blk.	50, 100 (Box)
1XT	1.000	.065	1	8	Nat., Blk.	50, 100 (Box)
1	1.000	.100	7/8	8	Nat., Blk.	50, 100 (Box)

CATALOG # SWN — NYLON Conforms to: MIL-M-22096

Cat. #	Nominal Outside Dia., (Inches)	Nominal Wall (Inches)	Nominal Pitch (Inches)	Max. Bundle, Size (In.)*	Colors**	Standard Package (Ft./Spool)
SWN- 1/8	.125	.016	1/4	1/2	Nat., Blk.	100, 500
1/4	.250	.030	5/16	2	Nat., Blk.	100, 500
3/8	.375	.030	7/16	3	Nat., Blk.	100, 500
1/2	.500	.030	9/16	4	Nat., Blk.	100, 250
3/4	,750	.040	7/8	6	Natural	50, 100 (Box)
1	1.000	.040	1	8	Natural	50, 100 (Box)

CATALOG #SWR — RULAN

Cat. #	Nominal Outside Dia., (Inches)	Nominal Wall (Inches)	Nominal Pitch (Inches)	Max. Bundle Size (In.)*	Colors**	Standard Package (Ft./Spool)
SWR-1/8	.125	.030	1/4	1/2	Wh., Gray	100, 500
1/4	.250	.058	5/16	2	Wh., Gray	100, 500
3/8	.375	.058	7/16	3	Wh., Gray	100, 500
1/2	.500	.058	9/16	4	Wh., Gray	100, 250

CATALOG #SWT — TEFLON Conforms to: MIL-I-22129B AMS 3651B, 3653

Cat. #	Nominal Outside Dia., (Inches)	Nominal Wall (Inches)	Nominal Pitch (Inches)	Max. Bundle Size (In.)*	Colors**	Standard Package (Ft./Spool)
SWT-1/8	.125	.030	1/4	1/2	Natural	25, 50, 100, 500
3/16	.187	.030	1/4	1	Natural	25, 50, 100, 500
1/4	.250	.030	3/8	2	Natural	25, 50, 100, 500
3/8	.375	.030	7/16	2-1/2	Natural	25, 50, 100, 500
1/2	.500	.030	9/16	3	Natural	25, 50, 100, 250
3/4	.750	.040	7/8	4	Natural	25 (Box)
1	1.000	.040	1	6	Natural	25 (Box)

* Size will vary on a specific bundle depending on desired flexibility and protection
** ADDITIONAL COLORS AVAILABLE ON REQUEST

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TUBING

VINYL, FIBERGLASS & TEFLON

ICORE offers a complete line of Vinyl, Fiberglass, and Teflon tubing for electrical insulation applications.

	Cat. #	Class	
Vinyl	SLV-105	A	Low cost, high temperature vinyl for applications up to 105°C/220°F.
	SLV-40	—	Low temperature vinyl for applications down to −65°C/−85°F.
Fiberglass	SLV-130	B	Grade B Abrasion resistant fiberglass tubing for applications up to 130°C/225°F.
	SLV-1200	C	Tightly braided 100% fiberglass tubing for applications up to 650°C/1200°F.
Teflon		C	Excellent electrical insulating properties, good flexibility, chemical inertness for applications up to 260°C/500°F.
	STT		Teflon thin wall
	STS		Teflon standard wall
	STL		Teflon lightweight (extra thin wall)
	TTF		Teflon tubing in fractional sizes (heavy wall).

TUBING SPECIFICATION CHART
TYPICAL PROPERTIES

CHARACTERISTICS	TEST METHOD	UNITS	SLV-105 High Temperature Vinyl	SLV-40 Low Temp. Vinyl	SLV-130 Abrasion Resistant Fiberglass	SLV-1200 High Temp. Fiberglass	STT, STS, STL, TTF TEFLON
Class			A		B, Grade B	C	C
Maximum Continuous Operating Temp.		°C °F	105 220	80 175	130 265	650 1200	260 500
Low Temp. Brittle Point	ASTM D876	°C °F	−10 +15	−65 −85	−20 −5	N/A	−65 −85
Tensile Strength	ASTM D876	PSI	3000	2000	1500*	N/A	5000
Dielectric Strength							
Dry		Volts/mil	.015 in. wall-1000 .030 in. wall- 900	.015 in. wall-650 .030 in. wall-300	7000	Determined by space factor	.010 in. wall-1400 .020 in. wall- 850
Wet		Volts/ mil	.015 in. wall- 900 .030 in. wall- 800	.015 in. wall-475 .030 in. wall-250	3000		.010 in. wall-1200 .020 in. wall- 800
Min. Volume Resistivity	MIL-I-631D	Ohm/cm	10^{13}	10^{9}	10^{7}	N/A	10^{17}
Dielectric Constant (Max. at 1 Kilocycle)	MIL-I-631D		4	4.5	7	N/A	2.1
Dielectric Factor (Max. at 1 Kilocycle)	MIL-I-631D		.08	.14	.40	N/A	.0002
Corona Resistance			Excellent	Good	Excellent	N/A	Poor
Fungus Resistance	MIL-I-631D		Good	Good	Good	Inert	Inert
Abrasion Resistance	MIL-T-5438		Good	Fair	Good	N/A	Good
Flame Resistance	ASTM D876		Self-extinguishing	Self-extinguishing	Self-extinguishing	Will not burn	Will not burn
Cut Through Resistance			Excellent	Excellent	Excellent	N/A	Fair
Oil Resistance	ASTM D876		Excellent	Excellent	Excellent	N/A	Superior
Chemical Resistance			Resistant to acids & alkalies, softened by ketones & esters	Resistant to acids & alkalies, softened by ketones & esters	Resistant to acids & alkalies, softened by ketones & esters	Superior	Superior, unaffected by practically any solvent
Specifications			MIL-I-631D Grade C	MIL-I-7444B MIL-I-22076	MIL-I-3190B NEMA-VS-1950	NEMA VSI-1957	AMS3651B (All) AMS3653-STS AMS3654-STL AMS3655-STT MIL-I-22129B-STT, STS, TTF

* Applies to coating material only

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VINYL TUBING

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CAT. #SLV-105 HIGH TEMPERATURE, CLASS A

Low cost, flexible, high temperature vinyl, with excellent electrical, mechanical and thermal properties for applications up to 105°C/221°F.

CATALOG #SLV-105 Conforms to: MIL-I-631D Grade C, Class 1 & 2

Cat. # Sizes	Nominal Inside Dia. (Inches)	Nominal Wall Thickness (Inches)	Standard Colors*	Standard Packaging (ft.) Short Lengths	Standard Packaging (ft.) Standard Lengths	Price 100'
SLV 105-						
24	.022	.012	Blk., Clr., Wh.	100, 500 Spools	1,000 Spools	$ 1.96
22	.027	.012	Blk., Clr., Wh.	100, 500 Spools	1,000 Spools	1.97
20	.034	.016	Blk., Clr., Wh.	100, 500 Spools	1,000 Spools	2.01
19	.038	.016	Blk., Clr., Wh.	100, 500 Spools	1,000 Spools	2.06
18	.042	.016	Blk., Clr., Wh.	100, 500 Spools	1,000 Spools	2.08
17	.047	.016	Blk., Clr., Wh.	100, 500 Spools	1,000 Spools	2.11
16	.053	.016	Blk., Clr., Wh.	100, 500 Spools	1,000 Spools	2.20
15	.059	.016	Blk., Clr., Wh.	100, 500 Spools	1,000 Spools	2.27
14	.066	.016	Blk., Clr., Wh.	100 Spools	500 Spools	2.34
13	.076	.016	Blk., Clr., Wh.	100 Spools	500 Spools	2.39
12	.085	.016	Blk., Clr., Wh.	100 Spools	500 Spools	2.49
11	.095	.016	Blk., Clr., Wh.	100 Spools	500 Spools	2.56
10	.106	.016	Blk., Clr., Wh.	100 Spools	500 Spools	2.66
9	.118	.020	Blk., Clr., Wh.	100 Spools	500 Spools	3.49
1/8	.125	.020	Blk., Clr., Wh.	100 Spools	500 Spools	3.60
8	.133	.020	Blk., Clr., Wh.	100 Spools	500 Spools	3.74
7	.148	.020	Blk., Clr., Wh.	100 Spools	250 Spools	3.97
6	.166	.020	Blk., Clr., Wh.	100 Spools	250 Spools	4.26
5	.186	.020	Blk., Clr., Wh.	100 Spools	250 Spools	4.58
4	.208	.020	Blk., Clr., Wh.	100 Spools	250 Spools	4.93
3	.234	.020	Blk., Clr., Wh.	100 Spools	250 Spools	5.25
1/4	.250	.020	Blk., Clr., Wh.	100 Spools	250 Spools	5.47
#2	.263	.020	Blk., Clr., Wh.	100 Spools	250 Spools	5.69
#1	.294	.020	Blk., Clr., Wh.	100 Coils	250 Coils	6.12
5/16	.312	.025	Blk., Clr., Wh.	100 Coils	250 Coils	7.79
0	.330	.020	Blk., Clr., Wh.	100 Coils	250 Coils	6.58
3/8	.375	.025	Blk., Clr., Wh.	50, 100 Coils	250 Coils	8.94
7/16	.438	.025	Blk., Clr., Wh.	50, 100 Coils	250 Coils	10.10
1/2	.500	.025	Blk., Clr., Wh.	50, 100 Coils	250 Coils	11.29
9/16	.562	.030	Blk., Clr., Wh.	50, 100 Coils	100 Coils	14.17
5/8	.625	.030	Blk., Clr., Wh.	50, 100 Coils	100 Coils	15.30
3/4	.750	.035	Blk., Clr., Wh.	50, 100 Coils	100 Coils	21.12
7/8	.875	.035	Blk., Clr., Wh.	50 Coils	100 Coils	23.74
1"	1.000	.035	Blk., Clr., Wh.	25 Coils	50 Coils	26.53
1 1/8	1.125	.035	Blk., Clr., Wh.	25 Coils	50 Coils	34.79
1 1/4	1.250	.040	Blk., Clr.	25 Coils	50 Coils	36.78
1 3/8	1.375	.040	Blk., Clr.	25 Coils	50 Coils	39.31
1 1/2	1.500	.045	Blk., Clr.	25 Coils	50 Coils	47.67
1 3/4	1.750	.055	Blk., Clr.	25 Coils	50 Coils	59.43
2"	2.000	.060	Blk., Clr.	25 Coils	50 Coils	81.67
2 1/4	2.250	.065	Blk., Clr.	25 Coils	50 Coils	91.70
2 1/2	2.500	.070	Blk., Clr.	25 Coils	50 Coils	115.12

* Red, yellow, green available on request

CAT. #SLV-40 LOW TEMPERATURE

An extremely flexible material designed primarily for low temperature applications (—65°C/—85°F), with continuous rating of 80°C/175°F. Widely used in applications where all purpose vinyls lose their flexibility.

CATALOG #SLV-40 Conforms to: MIL-I-7444B, MIL-I-22076

Cat. # Sizes	Nominal Inside Dia. (Inches)	Nominal Wall Thickness (Inches)	Standard Packaging (ft.) Short Lengths	Standard Packaging (ft.) Standard Lengths	Price 100'
SLV 40-					
24	.022	.012	100, 500 Spools	1000 Spools	$ 2.15
20	.034	.016	100, 500 Spools	1000 Spools	2.22
19	.038	.016	100, 500 Spools	1000 Spools	2.22
18	.042	.016	100, 500 Spools	1000 Spools	2.28
17	.047	.016	100, 500 Spools	1000 Spools	2.31
16	.053	.016	100, 500 Spools	1000 Spools	2.42
15	.059	.016	100, 500 Spools	1000 Spools	2.46
14	.066	.016	100 Spools	500 Spools	2.55
13	.076	.016	100 Spools	500 Spools	2.64
12	.085	.016	100 Spools	500 Spools	2.78
11	.095	.016	100 Spools	500 Spools	2.84
10	.106	.016	100 Spools	500 Spools	3.05
9	.118	.020	100 Spools	500 Spools	4.08
1/8	.125	.020	100 Spools	500 Spools	4.22
8	.133	.020	100 Spools	500 Spools	4.35
7	.148	.020	100 Spools	250 Spools	4.61
6	.166	.020	100 Spools	250 Spools	4.92
5	.186	.020	100 Spools	250 Spools	5.25
4	.208	.020	100 Spools	250 Spools	5.57
3	.234	.020	100 Spools	250 Spools	6.02
1/4	.250	.020	100 Spools	250 Spools	6.26
#2	.263	.020	100 Coils	250 Coils	6.51
#1	.294	.020	100 Coils	250 Coils	7.05
5/16	.312	.025	100 Coils	250 Coils	9.03
0	.330	.020	100 Coils	250 Coils	7.68
3/8	.375	.025	50, 100 Coils	250 Coils	10.58
7/16	.438	.025	50, 100 Coils	250 Coils	11.94
1/2	.500	.025	50, 100 Coils	250 Coils	13.32
9/16	.562	.030	50 Coils	100 Coils	15.34
5/8	.625	.030	50 Coils	100 Coils	16.78
3/4	.750	.035	50 Coils	100 Coils	23.14
7/8	.875	.035	50 Coils	100 Coils	26.11
1"	1.000	.035	25 Coils	50 Coils	29.19
1 1/4	1.250	.040	25 Coils	50 Coils	40.46
1 3/8	1.375	.040	25 Coils	50 Coils	43.80
1 1/2	1.500	.045	25 Coils	50 Coils	52.44
1 3/4	1.750	.055	25 Coils	50 Coils	65.38
2"	2.000	.060	25 Coils	50 Coils	89.84
2 1/4	2.250	.065	25 Coils	50 Coils	106.81
2 1/2	2.500	.070	25 Coils	50 Coils	126.63

Standard Color: Clear — Black available on request

FIBERGLASS TUBING

CAT. #SLV-1200 HIGH TEMPERATURE, CLASS C

This sleeving of tightly braided 100% fiberglass is for use in temperatures up to 650°C/1200°F. Closely woven construction provides maximum abrasion resistance with high flexibility. Material is treated to remove all organic matter and to render the glass braid fray resistant. Material available in double wall on request.

CATALOG #SLV-1200

Cat. # Sizes	Nominal Inside Dia. (Inches)	Nominal Wall Thickness (Inches)	Standard Packaging (ft.) Short Lengths	Standard Packaging (ft.) Standard Lengths	Price 100'
SLV-1200					
24	.022	.010	100, 500 Spools	1000 Spools	$ 3.15
22	.027	.010	100, 500 Spools	1000 Spools	3.15
20	.034	.010	100, 500 Spools	1000 Spools	3.30
19	.038	.015	100, 500 Spools	1000 Spools	3.30
18	.042	.015	100, 500 Spools	1000 Spools	3.51
17	.047	.015	100, 500 Spools	1000 Spools	3.51
16	.053	.015	100, 500 Spools	1000 Spools	3.60
15	.059	.015	100, 500 Spools	1000 Spools	3.82
14	.066	.015	100 Spools	500 Spools	3.82
13	.076	.015	100 Spools	500 Spools	3.90
12	.085	.015	100 Spools	500 Spools	3.97
11	.095	.015	100 Spools	500 Spools	4.35
10	.106	.015	100 Spools	500 Spools	4.58
9	.118	.015	100 Spools	500 Spools	4.92
8	.133	.015	100 Spools	500 Spools	5.02
7	.148	.015	100 Coils	250 Coils	5.47
6	.166	.015	100 Coils	250 Coils	6.00
5	.186	.015	100 Coils	250 Coils	6.45
4	.208	.015	100 Coils	250 Coils	7.12
3	.234	.015	100 Coils	250 Coils	8.10
2	.263	.020	100 Coils	250 Coils	9.00
#1	.294	.020	100 Coils	250 Coils	10.32
0	.330	.020	100 Coils	250 Coils	11.88
3/8	.387	.032	100 Coils	250 Coils	15.37
7/16	.450	.032	100 Coils	250 Coils	20.32
1/2	.512	.032	100 Coils	250 Coils	26.40
5/8	.640	.032		100 Coils	31.80
3/4	.768	.032		100 Coils	38.92
7/8	.893	.032		100 Coils	47.62
1"	1.018	.032		100 Coils	57.90

Color: Natural

CAT. #SLV-130 CLASS B, GRADE B

This combination of fiberglass and plastic insulation material has good abrasion resistance, excellent cut through characteristics, and ends will not fray. Widely used in applications up to 130°C/265°F where tubing is subject to knotting, bending and high torque.

CATALOG #SLV-130 Conforms to: MIL-I-3190B NEMA-VSI-19&2

Cat. # Sizes	Nominal Inside Dia. (Inches)	Wall Thickness (Inches) Min.	Wall Thickness (Inches) Max.	Standard Packaging (ft.) Short Lengths	Standard Packaging (ft.) Standard Lengths	Price 100'
SLV-130						
24	.022	.012	.016	100, 500 Spools	1000 Spools	$ 4.79
22	.027	.012	.016	100, 500 Spools	1000 Spools	5.05
20	.034	.012	.016	100, 500 Spools	1000 Spools	5.12
19	.038	.012	.016	100, 500 Spools	1000 Spools	5.15
18	.042	.014	.018	100, 500 Spools	1000 Spools	5.21
17	.047	.014	.018	100, 500 Spools	1000 Spools	5.23
16	.053	.014	.018	100, 500 Spools	1000 Spools	5.43
15	.059	.014	.018	100, 500 Spools	1000 Spools	5.54
14	.066	.016	.020	100 Spools	500 Spools	5.62
13	.076	.016	.020	100 Spools	500 Spools	5.95
12	.085	.016	.020	100 Spools	500 Spools	6.11
11	.095	.016	.020	100 Spools	500 Spools	6.53
10	.106	.017	.022	100 Spools	500 Spools	6.83
9	.118	.017	.022	100 Spools	500 Spools	7.03
8	.133	.017	.022	100 Spools	500 Spools	7.51
7	.148	.017	.022	100 Spools	250 Spools	7.93
6	.166	.017	.022	100 Spools	250 Spools	8.42
5	.186	.017	.022	100 Spools	250 Spools	9.34
4	.208	.019	.024	100 Coils	250 Coils	10.24
3	.234	.019	.024	100 Coils	250 Coils	11.39
2	.263	.023	.028	100 Coils	250 Coils	12.88
#1	.294	.029	.035	100 Coils	250 Coils	14.12
0	.330	.029	.035	100 Coils	250 Coils	16.50
3/8	.387	.033	.040	100 Coils	250 Coils	21.05
7/16	.450	.033	.040	100 Coils	250 Coils	27.89
1/2	.512	.033	.040	100 Coils	250 Coils	36.39
5/8	.640	.037	.044		100 Coils	43.89
3/4	.768	.047	.054		50 Coils	53.72
7/8	.893	.053	.060		50 Coils	65.76
1"	1.018	.053	.060		50 Coils	79.37

Color: Black

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TEFLON TFE TUBING

ICORE Teflon tubing offers the exceptional combination of properties inherent in Teflon: heat resistance, excellent electrical insulating characteristics, flexibility, and good abrasion resistance.
Special extrusion techniques produce pinhole-free tubing of uniform concentricity which assures maximum mechanical and electrical protection.
ICORE Teflon tubing has high resistance to flexual fatigue and stress, will not absorb moisture and has lowest coefficient of friction of all materials. Ideal for applications where heat resistance, flexibility, excellent dielectric values, and chemically inert properties are required.

Teflon is rated for continuous operation at 260°C/500°F. A hot soldering iron will not shrink back Teflon as frequently happens with conventional thermoplastic materials. In addition, Teflon has an excellent low temperature rating (—65°C/—85°F).

THIN WALL
CAT. # STT

Conforms to: AMS 3651B, 3655 MIL-I-22129B (Sizes 30, 28 and 26 only)

Cat. # Size	Nominal Inside Diameter (Inches)	Nominal Wall Thickness (Inches)	Standard Colors*	Standard Packaging (Feet)**	Price 100'
STT-					
30	.012	.009	Natural, Black	100, 500, 1000 Spool	$ 7.56
28	.015	.009	Natural, Black	100, 500, 1000 Spool	6.53
26	.018	.009	Natural, Black	100, 500, 1000 Spool	6.79
24	.022	.010	Natural, Black	100, 500, 1000 Spool	6.90
22	.027	.010	Natural, Black	100, 500, 1000 Spool	8.58
20	.034	.012	Natural, Black	100, 500, 1000 Spool	11.45
19	.038	.012	Natural, Black	100, 500, 1000 Spool	12.38
18	.042	.012	Natural, Black	100, 500, 1000 Spool	12.98
17	.047	.012	Natural, Black	100, 500, 1000 Spool	14.18
16	.053	.012	Natural, Black	100, 500, 1000 Spool	14.53
15	.059	.012	Natural, Black	100, 500, 1000 Spool	14.58
14	.066	.012	Natural, Black	100, 500, 1000 Spool	16.04
13	.076	.012	Natural, Black	100, 500, 1000 Spool	17.17
12	.085	.012	Natural, Black	100, 500, 1000 Spool	18.48
11	.095	.012	Natural, Black	100, 500, 1000 Spool	20.45
10	.106	.012	Natural, Black	100 Spool	22.04
9	.118	.015	Natural, Black	100 Spool	24.95
1/8	.125	.015	Natural, Black	100 Coil	26.18
8	.133	.015	Natural, Black	100 Coil	27.52
7	.148	.015	Natural, Black	100 Coil	29.45
6	.166	.015	Natural, Black	100 Coil	31.82
5	.186	.015	Natural	100 Coil	34.85
4	.208	.015	Natural	100 Coil	38.10
3	.234	.015	Natural	100 Coil	41.74
1/4	.255	.015	Natural	100 Coil	46.16
2	.263	.015	Natural	100 Coil	48.13
1	.294	.015	Natural	100 Coil	52.71
5/16	.318	.015	Natural	100 Coil	57.38
0	.330	.015	Natural	100 Coil	59.14

* Blue, Brown, Gray, Green, Red, Orange, White, Yellow are available on request.
** Occasional random lengths.

(EXTRA-THIN) LIGHTWEIGHT
CAT. # STL

Conforms to: AMS 3651B, 3654

Cat. # Size	Nominal Inside Dimension (Inches)	Nominal Wall Thickness (Inches)	Standard Packaging (Feet)**	Price 100'
STL-				
28	.015	.006	100, 500, 1000 Spool	$ 5.20
26	.018	.006	100, 500, 1000 Spool	5.30
24	.022	.006	100, 500, 1000 Spool	5.60
22	.027	.006	100, 500, 1000 Spool	6.50
20	.034	.006	100, 500, 1000 Spool	8.15
19	.038	.006	100, 500, 1000 Spool	8.90
18	.042	.006	100, 500, 1000 Spool	9.77
17	.047	.006	100, 500, 1000 Spool	10.74
16	.053	.006	100, 500, 1000 Spool	11.51
15	.059	.006	100, 500, 1000 Spool	11.85
14	.066	.008	100, 500, 1000 Spool	13.95
13	.076	.008	100, 500, 1000 Spool	15.10
12	.085	.008	100, 500, 1000 Spool	16.81
11	.095	.008	100, 500, 1000 Spool	18.60
10	.106	.008	100 Spool	19.54
9	.118	.008	100 Spool	20.10
1/8	.125	.008	100 Coil	20.23
8	.133	.008	100 Coil	20.60
7	.148	.008	100 Coil	22.30
6	.166	.010	100 Coil	26.45
5	.186	.010	100 Coil	30.77
4	.208	.010	100 Coil	34.60
3	.234	.010	100 Coil	37.90
1/4	.255	.010	100 Coil	40.40
2	.263	.010	100 Coil	41.15
1	.294	.010	100 Coil	45.40
5/16	.318	.012	100 Coil	53.75
0	.330	.012	100 Coil	54.60

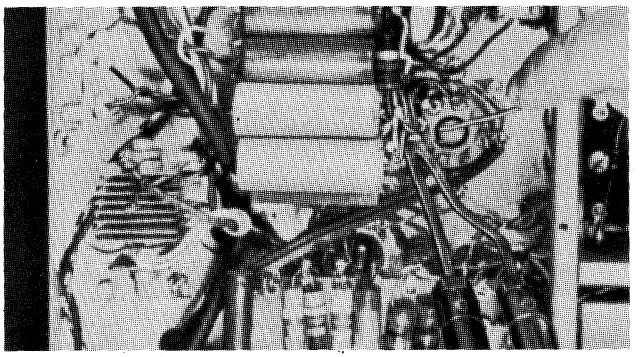
Colors — Natural
** Occasional random lengths

STANDARD WALL
CAT. # STS

Conforms to: AMS 3651B, 3653 MIL-I-22129B

Cat. # Size	Nominal Inside Dimension (Inches)	Nominal Wall Thickness (Inches)	Standard Packaging (Feet)**	Price 100'
STS-				
24	.022	.012	100, 500, 1000 Spool	$ 9.63
22	.027	.012	100, 500, 1000 Spool	10.78
20	.034	.016	100, 500, 1000 Spool	14.67
19	.038	.016	100, 500, 1000 Spool	15.65
18	.042	.016	100, 500, 1000 Spool	18.70
17	.047	.016	100, 500, 1000 Spool	20.39
16	.053	.016	100, 500, 1000 Spool	21.78
15	.059	.016	100, 500, 1000 Spool	22.26
14	.066	.016	100, 500, 1000 Spool	24.03
13	.076	.016	100, 500, 1000 Spool	25.33
12	.085	.016	100, 500, 1000 Spool	27.41
11	.095	.016	100, 500, 1000 Spool	30.43
10	.106	.016	100 Spool	33.02
9	.118	.020	100 Spool	45.86
1/8	.125	.020	100 Coil	46.54
8	.133	.020	100 Coil	47.43
7	.148	.020	100 Coil	49.56
6	.166	.020	100 Coil	53.55
5	.186	.020	100 Coil	58.99
4	.208	.020	100 Coil	64.09
3	.234	.020	100 Coil	70.89
1/4	.255	.020	100 Coil	72.34
2	.263	.020	100 Coil	73.14
1	.294	.020	100 Coil	81.26
5/16	.318	.012	100 Coil	53.75
0	.330	.020	100 Coil	91.38

Standard Color—Natural. Blue, Brown, Gray, Green, Red, Orange, White, Yellow are available on request.
**Occasional random lengths.



Speed and efficiency in application. Hot soldering iron will not shrink back tubing.

FRACTIONAL TUBING
CAT. # TTF

Conforms to: MIL-I-22129B AMS-3651B

Cat. # Size	Nominal Inside Dimension (Inches)	Nominal Wall Thickness (Inches)	Standard Packaging (Ft./Coil)*	Price/Ft. 25' to 49'
TTF-				
1/16	.062	.030	5, 25, 50	$ .46
1/8	.125	.030	5, 25, 50	.68
3/16	.188	.030	5, 25, 50	.95
1/4	.250	.030	5, 25, 50	1.22
5/16	.313	.030	5, 25, 50	1.50
3/8	.375	.030	5, 25, 50	1.75
7/16	.438	.030	5, 25, 50	1.81
1/2	.500	.030	5, 25, 50	2.07
9/16	.562	.030	5, 25, 50	2.30
5/8	.625	.030	5, 25, 50	2.56
11/16	.688	.032	5, 25, 50	3.01
3/4	.750	.040	5, 25, 50	3.56
7/8	.875	.045	5, 25, 50	4.79
1	1.000	.050	5, 25, 50	6.10

Colors — Natural
* Occasional random lengths

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LACING TAPE and CORD

Catalog #LTN—Flat Braided Nylon Tape
LTD—Flat Braided Dacron Tape
LTT—Flat Braided Teflon Tape
LCN—Round Twisted Nylon Cord
LCL—Round Twisted Linen Cord
LCV—Round Vinyl Cord

General Description

Flat Braided Tape—Designed to create a wider contact area with insulation so tape does not slip away from contact point. It is more flexible than cord and easier on the user's hand. Flat tapes do not appreciably increase the diameter of the cable. Recommended for all types of harness work.

Round Twisted Cord—Suited particularly for wires having a secondary insulation or those utilizing a textile as an insulation material. It may also be used for plastic and rubber insulated wire.

Materials

Nylon—synthetic fiber resistant to fungus and most acids, with excellent tensile strength and abrasion resistance.

Dacron—has all of nylon characteristics, as well as better acid resistance, less elongation and less susceptability to discoloration.

Linen—Available in cord only, has less stretch than nylon and dacron and is excellent for serving heavy cable and ropes. Also used for lacing wire bundles where a stiffer tie is required, as in switchboards. motors. etc.

Teflon—a specially developed fiberglass flatbraid of Teflon coated yarns designed for high temperature applications up to 260°C/500°F. Teflon is bonded to fiberglass to keep tape from fraying.

Vinyl—inexpensive material used in bundling and harnessing wires.

Finishes—the function of the finish is to permit easier handling of the material (reduce fray), and improve knot retention.

ICORE Standard MW Finish—A micro-crystalline wax with melting point above 55°C/130°F and non-flaking characteristics. It is compounded to develop excellent knot retention, yet not give a waxy feel to user.

Special PVA Finish—Polyvinyl acetate resin with a melting point above 175°C/350°F for use where a wax-free type or higher operating temperature is specified.

Special HPVA Finish—(Similar to GE) Polyvinyl acetate with a heavier finish which permits easier handling and better knot retention.

Special SR Finish—A special coating of fungistatic synthetic rubber containing no corrosive compounding ingredients. It has best knot characteristics of all materials, along with good non-dusting or flaking properties. Being soft and pliable, it will not injure user's hands.

LACING BRAIDED TAPE

Cat. #	Material	Width (In.)	Tensile Test (lbs.)	Finishes Available: Std. Finish	Finishes Available: Special Finishes*	Stock Colors	Std. Pkg. Yards/Spool	Conforms to:	Price ea. Std. Finish
LTN-2	Nylon	.090	50	MW	PVA, HPVA SR	Blk. Wh.	500	MIL-T-713A Type P, and interim spec IP/DES-S-26-4	$5.93 B 5.43 W
LTN-3	Nylon	.062	32	MW	PVA, HPVA SR	Blk. Wh.	500	MIL-T-713A Type P, and interim spec IP/DES-S-26-4 **	5.72 B 5.20 W
LTN-4	Nylon	.045	20	MW	PVA, HPVA SR	Blk. Wh.	500	MIL-T-713A Type P, and interim spec IP/DES-S-26-4 **	5.50 B 4.95 W
LTD-2	Dacron	.090	50	PVA	MW, HPVA SR	Wh.	500	MIL-T-713A Type D	5.98
LTT-2	Teflon	.090	50	-	- -	Wh.	250	MIL-T-713A Type PTFE	11.63

LACING BRAIDED CORD

Cat. #	Material	Dia. (In.)	Tensile Test (lbs.)	Std. Finish	Std. Colors	Std. Pkg. Yards/Spool	Conforms to:	Price ea. Std. Finish
LCN-1	Nylon	.050	70	MW	Blk. Wh.	550	MIL-T-713C-Type P	$6.40 B 5.40 W
LCN-2	Nylon	.035	48	MW	Blk. Wh.	750	MIL-T-713C-Type P	6.40 B 5.40 W
LCN-3	Nylon	.030	32	MW	Blk. Wh.	1100	MIL-T-713C-Type P	6.40 B 5.40 W
LCL-2	Linen	.035	48	MW	Blk. Nat.	450	MIL-T-713C-Type N	3.95 B 3.75 W
LCV	Vinyl	.065	-	-	Blk. Clear	1000	Virgin PVC-Type A	14.50

* Add numbers behind catalog number for ordering special finishes — example — LTN-2-PVA-White.

** Military specification covers class 2 only. Class 3 and 4 produced under same procedures and can be certified accordingly.

HOW TO DETERMINE SIZE REQUIRED

Measure outside diameter of wire bundle. Add 1/8" to this diameter for correct Zipper Tubing size. All Catalog Nos. shown below are available in the following sizes:

3/8	1 1/4
1/2	1 3/8
5/8	1 1/2
3/4	1 5/8
7/8	1 3/4
1	1 7/8
1 1/8	2

Sizes 2 1/4" to 4" available on special order

Zipper Tubing Accessories

Cat.#ZTS-10 Zipper Tubing sliders (one slider free with each 25') Zipper Tubing Sealer:

ZTS-1 oz. bottle
ZTS-2 oz. bottle
ZTS-4 oz. bottle
ZTS-1 pt. can
ZTS-1 qt. can
ZTS-1 gal. can

ZIPPER TUBING

Zipper Tubing is an ideal jacketing material to enclose, insulate, waterproof, shield, mark and identify wire and cable assemblies. The wrap-around, quick zip characteristics allow wire harnesses to be covered at any point, even after connections have been made. The closure device is a zipper running along the zipper track which permits easy re-entry for inspection or modification. Zipper track may be permanently closed and waterproofed with the application of Zipper Tubing Sealer over the track.

The ease of application of Zipper Tubing allows significant labor savings.

Cat. #	Description	Conforms to:	Nom. Wall (In.)	Colors	Std. Pkg. Ft. per Spool
Z6320-Size	General purpose vinyl tubing application up to 105°C/220°F.	MIL-I-631D Grade C, Class 1	.020	Blk., Clear	25, 50, 100
Z6340-Size		Category 1*	.040	Blk., Clear	100
Z7420-Size	Low temperature, flexible vinyl for applications down to: —70°C/—95°F	MIL-I-7444B	.020	Blk., Clear	100
Z7440-Size			.040	Blk., Clear	100
ZASHN-Size	Material is a lamination of vinyl impregnated nylon cloth and aluminum foil with tinned - copper wire braid attached to inside of overlap. Excellent RF shielding (nearly 100%), abrasion protection, and grounding properties.	Coated fabric MIL-C-20696 Type II, Class 2 Foil Mil-A-148A	.015	Blk., Grey	100

* Also available in grade A and B on special order

ZIPPER TUBING SPECIFICATION CHART
TYPICAL PROPERTIES

CHARACTERISTICS	UNITS	Z63	Z74	ZASHN
Construction		Overlap	Overlap	Overlap & Grounding braid
Max. Continuous	°C	105	70	105
Operating Temp.	°F	220	160	220
Low Temperature	°C	—30	—70	—40
Brittle Point	°F	—20	—95	—40
Wall thickness	Inches	.020 or .040	.020 or .040	.015
Wall tolerance	%	±10	±10	±10
Tensile strength	PSI	2700	2000	12,000
Elongation	%	450	400	3
Dielectric strength (dry)	Volts/mil	800	400	5700
Flame Resistance		Self-extinguishing	Self-extinguishing	Non-supporting
Fungus Resistance		Yes	Yes	Yes
Specifications		MIL-631D Grade C, Class 1, (Also available in grade A & B)	MIL-I-7444B	Base material MIL-C-20696 Type II, Class 2 Foil: MIL-A-148A

Cat. # / Size*	Z6320	Z6340	Z7420	Z7440	ZASHN
	Price per 100'				
3/8	$34.00	$42.00	$34.00	$43.50	$48.00
1/2	36.00	42.50	36.00	45.00	50.50
5/8	37.50	43.00	38.00	47.50	53.00
3/4	38.00	43.50	40.00	50.00	55.50
7/8	38.50	44.00	42.50	53.50	58.00
1	39.50	44.50	45.00	56.50	60.50
1 1/8	40.00	45.50	47.00	59.00	63.00
1 1/4	41.50	47.00	49.00	61.50	65.50
1 3/8	42.00	48.00	51.00	64.00	68.00
1 1/2	42.70	48.75	53.00	66.50	70.50
1 5/8	43.25	49.50	55.00	69.00	73.00
1 3/4	44.25	50.25	57.00	71.50	75.50
1 7/8	45.00	51.00	59.00	74.00	78.00
2	46.00	52.00	61.00	76.50	80.50

Standard Colors: Black and Clear. *Sizes 2 1/4" to 4" available on request.

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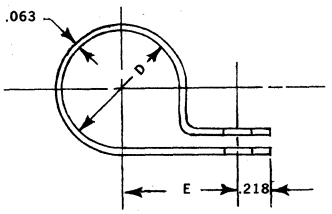
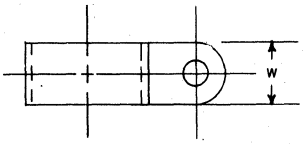


CABLE CLAMPS



ETHYL CELLULOSE CLAMPS

Low cost clamp having excellent shock resistance in temperature range —40°C/—40°F to 85°C/185°F.

Conforms to: 7-21-44 Army-Navy Aeronautical AN 742

CATALOG # CLE

DIMENSIONS (INCHES) D Cat. # Diameter	E	W Width	Std. Pkg.		Price 100 Pk.
CLE- 1/8	.328	1/2	100	1000	$1.62
3/16	.390	1/2	100	1000	1.68
1/4	.421	1/2	100	1000	1.79
5/16	.453	1/2	100	1000	1.99
3/8	.483	1/2	100	1000	2.14
7/16	.531	1/2	100	1000	2.28
1/2	.562	1/2	100	1000	2.43
9/16	.625	1/2	100	500	2.99
5/8	.610	1/2	100	500	3.10
11/16	.666	1/2	100	500	3.43
3/4	.765	1/2	100	500	3.60
7/8	.812	1/2	100	500	4.05
1	.906	1/2	100	500	4.26
1 1/8	.968	1/2	100	500	4.65
1 3/16	1.025	1/2	100	500	4.78
1 1/4	1.156	1/2	100	500	4.92
1 5/16	1.063	1/2	100	500	5.33
1 3/8	1.093	1/2	100	500	5.47
1 7/16	1.250	1/2	100	500	5.63
1 1/2	1.250	1/2	100	500	5.86

Color - Amber

Assortment Pak Cat. #CLE-S1 50 assorted ethyl cellulose clamps

NYLON CLAMPS

Durable clamp that is tougher, resists acids better and has a higher operating temperature 135°C/275°F than ethyl cellulose.
Conforms to: MIL-P-17091A & Amend 2, MIL-P-17091B, P-20693, Type 1, MS-39014*, MIL-C-21565*
* Conforms to dimensional requirements and material specifications.

CATALOG # CLN

DIMENSIONS (INCHES) D Cat. # Diameter	E	W Width	Colors	Std. Pkg.		Price 100 Pk.
CLN- 1/8	.328	3/8	Natural, Blk.	100	1000	$2.50
3/16	.390	3/8	Natural, Blk.	100	1000	2.64
1/4	.421	3/8	Natural, Blk.	100	1000	2.89
5/16	.453	3/8	Natural, Blk.	100	1000	3.18
3/8	.483	3/8	Natural, Blk.	100	1000	3.36
7/16	.531	3/8	Natural, Blk.	100	1000	3.55
1/2	.562	3/8	Natural, Blk.	100	1000	3.77
9/16	.593	1/2	Natural, Blk.	100	500	5.66
5/8	.625	1/2	Natural, Blk.	100	500	5.95
11/16	.656	1/2	Natural, Blk.	100	500	6.46
3/4	.765	1/2	Natural, Blk.	100	500	7.06
7/8	.812	1/2	Natural, Blk.	100	500	7.65
1	.906	1/2	Natural, Blk.	100	500	8.62
1 1/8	.970	5/8	Natural, Blk.	100	500	9.12
1 3/16	1.000	5/8	Natural, Blk.	100	500	9.75
1 1/4	1.000	5/8	Natural, Blk.	100	500	10.30
1 5/16	1.062	5/8	Natural, Blk.	100	500	10.63
1 3/8	1.125	5/8	Natural, Blk.	100	500	13.36
1 7/16	1.125	5/8	Natural, Blk.	100	500	13.79
1 1/2	1.125	5/8	Natural, Blk.	100	500	14.17

Assortment Pak Cat. #CLN-S1 50 assorted nylon clamps

GROMSTRIPS®

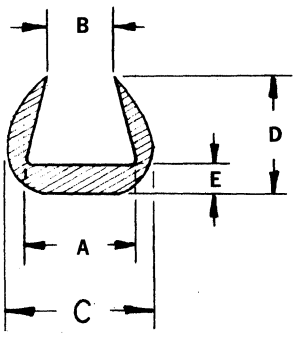
CONTINUOUS STRIP GROMMETS

Gromstrip is a continuous length of extruded U-channel for use as a protective covering on sharp edges. It can be cut to desired length and easily inserted into any hole, regardless of shape or configuration. (On angles less than 90°, miter the two outside edges for better fit).

Gromstrip requires minimum space, grips surfaces snugly, and won't jar loose. Wherever wires pass through a metal piece, Gromstrip used on the sharp edges will eliminate cutting and fraying of the wires.

The use of continuous strips sharply reduces inventory of stock grommets. The addition of sizes #6 and #7 now allows the use of Gromstrip up to ½" thickness.

GSP Conforms to: Fed. Spec. LP390, Type 2, Grade 4
GSN Conforms to: MIL-M-22096, Type 4



Cat. #	GSN Price	GSP 100'
Size 1	$13.75	$ 5.50
2	16.50	6.60
3	19.80	7.90
4	25.74	10.25
5	33.46	13.35
6	43.49	18.70
7	56.53	26.20

Polyethylene Nylon Cat. #	Cat. #	Size	Dimensions in Inches A	B	C	D	E	Application Ferrous Material Std. U.S. Gauge	Non-Ferrous Material B & S Gauge	Std. Pkg. Dispenser Pak Reels (Feet)*
GSP	GSN	1	.030	.010	.085	.120	.030	#24 & smaller	#24 & smaller	50, 100, 500
GSP	GSN	2	.070	.020	.110	.135	.035	22 to 16	22 to 14	50, 100, 500
GSP	GSN	3	.120	.060	.160	.155	.040	15 to 12	12 to 9	50, 100, 500
GSP	GSN	4	.180	.109	.240	.190	.045	11 to 8	8 to 6	50, 100, 500
GSP	GSN	5	.255	.156	.328	.250	.060	3/16 to 1/4 in.		25, 100, 250
GSP	GSN	6	.380	.218	.468	.375	.080	1/4 to 3/8 in.		25, 100, 250
GSP	GSN	7	.505	.330	.625	.430	.090	3/8 to 1/2 in.		25, 100, 250

GSP & GSN Color — Natural

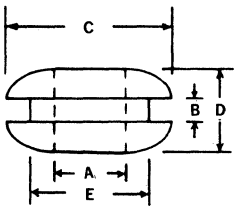
New tough polyethylene see-thru dispenser pak allows users to pull out enough material for requirements: a quick glance tells when to re-order.

Polyethylene — used for general application

Nylon — used where a particularly tough and abrasive resistant material is desired; it has a higher operating temperature, and better dielectric constant than polyethylene.

Teflon — used for high temperature applications. Available on quotation only.

GROMMETS, VINYL



CAT. # GV

Inexpensive flexible, oil resistant, high dielectric vinyl grommet with outstanding aging qualities. Complete specifications available on request.

Cat. #	Dimensions in Inches A	B	C	D	E	Colors	Std. Pkg.		Price 100 Pk.
GV- 1/4	1/8	1/16	11/32	3/16	1/4	Blk., White	100,	1000	$ .93
5/16	3/16	1/16	7/16	7/32	5/16	Blk., White	100,	1000	1.13
3/8	1/4	1/16	9/16	1/4	3/8	Blk., White	100,	1000	1.24
7/16	5/16	1/16	5/8	1/4	7/16	Blk., White	100,	1000	1.33
1/2	3/8	1/16	5/8	1/4	1/2	Blk., White	100,	1000	1.40
5/8	1/2	1/16	13/16	9/32	5/8	Blk., White	100,	1000	2.26
21/32	25/64	1/8	27/32	3/8	21/32	Blk., White	100,	1000	2.90
7/8	5/8	1/16	1 1/8	9/32	7/8	Blk., White	100,	1000	3.72
1	11/16	1/16	1 5/16	3/8	1	Blk., White	100,	1000	7.13

Assortment Pak Cat. #GV-S1 50 assorted grommets of various sizes and colors

PLASTICS

ICORE offers a variety of plastic rod, sheet, and tube in polystyrene, acrylic, paper base phenolic, canvas base phenolic, polyethylene, nylon, Teflon, Delrin, and Lexan. Contact your distributor for complete information.

illumitronic engineering is now ICORE ELECTRO-PLASTICS, INC.

Net

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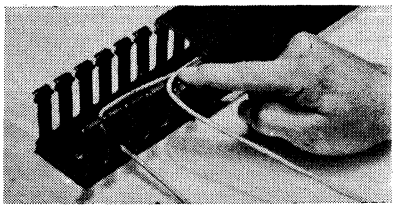
PANDUIT® wiring components



Type E — Open Slot

PART NUMBER SYSTEM

Channel Only

Example: E 1.5 x 2 LG 6

Type — 1.5" Wide — 2" High — Light Gray — 6' Long

Cover Only

Example: C 1.5 LG 6

Cover — 1.5" Wide — Light Gray — 6' Long

PANDUCT CHANNEL ONLY

Types Avail.	Nominal Width x Height (Inches)	Approx. Shpg. Wt. Per 100'	Price/Foot Under 200 ft.	200 ft. 1999 ft.	2000 to 4999 ft.
E	.5x.5	11 lbs.	$0.39	$0.31	$0.28
E	.5x.62	12 lbs.	.41	.33	.31
E	.5x1	16 lbs.	.45	.36	.34
E	.5x1.25	16 lbs.	.51	.40	.37
E	.5x1.75	16 lbs.	.53	.43	.40
E	.75x.75	14 lbs.	.44	.35	.33
E	.75x1	16 lbs.	.45	.36	.34
E	.75x1.5	19 lbs.	.53	.42	.39
E	.75x2	23 lbs.	.65	.52	.48
E	1x1	16 lbs.	.45	.37	.34
E	1x1.5	18 lbs.	.60	.49	.45
E	1x2	21 lbs.	.64	.52	.48
E	1x3	31 lbs.	.81	.65	.60
E	1.5x1.5	20 lbs.	.63	.51	.46
E	1.5x2	20 lbs.	.69	.55	.50
E	1.5x3	30 lbs.	.87	.70	.64
E	1.5x4	40 lbs.	1.11	.89	.82
E	2x1	18 lbs.	.62	.50	.45
E	2x2	23 lbs.	.75	.60	.55
E	2x3	36 lbs.	.90	.72	.66
E	2x4	48 lbs.	1.16	.93	.85
E	2.5x3	41 lbs.	.95	.76	.71
E	3x1	20 lbs.	.75	.60	.56
E	3x2	33 lbs.	.82	.65	.60
E	3x3	43 lbs.	.98	.78	.72
E	3x4	53 lbs.	1.21	.97	.89
E	4x1.5	33 lbs.	.86	.69	.64
E	4x2	38 lbs.	.88	.71	.65
E	4x3	48 lbs.	1.05	.84	.77
E	4x4	58 lbs.	1.23	.98	.90

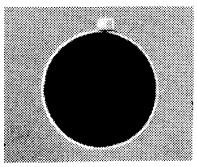
CORRESPONDING COVER ONLY

Nominal Width (Inches)	Approx. Shpg. Wt./100'	Price/Foot Under 200 ft.	200 to 1999 ft.	2000 to 4999 ft.
.5	4 lbs.	$0.09	$0.07	$0.06
.75	6 lbs.	.10	.08	.07
1	9 lbs.	.12	.09	.08
1.5	10 lbs.	.15	.12	.11
2	12 lbs.	.18	.14	.13
2.5	14 lbs.	.22	.18	.16
3	17 lbs.	.25	.20	.18
4	22 lbs.	.33	.26	.24

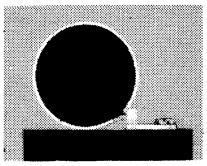
Order by Total No. of Ft. Req'd. (must be multiple of length per part.)
Standard Mounting Holes: No Charge — Supplied Only if Specified — See Duct Catalog For Dimensions.
NOTE: Standard Length: 6 ft. Other lengths available. Standard Colors: Light Gray, Dark Gray and White. Black available.
NOTE: Total length of all sizes of duct and cover, ordered for shipment at one time to one location, determines price columns.

CABLE TIES AND CLAMPS

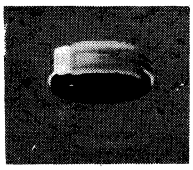
STA-STRAP® (Permanent) — LOK-STRAP® (Releasable)



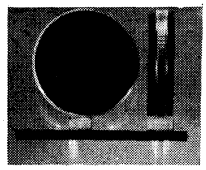
SST—Tie



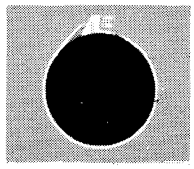
SSC—Clamp



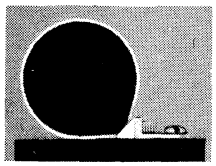
SSM—Marker



SSP—Push



LST—Tie



LSC—Clamp

STANDARD PKG. OF 100

Part Number	Maximum Bundle Diameter	Approx. Shpg. Wt. lbs./1000	Price Per 100 Base Price 100-400	500
SST1	¾"	1	$ 3.60	$ 2.85
SST2	1¾"	2.6	4.30	3.40
SST4	4"	4.5	9.80	7.80
SST4H	4"	12	14.50	11.50
SSC2	1¾"	3.2	4.90	3.90
SSC4	4"	5.5	10.80	8.60
SSC4H	4"	14	17.00	13.60
SSM2	1¾"	3.3	8.60	6.80
SSM4	4"	6	14.10	11.20
SSP2	1¾"	3.2	4.90	3.90
LST2	1¾"	3.2	6.90	5.45
LST4	4"	5	12.00	9.45
LSC2	1¾"	3.5	7.45	5.90

Order by Number of Pieces Required.

BULK PKG. OF 1000

Part Number	Approx. Shpg. Wt. lbs./1000	Price Per M (1000) 1M-24M	25M-49M	50M-249M*
SST1B	1	$ 23.00	$ 21.85	$ 20.70
SST2B	2.6	27.00	25.65	24.30
SST4B	4.5	60.00	57.00	54.00
SST4HB	12	93.00	88.35	83.70
SSC2B	3.2	30.00	28.50	27.00
SSC4B	5.5	66.00	62.70	59.40
SSC4HB	14	111.80	106.20	100.75
SSM2B	3.3	55.00	52.25	49.50
SSM4B	6	87.50	83.15	78.25
SSP2B	3.2	30.00	28.50	27.00
LST2B	3.2	44.10	41.90	39.70
LST4B	5	77.00	73.15	69.30
LSC2B	3.5	47.70	45.30	42.95

Order by Number of Pieces Required.

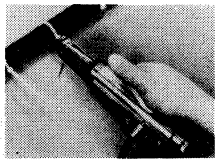
Colors: Standard Color — Natural Nylon White. Other Colors — 10% additional price.
*Larger Quantities: Quotation Basis.

TERMS: Net, 30 days. **Minimum Order $10.00** **All prices subject to change without notice**

INSTALLATION TOOLS

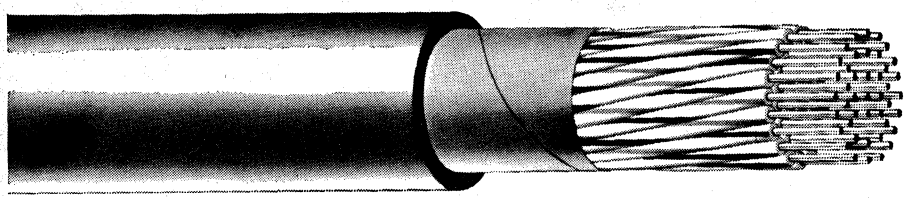
TS-2B—Manual $19.00

GS-2B—Manual $19.00



ATS-2B—Pneumatic $183.00

® Registered Trademark



In Stock MIL-SPEC

Multiple Conductor Cables!

National Wire & Cable Corporation manufactures a complete line of multiple conductor control cables. Conductors are of tinned copper strand with primary insulation for use up to 105°C per MIL-W-16878D Type C. Insulated for 1000 volts working voltage. Conductors are color coded using 10 standard basic colors, plus spiral tracers on white per MIL-STD. 122.

All conductors are planetary cabled and contra-helically laid with a Mylar tape serve over the cable bundle. The overall jacket is a 105°C black Thermoplastic or may be Neoprene to MIL-R-6855 Class 2 Grade 60 specification. (Neoprene extra cost.)

SHIELDED CABLES

National Multiple Conductor SHIELDED CABLES are to the same specifications as above with addition of tinned copper braided shield over cable complex with 85-90% coverage to MIL-C-7078A. STANDARD PUT-UPS: 500 ft. and 1000 ft. No-deposit reels.

TECHNICAL DATA (all cables)

Insulation Breakdown Voltage:	Greater than 8000 volts AC RMS, 60 cps.
Capacitance:	Nominal capacitance from a wire to all else in the cable ranges from 40 to 65 mmfd per ft., @ 1000 cps; dependent on cable construction.
Insulation Leakage Res.:	200. megohms/1000 ft. min. at 500 VDC from any conductor to all else in cable.
Sheath Leakage Res.:	10. megohms/1000 ft. min. at 500 VDC from overall shield through sheath to outside world.
Useable Temp. Range:	Suitable for continuous use from +105°C to −55°C.
Cold Bending Capability:	All cables are suitable for flexing to a circle diam. of approx. 6 cable diameters from +105°C to −20°C; Recommended flex diameter should be greater than 20 cable diam. for flexing at −40°C., or for continuous flexing service to −55°C, specify our neoprene sheath, in lieu of plastic sheath.

MULTI-CONDUCTOR STOCK CABLES

Conductor sizes 22, 20, 18, 16, 14 & 12 gauge. 22 AWG is 7 strand. All others 19 strand.

UNSHIELDED

PART NO.	NO. COND.	COND. AWG	JKT. THICK	CABLE O.D.	WEIGHT PER M'
NW-722 J	7	22	.040	.295	40 Lbs.
NW-1222J	12	22	.050	.390	70 Lbs.
NW-1922J	19	22	.060	.460	110 Lbs.
NW-2722J	27	22	.060	.530	160 Lbs.
NW-3722J	37	22	.060	.600	200 Lbs.
NW-4822J	48	22	.060	.670	245 Lbs.
NW-6022J	60	22	.060	.730	300 Lbs.
NW-7222J	72	22	.060	.775	360 Lbs.
NW-8822J	88	22	.060	.835	425 Lbs.
NW-10222J	102	22	.060	.880	485 Lbs.
NW-720 J	7	20	.040	.300	50 Lbs.
NW-1220J	12	20	.050	.400	105 Lbs.
NW-1920J	19	20	.060	.470	160 Lbs.
NW-2720J	27	20	.060	.560	210 Lbs.
NW-3720J	37	20	.060	.610	280 Lbs.
NW-4820J	48	20	.060	.700	360 Lbs.
NW-6020J	60	20	.060	.750	435 Lbs.
NW-7220J	72	20	.060	.840	485 Lbs.
NW-8820J	88	20	.060	.900	580 Lbs.
NW-10220J	102	20	.060	.975	670 Lbs.
NW-718 J	7	18	.040	.350	75 Lbs.
NW-1218J	12	18	.050	.460	135 Lbs.
NW-1918J	19	18	.060	.560	225 Lbs.
NW-2718J	27	18	.060	.650	300 Lbs.
NW-3718J	37	18	.060	.730	390 Lbs.
NW-4818J	48	18	.060	.820	510 Lbs.
NW-6018J	60	18	.060	.900	600 Lbs.
NW-7218J	72	18	.060	1.100	720 Lbs.
NW-716 J	7	16	.040	.370	95 Lbs.
NW-1216J	12	16	.050	.500	155 Lbs.
NW-1916J	19	16	.060	.600	230 Lbs.
NW-2716J	27	16	.060	.700	320 Lbs.
NW-3716J	37	16	.060	.785	430 Lbs.
NW-4816J	48	16	.060	.900	625 Lbs.
NW-6016J	60	16	.060	.980	750 Lbs.
NW-714 J	7	14	.050	.450	150 Lbs.
NW-1214J	12	14	.050	.560	240 Lbs.
NW-1914J	19	14	.060	.675	370 Lbs.
NW-2714J	27	14	.060	.800	515 Lbs.
NW-512 J	5	12	.050	.480	175 Lbs.
NW-712 J	7	12	.050	.525	225 Lbs.
NW-1212J	12	12	.060	.700	375 Lbs.
NW-1912J	19	12	.060	.820	560 Lbs.

OVERALL SHIELDED

PART NO.	NO. COND	COND AWG	T.C. SHIELD	JKT. THICK	CABLE O.D.	WEIGHT PER M'
NW-722 SJ	7	22	No. 36	.040	.320	55 Lbs.
NW-1222SJ	12	22	No. 34	.050	.420	90 Lbs.
NW-1922SJ	19	22	No. 34	.060	.490	145 Lbs.
NW-2722SJ	27	22	No. 34	.060	.560	200 Lbs.
NW-3722SJ	37	22	No. 34	.060	.630	245 Lbs.
NW-4822SJ	48	22	No. 34	.060	.700	300 Lbs.
NW-6022SJ	60	22	No. 34	.060	.760	355 Lbs.
NW-7222SJ	72	22	No. 34	.060	.810	425 Lbs.
NW-8822SJ	88	22	No. 34	.060	.870	500 Lbs.
NW-10222SJ	102	22	No. 34	.060	.915	560 Lbs.
NW-720 SJ	7	20	No. 34	.040	.335	68 Lbs.
NW-1220SJ	12	20	No. 34	.050	.435	125 Lbs.
NW-1920SJ	19	20	No. 34	.060	.500	195 Lbs.
NW-2720SJ	27	20	No. 34	.060	.595	250 Lbs.
NW-3720SJ	37	20	No. 34	.050	.650	325 Lbs.
NW-4820SJ	48	20	No. 34	.060	.735	415 Lbs.
NW-6020SJ	60	20	No. 34	.060	.785	500 Lbs.
NW-7220SJ	72	20	No. 34	.060	.875	555 Lbs.
NW-8820SJ	88	20	No. 34	.060	.935	660 Lbs.
NW-10220SJ	102	20	No. 34	.060	1.010	750 Lbs.
NW-718 SJ	7	18	No. 34	.040	.380	95 Lbs.
NW-1218SJ	12	18	No. 34	.050	.490	170 Lbs.
NW-1918SJ	19	18	No. 34	.060	.590	265 Lbs.
NW-2718SJ	27	18	No. 34	.060	.680	350 Lbs.
NW-3718SJ	37	18	No. 34	.060	.760	445 Lbs.
NW-4818SJ	48	18	No. 34	.060	.850	575 Lbs.
NW-6018SJ	60	18	No. 34	.060	.935	680 Lbs.
NW-7218SJ	72	18	No. 34	.060	1.135	820 Lbs.
NW-716 SJ	7	16	No. 34	.040	.400	125 Lbs.
NW-1216SJ	12	16	No. 34	.050	.535	195 Lbs.
NW-1916SJ	19	16	No. 34	.060	.635	275 Lbs.
NW-2716SJ	27	16	No. 34	.060	.735	375 Lbs.
NW-3716SJ	37	16	No. 34	.060	.820	500 Lbs.
NW-4816SJ	48	16	No. 34	.060	.935	700 Lbs.
NW-6016SJ	60	16	No. 34	.060	1.015	830 Lbs.
NW-714 SJ	7	14	No. 34	.050	.485	180 Lbs.
NW-1214SJ	12	14	No. 34	.050	.600	280 Lbs.
NW-1914SJ	19	14	No. 34	.060	.710	420 Lbs.
NW-2714SJ	27	14	No. 34	.060	.835	575 Lbs.
NW-512 SJ	5	12	No. 34	.050	.515	210 Lbs.
NW-712 SJ	7	12	No. 34	.050	.560	265 Lbs.
NW-1212SJ	12	12	No. 34	.060	.735	430 Lbs.
NW-1912SJ	19	12	No. 34	.060	.850	625 Lbs.

NATIONAL WIRE & CABLE CORP.

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SPECIAL SHIELDED DATA & INSTRUMENTATION CABLES

Designed for Low Level or Low Capacitance Needs • All feature extremely low dielectric leakage both in insulation and outer sheath • Suitable for very long runs in tray or conduit. (1000 ft and up).

SINGLE CONDUCTOR SHIELDED

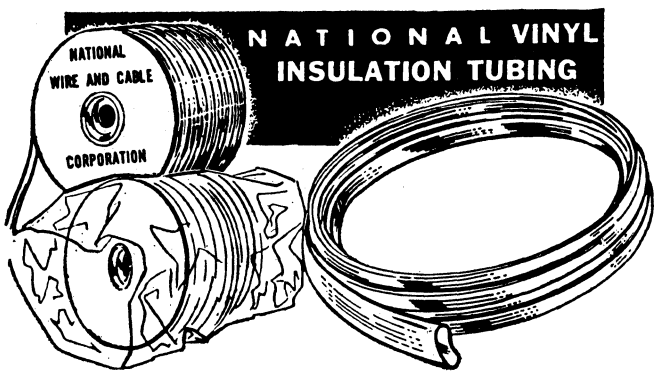
Part Number	AWG & Stranding	Drain AWG & Str.	Insulation & Thickness	Jacket Thickness	Nom. O.D.	Shld % Coverage	Cap. mmfd/ft	Working Voltage	Surge Impedance Ohms	Temp. °F
S10-516	28(7 x 38)	—	.086″ NAFOAM	.015″ pvc	.242″	TC Braid 90%*	12.	3000.	120.	+180
S10-328-1 S10-328-2	22(19 x 34)	—	.042″ NAFOAM	.020″ pvc	.182″	(1) 90% Braid* (2) 100% NAFOIL & Braid	20.7 20.7	1000. 1000.	60.	+180
S10-680	22(19 x 34)	22 7 x 30	.032″ poly	.016″ pvc	.135″	NAFOIL & Drain	30.	3000.	—	+180
S10-679	22(19 x 34)	24 7 x 32	.010″ pvc .002″ nylon	.015″ pvc	.091″	100% NAFOIL & Drain	100.	600.	25.	+221

TWO CONDUCTOR SHIELDED

S10-010-1 S10-010-2 S10-010-3	22(19 x 24)	—	.042″ NAFOAM	.020″ pvc	.295″	(1) 90% Braid (2) 100% NAFOIL + Braid (3) NAFOIL only	10.6 W-W	1000.	120.	+180
S10-681	22(19 x 34)	22 7 x 30	.025″ NAFOAM	.020″ poly	.210″	100% NAFOIL & Drain	15. W-W	600.	84.	+180
S10-686	22(19 x 34)	22 7 x 30	.018″ NAFOAM	.020″ poly	.178″	100% NAFOIL & Drain	20.	600.	63.	+180
S10-362	22(19 x 34)	22 7 x 30	.010″ pvc .002″ nylon	.020″ poly	.166″	100% NAFOIL & Drain	40. W-W	600.	52.	+180

THREE CONDUCTOR SHIELDED

S10-683	22(19 x 34)	18 19 x 30	.042″ NAFOAM	.020″ pvc	.297″	100% NAFOIL & Drain	10.	1000.	—	+180
S10-684	22(19 x 34	20 19 x 32	.018″ NAFOAM	.020″ pvc	.185″	100% NAFOIL & Drain	20.	600.	—	+180



INSULATION

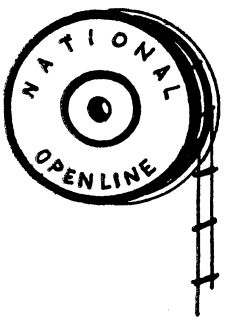
EXTRUDED VINYL AND TEFLON TUBING

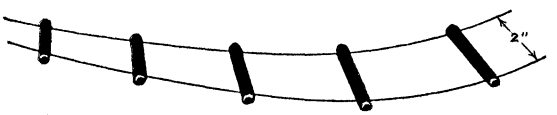
SIZES: #24 through 2½″ Diam.

PUT-UP: #24 to ⅜″ on spools, completely sealed in plastic wrapping. Size 7/16″ to 2½″ in tied coils.

SPEC. Vinyl +105°C to —32°C Type: MIL-I-631C, ASTM-D922 Grade C

GRADES: Vinyl + 80°C to —55°C Type: MIL-I-7444B, MIL-I-22076
Teflon +250°C to —55°C Type: MIL-I-22129B (#20 to #2)





NATIONAL OPENLINE

DESIGNED FOR COMMERCIAL TV DISTRIBUTION SYSTEMS AND RF POWER TRANSMISSION

Specifications: two inch spacing between conductors . . . 12 gauge copperweld . . . 470 ohm impedance . . . attenuation: 150 mc 0.25 DB PER 100 FEET, AT 30 mc 0.1 DB PER 100 FEET. Velocity factor 0.975 . . . copperweld steel for maximum strength and electrical stability, and to insure permanent uniform performance . . . Spreaders are brown polystyrene, spaced at average five foot intervals, staggered slightly to avoid spurious resonances.

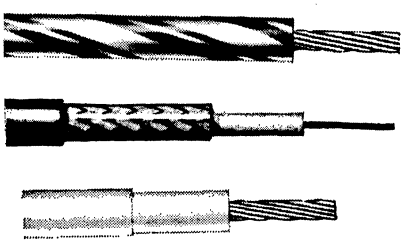
Also 1″ & ½″ copper line for TV leadin Formvar coated.

COMPLETE WIRE AND CABLE INVENTORY ALWAYS AVAILABLE FOR IMMEDIATE SHIPMENT!

National Wire and Cable Corporation maintains one of the largest and most complete stocks of electronic and aircraft wire and cable in the nation. **Total footage of floor stocks exceeds 50 million feet!**

Your immediate source for "MIL and Jan-Spec" wires, coaxial cables and vinyl sleeving.

Special color coded. shielded and jacketed combinations of hook-up wire and multi-conductor cables can be made to your specifications and delivered promptly without delay.



IN STOCK!

MIL-W-76 A
MW, HW, LW

MIL-W-16878/D
B, BN, C, CN, D, DN
E, EE, K, KK
J, JN

NAS -702
CLASS A, B, C

MIL-W-5086 A
Type I, II, III

MIL-C-7078/A
Type I, II, III

JAN-C-76
SRIR, SRHV

FOR COMPLETE INFORMATION AND PRICES, PHONE, WRITE OR WIRE NATIONAL.

NATIONAL WIRE & CABLE CORP.

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HOOK-UP WIRE

PLASTIC TYPE

SOLID CONDUCTOR

Saxton Number	Style No.	—Conductor— Size	Stranding	Insulation Thickness	Nominal O.D.
1300	1AD22	22	solid	.016"	.061"
1301	1AD20	20	solid	.016"	.064"
1302	1AD18	18	solid	.016"	.072"

STRANDED CONDUCTOR

Saxton Number	Style No.	—Conductor— Size	Stranding	Insulation Thickness	Nominal O.D.
1303	1A24	24	7 x 32	.016"	.056"
1304	1A22	22	7 x 30	.016"	.062"
1305	1A20	20	10 x 30	.016"	.067"
1306	1A18	18	16 x 30	.016"	.077"
1307	1A16	16	26 x 30	.016"	.092"
1308	1A14	14	41 x 30	.016"	.106"

SHIELDED HOOK-UP WIRE

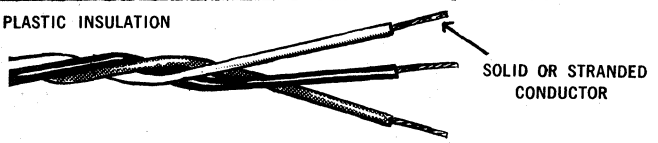
PLASTIC TYPE

STRANDED CONDUCTOR

Saxton Number	Style No.	—Conductor— Size	Stranding	Insulation Thickness	Nominal O.D.
1309	1AS22	22	7 x 30	.016"	.090"
1310	1AS20	20	10 x 30	.016"	.100"
1311	1AS18	18	16 x 30	.016"	.120"
1312	1AS16	16	26 x 30	.016"	.130"
1313	1AS14	14	41 x 30	.016"	.150"
1314	1AS12	12	65 x 30	.016"	.170"
1315	1AS10	10	105 x 30	.025"	.195"

UNSHIELDED AUDIO CABLE

2 AND 3-CONDUCTOR • NO OUTER JACKET



SOLID CONDUCTOR

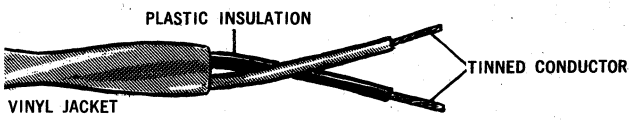
Saxton Number	Style No.	—Conductor— No.	Size	Stranding	Insulation Thickness	Nom. O.D.
1318	2AD22	2	22	solid	.016"	.100"
1319	3AD22	3	22	solid	.016"	.115"
1320	2AD20	2	20	solid	.016"	.120"
1321	3AD20	3	20	solid	.016"	.135"
1322	2AD18	2	18	solid	.016"	.145"
1323	3AD18	3	18	solid	.016"	.160"
1324	2AD16	2	16	solid	.016"	.175"
1325	3AD16	3	16	solid	.016"	.190"

STRANDED CONDUCTOR

Saxton Number	Style No.	—Conductor— No.	Size	Stranding	Insulation Thickness	Nom. O.D.
1326	2A22	2	22	7 x 30	.016"	.125"
1327	3A22	3	22	7 x 30	.016"	.140"
1328	2A20	2	20	10 x 30	.016"	.145"
1329	3A20	3	20	10 x 30	.016"	.160"
1330	2A18	2	18	16 x 30	.016"	.165"
1331	3A18	3	18	16 x 30	.016"	.180"
1332	2A16	2	16	26 x 30	.016"	.190"
1333	3A16	3	16	26 x 30	.016"	.210"

MULTI-CONDUCTOR JACKETED CABLE

.020"-WALL PLASTIC JACKET



SOLID CONDUCTOR

Saxton Number	Style No.	—Conductor— No.	Awg	Stranding	Insulation Thickness	Nom. O.D.
1334	2JD22	2	22	solid	.015"	.140"
1335	3JD22	3	22	solid	.015"	.150"
1336	4JD22	4	22	solid	.015"	.170"
1337	5JD22	5	22	solid	.015"	.185"
1338	6JD22	6	22	solid	.015"	.190"
1339	7JD22	7	22	solid	.015"	.200"
1340	8JD22	8	22	solid	.015"	.210"
1341	9JD22	9	22	solid	.015"	.240"
1342	10JD22	10	22	solid	.015"	.250"
1343	12JD22	12	22	solid	.015"	.270"
1344	15JD22	15	22	solid	.015"	.300"
1345	2JD20	2	20	solid	.015"	.155"
1346	3JD20	3	20	solid	.015"	.165"
1347	4JD20	4	20	solid	.015"	.195"
1348	5JD20	5	20	solid	.015"	.220"
1349	6JD20	6	20	solid	.015"	.230"
1350	7JD20	7	20	solid	.015"	.240"
1351	8JD20	8	20	solid	.015"	.285"
1352	9JD20	9	20	solid	.015"	.300"
1353	10JD20	10	20	solid	.015"	.315"
1354	12JD20	12	20	solid	.015"	.330"
1355	15JD20	15	20	solid	.015"	.345"
1356	20JD20	20	20	solid	.015"	.400"
1357	2JD18	2	18	solid	.015"	.188"
1358	3JD18	3	18	solid	.015"	.208"
1359	4JD18	4	18	solid	.015"	.223"
1360	5JD18	5	18	solid	.015"	.233"
1361	6JD18	6	18	solid	.015"	.263"

STRANDED CONDUCTOR

Saxton Number	Style No.	—Conductor— No.	Awg	Stranding	Insulation Thickness	Nom. O.D.
1370	2J22	2	22	7 x 30	.015"	.145"
1371	3J22	3	22	7 x 30	.015"	.160"
1372	4J22	4	22	7 x 30	.015"	.185"
1373	5J22	5	22	7 x 30	.015"	.190"
1374	6J22	6	22	7 x 30	.015"	.195"
1375	7J22	7	22	7 x 30	.015"	.215"
1376	8J22	8	22	7 x 30	.015"	.225"
1377	9J22	9	22	7 x 30	.015"	.245"
1378	10J22	10	22	7 x 30	.015"	.260"
1379	12J22	12	22	7 x 30	.015"	.285"
1380	15J22	15	22	7 x 30	.015"	.340"
1381	2J20	2	20	10 x 30	.015"	.175"
1382	3J20	3	20	10 x 30	.015"	.185"
1383	4J20	4	20	10 x 30	.015"	.205"
1384	5J20	5	20	10 x 30	.015"	.230"
1385	6J20	6	20	10 x 30	.015"	.250"
1386	7J20	7	20	10 x 30	.015"	.260"
1387	8J20	8	20	10 x 30	.015"	.305"
1388	9J20	9	20	10 x 30	.015"	.320"
1389	10J20	10	20	10 x 30	.015"	.325"
1390	12J20	12	20	10 x 30	.015"	.345"
1391	15J20	15	20	10 x 30	.015"	.365"
1392	20J20	20	20	10 x 30	.015"	.420"
1393	2J18	2	18	16 x 30	.015"	.210"
1394	3J18	3	18	16 x 30	.015"	.230"
1395	4J18	4	18	16 x 30	.015"	.245"
1396	5J18	5	18	16 x 30	.015"	.260"
1397	6J18	6	18	16 x 30	.015"	.275"

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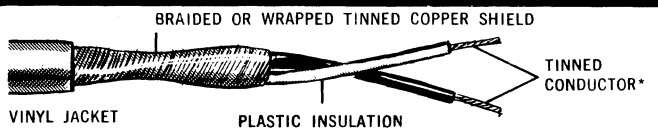
saxton
WIRE & CABLE DIVISION

MULTI-CONDUCTOR SHIELDED CABLE*

.020"-WALL PLASTIC JACKET



Saxton Number	Style No.	Type Shield	—Conductors— No.	Awg	Stranding	Insul. Thick.	Jacket Thick.	Nom. O.D.
1400	1SSJ22	wrap	1	22	7 x 30	.016"	.020"	.135"
1401	2SSJ22	wrap	2	22	7 x 30	.016"	.020"	.175"
1402	2SSJD22	wrap	2	22	solid	.016"	.020"	.170"
1403	2SSJ20	wrap	2	20	10 x 30	.016"	.020"	.195"
1404	3SSJ20	wrap	3	20	10 x 30	.016"	.020"	.210"
1405	4SSJ20	wrap	4	20	10 x 30	.016"	.020"	.225"
1406	2SSJ18	wrap	2	18	16 x 30	.016"	.020"	.230"
1407	2SSJ16	wrap	2	16	26 x 30	.016"	.020"	.250"
1408	2SJ22	braid	2	22	7 x 30	.016"	.020"	.183"
1409	2SJ20	braid	2	20	10 x 30	.016"	.020"	.195"
1410	2SJ18	braid	2	18	16 x 30	.016"	.020"	.235"

*Bare conductors available. For additional constructions see Audio Cable Section.

INTERCOM CABLE

TWISTED PAIRS WITH PLASTIC JACKET

SOLID CONDUCTOR

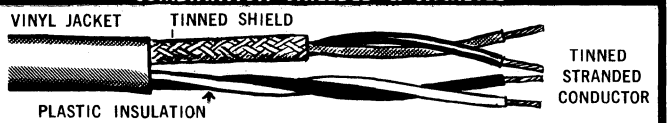
Saxton Number	Style No.	Number Pairs	—Conductors— No.	Awg	Stranding	Insul. Thick.	Jacket Thick.	Nom. O.D.
1411	2PD22	1	2	22	solid	.015"	.020"	.128"
1412	4PD22	2	4	22	solid	.015"	.020"	.205"
1413	6PD22	3	6	22	solid	.015"	.020"	.230"
1414	12PD22	6	12	22	solid	.015"	.020"	.330"
1415	14PD22	7	14	22	solid	.015"	.020"	.345"
1416	18PD22	9	18	22	solid	.015"	.020"	.370"
1417	22PD22	11	22	22	solid	.015"	.020"	.385"
1418	26PD22	13	26	22	solid	.015"	.025"	.415"
1419	30PD22	15	30	22	solid	.015"	.025"	.450"
1420	32PD22	16	32	22	solid	.015"	.025"	.470"
1421	54PD22	27	54	22	solid	.015"	.035"	.605"
1422	62PD22	31	62	22	solid	.015"	.035"	.630"
1423	82PD22	41	82	22	solid	.015"	.035"	.710"
1424	102PD22	51	102	22	solid	.015"	.045"	.845"

STRANDED CONDUCTOR

Saxton Number	Style No.	Number Pairs	—Conductors— No.	Awg	Stranding	Insul. Thick.	Jacket Thick.	Nom. O.D.
1425	2P22	1	2	22	7 x 30	.015"	.020"	.155"
1426	4P22	2	4	22	7 x 30	.015"	.020"	.220"
1427	6P22	3	6	22	7 x 30	.015"	.020"	.245"
1428	8P22	4	8	22	7 x 30	.015"	.020"	.275"
1429	10P22	5	10	22	7 x 30	.015"	.020"	.320"
1430	12P22	6	12	22	7 x 30	.015"	.020"	.340"
1431	18P22	9	18	22	7 x 30	.015"	.020"	.375"
1432	22P22	11	22	22	7 x 30	.015"	.020"	.415"
1433	30P22	15	30	22	7 x 30	.015"	.025"	.485"
1434	54P22	27	54	22	7 x 30	.015"	.035"	.645"

AUDIO CABLE

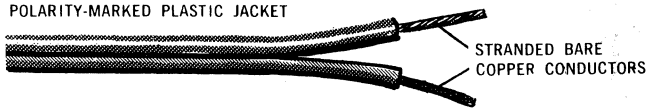
COMBINATION SHIELDED & JACKETED



Saxton No.	Style No.	Conductors No.	AWG	Stranding	Insltn. Thckns.	Jacket Thckns.	Nom. O.D.
1435	2S2J22	4	22	7 x 30	.016"	.020"	.315"
		(Two conductors shielded, two unshielded)					
1436	1S2J22	3	22	7 x 30	.016"	.020"	.200"
		(One conductor shielded, two unshielded)					

E-Z ZIP-CORD—LAMP-CORD

PLASTIC TYPE • 2 & 3-CONDUCTOR

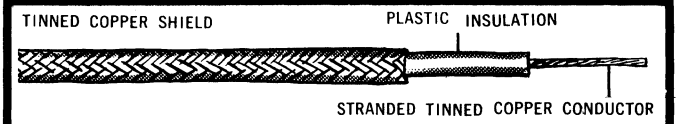


Saxton No.	Style No.	Conductors No.	AWG	Stranding	UL Type	Wall Thckns.	Nominal O.D.
1437	2F24*	2	24	7 x 32	—	.016"	.061" x .137"
1437A	Same as above—clear. (polarized conductors)						
1438	2F20*	2	20	10 x 30	—	.016"	.105" x .210"
1438A	Same as above—clear. (polarized conductors)						
1439	2F18*	2	18	16 x 30	SPT-1	.016"	.130" x .215"
1439A	2F18A	Same as above—clear (unpolarized conductors)					
1440	3F18	3	18	16 x 30	SPT-2	.032"	.130" x .300"
1441	2F16	2	16	65 x 34	SPT-2	.032"	.160" x .300"
1442	3F24	3	24	7 x 32	—	.032"	.061" x .204"

*Black, Brown, White, Gray

PHONO WIRE

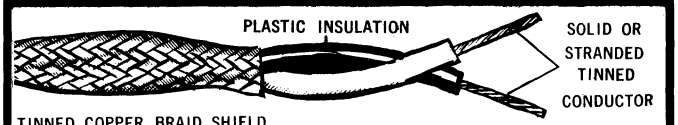
1 AND 2-CONDUCTOR • SHIELDED, UNJACKETED



Saxton No.	Style No.	Conductors No.	AWG	Stranding	Insltn. Thckns.	Nom. O.D.
1443	1S24	1	24	16 x 36	.016"	.080"
1444	2S28	2	28	6 x 36	.016"	.125"

AUDIO CABLE

2-CONDUCTOR SHIELDED, UNJACKETED



SOLID CONDUCTOR

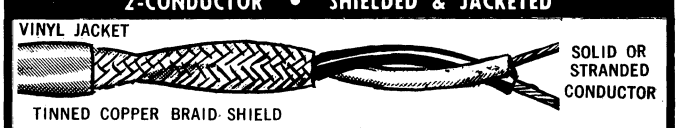
Saxton No.	Style No.	Conductors No.	AWG	Stranding	Insltn. Thckns.	Nom. O.D.
1445	2SD22	2	22	solid	.016"	.132"
1446	2SD20	2	20	solid	.016"	.148"
1447	2SD18	2	18	solid	.016"	.175"

STRANDED CONDUCTOR

1448	2S24	2	24	16 x 36	.016"	.125"
1449	2S22	2	22	7 x 30	.016"	.140"
1450	2S20	2	20	10 x 30	.016"	.155"
1451	2S18	2	18	16 x 30	.016"	.170"
1452	2S16	2	16	26 x 30	.020"	.210"
1453	2S14	2	14	41 x 30	.020"	.225"
1454	2S12	2	12	65 x 30	.025"	.295"

AUDIO CABLE

2-CONDUCTOR • SHIELDED & JACKETED



SOLID CONDUCTOR

Saxton No.	Style No.	Conductors No.	AWG	Stranding	Insltn. Thckns.	Jacket Thckns.	Nom. O.D.
1455	2SDJ22	2	22	solid	.016"	.020"	.172"
1456	2SDJ20	2	20	solid	.016"	.020"	.208"
1457	2SDJ18	2	18	solid	.016"	.020"	.218"

STRANDED CONDUCTOR

1458	2SJ22	2	22	7 x 30	.016"	.020"	.183"
1459	2SJ20	2	20	10 x 30	.016"	.020"	.195"
1460	2SJ18	2	18	16 x 30	.016"	.020"	.235"

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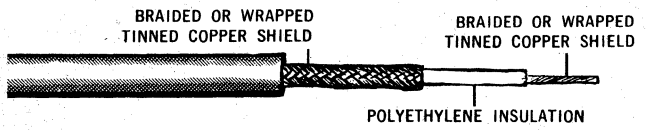
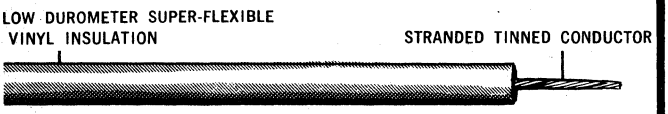
AUDIO CABLE
LOW LOSS MICROPHONE & INPUT



Saxton No.	Style No.	Nom. Cap./ft.	Shield Type	Conductors No.	AWG	Strdg.	Insl. Th.	Jkt. Th.	Nom. O.D.
1290	1SSJC20RB	21 mmf.	wrap	1	20	19x34	Special		.200"
	Foam, woven Rayon braid, extra flexible.								
1291*	2MFSJC22	34 mmf.	foil	2	22	7x30	.022"	.028"	.225"
1292*	3MFSJC22	36 mmf.	foil	3	22	7x30	.027"	.031"	.286"
1293*	2MFSJC20	32 mmf.	foil	2	20	7x28	.024"	.029"	.228"
1294*	3MFSJC20	30 mmf.	foil	3	20	7x28	.026"	.035"	.288"
1461	1SSJC26	36 mmf.	wrap	1	26	7x34 cprwld.	.016"	.020"	.125"
1462	1SJC24	35 mmf.	braid	1	24	10x34	.016"	.030"	.145"
1463	1SJC24A	23 mmf.	braid	1	24	10x34	.040"	.030"	.200"
1464	1SJC20	36 mmf.	braid	1	20	26x34	.030"	.030"	.175"
1465	2SJC20	31 mmf.	braid	2	20	16x34	.025"	.030"	.230"
1466	3SJC20	34 mmf.	braid	3	20	26x34	.025"	.035"	.290"
1467	4SJC20	36 mmf.	braid	4	20	26x34	.025"	.035"	.315"
1468	5SJC20	45 mmf.	braid	5	20	26x34	.025"	.035"	.340"
1469	6SJC20	51 mmf.	braid	6	20	26x34	.025"	.035"	.365"

*Mylar-foil shield with ground runner.

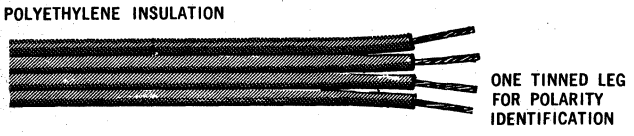
TEST LEAD WIRE
SUPER-FLEXIBLE VINYL INSULATION*



Saxton No.	Style No.	Type	Conductors AWG	Strndg.	Wall Thkns.	Brkdwn. Voltage	Nom. O.D.
1470	1C20	Standard	20	41 x 36	.040"	5,000	.120"
1471	1C20A	Standard	20	41 x 36	.044"	8,500	.130"
1472	1C20B	Standard	20	41 x 36	.047"	10,000	.135"
1473	1C18	Standard	18	41 x 34	.047"	12,000	.140"
1474	1C18A	Hvy.Duty	18	41 x 34	.109"	22,000	.245"
1475	1C20R*	Standard	20	41 x 36	.040"	5,000	.120"
1476	1C18R*	Standard	18	41 x 34	.045"	5,000	.138"

*Rubber, Also available to MIL-spec from stock. ALL TEST PROD WIRES RED or BLACK. Other colors available.

ROTOR CABLE



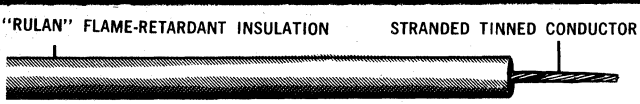
Saxton No.	Style No.	Conductors No.	AWG	Strndg.	Insulation Material	Nominal O.D.
1481	4FC2	4	22	7 x 30	polyethylene	.085 x .360"
1483	4FC3	4	20	10 x 30	polyethylene	.085 x .360"
1485	5FC3	5	20	7 x 28	polyethylene	.095 x .485"
1039	round	8	6/22-2/18	7 x 30 7 x 26	polyethylene	0.250
1040	round	8	6/18-2/22	7 x 26 7 x 30	polyethylene	0.375

MIL-C-3432 SPECIAL CABLES

Saxton No.	Style No.	Specfctn.	Desgntn.	Construction	Specification Number	Nom. O.D.
1486	2M18	CO-02	MGF	2/18 SJO (shielded)	MIL-C-3432A	0.375
1487	2M18A	CO-02	MGF	2/18	MIL-C-3432B	0.300
1488	2M18B	CO-02	HGF	2/18	MIL-C-3432B	0.380
1489	2M18C	CO-02	LGF	2/18	MIL-C-3432B	0.250
1490	2M16	CO-02	HGF	2/16	MIL-C-3432B	0.405
1491	2M16A	CO-02	MGF	2/16	MIL-C-3432B	0.338

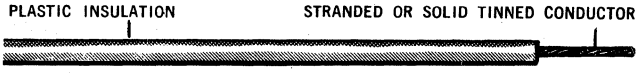
Many other types available; prices on request.

HIGH VOLTAGE WIRE
FLAME-RETARDANT RULAN INSULATION



Saxton No.	Style No.	Type	Conductors AWG	Strndg.	Wall Thkns.	Brkdwn. Voltage	Nom. O.D.
1477	1R20	unshielded	20	10 x 30	.047"	10,000	.120"
1478	1R20A	unshielded	20	10 x 30	.063"	20,000	.170"
1479	1R18	unshielded	18	16 x 30	.095"	40,000	.240"
1480	1RS18	shielded	18	16 x 30	.075"	20,000	.243"

MIL-W-76B
WITH CERTIFICATION
TYPE MW—Uncovered Plastic, Medium Wall, 1000V. Rating



SOLID CONDUCTOR

Saxton No.	Style No.	Specification Designation	AWG	Insltn. Thkns.	Nom. O.D.
1503	1MD22	MW-C 22(1)U	22	.016"	.061"
1504	1MD20	MW-C 20(1)U	20	.016"	.064"
1505	1MD18	MW-C 18(1)U	18	.016"	.072"
1506	1MD16	MW-C 16(1)U	16	.016"	.083"

STRANDED CONDUCTOR
SPECIAL QUANTITY PRICES

Saxton No.	Style No.	Specification Designation	Conductor AWG	Strndg.	Insltn. Thkns.	Nom. O.D.
1507	1M24	MW-C 24(7)U	24	7 x 32	.016"	.056"
1508	1M22	MW-C 22(7)U	22	7 x 30	.016"	.062"
1509	1M20	MW-C 20(10)U	20	10 x 30	.016"	.067"
1510	1M18	MW-C 18(16)U	18	16 x 30	.016"	.077"
1511	1M16	MW-C 16(26)U	16	26 x 30	.016"	.092"
1512	1M14	MW-C 14(41)U	14	41 x 30	.016"	.106"
1513	1M12	MW-C 12(65)U	12	65 x 30	.016"	.127"

TYPE HW—Uncovered Plastic, Heavy Wall

Saxton No.	Style No.	Specification Designation	Conductor AWG	Strndg.	Insltn. Thkns.	Nom. O.D.
1514	1M22A	HW-C 22(7)U	22	7 x 30	.032"	.094"
1515	1M20A	HW-C 20(10)U	20	10 x 30	.032"	.099"
1516	1M18A	HW-C 18(16)U	18	16 x 30	.032"	.109"
1517	1M16A	HW-C 16(26)U	16	26 x 30	.032"	.122"
1518	1M14A	HW-C 14(41)U	14	41 x 30	.045"	.165"
1519	1M12A	HW-C 12(65)U	12	65 x 30	.045"	.185"

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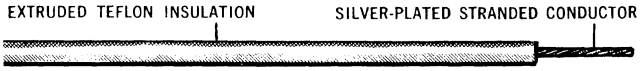
MIL-W-16878C

WITH CERTIFICATION • SPECIAL QUANTITY PRICES

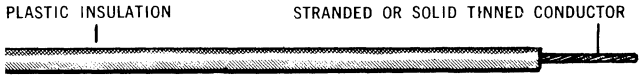


TYPE E—Extruded Teflon, 600 V. Rating

1520	1M30E	E-30	30	7 x 38	.010"	.033"
1521	1M28E	E-28	28	7 x 36	.010"	.036"
1522	1M26E	E-26	26	7 x 34	.010"	.041"
1523	1M24E	E-24	24	19 x 36	.010"	.046"
1524	1M22E	E-22	22	19 x 34	.010"	.052"
1525	1M20E	E-20	20	19 x 32	.010"	.060"
1526	1M18E	E-18	18	19 x 30	.010"	.072"
1527	1M16E	E-16	16	19 x 29	.010"	.084"
1528	1M14E	E-14	14	19 x 27	.010"	.098"

TYPE EE—Extruded Teflon, 1000 V. Rating

1529	1M30EE	EE-30	30	7 x 38	.015"	.043"
1530	1M28EE	EE-28	28	7 x 36	.015"	.046"
1531	1M26EE	EE-26	26	7 x 34	.015"	.050"
1532	1M24EE	EE-24	24	19 x 36	.015"	.056"
1533	1M22EE	EE-22	22	19 x 34	.015"	.062"
1534	1M20EE	EE-20	20	19 x 32	.015"	.070"
1535	1M18EE	EE-18	18	19 x 30	.015"	.081"
1536	1M16EE	EE-16	16	19 x 29	.015"	.090"
1537	1M14EE	EE-14	14	19 x 27	.015"	.104"



TYPE C—Uncovered Plastic, 1000 V. Rating

Saxton No.	Style No.	Specification Designation	Conductor AWG	Conductor Strndg.	Insltn. Thkns.	Nom. O.D.
1538	1M22C	C-22	22	7 x 30	.016"	.065"
1539	1M20C	C-20	20	7 x 28	.016"	.073"
1540	1M18C	C-18	18	7 x 26	.016"	.081"
1541	1M16C	C-16	16	19 x 29	.016"	.092"
1542	1M14C	C-14	14	19 x 27	.016"	.103"

TYPE D—Uncovered Plastic, 3000 V. Rating

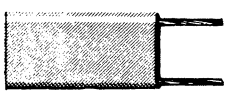
1543	1M22D	D-22	22	7 x 30	.032"	.097"
1544	1M20D	D-20	20	7 x 28	.032"	.105"
1545	1M18D	D-18	18	7 x 26	.032"	.113"
1546	1M16D	D-16	16	19 x 29	.032"	.124"
1547	1M14D	D-14	14	19 x 27	.032"	.135"

DISPENSER-PACKAGED TRANSMISSION LINE

TANGLE-FREE SELF-DISPENSING WIRE PACKAGES

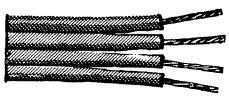
These easy to handle wire dispenser packages let you take the exact length you need. The rest stays neatly in place . . . never tangled, always clean. Ask your Saxton representative about the special dispenser "LIFE-LINE" series of wire packages.

*LIFELINE TWIN LEAD



No. 1665
Full size, heavy duty deluxe twin lead constructed of the finest materials. Chemically protected against deterioration. In Magic Dispenser. Saxton LTL (100-ft.), Brown

LIFELINE 100* ROTOR CABLE



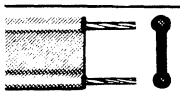
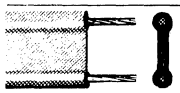
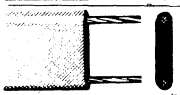
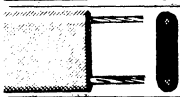
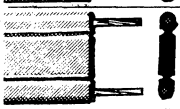
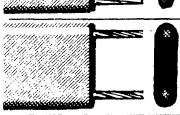
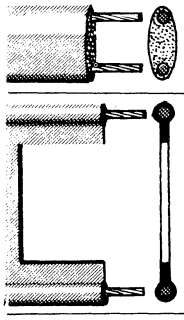
* Available 1000′ spools.

No. 1666
Extra heavy duty 4-conductor rotor cable. Superior quality. One leg polarized for easy reference. Sold in exclusive Magic dispenser carton.

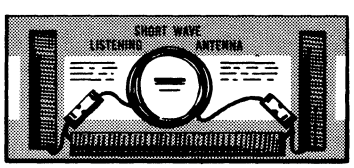
Saxton L4FC (100-ft.), Brown

300-OHM TWIN LEAD

VHF-UHF TRANSMISSION LINE •

	Saxton No.	Style No.	Name	Stranding	Nom. Size Web Width
	1552*	TL-40	standard	1 (solid)	0.040 x 0.0375
	1553*	TL-55	signal sender	7	0.055 x 0.385
	1554*	TL-80	trophy line	10	0.080 x 0.385
	1555*	TL-100	crusader	10	0.093 x 0.355
	1556*	TL-100DL	top notch	10	0.095 x 0.383
	1557*	TL-100EZ	E-Z Strip	10	0.080 x 0.370
	1558*	TL-100SDL	double ten	20	0.100 x 0.400
	1559	18/125	brown or gold	41	0.125 x 0.415
	1560	TTL-22†	tubular	7	0.160x0.445
	1561*	CW-100	brown solid	1	0.100 x 0.400
	1036		standard foam	10	.197 x .392
	1562**	INS-500	ins. open wire	1	0.075 x 0.975

* Available in special tangle-free self-dispensing packages.
** 18 Gauge Copperweld, Solid, Non Stretch. Stranded Available, on request.
† 22 ga.



SHORT WAVE LISTENING ANTENNA

COMPLETELY ASSEMBLED . . . READY FOR INSTALLATION AND USE

#4301

Can be mounted almost anywhere . . . pole-to-pole, pole-to-tree, garage-to-house, under the eaves, in the attic, etc. Scientifically tuned for 1.8 to 30 mc coverage. Antenna package includes 50 feet of copper wire, attached at both ends to low-loss insulators. Attached to each insulator is 15 feet of waterproof non-stretch rope for mounting the antenna. At one end of the antenna is 50 feet of insulated copper lead-in wire. Comes with detailed instructions.

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COLORWIRE TRANSMISSION LINES

Provides Maximum Transfer of Signal Energy from Antenna to Set

GOOD FOR VHF: EXCELLENT FOR UHF: SUPERB FOR COLOR TV

A full range of quality, low-loss transmission lines and accessories that answer all-channel and color reception problems. See details of each type below:

1. SUPER TWIN FOAM #1037

Porous, low loss, air-filled foam dielectric separates two pre-stretched heavy duty copper conductors. Overall ultraviolet resisting, carbon black filled outer polyethylene jacket makes for abrasion resistant, highly flexible, highly efficient (20 year guarantee) transmission line in wet or dry weather. Adequate for all normal color requirements; needs no transformers. Excellent VHF; good UHF; excellent color.

Attenuation per 100 feet at 200mc — 1.1 db; at 500 mc — 3.1 db; at 900 mc — 3.99 db.

Put Up: "500 or 1000 foot spools." Convenient 50, 75, or 100 foot hanks.

2. SHIELDED TWIN FOAM #1038

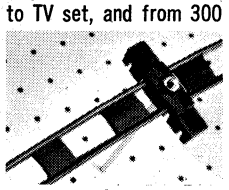
Same general characteristics as #1037 except for overall 99 per cent braid shield plus additional abrasion-free overall jacket. Ideally suited for noise-free UHF, FM and multiplex; excellent for smear-free color TV reception.

3. FOIL SHIELDED TWIN TRANSMISSION LINE WITH GROUND RUNNER #1041

Very similar to #1038 except that shielding material is aluminum foil — mylar backed as opposed to regular tinned copper braid. Highly efficient (100%coverage), more economical. Good for UHF, VHF or color.

4. S-906 COLORIFIC 450 OHM INSULATED OPEN WIRE TRANSMISSION LINE KIT

The best of all transmission lines. Reliable, efficient, lowest loss, perfect for any type of service — UHF, VHF or color. Lowest attenuation, lowest leakage path. Includes 450/300 ohm and 300/400 ohm matching transformers. Easy to install. Has 18 gauge solid non-stretch copperweld conductors and carbon black filled polyethylene insulation. One transformer used at antenna; the other installed at window leading to TV set, and from 300 ohm side of this transformer regular 300 ohm twin lead is brought directly to set.

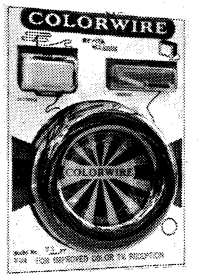


Tried and true under the most adverse conditions. This line most nearly approaches perfection in transmission lines. Attractively packaged to command attention.

USES #1562 LADDER WIRE; FOR DETAILS SEE LISTING FOR #1562 ON PAGE 4.

5. COLORIFIC FACTORY SWEPT COAXIAL CABLE SYSTEMS

Uses #1594 RG/59-U Foam



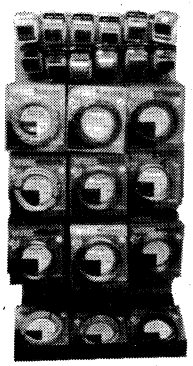
Designed particularly for noise problem areas. Basic impedance 72 ohms. Low loss dielectric construction to cut down attenuation and signal leakage. Unaffected by stray fields and proximity to metals. Good for VHF and color, adequate for UHF. Complete with factory installed terminations and weather boot, with or without indoor and outdoor 72/300 ohm matching transformers. Attractively packaged.

#1598 — specially designed, new 72 ohm all-channel coax for full 82-channel use. Slightly higher cost, much more efficient.

SAXTON NO.	DESCRIPTION	FEET
S-900	Low loss, foam-filled RG 59/U complete with pre-attached F59 fittings each end, weather boot and complete instructions. Uses #1594.	100
S-901	Same as above.	75
S-902	Same as above.	50
S-903	Same as above, including two 72/300 ohm matching transformers — one for outdoor use, one indoor, complete with mounting hardware.	100
S-904	Same as above.	75
S-905	Same as above.	50
S-907	All-channel (82 channel) coax complete with terminal fittings on each end, weather boot, and complete instructions. Uses #1598.	100
S-908	Same as S-907	75
S-909	Same as S-907	50
S-910	Same as S-907, except includes two special matching transformers — one for indoor; one outdoor. Also includes matching fittings and hardware.	100
S-911	Same as S-910	75
S-912	Same as S-910	50
S-330*	Indoor matching transformer — matches 75 ohm coaxial cable to 300 ohm terminals on TV receivers — includes fittings and mounting hardware. For UHF, VHF, color.	
S-331**	Outdoor matching transformer — matches from 300 ohms to 72 ohms — connects from antenna to transmission line — includes fittings and mounting hardware. For UHF, VHF, color.	

*Use with all S-900 Series except S-906.

SPECIAL SELF-SERVICE DISPLAYS

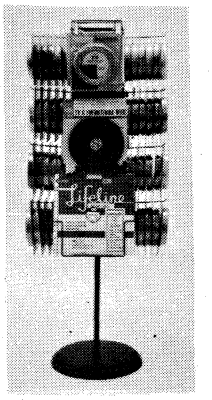


ATTRACTIVELY COLORED • CUSTOMER CONVENIENCE EASY TO INSTALL • MODULAR DESIGN

Two feet wide, four feet high — easy to see over. Joining units four inches wide makes it possible to modularize display panels, and also to break up different categories of products for maximum eye appeal, greatest impulse value, largest turnover.

Saxton's displays are designed for breakdown into category types. And you can add additional display units as needed. "Look up" shelf provides easy customer viewing of bottom level displays.

Complete information on request. Ask your Saxton representative for full lists of products in the following display categories: **CB and Ham; Telephone items; General Wire Types for the Engineer and Experimenter; Audio and Hi-Fi; Modules; TV Antenna Wires and Antenna Accessories; Special Purpose Types —Toys, Hobbies, Etc.; General Purpose Types for Display in Hardware, Lumberyard, Chain and Discount Outlets.**



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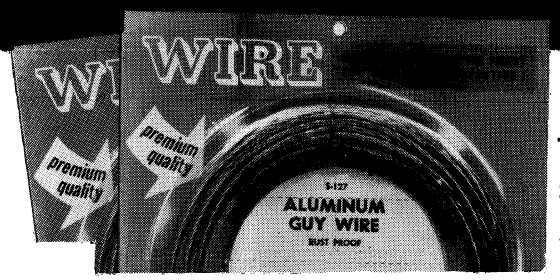
saxton
WIRE & CABLE DIVISION

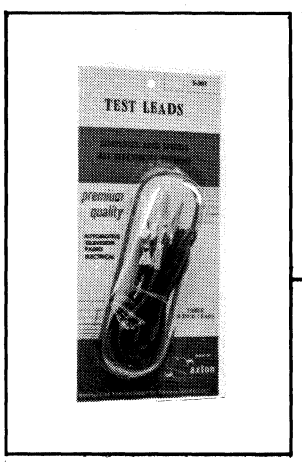
WINDOW-PAKS

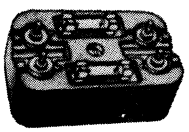
Saxton's "S" and "TS" Series of Window-Paks keep the products clean and tangle free . . . and increase sales turnovers.
These quality products cover a wide selection of wire and cable products as well as a wide variety of in-demand cable and hardware assemblies. Properly displayed and serviced, these items generate maximum sales with minimum sales time.

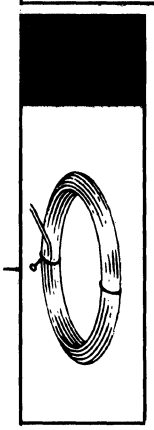


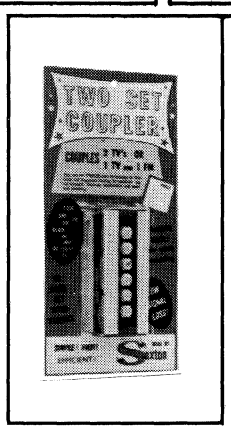
THESE WINDOW-PAKS ARE USEFUL FOR: SERVICEMEN, TECHNICIANS, ENGINEERS, STUDENTS, HOBBYISTS AND HAMS.

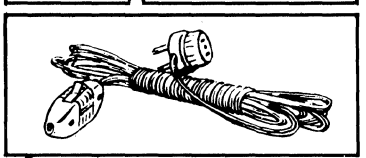
Saxton No.	Description	Feet	Std. Case
	WINDOW-PAK "S" SERIES		
S-92B	Hook-up wire — tinned copper — stranded — 12 ga. power supply and filament leads—heavy duty—general purpose	15	30
S-93B	Hook-up wire — tinned copper — stranded — 14 ga. power supply and filament leads — general purpose — heavy duty	17	30
S-94B	Hook-up wire — tinned copper — stranded — general purpose — heavy duty	23	30
S-95	Ignition wire for auto, boat or model airplane	20	16 (14)
S-96	Audio cable — shielded — 2 cond. — 22 ga. w/jacket — general purpose	16	30 (20)
S-98	Mike cable — 2 cond. low impedance — high quality audio cable	18	20
S-102	Intercom wire — 2 cond. —no jacket (excellent thermostat wire)	60	20
S-103	Intercom wire — 2 cond. — no jacket (excellent thermostat wire)	35	20
S-104	Intercom wire — 3 cond. — no jacket (excellent thermostat wire)	40	20
S-105	Intercom wire — 3 cond. — w/ jacket (excellent thermostat wire)	28	20
S-106	Microphone cable — single cond. — low capacitance — high impedance — heavy duty	20	20
S-107	Zip cord — Vinyl — 2 cond. — 18 ga. lamp cord — available in gray, brown and white	30	20
S-109	Zip cord — rubber — extra flexible — lamp cord — oil resistant — available in brown and white	25	20
S-110	Guy wire — galvanized steel — 4 strand — rust resistant — for garden, house or boat use	100	20
S-111	Speaker cable — clear plastic — polarized — heavy duty — also may be used for lamp wiring	30	20
S-125	Antenna wire — copper — 7/24 — prestretched	50	30
S-126	Antenna wire — copper — 7/26 —prestretched	50	30
S-127	Guy wire — aluminum — rust proof — will not stain wood or masonry — for guying and general utility	40	20
S-128	Guy wire — steel — 6 strand — 20 ga. — bright galvanized — rust resistant	70	20
S-130	Ground wire — aluminum — dead soft #8 AV/G solid — general utility	40	20
S-135	Copperweld wire — hard drawn—hi-conductivity antenna wire—18 ga. — non-stretch — general utility — home — farm — garden — electric fences — seeded lawn protection — do it yourself projects	100	30
S-138	Coaxial cable — RG58U — 52 ohm — for CB — HAM — fixed or mobile use	20	20
S-139	Coaxial cable — RG59U — 72 ohm — antenna leads	20	20
S-147*	Telephone extension kit — color coded — 4 conductor wire — with plug and jack	25	20
S-148	Microphone cable — 3 conductor — one lead shielded — 2 leads unshielded — ideal for push to talk microphone application	16	20
S-149*	Telephone extension cord — 4 conductor — std. 4-pin molded plug and jack — adds mobility to phone or intercom	25	20
S-150	Shielded ignition wire	15	20
S-160	Television wire — twin lead — 300 ohm — crystal clear — highly efficient for indoor use	21	20
S-161	Four conductor wires; with jacket. Intercom, electric trains, kits, etc.	20	20
S-203*	Lazy bones — on/off appliance control for T.V., radio, fan, lamp, heater, percolator	15	20
S-204*	Aerial kit — for improved broadcast and shortwave reception	—	20
S-205*	Safe-pull — improved type of plug-in device for master T.V. antenna system. Replaces popular Motorola type plug	10	20
S-206*	Safe-pull — improved type of plug-in device for master T.V. antenna system. Replaces popular Motorola type plug	20	20
S-208*	Retractile coiled cord — microphone cable — 1 shielded — 2 unshielded	6	30
S-209*	Retractile coiled cord — microphone cable — 1 shielded —3 unshielded	6	30
S-211*	Aerial kit — de luxe — for improved broadcast and shortwave reception — heavy duty antenna wire & heavy duty lead-in wire	—	20
S-212*	Same as S-205 but RCA plugs one end, lugs other end.	10	20
S-213*	Same as S-206 but RCA plugs one end, lugs other end.	20	20
S-214*	Replacement cord — UL approved, with molded male plug one end, tinned wires other end. Suitable for vacuum cleaners, electric brooms, power tools, etc.	18	20

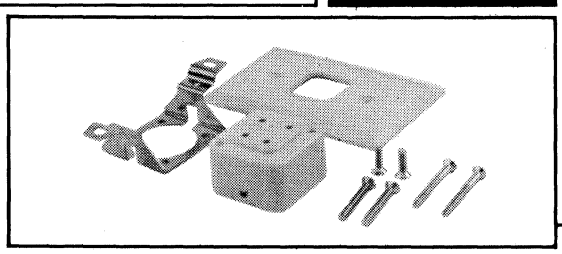


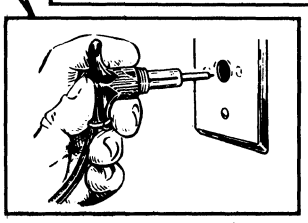


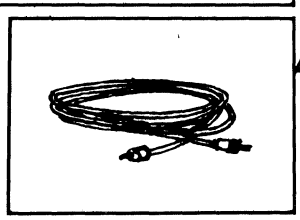












*Special purpose cable

Saxton No.	Description	Feet	Std. Case
S-215*	Retractile telephone handset extension cord — available in assorted colors	35	20
S-216*	Extension cord — heavy duty de luxe type, with cube tap one end, and molded male plug other end	18	16
S-222*	Stereo extension cord — To be used as extension cord for stereo headphones	15	30
S-223*	Stereo extension cord — To be used as extension cord for stereo headphones	25	30
S-230	Antenna wire — copper — 7/22 — prestretched	50	30
S-231	Retractile electric guitar extension cord complete with regular and offset plugs	15	—
S-232*	Telephone handset extension — retractile — available in black, white or beige	15	20
S-301*	Test leads — 3 color coded — 30" leads with alligator clips attached at both ends — for all automotive and household use	—	20
S-306*	FM antenna — folded di-pole — ideal for FM	—	20
S-309	Heavy duty lightning arrestor de luxe type — ceramic shell, externally fused, suitable for UHF & VHF applications, can accommodate coaxial cable, tubular, oval and flat twin lead as well as open wire line, with virtually no effect on the overall performance of the sets	—	24
S-310	Balun type shielded 2 set coupler	—	24
S-311	3 Set coupler — completely enclosed in aluminum body, small and compact lightweight — maximum shielding, all other specifications same as 2 set coupler	—	24
S-317	Braided bonding strap — used for grounding	10	24
S-318*	Shielded audio cables — retractile — color coded for quick and easy identification, RCA type plugs each end	4	24
S-319	Telephone plug and jack — make your own telephone extensions, move your phones from room to room	—	24
S-320	Telephone plug only—(Male)	—	24
S-321	Telephone jack only—(Female)	—	24
S-325*	Shielded audio cable — retractile — color coded —RCA type plug one end, tinned leads other end	54	40
S-326*	Shielded audio cable — rectractile — color coded — RCA type plugs one end, alligator clips other end	54	40
S-327*	UHF folded antenna—dipole	—	36
S-330	Indoor matching transformer — matches 75 ohm coax to 300 ohm terminals on TV sets — with F59 connector	—	—
S-331	Outdoor matching transformer — 300 ohm to 75 ohm—with mounting strip, F59 cable connector and weather boot	—	—
S-332	UHF-VHF-FM antenna splitter — triple tuned — band pass filter—requires 2 antennas, one down lead	—	—
S-333*	Guitar extension cord — heavy duty — not retractile	20	—
S-334*	Audio accessory cord — with plug and alligator clips — for portable and transistor radio speaker extensions and general utility extensions	6	—
S-335*	Audio accessory cord — with built-in matching network — complete with plug and alligator clips — record directly from output without overloading	6	—
S-336*	Audio accessory cord —inter-connects most audio components — RCA plugs each end	6	—
S-337*	Audio accessory cord — interconnects most audio components — RCA plugs each end	10	—
S-400	Matching transformer kit — 300 ohm to 75 ohm — includes one S-330 transformer, one S-331 outdoor transformer, one mounting strap, one F59 connector and one weather boot	—	—
S-501	Telephone jack and wall plate — for internal installation of phone extensions	—	—
S-810*	Citizens Band extension—RG58/U with PL-259 and UG-175/U reducer one end and two universal terminating lugs other end	20	20
S-811*	Citizens Band extension—RG58/U with PL-259 and UG-175/U at both ends	20	20
	TWIN LEAD WINDOW-PAK		
TS-25	Twin lead — 300 ohm — for improved FM or T.V. reception — brown, clear, gold & silver	25	20
TS-50	Twin lead — 300 ohm — for improved FM or T.V. reception — brown, clear, gold & silver	50	50
TS-75	Twin lead — 300 ohm — same as above	75	20
TS-100	Twin lead — 300 ohm — same as above	100	20

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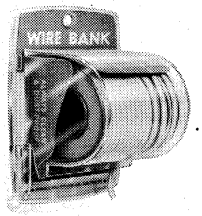
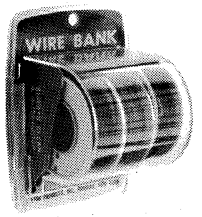
WIRE DISPENSER PACKAGES



UNI-SPOOL
WIRE BANKS



TRI-SPOOL
WIRE BANKS

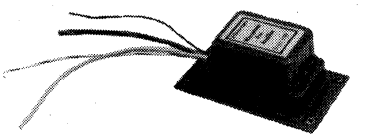
A wide variety of wire and cable products are available in Saxton's two types of self-dispensing wire banks . . . the Uni-Spool and Tri-Spool. These packages provide easy access to desired lengths of wire and cable.

Saxton No.	Description	Feet	Std. Case
	UNI-SPOOL "WS" SERIES		
WS-100	Cable — miniature parallel — 24 ga. — available in black, brown, gray, white and clear	50	36
WS-101	Microphone cable — lapel	20	36
WS-108	Audio cable — wrap shield — easily pigtailed — available in other colors	20	36
WS-112	Phono or grid wire — shielded — single conductor	30	36
WS-113	High voltage wire — 20 KV rating — flame retardant	20	36
WS-115	Hook up wire — 18 ga. solid	55	36
WS-115B	Hook up wire — 18 ga. stranded	52	36
WS-116	Hook up wire — 20 ga. solid	72	36
WS-116B	Hook up wire — 20 ga. stranded	70	36
WS-117	Hook up wire — 22 ga. solid	90	36
WS-117B	Hook up wire — 22 ga. stranded	85	36
WS-118	Bell wire — 18 ga.	58	36
WS-122	Test prod wire — red — plastic	22	36
WS-122A	Test prod wire — red — rubber — extra flexible	16	36
WS-123	Test prod wire — black — plastic	22	36
WS-123A	Test prod wire — black — rubber — extra flexible	16	36
WS-156	Three conductor, clear, miniature, parallel cable speaker extensions — stereo and monaural — low voltage applications	36	36
WS-162	Magnet wire for hobbyists — 22 ga.	114	36
WS-163	Magnet wire for hobbyists — 24 ga.	153	36
WS-164	Magnet wire for hobbyists — 26 ga.	243	36
WS-170	Rainbow wire — two color, two conductor	38	36
WS-171	Rainbow wire — three color, three conductor	29	36
WS-172	Rainbow wire — four color, four conductor	25	36

Saxton No.	Description	Feet	Std. Case
	TRI-SPOOL "WBS" SERIES		
WBS-100	Speaker extension cable — miniature parallel — 24 ga. 3 colors — low voltage applications	54	36
WBS-115	Hook up wire — 3 colors — 18 ga. solid — high quality	51	36
WBS-115B	Hook up wire — 3 colors — 18 ga. stranded — high quality	48	36
WBS-116	Hook up wire — 3 colors — 20 ga. solid — High quality	60	36
WBS-116B	Hook up wire — 3 colors — 20 ga. stranded — high quality	66	36
WBS-117	Hook up wire — 3 colors — 22 ga. solid — high quality	81	36
WBS-117B	Hook up wire — 3 colors — 22 ga. stranded — high quality	72	36
WBS-119	Hook up wire — 3 colors — 24 ga. solid — high quality	108	36
WBS-120	Hook up wire — 3 colors — 24 ga. stranded — high quality	96	36
WBS-121	Bell wire — 3 colors — 22 ga. — high quality	69	36
WBS-122	Test prod wire — plastic — 3 colors	27	36
WBS-123	Test prod wire — rubber — extra flexible — 3 colors	24	36
WBS-129	Bell wire — 3 colors — 20 ga. — high quality	54	36
WBS-131	Bell wire — 3 colors — 18 ga. — high quality	48	36
WBS-170	Phono pickup wire — stereo arm assortment	lib. qty.	36
WBS-172	Bus wire — tinned — 20, 22 and 24 ga. — electrical or electronic applications — highly conductive — easily soldered — home or factory bench	108	36
WBS-175	Hook up wire — Nylon — assortment — high temp	60	36
WBS-180	High temperature wire — Teflon coated —assorted colors — 3 packages	69	36

TRANSISTORIZED MODULES

Each module is an assembled package of electronic components—transistors, resistors, capacitors, etc. All can be powered by standard 6 volt battery pack. Each module comes with an instruction book including schematic drawings and parts list.



Saxton Model	No.	Use	Description
HFA	570	Fire alarm	When hooked up to 2 or 3 speakers, makes any room or area safe against unexpected fires.
HS	571	Siren	Creates tone varying from 50 to 3000 cycles during 30-second period, using 8 ohm speaker.
HCO	572	Code OSC & Key	Produces sharp, crisp signal for transmitting code, using any PM speaker.
HPA-1	573	Public address	Amplifies and produces quality audio signal with power output of about 1 watt, using 8 ohm speaker. carbon button microphone.
HDF	574	Dual Flasher	Permits 2 signal devices to flash alternately or give warning 70-80 times per minute, using pilot light bulbs.
HP	575	Phono amplifier	Amplifies signals produced by phono pickup arm so that loud speaker reproduction is possible.
HI	576	Intercom	An economical way to carry on conversations efficiently between 2 points, using 2 8-ohm speakers and talk-listen switches.
HB	577	Baby nurse	Monitors an infants' desire for recognition, using 2 8-ohm speakers.
HPA-2	578	High gain public address	Provides clear audio, using 8-ohm speaker or trumpet.
HG	579	Guitar amp	Amplifies music from guitar or accordion, using contact microphone and 8 or 16 ohm speaker.
HTA	580	Telephone amp	Amplifies telephone conversations, useful for conference calls.
HM	581	Metronome	Produces sounds for maintaining proper musical beat; generates 20-200 audio pulses per minute.

Saxton Model	No.	Use	Description
HFH	582	Fog Horn	Creates loud attention-getting signal which can be heard and identified over long distances on land or sea, using 8 or 45 ohm speakers.
HWM	583	Wireless Mike	Transmits signals from point-to-point with no physical connection between transmitter and receiver, using an AM radio.
HWP	584	Wireless Phono oscillator	Allows phono pickup and arm to be played through any radio with no physical connections, using any radio receiver.
HWB	585	Wireless baby nurse	Amplifies infants' restless movements or requests for attention with no physical links between module and a radio receiver.
HMP	586	Mike preamp	Serves as booster for low level signal producing devices such as microphones, magnetic phonograph cartridges, etc.
HBA	587	Burglar Alarm	Warns against intruders with switches installed at various entrances, using 3, 8 or 16 ohm speakers.
HT	588	Electronic timer	Permits holding back or controlling time from one second to three minutes for dozens of situations — such as turning off T.V. sets during commercials.
HST	589	Stroboscope	Permits viewing of rapidly moving objects such as motors as if they were standing still for measurement, calibration, etc.
HPS	590	Power Supply	Delivers 6-12 volts continuously at 1 amp, hum-free, plug-in, reliable source for powering all modules.

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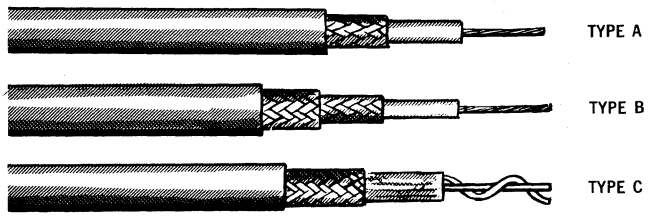
COAXIAL CABLE

COMMERCIAL TYPES

Quotations on cable to MIL-C-17B specifications on request. Quotations on RG-8/U and RG-11/U with 15 AWG solid copperweld conductor on request.

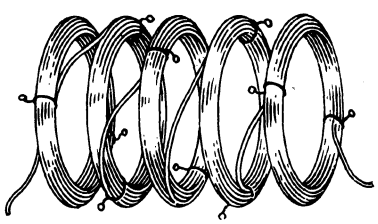


Saxton Cat. No.	Style No.	Type	Insulation	Nom. Imp. (Ohms)	Nom. O.D.	Jacket	Description
1582*	RG-8/U	A	reg.	52	.405	black PE	gen'l purpose
1583‡*§	RG-8/U	A	foam	52	.405	black PVC	—
1584*	RG-8A/U	A	reg.	50	.405	non-cont. PE	—
1585*	RG-11/U	A	reg.	75	.405	black PVC	TV & comm.
1586*	RG-11/U	A	foam	75	.405	black PVC	—
1587*	RG-11A/U	A	reg.	75	.405	non-cont. PE	—
1588*	RG-11/UDS	B	reg.	75	.465	black PVC	double-shielded
1589*	RG-58/U	A	reg.	53.5	.195	black PVC	20 AWG solid B.C.
1590‡*	RG-58A/U	A	reg.	52	.195	black PVC	19/.0071 TC
1591*	RG-58C/U	A	reg.	50	.195	non-cont. blk PE	19/.0071 TC
1592*§	RG-59/U	A	reg.	73	.242	black PVC	TV cable
1593*§	RG-59/UDS	B	reg.	73	.285	black PVC	double-shielded
1594*§	RG-59/U	A	foam	73	.242	black PVC	TV cable
1595*	RG-174/U	A	reg.	70	.100	black PVC	miniature "59/U"
1596*	RG-59A/U	A	reg.	75	.242	non-cont. blk PE	.023 copper-weld
1597*	RG-62/U	C	reg.	93	.242	black PVC	small size low cap.
1598*	RG-59/U 82-channel	A	foam (UHF)	72	.280	black PVC	special type

*Available in 100-ft. lengths.
‡Available extra flexible.
§Available in white.

UNINSULATED COPPERWELD *

40% COPPERWELD CONDUCTOR • NON-STRETCH • HARD-DRAWN



Saxton Number	Awg	Nom. O.D.
5300	18 solid	.0403
5302	14 solid	.0641
5303	12 solid	.0808
5304	10 solid	.1019
5305	8 solid	.1285
5306	6 solid	.1620

* Saxton Copperweld available on 1M′ spools. Nos. 5300 to 5303 also in 50′ & 100′ interconnected coils of 1M′ total.

GUY WIRE & MESSENGER CABLE *

HEAVY GALVANIZED STEEL, ALUMINUM & COPPERWELD

Saxton No.	Spec. Desig.	Stranding	Material	Test Strgth. —P.S.I.	Strength Yield Per C Ft.
5100	GW-4/20	4 x 20	hvy. galv. steel	215	4%
5101	GW-6/20	6 x 20	hvy. galv. steel	335	3.6%
5103	GW-6/18	6 x 18	hvy. galv. steel	515	3%
5105	AL-7/18	7 x 18	EC quality aluminum, aircraft temper	370	4.5%
5106		7 x 18	Same as 5105 except plastic insulated		
5112	Tiller Cable Hi Strength	7 x 7 (49 str.)	3/32" cable vinyl jacket 3/16" O.D.	2100	—

*50′ and 100′ interconnected coils are standard. 500′ or 1000′ spools available.

UNINSULATED TINNED COPPER

SOLID CONDUCTOR

Saxton No.	AWG No.	Saxton No.	AWG No.
1362	ADT-20	1570	ADT-28
1363	ADT-18	1571	ADT-26
1364	ADT-16	1572	ADT-24
1365	ADT-14	1573	ADT-22
1366	ADT-12		

STRANDED

Saxton No.	AWG No.	Stranding	Saxton No.	AWG No.	Stranding
1574	AT-24	7x30	1578	AT-16	26x30
1575	AT-22	7x30	1579	AT-14	41x30
1576	AT-20	10x30	1580	AT-12	65x30
1577	AT-18	16x30			

ANTENNA WIRE

Saxton Number	Stranding	Material	Packing
1275	solid	#12 AWG enameled solid copper	1M′ interconnected coils of 100′ ea.
1280	solid	#14 AWG enameled solid copper	1M′ interconnected coils of 100′ ea.
1286/50	7 x 22	bare copper	1000′ interconnected coils of 50′ ea.
1286/100	7 x 22	bare copper	1M′ interconnected coils of 100′ ea.
1288/50	7 x 24	bare copper	1M′ interconnected coils of 50′ ea.
1288/100	7 x 24	bare copper	1M′ interconnected coils of 100′ ea.
1289	7 x 26	bare copper	1M′ interconnected coils of 50′ ea.

ALUMINUM GROUND WIRE

1240/1M	—	#8 AWG solid dead soft alum.	1000-ft. spool
1240/50	—	#8 AWG solid dead soft alum.	1M′ interconnected coils of 50′ ea.
1240/100	—	#8 AWG solid dead soft alum.	1M′ interconnected coils of 100′ ea.
1255/1M	—	#6 AWG solid dead soft alum.	1000-ft. spool
1255/50	—	#6 AWG solid dead soft alum.	1M′ interconnected coils of 50′ ea.
1255/100	—	#6 AWG solid dead soft alum.	1M′ interconnected coils of 100′ ea.

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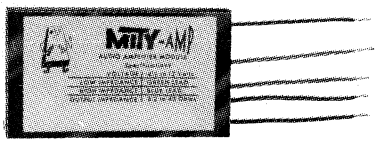
SPECIAL PRODUCT SECTION

"MITY-AMP" 2-WATT AUDIO AMPLIFIER



MA-100

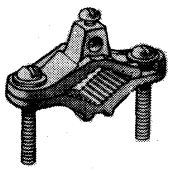
COMPLETELY EPOXY ENCAPSULATED MODULE • Shockproof & Moisture-proof • Dirt & Dustproof

FEATURES
- SPACE-SAVING—2" x 3½" x ⅞"
- HI-FI AMPLIFIER—20 cy. to 15KC ±db at 1-watt level
- LIGHTWEIGHT—Weighs total of 6 ounces
- RUGGED—Unconditionally guaranteed. Shock, moisture and dust-proof
- EASY TO INSTALL & USE—Hooked up in minutes. Simple instructions make unit functional immediately.
- ECONOMICAL—Low in price, big in performance, Long, trouble-free life. Total power requirements 6 or 12 volts.
- PORTABLE—Operates on auto or boat battery
- VERSATILE—Uses limited only by your ingenuity. Ideal for p. a. system, phono amplifier, stereo, intercom, signal tracer, modulation, tape monitor, etc.

SPECIFICATIONS
1. INPUT VOLTAGE REQUIRED TO DRIVE FULL POWER—.5 Volts
2. POWER REQUIREMENTS—6 to 12 volts at 300 to 700 ma. Current determined by speaker voice coil impedance.
3. FREQUENCY RESPONSE—20 cy. to 15 KC ±2 db at 1 watt level.
4. INPUT IMPEDANCE—45 ohms to 50K ohms.
5. OUTPUT IMPEDANCE—3.2 to 45 ohms.
6. WEIGHT—Six ounces.
7. OVERALL SIZE—2" x 3½" x 7/8".
8. HIGHLY SHOCKPROOF—Unaffected by dust, dirt or moisture. Operable under water.
9. GUARANTEED AGAINST DEFECTS.

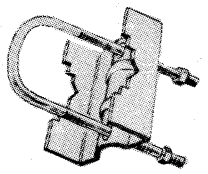
ANTENNA ACCESSORIES
SPECIAL HARDWARE

GROUND MAST CLAMPS



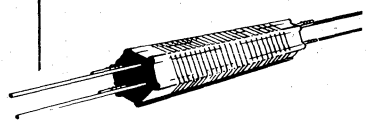
Saxton No. 1100

U-BOLTS AND SADDLES



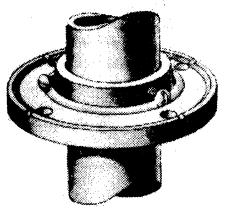
Saxton No. 1103
Also available without saddle

TV ANTENNA MATCHING BALUN COILS



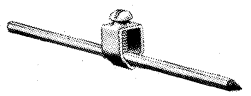
Efficiently matches 72 to 150 ohms; 72 to 450 ohms; 150 to 300 ohms; 150 to 450 ohms; 300 to 450 ohms and 75 to 300 ohms. Eliminates standing waves. Use as set coupler, impedance transformer or for line matching, etc. Instructions included. Available in bulk or pairs. Saxton No. 1121

FLOATING GUY RINGS



Cast aluminum, two-piece floating guy ring. Fits most masts up to 1½" dia. Individually packed, complete with hardware, in plastic bags. Saxton No. 1099

GROUND RODS



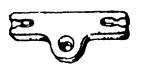
Saxton No. 1064
Four-foot overall length with clamp.

Airplane type "egg" insulator. Low air resistance, high tensile strength, white porcelain glaze. 2" long. Saxton No. 1156

ANTENNA WINDOW STRAPS Saxton No. 1126

BROWN, PORCELAIN GLAZED INSULATOR

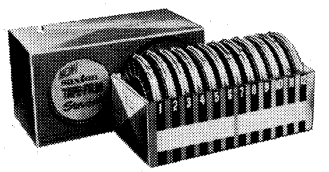
Saxton No. 1154



Doublet type antenna insulator, white glazed. Excellent electrical characteristics, high tensile strength. Dim.: 4½" x 2¾" Saxton No. 1155

Transposition block with porcelain glaze finish. Use with many types of doublet antennae. Saxton No. 1157

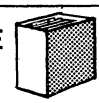
Film & Recording Tape STORAGE CHEST



Saxton No. 1230—Complete with 12 Swivel-locked, dust-proof storage cans. Insures moisture and dust-free storage of valuable tape and film. Attractive indexed storage chest. High-impact Styrene containers accommodate 5" and 7" tape or 8mm film

Saxton No. 1231 — Individual plastic storage can

6-PAK TAPE STORAGE CASE

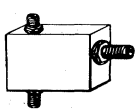


Saxton No. 1234

Sturdily constructed, indexed Tape Storage Case designed for bookshelf. Compartmented to accommodate six 7-inch reels, boxes or cans.

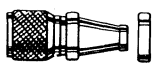
Saxton No. 1235
Complete unit. Includes above Case plus six Saxton No. 1231 Tape Cans.

ISOLATION NETWORKS

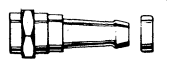


Saxton No.	Type
700	UG88U
703	UG175U
704	UG176U

SOLDERLESS COAXIAL CONNECTORS
ADAPTERS & FITTERS, "F" AND "C" SERIES



Saxton No.	Type
705	SO239
706	PL258
707	PL259

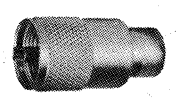


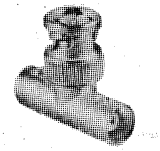
Saxton No.	Type
713	M359-A
*722	Line Tap

CUSTOM CABLES—Available with any combination of fittings or connectors.

*** ATTENUATED LINE TAPS:** Color-coded in red, yellow, green and blue.

CONNECTORS
UHF - BNC





NEW SOLDERLESS COAX. CONNEC.

Saxton No.		Saxton No.	
716	C52	719	F59
717	C61	†719A	F59A
718	C81	720	F61
		721	F81

†For use with 82-channel coax.

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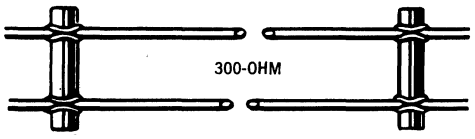
saxton WIRE & CABLE DIVISION

SPECIAL PRODUCT SECTION

** OPEN WIRE TRANSMISSION LINE
LOW LOSS AIR DIELECTRIC • BULK QUANTITIES

Saxton Number	Conductor	Spacing	Imped.	Awg No.	Insul. Spac.
2500	40% copperweld	1"	450-ohm	18	6"
2501	40% copperweld	1"	450-ohm	18	12"
2502	40% copperweld	7/16"	300-ohm	18	6"
2507	solid copper	1"	450-ohm	18	6"
2515	solid copper Formvar	1"	450-ohm	18	6"
2517	solid copper Formvar	7/16"	300-ohm	18	6"
2520	solid copper Formvar	1"	450-ohm	16	6"
2525	40% copperweld	2"	475-ohm	14	random spaced
2526	40% copperweld	2"	450-ohm	12	random spaced

MAX. SPOOL: 6" spacing, 500 ft.; 12" spacing, 1000 ft.; 300-ohm, 500 ft. 500' spool standard. 100' & 250' available.

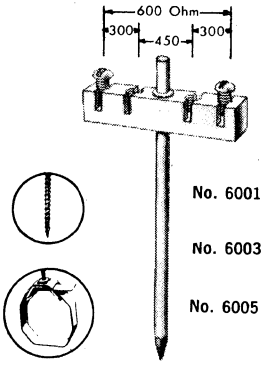


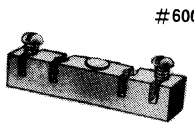
CHARACTERISTIC CHART — TRANSMISSION LINE LOSS DB LOSS PER 100 FT.

Type	100 MC Wet	100 MC Dry	500 MC Wet	500 MC Dry	1000 MC Wet	1000 MC Dry
300 Ohm Open Wire	1.20	0.40	2.30	.80	1.9	1.8
450 Ohm Open Wire		0.35		.78		1.1
*Two Inch Spaced Open Wire		.19		.42		.89
300 Ohm Tubular	2.8	1.1	6.8	3.1	10.2	4.8
300 Ohm Flat	7.6	1.5	20.0	3.2	30.0	5.0
RG-59U		3.8		9.4		14.2
RG-11U		1.8		5.0		7.6

* CHARACTERISTIC IMPEDANCE WILL VARY WITH WIRE SIZES USED
** PLASTIC INSULATED OPEN WIRE — SEE P. 4, ITEM NO. 1562.

OPEN LINE ACCESSORIES
STAND-OFFS & STRESS INSULATORS





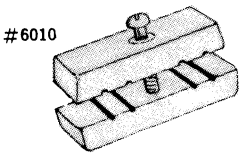
BLOCKS ONLY WITHOUT DRIVE-IN HARDWARE
Complete with 2 plated screws for use as spacer blocks in making your own open line installations.
Saxton No. 6000

Especially designed for use with open line transmission wire installations. Tighten screws after pulling wire taut. For use as spacer, partially tighten set-screws. This permits movement of wire in the slots and avoids potential wire breaks. Use outside slots for 600-ohm wire. The "Tappee" Stand-off Insulator is good for community installations where random spacing of open line is desirable to avoid tuned circuits. Ideal also for use as anchor point or spacer for "fence wire" installations. "Tappee" permits inexpensive, time and labor-saving, trouble-free installations, and is made for use with No. 12 thru No. 18-gauge wire. Hardware constructed of double-dip galvanized steel; block is high impact polystyrene.

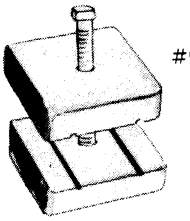
6000	Block only
6001	5½" nail type
6003	5" wood screw type
6005	5" pole clamp type
*6007	INS-500 type

SEE PAGE 4 FOR INSULATED OPEN WIRE TYPE INS-500.

OPEN LINE ACCESSORIES
STRESS INSULATORS AND BLOCKS



HEAVY DUTY OPEN LINE STRESS INSULATORS
Plastic blocks, slotted on either one or two-inch centers, for taking up slack or as anchor points in open line installations. Complete with plated lag bolt.12 or 14 gauge.
Saxton No. 6010



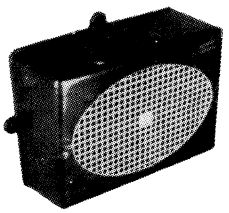
12 AWG INSULATOR
Same as Saxton No. 6010. Has 2-inch spacing for #12 AWG wires. Insulators for other gauges available on special order only.
Saxton No. 6011

FIBRE GLASS GUY LINE

Non-radiating, non-absorbing, high-strength "wireless" guy wire in vinyl jacket. 500-lb test strength. 100-ft. coil.
Saxton No. 7000

SUPER-STRONG FIBRE GLASS GUY WIRE
Same as above but in grey vinyl jacket. 1000-lb. tensile strength. 100-ft. coil.
Saxton No. 7002

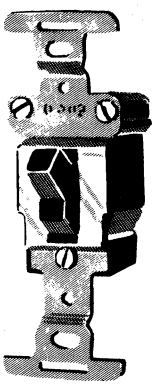
PATIO SPEAKER BAFFLE



Saxton No. 1205

Made of unbreakable, high impact styrene. Mahogany color. Complete with hardware and mounting instructions. Use for paging, monitoring, patio and stereo extensions, or as extension speaker anywhere. Complete with mounting escutcheon for 5 x 7, 6 x 9, 4, 5 or 6" round speakers.

DELAYED ACTION • COMMERCIAL SAFETY SWITCH



Switch "off" and the lamp goes out SIXTY SECONDS LATER! Allows sufficient time to reach destination SAFELY. Replaces present wall switch in seconds. Ideal for Home, Farm or Cottage. Fully guaranteed and UL Approved.
Saxton No. 560 (Ivory) or
Saxton No. 561 (Brown)

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saxton
WIRE & CABLE DIVISION

SPECIAL PRODUCT SECTION

SHIELDED TWIN LEAD

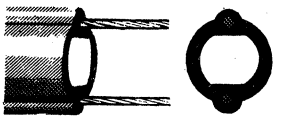
Saxton No. 1118—Each conductor #20AWG. Features abrasion-proof Vinyl jacket. Delivers noise-free signal on FM, FM Multiplex, TV.

100-ft. coil 1000-ft. spool

TELEPHONE WIRE

Saxton No. 1009 — 2-conductor, stranded for indoor or outdoor use.

LOW LOSS UHF LIFELINE TUBULAR TWIN LEAD



(Deluxe)

Heavy duty brown PE designed for UHF use. 20-gauge.

Saxton No. 1010

CORROSION AND CHEMICAL RESISTANT

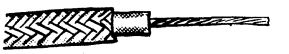
"SEACOASTER" TV & FM TWIN LEAD

Designed to resist air-borne corrosives and chemical reactions. 300-ohm 20 gauge (7 x 28) copper conductors encased in low loss PE foam and tough, brown outer jacket.

Saxton No. 1017—100-ft. coil. Saxton No. 1017—1000-ft. spool

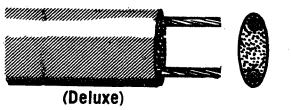
HEAVY DUTY SHIELDED IGNITION WIRE

Saxton No. 1008 — For ham or CB applications. Reduces noise.



100-ft. coil

LOW LOSS LIFELINE "SPONGEE" TWIN LEAD

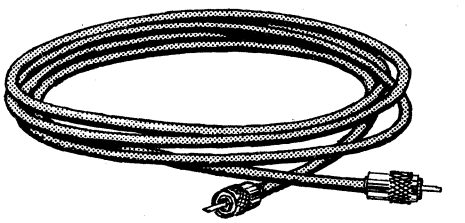


(Deluxe)

Designed especially for UHF, "Spongee" provides stronger signals on VHF. 300-ohm 20-ga. stranded copper conductors encased in porous, low loss PE foam.

Saxton No. 1016/100 (100-ft. coil)
Saxton No. 1016/1M (1000-ft. spool)

COAXIAL CABLE ASSEMBLIES
FOR CITIZEN'S BAND



BAG-PACKED

Saxton Number	Length	Type	Description
800	10′	RG8U	Has PL259 on one end, two terminating spade lugs on the other
801	10′	RG8U	Same as #800 except PL259 to PL259
802	15′	RG8U	Has PL259 on one end, two terminating spade lugs on the other
803	15′	RG8U	Same as #802 except PL259 on both ends
804	20′	RG8U	Has PL259 on one end and two terminating spade lugs on the other
805	20′	RG8U	Same as #804 except PL259 to PL259
806	10′	RG58U	Has PL259 and UG175U reducer on one end, two univ. terminating lugs on other end
807	10′	RG58U	Same as #806 except PL259 and UG175U reducer at both ends
808	15′	RG58U	Has PL259 and UG175U reducer on one end, two univ. type terminating lugs on other end
809	15′	RG58U	Same as #808 except PL259 and UG175U reducers are at both ends

BUBBLE-PACKED

810	20′	RG58U	Has PL259 and UG175U reducer on one end, two univ. type terminating lugs on other end
811	20′	RG58U	Same as #810 except PL259 and UG175U reducers are at both ends

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